Interim Remedial Measure Construction Completion Report

27-10 49th Avenue
Long Island City, New York

December 21, 2021

Prepared for:

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F. Raw CAMP Data (Incl CD)
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Certification

I, David Kaiser, P.E., am currently a registered professional engineer licensed by the State of New York, I reviewed Atlantic Environmental Solutions, Inc.'s work and confirmed the actions of the IRM were implemented, and I certify that the IRM work was implemented and that all construction activities were completed in substantial conformance with the Department-approved IRM Work Plan. Further, I certify that the data submitted to the Department with this Report demonstrates that the objectives and requirements set forth in the IRM Work Plan and all applicable statutes and regulations for the sub-slab depressurization system have been achieved.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.



David Kaiser, P.E.	December 21, 2021	
NYS Professional Engineer # 097317	Date	Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

1. Introduction

On behalf of Hunters Point SG, LLC (Volunteer), Roux Environmental Engineering and Geology, D.P.C. (Roux) has prepared this Construction Completion Report (CCR) to document the implementation of the Interim Remedial Measure (IRM) at the property located at 27-10 49th Avenue, in the Long Island City section of the Borough of Queens, in the City and State of New York (Site). The IRM was completed in accordance with the IRM Work Plan dated January 2019 (2019 IRMWP), prepared by Atlantic Environmental Solutions, Inc. (AESI), and approved by the New York State Department of Environmental Conservation (NYSDEC) in March 2019. The Site is enrolled in the NYSDEC Brownfield Cleanup Program (BCP) as Site C241219.

This CCR describes the removal of the hydraulic lifts and oil/water separator, excavation and disposal of approximately 372 tons of soil, installation of the sub-slab depressurization system (SSDS) and soil vapor extraction system (SVES), and the subsequent performance monitoring completed at the Site. Based on the results of the performance monitoring completed after the installation and operation of the full scale SSDS (described below in this CCR), it is Roux's professional opinion that the SSDS is acting as an effective engineering control (EC), which is mitigating the risk posed by potential soil vapor intrusion of volatile organic compounds (VOCs) at the Site. An electronic copy of this CCR is provided as Appendix A (in hard copies only).

1.1 Site Location and Description

The Site address is 27-10 49th Avenue in the Borough of Queens, City and State of New York (Figure 1). Additional information regarding the Site is provided in the tables below:

Property Location	
Property Name:	27-10 49th Avenue
Property Address:	27-10 49th Avenue
Property Town, County, State:	Long Island City, Queens County, New York
Property Tax Identification:	Tax Block 113, Lot 35
Nearest Intersections:	(Northwest) 27th Street and 49th Avenue (Southwest) 27th Street and 50th Avenue (Southeast) Dutch Kills (Northeast) Dutch Kills
Area Description:	The Site is located in an urban and developed area. The surrounding properties are currently used for a combination of commercial/industrial uses. The nearest residential properties are located 0.4 miles to the north.
Property Information	
Acreage:	0.87 acres
Shape:	Rectangular
Number of Buildings:	One
Number of Stories:	Two
Cellar/Slab-on-Grade:	Slab-on-Grade
Property Use:	The Site is developed with an industrial building with a parking lot located on the eastern side of the site. The first floor has historically been used as a warehouse for mixing, repackaging and distribution of petroleum products. The second floor was used for offices. The building is currently occupied by a ride share company, Lyft, and is used as an office space and as storage.

1.2 Historic Land Uses

The Site was most recently used as a warehouse for mixing, repackaging and distribution of petroleum products. A limousine company utilized the second floor of the building as office space, with a small reception area on the first floor. Prior to these operations, the Site was used by courier companies for distribution.

1.3 Summary of Environmental Investigations

In November 2017, AESI conducted a Phase I Environmental Site Assessment (ESA) for the Site. AESI identified multiple recognized environmental conditions (RECs) based on the operations of the Site at the time and recommended additional investigation.

In October 2017, AESI conducted a Preliminary Remedial Investigation (PRI) at the Site. The PRI was conducted to evaluate potential impacts and to provide general characterization of the Site. A total of 56 soil samples, along with three (3) soil vapor samples and four (4) ambient air samples were collected for chemical analysis. In addition, three (3) permanent monitoring wells were installed and a geophysical survey was completed as part of the PRI. Analytical results of the PRI identified the presence of elevated concentrations of tetrachloroethene (PCE) in soil gas and the presence of elevated concentrations of other VOCs in soil in the vicinity of the eastern floor drain. Based on the results of the investigation, AESI recommended that additional investigation activities be performed at the Site.

In order to confirm that PCE contamination identified during previous investigation activities was not migrating off-Site towards the Dutch Kills, AESI conducted a Supplemental Remedial Investigation (SRI). The SRI activities were conducted to delineate soil, groundwater, and soil vapor conditions at the Site. Based on the results of the SRI, Hunters Point SG, LLC applied to enter into the BCP as a volunteer in September 2018.

Due to the proximity of the Site to Dutch Kills and Newton Creek, the NYSDEC requested additional investigation activities to supplement existing data to define the nature and extent of contamination more fully in soil, groundwater, and soil vapor identified at the Site. As required by the NYSDEC, a Remedial Investigation Work Plan (RIWP) was prepared by AESI in July 2018 and was approved by the NYSDEC in August 2018. Subsequent to the RIWP approval, the Site was accepted into the BCP in September 2018 (as Site number C241219).

Upon being accepted as a Volunteer into the BCP, remedial investigation activities (outlined in the approved RIWP) were implemented to investigate and characterize the extent of environmental impacts on the Site, as well as to define chemical constituent migration pathways and evaluate the potential feasibility of planned remedial actions for the Site.

Remedial investigation activities included the installation of 23 soil borings, seven (7) permanent monitoring wells, 60 sub-slab soil gas screening points and eight (8) confirmation soil gas sample points. Based on the remedial investigation data, it was concluded that the nature of contamination present in groundwater was consistent with the historic fill materials used during development of the Site. It was also concluded that PCE contamination, previously identified in soil at the Site above Track 4 commercial soil cleanup objectives (SCOs), was fully delineated. In addition to the elevated PCE contamination, there was also petroleum-related contamination identified primarily in the vicinity of the oil/water separator within the Site building. Soil gas results identified high levels of PCE along the northern property boundary, with concentrations decreasing across the property towards the south and east.

In January 2019 AESI submitted an IRM Work Plan to NYSDEC, which was approved in March 2019.

1.4 IRM Objectives

As stated above, based on the environmental investigations completed at the Site, the identified impacts included petroleum-impacted soils surrounding the oil/water separator and elevated VOC concentrations in soil vapor. While some parameters in soil consistent with historic fill materials exhibit concentrations above the NYSDEC Part 375 Commercial SCOs, the main purpose of the 2019 IRMWP was to remove the petroleum-impacted soils, remove the hydraulic lifts and oil/water separator on-Site, install a SSDS and a SVES to treat soil vapor impacts, and to implement engineering and institutional controls (ECs/ICs) to further mitigate potential exposure of remaining contaminants.

Figure 7 outlines the Site wide SSDS and SVES and Figure 8 shows the SSDS and SVES Details.

The following is a summary of the components of the 2019 IRMWP:

- Exposure, cleaning, removal, and off-site disposal of hydraulic lifts;
- Exposure, cleaning, removal, and off-site disposal of oil/water separator;
- Installation of a SSDS and SVES beneath the building and parking lot of the Site to mitigate the potential migration of sub-slab soil vapor;
- Removal and off-site disposal of approximately 372-tons of soil/fill generated during the removal of hydraulic lifts and the installation of the SSDS and SVES, comingled with impacted petroleum soils surrounding the oil/water separator; and
- Excavation support activities, including:
    - Stockpiling of excavated material and backfill brought to the Site;
    - Waste characterization sampling;
    - Excavation endpoint documentation soil sampling;
    - Transport and disposal of excavated material at a permitted commercial solid waste disposal facility; and
    - Backfill and compaction of excavation with acceptable backfill material.

2. IRM Activities

This section provides relevant information regarding the implementation of the IRM.

2.1 Governing Documents

All remedial work performed pursuant to the 2019 IRMWP was done in accordance with NYSDEC procedures set forth in the guidance document titled DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 and Revised 2017 (NYSDOH Guidance), and in compliance with all applicable Federal, State, and local laws, regulations, and requirements. In addition, the following Site-specific documents prepared by AESI were complied with during the implementation of the IRM:

- **Health and Safety Plan (HASP)** – All invasive work was completed in accordance with the Site-specific health and safety plan (HASP).
- **Community Air Monitoring Plan (CAMP)** – A Community Air Monitoring Plan (CAMP) that described required particulate and vapor monitoring to protect the neighboring community during intrusive Site investigation and remediation activities was included as part of the HASP of the 2019 IRMWP. Real-time community air monitoring, using an air monitoring station including a MiniRAE 2000 (PGM 7600) PID and Dust Track II particulate meter, was performed during intrusive activities. Results of the CAMP monitoring related to remedial activities at the Site are described in this report. The generic CAMP details the requirements during intrusive activities as defined by the NYSDOH Community Air Monitoring Plan. CAMP results are discussed in section 2.10 below. Raw CAMP data is included in Appendix F.
- **Quality Assurance Project Plan (QAPP)** – The QAPP was included as was included as part of the 2019 IRMWP. The QAPP describes the specific policies, objectives, organization, functional activities, and quality assurance/ quality control activities designed to achieve the project data quality objectives.
- **Soil/Fill Management Plan (SFMP)** – A SFMP was included as part of the 2019 IRMWP. The SFMP described the specific procedures for managing non-hazardous soil/fill at the Site, including excavation, stockpiling, off-site transportation, collecting waste characterization and endpoint analytical samples and backfill for the Site. The SFMP was complied with during remedial intrusive activities performed at the Site. Non-hazardous soil/fill for off-site disposal was temporarily stockpiled. The soil/fill was placed in segregated areas in the parking lot of the Site covered by plastic tarp with nylon reinforcement. Waste disposal pre-characterization samples were collected prior to off-Site disposal activities. All transport of materials was performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including the regulations set forth in 6 NYCRR Part 364 for waste transporters. Loaded vehicles leaving the Site were appropriately lined, tarped, securely covered, and manifested, in accordance with appropriate Federal, State, local, and NYSDOT requirements. Soil Safe Metro12, located in Carteret, New Jersey, the selected commercial solid waste disposal facility, provided waste manifests and disposal receipts.
- **Construction Quality Assurance Plan (CQAP)** – The Construction Quality Assurance Plan(s) (CQAPs) managed performance of the IRM tasks through designed and documented QA/QC methodologies applied in the field and in the lab. The CQAP provided a detailed description of the observation and testing activities that were used to monitor construction quality and confirm that IRM implementation was in conformance with applicable objectives and specifications. The remedial action tasks were managed in accordance with the CQAP through designed and documented quality assurance/quality control (QA/QC) methodologies applied in the field. The CQAP described the observation and testing activities that were used to monitor construction quality and confirm that remedial construction was completed in accordance with the 2019 IRMWP. The CQAP also outlined the project organization.

2.2 Project Team

A list of the key project team members and their roles is provided below:

- Hunters Point SG, LLC– Owner/Volunteer
- Roux Environmental Engineering and Geology, D.P.C. – Engineering Firm of Record
- Atlantic Environmental Solutions, Inc. – Contractor for the design and execution of the IRM
- Highground Industrial – Contractor responsible for installation of SSDS and SVES; removal and disposal of hydraulic lifts and oil/water separator, excavation of petroleum impacted soil and non-hazardous soil, and placement and compaction of backfill.
- Eastern Environmental Solutions – Drilling services for SVES well
- York Analytical Laboratories, Inc. – Analytical Laboratory
- Soil Safe, Inc. – Transport of soil/fill to Soil Safe Metro12 facility

2.3 Removal of Hydraulic Lifts

Remedial activities related to the removal of the hydraulic lifts began in May 2019. Highground Industrial unearthed, removed and cleaned the two hydraulic lifts located in the Site building. Residual product/water mixture was vacuumed and collected in drums for off-site disposal. Hydraulic lifts were properly disposed off-site to a recycling facility. During the removal of the hydraulic lifts, soil/fill generated was stockpiled with soil generated during other remedial intrusive activities performed at the Site.

2.4 Removal of Oil/Water Separator

Remedial activities related to the removal of the oil/water separator began in April 2019 with saw cutting of the concrete floor. Highground Industrial unearthed, removed and cleaned the oil/water separator located in the Site building. Residual product/water mixture was vacuumed and collected in three drums for off-site disposal to Northland Environmental. Liquid manifests are provided in Appendix E. The oil/water separator was properly disposed off-Site to a recycling facility. Following the removal of the oil/water separator, remediation of petroleum impacted soils was performed in the form of soil excavation. Soil was stockpiled with soil/fill generated during other remedial intrusive activities performed at the Site. Five (5) endpoint confirmatory samples were collected from the remedial excavation, as discussed in Section 3.1 below.

2.5 Concrete Removal

Prior to beginning remedial excavation at the Site, the concrete floor was saw cut and concrete was removed and stockpiled for off-site disposal. Areas of concrete removed included the floor surrounding the hydraulic lifts, oil/water separator and throughout the area where the SSDS trenches were installed. Approximately 16 tons of concrete was broken up into smaller pieces, containerized and disposed off-site as recognizable construction and demolition.

On May 22, 2020 and May 24, 2020, concrete generated was disposed off-site. The material disposed was accepted at the P.C.I. Contracting Inc., located in Valley Stream, New York. Concrete disposal related documentation is included in electronic format in Appendix E.

2.6 Disposal of Soil/Fill

Preliminary demolition work started in April 2019. Remedial excavation activities related to the removal of the hydraulic lifts, oil-water separator and installation of the SSDS trenches began in April 2019. The areas where the hydraulic lifts and oil/water separator were located were excavated to a depth of approximately 8.5 feet below ground surface ("fbgs"). SSDS and SVES trenches were excavated to a depth of approximately 2-fbgs and were extended in some places to allow installation of the new drainage system. Approximately 372 tons were generated during excavation for the IRM. Soil/fill excavation and loading for disposal was completed on November 15, 2019.

2.6.1 Soil Characterization

At a rate of approximately one sample per 500 CY for soil/fill material, one (1) composite sample and one (1) grab sample were collected and analyzed in order to characterize the excavated soil. This sample frequency reflects typical disposal facility requirements for soils generated in New York City. Based on waste characterization analytical results soils were identified as non-hazardous waste.

All samples were analyzed for VOCs, SVOCs, pesticides, polychlorinated biphenyls (PCBs) and metals on the NYSDEC Part 375 SCOs list and the New Jersey combined Soil Cleanup Criteria lists. In addition, samples were analyzed for total petroleum hydrocarbons (TPH) and paint filter test (PFT). These analyses were established by the regulated disposal facility.

2.6.2 Disposal Details

Analytical data was received by the authorized environmental compliance engineer for the approved disposal facility. Analytical Report E19-03807 dated May 23, 2019 was provided for review of waste characterization.

Between November 11, 2019 and November 15, 2019, approximately 372 tons of non-hazardous waste generated were disposed off-site. The material was accepted at the Soil Safe Metro12 facility, located in Carteret, New Jersey as non-hazardous waste.

Type of Material	Tonnage (tons)	Facility	Address	Approval #
Non-hazardous waste	372	SSI-Metro12	300 Salt Meadow Road, Carteret, New Jersey 07008	M-61781

The table above shows the total quantity of material removed and disposed from the Site. The waste characterization samples collected and associated analytical results are summarized on Table 2.

Disposal facility acceptance letters, manifests ,and bills of lading are included in electronic format in Appendix E.

2.6.3 On-Site Reuse

No soil/fill was reused or relocated on Site as a result of remedial action activities. The area where fill material was excavated was filled with imported certified clean backfill material.

2.7 SSDS and SVES

The SSDS and SVES were designed by AESI's Engineer of Record for the Site following the basic requirements established with respect to soil vapor migration established in the NYSDOH SVI Guidance, as updated in May 2017. The SSDS and SVES designs for the IRM were submitted to the NYSDEC and NYSDOH in the January 2019 IRMWP, and were approved by NYSDEC and NYSDOH in March 2019 via email. The following sections describe components, materials, and layout of the installed SSDS and SVES.

2.7.1 SSDS

The SSDS was installed by Highground Industrial. The following describes components, materials, and general layout of the installed SSDS:

- Three separate sets of horizontal perforated pipes in a "H" pattern were installed within a 16-inch layer of crushed stone immediately beneath the building slab.
- Three legs of horizontal perforated pipe were installed within a 16-inch layer of crushed stone immediately beneath the parking lot area.
- Loops of perforated PVC gas collection pipes (4-inch diameter schedule 80 PVC pipes) were embedded in a gas permeable aggregate layer with a minimum of 6 inches of crushed stone (¾ inch non-angular stone with less than 5% fines smaller than ¾ inches) placed above and below the perforated pipe trench. The perforated pipes were installed in 2 foot by 1 foot trenches.
- Once the perforated pipes were installed, the Site building floor was restored with six-inches of concrete on top of the crushed stone to prevent preferential pathways for vapor migration.
- As per the NYSDEC and NYSDOH requirements, five sub-slab soil vacuum monitoring points (SVMPs) were installed within the floor slab of the Site building to monitor/evaluate the effectiveness of the system.
- The horizontal depressurization piping was connected to vertical header pipes that discharge above the building roof line. Vent locations were installed at minimum of 10 feet from any window or HVAC intake point.
- A Radon Away fan model #RP265 was connected to each vertical header piping on the roof.

During the startup of the SSDS, the system was tested and found to be operating as designed, and providing adequate vacuum beneath the building. Vacuum response readings were collected from the network of vacuum monitoring points located throughout the building. Readings collected ranged from 0.004- 0.1 inches of water column (in w.c.). It should be noted that in order to maintain the minimum required vacuum response throughout the footprint of the building, a minimum operational vacuum 0.004 should be maintained at each of the extraction points. Additionally, Roux personnel inspected the SSDS and collected vacuum readings at the monitoring points on October 27, 2021. It was confirmed that the SSDS was operational with adequate vacuum measured in all monitoring points.

The active SSDS will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that monitoring data indicates that the SSDS may no longer be required, a proposal to discontinue the SSDS will be submitted by the remedial party to the NYSDEC and NYSDOH.

Procedures for monitoring, operating, and maintaining the SSDS will be provided in the Operation and Maintenance Plan in the SMP.

2.7.2 SVES

In order to prevent the potential for PCE impacted soil identified beneath the building footprint to contribute as a source of soil vapor contamination, a SVES was installed in the Site building. Per the system design, the effectiveness of the SVES is determined via field management of negative pressure within the extraction system riser. The following describes components, materials, and general layout of the installed SVES:

- One extraction well (4 feet of solid PVC riser and 4 feet of schedule 40 slotted screen) was installed in the vadose zone to allow extraction of soil vapor from the subsurface. The screened zone was installed below the depth of the SSDS trench to prevent cross communication between the systems.
- Once the extraction well was installed, the well riser was connected to horizontal solid piping (4-inch diameter SCH 80 PVC), which runs through the SSDS trench directly into a vertical riser installed on the perimeter wall.
- The header pipe from the extraction well runs up the perimeter wall of the Site building, venting through the building roof and connected to a Radon Away fan model #RP265.

The SVES is not intended to be a permanent EC. In the approved 2019 IRMWP, it was anticipated that the SVES would be operated for a one (1) year period following installation and would be decommissioned after that period. NYSDEC/NYSDOH will determine if the SVES can be decommissioned based on future data collected to support the shutdown of the system.

2.8 Imported Backfill

A total of 263.73 tons of ASTM 57 stone was brought on-Site during the remedial action excavation activities and Site restoration activities between April and May 2019 for the purpose of backfilling excavation areas and installation of the SSDS and SVES components as described in Section 2.7. Backfill material was allowed to be imported without analytical testing due to being gravel or stone, consisting of virgin material sourced from Tilcon New York, Inc., located in West Nyack, NY a NYSDEC permitted quarry.

Date	Ticket	Product	Amount (tons)
4/22/2019	20921804	ASTM 57	37.4
5/9/2019	20925169	ASTM 57	38.36
5/9/2019	20925100	ASTM 57	37.99
5/21/2019	20927267	ASTM 57	41.21
5/21/2019	20928625	ASTM 57	36.83
5/21/2019	20927280	ASTM 57	71.94
		Total	**263.73**

Table 5 shows the date of imported backfill and quantities. Figure 4 shows the locations where backfill was used at the Site.

2.9 Contamination Remaining On-Site

Residual contamination remaining at the Site above commercial SCOs includes VOC and SVOC related compounds consistent with the presence of fill material in soils and VOC related compounds in soil vapor. Constituents above commercial SCOs in soil are located Site-wide, and are covered by the Site building and asphalt paving, as discussed in Section 2.11 below.

Soil excavation was proposed in the approved 2019 IRMWP to allow for the removal of the former hydraulic lifts and oil/water separator, as well as the installation of a SSDS and SVES for vapor mitigation at the Site. Five (5) endpoint samples were collected from the excavation cavity of the oil/water separator to document the implementation of the remedy, as discussed in Section 3.1 below.

Since contaminated soil remains beneath the Site after completion of the IRM, ECs/ICs are required to protect human health and the environment. These ECs/ICs will be described in a future Remedial Action Work Plan (RAWP). Long-term management of these EC/ICs and residual contamination will be performed under an SMP.

Table 7 summarize the results of all soil samples remaining at the Site after completion of Remedial Action that exceed the Track 1 (unrestricted) SCOs.

2.10 CAMP Results

CAMP monitoring activities completed during IRM activities were performed in accordance with the approved 2019 IRMWP. All monitoring results conformed to the CAMP perimeter particulate (PM10) and the organic vapor (below 5 ppm) requirements with no exceedances of particulates or VOCs perimeter 15-minute average thresholds during IRM work.

Copies of all raw CAMP data are provided in electronic format in Appendix F.

2.11 Site Cover System

Exposure of remaining contamination in soil/fill at the Site is prevented by a Site Cover System placed over the Site. This cover system is comprised of a minimum of a 4-inch asphalt pavement, concrete-covered sidewalks, and concrete building slabs. Disturbed excavation areas were finished with a minimum of six-inch concrete or paving underlain by a minimum of one foot of imported fill. The Site Cover System is currently present over the entire Site.

Figure 11 shows the location of each cover type present at the Site, and Figure 11B shows the as-built cross sections for the various remedial cover types. An Excavation Work Plan, which outlines the procedures required in the event the Site Cover System and/or underlying residual contamination are disturbed, will be provided in the SMP.

2.12 Deviation from the IRMWP

There were no major deviations from the approved 2019 IRMWP.

3. Interim Remedial Measures Performance Sampling

Soil samples were collected from the area of the former oil/water separator following removal for hot spot endpoint documentation. Following SSDS/SVES startup the system was monitored for vacuum response measurements at all permanent monitoring points. In addition to the monitoring described above, indoor air samples were collected for laboratory analysis on June 23, 2021, to confirm that the system is adequately attenuating the VOCs in indoor air.

3.1 Hot Spot Endpoint Documentation Sampling

As documented in the approved 2019 IRMWP, soil samples collected surrounding the area of the former oil/water separator identified petroleum related compounds above the Part 375 Commercial Use SCO. The area around the former oil/water separator was treated as a hot spot and was further excavated and delineated. The remedial excavation activities associated with the former oil/water separator were performed in May 2019. The extent of the excavation was deemed complete at the first apparent clean zone, based on the field PID readings.

In accordance with the NYSDEC'S Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10), on May 29, 2019 five endpoint documentation soil samples were collected from the excavation. The excavation cavity extended approximately 10 feet long by 8 feet wide, and 9 feet bgs. One endpoint sample was collected at the base of the excavation and four endpoint samples were collected along the side walls of the excavation extend. Endpoint samples were collected at a depth of approximately 8.5 to 9.0 feet bgs. Endpoint samples were analyzed for VOCs and SVOCs.

Sample collection methodology was performed in accordance with the QAPP included in the 2019 IRMWP.

VOCs and SVOCs were not detected exceeding the Commercial Use SCOs in soil in any of the endpoint samples collected.

A table and figure summarizing all endpoint sampling is included in Table 4 and in Figures 5a-e, respectively, and all exceedances of SCOs are highlighted.

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in Appendix H, and associated raw is provided electronically in Appendix G.

3.2 Post-Mitigation Indoor Air Sampling

On June 23, 2021, four indoor air samples and one ambient air sample were collected at the Site. Refer to Table 8 for the analytical results.

The data demonstrates that indoor air VOC concentrations have decreased since SSDS startup and are below NYSDOH Decision Matrices. As the SSDS has created a vacuum beneath the entire building slab, it has mitigated the potential for soil vapor intrusion.

4. Operation, Maintenance and Monitoring (OM&M Plan)

An Operation, Maintenance and Monitoring (OM&M) plan that describes ongoing monitoring, operation, and maintenance of the SSDS will be prepared by Roux and will be included in the Site Management Plan.

TABLES

1. Restricted Use Soil Classification Objectives
2. Waste Characterization Samples
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3.1 Drummed Waste Disposal Summary
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8. Summary of VOCs in Indoor Air Samples

Table 1 Soil Cleanup Objectives (SCOs)

27-10 49th Avenye

Long Island City, New York

BCP Site #C241219

Restricted Use Commercial Soil Cleanup Objectives (SCOs)	
Contaminant	
Metals	**(ppm)**
Arsenic	16
Barium	400
Berylium	590
Cadmium	9.3
Chromuim, hexavelent	400
Chromuim, trivalent	1500
Copper	270
Total Cyanide	27
Lead	1000
Manganes	10000
Total Mercury	2.8
Nickel	310
Selenium	1500
Silver	1500
Zinc	10000
PCBs/Pesticides	**(ppm)**
2, 4, 5-TP Acid (Silvex)	500
4, 4'-DDE	62
4, 4'-DDT	47
4, 4'-DDD	92
Aldrin	0.68
alpha-BHC	3.4
beta-BHC	3
Chlordane (alpha)	24
delta-BHC	500
Dibenzofuran	350
Dieldrin	1.4
Endosulfan I	200
Endosulfan II	200
Endosulfan sulfate	200
Endrin	89
Heptachlor	15
Lindane	9.2
Ploychlorinated biphenyls	1

Semivolatiles	**(ppm)**
Acenaphthalene	500
Acenapthylene	500
Anthracene	500
Benz(a)anthracene	5.6
Benzo(a)pyrene	1
Benzo(b)fluoranthene	5.6
Benzo(g,h,i)perylene	500
Benzo(k)fluoranthene	56
Chrysene	56
Dibenz(a,h)anthracene	0.56
Fluoranthene	500
Fluorene	500
Indeno(1,2,3-cd)pyrene	5.6
m-Cresol	500
Naphthalene	500
o-Cresol	500
p-Cresol	500
Pentachlorophenol	6.7
Phenanthrene	500
Phenol	500
Pyrene	500

Volatiles	**(ppm)**
1,1,1- Trichloroethane	500
1,1-Dichloroethane	240
1,1-Dichloroethene	500
1,2-Dichlorobenzene	500
1,2-Dichloroethane	30
cis-1,2-Dichloroethene	500
trans-1,2-Dichloroethene	500
1,3-Dichlorobenzene	280
1,4-Dichlorobenzene	130
1,4-Dioxhane	130
Acetone	500
Benzene	44
Butylbenzene	500
Carbon tetrachloride	22
Chlorobenzene	500
Chloroform	350
Ethylbenzene	390
Hexachlorobenzene	6
Methyl ethyl ketone	500
Methyl tert-butyl ether	500
Methylene chloride	500
n-Propylbenzene	500
sec-Butylbenzene	500
tert-Butylbenzene	500
Tetrachloroethene	150
Toluene	500
Trichloroethene	200
1,2,4- Trimethylbenzene	190
1,3,5-Trimethylbenzene	190
Vinyl Chloride	13
Xylene (mixed)	500

Table 2 Waste Classification Data
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample #:		WC-1 COMP				WC-1 GRAB			
Field ID:									
Lab ID:		03807-001				03807-002			
Date Sampled:		05/21/2019				05/21/2019			
Depth(ft):									
	CAS								
Volatiles (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dichlorodifluoromethane	75-71-8	~		~	~	ND		0.112	0.055
Chloromethane	74-87-3	~		~	~	ND		0.056	0.036
Vinyl chloride	75-01-4	~		~	~	ND		0.112	0.017
Bromomethane	74-83-9	~		~	~	ND		0.112	0.040
Chloroethane	75-00-3	~		~	~	ND		0.056	0.044
Trichlorofluoromethane	75-69-4	~		~	~	ND		0.056	0.050
1,1-Dichloroethene	75-35-4	~		~	~	ND		0.056	0.046
Acetone	67-64-1	~		~	~	ND		0.224	0.218
Carbon disulfide	75-15-0	~		~	~	ND		0.056	0.025
Methylene chloride	75-09-2	~		~	~	ND		0.112	0.111
trans-1,2-Dichloroethene	156-60-5	~		~	~	ND		0.056	0.031
Methyl tert-butyl ether (MTBE)	1634-04-4	~		~	~	ND		0.056	0.030
1,1-Dichloroethane	75-34-3	~		~	~	ND		0.056	0.022
cis-1,2-Dichloroethene	156-59-2	~		~	~	ND		0.056	0.018
2-Butanone (MEK)	78-93-3	~		~	~	ND		0.224	0.078
Bromochloromethane	74-97-5	~		~	~	ND		0.112	0.020
Chloroform	67-66-3	~		~	~	ND		0.056	0.018
1,1,1-Trichloroethane	71-55-6	~		~	~	ND		0.056	0.012
Carbon tetrachloride	56-23-5	~		~	~	ND		0.112	0.013
1,2-Dichloroethane (EDC)	107-06-2	~		~	~	ND		0.056	0.030
Benzene	71-43-2	~		~	~	ND		0.056	0.016
Trichloroethene	79-01-6	~		~	~	ND		0.056	0.023
1,2-Dichloropropane	78-87-5	~		~	~	ND		0.056	0.012
1,4-Dioxane	123-91-1	~		~	~	ND		11.2	4.11
Bromodichloromethane	75-27-4	~		~	~	ND		0.056	0.032
cis-1,3-Dichloropropene	10061-01-5	~		~	~	ND		0.056	0.025
4-Methyl-2-pentanone (MIBK)	108-10-1	~		~	~	ND		0.224	0.089
Toluene	108-88-3	~		~	~	ND		0.056	0.020
trans-1,3-Dichloropropene	10061-02-6	~		~	~	ND		0.112	0.027
1,1,2-Trichloroethane	79-00-5	~		~	~	ND		0.056	0.026
Tetrachloroethene	127-18-4	~		~	~	0.323		0.056	0.030
2-Hexanone	591-78-6	~		~	~	ND		0.224	0.109
Dibromochloromethane	124-48-1	~		~	~	ND		0.056	0.043
1,2-Dibromoethane (EDB)	106-93-4	~		~	~	ND		0.056	0.029
Chlorobenzene	108-90-7	~		~	~	ND		0.056	0.031
Ethylbenzene	100-41-4	~		~	~	ND		0.056	0.030
Total Xylenes	1330-20-7	~		~	~	ND		0.112	0.099
Styrene	100-42-5	~		~	~	ND		0.112	0.048
Bromoform	75-25-2	~		~	~	ND		0.056	0.047
Isopropylbenzene	98-82-8	~		~	~	ND		0.056	0.043
1,1,2,2-Tetrachloroethane	79-34-5	~		~	~	ND		0.112	0.089
1,3-Dichlorobenzene	541-73-1	~		~	~	ND		0.056	0.033
1,4-Dichlorobenzene	106-46-7	~		~	~	ND		0.056	0.044
1,2-Dichlorobenzene	95-50-1	~		~	~	ND		0.056	0.036
1,2-Dibromo-3-chloropropane	96-12-8	~		~	~	ND		0.112	0.064
1,2,4-Trichlorobenzene	120-82-1	~		~	~	ND		0.112	0.041
1,2,3-Trichlorobenzene	87-61-6	~		~	~	ND		0.112	0.057
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	~		~	~	ND		0.112	0.039
Methyl acetate	79-20-9	~		~	~	ND		0.056	0.055

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27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Cyclohexane	110-82-7	~		~	~	ND		0.112	0.061
Methylcyclohexane	108-87-2	~		~	~	ND		0.056	0.056
1,3-Dichloropropene (cis- and trans-)	542-75-6	~		~	~	ND		0.112	0.027
TOTAL VO's:		~		~	~	0.323			NA
TOTAL TIC's:		~		~	~	25.0	JN		NA
TOTAL VO's & TIC's:		~		~	~	25.3	JN		NA
TCLP Volatiles (mg/L)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Vinyl chloride	75-01-4	~		~	~	ND		0.050	0.00745
1,1-Dichloroethene	75-35-4	~		~	~	ND		0.025	0.021
2-Butanone (MEK)	78-93-3	~		~	~	ND		0.100	0.035
Chloroform	67-66-3	~		~	~	ND		0.025	0.00815
Carbon tetrachloride	56-23-5	~		~	~	ND		0.050	0.00595
1,2-Dichloroethane (EDC)	107-06-2	~		~	~	ND		0.025	0.014
Benzene	71-43-2	~		~	~	ND		0.025	0.0072
Trichloroethene	79-01-6	~		~	~	ND		0.025	0.010
Tetrachloroethene	127-18-4	~		~	~	ND		0.025	0.014
Chlorobenzene	108-90-7	~		~	~	ND		0.025	0.014
1,4-Dichlorobenzene	106-46-7	~		~	~	ND		0.025	0.020
Semivolatiles - BNA (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Benzaldehyde	100-52-7	ND		0.186	0.111	~		~	~
Phenol	108-95-2	ND		0.186	0.141	~		~	~
Bis(2-chloroethyl) ether	111-44-4	ND		0.186	0.111	~		~	~
2-Chlorophenol	95-57-8	ND		0.186	0.128	~		~	~
2-Methylphenol	95-48-7	ND		0.186	0.170	~		~	~
2,2'-Oxybis(1-Chloropropane)	108-60-1	ND		0.186	0.184	~		~	~
4-Methylphenol **	106-44-5	ND		0.186	0.180	~		~	~
N-Nitrosodi-n-propylamine	621-64-7	ND		0.186	0.123	~		~	~
Acetophenone	98-86-2	ND		0.186	0.124	~		~	~
Hexachloroethane	67-72-1	ND		0.186	0.111	~		~	~
Nitrobenzene	98-95-3	ND		0.186	0.111	~		~	~
Isophorone	78-59-1	ND		0.186	0.172	~		~	~
2-Nitrophenol	88-75-5	ND		0.186	0.111	~		~	~
2,4-Dimethylphenol	105-67-9	ND		0.186	0.115	~		~	~
Bis(2-chloroethoxy) methane	111-91-1	ND		0.186	0.115	~		~	~
2,4-Dichlorophenol	120-83-2	ND		0.186	0.120	~		~	~
Naphthalene	91-20-3	0.501	D	0.186	0.132	~		~	~
4-Chloroaniline	106-47-8	ND		0.186	0.118	~		~	~
Hexachlorobutadiene	87-68-3	ND		0.186	0.114	~		~	~
Caprolactam	105-60-2	ND		0.186	0.182	~		~	~
4-Chloro-3-methylphenol	59-50-7	ND		0.186	0.140	~		~	~
2-Methylnaphthalene	91-57-6	0.914	D	0.186	0.114	~		~	~
Hexachlorocyclopentadiene	77-47-4	ND		0.186	0.126	~		~	~
2,4,6-Trichlorophenol	88-06-2	ND		0.186	0.111	~		~	~
2,4,5-Trichlorophenol	95-95-4	ND		0.186	0.111	~		~	~
1,1'-Biphenyl	92-52-4	0.200	D	0.186	0.111	~		~	~
2-Chloronaphthalene	91-58-7	ND		0.186	0.111	~		~	~
2-Nitroaniline	88-74-4	ND		0.186	0.162	~		~	~
Dimethyl phthalate	131-11-3	ND		0.186	0.111	~		~	~
2,6-Dinitrotoluene	606-20-2	ND		0.186	0.155	~		~	~
Acenaphthylene	208-96-8	0.188	D	0.186	0.133	~		~	~
3-Nitroaniline	99-09-2	ND		0.186	0.139	~		~	~
Acenaphthene	83-32-9	1.75	D	0.186	0.111	~		~	~
2,4-Dinitrophenol	51-28-5	ND		0.186	0.111	~		~	~
4-Nitrophenol	100-02-7	ND		0.186	0.111	~		~	~
2,4-Dinitrotoluene	121-14-2	ND		0.186	0.111	~		~	~
Dibenzofuran	132-64-9	0.694	D	0.186	0.116	~		~	~

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Diethyl phthalate	84-66-2	ND		0.186	0.119	~		~	~
Fluorene	86-73-7	1.40	D	0.186	0.111	~		~	~
4-Chlorophenyl phenyl ether	7005-72-3	ND		0.186	0.111	~		~	~
4-Nitroaniline	100-01-6	ND		0.186	0.151	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	ND		0.186	0.111	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	ND		0.186	0.111	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	ND		1.86	0.119	~		~	~
N-Nitrosodiphenylamine	86-30-6	ND		0.186	0.134	~		~	~
4-Bromophenyl phenyl ether	101-55-3	ND		0.186	0.156	~		~	~
Hexachlorobenzene	118-74-1	ND		0.186	0.111	~		~	~
Atrazine	1912-24-9	ND		0.186	0.111	~		~	~
Pentachlorophenol	87-86-5	ND		0.186	0.145	~		~	~
Phenanthrene	85-01-8	20.3	D	0.186	0.111	~		~	~
Anthracene	120-12-7	4.09	D	0.186	0.111	~		~	~
Carbazole	86-74-8	1.02	D	0.186	0.125	~		~	~
Di-n-butyl phthalate	84-74-2	ND		0.186	0.111	~		~	~
Fluoranthene	206-44-0	20.7	D	0.186	0.182	~		~	~
Pyrene	129-00-0	24.3	D	0.186	0.145	~		~	~
Butyl benzyl phthalate	85-68-7	ND		0.186	0.140	~		~	~
3,3'-Dichlorobenzidine	91-94-1	ND		0.186	0.111	~		~	~
Benzo[a]anthracene	56-55-3	8.99	D	0.186	0.132	~		~	~
Chrysene	218-01-9	7.57	D	0.186	0.111	~		~	~
Bis(2-ethylhexyl) phthalate	117-81-7	0.285	D	0.186	0.166	~		~	~
Di-n-octyl phthalate	117-84-0	ND		0.186	0.175	~		~	~
Benzo[b]fluoranthene	205-99-2	9.91	D	0.186	0.163	~		~	~
Benzo[k]fluoranthene	207-08-9	5.80	D	0.186	0.141	~		~	~
Benzo[a]pyrene	50-32-8	8.99	D	0.186	0.111	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	6.34	D	0.186	0.111	~		~	~
Dibenz[a,h]anthracene	53-70-3	1.98	D	0.186	0.126	~		~	~
Benzo[g,h,i]perylene	191-24-2	7.99	D	0.186	0.177	~		~	~
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	ND		0.186	0.155	?			NA
TOTAL BNA'S:		134	D		NA	~		~	~
TOTAL TIC's:		40.4	DJN		NA	~		~	~
TOTAL BNA'S & TIC's:		174	DJN		NA	~		~	~
PCB's (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	ND		0.00363	0.00145	~		~	~
Aroclor-1221	11104-28-2	ND		0.00363	0.00145	~		~	~
Aroclor-1232	11141-16-5	ND		0.00363	0.00145	~		~	~
Aroclor-1242	53469-21-9	ND		0.00363	0.00145	~		~	~
Aroclor-1248	12672-29-6	ND		0.00363	0.00145	~		~	~
Aroclor-1254	11097-69-1	ND		0.00363	0.00145	~		~	~
Aroclor-1260	11096-82-5	ND		0.00363	0.00145	~		~	~
Aroclor-1262	37324-23-5	0.076		0.00363	0.00145	~		~	~
Aroclor-1268	11100-14-4	0.035		0.00363	0.00145	~		~	~
PCBs	1336-36-3	0.111		0.00363	0.00145	~		~	~
Pesticides (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	ND		0.000726	0.000363	~		~	~
beta-BHC	319-85-7	ND		0.000726	0.000363	~		~	~
gamma-BHC (Lindane)	58-89-9	ND		0.000726	0.000363	~		~	~
delta-BHC	319-86-8	ND		0.000726	0.000363	~		~	~
Heptachlor	76-44-8	ND		0.000726	0.000363	~		~	~
Aldrin	309-00-2	ND		0.000726	0.000363	~		~	~
Heptachlor epoxide	1024-57-3	ND		0.000726	0.000363	~		~	~
Endosulfan I	959-98-8	ND		0.000726	0.000363	~		~	~
4,4'-DDE	72-55-9	0.00879		0.000726	0.000363	~		~	~
Dieldrin	60-57-1	ND		0.000726	0.000363	~		~	~

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Endrin	72-20-8	ND		0.000726	0.000363	~		~	~
Endosulfan II	33213-65-9	ND		0.000726	0.000363	~		~	~
4,4'-DDD	72-54-8	ND		0.000726	0.000363	~		~	~
Endrin aldehyde	7421-93-4	ND		0.000726	0.000363	~		~	~
Endosulfan sulfate	1031-07-8	ND		0.000726	0.000363	~		~	~
4,4'-DDT	50-29-3	0.026		0.000726	0.000363	~		~	~
Endrin ketone	53494-70-5	ND		0.000726	0.000363	~		~	~
Methoxychlor	72-43-5	ND		0.000726	0.000363	~		~	~
alpha-Chlordane	5103-71-9	0.00159		0.000726	0.000363	~		~	~
gamma-Chlordane	5103-74-2	0.00254		0.000726	0.000363	~		~	~
Toxaphene	8001-35-2	ND		0.00908	0.00436	~		~	~
Endosulfan (I and II)	115-29-7	ND		0.000726	0.000363	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.00413		0.000726	0.000363	~		~	~
NJ-EPH-DRO (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C28	IALC9	296		54.1	21.6	~		~	~
C28-C40	IALC28	129		54.1	21.6	~		~	~
C9-C40 Total	IALTC40	425		54.1	21.6	~		~	~
Metals (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	7429-90-5	6120		6.14	2.46	~		~	~
Antimony	7440-36-0	ND		0.614	0.246	~		~	~
Arsenic	7440-38-2	10.1		0.614	0.184	~		~	~
Barium	7440-39-3	574		0.614	0.307	~		~	~
Beryllium	7440-41-7	0.355	J	0.614	0.184	~		~	~
Cadmium	7440-43-9	0.659		0.614	0.368	~		~	~
Calcium	7440-70-2	19100		61.4	18.4	~		~	~
Chromium	7440-47-3	14.5		0.614	0.307	~		~	~
Cobalt	7440-48-4	4.93		0.614	0.184	~		~	~
Copper	7440-50-8	44.9		0.614	0.430	~		~	~
Iron	7439-89-6	11800		61.4	18.4	~		~	~
Lead	7439-92-1	421		0.614	0.307	~		~	~
Magnesium	7439-95-4	2730		61.4	18.4	~		~	~
Manganese	7439-96-5	209		0.614	0.430	~		~	~
Mercury	7439-97-6	0.448		0.030	0.012	~		~	~
Nickel	7440-02-0	12.7		0.614	0.430	~		~	~
Potassium	7440-09-7'	1240		61.4	24.6	~		~	~
Selenium	7782-49-2	ND		4.30	1.84	~		~	~
Silver	7440-22-4	ND		0.614	0.368	~		~	~
Sodium	7440-23-5	258		61.4	24.6	~		~	~
Thallium	7440-28-0	ND		0.614	0.307	~		~	~
Vanadium	7440-62-2	20.6		0.614	0.307	~		~	~
Zinc	7440-66-6	373		6.14	1.23	~		~	~
TCLP Metals (mg/L)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
TCLP Arsenic	7440-38-2	ND		0.100	0.040	~		~	~
TCLP Barium	7440-39-3	0.365		0.100	0.050	~		~	~
TCLP Cadmium	7440-43-9	ND		0.100	0.070	~		~	~
TCLP Chromium	7440-47-3	ND		0.100	0.070	~		~	~
TCLP Lead	7439-92-1	0.153		0.100	0.060	~		~	~
TCLP Mercury	7439-97-6	ND		0.0005	0.0002	~		~	~
TCLP Selenium	7782-49-2	ND		1.00	0.300	~		~	~
TCLP Silver	7440-22-4	ND		0.100	0.060	~		~	~
General Analytical		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Cyanide, Total-mg/Kg	57-12-5	ND		1.12	0.561	~		~	~
Paint Filter-NA	IALCAS084	NO		NA	NA	~		~	~

Table 3 Offsite Soil Disposal Volumes and Facility Summary
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Type of Material	Tonnage (tons)	Facility	Address	Permit #
Non-hazardous waste	372	SSI-Metro12	300 Salt Meadow Road, Carteret, NJ 07008	M-61781

Table 3 Drummed Liquid Waste Disposal Characterization
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID York ID Sampling Date Client Matrix	NYSDEC CP/Supplemental SCO Table 1 - Protection of Ground Water	HL-1 19E1051-01 5/22/2019 1:00:00 PM Oil
Compound		Result
Polychlorinated Biphenyls (PCB)		mg/kg
Dilution Factor		1
Aroclor 1016	~	5
Aroclor 1221	~	5
Aroclor 1232	~	5
Aroclor 1242	~	5
Aroclor 1248	~	5
Aroclor 1254	~	5
Aroclor 1260	~	5
Total PCBs	~	5

NOTES:
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D=result is from an analysis that required a dilution
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 4
Remedial Performance/Documentation Sampling Results
Volatile Organic Compounds in End-Point Soil Samples
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID York ID Sampling Date Client Matrix	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	OWS-PE-1 19E1278-01 5/29/2019 9:01:00 AM Soil	OWS-PE-2 19E1278-02 5/29/2019 8:56:00 AM Soil	OWS-PE-3 19E1278-03 5/29/2019 9:05:00 AM Soil
Compound			Result	Result	Result
VOA, 8260 MASTER	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1
1,1,1,2-Tetrachloroethane	~	~	0.00310	0.00370	0.00290
1,1,1-Trichloroethane	0.68	500	0.00310	0.00370	0.00290
1,1,2,2-Tetrachloroethane	~	~	0.00310	0.00370	0.00290
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	~	~	0.00310	0.00370	0.00290
1,1,2-Trichloroethane	~	~	0.00310	0.00370	0.00290
1,1-Dichloroethane	0.27	240	0.00310	0.00370	0.00290
1,1-Dichloroethylene	0.33	500	0.00310	0.00370	0.00290
1,2,3-Trichlorobenzene	~	~	0.00310	0.00370	0.00290
1,2,3-Trichloropropane	~	~	0.00310	0.00370	0.00290
1,2,4-Trichlorobenzene	~	~	0.00310	0.00370	0.00290
1,2,4-Trimethylbenzene	3.6	190	0.00310	0.00370	0.00290
1,2-Dibromo-3-chloropropane	~	~	0.00310	0.00370	0.00290
1,2-Dibromoethane	~	~	0.00310	0.00370	0.00290
1,2-Dichlorobenzene	1.1	500	0.00310	0.00370	0.00290
1,2-Dichloroethane	0.02	30	0.00310	0.00370	0.00290
1,2-Dichloropropane	~	~	0.00310	0.00370	0.00290
1,3,5-Trimethylbenzene	8.4	190	0.00310	0.00370	0.00290
1,3-Dichlorobenzene	2.4	280	0.00310	0.00370	0.00290
1,4-Dichlorobenzene	1.8	130	0.00310	0.00370	0.00290
1,4-Dioxane	0.1	130	0.0620	0.0740	0.0580
2-Butanone	0.12	500	0.00310	0.00370	0.00290
2-Hexanone	~	~	0.00310	0.00370	0.00290
4-Methyl-2-pentanone	~	~	0.00310	0.00370	0.00290
Acetone	0.05	500	0.00620	0.00740	0.00680
Acrolein	~	~	0.00620	0.00740	0.00580
Acrylonitrile	~	~	0.00310	0.00370	0.00290
Benzene	0.06	44	0.00310	0.00370	0.00290
Bromochloromethane	~	~	0.00310	0.00370	0.00290
Bromodichloromethane	~	~	0.00310	0.00370	0.00290
Bromoform	~	~	0.00310	0.00370	0.00290
Bromomethane	~	~	0.00310	0.00370	0.00290
Carbon disulfide	~	~	0.00310	0.00370	0.00290
Carbon tetrachloride	0.76	22	0.00310	0.00370	0.00290
Chlorobenzene	1.1	500	0.00310	0.00370	0.00290
Chloroethane	~	~	0.00310	0.00370	0.00290
Chloroform	0.37	350	0.00310	0.00370	0.00290
Chloromethane	~	~	0.00310	0.00370	0.00290
cis-1,2-Dichloroethylene	0.25	500	0.00310	0.00370	0.00290
cis-1,3-Dichloropropylene	~	~	0.00310	0.00370	0.00290
Cyclohexane	~	~	0.00310	0.00370	0.00290
Dibromochloromethane	~	~	0.00310	0.00370	0.00290
Dibromomethane	~	~	0.00310	0.00370	0.00290
Dichlorodifluoromethane	~	~	0.00310	0.00370	0.00290
Ethyl Benzene	1	390	0.00310	0.00370	0.00290
Hexachlorobutadiene	~	~	0.00310	0.00370	0.00290
Isopropylbenzene	~	~	0.00310	0.00370	0.00290
Methyl acetate	~	~	0.00310	0.00370	0.00290
Methyl tert-butyl ether (MTBE)	0.93	500	0.00310	0.00370	0.00290
Methylcyclohexane	~	~	0.00310	0.00370	0.00290
Methylene chloride	0.05	500	0.00620	0.00740	0.00580
n-Butylbenzene	12	500	0.00310	0.00370	0.00290
n-Propylbenzene	3.9	500	0.00310	0.00370	0.00290
o-Xylene	~	~	0.00310	0.00370	0.00290
p- & m- Xylenes	~	~	0.00620	0.00740	0.00580
p-Isopropyltoluene	~	~	0.00310	0.00370	0.00290
sec-Butylbenzene	11	500	0.00310	0.00370	0.00290
Styrene	~	~	0.00310	0.00370	0.00290
tert-Butyl alcohol (TBA)	~	~	0.00310	0.00370	0.00290
tert-Butylbenzene	5.9	500	0.00310	0.00370	0.00290
Tetrachloroethylene	1.3	150	0.00310	0.00590	0.00360
Toluene	0.7	500	0.00310	0.00370	0.00290
trans-1,2-Dichloroethylene	0.19	500	0.00310	0.00370	0.00290
trans-1,3-Dichloropropylene	~	~	0.00310	0.00370	0.00290
Trichloroethylene	0.47	200	0.00310	0.00370	0.00290
Trichlorofluoromethane	~	~	0.00310	0.00370	0.00290
Vinyl Chloride	0.02	13	0.00310	0.00370	0.00290
Xylenes, Total	0.26	500	0.00920	0.0110	0.00870
Total Solids			%	%	%
Dilution Factor			1	1	1
% Solids	~	~	96.700	94.300	90.500

NOTES:
Any Regulatory Exceedences are color coded by Regulation

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D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

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Table 4
Remedial Performance/Documentation Sampling Results
Volatile Organic Compounds in End-Point Soil Samples
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID York ID Sampling Date Client Matrix	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	OWS-PE-4 19E1278-04 5/29/2019 9:07:00 AM Soil	OWS-PE-5 19E1278-05 5/29/2019 9:14:00 AM Soil
Compound			Result	Result
VOA, 8260 MASTER	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1
1,1,1,2-Tetrachloroethane	~	~	0.00260	0.00290
1,1,1-Trichloroethane	0.68	500	0.00260	0.00290
1,1,2,2-Tetrachloroethane	~	~	0.00260	0.00290
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	~	~	0.00260	0.00290
1,1,2-Trichloroethane	~	~	0.00260	0.00290
1,1-Dichloroethane	0.27	240	0.00260	0.00290
1,1-Dichloroethylene	0.33	500	0.00260	0.00290
1,2,3-Trichlorobenzene	~	~	0.00260	0.00290
1,2,3-Trichloropropane	~	~	0.00260	0.00290
1,2,4-Trichlorobenzene	~	~	0.00260	0.00290
1,2,4-Trimethylbenzene	3.6	190	0.00260	0.00290
1,2-Dibromo-3-chloropropane	~	~	0.00260	0.00290
1,2-Dibromoethane	~	~	0.00260	0.00290
1,2-Dichlorobenzene	1.1	500	0.00260	0.00290
1,2-Dichloroethane	0.02	30	0.00260	0.00290
1,2-Dichloropropane	~	~	0.00260	0.00290
1,3,5-Trimethylbenzene	8.4	190	0.00260	0.00290
1,3-Dichlorobenzene	2.4	280	0.00260	0.00290
1,4-Dichlorobenzene	1.8	130	0.00260	0.00290
1,4-Dioxane	0.1	130	0.0520	0.0580
2-Butanone	0.12	500	0.00260	0.00290
2-Hexanone	~	~	0.00260	0.00290
4-Methyl-2-pentanone	~	~	0.00260	0.00290
Acetone	0.05	500	0.0150	0.00840
Acrolein	~	~	0.00520	0.00580
Acrylonitrile	~	~	0.00260	0.00290
Benzene	0.06	44	0.00260	0.00290
Bromochloromethane	~	~	0.00260	0.00290
Bromodichloromethane	~	~	0.00260	0.00290
Bromoform	~	~	0.00260	0.00290
Bromomethane	~	~	0.00260	0.00290
Carbon disulfide	~	~	0.00260	0.00290
Carbon tetrachloride	0.76	22	0.00260	0.00290
Chlorobenzene	1.1	500	0.00260	0.00290
Chloroethane	~	~	0.00260	0.00290
Chloroform	0.37	350	0.00260	0.00290
Chloromethane	~	~	0.00260	0.00290
cis-1,2-Dichloroethylene	0.25	500	0.00260	0.00290
cis-1,3-Dichloropropylene	~	~	0.00260	0.00290
Cyclohexane	~	~	0.00260	0.00290
Dibromochloromethane	~	~	0.00260	0.00290
Dibromomethane	~	~	0.00260	0.00290
Dichlorodifluoromethane	~	~	0.00260	0.00290
Ethyl Benzene	1	390	0.00260	0.00290
Hexachlorobutadiene	~	~	0.00260	0.00290
Isopropylbenzene	~	~	0.00260	0.00290
Methyl acetate	~	~	0.00260	0.00290
Methyl tert-butyl ether (MTBE)	0.93	500	0.00260	0.00290
Methylcyclohexane	~	~	0.00260	0.00290
Methylene chloride	0.05	500	0.00580	0.00580
n-Butylbenzene	12	500	0.00260	0.00290
n-Propylbenzene	3.9	500	0.00260	0.00290
o-Xylene	~	~	0.00260	0.00290
p- & m- Xylenes	~	~	0.00520	0.00580
p-Isopropyltoluene	~	~	0.00260	0.00290
sec-Butylbenzene	11	500	0.00260	0.00290
Styrene	~	~	0.00260	0.00290
tert-Butyl alcohol (TBA)	~	~	0.00260	0.00290
tert-Butylbenzene	5.9	500	0.00260	0.00290
Tetrachloroethylene	1.3	150	0.00330	0.0140
Toluene	0.7	500	0.00260	0.00290
trans-1,2-Dichloroethylene	0.19	500	0.00260	0.00290
trans-1,3-Dichloropropylene	~	~	0.00260	0.00290
Trichloroethylene	0.47	200	0.00260	0.00290
Trichlorofluoromethane	~	~	0.00260	0.00290
Vinyl Chloride	0.02	13	0.00260	0.00290
Xylenes, Total	0.26	500	0.00770	0.00880
Total Solids			%	%
Dilution Factor			1	1
% Solids	~	~	92.700	84.500

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Table 5 Backfill Quantities and Sources
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Date	Tickets #	Product	Amount (tons)
4/22/2019	20921804	ASTM 57	37.4
5/9/2019	20925169	ASTM 57	38.36
5/9/2019	20925100	ASTM 57	37.99
5/21/2019	20927267	ASTM 57	41.21
5/21/2019	20928625	ASTM 57	36.83
5/21/2019	20927280	ASTM 57	71.94
		Total	**263.73**

Table 6 Stockpile Material Sample Results
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample #:		WC-1 COMP				WC-1 GRAB			
Field ID:									
Lab ID:		03807-001				03807-002			
Date Sampled:		05/21/2019				05/21/2019			
Depth(ft):									
	CAS								
Volatiles (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dichlorodifluoromethane	75-71-8	~		~	~	ND		0.112	0.055
Chloromethane	74-87-3	~		~	~	ND		0.056	0.036
Vinyl chloride	75-01-4	~		~	~	ND		0.112	0.017
Bromomethane	74-83-9	~		~	~	ND		0.112	0.040
Chloroethane	75-00-3	~		~	~	ND		0.056	0.044
Trichlorofluoromethane	75-69-4	~		~	~	ND		0.056	0.050
1,1-Dichloroethene	75-35-4	~		~	~	ND		0.056	0.046
Acetone	67-64-1	~		~	~	ND		0.224	0.218
Carbon disulfide	75-15-0	~		~	~	ND		0.056	0.025
Methylene chloride	75-09-2	~		~	~	ND		0.112	0.111
trans-1,2-Dichloroethene	156-60-5	~		~	~	ND		0.056	0.031
Methyl tert-butyl ether (MTBE)	1634-04-4	~		~	~	ND		0.056	0.030
1,1-Dichloroethane	75-34-3	~		~	~	ND		0.056	0.022
cis-1,2-Dichloroethene	156-59-2	~		~	~	ND		0.056	0.018
2-Butanone (MEK)	78-93-3	~		~	~	ND		0.224	0.078
Bromochloromethane	74-97-5	~		~	~	ND		0.112	0.020
Chloroform	67-66-3	~		~	~	ND		0.056	0.018
1,1,1-Trichloroethane	71-55-6	~		~	~	ND		0.056	0.012
Carbon tetrachloride	56-23-5	~		~	~	ND		0.112	0.013
1,2-Dichloroethane (EDC)	107-06-2	~		~	~	ND		0.056	0.030
Benzene	71-43-2	~		~	~	ND		0.056	0.016
Trichloroethene	79-01-6	~		~	~	ND		0.056	0.023
1,2-Dichloropropane	78-87-5	~		~	~	ND		0.056	0.012
1,4-Dioxane	123-91-1	~		~	~	ND		11.2	4.11
Bromodichloromethane	75-27-4	~		~	~	ND		0.056	0.032
cis-1,3-Dichloropropene	10061-01-5	~		~	~	ND		0.056	0.025
4-Methyl-2-pentanone (MIBK)	108-10-1	~		~	~	ND		0.224	0.089
Toluene	108-88-3	~		~	~	ND		0.056	0.020
trans-1,3-Dichloropropene	10061-02-6	~		~	~	ND		0.112	0.027
1,1,2-Trichloroethane	79-00-5	~		~	~	ND		0.056	0.026
Tetrachloroethene	127-18-4	~		~	~	0.323		0.056	0.030
2-Hexanone	591-78-6	~		~	~	ND		0.224	0.109
Dibromochloromethane	124-48-1	~		~	~	ND		0.056	0.043
1,2-Dibromoethane (EDB)	106-93-4	~		~	~	ND		0.056	0.029
Chlorobenzene	108-90-7	~		~	~	ND		0.056	0.031
Ethylbenzene	100-41-4	~		~	~	ND		0.056	0.030
Total Xylenes	1330-20-7	~		~	~	ND		0.112	0.099
Styrene	100-42-5	~		~	~	ND		0.112	0.048
Bromoform	75-25-2	~		~	~	ND		0.056	0.047
Isopropylbenzene	98-82-8	~		~	~	ND		0.056	0.043
1,1,2,2-Tetrachloroethane	79-34-5	~		~	~	ND		0.112	0.089
1,3-Dichlorobenzene	541-73-1	~		~	~	ND		0.056	0.033
1,4-Dichlorobenzene	106-46-7	~		~	~	ND		0.056	0.044
1,2-Dichlorobenzene	95-50-1	~		~	~	ND		0.056	0.036
1,2-Dibromo-3-chloropropane	96-12-8	~		~	~	ND		0.112	0.064
1,2,4-Trichlorobenzene	120-82-1	~		~	~	ND		0.112	0.041
1,2,3-Trichlorobenzene	87-61-6	~		~	~	ND		0.112	0.057
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	~		~	~	ND		0.112	0.039
Methyl acetate	79-20-9	~		~	~	ND		0.056	0.055

Table 6 Stockpile Material Sample Results
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Cyclohexane	110-82-7	~		~	~	ND		0.112	0.061
Methylcyclohexane	108-87-2	~		~	~	ND		0.056	0.056
1,3-Dichloropropene (cis- and trans-)	542-75-6	~		~	~	ND		0.112	0.027
TOTAL VO's:		~		~	~	0.323			NA
TOTAL TIC's:		~		~	~	25.0	JN		NA
TOTAL VO's & TIC's:		~		~	~	25.3	JN		NA
TCLP Volatiles (mg/L)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Vinyl chloride	75-01-4	~		~	~	ND		0.050	0.00745
1,1-Dichloroethene	75-35-4	~		~	~	ND		0.025	0.021
2-Butanone (MEK)	78-93-3	~		~	~	ND		0.100	0.035
Chloroform	67-66-3	~		~	~	ND		0.025	0.00815
Carbon tetrachloride	56-23-5	~		~	~	ND		0.050	0.00595
1,2-Dichloroethane (EDC)	107-06-2	~		~	~	ND		0.025	0.014
Benzene	71-43-2	~		~	~	ND		0.025	0.0072
Trichloroethene	79-01-6	~		~	~	ND		0.025	0.010
Tetrachloroethene	127-18-4	~		~	~	ND		0.025	0.014
Chlorobenzene	108-90-7	~		~	~	ND		0.025	0.014
1,4-Dichlorobenzene	106-46-7	~		~	~	ND		0.025	0.020
Semivolatiles - BNA (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Benzaldehyde	100-52-7	ND		0.186	0.111	~		~	~
Phenol	108-95-2	ND		0.186	0.141	~		~	~
Bis(2-chloroethyl) ether	111-44-4	ND		0.186	0.111	~		~	~
2-Chlorophenol	95-57-8	ND		0.186	0.128	~		~	~
2-Methylphenol	95-48-7	ND		0.186	0.170	~		~	~
2,2'-Oxybis(1-Chloropropane)	108-60-1	ND		0.186	0.184	~		~	~
4-Methylphenol **	106-44-5	ND		0.186	0.180	~		~	~
N-Nitrosodi-n-propylamine	621-64-7	ND		0.186	0.123	~		~	~
Acetophenone	98-86-2	ND		0.186	0.124	~		~	~
Hexachloroethane	67-72-1	ND		0.186	0.111	~		~	~
Nitrobenzene	98-95-3	ND		0.186	0.111	~		~	~
Isophorone	78-59-1	ND		0.186	0.172	~		~	~
2-Nitrophenol	88-75-5	ND		0.186	0.111	~		~	~
2,4-Dimethylphenol	105-67-9	ND		0.186	0.115	~		~	~
Bis(2-chloroethoxy) methane	111-91-1	ND		0.186	0.115	~		~	~
2,4-Dichlorophenol	120-83-2	ND		0.186	0.120	~		~	~
Naphthalene	91-20-3	0.501	D	0.186	0.132	~		~	~
4-Chloroaniline	106-47-8	ND		0.186	0.118	~		~	~
Hexachlorobutadiene	87-68-3	ND		0.186	0.114	~		~	~
Caprolactam	105-60-2	ND		0.186	0.182	~		~	~
4-Chloro-3-methylphenol	59-50-7	ND		0.186	0.140	~		~	~
2-Methylnaphthalene	91-57-6	0.914	D	0.186	0.114	~		~	~
Hexachlorocyclopentadiene	77-47-4	ND		0.186	0.126	~		~	~
2,4,6-Trichlorophenol	88-06-2	ND		0.186	0.111	~		~	~
2,4,5-Trichlorophenol	95-95-4	ND		0.186	0.111	~		~	~
1,1'-Biphenyl	92-52-4	0.200	D	0.186	0.111	~		~	~
2-Chloronaphthalene	91-58-7	ND		0.186	0.111	~		~	~
2-Nitroaniline	88-74-4	ND		0.186	0.162	~		~	~
Dimethyl phthalate	131-11-3	ND		0.186	0.111	~		~	~
2,6-Dinitrotoluene	606-20-2	ND		0.186	0.155	~		~	~
Acenaphthylene	208-96-8	0.188	D	0.186	0.133	~		~	~
3-Nitroaniline	99-09-2	ND		0.186	0.139	~		~	~
Acenaphthene	83-32-9	1.75	D	0.186	0.111	~		~	~
2,4-Dinitrophenol	51-28-5	ND		0.186	0.111	~		~	~
4-Nitrophenol	100-02-7	ND		0.186	0.111	~		~	~
2,4-Dinitrotoluene	121-14-2	ND		0.186	0.111	~		~	~
Dibenzofuran	132-64-9	0.694	D	0.186	0.116	~		~	~

Table 6 Stockpile Material Sample Results
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Diethyl phthalate	84-66-2	ND		0.186	0.119	~		~	~
Fluorene	86-73-7	1.40	D	0.186	0.111	~		~	~
4-Chlorophenyl phenyl ether	7005-72-3	ND		0.186	0.111	~		~	~
4-Nitroaniline	100-01-6	ND		0.186	0.151	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	ND		0.186	0.111	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	ND		0.186	0.111	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	ND		1.86	0.119	~		~	~
N-Nitrosodiphenylamine	86-30-6	ND		0.186	0.134	~		~	~
4-Bromophenyl phenyl ether	101-55-3	ND		0.186	0.156	~		~	~
Hexachlorobenzene	118-74-1	ND		0.186	0.111	~		~	~
Atrazine	1912-24-9	ND		0.186	0.111	~		~	~
Pentachlorophenol	87-86-5	ND		0.186	0.145	~		~	~
Phenanthrene	85-01-8	20.3	D	0.186	0.111	~		~	~
Anthracene	120-12-7	4.09	D	0.186	0.111	~		~	~
Carbazole	86-74-8	1.02	D	0.186	0.125	~		~	~
Di-n-butyl phthalate	84-74-2	ND		0.186	0.111	~		~	~
Fluoranthene	206-44-0	20.7	D	0.186	0.182	~		~	~
Pyrene	129-00-0	24.3	D	0.186	0.145	~		~	~
Butyl benzyl phthalate	85-68-7	ND		0.186	0.140	~		~	~
3,3'-Dichlorobenzidine	91-94-1	ND		0.186	0.111	~		~	~
Benzo[a]anthracene	56-55-3	8.99	D	0.186	0.132	~		~	~
Chrysene	218-01-9	7.57	D	0.186	0.111	~		~	~
Bis(2-ethylhexyl) phthalate	117-81-7	0.285	D	0.186	0.166	~		~	~
Di-n-octyl phthalate	117-84-0	ND		0.186	0.175	~		~	~
Benzo[b]fluoranthene	205-99-2	9.91	D	0.186	0.163	~		~	~
Benzo[k]fluoranthene	207-08-9	5.80	D	0.186	0.141	~		~	~
Benzo[a]pyrene	50-32-8	8.99	D	0.186	0.111	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	6.34	D	0.186	0.111	~		~	~
Dibenz[a,h]anthracene	53-70-3	1.98	D	0.186	0.126	~		~	~
Benzo[g,h,i]perylene	191-24-2	7.99	D	0.186	0.177	~		~	~
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	ND		0.186	0.155	?			NA
TOTAL BNA'S:		134	D		NA	~		~	~
TOTAL TIC's:		40.4	DJN		NA	~		~	~
TOTAL BNA'S & TIC's:		174	DJN		NA	~		~	~
PCB's (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	ND		0.00363	0.00145	~		~	~
Aroclor-1221	11104-28-2	ND		0.00363	0.00145	~		~	~
Aroclor-1232	11141-16-5	ND		0.00363	0.00145	~		~	~
Aroclor-1242	53469-21-9	ND		0.00363	0.00145	~		~	~
Aroclor-1248	12672-29-6	ND		0.00363	0.00145	~		~	~
Aroclor-1254	11097-69-1	ND		0.00363	0.00145	~		~	~
Aroclor-1260	11096-82-5	ND		0.00363	0.00145	~		~	~
Aroclor-1262	37324-23-5	0.076		0.00363	0.00145	~		~	~
Aroclor-1268	11100-14-4	0.035		0.00363	0.00145	~		~	~
PCBs	1336-36-3	0.111		0.00363	0.00145	~		~	~
Pesticides (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	ND		0.000726	0.000363	~		~	~
beta-BHC	319-85-7	ND		0.000726	0.000363	~		~	~
gamma-BHC (Lindane)	58-89-9	ND		0.000726	0.000363	~		~	~
delta-BHC	319-86-8	ND		0.000726	0.000363	~		~	~
Heptachlor	76-44-8	ND		0.000726	0.000363	~		~	~
Aldrin	309-00-2	ND		0.000726	0.000363	~		~	~
Heptachlor epoxide	1024-57-3	ND		0.000726	0.000363	~		~	~
Endosulfan I	959-98-8	ND		0.000726	0.000363	~		~	~
4,4'-DDE	72-55-9	0.00879		0.000726	0.000363	~		~	~
Dieldrin	60-57-1	ND		0.000726	0.000363	~		~	~

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Endrin	72-20-8	ND		0.000726	0.000363	~		~	~
Endosulfan II	33213-65-9	ND		0.000726	0.000363	~		~	~
4,4'-DDD	72-54-8	ND		0.000726	0.000363	~		~	~
Endrin aldehyde	7421-93-4	ND		0.000726	0.000363	~		~	~
Endosulfan sulfate	1031-07-8	ND		0.000726	0.000363	~		~	~
4,4'-DDT	50-29-3	0.026		0.000726	0.000363	~		~	~
Endrin ketone	53494-70-5	ND		0.000726	0.000363	~		~	~
Methoxychlor	72-43-5	ND		0.000726	0.000363	~		~	~
alpha-Chlordane	5103-71-9	0.00159		0.000726	0.000363	~		~	~
gamma-Chlordane	5103-74-2	0.00254		0.000726	0.000363	~		~	~
Toxaphene	8001-35-2	ND		0.00908	0.00436	~		~	~
Endosulfan (I and II)	115-29-7	ND		0.000726	0.000363	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.00413		0.000726	0.000363	~		~	~
NJ-EPH-DRO (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C28	IALC9	296		54.1	21.6	~		~	~
C28-C40	IALC28	129		54.1	21.6	~		~	~
C9-C40 Total	IALTC40	425		54.1	21.6	~		~	~
Metals (mg/Kg)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	7429-90-5	6120		6.14	2.46	~		~	~
Antimony	7440-36-0	ND		0.614	0.246	~		~	~
Arsenic	7440-38-2	10.1		0.614	0.184	~		~	~
Barium	7440-39-3	574		0.614	0.307	~		~	~
Beryllium	7440-41-7	0.355	J	0.614	0.184	~		~	~
Cadmium	7440-43-9	0.659		0.614	0.368	~		~	~
Calcium	7440-70-2	19100		61.4	18.4	~		~	~
Chromium	7440-47-3	14.5		0.614	0.307	~		~	~
Cobalt	7440-48-4	4.93		0.614	0.184	~		~	~
Copper	7440-50-8	44.9		0.614	0.430	~		~	~
Iron	7439-89-6	11800		61.4	18.4	~		~	~
Lead	7439-92-1	421		0.614	0.307	~		~	~
Magnesium	7439-95-4	2730		61.4	18.4	~		~	~
Manganese	7439-96-5	209		0.614	0.430	~		~	~
Mercury	7439-97-6	0.448		0.030	0.012	~		~	~
Nickel	7440-02-0	12.7		0.614	0.430	~		~	~
Potassium	7440-09-7'	1240		61.4	24.6	~		~	~
Selenium	7782-49-2	ND		4.30	1.84	~		~	~
Silver	7440-22-4	ND		0.614	0.368	~		~	~
Sodium	7440-23-5	258		61.4	24.6	~		~	~
Thallium	7440-28-0	ND		0.614	0.307	~		~	~
Vanadium	7440-62-2	20.6		0.614	0.307	~		~	~
Zinc	7440-66-6	373		6.14	1.23	~		~	~
TCLP Metals (mg/L)		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
TCLP Arsenic	7440-38-2	ND		0.100	0.040	~		~	~
TCLP Barium	7440-39-3	0.365		0.100	0.050	~		~	~
TCLP Cadmium	7440-43-9	ND		0.100	0.070	~		~	~
TCLP Chromium	7440-47-3	ND		0.100	0.070	~		~	~
TCLP Lead	7439-92-1	0.153		0.100	0.060	~		~	~
TCLP Mercury	7439-97-6	ND		0.0005	0.0002	~		~	~
TCLP Selenium	7782-49-2	ND		1.00	0.300	~		~	~
TCLP Silver	7440-22-4	ND		0.100	0.060	~		~	~
General Analytical		**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Cyanide, Total-mg/Kg	57-12-5	ND		1.12	0.561	~		~	~
Paint Filter-NA	IALCAS084	NO		NA	NA	~		~	~

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample #:	Part 375-6.8(b)	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-15	SB-19	SB-14	SB-16	SB-17	SB-18	SB-20
Lab ID:		09161-001	09161-002	09161-003	09161-004	09161-005	09161-006	09161-007	09175-001	09175-002	09175-003	09175-004	09175-005	09175-006	09175-007	09175-008	09175-009	09175-010	09175-011	09175-012	09175-013
Date Sampled:	Commercial	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/23/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017
Depth(ft):	(ppm)	7.5/8	15.5/16	15/15.5	15.5/16	15/15.5	11/11.5														
Volatiles (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	500	ND	0.337	0.060	0.115	0.00894	0.013	ND	ND	0.033	ND	0.032	0.060	ND	ND	ND	ND	0.202	ND	0.154	0.00782
Carbon disulfide	NS	ND	0.0041	0.0019	0.099	0.00132	0.00222	ND	ND	ND	ND	0.00891	0.028	0.00299	ND	ND	ND	0.00401	ND	0.00324	ND
Methylene chloride	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	500	ND	ND	ND	0.00304	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.118	ND	ND
2-Butanone (MEK)	500	ND	0.072	0.00805	0.019	ND	ND	0.389	ND	0.00541	ND	ND	ND	ND	ND	0.218	ND	0.014	ND	0.025	ND
Bromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	350	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	44	ND	ND	ND	ND	ND	ND	ND	0.065	0.000811	ND	ND	ND	ND	ND	ND	ND	0.00141	ND	ND	ND
Trichloroethene	200	0.088	ND	ND	ND	ND	ND	0.272	0.028	ND	0.000696	0.000523	ND	0.000735	ND	ND	0.956	ND	0.198	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	500	ND	0.000719	ND	ND	ND	ND	0.174	0.032	ND	ND	ND	0.000507	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	150	10.5	ND	ND	ND	ND	ND	7.78	0.268	ND	0.0032	0.015	0.012	0.019	ND	1.84	10.9	ND	2.66	ND	0.00181
2-Hexanone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	390	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000396	ND	ND	ND
Total Xylenes	500	ND	ND	ND	ND	ND	ND	0.166	0.049	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.011	ND	ND	ND
Cyclohexane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.011	ND	ND	ND
1,3-Dichloropropene (cis- and trans-)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VO's:	NS	10.6	0.413	0.070	0.235	0.010	0.015	8.78	0.441	0.040	0.0039	0.057	0.101	0.023	ND	2.06	11.9	0.245	2.98	0.183	0.00963
TOTAL TIC's:	NS	ND	0.035	ND	ND	ND	ND	ND	0	0	0	ND	ND	D	4050	27.4	ND	0.526	ND	ND	ND
TOTAL VO's & TIC's:	NS	10.6	0.448	0.070	0.235	0.010	0.015	8.78	0.441	0.040	0.0039	0.057	0.101	0.023	4050	29.5	11.9	0.771	2.98	0.183	0.00963
Semivolatiles - BN (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Benzaldehyde	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2'-Oxybis(1-Chloropropane)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy) methane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	500	0.080	0.044	ND	ND	ND	ND	0.171	ND	0.133	0.066	0.055	ND	0.056	0.089	0.104	0.229	ND	ND	ND	0.091
4-Chloroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NS	0.047	ND	ND	ND	ND	ND	0.158	ND	ND	0.053	ND	ND	0.033	0.133	0.104	0.125	ND	ND	ND	0.060
Hexachlorocyclopentadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	500	0.233	0.090	ND	ND	ND	ND	1.61	ND	0.441	0.140	0.131	0.065	0.215	0.123	0.186	0.223	ND	ND	ND	0.323
3-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	500	0.219	0.190	ND	ND	ND	ND	0.162	ND	ND	0.122	ND	ND	0.042	0.069	0.174	0.536	0.073	ND	ND	0.158
2,4-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	350	0.129	ND	ND	ND	ND	ND	0.182	ND	ND	0.070	0.047	ND	0.076	0.077	0.136	0.339	ND	ND	ND	0.125
Diethyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	500	0.209	0.052	ND	ND	ND	ND	0.233	ND	0.075	0.095	0.043	ND	0.095	0.089	0.159	0.311	ND	ND	ND	0.155
4-Chlorophenyl phenyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	500	2.92	0.233	0.053	ND	ND	0.121	4.82	0.111	0.590	1.43	0.877	0.219	1.76	0.932	2.71	5.45	0.229	0.068	ND	1.96
Anthracene	500	0.818	0.369	ND	ND	ND	0.041	1.16	ND	0.485	0.332	0.112	0.049	0.268	0.287	0.508	1.15	0.063	ND	ND	0.655
Carbazole	NS	0.264	ND	ND	ND	ND	ND	0.713	ND	0.072	0.118	0.064	ND	0.162	0.120	0.191	0.498	ND	ND	ND	0.291
Di-n-butyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.066	0.099	ND	ND	ND	ND	ND
Fluoranthene	500	4.01	1.49	0.072	ND	ND	0.145	8.13	0.196	6.37	2.02	1.24	0.390	2.55	1.66	3.56	5.81	0.227	0.076	ND	2.76
Pyrene	500	3.90	2.32	0.095	ND	ND	0.143	6.89	0.206	8.20	1.89	1.19	0.366	2.06	1.59	3.04	5.44	0.224	0.072	ND	3.30
Butyl benzyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.090	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	5.6	2.29	1.72	0.072	ND	ND	0.088	5.03	0.102	**5.92**	1.12	0.584	0.218	1.07	0.793	1.66	2.87	0.135	0.046	ND	1.82
Chrysene	56	2.04	2.89	0.074	ND	ND	0.091	5.16	0.103	5.13	1.13	0.711	0.235	1.13	0.840	1.71	2.77	0.129	0.050	ND	1.91
Bis(2-ethylhexyl) phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.044	ND	ND	ND	1.36	0.678	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.048	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	5.6	1.00	0.707	ND	ND	ND	0.034	3.11	0.053	3.59	0.687	0.366	0.160	0.584	0.453	0.980	1.55	0.069	ND	ND	1.29
Benzo[k]fluoranthene	56	1.09	0.524	ND	ND	ND	0.045	3.27	0.064	3.56	0.708	0.435	0.157	0.806	0.538	0.943	1.67	0.066	ND	ND	1.31
Benzo[a]pyrene	1	**1.20**	0.600	ND	ND	ND	0.049	**3.42**	0.067	**4.31**	0.752	0.428	0.140	0.722	0.563	**1.09**	**1.97**	0.088	ND	ND	**1.39**
Indeno[1,2,3-cd]pyrene	5.6	0.707	0.418	ND	ND	ND	ND	2.85	0.035	2.65	0.498	0.317	0.128	0.484	0.287	0.674	1.22	0.059	ND	ND	1.04
Dibenz[a,h]anthracene	0.56	0.332	0.477	ND	ND	ND	ND	0.740	ND	**1.03**	0.169	0.106	0.049	0.143	0.098	0.212	0.370	ND	ND	ND	0.363
Benzo[g,h,i]perylene	500	0.831	0.792	ND	ND	ND	ND	3.35	0.044	2.98	0.619	0.326	0.168	0.647	0.335	0.862	1.52	0.073	ND	ND	1.35
Dinitrotoluene (2,4- and 2,6-)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BN'S:	NS	22.3	12.9	0.366	ND	ND	0.757	51.2	0.981	45.5	12.1	7.03	2.34	12.9	10.5	19.9	34.1	1.44	0.312	ND	20.4
TOTAL TIC's:	NS	7.22	4.76	ND	ND	ND	ND	16.9	ND	15.5	2.48	1.06	ND	0.680	192	23.6	11.1	ND	0.681	ND	2.91
TOTAL BN'S & TIC's:	NS	29.5	17.7	0.366	ND	ND	0.757	68.1	0.981	61.0	14.6	8.09	2.34	13.6	203	43.5	45.2	1.44	0.993	ND	23.3
PCB's (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Aroclor-1016	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1221	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1232	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1242	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1248	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1254	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1260	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1262	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
Aroclor-1268	NS	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
PCBs	1	~	~	~	~	ND	ND	~	~	~	~	ND	ND	ND	ND	ND	~	~	~	~	~
GC-Fingerprint		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
GC-Fingerprint	NS									~	~	~	~	~	~	~	~	~	~	~	~

6NYCRR Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives & NYCRR Part 375-6.8(b) Restricted Use Soil Cleanup Objectives December 2006

BOLD Conc

BOLD RL

BOLD MDL

NS = No Standard Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample #:	Part 375-6.8(b)	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-31A	SB-32A	SB-33A	SB-34A	SB-35A
Lab ID:	Protection of	09802-001	09802-002	09802-003	09802-004	09802-005	10728-001	10728-002	10728-003	10728-004	10728-005	10728-006	10728-007	10728-008	10728-009	10728-010
Date Sampled:	Commercial	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017	12/13/2017
Depth(ft):	(ppm)	11/11.5	11.5/12	11.5/12	11.5/12	10/10.5										
Volatiles (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	500	ND	0.053	0.065	0.018	0.012	ND	ND	ND	ND	ND	0.023	0.00764	0.044	0.015	0.014
Carbon disulfide	NS	ND	0.00409	0.00104	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	500	ND	0.00474	0.0024	0.00414	0.00202	ND	ND	ND	ND	ND	0.0089	0.00324	0.00904	0.00544	0.00529
trans-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	500	ND	ND	0.00815	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	350	ND	ND	ND	0.00152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	44	ND	ND	0.000341	ND	0.000257	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	200	ND	ND	ND	0.000892	ND	0.449	0.260	0.348	0.625	0.946	0.00102	ND	0.00106	0.000435	0.000447
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	150	ND	ND	ND	0.038	ND	29.0	14.8	15.0	45.5	61.6	0.091	0.027	0.052	0.029	0.019
2-Hexanone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	390	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NS	5.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00457	ND	0.00533	0.0017	0.00189
Cyclohexane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NS	17.9	ND	0.00301	ND	ND	ND	ND	ND	ND	0.316	ND	ND	ND	ND	ND
1,3-Dichloropropene (cis- and trans-)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VO's:	NS	22.9	0.062	0.080	0.063	0.014	29.4	15.1	15.3	46.1	62.9	0.128	0.038	0.111	0.052	0.041
TOTAL TIC's:	NS	841	ND	0.038	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.020	ND
TOTAL VO's & TIC's:	NS	864	0.062	0.118	0.063	0.014	29.4	15.1	15.3	46.1	62.9	0.128	0.038	0.111	0.072	0.041
Semivolatiles - BN (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Benzaldehyde	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2'-Oxybis(1-Chloropropane)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy) methane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	500	0.797	ND	ND	ND	ND	0.038	ND	0.041	0.040	0.066	ND	0.189	0.116	ND	ND
4-Chloroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NS	15.7	ND	ND	ND	ND	ND	ND	0.058	0.029	0.049	ND	0.086	0.063	ND	ND
Hexachlorocyclopentadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	500	0.149	ND	ND	ND	ND	0.044	ND	ND	0.053	ND	4.78	0.106	0.177	0.057	0.233
3-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	500	0.401	ND	ND	0.065	ND	0.097	ND	0.064	0.058	0.130	0.792	0.228	0.266	0.102	ND
2,4-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	350	0.613	ND	ND	0.034	ND	0.057	ND	0.039	ND	0.080	0.481	0.174	0.120	0.042	ND
Diethyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	500	0.733	ND	ND	0.052	ND	0.066	ND	0.044	0.049	0.101	1.06	0.194	0.186	0.085	ND
4-Chlorophenyl phenyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	500	1.55	ND	ND	0.616	0.060	1.30	ND	0.656	0.908	1.38	20.8	2.61	2.40	0.897	0.319
Anthracene	500	0.279	ND	ND	0.120	ND	0.274	ND	0.117	0.173	0.274	6.82	0.564	0.601	0.222	0.410
Carbazole	NS	ND	ND	ND	0.042	ND	0.086	ND	0.043	0.051	0.115	2.01	0.236	0.173	0.072	0.114
Di-n-butyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	0.049	ND	ND	ND	ND	ND	0.048
Fluoranthene	500	0.382	ND	ND	0.653	0.088	1.74	0.037	0.770	1.72	1.80	60.9	3.50	4.52	1.36	0.789
Pyrene	500	0.397	ND	ND	0.686	0.095	1.80	0.046	0.763	2.15	1.96	60.8	3.52	4.82	1.44	0.899
Butyl benzyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	5.6	0.164	ND	ND	0.418	0.067	1.01	ND	0.526	1.33	1.22	**41.2**	2.20	3.64	0.949	0.775
Chrysene	56	0.192	ND	ND	0.466	0.069	1.09	0.060	0.779	1.41	1.32	36.8	2.18	3.46	0.971	1.12
Bis(2-ethylhexyl) phthalate	NS	0.276	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.079	0.089	ND	ND
Di-n-octyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	5.6	0.091	ND	ND	0.264	0.045	0.691	ND	0.420	0.895	0.852	**25.7**	1.45	2.68	0.611	1.83
Benzo[k]fluoranthene	56	0.089	ND	ND	0.245	ND	0.487	ND	0.328	0.790	0.682	20.8	1.27	2.28	0.672	1.14
Benzo[a]pyrene	1	0.113	ND	ND	0.303	0.043	0.668	ND	0.351	0.930	0.926	**26.1**	**1.62**	**3.17**	0.738	**1.44**
Indeno[1,2,3-cd]pyrene	5.6	0.064	ND	ND	0.190	ND	0.292	ND	0.279	0.528	0.613	**14.1**	0.982	1.84	0.474	2.30
Dibenz[a,h]anthracene	0.56	ND	ND	ND	0.073	ND	0.108	ND	0.128	0.203	0.246	**5.63**	0.378	**0.693**	0.160	**0.911**
Benzo[g,h,i]perylene	500	0.050	ND	ND	0.238	ND	0.295	ND	0.357	0.663	0.884	15.0	1.23	2.39	0.576	3.45
Dinitrotoluene (2,4- and 2,6-)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BN'S:	NS	22.0	ND	ND	4.46	0.467	10.1	0.143	5.76	12.0	12.7	344	22.8	33.7	9.43	15.8
TOTAL TIC's:	NS	67.4	ND	ND	3.52	ND	13.9	0.803	20.3	20.6	22.3	80.4	8.13	14.4	1.70	4.88
TOTAL BN'S & TIC's:	NS	89.4	ND	ND	7.98	0.467	24.0	0.946	26.1	32.6	35.0	424	30.9	48.1	11.1	20.7

6NYCRR Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives & NYCRR Part 375-6.8(b) Restricted Use Soil Cleanup Objectives December 2006

BOLD Conc
BOLD RL
BOLD MDL
NS = No Standard Available
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.
B = The compound was detected in the blank and the sample

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample #: Lab ID: Date Sampled: Depth(ft):	Part 375-6.8(b) Protection of Commercial (ppm)	SB-31S 10862-001 12/18/2017 2/2.5	SB-31D 10862-002 12/18/2017 8/8.5	SB-32S 10862-003 12/18/2017 2/2.5	SB-32D 10862-004 12/18/2017 8/8.5	SB-32D1 10862-005 12/18/2017 12/12.5	SB-33S 10862-006 12/18/2017 2/2.5	SB-33D 10862-007 12/18/2017 8/8.5	SB-34S 10862-008 12/18/2017 2/2.5	SB-34D 10862-009 12/18/2017 8/8.5	SB-35S 10862-010 12/18/2017 2/2.5	SB-35D 10862-011 12/18/2017 8/8.5	SB-36S 10862-012 12/18/2017 2/2.5	SB-36D 10862-013 12/18/2017 8/8.5	SB-37S 10862-014 12/18/2017 2/2.5	SB-37D 10862-015 12/18/2017 8/8.5
Volatiles (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	500	0.011	0.020	0.018	0.025	0.029	0.041	0.022	0.012	0.019	0.012	0.086	0.033	0.014	ND	ND
Carbon disulfide	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	500	ND	0.00512	0.00689	ND	0.00328	0.011	0.00542	0.00368	ND	ND	0.00382	0.00671	ND	ND	ND
trans-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	500	ND	ND	ND	ND	0.00431	ND	ND	ND	0.00246	ND	ND	ND	ND	ND	ND
Bromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	350	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	44	ND	ND	ND	ND	ND	ND	ND	ND	0.000355	ND	ND	ND	ND	ND	ND
Trichloroethene	200	ND	0.000507	0.000652	0.000483	ND	0.000507	ND	0.00269	0.00234	0.000803	0.00055	0.000415	0.00109	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.105	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	150	0.0032	0.012	0.019	0.015	ND	0.00424	0.00817	0.019	0.022	0.026	0.023	0.012	0.017	2.41	0.429
2-Hexanone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	390	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.105	ND
Total Xylenes	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.767	0.072
Styrene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.081	ND
1,1,2,2-Tetrachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.573	0.071
1,3-Dichloropropene (cis- and trans-)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOs:	NS	0.014	0.038	0.045	0.041	0.036	0.057	0.036	0.038	0.045	0.039	0.113	0.052	0.032	4.04	0.572
TOTAL TICs:	NS	ND	0.020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	429	78.7
TOTAL VOs & TICs:	NS	0.014	0.058	0.045	0.041	0.036	0.057	0.036	0.038	0.045	0.039	0.113	0.052	0.032	433	79.3
Semivolatiles - BN (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Benzaldehyde	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2'-Oxybis(1-Chloropropane)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy) methane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	500	0.048	0.162	0.057	0.032	ND	0.211	0.060	0.058	ND	0.069	ND	ND	ND	0.377	ND
4-Chloroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NS	0.052	0.078	0.030	ND	ND	0.064	ND	0.038	ND	0.036	ND	ND	ND	1.07	ND
Hexachlorocyclopentadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.174	ND
2-Chloronaphthalene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	500	0.614	0.291	0.245	0.113	ND	0.262	0.113	0.232	ND	0.112	0.046	0.048	ND	0.209	ND
3-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	500	0.077	0.131	0.123	0.077	ND	0.049	ND	0.086	ND	0.213	ND	ND	ND	0.211	ND
2,4-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	350	0.202	0.173	0.060	0.042	ND	0.119	0.039	0.057	ND	0.105	ND	ND	ND	0.151	ND
Diethyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	500	0.147	0.143	0.101	0.063	ND	0.124	0.039	0.096	ND	0.147	ND	ND	ND	0.328	ND
4-Chlorophenyl phenyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	500	4.08	3.00	1.48	1.02	0.150	1.24	0.531	1.62	0.060	1.72	0.071	0.315	0.110	2.08	0.138
Anthracene	500	0.523	0.631	0.384	0.237	0.039	0.163	0.119	0.315	ND	0.377	ND	0.052	ND	0.487	0.038
Carbazole	NS	0.475	0.342	0.166	0.092	ND	0.208	0.066	0.147	ND	0.176	ND	0.030	ND	0.184	ND
Di-n-butyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.100	ND
Fluoranthene	500	6.09	4.90	3.22	1.83	0.224	1.52	0.908	3.65	0.086	2.31	0.136	0.561	0.240	3.04	0.231
Pyrene	500	4.43	3.72	2.74	1.54	0.186	1.09	0.759	2.93	0.076	2.03	0.121	0.416	0.239	1.99	0.210
Butyl benzyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	5.6	2.63	2.54	1.86	0.973	0.133	0.572	0.418	1.81	0.055	1.14	0.095	0.227	0.142	1.55	0.134
Chrysene	56	3.13	2.53	1.82	0.963	0.124	0.736	0.469	2.08	0.048	1.14	0.101	0.252	0.142	1.36	0.131
Bis(2-ethylhexyl) phthalate	NS	ND	ND	ND	ND	ND	ND	0.061	ND	ND	ND	ND	ND	ND	5.61	0.202
Di-n-octyl phthalate	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.403	ND
Benzo(b)fluoranthene	5.6	1.94	1.62	1.24	0.534	0.081	0.439	0.302	1.21	ND	0.552	0.048	0.114	0.080	0.944	0.074
Benzo(k)fluoranthene	56	1.98	1.43	0.995	0.556	0.058	0.446	0.291	1.22	ND	0.721	0.068	0.157	0.083	1.07	0.082
Benzo(a)pyrene	1	**1.73**	**1.54**	**1.18**	0.587	0.074	0.423	0.304	**1.12**	ND	0.665	0.057	0.121	0.091	0.380	0.082
Indeno[1,2,3-cd]pyrene	5.6	1.04	0.788	0.573	0.248	0.044	0.212	0.158	0.407	0.060	0.242	0.050	0.067	0.041	0.174	0.102
Dibenz[a,h]anthracene	0.56	0.403	0.230	0.204	0.065	ND	0.063	ND	0.206	ND	0.105	ND	ND	ND	0.079	ND
Benzo[g,h,i]perylene	500	0.993	0.883	0.622	0.264	0.080	0.214	0.181	0.416	0.121	0.230	0.099	0.069	0.040	0.126	0.197
Distrotoluene (2,4- and 2,6-)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BN'S:	NS	30.6	25.1	17.1	9.24	1.19	8.16	4.82	17.7	0.506	12.1	0.892	2.43	1.21	22.1	1.62
TOTAL TIC's:	NS	8.91	6.59	6.42	1.27	ND	0.755	3.77	7.54	ND	2.53	ND	ND	ND	41.6	8.37
TOTAL BN'S & TIC's:	NS	39.5	31.7	23.5	10.5	1.19	8.92	8.59	25.2	0.506	14.6	0.892	2.43	1.21	63.7	9.99
PCB's (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Aroclor-1016	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1221	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1232	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1242	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1248	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1254	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1260	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1262	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1268	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCBs	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
alpha-BHC	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	9.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	62	ND	ND	0.068	0.00688	ND	ND	ND	0.046	ND	0.00255	ND	ND	ND	0.100	0.00402
Dieldrin	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	92	ND	ND	0.030	0.00473	ND	ND	ND	0.021	ND	ND	ND	ND	ND	0.027	ND
Endrin aldehyde	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	47	ND	ND	0.174	0.015	ND	ND	ND	0.081	ND	0.00736	ND	0.00338	ND	0.201	0.00891
Endrin ketone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan (I and II)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane (alpha and gamma)	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (mg/Kg)		Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Aluminum	NS	6320	9360	10800	7010	10000	5210	8210	7810	10000	9100	10100	7940	9550	8900	8180
Antimony	NS	0.831	0.864	1.97	1.94	0.332	2.16	1.86	2.36	0.616	0.765	ND	0.695	0.656	2.77	0.287
Arsenic	16	3.84	5.53	**14.3**	6.04	3.44	**21.7**	19.2	8.42	5.72	**78.4**	4.28	5.38	1.96	**11.0**	2.45
Barium	400	385	218	**935**	91.0	45.6	**707**	**508**	283	52.9	**696**	67.7	**524**	52.6	**680**	84.0
Beryllium	590	0.359	0.483	1.64	0.480	0.420	ND	0.348	1.76	0.495	0.463	0.538	0.448	0.520	0.761	0.404
Cadmium	9.3	0.451	ND	1.43	ND	ND	1.30	1.25	1.31	ND	0.538	ND	0.593	ND	2.01	ND
Calcium	NS	54400	19900	40900	5850	1500	59600	72000	11700	2230	54500	4170	41400	3680	45400	6930
Chromium	NS	41.5	18.6	34.6	12.3	16.3	11.6	19.5	39.0	21.7	19.0	17.9	21.0	18.1	44.9	15.9
Cobalt	NS	5.01	6.99	14.0	8.01	7.04	3.99	5.40	17.4	7.71	5.73	7.09	6.10	6.18	10.8	6.21
Copper	270	14.8	28.3	172	25.4	16.8	22.7	35.5	**322**	15.1	33.5	14.7	27.1	22.5	147	19.3
Iron	NS	13200	19700	29400	16200	17300	12100	20000	26400	19700	15200	18400	14900	17400	30900	16000
Lead	1000	566	167	970	98.7	38.0	**2730**	**2360**	592	34.3	620	79.7	**1920**	16.9	751	94.3
Magnesium	NS	3920	5080	4640	2940	3390	3150	7270	2550	3410	8220	3740	3920	4210	6150	3070
Manganese	10000	237	322	366	443	142	205	277	301	171	295	354	306	254	348	353
Mercury	2.8	0.346	0.241	0.650	0.156	0.066	1.59	1.41	0.422	0.063	0.421	0.091	ND	ND	0.467	0.274
Nickel	310	14.1	18.7	28.6	95.2	18.1	8.32	11.2	44.0	17.9	13.1	16.5	16.0	17.7	27.4	14.1
Potassium	NS	1610	1880	2250	1170	1200	1250	2370	1100	1500	2330	1650	2270	1620	1650	1400
Selenium	1500	1.04	2.36	1.80	1.12	1.65	2.42	3.12	1.54	2.37	0.676	2.40	1.46	1.55	1.62	1.41
Silver	1500	ND	ND	0.311	ND	ND	0.338	0.254	0.255	ND	ND	ND	ND	ND	0.357	ND
Sodium	NS	380	468	1050	416	174	348	1150	483	246	1030	211	342	729	889	325
Thallium	NS	0.315	ND	0.273	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NS	19.0	26.1	33.4	19.1	19.4	15.8	27.9	28.2	28.5	21.7	21.9	23.0	23.4	29.0	22.7
Zinc	10000	**1070**	246	**1760**	119	53.1	**1260**	963	**2290**	53.5	470	58.6	587	53.8	**1120**	71.4

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6NYCRR Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives & NYCRR Part 375-6.8(b) Restricted Use Soil Cleanup Objectives December 2006

BOLD Conc
BOLD RL
BOLD MDL
NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.
C = Common Laboratory and/or Bottle Contaminant.

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample #: Lab ID: Date Sampled: Depth(ft):	Part 375-6.8(b) Protection of Commercial (ppm)	SB-38(S) 10966-001 12/20/2017	SB-38(D) 10966-002 12/20/2017	SB-39(S) 10966-003 12/20/2017	SB-39(D) 10966-004 12/20/2017	SB-40(S) 10966-005 12/20/2017	SB-40(D) 10966-006 12/20/2017
Volatiles (mg/Kg)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND
Vinyl chloride	13	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND
Chloroethane	NS	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	500	ND	ND	ND	ND	ND	ND
Acetone	500	ND	0.015	ND	ND	ND	ND
Carbon disulfide	NS	ND	0.00134	ND	ND	ND	ND
Methylene chloride	500	ND	0.00471	ND	ND	ND	0.00878
trans-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	500	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	240	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	500	ND	ND	ND	ND	ND	ND
Bromochloromethane	NS	ND	ND	ND	ND	ND	ND
Chloroform	350	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	500	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	22	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	30	ND	ND	ND	ND	ND	ND
Benzene	44	ND	ND	ND	ND	ND	ND
Trichloroethene	200	ND	ND	0.216	0.00272	ND	0.000586
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND
1,4-Dioxane	130	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NS	ND	ND	ND	ND	ND	ND
Toluene	500	ND	ND	ND	ND	ND	0.000794
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND
Tetrachloroethene	150	1.82	ND	2.95	0.00337	1.55	0.011
2-Hexanone	NS	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	NS	ND	ND	ND	ND	ND	ND
Chlorobenzene	500	ND	ND	ND	ND	ND	ND
Ethylbenzene	390	ND	ND	ND	ND	ND	ND
Total Xylenes	500	ND	ND	ND	ND	ND	ND
Styrene	NS	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NS	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	280	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	130	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	500	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NS	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NS	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	ND	ND	ND	ND	ND	ND
Methyl acetate	NS	0.478	0.00161	ND	ND	ND	ND
Cyclohexane	NS	0.290	ND	ND	ND	ND	ND
Methylcyclohexane	NS	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene (cis- and trans-)	NS	ND	ND	ND	ND	ND	ND
TOTAL VO's:	NS	2.59	0.023	3.17	0.00609	1.55	0.021
TOTAL TIC's:	NS	ND	ND	ND	ND	ND	ND
TOTAL VO's & TIC's:	NS	2.59	0.023	3.17	0.00609	1.55	0.021
Semivolatiles - PAH (mg/Kg)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
Naphthalene	500	–	–	–	–	–	–
2-Methylnaphthalene	NS	–	–	–	–	–	–
Acenaphthylene	500	–	–	–	–	–	–
Acenaphthene	500	–	–	–	–	–	–
Fluorene	500	–	–	–	–	–	–
Phenanthrene	500	–	–	–	–	–	–
Anthracene	500	–	–	–	–	–	–
Fluoranthene	500	–	–	–	–	–	–
Pyrene	500	–	–	–	–	–	–
Benzo[a]anthracene	5.6	–	–	–	–	–	–
Chrysene	56	–	–	–	–	–	–
Benzo[b]fluoranthene	5.6	–	–	–	–	–	–
Benzo[k]fluoranthene	56	–	–	–	–	–	–
Benzo[a]pyrene	1	–	–	–	–	–	–
Indeno[1,2,3-cd]pyrene	5.6	–	–	–	–	–	–
Dibenz[a,h]anthracene	0.56	–	–	–	–	–	–
Benzo[g,h,i]perylene	500	–	–	–	–	–	–
PCB's (mg/Kg)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
Aroclor-1016	NS	ND	ND	ND	ND	ND	ND
Aroclor-1221	NS	ND	ND	ND	ND	ND	ND
Aroclor-1232	NS	ND	ND	ND	ND	ND	ND
Aroclor-1242	NS	ND	ND	ND	ND	ND	ND
Aroclor-1248	NS	ND	ND	ND	ND	ND	ND
Aroclor-1254	NS	ND	ND	ND	ND	ND	ND
Aroclor-1260	NS	ND	ND	ND	ND	ND	ND
Aroclor-1262	NS	ND	ND	ND	ND	ND	ND
Aroclor-1268	NS	ND	ND	ND	ND	ND	ND
PCBs	1	ND	ND	ND	ND	ND	ND
Pesticides (mg/Kg)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
alpha-BHC	3.4	ND	ND	ND	ND	ND	ND
beta-BHC	3	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	9.2	ND	ND	ND	ND	ND	ND
delta-BHC	500	ND	ND	ND	ND	ND	ND
Heptachlor	15	ND	ND	ND	ND	ND	ND
Aldrin	0.68	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	NS	ND	ND	ND	ND	ND	ND
Endosulfan I	200	ND	ND	ND	ND	ND	ND
4,4'-DDE	62	0.018	ND	0.00994	ND	0.00694	ND
Dieldrin	1.4	ND	ND	ND	ND	ND	ND
Endrin	89	ND	ND	ND	ND	ND	ND
Endosulfan II	200	ND	ND	ND	ND	ND	ND
4,4'-DDD	92	0.00922	ND	ND	ND	ND	ND
Endrin aldehyde	NS	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	200	ND	ND	ND	ND	ND	ND
4,4'-DDT	47	0.061	ND	0.065	ND	0.046	ND
Endrin ketone	NS	ND	ND	ND	ND	ND	ND
Methoxychlor	NS	ND	ND	ND	ND	ND	ND
alpha-Chlordane	24	ND	ND	ND	ND	ND	ND
gamma-Chlordane	NS	ND	ND	ND	ND	ND	ND
Toxaphene	NS	ND	ND	ND	ND	ND	ND
Endosulfan (I and II)	NS	ND	ND	ND	ND	ND	ND
Chlordane (alpha and gamma)	NS	ND	ND	ND	ND	ND	ND
NJ-EPH-DRO (mg/Kg)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
C9-C28	NS	–	–	–	–	–	–
C28-C40	NS	–	–	–	–	–	–
C9-C40 Total	NS	–	–	–	–	–	–
Metals (mg/Kg)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
Aluminum	NS	–	–	–	–	–	–
Antimony	NS	–	–	–	–	–	–
Arsenic	16	–	–	–	–	–	–
Barium	400	–	–	–	–	–	–
Beryllium	590	–	–	–	–	–	–
Cadmium	9.3	–	–	–	–	–	–
Calcium	NS	–	–	–	–	–	–
Chromium	NS	–	–	–	–	–	–
Cobalt	NS	–	–	–	–	–	–
Copper	270	–	–	–	–	–	–
Iron	NS	–	–	–	–	–	–
Lead	1000	–	–	–	–	–	–
Magnesium	NS	–	–	–	–	–	–
Manganese	10000	–	–	–	–	–	–
Mercury	2.8	–	–	–	–	–	–
Nickel	310	–	–	–	–	–	–
Potassium	NS	–	–	–	–	–	–
Selenium	1500	–	–	–	–	–	–
Silver	1500	–	–	–	–	–	–
Sodium	NS	–	–	–	–	–	–
Thallium	NS	–	–	–	–	–	–
Vanadium	NS	–	–	–	–	–	–
Zinc	10000	–	–	–	–	–	–
TCLP Metals (mg/L)		**Conc**	**Conc**	**Conc**	**Conc**	**Conc**	**Conc**
TCLP Arsenic	NS	–	–	–	–	–	–
TCLP Barium	NS	–	–	–	–	–	–
TCLP Cadmium	NS	–	–	–	–	–	–
TCLP Chromium	NS	–	–	–	–	–	–
TCLP Lead	NS	–	–	–	–	–	–
TCLP Mercury	NS	–	–	–	–	–	–
TCLP Selenium	NS	–	–	–	–	–	–
TCLP Silver	NS	–	–	–	–	–	–

6NYCRR Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives & NYCRR Part 375-6.8(b) Restricted Use Soil Cleanup Objectives December 2006

BOLD Conc

BOLD RL

BOLD MDL

NS = No Standard Available

– = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

C = Common Laboratory and/or Bottle Contaminant.

Sample #1-#6 were composited to create sample #9

D = The compound was reported from the Diluted analysis

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID	SB-56A	SB-56B	SB-56C	SB-57A	SB-57B	SB-57C	SB-58A	SB-58B	SB-58C	SB-59A	SB-59B	SB-59C	SB-60A	SB-60B	SB-60C
York ID	18K0528-01	18K0528-02	18K0528-03	18K0528-04	18K0528-05	18K0528-06	18K0528-07	18K0528-08	18K0528-09	18K0528-10	18K0528-11	18K0528-12	18K0528-13	18K0528-14	18K0528-15
Sampling Date	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018
Client Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Compound	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	100	1	1	1	100	1	100	1	1	1	1	1	1	1
1,1,1-Trichloroethane	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,1-Dichloroethane	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,1-Dichloroethylene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,2,4-Trimethylbenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,2-Dichlorobenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,2-Dichloroethane	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,3,5-Trimethylbenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,3-Dichlorobenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,4-Dichlorobenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
1,4-Dioxane	0.0570	0.0570	0.0570	0.0560	0.0590	0.0580	0.0510	0.0640	0.0590	0.0540	0.0550	0.0520	0.0530	0.0560	0.0580
2-Butanone	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Acetone	0.0110	0.0270	0.00820	0.0100	0.00740	0.0120	0.120	0.0110	0.0120	0.0230	0.0100	0.00640	0.0290	0.00560	0.0240
Benzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Carbon tetrachloride	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Chlorobenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Chloroform	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
cis-1,2-Dichloroethylene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Ethyl Benzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Methyl tert-butyl ether (MTBE)	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Methylene chloride	0.0200	0.0150	0.00570	0.0160	0.0130	0.00930	0.0140	0.0130	0.0180	0.0180	0.0190	0.0210	0.0150	0.0130	0.0130
Naphthalene	0.00280	0.0160	0.00590	0.00280	0.00380	0.00730	0.00260	0.00760	0.00310	0.00270	0.00400	0.00260	0.00270	0.00410	0.00290
n-Butylbenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
n-Propylbenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
o-Xylene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
p- & m- Xylenes	0.00570	0.00570	0.00570	0.00560	0.00590	0.00580	0.00510	0.00640	0.00590	0.00540	0.00550	0.00520	0.00530	0.00560	0.00580
sec-Butylbenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
tert-Butylbenzene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Tetrachloroethylene	0.0170	14	0.0950	0.0130	0.100	12	0.00290	9.600	0.00580	0.00390	0.0880	0.00260	0.0780	0.120	0.0100
Toluene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
trans-1,2-Dichloroethylene	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Trichloroethylene	0.00280	0.0320	0.00290	0.00280	0.00300	0.0110	0.00260	0.00740	0.00300	0.00270	0.00410	0.00260	0.00260	0.00280	0.00290
Vinyl Chloride	0.00280	0.00280	0.00290	0.00280	0.00290	0.00290	0.00260	0.00320	0.00300	0.00270	0.00270	0.00260	0.00260	0.00280	0.00290
Xylenes, Total	0.00850	0.00850	0.00860	0.00840	0.00880	0.00870	0.00770	0.00960	0.00890	0.00810	0.00820	0.00770	0.00790	0.00850	0.00870
Petroleum Identification															
Dilution Factor															
Petroleum Identification	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	2	2	2	2	2	2	2	100	2	25	2	2	2	2	2
2-Methylphenol	0.0472	0.0473	0.0480	0.0464	0.0489	0.0488	0.0429	0.0531	0.0495	0.0449	0.0459	0.0433	0.0440	0.0469	0.0487
3- & 4-Methylphenols	0.0472	0.0473	0.0480	0.0464	0.0489	0.0488	0.0429	0.130	0.0495	0.0449	0.0459	0.0433	0.0440	0.0469	0.0487
Acenaphthene	0.0685	0.0566	0.0480	0.0464	0.0489	0.0488	0.0429	6.350	0.0980	1.210	0.132	0.0433	0.140	0.141	0.0487
Acenaphthylene	0.370	0.0473	0.0480	0.147	0.0489	0.0488	0.0429	1.980	0.231	0.529	0.369	0.0433	0.133	0.114	0.0512
Anthracene	0.304	0.151	0.0480	0.108	0.0569	0.115	0.0429	18.500	0.325	2.520	0.588	0.0433	0.323	0.364	0.0598
Benzo(a)anthracene	**1.590**	0.415	0.0957	0.486	0.222	0.285	0.0429	**49.100**	**1.160**	**19.100**	0.526	0.0433	0.874	0.880	0.345
Benzo(a)pyrene	**1.530**	0.370	0.0865	0.478	0.214	0.268	0.0429	**47.300**	**1.180**	**21**	0.528	0.0433	0.793	0.925	0.404
Benzo(b)fluoranthene	1.380	0.340	0.0750	0.462	0.207	0.217	0.0429	**39.400**	1.150	**17.300**	0.572	0.0433	0.742	0.771	0.325
Benzo(g,h,i)perylene	1.090	0.278	0.0605	0.376	0.166	0.170	0.0429	26.500	0.804	10.100	0.717	0.0433	0.487	0.579	0.274
Benzo(k)fluoranthene	1.230	0.289	0.0673	0.419	0.185	0.206	0.0429	**29.100**	1.170	**13.300**	0.497	0.0433	0.662	0.780	0.321
Chrysene	**1.560**	0.434	0.0987	0.513	0.243	0.306	0.0429	**48.400**	**1.430**	**18.100**	0.505	0.0433	0.918	0.888	0.338
Dibenz(a,h)anthracene	0.356	0.0701	0.0480	0.129	0.0489	0.0488	0.0429	**6.710**	0.282	**2.530**	0.146	0.0433	0.171	0.132	0.0512
Dibenzofuran	0.0474	0.0473	0.0480	0.0464	0.0489	0.0488	0.0429	2.270	0.107	1.230	0.223	0.0433	0.0751	0.111	0.0487
Fluoranthene	2.990	0.926	0.191	0.984	0.423	0.594	0.0429	80.300	2.550	32.400	1.380	0.0433	1.750	1.770	0.482
Fluorene	0.0851	0.0588	0.0480	0.0464	0.0489	0.0488	0.0429	6.240	0.133	1.120	0.124	0.0433	0.117	0.126	0.0487
Hexachlorobenzene	0.0472	0.0473	0.0480	0.0464	0.0489	0.0488	0.0429	0.0531	0.0495	0.0449	0.0459	0.0433	0.0440	0.0469	0.0487
Indeno(1,2,3-cd)pyrene	1.010	0.210	0.0513	0.345	0.162	0.188	0.0429	**29.500**	0.878	**12.800**	0.629	0.0433	0.572	0.624	0.252
Naphthalene	0.0472	0.0473	0.0480	0.0464	0.0489	0.0654	0.0429	1.900	0.134	0.941	0.300	0.0433	0.0597	0.0957	0.0487
Pentachlorophenol	0.0472	0.0473	0.0480	0.0464	0.0489	0.0488	0.0429	0.0531	0.0495	0.0449	0.0459	0.0433	0.0440	0.0469	0.0487
Phenanthrene	1.470	0.826	0.144	0.489	0.319	0.537	0.0429	78.300	2.090	24.700	1.350	0.0433	1.600	1.550	0.204
Phenol	0.0472	0.0473	0.0480	0.0464	0.0489	0.0488	0.0429	0.0531	0.0495	0.0449	0.0459	0.0433	0.0440	0.0469	0.0487
Pyrene	2.720	0.952	0.195	0.935	0.452	0.593	0.0429	110	2.240	35.500	1.110	0.0433	1.740	1.780	0.529
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
4,4'-DDD	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
4,4'-DDE	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
4,4'-DDT	0.124	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.0143	0.0204	0.00165	0.0153	0.0133	0.00165
Aldrin	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
alpha-BHC	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
alpha-Chlordane	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
beta-BHC	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
delta-BHC	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Dieldrin	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Endosulfan I	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Endosulfan II	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Endosulfan sulfate	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Endrin	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
gamma-BHC (Lindane)	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Heptachlor	0.00165	0.00165	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00165	0.00165
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Aluminum	6,720	2,680	6,610	4,020	4,760	9,920	3,530	4,520	6,640	4,660	9,530	5,260	5,460	7,260	8,620
Antimony	2.830	3.330	2.870	2.790	2.930	2.910	2.560	18.100	2.960	2.720	2.740	2.580	2.630	2.820	2.910
Arsenic	10	11.800	2.280	13	1.760	2.160	1.540	12.700	6.010	5.360	7.640	1.550	3.330	4.870	12.500
Barium	**1,540**	89.900	85.200	**945**	178	73.500	20	**546**	**653**	279	**594**	66.800	244	**466**	202
Beryllium	0.683	0.167	0.0570	0.0560	0.301	0.0580	0.0510	0.0640	0.0590	0.0540	2.360	0.0520	0.271	0.0560	0.130
Cadmium	1.340	0.783	2.420	0.749	7.190	0.735	0.308	3.610	2.340	1.820	1.850	0.310	0.981	1.390	0.857
Calcium	55,100	21,100	16,100	61,100	21,400	43,000	549	6,640	45,200	12,000	20,900	16,800	15,500	15,100	15,900
Chromium	25	7.810	12.100	9.710	13.100	12.500	6.530	17.600	11.800	110	44	14	15.800	20.900	11.200
Cobalt	8.940	4.010	8.140	6.510	12.400	42.100	4.520	8.270	8.930	9.500	19.900	6.510	7.110	8.900	5.850
Copper	76.400	**481**	45	16	116	**855**	7.220	**331**	63.200	181	**280**	9.750	74	176	54.600
Iron	13,500	15,400	20,800	8,650	84,700	21,500	9,280	23,500	13,400	17,300	25,700	8,340	12,900	16,600	10,600
Lead	**896**	430	200	**627**	381	52	2.630	**1,220**	**2,200**	**897**	**1,050**	4.190	411	**772**	**691**
Magnesium	4,540	4,660	6,450	4,380	610	13,600	1,710	1,850	3,530	2,010	3,190	4,780	2,730	2,590	2,480
Manganese	303	111	360	232	446	657	165	404	326	282	325	559	226	240	362
Nickel	18.300	24.600	20.800	10.400	90.400	**2,330**	9.260	24.500	13.200	26.900	42.400	10.100	16.700	29.500	11.300
Potassium	1,620	447	1,870	937	800	1,460	1,220	709	1,880	1,160	2,300	921	1,370	1,680	808
Selenium	2.830	2.840	2.870	2.790	2.930	2.910	2.560	3.190	2.960	2.690	2.740	2.580	2.630	2.820	2.910
Silver	0.567	0.567	0.574	0.557	0.586	0.582	0.513	0.637	0.593	0.537	0.548	0.516	0.527	0.565	0.582
Sodium	522	816	519	253	867	858	178	995	901	705	1,170	491	288	332	1,130
Thallium	2.830	2.840	2.870	2.790	5.030	2.910	2.560	3.190	2.960	2.690	2.740	2.580	2.630	2.820	2.910
Vanadium	20	14.700	19.100	11	25.900	18.500	8.030	20.500	21.400	23.300	31	20.500	19	48.500	21.500
Zinc	1,330	315	354	803	874	947	16	1,290	1,160	897	2,240	79	372	450	354
Mercury by 7473	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mercury	0.719	0.375	0.298	0.380	0.390	0.253	0.0308	1.680	0.572	0.957	0.734	0.0310	0.339	1.020	0.224
Chromium, Hexavalent	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium, Hexavalent	2.720	0.567	0.574	0.557	0.586	0.582	0.513	0.637	0.593	0.537	0.548	0.516	0.527	0.565	0.582
Chromium, Trivalent	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium, Trivalent	22.300	7.810	12.100	9.710	13.100	12.500	6.530	17.600	11.800	110	44	14	15.800	20.900	11.200
Cyanide, Total	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cyanide, Total	0.776	1.130	0.574	0.607	0.586	0.582	0.513	1.450	0.593	0.693	0.548	0.516	0.527	0.565	0.582
Total Solids	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
% Solids	88.200	88.100	87.100	89.700	85.300	85.900	97.500	78.500	84.400	93.100	91.300	96.900	95	88.600	85.900
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Aroclor 1016	0.0189	0.0189	0.0191	0.0186	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0188	0.0194
Aroclor 1221	0.0189	0.0189	0.0191	0.0186	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0188	0.0194
Aroclor 1232	0.0189	0.0189	0.0191	0.0186	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0188	0.0194
Aroclor 1242	0.0189	0.0189	0.0191	0.0186	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0188	0.0194
Aroclor 1248	0.0189	0.0189	0.0191	0.0186	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0188	0.0194
Aroclor 1254	0.0189	0.0189	0.0191	0.0666	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0188	0.0194
Aroclor 1260	0.0189	0.0189	0.0191	0.0186	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0236	0.0194
Total PCBs	0.0189	0.0189	0.0191	0.0666	0.0195	0.0194	0.0171	0.0212	0.0197	0.0179	0.0182	0.0172	0.0175	0.0236	0.0194

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID	SB-61A	SB-61B	SB-61C	SB-62	SB-63	SB-64A	SB-64B	SB-65A	SB-65B	SB-66A	SB-66B
York ID	18K0528-16	18K0528-17	18K0528-18	18K0528-19	18K0528-20	18K0528-21	18K0528-22	18K0528-23	18K0528-24	18K0528-25	18K0528-26
Sampling Date	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018
Client Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Compound	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1	1	100	1	1	1	1	1	1
1,1,1-Trichloroethane	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,1-Dichloroethane	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,1-Dichloroethylene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,2,4-Trimethylbenzene	0.00270	0.00290	0.00310	0.00280	1.100	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,2-Dichlorobenzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,2-Dichloroethane	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,3,5-Trimethylbenzene	0.00270	0.00290	0.00310	0.00280	0.370	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,3-Dichlorobenzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,4-Dichlorobenzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
1,4-Dioxane	0.0540	0.0590	0.0610	0.0550	0.0550	0.0520	0.0560	0.0550	0.0520	0.0540	0.0580
2-Butanone	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Acetone	0.00540	0.00590	0.00610	0.00550	0.0510	0.00700	0.00920	0.00550	0.00520	0.00540	0.00580
Benzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00630	0.00260	0.00270	0.00290
Carbon tetrachloride	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Chlorobenzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Chloroform	0.00270	0.00290	0.00310	0.00290	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
cis-1,2-Dichloroethylene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Ethyl Benzene	0.00270	0.00290	0.00310	0.00280	0.610	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Methyl tert-butyl ether (MTBE)	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Methylene chloride	0.00540	0.00720	0.0140	0.00730	0.00550	0.0110	0.0100	0.00920	0.00520	0.00540	0.00980
Naphthalene	0.00270	0.00730	0.00650	0.00310	0.0300	0.00260	0.00280	0.180	0.00260	0.00270	0.00290
n-Butylbenzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
n-Propylbenzene	0.00270	0.00290	0.00310	0.00280	1.100	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
o-Xylene	0.00270	0.00290	0.00310	0.00280	0.0370	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
p- & m- Xylenes	0.00540	0.00590	0.00610	0.00550	0.0430	0.00520	0.00560	0.00550	0.00520	0.00540	0.00580
sec-Butylbenzene	0.00270	0.00290	0.00310	0.00280	0.920	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
tert-Butylbenzene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Tetrachloroethylene	0.0260	0.210	0.0560	0.0370	0.00690	0.00350	0.00900	0.0310	0.00760	0.0250	0.0680
Toluene	0.00270	0.00290	0.00310	0.00280	0.00360	0.00270	0.00280	0.00280	0.00260	0.00270	0.00290
trans-1,2-Dichloroethylene	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Trichloroethylene	0.00270	0.00830	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Vinyl Chloride	0.00270	0.00290	0.00310	0.00280	0.00280	0.00260	0.00280	0.00280	0.00260	0.00270	0.00290
Xylenes, Total	0.00810	0.00880	0.00920	0.00830	0.0790	0.00780	0.00840	0.00830	0.00770	0.00810	0.00860
Petroleum Identification				ID only	ID only						
Dilution Factor				10	10						
Petroleum Identification	NT	NT	NT	0	0	NT	NT	NT	NT	NT	NT
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	2	20	10			10	5	50	2	2	100
2-Methylphenol	0.0445	0.0488	0.0509	NT	NT	0.327	0.0470	0.231	0.0431	0.0451	0.0480
3- & 4-Methylphenols	0.0445	0.0488	0.0509	NT	NT	0.327	0.0470	0.231	0.0431	0.0451	0.0934
Acenaphthene	0.270	2.150	0.348	NT	NT	0.327	0.278	2.700	0.0431	0.0451	5.270
Acenaphthylene	0.339	0.459	0.572	NT	NT	0.327	0.409	3.530	0.0431	0.0504	1.210
Anthracene	0.711	3.880	1.110	NT	NT	0.327	0.748	7.220	0.0640	0.0497	16.800
Benzo(a)anthracene	1.840	**7.940**	**3.930**	NT	NT	0.327	**1.950**	**20.300**	0.292	0.178	31.600
Benzo(a)pyrene	**1.780**	**7.460**	**4.210**	NT	NT	0.327	**1.980**	**18.700**	0.371	0.237	**32**
Benzo(b)fluoranthene	1.650	**5.890**	**3.670**	NT	NT	0.327	1.700	**14.400**	0.303	0.204	26.500
Benzo(g,h,i)perylene	0.962	5.290	2.660	NT	NT	0.327	1.400	10.500	0.239	0.176	20.400
Benzo(k)fluoranthene	1.460	6.180	3.610	NT	NT	0.327	1.730	17.200	0.329	0.197	26.800
Chrysene	**1.820**	8.430	4.510	NT	NT	0.327	2.180	20.800	0.336	0.211	32.600
Dibenzo(a,h)anthracene	0.238	**1.580**	**1.010**	NT	NT	0.327	0.493	**4.280**	0.0791	0.0451	**6.960**
Dibenzofuran	0.227	0.0488	0.212	NT	NT	0.327	0.221	2.210	0.0431	0.0451	3.310
Fluoranthene	NT	20.200	9.200	NT	NT	0.448	5.870	48.300	0.713	0.386	91.200
Fluorene	0.290	1.890	0.310	NT	NT	0.327	0.350	3.680	0.0431	0.0451	5.310
Hexachlorobenzene	0.0445	0.0488	0.0509	NT	NT	0.327	0.0470	0.231	0.0431	0.0451	0.0480
Indeno(1,2,3-cd)pyrene	1.190	4.620	2.470	NT	NT	0.327	1.300	**10.700**	0.219	0.156	**20.300**
Naphthalene	0.205	1.260	0.195	NT	NT	0.327	0.364	2.410	0.0431	0.0451	0.476
Pentachlorophenol	0.0445	0.0488	0.0509	NT	NT	0.327	0.0470	0.231	0.0431	0.0451	0.0480
Phenanthrene	2.160	23.100	5.550	NT	NT	0.327	5.030	39.900	0.385	0.177	78
Phenol	0.0445	0.0488	0.0509	NT	NT	0.327	0.0470	0.231	0.0431	0.0451	0.0480
Pyrene	2.810	17	7.220	NT	NT	0.443	4.600	35.500	0.518	0.302	70.300
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	5	5	5			5	5	5	5	5	5
4,4'-DDD	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
4,4'-DDE	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
4,4'-DDT	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Aldrin	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
alpha-BHC	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
alpha-Chlordane	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
beta-BHC	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
delta-BHC	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Dieldrin	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Endosulfan I	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Endosulfan II	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Endosulfan sulfate	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Endrin	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
gamma-BHC (Lindane)	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Heptachlor	0.00164	0.00165	0.00165	NT	NT	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1			1	1	1	1	1	1
Aluminum	7,310	5,100	8,070	NT	NT	4,240	7,640	6,970	3,190	3,540	10,500
Antimony	2.690	2.930	4.560	NT	NT	2.600	2.790	2.760	2.580	2.700	2.880
Arsenic	3.910	3.960	**19.600**	NT	NT	1.690	8.180	10.800	3.540	2.650	1.730
Barium	263	**709**	**573**	NT	NT	14.200	**740**	**835**	43.600	67.900	88
Beryllium	1.420	0.0590	0.203	NT	NT	0.0520	0.0560	0.0550	0.0520	0.0540	0.0580
Cadmium	1.240	1.240	2.790	NT	NT	0.481	1.420	1.140	0.310	0.324	0.569
Calcium	16,200	20,600	8,410	NT	NT	58,900	48,500	53,500	13,900	7,440	29,700
Chromium	26.600	24	37.200	NT	NT	3.320	25.800	22	7.820	7.080	19.100
Cobalt	15.600	8.980	9.630	NT	NT	5.310	7.330	8.800	3.720	4.430	7.690
Copper	231	152	247	NT	NT	25.500	54.700	86	69.500	17.200	43.800
Iron	27,200	44,500	29,100	NT	NT	9,550	19,900	16,200	7,620	6,260	17,000
Lead	**596**	**2,450**	**1,670**	NT	NT	23.900	**686**	**1,910**	19.600	126	**533**
Magnesium	2,890	1,740	2,900	NT	NT	29,700	5,400	5,730	7,520	1,580	3,160
Manganese	290	323	416	NT	NT	134	299	276	140	223	223
Nickel	46.600	27.300	28.400	NT	NT	5.970	20.700	16.700	11.100	7.710	17.800
Potassium	2,380	668	894	NT	NT	591	1,600	1,470	635	1,190	2,730
Selenium	2.690	2.930	3.070	NT	NT	**11.200**	2.790	2.760	2.580	2.700	2.880
Silver	0.537	0.586	0.613	NT	NT	0.520	0.559	0.553	0.516	0.540	0.576
Sodium	538	1,460	1,270	NT	NT	746	757	498	494	474	672
Thallium	2.690	2.930	3.070	NT	NT	2.600	2.790	2.760	2.580	2.700	2.880
Vanadium	31.600	14.600	25.900	NT	NT	36.500	24.700	31.300	10.100	10	24.100
Zinc	1,330	425	833	NT	NT	23.900	572	594	38.100	169	80.200
Mercury by 7473	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1			1	1	1	1	1	1
Mercury	0.469	**2.530**	**4.780**	NT	NT	0.0332	0.493	**1.750**	0.224	0.0608	0.0897
Chromium, Hexavalent	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1			1	1	1	1	1	1
Chromium, Hexavalent	0.537	0.586	0.613	NT	NT	0.520	0.559	0.553	0.516	0.540	0.576
Chromium, Trivalent	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1			1	1	1	1	1	1
Chromium, Trivalent	26.600	24	37.200	NT	NT	3.320	28.800	22	7.820	7.080	19.100
Cyanide, Total	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1			1	1	1	1	1	1
Cyanide, total	0.543	0.586	2.230	NT	NT	0.520	0.559	0.912	0.516	0.540	0.576
Total Solids	%	%	%	%	%	%	%	%	%	%	%
Dilution Factor	1	1	1	1	1	1	1	1	1	1	1
% Solids	93	85.400	81.500	90.200	90.300	96.200	89.500	90.500	96.900	92.600	86.800
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg	mg/Kg			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1	1			1	1	1	1	1	1
Aroclor 1016	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0184	0.0172	0.0179	0.0192
Aroclor 1221	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0184	0.0172	0.0179	0.0192
Aroclor 1232	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0184	0.0172	0.0179	0.0192
Aroclor 1242	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0184	0.0172	0.0179	0.0192
Aroclor 1248	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0184	0.0172	0.0179	0.0192
Aroclor 1254	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0184	0.0172	0.0179	0.0192
Aroclor 1260	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0192	0.0172	0.0179	0.0192
Total PCBs	0.0178	0.0195	0.0204	NT	NT	0.0173	0.0186	0.0192	0.0172	0.0179	0.0192

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte



Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SB-67A	SB-67B	SB-68A	SB-68B	SB-69A	SB-69B	SB-70A	SB-70B	SB-71A	SB-71B	SB-72A	SB-72B	SB-72C
York ID		18K0528-27	18K0528-28	18K0528-29	18K0528-30	18K0528-31	18K0528-32	18K0636-01	18K0636-02	18K0636-03	18K0636-04	18K0636-05	18K0636-06	18K0636-07
Sampling Date		11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/13/2018	11/14/2018	11/14/2018	11/14/2018	11/14/2018	11/14/2018	11/14/2018	11/14/2018
Client Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Compound		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	100	1	1	1	1	1	1	1	1	1	1
1,1,1-Trichloroethane	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,1-Dichloroethane	240	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,1-Dichloroethylene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,2,4-Trimethylbenzene	190	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,2-Dichlorobenzene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,2-Dichloroethane	30	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,3,5-Trimethylbenzene	190	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,3-Dichlorobenzene	280	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,4-Dichlorobenzene	130	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
1,4-Dioxane	130	0.0520	0.0560	0.0510	0.0550	0.0500	0.0540	0.0540	0.0550	0.0540	0.0600	0.0550	0.0600	0.0610
2-Butanone	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Acetone	500	0.00520	0.00560	0.00510	0.00550	0.00500	0.00540	0.00540	0.00550	0.00540	0.00600	0.00550	0.00600	0.00610
Benzene	44	0.00260	0.00550	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Carbon tetrachloride	22	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Chlorobenzene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Chloroform	350	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
cis-1,2-Dichloroethylene	500	0.00260	0.00280	0.0930	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Ethyl Benzene	390	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Methyl tert-butyl ether (MTBE)	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Methylene chloride	500	0.00530	0.00560	0.00710	0.00550	0.00690	0.00960	0.00540	0.00550	0.00560	0.00600	0.00550	0.00790	0.00610
Naphthalene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00380
n-Butylbenzene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
n-Propylbenzene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
o-Xylene	~	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
p- & m- Xylenes	~	0.00520	0.00560	0.00510	0.00550	0.00500	0.00540	0.00540	0.00550	0.00540	0.00600	0.00550	0.00600	0.00610
sec-Butylbenzene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
tert-Butylbenzene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Tetrachloroethylene	150	0.100	0.00280	1.200	0.160	0.00810	0.0110	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Toluene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
trans-1,2-Dichloroethylene	500	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Trichloroethylene	200	0.00260	0.00280	0.0230	0.00410	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Vinyl Chloride	13	0.00260	0.00280	0.00260	0.00280	0.00250	0.00270	0.00270	0.00280	0.00270	0.00300	0.00270	0.00300	0.00310
Xylenes, Total	500	0.00780	0.00840	0.00770	0.00830	0.00750	0.00810	0.00810	0.00830	0.00810	0.00910	0.00820	0.00890	0.00920
Petroleum Identification														
Dilution Factor														
Petroleum Identification	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		10	2	10	2	10	5	10	2	2	25	2	2	2
2-Methylphenol	500	0.217	0.0468	0.326	0.0461	0.210	0.0453	0.225	0.0461	0.0450	0.0505	0.0458	0.0462	0.0445
3- & 4-Methylphenols	~	0.217	0.0468	0.326	0.0461	0.210	0.0453	0.225	0.0461	0.0450	0.0505	0.0458	0.0462	0.0445
Acenaphthene	500	0.217	0.0807	0.326	0.0461	0.210	0.0730	0.225	0.0654	0.132	0.452	0.0458	0.0462	0.0445
Acenaphthylene	500	0.217	0.0680	0.326	0.0461	0.210	0.581	0.225	0.0461	0.281	0.241	0.196	0.108	0.0445
Anthracene	500	0.505	0.279	0.326	0.112	0.210	0.478	0.225	0.156	0.357	1.170	0.191	0.132	0.0445
Benzo(a)anthracene	5.6	**3.520**	0.982	0.665	0.973	0.969	**1.470**	0.616	0.357	**1.110**	**12.500**	0.721	0.551	0.0445
Benzo(a)pyrene	1	**3.900**	**1.040**	0.784	**1.080**	**1.400**	**2.160**	0.609	0.341	**1.150**	**12.200**	0.737	0.528	0.0445
Benzo(b)fluoranthene	5.6	**4.210**	0.830	0.987	1.370	**1.730**	**2.350**	0.551	0.259	1.020	**11.200**	0.662	0.442	0.0445
Benzo(g,h,i)perylene	500	3.080	0.653	0.665	0.891	1.220	1.860	0.405	0.184	0.749	6.240	0.492	0.346	0.0445
Benzo(k)fluoranthene	56	**3.880**	0.902	0.805	1.080	1.370	**2.080**	0.555	0.289	1	**10.500**	0.624	0.468	0.0445
Chrysene	56	**4.810**	**1.120**	0.899	**1.290**	**1.440**	**1.910**	0.634	0.365	**1.200**	**13.500**	0.755	0.550	0.0445
Dibenz(a,h)anthracene	0.56	**0.886**	0.232	0.326	0.348	0.466	**0.691**	0.225	0.0470	0.197	**2.780**	0.128	0.0892	0.0445
Dibenzofuran	350	0.217	0.0468	0.326	0.0461	0.210	0.0453	0.225	0.0500	0.100	0.0620	0.0458	0.0462	0.0445
Fluoranthene	500	10.100	2.210	1.600	2.430	2.160	2.960	1.110	0.740	2.060	18.100	1.280	0.928	0.0445
Fluorene	500	0.294	0.0926	0.326	0.0461	0.210	0.0997	0.225	0.0750	0.143	0.273	0.0607	0.0462	0.0445
Hexachlorobenzene	6	0.217	0.0468	0.326	0.0461	0.210	0.0453	0.225	0.0461	0.0450	0.0505	0.0458	0.0462	0.0445
Indeno(1,2,3-cd)pyrene	5.6	2.840	0.601	0.691	0.885	1.180	1.720	0.476	0.222	0.832	**7.710**	0.547	0.376	0.0445
Naphthalene	500	0.217	0.103	0.326	0.0461	0.210	0.0453	0.225	0.0461	0.0732	0.0505	0.0458	0.0462	0.0445
Pentachlorophenol	6.7	0.217	0.0468	0.326	0.0461	0.210	0.0453	0.225	0.0461	0.0450	0.0505	0.0458	0.0462	0.0445
Phenanthrene	500	4.540	1.430	0.369	0.642	0.429	1.160	0.759	0.707	1.600	5.170	0.807	0.541	0.0445
Phenol	500	0.217	0.0468	0.326	0.0461	0.210	0.0453	0.225	0.0461	0.0450	0.0505	0.0458	0.0462	0.0445
Pyrene	500	6.560	1.770	1.170	1.670	1.720	2.440	1.220	0.763	2.170	22.500	1.330	0.940	0.0445
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		5	5	5	5	5	5	5	5	5	5	5	5	5
4,4'-DDD	92	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
4,4'-DDE	62	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
4,4'-DDT	47	0.00165	0.00165	0.00164	0.00165	0.00165	0.0260	0.0369	0.00165	0.0354	0.00165	0.00164	0.00165	0.00164
Aldrin	0.68	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
alpha-BHC	3.4	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
alpha-Chlordane	24	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
beta-BHC	3	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
delta-BHC	500	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Dieldrin	1.4	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Endosulfan I	200	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Endosulfan II	200	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Endosulfan sulfate	200	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Endrin	89	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
gamma-BHC (Lindane)	9.2	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Heptachlor	15	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00165	0.00164	0.00165	0.00164	0.00165	0.00164
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Aluminum	~	3,200	10,200	2,760	6,630	8,220	8,020	6,230	8,780	7,990	10,400	8,240	6,790	3,910
Antimony	~	2.600	2.810	2.570	2.760	2.510	2.710	2.690	2.770	4.320	3.020	2.740	2.770	2.670
Arsenic	16	2.030	1.690	2.630	2.330	1.510	8.330	4.520	2.010	10.300	8.650	**30.600**	1.660	1.600
Barium	400	19.700	266	115	127	13	**425**	**530**	71.300	**717**	283	**433**	134	34
Beryllium	590	0.0520	0.0560	0.0510	0.0550	0.0500	0.0540	0.855	0.0550	2.030	0.513	4.340	0.484	0.0530
Cadmium	9.3	0.312	0.437	0.677	0.442	0.304	1.580	1.590	0.332	3.810	1.620	1.290	0.333	0.321
Calcium	~	31,200	3,250	59,400	49,600	50,300	13,300	30,700	9,990	34,300	6,960	25,500	3,230	1,080
Chromium	~	15.800	25	9.980	14.300	2.190	43.100	55.300	14.200	193	226	40.500	18.300	7.550
Cobalt	~	4.670	16.800	4.250	7.740	10.200	14.600	26.200	7.130	21.900	10.100	13.100	7.620	4.150
Copper	270	34.400	72.200	56.700	39.600	59.600	144	**329**	37	**385**	100	232	61.100	9.300
Iron	~	9,490	24,300	7,880	14,700	19,300	26,000	25,500	14,600	36,000	22,100	24,100	12,100	7,290
Lead	1000	81.800	160	179	57.500	8.900	**3,420**	**944**	153	**1,830**	**531**	**1,090**	**458**	3.620
Magnesium	~	16,500	6,090	28,000	7,950	27,300	4,460	4,670	2,800	3,460	2,600	5,330	2,160	1,550
Manganese	10000	123	468	107	153	205	263	297	179	337	355	343	267	214
Nickel	310	8.560	34	9.330	10.500	6.640	39	39.900	14.900	71.900	35.200	29.700	16.100	6.080
Potassium	~	504	6,760	504	3,680	355	3,430	1,550	1,560	1,650	1,450	1,100	919	837
Selenium	1500	3.300	2.810	**11.200**	2.760	2.510	2.710	2.690	2.770	2.690	3.020	2.740	2.770	2.670
Silver	1500	0.519	0.562	0.514	0.551	0.503	0.542	0.537	0.553	0.538	2.280	0.548	3.730	0.534
Sodium	~	396	352	343	879	1,110	350	851	407	664	1,550	874	497	321
Thallium	~	2.600	2.810	2.570	2.760	2.510	2.710	2.690	2.770	2.690	3.020	2.740	2.770	2.670
Vanadium	~	29.600	44	19.100	35.300	54.800	36.600	37.800	19	41.400	32.200	26.400	16.600	11.300
Zinc	10000	40.600	76.700	253	79.400	13.500	860	1.990	70.600	**2,570**	588	1,560	344	51.200
Mercury by 7473	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Mercury	2.8	0.0597	0.226	0.171	0.0560	0.0302	0.572	0.475	0.200	0.520	0.322	0.643	0.0856	0.0321
Chromium, Hexavalent	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium, Hexavalent	400	4.490	0.562	0.514	0.551	0.503	0.542	0.537	0.553	12.500	3.040	0.548	2.400	0.534
Chromium, Trivalent	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium, Trivalent	1500	15.800	20.500	9.980	14.400	2.190	43.100	55.300	14.200	180	223	40.500	15.900	7.550
Cyanide, Total	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Cyanide, total	27	0.519	0.742	0.751	0.551	25.100	0.726	0.537	0.553	0.560	0.604	1.260	0.555	0.534
Total Solids		%	%	%	%	%	%	%	%	%	%	%	%	%
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
% Solids	~	96.300	89	97.200	90.700	99.400	92.300	93.100	90.400	92.900	82.800	91.200	90.200	93.600
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Aroclor 1016	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0180	0.0179	0.0184	0.0179	0.0201	0.0182	0.0185	0.0177
Aroclor 1221	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0180	0.0179	0.0184	0.0179	0.0201	0.0182	0.0185	0.0177
Aroclor 1232	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0180	0.0179	0.0184	0.0179	0.0201	0.0182	0.0185	0.0177
Aroclor 1242	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0180	0.0179	0.0184	0.0179	0.0201	0.0182	0.0185	0.0177
Aroclor 1248	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0180	0.0179	0.0184	0.0179	0.0201	0.0182	0.0185	0.0177
Aroclor 1254	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0180	0.0179	0.0184	0.0179	0.0201	0.0182	0.0185	0.0177
Aroclor 1260	~	0.0173	0.0187	0.0171	0.0184	0.0168	0.0741	0.0226	0.0184	0.0242	0.0201	0.0182	0.0185	0.0177
Total PCBs	1	0.0173	0.0187	0.0171	0.0184	0.0168	0.0741	0.0226	0.0184	0.0242	0.0201	0.0182	0.0185	0.0177

NOTES:

Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

DISCLAIMER:

York Analytical Laboratories, Inc. is providing this information as a convenience to you. York makes no representations or warranties that these data are accurate, complete or represent the latest regulatory authority limits or analytes. York is not responsible for any errors or omissions in these specific regulations. Your use of these data constitute your understanding of these limitations and you agree to hold York harmless

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	SB-73A	SB-73B	SB-73C	SB-74A	SB-74B	SB-75A	SB-75B	SB-76A	SB-76B	SB-77A	SB-77B	SB-77C	Dup 1114
York ID		18K0636-08	18K0636-09	18K0636-10	18K0636-11	18K0636-12	18K0636-13	18K0636-14	18K0636-15	18K0636-16	18K0636-17	18K0636-18	18K0636-19	18K0636-20
Sampling Date		11/14/2018	11/14/2018	11/14/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018
Client Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Compound		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
1,1,1-Trichloroethane	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,1-Dichloroethane	240	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,1-Dichloroethylene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,2,4-Trimethylbenzene	190	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,2-Dichlorobenzene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,2-Dichloroethane	30	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,3,5-Trimethylbenzene	190	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,3-Dichlorobenzene	280	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,4-Dichlorobenzene	130	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
1,4-Dioxane	130	0.0580	0.100	0.0420	0.0820	0.0640	0.0530	0.0540	0.0590	0.0570	0.0540	0.0610	0.0480	0.0540
2-Butanone	500	0.00720	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00800	0.00280	0.00270	0.00300	0.00240	0.00270
Acetone	500	0.0210	0.0140	0.00420	0.00820	0.0380	0.0110	0.0120	0.0230	0.00990	0.00790	0.00610	0.00960	0.0140
Benzene	44	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Carbon tetrachloride	22	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Chlorobenzene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Chloroform	350	0.00290	0.00610	0.00210	0.00410	0.0110	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
cis-1,2-Dichloroethylene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Ethyl Benzene	390	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Methyl tert-butyl ether (MTBE)	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Methylene chloride	500	0.00720	0.0130	0.00790	0.00820	0.0190	0.00910	0.0270	0.00590	0.0190	0.00650	0.0140	0.0260	0.00540
Naphthalene	500	0.00290	0.0300	0.00210	0.00410	0.00320	0.00260	0.00300	0.00330	0.00420	0.00490	0.00300	0.00240	0.00480
n-Butylbenzene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
n-Propylbenzene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
o-Xylene	–	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
p- & m- Xylenes	–	0.00580	0.0100	0.00420	0.00820	0.00640	0.00530	0.00540	0.00590	0.00570	0.00540	0.00610	0.00480	0.00540
sec-Butylbenzene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
tert-Butylbenzene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Tetrachloroethylene	150	0.00290	0.0200	0.00210	0.00410	0.00320	0.00260	0.00270	0.00510	0.0220	0.160	0.0200	0.00240	0.00720
Toluene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
trans-1,2-Dichloroethylene	500	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Trichloroethylene	200	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00490	0.00300	0.00240	0.00270
Vinyl Chloride	13	0.00290	0.00510	0.00210	0.00410	0.00320	0.00260	0.00270	0.00300	0.00280	0.00270	0.00300	0.00240	0.00270
Xylenes, Total	500	0.00870	0.0150	0.00630	0.0120	0.00960	0.00790	0.00810	0.00890	0.00850	0.00810	0.00910	0.00720	0.00810
Petroleum Identification														
Dilution Factor														
Petroleum Identification	–	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		10	2	2	2	2	2	2	2	2	5	2	2	2
2-Methylphenol	500	0.228	0.0473	0.0472	0.0460	0.0490	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0450
3- & 4-Methylphenols	–	0.228	0.0473	0.0472	0.0460	0.0490	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0450
Acenaphthene	500	0.228	0.0611	0.0472	0.0460	0.0490	0.0443	0.0499	0.0463	0.0494	0.0918	0.0477	0.0443	0.113
Acenaphthylene	500	0.228	0.144	0.0472	0.0909	0.0490	0.0443	0.0499	0.0625	0.0494	0.437	0.0477	0.0443	0.159
Anthracene	500	0.228	0.263	0.0472	0.146	0.135	0.0443	0.0685	0.168	0.0494	0.405	0.102	0.0443	0.305
Benzo(a)anthracene	5.6	0.228	**1.040**	0.0472	0.581	0.316	0.155	0.222	0.573	0.126	**2.550**	0.408	0.0443	**1.110**
Benzo(a)pyrene	1	0.228	0.983	0.0472	0.578	0.225	0.138	0.216	0.546	0.198	**2.870**	0.346	0.0529	**1.100**
Benzo(b)fluoranthene	5.6	0.228	0.900	0.0472	0.569	0.272	0.139	0.180	0.503	0.138	**2.650**	0.312	0.0459	0.984
Benzo(ghi)perylene	500	0.228	0.585	0.0472	0.435	0.166	0.0997	0.138	0.318	0.173	1.590	0.225	0.0443	0.639
Benzo(k)fluoranthene	56	0.228	0.796	0.0472	0.492	0.195	0.119	0.160	0.445	0.114	**2.300**	0.279	0.0443	0.910
Chrysene	56	0.229	**1.110**	0.0472	0.629	0.416	0.158	0.214	0.563	0.150	**2.400**	0.429	0.0443	**1.110**
Dibenzo(a,h)anthracene	0.56	0.228	0.157	0.0472	0.121	0.0490	0.0443	0.0499	0.130	0.0497	**0.597**	0.0609	0.0443	0.176
Dibenzofuran	350	0.228	0.0473	0.0472	0.0460	0.0490	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0617
Fluoranthene	500	0.251	1.670	0.0472	1.250	0.682	0.332	0.434	1.230	0.188	3.620	0.827	0.0572	2.170
Fluorene	500	0.228	0.0792	0.0472	0.0513	0.0547	0.0443	0.0499	0.0535	0.0494	0.0889	0.0477	0.0443	0.111
Hexachlorobenzene	6	0.228	0.0473	0.0472	0.0460	0.0490	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0450
Indeno(1,2,3-cd)pyrene	5.6	0.228	0.673	0.0472	0.383	0.143	0.0912	0.115	0.284	0.122	1.570	0.194	0.0443	0.591
Naphthalene	500	0.228	0.0473	0.0472	0.0460	0.0578	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0495
Pentachlorophenol	6.7	0.228	0.0473	0.0472	0.0460	0.0490	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0450
Phenanthrene	500	0.228	1.040	0.0472	0.743	0.628	0.183	0.276	0.766	0.119	1.470	0.551	0.0443	1.260
Phenol	500	0.228	0.0473	0.0472	0.0460	0.0490	0.0443	0.0499	0.0440	0.0494	0.0453	0.0477	0.0443	0.0450
Pyrene	500	0.345	1.820	0.0472	1.040	0.643	0.298	0.416	1.050	0.210	3.620	0.820	0.0565	2.320
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		5	5	5	5	5	5	5	5	5	5	5	5	5
4,4'-DDD	92	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
4,4'-DDE	62	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
4,4'-DDT	47	0.00245	0.00164	0.00165	0.00165	0.00164	0.00785	0.00165	0.00165	0.00165	0.0121	0.00164	0.00164	0.0415
Aldrin	0.68	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
alpha-BHC	3.4	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
alpha-Chlordane	24	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
beta-BHC	3	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
delta-BHC	500	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Dieldrin	1.4	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Endosulfan I	200	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Endosulfan II	200	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Endosulfan sulfate	200	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Endrin	89	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
gamma-BHC (Lindane)	9.2	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Heptachlor	15	0.00165	0.00164	0.00165	0.00165	0.00164	0.00164	0.00165	0.00165	0.00165	0.00165	0.00164	0.00164	0.00165
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	10	1	1	1	1	10	1	1	1
Aluminum	–	8,200	5,090	7,520	6,550	2,170	5,730	10,700	6,330	5,640	15,000	9,940	5,700	6,000
Antimony	–	2.720	2.840	2.800	10.400	34	2.650	4.890	2.630	2.950	5.890	3.100	2.660	25.700
Arsenic	16	9.180	**42.600**	1.680	9.070	3.380	3.570	4.410	4.430	5.980	8.180	3.120	1.590	9.210
Barium	400	**421**	217	54.700	**587**	159	139	208	309	77.100	**497**	166	50.600	**420**
Beryllium	590	0.277	0.374	0.0810	1.060	0.0590	0.0570	0.0600	0.211	0.132	10.300	0.191	0.0550	0.0540
Cadmium	9.3	0.664	0.420	0.363	1.160	**22.600**	0.627	1.800	0.903	0.464	0.857	0.444	0.319	**11.300**
Calcium	–	57,700	9,290	12,200	34,500	1,050	15,700	21,500	21,100	2,630	15,800	42,000	1,110	17,300
Chromium	–	12.500	14	12.800	22.500	177	11.900	45	15.400	10.600	146	17.300	9.960	1,370
Cobalt	–	7.310	6.090	7.080	9.090	24.800	5.420	6.120	5.410	6.190	77.500	8.130	5.430	18
Copper	270	106	141	23.500	170	**1,380**	47.300	37.200	69.700	76.600	**1,870**	82.200	13.200	191
Iron	–	17,300	16,000	12,200	14,000	109,000	11,800	20,100	10,500	16,200	74,200	15,900	10,100	35,800
Lead	1000	**656**	283	19.900	**1,770**	**2,680**	268	**2,300**	**514**	90.600	**1,480**	432	8.950	**2,900**
Magnesium	–	9,100	1,460	2,310	2,810	308	3,180	3,280	3,790	1,830	4,920	3,760	1,770	2,690
Manganese	10000	273	129	284	263	400	228	110	225	246	663	255	157	306
Nickel	310	19.600	17.300	35.700	22.200	76.500	14	33.400	12.600	18	**185**	20.800	11.100	**134**
Potassium	–	2,280	756	1,260	1,260	562	1,230	2,590	860	817	1,620	1,610	1,110	1,730
Selenium	1500	2.720	2.840	2.800	2.740	2.930	2.650	2.990	2.630	2.950	2.720	2.850	2.660	2.680
Silver	1500	0.545	0.568	0.561	0.548	2.760	0.530	0.597	0.526	0.589	0.544	0.571	0.531	**15.900**
Sodium	–	2,530	889	701	559	1,320	458	1,110	452	313	2,120	1,240	331	617
Thallium	–	2.720	2.840	2.800	2.740	2.930	2.650	2.990	2.630	2.950	2.720	2.850	2.660	2.680
Vanadium	–	25.900	17	17	27.400	20.800	20.500	28.100	19.300	16.400	43.400	21.200	15	36.900
Zinc	10000	479	275	186	1,170	**6,980**	190	130	476	365	**14,600**	553	22.800	**3,070**
Mercury by 7473	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Mercury	2.8	0.259	0.588	0.0538	0.375	0.471	0.203	0.329	0.249	0.313	0.615	0.467	0.209	0.474
Chromium, Hexavalent	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium, Hexavalent	400	0.545	0.568	0.561	0.548	0.586	0.530	0.597	0.526	0.589	0.544	0.571	0.531	**142**
Chromium, Trivalent	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium, Trivalent	1500	12.500	14	12.800	22.500	177	11.900	45	15.400	10.600	146	17.300	9.960	1,230
Cyanide, Total	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Cyanide, total	27	0.670	0.573	0.561	1.180	0.703	0.530	0.597	0.737	0.589	0.914	0.571	0.531	0.719
Total Solids		%	%	%	%	%	%	%	%	%	%	%	%	%
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
% Solids	–	91.800	88.100	89.200	91.300	85.300	94.300	83.700	95	84.900	91.900	87.600	94.100	93.200
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1
Aroclor 1016	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0175	0.0196	0.0181	0.0190	0.0176	0.0179
Aroclor 1221	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0175	0.0196	0.0181	0.0190	0.0176	0.0179
Aroclor 1232	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0175	0.0196	0.0181	0.0190	0.0176	0.0179
Aroclor 1242	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0175	0.0196	0.0181	0.0190	0.0176	0.0179
Aroclor 1248	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0175	0.0196	0.0181	0.0190	0.0176	0.0179
Aroclor 1254	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0175	0.0196	0.0181	0.0190	0.0176	0.0179
Aroclor 1260	–	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0186	0.0196	0.0181	0.0190	0.0176	0.0310
Total PCBs	1	0.0181	0.0189	0.0187	0.0183	0.0195	0.0176	0.0199	0.0186	0.0196	0.0181	0.0190	0.0176	0.0310

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

DISCLAIMER:
York Analytical Laboratories, Inc. is providing this information as a convenience to you. York makes no representations or warranties that these data are accurate, complete or represent the latest regulatory authority limits or analytes. York is not responsible for any errors or omissions in these

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID		SB-44a	SB-44b	SB-45a	SB-45b	SB-46a	SB-46b	SB-47a	SB-47b	SB-48a	SB-48b	SB-49a
York ID	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	18E1187-01	18E1187-02	18E1187-03	18E1187-04	18E1187-05	18E1187-06	18E1187-07	18E1187-08	18E1187-09	18E1187-10	18E1187-11
Sampling Date		5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM
Client Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Compound		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organics, 8260 - Comprehensive	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	500	1	1
1,1,1,2-Tetrachloroethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,1,1-Trichloroethane	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,1,2,2-Tetrachloroethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,1,2-Trichloroethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,1-Dichloroethane	240	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,1-Dichloroethylene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2,3-Trichlorobenzene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2,3-Trichloropropane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2,4-Trichlorobenzene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2,4-Trimethylbenzene	190	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2-Dibromo-3-chloropropane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2-Dibromoethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2-Dichlorobenzene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2-Dichloroethane	30	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,2-Dichloropropane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,3,5-Trimethylbenzene	190	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,3-Dichlorobenzene	280	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,4-Dichlorobenzene	130	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
1,4-Dioxane	130	0.0510	0.0470	0.0680	0.0560	0.0430	0.0470	0.0430	0.0580	0.0640	0.0420	0.0650
2-Butanone	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
2-Hexanone	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
4-Methyl-2-pentanone	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Acetone	500	0.00760	0.00470	0.00680	0.00560	0.00430	0.00880	0.00710	0.00820	0.0140	0.00920	0.00650
Acrolein	~	0.00510	0.00470	0.00680	0.00560	0.00430	0.00470	0.00430	0.00580	0.00640	0.00420	0.00650
Acrylonitrile	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Benzene	44	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Bromochloromethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Bromodichloromethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Bromoform	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Bromomethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Carbon disulfide	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Carbon tetrachloride	22	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Chlorobenzene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Chloroethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Chloroform	350	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Chloromethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
cis-1,2-Dichloroethylene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
cis-1,3-Dichloropropylene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Cyclohexane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Dibromochloromethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Dibromomethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Dichlorodifluoromethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Ethyl Benzene	390	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Hexachlorobutadiene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Isopropylbenzene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Methyl acetate	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Methyl tert-butyl ether (MTBE)	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Methylcyclohexane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Methylene chloride	500	0.00600	0.00770	0.0140	0.0110	0.0100	0.0120	0.00480	0.0110	0.00950	0.0110	0.00990
n-Butylbenzene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
n-Propylbenzene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
o-Xylene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
p- & m- Xylenes	~	0.00510	0.00470	0.00680	0.00560	0.00430	0.00470	0.00430	0.00580	0.00640	0.00420	0.00650
p-Isopropyltoluene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
sec-Butylbenzene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Styrene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
tert-Butyl alcohol (TBA)	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
tert-Butylbenzene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Tetrachloroethylene	150	0.0700	0.00260	0.0190	0.00660	0.0210	0.00240	0.0390	0.0170	**39**	0.00210	0.0160
Toluene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
trans-1,2-Dichloroethylene	500	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
trans-1,3-Dichloropropylene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
trans-1,4-dichloro-2-butene	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Trichloroethylene	200	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.0210	0.00210	0.00330
Trichlorofluoromethane	~	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Vinyl Chloride	13	0.00260	0.00240	0.00340	0.00280	0.00210	0.00240	0.00210	0.00290	0.00320	0.00210	0.00330
Xylenes, Total	500	0.00770	0.00710	0.0100	0.00840	0.00640	0.00710	0.00640	0.00870	0.00960	0.00640	0.00980
Volatile Organics, TCLP RCRA List	mg/Kg									mg/L		
Dilution Factor										10		
Tetrachloroethylene	150	NT	NT	NT	NT	NT	NT	NT	NT	0.0250	NT	NT
Lead by EPA 6010	mg/Kg											
Dilution Factor												
Lead	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TCLP Extraction for VOA by EPA 1311 ZHE										N/A		
Dilution Factor										1		
TCLP Extraction	~	NT	NT	NT	NT	NT	NT	NT	NT	Completed	NT	NT
Total Solids		%	%	%	%	%	%	%	%	%	%	%
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1
% Solids	~	87.300	84.200	88.300	91.100	84.900	88.600	89.300	89.600	84.600	90.100	81.500
Polychlorinated Biphenyls (PCB)	mg/Kg											
Dilution Factor												
Aroclor 1016	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1221	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1232	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1242	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1248	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1254	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1260	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total PCBs	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table 7 Soils Exceeding Unrestricted SCOs After the Remedial Action
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID		SB-49b	SB-50a	SB-50b	SB-51a	SB-51b	SB-52	SB-53	SB-54	SB-55	SB-49c	SB-50c	SB-51c
York ID	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	18E1187-12	18E1187-13	18E1187-14	18E1187-15	18E1187-16	18E1187-17	18E1187-18	18E1187-19	18E1187-20	18E1187-21	18E1187-22	18E1187-23
Sampling Date		5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM	5/24/2018 12:00:00 PM
Client Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Compound		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organics, 8260 - Comprehensive	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	100	1	1	1	1	1	1	1	1	1	1
1,1,1,2-Tetrachloroethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,1,1-Trichloroethane	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,1,2,2-Tetrachloroethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,1,2-Trichloroethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,1-Dichloroethane	240	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,1-Dichloroethylene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2,3-Trichlorobenzene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2,3-Trichloropropane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2,4-Trichlorobenzene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2,4-Trimethylbenzene	190	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2-Dibromo-3-chloropropane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2-Dibromoethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2-Dichlorobenzene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2-Dichloroethane	30	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,2-Dichloropropane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,3,5-Trimethylbenzene	190	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,3-Dichlorobenzene	280	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,4-Dichlorobenzene	130	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
1,4-Dioxane	130	0.0480	0.100	0.0500	0.0500	0.0530	0.0660	0.0560	0.0560	0.0650	0.0560	0.110	0.0600
2-Butanone	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
2-Hexanone	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
4-Methyl-2-pentanone	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Acetone	500	0.00560	0.0280	0.00600	0.00680	0.0150	0.0240	0.0110	0.0110	0.0220	0.0140	0.0640	0.00600
Acrolein	–	0.00480	0.0100	0.00500	0.00500	0.00530	0.00660	0.00560	0.00560	0.00650	0.00560	0.0110	0.00600
Acrylonitrile	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Benzene	44	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Bromochloromethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Bromodichloromethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Bromoform	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Bromomethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Carbon disulfide	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Carbon tetrachloride	22	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Chlorobenzene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Chloroethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Chloroform	350	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Chloromethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
cis-1,2-Dichloroethylene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
cis-1,3-Dichloropropylene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Cyclohexane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Dibromochloromethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Dibromomethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Dichlorodifluoromethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Ethyl Benzene	390	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Hexachlorobutadiene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Isopropylbenzene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Methyl acetate	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Methyl tert-butyl ether (MTBE)	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Methylcyclohexane	–	0.00240	0.00670	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Methylene chloride	500	0.0120	0.0130	0.0130	0.00960	0.0120	0.0150	0.0110	0.00680	0.00810	0.00800	0.0220	0.00650
n-Butylbenzene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
n-Propylbenzene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
o-Xylene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
p- & m- Xylenes	–	0.00480	0.0100	0.00500	0.00500	0.00530	0.00660	0.00560	0.00560	0.00650	0.00560	0.0110	0.00600
p-Isopropyltoluene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
sec-Butylbenzene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Styrene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
tert-Butyl alcohol (TBA)	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00820	0.00280	0.00280	0.00330	0.00560	0.00530	0.00300
tert-Butylbenzene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Tetrachloroethylene	150	0.00260	21	0.00700	0.0560	0.0130	0.0110	0.130	0.0630	0.0570	0.0460	0.0290	0.0840
Toluene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
trans-1,2-Dichloroethylene	500	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
trans-1,3-Dichloropropylene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
trans-1,4-dichloro-2-butene	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Trichloroethylene	200	0.00240	NT	0.00250	0.00250	0.00270	0.00330	0.00600	0.00470	0.00470	0.00280	0.00530	0.00300
Trichlorofluoromethane	–	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Vinyl Chloride	13	0.00240	0.00510	0.00250	0.00250	0.00270	0.00330	0.00280	0.00280	0.00330	0.00280	0.00530	0.00300
Xylenes, Total	500	0.00720	0.0150	0.00740	0.00750	0.00800	0.00990	0.00840	0.00830	0.00980	0.00840	0.0160	0.00900
Volatile Organics, TCLP RCRA List	mg/Kg		mg/L										
Dilution Factor			10										
Tetrachloroethylene	150	NT	0.0250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead by EPA 6010	mg/Kg							mg/Kg	mg/Kg	mg/Kg			
Dilution Factor								1	1	1			
Lead	1000	NT	NT	NT	NT	NT	NT	3,790.000	5,760.000	1,650.000	NT	NT	NT
TCLP Extraction for VOA by EPA 1311 ZHE			N/A										
Dilution Factor			1										
TCLP Extraction	–	NT	Completed	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Solids		%	%	%	%	%	%	%	%	%	%	%	%
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1
% Solids	–	89.600	86.700	92.700	88.100	92.100	94.500	90.500	86.200	88.800	90.600	85	88.800
Polychlorinated Biphenyls (PCB)	mg/Kg						mg/Kg						
Dilution Factor							1						
Aroclor 1016	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Aroclor 1221	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Aroclor 1232	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Aroclor 1242	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Aroclor 1248	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Aroclor 1254	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Aroclor 1260	–	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT
Total PCBs	1	NT	NT	NT	NT	NT	0.0176	NT	NT	NT	NT	NT	NT

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis

NT=this indicates the analyte was not a target for this sample

–=this indicates that no regulatory limit has been established for this analyte

Table 8 - Confirmatory Indoor Air Sampling Results
27-10 49th Avenue, Long Island City, New York
BCP Site #C241219

Sample ID		A1		A2		A3		A4		AA	
York ID		21F1193-01		21F1193-02		21F1193-03		21F1193-04		21F1193-06	
Sampling Date		6/23/2021 9:35:00 AM		6/23/2021 9:40:00 AM		6/23/2021 9:43:00 AM		6/23/2021 9:50:00 AM		6/23/2021 9:52:00 AM	
Client Matrix		Indoor Ambient Air		Indoor Ambient Air		Indoor Ambient Air		Indoor Ambient Air		Outdoor Ambient Air	
Compound	**CAS Number**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, EPA TO15 Full List		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3	
Dilution Factor		0.963		0.902		0.941		0.739		0.854	
1,1,1,2-Tetrachloroethane	630-20-6	0.660	U	0.620	U	0.650	U	0.510	U	0.590	U
1,1,1-Trichloroethane	71-55-6	0.530	U	0.490	U	0.510	U	0.400	U	0.470	U
1,1,2,2-Tetrachloroethane	79-34-5	0.660	U	0.620	U	0.650	U	0.510	U	0.590	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	0.740	U	0.690	U	0.720	U	0.570	U	0.650	U
1,1,2-Trichloroethane	79-00-5	0.530	U	0.490	U	0.510	U	0.400	U	0.470	U
1,1-Dichloroethane	75-34-3	0.390	U	0.370	U	0.380	U	0.300	U	0.350	U
1,1-Dichloroethylene	75-35-4	0.0950	U	0.0890	U	0.0930	U	0.0730	U	0.0850	U
1,2,4-Trichlorobenzene	120-82-1	0.710	U	0.670	U	0.700	U	0.550	U	0.630	U
1,2,4-Trimethylbenzene	95-63-6	3.600	D	1.100	D	1.200	D	0.980	D	0.420	J
1,2-Dibromoethane	106-93-4	0.740	U	0.690	U	0.720	U	0.570	U	0.660	U
1,2-Dichlorobenzene	95-50-1	0.580	U	0.540	U	0.570	U	0.440	U	0.510	U
1,2-Dichloroethane	107-06-2	0.390	U	0.370	U	0.380	U	0.300	U	0.350	U
1,2-Dichloropropane	78-87-5	0.440	U	0.420	U	0.430	U	0.340	U	0.390	U
1,2-Dichlorotetrafluoroethane	76-14-2	0.670	U	0.630	U	0.660	U	0.520	U	0.600	U
1,3,5-Trimethylbenzene	108-67-8	1.900	D	0.440	J	0.460	J	0.360	J	0.420	U
1,3-Butadiene	106-99-0	0.640	U	0.600	U	0.620	U	0.490	U	0.570	U
1,3-Dichlorobenzene	541-73-1	0.580	U	0.540	U	0.570	U	0.440	U	0.510	U
1,3-Dichloropropane	142-28-9	0.450	U	0.420	U	0.430	U	0.340	U	0.390	U
1,4-Dichlorobenzene	106-46-7	0.580	U	0.540	U	0.570	U	0.440	U	0.510	U
1,4-Dioxane	123-91-1	0.690	U	0.650	U	0.680	U	0.530	U	0.620	U
2-Butanone	78-93-3	1.400	D	1.300	D	1.200	D	0.780	D	0.930	D
2-Hexanone	591-78-6	0.790	U	0.740	U	0.770	U	0.610	U	0.700	U
3-Chloropropene	107-05-1	1.500	U	1.400	U	1.500	U	1.200	U	1.300	U
4-Methyl-2-pentanone	108-10-1	0.390	U	0.630	D	0.620	D	0.420	D	0.350	D
Acetone	67-64-1	73	D	100	D	92	D	44	D	7.700	D
Acrylonitrile	107-13-1	0.210	U	0.200	U	0.200	U	0.160	U	0.190	U
Benzene	71-43-2	1.400	D	0.460	D	0.420	D	0.330	D	0.350	D
Benzyl chloride	100-44-7	0.500	U	0.470	U	0.490	U	0.380	U	0.440	U
Bromodichloromethane	75-27-4	0.650	U	0.600	U	0.630	U	0.500	U	0.570	U
Bromoform	75-25-2	1	U	0.930	U	0.970	U	0.760	U	0.880	U
Bromomethane	74-83-9	0.370	U	0.350	U	0.370	U	0.290	U	0.330	U
Carbon disulfide	75-15-0	0.300	U	0.280	U	0.290	U	0.230	U	0.270	U
Carbon tetrachloride	56-23-5	0.420	D	0.340	D	0.410	D	0.370	D	0.320	D
Chlorobenzene	108-90-7	0.440	U	0.420	U	0.430	U	0.340	U	0.390	U
Chloroethane	75-00-3	0.250	U	0.240	U	0.250	U	0.190	U	0.230	U
Chloroform	67-66-3	0.470	U	0.440	U	0.460	U	0.360	U	0.420	U
Chloromethane	74-87-3	0.860	D	0.880	D	0.780	D	1	D	0.970	D
cis-1,2-Dichloroethylene	156-59-2	0.0950	U	0.0890	U	0.0930	U	0.0730	U	0.0850	U
cis-1,3-Dichloropropylene	10061-01-5	0.440	U	0.410	U	0.430	U	0.340	U	0.390	U
Cyclohexane	110-82-7	19	D	0.310	J	0.320	U	0.250	U	0.350	D
Dibromochloromethane	124-48-1	0.820	U	0.770	U	0.800	U	0.630	U	0.730	U
Dichlorodifluoromethane	75-71-8	2.100	D	2.300	D	2.100	D	2.200	D	2.100	D
Ethyl acetate	141-78-6	4.200	D	0.780	D	0.780	D	0.530	D	0.710	D
Ethyl Benzene	100-41-4	2.200	D	0.430	D	0.410	D	0.320	J	0.370	J
Hexachlorobutadiene	87-68-3	1	U	0.960	U	1	U	0.790	U	0.910	U
Isopropanol	67-63-0	6.600	D	5.800	D	6.600	D	2.400	D	3.400	D
Methyl Methacrylate	80-62-6	0.390	U	0.370	U	0.390	U	0.300	U	0.350	U
Methyl tert-butyl ether (MTBE)	1634-04-4	0.350	U	0.330	U	0.340	U	0.270	U	0.310	U
Methylene chloride	75-09-2	21	D	6.200	D	3.400	D	1.400	D	1.200	D
n-Heptane	142-82-5	24	D	0.740	D	0.660	D	0.390	D	0.560	D
n-Hexane	110-54-3	52	D	0.890	D	0.630	D	0.420	D	0.840	D
o-Xylene	95-47-6	8.700	D	0.470	D	0.490	D	0.320	J	0.370	D
p- & m- Xylenes	179601-23-1	24	D	1.400	D	1.300	D	0.770	D	1.100	D
p-Ethyltoluene	622-96-8	4.800	D	0.890	D	0.930	D	0.730	D	0.420	J
Propylene	115-07-1	0.170	U	0.160	U	0.160	U	0.130	U	0.150	U
Styrene	100-42-5	0.410	U	0.380	J	0.400	J	0.310	U	0.360	U
Tetrachloroethylene	127-18-4	0.780	D	0.610	J	0.640	J	0.500	U	0.580	J
Tetrahydrofuran	109-99-9	0.570	U	0.530	U	0.560	U	0.440	U	0.500	U
Toluene	108-88-3	27	D	2.500	D	2.400	D	2.100	D	2	D
trans-1,2-Dichloroethylene	156-60-5	0.380	U	0.360	U	0.370	U	0.290	U	0.340	U
trans-1,3-Dichloropropylene	10061-02-6	0.440	U	0.410	U	0.430	U	0.340	U	0.390	U
Trichloroethylene	79-01-6	0.130	U	0.120	U	0.130	U	0.0990	U	0.110	U
Trichlorofluoromethane (Freon 11)	75-69-4	1.100	D	1.100	D	1.200	D	1	D	0.960	D
Vinyl acetate	108-05-4	0.340	U	0.320	U	0.330	U	0.260	U	0.300	U
Vinyl bromide	593-60-2	0.420	U	0.390	U	0.410	U	0.320	U	0.370	U
Vinyl Chloride	75-01-4	0.120	U	0.120	U	0.120	U	0.0940	U	0.110	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

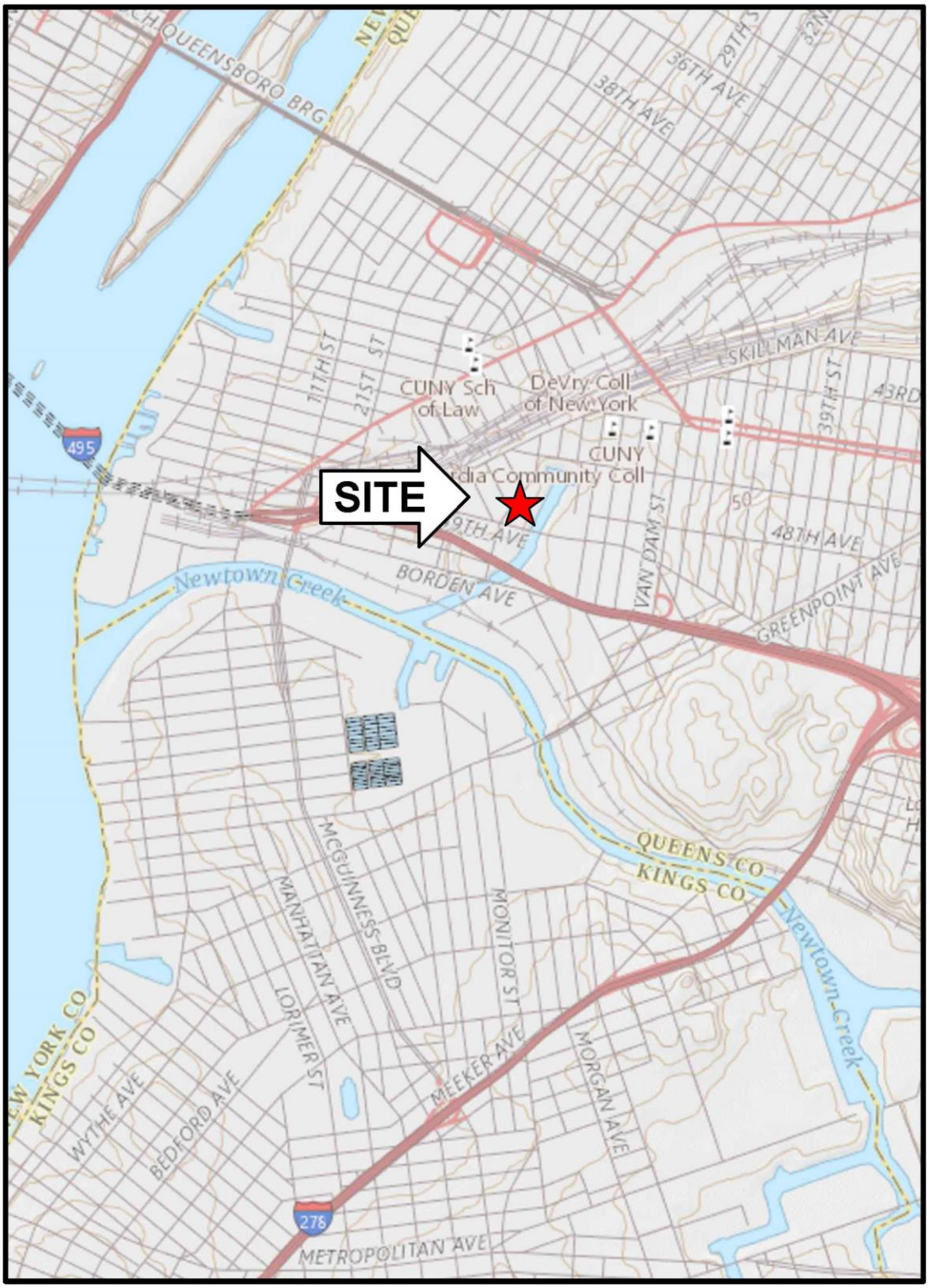
Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

DISCLAIMER:
York Analytical Laboratories, Inc. is providing this information as a convenience to you. York makes no representations or warranties that these data are accurate, complete or represent the latest regulatory authority limits or analytes. York is not responsible for any errors or omissions in these specific regulations. Your use of these data constitute your understanding of these limitations and you agree to hold York harmless from any and all action that may arise from use of said information. As regulations change often, we encourage the user to review the regulatory limits and lists of interest to confirm these data.

FIGURES

1. Project Site Map
2. Finer Scale Site Map
3. Areas Where Excavations Were Performed
4. Backfill Placement Locations
5. Remaining Soil Contamination
6. Remaining Soil Vapor Contamination
7. Site Wide SSDS and SVES
8. SSDS SVES Cross Section Detail
9. Soil Stockpile Areas, and Air Monitoring Station Locations
10. Areas of Concern
11. Location of Cover Types

11B. Typical Cover Detail for all Cover Types



Title:

SITE LOCATION MAP

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX	Compiled by: R.M.	Date: 11/23/2021	FIGURE
	Prepared by: M.S.R.	Scale: AS SHOWN	
	Project Mgr: R.L.	Project: 3446.0008Y000	1
	File: 3446.0008Y100.ppt		

**FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.*

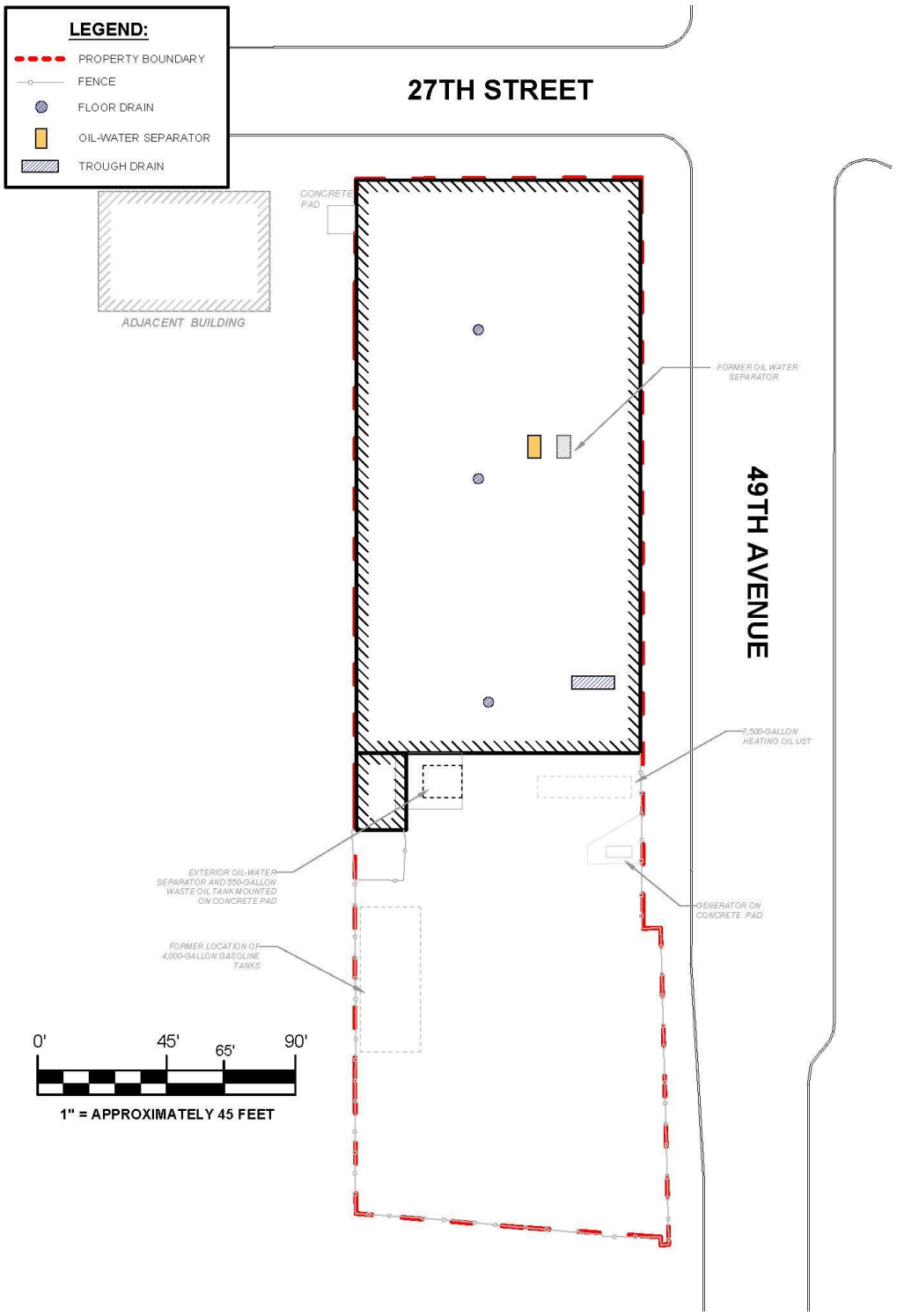


FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

SITE PLAN

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	
Project Mgr: R.L.	Project: 3446.0008Y000	2
File: 3446.0008Y100.ppt		

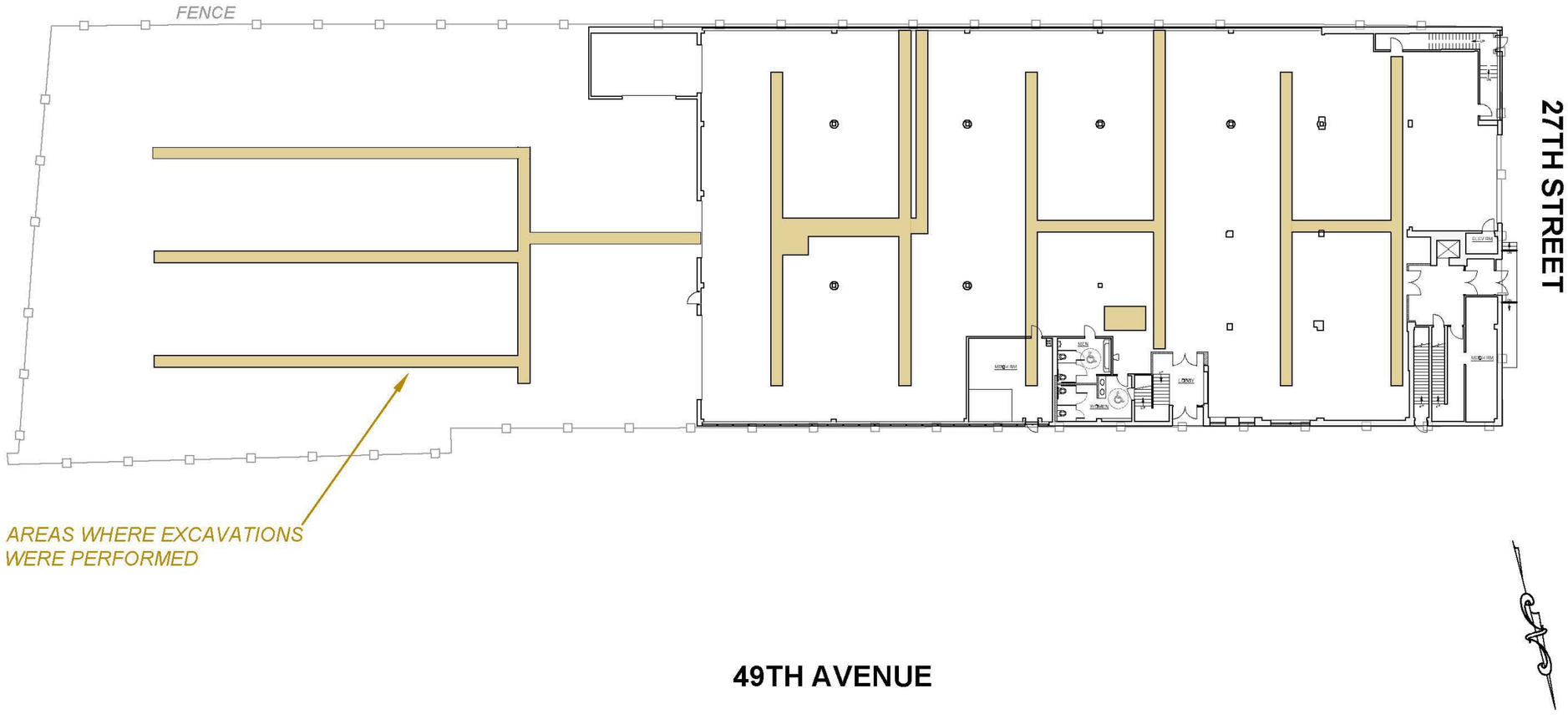


*FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

EXCAVATION AREAS

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	
Project Mgr: R.L.	Project: 3446.0008Y000	3
File: 3446.0008Y100.ppt		

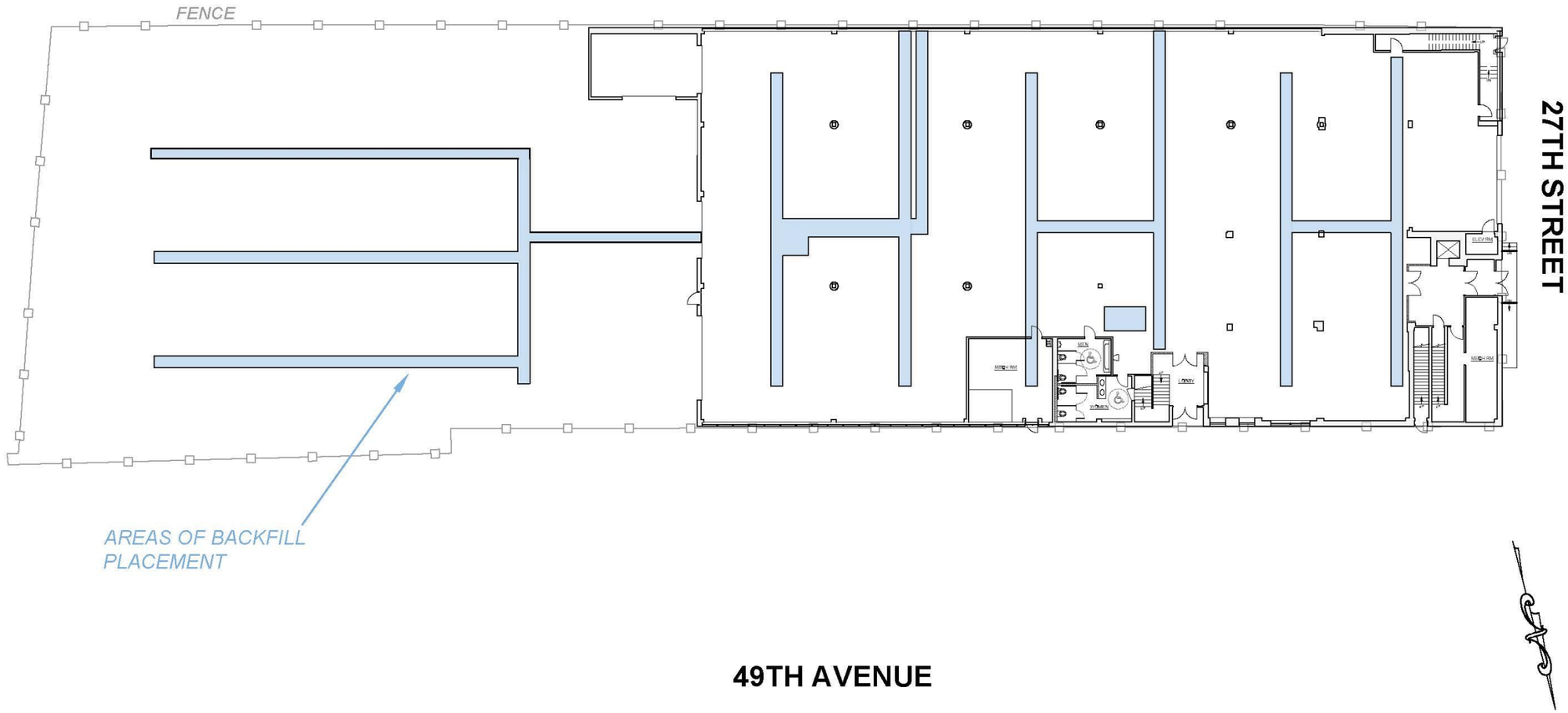


*FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

BACKFILL AREAS

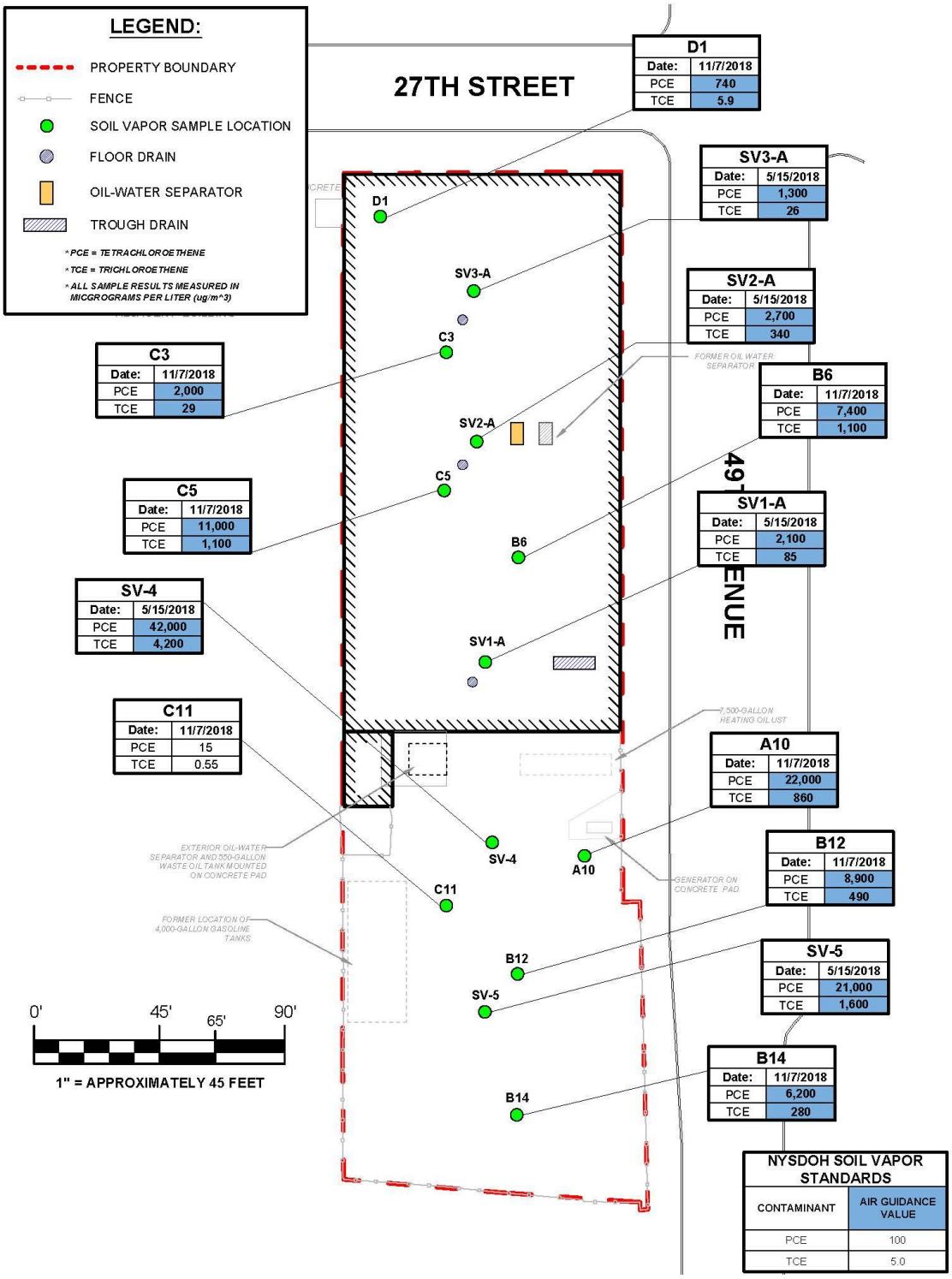
SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	4
Project Mgr: R.L.	Project: 3446.0008Y000	
File: 3446.0008Y100.ppt		



Title:

PRE-IRM SOIL VAPOR CONCENTRATIONS

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX	Compiled by: R.M.	Date: 11/23/2021
	Prepared by: M.S.R.	Scale: AS SHOWN
	Project Mgr: R.L.	Project: 3446.0008Y000
	File: 3446.0008Y100.ppt	

FIGURE 5

FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

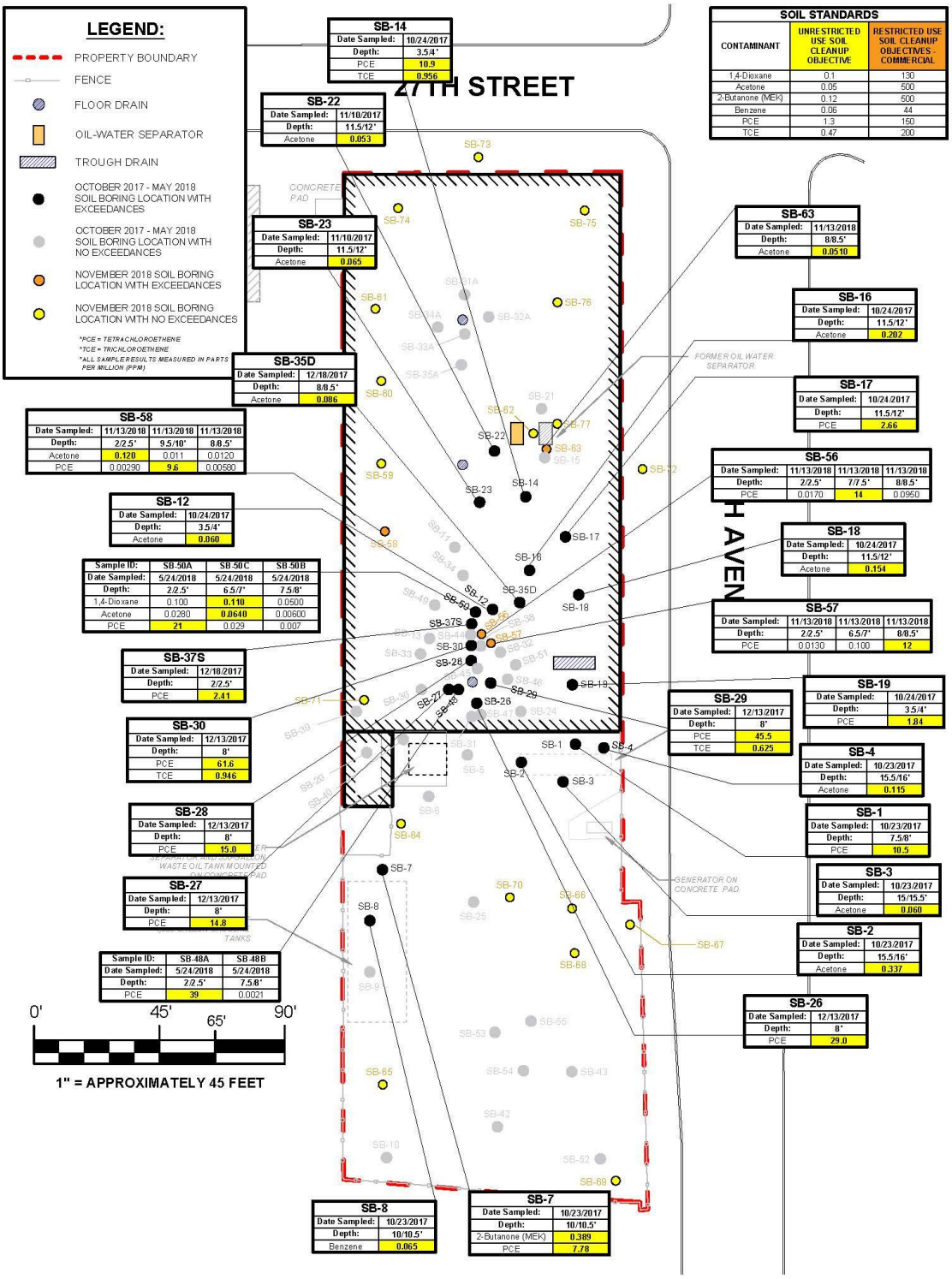


FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

REMAINING SOIL CONTAMINATION - VOCS

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

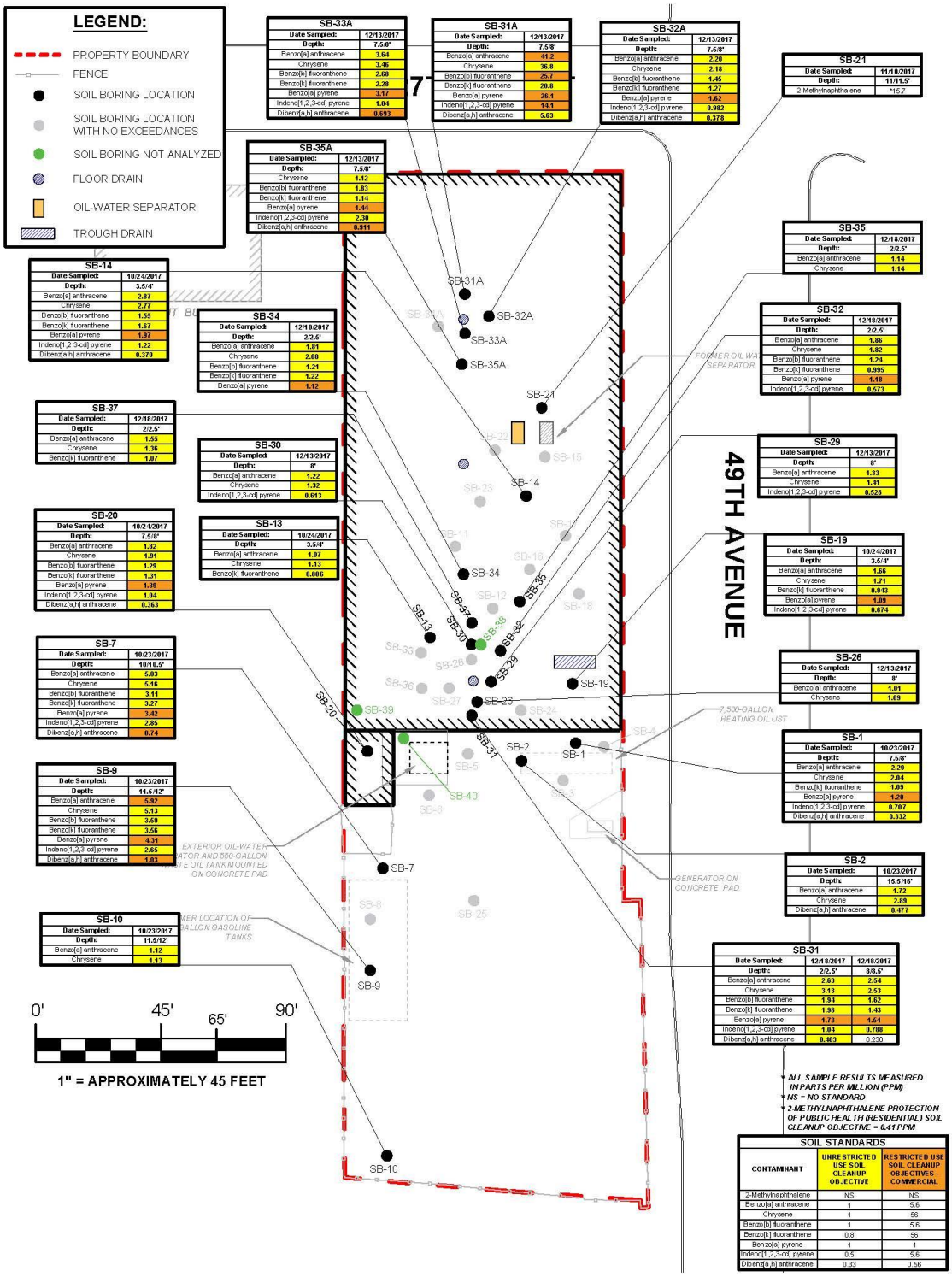
Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021
Prepared by: M.S.R.	Scale: AS SHOWN
Project Mgr: R.L.	Project: 3446.0008Y000
File: 3446.0008Y100.ppt	

FIGURE 6A



Title:

REMAINING SOIL CONTAMINATION – SVOCS (2017)

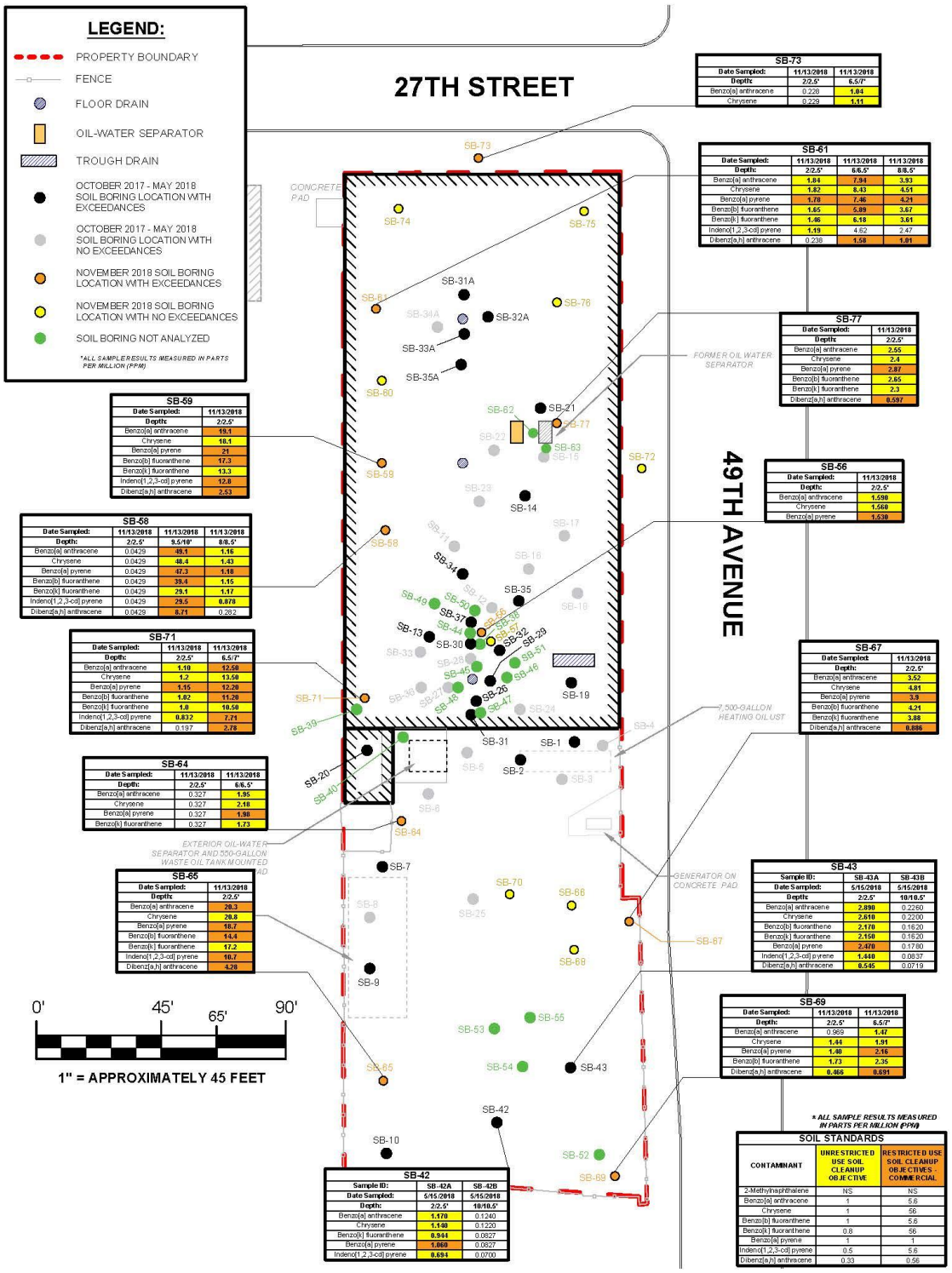
SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX	Compiled by: R.M.	Date: 11/23/2021	FIGURE
	Prepared by: M.S.R.	Scale: AS SHOWN	6B
	Project Mgr: R.L.	Project: 3446.0008Y000	
	File: 3446.0008Y100.ppt		

FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.



Title:

REMAINING SOIL CONTAMINATION – SVOCS (2018)

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

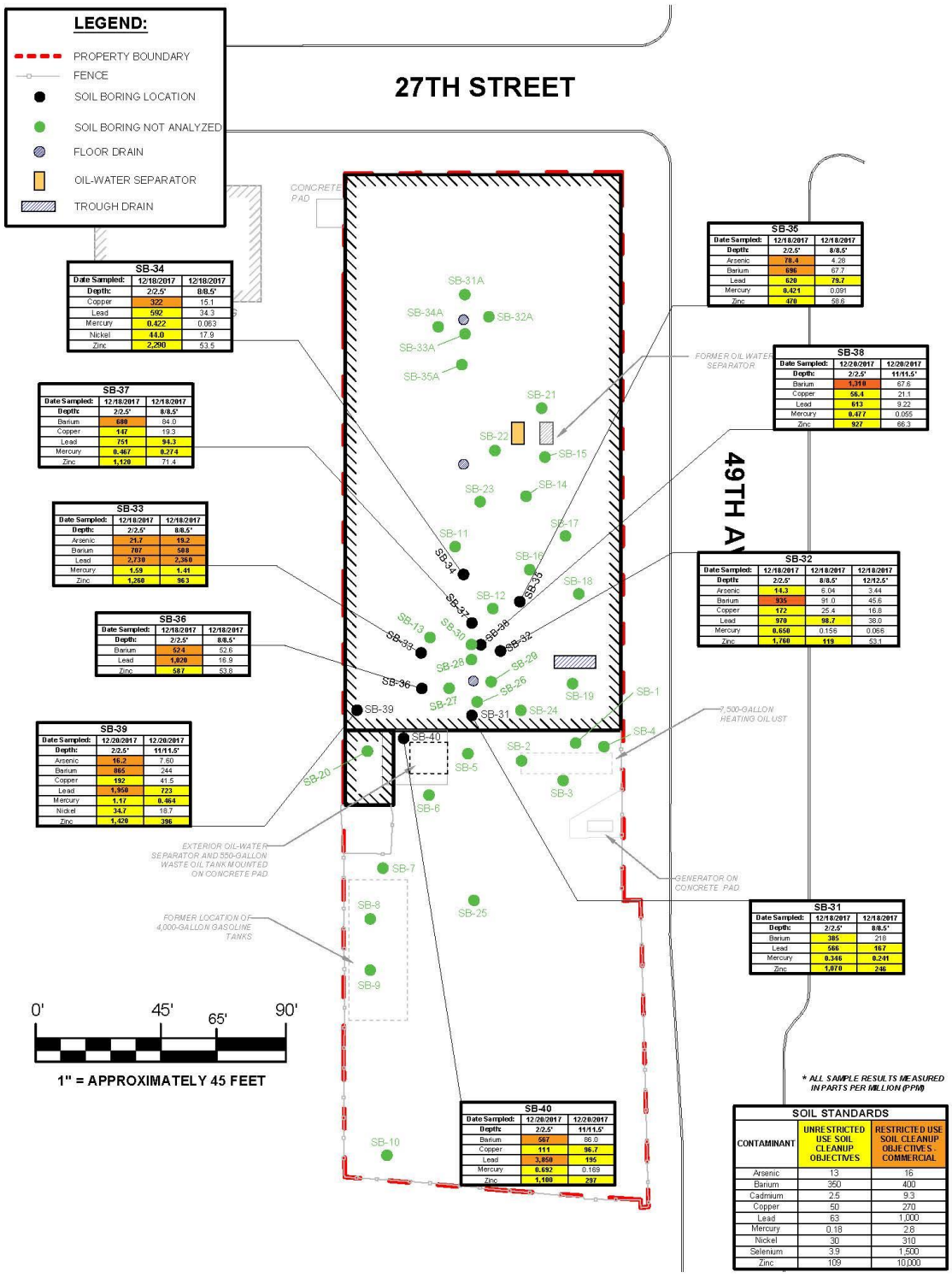
Prepared for:

HUNTERS POINT SG, LLC

ROUX	Compiled by: R.M.	Date: 11/23/2021
	Prepared by: M.S.R.	Scale: AS SHOWN
	Project Mgr: R.L.	Project: 3446.0008Y000
	File: 3446.0008Y100.ppt	

FIGURE 6C

FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.



SB-34		
Date Sampled:	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'
Copper	322	15.1
Lead	592	34.3
Mercury	0.422	0.063
Nickel	44.0	17.9
Zinc	2,290	53.5

SB-35		
Date Sampled:	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'
Arsenic	76.4	4.28
Barium	696	67.7
Lead	620	79.7
Mercury	0.421	0.091
Zinc	470	58.6

SB-37		
Date Sampled:	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'
Barium	680	84.0
Copper	147	19.3
Lead	751	94.3
Mercury	0.467	0.274
Zinc	1,120	71.4

SB-38		
Date Sampled:	12/20/2017	12/20/2017
Depth:	2/2.5'	11/11.5'
Barium	1,310	67.6
Copper	56.4	21.1
Lead	613	9.22
Mercury	0.477	0.055
Zinc	927	66.3

SB-33		
Date Sampled:	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'
Arsenic	21.7	19.2
Barium	707	508
Lead	2,730	2,360
Mercury	1.59	1.41
Zinc	1,260	963

SB-32			
Date Sampled:	12/18/2017	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'	12/12.5'
Arsenic	14.3	6.04	3.44
Barium	935	91.0	45.6
Copper	172	25.4	16.8
Lead	970	98.7	38.0
Mercury	0.650	0.156	0.068
Zinc	1,760	119	53.1

SB-36		
Date Sampled:	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'
Barium	524	52.6
Lead	1,020	16.9
Zinc	587	53.8

SB-39		
Date Sampled:	12/20/2017	12/20/2017
Depth:	2/2.5'	11/11.5'
Arsenic	16.2	7.60
Barium	865	244
Copper	192	41.5
Lead	1,950	723
Mercury	1.17	0.464
Nickel	34.7	18.7
Zinc	1,420	396

SB-31		
Date Sampled:	12/18/2017	12/18/2017
Depth:	2/2.5'	8/8.5'
Barium	385	218
Lead	566	167
Mercury	0.346	0.241
Zinc	1,070	246

SB-40		
Date Sampled:	12/20/2017	12/20/2017
Depth:	2/2.5'	11/11.5'
Barium	567	86.0
Copper	111	96.7
Lead	3,850	195
Mercury	0.652	0.169
Zinc	1,100	297

* ALL SAMPLE RESULTS MEASURED IN PARTS PER MILLION (PPM)

SOIL STANDARDS		
CONTAMINANT	UNRESTRICTED USE SOIL CLEANUP OBJECTIVES	RESTRICTED USE SOIL CLEANUP OBJECTIVES - COMMERCIAL
Arsenic	13	16
Barium	350	400
Cadmium	2.5	9.3
Copper	50	270
Lead	63	1,000
Mercury	0.18	2.8
Nickel	30	310
Selenium	3.9	1,500
Zinc	109	10,000

FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

REMAINING SOIL CONTAMINATION – METALS (2017)

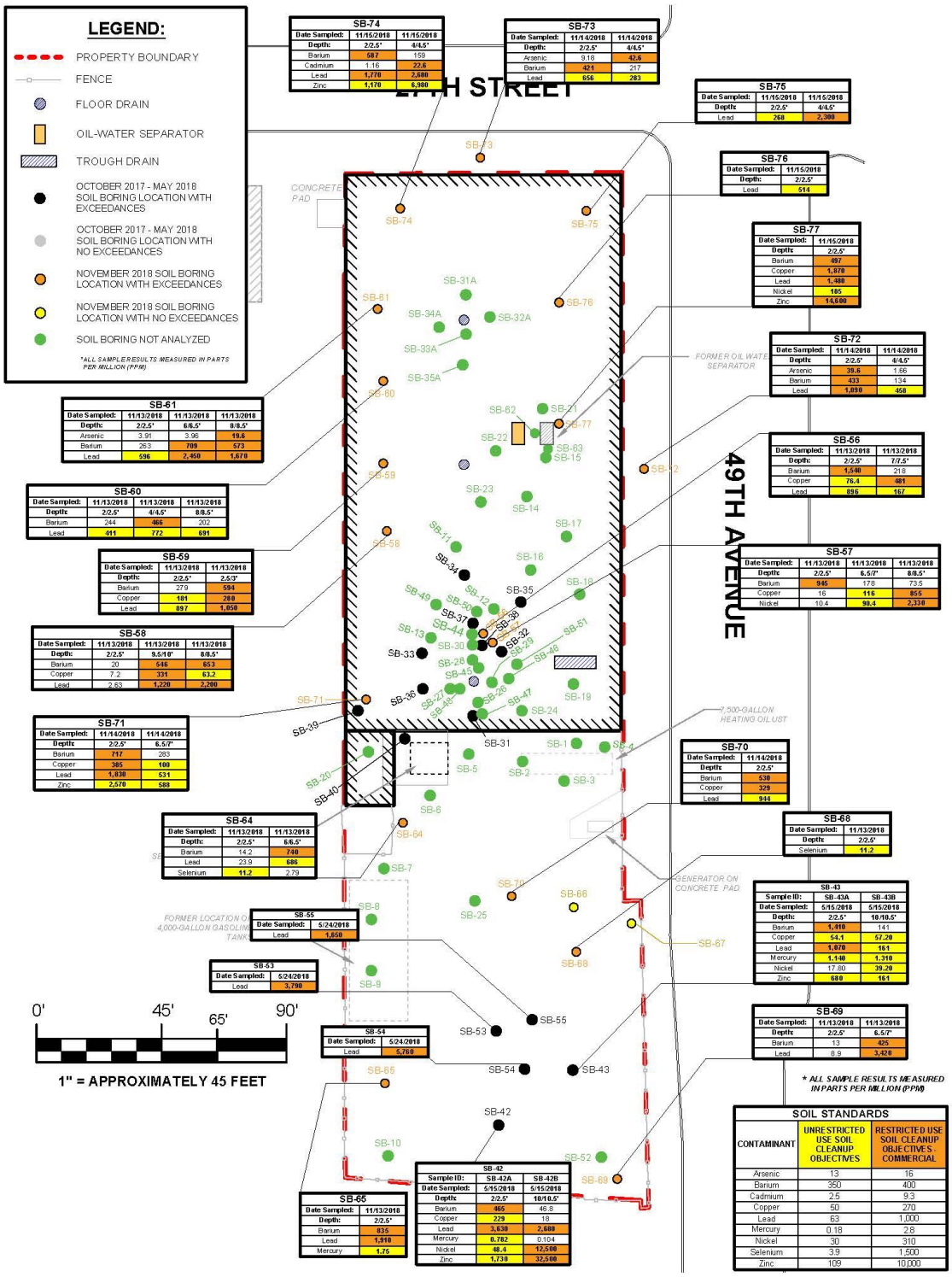
SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	6D
Project Mgr: R.L.	Project: 3446.0008Y000	
File: 3446.0008Y100.ppt		



SB-74		
Date Sampled:	11/15/2018	11/15/2018
Depth:	2/2.5'	4/4.5'
Barium	587	159
Cadmium	1.16	22.6
Lead	1,770	2,680
Zinc	1,170	6,980

SB-73		
Date Sampled:	11/14/2018	11/14/2018
Depth:	2/2.5'	4/4.5'
Arsenic	9.18	42.8
Barium	421	217
Lead	656	283

SB-75		
Date Sampled:	11/15/2018	11/15/2018
Depth:	2/2.5'	4/4.5'
Lead	268	2,300

SB-76	
Date Sampled:	11/15/2018
Depth:	2/2.5'
Lead	514

SB-77	
Date Sampled:	11/15/2018
Depth:	2/2.5'
Barium	497
Copper	1,870
Lead	1,480
Nickel	185
Zinc	14,600

SB-72		
Date Sampled:	11/14/2018	11/14/2018
Depth:	2/2.5'	4/4.5'
Arsenic	39.6	1.66
Barium	433	134
Lead	1,090	458

SB-56		
Date Sampled:	11/13/2018	11/13/2018
Depth:	2/2.5'	7/7.5'
Barium	1,540	218
Copper	76.4	481
Lead	896	167

SB-57			
Date Sampled:	11/13/2018	11/13/2018	11/13/2018
Depth:	2/2.5'	6.5/7'	8/8.5'
Barium	946	178	73.5
Copper	16	116	855
Nickel	10.4	90.4	2,330

SB-61			
Date Sampled:	11/13/2018	11/13/2018	11/13/2018
Depth:	2/2.5'	6/6.5'	8/8.5'
Arsenic	3.91	3.96	19.6
Barium	263	709	573
Lead	596	2,450	1,670

SB-60			
Date Sampled:	11/13/2018	11/13/2018	11/13/2018
Depth:	2/2.5'	4/4.5'	8/8.5'
Barium	244	466	202
Lead	411	772	691

SB-59			
Date Sampled:	11/13/2018	11/13/2018	
Depth:	2/2.5'	2.5/3'	
Barium	279	594	
Copper	101	260	
Lead	897	1,050	

SB-58			
Date Sampled:	11/13/2018	11/13/2018	11/13/2018
Depth:	2/2.5'	5.5/6'	8/8.5'
Barium	20	546	653
Copper	7.2	331	63.2
Lead	2.63	1,220	2,200

SB-71		
Date Sampled:	11/14/2018	11/14/2018
Depth:	2/2.5'	6.5/7'
Barium	717	283
Copper	385	100
Lead	1,630	531
Zinc	2,570	588

SB-64		
Date Sampled:	11/13/2018	11/13/2018
Depth:	2/2.5'	6/6.5'
Barium	14.2	740
Lead	23.9	686
Selenium	11.2	2.79

SB-55	
Date Sampled:	5/24/2018
Lead	1,650

SB-53	
Date Sampled:	5/24/2018
Lead	3,790

SB-54	
Date Sampled:	5/24/2018
Lead	5,760

SB-65	
Date Sampled:	11/13/2018
Depth:	2/2.5'
Barium	835
Lead	1,310
Mercury	1.75

SB-42		
Sample ID:	SB-42A	SB-42B
Date Sampled:	5/15/2018	5/15/2018
Depth:	2/2.5'	10/10.5'
Barium	465	46.8
Copper	229	18
Lead	3,630	2,600
Mercury	0.782	0.104
Nickel	48.4	12,500
Zinc	1,730	32,500

SB-70	
Date Sampled:	11/14/2018
Depth:	2/2.5'
Barium	530
Copper	329
Lead	944

SB-68	
Date Sampled:	11/13/2018
Depth:	2/2.5'
Selenium	11.2

SB-43		
Sample ID:	SB-43A	SB-43B
Date Sampled:	5/15/2018	5/15/2018
Depth:	2/2.5'	10/10.5'
Barium	1,410	141
Copper	54.1	57.20
Lead	1,070	161
Mercury	1.140	1.310
Nickel	17.80	39.20
Zinc	680	161

SB-69		
Date Sampled:	11/13/2018	11/13/2018
Depth:	2/2.5'	6.5/7'
Barium	13	425
Lead	8.9	3,420

* ALL SAMPLE RESULTS MEASURED IN PARTS PER MILLION (PPM)

SOIL STANDARDS		
CONTAMINANT	UNRESTRICTED USE SOIL CLEANUP OBJECTIVES	RESTRICTED USE SOIL CLEANUP OBJECTIVES - COMMERCIAL
Arsenic	13	16
Barium	350	400
Cadmium	2.5	9.3
Copper	50	270
Lead	63	1,000
Mercury	0.18	2.8
Nickel	30	310
Selenium	3.9	1,500
Zinc	109	10,000

FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

REMAINING SOIL CONTAMINATION – METALS (2018)

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

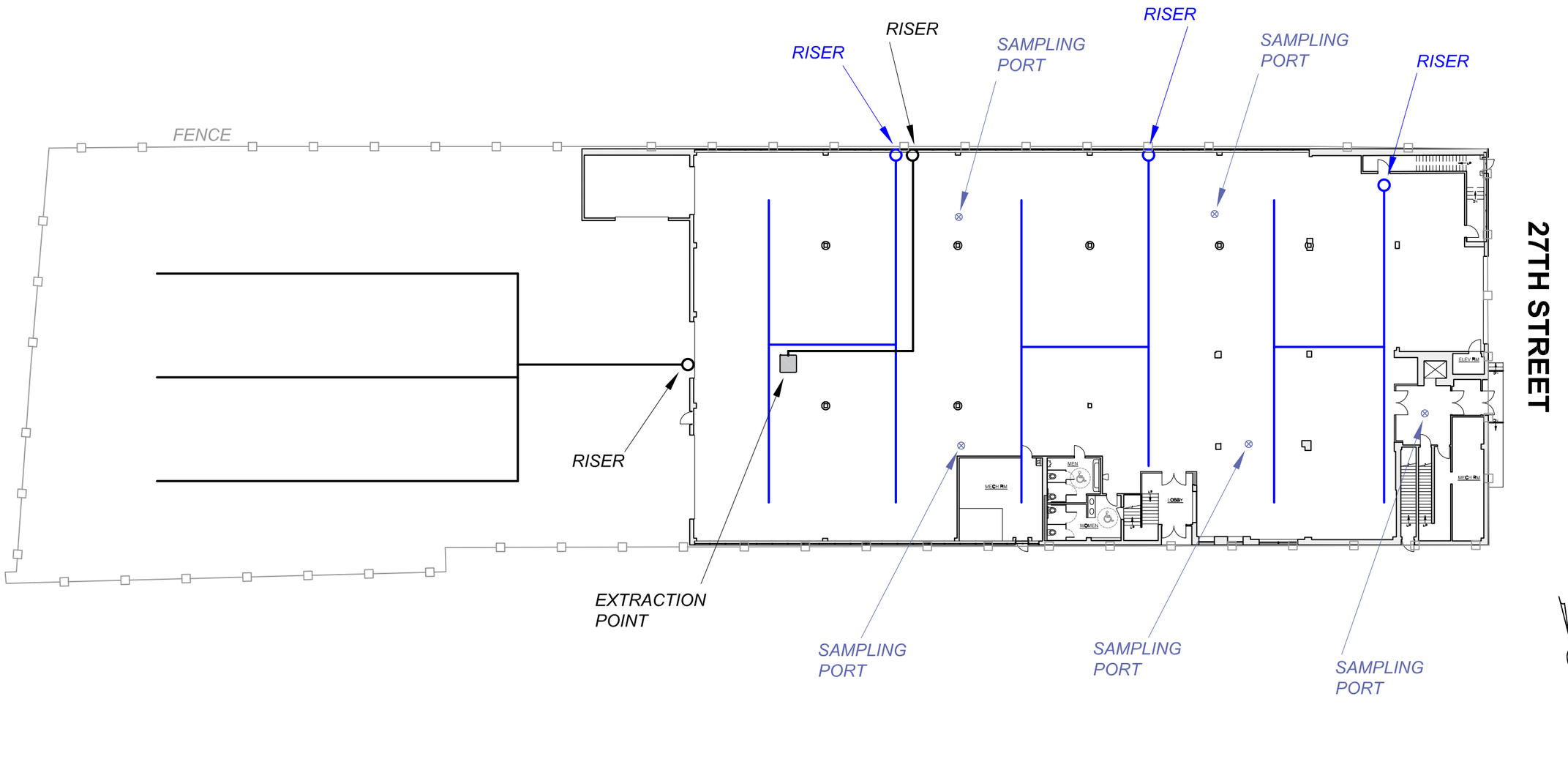
Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021
Prepared by: M.S.R.	Scale: AS SHOWN
Project Mgr: R.L.	Project: 3446.0008Y000
File: 3446.0008Y100.ppt	

FIGURE 6E



49TH AVENUE

* SSDS = SUB-SLAB DEPRESSURIZATION SYSTEM
* SVES = SOIL-VAPOR EXTRACTION SYSTEM

ROUX NOTES
1. FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.
2. ROUX FIELD VERIFIED THE SYSTEM TO THE EXTENT POSSIBLE, HOWEVER, THE CONFIGURATION OF SUBGRADE COMPONENTS COULD NOT BE VERIFIED.

0' 40' 80'
SCALE: 1" = 40'

Title:

SITE WIDE SSDS AND SVES

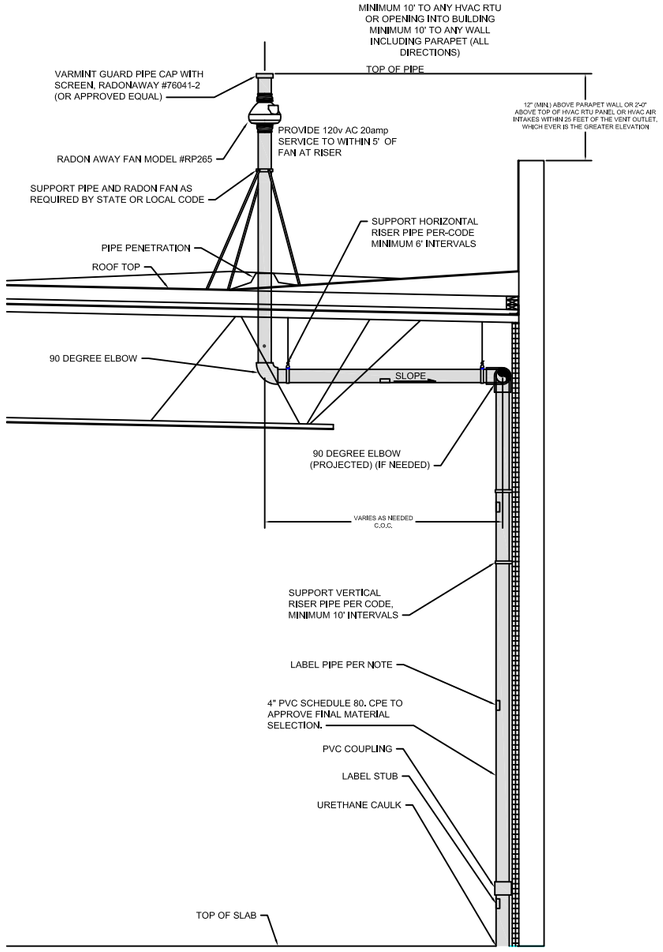
27-10 49TH AVENUE
LONG ISLAND CITY, QUEENS, NY

Prepared for:
HUNTERS POINT SG, LLC

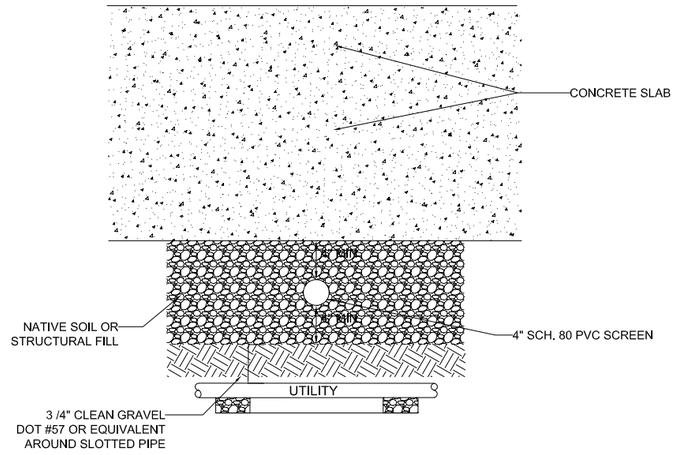
ROUX

Compiled by: DEK	Date: 12/2/2021	FIGURE
Prepared by: DEK	Scale: AS SHOWN	7
Project Mgr: CP	Project: 3446.0008Y000	
File: 3446.0008Y100.DWG		

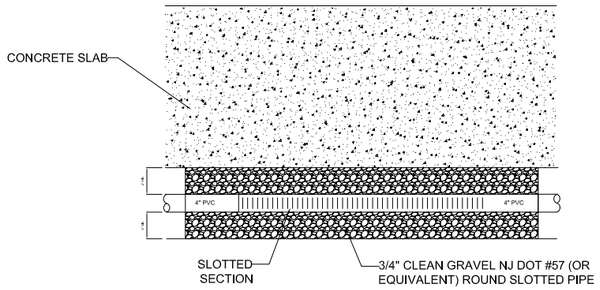
V:\CAD\PROJECTS\3446Y\0008Y\100\3446.0008Y100.DWG



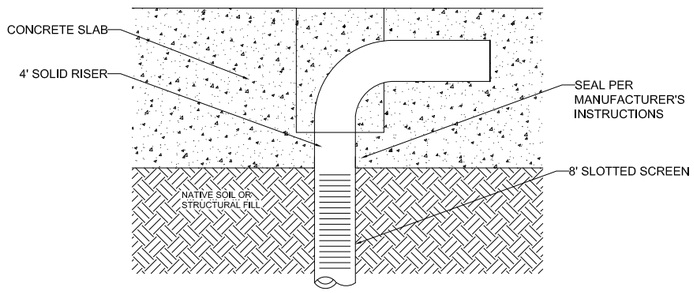
CONSTRUCTION AND INSTALLATION OF SSDS PIPING



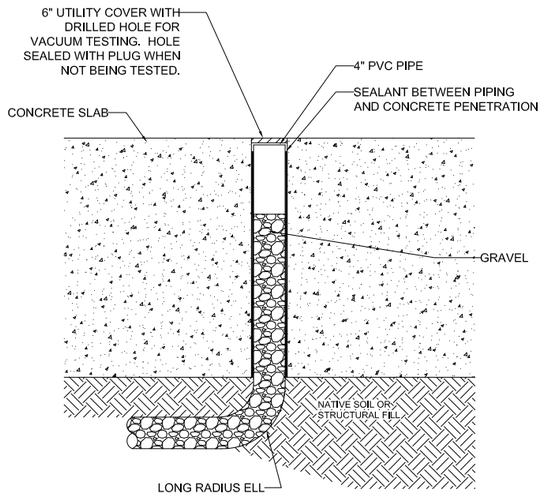
TYP. SSDS INSTALLATION



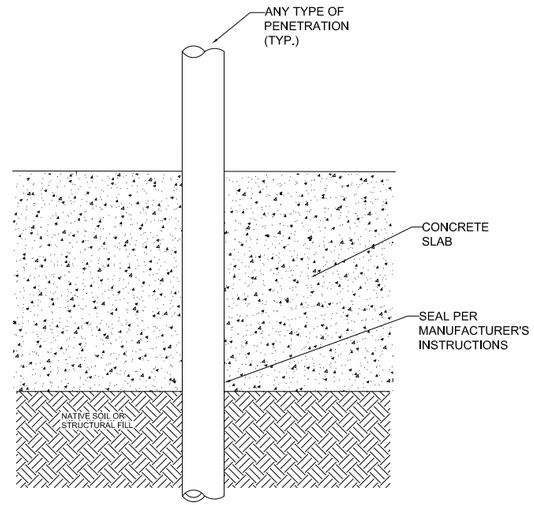
SOIL VAPOR EXTRACTION POINT



SAMPLING PORT



SLAB PENETRATION DETAIL



ROUX NOTES
1. FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.
2. ROUX FIELD VERIFIED THE SYSTEM TO THE EXTENT POSSIBLE, HOWEVER, THE CONFIGURATION OF SUBGRADE COMPONENTS COULD NOT BE VERIFIED.

Title:

SSDS SVES CROSS SECTION DETAIL

27-10 49TH AVENUE
LONG ISLAND CITY, QUEENS, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX	Compiled by: DEK	Date: 12/2/2021	FIGURE
	Prepared by: DEK	Scale: AS SHOWN	8
	Project Mgr: CP	Project: 3446.0008Y000	
	File: 3446.0008Y100.DWG		

V:\CAD\PROJECTS\3446Y\0008Y\100\3446.0008Y100.DWG

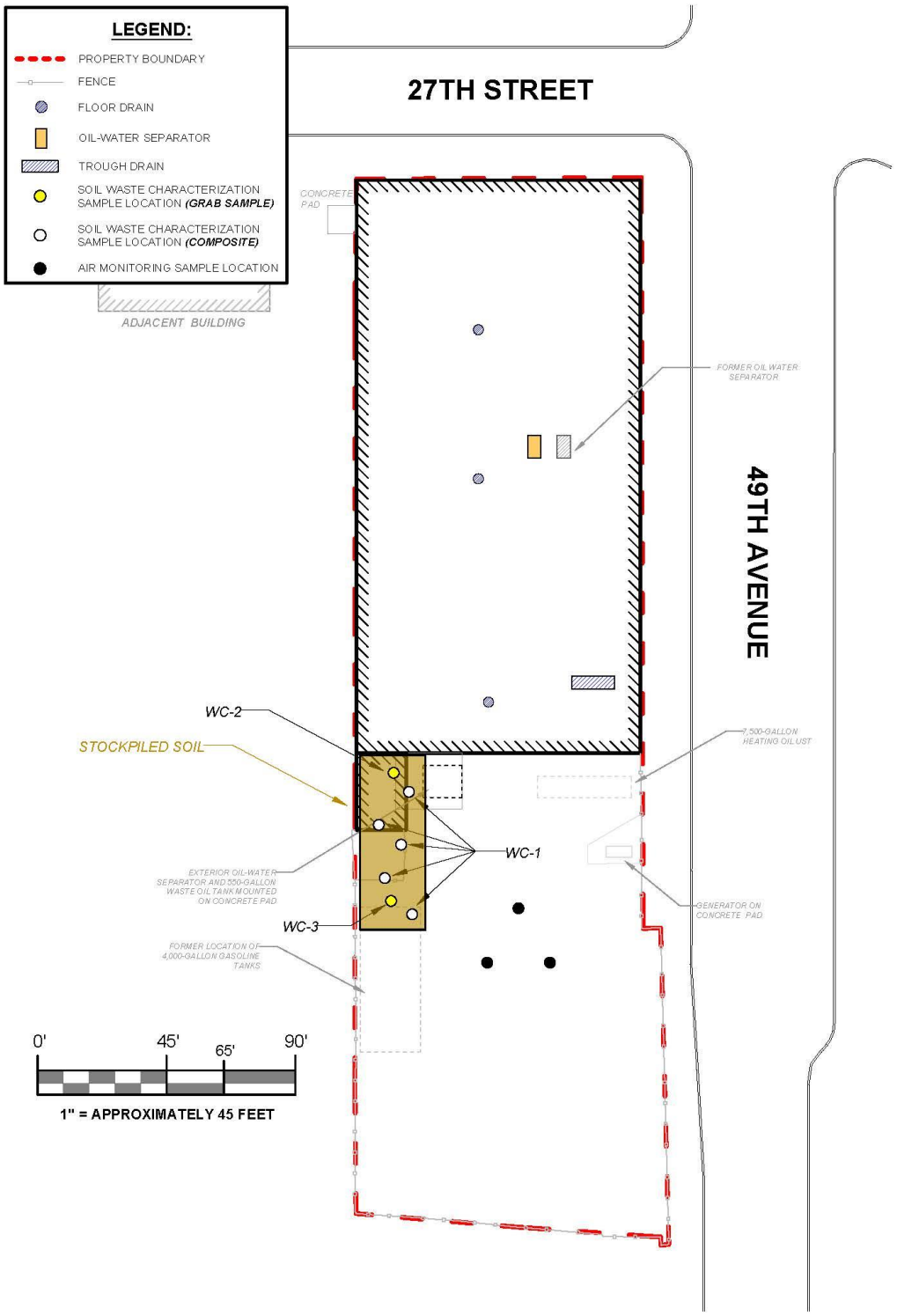


FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

SOIL STOCKPILE AREAS AND AIR MONITORING STATION LOCATIONS

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	9
Project Mgr: R.L.	Project: 3446.0008Y000	
File: 3446.0008Y100.ppt		

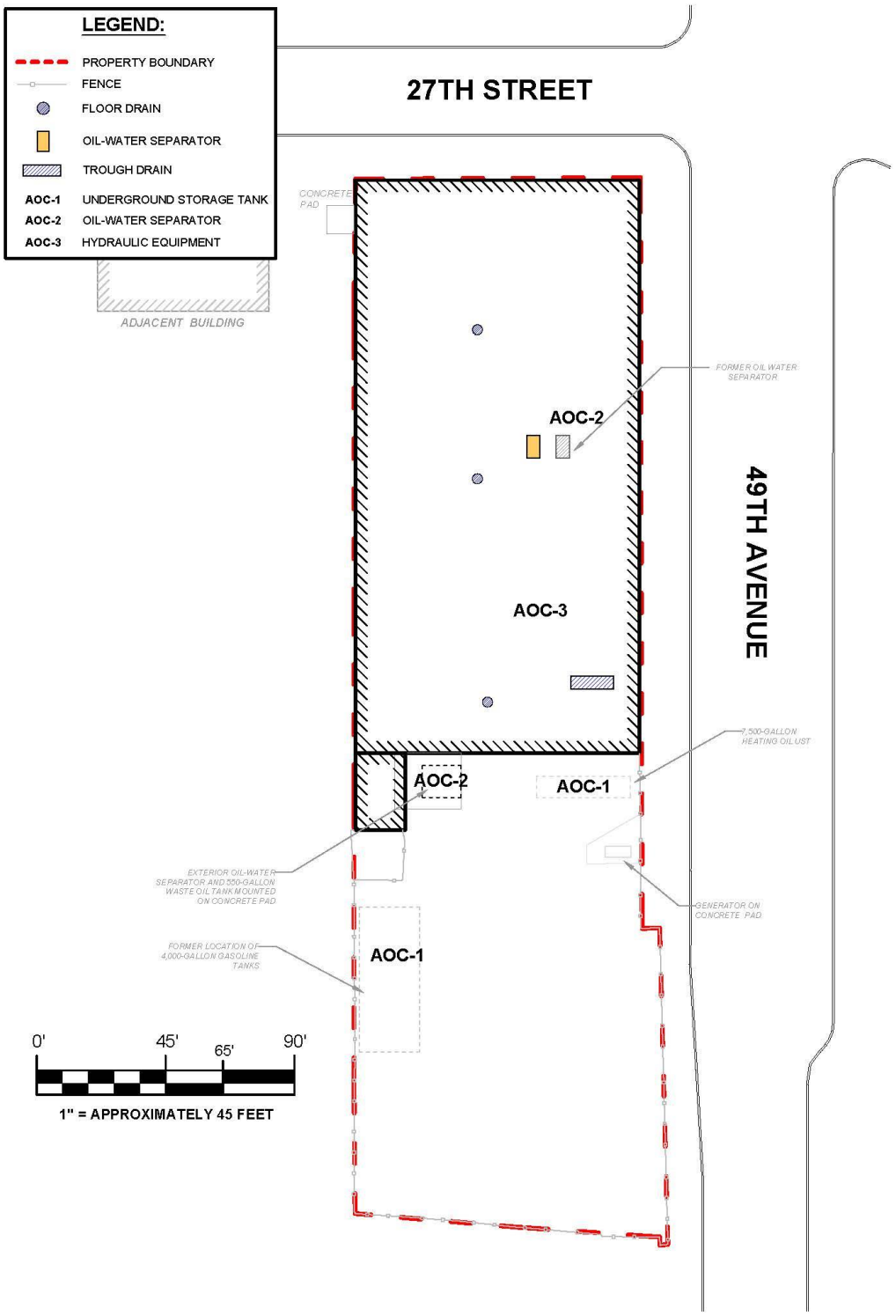


FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.

Title:

AREA OF CONCERN MAP

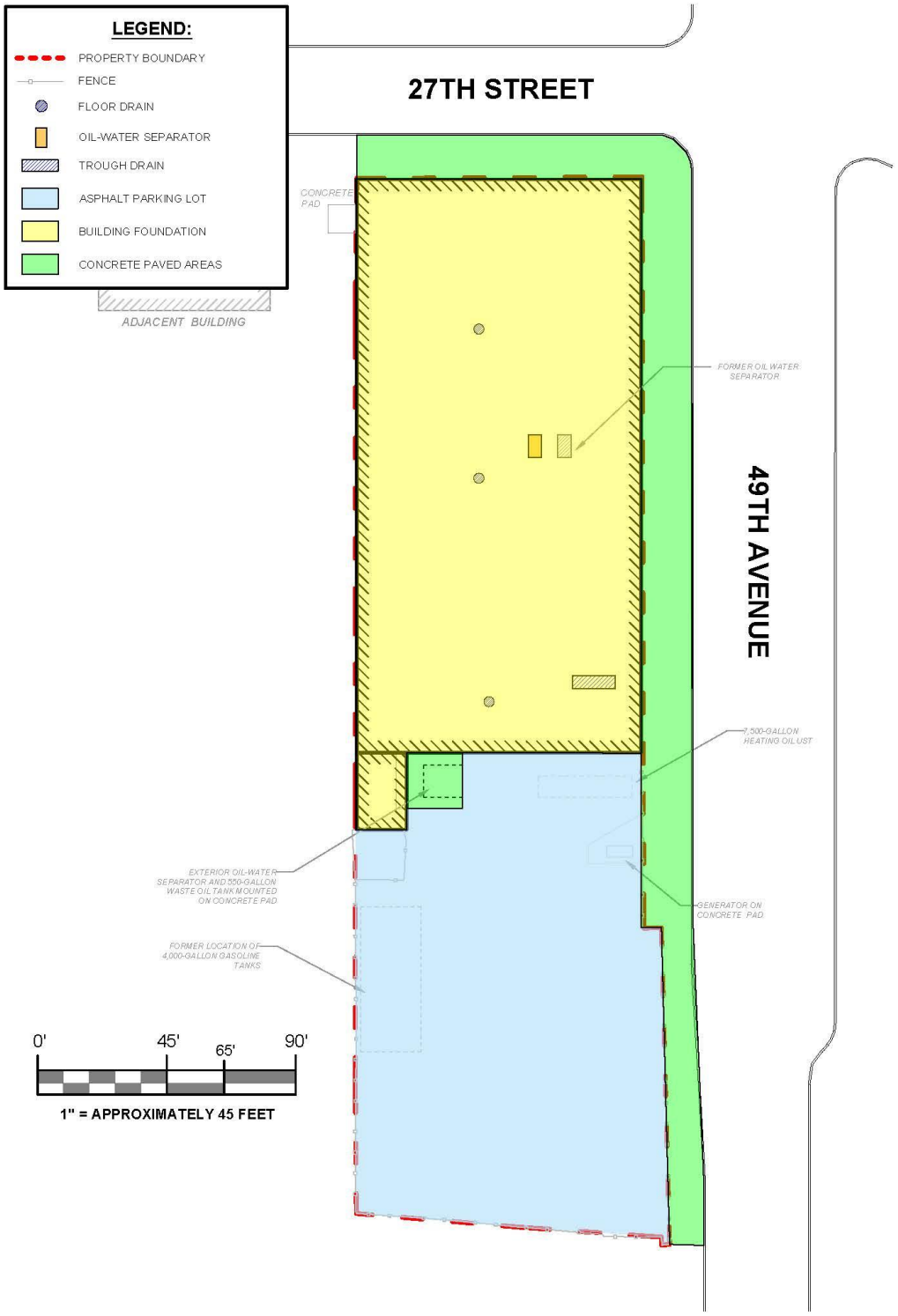
SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	
Project Mgr: R.L.	Project: 3446.0008Y000	10
File: 3446.0008Y100.ppt		



SITE-WIDE COVER SYSTEM

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

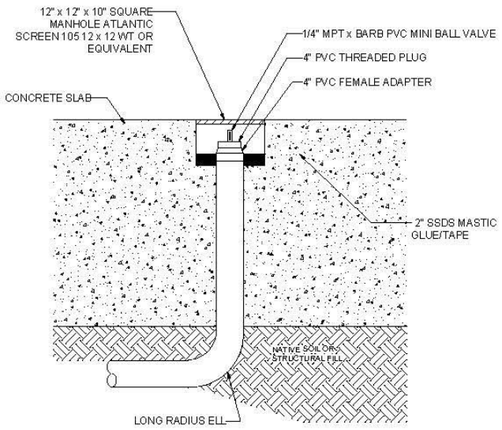
HUNTERS POINT SG, LLC

ROUX	Compiled by: R.M.	Date: 11/23/2021	FIGURE 11
	Prepared by: M.S.R.	Scale: AS SHOWN	
	Project Mgr: R.L.	Project: 3446.0008Y000	
	File: 3446.0008Y100.ppt		

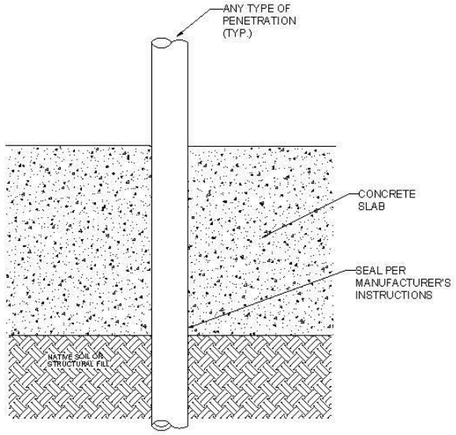
**FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.*

BUILDING FOUNDATION DETAIL

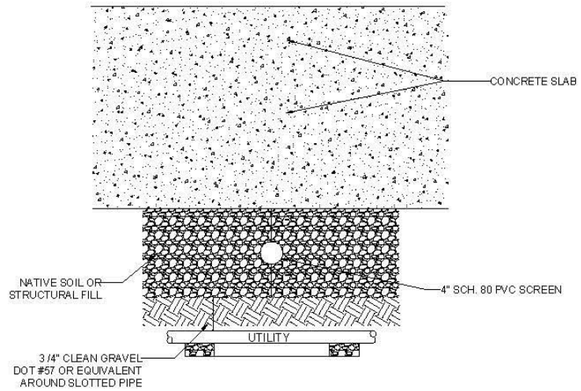
SAMPLING PORT



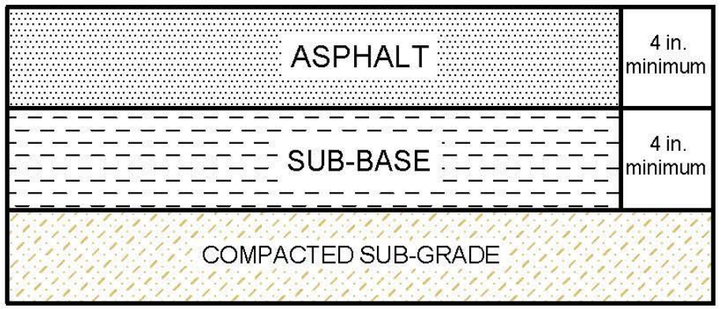
SLAB PENETRATION DETAIL



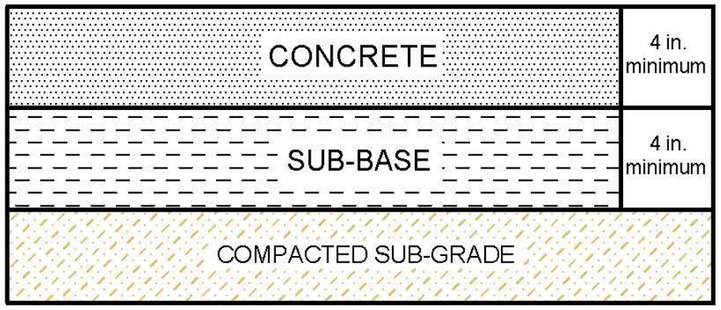
CONSTRUCTION AND INSTALLATION OF SSDS PIPING



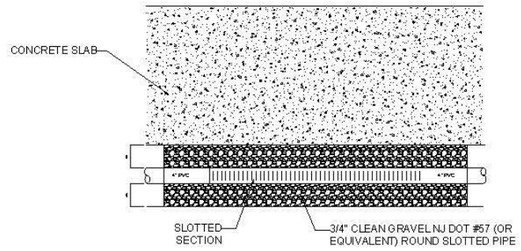
ASPHALT PARKING LOT DETAIL



CONCRETE PAVED SURFACES DETAIL



TYP. SSDS INSTALLATION



SOIL VAPOR EXTRACTION POINT

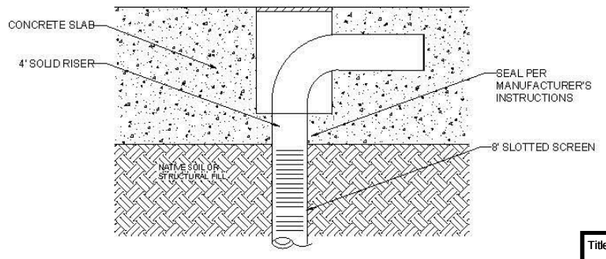


**FIGURE ADAPTED FROM DRAWINGS BY ATLANTIC ENVIRONMENTAL SOLUTIONS INC.*

Title:

SITE-WDIE COVER DETAIL

SUB-2A27-10 49TH AVENUE,
NEW YORK, NY

Prepared for:

HUNTERS POINT SG, LLC

ROUX

Compiled by: R.M.	Date: 11/23/2021	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	
Project Mgr: R.L.	Project: 3446.0008Y000	11A
File: 3446.0008Y100.ppt		

APPENDICES

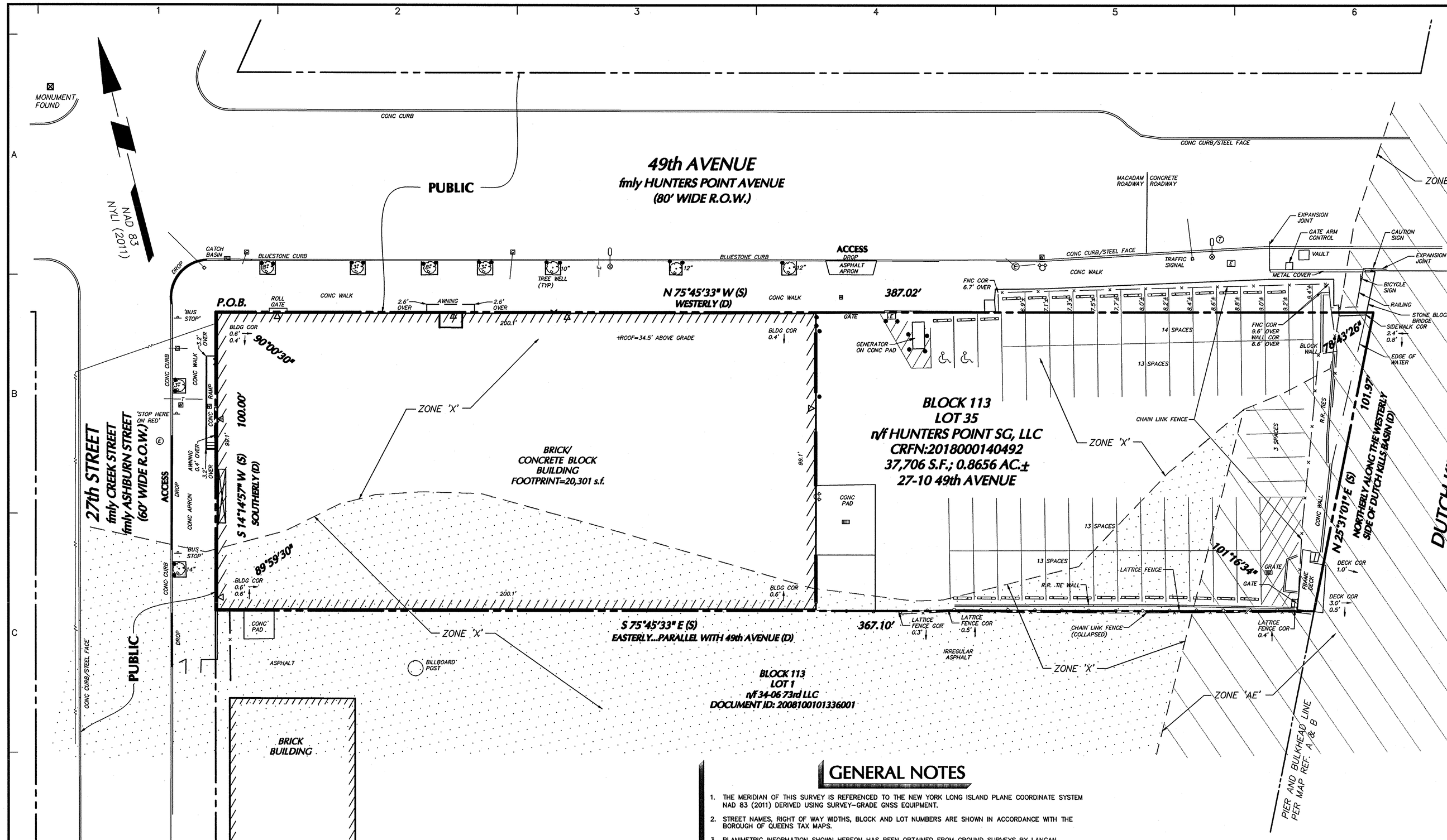
A. Electronic Copy of Construction Completion Report (included in hard copies only)
B. Survey Map, Metes and Bounds
C. Daily and Monthly Reports (Incl CD)
D. Project Photo Log (Incl CD)
E. Soil /Waste Characterization Documentation
    E1. Waste Hauler Permit Certificates
    E2. Disposal Facility Approval and Approval Letters
    E3. Facility Permit Certificates
    E4. Waste Manifests or Bills of Lading (Incl CD)
    E5. Liquid Disposal Manifests (Incl CD)
F. CAMP Field Data Sheets and Air Monitoring Data (Incl. CD)
G. Raw Analytical Laboratory Data (Incl. CD)
H. DUSRs For All Endpoint Samples (Incl CD)
I. Engineering Blower Information
J. Imported Materials Documentation

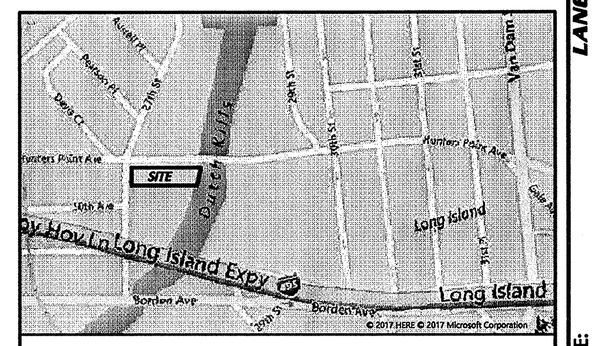
APPENDIX A

Electronic Copy of Construction Completion Report
(included in hard copies only)

APPENDIX B

Survey Map, Metes and Bounds





PROJECT LOCATION MAP

SCALE: N.T.S.

SOURCE: AS SHOWN

FLOOD ZONE

TABLE A ITEM 3

THE SUBJECT PROPERTY LIES WITHIN ZONE 'X' (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN); ZONE 'X' (DOTTED HATCH--AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD); AND ZONE 'AE' (STRIPED HATCH--SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD -- BASE FLOOD ELEVATIONS DETERMINED) AS SHOWN PER THE MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, CITY OF NEW YORK, NEW YORK, BRONX, RICHMOND, NEW YORK, QUEENS, AND KINGS COUNTIES, PANEL 202 OF 457, MAP NUMBER 3604970202F, MAP REVISED SEPTEMBER 5, 2007.

TITLE EXCEPTIONS

THE SURVEYED PROPERTY IS SUBJECT BUT NOT LIMITED TO THE FOLLOWING FACTS AS REVEALED BY THE HEREON REFERENCED INFORMATION. THE INFORMATION SHOWN HEREON DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION THAT MAY AFFECT THE QUALITY OF TITLE TO BOTH THE SUBJECT AND ADJOINING PARCELS SHOULD BE VERIFIED BY AN ACCURATE AND CURRENT TITLE REPORT.

CERTIFICATE OF TITLE ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY, TITLE No. NYFA19--3473, EFFECTIVE DATE: JULY 21, 2019

SCHEDULE B (EXCEPTIONS):NONE

MAP REFERENCES

THIS SURVEY IS BASED UPON PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, AND THE FOLLOWING REFERENCES:

A. "MAP SHOWING STREET SYSTEM FOR THE TERRITORY DESIGNATED AS SECTION 314 OF THE FINAL MAPS OF THE BOROUGH OF QUEENS, DATED: NEW YORK, MARCH 17, 1915", REVISED THROUGH FEBRUARY 23, 1941.

B. "PIERHEAD AND BULKHEAD LINES, NEWTOWN CREEK, NEW YORK, EAST RIVER TO CHERRY ST. AND HOBSON AVE., BOROUGHS OF BROOKLYN AND QUEENS, NEW YORK CITY AND DUTCH KILLS, NEW YORK, BOROUGH OF QUEENS, NEW YORK CITY", APPROVED NOVEMBER 20, 1940.

SURVEY DESCRIPTION

BEGINNING at the corner formed by the intersection of the southerly side of 49th Avenue (80' wide R.O.W.), formerly known as Hunters Point Avenue, with the easterly side of 27th Street (60' wide R.O.W.), formerly known as Creek Street and Ashburn Street, and running; thence

1. Along the said easterly sideline of 27th Street, South 14°14'57" West a distance of 100.00 feet to a point where the same is intersected by the division line between lands herein described and Lot 1 Block 113, land n/f 34--06 73rd LLC as described in Document 2008100101336001; thence

2. Along said division line and parallel with the southerly sideline of said 49th Avenue, South 75°45'33" East a distance of 367.10 feet to a point in the Pier and Bulkhead Line on the westerly side of Dutch Kills Basin as shown on a certain map entitled Map Showing Street System For the Territory Designated As Section 314 of the Final Maps of the Borough of Queens, Dated: New York, March 17, 1915", revised through February 23, 1941; thence

3. Along said Pier and Bulkhead Line, North 25°31'01" East a distance of 101.97 feet to a point in the aforementioned southerly sideline of 49th Avenue; thence

4. Along said southerly sideline, North 75°45'33" West a distance of 387.02 feet to the point and place of BEGINNING.

RECORD DESCRIPTION

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough of Queens, County of Queens, City and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection of the southerly side of the 49th Avenue, formerly known as Hunters Point Avenue, with the easterly side of 27th Street, formerly known as Creek Street;

RUNNING THENCE southerly along the easterly side of 27th Street, 100 feet;

THENCE easterly on a line parallel with 49th Avenue, 367.10 feet to the westerly side of Dutch Kills Basin;

THENCE northerly along the westerly side of Dutch Kills Basin along a line which on its westerly side forms an interior angle of 101 degrees 16 minutes 34 seconds with the last described course, 101.97 feet to the southerly side of the 49th Avenue;

THENCE westerly along the southerly side of 49th Avenue, 387.02 feet to the point or place of BEGINNING.

LEGEND (NOT SHOWN TO SCALE)

HYDRANT		BOLLARD		D	STORM DRAIN
STREET LIGHT		PEDESTRIAN WALK SIGNAL		S	SANITARY LINE
AREA LIGHT		DOOR		COMB	COMBINED UTILITY LINE
SIGNAL POLE		DOUBLE DOOR		UNK	UNKNOWN UTILITY LINE
POLE		OVERHEAD DOOR		G	GAS LINE
GUY WIRE		PARKING METER		W	WATER LINE
ANCHOR POLE		METAL COVER		E	ELECTRIC LINE
MANHOLE		ELECTRIC BOX		T	TELEPHONE LINE
MANHOLE (DRAINAGE)		SOIL BORING		C	CABLE TV LINE
MANHOLE (SANITARY SEWER)		MONITORING WELL		ST	STEAM LINE
MANHOLE (ELECTRIC)		TEST PIT		FM	FORCE MAIN
MANHOLE (WATER)		BENCHMARK		FO	FIBER OPTIC
MANHOLE (NATURAL GAS)		ROOF DRAIN		(...)*	REFERENCED UTILITY LINE (TYPE AS NOTED) BASED ON RECORD MAPPING
MANHOLE (TELEPHONE)		SPOT ELEVATION			OVERHEAD WIRE
MANHOLE (FORCE MAIN)		CONCRETE CURB			GUIDE RAIL (TYPE AS NOTED)
MANHOLE (STEAM)		CONCRETE			CHAIN LINK FENCE
MANHOLE (UNKNOWN UTILITY)		DETECTABLE PAD			WOOD/STOCKADE FENCE
WATER VALVE		DROP CURB			WIRE FENCE
GAS VALVE		BROKEN WHITE STRIPE			IRON FENCE
SHRUB		SINGLE YELLOW STRIPE			TREE LINE
CATCH BASIN		DOUBLE YELLOW STRIPE			EASEMENT LINE
CLEAN OUT		SINGLE WHITE STRIPE			PROPERTY LINE
TREE		REINFORCED CONCRETE PIPE			RIGHT-OF-WAY LINE
SIGN		DUCTILE IRON PIPE		322	CONTOUR LINE
		CORRUGATED METAL PIPE			
		NO VISIBLE PIPE			
		EDGE OF PAVEMENT			
		LANDSCAPED AREA			
		SURVEYED BEARING & DISTANCE			
		DEED BEARING & DISTANCE			

GENERAL NOTES

1. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW YORK LONG ISLAND PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY--GRADE GNSS EQUIPMENT.
2. STREET NAMES, RIGHT OF WAY WIDTHS, BLOCK AND LOT NUMBERS ARE SHOWN IN ACCORDANCE WITH THE BOROUGH OF QUEENS TAX MAPS.
3. PLANIMETRIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. DURING OCTOBER 2017 AND UPDATED BY VISUAL INSPECTION DURING OCTOBER 2019.
4. OFFSETS (IF SHOWN) ARE FOR SURVEY REFERENCES ONLY AND SHOULD NOT BE USED IN CONSTRUCTION OF ANY TYPE. LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC. RECOMMENDS THE PLACEMENT OF SURVEY MARKERS.
5. TOPOGRAPHY, WETLANDS, ENVIRONMENTAL AND/OR HAZARDOUS MATERIALS LOCATION, IF ANY, NOT COVERED UNDER THIS CONTRACT.
6. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.

   ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC...) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.

   UNLESS SPECIFICALLY NOTED HEREON THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.

   PRIOR TO ANY DESIGN OR CONSTRUCTION THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS

   UNLESS NOTED BELOW SUPPLEMENTAL DOCUMENTS WERE NOT USED TO COMPILE THE SUBSURFACE UTILITY INFORMATION SHOWN HEREON
7. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB--DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
8. THIS PLAN NOT VALID UNLESS EMBOSSED OR BLUE INK STAMPED WITH THE SEAL OF THE PROFESSIONAL.
9. THIS IS TO CERTIFY THAT THERE ARE NO STREAMS NOR NATURAL WATERCOURSES ON THE PROPERTY EXCEPT AS SHOWN ON THIS SURVEY.
10. PERTAINING TO ITEM 16 OF TABLE 'A' OF THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, THE SURVEYOR DID NOT OBSERVE EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
11. PERTAINING TO ITEM 17 OF TABLE 'A' OF THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, NO INFORMATION HAS BEEN MADE AVAILABLE REGARDING PROPOSED CHANGES TO STREET RIGHT OF WAY LINES, NOR IS THERE VISIBLE EVIDENCE OF RECENT STREET OR SIDEWALK REPAIRS.
12. PERTAINING TO ITEM 18 OF TABLE 'A' OF THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, NO WETLAND MARKERS WERE OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
13. THE PROPERTY SHOWN ON THIS SURVEY IS THE SAME PROPERTY AS DESCRIBED IN CERTIFICATE OF TITLE No.:NYFA19--3473 WITH AN EFFECTIVE DATE OF JULY 21, 2019, ISSUED BY LAND SERVICES USA, INC., AS AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
14. THE SURVEYOR DID NOT OBSERVE EVIDENCE OF GRAVEYARDS OR CEMETERIES ON THE PROPERTY.
15. THE PROPERTY DESCRIBED HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN LAND SERVICES USA, INC.'S FILE NO. NYFA19--3473 WITH AN EFFECTIVE DATE OF JULY 21, 2019, AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE SITE OR OTHERWISE KNOWN TO ME HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE SUBJECT PROPERTY.
16. ALL MAJOR CORNERS OF THE BOUNDARY OF THE PROPERTY ARE LOCATED ON THE SURVEY BASED ON REFERENCES TO EXISTING MONUMENTS OUTSIDE THE PROPERTY BOUNDARY.

20 0 5 10 20
SCALE IN FEET

PARKING

TABLE A ITEM 9

THE FOLLOWING ARE THE NUMBER OF CLEARLY IDENTIFIABLE SPACES WITHIN THE SUBJECT PROPERTY.

REGULAR SPACES = 56

DISABLED SPACES = 2

TOTAL SPACES = 58

ZONING DISTRICT M3-2 (HEAVY MANUFACTURING)	
DEVELOPMENT REGULATIONS	
Regulation	**Requirement**
Setbacks	
Building	
Street	Not required
Side	Not required; 8 feet
	minimum if provided
Rear	20 feet minimum; not
	required within 100 feet
	of corners
Waterfront	40 feet minimum
Height	
Principle	
Buildings	60 feet or 4 stories,
	maximum, whichever is
	less within the initial
	setback, then restricted
	by the sky exposure plane
Site Area	
Lot Area	Not requirement
Density	
Floor Area Ratio	2.00 maximum
Parking	
Parking Formula	No parking required in
	the M3-2 zoning district

NOTE: ZONING REPORT PROVIDED BY KEY ZONING ASSESSMENTS, LLC., SITE NUMBER 2017.1271.1, FINAL--REVISION 3 DATED MARCH 28, 2018

ENCROACHMENTS

(i) 13 PARKING SPACES ON NORTHERLY SIDE OF PROPERTY
(ii) FRAME DECK ON EASTERLY SIDE OF PROPERTY
(iii) LATTICE FENCE ON SOUTHERLY SIDE OF PROPERTY NEAR CORNER OF BUILDING
(iv) CONCRETE RAMP ON WESTERLY SIDE OF BUILDING
(v) AWNINGS ON NORTHERLY AND WESTERLY SIDES OF BUILDING
(vi) SIDEWALK AT NORTHEAST CORNER OF PROPERTY ALONG 49th AVENUE

ACCESS STATEMENT

THE SURVEYED PROPERTY IS ACCESSED FROM 27th STREET AND 49th AVENUE

SURVEYOR'S CERTIFICATION

CERTIFIED TO:

1. LAND SERVICES USA, INC.
2. FIRST AMERICAN TITLE INSURANCE COMPANY
3. CIBC Bank USA, AN ILLINOIS BANKING CORPORATION, ITS SUCCESSORS AND ASSIGNS
4. HUNTER'S POINT SG, LLC

"I HEREBY STATE THAT THIS PLAN IS BASED ON A FIELD SURVEY MADE BY ME OR UNDER MY IMMEDIATE SUPERVISION IN ACCORDANCE WITH NJAC 13:40--5.1 "PREPARATION OF LAND SURVEYS," AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, AND IN MY PROFESSIONAL OPINION, CORRECTLY REPRESENTS THE CONDITIONS FOUND ON THE DATE OF THE FIELD SURVEY AT THE SUBJECT PROPERTY" AND

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 6(a), 6(b), 7(a), 7(b--1), 7(c), 8, 9, 11, 13, 14, 16, 17, 18, 19 AND 20 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON OCTOBER 2, 2019.

Date:

Signature:

STATE OF NEW YORK
PAUL J. FISHER
050784
LICENSED LAND SURVEYOR

PAUL J. FISHER
PROFESSIONAL LAND SURVEYOR
NY Lic. No. 050784--1
pfisher@langan.com

10--02--19	UPDATED BY VISUAL INSPECTION & UPDATE TITLE REPORT	5
04--05--18	PER ATTORNEY COMMENTS	4
04--02--18	ADD'L CERTIFICATIONS ADDED	3
03--22--18	PER ATTORNEY COMMENTS	2
11--17--17	'PUBLIC' NOTE ADDED	1
Date	Description	No.

REVISIONS

LANGAN

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001

T: 212.479.5400 F: 212.479.5444 www.langan.com

Project

27-10 49th AVENUE

BLOCK No. 113, LOT No. 35
BOROUGH OF QUEENS
CITY OF NEW YORK

QUEENS COUNTY NEW YORK

Drawing Title

ALTA/NSPS LAND TITLE SURVEY

Project No.	170497901
Date	NOVEMBER 9, 2017
Scale	1"=20'
Drawn By	PFF
Checked By	PDF
Submission Date	
Drawing No.	VL-101
Sheet	1 of 1

PROJECT NO. 170497901 SUBMISSION DATE:

LANGAN

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Filename: \\langan.com\data\NYC\data9\170497901\Project Data_Discipline\Survey\CAD\Sheetfiles\170497901-V-VL0101.dwg Date: 10/3/2019 Time: 11:24 User: jmcgill Style Table: Langan.stb Layout: VL-101

APPENDIX C

Daily and Monthly Reports
(Incl CD)

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 10/29/18 Monday (08:00 - 15:00)

Site Weather Conditions:

- Sunny, 55°F, wind 5-10 mph from southwest

On Site:

- AESI: Seamus Kelly, Leah DeEgidio, Rebeca Garofalo
- Viridian: Matt, Eric

Daily H&S Meeting Topics:

Appropriate PPE (hard heats, safety vests, eye and hearing protection, steel toed boots)
Electrical Safety

Equipment on site:

Hammer drill, hand tools
Mobile laboratory

Site Activities:

Mark out 25' x 25' sampling grid
Install sampling ports through asphalt parking lot surface
Set up & calibrate mobile laboratory
CAMP enclosures not delivered due to miscommunication with vendor. Will be delivered and operational by 11/1/18

Planned Work for 10/30/18

Install sampling ports through interior of building
Collect and analyze soil gas samples from parking lot sample ports

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 10/30/18 Tuesday (08:00 - 16:15)

Site Weather Conditions:

- Sunny, 50°F, light winds

On Site:

- AESI: Seamus Kelly, Rebeca Garofalo
- Viridian: Flint, Jim, Matt, Eric
- OER: Samantha Catalanotto

Daily H&S Meeting Topics:

Appropriate PPE (hard heats, safety vests, eye and hearing protection, steel toed boots)
Electrical Safety

Equipment on site:

Hammer drill, hand tools
Mobile laboratory

Site Activities:

Install sampling ports through building floor slab
Calibrate mobile laboratory
Collect and analyze soil gas samples from 34 sample locations in parking lot and eastern portion of building
Provide walkthrough for OER staff and demonstration of mobile laboratory operation
Prepare sample summary maps

Planned Work for 10/31/18:

No activities onsite

Planned Work for 11/1/18:

Set up CAMP enclosures and collect base line readings
Collect and analyze soil gas samples from remaining sample grids in building.
Collect additional samples along northern property line to validate results
Collect confirmation samples from sample grids with highest results

Findings & Corrective Action:

N/A

Waste generated:

N/A

MONTHLY PROGRESS REPORT: OCTOBER 2018

27-10 49th Avenue
Long Island City, New York
Brownfield Cleanup Program Site Number C241219
Reporting Period: October 1, 2018 – October 31, 2018

Introduction

Atlantic Environmental Solutions, Inc. (AESI), has prepared this Monthly Progress Report in accordance with paragraph XI of the Standard Terms and Conditions of the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Agreement (C241219) (Agreement) for the above-referenced Site. AESI is submitting this Monthly Progress Report on behalf of Hunters Point SG, LLC for the one-month period ending October 31, 2018.

Work Completed During Reporting Period:

Preparing Qualitative Human Health Exposure Assessment (HHEA)

Remedial Investigation Activities

Work Anticipated During Next Reporting Period:

Remedial Investigation Activities

Data Evaluation

Approved Activity Modifications:

None.

Sampling and Testing Results:

Sampling Results will be submitted with the Remedial Investigation Report in December 2018.

Deliverables Submitted During This Reporting Period:

Daily Reports

Project Completion Status:

No change in this reporting period.

Unresolved Delays Encountered or Anticipated During Reporting Period:

None.

Citizen Participation Plan Activities Undertaken During Reporting Period or Anticipated During the Next Reporting Period:

None.

Miscellaneous Information:

None.

Points of Contact and Principal Project Team Members as of March 31, 2018:

Personnel	Investigation Role	Contact Information
Zach McHugh Hunters Point SG, LLC	BCP Volunteer	Phone: 929.226.69.06 Email: ZMcHugh@sitexgroup.com
Robert H. Crespi	Environmental Attorney	Phone: 973.530.2060 Email: rcrespi@csglaw.com
Seamus Kelly	Project Manager	Phone: 201.876.9400 Email:skelly@solutionsenvironmental.com
Craig Puerta, PE	Project Engineer-of-Record	Phone: 917.952.8216 Email: craig@viridianinc.com
Leah DeEgidio	Assistant Project Manager	Phone: 201.876.9400 Email:leah@solutionsenvironmental.com
Rebeca Garofalo	Assistant Project Manager	Phone: 201.876.9400 Email: rgarofalo@solutionsenvironmental.com
Seamus Kelly	Project Health and Safety Officer	Phone: 201.876.9400 Email:skelly@solutionsenvironmental.com
Rebeca Garofalo	Field Team Lead and Safety Officer	Phone: 201.876.9400 Email: rgarofalo@solutionsenvironmental.com
Salvatore DeLucia	Quality Assurance Manager	Phone: 201.876.9400 Email: sdelucia@solutionsenvironmental.com
Seamus Kelly	Data Validator	Phone: 201.876.9400 Email:skelly@solutionsenvironmental.com
Douglas Schrimpf Eastern Environmental Solutions, Inc.	Drilling Contractor	Phone: 631.727.2700 Email: dschrimpf@easternenviro.com
John Masculin York Analytical Laboratories, Inc.	Laboratory Contractor for 2018 *	Phone: 203.325.1371 Email: JMasculin@yorklab.com

DRAFT

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/1/18 Thursday (08:00 -16:15)

Site Weather Conditions:

- Sunny, 65°F, light winds (1-3 mph) from southwest

On Site:

- AESI: Seamus Kelly, Rebeca Garofalo
- Viridian: Jim
- Craig Puerta, PE

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
Electrical Safety

Equipment on site:

Hammer drill, hand tools
Mobile laboratory

Site Activities:

Calibrate mobile laboratory
Set up 3 CAMP enclosures in parking lot on eastern portion of site
Conduct periodic readings from CAMP equipment
Collect and analyze soil gas samples from 38 sample locations in parking lot and building
Rerun selected samples from 10/30 & 11/1 to confirm results
Prepare sample summary maps

Planned Work for 11/2/18:

No onsite work anticipated

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/6/18 Tuesday (08:20 -16:00)

Site Weather Conditions:

- Rain, 55°F, light winds (1-3 mph) from southwest

On Site:

- AESI: Rebeca Garofalo
- York Labs (drop off only)
- Pine Environmental Services, LLC (drop off only)

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)

Equipment on site:

CAMP Monitoring Equipment
Summa Canisters

Site Activities:

CAMP enclosures not set up due to heavy rain
Received laboratory prepared Summa Canisters from lab vendor
Sited canisters for sampling indoor air in sample grids B2, B4, C7 and outside for ambient air sampling. Duplicate sample 116-Dup sited in grid C7
Received helium detector from Pine Environmental

Planned Work for 11/7/18:

Subslab and soil gas sampling from sample grids D1, C3, C5 and B6 inside the building and grids A10, C11, B12 and B13 in the parking lot as approved by case manager.

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/07/2018 Tuesday (08:40 -16:15)

Site Weather Conditions:

- Sunny, 56°F, light winds (2-3 mph) from southwest

On Site:

- AESI: Seamus Kelly, Rebeca Garofalo

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
Electrical Safety

Equipment on site:

Helium Detector
Summa Canisters

Site Activities:

Set up 3 CAMP enclosures in parking lot on eastern portion of site
Conduct periodic readings from CAMP equipment
Collect soil gas samples from 8 sample locations in parking lot and building, grids: A10, B6,B12, B14, C3, C5, C11 and D1
Collect duplicate sample from sample grid: C5

Planned Work for 11/08/18:

No onsite work anticipated

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/14/18 Wednesday (06:40 -15:00)

Site Weather Conditions:

- 39°F, winds (3-4 mph) from southwest

On Site:

- AESI: Rebeca Garofalo, Seamus Kelly, Leah DeEgidio, Brittany Finzi
- Eastern Environmental (Drilling Contractor) Shane & Josh
- York Labs (drop off and pick up only)

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
PFAS Sampling Protocol

Equipment on site:

CAMP Monitoring Equipment
6610DPT Geoprobe

Site Activities:

CAMP Stations 1 & 2 were set up to monitor both dust and VOCs. Station 3 was installed with a dust monitor only due to a PID malfunction
Boring locations marked out and cleared for accessibility with Eastern Environmental.

One (1) soil boring advanced inside building in warehouse area. One (1) soil boring advanced in parking lot. One (1) soil boring advanced in 49th street. One (1) soil boring advanced in the loading dock area adjacent to 27th Street.

Samples collected from 4 borings for analysis of VOCs, SVOCs, pesticides, PCBs, Metals and PFAS.

Three (3) monitoring wells advanced in the parking lot area. One (1) monitoring well advanced in the sidewalk of 49th avenue. One (1) monitoring well advanced in the loading dock area adjacent to 27th street.

Planned Work for 11/15/18:

Soil borings within building. Develop monitoring wells

Findings & Corrective Action:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/15/18 Thursday (06:40 -15:00)

Site Weather Conditions:

- 35°F, winds (3-4 mph) from southwest

On Site:

- AESI: Rebeca Garofalo, Julia Hackel
- Eastern Environmental (Drilling Contractor)
- York Labs (pick up only)

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
PFAS Sampling Protocol

Equipment on site:

CAMP Monitoring Equipment
PID
6610DPT Geoprobe

Site Activities:

CAMP Stations 1 & 2 were set up to monitor both dust and VOCs.
Boring locations marked out and cleared for accessibility with Eastern Environmental.

Three (3) soil borings were advanced inside the office area. One (1) soil boring was advanced in the boiler room area.

Samples collected from 4 borings for analysis of VOCs, SVOCs, pesticides, PCBs, Metals and PFAS.

The seven (7) monitoring wells were developed.

Planned Work for 11/16/18:

N/A

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/27/18 Tuesday (05:40 -18:00)

Site Weather Conditions:

- 42°F, winds (3-4 mph) from southwest

On Site:

- AESI: Seamus Kelly, Rebeca Garofalo, Andrew Biskupski

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
PFAS Sampling Protocol

Equipment on site:

PH and Conductivity Meter
PID
Water Level Meter
Peristaltic Pump

Site Activities:

Monitoring wells MW-2, MW-3, MW-6, MW-7, MW-8, MW-9 and MW-10 were purged and sampled for Part 375 VOCs, SVOCs, PCBs, Pesticides, TAL Metals including Hexavalent Chromium(filtered and unfiltered), PFAS 1,4-Dioxane.

Planned Work for 11/28/18:

Purge and sampling of monitoring wells MW-1, MW-4 and MW-5.

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/13/18 Tuesday (06:40 -16:00)

Site Weather Conditions:

- Rain, 45°F, winds (8-12 mph) from southwest

On Site:

- AESI: Rebeca Garofalo, Seamus Kelly
- Eastern Environmental (Drilling Contractor) Shane & Josh
- York Labs (drop off only)

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
PFAS Sampling Protocol

Equipment on site:

CAMP Monitoring Equipment
6610DPT Geoprobe

Site Activities:

CAMP enclosures not set up on arrival due to heavy rain. Rain ended by 11:45 and CAMP enclosures were set up in parking lot on east side of building. CAMP Stations 1 & 2 were set up to monitor both dust and VOCs. Station 3 was installed with a dust monitor only due to a PID malfunction

Boring locations marked out and cleared for accessibility with Eastern Environmental. 8 soil borings advanced inside building in warehouse area. 6 soil borings advanced in parking lot. Three (3) monitoring wells advanced in parking lot.

Samples collected from 12 borings for analysis of VOCs, SVOCs, pesticides, PCBs, Metals and PFAS. Samples from borings SB-62 & SB-63 installed adjacent to oil/water separator collected for analysis of VOCs and product fingerprinting. Minimal sheen observed in these soil borings.

Planned Work for 11/14/18:

Soil borings within building. Installation of monitoring wells on 27th Street side of building and along 49th Avenue. Develop monitoring wells

Findings & Corrective Action:

N/A

Waste generated:

N/A

Daily Progress Report

Location: 27-10 49th Avenue, Long Island City, New York (C241219)
Date: 11/28/18 Wednesday (05:40 -12:00)

Site Weather Conditions:

- 42°F, winds (3-4 mph) from southwest

On Site:

- AESI: Rebeca Garofalo, Andrew Biskupski
- York Labs (pick up only)

Daily H&S Meeting Topics:

Appropriate PPE (hard hats, safety vests, eye and hearing protection, steel toed boots)
PFAS Sampling Protocol

Equipment on site:

PH and Conductivity Meter
PID
Water Level Meter
Peristaltic Pump

Site Activities:

Monitoring wells MW-1, MW-4 and MW-5 were purged and sampled. One (1) duplicate sample was collected from MW-4. All samples were analyzed for Part 375 VOCs, SVOCs, PCBs, Pesticides, TAL Metals including Hexavalent Chromium(filtered and unfiltered), PFAS 1,4-Dioxane.

Planned Work for 11/29/18:

N/A

Findings & Corrective Action:

N/A

Waste generated:

N/A

MONTHLY PROGRESS REPORT: NOVEMBER 2018

27-10 49th Avenue
Long Island City, New York
Brownfield Cleanup Program Site Number C241219
Reporting Period: November 1, 2018 – November 30, 2018

Introduction

Atlantic Environmental Solutions, Inc. (AESI), has prepared this Monthly Progress Report in accordance with paragraph XI of the Standard Terms and Conditions of the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Agreement (C241219) (Agreement) for the above-referenced Site. AESI is submitting this Monthly Progress Report on behalf of Hunters Point SG, LLC for the one-month period ending November 30, 2018.

Work Completed During Reporting Period:

Remedial Investigation Activities – Soil and Groundwater Sampling

Work Anticipated During Next Reporting Period:

Data Evaluation

Remedial Investigation Report Preparation

Remedial Action Workplan Preparation

Approved Activity Modifications:

None.

Sampling and Testing Results:

Sampling Results will be submitted with the Remedial Investigation Report in December 2018.

Deliverables Submitted During This Reporting Period:

Daily Reports

Project Completion Status:

No change in this reporting period.

Unresolved Delays Encountered or Anticipated During Reporting Period:

None.

Citizen Participation Plan Activities Undertaken During Reporting Period or Anticipated During the Next Reporting Period:

None.

Miscellaneous Information:

None.

Points of Contact and Principal Project Team Members as of March 31, 2018:

Personnel	Investigation Role	Contact Information
Zach McHugh Hunters Point SG, LLC	BCP Volunteer	Phone: 929.226.69.06 Email: ZMcHugh@sitexgroup.com
Robert H. Crespi	Environmental Attorney	Phone: 973.530.2060 Email: rcrespi@csglaw.com
Seamus Kelly	Project Manager	Phone: 201.876.9400 Email:skelly@solutionsenvironmental.com
Craig Puerta, PE	Project Engineer-of-Record	Phone: 917.952.8216 Email: craig@viridianinc.com
Leah DeEgidio	Assistant Project Manager	Phone: 201.876.9400 Email:leah@solutionsenvironmental.com
Rebeca Garofalo	Assistant Project Manager	Phone: 201.876.9400 Email: rgarofalo@solutionsenvironmental.com
Seamus Kelly	Project Health and Safety Officer	Phone: 201.876.9400 Email:skelly@solutionsenvironmental.com
Rebeca Garofalo	Field Team Lead and Safety Officer	Phone: 201.876.9400 Email: rgarofalo@solutionsenvironmental.com
Salvatore DeLucia	Quality Assurance Manager	Phone: 201.876.9400 Email: sdelucia@solutionsenvironmental.com
Seamus Kelly	Data Validator	Phone: 201.876.9400 Email:skelly@solutionsenvironmental.com
Douglas Schrimpf Eastern Environmental Solutions, Inc.	Drilling Contractor	Phone: 631.727.2700 Email: dschrimpf@easternenviro.com
John Masculin York Analytical Laboratories, Inc.	Laboratory Contractor for 2018 *	Phone: 203.325.1371 Email: JMasculin@yorklab.com

DRAFT

APPENDIX D

Project Photo Log
(Incl CD)

Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #1 – A view of trenching activities taking place in the on site parking lot.



Photo #2 – A view of the hydraulic lifts on the interior of the building.



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #3 – View of an additional hydraulic lift.



Photo #4 – Interior stockpile from oil water separator excavation



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #5 – Interior stockpile from trenching



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #6 –Interior trench for SSDS piping



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #7 – Building interior



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #8 –Oil Water Separator



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #9 –Exterior stockpile



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #10- Exterior stockpile



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #11- Interior trenching



Appendix E
Photographic Documentation
27-10 49th Avenue
Long Island City, New York

Photo #12- Interior backfilled trenching



APPENDIX E

Soil /Waste Characterization Documentation

E1. Waste Hauler Permit Certificates

E2. Disposal Facility Approval and Approval Letters

E3. Facility Permit Certificates

E4. Waste Manifests or Bills of Lading (Incl CD)

E5. Liquid Disposal Manifests (Incl CD)

APPENDIX E1

Waste Hauler Permit Certificates

Soil Safe®
Recycling and Beneficial Re-use of Soils

September 24, 2020

Seamus Kelly
Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 401
Hoboken, NJ 07030

Subject: 27-10 49th Avenue, Long Island City, NY

Dear Mr. Kelly,

After Soil Safe, Inc. reviewed the completed and signed Material Characterization Report (MCR), the sample map, and the laboratory analysis reported by Integrated Analytical Laboratories, LLC; Case Number: E19-03807, we approved soils for shipment to our Carteret, NJ Facility under approval number **M6-2207**. We received a total of 371.91 tons between dates 11/12/19 and 11/13/19. If there are any questions or concerns please don't hesitate to contact me at 410-872-3990 extension 30314.

Regards,

Nicholas Bartlinski
Compliance Manager

Cc: Janice Loar
Metro12 Facility

State of New Jersey

PHILLIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CATHERINE R. McCABE
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mark Smith, CEO
Soil Safe, Inc.
4600 Alexander Bell Dr., Suite 300
Columbia, MD 21046

December 6, 2018

Re: Recycling Center General Approval
Soil Safe, Inc., Metro 12 Facility
Block 602, Lot 1; Block 705, Lot 17 & 18
Borough of Carteret, Middlesex County
Facility ID No.: 578186
Permit No.: CBG180002

Dear Mr. Smith:

Please be advised that the New Jersey Department of Environmental Protection, Division of Solid & Hazardous Waste has reached a final determination to renew the Class B Recycling Center General Approval issued to the above referenced facility. Enclosed is a copy of the final document.

Should you wish to contest any of the conditions of the enclosed general approval, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice in accordance with the procedures found in N.J.A.C. 7:26A-3.14. A copy of the request should also be mailed to this office.

If you have any questions concerning this matter, please contact Rakesh Patel of my staff at (609)-984-6814, or by email at Rakesh.Patel@dep.nj.gov.

Sincerely,

Karen Kloo, Chief
Bureau of Recycling & Hazardous Waste Management

Enclosures:

C: *Thomas Farrell, SW Compliance and Enforcement Bureau Chief
*John Stavash, SW Compliance and Enforcement Supervisor
* Ken Kloo, Director, SRP
*Suzanne Dietrick, SRP Landuse
Frank Piliere, Supervisor, Bureau of Recycling and Hazardous Waste Management
*Christopher M. Sikorski, Middlesex County Recycling Coordinator
*Carole Tolmachewich, Middlesex County Solid Waste Coordinator
Middlesex County CEHA Agent
Municipal Clerk, Borough of Carteret
*Albert P. Free, LSRP, EastStar Environmental Group, Inc. afree@eaststarenv.com
Chet Pucillo, Rahway Arch Properties, LLC, 877 Prospect St Glen Rock, NJ 07452

*Sent via email

State of New Jersey

PHILLIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CATHERINE R. McCABE
Commissioner

RECYCLING CENTER GENERAL APPROVAL FOR PETROLEUM CONTAMINATED SOIL, CONCRETE, ASPHALT, BRICK & BLOCK

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.*, known as the Recycling Regulations, this approval is hereby issued to:

Soil Safe, Inc., Metro 12 Facility

Facility Type:	Recycling Center
Lot & Block Nos.:	Block 602, Lot 1; Block 705, Lot 17 & 18
Municipality:	Borough of Carteret
County:	Middlesex County
Facility ID No.:	578186
Permit No.:	CBG180002

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department.

December 6, 2018
Issuance Date

Karen Kloo, Chief
Bureau of Recycling &
Hazardous Waste Management

July 1, 2023
Expiration Date (term of current lease)

Scope of Approval

This General Approval along with the referenced application documents herein specified shall constitute the sole General Approval for the operation of a Class B Recycling Center by Soil Safe, Inc., located in Borough of Carteret, Middlesex County, New Jersey. The facility is authorized to accept petroleum contaminated soil, concrete, asphalt, brick and block. Any registration, approval or permit previously issued by the Division of Solid and Hazardous Waste, or its predecessor agencies is hereby superseded.

This general approval does not convey any property rights of any sort, or any exclusive privilege. Failure to comply with all of the conditions specified herein may result in revocation of this approval and/or may result in such other regulatory or legal actions that the Department is authorized by law to institute, including but not limited to, civil and administrative penalty assessments.

This general approval does not approve any activities by Soil Safe, Inc. outside of the boundaries of the Class B Recycling operations nor does it authorize the permanent placement of fill at the site.

Regulated Activities at the Facility

Items 1 through 40 of this approval contain the general requirements applicable to all recycling centers. Items 41 through 78 of this approval contain the general operating requirements for all recycling centers for the receipt, storage and processing of Class B recyclable materials and specific conditions applicable to the operations of the recycling center.

Facility Description

The Class B recycling center is privately operated by the Soil Safe, Inc., to produce engineered fill, consisting of petroleum contaminated soil and cement (Soil Cement) for the stabilization, remediation, capping, and reclamation of the site for habitat restoration and industrial development. The recycling center is located at the terminus of Salt Meadow Road, Block 602, Lot 1; Block 705, Lot 18, in Borough of Carteret, Middlesex County. This regional recycling center receives petroleum contaminated soil, concrete, asphalt, brick and block. The recycling center is authorized to accept and process, except crushing, recyclable materials 24 hours per day, 7 days per week. The crushing activities are from 7:00 AM to 11:00 PM, 7 days per week.

Approved General Approval Application and Associated Documents

(a) The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26A-1 *et seq.*, the conditions of this Approval, and the following documents:

(1) Site Plan- "Solid Waste Permitting Plans For Metro12 Class B Recycling Center, Block 602, Lots 1, Block 705, Lots 17 and 18, Borough of Carteret, Middlesex County, New Jersey", Sheets 1 and 2, prepared by Kernan Consulting Engineers, dated May 21, 2013 and signed and sealed by Pamela J. Pellegrini, P.E., P.P., C.M.E.

(2) Class B Recycling Center Approval Renewal Application, Soil Safe, Inc., Metro 12 Facility, dated March 21, 2018 signed by Milt Morris, VP, Soil Safe, Inc.

(3) Letters dated March 14 and May 30, 2013 from Jim Grant, Director of Facility Development and Compliance, Soil Safe, Inc., with additional information for Class B application.

(4) Class B Recycling Center Approval Application, Soil Safe, Inc., Metro 12 Facility, dated March 21, 2012 with letter dated May 11, 2012 from Jim Grant, Director of Facility Development and Compliance, Soil Safe, Inc.

(5) Administrative Action letter dated July 31, 2018 approved by the Bureau of Planning and Licensing for the County Plan inclusion of the modified block & lot designation of the Soil Safe Inc Class B Recycling Center located at Block 602, Lot 1 & Block 705, Lot 17 & 18.

(6) Middlesex County Solid Waste Management Plan inclusion of Soil Safe Inc. as a Class B Recycling Facility located on Block 10, Lots 10, 16-21 and Block 11.01, Lots 8, 10, 14 & 16 at Terminus of Driftway Street110 in the Borough of Carteret, certified by the Commissioner of the Department of Environmental Protection on August 12, 2012.

In case of conflict, the provisions of N.J.A.C. 7:26A-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

SOIL SAFE INC METRO 12 FACILITY
578186 CBG180002 Class B Recycling Ctr General Apprv -Renewal
Requirements Report

Subject Item: PI 578186 -

1. All persons issued a general approval to operate a recycling center for Class B, Class C and/or Class D recyclable material pursuant to N.J.A.C. 7:26A-1 et seq. shall comply with all conditions of the approval. [N.J.A.C. 7:26A-3.1(a)]
2. The holder of this general approval shall prominently post and maintain a legible sign, at or near the entrance to the recycling center, indicating that the recycling center is an approved New Jersey Department of Environmental Protection recycling center. The sign shall also indicate the following: Hours of operation of the recycling center; Listing of the source separated materials to be received; The size, weight, or other restrictions regarding materials to be received; The maximum amount of contaminants allowed in each load; Warning that loads will be inspected and will be barred from offloading if the contaminant level is exceeded; and Notice that the person offloading shall certify the amount of material per load, municipality of origin of the material and any other information contained on the Recyclable Material Receipt Form. [N.J.A.C. 7:26A-3.5(f)]
3. Application for renewal of this general approval shall be submitted at least three months prior to expiration of the current approval and shall comply with all requirements for renewal set forth in N.J.A.C. 7:26A-3.6 et seq. One copy of the application for renewal of the general approval shall be submitted by the applicant to the municipal clerk of the municipality in which the recycling center is located, and to the solid waste or recycling coordinator of the county in which the recycling center is located. [N.J.A.C. 7:26A-3.6(a)]
4. The applicant for renewal of this general approval shall certify in writing to the Department that there have been no changes in the operations of the recycling center since the issuance of the general approval in order to renew the approval in its existing form. In the event that there have been changes in the operations of the recycling center or where changes are planned, the application for renewal of a general approval shall be accompanied by a written request to modify the general approval in accordance with N.J.A.C. 7:26A-3.10. [N.J.A.C. 7:26A-3.6(b)]
5. In a case where the holder of this general approval does not comply with N.J.A.C. 7:26A-3.6(a) and (b) and continues to operate without renewal of the general approval, the Department may take enforcement action including the assessment of penalties under N.J.S.A. 13:1E-9; require the holder of this general approval to file an application as a new applicant for a general approval in accordance with N.J.A.C. 7:26A-3.2 and pay the application fee as per N.J.A.C. 7:26A-2; and/or take any other appropriate actions. [N.J.A.C. 7:26A-3.6(c)]
6. All persons granted a renewal pursuant to N.J.A.C. 7:26A-3.6(d) shall continue to pay the annual fee as specified in N.J.A.C. 7:26A-2. [N.J.A.C. 7:26A-3.6(h)]
7. The holder of this general approval shall obtain prior approval from the Department for any modification of the general approval. [N.J.A.C. 7:26A-3.10(a)]
8. Any change affecting the conditions of this general approval requires the prior approval of the Department. [N.J.A.C. 7:26A-3.10(b)1]
9. Any change to the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19, or 3.20 requires the prior approval of the Department, except that changes in end-market information submitted pursuant to N.J.A.C. 7:26A-3.2(a) 7 shall not require the prior approval of the Department but shall be handled in accordance with N.J.A.C. 7:26A-3.10(f). [N.J.A.C. 7:26A-3.10(b)2]

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10. The holder of this general approval shall notify the Department in writing of the intended modification and shall update the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20. The holder of this general approval shall also provide written notice to the solid waste or recycling coordinator of the applicable county of any request to modify a general approval. [N.J.A.C. 7:26A-3.10(c)]

11. The holder of this general approval shall not institute the modification until it receives written approval from the Department. [N.J.A.C. 7:26A-3.10(e)]

12. Within one week of any change to the end-market information submitted to the Department pursuant to N.J.A.C. 7:26A-3.2(a)7, the holder of this general approval shall submit to the Department a written notification which details any change in the use of the recyclable material transferred from the recycling center to an end-market or in the end-market location to which the recyclable material is transferred. The written notification shall be sent to: New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Recycling & Hazardous Waste Management, Mail Code: 401-02C, P.O. Box 420, Trenton, New Jersey 08625-0420. [N.J.A.C. 7:26A- 3.10(f)]

13. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of N.J.S.A. 13:1E-1 et seq., the New Jersey Statewide Mandatory Source Separation and Recycling Act, or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 13:1E-1 et seq. and the New Jersey Statewide Mandatory Source Separation and Recycling Act. [N.J.A.C. 7:26A-3.13(a)1]

14. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any solid waste utility law at N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq., or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq. [N.J.A.C. 7:26A-3.13(a)2]

15. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State or of any other State or Federal environmental laws including criminal laws related to environmental protection. [N.J.A.C. 7:26A-3.13(a)3]

16. The Department may revoke this general approval upon a determination that the holder of the general approval has refused or failed to comply with any lawful order of the Department. [N.J.A.C. 7:26A-3.13(a)4]

17. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to comply with any of the conditions of this general approval issued by the Department. [N.J.A.C. 7:26A-3.13(a)5]

18. The Department may revoke this general approval upon a determination that the holder of the general approval has transferred a general approval to a new owner or operator pursuant to N.J.A.C. 7:26A-3.15 without the prior approval of the Department. [N.J.A.C. 7:26A-3.13(a)6]

19. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to obtain any required permit or approval from the Department or other State or Federal agency. [N.J.A.C. 7:26A-3.13(a)7]

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20. The Department may revoke this general approval upon a determination that the holder of the general approval has committed any of the acts which are criteria for denial of a general approval set forth in N.J.A.C. 7:26A-3.12. [N.J.A.C. 7:26A-3.13(a)8]

21. This general approval shall not be transferred to a new owner or operator without the Department's prior approval. [N.J.A.C. 7:26A-3.15(a)]

22. A written request for permission to allow a transfer of this general approval must be received by the Department at least 60 days in advance of the proposed transfer of ownership or operational control of the recycling center. The request for approval shall include the following: the name, address and social security number of all prospective new owners or operators; a written certification by the proposed transferee that the terms and conditions contained in the general approval will be met by the proposed transferee; and a written agreement between the current owner or operator of the recycling center and the proposed new owner or operator containing a specific future date for transfer of ownership or operational control. [N.J.A.C. 7:26A-3.15(a)1]

23. A new owner or operator may commence operations at the recycling center only after the existing approval has been revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5. [N.J.A.C. 7:26A-3.15(a)2]

24. The holder of this general approval remains liable for ensuring compliance with all conditions of the approval unless and until the existing approval is revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5. [N.J.A.C. 7:26A-3.15(a)3]

25. Compliance with the transfer requirements set forth at N.J.A.C. 7:26A-3.15 shall not relieve the holder of this general approval from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision. [N.J.A.C. 7:26A-3.15(a)4]

26. The transfer of a controlling interest in the stock or assets of the recycling center that is the subject of this general approval shall constitute a transfer of this general approval. [N.J.A.C. 7:26A-3.15(b)]

27. The holder of this general approval shall maintain a daily record of the amounts of each recyclable material by type and municipality of origin which are received, stored and processed each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A- 3.17(a)1]

28. The holder of this general approval shall maintain a daily record of the name, address and telephone number of the end-markets for all recyclable materials transported from the recycling centerincluding amounts of each recyclable material by type and municipality of origin which are received, stored and processed each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A- 3.17(a)2]

29. The holder of this general approval shall maintain a daily record of the amount of residue disposed of, expressed in tons, cubic yards, cubic feet or gallons, including the name and New Jersey Department of Environmental Protection solid waste registration number of the solid waste collector/hauler contracted to provide the haulage/disposal service. Those persons specifying the amount of residue in cubic yards shall also indicate the conversion ratio of the residue from cubic yards to tons. [N.J.A.C. 7:26A-3.17(a)3]

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30. The holder of this general approval shall retain all shipping receipt forms required pursuant to N.J.A.C. 7:26A-3.2(a)16iii for three calendar years following the calendar year for which an annual report is required pursuant to N.J.A.C. 7:26A-3.17(c). [N.J.A.C. 7:26A- 3.17(b)]

31. The holder of this general approval shall submit an annual report containing monthly summary statements of the information required pursuant to N.J.A.C. 7:26A-3.17(a) to the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, on or before March 1 of each year, for the previous calendar year. The summaries shall include the following: monthly totals of the amount of recyclable material received from each customer by municipality of origin; monthly totals of the amount of recyclable product transferred to each end-market; and the amount of residue disposed of during each month. [N.J.A.C. 7:26A- 3.17(c)]

32. The holder of this general approval shall certify in writing to the Department that all residue generated at the recycling center has been disposed of in accordance with the solid waste management rules at N.J.A.C. 7:26. The certification shall be submitted annually as part of the annual report. [N.J.A.C. 7:26A-3.17(e)]

33. All information submitted to the Department pursuant N.J.A.C. 7:26A shall be handled in accordance with the requirements of the Public Records law, N.J.S.A. 47:1-1 et seq. The Department will hold confidential all end-market information, as well as information pertaining to the municipality of origin of recyclable material, submitted pursuant to N.J.A.C 7:26A-3.2, 3.7, and 3.17 through 3.20 for a period of two years from the date on which the information is submitted to the Department, where specified as confidential by the applicant and where there are no health, safety or environmental concerns which require the release of the information, as determined by the Department. [N.J.A.C. 7:26A-3.17(f)]

34. The holder of this general approval shall provide a recycling tonnage report by March 1 of each year to all municipalities from which recyclable material is received in the previous calendar year. The report shall detail the amount of each source separated recyclable material, expressed in tons or cubic yards, brought to the recycling center, as well as the date on which the recyclable materials were delivered to the recycling center. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A-4.4(a)]

35. The recycling center shall not commence operations unless and until it is included in the applicable district solid waste management plan. [N.J.A.C. 7:26A-4.2]

36. The construction of the recycling center that is the subject of this general approval shall be in conformance with the New Jersey Uniform Construction Code, N.J.S.A. 52:27D-119 et seq., and the rules promulgated pursuant thereto. [N.J.A.C. 7:26A-4.1(b)]

37. The New Jersey Department of Environmental Protection or an authorized representative acting pursuant to the County Environmental Health Act, N.J.S.A. 26:3A2-1 et seq. shall have the right to enter and inspect any building or other portion of the recycling center at any time in order to determine compliance with the provisions of all applicable laws or rules and regulations adopted pursuant thereto. This right to inspect includes, but is not limited to: sampling any materials on site; photographing any portion of the recycling center; investigating an actual or suspected source of pollution of the environment; and, ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of the recycling center approval issued by the Department. [N.J.A.C. 7:26A-1.7(a)]

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38. The right of entry specified at N.J.A.C. 7:26A-1.7(a) shall be limited to normal operating hours for the purpose of reviewing and copying all applicable records, which shall be made available to the Department during an inspection and submitted to the Department upon request. [N.J.A.C. 7:26A-1.7(b)]

39. The facility shall comply with the general operating requirements for all Recycling Centers as provided at N.J.A.C. 7:26A-4.1. [N.J.A.C. 7:26A-4]

40. Upon notification from the Department that a State of Emergency, which may impact the facility's operations, has been declared by the Governor pursuant to the New Jersey Disaster Control Act at N.J.S.A. App. A:9-30 et seq., the permittee shall provide to the Division of Solid and Hazardous Waste a daily report on the operational status of the facility and the quantity of wastes received during the previous operating day or any other relevant information requested pursuant to N.J.S.A. App. A:9-36. The status report shall be submitted electronically to solidwasteemergencies@dep.nj.gov, or as otherwise directed by the Department, on forms, or in the format, provided by the Department and in compliance with the time frames established by the Department after the State of Emergency declaration. The status reports shall be submitted daily until the permittee is informed by the Department that the reports are no longer required for that State of Emergency. [N.J.A.C. 7:26A- 3.5(e)]

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41. The following processing equipment or equivalent is approved for utilization at the facility for crushing, screening and mixing:

Ranger Pugmill
6x16 Innovative Processing Equipment Screen
Belgrade Silo
Stedman Rotary Impact Crusher with Conveyors
Rubber Tire Loaders Cat 950/980
Cat 325 Excavators
Cat D6 Dozers
Caterpillar 725/730 Dump Truck
3000 Gallon Water Truck
Bomag 84 inch Vibratory Roller
American Scale Concrete Deck Truck Scale

Requisite recycling center operations shall not be delayed or neglected for lack of required equipment or for equipment downtime. [N.J.A.C. 7:26A- 3.5(e)]

42. Recycling centers receiving petroleum contaminated soil must have a preparedness and prevention plan. The contingency plan contained in the approved documents must be maintained on-site and updated as necessary. [N.J.A.C. 7:26A- 4.8(b)5]

43. Upon detection of a release of contaminants to the environment, the facility shall perform the following cleanup steps: stop the release, contain the released contaminants, clean up and manage properly the released contaminants and other materials and if necessary, repair or replace any leaking soil containment systems prior to returning them to service. [N.J.A.C. 7:26A-3.5(e)]

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44. Upon closure of the facility the owner or operator shall remove or decontaminate petroleum contaminated soils, containment system components, and structures and equipment and manage them as hazardous waste, unless the materials are not hazardous waste under NJAC 7:26G-5. [N.J.A.C. 7:26A-3.5(e)]

45. All equipment and portions of the facility designated for the storage or processing of petroleum contaminated soils shall be visually inspected each operating day for integrity and leaks. [N.J.A.C. 7:26A-3.5(e)]

46. Records shall be maintained for all visual inspections. These records shall document that inspections were performed, any problems found, and the subsequent correction of such problems. All records shall be kept for a minimum of three years. [N.J.A.C. 7:26A-3.5(e)]

47. The facility shall keep a record of each shipment of petroleum contaminated soil, concrete, asphalt, brick and block (recyclables) accepted for processing. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. All tracking records shall be maintained by the holder of this general approval as required pursuant to N.J.A.C. 7:26-A-3.2(a)16iii for three calendar years. Records for each shipment shall include the following information: the name and address of the transporter who delivered the recyclables to the facility, the name and address of the generator from whom the recyclables was sent, the NJDEP registration number of the transporter, EPA ID number (if applicable) of the generator, description of the recyclable material (petroleum contaminated soil, concrete, asphalt, brick or block), the quantity of recyclables accepted and the date of acceptance. Prior to the receipt of a shipment of recyclables from a generation source, the holder of this approval shall have received a completed Soil Safe Material Characterization Report as referenced in the Approved General Approval Application and associated documents for that shipment. The report shall include at least the following information: name and address of the generation site, contact information, quantity of recyclables, type of oil contaminating the soil, contamination source (i.e. underground storage tank, above ground storage tank, spill, historic or other), past use of generation site (i.e. industrial, commercial, residential and historic fill), analytical results conducted on the soil and a certification that the information provided is true and accurate. The holder of this approval shall review the information provided to ensure the shipment complies with the facility's acceptance criteria for recyclables prior to authorizing acceptance of a shipment. [N.J.A.C. 7:26A- 3.5(e)]

48. The facility shall maintain on-site an operating record showing analysis records, tracking records, and summary reports of incidents requiring implementation of the contingency plan. This information shall be made available to Department personnel upon request and shall be kept for a minimum of three years. [N.J.A.C. 7:26A- 3.5(e)]

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49. The following source separated Class B recyclable materials, which have been separated at the point of generation from other waste materials or separated at a permitted solid waste facility authorized to separate recyclable materials, may be received, stored and processed at this recycling center:

Non-hazardous petroleum contaminated soils that otherwise would be ID-27 if not recycled, and non-hazardous petroleum contaminated soil containing concrete, asphalt, brick & block. In addition, the recycling center may accept concrete, asphalt, brick & block screened from petroleum contaminated soil.

i. Only soil contaminated with the following compounds shall be accepted and processed at this facility: gasoline, kerosene, jet fuel, Numbers 1 through 6 fuel oil, polynuclear aromatic hydrocarbons (coal tars), historic petroleum contamination and used oil. Used oil shall be defined as any oil that has been and as a result of such use, is contaminated by physical or chemical impurities. No soils may be accepted that have been contaminated with materials that are other waste materials, or waste by-products, such as sludges.

ii. No soils with free petroleum product or other liquids shall be accepted at the facility. For soils containing greater than 17,000 ppm EPH, the soil shall be determined not to contain free liquids by USEPA SW-846 method 9095.

No hazardous waste, as defined by N.J.A.C. 7:26G-5, shall be accepted by the facility. [N.J.A.C. 7:26A- 3.5(e)]

50. At no time shall the receipt, storage, processing, or transferring of non-source separated construction and demolition material be allowed at this recycling center. The prohibition of this material shall be strictly enforced and any incident shall be considered a serious violation to the conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

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51. All Class B soil accepted by the facility shall be processed as detailed below to create a cement modified soil product. Trucks transporting soil from approved sites per Condition 47 of this Approval shall be weighed at the scale, be visually inspected, and have the manifest verified. If acceptable, the driver shall be directed to offload the shipment in the Raw Material Stockpile Area. The material may be blended with other material in the preprocessing pile as needed to assure a homogenous feedstock for processing. Incoming shipments of material that are segregated prior to processing shall be identified by a wooden stake on which is written the source material project number. Once the segregated pile has been released for processing it shall be combined with other materials in the preprocessing pile.

    The material from the preprocessing pile shall be fed into the feed hopper for the screening plant where water may be added to control dust and provide hydration to the soil. Oversized material generated from the screening shall be transported to the oversized raw material stockpile area. Incidental recyclable metals removed shall be stored in roll-offs and delivered to an approved recycling center. Non-recyclable waste materials such as plastic and wood shall be placed in a roll-off and shipped off-site for disposal. The 4 inch minus material shall be fed by conveyor to the pugmill. In the pugmill counter rotating arms shall blend the material with pozzolonic additives. A minimum of 1% by weight pozzolonic additives shall be blended into the soil. Additional amounts of additive may be used to meet specific geotechnical requirements as determined by the LSRP for the remediation project. The process shall be operated in accordance with the requirements specified in the facility's Air Permit. The cement modified soil product shall then be transported by conveyor belt to the processed material stockpile area. [N.J.A.C. 7:26A- 3.5(e)]

52. The cement modified soil shall be stockpiled, sampled and tested pursuant to the requirements specified by the governing Licensed Site Remediation Professional (LSRP) for the Rahway Arch Properties, LLC remediation project in accordance with the Remedial Action Workplan (RAW) submitted to the Department 7/16/13, 8/15/13 addendum, and 8/23/13 clarification letter. After a sample is taken, no additional product shall be added to sampled pile. If the test results from the sampled pile demostrate the pile has achieved end market criteria, the material shall be transported to the end market (remedial action project). If it fails to achieve acceptance criteria, it may be reintroduced for further treatment or shall be shipped off-site as solid waste.

    Oversized material from the screening operation shall be stockpiled as indicated on the approved site plan. In the event oversized material is segregated from petroleum contaminated soil at the donor site, it shall be offloaded either in the raw material stockpile area or directly into the oversized stockpile area. The oversized material shall be fed to the crusher feed hopper. It shall be size reduced and then transported to the end market or blended back into the material in the preprocessing stockpile area for processing. [N.J.A.C. 7:26A- 3.5(e)]

53. Incidental amounts of rebar, metal and other by-products which adhere to the Class B recyclable materials, as specified in this Approval, and which are returned to the economic mainstream as raw material or products, may be received, stored, processed, or transferred at this recycling center. The receipt of such incidental amounts of these materials need not be separately accounted for, but the storage and end-markets for these materials shall be subject to specific conditions of this Approval. [N.J.A.C. 7:26A- 3.5(e)]

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54. The holder of this general approval shall operate the recycling center and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26A-1 et seq., the conditions of this general approval, and the general approval application documents. [N.J.A.C. 7:26A-3.5(e)]

55. In case of conflict, the provisions of N.J.A.C. 7:26A-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26A- 3.5(e)]

56. One complete set of the general approval application documents, this general approval, and all records, reports and plans as may be required pursuant to this approval shall be kept on file at the recycling center and shall be available for inspection by authorized representatives of the Department or delegated agents upon presentation of credentials. [N.J.A.C. 7:26A-3.5(e)]

57. Hours of operation for receiving, storing and processing the source separated recyclable material shall be limited as following:

- receiving and processing (except crushing) up to 24 hours per day 7 days per week.
- crushing shall be limited to 7:00 a.m. to 11:00 p.m. 7 days per week. [N.J.A.C. 7:26A- 3.5(e)]

58. Material deliveries to the recycling center shall be scheduled in such a manner as to minimize truck queuing on the recycling center property. Under no circumstances shall delivery trucks be allowed to back-up or queue onto public roads. [N.J.A.C. 7:26A- 3.5(e)]

59. The recycling center may receive no more than 7,000 tons per day of source separated non-hazardous petroleum contaminated soil consisting of a maximum of 1,500 tons per day of concrete, asphalt, brick & block. The recycling center may receive concrete, asphalt, brick & block from the donor site either commingled with petroleum contaminated soil or separately. However, the combination of all Class B material accepted on a daily basis shall not exceed 7,000 tons per day. [N.J.A.C. 7:26A-3.5(e)]

60. The total amount of unprocessed non-hazardous petroleum contaminated soils, concrete, asphalt, brick & block stored on-site shall not exceed 60,000 cubic yards in the Raw Material Stockpile Area. The Oversized Material Stockpile Area is for screened oversized concrete, asphalt, brick & block that will later be crushed. The material in the Oversized Material Stockpile Area shall not exceed 6,600 cubic yards. Unprocessed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

61. If at any time, the amount of unprocessed non-hazardous petroleum contaminated soils, concrete, asphalt, brick & block stored on-site exceeds 60,000 cubic yards in the Raw Material Stockpile Area, the recycling center shall immediately cease receiving unprocessed non-hazardous petroleum contaminated soil, concrete, asphalt, brick & block until the amount of unprocessed material stored on-site falls below 60,000 cubic yards. Further, if at any time, the amount of concrete, asphalt, brick & block stored on-site exceeds 6,600 cubic yards in the Oversized Material Stockpile Area, the recycling center shall immediately cease receiving any non-hazardous petroleum contaminated soils, concrete, asphalt, brick & block until the amount of this material in this area falls below 6,600 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

62. Unprocessed recyclable material shall not remain on-site, in its unprocessed form, for more than one (1) year. [N.J.A.C. 7:26A-3.9(b)]

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63. The total amount of processed non-hazardous petroleum contaminated soils stored within the Class B facility area shall not exceed 20,000 cubic yards. Processed materials stored within the Class B facility area shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing.

    The total amount of processed concrete, asphalt, brick & block stored within the Class B facility area shall not exceed 1,000 cubic yards. Processed materials stored within the Class B facility shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

64. If at any time, the amount of processed non-hazardous petroleum contaminated soils stored within the Class B facility exceeds 20,000 cubic yards, the recycling center shall immediately cease processing activities until the amount of processed non-hazardous petroleum contaminated soils falls below 20,000 cubic yards, unless capacity remain in the unprocessed area.

    If at any time, the amount of processed (crushed) concrete, asphalt, brick & block stored within the Class B facility exceeds 1,000 cubic yards, the recycling center shall immediately cease processing activities until the amount of processed concrete, asphalt, brick & block falls below 1,000 cubic yards, unless capacity remain in the unprocessed area. [N.J.A.C. 7:26A- 3.5(e)]

65. All processed material shall be stored separately from residues. [N.J.A.C. 7:26A-3.5(e)]

66. The maximum amount of contaminants, as defined in N.J.A.C. 7:26A-1.3, allowed in each incoming load of Class B recyclable material shall be limited to 1% by volume. Incidental by-product materials shall not be considered to be contaminants. [N.J.A.C. 7:26A- 3.5(e)]

67. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish an elevation height of 20 feet above the existing grade for the unprocessed stockpile areas and 20 feet above the existing grade for the processed stockpile areas. [N.J.A.C. 7:26A- 3.5(e)]

68. Metal pipe or metal rods or the equivalent as approved by the Department shall be used to establish these control points and maintained. [N.J.A.C. 7:26A- 3.5(e)]

69. Ingress and egress of the facility shall be restricted to Salt Meadow Road only. [N.J.A.C. 7:26A-3.5(e)]

70. Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. [N.J.A.C. 7:26A-3.5(e)]

71. Fire fighting and emergency procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance, and hospital facilities. If a fire occurs on-site, the facility shall immediately notify the local fire official and the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

72. Any suspected or prohibited hazardous waste, as defined at N.J.A.C. 7:26G-5, found in a load accepted at the recycling center shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner and shall be immediately reported to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. The owner/operator of the recycling center shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to N.J.D.E.P. enforcement personnel. Such material may be returned to a known generator, provided that specific permission to do so is received by the owner/operator after contacting 1-877-927-6337. Otherwise, the owner/operator shall dispose of the unauthorized waste in accordance with instructions received from the Department. [N.J.A.C. 7:26A- 3.5(e)]

73. All revisions to the site plan and the approved documents which may be required as a result of the above, shall be submitted to this office for modification to this Approval. [N.J.A.C. 7:26A-3.5(e)]

74. Pursuant to N.J.A.C. 7:26A-3.11(a), the holder of this general approval shall obtain prior approval from the Department for any increase in the design capacity of the facility. The facility shall submit a request to the Department, in writing, for the proposed increase and shall submit updated information pursuant to the requirements of N.J.A.C. 7:26A-3.2(a), 3.4, or 3.8, as applicable. The facility shall also provide written notice of the request to the solid waste or recycling coordinator of the applicable district. [N.J.A.C. 7:26A-3.5(e)]

75. All incoming shipments of Class B material shall be sampled and analyzed in accordance with the requirements specified in the facility's Air Pollution Control Permit issued by the Department. All analytical records must be kept for a minimum of three years and made available for inspection by state and local officials upon request.

    The sampling, collection, preservation, and handling for the sampling and analysis must be performed in accordance with the New Jersey Technical Requirements for Site Remediation at N.J.A.C. 7:26E and the latest edition of the New Jersey Department of Environmental Protection, Field Sampling Procedures Manual. All analysis must be performed by a New Jersey certified laboratory. [N.J.A.C. 7:26A- 3.5(e)]

76. All soils must be tested using the most current approved test methodology in accordance with USEPA SW-846. [N.J.A.C. 7:26A-3.5(e)]

77. The facility will use the cement modified soil produced by the Class B facility as engineered fill material for use at the Rahway Arch Properties, LLC remediation project in accordance with the Remedial Action Workplan (RAW) submitted to the Department 7/16/13, 8/15/13 addendum, and 8/23/13 clarification letter. The Rahway Arch Properties, LLC remediation project is the only end market authorized to receive product produced by the Class B facility.

    The facility shall comply with all sampling and analytical requirements for the cement modified soil product approved by the governing Licensed Site Remediation Professional for the Rahway Arch Properties, LLC remediation project and in accordance with the RAW referenced above. [N.J.A.C. 7:26A- 3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

78. Soil Safe shall maintain a $500,000 financial assurance in the form of a letter of credit or performance bond (a rating of at least A or A+ by A. M. Best or an equivalent rating by Moody's, Standard & Poor's, or Fitch).

Also, Soil Safe shall maintain (and provide a copy to the Department) a Certificate of Liability Insurance demonstrating at least the following minimum insurance coverage and limits:

General Liability - $1 million per occurrence, $2 million general aggregate, $2 million products/completed operations, $10 million excess.

Environmental Pollution - Third Party Claims for Cleanup Costs, Bodily Injury or Property Damage, $1 million per condition, $10 million excess.

Environmental Pollution - Third Party Claims for Contingent Transportation, $1 million per condition, $10 million excess.

Contractors Pollution - $1 million per claim, $10 million excess.

The State of New Jersey, Department of Environmental Protection shall be named as an additional named insured for the above insurance coverage. No Class B material shall be accepted at the facility until a Certificate of Liability Insurance demonstrating compliance with the terms above is submitted to the Department. [N.J.A.C. 7:26A- 3.4]

SOIL SAFE, INC.

Log Number 15 108998

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point SBLLC Shipping Location _____

Address 2710 49 St Address _____

Long Island City NY

Phone No. _____ Phone No. _____

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 357 **GROSS**

GROSS 47.39 TN **TARE**
TARE 14.75 TN RECALLED
NET 32.64 TN **NET**

11/12/2019 09:24AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — 11·12·19

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name Zelia Driver Name (Print) Dilman Camilo

Address Colonia NJ Vehicle License No./State AU568C #14

Truck Number #14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature | Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature | Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date — 11/12/19

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 18 102697

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point LLC SG

Address 27-10 - 49th. Ave

Long Island City 11101

Phone No. _____

Shipping Location Same

Address _____

Phone No. _____

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 37 **GROSS**

GROSS 46.77 TN **TARE**

TARE 14.56 TN RECALLED

NET 32.21 TN **NET**

11/12/2019 09:40AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RILEY — Signature — 11-12-19

Generator Authorized Agent Name — Shipment Date

TRANSPORTER

Transporter Name ZELIA TRUCKING

Address 175 Jordan Rd

Colonia NJ 07067

Driver Name (Print) JOSE LOPEZ

Vehicle License No./State AL1365Y

Truck Number #17

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11/12/19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11/12/19 Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

rell — Name of Authorized Agent

rell — Signature

11/12/19 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 31 101281

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name HUNTERS POINTE 2, LLC Shipping Location 27-10 49TH AVE

Address 27-10 49TH AVE Address 27-10 49TH AVE

LONG ISLAND CITY NY LONG ISLAND CITY NY

Phone No. _____ Phone No. _____

Approval Number M 6 1781

Description of Material: Non-Hazardous Soil

ID 78 **GROSS**

GROSS 48.84 TN **TARE**
TARE 14.63 TN RECALLED
NET 34.21 TN **NET**

11/12/2019 10:54AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RILE _____ 11/12/19

Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name Zelia Trucking Driver Name (Print) Sergio Iglesias

Address 175 Jordan Rd Vehicle License No./State AW111D

Colonia NJ Truck Number 16

I hereby certify that the above named material was picked up at the generator site listed above.

Sergio I 11-12-19

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sergio I 11-12-19

Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

NM NM 11/12/19

Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 71 108997

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point SB LLC Shipping Location _____

Address 27-10-49 St Address _____

Long Island City NY _____

Phone No. _____ Phone No. _____

Approval Number MG 1791

Description of Material: Non-Hazardous Soil

ID 357
GROSS 49.54 TN
TARE 14.75 TN RECALLED
NET 34.79 TN
11/12/2019 02:46PM

GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RILEY — Generator Authorized Agent Name; Signature; 11/12/19 — Shipment Date

TRANSPORTER

Transporter Name Zelia Driver Name (Print) DIMAN Carrillo

Address Colonia NJ Vehicle License No./State NJ AU56BC

Truck Number 14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent Signature 11/12/19 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number TS 102694

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point GS LLC

Address 27-10 49th Av
Long Island City NY

Phone No.

Shipping Location

Address Same

Phone No.

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 37

GROSS 49.45 TN
TARE 14.56 TN RECALLED
NET 34.89 TN

11/12/2019 03:09PM

GROSS
TARE
NET
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Sean Kile — Signature — 11.12.19

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name Zelia Trucking — Driver Name (Print) Jose Lopez

Address 175 Tolman Rd
Colonia NJ 07067

Vehicle License No./State A413605Y

Truck Number #17

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11/12/19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11/12/19 Delivery Date

DESTINATION

Site Name SSI-Metro12 — Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 11/12/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 101279

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name HUNTERS POINT SG LLC

Address 27-10 49TH AVE

LONG ISLAND CITY NY

Phone No. _____

Shipping Location 27-10 49TH AVE

Address 27-10 49TH AVE

LONG ISLAND CITY NY

Phone No. _____

Approval Number M-6 1781

Description of Material: Non-Hazardous Soil

ID 78

GROSS 48.68 TN

TARE 14.63 TN RECALLED

NET 34.05 TN

11/12/2019 03:27PM

GROSS

TARE

NET

TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — Signature — 11-12-19

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name Zelia Trucking

Address 175 Jordan Rd

Colonia NJ

Driver Name (Print) Sergio Zglesias

Vehicle License No./State AW11D

Truck Number 16

I hereby certify that the above named material was picked up at the generator site listed above.

Sergio I 10-12-19

Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sergio I 11-12-19

Driver Signature / Delivery Date

DESTINATION

Site Name SSI-Metro12

Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[illegible] — [illegible] — 11/12/19

Name of Authorized Agent / Signature / Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 81 93065

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Shipping Location _____

Address 27-10 49 ave Long Island City NY Address _____

Phone No. _____ Phone No. _____

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 15
GROSS 49.18 TN
TARE 15.59 TN RECALL
NET 33.59 TN
11/12/2019 03:31PM

GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — Generator Authorized Agent Name; Signature; 11.12.19 — Shipment Date

TRANSPORTER

Transporter Name ARV Driver Name (Print) Arnold

Address Phillipsburg NJ. Vehicle License No./State AW 1680

Truck Number 12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature; 11/12/19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature; 11/12/19 Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent; Signature; 11/12/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

Log Number

85

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunters Point LLC Generator Site/Location 27-10 49 Ave

Address 27-10 49 Ave Long Island city NY

Address 27-10 49 Ave Long Island city NY 11001

Phone No. _____

Phone No. _____

Approval Number 16-1781

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

ID 202

GROSS 45.80 TN

TARE 13.75 TN RECALLED

NET 32.05 TN

11/12/2019 04:04PM

GROSS

TARE

NET

TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — Generator Authorized Agent Name

Signature

11.12.19 — Shipment Date

TRANSPORTER

Transporter Name Zelig Trucking Driver Name (Print) David

Address 175 Jordan RD Colonia NJ Vehicle License No. / State / EPA No. AV 3644

Truck Number 13

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11-12-19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11-12-19 Delivery Date

DESTINATION

Site Name **Soil Safe, Inc. - Bridgeport** Phone No. **1-856-467-8030**

Address ~~378 Route 130 Logan Township, NJ 08085~~ 300 Salt Meadow RD Caldwell NJ

No left turn on Rt. 130 North into the facility.

Business hours are: Monday through Friday 7 AM to 5 PM. 5 PM to 10 PM By Appointment only. Saturday by appointment only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 11/12/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co

SOIL SAFE, INC.

Log Number
ID 105207

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Shipping Location _____

Address _____ Address 27-10 - 39TH AV

_____ L.I.C. N.Y.

Phone No. _____ Phone No. _____

Approval Number
M 6
17 81

Description of Material
Non-Hazardous Soil

ID 4 **GROSS**

GROSS 44.32 TN **TARE**
TARE 14.94 TN RECALLED
NET 29.38 TN **NET**

11/13/2019 10:15AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name _____ Signature _____ Shipment Date _____

TRANSPORTER

Transporter Name H & A TRANSP # Driver Name (Print) VALERIO

Address NEWARK N-J Vehicle License No./State AV 322 P

_____ Truck Number 8

I hereby certify that the above named material was picked up at the generator site listed above.

VALERIO 11-13-19
Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

VALERIO 11-13-19.
Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

K Brunson K Brunson 11/13/19
Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 11 105205

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Shipping Location _____

Address _____ Address 27-10 49TH AV

_____ L.I.C N.Y.

Phone No. _____ Phone No. _____

ID 587

Approval Number: M6 1781

Description of Material: Non-Hazardous Soil

GROSS 43.41 TN
TARE 15.48 TN RECALLED
NET 27.93 TN
11/13/2019 10:18AM

GROSS
TARE
NET
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name _____ Signature _____ Shipment Date _____

TRANSPORTER

Transporter Name ANDRADES #8 Driver Name (Print) WILSON

Address NEWARK NJ Vehicle License No./State AT477J

_____ Truck Number _____

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature _____ Shipment Date 11-13-19

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature _____ Delivery Date 11.13.19

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent _____ Signature _____ Receipt Date 11/13/19

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 29 108829

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name HUNTERS POINT LLC. Shipping Location _____

Address 27-10 49th St. LIC, NY Address _____

Phone No. _____ Phone No. _____

Approval Number MG 1791

Description of Material: Non-Hazardous Soil

ID 4
GROSS 42.83 TN
TARE 14.94 TN RECALLED
NET 27.89 TN
11/13/2019 01:51PM

GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Rebeca Generato (AESI) _____ 11/13/19
Generator Authorized Agent Name Signature Shipment Date
On behalf of H.P. LLC.

TRANSPORTER

Transporter Name H & A TRAMP Driver Name (Print) M. VALERIO

Address 2710 49 AVE LIC Vehicle License No./State AU322P

Truck Number 8

I hereby certify that the above named material was picked up at the generator site listed above.

M. VALERIO 11/13/19
Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

M. VALERIO
Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

_____ _____ 11/13/19
Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 35 105206

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunters Point LLC.

Address 27-10 49th Street.

Phone No.

Shipping Location

Address 27-10 - 49TH AV. L.I.C. N.Y.

Phone No.

Approval Number M6 17 81

Description of Material: Non-Hazardous Soil

ID 587 **GROSS**

GROSS 33.76 TN **TARE**
TARE 15.48 TN RECALLED
NET 18.28 TN **NET**

11/13/2019 02:42PM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Rebecca Carotalo AESI on behalf of H.P.LLC. — Signature — 11/13/19.

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name ANDRADES

Address NEWARK NJ

Driver Name (Print) WILSON

Vehicle License No./State AT477J

Truck Number # 8

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11-13-19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11-13-19 Delivery Date

DESTINATION

Site Name SSI-Metro12

Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 11/13/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

404257-19

NON-HAZARDOUS WASTE MANIFEST

3666921

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NYCESQG

Manifest Document No. 100010

2. Page 1 of 1

3. Generator's Name and Mailing Address
HUNTERS POINT SG, LLC
10 WEST FOREST AVENUE
ENGLEWOOD NY 07631

27-10 49TH AVENUE
LONG ISLAND CITY NY 11101

4. Generator's Phone (201 474-0445

5. Transporter 1 Company Name: ISLAND PUMP & TANK CORP.

6. US EPA ID Number: NYR000198172 6

A. State Transporter's ID

B. Transporter 1 Phone 631 462-2226

7. Transporter 2 Company Name: REPUBLIC ENVIRONMENTAL SYSTEMS (

8. US EPA ID Number: PAD982661381

C. State Transporter's ID

D. Transporter 2 Phone 800 558-5011

9. Designated Facility Name and Site Address
NORTHLAND ENVIRONMENTAL
275 ALLENS AVENUE
PROVIDENCE RI 02905

10. US EPA ID Number: RIDO40088352

E. State Facility's ID

F. Facility's Phone 401 781-6340

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-RCRA & NON-DOT REGULATED MATERIALS (HYDRAULIC OIL/WATER MIXTURE)	003	DM	1200	P
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
a. c.
b. d.

H. Handling Codes for Wastes Listed Above
a. RO15 c.
b. d.

15. Special Handling Instructions and Additional Information
1) 136127

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Klean DeEgidio, AES I
Signature: A DeEgidio
Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Joseph E. Sr.
Signature:
Date: Month 07 Day 23 Year 19

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Dalil Jones
Signature:
Date: Month 8 Day 1 Year 19

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name: Gina Pickering
Signature:
Date: Month 8 Day 6 Year 19

NON-HAZARDOUS WASTE

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CONCRETE DISPOSAL

P.C.I. CONTRACTING INC.
49 Satterie Avenue
Valley Stream, NY 11580
(516)7911498
soonia@pcidemo.com
www.dumpstercleanups.com

Invoice 32086

BILL TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

SHIP TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

DATE	PLEASE PAY	DUE DATE
05/13/2019	$1,578.69	05/13/2019

SHIP DATE
05/10/2019

CUSTOMER ADDRESS
2710 49 Ave

ACTIVITY	QTY	RATE	AMOUNT
20 Yard Heavy	1	1,450.00	1,450.00T

Any overweight charges are $118. 00 per ton. Mixing debris with concrete will significantly change the agreed price. Customers authorizes all credit card charges for overweight charges. Minimum weight 1 ton.
accepted
by_____.
PLEASE NOTE AS OF FEBRUARY 1ST 2019 ALL PRICE ON C&D AND GARBAGE WILL BE $118.00. PER TON.

SUBTOTAL	1,450.00
TAX (8.875%)	128.69
TOTAL	1,578.69
TOTAL DUE	**$1,578.69**

THANK YOU.

Please Note: As of February 1st, 2019 , the price for dump fee will be $118.00 on all C&D and garbage.

CONCRETE DISPOSAL

P.C.I. CONTRACTING INC.
49 Satterie Avenue
Valley Stream, NY 11580
(516)7911498
soonia@pcidemo.com
www.dumpstercleanups.com

Invoice 32339

BILL TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

SHIP TO
2710 49 Ave

DATE	PLEASE PAY	DUE DATE
05/28/2019	$1,578.69	06/27/2019

SHIP DATE
05/24/2019

CUSTOMER ADDRESS
2710 49 Ave

ACTIVITY	QTY	RATE	AMOUNT
20 Yard Heavy	1	1,450.00	1,450.00T

Any overweight charges are $118. 00 per ton. Mixing debris with concrete will significantly change the agreed price. Customers authorizes all credit card charges for overweight charges. Minimum weight 1 ton.
accepted
by_____.
PLEASE NOTE AS OF FEBRUARY 1ST 2019 ALL PRICE ON C&D AND GARBAGE WILL BE $118.00. PER TON.

SUBTOTAL	1,450.00
TAX (8.875%)	128.69
TOTAL	1,578.69
TOTAL DUE	**$1,578.69**

THANK YOU.

Please Note: As of February 1st, 2019 , the price for dump fee will be $118.00 on all C&D and garbage.

C & D w/ Separate & Lift Components

P.C.I. CONTRACTING INC.
49 Satterie Avenue
Valley Stream, NY 11580
(516)7911498
soonia@pcidemo.com
www.dumpstercleanups.com

Invoice 32271

BILL TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

SHIP TO
2710 49 Ave

DATE	PLEASE PAY	DUE DATE
05/23/2019	$1,034.97	06/22/2019

SHIP DATE
05/22/2019

CUSTOMER ADDRESS
2710 49 Ave

ACTIVITY	QTY	RATE	AMOUNT
Truck	1	350.00	350.00T
Dump Fee	5.46	110.00	600.60T

Any overweight charges are $118. 00 per ton. Mixing debris with concrete will significantly change the agreed price. Customers authorizes all credit card charges for overweight charges. Minimum weight 1 ton.
accepted
by_____.
PLEASE NOTE AS OF FEBRUARY 1ST 2019 ALL PRICE ON C&D AND GARBAGE WILL BE $118.00. PER TON.

SUBTOTAL	950.60
TAX (8.875%)	84.37
TOTAL	1,034.97
TOTAL DUE	**$1,034.97**

THANK YOU.

Please Note: As of February 1st, 2019 , the price for dump fee will be $118.00 on all C&D and garbage.

APPENDIX E2

Disposal Facility Approval and Approval Letters

Soil Safe®
Recycling and Beneficial Re-use of Soils

September 24, 2020

Seamus Kelly
Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 401
Hoboken, NJ 07030

Subject: 27-10 49th Avenue, Long Island City, NY

Dear Mr. Kelly,

After Soil Safe, Inc. reviewed the completed and signed Material Characterization Report (MCR), the sample map, and the laboratory analysis reported by Integrated Analytical Laboratories, LLC; Case Number: E19-03807, we approved soils for shipment to our Carteret, NJ Facility under approval number **M6-2207**. We received a total of 371.91 tons between dates 11/12/19 and 11/13/19. If there are any questions or concerns please don't hesitate to contact me at 410-872-3990 extension 30314.

Regards,

Nicholas Bartlinski
Compliance Manager

Cc: Janice Loar
Metro12 Facility

APPENDIX E3

Facility Permit Certificates

State of New Jersey

PHILLIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CATHERINE R. McCABE
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mark Smith, CEO
Soil Safe, Inc.
4600 Alexander Bell Dr., Suite 300
Columbia, MD 21046

December 6, 2018

Re: Recycling Center General Approval
Soil Safe, Inc., Metro 12 Facility
Block 602, Lot 1; Block 705, Lot 17 & 18
Borough of Carteret, Middlesex County
Facility ID No.: 578186
Permit No.: CBG180002

Dear Mr. Smith:

Please be advised that the New Jersey Department of Environmental Protection, Division of Solid & Hazardous Waste has reached a final determination to renew the Class B Recycling Center General Approval issued to the above referenced facility. Enclosed is a copy of the final document.

Should you wish to contest any of the conditions of the enclosed general approval, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice in accordance with the procedures found in N.J.A.C. 7:26A-3.14. A copy of the request should also be mailed to this office.

If you have any questions concerning this matter, please contact Rakesh Patel of my staff at (609)-984-6814, or by email at Rakesh.Patel@dep.nj.gov.

Sincerely,

Karen Kloo, Chief
Bureau of Recycling & Hazardous Waste Management

Enclosures:

C: *Thomas Farrell, SW Compliance and Enforcement Bureau Chief
*John Stavash, SW Compliance and Enforcement Supervisor
* Ken Kloo, Director, SRP
*Suzanne Dietrick, SRP Landuse
Frank Piliere, Supervisor, Bureau of Recycling and Hazardous Waste Management
*Christopher M. Sikorski, Middlesex County Recycling Coordinator
*Carole Tolmachewich, Middlesex County Solid Waste Coordinator
Middlesex County CEHA Agent
Municipal Clerk, Borough of Carteret
*Albert P. Free, LSRP, EastStar Environmental Group, Inc. afree@eaststarenv.com
Chet Pucillo, Rahway Arch Properties, LLC, 877 Prospect St Glen Rock, NJ 07452

*Sent via email

State of New Jersey

PHILLIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CATHERINE R. McCABE
Commissioner

RECYCLING CENTER GENERAL APPROVAL FOR PETROLEUM CONTAMINATED SOIL, CONCRETE, ASPHALT, BRICK & BLOCK

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.*, known as the Recycling Regulations, this approval is hereby issued to:

Soil Safe, Inc., Metro 12 Facility

Facility Type:	Recycling Center
Lot & Block Nos.:	Block 602, Lot 1; Block 705, Lot 17 & 18
Municipality:	Borough of Carteret
County:	Middlesex County
Facility ID No.:	578186
Permit No.:	CBG180002

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department.

December 6, 2018
Issuance Date

Karen Kloo, Chief
Bureau of Recycling &
Hazardous Waste Management

July 1, 2023
Expiration Date (term of current lease)

Scope of Approval

This General Approval along with the referenced application documents herein specified shall constitute the sole General Approval for the operation of a Class B Recycling Center by Soil Safe, Inc., located in Borough of Carteret, Middlesex County, New Jersey. The facility is authorized to accept petroleum contaminated soil, concrete, asphalt, brick and block. Any registration, approval or permit previously issued by the Division of Solid and Hazardous Waste, or its predecessor agencies is hereby superseded.

This general approval does not convey any property rights of any sort, or any exclusive privilege. Failure to comply with all of the conditions specified herein may result in revocation of this approval and/or may result in such other regulatory or legal actions that the Department is authorized by law to institute, including but not limited to, civil and administrative penalty assessments.

This general approval does not approve any activities by Soil Safe, Inc. outside of the boundaries of the Class B Recycling operations nor does it authorize the permanent placement of fill at the site.

Regulated Activities at the Facility

Items 1 through 40 of this approval contain the general requirements applicable to all recycling centers. Items 41 through 78 of this approval contain the general operating requirements for all recycling centers for the receipt, storage and processing of Class B recyclable materials and specific conditions applicable to the operations of the recycling center.

Facility Description

The Class B recycling center is privately operated by the Soil Safe, Inc., to produce engineered fill, consisting of petroleum contaminated soil and cement (Soil Cement) for the stabilization, remediation, capping, and reclamation of the site for habitat restoration and industrial development. The recycling center is located at the terminus of Salt Meadow Road, Block 602, Lot 1; Block 705, Lot 18, in Borough of Carteret, Middlesex County. This regional recycling center receives petroleum contaminated soil, concrete, asphalt, brick and block. The recycling center is authorized to accept and process, except crushing, recyclable materials 24 hours per day, 7 days per week. The crushing activities are from 7:00 AM to 11:00 PM, 7 days per week.

Approved General Approval Application and Associated Documents

(a) The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26A-1 *et seq.*, the conditions of this Approval, and the following documents:

(1) Site Plan- "Solid Waste Permitting Plans For Metro12 Class B Recycling Center, Block 602, Lots 1, Block 705, Lots 17 and 18, Borough of Carteret, Middlesex County, New Jersey", Sheets 1 and 2, prepared by Kernan Consulting Engineers, dated May 21, 2013 and signed and sealed by Pamela J. Pellegrini, P.E., P.P., C.M.E.

(2) Class B Recycling Center Approval Renewal Application, Soil Safe, Inc., Metro 12 Facility, dated March 21, 2018 signed by Milt Morris, VP, Soil Safe, Inc.

(3) Letters dated March 14 and May 30, 2013 from Jim Grant, Director of Facility Development and Compliance, Soil Safe, Inc., with additional information for Class B application.

(4) Class B Recycling Center Approval Application, Soil Safe, Inc., Metro 12 Facility, dated March 21, 2012 with letter dated May 11, 2012 from Jim Grant, Director of Facility Development and Compliance, Soil Safe, Inc.

(5) Administrative Action letter dated July 31, 2018 approved by the Bureau of Planning and Licensing for the County Plan inclusion of the modified block & lot designation of the Soil Safe Inc Class B Recycling Center located at Block 602, Lot 1 & Block 705, Lot 17 & 18.

(6) Middlesex County Solid Waste Management Plan inclusion of Soil Safe Inc. as a Class B Recycling Facility located on Block 10, Lots 10, 16-21 and Block 11.01, Lots 8, 10, 14 & 16 at Terminus of Driftway Street110 in the Borough of Carteret, certified by the Commissioner of the Department of Environmental Protection on August 12, 2012.

In case of conflict, the provisions of N.J.A.C. 7:26A-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

SOIL SAFE INC METRO 12 FACILITY
578186 CBG180002 Class B Recycling Ctr General Apprv -Renewal
Requirements Report

Subject Item: PI 578186 -

1. All persons issued a general approval to operate a recycling center for Class B, Class C and/or Class D recyclable material pursuant to N.J.A.C. 7:26A-1 et seq. shall comply with all conditions of the approval. [N.J.A.C. 7:26A-3.1(a)]
2. The holder of this general approval shall prominently post and maintain a legible sign, at or near the entrance to the recycling center, indicating that the recycling center is an approved New Jersey Department of Environmental Protection recycling center. The sign shall also indicate the following: Hours of operation of the recycling center; Listing of the source separated materials to be received; The size, weight, or other restrictions regarding materials to be received; The maximum amount of contaminants allowed in each load; Warning that loads will be inspected and will be barred from offloading if the contaminant level is exceeded; and Notice that the person offloading shall certify the amount of material per load, municipality of origin of the material and any other information contained on the Recyclable Material Receipt Form. [N.J.A.C. 7:26A-3.5(f)]
3. Application for renewal of this general approval shall be submitted at least three months prior to expiration of the current approval and shall comply with all requirements for renewal set forth in N.J.A.C. 7:26A-3.6 et seq. One copy of the application for renewal of the general approval shall be submitted by the applicant to the municipal clerk of the municipality in which the recycling center is located, and to the solid waste or recycling coordinator of the county in which the recycling center is located. [N.J.A.C. 7:26A-3.6(a)]
4. The applicant for renewal of this general approval shall certify in writing to the Department that there have been no changes in the operations of the recycling center since the issuance of the general approval in order to renew the approval in its existing form. In the event that there have been changes in the operations of the recycling center or where changes are planned, the application for renewal of a general approval shall be accompanied by a written request to modify the general approval in accordance with N.J.A.C. 7:26A-3.10. [N.J.A.C. 7:26A-3.6(b)]
5. In a case where the holder of this general approval does not comply with N.J.A.C. 7:26A-3.6(a) and (b) and continues to operate without renewal of the general approval, the Department may take enforcement action including the assessment of penalties under N.J.S.A. 13:1E-9; require the holder of this general approval to file an application as a new applicant for a general approval in accordance with N.J.A.C. 7:26A-3.2 and pay the application fee as per N.J.A.C. 7:26A-2; and/or take any other appropriate actions. [N.J.A.C. 7:26A-3.6(c)]
6. All persons granted a renewal pursuant to N.J.A.C. 7:26A-3.6(d) shall continue to pay the annual fee as specified in N.J.A.C. 7:26A-2. [N.J.A.C. 7:26A-3.6(h)]
7. The holder of this general approval shall obtain prior approval from the Department for any modification of the general approval. [N.J.A.C. 7:26A-3.10(a)]
8. Any change affecting the conditions of this general approval requires the prior approval of the Department. [N.J.A.C. 7:26A-3.10(b)1]
9. Any change to the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19, or 3.20 requires the prior approval of the Department, except that changes in end-market information submitted pursuant to N.J.A.C. 7:26A-3.2(a) 7 shall not require the prior approval of the Department but shall be handled in accordance with N.J.A.C. 7:26A-3.10(f). [N.J.A.C. 7:26A-3.10(b)2]

Subject Item: PI 578186 -

10. The holder of this general approval shall notify the Department in writing of the intended modification and shall update the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20. The holder of this general approval shall also provide written notice to the solid waste or recycling coordinator of the applicable county of any request to modify a general approval. [N.J.A.C. 7:26A-3.10(c)]

11. The holder of this general approval shall not institute the modification until it receives written approval from the Department. [N.J.A.C. 7:26A-3.10(e)]

12. Within one week of any change to the end-market information submitted to the Department pursuant to N.J.A.C. 7:26A-3.2(a)7, the holder of this general approval shall submit to the Department a written notification which details any change in the use of the recyclable material transferred from the recycling center to an end-market or in the end-market location to which the recyclable material is transferred. The written notification shall be sent to: New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Recycling & Hazardous Waste Management, Mail Code: 401-02C, P.O. Box 420, Trenton, New Jersey 08625-0420. [N.J.A.C. 7:26A- 3.10(f)]

13. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of N.J.S.A. 13:1E-1 et seq., the New Jersey Statewide Mandatory Source Separation and Recycling Act, or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 13:1E-1 et seq. and the New Jersey Statewide Mandatory Source Separation and Recycling Act. [N.J.A.C. 7:26A-3.13(a)1]

14. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any solid waste utility law at N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq., or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq. [N.J.A.C. 7:26A-3.13(a)2]

15. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State or of any other State or Federal environmental laws including criminal laws related to environmental protection. [N.J.A.C. 7:26A-3.13(a)3]

16. The Department may revoke this general approval upon a determination that the holder of the general approval has refused or failed to comply with any lawful order of the Department. [N.J.A.C. 7:26A-3.13(a)4]

17. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to comply with any of the conditions of this general approval issued by the Department. [N.J.A.C. 7:26A-3.13(a)5]

18. The Department may revoke this general approval upon a determination that the holder of the general approval has transferred a general approval to a new owner or operator pursuant to N.J.A.C. 7:26A-3.15 without the prior approval of the Department. [N.J.A.C. 7:26A-3.13(a)6]

19. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to obtain any required permit or approval from the Department or other State or Federal agency. [N.J.A.C. 7:26A-3.13(a)7]

Subject Item: PI 578186 -

20. The Department may revoke this general approval upon a determination that the holder of the general approval has committed any of the acts which are criteria for denial of a general approval set forth in N.J.A.C. 7:26A-3.12. [N.J.A.C. 7:26A-3.13(a)8]

21. This general approval shall not be transferred to a new owner or operator without the Department's prior approval. [N.J.A.C. 7:26A-3.15(a)]

22. A written request for permission to allow a transfer of this general approval must be received by the Department at least 60 days in advance of the proposed transfer of ownership or operational control of the recycling center. The request for approval shall include the following: the name, address and social security number of all prospective new owners or operators; a written certification by the proposed transferee that the terms and conditions contained in the general approval will be met by the proposed transferee; and a written agreement between the current owner or operator of the recycling center and the proposed new owner or operator containing a specific future date for transfer of ownership or operational control. [N.J.A.C. 7:26A-3.15(a)1]

23. A new owner or operator may commence operations at the recycling center only after the existing approval has been revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5. [N.J.A.C. 7:26A-3.15(a)2]

24. The holder of this general approval remains liable for ensuring compliance with all conditions of the approval unless and until the existing approval is revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5. [N.J.A.C. 7:26A-3.15(a)3]

25. Compliance with the transfer requirements set forth at N.J.A.C. 7:26A-3.15 shall not relieve the holder of this general approval from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision. [N.J.A.C. 7:26A-3.15(a)4]

26. The transfer of a controlling interest in the stock or assets of the recycling center that is the subject of this general approval shall constitute a transfer of this general approval. [N.J.A.C. 7:26A-3.15(b)]

27. The holder of this general approval shall maintain a daily record of the amounts of each recyclable material by type and municipality of origin which are received, stored and processed each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A- 3.17(a)1]

28. The holder of this general approval shall maintain a daily record of the name, address and telephone number of the end-markets for all recyclable materials transported from the recycling centerincluding amounts of each recyclable material by type and municipality of origin which are received, stored and processed each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A- 3.17(a)2]

29. The holder of this general approval shall maintain a daily record of the amount of residue disposed of, expressed in tons, cubic yards, cubic feet or gallons, including the name and New Jersey Department of Environmental Protection solid waste registration number of the solid waste collector/hauler contracted to provide the haulage/disposal service. Those persons specifying the amount of residue in cubic yards shall also indicate the conversion ratio of the residue from cubic yards to tons. [N.J.A.C. 7:26A-3.17(a)3]

Subject Item: PI 578186 -

30. The holder of this general approval shall retain all shipping receipt forms required pursuant to N.J.A.C. 7:26A-3.2(a)16iii for three calendar years following the calendar year for which an annual report is required pursuant to N.J.A.C. 7:26A-3.17(c). [N.J.A.C. 7:26A- 3.17(b)]

31. The holder of this general approval shall submit an annual report containing monthly summary statements of the information required pursuant to N.J.A.C. 7:26A-3.17(a) to the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, on or before March 1 of each year, for the previous calendar year. The summaries shall include the following: monthly totals of the amount of recyclable material received from each customer by municipality of origin; monthly totals of the amount of recyclable product transferred to each end-market; and the amount of residue disposed of during each month. [N.J.A.C. 7:26A- 3.17(c)]

32. The holder of this general approval shall certify in writing to the Department that all residue generated at the recycling center has been disposed of in accordance with the solid waste management rules at N.J.A.C. 7:26. The certification shall be submitted annually as part of the annual report. [N.J.A.C. 7:26A-3.17(e)]

33. All information submitted to the Department pursuant N.J.A.C. 7:26A shall be handled in accordance with the requirements of the Public Records law, N.J.S.A. 47:1-1 et seq. The Department will hold confidential all end-market information, as well as information pertaining to the municipality of origin of recyclable material, submitted pursuant to N.J.A.C 7:26A-3.2, 3.7, and 3.17 through 3.20 for a period of two years from the date on which the information is submitted to the Department, where specified as confidential by the applicant and where there are no health, safety or environmental concerns which require the release of the information, as determined by the Department. [N.J.A.C. 7:26A-3.17(f)]

34. The holder of this general approval shall provide a recycling tonnage report by March 1 of each year to all municipalities from which recyclable material is received in the previous calendar year. The report shall detail the amount of each source separated recyclable material, expressed in tons or cubic yards, brought to the recycling center, as well as the date on which the recyclable materials were delivered to the recycling center. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A-4.4(a)]

35. The recycling center shall not commence operations unless and until it is included in the applicable district solid waste management plan. [N.J.A.C. 7:26A-4.2]

36. The construction of the recycling center that is the subject of this general approval shall be in conformance with the New Jersey Uniform Construction Code, N.J.S.A. 52:27D-119 et seq., and the rules promulgated pursuant thereto. [N.J.A.C. 7:26A-4.1(b)]

37. The New Jersey Department of Environmental Protection or an authorized representative acting pursuant to the County Environmental Health Act, N.J.S.A. 26:3A2-1 et seq. shall have the right to enter and inspect any building or other portion of the recycling center at any time in order to determine compliance with the provisions of all applicable laws or rules and regulations adopted pursuant thereto. This right to inspect includes, but is not limited to: sampling any materials on site; photographing any portion of the recycling center; investigating an actual or suspected source of pollution of the environment; and, ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of the recycling center approval issued by the Department. [N.J.A.C. 7:26A-1.7(a)]

Subject Item: PI 578186 -

38. The right of entry specified at N.J.A.C. 7:26A-1.7(a) shall be limited to normal operating hours for the purpose of reviewing and copying all applicable records, which shall be made available to the Department during an inspection and submitted to the Department upon request. [N.J.A.C. 7:26A-1.7(b)]

39. The facility shall comply with the general operating requirements for all Recycling Centers as provided at N.J.A.C. 7:26A-4.1. [N.J.A.C. 7:26A-4]

40. Upon notification from the Department that a State of Emergency, which may impact the facility's operations, has been declared by the Governor pursuant to the New Jersey Disaster Control Act at N.J.S.A. App. A:9-30 et seq., the permittee shall provide to the Division of Solid and Hazardous Waste a daily report on the operational status of the facility and the quantity of wastes received during the previous operating day or any other relevant information requested pursuant to N.J.S.A. App. A:9-36. The status report shall be submitted electronically to solidwasteemergencies@dep.nj.gov, or as otherwise directed by the Department, on forms, or in the format, provided by the Department and in compliance with the time frames established by the Department after the State of Emergency declaration. The status reports shall be submitted daily until the permittee is informed by the Department that the reports are no longer required for that State of Emergency. [N.J.A.C. 7:26A- 3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

41. The following processing equipment or equivalent is approved for utilization at the facility for crushing, screening and mixing:

Ranger Pugmill
6x16 Innovative Processing Equipment Screen
Belgrade Silo
Stedman Rotary Impact Crusher with Conveyors
Rubber Tire Loaders Cat 950/980
Cat 325 Excavators
Cat D6 Dozers
Caterpillar 725/730 Dump Truck
3000 Gallon Water Truck
Bomag 84 inch Vibratory Roller
American Scale Concrete Deck Truck Scale

Requisite recycling center operations shall not be delayed or neglected for lack of required equipment or for equipment downtime. [N.J.A.C. 7:26A- 3.5(e)]

42. Recycling centers receiving petroleum contaminated soil must have a preparedness and prevention plan. The contingency plan contained in the approved documents must be maintained on-site and updated as necessary. [N.J.A.C. 7:26A- 4.8(b)5]

43. Upon detection of a release of contaminants to the environment, the facility shall perform the following cleanup steps: stop the release, contain the released contaminants, clean up and manage properly the released contaminants and other materials and if necessary, repair or replace any leaking soil containment systems prior to returning them to service. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

44. Upon closure of the facility the owner or operator shall remove or decontaminate petroleum contaminated soils, containment system components, and structures and equipment and manage them as hazardous waste, unless the materials are not hazardous waste under NJAC 7:26G-5. [N.J.A.C. 7:26A-3.5(e)]

45. All equipment and portions of the facility designated for the storage or processing of petroleum contaminated soils shall be visually inspected each operating day for integrity and leaks. [N.J.A.C. 7:26A-3.5(e)]

46. Records shall be maintained for all visual inspections. These records shall document that inspections were performed, any problems found, and the subsequent correction of such problems. All records shall be kept for a minimum of three years. [N.J.A.C. 7:26A-3.5(e)]

47. The facility shall keep a record of each shipment of petroleum contaminated soil, concrete, asphalt, brick and block (recyclables) accepted for processing. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. All tracking records shall be maintained by the holder of this general approval as required pursuant to N.J.A.C. 7:26-A-3.2(a)16iii for three calendar years. Records for each shipment shall include the following information: the name and address of the transporter who delivered the recyclables to the facility, the name and address of the generator from whom the recyclables was sent, the NJDEP registration number of the transporter, EPA ID number (if applicable) of the generator, description of the recyclable material (petroleum contaminated soil, concrete, asphalt, brick or block), the quantity of recyclables accepted and the date of acceptance. Prior to the receipt of a shipment of recyclables from a generation source, the holder of this approval shall have received a completed Soil Safe Material Characterization Report as referenced in the Approved General Approval Application and associated documents for that shipment. The report shall include at least the following information: name and address of the generation site, contact information, quantity of recyclables, type of oil contaminating the soil, contamination source (i.e. underground storage tank, above ground storage tank, spill, historic or other), past use of generation site (i.e. industrial, commercial, residential and historic fill), analytical results conducted on the soil and a certification that the information provided is true and accurate. The holder of this approval shall review the information provided to ensure the shipment complies with the facility's acceptance criteria for recyclables prior to authorizing acceptance of a shipment. [N.J.A.C. 7:26A- 3.5(e)]

48. The facility shall maintain on-site an operating record showing analysis records, tracking records, and summary reports of incidents requiring implementation of the contingency plan. This information shall be made available to Department personnel upon request and shall be kept for a minimum of three years. [N.J.A.C. 7:26A- 3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

49. The following source separated Class B recyclable materials, which have been separated at the point of generation from other waste materials or separated at a permitted solid waste facility authorized to separate recyclable materials, may be received, stored and processed at this recycling center:

Non-hazardous petroleum contaminated soils that otherwise would be ID-27 if not recycled, and non-hazardous petroleum contaminated soil containing concrete, asphalt, brick & block. In addition, the recycling center may accept concrete, asphalt, brick & block screened from petroleum contaminated soil.

i. Only soil contaminated with the following compounds shall be accepted and processed at this facility: gasoline, kerosene, jet fuel, Numbers 1 through 6 fuel oil, polynuclear aromatic hydrocarbons (coal tars), historic petroleum contamination and used oil. Used oil shall be defined as any oil that has been and as a result of such use, is contaminated by physical or chemical impurities. No soils may be accepted that have been contaminated with materials that are other waste materials, or waste by-products, such as sludges.

ii. No soils with free petroleum product or other liquids shall be accepted at the facility. For soils containing greater than 17,000 ppm EPH, the soil shall be determined not to contain free liquids by USEPA SW-846 method 9095.

No hazardous waste, as defined by N.J.A.C. 7:26G-5, shall be accepted by the facility. [N.J.A.C. 7:26A- 3.5(e)]

50. At no time shall the receipt, storage, processing, or transferring of non-source separated construction and demolition material be allowed at this recycling center. The prohibition of this material shall be strictly enforced and any incident shall be considered a serious violation to the conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

51. All Class B soil accepted by the facility shall be processed as detailed below to create a cement modified soil product. Trucks transporting soil from approved sites per Condition 47 of this Approval shall be weighed at the scale, be visually inspected, and have the manifest verified. If acceptable, the driver shall be directed to offload the shipment in the Raw Material Stockpile Area. The material may be blended with other material in the preprocessing pile as needed to assure a homogenous feedstock for processing. Incoming shipments of material that are segregated prior to processing shall be identified by a wooden stake on which is written the source material project number. Once the segregated pile has been released for processing it shall be combined with other materials in the preprocessing pile.

    The material from the preprocessing pile shall be fed into the feed hopper for the screening plant where water may be added to control dust and provide hydration to the soil. Oversized material generated from the screening shall be transported to the oversized raw material stockpile area. Incidental recyclable metals removed shall be stored in roll-offs and delivered to an approved recycling center. Non-recyclable waste materials such as plastic and wood shall be placed in a roll-off and shipped off-site for disposal. The 4 inch minus material shall be fed by conveyor to the pugmill. In the pugmill counter rotating arms shall blend the material with pozzolonic additives. A minimum of 1% by weight pozzolonic additives shall be blended into the soil. Additional amounts of additive may be used to meet specific geotechnical requirements as determined by the LSRP for the remediation project. The process shall be operated in accordance with the requirements specified in the facility's Air Permit. The cement modified soil product shall then be transported by conveyor belt to the processed material stockpile area. [N.J.A.C. 7:26A- 3.5(e)]

52. The cement modified soil shall be stockpiled, sampled and tested pursuant to the requirements specified by the governing Licensed Site Remediation Professional (LSRP) for the Rahway Arch Properties, LLC remediation project in accordance with the Remedial Action Workplan (RAW) submitted to the Department 7/16/13, 8/15/13 addendum, and 8/23/13 clarification letter. After a sample is taken, no additional product shall be added to sampled pile. If the test results from the sampled pile demostrate the pile has achieved end market criteria, the material shall be transported to the end market (remedial action project). If it fails to achieve acceptance criteria, it may be reintroduced for further treatment or shall be shipped off-site as solid waste.

    Oversized material from the screening operation shall be stockpiled as indicated on the approved site plan. In the event oversized material is segregated from petroleum contaminated soil at the donor site, it shall be offloaded either in the raw material stockpile area or directly into the oversized stockpile area. The oversized material shall be fed to the crusher feed hopper. It shall be size reduced and then transported to the end market or blended back into the material in the preprocessing stockpile area for processing. [N.J.A.C. 7:26A- 3.5(e)]

53. Incidental amounts of rebar, metal and other by-products which adhere to the Class B recyclable materials, as specified in this Approval, and which are returned to the economic mainstream as raw material or products, may be received, stored, processed, or transferred at this recycling center. The receipt of such incidental amounts of these materials need not be separately accounted for, but the storage and end-markets for these materials shall be subject to specific conditions of this Approval. [N.J.A.C. 7:26A- 3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

54. The holder of this general approval shall operate the recycling center and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26A-1 et seq., the conditions of this general approval, and the general approval application documents. [N.J.A.C. 7:26A-3.5(e)]

55. In case of conflict, the provisions of N.J.A.C. 7:26A-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26A- 3.5(e)]

56. One complete set of the general approval application documents, this general approval, and all records, reports and plans as may be required pursuant to this approval shall be kept on file at the recycling center and shall be available for inspection by authorized representatives of the Department or delegated agents upon presentation of credentials. [N.J.A.C. 7:26A-3.5(e)]

57. Hours of operation for receiving, storing and processing the source separated recyclable material shall be limited as following:

- receiving and processing (except crushing) up to 24 hours per day 7 days per week.
- crushing shall be limited to 7:00 a.m. to 11:00 p.m. 7 days per week. [N.J.A.C. 7:26A- 3.5(e)]

58. Material deliveries to the recycling center shall be scheduled in such a manner as to minimize truck queuing on the recycling center property. Under no circumstances shall delivery trucks be allowed to back-up or queue onto public roads. [N.J.A.C. 7:26A- 3.5(e)]

59. The recycling center may receive no more than 7,000 tons per day of source separated non-hazardous petroleum contaminated soil consisting of a maximum of 1,500 tons per day of concrete, asphalt, brick & block. The recycling center may receive concrete, asphalt, brick & block from the donor site either commingled with petroleum contaminated soil or separately. However, the combination of all Class B material accepted on a daily basis shall not exceed 7,000 tons per day. [N.J.A.C. 7:26A-3.5(e)]

60. The total amount of unprocessed non-hazardous petroleum contaminated soils, concrete, asphalt, brick & block stored on-site shall not exceed 60,000 cubic yards in the Raw Material Stockpile Area. The Oversized Material Stockpile Area is for screened oversized concrete, asphalt, brick & block that will later be crushed. The material in the Oversized Material Stockpile Area shall not exceed 6,600 cubic yards. Unprocessed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

61. If at any time, the amount of unprocessed non-hazardous petroleum contaminated soils, concrete, asphalt, brick & block stored on-site exceeds 60,000 cubic yards in the Raw Material Stockpile Area, the recycling center shall immediately cease receiving unprocessed non-hazardous petroleum contaminated soil, concrete, asphalt, brick & block until the amount of unprocessed material stored on-site falls below 60,000 cubic yards. Further, if at any time, the amount of concrete, asphalt, brick & block stored on-site exceeds 6,600 cubic yards in the Oversized Material Stockpile Area, the recycling center shall immediately cease receiving any non-hazardous petroleum contaminated soils, concrete, asphalt, brick & block until the amount of this material in this area falls below 6,600 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

62. Unprocessed recyclable material shall not remain on-site, in its unprocessed form, for more than one (1) year. [N.J.A.C. 7:26A-3.9(b)]

Subject Item: RCBG990094 - Class B Recycling Operations

63. The total amount of processed non-hazardous petroleum contaminated soils stored within the Class B facility area shall not exceed 20,000 cubic yards. Processed materials stored within the Class B facility area shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing.

    The total amount of processed concrete, asphalt, brick & block stored within the Class B facility area shall not exceed 1,000 cubic yards. Processed materials stored within the Class B facility shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

64. If at any time, the amount of processed non-hazardous petroleum contaminated soils stored within the Class B facility exceeds 20,000 cubic yards, the recycling center shall immediately cease processing activities until the amount of processed non-hazardous petroleum contaminated soils falls below 20,000 cubic yards, unless capacity remain in the unprocessed area.

    If at any time, the amount of processed (crushed) concrete, asphalt, brick & block stored within the Class B facility exceeds 1,000 cubic yards, the recycling center shall immediately cease processing activities until the amount of processed concrete, asphalt, brick & block falls below 1,000 cubic yards, unless capacity remain in the unprocessed area. [N.J.A.C. 7:26A- 3.5(e)]

65. All processed material shall be stored separately from residues. [N.J.A.C. 7:26A-3.5(e)]

66. The maximum amount of contaminants, as defined in N.J.A.C. 7:26A-1.3, allowed in each incoming load of Class B recyclable material shall be limited to 1% by volume. Incidental by-product materials shall not be considered to be contaminants. [N.J.A.C. 7:26A- 3.5(e)]

67. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish an elevation height of 20 feet above the existing grade for the unprocessed stockpile areas and 20 feet above the existing grade for the processed stockpile areas. [N.J.A.C. 7:26A- 3.5(e)]

68. Metal pipe or metal rods or the equivalent as approved by the Department shall be used to establish these control points and maintained. [N.J.A.C. 7:26A- 3.5(e)]

69. Ingress and egress of the facility shall be restricted to Salt Meadow Road only. [N.J.A.C. 7:26A-3.5(e)]

70. Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. [N.J.A.C. 7:26A-3.5(e)]

71. Fire fighting and emergency procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance, and hospital facilities. If a fire occurs on-site, the facility shall immediately notify the local fire official and the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

72. Any suspected or prohibited hazardous waste, as defined at N.J.A.C. 7:26G-5, found in a load accepted at the recycling center shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner and shall be immediately reported to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. The owner/operator of the recycling center shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to N.J.D.E.P. enforcement personnel. Such material may be returned to a known generator, provided that specific permission to do so is received by the owner/operator after contacting 1-877-927-6337. Otherwise, the owner/operator shall dispose of the unauthorized waste in accordance with instructions received from the Department. [N.J.A.C. 7:26A- 3.5(e)]

73. All revisions to the site plan and the approved documents which may be required as a result of the above, shall be submitted to this office for modification to this Approval. [N.J.A.C. 7:26A-3.5(e)]

74. Pursuant to N.J.A.C. 7:26A-3.11(a), the holder of this general approval shall obtain prior approval from the Department for any increase in the design capacity of the facility. The facility shall submit a request to the Department, in writing, for the proposed increase and shall submit updated information pursuant to the requirements of N.J.A.C. 7:26A-3.2(a), 3.4, or 3.8, as applicable. The facility shall also provide written notice of the request to the solid waste or recycling coordinator of the applicable district. [N.J.A.C. 7:26A-3.5(e)]

75. All incoming shipments of Class B material shall be sampled and analyzed in accordance with the requirements specified in the facility's Air Pollution Control Permit issued by the Department. All analytical records must be kept for a minimum of three years and made available for inspection by state and local officials upon request.

    The sampling, collection, preservation, and handling for the sampling and analysis must be performed in accordance with the New Jersey Technical Requirements for Site Remediation at N.J.A.C. 7:26E and the latest edition of the New Jersey Department of Environmental Protection, Field Sampling Procedures Manual. All analysis must be performed by a New Jersey certified laboratory. [N.J.A.C. 7:26A- 3.5(e)]

76. All soils must be tested using the most current approved test methodology in accordance with USEPA SW-846. [N.J.A.C. 7:26A-3.5(e)]

77. The facility will use the cement modified soil produced by the Class B facility as engineered fill material for use at the Rahway Arch Properties, LLC remediation project in accordance with the Remedial Action Workplan (RAW) submitted to the Department 7/16/13, 8/15/13 addendum, and 8/23/13 clarification letter. The Rahway Arch Properties, LLC remediation project is the only end market authorized to receive product produced by the Class B facility.

    The facility shall comply with all sampling and analytical requirements for the cement modified soil product approved by the governing Licensed Site Remediation Professional for the Rahway Arch Properties, LLC remediation project and in accordance with the RAW referenced above. [N.J.A.C. 7:26A- 3.5(e)]

Subject Item: RCBG990094 - Class B Recycling Operations

78. Soil Safe shall maintain a $500,000 financial assurance in the form of a letter of credit or performance bond (a rating of at least A or A+ by A. M. Best or an equivalent rating by Moody's, Standard & Poor's, or Fitch).

Also, Soil Safe shall maintain (and provide a copy to the Department) a Certificate of Liability Insurance demonstrating at least the following minimum insurance coverage and limits:

General Liability - $1 million per occurrence, $2 million general aggregate, $2 million products/completed operations, $10 million excess.

Environmental Pollution - Third Party Claims for Cleanup Costs, Bodily Injury or Property Damage, $1 million per condition, $10 million excess.

Environmental Pollution - Third Party Claims for Contingent Transportation, $1 million per condition, $10 million excess.

Contractors Pollution - $1 million per claim, $10 million excess.

The State of New Jersey, Department of Environmental Protection shall be named as an additional named insured for the above insurance coverage. No Class B material shall be accepted at the facility until a Certificate of Liability Insurance demonstrating compliance with the terms above is submitted to the Department. [N.J.A.C. 7:26A- 3.4]

APPENDIX E4

Waste Manifests or Bills of Lading
(Incl CD)

SOIL SAFE, INC.

Log Number 15 108998

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point SBLLC Shipping Location _____

Address 2710 49 St Address _____

Long Island City NY

Phone No. _____ Phone No. _____

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 357 **GROSS**

GROSS 47.39 TN **TARE**
TARE 14.75 TN RECALLED
NET 32.64 TN **NET**

11/12/2019 09:24AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — 11·12·19

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name Zelia Driver Name (Print) Dilman Camilo

Address Colonia NJ Vehicle License No./State AU568C #14

Truck Number #14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature | Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature | Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date — 11/12/19

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 18 102697

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point LLC SG

Address 27-10 - 49th. Ave

Long Island City 11101

Phone No. _____

Shipping Location Same

Address _____

Phone No. _____

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 37 **GROSS**

GROSS 46.77 TN **TARE**

TARE 14.56 TN RECALLED

NET 32.21 TN **NET**

11/12/2019 09:40AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RILEY — Signature — 11-12-19

Generator Authorized Agent Name — Shipment Date

TRANSPORTER

Transporter Name ZELIA TRUCKING

Address 175 Jordan Rd

Colonia NJ 07067

Driver Name (Print) JOSE LOPEZ

Vehicle License No./State AL1365Y

Truck Number #17

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11/12/19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11/12/19 Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

rell — Name of Authorized Agent

rell — Signature

11/12/19 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 31 101281

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name HUNTERS POINTE 2, LLC Shipping Location 27-10 49TH AVE

Address 27-10 49TH AVE Address 27-10 49TH AVE

LONG ISLAND CITY NY LONG ISLAND CITY NY

Phone No. _____ Phone No. _____

Approval Number M 6 1781

Description of Material: Non-Hazardous Soil

ID 78 **GROSS**

GROSS 48.84 TN **TARE**
TARE 14.63 TN RECALLED
NET 34.21 TN **NET**

11/12/2019 10:54AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RILE _____ 11/12/19

Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name Zelia Trucking Driver Name (Print) Sergio Iglesias

Address 175 Jordan Rd Vehicle License No./State AW111D

Colonia NJ Truck Number 16

I hereby certify that the above named material was picked up at the generator site listed above.

Sergio I 11-12-19

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sergio I 11-12-19

Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

NM NM 11/12/19

Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 71 108997

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point SB LLC Shipping Location _____

Address 27-10-49 St Address _____

Long Island City NY _____

Phone No. _____ Phone No. _____

Approval Number MG 1791

Description of Material: Non-Hazardous Soil

ID 357
GROSS 49.54 TN
TARE 14.75 TN RECALLED
NET 34.79 TN
11/12/2019 02:46PM

GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RILEY — Generator Authorized Agent Name; Signature; 11/12/19 — Shipment Date

TRANSPORTER

Transporter Name Zelia Driver Name (Print) DIMAN Carrillo

Address Colonia NJ Vehicle License No./State NJ AU56BC

Truck Number 14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent Signature 11/12/19 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number TS 102694

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunter Point GS LLC

Address 27-10 49th Av
Long Island City NY

Phone No.

Shipping Location

Address Same

Phone No.

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 37

GROSS 49.45 TN
TARE 14.56 TN RECALLED
NET 34.89 TN

11/12/2019 03:09PM

GROSS
TARE
NET
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Sean Kile — Signature — 11.12.19

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name Zelia Trucking — Driver Name (Print) Jose Lopez

Address 175 Tolman Rd
Colonia NJ 07067

Vehicle License No./State A413605Y

Truck Number #17

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11/12/19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11/12/19 Delivery Date

DESTINATION

Site Name SSI-Metro12 — Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 11/12/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 101279

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name HUNTERS POINT SG LLC

Address 27-10 49TH AVE

LONG ISLAND CITY NY

Phone No. _____

Shipping Location 27-10 49TH AVE

Address 27-10 49TH AVE

LONG ISLAND CITY NY

Phone No. _____

Approval Number M-6 1781

Description of Material: Non-Hazardous Soil

ID 78

GROSS 48.68 TN

TARE 14.63 TN RECALLED

NET 34.05 TN

11/12/2019 03:27PM

GROSS

TARE

NET

TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — Signature — 11-12-19

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name Zelia Trucking

Address 175 Jordan Rd

Colonia NJ

Driver Name (Print) Sergio Zglesias

Vehicle License No./State AW11D

Truck Number 16

I hereby certify that the above named material was picked up at the generator site listed above.

Sergio I 10-12-19

Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sergio I 11-12-19

Driver Signature / Delivery Date

DESTINATION

Site Name SSI-Metro12

Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[illegible] — [illegible] — 11/12/19

Name of Authorized Agent / Signature / Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 81 93065

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Shipping Location _____

Address 27-10 49 ave Long Island City NY Address _____

Phone No. _____ Phone No. _____

Approval Number M6 1781

Description of Material: Non-Hazardous Soil

ID 15
GROSS 49.18 TN
TARE 15.59 TN RECALL
NET 33.59 TN
11/12/2019 03:31PM

GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — Generator Authorized Agent Name; Signature; 11.12.19 — Shipment Date

TRANSPORTER

Transporter Name ARV Driver Name (Print) Arnold

Address Phillipsburg NJ. Vehicle License No./State AW 1680

Truck Number 12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature; 11/12/19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature; 11/12/19 Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent; Signature; 11/12/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

Log Number

85

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunters Point LLC Generator Site/Location 27-10 49 Ave

Address 27-10 49 Ave Long Island city NY

Address 27-10 49 Ave Long Island city NY 11001

Phone No. _____

Phone No. _____

Approval Number 16-1781

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

ID 202

GROSS 45.80 TN

TARE 13.75 TN RECALLED

NET 32.05 TN

11/12/2019 04:04PM

GROSS

TARE

NET

TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

SEAN RICE — Generator Authorized Agent Name

Signature

11.12.19 — Shipment Date

TRANSPORTER

Transporter Name Zelig Trucking Driver Name (Print) David

Address 175 Jordan RD Colonia NJ Vehicle License No. / State / EPA No. AV 3644

Truck Number 13

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11-12-19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11-12-19 Delivery Date

DESTINATION

Site Name **Soil Safe, Inc. - Bridgeport** Phone No. **1-856-467-8030**

Address ~~378 Route 130 Logan Township, NJ 08085~~ 300 Salt Meadow RD Caldwell NJ

No left turn on Rt. 130 North into the facility.

Business hours are: Monday through Friday 7 AM to 5 PM. 5 PM to 10 PM By Appointment only. Saturday by appointment only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 11/12/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co

SOIL SAFE, INC.

Log Number
ID 105207

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Shipping Location _____

Address _____ Address 27-10 - 39TH AV

_____ L.I.C. N.Y.

Phone No. _____ Phone No. _____

Approval Number
M 6
17 81

Description of Material
Non-Hazardous Soil

ID 4 **GROSS**

GROSS 44.32 TN **TARE**
TARE 14.94 TN RECALLED
NET 29.38 TN **NET**

11/13/2019 10:15AM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name _____ Signature _____ Shipment Date _____

TRANSPORTER

Transporter Name H & A TRANSP # Driver Name (Print) VALERIO

Address NEWARK N-J Vehicle License No./State AV 322 P

_____ Truck Number 8

I hereby certify that the above named material was picked up at the generator site listed above.

VALERIO 11-13-19
Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

VALERIO 11-13-19.
Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

K Brunson K Brunson 11/13/19
Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 11 105205

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Shipping Location _____

Address _____ Address 27-10 49TH AV

_____ L.I.C N.Y.

Phone No. _____ Phone No. _____

ID 587

Approval Number: M6 1781

Description of Material: Non-Hazardous Soil

GROSS 43.41 TN
TARE 15.48 TN RECALLED
NET 27.93 TN
11/13/2019 10:18AM

GROSS
TARE
NET
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name _____ Signature _____ Shipment Date _____

TRANSPORTER

Transporter Name ANDRADES #8 Driver Name (Print) WILSON

Address NEWARK NJ Vehicle License No./State AT477J

_____ Truck Number _____

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature _____ Shipment Date 11-13-19

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature _____ Delivery Date 11.13.19

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent _____ Signature _____ Receipt Date 11/13/19

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 29 108829

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name HUNTERS POINT LLC. Shipping Location _____

Address 27-10 49th St. LIC, NY Address _____

Phone No. _____ Phone No. _____

Approval Number MG 1791

Description of Material: Non-Hazardous Soil

ID 4
GROSS 42.83 TN
TARE 14.94 TN RECALLED
NET 27.89 TN
11/13/2019 01:51PM

GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Rebeca Generato (AESI) _____ 11/13/19
Generator Authorized Agent Name Signature Shipment Date
On behalf of H.P. LLC.

TRANSPORTER

Transporter Name H & A TRAMP Driver Name (Print) M. VALERIO

Address 2710 49 AVE LIC Vehicle License No./State AU322P

Truck Number 8

I hereby certify that the above named material was picked up at the generator site listed above.

M. VALERIO 11/13/19
Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

M. VALERIO
Driver Signature Delivery Date

DESTINATION

Site Name SSI-Metro12 Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

_____ _____ 11/13/19
Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 35 105206

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Hunters Point LLC.

Address 27-10 49th Street.

Phone No.

Shipping Location

Address 27-10 - 49TH AV. L.I.C. N.Y.

Phone No.

Approval Number M6 17 81

Description of Material: Non-Hazardous Soil

ID 587 **GROSS**

GROSS 33.76 TN **TARE**
TARE 15.48 TN RECALLED
NET 18.28 TN **NET**

11/13/2019 02:42PM **TONNAGE**

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Rebecca Carotalo AESI on behalf of H.P.LLC. — Signature — 11/13/19.

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name ANDRADES

Address NEWARK NJ

Driver Name (Print) WILSON

Vehicle License No./State AT477J

Truck Number # 8

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 11-13-19 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 11-13-19 Delivery Date

DESTINATION

Site Name SSI-Metro12

Phone No. 800-562-4365

Address 300 Salt Meadow Road, Carteret, NJ 07008

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 11/13/19 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

APPENDIX E5

Liquid Disposal Manifests

(Incl CD)

404257-19

NON-HAZARDOUS WASTE MANIFEST

3666921

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NYCESQG

Manifest Document No. 100010

2. Page 1 of 1

3. Generator's Name and Mailing Address
HUNTERS POINT SG, LLC
10 WEST FOREST AVENUE
ENGLEWOOD NY 07631

27-10 49TH AVENUE
LONG ISLAND CITY NY 11101

4. Generator's Phone (201 474-0445

5. Transporter 1 Company Name: ISLAND PUMP & TANK CORP.

6. US EPA ID Number: NYR000198172 6

A. State Transporter's ID

B. Transporter 1 Phone 631 462-2226

7. Transporter 2 Company Name: REPUBLIC ENVIRONMENTAL SYSTEMS (

8. US EPA ID Number: PAD982661381

C. State Transporter's ID

D. Transporter 2 Phone 800 558-5011

9. Designated Facility Name and Site Address
NORTHLAND ENVIRONMENTAL
275 ALLENS AVENUE
PROVIDENCE RI 02905

10. US EPA ID Number: RIDO40088352

E. State Facility's ID

F. Facility's Phone 401 781-6340

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-RCRA & NON-DOT REGULATED MATERIALS (HYDRAULIC OIL/WATER MIXTURE)	003	DM	1200	P
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
a. c.
b. d.

H. Handling Codes for Wastes Listed Above
a. RO15 c.
b. d.

15. Special Handling Instructions and Additional Information
1) 136127

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Klean DeEgidio, AES I
Signature: A DeEgidio
Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Joseph E. Sr.
Signature:
Date: Month 07 Day 23 Year 19

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Dalil Jones
Signature:
Date: Month 8 Day 1 Year 19

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name: Gina Pickering
Signature:
Date: Month 8 Day 6 Year 19

NON-HAZARDOUS WASTE

CF14 © 2002 LABELMASTER® (800) 621-5808 www.labelmaster.com
PRINTED ON RECYCLED PAPER USING SOYBEAN INK PRINTED WITH SOY INK

CONCRETE DISPOSAL

P.C.I. CONTRACTING INC.
49 Satterie Avenue
Valley Stream, NY 11580
(516)7911498
soonia@pcidemo.com
www.dumpstercleanups.com

Invoice 32086

BILL TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

SHIP TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

DATE	PLEASE PAY	DUE DATE
05/13/2019	$1,578.69	05/13/2019

SHIP DATE
05/10/2019

CUSTOMER ADDRESS
2710 49 Ave

ACTIVITY	QTY	RATE	AMOUNT
20 Yard Heavy	1	1,450.00	1,450.00T

Any overweight charges are $118. 00 per ton. Mixing debris with concrete will significantly change the agreed price. Customers authorizes all credit card charges for overweight charges. Minimum weight 1 ton.
accepted
by_____.
PLEASE NOTE AS OF FEBRUARY 1ST 2019 ALL PRICE ON C&D AND GARBAGE WILL BE $118.00. PER TON.

SUBTOTAL	1,450.00
TAX (8.875%)	128.69
TOTAL	1,578.69
TOTAL DUE	**$1,578.69**

THANK YOU.

Please Note: As of February 1st, 2019 , the price for dump fee will be $118.00 on all C&D and garbage.

CONCRETE DISPOSAL

P.C.I. CONTRACTING INC.
49 Satterie Avenue
Valley Stream, NY 11580
(516)7911498
soonia@pcidemo.com
www.dumpstercleanups.com

Invoice 32339

BILL TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

SHIP TO
2710 49 Ave

DATE	PLEASE PAY	DUE DATE
05/28/2019	$1,578.69	06/27/2019

SHIP DATE
05/24/2019

CUSTOMER ADDRESS
2710 49 Ave

ACTIVITY	QTY	RATE	AMOUNT
20 Yard Heavy	1	1,450.00	1,450.00T

Any overweight charges are $118. 00 per ton. Mixing debris with concrete will significantly change the agreed price. Customers authorizes all credit card charges for overweight charges. Minimum weight 1 ton.
accepted
by_____.
PLEASE NOTE AS OF FEBRUARY 1ST 2019 ALL PRICE ON C&D AND GARBAGE WILL BE $118.00. PER TON.

SUBTOTAL	1,450.00
TAX (8.875%)	128.69
TOTAL	1,578.69
TOTAL DUE	**$1,578.69**

THANK YOU.

Please Note: As of February 1st, 2019 , the price for dump fee will be $118.00 on all C&D and garbage.

C & D w/ Separate & Lift Components

P.C.I. CONTRACTING INC.
49 Satterie Avenue
Valley Stream, NY 11580
(516)7911498
soonia@pcidemo.com
www.dumpstercleanups.com

Invoice 32271

BILL TO
High Ground Industrial, LLC
12 Industrial Dr
Florida, NY 10921FaithH USA

SHIP TO
2710 49 Ave

DATE	PLEASE PAY	DUE DATE
05/23/2019	$1,034.97	06/22/2019

SHIP DATE
05/22/2019

CUSTOMER ADDRESS
2710 49 Ave

ACTIVITY	QTY	RATE	AMOUNT
Truck	1	350.00	350.00T
Dump Fee	5.46	110.00	600.60T

Any overweight charges are $118. 00 per ton. Mixing debris with concrete will significantly change the agreed price. Customers authorizes all credit card charges for overweight charges. Minimum weight 1 ton.
accepted
by_____.
PLEASE NOTE AS OF FEBRUARY 1ST 2019 ALL PRICE ON C&D AND GARBAGE WILL BE $118.00. PER TON.

SUBTOTAL	950.60
TAX (8.875%)	84.37
TOTAL	1,034.97
TOTAL DUE	**$1,034.97**

THANK YOU.

Please Note: As of February 1st, 2019 , the price for dump fee will be $118.00 on all C&D and garbage.

APPENDIX F

CAMP Field Data Sheets and Air Monitoring Data
(Incl. CD)

甄==========
====
00/01/02 03:23
****

Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	596-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Auto
Diagnostic Mode	Yes
Stop Reason	Pause in Communication Mode

Site ID	RAE00000
User ID	USER0000

Begin	1/2/2000 03:23:36
End	1/2/2000 03:23:39
Sample Period(s)	60
Number of Records	0

Sensor	PID(ppb)
Sensor SN	
Measure Type	Min; Avg; Max; Real
Span	100000
Span 2	1000000
Low Alarm	50000
High Alarm	100000
Over Alarm	10000000

STEL Alarm 100000
TWA Alarm 50000
Measurement Gas Isobutylene
Calibration Time N/A

****

Datalog

0 record.

甄==========
====
00/01/02 03:24
****

Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Auto
Diagnostic Mode Yes
Stop Reason Pause in Communication Mode

Site ID RAE00000
User ID USER0000

Begin 1/2/2000 03:24:17
End 1/2/2000 03:24:20
Sample Period(s) 60

Number of Records 0

Sensor PID(ppm)
Sensor SN
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 15000.0
STEL Alarm 100.0
TWA Alarm 50.0
Measurement Gas Isobutylene
Calibration Time N/A

****

Datalog

0 record.

甄==========

====
18/09/13 16:25
****

Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode

Datalog Mode	Auto
Diagnostic Mode	Yes
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	9/13/2018 16:25:16
End	9/13/2018 16:25:37
Sample Period(s)	60
Number of Records	0

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	9/13/2018 16:24

****

Datalog

0 record.

甄==========

====
18/09/20 12:28
****

Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Auto
Diagnostic Mode	Yes
Stop Reason	Pause in Menu Mode

Site ID	RAE00000
User ID	USER0000

Begin	9/20/2018 12:28:28
End	9/20/2018 12:28:36
Sample Period(s)	60
Number of Records	0

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0

TWA Alarm 10.0
Measurement Gas Isobutylene
Calibration Time 9/13/2018 16:24

****

Datalog

0 record.

甄==========
====
18/11/30 10:35
****

Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID RAE00000
User ID USER0000

Begin 11/30/2018 10:35:12
End 11/30/2018 10:37:24
Sample Period(s) 60
Number of Records 2

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	11/30/2018 08:47
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	11/30/2018 10:36:12	0.6
002	11/30/2018 10:37:12	1.0
Peak		1.0
Min		0.6
Average		0.8

甄==========

====

18/12/10 08:44

****

Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00000
User ID	USER0000

Begin	12/10/2018 08:44:06
End	12/10/2018 14:02:54
Sample Period(s)	60
Number of Records	318

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/10/2018 08:13

Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/10/2018 08:45:06	0.0
002	12/10/2018 08:46:06	0.0
003	12/10/2018 08:47:06	0.0
004	12/10/2018 08:48:06	0.0
005	12/10/2018 08:49:06	0.0
006	12/10/2018 08:50:06	0.0
007	12/10/2018 08:51:06	0.0
008	12/10/2018 08:52:06	0.0
009	12/10/2018 08:53:06	0.0
010	12/10/2018 08:54:06	0.0
011	12/10/2018 08:55:06	0.0
012	12/10/2018 08:56:06	0.0
013	12/10/2018 08:57:06	0.0
014	12/10/2018 08:58:06	0.0
015	12/10/2018 08:59:06	0.0
016	12/10/2018 09:00:06	0.0
017	12/10/2018 09:01:06	0.0
018	12/10/2018 09:02:06	0.0
019	12/10/2018 09:03:06	0.0
020	12/10/2018 09:04:06	0.0
021	12/10/2018 09:05:06	0.0
022	12/10/2018 09:06:06	0.0
023	12/10/2018 09:07:06	0.0

024	12/10/2018 09:08:06	0.0
025	12/10/2018 09:09:06	0.0
026	12/10/2018 09:10:06	0.0
027	12/10/2018 09:11:06	0.0
028	12/10/2018 09:12:06	0.0
029	12/10/2018 09:13:06	0.0
030	12/10/2018 09:14:06	0.0
031	12/10/2018 09:15:06	0.0
032	12/10/2018 09:16:06	0.0
033	12/10/2018 09:17:06	0.0
034	12/10/2018 09:18:06	0.0
035	12/10/2018 09:19:06	0.0
036	12/10/2018 09:20:06	0.0
037	12/10/2018 09:21:06	0.0
038	12/10/2018 09:22:06	0.0
039	12/10/2018 09:23:06	0.0
040	12/10/2018 09:24:06	0.0
041	12/10/2018 09:25:06	0.0
042	12/10/2018 09:26:06	0.0
043	12/10/2018 09:27:06	0.0
044	12/10/2018 09:28:06	0.0
045	12/10/2018 09:29:06	0.0
046	12/10/2018 09:30:06	0.0
047	12/10/2018 09:31:06	0.0
048	12/10/2018 09:32:06	0.0
049	12/10/2018 09:33:06	0.0
050	12/10/2018 09:34:06	0.0
051	12/10/2018 09:35:06	0.0
052	12/10/2018 09:36:06	0.0
053	12/10/2018 09:37:06	0.0
054	12/10/2018 09:38:06	0.0

055	12/10/2018 09:39:06	0.0
056	12/10/2018 09:40:06	0.0
057	12/10/2018 09:41:06	0.0
058	12/10/2018 09:42:06	0.0
059	12/10/2018 09:43:06	0.0
060	12/10/2018 09:44:06	0.0
061	12/10/2018 09:45:06	0.0
062	12/10/2018 09:46:06	0.0
063	12/10/2018 09:47:06	0.0
064	12/10/2018 09:48:06	0.0
065	12/10/2018 09:49:06	0.0
066	12/10/2018 09:50:06	0.0
067	12/10/2018 09:51:06	0.0
068	12/10/2018 09:52:06	0.0
069	12/10/2018 09:53:06	0.0
070	12/10/2018 09:54:06	0.0
071	12/10/2018 09:55:06	0.0
072	12/10/2018 09:56:06	0.0
073	12/10/2018 09:57:06	0.0
074	12/10/2018 09:58:06	0.0
075	12/10/2018 09:59:06	0.0
076	12/10/2018 10:00:06	0.0
077	12/10/2018 10:01:06	0.0
078	12/10/2018 10:02:06	0.0
079	12/10/2018 10:03:06	0.0
080	12/10/2018 10:04:06	0.0
081	12/10/2018 10:05:06	0.0
082	12/10/2018 10:06:06	0.0
083	12/10/2018 10:07:06	0.0
084	12/10/2018 10:08:06	0.0
085	12/10/2018 10:09:06	0.0

086	12/10/2018 10:10:06	0.0
087	12/10/2018 10:11:06	0.0
088	12/10/2018 10:12:06	0.0
089	12/10/2018 10:13:06	0.0
090	12/10/2018 10:14:06	0.0
091	12/10/2018 10:15:06	0.0
092	12/10/2018 10:16:06	0.0
093	12/10/2018 10:17:06	0.0
094	12/10/2018 10:18:06	0.0
095	12/10/2018 10:19:06	0.0
096	12/10/2018 10:20:06	0.3
097	12/10/2018 10:21:06	0.4
098	12/10/2018 10:22:06	0.2
099	12/10/2018 10:23:06	0.2
100	12/10/2018 10:24:06	0.4
101	12/10/2018 10:25:06	0.5
102	12/10/2018 10:26:06	0.4
103	12/10/2018 10:27:06	0.4
104	12/10/2018 10:28:06	0.5
105	12/10/2018 10:29:06	0.4
106	12/10/2018 10:30:06	0.4
107	12/10/2018 10:31:06	0.4
108	12/10/2018 10:32:06	0.4
109	12/10/2018 10:33:06	0.4
110	12/10/2018 10:34:06	0.4
111	12/10/2018 10:35:06	0.4
112	12/10/2018 10:36:06	0.4
113	12/10/2018 10:37:06	0.4
114	12/10/2018 10:38:06	0.5
115	12/10/2018 10:39:06	0.4
116	12/10/2018 10:40:06	0.4

117	12/10/2018 10:41:06	0.4
118	12/10/2018 10:42:06	0.4
119	12/10/2018 10:43:06	0.4
120	12/10/2018 10:44:06	0.4
121	12/10/2018 10:45:06	0.3
122	12/10/2018 10:46:06	0.3
123	12/10/2018 10:47:06	0.4
124	12/10/2018 10:48:06	0.4
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129	12/10/2018 10:53:06	0.4
130	12/10/2018 10:54:06	0.4
131	12/10/2018 10:55:06	0.4
132	12/10/2018 10:56:06	0.4
133	12/10/2018 10:57:06	0.4
134	12/10/2018 10:58:06	0.4
135	12/10/2018 10:59:06	0.4
136	12/10/2018 11:00:06	0.4
137	12/10/2018 11:01:06	0.3
138	12/10/2018 11:02:06	0.3
139	12/10/2018 11:03:06	0.4
140	12/10/2018 11:04:06	0.3
141	12/10/2018 11:05:06	0.3
142	12/10/2018 11:06:06	0.3
143	12/10/2018 11:07:06	0.3
144	12/10/2018 11:08:06	0.3
145	12/10/2018 11:09:06	0.3
146	12/10/2018 11:10:06	0.3
147	12/10/2018 11:11:06	0.3

148	12/10/2018 11:12:06	0.2
149	12/10/2018 11:13:06	0.3
150	12/10/2018 11:14:06	0.3
151	12/10/2018 11:15:06	0.2
152	12/10/2018 11:16:06	0.2
153	12/10/2018 11:17:06	0.2
154	12/10/2018 11:18:06	0.2
155	12/10/2018 11:19:06	0.2
156	12/10/2018 11:20:06	0.2
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158	12/10/2018 11:22:06	0.2
159	12/10/2018 11:23:06	0.2
160	12/10/2018 11:24:06	0.2
161	12/10/2018 11:25:06	0.2
162	12/10/2018 11:26:06	0.2
163	12/10/2018 11:27:06	0.2
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166	12/10/2018 11:30:06	0.2
167	12/10/2018 11:31:06	0.2
168	12/10/2018 11:32:06	0.2
169	12/10/2018 11:33:06	0.2
170	12/10/2018 11:34:06	0.2
171	12/10/2018 11:35:06	0.2
172	12/10/2018 11:36:06	0.2
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174	12/10/2018 11:38:06	0.1
175	12/10/2018 11:39:06	0.1
176	12/10/2018 11:40:06	0.1
177	12/10/2018 11:41:06	0.1
178	12/10/2018 11:42:06	0.1

179	12/10/2018 11:43:06	0.1
180	12/10/2018 11:44:06	0.1
181	12/10/2018 11:45:06	0.1
182	12/10/2018 11:46:06	0.1
183	12/10/2018 11:47:06	0.1
184	12/10/2018 11:48:06	0.1
185	12/10/2018 11:49:06	0.1
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187	12/10/2018 11:51:06	0.0
188	12/10/2018 11:52:06	0.0
189	12/10/2018 11:53:06	0.1
190	12/10/2018 11:54:06	0.0
191	12/10/2018 11:55:06	0.0
192	12/10/2018 11:56:06	0.0
193	12/10/2018 11:57:06	0.0
194	12/10/2018 11:58:06	0.0
195	12/10/2018 11:59:06	0.0
196	12/10/2018 12:00:06	0.0
197	12/10/2018 12:01:06	0.0
198	12/10/2018 12:02:06	0.1
199	12/10/2018 12:03:06	0.2
200	12/10/2018 12:04:06	0.0
201	12/10/2018 12:05:06	0.0
202	12/10/2018 12:06:06	0.0
203	12/10/2018 12:07:06	0.0
204	12/10/2018 12:08:06	0.1
205	12/10/2018 12:09:06	0.1
206	12/10/2018 12:10:06	0.1
207	12/10/2018 12:11:06	0.1
208	12/10/2018 12:12:06	0.1
209	12/10/2018 12:13:06	0.2

210	12/10/2018 12:14:06	0.1
211	12/10/2018 12:15:06	0.1
212	12/10/2018 12:16:06	0.1
213	12/10/2018 12:17:06	0.1
214	12/10/2018 12:18:06	0.1
215	12/10/2018 12:19:06	0.1
216	12/10/2018 12:20:06	0.1
217	12/10/2018 12:21:06	0.1
218	12/10/2018 12:22:06	0.1
219	12/10/2018 12:23:06	0.3
220	12/10/2018 12:24:06	0.1
221	12/10/2018 12:25:06	0.1
222	12/10/2018 12:26:06	0.1
223	12/10/2018 12:27:06	0.1
224	12/10/2018 12:28:06	0.1
225	12/10/2018 12:29:06	0.1
226	12/10/2018 12:30:06	0.2
227	12/10/2018 12:31:06	0.2
228	12/10/2018 12:32:06	0.2
229	12/10/2018 12:33:06	0.4
230	12/10/2018 12:34:06	0.4
231	12/10/2018 12:35:06	0.6
232	12/10/2018 12:36:06	0.7
233	12/10/2018 12:37:06	0.7
234	12/10/2018 12:38:06	0.7
235	12/10/2018 12:39:06	0.5
236	12/10/2018 12:40:06	0.6
237	12/10/2018 12:41:06	0.5
238	12/10/2018 12:42:06	0.5
239	12/10/2018 12:43:06	0.9
240	12/10/2018 12:44:06	0.9

241	12/10/2018 12:45:06	0.7
242	12/10/2018 12:46:06	0.7
243	12/10/2018 12:47:06	0.7
244	12/10/2018 12:48:06	0.6
245	12/10/2018 12:49:06	0.6
246	12/10/2018 12:50:06	0.6
247	12/10/2018 12:51:06	0.6
248	12/10/2018 12:52:06	0.5
249	12/10/2018 12:53:06	0.6
250	12/10/2018 12:54:06	0.5
251	12/10/2018 12:55:06	0.5
252	12/10/2018 12:56:06	0.4
253	12/10/2018 12:57:06	0.4
254	12/10/2018 12:58:06	0.4
255	12/10/2018 12:59:06	0.4
256	12/10/2018 13:00:06	0.3
257	12/10/2018 13:01:06	0.3
258	12/10/2018 13:02:06	0.3
259	12/10/2018 13:03:06	0.3
260	12/10/2018 13:04:06	0.3
261	12/10/2018 13:05:06	0.3
262	12/10/2018 13:06:06	0.3
263	12/10/2018 13:07:06	0.3
264	12/10/2018 13:08:06	0.4
265	12/10/2018 13:09:06	0.4
266	12/10/2018 13:10:06	0.4
267	12/10/2018 13:11:06	0.4
268	12/10/2018 13:12:06	0.4
269	12/10/2018 13:13:06	0.4
270	12/10/2018 13:14:06	0.4
271	12/10/2018 13:15:06	0.4

272	12/10/2018 13:16:06	0.3
273	12/10/2018 13:17:06	0.3
274	12/10/2018 13:18:06	0.3
275	12/10/2018 13:19:06	0.3
276	12/10/2018 13:20:06	0.4
277	12/10/2018 13:21:06	0.4
278	12/10/2018 13:22:06	0.4
279	12/10/2018 13:23:06	0.5
280	12/10/2018 13:24:06	0.4
281	12/10/2018 13:25:06	0.4
282	12/10/2018 13:26:06	0.4
283	12/10/2018 13:27:06	0.4
284	12/10/2018 13:28:06	0.4
285	12/10/2018 13:29:06	0.4
286	12/10/2018 13:30:06	0.4
287	12/10/2018 13:31:06	0.4
288	12/10/2018 13:32:06	0.4
289	12/10/2018 13:33:06	0.4
290	12/10/2018 13:34:06	0.4
291	12/10/2018 13:35:06	0.3
292	12/10/2018 13:36:06	0.3
293	12/10/2018 13:37:06	0.3
294	12/10/2018 13:38:06	0.3
295	12/10/2018 13:39:06	0.3
296	12/10/2018 13:40:06	0.2
297	12/10/2018 13:41:06	0.2
298	12/10/2018 13:42:06	0.2
299	12/10/2018 13:43:06	0.2
300	12/10/2018 13:44:06	0.2
301	12/10/2018 13:45:06	0.2
302	12/10/2018 13:46:06	0.2

303 12/10/2018 13:47:06 0.2
304 12/10/2018 13:48:06 0.2
305 12/10/2018 13:49:06 0.2
306 12/10/2018 13:50:06 0.2
307 12/10/2018 13:51:06 0.2
308 12/10/2018 13:52:06 0.2
309 12/10/2018 13:53:06 0.2
310 12/10/2018 13:54:06 0.2
311 12/10/2018 13:55:06 0.2
312 12/10/2018 13:56:06 0.2
313 12/10/2018 13:57:06 0.2
314 12/10/2018 13:58:06 0.2
315 12/10/2018 13:59:06 0.2
316 12/10/2018 14:00:06 0.2
317 12/10/2018 14:01:06 0.2
318 12/10/2018 14:02:06 0.2
Peak 0.9
Min 0.0
Average 0.2

甄==========
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18/12/11 08:20
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode

Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00000
User ID	USER0000

Begin	12/11/2018 08:20:02
End	12/11/2018 14:39:38
Sample Period(s)	60
Number of Records	379

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/11/2018 07:52
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

	PID(ppm)

Index	Date/Time	(Avg)
001	12/11/2018 08:21:02	0.0
002	12/11/2018 08:22:02	0.0
003	12/11/2018 08:23:02	0.0
004	12/11/2018 08:24:02	0.0
005	12/11/2018 08:25:02	0.0
006	12/11/2018 08:26:02	0.0
007	12/11/2018 08:27:02	0.0
008	12/11/2018 08:28:02	0.0
009	12/11/2018 08:29:02	0.0
010	12/11/2018 08:30:02	0.0
011	12/11/2018 08:31:02	0.0
012	12/11/2018 08:32:02	0.0
013	12/11/2018 08:33:02	0.0
014	12/11/2018 08:34:02	0.0
015	12/11/2018 08:35:02	0.0
016	12/11/2018 08:36:02	0.0
017	12/11/2018 08:37:02	0.0
018	12/11/2018 08:38:02	0.0
019	12/11/2018 08:39:02	0.0
020	12/11/2018 08:40:02	0.0
021	12/11/2018 08:41:02	0.0
022	12/11/2018 08:42:02	0.1
023	12/11/2018 08:43:02	0.1
024	12/11/2018 08:44:02	0.1
025	12/11/2018 08:45:02	0.1
026	12/11/2018 08:46:02	0.1
027	12/11/2018 08:47:02	0.1
028	12/11/2018 08:48:02	0.1
029	12/11/2018 08:49:02	0.1
030	12/11/2018 08:50:02	0.1

031	12/11/2018 08:51:02	0.1
032	12/11/2018 08:52:02	0.1
033	12/11/2018 08:53:02	0.1
034	12/11/2018 08:54:02	0.1
035	12/11/2018 08:55:02	0.1
036	12/11/2018 08:56:02	0.1
037	12/11/2018 08:57:02	0.0
038	12/11/2018 08:58:02	0.0
039	12/11/2018 08:59:02	0.0
040	12/11/2018 09:00:02	0.0
041	12/11/2018 09:01:02	0.0
042	12/11/2018 09:02:02	0.1
043	12/11/2018 09:03:02	0.1
044	12/11/2018 09:04:02	0.1
045	12/11/2018 09:05:02	0.0
046	12/11/2018 09:06:02	0.0
047	12/11/2018 09:07:02	0.1
048	12/11/2018 09:08:02	0.1
049	12/11/2018 09:09:02	0.1
050	12/11/2018 09:10:02	0.1
051	12/11/2018 09:11:02	0.0
052	12/11/2018 09:12:02	0.0
053	12/11/2018 09:13:02	0.0
054	12/11/2018 09:14:02	0.0
055	12/11/2018 09:15:02	0.0
056	12/11/2018 09:16:02	0.0
057	12/11/2018 09:17:02	0.0
058	12/11/2018 09:18:02	0.0
059	12/11/2018 09:19:02	0.0
060	12/11/2018 09:20:02	0.0
061	12/11/2018 09:21:02	0.0

062	12/11/2018 09:22:02	0.0
063	12/11/2018 09:23:02	0.0
064	12/11/2018 09:24:02	0.0
065	12/11/2018 09:25:02	0.0
066	12/11/2018 09:26:02	0.0
067	12/11/2018 09:27:02	0.0
068	12/11/2018 09:28:02	0.0
069	12/11/2018 09:29:02	0.0
070	12/11/2018 09:30:02	0.0
071	12/11/2018 09:31:02	0.0
072	12/11/2018 09:32:02	0.0
073	12/11/2018 09:33:02	0.0
074	12/11/2018 09:34:02	0.0
075	12/11/2018 09:35:02	0.0
076	12/11/2018 09:36:02	0.0
077	12/11/2018 09:37:02	0.0
078	12/11/2018 09:38:02	0.0
079	12/11/2018 09:39:02	0.0
080	12/11/2018 09:40:02	0.0
081	12/11/2018 09:41:02	0.0
082	12/11/2018 09:42:02	0.0
083	12/11/2018 09:43:02	0.0
084	12/11/2018 09:44:02	0.0
085	12/11/2018 09:45:02	0.0
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091	12/11/2018 09:51:02	0.0
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093	12/11/2018 09:53:02	0.0
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100	12/11/2018 10:00:02	0.0
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124	12/11/2018 10:24:02	0.0
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128	12/11/2018 10:28:02	0.0
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130	12/11/2018 10:30:02	0.0
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208	12/11/2018 11:48:02	0.0
209	12/11/2018 11:49:02	0.0
210	12/11/2018 11:50:02	0.0
211	12/11/2018 11:51:02	0.0
212	12/11/2018 11:52:02	0.0
213	12/11/2018 11:53:02	0.0
214	12/11/2018 11:54:02	0.0
215	12/11/2018 11:55:02	0.0
216	12/11/2018 11:56:02	0.0

217	12/11/2018 11:57:02	0.0
218	12/11/2018 11:58:02	0.0
219	12/11/2018 11:59:02	0.0
220	12/11/2018 12:00:02	0.0
221	12/11/2018 12:01:02	0.0
222	12/11/2018 12:02:02	0.0
223	12/11/2018 12:03:02	0.0
224	12/11/2018 12:04:02	0.0
225	12/11/2018 12:05:02	0.0
226	12/11/2018 12:06:02	0.0
227	12/11/2018 12:07:02	0.0
228	12/11/2018 12:08:02	0.0
229	12/11/2018 12:09:02	0.0
230	12/11/2018 12:10:02	0.0
231	12/11/2018 12:11:02	0.0
232	12/11/2018 12:12:02	0.0
233	12/11/2018 12:13:02	0.1
234	12/11/2018 12:14:02	0.1
235	12/11/2018 12:15:02	0.0
236	12/11/2018 12:16:02	0.0
237	12/11/2018 12:17:02	0.0
238	12/11/2018 12:18:02	0.1
239	12/11/2018 12:19:02	0.1
240	12/11/2018 12:20:02	0.1
241	12/11/2018 12:21:02	0.1
242	12/11/2018 12:22:02	0.1
243	12/11/2018 12:23:02	0.1
244	12/11/2018 12:24:02	0.1
245	12/11/2018 12:25:02	0.1
246	12/11/2018 12:26:02	0.1
247	12/11/2018 12:27:02	0.1

248	12/11/2018 12:28:02	0.1
249	12/11/2018 12:29:02	0.1
250	12/11/2018 12:30:02	0.1
251	12/11/2018 12:31:02	0.1
252	12/11/2018 12:32:02	0.1
253	12/11/2018 12:33:02	0.1
254	12/11/2018 12:34:02	0.1
255	12/11/2018 12:35:02	0.1
256	12/11/2018 12:36:02	0.1
257	12/11/2018 12:37:02	0.1
258	12/11/2018 12:38:02	0.1
259	12/11/2018 12:39:02	0.1
260	12/11/2018 12:40:02	0.1
261	12/11/2018 12:41:02	0.0
262	12/11/2018 12:42:02	0.0
263	12/11/2018 12:43:02	0.1
264	12/11/2018 12:44:02	0.0
265	12/11/2018 12:45:02	0.1
266	12/11/2018 12:46:02	0.1
267	12/11/2018 12:47:02	0.1
268	12/11/2018 12:48:02	0.1
269	12/11/2018 12:49:02	0.1
270	12/11/2018 12:50:02	0.1
271	12/11/2018 12:51:02	0.1
272	12/11/2018 12:52:02	0.1
273	12/11/2018 12:53:02	0.1
274	12/11/2018 12:54:02	0.1
275	12/11/2018 12:55:02	0.1
276	12/11/2018 12:56:02	0.1
277	12/11/2018 12:57:02	0.1
278	12/11/2018 12:58:02	0.1

279	12/11/2018 12:59:02	0.1
280	12/11/2018 13:00:02	0.1
281	12/11/2018 13:01:02	0.1
282	12/11/2018 13:02:02	0.1
283	12/11/2018 13:03:02	0.1
284	12/11/2018 13:04:02	0.1
285	12/11/2018 13:05:02	0.1
286	12/11/2018 13:06:02	0.1
287	12/11/2018 13:07:02	0.1
288	12/11/2018 13:08:02	0.1
289	12/11/2018 13:09:02	0.1
290	12/11/2018 13:10:02	0.1
291	12/11/2018 13:11:02	0.1
292	12/11/2018 13:12:02	0.1
293	12/11/2018 13:13:02	0.1
294	12/11/2018 13:14:02	0.1
295	12/11/2018 13:15:02	0.1
296	12/11/2018 13:16:02	0.2
297	12/11/2018 13:17:02	0.2
298	12/11/2018 13:18:02	0.3
299	12/11/2018 13:19:02	0.3
300	12/11/2018 13:20:02	0.3
301	12/11/2018 13:21:02	0.4
302	12/11/2018 13:22:02	0.4
303	12/11/2018 13:23:02	0.5
304	12/11/2018 13:24:02	0.5
305	12/11/2018 13:25:02	0.5
306	12/11/2018 13:26:02	0.5
307	12/11/2018 13:27:02	0.5
308	12/11/2018 13:28:02	0.5
309	12/11/2018 13:29:02	0.2

310	12/11/2018 13:30:02	0.5
311	12/11/2018 13:31:02	0.5
312	12/11/2018 13:32:02	0.5
313	12/11/2018 13:33:02	0.5
314	12/11/2018 13:34:02	0.5
315	12/11/2018 13:35:02	0.5
316	12/11/2018 13:36:02	0.5
317	12/11/2018 13:37:02	0.5
318	12/11/2018 13:38:02	0.5
319	12/11/2018 13:39:02	0.5
320	12/11/2018 13:40:02	0.5
321	12/11/2018 13:41:02	0.5
322	12/11/2018 13:42:02	0.5
323	12/11/2018 13:43:02	0.5
324	12/11/2018 13:44:02	0.5
325	12/11/2018 13:45:02	0.5
326	12/11/2018 13:46:02	0.5
327	12/11/2018 13:47:02	0.5
328	12/11/2018 13:48:02	0.5
329	12/11/2018 13:49:02	0.5
330	12/11/2018 13:50:02	0.5
331	12/11/2018 13:51:02	0.5
332	12/11/2018 13:52:02	0.5
333	12/11/2018 13:53:02	0.4
334	12/11/2018 13:54:02	0.4
335	12/11/2018 13:55:02	0.5
336	12/11/2018 13:56:02	0.4
337	12/11/2018 13:57:02	0.4
338	12/11/2018 13:58:02	0.4
339	12/11/2018 13:59:02	0.4
340	12/11/2018 14:00:02	0.4

341	12/11/2018 14:01:02	0.4
342	12/11/2018 14:02:02	0.4
343	12/11/2018 14:03:02	0.4
344	12/11/2018 14:04:02	0.4
345	12/11/2018 14:05:02	0.4
346	12/11/2018 14:06:02	0.4
347	12/11/2018 14:07:02	0.4
348	12/11/2018 14:08:02	0.4
349	12/11/2018 14:09:02	0.3
350	12/11/2018 14:10:02	0.3
351	12/11/2018 14:11:02	0.3
352	12/11/2018 14:12:02	0.3
353	12/11/2018 14:13:02	0.3
354	12/11/2018 14:14:02	0.3
355	12/11/2018 14:15:02	0.3
356	12/11/2018 14:16:02	0.3
357	12/11/2018 14:17:02	0.3
358	12/11/2018 14:18:02	0.3
359	12/11/2018 14:19:02	0.3
360	12/11/2018 14:20:02	0.3
361	12/11/2018 14:21:02	0.3
362	12/11/2018 14:22:02	0.3
363	12/11/2018 14:23:02	0.2
364	12/11/2018 14:24:02	0.2
365	12/11/2018 14:25:02	0.2
366	12/11/2018 14:26:02	0.2
367	12/11/2018 14:27:02	0.2
368	12/11/2018 14:28:02	0.2
369	12/11/2018 14:29:02	0.2
370	12/11/2018 14:30:02	0.2
371	12/11/2018 14:31:02	0.2

372 12/11/2018 14:32:02 0.2
373 12/11/2018 14:33:02 0.2
374 12/11/2018 14:34:02 0.2
375 12/11/2018 14:35:02 0.2
376 12/11/2018 14:36:02 0.2
377 12/11/2018 14:37:02 0.2
378 12/11/2018 14:38:02 0.2
379 12/11/2018 14:39:02 0.1
Peak 0.5
Min 0.0
Average 0.1

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18/12/11 15:24
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Stop by User

Site ID RAE00000
User ID USER0000

Begin 12/11/2018 15:24:45

End	12/11/2018 16:37:45
Sample Period(s)	60
Number of Records	73

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/11/2018 07:52
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/11/2018 15:25:45	0.0
002	12/11/2018 15:26:45	0.1
003	12/11/2018 15:27:45	0.0
004	12/11/2018 15:28:45	0.0
005	12/11/2018 15:29:45	0.1
006	12/11/2018 15:30:45	0.1
007	12/11/2018 15:31:45	0.1

008	12/11/2018 15:32:45	0.1
009	12/11/2018 15:33:45	0.1
010	12/11/2018 15:34:45	0.2
011	12/11/2018 15:35:45	0.2
012	12/11/2018 15:36:45	0.2
013	12/11/2018 15:37:45	0.2
014	12/11/2018 15:38:45	0.2
015	12/11/2018 15:39:45	0.2
016	12/11/2018 15:40:45	0.2
017	12/11/2018 15:41:45	0.2
018	12/11/2018 15:42:45	0.2
019	12/11/2018 15:43:45	0.2
020	12/11/2018 15:44:45	0.2
021	12/11/2018 15:45:45	0.2
022	12/11/2018 15:46:45	0.2
023	12/11/2018 15:47:45	0.3
024	12/11/2018 15:48:45	0.3
025	12/11/2018 15:49:45	0.3
026	12/11/2018 15:50:45	0.3
027	12/11/2018 15:51:45	0.3
028	12/11/2018 15:52:45	0.3
029	12/11/2018 15:53:45	0.3
030	12/11/2018 15:54:45	0.3
031	12/11/2018 15:55:45	0.3
032	12/11/2018 15:56:45	0.3
033	12/11/2018 15:57:45	0.3
034	12/11/2018 15:58:45	0.3
035	12/11/2018 15:59:45	0.3
036	12/11/2018 16:00:45	0.3
037	12/11/2018 16:01:45	0.3
038	12/11/2018 16:02:45	0.3

039	12/11/2018 16:03:45	0.3
040	12/11/2018 16:04:45	0.3
041	12/11/2018 16:05:45	0.3
042	12/11/2018 16:06:45	0.3
043	12/11/2018 16:07:45	0.3
044	12/11/2018 16:08:45	0.3
045	12/11/2018 16:09:45	0.3
046	12/11/2018 16:10:45	0.3
047	12/11/2018 16:11:45	0.3
048	12/11/2018 16:12:45	0.3
049	12/11/2018 16:13:45	0.3
050	12/11/2018 16:14:45	0.3
051	12/11/2018 16:15:45	0.3
052	12/11/2018 16:16:45	0.3
053	12/11/2018 16:17:45	0.2
054	12/11/2018 16:18:45	0.3
055	12/11/2018 16:19:45	0.2
056	12/11/2018 16:20:45	0.2
057	12/11/2018 16:21:45	0.2
058	12/11/2018 16:22:45	0.2
059	12/11/2018 16:23:45	0.2
060	12/11/2018 16:24:45	0.2
061	12/11/2018 16:25:45	0.2
062	12/11/2018 16:26:45	0.2
063	12/11/2018 16:27:45	0.2
064	12/11/2018 16:28:45	0.2
065	12/11/2018 16:29:45	0.2
066	12/11/2018 16:30:45	0.2
067	12/11/2018 16:31:45	0.2
068	12/11/2018 16:32:45	0.2
069	12/11/2018 16:33:45	0.2

070 12/11/2018 16:34:45 0.2
071 12/11/2018 16:35:45 0.2
072 12/11/2018 16:36:45 0.2
073 12/11/2018 16:37:45 0.1
Peak 0.3
Min 0.0
Average 0.2

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18/12/26 09:21
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Battery Low

Site ID RAE00000
User ID USER0000

Begin 12/26/2018 09:21:26
End 12/26/2018 16:13:24
Sample Period(s) 900
Number of Records 27

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/26/2018 07:27
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm)(Avg)
001	12/26/2018 09:36:26	0.0
002	12/26/2018 09:51:26	0.0
003	12/26/2018 10:06:26	0.0
004	12/26/2018 10:21:26	0.0
005	12/26/2018 10:36:26	0.0
006	12/26/2018 10:51:26	0.0
007	12/26/2018 11:06:26	0.0
008	12/26/2018 11:21:26	0.0
009	12/26/2018 11:36:26	0.0
010	12/26/2018 11:51:26	0.0
011	12/26/2018 12:06:26	0.0

012 12/26/2018 12:21:26 0.0
013 12/26/2018 12:36:26 0.0
014 12/26/2018 12:51:26 0.0
015 12/26/2018 13:06:26 0.0
016 12/26/2018 13:21:26 0.0
017 12/26/2018 13:36:26 0.0
018 12/26/2018 13:51:26 0.0
019 12/26/2018 14:06:26 0.0
020 12/26/2018 14:21:26 0.0
021 12/26/2018 14:36:26 0.0
022 12/26/2018 14:51:26 0.0
023 12/26/2018 15:06:26 0.0
024 12/26/2018 15:21:26 0.0
025 12/26/2018 15:36:26 0.0
026 12/26/2018 15:51:26 0.0
027 12/26/2018 16:06:26 0.0
Peak 0.0
Min 0.0
Average 0.0

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18/12/27 08:13
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode

Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00000
User ID	USER0000

Begin	12/27/2018 08:13:19
End	12/27/2018 10:07:57
Sample Period(s)	900
Number of Records	7

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/27/2018 07:36
Peak	N/A
Min	N/A
Average	N/A

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Datalog

	PID(ppm)

Index	Date/Time	(Avg)
001	12/27/2018 08:28:19	0.0
002	12/27/2018 08:43:19	0.1
003	12/27/2018 08:58:19	0.1
004	12/27/2018 09:13:19	0.0
005	12/27/2018 09:28:19	0.0
006	12/27/2018 09:43:19	0.1
007	12/27/2018 09:58:19	0.1
Peak		0.1
Min		0.0
Average		0.1

甄==========
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18/12/27 10:17
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	12/27/2018 10:17:18

End 12/27/2018 16:36:03
Sample Period(s) 900
Number of Records 25

Sensor PID(ppm)
Sensor SN S023030226V7
Measure Type Avg
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 15000.0
STEL Alarm 25.0
TWA Alarm 10.0
Measurement Gas Isobutylene
Calibration Time 12/27/2018 07:36
Peak N/A
Min N/A
Average N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/27/2018 10:32:18	0.1
002	12/27/2018 10:47:18	0.2
003	12/27/2018 11:02:18	0.1
004	12/27/2018 11:17:18	0.1
005	12/27/2018 11:32:18	0.1
006	12/27/2018 11:47:18	0.1
007	12/27/2018 12:02:18	0.1

008 12/27/2018 12:17:18 0.1
009 12/27/2018 12:32:18 0.1
010 12/27/2018 12:47:18 0.1
011 12/27/2018 13:02:18 0.2
012 12/27/2018 13:17:18 0.2
013 12/27/2018 13:32:18 0.2
014 12/27/2018 13:47:18 0.1
015 12/27/2018 14:02:18 0.1
016 12/27/2018 14:17:18 0.1
017 12/27/2018 14:32:18 0.1
018 12/27/2018 14:47:18 0.1
019 12/27/2018 15:02:18 0.1
020 12/27/2018 15:17:18 0.1
021 12/27/2018 15:32:18 0.1
022 12/27/2018 15:47:18 0.1
023 12/27/2018 16:02:18 0.1
024 12/27/2018 16:17:18 0.1
025 12/27/2018 16:32:18 0.1
Peak 0.2
Min 0.1
Average 0.1

甄==========
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18/12/28 08:05
****

Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00000
User ID	USER0000

Begin	12/28/2018 08:05:18
End	12/28/2018 10:07:24
Sample Period(s)	900
Number of Records	8

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/28/2018 07:35
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/28/2018 08:20:18	0.1
002	12/28/2018 08:35:18	0.1
003	12/28/2018 08:50:18	0.1
004	12/28/2018 09:05:18	0.1
005	12/28/2018 09:20:18	0.1
006	12/28/2018 09:35:18	0.2
007	12/28/2018 09:50:18	0.2
008	12/28/2018 10:05:18	0.1
Peak		0.2
Min		0.1
Average		0.1

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18/12/28 10:07
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000

User ID USER0000

Begin 12/28/2018 10:07:43
End 12/28/2018 16:37:22
Sample Period(s) 900
Number of Records 25

Sensor PID(ppm)
Sensor SN S023030226V7
Measure Type Avg
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 15000.0
STEL Alarm 25.0
TWA Alarm 10.0
Measurement Gas Isobutylene
Calibration Time 12/28/2018 07:35
Peak N/A
Min N/A
Average N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/28/2018 10:22:43	0.0
002	12/28/2018 10:37:43	0.0
003	12/28/2018 10:52:43	0.0
004	12/28/2018 11:07:43	0.1

005	12/28/2018 11:22:43	0.0
006	12/28/2018 11:37:43	0.1
007	12/28/2018 11:52:43	0.1
008	12/28/2018 12:07:43	0.2
009	12/28/2018 12:22:43	0.2
010	12/28/2018 12:37:43	0.2
011	12/28/2018 12:52:43	0.2
012	12/28/2018 13:07:43	0.2
013	12/28/2018 13:22:43	0.2
014	12/28/2018 13:37:43	0.1
015	12/28/2018 13:52:43	0.1
016	12/28/2018 14:07:43	0.1
017	12/28/2018 14:22:43	0.2
018	12/28/2018 14:37:43	0.2
019	12/28/2018 14:52:43	0.2
020	12/28/2018 15:07:43	0.2
021	12/28/2018 15:22:43	0.3
022	12/28/2018 15:37:43	0.2
023	12/28/2018 15:52:43	0.1
024	12/28/2018 16:07:43	0.2
025	12/28/2018 16:22:43	0.1
Peak		0.3
Min		0.0
Average		0.1

甄==========
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18/12/31 08:34
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	BLDG0000
User ID	USER0000

Begin	12/31/2018 08:34:30
End	12/31/2018 10:05:08
Sample Period(s)	900
Number of Records	6

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	12/31/2018 07:25
Peak	N/A
Min	N/A

Average N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/31/2018 08:49:30	0.0
002	12/31/2018 09:04:30	0.0
003	12/31/2018 09:19:30	0.0
004	12/31/2018 09:34:30	0.1
005	12/31/2018 09:49:30	0.1
006	12/31/2018 10:04:30	0.1
Peak		0.1
Min		0.0
Average		0.1

甄==========
====
18/12/31 10:05
****

Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID BLDG0000
User ID USER0000

Begin 12/31/2018 10:05:27
End 12/31/2018 13:50:37
Sample Period(s) 900
Number of Records 15

Sensor PID(ppm)
Sensor SN S023030226V7
Measure Type Avg
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 15000.0
STEL Alarm 25.0
TWA Alarm 10.0
Measurement Gas Isobutylene
Calibration Time 12/31/2018 07:25
Peak N/A
Min N/A
Average N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	12/31/2018 10:20:27	0.1
002	12/31/2018 10:35:27	0.1
003	12/31/2018 10:50:27	0.1

004 12/31/2018 11:05:27 0.1
005 12/31/2018 11:20:27 0.1
006 12/31/2018 11:35:27 0.1
007 12/31/2018 11:50:27 0.1
008 12/31/2018 12:05:27 0.1
009 12/31/2018 12:20:27 0.1
010 12/31/2018 12:35:27 0.1
011 12/31/2018 12:50:27 0.1
012 12/31/2018 13:05:27 0.1
013 12/31/2018 13:20:27 0.1
014 12/31/2018 13:35:27 0.1
015 12/31/2018 13:50:27 0.1
Peak 0.1
Min 0.1
Average 0.1

甄==========
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19/01/02 09:42
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Stop by User

Site ID	BLDG0000
User ID	USER0000

Begin	1/2/2019 09:42:49
End	1/2/2019 15:48:27
Sample Period(s)	900
Number of Records	24

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/2/2019 07:42
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm)(Avg)
001	1/2/2019 09:57:49	0.0
002	1/2/2019 10:12:49	0.1
003	1/2/2019 10:27:49	0.2

004	1/2/2019 10:42:49	0.2
005	1/2/2019 10:57:49	0.2
006	1/2/2019 11:12:49	0.3
007	1/2/2019 11:27:49	0.3
008	1/2/2019 11:42:49	0.2
009	1/2/2019 11:57:49	0.2
010	1/2/2019 12:12:49	0.2
011	1/2/2019 12:27:49	0.2
012	1/2/2019 12:42:49	0.3
013	1/2/2019 12:57:49	0.3
014	1/2/2019 13:12:49	0.3
015	1/2/2019 13:27:49	0.2
016	1/2/2019 13:42:49	0.2
017	1/2/2019 13:57:49	0.2
018	1/2/2019 14:12:49	0.2
019	1/2/2019 14:27:49	0.2
020	1/2/2019 14:42:49	0.2
021	1/2/2019 14:57:49	0.2
022	1/2/2019 15:12:49	0.2
023	1/2/2019 15:27:49	0.2
024	1/2/2019 15:42:49	0.2
Peak	0.3	
Min	0.0	
Average	0.2	

甄==========
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19/01/03 09:22
****
Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	BLDG0000
User ID	USER0000

Begin	1/3/2019 09:22:20
End	1/3/2019 12:47:24
Sample Period(s)	900
Number of Records	13

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/3/2019 08:15
Peak	N/A
Min	N/A

Average N/A

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Datalog

Index	Date/Time	PID(ppm) (Avg)
001	1/3/2019 09:37:20	0.0
002	1/3/2019 09:52:20	0.1
003	1/3/2019 10:07:20	0.1
004	1/3/2019 10:22:20	0.1
005	1/3/2019 10:37:20	0.1
006	1/3/2019 10:52:20	0.1
007	1/3/2019 11:07:20	0.2
008	1/3/2019 11:22:20	0.2
009	1/3/2019 11:37:20	0.2
010	1/3/2019 11:52:20	0.2
011	1/3/2019 12:07:20	0.2
012	1/3/2019 12:22:20	0.2
013	1/3/2019 12:37:20	0.2
Peak		0.2
Min		0.0
Average		0.1

甄==========
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19/01/03 14:04
****

Summary

Unit Name MiniRAE 3000(PGM-7320)

Unit SN 592-000000

Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	BLDG0000
User ID	USER0000

Begin	1/3/2019 14:04:01
End	1/3/2019 15:19:42
Sample Period(s)	900
Number of Records	5

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/3/2019 08:15
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)	
001	1/3/2019	14:19:01	0.1
002	1/3/2019	14:34:01	0.2
003	1/3/2019	14:49:01	0.2
004	1/3/2019	15:04:01	0.2
005	1/3/2019	15:19:01	0.2
Peak		0.2	
Min		0.1	
Average		0.2	

甄==========
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19/01/04 09:06
****

Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	BLDG0000
User ID	USER0000

Begin	1/4/2019 09:06:03
End	1/4/2019 11:32:48
Sample Period(s)	900
Number of Records	9

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/4/2019 07:35
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm)(Avg)
001	1/4/2019 09:21:03	0.0
002	1/4/2019 09:36:03	0.0
003	1/4/2019 09:51:03	0.1
004	1/4/2019 10:06:03	0.1
005	1/4/2019 10:21:03	0.2
006	1/4/2019 10:36:03	0.2

007 1/4/2019 10:51:03 0.2
008 1/4/2019 11:06:03 0.2
009 1/4/2019 11:21:03 0.3
Peak 0.3
Min 0.0
Average 0.1

甄==========
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19/01/04 12:09
****
Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Stop by User

Site ID BLDG0000
User ID USER0000

Begin 1/4/2019 12:09:15
End 1/4/2019 16:17:22
Sample Period(s) 900
Number of Records 16

Sensor PID(ppm)

Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/4/2019 07:35
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm) (Avg)
001	1/4/2019 12:24:15	0.7
002	1/4/2019 12:39:15	0.8
003	1/4/2019 12:54:15	1.0
004	1/4/2019 13:09:15	1.0
005	1/4/2019 13:24:15	1.1
006	1/4/2019 13:39:15	1.2
007	1/4/2019 13:54:15	1.1
008	1/4/2019 14:09:15	1.2
009	1/4/2019 14:24:15	1.2
010	1/4/2019 14:39:15	1.2
011	1/4/2019 14:54:15	1.3
012	1/4/2019 15:09:15	1.3

013 1/4/2019 15:24:15 1.2
014 1/4/2019 15:39:15 1.2
015 1/4/2019 15:54:15 1.2
016 1/4/2019 16:09:15 1.2
Peak 1.3
Min 0.7
Average 1.1

甄==========
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19/01/07 08:20
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Stop by User

Site ID BLDG0000
User ID USER0000

Begin 1/7/2019 08:20:12
End 1/7/2019 15:11:57
Sample Period(s) 900
Number of Records 27

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/7/2019 08:09
Peak	N/A
Min	N/A
Average	N/A

****

Datalog

Index	Date/Time	PID(ppm)(Avg)
001	1/7/2019 08:35:12	0.0
002	1/7/2019 08:50:12	0.0
003	1/7/2019 09:05:12	0.0
004	1/7/2019 09:20:12	0.0
005	1/7/2019 09:35:12	0.0
006	1/7/2019 09:50:12	0.0
007	1/7/2019 10:05:12	0.0
008	1/7/2019 10:20:12	0.0
009	1/7/2019 10:35:12	0.0
010	1/7/2019 10:50:12	0.0
011	1/7/2019 11:05:12	0.0

012	1/7/2019	11:20:12	0.1
013	1/7/2019	11:35:12	0.1
014	1/7/2019	11:50:12	0.1
015	1/7/2019	12:05:12	0.0
016	1/7/2019	12:20:12	0.0
017	1/7/2019	12:35:12	0.0
018	1/7/2019	12:50:12	0.0
019	1/7/2019	13:05:12	0.0
020	1/7/2019	13:20:12	0.0
021	1/7/2019	13:35:12	0.1
022	1/7/2019	13:50:12	0.1
023	1/7/2019	14:05:12	0.1
024	1/7/2019	14:20:12	0.1
025	1/7/2019	14:35:12	0.1
026	1/7/2019	14:50:12	0.1
027	1/7/2019	15:05:12	0.1
Peak		0.1	
Min		0.0	
Average		0.0	

甄==========
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19/01/08 08:48
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode

Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Battery Low

Site ID	BLDG0000
User ID	USER0000

Begin	1/8/2019 08:48:37
End	1/8/2019 17:44:49
Sample Period(s)	900
Number of Records	35

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Avg
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	1/8/2019 07:48
Peak	N/A
Min	N/A
Average	N/A

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Datalog

	PID(ppm)

Index	Date/Time	(Avg)
001	1/8/2019 09:03:37	0.3
002	1/8/2019 09:18:37	0.3
003	1/8/2019 09:33:37	0.4
004	1/8/2019 09:48:37	0.4
005	1/8/2019 10:03:37	0.4
006	1/8/2019 10:18:37	0.4
007	1/8/2019 10:33:37	0.5
008	1/8/2019 10:48:37	2.6
009	1/8/2019 11:03:37	0.8
010	1/8/2019 11:18:37	0.6
011	1/8/2019 11:33:37	0.6
012	1/8/2019 11:48:37	0.6
013	1/8/2019 12:03:37	0.6
014	1/8/2019 12:18:37	0.6
015	1/8/2019 12:33:37	0.6
016	1/8/2019 12:48:37	0.7
017	1/8/2019 13:03:37	0.6
018	1/8/2019 13:18:37	0.6
019	1/8/2019 13:33:37	0.6
020	1/8/2019 13:48:37	0.6
021	1/8/2019 14:03:37	0.6
022	1/8/2019 14:18:37	0.6
023	1/8/2019 14:33:37	0.6
024	1/8/2019 14:48:37	0.6
025	1/8/2019 15:03:37	0.6
026	1/8/2019 15:18:37	0.6
027	1/8/2019 15:33:37	0.7
028	1/8/2019 15:48:37	0.7
029	1/8/2019 16:03:37	0.6
030	1/8/2019 16:18:37	0.7

031 1/8/2019 16:33:37 0.6
032 1/8/2019 16:48:37 0.7
033 1/8/2019 17:03:37 0.7
034 1/8/2019 17:18:37 0.7
035 1/8/2019 17:33:37 0.7
Peak 2.6
Min 0.3
Average 0.6

甄==========
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19/05/16 12:14
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID BLDG0000
User ID USER0000

Begin 5/16/2019 12:14:01
End 5/16/2019 14:26:15
Sample Period(s) 60
Number of Records 132

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.3
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/16/2019	12:15:01	0.2	0.3	0.3	0.3
002	5/16/2019	12:16:01	0.2	0.3	0.3	0.3
003	5/16/2019	12:17:01	0.3	0.3	0.4	0.3
004	5/16/2019	12:18:01	0.2	0.3	0.3	0.3
005	5/16/2019	12:19:01	0.3	0.3	0.4	0.3
006	5/16/2019	12:20:01	0.2	0.3	0.4	0.2
007	5/16/2019	12:21:01	0.0	0.1	0.2	0.0
008	5/16/2019	12:22:01	0.0	0.0	0.0	0.0
009	5/16/2019	12:23:01	0.0	0.0	0.0	0.0
010	5/16/2019	12:24:01	0.0	0.0	0.0	0.0

011	5/16/2019 12:25:01	0.0	0.0	0.0	0.0
012	5/16/2019 12:26:01	0.0	0.0	0.0	0.0
013	5/16/2019 12:27:01	0.0	0.0	0.0	0.0
014	5/16/2019 12:28:01	0.0	0.0	0.0	0.0
015	5/16/2019 12:29:01	0.0	0.0	0.0	0.0
016	5/16/2019 12:30:01	0.0	0.0	0.0	0.0
017	5/16/2019 12:31:01	0.0	0.0	0.0	0.0
018	5/16/2019 12:32:01	0.0	0.0	0.0	0.0
019	5/16/2019 12:33:01	0.0	0.0	0.0	0.0
020	5/16/2019 12:34:01	0.0	0.0	0.0	0.0
021	5/16/2019 12:35:01	0.0	0.0	0.0	0.0
022	5/16/2019 12:36:01	0.0	0.0	0.0	0.0
023	5/16/2019 12:37:01	0.0	0.0	0.0	0.0
024	5/16/2019 12:38:01	0.0	0.0	0.0	0.0
025	5/16/2019 12:39:01	0.0	0.0	0.0	0.0
026	5/16/2019 12:40:01	0.0	0.0	0.0	0.0
027	5/16/2019 12:41:01	0.0	0.0	0.0	0.0
028	5/16/2019 12:42:01	0.0	0.0	0.0	0.0
029	5/16/2019 12:43:01	0.0	0.0	0.0	0.0
030	5/16/2019 12:44:01	0.0	0.0	0.0	0.0
031	5/16/2019 12:45:01	0.0	0.0	0.0	0.0
032	5/16/2019 12:46:01	0.0	0.0	0.0	0.0
033	5/16/2019 12:47:01	0.0	0.0	0.0	0.0
034	5/16/2019 12:48:01	0.0	0.0	0.0	0.0
035	5/16/2019 12:49:01	0.0	0.0	0.0	0.0
036	5/16/2019 12:50:01	0.0	0.0	0.0	0.0
037	5/16/2019 12:51:01	0.0	0.0	0.0	0.0
038	5/16/2019 12:52:01	0.0	0.0	0.0	0.0
039	5/16/2019 12:53:01	0.0	0.0	0.0	0.0
040	5/16/2019 12:54:01	0.0	0.0	0.0	0.0
041	5/16/2019 12:55:01	0.0	0.0	0.0	0.0

042	5/16/2019 12:56:01	0.0	0.0	0.0	0.0
043	5/16/2019 12:57:01	0.0	0.0	0.0	0.0
044	5/16/2019 12:58:01	0.0	0.0	0.0	0.0
045	5/16/2019 12:59:01	0.0	0.0	0.0	0.0
046	5/16/2019 13:00:01	0.0	0.0	0.0	0.0
047	5/16/2019 13:01:01	0.0	0.0	0.0	0.0
048	5/16/2019 13:02:01	0.0	0.0	0.0	0.0
049	5/16/2019 13:03:01	0.0	0.0	0.0	0.0
050	5/16/2019 13:04:01	0.0	0.0	0.0	0.0
051	5/16/2019 13:05:01	0.0	0.0	0.0	0.0
052	5/16/2019 13:06:01	0.0	0.0	0.0	0.0
053	5/16/2019 13:07:01	0.0	0.0	0.0	0.0
054	5/16/2019 13:08:01	0.0	0.0	0.0	0.0
055	5/16/2019 13:09:01	0.0	0.0	0.0	0.0
056	5/16/2019 13:10:01	0.0	0.0	0.0	0.0
057	5/16/2019 13:11:01	0.0	0.0	0.0	0.0
058	5/16/2019 13:12:01	0.0	0.0	0.0	0.0
059	5/16/2019 13:13:01	0.0	0.0	0.0	0.0
060	5/16/2019 13:14:01	0.0	0.0	0.0	0.0
061	5/16/2019 13:15:01	0.0	0.0	0.0	0.0
062	5/16/2019 13:16:01	0.0	0.0	0.0	0.0
063	5/16/2019 13:17:01	0.0	0.0	0.0	0.0
064	5/16/2019 13:18:01	0.0	0.0	0.0	0.0
065	5/16/2019 13:19:01	0.0	0.0	0.0	0.0
066	5/16/2019 13:20:01	0.0	0.0	0.0	0.0
067	5/16/2019 13:21:01	0.0	0.0	0.0	0.0
068	5/16/2019 13:22:01	0.0	0.0	0.0	0.0
069	5/16/2019 13:23:01	0.0	0.0	0.0	0.0
070	5/16/2019 13:24:01	0.0	0.0	0.0	0.0
071	5/16/2019 13:25:01	0.0	0.0	0.0	0.0
072	5/16/2019 13:26:01	0.0	0.0	0.0	0.0

073	5/16/2019 13:27:01	0.0	0.0	0.0	0.0
074	5/16/2019 13:28:01	0.0	0.0	0.0	0.0
075	5/16/2019 13:29:01	0.0	0.0	0.0	0.0
076	5/16/2019 13:30:01	0.0	0.0	0.0	0.0
077	5/16/2019 13:31:01	0.0	0.0	0.0	0.0
078	5/16/2019 13:32:01	0.0	0.0	0.0	0.0
079	5/16/2019 13:33:01	0.0	0.0	0.0	0.0
080	5/16/2019 13:34:01	0.0	0.0	0.0	0.0
081	5/16/2019 13:35:01	0.0	0.0	0.0	0.0
082	5/16/2019 13:36:01	0.0	0.0	0.0	0.0
083	5/16/2019 13:37:01	0.0	0.0	0.0	0.0
084	5/16/2019 13:38:01	0.0	0.0	0.0	0.0
085	5/16/2019 13:39:01	0.0	0.0	0.0	0.0
086	5/16/2019 13:40:01	0.0	0.0	0.0	0.0
087	5/16/2019 13:41:01	0.0	0.0	0.0	0.0
088	5/16/2019 13:42:01	0.0	0.0	0.0	0.0
089	5/16/2019 13:43:01	0.0	0.0	0.0	0.0
090	5/16/2019 13:44:01	0.0	0.0	0.0	0.0
091	5/16/2019 13:45:01	0.0	0.0	0.0	0.0
092	5/16/2019 13:46:01	0.0	0.0	0.0	0.0
093	5/16/2019 13:47:01	0.0	0.0	0.0	0.0
094	5/16/2019 13:48:01	0.0	0.0	0.0	0.0
095	5/16/2019 13:49:01	0.0	0.0	0.0	0.0
096	5/16/2019 13:50:01	0.0	0.0	0.0	0.0
097	5/16/2019 13:51:01	0.0	0.0	0.0	0.0
098	5/16/2019 13:52:01	0.0	0.0	0.0	0.0
099	5/16/2019 13:53:01	0.0	0.0	0.0	0.0
100	5/16/2019 13:54:01	0.0	0.0	0.0	0.0
101	5/16/2019 13:55:01	0.0	0.0	0.0	0.0
102	5/16/2019 13:56:01	0.0	0.0	0.0	0.0
103	5/16/2019 13:57:01	0.0	0.0	0.0	0.0

104	5/16/2019	13:58:01	0.0	0.0	0.0	0.0
105	5/16/2019	13:59:01	0.0	0.0	0.0	0.0
106	5/16/2019	14:00:01	0.0	0.0	0.0	0.0
107	5/16/2019	14:01:01	0.0	0.0	0.0	0.0
108	5/16/2019	14:02:01	0.0	0.0	0.0	0.0
109	5/16/2019	14:03:01	0.0	0.0	0.0	0.0
110	5/16/2019	14:04:01	0.0	0.0	0.0	0.0
111	5/16/2019	14:05:01	0.0	0.0	0.0	0.0
112	5/16/2019	14:06:01	0.0	0.0	0.0	0.0
113	5/16/2019	14:07:01	0.0	0.0	0.0	0.0
114	5/16/2019	14:08:01	0.0	0.0	0.0	0.0
115	5/16/2019	14:09:01	0.0	0.0	0.0	0.0
116	5/16/2019	14:10:01	0.0	0.0	0.0	0.0
117	5/16/2019	14:11:01	0.0	0.0	0.0	0.0
118	5/16/2019	14:12:01	0.0	0.0	0.0	0.0
119	5/16/2019	14:13:01	0.0	0.0	0.0	0.0
120	5/16/2019	14:14:01	0.0	0.0	0.0	0.0
121	5/16/2019	14:15:01	0.0	0.0	0.0	0.0
122	5/16/2019	14:16:01	0.0	0.0	0.0	0.0
123	5/16/2019	14:17:01	0.0	0.0	0.0	0.0
124	5/16/2019	14:18:01	0.0	0.0	0.0	0.0
125	5/16/2019	14:19:01	0.0	0.0	0.0	0.0
126	5/16/2019	14:20:01	0.0	0.0	0.0	0.0
127	5/16/2019	14:21:01	0.0	0.0	0.0	0.0
128	5/16/2019	14:22:01	0.0	0.0	0.0	0.0
129	5/16/2019	14:23:01	0.0	0.0	0.0	0.0
130	5/16/2019	14:24:01	0.0	0.0	0.0	0.0
131	5/16/2019	14:25:01	0.0	0.0	0.0	0.0
132	5/16/2019	14:26:01	0.0	0.0	0.0	0.0
Peak		0.3	0.3	0.4	0.3	
Min		0.0	0.0	0.0	0.0	

Average		0.0	0.0	0.0	0.0

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/16/2019	12:15:01	0.0	---
002	5/16/2019	12:16:01	0.0	---
003	5/16/2019	12:17:01	0.0	---
004	5/16/2019	12:18:01	0.0	---
005	5/16/2019	12:19:01	0.0	---
006	5/16/2019	12:20:01	0.0	---
007	5/16/2019	12:21:01	0.0	---
008	5/16/2019	12:22:01	0.0	---
009	5/16/2019	12:23:01	0.0	---
010	5/16/2019	12:24:01	0.0	---
011	5/16/2019	12:25:01	0.0	---
012	5/16/2019	12:26:01	0.0	---
013	5/16/2019	12:27:01	0.0	---
014	5/16/2019	12:28:01	0.0	---
015	5/16/2019	12:29:01	0.0	0.1
016	5/16/2019	12:30:01	0.0	0.1
017	5/16/2019	12:31:01	0.0	0.1
018	5/16/2019	12:32:01	0.0	0.1
019	5/16/2019	12:33:01	0.0	0.1
020	5/16/2019	12:34:01	0.0	0.0
021	5/16/2019	12:35:01	0.0	0.0
022	5/16/2019	12:36:01	0.0	0.0
023	5/16/2019	12:37:01	0.0	0.0
024	5/16/2019	12:38:01	0.0	0.0
025	5/16/2019	12:39:01	0.0	0.0

026	5/16/2019 12:40:01	0.0	0.0
027	5/16/2019 12:41:01	0.0	0.0
028	5/16/2019 12:42:01	0.0	0.0
029	5/16/2019 12:43:01	0.0	0.0
030	5/16/2019 12:44:01	0.0	0.0
031	5/16/2019 12:45:01	0.0	0.0
032	5/16/2019 12:46:01	0.0	0.0
033	5/16/2019 12:47:01	0.0	0.0
034	5/16/2019 12:48:01	0.0	0.0
035	5/16/2019 12:49:01	0.0	0.0
036	5/16/2019 12:50:01	0.0	0.0
037	5/16/2019 12:51:01	0.0	0.0
038	5/16/2019 12:52:01	0.0	0.0
039	5/16/2019 12:53:01	0.0	0.0
040	5/16/2019 12:54:01	0.0	0.0
041	5/16/2019 12:55:01	0.0	0.0
042	5/16/2019 12:56:01	0.0	0.0
043	5/16/2019 12:57:01	0.0	0.0
044	5/16/2019 12:58:01	0.0	0.0
045	5/16/2019 12:59:01	0.0	0.0
046	5/16/2019 13:00:01	0.0	0.0
047	5/16/2019 13:01:01	0.0	0.0
048	5/16/2019 13:02:01	0.0	0.0
049	5/16/2019 13:03:01	0.0	0.0
050	5/16/2019 13:04:01	0.0	0.0
051	5/16/2019 13:05:01	0.0	0.0
052	5/16/2019 13:06:01	0.0	0.0
053	5/16/2019 13:07:01	0.0	0.0
054	5/16/2019 13:08:01	0.0	0.0
055	5/16/2019 13:09:01	0.0	0.0
056	5/16/2019 13:10:01	0.0	0.0

057	5/16/2019 13:11:01	0.0	0.0
058	5/16/2019 13:12:01	0.0	0.0
059	5/16/2019 13:13:01	0.0	0.0
060	5/16/2019 13:14:01	0.0	0.0
061	5/16/2019 13:15:01	0.0	0.0
062	5/16/2019 13:16:01	0.0	0.0
063	5/16/2019 13:17:01	0.0	0.0
064	5/16/2019 13:18:01	0.0	0.0
065	5/16/2019 13:19:01	0.0	0.0
066	5/16/2019 13:20:01	0.0	0.0
067	5/16/2019 13:21:01	0.0	0.0
068	5/16/2019 13:22:01	0.0	0.0
069	5/16/2019 13:23:01	0.0	0.0
070	5/16/2019 13:24:01	0.0	0.0
071	5/16/2019 13:25:01	0.0	0.0
072	5/16/2019 13:26:01	0.0	0.0
073	5/16/2019 13:27:01	0.0	0.0
074	5/16/2019 13:28:01	0.0	0.0
075	5/16/2019 13:29:01	0.0	0.0
076	5/16/2019 13:30:01	0.0	0.0
077	5/16/2019 13:31:01	0.0	0.0
078	5/16/2019 13:32:01	0.0	0.0
079	5/16/2019 13:33:01	0.0	0.0
080	5/16/2019 13:34:01	0.0	0.0
081	5/16/2019 13:35:01	0.0	0.0
082	5/16/2019 13:36:01	0.0	0.0
083	5/16/2019 13:37:01	0.0	0.0
084	5/16/2019 13:38:01	0.0	0.0
085	5/16/2019 13:39:01	0.0	0.0
086	5/16/2019 13:40:01	0.0	0.0
087	5/16/2019 13:41:01	0.0	0.0

088	5/16/2019 13:42:01	0.0	0.0
089	5/16/2019 13:43:01	0.0	0.0
090	5/16/2019 13:44:01	0.0	0.0
091	5/16/2019 13:45:01	0.0	0.0
092	5/16/2019 13:46:01	0.0	0.0
093	5/16/2019 13:47:01	0.0	0.0
094	5/16/2019 13:48:01	0.0	0.0
095	5/16/2019 13:49:01	0.0	0.0
096	5/16/2019 13:50:01	0.0	0.0
097	5/16/2019 13:51:01	0.0	0.0
098	5/16/2019 13:52:01	0.0	0.0
099	5/16/2019 13:53:01	0.0	0.0
100	5/16/2019 13:54:01	0.0	0.0
101	5/16/2019 13:55:01	0.0	0.0
102	5/16/2019 13:56:01	0.0	0.0
103	5/16/2019 13:57:01	0.0	0.0
104	5/16/2019 13:58:01	0.0	0.0
105	5/16/2019 13:59:01	0.0	0.0
106	5/16/2019 14:00:01	0.0	0.0
107	5/16/2019 14:01:01	0.0	0.0
108	5/16/2019 14:02:01	0.0	0.0
109	5/16/2019 14:03:01	0.0	0.0
110	5/16/2019 14:04:01	0.0	0.0
111	5/16/2019 14:05:01	0.0	0.0
112	5/16/2019 14:06:01	0.0	0.0
113	5/16/2019 14:07:01	0.0	0.0
114	5/16/2019 14:08:01	0.0	0.0
115	5/16/2019 14:09:01	0.0	0.0
116	5/16/2019 14:10:01	0.0	0.0
117	5/16/2019 14:11:01	0.0	0.0
118	5/16/2019 14:12:01	0.0	0.0

119	5/16/2019 14:13:01	0.0	0.0
120	5/16/2019 14:14:01	0.0	0.0
121	5/16/2019 14:15:01	0.0	0.0
122	5/16/2019 14:16:01	0.0	0.0
123	5/16/2019 14:17:01	0.0	0.0
124	5/16/2019 14:18:01	0.0	0.0
125	5/16/2019 14:19:01	0.0	0.0
126	5/16/2019 14:20:01	0.0	0.0
127	5/16/2019 14:21:01	0.0	0.0
128	5/16/2019 14:22:01	0.0	0.0
129	5/16/2019 14:23:01	0.0	0.0
130	5/16/2019 14:24:01	0.0	0.0
131	5/16/2019 14:25:01	0.0	0.0
132	5/16/2019 14:26:01	0.0	0.0

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19/05/17 09:10

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Battery Low

Site ID	BLDG0000
User ID	USER0000

Begin	5/17/2019 09:10:58
End	5/17/2019 15:35:51
Sample Period(s)	60
Number of Records	384

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.5
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/17/2019	09:11:58	0.0	0.0	0.0	0.0
002	5/17/2019	09:12:58	0.0	0.0	0.0	0.0
003	5/17/2019	09:13:58	0.0	0.0	0.0	0.0
004	5/17/2019	09:14:58	0.0	0.0	0.0	0.0
005	5/17/2019	09:15:58	0.0	0.0	0.0	0.0

006	5/17/2019	09:16:58	0.0	0.0	0.0	0.0
007	5/17/2019	09:17:58	0.0	0.0	0.0	0.0
008	5/17/2019	09:18:58	0.0	0.0	0.0	0.0
009	5/17/2019	09:19:58	0.0	0.0	0.0	0.0
010	5/17/2019	09:20:58	0.0	0.0	0.0	0.0
011	5/17/2019	09:21:58	0.0	0.0	0.0	0.0
012	5/17/2019	09:22:58	0.0	0.0	0.0	0.0
013	5/17/2019	09:23:58	0.0	0.0	0.0	0.0
014	5/17/2019	09:24:58	0.0	0.0	0.0	0.0
015	5/17/2019	09:25:58	0.0	0.0	0.0	0.0
016	5/17/2019	09:26:58	0.0	0.0	0.0	0.0
017	5/17/2019	09:27:58	0.0	0.0	0.0	0.0
018	5/17/2019	09:28:58	0.0	0.0	0.0	0.0
019	5/17/2019	09:29:58	0.0	0.0	0.0	0.0
020	5/17/2019	09:30:58	0.0	0.0	0.0	0.0
021	5/17/2019	09:31:58	0.0	0.0	0.0	0.0
022	5/17/2019	09:32:58	0.0	0.0	0.0	0.0
023	5/17/2019	09:33:58	0.0	0.0	0.0	0.0
024	5/17/2019	09:34:58	0.0	0.0	0.0	0.0
025	5/17/2019	09:35:58	0.0	0.0	0.0	0.0
026	5/17/2019	09:36:58	0.0	0.0	0.0	0.0
027	5/17/2019	09:37:58	0.0	0.0	0.0	0.0
028	5/17/2019	09:38:58	0.0	0.0	0.0	0.0
029	5/17/2019	09:39:58	0.0	0.0	0.0	0.0
030	5/17/2019	09:40:58	0.0	0.0	0.0	0.0
031	5/17/2019	09:41:58	0.0	0.0	0.0	0.0
032	5/17/2019	09:42:58	0.0	0.0	0.0	0.0
033	5/17/2019	09:43:58	0.0	0.0	0.0	0.0
034	5/17/2019	09:44:58	0.0	0.0	0.0	0.0
035	5/17/2019	09:45:58	0.0	0.0	0.0	0.0
036	5/17/2019	09:46:58	0.0	0.0	0.0	0.0

037	5/17/2019 09:47:58	0.0	0.0	0.0	0.0
038	5/17/2019 09:48:58	0.0	0.0	0.0	0.0
039	5/17/2019 09:49:58	0.0	0.0	0.0	0.0
040	5/17/2019 09:50:58	0.0	0.0	0.0	0.0
041	5/17/2019 09:51:58	0.0	0.0	0.0	0.0
042	5/17/2019 09:52:58	0.0	0.0	0.0	0.0
043	5/17/2019 09:53:58	0.0	0.0	0.0	0.0
044	5/17/2019 09:54:58	0.0	0.0	0.0	0.0
045	5/17/2019 09:55:58	0.0	0.0	0.0	0.0
046	5/17/2019 09:56:58	0.0	0.0	0.0	0.0
047	5/17/2019 09:57:58	0.0	0.0	0.0	0.0
048	5/17/2019 09:58:58	0.0	0.0	0.0	0.0
049	5/17/2019 09:59:58	0.0	0.0	0.0	0.0
050	5/17/2019 10:00:58	0.0	0.0	0.0	0.0
051	5/17/2019 10:01:58	0.0	0.0	0.0	0.0
052	5/17/2019 10:02:58	0.0	0.0	0.0	0.0
053	5/17/2019 10:03:58	0.0	0.0	0.0	0.0
054	5/17/2019 10:04:58	0.0	0.0	0.0	0.0
055	5/17/2019 10:05:58	0.0	0.0	0.0	0.0
056	5/17/2019 10:06:58	0.0	0.0	0.0	0.0
057	5/17/2019 10:07:58	0.0	0.0	0.0	0.0
058	5/17/2019 10:08:58	0.0	0.0	0.0	0.0
059	5/17/2019 10:09:58	0.0	0.0	0.0	0.0
060	5/17/2019 10:10:58	0.0	0.0	0.0	0.0
061	5/17/2019 10:11:58	0.0	0.0	0.0	0.0
062	5/17/2019 10:12:58	0.0	0.0	0.0	0.0
063	5/17/2019 10:13:58	0.0	0.0	0.0	0.0
064	5/17/2019 10:14:58	0.0	0.0	0.0	0.0
065	5/17/2019 10:15:58	0.0	0.0	0.0	0.0
066	5/17/2019 10:16:58	0.0	0.0	0.0	0.0
067	5/17/2019 10:17:58	0.0	0.0	0.0	0.0

068	5/17/2019 10:18:58	0.0	0.0	0.0	0.0
069	5/17/2019 10:19:58	0.0	0.0	0.0	0.0
070	5/17/2019 10:20:58	0.0	0.0	0.0	0.0
071	5/17/2019 10:21:58	0.0	0.0	0.0	0.0
072	5/17/2019 10:22:58	0.0	0.0	0.0	0.0
073	5/17/2019 10:23:58	0.0	0.0	0.0	0.0
074	5/17/2019 10:24:58	0.0	0.0	0.0	0.0
075	5/17/2019 10:25:58	0.0	0.0	0.0	0.0
076	5/17/2019 10:26:58	0.0	0.0	0.0	0.0
077	5/17/2019 10:27:58	0.0	0.0	0.0	0.0
078	5/17/2019 10:28:58	0.0	0.0	0.0	0.0
079	5/17/2019 10:29:58	0.0	0.0	0.0	0.0
080	5/17/2019 10:30:58	0.0	0.0	0.0	0.0
081	5/17/2019 10:31:58	0.0	0.0	0.0	0.0
082	5/17/2019 10:32:58	0.0	0.0	0.0	0.0
083	5/17/2019 10:33:58	0.0	0.0	0.0	0.0
084	5/17/2019 10:34:58	0.0	0.0	0.0	0.0
085	5/17/2019 10:35:58	0.0	0.0	0.0	0.0
086	5/17/2019 10:36:58	0.0	0.0	0.0	0.0
087	5/17/2019 10:37:58	0.0	0.0	0.0	0.0
088	5/17/2019 10:38:58	0.0	0.0	0.0	0.0
089	5/17/2019 10:39:58	0.0	0.0	0.0	0.0
090	5/17/2019 10:40:58	0.0	0.0	0.0	0.0
091	5/17/2019 10:41:58	0.0	0.0	0.0	0.0
092	5/17/2019 10:42:58	0.0	0.0	0.0	0.0
093	5/17/2019 10:43:58	0.0	0.0	0.0	0.0
094	5/17/2019 10:44:58	0.0	0.0	0.0	0.0
095	5/17/2019 10:45:58	0.0	0.0	0.0	0.0
096	5/17/2019 10:46:58	0.0	0.0	0.0	0.0
097	5/17/2019 10:47:58	0.0	0.0	0.0	0.0
098	5/17/2019 10:48:58	0.0	0.0	0.0	0.0

099	5/17/2019	10:49:58	0.0	0.0	0.0	0.0
100	5/17/2019	10:50:58	0.0	0.0	0.0	0.0
101	5/17/2019	10:51:58	0.0	0.0	0.0	0.0
102	5/17/2019	10:52:58	0.0	0.0	0.0	0.0
103	5/17/2019	10:53:58	0.0	0.0	0.0	0.0
104	5/17/2019	10:54:58	0.0	0.0	0.0	0.0
105	5/17/2019	10:55:58	0.0	0.0	0.0	0.0
106	5/17/2019	10:56:58	0.0	0.0	0.0	0.0
107	5/17/2019	10:57:58	0.0	0.0	0.0	0.0
108	5/17/2019	10:58:58	0.0	0.0	0.0	0.0
109	5/17/2019	10:59:58	0.0	0.0	0.0	0.0
110	5/17/2019	11:00:58	0.0	0.0	0.0	0.0
111	5/17/2019	11:01:58	0.0	0.0	0.0	0.0
112	5/17/2019	11:02:58	0.0	0.0	0.0	0.0
113	5/17/2019	11:03:58	0.0	0.0	0.0	0.0
114	5/17/2019	11:04:58	0.0	0.0	0.0	0.0
115	5/17/2019	11:05:58	0.0	0.0	0.0	0.0
116	5/17/2019	11:06:58	0.0	0.0	0.0	0.0
117	5/17/2019	11:07:58	0.0	0.0	0.0	0.0
118	5/17/2019	11:08:58	0.0	0.0	0.0	0.0
119	5/17/2019	11:09:58	0.0	0.0	0.0	0.0
120	5/17/2019	11:10:58	0.0	0.0	0.0	0.0
121	5/17/2019	11:11:58	0.0	0.0	0.0	0.0
122	5/17/2019	11:12:58	0.0	0.0	0.0	0.0
123	5/17/2019	11:13:58	0.0	0.0	0.0	0.0
124	5/17/2019	11:14:58	0.0	0.0	0.0	0.0
125	5/17/2019	11:15:58	0.0	0.0	0.0	0.0
126	5/17/2019	11:16:58	0.0	0.0	0.0	0.0
127	5/17/2019	11:17:58	0.0	0.0	0.0	0.0
128	5/17/2019	11:18:58	0.0	0.0	0.0	0.0
129	5/17/2019	11:19:58	0.0	0.0	0.0	0.0

130	5/17/2019	11:20:58	0.0	0.0	0.0	0.0
131	5/17/2019	11:21:58	0.0	0.0	0.0	0.0
132	5/17/2019	11:22:58	0.0	0.0	0.0	0.0
133	5/17/2019	11:23:58	0.0	0.0	0.0	0.0
134	5/17/2019	11:24:58	0.0	0.0	0.0	0.0
135	5/17/2019	11:25:58	0.0	0.0	0.0	0.0
136	5/17/2019	11:26:58	0.0	0.0	0.0	0.0
137	5/17/2019	11:27:58	0.0	0.0	0.0	0.0
138	5/17/2019	11:28:58	0.0	0.0	0.0	0.0
139	5/17/2019	11:29:58	0.0	0.0	0.0	0.0
140	5/17/2019	11:30:58	0.0	0.0	0.0	0.0
141	5/17/2019	11:31:58	0.0	0.0	0.0	0.0
142	5/17/2019	11:32:58	0.0	0.0	0.0	0.0
143	5/17/2019	11:33:58	0.0	0.0	0.0	0.0
144	5/17/2019	11:34:58	0.0	0.0	0.0	0.0
145	5/17/2019	11:35:58	0.0	0.0	0.0	0.0
146	5/17/2019	11:36:58	0.0	0.0	0.0	0.0
147	5/17/2019	11:37:58	0.0	0.0	0.0	0.0
148	5/17/2019	11:38:58	0.0	0.0	0.0	0.0
149	5/17/2019	11:39:58	0.0	0.0	0.0	0.0
150	5/17/2019	11:40:58	0.0	0.0	0.0	0.0
151	5/17/2019	11:41:58	0.0	0.0	0.0	0.0
152	5/17/2019	11:42:58	0.0	0.0	0.0	0.0
153	5/17/2019	11:43:58	0.0	0.0	0.0	0.0
154	5/17/2019	11:44:58	0.0	0.0	0.0	0.0
155	5/17/2019	11:45:58	0.0	0.0	0.0	0.0
156	5/17/2019	11:46:58	0.0	0.0	0.0	0.0
157	5/17/2019	11:47:58	0.0	0.0	0.0	0.0
158	5/17/2019	11:48:58	0.0	0.0	0.0	0.0
159	5/17/2019	11:49:58	0.0	0.0	0.0	0.0
160	5/17/2019	11:50:58	0.0	0.0	0.0	0.0

161	5/17/2019	11:51:58	0.0	0.0	0.0	0.0
162	5/17/2019	11:52:58	0.0	0.0	0.0	0.0
163	5/17/2019	11:53:58	0.0	0.0	0.0	0.0
164	5/17/2019	11:54:58	0.0	0.0	0.0	0.0
165	5/17/2019	11:55:58	0.0	0.0	0.0	0.0
166	5/17/2019	11:56:58	0.0	0.0	0.0	0.0
167	5/17/2019	11:57:58	0.0	0.0	0.0	0.0
168	5/17/2019	11:58:58	0.0	0.0	0.0	0.0
169	5/17/2019	11:59:58	0.0	0.0	0.0	0.0
170	5/17/2019	12:00:58	0.0	0.0	0.0	0.0
171	5/17/2019	12:01:58	0.0	0.0	0.0	0.0
172	5/17/2019	12:02:58	0.0	0.0	0.0	0.0
173	5/17/2019	12:03:58	0.0	0.0	0.0	0.0
174	5/17/2019	12:04:58	0.0	0.0	0.0	0.0
175	5/17/2019	12:05:58	0.0	0.0	0.0	0.0
176	5/17/2019	12:06:58	0.0	0.0	0.0	0.0
177	5/17/2019	12:07:58	0.0	0.0	0.0	0.0
178	5/17/2019	12:08:58	0.0	0.0	0.0	0.0
179	5/17/2019	12:09:58	0.0	0.0	0.0	0.0
180	5/17/2019	12:10:58	0.0	0.0	0.0	0.0
181	5/17/2019	12:11:58	0.0	0.0	0.0	0.0
182	5/17/2019	12:12:58	0.0	0.0	0.0	0.0
183	5/17/2019	12:13:58	0.0	0.0	0.0	0.0
184	5/17/2019	12:14:58	0.0	0.0	0.0	0.0
185	5/17/2019	12:15:58	0.0	0.0	0.0	0.0
186	5/17/2019	12:16:58	0.0	0.0	0.0	0.0
187	5/17/2019	12:17:58	0.0	0.0	0.0	0.0
188	5/17/2019	12:18:58	0.0	0.0	0.0	0.0
189	5/17/2019	12:19:58	0.0	0.0	0.0	0.0
190	5/17/2019	12:20:58	0.0	0.0	0.0	0.0
191	5/17/2019	12:21:58	0.0	0.0	0.0	0.0

192	5/17/2019 12:22:58	0.0	0.0	0.0	0.0
193	5/17/2019 12:23:58	0.0	0.0	0.0	0.0
194	5/17/2019 12:24:58	0.0	0.0	0.0	0.0
195	5/17/2019 12:25:58	0.0	0.0	0.0	0.0
196	5/17/2019 12:26:58	0.0	0.0	0.0	0.0
197	5/17/2019 12:27:58	0.0	0.0	0.0	0.0
198	5/17/2019 12:28:58	0.0	0.0	0.0	0.0
199	5/17/2019 12:29:58	0.0	0.0	0.0	0.0
200	5/17/2019 12:30:58	0.0	0.0	0.0	0.0
201	5/17/2019 12:31:58	0.0	0.0	0.0	0.0
202	5/17/2019 12:32:58	0.0	0.0	0.0	0.0
203	5/17/2019 12:33:58	0.0	0.0	0.0	0.0
204	5/17/2019 12:34:58	0.0	0.0	0.0	0.0
205	5/17/2019 12:35:58	0.0	0.0	0.0	0.0
206	5/17/2019 12:36:58	0.0	0.0	0.0	0.0
207	5/17/2019 12:37:58	0.0	0.0	0.0	0.0
208	5/17/2019 12:38:58	0.0	0.0	0.0	0.0
209	5/17/2019 12:39:58	0.0	0.0	0.0	0.0
210	5/17/2019 12:40:58	0.0	0.0	0.0	0.0
211	5/17/2019 12:41:58	0.0	0.0	0.0	0.0
212	5/17/2019 12:42:58	0.0	0.0	0.0	0.0
213	5/17/2019 12:43:58	0.0	0.0	0.0	0.0
214	5/17/2019 12:44:58	0.0	0.0	0.0	0.0
215	5/17/2019 12:45:58	0.0	0.0	0.0	0.0
216	5/17/2019 12:46:58	0.0	0.0	0.0	0.0
217	5/17/2019 12:47:58	0.0	0.0	0.0	0.0
218	5/17/2019 12:48:58	0.0	0.0	0.0	0.0
219	5/17/2019 12:49:58	0.0	0.0	0.0	0.0
220	5/17/2019 12:50:58	0.0	0.0	0.0	0.0
221	5/17/2019 12:51:58	0.0	0.0	0.0	0.0
222	5/17/2019 12:52:58	0.0	0.0	0.0	0.0

223	5/17/2019 12:53:58	0.0	0.0	0.0	0.0
224	5/17/2019 12:54:58	0.0	0.0	0.0	0.0
225	5/17/2019 12:55:58	0.0	0.0	0.0	0.0
226	5/17/2019 12:56:58	0.0	0.0	0.0	0.0
227	5/17/2019 12:57:58	0.0	0.0	0.0	0.0
228	5/17/2019 12:58:58	0.0	0.0	0.0	0.0
229	5/17/2019 12:59:58	0.0	0.0	0.0	0.0
230	5/17/2019 13:00:58	0.0	0.0	0.0	0.0
231	5/17/2019 13:01:58	0.0	0.0	0.0	0.0
232	5/17/2019 13:02:58	0.0	0.0	0.0	0.0
233	5/17/2019 13:03:58	0.0	0.0	0.0	0.0
234	5/17/2019 13:04:58	0.0	0.0	0.0	0.0
235	5/17/2019 13:05:58	0.0	0.0	0.0	0.0
236	5/17/2019 13:06:58	0.0	0.0	0.0	0.0
237	5/17/2019 13:07:58	0.0	0.0	0.0	0.0
238	5/17/2019 13:08:58	0.0	0.0	0.0	0.0
239	5/17/2019 13:09:58	0.0	0.0	0.0	0.0
240	5/17/2019 13:10:58	0.0	0.0	0.0	0.0
241	5/17/2019 13:11:58	0.0	0.0	0.0	0.0
242	5/17/2019 13:12:58	0.0	0.0	0.0	0.0
243	5/17/2019 13:13:58	0.0	0.0	0.0	0.0
244	5/17/2019 13:14:58	0.0	0.0	0.0	0.0
245	5/17/2019 13:15:58	0.0	0.0	0.0	0.0
246	5/17/2019 13:16:58	0.0	0.0	0.0	0.0
247	5/17/2019 13:17:58	0.0	0.0	0.0	0.0
248	5/17/2019 13:18:58	0.0	0.0	0.0	0.0
249	5/17/2019 13:19:58	0.0	0.0	0.0	0.0
250	5/17/2019 13:20:58	0.0	0.0	0.0	0.0
251	5/17/2019 13:21:58	0.0	0.0	0.0	0.0
252	5/17/2019 13:22:58	0.0	0.0	0.0	0.0
253	5/17/2019 13:23:58	0.0	0.0	0.0	0.0

254	5/17/2019 13:24:58	0.0	0.0	0.0	0.0
255	5/17/2019 13:25:58	0.0	0.0	0.0	0.0
256	5/17/2019 13:26:58	0.0	0.0	0.0	0.0
257	5/17/2019 13:27:58	0.0	0.0	0.1	0.0
258	5/17/2019 13:28:58	0.0	0.0	0.0	0.0
259	5/17/2019 13:29:58	0.0	0.0	0.0	0.0
260	5/17/2019 13:30:58	0.0	0.0	0.0	0.0
261	5/17/2019 13:31:58	0.0	0.0	0.0	0.0
262	5/17/2019 13:32:58	0.0	0.0	0.1	0.1
263	5/17/2019 13:33:58	0.1	0.2	0.4	0.2
264	5/17/2019 13:34:58	0.2	0.2	0.3	0.2
265	5/17/2019 13:35:58	0.1	0.2	0.2	0.1
266	5/17/2019 13:36:58	0.0	0.1	0.2	0.0
267	5/17/2019 13:37:58	0.0	0.1	0.1	0.1
268	5/17/2019 13:38:58	0.0	0.1	0.1	0.1
269	5/17/2019 13:39:58	0.0	0.0	0.1	0.0
270	5/17/2019 13:40:58	0.0	0.1	0.1	0.1
271	5/17/2019 13:41:58	0.0	0.1	0.1	0.1
272	5/17/2019 13:42:58	0.0	0.0	0.1	0.0
273	5/17/2019 13:43:58	0.0	0.0	0.0	0.0
274	5/17/2019 13:44:58	0.0	0.0	0.1	0.1
275	5/17/2019 13:45:58	0.0	0.0	0.1	0.0
276	5/17/2019 13:46:58	0.0	0.0	0.0	0.0
277	5/17/2019 13:47:58	0.0	0.1	0.2	0.2
278	5/17/2019 13:48:58	0.1	0.2	0.4	0.4
279	5/17/2019 13:49:58	0.2	0.3	0.4	0.2
280	5/17/2019 13:50:58	0.2	0.3	0.4	0.4
281	5/17/2019 13:51:58	0.2	0.4	0.7	0.2
282	5/17/2019 13:52:58	0.1	0.2	0.3	0.1
283	5/17/2019 13:53:58	0.0	0.1	0.1	0.1
284	5/17/2019 13:54:58	0.1	0.1	0.1	0.1

285	5/17/2019	13:55:58	0.1	0.1	0.2	0.1
286	5/17/2019	13:56:58	0.1	0.2	0.3	0.3
287	5/17/2019	13:57:58	0.1	0.1	0.4	0.2
288	5/17/2019	13:58:58	0.2	0.3	0.5	0.5
289	5/17/2019	13:59:58	0.2	0.4	0.6	0.4
290	5/17/2019	14:00:58	0.3	0.4	0.5	0.4
291	5/17/2019	14:01:58	0.3	0.3	0.4	0.3
292	5/17/2019	14:02:58	0.1	0.2	0.5	0.2
293	5/17/2019	14:03:58	0.1	0.3	0.3	0.1
294	5/17/2019	14:04:58	0.1	0.2	0.3	0.1
295	5/17/2019	14:05:58	0.0	0.1	0.1	0.1
296	5/17/2019	14:06:58	0.1	0.2	0.5	0.2
297	5/17/2019	14:07:58	0.1	0.2	0.2	0.2
298	5/17/2019	14:08:58	0.1	0.2	0.2	0.2
299	5/17/2019	14:09:58	0.2	0.3	0.5	0.4
300	5/17/2019	14:10:58	0.1	0.3	0.4	0.2
301	5/17/2019	14:11:58	0.1	0.3	0.4	0.3
302	5/17/2019	14:12:58	0.2	0.3	0.4	0.2
303	5/17/2019	14:13:58	0.1	0.2	0.2	0.2
304	5/17/2019	14:14:58	0.2	0.3	0.4	0.3
305	5/17/2019	14:15:58	0.1	0.1	0.3	0.3
306	5/17/2019	14:16:58	0.1	0.3	0.4	0.2
307	5/17/2019	14:17:58	0.2	0.2	0.3	0.3
308	5/17/2019	14:18:58	0.1	0.3	0.4	0.1
309	5/17/2019	14:19:58	0.1	0.1	0.2	0.2
310	5/17/2019	14:20:58	0.2	0.3	0.5	0.3
311	5/17/2019	14:21:58	0.1	0.2	0.3	0.2
312	5/17/2019	14:22:58	0.0	0.1	0.2	0.0
313	5/17/2019	14:23:58	0.0	0.1	0.3	0.2
314	5/17/2019	14:24:58	0.0	0.1	0.2	0.1
315	5/17/2019	14:25:58	0.0	0.1	0.1	0.1

316	5/17/2019 14:26:58	0.1	0.2	0.3	0.2
317	5/17/2019 14:27:58	0.0	0.1	0.2	0.2
318	5/17/2019 14:28:58	0.2	0.2	0.3	0.3
319	5/17/2019 14:29:58	0.1	0.2	0.3	0.3
320	5/17/2019 14:30:58	0.1	0.1	0.3	0.1
321	5/17/2019 14:31:58	0.1	0.2	0.2	0.2
322	5/17/2019 14:32:58	0.1	0.2	0.3	0.2
323	5/17/2019 14:33:58	0.1	0.2	0.3	0.2
324	5/17/2019 14:34:58	0.2	0.2	0.3	0.2
325	5/17/2019 14:35:58	0.0	0.1	0.2	0.1
326	5/17/2019 14:36:58	0.0	0.1	0.2	0.1
327	5/17/2019 14:37:58	0.1	0.2	0.2	0.2
328	5/17/2019 14:38:58	0.2	0.2	0.3	0.2
329	5/17/2019 14:39:58	0.2	0.2	0.2	0.2
330	5/17/2019 14:40:58	0.1	0.2	0.2	0.1
331	5/17/2019 14:41:58	0.1	0.1	0.2	0.1
332	5/17/2019 14:42:58	0.1	0.1	0.2	0.2
333	5/17/2019 14:43:58	0.2	0.2	0.2	0.2
334	5/17/2019 14:44:58	0.2	0.2	0.2	0.2
335	5/17/2019 14:45:58	0.2	0.2	0.2	0.2
336	5/17/2019 14:46:58	0.1	0.2	0.2	0.1
337	5/17/2019 14:47:58	0.1	0.1	0.1	0.1
338	5/17/2019 14:48:58	0.0	0.1	0.1	0.1
339	5/17/2019 14:49:58	0.1	0.1	0.2	0.1
340	5/17/2019 14:50:58	0.1	0.1	0.1	0.1
341	5/17/2019 14:51:58	0.0	0.1	0.1	0.1
342	5/17/2019 14:52:58	0.0	0.0	0.1	0.1
343	5/17/2019 14:53:58	0.0	0.1	0.1	0.0
344	5/17/2019 14:54:58	0.0	0.0	0.0	0.0
345	5/17/2019 14:55:58	0.0	0.0	0.1	0.0
346	5/17/2019 14:56:58	0.0	0.0	0.0	0.0

347	5/17/2019 14:57:58	0.0	0.1	0.1	0.1
348	5/17/2019 14:58:58	0.1	0.1	0.1	0.1
349	5/17/2019 14:59:58	0.0	0.1	0.1	0.1
350	5/17/2019 15:00:58	0.0	0.1	0.1	0.1
351	5/17/2019 15:01:58	0.0	0.0	0.1	0.0
352	5/17/2019 15:02:58	0.0	0.0	0.0	0.0
353	5/17/2019 15:03:58	0.0	0.0	0.1	0.1
354	5/17/2019 15:04:58	0.0	0.1	0.1	0.1
355	5/17/2019 15:05:58	0.0	0.1	0.1	0.1
356	5/17/2019 15:06:58	0.0	0.1	0.1	0.1
357	5/17/2019 15:07:58	0.1	0.1	0.1	0.1
358	5/17/2019 15:08:58	0.1	0.1	0.1	0.1
359	5/17/2019 15:09:58	0.0	0.1	0.1	0.1
360	5/17/2019 15:10:58	0.0	0.1	0.1	0.0
361	5/17/2019 15:11:58	0.0	0.0	0.1	0.0
362	5/17/2019 15:12:58	0.1	0.1	0.1	0.1
363	5/17/2019 15:13:58	0.1	0.1	0.1	0.1
364	5/17/2019 15:14:58	0.0	0.1	0.1	0.1
365	5/17/2019 15:15:58	0.0	0.1	0.1	0.1
366	5/17/2019 15:16:58	0.1	0.1	0.1	0.1
367	5/17/2019 15:17:58	0.0	0.1	0.1	0.1
368	5/17/2019 15:18:58	0.0	0.1	0.1	0.0
369	5/17/2019 15:19:58	0.0	0.0	0.1	0.1
370	5/17/2019 15:20:58	0.0	0.1	0.1	0.0
371	5/17/2019 15:21:58	0.0	0.0	0.1	0.0
372	5/17/2019 15:22:58	0.0	0.0	0.0	0.0
373	5/17/2019 15:23:58	0.0	0.0	0.0	0.0
374	5/17/2019 15:24:58	0.0	0.0	0.0	0.0
375	5/17/2019 15:25:58	0.0	0.0	0.0	0.0
376	5/17/2019 15:26:58	0.0	0.0	0.0	0.0
377	5/17/2019 15:27:58	0.0	0.0	0.0	0.0

378	5/17/2019	15:28:58	0.0	0.0	0.0	0.0
379	5/17/2019	15:29:58	0.0	0.0	0.0	0.0
380	5/17/2019	15:30:58	0.0	0.0	0.0	0.0
381	5/17/2019	15:31:58	0.0	0.0	0.0	0.0
382	5/17/2019	15:32:58	0.0	0.3	0.4	0.4
383	5/17/2019	15:33:58	0.3	0.4	0.5	0.4
384	5/17/2019	15:34:58	0.1	0.2	0.4	0.1
Peak			0.3	0.4	0.7	0.5
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.1	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)
001	5/17/2019	09:11:58	0.0	---
002	5/17/2019	09:12:58	0.0	---
003	5/17/2019	09:13:58	0.0	---
004	5/17/2019	09:14:58	0.0	---
005	5/17/2019	09:15:58	0.0	---
006	5/17/2019	09:16:58	0.0	---
007	5/17/2019	09:17:58	0.0	---
008	5/17/2019	09:18:58	0.0	---
009	5/17/2019	09:19:58	0.0	---
010	5/17/2019	09:20:58	0.0	---
011	5/17/2019	09:21:58	0.0	---
012	5/17/2019	09:22:58	0.0	---
013	5/17/2019	09:23:58	0.0	---
014	5/17/2019	09:24:58	0.0	---
015	5/17/2019	09:25:58	0.0	0.0
016	5/17/2019	09:26:58	0.0	0.0

017	5/17/2019 09:27:58	0.0	0.0
018	5/17/2019 09:28:58	0.0	0.0
019	5/17/2019 09:29:58	0.0	0.0
020	5/17/2019 09:30:58	0.0	0.0
021	5/17/2019 09:31:58	0.0	0.0
022	5/17/2019 09:32:58	0.0	0.0
023	5/17/2019 09:33:58	0.0	0.0
024	5/17/2019 09:34:58	0.0	0.0
025	5/17/2019 09:35:58	0.0	0.0
026	5/17/2019 09:36:58	0.0	0.0
027	5/17/2019 09:37:58	0.0	0.0
028	5/17/2019 09:38:58	0.0	0.0
029	5/17/2019 09:39:58	0.0	0.0
030	5/17/2019 09:40:58	0.0	0.0
031	5/17/2019 09:41:58	0.0	0.0
032	5/17/2019 09:42:58	0.0	0.0
033	5/17/2019 09:43:58	0.0	0.0
034	5/17/2019 09:44:58	0.0	0.0
035	5/17/2019 09:45:58	0.0	0.0
036	5/17/2019 09:46:58	0.0	0.0
037	5/17/2019 09:47:58	0.0	0.0
038	5/17/2019 09:48:58	0.0	0.0
039	5/17/2019 09:49:58	0.0	0.0
040	5/17/2019 09:50:58	0.0	0.0
041	5/17/2019 09:51:58	0.0	0.0
042	5/17/2019 09:52:58	0.0	0.0
043	5/17/2019 09:53:58	0.0	0.0
044	5/17/2019 09:54:58	0.0	0.0
045	5/17/2019 09:55:58	0.0	0.0
046	5/17/2019 09:56:58	0.0	0.0
047	5/17/2019 09:57:58	0.0	0.0

048	5/17/2019 09:58:58	0.0	0.0
049	5/17/2019 09:59:58	0.0	0.0
050	5/17/2019 10:00:58	0.0	0.0
051	5/17/2019 10:01:58	0.0	0.0
052	5/17/2019 10:02:58	0.0	0.0
053	5/17/2019 10:03:58	0.0	0.0
054	5/17/2019 10:04:58	0.0	0.0
055	5/17/2019 10:05:58	0.0	0.0
056	5/17/2019 10:06:58	0.0	0.0
057	5/17/2019 10:07:58	0.0	0.0
058	5/17/2019 10:08:58	0.0	0.0
059	5/17/2019 10:09:58	0.0	0.0
060	5/17/2019 10:10:58	0.0	0.0
061	5/17/2019 10:11:58	0.0	0.0
062	5/17/2019 10:12:58	0.0	0.0
063	5/17/2019 10:13:58	0.0	0.0
064	5/17/2019 10:14:58	0.0	0.0
065	5/17/2019 10:15:58	0.0	0.0
066	5/17/2019 10:16:58	0.0	0.0
067	5/17/2019 10:17:58	0.0	0.0
068	5/17/2019 10:18:58	0.0	0.0
069	5/17/2019 10:19:58	0.0	0.0
070	5/17/2019 10:20:58	0.0	0.0
071	5/17/2019 10:21:58	0.0	0.0
072	5/17/2019 10:22:58	0.0	0.0
073	5/17/2019 10:23:58	0.0	0.0
074	5/17/2019 10:24:58	0.0	0.0
075	5/17/2019 10:25:58	0.0	0.0
076	5/17/2019 10:26:58	0.0	0.0
077	5/17/2019 10:27:58	0.0	0.0
078	5/17/2019 10:28:58	0.0	0.0

079	5/17/2019 10:29:58	0.0	0.0
080	5/17/2019 10:30:58	0.0	0.0
081	5/17/2019 10:31:58	0.0	0.0
082	5/17/2019 10:32:58	0.0	0.0
083	5/17/2019 10:33:58	0.0	0.0
084	5/17/2019 10:34:58	0.0	0.0
085	5/17/2019 10:35:58	0.0	0.0
086	5/17/2019 10:36:58	0.0	0.0
087	5/17/2019 10:37:58	0.0	0.0
088	5/17/2019 10:38:58	0.0	0.0
089	5/17/2019 10:39:58	0.0	0.0
090	5/17/2019 10:40:58	0.0	0.0
091	5/17/2019 10:41:58	0.0	0.0
092	5/17/2019 10:42:58	0.0	0.0
093	5/17/2019 10:43:58	0.0	0.0
094	5/17/2019 10:44:58	0.0	0.0
095	5/17/2019 10:45:58	0.0	0.0
096	5/17/2019 10:46:58	0.0	0.0
097	5/17/2019 10:47:58	0.0	0.0
098	5/17/2019 10:48:58	0.0	0.0
099	5/17/2019 10:49:58	0.0	0.0
100	5/17/2019 10:50:58	0.0	0.0
101	5/17/2019 10:51:58	0.0	0.0
102	5/17/2019 10:52:58	0.0	0.0
103	5/17/2019 10:53:58	0.0	0.0
104	5/17/2019 10:54:58	0.0	0.0
105	5/17/2019 10:55:58	0.0	0.0
106	5/17/2019 10:56:58	0.0	0.0
107	5/17/2019 10:57:58	0.0	0.0
108	5/17/2019 10:58:58	0.0	0.0
109	5/17/2019 10:59:58	0.0	0.0

110	5/17/2019	11:00:58	0.0	0.0
111	5/17/2019	11:01:58	0.0	0.0
112	5/17/2019	11:02:58	0.0	0.0
113	5/17/2019	11:03:58	0.0	0.0
114	5/17/2019	11:04:58	0.0	0.0
115	5/17/2019	11:05:58	0.0	0.0
116	5/17/2019	11:06:58	0.0	0.0
117	5/17/2019	11:07:58	0.0	0.0
118	5/17/2019	11:08:58	0.0	0.0
119	5/17/2019	11:09:58	0.0	0.0
120	5/17/2019	11:10:58	0.0	0.0
121	5/17/2019	11:11:58	0.0	0.0
122	5/17/2019	11:12:58	0.0	0.0
123	5/17/2019	11:13:58	0.0	0.0
124	5/17/2019	11:14:58	0.0	0.0
125	5/17/2019	11:15:58	0.0	0.0
126	5/17/2019	11:16:58	0.0	0.0
127	5/17/2019	11:17:58	0.0	0.0
128	5/17/2019	11:18:58	0.0	0.0
129	5/17/2019	11:19:58	0.0	0.0
130	5/17/2019	11:20:58	0.0	0.0
131	5/17/2019	11:21:58	0.0	0.0
132	5/17/2019	11:22:58	0.0	0.0
133	5/17/2019	11:23:58	0.0	0.0
134	5/17/2019	11:24:58	0.0	0.0
135	5/17/2019	11:25:58	0.0	0.0
136	5/17/2019	11:26:58	0.0	0.0
137	5/17/2019	11:27:58	0.0	0.0
138	5/17/2019	11:28:58	0.0	0.0
139	5/17/2019	11:29:58	0.0	0.0
140	5/17/2019	11:30:58	0.0	0.0

141	5/17/2019	11:31:58	0.0	0.0
142	5/17/2019	11:32:58	0.0	0.0
143	5/17/2019	11:33:58	0.0	0.0
144	5/17/2019	11:34:58	0.0	0.0
145	5/17/2019	11:35:58	0.0	0.0
146	5/17/2019	11:36:58	0.0	0.0
147	5/17/2019	11:37:58	0.0	0.0
148	5/17/2019	11:38:58	0.0	0.0
149	5/17/2019	11:39:58	0.0	0.0
150	5/17/2019	11:40:58	0.0	0.0
151	5/17/2019	11:41:58	0.0	0.0
152	5/17/2019	11:42:58	0.0	0.0
153	5/17/2019	11:43:58	0.0	0.0
154	5/17/2019	11:44:58	0.0	0.0
155	5/17/2019	11:45:58	0.0	0.0
156	5/17/2019	11:46:58	0.0	0.0
157	5/17/2019	11:47:58	0.0	0.0
158	5/17/2019	11:48:58	0.0	0.0
159	5/17/2019	11:49:58	0.0	0.0
160	5/17/2019	11:50:58	0.0	0.0
161	5/17/2019	11:51:58	0.0	0.0
162	5/17/2019	11:52:58	0.0	0.0
163	5/17/2019	11:53:58	0.0	0.0
164	5/17/2019	11:54:58	0.0	0.0
165	5/17/2019	11:55:58	0.0	0.0
166	5/17/2019	11:56:58	0.0	0.0
167	5/17/2019	11:57:58	0.0	0.0
168	5/17/2019	11:58:58	0.0	0.0
169	5/17/2019	11:59:58	0.0	0.0
170	5/17/2019	12:00:58	0.0	0.0
171	5/17/2019	12:01:58	0.0	0.0

172	5/17/2019 12:02:58	0.0	0.0
173	5/17/2019 12:03:58	0.0	0.0
174	5/17/2019 12:04:58	0.0	0.0
175	5/17/2019 12:05:58	0.0	0.0
176	5/17/2019 12:06:58	0.0	0.0
177	5/17/2019 12:07:58	0.0	0.0
178	5/17/2019 12:08:58	0.0	0.0
179	5/17/2019 12:09:58	0.0	0.0
180	5/17/2019 12:10:58	0.0	0.0
181	5/17/2019 12:11:58	0.0	0.0
182	5/17/2019 12:12:58	0.0	0.0
183	5/17/2019 12:13:58	0.0	0.0
184	5/17/2019 12:14:58	0.0	0.0
185	5/17/2019 12:15:58	0.0	0.0
186	5/17/2019 12:16:58	0.0	0.0
187	5/17/2019 12:17:58	0.0	0.0
188	5/17/2019 12:18:58	0.0	0.0
189	5/17/2019 12:19:58	0.0	0.0
190	5/17/2019 12:20:58	0.0	0.0
191	5/17/2019 12:21:58	0.0	0.0
192	5/17/2019 12:22:58	0.0	0.0
193	5/17/2019 12:23:58	0.0	0.0
194	5/17/2019 12:24:58	0.0	0.0
195	5/17/2019 12:25:58	0.0	0.0
196	5/17/2019 12:26:58	0.0	0.0
197	5/17/2019 12:27:58	0.0	0.0
198	5/17/2019 12:28:58	0.0	0.0
199	5/17/2019 12:29:58	0.0	0.0
200	5/17/2019 12:30:58	0.0	0.0
201	5/17/2019 12:31:58	0.0	0.0
202	5/17/2019 12:32:58	0.0	0.0

203	5/17/2019 12:33:58	0.0	0.0
204	5/17/2019 12:34:58	0.0	0.0
205	5/17/2019 12:35:58	0.0	0.0
206	5/17/2019 12:36:58	0.0	0.0
207	5/17/2019 12:37:58	0.0	0.0
208	5/17/2019 12:38:58	0.0	0.0
209	5/17/2019 12:39:58	0.0	0.0
210	5/17/2019 12:40:58	0.0	0.0
211	5/17/2019 12:41:58	0.0	0.0
212	5/17/2019 12:42:58	0.0	0.0
213	5/17/2019 12:43:58	0.0	0.0
214	5/17/2019 12:44:58	0.0	0.0
215	5/17/2019 12:45:58	0.0	0.0
216	5/17/2019 12:46:58	0.0	0.0
217	5/17/2019 12:47:58	0.0	0.0
218	5/17/2019 12:48:58	0.0	0.0
219	5/17/2019 12:49:58	0.0	0.0
220	5/17/2019 12:50:58	0.0	0.0
221	5/17/2019 12:51:58	0.0	0.0
222	5/17/2019 12:52:58	0.0	0.0
223	5/17/2019 12:53:58	0.0	0.0
224	5/17/2019 12:54:58	0.0	0.0
225	5/17/2019 12:55:58	0.0	0.0
226	5/17/2019 12:56:58	0.0	0.0
227	5/17/2019 12:57:58	0.0	0.0
228	5/17/2019 12:58:58	0.0	0.0
229	5/17/2019 12:59:58	0.0	0.0
230	5/17/2019 13:00:58	0.0	0.0
231	5/17/2019 13:01:58	0.0	0.0
232	5/17/2019 13:02:58	0.0	0.0
233	5/17/2019 13:03:58	0.0	0.0

234	5/17/2019 13:04:58	0.0	0.0
235	5/17/2019 13:05:58	0.0	0.0
236	5/17/2019 13:06:58	0.0	0.0
237	5/17/2019 13:07:58	0.0	0.0
238	5/17/2019 13:08:58	0.0	0.0
239	5/17/2019 13:09:58	0.0	0.0
240	5/17/2019 13:10:58	0.0	0.0
241	5/17/2019 13:11:58	0.0	0.0
242	5/17/2019 13:12:58	0.0	0.0
243	5/17/2019 13:13:58	0.0	0.0
244	5/17/2019 13:14:58	0.0	0.0
245	5/17/2019 13:15:58	0.0	0.0
246	5/17/2019 13:16:58	0.0	0.0
247	5/17/2019 13:17:58	0.0	0.0
248	5/17/2019 13:18:58	0.0	0.0
249	5/17/2019 13:19:58	0.0	0.0
250	5/17/2019 13:20:58	0.0	0.0
251	5/17/2019 13:21:58	0.0	0.0
252	5/17/2019 13:22:58	0.0	0.0
253	5/17/2019 13:23:58	0.0	0.0
254	5/17/2019 13:24:58	0.0	0.0
255	5/17/2019 13:25:58	0.0	0.0
256	5/17/2019 13:26:58	0.0	0.0
257	5/17/2019 13:27:58	0.0	0.0
258	5/17/2019 13:28:58	0.0	0.0
259	5/17/2019 13:29:58	0.0	0.0
260	5/17/2019 13:30:58	0.0	0.0
261	5/17/2019 13:31:58	0.0	0.0
262	5/17/2019 13:32:58	0.0	0.0
263	5/17/2019 13:33:58	0.0	0.0
264	5/17/2019 13:34:58	0.0	0.0

265	5/17/2019 13:35:58	0.0	0.0
266	5/17/2019 13:36:58	0.0	0.0
267	5/17/2019 13:37:58	0.0	0.0
268	5/17/2019 13:38:58	0.0	0.1
269	5/17/2019 13:39:58	0.0	0.1
270	5/17/2019 13:40:58	0.0	0.1
271	5/17/2019 13:41:58	0.0	0.1
272	5/17/2019 13:42:58	0.0	0.1
273	5/17/2019 13:43:58	0.0	0.1
274	5/17/2019 13:44:58	0.0	0.1
275	5/17/2019 13:45:58	0.0	0.1
276	5/17/2019 13:46:58	0.0	0.1
277	5/17/2019 13:47:58	0.0	0.1
278	5/17/2019 13:48:58	0.0	0.1
279	5/17/2019 13:49:58	0.0	0.1
280	5/17/2019 13:50:58	0.0	0.1
281	5/17/2019 13:51:58	0.0	0.1
282	5/17/2019 13:52:58	0.0	0.1
283	5/17/2019 13:53:58	0.0	0.1
284	5/17/2019 13:54:58	0.0	0.1
285	5/17/2019 13:55:58	0.0	0.1
286	5/17/2019 13:56:58	0.0	0.2
287	5/17/2019 13:57:58	0.0	0.2
288	5/17/2019 13:58:58	0.0	0.2
289	5/17/2019 13:59:58	0.0	0.2
290	5/17/2019 14:00:58	0.0	0.2
291	5/17/2019 14:01:58	0.0	0.3
292	5/17/2019 14:02:58	0.0	0.3
293	5/17/2019 14:03:58	0.0	0.3
294	5/17/2019 14:04:58	0.0	0.2
295	5/17/2019 14:05:58	0.0	0.2

296	5/17/2019 14:06:58	0.0	0.2
297	5/17/2019 14:07:58	0.0	0.2
298	5/17/2019 14:08:58	0.0	0.2
299	5/17/2019 14:09:58	0.0	0.3
300	5/17/2019 14:10:58	0.0	0.3
301	5/17/2019 14:11:58	0.0	0.3
302	5/17/2019 14:12:58	0.0	0.3
303	5/17/2019 14:13:58	0.0	0.3
304	5/17/2019 14:14:58	0.0	0.3
305	5/17/2019 14:15:58	0.0	0.2
306	5/17/2019 14:16:58	0.0	0.2
307	5/17/2019 14:17:58	0.0	0.2
308	5/17/2019 14:18:58	0.0	0.2
309	5/17/2019 14:19:58	0.0	0.2
310	5/17/2019 14:20:58	0.0	0.2
311	5/17/2019 14:21:58	0.0	0.3
312	5/17/2019 14:22:58	0.0	0.2
313	5/17/2019 14:23:58	0.0	0.2
314	5/17/2019 14:24:58	0.0	0.2
315	5/17/2019 14:25:58	0.0	0.2
316	5/17/2019 14:26:58	0.0	0.2
317	5/17/2019 14:27:58	0.0	0.2
318	5/17/2019 14:28:58	0.0	0.2
319	5/17/2019 14:29:58	0.0	0.2
320	5/17/2019 14:30:58	0.0	0.2
321	5/17/2019 14:31:58	0.0	0.2
322	5/17/2019 14:32:58	0.0	0.2
323	5/17/2019 14:33:58	0.0	0.2
324	5/17/2019 14:34:58	0.0	0.2
325	5/17/2019 14:35:58	0.0	0.2
326	5/17/2019 14:36:58	0.0	0.2

327	5/17/2019 14:37:58	0.0	0.2
328	5/17/2019 14:38:58	0.0	0.2
329	5/17/2019 14:39:58	0.0	0.2
330	5/17/2019 14:40:58	0.0	0.2
331	5/17/2019 14:41:58	0.0	0.2
332	5/17/2019 14:42:58	0.0	0.2
333	5/17/2019 14:43:58	0.0	0.2
334	5/17/2019 14:44:58	0.0	0.2
335	5/17/2019 14:45:58	0.0	0.2
336	5/17/2019 14:46:58	0.0	0.2
337	5/17/2019 14:47:58	0.0	0.2
338	5/17/2019 14:48:58	0.0	0.2
339	5/17/2019 14:49:58	0.0	0.2
340	5/17/2019 14:50:58	0.0	0.2
341	5/17/2019 14:51:58	0.0	0.2
342	5/17/2019 14:52:58	0.0	0.2
343	5/17/2019 14:53:58	0.0	0.1
344	5/17/2019 14:54:58	0.0	0.1
345	5/17/2019 14:55:58	0.0	0.1
346	5/17/2019 14:56:58	0.0	0.1
347	5/17/2019 14:57:58	0.0	0.1
348	5/17/2019 14:58:58	0.0	0.1
349	5/17/2019 14:59:58	0.0	0.1
350	5/17/2019 15:00:58	0.0	0.1
351	5/17/2019 15:01:58	0.0	0.1
352	5/17/2019 15:02:58	0.0	0.1
353	5/17/2019 15:03:58	0.0	0.1
354	5/17/2019 15:04:58	0.0	0.1
355	5/17/2019 15:05:58	0.0	0.1
356	5/17/2019 15:06:58	0.0	0.1
357	5/17/2019 15:07:58	0.0	0.1

358	5/17/2019 15:08:58	0.0	0.1
359	5/17/2019 15:09:58	0.0	0.1
360	5/17/2019 15:10:58	0.0	0.1
361	5/17/2019 15:11:58	0.0	0.1
362	5/17/2019 15:12:58	0.0	0.1
363	5/17/2019 15:13:58	0.0	0.1
364	5/17/2019 15:14:58	0.0	0.1
365	5/17/2019 15:15:58	0.0	0.1
366	5/17/2019 15:16:58	0.0	0.1
367	5/17/2019 15:17:58	0.0	0.1
368	5/17/2019 15:18:58	0.0	0.1
369	5/17/2019 15:19:58	0.0	0.1
370	5/17/2019 15:20:58	0.0	0.1
371	5/17/2019 15:21:58	0.0	0.1
372	5/17/2019 15:22:58	0.0	0.1
373	5/17/2019 15:23:58	0.0	0.1
374	5/17/2019 15:24:58	0.0	0.1
375	5/17/2019 15:25:58	0.0	0.0
376	5/17/2019 15:26:58	0.0	0.0
377	5/17/2019 15:27:58	0.0	0.0
378	5/17/2019 15:28:58	0.0	0.0
379	5/17/2019 15:29:58	0.0	0.0
380	5/17/2019 15:30:58	0.0	0.0
381	5/17/2019 15:31:58	0.0	0.0
382	5/17/2019 15:32:58	0.0	0.0
383	5/17/2019 15:33:58	0.0	0.1
384	5/17/2019 15:34:58	0.0	0.1

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19/05/20 08:18

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/20/2019 08:18:00
End	5/20/2019 14:35:38
Sample Period(s)	60
Number of Records	377

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00

Peak 0.0
Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/20/2019	08:19:00	0.0	0.0	0.0	0.0
002	5/20/2019	08:20:00	0.0	0.0	0.0	0.0
003	5/20/2019	08:21:00	0.0	0.1	0.1	0.0
004	5/20/2019	08:22:00	0.0	0.0	0.0	0.0
005	5/20/2019	08:23:00	0.0	0.0	0.0	0.0
006	5/20/2019	08:24:00	0.0	0.0	0.0	0.0
007	5/20/2019	08:25:00	0.0	0.0	0.0	0.0
008	5/20/2019	08:26:00	0.0	0.0	0.0	0.0
009	5/20/2019	08:27:00	0.0	0.0	0.0	0.0
010	5/20/2019	08:28:00	0.0	0.0	0.0	0.0
011	5/20/2019	08:29:00	0.0	0.0	0.0	0.0
012	5/20/2019	08:30:00	0.0	0.0	0.0	0.0
013	5/20/2019	08:31:00	0.0	0.0	0.0	0.0
014	5/20/2019	08:32:00	0.0	0.0	0.0	0.0
015	5/20/2019	08:33:00	0.0	0.0	0.0	0.0
016	5/20/2019	08:34:00	0.0	0.0	0.0	0.0
017	5/20/2019	08:35:00	0.0	0.0	0.0	0.0
018	5/20/2019	08:36:00	0.0	0.0	0.0	0.0
019	5/20/2019	08:37:00	0.0	0.0	0.0	0.0
020	5/20/2019	08:38:00	0.0	0.0	0.0	0.0
021	5/20/2019	08:39:00	0.0	0.0	0.0	0.0
022	5/20/2019	08:40:00	0.0	0.0	0.0	0.0
023	5/20/2019	08:41:00	0.0	0.0	0.0	0.0

024	5/20/2019	08:42:00	0.0	0.0	0.0	0.0
025	5/20/2019	08:43:00	0.0	0.0	0.0	0.0
026	5/20/2019	08:44:00	0.0	0.0	0.0	0.0
027	5/20/2019	08:45:00	0.0	0.0	0.0	0.0
028	5/20/2019	08:46:00	0.0	0.0	0.0	0.0
029	5/20/2019	08:47:00	0.0	0.0	0.0	0.0
030	5/20/2019	08:48:00	0.0	0.0	0.0	0.0
031	5/20/2019	08:49:00	0.0	0.0	0.0	0.0
032	5/20/2019	08:50:00	0.0	0.0	0.0	0.0
033	5/20/2019	08:51:00	0.0	0.0	0.0	0.0
034	5/20/2019	08:52:00	0.0	0.0	0.0	0.0
035	5/20/2019	08:53:00	0.0	0.0	0.0	0.0
036	5/20/2019	08:54:00	0.0	0.0	0.0	0.0
037	5/20/2019	08:55:00	0.0	0.0	0.0	0.0
038	5/20/2019	08:56:00	0.0	0.0	0.0	0.0
039	5/20/2019	08:57:00	0.0	0.0	0.0	0.0
040	5/20/2019	08:58:00	0.0	0.0	0.0	0.0
041	5/20/2019	08:59:00	0.0	0.0	0.0	0.0
042	5/20/2019	09:00:00	0.0	0.0	0.0	0.0
043	5/20/2019	09:01:00	0.0	0.0	0.0	0.0
044	5/20/2019	09:02:00	0.0	0.0	0.0	0.0
045	5/20/2019	09:03:00	0.0	0.0	0.0	0.0
046	5/20/2019	09:04:00	0.0	0.0	0.0	0.0
047	5/20/2019	09:05:00	0.0	0.0	0.0	0.0
048	5/20/2019	09:06:00	0.0	0.0	0.0	0.0
049	5/20/2019	09:07:00	0.0	0.0	0.0	0.0
050	5/20/2019	09:08:00	0.0	0.0	0.0	0.0
051	5/20/2019	09:09:00	0.0	0.0	0.0	0.0
052	5/20/2019	09:10:00	0.0	0.0	0.0	0.0
053	5/20/2019	09:11:00	0.0	0.0	0.0	0.0
054	5/20/2019	09:12:00	0.0	0.0	0.0	0.0

055	5/20/2019	09:13:00	0.0	0.0	0.0	0.0
056	5/20/2019	09:14:00	0.0	0.0	0.0	0.0
057	5/20/2019	09:15:00	0.0	0.0	0.0	0.0
058	5/20/2019	09:16:00	0.0	0.0	0.0	0.0
059	5/20/2019	09:17:00	0.0	0.0	0.0	0.0
060	5/20/2019	09:18:00	0.0	0.0	0.0	0.0
061	5/20/2019	09:19:00	0.0	0.0	0.0	0.0
062	5/20/2019	09:20:00	0.0	0.0	0.0	0.0
063	5/20/2019	09:21:00	0.0	0.0	0.0	0.0
064	5/20/2019	09:22:00	0.0	0.0	0.0	0.0
065	5/20/2019	09:23:00	0.0	0.0	0.0	0.0
066	5/20/2019	09:24:00	0.0	0.0	0.0	0.0
067	5/20/2019	09:25:00	0.0	0.0	0.0	0.0
068	5/20/2019	09:26:00	0.0	0.0	0.0	0.0
069	5/20/2019	09:27:00	0.0	0.0	0.0	0.0
070	5/20/2019	09:28:00	0.0	0.0	0.0	0.0
071	5/20/2019	09:29:00	0.0	0.0	0.0	0.0
072	5/20/2019	09:30:00	0.0	0.0	0.0	0.0
073	5/20/2019	09:31:00	0.0	0.0	0.0	0.0
074	5/20/2019	09:32:00	0.0	0.0	0.0	0.0
075	5/20/2019	09:33:00	0.0	0.0	0.0	0.0
076	5/20/2019	09:34:00	0.0	0.0	0.0	0.0
077	5/20/2019	09:35:00	0.0	0.0	0.0	0.0
078	5/20/2019	09:36:00	0.0	0.0	0.0	0.0
079	5/20/2019	09:37:00	0.0	0.0	0.0	0.0
080	5/20/2019	09:38:00	0.0	0.0	0.0	0.0
081	5/20/2019	09:39:00	0.0	0.0	0.0	0.0
082	5/20/2019	09:40:00	0.0	0.0	0.0	0.0
083	5/20/2019	09:41:00	0.0	0.0	0.0	0.0
084	5/20/2019	09:42:00	0.0	0.0	0.0	0.0
085	5/20/2019	09:43:00	0.0	0.0	0.0	0.0

086	5/20/2019 09:44:00	0.0	0.0	0.0	0.0
087	5/20/2019 09:45:00	0.0	0.0	0.0	0.0
088	5/20/2019 09:46:00	0.0	0.0	0.0	0.0
089	5/20/2019 09:47:00	0.0	0.0	0.0	0.0
090	5/20/2019 09:48:00	0.0	0.0	0.0	0.0
091	5/20/2019 09:49:00	0.0	0.0	0.0	0.0
092	5/20/2019 09:50:00	0.0	0.0	0.0	0.0
093	5/20/2019 09:51:00	0.0	0.0	0.0	0.0
094	5/20/2019 09:52:00	0.0	0.0	0.0	0.0
095	5/20/2019 09:53:00	0.0	0.0	0.0	0.0
096	5/20/2019 09:54:00	0.0	0.0	0.0	0.0
097	5/20/2019 09:55:00	0.0	0.0	0.0	0.0
098	5/20/2019 09:56:00	0.0	0.0	0.0	0.0
099	5/20/2019 09:57:00	0.0	0.0	0.0	0.0
100	5/20/2019 09:58:00	0.0	0.0	0.0	0.0
101	5/20/2019 09:59:00	0.0	0.0	0.0	0.0
102	5/20/2019 10:00:00	0.0	0.0	0.0	0.0
103	5/20/2019 10:01:00	0.0	0.0	0.0	0.0
104	5/20/2019 10:02:00	0.0	0.0	0.0	0.0
105	5/20/2019 10:03:00	0.0	0.0	0.0	0.0
106	5/20/2019 10:04:00	0.0	0.0	0.0	0.0
107	5/20/2019 10:05:00	0.0	0.0	0.0	0.0
108	5/20/2019 10:06:00	0.0	0.0	0.0	0.0
109	5/20/2019 10:07:00	0.0	0.0	0.0	0.0
110	5/20/2019 10:08:00	0.0	0.0	0.0	0.0
111	5/20/2019 10:09:00	0.0	0.0	0.0	0.0
112	5/20/2019 10:10:00	0.0	0.0	0.0	0.0
113	5/20/2019 10:11:00	0.0	0.0	0.0	0.0
114	5/20/2019 10:12:00	0.0	0.0	0.0	0.0
115	5/20/2019 10:13:00	0.0	0.0	0.0	0.0
116	5/20/2019 10:14:00	0.0	0.0	0.0	0.0

117	5/20/2019	10:15:00	0.0	0.0	0.0	0.0
118	5/20/2019	10:16:00	0.0	0.0	0.0	0.0
119	5/20/2019	10:17:00	0.0	0.0	0.0	0.0
120	5/20/2019	10:18:00	0.0	0.0	0.0	0.0
121	5/20/2019	10:19:00	0.0	0.0	0.0	0.0
122	5/20/2019	10:20:00	0.0	0.0	0.0	0.0
123	5/20/2019	10:21:00	0.0	0.0	0.0	0.0
124	5/20/2019	10:22:00	0.0	0.0	0.0	0.0
125	5/20/2019	10:23:00	0.0	0.0	0.0	0.0
126	5/20/2019	10:24:00	0.0	0.0	0.0	0.0
127	5/20/2019	10:25:00	0.0	0.0	0.0	0.0
128	5/20/2019	10:26:00	0.0	0.0	0.0	0.0
129	5/20/2019	10:27:00	0.0	0.0	0.0	0.0
130	5/20/2019	10:28:00	0.0	0.0	0.0	0.0
131	5/20/2019	10:29:00	0.0	0.0	0.0	0.0
132	5/20/2019	10:30:00	0.0	0.0	0.0	0.0
133	5/20/2019	10:31:00	0.0	0.0	0.0	0.0
134	5/20/2019	10:32:00	0.0	0.0	0.0	0.0
135	5/20/2019	10:33:00	0.0	0.0	0.0	0.0
136	5/20/2019	10:34:00	0.0	0.0	0.0	0.0
137	5/20/2019	10:35:00	0.0	0.0	0.0	0.0
138	5/20/2019	10:36:00	0.0	0.0	0.0	0.0
139	5/20/2019	10:37:00	0.0	0.0	0.0	0.0
140	5/20/2019	10:38:00	0.0	0.0	0.0	0.0
141	5/20/2019	10:39:00	0.0	0.0	0.0	0.0
142	5/20/2019	10:40:00	0.0	0.0	0.0	0.0
143	5/20/2019	10:41:00	0.0	0.0	0.0	0.0
144	5/20/2019	10:42:00	0.0	0.0	0.0	0.0
145	5/20/2019	10:43:00	0.0	0.0	0.0	0.0
146	5/20/2019	10:44:00	0.0	0.0	0.0	0.0
147	5/20/2019	10:45:00	0.0	0.0	0.0	0.0

148	5/20/2019	10:46:00	0.0	0.0	0.0	0.0
149	5/20/2019	10:47:00	0.0	0.0	0.0	0.0
150	5/20/2019	10:48:00	0.0	0.0	0.0	0.0
151	5/20/2019	10:49:00	0.0	0.0	0.0	0.0
152	5/20/2019	10:50:00	0.0	0.0	0.0	0.0
153	5/20/2019	10:51:00	0.0	0.0	0.0	0.0
154	5/20/2019	10:52:00	0.0	0.0	0.0	0.0
155	5/20/2019	10:53:00	0.0	0.0	0.0	0.0
156	5/20/2019	10:54:00	0.0	0.0	0.0	0.0
157	5/20/2019	10:55:00	0.0	0.0	0.0	0.0
158	5/20/2019	10:56:00	0.0	0.0	0.0	0.0
159	5/20/2019	10:57:00	0.0	0.0	0.0	0.0
160	5/20/2019	10:58:00	0.0	0.0	0.0	0.0
161	5/20/2019	10:59:00	0.0	0.0	0.0	0.0
162	5/20/2019	11:00:00	0.0	0.0	0.0	0.0
163	5/20/2019	11:01:00	0.0	0.0	0.0	0.0
164	5/20/2019	11:02:00	0.0	0.0	0.0	0.0
165	5/20/2019	11:03:00	0.0	0.0	0.0	0.0
166	5/20/2019	11:04:00	0.0	0.0	0.0	0.0
167	5/20/2019	11:05:00	0.0	0.0	0.0	0.0
168	5/20/2019	11:06:00	0.0	0.0	0.0	0.0
169	5/20/2019	11:07:00	0.0	0.0	0.0	0.0
170	5/20/2019	11:08:00	0.0	0.0	0.0	0.0
171	5/20/2019	11:09:00	0.0	0.0	0.0	0.0
172	5/20/2019	11:10:00	0.0	0.0	0.0	0.0
173	5/20/2019	11:11:00	0.0	0.0	0.0	0.0
174	5/20/2019	11:12:00	0.0	0.0	0.0	0.0
175	5/20/2019	11:13:00	0.0	0.0	0.0	0.0
176	5/20/2019	11:14:00	0.0	0.0	0.0	0.0
177	5/20/2019	11:15:00	0.0	0.0	0.0	0.0
178	5/20/2019	11:16:00	0.0	0.0	0.0	0.0

179	5/20/2019	11:17:00	0.0	0.0	0.0	0.0
180	5/20/2019	11:18:00	0.0	0.0	0.0	0.0
181	5/20/2019	11:19:00	0.0	0.0	0.0	0.0
182	5/20/2019	11:20:00	0.0	0.0	0.0	0.0
183	5/20/2019	11:21:00	0.0	0.0	0.0	0.0
184	5/20/2019	11:22:00	0.0	0.0	0.0	0.0
185	5/20/2019	11:23:00	0.0	0.0	0.0	0.0
186	5/20/2019	11:24:00	0.0	0.0	0.0	0.0
187	5/20/2019	11:25:00	0.0	0.0	0.0	0.0
188	5/20/2019	11:26:00	0.0	0.0	0.0	0.0
189	5/20/2019	11:27:00	0.0	0.0	0.0	0.0
190	5/20/2019	11:28:00	0.0	0.0	0.0	0.0
191	5/20/2019	11:29:00	0.0	0.0	0.0	0.0
192	5/20/2019	11:30:00	0.0	0.0	0.0	0.0
193	5/20/2019	11:31:00	0.0	0.0	0.0	0.0
194	5/20/2019	11:32:00	0.0	0.0	0.0	0.0
195	5/20/2019	11:33:00	0.0	0.0	0.0	0.0
196	5/20/2019	11:34:00	0.0	0.0	0.0	0.0
197	5/20/2019	11:35:00	0.0	0.0	0.0	0.0
198	5/20/2019	11:36:00	0.0	0.0	0.0	0.0
199	5/20/2019	11:37:00	0.0	0.0	0.0	0.0
200	5/20/2019	11:38:00	0.0	0.0	0.0	0.0
201	5/20/2019	11:39:00	0.0	0.0	0.0	0.0
202	5/20/2019	11:40:00	0.0	0.0	0.0	0.0
203	5/20/2019	11:41:00	0.0	0.0	0.0	0.0
204	5/20/2019	11:42:00	0.0	0.0	0.0	0.0
205	5/20/2019	11:43:00	0.0	0.0	0.0	0.0
206	5/20/2019	11:44:00	0.0	0.0	0.0	0.0
207	5/20/2019	11:45:00	0.0	0.0	0.0	0.0
208	5/20/2019	11:46:00	0.0	0.0	0.0	0.0
209	5/20/2019	11:47:00	0.0	0.0	0.0	0.0

210	5/20/2019 11:48:00	0.0	0.0	0.0	0.0
211	5/20/2019 11:49:00	0.0	0.0	0.0	0.0
212	5/20/2019 11:50:00	0.0	0.0	0.0	0.0
213	5/20/2019 11:51:00	0.0	0.0	0.0	0.0
214	5/20/2019 11:52:00	0.0	0.0	0.0	0.0
215	5/20/2019 11:53:00	0.0	0.0	0.0	0.0
216	5/20/2019 11:54:00	0.0	0.0	0.0	0.0
217	5/20/2019 11:55:00	0.0	0.0	0.0	0.0
218	5/20/2019 11:56:00	0.0	0.0	0.0	0.0
219	5/20/2019 11:57:00	0.0	0.0	0.0	0.0
220	5/20/2019 11:58:00	0.0	0.0	0.0	0.0
221	5/20/2019 11:59:00	0.0	0.0	0.0	0.0
222	5/20/2019 12:00:00	0.0	0.0	0.0	0.0
223	5/20/2019 12:01:00	0.0	0.0	0.0	0.0
224	5/20/2019 12:02:00	0.0	0.0	0.0	0.0
225	5/20/2019 12:03:00	0.0	0.0	0.0	0.0
226	5/20/2019 12:04:00	0.0	0.0	0.0	0.0
227	5/20/2019 12:05:00	0.0	0.0	0.0	0.0
228	5/20/2019 12:06:00	0.0	0.0	0.0	0.0
229	5/20/2019 12:07:00	0.0	0.0	0.0	0.0
230	5/20/2019 12:08:00	0.0	0.0	0.0	0.0
231	5/20/2019 12:09:00	0.0	0.0	0.0	0.0
232	5/20/2019 12:10:00	0.0	0.0	0.0	0.0
233	5/20/2019 12:11:00	0.0	0.0	0.0	0.0
234	5/20/2019 12:12:00	0.0	0.0	0.0	0.0
235	5/20/2019 12:13:00	0.0	0.0	0.0	0.0
236	5/20/2019 12:14:00	0.0	0.0	0.0	0.0
237	5/20/2019 12:15:00	0.0	0.0	0.0	0.0
238	5/20/2019 12:16:00	0.0	0.0	0.0	0.0
239	5/20/2019 12:17:00	0.0	0.0	0.0	0.0
240	5/20/2019 12:18:00	0.0	0.0	0.0	0.0

241	5/20/2019 12:19:00	0.0	0.0	0.0	0.0
242	5/20/2019 12:20:00	0.0	0.0	0.0	0.0
243	5/20/2019 12:21:00	0.0	0.0	0.0	0.0
244	5/20/2019 12:22:00	0.0	0.0	0.0	0.0
245	5/20/2019 12:23:00	0.0	0.0	0.0	0.0
246	5/20/2019 12:24:00	0.0	0.0	0.0	0.0
247	5/20/2019 12:25:00	0.0	0.0	0.0	0.0
248	5/20/2019 12:26:00	0.0	0.0	0.0	0.0
249	5/20/2019 12:27:00	0.0	0.0	0.0	0.0
250	5/20/2019 12:28:00	0.0	0.0	0.0	0.0
251	5/20/2019 12:29:00	0.0	0.0	0.0	0.0
252	5/20/2019 12:30:00	0.0	0.0	0.0	0.0
253	5/20/2019 12:31:00	0.0	0.0	0.0	0.0
254	5/20/2019 12:32:00	0.0	0.0	0.0	0.0
255	5/20/2019 12:33:00	0.0	0.0	0.0	0.0
256	5/20/2019 12:34:00	0.0	0.0	0.0	0.0
257	5/20/2019 12:35:00	0.0	0.0	0.0	0.0
258	5/20/2019 12:36:00	0.0	0.0	0.0	0.0
259	5/20/2019 12:37:00	0.0	0.0	0.0	0.0
260	5/20/2019 12:38:00	0.0	0.0	0.0	0.0
261	5/20/2019 12:39:00	0.0	0.0	0.0	0.0
262	5/20/2019 12:40:00	0.0	0.0	0.0	0.0
263	5/20/2019 12:41:00	0.0	0.0	0.0	0.0
264	5/20/2019 12:42:00	0.0	0.0	0.0	0.0
265	5/20/2019 12:43:00	0.0	0.0	0.0	0.0
266	5/20/2019 12:44:00	0.0	0.0	0.0	0.0
267	5/20/2019 12:45:00	0.0	0.0	0.0	0.0
268	5/20/2019 12:46:00	0.0	0.0	0.0	0.0
269	5/20/2019 12:47:00	0.0	0.0	0.0	0.0
270	5/20/2019 12:48:00	0.0	0.0	0.0	0.0
271	5/20/2019 12:49:00	0.0	0.0	0.0	0.0

272	5/20/2019 12:50:00	0.0	0.0	0.0	0.0
273	5/20/2019 12:51:00	0.0	0.0	0.0	0.0
274	5/20/2019 12:52:00	0.0	0.0	0.0	0.0
275	5/20/2019 12:53:00	0.0	0.0	0.0	0.0
276	5/20/2019 12:54:00	0.0	0.0	0.0	0.0
277	5/20/2019 12:55:00	0.0	0.0	0.0	0.0
278	5/20/2019 12:56:00	0.0	0.0	0.0	0.0
279	5/20/2019 12:57:00	0.0	0.0	0.0	0.0
280	5/20/2019 12:58:00	0.0	0.0	0.0	0.0
281	5/20/2019 12:59:00	0.0	0.0	0.0	0.0
282	5/20/2019 13:00:00	0.0	0.0	0.0	0.0
283	5/20/2019 13:01:00	0.0	0.0	0.0	0.0
284	5/20/2019 13:02:00	0.0	0.0	0.0	0.0
285	5/20/2019 13:03:00	0.0	0.0	0.0	0.0
286	5/20/2019 13:04:00	0.0	0.0	0.0	0.0
287	5/20/2019 13:05:00	0.0	0.0	0.0	0.0
288	5/20/2019 13:06:00	0.0	0.0	0.0	0.0
289	5/20/2019 13:07:00	0.0	0.0	0.0	0.0
290	5/20/2019 13:08:00	0.0	0.0	0.0	0.0
291	5/20/2019 13:09:00	0.0	0.0	0.0	0.0
292	5/20/2019 13:10:00	0.0	0.0	0.0	0.0
293	5/20/2019 13:11:00	0.0	0.0	0.0	0.0
294	5/20/2019 13:12:00	0.0	0.0	0.0	0.0
295	5/20/2019 13:13:00	0.0	0.0	0.0	0.0
296	5/20/2019 13:14:00	0.0	0.0	0.0	0.0
297	5/20/2019 13:15:00	0.0	0.0	0.0	0.0
298	5/20/2019 13:16:00	0.0	0.0	0.0	0.0
299	5/20/2019 13:17:00	0.0	0.0	0.0	0.0
300	5/20/2019 13:18:00	0.0	0.0	0.0	0.0
301	5/20/2019 13:19:00	0.0	0.0	0.0	0.0
302	5/20/2019 13:20:00	0.0	0.0	0.0	0.0

303	5/20/2019 13:21:00	0.0	0.0	0.0	0.0
304	5/20/2019 13:22:00	0.0	0.0	0.0	0.0
305	5/20/2019 13:23:00	0.0	0.0	0.0	0.0
306	5/20/2019 13:24:00	0.0	0.0	0.0	0.0
307	5/20/2019 13:25:00	0.0	0.0	0.0	0.0
308	5/20/2019 13:26:00	0.0	0.0	0.0	0.0
309	5/20/2019 13:27:00	0.0	0.0	0.0	0.0
310	5/20/2019 13:28:00	0.0	0.0	0.0	0.0
311	5/20/2019 13:29:00	0.0	0.0	0.0	0.0
312	5/20/2019 13:30:00	0.0	0.0	0.0	0.0
313	5/20/2019 13:31:00	0.0	0.0	0.0	0.0
314	5/20/2019 13:32:00	0.0	0.0	0.0	0.0
315	5/20/2019 13:33:00	0.0	0.0	0.0	0.0
316	5/20/2019 13:34:00	0.0	0.0	0.0	0.0
317	5/20/2019 13:35:00	0.0	0.0	0.0	0.0
318	5/20/2019 13:36:00	0.0	0.0	0.0	0.0
319	5/20/2019 13:37:00	0.0	0.0	0.0	0.0
320	5/20/2019 13:38:00	0.0	0.0	0.0	0.0
321	5/20/2019 13:39:00	0.0	0.0	0.0	0.0
322	5/20/2019 13:40:00	0.0	0.0	0.0	0.0
323	5/20/2019 13:41:00	0.0	0.0	0.0	0.0
324	5/20/2019 13:42:00	0.0	0.0	0.0	0.0
325	5/20/2019 13:43:00	0.0	0.0	0.0	0.0
326	5/20/2019 13:44:00	0.0	0.0	0.0	0.0
327	5/20/2019 13:45:00	0.0	0.0	0.0	0.0
328	5/20/2019 13:46:00	0.0	0.0	0.0	0.0
329	5/20/2019 13:47:00	0.0	0.0	0.0	0.0
330	5/20/2019 13:48:00	0.0	0.0	0.0	0.0
331	5/20/2019 13:49:00	0.0	0.0	0.0	0.0
332	5/20/2019 13:50:00	0.0	0.0	0.0	0.0
333	5/20/2019 13:51:00	0.0	0.0	0.0	0.0

334	5/20/2019	13:52:00	0.0	0.0	0.0	0.0
335	5/20/2019	13:53:00	0.0	0.0	0.0	0.0
336	5/20/2019	13:54:00	0.0	0.0	0.0	0.0
337	5/20/2019	13:55:00	0.0	0.0	0.0	0.0
338	5/20/2019	13:56:00	0.0	0.0	0.0	0.0
339	5/20/2019	13:57:00	0.0	0.0	0.0	0.0
340	5/20/2019	13:58:00	0.0	0.0	0.0	0.0
341	5/20/2019	13:59:00	0.0	0.0	0.0	0.0
342	5/20/2019	14:00:00	0.0	0.0	0.0	0.0
343	5/20/2019	14:01:00	0.0	0.0	0.0	0.0
344	5/20/2019	14:02:00	0.0	0.0	0.0	0.0
345	5/20/2019	14:03:00	0.0	0.0	0.0	0.0
346	5/20/2019	14:04:00	0.0	0.0	0.0	0.0
347	5/20/2019	14:05:00	0.0	0.0	0.0	0.0
348	5/20/2019	14:06:00	0.0	0.0	0.0	0.0
349	5/20/2019	14:07:00	0.0	0.0	0.0	0.0
350	5/20/2019	14:08:00	0.0	0.0	0.0	0.0
351	5/20/2019	14:09:00	0.0	0.0	0.0	0.0
352	5/20/2019	14:10:00	0.0	0.0	0.0	0.0
353	5/20/2019	14:11:00	0.0	0.0	0.0	0.0
354	5/20/2019	14:12:00	0.0	0.0	0.0	0.0
355	5/20/2019	14:13:00	0.0	0.0	0.0	0.0
356	5/20/2019	14:14:00	0.0	0.0	0.0	0.0
357	5/20/2019	14:15:00	0.0	0.0	0.0	0.0
358	5/20/2019	14:16:00	0.0	0.0	0.0	0.0
359	5/20/2019	14:17:00	0.0	0.0	0.0	0.0
360	5/20/2019	14:18:00	0.0	0.0	0.0	0.0
361	5/20/2019	14:19:00	0.0	0.0	0.0	0.0
362	5/20/2019	14:20:00	0.0	0.0	0.0	0.0
363	5/20/2019	14:21:00	0.0	0.0	0.0	0.0
364	5/20/2019	14:22:00	0.0	0.0	0.0	0.0

365	5/20/2019	14:23:00	0.0	0.0	0.0	0.0
366	5/20/2019	14:24:00	0.0	0.0	0.0	0.0
367	5/20/2019	14:25:00	0.0	0.0	0.0	0.0
368	5/20/2019	14:26:00	0.0	0.0	0.0	0.0
369	5/20/2019	14:27:00	0.0	0.0	0.0	0.0
370	5/20/2019	14:28:00	0.0	0.0	0.0	0.0
371	5/20/2019	14:29:00	0.0	0.0	0.0	0.0
372	5/20/2019	14:30:00	0.0	0.0	0.0	0.0
373	5/20/2019	14:31:00	0.0	0.0	0.0	0.0
374	5/20/2019	14:32:00	0.0	0.0	0.0	0.0
375	5/20/2019	14:33:00	0.0	0.0	0.0	0.0
376	5/20/2019	14:34:00	0.0	0.0	0.0	0.0
377	5/20/2019	14:35:00	0.0	0.0	0.0	0.0
Peak			0.0	0.1	0.1	0.0
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/20/2019	08:19:00	0.0	---
002	5/20/2019	08:20:00	0.0	---
003	5/20/2019	08:21:00	0.0	---
004	5/20/2019	08:22:00	0.0	---
005	5/20/2019	08:23:00	0.0	---
006	5/20/2019	08:24:00	0.0	---
007	5/20/2019	08:25:00	0.0	---
008	5/20/2019	08:26:00	0.0	---
009	5/20/2019	08:27:00	0.0	---
010	5/20/2019	08:28:00	0.0	---

011	5/20/2019 08:29:00	0.0	---
012	5/20/2019 08:30:00	0.0	---
013	5/20/2019 08:31:00	0.0	---
014	5/20/2019 08:32:00	0.0	---
015	5/20/2019 08:33:00	0.0	0.0
016	5/20/2019 08:34:00	0.0	0.0
017	5/20/2019 08:35:00	0.0	0.0
018	5/20/2019 08:36:00	0.0	0.0
019	5/20/2019 08:37:00	0.0	0.0
020	5/20/2019 08:38:00	0.0	0.0
021	5/20/2019 08:39:00	0.0	0.0
022	5/20/2019 08:40:00	0.0	0.0
023	5/20/2019 08:41:00	0.0	0.0
024	5/20/2019 08:42:00	0.0	0.0
025	5/20/2019 08:43:00	0.0	0.0
026	5/20/2019 08:44:00	0.0	0.0
027	5/20/2019 08:45:00	0.0	0.0
028	5/20/2019 08:46:00	0.0	0.0
029	5/20/2019 08:47:00	0.0	0.0
030	5/20/2019 08:48:00	0.0	0.0
031	5/20/2019 08:49:00	0.0	0.0
032	5/20/2019 08:50:00	0.0	0.0
033	5/20/2019 08:51:00	0.0	0.0
034	5/20/2019 08:52:00	0.0	0.0
035	5/20/2019 08:53:00	0.0	0.0
036	5/20/2019 08:54:00	0.0	0.0
037	5/20/2019 08:55:00	0.0	0.0
038	5/20/2019 08:56:00	0.0	0.0
039	5/20/2019 08:57:00	0.0	0.0
040	5/20/2019 08:58:00	0.0	0.0
041	5/20/2019 08:59:00	0.0	0.0

042	5/20/2019	09:00:00	0.0	0.0
043	5/20/2019	09:01:00	0.0	0.0
044	5/20/2019	09:02:00	0.0	0.0
045	5/20/2019	09:03:00	0.0	0.0
046	5/20/2019	09:04:00	0.0	0.0
047	5/20/2019	09:05:00	0.0	0.0
048	5/20/2019	09:06:00	0.0	0.0
049	5/20/2019	09:07:00	0.0	0.0
050	5/20/2019	09:08:00	0.0	0.0
051	5/20/2019	09:09:00	0.0	0.0
052	5/20/2019	09:10:00	0.0	0.0
053	5/20/2019	09:11:00	0.0	0.0
054	5/20/2019	09:12:00	0.0	0.0
055	5/20/2019	09:13:00	0.0	0.0
056	5/20/2019	09:14:00	0.0	0.0
057	5/20/2019	09:15:00	0.0	0.0
058	5/20/2019	09:16:00	0.0	0.0
059	5/20/2019	09:17:00	0.0	0.0
060	5/20/2019	09:18:00	0.0	0.0
061	5/20/2019	09:19:00	0.0	0.0
062	5/20/2019	09:20:00	0.0	0.0
063	5/20/2019	09:21:00	0.0	0.0
064	5/20/2019	09:22:00	0.0	0.0
065	5/20/2019	09:23:00	0.0	0.0
066	5/20/2019	09:24:00	0.0	0.0
067	5/20/2019	09:25:00	0.0	0.0
068	5/20/2019	09:26:00	0.0	0.0
069	5/20/2019	09:27:00	0.0	0.0
070	5/20/2019	09:28:00	0.0	0.0
071	5/20/2019	09:29:00	0.0	0.0
072	5/20/2019	09:30:00	0.0	0.0

073	5/20/2019 09:31:00	0.0	0.0
074	5/20/2019 09:32:00	0.0	0.0
075	5/20/2019 09:33:00	0.0	0.0
076	5/20/2019 09:34:00	0.0	0.0
077	5/20/2019 09:35:00	0.0	0.0
078	5/20/2019 09:36:00	0.0	0.0
079	5/20/2019 09:37:00	0.0	0.0
080	5/20/2019 09:38:00	0.0	0.0
081	5/20/2019 09:39:00	0.0	0.0
082	5/20/2019 09:40:00	0.0	0.0
083	5/20/2019 09:41:00	0.0	0.0
084	5/20/2019 09:42:00	0.0	0.0
085	5/20/2019 09:43:00	0.0	0.0
086	5/20/2019 09:44:00	0.0	0.0
087	5/20/2019 09:45:00	0.0	0.0
088	5/20/2019 09:46:00	0.0	0.0
089	5/20/2019 09:47:00	0.0	0.0
090	5/20/2019 09:48:00	0.0	0.0
091	5/20/2019 09:49:00	0.0	0.0
092	5/20/2019 09:50:00	0.0	0.0
093	5/20/2019 09:51:00	0.0	0.0
094	5/20/2019 09:52:00	0.0	0.0
095	5/20/2019 09:53:00	0.0	0.0
096	5/20/2019 09:54:00	0.0	0.0
097	5/20/2019 09:55:00	0.0	0.0
098	5/20/2019 09:56:00	0.0	0.0
099	5/20/2019 09:57:00	0.0	0.0
100	5/20/2019 09:58:00	0.0	0.0
101	5/20/2019 09:59:00	0.0	0.0
102	5/20/2019 10:00:00	0.0	0.0
103	5/20/2019 10:01:00	0.0	0.0

104	5/20/2019 10:02:00	0.0	0.0
105	5/20/2019 10:03:00	0.0	0.0
106	5/20/2019 10:04:00	0.0	0.0
107	5/20/2019 10:05:00	0.0	0.0
108	5/20/2019 10:06:00	0.0	0.0
109	5/20/2019 10:07:00	0.0	0.0
110	5/20/2019 10:08:00	0.0	0.0
111	5/20/2019 10:09:00	0.0	0.0
112	5/20/2019 10:10:00	0.0	0.0
113	5/20/2019 10:11:00	0.0	0.0
114	5/20/2019 10:12:00	0.0	0.0
115	5/20/2019 10:13:00	0.0	0.0
116	5/20/2019 10:14:00	0.0	0.0
117	5/20/2019 10:15:00	0.0	0.0
118	5/20/2019 10:16:00	0.0	0.0
119	5/20/2019 10:17:00	0.0	0.0
120	5/20/2019 10:18:00	0.0	0.0
121	5/20/2019 10:19:00	0.0	0.0
122	5/20/2019 10:20:00	0.0	0.0
123	5/20/2019 10:21:00	0.0	0.0
124	5/20/2019 10:22:00	0.0	0.0
125	5/20/2019 10:23:00	0.0	0.0
126	5/20/2019 10:24:00	0.0	0.0
127	5/20/2019 10:25:00	0.0	0.0
128	5/20/2019 10:26:00	0.0	0.0
129	5/20/2019 10:27:00	0.0	0.0
130	5/20/2019 10:28:00	0.0	0.0
131	5/20/2019 10:29:00	0.0	0.0
132	5/20/2019 10:30:00	0.0	0.0
133	5/20/2019 10:31:00	0.0	0.0
134	5/20/2019 10:32:00	0.0	0.0

135	5/20/2019 10:33:00	0.0	0.0
136	5/20/2019 10:34:00	0.0	0.0
137	5/20/2019 10:35:00	0.0	0.0
138	5/20/2019 10:36:00	0.0	0.0
139	5/20/2019 10:37:00	0.0	0.0
140	5/20/2019 10:38:00	0.0	0.0
141	5/20/2019 10:39:00	0.0	0.0
142	5/20/2019 10:40:00	0.0	0.0
143	5/20/2019 10:41:00	0.0	0.0
144	5/20/2019 10:42:00	0.0	0.0
145	5/20/2019 10:43:00	0.0	0.0
146	5/20/2019 10:44:00	0.0	0.0
147	5/20/2019 10:45:00	0.0	0.0
148	5/20/2019 10:46:00	0.0	0.0
149	5/20/2019 10:47:00	0.0	0.0
150	5/20/2019 10:48:00	0.0	0.0
151	5/20/2019 10:49:00	0.0	0.0
152	5/20/2019 10:50:00	0.0	0.0
153	5/20/2019 10:51:00	0.0	0.0
154	5/20/2019 10:52:00	0.0	0.0
155	5/20/2019 10:53:00	0.0	0.0
156	5/20/2019 10:54:00	0.0	0.0
157	5/20/2019 10:55:00	0.0	0.0
158	5/20/2019 10:56:00	0.0	0.0
159	5/20/2019 10:57:00	0.0	0.0
160	5/20/2019 10:58:00	0.0	0.0
161	5/20/2019 10:59:00	0.0	0.0
162	5/20/2019 11:00:00	0.0	0.0
163	5/20/2019 11:01:00	0.0	0.0
164	5/20/2019 11:02:00	0.0	0.0
165	5/20/2019 11:03:00	0.0	0.0

166	5/20/2019	11:04:00	0.0	0.0
167	5/20/2019	11:05:00	0.0	0.0
168	5/20/2019	11:06:00	0.0	0.0
169	5/20/2019	11:07:00	0.0	0.0
170	5/20/2019	11:08:00	0.0	0.0
171	5/20/2019	11:09:00	0.0	0.0
172	5/20/2019	11:10:00	0.0	0.0
173	5/20/2019	11:11:00	0.0	0.0
174	5/20/2019	11:12:00	0.0	0.0
175	5/20/2019	11:13:00	0.0	0.0
176	5/20/2019	11:14:00	0.0	0.0
177	5/20/2019	11:15:00	0.0	0.0
178	5/20/2019	11:16:00	0.0	0.0
179	5/20/2019	11:17:00	0.0	0.0
180	5/20/2019	11:18:00	0.0	0.0
181	5/20/2019	11:19:00	0.0	0.0
182	5/20/2019	11:20:00	0.0	0.0
183	5/20/2019	11:21:00	0.0	0.0
184	5/20/2019	11:22:00	0.0	0.0
185	5/20/2019	11:23:00	0.0	0.0
186	5/20/2019	11:24:00	0.0	0.0
187	5/20/2019	11:25:00	0.0	0.0
188	5/20/2019	11:26:00	0.0	0.0
189	5/20/2019	11:27:00	0.0	0.0
190	5/20/2019	11:28:00	0.0	0.0
191	5/20/2019	11:29:00	0.0	0.0
192	5/20/2019	11:30:00	0.0	0.0
193	5/20/2019	11:31:00	0.0	0.0
194	5/20/2019	11:32:00	0.0	0.0
195	5/20/2019	11:33:00	0.0	0.0
196	5/20/2019	11:34:00	0.0	0.0

197	5/20/2019	11:35:00	0.0	0.0
198	5/20/2019	11:36:00	0.0	0.0
199	5/20/2019	11:37:00	0.0	0.0
200	5/20/2019	11:38:00	0.0	0.0
201	5/20/2019	11:39:00	0.0	0.0
202	5/20/2019	11:40:00	0.0	0.0
203	5/20/2019	11:41:00	0.0	0.0
204	5/20/2019	11:42:00	0.0	0.0
205	5/20/2019	11:43:00	0.0	0.0
206	5/20/2019	11:44:00	0.0	0.0
207	5/20/2019	11:45:00	0.0	0.0
208	5/20/2019	11:46:00	0.0	0.0
209	5/20/2019	11:47:00	0.0	0.0
210	5/20/2019	11:48:00	0.0	0.0
211	5/20/2019	11:49:00	0.0	0.0
212	5/20/2019	11:50:00	0.0	0.0
213	5/20/2019	11:51:00	0.0	0.0
214	5/20/2019	11:52:00	0.0	0.0
215	5/20/2019	11:53:00	0.0	0.0
216	5/20/2019	11:54:00	0.0	0.0
217	5/20/2019	11:55:00	0.0	0.0
218	5/20/2019	11:56:00	0.0	0.0
219	5/20/2019	11:57:00	0.0	0.0
220	5/20/2019	11:58:00	0.0	0.0
221	5/20/2019	11:59:00	0.0	0.0
222	5/20/2019	12:00:00	0.0	0.0
223	5/20/2019	12:01:00	0.0	0.0
224	5/20/2019	12:02:00	0.0	0.0
225	5/20/2019	12:03:00	0.0	0.0
226	5/20/2019	12:04:00	0.0	0.0
227	5/20/2019	12:05:00	0.0	0.0

228	5/20/2019 12:06:00	0.0	0.0
229	5/20/2019 12:07:00	0.0	0.0
230	5/20/2019 12:08:00	0.0	0.0
231	5/20/2019 12:09:00	0.0	0.0
232	5/20/2019 12:10:00	0.0	0.0
233	5/20/2019 12:11:00	0.0	0.0
234	5/20/2019 12:12:00	0.0	0.0
235	5/20/2019 12:13:00	0.0	0.0
236	5/20/2019 12:14:00	0.0	0.0
237	5/20/2019 12:15:00	0.0	0.0
238	5/20/2019 12:16:00	0.0	0.0
239	5/20/2019 12:17:00	0.0	0.0
240	5/20/2019 12:18:00	0.0	0.0
241	5/20/2019 12:19:00	0.0	0.0
242	5/20/2019 12:20:00	0.0	0.0
243	5/20/2019 12:21:00	0.0	0.0
244	5/20/2019 12:22:00	0.0	0.0
245	5/20/2019 12:23:00	0.0	0.0
246	5/20/2019 12:24:00	0.0	0.0
247	5/20/2019 12:25:00	0.0	0.0
248	5/20/2019 12:26:00	0.0	0.0
249	5/20/2019 12:27:00	0.0	0.0
250	5/20/2019 12:28:00	0.0	0.0
251	5/20/2019 12:29:00	0.0	0.0
252	5/20/2019 12:30:00	0.0	0.0
253	5/20/2019 12:31:00	0.0	0.0
254	5/20/2019 12:32:00	0.0	0.0
255	5/20/2019 12:33:00	0.0	0.0
256	5/20/2019 12:34:00	0.0	0.0
257	5/20/2019 12:35:00	0.0	0.0
258	5/20/2019 12:36:00	0.0	0.0

259	5/20/2019 12:37:00	0.0	0.0
260	5/20/2019 12:38:00	0.0	0.0
261	5/20/2019 12:39:00	0.0	0.0
262	5/20/2019 12:40:00	0.0	0.0
263	5/20/2019 12:41:00	0.0	0.0
264	5/20/2019 12:42:00	0.0	0.0
265	5/20/2019 12:43:00	0.0	0.0
266	5/20/2019 12:44:00	0.0	0.0
267	5/20/2019 12:45:00	0.0	0.0
268	5/20/2019 12:46:00	0.0	0.0
269	5/20/2019 12:47:00	0.0	0.0
270	5/20/2019 12:48:00	0.0	0.0
271	5/20/2019 12:49:00	0.0	0.0
272	5/20/2019 12:50:00	0.0	0.0
273	5/20/2019 12:51:00	0.0	0.0
274	5/20/2019 12:52:00	0.0	0.0
275	5/20/2019 12:53:00	0.0	0.0
276	5/20/2019 12:54:00	0.0	0.0
277	5/20/2019 12:55:00	0.0	0.0
278	5/20/2019 12:56:00	0.0	0.0
279	5/20/2019 12:57:00	0.0	0.0
280	5/20/2019 12:58:00	0.0	0.0
281	5/20/2019 12:59:00	0.0	0.0
282	5/20/2019 13:00:00	0.0	0.0
283	5/20/2019 13:01:00	0.0	0.0
284	5/20/2019 13:02:00	0.0	0.0
285	5/20/2019 13:03:00	0.0	0.0
286	5/20/2019 13:04:00	0.0	0.0
287	5/20/2019 13:05:00	0.0	0.0
288	5/20/2019 13:06:00	0.0	0.0
289	5/20/2019 13:07:00	0.0	0.0

290	5/20/2019 13:08:00	0.0	0.0
291	5/20/2019 13:09:00	0.0	0.0
292	5/20/2019 13:10:00	0.0	0.0
293	5/20/2019 13:11:00	0.0	0.0
294	5/20/2019 13:12:00	0.0	0.0
295	5/20/2019 13:13:00	0.0	0.0
296	5/20/2019 13:14:00	0.0	0.0
297	5/20/2019 13:15:00	0.0	0.0
298	5/20/2019 13:16:00	0.0	0.0
299	5/20/2019 13:17:00	0.0	0.0
300	5/20/2019 13:18:00	0.0	0.0
301	5/20/2019 13:19:00	0.0	0.0
302	5/20/2019 13:20:00	0.0	0.0
303	5/20/2019 13:21:00	0.0	0.0
304	5/20/2019 13:22:00	0.0	0.0
305	5/20/2019 13:23:00	0.0	0.0
306	5/20/2019 13:24:00	0.0	0.0
307	5/20/2019 13:25:00	0.0	0.0
308	5/20/2019 13:26:00	0.0	0.0
309	5/20/2019 13:27:00	0.0	0.0
310	5/20/2019 13:28:00	0.0	0.0
311	5/20/2019 13:29:00	0.0	0.0
312	5/20/2019 13:30:00	0.0	0.0
313	5/20/2019 13:31:00	0.0	0.0
314	5/20/2019 13:32:00	0.0	0.0
315	5/20/2019 13:33:00	0.0	0.0
316	5/20/2019 13:34:00	0.0	0.0
317	5/20/2019 13:35:00	0.0	0.0
318	5/20/2019 13:36:00	0.0	0.0
319	5/20/2019 13:37:00	0.0	0.0
320	5/20/2019 13:38:00	0.0	0.0

321	5/20/2019 13:39:00	0.0	0.0
322	5/20/2019 13:40:00	0.0	0.0
323	5/20/2019 13:41:00	0.0	0.0
324	5/20/2019 13:42:00	0.0	0.0
325	5/20/2019 13:43:00	0.0	0.0
326	5/20/2019 13:44:00	0.0	0.0
327	5/20/2019 13:45:00	0.0	0.0
328	5/20/2019 13:46:00	0.0	0.0
329	5/20/2019 13:47:00	0.0	0.0
330	5/20/2019 13:48:00	0.0	0.0
331	5/20/2019 13:49:00	0.0	0.0
332	5/20/2019 13:50:00	0.0	0.0
333	5/20/2019 13:51:00	0.0	0.0
334	5/20/2019 13:52:00	0.0	0.0
335	5/20/2019 13:53:00	0.0	0.0
336	5/20/2019 13:54:00	0.0	0.0
337	5/20/2019 13:55:00	0.0	0.0
338	5/20/2019 13:56:00	0.0	0.0
339	5/20/2019 13:57:00	0.0	0.0
340	5/20/2019 13:58:00	0.0	0.0
341	5/20/2019 13:59:00	0.0	0.0
342	5/20/2019 14:00:00	0.0	0.0
343	5/20/2019 14:01:00	0.0	0.0
344	5/20/2019 14:02:00	0.0	0.0
345	5/20/2019 14:03:00	0.0	0.0
346	5/20/2019 14:04:00	0.0	0.0
347	5/20/2019 14:05:00	0.0	0.0
348	5/20/2019 14:06:00	0.0	0.0
349	5/20/2019 14:07:00	0.0	0.0
350	5/20/2019 14:08:00	0.0	0.0
351	5/20/2019 14:09:00	0.0	0.0

352	5/20/2019 14:10:00	0.0	0.0
353	5/20/2019 14:11:00	0.0	0.0
354	5/20/2019 14:12:00	0.0	0.0
355	5/20/2019 14:13:00	0.0	0.0
356	5/20/2019 14:14:00	0.0	0.0
357	5/20/2019 14:15:00	0.0	0.0
358	5/20/2019 14:16:00	0.0	0.0
359	5/20/2019 14:17:00	0.0	0.0
360	5/20/2019 14:18:00	0.0	0.0
361	5/20/2019 14:19:00	0.0	0.0
362	5/20/2019 14:20:00	0.0	0.0
363	5/20/2019 14:21:00	0.0	0.0
364	5/20/2019 14:22:00	0.0	0.0
365	5/20/2019 14:23:00	0.0	0.0
366	5/20/2019 14:24:00	0.0	0.0
367	5/20/2019 14:25:00	0.0	0.0
368	5/20/2019 14:26:00	0.0	0.0
369	5/20/2019 14:27:00	0.0	0.0
370	5/20/2019 14:28:00	0.0	0.0
371	5/20/2019 14:29:00	0.0	0.0
372	5/20/2019 14:30:00	0.0	0.0
373	5/20/2019 14:31:00	0.0	0.0
374	5/20/2019 14:32:00	0.0	0.0
375	5/20/2019 14:33:00	0.0	0.0
376	5/20/2019 14:34:00	0.0	0.0
377	5/20/2019 14:35:00	0.0	0.0

甄==========

19/05/22 10:04

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/22/2019 10:04:47
End	5/22/2019 15:07:25
Sample Period(s)	60
Number of Records	302

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.2

Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/22/2019	10:05:47	0.0	0.0	0.0	0.0
002	5/22/2019	10:06:47	0.0	0.0	0.0	0.0
003	5/22/2019	10:07:47	0.0	0.0	0.0	0.0
004	5/22/2019	10:08:47	0.0	0.0	0.0	0.0
005	5/22/2019	10:09:47	0.0	0.0	0.1	0.0
006	5/22/2019	10:10:47	0.0	0.0	0.0	0.0
007	5/22/2019	10:11:47	0.0	0.0	0.1	0.0
008	5/22/2019	10:12:47	0.0	0.0	0.0	0.0
009	5/22/2019	10:13:47	0.0	0.0	0.0	0.0
010	5/22/2019	10:14:47	0.0	0.0	0.0	0.0
011	5/22/2019	10:15:47	0.0	0.0	0.0	0.0
012	5/22/2019	10:16:47	0.0	0.0	0.0	0.0
013	5/22/2019	10:17:47	0.0	0.0	0.0	0.0
014	5/22/2019	10:18:47	0.0	0.0	0.0	0.0
015	5/22/2019	10:19:47	0.0	0.0	0.0	0.0
016	5/22/2019	10:20:47	0.0	0.0	0.0	0.0
017	5/22/2019	10:21:47	0.0	0.0	0.0	0.0
018	5/22/2019	10:22:47	0.0	0.0	0.0	0.0
019	5/22/2019	10:23:47	0.0	0.0	0.0	0.0
020	5/22/2019	10:24:47	0.0	0.0	0.1	0.0
021	5/22/2019	10:25:47	0.0	0.0	0.0	0.0
022	5/22/2019	10:26:47	0.0	0.0	0.1	0.0
023	5/22/2019	10:27:47	0.0	0.0	0.0	0.0
024	5/22/2019	10:28:47	0.0	0.0	0.0	0.0

025	5/22/2019 10:29:47	0.0	0.0	0.0	0.0
026	5/22/2019 10:30:47	0.0	0.0	0.0	0.0
027	5/22/2019 10:31:47	0.0	0.0	0.0	0.0
028	5/22/2019 10:32:47	0.0	0.0	0.0	0.0
029	5/22/2019 10:33:47	0.0	0.0	0.0	0.0
030	5/22/2019 10:34:47	0.0	0.0	0.0	0.0
031	5/22/2019 10:35:47	0.0	0.0	0.0	0.0
032	5/22/2019 10:36:47	0.0	0.0	0.0	0.0
033	5/22/2019 10:37:47	0.0	0.0	0.0	0.0
034	5/22/2019 10:38:47	0.0	0.0	0.0	0.0
035	5/22/2019 10:39:47	0.0	0.0	0.0	0.0
036	5/22/2019 10:40:47	0.0	0.0	0.0	0.0
037	5/22/2019 10:41:47	0.0	0.0	0.0	0.0
038	5/22/2019 10:42:47	0.0	0.0	0.0	0.0
039	5/22/2019 10:43:47	0.0	0.0	0.0	0.0
040	5/22/2019 10:44:47	0.0	0.0	0.0	0.0
041	5/22/2019 10:45:47	0.0	0.0	0.0	0.0
042	5/22/2019 10:46:47	0.0	0.0	0.0	0.0
043	5/22/2019 10:47:47	0.0	0.0	0.0	0.0
044	5/22/2019 10:48:47	0.0	0.0	0.0	0.0
045	5/22/2019 10:49:47	0.0	0.0	0.0	0.0
046	5/22/2019 10:50:47	0.0	0.0	0.0	0.0
047	5/22/2019 10:51:47	0.0	0.0	0.0	0.0
048	5/22/2019 10:52:47	0.0	0.0	0.0	0.0
049	5/22/2019 10:53:47	0.0	0.0	0.0	0.0
050	5/22/2019 10:54:47	0.0	0.0	0.0	0.0
051	5/22/2019 10:55:47	0.0	0.0	0.0	0.0
052	5/22/2019 10:56:47	0.0	0.0	0.0	0.0
053	5/22/2019 10:57:47	0.0	0.0	0.0	0.0
054	5/22/2019 10:58:47	0.0	0.0	0.0	0.0
055	5/22/2019 10:59:47	0.0	0.0	0.0	0.0

056	5/22/2019	11:00:47	0.0	0.0	0.0	0.0
057	5/22/2019	11:01:47	0.0	0.0	0.0	0.0
058	5/22/2019	11:02:47	0.0	0.0	0.0	0.0
059	5/22/2019	11:03:47	0.0	0.0	0.0	0.0
060	5/22/2019	11:04:47	0.0	0.0	0.0	0.0
061	5/22/2019	11:05:47	0.0	0.1	0.4	0.1
062	5/22/2019	11:06:47	0.0	0.1	0.4	0.1
063	5/22/2019	11:07:47	0.0	0.2	1.1	0.2
064	5/22/2019	11:08:47	0.0	0.2	0.9	0.0
065	5/22/2019	11:09:47	0.0	0.0	0.1	0.0
066	5/22/2019	11:10:47	0.0	0.0	0.0	0.0
067	5/22/2019	11:11:47	0.0	0.0	0.1	0.0
068	5/22/2019	11:12:47	0.0	0.1	0.3	0.0
069	5/22/2019	11:13:47	0.0	0.0	0.1	0.0
070	5/22/2019	11:14:47	0.0	0.1	0.5	0.2
071	5/22/2019	11:15:47	0.0	0.1	0.3	0.1
072	5/22/2019	11:16:47	0.0	0.0	0.2	0.0
073	5/22/2019	11:17:47	0.0	0.0	0.1	0.1
074	5/22/2019	11:18:47	0.0	0.0	0.1	0.0
075	5/22/2019	11:19:47	0.0	0.0	0.1	0.0
076	5/22/2019	11:20:47	0.0	0.0	0.1	0.0
077	5/22/2019	11:21:47	0.0	0.0	0.0	0.0
078	5/22/2019	11:22:47	0.0	0.0	0.0	0.0
079	5/22/2019	11:23:47	0.0	0.0	0.0	0.0
080	5/22/2019	11:24:47	0.0	0.0	0.0	0.0
081	5/22/2019	11:25:47	0.0	0.0	0.0	0.0
082	5/22/2019	11:26:47	0.0	0.0	0.0	0.0
083	5/22/2019	11:27:47	0.0	0.0	0.0	0.0
084	5/22/2019	11:28:47	0.0	0.0	0.0	0.0
085	5/22/2019	11:29:47	0.0	0.0	0.0	0.0
086	5/22/2019	11:30:47	0.0	0.0	0.0	0.0

087	5/22/2019	11:31:47	0.0	0.0	0.0	0.0
088	5/22/2019	11:32:47	0.0	0.0	0.0	0.0
089	5/22/2019	11:33:47	0.0	0.0	0.0	0.0
090	5/22/2019	11:34:47	0.0	0.0	0.1	0.1
091	5/22/2019	11:35:47	0.0	0.1	0.2	0.0
092	5/22/2019	11:36:47	0.0	0.0	0.0	0.0
093	5/22/2019	11:37:47	0.0	0.0	0.0	0.0
094	5/22/2019	11:38:47	0.0	0.0	0.0	0.0
095	5/22/2019	11:39:47	0.0	0.0	0.0	0.0
096	5/22/2019	11:40:47	0.0	0.0	0.1	0.0
097	5/22/2019	11:41:47	0.0	0.0	0.0	0.0
098	5/22/2019	11:42:47	0.0	0.0	0.0	0.0
099	5/22/2019	11:43:47	0.0	0.0	0.0	0.0
100	5/22/2019	11:44:47	0.0	0.0	0.0	0.0
101	5/22/2019	11:45:47	0.0	0.0	0.0	0.0
102	5/22/2019	11:46:47	0.0	0.0	0.1	0.0
103	5/22/2019	11:47:47	0.0	0.0	0.1	0.0
104	5/22/2019	11:48:47	0.0	0.0	0.0	0.0
105	5/22/2019	11:49:47	0.0	0.0	0.0	0.0
106	5/22/2019	11:50:47	0.0	0.0	0.0	0.0
107	5/22/2019	11:51:47	0.0	0.0	0.0	0.0
108	5/22/2019	11:52:47	0.0	0.0	0.0	0.0
109	5/22/2019	11:53:47	0.0	0.0	0.0	0.0
110	5/22/2019	11:54:47	0.0	0.0	0.0	0.0
111	5/22/2019	11:55:47	0.0	0.0	0.0	0.0
112	5/22/2019	11:56:47	0.0	0.0	0.0	0.0
113	5/22/2019	11:57:47	0.0	0.0	0.0	0.0
114	5/22/2019	11:58:47	0.0	0.0	0.0	0.0
115	5/22/2019	11:59:47	0.0	0.0	0.0	0.0
116	5/22/2019	12:00:47	0.0	0.0	0.0	0.0
117	5/22/2019	12:01:47	0.0	0.0	0.0	0.0

118	5/22/2019 12:02:47	0.0	0.0	0.0	0.0
119	5/22/2019 12:03:47	0.0	0.0	0.0	0.0
120	5/22/2019 12:04:47	0.0	0.0	0.0	0.0
121	5/22/2019 12:05:47	0.0	0.0	0.0	0.0
122	5/22/2019 12:06:47	0.0	0.0	0.0	0.0
123	5/22/2019 12:07:47	0.0	0.0	0.0	0.0
124	5/22/2019 12:08:47	0.0	0.0	0.0	0.0
125	5/22/2019 12:09:47	0.0	0.0	0.0	0.0
126	5/22/2019 12:10:47	0.0	0.0	0.0	0.0
127	5/22/2019 12:11:47	0.0	0.0	0.0	0.0
128	5/22/2019 12:12:47	0.0	0.0	0.0	0.0
129	5/22/2019 12:13:47	0.0	0.0	0.0	0.0
130	5/22/2019 12:14:47	0.0	0.0	0.0	0.0
131	5/22/2019 12:15:47	0.0	0.0	0.0	0.0
132	5/22/2019 12:16:47	0.0	0.0	0.0	0.0
133	5/22/2019 12:17:47	0.0	0.0	0.0	0.0
134	5/22/2019 12:18:47	0.0	0.0	0.0	0.0
135	5/22/2019 12:19:47	0.0	0.0	0.0	0.0
136	5/22/2019 12:20:47	0.0	0.0	0.0	0.0
137	5/22/2019 12:21:47	0.0	0.0	0.0	0.0
138	5/22/2019 12:22:47	0.0	0.0	0.0	0.0
139	5/22/2019 12:23:47	0.0	0.0	0.0	0.0
140	5/22/2019 12:24:47	0.0	0.0	0.0	0.0
141	5/22/2019 12:25:47	0.0	0.0	0.0	0.0
142	5/22/2019 12:26:47	0.0	0.0	0.0	0.0
143	5/22/2019 12:27:47	0.0	0.0	0.0	0.0
144	5/22/2019 12:28:47	0.0	0.0	0.0	0.0
145	5/22/2019 12:29:47	0.0	0.0	0.0	0.0
146	5/22/2019 12:30:47	0.0	0.0	0.0	0.0
147	5/22/2019 12:31:47	0.0	0.0	0.0	0.0
148	5/22/2019 12:32:47	0.0	0.0	0.0	0.0

149	5/22/2019 12:33:47	0.0	0.0	0.0	0.0
150	5/22/2019 12:34:47	0.0	0.0	0.0	0.0
151	5/22/2019 12:35:47	0.0	0.0	0.0	0.0
152	5/22/2019 12:36:47	0.0	0.0	0.0	0.0
153	5/22/2019 12:37:47	0.0	0.0	0.0	0.0
154	5/22/2019 12:38:47	0.0	0.0	0.0	0.0
155	5/22/2019 12:39:47	0.0	0.0	0.0	0.0
156	5/22/2019 12:40:47	0.0	0.0	0.0	0.0
157	5/22/2019 12:41:47	0.0	0.0	0.0	0.0
158	5/22/2019 12:42:47	0.0	0.0	0.0	0.0
159	5/22/2019 12:43:47	0.0	0.0	0.0	0.0
160	5/22/2019 12:44:47	0.0	0.0	0.0	0.0
161	5/22/2019 12:45:47	0.0	0.0	0.0	0.0
162	5/22/2019 12:46:47	0.0	0.0	0.0	0.0
163	5/22/2019 12:47:47	0.0	0.0	0.0	0.0
164	5/22/2019 12:48:47	0.0	0.0	0.0	0.0
165	5/22/2019 12:49:47	0.0	0.0	0.0	0.0
166	5/22/2019 12:50:47	0.0	0.0	0.0	0.0
167	5/22/2019 12:51:47	0.0	0.0	0.0	0.0
168	5/22/2019 12:52:47	0.0	0.0	0.0	0.0
169	5/22/2019 12:53:47	0.0	0.0	0.0	0.0
170	5/22/2019 12:54:47	0.0	0.0	0.0	0.0
171	5/22/2019 12:55:47	0.0	0.0	0.0	0.0
172	5/22/2019 12:56:47	0.0	0.0	0.0	0.0
173	5/22/2019 12:57:47	0.0	0.0	0.0	0.0
174	5/22/2019 12:58:47	0.0	0.0	0.0	0.0
175	5/22/2019 12:59:47	0.0	0.0	0.0	0.0
176	5/22/2019 13:00:47	0.0	0.0	0.0	0.0
177	5/22/2019 13:01:47	0.0	0.0	0.0	0.0
178	5/22/2019 13:02:47	0.0	0.0	0.0	0.0
179	5/22/2019 13:03:47	0.0	0.0	0.0	0.0

180	5/22/2019 13:04:47	0.0	0.0	0.0	0.0
181	5/22/2019 13:05:47	0.0	0.0	0.0	0.0
182	5/22/2019 13:06:47	0.0	0.0	0.0	0.0
183	5/22/2019 13:07:47	0.0	0.0	0.0	0.0
184	5/22/2019 13:08:47	0.0	0.0	0.0	0.0
185	5/22/2019 13:09:47	0.0	0.0	0.0	0.0
186	5/22/2019 13:10:47	0.0	0.0	0.1	0.0
187	5/22/2019 13:11:47	0.0	0.0	0.0	0.0
188	5/22/2019 13:12:47	0.0	0.0	0.0	0.0
189	5/22/2019 13:13:47	0.0	0.0	0.0	0.0
190	5/22/2019 13:14:47	0.0	0.0	0.0	0.0
191	5/22/2019 13:15:47	0.0	0.0	0.0	0.0
192	5/22/2019 13:16:47	0.0	0.0	0.0	0.0
193	5/22/2019 13:17:47	0.0	0.0	0.0	0.0
194	5/22/2019 13:18:47	0.0	0.0	0.0	0.0
195	5/22/2019 13:19:47	0.0	0.0	0.0	0.0
196	5/22/2019 13:20:47	0.0	0.0	0.0	0.0
197	5/22/2019 13:21:47	0.0	0.0	0.0	0.0
198	5/22/2019 13:22:47	0.0	0.0	0.0	0.0
199	5/22/2019 13:23:47	0.0	0.0	0.0	0.0
200	5/22/2019 13:24:47	0.0	0.0	0.0	0.0
201	5/22/2019 13:25:47	0.0	0.0	0.0	0.0
202	5/22/2019 13:26:47	0.0	0.0	0.0	0.0
203	5/22/2019 13:27:47	0.0	0.0	0.0	0.0
204	5/22/2019 13:28:47	0.0	0.0	0.0	0.0
205	5/22/2019 13:29:47	0.0	0.0	0.0	0.0
206	5/22/2019 13:30:47	0.0	0.0	0.0	0.0
207	5/22/2019 13:31:47	0.0	0.0	0.0	0.0
208	5/22/2019 13:32:47	0.0	0.0	0.0	0.0
209	5/22/2019 13:33:47	0.0	0.0	0.0	0.0
210	5/22/2019 13:34:47	0.0	0.0	0.0	0.0

211	5/22/2019 13:35:47	0.0	0.0	0.0	0.0
212	5/22/2019 13:36:47	0.0	0.0	0.0	0.0
213	5/22/2019 13:37:47	0.0	0.0	0.0	0.0
214	5/22/2019 13:38:47	0.0	0.0	0.0	0.0
215	5/22/2019 13:39:47	0.0	0.0	0.0	0.0
216	5/22/2019 13:40:47	0.0	0.0	0.0	0.0
217	5/22/2019 13:41:47	0.0	0.0	0.0	0.0
218	5/22/2019 13:42:47	0.0	0.0	0.0	0.0
219	5/22/2019 13:43:47	0.0	0.0	0.0	0.0
220	5/22/2019 13:44:47	0.0	0.0	0.0	0.0
221	5/22/2019 13:45:47	0.0	0.0	0.0	0.0
222	5/22/2019 13:46:47	0.0	0.0	0.0	0.0
223	5/22/2019 13:47:47	0.0	0.0	0.0	0.0
224	5/22/2019 13:48:47	0.0	0.0	0.0	0.0
225	5/22/2019 13:49:47	0.0	0.0	0.0	0.0
226	5/22/2019 13:50:47	0.0	0.0	0.0	0.0
227	5/22/2019 13:51:47	0.0	0.0	0.0	0.0
228	5/22/2019 13:52:47	0.0	0.0	0.0	0.0
229	5/22/2019 13:53:47	0.0	0.0	0.0	0.0
230	5/22/2019 13:54:47	0.0	0.0	0.0	0.0
231	5/22/2019 13:55:47	0.0	0.0	0.0	0.0
232	5/22/2019 13:56:47	0.0	0.0	0.0	0.0
233	5/22/2019 13:57:47	0.0	0.0	0.0	0.0
234	5/22/2019 13:58:47	0.0	0.0	0.0	0.0
235	5/22/2019 13:59:47	0.0	0.0	0.0	0.0
236	5/22/2019 14:00:47	0.0	0.0	0.0	0.0
237	5/22/2019 14:01:47	0.0	0.0	0.0	0.0
238	5/22/2019 14:02:47	0.0	0.0	0.0	0.0
239	5/22/2019 14:03:47	0.0	0.0	0.0	0.0
240	5/22/2019 14:04:47	0.0	0.0	0.0	0.0
241	5/22/2019 14:05:47	0.0	0.0	0.0	0.0

242	5/22/2019 14:06:47	0.0	0.0	0.0	0.0
243	5/22/2019 14:07:47	0.0	0.0	0.0	0.0
244	5/22/2019 14:08:47	0.0	0.0	0.0	0.0
245	5/22/2019 14:09:47	0.0	0.0	0.0	0.0
246	5/22/2019 14:10:47	0.0	0.0	0.0	0.0
247	5/22/2019 14:11:47	0.0	0.0	0.0	0.0
248	5/22/2019 14:12:47	0.0	0.0	0.0	0.0
249	5/22/2019 14:13:47	0.0	0.0	0.0	0.0
250	5/22/2019 14:14:47	0.0	0.0	0.0	0.0
251	5/22/2019 14:15:47	0.0	0.0	0.0	0.0
252	5/22/2019 14:16:47	0.0	0.0	0.0	0.0
253	5/22/2019 14:17:47	0.0	0.0	0.0	0.0
254	5/22/2019 14:18:47	0.0	0.0	0.0	0.0
255	5/22/2019 14:19:47	0.0	0.0	0.0	0.0
256	5/22/2019 14:20:47	0.0	0.0	0.0	0.0
257	5/22/2019 14:21:47	0.0	0.0	0.0	0.0
258	5/22/2019 14:22:47	0.0	0.0	0.0	0.0
259	5/22/2019 14:23:47	0.0	0.0	0.0	0.0
260	5/22/2019 14:24:47	0.0	0.0	0.0	0.0
261	5/22/2019 14:25:47	0.0	0.0	0.0	0.0
262	5/22/2019 14:26:47	0.0	0.0	0.0	0.0
263	5/22/2019 14:27:47	0.0	0.0	0.0	0.0
264	5/22/2019 14:28:47	0.0	0.0	0.0	0.0
265	5/22/2019 14:29:47	0.0	0.0	0.0	0.0
266	5/22/2019 14:30:47	0.0	0.0	0.0	0.0
267	5/22/2019 14:31:47	0.0	0.0	0.0	0.0
268	5/22/2019 14:32:47	0.0	0.0	0.0	0.0
269	5/22/2019 14:33:47	0.0	0.0	0.0	0.0
270	5/22/2019 14:34:47	0.0	0.0	0.0	0.0
271	5/22/2019 14:35:47	0.0	0.0	0.0	0.0
272	5/22/2019 14:36:47	0.0	0.0	0.0	0.0

273	5/22/2019	14:37:47	0.0	0.0	0.0	0.0
274	5/22/2019	14:38:47	0.0	0.0	0.0	0.0
275	5/22/2019	14:39:47	0.0	0.0	0.0	0.0
276	5/22/2019	14:40:47	0.0	0.0	0.0	0.0
277	5/22/2019	14:41:47	0.0	0.0	0.0	0.0
278	5/22/2019	14:42:47	0.0	0.0	0.0	0.0
279	5/22/2019	14:43:47	0.0	0.0	0.0	0.0
280	5/22/2019	14:44:47	0.0	0.0	0.0	0.0
281	5/22/2019	14:45:47	0.0	0.0	0.0	0.0
282	5/22/2019	14:46:47	0.0	0.0	0.0	0.0
283	5/22/2019	14:47:47	0.0	0.0	0.0	0.0
284	5/22/2019	14:48:47	0.0	0.0	0.0	0.0
285	5/22/2019	14:49:47	0.0	0.0	0.0	0.0
286	5/22/2019	14:50:47	0.0	0.0	0.0	0.0
287	5/22/2019	14:51:47	0.0	0.0	0.0	0.0
288	5/22/2019	14:52:47	0.0	0.0	0.0	0.0
289	5/22/2019	14:53:47	0.0	0.0	0.0	0.0
290	5/22/2019	14:54:47	0.0	0.0	0.0	0.0
291	5/22/2019	14:55:47	0.0	0.0	0.0	0.0
292	5/22/2019	14:56:47	0.0	0.0	0.0	0.0
293	5/22/2019	14:57:47	0.0	0.0	0.0	0.0
294	5/22/2019	14:58:47	0.0	0.0	0.0	0.0
295	5/22/2019	14:59:47	0.0	0.0	0.0	0.0
296	5/22/2019	15:00:47	0.0	0.0	0.0	0.0
297	5/22/2019	15:01:47	0.0	0.0	0.0	0.0
298	5/22/2019	15:02:47	0.0	0.0	0.0	0.0
299	5/22/2019	15:03:47	0.0	0.0	0.0	0.0
300	5/22/2019	15:04:47	0.0	0.0	0.0	0.0
301	5/22/2019	15:05:47	0.0	0.0	0.0	0.0
302	5/22/2019	15:06:47	0.0	0.0	0.0	0.0
Peak		0.0	0.2	1.1	0.2	

Min		0.0	0.0	0.0	0.0
Average		0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/22/2019	10:05:47	0.0	---
002	5/22/2019	10:06:47	0.0	---
003	5/22/2019	10:07:47	0.0	---
004	5/22/2019	10:08:47	0.0	---
005	5/22/2019	10:09:47	0.0	---
006	5/22/2019	10:10:47	0.0	---
007	5/22/2019	10:11:47	0.0	---
008	5/22/2019	10:12:47	0.0	---
009	5/22/2019	10:13:47	0.0	---
010	5/22/2019	10:14:47	0.0	---
011	5/22/2019	10:15:47	0.0	---
012	5/22/2019	10:16:47	0.0	---
013	5/22/2019	10:17:47	0.0	---
014	5/22/2019	10:18:47	0.0	---
015	5/22/2019	10:19:47	0.0	0.0
016	5/22/2019	10:20:47	0.0	0.0
017	5/22/2019	10:21:47	0.0	0.0
018	5/22/2019	10:22:47	0.0	0.0
019	5/22/2019	10:23:47	0.0	0.0
020	5/22/2019	10:24:47	0.0	0.0
021	5/22/2019	10:25:47	0.0	0.0
022	5/22/2019	10:26:47	0.0	0.0
023	5/22/2019	10:27:47	0.0	0.0
024	5/22/2019	10:28:47	0.0	0.0

025	5/22/2019 10:29:47	0.0	0.0
026	5/22/2019 10:30:47	0.0	0.0
027	5/22/2019 10:31:47	0.0	0.0
028	5/22/2019 10:32:47	0.0	0.0
029	5/22/2019 10:33:47	0.0	0.0
030	5/22/2019 10:34:47	0.0	0.0
031	5/22/2019 10:35:47	0.0	0.0
032	5/22/2019 10:36:47	0.0	0.0
033	5/22/2019 10:37:47	0.0	0.0
034	5/22/2019 10:38:47	0.0	0.0
035	5/22/2019 10:39:47	0.0	0.0
036	5/22/2019 10:40:47	0.0	0.0
037	5/22/2019 10:41:47	0.0	0.0
038	5/22/2019 10:42:47	0.0	0.0
039	5/22/2019 10:43:47	0.0	0.0
040	5/22/2019 10:44:47	0.0	0.0
041	5/22/2019 10:45:47	0.0	0.0
042	5/22/2019 10:46:47	0.0	0.0
043	5/22/2019 10:47:47	0.0	0.0
044	5/22/2019 10:48:47	0.0	0.0
045	5/22/2019 10:49:47	0.0	0.0
046	5/22/2019 10:50:47	0.0	0.0
047	5/22/2019 10:51:47	0.0	0.0
048	5/22/2019 10:52:47	0.0	0.0
049	5/22/2019 10:53:47	0.0	0.0
050	5/22/2019 10:54:47	0.0	0.0
051	5/22/2019 10:55:47	0.0	0.0
052	5/22/2019 10:56:47	0.0	0.0
053	5/22/2019 10:57:47	0.0	0.0
054	5/22/2019 10:58:47	0.0	0.0
055	5/22/2019 10:59:47	0.0	0.0

056	5/22/2019	11:00:47	0.0	0.0
057	5/22/2019	11:01:47	0.0	0.0
058	5/22/2019	11:02:47	0.0	0.0
059	5/22/2019	11:03:47	0.0	0.0
060	5/22/2019	11:04:47	0.0	0.0
061	5/22/2019	11:05:47	0.0	0.0
062	5/22/2019	11:06:47	0.0	0.0
063	5/22/2019	11:07:47	0.0	0.0
064	5/22/2019	11:08:47	0.0	0.0
065	5/22/2019	11:09:47	0.0	0.0
066	5/22/2019	11:10:47	0.0	0.0
067	5/22/2019	11:11:47	0.0	0.0
068	5/22/2019	11:12:47	0.0	0.0
069	5/22/2019	11:13:47	0.0	0.0
070	5/22/2019	11:14:47	0.0	0.0
071	5/22/2019	11:15:47	0.0	0.0
072	5/22/2019	11:16:47	0.0	0.0
073	5/22/2019	11:17:47	0.0	0.1
074	5/22/2019	11:18:47	0.0	0.1
075	5/22/2019	11:19:47	0.0	0.1
076	5/22/2019	11:20:47	0.0	0.1
077	5/22/2019	11:21:47	0.0	0.0
078	5/22/2019	11:22:47	0.0	0.0
079	5/22/2019	11:23:47	0.0	0.0
080	5/22/2019	11:24:47	0.0	0.0
081	5/22/2019	11:25:47	0.0	0.0
082	5/22/2019	11:26:47	0.0	0.0
083	5/22/2019	11:27:47	0.0	0.0
084	5/22/2019	11:28:47	0.0	0.0
085	5/22/2019	11:29:47	0.0	0.0
086	5/22/2019	11:30:47	0.0	0.0

087	5/22/2019	11:31:47	0.0	0.0
088	5/22/2019	11:32:47	0.0	0.0
089	5/22/2019	11:33:47	0.0	0.0
090	5/22/2019	11:34:47	0.0	0.0
091	5/22/2019	11:35:47	0.0	0.0
092	5/22/2019	11:36:47	0.0	0.0
093	5/22/2019	11:37:47	0.0	0.0
094	5/22/2019	11:38:47	0.0	0.0
095	5/22/2019	11:39:47	0.0	0.0
096	5/22/2019	11:40:47	0.0	0.0
097	5/22/2019	11:41:47	0.0	0.0
098	5/22/2019	11:42:47	0.0	0.0
099	5/22/2019	11:43:47	0.0	0.0
100	5/22/2019	11:44:47	0.0	0.0
101	5/22/2019	11:45:47	0.0	0.0
102	5/22/2019	11:46:47	0.0	0.0
103	5/22/2019	11:47:47	0.0	0.0
104	5/22/2019	11:48:47	0.0	0.0
105	5/22/2019	11:49:47	0.0	0.0
106	5/22/2019	11:50:47	0.0	0.0
107	5/22/2019	11:51:47	0.0	0.0
108	5/22/2019	11:52:47	0.0	0.0
109	5/22/2019	11:53:47	0.0	0.0
110	5/22/2019	11:54:47	0.0	0.0
111	5/22/2019	11:55:47	0.0	0.0
112	5/22/2019	11:56:47	0.0	0.0
113	5/22/2019	11:57:47	0.0	0.0
114	5/22/2019	11:58:47	0.0	0.0
115	5/22/2019	11:59:47	0.0	0.0
116	5/22/2019	12:00:47	0.0	0.0
117	5/22/2019	12:01:47	0.0	0.0

118	5/22/2019 12:02:47	0.0	0.0
119	5/22/2019 12:03:47	0.0	0.0
120	5/22/2019 12:04:47	0.0	0.0
121	5/22/2019 12:05:47	0.0	0.0
122	5/22/2019 12:06:47	0.0	0.0
123	5/22/2019 12:07:47	0.0	0.0
124	5/22/2019 12:08:47	0.0	0.0
125	5/22/2019 12:09:47	0.0	0.0
126	5/22/2019 12:10:47	0.0	0.0
127	5/22/2019 12:11:47	0.0	0.0
128	5/22/2019 12:12:47	0.0	0.0
129	5/22/2019 12:13:47	0.0	0.0
130	5/22/2019 12:14:47	0.0	0.0
131	5/22/2019 12:15:47	0.0	0.0
132	5/22/2019 12:16:47	0.0	0.0
133	5/22/2019 12:17:47	0.0	0.0
134	5/22/2019 12:18:47	0.0	0.0
135	5/22/2019 12:19:47	0.0	0.0
136	5/22/2019 12:20:47	0.0	0.0
137	5/22/2019 12:21:47	0.0	0.0
138	5/22/2019 12:22:47	0.0	0.0
139	5/22/2019 12:23:47	0.0	0.0
140	5/22/2019 12:24:47	0.0	0.0
141	5/22/2019 12:25:47	0.0	0.0
142	5/22/2019 12:26:47	0.0	0.0
143	5/22/2019 12:27:47	0.0	0.0
144	5/22/2019 12:28:47	0.0	0.0
145	5/22/2019 12:29:47	0.0	0.0
146	5/22/2019 12:30:47	0.0	0.0
147	5/22/2019 12:31:47	0.0	0.0
148	5/22/2019 12:32:47	0.0	0.0

149	5/22/2019 12:33:47	0.0	0.0
150	5/22/2019 12:34:47	0.0	0.0
151	5/22/2019 12:35:47	0.0	0.0
152	5/22/2019 12:36:47	0.0	0.0
153	5/22/2019 12:37:47	0.0	0.0
154	5/22/2019 12:38:47	0.0	0.0
155	5/22/2019 12:39:47	0.0	0.0
156	5/22/2019 12:40:47	0.0	0.0
157	5/22/2019 12:41:47	0.0	0.0
158	5/22/2019 12:42:47	0.0	0.0
159	5/22/2019 12:43:47	0.0	0.0
160	5/22/2019 12:44:47	0.0	0.0
161	5/22/2019 12:45:47	0.0	0.0
162	5/22/2019 12:46:47	0.0	0.0
163	5/22/2019 12:47:47	0.0	0.0
164	5/22/2019 12:48:47	0.0	0.0
165	5/22/2019 12:49:47	0.0	0.0
166	5/22/2019 12:50:47	0.0	0.0
167	5/22/2019 12:51:47	0.0	0.0
168	5/22/2019 12:52:47	0.0	0.0
169	5/22/2019 12:53:47	0.0	0.0
170	5/22/2019 12:54:47	0.0	0.0
171	5/22/2019 12:55:47	0.0	0.0
172	5/22/2019 12:56:47	0.0	0.0
173	5/22/2019 12:57:47	0.0	0.0
174	5/22/2019 12:58:47	0.0	0.0
175	5/22/2019 12:59:47	0.0	0.0
176	5/22/2019 13:00:47	0.0	0.0
177	5/22/2019 13:01:47	0.0	0.0
178	5/22/2019 13:02:47	0.0	0.0
179	5/22/2019 13:03:47	0.0	0.0

180	5/22/2019 13:04:47	0.0	0.0
181	5/22/2019 13:05:47	0.0	0.0
182	5/22/2019 13:06:47	0.0	0.0
183	5/22/2019 13:07:47	0.0	0.0
184	5/22/2019 13:08:47	0.0	0.0
185	5/22/2019 13:09:47	0.0	0.0
186	5/22/2019 13:10:47	0.0	0.0
187	5/22/2019 13:11:47	0.0	0.0
188	5/22/2019 13:12:47	0.0	0.0
189	5/22/2019 13:13:47	0.0	0.0
190	5/22/2019 13:14:47	0.0	0.0
191	5/22/2019 13:15:47	0.0	0.0
192	5/22/2019 13:16:47	0.0	0.0
193	5/22/2019 13:17:47	0.0	0.0
194	5/22/2019 13:18:47	0.0	0.0
195	5/22/2019 13:19:47	0.0	0.0
196	5/22/2019 13:20:47	0.0	0.0
197	5/22/2019 13:21:47	0.0	0.0
198	5/22/2019 13:22:47	0.0	0.0
199	5/22/2019 13:23:47	0.0	0.0
200	5/22/2019 13:24:47	0.0	0.0
201	5/22/2019 13:25:47	0.0	0.0
202	5/22/2019 13:26:47	0.0	0.0
203	5/22/2019 13:27:47	0.0	0.0
204	5/22/2019 13:28:47	0.0	0.0
205	5/22/2019 13:29:47	0.0	0.0
206	5/22/2019 13:30:47	0.0	0.0
207	5/22/2019 13:31:47	0.0	0.0
208	5/22/2019 13:32:47	0.0	0.0
209	5/22/2019 13:33:47	0.0	0.0
210	5/22/2019 13:34:47	0.0	0.0

211	5/22/2019 13:35:47	0.0	0.0
212	5/22/2019 13:36:47	0.0	0.0
213	5/22/2019 13:37:47	0.0	0.0
214	5/22/2019 13:38:47	0.0	0.0
215	5/22/2019 13:39:47	0.0	0.0
216	5/22/2019 13:40:47	0.0	0.0
217	5/22/2019 13:41:47	0.0	0.0
218	5/22/2019 13:42:47	0.0	0.0
219	5/22/2019 13:43:47	0.0	0.0
220	5/22/2019 13:44:47	0.0	0.0
221	5/22/2019 13:45:47	0.0	0.0
222	5/22/2019 13:46:47	0.0	0.0
223	5/22/2019 13:47:47	0.0	0.0
224	5/22/2019 13:48:47	0.0	0.0
225	5/22/2019 13:49:47	0.0	0.0
226	5/22/2019 13:50:47	0.0	0.0
227	5/22/2019 13:51:47	0.0	0.0
228	5/22/2019 13:52:47	0.0	0.0
229	5/22/2019 13:53:47	0.0	0.0
230	5/22/2019 13:54:47	0.0	0.0
231	5/22/2019 13:55:47	0.0	0.0
232	5/22/2019 13:56:47	0.0	0.0
233	5/22/2019 13:57:47	0.0	0.0
234	5/22/2019 13:58:47	0.0	0.0
235	5/22/2019 13:59:47	0.0	0.0
236	5/22/2019 14:00:47	0.0	0.0
237	5/22/2019 14:01:47	0.0	0.0
238	5/22/2019 14:02:47	0.0	0.0
239	5/22/2019 14:03:47	0.0	0.0
240	5/22/2019 14:04:47	0.0	0.0
241	5/22/2019 14:05:47	0.0	0.0

242	5/22/2019 14:06:47	0.0	0.0
243	5/22/2019 14:07:47	0.0	0.0
244	5/22/2019 14:08:47	0.0	0.0
245	5/22/2019 14:09:47	0.0	0.0
246	5/22/2019 14:10:47	0.0	0.0
247	5/22/2019 14:11:47	0.0	0.0
248	5/22/2019 14:12:47	0.0	0.0
249	5/22/2019 14:13:47	0.0	0.0
250	5/22/2019 14:14:47	0.0	0.0
251	5/22/2019 14:15:47	0.0	0.0
252	5/22/2019 14:16:47	0.0	0.0
253	5/22/2019 14:17:47	0.0	0.0
254	5/22/2019 14:18:47	0.0	0.0
255	5/22/2019 14:19:47	0.0	0.0
256	5/22/2019 14:20:47	0.0	0.0
257	5/22/2019 14:21:47	0.0	0.0
258	5/22/2019 14:22:47	0.0	0.0
259	5/22/2019 14:23:47	0.0	0.0
260	5/22/2019 14:24:47	0.0	0.0
261	5/22/2019 14:25:47	0.0	0.0
262	5/22/2019 14:26:47	0.0	0.0
263	5/22/2019 14:27:47	0.0	0.0
264	5/22/2019 14:28:47	0.0	0.0
265	5/22/2019 14:29:47	0.0	0.0
266	5/22/2019 14:30:47	0.0	0.0
267	5/22/2019 14:31:47	0.0	0.0
268	5/22/2019 14:32:47	0.0	0.0
269	5/22/2019 14:33:47	0.0	0.0
270	5/22/2019 14:34:47	0.0	0.0
271	5/22/2019 14:35:47	0.0	0.0
272	5/22/2019 14:36:47	0.0	0.0

273	5/22/2019 14:37:47	0.0	0.0
274	5/22/2019 14:38:47	0.0	0.0
275	5/22/2019 14:39:47	0.0	0.0
276	5/22/2019 14:40:47	0.0	0.0
277	5/22/2019 14:41:47	0.0	0.0
278	5/22/2019 14:42:47	0.0	0.0
279	5/22/2019 14:43:47	0.0	0.0
280	5/22/2019 14:44:47	0.0	0.0
281	5/22/2019 14:45:47	0.0	0.0
282	5/22/2019 14:46:47	0.0	0.0
283	5/22/2019 14:47:47	0.0	0.0
284	5/22/2019 14:48:47	0.0	0.0
285	5/22/2019 14:49:47	0.0	0.0
286	5/22/2019 14:50:47	0.0	0.0
287	5/22/2019 14:51:47	0.0	0.0
288	5/22/2019 14:52:47	0.0	0.0
289	5/22/2019 14:53:47	0.0	0.0
290	5/22/2019 14:54:47	0.0	0.0
291	5/22/2019 14:55:47	0.0	0.0
292	5/22/2019 14:56:47	0.0	0.0
293	5/22/2019 14:57:47	0.0	0.0
294	5/22/2019 14:58:47	0.0	0.0
295	5/22/2019 14:59:47	0.0	0.0
296	5/22/2019 15:00:47	0.0	0.0
297	5/22/2019 15:01:47	0.0	0.0
298	5/22/2019 15:02:47	0.0	0.0
299	5/22/2019 15:03:47	0.0	0.0
300	5/22/2019 15:04:47	0.0	0.0
301	5/22/2019 15:05:47	0.0	0.0
302	5/22/2019 15:06:47	0.0	0.0

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19/05/23 10:42
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/23/2019 10:42:59
End	5/23/2019 14:25:13
Sample Period(s)	60
Number of Records	222

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0

TWA Alarm 10.0
Measurement Gas Isobutylene
Calibration Time 5/15/2019 16:00
Peak 0.0
Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/23/2019	10:43:59	0.0	0.0	0.0	0.0
002	5/23/2019	10:44:59	0.0	0.0	0.0	0.0
003	5/23/2019	10:45:59	0.0	0.0	0.0	0.0
004	5/23/2019	10:46:59	0.0	0.0	0.0	0.0
005	5/23/2019	10:47:59	0.0	0.0	0.0	0.0
006	5/23/2019	10:48:59	0.0	0.0	0.0	0.0
007	5/23/2019	10:49:59	0.0	0.0	0.0	0.0
008	5/23/2019	10:50:59	0.0	0.0	0.0	0.0
009	5/23/2019	10:51:59	0.0	0.0	0.0	0.0
010	5/23/2019	10:52:59	0.0	0.0	0.0	0.0
011	5/23/2019	10:53:59	0.0	0.0	0.0	0.0
012	5/23/2019	10:54:59	0.0	0.0	0.0	0.0
013	5/23/2019	10:55:59	0.0	0.0	0.0	0.0
014	5/23/2019	10:56:59	0.0	0.0	0.0	0.0
015	5/23/2019	10:57:59	0.0	0.0	0.0	0.0
016	5/23/2019	10:58:59	0.0	0.0	0.0	0.0
017	5/23/2019	10:59:59	0.0	0.0	0.0	0.0
018	5/23/2019	11:00:59	0.0	0.0	0.0	0.0
019	5/23/2019	11:01:59	0.0	0.0	0.0	0.0
020	5/23/2019	11:02:59	0.0	0.0	0.0	0.0

021	5/23/2019	11:03:59	0.0	0.0	0.0	0.0
022	5/23/2019	11:04:59	0.0	0.0	0.0	0.0
023	5/23/2019	11:05:59	0.0	0.0	0.0	0.0
024	5/23/2019	11:06:59	0.0	0.0	0.0	0.0
025	5/23/2019	11:07:59	0.0	0.0	0.0	0.0
026	5/23/2019	11:08:59	0.0	0.0	0.0	0.0
027	5/23/2019	11:09:59	0.0	0.0	0.0	0.0
028	5/23/2019	11:10:59	0.0	0.0	0.0	0.0
029	5/23/2019	11:11:59	0.0	0.0	0.0	0.0
030	5/23/2019	11:12:59	0.0	0.0	0.0	0.0
031	5/23/2019	11:13:59	0.0	0.0	0.0	0.0
032	5/23/2019	11:14:59	0.0	0.0	0.0	0.0
033	5/23/2019	11:15:59	0.0	0.0	0.0	0.0
034	5/23/2019	11:16:59	0.0	0.0	0.0	0.0
035	5/23/2019	11:17:59	0.0	0.0	0.0	0.0
036	5/23/2019	11:18:59	0.0	0.0	0.0	0.0
037	5/23/2019	11:19:59	0.0	0.0	0.0	0.0
038	5/23/2019	11:20:59	0.0	0.0	0.0	0.0
039	5/23/2019	11:21:59	0.0	0.0	0.0	0.0
040	5/23/2019	11:22:59	0.0	0.0	0.0	0.0
041	5/23/2019	11:23:59	0.0	0.0	0.0	0.0
042	5/23/2019	11:24:59	0.0	0.0	0.0	0.0
043	5/23/2019	11:25:59	0.0	0.0	0.0	0.0
044	5/23/2019	11:26:59	0.0	0.0	0.0	0.0
045	5/23/2019	11:27:59	0.0	0.0	0.0	0.0
046	5/23/2019	11:28:59	0.0	0.0	0.0	0.0
047	5/23/2019	11:29:59	0.0	0.0	0.0	0.0
048	5/23/2019	11:30:59	0.0	0.0	0.0	0.0
049	5/23/2019	11:31:59	0.0	0.0	0.0	0.0
050	5/23/2019	11:32:59	0.0	0.0	0.0	0.0
051	5/23/2019	11:33:59	0.0	0.0	0.0	0.0

052	5/23/2019	11:34:59	0.0	0.0	0.0	0.0
053	5/23/2019	11:35:59	0.0	0.0	0.0	0.0
054	5/23/2019	11:36:59	0.0	0.0	0.0	0.0
055	5/23/2019	11:37:59	0.0	0.0	0.0	0.0
056	5/23/2019	11:38:59	0.0	0.0	0.0	0.0
057	5/23/2019	11:39:59	0.0	0.0	0.0	0.0
058	5/23/2019	11:40:59	0.0	0.0	0.0	0.0
059	5/23/2019	11:41:59	0.0	0.0	0.0	0.0
060	5/23/2019	11:42:59	0.0	0.0	0.0	0.0
061	5/23/2019	11:43:59	0.0	0.0	0.0	0.0
062	5/23/2019	11:44:59	0.0	0.0	0.0	0.0
063	5/23/2019	11:45:59	0.0	0.0	0.0	0.0
064	5/23/2019	11:46:59	0.0	0.0	0.0	0.0
065	5/23/2019	11:47:59	0.0	0.0	0.0	0.0
066	5/23/2019	11:48:59	0.0	0.0	0.0	0.0
067	5/23/2019	11:49:59	0.0	0.0	0.0	0.0
068	5/23/2019	11:50:59	0.0	0.0	0.0	0.0
069	5/23/2019	11:51:59	0.0	0.0	0.0	0.0
070	5/23/2019	11:52:59	0.0	0.0	0.0	0.0
071	5/23/2019	11:53:59	0.0	0.0	0.0	0.0
072	5/23/2019	11:54:59	0.0	0.0	0.0	0.0
073	5/23/2019	11:55:59	0.0	0.0	0.0	0.0
074	5/23/2019	11:56:59	0.0	0.0	0.0	0.0
075	5/23/2019	11:57:59	0.0	0.0	0.0	0.0
076	5/23/2019	11:58:59	0.0	0.0	0.0	0.0
077	5/23/2019	11:59:59	0.0	0.0	0.0	0.0
078	5/23/2019	12:00:59	0.0	0.0	0.0	0.0
079	5/23/2019	12:01:59	0.0	0.0	0.0	0.0
080	5/23/2019	12:02:59	0.0	0.0	0.0	0.0
081	5/23/2019	12:03:59	0.0	0.0	0.0	0.0
082	5/23/2019	12:04:59	0.0	0.0	0.0	0.0

083	5/23/2019 12:05:59	0.0	0.0	0.0	0.0
084	5/23/2019 12:06:59	0.0	0.0	0.0	0.0
085	5/23/2019 12:07:59	0.0	0.0	0.0	0.0
086	5/23/2019 12:08:59	0.0	0.0	0.0	0.0
087	5/23/2019 12:09:59	0.0	0.0	0.0	0.0
088	5/23/2019 12:10:59	0.0	0.0	0.0	0.0
089	5/23/2019 12:11:59	0.0	0.0	0.0	0.0
090	5/23/2019 12:12:59	0.0	0.0	0.0	0.0
091	5/23/2019 12:13:59	0.0	0.0	0.0	0.0
092	5/23/2019 12:14:59	0.0	0.0	0.0	0.0
093	5/23/2019 12:15:59	0.0	0.0	0.0	0.0
094	5/23/2019 12:16:59	0.0	0.0	0.0	0.0
095	5/23/2019 12:17:59	0.0	0.0	0.0	0.0
096	5/23/2019 12:18:59	0.0	0.0	0.0	0.0
097	5/23/2019 12:19:59	0.0	0.0	0.0	0.0
098	5/23/2019 12:20:59	0.0	0.0	0.0	0.0
099	5/23/2019 12:21:59	0.0	0.0	0.0	0.0
100	5/23/2019 12:22:59	0.0	0.0	0.0	0.0
101	5/23/2019 12:23:59	0.0	0.0	0.0	0.0
102	5/23/2019 12:24:59	0.0	0.0	0.0	0.0
103	5/23/2019 12:25:59	0.0	0.0	0.0	0.0
104	5/23/2019 12:26:59	0.0	0.0	0.0	0.0
105	5/23/2019 12:27:59	0.0	0.0	0.0	0.0
106	5/23/2019 12:28:59	0.0	0.0	0.0	0.0
107	5/23/2019 12:29:59	0.0	0.0	0.0	0.0
108	5/23/2019 12:30:59	0.0	0.0	0.0	0.0
109	5/23/2019 12:31:59	0.0	0.0	0.0	0.0
110	5/23/2019 12:32:59	0.0	0.0	0.0	0.0
111	5/23/2019 12:33:59	0.0	0.0	0.0	0.0
112	5/23/2019 12:34:59	0.0	0.0	0.0	0.0
113	5/23/2019 12:35:59	0.0	0.0	0.0	0.0

114	5/23/2019 12:36:59	0.0	0.0	0.0	0.0
115	5/23/2019 12:37:59	0.0	0.0	0.0	0.0
116	5/23/2019 12:38:59	0.0	0.0	0.0	0.0
117	5/23/2019 12:39:59	0.0	0.0	0.0	0.0
118	5/23/2019 12:40:59	0.0	0.0	0.0	0.0
119	5/23/2019 12:41:59	0.0	0.0	0.0	0.0
120	5/23/2019 12:42:59	0.0	0.0	0.0	0.0
121	5/23/2019 12:43:59	0.0	0.0	0.0	0.0
122	5/23/2019 12:44:59	0.0	0.0	0.0	0.0
123	5/23/2019 12:45:59	0.0	0.0	0.0	0.0
124	5/23/2019 12:46:59	0.0	0.0	0.0	0.0
125	5/23/2019 12:47:59	0.0	0.0	0.0	0.0
126	5/23/2019 12:48:59	0.0	0.0	0.0	0.0
127	5/23/2019 12:49:59	0.0	0.0	0.0	0.0
128	5/23/2019 12:50:59	0.0	0.0	0.0	0.0
129	5/23/2019 12:51:59	0.0	0.0	0.0	0.0
130	5/23/2019 12:52:59	0.0	0.0	0.0	0.0
131	5/23/2019 12:53:59	0.0	0.0	0.0	0.0
132	5/23/2019 12:54:59	0.0	0.0	0.0	0.0
133	5/23/2019 12:55:59	0.0	0.0	0.0	0.0
134	5/23/2019 12:56:59	0.0	0.0	0.0	0.0
135	5/23/2019 12:57:59	0.0	0.0	0.0	0.0
136	5/23/2019 12:58:59	0.0	0.0	0.0	0.0
137	5/23/2019 12:59:59	0.0	0.0	0.0	0.0
138	5/23/2019 13:00:59	0.0	0.0	0.0	0.0
139	5/23/2019 13:01:59	0.0	0.0	0.0	0.0
140	5/23/2019 13:02:59	0.0	0.0	0.0	0.0
141	5/23/2019 13:03:59	0.0	0.0	0.0	0.0
142	5/23/2019 13:04:59	0.0	0.0	0.0	0.0
143	5/23/2019 13:05:59	0.0	0.0	0.0	0.0
144	5/23/2019 13:06:59	0.0	0.0	0.0	0.0

145	5/23/2019 13:07:59	0.0	0.0	0.0	0.0
146	5/23/2019 13:08:59	0.0	0.0	0.0	0.0
147	5/23/2019 13:09:59	0.0	0.0	0.0	0.0
148	5/23/2019 13:10:59	0.0	0.0	0.0	0.0
149	5/23/2019 13:11:59	0.0	0.0	0.0	0.0
150	5/23/2019 13:12:59	0.0	0.0	0.0	0.0
151	5/23/2019 13:13:59	0.0	0.0	0.0	0.0
152	5/23/2019 13:14:59	0.0	0.0	0.0	0.0
153	5/23/2019 13:15:59	0.0	0.0	0.0	0.0
154	5/23/2019 13:16:59	0.0	0.0	0.0	0.0
155	5/23/2019 13:17:59	0.0	0.0	0.0	0.0
156	5/23/2019 13:18:59	0.0	0.0	0.0	0.0
157	5/23/2019 13:19:59	0.0	0.0	0.0	0.0
158	5/23/2019 13:20:59	0.0	0.0	0.0	0.0
159	5/23/2019 13:21:59	0.0	0.0	0.0	0.0
160	5/23/2019 13:22:59	0.0	0.0	0.0	0.0
161	5/23/2019 13:23:59	0.0	0.0	0.0	0.0
162	5/23/2019 13:24:59	0.0	0.0	0.0	0.0
163	5/23/2019 13:25:59	0.0	0.0	0.0	0.0
164	5/23/2019 13:26:59	0.0	0.0	0.0	0.0
165	5/23/2019 13:27:59	0.0	0.0	0.0	0.0
166	5/23/2019 13:28:59	0.0	0.0	0.0	0.0
167	5/23/2019 13:29:59	0.0	0.0	0.0	0.0
168	5/23/2019 13:30:59	0.0	0.0	0.0	0.0
169	5/23/2019 13:31:59	0.0	0.0	0.0	0.0
170	5/23/2019 13:32:59	0.0	0.0	0.0	0.0
171	5/23/2019 13:33:59	0.0	0.0	0.0	0.0
172	5/23/2019 13:34:59	0.0	0.0	0.0	0.0
173	5/23/2019 13:35:59	0.0	0.0	0.0	0.0
174	5/23/2019 13:36:59	0.0	0.0	0.0	0.0
175	5/23/2019 13:37:59	0.0	0.0	0.0	0.0

176	5/23/2019 13:38:59	0.0	0.0	0.0	0.0
177	5/23/2019 13:39:59	0.0	0.0	0.0	0.0
178	5/23/2019 13:40:59	0.0	0.0	0.0	0.0
179	5/23/2019 13:41:59	0.0	0.0	0.0	0.0
180	5/23/2019 13:42:59	0.0	0.0	0.0	0.0
181	5/23/2019 13:43:59	0.0	0.0	0.0	0.0
182	5/23/2019 13:44:59	0.0	0.0	0.0	0.0
183	5/23/2019 13:45:59	0.0	0.0	0.0	0.0
184	5/23/2019 13:46:59	0.0	0.0	0.0	0.0
185	5/23/2019 13:47:59	0.0	0.0	0.0	0.0
186	5/23/2019 13:48:59	0.0	0.0	0.0	0.0
187	5/23/2019 13:49:59	0.0	0.0	0.0	0.0
188	5/23/2019 13:50:59	0.0	0.0	0.0	0.0
189	5/23/2019 13:51:59	0.0	0.0	0.0	0.0
190	5/23/2019 13:52:59	0.0	0.0	0.0	0.0
191	5/23/2019 13:53:59	0.0	0.0	0.0	0.0
192	5/23/2019 13:54:59	0.0	0.0	0.0	0.0
193	5/23/2019 13:55:59	0.0	0.0	0.0	0.0
194	5/23/2019 13:56:59	0.0	0.0	0.0	0.0
195	5/23/2019 13:57:59	0.0	0.0	0.0	0.0
196	5/23/2019 13:58:59	0.0	0.0	0.0	0.0
197	5/23/2019 13:59:59	0.0	0.0	0.0	0.0
198	5/23/2019 14:00:59	0.0	0.0	0.0	0.0
199	5/23/2019 14:01:59	0.0	0.0	0.0	0.0
200	5/23/2019 14:02:59	0.0	0.0	0.0	0.0
201	5/23/2019 14:03:59	0.0	0.0	0.0	0.0
202	5/23/2019 14:04:59	0.0	0.0	0.0	0.0
203	5/23/2019 14:05:59	0.0	0.0	0.0	0.0
204	5/23/2019 14:06:59	0.0	0.0	0.0	0.0
205	5/23/2019 14:07:59	0.0	0.0	0.0	0.0
206	5/23/2019 14:08:59	0.0	0.0	0.0	0.0

207	5/23/2019	14:09:59	0.0	0.0	0.0	0.0
208	5/23/2019	14:10:59	0.0	0.0	0.0	0.0
209	5/23/2019	14:11:59	0.0	0.0	0.0	0.0
210	5/23/2019	14:12:59	0.0	0.0	0.0	0.0
211	5/23/2019	14:13:59	0.0	0.0	0.0	0.0
212	5/23/2019	14:14:59	0.0	0.0	0.0	0.0
213	5/23/2019	14:15:59	0.0	0.0	0.0	0.0
214	5/23/2019	14:16:59	0.0	0.0	0.0	0.0
215	5/23/2019	14:17:59	0.0	0.0	0.0	0.0
216	5/23/2019	14:18:59	0.0	0.0	0.0	0.0
217	5/23/2019	14:19:59	0.0	0.0	0.0	0.0
218	5/23/2019	14:20:59	0.0	0.0	0.0	0.0
219	5/23/2019	14:21:59	0.0	0.0	0.0	0.0
220	5/23/2019	14:22:59	0.0	0.0	0.0	0.0
221	5/23/2019	14:23:59	0.0	0.0	0.0	0.0
222	5/23/2019	14:24:59	0.0	0.0	0.0	0.0
Peak			0.0	0.0	0.0	0.0
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/23/2019	10:43:59	0.0	---	
002	5/23/2019	10:44:59	0.0	---	
003	5/23/2019	10:45:59	0.0	---	
004	5/23/2019	10:46:59	0.0	---	
005	5/23/2019	10:47:59	0.0	---	
006	5/23/2019	10:48:59	0.0	---	
007	5/23/2019	10:49:59	0.0	---	

008	5/23/2019 10:50:59	0.0	---
009	5/23/2019 10:51:59	0.0	---
010	5/23/2019 10:52:59	0.0	---
011	5/23/2019 10:53:59	0.0	---
012	5/23/2019 10:54:59	0.0	---
013	5/23/2019 10:55:59	0.0	---
014	5/23/2019 10:56:59	0.0	---
015	5/23/2019 10:57:59	0.0	0.0
016	5/23/2019 10:58:59	0.0	0.0
017	5/23/2019 10:59:59	0.0	0.0
018	5/23/2019 11:00:59	0.0	0.0
019	5/23/2019 11:01:59	0.0	0.0
020	5/23/2019 11:02:59	0.0	0.0
021	5/23/2019 11:03:59	0.0	0.0
022	5/23/2019 11:04:59	0.0	0.0
023	5/23/2019 11:05:59	0.0	0.0
024	5/23/2019 11:06:59	0.0	0.0
025	5/23/2019 11:07:59	0.0	0.0
026	5/23/2019 11:08:59	0.0	0.0
027	5/23/2019 11:09:59	0.0	0.0
028	5/23/2019 11:10:59	0.0	0.0
029	5/23/2019 11:11:59	0.0	0.0
030	5/23/2019 11:12:59	0.0	0.0
031	5/23/2019 11:13:59	0.0	0.0
032	5/23/2019 11:14:59	0.0	0.0
033	5/23/2019 11:15:59	0.0	0.0
034	5/23/2019 11:16:59	0.0	0.0
035	5/23/2019 11:17:59	0.0	0.0
036	5/23/2019 11:18:59	0.0	0.0
037	5/23/2019 11:19:59	0.0	0.0
038	5/23/2019 11:20:59	0.0	0.0

039	5/23/2019	11:21:59	0.0	0.0
040	5/23/2019	11:22:59	0.0	0.0
041	5/23/2019	11:23:59	0.0	0.0
042	5/23/2019	11:24:59	0.0	0.0
043	5/23/2019	11:25:59	0.0	0.0
044	5/23/2019	11:26:59	0.0	0.0
045	5/23/2019	11:27:59	0.0	0.0
046	5/23/2019	11:28:59	0.0	0.0
047	5/23/2019	11:29:59	0.0	0.0
048	5/23/2019	11:30:59	0.0	0.0
049	5/23/2019	11:31:59	0.0	0.0
050	5/23/2019	11:32:59	0.0	0.0
051	5/23/2019	11:33:59	0.0	0.0
052	5/23/2019	11:34:59	0.0	0.0
053	5/23/2019	11:35:59	0.0	0.0
054	5/23/2019	11:36:59	0.0	0.0
055	5/23/2019	11:37:59	0.0	0.0
056	5/23/2019	11:38:59	0.0	0.0
057	5/23/2019	11:39:59	0.0	0.0
058	5/23/2019	11:40:59	0.0	0.0
059	5/23/2019	11:41:59	0.0	0.0
060	5/23/2019	11:42:59	0.0	0.0
061	5/23/2019	11:43:59	0.0	0.0
062	5/23/2019	11:44:59	0.0	0.0
063	5/23/2019	11:45:59	0.0	0.0
064	5/23/2019	11:46:59	0.0	0.0
065	5/23/2019	11:47:59	0.0	0.0
066	5/23/2019	11:48:59	0.0	0.0
067	5/23/2019	11:49:59	0.0	0.0
068	5/23/2019	11:50:59	0.0	0.0
069	5/23/2019	11:51:59	0.0	0.0

070	5/23/2019 11:52:59	0.0	0.0
071	5/23/2019 11:53:59	0.0	0.0
072	5/23/2019 11:54:59	0.0	0.0
073	5/23/2019 11:55:59	0.0	0.0
074	5/23/2019 11:56:59	0.0	0.0
075	5/23/2019 11:57:59	0.0	0.0
076	5/23/2019 11:58:59	0.0	0.0
077	5/23/2019 11:59:59	0.0	0.0
078	5/23/2019 12:00:59	0.0	0.0
079	5/23/2019 12:01:59	0.0	0.0
080	5/23/2019 12:02:59	0.0	0.0
081	5/23/2019 12:03:59	0.0	0.0
082	5/23/2019 12:04:59	0.0	0.0
083	5/23/2019 12:05:59	0.0	0.0
084	5/23/2019 12:06:59	0.0	0.0
085	5/23/2019 12:07:59	0.0	0.0
086	5/23/2019 12:08:59	0.0	0.0
087	5/23/2019 12:09:59	0.0	0.0
088	5/23/2019 12:10:59	0.0	0.0
089	5/23/2019 12:11:59	0.0	0.0
090	5/23/2019 12:12:59	0.0	0.0
091	5/23/2019 12:13:59	0.0	0.0
092	5/23/2019 12:14:59	0.0	0.0
093	5/23/2019 12:15:59	0.0	0.0
094	5/23/2019 12:16:59	0.0	0.0
095	5/23/2019 12:17:59	0.0	0.0
096	5/23/2019 12:18:59	0.0	0.0
097	5/23/2019 12:19:59	0.0	0.0
098	5/23/2019 12:20:59	0.0	0.0
099	5/23/2019 12:21:59	0.0	0.0
100	5/23/2019 12:22:59	0.0	0.0

101	5/23/2019 12:23:59	0.0	0.0
102	5/23/2019 12:24:59	0.0	0.0
103	5/23/2019 12:25:59	0.0	0.0
104	5/23/2019 12:26:59	0.0	0.0
105	5/23/2019 12:27:59	0.0	0.0
106	5/23/2019 12:28:59	0.0	0.0
107	5/23/2019 12:29:59	0.0	0.0
108	5/23/2019 12:30:59	0.0	0.0
109	5/23/2019 12:31:59	0.0	0.0
110	5/23/2019 12:32:59	0.0	0.0
111	5/23/2019 12:33:59	0.0	0.0
112	5/23/2019 12:34:59	0.0	0.0
113	5/23/2019 12:35:59	0.0	0.0
114	5/23/2019 12:36:59	0.0	0.0
115	5/23/2019 12:37:59	0.0	0.0
116	5/23/2019 12:38:59	0.0	0.0
117	5/23/2019 12:39:59	0.0	0.0
118	5/23/2019 12:40:59	0.0	0.0
119	5/23/2019 12:41:59	0.0	0.0
120	5/23/2019 12:42:59	0.0	0.0
121	5/23/2019 12:43:59	0.0	0.0
122	5/23/2019 12:44:59	0.0	0.0
123	5/23/2019 12:45:59	0.0	0.0
124	5/23/2019 12:46:59	0.0	0.0
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126	5/23/2019 12:48:59	0.0	0.0
127	5/23/2019 12:49:59	0.0	0.0
128	5/23/2019 12:50:59	0.0	0.0
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130	5/23/2019 12:52:59	0.0	0.0
131	5/23/2019 12:53:59	0.0	0.0

132	5/23/2019 12:54:59	0.0	0.0
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134	5/23/2019 12:56:59	0.0	0.0
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136	5/23/2019 12:58:59	0.0	0.0
137	5/23/2019 12:59:59	0.0	0.0
138	5/23/2019 13:00:59	0.0	0.0
139	5/23/2019 13:01:59	0.0	0.0
140	5/23/2019 13:02:59	0.0	0.0
141	5/23/2019 13:03:59	0.0	0.0
142	5/23/2019 13:04:59	0.0	0.0
143	5/23/2019 13:05:59	0.0	0.0
144	5/23/2019 13:06:59	0.0	0.0
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146	5/23/2019 13:08:59	0.0	0.0
147	5/23/2019 13:09:59	0.0	0.0
148	5/23/2019 13:10:59	0.0	0.0
149	5/23/2019 13:11:59	0.0	0.0
150	5/23/2019 13:12:59	0.0	0.0
151	5/23/2019 13:13:59	0.0	0.0
152	5/23/2019 13:14:59	0.0	0.0
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154	5/23/2019 13:16:59	0.0	0.0
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156	5/23/2019 13:18:59	0.0	0.0
157	5/23/2019 13:19:59	0.0	0.0
158	5/23/2019 13:20:59	0.0	0.0
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166	5/23/2019 13:28:59	0.0	0.0
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170	5/23/2019 13:32:59	0.0	0.0
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172	5/23/2019 13:34:59	0.0	0.0
173	5/23/2019 13:35:59	0.0	0.0
174	5/23/2019 13:36:59	0.0	0.0
175	5/23/2019 13:37:59	0.0	0.0
176	5/23/2019 13:38:59	0.0	0.0
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178	5/23/2019 13:40:59	0.0	0.0
179	5/23/2019 13:41:59	0.0	0.0
180	5/23/2019 13:42:59	0.0	0.0
181	5/23/2019 13:43:59	0.0	0.0
182	5/23/2019 13:44:59	0.0	0.0
183	5/23/2019 13:45:59	0.0	0.0
184	5/23/2019 13:46:59	0.0	0.0
185	5/23/2019 13:47:59	0.0	0.0
186	5/23/2019 13:48:59	0.0	0.0
187	5/23/2019 13:49:59	0.0	0.0
188	5/23/2019 13:50:59	0.0	0.0
189	5/23/2019 13:51:59	0.0	0.0
190	5/23/2019 13:52:59	0.0	0.0
191	5/23/2019 13:53:59	0.0	0.0
192	5/23/2019 13:54:59	0.0	0.0
193	5/23/2019 13:55:59	0.0	0.0

194	5/23/2019 13:56:59	0.0	0.0
195	5/23/2019 13:57:59	0.0	0.0
196	5/23/2019 13:58:59	0.0	0.0
197	5/23/2019 13:59:59	0.0	0.0
198	5/23/2019 14:00:59	0.0	0.0
199	5/23/2019 14:01:59	0.0	0.0
200	5/23/2019 14:02:59	0.0	0.0
201	5/23/2019 14:03:59	0.0	0.0
202	5/23/2019 14:04:59	0.0	0.0
203	5/23/2019 14:05:59	0.0	0.0
204	5/23/2019 14:06:59	0.0	0.0
205	5/23/2019 14:07:59	0.0	0.0
206	5/23/2019 14:08:59	0.0	0.0
207	5/23/2019 14:09:59	0.0	0.0
208	5/23/2019 14:10:59	0.0	0.0
209	5/23/2019 14:11:59	0.0	0.0
210	5/23/2019 14:12:59	0.0	0.0
211	5/23/2019 14:13:59	0.0	0.0
212	5/23/2019 14:14:59	0.0	0.0
213	5/23/2019 14:15:59	0.0	0.0
214	5/23/2019 14:16:59	0.0	0.0
215	5/23/2019 14:17:59	0.0	0.0
216	5/23/2019 14:18:59	0.0	0.0
217	5/23/2019 14:19:59	0.0	0.0
218	5/23/2019 14:20:59	0.0	0.0
219	5/23/2019 14:21:59	0.0	0.0
220	5/23/2019 14:22:59	0.0	0.0
221	5/23/2019 14:23:59	0.0	0.0
222	5/23/2019 14:24:59	0.0	0.0

甄==========
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19/05/24 09:43
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/24/2019 09:43:24
End	5/24/2019 12:30:13
Sample Period(s)	60
Number of Records	166

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0

Measurement Gas Isobutylene
Calibration Time 5/15/2019 16:00
Peak 0.0
Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/24/2019	09:44:24	0.0	0.0	0.0	0.0
002	5/24/2019	09:45:24	0.0	0.0	0.0	0.0
003	5/24/2019	09:46:24	0.0	0.0	0.0	0.0
004	5/24/2019	09:47:24	0.0	0.0	0.0	0.0
005	5/24/2019	09:48:24	0.0	0.0	0.0	0.0
006	5/24/2019	09:49:24	0.0	0.0	0.0	0.0
007	5/24/2019	09:50:24	0.0	0.0	0.0	0.0
008	5/24/2019	09:51:24	0.0	0.0	0.0	0.0
009	5/24/2019	09:52:24	0.0	0.0	0.0	0.0
010	5/24/2019	09:53:24	0.0	0.0	0.0	0.0
011	5/24/2019	09:54:24	0.0	0.0	0.0	0.0
012	5/24/2019	09:55:24	0.0	0.0	0.0	0.0
013	5/24/2019	09:56:24	0.0	0.0	0.0	0.0
014	5/24/2019	09:57:24	0.0	0.0	0.0	0.0
015	5/24/2019	09:58:24	0.0	0.0	0.0	0.0
016	5/24/2019	09:59:24	0.0	0.0	0.0	0.0
017	5/24/2019	10:00:24	0.0	0.0	0.0	0.0
018	5/24/2019	10:01:24	0.0	0.0	0.0	0.0
019	5/24/2019	10:02:24	0.0	0.0	0.0	0.0
020	5/24/2019	10:03:24	0.0	0.0	0.0	0.0
021	5/24/2019	10:04:24	0.0	0.0	0.0	0.0

022	5/24/2019 10:05:24	0.0	0.0	0.0	0.0
023	5/24/2019 10:06:24	0.0	0.0	0.0	0.0
024	5/24/2019 10:07:24	0.0	0.0	0.0	0.0
025	5/24/2019 10:08:24	0.0	0.0	0.0	0.0
026	5/24/2019 10:09:24	0.0	0.0	0.0	0.0
027	5/24/2019 10:10:24	0.0	0.0	0.0	0.0
028	5/24/2019 10:11:24	0.0	0.0	0.0	0.0
029	5/24/2019 10:12:24	0.0	0.0	0.0	0.0
030	5/24/2019 10:13:24	0.0	0.0	0.0	0.0
031	5/24/2019 10:14:24	0.0	0.0	0.0	0.0
032	5/24/2019 10:15:24	0.0	0.0	0.0	0.0
033	5/24/2019 10:16:24	0.0	0.0	0.0	0.0
034	5/24/2019 10:17:24	0.0	0.0	0.0	0.0
035	5/24/2019 10:18:24	0.0	0.0	0.0	0.0
036	5/24/2019 10:19:24	0.0	0.0	0.0	0.0
037	5/24/2019 10:20:24	0.0	0.0	0.0	0.0
038	5/24/2019 10:21:24	0.0	0.0	0.0	0.0
039	5/24/2019 10:22:24	0.0	0.0	0.0	0.0
040	5/24/2019 10:23:24	0.0	0.0	0.0	0.0
041	5/24/2019 10:24:24	0.0	0.0	0.0	0.0
042	5/24/2019 10:25:24	0.0	0.0	0.0	0.0
043	5/24/2019 10:26:24	0.0	0.0	0.0	0.0
044	5/24/2019 10:27:24	0.0	0.0	0.0	0.0
045	5/24/2019 10:28:24	0.0	0.0	0.0	0.0
046	5/24/2019 10:29:24	0.0	0.0	0.0	0.0
047	5/24/2019 10:30:24	0.0	0.0	0.0	0.0
048	5/24/2019 10:31:24	0.0	0.0	0.0	0.0
049	5/24/2019 10:32:24	0.0	0.0	0.0	0.0
050	5/24/2019 10:33:24	0.0	0.0	0.0	0.0
051	5/24/2019 10:34:24	0.0	0.0	0.0	0.0
052	5/24/2019 10:35:24	0.0	0.0	0.0	0.0

053	5/24/2019 10:36:24	0.0	0.0	0.0	0.0
054	5/24/2019 10:37:24	0.0	0.0	0.0	0.0
055	5/24/2019 10:38:24	0.0	0.0	0.0	0.0
056	5/24/2019 10:39:24	0.0	0.0	0.0	0.0
057	5/24/2019 10:40:24	0.0	0.0	0.0	0.0
058	5/24/2019 10:41:24	0.0	0.0	0.0	0.0
059	5/24/2019 10:42:24	0.0	0.0	0.0	0.0
060	5/24/2019 10:43:24	0.0	0.0	0.0	0.0
061	5/24/2019 10:44:24	0.0	0.0	0.0	0.0
062	5/24/2019 10:45:24	0.0	0.0	0.0	0.0
063	5/24/2019 10:46:24	0.0	0.0	0.0	0.0
064	5/24/2019 10:47:24	0.0	0.0	0.0	0.0
065	5/24/2019 10:48:24	0.0	0.0	0.0	0.0
066	5/24/2019 10:49:24	0.0	0.0	0.0	0.0
067	5/24/2019 10:50:24	0.0	0.0	0.0	0.0
068	5/24/2019 10:51:24	0.0	0.0	0.0	0.0
069	5/24/2019 10:52:24	0.0	0.0	0.0	0.0
070	5/24/2019 10:53:24	0.0	0.0	0.0	0.0
071	5/24/2019 10:54:24	0.0	0.0	0.0	0.0
072	5/24/2019 10:55:24	0.0	0.0	0.0	0.0
073	5/24/2019 10:56:24	0.0	0.0	0.0	0.0
074	5/24/2019 10:57:24	0.0	0.0	0.0	0.0
075	5/24/2019 10:58:24	0.0	0.0	0.0	0.0
076	5/24/2019 10:59:24	0.0	0.0	0.0	0.0
077	5/24/2019 11:00:24	0.0	0.0	0.0	0.0
078	5/24/2019 11:01:24	0.0	0.0	0.0	0.0
079	5/24/2019 11:02:24	0.0	0.0	0.0	0.0
080	5/24/2019 11:03:24	0.0	0.0	0.0	0.0
081	5/24/2019 11:04:24	0.0	0.0	0.0	0.0
082	5/24/2019 11:05:24	0.0	0.0	0.0	0.0
083	5/24/2019 11:06:24	0.0	0.0	0.0	0.0

084	5/24/2019 11:07:24	0.0	0.0	0.0	0.0
085	5/24/2019 11:08:24	0.0	0.0	0.0	0.0
086	5/24/2019 11:09:24	0.0	0.0	0.0	0.0
087	5/24/2019 11:10:24	0.0	0.0	0.0	0.0
088	5/24/2019 11:11:24	0.0	0.0	0.0	0.0
089	5/24/2019 11:12:24	0.0	0.0	0.0	0.0
090	5/24/2019 11:13:24	0.0	0.0	0.0	0.0
091	5/24/2019 11:14:24	0.0	0.0	0.0	0.0
092	5/24/2019 11:15:24	0.0	0.0	0.0	0.0
093	5/24/2019 11:16:24	0.0	0.0	0.0	0.0
094	5/24/2019 11:17:24	0.0	0.0	0.0	0.0
095	5/24/2019 11:18:24	0.0	0.0	0.0	0.0
096	5/24/2019 11:19:24	0.0	0.0	0.0	0.0
097	5/24/2019 11:20:24	0.0	0.0	0.0	0.0
098	5/24/2019 11:21:24	0.0	0.0	0.0	0.0
099	5/24/2019 11:22:24	0.0	0.0	0.0	0.0
100	5/24/2019 11:23:24	0.0	0.0	0.0	0.0
101	5/24/2019 11:24:24	0.0	0.0	0.0	0.0
102	5/24/2019 11:25:24	0.0	0.0	0.0	0.0
103	5/24/2019 11:26:24	0.0	0.0	0.0	0.0
104	5/24/2019 11:27:24	0.0	0.0	0.0	0.0
105	5/24/2019 11:28:24	0.0	0.0	0.0	0.0
106	5/24/2019 11:29:24	0.0	0.0	0.0	0.0
107	5/24/2019 11:30:24	0.0	0.0	0.0	0.0
108	5/24/2019 11:31:24	0.0	0.0	0.0	0.0
109	5/24/2019 11:32:24	0.0	0.0	0.0	0.0
110	5/24/2019 11:33:24	0.0	0.0	0.0	0.0
111	5/24/2019 11:34:24	0.0	0.0	0.0	0.0
112	5/24/2019 11:35:24	0.0	0.0	0.0	0.0
113	5/24/2019 11:36:24	0.0	0.0	0.0	0.0
114	5/24/2019 11:37:24	0.0	0.0	0.0	0.0

115	5/24/2019 11:38:24	0.0	0.0	0.0	0.0
116	5/24/2019 11:39:24	0.0	0.0	0.0	0.0
117	5/24/2019 11:40:24	0.0	0.0	0.0	0.0
118	5/24/2019 11:41:24	0.0	0.0	0.0	0.0
119	5/24/2019 11:42:24	0.0	0.0	0.0	0.0
120	5/24/2019 11:43:24	0.0	0.0	0.0	0.0
121	5/24/2019 11:44:24	0.0	0.0	0.0	0.0
122	5/24/2019 11:45:24	0.0	0.0	0.0	0.0
123	5/24/2019 11:46:24	0.0	0.0	0.0	0.0
124	5/24/2019 11:47:24	0.0	0.0	0.0	0.0
125	5/24/2019 11:48:24	0.0	0.0	0.0	0.0
126	5/24/2019 11:49:24	0.0	0.0	0.0	0.0
127	5/24/2019 11:50:24	0.0	0.0	0.0	0.0
128	5/24/2019 11:51:24	0.0	0.0	0.0	0.0
129	5/24/2019 11:52:24	0.0	0.0	0.0	0.0
130	5/24/2019 11:53:24	0.0	0.0	0.0	0.0
131	5/24/2019 11:54:24	0.0	0.0	0.0	0.0
132	5/24/2019 11:55:24	0.0	0.0	0.0	0.0
133	5/24/2019 11:56:24	0.0	0.0	0.0	0.0
134	5/24/2019 11:57:24	0.0	0.0	0.0	0.0
135	5/24/2019 11:58:24	0.0	0.0	0.0	0.0
136	5/24/2019 11:59:24	0.0	0.0	0.0	0.0
137	5/24/2019 12:00:24	0.0	0.0	0.0	0.0
138	5/24/2019 12:01:24	0.0	0.0	0.0	0.0
139	5/24/2019 12:02:24	0.0	0.0	0.0	0.0
140	5/24/2019 12:03:24	0.0	0.0	0.0	0.0
141	5/24/2019 12:04:24	0.0	0.0	0.0	0.0
142	5/24/2019 12:05:24	0.0	0.0	0.0	0.0
143	5/24/2019 12:06:24	0.0	0.0	0.0	0.0
144	5/24/2019 12:07:24	0.0	0.0	0.0	0.0
145	5/24/2019 12:08:24	0.0	0.0	0.0	0.0

146	5/24/2019	12:09:24	0.0	0.0	0.0	0.0
147	5/24/2019	12:10:24	0.0	0.0	0.0	0.0
148	5/24/2019	12:11:24	0.0	0.0	0.0	0.0
149	5/24/2019	12:12:24	0.0	0.0	0.0	0.0
150	5/24/2019	12:13:24	0.0	0.0	0.0	0.0
151	5/24/2019	12:14:24	0.0	0.0	0.0	0.0
152	5/24/2019	12:15:24	0.0	0.0	0.0	0.0
153	5/24/2019	12:16:24	0.0	0.0	0.0	0.0
154	5/24/2019	12:17:24	0.0	0.0	0.0	0.0
155	5/24/2019	12:18:24	0.0	0.0	0.0	0.0
156	5/24/2019	12:19:24	0.0	0.0	0.0	0.0
157	5/24/2019	12:20:24	0.0	0.0	0.0	0.0
158	5/24/2019	12:21:24	0.0	0.0	0.0	0.0
159	5/24/2019	12:22:24	0.0	0.0	0.0	0.0
160	5/24/2019	12:23:24	0.0	0.0	0.0	0.0
161	5/24/2019	12:24:24	0.0	0.0	0.0	0.0
162	5/24/2019	12:25:24	0.0	0.0	0.0	0.0
163	5/24/2019	12:26:24	0.0	0.0	0.0	0.0
164	5/24/2019	12:27:24	0.0	0.0	0.0	0.0
165	5/24/2019	12:28:24	0.0	0.0	0.0	0.0
166	5/24/2019	12:29:24	0.0	0.0	0.0	0.0
Peak			0.0	0.0	0.0	0.0
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)
001	5/24/2019 09:44:24	0.0	---
002	5/24/2019 09:45:24	0.0	---

003	5/24/2019 09:46:24	0.0	---
004	5/24/2019 09:47:24	0.0	---
005	5/24/2019 09:48:24	0.0	---
006	5/24/2019 09:49:24	0.0	---
007	5/24/2019 09:50:24	0.0	---
008	5/24/2019 09:51:24	0.0	---
009	5/24/2019 09:52:24	0.0	---
010	5/24/2019 09:53:24	0.0	---
011	5/24/2019 09:54:24	0.0	---
012	5/24/2019 09:55:24	0.0	---
013	5/24/2019 09:56:24	0.0	---
014	5/24/2019 09:57:24	0.0	---
015	5/24/2019 09:58:24	0.0	0.0
016	5/24/2019 09:59:24	0.0	0.0
017	5/24/2019 10:00:24	0.0	0.0
018	5/24/2019 10:01:24	0.0	0.0
019	5/24/2019 10:02:24	0.0	0.0
020	5/24/2019 10:03:24	0.0	0.0
021	5/24/2019 10:04:24	0.0	0.0
022	5/24/2019 10:05:24	0.0	0.0
023	5/24/2019 10:06:24	0.0	0.0
024	5/24/2019 10:07:24	0.0	0.0
025	5/24/2019 10:08:24	0.0	0.0
026	5/24/2019 10:09:24	0.0	0.0
027	5/24/2019 10:10:24	0.0	0.0
028	5/24/2019 10:11:24	0.0	0.0
029	5/24/2019 10:12:24	0.0	0.0
030	5/24/2019 10:13:24	0.0	0.0
031	5/24/2019 10:14:24	0.0	0.0
032	5/24/2019 10:15:24	0.0	0.0
033	5/24/2019 10:16:24	0.0	0.0

034	5/24/2019 10:17:24	0.0	0.0
035	5/24/2019 10:18:24	0.0	0.0
036	5/24/2019 10:19:24	0.0	0.0
037	5/24/2019 10:20:24	0.0	0.0
038	5/24/2019 10:21:24	0.0	0.0
039	5/24/2019 10:22:24	0.0	0.0
040	5/24/2019 10:23:24	0.0	0.0
041	5/24/2019 10:24:24	0.0	0.0
042	5/24/2019 10:25:24	0.0	0.0
043	5/24/2019 10:26:24	0.0	0.0
044	5/24/2019 10:27:24	0.0	0.0
045	5/24/2019 10:28:24	0.0	0.0
046	5/24/2019 10:29:24	0.0	0.0
047	5/24/2019 10:30:24	0.0	0.0
048	5/24/2019 10:31:24	0.0	0.0
049	5/24/2019 10:32:24	0.0	0.0
050	5/24/2019 10:33:24	0.0	0.0
051	5/24/2019 10:34:24	0.0	0.0
052	5/24/2019 10:35:24	0.0	0.0
053	5/24/2019 10:36:24	0.0	0.0
054	5/24/2019 10:37:24	0.0	0.0
055	5/24/2019 10:38:24	0.0	0.0
056	5/24/2019 10:39:24	0.0	0.0
057	5/24/2019 10:40:24	0.0	0.0
058	5/24/2019 10:41:24	0.0	0.0
059	5/24/2019 10:42:24	0.0	0.0
060	5/24/2019 10:43:24	0.0	0.0
061	5/24/2019 10:44:24	0.0	0.0
062	5/24/2019 10:45:24	0.0	0.0
063	5/24/2019 10:46:24	0.0	0.0
064	5/24/2019 10:47:24	0.0	0.0

065	5/24/2019 10:48:24	0.0	0.0
066	5/24/2019 10:49:24	0.0	0.0
067	5/24/2019 10:50:24	0.0	0.0
068	5/24/2019 10:51:24	0.0	0.0
069	5/24/2019 10:52:24	0.0	0.0
070	5/24/2019 10:53:24	0.0	0.0
071	5/24/2019 10:54:24	0.0	0.0
072	5/24/2019 10:55:24	0.0	0.0
073	5/24/2019 10:56:24	0.0	0.0
074	5/24/2019 10:57:24	0.0	0.0
075	5/24/2019 10:58:24	0.0	0.0
076	5/24/2019 10:59:24	0.0	0.0
077	5/24/2019 11:00:24	0.0	0.0
078	5/24/2019 11:01:24	0.0	0.0
079	5/24/2019 11:02:24	0.0	0.0
080	5/24/2019 11:03:24	0.0	0.0
081	5/24/2019 11:04:24	0.0	0.0
082	5/24/2019 11:05:24	0.0	0.0
083	5/24/2019 11:06:24	0.0	0.0
084	5/24/2019 11:07:24	0.0	0.0
085	5/24/2019 11:08:24	0.0	0.0
086	5/24/2019 11:09:24	0.0	0.0
087	5/24/2019 11:10:24	0.0	0.0
088	5/24/2019 11:11:24	0.0	0.0
089	5/24/2019 11:12:24	0.0	0.0
090	5/24/2019 11:13:24	0.0	0.0
091	5/24/2019 11:14:24	0.0	0.0
092	5/24/2019 11:15:24	0.0	0.0
093	5/24/2019 11:16:24	0.0	0.0
094	5/24/2019 11:17:24	0.0	0.0
095	5/24/2019 11:18:24	0.0	0.0

096	5/24/2019 11:19:24	0.0	0.0
097	5/24/2019 11:20:24	0.0	0.0
098	5/24/2019 11:21:24	0.0	0.0
099	5/24/2019 11:22:24	0.0	0.0
100	5/24/2019 11:23:24	0.0	0.0
101	5/24/2019 11:24:24	0.0	0.0
102	5/24/2019 11:25:24	0.0	0.0
103	5/24/2019 11:26:24	0.0	0.0
104	5/24/2019 11:27:24	0.0	0.0
105	5/24/2019 11:28:24	0.0	0.0
106	5/24/2019 11:29:24	0.0	0.0
107	5/24/2019 11:30:24	0.0	0.0
108	5/24/2019 11:31:24	0.0	0.0
109	5/24/2019 11:32:24	0.0	0.0
110	5/24/2019 11:33:24	0.0	0.0
111	5/24/2019 11:34:24	0.0	0.0
112	5/24/2019 11:35:24	0.0	0.0
113	5/24/2019 11:36:24	0.0	0.0
114	5/24/2019 11:37:24	0.0	0.0
115	5/24/2019 11:38:24	0.0	0.0
116	5/24/2019 11:39:24	0.0	0.0
117	5/24/2019 11:40:24	0.0	0.0
118	5/24/2019 11:41:24	0.0	0.0
119	5/24/2019 11:42:24	0.0	0.0
120	5/24/2019 11:43:24	0.0	0.0
121	5/24/2019 11:44:24	0.0	0.0
122	5/24/2019 11:45:24	0.0	0.0
123	5/24/2019 11:46:24	0.0	0.0
124	5/24/2019 11:47:24	0.0	0.0
125	5/24/2019 11:48:24	0.0	0.0
126	5/24/2019 11:49:24	0.0	0.0

127	5/24/2019 11:50:24	0.0	0.0
128	5/24/2019 11:51:24	0.0	0.0
129	5/24/2019 11:52:24	0.0	0.0
130	5/24/2019 11:53:24	0.0	0.0
131	5/24/2019 11:54:24	0.0	0.0
132	5/24/2019 11:55:24	0.0	0.0
133	5/24/2019 11:56:24	0.0	0.0
134	5/24/2019 11:57:24	0.0	0.0
135	5/24/2019 11:58:24	0.0	0.0
136	5/24/2019 11:59:24	0.0	0.0
137	5/24/2019 12:00:24	0.0	0.0
138	5/24/2019 12:01:24	0.0	0.0
139	5/24/2019 12:02:24	0.0	0.0
140	5/24/2019 12:03:24	0.0	0.0
141	5/24/2019 12:04:24	0.0	0.0
142	5/24/2019 12:05:24	0.0	0.0
143	5/24/2019 12:06:24	0.0	0.0
144	5/24/2019 12:07:24	0.0	0.0
145	5/24/2019 12:08:24	0.0	0.0
146	5/24/2019 12:09:24	0.0	0.0
147	5/24/2019 12:10:24	0.0	0.0
148	5/24/2019 12:11:24	0.0	0.0
149	5/24/2019 12:12:24	0.0	0.0
150	5/24/2019 12:13:24	0.0	0.0
151	5/24/2019 12:14:24	0.0	0.0
152	5/24/2019 12:15:24	0.0	0.0
153	5/24/2019 12:16:24	0.0	0.0
154	5/24/2019 12:17:24	0.0	0.0
155	5/24/2019 12:18:24	0.0	0.0
156	5/24/2019 12:19:24	0.0	0.0
157	5/24/2019 12:20:24	0.0	0.0

158	5/24/2019 12:21:24	0.0	0.0
159	5/24/2019 12:22:24	0.0	0.0
160	5/24/2019 12:23:24	0.0	0.0
161	5/24/2019 12:24:24	0.0	0.0
162	5/24/2019 12:25:24	0.0	0.0
163	5/24/2019 12:26:24	0.0	0.0
164	5/24/2019 12:27:24	0.0	0.0
165	5/24/2019 12:28:24	0.0	0.0
166	5/24/2019 12:29:24	0.0	0.0

甑==========
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19/05/28 09:28
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/28/2019 09:28:26
End	5/28/2019 14:32:53
Sample Period(s)	60
Number of Records	304

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.0
Min	0.0
Average	0.0

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/28/2019	09:29:26	0.0	0.0	0.0	0.0
002	5/28/2019	09:30:26	0.0	0.0	0.0	0.0
003	5/28/2019	09:31:26	0.0	0.0	0.0	0.0
004	5/28/2019	09:32:26	0.0	0.0	0.0	0.0
005	5/28/2019	09:33:26	0.0	0.0	0.0	0.0
006	5/28/2019	09:34:26	0.0	0.0	0.0	0.0
007	5/28/2019	09:35:26	0.0	0.0	0.0	0.0
008	5/28/2019	09:36:26	0.0	0.0	0.0	0.0
009	5/28/2019	09:37:26	0.0	0.0	0.0	0.0
010	5/28/2019	09:38:26	0.0	0.0	0.0	0.0

011	5/28/2019 09:39:26	0.0	0.0	0.0	0.0
012	5/28/2019 09:40:26	0.0	0.0	0.0	0.0
013	5/28/2019 09:41:26	0.0	0.0	0.0	0.0
014	5/28/2019 09:42:26	0.0	0.0	0.0	0.0
015	5/28/2019 09:43:26	0.0	0.0	0.0	0.0
016	5/28/2019 09:44:26	0.0	0.0	0.0	0.0
017	5/28/2019 09:45:26	0.0	0.0	0.0	0.0
018	5/28/2019 09:46:26	0.0	0.0	0.0	0.0
019	5/28/2019 09:47:26	0.0	0.0	0.0	0.0
020	5/28/2019 09:48:26	0.0	0.0	0.0	0.0
021	5/28/2019 09:49:26	0.0	0.0	0.0	0.0
022	5/28/2019 09:50:26	0.0	0.0	0.0	0.0
023	5/28/2019 09:51:26	0.0	0.0	0.0	0.0
024	5/28/2019 09:52:26	0.0	0.0	0.0	0.0
025	5/28/2019 09:53:26	0.0	0.0	0.0	0.0
026	5/28/2019 09:54:26	0.0	0.0	0.0	0.0
027	5/28/2019 09:55:26	0.0	0.0	0.0	0.0
028	5/28/2019 09:56:26	0.0	0.0	0.0	0.0
029	5/28/2019 09:57:26	0.0	0.0	0.0	0.0
030	5/28/2019 09:58:26	0.0	0.0	0.0	0.0
031	5/28/2019 09:59:26	0.0	0.0	0.0	0.0
032	5/28/2019 10:00:26	0.0	0.0	0.0	0.0
033	5/28/2019 10:01:26	0.0	0.0	0.0	0.0
034	5/28/2019 10:02:26	0.0	0.0	0.0	0.0
035	5/28/2019 10:03:26	0.0	0.0	0.0	0.0
036	5/28/2019 10:04:26	0.0	0.0	0.0	0.0
037	5/28/2019 10:05:26	0.0	0.0	0.0	0.0
038	5/28/2019 10:06:26	0.0	0.0	0.0	0.0
039	5/28/2019 10:07:26	0.0	0.0	0.0	0.0
040	5/28/2019 10:08:26	0.0	0.0	0.0	0.0
041	5/28/2019 10:09:26	0.0	0.0	0.0	0.0

042	5/28/2019	10:10:26	0.0	0.0	0.0	0.0
043	5/28/2019	10:11:26	0.0	0.0	0.0	0.0
044	5/28/2019	10:12:26	0.0	0.0	0.0	0.0
045	5/28/2019	10:13:26	0.0	0.0	0.0	0.0
046	5/28/2019	10:14:26	0.0	0.0	0.0	0.0
047	5/28/2019	10:15:26	0.0	0.0	0.0	0.0
048	5/28/2019	10:16:26	0.0	0.0	0.0	0.0
049	5/28/2019	10:17:26	0.0	0.0	0.0	0.0
050	5/28/2019	10:18:26	0.0	0.0	0.0	0.0
051	5/28/2019	10:19:26	0.0	0.0	0.0	0.0
052	5/28/2019	10:20:26	0.0	0.0	0.0	0.0
053	5/28/2019	10:21:26	0.0	0.0	0.0	0.0
054	5/28/2019	10:22:26	0.0	0.0	0.0	0.0
055	5/28/2019	10:23:26	0.0	0.0	0.0	0.0
056	5/28/2019	10:24:26	0.0	0.0	0.0	0.0
057	5/28/2019	10:25:26	0.0	0.0	0.0	0.0
058	5/28/2019	10:26:26	0.0	0.0	0.0	0.0
059	5/28/2019	10:27:26	0.0	0.0	0.0	0.0
060	5/28/2019	10:28:26	0.0	0.0	0.0	0.0
061	5/28/2019	10:29:26	0.0	0.0	0.0	0.0
062	5/28/2019	10:30:26	0.0	0.0	0.0	0.0
063	5/28/2019	10:31:26	0.0	0.0	0.0	0.0
064	5/28/2019	10:32:26	0.0	0.0	0.0	0.0
065	5/28/2019	10:33:26	0.0	0.0	0.0	0.0
066	5/28/2019	10:34:26	0.0	0.0	0.0	0.0
067	5/28/2019	10:35:26	0.0	0.0	0.0	0.0
068	5/28/2019	10:36:26	0.0	0.0	0.0	0.0
069	5/28/2019	10:37:26	0.0	0.0	0.0	0.0
070	5/28/2019	10:38:26	0.0	0.0	0.0	0.0
071	5/28/2019	10:39:26	0.0	0.0	0.0	0.0
072	5/28/2019	10:40:26	0.0	0.0	0.0	0.0

073	5/28/2019	10:41:26	0.0	0.0	0.0	0.0
074	5/28/2019	10:42:26	0.0	0.0	0.0	0.0
075	5/28/2019	10:43:26	0.0	0.0	0.0	0.0
076	5/28/2019	10:44:26	0.0	0.0	0.0	0.0
077	5/28/2019	10:45:26	0.0	0.0	0.0	0.0
078	5/28/2019	10:46:26	0.0	0.0	0.0	0.0
079	5/28/2019	10:47:26	0.0	0.0	0.0	0.0
080	5/28/2019	10:48:26	0.0	0.0	0.0	0.0
081	5/28/2019	10:49:26	0.0	0.0	0.1	0.0
082	5/28/2019	10:50:26	0.0	0.0	0.0	0.0
083	5/28/2019	10:51:26	0.0	0.0	0.0	0.0
084	5/28/2019	10:52:26	0.0	0.0	0.0	0.0
085	5/28/2019	10:53:26	0.0	0.0	0.0	0.0
086	5/28/2019	10:54:26	0.0	0.0	0.0	0.0
087	5/28/2019	10:55:26	0.0	0.0	0.0	0.0
088	5/28/2019	10:56:26	0.0	0.0	0.0	0.0
089	5/28/2019	10:57:26	0.0	0.0	0.0	0.0
090	5/28/2019	10:58:26	0.0	0.0	0.0	0.0
091	5/28/2019	10:59:26	0.0	0.0	0.0	0.0
092	5/28/2019	11:00:26	0.0	0.0	0.0	0.0
093	5/28/2019	11:01:26	0.0	0.0	0.0	0.0
094	5/28/2019	11:02:26	0.0	0.0	0.0	0.0
095	5/28/2019	11:03:26	0.0	0.0	0.0	0.0
096	5/28/2019	11:04:26	0.0	0.0	0.0	0.0
097	5/28/2019	11:05:26	0.0	0.0	0.0	0.0
098	5/28/2019	11:06:26	0.0	0.0	0.0	0.0
099	5/28/2019	11:07:26	0.0	0.0	0.0	0.0
100	5/28/2019	11:08:26	0.0	0.0	0.0	0.0
101	5/28/2019	11:09:26	0.0	0.0	0.0	0.0
102	5/28/2019	11:10:26	0.0	0.0	0.0	0.0
103	5/28/2019	11:11:26	0.0	0.0	0.0	0.0

104	5/28/2019	11:12:26	0.0	0.0	0.0	0.0
105	5/28/2019	11:13:26	0.0	0.0	0.0	0.0
106	5/28/2019	11:14:26	0.0	0.0	0.0	0.0
107	5/28/2019	11:15:26	0.0	0.0	0.0	0.0
108	5/28/2019	11:16:26	0.0	0.0	0.0	0.0
109	5/28/2019	11:17:26	0.0	0.0	0.0	0.0
110	5/28/2019	11:18:26	0.0	0.0	0.0	0.0
111	5/28/2019	11:19:26	0.0	0.0	0.0	0.0
112	5/28/2019	11:20:26	0.0	0.0	0.0	0.0
113	5/28/2019	11:21:26	0.0	0.0	0.0	0.0
114	5/28/2019	11:22:26	0.0	0.0	0.0	0.0
115	5/28/2019	11:23:26	0.0	0.0	0.0	0.0
116	5/28/2019	11:24:26	0.0	0.0	0.0	0.0
117	5/28/2019	11:25:26	0.0	0.0	0.0	0.0
118	5/28/2019	11:26:26	0.0	0.0	0.0	0.0
119	5/28/2019	11:27:26	0.0	0.0	0.0	0.0
120	5/28/2019	11:28:26	0.0	0.0	0.0	0.0
121	5/28/2019	11:29:26	0.0	0.0	0.0	0.0
122	5/28/2019	11:30:26	0.0	0.0	0.0	0.0
123	5/28/2019	11:31:26	0.0	0.0	0.0	0.0
124	5/28/2019	11:32:26	0.0	0.0	0.0	0.0
125	5/28/2019	11:33:26	0.0	0.0	0.0	0.0
126	5/28/2019	11:34:26	0.0	0.0	0.0	0.0
127	5/28/2019	11:35:26	0.0	0.0	0.0	0.0
128	5/28/2019	11:36:26	0.0	0.0	0.0	0.0
129	5/28/2019	11:37:26	0.0	0.0	0.0	0.0
130	5/28/2019	11:38:26	0.0	0.0	0.0	0.0
131	5/28/2019	11:39:26	0.0	0.0	0.0	0.0
132	5/28/2019	11:40:26	0.0	0.0	0.0	0.0
133	5/28/2019	11:41:26	0.0	0.0	0.0	0.0
134	5/28/2019	11:42:26	0.0	0.0	0.0	0.0

135	5/28/2019	11:43:26	0.0	0.0	0.0	0.0
136	5/28/2019	11:44:26	0.0	0.0	0.0	0.0
137	5/28/2019	11:45:26	0.0	0.0	0.0	0.0
138	5/28/2019	11:46:26	0.0	0.0	0.0	0.0
139	5/28/2019	11:47:26	0.0	0.0	0.0	0.0
140	5/28/2019	11:48:26	0.0	0.0	0.0	0.0
141	5/28/2019	11:49:26	0.0	0.0	0.0	0.0
142	5/28/2019	11:50:26	0.0	0.0	0.0	0.0
143	5/28/2019	11:51:26	0.0	0.0	0.0	0.0
144	5/28/2019	11:52:26	0.0	0.0	0.0	0.0
145	5/28/2019	11:53:26	0.0	0.0	0.0	0.0
146	5/28/2019	11:54:26	0.0	0.0	0.0	0.0
147	5/28/2019	11:55:26	0.0	0.0	0.0	0.0
148	5/28/2019	11:56:26	0.0	0.0	0.0	0.0
149	5/28/2019	11:57:26	0.0	0.0	0.0	0.0
150	5/28/2019	11:58:26	0.0	0.0	0.0	0.0
151	5/28/2019	11:59:26	0.0	0.0	0.0	0.0
152	5/28/2019	12:00:26	0.0	0.0	0.0	0.0
153	5/28/2019	12:01:26	0.0	0.0	0.0	0.0
154	5/28/2019	12:02:26	0.0	0.0	0.0	0.0
155	5/28/2019	12:03:26	0.0	0.0	0.0	0.0
156	5/28/2019	12:04:26	0.0	0.0	0.0	0.0
157	5/28/2019	12:05:26	0.0	0.0	0.0	0.0
158	5/28/2019	12:06:26	0.0	0.0	0.0	0.0
159	5/28/2019	12:07:26	0.0	0.0	0.0	0.0
160	5/28/2019	12:08:26	0.0	0.0	0.0	0.0
161	5/28/2019	12:09:26	0.0	0.0	0.0	0.0
162	5/28/2019	12:10:26	0.0	0.0	0.0	0.0
163	5/28/2019	12:11:26	0.0	0.0	0.0	0.0
164	5/28/2019	12:12:26	0.0	0.0	0.0	0.0
165	5/28/2019	12:13:26	0.0	0.0	0.0	0.0

166	5/28/2019 12:14:26	0.0	0.0	0.0	0.0
167	5/28/2019 12:15:26	0.0	0.0	0.0	0.0
168	5/28/2019 12:16:26	0.0	0.0	0.0	0.0
169	5/28/2019 12:17:26	0.0	0.0	0.0	0.0
170	5/28/2019 12:18:26	0.0	0.0	0.0	0.0
171	5/28/2019 12:19:26	0.0	0.0	0.0	0.0
172	5/28/2019 12:20:26	0.0	0.0	0.0	0.0
173	5/28/2019 12:21:26	0.0	0.0	0.0	0.0
174	5/28/2019 12:22:26	0.0	0.0	0.0	0.0
175	5/28/2019 12:23:26	0.0	0.0	0.0	0.0
176	5/28/2019 12:24:26	0.0	0.0	0.0	0.0
177	5/28/2019 12:25:26	0.0	0.0	0.0	0.0
178	5/28/2019 12:26:26	0.0	0.0	0.0	0.0
179	5/28/2019 12:27:26	0.0	0.0	0.0	0.0
180	5/28/2019 12:28:26	0.0	0.0	0.0	0.0
181	5/28/2019 12:29:26	0.0	0.0	0.0	0.0
182	5/28/2019 12:30:26	0.0	0.0	0.0	0.0
183	5/28/2019 12:31:26	0.0	0.0	0.0	0.0
184	5/28/2019 12:32:26	0.0	0.0	0.0	0.0
185	5/28/2019 12:33:26	0.0	0.0	0.0	0.0
186	5/28/2019 12:34:26	0.0	0.0	0.0	0.0
187	5/28/2019 12:35:26	0.0	0.0	0.0	0.0
188	5/28/2019 12:36:26	0.0	0.0	0.0	0.0
189	5/28/2019 12:37:26	0.0	0.0	0.0	0.0
190	5/28/2019 12:38:26	0.0	0.0	0.0	0.0
191	5/28/2019 12:39:26	0.0	0.0	0.0	0.0
192	5/28/2019 12:40:26	0.0	0.0	0.0	0.0
193	5/28/2019 12:41:26	0.0	0.0	0.0	0.0
194	5/28/2019 12:42:26	0.0	0.0	0.0	0.0
195	5/28/2019 12:43:26	0.0	0.0	0.0	0.0
196	5/28/2019 12:44:26	0.0	0.0	0.0	0.0

197	5/28/2019 12:45:26	0.0	0.0	0.0	0.0
198	5/28/2019 12:46:26	0.0	0.0	0.0	0.0
199	5/28/2019 12:47:26	0.0	0.0	0.0	0.0
200	5/28/2019 12:48:26	0.0	0.0	0.0	0.0
201	5/28/2019 12:49:26	0.0	0.0	0.0	0.0
202	5/28/2019 12:50:26	0.0	0.0	0.0	0.0
203	5/28/2019 12:51:26	0.0	0.0	0.0	0.0
204	5/28/2019 12:52:26	0.0	0.0	0.0	0.0
205	5/28/2019 12:53:26	0.0	0.0	0.0	0.0
206	5/28/2019 12:54:26	0.0	0.0	0.0	0.0
207	5/28/2019 12:55:26	0.0	0.0	0.0	0.0
208	5/28/2019 12:56:26	0.0	0.0	0.0	0.0
209	5/28/2019 12:57:26	0.0	0.0	0.0	0.0
210	5/28/2019 12:58:26	0.0	0.0	0.0	0.0
211	5/28/2019 12:59:26	0.0	0.0	0.0	0.0
212	5/28/2019 13:00:26	0.0	0.0	0.0	0.0
213	5/28/2019 13:01:26	0.0	0.0	0.0	0.0
214	5/28/2019 13:02:26	0.0	0.0	0.0	0.0
215	5/28/2019 13:03:26	0.0	0.0	0.0	0.0
216	5/28/2019 13:04:26	0.0	0.0	0.0	0.0
217	5/28/2019 13:05:26	0.0	0.0	0.0	0.0
218	5/28/2019 13:06:26	0.0	0.0	0.0	0.0
219	5/28/2019 13:07:26	0.0	0.0	0.0	0.0
220	5/28/2019 13:08:26	0.0	0.0	0.0	0.0
221	5/28/2019 13:09:26	0.0	0.0	0.0	0.0
222	5/28/2019 13:10:26	0.0	0.0	0.0	0.0
223	5/28/2019 13:11:26	0.0	0.0	0.0	0.0
224	5/28/2019 13:12:26	0.0	0.0	0.0	0.0
225	5/28/2019 13:13:26	0.0	0.0	0.0	0.0
226	5/28/2019 13:14:26	0.0	0.0	0.0	0.0
227	5/28/2019 13:15:26	0.0	0.0	0.0	0.0

228	5/28/2019 13:16:26	0.0	0.0	0.0	0.0
229	5/28/2019 13:17:26	0.0	0.0	0.0	0.0
230	5/28/2019 13:18:26	0.0	0.0	0.0	0.0
231	5/28/2019 13:19:26	0.0	0.0	0.0	0.0
232	5/28/2019 13:20:26	0.0	0.0	0.0	0.0
233	5/28/2019 13:21:26	0.0	0.0	0.0	0.0
234	5/28/2019 13:22:26	0.0	0.0	0.0	0.0
235	5/28/2019 13:23:26	0.0	0.0	0.0	0.0
236	5/28/2019 13:24:26	0.0	0.0	0.0	0.0
237	5/28/2019 13:25:26	0.0	0.0	0.0	0.0
238	5/28/2019 13:26:26	0.0	0.0	0.0	0.0
239	5/28/2019 13:27:26	0.0	0.0	0.0	0.0
240	5/28/2019 13:28:26	0.0	0.0	0.0	0.0
241	5/28/2019 13:29:26	0.0	0.0	0.0	0.0
242	5/28/2019 13:30:26	0.0	0.0	0.0	0.0
243	5/28/2019 13:31:26	0.0	0.0	0.0	0.0
244	5/28/2019 13:32:26	0.0	0.0	0.0	0.0
245	5/28/2019 13:33:26	0.0	0.0	0.0	0.0
246	5/28/2019 13:34:26	0.0	0.0	0.0	0.0
247	5/28/2019 13:35:26	0.0	0.0	0.0	0.0
248	5/28/2019 13:36:26	0.0	0.0	0.0	0.0
249	5/28/2019 13:37:26	0.0	0.0	0.0	0.0
250	5/28/2019 13:38:26	0.0	0.0	0.0	0.0
251	5/28/2019 13:39:26	0.0	0.0	0.0	0.0
252	5/28/2019 13:40:26	0.0	0.0	0.0	0.0
253	5/28/2019 13:41:26	0.0	0.0	0.0	0.0
254	5/28/2019 13:42:26	0.0	0.0	0.0	0.0
255	5/28/2019 13:43:26	0.0	0.0	0.0	0.0
256	5/28/2019 13:44:26	0.0	0.0	0.0	0.0
257	5/28/2019 13:45:26	0.0	0.0	0.0	0.0
258	5/28/2019 13:46:26	0.0	0.0	0.0	0.0

259	5/28/2019 13:47:26	0.0	0.0	0.0	0.0
260	5/28/2019 13:48:26	0.0	0.0	0.0	0.0
261	5/28/2019 13:49:26	0.0	0.0	0.0	0.0
262	5/28/2019 13:50:26	0.0	0.0	0.0	0.0
263	5/28/2019 13:51:26	0.0	0.0	0.0	0.0
264	5/28/2019 13:52:26	0.0	0.0	0.0	0.0
265	5/28/2019 13:53:26	0.0	0.0	0.0	0.0
266	5/28/2019 13:54:26	0.0	0.0	0.0	0.0
267	5/28/2019 13:55:26	0.0	0.0	0.0	0.0
268	5/28/2019 13:56:26	0.0	0.0	0.0	0.0
269	5/28/2019 13:57:26	0.0	0.0	0.0	0.0
270	5/28/2019 13:58:26	0.0	0.0	0.0	0.0
271	5/28/2019 13:59:26	0.0	0.0	0.0	0.0
272	5/28/2019 14:00:26	0.0	0.0	0.0	0.0
273	5/28/2019 14:01:26	0.0	0.0	0.0	0.0
274	5/28/2019 14:02:26	0.0	0.0	0.0	0.0
275	5/28/2019 14:03:26	0.0	0.0	0.0	0.0
276	5/28/2019 14:04:26	0.0	0.0	0.0	0.0
277	5/28/2019 14:05:26	0.0	0.0	0.0	0.0
278	5/28/2019 14:06:26	0.0	0.0	0.0	0.0
279	5/28/2019 14:07:26	0.0	0.0	0.0	0.0
280	5/28/2019 14:08:26	0.0	0.0	0.0	0.0
281	5/28/2019 14:09:26	0.0	0.0	0.0	0.0
282	5/28/2019 14:10:26	0.0	0.0	0.0	0.0
283	5/28/2019 14:11:26	0.0	0.0	0.0	0.0
284	5/28/2019 14:12:26	0.0	0.0	0.0	0.0
285	5/28/2019 14:13:26	0.0	0.0	0.0	0.0
286	5/28/2019 14:14:26	0.0	0.0	0.0	0.0
287	5/28/2019 14:15:26	0.0	0.0	0.0	0.0
288	5/28/2019 14:16:26	0.0	0.0	0.0	0.0
289	5/28/2019 14:17:26	0.0	0.0	0.0	0.0

290	5/28/2019	14:18:26	0.0	0.0	0.0	0.0
291	5/28/2019	14:19:26	0.0	0.0	0.0	0.0
292	5/28/2019	14:20:26	0.0	0.0	0.0	0.0
293	5/28/2019	14:21:26	0.0	0.0	0.0	0.0
294	5/28/2019	14:22:26	0.0	0.0	0.0	0.0
295	5/28/2019	14:23:26	0.0	0.0	0.0	0.0
296	5/28/2019	14:24:26	0.0	0.0	0.0	0.0
297	5/28/2019	14:25:26	0.0	0.0	0.0	0.0
298	5/28/2019	14:26:26	0.0	0.0	0.0	0.0
299	5/28/2019	14:27:26	0.0	0.0	0.0	0.0
300	5/28/2019	14:28:26	0.0	0.0	0.0	0.0
301	5/28/2019	14:29:26	0.0	0.0	0.0	0.0
302	5/28/2019	14:30:26	0.0	0.0	0.0	0.0
303	5/28/2019	14:31:26	0.0	0.0	0.0	0.0
304	5/28/2019	14:32:26	0.0	0.0	0.0	0.0
Peak			0.0	0.0	0.1	0.0
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/28/2019	09:29:26	0.0	---	
002	5/28/2019	09:30:26	0.0	---	
003	5/28/2019	09:31:26	0.0	---	
004	5/28/2019	09:32:26	0.0	---	
005	5/28/2019	09:33:26	0.0	---	
006	5/28/2019	09:34:26	0.0	---	
007	5/28/2019	09:35:26	0.0	---	
008	5/28/2019	09:36:26	0.0	---	

009	5/28/2019 09:37:26	0.0	---
010	5/28/2019 09:38:26	0.0	---
011	5/28/2019 09:39:26	0.0	---
012	5/28/2019 09:40:26	0.0	---
013	5/28/2019 09:41:26	0.0	---
014	5/28/2019 09:42:26	0.0	---
015	5/28/2019 09:43:26	0.0	0.0
016	5/28/2019 09:44:26	0.0	0.0
017	5/28/2019 09:45:26	0.0	0.0
018	5/28/2019 09:46:26	0.0	0.0
019	5/28/2019 09:47:26	0.0	0.0
020	5/28/2019 09:48:26	0.0	0.0
021	5/28/2019 09:49:26	0.0	0.0
022	5/28/2019 09:50:26	0.0	0.0
023	5/28/2019 09:51:26	0.0	0.0
024	5/28/2019 09:52:26	0.0	0.0
025	5/28/2019 09:53:26	0.0	0.0
026	5/28/2019 09:54:26	0.0	0.0
027	5/28/2019 09:55:26	0.0	0.0
028	5/28/2019 09:56:26	0.0	0.0
029	5/28/2019 09:57:26	0.0	0.0
030	5/28/2019 09:58:26	0.0	0.0
031	5/28/2019 09:59:26	0.0	0.0
032	5/28/2019 10:00:26	0.0	0.0
033	5/28/2019 10:01:26	0.0	0.0
034	5/28/2019 10:02:26	0.0	0.0
035	5/28/2019 10:03:26	0.0	0.0
036	5/28/2019 10:04:26	0.0	0.0
037	5/28/2019 10:05:26	0.0	0.0
038	5/28/2019 10:06:26	0.0	0.0
039	5/28/2019 10:07:26	0.0	0.0

040	5/28/2019 10:08:26	0.0	0.0
041	5/28/2019 10:09:26	0.0	0.0
042	5/28/2019 10:10:26	0.0	0.0
043	5/28/2019 10:11:26	0.0	0.0
044	5/28/2019 10:12:26	0.0	0.0
045	5/28/2019 10:13:26	0.0	0.0
046	5/28/2019 10:14:26	0.0	0.0
047	5/28/2019 10:15:26	0.0	0.0
048	5/28/2019 10:16:26	0.0	0.0
049	5/28/2019 10:17:26	0.0	0.0
050	5/28/2019 10:18:26	0.0	0.0
051	5/28/2019 10:19:26	0.0	0.0
052	5/28/2019 10:20:26	0.0	0.0
053	5/28/2019 10:21:26	0.0	0.0
054	5/28/2019 10:22:26	0.0	0.0
055	5/28/2019 10:23:26	0.0	0.0
056	5/28/2019 10:24:26	0.0	0.0
057	5/28/2019 10:25:26	0.0	0.0
058	5/28/2019 10:26:26	0.0	0.0
059	5/28/2019 10:27:26	0.0	0.0
060	5/28/2019 10:28:26	0.0	0.0
061	5/28/2019 10:29:26	0.0	0.0
062	5/28/2019 10:30:26	0.0	0.0
063	5/28/2019 10:31:26	0.0	0.0
064	5/28/2019 10:32:26	0.0	0.0
065	5/28/2019 10:33:26	0.0	0.0
066	5/28/2019 10:34:26	0.0	0.0
067	5/28/2019 10:35:26	0.0	0.0
068	5/28/2019 10:36:26	0.0	0.0
069	5/28/2019 10:37:26	0.0	0.0
070	5/28/2019 10:38:26	0.0	0.0

071	5/28/2019 10:39:26	0.0	0.0
072	5/28/2019 10:40:26	0.0	0.0
073	5/28/2019 10:41:26	0.0	0.0
074	5/28/2019 10:42:26	0.0	0.0
075	5/28/2019 10:43:26	0.0	0.0
076	5/28/2019 10:44:26	0.0	0.0
077	5/28/2019 10:45:26	0.0	0.0
078	5/28/2019 10:46:26	0.0	0.0
079	5/28/2019 10:47:26	0.0	0.0
080	5/28/2019 10:48:26	0.0	0.0
081	5/28/2019 10:49:26	0.0	0.0
082	5/28/2019 10:50:26	0.0	0.0
083	5/28/2019 10:51:26	0.0	0.0
084	5/28/2019 10:52:26	0.0	0.0
085	5/28/2019 10:53:26	0.0	0.0
086	5/28/2019 10:54:26	0.0	0.0
087	5/28/2019 10:55:26	0.0	0.0
088	5/28/2019 10:56:26	0.0	0.0
089	5/28/2019 10:57:26	0.0	0.0
090	5/28/2019 10:58:26	0.0	0.0
091	5/28/2019 10:59:26	0.0	0.0
092	5/28/2019 11:00:26	0.0	0.0
093	5/28/2019 11:01:26	0.0	0.0
094	5/28/2019 11:02:26	0.0	0.0
095	5/28/2019 11:03:26	0.0	0.0
096	5/28/2019 11:04:26	0.0	0.0
097	5/28/2019 11:05:26	0.0	0.0
098	5/28/2019 11:06:26	0.0	0.0
099	5/28/2019 11:07:26	0.0	0.0
100	5/28/2019 11:08:26	0.0	0.0
101	5/28/2019 11:09:26	0.0	0.0

102	5/28/2019	11:10:26	0.0	0.0
103	5/28/2019	11:11:26	0.0	0.0
104	5/28/2019	11:12:26	0.0	0.0
105	5/28/2019	11:13:26	0.0	0.0
106	5/28/2019	11:14:26	0.0	0.0
107	5/28/2019	11:15:26	0.0	0.0
108	5/28/2019	11:16:26	0.0	0.0
109	5/28/2019	11:17:26	0.0	0.0
110	5/28/2019	11:18:26	0.0	0.0
111	5/28/2019	11:19:26	0.0	0.0
112	5/28/2019	11:20:26	0.0	0.0
113	5/28/2019	11:21:26	0.0	0.0
114	5/28/2019	11:22:26	0.0	0.0
115	5/28/2019	11:23:26	0.0	0.0
116	5/28/2019	11:24:26	0.0	0.0
117	5/28/2019	11:25:26	0.0	0.0
118	5/28/2019	11:26:26	0.0	0.0
119	5/28/2019	11:27:26	0.0	0.0
120	5/28/2019	11:28:26	0.0	0.0
121	5/28/2019	11:29:26	0.0	0.0
122	5/28/2019	11:30:26	0.0	0.0
123	5/28/2019	11:31:26	0.0	0.0
124	5/28/2019	11:32:26	0.0	0.0
125	5/28/2019	11:33:26	0.0	0.0
126	5/28/2019	11:34:26	0.0	0.0
127	5/28/2019	11:35:26	0.0	0.0
128	5/28/2019	11:36:26	0.0	0.0
129	5/28/2019	11:37:26	0.0	0.0
130	5/28/2019	11:38:26	0.0	0.0
131	5/28/2019	11:39:26	0.0	0.0
132	5/28/2019	11:40:26	0.0	0.0

133	5/28/2019 11:41:26	0.0	0.0
134	5/28/2019 11:42:26	0.0	0.0
135	5/28/2019 11:43:26	0.0	0.0
136	5/28/2019 11:44:26	0.0	0.0
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138	5/28/2019 11:46:26	0.0	0.0
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140	5/28/2019 11:48:26	0.0	0.0
141	5/28/2019 11:49:26	0.0	0.0
142	5/28/2019 11:50:26	0.0	0.0
143	5/28/2019 11:51:26	0.0	0.0
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146	5/28/2019 11:54:26	0.0	0.0
147	5/28/2019 11:55:26	0.0	0.0
148	5/28/2019 11:56:26	0.0	0.0
149	5/28/2019 11:57:26	0.0	0.0
150	5/28/2019 11:58:26	0.0	0.0
151	5/28/2019 11:59:26	0.0	0.0
152	5/28/2019 12:00:26	0.0	0.0
153	5/28/2019 12:01:26	0.0	0.0
154	5/28/2019 12:02:26	0.0	0.0
155	5/28/2019 12:03:26	0.0	0.0
156	5/28/2019 12:04:26	0.0	0.0
157	5/28/2019 12:05:26	0.0	0.0
158	5/28/2019 12:06:26	0.0	0.0
159	5/28/2019 12:07:26	0.0	0.0
160	5/28/2019 12:08:26	0.0	0.0
161	5/28/2019 12:09:26	0.0	0.0
162	5/28/2019 12:10:26	0.0	0.0
163	5/28/2019 12:11:26	0.0	0.0

164	5/28/2019 12:12:26	0.0	0.0
165	5/28/2019 12:13:26	0.0	0.0
166	5/28/2019 12:14:26	0.0	0.0
167	5/28/2019 12:15:26	0.0	0.0
168	5/28/2019 12:16:26	0.0	0.0
169	5/28/2019 12:17:26	0.0	0.0
170	5/28/2019 12:18:26	0.0	0.0
171	5/28/2019 12:19:26	0.0	0.0
172	5/28/2019 12:20:26	0.0	0.0
173	5/28/2019 12:21:26	0.0	0.0
174	5/28/2019 12:22:26	0.0	0.0
175	5/28/2019 12:23:26	0.0	0.0
176	5/28/2019 12:24:26	0.0	0.0
177	5/28/2019 12:25:26	0.0	0.0
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179	5/28/2019 12:27:26	0.0	0.0
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181	5/28/2019 12:29:26	0.0	0.0
182	5/28/2019 12:30:26	0.0	0.0
183	5/28/2019 12:31:26	0.0	0.0
184	5/28/2019 12:32:26	0.0	0.0
185	5/28/2019 12:33:26	0.0	0.0
186	5/28/2019 12:34:26	0.0	0.0
187	5/28/2019 12:35:26	0.0	0.0
188	5/28/2019 12:36:26	0.0	0.0
189	5/28/2019 12:37:26	0.0	0.0
190	5/28/2019 12:38:26	0.0	0.0
191	5/28/2019 12:39:26	0.0	0.0
192	5/28/2019 12:40:26	0.0	0.0
193	5/28/2019 12:41:26	0.0	0.0
194	5/28/2019 12:42:26	0.0	0.0

195	5/28/2019 12:43:26	0.0	0.0
196	5/28/2019 12:44:26	0.0	0.0
197	5/28/2019 12:45:26	0.0	0.0
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201	5/28/2019 12:49:26	0.0	0.0
202	5/28/2019 12:50:26	0.0	0.0
203	5/28/2019 12:51:26	0.0	0.0
204	5/28/2019 12:52:26	0.0	0.0
205	5/28/2019 12:53:26	0.0	0.0
206	5/28/2019 12:54:26	0.0	0.0
207	5/28/2019 12:55:26	0.0	0.0
208	5/28/2019 12:56:26	0.0	0.0
209	5/28/2019 12:57:26	0.0	0.0
210	5/28/2019 12:58:26	0.0	0.0
211	5/28/2019 12:59:26	0.0	0.0
212	5/28/2019 13:00:26	0.0	0.0
213	5/28/2019 13:01:26	0.0	0.0
214	5/28/2019 13:02:26	0.0	0.0
215	5/28/2019 13:03:26	0.0	0.0
216	5/28/2019 13:04:26	0.0	0.0
217	5/28/2019 13:05:26	0.0	0.0
218	5/28/2019 13:06:26	0.0	0.0
219	5/28/2019 13:07:26	0.0	0.0
220	5/28/2019 13:08:26	0.0	0.0
221	5/28/2019 13:09:26	0.0	0.0
222	5/28/2019 13:10:26	0.0	0.0
223	5/28/2019 13:11:26	0.0	0.0
224	5/28/2019 13:12:26	0.0	0.0
225	5/28/2019 13:13:26	0.0	0.0

226	5/28/2019 13:14:26	0.0	0.0
227	5/28/2019 13:15:26	0.0	0.0
228	5/28/2019 13:16:26	0.0	0.0
229	5/28/2019 13:17:26	0.0	0.0
230	5/28/2019 13:18:26	0.0	0.0
231	5/28/2019 13:19:26	0.0	0.0
232	5/28/2019 13:20:26	0.0	0.0
233	5/28/2019 13:21:26	0.0	0.0
234	5/28/2019 13:22:26	0.0	0.0
235	5/28/2019 13:23:26	0.0	0.0
236	5/28/2019 13:24:26	0.0	0.0
237	5/28/2019 13:25:26	0.0	0.0
238	5/28/2019 13:26:26	0.0	0.0
239	5/28/2019 13:27:26	0.0	0.0
240	5/28/2019 13:28:26	0.0	0.0
241	5/28/2019 13:29:26	0.0	0.0
242	5/28/2019 13:30:26	0.0	0.0
243	5/28/2019 13:31:26	0.0	0.0
244	5/28/2019 13:32:26	0.0	0.0
245	5/28/2019 13:33:26	0.0	0.0
246	5/28/2019 13:34:26	0.0	0.0
247	5/28/2019 13:35:26	0.0	0.0
248	5/28/2019 13:36:26	0.0	0.0
249	5/28/2019 13:37:26	0.0	0.0
250	5/28/2019 13:38:26	0.0	0.0
251	5/28/2019 13:39:26	0.0	0.0
252	5/28/2019 13:40:26	0.0	0.0
253	5/28/2019 13:41:26	0.0	0.0
254	5/28/2019 13:42:26	0.0	0.0
255	5/28/2019 13:43:26	0.0	0.0
256	5/28/2019 13:44:26	0.0	0.0

257	5/28/2019 13:45:26	0.0	0.0
258	5/28/2019 13:46:26	0.0	0.0
259	5/28/2019 13:47:26	0.0	0.0
260	5/28/2019 13:48:26	0.0	0.0
261	5/28/2019 13:49:26	0.0	0.0
262	5/28/2019 13:50:26	0.0	0.0
263	5/28/2019 13:51:26	0.0	0.0
264	5/28/2019 13:52:26	0.0	0.0
265	5/28/2019 13:53:26	0.0	0.0
266	5/28/2019 13:54:26	0.0	0.0
267	5/28/2019 13:55:26	0.0	0.0
268	5/28/2019 13:56:26	0.0	0.0
269	5/28/2019 13:57:26	0.0	0.0
270	5/28/2019 13:58:26	0.0	0.0
271	5/28/2019 13:59:26	0.0	0.0
272	5/28/2019 14:00:26	0.0	0.0
273	5/28/2019 14:01:26	0.0	0.0
274	5/28/2019 14:02:26	0.0	0.0
275	5/28/2019 14:03:26	0.0	0.0
276	5/28/2019 14:04:26	0.0	0.0
277	5/28/2019 14:05:26	0.0	0.0
278	5/28/2019 14:06:26	0.0	0.0
279	5/28/2019 14:07:26	0.0	0.0
280	5/28/2019 14:08:26	0.0	0.0
281	5/28/2019 14:09:26	0.0	0.0
282	5/28/2019 14:10:26	0.0	0.0
283	5/28/2019 14:11:26	0.0	0.0
284	5/28/2019 14:12:26	0.0	0.0
285	5/28/2019 14:13:26	0.0	0.0
286	5/28/2019 14:14:26	0.0	0.0
287	5/28/2019 14:15:26	0.0	0.0

288	5/28/2019 14:16:26	0.0	0.0
289	5/28/2019 14:17:26	0.0	0.0
290	5/28/2019 14:18:26	0.0	0.0
291	5/28/2019 14:19:26	0.0	0.0
292	5/28/2019 14:20:26	0.0	0.0
293	5/28/2019 14:21:26	0.0	0.0
294	5/28/2019 14:22:26	0.0	0.0
295	5/28/2019 14:23:26	0.0	0.0
296	5/28/2019 14:24:26	0.0	0.0
297	5/28/2019 14:25:26	0.0	0.0
298	5/28/2019 14:26:26	0.0	0.0
299	5/28/2019 14:27:26	0.0	0.0
300	5/28/2019 14:28:26	0.0	0.0
301	5/28/2019 14:29:26	0.0	0.0
302	5/28/2019 14:30:26	0.0	0.0
303	5/28/2019 14:31:26	0.0	0.0
304	5/28/2019 14:32:26	0.0	0.0

甑==========
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19/05/29 09:35
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/29/2019 09:35:46
End	5/29/2019 14:41:46
Sample Period(s)	60
Number of Records	306

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.0
Min	0.0
Average	0.0

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/29/2019	09:36:46	0.0	0.0	0.0	0.0
002	5/29/2019	09:37:46	0.0	0.0	0.0	0.0

003	5/29/2019 09:38:46	0.0	0.0	0.0	0.0
004	5/29/2019 09:39:46	0.0	0.0	0.0	0.0
005	5/29/2019 09:40:46	0.0	0.0	0.0	0.0
006	5/29/2019 09:41:46	0.0	0.0	0.0	0.0
007	5/29/2019 09:42:46	0.0	0.0	0.0	0.0
008	5/29/2019 09:43:46	0.0	0.0	0.0	0.0
009	5/29/2019 09:44:46	0.0	0.0	0.0	0.0
010	5/29/2019 09:45:46	0.0	0.0	0.0	0.0
011	5/29/2019 09:46:46	0.0	0.0	0.0	0.0
012	5/29/2019 09:47:46	0.0	0.0	0.0	0.0
013	5/29/2019 09:48:46	0.0	0.0	0.0	0.0
014	5/29/2019 09:49:46	0.0	0.0	0.0	0.0
015	5/29/2019 09:50:46	0.0	0.0	0.0	0.0
016	5/29/2019 09:51:46	0.0	0.0	0.0	0.0
017	5/29/2019 09:52:46	0.0	0.0	0.0	0.0
018	5/29/2019 09:53:46	0.0	0.0	0.0	0.0
019	5/29/2019 09:54:46	0.0	0.0	0.0	0.0
020	5/29/2019 09:55:46	0.0	0.0	0.0	0.0
021	5/29/2019 09:56:46	0.0	0.0	0.0	0.0
022	5/29/2019 09:57:46	0.0	0.0	0.0	0.0
023	5/29/2019 09:58:46	0.0	0.0	0.0	0.0
024	5/29/2019 09:59:46	0.0	0.0	0.0	0.0
025	5/29/2019 10:00:46	0.0	0.0	0.0	0.0
026	5/29/2019 10:01:46	0.0	0.0	0.0	0.0
027	5/29/2019 10:02:46	0.0	0.0	0.2	0.0
028	5/29/2019 10:03:46	0.0	0.0	0.0	0.0
029	5/29/2019 10:04:46	0.0	0.0	0.0	0.0
030	5/29/2019 10:05:46	0.0	0.0	0.0	0.0
031	5/29/2019 10:06:46	0.0	0.0	0.0	0.0
032	5/29/2019 10:07:46	0.0	0.0	0.0	0.0
033	5/29/2019 10:08:46	0.0	0.0	0.0	0.0

034	5/29/2019 10:09:46	0.0	0.0	0.0	0.0
035	5/29/2019 10:10:46	0.0	0.0	0.0	0.0
036	5/29/2019 10:11:46	0.0	0.0	0.0	0.0
037	5/29/2019 10:12:46	0.0	0.0	0.0	0.0
038	5/29/2019 10:13:46	0.0	0.0	0.0	0.0
039	5/29/2019 10:14:46	0.0	0.0	0.0	0.0
040	5/29/2019 10:15:46	0.0	0.0	0.0	0.0
041	5/29/2019 10:16:46	0.0	0.0	0.0	0.0
042	5/29/2019 10:17:46	0.0	0.0	0.0	0.0
043	5/29/2019 10:18:46	0.0	0.0	0.0	0.0
044	5/29/2019 10:19:46	0.0	0.0	0.0	0.0
045	5/29/2019 10:20:46	0.0	0.0	0.0	0.0
046	5/29/2019 10:21:46	0.0	0.0	0.0	0.0
047	5/29/2019 10:22:46	0.0	0.0	0.0	0.0
048	5/29/2019 10:23:46	0.0	0.0	0.0	0.0
049	5/29/2019 10:24:46	0.0	0.0	0.0	0.0
050	5/29/2019 10:25:46	0.0	0.0	0.0	0.0
051	5/29/2019 10:26:46	0.0	0.0	0.0	0.0
052	5/29/2019 10:27:46	0.0	0.0	0.0	0.0
053	5/29/2019 10:28:46	0.0	0.0	0.0	0.0
054	5/29/2019 10:29:46	0.0	0.0	0.0	0.0
055	5/29/2019 10:30:46	0.0	0.0	0.0	0.0
056	5/29/2019 10:31:46	0.0	0.0	0.0	0.0
057	5/29/2019 10:32:46	0.0	0.0	0.0	0.0
058	5/29/2019 10:33:46	0.0	0.0	0.0	0.0
059	5/29/2019 10:34:46	0.0	0.0	0.0	0.0
060	5/29/2019 10:35:46	0.0	0.0	0.0	0.0
061	5/29/2019 10:36:46	0.0	0.0	0.0	0.0
062	5/29/2019 10:37:46	0.0	0.0	0.0	0.0
063	5/29/2019 10:38:46	0.0	0.0	0.0	0.0
064	5/29/2019 10:39:46	0.0	0.0	0.0	0.0

065	5/29/2019	10:40:46	0.0	0.0	0.0	0.0
066	5/29/2019	10:41:46	0.0	0.0	0.0	0.0
067	5/29/2019	10:42:46	0.0	0.0	0.0	0.0
068	5/29/2019	10:43:46	0.0	0.0	0.0	0.0
069	5/29/2019	10:44:46	0.0	0.0	0.0	0.0
070	5/29/2019	10:45:46	0.0	0.0	0.0	0.0
071	5/29/2019	10:46:46	0.0	0.0	0.0	0.0
072	5/29/2019	10:47:46	0.0	0.0	0.0	0.0
073	5/29/2019	10:48:46	0.0	0.0	0.0	0.0
074	5/29/2019	10:49:46	0.0	0.0	0.0	0.0
075	5/29/2019	10:50:46	0.0	0.0	0.0	0.0
076	5/29/2019	10:51:46	0.0	0.0	0.0	0.0
077	5/29/2019	10:52:46	0.0	0.0	0.0	0.0
078	5/29/2019	10:53:46	0.0	0.0	0.0	0.0
079	5/29/2019	10:54:46	0.0	0.0	0.0	0.0
080	5/29/2019	10:55:46	0.0	0.0	0.0	0.0
081	5/29/2019	10:56:46	0.0	0.0	0.0	0.0
082	5/29/2019	10:57:46	0.0	0.0	0.0	0.0
083	5/29/2019	10:58:46	0.0	0.0	0.0	0.0
084	5/29/2019	10:59:46	0.0	0.0	0.0	0.0
085	5/29/2019	11:00:46	0.0	0.0	0.0	0.0
086	5/29/2019	11:01:46	0.0	0.0	0.0	0.0
087	5/29/2019	11:02:46	0.0	0.0	0.0	0.0
088	5/29/2019	11:03:46	0.0	0.0	0.0	0.0
089	5/29/2019	11:04:46	0.0	0.0	0.0	0.0
090	5/29/2019	11:05:46	0.0	0.0	0.0	0.0
091	5/29/2019	11:06:46	0.0	0.0	0.0	0.0
092	5/29/2019	11:07:46	0.0	0.0	0.0	0.0
093	5/29/2019	11:08:46	0.0	0.0	0.0	0.0
094	5/29/2019	11:09:46	0.0	0.0	0.1	0.0
095	5/29/2019	11:10:46	0.0	0.0	0.0	0.0

096	5/29/2019	11:11:46	0.0	0.0	0.0	0.0
097	5/29/2019	11:12:46	0.0	0.0	0.0	0.0
098	5/29/2019	11:13:46	0.0	0.0	0.0	0.0
099	5/29/2019	11:14:46	0.0	0.0	0.0	0.0
100	5/29/2019	11:15:46	0.0	0.0	0.0	0.0
101	5/29/2019	11:16:46	0.0	0.0	0.0	0.0
102	5/29/2019	11:17:46	0.0	0.0	0.0	0.0
103	5/29/2019	11:18:46	0.0	0.0	0.0	0.0
104	5/29/2019	11:19:46	0.0	0.0	0.0	0.0
105	5/29/2019	11:20:46	0.0	0.0	0.0	0.0
106	5/29/2019	11:21:46	0.0	0.0	0.0	0.0
107	5/29/2019	11:22:46	0.0	0.0	0.0	0.0
108	5/29/2019	11:23:46	0.0	0.0	0.0	0.0
109	5/29/2019	11:24:46	0.0	0.0	0.0	0.0
110	5/29/2019	11:25:46	0.0	0.0	0.0	0.0
111	5/29/2019	11:26:46	0.0	0.0	0.0	0.0
112	5/29/2019	11:27:46	0.0	0.0	0.0	0.0
113	5/29/2019	11:28:46	0.0	0.0	0.0	0.0
114	5/29/2019	11:29:46	0.0	0.0	0.0	0.0
115	5/29/2019	11:30:46	0.0	0.0	0.0	0.0
116	5/29/2019	11:31:46	0.0	0.0	0.0	0.0
117	5/29/2019	11:32:46	0.0	0.0	0.0	0.0
118	5/29/2019	11:33:46	0.0	0.0	0.0	0.0
119	5/29/2019	11:34:46	0.0	0.0	0.0	0.0
120	5/29/2019	11:35:46	0.0	0.0	0.0	0.0
121	5/29/2019	11:36:46	0.0	0.0	0.0	0.0
122	5/29/2019	11:37:46	0.0	0.0	0.0	0.0
123	5/29/2019	11:38:46	0.0	0.0	0.0	0.0
124	5/29/2019	11:39:46	0.0	0.0	0.0	0.0
125	5/29/2019	11:40:46	0.0	0.0	0.0	0.0
126	5/29/2019	11:41:46	0.0	0.0	0.0	0.0

127	5/29/2019	11:42:46	0.0	0.0	0.0	0.0
128	5/29/2019	11:43:46	0.0	0.0	0.0	0.0
129	5/29/2019	11:44:46	0.0	0.0	0.0	0.0
130	5/29/2019	11:45:46	0.0	0.0	0.0	0.0
131	5/29/2019	11:46:46	0.0	0.0	0.0	0.0
132	5/29/2019	11:47:46	0.0	0.0	0.0	0.0
133	5/29/2019	11:48:46	0.0	0.0	0.0	0.0
134	5/29/2019	11:49:46	0.0	0.0	0.0	0.0
135	5/29/2019	11:50:46	0.0	0.0	0.0	0.0
136	5/29/2019	11:51:46	0.0	0.0	0.0	0.0
137	5/29/2019	11:52:46	0.0	0.0	0.0	0.0
138	5/29/2019	11:53:46	0.0	0.0	0.0	0.0
139	5/29/2019	11:54:46	0.0	0.0	0.0	0.0
140	5/29/2019	11:55:46	0.0	0.0	0.0	0.0
141	5/29/2019	11:56:46	0.0	0.0	0.0	0.0
142	5/29/2019	11:57:46	0.0	0.0	0.0	0.0
143	5/29/2019	11:58:46	0.0	0.0	0.0	0.0
144	5/29/2019	11:59:46	0.0	0.0	0.0	0.0
145	5/29/2019	12:00:46	0.0	0.0	0.0	0.0
146	5/29/2019	12:01:46	0.0	0.0	0.0	0.0
147	5/29/2019	12:02:46	0.0	0.0	0.0	0.0
148	5/29/2019	12:03:46	0.0	0.0	0.0	0.0
149	5/29/2019	12:04:46	0.0	0.0	0.0	0.0
150	5/29/2019	12:05:46	0.0	0.0	0.0	0.0
151	5/29/2019	12:06:46	0.0	0.0	0.0	0.0
152	5/29/2019	12:07:46	0.0	0.0	0.0	0.0
153	5/29/2019	12:08:46	0.0	0.0	0.0	0.0
154	5/29/2019	12:09:46	0.0	0.0	0.0	0.0
155	5/29/2019	12:10:46	0.0	0.0	0.0	0.0
156	5/29/2019	12:11:46	0.0	0.0	0.0	0.0
157	5/29/2019	12:12:46	0.0	0.0	0.0	0.0

158	5/29/2019 12:13:46	0.0	0.0	0.0	0.0
159	5/29/2019 12:14:46	0.0	0.0	0.0	0.0
160	5/29/2019 12:15:46	0.0	0.0	0.0	0.0
161	5/29/2019 12:16:46	0.0	0.0	0.0	0.0
162	5/29/2019 12:17:46	0.0	0.0	0.0	0.0
163	5/29/2019 12:18:46	0.0	0.0	0.0	0.0
164	5/29/2019 12:19:46	0.0	0.0	0.0	0.0
165	5/29/2019 12:20:46	0.0	0.0	0.0	0.0
166	5/29/2019 12:21:46	0.0	0.0	0.0	0.0
167	5/29/2019 12:22:46	0.0	0.0	0.0	0.0
168	5/29/2019 12:23:46	0.0	0.0	0.0	0.0
169	5/29/2019 12:24:46	0.0	0.0	0.0	0.0
170	5/29/2019 12:25:46	0.0	0.0	0.0	0.0
171	5/29/2019 12:26:46	0.0	0.0	0.0	0.0
172	5/29/2019 12:27:46	0.0	0.0	0.0	0.0
173	5/29/2019 12:28:46	0.0	0.0	0.0	0.0
174	5/29/2019 12:29:46	0.0	0.0	0.0	0.0
175	5/29/2019 12:30:46	0.0	0.0	0.0	0.0
176	5/29/2019 12:31:46	0.0	0.0	0.0	0.0
177	5/29/2019 12:32:46	0.0	0.0	0.0	0.0
178	5/29/2019 12:33:46	0.0	0.0	0.0	0.0
179	5/29/2019 12:34:46	0.0	0.0	0.0	0.0
180	5/29/2019 12:35:46	0.0	0.0	0.0	0.0
181	5/29/2019 12:36:46	0.0	0.0	0.0	0.0
182	5/29/2019 12:37:46	0.0	0.0	0.0	0.0
183	5/29/2019 12:38:46	0.0	0.0	0.0	0.0
184	5/29/2019 12:39:46	0.0	0.0	0.0	0.0
185	5/29/2019 12:40:46	0.0	0.0	0.0	0.0
186	5/29/2019 12:41:46	0.0	0.0	0.0	0.0
187	5/29/2019 12:42:46	0.0	0.0	0.0	0.0
188	5/29/2019 12:43:46	0.0	0.0	0.0	0.0

189	5/29/2019 12:44:46	0.0	0.0	0.0	0.0
190	5/29/2019 12:45:46	0.0	0.0	0.0	0.0
191	5/29/2019 12:46:46	0.0	0.0	0.0	0.0
192	5/29/2019 12:47:46	0.0	0.0	0.0	0.0
193	5/29/2019 12:48:46	0.0	0.0	0.0	0.0
194	5/29/2019 12:49:46	0.0	0.0	0.0	0.0
195	5/29/2019 12:50:46	0.0	0.0	0.0	0.0
196	5/29/2019 12:51:46	0.0	0.0	0.0	0.0
197	5/29/2019 12:52:46	0.0	0.0	0.0	0.0
198	5/29/2019 12:53:46	0.0	0.0	0.0	0.0
199	5/29/2019 12:54:46	0.0	0.0	0.0	0.0
200	5/29/2019 12:55:46	0.0	0.0	0.0	0.0
201	5/29/2019 12:56:46	0.0	0.0	0.0	0.0
202	5/29/2019 12:57:46	0.0	0.0	0.0	0.0
203	5/29/2019 12:58:46	0.0	0.0	0.0	0.0
204	5/29/2019 12:59:46	0.0	0.0	0.0	0.0
205	5/29/2019 13:00:46	0.0	0.0	0.0	0.0
206	5/29/2019 13:01:46	0.0	0.0	0.0	0.0
207	5/29/2019 13:02:46	0.0	0.0	0.0	0.0
208	5/29/2019 13:03:46	0.0	0.0	0.0	0.0
209	5/29/2019 13:04:46	0.0	0.0	0.0	0.0
210	5/29/2019 13:05:46	0.0	0.0	0.0	0.0
211	5/29/2019 13:06:46	0.0	0.0	0.0	0.0
212	5/29/2019 13:07:46	0.0	0.0	0.0	0.0
213	5/29/2019 13:08:46	0.0	0.0	0.0	0.0
214	5/29/2019 13:09:46	0.0	0.0	0.0	0.0
215	5/29/2019 13:10:46	0.0	0.0	0.0	0.0
216	5/29/2019 13:11:46	0.0	0.0	0.0	0.0
217	5/29/2019 13:12:46	0.0	0.0	0.0	0.0
218	5/29/2019 13:13:46	0.0	0.0	0.0	0.0
219	5/29/2019 13:14:46	0.0	0.0	0.0	0.0

220	5/29/2019 13:15:46	0.0	0.0	0.0	0.0
221	5/29/2019 13:16:46	0.0	0.0	0.0	0.0
222	5/29/2019 13:17:46	0.0	0.0	0.0	0.0
223	5/29/2019 13:18:46	0.0	0.0	0.0	0.0
224	5/29/2019 13:19:46	0.0	0.0	0.0	0.0
225	5/29/2019 13:20:46	0.0	0.0	0.0	0.0
226	5/29/2019 13:21:46	0.0	0.0	0.0	0.0
227	5/29/2019 13:22:46	0.0	0.0	0.0	0.0
228	5/29/2019 13:23:46	0.0	0.0	0.0	0.0
229	5/29/2019 13:24:46	0.0	0.0	0.0	0.0
230	5/29/2019 13:25:46	0.0	0.0	0.0	0.0
231	5/29/2019 13:26:46	0.0	0.0	0.0	0.0
232	5/29/2019 13:27:46	0.0	0.0	0.0	0.0
233	5/29/2019 13:28:46	0.0	0.0	0.0	0.0
234	5/29/2019 13:29:46	0.0	0.0	0.0	0.0
235	5/29/2019 13:30:46	0.0	0.0	0.0	0.0
236	5/29/2019 13:31:46	0.0	0.0	0.0	0.0
237	5/29/2019 13:32:46	0.0	0.0	0.0	0.0
238	5/29/2019 13:33:46	0.0	0.0	0.0	0.0
239	5/29/2019 13:34:46	0.0	0.0	0.0	0.0
240	5/29/2019 13:35:46	0.0	0.0	0.0	0.0
241	5/29/2019 13:36:46	0.0	0.0	0.0	0.0
242	5/29/2019 13:37:46	0.0	0.0	0.0	0.0
243	5/29/2019 13:38:46	0.0	0.0	0.0	0.0
244	5/29/2019 13:39:46	0.0	0.0	0.0	0.0
245	5/29/2019 13:40:46	0.0	0.0	0.0	0.0
246	5/29/2019 13:41:46	0.0	0.0	0.0	0.0
247	5/29/2019 13:42:46	0.0	0.0	0.0	0.0
248	5/29/2019 13:43:46	0.0	0.0	0.0	0.0
249	5/29/2019 13:44:46	0.0	0.0	0.0	0.0
250	5/29/2019 13:45:46	0.0	0.0	0.0	0.0

251	5/29/2019 13:46:46	0.0	0.0	0.0	0.0
252	5/29/2019 13:47:46	0.0	0.0	0.0	0.0
253	5/29/2019 13:48:46	0.0	0.0	0.0	0.0
254	5/29/2019 13:49:46	0.0	0.0	0.0	0.0
255	5/29/2019 13:50:46	0.0	0.0	0.0	0.0
256	5/29/2019 13:51:46	0.0	0.0	0.0	0.0
257	5/29/2019 13:52:46	0.0	0.0	0.0	0.0
258	5/29/2019 13:53:46	0.0	0.0	0.0	0.0
259	5/29/2019 13:54:46	0.0	0.0	0.0	0.0
260	5/29/2019 13:55:46	0.0	0.0	0.0	0.0
261	5/29/2019 13:56:46	0.0	0.0	0.0	0.0
262	5/29/2019 13:57:46	0.0	0.0	0.0	0.0
263	5/29/2019 13:58:46	0.0	0.0	0.0	0.0
264	5/29/2019 13:59:46	0.0	0.0	0.0	0.0
265	5/29/2019 14:00:46	0.0	0.0	0.0	0.0
266	5/29/2019 14:01:46	0.0	0.0	0.0	0.0
267	5/29/2019 14:02:46	0.0	0.0	0.0	0.0
268	5/29/2019 14:03:46	0.0	0.0	0.0	0.0
269	5/29/2019 14:04:46	0.0	0.0	0.0	0.0
270	5/29/2019 14:05:46	0.0	0.0	0.0	0.0
271	5/29/2019 14:06:46	0.0	0.0	0.0	0.0
272	5/29/2019 14:07:46	0.0	0.0	0.0	0.0
273	5/29/2019 14:08:46	0.0	0.0	0.0	0.0
274	5/29/2019 14:09:46	0.0	0.0	0.0	0.0
275	5/29/2019 14:10:46	0.0	0.0	0.0	0.0
276	5/29/2019 14:11:46	0.0	0.0	0.0	0.0
277	5/29/2019 14:12:46	0.0	0.0	0.0	0.0
278	5/29/2019 14:13:46	0.0	0.0	0.0	0.0
279	5/29/2019 14:14:46	0.0	0.0	0.0	0.0
280	5/29/2019 14:15:46	0.0	0.0	0.0	0.0
281	5/29/2019 14:16:46	0.0	0.0	0.0	0.0

282	5/29/2019	14:17:46	0.0	0.0	0.0	0.0
283	5/29/2019	14:18:46	0.0	0.0	0.0	0.0
284	5/29/2019	14:19:46	0.0	0.0	0.0	0.0
285	5/29/2019	14:20:46	0.0	0.0	0.0	0.0
286	5/29/2019	14:21:46	0.0	0.0	0.0	0.0
287	5/29/2019	14:22:46	0.0	0.0	0.0	0.0
288	5/29/2019	14:23:46	0.0	0.0	0.0	0.0
289	5/29/2019	14:24:46	0.0	0.0	0.0	0.0
290	5/29/2019	14:25:46	0.0	0.0	0.0	0.0
291	5/29/2019	14:26:46	0.0	0.0	0.0	0.0
292	5/29/2019	14:27:46	0.0	0.0	0.0	0.0
293	5/29/2019	14:28:46	0.0	0.0	0.0	0.0
294	5/29/2019	14:29:46	0.0	0.0	0.0	0.0
295	5/29/2019	14:30:46	0.0	0.0	0.0	0.0
296	5/29/2019	14:31:46	0.0	0.0	0.0	0.0
297	5/29/2019	14:32:46	0.0	0.0	0.0	0.0
298	5/29/2019	14:33:46	0.0	0.0	0.0	0.0
299	5/29/2019	14:34:46	0.0	0.0	0.0	0.0
300	5/29/2019	14:35:46	0.0	0.0	0.0	0.0
301	5/29/2019	14:36:46	0.0	0.0	0.0	0.0
302	5/29/2019	14:37:46	0.0	0.0	0.0	0.0
303	5/29/2019	14:38:46	0.0	0.0	0.0	0.0
304	5/29/2019	14:39:46	0.0	0.0	0.0	0.0
305	5/29/2019	14:40:46	0.0	0.0	0.0	0.0
306	5/29/2019	14:41:46	0.0	0.0	0.0	0.0
Peak		0.0	0.0	0.2	0.0	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.0	0.0	0.0	

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/29/2019	09:36:46	0.0	---
002	5/29/2019	09:37:46	0.0	---
003	5/29/2019	09:38:46	0.0	---
004	5/29/2019	09:39:46	0.0	---
005	5/29/2019	09:40:46	0.0	---
006	5/29/2019	09:41:46	0.0	---
007	5/29/2019	09:42:46	0.0	---
008	5/29/2019	09:43:46	0.0	---
009	5/29/2019	09:44:46	0.0	---
010	5/29/2019	09:45:46	0.0	---
011	5/29/2019	09:46:46	0.0	---
012	5/29/2019	09:47:46	0.0	---
013	5/29/2019	09:48:46	0.0	---
014	5/29/2019	09:49:46	0.0	---
015	5/29/2019	09:50:46	0.0	0.0
016	5/29/2019	09:51:46	0.0	0.0
017	5/29/2019	09:52:46	0.0	0.0
018	5/29/2019	09:53:46	0.0	0.0
019	5/29/2019	09:54:46	0.0	0.0
020	5/29/2019	09:55:46	0.0	0.0
021	5/29/2019	09:56:46	0.0	0.0
022	5/29/2019	09:57:46	0.0	0.0
023	5/29/2019	09:58:46	0.0	0.0
024	5/29/2019	09:59:46	0.0	0.0
025	5/29/2019	10:00:46	0.0	0.0
026	5/29/2019	10:01:46	0.0	0.0
027	5/29/2019	10:02:46	0.0	0.0
028	5/29/2019	10:03:46	0.0	0.0
029	5/29/2019	10:04:46	0.0	0.0

030	5/29/2019 10:05:46	0.0	0.0
031	5/29/2019 10:06:46	0.0	0.0
032	5/29/2019 10:07:46	0.0	0.0
033	5/29/2019 10:08:46	0.0	0.0
034	5/29/2019 10:09:46	0.0	0.0
035	5/29/2019 10:10:46	0.0	0.0
036	5/29/2019 10:11:46	0.0	0.0
037	5/29/2019 10:12:46	0.0	0.0
038	5/29/2019 10:13:46	0.0	0.0
039	5/29/2019 10:14:46	0.0	0.0
040	5/29/2019 10:15:46	0.0	0.0
041	5/29/2019 10:16:46	0.0	0.0
042	5/29/2019 10:17:46	0.0	0.0
043	5/29/2019 10:18:46	0.0	0.0
044	5/29/2019 10:19:46	0.0	0.0
045	5/29/2019 10:20:46	0.0	0.0
046	5/29/2019 10:21:46	0.0	0.0
047	5/29/2019 10:22:46	0.0	0.0
048	5/29/2019 10:23:46	0.0	0.0
049	5/29/2019 10:24:46	0.0	0.0
050	5/29/2019 10:25:46	0.0	0.0
051	5/29/2019 10:26:46	0.0	0.0
052	5/29/2019 10:27:46	0.0	0.0
053	5/29/2019 10:28:46	0.0	0.0
054	5/29/2019 10:29:46	0.0	0.0
055	5/29/2019 10:30:46	0.0	0.0
056	5/29/2019 10:31:46	0.0	0.0
057	5/29/2019 10:32:46	0.0	0.0
058	5/29/2019 10:33:46	0.0	0.0
059	5/29/2019 10:34:46	0.0	0.0
060	5/29/2019 10:35:46	0.0	0.0

061	5/29/2019 10:36:46	0.0	0.0
062	5/29/2019 10:37:46	0.0	0.0
063	5/29/2019 10:38:46	0.0	0.0
064	5/29/2019 10:39:46	0.0	0.0
065	5/29/2019 10:40:46	0.0	0.0
066	5/29/2019 10:41:46	0.0	0.0
067	5/29/2019 10:42:46	0.0	0.0
068	5/29/2019 10:43:46	0.0	0.0
069	5/29/2019 10:44:46	0.0	0.0
070	5/29/2019 10:45:46	0.0	0.0
071	5/29/2019 10:46:46	0.0	0.0
072	5/29/2019 10:47:46	0.0	0.0
073	5/29/2019 10:48:46	0.0	0.0
074	5/29/2019 10:49:46	0.0	0.0
075	5/29/2019 10:50:46	0.0	0.0
076	5/29/2019 10:51:46	0.0	0.0
077	5/29/2019 10:52:46	0.0	0.0
078	5/29/2019 10:53:46	0.0	0.0
079	5/29/2019 10:54:46	0.0	0.0
080	5/29/2019 10:55:46	0.0	0.0
081	5/29/2019 10:56:46	0.0	0.0
082	5/29/2019 10:57:46	0.0	0.0
083	5/29/2019 10:58:46	0.0	0.0
084	5/29/2019 10:59:46	0.0	0.0
085	5/29/2019 11:00:46	0.0	0.0
086	5/29/2019 11:01:46	0.0	0.0
087	5/29/2019 11:02:46	0.0	0.0
088	5/29/2019 11:03:46	0.0	0.0
089	5/29/2019 11:04:46	0.0	0.0
090	5/29/2019 11:05:46	0.0	0.0
091	5/29/2019 11:06:46	0.0	0.0

092	5/29/2019 11:07:46	0.0	0.0
093	5/29/2019 11:08:46	0.0	0.0
094	5/29/2019 11:09:46	0.0	0.0
095	5/29/2019 11:10:46	0.0	0.0
096	5/29/2019 11:11:46	0.0	0.0
097	5/29/2019 11:12:46	0.0	0.0
098	5/29/2019 11:13:46	0.0	0.0
099	5/29/2019 11:14:46	0.0	0.0
100	5/29/2019 11:15:46	0.0	0.0
101	5/29/2019 11:16:46	0.0	0.0
102	5/29/2019 11:17:46	0.0	0.0
103	5/29/2019 11:18:46	0.0	0.0
104	5/29/2019 11:19:46	0.0	0.0
105	5/29/2019 11:20:46	0.0	0.0
106	5/29/2019 11:21:46	0.0	0.0
107	5/29/2019 11:22:46	0.0	0.0
108	5/29/2019 11:23:46	0.0	0.0
109	5/29/2019 11:24:46	0.0	0.0
110	5/29/2019 11:25:46	0.0	0.0
111	5/29/2019 11:26:46	0.0	0.0
112	5/29/2019 11:27:46	0.0	0.0
113	5/29/2019 11:28:46	0.0	0.0
114	5/29/2019 11:29:46	0.0	0.0
115	5/29/2019 11:30:46	0.0	0.0
116	5/29/2019 11:31:46	0.0	0.0
117	5/29/2019 11:32:46	0.0	0.0
118	5/29/2019 11:33:46	0.0	0.0
119	5/29/2019 11:34:46	0.0	0.0
120	5/29/2019 11:35:46	0.0	0.0
121	5/29/2019 11:36:46	0.0	0.0
122	5/29/2019 11:37:46	0.0	0.0

123	5/29/2019 11:38:46	0.0	0.0
124	5/29/2019 11:39:46	0.0	0.0
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129	5/29/2019 11:44:46	0.0	0.0
130	5/29/2019 11:45:46	0.0	0.0
131	5/29/2019 11:46:46	0.0	0.0
132	5/29/2019 11:47:46	0.0	0.0
133	5/29/2019 11:48:46	0.0	0.0
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135	5/29/2019 11:50:46	0.0	0.0
136	5/29/2019 11:51:46	0.0	0.0
137	5/29/2019 11:52:46	0.0	0.0
138	5/29/2019 11:53:46	0.0	0.0
139	5/29/2019 11:54:46	0.0	0.0
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143	5/29/2019 11:58:46	0.0	0.0
144	5/29/2019 11:59:46	0.0	0.0
145	5/29/2019 12:00:46	0.0	0.0
146	5/29/2019 12:01:46	0.0	0.0
147	5/29/2019 12:02:46	0.0	0.0
148	5/29/2019 12:03:46	0.0	0.0
149	5/29/2019 12:04:46	0.0	0.0
150	5/29/2019 12:05:46	0.0	0.0
151	5/29/2019 12:06:46	0.0	0.0
152	5/29/2019 12:07:46	0.0	0.0
153	5/29/2019 12:08:46	0.0	0.0

154	5/29/2019 12:09:46	0.0	0.0
155	5/29/2019 12:10:46	0.0	0.0
156	5/29/2019 12:11:46	0.0	0.0
157	5/29/2019 12:12:46	0.0	0.0
158	5/29/2019 12:13:46	0.0	0.0
159	5/29/2019 12:14:46	0.0	0.0
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161	5/29/2019 12:16:46	0.0	0.0
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163	5/29/2019 12:18:46	0.0	0.0
164	5/29/2019 12:19:46	0.0	0.0
165	5/29/2019 12:20:46	0.0	0.0
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167	5/29/2019 12:22:46	0.0	0.0
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175	5/29/2019 12:30:46	0.0	0.0
176	5/29/2019 12:31:46	0.0	0.0
177	5/29/2019 12:32:46	0.0	0.0
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184	5/29/2019 12:39:46	0.0	0.0

185	5/29/2019 12:40:46	0.0	0.0
186	5/29/2019 12:41:46	0.0	0.0
187	5/29/2019 12:42:46	0.0	0.0
188	5/29/2019 12:43:46	0.0	0.0
189	5/29/2019 12:44:46	0.0	0.0
190	5/29/2019 12:45:46	0.0	0.0
191	5/29/2019 12:46:46	0.0	0.0
192	5/29/2019 12:47:46	0.0	0.0
193	5/29/2019 12:48:46	0.0	0.0
194	5/29/2019 12:49:46	0.0	0.0
195	5/29/2019 12:50:46	0.0	0.0
196	5/29/2019 12:51:46	0.0	0.0
197	5/29/2019 12:52:46	0.0	0.0
198	5/29/2019 12:53:46	0.0	0.0
199	5/29/2019 12:54:46	0.0	0.0
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203	5/29/2019 12:58:46	0.0	0.0
204	5/29/2019 12:59:46	0.0	0.0
205	5/29/2019 13:00:46	0.0	0.0
206	5/29/2019 13:01:46	0.0	0.0
207	5/29/2019 13:02:46	0.0	0.0
208	5/29/2019 13:03:46	0.0	0.0
209	5/29/2019 13:04:46	0.0	0.0
210	5/29/2019 13:05:46	0.0	0.0
211	5/29/2019 13:06:46	0.0	0.0
212	5/29/2019 13:07:46	0.0	0.0
213	5/29/2019 13:08:46	0.0	0.0
214	5/29/2019 13:09:46	0.0	0.0
215	5/29/2019 13:10:46	0.0	0.0

216	5/29/2019 13:11:46	0.0	0.0
217	5/29/2019 13:12:46	0.0	0.0
218	5/29/2019 13:13:46	0.0	0.0
219	5/29/2019 13:14:46	0.0	0.0
220	5/29/2019 13:15:46	0.0	0.0
221	5/29/2019 13:16:46	0.0	0.0
222	5/29/2019 13:17:46	0.0	0.0
223	5/29/2019 13:18:46	0.0	0.0
224	5/29/2019 13:19:46	0.0	0.0
225	5/29/2019 13:20:46	0.0	0.0
226	5/29/2019 13:21:46	0.0	0.0
227	5/29/2019 13:22:46	0.0	0.0
228	5/29/2019 13:23:46	0.0	0.0
229	5/29/2019 13:24:46	0.0	0.0
230	5/29/2019 13:25:46	0.0	0.0
231	5/29/2019 13:26:46	0.0	0.0
232	5/29/2019 13:27:46	0.0	0.0
233	5/29/2019 13:28:46	0.0	0.0
234	5/29/2019 13:29:46	0.0	0.0
235	5/29/2019 13:30:46	0.0	0.0
236	5/29/2019 13:31:46	0.0	0.0
237	5/29/2019 13:32:46	0.0	0.0
238	5/29/2019 13:33:46	0.0	0.0
239	5/29/2019 13:34:46	0.0	0.0
240	5/29/2019 13:35:46	0.0	0.0
241	5/29/2019 13:36:46	0.0	0.0
242	5/29/2019 13:37:46	0.0	0.0
243	5/29/2019 13:38:46	0.0	0.0
244	5/29/2019 13:39:46	0.0	0.0
245	5/29/2019 13:40:46	0.0	0.0
246	5/29/2019 13:41:46	0.0	0.0

247	5/29/2019 13:42:46	0.0	0.0
248	5/29/2019 13:43:46	0.0	0.0
249	5/29/2019 13:44:46	0.0	0.0
250	5/29/2019 13:45:46	0.0	0.0
251	5/29/2019 13:46:46	0.0	0.0
252	5/29/2019 13:47:46	0.0	0.0
253	5/29/2019 13:48:46	0.0	0.0
254	5/29/2019 13:49:46	0.0	0.0
255	5/29/2019 13:50:46	0.0	0.0
256	5/29/2019 13:51:46	0.0	0.0
257	5/29/2019 13:52:46	0.0	0.0
258	5/29/2019 13:53:46	0.0	0.0
259	5/29/2019 13:54:46	0.0	0.0
260	5/29/2019 13:55:46	0.0	0.0
261	5/29/2019 13:56:46	0.0	0.0
262	5/29/2019 13:57:46	0.0	0.0
263	5/29/2019 13:58:46	0.0	0.0
264	5/29/2019 13:59:46	0.0	0.0
265	5/29/2019 14:00:46	0.0	0.0
266	5/29/2019 14:01:46	0.0	0.0
267	5/29/2019 14:02:46	0.0	0.0
268	5/29/2019 14:03:46	0.0	0.0
269	5/29/2019 14:04:46	0.0	0.0
270	5/29/2019 14:05:46	0.0	0.0
271	5/29/2019 14:06:46	0.0	0.0
272	5/29/2019 14:07:46	0.0	0.0
273	5/29/2019 14:08:46	0.0	0.0
274	5/29/2019 14:09:46	0.0	0.0
275	5/29/2019 14:10:46	0.0	0.0
276	5/29/2019 14:11:46	0.0	0.0
277	5/29/2019 14:12:46	0.0	0.0

278	5/29/2019 14:13:46	0.0	0.0
279	5/29/2019 14:14:46	0.0	0.0
280	5/29/2019 14:15:46	0.0	0.0
281	5/29/2019 14:16:46	0.0	0.0
282	5/29/2019 14:17:46	0.0	0.0
283	5/29/2019 14:18:46	0.0	0.0
284	5/29/2019 14:19:46	0.0	0.0
285	5/29/2019 14:20:46	0.0	0.0
286	5/29/2019 14:21:46	0.0	0.0
287	5/29/2019 14:22:46	0.0	0.0
288	5/29/2019 14:23:46	0.0	0.0
289	5/29/2019 14:24:46	0.0	0.0
290	5/29/2019 14:25:46	0.0	0.0
291	5/29/2019 14:26:46	0.0	0.0
292	5/29/2019 14:27:46	0.0	0.0
293	5/29/2019 14:28:46	0.0	0.0
294	5/29/2019 14:29:46	0.0	0.0
295	5/29/2019 14:30:46	0.0	0.0
296	5/29/2019 14:31:46	0.0	0.0
297	5/29/2019 14:32:46	0.0	0.0
298	5/29/2019 14:33:46	0.0	0.0
299	5/29/2019 14:34:46	0.0	0.0
300	5/29/2019 14:35:46	0.0	0.0
301	5/29/2019 14:36:46	0.0	0.0
302	5/29/2019 14:37:46	0.0	0.0
303	5/29/2019 14:38:46	0.0	0.0
304	5/29/2019 14:39:46	0.0	0.0
305	5/29/2019 14:40:46	0.0	0.0
306	5/29/2019 14:41:46	0.0	0.0

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19/05/30 08:28
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/30/2019 08:28:32
End	5/30/2019 08:31:12
Sample Period(s)	60
Number of Records	2

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0

Measurement Gas Isobutylene
Calibration Time 5/15/2019 16:00
Peak 0.9
Min 0.0
Average 0.5

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/30/2019 08:29:32	0.0	0.0	0.0	0.0	
002	5/30/2019 08:30:32	0.0	0.1	1.9	0.9	
Peak		0.0	0.1	1.9	0.9	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.1	1.0	0.5	

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/30/2019 08:29:32	0.0	---	
002	5/30/2019 08:30:32	0.0	---	

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19/05/30 08:44
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-000000
Unit Firmware Ver V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/30/2019 08:44:08
End	5/30/2019 14:56:41
Sample Period(s)	60
Number of Records	372

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.1
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/30/2019	08:45:08	0.0	0.0	0.0	0.0
002	5/30/2019	08:46:08	0.0	0.0	0.0	0.0
003	5/30/2019	08:47:08	0.0	0.0	0.0	0.0
004	5/30/2019	08:48:08	0.0	0.0	0.0	0.0
005	5/30/2019	08:49:08	0.0	0.0	0.0	0.0
006	5/30/2019	08:50:08	0.0	0.0	0.0	0.0
007	5/30/2019	08:51:08	0.0	0.0	0.0	0.0
008	5/30/2019	08:52:08	0.0	0.0	0.0	0.0
009	5/30/2019	08:53:08	0.0	0.0	0.0	0.0
010	5/30/2019	08:54:08	0.0	0.0	0.0	0.0
011	5/30/2019	08:55:08	0.0	0.0	0.0	0.0
012	5/30/2019	08:56:08	0.0	0.0	0.0	0.0
013	5/30/2019	08:57:08	0.0	0.0	0.0	0.0
014	5/30/2019	08:58:08	0.0	0.0	0.0	0.0
015	5/30/2019	08:59:08	0.0	0.0	0.0	0.0
016	5/30/2019	09:00:08	0.0	0.0	0.0	0.0
017	5/30/2019	09:01:08	0.0	0.0	0.0	0.0
018	5/30/2019	09:02:08	0.0	0.0	0.0	0.0
019	5/30/2019	09:03:08	0.0	0.0	0.0	0.0
020	5/30/2019	09:04:08	0.0	0.0	0.0	0.0
021	5/30/2019	09:05:08	0.0	0.0	0.0	0.0
022	5/30/2019	09:06:08	0.0	0.0	0.0	0.0
023	5/30/2019	09:07:08	0.0	0.0	0.0	0.0
024	5/30/2019	09:08:08	0.0	0.0	0.0	0.0
025	5/30/2019	09:09:08	0.0	0.0	0.0	0.0
026	5/30/2019	09:10:08	0.0	0.0	0.0	0.0
027	5/30/2019	09:11:08	0.0	0.0	0.0	0.0
028	5/30/2019	09:12:08	0.0	0.0	0.0	0.0

029	5/30/2019	09:13:08	0.0	0.0	0.0	0.0
030	5/30/2019	09:14:08	0.0	0.0	0.0	0.0
031	5/30/2019	09:15:08	0.0	0.0	0.0	0.0
032	5/30/2019	09:16:08	0.0	0.0	0.0	0.0
033	5/30/2019	09:17:08	0.0	0.0	0.0	0.0
034	5/30/2019	09:18:08	0.0	0.0	0.0	0.0
035	5/30/2019	09:19:08	0.0	0.0	0.0	0.0
036	5/30/2019	09:20:08	0.0	0.0	0.0	0.0
037	5/30/2019	09:21:08	0.0	0.0	0.0	0.0
038	5/30/2019	09:22:08	0.0	0.0	0.0	0.0
039	5/30/2019	09:23:08	0.0	0.0	0.0	0.0
040	5/30/2019	09:24:08	0.0	0.0	0.0	0.0
041	5/30/2019	09:25:08	0.0	0.0	0.0	0.0
042	5/30/2019	09:26:08	0.0	0.0	0.0	0.0
043	5/30/2019	09:27:08	0.0	0.0	0.0	0.0
044	5/30/2019	09:28:08	0.0	0.0	0.0	0.0
045	5/30/2019	09:29:08	0.0	0.0	0.0	0.0
046	5/30/2019	09:30:08	0.0	0.0	0.0	0.0
047	5/30/2019	09:31:08	0.0	0.0	0.0	0.0
048	5/30/2019	09:32:08	0.0	0.0	0.0	0.0
049	5/30/2019	09:33:08	0.0	0.0	0.0	0.0
050	5/30/2019	09:34:08	0.0	0.0	0.0	0.0
051	5/30/2019	09:35:08	0.0	0.0	0.0	0.0
052	5/30/2019	09:36:08	0.0	0.0	0.0	0.0
053	5/30/2019	09:37:08	0.0	0.0	0.0	0.0
054	5/30/2019	09:38:08	0.0	0.0	0.0	0.0
055	5/30/2019	09:39:08	0.0	0.0	0.0	0.0
056	5/30/2019	09:40:08	0.0	0.0	0.0	0.0
057	5/30/2019	09:41:08	0.0	0.0	0.0	0.0
058	5/30/2019	09:42:08	0.0	0.0	0.0	0.0
059	5/30/2019	09:43:08	0.0	0.0	0.0	0.0

060	5/30/2019 09:44:08	0.0	0.0	0.0	0.0
061	5/30/2019 09:45:08	0.0	0.0	0.0	0.0
062	5/30/2019 09:46:08	0.0	0.0	0.0	0.0
063	5/30/2019 09:47:08	0.0	0.0	0.0	0.0
064	5/30/2019 09:48:08	0.0	0.0	0.0	0.0
065	5/30/2019 09:49:08	0.0	0.0	0.0	0.0
066	5/30/2019 09:50:08	0.0	0.0	0.0	0.0
067	5/30/2019 09:51:08	0.0	0.0	0.0	0.0
068	5/30/2019 09:52:08	0.0	0.0	0.0	0.0
069	5/30/2019 09:53:08	0.0	0.0	0.0	0.0
070	5/30/2019 09:54:08	0.0	0.0	0.0	0.0
071	5/30/2019 09:55:08	0.0	0.0	0.0	0.0
072	5/30/2019 09:56:08	0.0	0.0	0.0	0.0
073	5/30/2019 09:57:08	0.0	0.0	0.0	0.0
074	5/30/2019 09:58:08	0.0	0.0	0.0	0.0
075	5/30/2019 09:59:08	0.0	0.0	0.0	0.0
076	5/30/2019 10:00:08	0.0	0.0	0.0	0.0
077	5/30/2019 10:01:08	0.0	0.0	0.0	0.0
078	5/30/2019 10:02:08	0.0	0.0	0.0	0.0
079	5/30/2019 10:03:08	0.0	0.0	0.0	0.0
080	5/30/2019 10:04:08	0.0	0.0	0.0	0.0
081	5/30/2019 10:05:08	0.0	0.0	0.0	0.0
082	5/30/2019 10:06:08	0.0	0.0	0.0	0.0
083	5/30/2019 10:07:08	0.0	0.0	0.0	0.0
084	5/30/2019 10:08:08	0.0	0.0	0.0	0.0
085	5/30/2019 10:09:08	0.0	0.0	0.0	0.0
086	5/30/2019 10:10:08	0.0	0.0	0.0	0.0
087	5/30/2019 10:11:08	0.0	0.0	0.0	0.0
088	5/30/2019 10:12:08	0.0	0.0	0.0	0.0
089	5/30/2019 10:13:08	0.0	0.0	0.0	0.0
090	5/30/2019 10:14:08	0.0	0.0	0.0	0.0

091	5/30/2019	10:15:08	0.0	0.0	0.0	0.0
092	5/30/2019	10:16:08	0.0	0.0	0.0	0.0
093	5/30/2019	10:17:08	0.0	0.0	0.0	0.0
094	5/30/2019	10:18:08	0.0	0.0	0.0	0.0
095	5/30/2019	10:19:08	0.0	0.0	0.0	0.0
096	5/30/2019	10:20:08	0.0	0.0	0.0	0.0
097	5/30/2019	10:21:08	0.0	0.0	0.0	0.0
098	5/30/2019	10:22:08	0.0	0.0	0.0	0.0
099	5/30/2019	10:23:08	0.0	0.0	0.0	0.0
100	5/30/2019	10:24:08	0.0	0.0	0.0	0.0
101	5/30/2019	10:25:08	0.0	0.0	0.0	0.0
102	5/30/2019	10:26:08	0.0	0.0	0.0	0.0
103	5/30/2019	10:27:08	0.0	0.0	0.0	0.0
104	5/30/2019	10:28:08	0.0	0.0	0.0	0.0
105	5/30/2019	10:29:08	0.0	0.0	0.0	0.0
106	5/30/2019	10:30:08	0.0	0.0	0.0	0.0
107	5/30/2019	10:31:08	0.0	0.0	0.0	0.0
108	5/30/2019	10:32:08	0.0	0.0	0.0	0.0
109	5/30/2019	10:33:08	0.0	0.0	0.0	0.0
110	5/30/2019	10:34:08	0.0	0.0	0.0	0.0
111	5/30/2019	10:35:08	0.0	0.0	0.0	0.0
112	5/30/2019	10:36:08	0.0	0.0	0.0	0.0
113	5/30/2019	10:37:08	0.0	0.0	0.0	0.0
114	5/30/2019	10:38:08	0.0	0.0	0.0	0.0
115	5/30/2019	10:39:08	0.0	0.0	0.0	0.0
116	5/30/2019	10:40:08	0.0	0.0	0.0	0.0
117	5/30/2019	10:41:08	0.0	0.0	0.0	0.0
118	5/30/2019	10:42:08	0.0	0.0	0.0	0.0
119	5/30/2019	10:43:08	0.0	0.0	0.0	0.0
120	5/30/2019	10:44:08	0.0	0.0	0.0	0.0
121	5/30/2019	10:45:08	0.0	0.0	0.0	0.0

122	5/30/2019	10:46:08	0.0	0.0	0.0	0.0
123	5/30/2019	10:47:08	0.0	0.0	0.0	0.0
124	5/30/2019	10:48:08	0.0	0.0	0.0	0.0
125	5/30/2019	10:49:08	0.0	0.0	0.0	0.0
126	5/30/2019	10:50:08	0.0	0.0	0.0	0.0
127	5/30/2019	10:51:08	0.0	0.0	0.0	0.0
128	5/30/2019	10:52:08	0.0	0.0	0.0	0.0
129	5/30/2019	10:53:08	0.0	0.0	0.0	0.0
130	5/30/2019	10:54:08	0.0	0.0	0.0	0.0
131	5/30/2019	10:55:08	0.0	0.0	0.0	0.0
132	5/30/2019	10:56:08	0.0	0.0	0.0	0.0
133	5/30/2019	10:57:08	0.0	0.0	0.0	0.0
134	5/30/2019	10:58:08	0.0	0.0	0.0	0.0
135	5/30/2019	10:59:08	0.0	0.0	0.0	0.0
136	5/30/2019	11:00:08	0.0	0.0	0.0	0.0
137	5/30/2019	11:01:08	0.0	0.0	0.0	0.0
138	5/30/2019	11:02:08	0.0	0.0	0.0	0.0
139	5/30/2019	11:03:08	0.0	0.0	0.0	0.0
140	5/30/2019	11:04:08	0.0	0.0	0.0	0.0
141	5/30/2019	11:05:08	0.0	0.0	0.0	0.0
142	5/30/2019	11:06:08	0.0	0.0	0.0	0.0
143	5/30/2019	11:07:08	0.0	0.0	0.0	0.0
144	5/30/2019	11:08:08	0.0	0.0	0.0	0.0
145	5/30/2019	11:09:08	0.0	0.0	0.0	0.0
146	5/30/2019	11:10:08	0.0	0.0	0.0	0.0
147	5/30/2019	11:11:08	0.0	0.0	0.0	0.0
148	5/30/2019	11:12:08	0.0	0.0	0.0	0.0
149	5/30/2019	11:13:08	0.0	0.0	0.0	0.0
150	5/30/2019	11:14:08	0.0	0.0	0.0	0.0
151	5/30/2019	11:15:08	0.0	0.0	0.0	0.0
152	5/30/2019	11:16:08	0.0	0.0	0.0	0.0

153	5/30/2019	11:17:08	0.0	0.0	0.0	0.0
154	5/30/2019	11:18:08	0.0	0.0	0.0	0.0
155	5/30/2019	11:19:08	0.0	0.0	0.0	0.0
156	5/30/2019	11:20:08	0.0	0.0	0.0	0.0
157	5/30/2019	11:21:08	0.0	0.0	0.0	0.0
158	5/30/2019	11:22:08	0.0	0.0	0.0	0.0
159	5/30/2019	11:23:08	0.0	0.0	0.0	0.0
160	5/30/2019	11:24:08	0.0	0.0	0.0	0.0
161	5/30/2019	11:25:08	0.0	0.1	0.4	0.1
162	5/30/2019	11:26:08	0.0	0.0	0.2	0.0
163	5/30/2019	11:27:08	0.0	0.0	0.0	0.0
164	5/30/2019	11:28:08	0.0	0.0	0.0	0.0
165	5/30/2019	11:29:08	0.0	0.0	0.0	0.0
166	5/30/2019	11:30:08	0.0	0.0	0.0	0.0
167	5/30/2019	11:31:08	0.0	0.0	0.0	0.0
168	5/30/2019	11:32:08	0.0	0.0	0.0	0.0
169	5/30/2019	11:33:08	0.0	0.0	0.0	0.0
170	5/30/2019	11:34:08	0.0	0.0	0.0	0.0
171	5/30/2019	11:35:08	0.0	0.0	0.0	0.0
172	5/30/2019	11:36:08	0.0	0.0	0.0	0.0
173	5/30/2019	11:37:08	0.0	0.0	0.0	0.0
174	5/30/2019	11:38:08	0.0	0.0	0.0	0.0
175	5/30/2019	11:39:08	0.0	0.0	0.0	0.0
176	5/30/2019	11:40:08	0.0	0.0	0.0	0.0
177	5/30/2019	11:41:08	0.0	0.0	0.0	0.0
178	5/30/2019	11:42:08	0.0	0.0	0.0	0.0
179	5/30/2019	11:43:08	0.0	0.0	0.0	0.0
180	5/30/2019	11:44:08	0.0	0.0	0.0	0.0
181	5/30/2019	11:45:08	0.0	0.0	0.0	0.0
182	5/30/2019	11:46:08	0.0	0.0	0.0	0.0
183	5/30/2019	11:47:08	0.0	0.0	0.0	0.0

184	5/30/2019	11:48:08	0.0	0.0	0.0	0.0
185	5/30/2019	11:49:08	0.0	0.0	0.0	0.0
186	5/30/2019	11:50:08	0.0	0.0	0.0	0.0
187	5/30/2019	11:51:08	0.0	0.0	0.0	0.0
188	5/30/2019	11:52:08	0.0	0.0	0.0	0.0
189	5/30/2019	11:53:08	0.0	0.0	0.0	0.0
190	5/30/2019	11:54:08	0.0	0.0	0.0	0.0
191	5/30/2019	11:55:08	0.0	0.0	0.0	0.0
192	5/30/2019	11:56:08	0.0	0.0	0.0	0.0
193	5/30/2019	11:57:08	0.0	0.0	0.0	0.0
194	5/30/2019	11:58:08	0.0	0.0	0.0	0.0
195	5/30/2019	11:59:08	0.0	0.0	0.0	0.0
196	5/30/2019	12:00:08	0.0	0.0	0.0	0.0
197	5/30/2019	12:01:08	0.0	0.0	0.0	0.0
198	5/30/2019	12:02:08	0.0	0.0	0.0	0.0
199	5/30/2019	12:03:08	0.0	0.0	0.0	0.0
200	5/30/2019	12:04:08	0.0	0.0	0.0	0.0
201	5/30/2019	12:05:08	0.0	0.0	0.0	0.0
202	5/30/2019	12:06:08	0.0	0.0	0.0	0.0
203	5/30/2019	12:07:08	0.0	0.0	0.0	0.0
204	5/30/2019	12:08:08	0.0	0.0	0.0	0.0
205	5/30/2019	12:09:08	0.0	0.0	0.0	0.0
206	5/30/2019	12:10:08	0.0	0.0	0.0	0.0
207	5/30/2019	12:11:08	0.0	0.0	0.0	0.0
208	5/30/2019	12:12:08	0.0	0.0	0.0	0.0
209	5/30/2019	12:13:08	0.0	0.0	0.0	0.0
210	5/30/2019	12:14:08	0.0	0.0	0.0	0.0
211	5/30/2019	12:15:08	0.0	0.0	0.0	0.0
212	5/30/2019	12:16:08	0.0	0.0	0.0	0.0
213	5/30/2019	12:17:08	0.0	0.0	0.0	0.0
214	5/30/2019	12:18:08	0.0	0.0	0.0	0.0

215	5/30/2019 12:19:08	0.0	0.0	0.0	0.0
216	5/30/2019 12:20:08	0.0	0.0	0.0	0.0
217	5/30/2019 12:21:08	0.0	0.0	0.0	0.0
218	5/30/2019 12:22:08	0.0	0.0	0.0	0.0
219	5/30/2019 12:23:08	0.0	0.0	0.0	0.0
220	5/30/2019 12:24:08	0.0	0.0	0.0	0.0
221	5/30/2019 12:25:08	0.0	0.0	0.0	0.0
222	5/30/2019 12:26:08	0.0	0.0	0.0	0.0
223	5/30/2019 12:27:08	0.0	0.0	0.0	0.0
224	5/30/2019 12:28:08	0.0	0.0	0.0	0.0
225	5/30/2019 12:29:08	0.0	0.0	0.0	0.0
226	5/30/2019 12:30:08	0.0	0.0	0.0	0.0
227	5/30/2019 12:31:08	0.0	0.0	0.0	0.0
228	5/30/2019 12:32:08	0.0	0.0	0.0	0.0
229	5/30/2019 12:33:08	0.0	0.0	0.0	0.0
230	5/30/2019 12:34:08	0.0	0.0	0.0	0.0
231	5/30/2019 12:35:08	0.0	0.0	0.0	0.0
232	5/30/2019 12:36:08	0.0	0.0	0.0	0.0
233	5/30/2019 12:37:08	0.0	0.0	0.0	0.0
234	5/30/2019 12:38:08	0.0	0.0	0.0	0.0
235	5/30/2019 12:39:08	0.0	0.0	0.0	0.0
236	5/30/2019 12:40:08	0.0	0.0	0.0	0.0
237	5/30/2019 12:41:08	0.0	0.0	0.0	0.0
238	5/30/2019 12:42:08	0.0	0.0	0.0	0.0
239	5/30/2019 12:43:08	0.0	0.0	0.0	0.0
240	5/30/2019 12:44:08	0.0	0.0	0.0	0.0
241	5/30/2019 12:45:08	0.0	0.0	0.0	0.0
242	5/30/2019 12:46:08	0.0	0.0	0.0	0.0
243	5/30/2019 12:47:08	0.0	0.0	0.0	0.0
244	5/30/2019 12:48:08	0.0	0.0	0.0	0.0
245	5/30/2019 12:49:08	0.0	0.0	0.0	0.0

246	5/30/2019 12:50:08	0.0	0.0	0.0	0.0
247	5/30/2019 12:51:08	0.0	0.0	0.0	0.0
248	5/30/2019 12:52:08	0.0	0.0	0.0	0.0
249	5/30/2019 12:53:08	0.0	0.0	0.0	0.0
250	5/30/2019 12:54:08	0.0	0.0	0.0	0.0
251	5/30/2019 12:55:08	0.0	0.0	0.0	0.0
252	5/30/2019 12:56:08	0.0	0.0	0.0	0.0
253	5/30/2019 12:57:08	0.0	0.0	0.0	0.0
254	5/30/2019 12:58:08	0.0	0.0	0.0	0.0
255	5/30/2019 12:59:08	0.0	0.0	0.0	0.0
256	5/30/2019 13:00:08	0.0	0.0	0.0	0.0
257	5/30/2019 13:01:08	0.0	0.0	0.0	0.0
258	5/30/2019 13:02:08	0.0	0.0	0.0	0.0
259	5/30/2019 13:03:08	0.0	0.0	0.0	0.0
260	5/30/2019 13:04:08	0.0	0.0	0.0	0.0
261	5/30/2019 13:05:08	0.0	0.0	0.0	0.0
262	5/30/2019 13:06:08	0.0	0.0	0.0	0.0
263	5/30/2019 13:07:08	0.0	0.0	0.0	0.0
264	5/30/2019 13:08:08	0.0	0.0	0.0	0.0
265	5/30/2019 13:09:08	0.0	0.0	0.0	0.0
266	5/30/2019 13:10:08	0.0	0.0	0.0	0.0
267	5/30/2019 13:11:08	0.0	0.0	0.0	0.0
268	5/30/2019 13:12:08	0.0	0.0	0.0	0.0
269	5/30/2019 13:13:08	0.0	0.0	0.0	0.0
270	5/30/2019 13:14:08	0.0	0.0	0.0	0.0
271	5/30/2019 13:15:08	0.0	0.0	0.0	0.0
272	5/30/2019 13:16:08	0.0	0.0	0.0	0.0
273	5/30/2019 13:17:08	0.0	0.0	0.0	0.0
274	5/30/2019 13:18:08	0.0	0.0	0.0	0.0
275	5/30/2019 13:19:08	0.0	0.0	0.0	0.0
276	5/30/2019 13:20:08	0.0	0.0	0.0	0.0

277	5/30/2019 13:21:08	0.0	0.0	0.0	0.0
278	5/30/2019 13:22:08	0.0	0.0	0.0	0.0
279	5/30/2019 13:23:08	0.0	0.0	0.0	0.0
280	5/30/2019 13:24:08	0.0	0.0	0.0	0.0
281	5/30/2019 13:25:08	0.0	0.0	0.0	0.0
282	5/30/2019 13:26:08	0.0	0.0	0.0	0.0
283	5/30/2019 13:27:08	0.0	0.0	0.0	0.0
284	5/30/2019 13:28:08	0.0	0.0	0.0	0.0
285	5/30/2019 13:29:08	0.0	0.0	0.0	0.0
286	5/30/2019 13:30:08	0.0	0.0	0.0	0.0
287	5/30/2019 13:31:08	0.0	0.0	0.0	0.0
288	5/30/2019 13:32:08	0.0	0.0	0.0	0.0
289	5/30/2019 13:33:08	0.0	0.0	0.0	0.0
290	5/30/2019 13:34:08	0.0	0.0	0.0	0.0
291	5/30/2019 13:35:08	0.0	0.0	0.0	0.0
292	5/30/2019 13:36:08	0.0	0.0	0.0	0.0
293	5/30/2019 13:37:08	0.0	0.0	0.0	0.0
294	5/30/2019 13:38:08	0.0	0.0	0.0	0.0
295	5/30/2019 13:39:08	0.0	0.0	0.0	0.0
296	5/30/2019 13:40:08	0.0	0.0	0.0	0.0
297	5/30/2019 13:41:08	0.0	0.0	0.0	0.0
298	5/30/2019 13:42:08	0.0	0.0	0.0	0.0
299	5/30/2019 13:43:08	0.0	0.0	0.0	0.0
300	5/30/2019 13:44:08	0.0	0.0	0.0	0.0
301	5/30/2019 13:45:08	0.0	0.0	0.0	0.0
302	5/30/2019 13:46:08	0.0	0.0	0.0	0.0
303	5/30/2019 13:47:08	0.0	0.0	0.0	0.0
304	5/30/2019 13:48:08	0.0	0.0	0.0	0.0
305	5/30/2019 13:49:08	0.0	0.0	0.0	0.0
306	5/30/2019 13:50:08	0.0	0.0	0.0	0.0
307	5/30/2019 13:51:08	0.0	0.0	0.0	0.0

308	5/30/2019 13:52:08	0.0	0.0	0.0	0.0
309	5/30/2019 13:53:08	0.0	0.0	0.0	0.0
310	5/30/2019 13:54:08	0.0	0.0	0.0	0.0
311	5/30/2019 13:55:08	0.0	0.0	0.0	0.0
312	5/30/2019 13:56:08	0.0	0.0	0.0	0.0
313	5/30/2019 13:57:08	0.0	0.0	0.0	0.0
314	5/30/2019 13:58:08	0.0	0.0	0.0	0.0
315	5/30/2019 13:59:08	0.0	0.0	0.0	0.0
316	5/30/2019 14:00:08	0.0	0.0	0.0	0.0
317	5/30/2019 14:01:08	0.0	0.0	0.0	0.0
318	5/30/2019 14:02:08	0.0	0.0	0.0	0.0
319	5/30/2019 14:03:08	0.0	0.0	0.0	0.0
320	5/30/2019 14:04:08	0.0	0.0	0.0	0.0
321	5/30/2019 14:05:08	0.0	0.0	0.0	0.0
322	5/30/2019 14:06:08	0.0	0.0	0.0	0.0
323	5/30/2019 14:07:08	0.0	0.0	0.0	0.0
324	5/30/2019 14:08:08	0.0	0.0	0.0	0.0
325	5/30/2019 14:09:08	0.0	0.0	0.0	0.0
326	5/30/2019 14:10:08	0.0	0.0	0.0	0.0
327	5/30/2019 14:11:08	0.0	0.0	0.0	0.0
328	5/30/2019 14:12:08	0.0	0.0	0.0	0.0
329	5/30/2019 14:13:08	0.0	0.0	0.0	0.0
330	5/30/2019 14:14:08	0.0	0.0	0.0	0.0
331	5/30/2019 14:15:08	0.0	0.0	0.0	0.0
332	5/30/2019 14:16:08	0.0	0.0	0.0	0.0
333	5/30/2019 14:17:08	0.0	0.0	0.0	0.0
334	5/30/2019 14:18:08	0.0	0.0	0.0	0.0
335	5/30/2019 14:19:08	0.0	0.0	0.0	0.0
336	5/30/2019 14:20:08	0.0	0.0	0.0	0.0
337	5/30/2019 14:21:08	0.0	0.0	0.0	0.0
338	5/30/2019 14:22:08	0.0	0.0	0.0	0.0

339	5/30/2019 14:23:08	0.0	0.0	0.0	0.0
340	5/30/2019 14:24:08	0.0	0.0	0.0	0.0
341	5/30/2019 14:25:08	0.0	0.0	0.0	0.0
342	5/30/2019 14:26:08	0.0	0.0	0.0	0.0
343	5/30/2019 14:27:08	0.0	0.0	0.0	0.0
344	5/30/2019 14:28:08	0.0	0.0	0.0	0.0
345	5/30/2019 14:29:08	0.0	0.0	0.0	0.0
346	5/30/2019 14:30:08	0.0	0.0	0.0	0.0
347	5/30/2019 14:31:08	0.0	0.0	0.0	0.0
348	5/30/2019 14:32:08	0.0	0.0	0.0	0.0
349	5/30/2019 14:33:08	0.0	0.0	0.0	0.0
350	5/30/2019 14:34:08	0.0	0.0	0.0	0.0
351	5/30/2019 14:35:08	0.0	0.0	0.0	0.0
352	5/30/2019 14:36:08	0.0	0.0	0.0	0.0
353	5/30/2019 14:37:08	0.0	0.0	0.0	0.0
354	5/30/2019 14:38:08	0.0	0.0	0.0	0.0
355	5/30/2019 14:39:08	0.0	0.0	0.0	0.0
356	5/30/2019 14:40:08	0.0	0.0	0.0	0.0
357	5/30/2019 14:41:08	0.0	0.0	0.0	0.0
358	5/30/2019 14:42:08	0.0	0.0	0.0	0.0
359	5/30/2019 14:43:08	0.0	0.0	0.0	0.0
360	5/30/2019 14:44:08	0.0	0.0	0.0	0.0
361	5/30/2019 14:45:08	0.0	0.0	0.0	0.0
362	5/30/2019 14:46:08	0.0	0.0	0.0	0.0
363	5/30/2019 14:47:08	0.0	0.0	0.0	0.0
364	5/30/2019 14:48:08	0.0	0.0	0.0	0.0
365	5/30/2019 14:49:08	0.0	0.0	0.0	0.0
366	5/30/2019 14:50:08	0.0	0.0	0.0	0.0
367	5/30/2019 14:51:08	0.0	0.0	0.0	0.0
368	5/30/2019 14:52:08	0.0	0.0	0.0	0.0
369	5/30/2019 14:53:08	0.0	0.0	0.0	0.0

370	5/30/2019	14:54:08	0.0	0.0	0.0	0.0
371	5/30/2019	14:55:08	0.0	0.0	0.0	0.0
372	5/30/2019	14:56:08	0.0	0.0	0.0	0.0
Peak		0.0	0.1	0.4	0.1	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.0	0.0	0.0	

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/30/2019	08:45:08	0.0	---
002	5/30/2019	08:46:08	0.0	---
003	5/30/2019	08:47:08	0.0	---
004	5/30/2019	08:48:08	0.0	---
005	5/30/2019	08:49:08	0.0	---
006	5/30/2019	08:50:08	0.0	---
007	5/30/2019	08:51:08	0.0	---
008	5/30/2019	08:52:08	0.0	---
009	5/30/2019	08:53:08	0.0	---
010	5/30/2019	08:54:08	0.0	---
011	5/30/2019	08:55:08	0.0	---
012	5/30/2019	08:56:08	0.0	---
013	5/30/2019	08:57:08	0.0	---
014	5/30/2019	08:58:08	0.0	---
015	5/30/2019	08:59:08	0.0	0.0
016	5/30/2019	09:00:08	0.0	0.0
017	5/30/2019	09:01:08	0.0	0.0
018	5/30/2019	09:02:08	0.0	0.0
019	5/30/2019	09:03:08	0.0	0.0
020	5/30/2019	09:04:08	0.0	0.0

021	5/30/2019	09:05:08	0.0	0.0
022	5/30/2019	09:06:08	0.0	0.0
023	5/30/2019	09:07:08	0.0	0.0
024	5/30/2019	09:08:08	0.0	0.0
025	5/30/2019	09:09:08	0.0	0.0
026	5/30/2019	09:10:08	0.0	0.0
027	5/30/2019	09:11:08	0.0	0.0
028	5/30/2019	09:12:08	0.0	0.0
029	5/30/2019	09:13:08	0.0	0.0
030	5/30/2019	09:14:08	0.0	0.0
031	5/30/2019	09:15:08	0.0	0.0
032	5/30/2019	09:16:08	0.0	0.0
033	5/30/2019	09:17:08	0.0	0.0
034	5/30/2019	09:18:08	0.0	0.0
035	5/30/2019	09:19:08	0.0	0.0
036	5/30/2019	09:20:08	0.0	0.0
037	5/30/2019	09:21:08	0.0	0.0
038	5/30/2019	09:22:08	0.0	0.0
039	5/30/2019	09:23:08	0.0	0.0
040	5/30/2019	09:24:08	0.0	0.0
041	5/30/2019	09:25:08	0.0	0.0
042	5/30/2019	09:26:08	0.0	0.0
043	5/30/2019	09:27:08	0.0	0.0
044	5/30/2019	09:28:08	0.0	0.0
045	5/30/2019	09:29:08	0.0	0.0
046	5/30/2019	09:30:08	0.0	0.0
047	5/30/2019	09:31:08	0.0	0.0
048	5/30/2019	09:32:08	0.0	0.0
049	5/30/2019	09:33:08	0.0	0.0
050	5/30/2019	09:34:08	0.0	0.0
051	5/30/2019	09:35:08	0.0	0.0

052	5/30/2019 09:36:08	0.0	0.0
053	5/30/2019 09:37:08	0.0	0.0
054	5/30/2019 09:38:08	0.0	0.0
055	5/30/2019 09:39:08	0.0	0.0
056	5/30/2019 09:40:08	0.0	0.0
057	5/30/2019 09:41:08	0.0	0.0
058	5/30/2019 09:42:08	0.0	0.0
059	5/30/2019 09:43:08	0.0	0.0
060	5/30/2019 09:44:08	0.0	0.0
061	5/30/2019 09:45:08	0.0	0.0
062	5/30/2019 09:46:08	0.0	0.0
063	5/30/2019 09:47:08	0.0	0.0
064	5/30/2019 09:48:08	0.0	0.0
065	5/30/2019 09:49:08	0.0	0.0
066	5/30/2019 09:50:08	0.0	0.0
067	5/30/2019 09:51:08	0.0	0.0
068	5/30/2019 09:52:08	0.0	0.0
069	5/30/2019 09:53:08	0.0	0.0
070	5/30/2019 09:54:08	0.0	0.0
071	5/30/2019 09:55:08	0.0	0.0
072	5/30/2019 09:56:08	0.0	0.0
073	5/30/2019 09:57:08	0.0	0.0
074	5/30/2019 09:58:08	0.0	0.0
075	5/30/2019 09:59:08	0.0	0.0
076	5/30/2019 10:00:08	0.0	0.0
077	5/30/2019 10:01:08	0.0	0.0
078	5/30/2019 10:02:08	0.0	0.0
079	5/30/2019 10:03:08	0.0	0.0
080	5/30/2019 10:04:08	0.0	0.0
081	5/30/2019 10:05:08	0.0	0.0
082	5/30/2019 10:06:08	0.0	0.0

083	5/30/2019	10:07:08	0.0	0.0
084	5/30/2019	10:08:08	0.0	0.0
085	5/30/2019	10:09:08	0.0	0.0
086	5/30/2019	10:10:08	0.0	0.0
087	5/30/2019	10:11:08	0.0	0.0
088	5/30/2019	10:12:08	0.0	0.0
089	5/30/2019	10:13:08	0.0	0.0
090	5/30/2019	10:14:08	0.0	0.0
091	5/30/2019	10:15:08	0.0	0.0
092	5/30/2019	10:16:08	0.0	0.0
093	5/30/2019	10:17:08	0.0	0.0
094	5/30/2019	10:18:08	0.0	0.0
095	5/30/2019	10:19:08	0.0	0.0
096	5/30/2019	10:20:08	0.0	0.0
097	5/30/2019	10:21:08	0.0	0.0
098	5/30/2019	10:22:08	0.0	0.0
099	5/30/2019	10:23:08	0.0	0.0
100	5/30/2019	10:24:08	0.0	0.0
101	5/30/2019	10:25:08	0.0	0.0
102	5/30/2019	10:26:08	0.0	0.0
103	5/30/2019	10:27:08	0.0	0.0
104	5/30/2019	10:28:08	0.0	0.0
105	5/30/2019	10:29:08	0.0	0.0
106	5/30/2019	10:30:08	0.0	0.0
107	5/30/2019	10:31:08	0.0	0.0
108	5/30/2019	10:32:08	0.0	0.0
109	5/30/2019	10:33:08	0.0	0.0
110	5/30/2019	10:34:08	0.0	0.0
111	5/30/2019	10:35:08	0.0	0.0
112	5/30/2019	10:36:08	0.0	0.0
113	5/30/2019	10:37:08	0.0	0.0

114	5/30/2019 10:38:08	0.0	0.0
115	5/30/2019 10:39:08	0.0	0.0
116	5/30/2019 10:40:08	0.0	0.0
117	5/30/2019 10:41:08	0.0	0.0
118	5/30/2019 10:42:08	0.0	0.0
119	5/30/2019 10:43:08	0.0	0.0
120	5/30/2019 10:44:08	0.0	0.0
121	5/30/2019 10:45:08	0.0	0.0
122	5/30/2019 10:46:08	0.0	0.0
123	5/30/2019 10:47:08	0.0	0.0
124	5/30/2019 10:48:08	0.0	0.0
125	5/30/2019 10:49:08	0.0	0.0
126	5/30/2019 10:50:08	0.0	0.0
127	5/30/2019 10:51:08	0.0	0.0
128	5/30/2019 10:52:08	0.0	0.0
129	5/30/2019 10:53:08	0.0	0.0
130	5/30/2019 10:54:08	0.0	0.0
131	5/30/2019 10:55:08	0.0	0.0
132	5/30/2019 10:56:08	0.0	0.0
133	5/30/2019 10:57:08	0.0	0.0
134	5/30/2019 10:58:08	0.0	0.0
135	5/30/2019 10:59:08	0.0	0.0
136	5/30/2019 11:00:08	0.0	0.0
137	5/30/2019 11:01:08	0.0	0.0
138	5/30/2019 11:02:08	0.0	0.0
139	5/30/2019 11:03:08	0.0	0.0
140	5/30/2019 11:04:08	0.0	0.0
141	5/30/2019 11:05:08	0.0	0.0
142	5/30/2019 11:06:08	0.0	0.0
143	5/30/2019 11:07:08	0.0	0.0
144	5/30/2019 11:08:08	0.0	0.0

145	5/30/2019	11:09:08	0.0	0.0
146	5/30/2019	11:10:08	0.0	0.0
147	5/30/2019	11:11:08	0.0	0.0
148	5/30/2019	11:12:08	0.0	0.0
149	5/30/2019	11:13:08	0.0	0.0
150	5/30/2019	11:14:08	0.0	0.0
151	5/30/2019	11:15:08	0.0	0.0
152	5/30/2019	11:16:08	0.0	0.0
153	5/30/2019	11:17:08	0.0	0.0
154	5/30/2019	11:18:08	0.0	0.0
155	5/30/2019	11:19:08	0.0	0.0
156	5/30/2019	11:20:08	0.0	0.0
157	5/30/2019	11:21:08	0.0	0.0
158	5/30/2019	11:22:08	0.0	0.0
159	5/30/2019	11:23:08	0.0	0.0
160	5/30/2019	11:24:08	0.0	0.0
161	5/30/2019	11:25:08	0.0	0.0
162	5/30/2019	11:26:08	0.0	0.0
163	5/30/2019	11:27:08	0.0	0.0
164	5/30/2019	11:28:08	0.0	0.0
165	5/30/2019	11:29:08	0.0	0.0
166	5/30/2019	11:30:08	0.0	0.0
167	5/30/2019	11:31:08	0.0	0.0
168	5/30/2019	11:32:08	0.0	0.0
169	5/30/2019	11:33:08	0.0	0.0
170	5/30/2019	11:34:08	0.0	0.0
171	5/30/2019	11:35:08	0.0	0.0
172	5/30/2019	11:36:08	0.0	0.0
173	5/30/2019	11:37:08	0.0	0.0
174	5/30/2019	11:38:08	0.0	0.0
175	5/30/2019	11:39:08	0.0	0.0

176	5/30/2019	11:40:08	0.0	0.0
177	5/30/2019	11:41:08	0.0	0.0
178	5/30/2019	11:42:08	0.0	0.0
179	5/30/2019	11:43:08	0.0	0.0
180	5/30/2019	11:44:08	0.0	0.0
181	5/30/2019	11:45:08	0.0	0.0
182	5/30/2019	11:46:08	0.0	0.0
183	5/30/2019	11:47:08	0.0	0.0
184	5/30/2019	11:48:08	0.0	0.0
185	5/30/2019	11:49:08	0.0	0.0
186	5/30/2019	11:50:08	0.0	0.0
187	5/30/2019	11:51:08	0.0	0.0
188	5/30/2019	11:52:08	0.0	0.0
189	5/30/2019	11:53:08	0.0	0.0
190	5/30/2019	11:54:08	0.0	0.0
191	5/30/2019	11:55:08	0.0	0.0
192	5/30/2019	11:56:08	0.0	0.0
193	5/30/2019	11:57:08	0.0	0.0
194	5/30/2019	11:58:08	0.0	0.0
195	5/30/2019	11:59:08	0.0	0.0
196	5/30/2019	12:00:08	0.0	0.0
197	5/30/2019	12:01:08	0.0	0.0
198	5/30/2019	12:02:08	0.0	0.0
199	5/30/2019	12:03:08	0.0	0.0
200	5/30/2019	12:04:08	0.0	0.0
201	5/30/2019	12:05:08	0.0	0.0
202	5/30/2019	12:06:08	0.0	0.0
203	5/30/2019	12:07:08	0.0	0.0
204	5/30/2019	12:08:08	0.0	0.0
205	5/30/2019	12:09:08	0.0	0.0
206	5/30/2019	12:10:08	0.0	0.0

207	5/30/2019 12:11:08	0.0	0.0
208	5/30/2019 12:12:08	0.0	0.0
209	5/30/2019 12:13:08	0.0	0.0
210	5/30/2019 12:14:08	0.0	0.0
211	5/30/2019 12:15:08	0.0	0.0
212	5/30/2019 12:16:08	0.0	0.0
213	5/30/2019 12:17:08	0.0	0.0
214	5/30/2019 12:18:08	0.0	0.0
215	5/30/2019 12:19:08	0.0	0.0
216	5/30/2019 12:20:08	0.0	0.0
217	5/30/2019 12:21:08	0.0	0.0
218	5/30/2019 12:22:08	0.0	0.0
219	5/30/2019 12:23:08	0.0	0.0
220	5/30/2019 12:24:08	0.0	0.0
221	5/30/2019 12:25:08	0.0	0.0
222	5/30/2019 12:26:08	0.0	0.0
223	5/30/2019 12:27:08	0.0	0.0
224	5/30/2019 12:28:08	0.0	0.0
225	5/30/2019 12:29:08	0.0	0.0
226	5/30/2019 12:30:08	0.0	0.0
227	5/30/2019 12:31:08	0.0	0.0
228	5/30/2019 12:32:08	0.0	0.0
229	5/30/2019 12:33:08	0.0	0.0
230	5/30/2019 12:34:08	0.0	0.0
231	5/30/2019 12:35:08	0.0	0.0
232	5/30/2019 12:36:08	0.0	0.0
233	5/30/2019 12:37:08	0.0	0.0
234	5/30/2019 12:38:08	0.0	0.0
235	5/30/2019 12:39:08	0.0	0.0
236	5/30/2019 12:40:08	0.0	0.0
237	5/30/2019 12:41:08	0.0	0.0

238	5/30/2019 12:42:08	0.0	0.0
239	5/30/2019 12:43:08	0.0	0.0
240	5/30/2019 12:44:08	0.0	0.0
241	5/30/2019 12:45:08	0.0	0.0
242	5/30/2019 12:46:08	0.0	0.0
243	5/30/2019 12:47:08	0.0	0.0
244	5/30/2019 12:48:08	0.0	0.0
245	5/30/2019 12:49:08	0.0	0.0
246	5/30/2019 12:50:08	0.0	0.0
247	5/30/2019 12:51:08	0.0	0.0
248	5/30/2019 12:52:08	0.0	0.0
249	5/30/2019 12:53:08	0.0	0.0
250	5/30/2019 12:54:08	0.0	0.0
251	5/30/2019 12:55:08	0.0	0.0
252	5/30/2019 12:56:08	0.0	0.0
253	5/30/2019 12:57:08	0.0	0.0
254	5/30/2019 12:58:08	0.0	0.0
255	5/30/2019 12:59:08	0.0	0.0
256	5/30/2019 13:00:08	0.0	0.0
257	5/30/2019 13:01:08	0.0	0.0
258	5/30/2019 13:02:08	0.0	0.0
259	5/30/2019 13:03:08	0.0	0.0
260	5/30/2019 13:04:08	0.0	0.0
261	5/30/2019 13:05:08	0.0	0.0
262	5/30/2019 13:06:08	0.0	0.0
263	5/30/2019 13:07:08	0.0	0.0
264	5/30/2019 13:08:08	0.0	0.0
265	5/30/2019 13:09:08	0.0	0.0
266	5/30/2019 13:10:08	0.0	0.0
267	5/30/2019 13:11:08	0.0	0.0
268	5/30/2019 13:12:08	0.0	0.0

269	5/30/2019 13:13:08	0.0	0.0
270	5/30/2019 13:14:08	0.0	0.0
271	5/30/2019 13:15:08	0.0	0.0
272	5/30/2019 13:16:08	0.0	0.0
273	5/30/2019 13:17:08	0.0	0.0
274	5/30/2019 13:18:08	0.0	0.0
275	5/30/2019 13:19:08	0.0	0.0
276	5/30/2019 13:20:08	0.0	0.0
277	5/30/2019 13:21:08	0.0	0.0
278	5/30/2019 13:22:08	0.0	0.0
279	5/30/2019 13:23:08	0.0	0.0
280	5/30/2019 13:24:08	0.0	0.0
281	5/30/2019 13:25:08	0.0	0.0
282	5/30/2019 13:26:08	0.0	0.0
283	5/30/2019 13:27:08	0.0	0.0
284	5/30/2019 13:28:08	0.0	0.0
285	5/30/2019 13:29:08	0.0	0.0
286	5/30/2019 13:30:08	0.0	0.0
287	5/30/2019 13:31:08	0.0	0.0
288	5/30/2019 13:32:08	0.0	0.0
289	5/30/2019 13:33:08	0.0	0.0
290	5/30/2019 13:34:08	0.0	0.0
291	5/30/2019 13:35:08	0.0	0.0
292	5/30/2019 13:36:08	0.0	0.0
293	5/30/2019 13:37:08	0.0	0.0
294	5/30/2019 13:38:08	0.0	0.0
295	5/30/2019 13:39:08	0.0	0.0
296	5/30/2019 13:40:08	0.0	0.0
297	5/30/2019 13:41:08	0.0	0.0
298	5/30/2019 13:42:08	0.0	0.0
299	5/30/2019 13:43:08	0.0	0.0

300	5/30/2019 13:44:08	0.0	0.0
301	5/30/2019 13:45:08	0.0	0.0
302	5/30/2019 13:46:08	0.0	0.0
303	5/30/2019 13:47:08	0.0	0.0
304	5/30/2019 13:48:08	0.0	0.0
305	5/30/2019 13:49:08	0.0	0.0
306	5/30/2019 13:50:08	0.0	0.0
307	5/30/2019 13:51:08	0.0	0.0
308	5/30/2019 13:52:08	0.0	0.0
309	5/30/2019 13:53:08	0.0	0.0
310	5/30/2019 13:54:08	0.0	0.0
311	5/30/2019 13:55:08	0.0	0.0
312	5/30/2019 13:56:08	0.0	0.0
313	5/30/2019 13:57:08	0.0	0.0
314	5/30/2019 13:58:08	0.0	0.0
315	5/30/2019 13:59:08	0.0	0.0
316	5/30/2019 14:00:08	0.0	0.0
317	5/30/2019 14:01:08	0.0	0.0
318	5/30/2019 14:02:08	0.0	0.0
319	5/30/2019 14:03:08	0.0	0.0
320	5/30/2019 14:04:08	0.0	0.0
321	5/30/2019 14:05:08	0.0	0.0
322	5/30/2019 14:06:08	0.0	0.0
323	5/30/2019 14:07:08	0.0	0.0
324	5/30/2019 14:08:08	0.0	0.0
325	5/30/2019 14:09:08	0.0	0.0
326	5/30/2019 14:10:08	0.0	0.0
327	5/30/2019 14:11:08	0.0	0.0
328	5/30/2019 14:12:08	0.0	0.0
329	5/30/2019 14:13:08	0.0	0.0
330	5/30/2019 14:14:08	0.0	0.0

331	5/30/2019 14:15:08	0.0	0.0
332	5/30/2019 14:16:08	0.0	0.0
333	5/30/2019 14:17:08	0.0	0.0
334	5/30/2019 14:18:08	0.0	0.0
335	5/30/2019 14:19:08	0.0	0.0
336	5/30/2019 14:20:08	0.0	0.0
337	5/30/2019 14:21:08	0.0	0.0
338	5/30/2019 14:22:08	0.0	0.0
339	5/30/2019 14:23:08	0.0	0.0
340	5/30/2019 14:24:08	0.0	0.0
341	5/30/2019 14:25:08	0.0	0.0
342	5/30/2019 14:26:08	0.0	0.0
343	5/30/2019 14:27:08	0.0	0.0
344	5/30/2019 14:28:08	0.0	0.0
345	5/30/2019 14:29:08	0.0	0.0
346	5/30/2019 14:30:08	0.0	0.0
347	5/30/2019 14:31:08	0.0	0.0
348	5/30/2019 14:32:08	0.0	0.0
349	5/30/2019 14:33:08	0.0	0.0
350	5/30/2019 14:34:08	0.0	0.0
351	5/30/2019 14:35:08	0.0	0.0
352	5/30/2019 14:36:08	0.0	0.0
353	5/30/2019 14:37:08	0.0	0.0
354	5/30/2019 14:38:08	0.0	0.0
355	5/30/2019 14:39:08	0.0	0.0
356	5/30/2019 14:40:08	0.0	0.0
357	5/30/2019 14:41:08	0.0	0.0
358	5/30/2019 14:42:08	0.0	0.0
359	5/30/2019 14:43:08	0.0	0.0
360	5/30/2019 14:44:08	0.0	0.0
361	5/30/2019 14:45:08	0.0	0.0

362	5/30/2019 14:46:08	0.0	0.0
363	5/30/2019 14:47:08	0.0	0.0
364	5/30/2019 14:48:08	0.0	0.0
365	5/30/2019 14:49:08	0.0	0.0
366	5/30/2019 14:50:08	0.0	0.0
367	5/30/2019 14:51:08	0.0	0.0
368	5/30/2019 14:52:08	0.0	0.0
369	5/30/2019 14:53:08	0.0	0.0
370	5/30/2019 14:54:08	0.0	0.0
371	5/30/2019 14:55:08	0.0	0.0
372	5/30/2019 14:56:08	0.0	0.0

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19/05/31 09:51
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	5/31/2019 09:51:08
End	5/31/2019 14:20:16

Sample Period(s)	60
Number of Records	269

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.1
Min	0.0
Average	0.0

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/31/2019	09:52:08	0.0	0.0	0.0	0.0
002	5/31/2019	09:53:08	0.0	0.0	0.0	0.0
003	5/31/2019	09:54:08	0.0	0.0	0.0	0.0
004	5/31/2019	09:55:08	0.0	0.0	0.0	0.0
005	5/31/2019	09:56:08	0.0	0.0	0.0	0.0
006	5/31/2019	09:57:08	0.0	0.0	0.0	0.0
007	5/31/2019	09:58:08	0.0	0.0	0.0	0.0
008	5/31/2019	09:59:08	0.0	0.0	0.0	0.0

009	5/31/2019	10:00:08	0.0	0.0	0.0	0.0
010	5/31/2019	10:01:08	0.0	0.0	0.0	0.0
011	5/31/2019	10:02:08	0.0	0.0	0.0	0.0
012	5/31/2019	10:03:08	0.0	0.0	0.0	0.0
013	5/31/2019	10:04:08	0.0	0.0	0.0	0.0
014	5/31/2019	10:05:08	0.0	0.0	0.0	0.0
015	5/31/2019	10:06:08	0.0	0.0	0.0	0.0
016	5/31/2019	10:07:08	0.0	0.0	0.0	0.0
017	5/31/2019	10:08:08	0.0	0.0	0.0	0.0
018	5/31/2019	10:09:08	0.0	0.0	0.0	0.0
019	5/31/2019	10:10:08	0.0	0.0	0.0	0.0
020	5/31/2019	10:11:08	0.0	0.0	0.0	0.0
021	5/31/2019	10:12:08	0.0	0.0	0.0	0.0
022	5/31/2019	10:13:08	0.0	0.0	0.0	0.0
023	5/31/2019	10:14:08	0.0	0.0	0.0	0.0
024	5/31/2019	10:15:08	0.0	0.0	0.0	0.0
025	5/31/2019	10:16:08	0.0	0.0	0.0	0.0
026	5/31/2019	10:17:08	0.0	0.0	0.1	0.0
027	5/31/2019	10:18:08	0.0	0.0	0.0	0.0
028	5/31/2019	10:19:08	0.0	0.0	0.0	0.0
029	5/31/2019	10:20:08	0.0	0.0	0.0	0.0
030	5/31/2019	10:21:08	0.0	0.0	0.0	0.0
031	5/31/2019	10:22:08	0.0	0.0	0.0	0.0
032	5/31/2019	10:23:08	0.0	0.0	0.0	0.0
033	5/31/2019	10:24:08	0.0	0.0	0.0	0.0
034	5/31/2019	10:25:08	0.0	0.0	0.0	0.0
035	5/31/2019	10:26:08	0.0	0.0	0.0	0.0
036	5/31/2019	10:27:08	0.0	0.0	0.0	0.0
037	5/31/2019	10:28:08	0.0	0.0	0.0	0.0
038	5/31/2019	10:29:08	0.0	0.0	0.0	0.0
039	5/31/2019	10:30:08	0.0	0.0	0.0	0.0

040	5/31/2019	10:31:08	0.0	0.0	0.0	0.0
041	5/31/2019	10:32:08	0.0	0.0	0.0	0.0
042	5/31/2019	10:33:08	0.0	0.0	0.0	0.0
043	5/31/2019	10:34:08	0.0	0.0	0.0	0.0
044	5/31/2019	10:35:08	0.0	0.0	0.0	0.0
045	5/31/2019	10:36:08	0.0	0.0	0.0	0.0
046	5/31/2019	10:37:08	0.0	0.0	0.0	0.0
047	5/31/2019	10:38:08	0.0	0.0	0.0	0.0
048	5/31/2019	10:39:08	0.0	0.0	0.0	0.0
049	5/31/2019	10:40:08	0.0	0.0	0.0	0.0
050	5/31/2019	10:41:08	0.0	0.0	0.0	0.0
051	5/31/2019	10:42:08	0.0	0.0	0.0	0.0
052	5/31/2019	10:43:08	0.0	0.0	0.0	0.0
053	5/31/2019	10:44:08	0.0	0.0	0.0	0.0
054	5/31/2019	10:45:08	0.0	0.0	0.0	0.0
055	5/31/2019	10:46:08	0.0	0.0	0.0	0.0
056	5/31/2019	10:47:08	0.0	0.0	0.0	0.0
057	5/31/2019	10:48:08	0.0	0.0	0.0	0.0
058	5/31/2019	10:49:08	0.0	0.0	0.0	0.0
059	5/31/2019	10:50:08	0.0	0.0	0.0	0.0
060	5/31/2019	10:51:08	0.0	0.0	0.0	0.0
061	5/31/2019	10:52:08	0.0	0.0	0.0	0.0
062	5/31/2019	10:53:08	0.0	0.0	0.0	0.0
063	5/31/2019	10:54:08	0.0	0.0	0.0	0.0
064	5/31/2019	10:55:08	0.0	0.0	0.0	0.0
065	5/31/2019	10:56:08	0.0	0.0	0.0	0.0
066	5/31/2019	10:57:08	0.0	0.0	0.0	0.0
067	5/31/2019	10:58:08	0.0	0.0	0.0	0.0
068	5/31/2019	10:59:08	0.0	0.0	0.0	0.0
069	5/31/2019	11:00:08	0.0	0.0	0.0	0.0
070	5/31/2019	11:01:08	0.0	0.0	0.0	0.0

071	5/31/2019	11:02:08	0.0	0.0	0.0	0.0
072	5/31/2019	11:03:08	0.0	0.0	0.0	0.0
073	5/31/2019	11:04:08	0.0	0.0	0.0	0.0
074	5/31/2019	11:05:08	0.0	0.0	0.0	0.0
075	5/31/2019	11:06:08	0.0	0.1	0.2	0.1
076	5/31/2019	11:07:08	0.0	0.1	0.1	0.0
077	5/31/2019	11:08:08	0.0	0.0	0.1	0.0
078	5/31/2019	11:09:08	0.0	0.1	0.2	0.1
079	5/31/2019	11:10:08	0.0	0.0	0.1	0.0
080	5/31/2019	11:11:08	0.0	0.0	0.1	0.0
081	5/31/2019	11:12:08	0.0	0.0	0.0	0.0
082	5/31/2019	11:13:08	0.0	0.0	0.0	0.0
083	5/31/2019	11:14:08	0.0	0.0	0.1	0.0
084	5/31/2019	11:15:08	0.0	0.0	0.0	0.0
085	5/31/2019	11:16:08	0.0	0.0	0.0	0.0
086	5/31/2019	11:17:08	0.0	0.0	0.0	0.0
087	5/31/2019	11:18:08	0.0	0.0	0.0	0.0
088	5/31/2019	11:19:08	0.0	0.0	0.0	0.0
089	5/31/2019	11:20:08	0.0	0.0	0.0	0.0
090	5/31/2019	11:21:08	0.0	0.0	0.0	0.0
091	5/31/2019	11:22:08	0.0	0.0	0.0	0.0
092	5/31/2019	11:23:08	0.0	0.0	0.0	0.0
093	5/31/2019	11:24:08	0.0	0.0	0.0	0.0
094	5/31/2019	11:25:08	0.0	0.0	0.0	0.0
095	5/31/2019	11:26:08	0.0	0.0	0.0	0.0
096	5/31/2019	11:27:08	0.0	0.0	0.1	0.0
097	5/31/2019	11:28:08	0.0	0.0	0.1	0.1
098	5/31/2019	11:29:08	0.0	0.1	0.1	0.0
099	5/31/2019	11:30:08	0.0	0.0	0.0	0.0
100	5/31/2019	11:31:08	0.0	0.0	0.0	0.0
101	5/31/2019	11:32:08	0.0	0.0	0.1	0.0

102	5/31/2019	11:33:08	0.0	0.0	0.0	0.0
103	5/31/2019	11:34:08	0.0	0.0	0.0	0.0
104	5/31/2019	11:35:08	0.0	0.0	0.1	0.0
105	5/31/2019	11:36:08	0.0	0.0	0.0	0.0
106	5/31/2019	11:37:08	0.0	0.0	0.0	0.0
107	5/31/2019	11:38:08	0.0	0.0	0.0	0.0
108	5/31/2019	11:39:08	0.0	0.0	0.0	0.0
109	5/31/2019	11:40:08	0.0	0.0	0.0	0.0
110	5/31/2019	11:41:08	0.0	0.0	0.0	0.0
111	5/31/2019	11:42:08	0.0	0.0	0.1	0.0
112	5/31/2019	11:43:08	0.0	0.0	0.0	0.0
113	5/31/2019	11:44:08	0.0	0.0	0.0	0.0
114	5/31/2019	11:45:08	0.0	0.0	0.0	0.0
115	5/31/2019	11:46:08	0.0	0.0	0.1	0.0
116	5/31/2019	11:47:08	0.0	0.0	0.1	0.0
117	5/31/2019	11:48:08	0.0	0.0	0.0	0.0
118	5/31/2019	11:49:08	0.0	0.0	0.1	0.0
119	5/31/2019	11:50:08	0.0	0.1	0.1	0.1
120	5/31/2019	11:51:08	0.0	0.0	0.1	0.0
121	5/31/2019	11:52:08	0.0	0.0	0.1	0.0
122	5/31/2019	11:53:08	0.0	0.0	0.0	0.0
123	5/31/2019	11:54:08	0.0	0.0	0.0	0.0
124	5/31/2019	11:55:08	0.0	0.0	0.0	0.0
125	5/31/2019	11:56:08	0.0	0.0	0.0	0.0
126	5/31/2019	11:57:08	0.0	0.0	0.0	0.0
127	5/31/2019	11:58:08	0.0	0.0	0.0	0.0
128	5/31/2019	11:59:08	0.0	0.0	0.1	0.0
129	5/31/2019	12:00:08	0.0	0.0	0.0	0.0
130	5/31/2019	12:01:08	0.0	0.1	0.1	0.0
131	5/31/2019	12:02:08	0.0	0.1	0.1	0.1
132	5/31/2019	12:03:08	0.0	0.0	0.1	0.0

133	5/31/2019 12:04:08	0.0	0.0	0.0	0.0
134	5/31/2019 12:05:08	0.0	0.0	0.0	0.0
135	5/31/2019 12:06:08	0.0	0.0	0.0	0.0
136	5/31/2019 12:07:08	0.0	0.0	0.0	0.0
137	5/31/2019 12:08:08	0.0	0.0	0.0	0.0
138	5/31/2019 12:09:08	0.0	0.0	0.0	0.0
139	5/31/2019 12:10:08	0.0	0.0	0.0	0.0
140	5/31/2019 12:11:08	0.0	0.0	0.0	0.0
141	5/31/2019 12:12:08	0.0	0.0	0.0	0.0
142	5/31/2019 12:13:08	0.0	0.0	0.0	0.0
143	5/31/2019 12:14:08	0.0	0.0	0.0	0.0
144	5/31/2019 12:15:08	0.0	0.0	0.0	0.0
145	5/31/2019 12:16:08	0.0	0.0	0.0	0.0
146	5/31/2019 12:17:08	0.0	0.0	0.0	0.0
147	5/31/2019 12:18:08	0.0	0.0	0.0	0.0
148	5/31/2019 12:19:08	0.0	0.0	0.0	0.0
149	5/31/2019 12:20:08	0.0	0.0	0.0	0.0
150	5/31/2019 12:21:08	0.0	0.0	0.0	0.0
151	5/31/2019 12:22:08	0.0	0.0	0.0	0.0
152	5/31/2019 12:23:08	0.0	0.0	0.0	0.0
153	5/31/2019 12:24:08	0.0	0.0	0.0	0.0
154	5/31/2019 12:25:08	0.0	0.0	0.0	0.0
155	5/31/2019 12:26:08	0.0	0.0	0.0	0.0
156	5/31/2019 12:27:08	0.0	0.0	0.0	0.0
157	5/31/2019 12:28:08	0.0	0.0	0.0	0.0
158	5/31/2019 12:29:08	0.0	0.0	0.0	0.0
159	5/31/2019 12:30:08	0.0	0.0	0.0	0.0
160	5/31/2019 12:31:08	0.0	0.0	0.0	0.0
161	5/31/2019 12:32:08	0.0	0.1	0.2	0.0
162	5/31/2019 12:33:08	0.0	0.0	0.0	0.0
163	5/31/2019 12:34:08	0.0	0.0	0.0	0.0

164	5/31/2019 12:35:08	0.0	0.0	0.0	0.0
165	5/31/2019 12:36:08	0.0	0.0	0.0	0.0
166	5/31/2019 12:37:08	0.0	0.0	0.0	0.0
167	5/31/2019 12:38:08	0.0	0.0	0.0	0.0
168	5/31/2019 12:39:08	0.0	0.0	0.0	0.0
169	5/31/2019 12:40:08	0.0	0.0	0.0	0.0
170	5/31/2019 12:41:08	0.0	0.0	0.0	0.0
171	5/31/2019 12:42:08	0.0	0.0	0.0	0.0
172	5/31/2019 12:43:08	0.0	0.0	0.0	0.0
173	5/31/2019 12:44:08	0.0	0.0	0.0	0.0
174	5/31/2019 12:45:08	0.0	0.0	0.1	0.0
175	5/31/2019 12:46:08	0.0	0.0	0.0	0.0
176	5/31/2019 12:47:08	0.0	0.0	0.0	0.0
177	5/31/2019 12:48:08	0.0	0.0	0.0	0.0
178	5/31/2019 12:49:08	0.0	0.0	0.1	0.0
179	5/31/2019 12:50:08	0.0	0.0	0.1	0.0
180	5/31/2019 12:51:08	0.0	0.0	0.1	0.0
181	5/31/2019 12:52:08	0.0	0.0	0.1	0.0
182	5/31/2019 12:53:08	0.0	0.0	0.1	0.0
183	5/31/2019 12:54:08	0.0	0.0	0.0	0.0
184	5/31/2019 12:55:08	0.0	0.0	0.0	0.0
185	5/31/2019 12:56:08	0.0	0.0	0.0	0.0
186	5/31/2019 12:57:08	0.0	0.0	0.0	0.0
187	5/31/2019 12:58:08	0.0	0.0	0.0	0.0
188	5/31/2019 12:59:08	0.0	0.0	0.0	0.0
189	5/31/2019 13:00:08	0.0	0.0	0.0	0.0
190	5/31/2019 13:01:08	0.0	0.0	0.0	0.0
191	5/31/2019 13:02:08	0.0	0.0	0.0	0.0
192	5/31/2019 13:03:08	0.0	0.2	0.5	0.1
193	5/31/2019 13:04:08	0.0	0.1	0.2	0.1
194	5/31/2019 13:05:08	0.0	0.1	0.2	0.0

195	5/31/2019 13:06:08	0.0	0.0	0.1	0.0
196	5/31/2019 13:07:08	0.0	0.0	0.0	0.0
197	5/31/2019 13:08:08	0.0	0.0	0.0	0.0
198	5/31/2019 13:09:08	0.0	0.0	0.0	0.0
199	5/31/2019 13:10:08	0.0	0.0	0.1	0.0
200	5/31/2019 13:11:08	0.0	0.0	0.0	0.0
201	5/31/2019 13:12:08	0.0	0.0	0.0	0.0
202	5/31/2019 13:13:08	0.0	0.0	0.0	0.0
203	5/31/2019 13:14:08	0.0	0.0	0.0	0.0
204	5/31/2019 13:15:08	0.0	0.0	0.0	0.0
205	5/31/2019 13:16:08	0.0	0.0	0.0	0.0
206	5/31/2019 13:17:08	0.0	0.0	0.0	0.0
207	5/31/2019 13:18:08	0.0	0.0	0.0	0.0
208	5/31/2019 13:19:08	0.0	0.0	0.0	0.0
209	5/31/2019 13:20:08	0.0	0.0	0.0	0.0
210	5/31/2019 13:21:08	0.0	0.0	0.0	0.0
211	5/31/2019 13:22:08	0.0	0.0	0.0	0.0
212	5/31/2019 13:23:08	0.0	0.0	0.0	0.0
213	5/31/2019 13:24:08	0.0	0.0	0.0	0.0
214	5/31/2019 13:25:08	0.0	0.0	0.0	0.0
215	5/31/2019 13:26:08	0.0	0.0	0.0	0.0
216	5/31/2019 13:27:08	0.0	0.0	0.0	0.0
217	5/31/2019 13:28:08	0.0	0.0	0.0	0.0
218	5/31/2019 13:29:08	0.0	0.0	0.0	0.0
219	5/31/2019 13:30:08	0.0	0.0	0.0	0.0
220	5/31/2019 13:31:08	0.0	0.0	0.0	0.0
221	5/31/2019 13:32:08	0.0	0.0	0.0	0.0
222	5/31/2019 13:33:08	0.0	0.0	0.0	0.0
223	5/31/2019 13:34:08	0.0	0.0	0.0	0.0
224	5/31/2019 13:35:08	0.0	0.0	0.0	0.0
225	5/31/2019 13:36:08	0.0	0.0	0.0	0.0

226	5/31/2019 13:37:08	0.0	0.0	0.0	0.0
227	5/31/2019 13:38:08	0.0	0.0	0.0	0.0
228	5/31/2019 13:39:08	0.0	0.0	0.0	0.0
229	5/31/2019 13:40:08	0.0	0.0	0.0	0.0
230	5/31/2019 13:41:08	0.0	0.0	0.0	0.0
231	5/31/2019 13:42:08	0.0	0.0	0.0	0.0
232	5/31/2019 13:43:08	0.0	0.0	0.0	0.0
233	5/31/2019 13:44:08	0.0	0.0	0.0	0.0
234	5/31/2019 13:45:08	0.0	0.0	0.0	0.0
235	5/31/2019 13:46:08	0.0	0.0	0.0	0.0
236	5/31/2019 13:47:08	0.0	0.0	0.0	0.0
237	5/31/2019 13:48:08	0.0	0.0	0.0	0.0
238	5/31/2019 13:49:08	0.0	0.0	0.0	0.0
239	5/31/2019 13:50:08	0.0	0.0	0.0	0.0
240	5/31/2019 13:51:08	0.0	0.0	0.0	0.0
241	5/31/2019 13:52:08	0.0	0.0	0.0	0.0
242	5/31/2019 13:53:08	0.0	0.0	0.0	0.0
243	5/31/2019 13:54:08	0.0	0.0	0.0	0.0
244	5/31/2019 13:55:08	0.0	0.0	0.0	0.0
245	5/31/2019 13:56:08	0.0	0.0	0.0	0.0
246	5/31/2019 13:57:08	0.0	0.0	0.0	0.0
247	5/31/2019 13:58:08	0.0	0.0	0.0	0.0
248	5/31/2019 13:59:08	0.0	0.0	0.0	0.0
249	5/31/2019 14:00:08	0.0	0.0	0.0	0.0
250	5/31/2019 14:01:08	0.0	0.0	0.0	0.0
251	5/31/2019 14:02:08	0.0	0.0	0.0	0.0
252	5/31/2019 14:03:08	0.0	0.0	0.0	0.0
253	5/31/2019 14:04:08	0.0	0.0	0.0	0.0
254	5/31/2019 14:05:08	0.0	0.0	0.0	0.0
255	5/31/2019 14:06:08	0.0	0.0	0.0	0.0
256	5/31/2019 14:07:08	0.0	0.0	0.0	0.0

257	5/31/2019	14:08:08	0.0	0.0	0.0	0.0
258	5/31/2019	14:09:08	0.0	0.0	0.0	0.0
259	5/31/2019	14:10:08	0.0	0.0	0.0	0.0
260	5/31/2019	14:11:08	0.0	0.0	0.0	0.0
261	5/31/2019	14:12:08	0.0	0.0	0.0	0.0
262	5/31/2019	14:13:08	0.0	0.0	0.0	0.0
263	5/31/2019	14:14:08	0.0	0.0	0.0	0.0
264	5/31/2019	14:15:08	0.0	0.0	0.0	0.0
265	5/31/2019	14:16:08	0.0	0.0	0.0	0.0
266	5/31/2019	14:17:08	0.0	0.0	0.0	0.0
267	5/31/2019	14:18:08	0.0	0.0	0.0	0.0
268	5/31/2019	14:19:08	0.0	0.0	0.0	0.0
269	5/31/2019	14:20:08	0.0	0.0	0.0	0.0
Peak			0.0	0.2	0.5	0.1
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/31/2019	09:52:08	0.0	---	
002	5/31/2019	09:53:08	0.0	---	
003	5/31/2019	09:54:08	0.0	---	
004	5/31/2019	09:55:08	0.0	---	
005	5/31/2019	09:56:08	0.0	---	
006	5/31/2019	09:57:08	0.0	---	
007	5/31/2019	09:58:08	0.0	---	
008	5/31/2019	09:59:08	0.0	---	
009	5/31/2019	10:00:08	0.0	---	
010	5/31/2019	10:01:08	0.0	---	

011	5/31/2019 10:02:08	0.0	---
012	5/31/2019 10:03:08	0.0	---
013	5/31/2019 10:04:08	0.0	---
014	5/31/2019 10:05:08	0.0	---
015	5/31/2019 10:06:08	0.0	0.0
016	5/31/2019 10:07:08	0.0	0.0
017	5/31/2019 10:08:08	0.0	0.0
018	5/31/2019 10:09:08	0.0	0.0
019	5/31/2019 10:10:08	0.0	0.0
020	5/31/2019 10:11:08	0.0	0.0
021	5/31/2019 10:12:08	0.0	0.0
022	5/31/2019 10:13:08	0.0	0.0
023	5/31/2019 10:14:08	0.0	0.0
024	5/31/2019 10:15:08	0.0	0.0
025	5/31/2019 10:16:08	0.0	0.0
026	5/31/2019 10:17:08	0.0	0.0
027	5/31/2019 10:18:08	0.0	0.0
028	5/31/2019 10:19:08	0.0	0.0
029	5/31/2019 10:20:08	0.0	0.0
030	5/31/2019 10:21:08	0.0	0.0
031	5/31/2019 10:22:08	0.0	0.0
032	5/31/2019 10:23:08	0.0	0.0
033	5/31/2019 10:24:08	0.0	0.0
034	5/31/2019 10:25:08	0.0	0.0
035	5/31/2019 10:26:08	0.0	0.0
036	5/31/2019 10:27:08	0.0	0.0
037	5/31/2019 10:28:08	0.0	0.0
038	5/31/2019 10:29:08	0.0	0.0
039	5/31/2019 10:30:08	0.0	0.0
040	5/31/2019 10:31:08	0.0	0.0
041	5/31/2019 10:32:08	0.0	0.0

042	5/31/2019 10:33:08	0.0	0.0
043	5/31/2019 10:34:08	0.0	0.0
044	5/31/2019 10:35:08	0.0	0.0
045	5/31/2019 10:36:08	0.0	0.0
046	5/31/2019 10:37:08	0.0	0.0
047	5/31/2019 10:38:08	0.0	0.0
048	5/31/2019 10:39:08	0.0	0.0
049	5/31/2019 10:40:08	0.0	0.0
050	5/31/2019 10:41:08	0.0	0.0
051	5/31/2019 10:42:08	0.0	0.0
052	5/31/2019 10:43:08	0.0	0.0
053	5/31/2019 10:44:08	0.0	0.0
054	5/31/2019 10:45:08	0.0	0.0
055	5/31/2019 10:46:08	0.0	0.0
056	5/31/2019 10:47:08	0.0	0.0
057	5/31/2019 10:48:08	0.0	0.0
058	5/31/2019 10:49:08	0.0	0.0
059	5/31/2019 10:50:08	0.0	0.0
060	5/31/2019 10:51:08	0.0	0.0
061	5/31/2019 10:52:08	0.0	0.0
062	5/31/2019 10:53:08	0.0	0.0
063	5/31/2019 10:54:08	0.0	0.0
064	5/31/2019 10:55:08	0.0	0.0
065	5/31/2019 10:56:08	0.0	0.0
066	5/31/2019 10:57:08	0.0	0.0
067	5/31/2019 10:58:08	0.0	0.0
068	5/31/2019 10:59:08	0.0	0.0
069	5/31/2019 11:00:08	0.0	0.0
070	5/31/2019 11:01:08	0.0	0.0
071	5/31/2019 11:02:08	0.0	0.0
072	5/31/2019 11:03:08	0.0	0.0

073	5/31/2019	11:04:08	0.0	0.0
074	5/31/2019	11:05:08	0.0	0.0
075	5/31/2019	11:06:08	0.0	0.0
076	5/31/2019	11:07:08	0.0	0.0
077	5/31/2019	11:08:08	0.0	0.0
078	5/31/2019	11:09:08	0.0	0.0
079	5/31/2019	11:10:08	0.0	0.0
080	5/31/2019	11:11:08	0.0	0.0
081	5/31/2019	11:12:08	0.0	0.0
082	5/31/2019	11:13:08	0.0	0.0
083	5/31/2019	11:14:08	0.0	0.0
084	5/31/2019	11:15:08	0.0	0.0
085	5/31/2019	11:16:08	0.0	0.0
086	5/31/2019	11:17:08	0.0	0.0
087	5/31/2019	11:18:08	0.0	0.0
088	5/31/2019	11:19:08	0.0	0.0
089	5/31/2019	11:20:08	0.0	0.0
090	5/31/2019	11:21:08	0.0	0.0
091	5/31/2019	11:22:08	0.0	0.0
092	5/31/2019	11:23:08	0.0	0.0
093	5/31/2019	11:24:08	0.0	0.0
094	5/31/2019	11:25:08	0.0	0.0
095	5/31/2019	11:26:08	0.0	0.0
096	5/31/2019	11:27:08	0.0	0.0
097	5/31/2019	11:28:08	0.0	0.0
098	5/31/2019	11:29:08	0.0	0.0
099	5/31/2019	11:30:08	0.0	0.0
100	5/31/2019	11:31:08	0.0	0.0
101	5/31/2019	11:32:08	0.0	0.0
102	5/31/2019	11:33:08	0.0	0.0
103	5/31/2019	11:34:08	0.0	0.0

104	5/31/2019	11:35:08	0.0	0.0
105	5/31/2019	11:36:08	0.0	0.0
106	5/31/2019	11:37:08	0.0	0.0
107	5/31/2019	11:38:08	0.0	0.0
108	5/31/2019	11:39:08	0.0	0.0
109	5/31/2019	11:40:08	0.0	0.0
110	5/31/2019	11:41:08	0.0	0.0
111	5/31/2019	11:42:08	0.0	0.0
112	5/31/2019	11:43:08	0.0	0.0
113	5/31/2019	11:44:08	0.0	0.0
114	5/31/2019	11:45:08	0.0	0.0
115	5/31/2019	11:46:08	0.0	0.0
116	5/31/2019	11:47:08	0.0	0.0
117	5/31/2019	11:48:08	0.0	0.0
118	5/31/2019	11:49:08	0.0	0.0
119	5/31/2019	11:50:08	0.0	0.0
120	5/31/2019	11:51:08	0.0	0.0
121	5/31/2019	11:52:08	0.0	0.0
122	5/31/2019	11:53:08	0.0	0.0
123	5/31/2019	11:54:08	0.0	0.0
124	5/31/2019	11:55:08	0.0	0.0
125	5/31/2019	11:56:08	0.0	0.0
126	5/31/2019	11:57:08	0.0	0.0
127	5/31/2019	11:58:08	0.0	0.0
128	5/31/2019	11:59:08	0.0	0.0
129	5/31/2019	12:00:08	0.0	0.0
130	5/31/2019	12:01:08	0.0	0.0
131	5/31/2019	12:02:08	0.0	0.0
132	5/31/2019	12:03:08	0.0	0.0
133	5/31/2019	12:04:08	0.0	0.0
134	5/31/2019	12:05:08	0.0	0.0

135	5/31/2019 12:06:08	0.0	0.0
136	5/31/2019 12:07:08	0.0	0.0
137	5/31/2019 12:08:08	0.0	0.0
138	5/31/2019 12:09:08	0.0	0.0
139	5/31/2019 12:10:08	0.0	0.0
140	5/31/2019 12:11:08	0.0	0.0
141	5/31/2019 12:12:08	0.0	0.0
142	5/31/2019 12:13:08	0.0	0.0
143	5/31/2019 12:14:08	0.0	0.0
144	5/31/2019 12:15:08	0.0	0.0
145	5/31/2019 12:16:08	0.0	0.0
146	5/31/2019 12:17:08	0.0	0.0
147	5/31/2019 12:18:08	0.0	0.0
148	5/31/2019 12:19:08	0.0	0.0
149	5/31/2019 12:20:08	0.0	0.0
150	5/31/2019 12:21:08	0.0	0.0
151	5/31/2019 12:22:08	0.0	0.0
152	5/31/2019 12:23:08	0.0	0.0
153	5/31/2019 12:24:08	0.0	0.0
154	5/31/2019 12:25:08	0.0	0.0
155	5/31/2019 12:26:08	0.0	0.0
156	5/31/2019 12:27:08	0.0	0.0
157	5/31/2019 12:28:08	0.0	0.0
158	5/31/2019 12:29:08	0.0	0.0
159	5/31/2019 12:30:08	0.0	0.0
160	5/31/2019 12:31:08	0.0	0.0
161	5/31/2019 12:32:08	0.0	0.0
162	5/31/2019 12:33:08	0.0	0.0
163	5/31/2019 12:34:08	0.0	0.0
164	5/31/2019 12:35:08	0.0	0.0
165	5/31/2019 12:36:08	0.0	0.0

166	5/31/2019 12:37:08	0.0	0.0
167	5/31/2019 12:38:08	0.0	0.0
168	5/31/2019 12:39:08	0.0	0.0
169	5/31/2019 12:40:08	0.0	0.0
170	5/31/2019 12:41:08	0.0	0.0
171	5/31/2019 12:42:08	0.0	0.0
172	5/31/2019 12:43:08	0.0	0.0
173	5/31/2019 12:44:08	0.0	0.0
174	5/31/2019 12:45:08	0.0	0.0
175	5/31/2019 12:46:08	0.0	0.0
176	5/31/2019 12:47:08	0.0	0.0
177	5/31/2019 12:48:08	0.0	0.0
178	5/31/2019 12:49:08	0.0	0.0
179	5/31/2019 12:50:08	0.0	0.0
180	5/31/2019 12:51:08	0.0	0.0
181	5/31/2019 12:52:08	0.0	0.0
182	5/31/2019 12:53:08	0.0	0.0
183	5/31/2019 12:54:08	0.0	0.0
184	5/31/2019 12:55:08	0.0	0.0
185	5/31/2019 12:56:08	0.0	0.0
186	5/31/2019 12:57:08	0.0	0.0
187	5/31/2019 12:58:08	0.0	0.0
188	5/31/2019 12:59:08	0.0	0.0
189	5/31/2019 13:00:08	0.0	0.0
190	5/31/2019 13:01:08	0.0	0.0
191	5/31/2019 13:02:08	0.0	0.0
192	5/31/2019 13:03:08	0.0	0.0
193	5/31/2019 13:04:08	0.0	0.0
194	5/31/2019 13:05:08	0.0	0.0
195	5/31/2019 13:06:08	0.0	0.0
196	5/31/2019 13:07:08	0.0	0.0

197	5/31/2019 13:08:08	0.0	0.0
198	5/31/2019 13:09:08	0.0	0.0
199	5/31/2019 13:10:08	0.0	0.0
200	5/31/2019 13:11:08	0.0	0.0
201	5/31/2019 13:12:08	0.0	0.0
202	5/31/2019 13:13:08	0.0	0.0
203	5/31/2019 13:14:08	0.0	0.0
204	5/31/2019 13:15:08	0.0	0.0
205	5/31/2019 13:16:08	0.0	0.0
206	5/31/2019 13:17:08	0.0	0.0
207	5/31/2019 13:18:08	0.0	0.0
208	5/31/2019 13:19:08	0.0	0.0
209	5/31/2019 13:20:08	0.0	0.0
210	5/31/2019 13:21:08	0.0	0.0
211	5/31/2019 13:22:08	0.0	0.0
212	5/31/2019 13:23:08	0.0	0.0
213	5/31/2019 13:24:08	0.0	0.0
214	5/31/2019 13:25:08	0.0	0.0
215	5/31/2019 13:26:08	0.0	0.0
216	5/31/2019 13:27:08	0.0	0.0
217	5/31/2019 13:28:08	0.0	0.0
218	5/31/2019 13:29:08	0.0	0.0
219	5/31/2019 13:30:08	0.0	0.0
220	5/31/2019 13:31:08	0.0	0.0
221	5/31/2019 13:32:08	0.0	0.0
222	5/31/2019 13:33:08	0.0	0.0
223	5/31/2019 13:34:08	0.0	0.0
224	5/31/2019 13:35:08	0.0	0.0
225	5/31/2019 13:36:08	0.0	0.0
226	5/31/2019 13:37:08	0.0	0.0
227	5/31/2019 13:38:08	0.0	0.0

228	5/31/2019 13:39:08	0.0	0.0
229	5/31/2019 13:40:08	0.0	0.0
230	5/31/2019 13:41:08	0.0	0.0
231	5/31/2019 13:42:08	0.0	0.0
232	5/31/2019 13:43:08	0.0	0.0
233	5/31/2019 13:44:08	0.0	0.0
234	5/31/2019 13:45:08	0.0	0.0
235	5/31/2019 13:46:08	0.0	0.0
236	5/31/2019 13:47:08	0.0	0.0
237	5/31/2019 13:48:08	0.0	0.0
238	5/31/2019 13:49:08	0.0	0.0
239	5/31/2019 13:50:08	0.0	0.0
240	5/31/2019 13:51:08	0.0	0.0
241	5/31/2019 13:52:08	0.0	0.0
242	5/31/2019 13:53:08	0.0	0.0
243	5/31/2019 13:54:08	0.0	0.0
244	5/31/2019 13:55:08	0.0	0.0
245	5/31/2019 13:56:08	0.0	0.0
246	5/31/2019 13:57:08	0.0	0.0
247	5/31/2019 13:58:08	0.0	0.0
248	5/31/2019 13:59:08	0.0	0.0
249	5/31/2019 14:00:08	0.0	0.0
250	5/31/2019 14:01:08	0.0	0.0
251	5/31/2019 14:02:08	0.0	0.0
252	5/31/2019 14:03:08	0.0	0.0
253	5/31/2019 14:04:08	0.0	0.0
254	5/31/2019 14:05:08	0.0	0.0
255	5/31/2019 14:06:08	0.0	0.0
256	5/31/2019 14:07:08	0.0	0.0
257	5/31/2019 14:08:08	0.0	0.0
258	5/31/2019 14:09:08	0.0	0.0

259	5/31/2019 14:10:08	0.0	0.0
260	5/31/2019 14:11:08	0.0	0.0
261	5/31/2019 14:12:08	0.0	0.0
262	5/31/2019 14:13:08	0.0	0.0
263	5/31/2019 14:14:08	0.0	0.0
264	5/31/2019 14:15:08	0.0	0.0
265	5/31/2019 14:16:08	0.0	0.0
266	5/31/2019 14:17:08	0.0	0.0
267	5/31/2019 14:18:08	0.0	0.0
268	5/31/2019 14:19:08	0.0	0.0
269	5/31/2019 14:20:08	0.0	0.0

甑==========
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19/06/03 09:10
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000
User ID	USER0000

Begin	6/3/2019 09:10:24
End	6/3/2019 14:12:40

Sample Period(s)	60
Number of Records	302

Sensor	PID(ppm)
Sensor SN	S023030226V7
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	2000.0
STEL Alarm	25.0
TWA Alarm	10.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:00
Peak	0.1
Min	0.0
Average	0.0

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/3/2019	09:11:24	0.1	0.1	0.1	0.1
002	6/3/2019	09:12:24	0.0	0.1	0.1	0.0
003	6/3/2019	09:13:24	0.0	0.0	0.0	0.0
004	6/3/2019	09:14:24	0.0	0.0	0.0	0.0
005	6/3/2019	09:15:24	0.0	0.0	0.0	0.0
006	6/3/2019	09:16:24	0.0	0.0	0.0	0.0
007	6/3/2019	09:17:24	0.0	0.0	0.0	0.0
008	6/3/2019	09:18:24	0.0	0.0	0.0	0.0

009	6/3/2019 09:19:24	0.0	0.0	0.0	0.0
010	6/3/2019 09:20:24	0.0	0.0	0.0	0.0
011	6/3/2019 09:21:24	0.0	0.0	0.0	0.0
012	6/3/2019 09:22:24	0.0	0.0	0.0	0.0
013	6/3/2019 09:23:24	0.0	0.0	0.0	0.0
014	6/3/2019 09:24:24	0.0	0.0	0.0	0.0
015	6/3/2019 09:25:24	0.0	0.0	0.0	0.0
016	6/3/2019 09:26:24	0.0	0.0	0.0	0.0
017	6/3/2019 09:27:24	0.0	0.0	0.0	0.0
018	6/3/2019 09:28:24	0.0	0.0	0.0	0.0
019	6/3/2019 09:29:24	0.0	0.0	0.0	0.0
020	6/3/2019 09:30:24	0.0	0.0	0.0	0.0
021	6/3/2019 09:31:24	0.0	0.0	0.0	0.0
022	6/3/2019 09:32:24	0.0	0.0	0.0	0.0
023	6/3/2019 09:33:24	0.0	0.0	0.0	0.0
024	6/3/2019 09:34:24	0.0	0.0	0.0	0.0
025	6/3/2019 09:35:24	0.0	0.0	0.0	0.0
026	6/3/2019 09:36:24	0.0	0.0	0.0	0.0
027	6/3/2019 09:37:24	0.0	0.0	0.0	0.0
028	6/3/2019 09:38:24	0.0	0.0	0.0	0.0
029	6/3/2019 09:39:24	0.0	0.0	0.0	0.0
030	6/3/2019 09:40:24	0.0	0.0	0.0	0.0
031	6/3/2019 09:41:24	0.0	0.0	0.0	0.0
032	6/3/2019 09:42:24	0.0	0.0	0.0	0.0
033	6/3/2019 09:43:24	0.0	0.0	0.0	0.0
034	6/3/2019 09:44:24	0.0	0.0	0.0	0.0
035	6/3/2019 09:45:24	0.0	0.0	0.0	0.0
036	6/3/2019 09:46:24	0.0	0.0	0.0	0.0
037	6/3/2019 09:47:24	0.0	0.0	0.0	0.0
038	6/3/2019 09:48:24	0.0	0.0	0.0	0.0
039	6/3/2019 09:49:24	0.0	0.0	0.0	0.0

040	6/3/2019 09:50:24	0.0	0.0	0.0	0.0
041	6/3/2019 09:51:24	0.0	0.0	0.0	0.0
042	6/3/2019 09:52:24	0.0	0.0	0.0	0.0
043	6/3/2019 09:53:24	0.0	0.0	0.0	0.0
044	6/3/2019 09:54:24	0.0	0.0	0.0	0.0
045	6/3/2019 09:55:24	0.0	0.0	0.0	0.0
046	6/3/2019 09:56:24	0.0	0.0	0.0	0.0
047	6/3/2019 09:57:24	0.0	0.0	0.0	0.0
048	6/3/2019 09:58:24	0.0	0.0	0.0	0.0
049	6/3/2019 09:59:24	0.0	0.0	0.0	0.0
050	6/3/2019 10:00:24	0.0	0.0	0.0	0.0
051	6/3/2019 10:01:24	0.0	0.0	0.0	0.0
052	6/3/2019 10:02:24	0.0	0.0	0.0	0.0
053	6/3/2019 10:03:24	0.0	0.0	0.0	0.0
054	6/3/2019 10:04:24	0.0	0.0	0.0	0.0
055	6/3/2019 10:05:24	0.0	0.0	0.0	0.0
056	6/3/2019 10:06:24	0.0	0.0	0.0	0.0
057	6/3/2019 10:07:24	0.0	0.0	0.0	0.0
058	6/3/2019 10:08:24	0.0	0.0	0.0	0.0
059	6/3/2019 10:09:24	0.0	0.0	0.0	0.0
060	6/3/2019 10:10:24	0.0	0.0	0.0	0.0
061	6/3/2019 10:11:24	0.0	0.0	0.0	0.0
062	6/3/2019 10:12:24	0.0	0.0	0.0	0.0
063	6/3/2019 10:13:24	0.0	0.0	0.0	0.0
064	6/3/2019 10:14:24	0.0	0.0	0.0	0.0
065	6/3/2019 10:15:24	0.0	0.0	0.0	0.0
066	6/3/2019 10:16:24	0.0	0.0	0.0	0.0
067	6/3/2019 10:17:24	0.0	0.0	0.0	0.0
068	6/3/2019 10:18:24	0.0	0.0	0.0	0.0
069	6/3/2019 10:19:24	0.0	0.0	0.0	0.0
070	6/3/2019 10:20:24	0.0	0.0	0.0	0.0

071	6/3/2019 10:21:24	0.0	0.0	0.0	0.0
072	6/3/2019 10:22:24	0.0	0.0	0.0	0.0
073	6/3/2019 10:23:24	0.0	0.0	0.0	0.0
074	6/3/2019 10:24:24	0.0	0.0	0.0	0.0
075	6/3/2019 10:25:24	0.0	0.0	0.0	0.0
076	6/3/2019 10:26:24	0.0	0.0	0.0	0.0
077	6/3/2019 10:27:24	0.0	0.0	0.0	0.0
078	6/3/2019 10:28:24	0.0	0.0	0.0	0.0
079	6/3/2019 10:29:24	0.0	0.0	0.0	0.0
080	6/3/2019 10:30:24	0.0	0.0	0.0	0.0
081	6/3/2019 10:31:24	0.0	0.0	0.0	0.0
082	6/3/2019 10:32:24	0.0	0.0	0.0	0.0
083	6/3/2019 10:33:24	0.0	0.0	0.0	0.0
084	6/3/2019 10:34:24	0.0	0.0	0.0	0.0
085	6/3/2019 10:35:24	0.0	0.0	0.0	0.0
086	6/3/2019 10:36:24	0.0	0.0	0.0	0.0
087	6/3/2019 10:37:24	0.0	0.0	0.0	0.0
088	6/3/2019 10:38:24	0.0	0.0	0.0	0.0
089	6/3/2019 10:39:24	0.0	0.0	0.0	0.0
090	6/3/2019 10:40:24	0.0	0.0	0.0	0.0
091	6/3/2019 10:41:24	0.0	0.0	0.0	0.0
092	6/3/2019 10:42:24	0.0	0.0	0.0	0.0
093	6/3/2019 10:43:24	0.0	0.0	0.0	0.0
094	6/3/2019 10:44:24	0.0	0.0	0.0	0.0
095	6/3/2019 10:45:24	0.0	0.0	0.0	0.0
096	6/3/2019 10:46:24	0.0	0.0	0.0	0.0
097	6/3/2019 10:47:24	0.0	0.0	0.0	0.0
098	6/3/2019 10:48:24	0.0	0.0	0.0	0.0
099	6/3/2019 10:49:24	0.0	0.0	0.0	0.0
100	6/3/2019 10:50:24	0.0	0.0	0.0	0.0
101	6/3/2019 10:51:24	0.0	0.0	0.0	0.0

102	6/3/2019 10:52:24	0.0	0.0	0.0	0.0
103	6/3/2019 10:53:24	0.0	0.0	0.0	0.0
104	6/3/2019 10:54:24	0.0	0.0	0.0	0.0
105	6/3/2019 10:55:24	0.0	0.0	0.0	0.0
106	6/3/2019 10:56:24	0.0	0.0	0.0	0.0
107	6/3/2019 10:57:24	0.0	0.0	0.0	0.0
108	6/3/2019 10:58:24	0.0	0.0	0.0	0.0
109	6/3/2019 10:59:24	0.0	0.0	0.0	0.0
110	6/3/2019 11:00:24	0.0	0.0	0.0	0.0
111	6/3/2019 11:01:24	0.0	0.0	0.0	0.0
112	6/3/2019 11:02:24	0.0	0.0	0.0	0.0
113	6/3/2019 11:03:24	0.0	0.0	0.0	0.0
114	6/3/2019 11:04:24	0.0	0.0	0.0	0.0
115	6/3/2019 11:05:24	0.0	0.0	0.0	0.0
116	6/3/2019 11:06:24	0.0	0.0	0.0	0.0
117	6/3/2019 11:07:24	0.0	0.0	0.0	0.0
118	6/3/2019 11:08:24	0.0	0.0	0.0	0.0
119	6/3/2019 11:09:24	0.0	0.0	0.0	0.0
120	6/3/2019 11:10:24	0.0	0.0	0.0	0.0
121	6/3/2019 11:11:24	0.0	0.0	0.0	0.0
122	6/3/2019 11:12:24	0.0	0.0	0.0	0.0
123	6/3/2019 11:13:24	0.0	0.0	0.0	0.0
124	6/3/2019 11:14:24	0.0	0.0	0.0	0.0
125	6/3/2019 11:15:24	0.0	0.0	0.0	0.0
126	6/3/2019 11:16:24	0.0	0.0	0.0	0.0
127	6/3/2019 11:17:24	0.0	0.0	0.0	0.0
128	6/3/2019 11:18:24	0.0	0.0	0.0	0.0
129	6/3/2019 11:19:24	0.0	0.0	0.0	0.0
130	6/3/2019 11:20:24	0.0	0.0	0.0	0.0
131	6/3/2019 11:21:24	0.0	0.0	0.0	0.0
132	6/3/2019 11:22:24	0.0	0.0	0.0	0.0

133	6/3/2019 11:23:24	0.0	0.0	0.0	0.0
134	6/3/2019 11:24:24	0.0	0.0	0.0	0.0
135	6/3/2019 11:25:24	0.0	0.0	0.0	0.0
136	6/3/2019 11:26:24	0.0	0.0	0.0	0.0
137	6/3/2019 11:27:24	0.0	0.0	0.0	0.0
138	6/3/2019 11:28:24	0.0	0.0	0.0	0.0
139	6/3/2019 11:29:24	0.0	0.0	0.0	0.0
140	6/3/2019 11:30:24	0.0	0.0	0.0	0.0
141	6/3/2019 11:31:24	0.0	0.0	0.0	0.0
142	6/3/2019 11:32:24	0.0	0.0	0.0	0.0
143	6/3/2019 11:33:24	0.0	0.0	0.0	0.0
144	6/3/2019 11:34:24	0.0	0.0	0.0	0.0
145	6/3/2019 11:35:24	0.0	0.0	0.0	0.0
146	6/3/2019 11:36:24	0.0	0.0	0.0	0.0
147	6/3/2019 11:37:24	0.0	0.0	0.0	0.0
148	6/3/2019 11:38:24	0.0	0.0	0.0	0.0
149	6/3/2019 11:39:24	0.0	0.0	0.0	0.0
150	6/3/2019 11:40:24	0.0	0.0	0.0	0.0
151	6/3/2019 11:41:24	0.0	0.0	0.0	0.0
152	6/3/2019 11:42:24	0.0	0.0	0.0	0.0
153	6/3/2019 11:43:24	0.0	0.0	0.0	0.0
154	6/3/2019 11:44:24	0.0	0.0	0.0	0.0
155	6/3/2019 11:45:24	0.0	0.0	0.0	0.0
156	6/3/2019 11:46:24	0.0	0.0	0.0	0.0
157	6/3/2019 11:47:24	0.0	0.0	0.0	0.0
158	6/3/2019 11:48:24	0.0	0.0	0.0	0.0
159	6/3/2019 11:49:24	0.0	0.0	0.0	0.0
160	6/3/2019 11:50:24	0.0	0.0	0.0	0.0
161	6/3/2019 11:51:24	0.0	0.0	0.0	0.0
162	6/3/2019 11:52:24	0.0	0.0	0.0	0.0
163	6/3/2019 11:53:24	0.0	0.0	0.0	0.0

164	6/3/2019 11:54:24	0.0	0.0	0.0	0.0
165	6/3/2019 11:55:24	0.0	0.0	0.0	0.0
166	6/3/2019 11:56:24	0.0	0.0	0.0	0.0
167	6/3/2019 11:57:24	0.0	0.0	0.0	0.0
168	6/3/2019 11:58:24	0.0	0.0	0.0	0.0
169	6/3/2019 11:59:24	0.0	0.0	0.0	0.0
170	6/3/2019 12:00:24	0.0	0.0	0.0	0.0
171	6/3/2019 12:01:24	0.0	0.0	0.0	0.0
172	6/3/2019 12:02:24	0.0	0.0	0.0	0.0
173	6/3/2019 12:03:24	0.0	0.0	0.0	0.0
174	6/3/2019 12:04:24	0.0	0.0	0.0	0.0
175	6/3/2019 12:05:24	0.0	0.0	0.0	0.0
176	6/3/2019 12:06:24	0.0	0.0	0.0	0.0
177	6/3/2019 12:07:24	0.0	0.0	0.0	0.0
178	6/3/2019 12:08:24	0.0	0.0	0.0	0.0
179	6/3/2019 12:09:24	0.0	0.0	0.0	0.0
180	6/3/2019 12:10:24	0.0	0.0	0.0	0.0
181	6/3/2019 12:11:24	0.0	0.0	0.0	0.0
182	6/3/2019 12:12:24	0.0	0.0	0.0	0.0
183	6/3/2019 12:13:24	0.0	0.0	0.0	0.0
184	6/3/2019 12:14:24	0.0	0.0	0.0	0.0
185	6/3/2019 12:15:24	0.0	0.0	0.0	0.0
186	6/3/2019 12:16:24	0.0	0.0	0.0	0.0
187	6/3/2019 12:17:24	0.0	0.0	0.0	0.0
188	6/3/2019 12:18:24	0.0	0.0	0.0	0.0
189	6/3/2019 12:19:24	0.0	0.0	0.0	0.0
190	6/3/2019 12:20:24	0.0	0.0	0.0	0.0
191	6/3/2019 12:21:24	0.0	0.0	0.0	0.0
192	6/3/2019 12:22:24	0.0	0.0	0.0	0.0
193	6/3/2019 12:23:24	0.0	0.0	0.0	0.0
194	6/3/2019 12:24:24	0.0	0.0	0.0	0.0

195	6/3/2019 12:25:24	0.0	0.0	0.0	0.0
196	6/3/2019 12:26:24	0.0	0.0	0.0	0.0
197	6/3/2019 12:27:24	0.0	0.0	0.0	0.0
198	6/3/2019 12:28:24	0.0	0.0	0.0	0.0
199	6/3/2019 12:29:24	0.0	0.0	0.0	0.0
200	6/3/2019 12:30:24	0.0	0.0	0.0	0.0
201	6/3/2019 12:31:24	0.0	0.0	0.0	0.0
202	6/3/2019 12:32:24	0.0	0.0	0.0	0.0
203	6/3/2019 12:33:24	0.0	0.0	0.0	0.0
204	6/3/2019 12:34:24	0.0	0.0	0.0	0.0
205	6/3/2019 12:35:24	0.0	0.0	0.0	0.0
206	6/3/2019 12:36:24	0.0	0.0	0.0	0.0
207	6/3/2019 12:37:24	0.0	0.0	0.0	0.0
208	6/3/2019 12:38:24	0.0	0.0	0.0	0.0
209	6/3/2019 12:39:24	0.0	0.0	0.0	0.0
210	6/3/2019 12:40:24	0.0	0.0	0.0	0.0
211	6/3/2019 12:41:24	0.0	0.0	0.0	0.0
212	6/3/2019 12:42:24	0.0	0.0	0.0	0.0
213	6/3/2019 12:43:24	0.0	0.0	0.0	0.0
214	6/3/2019 12:44:24	0.0	0.0	0.0	0.0
215	6/3/2019 12:45:24	0.0	0.0	0.0	0.0
216	6/3/2019 12:46:24	0.0	0.0	0.0	0.0
217	6/3/2019 12:47:24	0.0	0.0	0.0	0.0
218	6/3/2019 12:48:24	0.0	0.0	0.0	0.0
219	6/3/2019 12:49:24	0.0	0.0	0.0	0.0
220	6/3/2019 12:50:24	0.0	0.0	0.0	0.0
221	6/3/2019 12:51:24	0.0	0.0	0.0	0.0
222	6/3/2019 12:52:24	0.0	0.0	0.0	0.0
223	6/3/2019 12:53:24	0.0	0.0	0.0	0.0
224	6/3/2019 12:54:24	0.0	0.0	0.0	0.0
225	6/3/2019 12:55:24	0.0	0.0	0.0	0.0

226	6/3/2019 12:56:24	0.0	0.0	0.0	0.0
227	6/3/2019 12:57:24	0.0	0.0	0.0	0.0
228	6/3/2019 12:58:24	0.0	0.0	0.0	0.0
229	6/3/2019 12:59:24	0.0	0.0	0.0	0.0
230	6/3/2019 13:00:24	0.0	0.0	0.0	0.0
231	6/3/2019 13:01:24	0.0	0.0	0.0	0.0
232	6/3/2019 13:02:24	0.0	0.0	0.0	0.0
233	6/3/2019 13:03:24	0.0	0.0	0.0	0.0
234	6/3/2019 13:04:24	0.0	0.0	0.0	0.0
235	6/3/2019 13:05:24	0.0	0.0	0.0	0.0
236	6/3/2019 13:06:24	0.0	0.0	0.0	0.0
237	6/3/2019 13:07:24	0.0	0.0	0.0	0.0
238	6/3/2019 13:08:24	0.0	0.0	0.0	0.0
239	6/3/2019 13:09:24	0.0	0.0	0.0	0.0
240	6/3/2019 13:10:24	0.0	0.0	0.0	0.0
241	6/3/2019 13:11:24	0.0	0.0	0.0	0.0
242	6/3/2019 13:12:24	0.0	0.0	0.0	0.0
243	6/3/2019 13:13:24	0.0	0.0	0.0	0.0
244	6/3/2019 13:14:24	0.0	0.0	0.0	0.0
245	6/3/2019 13:15:24	0.0	0.0	0.0	0.0
246	6/3/2019 13:16:24	0.0	0.0	0.0	0.0
247	6/3/2019 13:17:24	0.0	0.0	0.0	0.0
248	6/3/2019 13:18:24	0.0	0.0	0.0	0.0
249	6/3/2019 13:19:24	0.0	0.0	0.0	0.0
250	6/3/2019 13:20:24	0.0	0.0	0.0	0.0
251	6/3/2019 13:21:24	0.0	0.0	0.0	0.0
252	6/3/2019 13:22:24	0.0	0.0	0.0	0.0
253	6/3/2019 13:23:24	0.0	0.0	0.0	0.0
254	6/3/2019 13:24:24	0.0	0.0	0.0	0.0
255	6/3/2019 13:25:24	0.0	0.0	0.0	0.0
256	6/3/2019 13:26:24	0.0	0.0	0.0	0.0

257	6/3/2019 13:27:24	0.0	0.0	0.0	0.0
258	6/3/2019 13:28:24	0.0	0.0	0.0	0.0
259	6/3/2019 13:29:24	0.0	0.0	0.0	0.0
260	6/3/2019 13:30:24	0.0	0.0	0.0	0.0
261	6/3/2019 13:31:24	0.0	0.0	0.0	0.0
262	6/3/2019 13:32:24	0.0	0.0	0.0	0.0
263	6/3/2019 13:33:24	0.0	0.0	0.0	0.0
264	6/3/2019 13:34:24	0.0	0.0	0.0	0.0
265	6/3/2019 13:35:24	0.0	0.0	0.0	0.0
266	6/3/2019 13:36:24	0.0	0.0	0.0	0.0
267	6/3/2019 13:37:24	0.0	0.0	0.0	0.0
268	6/3/2019 13:38:24	0.0	0.0	0.0	0.0
269	6/3/2019 13:39:24	0.0	0.0	0.0	0.0
270	6/3/2019 13:40:24	0.0	0.0	0.0	0.0
271	6/3/2019 13:41:24	0.0	0.0	0.0	0.0
272	6/3/2019 13:42:24	0.0	0.0	0.0	0.0
273	6/3/2019 13:43:24	0.0	0.0	0.0	0.0
274	6/3/2019 13:44:24	0.0	0.0	0.0	0.0
275	6/3/2019 13:45:24	0.0	0.0	0.0	0.0
276	6/3/2019 13:46:24	0.0	0.0	0.0	0.0
277	6/3/2019 13:47:24	0.0	0.0	0.0	0.0
278	6/3/2019 13:48:24	0.0	0.0	0.0	0.0
279	6/3/2019 13:49:24	0.0	0.0	0.0	0.0
280	6/3/2019 13:50:24	0.0	0.0	0.0	0.0
281	6/3/2019 13:51:24	0.0	0.0	0.0	0.0
282	6/3/2019 13:52:24	0.0	0.0	0.0	0.0
283	6/3/2019 13:53:24	0.0	0.0	0.0	0.0
284	6/3/2019 13:54:24	0.0	0.0	0.0	0.0
285	6/3/2019 13:55:24	0.0	0.0	0.0	0.0
286	6/3/2019 13:56:24	0.0	0.0	0.0	0.0
287	6/3/2019 13:57:24	0.0	0.0	0.0	0.0

288	6/3/2019 13:58:24	0.0	0.0	0.0	0.0
289	6/3/2019 13:59:24	0.0	0.0	0.0	0.0
290	6/3/2019 14:00:24	0.0	0.0	0.0	0.0
291	6/3/2019 14:01:24	0.0	0.0	0.0	0.0
292	6/3/2019 14:02:24	0.0	0.0	0.0	0.0
293	6/3/2019 14:03:24	0.0	0.0	0.0	0.0
294	6/3/2019 14:04:24	0.0	0.0	0.0	0.0
295	6/3/2019 14:05:24	0.0	0.0	0.0	0.0
296	6/3/2019 14:06:24	0.0	0.0	0.0	0.0
297	6/3/2019 14:07:24	0.0	0.0	0.0	0.0
298	6/3/2019 14:08:24	0.0	0.0	0.0	0.0
299	6/3/2019 14:09:24	0.0	0.0	0.0	0.0
300	6/3/2019 14:10:24	0.0	0.0	0.0	0.0
301	6/3/2019 14:11:24	0.0	0.0	0.0	0.0
302	6/3/2019 14:12:24	0.0	0.0	0.0	0.0
Peak		0.1	0.1	0.1	0.1
Min		0.0	0.0	0.0	0.0
Average		0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/3/2019 09:11:24	0.0	---	
002	6/3/2019 09:12:24	0.0	---	
003	6/3/2019 09:13:24	0.0	---	
004	6/3/2019 09:14:24	0.0	---	
005	6/3/2019 09:15:24	0.0	---	
006	6/3/2019 09:16:24	0.0	---	
007	6/3/2019 09:17:24	0.0	---	
008	6/3/2019 09:18:24	0.0	---	

009	6/3/2019 09:19:24	0.0	---
010	6/3/2019 09:20:24	0.0	---
011	6/3/2019 09:21:24	0.0	---
012	6/3/2019 09:22:24	0.0	---
013	6/3/2019 09:23:24	0.0	---
014	6/3/2019 09:24:24	0.0	---
015	6/3/2019 09:25:24	0.0	0.0
016	6/3/2019 09:26:24	0.0	0.0
017	6/3/2019 09:27:24	0.0	0.0
018	6/3/2019 09:28:24	0.0	0.0
019	6/3/2019 09:29:24	0.0	0.0
020	6/3/2019 09:30:24	0.0	0.0
021	6/3/2019 09:31:24	0.0	0.0
022	6/3/2019 09:32:24	0.0	0.0
023	6/3/2019 09:33:24	0.0	0.0
024	6/3/2019 09:34:24	0.0	0.0
025	6/3/2019 09:35:24	0.0	0.0
026	6/3/2019 09:36:24	0.0	0.0
027	6/3/2019 09:37:24	0.0	0.0
028	6/3/2019 09:38:24	0.0	0.0
029	6/3/2019 09:39:24	0.0	0.0
030	6/3/2019 09:40:24	0.0	0.0
031	6/3/2019 09:41:24	0.0	0.0
032	6/3/2019 09:42:24	0.0	0.0
033	6/3/2019 09:43:24	0.0	0.0
034	6/3/2019 09:44:24	0.0	0.0
035	6/3/2019 09:45:24	0.0	0.0
036	6/3/2019 09:46:24	0.0	0.0
037	6/3/2019 09:47:24	0.0	0.0
038	6/3/2019 09:48:24	0.0	0.0
039	6/3/2019 09:49:24	0.0	0.0

040	6/3/2019 09:50:24	0.0	0.0
041	6/3/2019 09:51:24	0.0	0.0
042	6/3/2019 09:52:24	0.0	0.0
043	6/3/2019 09:53:24	0.0	0.0
044	6/3/2019 09:54:24	0.0	0.0
045	6/3/2019 09:55:24	0.0	0.0
046	6/3/2019 09:56:24	0.0	0.0
047	6/3/2019 09:57:24	0.0	0.0
048	6/3/2019 09:58:24	0.0	0.0
049	6/3/2019 09:59:24	0.0	0.0
050	6/3/2019 10:00:24	0.0	0.0
051	6/3/2019 10:01:24	0.0	0.0
052	6/3/2019 10:02:24	0.0	0.0
053	6/3/2019 10:03:24	0.0	0.0
054	6/3/2019 10:04:24	0.0	0.0
055	6/3/2019 10:05:24	0.0	0.0
056	6/3/2019 10:06:24	0.0	0.0
057	6/3/2019 10:07:24	0.0	0.0
058	6/3/2019 10:08:24	0.0	0.0
059	6/3/2019 10:09:24	0.0	0.0
060	6/3/2019 10:10:24	0.0	0.0
061	6/3/2019 10:11:24	0.0	0.0
062	6/3/2019 10:12:24	0.0	0.0
063	6/3/2019 10:13:24	0.0	0.0
064	6/3/2019 10:14:24	0.0	0.0
065	6/3/2019 10:15:24	0.0	0.0
066	6/3/2019 10:16:24	0.0	0.0
067	6/3/2019 10:17:24	0.0	0.0
068	6/3/2019 10:18:24	0.0	0.0
069	6/3/2019 10:19:24	0.0	0.0
070	6/3/2019 10:20:24	0.0	0.0

071	6/3/2019 10:21:24	0.0	0.0
072	6/3/2019 10:22:24	0.0	0.0
073	6/3/2019 10:23:24	0.0	0.0
074	6/3/2019 10:24:24	0.0	0.0
075	6/3/2019 10:25:24	0.0	0.0
076	6/3/2019 10:26:24	0.0	0.0
077	6/3/2019 10:27:24	0.0	0.0
078	6/3/2019 10:28:24	0.0	0.0
079	6/3/2019 10:29:24	0.0	0.0
080	6/3/2019 10:30:24	0.0	0.0
081	6/3/2019 10:31:24	0.0	0.0
082	6/3/2019 10:32:24	0.0	0.0
083	6/3/2019 10:33:24	0.0	0.0
084	6/3/2019 10:34:24	0.0	0.0
085	6/3/2019 10:35:24	0.0	0.0
086	6/3/2019 10:36:24	0.0	0.0
087	6/3/2019 10:37:24	0.0	0.0
088	6/3/2019 10:38:24	0.0	0.0
089	6/3/2019 10:39:24	0.0	0.0
090	6/3/2019 10:40:24	0.0	0.0
091	6/3/2019 10:41:24	0.0	0.0
092	6/3/2019 10:42:24	0.0	0.0
093	6/3/2019 10:43:24	0.0	0.0
094	6/3/2019 10:44:24	0.0	0.0
095	6/3/2019 10:45:24	0.0	0.0
096	6/3/2019 10:46:24	0.0	0.0
097	6/3/2019 10:47:24	0.0	0.0
098	6/3/2019 10:48:24	0.0	0.0
099	6/3/2019 10:49:24	0.0	0.0
100	6/3/2019 10:50:24	0.0	0.0
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109	6/3/2019 10:59:24	0.0	0.0
110	6/3/2019 11:00:24	0.0	0.0
111	6/3/2019 11:01:24	0.0	0.0
112	6/3/2019 11:02:24	0.0	0.0
113	6/3/2019 11:03:24	0.0	0.0
114	6/3/2019 11:04:24	0.0	0.0
115	6/3/2019 11:05:24	0.0	0.0
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117	6/3/2019 11:07:24	0.0	0.0
118	6/3/2019 11:08:24	0.0	0.0
119	6/3/2019 11:09:24	0.0	0.0
120	6/3/2019 11:10:24	0.0	0.0
121	6/3/2019 11:11:24	0.0	0.0
122	6/3/2019 11:12:24	0.0	0.0
123	6/3/2019 11:13:24	0.0	0.0
124	6/3/2019 11:14:24	0.0	0.0
125	6/3/2019 11:15:24	0.0	0.0
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127	6/3/2019 11:17:24	0.0	0.0
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129	6/3/2019 11:19:24	0.0	0.0
130	6/3/2019 11:20:24	0.0	0.0
131	6/3/2019 11:21:24	0.0	0.0
132	6/3/2019 11:22:24	0.0	0.0

133	6/3/2019 11:23:24	0.0	0.0
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135	6/3/2019 11:25:24	0.0	0.0
136	6/3/2019 11:26:24	0.0	0.0
137	6/3/2019 11:27:24	0.0	0.0
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139	6/3/2019 11:29:24	0.0	0.0
140	6/3/2019 11:30:24	0.0	0.0
141	6/3/2019 11:31:24	0.0	0.0
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143	6/3/2019 11:33:24	0.0	0.0
144	6/3/2019 11:34:24	0.0	0.0
145	6/3/2019 11:35:24	0.0	0.0
146	6/3/2019 11:36:24	0.0	0.0
147	6/3/2019 11:37:24	0.0	0.0
148	6/3/2019 11:38:24	0.0	0.0
149	6/3/2019 11:39:24	0.0	0.0
150	6/3/2019 11:40:24	0.0	0.0
151	6/3/2019 11:41:24	0.0	0.0
152	6/3/2019 11:42:24	0.0	0.0
153	6/3/2019 11:43:24	0.0	0.0
154	6/3/2019 11:44:24	0.0	0.0
155	6/3/2019 11:45:24	0.0	0.0
156	6/3/2019 11:46:24	0.0	0.0
157	6/3/2019 11:47:24	0.0	0.0
158	6/3/2019 11:48:24	0.0	0.0
159	6/3/2019 11:49:24	0.0	0.0
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161	6/3/2019 11:51:24	0.0	0.0
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163	6/3/2019 11:53:24	0.0	0.0

164	6/3/2019 11:54:24	0.0	0.0
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167	6/3/2019 11:57:24	0.0	0.0
168	6/3/2019 11:58:24	0.0	0.0
169	6/3/2019 11:59:24	0.0	0.0
170	6/3/2019 12:00:24	0.0	0.0
171	6/3/2019 12:01:24	0.0	0.0
172	6/3/2019 12:02:24	0.0	0.0
173	6/3/2019 12:03:24	0.0	0.0
174	6/3/2019 12:04:24	0.0	0.0
175	6/3/2019 12:05:24	0.0	0.0
176	6/3/2019 12:06:24	0.0	0.0
177	6/3/2019 12:07:24	0.0	0.0
178	6/3/2019 12:08:24	0.0	0.0
179	6/3/2019 12:09:24	0.0	0.0
180	6/3/2019 12:10:24	0.0	0.0
181	6/3/2019 12:11:24	0.0	0.0
182	6/3/2019 12:12:24	0.0	0.0
183	6/3/2019 12:13:24	0.0	0.0
184	6/3/2019 12:14:24	0.0	0.0
185	6/3/2019 12:15:24	0.0	0.0
186	6/3/2019 12:16:24	0.0	0.0
187	6/3/2019 12:17:24	0.0	0.0
188	6/3/2019 12:18:24	0.0	0.0
189	6/3/2019 12:19:24	0.0	0.0
190	6/3/2019 12:20:24	0.0	0.0
191	6/3/2019 12:21:24	0.0	0.0
192	6/3/2019 12:22:24	0.0	0.0
193	6/3/2019 12:23:24	0.0	0.0
194	6/3/2019 12:24:24	0.0	0.0

195	6/3/2019 12:25:24	0.0	0.0
196	6/3/2019 12:26:24	0.0	0.0
197	6/3/2019 12:27:24	0.0	0.0
198	6/3/2019 12:28:24	0.0	0.0
199	6/3/2019 12:29:24	0.0	0.0
200	6/3/2019 12:30:24	0.0	0.0
201	6/3/2019 12:31:24	0.0	0.0
202	6/3/2019 12:32:24	0.0	0.0
203	6/3/2019 12:33:24	0.0	0.0
204	6/3/2019 12:34:24	0.0	0.0
205	6/3/2019 12:35:24	0.0	0.0
206	6/3/2019 12:36:24	0.0	0.0
207	6/3/2019 12:37:24	0.0	0.0
208	6/3/2019 12:38:24	0.0	0.0
209	6/3/2019 12:39:24	0.0	0.0
210	6/3/2019 12:40:24	0.0	0.0
211	6/3/2019 12:41:24	0.0	0.0
212	6/3/2019 12:42:24	0.0	0.0
213	6/3/2019 12:43:24	0.0	0.0
214	6/3/2019 12:44:24	0.0	0.0
215	6/3/2019 12:45:24	0.0	0.0
216	6/3/2019 12:46:24	0.0	0.0
217	6/3/2019 12:47:24	0.0	0.0
218	6/3/2019 12:48:24	0.0	0.0
219	6/3/2019 12:49:24	0.0	0.0
220	6/3/2019 12:50:24	0.0	0.0
221	6/3/2019 12:51:24	0.0	0.0
222	6/3/2019 12:52:24	0.0	0.0
223	6/3/2019 12:53:24	0.0	0.0
224	6/3/2019 12:54:24	0.0	0.0
225	6/3/2019 12:55:24	0.0	0.0

226	6/3/2019 12:56:24	0.0	0.0
227	6/3/2019 12:57:24	0.0	0.0
228	6/3/2019 12:58:24	0.0	0.0
229	6/3/2019 12:59:24	0.0	0.0
230	6/3/2019 13:00:24	0.0	0.0
231	6/3/2019 13:01:24	0.0	0.0
232	6/3/2019 13:02:24	0.0	0.0
233	6/3/2019 13:03:24	0.0	0.0
234	6/3/2019 13:04:24	0.0	0.0
235	6/3/2019 13:05:24	0.0	0.0
236	6/3/2019 13:06:24	0.0	0.0
237	6/3/2019 13:07:24	0.0	0.0
238	6/3/2019 13:08:24	0.0	0.0
239	6/3/2019 13:09:24	0.0	0.0
240	6/3/2019 13:10:24	0.0	0.0
241	6/3/2019 13:11:24	0.0	0.0
242	6/3/2019 13:12:24	0.0	0.0
243	6/3/2019 13:13:24	0.0	0.0
244	6/3/2019 13:14:24	0.0	0.0
245	6/3/2019 13:15:24	0.0	0.0
246	6/3/2019 13:16:24	0.0	0.0
247	6/3/2019 13:17:24	0.0	0.0
248	6/3/2019 13:18:24	0.0	0.0
249	6/3/2019 13:19:24	0.0	0.0
250	6/3/2019 13:20:24	0.0	0.0
251	6/3/2019 13:21:24	0.0	0.0
252	6/3/2019 13:22:24	0.0	0.0
253	6/3/2019 13:23:24	0.0	0.0
254	6/3/2019 13:24:24	0.0	0.0
255	6/3/2019 13:25:24	0.0	0.0
256	6/3/2019 13:26:24	0.0	0.0

257	6/3/2019 13:27:24	0.0	0.0
258	6/3/2019 13:28:24	0.0	0.0
259	6/3/2019 13:29:24	0.0	0.0
260	6/3/2019 13:30:24	0.0	0.0
261	6/3/2019 13:31:24	0.0	0.0
262	6/3/2019 13:32:24	0.0	0.0
263	6/3/2019 13:33:24	0.0	0.0
264	6/3/2019 13:34:24	0.0	0.0
265	6/3/2019 13:35:24	0.0	0.0
266	6/3/2019 13:36:24	0.0	0.0
267	6/3/2019 13:37:24	0.0	0.0
268	6/3/2019 13:38:24	0.0	0.0
269	6/3/2019 13:39:24	0.0	0.0
270	6/3/2019 13:40:24	0.0	0.0
271	6/3/2019 13:41:24	0.0	0.0
272	6/3/2019 13:42:24	0.0	0.0
273	6/3/2019 13:43:24	0.0	0.0
274	6/3/2019 13:44:24	0.0	0.0
275	6/3/2019 13:45:24	0.0	0.0
276	6/3/2019 13:46:24	0.0	0.0
277	6/3/2019 13:47:24	0.0	0.0
278	6/3/2019 13:48:24	0.0	0.0
279	6/3/2019 13:49:24	0.0	0.0
280	6/3/2019 13:50:24	0.0	0.0
281	6/3/2019 13:51:24	0.0	0.0
282	6/3/2019 13:52:24	0.0	0.0
283	6/3/2019 13:53:24	0.0	0.0
284	6/3/2019 13:54:24	0.0	0.0
285	6/3/2019 13:55:24	0.0	0.0
286	6/3/2019 13:56:24	0.0	0.0
287	6/3/2019 13:57:24	0.0	0.0

288	6/3/2019 13:58:24	0.0	0.0
289	6/3/2019 13:59:24	0.0	0.0
290	6/3/2019 14:00:24	0.0	0.0
291	6/3/2019 14:01:24	0.0	0.0
292	6/3/2019 14:02:24	0.0	0.0
293	6/3/2019 14:03:24	0.0	0.0
294	6/3/2019 14:04:24	0.0	0.0
295	6/3/2019 14:05:24	0.0	0.0
296	6/3/2019 14:06:24	0.0	0.0
297	6/3/2019 14:07:24	0.0	0.0
298	6/3/2019 14:08:24	0.0	0.0
299	6/3/2019 14:09:24	0.0	0.0
300	6/3/2019 14:10:24	0.0	0.0
301	6/3/2019 14:11:24	0.0	0.0
302	6/3/2019 14:12:24	0.0	0.0

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19/06/04 09:16

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-000000
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	BLDG0000

User ID USER0000

Begin 6/4/2019 09:16:07
End 6/4/2019 14:30:42
Sample Period(s) 60
Number of Records 314

Sensor PID(ppm)
Sensor SN S023030226V7
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 2000.0
STEL Alarm 25.0
TWA Alarm 10.0
Measurement Gas Isobutylene
Calibration Time 5/15/2019 16:00
Peak 0.5
Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/4/2019 09:17:07	0.0	0.0	0.0	0.0	
002	6/4/2019 09:18:07	0.0	0.0	0.0	0.0	
003	6/4/2019 09:19:07	0.0	0.0	0.0	0.0	
004	6/4/2019 09:20:07	0.0	0.0	0.0	0.0	

005	6/4/2019 09:21:07	0.0	0.0	0.0	0.0
006	6/4/2019 09:22:07	0.0	0.0	0.0	0.0
007	6/4/2019 09:23:07	0.0	0.0	0.0	0.0
008	6/4/2019 09:24:07	0.0	0.0	0.0	0.0
009	6/4/2019 09:25:07	0.0	0.0	0.0	0.0
010	6/4/2019 09:26:07	0.0	0.0	0.0	0.0
011	6/4/2019 09:27:07	0.0	0.0	0.0	0.0
012	6/4/2019 09:28:07	0.0	0.0	0.0	0.0
013	6/4/2019 09:29:07	0.0	0.0	0.0	0.0
014	6/4/2019 09:30:07	0.0	0.0	0.0	0.0
015	6/4/2019 09:31:07	0.0	0.0	0.0	0.0
016	6/4/2019 09:32:07	0.0	0.0	0.0	0.0
017	6/4/2019 09:33:07	0.0	0.0	0.0	0.0
018	6/4/2019 09:34:07	0.0	0.0	0.0	0.0
019	6/4/2019 09:35:07	0.0	0.0	0.0	0.0
020	6/4/2019 09:36:07	0.0	0.0	0.0	0.0
021	6/4/2019 09:37:07	0.0	0.0	0.0	0.0
022	6/4/2019 09:38:07	0.0	0.0	0.0	0.0
023	6/4/2019 09:39:07	0.0	0.0	0.0	0.0
024	6/4/2019 09:40:07	0.0	0.0	0.0	0.0
025	6/4/2019 09:41:07	0.0	0.0	0.0	0.0
026	6/4/2019 09:42:07	0.0	0.0	0.0	0.0
027	6/4/2019 09:43:07	0.0	0.0	0.0	0.0
028	6/4/2019 09:44:07	0.0	0.0	0.0	0.0
029	6/4/2019 09:45:07	0.0	0.0	0.0	0.0
030	6/4/2019 09:46:07	0.0	0.0	0.0	0.0
031	6/4/2019 09:47:07	0.0	0.0	0.0	0.0
032	6/4/2019 09:48:07	0.0	0.0	0.0	0.0
033	6/4/2019 09:49:07	0.0	0.0	0.0	0.0
034	6/4/2019 09:50:07	0.0	0.0	0.0	0.0
035	6/4/2019 09:51:07	0.0	0.0	0.0	0.0

036	6/4/2019 09:52:07	0.0	0.0	0.0	0.0
037	6/4/2019 09:53:07	0.0	0.0	0.0	0.0
038	6/4/2019 09:54:07	0.0	0.0	0.0	0.0
039	6/4/2019 09:55:07	0.0	0.0	0.0	0.0
040	6/4/2019 09:56:07	0.0	0.0	0.0	0.0
041	6/4/2019 09:57:07	0.0	0.0	0.0	0.0
042	6/4/2019 09:58:07	0.0	0.0	0.0	0.0
043	6/4/2019 09:59:07	0.0	0.0	0.0	0.0
044	6/4/2019 10:00:07	0.0	0.0	0.0	0.0
045	6/4/2019 10:01:07	0.0	0.0	0.0	0.0
046	6/4/2019 10:02:07	0.0	0.0	0.0	0.0
047	6/4/2019 10:03:07	0.0	0.0	0.0	0.0
048	6/4/2019 10:04:07	0.0	0.0	0.0	0.0
049	6/4/2019 10:05:07	0.0	0.0	0.0	0.0
050	6/4/2019 10:06:07	0.0	0.0	0.0	0.0
051	6/4/2019 10:07:07	0.0	0.0	0.0	0.0
052	6/4/2019 10:08:07	0.0	0.0	0.0	0.0
053	6/4/2019 10:09:07	0.0	0.0	0.0	0.0
054	6/4/2019 10:10:07	0.0	0.0	0.0	0.0
055	6/4/2019 10:11:07	0.0	0.0	0.0	0.0
056	6/4/2019 10:12:07	0.0	0.0	0.0	0.0
057	6/4/2019 10:13:07	0.0	0.0	0.0	0.0
058	6/4/2019 10:14:07	0.0	0.0	0.0	0.0
059	6/4/2019 10:15:07	0.0	0.0	0.0	0.0
060	6/4/2019 10:16:07	0.0	0.0	0.0	0.0
061	6/4/2019 10:17:07	0.0	0.0	0.0	0.0
062	6/4/2019 10:18:07	0.0	0.0	0.0	0.0
063	6/4/2019 10:19:07	0.0	0.0	0.0	0.0
064	6/4/2019 10:20:07	0.0	0.0	0.0	0.0
065	6/4/2019 10:21:07	0.0	0.0	0.0	0.0
066	6/4/2019 10:22:07	0.0	0.0	0.0	0.0

067	6/4/2019 10:23:07	0.0	0.0	0.0	0.0
068	6/4/2019 10:24:07	0.0	0.0	0.0	0.0
069	6/4/2019 10:25:07	0.0	0.0	0.0	0.0
070	6/4/2019 10:26:07	0.0	0.0	0.0	0.0
071	6/4/2019 10:27:07	0.0	0.0	0.0	0.0
072	6/4/2019 10:28:07	0.0	0.0	0.0	0.0
073	6/4/2019 10:29:07	0.0	0.0	0.0	0.0
074	6/4/2019 10:30:07	0.0	0.0	0.0	0.0
075	6/4/2019 10:31:07	0.0	0.0	0.0	0.0
076	6/4/2019 10:32:07	0.0	0.0	0.0	0.0
077	6/4/2019 10:33:07	0.0	0.0	0.0	0.0
078	6/4/2019 10:34:07	0.0	0.0	0.0	0.0
079	6/4/2019 10:35:07	0.0	0.0	0.0	0.0
080	6/4/2019 10:36:07	0.0	0.0	0.0	0.0
081	6/4/2019 10:37:07	0.0	0.0	0.0	0.0
082	6/4/2019 10:38:07	0.0	0.0	0.0	0.0
083	6/4/2019 10:39:07	0.0	0.0	0.0	0.0
084	6/4/2019 10:40:07	0.0	0.0	0.0	0.0
085	6/4/2019 10:41:07	0.0	0.0	0.0	0.0
086	6/4/2019 10:42:07	0.0	0.0	0.0	0.0
087	6/4/2019 10:43:07	0.0	0.0	0.0	0.0
088	6/4/2019 10:44:07	0.0	0.0	0.0	0.0
089	6/4/2019 10:45:07	0.0	0.0	0.0	0.0
090	6/4/2019 10:46:07	0.0	0.0	0.0	0.0
091	6/4/2019 10:47:07	0.0	0.0	0.0	0.0
092	6/4/2019 10:48:07	0.0	0.0	0.0	0.0
093	6/4/2019 10:49:07	0.0	0.0	0.0	0.0
094	6/4/2019 10:50:07	0.0	0.0	0.0	0.0
095	6/4/2019 10:51:07	0.0	0.0	0.0	0.0
096	6/4/2019 10:52:07	0.0	0.0	0.0	0.0
097	6/4/2019 10:53:07	0.0	0.0	0.0	0.0

098	6/4/2019 10:54:07	0.0	0.0	0.0	0.0
099	6/4/2019 10:55:07	0.0	0.0	0.0	0.0
100	6/4/2019 10:56:07	0.0	0.0	0.0	0.0
101	6/4/2019 10:57:07	0.0	0.0	0.0	0.0
102	6/4/2019 10:58:07	0.0	0.0	0.0	0.0
103	6/4/2019 10:59:07	0.0	0.0	0.0	0.0
104	6/4/2019 11:00:07	0.0	0.0	0.0	0.0
105	6/4/2019 11:01:07	0.0	0.0	0.0	0.0
106	6/4/2019 11:02:07	0.0	0.0	0.0	0.0
107	6/4/2019 11:03:07	0.0	0.0	0.0	0.0
108	6/4/2019 11:04:07	0.0	0.0	0.0	0.0
109	6/4/2019 11:05:07	0.0	0.0	0.0	0.0
110	6/4/2019 11:06:07	0.0	0.0	0.0	0.0
111	6/4/2019 11:07:07	0.0	0.0	0.0	0.0
112	6/4/2019 11:08:07	0.0	0.0	0.0	0.0
113	6/4/2019 11:09:07	0.0	0.0	0.0	0.0
114	6/4/2019 11:10:07	0.0	0.0	0.0	0.0
115	6/4/2019 11:11:07	0.0	0.0	0.0	0.0
116	6/4/2019 11:12:07	0.0	0.0	0.0	0.0
117	6/4/2019 11:13:07	0.0	0.0	0.0	0.0
118	6/4/2019 11:14:07	0.0	0.0	0.0	0.0
119	6/4/2019 11:15:07	0.0	0.0	0.0	0.0
120	6/4/2019 11:16:07	0.0	0.0	0.0	0.0
121	6/4/2019 11:17:07	0.0	0.0	0.0	0.0
122	6/4/2019 11:18:07	0.0	0.0	0.0	0.0
123	6/4/2019 11:19:07	0.0	0.0	0.0	0.0
124	6/4/2019 11:20:07	0.0	0.0	0.0	0.0
125	6/4/2019 11:21:07	0.0	0.0	0.0	0.0
126	6/4/2019 11:22:07	0.0	0.0	0.0	0.0
127	6/4/2019 11:23:07	0.0	0.0	0.0	0.0
128	6/4/2019 11:24:07	0.0	0.0	0.0	0.0

129	6/4/2019 11:25:07	0.0	0.0	0.0	0.0
130	6/4/2019 11:26:07	0.0	0.0	0.0	0.0
131	6/4/2019 11:27:07	0.0	0.0	0.0	0.0
132	6/4/2019 11:28:07	0.0	0.0	0.0	0.0
133	6/4/2019 11:29:07	0.0	0.0	0.0	0.0
134	6/4/2019 11:30:07	0.0	0.0	0.0	0.0
135	6/4/2019 11:31:07	0.0	0.0	0.0	0.0
136	6/4/2019 11:32:07	0.0	0.0	0.0	0.0
137	6/4/2019 11:33:07	0.0	0.0	0.0	0.0
138	6/4/2019 11:34:07	0.0	0.0	0.0	0.0
139	6/4/2019 11:35:07	0.0	0.0	0.0	0.0
140	6/4/2019 11:36:07	0.0	0.0	0.0	0.0
141	6/4/2019 11:37:07	0.0	0.0	0.0	0.0
142	6/4/2019 11:38:07	0.0	0.0	0.0	0.0
143	6/4/2019 11:39:07	0.0	0.0	0.0	0.0
144	6/4/2019 11:40:07	0.0	0.0	0.0	0.0
145	6/4/2019 11:41:07	0.0	0.0	0.0	0.0
146	6/4/2019 11:42:07	0.0	0.0	0.0	0.0
147	6/4/2019 11:43:07	0.0	0.0	0.0	0.0
148	6/4/2019 11:44:07	0.0	0.0	0.0	0.0
149	6/4/2019 11:45:07	0.0	0.0	0.0	0.0
150	6/4/2019 11:46:07	0.0	0.0	0.0	0.0
151	6/4/2019 11:47:07	0.0	0.0	0.0	0.0
152	6/4/2019 11:48:07	0.0	0.0	0.5	0.5
153	6/4/2019 11:49:07	0.0	0.0	0.2	0.0
154	6/4/2019 11:50:07	0.0	0.0	0.0	0.0
155	6/4/2019 11:51:07	0.0	0.0	0.0	0.0
156	6/4/2019 11:52:07	0.0	0.0	0.0	0.0
157	6/4/2019 11:53:07	0.0	0.0	0.0	0.0
158	6/4/2019 11:54:07	0.0	0.0	0.0	0.0
159	6/4/2019 11:55:07	0.0	0.0	0.0	0.0

160	6/4/2019 11:56:07	0.0	0.0	0.0	0.0
161	6/4/2019 11:57:07	0.0	0.0	0.0	0.0
162	6/4/2019 11:58:07	0.0	0.0	0.0	0.0
163	6/4/2019 11:59:07	0.0	0.0	0.0	0.0
164	6/4/2019 12:00:07	0.0	0.0	0.0	0.0
165	6/4/2019 12:01:07	0.0	0.0	0.0	0.0
166	6/4/2019 12:02:07	0.0	0.0	0.0	0.0
167	6/4/2019 12:03:07	0.0	0.0	0.0	0.0
168	6/4/2019 12:04:07	0.0	0.0	0.0	0.0
169	6/4/2019 12:05:07	0.0	0.0	0.0	0.0
170	6/4/2019 12:06:07	0.0	0.0	0.0	0.0
171	6/4/2019 12:07:07	0.0	0.0	0.0	0.0
172	6/4/2019 12:08:07	0.0	0.0	0.1	0.0
173	6/4/2019 12:09:07	0.0	0.0	0.0	0.0
174	6/4/2019 12:10:07	0.0	0.0	0.0	0.0
175	6/4/2019 12:11:07	0.0	0.0	0.0	0.0
176	6/4/2019 12:12:07	0.0	0.0	0.0	0.0
177	6/4/2019 12:13:07	0.0	0.0	0.0	0.0
178	6/4/2019 12:14:07	0.0	0.0	0.0	0.0
179	6/4/2019 12:15:07	0.0	0.0	0.0	0.0
180	6/4/2019 12:16:07	0.0	0.0	0.0	0.0
181	6/4/2019 12:17:07	0.0	0.0	0.0	0.0
182	6/4/2019 12:18:07	0.0	0.0	0.0	0.0
183	6/4/2019 12:19:07	0.0	0.0	0.0	0.0
184	6/4/2019 12:20:07	0.0	0.0	0.0	0.0
185	6/4/2019 12:21:07	0.0	0.0	0.0	0.0
186	6/4/2019 12:22:07	0.0	0.0	0.0	0.0
187	6/4/2019 12:23:07	0.0	0.0	0.0	0.0
188	6/4/2019 12:24:07	0.0	0.0	0.0	0.0
189	6/4/2019 12:25:07	0.0	0.0	0.0	0.0
190	6/4/2019 12:26:07	0.0	0.0	0.0	0.0

191	6/4/2019 12:27:07	0.0	0.0	0.0	0.0
192	6/4/2019 12:28:07	0.0	0.0	0.0	0.0
193	6/4/2019 12:29:07	0.0	0.0	0.0	0.0
194	6/4/2019 12:30:07	0.0	0.0	0.0	0.0
195	6/4/2019 12:31:07	0.0	0.0	0.0	0.0
196	6/4/2019 12:32:07	0.0	0.0	0.0	0.0
197	6/4/2019 12:33:07	0.0	0.0	0.0	0.0
198	6/4/2019 12:34:07	0.0	0.0	0.0	0.0
199	6/4/2019 12:35:07	0.0	0.0	0.0	0.0
200	6/4/2019 12:36:07	0.0	0.0	0.0	0.0
201	6/4/2019 12:37:07	0.0	0.0	0.0	0.0
202	6/4/2019 12:38:07	0.0	0.0	0.0	0.0
203	6/4/2019 12:39:07	0.0	0.0	0.0	0.0
204	6/4/2019 12:40:07	0.0	0.0	0.0	0.0
205	6/4/2019 12:41:07	0.0	0.0	0.0	0.0
206	6/4/2019 12:42:07	0.0	0.0	0.0	0.0
207	6/4/2019 12:43:07	0.0	0.0	0.1	0.0
208	6/4/2019 12:44:07	0.0	0.0	0.1	0.0
209	6/4/2019 12:45:07	0.0	0.0	0.0	0.0
210	6/4/2019 12:46:07	0.0	0.0	0.0	0.0
211	6/4/2019 12:47:07	0.0	0.0	0.0	0.0
212	6/4/2019 12:48:07	0.0	0.0	0.1	0.1
213	6/4/2019 12:49:07	0.0	0.0	0.1	0.0
214	6/4/2019 12:50:07	0.0	0.0	0.0	0.0
215	6/4/2019 12:51:07	0.0	0.0	0.1	0.0
216	6/4/2019 12:52:07	0.0	0.0	0.0	0.0
217	6/4/2019 12:53:07	0.0	0.0	0.0	0.0
218	6/4/2019 12:54:07	0.0	0.0	0.0	0.0
219	6/4/2019 12:55:07	0.0	0.0	0.0	0.0
220	6/4/2019 12:56:07	0.0	0.0	0.0	0.0
221	6/4/2019 12:57:07	0.0	0.0	0.0	0.0

222	6/4/2019 12:58:07	0.0	0.0	0.0	0.0
223	6/4/2019 12:59:07	0.0	0.0	0.0	0.0
224	6/4/2019 13:00:07	0.0	0.0	0.0	0.0
225	6/4/2019 13:01:07	0.0	0.0	0.0	0.0
226	6/4/2019 13:02:07	0.0	0.0	0.0	0.0
227	6/4/2019 13:03:07	0.0	0.0	0.0	0.0
228	6/4/2019 13:04:07	0.0	0.0	0.0	0.0
229	6/4/2019 13:05:07	0.0	0.0	0.0	0.0
230	6/4/2019 13:06:07	0.0	0.0	0.0	0.0
231	6/4/2019 13:07:07	0.0	0.0	0.0	0.0
232	6/4/2019 13:08:07	0.0	0.0	0.0	0.0
233	6/4/2019 13:09:07	0.0	0.0	0.0	0.0
234	6/4/2019 13:10:07	0.0	0.0	0.0	0.0
235	6/4/2019 13:11:07	0.0	0.0	0.2	0.0
236	6/4/2019 13:12:07	0.0	0.0	0.1	0.0
237	6/4/2019 13:13:07	0.0	0.0	0.0	0.0
238	6/4/2019 13:14:07	0.0	0.0	0.0	0.0
239	6/4/2019 13:15:07	0.0	0.0	0.0	0.0
240	6/4/2019 13:16:07	0.0	0.0	0.0	0.0
241	6/4/2019 13:17:07	0.0	0.0	0.0	0.0
242	6/4/2019 13:18:07	0.0	0.0	0.0	0.0
243	6/4/2019 13:19:07	0.0	0.0	0.0	0.0
244	6/4/2019 13:20:07	0.0	0.0	0.3	0.0
245	6/4/2019 13:21:07	0.0	0.0	0.1	0.0
246	6/4/2019 13:22:07	0.0	0.0	0.0	0.0
247	6/4/2019 13:23:07	0.0	0.0	0.0	0.0
248	6/4/2019 13:24:07	0.0	0.0	0.0	0.0
249	6/4/2019 13:25:07	0.0	0.0	0.0	0.0
250	6/4/2019 13:26:07	0.0	0.0	0.1	0.0
251	6/4/2019 13:27:07	0.0	0.0	0.0	0.0
252	6/4/2019 13:28:07	0.0	0.0	0.0	0.0

253	6/4/2019 13:29:07	0.0	0.0	0.0	0.0
254	6/4/2019 13:30:07	0.0	0.0	0.0	0.0
255	6/4/2019 13:31:07	0.0	0.0	0.0	0.0
256	6/4/2019 13:32:07	0.0	0.0	0.0	0.0
257	6/4/2019 13:33:07	0.0	0.0	0.0	0.0
258	6/4/2019 13:34:07	0.0	0.0	0.0	0.0
259	6/4/2019 13:35:07	0.0	0.0	0.0	0.0
260	6/4/2019 13:36:07	0.0	0.0	0.0	0.0
261	6/4/2019 13:37:07	0.0	0.0	0.0	0.0
262	6/4/2019 13:38:07	0.0	0.0	0.0	0.0
263	6/4/2019 13:39:07	0.0	0.0	0.1	0.0
264	6/4/2019 13:40:07	0.0	0.0	0.1	0.0
265	6/4/2019 13:41:07	0.0	0.0	0.0	0.0
266	6/4/2019 13:42:07	0.0	0.0	0.1	0.0
267	6/4/2019 13:43:07	0.0	0.0	0.0	0.0
268	6/4/2019 13:44:07	0.0	0.0	0.0	0.0
269	6/4/2019 13:45:07	0.0	0.0	0.0	0.0
270	6/4/2019 13:46:07	0.0	0.0	0.0	0.0
271	6/4/2019 13:47:07	0.0	0.0	0.0	0.0
272	6/4/2019 13:48:07	0.0	0.0	0.0	0.0
273	6/4/2019 13:49:07	0.0	0.0	0.0	0.0
274	6/4/2019 13:50:07	0.0	0.0	0.1	0.0
275	6/4/2019 13:51:07	0.0	0.0	0.0	0.0
276	6/4/2019 13:52:07	0.0	0.0	0.0	0.0
277	6/4/2019 13:53:07	0.0	0.0	0.0	0.0
278	6/4/2019 13:54:07	0.0	0.0	0.0	0.0
279	6/4/2019 13:55:07	0.0	0.0	0.0	0.0
280	6/4/2019 13:56:07	0.0	0.0	0.0	0.0
281	6/4/2019 13:57:07	0.0	0.0	0.0	0.0
282	6/4/2019 13:58:07	0.0	0.0	0.0	0.0
283	6/4/2019 13:59:07	0.0	0.0	0.0	0.0

284	6/4/2019 14:00:07	0.0	0.0	0.0	0.0
285	6/4/2019 14:01:07	0.0	0.0	0.0	0.0
286	6/4/2019 14:02:07	0.0	0.0	0.0	0.0
287	6/4/2019 14:03:07	0.0	0.0	0.0	0.0
288	6/4/2019 14:04:07	0.0	0.0	0.0	0.0
289	6/4/2019 14:05:07	0.0	0.0	0.0	0.0
290	6/4/2019 14:06:07	0.0	0.0	0.0	0.0
291	6/4/2019 14:07:07	0.0	0.0	0.0	0.0
292	6/4/2019 14:08:07	0.0	0.0	0.0	0.0
293	6/4/2019 14:09:07	0.0	0.0	0.0	0.0
294	6/4/2019 14:10:07	0.0	0.0	0.0	0.0
295	6/4/2019 14:11:07	0.0	0.0	0.0	0.0
296	6/4/2019 14:12:07	0.0	0.0	0.0	0.0
297	6/4/2019 14:13:07	0.0	0.0	0.0	0.0
298	6/4/2019 14:14:07	0.0	0.0	0.0	0.0
299	6/4/2019 14:15:07	0.0	0.0	0.0	0.0
300	6/4/2019 14:16:07	0.0	0.0	0.0	0.0
301	6/4/2019 14:17:07	0.0	0.0	0.0	0.0
302	6/4/2019 14:18:07	0.0	0.0	0.0	0.0
303	6/4/2019 14:19:07	0.0	0.0	0.0	0.0
304	6/4/2019 14:20:07	0.0	0.0	0.0	0.0
305	6/4/2019 14:21:07	0.0	0.0	0.0	0.0
306	6/4/2019 14:22:07	0.0	0.0	0.0	0.0
307	6/4/2019 14:23:07	0.0	0.0	0.0	0.0
308	6/4/2019 14:24:07	0.0	0.0	0.0	0.0
309	6/4/2019 14:25:07	0.0	0.0	0.0	0.0
310	6/4/2019 14:26:07	0.0	0.0	0.0	0.0
311	6/4/2019 14:27:07	0.0	0.0	0.0	0.0
312	6/4/2019 14:28:07	0.0	0.0	0.0	0.0
313	6/4/2019 14:29:07	0.0	0.0	0.0	0.0
314	6/4/2019 14:30:07	0.0	0.0	0.0	0.0

Peak	0.0	0.0	0.5	0.5
Min	0.0	0.0	0.0	0.0
Average	0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/4/2019 09:17:07	0.0	---	
002	6/4/2019 09:18:07	0.0	---	
003	6/4/2019 09:19:07	0.0	---	
004	6/4/2019 09:20:07	0.0	---	
005	6/4/2019 09:21:07	0.0	---	
006	6/4/2019 09:22:07	0.0	---	
007	6/4/2019 09:23:07	0.0	---	
008	6/4/2019 09:24:07	0.0	---	
009	6/4/2019 09:25:07	0.0	---	
010	6/4/2019 09:26:07	0.0	---	
011	6/4/2019 09:27:07	0.0	---	
012	6/4/2019 09:28:07	0.0	---	
013	6/4/2019 09:29:07	0.0	---	
014	6/4/2019 09:30:07	0.0	---	
015	6/4/2019 09:31:07	0.0	0.0	
016	6/4/2019 09:32:07	0.0	0.0	
017	6/4/2019 09:33:07	0.0	0.0	
018	6/4/2019 09:34:07	0.0	0.0	
019	6/4/2019 09:35:07	0.0	0.0	
020	6/4/2019 09:36:07	0.0	0.0	
021	6/4/2019 09:37:07	0.0	0.0	
022	6/4/2019 09:38:07	0.0	0.0	
023	6/4/2019 09:39:07	0.0	0.0	

024	6/4/2019 09:40:07	0.0	0.0
025	6/4/2019 09:41:07	0.0	0.0
026	6/4/2019 09:42:07	0.0	0.0
027	6/4/2019 09:43:07	0.0	0.0
028	6/4/2019 09:44:07	0.0	0.0
029	6/4/2019 09:45:07	0.0	0.0
030	6/4/2019 09:46:07	0.0	0.0
031	6/4/2019 09:47:07	0.0	0.0
032	6/4/2019 09:48:07	0.0	0.0
033	6/4/2019 09:49:07	0.0	0.0
034	6/4/2019 09:50:07	0.0	0.0
035	6/4/2019 09:51:07	0.0	0.0
036	6/4/2019 09:52:07	0.0	0.0
037	6/4/2019 09:53:07	0.0	0.0
038	6/4/2019 09:54:07	0.0	0.0
039	6/4/2019 09:55:07	0.0	0.0
040	6/4/2019 09:56:07	0.0	0.0
041	6/4/2019 09:57:07	0.0	0.0
042	6/4/2019 09:58:07	0.0	0.0
043	6/4/2019 09:59:07	0.0	0.0
044	6/4/2019 10:00:07	0.0	0.0
045	6/4/2019 10:01:07	0.0	0.0
046	6/4/2019 10:02:07	0.0	0.0
047	6/4/2019 10:03:07	0.0	0.0
048	6/4/2019 10:04:07	0.0	0.0
049	6/4/2019 10:05:07	0.0	0.0
050	6/4/2019 10:06:07	0.0	0.0
051	6/4/2019 10:07:07	0.0	0.0
052	6/4/2019 10:08:07	0.0	0.0
053	6/4/2019 10:09:07	0.0	0.0
054	6/4/2019 10:10:07	0.0	0.0

055	6/4/2019 10:11:07	0.0	0.0
056	6/4/2019 10:12:07	0.0	0.0
057	6/4/2019 10:13:07	0.0	0.0
058	6/4/2019 10:14:07	0.0	0.0
059	6/4/2019 10:15:07	0.0	0.0
060	6/4/2019 10:16:07	0.0	0.0
061	6/4/2019 10:17:07	0.0	0.0
062	6/4/2019 10:18:07	0.0	0.0
063	6/4/2019 10:19:07	0.0	0.0
064	6/4/2019 10:20:07	0.0	0.0
065	6/4/2019 10:21:07	0.0	0.0
066	6/4/2019 10:22:07	0.0	0.0
067	6/4/2019 10:23:07	0.0	0.0
068	6/4/2019 10:24:07	0.0	0.0
069	6/4/2019 10:25:07	0.0	0.0
070	6/4/2019 10:26:07	0.0	0.0
071	6/4/2019 10:27:07	0.0	0.0
072	6/4/2019 10:28:07	0.0	0.0
073	6/4/2019 10:29:07	0.0	0.0
074	6/4/2019 10:30:07	0.0	0.0
075	6/4/2019 10:31:07	0.0	0.0
076	6/4/2019 10:32:07	0.0	0.0
077	6/4/2019 10:33:07	0.0	0.0
078	6/4/2019 10:34:07	0.0	0.0
079	6/4/2019 10:35:07	0.0	0.0
080	6/4/2019 10:36:07	0.0	0.0
081	6/4/2019 10:37:07	0.0	0.0
082	6/4/2019 10:38:07	0.0	0.0
083	6/4/2019 10:39:07	0.0	0.0
084	6/4/2019 10:40:07	0.0	0.0
085	6/4/2019 10:41:07	0.0	0.0

086	6/4/2019 10:42:07	0.0	0.0
087	6/4/2019 10:43:07	0.0	0.0
088	6/4/2019 10:44:07	0.0	0.0
089	6/4/2019 10:45:07	0.0	0.0
090	6/4/2019 10:46:07	0.0	0.0
091	6/4/2019 10:47:07	0.0	0.0
092	6/4/2019 10:48:07	0.0	0.0
093	6/4/2019 10:49:07	0.0	0.0
094	6/4/2019 10:50:07	0.0	0.0
095	6/4/2019 10:51:07	0.0	0.0
096	6/4/2019 10:52:07	0.0	0.0
097	6/4/2019 10:53:07	0.0	0.0
098	6/4/2019 10:54:07	0.0	0.0
099	6/4/2019 10:55:07	0.0	0.0
100	6/4/2019 10:56:07	0.0	0.0
101	6/4/2019 10:57:07	0.0	0.0
102	6/4/2019 10:58:07	0.0	0.0
103	6/4/2019 10:59:07	0.0	0.0
104	6/4/2019 11:00:07	0.0	0.0
105	6/4/2019 11:01:07	0.0	0.0
106	6/4/2019 11:02:07	0.0	0.0
107	6/4/2019 11:03:07	0.0	0.0
108	6/4/2019 11:04:07	0.0	0.0
109	6/4/2019 11:05:07	0.0	0.0
110	6/4/2019 11:06:07	0.0	0.0
111	6/4/2019 11:07:07	0.0	0.0
112	6/4/2019 11:08:07	0.0	0.0
113	6/4/2019 11:09:07	0.0	0.0
114	6/4/2019 11:10:07	0.0	0.0
115	6/4/2019 11:11:07	0.0	0.0
116	6/4/2019 11:12:07	0.0	0.0

117	6/4/2019 11:13:07	0.0	0.0
118	6/4/2019 11:14:07	0.0	0.0
119	6/4/2019 11:15:07	0.0	0.0
120	6/4/2019 11:16:07	0.0	0.0
121	6/4/2019 11:17:07	0.0	0.0
122	6/4/2019 11:18:07	0.0	0.0
123	6/4/2019 11:19:07	0.0	0.0
124	6/4/2019 11:20:07	0.0	0.0
125	6/4/2019 11:21:07	0.0	0.0
126	6/4/2019 11:22:07	0.0	0.0
127	6/4/2019 11:23:07	0.0	0.0
128	6/4/2019 11:24:07	0.0	0.0
129	6/4/2019 11:25:07	0.0	0.0
130	6/4/2019 11:26:07	0.0	0.0
131	6/4/2019 11:27:07	0.0	0.0
132	6/4/2019 11:28:07	0.0	0.0
133	6/4/2019 11:29:07	0.0	0.0
134	6/4/2019 11:30:07	0.0	0.0
135	6/4/2019 11:31:07	0.0	0.0
136	6/4/2019 11:32:07	0.0	0.0
137	6/4/2019 11:33:07	0.0	0.0
138	6/4/2019 11:34:07	0.0	0.0
139	6/4/2019 11:35:07	0.0	0.0
140	6/4/2019 11:36:07	0.0	0.0
141	6/4/2019 11:37:07	0.0	0.0
142	6/4/2019 11:38:07	0.0	0.0
143	6/4/2019 11:39:07	0.0	0.0
144	6/4/2019 11:40:07	0.0	0.0
145	6/4/2019 11:41:07	0.0	0.0
146	6/4/2019 11:42:07	0.0	0.0
147	6/4/2019 11:43:07	0.0	0.0

148	6/4/2019 11:44:07	0.0	0.0
149	6/4/2019 11:45:07	0.0	0.0
150	6/4/2019 11:46:07	0.0	0.0
151	6/4/2019 11:47:07	0.0	0.0
152	6/4/2019 11:48:07	0.0	0.0
153	6/4/2019 11:49:07	0.0	0.0
154	6/4/2019 11:50:07	0.0	0.0
155	6/4/2019 11:51:07	0.0	0.0
156	6/4/2019 11:52:07	0.0	0.0
157	6/4/2019 11:53:07	0.0	0.0
158	6/4/2019 11:54:07	0.0	0.0
159	6/4/2019 11:55:07	0.0	0.0
160	6/4/2019 11:56:07	0.0	0.0
161	6/4/2019 11:57:07	0.0	0.0
162	6/4/2019 11:58:07	0.0	0.0
163	6/4/2019 11:59:07	0.0	0.0
164	6/4/2019 12:00:07	0.0	0.0
165	6/4/2019 12:01:07	0.0	0.0
166	6/4/2019 12:02:07	0.0	0.0
167	6/4/2019 12:03:07	0.0	0.0
168	6/4/2019 12:04:07	0.0	0.0
169	6/4/2019 12:05:07	0.0	0.0
170	6/4/2019 12:06:07	0.0	0.0
171	6/4/2019 12:07:07	0.0	0.0
172	6/4/2019 12:08:07	0.0	0.0
173	6/4/2019 12:09:07	0.0	0.0
174	6/4/2019 12:10:07	0.0	0.0
175	6/4/2019 12:11:07	0.0	0.0
176	6/4/2019 12:12:07	0.0	0.0
177	6/4/2019 12:13:07	0.0	0.0
178	6/4/2019 12:14:07	0.0	0.0

179	6/4/2019 12:15:07	0.0	0.0
180	6/4/2019 12:16:07	0.0	0.0
181	6/4/2019 12:17:07	0.0	0.0
182	6/4/2019 12:18:07	0.0	0.0
183	6/4/2019 12:19:07	0.0	0.0
184	6/4/2019 12:20:07	0.0	0.0
185	6/4/2019 12:21:07	0.0	0.0
186	6/4/2019 12:22:07	0.0	0.0
187	6/4/2019 12:23:07	0.0	0.0
188	6/4/2019 12:24:07	0.0	0.0
189	6/4/2019 12:25:07	0.0	0.0
190	6/4/2019 12:26:07	0.0	0.0
191	6/4/2019 12:27:07	0.0	0.0
192	6/4/2019 12:28:07	0.0	0.0
193	6/4/2019 12:29:07	0.0	0.0
194	6/4/2019 12:30:07	0.0	0.0
195	6/4/2019 12:31:07	0.0	0.0
196	6/4/2019 12:32:07	0.0	0.0
197	6/4/2019 12:33:07	0.0	0.0
198	6/4/2019 12:34:07	0.0	0.0
199	6/4/2019 12:35:07	0.0	0.0
200	6/4/2019 12:36:07	0.0	0.0
201	6/4/2019 12:37:07	0.0	0.0
202	6/4/2019 12:38:07	0.0	0.0
203	6/4/2019 12:39:07	0.0	0.0
204	6/4/2019 12:40:07	0.0	0.0
205	6/4/2019 12:41:07	0.0	0.0
206	6/4/2019 12:42:07	0.0	0.0
207	6/4/2019 12:43:07	0.0	0.0
208	6/4/2019 12:44:07	0.0	0.0
209	6/4/2019 12:45:07	0.0	0.0

210	6/4/2019 12:46:07	0.0	0.0
211	6/4/2019 12:47:07	0.0	0.0
212	6/4/2019 12:48:07	0.0	0.0
213	6/4/2019 12:49:07	0.0	0.0
214	6/4/2019 12:50:07	0.0	0.0
215	6/4/2019 12:51:07	0.0	0.0
216	6/4/2019 12:52:07	0.0	0.0
217	6/4/2019 12:53:07	0.0	0.0
218	6/4/2019 12:54:07	0.0	0.0
219	6/4/2019 12:55:07	0.0	0.0
220	6/4/2019 12:56:07	0.0	0.0
221	6/4/2019 12:57:07	0.0	0.0
222	6/4/2019 12:58:07	0.0	0.0
223	6/4/2019 12:59:07	0.0	0.0
224	6/4/2019 13:00:07	0.0	0.0
225	6/4/2019 13:01:07	0.0	0.0
226	6/4/2019 13:02:07	0.0	0.0
227	6/4/2019 13:03:07	0.0	0.0
228	6/4/2019 13:04:07	0.0	0.0
229	6/4/2019 13:05:07	0.0	0.0
230	6/4/2019 13:06:07	0.0	0.0
231	6/4/2019 13:07:07	0.0	0.0
232	6/4/2019 13:08:07	0.0	0.0
233	6/4/2019 13:09:07	0.0	0.0
234	6/4/2019 13:10:07	0.0	0.0
235	6/4/2019 13:11:07	0.0	0.0
236	6/4/2019 13:12:07	0.0	0.0
237	6/4/2019 13:13:07	0.0	0.0
238	6/4/2019 13:14:07	0.0	0.0
239	6/4/2019 13:15:07	0.0	0.0
240	6/4/2019 13:16:07	0.0	0.0

241	6/4/2019 13:17:07	0.0	0.0
242	6/4/2019 13:18:07	0.0	0.0
243	6/4/2019 13:19:07	0.0	0.0
244	6/4/2019 13:20:07	0.0	0.0
245	6/4/2019 13:21:07	0.0	0.0
246	6/4/2019 13:22:07	0.0	0.0
247	6/4/2019 13:23:07	0.0	0.0
248	6/4/2019 13:24:07	0.0	0.0
249	6/4/2019 13:25:07	0.0	0.0
250	6/4/2019 13:26:07	0.0	0.0
251	6/4/2019 13:27:07	0.0	0.0
252	6/4/2019 13:28:07	0.0	0.0
253	6/4/2019 13:29:07	0.0	0.0
254	6/4/2019 13:30:07	0.0	0.0
255	6/4/2019 13:31:07	0.0	0.0
256	6/4/2019 13:32:07	0.0	0.0
257	6/4/2019 13:33:07	0.0	0.0
258	6/4/2019 13:34:07	0.0	0.0
259	6/4/2019 13:35:07	0.0	0.0
260	6/4/2019 13:36:07	0.0	0.0
261	6/4/2019 13:37:07	0.0	0.0
262	6/4/2019 13:38:07	0.0	0.0
263	6/4/2019 13:39:07	0.0	0.0
264	6/4/2019 13:40:07	0.0	0.0
265	6/4/2019 13:41:07	0.0	0.0
266	6/4/2019 13:42:07	0.0	0.0
267	6/4/2019 13:43:07	0.0	0.0
268	6/4/2019 13:44:07	0.0	0.0
269	6/4/2019 13:45:07	0.0	0.0
270	6/4/2019 13:46:07	0.0	0.0
271	6/4/2019 13:47:07	0.0	0.0

272	6/4/2019 13:48:07	0.0	0.0
273	6/4/2019 13:49:07	0.0	0.0
274	6/4/2019 13:50:07	0.0	0.0
275	6/4/2019 13:51:07	0.0	0.0
276	6/4/2019 13:52:07	0.0	0.0
277	6/4/2019 13:53:07	0.0	0.0
278	6/4/2019 13:54:07	0.0	0.0
279	6/4/2019 13:55:07	0.0	0.0
280	6/4/2019 13:56:07	0.0	0.0
281	6/4/2019 13:57:07	0.0	0.0
282	6/4/2019 13:58:07	0.0	0.0
283	6/4/2019 13:59:07	0.0	0.0
284	6/4/2019 14:00:07	0.0	0.0
285	6/4/2019 14:01:07	0.0	0.0
286	6/4/2019 14:02:07	0.0	0.0
287	6/4/2019 14:03:07	0.0	0.0
288	6/4/2019 14:04:07	0.0	0.0
289	6/4/2019 14:05:07	0.0	0.0
290	6/4/2019 14:06:07	0.0	0.0
291	6/4/2019 14:07:07	0.0	0.0
292	6/4/2019 14:08:07	0.0	0.0
293	6/4/2019 14:09:07	0.0	0.0
294	6/4/2019 14:10:07	0.0	0.0
295	6/4/2019 14:11:07	0.0	0.0
296	6/4/2019 14:12:07	0.0	0.0
297	6/4/2019 14:13:07	0.0	0.0
298	6/4/2019 14:14:07	0.0	0.0
299	6/4/2019 14:15:07	0.0	0.0
300	6/4/2019 14:16:07	0.0	0.0
301	6/4/2019 14:17:07	0.0	0.0
302	6/4/2019 14:18:07	0.0	0.0

303	6/4/2019 14:19:07	0.0	0.0
304	6/4/2019 14:20:07	0.0	0.0
305	6/4/2019 14:21:07	0.0	0.0
306	6/4/2019 14:22:07	0.0	0.0
307	6/4/2019 14:23:07	0.0	0.0
308	6/4/2019 14:24:07	0.0	0.0
309	6/4/2019 14:25:07	0.0	0.0
310	6/4/2019 14:26:07	0.0	0.0
311	6/4/2019 14:27:07	0.0	0.0
312	6/4/2019 14:28:07	0.0	0.0
313	6/4/2019 14:29:07	0.0	0.0
314	6/4/2019 14:30:07	0.0	0.0

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19/01/15 23:05
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	1/15/2019 23:05:40
End	1/15/2019 23:05:57
Sample Period(s)	60
Number of Records	0

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0

STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	1/15/2019 22:59

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Datalog

0 record.

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19/05/16 12:06
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	5/16/2019 12:06:33
End	5/16/2019 14:18:11
Sample Period(s)	60

Number of Records 131

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.7
Min	0.0
Average	0.2

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/16/2019	12:07:33	0.3	0.5	0.5	0.3
002	5/16/2019	12:08:33	0.3	0.4	0.6	0.5
003	5/16/2019	12:09:33	0.3	0.5	0.5	0.4
004	5/16/2019	12:10:33	0.1	0.3	0.5	0.2
005	5/16/2019	12:11:33	0.2	0.3	0.4	0.4
006	5/16/2019	12:12:33	0.3	0.4	0.5	0.3
007	5/16/2019	12:13:33	0.3	0.4	0.6	0.6
008	5/16/2019	12:14:33	0.5	0.5	0.6	0.6
009	5/16/2019	12:15:33	0.5	0.6	0.7	0.7

010	5/16/2019 12:16:33	0.5	0.5	0.7	0.6
011	5/16/2019 12:17:33	0.0	0.4	0.6	0.0
012	5/16/2019 12:18:33	0.0	0.0	0.0	0.0
013	5/16/2019 12:19:33	0.0	0.0	0.0	0.0
014	5/16/2019 12:20:33	0.0	0.0	0.0	0.0
015	5/16/2019 12:21:33	0.0	0.0	0.1	0.1
016	5/16/2019 12:22:33	0.0	0.0	0.2	0.0
017	5/16/2019 12:23:33	0.0	0.0	0.0	0.0
018	5/16/2019 12:24:33	0.0	0.0	0.1	0.0
019	5/16/2019 12:25:33	0.0	0.0	0.1	0.0
020	5/16/2019 12:26:33	0.0	0.0	0.1	0.0
021	5/16/2019 12:27:33	0.0	0.0	0.0	0.0
022	5/16/2019 12:28:33	0.0	0.0	0.0	0.0
023	5/16/2019 12:29:33	0.0	0.0	0.1	0.0
024	5/16/2019 12:30:33	0.0	0.0	0.1	0.0
025	5/16/2019 12:31:33	0.0	0.1	0.1	0.0
026	5/16/2019 12:32:33	0.0	0.0	0.0	0.0
027	5/16/2019 12:33:33	0.0	0.1	0.1	0.1
028	5/16/2019 12:34:33	0.0	0.1	0.1	0.0
029	5/16/2019 12:35:33	0.0	0.0	0.1	0.0
030	5/16/2019 12:36:33	0.0	0.1	0.1	0.1
031	5/16/2019 12:37:33	0.1	0.1	0.1	0.1
032	5/16/2019 12:38:33	0.1	0.1	0.1	0.1
033	5/16/2019 12:39:33	0.1	0.1	0.1	0.1
034	5/16/2019 12:40:33	0.1	0.1	0.1	0.1
035	5/16/2019 12:41:33	0.1	0.1	0.1	0.1
036	5/16/2019 12:42:33	0.1	0.1	0.1	0.1
037	5/16/2019 12:43:33	0.1	0.1	0.2	0.1
038	5/16/2019 12:44:33	0.1	0.1	0.2	0.2
039	5/16/2019 12:45:33	0.1	0.2	0.2	0.2
040	5/16/2019 12:46:33	0.1	0.1	0.2	0.1

041	5/16/2019	12:47:33	0.1	0.2	0.2	0.2
042	5/16/2019	12:48:33	0.2	0.2	0.2	0.2
043	5/16/2019	12:49:33	0.2	0.2	0.2	0.2
044	5/16/2019	12:50:33	0.2	0.2	0.2	0.2
045	5/16/2019	12:51:33	0.2	0.2	0.2	0.2
046	5/16/2019	12:52:33	0.2	0.2	0.2	0.2
047	5/16/2019	12:53:33	0.2	0.2	0.2	0.2
048	5/16/2019	12:54:33	0.2	0.2	0.2	0.2
049	5/16/2019	12:55:33	0.2	0.2	0.2	0.2
050	5/16/2019	12:56:33	0.2	0.2	0.2	0.2
051	5/16/2019	12:57:33	0.2	0.2	0.2	0.2
052	5/16/2019	12:58:33	0.2	0.2	0.2	0.2
053	5/16/2019	12:59:33	0.2	0.2	0.2	0.2
054	5/16/2019	13:00:33	0.2	0.2	0.2	0.2
055	5/16/2019	13:01:33	0.2	0.2	0.2	0.2
056	5/16/2019	13:02:33	0.2	0.2	0.2	0.2
057	5/16/2019	13:03:33	0.2	0.2	0.2	0.2
058	5/16/2019	13:04:33	0.2	0.2	0.2	0.2
059	5/16/2019	13:05:33	0.2	0.2	0.2	0.2
060	5/16/2019	13:06:33	0.2	0.2	0.2	0.2
061	5/16/2019	13:07:33	0.2	0.2	0.2	0.2
062	5/16/2019	13:08:33	0.2	0.2	0.2	0.2
063	5/16/2019	13:09:33	0.2	0.2	0.2	0.2
064	5/16/2019	13:10:33	0.2	0.2	0.3	0.3
065	5/16/2019	13:11:33	0.2	0.2	0.3	0.2
066	5/16/2019	13:12:33	0.2	0.2	0.3	0.2
067	5/16/2019	13:13:33	0.2	0.2	0.2	0.2
068	5/16/2019	13:14:33	0.2	0.3	0.3	0.3
069	5/16/2019	13:15:33	0.3	0.3	0.4	0.3
070	5/16/2019	13:16:33	0.2	0.3	0.3	0.2
071	5/16/2019	13:17:33	0.2	0.2	0.2	0.2

072	5/16/2019	13:18:33	0.2	0.2	0.2	0.2
073	5/16/2019	13:19:33	0.2	0.2	0.3	0.2
074	5/16/2019	13:20:33	0.2	0.2	0.2	0.2
075	5/16/2019	13:21:33	0.2	0.2	0.2	0.2
076	5/16/2019	13:22:33	0.2	0.2	0.2	0.2
077	5/16/2019	13:23:33	0.2	0.2	0.3	0.3
078	5/16/2019	13:24:33	0.3	0.3	0.3	0.3
079	5/16/2019	13:25:33	0.2	0.2	0.3	0.2
080	5/16/2019	13:26:33	0.2	0.2	0.3	0.3
081	5/16/2019	13:27:33	0.2	0.3	0.3	0.3
082	5/16/2019	13:28:33	0.2	0.2	0.3	0.2
083	5/16/2019	13:29:33	0.2	0.2	0.3	0.2
084	5/16/2019	13:30:33	0.2	0.2	0.2	0.2
085	5/16/2019	13:31:33	0.2	0.2	0.3	0.3
086	5/16/2019	13:32:33	0.3	0.3	0.3	0.3
087	5/16/2019	13:33:33	0.3	0.3	0.3	0.3
088	5/16/2019	13:34:33	0.2	0.3	0.3	0.3
089	5/16/2019	13:35:33	0.3	0.3	0.3	0.3
090	5/16/2019	13:36:33	0.2	0.3	0.3	0.3
091	5/16/2019	13:37:33	0.2	0.2	0.3	0.2
092	5/16/2019	13:38:33	0.2	0.2	0.3	0.2
093	5/16/2019	13:39:33	0.2	0.3	0.3	0.3
094	5/16/2019	13:40:33	0.3	0.3	0.3	0.3
095	5/16/2019	13:41:33	0.3	0.3	0.3	0.3
096	5/16/2019	13:42:33	0.3	0.3	0.3	0.3
097	5/16/2019	13:43:33	0.3	0.3	0.3	0.3
098	5/16/2019	13:44:33	0.3	0.3	0.3	0.3
099	5/16/2019	13:45:33	0.3	0.3	0.3	0.3
100	5/16/2019	13:46:33	0.3	0.3	0.3	0.3
101	5/16/2019	13:47:33	0.3	0.3	0.3	0.3
102	5/16/2019	13:48:33	0.3	0.3	0.3	0.3

103	5/16/2019	13:49:33	0.3	0.3	0.3	0.3
104	5/16/2019	13:50:33	0.3	0.3	0.3	0.3
105	5/16/2019	13:51:33	0.3	0.3	0.3	0.3
106	5/16/2019	13:52:33	0.3	0.3	0.3	0.3
107	5/16/2019	13:53:33	0.3	0.3	0.4	0.3
108	5/16/2019	13:54:33	0.3	0.3	0.3	0.3
109	5/16/2019	13:55:33	0.3	0.3	0.3	0.3
110	5/16/2019	13:56:33	0.3	0.3	0.3	0.3
111	5/16/2019	13:57:33	0.3	0.3	0.3	0.3
112	5/16/2019	13:58:33	0.3	0.3	0.3	0.3
113	5/16/2019	13:59:33	0.3	0.3	0.3	0.3
114	5/16/2019	14:00:33	0.3	0.3	0.3	0.3
115	5/16/2019	14:01:33	0.3	0.3	0.3	0.3
116	5/16/2019	14:02:33	0.3	0.3	0.3	0.3
117	5/16/2019	14:03:33	0.3	0.3	0.3	0.3
118	5/16/2019	14:04:33	0.3	0.3	0.3	0.3
119	5/16/2019	14:05:33	0.3	0.3	0.3	0.3
120	5/16/2019	14:06:33	0.3	0.3	0.3	0.3
121	5/16/2019	14:07:33	0.3	0.3	0.3	0.3
122	5/16/2019	14:08:33	0.3	0.3	0.3	0.3
123	5/16/2019	14:09:33	0.3	0.3	0.3	0.3
124	5/16/2019	14:10:33	0.3	0.3	0.3	0.3
125	5/16/2019	14:11:33	0.3	0.3	0.3	0.3
126	5/16/2019	14:12:33	0.3	0.3	0.3	0.3
127	5/16/2019	14:13:33	0.3	0.3	0.3	0.3
128	5/16/2019	14:14:33	0.3	0.3	0.3	0.3
129	5/16/2019	14:15:33	0.3	0.3	0.3	0.3
130	5/16/2019	14:16:33	0.3	0.3	0.3	0.3
131	5/16/2019	14:17:33	0.3	0.3	0.3	0.3
Peak		0.5	0.6	0.7	0.7	
Min		0.0	0.0	0.0	0.0	

Average		0.2	0.2	0.3	0.2

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/16/2019	12:07:33	0.0	---
002	5/16/2019	12:08:33	0.0	---
003	5/16/2019	12:09:33	0.0	---
004	5/16/2019	12:10:33	0.0	---
005	5/16/2019	12:11:33	0.0	---
006	5/16/2019	12:12:33	0.0	---
007	5/16/2019	12:13:33	0.0	---
008	5/16/2019	12:14:33	0.0	---
009	5/16/2019	12:15:33	0.0	---
010	5/16/2019	12:16:33	0.0	---
011	5/16/2019	12:17:33	0.0	---
012	5/16/2019	12:18:33	0.0	---
013	5/16/2019	12:19:33	0.0	---
014	5/16/2019	12:20:33	0.0	---
015	5/16/2019	12:21:33	0.0	0.3
016	5/16/2019	12:22:33	0.0	0.3
017	5/16/2019	12:23:33	0.0	0.3
018	5/16/2019	12:24:33	0.0	0.3
019	5/16/2019	12:25:33	0.0	0.2
020	5/16/2019	12:26:33	0.0	0.2
021	5/16/2019	12:27:33	0.0	0.2
022	5/16/2019	12:28:33	0.0	0.2
023	5/16/2019	12:29:33	0.0	0.1
024	5/16/2019	12:30:33	0.0	0.1
025	5/16/2019	12:31:33	0.0	0.0

026	5/16/2019 12:32:33	0.0	0.0
027	5/16/2019 12:33:33	0.0	0.0
028	5/16/2019 12:34:33	0.0	0.0
029	5/16/2019 12:35:33	0.0	0.0
030	5/16/2019 12:36:33	0.0	0.0
031	5/16/2019 12:37:33	0.0	0.0
032	5/16/2019 12:38:33	0.0	0.0
033	5/16/2019 12:39:33	0.0	0.0
034	5/16/2019 12:40:33	0.0	0.0
035	5/16/2019 12:41:33	0.0	0.0
036	5/16/2019 12:42:33	0.0	0.1
037	5/16/2019 12:43:33	0.0	0.1
038	5/16/2019 12:44:33	0.0	0.1
039	5/16/2019 12:45:33	0.0	0.1
040	5/16/2019 12:46:33	0.0	0.1
041	5/16/2019 12:47:33	0.0	0.1
042	5/16/2019 12:48:33	0.0	0.1
043	5/16/2019 12:49:33	0.0	0.1
044	5/16/2019 12:50:33	0.0	0.1
045	5/16/2019 12:51:33	0.0	0.2
046	5/16/2019 12:52:33	0.0	0.2
047	5/16/2019 12:53:33	0.0	0.2
048	5/16/2019 12:54:33	0.0	0.2
049	5/16/2019 12:55:33	0.0	0.2
050	5/16/2019 12:56:33	0.0	0.2
051	5/16/2019 12:57:33	0.0	0.2
052	5/16/2019 12:58:33	0.0	0.2
053	5/16/2019 12:59:33	0.0	0.2
054	5/16/2019 13:00:33	0.0	0.2
055	5/16/2019 13:01:33	0.0	0.2
056	5/16/2019 13:02:33	0.0	0.2

057	5/16/2019 13:03:33	0.0	0.2
058	5/16/2019 13:04:33	0.0	0.2
059	5/16/2019 13:05:33	0.0	0.2
060	5/16/2019 13:06:33	0.0	0.2
061	5/16/2019 13:07:33	0.0	0.2
062	5/16/2019 13:08:33	0.0	0.2
063	5/16/2019 13:09:33	0.0	0.2
064	5/16/2019 13:10:33	0.0	0.2
065	5/16/2019 13:11:33	0.0	0.2
066	5/16/2019 13:12:33	0.0	0.2
067	5/16/2019 13:13:33	0.0	0.2
068	5/16/2019 13:14:33	0.0	0.2
069	5/16/2019 13:15:33	0.0	0.2
070	5/16/2019 13:16:33	0.0	0.2
071	5/16/2019 13:17:33	0.0	0.2
072	5/16/2019 13:18:33	0.0	0.2
073	5/16/2019 13:19:33	0.0	0.2
074	5/16/2019 13:20:33	0.0	0.2
075	5/16/2019 13:21:33	0.0	0.2
076	5/16/2019 13:22:33	0.0	0.2
077	5/16/2019 13:23:33	0.0	0.2
078	5/16/2019 13:24:33	0.0	0.2
079	5/16/2019 13:25:33	0.0	0.2
080	5/16/2019 13:26:33	0.0	0.2
081	5/16/2019 13:27:33	0.0	0.3
082	5/16/2019 13:28:33	0.0	0.3
083	5/16/2019 13:29:33	0.0	0.3
084	5/16/2019 13:30:33	0.0	0.2
085	5/16/2019 13:31:33	0.0	0.2
086	5/16/2019 13:32:33	0.0	0.3
087	5/16/2019 13:33:33	0.0	0.3

088	5/16/2019 13:34:33	0.0	0.3
089	5/16/2019 13:35:33	0.0	0.3
090	5/16/2019 13:36:33	0.0	0.3
091	5/16/2019 13:37:33	0.0	0.3
092	5/16/2019 13:38:33	0.0	0.3
093	5/16/2019 13:39:33	0.0	0.3
094	5/16/2019 13:40:33	0.0	0.3
095	5/16/2019 13:41:33	0.0	0.3
096	5/16/2019 13:42:33	0.0	0.3
097	5/16/2019 13:43:33	0.0	0.3
098	5/16/2019 13:44:33	0.0	0.3
099	5/16/2019 13:45:33	0.0	0.3
100	5/16/2019 13:46:33	0.0	0.3
101	5/16/2019 13:47:33	0.0	0.3
102	5/16/2019 13:48:33	0.0	0.3
103	5/16/2019 13:49:33	0.0	0.3
104	5/16/2019 13:50:33	0.0	0.3
105	5/16/2019 13:51:33	0.0	0.3
106	5/16/2019 13:52:33	0.0	0.3
107	5/16/2019 13:53:33	0.0	0.3
108	5/16/2019 13:54:33	0.0	0.3
109	5/16/2019 13:55:33	0.0	0.3
110	5/16/2019 13:56:33	0.0	0.3
111	5/16/2019 13:57:33	0.0	0.3
112	5/16/2019 13:58:33	0.0	0.3
113	5/16/2019 13:59:33	0.1	0.3
114	5/16/2019 14:00:33	0.1	0.3
115	5/16/2019 14:01:33	0.1	0.3
116	5/16/2019 14:02:33	0.1	0.3
117	5/16/2019 14:03:33	0.1	0.3
118	5/16/2019 14:04:33	0.1	0.3

119	5/16/2019 14:05:33	0.1	0.3
120	5/16/2019 14:06:33	0.1	0.3
121	5/16/2019 14:07:33	0.1	0.3
122	5/16/2019 14:08:33	0.1	0.3
123	5/16/2019 14:09:33	0.1	0.3
124	5/16/2019 14:10:33	0.1	0.3
125	5/16/2019 14:11:33	0.1	0.3
126	5/16/2019 14:12:33	0.1	0.3
127	5/16/2019 14:13:33	0.1	0.3
128	5/16/2019 14:14:33	0.1	0.3
129	5/16/2019 14:15:33	0.1	0.3
130	5/16/2019 14:16:33	0.1	0.3
131	5/16/2019 14:17:33	0.1	0.3

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19/05/17 09:11
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	5/17/2019 09:11:51
End	5/17/2019 15:38:32
Sample Period(s)	60
Number of Records	386

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	1.5
Min	0.0
Average	0.4

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/17/2019	09:12:51	0.0	0.1	0.1	0.0
002	5/17/2019	09:13:51	0.0	0.0	0.0	0.0
003	5/17/2019	09:14:51	0.0	0.0	0.0	0.0
004	5/17/2019	09:15:51	0.0	0.0	0.0	0.0
005	5/17/2019	09:16:51	0.0	0.0	0.0	0.0
006	5/17/2019	09:17:51	0.0	0.0	0.0	0.0

007	5/17/2019 09:18:51	0.0	0.0	0.0	0.0
008	5/17/2019 09:19:51	0.0	0.0	0.0	0.0
009	5/17/2019 09:20:51	0.0	0.0	0.0	0.0
010	5/17/2019 09:21:51	0.0	0.0	0.0	0.0
011	5/17/2019 09:22:51	0.0	0.0	0.0	0.0
012	5/17/2019 09:23:51	0.0	0.0	0.0	0.0
013	5/17/2019 09:24:51	0.0	0.0	0.0	0.0
014	5/17/2019 09:25:51	0.0	0.0	0.0	0.0
015	5/17/2019 09:26:51	0.0	0.0	0.0	0.0
016	5/17/2019 09:27:51	0.0	0.0	0.0	0.0
017	5/17/2019 09:28:51	0.0	0.0	0.0	0.0
018	5/17/2019 09:29:51	0.0	0.0	0.0	0.0
019	5/17/2019 09:30:51	0.0	0.0	0.1	0.0
020	5/17/2019 09:31:51	0.0	0.1	0.1	0.1
021	5/17/2019 09:32:51	0.1	0.1	0.1	0.1
022	5/17/2019 09:33:51	0.1	0.1	0.1	0.1
023	5/17/2019 09:34:51	0.1	0.1	0.1	0.1
024	5/17/2019 09:35:51	0.1	0.1	0.1	0.1
025	5/17/2019 09:36:51	0.1	0.1	0.1	0.1
026	5/17/2019 09:37:51	0.1	0.1	0.1	0.1
027	5/17/2019 09:38:51	0.1	0.1	0.1	0.1
028	5/17/2019 09:39:51	0.1	0.1	0.1	0.1
029	5/17/2019 09:40:51	0.1	0.1	0.1	0.1
030	5/17/2019 09:41:51	0.1	0.1	0.2	0.2
031	5/17/2019 09:42:51	0.2	0.2	0.2	0.2
032	5/17/2019 09:43:51	0.2	0.2	0.2	0.2
033	5/17/2019 09:44:51	0.2	0.2	0.2	0.2
034	5/17/2019 09:45:51	0.2	0.2	0.2	0.2
035	5/17/2019 09:46:51	0.2	0.2	0.2	0.2
036	5/17/2019 09:47:51	0.2	0.2	0.2	0.2
037	5/17/2019 09:48:51	0.2	0.2	0.2	0.2

038	5/17/2019 09:49:51	0.2	0.2	0.2	0.2
039	5/17/2019 09:50:51	0.2	0.2	0.2	0.2
040	5/17/2019 09:51:51	0.2	0.2	0.2	0.2
041	5/17/2019 09:52:51	0.2	0.2	0.2	0.2
042	5/17/2019 09:53:51	0.2	0.3	0.3	0.3
043	5/17/2019 09:54:51	0.3	0.3	0.3	0.3
044	5/17/2019 09:55:51	0.3	0.3	0.3	0.3
045	5/17/2019 09:56:51	0.3	0.3	0.3	0.3
046	5/17/2019 09:57:51	0.3	0.3	0.3	0.3
047	5/17/2019 09:58:51	0.3	0.3	0.3	0.3
048	5/17/2019 09:59:51	0.3	0.3	0.3	0.3
049	5/17/2019 10:00:51	0.3	0.3	0.3	0.3
050	5/17/2019 10:01:51	0.3	0.3	0.3	0.3
051	5/17/2019 10:02:51	0.3	0.3	0.3	0.3
052	5/17/2019 10:03:51	0.3	0.3	0.3	0.3
053	5/17/2019 10:04:51	0.3	0.3	0.3	0.3
054	5/17/2019 10:05:51	0.3	0.3	0.3	0.3
055	5/17/2019 10:06:51	0.3	0.3	0.3	0.3
056	5/17/2019 10:07:51	0.3	0.3	0.3	0.3
057	5/17/2019 10:08:51	0.3	0.3	0.3	0.3
058	5/17/2019 10:09:51	0.3	0.3	0.3	0.3
059	5/17/2019 10:10:51	0.3	0.3	0.3	0.3
060	5/17/2019 10:11:51	0.3	0.3	0.3	0.3
061	5/17/2019 10:12:51	0.3	0.3	0.3	0.3
062	5/17/2019 10:13:51	0.3	0.3	0.3	0.3
063	5/17/2019 10:14:51	0.3	0.3	0.3	0.3
064	5/17/2019 10:15:51	0.3	0.3	0.3	0.3
065	5/17/2019 10:16:51	0.3	0.3	0.3	0.3
066	5/17/2019 10:17:51	0.3	0.3	0.3	0.3
067	5/17/2019 10:18:51	0.3	0.3	0.3	0.3
068	5/17/2019 10:19:51	0.3	0.3	0.3	0.3

069	5/17/2019 10:20:51	0.3	0.3	0.3	0.3
070	5/17/2019 10:21:51	0.3	0.3	0.3	0.3
071	5/17/2019 10:22:51	0.3	0.3	0.3	0.3
072	5/17/2019 10:23:51	0.3	0.3	0.3	0.3
073	5/17/2019 10:24:51	0.3	0.3	0.4	0.3
074	5/17/2019 10:25:51	0.3	0.4	0.4	0.4
075	5/17/2019 10:26:51	0.3	0.4	0.4	0.4
076	5/17/2019 10:27:51	0.3	0.4	0.4	0.4
077	5/17/2019 10:28:51	0.4	0.4	0.4	0.4
078	5/17/2019 10:29:51	0.4	0.4	0.4	0.4
079	5/17/2019 10:30:51	0.4	0.4	0.4	0.4
080	5/17/2019 10:31:51	0.4	0.4	0.4	0.4
081	5/17/2019 10:32:51	0.4	0.4	0.4	0.4
082	5/17/2019 10:33:51	0.4	0.4	0.4	0.4
083	5/17/2019 10:34:51	0.4	0.4	0.4	0.4
084	5/17/2019 10:35:51	0.4	0.4	0.4	0.4
085	5/17/2019 10:36:51	0.4	0.4	0.4	0.4
086	5/17/2019 10:37:51	0.4	0.4	0.4	0.4
087	5/17/2019 10:38:51	0.4	0.4	0.4	0.4
088	5/17/2019 10:39:51	0.4	0.4	0.4	0.4
089	5/17/2019 10:40:51	0.4	0.4	0.4	0.4
090	5/17/2019 10:41:51	0.4	0.4	0.4	0.4
091	5/17/2019 10:42:51	0.4	0.4	0.4	0.4
092	5/17/2019 10:43:51	0.4	0.4	0.4	0.4
093	5/17/2019 10:44:51	0.4	0.4	0.4	0.4
094	5/17/2019 10:45:51	0.4	0.4	0.4	0.4
095	5/17/2019 10:46:51	0.4	0.4	0.4	0.4
096	5/17/2019 10:47:51	0.4	0.4	0.4	0.4
097	5/17/2019 10:48:51	0.4	0.4	0.4	0.4
098	5/17/2019 10:49:51	0.4	0.4	0.4	0.4
099	5/17/2019 10:50:51	0.4	0.4	0.4	0.4

100	5/17/2019 10:51:51	0.4	0.4	0.4	0.4
101	5/17/2019 10:52:51	0.4	0.4	0.4	0.4
102	5/17/2019 10:53:51	0.4	0.4	0.4	0.4
103	5/17/2019 10:54:51	0.4	0.4	0.4	0.4
104	5/17/2019 10:55:51	0.4	0.4	0.4	0.4
105	5/17/2019 10:56:51	0.4	0.4	0.4	0.4
106	5/17/2019 10:57:51	0.4	0.4	0.4	0.4
107	5/17/2019 10:58:51	0.4	0.4	0.4	0.4
108	5/17/2019 10:59:51	0.4	0.4	0.4	0.4
109	5/17/2019 11:00:51	0.4	0.4	0.4	0.4
110	5/17/2019 11:01:51	0.4	0.4	0.4	0.4
111	5/17/2019 11:02:51	0.4	0.4	0.4	0.4
112	5/17/2019 11:03:51	0.4	0.4	0.4	0.4
113	5/17/2019 11:04:51	0.4	0.4	0.4	0.4
114	5/17/2019 11:05:51	0.4	0.4	0.4	0.4
115	5/17/2019 11:06:51	0.4	0.4	0.4	0.4
116	5/17/2019 11:07:51	0.4	0.4	0.4	0.4
117	5/17/2019 11:08:51	0.4	0.4	0.4	0.4
118	5/17/2019 11:09:51	0.3	0.3	0.4	0.3
119	5/17/2019 11:10:51	0.3	0.3	0.4	0.4
120	5/17/2019 11:11:51	0.3	0.4	0.4	0.4
121	5/17/2019 11:12:51	0.4	0.4	0.4	0.4
122	5/17/2019 11:13:51	0.4	0.4	0.4	0.4
123	5/17/2019 11:14:51	0.3	0.4	0.4	0.3
124	5/17/2019 11:15:51	0.3	0.4	0.4	0.4
125	5/17/2019 11:16:51	0.4	0.4	0.4	0.4
126	5/17/2019 11:17:51	0.4	0.4	0.4	0.4
127	5/17/2019 11:18:51	0.4	0.4	0.4	0.4
128	5/17/2019 11:19:51	0.4	0.4	0.4	0.4
129	5/17/2019 11:20:51	0.4	0.4	0.4	0.4
130	5/17/2019 11:21:51	0.4	0.4	0.4	0.4

131	5/17/2019 11:22:51	0.4	0.4	0.4	0.4
132	5/17/2019 11:23:51	0.4	0.4	0.4	0.4
133	5/17/2019 11:24:51	0.4	0.4	0.4	0.4
134	5/17/2019 11:25:51	0.4	0.4	0.4	0.4
135	5/17/2019 11:26:51	0.4	0.4	0.4	0.4
136	5/17/2019 11:27:51	0.4	0.4	0.4	0.4
137	5/17/2019 11:28:51	0.4	0.4	0.4	0.4
138	5/17/2019 11:29:51	0.4	0.4	0.4	0.4
139	5/17/2019 11:30:51	0.4	0.4	0.4	0.4
140	5/17/2019 11:31:51	0.4	0.4	0.4	0.4
141	5/17/2019 11:32:51	0.4	0.4	0.4	0.4
142	5/17/2019 11:33:51	0.4	0.4	0.4	0.4
143	5/17/2019 11:34:51	0.4	0.4	0.4	0.4
144	5/17/2019 11:35:51	0.4	0.4	0.4	0.4
145	5/17/2019 11:36:51	0.4	0.4	0.4	0.4
146	5/17/2019 11:37:51	0.4	0.4	0.4	0.4
147	5/17/2019 11:38:51	0.4	0.4	0.4	0.4
148	5/17/2019 11:39:51	0.4	0.4	0.4	0.4
149	5/17/2019 11:40:51	0.4	0.4	0.4	0.4
150	5/17/2019 11:41:51	0.4	0.4	0.4	0.4
151	5/17/2019 11:42:51	0.4	0.4	0.4	0.4
152	5/17/2019 11:43:51	0.4	0.4	0.4	0.4
153	5/17/2019 11:44:51	0.4	0.4	0.4	0.4
154	5/17/2019 11:45:51	0.4	0.4	0.4	0.4
155	5/17/2019 11:46:51	0.4	0.4	0.4	0.4
156	5/17/2019 11:47:51	0.4	0.4	0.4	0.4
157	5/17/2019 11:48:51	0.4	0.4	0.4	0.4
158	5/17/2019 11:49:51	0.4	0.4	0.4	0.4
159	5/17/2019 11:50:51	0.4	0.4	0.4	0.4
160	5/17/2019 11:51:51	0.4	0.4	0.4	0.4
161	5/17/2019 11:52:51	0.4	0.4	0.4	0.4

162	5/17/2019 11:53:51	0.4	0.4	0.4	0.4
163	5/17/2019 11:54:51	0.4	0.4	0.4	0.4
164	5/17/2019 11:55:51	0.4	0.4	0.4	0.4
165	5/17/2019 11:56:51	0.4	0.4	0.4	0.4
166	5/17/2019 11:57:51	0.4	0.4	0.4	0.4
167	5/17/2019 11:58:51	0.4	0.4	0.4	0.4
168	5/17/2019 11:59:51	0.4	0.4	0.4	0.4
169	5/17/2019 12:00:51	0.4	0.4	0.4	0.4
170	5/17/2019 12:01:51	0.4	0.4	0.4	0.4
171	5/17/2019 12:02:51	0.4	0.4	0.4	0.4
172	5/17/2019 12:03:51	0.4	0.4	0.4	0.4
173	5/17/2019 12:04:51	0.4	0.4	0.4	0.4
174	5/17/2019 12:05:51	0.4	0.4	0.4	0.4
175	5/17/2019 12:06:51	0.4	0.4	0.4	0.4
176	5/17/2019 12:07:51	0.4	0.4	0.4	0.4
177	5/17/2019 12:08:51	0.4	0.4	0.4	0.4
178	5/17/2019 12:09:51	0.4	0.4	0.4	0.4
179	5/17/2019 12:10:51	0.4	0.4	0.4	0.4
180	5/17/2019 12:11:51	0.4	0.4	0.4	0.4
181	5/17/2019 12:12:51	0.4	0.4	0.4	0.4
182	5/17/2019 12:13:51	0.4	0.4	0.4	0.4
183	5/17/2019 12:14:51	0.4	0.4	0.4	0.4
184	5/17/2019 12:15:51	0.4	0.4	0.4	0.4
185	5/17/2019 12:16:51	0.3	0.4	0.4	0.3
186	5/17/2019 12:17:51	0.3	0.3	0.4	0.3
187	5/17/2019 12:18:51	0.3	0.3	0.3	0.3
188	5/17/2019 12:19:51	0.3	0.3	0.3	0.3
189	5/17/2019 12:20:51	0.3	0.3	0.3	0.3
190	5/17/2019 12:21:51	0.3	0.3	0.3	0.3
191	5/17/2019 12:22:51	0.3	0.3	0.3	0.3
192	5/17/2019 12:23:51	0.3	0.3	0.3	0.3

193	5/17/2019 12:24:51	0.3	0.3	0.3	0.3
194	5/17/2019 12:25:51	0.3	0.3	0.3	0.3
195	5/17/2019 12:26:51	0.3	0.3	0.3	0.3
196	5/17/2019 12:27:51	0.3	0.3	0.3	0.3
197	5/17/2019 12:28:51	0.3	0.3	0.3	0.3
198	5/17/2019 12:29:51	0.3	0.3	0.3	0.3
199	5/17/2019 12:30:51	0.3	0.3	0.3	0.3
200	5/17/2019 12:31:51	0.3	0.3	0.3	0.3
201	5/17/2019 12:32:51	0.3	0.3	0.3	0.3
202	5/17/2019 12:33:51	0.3	0.3	0.3	0.3
203	5/17/2019 12:34:51	0.3	0.3	0.3	0.3
204	5/17/2019 12:35:51	0.3	0.3	0.3	0.3
205	5/17/2019 12:36:51	0.3	0.3	0.3	0.3
206	5/17/2019 12:37:51	0.3	0.3	0.3	0.3
207	5/17/2019 12:38:51	0.2	0.3	0.3	0.2
208	5/17/2019 12:39:51	0.2	0.2	0.2	0.2
209	5/17/2019 12:40:51	0.2	0.2	0.2	0.2
210	5/17/2019 12:41:51	0.2	0.2	0.2	0.2
211	5/17/2019 12:42:51	0.2	0.2	0.2	0.2
212	5/17/2019 12:43:51	0.2	0.2	0.2	0.2
213	5/17/2019 12:44:51	0.2	0.2	0.2	0.2
214	5/17/2019 12:45:51	0.2	0.2	0.2	0.2
215	5/17/2019 12:46:51	0.2	0.2	0.2	0.2
216	5/17/2019 12:47:51	0.2	0.2	0.2	0.2
217	5/17/2019 12:48:51	0.2	0.2	0.2	0.2
218	5/17/2019 12:49:51	0.2	0.2	0.3	0.2
219	5/17/2019 12:50:51	0.2	0.2	0.2	0.2
220	5/17/2019 12:51:51	0.2	0.2	0.2	0.2
221	5/17/2019 12:52:51	0.2	0.2	0.2	0.2
222	5/17/2019 12:53:51	0.2	0.2	0.2	0.2
223	5/17/2019 12:54:51	0.2	0.2	0.2	0.2

224	5/17/2019 12:55:51	0.2	0.2	0.2	0.2
225	5/17/2019 12:56:51	0.2	0.2	0.2	0.2
226	5/17/2019 12:57:51	0.2	0.2	0.2	0.2
227	5/17/2019 12:58:51	0.2	0.2	0.2	0.2
228	5/17/2019 12:59:51	0.2	0.2	0.2	0.2
229	5/17/2019 13:00:51	0.2	0.2	0.2	0.2
230	5/17/2019 13:01:51	0.2	0.2	0.2	0.2
231	5/17/2019 13:02:51	0.2	0.2	0.2	0.2
232	5/17/2019 13:03:51	0.2	0.2	0.2	0.2
233	5/17/2019 13:04:51	0.2	0.2	0.2	0.2
234	5/17/2019 13:05:51	0.2	0.2	0.2	0.2
235	5/17/2019 13:06:51	0.2	0.2	0.2	0.2
236	5/17/2019 13:07:51	0.2	0.2	0.2	0.2
237	5/17/2019 13:08:51	0.2	0.2	0.2	0.2
238	5/17/2019 13:09:51	0.1	0.1	0.2	0.1
239	5/17/2019 13:10:51	0.1	0.2	0.3	0.2
240	5/17/2019 13:11:51	0.1	0.1	0.2	0.1
241	5/17/2019 13:12:51	0.1	0.1	0.2	0.1
242	5/17/2019 13:13:51	0.1	0.1	0.1	0.1
243	5/17/2019 13:14:51	0.1	0.1	0.1	0.1
244	5/17/2019 13:15:51	0.1	0.1	0.1	0.1
245	5/17/2019 13:16:51	0.1	0.1	0.2	0.1
246	5/17/2019 13:17:51	0.1	0.2	0.2	0.2
247	5/17/2019 13:18:51	0.1	0.2	0.2	0.2
248	5/17/2019 13:19:51	0.1	0.2	0.2	0.2
249	5/17/2019 13:20:51	0.2	0.3	0.3	0.3
250	5/17/2019 13:21:51	0.2	0.2	0.3	0.2
251	5/17/2019 13:22:51	0.2	0.2	0.2	0.2
252	5/17/2019 13:23:51	0.2	0.2	0.3	0.3
253	5/17/2019 13:24:51	0.3	0.3	0.3	0.3
254	5/17/2019 13:25:51	0.3	0.3	0.3	0.3

255	5/17/2019 13:26:51	0.3	0.3	0.3	0.3
256	5/17/2019 13:27:51	0.2	0.3	0.3	0.2
257	5/17/2019 13:28:51	0.2	0.2	0.3	0.3
258	5/17/2019 13:29:51	0.3	0.3	0.3	0.3
259	5/17/2019 13:30:51	0.3	0.9	1.4	1.1
260	5/17/2019 13:31:51	0.8	1.0	1.1	1.0
261	5/17/2019 13:32:51	0.5	0.8	1.0	0.6
262	5/17/2019 13:33:51	0.5	0.6	0.6	0.6
263	5/17/2019 13:34:51	0.4	0.5	0.6	0.4
264	5/17/2019 13:35:51	0.4	0.4	0.4	0.4
265	5/17/2019 13:36:51	0.4	0.4	0.4	0.4
266	5/17/2019 13:37:51	0.4	0.4	0.4	0.4
267	5/17/2019 13:38:51	0.4	0.4	0.4	0.4
268	5/17/2019 13:39:51	0.4	0.4	0.4	0.4
269	5/17/2019 13:40:51	0.4	0.4	0.4	0.4
270	5/17/2019 13:41:51	0.4	0.4	0.5	0.5
271	5/17/2019 13:42:51	0.3	0.4	0.5	0.3
272	5/17/2019 13:43:51	0.3	0.3	0.3	0.3
273	5/17/2019 13:44:51	0.3	0.5	1.0	1.0
274	5/17/2019 13:45:51	0.7	1.0	1.2	0.7
275	5/17/2019 13:46:51	0.7	1.0	1.2	1.1
276	5/17/2019 13:47:51	1.1	1.3	1.6	1.5
277	5/17/2019 13:48:51	1.4	1.7	2.2	1.5
278	5/17/2019 13:49:51	0.6	0.9	1.5	0.7
279	5/17/2019 13:50:51	0.4	0.5	0.7	0.5
280	5/17/2019 13:51:51	0.5	0.5	0.7	0.7
281	5/17/2019 13:52:51	0.6	0.7	0.8	0.6
282	5/17/2019 13:53:51	0.6	0.8	1.0	0.6
283	5/17/2019 13:54:51	0.5	0.7	1.0	0.6
284	5/17/2019 13:55:51	0.6	0.9	1.1	1.1
285	5/17/2019 13:56:51	0.9	1.2	1.5	1.1

286	5/17/2019 13:57:51	0.9	1.1	1.5	1.0
287	5/17/2019 13:58:51	0.8	0.9	1.0	0.8
288	5/17/2019 13:59:51	0.6	0.8	1.0	0.7
289	5/17/2019 14:00:51	0.6	0.9	1.2	0.7
290	5/17/2019 14:01:51	0.7	0.8	0.9	0.9
291	5/17/2019 14:02:51	0.4	0.6	0.9	0.5
292	5/17/2019 14:03:51	0.5	0.6	0.8	0.8
293	5/17/2019 14:04:51	0.8	0.9	1.0	0.9
294	5/17/2019 14:05:51	0.6	0.9	1.2	0.7
295	5/17/2019 14:06:51	0.6	1.0	1.1	0.8
296	5/17/2019 14:07:51	0.7	0.8	1.0	1.0
297	5/17/2019 14:08:51	0.6	0.7	1.0	0.9
298	5/17/2019 14:09:51	0.7	0.9	1.1	0.7
299	5/17/2019 14:10:51	0.5	0.6	0.8	0.7
300	5/17/2019 14:11:51	0.7	0.8	0.9	0.9
301	5/17/2019 14:12:51	0.5	0.7	1.0	0.7
302	5/17/2019 14:13:51	0.6	0.9	1.1	0.8
303	5/17/2019 14:14:51	0.7	0.8	1.0	0.9
304	5/17/2019 14:15:51	0.9	1.1	1.3	1.1
305	5/17/2019 14:16:51	0.5	0.6	1.0	0.5
306	5/17/2019 14:17:51	0.5	0.8	1.1	1.1
307	5/17/2019 14:18:51	0.6	0.9	1.1	0.6
308	5/17/2019 14:19:51	0.4	0.5	0.7	0.4
309	5/17/2019 14:20:51	0.4	0.4	0.6	0.6
310	5/17/2019 14:21:51	0.3	0.6	0.9	0.3
311	5/17/2019 14:22:51	0.4	0.4	0.5	0.5
312	5/17/2019 14:23:51	0.5	0.7	0.8	0.8
313	5/17/2019 14:24:51	0.5	0.6	0.8	0.5
314	5/17/2019 14:25:51	0.5	0.8	1.0	0.9
315	5/17/2019 14:26:51	0.9	0.9	0.9	0.9
316	5/17/2019 14:27:51	0.5	0.7	0.9	0.5

317	5/17/2019 14:28:51	0.5	0.6	0.8	0.8
318	5/17/2019 14:29:51	0.5	0.7	0.8	0.7
319	5/17/2019 14:30:51	0.7	0.8	0.9	0.7
320	5/17/2019 14:31:51	0.6	0.8	0.9	0.9
321	5/17/2019 14:32:51	0.5	0.6	0.9	0.5
322	5/17/2019 14:33:51	0.4	0.5	0.6	0.4
323	5/17/2019 14:34:51	0.4	0.7	0.9	0.9
324	5/17/2019 14:35:51	0.8	0.8	0.9	0.8
325	5/17/2019 14:36:51	0.8	0.8	0.8	0.8
326	5/17/2019 14:37:51	0.8	0.9	0.9	0.9
327	5/17/2019 14:38:51	0.5	0.7	0.9	0.6
328	5/17/2019 14:39:51	0.6	0.6	0.7	0.6
329	5/17/2019 14:40:51	0.6	0.7	0.7	0.7
330	5/17/2019 14:41:51	0.7	0.8	0.8	0.7
331	5/17/2019 14:42:51	0.7	0.8	0.8	0.8
332	5/17/2019 14:43:51	0.8	0.8	0.8	0.8
333	5/17/2019 14:44:51	0.7	0.7	0.8	0.7
334	5/17/2019 14:45:51	0.4	0.6	0.7	0.5
335	5/17/2019 14:46:51	0.4	0.6	0.7	0.7
336	5/17/2019 14:47:51	0.5	0.6	0.7	0.6
337	5/17/2019 14:48:51	0.4	0.5	0.6	0.5
338	5/17/2019 14:49:51	0.4	0.4	0.5	0.4
339	5/17/2019 14:50:51	0.4	0.5	0.5	0.4
340	5/17/2019 14:51:51	0.3	0.4	0.5	0.3
341	5/17/2019 14:52:51	0.3	0.4	0.5	0.4
342	5/17/2019 14:53:51	0.4	0.4	0.5	0.4
343	5/17/2019 14:54:51	0.4	0.5	0.5	0.5
344	5/17/2019 14:55:51	0.5	0.5	0.6	0.5
345	5/17/2019 14:56:51	0.4	0.5	0.6	0.5
346	5/17/2019 14:57:51	0.4	0.5	0.6	0.5
347	5/17/2019 14:58:51	0.4	0.4	0.5	0.4

348	5/17/2019 14:59:51	0.4	0.4	0.5	0.4
349	5/17/2019 15:00:51	0.4	0.4	0.4	0.4
350	5/17/2019 15:01:51	0.4	0.5	0.5	0.4
351	5/17/2019 15:02:51	0.4	0.5	0.5	0.5
352	5/17/2019 15:03:51	0.5	0.5	0.5	0.5
353	5/17/2019 15:04:51	0.5	0.5	0.5	0.5
354	5/17/2019 15:05:51	0.5	0.5	0.6	0.6
355	5/17/2019 15:06:51	0.4	0.5	0.6	0.5
356	5/17/2019 15:07:51	0.4	0.5	0.6	0.4
357	5/17/2019 15:08:51	0.4	0.4	0.5	0.4
358	5/17/2019 15:09:51	0.4	0.5	0.6	0.6
359	5/17/2019 15:10:51	0.5	0.6	0.6	0.6
360	5/17/2019 15:11:51	0.4	0.5	0.6	0.5
361	5/17/2019 15:12:51	0.5	0.5	0.6	0.5
362	5/17/2019 15:13:51	0.5	0.5	0.6	0.5
363	5/17/2019 15:14:51	0.5	0.5	0.5	0.5
364	5/17/2019 15:15:51	0.5	0.5	0.5	0.5
365	5/17/2019 15:16:51	0.4	0.5	0.5	0.5
366	5/17/2019 15:17:51	0.5	0.5	0.6	0.5
367	5/17/2019 15:18:51	0.4	0.5	0.5	0.4
368	5/17/2019 15:19:51	0.3	0.4	0.5	0.4
369	5/17/2019 15:20:51	0.3	0.4	0.4	0.4
370	5/17/2019 15:21:51	0.3	0.4	0.4	0.4
371	5/17/2019 15:22:51	0.3	0.4	0.4	0.4
372	5/17/2019 15:23:51	0.4	0.4	0.4	0.4
373	5/17/2019 15:24:51	0.3	0.3	0.4	0.4
374	5/17/2019 15:25:51	0.4	0.4	0.4	0.4
375	5/17/2019 15:26:51	0.3	0.4	0.4	0.4
376	5/17/2019 15:27:51	0.3	0.4	0.4	0.4
377	5/17/2019 15:28:51	0.4	0.5	0.9	0.9
378	5/17/2019 15:29:51	0.5	0.7	1.0	0.5

379	5/17/2019	15:30:51	0.5	0.6	0.6	0.6
380	5/17/2019	15:31:51	0.4	0.5	0.6	0.4
381	5/17/2019	15:32:51	0.5	0.6	0.8	0.7
382	5/17/2019	15:33:51	0.7	0.9	1.0	0.9
383	5/17/2019	15:34:51	0.8	0.9	1.0	0.8
384	5/17/2019	15:35:51	0.8	0.9	1.0	0.9
385	5/17/2019	15:36:51	0.7	0.8	0.9	0.9
386	5/17/2019	15:37:51	0.7	0.8	0.9	0.8
Peak			1.4	1.7	2.2	1.5
Min			0.0	0.0	0.0	0.0
Average			0.4	0.4	0.5	0.4

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/17/2019	09:12:51	0.0	---	
002	5/17/2019	09:13:51	0.0	---	
003	5/17/2019	09:14:51	0.0	---	
004	5/17/2019	09:15:51	0.0	---	
005	5/17/2019	09:16:51	0.0	---	
006	5/17/2019	09:17:51	0.0	---	
007	5/17/2019	09:18:51	0.0	---	
008	5/17/2019	09:19:51	0.0	---	
009	5/17/2019	09:20:51	0.0	---	
010	5/17/2019	09:21:51	0.0	---	
011	5/17/2019	09:22:51	0.0	---	
012	5/17/2019	09:23:51	0.0	---	
013	5/17/2019	09:24:51	0.0	---	
014	5/17/2019	09:25:51	0.0	---	
015	5/17/2019	09:26:51	0.0	0.0	

016	5/17/2019 09:27:51	0.0	0.0
017	5/17/2019 09:28:51	0.0	0.0
018	5/17/2019 09:29:51	0.0	0.0
019	5/17/2019 09:30:51	0.0	0.0
020	5/17/2019 09:31:51	0.0	0.0
021	5/17/2019 09:32:51	0.0	0.0
022	5/17/2019 09:33:51	0.0	0.0
023	5/17/2019 09:34:51	0.0	0.0
024	5/17/2019 09:35:51	0.0	0.0
025	5/17/2019 09:36:51	0.0	0.0
026	5/17/2019 09:37:51	0.0	0.0
027	5/17/2019 09:38:51	0.0	0.1
028	5/17/2019 09:39:51	0.0	0.1
029	5/17/2019 09:40:51	0.0	0.1
030	5/17/2019 09:41:51	0.0	0.1
031	5/17/2019 09:42:51	0.0	0.1
032	5/17/2019 09:43:51	0.0	0.1
033	5/17/2019 09:44:51	0.0	0.1
034	5/17/2019 09:45:51	0.0	0.1
035	5/17/2019 09:46:51	0.0	0.1
036	5/17/2019 09:47:51	0.0	0.2
037	5/17/2019 09:48:51	0.0	0.2
038	5/17/2019 09:49:51	0.0	0.2
039	5/17/2019 09:50:51	0.0	0.2
040	5/17/2019 09:51:51	0.0	0.2
041	5/17/2019 09:52:51	0.0	0.2
042	5/17/2019 09:53:51	0.0	0.2
043	5/17/2019 09:54:51	0.0	0.2
044	5/17/2019 09:55:51	0.0	0.2
045	5/17/2019 09:56:51	0.0	0.2
046	5/17/2019 09:57:51	0.0	0.2

047	5/17/2019 09:58:51	0.0	0.3
048	5/17/2019 09:59:51	0.0	0.3
049	5/17/2019 10:00:51	0.0	0.3
050	5/17/2019 10:01:51	0.0	0.3
051	5/17/2019 10:02:51	0.0	0.3
052	5/17/2019 10:03:51	0.0	0.3
053	5/17/2019 10:04:51	0.0	0.3
054	5/17/2019 10:05:51	0.0	0.3
055	5/17/2019 10:06:51	0.0	0.3
056	5/17/2019 10:07:51	0.0	0.3
057	5/17/2019 10:08:51	0.0	0.3
058	5/17/2019 10:09:51	0.0	0.3
059	5/17/2019 10:10:51	0.0	0.3
060	5/17/2019 10:11:51	0.0	0.3
061	5/17/2019 10:12:51	0.0	0.3
062	5/17/2019 10:13:51	0.0	0.3
063	5/17/2019 10:14:51	0.0	0.3
064	5/17/2019 10:15:51	0.0	0.3
065	5/17/2019 10:16:51	0.0	0.3
066	5/17/2019 10:17:51	0.0	0.3
067	5/17/2019 10:18:51	0.0	0.3
068	5/17/2019 10:19:51	0.0	0.3
069	5/17/2019 10:20:51	0.0	0.3
070	5/17/2019 10:21:51	0.0	0.3
071	5/17/2019 10:22:51	0.0	0.3
072	5/17/2019 10:23:51	0.0	0.3
073	5/17/2019 10:24:51	0.0	0.3
074	5/17/2019 10:25:51	0.0	0.3
075	5/17/2019 10:26:51	0.0	0.3
076	5/17/2019 10:27:51	0.0	0.3
077	5/17/2019 10:28:51	0.0	0.3

078	5/17/2019 10:29:51	0.0	0.4
079	5/17/2019 10:30:51	0.0	0.4
080	5/17/2019 10:31:51	0.0	0.4
081	5/17/2019 10:32:51	0.0	0.4
082	5/17/2019 10:33:51	0.0	0.4
083	5/17/2019 10:34:51	0.0	0.4
084	5/17/2019 10:35:51	0.0	0.4
085	5/17/2019 10:36:51	0.0	0.4
086	5/17/2019 10:37:51	0.0	0.4
087	5/17/2019 10:38:51	0.0	0.4
088	5/17/2019 10:39:51	0.0	0.4
089	5/17/2019 10:40:51	0.0	0.4
090	5/17/2019 10:41:51	0.0	0.4
091	5/17/2019 10:42:51	0.0	0.4
092	5/17/2019 10:43:51	0.0	0.4
093	5/17/2019 10:44:51	0.0	0.4
094	5/17/2019 10:45:51	0.0	0.4
095	5/17/2019 10:46:51	0.0	0.4
096	5/17/2019 10:47:51	0.0	0.4
097	5/17/2019 10:48:51	0.0	0.4
098	5/17/2019 10:49:51	0.0	0.4
099	5/17/2019 10:50:51	0.0	0.4
100	5/17/2019 10:51:51	0.0	0.4
101	5/17/2019 10:52:51	0.1	0.4
102	5/17/2019 10:53:51	0.1	0.4
103	5/17/2019 10:54:51	0.1	0.4
104	5/17/2019 10:55:51	0.1	0.4
105	5/17/2019 10:56:51	0.1	0.4
106	5/17/2019 10:57:51	0.1	0.4
107	5/17/2019 10:58:51	0.1	0.4
108	5/17/2019 10:59:51	0.1	0.4

109	5/17/2019 11:00:51	0.1	0.4
110	5/17/2019 11:01:51	0.1	0.4
111	5/17/2019 11:02:51	0.1	0.4
112	5/17/2019 11:03:51	0.1	0.4
113	5/17/2019 11:04:51	0.1	0.4
114	5/17/2019 11:05:51	0.1	0.4
115	5/17/2019 11:06:51	0.1	0.4
116	5/17/2019 11:07:51	0.1	0.4
117	5/17/2019 11:08:51	0.1	0.4
118	5/17/2019 11:09:51	0.1	0.4
119	5/17/2019 11:10:51	0.1	0.4
120	5/17/2019 11:11:51	0.1	0.4
121	5/17/2019 11:12:51	0.1	0.4
122	5/17/2019 11:13:51	0.1	0.4
123	5/17/2019 11:14:51	0.1	0.4
124	5/17/2019 11:15:51	0.1	0.4
125	5/17/2019 11:16:51	0.1	0.4
126	5/17/2019 11:17:51	0.1	0.4
127	5/17/2019 11:18:51	0.1	0.4
128	5/17/2019 11:19:51	0.1	0.4
129	5/17/2019 11:20:51	0.1	0.4
130	5/17/2019 11:21:51	0.1	0.4
131	5/17/2019 11:22:51	0.1	0.4
132	5/17/2019 11:23:51	0.1	0.4
133	5/17/2019 11:24:51	0.1	0.4
134	5/17/2019 11:25:51	0.1	0.4
135	5/17/2019 11:26:51	0.1	0.4
136	5/17/2019 11:27:51	0.1	0.4
137	5/17/2019 11:28:51	0.1	0.4
138	5/17/2019 11:29:51	0.1	0.4
139	5/17/2019 11:30:51	0.1	0.4

140	5/17/2019 11:31:51	0.1	0.4
141	5/17/2019 11:32:51	0.1	0.4
142	5/17/2019 11:33:51	0.1	0.4
143	5/17/2019 11:34:51	0.1	0.4
144	5/17/2019 11:35:51	0.1	0.4
145	5/17/2019 11:36:51	0.1	0.4
146	5/17/2019 11:37:51	0.1	0.4
147	5/17/2019 11:38:51	0.1	0.4
148	5/17/2019 11:39:51	0.1	0.4
149	5/17/2019 11:40:51	0.1	0.4
150	5/17/2019 11:41:51	0.1	0.4
151	5/17/2019 11:42:51	0.1	0.4
152	5/17/2019 11:43:51	0.1	0.4
153	5/17/2019 11:44:51	0.1	0.4
154	5/17/2019 11:45:51	0.1	0.4
155	5/17/2019 11:46:51	0.1	0.4
156	5/17/2019 11:47:51	0.1	0.4
157	5/17/2019 11:48:51	0.1	0.4
158	5/17/2019 11:49:51	0.1	0.4
159	5/17/2019 11:50:51	0.1	0.4
160	5/17/2019 11:51:51	0.1	0.4
161	5/17/2019 11:52:51	0.1	0.4
162	5/17/2019 11:53:51	0.1	0.4
163	5/17/2019 11:54:51	0.1	0.4
164	5/17/2019 11:55:51	0.1	0.4
165	5/17/2019 11:56:51	0.1	0.4
166	5/17/2019 11:57:51	0.1	0.4
167	5/17/2019 11:58:51	0.1	0.4
168	5/17/2019 11:59:51	0.1	0.4
169	5/17/2019 12:00:51	0.1	0.4
170	5/17/2019 12:01:51	0.1	0.4

171	5/17/2019 12:02:51	0.1	0.4
172	5/17/2019 12:03:51	0.1	0.4
173	5/17/2019 12:04:51	0.1	0.4
174	5/17/2019 12:05:51	0.1	0.4
175	5/17/2019 12:06:51	0.1	0.4
176	5/17/2019 12:07:51	0.1	0.4
177	5/17/2019 12:08:51	0.1	0.4
178	5/17/2019 12:09:51	0.1	0.4
179	5/17/2019 12:10:51	0.1	0.4
180	5/17/2019 12:11:51	0.1	0.4
181	5/17/2019 12:12:51	0.1	0.4
182	5/17/2019 12:13:51	0.1	0.4
183	5/17/2019 12:14:51	0.1	0.4
184	5/17/2019 12:15:51	0.1	0.4
185	5/17/2019 12:16:51	0.1	0.4
186	5/17/2019 12:17:51	0.1	0.4
187	5/17/2019 12:18:51	0.1	0.4
188	5/17/2019 12:19:51	0.1	0.4
189	5/17/2019 12:20:51	0.1	0.4
190	5/17/2019 12:21:51	0.1	0.4
191	5/17/2019 12:22:51	0.1	0.4
192	5/17/2019 12:23:51	0.1	0.4
193	5/17/2019 12:24:51	0.1	0.4
194	5/17/2019 12:25:51	0.1	0.4
195	5/17/2019 12:26:51	0.1	0.4
196	5/17/2019 12:27:51	0.1	0.3
197	5/17/2019 12:28:51	0.1	0.3
198	5/17/2019 12:29:51	0.1	0.3
199	5/17/2019 12:30:51	0.1	0.3
200	5/17/2019 12:31:51	0.1	0.3
201	5/17/2019 12:32:51	0.1	0.3

202	5/17/2019 12:33:51	0.1	0.3
203	5/17/2019 12:34:51	0.1	0.3
204	5/17/2019 12:35:51	0.1	0.3
205	5/17/2019 12:36:51	0.1	0.3
206	5/17/2019 12:37:51	0.1	0.3
207	5/17/2019 12:38:51	0.1	0.3
208	5/17/2019 12:39:51	0.1	0.3
209	5/17/2019 12:40:51	0.1	0.3
210	5/17/2019 12:41:51	0.1	0.3
211	5/17/2019 12:42:51	0.1	0.3
212	5/17/2019 12:43:51	0.1	0.3
213	5/17/2019 12:44:51	0.1	0.3
214	5/17/2019 12:45:51	0.1	0.3
215	5/17/2019 12:46:51	0.1	0.3
216	5/17/2019 12:47:51	0.1	0.3
217	5/17/2019 12:48:51	0.1	0.2
218	5/17/2019 12:49:51	0.1	0.2
219	5/17/2019 12:50:51	0.1	0.2
220	5/17/2019 12:51:51	0.1	0.2
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222	5/17/2019 12:53:51	0.1	0.2
223	5/17/2019 12:54:51	0.1	0.2
224	5/17/2019 12:55:51	0.1	0.2
225	5/17/2019 12:56:51	0.1	0.2
226	5/17/2019 12:57:51	0.1	0.2
227	5/17/2019 12:58:51	0.1	0.2
228	5/17/2019 12:59:51	0.1	0.2
229	5/17/2019 13:00:51	0.1	0.2
230	5/17/2019 13:01:51	0.1	0.2
231	5/17/2019 13:02:51	0.1	0.2
232	5/17/2019 13:03:51	0.1	0.2

233	5/17/2019 13:04:51	0.1	0.2
234	5/17/2019 13:05:51	0.1	0.2
235	5/17/2019 13:06:51	0.1	0.2
236	5/17/2019 13:07:51	0.1	0.2
237	5/17/2019 13:08:51	0.1	0.2
238	5/17/2019 13:09:51	0.1	0.2
239	5/17/2019 13:10:51	0.1	0.2
240	5/17/2019 13:11:51	0.1	0.2
241	5/17/2019 13:12:51	0.1	0.2
242	5/17/2019 13:13:51	0.1	0.2
243	5/17/2019 13:14:51	0.1	0.2
244	5/17/2019 13:15:51	0.1	0.2
245	5/17/2019 13:16:51	0.1	0.2
246	5/17/2019 13:17:51	0.1	0.2
247	5/17/2019 13:18:51	0.1	0.2
248	5/17/2019 13:19:51	0.1	0.2
249	5/17/2019 13:20:51	0.1	0.2
250	5/17/2019 13:21:51	0.2	0.2
251	5/17/2019 13:22:51	0.2	0.2
252	5/17/2019 13:23:51	0.2	0.2
253	5/17/2019 13:24:51	0.2	0.2
254	5/17/2019 13:25:51	0.2	0.2
255	5/17/2019 13:26:51	0.2	0.2
256	5/17/2019 13:27:51	0.2	0.2
257	5/17/2019 13:28:51	0.2	0.2
258	5/17/2019 13:29:51	0.2	0.2
259	5/17/2019 13:30:51	0.2	0.3
260	5/17/2019 13:31:51	0.2	0.4
261	5/17/2019 13:32:51	0.2	0.4
262	5/17/2019 13:33:51	0.2	0.4
263	5/17/2019 13:34:51	0.2	0.4

264	5/17/2019 13:35:51	0.2	0.5
265	5/17/2019 13:36:51	0.2	0.5
266	5/17/2019 13:37:51	0.2	0.5
267	5/17/2019 13:38:51	0.2	0.5
268	5/17/2019 13:39:51	0.2	0.5
269	5/17/2019 13:40:51	0.2	0.5
270	5/17/2019 13:41:51	0.2	0.5
271	5/17/2019 13:42:51	0.2	0.5
272	5/17/2019 13:43:51	0.2	0.5
273	5/17/2019 13:44:51	0.2	0.6
274	5/17/2019 13:45:51	0.2	0.6
275	5/17/2019 13:46:51	0.2	0.6
276	5/17/2019 13:47:51	0.2	0.6
277	5/17/2019 13:48:51	0.2	0.7
278	5/17/2019 13:49:51	0.2	0.7
279	5/17/2019 13:50:51	0.2	0.7
280	5/17/2019 13:51:51	0.2	0.7
281	5/17/2019 13:52:51	0.2	0.7
282	5/17/2019 13:53:51	0.2	0.7
283	5/17/2019 13:54:51	0.2	0.8
284	5/17/2019 13:55:51	0.2	0.8
285	5/17/2019 13:56:51	0.2	0.9
286	5/17/2019 13:57:51	0.2	0.9
287	5/17/2019 13:58:51	0.2	0.9
288	5/17/2019 13:59:51	0.2	0.9
289	5/17/2019 14:00:51	0.2	0.9
290	5/17/2019 14:01:51	0.2	0.9
291	5/17/2019 14:02:51	0.2	0.9
292	5/17/2019 14:03:51	0.2	0.9
293	5/17/2019 14:04:51	0.2	0.8
294	5/17/2019 14:05:51	0.2	0.8

295	5/17/2019 14:06:51	0.2	0.8
296	5/17/2019 14:07:51	0.2	0.9
297	5/17/2019 14:08:51	0.2	0.9
298	5/17/2019 14:09:51	0.2	0.9
299	5/17/2019 14:10:51	0.2	0.9
300	5/17/2019 14:11:51	0.2	0.9
301	5/17/2019 14:12:51	0.2	0.8
302	5/17/2019 14:13:51	0.2	0.8
303	5/17/2019 14:14:51	0.2	0.8
304	5/17/2019 14:15:51	0.2	0.9
305	5/17/2019 14:16:51	0.2	0.9
306	5/17/2019 14:17:51	0.2	0.9
307	5/17/2019 14:18:51	0.2	0.9
308	5/17/2019 14:19:51	0.2	0.8
309	5/17/2019 14:20:51	0.2	0.8
310	5/17/2019 14:21:51	0.2	0.8
311	5/17/2019 14:22:51	0.2	0.8
312	5/17/2019 14:23:51	0.2	0.8
313	5/17/2019 14:24:51	0.2	0.7
314	5/17/2019 14:25:51	0.2	0.8
315	5/17/2019 14:26:51	0.2	0.8
316	5/17/2019 14:27:51	0.2	0.7
317	5/17/2019 14:28:51	0.2	0.7
318	5/17/2019 14:29:51	0.2	0.7
319	5/17/2019 14:30:51	0.2	0.7
320	5/17/2019 14:31:51	0.2	0.7
321	5/17/2019 14:32:51	0.2	0.7
322	5/17/2019 14:33:51	0.3	0.7
323	5/17/2019 14:34:51	0.3	0.7
324	5/17/2019 14:35:51	0.3	0.7
325	5/17/2019 14:36:51	0.3	0.7

326	5/17/2019 14:37:51	0.3	0.8
327	5/17/2019 14:38:51	0.3	0.8
328	5/17/2019 14:39:51	0.3	0.8
329	5/17/2019 14:40:51	0.3	0.8
330	5/17/2019 14:41:51	0.3	0.8
331	5/17/2019 14:42:51	0.3	0.8
332	5/17/2019 14:43:51	0.3	0.8
333	5/17/2019 14:44:51	0.3	0.8
334	5/17/2019 14:45:51	0.3	0.8
335	5/17/2019 14:46:51	0.3	0.8
336	5/17/2019 14:47:51	0.3	0.7
337	5/17/2019 14:48:51	0.3	0.7
338	5/17/2019 14:49:51	0.3	0.7
339	5/17/2019 14:50:51	0.3	0.7
340	5/17/2019 14:51:51	0.3	0.7
341	5/17/2019 14:52:51	0.3	0.6
342	5/17/2019 14:53:51	0.3	0.6
343	5/17/2019 14:54:51	0.3	0.6
344	5/17/2019 14:55:51	0.3	0.6
345	5/17/2019 14:56:51	0.3	0.6
346	5/17/2019 14:57:51	0.3	0.6
347	5/17/2019 14:58:51	0.3	0.5
348	5/17/2019 14:59:51	0.3	0.5
349	5/17/2019 15:00:51	0.3	0.5
350	5/17/2019 15:01:51	0.3	0.5
351	5/17/2019 15:02:51	0.3	0.5
352	5/17/2019 15:03:51	0.3	0.5
353	5/17/2019 15:04:51	0.3	0.5
354	5/17/2019 15:05:51	0.3	0.5
355	5/17/2019 15:06:51	0.3	0.5
356	5/17/2019 15:07:51	0.3	0.5

357	5/17/2019 15:08:51	0.3	0.5
358	5/17/2019 15:09:51	0.3	0.5
359	5/17/2019 15:10:51	0.3	0.5
360	5/17/2019 15:11:51	0.3	0.5
361	5/17/2019 15:12:51	0.3	0.5
362	5/17/2019 15:13:51	0.3	0.5
363	5/17/2019 15:14:51	0.3	0.5
364	5/17/2019 15:15:51	0.3	0.5
365	5/17/2019 15:16:51	0.3	0.5
366	5/17/2019 15:17:51	0.3	0.5
367	5/17/2019 15:18:51	0.3	0.5
368	5/17/2019 15:19:51	0.3	0.5
369	5/17/2019 15:20:51	0.3	0.5
370	5/17/2019 15:21:51	0.3	0.5
371	5/17/2019 15:22:51	0.3	0.5
372	5/17/2019 15:23:51	0.3	0.5
373	5/17/2019 15:24:51	0.3	0.5
374	5/17/2019 15:25:51	0.3	0.5
375	5/17/2019 15:26:51	0.3	0.5
376	5/17/2019 15:27:51	0.3	0.5
377	5/17/2019 15:28:51	0.3	0.5
378	5/17/2019 15:29:51	0.3	0.5
379	5/17/2019 15:30:51	0.3	0.5
380	5/17/2019 15:31:51	0.3	0.5
381	5/17/2019 15:32:51	0.3	0.5
382	5/17/2019 15:33:51	0.3	0.5
383	5/17/2019 15:34:51	0.3	0.6
384	5/17/2019 15:35:51	0.3	0.6
385	5/17/2019 15:36:51	0.3	0.6
386	5/17/2019 15:37:51	0.3	0.7

甄==========

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19/05/20 08:16
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	5/20/2019 08:16:28
End	5/20/2019 14:34:39
Sample Period(s)	60
Number of Records	378

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0

TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.3
Min	0.0
Average	0.2

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/20/2019	08:17:28	0.1	0.2	0.3	0.3
002	5/20/2019	08:18:28	0.2	0.2	0.2	0.2
003	5/20/2019	08:19:28	0.1	0.2	0.3	0.2
004	5/20/2019	08:20:28	0.2	0.2	0.2	0.2
005	5/20/2019	08:21:28	0.0	0.0	0.2	0.0
006	5/20/2019	08:22:28	0.0	0.0	0.0	0.0
007	5/20/2019	08:23:28	0.0	0.0	0.0	0.0
008	5/20/2019	08:24:28	0.0	0.0	0.0	0.0
009	5/20/2019	08:25:28	0.0	0.0	0.0	0.0
010	5/20/2019	08:26:28	0.0	0.0	0.0	0.0
011	5/20/2019	08:27:28	0.0	0.0	0.0	0.0
012	5/20/2019	08:28:28	0.0	0.0	0.0	0.0
013	5/20/2019	08:29:28	0.0	0.0	0.0	0.0
014	5/20/2019	08:30:28	0.0	0.0	0.0	0.0
015	5/20/2019	08:31:28	0.0	0.0	0.0	0.0
016	5/20/2019	08:32:28	0.0	0.0	0.1	0.1
017	5/20/2019	08:33:28	0.0	0.0	0.1	0.0
018	5/20/2019	08:34:28	0.0	0.0	0.0	0.0
019	5/20/2019	08:35:28	0.0	0.0	0.0	0.0
020	5/20/2019	08:36:28	0.0	0.0	0.0	0.0

021	5/20/2019 08:37:28	0.0	0.0	0.0	0.0
022	5/20/2019 08:38:28	0.0	0.0	0.0	0.0
023	5/20/2019 08:39:28	0.0	0.0	0.0	0.0
024	5/20/2019 08:40:28	0.0	0.0	0.0	0.0
025	5/20/2019 08:41:28	0.0	0.0	0.0	0.0
026	5/20/2019 08:42:28	0.0	0.0	0.0	0.0
027	5/20/2019 08:43:28	0.0	0.0	0.0	0.0
028	5/20/2019 08:44:28	0.0	0.0	0.0	0.0
029	5/20/2019 08:45:28	0.0	0.0	0.0	0.0
030	5/20/2019 08:46:28	0.0	0.0	0.0	0.0
031	5/20/2019 08:47:28	0.0	0.0	0.0	0.0
032	5/20/2019 08:48:28	0.0	0.0	0.0	0.0
033	5/20/2019 08:49:28	0.0	0.0	0.0	0.0
034	5/20/2019 08:50:28	0.0	0.0	0.0	0.0
035	5/20/2019 08:51:28	0.0	0.0	0.0	0.0
036	5/20/2019 08:52:28	0.0	0.0	0.0	0.0
037	5/20/2019 08:53:28	0.0	0.0	0.0	0.0
038	5/20/2019 08:54:28	0.0	0.0	0.0	0.0
039	5/20/2019 08:55:28	0.0	0.0	0.0	0.0
040	5/20/2019 08:56:28	0.0	0.0	0.0	0.0
041	5/20/2019 08:57:28	0.0	0.0	0.0	0.0
042	5/20/2019 08:58:28	0.0	0.0	0.0	0.0
043	5/20/2019 08:59:28	0.0	0.0	0.0	0.0
044	5/20/2019 09:00:28	0.0	0.0	0.0	0.0
045	5/20/2019 09:01:28	0.0	0.0	0.0	0.0
046	5/20/2019 09:02:28	0.0	0.0	0.0	0.0
047	5/20/2019 09:03:28	0.0	0.0	0.0	0.0
048	5/20/2019 09:04:28	0.0	0.0	0.0	0.0
049	5/20/2019 09:05:28	0.0	0.0	0.0	0.0
050	5/20/2019 09:06:28	0.0	0.0	0.0	0.0
051	5/20/2019 09:07:28	0.0	0.0	0.0	0.0

052	5/20/2019	09:08:28	0.0	0.0	0.0	0.0
053	5/20/2019	09:09:28	0.0	0.0	0.0	0.0
054	5/20/2019	09:10:28	0.0	0.0	0.0	0.0
055	5/20/2019	09:11:28	0.0	0.0	0.0	0.0
056	5/20/2019	09:12:28	0.0	0.0	0.0	0.0
057	5/20/2019	09:13:28	0.0	0.0	0.0	0.0
058	5/20/2019	09:14:28	0.0	0.0	0.0	0.0
059	5/20/2019	09:15:28	0.0	0.0	0.0	0.0
060	5/20/2019	09:16:28	0.0	0.0	0.0	0.0
061	5/20/2019	09:17:28	0.0	0.0	0.0	0.0
062	5/20/2019	09:18:28	0.0	0.0	0.0	0.0
063	5/20/2019	09:19:28	0.0	0.0	0.0	0.0
064	5/20/2019	09:20:28	0.0	0.0	0.0	0.0
065	5/20/2019	09:21:28	0.0	0.0	0.0	0.0
066	5/20/2019	09:22:28	0.0	0.0	0.0	0.0
067	5/20/2019	09:23:28	0.0	0.0	0.0	0.0
068	5/20/2019	09:24:28	0.0	0.0	0.0	0.0
069	5/20/2019	09:25:28	0.0	0.0	0.0	0.0
070	5/20/2019	09:26:28	0.0	0.0	0.0	0.0
071	5/20/2019	09:27:28	0.0	0.0	0.0	0.0
072	5/20/2019	09:28:28	0.0	0.0	0.0	0.0
073	5/20/2019	09:29:28	0.0	0.0	0.0	0.0
074	5/20/2019	09:30:28	0.0	0.0	0.0	0.0
075	5/20/2019	09:31:28	0.0	0.0	0.0	0.0
076	5/20/2019	09:32:28	0.0	0.0	0.0	0.0
077	5/20/2019	09:33:28	0.0	0.0	0.0	0.0
078	5/20/2019	09:34:28	0.0	0.0	0.0	0.0
079	5/20/2019	09:35:28	0.0	0.0	0.0	0.0
080	5/20/2019	09:36:28	0.0	0.0	0.0	0.0
081	5/20/2019	09:37:28	0.0	0.0	0.0	0.0
082	5/20/2019	09:38:28	0.0	0.0	0.0	0.0

083	5/20/2019 09:39:28	0.0	0.0	0.0	0.0
084	5/20/2019 09:40:28	0.0	0.0	0.0	0.0
085	5/20/2019 09:41:28	0.0	0.0	0.0	0.0
086	5/20/2019 09:42:28	0.0	0.0	0.0	0.0
087	5/20/2019 09:43:28	0.0	0.0	0.0	0.0
088	5/20/2019 09:44:28	0.0	0.0	0.0	0.0
089	5/20/2019 09:45:28	0.0	0.0	0.0	0.0
090	5/20/2019 09:46:28	0.0	0.0	0.0	0.0
091	5/20/2019 09:47:28	0.0	0.0	0.0	0.0
092	5/20/2019 09:48:28	0.0	0.0	0.0	0.0
093	5/20/2019 09:49:28	0.0	0.0	0.0	0.0
094	5/20/2019 09:50:28	0.0	0.0	0.0	0.0
095	5/20/2019 09:51:28	0.0	0.0	0.0	0.0
096	5/20/2019 09:52:28	0.0	0.0	0.0	0.0
097	5/20/2019 09:53:28	0.0	0.0	0.0	0.0
098	5/20/2019 09:54:28	0.0	0.0	0.1	0.0
099	5/20/2019 09:55:28	0.0	0.1	0.1	0.1
100	5/20/2019 09:56:28	0.0	0.1	0.1	0.1
101	5/20/2019 09:57:28	0.0	0.0	0.1	0.1
102	5/20/2019 09:58:28	0.0	0.1	0.1	0.1
103	5/20/2019 09:59:28	0.1	0.1	0.1	0.1
104	5/20/2019 10:00:28	0.1	0.1	0.1	0.1
105	5/20/2019 10:01:28	0.1	0.1	0.1	0.1
106	5/20/2019 10:02:28	0.1	0.1	0.1	0.1
107	5/20/2019 10:03:28	0.1	0.1	0.1	0.1
108	5/20/2019 10:04:28	0.1	0.1	0.1	0.1
109	5/20/2019 10:05:28	0.1	0.1	0.1	0.1
110	5/20/2019 10:06:28	0.1	0.1	0.1	0.1
111	5/20/2019 10:07:28	0.1	0.1	0.1	0.1
112	5/20/2019 10:08:28	0.1	0.1	0.1	0.1
113	5/20/2019 10:09:28	0.1	0.1	0.1	0.1

114	5/20/2019	10:10:28	0.1	0.1	0.1	0.1
115	5/20/2019	10:11:28	0.1	0.1	0.1	0.1
116	5/20/2019	10:12:28	0.1	0.1	0.1	0.1
117	5/20/2019	10:13:28	0.1	0.1	0.1	0.1
118	5/20/2019	10:14:28	0.1	0.1	0.1	0.1
119	5/20/2019	10:15:28	0.1	0.1	0.1	0.1
120	5/20/2019	10:16:28	0.1	0.1	0.1	0.1
121	5/20/2019	10:17:28	0.1	0.1	0.1	0.1
122	5/20/2019	10:18:28	0.1	0.1	0.1	0.1
123	5/20/2019	10:19:28	0.1	0.1	0.1	0.1
124	5/20/2019	10:20:28	0.1	0.1	0.1	0.1
125	5/20/2019	10:21:28	0.1	0.1	0.1	0.1
126	5/20/2019	10:22:28	0.1	0.1	0.1	0.1
127	5/20/2019	10:23:28	0.1	0.1	0.1	0.1
128	5/20/2019	10:24:28	0.1	0.1	0.1	0.1
129	5/20/2019	10:25:28	0.1	0.1	0.1	0.1
130	5/20/2019	10:26:28	0.1	0.1	0.1	0.1
131	5/20/2019	10:27:28	0.1	0.1	0.1	0.1
132	5/20/2019	10:28:28	0.1	0.1	0.1	0.1
133	5/20/2019	10:29:28	0.1	0.1	0.1	0.1
134	5/20/2019	10:30:28	0.1	0.1	0.1	0.1
135	5/20/2019	10:31:28	0.1	0.1	0.1	0.1
136	5/20/2019	10:32:28	0.1	0.1	0.1	0.1
137	5/20/2019	10:33:28	0.1	0.1	0.2	0.1
138	5/20/2019	10:34:28	0.1	0.1	0.1	0.1
139	5/20/2019	10:35:28	0.1	0.1	0.1	0.1
140	5/20/2019	10:36:28	0.1	0.1	0.1	0.1
141	5/20/2019	10:37:28	0.1	0.1	0.2	0.1
142	5/20/2019	10:38:28	0.1	0.1	0.2	0.1
143	5/20/2019	10:39:28	0.1	0.1	0.2	0.1
144	5/20/2019	10:40:28	0.1	0.1	0.2	0.1

145	5/20/2019	10:41:28	0.1	0.1	0.1	0.1
146	5/20/2019	10:42:28	0.1	0.2	0.5	0.2
147	5/20/2019	10:43:28	0.2	0.2	0.2	0.2
148	5/20/2019	10:44:28	0.2	0.2	0.2	0.2
149	5/20/2019	10:45:28	0.2	0.2	0.2	0.2
150	5/20/2019	10:46:28	0.2	0.2	0.2	0.2
151	5/20/2019	10:47:28	0.2	0.2	0.2	0.2
152	5/20/2019	10:48:28	0.2	0.2	0.2	0.2
153	5/20/2019	10:49:28	0.2	0.2	0.2	0.2
154	5/20/2019	10:50:28	0.2	0.2	0.2	0.2
155	5/20/2019	10:51:28	0.2	0.2	0.2	0.2
156	5/20/2019	10:52:28	0.2	0.2	0.2	0.2
157	5/20/2019	10:53:28	0.2	0.2	0.2	0.2
158	5/20/2019	10:54:28	0.2	0.2	0.2	0.2
159	5/20/2019	10:55:28	0.2	0.2	0.2	0.2
160	5/20/2019	10:56:28	0.2	0.2	0.2	0.2
161	5/20/2019	10:57:28	0.2	0.2	0.2	0.2
162	5/20/2019	10:58:28	0.2	0.2	0.2	0.2
163	5/20/2019	10:59:28	0.2	0.2	0.2	0.2
164	5/20/2019	11:00:28	0.2	0.2	0.2	0.2
165	5/20/2019	11:01:28	0.2	0.2	0.2	0.2
166	5/20/2019	11:02:28	0.2	0.2	0.2	0.2
167	5/20/2019	11:03:28	0.2	0.2	0.2	0.2
168	5/20/2019	11:04:28	0.2	0.2	0.2	0.2
169	5/20/2019	11:05:28	0.2	0.2	0.2	0.2
170	5/20/2019	11:06:28	0.2	0.2	0.2	0.2
171	5/20/2019	11:07:28	0.2	0.2	0.2	0.2
172	5/20/2019	11:08:28	0.2	0.2	0.2	0.2
173	5/20/2019	11:09:28	0.2	0.2	0.2	0.2
174	5/20/2019	11:10:28	0.2	0.2	0.2	0.2
175	5/20/2019	11:11:28	0.2	0.2	0.2	0.2

176	5/20/2019	11:12:28	0.2	0.2	0.2	0.2
177	5/20/2019	11:13:28	0.2	0.2	0.2	0.2
178	5/20/2019	11:14:28	0.2	0.2	0.2	0.2
179	5/20/2019	11:15:28	0.2	0.2	0.2	0.2
180	5/20/2019	11:16:28	0.2	0.3	0.3	0.3
181	5/20/2019	11:17:28	0.2	0.3	0.3	0.3
182	5/20/2019	11:18:28	0.2	0.3	0.3	0.3
183	5/20/2019	11:19:28	0.3	0.3	0.3	0.3
184	5/20/2019	11:20:28	0.2	0.2	0.3	0.2
185	5/20/2019	11:21:28	0.2	0.2	0.2	0.2
186	5/20/2019	11:22:28	0.2	0.2	0.2	0.2
187	5/20/2019	11:23:28	0.2	0.2	0.2	0.2
188	5/20/2019	11:24:28	0.2	0.2	0.2	0.2
189	5/20/2019	11:25:28	0.2	0.2	0.3	0.3
190	5/20/2019	11:26:28	0.2	0.3	0.3	0.3
191	5/20/2019	11:27:28	0.2	0.3	0.3	0.3
192	5/20/2019	11:28:28	0.2	0.3	0.3	0.3
193	5/20/2019	11:29:28	0.2	0.3	0.3	0.3
194	5/20/2019	11:30:28	0.2	0.3	0.3	0.3
195	5/20/2019	11:31:28	0.2	0.2	0.3	0.2
196	5/20/2019	11:32:28	0.2	0.2	0.3	0.2
197	5/20/2019	11:33:28	0.2	0.2	0.3	0.2
198	5/20/2019	11:34:28	0.2	0.2	0.2	0.2
199	5/20/2019	11:35:28	0.2	0.2	0.2	0.2
200	5/20/2019	11:36:28	0.2	0.2	0.3	0.2
201	5/20/2019	11:37:28	0.2	0.2	0.2	0.2
202	5/20/2019	11:38:28	0.2	0.3	0.3	0.3
203	5/20/2019	11:39:28	0.2	0.2	0.3	0.2
204	5/20/2019	11:40:28	0.2	0.2	0.2	0.2
205	5/20/2019	11:41:28	0.2	0.2	0.2	0.2
206	5/20/2019	11:42:28	0.2	0.2	0.2	0.2

207	5/20/2019	11:43:28	0.2	0.2	0.2	0.2
208	5/20/2019	11:44:28	0.2	0.2	0.2	0.2
209	5/20/2019	11:45:28	0.2	0.2	0.3	0.3
210	5/20/2019	11:46:28	0.2	0.2	0.3	0.2
211	5/20/2019	11:47:28	0.2	0.2	0.3	0.3
212	5/20/2019	11:48:28	0.2	0.2	0.3	0.2
213	5/20/2019	11:49:28	0.2	0.2	0.3	0.2
214	5/20/2019	11:50:28	0.2	0.2	0.3	0.2
215	5/20/2019	11:51:28	0.2	0.2	0.2	0.2
216	5/20/2019	11:52:28	0.2	0.2	0.2	0.2
217	5/20/2019	11:53:28	0.2	0.2	0.3	0.3
218	5/20/2019	11:54:28	0.2	0.3	0.3	0.2
219	5/20/2019	11:55:28	0.2	0.3	0.3	0.3
220	5/20/2019	11:56:28	0.2	0.3	0.3	0.3
221	5/20/2019	11:57:28	0.2	0.3	0.3	0.2
222	5/20/2019	11:58:28	0.2	0.2	0.3	0.2
223	5/20/2019	11:59:28	0.2	0.2	0.2	0.2
224	5/20/2019	12:00:28	0.2	0.2	0.2	0.2
225	5/20/2019	12:01:28	0.2	0.2	0.3	0.2
226	5/20/2019	12:02:28	0.2	0.2	0.3	0.2
227	5/20/2019	12:03:28	0.2	0.2	0.3	0.3
228	5/20/2019	12:04:28	0.2	0.3	0.3	0.2
229	5/20/2019	12:05:28	0.2	0.2	0.3	0.2
230	5/20/2019	12:06:28	0.2	0.2	0.3	0.2
231	5/20/2019	12:07:28	0.2	0.2	0.2	0.2
232	5/20/2019	12:08:28	0.2	0.2	0.2	0.2
233	5/20/2019	12:09:28	0.2	0.2	0.3	0.3
234	5/20/2019	12:10:28	0.2	0.2	0.3	0.2
235	5/20/2019	12:11:28	0.2	0.2	0.3	0.2
236	5/20/2019	12:12:28	0.2	0.2	0.3	0.2
237	5/20/2019	12:13:28	0.2	0.2	0.2	0.2

238	5/20/2019	12:14:28	0.2	0.2	0.3	0.2
239	5/20/2019	12:15:28	0.2	0.2	0.3	0.3
240	5/20/2019	12:16:28	0.3	0.3	0.3	0.3
241	5/20/2019	12:17:28	0.3	0.3	0.3	0.3
242	5/20/2019	12:18:28	0.3	0.3	0.3	0.3
243	5/20/2019	12:19:28	0.2	0.3	0.3	0.3
244	5/20/2019	12:20:28	0.3	0.3	0.3	0.3
245	5/20/2019	12:21:28	0.3	0.3	0.3	0.3
246	5/20/2019	12:22:28	0.3	0.3	0.3	0.3
247	5/20/2019	12:23:28	0.3	0.3	0.3	0.3
248	5/20/2019	12:24:28	0.3	0.3	0.3	0.3
249	5/20/2019	12:25:28	0.3	0.3	0.3	0.3
250	5/20/2019	12:26:28	0.3	0.3	0.3	0.3
251	5/20/2019	12:27:28	0.3	0.3	0.3	0.3
252	5/20/2019	12:28:28	0.3	0.3	0.3	0.3
253	5/20/2019	12:29:28	0.3	0.3	0.3	0.3
254	5/20/2019	12:30:28	0.3	0.3	0.5	0.3
255	5/20/2019	12:31:28	0.3	0.3	0.3	0.3
256	5/20/2019	12:32:28	0.3	0.3	0.3	0.3
257	5/20/2019	12:33:28	0.3	0.3	0.3	0.3
258	5/20/2019	12:34:28	0.3	0.3	0.3	0.3
259	5/20/2019	12:35:28	0.3	0.3	0.3	0.3
260	5/20/2019	12:36:28	0.3	0.3	0.3	0.3
261	5/20/2019	12:37:28	0.3	0.3	0.3	0.3
262	5/20/2019	12:38:28	0.3	0.3	0.3	0.3
263	5/20/2019	12:39:28	0.3	0.3	0.3	0.3
264	5/20/2019	12:40:28	0.3	0.3	0.3	0.3
265	5/20/2019	12:41:28	0.3	0.3	0.3	0.3
266	5/20/2019	12:42:28	0.3	0.3	0.3	0.3
267	5/20/2019	12:43:28	0.3	0.3	0.3	0.3
268	5/20/2019	12:44:28	0.3	0.3	0.3	0.3

269	5/20/2019	12:45:28	0.3	0.3	0.3	0.3
270	5/20/2019	12:46:28	0.3	0.3	0.3	0.3
271	5/20/2019	12:47:28	0.3	0.3	0.3	0.3
272	5/20/2019	12:48:28	0.3	0.3	0.3	0.3
273	5/20/2019	12:49:28	0.3	0.3	0.3	0.3
274	5/20/2019	12:50:28	0.3	0.3	0.3	0.3
275	5/20/2019	12:51:28	0.3	0.3	0.3	0.3
276	5/20/2019	12:52:28	0.3	0.3	0.3	0.3
277	5/20/2019	12:53:28	0.3	0.3	0.3	0.3
278	5/20/2019	12:54:28	0.3	0.3	0.3	0.3
279	5/20/2019	12:55:28	0.3	0.3	0.3	0.3
280	5/20/2019	12:56:28	0.3	0.3	0.3	0.3
281	5/20/2019	12:57:28	0.3	0.3	0.3	0.3
282	5/20/2019	12:58:28	0.3	0.3	0.3	0.3
283	5/20/2019	12:59:28	0.3	0.3	0.3	0.3
284	5/20/2019	13:00:28	0.3	0.3	0.3	0.3
285	5/20/2019	13:01:28	0.3	0.3	0.3	0.3
286	5/20/2019	13:02:28	0.3	0.3	0.3	0.3
287	5/20/2019	13:03:28	0.3	0.3	0.4	0.3
288	5/20/2019	13:04:28	0.3	0.3	0.3	0.3
289	5/20/2019	13:05:28	0.3	0.3	0.3	0.3
290	5/20/2019	13:06:28	0.3	0.3	0.3	0.3
291	5/20/2019	13:07:28	0.3	0.3	0.3	0.3
292	5/20/2019	13:08:28	0.3	0.3	0.3	0.3
293	5/20/2019	13:09:28	0.3	0.3	0.3	0.3
294	5/20/2019	13:10:28	0.3	0.3	0.3	0.3
295	5/20/2019	13:11:28	0.3	0.3	0.3	0.3
296	5/20/2019	13:12:28	0.3	0.3	0.3	0.3
297	5/20/2019	13:13:28	0.3	0.3	0.3	0.3
298	5/20/2019	13:14:28	0.3	0.3	0.3	0.3
299	5/20/2019	13:15:28	0.3	0.3	0.3	0.3

300	5/20/2019	13:16:28	0.3	0.3	0.3	0.3
301	5/20/2019	13:17:28	0.3	0.3	0.3	0.3
302	5/20/2019	13:18:28	0.3	0.3	0.3	0.3
303	5/20/2019	13:19:28	0.3	0.3	0.3	0.3
304	5/20/2019	13:20:28	0.3	0.3	0.3	0.3
305	5/20/2019	13:21:28	0.3	0.3	0.3	0.3
306	5/20/2019	13:22:28	0.3	0.3	0.3	0.3
307	5/20/2019	13:23:28	0.3	0.3	0.3	0.3
308	5/20/2019	13:24:28	0.3	0.3	0.3	0.3
309	5/20/2019	13:25:28	0.3	0.3	0.3	0.3
310	5/20/2019	13:26:28	0.3	0.3	0.3	0.3
311	5/20/2019	13:27:28	0.3	0.3	0.3	0.3
312	5/20/2019	13:28:28	0.3	0.3	0.3	0.3
313	5/20/2019	13:29:28	0.3	0.3	0.3	0.3
314	5/20/2019	13:30:28	0.3	0.3	0.3	0.3
315	5/20/2019	13:31:28	0.3	0.3	0.3	0.3
316	5/20/2019	13:32:28	0.3	0.3	0.3	0.3
317	5/20/2019	13:33:28	0.3	0.3	0.3	0.3
318	5/20/2019	13:34:28	0.3	0.3	0.3	0.3
319	5/20/2019	13:35:28	0.3	0.3	0.3	0.3
320	5/20/2019	13:36:28	0.3	0.3	0.3	0.3
321	5/20/2019	13:37:28	0.3	0.3	0.3	0.3
322	5/20/2019	13:38:28	0.3	0.3	0.3	0.3
323	5/20/2019	13:39:28	0.3	0.3	0.3	0.3
324	5/20/2019	13:40:28	0.2	0.2	0.3	0.2
325	5/20/2019	13:41:28	0.2	0.2	0.2	0.2
326	5/20/2019	13:42:28	0.2	0.2	0.2	0.2
327	5/20/2019	13:43:28	0.2	0.2	0.2	0.2
328	5/20/2019	13:44:28	0.2	0.2	0.2	0.2
329	5/20/2019	13:45:28	0.2	0.2	0.2	0.2
330	5/20/2019	13:46:28	0.2	0.2	0.2	0.2

331	5/20/2019	13:47:28	0.2	0.2	0.2	0.2
332	5/20/2019	13:48:28	0.2	0.2	0.2	0.2
333	5/20/2019	13:49:28	0.2	0.2	0.2	0.2
334	5/20/2019	13:50:28	0.2	0.2	0.2	0.2
335	5/20/2019	13:51:28	0.2	0.2	0.2	0.2
336	5/20/2019	13:52:28	0.2	0.2	0.2	0.2
337	5/20/2019	13:53:28	0.2	0.2	0.2	0.2
338	5/20/2019	13:54:28	0.2	0.2	0.2	0.2
339	5/20/2019	13:55:28	0.2	0.2	0.2	0.2
340	5/20/2019	13:56:28	0.2	0.2	0.2	0.2
341	5/20/2019	13:57:28	0.2	0.2	0.2	0.2
342	5/20/2019	13:58:28	0.2	0.2	0.3	0.2
343	5/20/2019	13:59:28	0.2	0.2	0.3	0.3
344	5/20/2019	14:00:28	0.2	0.2	0.3	0.2
345	5/20/2019	14:01:28	0.2	0.3	0.3	0.3
346	5/20/2019	14:02:28	0.3	0.3	0.3	0.3
347	5/20/2019	14:03:28	0.3	0.3	0.3	0.3
348	5/20/2019	14:04:28	0.3	0.3	0.3	0.3
349	5/20/2019	14:05:28	0.3	0.3	0.3	0.3
350	5/20/2019	14:06:28	0.3	0.3	0.3	0.3
351	5/20/2019	14:07:28	0.3	0.3	0.3	0.3
352	5/20/2019	14:08:28	0.3	0.3	0.3	0.3
353	5/20/2019	14:09:28	0.3	0.3	0.3	0.3
354	5/20/2019	14:10:28	0.3	0.3	0.3	0.3
355	5/20/2019	14:11:28	0.3	0.3	0.3	0.3
356	5/20/2019	14:12:28	0.3	0.3	0.3	0.3
357	5/20/2019	14:13:28	0.2	0.3	0.3	0.2
358	5/20/2019	14:14:28	0.2	0.3	0.3	0.3
359	5/20/2019	14:15:28	0.2	0.3	0.3	0.2
360	5/20/2019	14:16:28	0.2	0.2	0.3	0.2
361	5/20/2019	14:17:28	0.2	0.2	0.2	0.2

362	5/20/2019	14:18:28	0.2	0.2	0.2	0.2
363	5/20/2019	14:19:28	0.2	0.2	0.3	0.3
364	5/20/2019	14:20:28	0.3	0.3	0.3	0.3
365	5/20/2019	14:21:28	0.2	0.3	0.3	0.3
366	5/20/2019	14:22:28	0.3	0.3	0.3	0.3
367	5/20/2019	14:23:28	0.2	0.3	0.3	0.3
368	5/20/2019	14:24:28	0.3	0.3	0.3	0.3
369	5/20/2019	14:25:28	0.3	0.3	0.3	0.3
370	5/20/2019	14:26:28	0.3	0.3	0.3	0.3
371	5/20/2019	14:27:28	0.3	0.3	0.3	0.3
372	5/20/2019	14:28:28	0.3	0.3	0.3	0.3
373	5/20/2019	14:29:28	0.3	0.3	0.3	0.3
374	5/20/2019	14:30:28	0.3	0.3	0.3	0.3
375	5/20/2019	14:31:28	0.3	0.3	0.3	0.3
376	5/20/2019	14:32:28	0.3	0.3	0.3	0.3
377	5/20/2019	14:33:28	0.3	0.3	0.3	0.3
378	5/20/2019	14:34:28	0.3	0.3	0.3	0.3
Peak		0.3	0.3	0.5	0.3	
Min		0.0	0.0	0.0	0.0	
Average		0.2	0.2	0.2	0.2	

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/20/2019	08:17:28	0.0	---
002	5/20/2019	08:18:28	0.0	---
003	5/20/2019	08:19:28	0.0	---
004	5/20/2019	08:20:28	0.0	---
005	5/20/2019	08:21:28	0.0	---
006	5/20/2019	08:22:28	0.0	---

007	5/20/2019 08:23:28	0.0	---
008	5/20/2019 08:24:28	0.0	---
009	5/20/2019 08:25:28	0.0	---
010	5/20/2019 08:26:28	0.0	---
011	5/20/2019 08:27:28	0.0	---
012	5/20/2019 08:28:28	0.0	---
013	5/20/2019 08:29:28	0.0	---
014	5/20/2019 08:30:28	0.0	---
015	5/20/2019 08:31:28	0.0	0.1
016	5/20/2019 08:32:28	0.0	0.1
017	5/20/2019 08:33:28	0.0	0.0
018	5/20/2019 08:34:28	0.0	0.0
019	5/20/2019 08:35:28	0.0	0.0
020	5/20/2019 08:36:28	0.0	0.0
021	5/20/2019 08:37:28	0.0	0.0
022	5/20/2019 08:38:28	0.0	0.0
023	5/20/2019 08:39:28	0.0	0.0
024	5/20/2019 08:40:28	0.0	0.0
025	5/20/2019 08:41:28	0.0	0.0
026	5/20/2019 08:42:28	0.0	0.0
027	5/20/2019 08:43:28	0.0	0.0
028	5/20/2019 08:44:28	0.0	0.0
029	5/20/2019 08:45:28	0.0	0.0
030	5/20/2019 08:46:28	0.0	0.0
031	5/20/2019 08:47:28	0.0	0.0
032	5/20/2019 08:48:28	0.0	0.0
033	5/20/2019 08:49:28	0.0	0.0
034	5/20/2019 08:50:28	0.0	0.0
035	5/20/2019 08:51:28	0.0	0.0
036	5/20/2019 08:52:28	0.0	0.0
037	5/20/2019 08:53:28	0.0	0.0

038	5/20/2019 08:54:28	0.0	0.0
039	5/20/2019 08:55:28	0.0	0.0
040	5/20/2019 08:56:28	0.0	0.0
041	5/20/2019 08:57:28	0.0	0.0
042	5/20/2019 08:58:28	0.0	0.0
043	5/20/2019 08:59:28	0.0	0.0
044	5/20/2019 09:00:28	0.0	0.0
045	5/20/2019 09:01:28	0.0	0.0
046	5/20/2019 09:02:28	0.0	0.0
047	5/20/2019 09:03:28	0.0	0.0
048	5/20/2019 09:04:28	0.0	0.0
049	5/20/2019 09:05:28	0.0	0.0
050	5/20/2019 09:06:28	0.0	0.0
051	5/20/2019 09:07:28	0.0	0.0
052	5/20/2019 09:08:28	0.0	0.0
053	5/20/2019 09:09:28	0.0	0.0
054	5/20/2019 09:10:28	0.0	0.0
055	5/20/2019 09:11:28	0.0	0.0
056	5/20/2019 09:12:28	0.0	0.0
057	5/20/2019 09:13:28	0.0	0.0
058	5/20/2019 09:14:28	0.0	0.0
059	5/20/2019 09:15:28	0.0	0.0
060	5/20/2019 09:16:28	0.0	0.0
061	5/20/2019 09:17:28	0.0	0.0
062	5/20/2019 09:18:28	0.0	0.0
063	5/20/2019 09:19:28	0.0	0.0
064	5/20/2019 09:20:28	0.0	0.0
065	5/20/2019 09:21:28	0.0	0.0
066	5/20/2019 09:22:28	0.0	0.0
067	5/20/2019 09:23:28	0.0	0.0
068	5/20/2019 09:24:28	0.0	0.0

069	5/20/2019 09:25:28	0.0	0.0
070	5/20/2019 09:26:28	0.0	0.0
071	5/20/2019 09:27:28	0.0	0.0
072	5/20/2019 09:28:28	0.0	0.0
073	5/20/2019 09:29:28	0.0	0.0
074	5/20/2019 09:30:28	0.0	0.0
075	5/20/2019 09:31:28	0.0	0.0
076	5/20/2019 09:32:28	0.0	0.0
077	5/20/2019 09:33:28	0.0	0.0
078	5/20/2019 09:34:28	0.0	0.0
079	5/20/2019 09:35:28	0.0	0.0
080	5/20/2019 09:36:28	0.0	0.0
081	5/20/2019 09:37:28	0.0	0.0
082	5/20/2019 09:38:28	0.0	0.0
083	5/20/2019 09:39:28	0.0	0.0
084	5/20/2019 09:40:28	0.0	0.0
085	5/20/2019 09:41:28	0.0	0.0
086	5/20/2019 09:42:28	0.0	0.0
087	5/20/2019 09:43:28	0.0	0.0
088	5/20/2019 09:44:28	0.0	0.0
089	5/20/2019 09:45:28	0.0	0.0
090	5/20/2019 09:46:28	0.0	0.0
091	5/20/2019 09:47:28	0.0	0.0
092	5/20/2019 09:48:28	0.0	0.0
093	5/20/2019 09:49:28	0.0	0.0
094	5/20/2019 09:50:28	0.0	0.0
095	5/20/2019 09:51:28	0.0	0.0
096	5/20/2019 09:52:28	0.0	0.0
097	5/20/2019 09:53:28	0.0	0.0
098	5/20/2019 09:54:28	0.0	0.0
099	5/20/2019 09:55:28	0.0	0.0

100	5/20/2019 09:56:28	0.0	0.0
101	5/20/2019 09:57:28	0.0	0.0
102	5/20/2019 09:58:28	0.0	0.0
103	5/20/2019 09:59:28	0.0	0.0
104	5/20/2019 10:00:28	0.0	0.0
105	5/20/2019 10:01:28	0.0	0.0
106	5/20/2019 10:02:28	0.0	0.1
107	5/20/2019 10:03:28	0.0	0.1
108	5/20/2019 10:04:28	0.0	0.1
109	5/20/2019 10:05:28	0.0	0.1
110	5/20/2019 10:06:28	0.0	0.1
111	5/20/2019 10:07:28	0.0	0.1
112	5/20/2019 10:08:28	0.0	0.1
113	5/20/2019 10:09:28	0.0	0.1
114	5/20/2019 10:10:28	0.0	0.1
115	5/20/2019 10:11:28	0.0	0.1
116	5/20/2019 10:12:28	0.0	0.1
117	5/20/2019 10:13:28	0.0	0.1
118	5/20/2019 10:14:28	0.0	0.1
119	5/20/2019 10:15:28	0.0	0.1
120	5/20/2019 10:16:28	0.0	0.1
121	5/20/2019 10:17:28	0.0	0.1
122	5/20/2019 10:18:28	0.0	0.1
123	5/20/2019 10:19:28	0.0	0.1
124	5/20/2019 10:20:28	0.0	0.1
125	5/20/2019 10:21:28	0.0	0.1
126	5/20/2019 10:22:28	0.0	0.1
127	5/20/2019 10:23:28	0.0	0.1
128	5/20/2019 10:24:28	0.0	0.1
129	5/20/2019 10:25:28	0.0	0.1
130	5/20/2019 10:26:28	0.0	0.1

131	5/20/2019 10:27:28	0.0	0.1
132	5/20/2019 10:28:28	0.0	0.1
133	5/20/2019 10:29:28	0.0	0.1
134	5/20/2019 10:30:28	0.0	0.1
135	5/20/2019 10:31:28	0.0	0.1
136	5/20/2019 10:32:28	0.0	0.1
137	5/20/2019 10:33:28	0.0	0.1
138	5/20/2019 10:34:28	0.0	0.1
139	5/20/2019 10:35:28	0.0	0.1
140	5/20/2019 10:36:28	0.0	0.1
141	5/20/2019 10:37:28	0.0	0.1
142	5/20/2019 10:38:28	0.0	0.1
143	5/20/2019 10:39:28	0.0	0.1
144	5/20/2019 10:40:28	0.0	0.1
145	5/20/2019 10:41:28	0.0	0.1
146	5/20/2019 10:42:28	0.0	0.1
147	5/20/2019 10:43:28	0.0	0.1
148	5/20/2019 10:44:28	0.0	0.1
149	5/20/2019 10:45:28	0.0	0.1
150	5/20/2019 10:46:28	0.0	0.1
151	5/20/2019 10:47:28	0.0	0.1
152	5/20/2019 10:48:28	0.0	0.2
153	5/20/2019 10:49:28	0.0	0.2
154	5/20/2019 10:50:28	0.0	0.2
155	5/20/2019 10:51:28	0.0	0.2
156	5/20/2019 10:52:28	0.0	0.2
157	5/20/2019 10:53:28	0.0	0.2
158	5/20/2019 10:54:28	0.0	0.2
159	5/20/2019 10:55:28	0.0	0.2
160	5/20/2019 10:56:28	0.0	0.2
161	5/20/2019 10:57:28	0.0	0.2

162	5/20/2019	10:58:28	0.0	0.2
163	5/20/2019	10:59:28	0.0	0.2
164	5/20/2019	11:00:28	0.0	0.2
165	5/20/2019	11:01:28	0.0	0.2
166	5/20/2019	11:02:28	0.0	0.2
167	5/20/2019	11:03:28	0.0	0.2
168	5/20/2019	11:04:28	0.0	0.2
169	5/20/2019	11:05:28	0.0	0.2
170	5/20/2019	11:06:28	0.0	0.2
171	5/20/2019	11:07:28	0.0	0.2
172	5/20/2019	11:08:28	0.0	0.2
173	5/20/2019	11:09:28	0.0	0.2
174	5/20/2019	11:10:28	0.0	0.2
175	5/20/2019	11:11:28	0.0	0.2
176	5/20/2019	11:12:28	0.0	0.2
177	5/20/2019	11:13:28	0.0	0.2
178	5/20/2019	11:14:28	0.0	0.2
179	5/20/2019	11:15:28	0.0	0.2
180	5/20/2019	11:16:28	0.0	0.2
181	5/20/2019	11:17:28	0.0	0.2
182	5/20/2019	11:18:28	0.0	0.2
183	5/20/2019	11:19:28	0.0	0.2
184	5/20/2019	11:20:28	0.0	0.2
185	5/20/2019	11:21:28	0.0	0.2
186	5/20/2019	11:22:28	0.0	0.2
187	5/20/2019	11:23:28	0.0	0.2
188	5/20/2019	11:24:28	0.0	0.2
189	5/20/2019	11:25:28	0.0	0.2
190	5/20/2019	11:26:28	0.0	0.3
191	5/20/2019	11:27:28	0.0	0.3
192	5/20/2019	11:28:28	0.0	0.3

193	5/20/2019	11:29:28	0.0	0.3
194	5/20/2019	11:30:28	0.0	0.3
195	5/20/2019	11:31:28	0.0	0.3
196	5/20/2019	11:32:28	0.0	0.3
197	5/20/2019	11:33:28	0.0	0.3
198	5/20/2019	11:34:28	0.0	0.3
199	5/20/2019	11:35:28	0.0	0.3
200	5/20/2019	11:36:28	0.0	0.3
201	5/20/2019	11:37:28	0.0	0.3
202	5/20/2019	11:38:28	0.0	0.3
203	5/20/2019	11:39:28	0.0	0.3
204	5/20/2019	11:40:28	0.0	0.3
205	5/20/2019	11:41:28	0.0	0.3
206	5/20/2019	11:42:28	0.0	0.2
207	5/20/2019	11:43:28	0.0	0.2
208	5/20/2019	11:44:28	0.0	0.2
209	5/20/2019	11:45:28	0.0	0.2
210	5/20/2019	11:46:28	0.0	0.2
211	5/20/2019	11:47:28	0.0	0.2
212	5/20/2019	11:48:28	0.0	0.2
213	5/20/2019	11:49:28	0.0	0.2
214	5/20/2019	11:50:28	0.0	0.2
215	5/20/2019	11:51:28	0.0	0.2
216	5/20/2019	11:52:28	0.0	0.2
217	5/20/2019	11:53:28	0.0	0.2
218	5/20/2019	11:54:28	0.0	0.2
219	5/20/2019	11:55:28	0.0	0.2
220	5/20/2019	11:56:28	0.0	0.2
221	5/20/2019	11:57:28	0.0	0.2
222	5/20/2019	11:58:28	0.0	0.2
223	5/20/2019	11:59:28	0.0	0.2

224	5/20/2019 12:00:28	0.0	0.2
225	5/20/2019 12:01:28	0.0	0.2
226	5/20/2019 12:02:28	0.0	0.2
227	5/20/2019 12:03:28	0.0	0.2
228	5/20/2019 12:04:28	0.1	0.2
229	5/20/2019 12:05:28	0.1	0.2
230	5/20/2019 12:06:28	0.1	0.2
231	5/20/2019 12:07:28	0.1	0.2
232	5/20/2019 12:08:28	0.1	0.2
233	5/20/2019 12:09:28	0.1	0.2
234	5/20/2019 12:10:28	0.1	0.2
235	5/20/2019 12:11:28	0.1	0.2
236	5/20/2019 12:12:28	0.1	0.2
237	5/20/2019 12:13:28	0.1	0.2
238	5/20/2019 12:14:28	0.1	0.2
239	5/20/2019 12:15:28	0.1	0.2
240	5/20/2019 12:16:28	0.1	0.2
241	5/20/2019 12:17:28	0.1	0.2
242	5/20/2019 12:18:28	0.1	0.3
243	5/20/2019 12:19:28	0.1	0.3
244	5/20/2019 12:20:28	0.1	0.3
245	5/20/2019 12:21:28	0.1	0.3
246	5/20/2019 12:22:28	0.1	0.3
247	5/20/2019 12:23:28	0.1	0.3
248	5/20/2019 12:24:28	0.1	0.3
249	5/20/2019 12:25:28	0.1	0.3
250	5/20/2019 12:26:28	0.1	0.3
251	5/20/2019 12:27:28	0.1	0.3
252	5/20/2019 12:28:28	0.1	0.3
253	5/20/2019 12:29:28	0.1	0.3
254	5/20/2019 12:30:28	0.1	0.3

255	5/20/2019 12:31:28	0.1	0.3
256	5/20/2019 12:32:28	0.1	0.3
257	5/20/2019 12:33:28	0.1	0.3
258	5/20/2019 12:34:28	0.1	0.3
259	5/20/2019 12:35:28	0.1	0.3
260	5/20/2019 12:36:28	0.1	0.3
261	5/20/2019 12:37:28	0.1	0.3
262	5/20/2019 12:38:28	0.1	0.3
263	5/20/2019 12:39:28	0.1	0.3
264	5/20/2019 12:40:28	0.1	0.3
265	5/20/2019 12:41:28	0.1	0.3
266	5/20/2019 12:42:28	0.1	0.3
267	5/20/2019 12:43:28	0.1	0.3
268	5/20/2019 12:44:28	0.1	0.3
269	5/20/2019 12:45:28	0.1	0.3
270	5/20/2019 12:46:28	0.1	0.3
271	5/20/2019 12:47:28	0.1	0.3
272	5/20/2019 12:48:28	0.1	0.3
273	5/20/2019 12:49:28	0.1	0.3
274	5/20/2019 12:50:28	0.1	0.3
275	5/20/2019 12:51:28	0.1	0.3
276	5/20/2019 12:52:28	0.1	0.3
277	5/20/2019 12:53:28	0.1	0.3
278	5/20/2019 12:54:28	0.1	0.3
279	5/20/2019 12:55:28	0.1	0.3
280	5/20/2019 12:56:28	0.1	0.3
281	5/20/2019 12:57:28	0.1	0.3
282	5/20/2019 12:58:28	0.1	0.3
283	5/20/2019 12:59:28	0.1	0.3
284	5/20/2019 13:00:28	0.1	0.3
285	5/20/2019 13:01:28	0.1	0.3

286	5/20/2019 13:02:28	0.1	0.3
287	5/20/2019 13:03:28	0.1	0.3
288	5/20/2019 13:04:28	0.1	0.3
289	5/20/2019 13:05:28	0.1	0.3
290	5/20/2019 13:06:28	0.1	0.3
291	5/20/2019 13:07:28	0.1	0.3
292	5/20/2019 13:08:28	0.1	0.3
293	5/20/2019 13:09:28	0.1	0.3
294	5/20/2019 13:10:28	0.1	0.3
295	5/20/2019 13:11:28	0.1	0.3
296	5/20/2019 13:12:28	0.1	0.3
297	5/20/2019 13:13:28	0.1	0.3
298	5/20/2019 13:14:28	0.1	0.3
299	5/20/2019 13:15:28	0.1	0.3
300	5/20/2019 13:16:28	0.1	0.3
301	5/20/2019 13:17:28	0.1	0.3
302	5/20/2019 13:18:28	0.1	0.3
303	5/20/2019 13:19:28	0.1	0.3
304	5/20/2019 13:20:28	0.1	0.3
305	5/20/2019 13:21:28	0.1	0.3
306	5/20/2019 13:22:28	0.1	0.3
307	5/20/2019 13:23:28	0.1	0.3
308	5/20/2019 13:24:28	0.1	0.3
309	5/20/2019 13:25:28	0.1	0.3
310	5/20/2019 13:26:28	0.1	0.3
311	5/20/2019 13:27:28	0.1	0.3
312	5/20/2019 13:28:28	0.1	0.3
313	5/20/2019 13:29:28	0.1	0.3
314	5/20/2019 13:30:28	0.1	0.3
315	5/20/2019 13:31:28	0.1	0.3
316	5/20/2019 13:32:28	0.1	0.3

317	5/20/2019 13:33:28	0.1	0.3
318	5/20/2019 13:34:28	0.1	0.3
319	5/20/2019 13:35:28	0.1	0.3
320	5/20/2019 13:36:28	0.1	0.3
321	5/20/2019 13:37:28	0.1	0.3
322	5/20/2019 13:38:28	0.1	0.3
323	5/20/2019 13:39:28	0.1	0.3
324	5/20/2019 13:40:28	0.1	0.3
325	5/20/2019 13:41:28	0.1	0.3
326	5/20/2019 13:42:28	0.1	0.3
327	5/20/2019 13:43:28	0.1	0.3
328	5/20/2019 13:44:28	0.1	0.3
329	5/20/2019 13:45:28	0.1	0.3
330	5/20/2019 13:46:28	0.1	0.3
331	5/20/2019 13:47:28	0.1	0.3
332	5/20/2019 13:48:28	0.1	0.3
333	5/20/2019 13:49:28	0.1	0.3
334	5/20/2019 13:50:28	0.1	0.2
335	5/20/2019 13:51:28	0.1	0.2
336	5/20/2019 13:52:28	0.1	0.2
337	5/20/2019 13:53:28	0.1	0.2
338	5/20/2019 13:54:28	0.1	0.2
339	5/20/2019 13:55:28	0.1	0.2
340	5/20/2019 13:56:28	0.1	0.2
341	5/20/2019 13:57:28	0.1	0.2
342	5/20/2019 13:58:28	0.1	0.2
343	5/20/2019 13:59:28	0.1	0.2
344	5/20/2019 14:00:28	0.1	0.2
345	5/20/2019 14:01:28	0.1	0.2
346	5/20/2019 14:02:28	0.1	0.2
347	5/20/2019 14:03:28	0.1	0.2

348	5/20/2019 14:04:28	0.1	0.2
349	5/20/2019 14:05:28	0.1	0.3
350	5/20/2019 14:06:28	0.1	0.3
351	5/20/2019 14:07:28	0.1	0.3
352	5/20/2019 14:08:28	0.1	0.3
353	5/20/2019 14:09:28	0.1	0.3
354	5/20/2019 14:10:28	0.1	0.3
355	5/20/2019 14:11:28	0.1	0.3
356	5/20/2019 14:12:28	0.1	0.3
357	5/20/2019 14:13:28	0.1	0.3
358	5/20/2019 14:14:28	0.1	0.3
359	5/20/2019 14:15:28	0.1	0.3
360	5/20/2019 14:16:28	0.1	0.3
361	5/20/2019 14:17:28	0.1	0.3
362	5/20/2019 14:18:28	0.1	0.3
363	5/20/2019 14:19:28	0.1	0.3
364	5/20/2019 14:20:28	0.1	0.3
365	5/20/2019 14:21:28	0.1	0.3
366	5/20/2019 14:22:28	0.1	0.3
367	5/20/2019 14:23:28	0.1	0.3
368	5/20/2019 14:24:28	0.1	0.3
369	5/20/2019 14:25:28	0.1	0.3
370	5/20/2019 14:26:28	0.1	0.3
371	5/20/2019 14:27:28	0.1	0.3
372	5/20/2019 14:28:28	0.1	0.3
373	5/20/2019 14:29:28	0.1	0.3
374	5/20/2019 14:30:28	0.1	0.3
375	5/20/2019 14:31:28	0.1	0.3
376	5/20/2019 14:32:28	0.1	0.3
377	5/20/2019 14:33:28	0.1	0.3
378	5/20/2019 14:34:28	0.1	0.3

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19/05/22 10:06
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	5/22/2019 10:06:29
End	5/22/2019 14:59:16
Sample Period(s)	60
Number of Records	292

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0

STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.3
Min	0.1
Average	0.3

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/22/2019	10:07:29	0.1	0.2	0.2	0.1
002	5/22/2019	10:08:29	0.1	0.2	0.2	0.1
003	5/22/2019	10:09:29	0.1	0.1	0.1	0.1
004	5/22/2019	10:10:29	0.1	0.1	0.1	0.1
005	5/22/2019	10:11:29	0.1	0.1	0.1	0.1
006	5/22/2019	10:12:29	0.1	0.1	0.1	0.1
007	5/22/2019	10:13:29	0.1	0.1	0.1	0.1
008	5/22/2019	10:14:29	0.1	0.1	0.1	0.1
009	5/22/2019	10:15:29	0.1	0.1	0.2	0.2
010	5/22/2019	10:16:29	0.1	0.1	0.2	0.1
011	5/22/2019	10:17:29	0.1	0.1	0.1	0.1
012	5/22/2019	10:18:29	0.1	0.1	0.2	0.2
013	5/22/2019	10:19:29	0.1	0.1	0.2	0.1
014	5/22/2019	10:20:29	0.1	0.2	0.2	0.2
015	5/22/2019	10:21:29	0.2	0.2	0.2	0.2
016	5/22/2019	10:22:29	0.2	0.2	0.2	0.2
017	5/22/2019	10:23:29	0.2	0.2	0.2	0.2
018	5/22/2019	10:24:29	0.2	0.2	0.2	0.2
019	5/22/2019	10:25:29	0.2	0.2	0.2	0.2

020	5/22/2019 10:26:29	0.2	0.2	0.2	0.2
021	5/22/2019 10:27:29	0.2	0.2	0.2	0.2
022	5/22/2019 10:28:29	0.2	0.2	0.2	0.2
023	5/22/2019 10:29:29	0.2	0.2	0.2	0.2
024	5/22/2019 10:30:29	0.2	0.2	0.2	0.2
025	5/22/2019 10:31:29	0.2	0.2	0.2	0.2
026	5/22/2019 10:32:29	0.2	0.2	0.2	0.2
027	5/22/2019 10:33:29	0.2	0.2	0.2	0.2
028	5/22/2019 10:34:29	0.2	0.2	0.2	0.2
029	5/22/2019 10:35:29	0.2	0.2	0.2	0.2
030	5/22/2019 10:36:29	0.2	0.2	0.2	0.2
031	5/22/2019 10:37:29	0.2	0.2	0.2	0.2
032	5/22/2019 10:38:29	0.2	0.2	0.2	0.2
033	5/22/2019 10:39:29	0.2	0.2	0.2	0.2
034	5/22/2019 10:40:29	0.2	0.2	0.2	0.2
035	5/22/2019 10:41:29	0.2	0.2	0.2	0.2
036	5/22/2019 10:42:29	0.2	0.2	0.2	0.2
037	5/22/2019 10:43:29	0.2	0.2	0.2	0.2
038	5/22/2019 10:44:29	0.2	0.2	0.2	0.2
039	5/22/2019 10:45:29	0.2	0.2	0.2	0.2
040	5/22/2019 10:46:29	0.2	0.2	0.2	0.2
041	5/22/2019 10:47:29	0.2	0.3	0.3	0.2
042	5/22/2019 10:48:29	0.2	0.2	0.3	0.2
043	5/22/2019 10:49:29	0.2	0.2	0.2	0.2
044	5/22/2019 10:50:29	0.2	0.2	0.2	0.2
045	5/22/2019 10:51:29	0.2	0.2	0.3	0.2
046	5/22/2019 10:52:29	0.2	0.2	0.3	0.2
047	5/22/2019 10:53:29	0.2	0.2	0.3	0.2
048	5/22/2019 10:54:29	0.2	0.2	0.2	0.2
049	5/22/2019 10:55:29	0.2	0.2	0.2	0.2
050	5/22/2019 10:56:29	0.2	0.2	0.2	0.2

051	5/22/2019	10:57:29	0.2	0.3	0.3	0.2
052	5/22/2019	10:58:29	0.2	0.2	0.2	0.2
053	5/22/2019	10:59:29	0.2	0.2	0.2	0.2
054	5/22/2019	11:00:29	0.2	0.2	0.3	0.2
055	5/22/2019	11:01:29	0.2	0.2	0.3	0.2
056	5/22/2019	11:02:29	0.2	0.2	0.3	0.3
057	5/22/2019	11:03:29	0.2	0.3	0.4	0.3
058	5/22/2019	11:04:29	0.3	0.3	0.3	0.3
059	5/22/2019	11:05:29	0.2	0.3	0.3	0.3
060	5/22/2019	11:06:29	0.2	0.2	0.3	0.2
061	5/22/2019	11:07:29	0.2	0.2	0.3	0.3
062	5/22/2019	11:08:29	0.2	0.2	0.2	0.2
063	5/22/2019	11:09:29	0.2	0.2	0.2	0.2
064	5/22/2019	11:10:29	0.2	0.2	0.2	0.2
065	5/22/2019	11:11:29	0.2	0.2	0.3	0.3
066	5/22/2019	11:12:29	0.2	0.2	0.3	0.2
067	5/22/2019	11:13:29	0.2	0.2	0.2	0.2
068	5/22/2019	11:14:29	0.2	0.2	0.2	0.2
069	5/22/2019	11:15:29	0.2	0.2	0.2	0.2
070	5/22/2019	11:16:29	0.2	0.2	0.2	0.2
071	5/22/2019	11:17:29	0.2	0.2	0.2	0.2
072	5/22/2019	11:18:29	0.2	0.2	0.2	0.2
073	5/22/2019	11:19:29	0.2	0.2	0.3	0.2
074	5/22/2019	11:20:29	0.2	0.2	0.2	0.2
075	5/22/2019	11:21:29	0.2	0.2	0.2	0.2
076	5/22/2019	11:22:29	0.2	0.2	0.2	0.2
077	5/22/2019	11:23:29	0.2	0.2	0.3	0.2
078	5/22/2019	11:24:29	0.2	0.2	0.3	0.2
079	5/22/2019	11:25:29	0.2	0.2	0.2	0.2
080	5/22/2019	11:26:29	0.2	0.2	0.3	0.2
081	5/22/2019	11:27:29	0.2	0.2	0.3	0.3

082	5/22/2019	11:28:29	0.2	0.3	0.3	0.2
083	5/22/2019	11:29:29	0.2	0.2	0.2	0.2
084	5/22/2019	11:30:29	0.2	0.3	0.3	0.3
085	5/22/2019	11:31:29	0.2	0.2	0.3	0.2
086	5/22/2019	11:32:29	0.2	0.3	0.3	0.3
087	5/22/2019	11:33:29	0.2	0.3	0.3	0.3
088	5/22/2019	11:34:29	0.2	0.3	0.3	0.2
089	5/22/2019	11:35:29	0.2	0.2	0.2	0.2
090	5/22/2019	11:36:29	0.2	0.2	0.3	0.2
091	5/22/2019	11:37:29	0.2	0.2	0.3	0.3
092	5/22/2019	11:38:29	0.2	0.3	0.3	0.2
093	5/22/2019	11:39:29	0.3	0.3	0.3	0.3
094	5/22/2019	11:40:29	0.3	0.3	0.3	0.3
095	5/22/2019	11:41:29	0.3	0.3	0.3	0.3
096	5/22/2019	11:42:29	0.3	0.3	0.3	0.3
097	5/22/2019	11:43:29	0.2	0.3	0.3	0.3
098	5/22/2019	11:44:29	0.3	0.3	0.3	0.3
099	5/22/2019	11:45:29	0.3	0.3	0.3	0.3
100	5/22/2019	11:46:29	0.3	0.3	0.3	0.3
101	5/22/2019	11:47:29	0.3	0.3	0.3	0.3
102	5/22/2019	11:48:29	0.3	0.3	0.3	0.3
103	5/22/2019	11:49:29	0.3	0.3	0.3	0.3
104	5/22/2019	11:50:29	0.3	0.3	0.3	0.3
105	5/22/2019	11:51:29	0.3	0.3	0.3	0.3
106	5/22/2019	11:52:29	0.3	0.3	0.3	0.3
107	5/22/2019	11:53:29	0.3	0.3	0.3	0.3
108	5/22/2019	11:54:29	0.3	0.3	0.3	0.3
109	5/22/2019	11:55:29	0.3	0.3	0.3	0.3
110	5/22/2019	11:56:29	0.3	0.3	0.3	0.3
111	5/22/2019	11:57:29	0.3	0.3	0.3	0.3
112	5/22/2019	11:58:29	0.3	0.3	0.3	0.3

113	5/22/2019	11:59:29	0.3	0.3	0.3	0.3
114	5/22/2019	12:00:29	0.3	0.3	0.3	0.3
115	5/22/2019	12:01:29	0.3	0.3	0.3	0.3
116	5/22/2019	12:02:29	0.3	0.3	0.3	0.3
117	5/22/2019	12:03:29	0.3	0.3	0.3	0.3
118	5/22/2019	12:04:29	0.3	0.3	0.3	0.3
119	5/22/2019	12:05:29	0.3	0.3	0.3	0.3
120	5/22/2019	12:06:29	0.3	0.3	0.3	0.3
121	5/22/2019	12:07:29	0.3	0.3	0.3	0.3
122	5/22/2019	12:08:29	0.3	0.3	0.3	0.3
123	5/22/2019	12:09:29	0.3	0.3	0.3	0.3
124	5/22/2019	12:10:29	0.3	0.3	0.3	0.3
125	5/22/2019	12:11:29	0.3	0.3	0.3	0.3
126	5/22/2019	12:12:29	0.3	0.3	0.3	0.3
127	5/22/2019	12:13:29	0.3	0.3	0.3	0.3
128	5/22/2019	12:14:29	0.3	0.3	0.3	0.3
129	5/22/2019	12:15:29	0.3	0.3	0.3	0.3
130	5/22/2019	12:16:29	0.3	0.3	0.3	0.3
131	5/22/2019	12:17:29	0.3	0.3	0.3	0.3
132	5/22/2019	12:18:29	0.3	0.3	0.3	0.3
133	5/22/2019	12:19:29	0.3	0.3	0.3	0.3
134	5/22/2019	12:20:29	0.3	0.3	0.3	0.3
135	5/22/2019	12:21:29	0.3	0.3	0.3	0.3
136	5/22/2019	12:22:29	0.3	0.3	0.3	0.3
137	5/22/2019	12:23:29	0.3	0.3	0.3	0.3
138	5/22/2019	12:24:29	0.3	0.3	0.3	0.3
139	5/22/2019	12:25:29	0.3	0.3	0.3	0.3
140	5/22/2019	12:26:29	0.3	0.3	0.3	0.3
141	5/22/2019	12:27:29	0.3	0.3	0.3	0.3
142	5/22/2019	12:28:29	0.3	0.3	0.3	0.3
143	5/22/2019	12:29:29	0.3	0.3	0.3	0.3

144	5/22/2019 12:30:29	0.3	0.3	0.3	0.3
145	5/22/2019 12:31:29	0.3	0.3	0.3	0.3
146	5/22/2019 12:32:29	0.3	0.3	0.3	0.3
147	5/22/2019 12:33:29	0.3	0.3	0.3	0.3
148	5/22/2019 12:34:29	0.3	0.3	0.3	0.3
149	5/22/2019 12:35:29	0.3	0.3	0.3	0.3
150	5/22/2019 12:36:29	0.3	0.3	0.3	0.3
151	5/22/2019 12:37:29	0.3	0.3	0.3	0.3
152	5/22/2019 12:38:29	0.3	0.3	0.3	0.3
153	5/22/2019 12:39:29	0.3	0.3	0.3	0.3
154	5/22/2019 12:40:29	0.3	0.3	0.3	0.3
155	5/22/2019 12:41:29	0.3	0.3	0.3	0.3
156	5/22/2019 12:42:29	0.3	0.3	0.3	0.3
157	5/22/2019 12:43:29	0.3	0.3	0.3	0.3
158	5/22/2019 12:44:29	0.3	0.3	0.3	0.3
159	5/22/2019 12:45:29	0.3	0.3	0.3	0.3
160	5/22/2019 12:46:29	0.3	0.3	0.3	0.3
161	5/22/2019 12:47:29	0.3	0.3	0.3	0.3
162	5/22/2019 12:48:29	0.3	0.3	0.3	0.3
163	5/22/2019 12:49:29	0.3	0.3	0.3	0.3
164	5/22/2019 12:50:29	0.3	0.3	0.3	0.3
165	5/22/2019 12:51:29	0.3	0.3	0.3	0.3
166	5/22/2019 12:52:29	0.3	0.3	0.3	0.3
167	5/22/2019 12:53:29	0.3	0.3	0.3	0.3
168	5/22/2019 12:54:29	0.3	0.3	0.3	0.3
169	5/22/2019 12:55:29	0.3	0.3	0.3	0.3
170	5/22/2019 12:56:29	0.3	0.3	0.3	0.3
171	5/22/2019 12:57:29	0.3	0.3	0.3	0.3
172	5/22/2019 12:58:29	0.3	0.3	0.3	0.3
173	5/22/2019 12:59:29	0.3	0.3	0.3	0.3
174	5/22/2019 13:00:29	0.3	0.3	0.3	0.3

175	5/22/2019	13:01:29	0.3	0.3	0.3	0.3
176	5/22/2019	13:02:29	0.3	0.3	0.3	0.3
177	5/22/2019	13:03:29	0.3	0.3	0.3	0.3
178	5/22/2019	13:04:29	0.3	0.3	0.3	0.3
179	5/22/2019	13:05:29	0.3	0.3	0.3	0.3
180	5/22/2019	13:06:29	0.3	0.3	0.3	0.3
181	5/22/2019	13:07:29	0.2	0.3	0.3	0.3
182	5/22/2019	13:08:29	0.3	0.3	0.3	0.3
183	5/22/2019	13:09:29	0.3	0.3	0.3	0.3
184	5/22/2019	13:10:29	0.3	0.3	0.3	0.3
185	5/22/2019	13:11:29	0.3	0.3	0.3	0.3
186	5/22/2019	13:12:29	0.3	0.3	0.3	0.3
187	5/22/2019	13:13:29	0.3	0.3	0.3	0.3
188	5/22/2019	13:14:29	0.3	0.3	0.3	0.3
189	5/22/2019	13:15:29	0.3	0.3	0.3	0.3
190	5/22/2019	13:16:29	0.2	0.3	0.3	0.3
191	5/22/2019	13:17:29	0.2	0.2	0.3	0.2
192	5/22/2019	13:18:29	0.2	0.2	0.3	0.3
193	5/22/2019	13:19:29	0.3	0.3	0.3	0.3
194	5/22/2019	13:20:29	0.3	0.3	0.3	0.3
195	5/22/2019	13:21:29	0.3	0.3	0.3	0.3
196	5/22/2019	13:22:29	0.3	0.3	0.3	0.3
197	5/22/2019	13:23:29	0.3	0.3	0.3	0.3
198	5/22/2019	13:24:29	0.3	0.3	0.3	0.3
199	5/22/2019	13:25:29	0.3	0.3	0.3	0.3
200	5/22/2019	13:26:29	0.3	0.3	0.3	0.3
201	5/22/2019	13:27:29	0.3	0.3	0.3	0.3
202	5/22/2019	13:28:29	0.3	0.3	0.3	0.3
203	5/22/2019	13:29:29	0.3	0.3	0.3	0.3
204	5/22/2019	13:30:29	0.3	0.3	0.3	0.3
205	5/22/2019	13:31:29	0.3	0.3	0.3	0.3

206	5/22/2019	13:32:29	0.3	0.3	0.3	0.3
207	5/22/2019	13:33:29	0.3	0.3	0.3	0.3
208	5/22/2019	13:34:29	0.3	0.3	0.3	0.3
209	5/22/2019	13:35:29	0.3	0.3	0.3	0.3
210	5/22/2019	13:36:29	0.3	0.3	0.3	0.3
211	5/22/2019	13:37:29	0.3	0.3	0.3	0.3
212	5/22/2019	13:38:29	0.3	0.3	0.3	0.3
213	5/22/2019	13:39:29	0.3	0.3	0.3	0.3
214	5/22/2019	13:40:29	0.3	0.3	0.3	0.3
215	5/22/2019	13:41:29	0.3	0.3	0.3	0.3
216	5/22/2019	13:42:29	0.2	0.2	0.2	0.2
217	5/22/2019	13:43:29	0.2	0.2	0.2	0.2
218	5/22/2019	13:44:29	0.2	0.2	0.2	0.2
219	5/22/2019	13:45:29	0.2	0.2	0.2	0.2
220	5/22/2019	13:46:29	0.2	0.2	0.2	0.2
221	5/22/2019	13:47:29	0.2	0.2	0.2	0.2
222	5/22/2019	13:48:29	0.2	0.2	0.2	0.2
223	5/22/2019	13:49:29	0.2	0.2	0.2	0.2
224	5/22/2019	13:50:29	0.2	0.2	0.2	0.2
225	5/22/2019	13:51:29	0.2	0.2	0.2	0.2
226	5/22/2019	13:52:29	0.2	0.2	0.2	0.2
227	5/22/2019	13:53:29	0.2	0.2	0.2	0.2
228	5/22/2019	13:54:29	0.2	0.2	0.3	0.2
229	5/22/2019	13:55:29	0.2	0.2	0.2	0.2
230	5/22/2019	13:56:29	0.2	0.2	0.2	0.2
231	5/22/2019	13:57:29	0.2	0.2	0.2	0.2
232	5/22/2019	13:58:29	0.2	0.2	0.2	0.2
233	5/22/2019	13:59:29	0.2	0.2	0.2	0.2
234	5/22/2019	14:00:29	0.2	0.2	0.2	0.2
235	5/22/2019	14:01:29	0.2	0.2	0.2	0.2
236	5/22/2019	14:02:29	0.2	0.2	0.2	0.2

237	5/22/2019	14:03:29	0.2	0.3	0.3	0.3
238	5/22/2019	14:04:29	0.2	0.3	0.3	0.2
239	5/22/2019	14:05:29	0.2	0.2	0.3	0.3
240	5/22/2019	14:06:29	0.2	0.3	0.3	0.3
241	5/22/2019	14:07:29	0.3	0.3	0.3	0.3
242	5/22/2019	14:08:29	0.3	0.3	0.3	0.3
243	5/22/2019	14:09:29	0.3	0.3	0.3	0.3
244	5/22/2019	14:10:29	0.3	0.3	0.3	0.3
245	5/22/2019	14:11:29	0.2	0.3	0.3	0.3
246	5/22/2019	14:12:29	0.3	0.3	0.3	0.3
247	5/22/2019	14:13:29	0.3	0.3	0.3	0.3
248	5/22/2019	14:14:29	0.3	0.3	0.3	0.3
249	5/22/2019	14:15:29	0.3	0.3	0.3	0.3
250	5/22/2019	14:16:29	0.3	0.3	0.3	0.3
251	5/22/2019	14:17:29	0.3	0.3	0.3	0.3
252	5/22/2019	14:18:29	0.3	0.3	0.3	0.3
253	5/22/2019	14:19:29	0.3	0.3	0.3	0.3
254	5/22/2019	14:20:29	0.3	0.3	0.3	0.3
255	5/22/2019	14:21:29	0.3	0.3	0.3	0.3
256	5/22/2019	14:22:29	0.3	0.3	0.3	0.3
257	5/22/2019	14:23:29	0.3	0.3	0.3	0.3
258	5/22/2019	14:24:29	0.3	0.3	0.3	0.3
259	5/22/2019	14:25:29	0.3	0.3	0.3	0.3
260	5/22/2019	14:26:29	0.3	0.3	0.3	0.3
261	5/22/2019	14:27:29	0.3	0.3	0.3	0.3
262	5/22/2019	14:28:29	0.3	0.3	0.3	0.3
263	5/22/2019	14:29:29	0.3	0.3	0.3	0.3
264	5/22/2019	14:30:29	0.3	0.3	0.3	0.3
265	5/22/2019	14:31:29	0.3	0.3	0.3	0.3
266	5/22/2019	14:32:29	0.3	0.3	0.3	0.3
267	5/22/2019	14:33:29	0.3	0.3	0.3	0.3

268	5/22/2019	14:34:29	0.3	0.3	0.3	0.3
269	5/22/2019	14:35:29	0.3	0.3	0.3	0.3
270	5/22/2019	14:36:29	0.3	0.3	0.3	0.3
271	5/22/2019	14:37:29	0.3	0.3	0.3	0.3
272	5/22/2019	14:38:29	0.3	0.3	0.3	0.3
273	5/22/2019	14:39:29	0.3	0.3	0.3	0.3
274	5/22/2019	14:40:29	0.3	0.3	0.3	0.3
275	5/22/2019	14:41:29	0.3	0.3	0.3	0.3
276	5/22/2019	14:42:29	0.3	0.3	0.3	0.3
277	5/22/2019	14:43:29	0.3	0.3	0.3	0.3
278	5/22/2019	14:44:29	0.3	0.3	0.3	0.3
279	5/22/2019	14:45:29	0.3	0.3	0.3	0.3
280	5/22/2019	14:46:29	0.3	0.3	0.3	0.3
281	5/22/2019	14:47:29	0.3	0.3	0.3	0.3
282	5/22/2019	14:48:29	0.3	0.3	0.3	0.3
283	5/22/2019	14:49:29	0.3	0.3	0.3	0.3
284	5/22/2019	14:50:29	0.3	0.3	0.3	0.3
285	5/22/2019	14:51:29	0.3	0.3	0.3	0.3
286	5/22/2019	14:52:29	0.3	0.3	0.3	0.3
287	5/22/2019	14:53:29	0.3	0.3	0.3	0.3
288	5/22/2019	14:54:29	0.3	0.3	0.3	0.3
289	5/22/2019	14:55:29	0.3	0.3	0.3	0.3
290	5/22/2019	14:56:29	0.3	0.3	0.3	0.3
291	5/22/2019	14:57:29	0.3	0.3	0.3	0.3
292	5/22/2019	14:58:29	0.3	0.3	0.3	0.3
Peak		0.3	0.3	0.4	0.3	
Min		0.1	0.1	0.1	0.1	
Average		0.3	0.3	0.3	0.3	

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/22/2019	10:07:29	0.0	---
002	5/22/2019	10:08:29	0.0	---
003	5/22/2019	10:09:29	0.0	---
004	5/22/2019	10:10:29	0.0	---
005	5/22/2019	10:11:29	0.0	---
006	5/22/2019	10:12:29	0.0	---
007	5/22/2019	10:13:29	0.0	---
008	5/22/2019	10:14:29	0.0	---
009	5/22/2019	10:15:29	0.0	---
010	5/22/2019	10:16:29	0.0	---
011	5/22/2019	10:17:29	0.0	---
012	5/22/2019	10:18:29	0.0	---
013	5/22/2019	10:19:29	0.0	---
014	5/22/2019	10:20:29	0.0	---
015	5/22/2019	10:21:29	0.0	0.1
016	5/22/2019	10:22:29	0.0	0.1
017	5/22/2019	10:23:29	0.0	0.1
018	5/22/2019	10:24:29	0.0	0.2
019	5/22/2019	10:25:29	0.0	0.2
020	5/22/2019	10:26:29	0.0	0.2
021	5/22/2019	10:27:29	0.0	0.2
022	5/22/2019	10:28:29	0.0	0.2
023	5/22/2019	10:29:29	0.0	0.2
024	5/22/2019	10:30:29	0.0	0.2
025	5/22/2019	10:31:29	0.0	0.2
026	5/22/2019	10:32:29	0.0	0.2
027	5/22/2019	10:33:29	0.0	0.2
028	5/22/2019	10:34:29	0.0	0.2
029	5/22/2019	10:35:29	0.0	0.2

030	5/22/2019 10:36:29	0.0	0.2
031	5/22/2019 10:37:29	0.0	0.2
032	5/22/2019 10:38:29	0.0	0.2
033	5/22/2019 10:39:29	0.0	0.2
034	5/22/2019 10:40:29	0.0	0.2
035	5/22/2019 10:41:29	0.0	0.2
036	5/22/2019 10:42:29	0.0	0.2
037	5/22/2019 10:43:29	0.0	0.2
038	5/22/2019 10:44:29	0.0	0.2
039	5/22/2019 10:45:29	0.0	0.2
040	5/22/2019 10:46:29	0.0	0.2
041	5/22/2019 10:47:29	0.0	0.2
042	5/22/2019 10:48:29	0.0	0.2
043	5/22/2019 10:49:29	0.0	0.2
044	5/22/2019 10:50:29	0.0	0.2
045	5/22/2019 10:51:29	0.0	0.2
046	5/22/2019 10:52:29	0.0	0.2
047	5/22/2019 10:53:29	0.0	0.2
048	5/22/2019 10:54:29	0.0	0.2
049	5/22/2019 10:55:29	0.0	0.2
050	5/22/2019 10:56:29	0.0	0.2
051	5/22/2019 10:57:29	0.0	0.2
052	5/22/2019 10:58:29	0.0	0.2
053	5/22/2019 10:59:29	0.0	0.2
054	5/22/2019 11:00:29	0.0	0.2
055	5/22/2019 11:01:29	0.0	0.2
056	5/22/2019 11:02:29	0.0	0.2
057	5/22/2019 11:03:29	0.0	0.2
058	5/22/2019 11:04:29	0.0	0.2
059	5/22/2019 11:05:29	0.0	0.2
060	5/22/2019 11:06:29	0.0	0.2

061	5/22/2019	11:07:29	0.0	0.2
062	5/22/2019	11:08:29	0.0	0.2
063	5/22/2019	11:09:29	0.0	0.2
064	5/22/2019	11:10:29	0.0	0.2
065	5/22/2019	11:11:29	0.0	0.3
066	5/22/2019	11:12:29	0.0	0.3
067	5/22/2019	11:13:29	0.0	0.3
068	5/22/2019	11:14:29	0.0	0.3
069	5/22/2019	11:15:29	0.0	0.3
070	5/22/2019	11:16:29	0.0	0.3
071	5/22/2019	11:17:29	0.0	0.3
072	5/22/2019	11:18:29	0.0	0.2
073	5/22/2019	11:19:29	0.0	0.2
074	5/22/2019	11:20:29	0.0	0.2
075	5/22/2019	11:21:29	0.0	0.2
076	5/22/2019	11:22:29	0.0	0.2
077	5/22/2019	11:23:29	0.0	0.2
078	5/22/2019	11:24:29	0.0	0.2
079	5/22/2019	11:25:29	0.0	0.2
080	5/22/2019	11:26:29	0.0	0.2
081	5/22/2019	11:27:29	0.0	0.2
082	5/22/2019	11:28:29	0.0	0.2
083	5/22/2019	11:29:29	0.0	0.2
084	5/22/2019	11:30:29	0.0	0.2
085	5/22/2019	11:31:29	0.0	0.2
086	5/22/2019	11:32:29	0.0	0.2
087	5/22/2019	11:33:29	0.0	0.2
088	5/22/2019	11:34:29	0.0	0.2
089	5/22/2019	11:35:29	0.0	0.2
090	5/22/2019	11:36:29	0.0	0.2
091	5/22/2019	11:37:29	0.0	0.2

092	5/22/2019	11:38:29	0.0	0.2
093	5/22/2019	11:39:29	0.0	0.3
094	5/22/2019	11:40:29	0.0	0.3
095	5/22/2019	11:41:29	0.0	0.3
096	5/22/2019	11:42:29	0.0	0.3
097	5/22/2019	11:43:29	0.0	0.3
098	5/22/2019	11:44:29	0.0	0.3
099	5/22/2019	11:45:29	0.0	0.3
100	5/22/2019	11:46:29	0.0	0.3
101	5/22/2019	11:47:29	0.0	0.3
102	5/22/2019	11:48:29	0.0	0.3
103	5/22/2019	11:49:29	0.0	0.3
104	5/22/2019	11:50:29	0.0	0.3
105	5/22/2019	11:51:29	0.0	0.3
106	5/22/2019	11:52:29	0.0	0.3
107	5/22/2019	11:53:29	0.0	0.3
108	5/22/2019	11:54:29	0.0	0.3
109	5/22/2019	11:55:29	0.0	0.3
110	5/22/2019	11:56:29	0.0	0.3
111	5/22/2019	11:57:29	0.1	0.3
112	5/22/2019	11:58:29	0.1	0.3
113	5/22/2019	11:59:29	0.1	0.3
114	5/22/2019	12:00:29	0.1	0.3
115	5/22/2019	12:01:29	0.1	0.3
116	5/22/2019	12:02:29	0.1	0.3
117	5/22/2019	12:03:29	0.1	0.3
118	5/22/2019	12:04:29	0.1	0.3
119	5/22/2019	12:05:29	0.1	0.3
120	5/22/2019	12:06:29	0.1	0.3
121	5/22/2019	12:07:29	0.1	0.3
122	5/22/2019	12:08:29	0.1	0.3

123	5/22/2019 12:09:29	0.1	0.3
124	5/22/2019 12:10:29	0.1	0.3
125	5/22/2019 12:11:29	0.1	0.3
126	5/22/2019 12:12:29	0.1	0.3
127	5/22/2019 12:13:29	0.1	0.3
128	5/22/2019 12:14:29	0.1	0.3
129	5/22/2019 12:15:29	0.1	0.3
130	5/22/2019 12:16:29	0.1	0.3
131	5/22/2019 12:17:29	0.1	0.3
132	5/22/2019 12:18:29	0.1	0.3
133	5/22/2019 12:19:29	0.1	0.3
134	5/22/2019 12:20:29	0.1	0.3
135	5/22/2019 12:21:29	0.1	0.3
136	5/22/2019 12:22:29	0.1	0.3
137	5/22/2019 12:23:29	0.1	0.3
138	5/22/2019 12:24:29	0.1	0.3
139	5/22/2019 12:25:29	0.1	0.3
140	5/22/2019 12:26:29	0.1	0.3
141	5/22/2019 12:27:29	0.1	0.3
142	5/22/2019 12:28:29	0.1	0.3
143	5/22/2019 12:29:29	0.1	0.3
144	5/22/2019 12:30:29	0.1	0.3
145	5/22/2019 12:31:29	0.1	0.3
146	5/22/2019 12:32:29	0.1	0.3
147	5/22/2019 12:33:29	0.1	0.3
148	5/22/2019 12:34:29	0.1	0.3
149	5/22/2019 12:35:29	0.1	0.3
150	5/22/2019 12:36:29	0.1	0.3
151	5/22/2019 12:37:29	0.1	0.3
152	5/22/2019 12:38:29	0.1	0.3
153	5/22/2019 12:39:29	0.1	0.3

154	5/22/2019	12:40:29	0.1	0.3
155	5/22/2019	12:41:29	0.1	0.3
156	5/22/2019	12:42:29	0.1	0.3
157	5/22/2019	12:43:29	0.1	0.3
158	5/22/2019	12:44:29	0.1	0.3
159	5/22/2019	12:45:29	0.1	0.3
160	5/22/2019	12:46:29	0.1	0.3
161	5/22/2019	12:47:29	0.1	0.3
162	5/22/2019	12:48:29	0.1	0.3
163	5/22/2019	12:49:29	0.1	0.3
164	5/22/2019	12:50:29	0.1	0.3
165	5/22/2019	12:51:29	0.1	0.3
166	5/22/2019	12:52:29	0.1	0.3
167	5/22/2019	12:53:29	0.1	0.3
168	5/22/2019	12:54:29	0.1	0.3
169	5/22/2019	12:55:29	0.1	0.3
170	5/22/2019	12:56:29	0.1	0.3
171	5/22/2019	12:57:29	0.1	0.3
172	5/22/2019	12:58:29	0.1	0.3
173	5/22/2019	12:59:29	0.1	0.3
174	5/22/2019	13:00:29	0.1	0.3
175	5/22/2019	13:01:29	0.1	0.3
176	5/22/2019	13:02:29	0.1	0.3
177	5/22/2019	13:03:29	0.1	0.3
178	5/22/2019	13:04:29	0.1	0.3
179	5/22/2019	13:05:29	0.1	0.3
180	5/22/2019	13:06:29	0.1	0.3
181	5/22/2019	13:07:29	0.1	0.3
182	5/22/2019	13:08:29	0.1	0.3
183	5/22/2019	13:09:29	0.1	0.3
184	5/22/2019	13:10:29	0.1	0.3

185	5/22/2019	13:11:29	0.1	0.3
186	5/22/2019	13:12:29	0.1	0.3
187	5/22/2019	13:13:29	0.1	0.3
188	5/22/2019	13:14:29	0.1	0.3
189	5/22/2019	13:15:29	0.1	0.3
190	5/22/2019	13:16:29	0.1	0.3
191	5/22/2019	13:17:29	0.1	0.3
192	5/22/2019	13:18:29	0.1	0.3
193	5/22/2019	13:19:29	0.1	0.3
194	5/22/2019	13:20:29	0.1	0.3
195	5/22/2019	13:21:29	0.1	0.3
196	5/22/2019	13:22:29	0.1	0.3
197	5/22/2019	13:23:29	0.1	0.3
198	5/22/2019	13:24:29	0.1	0.3
199	5/22/2019	13:25:29	0.1	0.3
200	5/22/2019	13:26:29	0.1	0.3
201	5/22/2019	13:27:29	0.1	0.3
202	5/22/2019	13:28:29	0.1	0.3
203	5/22/2019	13:29:29	0.1	0.3
204	5/22/2019	13:30:29	0.1	0.3
205	5/22/2019	13:31:29	0.1	0.3
206	5/22/2019	13:32:29	0.1	0.3
207	5/22/2019	13:33:29	0.1	0.3
208	5/22/2019	13:34:29	0.1	0.3
209	5/22/2019	13:35:29	0.1	0.3
210	5/22/2019	13:36:29	0.1	0.3
211	5/22/2019	13:37:29	0.1	0.3
212	5/22/2019	13:38:29	0.1	0.3
213	5/22/2019	13:39:29	0.1	0.3
214	5/22/2019	13:40:29	0.1	0.3
215	5/22/2019	13:41:29	0.1	0.3

216	5/22/2019 13:42:29	0.1	0.3
217	5/22/2019 13:43:29	0.1	0.3
218	5/22/2019 13:44:29	0.1	0.3
219	5/22/2019 13:45:29	0.1	0.3
220	5/22/2019 13:46:29	0.1	0.3
221	5/22/2019 13:47:29	0.1	0.3
222	5/22/2019 13:48:29	0.1	0.3
223	5/22/2019 13:49:29	0.1	0.3
224	5/22/2019 13:50:29	0.1	0.3
225	5/22/2019 13:51:29	0.1	0.3
226	5/22/2019 13:52:29	0.1	0.2
227	5/22/2019 13:53:29	0.1	0.2
228	5/22/2019 13:54:29	0.1	0.2
229	5/22/2019 13:55:29	0.1	0.2
230	5/22/2019 13:56:29	0.1	0.2
231	5/22/2019 13:57:29	0.1	0.2
232	5/22/2019 13:58:29	0.1	0.2
233	5/22/2019 13:59:29	0.1	0.2
234	5/22/2019 14:00:29	0.1	0.2
235	5/22/2019 14:01:29	0.1	0.2
236	5/22/2019 14:02:29	0.1	0.2
237	5/22/2019 14:03:29	0.1	0.2
238	5/22/2019 14:04:29	0.1	0.2
239	5/22/2019 14:05:29	0.1	0.2
240	5/22/2019 14:06:29	0.1	0.2
241	5/22/2019 14:07:29	0.1	0.2
242	5/22/2019 14:08:29	0.1	0.2
243	5/22/2019 14:09:29	0.1	0.3
244	5/22/2019 14:10:29	0.1	0.3
245	5/22/2019 14:11:29	0.1	0.3
246	5/22/2019 14:12:29	0.1	0.3

247	5/22/2019 14:13:29	0.1	0.3
248	5/22/2019 14:14:29	0.1	0.3
249	5/22/2019 14:15:29	0.1	0.3
250	5/22/2019 14:16:29	0.1	0.3
251	5/22/2019 14:17:29	0.1	0.3
252	5/22/2019 14:18:29	0.1	0.3
253	5/22/2019 14:19:29	0.1	0.3
254	5/22/2019 14:20:29	0.1	0.3
255	5/22/2019 14:21:29	0.1	0.3
256	5/22/2019 14:22:29	0.1	0.3
257	5/22/2019 14:23:29	0.1	0.3
258	5/22/2019 14:24:29	0.1	0.3
259	5/22/2019 14:25:29	0.1	0.3
260	5/22/2019 14:26:29	0.1	0.3
261	5/22/2019 14:27:29	0.1	0.3
262	5/22/2019 14:28:29	0.1	0.3
263	5/22/2019 14:29:29	0.1	0.3
264	5/22/2019 14:30:29	0.1	0.3
265	5/22/2019 14:31:29	0.1	0.3
266	5/22/2019 14:32:29	0.1	0.3
267	5/22/2019 14:33:29	0.1	0.3
268	5/22/2019 14:34:29	0.1	0.3
269	5/22/2019 14:35:29	0.1	0.3
270	5/22/2019 14:36:29	0.1	0.3
271	5/22/2019 14:37:29	0.1	0.3
272	5/22/2019 14:38:29	0.1	0.3
273	5/22/2019 14:39:29	0.1	0.3
274	5/22/2019 14:40:29	0.1	0.3
275	5/22/2019 14:41:29	0.1	0.3
276	5/22/2019 14:42:29	0.1	0.3
277	5/22/2019 14:43:29	0.1	0.3

278	5/22/2019 14:44:29	0.1	0.3
279	5/22/2019 14:45:29	0.2	0.3
280	5/22/2019 14:46:29	0.2	0.3
281	5/22/2019 14:47:29	0.2	0.3
282	5/22/2019 14:48:29	0.2	0.3
283	5/22/2019 14:49:29	0.2	0.3
284	5/22/2019 14:50:29	0.2	0.3
285	5/22/2019 14:51:29	0.2	0.3
286	5/22/2019 14:52:29	0.2	0.3
287	5/22/2019 14:53:29	0.2	0.3
288	5/22/2019 14:54:29	0.2	0.3
289	5/22/2019 14:55:29	0.2	0.3
290	5/22/2019 14:56:29	0.2	0.3
291	5/22/2019 14:57:29	0.2	0.3
292	5/22/2019 14:58:29	0.2	0.3

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19/05/24 09:32
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000

User ID USER0000

Begin 5/24/2019 09:32:20
End 5/24/2019 12:25:23
Sample Period(s) 60
Number of Records 173

Sensor PID(ppm)
Sensor SN S023030045T3
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 15000.0
STEL Alarm 100.0
TWA Alarm 50.0
Measurement Gas Isobutylene
Calibration Time 5/15/2019 15:55
Peak 0.2
Min 0.0
Average 0.1

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/24/2019	09:33:20	0.0	0.0	0.1	0.0
002	5/24/2019	09:34:20	0.0	0.0	0.0	0.0
003	5/24/2019	09:35:20	0.0	0.0	0.0	0.0
004	5/24/2019	09:36:20	0.0	0.0	0.0	0.0

005	5/24/2019 09:37:20	0.0	0.0	0.0	0.0
006	5/24/2019 09:38:20	0.0	0.0	0.0	0.0
007	5/24/2019 09:39:20	0.0	0.0	0.0	0.0
008	5/24/2019 09:40:20	0.0	0.0	0.3	0.0
009	5/24/2019 09:41:20	0.0	0.0	0.0	0.0
010	5/24/2019 09:42:20	0.0	0.0	0.0	0.0
011	5/24/2019 09:43:20	0.0	0.0	0.0	0.0
012	5/24/2019 09:44:20	0.0	0.0	0.0	0.0
013	5/24/2019 09:45:20	0.0	0.0	0.0	0.0
014	5/24/2019 09:46:20	0.0	0.0	0.0	0.0
015	5/24/2019 09:47:20	0.0	0.0	0.1	0.0
016	5/24/2019 09:48:20	0.0	0.0	0.0	0.0
017	5/24/2019 09:49:20	0.0	0.0	0.0	0.0
018	5/24/2019 09:50:20	0.0	0.0	0.1	0.1
019	5/24/2019 09:51:20	0.0	0.0	0.1	0.0
020	5/24/2019 09:52:20	0.0	0.0	0.1	0.0
021	5/24/2019 09:53:20	0.0	0.0	0.0	0.0
022	5/24/2019 09:54:20	0.0	0.1	0.3	0.0
023	5/24/2019 09:55:20	0.0	0.0	0.0	0.0
024	5/24/2019 09:56:20	0.0	0.0	0.0	0.0
025	5/24/2019 09:57:20	0.0	0.0	0.1	0.0
026	5/24/2019 09:58:20	0.0	0.0	0.0	0.0
027	5/24/2019 09:59:20	0.0	0.0	0.1	0.0
028	5/24/2019 10:00:20	0.0	0.0	0.1	0.0
029	5/24/2019 10:01:20	0.0	0.0	0.1	0.1
030	5/24/2019 10:02:20	0.0	0.0	0.1	0.1
031	5/24/2019 10:03:20	0.0	0.0	0.0	0.0
032	5/24/2019 10:04:20	0.0	0.0	0.1	0.1
033	5/24/2019 10:05:20	0.0	0.0	0.3	0.0
034	5/24/2019 10:06:20	0.0	0.0	0.1	0.1
035	5/24/2019 10:07:20	0.0	0.0	0.1	0.0

036	5/24/2019 10:08:20	0.0	0.0	0.0	0.0
037	5/24/2019 10:09:20	0.0	0.0	0.1	0.0
038	5/24/2019 10:10:20	0.0	0.1	0.2	0.0
039	5/24/2019 10:11:20	0.0	0.0	0.2	0.0
040	5/24/2019 10:12:20	0.0	0.0	0.1	0.0
041	5/24/2019 10:13:20	0.0	0.0	0.0	0.0
042	5/24/2019 10:14:20	0.0	0.0	0.0	0.0
043	5/24/2019 10:15:20	0.0	0.1	0.2	0.0
044	5/24/2019 10:16:20	0.0	0.0	0.1	0.1
045	5/24/2019 10:17:20	0.0	0.0	0.2	0.2
046	5/24/2019 10:18:20	0.0	0.0	0.2	0.0
047	5/24/2019 10:19:20	0.0	0.0	0.1	0.0
048	5/24/2019 10:20:20	0.0	0.0	0.1	0.0
049	5/24/2019 10:21:20	0.0	0.0	0.1	0.0
050	5/24/2019 10:22:20	0.0	0.1	0.1	0.1
051	5/24/2019 10:23:20	0.0	0.1	0.2	0.1
052	5/24/2019 10:24:20	0.0	0.1	0.1	0.0
053	5/24/2019 10:25:20	0.0	0.1	0.1	0.1
054	5/24/2019 10:26:20	0.1	0.1	0.1	0.1
055	5/24/2019 10:27:20	0.1	0.1	0.1	0.1
056	5/24/2019 10:28:20	0.1	0.1	0.1	0.1
057	5/24/2019 10:29:20	0.1	0.1	0.2	0.1
058	5/24/2019 10:30:20	0.1	0.1	0.1	0.1
059	5/24/2019 10:31:20	0.1	0.1	0.1	0.1
060	5/24/2019 10:32:20	0.1	0.1	0.1	0.1
061	5/24/2019 10:33:20	0.1	0.1	0.1	0.1
062	5/24/2019 10:34:20	0.1	0.1	0.1	0.1
063	5/24/2019 10:35:20	0.1	0.1	0.6	0.1
064	5/24/2019 10:36:20	0.1	0.1	0.1	0.1
065	5/24/2019 10:37:20	0.1	0.1	0.1	0.1
066	5/24/2019 10:38:20	0.1	0.1	0.2	0.1

067	5/24/2019 10:39:20	0.1	0.1	0.2	0.1
068	5/24/2019 10:40:20	0.1	0.1	0.1	0.1
069	5/24/2019 10:41:20	0.1	0.1	0.1	0.1
070	5/24/2019 10:42:20	0.1	0.1	0.1	0.1
071	5/24/2019 10:43:20	0.1	0.1	0.2	0.1
072	5/24/2019 10:44:20	0.1	0.1	0.1	0.1
073	5/24/2019 10:45:20	0.1	0.1	0.1	0.1
074	5/24/2019 10:46:20	0.1	0.1	0.1	0.1
075	5/24/2019 10:47:20	0.1	0.1	0.1	0.1
076	5/24/2019 10:48:20	0.1	0.1	0.2	0.1
077	5/24/2019 10:49:20	0.1	0.1	0.3	0.1
078	5/24/2019 10:50:20	0.1	0.1	0.1	0.1
079	5/24/2019 10:51:20	0.1	0.1	0.1	0.1
080	5/24/2019 10:52:20	0.1	0.1	0.2	0.1
081	5/24/2019 10:53:20	0.1	0.1	0.1	0.1
082	5/24/2019 10:54:20	0.1	0.1	0.1	0.1
083	5/24/2019 10:55:20	0.1	0.1	0.1	0.1
084	5/24/2019 10:56:20	0.1	0.1	0.1	0.1
085	5/24/2019 10:57:20	0.1	0.1	0.1	0.1
086	5/24/2019 10:58:20	0.1	0.1	0.1	0.1
087	5/24/2019 10:59:20	0.1	0.1	0.2	0.1
088	5/24/2019 11:00:20	0.1	0.1	0.1	0.1
089	5/24/2019 11:01:20	0.1	0.1	0.1	0.1
090	5/24/2019 11:02:20	0.1	0.1	0.3	0.1
091	5/24/2019 11:03:20	0.1	0.1	0.1	0.1
092	5/24/2019 11:04:20	0.1	0.1	0.2	0.1
093	5/24/2019 11:05:20	0.1	0.1	0.1	0.1
094	5/24/2019 11:06:20	0.1	0.1	0.1	0.1
095	5/24/2019 11:07:20	0.1	0.1	0.2	0.1
096	5/24/2019 11:08:20	0.1	0.1	0.2	0.1
097	5/24/2019 11:09:20	0.1	0.1	0.1	0.1

098	5/24/2019	11:10:20	0.1	0.1	0.2	0.1
099	5/24/2019	11:11:20	0.1	0.1	0.2	0.1
100	5/24/2019	11:12:20	0.1	0.1	0.2	0.1
101	5/24/2019	11:13:20	0.1	0.1	0.1	0.1
102	5/24/2019	11:14:20	0.1	0.1	0.2	0.1
103	5/24/2019	11:15:20	0.1	0.1	0.1	0.1
104	5/24/2019	11:16:20	0.1	0.1	0.2	0.1
105	5/24/2019	11:17:20	0.1	0.2	0.3	0.1
106	5/24/2019	11:18:20	0.1	0.2	0.3	0.1
107	5/24/2019	11:19:20	0.1	0.1	0.3	0.1
108	5/24/2019	11:20:20	0.1	0.2	0.3	0.1
109	5/24/2019	11:21:20	0.1	0.1	0.2	0.1
110	5/24/2019	11:22:20	0.1	0.1	0.2	0.2
111	5/24/2019	11:23:20	0.1	0.1	0.2	0.1
112	5/24/2019	11:24:20	0.1	0.1	0.2	0.1
113	5/24/2019	11:25:20	0.1	0.1	0.2	0.1
114	5/24/2019	11:26:20	0.1	0.1	0.1	0.1
115	5/24/2019	11:27:20	0.1	0.1	0.2	0.1
116	5/24/2019	11:28:20	0.1	0.1	0.2	0.1
117	5/24/2019	11:29:20	0.1	0.1	0.2	0.2
118	5/24/2019	11:30:20	0.1	0.1	0.2	0.1
119	5/24/2019	11:31:20	0.1	0.1	0.2	0.2
120	5/24/2019	11:32:20	0.1	0.1	0.2	0.1
121	5/24/2019	11:33:20	0.1	0.1	0.1	0.1
122	5/24/2019	11:34:20	0.1	0.1	0.2	0.1
123	5/24/2019	11:35:20	0.1	0.1	0.1	0.1
124	5/24/2019	11:36:20	0.1	0.1	0.1	0.1
125	5/24/2019	11:37:20	0.1	0.1	0.1	0.1
126	5/24/2019	11:38:20	0.1	0.1	0.1	0.1
127	5/24/2019	11:39:20	0.1	0.1	0.1	0.1
128	5/24/2019	11:40:20	0.1	0.1	0.2	0.1

129	5/24/2019	11:41:20	0.1	0.1	0.1	0.1
130	5/24/2019	11:42:20	0.1	0.1	0.2	0.2
131	5/24/2019	11:43:20	0.1	0.1	0.1	0.1
132	5/24/2019	11:44:20	0.1	0.1	0.2	0.1
133	5/24/2019	11:45:20	0.1	0.1	0.1	0.1
134	5/24/2019	11:46:20	0.1	0.1	0.2	0.1
135	5/24/2019	11:47:20	0.1	0.1	0.2	0.1
136	5/24/2019	11:48:20	0.1	0.1	0.1	0.1
137	5/24/2019	11:49:20	0.1	0.1	0.1	0.1
138	5/24/2019	11:50:20	0.1	0.2	0.5	0.1
139	5/24/2019	11:51:20	0.1	0.1	0.2	0.1
140	5/24/2019	11:52:20	0.1	0.1	0.2	0.1
141	5/24/2019	11:53:20	0.1	0.1	0.2	0.1
142	5/24/2019	11:54:20	0.1	0.1	0.2	0.1
143	5/24/2019	11:55:20	0.1	0.1	0.1	0.1
144	5/24/2019	11:56:20	0.1	0.1	0.2	0.1
145	5/24/2019	11:57:20	0.1	0.1	0.1	0.1
146	5/24/2019	11:58:20	0.1	0.1	0.2	0.1
147	5/24/2019	11:59:20	0.1	0.1	0.2	0.1
148	5/24/2019	12:00:20	0.1	0.1	0.2	0.1
149	5/24/2019	12:01:20	0.1	0.1	0.2	0.1
150	5/24/2019	12:02:20	0.1	0.1	0.1	0.1
151	5/24/2019	12:03:20	0.1	0.1	0.2	0.1
152	5/24/2019	12:04:20	0.1	0.1	0.2	0.1
153	5/24/2019	12:05:20	0.1	0.1	0.3	0.1
154	5/24/2019	12:06:20	0.1	0.1	0.2	0.1
155	5/24/2019	12:07:20	0.1	0.1	0.1	0.1
156	5/24/2019	12:08:20	0.1	0.1	0.1	0.1
157	5/24/2019	12:09:20	0.1	0.1	0.2	0.2
158	5/24/2019	12:10:20	0.1	0.1	0.3	0.1
159	5/24/2019	12:11:20	0.1	0.1	0.1	0.1

160	5/24/2019	12:12:20	0.1	0.1	0.2	0.1
161	5/24/2019	12:13:20	0.1	0.1	0.3	0.1
162	5/24/2019	12:14:20	0.1	0.1	0.2	0.1
163	5/24/2019	12:15:20	0.1	0.1	0.2	0.1
164	5/24/2019	12:16:20	0.1	0.1	0.1	0.1
165	5/24/2019	12:17:20	0.1	0.1	0.1	0.1
166	5/24/2019	12:18:20	0.1	0.1	0.2	0.1
167	5/24/2019	12:19:20	0.1	0.1	0.1	0.1
168	5/24/2019	12:20:20	0.1	0.1	0.1	0.1
169	5/24/2019	12:21:20	0.1	0.1	0.3	0.1
170	5/24/2019	12:22:20	0.1	0.1	0.1	0.1
171	5/24/2019	12:23:20	0.1	0.1	0.1	0.1
172	5/24/2019	12:24:20	0.1	0.1	0.2	0.1
173	5/24/2019	12:25:20	0.1	0.1	0.3	0.1
Peak			0.1	0.2	0.6	0.2
Min			0.0	0.0	0.0	0.0
Average			0.1	0.1	0.1	0.1

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/24/2019	09:33:20	0.0	---
002	5/24/2019	09:34:20	0.0	---
003	5/24/2019	09:35:20	0.0	---
004	5/24/2019	09:36:20	0.0	---
005	5/24/2019	09:37:20	0.0	---
006	5/24/2019	09:38:20	0.0	---
007	5/24/2019	09:39:20	0.0	---
008	5/24/2019	09:40:20	0.0	---
009	5/24/2019	09:41:20	0.0	---

010	5/24/2019 09:42:20	0.0	---
011	5/24/2019 09:43:20	0.0	---
012	5/24/2019 09:44:20	0.0	---
013	5/24/2019 09:45:20	0.0	---
014	5/24/2019 09:46:20	0.0	---
015	5/24/2019 09:47:20	0.0	0.0
016	5/24/2019 09:48:20	0.0	0.0
017	5/24/2019 09:49:20	0.0	0.0
018	5/24/2019 09:50:20	0.0	0.0
019	5/24/2019 09:51:20	0.0	0.0
020	5/24/2019 09:52:20	0.0	0.0
021	5/24/2019 09:53:20	0.0	0.0
022	5/24/2019 09:54:20	0.0	0.0
023	5/24/2019 09:55:20	0.0	0.0
024	5/24/2019 09:56:20	0.0	0.0
025	5/24/2019 09:57:20	0.0	0.0
026	5/24/2019 09:58:20	0.0	0.0
027	5/24/2019 09:59:20	0.0	0.0
028	5/24/2019 10:00:20	0.0	0.0
029	5/24/2019 10:01:20	0.0	0.0
030	5/24/2019 10:02:20	0.0	0.0
031	5/24/2019 10:03:20	0.0	0.0
032	5/24/2019 10:04:20	0.0	0.0
033	5/24/2019 10:05:20	0.0	0.0
034	5/24/2019 10:06:20	0.0	0.0
035	5/24/2019 10:07:20	0.0	0.0
036	5/24/2019 10:08:20	0.0	0.0
037	5/24/2019 10:09:20	0.0	0.0
038	5/24/2019 10:10:20	0.0	0.0
039	5/24/2019 10:11:20	0.0	0.0
040	5/24/2019 10:12:20	0.0	0.0

041	5/24/2019 10:13:20	0.0	0.0
042	5/24/2019 10:14:20	0.0	0.0
043	5/24/2019 10:15:20	0.0	0.0
044	5/24/2019 10:16:20	0.0	0.0
045	5/24/2019 10:17:20	0.0	0.0
046	5/24/2019 10:18:20	0.0	0.0
047	5/24/2019 10:19:20	0.0	0.0
048	5/24/2019 10:20:20	0.0	0.0
049	5/24/2019 10:21:20	0.0	0.0
050	5/24/2019 10:22:20	0.0	0.0
051	5/24/2019 10:23:20	0.0	0.0
052	5/24/2019 10:24:20	0.0	0.0
053	5/24/2019 10:25:20	0.0	0.0
054	5/24/2019 10:26:20	0.0	0.0
055	5/24/2019 10:27:20	0.0	0.1
056	5/24/2019 10:28:20	0.0	0.1
057	5/24/2019 10:29:20	0.0	0.1
058	5/24/2019 10:30:20	0.0	0.1
059	5/24/2019 10:31:20	0.0	0.1
060	5/24/2019 10:32:20	0.0	0.1
061	5/24/2019 10:33:20	0.0	0.1
062	5/24/2019 10:34:20	0.0	0.1
063	5/24/2019 10:35:20	0.0	0.1
064	5/24/2019 10:36:20	0.0	0.1
065	5/24/2019 10:37:20	0.0	0.1
066	5/24/2019 10:38:20	0.0	0.1
067	5/24/2019 10:39:20	0.0	0.1
068	5/24/2019 10:40:20	0.0	0.1
069	5/24/2019 10:41:20	0.0	0.1
070	5/24/2019 10:42:20	0.0	0.1
071	5/24/2019 10:43:20	0.0	0.1

072	5/24/2019 10:44:20	0.0	0.1
073	5/24/2019 10:45:20	0.0	0.1
074	5/24/2019 10:46:20	0.0	0.1
075	5/24/2019 10:47:20	0.0	0.1
076	5/24/2019 10:48:20	0.0	0.1
077	5/24/2019 10:49:20	0.0	0.1
078	5/24/2019 10:50:20	0.0	0.1
079	5/24/2019 10:51:20	0.0	0.1
080	5/24/2019 10:52:20	0.0	0.1
081	5/24/2019 10:53:20	0.0	0.1
082	5/24/2019 10:54:20	0.0	0.1
083	5/24/2019 10:55:20	0.0	0.1
084	5/24/2019 10:56:20	0.0	0.1
085	5/24/2019 10:57:20	0.0	0.1
086	5/24/2019 10:58:20	0.0	0.1
087	5/24/2019 10:59:20	0.0	0.1
088	5/24/2019 11:00:20	0.0	0.1
089	5/24/2019 11:01:20	0.0	0.1
090	5/24/2019 11:02:20	0.0	0.1
091	5/24/2019 11:03:20	0.0	0.1
092	5/24/2019 11:04:20	0.0	0.1
093	5/24/2019 11:05:20	0.0	0.1
094	5/24/2019 11:06:20	0.0	0.1
095	5/24/2019 11:07:20	0.0	0.1
096	5/24/2019 11:08:20	0.0	0.1
097	5/24/2019 11:09:20	0.0	0.1
098	5/24/2019 11:10:20	0.0	0.1
099	5/24/2019 11:11:20	0.0	0.1
100	5/24/2019 11:12:20	0.0	0.1
101	5/24/2019 11:13:20	0.0	0.1
102	5/24/2019 11:14:20	0.0	0.1

103	5/24/2019	11:15:20	0.0	0.1
104	5/24/2019	11:16:20	0.0	0.1
105	5/24/2019	11:17:20	0.0	0.1
106	5/24/2019	11:18:20	0.0	0.1
107	5/24/2019	11:19:20	0.0	0.1
108	5/24/2019	11:20:20	0.0	0.1
109	5/24/2019	11:21:20	0.0	0.1
110	5/24/2019	11:22:20	0.0	0.1
111	5/24/2019	11:23:20	0.0	0.1
112	5/24/2019	11:24:20	0.0	0.1
113	5/24/2019	11:25:20	0.0	0.1
114	5/24/2019	11:26:20	0.0	0.1
115	5/24/2019	11:27:20	0.0	0.1
116	5/24/2019	11:28:20	0.0	0.1
117	5/24/2019	11:29:20	0.0	0.1
118	5/24/2019	11:30:20	0.0	0.1
119	5/24/2019	11:31:20	0.0	0.1
120	5/24/2019	11:32:20	0.0	0.1
121	5/24/2019	11:33:20	0.0	0.1
122	5/24/2019	11:34:20	0.0	0.1
123	5/24/2019	11:35:20	0.0	0.1
124	5/24/2019	11:36:20	0.0	0.1
125	5/24/2019	11:37:20	0.0	0.1
126	5/24/2019	11:38:20	0.0	0.1
127	5/24/2019	11:39:20	0.0	0.1
128	5/24/2019	11:40:20	0.0	0.1
129	5/24/2019	11:41:20	0.0	0.1
130	5/24/2019	11:42:20	0.0	0.1
131	5/24/2019	11:43:20	0.0	0.1
132	5/24/2019	11:44:20	0.0	0.1
133	5/24/2019	11:45:20	0.0	0.1

134	5/24/2019 11:46:20	0.0	0.1
135	5/24/2019 11:47:20	0.0	0.1
136	5/24/2019 11:48:20	0.0	0.1
137	5/24/2019 11:49:20	0.0	0.1
138	5/24/2019 11:50:20	0.0	0.1
139	5/24/2019 11:51:20	0.0	0.1
140	5/24/2019 11:52:20	0.0	0.1
141	5/24/2019 11:53:20	0.0	0.1
142	5/24/2019 11:54:20	0.0	0.1
143	5/24/2019 11:55:20	0.0	0.1
144	5/24/2019 11:56:20	0.0	0.1
145	5/24/2019 11:57:20	0.0	0.1
146	5/24/2019 11:58:20	0.0	0.1
147	5/24/2019 11:59:20	0.0	0.1
148	5/24/2019 12:00:20	0.0	0.1
149	5/24/2019 12:01:20	0.0	0.1
150	5/24/2019 12:02:20	0.0	0.1
151	5/24/2019 12:03:20	0.0	0.1
152	5/24/2019 12:04:20	0.0	0.1
153	5/24/2019 12:05:20	0.0	0.1
154	5/24/2019 12:06:20	0.0	0.1
155	5/24/2019 12:07:20	0.0	0.1
156	5/24/2019 12:08:20	0.0	0.1
157	5/24/2019 12:09:20	0.0	0.1
158	5/24/2019 12:10:20	0.0	0.1
159	5/24/2019 12:11:20	0.0	0.1
160	5/24/2019 12:12:20	0.0	0.1
161	5/24/2019 12:13:20	0.0	0.1
162	5/24/2019 12:14:20	0.0	0.1
163	5/24/2019 12:15:20	0.0	0.1
164	5/24/2019 12:16:20	0.0	0.1

165 5/24/2019 12:17:20 0.0 0.1
166 5/24/2019 12:18:20 0.0 0.1
167 5/24/2019 12:19:20 0.0 0.1
168 5/24/2019 12:20:20 0.0 0.1
169 5/24/2019 12:21:20 0.0 0.1
170 5/24/2019 12:22:20 0.0 0.1
171 5/24/2019 12:23:20 0.0 0.1
172 5/24/2019 12:24:20 0.0 0.1
173 5/24/2019 12:25:20 0.0 0.1
甄==========
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19/05/28 09:39
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-903660
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID RAE00000
User ID USER0000

Begin 5/28/2019 09:39:16
End 5/28/2019 14:41:52
Sample Period(s) 60
Number of Records 302

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.4
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/28/2019	09:40:16	0.0	0.0	0.0	0.0
002	5/28/2019	09:41:16	0.0	0.0	0.0	0.0
003	5/28/2019	09:42:16	0.0	0.0	0.0	0.0
004	5/28/2019	09:43:16	0.0	0.0	0.0	0.0
005	5/28/2019	09:44:16	0.0	0.0	0.0	0.0
006	5/28/2019	09:45:16	0.0	0.0	0.0	0.0
007	5/28/2019	09:46:16	0.0	0.0	0.0	0.0
008	5/28/2019	09:47:16	0.0	0.0	0.0	0.0
009	5/28/2019	09:48:16	0.0	0.0	0.0	0.0
010	5/28/2019	09:49:16	0.0	0.0	0.0	0.0

011	5/28/2019 09:50:16	0.0	0.0	0.0	0.0
012	5/28/2019 09:51:16	0.0	0.0	0.0	0.0
013	5/28/2019 09:52:16	0.0	0.0	0.0	0.0
014	5/28/2019 09:53:16	0.0	0.0	0.0	0.0
015	5/28/2019 09:54:16	0.0	0.1	0.5	0.3
016	5/28/2019 09:55:16	0.0	0.4	0.7	0.0
017	5/28/2019 09:56:16	0.0	0.1	0.2	0.0
018	5/28/2019 09:57:16	0.0	0.0	0.2	0.2
019	5/28/2019 09:58:16	0.0	0.1	0.7	0.0
020	5/28/2019 09:59:16	0.0	0.0	0.1	0.0
021	5/28/2019 10:00:16	0.1	0.3	0.7	0.4
022	5/28/2019 10:01:16	0.0	0.2	0.4	0.2
023	5/28/2019 10:02:16	0.0	0.2	0.7	0.1
024	5/28/2019 10:03:16	0.0	0.1	0.3	0.3
025	5/28/2019 10:04:16	0.0	0.1	0.4	0.0
026	5/28/2019 10:05:16	0.0	0.0	0.0	0.0
027	5/28/2019 10:06:16	0.0	0.0	0.0	0.0
028	5/28/2019 10:07:16	0.0	0.0	0.0	0.0
029	5/28/2019 10:08:16	0.0	0.1	0.5	0.0
030	5/28/2019 10:09:16	0.0	0.0	0.2	0.1
031	5/28/2019 10:10:16	0.0	0.0	0.2	0.0
032	5/28/2019 10:11:16	0.0	0.0	0.0	0.0
033	5/28/2019 10:12:16	0.0	0.0	0.0	0.0
034	5/28/2019 10:13:16	0.0	0.0	0.0	0.0
035	5/28/2019 10:14:16	0.0	0.0	0.1	0.1
036	5/28/2019 10:15:16	0.0	0.1	0.1	0.0
037	5/28/2019 10:16:16	0.0	0.1	0.1	0.0
038	5/28/2019 10:17:16	0.0	0.0	0.0	0.0
039	5/28/2019 10:18:16	0.0	0.0	0.0	0.0
040	5/28/2019 10:19:16	0.0	0.1	0.3	0.1
041	5/28/2019 10:20:16	0.1	0.1	0.3	0.1

042	5/28/2019 10:21:16	0.0	0.1	0.3	0.0
043	5/28/2019 10:22:16	0.0	0.0	0.0	0.0
044	5/28/2019 10:23:16	0.0	0.0	0.0	0.0
045	5/28/2019 10:24:16	0.0	0.0	0.0	0.0
046	5/28/2019 10:25:16	0.0	0.0	0.0	0.0
047	5/28/2019 10:26:16	0.0	0.0	0.0	0.0
048	5/28/2019 10:27:16	0.0	0.0	0.0	0.0
049	5/28/2019 10:28:16	0.0	0.0	0.0	0.0
050	5/28/2019 10:29:16	0.0	0.0	0.0	0.0
051	5/28/2019 10:30:16	0.0	0.0	0.0	0.0
052	5/28/2019 10:31:16	0.0	0.0	0.0	0.0
053	5/28/2019 10:32:16	0.0	0.0	0.0	0.0
054	5/28/2019 10:33:16	0.0	0.0	0.0	0.0
055	5/28/2019 10:34:16	0.0	0.0	0.0	0.0
056	5/28/2019 10:35:16	0.0	0.0	0.0	0.0
057	5/28/2019 10:36:16	0.0	0.0	0.0	0.0
058	5/28/2019 10:37:16	0.0	0.0	0.0	0.0
059	5/28/2019 10:38:16	0.0	0.0	0.0	0.0
060	5/28/2019 10:39:16	0.0	0.0	0.0	0.0
061	5/28/2019 10:40:16	0.0	0.0	0.0	0.0
062	5/28/2019 10:41:16	0.0	0.0	0.0	0.0
063	5/28/2019 10:42:16	0.0	0.0	0.0	0.0
064	5/28/2019 10:43:16	0.0	0.0	0.0	0.0
065	5/28/2019 10:44:16	0.0	0.0	0.0	0.0
066	5/28/2019 10:45:16	0.0	0.0	0.0	0.0
067	5/28/2019 10:46:16	0.0	0.0	0.1	0.0
068	5/28/2019 10:47:16	0.0	0.0	0.0	0.0
069	5/28/2019 10:48:16	0.0	0.0	0.0	0.0
070	5/28/2019 10:49:16	0.0	0.0	0.0	0.0
071	5/28/2019 10:50:16	0.0	0.0	0.0	0.0
072	5/28/2019 10:51:16	0.0	0.0	0.0	0.0

073	5/28/2019	10:52:16	0.0	0.0	0.0	0.0
074	5/28/2019	10:53:16	0.0	0.0	0.0	0.0
075	5/28/2019	10:54:16	0.0	0.0	0.0	0.0
076	5/28/2019	10:55:16	0.0	0.0	0.0	0.0
077	5/28/2019	10:56:16	0.0	0.0	0.0	0.0
078	5/28/2019	10:57:16	0.0	0.0	0.0	0.0
079	5/28/2019	10:58:16	0.0	0.0	0.0	0.0
080	5/28/2019	10:59:16	0.0	0.0	0.0	0.0
081	5/28/2019	11:00:16	0.0	0.0	0.0	0.0
082	5/28/2019	11:01:16	0.0	0.0	0.0	0.0
083	5/28/2019	11:02:16	0.0	0.0	0.0	0.0
084	5/28/2019	11:03:16	0.0	0.0	0.0	0.0
085	5/28/2019	11:04:16	0.0	0.0	0.0	0.0
086	5/28/2019	11:05:16	0.0	0.0	0.0	0.0
087	5/28/2019	11:06:16	0.0	0.0	0.0	0.0
088	5/28/2019	11:07:16	0.0	0.0	0.0	0.0
089	5/28/2019	11:08:16	0.0	0.0	0.0	0.0
090	5/28/2019	11:09:16	0.0	0.0	0.0	0.0
091	5/28/2019	11:10:16	0.0	0.0	0.0	0.0
092	5/28/2019	11:11:16	0.0	0.0	0.0	0.0
093	5/28/2019	11:12:16	0.0	0.0	0.0	0.0
094	5/28/2019	11:13:16	0.0	0.0	0.0	0.0
095	5/28/2019	11:14:16	0.0	0.0	0.0	0.0
096	5/28/2019	11:15:16	0.0	0.0	0.0	0.0
097	5/28/2019	11:16:16	0.0	0.0	0.0	0.0
098	5/28/2019	11:17:16	0.0	0.0	0.0	0.0
099	5/28/2019	11:18:16	0.0	0.0	0.0	0.0
100	5/28/2019	11:19:16	0.0	0.0	0.0	0.0
101	5/28/2019	11:20:16	0.0	0.0	0.0	0.0
102	5/28/2019	11:21:16	0.0	0.0	0.0	0.0
103	5/28/2019	11:22:16	0.0	0.0	0.0	0.0

104	5/28/2019	11:23:16	0.0	0.0	0.0	0.0
105	5/28/2019	11:24:16	0.0	0.0	0.0	0.0
106	5/28/2019	11:25:16	0.0	0.0	0.0	0.0
107	5/28/2019	11:26:16	0.0	0.0	0.0	0.0
108	5/28/2019	11:27:16	0.0	0.0	0.0	0.0
109	5/28/2019	11:28:16	0.0	0.0	0.0	0.0
110	5/28/2019	11:29:16	0.0	0.0	0.0	0.0
111	5/28/2019	11:30:16	0.0	0.0	0.0	0.0
112	5/28/2019	11:31:16	0.0	0.0	0.0	0.0
113	5/28/2019	11:32:16	0.0	0.0	0.0	0.0
114	5/28/2019	11:33:16	0.0	0.0	0.0	0.0
115	5/28/2019	11:34:16	0.0	0.0	0.0	0.0
116	5/28/2019	11:35:16	0.0	0.0	0.0	0.0
117	5/28/2019	11:36:16	0.0	0.0	0.0	0.0
118	5/28/2019	11:37:16	0.0	0.0	0.0	0.0
119	5/28/2019	11:38:16	0.0	0.0	0.0	0.0
120	5/28/2019	11:39:16	0.0	0.0	0.0	0.0
121	5/28/2019	11:40:16	0.0	0.0	0.0	0.0
122	5/28/2019	11:41:16	0.0	0.0	0.0	0.0
123	5/28/2019	11:42:16	0.0	0.0	0.0	0.0
124	5/28/2019	11:43:16	0.0	0.0	0.0	0.0
125	5/28/2019	11:44:16	0.0	0.0	0.0	0.0
126	5/28/2019	11:45:16	0.0	0.0	0.0	0.0
127	5/28/2019	11:46:16	0.0	0.0	0.0	0.0
128	5/28/2019	11:47:16	0.0	0.0	0.0	0.0
129	5/28/2019	11:48:16	0.0	0.0	0.0	0.0
130	5/28/2019	11:49:16	0.0	0.0	0.0	0.0
131	5/28/2019	11:50:16	0.0	0.0	0.0	0.0
132	5/28/2019	11:51:16	0.0	0.0	0.0	0.0
133	5/28/2019	11:52:16	0.0	0.0	0.0	0.0
134	5/28/2019	11:53:16	0.0	0.0	0.0	0.0

135	5/28/2019 11:54:16	0.0	0.0	0.0	0.0
136	5/28/2019 11:55:16	0.0	0.0	0.0	0.0
137	5/28/2019 11:56:16	0.0	0.0	0.0	0.0
138	5/28/2019 11:57:16	0.0	0.0	0.0	0.0
139	5/28/2019 11:58:16	0.0	0.0	0.0	0.0
140	5/28/2019 11:59:16	0.0	0.0	0.0	0.0
141	5/28/2019 12:00:16	0.0	0.0	0.0	0.0
142	5/28/2019 12:01:16	0.0	0.0	0.0	0.0
143	5/28/2019 12:02:16	0.0	0.0	0.0	0.0
144	5/28/2019 12:03:16	0.0	0.0	0.0	0.0
145	5/28/2019 12:04:16	0.0	0.0	0.0	0.0
146	5/28/2019 12:05:16	0.0	0.0	0.0	0.0
147	5/28/2019 12:06:16	0.0	0.0	0.0	0.0
148	5/28/2019 12:07:16	0.0	0.0	0.0	0.0
149	5/28/2019 12:08:16	0.0	0.0	0.0	0.0
150	5/28/2019 12:09:16	0.0	0.0	0.0	0.0
151	5/28/2019 12:10:16	0.0	0.0	0.0	0.0
152	5/28/2019 12:11:16	0.0	0.0	0.0	0.0
153	5/28/2019 12:12:16	0.0	0.0	0.0	0.0
154	5/28/2019 12:13:16	0.0	0.0	0.0	0.0
155	5/28/2019 12:14:16	0.0	0.0	0.0	0.0
156	5/28/2019 12:15:16	0.0	0.0	0.0	0.0
157	5/28/2019 12:16:16	0.0	0.0	0.0	0.0
158	5/28/2019 12:17:16	0.0	0.0	0.0	0.0
159	5/28/2019 12:18:16	0.0	0.0	0.0	0.0
160	5/28/2019 12:19:16	0.0	0.0	0.0	0.0
161	5/28/2019 12:20:16	0.0	0.0	0.0	0.0
162	5/28/2019 12:21:16	0.0	0.0	0.0	0.0
163	5/28/2019 12:22:16	0.0	0.0	0.0	0.0
164	5/28/2019 12:23:16	0.0	0.0	0.0	0.0
165	5/28/2019 12:24:16	0.0	0.0	0.0	0.0

166	5/28/2019 12:25:16	0.0	0.0	0.0	0.0
167	5/28/2019 12:26:16	0.0	0.0	0.0	0.0
168	5/28/2019 12:27:16	0.0	0.0	0.0	0.0
169	5/28/2019 12:28:16	0.0	0.0	0.0	0.0
170	5/28/2019 12:29:16	0.0	0.0	0.0	0.0
171	5/28/2019 12:30:16	0.0	0.0	0.0	0.0
172	5/28/2019 12:31:16	0.0	0.0	0.0	0.0
173	5/28/2019 12:32:16	0.0	0.0	0.0	0.0
174	5/28/2019 12:33:16	0.0	0.0	0.0	0.0
175	5/28/2019 12:34:16	0.0	0.0	0.0	0.0
176	5/28/2019 12:35:16	0.0	0.0	0.0	0.0
177	5/28/2019 12:36:16	0.0	0.0	0.0	0.0
178	5/28/2019 12:37:16	0.0	0.0	0.0	0.0
179	5/28/2019 12:38:16	0.0	0.0	0.0	0.0
180	5/28/2019 12:39:16	0.0	0.0	0.0	0.0
181	5/28/2019 12:40:16	0.0	0.0	0.0	0.0
182	5/28/2019 12:41:16	0.0	0.0	0.0	0.0
183	5/28/2019 12:42:16	0.0	0.0	0.0	0.0
184	5/28/2019 12:43:16	0.0	0.0	0.0	0.0
185	5/28/2019 12:44:16	0.0	0.0	0.0	0.0
186	5/28/2019 12:45:16	0.0	0.0	0.0	0.0
187	5/28/2019 12:46:16	0.0	0.0	0.0	0.0
188	5/28/2019 12:47:16	0.0	0.0	0.0	0.0
189	5/28/2019 12:48:16	0.0	0.0	0.0	0.0
190	5/28/2019 12:49:16	0.0	0.0	0.0	0.0
191	5/28/2019 12:50:16	0.0	0.0	0.0	0.0
192	5/28/2019 12:51:16	0.0	0.0	0.0	0.0
193	5/28/2019 12:52:16	0.0	0.0	0.0	0.0
194	5/28/2019 12:53:16	0.0	0.0	0.0	0.0
195	5/28/2019 12:54:16	0.0	0.0	0.0	0.0
196	5/28/2019 12:55:16	0.0	0.0	0.0	0.0

197	5/28/2019 12:56:16	0.0	0.0	0.0	0.0
198	5/28/2019 12:57:16	0.0	0.0	0.0	0.0
199	5/28/2019 12:58:16	0.0	0.0	0.0	0.0
200	5/28/2019 12:59:16	0.0	0.0	0.0	0.0
201	5/28/2019 13:00:16	0.0	0.0	0.0	0.0
202	5/28/2019 13:01:16	0.0	0.0	0.0	0.0
203	5/28/2019 13:02:16	0.0	0.0	0.0	0.0
204	5/28/2019 13:03:16	0.0	0.1	1.0	0.0
205	5/28/2019 13:04:16	0.0	0.1	0.5	0.0
206	5/28/2019 13:05:16	0.0	0.1	0.3	0.1
207	5/28/2019 13:06:16	0.0	0.1	0.5	0.3
208	5/28/2019 13:07:16	0.0	0.1	0.4	0.0
209	5/28/2019 13:08:16	0.0	0.0	0.1	0.0
210	5/28/2019 13:09:16	0.0	0.0	0.0	0.0
211	5/28/2019 13:10:16	0.0	0.0	0.0	0.0
212	5/28/2019 13:11:16	0.0	0.0	0.0	0.0
213	5/28/2019 13:12:16	0.0	0.0	0.1	0.0
214	5/28/2019 13:13:16	0.0	0.0	0.0	0.0
215	5/28/2019 13:14:16	0.0	0.0	0.0	0.0
216	5/28/2019 13:15:16	0.0	0.0	0.0	0.0
217	5/28/2019 13:16:16	0.0	0.0	0.0	0.0
218	5/28/2019 13:17:16	0.0	0.0	0.0	0.0
219	5/28/2019 13:18:16	0.0	0.0	0.0	0.0
220	5/28/2019 13:19:16	0.0	0.0	0.0	0.0
221	5/28/2019 13:20:16	0.0	0.0	0.0	0.0
222	5/28/2019 13:21:16	0.0	0.0	0.0	0.0
223	5/28/2019 13:22:16	0.0	0.0	0.0	0.0
224	5/28/2019 13:23:16	0.0	0.0	0.0	0.0
225	5/28/2019 13:24:16	0.0	0.0	0.0	0.0
226	5/28/2019 13:25:16	0.0	0.0	0.0	0.0
227	5/28/2019 13:26:16	0.0	0.0	0.0	0.0

228	5/28/2019 13:27:16	0.0	0.0	0.0	0.0
229	5/28/2019 13:28:16	0.0	0.0	0.0	0.0
230	5/28/2019 13:29:16	0.0	0.0	0.0	0.0
231	5/28/2019 13:30:16	0.0	0.0	0.0	0.0
232	5/28/2019 13:31:16	0.0	0.0	0.0	0.0
233	5/28/2019 13:32:16	0.0	0.0	0.0	0.0
234	5/28/2019 13:33:16	0.0	0.0	0.0	0.0
235	5/28/2019 13:34:16	0.0	0.0	0.0	0.0
236	5/28/2019 13:35:16	0.0	0.0	0.0	0.0
237	5/28/2019 13:36:16	0.0	0.0	0.0	0.0
238	5/28/2019 13:37:16	0.0	0.0	0.0	0.0
239	5/28/2019 13:38:16	0.0	0.0	0.0	0.0
240	5/28/2019 13:39:16	0.0	0.0	0.0	0.0
241	5/28/2019 13:40:16	0.0	0.0	0.0	0.0
242	5/28/2019 13:41:16	0.0	0.0	0.0	0.0
243	5/28/2019 13:42:16	0.0	0.0	0.0	0.0
244	5/28/2019 13:43:16	0.0	0.0	0.0	0.0
245	5/28/2019 13:44:16	0.0	0.0	0.0	0.0
246	5/28/2019 13:45:16	0.0	0.0	0.0	0.0
247	5/28/2019 13:46:16	0.0	0.0	0.0	0.0
248	5/28/2019 13:47:16	0.0	0.0	0.0	0.0
249	5/28/2019 13:48:16	0.0	0.0	0.0	0.0
250	5/28/2019 13:49:16	0.0	0.0	0.0	0.0
251	5/28/2019 13:50:16	0.0	0.0	0.0	0.0
252	5/28/2019 13:51:16	0.0	0.0	0.0	0.0
253	5/28/2019 13:52:16	0.0	0.0	0.0	0.0
254	5/28/2019 13:53:16	0.0	0.0	0.0	0.0
255	5/28/2019 13:54:16	0.0	0.0	0.0	0.0
256	5/28/2019 13:55:16	0.0	0.0	0.0	0.0
257	5/28/2019 13:56:16	0.0	0.0	0.0	0.0
258	5/28/2019 13:57:16	0.0	0.0	0.0	0.0

259	5/28/2019 13:58:16	0.0	0.0	0.0	0.0
260	5/28/2019 13:59:16	0.0	0.0	0.0	0.0
261	5/28/2019 14:00:16	0.0	0.0	0.0	0.0
262	5/28/2019 14:01:16	0.0	0.0	0.0	0.0
263	5/28/2019 14:02:16	0.0	0.0	0.0	0.0
264	5/28/2019 14:03:16	0.0	0.0	0.0	0.0
265	5/28/2019 14:04:16	0.0	0.0	0.0	0.0
266	5/28/2019 14:05:16	0.0	0.0	0.0	0.0
267	5/28/2019 14:06:16	0.0	0.0	0.0	0.0
268	5/28/2019 14:07:16	0.0	0.0	0.0	0.0
269	5/28/2019 14:08:16	0.0	0.0	0.0	0.0
270	5/28/2019 14:09:16	0.0	0.0	0.0	0.0
271	5/28/2019 14:10:16	0.0	0.0	0.0	0.0
272	5/28/2019 14:11:16	0.0	0.0	0.0	0.0
273	5/28/2019 14:12:16	0.0	0.0	0.0	0.0
274	5/28/2019 14:13:16	0.0	0.0	0.0	0.0
275	5/28/2019 14:14:16	0.0	0.0	0.0	0.0
276	5/28/2019 14:15:16	0.0	0.0	0.0	0.0
277	5/28/2019 14:16:16	0.0	0.0	0.0	0.0
278	5/28/2019 14:17:16	0.0	0.0	0.0	0.0
279	5/28/2019 14:18:16	0.0	0.0	0.0	0.0
280	5/28/2019 14:19:16	0.0	0.0	0.0	0.0
281	5/28/2019 14:20:16	0.0	0.0	0.0	0.0
282	5/28/2019 14:21:16	0.0	0.0	0.0	0.0
283	5/28/2019 14:22:16	0.0	0.0	0.0	0.0
284	5/28/2019 14:23:16	0.0	0.0	0.0	0.0
285	5/28/2019 14:24:16	0.0	0.0	0.0	0.0
286	5/28/2019 14:25:16	0.0	0.0	0.0	0.0
287	5/28/2019 14:26:16	0.0	0.0	0.0	0.0
288	5/28/2019 14:27:16	0.0	0.0	0.0	0.0
289	5/28/2019 14:28:16	0.0	0.0	0.0	0.0

290	5/28/2019	14:29:16	0.0	0.0	0.0	0.0
291	5/28/2019	14:30:16	0.0	0.0	0.0	0.0
292	5/28/2019	14:31:16	0.0	0.0	0.0	0.0
293	5/28/2019	14:32:16	0.0	0.0	0.0	0.0
294	5/28/2019	14:33:16	0.0	0.0	0.0	0.0
295	5/28/2019	14:34:16	0.0	0.0	0.0	0.0
296	5/28/2019	14:35:16	0.0	0.0	0.0	0.0
297	5/28/2019	14:36:16	0.0	0.0	0.0	0.0
298	5/28/2019	14:37:16	0.0	0.0	0.0	0.0
299	5/28/2019	14:38:16	0.0	0.0	0.0	0.0
300	5/28/2019	14:39:16	0.0	0.0	0.0	0.0
301	5/28/2019	14:40:16	0.0	0.0	0.0	0.0
302	5/28/2019	14:41:16	0.0	0.0	0.0	0.0
Peak			0.1	0.4	1.0	0.4
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/28/2019	09:40:16	0.0	---	
002	5/28/2019	09:41:16	0.0	---	
003	5/28/2019	09:42:16	0.0	---	
004	5/28/2019	09:43:16	0.0	---	
005	5/28/2019	09:44:16	0.0	---	
006	5/28/2019	09:45:16	0.0	---	
007	5/28/2019	09:46:16	0.0	---	
008	5/28/2019	09:47:16	0.0	---	
009	5/28/2019	09:48:16	0.0	---	
010	5/28/2019	09:49:16	0.0	---	

011	5/28/2019 09:50:16	0.0	---
012	5/28/2019 09:51:16	0.0	---
013	5/28/2019 09:52:16	0.0	---
014	5/28/2019 09:53:16	0.0	---
015	5/28/2019 09:54:16	0.0	0.0
016	5/28/2019 09:55:16	0.0	0.0
017	5/28/2019 09:56:16	0.0	0.0
018	5/28/2019 09:57:16	0.0	0.0
019	5/28/2019 09:58:16	0.0	0.0
020	5/28/2019 09:59:16	0.0	0.0
021	5/28/2019 10:00:16	0.0	0.1
022	5/28/2019 10:01:16	0.0	0.1
023	5/28/2019 10:02:16	0.0	0.1
024	5/28/2019 10:03:16	0.0	0.1
025	5/28/2019 10:04:16	0.0	0.1
026	5/28/2019 10:05:16	0.0	0.1
027	5/28/2019 10:06:16	0.0	0.1
028	5/28/2019 10:07:16	0.0	0.1
029	5/28/2019 10:08:16	0.0	0.1
030	5/28/2019 10:09:16	0.0	0.1
031	5/28/2019 10:10:16	0.0	0.1
032	5/28/2019 10:11:16	0.0	0.1
033	5/28/2019 10:12:16	0.0	0.1
034	5/28/2019 10:13:16	0.0	0.1
035	5/28/2019 10:14:16	0.0	0.1
036	5/28/2019 10:15:16	0.0	0.1
037	5/28/2019 10:16:16	0.0	0.1
038	5/28/2019 10:17:16	0.0	0.0
039	5/28/2019 10:18:16	0.0	0.0
040	5/28/2019 10:19:16	0.0	0.0
041	5/28/2019 10:20:16	0.0	0.0

042	5/28/2019 10:21:16	0.0	0.0
043	5/28/2019 10:22:16	0.0	0.0
044	5/28/2019 10:23:16	0.0	0.0
045	5/28/2019 10:24:16	0.0	0.0
046	5/28/2019 10:25:16	0.0	0.0
047	5/28/2019 10:26:16	0.0	0.0
048	5/28/2019 10:27:16	0.0	0.0
049	5/28/2019 10:28:16	0.0	0.0
050	5/28/2019 10:29:16	0.0	0.0
051	5/28/2019 10:30:16	0.0	0.0
052	5/28/2019 10:31:16	0.0	0.0
053	5/28/2019 10:32:16	0.0	0.0
054	5/28/2019 10:33:16	0.0	0.0
055	5/28/2019 10:34:16	0.0	0.0
056	5/28/2019 10:35:16	0.0	0.0
057	5/28/2019 10:36:16	0.0	0.0
058	5/28/2019 10:37:16	0.0	0.0
059	5/28/2019 10:38:16	0.0	0.0
060	5/28/2019 10:39:16	0.0	0.0
061	5/28/2019 10:40:16	0.0	0.0
062	5/28/2019 10:41:16	0.0	0.0
063	5/28/2019 10:42:16	0.0	0.0
064	5/28/2019 10:43:16	0.0	0.0
065	5/28/2019 10:44:16	0.0	0.0
066	5/28/2019 10:45:16	0.0	0.0
067	5/28/2019 10:46:16	0.0	0.0
068	5/28/2019 10:47:16	0.0	0.0
069	5/28/2019 10:48:16	0.0	0.0
070	5/28/2019 10:49:16	0.0	0.0
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072	5/28/2019 10:51:16	0.0	0.0

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078	5/28/2019 10:57:16	0.0	0.0
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080	5/28/2019 10:59:16	0.0	0.0
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082	5/28/2019 11:01:16	0.0	0.0
083	5/28/2019 11:02:16	0.0	0.0
084	5/28/2019 11:03:16	0.0	0.0
085	5/28/2019 11:04:16	0.0	0.0
086	5/28/2019 11:05:16	0.0	0.0
087	5/28/2019 11:06:16	0.0	0.0
088	5/28/2019 11:07:16	0.0	0.0
089	5/28/2019 11:08:16	0.0	0.0
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093	5/28/2019 11:12:16	0.0	0.0
094	5/28/2019 11:13:16	0.0	0.0
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096	5/28/2019 11:15:16	0.0	0.0
097	5/28/2019 11:16:16	0.0	0.0
098	5/28/2019 11:17:16	0.0	0.0
099	5/28/2019 11:18:16	0.0	0.0
100	5/28/2019 11:19:16	0.0	0.0
101	5/28/2019 11:20:16	0.0	0.0
102	5/28/2019 11:21:16	0.0	0.0
103	5/28/2019 11:22:16	0.0	0.0

104	5/28/2019 11:23:16	0.0	0.0
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110	5/28/2019 11:29:16	0.0	0.0
111	5/28/2019 11:30:16	0.0	0.0
112	5/28/2019 11:31:16	0.0	0.0
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116	5/28/2019 11:35:16	0.0	0.0
117	5/28/2019 11:36:16	0.0	0.0
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119	5/28/2019 11:38:16	0.0	0.0
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121	5/28/2019 11:40:16	0.0	0.0
122	5/28/2019 11:41:16	0.0	0.0
123	5/28/2019 11:42:16	0.0	0.0
124	5/28/2019 11:43:16	0.0	0.0
125	5/28/2019 11:44:16	0.0	0.0
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127	5/28/2019 11:46:16	0.0	0.0
128	5/28/2019 11:47:16	0.0	0.0
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135	5/28/2019 11:54:16	0.0	0.0
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139	5/28/2019 11:58:16	0.0	0.0
140	5/28/2019 11:59:16	0.0	0.0
141	5/28/2019 12:00:16	0.0	0.0
142	5/28/2019 12:01:16	0.0	0.0
143	5/28/2019 12:02:16	0.0	0.0
144	5/28/2019 12:03:16	0.0	0.0
145	5/28/2019 12:04:16	0.0	0.0
146	5/28/2019 12:05:16	0.0	0.0
147	5/28/2019 12:06:16	0.0	0.0
148	5/28/2019 12:07:16	0.0	0.0
149	5/28/2019 12:08:16	0.0	0.0
150	5/28/2019 12:09:16	0.0	0.0
151	5/28/2019 12:10:16	0.0	0.0
152	5/28/2019 12:11:16	0.0	0.0
153	5/28/2019 12:12:16	0.0	0.0
154	5/28/2019 12:13:16	0.0	0.0
155	5/28/2019 12:14:16	0.0	0.0
156	5/28/2019 12:15:16	0.0	0.0
157	5/28/2019 12:16:16	0.0	0.0
158	5/28/2019 12:17:16	0.0	0.0
159	5/28/2019 12:18:16	0.0	0.0
160	5/28/2019 12:19:16	0.0	0.0
161	5/28/2019 12:20:16	0.0	0.0
162	5/28/2019 12:21:16	0.0	0.0
163	5/28/2019 12:22:16	0.0	0.0
164	5/28/2019 12:23:16	0.0	0.0
165	5/28/2019 12:24:16	0.0	0.0

166	5/28/2019 12:25:16	0.0	0.0
167	5/28/2019 12:26:16	0.0	0.0
168	5/28/2019 12:27:16	0.0	0.0
169	5/28/2019 12:28:16	0.0	0.0
170	5/28/2019 12:29:16	0.0	0.0
171	5/28/2019 12:30:16	0.0	0.0
172	5/28/2019 12:31:16	0.0	0.0
173	5/28/2019 12:32:16	0.0	0.0
174	5/28/2019 12:33:16	0.0	0.0
175	5/28/2019 12:34:16	0.0	0.0
176	5/28/2019 12:35:16	0.0	0.0
177	5/28/2019 12:36:16	0.0	0.0
178	5/28/2019 12:37:16	0.0	0.0
179	5/28/2019 12:38:16	0.0	0.0
180	5/28/2019 12:39:16	0.0	0.0
181	5/28/2019 12:40:16	0.0	0.0
182	5/28/2019 12:41:16	0.0	0.0
183	5/28/2019 12:42:16	0.0	0.0
184	5/28/2019 12:43:16	0.0	0.0
185	5/28/2019 12:44:16	0.0	0.0
186	5/28/2019 12:45:16	0.0	0.0
187	5/28/2019 12:46:16	0.0	0.0
188	5/28/2019 12:47:16	0.0	0.0
189	5/28/2019 12:48:16	0.0	0.0
190	5/28/2019 12:49:16	0.0	0.0
191	5/28/2019 12:50:16	0.0	0.0
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194	5/28/2019 12:53:16	0.0	0.0
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196	5/28/2019 12:55:16	0.0	0.0

197	5/28/2019 12:56:16	0.0	0.0
198	5/28/2019 12:57:16	0.0	0.0
199	5/28/2019 12:58:16	0.0	0.0
200	5/28/2019 12:59:16	0.0	0.0
201	5/28/2019 13:00:16	0.0	0.0
202	5/28/2019 13:01:16	0.0	0.0
203	5/28/2019 13:02:16	0.0	0.0
204	5/28/2019 13:03:16	0.0	0.0
205	5/28/2019 13:04:16	0.0	0.0
206	5/28/2019 13:05:16	0.0	0.0
207	5/28/2019 13:06:16	0.0	0.0
208	5/28/2019 13:07:16	0.0	0.0
209	5/28/2019 13:08:16	0.0	0.0
210	5/28/2019 13:09:16	0.0	0.0
211	5/28/2019 13:10:16	0.0	0.0
212	5/28/2019 13:11:16	0.0	0.0
213	5/28/2019 13:12:16	0.0	0.0
214	5/28/2019 13:13:16	0.0	0.0
215	5/28/2019 13:14:16	0.0	0.0
216	5/28/2019 13:15:16	0.0	0.0
217	5/28/2019 13:16:16	0.0	0.0
218	5/28/2019 13:17:16	0.0	0.0
219	5/28/2019 13:18:16	0.0	0.0
220	5/28/2019 13:19:16	0.0	0.0
221	5/28/2019 13:20:16	0.0	0.0
222	5/28/2019 13:21:16	0.0	0.0
223	5/28/2019 13:22:16	0.0	0.0
224	5/28/2019 13:23:16	0.0	0.0
225	5/28/2019 13:24:16	0.0	0.0
226	5/28/2019 13:25:16	0.0	0.0
227	5/28/2019 13:26:16	0.0	0.0

228	5/28/2019 13:27:16	0.0	0.0
229	5/28/2019 13:28:16	0.0	0.0
230	5/28/2019 13:29:16	0.0	0.0
231	5/28/2019 13:30:16	0.0	0.0
232	5/28/2019 13:31:16	0.0	0.0
233	5/28/2019 13:32:16	0.0	0.0
234	5/28/2019 13:33:16	0.0	0.0
235	5/28/2019 13:34:16	0.0	0.0
236	5/28/2019 13:35:16	0.0	0.0
237	5/28/2019 13:36:16	0.0	0.0
238	5/28/2019 13:37:16	0.0	0.0
239	5/28/2019 13:38:16	0.0	0.0
240	5/28/2019 13:39:16	0.0	0.0
241	5/28/2019 13:40:16	0.0	0.0
242	5/28/2019 13:41:16	0.0	0.0
243	5/28/2019 13:42:16	0.0	0.0
244	5/28/2019 13:43:16	0.0	0.0
245	5/28/2019 13:44:16	0.0	0.0
246	5/28/2019 13:45:16	0.0	0.0
247	5/28/2019 13:46:16	0.0	0.0
248	5/28/2019 13:47:16	0.0	0.0
249	5/28/2019 13:48:16	0.0	0.0
250	5/28/2019 13:49:16	0.0	0.0
251	5/28/2019 13:50:16	0.0	0.0
252	5/28/2019 13:51:16	0.0	0.0
253	5/28/2019 13:52:16	0.0	0.0
254	5/28/2019 13:53:16	0.0	0.0
255	5/28/2019 13:54:16	0.0	0.0
256	5/28/2019 13:55:16	0.0	0.0
257	5/28/2019 13:56:16	0.0	0.0
258	5/28/2019 13:57:16	0.0	0.0

259	5/28/2019 13:58:16	0.0	0.0
260	5/28/2019 13:59:16	0.0	0.0
261	5/28/2019 14:00:16	0.0	0.0
262	5/28/2019 14:01:16	0.0	0.0
263	5/28/2019 14:02:16	0.0	0.0
264	5/28/2019 14:03:16	0.0	0.0
265	5/28/2019 14:04:16	0.0	0.0
266	5/28/2019 14:05:16	0.0	0.0
267	5/28/2019 14:06:16	0.0	0.0
268	5/28/2019 14:07:16	0.0	0.0
269	5/28/2019 14:08:16	0.0	0.0
270	5/28/2019 14:09:16	0.0	0.0
271	5/28/2019 14:10:16	0.0	0.0
272	5/28/2019 14:11:16	0.0	0.0
273	5/28/2019 14:12:16	0.0	0.0
274	5/28/2019 14:13:16	0.0	0.0
275	5/28/2019 14:14:16	0.0	0.0
276	5/28/2019 14:15:16	0.0	0.0
277	5/28/2019 14:16:16	0.0	0.0
278	5/28/2019 14:17:16	0.0	0.0
279	5/28/2019 14:18:16	0.0	0.0
280	5/28/2019 14:19:16	0.0	0.0
281	5/28/2019 14:20:16	0.0	0.0
282	5/28/2019 14:21:16	0.0	0.0
283	5/28/2019 14:22:16	0.0	0.0
284	5/28/2019 14:23:16	0.0	0.0
285	5/28/2019 14:24:16	0.0	0.0
286	5/28/2019 14:25:16	0.0	0.0
287	5/28/2019 14:26:16	0.0	0.0
288	5/28/2019 14:27:16	0.0	0.0
289	5/28/2019 14:28:16	0.0	0.0

290	5/28/2019 14:29:16	0.0	0.0
291	5/28/2019 14:30:16	0.0	0.0
292	5/28/2019 14:31:16	0.0	0.0
293	5/28/2019 14:32:16	0.0	0.0
294	5/28/2019 14:33:16	0.0	0.0
295	5/28/2019 14:34:16	0.0	0.0
296	5/28/2019 14:35:16	0.0	0.0
297	5/28/2019 14:36:16	0.0	0.0
298	5/28/2019 14:37:16	0.0	0.0
299	5/28/2019 14:38:16	0.0	0.0
300	5/28/2019 14:39:16	0.0	0.0
301	5/28/2019 14:40:16	0.0	0.0
302	5/28/2019 14:41:16	0.0	0.0

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19/05/29 09:55
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	5/29/2019 09:55:58
End	5/29/2019 14:40:57
Sample Period(s)	60
Number of Records	284

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	1.6
Min	0.0
Average	0.1

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/29/2019	09:56:58	0.0	0.0	0.0	0.0
002	5/29/2019	09:57:58	0.0	0.0	0.0	0.0
003	5/29/2019	09:58:58	0.0	0.0	0.0	0.0
004	5/29/2019	09:59:58	0.0	0.0	0.0	0.0
005	5/29/2019	10:00:58	0.0	0.0	0.0	0.0
006	5/29/2019	10:01:58	0.0	0.0	0.0	0.0

007	5/29/2019	10:02:58	0.0	0.0	0.0	0.0
008	5/29/2019	10:03:58	0.0	0.0	0.0	0.0
009	5/29/2019	10:04:58	0.0	0.0	0.0	0.0
010	5/29/2019	10:05:58	0.0	0.0	0.0	0.0
011	5/29/2019	10:06:58	0.0	0.0	0.0	0.0
012	5/29/2019	10:07:58	0.0	0.0	0.0	0.0
013	5/29/2019	10:08:58	0.0	0.0	0.0	0.0
014	5/29/2019	10:09:58	0.0	0.0	0.0	0.0
015	5/29/2019	10:10:58	0.0	0.0	0.0	0.0
016	5/29/2019	10:11:58	0.0	0.0	0.0	0.0
017	5/29/2019	10:12:58	0.0	0.0	0.0	0.0
018	5/29/2019	10:13:58	0.0	0.0	0.0	0.0
019	5/29/2019	10:14:58	0.0	0.0	0.0	0.0
020	5/29/2019	10:15:58	0.0	0.0	0.0	0.0
021	5/29/2019	10:16:58	0.0	0.0	0.0	0.0
022	5/29/2019	10:17:58	0.0	0.0	0.0	0.0
023	5/29/2019	10:18:58	0.0	0.0	0.0	0.0
024	5/29/2019	10:19:58	0.0	0.0	0.0	0.0
025	5/29/2019	10:20:58	0.0	0.0	0.0	0.0
026	5/29/2019	10:21:58	0.0	0.0	0.0	0.0
027	5/29/2019	10:22:58	0.0	0.0	0.0	0.0
028	5/29/2019	10:23:58	0.0	0.0	0.0	0.0
029	5/29/2019	10:24:58	0.0	0.0	0.0	0.0
030	5/29/2019	10:25:58	0.0	0.0	0.0	0.0
031	5/29/2019	10:26:58	0.0	0.0	0.0	0.0
032	5/29/2019	10:27:58	0.0	0.0	0.0	0.0
033	5/29/2019	10:28:58	0.0	0.0	0.0	0.0
034	5/29/2019	10:29:58	0.0	0.0	0.0	0.0
035	5/29/2019	10:30:58	0.0	0.0	0.0	0.0
036	5/29/2019	10:31:58	0.0	0.0	0.0	0.0
037	5/29/2019	10:32:58	0.0	0.0	0.0	0.0

038	5/29/2019	10:33:58	0.0	0.0	0.0	0.0
039	5/29/2019	10:34:58	0.0	0.0	0.0	0.0
040	5/29/2019	10:35:58	0.0	0.0	0.0	0.0
041	5/29/2019	10:36:58	0.0	0.0	0.0	0.0
042	5/29/2019	10:37:58	0.0	0.0	0.0	0.0
043	5/29/2019	10:38:58	0.0	0.0	0.0	0.0
044	5/29/2019	10:39:58	0.0	0.0	0.0	0.0
045	5/29/2019	10:40:58	0.0	0.0	0.0	0.0
046	5/29/2019	10:41:58	0.0	0.0	0.0	0.0
047	5/29/2019	10:42:58	0.0	0.0	0.0	0.0
048	5/29/2019	10:43:58	0.0	0.0	0.0	0.0
049	5/29/2019	10:44:58	0.0	0.0	0.0	0.0
050	5/29/2019	10:45:58	0.0	0.0	0.0	0.0
051	5/29/2019	10:46:58	0.0	0.0	0.0	0.0
052	5/29/2019	10:47:58	0.0	0.0	0.0	0.0
053	5/29/2019	10:48:58	0.0	0.0	0.0	0.0
054	5/29/2019	10:49:58	0.0	0.0	0.0	0.0
055	5/29/2019	10:50:58	0.0	0.0	0.0	0.0
056	5/29/2019	10:51:58	0.0	0.0	0.0	0.0
057	5/29/2019	10:52:58	0.0	0.0	0.3	0.0
058	5/29/2019	10:53:58	0.0	0.4	1.4	0.3
059	5/29/2019	10:54:58	0.0	0.1	0.3	0.0
060	5/29/2019	10:55:58	0.0	0.2	0.6	0.2
061	5/29/2019	10:56:58	0.0	0.1	0.2	0.0
062	5/29/2019	10:57:58	0.0	0.0	0.2	0.2
063	5/29/2019	10:58:58	0.0	0.2	0.3	0.0
064	5/29/2019	10:59:58	0.0	0.0	0.0	0.0
065	5/29/2019	11:00:58	0.0	0.0	0.0	0.0
066	5/29/2019	11:01:58	0.0	0.2	1.1	0.5
067	5/29/2019	11:02:58	0.2	0.7	1.7	0.9
068	5/29/2019	11:03:58	0.1	0.3	0.8	0.1

069	5/29/2019	11:04:58	0.0	0.1	0.1	0.0
070	5/29/2019	11:05:58	0.0	0.0	0.0	0.0
071	5/29/2019	11:06:58	0.0	0.0	0.0	0.0
072	5/29/2019	11:07:58	0.0	0.0	0.0	0.0
073	5/29/2019	11:08:58	0.0	0.0	0.0	0.0
074	5/29/2019	11:09:58	0.0	0.0	0.1	0.1
075	5/29/2019	11:10:58	0.1	0.4	1.0	0.2
076	5/29/2019	11:11:58	0.1	0.5	1.1	1.1
077	5/29/2019	11:12:58	0.3	0.8	1.6	0.7
078	5/29/2019	11:13:58	0.0	0.1	0.5	0.0
079	5/29/2019	11:14:58	0.0	0.1	0.2	0.1
080	5/29/2019	11:15:58	0.0	0.1	0.2	0.0
081	5/29/2019	11:16:58	0.0	0.1	0.1	0.1
082	5/29/2019	11:17:58	0.0	0.0	0.1	0.0
083	5/29/2019	11:18:58	0.0	0.0	0.0	0.0
084	5/29/2019	11:19:58	0.0	0.0	0.1	0.0
085	5/29/2019	11:20:58	0.0	0.2	0.6	0.6
086	5/29/2019	11:21:58	0.2	0.5	0.9	0.9
087	5/29/2019	11:22:58	0.2	0.6	0.9	0.9
088	5/29/2019	11:23:58	0.2	0.8	1.1	0.2
089	5/29/2019	11:24:58	0.1	0.5	1.0	0.3
090	5/29/2019	11:25:58	0.3	0.6	1.3	0.3
091	5/29/2019	11:26:58	0.2	0.5	1.0	0.6
092	5/29/2019	11:27:58	0.3	0.7	1.9	0.3
093	5/29/2019	11:28:58	0.1	0.5	1.0	0.1
094	5/29/2019	11:29:58	0.1	0.1	0.2	0.2
095	5/29/2019	11:30:58	0.0	0.2	0.8	0.2
096	5/29/2019	11:31:58	0.1	0.5	0.9	0.7
097	5/29/2019	11:32:58	0.1	0.3	0.6	0.1
098	5/29/2019	11:33:58	0.1	0.3	0.6	0.1
099	5/29/2019	11:34:58	0.0	0.1	0.1	0.0

100	5/29/2019	11:35:58	0.0	0.0	0.1	0.1
101	5/29/2019	11:36:58	0.0	0.3	0.9	0.4
102	5/29/2019	11:37:58	0.1	0.3	0.5	0.1
103	5/29/2019	11:38:58	0.1	0.3	1.0	0.4
104	5/29/2019	11:39:58	0.1	0.9	2.6	1.6
105	5/29/2019	11:40:58	0.2	0.8	1.9	0.3
106	5/29/2019	11:41:58	0.3	1.0	2.1	1.2
107	5/29/2019	11:42:58	0.1	0.4	1.2	0.1
108	5/29/2019	11:43:58	0.1	0.1	0.1	0.1
109	5/29/2019	11:44:58	0.1	0.1	0.1	0.1
110	5/29/2019	11:45:58	0.1	0.1	0.1	0.1
111	5/29/2019	11:46:58	0.1	0.1	0.1	0.1
112	5/29/2019	11:47:58	0.0	0.1	0.1	0.0
113	5/29/2019	11:48:58	0.0	0.0	0.0	0.0
114	5/29/2019	11:49:58	0.0	0.0	0.0	0.0
115	5/29/2019	11:50:58	0.0	0.0	0.0	0.0
116	5/29/2019	11:51:58	0.0	0.0	0.1	0.1
117	5/29/2019	11:52:58	0.0	0.0	0.1	0.0
118	5/29/2019	11:53:58	0.0	0.0	0.0	0.0
119	5/29/2019	11:54:58	0.0	0.0	0.0	0.0
120	5/29/2019	11:55:58	0.0	0.0	0.1	0.0
121	5/29/2019	11:56:58	0.0	0.0	0.2	0.2
122	5/29/2019	11:57:58	0.1	0.2	0.4	0.1
123	5/29/2019	11:58:58	0.0	0.1	0.3	0.1
124	5/29/2019	11:59:58	0.0	0.0	0.1	0.0
125	5/29/2019	12:00:58	0.0	0.0	0.0	0.0
126	5/29/2019	12:01:58	0.0	0.1	0.2	0.1
127	5/29/2019	12:02:58	0.0	0.0	0.1	0.0
128	5/29/2019	12:03:58	0.0	0.1	0.1	0.0
129	5/29/2019	12:04:58	0.0	0.1	0.2	0.1
130	5/29/2019	12:05:58	0.0	0.1	0.1	0.0

131	5/29/2019 12:06:58	0.0	0.1	0.1	0.1
132	5/29/2019 12:07:58	0.0	0.0	0.1	0.0
133	5/29/2019 12:08:58	0.0	0.0	0.1	0.0
134	5/29/2019 12:09:58	0.0	0.0	0.0	0.0
135	5/29/2019 12:10:58	0.0	0.1	0.2	0.1
136	5/29/2019 12:11:58	0.1	0.1	0.1	0.1
137	5/29/2019 12:12:58	0.1	0.1	0.6	0.1
138	5/29/2019 12:13:58	0.1	0.1	0.4	0.1
139	5/29/2019 12:14:58	0.1	0.1	0.2	0.1
140	5/29/2019 12:15:58	0.1	0.1	0.1	0.1
141	5/29/2019 12:16:58	0.1	0.1	0.1	0.1
142	5/29/2019 12:17:58	0.1	0.1	0.6	0.1
143	5/29/2019 12:18:58	0.1	0.1	0.1	0.1
144	5/29/2019 12:19:58	0.1	0.1	0.1	0.1
145	5/29/2019 12:20:58	0.1	0.1	0.1	0.1
146	5/29/2019 12:21:58	0.1	0.1	0.1	0.1
147	5/29/2019 12:22:58	0.1	0.1	0.1	0.1
148	5/29/2019 12:23:58	0.1	0.1	0.1	0.1
149	5/29/2019 12:24:58	0.1	0.1	0.1	0.1
150	5/29/2019 12:25:58	0.1	0.1	0.1	0.1
151	5/29/2019 12:26:58	0.1	0.1	0.1	0.1
152	5/29/2019 12:27:58	0.1	0.1	0.1	0.1
153	5/29/2019 12:28:58	0.1	0.1	0.1	0.1
154	5/29/2019 12:29:58	0.1	0.1	0.1	0.1
155	5/29/2019 12:30:58	0.1	0.1	0.1	0.1
156	5/29/2019 12:31:58	0.1	0.1	0.1	0.1
157	5/29/2019 12:32:58	0.1	0.1	0.1	0.1
158	5/29/2019 12:33:58	0.1	0.1	0.1	0.1
159	5/29/2019 12:34:58	0.1	0.1	0.1	0.1
160	5/29/2019 12:35:58	0.1	0.1	0.1	0.1
161	5/29/2019 12:36:58	0.1	0.1	0.1	0.1

162	5/29/2019 12:37:58	0.1	0.1	0.1	0.1
163	5/29/2019 12:38:58	0.1	0.1	0.1	0.1
164	5/29/2019 12:39:58	0.1	0.1	0.1	0.1
165	5/29/2019 12:40:58	0.1	0.1	0.1	0.1
166	5/29/2019 12:41:58	0.1	0.1	0.1	0.1
167	5/29/2019 12:42:58	0.1	0.1	0.1	0.1
168	5/29/2019 12:43:58	0.1	0.1	0.1	0.1
169	5/29/2019 12:44:58	0.1	0.1	0.1	0.1
170	5/29/2019 12:45:58	0.1	0.1	0.1	0.1
171	5/29/2019 12:46:58	0.1	0.1	0.1	0.1
172	5/29/2019 12:47:58	0.1	0.1	0.1	0.1
173	5/29/2019 12:48:58	0.1	0.1	0.1	0.1
174	5/29/2019 12:49:58	0.1	0.1	0.1	0.1
175	5/29/2019 12:50:58	0.1	0.1	0.1	0.1
176	5/29/2019 12:51:58	0.1	0.1	0.1	0.1
177	5/29/2019 12:52:58	0.1	0.1	0.1	0.1
178	5/29/2019 12:53:58	0.1	0.1	0.1	0.1
179	5/29/2019 12:54:58	0.0	0.1	0.1	0.1
180	5/29/2019 12:55:58	0.0	0.0	0.1	0.1
181	5/29/2019 12:56:58	0.0	0.1	0.1	0.1
182	5/29/2019 12:57:58	0.1	0.1	0.1	0.1
183	5/29/2019 12:58:58	0.0	0.1	0.1	0.0
184	5/29/2019 12:59:58	0.0	0.0	0.1	0.1
185	5/29/2019 13:00:58	0.0	0.0	0.1	0.0
186	5/29/2019 13:01:58	0.0	0.1	0.1	0.1
187	5/29/2019 13:02:58	0.0	0.1	0.1	0.0
188	5/29/2019 13:03:58	0.0	0.0	0.1	0.0
189	5/29/2019 13:04:58	0.0	0.1	0.2	0.1
190	5/29/2019 13:05:58	0.0	0.0	0.1	0.1
191	5/29/2019 13:06:58	0.0	0.1	0.1	0.0
192	5/29/2019 13:07:58	0.0	0.0	0.1	0.0

193	5/29/2019 13:08:58	0.0	0.0	0.0	0.0
194	5/29/2019 13:09:58	0.0	0.0	0.1	0.1
195	5/29/2019 13:10:58	0.0	0.0	0.1	0.0
196	5/29/2019 13:11:58	0.0	0.0	0.0	0.0
197	5/29/2019 13:12:58	0.0	0.0	0.0	0.0
198	5/29/2019 13:13:58	0.0	0.0	0.0	0.0
199	5/29/2019 13:14:58	0.0	0.0	0.0	0.0
200	5/29/2019 13:15:58	0.0	0.0	0.0	0.0
201	5/29/2019 13:16:58	0.0	0.0	0.0	0.0
202	5/29/2019 13:17:58	0.0	0.0	0.0	0.0
203	5/29/2019 13:18:58	0.0	0.0	0.0	0.0
204	5/29/2019 13:19:58	0.0	0.0	0.0	0.0
205	5/29/2019 13:20:58	0.0	0.0	0.0	0.0
206	5/29/2019 13:21:58	0.0	0.0	0.0	0.0
207	5/29/2019 13:22:58	0.0	0.0	0.0	0.0
208	5/29/2019 13:23:58	0.0	0.0	0.0	0.0
209	5/29/2019 13:24:58	0.0	0.0	0.0	0.0
210	5/29/2019 13:25:58	0.0	0.0	0.0	0.0
211	5/29/2019 13:26:58	0.0	0.0	0.0	0.0
212	5/29/2019 13:27:58	0.0	0.0	0.1	0.0
213	5/29/2019 13:28:58	0.0	0.0	0.0	0.0
214	5/29/2019 13:29:58	0.0	0.0	0.1	0.1
215	5/29/2019 13:30:58	0.0	0.0	0.1	0.0
216	5/29/2019 13:31:58	0.0	0.0	0.0	0.0
217	5/29/2019 13:32:58	0.0	0.0	0.1	0.0
218	5/29/2019 13:33:58	0.0	0.0	0.1	0.0
219	5/29/2019 13:34:58	0.0	0.0	0.0	0.0
220	5/29/2019 13:35:58	0.0	0.0	0.0	0.0
221	5/29/2019 13:36:58	0.0	0.0	0.0	0.0
222	5/29/2019 13:37:58	0.0	0.0	0.0	0.0
223	5/29/2019 13:38:58	0.0	0.0	0.0	0.0

224	5/29/2019 13:39:58	0.0	0.0	0.0	0.0
225	5/29/2019 13:40:58	0.0	0.0	0.0	0.0
226	5/29/2019 13:41:58	0.0	0.0	0.1	0.0
227	5/29/2019 13:42:58	0.0	0.0	0.0	0.0
228	5/29/2019 13:43:58	0.0	0.0	0.0	0.0
229	5/29/2019 13:44:58	0.0	0.0	0.0	0.0
230	5/29/2019 13:45:58	0.0	0.0	0.0	0.0
231	5/29/2019 13:46:58	0.0	0.0	0.0	0.0
232	5/29/2019 13:47:58	0.0	0.0	0.1	0.0
233	5/29/2019 13:48:58	0.0	0.0	0.0	0.0
234	5/29/2019 13:49:58	0.0	0.0	0.0	0.0
235	5/29/2019 13:50:58	0.0	0.0	0.0	0.0
236	5/29/2019 13:51:58	0.0	0.0	0.0	0.0
237	5/29/2019 13:52:58	0.0	0.0	0.0	0.0
238	5/29/2019 13:53:58	0.0	0.0	0.0	0.0
239	5/29/2019 13:54:58	0.0	0.0	0.0	0.0
240	5/29/2019 13:55:58	0.0	0.0	0.0	0.0
241	5/29/2019 13:56:58	0.0	0.0	0.0	0.0
242	5/29/2019 13:57:58	0.0	0.0	0.1	0.1
243	5/29/2019 13:58:58	0.0	0.1	0.1	0.1
244	5/29/2019 13:59:58	0.0	0.0	0.1	0.0
245	5/29/2019 14:00:58	0.0	0.1	0.1	0.1
246	5/29/2019 14:01:58	0.0	0.1	0.1	0.1
247	5/29/2019 14:02:58	0.0	0.1	0.1	0.0
248	5/29/2019 14:03:58	0.0	0.1	0.1	0.1
249	5/29/2019 14:04:58	0.1	0.1	0.1	0.1
250	5/29/2019 14:05:58	0.1	0.1	0.1	0.1
251	5/29/2019 14:06:58	0.1	0.1	0.1	0.1
252	5/29/2019 14:07:58	0.1	0.1	0.1	0.1
253	5/29/2019 14:08:58	0.1	0.1	0.1	0.1
254	5/29/2019 14:09:58	0.1	0.1	0.1	0.1

255	5/29/2019	14:10:58	0.1	0.1	0.1	0.1
256	5/29/2019	14:11:58	0.1	0.1	0.2	0.1
257	5/29/2019	14:12:58	0.1	0.2	0.5	0.3
258	5/29/2019	14:13:58	0.1	0.1	0.3	0.1
259	5/29/2019	14:14:58	0.1	0.1	0.1	0.1
260	5/29/2019	14:15:58	0.1	0.1	0.1	0.1
261	5/29/2019	14:16:58	0.1	0.1	0.1	0.1
262	5/29/2019	14:17:58	0.1	0.1	0.1	0.1
263	5/29/2019	14:18:58	0.1	0.1	0.1	0.1
264	5/29/2019	14:19:58	0.1	0.1	0.1	0.1
265	5/29/2019	14:20:58	0.1	0.1	0.1	0.1
266	5/29/2019	14:21:58	0.1	0.1	0.1	0.1
267	5/29/2019	14:22:58	0.1	0.1	0.1	0.1
268	5/29/2019	14:23:58	0.1	0.1	0.1	0.1
269	5/29/2019	14:24:58	0.1	0.1	0.1	0.1
270	5/29/2019	14:25:58	0.1	0.1	0.1	0.1
271	5/29/2019	14:26:58	0.1	0.1	0.1	0.1
272	5/29/2019	14:27:58	0.1	0.1	0.1	0.1
273	5/29/2019	14:28:58	0.1	0.1	0.4	0.3
274	5/29/2019	14:29:58	0.1	0.1	0.4	0.1
275	5/29/2019	14:30:58	0.1	0.1	0.1	0.1
276	5/29/2019	14:31:58	0.1	0.1	0.1	0.1
277	5/29/2019	14:32:58	0.1	0.2	0.9	0.3
278	5/29/2019	14:33:58	0.1	0.2	0.6	0.4
279	5/29/2019	14:34:58	0.1	0.3	1.6	0.1
280	5/29/2019	14:35:58	0.1	0.2	0.3	0.1
281	5/29/2019	14:36:58	0.1	0.1	0.1	0.1
282	5/29/2019	14:37:58	0.1	0.1	0.4	0.2
283	5/29/2019	14:38:58	0.1	0.1	0.3	0.2
284	5/29/2019	14:39:58	0.1	0.1	0.2	0.1
Peak		0.3	1.0	2.6	1.6	

Min	0.0	0.0	0.0	0.0
Average	0.0	0.1	0.2	0.1

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/29/2019	09:56:58	0.0	---
002	5/29/2019	09:57:58	0.0	---
003	5/29/2019	09:58:58	0.0	---
004	5/29/2019	09:59:58	0.0	---
005	5/29/2019	10:00:58	0.0	---
006	5/29/2019	10:01:58	0.0	---
007	5/29/2019	10:02:58	0.0	---
008	5/29/2019	10:03:58	0.0	---
009	5/29/2019	10:04:58	0.0	---
010	5/29/2019	10:05:58	0.0	---
011	5/29/2019	10:06:58	0.0	---
012	5/29/2019	10:07:58	0.0	---
013	5/29/2019	10:08:58	0.0	---
014	5/29/2019	10:09:58	0.0	---
015	5/29/2019	10:10:58	0.0	0.0
016	5/29/2019	10:11:58	0.0	0.0
017	5/29/2019	10:12:58	0.0	0.0
018	5/29/2019	10:13:58	0.0	0.0
019	5/29/2019	10:14:58	0.0	0.0
020	5/29/2019	10:15:58	0.0	0.0
021	5/29/2019	10:16:58	0.0	0.0
022	5/29/2019	10:17:58	0.0	0.0
023	5/29/2019	10:18:58	0.0	0.0
024	5/29/2019	10:19:58	0.0	0.0

025	5/29/2019 10:20:58	0.0	0.0
026	5/29/2019 10:21:58	0.0	0.0
027	5/29/2019 10:22:58	0.0	0.0
028	5/29/2019 10:23:58	0.0	0.0
029	5/29/2019 10:24:58	0.0	0.0
030	5/29/2019 10:25:58	0.0	0.0
031	5/29/2019 10:26:58	0.0	0.0
032	5/29/2019 10:27:58	0.0	0.0
033	5/29/2019 10:28:58	0.0	0.0
034	5/29/2019 10:29:58	0.0	0.0
035	5/29/2019 10:30:58	0.0	0.0
036	5/29/2019 10:31:58	0.0	0.0
037	5/29/2019 10:32:58	0.0	0.0
038	5/29/2019 10:33:58	0.0	0.0
039	5/29/2019 10:34:58	0.0	0.0
040	5/29/2019 10:35:58	0.0	0.0
041	5/29/2019 10:36:58	0.0	0.0
042	5/29/2019 10:37:58	0.0	0.0
043	5/29/2019 10:38:58	0.0	0.0
044	5/29/2019 10:39:58	0.0	0.0
045	5/29/2019 10:40:58	0.0	0.0
046	5/29/2019 10:41:58	0.0	0.0
047	5/29/2019 10:42:58	0.0	0.0
048	5/29/2019 10:43:58	0.0	0.0
049	5/29/2019 10:44:58	0.0	0.0
050	5/29/2019 10:45:58	0.0	0.0
051	5/29/2019 10:46:58	0.0	0.0
052	5/29/2019 10:47:58	0.0	0.0
053	5/29/2019 10:48:58	0.0	0.0
054	5/29/2019 10:49:58	0.0	0.0
055	5/29/2019 10:50:58	0.0	0.0

056	5/29/2019	10:51:58	0.0	0.0
057	5/29/2019	10:52:58	0.0	0.0
058	5/29/2019	10:53:58	0.0	0.0
059	5/29/2019	10:54:58	0.0	0.0
060	5/29/2019	10:55:58	0.0	0.0
061	5/29/2019	10:56:58	0.0	0.0
062	5/29/2019	10:57:58	0.0	0.0
063	5/29/2019	10:58:58	0.0	0.0
064	5/29/2019	10:59:58	0.0	0.0
065	5/29/2019	11:00:58	0.0	0.0
066	5/29/2019	11:01:58	0.0	0.1
067	5/29/2019	11:02:58	0.0	0.1
068	5/29/2019	11:03:58	0.0	0.1
069	5/29/2019	11:04:58	0.0	0.1
070	5/29/2019	11:05:58	0.0	0.1
071	5/29/2019	11:06:58	0.0	0.1
072	5/29/2019	11:07:58	0.0	0.1
073	5/29/2019	11:08:58	0.0	0.1
074	5/29/2019	11:09:58	0.0	0.1
075	5/29/2019	11:10:58	0.0	0.1
076	5/29/2019	11:11:58	0.0	0.2
077	5/29/2019	11:12:58	0.0	0.3
078	5/29/2019	11:13:58	0.0	0.2
079	5/29/2019	11:14:58	0.0	0.2
080	5/29/2019	11:15:58	0.0	0.2
081	5/29/2019	11:16:58	0.0	0.3
082	5/29/2019	11:17:58	0.0	0.2
083	5/29/2019	11:18:58	0.0	0.2
084	5/29/2019	11:19:58	0.0	0.2
085	5/29/2019	11:20:58	0.0	0.2
086	5/29/2019	11:21:58	0.0	0.3

087	5/29/2019	11:22:58	0.0	0.3
088	5/29/2019	11:23:58	0.0	0.3
089	5/29/2019	11:24:58	0.0	0.3
090	5/29/2019	11:25:58	0.0	0.4
091	5/29/2019	11:26:58	0.0	0.4
092	5/29/2019	11:27:58	0.0	0.3
093	5/29/2019	11:28:58	0.0	0.3
094	5/29/2019	11:29:58	0.0	0.3
095	5/29/2019	11:30:58	0.0	0.3
096	5/29/2019	11:31:58	0.0	0.4
097	5/29/2019	11:32:58	0.0	0.4
098	5/29/2019	11:33:58	0.0	0.4
099	5/29/2019	11:34:58	0.0	0.4
100	5/29/2019	11:35:58	0.0	0.4
101	5/29/2019	11:36:58	0.0	0.4
102	5/29/2019	11:37:58	0.0	0.3
103	5/29/2019	11:38:58	0.0	0.3
104	5/29/2019	11:39:58	0.0	0.4
105	5/29/2019	11:40:58	0.0	0.4
106	5/29/2019	11:41:58	0.0	0.4
107	5/29/2019	11:42:58	0.0	0.4
108	5/29/2019	11:43:58	0.0	0.4
109	5/29/2019	11:44:58	0.0	0.4
110	5/29/2019	11:45:58	0.0	0.4
111	5/29/2019	11:46:58	0.0	0.4
112	5/29/2019	11:47:58	0.0	0.3
113	5/29/2019	11:48:58	0.0	0.3
114	5/29/2019	11:49:58	0.0	0.3
115	5/29/2019	11:50:58	0.0	0.3
116	5/29/2019	11:51:58	0.0	0.3
117	5/29/2019	11:52:58	0.0	0.3

118	5/29/2019 11:53:58	0.0	0.3
119	5/29/2019 11:54:58	0.0	0.2
120	5/29/2019 11:55:58	0.0	0.1
121	5/29/2019 11:56:58	0.0	0.1
122	5/29/2019 11:57:58	0.0	0.1
123	5/29/2019 11:58:58	0.0	0.1
124	5/29/2019 11:59:58	0.0	0.1
125	5/29/2019 12:00:58	0.0	0.0
126	5/29/2019 12:01:58	0.0	0.0
127	5/29/2019 12:02:58	0.0	0.0
128	5/29/2019 12:03:58	0.0	0.0
129	5/29/2019 12:04:58	0.0	0.0
130	5/29/2019 12:05:58	0.0	0.0
131	5/29/2019 12:06:58	0.0	0.1
132	5/29/2019 12:07:58	0.0	0.0
133	5/29/2019 12:08:58	0.0	0.0
134	5/29/2019 12:09:58	0.0	0.0
135	5/29/2019 12:10:58	0.0	0.1
136	5/29/2019 12:11:58	0.0	0.1
137	5/29/2019 12:12:58	0.0	0.1
138	5/29/2019 12:13:58	0.0	0.1
139	5/29/2019 12:14:58	0.0	0.1
140	5/29/2019 12:15:58	0.0	0.1
141	5/29/2019 12:16:58	0.0	0.1
142	5/29/2019 12:17:58	0.0	0.1
143	5/29/2019 12:18:58	0.0	0.1
144	5/29/2019 12:19:58	0.0	0.1
145	5/29/2019 12:20:58	0.0	0.1
146	5/29/2019 12:21:58	0.0	0.1
147	5/29/2019 12:22:58	0.0	0.1
148	5/29/2019 12:23:58	0.0	0.1

149	5/29/2019 12:24:58	0.0	0.1
150	5/29/2019 12:25:58	0.0	0.1
151	5/29/2019 12:26:58	0.0	0.1
152	5/29/2019 12:27:58	0.0	0.1
153	5/29/2019 12:28:58	0.0	0.1
154	5/29/2019 12:29:58	0.0	0.1
155	5/29/2019 12:30:58	0.0	0.1
156	5/29/2019 12:31:58	0.0	0.1
157	5/29/2019 12:32:58	0.0	0.1
158	5/29/2019 12:33:58	0.0	0.1
159	5/29/2019 12:34:58	0.0	0.1
160	5/29/2019 12:35:58	0.0	0.1
161	5/29/2019 12:36:58	0.0	0.1
162	5/29/2019 12:37:58	0.0	0.1
163	5/29/2019 12:38:58	0.0	0.1
164	5/29/2019 12:39:58	0.0	0.1
165	5/29/2019 12:40:58	0.0	0.1
166	5/29/2019 12:41:58	0.0	0.1
167	5/29/2019 12:42:58	0.0	0.1
168	5/29/2019 12:43:58	0.0	0.1
169	5/29/2019 12:44:58	0.0	0.1
170	5/29/2019 12:45:58	0.0	0.1
171	5/29/2019 12:46:58	0.0	0.1
172	5/29/2019 12:47:58	0.0	0.1
173	5/29/2019 12:48:58	0.0	0.1
174	5/29/2019 12:49:58	0.0	0.1
175	5/29/2019 12:50:58	0.0	0.1
176	5/29/2019 12:51:58	0.0	0.1
177	5/29/2019 12:52:58	0.0	0.1
178	5/29/2019 12:53:58	0.0	0.1
179	5/29/2019 12:54:58	0.0	0.1

180	5/29/2019 12:55:58	0.0	0.1
181	5/29/2019 12:56:58	0.0	0.1
182	5/29/2019 12:57:58	0.0	0.1
183	5/29/2019 12:58:58	0.0	0.1
184	5/29/2019 12:59:58	0.0	0.1
185	5/29/2019 13:00:58	0.0	0.1
186	5/29/2019 13:01:58	0.0	0.1
187	5/29/2019 13:02:58	0.0	0.1
188	5/29/2019 13:03:58	0.0	0.1
189	5/29/2019 13:04:58	0.0	0.1
190	5/29/2019 13:05:58	0.0	0.1
191	5/29/2019 13:06:58	0.0	0.1
192	5/29/2019 13:07:58	0.0	0.1
193	5/29/2019 13:08:58	0.0	0.1
194	5/29/2019 13:09:58	0.0	0.1
195	5/29/2019 13:10:58	0.0	0.1
196	5/29/2019 13:11:58	0.0	0.0
197	5/29/2019 13:12:58	0.0	0.0
198	5/29/2019 13:13:58	0.0	0.0
199	5/29/2019 13:14:58	0.0	0.0
200	5/29/2019 13:15:58	0.0	0.0
201	5/29/2019 13:16:58	0.0	0.0
202	5/29/2019 13:17:58	0.0	0.0
203	5/29/2019 13:18:58	0.0	0.0
204	5/29/2019 13:19:58	0.0	0.0
205	5/29/2019 13:20:58	0.0	0.0
206	5/29/2019 13:21:58	0.0	0.0
207	5/29/2019 13:22:58	0.0	0.0
208	5/29/2019 13:23:58	0.0	0.0
209	5/29/2019 13:24:58	0.0	0.0
210	5/29/2019 13:25:58	0.0	0.0

211	5/29/2019 13:26:58	0.0	0.0
212	5/29/2019 13:27:58	0.0	0.0
213	5/29/2019 13:28:58	0.0	0.0
214	5/29/2019 13:29:58	0.0	0.0
215	5/29/2019 13:30:58	0.0	0.0
216	5/29/2019 13:31:58	0.0	0.0
217	5/29/2019 13:32:58	0.0	0.0
218	5/29/2019 13:33:58	0.0	0.0
219	5/29/2019 13:34:58	0.0	0.0
220	5/29/2019 13:35:58	0.0	0.0
221	5/29/2019 13:36:58	0.0	0.0
222	5/29/2019 13:37:58	0.0	0.0
223	5/29/2019 13:38:58	0.0	0.0
224	5/29/2019 13:39:58	0.0	0.0
225	5/29/2019 13:40:58	0.0	0.0
226	5/29/2019 13:41:58	0.0	0.0
227	5/29/2019 13:42:58	0.0	0.0
228	5/29/2019 13:43:58	0.0	0.0
229	5/29/2019 13:44:58	0.0	0.0
230	5/29/2019 13:45:58	0.0	0.0
231	5/29/2019 13:46:58	0.0	0.0
232	5/29/2019 13:47:58	0.0	0.0
233	5/29/2019 13:48:58	0.0	0.0
234	5/29/2019 13:49:58	0.0	0.0
235	5/29/2019 13:50:58	0.0	0.0
236	5/29/2019 13:51:58	0.0	0.0
237	5/29/2019 13:52:58	0.0	0.0
238	5/29/2019 13:53:58	0.0	0.0
239	5/29/2019 13:54:58	0.0	0.0
240	5/29/2019 13:55:58	0.0	0.0
241	5/29/2019 13:56:58	0.0	0.0

242	5/29/2019 13:57:58	0.0	0.0
243	5/29/2019 13:58:58	0.0	0.0
244	5/29/2019 13:59:58	0.0	0.0
245	5/29/2019 14:00:58	0.0	0.0
246	5/29/2019 14:01:58	0.0	0.0
247	5/29/2019 14:02:58	0.0	0.0
248	5/29/2019 14:03:58	0.0	0.0
249	5/29/2019 14:04:58	0.0	0.0
250	5/29/2019 14:05:58	0.0	0.0
251	5/29/2019 14:06:58	0.0	0.1
252	5/29/2019 14:07:58	0.0	0.1
253	5/29/2019 14:08:58	0.0	0.1
254	5/29/2019 14:09:58	0.0	0.1
255	5/29/2019 14:10:58	0.0	0.1
256	5/29/2019 14:11:58	0.0	0.1
257	5/29/2019 14:12:58	0.0	0.1
258	5/29/2019 14:13:58	0.0	0.1
259	5/29/2019 14:14:58	0.0	0.1
260	5/29/2019 14:15:58	0.0	0.1
261	5/29/2019 14:16:58	0.0	0.1
262	5/29/2019 14:17:58	0.0	0.1
263	5/29/2019 14:18:58	0.0	0.1
264	5/29/2019 14:19:58	0.0	0.1
265	5/29/2019 14:20:58	0.0	0.1
266	5/29/2019 14:21:58	0.0	0.1
267	5/29/2019 14:22:58	0.0	0.1
268	5/29/2019 14:23:58	0.0	0.1
269	5/29/2019 14:24:58	0.0	0.1
270	5/29/2019 14:25:58	0.0	0.1
271	5/29/2019 14:26:58	0.0	0.1
272	5/29/2019 14:27:58	0.0	0.1

273	5/29/2019 14:28:58	0.1	0.1
274	5/29/2019 14:29:58	0.1	0.1
275	5/29/2019 14:30:58	0.1	0.1
276	5/29/2019 14:31:58	0.1	0.1
277	5/29/2019 14:32:58	0.1	0.1
278	5/29/2019 14:33:58	0.1	0.2
279	5/29/2019 14:34:58	0.1	0.2
280	5/29/2019 14:35:58	0.1	0.2
281	5/29/2019 14:36:58	0.1	0.2
282	5/29/2019 14:37:58	0.1	0.2
283	5/29/2019 14:38:58	0.1	0.2
284	5/29/2019 14:39:58	0.1	0.2

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19/05/30 08:29

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	5/30/2019 08:29:47

End 5/30/2019 15:00:25
Sample Period(s) 60
Number of Records 390

Sensor PID(ppm)
Sensor SN S023030045T3
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 50.0
High Alarm 100.0
Over Alarm 15000.0
STEL Alarm 100.0
TWA Alarm 50.0
Measurement Gas Isobutylene
Calibration Time 5/15/2019 15:55
Peak 0.1
Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/30/2019	08:30:47	0.0	0.1	0.4	0.1
002	5/30/2019	08:31:47	0.0	0.0	0.1	0.0
003	5/30/2019	08:32:47	0.0	0.0	0.1	0.0
004	5/30/2019	08:33:47	0.0	0.1	0.3	0.1
005	5/30/2019	08:34:47	0.0	0.0	0.1	0.0
006	5/30/2019	08:35:47	0.0	0.0	0.0	0.0
007	5/30/2019	08:36:47	0.0	0.0	0.0	0.0

008	5/30/2019 08:37:47	0.0	0.0	0.0	0.0
009	5/30/2019 08:38:47	0.0	0.0	0.0	0.0
010	5/30/2019 08:39:47	0.0	0.0	0.0	0.0
011	5/30/2019 08:40:47	0.0	0.0	0.0	0.0
012	5/30/2019 08:41:47	0.0	0.0	0.0	0.0
013	5/30/2019 08:42:47	0.0	0.0	0.0	0.0
014	5/30/2019 08:43:47	0.0	0.0	0.0	0.0
015	5/30/2019 08:44:47	0.0	0.0	0.0	0.0
016	5/30/2019 08:45:47	0.0	0.0	0.0	0.0
017	5/30/2019 08:46:47	0.0	0.0	0.0	0.0
018	5/30/2019 08:47:47	0.0	0.0	0.0	0.0
019	5/30/2019 08:48:47	0.0	0.0	0.0	0.0
020	5/30/2019 08:49:47	0.0	0.0	0.0	0.0
021	5/30/2019 08:50:47	0.0	0.0	0.0	0.0
022	5/30/2019 08:51:47	0.0	0.0	0.0	0.0
023	5/30/2019 08:52:47	0.0	0.0	0.0	0.0
024	5/30/2019 08:53:47	0.0	0.0	0.0	0.0
025	5/30/2019 08:54:47	0.0	0.0	0.0	0.0
026	5/30/2019 08:55:47	0.0	0.0	0.0	0.0
027	5/30/2019 08:56:47	0.0	0.0	0.0	0.0
028	5/30/2019 08:57:47	0.0	0.0	0.0	0.0
029	5/30/2019 08:58:47	0.0	0.0	0.0	0.0
030	5/30/2019 08:59:47	0.0	0.0	0.0	0.0
031	5/30/2019 09:00:47	0.0	0.0	0.0	0.0
032	5/30/2019 09:01:47	0.0	0.0	0.0	0.0
033	5/30/2019 09:02:47	0.0	0.0	0.0	0.0
034	5/30/2019 09:03:47	0.0	0.0	0.0	0.0
035	5/30/2019 09:04:47	0.0	0.0	0.0	0.0
036	5/30/2019 09:05:47	0.0	0.0	0.0	0.0
037	5/30/2019 09:06:47	0.0	0.0	0.0	0.0
038	5/30/2019 09:07:47	0.0	0.0	0.0	0.0

039	5/30/2019 09:08:47	0.0	0.0	0.0	0.0
040	5/30/2019 09:09:47	0.0	0.0	0.0	0.0
041	5/30/2019 09:10:47	0.0	0.0	0.0	0.0
042	5/30/2019 09:11:47	0.0	0.0	0.0	0.0
043	5/30/2019 09:12:47	0.0	0.0	0.0	0.0
044	5/30/2019 09:13:47	0.0	0.0	0.0	0.0
045	5/30/2019 09:14:47	0.0	0.0	0.0	0.0
046	5/30/2019 09:15:47	0.0	0.0	0.0	0.0
047	5/30/2019 09:16:47	0.0	0.0	0.0	0.0
048	5/30/2019 09:17:47	0.0	0.0	0.0	0.0
049	5/30/2019 09:18:47	0.0	0.0	0.0	0.0
050	5/30/2019 09:19:47	0.0	0.0	0.0	0.0
051	5/30/2019 09:20:47	0.0	0.0	0.0	0.0
052	5/30/2019 09:21:47	0.0	0.0	0.0	0.0
053	5/30/2019 09:22:47	0.0	0.0	0.0	0.0
054	5/30/2019 09:23:47	0.0	0.0	0.0	0.0
055	5/30/2019 09:24:47	0.0	0.0	0.0	0.0
056	5/30/2019 09:25:47	0.0	0.0	0.0	0.0
057	5/30/2019 09:26:47	0.0	0.0	0.0	0.0
058	5/30/2019 09:27:47	0.0	0.0	0.0	0.0
059	5/30/2019 09:28:47	0.0	0.0	0.0	0.0
060	5/30/2019 09:29:47	0.0	0.0	0.0	0.0
061	5/30/2019 09:30:47	0.0	0.0	0.0	0.0
062	5/30/2019 09:31:47	0.0	0.0	0.0	0.0
063	5/30/2019 09:32:47	0.0	0.0	0.0	0.0
064	5/30/2019 09:33:47	0.0	0.0	0.0	0.0
065	5/30/2019 09:34:47	0.0	0.0	0.0	0.0
066	5/30/2019 09:35:47	0.0	0.0	0.0	0.0
067	5/30/2019 09:36:47	0.0	0.0	0.0	0.0
068	5/30/2019 09:37:47	0.0	0.0	0.0	0.0
069	5/30/2019 09:38:47	0.0	0.0	0.0	0.0

070	5/30/2019 09:39:47	0.0	0.0	0.0	0.0
071	5/30/2019 09:40:47	0.0	0.0	0.0	0.0
072	5/30/2019 09:41:47	0.0	0.0	0.0	0.0
073	5/30/2019 09:42:47	0.0	0.0	0.0	0.0
074	5/30/2019 09:43:47	0.0	0.0	0.0	0.0
075	5/30/2019 09:44:47	0.0	0.0	0.0	0.0
076	5/30/2019 09:45:47	0.0	0.0	0.0	0.0
077	5/30/2019 09:46:47	0.0	0.0	0.0	0.0
078	5/30/2019 09:47:47	0.0	0.0	0.0	0.0
079	5/30/2019 09:48:47	0.0	0.0	0.0	0.0
080	5/30/2019 09:49:47	0.0	0.0	0.0	0.0
081	5/30/2019 09:50:47	0.0	0.0	0.0	0.0
082	5/30/2019 09:51:47	0.0	0.0	0.0	0.0
083	5/30/2019 09:52:47	0.0	0.0	0.0	0.0
084	5/30/2019 09:53:47	0.0	0.0	0.0	0.0
085	5/30/2019 09:54:47	0.0	0.0	0.0	0.0
086	5/30/2019 09:55:47	0.0	0.0	0.0	0.0
087	5/30/2019 09:56:47	0.0	0.0	0.0	0.0
088	5/30/2019 09:57:47	0.0	0.0	0.0	0.0
089	5/30/2019 09:58:47	0.0	0.0	0.0	0.0
090	5/30/2019 09:59:47	0.0	0.0	0.0	0.0
091	5/30/2019 10:00:47	0.0	0.0	0.0	0.0
092	5/30/2019 10:01:47	0.0	0.0	0.0	0.0
093	5/30/2019 10:02:47	0.0	0.0	0.0	0.0
094	5/30/2019 10:03:47	0.0	0.0	0.0	0.0
095	5/30/2019 10:04:47	0.0	0.0	0.0	0.0
096	5/30/2019 10:05:47	0.0	0.0	0.0	0.0
097	5/30/2019 10:06:47	0.0	0.0	0.0	0.0
098	5/30/2019 10:07:47	0.0	0.0	0.0	0.0
099	5/30/2019 10:08:47	0.0	0.0	0.0	0.0
100	5/30/2019 10:09:47	0.0	0.0	0.0	0.0

101	5/30/2019	10:10:47	0.0	0.0	0.0	0.0
102	5/30/2019	10:11:47	0.0	0.0	0.0	0.0
103	5/30/2019	10:12:47	0.0	0.0	0.0	0.0
104	5/30/2019	10:13:47	0.0	0.0	0.0	0.0
105	5/30/2019	10:14:47	0.0	0.0	0.0	0.0
106	5/30/2019	10:15:47	0.0	0.0	0.0	0.0
107	5/30/2019	10:16:47	0.0	0.0	0.0	0.0
108	5/30/2019	10:17:47	0.0	0.0	0.0	0.0
109	5/30/2019	10:18:47	0.0	0.0	0.0	0.0
110	5/30/2019	10:19:47	0.0	0.0	0.0	0.0
111	5/30/2019	10:20:47	0.0	0.0	0.0	0.0
112	5/30/2019	10:21:47	0.0	0.0	0.0	0.0
113	5/30/2019	10:22:47	0.0	0.0	0.0	0.0
114	5/30/2019	10:23:47	0.0	0.0	0.0	0.0
115	5/30/2019	10:24:47	0.0	0.0	0.0	0.0
116	5/30/2019	10:25:47	0.0	0.0	0.0	0.0
117	5/30/2019	10:26:47	0.0	0.0	0.0	0.0
118	5/30/2019	10:27:47	0.0	0.0	0.0	0.0
119	5/30/2019	10:28:47	0.0	0.0	0.0	0.0
120	5/30/2019	10:29:47	0.0	0.0	0.0	0.0
121	5/30/2019	10:30:47	0.0	0.0	0.0	0.0
122	5/30/2019	10:31:47	0.0	0.0	0.0	0.0
123	5/30/2019	10:32:47	0.0	0.0	0.0	0.0
124	5/30/2019	10:33:47	0.0	0.0	0.0	0.0
125	5/30/2019	10:34:47	0.0	0.0	0.0	0.0
126	5/30/2019	10:35:47	0.0	0.0	0.0	0.0
127	5/30/2019	10:36:47	0.0	0.0	0.0	0.0
128	5/30/2019	10:37:47	0.0	0.0	0.0	0.0
129	5/30/2019	10:38:47	0.0	0.0	0.0	0.0
130	5/30/2019	10:39:47	0.0	0.0	0.0	0.0
131	5/30/2019	10:40:47	0.0	0.0	0.0	0.0

132	5/30/2019	10:41:47	0.0	0.0	0.0	0.0
133	5/30/2019	10:42:47	0.0	0.0	0.0	0.0
134	5/30/2019	10:43:47	0.0	0.0	0.0	0.0
135	5/30/2019	10:44:47	0.0	0.0	0.0	0.0
136	5/30/2019	10:45:47	0.0	0.0	0.0	0.0
137	5/30/2019	10:46:47	0.0	0.0	0.0	0.0
138	5/30/2019	10:47:47	0.0	0.0	0.0	0.0
139	5/30/2019	10:48:47	0.0	0.0	0.0	0.0
140	5/30/2019	10:49:47	0.0	0.0	0.0	0.0
141	5/30/2019	10:50:47	0.0	0.0	0.0	0.0
142	5/30/2019	10:51:47	0.0	0.0	0.0	0.0
143	5/30/2019	10:52:47	0.0	0.0	0.0	0.0
144	5/30/2019	10:53:47	0.0	0.0	0.0	0.0
145	5/30/2019	10:54:47	0.0	0.0	0.0	0.0
146	5/30/2019	10:55:47	0.0	0.0	0.0	0.0
147	5/30/2019	10:56:47	0.0	0.0	0.0	0.0
148	5/30/2019	10:57:47	0.0	0.0	0.0	0.0
149	5/30/2019	10:58:47	0.0	0.0	0.0	0.0
150	5/30/2019	10:59:47	0.0	0.0	0.0	0.0
151	5/30/2019	11:00:47	0.0	0.0	0.0	0.0
152	5/30/2019	11:01:47	0.0	0.0	0.0	0.0
153	5/30/2019	11:02:47	0.0	0.0	0.0	0.0
154	5/30/2019	11:03:47	0.0	0.0	0.0	0.0
155	5/30/2019	11:04:47	0.0	0.0	0.0	0.0
156	5/30/2019	11:05:47	0.0	0.0	0.0	0.0
157	5/30/2019	11:06:47	0.0	0.0	0.0	0.0
158	5/30/2019	11:07:47	0.0	0.0	0.0	0.0
159	5/30/2019	11:08:47	0.0	0.0	0.0	0.0
160	5/30/2019	11:09:47	0.0	0.1	0.4	0.0
161	5/30/2019	11:10:47	0.0	0.0	0.0	0.0
162	5/30/2019	11:11:47	0.0	0.0	0.0	0.0

163	5/30/2019	11:12:47	0.0	0.0	0.0	0.0
164	5/30/2019	11:13:47	0.0	0.0	0.0	0.0
165	5/30/2019	11:14:47	0.0	0.0	0.0	0.0
166	5/30/2019	11:15:47	0.0	0.0	0.0	0.0
167	5/30/2019	11:16:47	0.0	0.0	0.0	0.0
168	5/30/2019	11:17:47	0.0	0.0	0.0	0.0
169	5/30/2019	11:18:47	0.0	0.0	0.0	0.0
170	5/30/2019	11:19:47	0.0	0.1	0.8	0.0
171	5/30/2019	11:20:47	0.0	0.0	0.1	0.0
172	5/30/2019	11:21:47	0.0	0.0	0.0	0.0
173	5/30/2019	11:22:47	0.0	0.0	0.0	0.0
174	5/30/2019	11:23:47	0.0	0.0	0.0	0.0
175	5/30/2019	11:24:47	0.0	0.0	0.0	0.0
176	5/30/2019	11:25:47	0.0	0.0	0.0	0.0
177	5/30/2019	11:26:47	0.0	0.0	0.0	0.0
178	5/30/2019	11:27:47	0.0	0.0	0.0	0.0
179	5/30/2019	11:28:47	0.0	0.0	0.0	0.0
180	5/30/2019	11:29:47	0.0	0.0	0.0	0.0
181	5/30/2019	11:30:47	0.0	0.0	0.0	0.0
182	5/30/2019	11:31:47	0.0	0.0	0.0	0.0
183	5/30/2019	11:32:47	0.0	0.0	0.0	0.0
184	5/30/2019	11:33:47	0.0	0.0	0.0	0.0
185	5/30/2019	11:34:47	0.0	0.0	0.0	0.0
186	5/30/2019	11:35:47	0.0	0.0	0.0	0.0
187	5/30/2019	11:36:47	0.0	0.0	0.0	0.0
188	5/30/2019	11:37:47	0.0	0.0	0.0	0.0
189	5/30/2019	11:38:47	0.0	0.0	0.0	0.0
190	5/30/2019	11:39:47	0.0	0.0	0.0	0.0
191	5/30/2019	11:40:47	0.0	0.0	0.0	0.0
192	5/30/2019	11:41:47	0.0	0.0	0.0	0.0
193	5/30/2019	11:42:47	0.0	0.0	0.0	0.0

194	5/30/2019	11:43:47	0.0	0.0	0.0	0.0
195	5/30/2019	11:44:47	0.0	0.0	0.0	0.0
196	5/30/2019	11:45:47	0.0	0.0	0.0	0.0
197	5/30/2019	11:46:47	0.0	0.0	0.0	0.0
198	5/30/2019	11:47:47	0.0	0.0	0.0	0.0
199	5/30/2019	11:48:47	0.0	0.0	0.0	0.0
200	5/30/2019	11:49:47	0.0	0.0	0.0	0.0
201	5/30/2019	11:50:47	0.0	0.0	0.0	0.0
202	5/30/2019	11:51:47	0.0	0.0	0.0	0.0
203	5/30/2019	11:52:47	0.0	0.0	0.0	0.0
204	5/30/2019	11:53:47	0.0	0.0	0.0	0.0
205	5/30/2019	11:54:47	0.0	0.0	0.0	0.0
206	5/30/2019	11:55:47	0.0	0.0	0.0	0.0
207	5/30/2019	11:56:47	0.0	0.0	0.0	0.0
208	5/30/2019	11:57:47	0.0	0.0	0.0	0.0
209	5/30/2019	11:58:47	0.0	0.0	0.0	0.0
210	5/30/2019	11:59:47	0.0	0.0	0.0	0.0
211	5/30/2019	12:00:47	0.0	0.0	0.0	0.0
212	5/30/2019	12:01:47	0.0	0.0	0.0	0.0
213	5/30/2019	12:02:47	0.0	0.0	0.0	0.0
214	5/30/2019	12:03:47	0.0	0.0	0.0	0.0
215	5/30/2019	12:04:47	0.0	0.0	0.0	0.0
216	5/30/2019	12:05:47	0.0	0.0	0.0	0.0
217	5/30/2019	12:06:47	0.0	0.0	0.0	0.0
218	5/30/2019	12:07:47	0.0	0.0	0.0	0.0
219	5/30/2019	12:08:47	0.0	0.0	0.0	0.0
220	5/30/2019	12:09:47	0.0	0.0	0.0	0.0
221	5/30/2019	12:10:47	0.0	0.0	0.0	0.0
222	5/30/2019	12:11:47	0.0	0.0	0.0	0.0
223	5/30/2019	12:12:47	0.0	0.0	0.0	0.0
224	5/30/2019	12:13:47	0.0	0.0	0.0	0.0

225	5/30/2019 12:14:47	0.0	0.0	0.0	0.0
226	5/30/2019 12:15:47	0.0	0.0	0.0	0.0
227	5/30/2019 12:16:47	0.0	0.0	0.0	0.0
228	5/30/2019 12:17:47	0.0	0.0	0.0	0.0
229	5/30/2019 12:18:47	0.0	0.0	0.0	0.0
230	5/30/2019 12:19:47	0.0	0.0	0.0	0.0
231	5/30/2019 12:20:47	0.0	0.0	0.0	0.0
232	5/30/2019 12:21:47	0.0	0.0	0.0	0.0
233	5/30/2019 12:22:47	0.0	0.0	0.0	0.0
234	5/30/2019 12:23:47	0.0	0.0	0.0	0.0
235	5/30/2019 12:24:47	0.0	0.0	0.0	0.0
236	5/30/2019 12:25:47	0.0	0.0	0.0	0.0
237	5/30/2019 12:26:47	0.0	0.0	0.0	0.0
238	5/30/2019 12:27:47	0.0	0.0	0.0	0.0
239	5/30/2019 12:28:47	0.0	0.0	0.0	0.0
240	5/30/2019 12:29:47	0.0	0.0	0.0	0.0
241	5/30/2019 12:30:47	0.0	0.0	0.0	0.0
242	5/30/2019 12:31:47	0.0	0.0	0.0	0.0
243	5/30/2019 12:32:47	0.0	0.0	0.0	0.0
244	5/30/2019 12:33:47	0.0	0.0	0.0	0.0
245	5/30/2019 12:34:47	0.0	0.0	0.0	0.0
246	5/30/2019 12:35:47	0.0	0.0	0.0	0.0
247	5/30/2019 12:36:47	0.0	0.0	0.0	0.0
248	5/30/2019 12:37:47	0.0	0.0	0.0	0.0
249	5/30/2019 12:38:47	0.0	0.0	0.0	0.0
250	5/30/2019 12:39:47	0.0	0.0	0.0	0.0
251	5/30/2019 12:40:47	0.0	0.0	0.0	0.0
252	5/30/2019 12:41:47	0.0	0.0	0.0	0.0
253	5/30/2019 12:42:47	0.0	0.0	0.0	0.0
254	5/30/2019 12:43:47	0.0	0.0	0.0	0.0
255	5/30/2019 12:44:47	0.0	0.0	0.0	0.0

256	5/30/2019 12:45:47	0.0	0.0	0.0	0.0
257	5/30/2019 12:46:47	0.0	0.0	0.0	0.0
258	5/30/2019 12:47:47	0.0	0.0	0.0	0.0
259	5/30/2019 12:48:47	0.0	0.0	0.0	0.0
260	5/30/2019 12:49:47	0.0	0.0	0.0	0.0
261	5/30/2019 12:50:47	0.0	0.0	0.0	0.0
262	5/30/2019 12:51:47	0.0	0.0	0.0	0.0
263	5/30/2019 12:52:47	0.0	0.0	0.0	0.0
264	5/30/2019 12:53:47	0.0	0.0	0.0	0.0
265	5/30/2019 12:54:47	0.0	0.0	0.0	0.0
266	5/30/2019 12:55:47	0.0	0.0	0.0	0.0
267	5/30/2019 12:56:47	0.0	0.0	0.0	0.0
268	5/30/2019 12:57:47	0.0	0.0	0.0	0.0
269	5/30/2019 12:58:47	0.0	0.0	0.0	0.0
270	5/30/2019 12:59:47	0.0	0.0	0.0	0.0
271	5/30/2019 13:00:47	0.0	0.0	0.0	0.0
272	5/30/2019 13:01:47	0.0	0.0	0.0	0.0
273	5/30/2019 13:02:47	0.0	0.0	0.0	0.0
274	5/30/2019 13:03:47	0.0	0.0	0.0	0.0
275	5/30/2019 13:04:47	0.0	0.0	0.0	0.0
276	5/30/2019 13:05:47	0.0	0.0	0.0	0.0
277	5/30/2019 13:06:47	0.0	0.0	0.0	0.0
278	5/30/2019 13:07:47	0.0	0.0	0.0	0.0
279	5/30/2019 13:08:47	0.0	0.0	0.0	0.0
280	5/30/2019 13:09:47	0.0	0.0	0.0	0.0
281	5/30/2019 13:10:47	0.0	0.0	0.0	0.0
282	5/30/2019 13:11:47	0.0	0.0	0.0	0.0
283	5/30/2019 13:12:47	0.0	0.0	0.0	0.0
284	5/30/2019 13:13:47	0.0	0.0	0.0	0.0
285	5/30/2019 13:14:47	0.0	0.0	0.0	0.0
286	5/30/2019 13:15:47	0.0	0.0	0.0	0.0

287	5/30/2019 13:16:47	0.0	0.0	0.0	0.0
288	5/30/2019 13:17:47	0.0	0.0	0.0	0.0
289	5/30/2019 13:18:47	0.0	0.0	0.0	0.0
290	5/30/2019 13:19:47	0.0	0.0	0.0	0.0
291	5/30/2019 13:20:47	0.0	0.0	0.0	0.0
292	5/30/2019 13:21:47	0.0	0.0	0.0	0.0
293	5/30/2019 13:22:47	0.0	0.0	0.0	0.0
294	5/30/2019 13:23:47	0.0	0.0	0.0	0.0
295	5/30/2019 13:24:47	0.0	0.0	0.0	0.0
296	5/30/2019 13:25:47	0.0	0.0	0.0	0.0
297	5/30/2019 13:26:47	0.0	0.0	0.0	0.0
298	5/30/2019 13:27:47	0.0	0.0	0.0	0.0
299	5/30/2019 13:28:47	0.0	0.0	0.0	0.0
300	5/30/2019 13:29:47	0.0	0.0	0.0	0.0
301	5/30/2019 13:30:47	0.0	0.0	0.0	0.0
302	5/30/2019 13:31:47	0.0	0.0	0.0	0.0
303	5/30/2019 13:32:47	0.0	0.0	0.0	0.0
304	5/30/2019 13:33:47	0.0	0.0	0.0	0.0
305	5/30/2019 13:34:47	0.0	0.0	0.0	0.0
306	5/30/2019 13:35:47	0.0	0.0	0.0	0.0
307	5/30/2019 13:36:47	0.0	0.0	0.0	0.0
308	5/30/2019 13:37:47	0.0	0.0	0.0	0.0
309	5/30/2019 13:38:47	0.0	0.0	0.0	0.0
310	5/30/2019 13:39:47	0.0	0.0	0.1	0.0
311	5/30/2019 13:40:47	0.0	0.0	0.0	0.0
312	5/30/2019 13:41:47	0.0	0.0	0.0	0.0
313	5/30/2019 13:42:47	0.0	0.0	0.0	0.0
314	5/30/2019 13:43:47	0.0	0.0	0.0	0.0
315	5/30/2019 13:44:47	0.0	0.0	0.0	0.0
316	5/30/2019 13:45:47	0.0	0.0	0.0	0.0
317	5/30/2019 13:46:47	0.0	0.0	0.1	0.0

318	5/30/2019	13:47:47	0.0	0.0	0.1	0.1
319	5/30/2019	13:48:47	0.0	0.1	0.1	0.1
320	5/30/2019	13:49:47	0.0	0.1	0.1	0.1
321	5/30/2019	13:50:47	0.0	0.1	0.1	0.1
322	5/30/2019	13:51:47	0.0	0.1	0.1	0.1
323	5/30/2019	13:52:47	0.1	0.1	0.1	0.1
324	5/30/2019	13:53:47	0.0	0.1	0.1	0.0
325	5/30/2019	13:54:47	0.0	0.0	0.1	0.1
326	5/30/2019	13:55:47	0.0	0.0	0.1	0.1
327	5/30/2019	13:56:47	0.0	0.1	0.1	0.1
328	5/30/2019	13:57:47	0.1	0.1	0.1	0.1
329	5/30/2019	13:58:47	0.1	0.1	0.1	0.1
330	5/30/2019	13:59:47	0.1	0.1	0.1	0.1
331	5/30/2019	14:00:47	0.1	0.1	0.1	0.1
332	5/30/2019	14:01:47	0.1	0.1	0.1	0.1
333	5/30/2019	14:02:47	0.0	0.1	0.1	0.1
334	5/30/2019	14:03:47	0.0	0.0	0.1	0.0
335	5/30/2019	14:04:47	0.0	0.0	0.1	0.0
336	5/30/2019	14:05:47	0.0	0.0	0.1	0.0
337	5/30/2019	14:06:47	0.0	0.0	0.0	0.0
338	5/30/2019	14:07:47	0.0	0.0	0.0	0.0
339	5/30/2019	14:08:47	0.0	0.0	0.0	0.0
340	5/30/2019	14:09:47	0.0	0.0	0.0	0.0
341	5/30/2019	14:10:47	0.0	0.0	0.0	0.0
342	5/30/2019	14:11:47	0.0	0.0	0.0	0.0
343	5/30/2019	14:12:47	0.0	0.0	0.0	0.0
344	5/30/2019	14:13:47	0.0	0.0	0.0	0.0
345	5/30/2019	14:14:47	0.0	0.0	0.0	0.0
346	5/30/2019	14:15:47	0.0	0.0	0.0	0.0
347	5/30/2019	14:16:47	0.0	0.0	0.0	0.0
348	5/30/2019	14:17:47	0.0	0.0	0.1	0.0

349	5/30/2019 14:18:47	0.0	0.0	0.0	0.0
350	5/30/2019 14:19:47	0.0	0.0	0.0	0.0
351	5/30/2019 14:20:47	0.0	0.0	0.0	0.0
352	5/30/2019 14:21:47	0.0	0.0	0.0	0.0
353	5/30/2019 14:22:47	0.0	0.0	0.0	0.0
354	5/30/2019 14:23:47	0.0	0.0	0.0	0.0
355	5/30/2019 14:24:47	0.0	0.0	0.0	0.0
356	5/30/2019 14:25:47	0.0	0.0	0.0	0.0
357	5/30/2019 14:26:47	0.0	0.0	0.0	0.0
358	5/30/2019 14:27:47	0.0	0.0	0.0	0.0
359	5/30/2019 14:28:47	0.0	0.0	0.1	0.0
360	5/30/2019 14:29:47	0.0	0.1	0.2	0.1
361	5/30/2019 14:30:47	0.0	0.1	0.1	0.0
362	5/30/2019 14:31:47	0.0	0.1	0.2	0.0
363	5/30/2019 14:32:47	0.0	0.0	0.0	0.0
364	5/30/2019 14:33:47	0.0	0.0	0.0	0.0
365	5/30/2019 14:34:47	0.0	0.0	0.1	0.0
366	5/30/2019 14:35:47	0.0	0.0	0.0	0.0
367	5/30/2019 14:36:47	0.0	0.0	0.0	0.0
368	5/30/2019 14:37:47	0.0	0.0	0.0	0.0
369	5/30/2019 14:38:47	0.0	0.0	0.0	0.0
370	5/30/2019 14:39:47	0.0	0.0	0.1	0.0
371	5/30/2019 14:40:47	0.0	0.0	0.0	0.0
372	5/30/2019 14:41:47	0.0	0.0	0.0	0.0
373	5/30/2019 14:42:47	0.0	0.0	0.0	0.0
374	5/30/2019 14:43:47	0.0	0.0	0.0	0.0
375	5/30/2019 14:44:47	0.0	0.0	0.0	0.0
376	5/30/2019 14:45:47	0.0	0.0	0.0	0.0
377	5/30/2019 14:46:47	0.0	0.0	0.0	0.0
378	5/30/2019 14:47:47	0.0	0.0	0.0	0.0
379	5/30/2019 14:48:47	0.0	0.0	0.0	0.0

380	5/30/2019	14:49:47	0.0	0.0	0.0	0.0
381	5/30/2019	14:50:47	0.0	0.0	0.0	0.0
382	5/30/2019	14:51:47	0.0	0.0	0.0	0.0
383	5/30/2019	14:52:47	0.0	0.0	0.0	0.0
384	5/30/2019	14:53:47	0.0	0.0	0.0	0.0
385	5/30/2019	14:54:47	0.0	0.0	0.0	0.0
386	5/30/2019	14:55:47	0.0	0.0	0.0	0.0
387	5/30/2019	14:56:47	0.0	0.0	0.0	0.0
388	5/30/2019	14:57:47	0.0	0.0	0.0	0.0
389	5/30/2019	14:58:47	0.0	0.0	0.0	0.0
390	5/30/2019	14:59:47	0.0	0.0	0.0	0.0
Peak			0.1	0.1	0.8	0.1
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/30/2019	08:30:47	0.0	---	
002	5/30/2019	08:31:47	0.0	---	
003	5/30/2019	08:32:47	0.0	---	
004	5/30/2019	08:33:47	0.0	---	
005	5/30/2019	08:34:47	0.0	---	
006	5/30/2019	08:35:47	0.0	---	
007	5/30/2019	08:36:47	0.0	---	
008	5/30/2019	08:37:47	0.0	---	
009	5/30/2019	08:38:47	0.0	---	
010	5/30/2019	08:39:47	0.0	---	
011	5/30/2019	08:40:47	0.0	---	
012	5/30/2019	08:41:47	0.0	---	

013	5/30/2019 08:42:47	0.0	---
014	5/30/2019 08:43:47	0.0	---
015	5/30/2019 08:44:47	0.0	0.0
016	5/30/2019 08:45:47	0.0	0.0
017	5/30/2019 08:46:47	0.0	0.0
018	5/30/2019 08:47:47	0.0	0.0
019	5/30/2019 08:48:47	0.0	0.0
020	5/30/2019 08:49:47	0.0	0.0
021	5/30/2019 08:50:47	0.0	0.0
022	5/30/2019 08:51:47	0.0	0.0
023	5/30/2019 08:52:47	0.0	0.0
024	5/30/2019 08:53:47	0.0	0.0
025	5/30/2019 08:54:47	0.0	0.0
026	5/30/2019 08:55:47	0.0	0.0
027	5/30/2019 08:56:47	0.0	0.0
028	5/30/2019 08:57:47	0.0	0.0
029	5/30/2019 08:58:47	0.0	0.0
030	5/30/2019 08:59:47	0.0	0.0
031	5/30/2019 09:00:47	0.0	0.0
032	5/30/2019 09:01:47	0.0	0.0
033	5/30/2019 09:02:47	0.0	0.0
034	5/30/2019 09:03:47	0.0	0.0
035	5/30/2019 09:04:47	0.0	0.0
036	5/30/2019 09:05:47	0.0	0.0
037	5/30/2019 09:06:47	0.0	0.0
038	5/30/2019 09:07:47	0.0	0.0
039	5/30/2019 09:08:47	0.0	0.0
040	5/30/2019 09:09:47	0.0	0.0
041	5/30/2019 09:10:47	0.0	0.0
042	5/30/2019 09:11:47	0.0	0.0
043	5/30/2019 09:12:47	0.0	0.0

044	5/30/2019	09:13:47	0.0	0.0
045	5/30/2019	09:14:47	0.0	0.0
046	5/30/2019	09:15:47	0.0	0.0
047	5/30/2019	09:16:47	0.0	0.0
048	5/30/2019	09:17:47	0.0	0.0
049	5/30/2019	09:18:47	0.0	0.0
050	5/30/2019	09:19:47	0.0	0.0
051	5/30/2019	09:20:47	0.0	0.0
052	5/30/2019	09:21:47	0.0	0.0
053	5/30/2019	09:22:47	0.0	0.0
054	5/30/2019	09:23:47	0.0	0.0
055	5/30/2019	09:24:47	0.0	0.0
056	5/30/2019	09:25:47	0.0	0.0
057	5/30/2019	09:26:47	0.0	0.0
058	5/30/2019	09:27:47	0.0	0.0
059	5/30/2019	09:28:47	0.0	0.0
060	5/30/2019	09:29:47	0.0	0.0
061	5/30/2019	09:30:47	0.0	0.0
062	5/30/2019	09:31:47	0.0	0.0
063	5/30/2019	09:32:47	0.0	0.0
064	5/30/2019	09:33:47	0.0	0.0
065	5/30/2019	09:34:47	0.0	0.0
066	5/30/2019	09:35:47	0.0	0.0
067	5/30/2019	09:36:47	0.0	0.0
068	5/30/2019	09:37:47	0.0	0.0
069	5/30/2019	09:38:47	0.0	0.0
070	5/30/2019	09:39:47	0.0	0.0
071	5/30/2019	09:40:47	0.0	0.0
072	5/30/2019	09:41:47	0.0	0.0
073	5/30/2019	09:42:47	0.0	0.0
074	5/30/2019	09:43:47	0.0	0.0

075	5/30/2019 09:44:47	0.0	0.0
076	5/30/2019 09:45:47	0.0	0.0
077	5/30/2019 09:46:47	0.0	0.0
078	5/30/2019 09:47:47	0.0	0.0
079	5/30/2019 09:48:47	0.0	0.0
080	5/30/2019 09:49:47	0.0	0.0
081	5/30/2019 09:50:47	0.0	0.0
082	5/30/2019 09:51:47	0.0	0.0
083	5/30/2019 09:52:47	0.0	0.0
084	5/30/2019 09:53:47	0.0	0.0
085	5/30/2019 09:54:47	0.0	0.0
086	5/30/2019 09:55:47	0.0	0.0
087	5/30/2019 09:56:47	0.0	0.0
088	5/30/2019 09:57:47	0.0	0.0
089	5/30/2019 09:58:47	0.0	0.0
090	5/30/2019 09:59:47	0.0	0.0
091	5/30/2019 10:00:47	0.0	0.0
092	5/30/2019 10:01:47	0.0	0.0
093	5/30/2019 10:02:47	0.0	0.0
094	5/30/2019 10:03:47	0.0	0.0
095	5/30/2019 10:04:47	0.0	0.0
096	5/30/2019 10:05:47	0.0	0.0
097	5/30/2019 10:06:47	0.0	0.0
098	5/30/2019 10:07:47	0.0	0.0
099	5/30/2019 10:08:47	0.0	0.0
100	5/30/2019 10:09:47	0.0	0.0
101	5/30/2019 10:10:47	0.0	0.0
102	5/30/2019 10:11:47	0.0	0.0
103	5/30/2019 10:12:47	0.0	0.0
104	5/30/2019 10:13:47	0.0	0.0
105	5/30/2019 10:14:47	0.0	0.0

106	5/30/2019	10:15:47	0.0	0.0
107	5/30/2019	10:16:47	0.0	0.0
108	5/30/2019	10:17:47	0.0	0.0
109	5/30/2019	10:18:47	0.0	0.0
110	5/30/2019	10:19:47	0.0	0.0
111	5/30/2019	10:20:47	0.0	0.0
112	5/30/2019	10:21:47	0.0	0.0
113	5/30/2019	10:22:47	0.0	0.0
114	5/30/2019	10:23:47	0.0	0.0
115	5/30/2019	10:24:47	0.0	0.0
116	5/30/2019	10:25:47	0.0	0.0
117	5/30/2019	10:26:47	0.0	0.0
118	5/30/2019	10:27:47	0.0	0.0
119	5/30/2019	10:28:47	0.0	0.0
120	5/30/2019	10:29:47	0.0	0.0
121	5/30/2019	10:30:47	0.0	0.0
122	5/30/2019	10:31:47	0.0	0.0
123	5/30/2019	10:32:47	0.0	0.0
124	5/30/2019	10:33:47	0.0	0.0
125	5/30/2019	10:34:47	0.0	0.0
126	5/30/2019	10:35:47	0.0	0.0
127	5/30/2019	10:36:47	0.0	0.0
128	5/30/2019	10:37:47	0.0	0.0
129	5/30/2019	10:38:47	0.0	0.0
130	5/30/2019	10:39:47	0.0	0.0
131	5/30/2019	10:40:47	0.0	0.0
132	5/30/2019	10:41:47	0.0	0.0
133	5/30/2019	10:42:47	0.0	0.0
134	5/30/2019	10:43:47	0.0	0.0
135	5/30/2019	10:44:47	0.0	0.0
136	5/30/2019	10:45:47	0.0	0.0

137	5/30/2019	10:46:47	0.0	0.0
138	5/30/2019	10:47:47	0.0	0.0
139	5/30/2019	10:48:47	0.0	0.0
140	5/30/2019	10:49:47	0.0	0.0
141	5/30/2019	10:50:47	0.0	0.0
142	5/30/2019	10:51:47	0.0	0.0
143	5/30/2019	10:52:47	0.0	0.0
144	5/30/2019	10:53:47	0.0	0.0
145	5/30/2019	10:54:47	0.0	0.0
146	5/30/2019	10:55:47	0.0	0.0
147	5/30/2019	10:56:47	0.0	0.0
148	5/30/2019	10:57:47	0.0	0.0
149	5/30/2019	10:58:47	0.0	0.0
150	5/30/2019	10:59:47	0.0	0.0
151	5/30/2019	11:00:47	0.0	0.0
152	5/30/2019	11:01:47	0.0	0.0
153	5/30/2019	11:02:47	0.0	0.0
154	5/30/2019	11:03:47	0.0	0.0
155	5/30/2019	11:04:47	0.0	0.0
156	5/30/2019	11:05:47	0.0	0.0
157	5/30/2019	11:06:47	0.0	0.0
158	5/30/2019	11:07:47	0.0	0.0
159	5/30/2019	11:08:47	0.0	0.0
160	5/30/2019	11:09:47	0.0	0.0
161	5/30/2019	11:10:47	0.0	0.0
162	5/30/2019	11:11:47	0.0	0.0
163	5/30/2019	11:12:47	0.0	0.0
164	5/30/2019	11:13:47	0.0	0.0
165	5/30/2019	11:14:47	0.0	0.0
166	5/30/2019	11:15:47	0.0	0.0
167	5/30/2019	11:16:47	0.0	0.0

168	5/30/2019	11:17:47	0.0	0.0
169	5/30/2019	11:18:47	0.0	0.0
170	5/30/2019	11:19:47	0.0	0.0
171	5/30/2019	11:20:47	0.0	0.0
172	5/30/2019	11:21:47	0.0	0.0
173	5/30/2019	11:22:47	0.0	0.0
174	5/30/2019	11:23:47	0.0	0.0
175	5/30/2019	11:24:47	0.0	0.0
176	5/30/2019	11:25:47	0.0	0.0
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178	5/30/2019	11:27:47	0.0	0.0
179	5/30/2019	11:28:47	0.0	0.0
180	5/30/2019	11:29:47	0.0	0.0
181	5/30/2019	11:30:47	0.0	0.0
182	5/30/2019	11:31:47	0.0	0.0
183	5/30/2019	11:32:47	0.0	0.0
184	5/30/2019	11:33:47	0.0	0.0
185	5/30/2019	11:34:47	0.0	0.0
186	5/30/2019	11:35:47	0.0	0.0
187	5/30/2019	11:36:47	0.0	0.0
188	5/30/2019	11:37:47	0.0	0.0
189	5/30/2019	11:38:47	0.0	0.0
190	5/30/2019	11:39:47	0.0	0.0
191	5/30/2019	11:40:47	0.0	0.0
192	5/30/2019	11:41:47	0.0	0.0
193	5/30/2019	11:42:47	0.0	0.0
194	5/30/2019	11:43:47	0.0	0.0
195	5/30/2019	11:44:47	0.0	0.0
196	5/30/2019	11:45:47	0.0	0.0
197	5/30/2019	11:46:47	0.0	0.0
198	5/30/2019	11:47:47	0.0	0.0

199	5/30/2019 11:48:47	0.0	0.0
200	5/30/2019 11:49:47	0.0	0.0
201	5/30/2019 11:50:47	0.0	0.0
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203	5/30/2019 11:52:47	0.0	0.0
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205	5/30/2019 11:54:47	0.0	0.0
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207	5/30/2019 11:56:47	0.0	0.0
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209	5/30/2019 11:58:47	0.0	0.0
210	5/30/2019 11:59:47	0.0	0.0
211	5/30/2019 12:00:47	0.0	0.0
212	5/30/2019 12:01:47	0.0	0.0
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214	5/30/2019 12:03:47	0.0	0.0
215	5/30/2019 12:04:47	0.0	0.0
216	5/30/2019 12:05:47	0.0	0.0
217	5/30/2019 12:06:47	0.0	0.0
218	5/30/2019 12:07:47	0.0	0.0
219	5/30/2019 12:08:47	0.0	0.0
220	5/30/2019 12:09:47	0.0	0.0
221	5/30/2019 12:10:47	0.0	0.0
222	5/30/2019 12:11:47	0.0	0.0
223	5/30/2019 12:12:47	0.0	0.0
224	5/30/2019 12:13:47	0.0	0.0
225	5/30/2019 12:14:47	0.0	0.0
226	5/30/2019 12:15:47	0.0	0.0
227	5/30/2019 12:16:47	0.0	0.0
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229	5/30/2019 12:18:47	0.0	0.0

230	5/30/2019 12:19:47	0.0	0.0
231	5/30/2019 12:20:47	0.0	0.0
232	5/30/2019 12:21:47	0.0	0.0
233	5/30/2019 12:22:47	0.0	0.0
234	5/30/2019 12:23:47	0.0	0.0
235	5/30/2019 12:24:47	0.0	0.0
236	5/30/2019 12:25:47	0.0	0.0
237	5/30/2019 12:26:47	0.0	0.0
238	5/30/2019 12:27:47	0.0	0.0
239	5/30/2019 12:28:47	0.0	0.0
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243	5/30/2019 12:32:47	0.0	0.0
244	5/30/2019 12:33:47	0.0	0.0
245	5/30/2019 12:34:47	0.0	0.0
246	5/30/2019 12:35:47	0.0	0.0
247	5/30/2019 12:36:47	0.0	0.0
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249	5/30/2019 12:38:47	0.0	0.0
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251	5/30/2019 12:40:47	0.0	0.0
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253	5/30/2019 12:42:47	0.0	0.0
254	5/30/2019 12:43:47	0.0	0.0
255	5/30/2019 12:44:47	0.0	0.0
256	5/30/2019 12:45:47	0.0	0.0
257	5/30/2019 12:46:47	0.0	0.0
258	5/30/2019 12:47:47	0.0	0.0
259	5/30/2019 12:48:47	0.0	0.0
260	5/30/2019 12:49:47	0.0	0.0

261	5/30/2019 12:50:47	0.0	0.0
262	5/30/2019 12:51:47	0.0	0.0
263	5/30/2019 12:52:47	0.0	0.0
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265	5/30/2019 12:54:47	0.0	0.0
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267	5/30/2019 12:56:47	0.0	0.0
268	5/30/2019 12:57:47	0.0	0.0
269	5/30/2019 12:58:47	0.0	0.0
270	5/30/2019 12:59:47	0.0	0.0
271	5/30/2019 13:00:47	0.0	0.0
272	5/30/2019 13:01:47	0.0	0.0
273	5/30/2019 13:02:47	0.0	0.0
274	5/30/2019 13:03:47	0.0	0.0
275	5/30/2019 13:04:47	0.0	0.0
276	5/30/2019 13:05:47	0.0	0.0
277	5/30/2019 13:06:47	0.0	0.0
278	5/30/2019 13:07:47	0.0	0.0
279	5/30/2019 13:08:47	0.0	0.0
280	5/30/2019 13:09:47	0.0	0.0
281	5/30/2019 13:10:47	0.0	0.0
282	5/30/2019 13:11:47	0.0	0.0
283	5/30/2019 13:12:47	0.0	0.0
284	5/30/2019 13:13:47	0.0	0.0
285	5/30/2019 13:14:47	0.0	0.0
286	5/30/2019 13:15:47	0.0	0.0
287	5/30/2019 13:16:47	0.0	0.0
288	5/30/2019 13:17:47	0.0	0.0
289	5/30/2019 13:18:47	0.0	0.0
290	5/30/2019 13:19:47	0.0	0.0
291	5/30/2019 13:20:47	0.0	0.0

292	5/30/2019 13:21:47	0.0	0.0
293	5/30/2019 13:22:47	0.0	0.0
294	5/30/2019 13:23:47	0.0	0.0
295	5/30/2019 13:24:47	0.0	0.0
296	5/30/2019 13:25:47	0.0	0.0
297	5/30/2019 13:26:47	0.0	0.0
298	5/30/2019 13:27:47	0.0	0.0
299	5/30/2019 13:28:47	0.0	0.0
300	5/30/2019 13:29:47	0.0	0.0
301	5/30/2019 13:30:47	0.0	0.0
302	5/30/2019 13:31:47	0.0	0.0
303	5/30/2019 13:32:47	0.0	0.0
304	5/30/2019 13:33:47	0.0	0.0
305	5/30/2019 13:34:47	0.0	0.0
306	5/30/2019 13:35:47	0.0	0.0
307	5/30/2019 13:36:47	0.0	0.0
308	5/30/2019 13:37:47	0.0	0.0
309	5/30/2019 13:38:47	0.0	0.0
310	5/30/2019 13:39:47	0.0	0.0
311	5/30/2019 13:40:47	0.0	0.0
312	5/30/2019 13:41:47	0.0	0.0
313	5/30/2019 13:42:47	0.0	0.0
314	5/30/2019 13:43:47	0.0	0.0
315	5/30/2019 13:44:47	0.0	0.0
316	5/30/2019 13:45:47	0.0	0.0
317	5/30/2019 13:46:47	0.0	0.0
318	5/30/2019 13:47:47	0.0	0.0
319	5/30/2019 13:48:47	0.0	0.0
320	5/30/2019 13:49:47	0.0	0.0
321	5/30/2019 13:50:47	0.0	0.0
322	5/30/2019 13:51:47	0.0	0.0

323	5/30/2019 13:52:47	0.0	0.0
324	5/30/2019 13:53:47	0.0	0.0
325	5/30/2019 13:54:47	0.0	0.0
326	5/30/2019 13:55:47	0.0	0.1
327	5/30/2019 13:56:47	0.0	0.1
328	5/30/2019 13:57:47	0.0	0.1
329	5/30/2019 13:58:47	0.0	0.1
330	5/30/2019 13:59:47	0.0	0.1
331	5/30/2019 14:00:47	0.0	0.1
332	5/30/2019 14:01:47	0.0	0.1
333	5/30/2019 14:02:47	0.0	0.1
334	5/30/2019 14:03:47	0.0	0.1
335	5/30/2019 14:04:47	0.0	0.1
336	5/30/2019 14:05:47	0.0	0.1
337	5/30/2019 14:06:47	0.0	0.1
338	5/30/2019 14:07:47	0.0	0.1
339	5/30/2019 14:08:47	0.0	0.1
340	5/30/2019 14:09:47	0.0	0.1
341	5/30/2019 14:10:47	0.0	0.1
342	5/30/2019 14:11:47	0.0	0.0
343	5/30/2019 14:12:47	0.0	0.0
344	5/30/2019 14:13:47	0.0	0.0
345	5/30/2019 14:14:47	0.0	0.0
346	5/30/2019 14:15:47	0.0	0.0
347	5/30/2019 14:16:47	0.0	0.0
348	5/30/2019 14:17:47	0.0	0.0
349	5/30/2019 14:18:47	0.0	0.0
350	5/30/2019 14:19:47	0.0	0.0
351	5/30/2019 14:20:47	0.0	0.0
352	5/30/2019 14:21:47	0.0	0.0
353	5/30/2019 14:22:47	0.0	0.0

354	5/30/2019 14:23:47	0.0	0.0
355	5/30/2019 14:24:47	0.0	0.0
356	5/30/2019 14:25:47	0.0	0.0
357	5/30/2019 14:26:47	0.0	0.0
358	5/30/2019 14:27:47	0.0	0.0
359	5/30/2019 14:28:47	0.0	0.0
360	5/30/2019 14:29:47	0.0	0.0
361	5/30/2019 14:30:47	0.0	0.0
362	5/30/2019 14:31:47	0.0	0.0
363	5/30/2019 14:32:47	0.0	0.0
364	5/30/2019 14:33:47	0.0	0.0
365	5/30/2019 14:34:47	0.0	0.0
366	5/30/2019 14:35:47	0.0	0.0
367	5/30/2019 14:36:47	0.0	0.0
368	5/30/2019 14:37:47	0.0	0.0
369	5/30/2019 14:38:47	0.0	0.0
370	5/30/2019 14:39:47	0.0	0.0
371	5/30/2019 14:40:47	0.0	0.0
372	5/30/2019 14:41:47	0.0	0.0
373	5/30/2019 14:42:47	0.0	0.0
374	5/30/2019 14:43:47	0.0	0.0
375	5/30/2019 14:44:47	0.0	0.0
376	5/30/2019 14:45:47	0.0	0.0
377	5/30/2019 14:46:47	0.0	0.0
378	5/30/2019 14:47:47	0.0	0.0
379	5/30/2019 14:48:47	0.0	0.0
380	5/30/2019 14:49:47	0.0	0.0
381	5/30/2019 14:50:47	0.0	0.0
382	5/30/2019 14:51:47	0.0	0.0
383	5/30/2019 14:52:47	0.0	0.0
384	5/30/2019 14:53:47	0.0	0.0

385 5/30/2019 14:54:47 0.0 0.0
386 5/30/2019 14:55:47 0.0 0.0
387 5/30/2019 14:56:47 0.0 0.0
388 5/30/2019 14:57:47 0.0 0.0
389 5/30/2019 14:58:47 0.0 0.0
390 5/30/2019 14:59:47 0.0 0.0
甄==========
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19/05/31 09:55
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-903660
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID RAE00000
User ID USER0000

Begin 5/31/2019 09:55:55
End 5/31/2019 14:16:11
Sample Period(s) 60
Number of Records 260

Sensor PID(ppm)
Sensor SN S023030045T3

Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.5
Min	0.0
Average	0.2

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/31/2019	09:56:55	0.0	0.0	0.0	0.0
002	5/31/2019	09:57:55	0.0	0.0	0.0	0.0
003	5/31/2019	09:58:55	0.0	0.0	0.0	0.0
004	5/31/2019	09:59:55	0.0	0.0	0.0	0.0
005	5/31/2019	10:00:55	0.0	0.0	0.0	0.0
006	5/31/2019	10:01:55	0.0	0.0	0.0	0.0
007	5/31/2019	10:02:55	0.0	0.0	0.0	0.0
008	5/31/2019	10:03:55	0.0	0.0	0.0	0.0
009	5/31/2019	10:04:55	0.0	0.0	0.0	0.0
010	5/31/2019	10:05:55	0.0	0.0	0.0	0.0
011	5/31/2019	10:06:55	0.0	0.0	0.0	0.0
012	5/31/2019	10:07:55	0.0	0.0	0.0	0.0
013	5/31/2019	10:08:55	0.0	0.0	0.0	0.0

014	5/31/2019 10:09:55	0.0	0.0	0.0	0.0
015	5/31/2019 10:10:55	0.0	0.0	0.0	0.0
016	5/31/2019 10:11:55	0.0	0.0	0.0	0.0
017	5/31/2019 10:12:55	0.0	0.0	0.0	0.0
018	5/31/2019 10:13:55	0.0	0.0	0.0	0.0
019	5/31/2019 10:14:55	0.0	0.0	0.0	0.0
020	5/31/2019 10:15:55	0.0	0.0	0.0	0.0
021	5/31/2019 10:16:55	0.0	0.0	0.0	0.0
022	5/31/2019 10:17:55	0.0	0.0	0.0	0.0
023	5/31/2019 10:18:55	0.0	0.0	0.0	0.0
024	5/31/2019 10:19:55	0.0	0.0	0.0	0.0
025	5/31/2019 10:20:55	0.0	0.0	0.0	0.0
026	5/31/2019 10:21:55	0.0	0.0	0.0	0.0
027	5/31/2019 10:22:55	0.0	0.0	0.0	0.0
028	5/31/2019 10:23:55	0.0	0.0	0.0	0.0
029	5/31/2019 10:24:55	0.0	0.0	0.0	0.0
030	5/31/2019 10:25:55	0.0	0.0	0.0	0.0
031	5/31/2019 10:26:55	0.0	0.0	0.0	0.0
032	5/31/2019 10:27:55	0.0	0.0	0.0	0.0
033	5/31/2019 10:28:55	0.0	0.0	0.0	0.0
034	5/31/2019 10:29:55	0.0	0.0	0.0	0.0
035	5/31/2019 10:30:55	0.0	0.0	0.0	0.0
036	5/31/2019 10:31:55	0.0	0.0	0.0	0.0
037	5/31/2019 10:32:55	0.0	0.0	0.1	0.0
038	5/31/2019 10:33:55	0.0	0.0	0.0	0.0
039	5/31/2019 10:34:55	0.0	0.0	0.1	0.0
040	5/31/2019 10:35:55	0.0	0.0	0.1	0.1
041	5/31/2019 10:36:55	0.0	0.1	0.1	0.1
042	5/31/2019 10:37:55	0.1	0.1	0.1	0.1
043	5/31/2019 10:38:55	0.1	0.1	0.1	0.1
044	5/31/2019 10:39:55	0.1	0.1	0.1	0.1

045	5/31/2019	10:40:55	0.1	0.1	0.1	0.1
046	5/31/2019	10:41:55	0.1	0.1	0.1	0.1
047	5/31/2019	10:42:55	0.1	0.1	0.1	0.1
048	5/31/2019	10:43:55	0.1	0.1	0.1	0.1
049	5/31/2019	10:44:55	0.1	0.1	0.1	0.1
050	5/31/2019	10:45:55	0.1	0.1	0.1	0.1
051	5/31/2019	10:46:55	0.1	0.1	0.1	0.1
052	5/31/2019	10:47:55	0.1	0.1	0.1	0.1
053	5/31/2019	10:48:55	0.1	0.1	0.1	0.1
054	5/31/2019	10:49:55	0.1	0.1	0.1	0.1
055	5/31/2019	10:50:55	0.1	0.1	0.1	0.1
056	5/31/2019	10:51:55	0.1	0.1	0.1	0.1
057	5/31/2019	10:52:55	0.1	0.2	0.2	0.2
058	5/31/2019	10:53:55	0.2	0.2	0.2	0.2
059	5/31/2019	10:54:55	0.1	0.2	0.3	0.3
060	5/31/2019	10:55:55	0.2	0.2	0.3	0.2
061	5/31/2019	10:56:55	0.2	0.2	0.2	0.2
062	5/31/2019	10:57:55	0.2	0.2	0.2	0.2
063	5/31/2019	10:58:55	0.2	0.2	0.2	0.2
064	5/31/2019	10:59:55	0.2	0.2	0.2	0.2
065	5/31/2019	11:00:55	0.2	0.2	0.2	0.2
066	5/31/2019	11:01:55	0.2	0.2	0.2	0.2
067	5/31/2019	11:02:55	0.2	0.2	0.2	0.2
068	5/31/2019	11:03:55	0.2	0.2	0.2	0.2
069	5/31/2019	11:04:55	0.2	0.2	0.2	0.2
070	5/31/2019	11:05:55	0.2	0.2	0.2	0.2
071	5/31/2019	11:06:55	0.2	0.2	0.2	0.2
072	5/31/2019	11:07:55	0.2	0.2	0.2	0.2
073	5/31/2019	11:08:55	0.2	0.2	0.2	0.2
074	5/31/2019	11:09:55	0.2	0.2	0.2	0.2
075	5/31/2019	11:10:55	0.2	0.2	0.3	0.2

076	5/31/2019	11:11:55	0.2	0.3	0.3	0.3
077	5/31/2019	11:12:55	0.2	0.2	0.2	0.2
078	5/31/2019	11:13:55	0.2	0.2	0.2	0.2
079	5/31/2019	11:14:55	0.2	0.2	0.2	0.2
080	5/31/2019	11:15:55	0.2	0.2	0.2	0.2
081	5/31/2019	11:16:55	0.2	0.2	0.2	0.2
082	5/31/2019	11:17:55	0.2	0.2	0.2	0.2
083	5/31/2019	11:18:55	0.2	0.2	0.3	0.3
084	5/31/2019	11:19:55	0.2	0.2	0.3	0.3
085	5/31/2019	11:20:55	0.2	0.2	0.4	0.4
086	5/31/2019	11:21:55	0.2	0.2	0.4	0.2
087	5/31/2019	11:22:55	0.2	0.2	0.2	0.2
088	5/31/2019	11:23:55	0.2	0.2	0.2	0.2
089	5/31/2019	11:24:55	0.2	0.2	0.3	0.3
090	5/31/2019	11:25:55	0.2	0.2	0.3	0.2
091	5/31/2019	11:26:55	0.2	0.2	0.2	0.2
092	5/31/2019	11:27:55	0.2	0.2	0.2	0.2
093	5/31/2019	11:28:55	0.2	0.2	0.3	0.2
094	5/31/2019	11:29:55	0.2	0.2	0.3	0.2
095	5/31/2019	11:30:55	0.2	0.2	0.2	0.2
096	5/31/2019	11:31:55	0.2	0.2	0.2	0.2
097	5/31/2019	11:32:55	0.2	0.2	0.3	0.2
098	5/31/2019	11:33:55	0.2	0.2	0.3	0.2
099	5/31/2019	11:34:55	0.2	0.2	0.2	0.2
100	5/31/2019	11:35:55	0.2	0.2	0.3	0.2
101	5/31/2019	11:36:55	0.2	0.2	0.2	0.2
102	5/31/2019	11:37:55	0.2	0.2	0.3	0.2
103	5/31/2019	11:38:55	0.2	0.2	0.3	0.2
104	5/31/2019	11:39:55	0.2	0.2	0.3	0.2
105	5/31/2019	11:40:55	0.2	0.2	0.3	0.2
106	5/31/2019	11:41:55	0.2	0.2	0.3	0.2

107	5/31/2019	11:42:55	0.2	0.2	0.3	0.2
108	5/31/2019	11:43:55	0.2	0.2	0.2	0.2
109	5/31/2019	11:44:55	0.2	0.2	0.2	0.2
110	5/31/2019	11:45:55	0.2	0.3	0.4	0.3
111	5/31/2019	11:46:55	0.2	0.3	0.5	0.2
112	5/31/2019	11:47:55	0.2	0.2	0.3	0.2
113	5/31/2019	11:48:55	0.2	0.2	0.2	0.2
114	5/31/2019	11:49:55	0.2	0.2	0.2	0.2
115	5/31/2019	11:50:55	0.2	0.2	0.3	0.2
116	5/31/2019	11:51:55	0.2	0.3	0.3	0.2
117	5/31/2019	11:52:55	0.2	0.2	0.3	0.2
118	5/31/2019	11:53:55	0.2	0.2	0.3	0.2
119	5/31/2019	11:54:55	0.2	0.5	2.1	0.5
120	5/31/2019	11:55:55	0.3	0.4	0.6	0.3
121	5/31/2019	11:56:55	0.2	0.3	0.4	0.3
122	5/31/2019	11:57:55	0.2	0.3	0.3	0.2
123	5/31/2019	11:58:55	0.2	0.4	0.5	0.4
124	5/31/2019	11:59:55	0.3	0.4	0.6	0.5
125	5/31/2019	12:00:55	0.3	0.3	0.5	0.3
126	5/31/2019	12:01:55	0.3	0.3	0.5	0.3
127	5/31/2019	12:02:55	0.3	0.3	0.4	0.3
128	5/31/2019	12:03:55	0.3	0.3	0.4	0.3
129	5/31/2019	12:04:55	0.3	0.3	0.4	0.3
130	5/31/2019	12:05:55	0.2	0.3	0.4	0.2
131	5/31/2019	12:06:55	0.2	0.3	0.3	0.3
132	5/31/2019	12:07:55	0.2	0.3	0.3	0.3
133	5/31/2019	12:08:55	0.2	0.3	0.4	0.2
134	5/31/2019	12:09:55	0.2	0.3	0.3	0.3
135	5/31/2019	12:10:55	0.2	0.3	0.3	0.3
136	5/31/2019	12:11:55	0.2	0.2	0.3	0.2
137	5/31/2019	12:12:55	0.2	0.3	0.3	0.3

138	5/31/2019	12:13:55	0.2	0.3	0.4	0.3
139	5/31/2019	12:14:55	0.3	0.3	0.5	0.3
140	5/31/2019	12:15:55	0.2	0.2	0.3	0.2
141	5/31/2019	12:16:55	0.2	0.2	0.3	0.3
142	5/31/2019	12:17:55	0.2	0.3	0.3	0.2
143	5/31/2019	12:18:55	0.2	0.2	0.3	0.2
144	5/31/2019	12:19:55	0.2	0.3	0.4	0.3
145	5/31/2019	12:20:55	0.2	0.3	0.4	0.2
146	5/31/2019	12:21:55	0.2	0.2	0.2	0.2
147	5/31/2019	12:22:55	0.2	0.2	0.3	0.2
148	5/31/2019	12:23:55	0.2	0.2	0.3	0.2
149	5/31/2019	12:24:55	0.2	0.2	0.2	0.2
150	5/31/2019	12:25:55	0.2	0.2	0.3	0.2
151	5/31/2019	12:26:55	0.2	0.2	0.2	0.2
152	5/31/2019	12:27:55	0.2	0.2	0.3	0.2
153	5/31/2019	12:28:55	0.2	0.2	0.3	0.3
154	5/31/2019	12:29:55	0.2	0.3	0.7	0.2
155	5/31/2019	12:30:55	0.2	0.3	0.4	0.2
156	5/31/2019	12:31:55	0.2	0.2	0.3	0.2
157	5/31/2019	12:32:55	0.2	0.2	0.3	0.3
158	5/31/2019	12:33:55	0.2	0.3	0.3	0.2
159	5/31/2019	12:34:55	0.2	0.2	0.3	0.2
160	5/31/2019	12:35:55	0.2	0.2	0.2	0.2
161	5/31/2019	12:36:55	0.2	0.2	0.3	0.2
162	5/31/2019	12:37:55	0.2	0.2	0.2	0.2
163	5/31/2019	12:38:55	0.2	0.2	0.2	0.2
164	5/31/2019	12:39:55	0.2	0.2	0.3	0.2
165	5/31/2019	12:40:55	0.2	0.2	0.2	0.2
166	5/31/2019	12:41:55	0.2	0.2	0.3	0.2
167	5/31/2019	12:42:55	0.2	0.2	0.3	0.3
168	5/31/2019	12:43:55	0.2	0.2	0.3	0.2

169	5/31/2019	12:44:55	0.2	0.2	0.2	0.2
170	5/31/2019	12:45:55	0.2	0.2	0.2	0.2
171	5/31/2019	12:46:55	0.2	0.2	0.2	0.2
172	5/31/2019	12:47:55	0.2	0.2	0.2	0.2
173	5/31/2019	12:48:55	0.2	0.2	0.2	0.2
174	5/31/2019	12:49:55	0.2	0.2	0.2	0.2
175	5/31/2019	12:50:55	0.2	0.2	0.3	0.2
176	5/31/2019	12:51:55	0.2	0.2	0.2	0.2
177	5/31/2019	12:52:55	0.2	0.2	0.2	0.2
178	5/31/2019	12:53:55	0.2	0.2	0.2	0.2
179	5/31/2019	12:54:55	0.2	0.2	0.3	0.2
180	5/31/2019	12:55:55	0.2	0.2	0.3	0.2
181	5/31/2019	12:56:55	0.2	0.2	0.2	0.2
182	5/31/2019	12:57:55	0.2	0.2	0.2	0.2
183	5/31/2019	12:58:55	0.2	0.2	0.2	0.2
184	5/31/2019	12:59:55	0.2	0.2	0.2	0.2
185	5/31/2019	13:00:55	0.2	0.2	0.2	0.2
186	5/31/2019	13:01:55	0.2	0.2	0.2	0.2
187	5/31/2019	13:02:55	0.2	0.2	0.2	0.2
188	5/31/2019	13:03:55	0.2	0.2	0.2	0.2
189	5/31/2019	13:04:55	0.2	0.2	0.2	0.2
190	5/31/2019	13:05:55	0.2	0.2	0.2	0.2
191	5/31/2019	13:06:55	0.2	0.2	0.2	0.2
192	5/31/2019	13:07:55	0.2	0.2	0.2	0.2
193	5/31/2019	13:08:55	0.2	0.2	0.2	0.2
194	5/31/2019	13:09:55	0.2	0.2	0.2	0.2
195	5/31/2019	13:10:55	0.2	0.2	0.2	0.2
196	5/31/2019	13:11:55	0.2	0.2	0.2	0.2
197	5/31/2019	13:12:55	0.2	0.2	0.3	0.3
198	5/31/2019	13:13:55	0.2	0.2	0.4	0.2
199	5/31/2019	13:14:55	0.2	0.2	0.3	0.2

200	5/31/2019 13:15:55	0.2	0.2	0.2	0.2
201	5/31/2019 13:16:55	0.2	0.2	0.3	0.2
202	5/31/2019 13:17:55	0.2	0.2	0.2	0.2
203	5/31/2019 13:18:55	0.2	0.2	0.2	0.2
204	5/31/2019 13:19:55	0.2	0.2	0.2	0.2
205	5/31/2019 13:20:55	0.2	0.2	0.2	0.2
206	5/31/2019 13:21:55	0.2	0.2	0.2	0.2
207	5/31/2019 13:22:55	0.2	0.2	0.2	0.2
208	5/31/2019 13:23:55	0.2	0.2	0.2	0.2
209	5/31/2019 13:24:55	0.2	0.2	0.2	0.2
210	5/31/2019 13:25:55	0.2	0.2	0.2	0.2
211	5/31/2019 13:26:55	0.2	0.2	0.2	0.2
212	5/31/2019 13:27:55	0.2	0.2	0.2	0.2
213	5/31/2019 13:28:55	0.2	0.2	0.2	0.2
214	5/31/2019 13:29:55	0.2	0.2	0.2	0.2
215	5/31/2019 13:30:55	0.2	0.2	0.2	0.2
216	5/31/2019 13:31:55	0.2	0.2	0.3	0.3
217	5/31/2019 13:32:55	0.2	0.2	0.3	0.3
218	5/31/2019 13:33:55	0.2	0.2	0.3	0.2
219	5/31/2019 13:34:55	0.2	0.2	0.2	0.2
220	5/31/2019 13:35:55	0.2	0.2	0.2	0.2
221	5/31/2019 13:36:55	0.2	0.2	0.2	0.2
222	5/31/2019 13:37:55	0.2	0.2	0.2	0.2
223	5/31/2019 13:38:55	0.2	0.2	0.2	0.2
224	5/31/2019 13:39:55	0.2	0.2	0.2	0.2
225	5/31/2019 13:40:55	0.2	0.2	0.2	0.2
226	5/31/2019 13:41:55	0.2	0.2	0.3	0.2
227	5/31/2019 13:42:55	0.2	0.2	0.2	0.2
228	5/31/2019 13:43:55	0.2	0.3	0.3	0.3
229	5/31/2019 13:44:55	0.2	0.2	0.3	0.2
230	5/31/2019 13:45:55	0.2	0.2	0.2	0.2

231	5/31/2019	13:46:55	0.2	0.2	0.2	0.2
232	5/31/2019	13:47:55	0.2	0.2	0.2	0.2
233	5/31/2019	13:48:55	0.2	0.2	0.2	0.2
234	5/31/2019	13:49:55	0.2	0.3	0.4	0.2
235	5/31/2019	13:50:55	0.2	0.2	0.2	0.2
236	5/31/2019	13:51:55	0.2	0.2	0.2	0.2
237	5/31/2019	13:52:55	0.2	0.2	0.2	0.2
238	5/31/2019	13:53:55	0.2	0.2	0.2	0.2
239	5/31/2019	13:54:55	0.2	0.2	0.2	0.2
240	5/31/2019	13:55:55	0.2	0.3	0.3	0.3
241	5/31/2019	13:56:55	0.2	0.2	0.3	0.2
242	5/31/2019	13:57:55	0.2	0.2	0.2	0.2
243	5/31/2019	13:58:55	0.2	0.2	0.2	0.2
244	5/31/2019	13:59:55	0.2	0.2	0.3	0.2
245	5/31/2019	14:00:55	0.2	0.2	0.3	0.2
246	5/31/2019	14:01:55	0.2	0.2	0.2	0.2
247	5/31/2019	14:02:55	0.2	0.3	0.3	0.3
248	5/31/2019	14:03:55	0.3	0.3	0.3	0.3
249	5/31/2019	14:04:55	0.2	0.3	0.3	0.2
250	5/31/2019	14:05:55	0.2	0.3	0.3	0.3
251	5/31/2019	14:06:55	0.2	0.3	0.3	0.2
252	5/31/2019	14:07:55	0.2	0.2	0.3	0.2
253	5/31/2019	14:08:55	0.2	0.2	0.3	0.2
254	5/31/2019	14:09:55	0.2	0.2	0.2	0.2
255	5/31/2019	14:10:55	0.2	0.3	0.3	0.2
256	5/31/2019	14:11:55	0.2	0.2	0.3	0.2
257	5/31/2019	14:12:55	0.2	0.2	0.3	0.2
258	5/31/2019	14:13:55	0.2	0.2	0.2	0.2
259	5/31/2019	14:14:55	0.2	0.2	0.2	0.2
260	5/31/2019	14:15:55	0.2	0.2	0.2	0.2
Peak		0.3	0.5	2.1	0.5	

Min	0.0	0.0	0.0	0.0
Average	0.2	0.2	0.2	0.2

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/31/2019	09:56:55	0.0	---
002	5/31/2019	09:57:55	0.0	---
003	5/31/2019	09:58:55	0.0	---
004	5/31/2019	09:59:55	0.0	---
005	5/31/2019	10:00:55	0.0	---
006	5/31/2019	10:01:55	0.0	---
007	5/31/2019	10:02:55	0.0	---
008	5/31/2019	10:03:55	0.0	---
009	5/31/2019	10:04:55	0.0	---
010	5/31/2019	10:05:55	0.0	---
011	5/31/2019	10:06:55	0.0	---
012	5/31/2019	10:07:55	0.0	---
013	5/31/2019	10:08:55	0.0	---
014	5/31/2019	10:09:55	0.0	---
015	5/31/2019	10:10:55	0.0	0.0
016	5/31/2019	10:11:55	0.0	0.0
017	5/31/2019	10:12:55	0.0	0.0
018	5/31/2019	10:13:55	0.0	0.0
019	5/31/2019	10:14:55	0.0	0.0
020	5/31/2019	10:15:55	0.0	0.0
021	5/31/2019	10:16:55	0.0	0.0
022	5/31/2019	10:17:55	0.0	0.0
023	5/31/2019	10:18:55	0.0	0.0
024	5/31/2019	10:19:55	0.0	0.0

025	5/31/2019 10:20:55	0.0	0.0
026	5/31/2019 10:21:55	0.0	0.0
027	5/31/2019 10:22:55	0.0	0.0
028	5/31/2019 10:23:55	0.0	0.0
029	5/31/2019 10:24:55	0.0	0.0
030	5/31/2019 10:25:55	0.0	0.0
031	5/31/2019 10:26:55	0.0	0.0
032	5/31/2019 10:27:55	0.0	0.0
033	5/31/2019 10:28:55	0.0	0.0
034	5/31/2019 10:29:55	0.0	0.0
035	5/31/2019 10:30:55	0.0	0.0
036	5/31/2019 10:31:55	0.0	0.0
037	5/31/2019 10:32:55	0.0	0.0
038	5/31/2019 10:33:55	0.0	0.0
039	5/31/2019 10:34:55	0.0	0.0
040	5/31/2019 10:35:55	0.0	0.0
041	5/31/2019 10:36:55	0.0	0.0
042	5/31/2019 10:37:55	0.0	0.0
043	5/31/2019 10:38:55	0.0	0.0
044	5/31/2019 10:39:55	0.0	0.0
045	5/31/2019 10:40:55	0.0	0.0
046	5/31/2019 10:41:55	0.0	0.0
047	5/31/2019 10:42:55	0.0	0.1
048	5/31/2019 10:43:55	0.0	0.1
049	5/31/2019 10:44:55	0.0	0.1
050	5/31/2019 10:45:55	0.0	0.1
051	5/31/2019 10:46:55	0.0	0.1
052	5/31/2019 10:47:55	0.0	0.1
053	5/31/2019 10:48:55	0.0	0.1
054	5/31/2019 10:49:55	0.0	0.1
055	5/31/2019 10:50:55	0.0	0.1

056	5/31/2019	10:51:55	0.0	0.1
057	5/31/2019	10:52:55	0.0	0.1
058	5/31/2019	10:53:55	0.0	0.1
059	5/31/2019	10:54:55	0.0	0.1
060	5/31/2019	10:55:55	0.0	0.1
061	5/31/2019	10:56:55	0.0	0.1
062	5/31/2019	10:57:55	0.0	0.2
063	5/31/2019	10:58:55	0.0	0.2
064	5/31/2019	10:59:55	0.0	0.2
065	5/31/2019	11:00:55	0.0	0.2
066	5/31/2019	11:01:55	0.0	0.2
067	5/31/2019	11:02:55	0.0	0.2
068	5/31/2019	11:03:55	0.0	0.2
069	5/31/2019	11:04:55	0.0	0.2
070	5/31/2019	11:05:55	0.0	0.2
071	5/31/2019	11:06:55	0.0	0.2
072	5/31/2019	11:07:55	0.0	0.2
073	5/31/2019	11:08:55	0.0	0.2
074	5/31/2019	11:09:55	0.0	0.2
075	5/31/2019	11:10:55	0.0	0.2
076	5/31/2019	11:11:55	0.0	0.2
077	5/31/2019	11:12:55	0.0	0.2
078	5/31/2019	11:13:55	0.0	0.2
079	5/31/2019	11:14:55	0.0	0.2
080	5/31/2019	11:15:55	0.0	0.2
081	5/31/2019	11:16:55	0.0	0.2
082	5/31/2019	11:17:55	0.0	0.2
083	5/31/2019	11:18:55	0.0	0.2
084	5/31/2019	11:19:55	0.0	0.2
085	5/31/2019	11:20:55	0.0	0.2
086	5/31/2019	11:21:55	0.0	0.2

087	5/31/2019	11:22:55	0.0	0.2
088	5/31/2019	11:23:55	0.0	0.2
089	5/31/2019	11:24:55	0.0	0.3
090	5/31/2019	11:25:55	0.0	0.3
091	5/31/2019	11:26:55	0.0	0.3
092	5/31/2019	11:27:55	0.0	0.2
093	5/31/2019	11:28:55	0.0	0.2
094	5/31/2019	11:29:55	0.0	0.2
095	5/31/2019	11:30:55	0.0	0.2
096	5/31/2019	11:31:55	0.0	0.2
097	5/31/2019	11:32:55	0.0	0.2
098	5/31/2019	11:33:55	0.0	0.2
099	5/31/2019	11:34:55	0.0	0.2
100	5/31/2019	11:35:55	0.0	0.2
101	5/31/2019	11:36:55	0.0	0.2
102	5/31/2019	11:37:55	0.0	0.2
103	5/31/2019	11:38:55	0.0	0.2
104	5/31/2019	11:39:55	0.0	0.2
105	5/31/2019	11:40:55	0.0	0.2
106	5/31/2019	11:41:55	0.0	0.2
107	5/31/2019	11:42:55	0.0	0.2
108	5/31/2019	11:43:55	0.0	0.2
109	5/31/2019	11:44:55	0.0	0.2
110	5/31/2019	11:45:55	0.0	0.2
111	5/31/2019	11:46:55	0.0	0.2
112	5/31/2019	11:47:55	0.0	0.2
113	5/31/2019	11:48:55	0.0	0.2
114	5/31/2019	11:49:55	0.0	0.2
115	5/31/2019	11:50:55	0.0	0.2
116	5/31/2019	11:51:55	0.0	0.2
117	5/31/2019	11:52:55	0.0	0.2

118	5/31/2019 11:53:55	0.0	0.2
119	5/31/2019 11:54:55	0.0	0.2
120	5/31/2019 11:55:55	0.0	0.2
121	5/31/2019 11:56:55	0.0	0.3
122	5/31/2019 11:57:55	0.0	0.3
123	5/31/2019 11:58:55	0.0	0.3
124	5/31/2019 11:59:55	0.0	0.3
125	5/31/2019 12:00:55	0.0	0.3
126	5/31/2019 12:01:55	0.0	0.3
127	5/31/2019 12:02:55	0.0	0.3
128	5/31/2019 12:03:55	0.0	0.3
129	5/31/2019 12:04:55	0.0	0.3
130	5/31/2019 12:05:55	0.0	0.3
131	5/31/2019 12:06:55	0.0	0.3
132	5/31/2019 12:07:55	0.0	0.3
133	5/31/2019 12:08:55	0.0	0.3
134	5/31/2019 12:09:55	0.0	0.3
135	5/31/2019 12:10:55	0.0	0.3
136	5/31/2019 12:11:55	0.0	0.3
137	5/31/2019 12:12:55	0.0	0.3
138	5/31/2019 12:13:55	0.0	0.3
139	5/31/2019 12:14:55	0.0	0.3
140	5/31/2019 12:15:55	0.0	0.3
141	5/31/2019 12:16:55	0.0	0.3
142	5/31/2019 12:17:55	0.0	0.3
143	5/31/2019 12:18:55	0.0	0.3
144	5/31/2019 12:19:55	0.0	0.3
145	5/31/2019 12:20:55	0.0	0.3
146	5/31/2019 12:21:55	0.0	0.3
147	5/31/2019 12:22:55	0.0	0.3
148	5/31/2019 12:23:55	0.0	0.3

149	5/31/2019 12:24:55	0.0	0.3
150	5/31/2019 12:25:55	0.0	0.3
151	5/31/2019 12:26:55	0.0	0.2
152	5/31/2019 12:27:55	0.1	0.2
153	5/31/2019 12:28:55	0.1	0.2
154	5/31/2019 12:29:55	0.1	0.2
155	5/31/2019 12:30:55	0.1	0.2
156	5/31/2019 12:31:55	0.1	0.2
157	5/31/2019 12:32:55	0.1	0.2
158	5/31/2019 12:33:55	0.1	0.2
159	5/31/2019 12:34:55	0.1	0.2
160	5/31/2019 12:35:55	0.1	0.2
161	5/31/2019 12:36:55	0.1	0.2
162	5/31/2019 12:37:55	0.1	0.2
163	5/31/2019 12:38:55	0.1	0.2
164	5/31/2019 12:39:55	0.1	0.2
165	5/31/2019 12:40:55	0.1	0.2
166	5/31/2019 12:41:55	0.1	0.2
167	5/31/2019 12:42:55	0.1	0.2
168	5/31/2019 12:43:55	0.1	0.2
169	5/31/2019 12:44:55	0.1	0.2
170	5/31/2019 12:45:55	0.1	0.2
171	5/31/2019 12:46:55	0.1	0.2
172	5/31/2019 12:47:55	0.1	0.2
173	5/31/2019 12:48:55	0.1	0.2
174	5/31/2019 12:49:55	0.1	0.2
175	5/31/2019 12:50:55	0.1	0.2
176	5/31/2019 12:51:55	0.1	0.2
177	5/31/2019 12:52:55	0.1	0.2
178	5/31/2019 12:53:55	0.1	0.2
179	5/31/2019 12:54:55	0.1	0.2

180	5/31/2019 12:55:55	0.1	0.2
181	5/31/2019 12:56:55	0.1	0.2
182	5/31/2019 12:57:55	0.1	0.2
183	5/31/2019 12:58:55	0.1	0.2
184	5/31/2019 12:59:55	0.1	0.2
185	5/31/2019 13:00:55	0.1	0.2
186	5/31/2019 13:01:55	0.1	0.2
187	5/31/2019 13:02:55	0.1	0.2
188	5/31/2019 13:03:55	0.1	0.2
189	5/31/2019 13:04:55	0.1	0.2
190	5/31/2019 13:05:55	0.1	0.2
191	5/31/2019 13:06:55	0.1	0.2
192	5/31/2019 13:07:55	0.1	0.2
193	5/31/2019 13:08:55	0.1	0.2
194	5/31/2019 13:09:55	0.1	0.2
195	5/31/2019 13:10:55	0.1	0.2
196	5/31/2019 13:11:55	0.1	0.2
197	5/31/2019 13:12:55	0.1	0.2
198	5/31/2019 13:13:55	0.1	0.2
199	5/31/2019 13:14:55	0.1	0.2
200	5/31/2019 13:15:55	0.1	0.2
201	5/31/2019 13:16:55	0.1	0.2
202	5/31/2019 13:17:55	0.1	0.2
203	5/31/2019 13:18:55	0.1	0.2
204	5/31/2019 13:19:55	0.1	0.2
205	5/31/2019 13:20:55	0.1	0.2
206	5/31/2019 13:21:55	0.1	0.2
207	5/31/2019 13:22:55	0.1	0.2
208	5/31/2019 13:23:55	0.1	0.2
209	5/31/2019 13:24:55	0.1	0.2
210	5/31/2019 13:25:55	0.1	0.2

211	5/31/2019 13:26:55	0.1	0.2
212	5/31/2019 13:27:55	0.1	0.2
213	5/31/2019 13:28:55	0.1	0.2
214	5/31/2019 13:29:55	0.1	0.2
215	5/31/2019 13:30:55	0.1	0.2
216	5/31/2019 13:31:55	0.1	0.2
217	5/31/2019 13:32:55	0.1	0.2
218	5/31/2019 13:33:55	0.1	0.2
219	5/31/2019 13:34:55	0.1	0.2
220	5/31/2019 13:35:55	0.1	0.2
221	5/31/2019 13:36:55	0.1	0.2
222	5/31/2019 13:37:55	0.1	0.2
223	5/31/2019 13:38:55	0.1	0.2
224	5/31/2019 13:39:55	0.1	0.2
225	5/31/2019 13:40:55	0.1	0.2
226	5/31/2019 13:41:55	0.1	0.2
227	5/31/2019 13:42:55	0.1	0.2
228	5/31/2019 13:43:55	0.1	0.2
229	5/31/2019 13:44:55	0.1	0.2
230	5/31/2019 13:45:55	0.1	0.2
231	5/31/2019 13:46:55	0.1	0.2
232	5/31/2019 13:47:55	0.1	0.2
233	5/31/2019 13:48:55	0.1	0.2
234	5/31/2019 13:49:55	0.1	0.2
235	5/31/2019 13:50:55	0.1	0.2
236	5/31/2019 13:51:55	0.1	0.2
237	5/31/2019 13:52:55	0.1	0.2
238	5/31/2019 13:53:55	0.1	0.2
239	5/31/2019 13:54:55	0.1	0.2
240	5/31/2019 13:55:55	0.1	0.2
241	5/31/2019 13:56:55	0.1	0.2

242	5/31/2019 13:57:55	0.1	0.2
243	5/31/2019 13:58:55	0.1	0.2
244	5/31/2019 13:59:55	0.1	0.2
245	5/31/2019 14:00:55	0.1	0.2
246	5/31/2019 14:01:55	0.1	0.2
247	5/31/2019 14:02:55	0.1	0.2
248	5/31/2019 14:03:55	0.1	0.2
249	5/31/2019 14:04:55	0.1	0.2
250	5/31/2019 14:05:55	0.1	0.2
251	5/31/2019 14:06:55	0.1	0.2
252	5/31/2019 14:07:55	0.1	0.2
253	5/31/2019 14:08:55	0.1	0.2
254	5/31/2019 14:09:55	0.1	0.2
255	5/31/2019 14:10:55	0.1	0.2
256	5/31/2019 14:11:55	0.1	0.2
257	5/31/2019 14:12:55	0.1	0.2
258	5/31/2019 14:13:55	0.1	0.2
259	5/31/2019 14:14:55	0.1	0.2
260	5/31/2019 14:15:55	0.1	0.2

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19/06/03 09:12
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-903660
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual

Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00000
User ID	USER0000

Begin	6/3/2019 09:12:45
End	6/3/2019 11:40:48
Sample Period(s)	60
Number of Records	148

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.3
Min	0.0
Average	0.1

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)

001	6/3/2019 09:13:45	0.0	0.0	0.0	0.0
002	6/3/2019 09:14:45	0.0	0.0	0.0	0.0
003	6/3/2019 09:15:45	0.0	0.0	0.0	0.0
004	6/3/2019 09:16:45	0.0	0.0	0.0	0.0
005	6/3/2019 09:17:45	0.0	0.0	0.0	0.0
006	6/3/2019 09:18:45	0.0	0.0	0.0	0.0
007	6/3/2019 09:19:45	0.0	0.0	0.0	0.0
008	6/3/2019 09:20:45	0.0	0.0	0.0	0.0
009	6/3/2019 09:21:45	0.0	0.0	0.0	0.0
010	6/3/2019 09:22:45	0.0	0.0	0.0	0.0
011	6/3/2019 09:23:45	0.0	0.0	0.0	0.0
012	6/3/2019 09:24:45	0.0	0.0	0.0	0.0
013	6/3/2019 09:25:45	0.0	0.0	0.0	0.0
014	6/3/2019 09:26:45	0.0	0.0	0.0	0.0
015	6/3/2019 09:27:45	0.0	0.0	0.0	0.0
016	6/3/2019 09:28:45	0.0	0.0	0.0	0.0
017	6/3/2019 09:29:45	0.0	0.0	0.0	0.0
018	6/3/2019 09:30:45	0.0	0.0	0.0	0.0
019	6/3/2019 09:31:45	0.0	0.0	0.0	0.0
020	6/3/2019 09:32:45	0.0	0.0	0.0	0.0
021	6/3/2019 09:33:45	0.0	0.0	0.0	0.0
022	6/3/2019 09:34:45	0.0	0.0	0.0	0.0
023	6/3/2019 09:35:45	0.0	0.0	0.0	0.0
024	6/3/2019 09:36:45	0.0	0.0	0.0	0.0
025	6/3/2019 09:37:45	0.0	0.0	0.0	0.0
026	6/3/2019 09:38:45	0.0	0.0	0.0	0.0
027	6/3/2019 09:39:45	0.0	0.0	0.0	0.0
028	6/3/2019 09:40:45	0.0	0.0	0.0	0.0
029	6/3/2019 09:41:45	0.0	0.0	0.0	0.0
030	6/3/2019 09:42:45	0.0	0.0	0.0	0.0
031	6/3/2019 09:43:45	0.0	0.0	0.0	0.0

032	6/3/2019 09:44:45	0.0	0.0	0.0	0.0
033	6/3/2019 09:45:45	0.0	0.0	0.0	0.0
034	6/3/2019 09:46:45	0.0	0.0	0.0	0.0
035	6/3/2019 09:47:45	0.0	0.0	0.0	0.0
036	6/3/2019 09:48:45	0.0	0.0	0.0	0.0
037	6/3/2019 09:49:45	0.0	0.0	0.0	0.0
038	6/3/2019 09:50:45	0.0	0.0	0.0	0.0
039	6/3/2019 09:51:45	0.0	0.0	0.1	0.0
040	6/3/2019 09:52:45	0.0	0.0	0.0	0.0
041	6/3/2019 09:53:45	0.0	0.0	0.1	0.0
042	6/3/2019 09:54:45	0.0	0.0	0.0	0.0
043	6/3/2019 09:55:45	0.0	0.0	0.1	0.0
044	6/3/2019 09:56:45	0.0	0.0	0.0	0.0
045	6/3/2019 09:57:45	0.0	0.0	0.1	0.0
046	6/3/2019 09:58:45	0.0	0.0	0.0	0.0
047	6/3/2019 09:59:45	0.0	0.0	0.0	0.0
048	6/3/2019 10:00:45	0.0	0.0	0.1	0.1
049	6/3/2019 10:01:45	0.0	0.0	0.1	0.0
050	6/3/2019 10:02:45	0.0	0.0	0.0	0.0
051	6/3/2019 10:03:45	0.0	0.0	0.0	0.0
052	6/3/2019 10:04:45	0.0	0.0	0.0	0.0
053	6/3/2019 10:05:45	0.0	0.0	0.0	0.0
054	6/3/2019 10:06:45	0.0	0.0	0.0	0.0
055	6/3/2019 10:07:45	0.0	0.0	0.0	0.0
056	6/3/2019 10:08:45	0.0	0.0	0.1	0.0
057	6/3/2019 10:09:45	0.0	0.0	0.0	0.0
058	6/3/2019 10:10:45	0.0	0.0	0.0	0.0
059	6/3/2019 10:11:45	0.0	0.0	0.0	0.0
060	6/3/2019 10:12:45	0.0	0.0	0.1	0.1
061	6/3/2019 10:13:45	0.0	0.1	0.2	0.1
062	6/3/2019 10:14:45	0.0	0.1	0.2	0.0

063	6/3/2019 10:15:45	0.0	0.1	0.2	0.0
064	6/3/2019 10:16:45	0.0	0.0	0.1	0.0
065	6/3/2019 10:17:45	0.0	0.0	0.1	0.0
066	6/3/2019 10:18:45	0.0	0.1	0.2	0.1
067	6/3/2019 10:19:45	0.1	0.2	0.3	0.1
068	6/3/2019 10:20:45	0.0	0.1	0.1	0.1
069	6/3/2019 10:21:45	0.0	0.1	0.1	0.0
070	6/3/2019 10:22:45	0.0	0.1	0.1	0.1
071	6/3/2019 10:23:45	0.0	0.1	0.2	0.0
072	6/3/2019 10:24:45	0.0	0.0	0.1	0.0
073	6/3/2019 10:25:45	0.0	0.0	0.0	0.0
074	6/3/2019 10:26:45	0.0	0.0	0.1	0.0
075	6/3/2019 10:27:45	0.0	0.0	0.1	0.0
076	6/3/2019 10:28:45	0.0	0.0	0.1	0.0
077	6/3/2019 10:29:45	0.0	0.0	0.1	0.0
078	6/3/2019 10:30:45	0.0	0.1	0.1	0.1
079	6/3/2019 10:31:45	0.1	0.1	0.4	0.2
080	6/3/2019 10:32:45	0.0	0.1	0.4	0.1
081	6/3/2019 10:33:45	0.1	0.2	0.4	0.1
082	6/3/2019 10:34:45	0.1	0.1	0.1	0.1
083	6/3/2019 10:35:45	0.0	0.1	0.3	0.1
084	6/3/2019 10:36:45	0.1	0.1	0.2	0.1
085	6/3/2019 10:37:45	0.1	0.1	0.1	0.1
086	6/3/2019 10:38:45	0.1	0.1	0.1	0.1
087	6/3/2019 10:39:45	0.1	0.1	0.1	0.1
088	6/3/2019 10:40:45	0.1	0.1	0.1	0.1
089	6/3/2019 10:41:45	0.1	0.1	0.1	0.1
090	6/3/2019 10:42:45	0.1	0.1	0.1	0.1
091	6/3/2019 10:43:45	0.1	0.1	0.3	0.1
092	6/3/2019 10:44:45	0.1	0.1	0.1	0.1
093	6/3/2019 10:45:45	0.1	0.2	0.7	0.3

094	6/3/2019 10:46:45	0.1	0.1	0.3	0.1
095	6/3/2019 10:47:45	0.1	0.1	0.1	0.1
096	6/3/2019 10:48:45	0.1	0.2	0.4	0.1
097	6/3/2019 10:49:45	0.1	0.1	0.1	0.1
098	6/3/2019 10:50:45	0.1	0.1	0.3	0.1
099	6/3/2019 10:51:45	0.1	0.2	0.4	0.1
100	6/3/2019 10:52:45	0.1	0.2	0.5	0.1
101	6/3/2019 10:53:45	0.1	0.1	0.2	0.2
102	6/3/2019 10:54:45	0.1	0.1	0.2	0.1
103	6/3/2019 10:55:45	0.1	0.1	0.1	0.1
104	6/3/2019 10:56:45	0.1	0.1	0.1	0.1
105	6/3/2019 10:57:45	0.1	0.1	0.2	0.1
106	6/3/2019 10:58:45	0.1	0.1	0.2	0.1
107	6/3/2019 10:59:45	0.1	0.2	0.2	0.1
108	6/3/2019 11:00:45	0.1	0.1	0.1	0.1
109	6/3/2019 11:01:45	0.1	0.1	0.2	0.1
110	6/3/2019 11:02:45	0.1	0.1	0.1	0.1
111	6/3/2019 11:03:45	0.1	0.1	0.2	0.1
112	6/3/2019 11:04:45	0.1	0.1	0.2	0.2
113	6/3/2019 11:05:45	0.1	0.1	0.2	0.1
114	6/3/2019 11:06:45	0.1	0.1	0.2	0.2
115	6/3/2019 11:07:45	0.1	0.2	0.3	0.1
116	6/3/2019 11:08:45	0.1	0.2	0.3	0.2
117	6/3/2019 11:09:45	0.1	0.2	0.3	0.1
118	6/3/2019 11:10:45	0.1	0.1	0.2	0.2
119	6/3/2019 11:11:45	0.1	0.2	0.2	0.2
120	6/3/2019 11:12:45	0.1	0.1	0.2	0.1
121	6/3/2019 11:13:45	0.1	0.1	0.1	0.1
122	6/3/2019 11:14:45	0.1	0.1	0.1	0.1
123	6/3/2019 11:15:45	0.1	0.1	0.1	0.1
124	6/3/2019 11:16:45	0.1	0.1	0.1	0.1

125	6/3/2019	11:17:45	0.1	0.1	0.2	0.1
126	6/3/2019	11:18:45	0.1	0.1	0.2	0.1
127	6/3/2019	11:19:45	0.1	0.1	0.2	0.1
128	6/3/2019	11:20:45	0.1	0.1	0.1	0.1
129	6/3/2019	11:21:45	0.1	0.1	0.1	0.1
130	6/3/2019	11:22:45	0.1	0.1	0.1	0.1
131	6/3/2019	11:23:45	0.1	0.1	0.1	0.1
132	6/3/2019	11:24:45	0.1	0.1	0.2	0.2
133	6/3/2019	11:25:45	0.1	0.1	0.1	0.1
134	6/3/2019	11:26:45	0.1	0.2	0.4	0.2
135	6/3/2019	11:27:45	0.1	0.3	0.8	0.2
136	6/3/2019	11:28:45	0.2	0.3	0.4	0.3
137	6/3/2019	11:29:45	0.1	0.2	0.4	0.2
138	6/3/2019	11:30:45	0.1	0.1	0.2	0.1
139	6/3/2019	11:31:45	0.1	0.1	0.2	0.1
140	6/3/2019	11:32:45	0.1	0.1	0.1	0.1
141	6/3/2019	11:33:45	0.1	0.1	0.1	0.1
142	6/3/2019	11:34:45	0.1	0.1	0.1	0.1
143	6/3/2019	11:35:45	0.1	0.1	0.1	0.1
144	6/3/2019	11:36:45	0.1	0.1	0.1	0.1
145	6/3/2019	11:37:45	0.1	0.1	0.1	0.1
146	6/3/2019	11:38:45	0.1	0.2	0.3	0.3
147	6/3/2019	11:39:45	0.1	0.3	0.5	0.1
148	6/3/2019	11:40:45	0.1	0.1	0.3	0.1
Peak			0.2	0.3	0.8	0.3
Min			0.0	0.0	0.0	0.0
Average			0.0	0.1	0.1	0.1

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TWA/STEL

	PID(ppm)	PID(ppm)

Index	Date/Time	(TWA)	(STEL)	
001	6/3/2019 09:13:45	0.0	---	
002	6/3/2019 09:14:45	0.0	---	
003	6/3/2019 09:15:45	0.0	---	
004	6/3/2019 09:16:45	0.0	---	
005	6/3/2019 09:17:45	0.0	---	
006	6/3/2019 09:18:45	0.0	---	
007	6/3/2019 09:19:45	0.0	---	
008	6/3/2019 09:20:45	0.0	---	
009	6/3/2019 09:21:45	0.0	---	
010	6/3/2019 09:22:45	0.0	---	
011	6/3/2019 09:23:45	0.0	---	
012	6/3/2019 09:24:45	0.0	---	
013	6/3/2019 09:25:45	0.0	---	
014	6/3/2019 09:26:45	0.0	---	
015	6/3/2019 09:27:45	0.0	0.0	
016	6/3/2019 09:28:45	0.0	0.0	
017	6/3/2019 09:29:45	0.0	0.0	
018	6/3/2019 09:30:45	0.0	0.0	
019	6/3/2019 09:31:45	0.0	0.0	
020	6/3/2019 09:32:45	0.0	0.0	
021	6/3/2019 09:33:45	0.0	0.0	
022	6/3/2019 09:34:45	0.0	0.0	
023	6/3/2019 09:35:45	0.0	0.0	
024	6/3/2019 09:36:45	0.0	0.0	
025	6/3/2019 09:37:45	0.0	0.0	
026	6/3/2019 09:38:45	0.0	0.0	
027	6/3/2019 09:39:45	0.0	0.0	
028	6/3/2019 09:40:45	0.0	0.0	
029	6/3/2019 09:41:45	0.0	0.0	
030	6/3/2019 09:42:45	0.0	0.0	

031	6/3/2019 09:43:45	0.0	0.0
032	6/3/2019 09:44:45	0.0	0.0
033	6/3/2019 09:45:45	0.0	0.0
034	6/3/2019 09:46:45	0.0	0.0
035	6/3/2019 09:47:45	0.0	0.0
036	6/3/2019 09:48:45	0.0	0.0
037	6/3/2019 09:49:45	0.0	0.0
038	6/3/2019 09:50:45	0.0	0.0
039	6/3/2019 09:51:45	0.0	0.0
040	6/3/2019 09:52:45	0.0	0.0
041	6/3/2019 09:53:45	0.0	0.0
042	6/3/2019 09:54:45	0.0	0.0
043	6/3/2019 09:55:45	0.0	0.0
044	6/3/2019 09:56:45	0.0	0.0
045	6/3/2019 09:57:45	0.0	0.0
046	6/3/2019 09:58:45	0.0	0.0
047	6/3/2019 09:59:45	0.0	0.0
048	6/3/2019 10:00:45	0.0	0.0
049	6/3/2019 10:01:45	0.0	0.0
050	6/3/2019 10:02:45	0.0	0.0
051	6/3/2019 10:03:45	0.0	0.0
052	6/3/2019 10:04:45	0.0	0.0
053	6/3/2019 10:05:45	0.0	0.0
054	6/3/2019 10:06:45	0.0	0.0
055	6/3/2019 10:07:45	0.0	0.0
056	6/3/2019 10:08:45	0.0	0.0
057	6/3/2019 10:09:45	0.0	0.0
058	6/3/2019 10:10:45	0.0	0.0
059	6/3/2019 10:11:45	0.0	0.0
060	6/3/2019 10:12:45	0.0	0.0
061	6/3/2019 10:13:45	0.0	0.0

062	6/3/2019 10:14:45	0.0	0.0
063	6/3/2019 10:15:45	0.0	0.0
064	6/3/2019 10:16:45	0.0	0.0
065	6/3/2019 10:17:45	0.0	0.0
066	6/3/2019 10:18:45	0.0	0.0
067	6/3/2019 10:19:45	0.0	0.0
068	6/3/2019 10:20:45	0.0	0.0
069	6/3/2019 10:21:45	0.0	0.0
070	6/3/2019 10:22:45	0.0	0.0
071	6/3/2019 10:23:45	0.0	0.0
072	6/3/2019 10:24:45	0.0	0.0
073	6/3/2019 10:25:45	0.0	0.0
074	6/3/2019 10:26:45	0.0	0.0
075	6/3/2019 10:27:45	0.0	0.0
076	6/3/2019 10:28:45	0.0	0.0
077	6/3/2019 10:29:45	0.0	0.0
078	6/3/2019 10:30:45	0.0	0.0
079	6/3/2019 10:31:45	0.0	0.0
080	6/3/2019 10:32:45	0.0	0.1
081	6/3/2019 10:33:45	0.0	0.1
082	6/3/2019 10:34:45	0.0	0.1
083	6/3/2019 10:35:45	0.0	0.1
084	6/3/2019 10:36:45	0.0	0.1
085	6/3/2019 10:37:45	0.0	0.1
086	6/3/2019 10:38:45	0.0	0.1
087	6/3/2019 10:39:45	0.0	0.1
088	6/3/2019 10:40:45	0.0	0.1
089	6/3/2019 10:41:45	0.0	0.1
090	6/3/2019 10:42:45	0.0	0.1
091	6/3/2019 10:43:45	0.0	0.1
092	6/3/2019 10:44:45	0.0	0.1

093	6/3/2019 10:45:45	0.0	0.1
094	6/3/2019 10:46:45	0.0	0.1
095	6/3/2019 10:47:45	0.0	0.1
096	6/3/2019 10:48:45	0.0	0.1
097	6/3/2019 10:49:45	0.0	0.1
098	6/3/2019 10:50:45	0.0	0.1
099	6/3/2019 10:51:45	0.0	0.1
100	6/3/2019 10:52:45	0.0	0.1
101	6/3/2019 10:53:45	0.0	0.1
102	6/3/2019 10:54:45	0.0	0.1
103	6/3/2019 10:55:45	0.0	0.1
104	6/3/2019 10:56:45	0.0	0.1
105	6/3/2019 10:57:45	0.0	0.1
106	6/3/2019 10:58:45	0.0	0.1
107	6/3/2019 10:59:45	0.0	0.1
108	6/3/2019 11:00:45	0.0	0.1
109	6/3/2019 11:01:45	0.0	0.1
110	6/3/2019 11:02:45	0.0	0.1
111	6/3/2019 11:03:45	0.0	0.1
112	6/3/2019 11:04:45	0.0	0.1
113	6/3/2019 11:05:45	0.0	0.1
114	6/3/2019 11:06:45	0.0	0.1
115	6/3/2019 11:07:45	0.0	0.1
116	6/3/2019 11:08:45	0.0	0.1
117	6/3/2019 11:09:45	0.0	0.1
118	6/3/2019 11:10:45	0.0	0.1
119	6/3/2019 11:11:45	0.0	0.1
120	6/3/2019 11:12:45	0.0	0.1
121	6/3/2019 11:13:45	0.0	0.1
122	6/3/2019 11:14:45	0.0	0.1
123	6/3/2019 11:15:45	0.0	0.1

124	6/3/2019 11:16:45	0.0	0.1
125	6/3/2019 11:17:45	0.0	0.1
126	6/3/2019 11:18:45	0.0	0.1
127	6/3/2019 11:19:45	0.0	0.1
128	6/3/2019 11:20:45	0.0	0.1
129	6/3/2019 11:21:45	0.0	0.1
130	6/3/2019 11:22:45	0.0	0.1
131	6/3/2019 11:23:45	0.0	0.1
132	6/3/2019 11:24:45	0.0	0.1
133	6/3/2019 11:25:45	0.0	0.1
134	6/3/2019 11:26:45	0.0	0.1
135	6/3/2019 11:27:45	0.0	0.1
136	6/3/2019 11:28:45	0.0	0.1
137	6/3/2019 11:29:45	0.0	0.1
138	6/3/2019 11:30:45	0.0	0.1
139	6/3/2019 11:31:45	0.0	0.1
140	6/3/2019 11:32:45	0.0	0.1
141	6/3/2019 11:33:45	0.0	0.1
142	6/3/2019 11:34:45	0.0	0.1
143	6/3/2019 11:35:45	0.0	0.1
144	6/3/2019 11:36:45	0.0	0.1
145	6/3/2019 11:37:45	0.0	0.1
146	6/3/2019 11:38:45	0.0	0.2
147	6/3/2019 11:39:45	0.0	0.2
148	6/3/2019 11:40:45	0.0	0.2

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19/06/03 12:02

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	6/3/2019 12:02:19
End	6/3/2019 14:13:56
Sample Period(s)	60
Number of Records	131

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 15:55
Peak	0.3
Min	0.1

Average 0.2

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/3/2019	12:03:19	0.1	0.2	0.2	0.2
002	6/3/2019	12:04:19	0.2	0.3	0.4	0.2
003	6/3/2019	12:05:19	0.2	0.3	0.5	0.3
004	6/3/2019	12:06:19	0.1	0.2	0.4	0.1
005	6/3/2019	12:07:19	0.1	0.2	0.3	0.1
006	6/3/2019	12:08:19	0.1	0.1	0.2	0.1
007	6/3/2019	12:09:19	0.1	0.1	0.2	0.1
008	6/3/2019	12:10:19	0.1	0.1	0.2	0.1
009	6/3/2019	12:11:19	0.1	0.1	0.1	0.1
010	6/3/2019	12:12:19	0.1	0.1	0.1	0.1
011	6/3/2019	12:13:19	0.1	0.1	0.1	0.1
012	6/3/2019	12:14:19	0.1	0.1	0.4	0.2
013	6/3/2019	12:15:19	0.1	0.3	0.6	0.2
014	6/3/2019	12:16:19	0.1	0.3	0.5	0.3
015	6/3/2019	12:17:19	0.1	0.1	0.3	0.1
016	6/3/2019	12:18:19	0.1	0.1	0.1	0.1
017	6/3/2019	12:19:19	0.1	0.1	0.3	0.1
018	6/3/2019	12:20:19	0.1	0.1	0.1	0.1
019	6/3/2019	12:21:19	0.1	0.1	0.2	0.2
020	6/3/2019	12:22:19	0.1	0.1	0.3	0.1
021	6/3/2019	12:23:19	0.1	0.1	0.1	0.1
022	6/3/2019	12:24:19	0.1	0.1	0.3	0.3
023	6/3/2019	12:25:19	0.1	0.3	0.4	0.3
024	6/3/2019	12:26:19	0.1	0.3	0.4	0.3
025	6/3/2019	12:27:19	0.1	0.2	0.3	0.2

026	6/3/2019 12:28:19	0.1	0.2	0.2	0.1
027	6/3/2019 12:29:19	0.1	0.1	0.2	0.1
028	6/3/2019 12:30:19	0.1	0.1	0.1	0.1
029	6/3/2019 12:31:19	0.1	0.2	0.2	0.2
030	6/3/2019 12:32:19	0.1	0.2	0.3	0.1
031	6/3/2019 12:33:19	0.1	0.1	0.1	0.1
032	6/3/2019 12:34:19	0.1	0.1	0.1	0.1
033	6/3/2019 12:35:19	0.1	0.1	0.2	0.2
034	6/3/2019 12:36:19	0.1	0.2	0.3	0.2
035	6/3/2019 12:37:19	0.1	0.2	0.3	0.1
036	6/3/2019 12:38:19	0.1	0.2	0.3	0.2
037	6/3/2019 12:39:19	0.2	0.2	0.2	0.2
038	6/3/2019 12:40:19	0.1	0.2	0.2	0.1
039	6/3/2019 12:41:19	0.1	0.1	0.2	0.1
040	6/3/2019 12:42:19	0.1	0.1	0.2	0.2
041	6/3/2019 12:43:19	0.1	0.2	0.2	0.2
042	6/3/2019 12:44:19	0.2	0.2	0.3	0.2
043	6/3/2019 12:45:19	0.2	0.2	0.2	0.2
044	6/3/2019 12:46:19	0.2	0.2	0.2	0.2
045	6/3/2019 12:47:19	0.2	0.2	0.3	0.2
046	6/3/2019 12:48:19	0.2	0.2	0.2	0.2
047	6/3/2019 12:49:19	0.2	0.2	0.2	0.2
048	6/3/2019 12:50:19	0.2	0.2	0.3	0.2
049	6/3/2019 12:51:19	0.2	0.2	0.2	0.2
050	6/3/2019 12:52:19	0.2	0.2	0.2	0.2
051	6/3/2019 12:53:19	0.2	0.2	0.2	0.2
052	6/3/2019 12:54:19	0.2	0.2	0.3	0.3
053	6/3/2019 12:55:19	0.2	0.2	0.3	0.2
054	6/3/2019 12:56:19	0.2	0.2	0.3	0.2
055	6/3/2019 12:57:19	0.2	0.2	0.2	0.2
056	6/3/2019 12:58:19	0.1	0.2	0.3	0.3

057	6/3/2019 12:59:19	0.1	0.2	0.3	0.1
058	6/3/2019 13:00:19	0.1	0.1	0.1	0.1
059	6/3/2019 13:01:19	0.1	0.1	0.1	0.1
060	6/3/2019 13:02:19	0.1	0.2	0.2	0.2
061	6/3/2019 13:03:19	0.2	0.2	0.3	0.2
062	6/3/2019 13:04:19	0.1	0.2	0.2	0.1
063	6/3/2019 13:05:19	0.1	0.1	0.2	0.1
064	6/3/2019 13:06:19	0.1	0.2	0.2	0.2
065	6/3/2019 13:07:19	0.1	0.2	0.2	0.1
066	6/3/2019 13:08:19	0.1	0.1	0.2	0.2
067	6/3/2019 13:09:19	0.1	0.2	0.2	0.2
068	6/3/2019 13:10:19	0.1	0.1	0.2	0.1
069	6/3/2019 13:11:19	0.1	0.1	0.2	0.1
070	6/3/2019 13:12:19	0.1	0.1	0.2	0.1
071	6/3/2019 13:13:19	0.1	0.1	0.2	0.1
072	6/3/2019 13:14:19	0.1	0.2	0.2	0.1
073	6/3/2019 13:15:19	0.1	0.1	0.2	0.1
074	6/3/2019 13:16:19	0.1	0.1	0.1	0.1
075	6/3/2019 13:17:19	0.1	0.1	0.2	0.1
076	6/3/2019 13:18:19	0.1	0.1	0.2	0.1
077	6/3/2019 13:19:19	0.1	0.1	0.1	0.1
078	6/3/2019 13:20:19	0.1	0.1	0.2	0.1
079	6/3/2019 13:21:19	0.1	0.1	0.2	0.2
080	6/3/2019 13:22:19	0.1	0.2	0.2	0.2
081	6/3/2019 13:23:19	0.1	0.1	0.2	0.1
082	6/3/2019 13:24:19	0.1	0.1	0.1	0.1
083	6/3/2019 13:25:19	0.1	0.1	0.2	0.1
084	6/3/2019 13:26:19	0.1	0.1	0.1	0.1
085	6/3/2019 13:27:19	0.1	0.1	0.1	0.1
086	6/3/2019 13:28:19	0.1	0.1	0.1	0.1
087	6/3/2019 13:29:19	0.1	0.1	0.1	0.1

088	6/3/2019 13:30:19	0.1	0.1	0.1	0.1
089	6/3/2019 13:31:19	0.1	0.1	0.1	0.1
090	6/3/2019 13:32:19	0.1	0.1	0.1	0.1
091	6/3/2019 13:33:19	0.1	0.1	0.1	0.1
092	6/3/2019 13:34:19	0.1	0.1	0.1	0.1
093	6/3/2019 13:35:19	0.1	0.1	0.1	0.1
094	6/3/2019 13:36:19	0.1	0.1	0.2	0.1
095	6/3/2019 13:37:19	0.1	0.1	0.2	0.1
096	6/3/2019 13:38:19	0.1	0.1	0.2	0.2
097	6/3/2019 13:39:19	0.2	0.2	0.2	0.2
098	6/3/2019 13:40:19	0.2	0.2	0.2	0.2
099	6/3/2019 13:41:19	0.2	0.2	0.2	0.2
100	6/3/2019 13:42:19	0.2	0.2	0.2	0.2
101	6/3/2019 13:43:19	0.2	0.2	0.2	0.2
102	6/3/2019 13:44:19	0.2	0.2	0.2	0.2
103	6/3/2019 13:45:19	0.2	0.2	0.2	0.2
104	6/3/2019 13:46:19	0.2	0.2	0.2	0.2
105	6/3/2019 13:47:19	0.2	0.2	0.2	0.2
106	6/3/2019 13:48:19	0.2	0.2	0.2	0.2
107	6/3/2019 13:49:19	0.2	0.2	0.2	0.2
108	6/3/2019 13:50:19	0.2	0.2	0.2	0.2
109	6/3/2019 13:51:19	0.2	0.2	0.2	0.2
110	6/3/2019 13:52:19	0.2	0.2	0.2	0.2
111	6/3/2019 13:53:19	0.1	0.1	0.2	0.1
112	6/3/2019 13:54:19	0.1	0.1	0.2	0.1
113	6/3/2019 13:55:19	0.1	0.1	0.2	0.1
114	6/3/2019 13:56:19	0.1	0.1	0.2	0.1
115	6/3/2019 13:57:19	0.1	0.1	0.2	0.1
116	6/3/2019 13:58:19	0.1	0.1	0.1	0.1
117	6/3/2019 13:59:19	0.1	0.1	0.1	0.1
118	6/3/2019 14:00:19	0.1	0.1	0.2	0.2

119	6/3/2019	14:01:19	0.1	0.2	0.2	0.2
120	6/3/2019	14:02:19	0.1	0.2	0.2	0.2
121	6/3/2019	14:03:19	0.1	0.2	0.2	0.2
122	6/3/2019	14:04:19	0.2	0.2	0.2	0.2
123	6/3/2019	14:05:19	0.2	0.2	0.2	0.2
124	6/3/2019	14:06:19	0.1	0.2	0.2	0.1
125	6/3/2019	14:07:19	0.1	0.1	0.2	0.1
126	6/3/2019	14:08:19	0.2	0.2	0.2	0.2
127	6/3/2019	14:09:19	0.2	0.2	0.2	0.2
128	6/3/2019	14:10:19	0.2	0.2	0.2	0.2
129	6/3/2019	14:11:19	0.2	0.2	0.2	0.2
130	6/3/2019	14:12:19	0.2	0.2	0.2	0.2
131	6/3/2019	14:13:19	0.2	0.2	0.2	0.2
Peak			0.2	0.3	0.6	0.3
Min			0.1	0.1	0.1	0.1
Average			0.1	0.2	0.2	0.2

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/3/2019	12:03:19	0.0	---
002	6/3/2019	12:04:19	0.0	---
003	6/3/2019	12:05:19	0.0	---
004	6/3/2019	12:06:19	0.0	---
005	6/3/2019	12:07:19	0.0	---
006	6/3/2019	12:08:19	0.0	---
007	6/3/2019	12:09:19	0.0	---
008	6/3/2019	12:10:19	0.0	---
009	6/3/2019	12:11:19	0.0	---
010	6/3/2019	12:12:19	0.0	---

011	6/3/2019 12:13:19	0.0	---
012	6/3/2019 12:14:19	0.0	---
013	6/3/2019 12:15:19	0.0	---
014	6/3/2019 12:16:19	0.0	---
015	6/3/2019 12:17:19	0.0	0.2
016	6/3/2019 12:18:19	0.0	0.2
017	6/3/2019 12:19:19	0.0	0.2
018	6/3/2019 12:20:19	0.0	0.1
019	6/3/2019 12:21:19	0.0	0.1
020	6/3/2019 12:22:19	0.0	0.1
021	6/3/2019 12:23:19	0.0	0.1
022	6/3/2019 12:24:19	0.0	0.2
023	6/3/2019 12:25:19	0.0	0.2
024	6/3/2019 12:26:19	0.0	0.2
025	6/3/2019 12:27:19	0.0	0.2
026	6/3/2019 12:28:19	0.0	0.2
027	6/3/2019 12:29:19	0.0	0.2
028	6/3/2019 12:30:19	0.0	0.2
029	6/3/2019 12:31:19	0.0	0.2
030	6/3/2019 12:32:19	0.0	0.2
031	6/3/2019 12:33:19	0.0	0.2
032	6/3/2019 12:34:19	0.0	0.2
033	6/3/2019 12:35:19	0.0	0.2
034	6/3/2019 12:36:19	0.0	0.2
035	6/3/2019 12:37:19	0.0	0.2
036	6/3/2019 12:38:19	0.0	0.2
037	6/3/2019 12:39:19	0.0	0.2
038	6/3/2019 12:40:19	0.0	0.2
039	6/3/2019 12:41:19	0.0	0.2
040	6/3/2019 12:42:19	0.0	0.2
041	6/3/2019 12:43:19	0.0	0.2

042	6/3/2019 12:44:19	0.0	0.2
043	6/3/2019 12:45:19	0.0	0.2
044	6/3/2019 12:46:19	0.0	0.2
045	6/3/2019 12:47:19	0.0	0.2
046	6/3/2019 12:48:19	0.0	0.2
047	6/3/2019 12:49:19	0.0	0.2
048	6/3/2019 12:50:19	0.0	0.2
049	6/3/2019 12:51:19	0.0	0.2
050	6/3/2019 12:52:19	0.0	0.2
051	6/3/2019 12:53:19	0.0	0.2
052	6/3/2019 12:54:19	0.0	0.2
053	6/3/2019 12:55:19	0.0	0.2
054	6/3/2019 12:56:19	0.0	0.2
055	6/3/2019 12:57:19	0.0	0.2
056	6/3/2019 12:58:19	0.0	0.2
057	6/3/2019 12:59:19	0.0	0.2
058	6/3/2019 13:00:19	0.0	0.2
059	6/3/2019 13:01:19	0.0	0.2
060	6/3/2019 13:02:19	0.0	0.2
061	6/3/2019 13:03:19	0.0	0.2
062	6/3/2019 13:04:19	0.0	0.2
063	6/3/2019 13:05:19	0.0	0.2
064	6/3/2019 13:06:19	0.0	0.2
065	6/3/2019 13:07:19	0.0	0.2
066	6/3/2019 13:08:19	0.0	0.2
067	6/3/2019 13:09:19	0.0	0.2
068	6/3/2019 13:10:19	0.0	0.2
069	6/3/2019 13:11:19	0.0	0.2
070	6/3/2019 13:12:19	0.0	0.2
071	6/3/2019 13:13:19	0.0	0.2
072	6/3/2019 13:14:19	0.0	0.1

073	6/3/2019 13:15:19	0.0	0.1
074	6/3/2019 13:16:19	0.0	0.1
075	6/3/2019 13:17:19	0.0	0.1
076	6/3/2019 13:18:19	0.0	0.1
077	6/3/2019 13:19:19	0.0	0.1
078	6/3/2019 13:20:19	0.0	0.1
079	6/3/2019 13:21:19	0.0	0.1
080	6/3/2019 13:22:19	0.0	0.1
081	6/3/2019 13:23:19	0.0	0.1
082	6/3/2019 13:24:19	0.0	0.1
083	6/3/2019 13:25:19	0.0	0.1
084	6/3/2019 13:26:19	0.0	0.1
085	6/3/2019 13:27:19	0.0	0.1
086	6/3/2019 13:28:19	0.0	0.1
087	6/3/2019 13:29:19	0.0	0.1
088	6/3/2019 13:30:19	0.0	0.1
089	6/3/2019 13:31:19	0.0	0.1
090	6/3/2019 13:32:19	0.0	0.1
091	6/3/2019 13:33:19	0.0	0.1
092	6/3/2019 13:34:19	0.0	0.1
093	6/3/2019 13:35:19	0.0	0.1
094	6/3/2019 13:36:19	0.0	0.1
095	6/3/2019 13:37:19	0.0	0.1
096	6/3/2019 13:38:19	0.0	0.1
097	6/3/2019 13:39:19	0.0	0.1
098	6/3/2019 13:40:19	0.0	0.1
099	6/3/2019 13:41:19	0.0	0.1
100	6/3/2019 13:42:19	0.0	0.1
101	6/3/2019 13:43:19	0.0	0.1
102	6/3/2019 13:44:19	0.0	0.2
103	6/3/2019 13:45:19	0.0	0.2

104	6/3/2019 13:46:19	0.0	0.2
105	6/3/2019 13:47:19	0.0	0.2
106	6/3/2019 13:48:19	0.0	0.2
107	6/3/2019 13:49:19	0.0	0.2
108	6/3/2019 13:50:19	0.0	0.2
109	6/3/2019 13:51:19	0.0	0.2
110	6/3/2019 13:52:19	0.0	0.2
111	6/3/2019 13:53:19	0.0	0.2
112	6/3/2019 13:54:19	0.0	0.2
113	6/3/2019 13:55:19	0.0	0.2
114	6/3/2019 13:56:19	0.0	0.2
115	6/3/2019 13:57:19	0.0	0.2
116	6/3/2019 13:58:19	0.0	0.2
117	6/3/2019 13:59:19	0.0	0.2
118	6/3/2019 14:00:19	0.0	0.2
119	6/3/2019 14:01:19	0.0	0.2
120	6/3/2019 14:02:19	0.0	0.2
121	6/3/2019 14:03:19	0.0	0.2
122	6/3/2019 14:04:19	0.0	0.2
123	6/3/2019 14:05:19	0.0	0.2
124	6/3/2019 14:06:19	0.0	0.2
125	6/3/2019 14:07:19	0.0	0.2
126	6/3/2019 14:08:19	0.0	0.2
127	6/3/2019 14:09:19	0.0	0.2
128	6/3/2019 14:10:19	0.0	0.2
129	6/3/2019 14:11:19	0.0	0.2
130	6/3/2019 14:12:19	0.0	0.2
131	6/3/2019 14:13:19	0.0	0.2

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19/06/04 09:08

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00000
User ID	USER0000

Begin	6/4/2019 09:08:05
End	6/4/2019 14:24:13
Sample Period(s)	60
Number of Records	316

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene

Calibration Time 5/15/2019 15:55
Peak 0.6
Min 0.1
Average 0.4

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/4/2019 09:09:05	0.1	0.1	0.2	0.1	
002	6/4/2019 09:10:05	0.1	0.1	0.1	0.1	
003	6/4/2019 09:11:05	0.1	0.1	0.2	0.1	
004	6/4/2019 09:12:05	0.1	0.1	0.1	0.1	
005	6/4/2019 09:13:05	0.1	0.1	0.2	0.1	
006	6/4/2019 09:14:05	0.1	0.1	0.2	0.2	
007	6/4/2019 09:15:05	0.1	0.1	0.2	0.1	
008	6/4/2019 09:16:05	0.1	0.1	0.1	0.1	
009	6/4/2019 09:17:05	0.1	0.2	0.2	0.2	
010	6/4/2019 09:18:05	0.2	0.2	0.2	0.2	
011	6/4/2019 09:19:05	0.2	0.2	0.2	0.2	
012	6/4/2019 09:20:05	0.2	0.2	0.2	0.2	
013	6/4/2019 09:21:05	0.2	0.2	0.2	0.2	
014	6/4/2019 09:22:05	0.2	0.2	0.2	0.2	
015	6/4/2019 09:23:05	0.2	0.2	0.2	0.2	
016	6/4/2019 09:24:05	0.2	0.2	0.2	0.2	
017	6/4/2019 09:25:05	0.2	0.2	0.2	0.2	
018	6/4/2019 09:26:05	0.2	0.2	0.2	0.2	
019	6/4/2019 09:27:05	0.2	0.2	0.2	0.2	
020	6/4/2019 09:28:05	0.2	0.2	0.2	0.2	
021	6/4/2019 09:29:05	0.2	0.2	0.2	0.2	
022	6/4/2019 09:30:05	0.2	0.2	0.2	0.2	

023	6/4/2019 09:31:05	0.2	0.2	0.2	0.2
024	6/4/2019 09:32:05	0.2	0.2	0.3	0.3
025	6/4/2019 09:33:05	0.3	0.3	0.3	0.3
026	6/4/2019 09:34:05	0.3	0.3	0.3	0.3
027	6/4/2019 09:35:05	0.3	0.3	0.3	0.3
028	6/4/2019 09:36:05	0.3	0.3	0.3	0.3
029	6/4/2019 09:37:05	0.3	0.3	0.3	0.3
030	6/4/2019 09:38:05	0.3	0.3	0.3	0.3
031	6/4/2019 09:39:05	0.3	0.3	0.3	0.3
032	6/4/2019 09:40:05	0.3	0.3	0.3	0.3
033	6/4/2019 09:41:05	0.3	0.3	0.3	0.3
034	6/4/2019 09:42:05	0.3	0.3	0.3	0.3
035	6/4/2019 09:43:05	0.3	0.3	0.3	0.3
036	6/4/2019 09:44:05	0.3	0.3	0.3	0.3
037	6/4/2019 09:45:05	0.3	0.3	0.3	0.3
038	6/4/2019 09:46:05	0.3	0.3	0.4	0.3
039	6/4/2019 09:47:05	0.3	0.3	0.3	0.3
040	6/4/2019 09:48:05	0.3	0.3	0.3	0.3
041	6/4/2019 09:49:05	0.3	0.3	0.4	0.3
042	6/4/2019 09:50:05	0.3	0.3	0.4	0.3
043	6/4/2019 09:51:05	0.3	0.3	0.4	0.3
044	6/4/2019 09:52:05	0.3	0.4	0.4	0.4
045	6/4/2019 09:53:05	0.4	0.4	0.4	0.4
046	6/4/2019 09:54:05	0.4	0.4	0.4	0.4
047	6/4/2019 09:55:05	0.4	0.4	0.4	0.4
048	6/4/2019 09:56:05	0.4	0.4	0.4	0.4
049	6/4/2019 09:57:05	0.4	0.4	0.4	0.4
050	6/4/2019 09:58:05	0.4	0.4	0.4	0.4
051	6/4/2019 09:59:05	0.4	0.4	0.4	0.4
052	6/4/2019 10:00:05	0.4	0.4	0.4	0.4
053	6/4/2019 10:01:05	0.4	0.4	0.4	0.4

054	6/4/2019 10:02:05	0.4	0.4	0.4	0.4
055	6/4/2019 10:03:05	0.4	0.4	0.4	0.4
056	6/4/2019 10:04:05	0.4	0.4	0.4	0.4
057	6/4/2019 10:05:05	0.4	0.4	0.4	0.4
058	6/4/2019 10:06:05	0.4	0.4	0.4	0.4
059	6/4/2019 10:07:05	0.4	0.4	0.4	0.4
060	6/4/2019 10:08:05	0.4	0.4	0.4	0.4
061	6/4/2019 10:09:05	0.4	0.4	0.4	0.4
062	6/4/2019 10:10:05	0.4	0.4	0.4	0.4
063	6/4/2019 10:11:05	0.4	0.4	0.4	0.4
064	6/4/2019 10:12:05	0.4	0.4	0.4	0.4
065	6/4/2019 10:13:05	0.4	0.4	0.4	0.4
066	6/4/2019 10:14:05	0.4	0.4	0.4	0.4
067	6/4/2019 10:15:05	0.4	0.4	0.4	0.4
068	6/4/2019 10:16:05	0.4	0.4	0.4	0.4
069	6/4/2019 10:17:05	0.4	0.4	0.4	0.4
070	6/4/2019 10:18:05	0.4	0.4	0.4	0.4
071	6/4/2019 10:19:05	0.4	0.4	0.4	0.4
072	6/4/2019 10:20:05	0.4	0.4	0.4	0.4
073	6/4/2019 10:21:05	0.4	0.4	0.4	0.4
074	6/4/2019 10:22:05	0.4	0.4	0.4	0.4
075	6/4/2019 10:23:05	0.4	0.4	0.4	0.4
076	6/4/2019 10:24:05	0.4	0.4	0.4	0.4
077	6/4/2019 10:25:05	0.4	0.4	0.4	0.4
078	6/4/2019 10:26:05	0.4	0.4	0.4	0.4
079	6/4/2019 10:27:05	0.4	0.4	0.4	0.4
080	6/4/2019 10:28:05	0.4	0.4	0.4	0.4
081	6/4/2019 10:29:05	0.4	0.4	0.4	0.4
082	6/4/2019 10:30:05	0.4	0.4	0.4	0.4
083	6/4/2019 10:31:05	0.4	0.4	0.4	0.4
084	6/4/2019 10:32:05	0.4	0.4	0.4	0.4

085	6/4/2019 10:33:05	0.4	0.4	0.4	0.4
086	6/4/2019 10:34:05	0.4	0.4	0.4	0.4
087	6/4/2019 10:35:05	0.4	0.4	0.4	0.4
088	6/4/2019 10:36:05	0.4	0.4	0.4	0.4
089	6/4/2019 10:37:05	0.4	0.4	0.5	0.4
090	6/4/2019 10:38:05	0.4	0.4	0.4	0.4
091	6/4/2019 10:39:05	0.4	0.4	0.4	0.4
092	6/4/2019 10:40:05	0.4	0.4	0.4	0.4
093	6/4/2019 10:41:05	0.4	0.4	0.5	0.4
094	6/4/2019 10:42:05	0.4	0.5	0.5	0.5
095	6/4/2019 10:43:05	0.5	0.5	0.5	0.5
096	6/4/2019 10:44:05	0.5	0.5	0.5	0.5
097	6/4/2019 10:45:05	0.5	0.5	0.5	0.5
098	6/4/2019 10:46:05	0.5	0.5	0.5	0.5
099	6/4/2019 10:47:05	0.5	0.5	0.5	0.5
100	6/4/2019 10:48:05	0.5	0.5	0.5	0.5
101	6/4/2019 10:49:05	0.5	0.5	0.5	0.5
102	6/4/2019 10:50:05	0.5	0.5	0.5	0.5
103	6/4/2019 10:51:05	0.5	0.5	0.5	0.5
104	6/4/2019 10:52:05	0.5	0.5	0.5	0.5
105	6/4/2019 10:53:05	0.5	0.5	0.5	0.5
106	6/4/2019 10:54:05	0.5	0.5	0.5	0.5
107	6/4/2019 10:55:05	0.5	0.5	0.5	0.5
108	6/4/2019 10:56:05	0.5	0.5	0.5	0.5
109	6/4/2019 10:57:05	0.5	0.5	0.5	0.5
110	6/4/2019 10:58:05	0.5	0.5	0.5	0.5
111	6/4/2019 10:59:05	0.5	0.5	0.5	0.5
112	6/4/2019 11:00:05	0.5	0.5	0.5	0.5
113	6/4/2019 11:01:05	0.5	0.5	0.5	0.5
114	6/4/2019 11:02:05	0.5	0.5	0.5	0.5
115	6/4/2019 11:03:05	0.5	0.5	0.5	0.5

116	6/4/2019 11:04:05	0.5	0.5	0.5	0.5
117	6/4/2019 11:05:05	0.5	0.5	0.5	0.5
118	6/4/2019 11:06:05	0.5	0.5	0.5	0.5
119	6/4/2019 11:07:05	0.5	0.5	0.5	0.5
120	6/4/2019 11:08:05	0.5	0.5	0.7	0.5
121	6/4/2019 11:09:05	0.5	0.5	0.5	0.5
122	6/4/2019 11:10:05	0.5	0.5	0.5	0.5
123	6/4/2019 11:11:05	0.5	0.5	0.5	0.5
124	6/4/2019 11:12:05	0.5	0.5	0.5	0.5
125	6/4/2019 11:13:05	0.5	0.5	0.5	0.5
126	6/4/2019 11:14:05	0.5	0.5	0.5	0.5
127	6/4/2019 11:15:05	0.5	0.5	0.5	0.5
128	6/4/2019 11:16:05	0.5	0.5	0.5	0.5
129	6/4/2019 11:17:05	0.5	0.5	0.5	0.5
130	6/4/2019 11:18:05	0.5	0.5	0.5	0.5
131	6/4/2019 11:19:05	0.5	0.5	0.5	0.5
132	6/4/2019 11:20:05	0.5	0.5	0.5	0.5
133	6/4/2019 11:21:05	0.5	0.5	0.5	0.5
134	6/4/2019 11:22:05	0.5	0.5	0.5	0.5
135	6/4/2019 11:23:05	0.5	0.5	0.5	0.5
136	6/4/2019 11:24:05	0.5	0.5	0.5	0.5
137	6/4/2019 11:25:05	0.5	0.5	0.5	0.5
138	6/4/2019 11:26:05	0.5	0.5	0.5	0.5
139	6/4/2019 11:27:05	0.5	0.5	0.5	0.5
140	6/4/2019 11:28:05	0.5	0.5	0.5	0.5
141	6/4/2019 11:29:05	0.5	0.5	0.5	0.5
142	6/4/2019 11:30:05	0.5	0.5	0.5	0.5
143	6/4/2019 11:31:05	0.5	0.5	0.5	0.5
144	6/4/2019 11:32:05	0.5	0.5	0.5	0.5
145	6/4/2019 11:33:05	0.5	0.5	0.5	0.5
146	6/4/2019 11:34:05	0.5	0.5	0.5	0.5

147	6/4/2019 11:35:05	0.5	0.5	0.5	0.5
148	6/4/2019 11:36:05	0.5	0.5	0.5	0.5
149	6/4/2019 11:37:05	0.5	0.5	0.5	0.5
150	6/4/2019 11:38:05	0.5	0.5	0.5	0.5
151	6/4/2019 11:39:05	0.5	0.5	0.5	0.5
152	6/4/2019 11:40:05	0.5	0.5	0.5	0.5
153	6/4/2019 11:41:05	0.5	0.5	0.5	0.5
154	6/4/2019 11:42:05	0.5	0.5	0.5	0.5
155	6/4/2019 11:43:05	0.5	0.5	0.5	0.5
156	6/4/2019 11:44:05	0.5	0.5	0.5	0.5
157	6/4/2019 11:45:05	0.5	0.5	0.5	0.5
158	6/4/2019 11:46:05	0.5	0.5	0.5	0.5
159	6/4/2019 11:47:05	0.5	0.5	0.5	0.5
160	6/4/2019 11:48:05	0.5	0.5	0.5	0.5
161	6/4/2019 11:49:05	0.5	0.5	0.5	0.5
162	6/4/2019 11:50:05	0.5	0.5	0.5	0.5
163	6/4/2019 11:51:05	0.5	0.5	0.5	0.5
164	6/4/2019 11:52:05	0.5	0.5	0.5	0.5
165	6/4/2019 11:53:05	0.5	0.5	0.5	0.5
166	6/4/2019 11:54:05	0.5	0.5	0.5	0.5
167	6/4/2019 11:55:05	0.5	0.5	0.5	0.5
168	6/4/2019 11:56:05	0.5	0.5	0.5	0.5
169	6/4/2019 11:57:05	0.5	0.5	0.5	0.5
170	6/4/2019 11:58:05	0.5	0.5	0.5	0.5
171	6/4/2019 11:59:05	0.5	0.5	0.5	0.5
172	6/4/2019 12:00:05	0.5	0.5	0.5	0.5
173	6/4/2019 12:01:05	0.5	0.5	0.5	0.5
174	6/4/2019 12:02:05	0.5	0.5	0.5	0.5
175	6/4/2019 12:03:05	0.5	0.5	0.5	0.5
176	6/4/2019 12:04:05	0.5	0.5	0.5	0.5
177	6/4/2019 12:05:05	0.5	0.6	1.3	0.6

178	6/4/2019 12:06:05	0.5	0.5	0.7	0.5
179	6/4/2019 12:07:05	0.5	0.5	0.5	0.5
180	6/4/2019 12:08:05	0.5	0.5	0.5	0.5
181	6/4/2019 12:09:05	0.5	0.5	0.5	0.5
182	6/4/2019 12:10:05	0.5	0.5	0.5	0.5
183	6/4/2019 12:11:05	0.5	0.5	0.5	0.5
184	6/4/2019 12:12:05	0.5	0.5	0.5	0.5
185	6/4/2019 12:13:05	0.4	0.5	0.5	0.4
186	6/4/2019 12:14:05	0.4	0.5	0.5	0.5
187	6/4/2019 12:15:05	0.4	0.5	0.5	0.5
188	6/4/2019 12:16:05	0.5	0.5	0.5	0.5
189	6/4/2019 12:17:05	0.5	0.5	0.5	0.5
190	6/4/2019 12:18:05	0.5	0.5	0.5	0.5
191	6/4/2019 12:19:05	0.5	0.5	0.5	0.5
192	6/4/2019 12:20:05	0.5	0.5	0.5	0.5
193	6/4/2019 12:21:05	0.5	0.5	0.5	0.5
194	6/4/2019 12:22:05	0.5	0.5	0.5	0.5
195	6/4/2019 12:23:05	0.5	0.5	0.5	0.5
196	6/4/2019 12:24:05	0.5	0.5	0.5	0.5
197	6/4/2019 12:25:05	0.5	0.5	0.5	0.5
198	6/4/2019 12:26:05	0.5	0.5	0.5	0.5
199	6/4/2019 12:27:05	0.5	0.5	0.5	0.5
200	6/4/2019 12:28:05	0.5	0.5	0.5	0.5
201	6/4/2019 12:29:05	0.5	0.5	0.5	0.5
202	6/4/2019 12:30:05	0.5	0.5	0.5	0.5
203	6/4/2019 12:31:05	0.5	0.5	0.5	0.5
204	6/4/2019 12:32:05	0.5	0.5	0.5	0.5
205	6/4/2019 12:33:05	0.5	0.5	0.5	0.5
206	6/4/2019 12:34:05	0.5	0.5	0.5	0.5
207	6/4/2019 12:35:05	0.5	0.5	0.5	0.5
208	6/4/2019 12:36:05	0.5	0.5	0.5	0.5

209	6/4/2019 12:37:05	0.5	0.5	0.5	0.5
210	6/4/2019 12:38:05	0.5	0.5	0.5	0.5
211	6/4/2019 12:39:05	0.5	0.5	0.5	0.5
212	6/4/2019 12:40:05	0.5	0.5	0.5	0.5
213	6/4/2019 12:41:05	0.5	0.5	0.5	0.5
214	6/4/2019 12:42:05	0.5	0.5	0.5	0.5
215	6/4/2019 12:43:05	0.5	0.5	0.5	0.5
216	6/4/2019 12:44:05	0.5	0.5	0.5	0.5
217	6/4/2019 12:45:05	0.5	0.5	0.5	0.5
218	6/4/2019 12:46:05	0.5	0.5	0.5	0.5
219	6/4/2019 12:47:05	0.5	0.5	0.5	0.5
220	6/4/2019 12:48:05	0.5	0.5	0.5	0.5
221	6/4/2019 12:49:05	0.5	0.5	0.5	0.5
222	6/4/2019 12:50:05	0.5	0.5	0.5	0.5
223	6/4/2019 12:51:05	0.5	0.5	0.5	0.5
224	6/4/2019 12:52:05	0.5	0.5	0.5	0.5
225	6/4/2019 12:53:05	0.5	0.5	0.5	0.5
226	6/4/2019 12:54:05	0.5	0.5	0.5	0.5
227	6/4/2019 12:55:05	0.5	0.5	0.5	0.5
228	6/4/2019 12:56:05	0.5	0.5	0.5	0.5
229	6/4/2019 12:57:05	0.5	0.5	0.5	0.5
230	6/4/2019 12:58:05	0.5	0.5	0.5	0.5
231	6/4/2019 12:59:05	0.5	0.5	0.5	0.5
232	6/4/2019 13:00:05	0.5	0.5	0.5	0.5
233	6/4/2019 13:01:05	0.5	0.5	0.5	0.5
234	6/4/2019 13:02:05	0.5	0.5	0.5	0.5
235	6/4/2019 13:03:05	0.5	0.5	0.5	0.5
236	6/4/2019 13:04:05	0.5	0.5	0.5	0.5
237	6/4/2019 13:05:05	0.5	0.5	0.5	0.5
238	6/4/2019 13:06:05	0.5	0.5	0.5	0.5
239	6/4/2019 13:07:05	0.5	0.5	0.5	0.5

240	6/4/2019 13:08:05	0.5	0.5	0.5	0.5
241	6/4/2019 13:09:05	0.5	0.5	0.5	0.5
242	6/4/2019 13:10:05	0.5	0.5	0.5	0.5
243	6/4/2019 13:11:05	0.5	0.5	0.5	0.5
244	6/4/2019 13:12:05	0.5	0.5	0.5	0.5
245	6/4/2019 13:13:05	0.5	0.5	0.5	0.5
246	6/4/2019 13:14:05	0.5	0.5	0.5	0.5
247	6/4/2019 13:15:05	0.5	0.5	0.5	0.5
248	6/4/2019 13:16:05	0.5	0.5	0.5	0.5
249	6/4/2019 13:17:05	0.5	0.5	0.5	0.5
250	6/4/2019 13:18:05	0.5	0.5	0.5	0.5
251	6/4/2019 13:19:05	0.5	0.5	0.5	0.5
252	6/4/2019 13:20:05	0.5	0.5	0.5	0.5
253	6/4/2019 13:21:05	0.5	0.5	0.5	0.5
254	6/4/2019 13:22:05	0.5	0.5	0.5	0.5
255	6/4/2019 13:23:05	0.5	0.5	0.5	0.5
256	6/4/2019 13:24:05	0.5	0.5	0.5	0.5
257	6/4/2019 13:25:05	0.5	0.5	0.5	0.5
258	6/4/2019 13:26:05	0.5	0.5	0.5	0.5
259	6/4/2019 13:27:05	0.5	0.5	0.5	0.5
260	6/4/2019 13:28:05	0.5	0.5	0.5	0.5
261	6/4/2019 13:29:05	0.5	0.5	0.5	0.5
262	6/4/2019 13:30:05	0.5	0.5	0.5	0.5
263	6/4/2019 13:31:05	0.5	0.5	0.5	0.5
264	6/4/2019 13:32:05	0.5	0.5	0.5	0.5
265	6/4/2019 13:33:05	0.5	0.5	0.5	0.5
266	6/4/2019 13:34:05	0.5	0.5	0.5	0.5
267	6/4/2019 13:35:05	0.5	0.5	0.5	0.5
268	6/4/2019 13:36:05	0.5	0.5	0.5	0.5
269	6/4/2019 13:37:05	0.5	0.5	0.5	0.5
270	6/4/2019 13:38:05	0.5	0.5	0.5	0.5

271	6/4/2019 13:39:05	0.5	0.5	0.5	0.5
272	6/4/2019 13:40:05	0.5	0.5	0.5	0.5
273	6/4/2019 13:41:05	0.5	0.5	0.5	0.5
274	6/4/2019 13:42:05	0.5	0.5	0.5	0.5
275	6/4/2019 13:43:05	0.5	0.5	0.5	0.5
276	6/4/2019 13:44:05	0.5	0.5	0.5	0.5
277	6/4/2019 13:45:05	0.5	0.5	0.5	0.5
278	6/4/2019 13:46:05	0.5	0.5	0.5	0.5
279	6/4/2019 13:47:05	0.5	0.5	0.5	0.5
280	6/4/2019 13:48:05	0.5	0.5	0.5	0.5
281	6/4/2019 13:49:05	0.5	0.5	0.5	0.5
282	6/4/2019 13:50:05	0.5	0.5	0.5	0.5
283	6/4/2019 13:51:05	0.5	0.5	0.5	0.5
284	6/4/2019 13:52:05	0.5	0.5	0.5	0.5
285	6/4/2019 13:53:05	0.5	0.5	0.5	0.5
286	6/4/2019 13:54:05	0.5	0.5	0.5	0.5
287	6/4/2019 13:55:05	0.5	0.5	0.5	0.5
288	6/4/2019 13:56:05	0.5	0.5	0.5	0.5
289	6/4/2019 13:57:05	0.5	0.5	0.5	0.5
290	6/4/2019 13:58:05	0.5	0.5	0.5	0.5
291	6/4/2019 13:59:05	0.5	0.5	0.5	0.5
292	6/4/2019 14:00:05	0.5	0.5	0.5	0.5
293	6/4/2019 14:01:05	0.5	0.5	0.5	0.5
294	6/4/2019 14:02:05	0.5	0.5	0.5	0.5
295	6/4/2019 14:03:05	0.5	0.5	0.5	0.5
296	6/4/2019 14:04:05	0.5	0.5	0.5	0.5
297	6/4/2019 14:05:05	0.5	0.5	0.5	0.5
298	6/4/2019 14:06:05	0.5	0.5	0.5	0.5
299	6/4/2019 14:07:05	0.5	0.5	0.5	0.5
300	6/4/2019 14:08:05	0.5	0.5	0.5	0.5
301	6/4/2019 14:09:05	0.5	0.5	0.5	0.5

302	6/4/2019	14:10:05	0.5	0.5	0.5	0.5
303	6/4/2019	14:11:05	0.5	0.5	0.5	0.5
304	6/4/2019	14:12:05	0.5	0.5	0.5	0.5
305	6/4/2019	14:13:05	0.5	0.5	0.5	0.5
306	6/4/2019	14:14:05	0.5	0.5	0.5	0.5
307	6/4/2019	14:15:05	0.5	0.5	0.5	0.5
308	6/4/2019	14:16:05	0.5	0.5	0.5	0.5
309	6/4/2019	14:17:05	0.5	0.5	0.5	0.5
310	6/4/2019	14:18:05	0.5	0.5	0.5	0.5
311	6/4/2019	14:19:05	0.5	0.5	0.5	0.5
312	6/4/2019	14:20:05	0.5	0.5	0.5	0.5
313	6/4/2019	14:21:05	0.5	0.5	0.5	0.5
314	6/4/2019	14:22:05	0.5	0.5	0.5	0.5
315	6/4/2019	14:23:05	0.5	0.5	0.5	0.5
316	6/4/2019	14:24:05	0.4	0.5	0.5	0.4
Peak			0.5	0.6	1.3	0.6
Min			0.1	0.1	0.1	0.1
Average			0.4	0.4	0.5	0.4

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/4/2019	09:09:05	0.0	---
002	6/4/2019	09:10:05	0.0	---
003	6/4/2019	09:11:05	0.0	---
004	6/4/2019	09:12:05	0.0	---
005	6/4/2019	09:13:05	0.0	---
006	6/4/2019	09:14:05	0.0	---
007	6/4/2019	09:15:05	0.0	---
008	6/4/2019	09:16:05	0.0	---

009	6/4/2019 09:17:05	0.0	---
010	6/4/2019 09:18:05	0.0	---
011	6/4/2019 09:19:05	0.0	---
012	6/4/2019 09:20:05	0.0	---
013	6/4/2019 09:21:05	0.0	---
014	6/4/2019 09:22:05	0.0	---
015	6/4/2019 09:23:05	0.0	0.2
016	6/4/2019 09:24:05	0.0	0.2
017	6/4/2019 09:25:05	0.0	0.2
018	6/4/2019 09:26:05	0.0	0.2
019	6/4/2019 09:27:05	0.0	0.2
020	6/4/2019 09:28:05	0.0	0.2
021	6/4/2019 09:29:05	0.0	0.2
022	6/4/2019 09:30:05	0.0	0.2
023	6/4/2019 09:31:05	0.0	0.2
024	6/4/2019 09:32:05	0.0	0.2
025	6/4/2019 09:33:05	0.0	0.2
026	6/4/2019 09:34:05	0.0	0.2
027	6/4/2019 09:35:05	0.0	0.2
028	6/4/2019 09:36:05	0.0	0.2
029	6/4/2019 09:37:05	0.0	0.3
030	6/4/2019 09:38:05	0.0	0.3
031	6/4/2019 09:39:05	0.0	0.3
032	6/4/2019 09:40:05	0.0	0.3
033	6/4/2019 09:41:05	0.0	0.3
034	6/4/2019 09:42:05	0.0	0.3
035	6/4/2019 09:43:05	0.0	0.3
036	6/4/2019 09:44:05	0.0	0.3
037	6/4/2019 09:45:05	0.0	0.3
038	6/4/2019 09:46:05	0.0	0.3
039	6/4/2019 09:47:05	0.0	0.3

040	6/4/2019 09:48:05	0.0	0.3
041	6/4/2019 09:49:05	0.0	0.3
042	6/4/2019 09:50:05	0.0	0.3
043	6/4/2019 09:51:05	0.0	0.3
044	6/4/2019 09:52:05	0.0	0.3
045	6/4/2019 09:53:05	0.0	0.3
046	6/4/2019 09:54:05	0.0	0.3
047	6/4/2019 09:55:05	0.0	0.3
048	6/4/2019 09:56:05	0.0	0.4
049	6/4/2019 09:57:05	0.0	0.4
050	6/4/2019 09:58:05	0.0	0.4
051	6/4/2019 09:59:05	0.0	0.4
052	6/4/2019 10:00:05	0.0	0.4
053	6/4/2019 10:01:05	0.0	0.4
054	6/4/2019 10:02:05	0.0	0.4
055	6/4/2019 10:03:05	0.0	0.4
056	6/4/2019 10:04:05	0.0	0.4
057	6/4/2019 10:05:05	0.0	0.4
058	6/4/2019 10:06:05	0.0	0.4
059	6/4/2019 10:07:05	0.0	0.4
060	6/4/2019 10:08:05	0.0	0.4
061	6/4/2019 10:09:05	0.0	0.4
062	6/4/2019 10:10:05	0.0	0.4
063	6/4/2019 10:11:05	0.0	0.4
064	6/4/2019 10:12:05	0.0	0.4
065	6/4/2019 10:13:05	0.0	0.4
066	6/4/2019 10:14:05	0.0	0.4
067	6/4/2019 10:15:05	0.0	0.4
068	6/4/2019 10:16:05	0.0	0.4
069	6/4/2019 10:17:05	0.0	0.4
070	6/4/2019 10:18:05	0.0	0.4

071	6/4/2019 10:19:05	0.0	0.4
072	6/4/2019 10:20:05	0.0	0.4
073	6/4/2019 10:21:05	0.0	0.4
074	6/4/2019 10:22:05	0.0	0.4
075	6/4/2019 10:23:05	0.0	0.4
076	6/4/2019 10:24:05	0.0	0.4
077	6/4/2019 10:25:05	0.0	0.4
078	6/4/2019 10:26:05	0.0	0.4
079	6/4/2019 10:27:05	0.1	0.4
080	6/4/2019 10:28:05	0.1	0.4
081	6/4/2019 10:29:05	0.1	0.4
082	6/4/2019 10:30:05	0.1	0.4
083	6/4/2019 10:31:05	0.1	0.4
084	6/4/2019 10:32:05	0.1	0.4
085	6/4/2019 10:33:05	0.1	0.4
086	6/4/2019 10:34:05	0.1	0.4
087	6/4/2019 10:35:05	0.1	0.4
088	6/4/2019 10:36:05	0.1	0.4
089	6/4/2019 10:37:05	0.1	0.4
090	6/4/2019 10:38:05	0.1	0.4
091	6/4/2019 10:39:05	0.1	0.4
092	6/4/2019 10:40:05	0.1	0.4
093	6/4/2019 10:41:05	0.1	0.4
094	6/4/2019 10:42:05	0.1	0.4
095	6/4/2019 10:43:05	0.1	0.4
096	6/4/2019 10:44:05	0.1	0.4
097	6/4/2019 10:45:05	0.1	0.5
098	6/4/2019 10:46:05	0.1	0.5
099	6/4/2019 10:47:05	0.1	0.5
100	6/4/2019 10:48:05	0.1	0.5
101	6/4/2019 10:49:05	0.1	0.5

102	6/4/2019 10:50:05	0.1	0.5
103	6/4/2019 10:51:05	0.1	0.5
104	6/4/2019 10:52:05	0.1	0.5
105	6/4/2019 10:53:05	0.1	0.5
106	6/4/2019 10:54:05	0.1	0.5
107	6/4/2019 10:55:05	0.1	0.5
108	6/4/2019 10:56:05	0.1	0.5
109	6/4/2019 10:57:05	0.1	0.5
110	6/4/2019 10:58:05	0.1	0.5
111	6/4/2019 10:59:05	0.1	0.5
112	6/4/2019 11:00:05	0.1	0.5
113	6/4/2019 11:01:05	0.1	0.5
114	6/4/2019 11:02:05	0.1	0.5
115	6/4/2019 11:03:05	0.1	0.5
116	6/4/2019 11:04:05	0.1	0.5
117	6/4/2019 11:05:05	0.1	0.5
118	6/4/2019 11:06:05	0.1	0.5
119	6/4/2019 11:07:05	0.1	0.5
120	6/4/2019 11:08:05	0.1	0.5
121	6/4/2019 11:09:05	0.1	0.5
122	6/4/2019 11:10:05	0.1	0.5
123	6/4/2019 11:11:05	0.1	0.5
124	6/4/2019 11:12:05	0.1	0.5
125	6/4/2019 11:13:05	0.1	0.5
126	6/4/2019 11:14:05	0.1	0.5
127	6/4/2019 11:15:05	0.1	0.5
128	6/4/2019 11:16:05	0.1	0.5
129	6/4/2019 11:17:05	0.1	0.5
130	6/4/2019 11:18:05	0.1	0.5
131	6/4/2019 11:19:05	0.1	0.5
132	6/4/2019 11:20:05	0.1	0.5

133	6/4/2019 11:21:05	0.1	0.5
134	6/4/2019 11:22:05	0.1	0.5
135	6/4/2019 11:23:05	0.1	0.5
136	6/4/2019 11:24:05	0.1	0.5
137	6/4/2019 11:25:05	0.1	0.5
138	6/4/2019 11:26:05	0.1	0.5
139	6/4/2019 11:27:05	0.1	0.5
140	6/4/2019 11:28:05	0.1	0.5
141	6/4/2019 11:29:05	0.1	0.5
142	6/4/2019 11:30:05	0.1	0.5
143	6/4/2019 11:31:05	0.1	0.5
144	6/4/2019 11:32:05	0.1	0.5
145	6/4/2019 11:33:05	0.1	0.5
146	6/4/2019 11:34:05	0.1	0.5
147	6/4/2019 11:35:05	0.1	0.5
148	6/4/2019 11:36:05	0.1	0.5
149	6/4/2019 11:37:05	0.1	0.5
150	6/4/2019 11:38:05	0.1	0.5
151	6/4/2019 11:39:05	0.1	0.5
152	6/4/2019 11:40:05	0.1	0.5
153	6/4/2019 11:41:05	0.1	0.5
154	6/4/2019 11:42:05	0.1	0.5
155	6/4/2019 11:43:05	0.1	0.5
156	6/4/2019 11:44:05	0.1	0.5
157	6/4/2019 11:45:05	0.1	0.5
158	6/4/2019 11:46:05	0.1	0.5
159	6/4/2019 11:47:05	0.1	0.5
160	6/4/2019 11:48:05	0.1	0.5
161	6/4/2019 11:49:05	0.1	0.5
162	6/4/2019 11:50:05	0.1	0.5
163	6/4/2019 11:51:05	0.1	0.5

164	6/4/2019 11:52:05	0.1	0.5
165	6/4/2019 11:53:05	0.1	0.5
166	6/4/2019 11:54:05	0.1	0.5
167	6/4/2019 11:55:05	0.1	0.5
168	6/4/2019 11:56:05	0.1	0.5
169	6/4/2019 11:57:05	0.1	0.5
170	6/4/2019 11:58:05	0.1	0.5
171	6/4/2019 11:59:05	0.1	0.5
172	6/4/2019 12:00:05	0.1	0.5
173	6/4/2019 12:01:05	0.1	0.5
174	6/4/2019 12:02:05	0.1	0.5
175	6/4/2019 12:03:05	0.1	0.5
176	6/4/2019 12:04:05	0.1	0.5
177	6/4/2019 12:05:05	0.1	0.5
178	6/4/2019 12:06:05	0.2	0.5
179	6/4/2019 12:07:05	0.2	0.5
180	6/4/2019 12:08:05	0.2	0.5
181	6/4/2019 12:09:05	0.2	0.5
182	6/4/2019 12:10:05	0.2	0.5
183	6/4/2019 12:11:05	0.2	0.5
184	6/4/2019 12:12:05	0.2	0.5
185	6/4/2019 12:13:05	0.2	0.5
186	6/4/2019 12:14:05	0.2	0.5
187	6/4/2019 12:15:05	0.2	0.5
188	6/4/2019 12:16:05	0.2	0.5
189	6/4/2019 12:17:05	0.2	0.5
190	6/4/2019 12:18:05	0.2	0.5
191	6/4/2019 12:19:05	0.2	0.5
192	6/4/2019 12:20:05	0.2	0.5
193	6/4/2019 12:21:05	0.2	0.5
194	6/4/2019 12:22:05	0.2	0.5

195	6/4/2019 12:23:05	0.2	0.5
196	6/4/2019 12:24:05	0.2	0.5
197	6/4/2019 12:25:05	0.2	0.5
198	6/4/2019 12:26:05	0.2	0.5
199	6/4/2019 12:27:05	0.2	0.5
200	6/4/2019 12:28:05	0.2	0.5
201	6/4/2019 12:29:05	0.2	0.5
202	6/4/2019 12:30:05	0.2	0.5
203	6/4/2019 12:31:05	0.2	0.5
204	6/4/2019 12:32:05	0.2	0.5
205	6/4/2019 12:33:05	0.2	0.5
206	6/4/2019 12:34:05	0.2	0.5
207	6/4/2019 12:35:05	0.2	0.5
208	6/4/2019 12:36:05	0.2	0.5
209	6/4/2019 12:37:05	0.2	0.5
210	6/4/2019 12:38:05	0.2	0.5
211	6/4/2019 12:39:05	0.2	0.5
212	6/4/2019 12:40:05	0.2	0.5
213	6/4/2019 12:41:05	0.2	0.5
214	6/4/2019 12:42:05	0.2	0.5
215	6/4/2019 12:43:05	0.2	0.5
216	6/4/2019 12:44:05	0.2	0.5
217	6/4/2019 12:45:05	0.2	0.5
218	6/4/2019 12:46:05	0.2	0.5
219	6/4/2019 12:47:05	0.2	0.5
220	6/4/2019 12:48:05	0.2	0.5
221	6/4/2019 12:49:05	0.2	0.5
222	6/4/2019 12:50:05	0.2	0.5
223	6/4/2019 12:51:05	0.2	0.5
224	6/4/2019 12:52:05	0.2	0.5
225	6/4/2019 12:53:05	0.2	0.5

226	6/4/2019 12:54:05	0.2	0.5
227	6/4/2019 12:55:05	0.2	0.5
228	6/4/2019 12:56:05	0.2	0.5
229	6/4/2019 12:57:05	0.2	0.5
230	6/4/2019 12:58:05	0.2	0.5
231	6/4/2019 12:59:05	0.2	0.5
232	6/4/2019 13:00:05	0.2	0.5
233	6/4/2019 13:01:05	0.2	0.5
234	6/4/2019 13:02:05	0.2	0.5
235	6/4/2019 13:03:05	0.2	0.5
236	6/4/2019 13:04:05	0.2	0.5
237	6/4/2019 13:05:05	0.2	0.5
238	6/4/2019 13:06:05	0.2	0.5
239	6/4/2019 13:07:05	0.2	0.5
240	6/4/2019 13:08:05	0.2	0.5
241	6/4/2019 13:09:05	0.2	0.5
242	6/4/2019 13:10:05	0.2	0.5
243	6/4/2019 13:11:05	0.2	0.5
244	6/4/2019 13:12:05	0.2	0.5
245	6/4/2019 13:13:05	0.2	0.5
246	6/4/2019 13:14:05	0.2	0.5
247	6/4/2019 13:15:05	0.2	0.5
248	6/4/2019 13:16:05	0.2	0.5
249	6/4/2019 13:17:05	0.2	0.5
250	6/4/2019 13:18:05	0.2	0.5
251	6/4/2019 13:19:05	0.2	0.5
252	6/4/2019 13:20:05	0.2	0.5
253	6/4/2019 13:21:05	0.2	0.5
254	6/4/2019 13:22:05	0.2	0.5
255	6/4/2019 13:23:05	0.2	0.5
256	6/4/2019 13:24:05	0.2	0.5

257	6/4/2019 13:25:05	0.2	0.5
258	6/4/2019 13:26:05	0.2	0.5
259	6/4/2019 13:27:05	0.2	0.5
260	6/4/2019 13:28:05	0.2	0.5
261	6/4/2019 13:29:05	0.2	0.5
262	6/4/2019 13:30:05	0.2	0.5
263	6/4/2019 13:31:05	0.2	0.5
264	6/4/2019 13:32:05	0.2	0.5
265	6/4/2019 13:33:05	0.2	0.5
266	6/4/2019 13:34:05	0.2	0.5
267	6/4/2019 13:35:05	0.2	0.5
268	6/4/2019 13:36:05	0.2	0.5
269	6/4/2019 13:37:05	0.2	0.5
270	6/4/2019 13:38:05	0.2	0.5
271	6/4/2019 13:39:05	0.2	0.5
272	6/4/2019 13:40:05	0.2	0.5
273	6/4/2019 13:41:05	0.2	0.5
274	6/4/2019 13:42:05	0.3	0.5
275	6/4/2019 13:43:05	0.3	0.5
276	6/4/2019 13:44:05	0.3	0.5
277	6/4/2019 13:45:05	0.3	0.5
278	6/4/2019 13:46:05	0.3	0.5
279	6/4/2019 13:47:05	0.3	0.5
280	6/4/2019 13:48:05	0.3	0.5
281	6/4/2019 13:49:05	0.3	0.5
282	6/4/2019 13:50:05	0.3	0.5
283	6/4/2019 13:51:05	0.3	0.5
284	6/4/2019 13:52:05	0.3	0.5
285	6/4/2019 13:53:05	0.3	0.5
286	6/4/2019 13:54:05	0.3	0.5
287	6/4/2019 13:55:05	0.3	0.5

288	6/4/2019 13:56:05	0.3	0.5
289	6/4/2019 13:57:05	0.3	0.5
290	6/4/2019 13:58:05	0.3	0.5
291	6/4/2019 13:59:05	0.3	0.5
292	6/4/2019 14:00:05	0.3	0.5
293	6/4/2019 14:01:05	0.3	0.5
294	6/4/2019 14:02:05	0.3	0.5
295	6/4/2019 14:03:05	0.3	0.5
296	6/4/2019 14:04:05	0.3	0.5
297	6/4/2019 14:05:05	0.3	0.5
298	6/4/2019 14:06:05	0.3	0.5
299	6/4/2019 14:07:05	0.3	0.5
300	6/4/2019 14:08:05	0.3	0.5
301	6/4/2019 14:09:05	0.3	0.5
302	6/4/2019 14:10:05	0.3	0.5
303	6/4/2019 14:11:05	0.3	0.5
304	6/4/2019 14:12:05	0.3	0.5
305	6/4/2019 14:13:05	0.3	0.5
306	6/4/2019 14:14:05	0.3	0.5
307	6/4/2019 14:15:05	0.3	0.5
308	6/4/2019 14:16:05	0.3	0.5
309	6/4/2019 14:17:05	0.3	0.5
310	6/4/2019 14:18:05	0.3	0.5
311	6/4/2019 14:19:05	0.3	0.5
312	6/4/2019 14:20:05	0.3	0.5
313	6/4/2019 14:21:05	0.3	0.5
314	6/4/2019 14:22:05	0.3	0.5
315	6/4/2019 14:23:05	0.3	0.5
316	6/4/2019 14:24:05	0.3	0.5

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19/06/05 07:56
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-903660
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Battery Low

Site ID	RAE00000
User ID	USER0000

Begin	6/5/2019 07:56:17
End	6/6/2019 00:59:56
Sample Period(s)	60
Number of Records	1023

Sensor	PID(ppm)
Sensor SN	S023030045T3
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	50.0
High Alarm	100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0

Measurement Gas Isobutylene
Calibration Time 5/15/2019 15:55
Peak 0.6
Min 0.0
Average 0.3

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/5/2019 07:57:17	0.0	0.0	0.0	0.0	
002	6/5/2019 07:58:17	0.0	0.0	0.0	0.0	
003	6/5/2019 07:59:17	0.0	0.0	0.0	0.0	
004	6/5/2019 08:00:17	0.0	0.0	0.0	0.0	
005	6/5/2019 08:01:17	0.0	0.0	0.0	0.0	
006	6/5/2019 08:02:17	0.0	0.0	0.0	0.0	
007	6/5/2019 08:03:17	0.0	0.0	0.0	0.0	
008	6/5/2019 08:04:17	0.0	0.0	0.0	0.0	
009	6/5/2019 08:05:17	0.0	0.0	0.0	0.0	
010	6/5/2019 08:06:17	0.0	0.0	0.0	0.0	
011	6/5/2019 08:07:17	0.0	0.0	0.0	0.0	
012	6/5/2019 08:08:17	0.0	0.0	0.0	0.0	
013	6/5/2019 08:09:17	0.0	0.0	0.0	0.0	
014	6/5/2019 08:10:17	0.0	0.0	0.0	0.0	
015	6/5/2019 08:11:17	0.0	0.0	0.0	0.0	
016	6/5/2019 08:12:17	0.0	0.0	0.0	0.0	
017	6/5/2019 08:13:17	0.0	0.1	0.2	0.1	
018	6/5/2019 08:14:17	0.0	0.1	0.2	0.1	
019	6/5/2019 08:15:17	0.0	0.1	0.1	0.1	
020	6/5/2019 08:16:17	0.0	0.1	0.1	0.1	
021	6/5/2019 08:17:17	0.0	0.1	0.2	0.1	

022	6/5/2019 08:18:17	0.0	0.1	0.1	0.0
023	6/5/2019 08:19:17	0.0	0.1	0.1	0.1
024	6/5/2019 08:20:17	0.1	0.1	0.2	0.2
025	6/5/2019 08:21:17	0.2	0.2	0.3	0.2
026	6/5/2019 08:22:17	0.1	0.1	0.2	0.1
027	6/5/2019 08:23:17	0.1	0.1	0.2	0.1
028	6/5/2019 08:24:17	0.1	0.1	0.1	0.1
029	6/5/2019 08:25:17	0.1	0.1	0.1	0.1
030	6/5/2019 08:26:17	0.1	0.1	0.1	0.1
031	6/5/2019 08:27:17	0.1	0.1	0.1	0.1
032	6/5/2019 08:28:17	0.1	0.1	0.1	0.1
033	6/5/2019 08:29:17	0.1	0.1	0.1	0.1
034	6/5/2019 08:30:17	0.1	0.1	0.1	0.1
035	6/5/2019 08:31:17	0.1	0.1	0.1	0.1
036	6/5/2019 08:32:17	0.1	0.1	0.1	0.1
037	6/5/2019 08:33:17	0.1	0.1	0.1	0.1
038	6/5/2019 08:34:17	0.1	0.1	0.1	0.1
039	6/5/2019 08:35:17	0.1	0.1	0.1	0.1
040	6/5/2019 08:36:17	0.1	0.1	0.1	0.1
041	6/5/2019 08:37:17	0.1	0.1	0.1	0.1
042	6/5/2019 08:38:17	0.1	0.1	0.1	0.1
043	6/5/2019 08:39:17	0.1	0.1	0.1	0.1
044	6/5/2019 08:40:17	0.1	0.1	0.1	0.1
045	6/5/2019 08:41:17	0.1	0.1	0.1	0.1
046	6/5/2019 08:42:17	0.1	0.1	0.1	0.1
047	6/5/2019 08:43:17	0.1	0.1	0.1	0.1
048	6/5/2019 08:44:17	0.1	0.1	0.1	0.1
049	6/5/2019 08:45:17	0.1	0.1	0.1	0.1
050	6/5/2019 08:46:17	0.1	0.1	0.1	0.1
051	6/5/2019 08:47:17	0.1	0.1	0.1	0.1
052	6/5/2019 08:48:17	0.1	0.1	0.1	0.1

053	6/5/2019 08:49:17	0.1	0.1	0.1	0.1
054	6/5/2019 08:50:17	0.1	0.1	0.1	0.1
055	6/5/2019 08:51:17	0.1	0.1	0.1	0.1
056	6/5/2019 08:52:17	0.1	0.1	0.1	0.1
057	6/5/2019 08:53:17	0.1	0.1	0.1	0.1
058	6/5/2019 08:54:17	0.1	0.1	0.1	0.1
059	6/5/2019 08:55:17	0.1	0.1	0.1	0.1
060	6/5/2019 08:56:17	0.1	0.1	0.2	0.2
061	6/5/2019 08:57:17	0.1	0.1	0.1	0.1
062	6/5/2019 08:58:17	0.1	0.1	0.1	0.1
063	6/5/2019 08:59:17	0.1	0.1	0.1	0.1
064	6/5/2019 09:00:17	0.1	0.1	0.1	0.1
065	6/5/2019 09:01:17	0.1	0.1	0.2	0.2
066	6/5/2019 09:02:17	0.2	0.2	0.2	0.2
067	6/5/2019 09:03:17	0.2	0.2	0.2	0.2
068	6/5/2019 09:04:17	0.2	0.2	0.2	0.2
069	6/5/2019 09:05:17	0.2	0.2	0.2	0.2
070	6/5/2019 09:06:17	0.2	0.2	0.2	0.2
071	6/5/2019 09:07:17	0.2	0.2	0.2	0.2
072	6/5/2019 09:08:17	0.2	0.2	0.2	0.2
073	6/5/2019 09:09:17	0.2	0.2	0.2	0.2
074	6/5/2019 09:10:17	0.2	0.2	0.2	0.2
075	6/5/2019 09:11:17	0.2	0.2	0.2	0.2
076	6/5/2019 09:12:17	0.2	0.2	0.2	0.2
077	6/5/2019 09:13:17	0.2	0.2	0.2	0.2
078	6/5/2019 09:14:17	0.2	0.2	0.2	0.2
079	6/5/2019 09:15:17	0.2	0.2	0.2	0.2
080	6/5/2019 09:16:17	0.2	0.2	0.2	0.2
081	6/5/2019 09:17:17	0.2	0.2	0.2	0.2
082	6/5/2019 09:18:17	0.2	0.2	0.2	0.2
083	6/5/2019 09:19:17	0.2	0.2	0.2	0.2

084	6/5/2019 09:20:17	0.2	0.2	0.2	0.2
085	6/5/2019 09:21:17	0.2	0.2	0.2	0.2
086	6/5/2019 09:22:17	0.2	0.2	0.2	0.2
087	6/5/2019 09:23:17	0.2	0.2	0.2	0.2
088	6/5/2019 09:24:17	0.2	0.2	0.2	0.2
089	6/5/2019 09:25:17	0.2	0.2	0.2	0.2
090	6/5/2019 09:26:17	0.2	0.2	0.3	0.2
091	6/5/2019 09:27:17	0.2	0.2	0.2	0.2
092	6/5/2019 09:28:17	0.2	0.2	0.2	0.2
093	6/5/2019 09:29:17	0.2	0.2	0.2	0.2
094	6/5/2019 09:30:17	0.2	0.2	0.2	0.2
095	6/5/2019 09:31:17	0.2	0.2	0.2	0.2
096	6/5/2019 09:32:17	0.2	0.2	0.2	0.2
097	6/5/2019 09:33:17	0.2	0.2	0.2	0.2
098	6/5/2019 09:34:17	0.2	0.2	0.2	0.2
099	6/5/2019 09:35:17	0.2	0.2	0.2	0.2
100	6/5/2019 09:36:17	0.2	0.2	0.2	0.2
101	6/5/2019 09:37:17	0.2	0.2	0.2	0.2
102	6/5/2019 09:38:17	0.2	0.2	0.2	0.2
103	6/5/2019 09:39:17	0.2	0.2	0.3	0.2
104	6/5/2019 09:40:17	0.2	0.2	0.2	0.2
105	6/5/2019 09:41:17	0.2	0.2	0.2	0.2
106	6/5/2019 09:42:17	0.2	0.2	0.2	0.2
107	6/5/2019 09:43:17	0.2	0.2	0.2	0.2
108	6/5/2019 09:44:17	0.2	0.2	0.3	0.3
109	6/5/2019 09:45:17	0.2	0.2	0.3	0.2
110	6/5/2019 09:46:17	0.2	0.2	0.2	0.2
111	6/5/2019 09:47:17	0.2	0.2	0.2	0.2
112	6/5/2019 09:48:17	0.2	0.2	0.2	0.2
113	6/5/2019 09:49:17	0.2	0.2	0.2	0.2
114	6/5/2019 09:50:17	0.2	0.2	0.2	0.2

115	6/5/2019 09:51:17	0.2	0.2	0.2	0.2
116	6/5/2019 09:52:17	0.2	0.2	0.2	0.2
117	6/5/2019 09:53:17	0.2	0.2	0.2	0.2
118	6/5/2019 09:54:17	0.2	0.2	0.2	0.2
119	6/5/2019 09:55:17	0.2	0.2	0.2	0.2
120	6/5/2019 09:56:17	0.2	0.2	0.2	0.2
121	6/5/2019 09:57:17	0.2	0.2	0.2	0.2
122	6/5/2019 09:58:17	0.2	0.2	0.3	0.2
123	6/5/2019 09:59:17	0.2	0.2	0.3	0.3
124	6/5/2019 10:00:17	0.2	0.2	0.3	0.2
125	6/5/2019 10:01:17	0.2	0.2	0.3	0.2
126	6/5/2019 10:02:17	0.2	0.2	0.3	0.3
127	6/5/2019 10:03:17	0.2	0.2	0.3	0.2
128	6/5/2019 10:04:17	0.2	0.2	0.2	0.2
129	6/5/2019 10:05:17	0.2	0.2	0.3	0.2
130	6/5/2019 10:06:17	0.2	0.3	0.3	0.2
131	6/5/2019 10:07:17	0.2	0.2	0.2	0.2
132	6/5/2019 10:08:17	0.2	0.3	0.3	0.3
133	6/5/2019 10:09:17	0.3	0.3	0.3	0.3
134	6/5/2019 10:10:17	0.2	0.2	0.3	0.2
135	6/5/2019 10:11:17	0.2	0.3	0.3	0.3
136	6/5/2019 10:12:17	0.3	0.3	0.3	0.3
137	6/5/2019 10:13:17	0.3	0.3	0.3	0.3
138	6/5/2019 10:14:17	0.3	0.3	0.3	0.3
139	6/5/2019 10:15:17	0.3	0.3	0.3	0.3
140	6/5/2019 10:16:17	0.3	0.3	0.3	0.3
141	6/5/2019 10:17:17	0.3	0.3	0.3	0.3
142	6/5/2019 10:18:17	0.3	0.3	0.3	0.3
143	6/5/2019 10:19:17	0.2	0.3	0.3	0.3
144	6/5/2019 10:20:17	0.3	0.3	0.3	0.3
145	6/5/2019 10:21:17	0.3	0.3	0.3	0.3

146	6/5/2019 10:22:17	0.3	0.3	0.3	0.3
147	6/5/2019 10:23:17	0.3	0.3	0.3	0.3
148	6/5/2019 10:24:17	0.3	0.3	0.3	0.3
149	6/5/2019 10:25:17	0.3	0.3	0.3	0.3
150	6/5/2019 10:26:17	0.3	0.3	0.3	0.3
151	6/5/2019 10:27:17	0.3	0.3	0.3	0.3
152	6/5/2019 10:28:17	0.3	0.3	0.3	0.3
153	6/5/2019 10:29:17	0.3	0.3	0.3	0.3
154	6/5/2019 10:30:17	0.3	0.3	0.3	0.3
155	6/5/2019 10:31:17	0.3	0.3	0.3	0.3
156	6/5/2019 10:32:17	0.3	0.3	0.3	0.3
157	6/5/2019 10:33:17	0.3	0.3	0.3	0.3
158	6/5/2019 10:34:17	0.2	0.3	0.3	0.2
159	6/5/2019 10:35:17	0.2	0.3	0.3	0.3
160	6/5/2019 10:36:17	0.2	0.2	0.3	0.2
161	6/5/2019 10:37:17	0.2	0.3	0.3	0.3
162	6/5/2019 10:38:17	0.2	0.3	0.3	0.3
163	6/5/2019 10:39:17	0.2	0.2	0.3	0.3
164	6/5/2019 10:40:17	0.2	0.3	0.3	0.3
165	6/5/2019 10:41:17	0.2	0.3	0.3	0.3
166	6/5/2019 10:42:17	0.3	0.3	0.3	0.3
167	6/5/2019 10:43:17	0.2	0.3	0.3	0.3
168	6/5/2019 10:44:17	0.2	0.2	0.3	0.2
169	6/5/2019 10:45:17	0.3	0.3	0.3	0.3
170	6/5/2019 10:46:17	0.3	0.3	0.3	0.3
171	6/5/2019 10:47:17	0.3	0.3	0.3	0.3
172	6/5/2019 10:48:17	0.3	0.3	0.3	0.3
173	6/5/2019 10:49:17	0.3	0.3	0.3	0.3
174	6/5/2019 10:50:17	0.3	0.3	0.3	0.3
175	6/5/2019 10:51:17	0.3	0.3	0.3	0.3
176	6/5/2019 10:52:17	0.3	0.3	0.3	0.3

177	6/5/2019 10:53:17	0.3	0.3	0.3	0.3
178	6/5/2019 10:54:17	0.3	0.3	0.3	0.3
179	6/5/2019 10:55:17	0.3	0.3	0.3	0.3
180	6/5/2019 10:56:17	0.3	0.3	0.3	0.3
181	6/5/2019 10:57:17	0.3	0.3	0.3	0.3
182	6/5/2019 10:58:17	0.3	0.3	0.3	0.3
183	6/5/2019 10:59:17	0.3	0.3	0.3	0.3
184	6/5/2019 11:00:17	0.3	0.3	0.3	0.3
185	6/5/2019 11:01:17	0.3	0.3	0.4	0.3
186	6/5/2019 11:02:17	0.3	0.3	0.3	0.3
187	6/5/2019 11:03:17	0.3	0.3	0.3	0.3
188	6/5/2019 11:04:17	0.3	0.3	0.3	0.3
189	6/5/2019 11:05:17	0.3	0.4	0.4	0.3
190	6/5/2019 11:06:17	0.3	0.4	0.4	0.4
191	6/5/2019 11:07:17	0.4	0.4	0.4	0.4
192	6/5/2019 11:08:17	0.4	0.4	0.4	0.4
193	6/5/2019 11:09:17	0.4	0.4	0.4	0.4
194	6/5/2019 11:10:17	0.4	0.4	0.4	0.4
195	6/5/2019 11:11:17	0.4	0.4	0.4	0.4
196	6/5/2019 11:12:17	0.4	0.4	0.4	0.4
197	6/5/2019 11:13:17	0.4	0.4	0.4	0.4
198	6/5/2019 11:14:17	0.4	0.4	0.4	0.4
199	6/5/2019 11:15:17	0.4	0.4	0.5	0.4
200	6/5/2019 11:16:17	0.4	0.4	0.5	0.5
201	6/5/2019 11:17:17	0.5	0.5	0.5	0.5
202	6/5/2019 11:18:17	0.5	0.5	0.5	0.5
203	6/5/2019 11:19:17	0.5	0.5	0.5	0.5
204	6/5/2019 11:20:17	0.5	0.5	0.5	0.5
205	6/5/2019 11:21:17	0.5	0.5	0.5	0.5
206	6/5/2019 11:22:17	0.5	0.5	0.5	0.5
207	6/5/2019 11:23:17	0.5	0.5	0.5	0.5

208	6/5/2019 11:24:17	0.5	0.5	0.5	0.5
209	6/5/2019 11:25:17	0.5	0.5	0.5	0.5
210	6/5/2019 11:26:17	0.5	0.5	0.5	0.5
211	6/5/2019 11:27:17	0.5	0.5	0.5	0.5
212	6/5/2019 11:28:17	0.5	0.5	0.5	0.5
213	6/5/2019 11:29:17	0.5	0.5	0.5	0.5
214	6/5/2019 11:30:17	0.5	0.5	0.5	0.5
215	6/5/2019 11:31:17	0.5	0.5	0.5	0.5
216	6/5/2019 11:32:17	0.5	0.5	0.5	0.5
217	6/5/2019 11:33:17	0.5	0.5	0.5	0.5
218	6/5/2019 11:34:17	0.5	0.5	0.5	0.5
219	6/5/2019 11:35:17	0.5	0.5	0.5	0.5
220	6/5/2019 11:36:17	0.5	0.5	0.5	0.5
221	6/5/2019 11:37:17	0.5	0.5	0.5	0.5
222	6/5/2019 11:38:17	0.5	0.5	0.5	0.5
223	6/5/2019 11:39:17	0.5	0.5	0.5	0.5
224	6/5/2019 11:40:17	0.5	0.5	0.5	0.5
225	6/5/2019 11:41:17	0.5	0.5	0.5	0.5
226	6/5/2019 11:42:17	0.5	0.5	0.5	0.5
227	6/5/2019 11:43:17	0.5	0.5	0.5	0.5
228	6/5/2019 11:44:17	0.5	0.5	0.5	0.5
229	6/5/2019 11:45:17	0.5	0.5	0.5	0.5
230	6/5/2019 11:46:17	0.5	0.5	0.5	0.5
231	6/5/2019 11:47:17	0.5	0.5	0.5	0.5
232	6/5/2019 11:48:17	0.5	0.5	0.5	0.5
233	6/5/2019 11:49:17	0.5	0.5	0.6	0.6
234	6/5/2019 11:50:17	0.5	0.5	0.6	0.5
235	6/5/2019 11:51:17	0.5	0.5	0.6	0.5
236	6/5/2019 11:52:17	0.5	0.5	0.5	0.5
237	6/5/2019 11:53:17	0.5	0.5	0.5	0.5
238	6/5/2019 11:54:17	0.5	0.5	0.5	0.5

239	6/5/2019 11:55:17	0.5	0.5	0.8	0.5
240	6/5/2019 11:56:17	0.5	0.5	0.5	0.5
241	6/5/2019 11:57:17	0.5	0.5	0.5	0.5
242	6/5/2019 11:58:17	0.5	0.5	0.5	0.5
243	6/5/2019 11:59:17	0.5	0.5	0.5	0.5
244	6/5/2019 12:00:17	0.5	0.5	0.5	0.5
245	6/5/2019 12:01:17	0.5	0.5	0.6	0.5
246	6/5/2019 12:02:17	0.5	0.5	0.5	0.5
247	6/5/2019 12:03:17	0.5	0.5	0.5	0.5
248	6/5/2019 12:04:17	0.5	0.5	0.5	0.5
249	6/5/2019 12:05:17	0.5	0.5	0.5	0.5
250	6/5/2019 12:06:17	0.5	0.5	0.6	0.5
251	6/5/2019 12:07:17	0.5	0.6	0.6	0.6
252	6/5/2019 12:08:17	0.5	0.5	0.6	0.5
253	6/5/2019 12:09:17	0.5	0.5	0.6	0.6
254	6/5/2019 12:10:17	0.5	0.6	0.6	0.5
255	6/5/2019 12:11:17	0.5	0.6	0.6	0.6
256	6/5/2019 12:12:17	0.5	0.6	0.6	0.6
257	6/5/2019 12:13:17	0.5	0.6	0.6	0.6
258	6/5/2019 12:14:17	0.6	0.6	0.6	0.6
259	6/5/2019 12:15:17	0.6	0.6	0.6	0.6
260	6/5/2019 12:16:17	0.6	0.6	0.6	0.6
261	6/5/2019 12:17:17	0.6	0.6	0.6	0.6
262	6/5/2019 12:18:17	0.6	0.6	0.6	0.6
263	6/5/2019 12:19:17	0.6	0.6	0.6	0.6
264	6/5/2019 12:20:17	0.6	0.6	0.6	0.6
265	6/5/2019 12:21:17	0.6	0.6	0.6	0.6
266	6/5/2019 12:22:17	0.6	0.6	0.6	0.6
267	6/5/2019 12:23:17	0.6	0.6	0.6	0.6
268	6/5/2019 12:24:17	0.6	0.6	0.6	0.6
269	6/5/2019 12:25:17	0.6	0.6	0.6	0.6

270	6/5/2019 12:26:17	0.6	0.6	0.6	0.6
271	6/5/2019 12:27:17	0.6	0.6	0.6	0.6
272	6/5/2019 12:28:17	0.6	0.6	0.6	0.6
273	6/5/2019 12:29:17	0.6	0.6	0.6	0.6
274	6/5/2019 12:30:17	0.6	0.6	0.7	0.6
275	6/5/2019 12:31:17	0.6	0.6	0.6	0.6
276	6/5/2019 12:32:17	0.6	0.6	0.6	0.6
277	6/5/2019 12:33:17	0.6	0.6	0.6	0.6
278	6/5/2019 12:34:17	0.6	0.6	0.6	0.6
279	6/5/2019 12:35:17	0.6	0.6	0.6	0.6
280	6/5/2019 12:36:17	0.5	0.6	0.6	0.5
281	6/5/2019 12:37:17	0.5	0.6	0.6	0.6
282	6/5/2019 12:38:17	0.5	0.6	0.6	0.6
283	6/5/2019 12:39:17	0.5	0.5	0.6	0.6
284	6/5/2019 12:40:17	0.5	0.6	0.6	0.6
285	6/5/2019 12:41:17	0.5	0.6	0.6	0.6
286	6/5/2019 12:42:17	0.5	0.6	0.6	0.6
287	6/5/2019 12:43:17	0.5	0.5	0.6	0.5
288	6/5/2019 12:44:17	0.5	0.5	0.6	0.5
289	6/5/2019 12:45:17	0.5	0.6	0.6	0.5
290	6/5/2019 12:46:17	0.5	0.6	0.6	0.6
291	6/5/2019 12:47:17	0.5	0.6	0.6	0.5
292	6/5/2019 12:48:17	0.5	0.5	0.6	0.6
293	6/5/2019 12:49:17	0.5	0.6	0.6	0.6
294	6/5/2019 12:50:17	0.6	0.6	0.6	0.6
295	6/5/2019 12:51:17	0.5	0.6	0.6	0.5
296	6/5/2019 12:52:17	0.5	0.5	0.6	0.5
297	6/5/2019 12:53:17	0.5	0.5	0.5	0.5
298	6/5/2019 12:54:17	0.5	0.5	0.5	0.5
299	6/5/2019 12:55:17	0.5	0.5	0.5	0.5
300	6/5/2019 12:56:17	0.5	0.5	0.5	0.5

301	6/5/2019 12:57:17	0.5	0.5	0.5	0.5
302	6/5/2019 12:58:17	0.5	0.5	0.5	0.5
303	6/5/2019 12:59:17	0.5	0.5	0.6	0.5
304	6/5/2019 13:00:17	0.5	0.5	0.5	0.5
305	6/5/2019 13:01:17	0.5	0.5	0.6	0.5
306	6/5/2019 13:02:17	0.5	0.6	0.6	0.5
307	6/5/2019 13:03:17	0.5	0.6	0.6	0.6
308	6/5/2019 13:04:17	0.5	0.6	0.6	0.6
309	6/5/2019 13:05:17	0.6	0.6	0.6	0.6
310	6/5/2019 13:06:17	0.5	0.6	0.6	0.6
311	6/5/2019 13:07:17	0.6	0.6	0.6	0.6
312	6/5/2019 13:08:17	0.6	0.6	0.6	0.6
313	6/5/2019 13:09:17	0.6	0.6	0.6	0.6
314	6/5/2019 13:10:17	0.6	0.6	0.6	0.6
315	6/5/2019 13:11:17	0.6	0.6	0.6	0.6
316	6/5/2019 13:12:17	0.6	0.6	0.6	0.6
317	6/5/2019 13:13:17	0.6	0.6	0.6	0.6
318	6/5/2019 13:14:17	0.6	0.6	0.7	0.6
319	6/5/2019 13:15:17	0.6	0.6	0.6	0.6
320	6/5/2019 13:16:17	0.6	0.6	0.7	0.6
321	6/5/2019 13:17:17	0.6	0.6	0.7	0.6
322	6/5/2019 13:18:17	0.6	0.6	0.6	0.6
323	6/5/2019 13:19:17	0.6	0.6	0.6	0.6
324	6/5/2019 13:20:17	0.6	0.6	0.6	0.6
325	6/5/2019 13:21:17	0.6	0.6	0.6	0.6
326	6/5/2019 13:22:17	0.6	0.6	0.6	0.6
327	6/5/2019 13:23:17	0.6	0.6	0.6	0.6
328	6/5/2019 13:24:17	0.6	0.6	0.7	0.6
329	6/5/2019 13:25:17	0.6	0.6	0.6	0.6
330	6/5/2019 13:26:17	0.6	0.6	0.6	0.6
331	6/5/2019 13:27:17	0.6	0.6	0.6	0.6

332	6/5/2019 13:28:17	0.6	0.6	0.6	0.6
333	6/5/2019 13:29:17	0.6	0.6	0.6	0.6
334	6/5/2019 13:30:17	0.6	0.6	0.6	0.6
335	6/5/2019 13:31:17	0.6	0.6	0.6	0.6
336	6/5/2019 13:32:17	0.6	0.6	0.6	0.6
337	6/5/2019 13:33:17	0.6	0.6	0.6	0.6
338	6/5/2019 13:34:17	0.6	0.6	0.6	0.6
339	6/5/2019 13:35:17	0.6	0.6	0.6	0.6
340	6/5/2019 13:36:17	0.6	0.6	0.6	0.6
341	6/5/2019 13:37:17	0.6	0.6	0.6	0.6
342	6/5/2019 13:38:17	0.6	0.6	0.6	0.6
343	6/5/2019 13:39:17	0.6	0.6	0.6	0.6
344	6/5/2019 13:40:17	0.6	0.6	0.6	0.6
345	6/5/2019 13:41:17	0.6	0.6	0.6	0.6
346	6/5/2019 13:42:17	0.6	0.6	0.6	0.6
347	6/5/2019 13:43:17	0.6	0.6	0.6	0.6
348	6/5/2019 13:44:17	0.6	0.6	0.6	0.6
349	6/5/2019 13:45:17	0.6	0.6	0.6	0.6
350	6/5/2019 13:46:17	0.6	0.6	0.6	0.6
351	6/5/2019 13:47:17	0.6	0.6	0.6	0.6
352	6/5/2019 13:48:17	0.6	0.6	0.6	0.6
353	6/5/2019 13:49:17	0.6	0.6	0.6	0.6
354	6/5/2019 13:50:17	0.6	0.6	0.6	0.6
355	6/5/2019 13:51:17	0.6	0.6	0.6	0.6
356	6/5/2019 13:52:17	0.6	0.6	0.6	0.6
357	6/5/2019 13:53:17	0.6	0.6	0.6	0.6
358	6/5/2019 13:54:17	0.6	0.6	0.6	0.6
359	6/5/2019 13:55:17	0.6	0.6	0.6	0.6
360	6/5/2019 13:56:17	0.6	0.6	0.6	0.6
361	6/5/2019 13:57:17	0.6	0.6	0.6	0.6
362	6/5/2019 13:58:17	0.6	0.6	0.6	0.6

363	6/5/2019 13:59:17	0.6	0.6	0.6	0.6
364	6/5/2019 14:00:17	0.6	0.6	0.6	0.6
365	6/5/2019 14:01:17	0.6	0.6	0.6	0.6
366	6/5/2019 14:02:17	0.6	0.6	0.6	0.6
367	6/5/2019 14:03:17	0.6	0.6	0.6	0.6
368	6/5/2019 14:04:17	0.6	0.6	0.6	0.6
369	6/5/2019 14:05:17	0.6	0.6	0.6	0.6
370	6/5/2019 14:06:17	0.5	0.5	0.6	0.6
371	6/5/2019 14:07:17	0.5	0.5	0.6	0.5
372	6/5/2019 14:08:17	0.5	0.6	0.6	0.6
373	6/5/2019 14:09:17	0.5	0.5	0.6	0.5
374	6/5/2019 14:10:17	0.5	0.6	0.6	0.6
375	6/5/2019 14:11:17	0.5	0.5	0.6	0.6
376	6/5/2019 14:12:17	0.5	0.6	0.6	0.5
377	6/5/2019 14:13:17	0.5	0.5	0.6	0.6
378	6/5/2019 14:14:17	0.6	0.6	0.6	0.6
379	6/5/2019 14:15:17	0.5	0.6	0.6	0.6
380	6/5/2019 14:16:17	0.6	0.6	0.6	0.6
381	6/5/2019 14:17:17	0.5	0.6	0.6	0.6
382	6/5/2019 14:18:17	0.6	0.6	0.6	0.6
383	6/5/2019 14:19:17	0.5	0.5	0.6	0.5
384	6/5/2019 14:20:17	0.5	0.5	0.5	0.5
385	6/5/2019 14:21:17	0.5	0.5	0.6	0.5
386	6/5/2019 14:22:17	0.5	0.5	0.5	0.5
387	6/5/2019 14:23:17	0.5	0.5	0.5	0.5
388	6/5/2019 14:24:17	0.5	0.5	0.6	0.5
389	6/5/2019 14:25:17	0.5	0.6	0.6	0.6
390	6/5/2019 14:26:17	0.6	0.6	0.6	0.6
391	6/5/2019 14:27:17	0.6	0.6	0.6	0.6
392	6/5/2019 14:28:17	0.5	0.6	0.6	0.6
393	6/5/2019 14:29:17	0.6	0.6	0.6	0.6

394	6/5/2019 14:30:17	0.5	0.5	0.6	0.5
395	6/5/2019 14:31:17	0.5	0.5	0.6	0.6
396	6/5/2019 14:32:17	0.5	0.5	0.6	0.6
397	6/5/2019 14:33:17	0.5	0.5	0.6	0.5
398	6/5/2019 14:34:17	0.5	0.5	0.6	0.6
399	6/5/2019 14:35:17	0.5	0.5	0.6	0.5
400	6/5/2019 14:36:17	0.5	0.5	0.5	0.5
401	6/5/2019 14:37:17	0.5	0.5	0.5	0.5
402	6/5/2019 14:38:17	0.5	0.5	0.5	0.5
403	6/5/2019 14:39:17	0.5	0.5	0.5	0.5
404	6/5/2019 14:40:17	0.5	0.5	0.5	0.5
405	6/5/2019 14:41:17	0.5	0.5	0.5	0.5
406	6/5/2019 14:42:17	0.5	0.5	0.5	0.5
407	6/5/2019 14:43:17	0.5	0.5	0.5	0.5
408	6/5/2019 14:44:17	0.5	0.5	0.5	0.5
409	6/5/2019 14:45:17	0.5	0.5	0.5	0.5
410	6/5/2019 14:46:17	0.5	0.5	0.5	0.5
411	6/5/2019 14:47:17	0.5	0.5	0.5	0.5
412	6/5/2019 14:48:17	0.5	0.5	0.5	0.5
413	6/5/2019 14:49:17	0.5	0.5	0.5	0.5
414	6/5/2019 14:50:17	0.5	0.5	0.5	0.5
415	6/5/2019 14:51:17	0.5	0.5	0.5	0.5
416	6/5/2019 14:52:17	0.5	0.5	0.5	0.5
417	6/5/2019 14:53:17	0.5	0.5	0.5	0.5
418	6/5/2019 14:54:17	0.5	0.5	0.5	0.5
419	6/5/2019 14:55:17	0.5	0.5	0.5	0.5
420	6/5/2019 14:56:17	0.5	0.5	0.5	0.5
421	6/5/2019 14:57:17	0.5	0.5	0.5	0.5
422	6/5/2019 14:58:17	0.5	0.5	0.5	0.5
423	6/5/2019 14:59:17	0.4	0.4	0.5	0.4
424	6/5/2019 15:00:17	0.4	0.4	0.4	0.4

425	6/5/2019 15:01:17	0.4	0.4	0.4	0.4
426	6/5/2019 15:02:17	0.4	0.4	0.4	0.4
427	6/5/2019 15:03:17	0.4	0.4	0.4	0.4
428	6/5/2019 15:04:17	0.4	0.4	0.4	0.4
429	6/5/2019 15:05:17	0.4	0.4	0.4	0.4
430	6/5/2019 15:06:17	0.4	0.4	0.4	0.4
431	6/5/2019 15:07:17	0.4	0.4	0.4	0.4
432	6/5/2019 15:08:17	0.4	0.4	0.4	0.4
433	6/5/2019 15:09:17	0.4	0.4	0.4	0.4
434	6/5/2019 15:10:17	0.4	0.4	0.4	0.4
435	6/5/2019 15:11:17	0.4	0.4	0.4	0.4
436	6/5/2019 15:12:17	0.4	0.4	0.4	0.4
437	6/5/2019 15:13:17	0.4	0.4	0.4	0.4
438	6/5/2019 15:14:17	0.4	0.4	0.4	0.4
439	6/5/2019 15:15:17	0.4	0.4	0.4	0.4
440	6/5/2019 15:16:17	0.4	0.4	0.4	0.4
441	6/5/2019 15:17:17	0.4	0.4	0.4	0.4
442	6/5/2019 15:18:17	0.4	0.4	0.4	0.4
443	6/5/2019 15:19:17	0.4	0.4	0.4	0.4
444	6/5/2019 15:20:17	0.4	0.4	0.4	0.4
445	6/5/2019 15:21:17	0.4	0.4	0.4	0.4
446	6/5/2019 15:22:17	0.4	0.4	0.4	0.4
447	6/5/2019 15:23:17	0.4	0.4	0.4	0.4
448	6/5/2019 15:24:17	0.4	0.4	0.4	0.4
449	6/5/2019 15:25:17	0.4	0.4	0.4	0.4
450	6/5/2019 15:26:17	0.4	0.4	0.4	0.4
451	6/5/2019 15:27:17	0.4	0.4	0.4	0.4
452	6/5/2019 15:28:17	0.4	0.4	0.4	0.4
453	6/5/2019 15:29:17	0.4	0.4	0.4	0.4
454	6/5/2019 15:30:17	0.4	0.4	0.4	0.4
455	6/5/2019 15:31:17	0.4	0.4	0.4	0.4

456	6/5/2019 15:32:17	0.4	0.4	0.4	0.4
457	6/5/2019 15:33:17	0.3	0.3	0.4	0.3
458	6/5/2019 15:34:17	0.3	0.3	0.3	0.3
459	6/5/2019 15:35:17	0.3	0.3	0.3	0.3
460	6/5/2019 15:36:17	0.3	0.3	0.3	0.3
461	6/5/2019 15:37:17	0.3	0.3	0.3	0.3
462	6/5/2019 15:38:17	0.3	0.3	0.3	0.3
463	6/5/2019 15:39:17	0.3	0.3	0.3	0.3
464	6/5/2019 15:40:17	0.3	0.3	0.3	0.3
465	6/5/2019 15:41:17	0.3	0.3	0.3	0.3
466	6/5/2019 15:42:17	0.3	0.3	0.3	0.3
467	6/5/2019 15:43:17	0.3	0.3	0.3	0.3
468	6/5/2019 15:44:17	0.3	0.3	0.3	0.3
469	6/5/2019 15:45:17	0.3	0.3	0.3	0.3
470	6/5/2019 15:46:17	0.3	0.3	0.3	0.3
471	6/5/2019 15:47:17	0.3	0.3	0.3	0.3
472	6/5/2019 15:48:17	0.3	0.3	0.3	0.3
473	6/5/2019 15:49:17	0.3	0.3	0.3	0.3
474	6/5/2019 15:50:17	0.3	0.3	0.3	0.3
475	6/5/2019 15:51:17	0.3	0.3	0.3	0.3
476	6/5/2019 15:52:17	0.3	0.3	0.3	0.3
477	6/5/2019 15:53:17	0.3	0.3	0.3	0.3
478	6/5/2019 15:54:17	0.3	0.3	0.3	0.3
479	6/5/2019 15:55:17	0.3	0.3	0.3	0.3
480	6/5/2019 15:56:17	0.3	0.3	0.3	0.3
481	6/5/2019 15:57:17	0.3	0.3	0.3	0.3
482	6/5/2019 15:58:17	0.3	0.3	0.3	0.3
483	6/5/2019 15:59:17	0.3	0.3	0.3	0.3
484	6/5/2019 16:00:17	0.3	0.3	0.3	0.3
485	6/5/2019 16:01:17	0.3	0.3	0.3	0.3
486	6/5/2019 16:02:17	0.3	0.3	0.3	0.3

487	6/5/2019 16:03:17	0.3	0.3	0.3	0.3
488	6/5/2019 16:04:17	0.2	0.2	0.3	0.2
489	6/5/2019 16:05:17	0.2	0.2	0.2	0.2
490	6/5/2019 16:06:17	0.2	0.2	0.2	0.2
491	6/5/2019 16:07:17	0.2	0.2	0.2	0.2
492	6/5/2019 16:08:17	0.2	0.2	0.2	0.2
493	6/5/2019 16:09:17	0.2	0.2	0.2	0.2
494	6/5/2019 16:10:17	0.2	0.2	0.2	0.2
495	6/5/2019 16:11:17	0.2	0.2	0.2	0.2
496	6/5/2019 16:12:17	0.2	0.2	0.2	0.2
497	6/5/2019 16:13:17	0.2	0.2	0.2	0.2
498	6/5/2019 16:14:17	0.2	0.2	0.2	0.2
499	6/5/2019 16:15:17	0.2	0.3	0.3	0.3
500	6/5/2019 16:16:17	0.2	0.2	0.3	0.2
501	6/5/2019 16:17:17	0.2	0.2	0.2	0.2
502	6/5/2019 16:18:17	0.2	0.2	0.2	0.2
503	6/5/2019 16:19:17	0.2	0.2	0.2	0.2
504	6/5/2019 16:20:17	0.2	0.2	0.2	0.2
505	6/5/2019 16:21:17	0.2	0.2	0.2	0.2
506	6/5/2019 16:22:17	0.2	0.2	0.2	0.2
507	6/5/2019 16:23:17	0.2	0.2	0.2	0.2
508	6/5/2019 16:24:17	0.2	0.2	0.2	0.2
509	6/5/2019 16:25:17	0.2	0.2	0.3	0.2
510	6/5/2019 16:26:17	0.2	0.2	0.2	0.2
511	6/5/2019 16:27:17	0.2	0.3	0.3	0.3
512	6/5/2019 16:28:17	0.3	0.3	0.3	0.3
513	6/5/2019 16:29:17	0.3	0.3	0.3	0.3
514	6/5/2019 16:30:17	0.3	0.3	0.3	0.3
515	6/5/2019 16:31:17	0.3	0.3	0.3	0.3
516	6/5/2019 16:32:17	0.3	0.3	0.3	0.3
517	6/5/2019 16:33:17	0.3	0.3	0.3	0.3

518	6/5/2019 16:34:17	0.3	0.3	0.3	0.3
519	6/5/2019 16:35:17	0.3	0.3	0.3	0.3
520	6/5/2019 16:36:17	0.3	0.3	0.3	0.3
521	6/5/2019 16:37:17	0.3	0.3	0.3	0.3
522	6/5/2019 16:38:17	0.3	0.3	0.3	0.3
523	6/5/2019 16:39:17	0.3	0.3	0.3	0.3
524	6/5/2019 16:40:17	0.3	0.3	0.3	0.3
525	6/5/2019 16:41:17	0.3	0.3	0.3	0.3
526	6/5/2019 16:42:17	0.3	0.3	0.3	0.3
527	6/5/2019 16:43:17	0.3	0.3	0.3	0.3
528	6/5/2019 16:44:17	0.3	0.3	0.3	0.3
529	6/5/2019 16:45:17	0.3	0.3	0.3	0.3
530	6/5/2019 16:46:17	0.3	0.3	0.3	0.3
531	6/5/2019 16:47:17	0.3	0.3	0.3	0.3
532	6/5/2019 16:48:17	0.3	0.3	0.3	0.3
533	6/5/2019 16:49:17	0.3	0.3	0.3	0.3
534	6/5/2019 16:50:17	0.3	0.3	0.3	0.3
535	6/5/2019 16:51:17	0.3	0.3	0.3	0.3
536	6/5/2019 16:52:17	0.3	0.3	0.3	0.3
537	6/5/2019 16:53:17	0.3	0.3	0.3	0.3
538	6/5/2019 16:54:17	0.3	0.3	0.3	0.3
539	6/5/2019 16:55:17	0.3	0.3	0.3	0.3
540	6/5/2019 16:56:17	0.3	0.3	0.3	0.3
541	6/5/2019 16:57:17	0.3	0.3	0.3	0.3
542	6/5/2019 16:58:17	0.3	0.3	0.3	0.3
543	6/5/2019 16:59:17	0.3	0.3	0.3	0.3
544	6/5/2019 17:00:17	0.3	0.3	0.3	0.3
545	6/5/2019 17:01:17	0.3	0.3	0.3	0.3
546	6/5/2019 17:02:17	0.3	0.3	0.3	0.3
547	6/5/2019 17:03:17	0.2	0.3	0.3	0.2
548	6/5/2019 17:04:17	0.2	0.3	0.3	0.3

549	6/5/2019 17:05:17	0.2	0.2	0.3	0.3
550	6/5/2019 17:06:17	0.2	0.2	0.3	0.2
551	6/5/2019 17:07:17	0.2	0.2	0.2	0.2
552	6/5/2019 17:08:17	0.2	0.2	0.2	0.2
553	6/5/2019 17:09:17	0.2	0.2	0.2	0.2
554	6/5/2019 17:10:17	0.2	0.2	0.2	0.2
555	6/5/2019 17:11:17	0.2	0.2	0.2	0.2
556	6/5/2019 17:12:17	0.2	0.2	0.2	0.2
557	6/5/2019 17:13:17	0.2	0.2	0.2	0.2
558	6/5/2019 17:14:17	0.2	0.2	0.2	0.2
559	6/5/2019 17:15:17	0.2	0.2	0.2	0.2
560	6/5/2019 17:16:17	0.2	0.2	0.2	0.2
561	6/5/2019 17:17:17	0.2	0.2	0.2	0.2
562	6/5/2019 17:18:17	0.2	0.2	0.2	0.2
563	6/5/2019 17:19:17	0.2	0.2	0.2	0.2
564	6/5/2019 17:20:17	0.2	0.2	0.3	0.3
565	6/5/2019 17:21:17	0.2	0.2	0.3	0.2
566	6/5/2019 17:22:17	0.2	0.2	0.2	0.2
567	6/5/2019 17:23:17	0.2	0.2	0.3	0.2
568	6/5/2019 17:24:17	0.2	0.2	0.2	0.2
569	6/5/2019 17:25:17	0.2	0.2	0.2	0.2
570	6/5/2019 17:26:17	0.2	0.2	0.2	0.2
571	6/5/2019 17:27:17	0.2	0.2	0.2	0.2
572	6/5/2019 17:28:17	0.2	0.2	0.3	0.3
573	6/5/2019 17:29:17	0.2	0.3	0.3	0.3
574	6/5/2019 17:30:17	0.3	0.3	0.3	0.3
575	6/5/2019 17:31:17	0.3	0.3	0.3	0.3
576	6/5/2019 17:32:17	0.3	0.3	0.3	0.3
577	6/5/2019 17:33:17	0.3	0.3	0.3	0.3
578	6/5/2019 17:34:17	0.3	0.3	0.3	0.3
579	6/5/2019 17:35:17	0.3	0.3	0.3	0.3

580	6/5/2019 17:36:17	0.3	0.3	0.3	0.3
581	6/5/2019 17:37:17	0.3	0.3	0.3	0.3
582	6/5/2019 17:38:17	0.3	0.3	0.3	0.3
583	6/5/2019 17:39:17	0.3	0.3	0.3	0.3
584	6/5/2019 17:40:17	0.3	0.3	0.3	0.3
585	6/5/2019 17:41:17	0.3	0.3	0.3	0.3
586	6/5/2019 17:42:17	0.3	0.3	0.3	0.3
587	6/5/2019 17:43:17	0.3	0.3	0.3	0.3
588	6/5/2019 17:44:17	0.3	0.3	0.3	0.3
589	6/5/2019 17:45:17	0.3	0.3	0.3	0.3
590	6/5/2019 17:46:17	0.3	0.3	0.3	0.3
591	6/5/2019 17:47:17	0.3	0.3	0.3	0.3
592	6/5/2019 17:48:17	0.3	0.3	0.3	0.3
593	6/5/2019 17:49:17	0.3	0.3	0.3	0.3
594	6/5/2019 17:50:17	0.3	0.3	0.3	0.3
595	6/5/2019 17:51:17	0.3	0.3	0.3	0.3
596	6/5/2019 17:52:17	0.2	0.3	0.3	0.3
597	6/5/2019 17:53:17	0.2	0.2	0.3	0.3
598	6/5/2019 17:54:17	0.2	0.2	0.3	0.2
599	6/5/2019 17:55:17	0.2	0.2	0.3	0.2
600	6/5/2019 17:56:17	0.2	0.2	0.2	0.2
601	6/5/2019 17:57:17	0.2	0.2	0.2	0.2
602	6/5/2019 17:58:17	0.2	0.2	0.2	0.2
603	6/5/2019 17:59:17	0.2	0.2	0.2	0.2
604	6/5/2019 18:00:17	0.2	0.2	0.2	0.2
605	6/5/2019 18:01:17	0.2	0.2	0.2	0.2
606	6/5/2019 18:02:17	0.2	0.2	0.2	0.2
607	6/5/2019 18:03:17	0.2	0.2	0.2	0.2
608	6/5/2019 18:04:17	0.2	0.2	0.2	0.2
609	6/5/2019 18:05:17	0.2	0.2	0.2	0.2
610	6/5/2019 18:06:17	0.2	0.2	0.2	0.2

611	6/5/2019 18:07:17	0.2	0.2	0.2	0.2
612	6/5/2019 18:08:17	0.2	0.2	0.2	0.2
613	6/5/2019 18:09:17	0.2	0.2	0.2	0.2
614	6/5/2019 18:10:17	0.2	0.2	0.2	0.2
615	6/5/2019 18:11:17	0.2	0.2	0.2	0.2
616	6/5/2019 18:12:17	0.2	0.2	0.2	0.2
617	6/5/2019 18:13:17	0.2	0.2	0.2	0.2
618	6/5/2019 18:14:17	0.2	0.2	0.2	0.2
619	6/5/2019 18:15:17	0.2	0.2	0.2	0.2
620	6/5/2019 18:16:17	0.2	0.2	0.2	0.2
621	6/5/2019 18:17:17	0.2	0.2	0.3	0.2
622	6/5/2019 18:18:17	0.2	0.2	0.2	0.2
623	6/5/2019 18:19:17	0.2	0.2	0.2	0.2
624	6/5/2019 18:20:17	0.2	0.2	0.2	0.2
625	6/5/2019 18:21:17	0.2	0.2	0.2	0.2
626	6/5/2019 18:22:17	0.2	0.2	0.2	0.2
627	6/5/2019 18:23:17	0.2	0.2	0.2	0.2
628	6/5/2019 18:24:17	0.2	0.2	0.2	0.2
629	6/5/2019 18:25:17	0.2	0.2	0.2	0.2
630	6/5/2019 18:26:17	0.2	0.2	0.2	0.2
631	6/5/2019 18:27:17	0.2	0.2	0.2	0.2
632	6/5/2019 18:28:17	0.2	0.2	0.2	0.2
633	6/5/2019 18:29:17	0.2	0.2	0.2	0.2
634	6/5/2019 18:30:17	0.2	0.2	0.2	0.2
635	6/5/2019 18:31:17	0.2	0.2	0.2	0.2
636	6/5/2019 18:32:17	0.2	0.2	0.2	0.2
637	6/5/2019 18:33:17	0.2	0.2	0.2	0.2
638	6/5/2019 18:34:17	0.2	0.2	0.2	0.2
639	6/5/2019 18:35:17	0.2	0.2	0.2	0.2
640	6/5/2019 18:36:17	0.2	0.2	0.2	0.2
641	6/5/2019 18:37:17	0.2	0.2	0.2	0.2

642	6/5/2019 18:38:17	0.2	0.2	0.2	0.2
643	6/5/2019 18:39:17	0.2	0.2	0.2	0.2
644	6/5/2019 18:40:17	0.2	0.2	0.2	0.2
645	6/5/2019 18:41:17	0.2	0.2	0.2	0.2
646	6/5/2019 18:42:17	0.2	0.2	0.2	0.2
647	6/5/2019 18:43:17	0.2	0.2	0.2	0.2
648	6/5/2019 18:44:17	0.2	0.2	0.2	0.2
649	6/5/2019 18:45:17	0.2	0.2	0.2	0.2
650	6/5/2019 18:46:17	0.2	0.2	0.2	0.2
651	6/5/2019 18:47:17	0.2	0.2	0.2	0.2
652	6/5/2019 18:48:17	0.2	0.2	0.2	0.2
653	6/5/2019 18:49:17	0.2	0.2	0.2	0.2
654	6/5/2019 18:50:17	0.2	0.2	0.2	0.2
655	6/5/2019 18:51:17	0.2	0.2	0.2	0.2
656	6/5/2019 18:52:17	0.2	0.2	0.2	0.2
657	6/5/2019 18:53:17	0.2	0.2	0.2	0.2
658	6/5/2019 18:54:17	0.2	0.2	0.2	0.2
659	6/5/2019 18:55:17	0.2	0.2	0.2	0.2
660	6/5/2019 18:56:17	0.2	0.2	0.2	0.2
661	6/5/2019 18:57:17	0.2	0.2	0.2	0.2
662	6/5/2019 18:58:17	0.2	0.2	0.2	0.2
663	6/5/2019 18:59:17	0.2	0.2	0.2	0.2
664	6/5/2019 19:00:17	0.2	0.2	0.2	0.2
665	6/5/2019 19:01:17	0.2	0.2	0.2	0.2
666	6/5/2019 19:02:17	0.2	0.2	0.2	0.2
667	6/5/2019 19:03:17	0.2	0.2	0.2	0.2
668	6/5/2019 19:04:17	0.2	0.2	0.2	0.2
669	6/5/2019 19:05:17	0.2	0.2	0.2	0.2
670	6/5/2019 19:06:17	0.2	0.2	0.2	0.2
671	6/5/2019 19:07:17	0.2	0.2	0.2	0.2
672	6/5/2019 19:08:17	0.2	0.2	0.2	0.2

673	6/5/2019 19:09:17	0.2	0.2	0.2	0.2
674	6/5/2019 19:10:17	0.2	0.2	0.2	0.2
675	6/5/2019 19:11:17	0.2	0.2	0.2	0.2
676	6/5/2019 19:12:17	0.2	0.2	0.2	0.2
677	6/5/2019 19:13:17	0.2	0.2	0.2	0.2
678	6/5/2019 19:14:17	0.2	0.2	0.2	0.2
679	6/5/2019 19:15:17	0.2	0.2	0.2	0.2
680	6/5/2019 19:16:17	0.2	0.2	0.2	0.2
681	6/5/2019 19:17:17	0.2	0.2	0.2	0.2
682	6/5/2019 19:18:17	0.2	0.2	0.2	0.2
683	6/5/2019 19:19:17	0.2	0.2	0.2	0.2
684	6/5/2019 19:20:17	0.2	0.2	0.2	0.2
685	6/5/2019 19:21:17	0.2	0.2	0.2	0.2
686	6/5/2019 19:22:17	0.2	0.2	0.2	0.2
687	6/5/2019 19:23:17	0.2	0.2	0.2	0.2
688	6/5/2019 19:24:17	0.2	0.2	0.2	0.2
689	6/5/2019 19:25:17	0.2	0.2	0.2	0.2
690	6/5/2019 19:26:17	0.2	0.2	0.2	0.2
691	6/5/2019 19:27:17	0.2	0.2	0.2	0.2
692	6/5/2019 19:28:17	0.2	0.2	0.2	0.2
693	6/5/2019 19:29:17	0.2	0.2	0.2	0.2
694	6/5/2019 19:30:17	0.2	0.2	0.2	0.2
695	6/5/2019 19:31:17	0.2	0.2	0.2	0.2
696	6/5/2019 19:32:17	0.2	0.2	0.2	0.2
697	6/5/2019 19:33:17	0.2	0.2	0.2	0.2
698	6/5/2019 19:34:17	0.2	0.2	0.2	0.2
699	6/5/2019 19:35:17	0.2	0.2	0.2	0.2
700	6/5/2019 19:36:17	0.2	0.2	0.2	0.2
701	6/5/2019 19:37:17	0.2	0.2	0.2	0.2
702	6/5/2019 19:38:17	0.2	0.2	0.2	0.2
703	6/5/2019 19:39:17	0.2	0.2	0.2	0.2

704	6/5/2019 19:40:17	0.2	0.2	0.2	0.2
705	6/5/2019 19:41:17	0.2	0.2	0.2	0.2
706	6/5/2019 19:42:17	0.2	0.2	0.2	0.2
707	6/5/2019 19:43:17	0.2	0.2	0.2	0.2
708	6/5/2019 19:44:17	0.2	0.2	0.2	0.2
709	6/5/2019 19:45:17	0.2	0.2	0.2	0.2
710	6/5/2019 19:46:17	0.2	0.2	0.2	0.2
711	6/5/2019 19:47:17	0.2	0.2	0.2	0.2
712	6/5/2019 19:48:17	0.2	0.2	0.2	0.2
713	6/5/2019 19:49:17	0.2	0.2	0.2	0.2
714	6/5/2019 19:50:17	0.2	0.2	0.2	0.2
715	6/5/2019 19:51:17	0.2	0.2	0.2	0.2
716	6/5/2019 19:52:17	0.2	0.2	0.2	0.2
717	6/5/2019 19:53:17	0.2	0.2	0.2	0.2
718	6/5/2019 19:54:17	0.2	0.2	0.2	0.2
719	6/5/2019 19:55:17	0.2	0.2	0.2	0.2
720	6/5/2019 19:56:17	0.2	0.2	0.2	0.2
721	6/5/2019 19:57:17	0.2	0.2	0.2	0.2
722	6/5/2019 19:58:17	0.2	0.2	0.2	0.2
723	6/5/2019 19:59:17	0.2	0.2	0.2	0.2
724	6/5/2019 20:00:17	0.2	0.2	0.2	0.2
725	6/5/2019 20:01:17	0.2	0.2	0.2	0.2
726	6/5/2019 20:02:17	0.2	0.2	0.2	0.2
727	6/5/2019 20:03:17	0.2	0.2	0.2	0.2
728	6/5/2019 20:04:17	0.2	0.2	0.2	0.2
729	6/5/2019 20:05:17	0.2	0.2	0.2	0.2
730	6/5/2019 20:06:17	0.2	0.2	0.2	0.2
731	6/5/2019 20:07:17	0.2	0.2	0.2	0.2
732	6/5/2019 20:08:17	0.2	0.2	0.2	0.2
733	6/5/2019 20:09:17	0.2	0.2	0.2	0.2
734	6/5/2019 20:10:17	0.2	0.2	0.2	0.2

735	6/5/2019 20:11:17	0.2	0.2	0.2	0.2
736	6/5/2019 20:12:17	0.2	0.2	0.2	0.2
737	6/5/2019 20:13:17	0.2	0.2	0.2	0.2
738	6/5/2019 20:14:17	0.2	0.2	0.2	0.2
739	6/5/2019 20:15:17	0.2	0.2	0.2	0.2
740	6/5/2019 20:16:17	0.2	0.2	0.2	0.2
741	6/5/2019 20:17:17	0.2	0.2	0.2	0.2
742	6/5/2019 20:18:17	0.2	0.2	0.2	0.2
743	6/5/2019 20:19:17	0.2	0.2	0.2	0.2
744	6/5/2019 20:20:17	0.2	0.2	0.2	0.2
745	6/5/2019 20:21:17	0.2	0.2	0.2	0.2
746	6/5/2019 20:22:17	0.2	0.2	0.2	0.2
747	6/5/2019 20:23:17	0.2	0.2	0.2	0.2
748	6/5/2019 20:24:17	0.2	0.2	0.2	0.2
749	6/5/2019 20:25:17	0.2	0.2	0.2	0.2
750	6/5/2019 20:26:17	0.2	0.2	0.2	0.2
751	6/5/2019 20:27:17	0.2	0.2	0.2	0.2
752	6/5/2019 20:28:17	0.2	0.2	0.2	0.2
753	6/5/2019 20:29:17	0.2	0.2	0.2	0.2
754	6/5/2019 20:30:17	0.2	0.2	0.2	0.2
755	6/5/2019 20:31:17	0.2	0.2	0.2	0.2
756	6/5/2019 20:32:17	0.2	0.2	0.2	0.2
757	6/5/2019 20:33:17	0.2	0.2	0.2	0.2
758	6/5/2019 20:34:17	0.2	0.2	0.2	0.2
759	6/5/2019 20:35:17	0.2	0.2	0.2	0.2
760	6/5/2019 20:36:17	0.2	0.2	0.2	0.2
761	6/5/2019 20:37:17	0.2	0.2	0.2	0.2
762	6/5/2019 20:38:17	0.2	0.2	0.2	0.2
763	6/5/2019 20:39:17	0.2	0.2	0.2	0.2
764	6/5/2019 20:40:17	0.2	0.2	0.2	0.2
765	6/5/2019 20:41:17	0.2	0.2	0.2	0.2

766	6/5/2019 20:42:17	0.2	0.2	0.2	0.2
767	6/5/2019 20:43:17	0.2	0.2	0.2	0.2
768	6/5/2019 20:44:17	0.2	0.2	0.2	0.2
769	6/5/2019 20:45:17	0.2	0.2	0.2	0.2
770	6/5/2019 20:46:17	0.2	0.2	0.2	0.2
771	6/5/2019 20:47:17	0.2	0.2	0.2	0.2
772	6/5/2019 20:48:17	0.2	0.2	0.2	0.2
773	6/5/2019 20:49:17	0.2	0.2	0.2	0.2
774	6/5/2019 20:50:17	0.2	0.2	0.2	0.2
775	6/5/2019 20:51:17	0.2	0.2	0.2	0.2
776	6/5/2019 20:52:17	0.2	0.2	0.2	0.2
777	6/5/2019 20:53:17	0.2	0.2	0.2	0.2
778	6/5/2019 20:54:17	0.2	0.2	0.2	0.2
779	6/5/2019 20:55:17	0.2	0.2	0.2	0.2
780	6/5/2019 20:56:17	0.2	0.2	0.2	0.2
781	6/5/2019 20:57:17	0.2	0.2	0.2	0.2
782	6/5/2019 20:58:17	0.2	0.2	0.2	0.2
783	6/5/2019 20:59:17	0.2	0.2	0.2	0.2
784	6/5/2019 21:00:17	0.2	0.2	0.2	0.2
785	6/5/2019 21:01:17	0.2	0.2	0.2	0.2
786	6/5/2019 21:02:17	0.2	0.2	0.2	0.2
787	6/5/2019 21:03:17	0.2	0.2	0.2	0.2
788	6/5/2019 21:04:17	0.2	0.2	0.2	0.2
789	6/5/2019 21:05:17	0.2	0.2	0.2	0.2
790	6/5/2019 21:06:17	0.2	0.2	0.2	0.2
791	6/5/2019 21:07:17	0.2	0.2	0.2	0.2
792	6/5/2019 21:08:17	0.2	0.2	0.2	0.2
793	6/5/2019 21:09:17	0.2	0.2	0.2	0.2
794	6/5/2019 21:10:17	0.2	0.2	0.2	0.2
795	6/5/2019 21:11:17	0.2	0.2	0.2	0.2
796	6/5/2019 21:12:17	0.2	0.2	0.2	0.2

797	6/5/2019 21:13:17	0.2	0.2	0.2	0.2
798	6/5/2019 21:14:17	0.2	0.2	0.2	0.2
799	6/5/2019 21:15:17	0.2	0.2	0.2	0.2
800	6/5/2019 21:16:17	0.2	0.2	0.2	0.2
801	6/5/2019 21:17:17	0.2	0.2	0.2	0.2
802	6/5/2019 21:18:17	0.2	0.2	0.2	0.2
803	6/5/2019 21:19:17	0.2	0.2	0.2	0.2
804	6/5/2019 21:20:17	0.2	0.2	0.2	0.2
805	6/5/2019 21:21:17	0.2	0.2	0.2	0.2
806	6/5/2019 21:22:17	0.2	0.2	0.2	0.2
807	6/5/2019 21:23:17	0.2	0.2	0.2	0.2
808	6/5/2019 21:24:17	0.2	0.2	0.2	0.2
809	6/5/2019 21:25:17	0.2	0.2	0.2	0.2
810	6/5/2019 21:26:17	0.2	0.2	0.2	0.2
811	6/5/2019 21:27:17	0.2	0.2	0.2	0.2
812	6/5/2019 21:28:17	0.2	0.2	0.2	0.2
813	6/5/2019 21:29:17	0.2	0.2	0.2	0.2
814	6/5/2019 21:30:17	0.2	0.2	0.2	0.2
815	6/5/2019 21:31:17	0.2	0.2	0.2	0.2
816	6/5/2019 21:32:17	0.2	0.2	0.2	0.2
817	6/5/2019 21:33:17	0.2	0.2	0.2	0.2
818	6/5/2019 21:34:17	0.2	0.2	0.2	0.2
819	6/5/2019 21:35:17	0.2	0.2	0.2	0.2
820	6/5/2019 21:36:17	0.2	0.2	0.2	0.2
821	6/5/2019 21:37:17	0.2	0.2	0.2	0.2
822	6/5/2019 21:38:17	0.2	0.2	0.2	0.2
823	6/5/2019 21:39:17	0.2	0.2	0.2	0.2
824	6/5/2019 21:40:17	0.2	0.2	0.2	0.2
825	6/5/2019 21:41:17	0.2	0.2	0.2	0.2
826	6/5/2019 21:42:17	0.2	0.2	0.2	0.2
827	6/5/2019 21:43:17	0.2	0.2	0.2	0.2

828	6/5/2019 21:44:17	0.2	0.2	0.2	0.2
829	6/5/2019 21:45:17	0.2	0.2	0.2	0.2
830	6/5/2019 21:46:17	0.2	0.2	0.2	0.2
831	6/5/2019 21:47:17	0.2	0.2	0.2	0.2
832	6/5/2019 21:48:17	0.2	0.2	0.2	0.2
833	6/5/2019 21:49:17	0.2	0.2	0.2	0.2
834	6/5/2019 21:50:17	0.2	0.2	0.2	0.2
835	6/5/2019 21:51:17	0.2	0.2	0.2	0.2
836	6/5/2019 21:52:17	0.2	0.2	0.2	0.2
837	6/5/2019 21:53:17	0.2	0.2	0.2	0.2
838	6/5/2019 21:54:17	0.2	0.2	0.2	0.2
839	6/5/2019 21:55:17	0.2	0.2	0.2	0.2
840	6/5/2019 21:56:17	0.2	0.2	0.2	0.2
841	6/5/2019 21:57:17	0.2	0.2	0.2	0.2
842	6/5/2019 21:58:17	0.2	0.2	0.2	0.2
843	6/5/2019 21:59:17	0.2	0.2	0.2	0.2
844	6/5/2019 22:00:17	0.2	0.2	0.2	0.2
845	6/5/2019 22:01:17	0.2	0.2	0.2	0.2
846	6/5/2019 22:02:17	0.2	0.2	0.2	0.2
847	6/5/2019 22:03:17	0.2	0.2	0.2	0.2
848	6/5/2019 22:04:17	0.2	0.2	0.2	0.2
849	6/5/2019 22:05:17	0.2	0.2	0.2	0.2
850	6/5/2019 22:06:17	0.2	0.2	0.2	0.2
851	6/5/2019 22:07:17	0.2	0.2	0.2	0.2
852	6/5/2019 22:08:17	0.2	0.2	0.2	0.2
853	6/5/2019 22:09:17	0.2	0.2	0.2	0.2
854	6/5/2019 22:10:17	0.2	0.2	0.2	0.2
855	6/5/2019 22:11:17	0.2	0.2	0.2	0.2
856	6/5/2019 22:12:17	0.2	0.2	0.2	0.2
857	6/5/2019 22:13:17	0.2	0.2	0.2	0.2
858	6/5/2019 22:14:17	0.2	0.2	0.2	0.2

859	6/5/2019 22:15:17	0.2	0.2	0.2	0.2
860	6/5/2019 22:16:17	0.2	0.2	0.2	0.2
861	6/5/2019 22:17:17	0.2	0.2	0.2	0.2
862	6/5/2019 22:18:17	0.2	0.2	0.2	0.2
863	6/5/2019 22:19:17	0.2	0.2	0.2	0.2
864	6/5/2019 22:20:17	0.2	0.2	0.2	0.2
865	6/5/2019 22:21:17	0.2	0.2	0.2	0.2
866	6/5/2019 22:22:17	0.2	0.2	0.2	0.2
867	6/5/2019 22:23:17	0.2	0.2	0.2	0.2
868	6/5/2019 22:24:17	0.2	0.2	0.2	0.2
869	6/5/2019 22:25:17	0.2	0.2	0.2	0.2
870	6/5/2019 22:26:17	0.2	0.2	0.2	0.2
871	6/5/2019 22:27:17	0.2	0.2	0.2	0.2
872	6/5/2019 22:28:17	0.2	0.2	0.2	0.2
873	6/5/2019 22:29:17	0.2	0.2	0.2	0.2
874	6/5/2019 22:30:17	0.2	0.2	0.2	0.2
875	6/5/2019 22:31:17	0.2	0.2	0.2	0.2
876	6/5/2019 22:32:17	0.2	0.2	0.2	0.2
877	6/5/2019 22:33:17	0.2	0.2	0.2	0.2
878	6/5/2019 22:34:17	0.2	0.2	0.2	0.2
879	6/5/2019 22:35:17	0.2	0.2	0.2	0.2
880	6/5/2019 22:36:17	0.2	0.2	0.2	0.2
881	6/5/2019 22:37:17	0.2	0.2	0.2	0.2
882	6/5/2019 22:38:17	0.2	0.2	0.2	0.2
883	6/5/2019 22:39:17	0.2	0.2	0.2	0.2
884	6/5/2019 22:40:17	0.2	0.2	0.2	0.2
885	6/5/2019 22:41:17	0.2	0.2	0.2	0.2
886	6/5/2019 22:42:17	0.2	0.2	0.2	0.2
887	6/5/2019 22:43:17	0.2	0.2	0.2	0.2
888	6/5/2019 22:44:17	0.2	0.2	0.2	0.2
889	6/5/2019 22:45:17	0.2	0.2	0.2	0.2

890	6/5/2019 22:46:17	0.2	0.2	0.2	0.2
891	6/5/2019 22:47:17	0.2	0.2	0.2	0.2
892	6/5/2019 22:48:17	0.2	0.2	0.2	0.2
893	6/5/2019 22:49:17	0.2	0.2	0.2	0.2
894	6/5/2019 22:50:17	0.2	0.2	0.2	0.2
895	6/5/2019 22:51:17	0.2	0.2	0.2	0.2
896	6/5/2019 22:52:17	0.2	0.2	0.2	0.2
897	6/5/2019 22:53:17	0.2	0.2	0.2	0.2
898	6/5/2019 22:54:17	0.2	0.2	0.2	0.2
899	6/5/2019 22:55:17	0.2	0.2	0.2	0.2
900	6/5/2019 22:56:17	0.2	0.2	0.2	0.2
901	6/5/2019 22:57:17	0.2	0.2	0.2	0.2
902	6/5/2019 22:58:17	0.2	0.2	0.2	0.2
903	6/5/2019 22:59:17	0.2	0.2	0.2	0.2
904	6/5/2019 23:00:17	0.2	0.2	0.2	0.2
905	6/5/2019 23:01:17	0.2	0.2	0.2	0.2
906	6/5/2019 23:02:17	0.2	0.2	0.2	0.2
907	6/5/2019 23:03:17	0.2	0.2	0.2	0.2
908	6/5/2019 23:04:17	0.2	0.2	0.2	0.2
909	6/5/2019 23:05:17	0.2	0.2	0.2	0.2
910	6/5/2019 23:06:17	0.2	0.2	0.2	0.2
911	6/5/2019 23:07:17	0.2	0.2	0.2	0.2
912	6/5/2019 23:08:17	0.2	0.2	0.2	0.2
913	6/5/2019 23:09:17	0.2	0.2	0.2	0.2
914	6/5/2019 23:10:17	0.2	0.2	0.2	0.2
915	6/5/2019 23:11:17	0.1	0.1	0.2	0.1
916	6/5/2019 23:12:17	0.1	0.1	0.2	0.2
917	6/5/2019 23:13:17	0.1	0.1	0.2	0.1
918	6/5/2019 23:14:17	0.1	0.1	0.2	0.2
919	6/5/2019 23:15:17	0.1	0.1	0.2	0.1
920	6/5/2019 23:16:17	0.1	0.1	0.2	0.2

921	6/5/2019 23:17:17	0.1	0.2	0.2	0.2
922	6/5/2019 23:18:17	0.1	0.1	0.2	0.1
923	6/5/2019 23:19:17	0.1	0.1	0.1	0.1
924	6/5/2019 23:20:17	0.1	0.1	0.1	0.1
925	6/5/2019 23:21:17	0.1	0.1	0.1	0.1
926	6/5/2019 23:22:17	0.1	0.1	0.1	0.1
927	6/5/2019 23:23:17	0.1	0.1	0.1	0.1
928	6/5/2019 23:24:17	0.1	0.1	0.1	0.1
929	6/5/2019 23:25:17	0.1	0.1	0.1	0.1
930	6/5/2019 23:26:17	0.1	0.1	0.1	0.1
931	6/5/2019 23:27:17	0.1	0.1	0.1	0.1
932	6/5/2019 23:28:17	0.1	0.1	0.1	0.1
933	6/5/2019 23:29:17	0.1	0.1	0.1	0.1
934	6/5/2019 23:30:17	0.1	0.1	0.1	0.1
935	6/5/2019 23:31:17	0.1	0.1	0.1	0.1
936	6/5/2019 23:32:17	0.1	0.1	0.1	0.1
937	6/5/2019 23:33:17	0.1	0.1	0.1	0.1
938	6/5/2019 23:34:17	0.1	0.1	0.1	0.1
939	6/5/2019 23:35:17	0.1	0.1	0.1	0.1
940	6/5/2019 23:36:17	0.1	0.1	0.1	0.1
941	6/5/2019 23:37:17	0.1	0.1	0.1	0.1
942	6/5/2019 23:38:17	0.1	0.1	0.1	0.1
943	6/5/2019 23:39:17	0.1	0.1	0.1	0.1
944	6/5/2019 23:40:17	0.1	0.1	0.1	0.1
945	6/5/2019 23:41:17	0.1	0.1	0.1	0.1
946	6/5/2019 23:42:17	0.1	0.1	0.1	0.1
947	6/5/2019 23:43:17	0.1	0.1	0.1	0.1
948	6/5/2019 23:44:17	0.1	0.1	0.1	0.1
949	6/5/2019 23:45:17	0.1	0.1	0.1	0.1
950	6/5/2019 23:46:17	0.1	0.1	0.1	0.1
951	6/5/2019 23:47:17	0.1	0.1	0.1	0.1

952	6/5/2019 23:48:17	0.1	0.1	0.1	0.1
953	6/5/2019 23:49:17	0.1	0.1	0.1	0.1
954	6/5/2019 23:50:17	0.1	0.1	0.1	0.1
955	6/5/2019 23:51:17	0.1	0.1	0.1	0.1
956	6/5/2019 23:52:17	0.1	0.1	0.1	0.1
957	6/5/2019 23:53:17	0.1	0.1	0.1	0.1
958	6/5/2019 23:54:17	0.1	0.1	0.1	0.1
959	6/5/2019 23:55:17	0.1	0.1	0.1	0.1
960	6/5/2019 23:56:17	0.1	0.1	0.1	0.1
961	6/5/2019 23:57:17	0.1	0.1	0.1	0.1
962	6/5/2019 23:58:17	0.1	0.1	0.1	0.1
963	6/5/2019 23:59:17	0.1	0.1	0.1	0.1
964	6/6/2019 00:00:17	0.1	0.1	0.1	0.1
965	6/6/2019 00:01:17	0.1	0.1	0.1	0.1
966	6/6/2019 00:02:17	0.1	0.1	0.1	0.1
967	6/6/2019 00:03:17	0.1	0.1	0.1	0.1
968	6/6/2019 00:04:17	0.1	0.1	0.1	0.1
969	6/6/2019 00:05:17	0.1	0.1	0.1	0.1
970	6/6/2019 00:06:17	0.1	0.1	0.1	0.1
971	6/6/2019 00:07:17	0.1	0.1	0.1	0.1
972	6/6/2019 00:08:17	0.1	0.1	0.1	0.1
973	6/6/2019 00:09:17	0.1	0.1	0.1	0.1
974	6/6/2019 00:10:17	0.1	0.1	0.1	0.1
975	6/6/2019 00:11:17	0.1	0.1	0.1	0.1
976	6/6/2019 00:12:17	0.1	0.1	0.1	0.1
977	6/6/2019 00:13:17	0.1	0.1	0.1	0.1
978	6/6/2019 00:14:17	0.1	0.1	0.1	0.1
979	6/6/2019 00:15:17	0.1	0.1	0.1	0.1
980	6/6/2019 00:16:17	0.1	0.1	0.1	0.1
981	6/6/2019 00:17:17	0.1	0.1	0.1	0.1
982	6/6/2019 00:18:17	0.1	0.1	0.1	0.1

983	6/6/2019 00:19:17	0.1	0.1	0.1	0.1
984	6/6/2019 00:20:17	0.1	0.1	0.1	0.1
985	6/6/2019 00:21:17	0.1	0.1	0.1	0.1
986	6/6/2019 00:22:17	0.1	0.1	0.1	0.1
987	6/6/2019 00:23:17	0.1	0.1	0.1	0.1
988	6/6/2019 00:24:17	0.1	0.1	0.1	0.1
989	6/6/2019 00:25:17	0.1	0.1	0.1	0.1
990	6/6/2019 00:26:17	0.1	0.1	0.1	0.1
991	6/6/2019 00:27:17	0.1	0.1	0.1	0.1
992	6/6/2019 00:28:17	0.1	0.1	0.1	0.1
993	6/6/2019 00:29:17	0.1	0.1	0.1	0.1
994	6/6/2019 00:30:17	0.1	0.1	0.1	0.1
995	6/6/2019 00:31:17	0.1	0.1	0.1	0.1
996	6/6/2019 00:32:17	0.1	0.1	0.1	0.1
997	6/6/2019 00:33:17	0.1	0.1	0.1	0.1
998	6/6/2019 00:34:17	0.1	0.1	0.1	0.1
999	6/6/2019 00:35:17	0.1	0.1	0.1	0.1
1000	6/6/2019 00:36:17	0.1	0.1	0.1	0.1
1001	6/6/2019 00:37:17	0.1	0.1	0.1	0.1
1002	6/6/2019 00:38:17	0.1	0.1	0.1	0.1
1003	6/6/2019 00:39:17	0.1	0.1	0.1	0.1
1004	6/6/2019 00:40:17	0.1	0.1	0.1	0.1
1005	6/6/2019 00:41:17	0.1	0.1	0.1	0.1
1006	6/6/2019 00:42:17	0.1	0.1	0.1	0.1
1007	6/6/2019 00:43:17	0.1	0.1	0.1	0.1
1008	6/6/2019 00:44:17	0.1	0.1	0.1	0.1
1009	6/6/2019 00:45:17	0.1	0.1	0.1	0.1
1010	6/6/2019 00:46:17	0.1	0.1	0.1	0.1
1011	6/6/2019 00:47:17	0.1	0.1	0.1	0.1
1012	6/6/2019 00:48:17	0.1	0.1	0.1	0.1
1013	6/6/2019 00:49:17	0.1	0.1	0.1	0.1

1014	6/6/2019 00:50:17	0.1	0.1	0.1	0.1
1015	6/6/2019 00:51:17	0.1	0.1	0.2	0.1
1016	6/6/2019 00:52:17	0.1	0.1	0.1	0.1
1017	6/6/2019 00:53:17	0.1	0.1	0.1	0.1
1018	6/6/2019 00:54:17	0.1	0.1	0.1	0.1
1019	6/6/2019 00:55:17	0.1	0.1	0.1	0.1
1020	6/6/2019 00:56:17	0.1	0.1	0.1	0.1
1021	6/6/2019 00:57:17	0.1	0.1	0.1	0.1
1022	6/6/2019 00:58:17	0.1	0.1	0.1	0.1
1023	6/6/2019 00:59:17	0.1	0.1	0.1	0.1
Peak		0.6	0.6	0.8	0.6
Min		0.0	0.0	0.0	0.0
Average		0.3	0.3	0.3	0.3

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/5/2019 07:57:17	0.0	---	
002	6/5/2019 07:58:17	0.0	---	
003	6/5/2019 07:59:17	0.0	---	
004	6/5/2019 08:00:17	0.0	---	
005	6/5/2019 08:01:17	0.0	---	
006	6/5/2019 08:02:17	0.0	---	
007	6/5/2019 08:03:17	0.0	---	
008	6/5/2019 08:04:17	0.0	---	
009	6/5/2019 08:05:17	0.0	---	
010	6/5/2019 08:06:17	0.0	---	
011	6/5/2019 08:07:17	0.0	---	
012	6/5/2019 08:08:17	0.0	---	
013	6/5/2019 08:09:17	0.0	---	

014	6/5/2019 08:10:17	0.0	---
015	6/5/2019 08:11:17	0.0	0.0
016	6/5/2019 08:12:17	0.0	0.0
017	6/5/2019 08:13:17	0.0	0.0
018	6/5/2019 08:14:17	0.0	0.0
019	6/5/2019 08:15:17	0.0	0.0
020	6/5/2019 08:16:17	0.0	0.0
021	6/5/2019 08:17:17	0.0	0.0
022	6/5/2019 08:18:17	0.0	0.0
023	6/5/2019 08:19:17	0.0	0.0
024	6/5/2019 08:20:17	0.0	0.1
025	6/5/2019 08:21:17	0.0	0.1
026	6/5/2019 08:22:17	0.0	0.1
027	6/5/2019 08:23:17	0.0	0.1
028	6/5/2019 08:24:17	0.0	0.1
029	6/5/2019 08:25:17	0.0	0.1
030	6/5/2019 08:26:17	0.0	0.1
031	6/5/2019 08:27:17	0.0	0.1
032	6/5/2019 08:28:17	0.0	0.1
033	6/5/2019 08:29:17	0.0	0.1
034	6/5/2019 08:30:17	0.0	0.1
035	6/5/2019 08:31:17	0.0	0.1
036	6/5/2019 08:32:17	0.0	0.1
037	6/5/2019 08:33:17	0.0	0.1
038	6/5/2019 08:34:17	0.0	0.1
039	6/5/2019 08:35:17	0.0	0.1
040	6/5/2019 08:36:17	0.0	0.1
041	6/5/2019 08:37:17	0.0	0.1
042	6/5/2019 08:38:17	0.0	0.1
043	6/5/2019 08:39:17	0.0	0.1
044	6/5/2019 08:40:17	0.0	0.1

045	6/5/2019 08:41:17	0.0	0.1
046	6/5/2019 08:42:17	0.0	0.1
047	6/5/2019 08:43:17	0.0	0.1
048	6/5/2019 08:44:17	0.0	0.1
049	6/5/2019 08:45:17	0.0	0.1
050	6/5/2019 08:46:17	0.0	0.1
051	6/5/2019 08:47:17	0.0	0.1
052	6/5/2019 08:48:17	0.0	0.1
053	6/5/2019 08:49:17	0.0	0.1
054	6/5/2019 08:50:17	0.0	0.1
055	6/5/2019 08:51:17	0.0	0.1
056	6/5/2019 08:52:17	0.0	0.1
057	6/5/2019 08:53:17	0.0	0.1
058	6/5/2019 08:54:17	0.0	0.1
059	6/5/2019 08:55:17	0.0	0.1
060	6/5/2019 08:56:17	0.0	0.1
061	6/5/2019 08:57:17	0.0	0.1
062	6/5/2019 08:58:17	0.0	0.1
063	6/5/2019 08:59:17	0.0	0.1
064	6/5/2019 09:00:17	0.0	0.1
065	6/5/2019 09:01:17	0.0	0.1
066	6/5/2019 09:02:17	0.0	0.1
067	6/5/2019 09:03:17	0.0	0.1
068	6/5/2019 09:04:17	0.0	0.1
069	6/5/2019 09:05:17	0.0	0.1
070	6/5/2019 09:06:17	0.0	0.2
071	6/5/2019 09:07:17	0.0	0.2
072	6/5/2019 09:08:17	0.0	0.2
073	6/5/2019 09:09:17	0.0	0.2
074	6/5/2019 09:10:17	0.0	0.2
075	6/5/2019 09:11:17	0.0	0.2

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077	6/5/2019 09:13:17	0.0	0.2
078	6/5/2019 09:14:17	0.0	0.2
079	6/5/2019 09:15:17	0.0	0.2
080	6/5/2019 09:16:17	0.0	0.2
081	6/5/2019 09:17:17	0.0	0.2
082	6/5/2019 09:18:17	0.0	0.2
083	6/5/2019 09:19:17	0.0	0.2
084	6/5/2019 09:20:17	0.0	0.2
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086	6/5/2019 09:22:17	0.0	0.2
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096	6/5/2019 09:32:17	0.0	0.2
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098	6/5/2019 09:34:17	0.0	0.2
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101	6/5/2019 09:37:17	0.0	0.2
102	6/5/2019 09:38:17	0.0	0.2
103	6/5/2019 09:39:17	0.0	0.2
104	6/5/2019 09:40:17	0.0	0.2
105	6/5/2019 09:41:17	0.0	0.2
106	6/5/2019 09:42:17	0.0	0.2

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137	6/5/2019 10:13:17	0.0	0.3

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807	6/5/2019 21:23:17	0.5	0.2
808	6/5/2019 21:24:17	0.5	0.2
809	6/5/2019 21:25:17	0.5	0.2
810	6/5/2019 21:26:17	0.5	0.2
811	6/5/2019 21:27:17	0.5	0.2
812	6/5/2019 21:28:17	0.5	0.2
813	6/5/2019 21:29:17	0.5	0.2
814	6/5/2019 21:30:17	0.5	0.2
815	6/5/2019 21:31:17	0.5	0.2
816	6/5/2019 21:32:17	0.5	0.2
817	6/5/2019 21:33:17	0.5	0.2
818	6/5/2019 21:34:17	0.5	0.2
819	6/5/2019 21:35:17	0.5	0.2

820	6/5/2019 21:36:17	0.5	0.2
821	6/5/2019 21:37:17	0.5	0.2
822	6/5/2019 21:38:17	0.5	0.2
823	6/5/2019 21:39:17	0.5	0.2
824	6/5/2019 21:40:17	0.5	0.2
825	6/5/2019 21:41:17	0.5	0.2
826	6/5/2019 21:42:17	0.5	0.2
827	6/5/2019 21:43:17	0.5	0.2
828	6/5/2019 21:44:17	0.5	0.2
829	6/5/2019 21:45:17	0.5	0.2
830	6/5/2019 21:46:17	0.5	0.2
831	6/5/2019 21:47:17	0.5	0.2
832	6/5/2019 21:48:17	0.5	0.2
833	6/5/2019 21:49:17	0.5	0.2
834	6/5/2019 21:50:17	0.5	0.2
835	6/5/2019 21:51:17	0.5	0.2
836	6/5/2019 21:52:17	0.5	0.2
837	6/5/2019 21:53:17	0.5	0.2
838	6/5/2019 21:54:17	0.5	0.2
839	6/5/2019 21:55:17	0.5	0.2
840	6/5/2019 21:56:17	0.5	0.2
841	6/5/2019 21:57:17	0.5	0.2
842	6/5/2019 21:58:17	0.5	0.2
843	6/5/2019 21:59:17	0.5	0.2
844	6/5/2019 22:00:17	0.5	0.2
845	6/5/2019 22:01:17	0.6	0.2
846	6/5/2019 22:02:17	0.6	0.2
847	6/5/2019 22:03:17	0.6	0.2
848	6/5/2019 22:04:17	0.6	0.2
849	6/5/2019 22:05:17	0.6	0.2
850	6/5/2019 22:06:17	0.6	0.2

851	6/5/2019 22:07:17	0.6	0.2
852	6/5/2019 22:08:17	0.6	0.2
853	6/5/2019 22:09:17	0.6	0.2
854	6/5/2019 22:10:17	0.6	0.2
855	6/5/2019 22:11:17	0.6	0.2
856	6/5/2019 22:12:17	0.6	0.2
857	6/5/2019 22:13:17	0.6	0.2
858	6/5/2019 22:14:17	0.6	0.2
859	6/5/2019 22:15:17	0.6	0.2
860	6/5/2019 22:16:17	0.6	0.2
861	6/5/2019 22:17:17	0.6	0.2
862	6/5/2019 22:18:17	0.6	0.2
863	6/5/2019 22:19:17	0.6	0.2
864	6/5/2019 22:20:17	0.6	0.2
865	6/5/2019 22:21:17	0.6	0.2
866	6/5/2019 22:22:17	0.6	0.2
867	6/5/2019 22:23:17	0.6	0.2
868	6/5/2019 22:24:17	0.6	0.2
869	6/5/2019 22:25:17	0.6	0.2
870	6/5/2019 22:26:17	0.6	0.2
871	6/5/2019 22:27:17	0.6	0.2
872	6/5/2019 22:28:17	0.6	0.2
873	6/5/2019 22:29:17	0.6	0.2
874	6/5/2019 22:30:17	0.6	0.2
875	6/5/2019 22:31:17	0.6	0.2
876	6/5/2019 22:32:17	0.6	0.2
877	6/5/2019 22:33:17	0.6	0.2
878	6/5/2019 22:34:17	0.6	0.2
879	6/5/2019 22:35:17	0.6	0.2
880	6/5/2019 22:36:17	0.6	0.2
881	6/5/2019 22:37:17	0.6	0.2

882	6/5/2019 22:38:17	0.6	0.2
883	6/5/2019 22:39:17	0.6	0.2
884	6/5/2019 22:40:17	0.6	0.2
885	6/5/2019 22:41:17	0.6	0.2
886	6/5/2019 22:42:17	0.6	0.2
887	6/5/2019 22:43:17	0.6	0.2
888	6/5/2019 22:44:17	0.6	0.2
889	6/5/2019 22:45:17	0.6	0.2
890	6/5/2019 22:46:17	0.6	0.2
891	6/5/2019 22:47:17	0.6	0.2
892	6/5/2019 22:48:17	0.6	0.2
893	6/5/2019 22:49:17	0.6	0.2
894	6/5/2019 22:50:17	0.6	0.2
895	6/5/2019 22:51:17	0.6	0.2
896	6/5/2019 22:52:17	0.6	0.2
897	6/5/2019 22:53:17	0.6	0.2
898	6/5/2019 22:54:17	0.6	0.2
899	6/5/2019 22:55:17	0.6	0.2
900	6/5/2019 22:56:17	0.6	0.2
901	6/5/2019 22:57:17	0.6	0.2
902	6/5/2019 22:58:17	0.6	0.2
903	6/5/2019 22:59:17	0.6	0.2
904	6/5/2019 23:00:17	0.6	0.2
905	6/5/2019 23:01:17	0.6	0.2
906	6/5/2019 23:02:17	0.6	0.2
907	6/5/2019 23:03:17	0.6	0.2
908	6/5/2019 23:04:17	0.6	0.2
909	6/5/2019 23:05:17	0.6	0.2
910	6/5/2019 23:06:17	0.6	0.2
911	6/5/2019 23:07:17	0.6	0.2
912	6/5/2019 23:08:17	0.6	0.2

913	6/5/2019 23:09:17	0.6	0.2
914	6/5/2019 23:10:17	0.6	0.2
915	6/5/2019 23:11:17	0.6	0.2
916	6/5/2019 23:12:17	0.6	0.2
917	6/5/2019 23:13:17	0.6	0.2
918	6/5/2019 23:14:17	0.6	0.2
919	6/5/2019 23:15:17	0.6	0.2
920	6/5/2019 23:16:17	0.6	0.2
921	6/5/2019 23:17:17	0.6	0.2
922	6/5/2019 23:18:17	0.6	0.2
923	6/5/2019 23:19:17	0.6	0.2
924	6/5/2019 23:20:17	0.6	0.2
925	6/5/2019 23:21:17	0.6	0.2
926	6/5/2019 23:22:17	0.6	0.2
927	6/5/2019 23:23:17	0.6	0.2
928	6/5/2019 23:24:17	0.6	0.1
929	6/5/2019 23:25:17	0.6	0.1
930	6/5/2019 23:26:17	0.6	0.1
931	6/5/2019 23:27:17	0.6	0.1
932	6/5/2019 23:28:17	0.6	0.1
933	6/5/2019 23:29:17	0.6	0.1
934	6/5/2019 23:30:17	0.6	0.1
935	6/5/2019 23:31:17	0.6	0.1
936	6/5/2019 23:32:17	0.6	0.1
937	6/5/2019 23:33:17	0.6	0.1
938	6/5/2019 23:34:17	0.6	0.1
939	6/5/2019 23:35:17	0.6	0.1
940	6/5/2019 23:36:17	0.6	0.1
941	6/5/2019 23:37:17	0.6	0.1
942	6/5/2019 23:38:17	0.6	0.1
943	6/5/2019 23:39:17	0.6	0.1

944	6/5/2019 23:40:17	0.6	0.1
945	6/5/2019 23:41:17	0.6	0.1
946	6/5/2019 23:42:17	0.6	0.1
947	6/5/2019 23:43:17	0.6	0.1
948	6/5/2019 23:44:17	0.6	0.1
949	6/5/2019 23:45:17	0.6	0.1
950	6/5/2019 23:46:17	0.6	0.1
951	6/5/2019 23:47:17	0.6	0.1
952	6/5/2019 23:48:17	0.6	0.1
953	6/5/2019 23:49:17	0.6	0.1
954	6/5/2019 23:50:17	0.6	0.1
955	6/5/2019 23:51:17	0.6	0.1
956	6/5/2019 23:52:17	0.6	0.1
957	6/5/2019 23:53:17	0.6	0.1
958	6/5/2019 23:54:17	0.6	0.1
959	6/5/2019 23:55:17	0.6	0.1
960	6/5/2019 23:56:17	0.6	0.1
961	6/5/2019 23:57:17	0.6	0.1
962	6/5/2019 23:58:17	0.6	0.1
963	6/5/2019 23:59:17	0.6	0.1
964	6/6/2019 00:00:17	0.6	0.1
965	6/6/2019 00:01:17	0.6	0.1
966	6/6/2019 00:02:17	0.6	0.1
967	6/6/2019 00:03:17	0.6	0.1
968	6/6/2019 00:04:17	0.6	0.1
969	6/6/2019 00:05:17	0.6	0.1
970	6/6/2019 00:06:17	0.6	0.1
971	6/6/2019 00:07:17	0.6	0.1
972	6/6/2019 00:08:17	0.6	0.1
973	6/6/2019 00:09:17	0.6	0.1
974	6/6/2019 00:10:17	0.6	0.1

975	6/6/2019 00:11:17	0.6	0.1
976	6/6/2019 00:12:17	0.6	0.1
977	6/6/2019 00:13:17	0.6	0.1
978	6/6/2019 00:14:17	0.6	0.1
979	6/6/2019 00:15:17	0.6	0.1
980	6/6/2019 00:16:17	0.6	0.1
981	6/6/2019 00:17:17	0.6	0.1
982	6/6/2019 00:18:17	0.6	0.1
983	6/6/2019 00:19:17	0.6	0.1
984	6/6/2019 00:20:17	0.6	0.1
985	6/6/2019 00:21:17	0.6	0.1
986	6/6/2019 00:22:17	0.6	0.1
987	6/6/2019 00:23:17	0.6	0.1
988	6/6/2019 00:24:17	0.6	0.1
989	6/6/2019 00:25:17	0.6	0.1
990	6/6/2019 00:26:17	0.6	0.1
991	6/6/2019 00:27:17	0.6	0.1
992	6/6/2019 00:28:17	0.6	0.1
993	6/6/2019 00:29:17	0.6	0.1
994	6/6/2019 00:30:17	0.6	0.1
995	6/6/2019 00:31:17	0.6	0.1
996	6/6/2019 00:32:17	0.6	0.1
997	6/6/2019 00:33:17	0.6	0.1
998	6/6/2019 00:34:17	0.6	0.1
999	6/6/2019 00:35:17	0.6	0.1
1000	6/6/2019 00:36:17	0.6	0.1
1001	6/6/2019 00:37:17	0.6	0.1
1002	6/6/2019 00:38:17	0.6	0.1
1003	6/6/2019 00:39:17	0.6	0.1
1004	6/6/2019 00:40:17	0.6	0.1
1005	6/6/2019 00:41:17	0.6	0.1

1006	6/6/2019 00:42:17	0.6	0.1
1007	6/6/2019 00:43:17	0.6	0.1
1008	6/6/2019 00:44:17	0.6	0.1
1009	6/6/2019 00:45:17	0.6	0.1
1010	6/6/2019 00:46:17	0.6	0.1
1011	6/6/2019 00:47:17	0.6	0.1
1012	6/6/2019 00:48:17	0.6	0.1
1013	6/6/2019 00:49:17	0.6	0.1
1014	6/6/2019 00:50:17	0.6	0.1
1015	6/6/2019 00:51:17	0.6	0.1
1016	6/6/2019 00:52:17	0.6	0.1
1017	6/6/2019 00:53:17	0.6	0.1
1018	6/6/2019 00:54:17	0.6	0.1
1019	6/6/2019 00:55:17	0.6	0.1
1020	6/6/2019 00:56:17	0.6	0.1
1021	6/6/2019 00:57:17	0.6	0.1
1022	6/6/2019 00:58:17	0.6	0.1
1023	6/6/2019 00:59:17	0.6	0.1

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19/04/29 11:44
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00002
User ID	00000001

Begin	4/29/2019 11:44:10
End	4/29/2019 13:24:03
Sample Period(s)	60
Number of Records	99

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0

STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	4/26/2019 16:01
Peak	0.6
Min	0.0
Average	0.1

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	4/29/2019	11:45:10	0.0	0.0	0.1	0.0
002	4/29/2019	11:46:10	0.0	0.0	0.0	0.0
003	4/29/2019	11:47:10	0.0	0.0	0.0	0.0
004	4/29/2019	11:48:10	0.0	0.0	0.0	0.0
005	4/29/2019	11:49:10	0.0	0.0	0.0	0.0
006	4/29/2019	11:50:10	0.0	0.0	0.0	0.0
007	4/29/2019	11:51:10	0.0	0.0	0.0	0.0
008	4/29/2019	11:52:10	0.0	0.0	0.0	0.0
009	4/29/2019	11:53:10	0.0	0.0	0.0	0.0
010	4/29/2019	11:54:10	0.0	0.0	0.0	0.0
011	4/29/2019	11:55:10	0.0	0.0	0.0	0.0
012	4/29/2019	11:56:10	0.0	0.0	0.0	0.0
013	4/29/2019	11:57:10	0.0	0.0	0.0	0.0
014	4/29/2019	11:58:10	0.0	0.0	0.0	0.0
015	4/29/2019	11:59:10	0.0	0.0	0.0	0.0
016	4/29/2019	12:00:10	0.0	0.0	0.0	0.0
017	4/29/2019	12:01:10	0.0	0.0	0.0	0.0
018	4/29/2019	12:02:10	0.0	0.0	0.0	0.0
019	4/29/2019	12:03:10	0.0	0.0	0.0	0.0

020	4/29/2019 12:04:10	0.0	0.0	0.0	0.0
021	4/29/2019 12:05:10	0.0	0.0	0.0	0.0
022	4/29/2019 12:06:10	0.0	0.0	0.0	0.0
023	4/29/2019 12:07:10	0.0	0.0	0.0	0.0
024	4/29/2019 12:08:10	0.0	0.0	0.0	0.0
025	4/29/2019 12:09:10	0.0	0.0	0.0	0.0
026	4/29/2019 12:10:10	0.0	0.0	0.0	0.0
027	4/29/2019 12:11:10	0.0	0.0	0.0	0.0
028	4/29/2019 12:12:10	0.0	0.0	0.0	0.0
029	4/29/2019 12:13:10	0.0	0.0	0.0	0.0
030	4/29/2019 12:14:10	0.0	0.0	0.0	0.0
031	4/29/2019 12:15:10	0.0	0.0	0.0	0.0
032	4/29/2019 12:16:10	0.0	0.0	0.0	0.0
033	4/29/2019 12:17:10	0.0	0.0	0.0	0.0
034	4/29/2019 12:18:10	0.0	0.0	0.0	0.0
035	4/29/2019 12:19:10	0.0	0.0	0.0	0.0
036	4/29/2019 12:20:10	0.0	0.0	0.0	0.0
037	4/29/2019 12:21:10	0.0	0.0	0.0	0.0
038	4/29/2019 12:22:10	0.0	0.0	0.0	0.0
039	4/29/2019 12:23:10	0.0	0.0	0.0	0.0
040	4/29/2019 12:24:10	0.0	0.0	0.0	0.0
041	4/29/2019 12:25:10	0.0	0.0	0.0	0.0
042	4/29/2019 12:26:10	0.0	0.0	0.1	0.0
043	4/29/2019 12:27:10	0.0	0.0	0.1	0.0
044	4/29/2019 12:28:10	0.0	0.0	0.0	0.0
045	4/29/2019 12:29:10	0.0	0.0	0.1	0.0
046	4/29/2019 12:30:10	0.0	0.0	0.1	0.1
047	4/29/2019 12:31:10	0.0	0.1	0.1	0.1
048	4/29/2019 12:32:10	0.1	0.1	0.1	0.1
049	4/29/2019 12:33:10	0.1	0.1	0.1	0.1
050	4/29/2019 12:34:10	0.1	0.1	0.2	0.1

051	4/29/2019 12:35:10	0.1	0.1	0.1	0.1
052	4/29/2019 12:36:10	0.1	0.1	0.1	0.1
053	4/29/2019 12:37:10	0.1	0.1	0.1	0.1
054	4/29/2019 12:38:10	0.0	0.1	0.1	0.1
055	4/29/2019 12:39:10	0.0	0.1	0.1	0.1
056	4/29/2019 12:40:10	0.0	0.1	0.1	0.0
057	4/29/2019 12:41:10	0.0	0.1	0.1	0.1
058	4/29/2019 12:42:10	0.0	0.1	0.1	0.1
059	4/29/2019 12:43:10	0.0	0.2	0.6	0.6
060	4/29/2019 12:44:10	0.1	0.2	0.8	0.1
061	4/29/2019 12:45:10	0.1	0.1	0.1	0.1
062	4/29/2019 12:46:10	0.0	0.1	0.1	0.1
063	4/29/2019 12:47:10	0.0	0.1	0.1	0.1
064	4/29/2019 12:48:10	0.0	0.0	0.1	0.0
065	4/29/2019 12:49:10	0.0	0.0	0.1	0.0
066	4/29/2019 12:50:10	0.0	0.0	0.1	0.0
067	4/29/2019 12:51:10	0.0	0.1	0.1	0.0
068	4/29/2019 12:52:10	0.0	0.1	0.1	0.0
069	4/29/2019 12:53:10	0.0	0.1	0.1	0.1
070	4/29/2019 12:54:10	0.1	0.1	0.1	0.1
071	4/29/2019 12:55:10	0.0	0.1	0.1	0.1
072	4/29/2019 12:56:10	0.1	0.1	0.1	0.1
073	4/29/2019 12:57:10	0.1	0.1	0.1	0.1
074	4/29/2019 12:58:10	0.1	0.1	0.1	0.1
075	4/29/2019 12:59:10	0.1	0.1	0.1	0.1
076	4/29/2019 13:00:10	0.0	0.1	0.1	0.1
077	4/29/2019 13:01:10	0.0	0.1	0.1	0.1
078	4/29/2019 13:02:10	0.1	0.1	0.1	0.1
079	4/29/2019 13:03:10	0.1	0.1	0.1	0.1
080	4/29/2019 13:04:10	0.1	0.1	0.1	0.1
081	4/29/2019 13:05:10	0.1	0.1	0.1	0.1

082	4/29/2019	13:06:10	0.0	0.1	0.1	0.1
083	4/29/2019	13:07:10	0.1	0.1	0.1	0.1
084	4/29/2019	13:08:10	0.1	0.1	0.1	0.1
085	4/29/2019	13:09:10	0.1	0.1	0.1	0.1
086	4/29/2019	13:10:10	0.0	0.1	0.1	0.1
087	4/29/2019	13:11:10	0.1	0.1	0.1	0.1
088	4/29/2019	13:12:10	0.1	0.1	0.1	0.1
089	4/29/2019	13:13:10	0.1	0.1	0.1	0.1
090	4/29/2019	13:14:10	0.1	0.1	0.1	0.1
091	4/29/2019	13:15:10	0.1	0.1	0.1	0.1
092	4/29/2019	13:16:10	0.1	0.1	0.1	0.1
093	4/29/2019	13:17:10	0.1	0.1	0.1	0.1
094	4/29/2019	13:18:10	0.1	0.1	0.1	0.1
095	4/29/2019	13:19:10	0.1	0.1	0.1	0.1
096	4/29/2019	13:20:10	0.1	0.1	0.1	0.1
097	4/29/2019	13:21:10	0.1	0.1	0.1	0.1
098	4/29/2019	13:22:10	0.1	0.1	0.1	0.1
099	4/29/2019	13:23:10	0.1	0.1	0.1	0.1
Peak			0.1	0.2	0.8	0.6
Min			0.0	0.0	0.0	0.0
Average			0.0	0.1	0.1	0.1

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	4/29/2019	11:45:10	0.0	---
002	4/29/2019	11:46:10	0.0	---
003	4/29/2019	11:47:10	0.0	---
004	4/29/2019	11:48:10	0.0	---
005	4/29/2019	11:49:10	0.0	---

006	4/29/2019 11:50:10	0.0	---
007	4/29/2019 11:51:10	0.0	---
008	4/29/2019 11:52:10	0.0	---
009	4/29/2019 11:53:10	0.0	---
010	4/29/2019 11:54:10	0.0	---
011	4/29/2019 11:55:10	0.0	---
012	4/29/2019 11:56:10	0.0	---
013	4/29/2019 11:57:10	0.0	---
014	4/29/2019 11:58:10	0.0	---
015	4/29/2019 11:59:10	0.0	0.0
016	4/29/2019 12:00:10	0.0	0.0
017	4/29/2019 12:01:10	0.0	0.0
018	4/29/2019 12:02:10	0.0	0.0
019	4/29/2019 12:03:10	0.0	0.0
020	4/29/2019 12:04:10	0.0	0.0
021	4/29/2019 12:05:10	0.0	0.0
022	4/29/2019 12:06:10	0.0	0.0
023	4/29/2019 12:07:10	0.0	0.0
024	4/29/2019 12:08:10	0.0	0.0
025	4/29/2019 12:09:10	0.0	0.0
026	4/29/2019 12:10:10	0.0	0.0
027	4/29/2019 12:11:10	0.0	0.0
028	4/29/2019 12:12:10	0.0	0.0
029	4/29/2019 12:13:10	0.0	0.0
030	4/29/2019 12:14:10	0.0	0.0
031	4/29/2019 12:15:10	0.0	0.0
032	4/29/2019 12:16:10	0.0	0.0
033	4/29/2019 12:17:10	0.0	0.0
034	4/29/2019 12:18:10	0.0	0.0
035	4/29/2019 12:19:10	0.0	0.0
036	4/29/2019 12:20:10	0.0	0.0

037	4/29/2019 12:21:10	0.0	0.0
038	4/29/2019 12:22:10	0.0	0.0
039	4/29/2019 12:23:10	0.0	0.0
040	4/29/2019 12:24:10	0.0	0.0
041	4/29/2019 12:25:10	0.0	0.0
042	4/29/2019 12:26:10	0.0	0.0
043	4/29/2019 12:27:10	0.0	0.0
044	4/29/2019 12:28:10	0.0	0.0
045	4/29/2019 12:29:10	0.0	0.0
046	4/29/2019 12:30:10	0.0	0.0
047	4/29/2019 12:31:10	0.0	0.0
048	4/29/2019 12:32:10	0.0	0.0
049	4/29/2019 12:33:10	0.0	0.0
050	4/29/2019 12:34:10	0.0	0.0
051	4/29/2019 12:35:10	0.0	0.0
052	4/29/2019 12:36:10	0.0	0.0
053	4/29/2019 12:37:10	0.0	0.1
054	4/29/2019 12:38:10	0.0	0.1
055	4/29/2019 12:39:10	0.0	0.1
056	4/29/2019 12:40:10	0.0	0.1
057	4/29/2019 12:41:10	0.0	0.1
058	4/29/2019 12:42:10	0.0	0.1
059	4/29/2019 12:43:10	0.0	0.1
060	4/29/2019 12:44:10	0.0	0.1
061	4/29/2019 12:45:10	0.0	0.1
062	4/29/2019 12:46:10	0.0	0.1
063	4/29/2019 12:47:10	0.0	0.1
064	4/29/2019 12:48:10	0.0	0.1
065	4/29/2019 12:49:10	0.0	0.1
066	4/29/2019 12:50:10	0.0	0.1
067	4/29/2019 12:51:10	0.0	0.1

068	4/29/2019 12:52:10	0.0	0.1
069	4/29/2019 12:53:10	0.0	0.1
070	4/29/2019 12:54:10	0.0	0.1
071	4/29/2019 12:55:10	0.0	0.1
072	4/29/2019 12:56:10	0.0	0.1
073	4/29/2019 12:57:10	0.0	0.1
074	4/29/2019 12:58:10	0.0	0.1
075	4/29/2019 12:59:10	0.0	0.1
076	4/29/2019 13:00:10	0.0	0.1
077	4/29/2019 13:01:10	0.0	0.1
078	4/29/2019 13:02:10	0.0	0.1
079	4/29/2019 13:03:10	0.0	0.1
080	4/29/2019 13:04:10	0.0	0.1
081	4/29/2019 13:05:10	0.0	0.1
082	4/29/2019 13:06:10	0.0	0.1
083	4/29/2019 13:07:10	0.0	0.1
084	4/29/2019 13:08:10	0.0	0.1
085	4/29/2019 13:09:10	0.0	0.1
086	4/29/2019 13:10:10	0.0	0.1
087	4/29/2019 13:11:10	0.0	0.1
088	4/29/2019 13:12:10	0.0	0.1
089	4/29/2019 13:13:10	0.0	0.1
090	4/29/2019 13:14:10	0.0	0.1
091	4/29/2019 13:15:10	0.0	0.1
092	4/29/2019 13:16:10	0.0	0.1
093	4/29/2019 13:17:10	0.0	0.1
094	4/29/2019 13:18:10	0.0	0.1
095	4/29/2019 13:19:10	0.0	0.1
096	4/29/2019 13:20:10	0.0	0.1
097	4/29/2019 13:21:10	0.0	0.1
098	4/29/2019 13:22:10	0.0	0.1

099 4/29/2019 13:23:10 0.0 0.1
甄==========
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19/04/30 07:59
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-904392
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Stop by User

Site ID RAE00002
User ID 00000001

Begin 4/30/2019 07:59:20
End 4/30/2019 14:10:44
Sample Period(s) 60
Number of Records 371

Sensor PID(ppm)
Sensor SN S023030001MA
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 10050.0
High Alarm 10100.0

Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	4/26/2019 16:01
Peak	0.2
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	4/30/2019	08:00:20	0.0	0.0	0.0	0.0
002	4/30/2019	08:01:20	0.0	0.0	0.0	0.0
003	4/30/2019	08:02:20	0.0	0.0	0.0	0.0
004	4/30/2019	08:03:20	0.0	0.0	0.0	0.0
005	4/30/2019	08:04:20	0.0	0.0	0.0	0.0
006	4/30/2019	08:05:20	0.0	0.0	0.0	0.0
007	4/30/2019	08:06:20	0.0	0.0	0.0	0.0
008	4/30/2019	08:07:20	0.0	0.0	0.0	0.0
009	4/30/2019	08:08:20	0.0	0.0	0.0	0.0
010	4/30/2019	08:09:20	0.0	0.0	0.0	0.0
011	4/30/2019	08:10:20	0.0	0.0	0.0	0.0
012	4/30/2019	08:11:20	0.0	0.0	0.0	0.0
013	4/30/2019	08:12:20	0.0	0.0	0.0	0.0
014	4/30/2019	08:13:20	0.0	0.0	0.0	0.0
015	4/30/2019	08:14:20	0.0	0.0	0.0	0.0
016	4/30/2019	08:15:20	0.0	0.0	0.0	0.0
017	4/30/2019	08:16:20	0.0	0.0	0.0	0.0
018	4/30/2019	08:17:20	0.0	0.0	0.0	0.0

019	4/30/2019 08:18:20	0.0	0.0	0.0	0.0
020	4/30/2019 08:19:20	0.0	0.0	0.0	0.0
021	4/30/2019 08:20:20	0.0	0.0	0.0	0.0
022	4/30/2019 08:21:20	0.0	0.0	0.0	0.0
023	4/30/2019 08:22:20	0.0	0.0	0.0	0.0
024	4/30/2019 08:23:20	0.0	0.0	0.0	0.0
025	4/30/2019 08:24:20	0.0	0.0	0.0	0.0
026	4/30/2019 08:25:20	0.0	0.0	0.0	0.0
027	4/30/2019 08:26:20	0.0	0.0	0.0	0.0
028	4/30/2019 08:27:20	0.0	0.0	0.0	0.0
029	4/30/2019 08:28:20	0.0	0.0	0.0	0.0
030	4/30/2019 08:29:20	0.0	0.0	0.0	0.0
031	4/30/2019 08:30:20	0.0	0.0	0.0	0.0
032	4/30/2019 08:31:20	0.0	0.0	0.0	0.0
033	4/30/2019 08:32:20	0.0	0.0	0.0	0.0
034	4/30/2019 08:33:20	0.0	0.0	0.0	0.0
035	4/30/2019 08:34:20	0.0	0.0	0.0	0.0
036	4/30/2019 08:35:20	0.0	0.0	0.0	0.0
037	4/30/2019 08:36:20	0.0	0.0	0.0	0.0
038	4/30/2019 08:37:20	0.0	0.0	0.0	0.0
039	4/30/2019 08:38:20	0.0	0.0	0.0	0.0
040	4/30/2019 08:39:20	0.0	0.0	0.0	0.0
041	4/30/2019 08:40:20	0.0	0.0	0.0	0.0
042	4/30/2019 08:41:20	0.0	0.0	0.0	0.0
043	4/30/2019 08:42:20	0.0	0.0	0.0	0.0
044	4/30/2019 08:43:20	0.0	0.0	0.0	0.0
045	4/30/2019 08:44:20	0.0	0.0	0.0	0.0
046	4/30/2019 08:45:20	0.0	0.0	0.0	0.0
047	4/30/2019 08:46:20	0.0	0.0	0.0	0.0
048	4/30/2019 08:47:20	0.0	0.0	0.0	0.0
049	4/30/2019 08:48:20	0.0	0.0	0.0	0.0

050	4/30/2019	08:49:20	0.0	0.0	0.0	0.0
051	4/30/2019	08:50:20	0.0	0.0	0.0	0.0
052	4/30/2019	08:51:20	0.0	0.0	0.0	0.0
053	4/30/2019	08:52:20	0.0	0.0	0.0	0.0
054	4/30/2019	08:53:20	0.0	0.0	0.0	0.0
055	4/30/2019	08:54:20	0.0	0.0	0.0	0.0
056	4/30/2019	08:55:20	0.0	0.0	0.0	0.0
057	4/30/2019	08:56:20	0.0	0.0	0.0	0.0
058	4/30/2019	08:57:20	0.0	0.0	0.0	0.0
059	4/30/2019	08:58:20	0.0	0.0	0.0	0.0
060	4/30/2019	08:59:20	0.0	0.0	0.0	0.0
061	4/30/2019	09:00:20	0.0	0.0	0.0	0.0
062	4/30/2019	09:01:20	0.0	0.0	0.0	0.0
063	4/30/2019	09:02:20	0.0	0.0	0.0	0.0
064	4/30/2019	09:03:20	0.0	0.0	0.0	0.0
065	4/30/2019	09:04:20	0.0	0.0	0.0	0.0
066	4/30/2019	09:05:20	0.0	0.0	0.0	0.0
067	4/30/2019	09:06:20	0.0	0.0	0.0	0.0
068	4/30/2019	09:07:20	0.0	0.0	0.0	0.0
069	4/30/2019	09:08:20	0.0	0.0	0.0	0.0
070	4/30/2019	09:09:20	0.0	0.0	0.0	0.0
071	4/30/2019	09:10:20	0.0	0.0	0.0	0.0
072	4/30/2019	09:11:20	0.0	0.0	0.0	0.0
073	4/30/2019	09:12:20	0.0	0.0	0.0	0.0
074	4/30/2019	09:13:20	0.0	0.0	0.0	0.0
075	4/30/2019	09:14:20	0.0	0.0	0.0	0.0
076	4/30/2019	09:15:20	0.0	0.0	0.0	0.0
077	4/30/2019	09:16:20	0.0	0.0	0.0	0.0
078	4/30/2019	09:17:20	0.0	0.0	0.0	0.0
079	4/30/2019	09:18:20	0.0	0.0	0.0	0.0
080	4/30/2019	09:19:20	0.0	0.0	0.0	0.0

081	4/30/2019	09:20:20	0.0	0.0	0.0	0.0
082	4/30/2019	09:21:20	0.0	0.0	0.0	0.0
083	4/30/2019	09:22:20	0.0	0.0	0.0	0.0
084	4/30/2019	09:23:20	0.0	0.0	0.0	0.0
085	4/30/2019	09:24:20	0.0	0.0	0.0	0.0
086	4/30/2019	09:25:20	0.0	0.0	0.0	0.0
087	4/30/2019	09:26:20	0.0	0.0	0.0	0.0
088	4/30/2019	09:27:20	0.0	0.0	0.0	0.0
089	4/30/2019	09:28:20	0.0	0.0	0.0	0.0
090	4/30/2019	09:29:20	0.0	0.0	0.0	0.0
091	4/30/2019	09:30:20	0.0	0.0	0.0	0.0
092	4/30/2019	09:31:20	0.0	0.0	0.0	0.0
093	4/30/2019	09:32:20	0.0	0.0	0.0	0.0
094	4/30/2019	09:33:20	0.0	0.0	0.0	0.0
095	4/30/2019	09:34:20	0.0	0.0	0.0	0.0
096	4/30/2019	09:35:20	0.0	0.0	0.0	0.0
097	4/30/2019	09:36:20	0.0	0.0	0.0	0.0
098	4/30/2019	09:37:20	0.0	0.0	0.0	0.0
099	4/30/2019	09:38:20	0.0	0.0	0.0	0.0
100	4/30/2019	09:39:20	0.0	0.0	0.0	0.0
101	4/30/2019	09:40:20	0.0	0.0	0.0	0.0
102	4/30/2019	09:41:20	0.0	0.0	0.0	0.0
103	4/30/2019	09:42:20	0.0	0.0	0.0	0.0
104	4/30/2019	09:43:20	0.0	0.0	0.0	0.0
105	4/30/2019	09:44:20	0.0	0.0	0.0	0.0
106	4/30/2019	09:45:20	0.0	0.0	0.0	0.0
107	4/30/2019	09:46:20	0.0	0.0	0.0	0.0
108	4/30/2019	09:47:20	0.0	0.0	0.0	0.0
109	4/30/2019	09:48:20	0.0	0.0	0.0	0.0
110	4/30/2019	09:49:20	0.0	0.0	0.0	0.0
111	4/30/2019	09:50:20	0.0	0.0	0.0	0.0

112	4/30/2019 09:51:20	0.0	0.0	0.0	0.0
113	4/30/2019 09:52:20	0.0	0.0	0.0	0.0
114	4/30/2019 09:53:20	0.0	0.0	0.0	0.0
115	4/30/2019 09:54:20	0.0	0.0	0.0	0.0
116	4/30/2019 09:55:20	0.0	0.0	0.0	0.0
117	4/30/2019 09:56:20	0.0	0.0	0.0	0.0
118	4/30/2019 09:57:20	0.0	0.0	0.0	0.0
119	4/30/2019 09:58:20	0.0	0.0	0.1	0.0
120	4/30/2019 09:59:20	0.0	0.0	0.0	0.0
121	4/30/2019 10:00:20	0.0	0.0	0.0	0.0
122	4/30/2019 10:01:20	0.0	0.0	0.0	0.0
123	4/30/2019 10:02:20	0.0	0.0	0.1	0.0
124	4/30/2019 10:03:20	0.0	0.0	0.0	0.0
125	4/30/2019 10:04:20	0.0	0.0	0.0	0.0
126	4/30/2019 10:05:20	0.0	0.0	0.0	0.0
127	4/30/2019 10:06:20	0.0	0.0	0.0	0.0
128	4/30/2019 10:07:20	0.0	0.0	0.0	0.0
129	4/30/2019 10:08:20	0.0	0.0	0.1	0.0
130	4/30/2019 10:09:20	0.0	0.0	0.0	0.0
131	4/30/2019 10:10:20	0.0	0.0	0.0	0.0
132	4/30/2019 10:11:20	0.0	0.0	0.0	0.0
133	4/30/2019 10:12:20	0.0	0.0	0.1	0.0
134	4/30/2019 10:13:20	0.0	0.0	0.0	0.0
135	4/30/2019 10:14:20	0.0	0.0	0.0	0.0
136	4/30/2019 10:15:20	0.0	0.0	0.0	0.0
137	4/30/2019 10:16:20	0.0	0.0	0.0	0.0
138	4/30/2019 10:17:20	0.0	0.0	0.0	0.0
139	4/30/2019 10:18:20	0.0	0.0	0.0	0.0
140	4/30/2019 10:19:20	0.0	0.0	0.0	0.0
141	4/30/2019 10:20:20	0.0	0.0	0.0	0.0
142	4/30/2019 10:21:20	0.0	0.0	0.0	0.0

143	4/30/2019 10:22:20	0.0	0.0	0.0	0.0
144	4/30/2019 10:23:20	0.0	0.0	0.0	0.0
145	4/30/2019 10:24:20	0.0	0.0	0.1	0.0
146	4/30/2019 10:25:20	0.0	0.0	0.1	0.0
147	4/30/2019 10:26:20	0.0	0.0	0.1	0.0
148	4/30/2019 10:27:20	0.0	0.0	0.1	0.0
149	4/30/2019 10:28:20	0.0	0.0	0.0	0.0
150	4/30/2019 10:29:20	0.0	0.0	0.0	0.0
151	4/30/2019 10:30:20	0.0	0.0	0.0	0.0
152	4/30/2019 10:31:20	0.0	0.0	0.1	0.0
153	4/30/2019 10:32:20	0.0	0.0	0.1	0.0
154	4/30/2019 10:33:20	0.0	0.0	0.1	0.1
155	4/30/2019 10:34:20	0.0	0.1	0.1	0.0
156	4/30/2019 10:35:20	0.0	0.0	0.1	0.0
157	4/30/2019 10:36:20	0.0	0.0	0.1	0.1
158	4/30/2019 10:37:20	0.0	0.1	0.1	0.0
159	4/30/2019 10:38:20	0.0	0.0	0.0	0.0
160	4/30/2019 10:39:20	0.0	0.0	0.0	0.0
161	4/30/2019 10:40:20	0.0	0.0	0.0	0.0
162	4/30/2019 10:41:20	0.0	0.0	0.0	0.0
163	4/30/2019 10:42:20	0.0	0.0	0.0	0.0
164	4/30/2019 10:43:20	0.0	0.0	0.0	0.0
165	4/30/2019 10:44:20	0.0	0.0	0.0	0.0
166	4/30/2019 10:45:20	0.0	0.0	0.0	0.0
167	4/30/2019 10:46:20	0.0	0.0	0.0	0.0
168	4/30/2019 10:47:20	0.0	0.0	0.0	0.0
169	4/30/2019 10:48:20	0.0	0.0	0.0	0.0
170	4/30/2019 10:49:20	0.0	0.0	0.1	0.0
171	4/30/2019 10:50:20	0.0	0.0	0.0	0.0
172	4/30/2019 10:51:20	0.0	0.0	0.0	0.0
173	4/30/2019 10:52:20	0.0	0.0	0.0	0.0

174	4/30/2019	10:53:20	0.0	0.0	0.0	0.0
175	4/30/2019	10:54:20	0.0	0.0	0.0	0.0
176	4/30/2019	10:55:20	0.0	0.0	0.0	0.0
177	4/30/2019	10:56:20	0.0	0.0	0.1	0.0
178	4/30/2019	10:57:20	0.0	0.0	0.1	0.0
179	4/30/2019	10:58:20	0.0	0.0	0.1	0.0
180	4/30/2019	10:59:20	0.0	0.0	0.1	0.1
181	4/30/2019	11:00:20	0.0	0.0	0.0	0.0
182	4/30/2019	11:01:20	0.0	0.0	0.1	0.0
183	4/30/2019	11:02:20	0.0	0.0	0.1	0.1
184	4/30/2019	11:03:20	0.0	0.0	0.1	0.0
185	4/30/2019	11:04:20	0.0	0.0	0.1	0.0
186	4/30/2019	11:05:20	0.0	0.0	0.0	0.0
187	4/30/2019	11:06:20	0.0	0.0	0.1	0.1
188	4/30/2019	11:07:20	0.0	0.0	0.1	0.0
189	4/30/2019	11:08:20	0.0	0.0	0.1	0.0
190	4/30/2019	11:09:20	0.0	0.0	0.1	0.0
191	4/30/2019	11:10:20	0.0	0.0	0.0	0.0
192	4/30/2019	11:11:20	0.0	0.0	0.0	0.0
193	4/30/2019	11:12:20	0.0	0.0	0.0	0.0
194	4/30/2019	11:13:20	0.0	0.0	0.1	0.0
195	4/30/2019	11:14:20	0.0	0.0	0.0	0.0
196	4/30/2019	11:15:20	0.0	0.0	0.1	0.0
197	4/30/2019	11:16:20	0.0	0.0	0.0	0.0
198	4/30/2019	11:17:20	0.0	0.0	0.0	0.0
199	4/30/2019	11:18:20	0.0	0.0	0.1	0.0
200	4/30/2019	11:19:20	0.0	0.0	0.1	0.1
201	4/30/2019	11:20:20	0.0	0.0	0.1	0.0
202	4/30/2019	11:21:20	0.0	0.0	0.1	0.1
203	4/30/2019	11:22:20	0.0	0.0	0.1	0.0
204	4/30/2019	11:23:20	0.0	0.1	0.1	0.1

205	4/30/2019	11:24:20	0.0	0.1	0.1	0.1
206	4/30/2019	11:25:20	0.0	0.0	0.1	0.1
207	4/30/2019	11:26:20	0.1	0.1	0.1	0.1
208	4/30/2019	11:27:20	0.0	0.1	0.1	0.1
209	4/30/2019	11:28:20	0.0	0.1	0.1	0.1
210	4/30/2019	11:29:20	0.1	0.1	0.1	0.1
211	4/30/2019	11:30:20	0.0	0.1	0.1	0.1
212	4/30/2019	11:31:20	0.0	0.1	0.1	0.1
213	4/30/2019	11:32:20	0.0	0.1	0.1	0.0
214	4/30/2019	11:33:20	0.0	0.0	0.1	0.0
215	4/30/2019	11:34:20	0.0	0.0	0.1	0.0
216	4/30/2019	11:35:20	0.0	0.0	0.1	0.0
217	4/30/2019	11:36:20	0.0	0.0	0.0	0.0
218	4/30/2019	11:37:20	0.0	0.0	0.0	0.0
219	4/30/2019	11:38:20	0.0	0.0	0.0	0.0
220	4/30/2019	11:39:20	0.0	0.0	0.0	0.0
221	4/30/2019	11:40:20	0.0	0.0	0.1	0.0
222	4/30/2019	11:41:20	0.0	0.0	0.1	0.1
223	4/30/2019	11:42:20	0.0	0.0	0.1	0.0
224	4/30/2019	11:43:20	0.0	0.1	0.1	0.0
225	4/30/2019	11:44:20	0.0	0.0	0.1	0.0
226	4/30/2019	11:45:20	0.0	0.0	0.0	0.0
227	4/30/2019	11:46:20	0.0	0.0	0.1	0.0
228	4/30/2019	11:47:20	0.0	0.0	0.1	0.0
229	4/30/2019	11:48:20	0.0	0.1	0.1	0.0
230	4/30/2019	11:49:20	0.0	0.1	0.1	0.1
231	4/30/2019	11:50:20	0.1	0.1	0.1	0.1
232	4/30/2019	11:51:20	0.0	0.1	0.1	0.1
233	4/30/2019	11:52:20	0.1	0.1	0.1	0.1
234	4/30/2019	11:53:20	0.0	0.1	0.1	0.1
235	4/30/2019	11:54:20	0.1	0.1	0.1	0.1

236	4/30/2019 11:55:20	0.1	0.1	0.1	0.1
237	4/30/2019 11:56:20	0.1	0.1	0.1	0.1
238	4/30/2019 11:57:20	0.1	0.1	0.1	0.1
239	4/30/2019 11:58:20	0.1	0.1	0.1	0.1
240	4/30/2019 11:59:20	0.1	0.1	0.2	0.1
241	4/30/2019 12:00:20	0.0	0.1	0.2	0.1
242	4/30/2019 12:01:20	0.1	0.1	0.1	0.1
243	4/30/2019 12:02:20	0.1	0.1	0.1	0.1
244	4/30/2019 12:03:20	0.1	0.1	0.1	0.1
245	4/30/2019 12:04:20	0.0	0.1	0.1	0.1
246	4/30/2019 12:05:20	0.1	0.1	0.1	0.1
247	4/30/2019 12:06:20	0.1	0.1	0.1	0.1
248	4/30/2019 12:07:20	0.1	0.1	0.2	0.1
249	4/30/2019 12:08:20	0.1	0.1	0.2	0.1
250	4/30/2019 12:09:20	0.1	0.1	0.1	0.1
251	4/30/2019 12:10:20	0.1	0.1	0.2	0.1
252	4/30/2019 12:11:20	0.1	0.1	0.2	0.1
253	4/30/2019 12:12:20	0.1	0.1	0.2	0.1
254	4/30/2019 12:13:20	0.1	0.1	0.2	0.1
255	4/30/2019 12:14:20	0.1	0.1	0.1	0.1
256	4/30/2019 12:15:20	0.0	0.1	0.1	0.0
257	4/30/2019 12:16:20	0.0	0.1	0.1	0.1
258	4/30/2019 12:17:20	0.0	0.1	0.1	0.0
259	4/30/2019 12:18:20	0.0	0.0	0.1	0.0
260	4/30/2019 12:19:20	0.0	0.1	0.1	0.1
261	4/30/2019 12:20:20	0.0	0.1	0.1	0.1
262	4/30/2019 12:21:20	0.0	0.1	0.1	0.1
263	4/30/2019 12:22:20	0.0	0.1	0.1	0.0
264	4/30/2019 12:23:20	0.0	0.1	0.1	0.1
265	4/30/2019 12:24:20	0.0	0.1	0.1	0.1
266	4/30/2019 12:25:20	0.0	0.1	0.1	0.1

267	4/30/2019 12:26:20	0.0	0.1	0.1	0.1
268	4/30/2019 12:27:20	0.1	0.1	0.1	0.1
269	4/30/2019 12:28:20	0.1	0.1	0.2	0.1
270	4/30/2019 12:29:20	0.1	0.1	0.2	0.1
271	4/30/2019 12:30:20	0.1	0.1	0.1	0.1
272	4/30/2019 12:31:20	0.1	0.1	0.1	0.1
273	4/30/2019 12:32:20	0.1	0.1	0.1	0.1
274	4/30/2019 12:33:20	0.1	0.1	0.2	0.2
275	4/30/2019 12:34:20	0.1	0.1	0.2	0.1
276	4/30/2019 12:35:20	0.1	0.1	0.2	0.1
277	4/30/2019 12:36:20	0.1	0.1	0.2	0.1
278	4/30/2019 12:37:20	0.1	0.1	0.1	0.1
279	4/30/2019 12:38:20	0.0	0.1	0.1	0.1
280	4/30/2019 12:39:20	0.0	0.0	0.1	0.0
281	4/30/2019 12:40:20	0.0	0.0	0.1	0.0
282	4/30/2019 12:41:20	0.0	0.1	0.1	0.0
283	4/30/2019 12:42:20	0.0	0.1	0.1	0.1
284	4/30/2019 12:43:20	0.1	0.1	0.1	0.1
285	4/30/2019 12:44:20	0.1	0.1	0.1	0.1
286	4/30/2019 12:45:20	0.0	0.1	0.1	0.0
287	4/30/2019 12:46:20	0.0	0.1	0.1	0.1
288	4/30/2019 12:47:20	0.0	0.1	0.1	0.1
289	4/30/2019 12:48:20	0.1	0.1	0.1	0.1
290	4/30/2019 12:49:20	0.1	0.1	0.1	0.1
291	4/30/2019 12:50:20	0.1	0.1	0.1	0.1
292	4/30/2019 12:51:20	0.1	0.1	0.2	0.1
293	4/30/2019 12:52:20	0.1	0.1	0.1	0.1
294	4/30/2019 12:53:20	0.1	0.1	0.2	0.1
295	4/30/2019 12:54:20	0.0	0.1	0.1	0.1
296	4/30/2019 12:55:20	0.0	0.1	0.1	0.1
297	4/30/2019 12:56:20	0.0	0.1	0.1	0.0

298	4/30/2019 12:57:20	0.0	0.0	0.1	0.0
299	4/30/2019 12:58:20	0.0	0.0	0.1	0.1
300	4/30/2019 12:59:20	0.0	0.1	0.1	0.1
301	4/30/2019 13:00:20	0.0	0.0	0.1	0.1
302	4/30/2019 13:01:20	0.0	0.1	0.1	0.1
303	4/30/2019 13:02:20	0.0	0.1	0.1	0.1
304	4/30/2019 13:03:20	0.0	0.1	0.1	0.1
305	4/30/2019 13:04:20	0.0	0.1	0.1	0.1
306	4/30/2019 13:05:20	0.0	0.1	0.2	0.2
307	4/30/2019 13:06:20	0.1	0.1	0.1	0.1
308	4/30/2019 13:07:20	0.0	0.1	0.1	0.0
309	4/30/2019 13:08:20	0.0	0.1	0.1	0.1
310	4/30/2019 13:09:20	0.0	0.1	0.1	0.0
311	4/30/2019 13:10:20	0.0	0.1	0.1	0.0
312	4/30/2019 13:11:20	0.0	0.1	0.1	0.0
313	4/30/2019 13:12:20	0.0	0.0	0.1	0.0
314	4/30/2019 13:13:20	0.0	0.1	0.1	0.1
315	4/30/2019 13:14:20	0.1	0.1	0.1	0.1
316	4/30/2019 13:15:20	0.0	0.1	0.1	0.0
317	4/30/2019 13:16:20	0.0	0.1	0.1	0.0
318	4/30/2019 13:17:20	0.0	0.1	0.1	0.1
319	4/30/2019 13:18:20	0.0	0.1	0.1	0.0
320	4/30/2019 13:19:20	0.0	0.1	0.1	0.1
321	4/30/2019 13:20:20	0.0	0.1	0.1	0.1
322	4/30/2019 13:21:20	0.0	0.1	0.1	0.1
323	4/30/2019 13:22:20	0.0	0.1	0.1	0.1
324	4/30/2019 13:23:20	0.0	0.1	0.1	0.1
325	4/30/2019 13:24:20	0.0	0.1	0.1	0.0
326	4/30/2019 13:25:20	0.0	0.1	0.1	0.1
327	4/30/2019 13:26:20	0.0	0.1	0.1	0.1
328	4/30/2019 13:27:20	0.0	0.1	0.1	0.1

329	4/30/2019 13:28:20	0.0	0.1	0.1	0.1
330	4/30/2019 13:29:20	0.0	0.1	0.1	0.1
331	4/30/2019 13:30:20	0.1	0.1	0.1	0.1
332	4/30/2019 13:31:20	0.1	0.1	0.1	0.1
333	4/30/2019 13:32:20	0.1	0.1	0.1	0.1
334	4/30/2019 13:33:20	0.1	0.1	0.1	0.1
335	4/30/2019 13:34:20	0.1	0.1	0.1	0.1
336	4/30/2019 13:35:20	0.1	0.1	0.1	0.1
337	4/30/2019 13:36:20	0.1	0.1	0.1	0.1
338	4/30/2019 13:37:20	0.1	0.1	0.1	0.1
339	4/30/2019 13:38:20	0.1	0.1	0.1	0.1
340	4/30/2019 13:39:20	0.1	0.1	0.1	0.1
341	4/30/2019 13:40:20	0.0	0.1	0.1	0.1
342	4/30/2019 13:41:20	0.0	0.1	0.1	0.1
343	4/30/2019 13:42:20	0.0	0.1	0.1	0.1
344	4/30/2019 13:43:20	0.1	0.1	0.1	0.1
345	4/30/2019 13:44:20	0.1	0.1	0.1	0.1
346	4/30/2019 13:45:20	0.1	0.1	0.1	0.1
347	4/30/2019 13:46:20	0.1	0.1	0.1	0.1
348	4/30/2019 13:47:20	0.1	0.1	0.1	0.1
349	4/30/2019 13:48:20	0.1	0.1	0.1	0.1
350	4/30/2019 13:49:20	0.1	0.1	0.1	0.1
351	4/30/2019 13:50:20	0.1	0.1	0.1	0.1
352	4/30/2019 13:51:20	0.1	0.1	0.1	0.1
353	4/30/2019 13:52:20	0.1	0.1	0.1	0.1
354	4/30/2019 13:53:20	0.1	0.1	0.1	0.1
355	4/30/2019 13:54:20	0.0	0.1	0.1	0.0
356	4/30/2019 13:55:20	0.0	0.0	0.1	0.1
357	4/30/2019 13:56:20	0.0	0.1	0.1	0.1
358	4/30/2019 13:57:20	0.1	0.1	0.1	0.1
359	4/30/2019 13:58:20	0.0	0.1	0.1	0.1

360	4/30/2019	13:59:20	0.0	0.1	0.1	0.1
361	4/30/2019	14:00:20	0.1	0.1	0.1	0.1
362	4/30/2019	14:01:20	0.0	0.1	0.1	0.1
363	4/30/2019	14:02:20	0.1	0.1	0.1	0.1
364	4/30/2019	14:03:20	0.1	0.1	0.1	0.1
365	4/30/2019	14:04:20	0.1	0.1	0.1	0.1
366	4/30/2019	14:05:20	0.1	0.1	0.1	0.1
367	4/30/2019	14:06:20	0.1	0.1	0.1	0.1
368	4/30/2019	14:07:20	0.0	0.1	0.1	0.0
369	4/30/2019	14:08:20	0.0	0.1	0.1	0.1
370	4/30/2019	14:09:20	0.0	0.1	0.1	0.1
371	4/30/2019	14:10:20	0.0	0.1	0.1	0.1
Peak			0.1	0.1	0.2	0.2
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.1	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	4/30/2019	08:00:20	0.0	---
002	4/30/2019	08:01:20	0.0	---
003	4/30/2019	08:02:20	0.0	---
004	4/30/2019	08:03:20	0.0	---
005	4/30/2019	08:04:20	0.0	---
006	4/30/2019	08:05:20	0.0	---
007	4/30/2019	08:06:20	0.0	---
008	4/30/2019	08:07:20	0.0	---
009	4/30/2019	08:08:20	0.0	---
010	4/30/2019	08:09:20	0.0	---
011	4/30/2019	08:10:20	0.0	---

012	4/30/2019 08:11:20	0.0	---
013	4/30/2019 08:12:20	0.0	---
014	4/30/2019 08:13:20	0.0	---
015	4/30/2019 08:14:20	0.0	0.0
016	4/30/2019 08:15:20	0.0	0.0
017	4/30/2019 08:16:20	0.0	0.0
018	4/30/2019 08:17:20	0.0	0.0
019	4/30/2019 08:18:20	0.0	0.0
020	4/30/2019 08:19:20	0.0	0.0
021	4/30/2019 08:20:20	0.0	0.0
022	4/30/2019 08:21:20	0.0	0.0
023	4/30/2019 08:22:20	0.0	0.0
024	4/30/2019 08:23:20	0.0	0.0
025	4/30/2019 08:24:20	0.0	0.0
026	4/30/2019 08:25:20	0.0	0.0
027	4/30/2019 08:26:20	0.0	0.0
028	4/30/2019 08:27:20	0.0	0.0
029	4/30/2019 08:28:20	0.0	0.0
030	4/30/2019 08:29:20	0.0	0.0
031	4/30/2019 08:30:20	0.0	0.0
032	4/30/2019 08:31:20	0.0	0.0
033	4/30/2019 08:32:20	0.0	0.0
034	4/30/2019 08:33:20	0.0	0.0
035	4/30/2019 08:34:20	0.0	0.0
036	4/30/2019 08:35:20	0.0	0.0
037	4/30/2019 08:36:20	0.0	0.0
038	4/30/2019 08:37:20	0.0	0.0
039	4/30/2019 08:38:20	0.0	0.0
040	4/30/2019 08:39:20	0.0	0.0
041	4/30/2019 08:40:20	0.0	0.0
042	4/30/2019 08:41:20	0.0	0.0

043	4/30/2019 08:42:20	0.0	0.0
044	4/30/2019 08:43:20	0.0	0.0
045	4/30/2019 08:44:20	0.0	0.0
046	4/30/2019 08:45:20	0.0	0.0
047	4/30/2019 08:46:20	0.0	0.0
048	4/30/2019 08:47:20	0.0	0.0
049	4/30/2019 08:48:20	0.0	0.0
050	4/30/2019 08:49:20	0.0	0.0
051	4/30/2019 08:50:20	0.0	0.0
052	4/30/2019 08:51:20	0.0	0.0
053	4/30/2019 08:52:20	0.0	0.0
054	4/30/2019 08:53:20	0.0	0.0
055	4/30/2019 08:54:20	0.0	0.0
056	4/30/2019 08:55:20	0.0	0.0
057	4/30/2019 08:56:20	0.0	0.0
058	4/30/2019 08:57:20	0.0	0.0
059	4/30/2019 08:58:20	0.0	0.0
060	4/30/2019 08:59:20	0.0	0.0
061	4/30/2019 09:00:20	0.0	0.0
062	4/30/2019 09:01:20	0.0	0.0
063	4/30/2019 09:02:20	0.0	0.0
064	4/30/2019 09:03:20	0.0	0.0
065	4/30/2019 09:04:20	0.0	0.0
066	4/30/2019 09:05:20	0.0	0.0
067	4/30/2019 09:06:20	0.0	0.0
068	4/30/2019 09:07:20	0.0	0.0
069	4/30/2019 09:08:20	0.0	0.0
070	4/30/2019 09:09:20	0.0	0.0
071	4/30/2019 09:10:20	0.0	0.0
072	4/30/2019 09:11:20	0.0	0.0
073	4/30/2019 09:12:20	0.0	0.0

074	4/30/2019 09:13:20	0.0	0.0
075	4/30/2019 09:14:20	0.0	0.0
076	4/30/2019 09:15:20	0.0	0.0
077	4/30/2019 09:16:20	0.0	0.0
078	4/30/2019 09:17:20	0.0	0.0
079	4/30/2019 09:18:20	0.0	0.0
080	4/30/2019 09:19:20	0.0	0.0
081	4/30/2019 09:20:20	0.0	0.0
082	4/30/2019 09:21:20	0.0	0.0
083	4/30/2019 09:22:20	0.0	0.0
084	4/30/2019 09:23:20	0.0	0.0
085	4/30/2019 09:24:20	0.0	0.0
086	4/30/2019 09:25:20	0.0	0.0
087	4/30/2019 09:26:20	0.0	0.0
088	4/30/2019 09:27:20	0.0	0.0
089	4/30/2019 09:28:20	0.0	0.0
090	4/30/2019 09:29:20	0.0	0.0
091	4/30/2019 09:30:20	0.0	0.0
092	4/30/2019 09:31:20	0.0	0.0
093	4/30/2019 09:32:20	0.0	0.0
094	4/30/2019 09:33:20	0.0	0.0
095	4/30/2019 09:34:20	0.0	0.0
096	4/30/2019 09:35:20	0.0	0.0
097	4/30/2019 09:36:20	0.0	0.0
098	4/30/2019 09:37:20	0.0	0.0
099	4/30/2019 09:38:20	0.0	0.0
100	4/30/2019 09:39:20	0.0	0.0
101	4/30/2019 09:40:20	0.0	0.0
102	4/30/2019 09:41:20	0.0	0.0
103	4/30/2019 09:42:20	0.0	0.0
104	4/30/2019 09:43:20	0.0	0.0

105	4/30/2019 09:44:20	0.0	0.0
106	4/30/2019 09:45:20	0.0	0.0
107	4/30/2019 09:46:20	0.0	0.0
108	4/30/2019 09:47:20	0.0	0.0
109	4/30/2019 09:48:20	0.0	0.0
110	4/30/2019 09:49:20	0.0	0.0
111	4/30/2019 09:50:20	0.0	0.0
112	4/30/2019 09:51:20	0.0	0.0
113	4/30/2019 09:52:20	0.0	0.0
114	4/30/2019 09:53:20	0.0	0.0
115	4/30/2019 09:54:20	0.0	0.0
116	4/30/2019 09:55:20	0.0	0.0
117	4/30/2019 09:56:20	0.0	0.0
118	4/30/2019 09:57:20	0.0	0.0
119	4/30/2019 09:58:20	0.0	0.0
120	4/30/2019 09:59:20	0.0	0.0
121	4/30/2019 10:00:20	0.0	0.0
122	4/30/2019 10:01:20	0.0	0.0
123	4/30/2019 10:02:20	0.0	0.0
124	4/30/2019 10:03:20	0.0	0.0
125	4/30/2019 10:04:20	0.0	0.0
126	4/30/2019 10:05:20	0.0	0.0
127	4/30/2019 10:06:20	0.0	0.0
128	4/30/2019 10:07:20	0.0	0.0
129	4/30/2019 10:08:20	0.0	0.0
130	4/30/2019 10:09:20	0.0	0.0
131	4/30/2019 10:10:20	0.0	0.0
132	4/30/2019 10:11:20	0.0	0.0
133	4/30/2019 10:12:20	0.0	0.0
134	4/30/2019 10:13:20	0.0	0.0
135	4/30/2019 10:14:20	0.0	0.0

136	4/30/2019 10:15:20	0.0	0.0
137	4/30/2019 10:16:20	0.0	0.0
138	4/30/2019 10:17:20	0.0	0.0
139	4/30/2019 10:18:20	0.0	0.0
140	4/30/2019 10:19:20	0.0	0.0
141	4/30/2019 10:20:20	0.0	0.0
142	4/30/2019 10:21:20	0.0	0.0
143	4/30/2019 10:22:20	0.0	0.0
144	4/30/2019 10:23:20	0.0	0.0
145	4/30/2019 10:24:20	0.0	0.0
146	4/30/2019 10:25:20	0.0	0.0
147	4/30/2019 10:26:20	0.0	0.0
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149	4/30/2019 10:28:20	0.0	0.0
150	4/30/2019 10:29:20	0.0	0.0
151	4/30/2019 10:30:20	0.0	0.0
152	4/30/2019 10:31:20	0.0	0.0
153	4/30/2019 10:32:20	0.0	0.0
154	4/30/2019 10:33:20	0.0	0.0
155	4/30/2019 10:34:20	0.0	0.0
156	4/30/2019 10:35:20	0.0	0.0
157	4/30/2019 10:36:20	0.0	0.0
158	4/30/2019 10:37:20	0.0	0.0
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160	4/30/2019 10:39:20	0.0	0.0
161	4/30/2019 10:40:20	0.0	0.0
162	4/30/2019 10:41:20	0.0	0.0
163	4/30/2019 10:42:20	0.0	0.0
164	4/30/2019 10:43:20	0.0	0.0
165	4/30/2019 10:44:20	0.0	0.0
166	4/30/2019 10:45:20	0.0	0.0

167	4/30/2019 10:46:20	0.0	0.0
168	4/30/2019 10:47:20	0.0	0.0
169	4/30/2019 10:48:20	0.0	0.0
170	4/30/2019 10:49:20	0.0	0.0
171	4/30/2019 10:50:20	0.0	0.0
172	4/30/2019 10:51:20	0.0	0.0
173	4/30/2019 10:52:20	0.0	0.0
174	4/30/2019 10:53:20	0.0	0.0
175	4/30/2019 10:54:20	0.0	0.0
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177	4/30/2019 10:56:20	0.0	0.0
178	4/30/2019 10:57:20	0.0	0.0
179	4/30/2019 10:58:20	0.0	0.0
180	4/30/2019 10:59:20	0.0	0.0
181	4/30/2019 11:00:20	0.0	0.0
182	4/30/2019 11:01:20	0.0	0.0
183	4/30/2019 11:02:20	0.0	0.0
184	4/30/2019 11:03:20	0.0	0.0
185	4/30/2019 11:04:20	0.0	0.0
186	4/30/2019 11:05:20	0.0	0.0
187	4/30/2019 11:06:20	0.0	0.0
188	4/30/2019 11:07:20	0.0	0.0
189	4/30/2019 11:08:20	0.0	0.0
190	4/30/2019 11:09:20	0.0	0.0
191	4/30/2019 11:10:20	0.0	0.0
192	4/30/2019 11:11:20	0.0	0.0
193	4/30/2019 11:12:20	0.0	0.0
194	4/30/2019 11:13:20	0.0	0.0
195	4/30/2019 11:14:20	0.0	0.0
196	4/30/2019 11:15:20	0.0	0.0
197	4/30/2019 11:16:20	0.0	0.0

198	4/30/2019 11:17:20	0.0	0.0
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200	4/30/2019 11:19:20	0.0	0.0
201	4/30/2019 11:20:20	0.0	0.0
202	4/30/2019 11:21:20	0.0	0.0
203	4/30/2019 11:22:20	0.0	0.0
204	4/30/2019 11:23:20	0.0	0.0
205	4/30/2019 11:24:20	0.0	0.0
206	4/30/2019 11:25:20	0.0	0.0
207	4/30/2019 11:26:20	0.0	0.0
208	4/30/2019 11:27:20	0.0	0.0
209	4/30/2019 11:28:20	0.0	0.1
210	4/30/2019 11:29:20	0.0	0.1
211	4/30/2019 11:30:20	0.0	0.1
212	4/30/2019 11:31:20	0.0	0.1
213	4/30/2019 11:32:20	0.0	0.1
214	4/30/2019 11:33:20	0.0	0.1
215	4/30/2019 11:34:20	0.0	0.1
216	4/30/2019 11:35:20	0.0	0.1
217	4/30/2019 11:36:20	0.0	0.1
218	4/30/2019 11:37:20	0.0	0.1
219	4/30/2019 11:38:20	0.0	0.1
220	4/30/2019 11:39:20	0.0	0.1
221	4/30/2019 11:40:20	0.0	0.0
222	4/30/2019 11:41:20	0.0	0.0
223	4/30/2019 11:42:20	0.0	0.0
224	4/30/2019 11:43:20	0.0	0.0
225	4/30/2019 11:44:20	0.0	0.0
226	4/30/2019 11:45:20	0.0	0.0
227	4/30/2019 11:46:20	0.0	0.0
228	4/30/2019 11:47:20	0.0	0.0

229	4/30/2019 11:48:20	0.0	0.0
230	4/30/2019 11:49:20	0.0	0.0
231	4/30/2019 11:50:20	0.0	0.0
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233	4/30/2019 11:52:20	0.0	0.0
234	4/30/2019 11:53:20	0.0	0.0
235	4/30/2019 11:54:20	0.0	0.0
236	4/30/2019 11:55:20	0.0	0.1
237	4/30/2019 11:56:20	0.0	0.1
238	4/30/2019 11:57:20	0.0	0.1
239	4/30/2019 11:58:20	0.0	0.1
240	4/30/2019 11:59:20	0.0	0.1
241	4/30/2019 12:00:20	0.0	0.1
242	4/30/2019 12:01:20	0.0	0.1
243	4/30/2019 12:02:20	0.0	0.1
244	4/30/2019 12:03:20	0.0	0.1
245	4/30/2019 12:04:20	0.0	0.1
246	4/30/2019 12:05:20	0.0	0.1
247	4/30/2019 12:06:20	0.0	0.1
248	4/30/2019 12:07:20	0.0	0.1
249	4/30/2019 12:08:20	0.0	0.1
250	4/30/2019 12:09:20	0.0	0.1
251	4/30/2019 12:10:20	0.0	0.1
252	4/30/2019 12:11:20	0.0	0.1
253	4/30/2019 12:12:20	0.0	0.1
254	4/30/2019 12:13:20	0.0	0.1
255	4/30/2019 12:14:20	0.0	0.1
256	4/30/2019 12:15:20	0.0	0.1
257	4/30/2019 12:16:20	0.0	0.1
258	4/30/2019 12:17:20	0.0	0.1
259	4/30/2019 12:18:20	0.0	0.1

260	4/30/2019 12:19:20	0.0	0.1
261	4/30/2019 12:20:20	0.0	0.1
262	4/30/2019 12:21:20	0.0	0.1
263	4/30/2019 12:22:20	0.0	0.1
264	4/30/2019 12:23:20	0.0	0.1
265	4/30/2019 12:24:20	0.0	0.1
266	4/30/2019 12:25:20	0.0	0.1
267	4/30/2019 12:26:20	0.0	0.1
268	4/30/2019 12:27:20	0.0	0.1
269	4/30/2019 12:28:20	0.0	0.1
270	4/30/2019 12:29:20	0.0	0.1
271	4/30/2019 12:30:20	0.0	0.1
272	4/30/2019 12:31:20	0.0	0.1
273	4/30/2019 12:32:20	0.0	0.1
274	4/30/2019 12:33:20	0.0	0.1
275	4/30/2019 12:34:20	0.0	0.1
276	4/30/2019 12:35:20	0.0	0.1
277	4/30/2019 12:36:20	0.0	0.1
278	4/30/2019 12:37:20	0.0	0.1
279	4/30/2019 12:38:20	0.0	0.1
280	4/30/2019 12:39:20	0.0	0.1
281	4/30/2019 12:40:20	0.0	0.1
282	4/30/2019 12:41:20	0.0	0.1
283	4/30/2019 12:42:20	0.0	0.1
284	4/30/2019 12:43:20	0.0	0.1
285	4/30/2019 12:44:20	0.0	0.1
286	4/30/2019 12:45:20	0.0	0.1
287	4/30/2019 12:46:20	0.0	0.1
288	4/30/2019 12:47:20	0.0	0.1
289	4/30/2019 12:48:20	0.0	0.1
290	4/30/2019 12:49:20	0.0	0.1

291	4/30/2019 12:50:20	0.0	0.1
292	4/30/2019 12:51:20	0.0	0.1
293	4/30/2019 12:52:20	0.0	0.1
294	4/30/2019 12:53:20	0.0	0.1
295	4/30/2019 12:54:20	0.0	0.1
296	4/30/2019 12:55:20	0.0	0.1
297	4/30/2019 12:56:20	0.0	0.1
298	4/30/2019 12:57:20	0.0	0.1
299	4/30/2019 12:58:20	0.0	0.1
300	4/30/2019 12:59:20	0.0	0.1
301	4/30/2019 13:00:20	0.0	0.1
302	4/30/2019 13:01:20	0.0	0.1
303	4/30/2019 13:02:20	0.0	0.1
304	4/30/2019 13:03:20	0.0	0.1
305	4/30/2019 13:04:20	0.0	0.1
306	4/30/2019 13:05:20	0.0	0.1
307	4/30/2019 13:06:20	0.0	0.1
308	4/30/2019 13:07:20	0.0	0.1
309	4/30/2019 13:08:20	0.0	0.1
310	4/30/2019 13:09:20	0.0	0.1
311	4/30/2019 13:10:20	0.0	0.1
312	4/30/2019 13:11:20	0.0	0.1
313	4/30/2019 13:12:20	0.0	0.1
314	4/30/2019 13:13:20	0.0	0.1
315	4/30/2019 13:14:20	0.0	0.1
316	4/30/2019 13:15:20	0.0	0.1
317	4/30/2019 13:16:20	0.0	0.1
318	4/30/2019 13:17:20	0.0	0.1
319	4/30/2019 13:18:20	0.0	0.1
320	4/30/2019 13:19:20	0.0	0.1
321	4/30/2019 13:20:20	0.0	0.1

322	4/30/2019 13:21:20	0.0	0.1
323	4/30/2019 13:22:20	0.0	0.1
324	4/30/2019 13:23:20	0.0	0.1
325	4/30/2019 13:24:20	0.0	0.1
326	4/30/2019 13:25:20	0.0	0.1
327	4/30/2019 13:26:20	0.0	0.1
328	4/30/2019 13:27:20	0.0	0.1
329	4/30/2019 13:28:20	0.0	0.1
330	4/30/2019 13:29:20	0.0	0.1
331	4/30/2019 13:30:20	0.0	0.1
332	4/30/2019 13:31:20	0.0	0.1
333	4/30/2019 13:32:20	0.0	0.1
334	4/30/2019 13:33:20	0.0	0.1
335	4/30/2019 13:34:20	0.0	0.1
336	4/30/2019 13:35:20	0.0	0.1
337	4/30/2019 13:36:20	0.0	0.1
338	4/30/2019 13:37:20	0.0	0.1
339	4/30/2019 13:38:20	0.0	0.1
340	4/30/2019 13:39:20	0.0	0.1
341	4/30/2019 13:40:20	0.0	0.1
342	4/30/2019 13:41:20	0.0	0.1
343	4/30/2019 13:42:20	0.0	0.1
344	4/30/2019 13:43:20	0.0	0.1
345	4/30/2019 13:44:20	0.0	0.1
346	4/30/2019 13:45:20	0.0	0.1
347	4/30/2019 13:46:20	0.0	0.1
348	4/30/2019 13:47:20	0.0	0.1
349	4/30/2019 13:48:20	0.0	0.1
350	4/30/2019 13:49:20	0.0	0.1
351	4/30/2019 13:50:20	0.0	0.1
352	4/30/2019 13:51:20	0.0	0.1

353	4/30/2019 13:52:20	0.0	0.1
354	4/30/2019 13:53:20	0.0	0.1
355	4/30/2019 13:54:20	0.0	0.1
356	4/30/2019 13:55:20	0.0	0.1
357	4/30/2019 13:56:20	0.0	0.1
358	4/30/2019 13:57:20	0.0	0.1
359	4/30/2019 13:58:20	0.0	0.1
360	4/30/2019 13:59:20	0.0	0.1
361	4/30/2019 14:00:20	0.0	0.1
362	4/30/2019 14:01:20	0.0	0.1
363	4/30/2019 14:02:20	0.0	0.1
364	4/30/2019 14:03:20	0.0	0.1
365	4/30/2019 14:04:20	0.0	0.1
366	4/30/2019 14:05:20	0.0	0.1
367	4/30/2019 14:06:20	0.0	0.1
368	4/30/2019 14:07:20	0.0	0.1
369	4/30/2019 14:08:20	0.0	0.1
370	4/30/2019 14:09:20	0.0	0.1
371	4/30/2019 14:10:20	0.0	0.1

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19/05/01 07:57
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual

Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00002
User ID	00000001

Begin	5/1/2019 07:57:06
End	5/1/2019 14:02:34
Sample Period(s)	60
Number of Records	365

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	4/26/2019 16:01
Peak	0.3
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)

001	5/1/2019 07:58:06	0.0	0.0	0.0	0.0
002	5/1/2019 07:59:06	0.0	0.0	0.0	0.0
003	5/1/2019 08:00:06	0.0	0.0	0.0	0.0
004	5/1/2019 08:01:06	0.0	0.0	0.0	0.0
005	5/1/2019 08:02:06	0.0	0.0	0.0	0.0
006	5/1/2019 08:03:06	0.0	0.0	0.0	0.0
007	5/1/2019 08:04:06	0.0	0.0	0.0	0.0
008	5/1/2019 08:05:06	0.0	0.0	0.0	0.0
009	5/1/2019 08:06:06	0.0	0.0	0.0	0.0
010	5/1/2019 08:07:06	0.0	0.0	0.0	0.0
011	5/1/2019 08:08:06	0.0	0.0	0.0	0.0
012	5/1/2019 08:09:06	0.0	0.0	0.0	0.0
013	5/1/2019 08:10:06	0.0	0.0	0.0	0.0
014	5/1/2019 08:11:06	0.0	0.0	0.0	0.0
015	5/1/2019 08:12:06	0.0	0.0	0.0	0.0
016	5/1/2019 08:13:06	0.0	0.0	0.0	0.0
017	5/1/2019 08:14:06	0.0	0.0	0.0	0.0
018	5/1/2019 08:15:06	0.0	0.0	0.0	0.0
019	5/1/2019 08:16:06	0.0	0.0	0.0	0.0
020	5/1/2019 08:17:06	0.0	0.0	0.0	0.0
021	5/1/2019 08:18:06	0.0	0.0	0.0	0.0
022	5/1/2019 08:19:06	0.0	0.0	0.0	0.0
023	5/1/2019 08:20:06	0.0	0.0	0.0	0.0
024	5/1/2019 08:21:06	0.0	0.0	0.0	0.0
025	5/1/2019 08:22:06	0.0	0.0	0.0	0.0
026	5/1/2019 08:23:06	0.0	0.0	0.0	0.0
027	5/1/2019 08:24:06	0.0	0.0	0.0	0.0
028	5/1/2019 08:25:06	0.0	0.0	0.0	0.0
029	5/1/2019 08:26:06	0.0	0.0	0.0	0.0
030	5/1/2019 08:27:06	0.0	0.0	0.0	0.0
031	5/1/2019 08:28:06	0.0	0.0	0.0	0.0

032	5/1/2019 08:29:06	0.0	0.0	0.0	0.0
033	5/1/2019 08:30:06	0.0	0.0	0.0	0.0
034	5/1/2019 08:31:06	0.0	0.0	0.0	0.0
035	5/1/2019 08:32:06	0.0	0.0	0.0	0.0
036	5/1/2019 08:33:06	0.0	0.0	0.0	0.0
037	5/1/2019 08:34:06	0.0	0.0	0.0	0.0
038	5/1/2019 08:35:06	0.0	0.0	0.0	0.0
039	5/1/2019 08:36:06	0.0	0.0	0.0	0.0
040	5/1/2019 08:37:06	0.0	0.0	0.0	0.0
041	5/1/2019 08:38:06	0.0	0.0	0.0	0.0
042	5/1/2019 08:39:06	0.0	0.0	0.0	0.0
043	5/1/2019 08:40:06	0.0	0.0	0.0	0.0
044	5/1/2019 08:41:06	0.0	0.0	0.0	0.0
045	5/1/2019 08:42:06	0.0	0.0	0.0	0.0
046	5/1/2019 08:43:06	0.0	0.0	0.0	0.0
047	5/1/2019 08:44:06	0.0	0.0	0.0	0.0
048	5/1/2019 08:45:06	0.0	0.0	0.0	0.0
049	5/1/2019 08:46:06	0.0	0.0	0.0	0.0
050	5/1/2019 08:47:06	0.0	0.0	0.0	0.0
051	5/1/2019 08:48:06	0.0	0.0	0.0	0.0
052	5/1/2019 08:49:06	0.0	0.0	0.0	0.0
053	5/1/2019 08:50:06	0.0	0.0	0.0	0.0
054	5/1/2019 08:51:06	0.0	0.0	0.0	0.0
055	5/1/2019 08:52:06	0.0	0.0	0.0	0.0
056	5/1/2019 08:53:06	0.0	0.0	0.0	0.0
057	5/1/2019 08:54:06	0.0	0.0	0.0	0.0
058	5/1/2019 08:55:06	0.0	0.0	0.0	0.0
059	5/1/2019 08:56:06	0.0	0.0	0.0	0.0
060	5/1/2019 08:57:06	0.0	0.0	0.0	0.0
061	5/1/2019 08:58:06	0.0	0.0	0.0	0.0
062	5/1/2019 08:59:06	0.0	0.0	0.0	0.0

063	5/1/2019 09:00:06	0.0	0.0	0.0	0.0
064	5/1/2019 09:01:06	0.0	0.0	0.0	0.0
065	5/1/2019 09:02:06	0.0	0.0	0.0	0.0
066	5/1/2019 09:03:06	0.0	0.0	0.0	0.0
067	5/1/2019 09:04:06	0.0	0.0	0.0	0.0
068	5/1/2019 09:05:06	0.0	0.0	0.0	0.0
069	5/1/2019 09:06:06	0.0	0.0	0.0	0.0
070	5/1/2019 09:07:06	0.0	0.0	0.0	0.0
071	5/1/2019 09:08:06	0.0	0.0	0.0	0.0
072	5/1/2019 09:09:06	0.0	0.0	0.1	0.0
073	5/1/2019 09:10:06	0.0	0.0	0.0	0.0
074	5/1/2019 09:11:06	0.0	0.0	0.0	0.0
075	5/1/2019 09:12:06	0.0	0.0	0.0	0.0
076	5/1/2019 09:13:06	0.0	0.0	0.0	0.0
077	5/1/2019 09:14:06	0.0	0.0	0.0	0.0
078	5/1/2019 09:15:06	0.0	0.0	0.0	0.0
079	5/1/2019 09:16:06	0.0	0.0	0.0	0.0
080	5/1/2019 09:17:06	0.0	0.0	0.0	0.0
081	5/1/2019 09:18:06	0.0	0.0	0.0	0.0
082	5/1/2019 09:19:06	0.0	0.0	0.0	0.0
083	5/1/2019 09:20:06	0.0	0.0	0.0	0.0
084	5/1/2019 09:21:06	0.0	0.0	0.0	0.0
085	5/1/2019 09:22:06	0.0	0.0	0.0	0.0
086	5/1/2019 09:23:06	0.0	0.0	0.0	0.0
087	5/1/2019 09:24:06	0.0	0.0	0.0	0.0
088	5/1/2019 09:25:06	0.0	0.0	0.0	0.0
089	5/1/2019 09:26:06	0.0	0.0	0.0	0.0
090	5/1/2019 09:27:06	0.0	0.0	0.0	0.0
091	5/1/2019 09:28:06	0.0	0.0	0.0	0.0
092	5/1/2019 09:29:06	0.0	0.0	0.0	0.0
093	5/1/2019 09:30:06	0.0	0.0	0.3	0.0

094	5/1/2019 09:31:06	0.0	0.0	0.0	0.0
095	5/1/2019 09:32:06	0.0	0.0	0.0	0.0
096	5/1/2019 09:33:06	0.0	0.0	0.0	0.0
097	5/1/2019 09:34:06	0.0	0.0	0.0	0.0
098	5/1/2019 09:35:06	0.0	0.0	0.0	0.0
099	5/1/2019 09:36:06	0.0	0.0	0.0	0.0
100	5/1/2019 09:37:06	0.0	0.0	0.0	0.0
101	5/1/2019 09:38:06	0.0	0.0	0.0	0.0
102	5/1/2019 09:39:06	0.0	0.0	0.0	0.0
103	5/1/2019 09:40:06	0.0	0.0	0.0	0.0
104	5/1/2019 09:41:06	0.0	0.0	0.0	0.0
105	5/1/2019 09:42:06	0.0	0.0	0.0	0.0
106	5/1/2019 09:43:06	0.0	0.0	0.0	0.0
107	5/1/2019 09:44:06	0.0	0.0	0.0	0.0
108	5/1/2019 09:45:06	0.0	0.0	0.0	0.0
109	5/1/2019 09:46:06	0.0	0.0	0.0	0.0
110	5/1/2019 09:47:06	0.0	0.0	0.0	0.0
111	5/1/2019 09:48:06	0.0	0.0	0.0	0.0
112	5/1/2019 09:49:06	0.0	0.0	0.2	0.0
113	5/1/2019 09:50:06	0.0	0.0	0.0	0.0
114	5/1/2019 09:51:06	0.0	0.0	0.0	0.0
115	5/1/2019 09:52:06	0.0	0.0	0.0	0.0
116	5/1/2019 09:53:06	0.0	0.0	0.0	0.0
117	5/1/2019 09:54:06	0.0	0.0	0.0	0.0
118	5/1/2019 09:55:06	0.0	0.0	0.0	0.0
119	5/1/2019 09:56:06	0.0	0.0	0.0	0.0
120	5/1/2019 09:57:06	0.0	0.0	0.0	0.0
121	5/1/2019 09:58:06	0.0	0.0	0.0	0.0
122	5/1/2019 09:59:06	0.0	0.0	0.0	0.0
123	5/1/2019 10:00:06	0.0	0.0	0.0	0.0
124	5/1/2019 10:01:06	0.0	0.0	0.0	0.0

125	5/1/2019 10:02:06	0.0	0.0	0.0	0.0
126	5/1/2019 10:03:06	0.0	0.0	0.0	0.0
127	5/1/2019 10:04:06	0.0	0.0	0.0	0.0
128	5/1/2019 10:05:06	0.0	0.0	0.0	0.0
129	5/1/2019 10:06:06	0.0	0.0	0.0	0.0
130	5/1/2019 10:07:06	0.0	0.0	0.0	0.0
131	5/1/2019 10:08:06	0.0	0.0	0.0	0.0
132	5/1/2019 10:09:06	0.0	0.0	0.0	0.0
133	5/1/2019 10:10:06	0.0	0.0	0.0	0.0
134	5/1/2019 10:11:06	0.0	0.0	0.0	0.0
135	5/1/2019 10:12:06	0.0	0.0	0.0	0.0
136	5/1/2019 10:13:06	0.0	0.0	0.0	0.0
137	5/1/2019 10:14:06	0.0	0.0	0.0	0.0
138	5/1/2019 10:15:06	0.0	0.0	0.0	0.0
139	5/1/2019 10:16:06	0.0	0.0	0.0	0.0
140	5/1/2019 10:17:06	0.0	0.0	0.0	0.0
141	5/1/2019 10:18:06	0.0	0.0	0.0	0.0
142	5/1/2019 10:19:06	0.0	0.0	0.0	0.0
143	5/1/2019 10:20:06	0.0	0.0	0.0	0.0
144	5/1/2019 10:21:06	0.0	0.0	0.1	0.0
145	5/1/2019 10:22:06	0.0	0.0	0.0	0.0
146	5/1/2019 10:23:06	0.0	0.0	0.0	0.0
147	5/1/2019 10:24:06	0.0	0.0	0.0	0.0
148	5/1/2019 10:25:06	0.0	0.0	0.0	0.0
149	5/1/2019 10:26:06	0.0	0.0	0.0	0.0
150	5/1/2019 10:27:06	0.0	0.0	0.0	0.0
151	5/1/2019 10:28:06	0.0	0.0	0.0	0.0
152	5/1/2019 10:29:06	0.0	0.0	0.0	0.0
153	5/1/2019 10:30:06	0.0	0.0	0.0	0.0
154	5/1/2019 10:31:06	0.0	0.0	0.0	0.0
155	5/1/2019 10:32:06	0.0	0.0	0.0	0.0

156	5/1/2019 10:33:06	0.0	0.0	0.0	0.0
157	5/1/2019 10:34:06	0.0	0.0	0.0	0.0
158	5/1/2019 10:35:06	0.0	0.0	0.0	0.0
159	5/1/2019 10:36:06	0.0	0.0	0.0	0.0
160	5/1/2019 10:37:06	0.0	0.0	0.0	0.0
161	5/1/2019 10:38:06	0.0	0.0	0.0	0.0
162	5/1/2019 10:39:06	0.0	0.0	0.0	0.0
163	5/1/2019 10:40:06	0.0	0.0	0.0	0.0
164	5/1/2019 10:41:06	0.0	0.0	0.0	0.0
165	5/1/2019 10:42:06	0.0	0.0	0.0	0.0
166	5/1/2019 10:43:06	0.0	0.0	0.0	0.0
167	5/1/2019 10:44:06	0.0	0.0	0.0	0.0
168	5/1/2019 10:45:06	0.0	0.0	0.0	0.0
169	5/1/2019 10:46:06	0.0	0.0	0.0	0.0
170	5/1/2019 10:47:06	0.0	0.0	0.0	0.0
171	5/1/2019 10:48:06	0.0	0.0	0.0	0.0
172	5/1/2019 10:49:06	0.0	0.0	0.0	0.0
173	5/1/2019 10:50:06	0.0	0.0	0.0	0.0
174	5/1/2019 10:51:06	0.0	0.0	0.0	0.0
175	5/1/2019 10:52:06	0.0	0.0	0.0	0.0
176	5/1/2019 10:53:06	0.0	0.0	0.0	0.0
177	5/1/2019 10:54:06	0.0	0.0	0.0	0.0
178	5/1/2019 10:55:06	0.0	0.0	0.1	0.0
179	5/1/2019 10:56:06	0.0	0.0	0.1	0.0
180	5/1/2019 10:57:06	0.0	0.0	0.1	0.0
181	5/1/2019 10:58:06	0.0	0.0	0.1	0.0
182	5/1/2019 10:59:06	0.0	0.0	0.0	0.0
183	5/1/2019 11:00:06	0.0	0.0	0.0	0.0
184	5/1/2019 11:01:06	0.0	0.0	0.0	0.0
185	5/1/2019 11:02:06	0.0	0.0	0.0	0.0
186	5/1/2019 11:03:06	0.0	0.0	0.0	0.0

187	5/1/2019 11:04:06	0.0	0.0	0.0	0.0
188	5/1/2019 11:05:06	0.0	0.0	0.1	0.0
189	5/1/2019 11:06:06	0.0	0.0	0.1	0.0
190	5/1/2019 11:07:06	0.0	0.0	0.1	0.1
191	5/1/2019 11:08:06	0.0	0.0	0.1	0.0
192	5/1/2019 11:09:06	0.0	0.0	0.1	0.0
193	5/1/2019 11:10:06	0.0	0.1	0.1	0.1
194	5/1/2019 11:11:06	0.0	0.1	0.1	0.0
195	5/1/2019 11:12:06	0.0	0.0	0.1	0.0
196	5/1/2019 11:13:06	0.0	0.0	0.1	0.1
197	5/1/2019 11:14:06	0.0	0.0	0.1	0.0
198	5/1/2019 11:15:06	0.0	0.1	0.1	0.1
199	5/1/2019 11:16:06	0.0	0.0	0.1	0.0
200	5/1/2019 11:17:06	0.0	0.0	0.1	0.0
201	5/1/2019 11:18:06	0.0	0.0	0.0	0.0
202	5/1/2019 11:19:06	0.0	0.0	0.0	0.0
203	5/1/2019 11:20:06	0.0	0.0	0.0	0.0
204	5/1/2019 11:21:06	0.0	0.0	0.0	0.0
205	5/1/2019 11:22:06	0.0	0.0	0.0	0.0
206	5/1/2019 11:23:06	0.0	0.0	0.0	0.0
207	5/1/2019 11:24:06	0.0	0.0	0.0	0.0
208	5/1/2019 11:25:06	0.0	0.0	0.0	0.0
209	5/1/2019 11:26:06	0.0	0.0	0.0	0.0
210	5/1/2019 11:27:06	0.0	0.0	0.1	0.0
211	5/1/2019 11:28:06	0.0	0.0	0.1	0.1
212	5/1/2019 11:29:06	0.0	0.0	0.1	0.0
213	5/1/2019 11:30:06	0.0	0.0	0.1	0.1
214	5/1/2019 11:31:06	0.0	0.0	0.1	0.1
215	5/1/2019 11:32:06	0.0	0.0	0.1	0.0
216	5/1/2019 11:33:06	0.0	0.0	0.0	0.0
217	5/1/2019 11:34:06	0.0	0.0	0.1	0.1

218	5/1/2019 11:35:06	0.0	0.0	0.1	0.0
219	5/1/2019 11:36:06	0.0	0.1	0.1	0.1
220	5/1/2019 11:37:06	0.0	0.1	0.1	0.0
221	5/1/2019 11:38:06	0.0	0.0	0.1	0.0
222	5/1/2019 11:39:06	0.0	0.0	0.1	0.1
223	5/1/2019 11:40:06	0.1	0.1	0.1	0.1
224	5/1/2019 11:41:06	0.0	0.1	0.1	0.0
225	5/1/2019 11:42:06	0.0	0.0	0.1	0.0
226	5/1/2019 11:43:06	0.0	0.0	0.1	0.0
227	5/1/2019 11:44:06	0.0	0.1	0.1	0.1
228	5/1/2019 11:45:06	0.0	0.1	0.1	0.0
229	5/1/2019 11:46:06	0.0	0.1	0.1	0.1
230	5/1/2019 11:47:06	0.0	0.0	0.1	0.0
231	5/1/2019 11:48:06	0.0	0.0	0.0	0.0
232	5/1/2019 11:49:06	0.0	0.0	0.0	0.0
233	5/1/2019 11:50:06	0.0	0.0	0.0	0.0
234	5/1/2019 11:51:06	0.0	0.0	0.0	0.0
235	5/1/2019 11:52:06	0.0	0.0	0.0	0.0
236	5/1/2019 11:53:06	0.0	0.0	0.0	0.0
237	5/1/2019 11:54:06	0.0	0.0	0.0	0.0
238	5/1/2019 11:55:06	0.0	0.0	0.0	0.0
239	5/1/2019 11:56:06	0.0	0.0	0.0	0.0
240	5/1/2019 11:57:06	0.0	0.0	0.0	0.0
241	5/1/2019 11:58:06	0.0	0.0	0.0	0.0
242	5/1/2019 11:59:06	0.0	0.0	0.0	0.0
243	5/1/2019 12:00:06	0.0	0.0	0.1	0.0
244	5/1/2019 12:01:06	0.0	0.0	0.1	0.1
245	5/1/2019 12:02:06	0.0	0.0	0.1	0.0
246	5/1/2019 12:03:06	0.0	0.1	0.1	0.0
247	5/1/2019 12:04:06	0.0	0.1	0.1	0.1
248	5/1/2019 12:05:06	0.0	0.0	0.1	0.0

249	5/1/2019 12:06:06	0.0	0.1	0.1	0.1
250	5/1/2019 12:07:06	0.1	0.1	0.1	0.1
251	5/1/2019 12:08:06	0.0	0.1	0.1	0.1
252	5/1/2019 12:09:06	0.1	0.1	0.1	0.1
253	5/1/2019 12:10:06	0.0	0.1	0.1	0.1
254	5/1/2019 12:11:06	0.0	0.1	0.1	0.1
255	5/1/2019 12:12:06	0.1	0.1	0.1	0.1
256	5/1/2019 12:13:06	0.0	0.1	0.1	0.1
257	5/1/2019 12:14:06	0.0	0.1	0.1	0.1
258	5/1/2019 12:15:06	0.0	0.1	0.2	0.1
259	5/1/2019 12:16:06	0.0	0.1	0.1	0.0
260	5/1/2019 12:17:06	0.0	0.1	0.1	0.1
261	5/1/2019 12:18:06	0.0	0.0	0.1	0.0
262	5/1/2019 12:19:06	0.0	0.1	0.1	0.0
263	5/1/2019 12:20:06	0.1	0.1	0.1	0.1
264	5/1/2019 12:21:06	0.0	0.1	0.1	0.0
265	5/1/2019 12:22:06	0.0	0.1	0.1	0.0
266	5/1/2019 12:23:06	0.0	0.1	0.1	0.1
267	5/1/2019 12:24:06	0.0	0.1	0.1	0.0
268	5/1/2019 12:25:06	0.0	0.0	0.1	0.0
269	5/1/2019 12:26:06	0.0	0.0	0.0	0.0
270	5/1/2019 12:27:06	0.0	0.0	0.0	0.0
271	5/1/2019 12:28:06	0.0	0.0	0.0	0.0
272	5/1/2019 12:29:06	0.0	0.0	0.0	0.0
273	5/1/2019 12:30:06	0.0	0.0	0.0	0.0
274	5/1/2019 12:31:06	0.0	0.0	0.0	0.0
275	5/1/2019 12:32:06	0.0	0.0	0.0	0.0
276	5/1/2019 12:33:06	0.0	0.0	0.0	0.0
277	5/1/2019 12:34:06	0.0	0.0	0.0	0.0
278	5/1/2019 12:35:06	0.0	0.0	0.0	0.0
279	5/1/2019 12:36:06	0.0	0.0	0.0	0.0

280	5/1/2019 12:37:06	0.0	0.0	0.0	0.0
281	5/1/2019 12:38:06	0.0	0.0	0.0	0.0
282	5/1/2019 12:39:06	0.0	0.0	0.0	0.0
283	5/1/2019 12:40:06	0.0	0.0	0.0	0.0
284	5/1/2019 12:41:06	0.0	0.0	0.0	0.0
285	5/1/2019 12:42:06	0.0	0.0	0.0	0.0
286	5/1/2019 12:43:06	0.0	0.0	0.0	0.0
287	5/1/2019 12:44:06	0.0	0.0	0.0	0.0
288	5/1/2019 12:45:06	0.0	0.0	0.0	0.0
289	5/1/2019 12:46:06	0.0	0.0	0.0	0.0
290	5/1/2019 12:47:06	0.0	0.0	0.0	0.0
291	5/1/2019 12:48:06	0.0	0.0	0.0	0.0
292	5/1/2019 12:49:06	0.0	0.0	0.0	0.0
293	5/1/2019 12:50:06	0.0	0.0	0.0	0.0
294	5/1/2019 12:51:06	0.0	0.0	0.0	0.0
295	5/1/2019 12:52:06	0.0	0.0	0.0	0.0
296	5/1/2019 12:53:06	0.0	0.0	0.0	0.0
297	5/1/2019 12:54:06	0.0	0.0	0.0	0.0
298	5/1/2019 12:55:06	0.0	0.0	0.0	0.0
299	5/1/2019 12:56:06	0.0	0.0	0.0	0.0
300	5/1/2019 12:57:06	0.0	0.0	0.0	0.0
301	5/1/2019 12:58:06	0.0	0.0	0.0	0.0
302	5/1/2019 12:59:06	0.0	0.0	0.0	0.0
303	5/1/2019 13:00:06	0.0	0.0	0.0	0.0
304	5/1/2019 13:01:06	0.0	0.0	0.0	0.0
305	5/1/2019 13:02:06	0.0	0.0	0.0	0.0
306	5/1/2019 13:03:06	0.0	0.0	0.0	0.0
307	5/1/2019 13:04:06	0.0	0.0	0.0	0.0
308	5/1/2019 13:05:06	0.0	0.0	0.0	0.0
309	5/1/2019 13:06:06	0.0	0.1	0.1	0.1
310	5/1/2019 13:07:06	0.1	0.2	0.2	0.2

311	5/1/2019 13:08:06	0.1	0.1	0.2	0.2
312	5/1/2019 13:09:06	0.1	0.2	0.2	0.2
313	5/1/2019 13:10:06	0.2	0.2	0.2	0.2
314	5/1/2019 13:11:06	0.1	0.2	0.2	0.2
315	5/1/2019 13:12:06	0.2	0.2	0.2	0.2
316	5/1/2019 13:13:06	0.2	0.2	0.2	0.2
317	5/1/2019 13:14:06	0.2	0.2	0.2	0.2
318	5/1/2019 13:15:06	0.2	0.2	0.2	0.2
319	5/1/2019 13:16:06	0.2	0.2	0.2	0.2
320	5/1/2019 13:17:06	0.2	0.2	0.3	0.2
321	5/1/2019 13:18:06	0.2	0.2	0.3	0.2
322	5/1/2019 13:19:06	0.2	0.2	0.2	0.2
323	5/1/2019 13:20:06	0.2	0.3	0.3	0.2
324	5/1/2019 13:21:06	0.2	0.2	0.3	0.2
325	5/1/2019 13:22:06	0.1	0.2	0.2	0.2
326	5/1/2019 13:23:06	0.2	0.2	0.3	0.2
327	5/1/2019 13:24:06	0.2	0.2	0.2	0.2
328	5/1/2019 13:25:06	0.2	0.3	0.3	0.3
329	5/1/2019 13:26:06	0.2	0.3	0.3	0.3
330	5/1/2019 13:27:06	0.2	0.3	0.3	0.2
331	5/1/2019 13:28:06	0.2	0.2	0.3	0.2
332	5/1/2019 13:29:06	0.1	0.2	0.3	0.2
333	5/1/2019 13:30:06	0.2	0.2	0.3	0.3
334	5/1/2019 13:31:06	0.2	0.3	0.3	0.3
335	5/1/2019 13:32:06	0.2	0.3	0.3	0.3
336	5/1/2019 13:33:06	0.2	0.3	0.3	0.3
337	5/1/2019 13:34:06	0.3	0.3	0.3	0.3
338	5/1/2019 13:35:06	0.3	0.3	0.3	0.3
339	5/1/2019 13:36:06	0.2	0.3	0.3	0.2
340	5/1/2019 13:37:06	0.2	0.2	0.3	0.2
341	5/1/2019 13:38:06	0.2	0.2	0.3	0.3

342	5/1/2019	13:39:06	0.2	0.3	0.3	0.3
343	5/1/2019	13:40:06	0.2	0.3	0.3	0.3
344	5/1/2019	13:41:06	0.3	0.3	0.3	0.3
345	5/1/2019	13:42:06	0.2	0.3	0.3	0.3
346	5/1/2019	13:43:06	0.2	0.3	0.3	0.3
347	5/1/2019	13:44:06	0.3	0.3	0.3	0.3
348	5/1/2019	13:45:06	0.2	0.3	0.3	0.2
349	5/1/2019	13:46:06	0.2	0.3	0.3	0.3
350	5/1/2019	13:47:06	0.1	0.2	0.3	0.1
351	5/1/2019	13:48:06	0.1	0.1	0.3	0.2
352	5/1/2019	13:49:06	0.1	0.2	0.3	0.3
353	5/1/2019	13:50:06	0.1	0.2	0.3	0.2
354	5/1/2019	13:51:06	0.1	0.2	0.3	0.2
355	5/1/2019	13:52:06	0.2	0.2	0.3	0.2
356	5/1/2019	13:53:06	0.1	0.2	0.3	0.2
357	5/1/2019	13:54:06	0.2	0.3	0.3	0.2
358	5/1/2019	13:55:06	0.1	0.2	0.2	0.1
359	5/1/2019	13:56:06	0.1	0.1	0.2	0.1
360	5/1/2019	13:57:06	0.1	0.1	0.2	0.1
361	5/1/2019	13:58:06	0.0	0.1	0.1	0.1
362	5/1/2019	13:59:06	0.1	0.1	0.2	0.1
363	5/1/2019	14:00:06	0.1	0.1	0.2	0.2
364	5/1/2019	14:01:06	0.1	0.1	0.2	0.1
365	5/1/2019	14:02:06	0.1	0.1	0.1	0.1
Peak		0.3	0.3	0.3	0.3	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.0	0.1	0.0	

****

TWA/STEL

	PID(ppm)	PID(ppm)

Index	Date/Time	(TWA)	(STEL)	
001	5/1/2019 07:58:06	0.0	---	
002	5/1/2019 07:59:06	0.0	---	
003	5/1/2019 08:00:06	0.0	---	
004	5/1/2019 08:01:06	0.0	---	
005	5/1/2019 08:02:06	0.0	---	
006	5/1/2019 08:03:06	0.0	---	
007	5/1/2019 08:04:06	0.0	---	
008	5/1/2019 08:05:06	0.0	---	
009	5/1/2019 08:06:06	0.0	---	
010	5/1/2019 08:07:06	0.0	---	
011	5/1/2019 08:08:06	0.0	---	
012	5/1/2019 08:09:06	0.0	---	
013	5/1/2019 08:10:06	0.0	---	
014	5/1/2019 08:11:06	0.0	---	
015	5/1/2019 08:12:06	0.0	0.0	
016	5/1/2019 08:13:06	0.0	0.0	
017	5/1/2019 08:14:06	0.0	0.0	
018	5/1/2019 08:15:06	0.0	0.0	
019	5/1/2019 08:16:06	0.0	0.0	
020	5/1/2019 08:17:06	0.0	0.0	
021	5/1/2019 08:18:06	0.0	0.0	
022	5/1/2019 08:19:06	0.0	0.0	
023	5/1/2019 08:20:06	0.0	0.0	
024	5/1/2019 08:21:06	0.0	0.0	
025	5/1/2019 08:22:06	0.0	0.0	
026	5/1/2019 08:23:06	0.0	0.0	
027	5/1/2019 08:24:06	0.0	0.0	
028	5/1/2019 08:25:06	0.0	0.0	
029	5/1/2019 08:26:06	0.0	0.0	
030	5/1/2019 08:27:06	0.0	0.0	

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034	5/1/2019 08:31:06	0.0	0.0
035	5/1/2019 08:32:06	0.0	0.0
036	5/1/2019 08:33:06	0.0	0.0
037	5/1/2019 08:34:06	0.0	0.0
038	5/1/2019 08:35:06	0.0	0.0
039	5/1/2019 08:36:06	0.0	0.0
040	5/1/2019 08:37:06	0.0	0.0
041	5/1/2019 08:38:06	0.0	0.0
042	5/1/2019 08:39:06	0.0	0.0
043	5/1/2019 08:40:06	0.0	0.0
044	5/1/2019 08:41:06	0.0	0.0
045	5/1/2019 08:42:06	0.0	0.0
046	5/1/2019 08:43:06	0.0	0.0
047	5/1/2019 08:44:06	0.0	0.0
048	5/1/2019 08:45:06	0.0	0.0
049	5/1/2019 08:46:06	0.0	0.0
050	5/1/2019 08:47:06	0.0	0.0
051	5/1/2019 08:48:06	0.0	0.0
052	5/1/2019 08:49:06	0.0	0.0
053	5/1/2019 08:50:06	0.0	0.0
054	5/1/2019 08:51:06	0.0	0.0
055	5/1/2019 08:52:06	0.0	0.0
056	5/1/2019 08:53:06	0.0	0.0
057	5/1/2019 08:54:06	0.0	0.0
058	5/1/2019 08:55:06	0.0	0.0
059	5/1/2019 08:56:06	0.0	0.0
060	5/1/2019 08:57:06	0.0	0.0
061	5/1/2019 08:58:06	0.0	0.0

062	5/1/2019 08:59:06	0.0	0.0
063	5/1/2019 09:00:06	0.0	0.0
064	5/1/2019 09:01:06	0.0	0.0
065	5/1/2019 09:02:06	0.0	0.0
066	5/1/2019 09:03:06	0.0	0.0
067	5/1/2019 09:04:06	0.0	0.0
068	5/1/2019 09:05:06	0.0	0.0
069	5/1/2019 09:06:06	0.0	0.0
070	5/1/2019 09:07:06	0.0	0.0
071	5/1/2019 09:08:06	0.0	0.0
072	5/1/2019 09:09:06	0.0	0.0
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074	5/1/2019 09:11:06	0.0	0.0
075	5/1/2019 09:12:06	0.0	0.0
076	5/1/2019 09:13:06	0.0	0.0
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078	5/1/2019 09:15:06	0.0	0.0
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080	5/1/2019 09:17:06	0.0	0.0
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082	5/1/2019 09:19:06	0.0	0.0
083	5/1/2019 09:20:06	0.0	0.0
084	5/1/2019 09:21:06	0.0	0.0
085	5/1/2019 09:22:06	0.0	0.0
086	5/1/2019 09:23:06	0.0	0.0
087	5/1/2019 09:24:06	0.0	0.0
088	5/1/2019 09:25:06	0.0	0.0
089	5/1/2019 09:26:06	0.0	0.0
090	5/1/2019 09:27:06	0.0	0.0
091	5/1/2019 09:28:06	0.0	0.0
092	5/1/2019 09:29:06	0.0	0.0

093	5/1/2019 09:30:06	0.0	0.0
094	5/1/2019 09:31:06	0.0	0.0
095	5/1/2019 09:32:06	0.0	0.0
096	5/1/2019 09:33:06	0.0	0.0
097	5/1/2019 09:34:06	0.0	0.0
098	5/1/2019 09:35:06	0.0	0.0
099	5/1/2019 09:36:06	0.0	0.0
100	5/1/2019 09:37:06	0.0	0.0
101	5/1/2019 09:38:06	0.0	0.0
102	5/1/2019 09:39:06	0.0	0.0
103	5/1/2019 09:40:06	0.0	0.0
104	5/1/2019 09:41:06	0.0	0.0
105	5/1/2019 09:42:06	0.0	0.0
106	5/1/2019 09:43:06	0.0	0.0
107	5/1/2019 09:44:06	0.0	0.0
108	5/1/2019 09:45:06	0.0	0.0
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110	5/1/2019 09:47:06	0.0	0.0
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122	5/1/2019 09:59:06	0.0	0.0
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124	5/1/2019 10:01:06	0.0	0.0
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190	5/1/2019 11:07:06	0.0	0.0
191	5/1/2019 11:08:06	0.0	0.0
192	5/1/2019 11:09:06	0.0	0.0
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311	5/1/2019 13:08:06	0.0	0.0
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313	5/1/2019 13:10:06	0.0	0.1
314	5/1/2019 13:11:06	0.0	0.1
315	5/1/2019 13:12:06	0.0	0.1
316	5/1/2019 13:13:06	0.0	0.1
317	5/1/2019 13:14:06	0.0	0.1
318	5/1/2019 13:15:06	0.0	0.1
319	5/1/2019 13:16:06	0.0	0.1
320	5/1/2019 13:17:06	0.0	0.2
321	5/1/2019 13:18:06	0.0	0.2
322	5/1/2019 13:19:06	0.0	0.2
323	5/1/2019 13:20:06	0.0	0.2
324	5/1/2019 13:21:06	0.0	0.2
325	5/1/2019 13:22:06	0.0	0.2
326	5/1/2019 13:23:06	0.0	0.2
327	5/1/2019 13:24:06	0.0	0.2
328	5/1/2019 13:25:06	0.0	0.2
329	5/1/2019 13:26:06	0.0	0.2
330	5/1/2019 13:27:06	0.0	0.2
331	5/1/2019 13:28:06	0.0	0.2
332	5/1/2019 13:29:06	0.0	0.2
333	5/1/2019 13:30:06	0.0	0.2
334	5/1/2019 13:31:06	0.0	0.2
335	5/1/2019 13:32:06	0.0	0.2
336	5/1/2019 13:33:06	0.0	0.3
337	5/1/2019 13:34:06	0.0	0.3
338	5/1/2019 13:35:06	0.0	0.3
339	5/1/2019 13:36:06	0.0	0.3
340	5/1/2019 13:37:06	0.0	0.3

341	5/1/2019 13:38:06	0.0	0.3
342	5/1/2019 13:39:06	0.0	0.3
343	5/1/2019 13:40:06	0.0	0.3
344	5/1/2019 13:41:06	0.0	0.3
345	5/1/2019 13:42:06	0.0	0.3
346	5/1/2019 13:43:06	0.0	0.3
347	5/1/2019 13:44:06	0.0	0.3
348	5/1/2019 13:45:06	0.0	0.3
349	5/1/2019 13:46:06	0.0	0.3
350	5/1/2019 13:47:06	0.0	0.3
351	5/1/2019 13:48:06	0.0	0.3
352	5/1/2019 13:49:06	0.0	0.3
353	5/1/2019 13:50:06	0.0	0.3
354	5/1/2019 13:51:06	0.0	0.3
355	5/1/2019 13:52:06	0.0	0.3
356	5/1/2019 13:53:06	0.0	0.3
357	5/1/2019 13:54:06	0.0	0.3
358	5/1/2019 13:55:06	0.0	0.2
359	5/1/2019 13:56:06	0.0	0.2
360	5/1/2019 13:57:06	0.0	0.2
361	5/1/2019 13:58:06	0.0	0.2
362	5/1/2019 13:59:06	0.0	0.2
363	5/1/2019 14:00:06	0.0	0.2
364	5/1/2019 14:01:06	0.0	0.2
365	5/1/2019 14:02:06	0.0	0.2

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19/05/02 08:09

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Stop by User

Site ID	RAE00002
User ID	00000001

Begin	5/2/2019 08:09:56
End	5/2/2019 15:18:51
Sample Period(s)	60
Number of Records	428

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	4/26/2019 16:01
Peak	0.3
Min	0.0

Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/2/2019 08:10:56	0.0	0.0	0.0	0.0	
002	5/2/2019 08:11:56	0.0	0.0	0.0	0.0	
003	5/2/2019 08:12:56	0.0	0.0	0.0	0.0	
004	5/2/2019 08:13:56	0.0	0.0	0.0	0.0	
005	5/2/2019 08:14:56	0.0	0.0	0.0	0.0	
006	5/2/2019 08:15:56	0.0	0.0	0.0	0.0	
007	5/2/2019 08:16:56	0.0	0.0	0.0	0.0	
008	5/2/2019 08:17:56	0.0	0.0	0.0	0.0	
009	5/2/2019 08:18:56	0.0	0.0	0.0	0.0	
010	5/2/2019 08:19:56	0.0	0.0	0.0	0.0	
011	5/2/2019 08:20:56	0.0	0.0	0.0	0.0	
012	5/2/2019 08:21:56	0.0	0.0	0.0	0.0	
013	5/2/2019 08:22:56	0.0	0.0	0.0	0.0	
014	5/2/2019 08:23:56	0.0	0.0	0.0	0.0	
015	5/2/2019 08:24:56	0.0	0.0	0.0	0.0	
016	5/2/2019 08:25:56	0.0	0.0	0.0	0.0	
017	5/2/2019 08:26:56	0.0	0.0	0.0	0.0	
018	5/2/2019 08:27:56	0.0	0.0	0.0	0.0	
019	5/2/2019 08:28:56	0.0	0.0	0.0	0.0	
020	5/2/2019 08:29:56	0.0	0.0	0.0	0.0	
021	5/2/2019 08:30:56	0.0	0.0	0.0	0.0	
022	5/2/2019 08:31:56	0.0	0.0	0.0	0.0	
023	5/2/2019 08:32:56	0.0	0.0	0.0	0.0	
024	5/2/2019 08:33:56	0.0	0.0	0.0	0.0	
025	5/2/2019 08:34:56	0.0	0.0	0.0	0.0	

026	5/2/2019 08:35:56	0.0	0.0	0.0	0.0
027	5/2/2019 08:36:56	0.0	0.0	0.0	0.0
028	5/2/2019 08:37:56	0.0	0.0	0.0	0.0
029	5/2/2019 08:38:56	0.0	0.0	0.0	0.0
030	5/2/2019 08:39:56	0.0	0.0	0.0	0.0
031	5/2/2019 08:40:56	0.0	0.0	0.0	0.0
032	5/2/2019 08:41:56	0.0	0.0	0.0	0.0
033	5/2/2019 08:42:56	0.0	0.0	0.0	0.0
034	5/2/2019 08:43:56	0.0	0.0	0.0	0.0
035	5/2/2019 08:44:56	0.0	0.0	0.0	0.0
036	5/2/2019 08:45:56	0.0	0.0	0.0	0.0
037	5/2/2019 08:46:56	0.0	0.0	0.0	0.0
038	5/2/2019 08:47:56	0.0	0.0	0.0	0.0
039	5/2/2019 08:48:56	0.0	0.0	0.0	0.0
040	5/2/2019 08:49:56	0.0	0.0	0.0	0.0
041	5/2/2019 08:50:56	0.0	0.0	0.0	0.0
042	5/2/2019 08:51:56	0.0	0.0	0.0	0.0
043	5/2/2019 08:52:56	0.0	0.0	0.0	0.0
044	5/2/2019 08:53:56	0.0	0.0	0.0	0.0
045	5/2/2019 08:54:56	0.0	0.0	0.0	0.0
046	5/2/2019 08:55:56	0.0	0.0	0.0	0.0
047	5/2/2019 08:56:56	0.0	0.0	0.0	0.0
048	5/2/2019 08:57:56	0.0	0.0	0.0	0.0
049	5/2/2019 08:58:56	0.0	0.0	0.0	0.0
050	5/2/2019 08:59:56	0.0	0.0	0.0	0.0
051	5/2/2019 09:00:56	0.0	0.0	0.0	0.0
052	5/2/2019 09:01:56	0.0	0.0	0.0	0.0
053	5/2/2019 09:02:56	0.0	0.0	0.0	0.0
054	5/2/2019 09:03:56	0.0	0.0	0.0	0.0
055	5/2/2019 09:04:56	0.0	0.0	0.0	0.0
056	5/2/2019 09:05:56	0.0	0.0	0.0	0.0

057	5/2/2019 09:06:56	0.0	0.0	0.0	0.0
058	5/2/2019 09:07:56	0.0	0.0	0.0	0.0
059	5/2/2019 09:08:56	0.0	0.0	0.0	0.0
060	5/2/2019 09:09:56	0.0	0.0	0.0	0.0
061	5/2/2019 09:10:56	0.0	0.0	0.0	0.0
062	5/2/2019 09:11:56	0.0	0.0	0.0	0.0
063	5/2/2019 09:12:56	0.0	0.0	0.0	0.0
064	5/2/2019 09:13:56	0.0	0.0	0.0	0.0
065	5/2/2019 09:14:56	0.0	0.0	0.0	0.0
066	5/2/2019 09:15:56	0.0	0.0	0.0	0.0
067	5/2/2019 09:16:56	0.0	0.0	0.0	0.0
068	5/2/2019 09:17:56	0.0	0.0	0.0	0.0
069	5/2/2019 09:18:56	0.0	0.0	0.0	0.0
070	5/2/2019 09:19:56	0.0	0.0	0.0	0.0
071	5/2/2019 09:20:56	0.0	0.0	0.0	0.0
072	5/2/2019 09:21:56	0.0	0.0	0.0	0.0
073	5/2/2019 09:22:56	0.0	0.0	0.0	0.0
074	5/2/2019 09:23:56	0.0	0.0	0.0	0.0
075	5/2/2019 09:24:56	0.0	0.0	0.0	0.0
076	5/2/2019 09:25:56	0.0	0.0	0.0	0.0
077	5/2/2019 09:26:56	0.0	0.0	0.0	0.0
078	5/2/2019 09:27:56	0.0	0.0	0.0	0.0
079	5/2/2019 09:28:56	0.0	0.0	0.0	0.0
080	5/2/2019 09:29:56	0.0	0.0	0.0	0.0
081	5/2/2019 09:30:56	0.0	0.0	0.0	0.0
082	5/2/2019 09:31:56	0.0	0.0	0.0	0.0
083	5/2/2019 09:32:56	0.0	0.0	0.0	0.0
084	5/2/2019 09:33:56	0.0	0.0	0.0	0.0
085	5/2/2019 09:34:56	0.0	0.0	0.0	0.0
086	5/2/2019 09:35:56	0.0	0.0	0.0	0.0
087	5/2/2019 09:36:56	0.0	0.0	0.0	0.0

088	5/2/2019 09:37:56	0.0	0.0	0.0	0.0
089	5/2/2019 09:38:56	0.0	0.0	0.0	0.0
090	5/2/2019 09:39:56	0.0	0.0	0.0	0.0
091	5/2/2019 09:40:56	0.0	0.0	0.0	0.0
092	5/2/2019 09:41:56	0.0	0.0	0.0	0.0
093	5/2/2019 09:42:56	0.0	0.0	0.0	0.0
094	5/2/2019 09:43:56	0.0	0.0	0.0	0.0
095	5/2/2019 09:44:56	0.0	0.0	0.0	0.0
096	5/2/2019 09:45:56	0.0	0.0	0.3	0.0
097	5/2/2019 09:46:56	0.0	0.0	0.0	0.0
098	5/2/2019 09:47:56	0.0	0.0	0.0	0.0
099	5/2/2019 09:48:56	0.0	0.0	0.0	0.0
100	5/2/2019 09:49:56	0.0	0.0	0.0	0.0
101	5/2/2019 09:50:56	0.0	0.0	0.0	0.0
102	5/2/2019 09:51:56	0.0	0.0	0.0	0.0
103	5/2/2019 09:52:56	0.0	0.0	0.0	0.0
104	5/2/2019 09:53:56	0.0	0.0	0.0	0.0
105	5/2/2019 09:54:56	0.0	0.0	0.0	0.0
106	5/2/2019 09:55:56	0.0	0.0	0.0	0.0
107	5/2/2019 09:56:56	0.0	0.0	0.0	0.0
108	5/2/2019 09:57:56	0.0	0.0	0.0	0.0
109	5/2/2019 09:58:56	0.0	0.0	0.0	0.0
110	5/2/2019 09:59:56	0.0	0.0	0.0	0.0
111	5/2/2019 10:00:56	0.0	0.0	0.0	0.0
112	5/2/2019 10:01:56	0.0	0.0	0.0	0.0
113	5/2/2019 10:02:56	0.0	0.0	0.0	0.0
114	5/2/2019 10:03:56	0.0	0.0	0.0	0.0
115	5/2/2019 10:04:56	0.0	0.0	0.0	0.0
116	5/2/2019 10:05:56	0.0	0.0	0.0	0.0
117	5/2/2019 10:06:56	0.0	0.0	0.0	0.0
118	5/2/2019 10:07:56	0.0	0.0	0.0	0.0

119	5/2/2019 10:08:56	0.0	0.0	0.0	0.0
120	5/2/2019 10:09:56	0.0	0.0	0.0	0.0
121	5/2/2019 10:10:56	0.0	0.0	0.0	0.0
122	5/2/2019 10:11:56	0.0	0.0	0.0	0.0
123	5/2/2019 10:12:56	0.0	0.0	0.0	0.0
124	5/2/2019 10:13:56	0.0	0.0	0.0	0.0
125	5/2/2019 10:14:56	0.0	0.0	0.0	0.0
126	5/2/2019 10:15:56	0.0	0.0	0.0	0.0
127	5/2/2019 10:16:56	0.0	0.0	0.0	0.0
128	5/2/2019 10:17:56	0.0	0.0	0.0	0.0
129	5/2/2019 10:18:56	0.0	0.0	0.0	0.0
130	5/2/2019 10:19:56	0.0	0.0	0.0	0.0
131	5/2/2019 10:20:56	0.0	0.0	0.0	0.0
132	5/2/2019 10:21:56	0.0	0.0	0.0	0.0
133	5/2/2019 10:22:56	0.0	0.0	0.0	0.0
134	5/2/2019 10:23:56	0.0	0.0	0.0	0.0
135	5/2/2019 10:24:56	0.0	0.0	0.0	0.0
136	5/2/2019 10:25:56	0.0	0.0	0.0	0.0
137	5/2/2019 10:26:56	0.0	0.0	0.0	0.0
138	5/2/2019 10:27:56	0.0	0.0	0.0	0.0
139	5/2/2019 10:28:56	0.0	0.0	0.0	0.0
140	5/2/2019 10:29:56	0.0	0.0	0.0	0.0
141	5/2/2019 10:30:56	0.0	0.0	0.0	0.0
142	5/2/2019 10:31:56	0.0	0.0	0.0	0.0
143	5/2/2019 10:32:56	0.0	0.0	0.0	0.0
144	5/2/2019 10:33:56	0.0	0.0	0.0	0.0
145	5/2/2019 10:34:56	0.0	0.0	0.1	0.0
146	5/2/2019 10:35:56	0.0	0.0	0.0	0.0
147	5/2/2019 10:36:56	0.0	0.0	0.0	0.0
148	5/2/2019 10:37:56	0.0	0.0	0.0	0.0
149	5/2/2019 10:38:56	0.0	0.0	0.0	0.0

150	5/2/2019 10:39:56	0.0	0.0	0.0	0.0
151	5/2/2019 10:40:56	0.0	0.0	0.0	0.0
152	5/2/2019 10:41:56	0.0	0.0	0.0	0.0
153	5/2/2019 10:42:56	0.0	0.0	0.0	0.0
154	5/2/2019 10:43:56	0.0	0.0	0.0	0.0
155	5/2/2019 10:44:56	0.0	0.0	0.0	0.0
156	5/2/2019 10:45:56	0.0	0.0	0.0	0.0
157	5/2/2019 10:46:56	0.0	0.0	0.0	0.0
158	5/2/2019 10:47:56	0.0	0.0	0.0	0.0
159	5/2/2019 10:48:56	0.0	0.0	0.0	0.0
160	5/2/2019 10:49:56	0.0	0.0	0.0	0.0
161	5/2/2019 10:50:56	0.0	0.0	0.0	0.0
162	5/2/2019 10:51:56	0.0	0.0	0.0	0.0
163	5/2/2019 10:52:56	0.0	0.0	0.0	0.0
164	5/2/2019 10:53:56	0.0	0.0	0.0	0.0
165	5/2/2019 10:54:56	0.0	0.0	0.0	0.0
166	5/2/2019 10:55:56	0.0	0.0	0.0	0.0
167	5/2/2019 10:56:56	0.0	0.0	0.0	0.0
168	5/2/2019 10:57:56	0.0	0.0	0.0	0.0
169	5/2/2019 10:58:56	0.0	0.0	0.0	0.0
170	5/2/2019 10:59:56	0.0	0.0	0.0	0.0
171	5/2/2019 11:00:56	0.0	0.0	0.0	0.0
172	5/2/2019 11:01:56	0.0	0.0	0.0	0.0
173	5/2/2019 11:02:56	0.0	0.0	0.0	0.0
174	5/2/2019 11:03:56	0.0	0.0	0.0	0.0
175	5/2/2019 11:04:56	0.0	0.0	0.0	0.0
176	5/2/2019 11:05:56	0.0	0.0	0.0	0.0
177	5/2/2019 11:06:56	0.0	0.0	0.0	0.0
178	5/2/2019 11:07:56	0.0	0.0	0.0	0.0
179	5/2/2019 11:08:56	0.0	0.0	0.0	0.0
180	5/2/2019 11:09:56	0.0	0.0	0.0	0.0

181	5/2/2019 11:10:56	0.0	0.0	0.0	0.0
182	5/2/2019 11:11:56	0.0	0.0	0.0	0.0
183	5/2/2019 11:12:56	0.0	0.0	0.0	0.0
184	5/2/2019 11:13:56	0.0	0.0	0.0	0.0
185	5/2/2019 11:14:56	0.0	0.0	0.0	0.0
186	5/2/2019 11:15:56	0.0	0.0	0.0	0.0
187	5/2/2019 11:16:56	0.0	0.0	0.0	0.0
188	5/2/2019 11:17:56	0.0	0.0	0.0	0.0
189	5/2/2019 11:18:56	0.0	0.0	0.0	0.0
190	5/2/2019 11:19:56	0.0	0.0	0.0	0.0
191	5/2/2019 11:20:56	0.0	0.0	0.0	0.0
192	5/2/2019 11:21:56	0.0	0.0	0.0	0.0
193	5/2/2019 11:22:56	0.0	0.0	0.0	0.0
194	5/2/2019 11:23:56	0.0	0.0	0.0	0.0
195	5/2/2019 11:24:56	0.0	0.0	0.0	0.0
196	5/2/2019 11:25:56	0.0	0.0	0.0	0.0
197	5/2/2019 11:26:56	0.0	0.0	0.0	0.0
198	5/2/2019 11:27:56	0.0	0.0	0.0	0.0
199	5/2/2019 11:28:56	0.0	0.0	0.0	0.0
200	5/2/2019 11:29:56	0.0	0.0	0.0	0.0
201	5/2/2019 11:30:56	0.0	0.0	0.0	0.0
202	5/2/2019 11:31:56	0.0	0.0	0.0	0.0
203	5/2/2019 11:32:56	0.0	0.0	0.0	0.0
204	5/2/2019 11:33:56	0.0	0.0	0.0	0.0
205	5/2/2019 11:34:56	0.0	0.0	0.0	0.0
206	5/2/2019 11:35:56	0.0	0.0	0.0	0.0
207	5/2/2019 11:36:56	0.0	0.0	0.0	0.0
208	5/2/2019 11:37:56	0.0	0.0	0.0	0.0
209	5/2/2019 11:38:56	0.0	0.0	0.0	0.0
210	5/2/2019 11:39:56	0.0	0.0	0.0	0.0
211	5/2/2019 11:40:56	0.0	0.0	0.0	0.0

212	5/2/2019 11:41:56	0.0	0.0	0.0	0.0
213	5/2/2019 11:42:56	0.0	0.0	0.0	0.0
214	5/2/2019 11:43:56	0.0	0.0	0.0	0.0
215	5/2/2019 11:44:56	0.0	0.0	0.0	0.0
216	5/2/2019 11:45:56	0.0	0.0	0.0	0.0
217	5/2/2019 11:46:56	0.0	0.0	0.0	0.0
218	5/2/2019 11:47:56	0.0	0.0	0.0	0.0
219	5/2/2019 11:48:56	0.0	0.0	0.0	0.0
220	5/2/2019 11:49:56	0.0	0.0	0.0	0.0
221	5/2/2019 11:50:56	0.0	0.0	0.0	0.0
222	5/2/2019 11:51:56	0.0	0.0	0.0	0.0
223	5/2/2019 11:52:56	0.0	0.0	0.0	0.0
224	5/2/2019 11:53:56	0.0	0.0	0.0	0.0
225	5/2/2019 11:54:56	0.0	0.0	0.0	0.0
226	5/2/2019 11:55:56	0.0	0.0	0.0	0.0
227	5/2/2019 11:56:56	0.0	0.0	0.0	0.0
228	5/2/2019 11:57:56	0.0	0.0	0.0	0.0
229	5/2/2019 11:58:56	0.0	0.0	0.0	0.0
230	5/2/2019 11:59:56	0.0	0.0	0.0	0.0
231	5/2/2019 12:00:56	0.0	0.0	0.0	0.0
232	5/2/2019 12:01:56	0.0	0.0	0.0	0.0
233	5/2/2019 12:02:56	0.0	0.0	0.0	0.0
234	5/2/2019 12:03:56	0.0	0.0	0.0	0.0
235	5/2/2019 12:04:56	0.0	0.0	0.0	0.0
236	5/2/2019 12:05:56	0.0	0.0	0.0	0.0
237	5/2/2019 12:06:56	0.0	0.0	0.0	0.0
238	5/2/2019 12:07:56	0.0	0.0	0.0	0.0
239	5/2/2019 12:08:56	0.0	0.0	0.0	0.0
240	5/2/2019 12:09:56	0.0	0.0	0.0	0.0
241	5/2/2019 12:10:56	0.0	0.0	0.0	0.0
242	5/2/2019 12:11:56	0.0	0.0	0.0	0.0

243	5/2/2019 12:12:56	0.0	0.0	0.0	0.0
244	5/2/2019 12:13:56	0.0	0.0	0.0	0.0
245	5/2/2019 12:14:56	0.0	0.0	0.0	0.0
246	5/2/2019 12:15:56	0.0	0.0	0.0	0.0
247	5/2/2019 12:16:56	0.0	0.0	0.0	0.0
248	5/2/2019 12:17:56	0.0	0.0	0.0	0.0
249	5/2/2019 12:18:56	0.0	0.0	0.0	0.0
250	5/2/2019 12:19:56	0.0	0.0	0.0	0.0
251	5/2/2019 12:20:56	0.0	0.0	0.0	0.0
252	5/2/2019 12:21:56	0.0	0.0	0.0	0.0
253	5/2/2019 12:22:56	0.0	0.0	0.0	0.0
254	5/2/2019 12:23:56	0.0	0.0	0.1	0.0
255	5/2/2019 12:24:56	0.1	0.3	0.4	0.3
256	5/2/2019 12:25:56	0.1	0.2	0.3	0.1
257	5/2/2019 12:26:56	0.0	0.1	0.1	0.1
258	5/2/2019 12:27:56	0.0	0.1	0.1	0.0
259	5/2/2019 12:28:56	0.0	0.0	0.1	0.0
260	5/2/2019 12:29:56	0.0	0.0	0.0	0.0
261	5/2/2019 12:30:56	0.0	0.0	0.0	0.0
262	5/2/2019 12:31:56	0.0	0.0	0.0	0.0
263	5/2/2019 12:32:56	0.0	0.0	0.0	0.0
264	5/2/2019 12:33:56	0.0	0.0	0.0	0.0
265	5/2/2019 12:34:56	0.0	0.0	0.0	0.0
266	5/2/2019 12:35:56	0.0	0.0	0.0	0.0
267	5/2/2019 12:36:56	0.0	0.0	0.0	0.0
268	5/2/2019 12:37:56	0.0	0.0	0.0	0.0
269	5/2/2019 12:38:56	0.0	0.0	0.0	0.0
270	5/2/2019 12:39:56	0.0	0.0	0.0	0.0
271	5/2/2019 12:40:56	0.0	0.0	0.0	0.0
272	5/2/2019 12:41:56	0.0	0.0	0.0	0.0
273	5/2/2019 12:42:56	0.0	0.0	0.0	0.0

274	5/2/2019 12:43:56	0.0	0.0	0.0	0.0
275	5/2/2019 12:44:56	0.0	0.0	0.0	0.0
276	5/2/2019 12:45:56	0.0	0.0	0.0	0.0
277	5/2/2019 12:46:56	0.0	0.0	0.0	0.0
278	5/2/2019 12:47:56	0.0	0.0	0.0	0.0
279	5/2/2019 12:48:56	0.0	0.0	0.0	0.0
280	5/2/2019 12:49:56	0.0	0.0	0.0	0.0
281	5/2/2019 12:50:56	0.0	0.0	0.0	0.0
282	5/2/2019 12:51:56	0.0	0.0	0.0	0.0
283	5/2/2019 12:52:56	0.0	0.0	0.0	0.0
284	5/2/2019 12:53:56	0.0	0.0	0.0	0.0
285	5/2/2019 12:54:56	0.0	0.0	0.0	0.0
286	5/2/2019 12:55:56	0.0	0.0	0.0	0.0
287	5/2/2019 12:56:56	0.0	0.0	0.0	0.0
288	5/2/2019 12:57:56	0.0	0.0	0.0	0.0
289	5/2/2019 12:58:56	0.0	0.0	0.0	0.0
290	5/2/2019 12:59:56	0.0	0.0	0.0	0.0
291	5/2/2019 13:00:56	0.0	0.0	0.0	0.0
292	5/2/2019 13:01:56	0.0	0.0	0.0	0.0
293	5/2/2019 13:02:56	0.0	0.0	0.0	0.0
294	5/2/2019 13:03:56	0.0	0.0	0.0	0.0
295	5/2/2019 13:04:56	0.0	0.0	0.0	0.0
296	5/2/2019 13:05:56	0.0	0.0	0.0	0.0
297	5/2/2019 13:06:56	0.0	0.0	0.0	0.0
298	5/2/2019 13:07:56	0.0	0.0	0.0	0.0
299	5/2/2019 13:08:56	0.0	0.0	0.0	0.0
300	5/2/2019 13:09:56	0.0	0.0	0.0	0.0
301	5/2/2019 13:10:56	0.0	0.0	0.0	0.0
302	5/2/2019 13:11:56	0.0	0.0	0.0	0.0
303	5/2/2019 13:12:56	0.0	0.0	0.0	0.0
304	5/2/2019 13:13:56	0.0	0.0	0.0	0.0

305	5/2/2019 13:14:56	0.0	0.0	0.0	0.0
306	5/2/2019 13:15:56	0.0	0.0	0.0	0.0
307	5/2/2019 13:16:56	0.0	0.0	0.0	0.0
308	5/2/2019 13:17:56	0.0	0.0	0.0	0.0
309	5/2/2019 13:18:56	0.0	0.0	0.0	0.0
310	5/2/2019 13:19:56	0.0	0.0	0.1	0.1
311	5/2/2019 13:20:56	0.0	0.1	0.2	0.0
312	5/2/2019 13:21:56	0.0	0.0	0.0	0.0
313	5/2/2019 13:22:56	0.0	0.0	0.0	0.0
314	5/2/2019 13:23:56	0.0	0.0	0.0	0.0
315	5/2/2019 13:24:56	0.0	0.0	0.0	0.0
316	5/2/2019 13:25:56	0.0	0.0	0.0	0.0
317	5/2/2019 13:26:56	0.0	0.0	0.0	0.0
318	5/2/2019 13:27:56	0.0	0.0	0.0	0.0
319	5/2/2019 13:28:56	0.0	0.0	0.0	0.0
320	5/2/2019 13:29:56	0.0	0.0	0.0	0.0
321	5/2/2019 13:30:56	0.0	0.0	0.0	0.0
322	5/2/2019 13:31:56	0.0	0.0	0.0	0.0
323	5/2/2019 13:32:56	0.0	0.0	0.0	0.0
324	5/2/2019 13:33:56	0.0	0.0	0.0	0.0
325	5/2/2019 13:34:56	0.0	0.0	0.0	0.0
326	5/2/2019 13:35:56	0.0	0.0	0.0	0.0
327	5/2/2019 13:36:56	0.0	0.0	0.0	0.0
328	5/2/2019 13:37:56	0.0	0.0	0.0	0.0
329	5/2/2019 13:38:56	0.0	0.0	0.0	0.0
330	5/2/2019 13:39:56	0.0	0.0	0.0	0.0
331	5/2/2019 13:40:56	0.0	0.0	0.0	0.0
332	5/2/2019 13:41:56	0.0	0.0	0.0	0.0
333	5/2/2019 13:42:56	0.0	0.0	0.0	0.0
334	5/2/2019 13:43:56	0.0	0.0	0.0	0.0
335	5/2/2019 13:44:56	0.0	0.0	0.0	0.0

336	5/2/2019 13:45:56	0.0	0.0	0.0	0.0
337	5/2/2019 13:46:56	0.0	0.0	0.0	0.0
338	5/2/2019 13:47:56	0.0	0.0	0.0	0.0
339	5/2/2019 13:48:56	0.0	0.0	0.0	0.0
340	5/2/2019 13:49:56	0.0	0.0	0.0	0.0
341	5/2/2019 13:50:56	0.0	0.0	0.0	0.0
342	5/2/2019 13:51:56	0.0	0.0	0.0	0.0
343	5/2/2019 13:52:56	0.0	0.0	0.0	0.0
344	5/2/2019 13:53:56	0.0	0.0	0.0	0.0
345	5/2/2019 13:54:56	0.0	0.0	0.0	0.0
346	5/2/2019 13:55:56	0.0	0.0	0.1	0.0
347	5/2/2019 13:56:56	0.0	0.0	0.0	0.0
348	5/2/2019 13:57:56	0.0	0.0	0.0	0.0
349	5/2/2019 13:58:56	0.0	0.0	0.0	0.0
350	5/2/2019 13:59:56	0.0	0.0	0.0	0.0
351	5/2/2019 14:00:56	0.0	0.0	0.0	0.0
352	5/2/2019 14:01:56	0.0	0.0	0.0	0.0
353	5/2/2019 14:02:56	0.0	0.0	0.0	0.0
354	5/2/2019 14:03:56	0.0	0.0	0.0	0.0
355	5/2/2019 14:04:56	0.0	0.0	0.0	0.0
356	5/2/2019 14:05:56	0.0	0.0	0.0	0.0
357	5/2/2019 14:06:56	0.0	0.0	0.0	0.0
358	5/2/2019 14:07:56	0.0	0.0	0.0	0.0
359	5/2/2019 14:08:56	0.0	0.0	0.0	0.0
360	5/2/2019 14:09:56	0.0	0.0	0.0	0.0
361	5/2/2019 14:10:56	0.0	0.0	0.0	0.0
362	5/2/2019 14:11:56	0.0	0.0	0.0	0.0
363	5/2/2019 14:12:56	0.0	0.0	0.0	0.0
364	5/2/2019 14:13:56	0.0	0.0	0.0	0.0
365	5/2/2019 14:14:56	0.0	0.0	0.0	0.0
366	5/2/2019 14:15:56	0.0	0.0	0.0	0.0

367	5/2/2019 14:16:56	0.0	0.0	0.0	0.0
368	5/2/2019 14:17:56	0.0	0.0	0.0	0.0
369	5/2/2019 14:18:56	0.0	0.0	0.0	0.0
370	5/2/2019 14:19:56	0.0	0.0	0.0	0.0
371	5/2/2019 14:20:56	0.0	0.0	0.0	0.0
372	5/2/2019 14:21:56	0.0	0.0	0.0	0.0
373	5/2/2019 14:22:56	0.0	0.0	0.0	0.0
374	5/2/2019 14:23:56	0.0	0.0	0.0	0.0
375	5/2/2019 14:24:56	0.0	0.0	0.0	0.0
376	5/2/2019 14:25:56	0.0	0.0	0.0	0.0
377	5/2/2019 14:26:56	0.0	0.0	0.0	0.0
378	5/2/2019 14:27:56	0.0	0.0	0.0	0.0
379	5/2/2019 14:28:56	0.0	0.0	0.0	0.0
380	5/2/2019 14:29:56	0.0	0.0	0.0	0.0
381	5/2/2019 14:30:56	0.0	0.1	0.1	0.0
382	5/2/2019 14:31:56	0.0	0.0	0.0	0.0
383	5/2/2019 14:32:56	0.0	0.0	0.0	0.0
384	5/2/2019 14:33:56	0.0	0.0	0.0	0.0
385	5/2/2019 14:34:56	0.0	0.0	0.1	0.0
386	5/2/2019 14:35:56	0.0	0.0	0.1	0.1
387	5/2/2019 14:36:56	0.0	0.0	0.1	0.0
388	5/2/2019 14:37:56	0.0	0.0	0.0	0.0
389	5/2/2019 14:38:56	0.0	0.0	0.0	0.0
390	5/2/2019 14:39:56	0.0	0.0	0.0	0.0
391	5/2/2019 14:40:56	0.0	0.0	0.0	0.0
392	5/2/2019 14:41:56	0.0	0.0	0.0	0.0
393	5/2/2019 14:42:56	0.0	0.0	0.0	0.0
394	5/2/2019 14:43:56	0.0	0.0	0.0	0.0
395	5/2/2019 14:44:56	0.0	0.0	0.0	0.0
396	5/2/2019 14:45:56	0.0	0.0	0.0	0.0
397	5/2/2019 14:46:56	0.0	0.0	0.0	0.0

398	5/2/2019 14:47:56	0.0	0.0	0.0	0.0
399	5/2/2019 14:48:56	0.0	0.0	0.0	0.0
400	5/2/2019 14:49:56	0.0	0.0	0.0	0.0
401	5/2/2019 14:50:56	0.0	0.0	0.0	0.0
402	5/2/2019 14:51:56	0.0	0.0	0.0	0.0
403	5/2/2019 14:52:56	0.0	0.0	0.0	0.0
404	5/2/2019 14:53:56	0.0	0.0	0.0	0.0
405	5/2/2019 14:54:56	0.0	0.0	0.0	0.0
406	5/2/2019 14:55:56	0.0	0.0	0.0	0.0
407	5/2/2019 14:56:56	0.0	0.0	0.0	0.0
408	5/2/2019 14:57:56	0.0	0.0	0.0	0.0
409	5/2/2019 14:58:56	0.0	0.0	0.0	0.0
410	5/2/2019 14:59:56	0.0	0.0	0.0	0.0
411	5/2/2019 15:00:56	0.0	0.0	0.0	0.0
412	5/2/2019 15:01:56	0.0	0.0	0.0	0.0
413	5/2/2019 15:02:56	0.0	0.0	0.0	0.0
414	5/2/2019 15:03:56	0.0	0.0	0.0	0.0
415	5/2/2019 15:04:56	0.0	0.0	0.0	0.0
416	5/2/2019 15:05:56	0.0	0.0	0.0	0.0
417	5/2/2019 15:06:56	0.0	0.0	0.0	0.0
418	5/2/2019 15:07:56	0.0	0.0	0.0	0.0
419	5/2/2019 15:08:56	0.0	0.0	0.0	0.0
420	5/2/2019 15:09:56	0.0	0.0	0.1	0.0
421	5/2/2019 15:10:56	0.0	0.0	0.0	0.0
422	5/2/2019 15:11:56	0.0	0.0	0.0	0.0
423	5/2/2019 15:12:56	0.0	0.0	0.0	0.0
424	5/2/2019 15:13:56	0.0	0.0	0.0	0.0
425	5/2/2019 15:14:56	0.0	0.0	0.0	0.0
426	5/2/2019 15:15:56	0.0	0.0	0.0	0.0
427	5/2/2019 15:16:56	0.0	0.0	0.1	0.0
428	5/2/2019 15:17:56	0.0	0.0	0.1	0.0

Peak	0.1	0.3	0.4	0.3
Min	0.0	0.0	0.0	0.0
Average	0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/2/2019 08:10:56	0.0	---	
002	5/2/2019 08:11:56	0.0	---	
003	5/2/2019 08:12:56	0.0	---	
004	5/2/2019 08:13:56	0.0	---	
005	5/2/2019 08:14:56	0.0	---	
006	5/2/2019 08:15:56	0.0	---	
007	5/2/2019 08:16:56	0.0	---	
008	5/2/2019 08:17:56	0.0	---	
009	5/2/2019 08:18:56	0.0	---	
010	5/2/2019 08:19:56	0.0	---	
011	5/2/2019 08:20:56	0.0	---	
012	5/2/2019 08:21:56	0.0	---	
013	5/2/2019 08:22:56	0.0	---	
014	5/2/2019 08:23:56	0.0	---	
015	5/2/2019 08:24:56	0.0	0.0	
016	5/2/2019 08:25:56	0.0	0.0	
017	5/2/2019 08:26:56	0.0	0.0	
018	5/2/2019 08:27:56	0.0	0.0	
019	5/2/2019 08:28:56	0.0	0.0	
020	5/2/2019 08:29:56	0.0	0.0	
021	5/2/2019 08:30:56	0.0	0.0	
022	5/2/2019 08:31:56	0.0	0.0	
023	5/2/2019 08:32:56	0.0	0.0	

024	5/2/2019 08:33:56	0.0	0.0
025	5/2/2019 08:34:56	0.0	0.0
026	5/2/2019 08:35:56	0.0	0.0
027	5/2/2019 08:36:56	0.0	0.0
028	5/2/2019 08:37:56	0.0	0.0
029	5/2/2019 08:38:56	0.0	0.0
030	5/2/2019 08:39:56	0.0	0.0
031	5/2/2019 08:40:56	0.0	0.0
032	5/2/2019 08:41:56	0.0	0.0
033	5/2/2019 08:42:56	0.0	0.0
034	5/2/2019 08:43:56	0.0	0.0
035	5/2/2019 08:44:56	0.0	0.0
036	5/2/2019 08:45:56	0.0	0.0
037	5/2/2019 08:46:56	0.0	0.0
038	5/2/2019 08:47:56	0.0	0.0
039	5/2/2019 08:48:56	0.0	0.0
040	5/2/2019 08:49:56	0.0	0.0
041	5/2/2019 08:50:56	0.0	0.0
042	5/2/2019 08:51:56	0.0	0.0
043	5/2/2019 08:52:56	0.0	0.0
044	5/2/2019 08:53:56	0.0	0.0
045	5/2/2019 08:54:56	0.0	0.0
046	5/2/2019 08:55:56	0.0	0.0
047	5/2/2019 08:56:56	0.0	0.0
048	5/2/2019 08:57:56	0.0	0.0
049	5/2/2019 08:58:56	0.0	0.0
050	5/2/2019 08:59:56	0.0	0.0
051	5/2/2019 09:00:56	0.0	0.0
052	5/2/2019 09:01:56	0.0	0.0
053	5/2/2019 09:02:56	0.0	0.0
054	5/2/2019 09:03:56	0.0	0.0

055	5/2/2019 09:04:56	0.0	0.0
056	5/2/2019 09:05:56	0.0	0.0
057	5/2/2019 09:06:56	0.0	0.0
058	5/2/2019 09:07:56	0.0	0.0
059	5/2/2019 09:08:56	0.0	0.0
060	5/2/2019 09:09:56	0.0	0.0
061	5/2/2019 09:10:56	0.0	0.0
062	5/2/2019 09:11:56	0.0	0.0
063	5/2/2019 09:12:56	0.0	0.0
064	5/2/2019 09:13:56	0.0	0.0
065	5/2/2019 09:14:56	0.0	0.0
066	5/2/2019 09:15:56	0.0	0.0
067	5/2/2019 09:16:56	0.0	0.0
068	5/2/2019 09:17:56	0.0	0.0
069	5/2/2019 09:18:56	0.0	0.0
070	5/2/2019 09:19:56	0.0	0.0
071	5/2/2019 09:20:56	0.0	0.0
072	5/2/2019 09:21:56	0.0	0.0
073	5/2/2019 09:22:56	0.0	0.0
074	5/2/2019 09:23:56	0.0	0.0
075	5/2/2019 09:24:56	0.0	0.0
076	5/2/2019 09:25:56	0.0	0.0
077	5/2/2019 09:26:56	0.0	0.0
078	5/2/2019 09:27:56	0.0	0.0
079	5/2/2019 09:28:56	0.0	0.0
080	5/2/2019 09:29:56	0.0	0.0
081	5/2/2019 09:30:56	0.0	0.0
082	5/2/2019 09:31:56	0.0	0.0
083	5/2/2019 09:32:56	0.0	0.0
084	5/2/2019 09:33:56	0.0	0.0
085	5/2/2019 09:34:56	0.0	0.0

086	5/2/2019 09:35:56	0.0	0.0
087	5/2/2019 09:36:56	0.0	0.0
088	5/2/2019 09:37:56	0.0	0.0
089	5/2/2019 09:38:56	0.0	0.0
090	5/2/2019 09:39:56	0.0	0.0
091	5/2/2019 09:40:56	0.0	0.0
092	5/2/2019 09:41:56	0.0	0.0
093	5/2/2019 09:42:56	0.0	0.0
094	5/2/2019 09:43:56	0.0	0.0
095	5/2/2019 09:44:56	0.0	0.0
096	5/2/2019 09:45:56	0.0	0.0
097	5/2/2019 09:46:56	0.0	0.0
098	5/2/2019 09:47:56	0.0	0.0
099	5/2/2019 09:48:56	0.0	0.0
100	5/2/2019 09:49:56	0.0	0.0
101	5/2/2019 09:50:56	0.0	0.0
102	5/2/2019 09:51:56	0.0	0.0
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110	5/2/2019 09:59:56	0.0	0.0
111	5/2/2019 10:00:56	0.0	0.0
112	5/2/2019 10:01:56	0.0	0.0
113	5/2/2019 10:02:56	0.0	0.0
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324	5/2/2019 13:33:56	0.0	0.0
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326	5/2/2019 13:35:56	0.0	0.0
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331	5/2/2019 13:40:56	0.0	0.0
332	5/2/2019 13:41:56	0.0	0.0
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334	5/2/2019 13:43:56	0.0	0.0
335	5/2/2019 13:44:56	0.0	0.0
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351	5/2/2019 14:00:56	0.0	0.0
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386	5/2/2019 14:35:56	0.0	0.0
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401	5/2/2019 14:50:56	0.0	0.0
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403	5/2/2019 14:52:56	0.0	0.0
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408	5/2/2019 14:57:56	0.0	0.0
409	5/2/2019 14:58:56	0.0	0.0
410	5/2/2019 14:59:56	0.0	0.0
411	5/2/2019 15:00:56	0.0	0.0
412	5/2/2019 15:01:56	0.0	0.0
413	5/2/2019 15:02:56	0.0	0.0
414	5/2/2019 15:03:56	0.0	0.0
415	5/2/2019 15:04:56	0.0	0.0
416	5/2/2019 15:05:56	0.0	0.0
417	5/2/2019 15:06:56	0.0	0.0
418	5/2/2019 15:07:56	0.0	0.0
419	5/2/2019 15:08:56	0.0	0.0
420	5/2/2019 15:09:56	0.0	0.0
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424	5/2/2019 15:13:56	0.0	0.0
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426	5/2/2019 15:15:56	0.0	0.0

427 5/2/2019 15:16:56 0.0 0.0
428 5/2/2019 15:17:56 0.0 0.0
甄==========
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19/05/16 12:46
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-904392
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Battery Low

Site ID RAE00002
User ID 00000001

Begin 5/16/2019 12:46:57
End 5/16/2019 14:40:57
Sample Period(s) 60
Number of Records 113

Sensor PID(ppm)
Sensor SN S023030001MA
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 10050.0

High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.4
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/16/2019	12:47:57	0.3	0.3	0.4	0.4
002	5/16/2019	12:48:57	0.4	0.4	0.5	0.4
003	5/16/2019	12:49:57	0.3	0.4	0.5	0.3
004	5/16/2019	12:50:57	0.2	0.2	0.3	0.2
005	5/16/2019	12:51:57	0.0	0.2	0.4	0.0
006	5/16/2019	12:52:57	0.0	0.0	0.0	0.0
007	5/16/2019	12:53:57	0.0	0.0	0.0	0.0
008	5/16/2019	12:54:57	0.0	0.0	0.0	0.0
009	5/16/2019	12:55:57	0.0	0.0	0.0	0.0
010	5/16/2019	12:56:57	0.0	0.0	0.0	0.0
011	5/16/2019	12:57:57	0.0	0.0	0.0	0.0
012	5/16/2019	12:58:57	0.0	0.0	0.0	0.0
013	5/16/2019	12:59:57	0.0	0.0	0.0	0.0
014	5/16/2019	13:00:57	0.0	0.0	0.0	0.0
015	5/16/2019	13:01:57	0.0	0.0	0.0	0.0
016	5/16/2019	13:02:57	0.0	0.0	0.0	0.0
017	5/16/2019	13:03:57	0.0	0.0	0.0	0.0

018	5/16/2019 13:04:57	0.0	0.0	0.0	0.0
019	5/16/2019 13:05:57	0.0	0.0	0.0	0.0
020	5/16/2019 13:06:57	0.0	0.0	0.0	0.0
021	5/16/2019 13:07:57	0.0	0.0	0.0	0.0
022	5/16/2019 13:08:57	0.0	0.0	0.0	0.0
023	5/16/2019 13:09:57	0.0	0.0	0.0	0.0
024	5/16/2019 13:10:57	0.0	0.0	0.0	0.0
025	5/16/2019 13:11:57	0.0	0.0	0.0	0.0
026	5/16/2019 13:12:57	0.0	0.0	0.0	0.0
027	5/16/2019 13:13:57	0.0	0.0	0.0	0.0
028	5/16/2019 13:14:57	0.0	0.0	0.0	0.0
029	5/16/2019 13:15:57	0.0	0.0	0.0	0.0
030	5/16/2019 13:16:57	0.0	0.0	0.0	0.0
031	5/16/2019 13:17:57	0.0	0.0	0.0	0.0
032	5/16/2019 13:18:57	0.0	0.0	0.0	0.0
033	5/16/2019 13:19:57	0.0	0.0	0.0	0.0
034	5/16/2019 13:20:57	0.0	0.0	0.0	0.0
035	5/16/2019 13:21:57	0.0	0.0	0.0	0.0
036	5/16/2019 13:22:57	0.0	0.0	0.0	0.0
037	5/16/2019 13:23:57	0.0	0.0	0.0	0.0
038	5/16/2019 13:24:57	0.0	0.0	0.0	0.0
039	5/16/2019 13:25:57	0.0	0.0	0.0	0.0
040	5/16/2019 13:26:57	0.0	0.0	0.0	0.0
041	5/16/2019 13:27:57	0.0	0.0	0.0	0.0
042	5/16/2019 13:28:57	0.0	0.0	0.0	0.0
043	5/16/2019 13:29:57	0.0	0.0	0.0	0.0
044	5/16/2019 13:30:57	0.0	0.0	0.0	0.0
045	5/16/2019 13:31:57	0.0	0.0	0.0	0.0
046	5/16/2019 13:32:57	0.0	0.0	0.0	0.0
047	5/16/2019 13:33:57	0.0	0.0	0.0	0.0
048	5/16/2019 13:34:57	0.0	0.0	0.0	0.0

049	5/16/2019 13:35:57	0.0	0.0	0.0	0.0
050	5/16/2019 13:36:57	0.0	0.0	0.0	0.0
051	5/16/2019 13:37:57	0.0	0.0	0.0	0.0
052	5/16/2019 13:38:57	0.0	0.0	0.0	0.0
053	5/16/2019 13:39:57	0.0	0.0	0.0	0.0
054	5/16/2019 13:40:57	0.0	0.0	0.0	0.0
055	5/16/2019 13:41:57	0.0	0.0	0.0	0.0
056	5/16/2019 13:42:57	0.0	0.0	0.0	0.0
057	5/16/2019 13:43:57	0.0	0.0	0.0	0.0
058	5/16/2019 13:44:57	0.0	0.0	0.0	0.0
059	5/16/2019 13:45:57	0.0	0.0	0.0	0.0
060	5/16/2019 13:46:57	0.0	0.0	0.0	0.0
061	5/16/2019 13:47:57	0.0	0.0	0.0	0.0
062	5/16/2019 13:48:57	0.0	0.0	0.0	0.0
063	5/16/2019 13:49:57	0.0	0.0	0.0	0.0
064	5/16/2019 13:50:57	0.0	0.0	0.0	0.0
065	5/16/2019 13:51:57	0.0	0.0	0.0	0.0
066	5/16/2019 13:52:57	0.0	0.0	0.0	0.0
067	5/16/2019 13:53:57	0.0	0.0	0.0	0.0
068	5/16/2019 13:54:57	0.0	0.0	0.0	0.0
069	5/16/2019 13:55:57	0.0	0.0	0.0	0.0
070	5/16/2019 13:56:57	0.0	0.0	0.0	0.0
071	5/16/2019 13:57:57	0.0	0.0	0.0	0.0
072	5/16/2019 13:58:57	0.0	0.0	0.0	0.0
073	5/16/2019 13:59:57	0.0	0.0	0.1	0.0
074	5/16/2019 14:00:57	0.0	0.0	0.0	0.0
075	5/16/2019 14:01:57	0.0	0.0	0.0	0.0
076	5/16/2019 14:02:57	0.0	0.0	0.0	0.0
077	5/16/2019 14:03:57	0.0	0.0	0.0	0.0
078	5/16/2019 14:04:57	0.0	0.0	0.0	0.0
079	5/16/2019 14:05:57	0.0	0.0	0.0	0.0

080	5/16/2019 14:06:57	0.0	0.0	0.0	0.0
081	5/16/2019 14:07:57	0.0	0.0	0.0	0.0
082	5/16/2019 14:08:57	0.0	0.0	0.0	0.0
083	5/16/2019 14:09:57	0.0	0.0	0.0	0.0
084	5/16/2019 14:10:57	0.0	0.0	0.0	0.0
085	5/16/2019 14:11:57	0.0	0.0	0.0	0.0
086	5/16/2019 14:12:57	0.0	0.0	0.0	0.0
087	5/16/2019 14:13:57	0.0	0.0	0.0	0.0
088	5/16/2019 14:14:57	0.0	0.0	0.0	0.0
089	5/16/2019 14:15:57	0.0	0.0	0.0	0.0
090	5/16/2019 14:16:57	0.0	0.0	0.0	0.0
091	5/16/2019 14:17:57	0.0	0.0	0.0	0.0
092	5/16/2019 14:18:57	0.0	0.0	0.0	0.0
093	5/16/2019 14:19:57	0.0	0.0	0.0	0.0
094	5/16/2019 14:20:57	0.0	0.0	0.0	0.0
095	5/16/2019 14:21:57	0.0	0.0	0.0	0.0
096	5/16/2019 14:22:57	0.0	0.0	0.0	0.0
097	5/16/2019 14:23:57	0.0	0.0	0.0	0.0
098	5/16/2019 14:24:57	0.0	0.0	0.0	0.0
099	5/16/2019 14:25:57	0.0	0.0	0.0	0.0
100	5/16/2019 14:26:57	0.0	0.0	0.0	0.0
101	5/16/2019 14:27:57	0.0	0.0	0.0	0.0
102	5/16/2019 14:28:57	0.0	0.0	0.0	0.0
103	5/16/2019 14:29:57	0.0	0.0	0.0	0.0
104	5/16/2019 14:30:57	0.0	0.0	0.0	0.0
105	5/16/2019 14:31:57	0.0	0.0	0.0	0.0
106	5/16/2019 14:32:57	0.0	0.0	0.0	0.0
107	5/16/2019 14:33:57	0.0	0.0	0.0	0.0
108	5/16/2019 14:34:57	0.0	0.0	0.0	0.0
109	5/16/2019 14:35:57	0.0	0.0	0.0	0.0
110	5/16/2019 14:36:57	0.0	0.0	0.0	0.0

111	5/16/2019	14:37:57	0.0	0.0	0.0	0.0
112	5/16/2019	14:38:57	0.0	0.0	0.0	0.0
113	5/16/2019	14:39:57	0.0	0.0	0.0	0.0
Peak			0.4	0.4	0.5	0.4
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

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TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)
001	5/16/2019	12:47:57	0.0	---
002	5/16/2019	12:48:57	0.0	---
003	5/16/2019	12:49:57	0.0	---
004	5/16/2019	12:50:57	0.0	---
005	5/16/2019	12:51:57	0.0	---
006	5/16/2019	12:52:57	0.0	---
007	5/16/2019	12:53:57	0.0	---
008	5/16/2019	12:54:57	0.0	---
009	5/16/2019	12:55:57	0.0	---
010	5/16/2019	12:56:57	0.0	---
011	5/16/2019	12:57:57	0.0	---
012	5/16/2019	12:58:57	0.0	---
013	5/16/2019	12:59:57	0.0	---
014	5/16/2019	13:00:57	0.0	---
015	5/16/2019	13:01:57	0.0	0.1
016	5/16/2019	13:02:57	0.0	0.1
017	5/16/2019	13:03:57	0.0	0.1
018	5/16/2019	13:04:57	0.0	0.0
019	5/16/2019	13:05:57	0.0	0.0
020	5/16/2019	13:06:57	0.0	0.0

021	5/16/2019 13:07:57	0.0	0.0
022	5/16/2019 13:08:57	0.0	0.0
023	5/16/2019 13:09:57	0.0	0.0
024	5/16/2019 13:10:57	0.0	0.0
025	5/16/2019 13:11:57	0.0	0.0
026	5/16/2019 13:12:57	0.0	0.0
027	5/16/2019 13:13:57	0.0	0.0
028	5/16/2019 13:14:57	0.0	0.0
029	5/16/2019 13:15:57	0.0	0.0
030	5/16/2019 13:16:57	0.0	0.0
031	5/16/2019 13:17:57	0.0	0.0
032	5/16/2019 13:18:57	0.0	0.0
033	5/16/2019 13:19:57	0.0	0.0
034	5/16/2019 13:20:57	0.0	0.0
035	5/16/2019 13:21:57	0.0	0.0
036	5/16/2019 13:22:57	0.0	0.0
037	5/16/2019 13:23:57	0.0	0.0
038	5/16/2019 13:24:57	0.0	0.0
039	5/16/2019 13:25:57	0.0	0.0
040	5/16/2019 13:26:57	0.0	0.0
041	5/16/2019 13:27:57	0.0	0.0
042	5/16/2019 13:28:57	0.0	0.0
043	5/16/2019 13:29:57	0.0	0.0
044	5/16/2019 13:30:57	0.0	0.0
045	5/16/2019 13:31:57	0.0	0.0
046	5/16/2019 13:32:57	0.0	0.0
047	5/16/2019 13:33:57	0.0	0.0
048	5/16/2019 13:34:57	0.0	0.0
049	5/16/2019 13:35:57	0.0	0.0
050	5/16/2019 13:36:57	0.0	0.0
051	5/16/2019 13:37:57	0.0	0.0

052	5/16/2019 13:38:57	0.0	0.0
053	5/16/2019 13:39:57	0.0	0.0
054	5/16/2019 13:40:57	0.0	0.0
055	5/16/2019 13:41:57	0.0	0.0
056	5/16/2019 13:42:57	0.0	0.0
057	5/16/2019 13:43:57	0.0	0.0
058	5/16/2019 13:44:57	0.0	0.0
059	5/16/2019 13:45:57	0.0	0.0
060	5/16/2019 13:46:57	0.0	0.0
061	5/16/2019 13:47:57	0.0	0.0
062	5/16/2019 13:48:57	0.0	0.0
063	5/16/2019 13:49:57	0.0	0.0
064	5/16/2019 13:50:57	0.0	0.0
065	5/16/2019 13:51:57	0.0	0.0
066	5/16/2019 13:52:57	0.0	0.0
067	5/16/2019 13:53:57	0.0	0.0
068	5/16/2019 13:54:57	0.0	0.0
069	5/16/2019 13:55:57	0.0	0.0
070	5/16/2019 13:56:57	0.0	0.0
071	5/16/2019 13:57:57	0.0	0.0
072	5/16/2019 13:58:57	0.0	0.0
073	5/16/2019 13:59:57	0.0	0.0
074	5/16/2019 14:00:57	0.0	0.0
075	5/16/2019 14:01:57	0.0	0.0
076	5/16/2019 14:02:57	0.0	0.0
077	5/16/2019 14:03:57	0.0	0.0
078	5/16/2019 14:04:57	0.0	0.0
079	5/16/2019 14:05:57	0.0	0.0
080	5/16/2019 14:06:57	0.0	0.0
081	5/16/2019 14:07:57	0.0	0.0
082	5/16/2019 14:08:57	0.0	0.0

083	5/16/2019 14:09:57	0.0	0.0
084	5/16/2019 14:10:57	0.0	0.0
085	5/16/2019 14:11:57	0.0	0.0
086	5/16/2019 14:12:57	0.0	0.0
087	5/16/2019 14:13:57	0.0	0.0
088	5/16/2019 14:14:57	0.0	0.0
089	5/16/2019 14:15:57	0.0	0.0
090	5/16/2019 14:16:57	0.0	0.0
091	5/16/2019 14:17:57	0.0	0.0
092	5/16/2019 14:18:57	0.0	0.0
093	5/16/2019 14:19:57	0.0	0.0
094	5/16/2019 14:20:57	0.0	0.0
095	5/16/2019 14:21:57	0.0	0.0
096	5/16/2019 14:22:57	0.0	0.0
097	5/16/2019 14:23:57	0.0	0.0
098	5/16/2019 14:24:57	0.0	0.0
099	5/16/2019 14:25:57	0.0	0.0
100	5/16/2019 14:26:57	0.0	0.0
101	5/16/2019 14:27:57	0.0	0.0
102	5/16/2019 14:28:57	0.0	0.0
103	5/16/2019 14:29:57	0.0	0.0
104	5/16/2019 14:30:57	0.0	0.0
105	5/16/2019 14:31:57	0.0	0.0
106	5/16/2019 14:32:57	0.0	0.0
107	5/16/2019 14:33:57	0.0	0.0
108	5/16/2019 14:34:57	0.0	0.0
109	5/16/2019 14:35:57	0.0	0.0
110	5/16/2019 14:36:57	0.0	0.0
111	5/16/2019 14:37:57	0.0	0.0
112	5/16/2019 14:38:57	0.0	0.0
113	5/16/2019 14:39:57	0.0	0.0

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19/05/17 10:36
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00002
User ID	00000001

Begin	5/17/2019 10:36:52
End	5/17/2019 16:02:31
Sample Period(s)	60
Number of Records	325

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0

STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	1.5
Min	0.0
Average	0.2

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/17/2019	10:37:52	0.0	0.0	0.0	0.0
002	5/17/2019	10:38:52	0.0	0.0	0.0	0.0
003	5/17/2019	10:39:52	0.0	0.0	0.0	0.0
004	5/17/2019	10:40:52	0.0	0.0	0.0	0.0
005	5/17/2019	10:41:52	0.0	0.0	0.0	0.0
006	5/17/2019	10:42:52	0.0	0.0	0.0	0.0
007	5/17/2019	10:43:52	0.0	0.0	0.0	0.0
008	5/17/2019	10:44:52	0.0	0.0	0.0	0.0
009	5/17/2019	10:45:52	0.0	0.0	0.0	0.0
010	5/17/2019	10:46:52	0.0	0.0	0.0	0.0
011	5/17/2019	10:47:52	0.0	0.0	0.0	0.0
012	5/17/2019	10:48:52	0.0	0.0	0.0	0.0
013	5/17/2019	10:49:52	0.0	0.0	0.0	0.0
014	5/17/2019	10:50:52	0.0	0.0	0.0	0.0
015	5/17/2019	10:51:52	0.0	0.0	0.0	0.0
016	5/17/2019	10:52:52	0.0	0.0	0.0	0.0
017	5/17/2019	10:53:52	0.0	0.0	0.0	0.0
018	5/17/2019	10:54:52	0.0	0.0	0.0	0.0
019	5/17/2019	10:55:52	0.0	0.0	0.0	0.0

020	5/17/2019	10:56:52	0.0	0.0	0.0	0.0
021	5/17/2019	10:57:52	0.0	0.0	0.0	0.0
022	5/17/2019	10:58:52	0.0	0.0	0.0	0.0
023	5/17/2019	10:59:52	0.0	0.0	0.0	0.0
024	5/17/2019	11:00:52	0.0	0.0	0.0	0.0
025	5/17/2019	11:01:52	0.0	0.0	0.0	0.0
026	5/17/2019	11:02:52	0.0	0.0	0.0	0.0
027	5/17/2019	11:03:52	0.0	0.0	0.0	0.0
028	5/17/2019	11:04:52	0.0	0.0	0.0	0.0
029	5/17/2019	11:05:52	0.0	0.0	0.0	0.0
030	5/17/2019	11:06:52	0.0	0.0	0.0	0.0
031	5/17/2019	11:07:52	0.0	0.0	0.0	0.0
032	5/17/2019	11:08:52	0.0	0.0	0.0	0.0
033	5/17/2019	11:09:52	0.0	0.0	0.0	0.0
034	5/17/2019	11:10:52	0.0	0.0	0.0	0.0
035	5/17/2019	11:11:52	0.0	0.0	0.0	0.0
036	5/17/2019	11:12:52	0.0	0.0	0.0	0.0
037	5/17/2019	11:13:52	0.0	0.0	0.0	0.0
038	5/17/2019	11:14:52	0.0	0.0	0.0	0.0
039	5/17/2019	11:15:52	0.0	0.0	0.0	0.0
040	5/17/2019	11:16:52	0.0	0.0	0.0	0.0
041	5/17/2019	11:17:52	0.0	0.0	0.0	0.0
042	5/17/2019	11:18:52	0.0	0.0	0.0	0.0
043	5/17/2019	11:19:52	0.0	0.0	0.0	0.0
044	5/17/2019	11:20:52	0.0	0.0	0.0	0.0
045	5/17/2019	11:21:52	0.0	0.0	0.0	0.0
046	5/17/2019	11:22:52	0.0	0.0	0.0	0.0
047	5/17/2019	11:23:52	0.0	0.0	0.0	0.0
048	5/17/2019	11:24:52	0.0	0.0	0.0	0.0
049	5/17/2019	11:25:52	0.0	0.0	0.0	0.0
050	5/17/2019	11:26:52	0.0	0.0	0.0	0.0

051	5/17/2019	11:27:52	0.0	0.0	0.0	0.0
052	5/17/2019	11:28:52	0.0	0.0	0.0	0.0
053	5/17/2019	11:29:52	0.0	0.0	0.0	0.0
054	5/17/2019	11:30:52	0.0	0.0	0.0	0.0
055	5/17/2019	11:31:52	0.0	0.0	0.0	0.0
056	5/17/2019	11:32:52	0.0	0.0	0.0	0.0
057	5/17/2019	11:33:52	0.0	0.0	0.0	0.0
058	5/17/2019	11:34:52	0.0	0.0	0.0	0.0
059	5/17/2019	11:35:52	0.0	0.0	0.0	0.0
060	5/17/2019	11:36:52	0.0	0.0	0.0	0.0
061	5/17/2019	11:37:52	0.0	0.0	0.0	0.0
062	5/17/2019	11:38:52	0.0	0.0	0.0	0.0
063	5/17/2019	11:39:52	0.0	0.0	0.0	0.0
064	5/17/2019	11:40:52	0.0	0.0	0.0	0.0
065	5/17/2019	11:41:52	0.0	0.0	0.0	0.0
066	5/17/2019	11:42:52	0.0	0.0	0.0	0.0
067	5/17/2019	11:43:52	0.0	0.0	0.0	0.0
068	5/17/2019	11:44:52	0.0	0.0	0.0	0.0
069	5/17/2019	11:45:52	0.0	0.0	0.0	0.0
070	5/17/2019	11:46:52	0.0	0.0	0.0	0.0
071	5/17/2019	11:47:52	0.0	0.0	0.0	0.0
072	5/17/2019	11:48:52	0.0	0.0	0.0	0.0
073	5/17/2019	11:49:52	0.0	0.0	0.0	0.0
074	5/17/2019	11:50:52	0.0	0.0	0.0	0.0
075	5/17/2019	11:51:52	0.0	0.0	0.0	0.0
076	5/17/2019	11:52:52	0.0	0.0	0.0	0.0
077	5/17/2019	11:53:52	0.0	0.0	0.0	0.0
078	5/17/2019	11:54:52	0.0	0.0	0.0	0.0
079	5/17/2019	11:55:52	0.0	0.0	0.0	0.0
080	5/17/2019	11:56:52	0.0	0.0	0.0	0.0
081	5/17/2019	11:57:52	0.0	0.0	0.0	0.0

082	5/17/2019	11:58:52	0.0	0.0	0.0	0.0
083	5/17/2019	11:59:52	0.0	0.0	0.0	0.0
084	5/17/2019	12:00:52	0.0	0.0	0.0	0.0
085	5/17/2019	12:01:52	0.0	0.0	0.0	0.0
086	5/17/2019	12:02:52	0.0	0.0	0.0	0.0
087	5/17/2019	12:03:52	0.0	0.0	0.0	0.0
088	5/17/2019	12:04:52	0.0	0.0	0.0	0.0
089	5/17/2019	12:05:52	0.0	0.0	0.0	0.0
090	5/17/2019	12:06:52	0.0	0.0	0.0	0.0
091	5/17/2019	12:07:52	0.0	0.0	0.0	0.0
092	5/17/2019	12:08:52	0.0	0.0	0.0	0.0
093	5/17/2019	12:09:52	0.0	0.0	0.0	0.0
094	5/17/2019	12:10:52	0.0	0.0	0.0	0.0
095	5/17/2019	12:11:52	0.0	0.0	0.0	0.0
096	5/17/2019	12:12:52	0.0	0.0	0.0	0.0
097	5/17/2019	12:13:52	0.0	0.0	0.0	0.0
098	5/17/2019	12:14:52	0.0	0.0	0.0	0.0
099	5/17/2019	12:15:52	0.0	0.0	0.0	0.0
100	5/17/2019	12:16:52	0.0	0.0	0.0	0.0
101	5/17/2019	12:17:52	0.0	0.0	0.0	0.0
102	5/17/2019	12:18:52	0.0	0.0	0.0	0.0
103	5/17/2019	12:19:52	0.0	0.0	0.0	0.0
104	5/17/2019	12:20:52	0.0	0.0	0.0	0.0
105	5/17/2019	12:21:52	0.0	0.0	0.0	0.0
106	5/17/2019	12:22:52	0.0	0.0	0.0	0.0
107	5/17/2019	12:23:52	0.0	0.0	0.0	0.0
108	5/17/2019	12:24:52	0.0	0.0	0.0	0.0
109	5/17/2019	12:25:52	0.0	0.0	0.0	0.0
110	5/17/2019	12:26:52	0.0	0.0	0.0	0.0
111	5/17/2019	12:27:52	0.0	0.0	0.0	0.0
112	5/17/2019	12:28:52	0.0	0.0	0.0	0.0

113	5/17/2019 12:29:52	0.0	0.0	0.0	0.0
114	5/17/2019 12:30:52	0.0	0.0	0.0	0.0
115	5/17/2019 12:31:52	0.0	0.0	0.0	0.0
116	5/17/2019 12:32:52	0.0	0.0	0.0	0.0
117	5/17/2019 12:33:52	0.0	0.0	0.0	0.0
118	5/17/2019 12:34:52	0.0	0.0	0.0	0.0
119	5/17/2019 12:35:52	0.0	0.0	0.0	0.0
120	5/17/2019 12:36:52	0.0	0.0	0.0	0.0
121	5/17/2019 12:37:52	0.0	0.0	0.0	0.0
122	5/17/2019 12:38:52	0.0	0.0	0.1	0.0
123	5/17/2019 12:39:52	0.0	0.0	0.0	0.0
124	5/17/2019 12:40:52	0.0	0.0	0.0	0.0
125	5/17/2019 12:41:52	0.0	0.0	0.0	0.0
126	5/17/2019 12:42:52	0.0	0.0	0.0	0.0
127	5/17/2019 12:43:52	0.0	0.0	0.0	0.0
128	5/17/2019 12:44:52	0.0	0.0	0.0	0.0
129	5/17/2019 12:45:52	0.0	0.0	0.0	0.0
130	5/17/2019 12:46:52	0.0	0.0	0.0	0.0
131	5/17/2019 12:47:52	0.0	0.0	0.0	0.0
132	5/17/2019 12:48:52	0.0	0.0	0.0	0.0
133	5/17/2019 12:49:52	0.0	0.0	0.0	0.0
134	5/17/2019 12:50:52	0.0	0.0	0.0	0.0
135	5/17/2019 12:51:52	0.0	0.0	0.0	0.0
136	5/17/2019 12:52:52	0.0	0.0	0.0	0.0
137	5/17/2019 12:53:52	0.0	0.0	0.0	0.0
138	5/17/2019 12:54:52	0.0	0.0	0.0	0.0
139	5/17/2019 12:55:52	0.0	0.0	0.0	0.0
140	5/17/2019 12:56:52	0.0	0.0	0.0	0.0
141	5/17/2019 12:57:52	0.0	0.0	0.0	0.0
142	5/17/2019 12:58:52	0.0	0.0	0.0	0.0
143	5/17/2019 12:59:52	0.0	0.0	0.0	0.0

144	5/17/2019 13:00:52	0.0	0.0	0.0	0.0
145	5/17/2019 13:01:52	0.0	0.0	0.0	0.0
146	5/17/2019 13:02:52	0.0	0.0	0.0	0.0
147	5/17/2019 13:03:52	0.0	0.0	0.0	0.0
148	5/17/2019 13:04:52	0.0	0.0	0.0	0.0
149	5/17/2019 13:05:52	0.0	0.0	0.0	0.0
150	5/17/2019 13:06:52	0.0	0.0	0.0	0.0
151	5/17/2019 13:07:52	0.0	0.0	0.0	0.0
152	5/17/2019 13:08:52	0.0	0.0	0.0	0.0
153	5/17/2019 13:09:52	0.0	0.0	0.0	0.0
154	5/17/2019 13:10:52	0.0	0.0	0.0	0.0
155	5/17/2019 13:11:52	0.0	0.0	0.0	0.0
156	5/17/2019 13:12:52	0.0	0.0	0.0	0.0
157	5/17/2019 13:13:52	0.0	0.0	0.0	0.0
158	5/17/2019 13:14:52	0.0	0.0	0.0	0.0
159	5/17/2019 13:15:52	0.0	0.0	0.0	0.0
160	5/17/2019 13:16:52	0.0	0.0	0.0	0.0
161	5/17/2019 13:17:52	0.0	0.0	0.0	0.0
162	5/17/2019 13:18:52	0.0	0.0	0.0	0.0
163	5/17/2019 13:19:52	0.0	0.0	0.0	0.0
164	5/17/2019 13:20:52	0.0	0.0	0.0	0.0
165	5/17/2019 13:21:52	0.0	0.0	0.0	0.0
166	5/17/2019 13:22:52	0.0	0.0	0.0	0.0
167	5/17/2019 13:23:52	0.0	0.0	0.0	0.0
168	5/17/2019 13:24:52	0.0	0.0	0.0	0.0
169	5/17/2019 13:25:52	0.0	0.0	0.0	0.0
170	5/17/2019 13:26:52	0.0	0.0	0.0	0.0
171	5/17/2019 13:27:52	0.0	0.0	0.0	0.0
172	5/17/2019 13:28:52	0.0	0.0	0.0	0.0
173	5/17/2019 13:29:52	0.0	0.0	0.0	0.0
174	5/17/2019 13:30:52	0.0	0.0	0.0	0.0

175	5/17/2019 13:31:52	0.0	0.0	0.0	0.0
176	5/17/2019 13:32:52	0.0	0.0	0.0	0.0
177	5/17/2019 13:33:52	0.0	0.0	0.0	0.0
178	5/17/2019 13:34:52	0.0	0.0	0.0	0.0
179	5/17/2019 13:35:52	0.0	0.0	0.0	0.0
180	5/17/2019 13:36:52	0.0	0.0	0.0	0.0
181	5/17/2019 13:37:52	0.0	0.0	0.0	0.0
182	5/17/2019 13:38:52	0.0	0.0	0.0	0.0
183	5/17/2019 13:39:52	0.0	0.0	0.0	0.0
184	5/17/2019 13:40:52	0.0	0.0	0.0	0.0
185	5/17/2019 13:41:52	0.0	0.0	0.0	0.0
186	5/17/2019 13:42:52	0.0	0.0	0.0	0.0
187	5/17/2019 13:43:52	0.0	0.0	0.0	0.0
188	5/17/2019 13:44:52	0.0	0.0	0.0	0.0
189	5/17/2019 13:45:52	0.0	0.0	0.0	0.0
190	5/17/2019 13:46:52	0.0	0.0	0.0	0.0
191	5/17/2019 13:47:52	0.0	0.0	0.0	0.0
192	5/17/2019 13:48:52	0.0	0.0	0.0	0.0
193	5/17/2019 13:49:52	0.0	0.0	0.0	0.0
194	5/17/2019 13:50:52	0.0	0.0	0.0	0.0
195	5/17/2019 13:51:52	0.0	0.0	0.0	0.0
196	5/17/2019 13:52:52	0.0	0.0	0.0	0.0
197	5/17/2019 13:53:52	0.0	0.0	0.0	0.0
198	5/17/2019 13:54:52	0.0	0.0	0.0	0.0
199	5/17/2019 13:55:52	0.0	0.0	0.0	0.0
200	5/17/2019 13:56:52	0.0	0.0	0.1	0.1
201	5/17/2019 13:57:52	0.1	0.1	0.1	0.1
202	5/17/2019 13:58:52	0.1	0.2	0.2	0.2
203	5/17/2019 13:59:52	0.1	0.2	0.2	0.1
204	5/17/2019 14:00:52	0.0	0.1	0.1	0.0
205	5/17/2019 14:01:52	0.0	0.0	0.1	0.1

206	5/17/2019	14:02:52	0.1	0.1	0.2	0.2
207	5/17/2019	14:03:52	0.3	0.6	0.8	0.8
208	5/17/2019	14:04:52	0.6	0.8	1.0	0.7
209	5/17/2019	14:05:52	0.6	0.7	0.9	0.6
210	5/17/2019	14:06:52	0.4	0.5	0.6	0.5
211	5/17/2019	14:07:52	0.3	0.4	0.5	0.3
212	5/17/2019	14:08:52	0.2	0.3	0.3	0.3
213	5/17/2019	14:09:52	0.2	0.2	0.3	0.2
214	5/17/2019	14:10:52	0.2	0.3	0.3	0.3
215	5/17/2019	14:11:52	0.3	0.3	0.4	0.3
216	5/17/2019	14:12:52	0.2	0.3	0.3	0.2
217	5/17/2019	14:13:52	0.2	0.2	0.2	0.2
218	5/17/2019	14:14:52	0.2	0.2	0.3	0.3
219	5/17/2019	14:15:52	0.2	0.2	0.3	0.2
220	5/17/2019	14:16:52	0.1	0.2	0.2	0.1
221	5/17/2019	14:17:52	0.1	0.2	0.3	0.3
222	5/17/2019	14:18:52	0.3	0.4	0.6	0.5
223	5/17/2019	14:19:52	0.5	0.7	1.0	0.7
224	5/17/2019	14:20:52	0.5	0.8	1.0	0.9
225	5/17/2019	14:21:52	0.9	1.5	2.0	1.5
226	5/17/2019	14:22:52	0.4	0.7	1.5	0.5
227	5/17/2019	14:23:52	0.2	0.3	0.5	0.4
228	5/17/2019	14:24:52	0.3	0.3	0.4	0.4
229	5/17/2019	14:25:52	0.4	0.5	0.6	0.6
230	5/17/2019	14:26:52	0.5	0.5	0.6	0.5
231	5/17/2019	14:27:52	0.3	0.5	1.0	0.4
232	5/17/2019	14:28:52	0.3	0.6	1.0	1.0
233	5/17/2019	14:29:52	0.6	1.1	1.5	0.7
234	5/17/2019	14:30:52	0.7	1.0	1.2	1.1
235	5/17/2019	14:31:52	0.7	1.0	1.2	0.7
236	5/17/2019	14:32:52	0.6	0.7	1.1	0.7

237	5/17/2019	14:33:52	0.6	0.8	1.1	0.7
238	5/17/2019	14:34:52	0.5	0.7	0.9	0.6
239	5/17/2019	14:35:52	0.2	0.4	0.7	0.4
240	5/17/2019	14:36:52	0.3	0.3	0.5	0.5
241	5/17/2019	14:37:52	0.5	0.7	0.9	0.7
242	5/17/2019	14:38:52	0.5	0.6	0.7	0.5
243	5/17/2019	14:39:52	0.5	0.8	1.1	0.7
244	5/17/2019	14:40:52	0.4	0.6	1.0	0.9
245	5/17/2019	14:41:52	0.5	0.8	0.9	0.9
246	5/17/2019	14:42:52	0.6	0.8	1.1	0.6
247	5/17/2019	14:43:52	0.3	0.4	0.7	0.5
248	5/17/2019	14:44:52	0.5	0.7	0.8	0.7
249	5/17/2019	14:45:52	0.3	0.6	0.9	0.7
250	5/17/2019	14:46:52	0.5	0.7	0.9	0.5
251	5/17/2019	14:47:52	0.5	0.7	1.1	1.1
252	5/17/2019	14:48:52	0.7	1.0	1.2	1.0
253	5/17/2019	14:49:52	0.3	0.5	0.9	0.4
254	5/17/2019	14:50:52	0.4	0.7	1.1	0.9
255	5/17/2019	14:51:52	0.5	0.7	0.9	0.6
256	5/17/2019	14:52:52	0.2	0.3	0.5	0.2
257	5/17/2019	14:53:52	0.2	0.3	0.7	0.7
258	5/17/2019	14:54:52	0.2	0.5	0.7	0.2
259	5/17/2019	14:55:52	0.2	0.2	0.3	0.3
260	5/17/2019	14:56:52	0.3	0.4	0.7	0.7
261	5/17/2019	14:57:52	0.3	0.5	0.7	0.5
262	5/17/2019	14:58:52	0.5	0.7	0.9	0.9
263	5/17/2019	14:59:52	0.7	0.8	0.9	0.7
264	5/17/2019	15:00:52	0.4	0.6	0.8	0.4
265	5/17/2019	15:01:52	0.3	0.5	0.6	0.6
266	5/17/2019	15:02:52	0.5	0.6	0.7	0.7
267	5/17/2019	15:03:52	0.5	0.7	0.7	0.5

268	5/17/2019 15:04:52	0.5	0.7	0.7	0.7
269	5/17/2019 15:05:52	0.3	0.5	0.7	0.3
270	5/17/2019 15:06:52	0.3	0.4	0.5	0.5
271	5/17/2019 15:07:52	0.4	0.5	0.7	0.7
272	5/17/2019 15:08:52	0.7	0.7	0.7	0.7
273	5/17/2019 15:09:52	0.7	0.7	0.7	0.7
274	5/17/2019 15:10:52	0.6	0.7	0.7	0.7
275	5/17/2019 15:11:52	0.3	0.4	0.7	0.4
276	5/17/2019 15:12:52	0.4	0.4	0.5	0.5
277	5/17/2019 15:13:52	0.5	0.5	0.5	0.5
278	5/17/2019 15:14:52	0.5	0.6	0.6	0.6
279	5/17/2019 15:15:52	0.5	0.6	0.6	0.6
280	5/17/2019 15:16:52	0.6	0.6	0.7	0.6
281	5/17/2019 15:17:52	0.4	0.5	0.6	0.4
282	5/17/2019 15:18:52	0.3	0.4	0.4	0.3
283	5/17/2019 15:19:52	0.3	0.4	0.5	0.5
284	5/17/2019 15:20:52	0.4	0.5	0.5	0.4
285	5/17/2019 15:21:52	0.2	0.3	0.5	0.3
286	5/17/2019 15:22:52	0.2	0.3	0.4	0.2
287	5/17/2019 15:23:52	0.2	0.3	0.4	0.2
288	5/17/2019 15:24:52	0.2	0.2	0.3	0.2
289	5/17/2019 15:25:52	0.2	0.3	0.4	0.2
290	5/17/2019 15:26:52	0.2	0.3	0.3	0.3
291	5/17/2019 15:27:52	0.2	0.3	0.4	0.4
292	5/17/2019 15:28:52	0.3	0.4	0.4	0.3
293	5/17/2019 15:29:52	0.3	0.4	0.4	0.4
294	5/17/2019 15:30:52	0.3	0.4	0.4	0.3
295	5/17/2019 15:31:52	0.2	0.3	0.3	0.3
296	5/17/2019 15:32:52	0.2	0.2	0.3	0.2
297	5/17/2019 15:33:52	0.2	0.3	0.3	0.3
298	5/17/2019 15:34:52	0.3	0.3	0.3	0.3

299	5/17/2019	15:35:52	0.3	0.3	0.3	0.3
300	5/17/2019	15:36:52	0.3	0.3	0.4	0.3
301	5/17/2019	15:37:52	0.3	0.4	0.4	0.4
302	5/17/2019	15:38:52	0.4	0.4	0.4	0.4
303	5/17/2019	15:39:52	0.3	0.4	0.5	0.4
304	5/17/2019	15:40:52	0.3	0.4	0.4	0.3
305	5/17/2019	15:41:52	0.2	0.3	0.4	0.3
306	5/17/2019	15:42:52	0.3	0.4	0.5	0.5
307	5/17/2019	15:43:52	0.4	0.5	0.5	0.4
308	5/17/2019	15:44:52	0.3	0.4	0.5	0.3
309	5/17/2019	15:45:52	0.3	0.4	0.4	0.4
310	5/17/2019	15:46:52	0.4	0.4	0.4	0.4
311	5/17/2019	15:47:52	0.4	0.4	0.5	0.4
312	5/17/2019	15:48:52	0.4	0.4	0.4	0.4
313	5/17/2019	15:49:52	0.3	0.3	0.4	0.3
314	5/17/2019	15:50:52	0.3	0.4	0.5	0.4
315	5/17/2019	15:51:52	0.3	0.3	0.4	0.3
316	5/17/2019	15:52:52	0.2	0.3	0.3	0.3
317	5/17/2019	15:53:52	0.2	0.3	0.3	0.3
318	5/17/2019	15:54:52	0.3	0.3	0.3	0.3
319	5/17/2019	15:55:52	0.2	0.3	0.3	0.3
320	5/17/2019	15:56:52	0.3	0.3	0.3	0.3
321	5/17/2019	15:57:52	0.2	0.3	0.3	0.3
322	5/17/2019	15:58:52	0.3	0.3	0.3	0.3
323	5/17/2019	15:59:52	0.2	0.3	0.3	0.2
324	5/17/2019	16:00:52	0.2	0.3	0.3	0.3
325	5/17/2019	16:01:52	0.3	0.3	0.4	0.4
Peak		0.9	1.5	2.0	1.5	
Min		0.0	0.0	0.0	0.0	
Average		0.1	0.2	0.2	0.2	

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/17/2019	10:37:52	0.0	---
002	5/17/2019	10:38:52	0.0	---
003	5/17/2019	10:39:52	0.0	---
004	5/17/2019	10:40:52	0.0	---
005	5/17/2019	10:41:52	0.0	---
006	5/17/2019	10:42:52	0.0	---
007	5/17/2019	10:43:52	0.0	---
008	5/17/2019	10:44:52	0.0	---
009	5/17/2019	10:45:52	0.0	---
010	5/17/2019	10:46:52	0.0	---
011	5/17/2019	10:47:52	0.0	---
012	5/17/2019	10:48:52	0.0	---
013	5/17/2019	10:49:52	0.0	---
014	5/17/2019	10:50:52	0.0	---
015	5/17/2019	10:51:52	0.0	0.0
016	5/17/2019	10:52:52	0.0	0.0
017	5/17/2019	10:53:52	0.0	0.0
018	5/17/2019	10:54:52	0.0	0.0
019	5/17/2019	10:55:52	0.0	0.0
020	5/17/2019	10:56:52	0.0	0.0
021	5/17/2019	10:57:52	0.0	0.0
022	5/17/2019	10:58:52	0.0	0.0
023	5/17/2019	10:59:52	0.0	0.0
024	5/17/2019	11:00:52	0.0	0.0
025	5/17/2019	11:01:52	0.0	0.0
026	5/17/2019	11:02:52	0.0	0.0
027	5/17/2019	11:03:52	0.0	0.0

028	5/17/2019	11:04:52	0.0	0.0
029	5/17/2019	11:05:52	0.0	0.0
030	5/17/2019	11:06:52	0.0	0.0
031	5/17/2019	11:07:52	0.0	0.0
032	5/17/2019	11:08:52	0.0	0.0
033	5/17/2019	11:09:52	0.0	0.0
034	5/17/2019	11:10:52	0.0	0.0
035	5/17/2019	11:11:52	0.0	0.0
036	5/17/2019	11:12:52	0.0	0.0
037	5/17/2019	11:13:52	0.0	0.0
038	5/17/2019	11:14:52	0.0	0.0
039	5/17/2019	11:15:52	0.0	0.0
040	5/17/2019	11:16:52	0.0	0.0
041	5/17/2019	11:17:52	0.0	0.0
042	5/17/2019	11:18:52	0.0	0.0
043	5/17/2019	11:19:52	0.0	0.0
044	5/17/2019	11:20:52	0.0	0.0
045	5/17/2019	11:21:52	0.0	0.0
046	5/17/2019	11:22:52	0.0	0.0
047	5/17/2019	11:23:52	0.0	0.0
048	5/17/2019	11:24:52	0.0	0.0
049	5/17/2019	11:25:52	0.0	0.0
050	5/17/2019	11:26:52	0.0	0.0
051	5/17/2019	11:27:52	0.0	0.0
052	5/17/2019	11:28:52	0.0	0.0
053	5/17/2019	11:29:52	0.0	0.0
054	5/17/2019	11:30:52	0.0	0.0
055	5/17/2019	11:31:52	0.0	0.0
056	5/17/2019	11:32:52	0.0	0.0
057	5/17/2019	11:33:52	0.0	0.0
058	5/17/2019	11:34:52	0.0	0.0

059	5/17/2019	11:35:52	0.0	0.0
060	5/17/2019	11:36:52	0.0	0.0
061	5/17/2019	11:37:52	0.0	0.0
062	5/17/2019	11:38:52	0.0	0.0
063	5/17/2019	11:39:52	0.0	0.0
064	5/17/2019	11:40:52	0.0	0.0
065	5/17/2019	11:41:52	0.0	0.0
066	5/17/2019	11:42:52	0.0	0.0
067	5/17/2019	11:43:52	0.0	0.0
068	5/17/2019	11:44:52	0.0	0.0
069	5/17/2019	11:45:52	0.0	0.0
070	5/17/2019	11:46:52	0.0	0.0
071	5/17/2019	11:47:52	0.0	0.0
072	5/17/2019	11:48:52	0.0	0.0
073	5/17/2019	11:49:52	0.0	0.0
074	5/17/2019	11:50:52	0.0	0.0
075	5/17/2019	11:51:52	0.0	0.0
076	5/17/2019	11:52:52	0.0	0.0
077	5/17/2019	11:53:52	0.0	0.0
078	5/17/2019	11:54:52	0.0	0.0
079	5/17/2019	11:55:52	0.0	0.0
080	5/17/2019	11:56:52	0.0	0.0
081	5/17/2019	11:57:52	0.0	0.0
082	5/17/2019	11:58:52	0.0	0.0
083	5/17/2019	11:59:52	0.0	0.0
084	5/17/2019	12:00:52	0.0	0.0
085	5/17/2019	12:01:52	0.0	0.0
086	5/17/2019	12:02:52	0.0	0.0
087	5/17/2019	12:03:52	0.0	0.0
088	5/17/2019	12:04:52	0.0	0.0
089	5/17/2019	12:05:52	0.0	0.0

090	5/17/2019 12:06:52	0.0	0.0
091	5/17/2019 12:07:52	0.0	0.0
092	5/17/2019 12:08:52	0.0	0.0
093	5/17/2019 12:09:52	0.0	0.0
094	5/17/2019 12:10:52	0.0	0.0
095	5/17/2019 12:11:52	0.0	0.0
096	5/17/2019 12:12:52	0.0	0.0
097	5/17/2019 12:13:52	0.0	0.0
098	5/17/2019 12:14:52	0.0	0.0
099	5/17/2019 12:15:52	0.0	0.0
100	5/17/2019 12:16:52	0.0	0.0
101	5/17/2019 12:17:52	0.0	0.0
102	5/17/2019 12:18:52	0.0	0.0
103	5/17/2019 12:19:52	0.0	0.0
104	5/17/2019 12:20:52	0.0	0.0
105	5/17/2019 12:21:52	0.0	0.0
106	5/17/2019 12:22:52	0.0	0.0
107	5/17/2019 12:23:52	0.0	0.0
108	5/17/2019 12:24:52	0.0	0.0
109	5/17/2019 12:25:52	0.0	0.0
110	5/17/2019 12:26:52	0.0	0.0
111	5/17/2019 12:27:52	0.0	0.0
112	5/17/2019 12:28:52	0.0	0.0
113	5/17/2019 12:29:52	0.0	0.0
114	5/17/2019 12:30:52	0.0	0.0
115	5/17/2019 12:31:52	0.0	0.0
116	5/17/2019 12:32:52	0.0	0.0
117	5/17/2019 12:33:52	0.0	0.0
118	5/17/2019 12:34:52	0.0	0.0
119	5/17/2019 12:35:52	0.0	0.0
120	5/17/2019 12:36:52	0.0	0.0

121	5/17/2019 12:37:52	0.0	0.0
122	5/17/2019 12:38:52	0.0	0.0
123	5/17/2019 12:39:52	0.0	0.0
124	5/17/2019 12:40:52	0.0	0.0
125	5/17/2019 12:41:52	0.0	0.0
126	5/17/2019 12:42:52	0.0	0.0
127	5/17/2019 12:43:52	0.0	0.0
128	5/17/2019 12:44:52	0.0	0.0
129	5/17/2019 12:45:52	0.0	0.0
130	5/17/2019 12:46:52	0.0	0.0
131	5/17/2019 12:47:52	0.0	0.0
132	5/17/2019 12:48:52	0.0	0.0
133	5/17/2019 12:49:52	0.0	0.0
134	5/17/2019 12:50:52	0.0	0.0
135	5/17/2019 12:51:52	0.0	0.0
136	5/17/2019 12:52:52	0.0	0.0
137	5/17/2019 12:53:52	0.0	0.0
138	5/17/2019 12:54:52	0.0	0.0
139	5/17/2019 12:55:52	0.0	0.0
140	5/17/2019 12:56:52	0.0	0.0
141	5/17/2019 12:57:52	0.0	0.0
142	5/17/2019 12:58:52	0.0	0.0
143	5/17/2019 12:59:52	0.0	0.0
144	5/17/2019 13:00:52	0.0	0.0
145	5/17/2019 13:01:52	0.0	0.0
146	5/17/2019 13:02:52	0.0	0.0
147	5/17/2019 13:03:52	0.0	0.0
148	5/17/2019 13:04:52	0.0	0.0
149	5/17/2019 13:05:52	0.0	0.0
150	5/17/2019 13:06:52	0.0	0.0
151	5/17/2019 13:07:52	0.0	0.0

152	5/17/2019 13:08:52	0.0	0.0
153	5/17/2019 13:09:52	0.0	0.0
154	5/17/2019 13:10:52	0.0	0.0
155	5/17/2019 13:11:52	0.0	0.0
156	5/17/2019 13:12:52	0.0	0.0
157	5/17/2019 13:13:52	0.0	0.0
158	5/17/2019 13:14:52	0.0	0.0
159	5/17/2019 13:15:52	0.0	0.0
160	5/17/2019 13:16:52	0.0	0.0
161	5/17/2019 13:17:52	0.0	0.0
162	5/17/2019 13:18:52	0.0	0.0
163	5/17/2019 13:19:52	0.0	0.0
164	5/17/2019 13:20:52	0.0	0.0
165	5/17/2019 13:21:52	0.0	0.0
166	5/17/2019 13:22:52	0.0	0.0
167	5/17/2019 13:23:52	0.0	0.0
168	5/17/2019 13:24:52	0.0	0.0
169	5/17/2019 13:25:52	0.0	0.0
170	5/17/2019 13:26:52	0.0	0.0
171	5/17/2019 13:27:52	0.0	0.0
172	5/17/2019 13:28:52	0.0	0.0
173	5/17/2019 13:29:52	0.0	0.0
174	5/17/2019 13:30:52	0.0	0.0
175	5/17/2019 13:31:52	0.0	0.0
176	5/17/2019 13:32:52	0.0	0.0
177	5/17/2019 13:33:52	0.0	0.0
178	5/17/2019 13:34:52	0.0	0.0
179	5/17/2019 13:35:52	0.0	0.0
180	5/17/2019 13:36:52	0.0	0.0
181	5/17/2019 13:37:52	0.0	0.0
182	5/17/2019 13:38:52	0.0	0.0

183	5/17/2019 13:39:52	0.0	0.0
184	5/17/2019 13:40:52	0.0	0.0
185	5/17/2019 13:41:52	0.0	0.0
186	5/17/2019 13:42:52	0.0	0.0
187	5/17/2019 13:43:52	0.0	0.0
188	5/17/2019 13:44:52	0.0	0.0
189	5/17/2019 13:45:52	0.0	0.0
190	5/17/2019 13:46:52	0.0	0.0
191	5/17/2019 13:47:52	0.0	0.0
192	5/17/2019 13:48:52	0.0	0.0
193	5/17/2019 13:49:52	0.0	0.0
194	5/17/2019 13:50:52	0.0	0.0
195	5/17/2019 13:51:52	0.0	0.0
196	5/17/2019 13:52:52	0.0	0.0
197	5/17/2019 13:53:52	0.0	0.0
198	5/17/2019 13:54:52	0.0	0.0
199	5/17/2019 13:55:52	0.0	0.0
200	5/17/2019 13:56:52	0.0	0.0
201	5/17/2019 13:57:52	0.0	0.0
202	5/17/2019 13:58:52	0.0	0.0
203	5/17/2019 13:59:52	0.0	0.0
204	5/17/2019 14:00:52	0.0	0.0
205	5/17/2019 14:01:52	0.0	0.0
206	5/17/2019 14:02:52	0.0	0.1
207	5/17/2019 14:03:52	0.0	0.1
208	5/17/2019 14:04:52	0.0	0.2
209	5/17/2019 14:05:52	0.0	0.2
210	5/17/2019 14:06:52	0.0	0.2
211	5/17/2019 14:07:52	0.0	0.2
212	5/17/2019 14:08:52	0.0	0.3
213	5/17/2019 14:09:52	0.0	0.3

214	5/17/2019 14:10:52	0.0	0.3
215	5/17/2019 14:11:52	0.0	0.3
216	5/17/2019 14:12:52	0.0	0.3
217	5/17/2019 14:13:52	0.0	0.3
218	5/17/2019 14:14:52	0.0	0.3
219	5/17/2019 14:15:52	0.0	0.3
220	5/17/2019 14:16:52	0.0	0.4
221	5/17/2019 14:17:52	0.0	0.4
222	5/17/2019 14:18:52	0.0	0.4
223	5/17/2019 14:19:52	0.0	0.4
224	5/17/2019 14:20:52	0.0	0.4
225	5/17/2019 14:21:52	0.0	0.5
226	5/17/2019 14:22:52	0.0	0.5
227	5/17/2019 14:23:52	0.0	0.5
228	5/17/2019 14:24:52	0.0	0.5
229	5/17/2019 14:25:52	0.0	0.5
230	5/17/2019 14:26:52	0.0	0.5
231	5/17/2019 14:27:52	0.0	0.5
232	5/17/2019 14:28:52	0.0	0.6
233	5/17/2019 14:29:52	0.0	0.6
234	5/17/2019 14:30:52	0.0	0.7
235	5/17/2019 14:31:52	0.0	0.7
236	5/17/2019 14:32:52	0.0	0.7
237	5/17/2019 14:33:52	0.0	0.8
238	5/17/2019 14:34:52	0.0	0.8
239	5/17/2019 14:35:52	0.0	0.7
240	5/17/2019 14:36:52	0.0	0.7
241	5/17/2019 14:37:52	0.0	0.7
242	5/17/2019 14:38:52	0.0	0.7
243	5/17/2019 14:39:52	0.0	0.7
244	5/17/2019 14:40:52	0.0	0.7

245	5/17/2019 14:41:52	0.0	0.7
246	5/17/2019 14:42:52	0.0	0.7
247	5/17/2019 14:43:52	0.0	0.7
248	5/17/2019 14:44:52	0.1	0.7
249	5/17/2019 14:45:52	0.1	0.7
250	5/17/2019 14:46:52	0.1	0.7
251	5/17/2019 14:47:52	0.1	0.7
252	5/17/2019 14:48:52	0.1	0.7
253	5/17/2019 14:49:52	0.1	0.7
254	5/17/2019 14:50:52	0.1	0.7
255	5/17/2019 14:51:52	0.1	0.7
256	5/17/2019 14:52:52	0.1	0.7
257	5/17/2019 14:53:52	0.1	0.7
258	5/17/2019 14:54:52	0.1	0.7
259	5/17/2019 14:55:52	0.1	0.7
260	5/17/2019 14:56:52	0.1	0.7
261	5/17/2019 14:57:52	0.1	0.6
262	5/17/2019 14:58:52	0.1	0.7
263	5/17/2019 14:59:52	0.1	0.7
264	5/17/2019 15:00:52	0.1	0.7
265	5/17/2019 15:01:52	0.1	0.6
266	5/17/2019 15:02:52	0.1	0.7
267	5/17/2019 15:03:52	0.1	0.6
268	5/17/2019 15:04:52	0.1	0.6
269	5/17/2019 15:05:52	0.1	0.6
270	5/17/2019 15:06:52	0.1	0.6
271	5/17/2019 15:07:52	0.1	0.6
272	5/17/2019 15:08:52	0.1	0.6
273	5/17/2019 15:09:52	0.1	0.6
274	5/17/2019 15:10:52	0.1	0.6
275	5/17/2019 15:11:52	0.1	0.6

276	5/17/2019 15:12:52	0.1	0.6
277	5/17/2019 15:13:52	0.1	0.6
278	5/17/2019 15:14:52	0.1	0.6
279	5/17/2019 15:15:52	0.1	0.6
280	5/17/2019 15:16:52	0.1	0.6
281	5/17/2019 15:17:52	0.1	0.6
282	5/17/2019 15:18:52	0.1	0.6
283	5/17/2019 15:19:52	0.1	0.6
284	5/17/2019 15:20:52	0.1	0.6
285	5/17/2019 15:21:52	0.1	0.6
286	5/17/2019 15:22:52	0.1	0.5
287	5/17/2019 15:23:52	0.1	0.5
288	5/17/2019 15:24:52	0.1	0.5
289	5/17/2019 15:25:52	0.1	0.4
290	5/17/2019 15:26:52	0.1	0.4
291	5/17/2019 15:27:52	0.1	0.4
292	5/17/2019 15:28:52	0.1	0.4
293	5/17/2019 15:29:52	0.1	0.4
294	5/17/2019 15:30:52	0.1	0.4
295	5/17/2019 15:31:52	0.1	0.4
296	5/17/2019 15:32:52	0.1	0.3
297	5/17/2019 15:33:52	0.1	0.3
298	5/17/2019 15:34:52	0.1	0.3
299	5/17/2019 15:35:52	0.1	0.3
300	5/17/2019 15:36:52	0.1	0.3
301	5/17/2019 15:37:52	0.1	0.3
302	5/17/2019 15:38:52	0.1	0.3
303	5/17/2019 15:39:52	0.1	0.3
304	5/17/2019 15:40:52	0.1	0.3
305	5/17/2019 15:41:52	0.1	0.3
306	5/17/2019 15:42:52	0.1	0.4

307	5/17/2019 15:43:52	0.1	0.4
308	5/17/2019 15:44:52	0.1	0.4
309	5/17/2019 15:45:52	0.1	0.4
310	5/17/2019 15:46:52	0.1	0.4
311	5/17/2019 15:47:52	0.1	0.4
312	5/17/2019 15:48:52	0.1	0.4
313	5/17/2019 15:49:52	0.1	0.4
314	5/17/2019 15:50:52	0.1	0.4
315	5/17/2019 15:51:52	0.1	0.4
316	5/17/2019 15:52:52	0.1	0.4
317	5/17/2019 15:53:52	0.1	0.4
318	5/17/2019 15:54:52	0.1	0.4
319	5/17/2019 15:55:52	0.1	0.4
320	5/17/2019 15:56:52	0.1	0.4
321	5/17/2019 15:57:52	0.1	0.4
322	5/17/2019 15:58:52	0.1	0.4
323	5/17/2019 15:59:52	0.1	0.3
324	5/17/2019 16:00:52	0.1	0.3
325	5/17/2019 16:01:52	0.1	0.3

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19/05/20 08:53
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual

Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00002
User ID	00000001

Begin	5/20/2019 08:53:50
End	5/20/2019 14:52:32
Sample Period(s)	60
Number of Records	358

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.6
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)

001	5/20/2019	08:54:50	0.0	0.0	0.1	0.0
002	5/20/2019	08:55:50	0.0	0.0	0.0	0.0
003	5/20/2019	08:56:50	0.0	0.0	0.0	0.0
004	5/20/2019	08:57:50	0.0	0.0	0.0	0.0
005	5/20/2019	08:58:50	0.0	0.0	0.0	0.0
006	5/20/2019	08:59:50	0.0	0.0	0.0	0.0
007	5/20/2019	09:00:50	0.0	0.0	0.0	0.0
008	5/20/2019	09:01:50	0.0	0.0	0.0	0.0
009	5/20/2019	09:02:50	0.0	0.0	0.0	0.0
010	5/20/2019	09:03:50	0.0	0.0	0.0	0.0
011	5/20/2019	09:04:50	0.0	0.0	0.0	0.0
012	5/20/2019	09:05:50	0.0	0.0	0.0	0.0
013	5/20/2019	09:06:50	0.0	0.0	0.0	0.0
014	5/20/2019	09:07:50	0.0	0.0	0.0	0.0
015	5/20/2019	09:08:50	0.0	0.0	0.0	0.0
016	5/20/2019	09:09:50	0.0	0.0	0.0	0.0
017	5/20/2019	09:10:50	0.0	0.0	0.0	0.0
018	5/20/2019	09:11:50	0.0	0.0	0.0	0.0
019	5/20/2019	09:12:50	0.0	0.0	0.0	0.0
020	5/20/2019	09:13:50	0.0	0.0	0.0	0.0
021	5/20/2019	09:14:50	0.0	0.0	0.0	0.0
022	5/20/2019	09:15:50	0.0	0.0	0.0	0.0
023	5/20/2019	09:16:50	0.0	0.0	0.0	0.0
024	5/20/2019	09:17:50	0.0	0.0	0.0	0.0
025	5/20/2019	09:18:50	0.0	0.0	0.0	0.0
026	5/20/2019	09:19:50	0.0	0.0	0.0	0.0
027	5/20/2019	09:20:50	0.0	0.0	0.0	0.0
028	5/20/2019	09:21:50	0.0	0.0	0.0	0.0
029	5/20/2019	09:22:50	0.0	0.0	0.0	0.0
030	5/20/2019	09:23:50	0.0	0.0	0.0	0.0
031	5/20/2019	09:24:50	0.0	0.0	0.0	0.0

032	5/20/2019	09:25:50	0.0	0.0	0.0	0.0
033	5/20/2019	09:26:50	0.0	0.0	0.0	0.0
034	5/20/2019	09:27:50	0.0	0.0	0.0	0.0
035	5/20/2019	09:28:50	0.0	0.0	0.0	0.0
036	5/20/2019	09:29:50	0.0	0.0	0.0	0.0
037	5/20/2019	09:30:50	0.0	0.0	0.0	0.0
038	5/20/2019	09:31:50	0.0	0.0	0.0	0.0
039	5/20/2019	09:32:50	0.0	0.0	0.0	0.0
040	5/20/2019	09:33:50	0.0	0.0	0.0	0.0
041	5/20/2019	09:34:50	0.0	0.0	0.0	0.0
042	5/20/2019	09:35:50	0.0	0.0	0.0	0.0
043	5/20/2019	09:36:50	0.0	0.0	0.0	0.0
044	5/20/2019	09:37:50	0.0	0.0	0.0	0.0
045	5/20/2019	09:38:50	0.0	0.0	0.0	0.0
046	5/20/2019	09:39:50	0.0	0.0	0.0	0.0
047	5/20/2019	09:40:50	0.0	0.0	0.0	0.0
048	5/20/2019	09:41:50	0.0	0.0	0.0	0.0
049	5/20/2019	09:42:50	0.0	0.0	0.0	0.0
050	5/20/2019	09:43:50	0.0	0.0	0.0	0.0
051	5/20/2019	09:44:50	0.0	0.0	0.0	0.0
052	5/20/2019	09:45:50	0.0	0.0	0.0	0.0
053	5/20/2019	09:46:50	0.0	0.0	0.0	0.0
054	5/20/2019	09:47:50	0.0	0.0	0.0	0.0
055	5/20/2019	09:48:50	0.0	0.0	0.0	0.0
056	5/20/2019	09:49:50	0.0	0.0	0.0	0.0
057	5/20/2019	09:50:50	0.0	0.0	0.0	0.0
058	5/20/2019	09:51:50	0.0	0.0	0.0	0.0
059	5/20/2019	09:52:50	0.0	0.0	0.0	0.0
060	5/20/2019	09:53:50	0.0	0.0	0.0	0.0
061	5/20/2019	09:54:50	0.0	0.0	0.0	0.0
062	5/20/2019	09:55:50	0.0	0.0	0.0	0.0

063	5/20/2019	09:56:50	0.0	0.0	0.0	0.0
064	5/20/2019	09:57:50	0.0	0.0	0.0	0.0
065	5/20/2019	09:58:50	0.0	0.0	0.0	0.0
066	5/20/2019	09:59:50	0.0	0.0	0.0	0.0
067	5/20/2019	10:00:50	0.0	0.0	0.0	0.0
068	5/20/2019	10:01:50	0.0	0.0	0.0	0.0
069	5/20/2019	10:02:50	0.0	0.0	0.0	0.0
070	5/20/2019	10:03:50	0.0	0.0	0.0	0.0
071	5/20/2019	10:04:50	0.0	0.0	0.0	0.0
072	5/20/2019	10:05:50	0.0	0.0	0.0	0.0
073	5/20/2019	10:06:50	0.0	0.0	0.0	0.0
074	5/20/2019	10:07:50	0.0	0.0	0.0	0.0
075	5/20/2019	10:08:50	0.0	0.0	0.0	0.0
076	5/20/2019	10:09:50	0.0	0.0	0.0	0.0
077	5/20/2019	10:10:50	0.0	0.0	0.0	0.0
078	5/20/2019	10:11:50	0.0	0.0	0.0	0.0
079	5/20/2019	10:12:50	0.0	0.0	0.0	0.0
080	5/20/2019	10:13:50	0.0	0.0	0.0	0.0
081	5/20/2019	10:14:50	0.0	0.0	0.0	0.0
082	5/20/2019	10:15:50	0.0	0.0	0.0	0.0
083	5/20/2019	10:16:50	0.0	0.0	0.0	0.0
084	5/20/2019	10:17:50	0.0	0.0	0.0	0.0
085	5/20/2019	10:18:50	0.0	0.0	0.0	0.0
086	5/20/2019	10:19:50	0.0	0.0	0.0	0.0
087	5/20/2019	10:20:50	0.0	0.0	0.0	0.0
088	5/20/2019	10:21:50	0.0	0.0	0.0	0.0
089	5/20/2019	10:22:50	0.0	0.0	0.0	0.0
090	5/20/2019	10:23:50	0.0	0.0	0.0	0.0
091	5/20/2019	10:24:50	0.0	0.0	0.0	0.0
092	5/20/2019	10:25:50	0.0	0.0	0.0	0.0
093	5/20/2019	10:26:50	0.0	0.0	0.0	0.0

094	5/20/2019 10:27:50	0.0	0.0	0.0	0.0
095	5/20/2019 10:28:50	0.0	0.0	0.0	0.0
096	5/20/2019 10:29:50	0.0	0.0	0.0	0.0
097	5/20/2019 10:30:50	0.0	0.0	0.0	0.0
098	5/20/2019 10:31:50	0.0	0.0	0.0	0.0
099	5/20/2019 10:32:50	0.0	0.0	0.1	0.1
100	5/20/2019 10:33:50	0.0	0.0	0.1	0.0
101	5/20/2019 10:34:50	0.0	0.0	0.0	0.0
102	5/20/2019 10:35:50	0.0	0.2	0.5	0.0
103	5/20/2019 10:36:50	0.0	0.1	0.3	0.1
104	5/20/2019 10:37:50	0.0	0.0	0.1	0.0
105	5/20/2019 10:38:50	0.0	0.0	0.2	0.0
106	5/20/2019 10:39:50	0.0	0.0	0.0	0.0
107	5/20/2019 10:40:50	0.0	0.0	0.1	0.1
108	5/20/2019 10:41:50	0.0	0.1	0.4	0.1
109	5/20/2019 10:42:50	0.0	0.1	0.2	0.0
110	5/20/2019 10:43:50	0.0	0.0	0.1	0.0
111	5/20/2019 10:44:50	0.0	0.0	0.0	0.0
112	5/20/2019 10:45:50	0.0	0.0	0.0	0.0
113	5/20/2019 10:46:50	0.0	0.0	0.1	0.0
114	5/20/2019 10:47:50	0.0	0.0	0.0	0.0
115	5/20/2019 10:48:50	0.0	0.0	0.2	0.0
116	5/20/2019 10:49:50	0.0	0.0	0.1	0.0
117	5/20/2019 10:50:50	0.0	0.0	0.0	0.0
118	5/20/2019 10:51:50	0.0	0.0	0.0	0.0
119	5/20/2019 10:52:50	0.0	0.0	0.1	0.0
120	5/20/2019 10:53:50	0.0	0.0	0.1	0.0
121	5/20/2019 10:54:50	0.0	0.0	0.1	0.0
122	5/20/2019 10:55:50	0.0	0.0	0.1	0.0
123	5/20/2019 10:56:50	0.0	0.0	0.1	0.0
124	5/20/2019 10:57:50	0.0	0.0	0.1	0.0

125	5/20/2019	10:58:50	0.0	0.0	0.0	0.0
126	5/20/2019	10:59:50	0.0	0.0	0.1	0.1
127	5/20/2019	11:00:50	0.0	0.0	0.1	0.0
128	5/20/2019	11:01:50	0.0	0.0	0.0	0.0
129	5/20/2019	11:02:50	0.0	0.0	0.0	0.0
130	5/20/2019	11:03:50	0.0	0.0	0.1	0.1
131	5/20/2019	11:04:50	0.0	0.0	0.1	0.0
132	5/20/2019	11:05:50	0.0	0.0	0.0	0.0
133	5/20/2019	11:06:50	0.0	0.0	0.1	0.0
134	5/20/2019	11:07:50	0.0	0.0	0.0	0.0
135	5/20/2019	11:08:50	0.0	0.0	0.0	0.0
136	5/20/2019	11:09:50	0.0	0.0	0.0	0.0
137	5/20/2019	11:10:50	0.0	0.0	0.0	0.0
138	5/20/2019	11:11:50	0.0	0.0	0.1	0.0
139	5/20/2019	11:12:50	0.0	0.0	0.0	0.0
140	5/20/2019	11:13:50	0.0	0.0	0.0	0.0
141	5/20/2019	11:14:50	0.0	0.1	0.6	0.6
142	5/20/2019	11:15:50	0.0	0.1	0.6	0.0
143	5/20/2019	11:16:50	0.0	0.0	0.0	0.0
144	5/20/2019	11:17:50	0.0	0.0	0.1	0.0
145	5/20/2019	11:18:50	0.0	0.0	0.0	0.0
146	5/20/2019	11:19:50	0.0	0.0	0.0	0.0
147	5/20/2019	11:20:50	0.0	0.0	0.0	0.0
148	5/20/2019	11:21:50	0.0	0.0	0.0	0.0
149	5/20/2019	11:22:50	0.0	0.0	0.3	0.0
150	5/20/2019	11:23:50	0.0	0.0	0.1	0.0
151	5/20/2019	11:24:50	0.0	0.0	0.0	0.0
152	5/20/2019	11:25:50	0.0	0.0	0.0	0.0
153	5/20/2019	11:26:50	0.0	0.1	0.1	0.0
154	5/20/2019	11:27:50	0.0	0.0	0.1	0.0
155	5/20/2019	11:28:50	0.0	0.0	0.1	0.0

156	5/20/2019	11:29:50	0.0	0.0	0.1	0.0
157	5/20/2019	11:30:50	0.0	0.0	0.0	0.0
158	5/20/2019	11:31:50	0.0	0.0	0.0	0.0
159	5/20/2019	11:32:50	0.0	0.0	0.0	0.0
160	5/20/2019	11:33:50	0.0	0.1	0.1	0.1
161	5/20/2019	11:34:50	0.0	0.1	0.1	0.1
162	5/20/2019	11:35:50	0.0	0.0	0.1	0.0
163	5/20/2019	11:36:50	0.0	0.1	0.1	0.1
164	5/20/2019	11:37:50	0.0	0.0	0.1	0.0
165	5/20/2019	11:38:50	0.0	0.0	0.0	0.0
166	5/20/2019	11:39:50	0.0	0.0	0.1	0.1
167	5/20/2019	11:40:50	0.0	0.1	0.1	0.0
168	5/20/2019	11:41:50	0.0	0.1	0.1	0.1
169	5/20/2019	11:42:50	0.1	0.1	0.1	0.1
170	5/20/2019	11:43:50	0.1	0.1	0.1	0.1
171	5/20/2019	11:44:50	0.1	0.1	0.1	0.1
172	5/20/2019	11:45:50	0.1	0.1	0.1	0.1
173	5/20/2019	11:46:50	0.1	0.1	0.1	0.1
174	5/20/2019	11:47:50	0.1	0.1	0.1	0.1
175	5/20/2019	11:48:50	0.1	0.1	0.1	0.1
176	5/20/2019	11:49:50	0.1	0.1	0.1	0.1
177	5/20/2019	11:50:50	0.1	0.1	0.1	0.1
178	5/20/2019	11:51:50	0.1	0.1	0.1	0.1
179	5/20/2019	11:52:50	0.1	0.1	0.1	0.1
180	5/20/2019	11:53:50	0.1	0.1	0.1	0.1
181	5/20/2019	11:54:50	0.1	0.1	0.1	0.1
182	5/20/2019	11:55:50	0.1	0.1	0.1	0.1
183	5/20/2019	11:56:50	0.1	0.1	0.1	0.1
184	5/20/2019	11:57:50	0.1	0.1	0.1	0.1
185	5/20/2019	11:58:50	0.1	0.1	0.1	0.1
186	5/20/2019	11:59:50	0.1	0.1	0.1	0.1

187	5/20/2019 12:00:50	0.1	0.1	0.1	0.1
188	5/20/2019 12:01:50	0.1	0.1	0.1	0.1
189	5/20/2019 12:02:50	0.1	0.1	0.1	0.1
190	5/20/2019 12:03:50	0.1	0.1	0.1	0.1
191	5/20/2019 12:04:50	0.1	0.1	0.1	0.1
192	5/20/2019 12:05:50	0.1	0.1	0.1	0.1
193	5/20/2019 12:06:50	0.1	0.1	0.1	0.1
194	5/20/2019 12:07:50	0.1	0.1	0.1	0.1
195	5/20/2019 12:08:50	0.1	0.1	0.1	0.1
196	5/20/2019 12:09:50	0.1	0.1	0.1	0.1
197	5/20/2019 12:10:50	0.1	0.1	0.1	0.1
198	5/20/2019 12:11:50	0.1	0.1	0.1	0.1
199	5/20/2019 12:12:50	0.1	0.1	0.1	0.1
200	5/20/2019 12:13:50	0.1	0.1	0.1	0.1
201	5/20/2019 12:14:50	0.1	0.1	0.1	0.1
202	5/20/2019 12:15:50	0.1	0.1	0.1	0.1
203	5/20/2019 12:16:50	0.1	0.1	0.1	0.1
204	5/20/2019 12:17:50	0.1	0.1	0.1	0.1
205	5/20/2019 12:18:50	0.1	0.1	0.1	0.1
206	5/20/2019 12:19:50	0.1	0.1	0.1	0.1
207	5/20/2019 12:20:50	0.1	0.1	0.1	0.1
208	5/20/2019 12:21:50	0.1	0.1	0.1	0.1
209	5/20/2019 12:22:50	0.1	0.1	0.1	0.1
210	5/20/2019 12:23:50	0.1	0.1	0.1	0.1
211	5/20/2019 12:24:50	0.0	0.1	0.1	0.1
212	5/20/2019 12:25:50	0.1	0.1	0.1	0.1
213	5/20/2019 12:26:50	0.1	0.1	0.1	0.1
214	5/20/2019 12:27:50	0.1	0.1	0.1	0.1
215	5/20/2019 12:28:50	0.1	0.1	0.1	0.1
216	5/20/2019 12:29:50	0.1	0.1	0.1	0.1
217	5/20/2019 12:30:50	0.1	0.1	0.1	0.1

218	5/20/2019 12:31:50	0.1	0.1	0.1	0.1
219	5/20/2019 12:32:50	0.1	0.1	0.1	0.1
220	5/20/2019 12:33:50	0.1	0.1	0.1	0.1
221	5/20/2019 12:34:50	0.1	0.1	0.1	0.1
222	5/20/2019 12:35:50	0.1	0.1	0.1	0.1
223	5/20/2019 12:36:50	0.1	0.1	0.1	0.1
224	5/20/2019 12:37:50	0.1	0.1	0.1	0.1
225	5/20/2019 12:38:50	0.1	0.1	0.1	0.1
226	5/20/2019 12:39:50	0.1	0.1	0.1	0.1
227	5/20/2019 12:40:50	0.1	0.1	0.1	0.1
228	5/20/2019 12:41:50	0.1	0.1	0.1	0.1
229	5/20/2019 12:42:50	0.1	0.1	0.1	0.1
230	5/20/2019 12:43:50	0.1	0.1	0.1	0.1
231	5/20/2019 12:44:50	0.1	0.1	0.1	0.1
232	5/20/2019 12:45:50	0.1	0.1	0.1	0.1
233	5/20/2019 12:46:50	0.1	0.1	0.1	0.1
234	5/20/2019 12:47:50	0.1	0.1	0.1	0.1
235	5/20/2019 12:48:50	0.1	0.1	0.1	0.1
236	5/20/2019 12:49:50	0.1	0.1	0.1	0.1
237	5/20/2019 12:50:50	0.1	0.1	0.1	0.1
238	5/20/2019 12:51:50	0.1	0.1	0.1	0.1
239	5/20/2019 12:52:50	0.1	0.1	0.1	0.1
240	5/20/2019 12:53:50	0.1	0.1	0.1	0.1
241	5/20/2019 12:54:50	0.1	0.1	0.1	0.1
242	5/20/2019 12:55:50	0.1	0.1	0.1	0.1
243	5/20/2019 12:56:50	0.1	0.1	0.1	0.1
244	5/20/2019 12:57:50	0.1	0.1	0.1	0.1
245	5/20/2019 12:58:50	0.1	0.1	0.1	0.1
246	5/20/2019 12:59:50	0.1	0.1	0.1	0.1
247	5/20/2019 13:00:50	0.1	0.1	0.1	0.1
248	5/20/2019 13:01:50	0.1	0.1	0.1	0.1

249	5/20/2019 13:02:50	0.1	0.1	0.1	0.1
250	5/20/2019 13:03:50	0.1	0.1	0.1	0.1
251	5/20/2019 13:04:50	0.1	0.1	0.1	0.1
252	5/20/2019 13:05:50	0.1	0.1	0.1	0.1
253	5/20/2019 13:06:50	0.1	0.1	0.1	0.1
254	5/20/2019 13:07:50	0.1	0.1	0.1	0.1
255	5/20/2019 13:08:50	0.1	0.1	0.1	0.1
256	5/20/2019 13:09:50	0.1	0.1	0.1	0.1
257	5/20/2019 13:10:50	0.1	0.1	0.1	0.1
258	5/20/2019 13:11:50	0.1	0.1	0.1	0.1
259	5/20/2019 13:12:50	0.1	0.1	0.1	0.1
260	5/20/2019 13:13:50	0.1	0.1	0.1	0.1
261	5/20/2019 13:14:50	0.1	0.1	0.1	0.1
262	5/20/2019 13:15:50	0.1	0.1	0.1	0.1
263	5/20/2019 13:16:50	0.1	0.1	0.1	0.1
264	5/20/2019 13:17:50	0.1	0.1	0.1	0.1
265	5/20/2019 13:18:50	0.1	0.1	0.1	0.1
266	5/20/2019 13:19:50	0.1	0.1	0.1	0.1
267	5/20/2019 13:20:50	0.1	0.1	0.1	0.1
268	5/20/2019 13:21:50	0.1	0.1	0.1	0.1
269	5/20/2019 13:22:50	0.1	0.1	0.1	0.1
270	5/20/2019 13:23:50	0.1	0.1	0.1	0.1
271	5/20/2019 13:24:50	0.1	0.1	0.1	0.1
272	5/20/2019 13:25:50	0.1	0.1	0.1	0.1
273	5/20/2019 13:26:50	0.1	0.1	0.1	0.1
274	5/20/2019 13:27:50	0.1	0.1	0.1	0.1
275	5/20/2019 13:28:50	0.1	0.1	0.1	0.1
276	5/20/2019 13:29:50	0.1	0.1	0.1	0.1
277	5/20/2019 13:30:50	0.1	0.1	0.1	0.1
278	5/20/2019 13:31:50	0.1	0.1	0.1	0.1
279	5/20/2019 13:32:50	0.1	0.1	0.1	0.1

280	5/20/2019	13:33:50	0.1	0.1	0.1	0.1
281	5/20/2019	13:34:50	0.1	0.1	0.1	0.1
282	5/20/2019	13:35:50	0.1	0.1	0.2	0.1
283	5/20/2019	13:36:50	0.1	0.1	0.1	0.1
284	5/20/2019	13:37:50	0.1	0.1	0.1	0.1
285	5/20/2019	13:38:50	0.1	0.1	0.1	0.1
286	5/20/2019	13:39:50	0.1	0.1	0.1	0.1
287	5/20/2019	13:40:50	0.1	0.1	0.1	0.1
288	5/20/2019	13:41:50	0.1	0.1	0.1	0.1
289	5/20/2019	13:42:50	0.1	0.1	0.1	0.1
290	5/20/2019	13:43:50	0.1	0.1	0.1	0.1
291	5/20/2019	13:44:50	0.1	0.1	0.1	0.1
292	5/20/2019	13:45:50	0.1	0.1	0.1	0.1
293	5/20/2019	13:46:50	0.1	0.1	0.1	0.1
294	5/20/2019	13:47:50	0.1	0.1	0.1	0.1
295	5/20/2019	13:48:50	0.1	0.1	0.1	0.1
296	5/20/2019	13:49:50	0.1	0.1	0.1	0.1
297	5/20/2019	13:50:50	0.1	0.1	0.1	0.1
298	5/20/2019	13:51:50	0.0	0.1	0.1	0.1
299	5/20/2019	13:52:50	0.0	0.1	0.1	0.1
300	5/20/2019	13:53:50	0.1	0.1	0.1	0.1
301	5/20/2019	13:54:50	0.0	0.1	0.1	0.1
302	5/20/2019	13:55:50	0.0	0.1	0.1	0.1
303	5/20/2019	13:56:50	0.0	0.1	0.1	0.1
304	5/20/2019	13:57:50	0.0	0.1	0.1	0.1
305	5/20/2019	13:58:50	0.1	0.1	0.1	0.1
306	5/20/2019	13:59:50	0.1	0.1	0.1	0.1
307	5/20/2019	14:00:50	0.0	0.1	0.1	0.0
308	5/20/2019	14:01:50	0.0	0.1	0.1	0.1
309	5/20/2019	14:02:50	0.1	0.1	0.1	0.1
310	5/20/2019	14:03:50	0.1	0.1	0.1	0.1

311	5/20/2019	14:04:50	0.1	0.1	0.1	0.1
312	5/20/2019	14:05:50	0.0	0.1	0.1	0.0
313	5/20/2019	14:06:50	0.0	0.0	0.1	0.0
314	5/20/2019	14:07:50	0.0	0.0	0.1	0.0
315	5/20/2019	14:08:50	0.0	0.0	0.0	0.0
316	5/20/2019	14:09:50	0.0	0.0	0.0	0.0
317	5/20/2019	14:10:50	0.0	0.0	0.0	0.0
318	5/20/2019	14:11:50	0.0	0.0	0.1	0.0
319	5/20/2019	14:12:50	0.0	0.0	0.0	0.0
320	5/20/2019	14:13:50	0.0	0.0	0.0	0.0
321	5/20/2019	14:14:50	0.0	0.0	0.0	0.0
322	5/20/2019	14:15:50	0.0	0.0	0.0	0.0
323	5/20/2019	14:16:50	0.0	0.0	0.0	0.0
324	5/20/2019	14:17:50	0.0	0.0	0.0	0.0
325	5/20/2019	14:18:50	0.0	0.0	0.0	0.0
326	5/20/2019	14:19:50	0.0	0.0	0.0	0.0
327	5/20/2019	14:20:50	0.0	0.0	0.0	0.0
328	5/20/2019	14:21:50	0.0	0.0	0.0	0.0
329	5/20/2019	14:22:50	0.0	0.0	0.0	0.0
330	5/20/2019	14:23:50	0.0	0.0	0.0	0.0
331	5/20/2019	14:24:50	0.0	0.0	0.0	0.0
332	5/20/2019	14:25:50	0.0	0.0	0.0	0.0
333	5/20/2019	14:26:50	0.0	0.0	0.0	0.0
334	5/20/2019	14:27:50	0.0	0.0	0.0	0.0
335	5/20/2019	14:28:50	0.0	0.0	0.0	0.0
336	5/20/2019	14:29:50	0.0	0.0	0.1	0.0
337	5/20/2019	14:30:50	0.0	0.0	0.0	0.0
338	5/20/2019	14:31:50	0.0	0.0	0.0	0.0
339	5/20/2019	14:32:50	0.0	0.0	0.0	0.0
340	5/20/2019	14:33:50	0.0	0.0	0.0	0.0
341	5/20/2019	14:34:50	0.0	0.0	0.1	0.0

342	5/20/2019	14:35:50	0.0	0.0	0.1	0.0
343	5/20/2019	14:36:50	0.0	0.0	0.1	0.0
344	5/20/2019	14:37:50	0.0	0.0	0.1	0.0
345	5/20/2019	14:38:50	0.0	0.0	0.1	0.0
346	5/20/2019	14:39:50	0.0	0.0	0.1	0.0
347	5/20/2019	14:40:50	0.0	0.0	0.1	0.0
348	5/20/2019	14:41:50	0.0	0.0	0.0	0.0
349	5/20/2019	14:42:50	0.0	0.0	0.0	0.0
350	5/20/2019	14:43:50	0.0	0.0	0.0	0.0
351	5/20/2019	14:44:50	0.0	0.0	0.0	0.0
352	5/20/2019	14:45:50	0.0	0.0	0.1	0.1
353	5/20/2019	14:46:50	0.0	0.0	0.1	0.1
354	5/20/2019	14:47:50	0.0	0.1	0.1	0.1
355	5/20/2019	14:48:50	0.0	0.1	0.1	0.0
356	5/20/2019	14:49:50	0.0	0.0	0.1	0.0
357	5/20/2019	14:50:50	0.0	0.1	0.1	0.1
358	5/20/2019	14:51:50	0.0	0.1	0.1	0.1
Peak		0.1	0.2	0.6	0.6	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.0	0.1	0.0	

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/20/2019	08:54:50	0.0	---
002	5/20/2019	08:55:50	0.0	---
003	5/20/2019	08:56:50	0.0	---
004	5/20/2019	08:57:50	0.0	---
005	5/20/2019	08:58:50	0.0	---
006	5/20/2019	08:59:50	0.0	---

007	5/20/2019 09:00:50	0.0	---
008	5/20/2019 09:01:50	0.0	---
009	5/20/2019 09:02:50	0.0	---
010	5/20/2019 09:03:50	0.0	---
011	5/20/2019 09:04:50	0.0	---
012	5/20/2019 09:05:50	0.0	---
013	5/20/2019 09:06:50	0.0	---
014	5/20/2019 09:07:50	0.0	---
015	5/20/2019 09:08:50	0.0	0.0
016	5/20/2019 09:09:50	0.0	0.0
017	5/20/2019 09:10:50	0.0	0.0
018	5/20/2019 09:11:50	0.0	0.0
019	5/20/2019 09:12:50	0.0	0.0
020	5/20/2019 09:13:50	0.0	0.0
021	5/20/2019 09:14:50	0.0	0.0
022	5/20/2019 09:15:50	0.0	0.0
023	5/20/2019 09:16:50	0.0	0.0
024	5/20/2019 09:17:50	0.0	0.0
025	5/20/2019 09:18:50	0.0	0.0
026	5/20/2019 09:19:50	0.0	0.0
027	5/20/2019 09:20:50	0.0	0.0
028	5/20/2019 09:21:50	0.0	0.0
029	5/20/2019 09:22:50	0.0	0.0
030	5/20/2019 09:23:50	0.0	0.0
031	5/20/2019 09:24:50	0.0	0.0
032	5/20/2019 09:25:50	0.0	0.0
033	5/20/2019 09:26:50	0.0	0.0
034	5/20/2019 09:27:50	0.0	0.0
035	5/20/2019 09:28:50	0.0	0.0
036	5/20/2019 09:29:50	0.0	0.0
037	5/20/2019 09:30:50	0.0	0.0

038	5/20/2019 09:31:50	0.0	0.0
039	5/20/2019 09:32:50	0.0	0.0
040	5/20/2019 09:33:50	0.0	0.0
041	5/20/2019 09:34:50	0.0	0.0
042	5/20/2019 09:35:50	0.0	0.0
043	5/20/2019 09:36:50	0.0	0.0
044	5/20/2019 09:37:50	0.0	0.0
045	5/20/2019 09:38:50	0.0	0.0
046	5/20/2019 09:39:50	0.0	0.0
047	5/20/2019 09:40:50	0.0	0.0
048	5/20/2019 09:41:50	0.0	0.0
049	5/20/2019 09:42:50	0.0	0.0
050	5/20/2019 09:43:50	0.0	0.0
051	5/20/2019 09:44:50	0.0	0.0
052	5/20/2019 09:45:50	0.0	0.0
053	5/20/2019 09:46:50	0.0	0.0
054	5/20/2019 09:47:50	0.0	0.0
055	5/20/2019 09:48:50	0.0	0.0
056	5/20/2019 09:49:50	0.0	0.0
057	5/20/2019 09:50:50	0.0	0.0
058	5/20/2019 09:51:50	0.0	0.0
059	5/20/2019 09:52:50	0.0	0.0
060	5/20/2019 09:53:50	0.0	0.0
061	5/20/2019 09:54:50	0.0	0.0
062	5/20/2019 09:55:50	0.0	0.0
063	5/20/2019 09:56:50	0.0	0.0
064	5/20/2019 09:57:50	0.0	0.0
065	5/20/2019 09:58:50	0.0	0.0
066	5/20/2019 09:59:50	0.0	0.0
067	5/20/2019 10:00:50	0.0	0.0
068	5/20/2019 10:01:50	0.0	0.0

069	5/20/2019 10:02:50	0.0	0.0
070	5/20/2019 10:03:50	0.0	0.0
071	5/20/2019 10:04:50	0.0	0.0
072	5/20/2019 10:05:50	0.0	0.0
073	5/20/2019 10:06:50	0.0	0.0
074	5/20/2019 10:07:50	0.0	0.0
075	5/20/2019 10:08:50	0.0	0.0
076	5/20/2019 10:09:50	0.0	0.0
077	5/20/2019 10:10:50	0.0	0.0
078	5/20/2019 10:11:50	0.0	0.0
079	5/20/2019 10:12:50	0.0	0.0
080	5/20/2019 10:13:50	0.0	0.0
081	5/20/2019 10:14:50	0.0	0.0
082	5/20/2019 10:15:50	0.0	0.0
083	5/20/2019 10:16:50	0.0	0.0
084	5/20/2019 10:17:50	0.0	0.0
085	5/20/2019 10:18:50	0.0	0.0
086	5/20/2019 10:19:50	0.0	0.0
087	5/20/2019 10:20:50	0.0	0.0
088	5/20/2019 10:21:50	0.0	0.0
089	5/20/2019 10:22:50	0.0	0.0
090	5/20/2019 10:23:50	0.0	0.0
091	5/20/2019 10:24:50	0.0	0.0
092	5/20/2019 10:25:50	0.0	0.0
093	5/20/2019 10:26:50	0.0	0.0
094	5/20/2019 10:27:50	0.0	0.0
095	5/20/2019 10:28:50	0.0	0.0
096	5/20/2019 10:29:50	0.0	0.0
097	5/20/2019 10:30:50	0.0	0.0
098	5/20/2019 10:31:50	0.0	0.0
099	5/20/2019 10:32:50	0.0	0.0

100	5/20/2019 10:33:50	0.0	0.0
101	5/20/2019 10:34:50	0.0	0.0
102	5/20/2019 10:35:50	0.0	0.0
103	5/20/2019 10:36:50	0.0	0.0
104	5/20/2019 10:37:50	0.0	0.0
105	5/20/2019 10:38:50	0.0	0.0
106	5/20/2019 10:39:50	0.0	0.0
107	5/20/2019 10:40:50	0.0	0.0
108	5/20/2019 10:41:50	0.0	0.0
109	5/20/2019 10:42:50	0.0	0.0
110	5/20/2019 10:43:50	0.0	0.0
111	5/20/2019 10:44:50	0.0	0.0
112	5/20/2019 10:45:50	0.0	0.0
113	5/20/2019 10:46:50	0.0	0.0
114	5/20/2019 10:47:50	0.0	0.0
115	5/20/2019 10:48:50	0.0	0.0
116	5/20/2019 10:49:50	0.0	0.0
117	5/20/2019 10:50:50	0.0	0.0
118	5/20/2019 10:51:50	0.0	0.0
119	5/20/2019 10:52:50	0.0	0.0
120	5/20/2019 10:53:50	0.0	0.0
121	5/20/2019 10:54:50	0.0	0.0
122	5/20/2019 10:55:50	0.0	0.0
123	5/20/2019 10:56:50	0.0	0.0
124	5/20/2019 10:57:50	0.0	0.0
125	5/20/2019 10:58:50	0.0	0.0
126	5/20/2019 10:59:50	0.0	0.0
127	5/20/2019 11:00:50	0.0	0.0
128	5/20/2019 11:01:50	0.0	0.0
129	5/20/2019 11:02:50	0.0	0.0
130	5/20/2019 11:03:50	0.0	0.0

131	5/20/2019	11:04:50	0.0	0.0
132	5/20/2019	11:05:50	0.0	0.0
133	5/20/2019	11:06:50	0.0	0.0
134	5/20/2019	11:07:50	0.0	0.0
135	5/20/2019	11:08:50	0.0	0.0
136	5/20/2019	11:09:50	0.0	0.0
137	5/20/2019	11:10:50	0.0	0.0
138	5/20/2019	11:11:50	0.0	0.0
139	5/20/2019	11:12:50	0.0	0.0
140	5/20/2019	11:13:50	0.0	0.0
141	5/20/2019	11:14:50	0.0	0.1
142	5/20/2019	11:15:50	0.0	0.0
143	5/20/2019	11:16:50	0.0	0.0
144	5/20/2019	11:17:50	0.0	0.0
145	5/20/2019	11:18:50	0.0	0.0
146	5/20/2019	11:19:50	0.0	0.0
147	5/20/2019	11:20:50	0.0	0.0
148	5/20/2019	11:21:50	0.0	0.0
149	5/20/2019	11:22:50	0.0	0.0
150	5/20/2019	11:23:50	0.0	0.0
151	5/20/2019	11:24:50	0.0	0.0
152	5/20/2019	11:25:50	0.0	0.0
153	5/20/2019	11:26:50	0.0	0.0
154	5/20/2019	11:27:50	0.0	0.0
155	5/20/2019	11:28:50	0.0	0.0
156	5/20/2019	11:29:50	0.0	0.0
157	5/20/2019	11:30:50	0.0	0.0
158	5/20/2019	11:31:50	0.0	0.0
159	5/20/2019	11:32:50	0.0	0.0
160	5/20/2019	11:33:50	0.0	0.0
161	5/20/2019	11:34:50	0.0	0.0

162	5/20/2019	11:35:50	0.0	0.0
163	5/20/2019	11:36:50	0.0	0.0
164	5/20/2019	11:37:50	0.0	0.0
165	5/20/2019	11:38:50	0.0	0.0
166	5/20/2019	11:39:50	0.0	0.0
167	5/20/2019	11:40:50	0.0	0.0
168	5/20/2019	11:41:50	0.0	0.0
169	5/20/2019	11:42:50	0.0	0.0
170	5/20/2019	11:43:50	0.0	0.0
171	5/20/2019	11:44:50	0.0	0.1
172	5/20/2019	11:45:50	0.0	0.1
173	5/20/2019	11:46:50	0.0	0.1
174	5/20/2019	11:47:50	0.0	0.1
175	5/20/2019	11:48:50	0.0	0.1
176	5/20/2019	11:49:50	0.0	0.1
177	5/20/2019	11:50:50	0.0	0.1
178	5/20/2019	11:51:50	0.0	0.1
179	5/20/2019	11:52:50	0.0	0.1
180	5/20/2019	11:53:50	0.0	0.1
181	5/20/2019	11:54:50	0.0	0.1
182	5/20/2019	11:55:50	0.0	0.1
183	5/20/2019	11:56:50	0.0	0.1
184	5/20/2019	11:57:50	0.0	0.1
185	5/20/2019	11:58:50	0.0	0.1
186	5/20/2019	11:59:50	0.0	0.1
187	5/20/2019	12:00:50	0.0	0.1
188	5/20/2019	12:01:50	0.0	0.1
189	5/20/2019	12:02:50	0.0	0.1
190	5/20/2019	12:03:50	0.0	0.1
191	5/20/2019	12:04:50	0.0	0.1
192	5/20/2019	12:05:50	0.0	0.1

193	5/20/2019 12:06:50	0.0	0.1
194	5/20/2019 12:07:50	0.0	0.1
195	5/20/2019 12:08:50	0.0	0.1
196	5/20/2019 12:09:50	0.0	0.1
197	5/20/2019 12:10:50	0.0	0.1
198	5/20/2019 12:11:50	0.0	0.1
199	5/20/2019 12:12:50	0.0	0.1
200	5/20/2019 12:13:50	0.0	0.1
201	5/20/2019 12:14:50	0.0	0.1
202	5/20/2019 12:15:50	0.0	0.1
203	5/20/2019 12:16:50	0.0	0.1
204	5/20/2019 12:17:50	0.0	0.1
205	5/20/2019 12:18:50	0.0	0.1
206	5/20/2019 12:19:50	0.0	0.1
207	5/20/2019 12:20:50	0.0	0.1
208	5/20/2019 12:21:50	0.0	0.1
209	5/20/2019 12:22:50	0.0	0.1
210	5/20/2019 12:23:50	0.0	0.1
211	5/20/2019 12:24:50	0.0	0.1
212	5/20/2019 12:25:50	0.0	0.1
213	5/20/2019 12:26:50	0.0	0.1
214	5/20/2019 12:27:50	0.0	0.1
215	5/20/2019 12:28:50	0.0	0.1
216	5/20/2019 12:29:50	0.0	0.1
217	5/20/2019 12:30:50	0.0	0.1
218	5/20/2019 12:31:50	0.0	0.1
219	5/20/2019 12:32:50	0.0	0.1
220	5/20/2019 12:33:50	0.0	0.1
221	5/20/2019 12:34:50	0.0	0.1
222	5/20/2019 12:35:50	0.0	0.1
223	5/20/2019 12:36:50	0.0	0.1

224	5/20/2019 12:37:50	0.0	0.1
225	5/20/2019 12:38:50	0.0	0.1
226	5/20/2019 12:39:50	0.0	0.1
227	5/20/2019 12:40:50	0.0	0.1
228	5/20/2019 12:41:50	0.0	0.1
229	5/20/2019 12:42:50	0.0	0.1
230	5/20/2019 12:43:50	0.0	0.1
231	5/20/2019 12:44:50	0.0	0.1
232	5/20/2019 12:45:50	0.0	0.1
233	5/20/2019 12:46:50	0.0	0.1
234	5/20/2019 12:47:50	0.0	0.1
235	5/20/2019 12:48:50	0.0	0.1
236	5/20/2019 12:49:50	0.0	0.1
237	5/20/2019 12:50:50	0.0	0.1
238	5/20/2019 12:51:50	0.0	0.1
239	5/20/2019 12:52:50	0.0	0.1
240	5/20/2019 12:53:50	0.0	0.1
241	5/20/2019 12:54:50	0.0	0.1
242	5/20/2019 12:55:50	0.0	0.1
243	5/20/2019 12:56:50	0.0	0.1
244	5/20/2019 12:57:50	0.0	0.1
245	5/20/2019 12:58:50	0.0	0.1
246	5/20/2019 12:59:50	0.0	0.1
247	5/20/2019 13:00:50	0.0	0.1
248	5/20/2019 13:01:50	0.0	0.1
249	5/20/2019 13:02:50	0.0	0.1
250	5/20/2019 13:03:50	0.0	0.1
251	5/20/2019 13:04:50	0.0	0.1
252	5/20/2019 13:05:50	0.0	0.1
253	5/20/2019 13:06:50	0.0	0.1
254	5/20/2019 13:07:50	0.0	0.1

255	5/20/2019 13:08:50	0.0	0.1
256	5/20/2019 13:09:50	0.0	0.1
257	5/20/2019 13:10:50	0.0	0.1
258	5/20/2019 13:11:50	0.0	0.1
259	5/20/2019 13:12:50	0.0	0.1
260	5/20/2019 13:13:50	0.0	0.1
261	5/20/2019 13:14:50	0.0	0.1
262	5/20/2019 13:15:50	0.0	0.1
263	5/20/2019 13:16:50	0.0	0.1
264	5/20/2019 13:17:50	0.0	0.1
265	5/20/2019 13:18:50	0.0	0.1
266	5/20/2019 13:19:50	0.0	0.1
267	5/20/2019 13:20:50	0.0	0.1
268	5/20/2019 13:21:50	0.0	0.1
269	5/20/2019 13:22:50	0.0	0.1
270	5/20/2019 13:23:50	0.0	0.1
271	5/20/2019 13:24:50	0.0	0.1
272	5/20/2019 13:25:50	0.0	0.1
273	5/20/2019 13:26:50	0.0	0.1
274	5/20/2019 13:27:50	0.0	0.1
275	5/20/2019 13:28:50	0.0	0.1
276	5/20/2019 13:29:50	0.0	0.1
277	5/20/2019 13:30:50	0.0	0.1
278	5/20/2019 13:31:50	0.0	0.1
279	5/20/2019 13:32:50	0.0	0.1
280	5/20/2019 13:33:50	0.0	0.1
281	5/20/2019 13:34:50	0.0	0.1
282	5/20/2019 13:35:50	0.0	0.1
283	5/20/2019 13:36:50	0.0	0.1
284	5/20/2019 13:37:50	0.0	0.1
285	5/20/2019 13:38:50	0.0	0.1

286	5/20/2019 13:39:50	0.0	0.1
287	5/20/2019 13:40:50	0.0	0.1
288	5/20/2019 13:41:50	0.0	0.1
289	5/20/2019 13:42:50	0.0	0.1
290	5/20/2019 13:43:50	0.0	0.1
291	5/20/2019 13:44:50	0.0	0.1
292	5/20/2019 13:45:50	0.0	0.1
293	5/20/2019 13:46:50	0.0	0.1
294	5/20/2019 13:47:50	0.0	0.1
295	5/20/2019 13:48:50	0.0	0.1
296	5/20/2019 13:49:50	0.0	0.1
297	5/20/2019 13:50:50	0.0	0.1
298	5/20/2019 13:51:50	0.0	0.1
299	5/20/2019 13:52:50	0.0	0.1
300	5/20/2019 13:53:50	0.0	0.1
301	5/20/2019 13:54:50	0.0	0.1
302	5/20/2019 13:55:50	0.0	0.1
303	5/20/2019 13:56:50	0.0	0.1
304	5/20/2019 13:57:50	0.0	0.1
305	5/20/2019 13:58:50	0.0	0.1
306	5/20/2019 13:59:50	0.0	0.1
307	5/20/2019 14:00:50	0.0	0.1
308	5/20/2019 14:01:50	0.0	0.1
309	5/20/2019 14:02:50	0.0	0.1
310	5/20/2019 14:03:50	0.0	0.1
311	5/20/2019 14:04:50	0.0	0.1
312	5/20/2019 14:05:50	0.0	0.1
313	5/20/2019 14:06:50	0.0	0.1
314	5/20/2019 14:07:50	0.0	0.1
315	5/20/2019 14:08:50	0.0	0.1
316	5/20/2019 14:09:50	0.0	0.1

317	5/20/2019 14:10:50	0.0	0.1
318	5/20/2019 14:11:50	0.0	0.1
319	5/20/2019 14:12:50	0.0	0.0
320	5/20/2019 14:13:50	0.0	0.0
321	5/20/2019 14:14:50	0.0	0.0
322	5/20/2019 14:15:50	0.0	0.0
323	5/20/2019 14:16:50	0.0	0.0
324	5/20/2019 14:17:50	0.0	0.0
325	5/20/2019 14:18:50	0.0	0.0
326	5/20/2019 14:19:50	0.0	0.0
327	5/20/2019 14:20:50	0.0	0.0
328	5/20/2019 14:21:50	0.0	0.0
329	5/20/2019 14:22:50	0.0	0.0
330	5/20/2019 14:23:50	0.0	0.0
331	5/20/2019 14:24:50	0.0	0.0
332	5/20/2019 14:25:50	0.0	0.0
333	5/20/2019 14:26:50	0.0	0.0
334	5/20/2019 14:27:50	0.0	0.0
335	5/20/2019 14:28:50	0.0	0.0
336	5/20/2019 14:29:50	0.0	0.0
337	5/20/2019 14:30:50	0.0	0.0
338	5/20/2019 14:31:50	0.0	0.0
339	5/20/2019 14:32:50	0.0	0.0
340	5/20/2019 14:33:50	0.0	0.0
341	5/20/2019 14:34:50	0.0	0.0
342	5/20/2019 14:35:50	0.0	0.0
343	5/20/2019 14:36:50	0.0	0.0
344	5/20/2019 14:37:50	0.0	0.0
345	5/20/2019 14:38:50	0.0	0.0
346	5/20/2019 14:39:50	0.0	0.0
347	5/20/2019 14:40:50	0.0	0.0

348	5/20/2019 14:41:50	0.0	0.0
349	5/20/2019 14:42:50	0.0	0.0
350	5/20/2019 14:43:50	0.0	0.0
351	5/20/2019 14:44:50	0.0	0.0
352	5/20/2019 14:45:50	0.0	0.0
353	5/20/2019 14:46:50	0.0	0.0
354	5/20/2019 14:47:50	0.0	0.0
355	5/20/2019 14:48:50	0.0	0.0
356	5/20/2019 14:49:50	0.0	0.0
357	5/20/2019 14:50:50	0.0	0.0
358	5/20/2019 14:51:50	0.0	0.0

甑==========
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19/05/23 11:06
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00002
User ID	00000001

Begin	5/23/2019 11:06:38
End	5/23/2019 15:02:23

Sample Period(s)	60
Number of Records	235

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.1
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/23/2019	11:07:38	0.0	0.0	0.0	0.0
002	5/23/2019	11:08:38	0.0	0.0	0.0	0.0
003	5/23/2019	11:09:38	0.0	0.0	0.0	0.0
004	5/23/2019	11:10:38	0.0	0.0	0.0	0.0
005	5/23/2019	11:11:38	0.0	0.0	0.0	0.0
006	5/23/2019	11:12:38	0.0	0.0	0.0	0.0
007	5/23/2019	11:13:38	0.0	0.0	0.0	0.0
008	5/23/2019	11:14:38	0.0	0.0	0.0	0.0

009	5/23/2019	11:15:38	0.0	0.0	0.0	0.0
010	5/23/2019	11:16:38	0.0	0.0	0.0	0.0
011	5/23/2019	11:17:38	0.0	0.0	0.0	0.0
012	5/23/2019	11:18:38	0.0	0.0	0.0	0.0
013	5/23/2019	11:19:38	0.0	0.0	0.0	0.0
014	5/23/2019	11:20:38	0.0	0.0	0.0	0.0
015	5/23/2019	11:21:38	0.0	0.0	0.0	0.0
016	5/23/2019	11:22:38	0.0	0.0	0.0	0.0
017	5/23/2019	11:23:38	0.0	0.0	0.0	0.0
018	5/23/2019	11:24:38	0.0	0.0	0.0	0.0
019	5/23/2019	11:25:38	0.0	0.0	0.0	0.0
020	5/23/2019	11:26:38	0.0	0.0	0.0	0.0
021	5/23/2019	11:27:38	0.0	0.0	0.0	0.0
022	5/23/2019	11:28:38	0.0	0.0	0.0	0.0
023	5/23/2019	11:29:38	0.0	0.0	0.0	0.0
024	5/23/2019	11:30:38	0.0	0.0	0.0	0.0
025	5/23/2019	11:31:38	0.0	0.0	0.0	0.0
026	5/23/2019	11:32:38	0.0	0.0	0.0	0.0
027	5/23/2019	11:33:38	0.0	0.0	0.0	0.0
028	5/23/2019	11:34:38	0.0	0.0	0.0	0.0
029	5/23/2019	11:35:38	0.0	0.0	0.0	0.0
030	5/23/2019	11:36:38	0.0	0.0	0.0	0.0
031	5/23/2019	11:37:38	0.0	0.0	0.0	0.0
032	5/23/2019	11:38:38	0.0	0.0	0.0	0.0
033	5/23/2019	11:39:38	0.0	0.0	0.0	0.0
034	5/23/2019	11:40:38	0.0	0.0	0.0	0.0
035	5/23/2019	11:41:38	0.0	0.0	0.0	0.0
036	5/23/2019	11:42:38	0.0	0.0	0.0	0.0
037	5/23/2019	11:43:38	0.0	0.0	0.0	0.0
038	5/23/2019	11:44:38	0.0	0.0	0.0	0.0
039	5/23/2019	11:45:38	0.0	0.0	0.0	0.0

040	5/23/2019 11:46:38	0.0	0.0	0.0	0.0
041	5/23/2019 11:47:38	0.0	0.0	0.0	0.0
042	5/23/2019 11:48:38	0.0	0.0	0.0	0.0
043	5/23/2019 11:49:38	0.0	0.0	0.0	0.0
044	5/23/2019 11:50:38	0.0	0.0	0.0	0.0
045	5/23/2019 11:51:38	0.0	0.0	0.0	0.0
046	5/23/2019 11:52:38	0.0	0.0	0.0	0.0
047	5/23/2019 11:53:38	0.0	0.0	0.0	0.0
048	5/23/2019 11:54:38	0.0	0.0	0.0	0.0
049	5/23/2019 11:55:38	0.0	0.0	0.0	0.0
050	5/23/2019 11:56:38	0.0	0.0	0.0	0.0
051	5/23/2019 11:57:38	0.0	0.0	0.0	0.0
052	5/23/2019 11:58:38	0.0	0.0	0.0	0.0
053	5/23/2019 11:59:38	0.0	0.0	0.0	0.0
054	5/23/2019 12:00:38	0.0	0.0	0.0	0.0
055	5/23/2019 12:01:38	0.0	0.0	0.0	0.0
056	5/23/2019 12:02:38	0.0	0.0	0.0	0.0
057	5/23/2019 12:03:38	0.0	0.0	0.0	0.0
058	5/23/2019 12:04:38	0.0	0.0	0.0	0.0
059	5/23/2019 12:05:38	0.0	0.0	0.0	0.0
060	5/23/2019 12:06:38	0.0	0.0	0.0	0.0
061	5/23/2019 12:07:38	0.0	0.0	0.0	0.0
062	5/23/2019 12:08:38	0.0	0.0	0.0	0.0
063	5/23/2019 12:09:38	0.0	0.0	0.0	0.0
064	5/23/2019 12:10:38	0.0	0.0	0.0	0.0
065	5/23/2019 12:11:38	0.0	0.0	0.0	0.0
066	5/23/2019 12:12:38	0.0	0.0	0.0	0.0
067	5/23/2019 12:13:38	0.0	0.0	0.0	0.0
068	5/23/2019 12:14:38	0.0	0.0	0.0	0.0
069	5/23/2019 12:15:38	0.0	0.0	0.0	0.0
070	5/23/2019 12:16:38	0.0	0.0	0.0	0.0

071	5/23/2019 12:17:38	0.0	0.0	0.0	0.0
072	5/23/2019 12:18:38	0.0	0.0	0.0	0.0
073	5/23/2019 12:19:38	0.0	0.0	0.0	0.0
074	5/23/2019 12:20:38	0.0	0.0	0.0	0.0
075	5/23/2019 12:21:38	0.0	0.0	0.0	0.0
076	5/23/2019 12:22:38	0.0	0.0	0.0	0.0
077	5/23/2019 12:23:38	0.0	0.0	0.0	0.0
078	5/23/2019 12:24:38	0.0	0.0	0.0	0.0
079	5/23/2019 12:25:38	0.0	0.0	0.0	0.0
080	5/23/2019 12:26:38	0.0	0.0	0.0	0.0
081	5/23/2019 12:27:38	0.0	0.0	0.0	0.0
082	5/23/2019 12:28:38	0.0	0.0	0.0	0.0
083	5/23/2019 12:29:38	0.0	0.0	0.0	0.0
084	5/23/2019 12:30:38	0.0	0.0	0.0	0.0
085	5/23/2019 12:31:38	0.0	0.0	0.0	0.0
086	5/23/2019 12:32:38	0.0	0.0	0.1	0.0
087	5/23/2019 12:33:38	0.0	0.0	0.1	0.0
088	5/23/2019 12:34:38	0.0	0.0	0.0	0.0
089	5/23/2019 12:35:38	0.0	0.0	0.1	0.0
090	5/23/2019 12:36:38	0.0	0.0	0.1	0.0
091	5/23/2019 12:37:38	0.0	0.0	0.1	0.0
092	5/23/2019 12:38:38	0.0	0.0	0.1	0.0
093	5/23/2019 12:39:38	0.0	0.0	0.1	0.0
094	5/23/2019 12:40:38	0.0	0.0	0.1	0.0
095	5/23/2019 12:41:38	0.0	0.0	0.1	0.0
096	5/23/2019 12:42:38	0.0	0.0	0.1	0.0
097	5/23/2019 12:43:38	0.0	0.0	0.1	0.0
098	5/23/2019 12:44:38	0.0	0.0	0.1	0.0
099	5/23/2019 12:45:38	0.0	0.0	0.1	0.0
100	5/23/2019 12:46:38	0.0	0.0	0.0	0.0
101	5/23/2019 12:47:38	0.0	0.0	0.1	0.0

102	5/23/2019 12:48:38	0.0	0.0	0.1	0.0
103	5/23/2019 12:49:38	0.0	0.0	0.1	0.0
104	5/23/2019 12:50:38	0.0	0.0	0.0	0.0
105	5/23/2019 12:51:38	0.0	0.0	0.0	0.0
106	5/23/2019 12:52:38	0.0	0.0	0.0	0.0
107	5/23/2019 12:53:38	0.0	0.0	0.0	0.0
108	5/23/2019 12:54:38	0.0	0.0	0.0	0.0
109	5/23/2019 12:55:38	0.0	0.0	0.0	0.0
110	5/23/2019 12:56:38	0.0	0.0	0.0	0.0
111	5/23/2019 12:57:38	0.0	0.0	0.0	0.0
112	5/23/2019 12:58:38	0.0	0.0	0.0	0.0
113	5/23/2019 12:59:38	0.0	0.0	0.0	0.0
114	5/23/2019 13:00:38	0.0	0.0	0.0	0.0
115	5/23/2019 13:01:38	0.0	0.0	0.0	0.0
116	5/23/2019 13:02:38	0.0	0.0	0.0	0.0
117	5/23/2019 13:03:38	0.0	0.0	0.0	0.0
118	5/23/2019 13:04:38	0.0	0.0	0.0	0.0
119	5/23/2019 13:05:38	0.0	0.0	0.1	0.1
120	5/23/2019 13:06:38	0.0	0.0	0.1	0.0
121	5/23/2019 13:07:38	0.0	0.0	0.0	0.0
122	5/23/2019 13:08:38	0.0	0.0	0.1	0.0
123	5/23/2019 13:09:38	0.0	0.0	0.0	0.0
124	5/23/2019 13:10:38	0.0	0.0	0.0	0.0
125	5/23/2019 13:11:38	0.0	0.0	0.1	0.1
126	5/23/2019 13:12:38	0.0	0.0	0.1	0.0
127	5/23/2019 13:13:38	0.0	0.0	0.1	0.0
128	5/23/2019 13:14:38	0.0	0.1	0.1	0.1
129	5/23/2019 13:15:38	0.0	0.1	0.1	0.1
130	5/23/2019 13:16:38	0.0	0.0	0.1	0.1
131	5/23/2019 13:17:38	0.1	0.1	0.1	0.1
132	5/23/2019 13:18:38	0.1	0.1	0.1	0.1

133	5/23/2019 13:19:38	0.1	0.1	0.1	0.1
134	5/23/2019 13:20:38	0.1	0.1	0.1	0.1
135	5/23/2019 13:21:38	0.1	0.1	0.1	0.1
136	5/23/2019 13:22:38	0.1	0.1	0.1	0.1
137	5/23/2019 13:23:38	0.1	0.1	0.1	0.1
138	5/23/2019 13:24:38	0.1	0.1	0.1	0.1
139	5/23/2019 13:25:38	0.1	0.1	0.1	0.1
140	5/23/2019 13:26:38	0.1	0.1	0.1	0.1
141	5/23/2019 13:27:38	0.1	0.1	0.1	0.1
142	5/23/2019 13:28:38	0.1	0.1	0.1	0.1
143	5/23/2019 13:29:38	0.1	0.1	0.1	0.1
144	5/23/2019 13:30:38	0.1	0.1	0.1	0.1
145	5/23/2019 13:31:38	0.1	0.1	0.1	0.1
146	5/23/2019 13:32:38	0.1	0.1	0.1	0.1
147	5/23/2019 13:33:38	0.1	0.1	0.1	0.1
148	5/23/2019 13:34:38	0.1	0.1	0.1	0.1
149	5/23/2019 13:35:38	0.1	0.1	0.1	0.1
150	5/23/2019 13:36:38	0.1	0.1	0.1	0.1
151	5/23/2019 13:37:38	0.1	0.1	0.1	0.1
152	5/23/2019 13:38:38	0.1	0.1	0.1	0.1
153	5/23/2019 13:39:38	0.1	0.1	0.1	0.1
154	5/23/2019 13:40:38	0.1	0.1	0.1	0.1
155	5/23/2019 13:41:38	0.1	0.1	0.1	0.1
156	5/23/2019 13:42:38	0.1	0.1	0.1	0.1
157	5/23/2019 13:43:38	0.1	0.1	0.1	0.1
158	5/23/2019 13:44:38	0.1	0.1	0.1	0.1
159	5/23/2019 13:45:38	0.1	0.1	0.1	0.1
160	5/23/2019 13:46:38	0.1	0.1	0.1	0.1
161	5/23/2019 13:47:38	0.1	0.1	0.1	0.1
162	5/23/2019 13:48:38	0.1	0.1	0.1	0.1
163	5/23/2019 13:49:38	0.0	0.1	0.1	0.0

164	5/23/2019 13:50:38	0.0	0.1	0.1	0.1
165	5/23/2019 13:51:38	0.0	0.1	0.1	0.1
166	5/23/2019 13:52:38	0.0	0.0	0.1	0.1
167	5/23/2019 13:53:38	0.0	0.0	0.1	0.0
168	5/23/2019 13:54:38	0.0	0.0	0.0	0.0
169	5/23/2019 13:55:38	0.0	0.0	0.0	0.0
170	5/23/2019 13:56:38	0.0	0.0	0.0	0.0
171	5/23/2019 13:57:38	0.0	0.0	0.0	0.0
172	5/23/2019 13:58:38	0.0	0.0	0.0	0.0
173	5/23/2019 13:59:38	0.0	0.0	0.0	0.0
174	5/23/2019 14:00:38	0.0	0.0	0.0	0.0
175	5/23/2019 14:01:38	0.0	0.0	0.0	0.0
176	5/23/2019 14:02:38	0.0	0.0	0.0	0.0
177	5/23/2019 14:03:38	0.0	0.0	0.0	0.0
178	5/23/2019 14:04:38	0.0	0.0	0.0	0.0
179	5/23/2019 14:05:38	0.0	0.0	0.0	0.0
180	5/23/2019 14:06:38	0.0	0.0	0.0	0.0
181	5/23/2019 14:07:38	0.0	0.0	0.0	0.0
182	5/23/2019 14:08:38	0.0	0.0	0.0	0.0
183	5/23/2019 14:09:38	0.0	0.0	0.0	0.0
184	5/23/2019 14:10:38	0.0	0.0	0.0	0.0
185	5/23/2019 14:11:38	0.0	0.0	0.0	0.0
186	5/23/2019 14:12:38	0.0	0.0	0.0	0.0
187	5/23/2019 14:13:38	0.0	0.0	0.0	0.0
188	5/23/2019 14:14:38	0.0	0.0	0.0	0.0
189	5/23/2019 14:15:38	0.0	0.0	0.0	0.0
190	5/23/2019 14:16:38	0.0	0.0	0.0	0.0
191	5/23/2019 14:17:38	0.0	0.0	0.0	0.0
192	5/23/2019 14:18:38	0.0	0.0	0.0	0.0
193	5/23/2019 14:19:38	0.0	0.0	0.0	0.0
194	5/23/2019 14:20:38	0.0	0.0	0.0	0.0

195	5/23/2019 14:21:38	0.0	0.0	0.0	0.0
196	5/23/2019 14:22:38	0.0	0.1	0.1	0.1
197	5/23/2019 14:23:38	0.1	0.1	0.1	0.1
198	5/23/2019 14:24:38	0.0	0.1	0.1	0.0
199	5/23/2019 14:25:38	0.0	0.0	0.1	0.0
200	5/23/2019 14:26:38	0.0	0.0	0.1	0.0
201	5/23/2019 14:27:38	0.0	0.0	0.1	0.0
202	5/23/2019 14:28:38	0.0	0.0	0.0	0.0
203	5/23/2019 14:29:38	0.0	0.0	0.1	0.1
204	5/23/2019 14:30:38	0.0	0.1	0.1	0.1
205	5/23/2019 14:31:38	0.1	0.1	0.1	0.1
206	5/23/2019 14:32:38	0.0	0.1	0.1	0.0
207	5/23/2019 14:33:38	0.0	0.0	0.1	0.1
208	5/23/2019 14:34:38	0.0	0.1	0.1	0.0
209	5/23/2019 14:35:38	0.0	0.1	0.1	0.1
210	5/23/2019 14:36:38	0.1	0.1	0.1	0.1
211	5/23/2019 14:37:38	0.1	0.1	0.1	0.1
212	5/23/2019 14:38:38	0.1	0.1	0.1	0.1
213	5/23/2019 14:39:38	0.1	0.1	0.1	0.1
214	5/23/2019 14:40:38	0.1	0.1	0.1	0.1
215	5/23/2019 14:41:38	0.1	0.1	0.1	0.1
216	5/23/2019 14:42:38	0.1	0.1	0.1	0.1
217	5/23/2019 14:43:38	0.1	0.1	0.1	0.1
218	5/23/2019 14:44:38	0.1	0.1	0.1	0.1
219	5/23/2019 14:45:38	0.1	0.1	0.1	0.1
220	5/23/2019 14:46:38	0.1	0.1	0.1	0.1
221	5/23/2019 14:47:38	0.1	0.1	0.1	0.1
222	5/23/2019 14:48:38	0.1	0.1	0.1	0.1
223	5/23/2019 14:49:38	0.1	0.1	0.1	0.1
224	5/23/2019 14:50:38	0.1	0.1	0.1	0.1
225	5/23/2019 14:51:38	0.1	0.1	0.1	0.1

226	5/23/2019	14:52:38	0.1	0.1	0.1	0.1
227	5/23/2019	14:53:38	0.1	0.1	0.1	0.1
228	5/23/2019	14:54:38	0.1	0.1	0.1	0.1
229	5/23/2019	14:55:38	0.1	0.1	0.1	0.1
230	5/23/2019	14:56:38	0.1	0.1	0.1	0.1
231	5/23/2019	14:57:38	0.1	0.1	0.1	0.1
232	5/23/2019	14:58:38	0.1	0.1	0.1	0.1
233	5/23/2019	14:59:38	0.1	0.1	0.1	0.1
234	5/23/2019	15:00:38	0.1	0.1	0.1	0.1
235	5/23/2019	15:01:38	0.1	0.1	0.1	0.1
Peak			0.1	0.1	0.1	0.1
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/23/2019	11:07:38	0.0	---	
002	5/23/2019	11:08:38	0.0	---	
003	5/23/2019	11:09:38	0.0	---	
004	5/23/2019	11:10:38	0.0	---	
005	5/23/2019	11:11:38	0.0	---	
006	5/23/2019	11:12:38	0.0	---	
007	5/23/2019	11:13:38	0.0	---	
008	5/23/2019	11:14:38	0.0	---	
009	5/23/2019	11:15:38	0.0	---	
010	5/23/2019	11:16:38	0.0	---	
011	5/23/2019	11:17:38	0.0	---	
012	5/23/2019	11:18:38	0.0	---	
013	5/23/2019	11:19:38	0.0	---	

014	5/23/2019 11:20:38	0.0	---
015	5/23/2019 11:21:38	0.0	0.0
016	5/23/2019 11:22:38	0.0	0.0
017	5/23/2019 11:23:38	0.0	0.0
018	5/23/2019 11:24:38	0.0	0.0
019	5/23/2019 11:25:38	0.0	0.0
020	5/23/2019 11:26:38	0.0	0.0
021	5/23/2019 11:27:38	0.0	0.0
022	5/23/2019 11:28:38	0.0	0.0
023	5/23/2019 11:29:38	0.0	0.0
024	5/23/2019 11:30:38	0.0	0.0
025	5/23/2019 11:31:38	0.0	0.0
026	5/23/2019 11:32:38	0.0	0.0
027	5/23/2019 11:33:38	0.0	0.0
028	5/23/2019 11:34:38	0.0	0.0
029	5/23/2019 11:35:38	0.0	0.0
030	5/23/2019 11:36:38	0.0	0.0
031	5/23/2019 11:37:38	0.0	0.0
032	5/23/2019 11:38:38	0.0	0.0
033	5/23/2019 11:39:38	0.0	0.0
034	5/23/2019 11:40:38	0.0	0.0
035	5/23/2019 11:41:38	0.0	0.0
036	5/23/2019 11:42:38	0.0	0.0
037	5/23/2019 11:43:38	0.0	0.0
038	5/23/2019 11:44:38	0.0	0.0
039	5/23/2019 11:45:38	0.0	0.0
040	5/23/2019 11:46:38	0.0	0.0
041	5/23/2019 11:47:38	0.0	0.0
042	5/23/2019 11:48:38	0.0	0.0
043	5/23/2019 11:49:38	0.0	0.0
044	5/23/2019 11:50:38	0.0	0.0

045	5/23/2019 11:51:38	0.0	0.0
046	5/23/2019 11:52:38	0.0	0.0
047	5/23/2019 11:53:38	0.0	0.0
048	5/23/2019 11:54:38	0.0	0.0
049	5/23/2019 11:55:38	0.0	0.0
050	5/23/2019 11:56:38	0.0	0.0
051	5/23/2019 11:57:38	0.0	0.0
052	5/23/2019 11:58:38	0.0	0.0
053	5/23/2019 11:59:38	0.0	0.0
054	5/23/2019 12:00:38	0.0	0.0
055	5/23/2019 12:01:38	0.0	0.0
056	5/23/2019 12:02:38	0.0	0.0
057	5/23/2019 12:03:38	0.0	0.0
058	5/23/2019 12:04:38	0.0	0.0
059	5/23/2019 12:05:38	0.0	0.0
060	5/23/2019 12:06:38	0.0	0.0
061	5/23/2019 12:07:38	0.0	0.0
062	5/23/2019 12:08:38	0.0	0.0
063	5/23/2019 12:09:38	0.0	0.0
064	5/23/2019 12:10:38	0.0	0.0
065	5/23/2019 12:11:38	0.0	0.0
066	5/23/2019 12:12:38	0.0	0.0
067	5/23/2019 12:13:38	0.0	0.0
068	5/23/2019 12:14:38	0.0	0.0
069	5/23/2019 12:15:38	0.0	0.0
070	5/23/2019 12:16:38	0.0	0.0
071	5/23/2019 12:17:38	0.0	0.0
072	5/23/2019 12:18:38	0.0	0.0
073	5/23/2019 12:19:38	0.0	0.0
074	5/23/2019 12:20:38	0.0	0.0
075	5/23/2019 12:21:38	0.0	0.0

076	5/23/2019 12:22:38	0.0	0.0
077	5/23/2019 12:23:38	0.0	0.0
078	5/23/2019 12:24:38	0.0	0.0
079	5/23/2019 12:25:38	0.0	0.0
080	5/23/2019 12:26:38	0.0	0.0
081	5/23/2019 12:27:38	0.0	0.0
082	5/23/2019 12:28:38	0.0	0.0
083	5/23/2019 12:29:38	0.0	0.0
084	5/23/2019 12:30:38	0.0	0.0
085	5/23/2019 12:31:38	0.0	0.0
086	5/23/2019 12:32:38	0.0	0.0
087	5/23/2019 12:33:38	0.0	0.0
088	5/23/2019 12:34:38	0.0	0.0
089	5/23/2019 12:35:38	0.0	0.0
090	5/23/2019 12:36:38	0.0	0.0
091	5/23/2019 12:37:38	0.0	0.0
092	5/23/2019 12:38:38	0.0	0.0
093	5/23/2019 12:39:38	0.0	0.0
094	5/23/2019 12:40:38	0.0	0.0
095	5/23/2019 12:41:38	0.0	0.0
096	5/23/2019 12:42:38	0.0	0.0
097	5/23/2019 12:43:38	0.0	0.0
098	5/23/2019 12:44:38	0.0	0.0
099	5/23/2019 12:45:38	0.0	0.0
100	5/23/2019 12:46:38	0.0	0.0
101	5/23/2019 12:47:38	0.0	0.0
102	5/23/2019 12:48:38	0.0	0.0
103	5/23/2019 12:49:38	0.0	0.0
104	5/23/2019 12:50:38	0.0	0.0
105	5/23/2019 12:51:38	0.0	0.0
106	5/23/2019 12:52:38	0.0	0.0

107	5/23/2019 12:53:38	0.0	0.0
108	5/23/2019 12:54:38	0.0	0.0
109	5/23/2019 12:55:38	0.0	0.0
110	5/23/2019 12:56:38	0.0	0.0
111	5/23/2019 12:57:38	0.0	0.0
112	5/23/2019 12:58:38	0.0	0.0
113	5/23/2019 12:59:38	0.0	0.0
114	5/23/2019 13:00:38	0.0	0.0
115	5/23/2019 13:01:38	0.0	0.0
116	5/23/2019 13:02:38	0.0	0.0
117	5/23/2019 13:03:38	0.0	0.0
118	5/23/2019 13:04:38	0.0	0.0
119	5/23/2019 13:05:38	0.0	0.0
120	5/23/2019 13:06:38	0.0	0.0
121	5/23/2019 13:07:38	0.0	0.0
122	5/23/2019 13:08:38	0.0	0.0
123	5/23/2019 13:09:38	0.0	0.0
124	5/23/2019 13:10:38	0.0	0.0
125	5/23/2019 13:11:38	0.0	0.0
126	5/23/2019 13:12:38	0.0	0.0
127	5/23/2019 13:13:38	0.0	0.0
128	5/23/2019 13:14:38	0.0	0.0
129	5/23/2019 13:15:38	0.0	0.0
130	5/23/2019 13:16:38	0.0	0.0
131	5/23/2019 13:17:38	0.0	0.0
132	5/23/2019 13:18:38	0.0	0.0
133	5/23/2019 13:19:38	0.0	0.1
134	5/23/2019 13:20:38	0.0	0.1
135	5/23/2019 13:21:38	0.0	0.1
136	5/23/2019 13:22:38	0.0	0.1
137	5/23/2019 13:23:38	0.0	0.1

138	5/23/2019 13:24:38	0.0	0.1
139	5/23/2019 13:25:38	0.0	0.1
140	5/23/2019 13:26:38	0.0	0.1
141	5/23/2019 13:27:38	0.0	0.1
142	5/23/2019 13:28:38	0.0	0.1
143	5/23/2019 13:29:38	0.0	0.1
144	5/23/2019 13:30:38	0.0	0.1
145	5/23/2019 13:31:38	0.0	0.1
146	5/23/2019 13:32:38	0.0	0.1
147	5/23/2019 13:33:38	0.0	0.1
148	5/23/2019 13:34:38	0.0	0.1
149	5/23/2019 13:35:38	0.0	0.1
150	5/23/2019 13:36:38	0.0	0.1
151	5/23/2019 13:37:38	0.0	0.1
152	5/23/2019 13:38:38	0.0	0.1
153	5/23/2019 13:39:38	0.0	0.1
154	5/23/2019 13:40:38	0.0	0.1
155	5/23/2019 13:41:38	0.0	0.1
156	5/23/2019 13:42:38	0.0	0.1
157	5/23/2019 13:43:38	0.0	0.1
158	5/23/2019 13:44:38	0.0	0.1
159	5/23/2019 13:45:38	0.0	0.1
160	5/23/2019 13:46:38	0.0	0.1
161	5/23/2019 13:47:38	0.0	0.1
162	5/23/2019 13:48:38	0.0	0.1
163	5/23/2019 13:49:38	0.0	0.1
164	5/23/2019 13:50:38	0.0	0.1
165	5/23/2019 13:51:38	0.0	0.1
166	5/23/2019 13:52:38	0.0	0.1
167	5/23/2019 13:53:38	0.0	0.1
168	5/23/2019 13:54:38	0.0	0.1

169	5/23/2019 13:55:38	0.0	0.1
170	5/23/2019 13:56:38	0.0	0.1
171	5/23/2019 13:57:38	0.0	0.1
172	5/23/2019 13:58:38	0.0	0.1
173	5/23/2019 13:59:38	0.0	0.1
174	5/23/2019 14:00:38	0.0	0.0
175	5/23/2019 14:01:38	0.0	0.0
176	5/23/2019 14:02:38	0.0	0.0
177	5/23/2019 14:03:38	0.0	0.0
178	5/23/2019 14:04:38	0.0	0.0
179	5/23/2019 14:05:38	0.0	0.0
180	5/23/2019 14:06:38	0.0	0.0
181	5/23/2019 14:07:38	0.0	0.0
182	5/23/2019 14:08:38	0.0	0.0
183	5/23/2019 14:09:38	0.0	0.0
184	5/23/2019 14:10:38	0.0	0.0
185	5/23/2019 14:11:38	0.0	0.0
186	5/23/2019 14:12:38	0.0	0.0
187	5/23/2019 14:13:38	0.0	0.0
188	5/23/2019 14:14:38	0.0	0.0
189	5/23/2019 14:15:38	0.0	0.0
190	5/23/2019 14:16:38	0.0	0.0
191	5/23/2019 14:17:38	0.0	0.0
192	5/23/2019 14:18:38	0.0	0.0
193	5/23/2019 14:19:38	0.0	0.0
194	5/23/2019 14:20:38	0.0	0.0
195	5/23/2019 14:21:38	0.0	0.0
196	5/23/2019 14:22:38	0.0	0.0
197	5/23/2019 14:23:38	0.0	0.0
198	5/23/2019 14:24:38	0.0	0.0
199	5/23/2019 14:25:38	0.0	0.0

200	5/23/2019 14:26:38	0.0	0.0
201	5/23/2019 14:27:38	0.0	0.0
202	5/23/2019 14:28:38	0.0	0.0
203	5/23/2019 14:29:38	0.0	0.0
204	5/23/2019 14:30:38	0.0	0.0
205	5/23/2019 14:31:38	0.0	0.0
206	5/23/2019 14:32:38	0.0	0.0
207	5/23/2019 14:33:38	0.0	0.0
208	5/23/2019 14:34:38	0.0	0.0
209	5/23/2019 14:35:38	0.0	0.0
210	5/23/2019 14:36:38	0.0	0.1
211	5/23/2019 14:37:38	0.0	0.1
212	5/23/2019 14:38:38	0.0	0.1
213	5/23/2019 14:39:38	0.0	0.1
214	5/23/2019 14:40:38	0.0	0.1
215	5/23/2019 14:41:38	0.0	0.1
216	5/23/2019 14:42:38	0.0	0.1
217	5/23/2019 14:43:38	0.0	0.1
218	5/23/2019 14:44:38	0.0	0.1
219	5/23/2019 14:45:38	0.0	0.1
220	5/23/2019 14:46:38	0.0	0.1
221	5/23/2019 14:47:38	0.0	0.1
222	5/23/2019 14:48:38	0.0	0.1
223	5/23/2019 14:49:38	0.0	0.1
224	5/23/2019 14:50:38	0.0	0.1
225	5/23/2019 14:51:38	0.0	0.1
226	5/23/2019 14:52:38	0.0	0.1
227	5/23/2019 14:53:38	0.0	0.1
228	5/23/2019 14:54:38	0.0	0.1
229	5/23/2019 14:55:38	0.0	0.1
230	5/23/2019 14:56:38	0.0	0.1

231 5/23/2019 14:57:38 0.0 0.1
232 5/23/2019 14:58:38 0.0 0.1
233 5/23/2019 14:59:38 0.0 0.1
234 5/23/2019 15:00:38 0.0 0.1
235 5/23/2019 15:01:38 0.0 0.1
甄==========
====
19/05/24 10:08
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-904392
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID RAE00002
User ID 00000001

Begin 5/24/2019 10:08:07
End 5/24/2019 12:59:28
Sample Period(s) 60
Number of Records 171

Sensor PID(ppm)
Sensor SN S023030001MA
Measure Type Min; Avg; Max; Real

Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.0
Min	0.0
Average	0.0

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/24/2019	10:09:07	0.0	0.0	0.0	0.0
002	5/24/2019	10:10:07	0.0	0.0	0.0	0.0
003	5/24/2019	10:11:07	0.0	0.0	0.0	0.0
004	5/24/2019	10:12:07	0.0	0.0	0.0	0.0
005	5/24/2019	10:13:07	0.0	0.0	0.0	0.0
006	5/24/2019	10:14:07	0.0	0.0	0.0	0.0
007	5/24/2019	10:15:07	0.0	0.0	0.0	0.0
008	5/24/2019	10:16:07	0.0	0.0	0.0	0.0
009	5/24/2019	10:17:07	0.0	0.0	0.0	0.0
010	5/24/2019	10:18:07	0.0	0.0	0.0	0.0
011	5/24/2019	10:19:07	0.0	0.0	0.0	0.0
012	5/24/2019	10:20:07	0.0	0.0	0.0	0.0
013	5/24/2019	10:21:07	0.0	0.0	0.0	0.0
014	5/24/2019	10:22:07	0.0	0.0	0.0	0.0

015	5/24/2019 10:23:07	0.0	0.0	0.0	0.0
016	5/24/2019 10:24:07	0.0	0.0	0.0	0.0
017	5/24/2019 10:25:07	0.0	0.0	0.0	0.0
018	5/24/2019 10:26:07	0.0	0.0	0.0	0.0
019	5/24/2019 10:27:07	0.0	0.0	0.0	0.0
020	5/24/2019 10:28:07	0.0	0.0	0.0	0.0
021	5/24/2019 10:29:07	0.0	0.0	0.0	0.0
022	5/24/2019 10:30:07	0.0	0.0	0.0	0.0
023	5/24/2019 10:31:07	0.0	0.0	0.0	0.0
024	5/24/2019 10:32:07	0.0	0.0	0.0	0.0
025	5/24/2019 10:33:07	0.0	0.0	0.0	0.0
026	5/24/2019 10:34:07	0.0	0.0	0.0	0.0
027	5/24/2019 10:35:07	0.0	0.0	0.0	0.0
028	5/24/2019 10:36:07	0.0	0.0	0.0	0.0
029	5/24/2019 10:37:07	0.0	0.0	0.0	0.0
030	5/24/2019 10:38:07	0.0	0.0	0.0	0.0
031	5/24/2019 10:39:07	0.0	0.0	0.0	0.0
032	5/24/2019 10:40:07	0.0	0.0	0.0	0.0
033	5/24/2019 10:41:07	0.0	0.0	0.0	0.0
034	5/24/2019 10:42:07	0.0	0.0	0.0	0.0
035	5/24/2019 10:43:07	0.0	0.0	0.0	0.0
036	5/24/2019 10:44:07	0.0	0.0	0.0	0.0
037	5/24/2019 10:45:07	0.0	0.0	0.0	0.0
038	5/24/2019 10:46:07	0.0	0.0	0.0	0.0
039	5/24/2019 10:47:07	0.0	0.0	0.0	0.0
040	5/24/2019 10:48:07	0.0	0.0	0.0	0.0
041	5/24/2019 10:49:07	0.0	0.0	0.0	0.0
042	5/24/2019 10:50:07	0.0	0.0	0.0	0.0
043	5/24/2019 10:51:07	0.0	0.0	0.0	0.0
044	5/24/2019 10:52:07	0.0	0.0	0.0	0.0
045	5/24/2019 10:53:07	0.0	0.0	0.0	0.0

046	5/24/2019	10:54:07	0.0	0.0	0.0	0.0
047	5/24/2019	10:55:07	0.0	0.0	0.0	0.0
048	5/24/2019	10:56:07	0.0	0.0	0.0	0.0
049	5/24/2019	10:57:07	0.0	0.0	0.0	0.0
050	5/24/2019	10:58:07	0.0	0.0	0.0	0.0
051	5/24/2019	10:59:07	0.0	0.0	0.0	0.0
052	5/24/2019	11:00:07	0.0	0.0	0.0	0.0
053	5/24/2019	11:01:07	0.0	0.0	0.0	0.0
054	5/24/2019	11:02:07	0.0	0.0	0.0	0.0
055	5/24/2019	11:03:07	0.0	0.0	0.0	0.0
056	5/24/2019	11:04:07	0.0	0.0	0.0	0.0
057	5/24/2019	11:05:07	0.0	0.0	0.0	0.0
058	5/24/2019	11:06:07	0.0	0.0	0.0	0.0
059	5/24/2019	11:07:07	0.0	0.0	0.0	0.0
060	5/24/2019	11:08:07	0.0	0.0	0.0	0.0
061	5/24/2019	11:09:07	0.0	0.0	0.0	0.0
062	5/24/2019	11:10:07	0.0	0.0	0.0	0.0
063	5/24/2019	11:11:07	0.0	0.0	0.0	0.0
064	5/24/2019	11:12:07	0.0	0.0	0.0	0.0
065	5/24/2019	11:13:07	0.0	0.0	0.0	0.0
066	5/24/2019	11:14:07	0.0	0.0	0.0	0.0
067	5/24/2019	11:15:07	0.0	0.0	0.0	0.0
068	5/24/2019	11:16:07	0.0	0.0	0.0	0.0
069	5/24/2019	11:17:07	0.0	0.0	0.0	0.0
070	5/24/2019	11:18:07	0.0	0.0	0.0	0.0
071	5/24/2019	11:19:07	0.0	0.0	0.0	0.0
072	5/24/2019	11:20:07	0.0	0.0	0.0	0.0
073	5/24/2019	11:21:07	0.0	0.0	0.0	0.0
074	5/24/2019	11:22:07	0.0	0.0	0.0	0.0
075	5/24/2019	11:23:07	0.0	0.0	0.0	0.0
076	5/24/2019	11:24:07	0.0	0.0	0.0	0.0

077	5/24/2019	11:25:07	0.0	0.0	0.0	0.0
078	5/24/2019	11:26:07	0.0	0.0	0.0	0.0
079	5/24/2019	11:27:07	0.0	0.0	0.0	0.0
080	5/24/2019	11:28:07	0.0	0.0	0.0	0.0
081	5/24/2019	11:29:07	0.0	0.0	0.0	0.0
082	5/24/2019	11:30:07	0.0	0.0	0.0	0.0
083	5/24/2019	11:31:07	0.0	0.0	0.0	0.0
084	5/24/2019	11:32:07	0.0	0.0	0.0	0.0
085	5/24/2019	11:33:07	0.0	0.0	0.0	0.0
086	5/24/2019	11:34:07	0.0	0.0	0.0	0.0
087	5/24/2019	11:35:07	0.0	0.0	0.0	0.0
088	5/24/2019	11:36:07	0.0	0.0	0.0	0.0
089	5/24/2019	11:37:07	0.0	0.0	0.0	0.0
090	5/24/2019	11:38:07	0.0	0.0	0.0	0.0
091	5/24/2019	11:39:07	0.0	0.0	0.0	0.0
092	5/24/2019	11:40:07	0.0	0.0	0.0	0.0
093	5/24/2019	11:41:07	0.0	0.0	0.0	0.0
094	5/24/2019	11:42:07	0.0	0.0	0.0	0.0
095	5/24/2019	11:43:07	0.0	0.0	0.0	0.0
096	5/24/2019	11:44:07	0.0	0.0	0.0	0.0
097	5/24/2019	11:45:07	0.0	0.0	0.0	0.0
098	5/24/2019	11:46:07	0.0	0.0	0.0	0.0
099	5/24/2019	11:47:07	0.0	0.0	0.0	0.0
100	5/24/2019	11:48:07	0.0	0.0	0.0	0.0
101	5/24/2019	11:49:07	0.0	0.0	0.0	0.0
102	5/24/2019	11:50:07	0.0	0.0	0.0	0.0
103	5/24/2019	11:51:07	0.0	0.0	0.0	0.0
104	5/24/2019	11:52:07	0.0	0.0	0.0	0.0
105	5/24/2019	11:53:07	0.0	0.0	0.0	0.0
106	5/24/2019	11:54:07	0.0	0.0	0.0	0.0
107	5/24/2019	11:55:07	0.0	0.0	0.0	0.0

108	5/24/2019 11:56:07	0.0	0.0	0.0	0.0
109	5/24/2019 11:57:07	0.0	0.0	0.0	0.0
110	5/24/2019 11:58:07	0.0	0.0	0.0	0.0
111	5/24/2019 11:59:07	0.0	0.0	0.0	0.0
112	5/24/2019 12:00:07	0.0	0.0	0.0	0.0
113	5/24/2019 12:01:07	0.0	0.0	0.0	0.0
114	5/24/2019 12:02:07	0.0	0.0	0.0	0.0
115	5/24/2019 12:03:07	0.0	0.0	0.0	0.0
116	5/24/2019 12:04:07	0.0	0.0	0.0	0.0
117	5/24/2019 12:05:07	0.0	0.0	0.0	0.0
118	5/24/2019 12:06:07	0.0	0.0	0.0	0.0
119	5/24/2019 12:07:07	0.0	0.0	0.0	0.0
120	5/24/2019 12:08:07	0.0	0.0	0.0	0.0
121	5/24/2019 12:09:07	0.0	0.0	0.0	0.0
122	5/24/2019 12:10:07	0.0	0.0	0.0	0.0
123	5/24/2019 12:11:07	0.0	0.0	0.0	0.0
124	5/24/2019 12:12:07	0.0	0.0	0.0	0.0
125	5/24/2019 12:13:07	0.0	0.0	0.0	0.0
126	5/24/2019 12:14:07	0.0	0.0	0.0	0.0
127	5/24/2019 12:15:07	0.0	0.0	0.0	0.0
128	5/24/2019 12:16:07	0.0	0.0	0.0	0.0
129	5/24/2019 12:17:07	0.0	0.0	0.0	0.0
130	5/24/2019 12:18:07	0.0	0.0	0.0	0.0
131	5/24/2019 12:19:07	0.0	0.0	0.0	0.0
132	5/24/2019 12:20:07	0.0	0.0	0.0	0.0
133	5/24/2019 12:21:07	0.0	0.0	0.0	0.0
134	5/24/2019 12:22:07	0.0	0.0	0.0	0.0
135	5/24/2019 12:23:07	0.0	0.0	0.0	0.0
136	5/24/2019 12:24:07	0.0	0.0	0.0	0.0
137	5/24/2019 12:25:07	0.0	0.0	0.0	0.0
138	5/24/2019 12:26:07	0.0	0.0	0.0	0.0

139	5/24/2019 12:27:07	0.0	0.0	0.0	0.0
140	5/24/2019 12:28:07	0.0	0.0	0.0	0.0
141	5/24/2019 12:29:07	0.0	0.0	0.0	0.0
142	5/24/2019 12:30:07	0.0	0.0	0.0	0.0
143	5/24/2019 12:31:07	0.0	0.0	0.0	0.0
144	5/24/2019 12:32:07	0.0	0.0	0.0	0.0
145	5/24/2019 12:33:07	0.0	0.0	0.0	0.0
146	5/24/2019 12:34:07	0.0	0.0	0.0	0.0
147	5/24/2019 12:35:07	0.0	0.0	0.0	0.0
148	5/24/2019 12:36:07	0.0	0.0	0.0	0.0
149	5/24/2019 12:37:07	0.0	0.0	0.0	0.0
150	5/24/2019 12:38:07	0.0	0.0	0.0	0.0
151	5/24/2019 12:39:07	0.0	0.0	0.0	0.0
152	5/24/2019 12:40:07	0.0	0.0	0.0	0.0
153	5/24/2019 12:41:07	0.0	0.0	0.0	0.0
154	5/24/2019 12:42:07	0.0	0.0	0.0	0.0
155	5/24/2019 12:43:07	0.0	0.0	0.0	0.0
156	5/24/2019 12:44:07	0.0	0.0	0.0	0.0
157	5/24/2019 12:45:07	0.0	0.0	0.0	0.0
158	5/24/2019 12:46:07	0.0	0.0	0.0	0.0
159	5/24/2019 12:47:07	0.0	0.0	0.0	0.0
160	5/24/2019 12:48:07	0.0	0.0	0.0	0.0
161	5/24/2019 12:49:07	0.0	0.0	0.0	0.0
162	5/24/2019 12:50:07	0.0	0.0	0.0	0.0
163	5/24/2019 12:51:07	0.0	0.0	0.0	0.0
164	5/24/2019 12:52:07	0.0	0.0	0.0	0.0
165	5/24/2019 12:53:07	0.0	0.0	0.0	0.0
166	5/24/2019 12:54:07	0.0	0.0	0.0	0.0
167	5/24/2019 12:55:07	0.0	0.0	0.0	0.0
168	5/24/2019 12:56:07	0.0	0.0	0.0	0.0
169	5/24/2019 12:57:07	0.0	0.0	0.0	0.0

170	5/24/2019	12:58:07	0.0	0.0	0.0	0.0
171	5/24/2019	12:59:07	0.0	0.0	0.1	0.0
Peak		0.0	0.0	0.1	0.0	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.0	0.0	0.0	

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/24/2019	10:09:07	0.0	---
002	5/24/2019	10:10:07	0.0	---
003	5/24/2019	10:11:07	0.0	---
004	5/24/2019	10:12:07	0.0	---
005	5/24/2019	10:13:07	0.0	---
006	5/24/2019	10:14:07	0.0	---
007	5/24/2019	10:15:07	0.0	---
008	5/24/2019	10:16:07	0.0	---
009	5/24/2019	10:17:07	0.0	---
010	5/24/2019	10:18:07	0.0	---
011	5/24/2019	10:19:07	0.0	---
012	5/24/2019	10:20:07	0.0	---
013	5/24/2019	10:21:07	0.0	---
014	5/24/2019	10:22:07	0.0	---
015	5/24/2019	10:23:07	0.0	0.0
016	5/24/2019	10:24:07	0.0	0.0
017	5/24/2019	10:25:07	0.0	0.0
018	5/24/2019	10:26:07	0.0	0.0
019	5/24/2019	10:27:07	0.0	0.0
020	5/24/2019	10:28:07	0.0	0.0
021	5/24/2019	10:29:07	0.0	0.0

022	5/24/2019 10:30:07	0.0	0.0
023	5/24/2019 10:31:07	0.0	0.0
024	5/24/2019 10:32:07	0.0	0.0
025	5/24/2019 10:33:07	0.0	0.0
026	5/24/2019 10:34:07	0.0	0.0
027	5/24/2019 10:35:07	0.0	0.0
028	5/24/2019 10:36:07	0.0	0.0
029	5/24/2019 10:37:07	0.0	0.0
030	5/24/2019 10:38:07	0.0	0.0
031	5/24/2019 10:39:07	0.0	0.0
032	5/24/2019 10:40:07	0.0	0.0
033	5/24/2019 10:41:07	0.0	0.0
034	5/24/2019 10:42:07	0.0	0.0
035	5/24/2019 10:43:07	0.0	0.0
036	5/24/2019 10:44:07	0.0	0.0
037	5/24/2019 10:45:07	0.0	0.0
038	5/24/2019 10:46:07	0.0	0.0
039	5/24/2019 10:47:07	0.0	0.0
040	5/24/2019 10:48:07	0.0	0.0
041	5/24/2019 10:49:07	0.0	0.0
042	5/24/2019 10:50:07	0.0	0.0
043	5/24/2019 10:51:07	0.0	0.0
044	5/24/2019 10:52:07	0.0	0.0
045	5/24/2019 10:53:07	0.0	0.0
046	5/24/2019 10:54:07	0.0	0.0
047	5/24/2019 10:55:07	0.0	0.0
048	5/24/2019 10:56:07	0.0	0.0
049	5/24/2019 10:57:07	0.0	0.0
050	5/24/2019 10:58:07	0.0	0.0
051	5/24/2019 10:59:07	0.0	0.0
052	5/24/2019 11:00:07	0.0	0.0

053	5/24/2019	11:01:07	0.0	0.0
054	5/24/2019	11:02:07	0.0	0.0
055	5/24/2019	11:03:07	0.0	0.0
056	5/24/2019	11:04:07	0.0	0.0
057	5/24/2019	11:05:07	0.0	0.0
058	5/24/2019	11:06:07	0.0	0.0
059	5/24/2019	11:07:07	0.0	0.0
060	5/24/2019	11:08:07	0.0	0.0
061	5/24/2019	11:09:07	0.0	0.0
062	5/24/2019	11:10:07	0.0	0.0
063	5/24/2019	11:11:07	0.0	0.0
064	5/24/2019	11:12:07	0.0	0.0
065	5/24/2019	11:13:07	0.0	0.0
066	5/24/2019	11:14:07	0.0	0.0
067	5/24/2019	11:15:07	0.0	0.0
068	5/24/2019	11:16:07	0.0	0.0
069	5/24/2019	11:17:07	0.0	0.0
070	5/24/2019	11:18:07	0.0	0.0
071	5/24/2019	11:19:07	0.0	0.0
072	5/24/2019	11:20:07	0.0	0.0
073	5/24/2019	11:21:07	0.0	0.0
074	5/24/2019	11:22:07	0.0	0.0
075	5/24/2019	11:23:07	0.0	0.0
076	5/24/2019	11:24:07	0.0	0.0
077	5/24/2019	11:25:07	0.0	0.0
078	5/24/2019	11:26:07	0.0	0.0
079	5/24/2019	11:27:07	0.0	0.0
080	5/24/2019	11:28:07	0.0	0.0
081	5/24/2019	11:29:07	0.0	0.0
082	5/24/2019	11:30:07	0.0	0.0
083	5/24/2019	11:31:07	0.0	0.0

084	5/24/2019	11:32:07	0.0	0.0
085	5/24/2019	11:33:07	0.0	0.0
086	5/24/2019	11:34:07	0.0	0.0
087	5/24/2019	11:35:07	0.0	0.0
088	5/24/2019	11:36:07	0.0	0.0
089	5/24/2019	11:37:07	0.0	0.0
090	5/24/2019	11:38:07	0.0	0.0
091	5/24/2019	11:39:07	0.0	0.0
092	5/24/2019	11:40:07	0.0	0.0
093	5/24/2019	11:41:07	0.0	0.0
094	5/24/2019	11:42:07	0.0	0.0
095	5/24/2019	11:43:07	0.0	0.0
096	5/24/2019	11:44:07	0.0	0.0
097	5/24/2019	11:45:07	0.0	0.0
098	5/24/2019	11:46:07	0.0	0.0
099	5/24/2019	11:47:07	0.0	0.0
100	5/24/2019	11:48:07	0.0	0.0
101	5/24/2019	11:49:07	0.0	0.0
102	5/24/2019	11:50:07	0.0	0.0
103	5/24/2019	11:51:07	0.0	0.0
104	5/24/2019	11:52:07	0.0	0.0
105	5/24/2019	11:53:07	0.0	0.0
106	5/24/2019	11:54:07	0.0	0.0
107	5/24/2019	11:55:07	0.0	0.0
108	5/24/2019	11:56:07	0.0	0.0
109	5/24/2019	11:57:07	0.0	0.0
110	5/24/2019	11:58:07	0.0	0.0
111	5/24/2019	11:59:07	0.0	0.0
112	5/24/2019	12:00:07	0.0	0.0
113	5/24/2019	12:01:07	0.0	0.0
114	5/24/2019	12:02:07	0.0	0.0

115	5/24/2019 12:03:07	0.0	0.0
116	5/24/2019 12:04:07	0.0	0.0
117	5/24/2019 12:05:07	0.0	0.0
118	5/24/2019 12:06:07	0.0	0.0
119	5/24/2019 12:07:07	0.0	0.0
120	5/24/2019 12:08:07	0.0	0.0
121	5/24/2019 12:09:07	0.0	0.0
122	5/24/2019 12:10:07	0.0	0.0
123	5/24/2019 12:11:07	0.0	0.0
124	5/24/2019 12:12:07	0.0	0.0
125	5/24/2019 12:13:07	0.0	0.0
126	5/24/2019 12:14:07	0.0	0.0
127	5/24/2019 12:15:07	0.0	0.0
128	5/24/2019 12:16:07	0.0	0.0
129	5/24/2019 12:17:07	0.0	0.0
130	5/24/2019 12:18:07	0.0	0.0
131	5/24/2019 12:19:07	0.0	0.0
132	5/24/2019 12:20:07	0.0	0.0
133	5/24/2019 12:21:07	0.0	0.0
134	5/24/2019 12:22:07	0.0	0.0
135	5/24/2019 12:23:07	0.0	0.0
136	5/24/2019 12:24:07	0.0	0.0
137	5/24/2019 12:25:07	0.0	0.0
138	5/24/2019 12:26:07	0.0	0.0
139	5/24/2019 12:27:07	0.0	0.0
140	5/24/2019 12:28:07	0.0	0.0
141	5/24/2019 12:29:07	0.0	0.0
142	5/24/2019 12:30:07	0.0	0.0
143	5/24/2019 12:31:07	0.0	0.0
144	5/24/2019 12:32:07	0.0	0.0
145	5/24/2019 12:33:07	0.0	0.0

146	5/24/2019 12:34:07	0.0	0.0
147	5/24/2019 12:35:07	0.0	0.0
148	5/24/2019 12:36:07	0.0	0.0
149	5/24/2019 12:37:07	0.0	0.0
150	5/24/2019 12:38:07	0.0	0.0
151	5/24/2019 12:39:07	0.0	0.0
152	5/24/2019 12:40:07	0.0	0.0
153	5/24/2019 12:41:07	0.0	0.0
154	5/24/2019 12:42:07	0.0	0.0
155	5/24/2019 12:43:07	0.0	0.0
156	5/24/2019 12:44:07	0.0	0.0
157	5/24/2019 12:45:07	0.0	0.0
158	5/24/2019 12:46:07	0.0	0.0
159	5/24/2019 12:47:07	0.0	0.0
160	5/24/2019 12:48:07	0.0	0.0
161	5/24/2019 12:49:07	0.0	0.0
162	5/24/2019 12:50:07	0.0	0.0
163	5/24/2019 12:51:07	0.0	0.0
164	5/24/2019 12:52:07	0.0	0.0
165	5/24/2019 12:53:07	0.0	0.0
166	5/24/2019 12:54:07	0.0	0.0
167	5/24/2019 12:55:07	0.0	0.0
168	5/24/2019 12:56:07	0.0	0.0
169	5/24/2019 12:57:07	0.0	0.0
170	5/24/2019 12:58:07	0.0	0.0
171	5/24/2019 12:59:07	0.0	0.0

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19/05/28 10:00

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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	RAE00002
User ID	00000001

Begin	5/28/2019 10:00:07
End	5/28/2019 15:03:12
Sample Period(s)	60
Number of Records	303

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.1

Min 0.0
Average 0.0

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/28/2019	10:01:07	0.0	0.0	0.0	0.0
002	5/28/2019	10:02:07	0.0	0.0	0.0	0.0
003	5/28/2019	10:03:07	0.0	0.0	0.0	0.0
004	5/28/2019	10:04:07	0.0	0.0	0.0	0.0
005	5/28/2019	10:05:07	0.0	0.0	0.0	0.0
006	5/28/2019	10:06:07	0.0	0.0	0.0	0.0
007	5/28/2019	10:07:07	0.0	0.0	0.0	0.0
008	5/28/2019	10:08:07	0.0	0.0	0.0	0.0
009	5/28/2019	10:09:07	0.0	0.0	0.0	0.0
010	5/28/2019	10:10:07	0.0	0.0	0.0	0.0
011	5/28/2019	10:11:07	0.0	0.0	0.0	0.0
012	5/28/2019	10:12:07	0.0	0.0	0.0	0.0
013	5/28/2019	10:13:07	0.0	0.0	0.0	0.0
014	5/28/2019	10:14:07	0.0	0.0	0.0	0.0
015	5/28/2019	10:15:07	0.0	0.0	0.0	0.0
016	5/28/2019	10:16:07	0.0	0.0	0.0	0.0
017	5/28/2019	10:17:07	0.0	0.0	0.0	0.0
018	5/28/2019	10:18:07	0.0	0.0	0.0	0.0
019	5/28/2019	10:19:07	0.0	0.0	0.0	0.0
020	5/28/2019	10:20:07	0.0	0.0	0.0	0.0
021	5/28/2019	10:21:07	0.0	0.0	0.0	0.0
022	5/28/2019	10:22:07	0.0	0.0	0.0	0.0
023	5/28/2019	10:23:07	0.0	0.0	0.0	0.0
024	5/28/2019	10:24:07	0.0	0.0	0.0	0.0

025	5/28/2019 10:25:07	0.0	0.0	0.0	0.0
026	5/28/2019 10:26:07	0.0	0.0	0.0	0.0
027	5/28/2019 10:27:07	0.0	0.0	0.0	0.0
028	5/28/2019 10:28:07	0.0	0.0	0.0	0.0
029	5/28/2019 10:29:07	0.0	0.0	0.0	0.0
030	5/28/2019 10:30:07	0.0	0.0	0.0	0.0
031	5/28/2019 10:31:07	0.0	0.0	0.0	0.0
032	5/28/2019 10:32:07	0.0	0.0	0.0	0.0
033	5/28/2019 10:33:07	0.0	0.0	0.0	0.0
034	5/28/2019 10:34:07	0.0	0.0	0.0	0.0
035	5/28/2019 10:35:07	0.0	0.0	0.0	0.0
036	5/28/2019 10:36:07	0.0	0.0	0.0	0.0
037	5/28/2019 10:37:07	0.0	0.0	0.0	0.0
038	5/28/2019 10:38:07	0.0	0.0	0.0	0.0
039	5/28/2019 10:39:07	0.0	0.0	0.0	0.0
040	5/28/2019 10:40:07	0.0	0.0	0.0	0.0
041	5/28/2019 10:41:07	0.0	0.0	0.0	0.0
042	5/28/2019 10:42:07	0.0	0.0	0.0	0.0
043	5/28/2019 10:43:07	0.0	0.0	0.0	0.0
044	5/28/2019 10:44:07	0.0	0.0	0.0	0.0
045	5/28/2019 10:45:07	0.0	0.0	0.0	0.0
046	5/28/2019 10:46:07	0.0	0.0	0.0	0.0
047	5/28/2019 10:47:07	0.0	0.0	0.0	0.0
048	5/28/2019 10:48:07	0.0	0.0	0.0	0.0
049	5/28/2019 10:49:07	0.0	0.0	0.0	0.0
050	5/28/2019 10:50:07	0.0	0.0	0.0	0.0
051	5/28/2019 10:51:07	0.0	0.0	0.0	0.0
052	5/28/2019 10:52:07	0.0	0.0	0.0	0.0
053	5/28/2019 10:53:07	0.0	0.0	0.0	0.0
054	5/28/2019 10:54:07	0.0	0.0	0.0	0.0
055	5/28/2019 10:55:07	0.0	0.0	0.0	0.0

056	5/28/2019	10:56:07	0.0	0.0	0.0	0.0
057	5/28/2019	10:57:07	0.0	0.0	0.0	0.0
058	5/28/2019	10:58:07	0.0	0.0	0.0	0.0
059	5/28/2019	10:59:07	0.0	0.0	0.0	0.0
060	5/28/2019	11:00:07	0.0	0.0	0.0	0.0
061	5/28/2019	11:01:07	0.0	0.0	0.0	0.0
062	5/28/2019	11:02:07	0.0	0.0	0.0	0.0
063	5/28/2019	11:03:07	0.0	0.0	0.0	0.0
064	5/28/2019	11:04:07	0.0	0.0	0.0	0.0
065	5/28/2019	11:05:07	0.0	0.0	0.0	0.0
066	5/28/2019	11:06:07	0.0	0.0	0.0	0.0
067	5/28/2019	11:07:07	0.0	0.0	0.0	0.0
068	5/28/2019	11:08:07	0.0	0.0	0.0	0.0
069	5/28/2019	11:09:07	0.0	0.0	0.0	0.0
070	5/28/2019	11:10:07	0.0	0.0	0.0	0.0
071	5/28/2019	11:11:07	0.0	0.0	0.0	0.0
072	5/28/2019	11:12:07	0.0	0.0	0.0	0.0
073	5/28/2019	11:13:07	0.0	0.0	0.0	0.0
074	5/28/2019	11:14:07	0.0	0.0	0.0	0.0
075	5/28/2019	11:15:07	0.0	0.0	0.0	0.0
076	5/28/2019	11:16:07	0.0	0.0	0.0	0.0
077	5/28/2019	11:17:07	0.0	0.0	0.0	0.0
078	5/28/2019	11:18:07	0.0	0.0	0.0	0.0
079	5/28/2019	11:19:07	0.0	0.0	0.0	0.0
080	5/28/2019	11:20:07	0.0	0.0	0.0	0.0
081	5/28/2019	11:21:07	0.0	0.0	0.0	0.0
082	5/28/2019	11:22:07	0.0	0.0	0.0	0.0
083	5/28/2019	11:23:07	0.0	0.0	0.0	0.0
084	5/28/2019	11:24:07	0.0	0.0	0.0	0.0
085	5/28/2019	11:25:07	0.0	0.0	0.0	0.0
086	5/28/2019	11:26:07	0.0	0.0	0.0	0.0

087	5/28/2019	11:27:07	0.0	0.0	0.0	0.0
088	5/28/2019	11:28:07	0.0	0.0	0.0	0.0
089	5/28/2019	11:29:07	0.0	0.0	0.0	0.0
090	5/28/2019	11:30:07	0.0	0.0	0.0	0.0
091	5/28/2019	11:31:07	0.0	0.0	0.0	0.0
092	5/28/2019	11:32:07	0.0	0.0	0.0	0.0
093	5/28/2019	11:33:07	0.0	0.0	0.0	0.0
094	5/28/2019	11:34:07	0.0	0.0	0.0	0.0
095	5/28/2019	11:35:07	0.0	0.0	0.0	0.0
096	5/28/2019	11:36:07	0.0	0.0	0.0	0.0
097	5/28/2019	11:37:07	0.0	0.0	0.0	0.0
098	5/28/2019	11:38:07	0.0	0.0	0.0	0.0
099	5/28/2019	11:39:07	0.0	0.0	0.0	0.0
100	5/28/2019	11:40:07	0.0	0.0	0.0	0.0
101	5/28/2019	11:41:07	0.0	0.0	0.0	0.0
102	5/28/2019	11:42:07	0.0	0.0	0.0	0.0
103	5/28/2019	11:43:07	0.0	0.0	0.0	0.0
104	5/28/2019	11:44:07	0.0	0.0	0.0	0.0
105	5/28/2019	11:45:07	0.0	0.0	0.0	0.0
106	5/28/2019	11:46:07	0.0	0.0	0.0	0.0
107	5/28/2019	11:47:07	0.0	0.0	0.0	0.0
108	5/28/2019	11:48:07	0.0	0.0	0.0	0.0
109	5/28/2019	11:49:07	0.0	0.0	0.0	0.0
110	5/28/2019	11:50:07	0.0	0.0	0.0	0.0
111	5/28/2019	11:51:07	0.0	0.0	0.0	0.0
112	5/28/2019	11:52:07	0.0	0.0	0.0	0.0
113	5/28/2019	11:53:07	0.0	0.0	0.0	0.0
114	5/28/2019	11:54:07	0.0	0.0	0.0	0.0
115	5/28/2019	11:55:07	0.0	0.0	0.0	0.0
116	5/28/2019	11:56:07	0.0	0.0	0.0	0.0
117	5/28/2019	11:57:07	0.0	0.0	0.0	0.0

118	5/28/2019 11:58:07	0.0	0.0	0.0	0.0
119	5/28/2019 11:59:07	0.0	0.0	0.0	0.0
120	5/28/2019 12:00:07	0.0	0.0	0.0	0.0
121	5/28/2019 12:01:07	0.0	0.0	0.0	0.0
122	5/28/2019 12:02:07	0.0	0.0	0.0	0.0
123	5/28/2019 12:03:07	0.0	0.0	0.0	0.0
124	5/28/2019 12:04:07	0.0	0.0	0.0	0.0
125	5/28/2019 12:05:07	0.0	0.0	0.0	0.0
126	5/28/2019 12:06:07	0.0	0.0	0.0	0.0
127	5/28/2019 12:07:07	0.0	0.0	0.0	0.0
128	5/28/2019 12:08:07	0.0	0.0	0.0	0.0
129	5/28/2019 12:09:07	0.0	0.0	0.0	0.0
130	5/28/2019 12:10:07	0.0	0.0	0.0	0.0
131	5/28/2019 12:11:07	0.0	0.0	0.0	0.0
132	5/28/2019 12:12:07	0.0	0.0	0.0	0.0
133	5/28/2019 12:13:07	0.0	0.0	0.0	0.0
134	5/28/2019 12:14:07	0.0	0.0	0.0	0.0
135	5/28/2019 12:15:07	0.0	0.0	0.0	0.0
136	5/28/2019 12:16:07	0.0	0.0	0.0	0.0
137	5/28/2019 12:17:07	0.0	0.0	0.0	0.0
138	5/28/2019 12:18:07	0.0	0.0	0.0	0.0
139	5/28/2019 12:19:07	0.0	0.0	0.0	0.0
140	5/28/2019 12:20:07	0.0	0.0	0.0	0.0
141	5/28/2019 12:21:07	0.0	0.0	0.0	0.0
142	5/28/2019 12:22:07	0.0	0.0	0.0	0.0
143	5/28/2019 12:23:07	0.0	0.0	0.0	0.0
144	5/28/2019 12:24:07	0.0	0.0	0.0	0.0
145	5/28/2019 12:25:07	0.0	0.0	0.0	0.0
146	5/28/2019 12:26:07	0.0	0.0	0.0	0.0
147	5/28/2019 12:27:07	0.0	0.0	0.0	0.0
148	5/28/2019 12:28:07	0.0	0.0	0.0	0.0

149	5/28/2019 12:29:07	0.0	0.0	0.0	0.0
150	5/28/2019 12:30:07	0.0	0.0	0.0	0.0
151	5/28/2019 12:31:07	0.0	0.0	0.0	0.0
152	5/28/2019 12:32:07	0.0	0.0	0.0	0.0
153	5/28/2019 12:33:07	0.0	0.0	0.0	0.0
154	5/28/2019 12:34:07	0.0	0.0	0.0	0.0
155	5/28/2019 12:35:07	0.0	0.0	0.0	0.0
156	5/28/2019 12:36:07	0.0	0.0	0.0	0.0
157	5/28/2019 12:37:07	0.0	0.0	0.0	0.0
158	5/28/2019 12:38:07	0.0	0.0	0.0	0.0
159	5/28/2019 12:39:07	0.0	0.0	0.0	0.0
160	5/28/2019 12:40:07	0.0	0.0	0.0	0.0
161	5/28/2019 12:41:07	0.0	0.0	0.0	0.0
162	5/28/2019 12:42:07	0.0	0.0	0.0	0.0
163	5/28/2019 12:43:07	0.0	0.0	0.0	0.0
164	5/28/2019 12:44:07	0.0	0.0	0.0	0.0
165	5/28/2019 12:45:07	0.0	0.0	0.0	0.0
166	5/28/2019 12:46:07	0.0	0.0	0.0	0.0
167	5/28/2019 12:47:07	0.0	0.0	0.0	0.0
168	5/28/2019 12:48:07	0.0	0.0	0.0	0.0
169	5/28/2019 12:49:07	0.0	0.0	0.0	0.0
170	5/28/2019 12:50:07	0.0	0.0	0.0	0.0
171	5/28/2019 12:51:07	0.0	0.0	0.0	0.0
172	5/28/2019 12:52:07	0.0	0.0	0.0	0.0
173	5/28/2019 12:53:07	0.0	0.0	0.0	0.0
174	5/28/2019 12:54:07	0.0	0.0	0.0	0.0
175	5/28/2019 12:55:07	0.0	0.0	0.0	0.0
176	5/28/2019 12:56:07	0.0	0.0	0.0	0.0
177	5/28/2019 12:57:07	0.0	0.0	0.0	0.0
178	5/28/2019 12:58:07	0.0	0.0	0.0	0.0
179	5/28/2019 12:59:07	0.0	0.0	0.0	0.0

180	5/28/2019	13:00:07	0.0	0.0	0.0	0.0
181	5/28/2019	13:01:07	0.0	0.0	0.0	0.0
182	5/28/2019	13:02:07	0.0	0.0	0.0	0.0
183	5/28/2019	13:03:07	0.0	0.0	0.0	0.0
184	5/28/2019	13:04:07	0.0	0.0	0.0	0.0
185	5/28/2019	13:05:07	0.0	0.0	0.0	0.0
186	5/28/2019	13:06:07	0.0	0.0	0.0	0.0
187	5/28/2019	13:07:07	0.0	0.0	0.0	0.0
188	5/28/2019	13:08:07	0.0	0.0	0.0	0.0
189	5/28/2019	13:09:07	0.0	0.0	0.0	0.0
190	5/28/2019	13:10:07	0.0	0.0	0.0	0.0
191	5/28/2019	13:11:07	0.0	0.0	0.0	0.0
192	5/28/2019	13:12:07	0.0	0.0	0.0	0.0
193	5/28/2019	13:13:07	0.0	0.0	0.0	0.0
194	5/28/2019	13:14:07	0.0	0.0	0.0	0.0
195	5/28/2019	13:15:07	0.0	0.0	0.0	0.0
196	5/28/2019	13:16:07	0.0	0.0	0.0	0.0
197	5/28/2019	13:17:07	0.0	0.0	0.0	0.0
198	5/28/2019	13:18:07	0.0	0.0	0.0	0.0
199	5/28/2019	13:19:07	0.0	0.0	0.0	0.0
200	5/28/2019	13:20:07	0.0	0.0	0.0	0.0
201	5/28/2019	13:21:07	0.0	0.0	0.0	0.0
202	5/28/2019	13:22:07	0.0	0.0	0.0	0.0
203	5/28/2019	13:23:07	0.0	0.0	0.0	0.0
204	5/28/2019	13:24:07	0.0	0.0	0.0	0.0
205	5/28/2019	13:25:07	0.0	0.0	0.0	0.0
206	5/28/2019	13:26:07	0.0	0.0	0.0	0.0
207	5/28/2019	13:27:07	0.0	0.0	0.0	0.0
208	5/28/2019	13:28:07	0.0	0.0	0.0	0.0
209	5/28/2019	13:29:07	0.0	0.0	0.0	0.0
210	5/28/2019	13:30:07	0.0	0.0	0.0	0.0

211	5/28/2019 13:31:07	0.0	0.0	0.0	0.0
212	5/28/2019 13:32:07	0.0	0.0	0.0	0.0
213	5/28/2019 13:33:07	0.0	0.0	0.0	0.0
214	5/28/2019 13:34:07	0.0	0.0	0.0	0.0
215	5/28/2019 13:35:07	0.0	0.0	0.0	0.0
216	5/28/2019 13:36:07	0.0	0.0	0.0	0.0
217	5/28/2019 13:37:07	0.0	0.0	0.0	0.0
218	5/28/2019 13:38:07	0.0	0.0	0.0	0.0
219	5/28/2019 13:39:07	0.0	0.0	0.0	0.0
220	5/28/2019 13:40:07	0.0	0.0	0.0	0.0
221	5/28/2019 13:41:07	0.0	0.0	0.0	0.0
222	5/28/2019 13:42:07	0.0	0.0	0.0	0.0
223	5/28/2019 13:43:07	0.0	0.0	0.0	0.0
224	5/28/2019 13:44:07	0.0	0.0	0.0	0.0
225	5/28/2019 13:45:07	0.0	0.0	0.1	0.0
226	5/28/2019 13:46:07	0.0	0.0	0.0	0.0
227	5/28/2019 13:47:07	0.0	0.0	0.0	0.0
228	5/28/2019 13:48:07	0.0	0.0	0.0	0.0
229	5/28/2019 13:49:07	0.0	0.0	0.0	0.0
230	5/28/2019 13:50:07	0.0	0.0	0.0	0.0
231	5/28/2019 13:51:07	0.0	0.0	0.0	0.0
232	5/28/2019 13:52:07	0.0	0.0	0.0	0.0
233	5/28/2019 13:53:07	0.0	0.0	0.0	0.0
234	5/28/2019 13:54:07	0.0	0.0	0.0	0.0
235	5/28/2019 13:55:07	0.0	0.0	0.0	0.0
236	5/28/2019 13:56:07	0.0	0.0	0.0	0.0
237	5/28/2019 13:57:07	0.0	0.0	0.0	0.0
238	5/28/2019 13:58:07	0.0	0.0	0.0	0.0
239	5/28/2019 13:59:07	0.0	0.0	0.0	0.0
240	5/28/2019 14:00:07	0.0	0.0	0.0	0.0
241	5/28/2019 14:01:07	0.0	0.0	0.0	0.0

242	5/28/2019 14:02:07	0.0	0.0	0.0	0.0
243	5/28/2019 14:03:07	0.0	0.0	0.0	0.0
244	5/28/2019 14:04:07	0.0	0.0	0.0	0.0
245	5/28/2019 14:05:07	0.0	0.0	0.0	0.0
246	5/28/2019 14:06:07	0.0	0.0	0.0	0.0
247	5/28/2019 14:07:07	0.0	0.0	0.0	0.0
248	5/28/2019 14:08:07	0.0	0.0	0.0	0.0
249	5/28/2019 14:09:07	0.0	0.0	0.0	0.0
250	5/28/2019 14:10:07	0.0	0.0	0.0	0.0
251	5/28/2019 14:11:07	0.0	0.0	0.0	0.0
252	5/28/2019 14:12:07	0.0	0.0	0.0	0.0
253	5/28/2019 14:13:07	0.0	0.0	0.0	0.0
254	5/28/2019 14:14:07	0.0	0.0	0.0	0.0
255	5/28/2019 14:15:07	0.0	0.0	0.0	0.0
256	5/28/2019 14:16:07	0.0	0.0	0.0	0.0
257	5/28/2019 14:17:07	0.0	0.0	0.0	0.0
258	5/28/2019 14:18:07	0.0	0.0	0.0	0.0
259	5/28/2019 14:19:07	0.0	0.0	0.0	0.0
260	5/28/2019 14:20:07	0.0	0.0	0.0	0.0
261	5/28/2019 14:21:07	0.0	0.0	0.0	0.0
262	5/28/2019 14:22:07	0.0	0.0	0.0	0.0
263	5/28/2019 14:23:07	0.0	0.0	0.0	0.0
264	5/28/2019 14:24:07	0.0	0.0	0.0	0.0
265	5/28/2019 14:25:07	0.0	0.0	0.0	0.0
266	5/28/2019 14:26:07	0.0	0.0	0.0	0.0
267	5/28/2019 14:27:07	0.0	0.0	0.0	0.0
268	5/28/2019 14:28:07	0.0	0.0	0.0	0.0
269	5/28/2019 14:29:07	0.0	0.0	0.0	0.0
270	5/28/2019 14:30:07	0.0	0.0	0.0	0.0
271	5/28/2019 14:31:07	0.0	0.0	0.0	0.0
272	5/28/2019 14:32:07	0.0	0.0	0.0	0.0

273	5/28/2019 14:33:07	0.0	0.0	0.0	0.0
274	5/28/2019 14:34:07	0.0	0.0	0.0	0.0
275	5/28/2019 14:35:07	0.0	0.0	0.0	0.0
276	5/28/2019 14:36:07	0.0	0.0	0.0	0.0
277	5/28/2019 14:37:07	0.0	0.0	0.1	0.1
278	5/28/2019 14:38:07	0.0	0.0	0.1	0.0
279	5/28/2019 14:39:07	0.0	0.0	0.0	0.0
280	5/28/2019 14:40:07	0.0	0.0	0.0	0.0
281	5/28/2019 14:41:07	0.0	0.0	0.0	0.0
282	5/28/2019 14:42:07	0.0	0.0	0.0	0.0
283	5/28/2019 14:43:07	0.0	0.0	0.0	0.0
284	5/28/2019 14:44:07	0.0	0.0	0.0	0.0
285	5/28/2019 14:45:07	0.0	0.0	0.0	0.0
286	5/28/2019 14:46:07	0.0	0.0	0.0	0.0
287	5/28/2019 14:47:07	0.0	0.0	0.0	0.0
288	5/28/2019 14:48:07	0.0	0.0	0.0	0.0
289	5/28/2019 14:49:07	0.0	0.0	0.0	0.0
290	5/28/2019 14:50:07	0.0	0.0	0.0	0.0
291	5/28/2019 14:51:07	0.0	0.0	0.0	0.0
292	5/28/2019 14:52:07	0.0	0.0	0.0	0.0
293	5/28/2019 14:53:07	0.0	0.0	0.0	0.0
294	5/28/2019 14:54:07	0.0	0.0	0.0	0.0
295	5/28/2019 14:55:07	0.0	0.0	0.0	0.0
296	5/28/2019 14:56:07	0.0	0.0	0.0	0.0
297	5/28/2019 14:57:07	0.0	0.0	0.0	0.0
298	5/28/2019 14:58:07	0.0	0.0	0.0	0.0
299	5/28/2019 14:59:07	0.0	0.0	0.0	0.0
300	5/28/2019 15:00:07	0.0	0.0	0.0	0.0
301	5/28/2019 15:01:07	0.0	0.0	0.0	0.0
302	5/28/2019 15:02:07	0.0	0.0	0.0	0.0
303	5/28/2019 15:03:07	0.0	0.0	0.0	0.0

Peak	0.0	0.0	0.1	0.1
Min	0.0	0.0	0.0	0.0
Average	0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/28/2019	10:01:07	0.0	---
002	5/28/2019	10:02:07	0.0	---
003	5/28/2019	10:03:07	0.0	---
004	5/28/2019	10:04:07	0.0	---
005	5/28/2019	10:05:07	0.0	---
006	5/28/2019	10:06:07	0.0	---
007	5/28/2019	10:07:07	0.0	---
008	5/28/2019	10:08:07	0.0	---
009	5/28/2019	10:09:07	0.0	---
010	5/28/2019	10:10:07	0.0	---
011	5/28/2019	10:11:07	0.0	---
012	5/28/2019	10:12:07	0.0	---
013	5/28/2019	10:13:07	0.0	---
014	5/28/2019	10:14:07	0.0	---
015	5/28/2019	10:15:07	0.0	0.0
016	5/28/2019	10:16:07	0.0	0.0
017	5/28/2019	10:17:07	0.0	0.0
018	5/28/2019	10:18:07	0.0	0.0
019	5/28/2019	10:19:07	0.0	0.0
020	5/28/2019	10:20:07	0.0	0.0
021	5/28/2019	10:21:07	0.0	0.0
022	5/28/2019	10:22:07	0.0	0.0
023	5/28/2019	10:23:07	0.0	0.0

024	5/28/2019 10:24:07	0.0	0.0
025	5/28/2019 10:25:07	0.0	0.0
026	5/28/2019 10:26:07	0.0	0.0
027	5/28/2019 10:27:07	0.0	0.0
028	5/28/2019 10:28:07	0.0	0.0
029	5/28/2019 10:29:07	0.0	0.0
030	5/28/2019 10:30:07	0.0	0.0
031	5/28/2019 10:31:07	0.0	0.0
032	5/28/2019 10:32:07	0.0	0.0
033	5/28/2019 10:33:07	0.0	0.0
034	5/28/2019 10:34:07	0.0	0.0
035	5/28/2019 10:35:07	0.0	0.0
036	5/28/2019 10:36:07	0.0	0.0
037	5/28/2019 10:37:07	0.0	0.0
038	5/28/2019 10:38:07	0.0	0.0
039	5/28/2019 10:39:07	0.0	0.0
040	5/28/2019 10:40:07	0.0	0.0
041	5/28/2019 10:41:07	0.0	0.0
042	5/28/2019 10:42:07	0.0	0.0
043	5/28/2019 10:43:07	0.0	0.0
044	5/28/2019 10:44:07	0.0	0.0
045	5/28/2019 10:45:07	0.0	0.0
046	5/28/2019 10:46:07	0.0	0.0
047	5/28/2019 10:47:07	0.0	0.0
048	5/28/2019 10:48:07	0.0	0.0
049	5/28/2019 10:49:07	0.0	0.0
050	5/28/2019 10:50:07	0.0	0.0
051	5/28/2019 10:51:07	0.0	0.0
052	5/28/2019 10:52:07	0.0	0.0
053	5/28/2019 10:53:07	0.0	0.0
054	5/28/2019 10:54:07	0.0	0.0

055	5/28/2019	10:55:07	0.0	0.0
056	5/28/2019	10:56:07	0.0	0.0
057	5/28/2019	10:57:07	0.0	0.0
058	5/28/2019	10:58:07	0.0	0.0
059	5/28/2019	10:59:07	0.0	0.0
060	5/28/2019	11:00:07	0.0	0.0
061	5/28/2019	11:01:07	0.0	0.0
062	5/28/2019	11:02:07	0.0	0.0
063	5/28/2019	11:03:07	0.0	0.0
064	5/28/2019	11:04:07	0.0	0.0
065	5/28/2019	11:05:07	0.0	0.0
066	5/28/2019	11:06:07	0.0	0.0
067	5/28/2019	11:07:07	0.0	0.0
068	5/28/2019	11:08:07	0.0	0.0
069	5/28/2019	11:09:07	0.0	0.0
070	5/28/2019	11:10:07	0.0	0.0
071	5/28/2019	11:11:07	0.0	0.0
072	5/28/2019	11:12:07	0.0	0.0
073	5/28/2019	11:13:07	0.0	0.0
074	5/28/2019	11:14:07	0.0	0.0
075	5/28/2019	11:15:07	0.0	0.0
076	5/28/2019	11:16:07	0.0	0.0
077	5/28/2019	11:17:07	0.0	0.0
078	5/28/2019	11:18:07	0.0	0.0
079	5/28/2019	11:19:07	0.0	0.0
080	5/28/2019	11:20:07	0.0	0.0
081	5/28/2019	11:21:07	0.0	0.0
082	5/28/2019	11:22:07	0.0	0.0
083	5/28/2019	11:23:07	0.0	0.0
084	5/28/2019	11:24:07	0.0	0.0
085	5/28/2019	11:25:07	0.0	0.0

086	5/28/2019	11:26:07	0.0	0.0
087	5/28/2019	11:27:07	0.0	0.0
088	5/28/2019	11:28:07	0.0	0.0
089	5/28/2019	11:29:07	0.0	0.0
090	5/28/2019	11:30:07	0.0	0.0
091	5/28/2019	11:31:07	0.0	0.0
092	5/28/2019	11:32:07	0.0	0.0
093	5/28/2019	11:33:07	0.0	0.0
094	5/28/2019	11:34:07	0.0	0.0
095	5/28/2019	11:35:07	0.0	0.0
096	5/28/2019	11:36:07	0.0	0.0
097	5/28/2019	11:37:07	0.0	0.0
098	5/28/2019	11:38:07	0.0	0.0
099	5/28/2019	11:39:07	0.0	0.0
100	5/28/2019	11:40:07	0.0	0.0
101	5/28/2019	11:41:07	0.0	0.0
102	5/28/2019	11:42:07	0.0	0.0
103	5/28/2019	11:43:07	0.0	0.0
104	5/28/2019	11:44:07	0.0	0.0
105	5/28/2019	11:45:07	0.0	0.0
106	5/28/2019	11:46:07	0.0	0.0
107	5/28/2019	11:47:07	0.0	0.0
108	5/28/2019	11:48:07	0.0	0.0
109	5/28/2019	11:49:07	0.0	0.0
110	5/28/2019	11:50:07	0.0	0.0
111	5/28/2019	11:51:07	0.0	0.0
112	5/28/2019	11:52:07	0.0	0.0
113	5/28/2019	11:53:07	0.0	0.0
114	5/28/2019	11:54:07	0.0	0.0
115	5/28/2019	11:55:07	0.0	0.0
116	5/28/2019	11:56:07	0.0	0.0

117	5/28/2019 11:57:07	0.0	0.0
118	5/28/2019 11:58:07	0.0	0.0
119	5/28/2019 11:59:07	0.0	0.0
120	5/28/2019 12:00:07	0.0	0.0
121	5/28/2019 12:01:07	0.0	0.0
122	5/28/2019 12:02:07	0.0	0.0
123	5/28/2019 12:03:07	0.0	0.0
124	5/28/2019 12:04:07	0.0	0.0
125	5/28/2019 12:05:07	0.0	0.0
126	5/28/2019 12:06:07	0.0	0.0
127	5/28/2019 12:07:07	0.0	0.0
128	5/28/2019 12:08:07	0.0	0.0
129	5/28/2019 12:09:07	0.0	0.0
130	5/28/2019 12:10:07	0.0	0.0
131	5/28/2019 12:11:07	0.0	0.0
132	5/28/2019 12:12:07	0.0	0.0
133	5/28/2019 12:13:07	0.0	0.0
134	5/28/2019 12:14:07	0.0	0.0
135	5/28/2019 12:15:07	0.0	0.0
136	5/28/2019 12:16:07	0.0	0.0
137	5/28/2019 12:17:07	0.0	0.0
138	5/28/2019 12:18:07	0.0	0.0
139	5/28/2019 12:19:07	0.0	0.0
140	5/28/2019 12:20:07	0.0	0.0
141	5/28/2019 12:21:07	0.0	0.0
142	5/28/2019 12:22:07	0.0	0.0
143	5/28/2019 12:23:07	0.0	0.0
144	5/28/2019 12:24:07	0.0	0.0
145	5/28/2019 12:25:07	0.0	0.0
146	5/28/2019 12:26:07	0.0	0.0
147	5/28/2019 12:27:07	0.0	0.0

148	5/28/2019 12:28:07	0.0	0.0
149	5/28/2019 12:29:07	0.0	0.0
150	5/28/2019 12:30:07	0.0	0.0
151	5/28/2019 12:31:07	0.0	0.0
152	5/28/2019 12:32:07	0.0	0.0
153	5/28/2019 12:33:07	0.0	0.0
154	5/28/2019 12:34:07	0.0	0.0
155	5/28/2019 12:35:07	0.0	0.0
156	5/28/2019 12:36:07	0.0	0.0
157	5/28/2019 12:37:07	0.0	0.0
158	5/28/2019 12:38:07	0.0	0.0
159	5/28/2019 12:39:07	0.0	0.0
160	5/28/2019 12:40:07	0.0	0.0
161	5/28/2019 12:41:07	0.0	0.0
162	5/28/2019 12:42:07	0.0	0.0
163	5/28/2019 12:43:07	0.0	0.0
164	5/28/2019 12:44:07	0.0	0.0
165	5/28/2019 12:45:07	0.0	0.0
166	5/28/2019 12:46:07	0.0	0.0
167	5/28/2019 12:47:07	0.0	0.0
168	5/28/2019 12:48:07	0.0	0.0
169	5/28/2019 12:49:07	0.0	0.0
170	5/28/2019 12:50:07	0.0	0.0
171	5/28/2019 12:51:07	0.0	0.0
172	5/28/2019 12:52:07	0.0	0.0
173	5/28/2019 12:53:07	0.0	0.0
174	5/28/2019 12:54:07	0.0	0.0
175	5/28/2019 12:55:07	0.0	0.0
176	5/28/2019 12:56:07	0.0	0.0
177	5/28/2019 12:57:07	0.0	0.0
178	5/28/2019 12:58:07	0.0	0.0

179	5/28/2019 12:59:07	0.0	0.0
180	5/28/2019 13:00:07	0.0	0.0
181	5/28/2019 13:01:07	0.0	0.0
182	5/28/2019 13:02:07	0.0	0.0
183	5/28/2019 13:03:07	0.0	0.0
184	5/28/2019 13:04:07	0.0	0.0
185	5/28/2019 13:05:07	0.0	0.0
186	5/28/2019 13:06:07	0.0	0.0
187	5/28/2019 13:07:07	0.0	0.0
188	5/28/2019 13:08:07	0.0	0.0
189	5/28/2019 13:09:07	0.0	0.0
190	5/28/2019 13:10:07	0.0	0.0
191	5/28/2019 13:11:07	0.0	0.0
192	5/28/2019 13:12:07	0.0	0.0
193	5/28/2019 13:13:07	0.0	0.0
194	5/28/2019 13:14:07	0.0	0.0
195	5/28/2019 13:15:07	0.0	0.0
196	5/28/2019 13:16:07	0.0	0.0
197	5/28/2019 13:17:07	0.0	0.0
198	5/28/2019 13:18:07	0.0	0.0
199	5/28/2019 13:19:07	0.0	0.0
200	5/28/2019 13:20:07	0.0	0.0
201	5/28/2019 13:21:07	0.0	0.0
202	5/28/2019 13:22:07	0.0	0.0
203	5/28/2019 13:23:07	0.0	0.0
204	5/28/2019 13:24:07	0.0	0.0
205	5/28/2019 13:25:07	0.0	0.0
206	5/28/2019 13:26:07	0.0	0.0
207	5/28/2019 13:27:07	0.0	0.0
208	5/28/2019 13:28:07	0.0	0.0
209	5/28/2019 13:29:07	0.0	0.0

210	5/28/2019 13:30:07	0.0	0.0
211	5/28/2019 13:31:07	0.0	0.0
212	5/28/2019 13:32:07	0.0	0.0
213	5/28/2019 13:33:07	0.0	0.0
214	5/28/2019 13:34:07	0.0	0.0
215	5/28/2019 13:35:07	0.0	0.0
216	5/28/2019 13:36:07	0.0	0.0
217	5/28/2019 13:37:07	0.0	0.0
218	5/28/2019 13:38:07	0.0	0.0
219	5/28/2019 13:39:07	0.0	0.0
220	5/28/2019 13:40:07	0.0	0.0
221	5/28/2019 13:41:07	0.0	0.0
222	5/28/2019 13:42:07	0.0	0.0
223	5/28/2019 13:43:07	0.0	0.0
224	5/28/2019 13:44:07	0.0	0.0
225	5/28/2019 13:45:07	0.0	0.0
226	5/28/2019 13:46:07	0.0	0.0
227	5/28/2019 13:47:07	0.0	0.0
228	5/28/2019 13:48:07	0.0	0.0
229	5/28/2019 13:49:07	0.0	0.0
230	5/28/2019 13:50:07	0.0	0.0
231	5/28/2019 13:51:07	0.0	0.0
232	5/28/2019 13:52:07	0.0	0.0
233	5/28/2019 13:53:07	0.0	0.0
234	5/28/2019 13:54:07	0.0	0.0
235	5/28/2019 13:55:07	0.0	0.0
236	5/28/2019 13:56:07	0.0	0.0
237	5/28/2019 13:57:07	0.0	0.0
238	5/28/2019 13:58:07	0.0	0.0
239	5/28/2019 13:59:07	0.0	0.0
240	5/28/2019 14:00:07	0.0	0.0

241	5/28/2019 14:01:07	0.0	0.0
242	5/28/2019 14:02:07	0.0	0.0
243	5/28/2019 14:03:07	0.0	0.0
244	5/28/2019 14:04:07	0.0	0.0
245	5/28/2019 14:05:07	0.0	0.0
246	5/28/2019 14:06:07	0.0	0.0
247	5/28/2019 14:07:07	0.0	0.0
248	5/28/2019 14:08:07	0.0	0.0
249	5/28/2019 14:09:07	0.0	0.0
250	5/28/2019 14:10:07	0.0	0.0
251	5/28/2019 14:11:07	0.0	0.0
252	5/28/2019 14:12:07	0.0	0.0
253	5/28/2019 14:13:07	0.0	0.0
254	5/28/2019 14:14:07	0.0	0.0
255	5/28/2019 14:15:07	0.0	0.0
256	5/28/2019 14:16:07	0.0	0.0
257	5/28/2019 14:17:07	0.0	0.0
258	5/28/2019 14:18:07	0.0	0.0
259	5/28/2019 14:19:07	0.0	0.0
260	5/28/2019 14:20:07	0.0	0.0
261	5/28/2019 14:21:07	0.0	0.0
262	5/28/2019 14:22:07	0.0	0.0
263	5/28/2019 14:23:07	0.0	0.0
264	5/28/2019 14:24:07	0.0	0.0
265	5/28/2019 14:25:07	0.0	0.0
266	5/28/2019 14:26:07	0.0	0.0
267	5/28/2019 14:27:07	0.0	0.0
268	5/28/2019 14:28:07	0.0	0.0
269	5/28/2019 14:29:07	0.0	0.0
270	5/28/2019 14:30:07	0.0	0.0
271	5/28/2019 14:31:07	0.0	0.0

272	5/28/2019 14:32:07	0.0	0.0
273	5/28/2019 14:33:07	0.0	0.0
274	5/28/2019 14:34:07	0.0	0.0
275	5/28/2019 14:35:07	0.0	0.0
276	5/28/2019 14:36:07	0.0	0.0
277	5/28/2019 14:37:07	0.0	0.0
278	5/28/2019 14:38:07	0.0	0.0
279	5/28/2019 14:39:07	0.0	0.0
280	5/28/2019 14:40:07	0.0	0.0
281	5/28/2019 14:41:07	0.0	0.0
282	5/28/2019 14:42:07	0.0	0.0
283	5/28/2019 14:43:07	0.0	0.0
284	5/28/2019 14:44:07	0.0	0.0
285	5/28/2019 14:45:07	0.0	0.0
286	5/28/2019 14:46:07	0.0	0.0
287	5/28/2019 14:47:07	0.0	0.0
288	5/28/2019 14:48:07	0.0	0.0
289	5/28/2019 14:49:07	0.0	0.0
290	5/28/2019 14:50:07	0.0	0.0
291	5/28/2019 14:51:07	0.0	0.0
292	5/28/2019 14:52:07	0.0	0.0
293	5/28/2019 14:53:07	0.0	0.0
294	5/28/2019 14:54:07	0.0	0.0
295	5/28/2019 14:55:07	0.0	0.0
296	5/28/2019 14:56:07	0.0	0.0
297	5/28/2019 14:57:07	0.0	0.0
298	5/28/2019 14:58:07	0.0	0.0
299	5/28/2019 14:59:07	0.0	0.0
300	5/28/2019 15:00:07	0.0	0.0
301	5/28/2019 15:01:07	0.0	0.0
302	5/28/2019 15:02:07	0.0	0.0

303 5/28/2019 15:03:07 0.0 0.0
甄==========
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19/05/29 10:07
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-904392
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID RAE00002
User ID 00000001

Begin 5/29/2019 10:07:03
End 5/29/2019 15:12:41
Sample Period(s) 60
Number of Records 305

Sensor PID(ppm)
Sensor SN S023030001MA
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 10050.0
High Alarm 10100.0

Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	1.2
Min	0.0
Average	0.7

****

Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/29/2019	10:08:03	0.0	0.0	0.0	0.0
002	5/29/2019	10:09:03	0.0	0.0	0.0	0.0
003	5/29/2019	10:10:03	0.0	0.0	0.0	0.0
004	5/29/2019	10:11:03	0.0	0.0	0.0	0.0
005	5/29/2019	10:12:03	0.0	0.0	0.0	0.0
006	5/29/2019	10:13:03	0.0	0.0	0.0	0.0
007	5/29/2019	10:14:03	0.0	0.0	0.0	0.0
008	5/29/2019	10:15:03	0.0	0.0	0.1	0.0
009	5/29/2019	10:16:03	0.0	0.0	0.0	0.0
010	5/29/2019	10:17:03	0.0	0.0	0.1	0.0
011	5/29/2019	10:18:03	0.0	0.0	0.1	0.0
012	5/29/2019	10:19:03	0.0	0.0	0.1	0.0
013	5/29/2019	10:20:03	0.0	0.0	0.1	0.0
014	5/29/2019	10:21:03	0.0	0.0	0.1	0.1
015	5/29/2019	10:22:03	0.0	0.0	0.1	0.1
016	5/29/2019	10:23:03	0.0	0.0	0.1	0.0
017	5/29/2019	10:24:03	0.0	0.1	0.1	0.1
018	5/29/2019	10:25:03	0.0	0.1	0.1	0.1

019	5/29/2019 10:26:03	0.0	0.1	0.2	0.1
020	5/29/2019 10:27:03	0.0	0.1	0.2	0.1
021	5/29/2019 10:28:03	0.1	0.1	0.2	0.1
022	5/29/2019 10:29:03	0.0	0.1	0.2	0.1
023	5/29/2019 10:30:03	0.0	0.1	0.2	0.1
024	5/29/2019 10:31:03	0.1	0.1	0.2	0.1
025	5/29/2019 10:32:03	0.1	0.1	0.2	0.1
026	5/29/2019 10:33:03	0.1	0.1	0.2	0.1
027	5/29/2019 10:34:03	0.0	0.1	0.2	0.1
028	5/29/2019 10:35:03	0.1	0.1	0.2	0.2
029	5/29/2019 10:36:03	0.1	0.1	0.2	0.1
030	5/29/2019 10:37:03	0.1	0.2	0.3	0.2
031	5/29/2019 10:38:03	0.1	0.2	0.2	0.2
032	5/29/2019 10:39:03	0.1	0.2	0.3	0.2
033	5/29/2019 10:40:03	0.1	0.2	0.3	0.2
034	5/29/2019 10:41:03	0.1	0.2	0.3	0.2
035	5/29/2019 10:42:03	0.1	0.2	0.3	0.3
036	5/29/2019 10:43:03	0.1	0.2	0.3	0.2
037	5/29/2019 10:44:03	0.1	0.2	0.3	0.2
038	5/29/2019 10:45:03	0.1	0.2	0.3	0.2
039	5/29/2019 10:46:03	0.1	0.2	0.3	0.2
040	5/29/2019 10:47:03	0.2	0.2	0.3	0.2
041	5/29/2019 10:48:03	0.2	0.2	0.3	0.3
042	5/29/2019 10:49:03	0.2	0.3	0.3	0.3
043	5/29/2019 10:50:03	0.2	0.3	0.4	0.2
044	5/29/2019 10:51:03	0.1	0.3	0.4	0.3
045	5/29/2019 10:52:03	0.2	0.3	0.3	0.2
046	5/29/2019 10:53:03	0.2	0.3	0.3	0.2
047	5/29/2019 10:54:03	0.2	0.3	0.4	0.4
048	5/29/2019 10:55:03	0.2	0.3	0.4	0.2
049	5/29/2019 10:56:03	0.2	0.3	0.4	0.2

050	5/29/2019	10:57:03	0.2	0.3	0.4	0.3
051	5/29/2019	10:58:03	0.2	0.3	0.4	0.4
052	5/29/2019	10:59:03	0.3	0.4	0.5	0.4
053	5/29/2019	11:00:03	0.3	0.4	0.5	0.4
054	5/29/2019	11:01:03	0.3	0.4	0.5	0.4
055	5/29/2019	11:02:03	0.3	0.4	0.5	0.4
056	5/29/2019	11:03:03	0.3	0.4	0.5	0.5
057	5/29/2019	11:04:03	0.4	0.4	0.5	0.4
058	5/29/2019	11:05:03	0.4	0.4	0.5	0.4
059	5/29/2019	11:06:03	0.4	0.5	0.5	0.4
060	5/29/2019	11:07:03	0.4	0.5	0.5	0.5
061	5/29/2019	11:08:03	0.4	0.5	0.6	0.5
062	5/29/2019	11:09:03	0.4	0.5	0.6	0.5
063	5/29/2019	11:10:03	0.4	0.5	0.6	0.5
064	5/29/2019	11:11:03	0.4	0.5	0.6	0.5
065	5/29/2019	11:12:03	0.4	0.5	0.5	0.5
066	5/29/2019	11:13:03	0.4	0.5	0.6	0.5
067	5/29/2019	11:14:03	0.4	0.5	0.6	0.5
068	5/29/2019	11:15:03	0.4	0.5	0.6	0.5
069	5/29/2019	11:16:03	0.5	0.5	0.7	0.5
070	5/29/2019	11:17:03	0.5	0.6	0.6	0.6
071	5/29/2019	11:18:03	0.4	0.6	0.6	0.6
072	5/29/2019	11:19:03	0.5	0.6	0.7	0.6
073	5/29/2019	11:20:03	0.5	0.6	0.8	0.6
074	5/29/2019	11:21:03	0.6	0.7	0.8	0.6
075	5/29/2019	11:22:03	0.6	0.7	0.7	0.6
076	5/29/2019	11:23:03	0.6	0.7	0.8	0.7
077	5/29/2019	11:24:03	0.6	0.7	0.8	0.6
078	5/29/2019	11:25:03	0.5	0.7	0.8	0.7
079	5/29/2019	11:26:03	0.6	0.7	0.8	0.6
080	5/29/2019	11:27:03	0.6	0.7	0.7	0.6

081	5/29/2019	11:28:03	0.6	0.7	0.8	0.7
082	5/29/2019	11:29:03	0.6	0.7	0.8	0.7
083	5/29/2019	11:30:03	0.5	0.7	0.8	0.8
084	5/29/2019	11:31:03	0.6	0.7	0.8	0.6
085	5/29/2019	11:32:03	0.5	0.7	0.7	0.7
086	5/29/2019	11:33:03	0.5	0.6	0.7	0.7
087	5/29/2019	11:34:03	0.6	0.6	0.8	0.7
088	5/29/2019	11:35:03	0.6	0.6	0.7	0.6
089	5/29/2019	11:36:03	0.6	0.6	0.7	0.6
090	5/29/2019	11:37:03	0.6	0.6	0.8	0.6
091	5/29/2019	11:38:03	0.6	0.6	0.7	0.6
092	5/29/2019	11:39:03	0.6	0.6	0.7	0.6
093	5/29/2019	11:40:03	0.5	0.6	0.8	0.7
094	5/29/2019	11:41:03	0.5	0.6	0.7	0.7
095	5/29/2019	11:42:03	0.5	0.6	0.7	0.6
096	5/29/2019	11:43:03	0.5	0.6	0.7	0.6
097	5/29/2019	11:44:03	0.5	0.6	0.7	0.6
098	5/29/2019	11:45:03	0.5	0.6	0.7	0.6
099	5/29/2019	11:46:03	0.5	0.6	0.7	0.6
100	5/29/2019	11:47:03	0.5	0.6	0.7	0.7
101	5/29/2019	11:48:03	0.5	0.6	0.7	0.6
102	5/29/2019	11:49:03	0.5	0.6	0.7	0.6
103	5/29/2019	11:50:03	0.5	0.6	0.7	0.6
104	5/29/2019	11:51:03	0.5	0.6	0.8	0.8
105	5/29/2019	11:52:03	0.5	0.6	0.7	0.5
106	5/29/2019	11:53:03	0.6	0.6	0.7	0.7
107	5/29/2019	11:54:03	0.6	0.6	0.7	0.7
108	5/29/2019	11:55:03	0.6	0.6	0.7	0.7
109	5/29/2019	11:56:03	0.6	0.7	0.7	0.6
110	5/29/2019	11:57:03	0.5	0.6	0.7	0.6
111	5/29/2019	11:58:03	0.6	0.7	0.7	0.6

112	5/29/2019	11:59:03	0.6	0.7	0.8	0.6
113	5/29/2019	12:00:03	0.6	0.7	0.8	0.7
114	5/29/2019	12:01:03	0.6	0.7	0.7	0.6
115	5/29/2019	12:02:03	0.6	0.7	0.7	0.7
116	5/29/2019	12:03:03	0.6	0.7	0.7	0.7
117	5/29/2019	12:04:03	0.6	0.7	0.7	0.7
118	5/29/2019	12:05:03	0.6	0.7	0.8	0.7
119	5/29/2019	12:06:03	0.6	0.7	0.8	0.7
120	5/29/2019	12:07:03	0.6	0.7	0.8	0.7
121	5/29/2019	12:08:03	0.6	0.7	0.8	0.7
122	5/29/2019	12:09:03	0.7	0.7	0.8	0.7
123	5/29/2019	12:10:03	0.6	0.7	0.8	0.7
124	5/29/2019	12:11:03	0.7	0.7	0.8	0.8
125	5/29/2019	12:12:03	0.7	0.7	0.8	0.7
126	5/29/2019	12:13:03	0.7	0.7	0.8	0.8
127	5/29/2019	12:14:03	0.7	0.7	0.8	0.7
128	5/29/2019	12:15:03	0.7	0.8	0.8	0.8
129	5/29/2019	12:16:03	0.7	0.8	0.8	0.8
130	5/29/2019	12:17:03	0.7	0.8	0.8	0.8
131	5/29/2019	12:18:03	0.7	0.8	0.8	0.8
132	5/29/2019	12:19:03	0.8	0.8	0.9	0.8
133	5/29/2019	12:20:03	0.7	0.8	0.9	0.9
134	5/29/2019	12:21:03	0.7	0.8	0.9	0.8
135	5/29/2019	12:22:03	0.8	0.8	0.9	0.8
136	5/29/2019	12:23:03	0.8	0.8	0.9	0.8
137	5/29/2019	12:24:03	0.8	0.8	0.9	0.8
138	5/29/2019	12:25:03	0.8	0.8	0.9	0.8
139	5/29/2019	12:26:03	0.8	0.8	0.9	0.8
140	5/29/2019	12:27:03	0.8	0.8	0.9	0.8
141	5/29/2019	12:28:03	0.8	0.8	0.9	0.8
142	5/29/2019	12:29:03	0.8	0.8	0.9	0.8

143	5/29/2019 12:30:03	0.8	0.9	0.9	0.8
144	5/29/2019 12:31:03	0.8	0.8	0.9	0.9
145	5/29/2019 12:32:03	0.8	0.9	0.9	0.9
146	5/29/2019 12:33:03	0.8	0.9	0.9	0.9
147	5/29/2019 12:34:03	0.8	0.9	0.9	0.9
148	5/29/2019 12:35:03	0.8	0.9	0.9	0.9
149	5/29/2019 12:36:03	0.9	0.9	1.0	1.0
150	5/29/2019 12:37:03	0.9	0.9	1.0	1.0
151	5/29/2019 12:38:03	0.9	0.9	1.0	1.0
152	5/29/2019 12:39:03	0.9	1.0	1.0	1.0
153	5/29/2019 12:40:03	0.9	1.0	1.0	1.0
154	5/29/2019 12:41:03	0.9	1.0	1.0	0.9
155	5/29/2019 12:42:03	0.9	1.0	1.0	0.9
156	5/29/2019 12:43:03	0.9	1.0	1.0	1.0
157	5/29/2019 12:44:03	0.9	1.0	1.0	0.9
158	5/29/2019 12:45:03	0.9	1.0	1.0	1.0
159	5/29/2019 12:46:03	1.0	1.0	1.0	1.0
160	5/29/2019 12:47:03	1.0	1.0	1.0	1.0
161	5/29/2019 12:48:03	1.0	1.0	1.0	1.0
162	5/29/2019 12:49:03	1.0	1.0	1.0	1.0
163	5/29/2019 12:50:03	1.0	1.0	1.0	1.0
164	5/29/2019 12:51:03	1.0	1.0	1.0	1.0
165	5/29/2019 12:52:03	1.0	1.0	1.0	1.0
166	5/29/2019 12:53:03	1.0	1.0	1.0	1.0
167	5/29/2019 12:54:03	1.0	1.0	1.0	1.0
168	5/29/2019 12:55:03	1.0	1.0	1.0	1.0
169	5/29/2019 12:56:03	1.0	1.0	1.0	1.0
170	5/29/2019 12:57:03	1.0	1.0	1.0	1.0
171	5/29/2019 12:58:03	1.0	1.0	1.0	1.0
172	5/29/2019 12:59:03	1.0	1.0	1.0	1.0
173	5/29/2019 13:00:03	1.0	1.0	1.0	1.0

174	5/29/2019 13:01:03	1.0	1.0	1.0	1.0
175	5/29/2019 13:02:03	1.0	1.0	1.0	1.0
176	5/29/2019 13:03:03	1.0	1.0	1.0	1.0
177	5/29/2019 13:04:03	1.0	1.0	1.0	1.0
178	5/29/2019 13:05:03	1.0	1.0	1.0	1.0
179	5/29/2019 13:06:03	1.0	1.0	1.0	1.0
180	5/29/2019 13:07:03	1.0	1.0	1.0	1.0
181	5/29/2019 13:08:03	1.0	1.0	1.0	1.0
182	5/29/2019 13:09:03	1.0	1.0	1.0	1.0
183	5/29/2019 13:10:03	1.0	1.0	1.0	1.0
184	5/29/2019 13:11:03	1.0	1.0	1.0	1.0
185	5/29/2019 13:12:03	1.0	1.0	1.0	1.0
186	5/29/2019 13:13:03	1.0	1.0	1.1	1.0
187	5/29/2019 13:14:03	1.0	1.0	1.1	1.1
188	5/29/2019 13:15:03	1.0	1.0	1.1	1.0
189	5/29/2019 13:16:03	1.0	1.0	1.0	1.0
190	5/29/2019 13:17:03	1.0	1.0	1.0	1.0
191	5/29/2019 13:18:03	1.0	1.0	1.0	1.0
192	5/29/2019 13:19:03	1.0	1.0	1.0	1.0
193	5/29/2019 13:20:03	1.0	1.0	1.0	1.0
194	5/29/2019 13:21:03	1.0	1.0	1.0	1.0
195	5/29/2019 13:22:03	1.0	1.0	1.0	1.0
196	5/29/2019 13:23:03	1.0	1.0	1.0	1.0
197	5/29/2019 13:24:03	1.0	1.0	1.0	1.0
198	5/29/2019 13:25:03	1.0	1.0	1.0	1.0
199	5/29/2019 13:26:03	1.0	1.0	1.0	1.0
200	5/29/2019 13:27:03	1.0	1.0	1.0	1.0
201	5/29/2019 13:28:03	1.0	1.0	1.0	1.0
202	5/29/2019 13:29:03	1.0	1.0	1.0	1.0
203	5/29/2019 13:30:03	1.0	1.0	1.0	1.0
204	5/29/2019 13:31:03	1.0	1.0	1.0	1.0

205	5/29/2019	13:32:03	1.0	1.0	1.0	1.0
206	5/29/2019	13:33:03	1.0	1.0	1.0	1.0
207	5/29/2019	13:34:03	0.9	0.9	1.0	0.9
208	5/29/2019	13:35:03	0.9	0.9	1.0	0.9
209	5/29/2019	13:36:03	0.9	0.9	1.0	0.9
210	5/29/2019	13:37:03	0.9	0.9	0.9	0.9
211	5/29/2019	13:38:03	0.9	0.9	0.9	0.9
212	5/29/2019	13:39:03	0.9	0.9	0.9	0.9
213	5/29/2019	13:40:03	0.9	0.9	0.9	0.9
214	5/29/2019	13:41:03	0.9	0.9	0.9	0.9
215	5/29/2019	13:42:03	0.9	0.9	0.9	0.9
216	5/29/2019	13:43:03	0.9	0.9	0.9	0.9
217	5/29/2019	13:44:03	0.9	0.9	0.9	0.9
218	5/29/2019	13:45:03	0.9	0.9	0.9	0.9
219	5/29/2019	13:46:03	0.9	0.9	0.9	0.9
220	5/29/2019	13:47:03	0.9	0.9	0.9	0.9
221	5/29/2019	13:48:03	0.9	0.9	0.9	0.9
222	5/29/2019	13:49:03	0.9	0.9	0.9	0.9
223	5/29/2019	13:50:03	0.9	0.9	0.9	0.9
224	5/29/2019	13:51:03	0.9	0.9	0.9	0.9
225	5/29/2019	13:52:03	0.9	0.9	0.9	0.9
226	5/29/2019	13:53:03	0.9	0.9	0.9	0.9
227	5/29/2019	13:54:03	0.9	0.9	0.9	0.9
228	5/29/2019	13:55:03	0.9	0.9	0.9	0.9
229	5/29/2019	13:56:03	0.9	0.9	0.9	0.9
230	5/29/2019	13:57:03	0.9	0.9	0.9	0.9
231	5/29/2019	13:58:03	0.9	0.9	0.9	0.9
232	5/29/2019	13:59:03	0.9	0.9	0.9	0.9
233	5/29/2019	14:00:03	0.9	0.9	0.9	0.9
234	5/29/2019	14:01:03	0.9	0.9	0.9	0.9
235	5/29/2019	14:02:03	0.9	0.9	0.9	0.9

236	5/29/2019	14:03:03	0.9	0.9	0.9	0.9
237	5/29/2019	14:04:03	0.9	0.9	0.9	0.9
238	5/29/2019	14:05:03	0.9	0.9	0.9	0.9
239	5/29/2019	14:06:03	0.9	0.9	0.9	0.9
240	5/29/2019	14:07:03	0.9	0.9	0.9	0.9
241	5/29/2019	14:08:03	0.9	0.9	0.9	0.9
242	5/29/2019	14:09:03	0.9	0.9	0.9	0.9
243	5/29/2019	14:10:03	0.9	0.9	0.9	0.9
244	5/29/2019	14:11:03	0.9	0.9	0.9	0.9
245	5/29/2019	14:12:03	0.9	0.9	0.9	0.9
246	5/29/2019	14:13:03	0.9	0.9	0.9	0.9
247	5/29/2019	14:14:03	0.9	0.9	0.9	0.9
248	5/29/2019	14:15:03	0.9	1.0	1.0	1.0
249	5/29/2019	14:16:03	1.0	1.0	1.0	1.0
250	5/29/2019	14:17:03	1.0	1.0	1.0	1.0
251	5/29/2019	14:18:03	1.0	1.0	1.0	1.0
252	5/29/2019	14:19:03	1.0	1.0	1.0	1.0
253	5/29/2019	14:20:03	1.0	1.0	1.0	1.0
254	5/29/2019	14:21:03	1.0	1.0	1.0	1.0
255	5/29/2019	14:22:03	1.0	1.0	1.0	1.0
256	5/29/2019	14:23:03	1.0	1.0	1.0	1.0
257	5/29/2019	14:24:03	1.0	1.0	1.0	1.0
258	5/29/2019	14:25:03	1.0	1.0	1.0	1.0
259	5/29/2019	14:26:03	1.0	1.0	1.0	1.0
260	5/29/2019	14:27:03	1.0	1.0	1.0	1.0
261	5/29/2019	14:28:03	1.0	1.0	1.0	1.0
262	5/29/2019	14:29:03	1.0	1.0	1.0	1.0
263	5/29/2019	14:30:03	1.0	1.0	1.0	1.0
264	5/29/2019	14:31:03	1.0	1.0	1.0	1.0
265	5/29/2019	14:32:03	1.0	1.0	1.0	1.0
266	5/29/2019	14:33:03	1.0	1.0	1.0	1.0

267	5/29/2019 14:34:03	1.0	1.0	1.1	1.1
268	5/29/2019 14:35:03	1.0	1.1	1.1	1.1
269	5/29/2019 14:36:03	1.1	1.1	1.1	1.1
270	5/29/2019 14:37:03	1.1	1.1	1.1	1.1
271	5/29/2019 14:38:03	1.1	1.1	1.1	1.1
272	5/29/2019 14:39:03	1.1	1.1	1.1	1.1
273	5/29/2019 14:40:03	1.1	1.1	1.1	1.1
274	5/29/2019 14:41:03	1.1	1.1	1.1	1.1
275	5/29/2019 14:42:03	1.1	1.1	1.1	1.1
276	5/29/2019 14:43:03	1.1	1.1	1.1	1.1
277	5/29/2019 14:44:03	1.0	1.1	1.1	1.0
278	5/29/2019 14:45:03	1.0	1.0	1.1	1.1
279	5/29/2019 14:46:03	1.0	1.1	1.1	1.1
280	5/29/2019 14:47:03	1.1	1.1	1.1	1.1
281	5/29/2019 14:48:03	1.1	1.1	1.1	1.1
282	5/29/2019 14:49:03	1.1	1.1	1.1	1.1
283	5/29/2019 14:50:03	1.1	1.1	1.1	1.1
284	5/29/2019 14:51:03	1.1	1.1	1.1	1.1
285	5/29/2019 14:52:03	1.1	1.1	1.1	1.1
286	5/29/2019 14:53:03	1.1	1.1	1.1	1.1
287	5/29/2019 14:54:03	1.1	1.1	1.1	1.1
288	5/29/2019 14:55:03	1.1	1.1	1.1	1.1
289	5/29/2019 14:56:03	1.1	1.1	1.1	1.1
290	5/29/2019 14:57:03	1.1	1.1	1.1	1.1
291	5/29/2019 14:58:03	1.1	1.1	1.1	1.1
292	5/29/2019 14:59:03	1.1	1.1	1.1	1.1
293	5/29/2019 15:00:03	1.1	1.1	1.1	1.1
294	5/29/2019 15:01:03	1.1	1.1	1.1	1.1
295	5/29/2019 15:02:03	1.1	1.1	1.1	1.1
296	5/29/2019 15:03:03	1.1	1.1	1.1	1.1
297	5/29/2019 15:04:03	1.1	1.1	1.1	1.1

298	5/29/2019	15:05:03	1.1	1.1	1.1	1.1
299	5/29/2019	15:06:03	1.1	1.1	1.1	1.1
300	5/29/2019	15:07:03	1.1	1.1	1.1	1.1
301	5/29/2019	15:08:03	1.1	1.1	1.1	1.1
302	5/29/2019	15:09:03	1.1	1.1	1.1	1.1
303	5/29/2019	15:10:03	1.1	1.1	1.2	1.2
304	5/29/2019	15:11:03	1.1	1.1	1.2	1.1
305	5/29/2019	15:12:03	1.1	1.1	1.1	1.1
Peak			1.1	1.1	1.2	1.2
Min			0.0	0.0	0.0	0.0
Average			0.7	0.7	0.8	0.7

****

TWA/STEL

Index	Date/Time		PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/29/2019	10:08:03	0.0	---	
002	5/29/2019	10:09:03	0.0	---	
003	5/29/2019	10:10:03	0.0	---	
004	5/29/2019	10:11:03	0.0	---	
005	5/29/2019	10:12:03	0.0	---	
006	5/29/2019	10:13:03	0.0	---	
007	5/29/2019	10:14:03	0.0	---	
008	5/29/2019	10:15:03	0.0	---	
009	5/29/2019	10:16:03	0.0	---	
010	5/29/2019	10:17:03	0.0	---	
011	5/29/2019	10:18:03	0.0	---	
012	5/29/2019	10:19:03	0.0	---	
013	5/29/2019	10:20:03	0.0	---	
014	5/29/2019	10:21:03	0.0	---	
015	5/29/2019	10:22:03	0.0	0.0	

016	5/29/2019 10:23:03	0.0	0.0
017	5/29/2019 10:24:03	0.0	0.0
018	5/29/2019 10:25:03	0.0	0.0
019	5/29/2019 10:26:03	0.0	0.0
020	5/29/2019 10:27:03	0.0	0.0
021	5/29/2019 10:28:03	0.0	0.0
022	5/29/2019 10:29:03	0.0	0.1
023	5/29/2019 10:30:03	0.0	0.1
024	5/29/2019 10:31:03	0.0	0.1
025	5/29/2019 10:32:03	0.0	0.1
026	5/29/2019 10:33:03	0.0	0.1
027	5/29/2019 10:34:03	0.0	0.1
028	5/29/2019 10:35:03	0.0	0.1
029	5/29/2019 10:36:03	0.0	0.1
030	5/29/2019 10:37:03	0.0	0.1
031	5/29/2019 10:38:03	0.0	0.1
032	5/29/2019 10:39:03	0.0	0.1
033	5/29/2019 10:40:03	0.0	0.1
034	5/29/2019 10:41:03	0.0	0.1
035	5/29/2019 10:42:03	0.0	0.2
036	5/29/2019 10:43:03	0.0	0.2
037	5/29/2019 10:44:03	0.0	0.2
038	5/29/2019 10:45:03	0.0	0.2
039	5/29/2019 10:46:03	0.0	0.2
040	5/29/2019 10:47:03	0.0	0.2
041	5/29/2019 10:48:03	0.0	0.2
042	5/29/2019 10:49:03	0.0	0.2
043	5/29/2019 10:50:03	0.0	0.2
044	5/29/2019 10:51:03	0.0	0.2
045	5/29/2019 10:52:03	0.0	0.2
046	5/29/2019 10:53:03	0.0	0.2

047	5/29/2019	10:54:03	0.0	0.3
048	5/29/2019	10:55:03	0.0	0.3
049	5/29/2019	10:56:03	0.0	0.3
050	5/29/2019	10:57:03	0.0	0.3
051	5/29/2019	10:58:03	0.0	0.3
052	5/29/2019	10:59:03	0.0	0.3
053	5/29/2019	11:00:03	0.0	0.3
054	5/29/2019	11:01:03	0.0	0.3
055	5/29/2019	11:02:03	0.0	0.3
056	5/29/2019	11:03:03	0.0	0.3
057	5/29/2019	11:04:03	0.0	0.3
058	5/29/2019	11:05:03	0.0	0.4
059	5/29/2019	11:06:03	0.0	0.4
060	5/29/2019	11:07:03	0.0	0.4
061	5/29/2019	11:08:03	0.0	0.4
062	5/29/2019	11:09:03	0.0	0.4
063	5/29/2019	11:10:03	0.0	0.4
064	5/29/2019	11:11:03	0.0	0.4
065	5/29/2019	11:12:03	0.0	0.5
066	5/29/2019	11:13:03	0.0	0.5
067	5/29/2019	11:14:03	0.0	0.5
068	5/29/2019	11:15:03	0.0	0.5
069	5/29/2019	11:16:03	0.0	0.5
070	5/29/2019	11:17:03	0.0	0.5
071	5/29/2019	11:18:03	0.0	0.5
072	5/29/2019	11:19:03	0.0	0.5
073	5/29/2019	11:20:03	0.0	0.5
074	5/29/2019	11:21:03	0.0	0.6
075	5/29/2019	11:22:03	0.0	0.6
076	5/29/2019	11:23:03	0.0	0.6
077	5/29/2019	11:24:03	0.0	0.6

078	5/29/2019	11:25:03	0.0	0.6
079	5/29/2019	11:26:03	0.0	0.6
080	5/29/2019	11:27:03	0.0	0.6
081	5/29/2019	11:28:03	0.0	0.6
082	5/29/2019	11:29:03	0.0	0.6
083	5/29/2019	11:30:03	0.1	0.7
084	5/29/2019	11:31:03	0.1	0.7
085	5/29/2019	11:32:03	0.1	0.7
086	5/29/2019	11:33:03	0.1	0.7
087	5/29/2019	11:34:03	0.1	0.7
088	5/29/2019	11:35:03	0.1	0.7
089	5/29/2019	11:36:03	0.1	0.7
090	5/29/2019	11:37:03	0.1	0.7
091	5/29/2019	11:38:03	0.1	0.7
092	5/29/2019	11:39:03	0.1	0.7
093	5/29/2019	11:40:03	0.1	0.7
094	5/29/2019	11:41:03	0.1	0.7
095	5/29/2019	11:42:03	0.1	0.7
096	5/29/2019	11:43:03	0.1	0.7
097	5/29/2019	11:44:03	0.1	0.7
098	5/29/2019	11:45:03	0.1	0.7
099	5/29/2019	11:46:03	0.1	0.7
100	5/29/2019	11:47:03	0.1	0.7
101	5/29/2019	11:48:03	0.1	0.7
102	5/29/2019	11:49:03	0.1	0.7
103	5/29/2019	11:50:03	0.1	0.7
104	5/29/2019	11:51:03	0.1	0.7
105	5/29/2019	11:52:03	0.1	0.7
106	5/29/2019	11:53:03	0.1	0.7
107	5/29/2019	11:54:03	0.1	0.7
108	5/29/2019	11:55:03	0.1	0.7

109	5/29/2019 11:56:03	0.1	0.7
110	5/29/2019 11:57:03	0.1	0.7
111	5/29/2019 11:58:03	0.1	0.7
112	5/29/2019 11:59:03	0.1	0.7
113	5/29/2019 12:00:03	0.1	0.7
114	5/29/2019 12:01:03	0.1	0.7
115	5/29/2019 12:02:03	0.1	0.7
116	5/29/2019 12:03:03	0.1	0.7
117	5/29/2019 12:04:03	0.1	0.7
118	5/29/2019 12:05:03	0.1	0.7
119	5/29/2019 12:06:03	0.1	0.7
120	5/29/2019 12:07:03	0.1	0.7
121	5/29/2019 12:08:03	0.1	0.7
122	5/29/2019 12:09:03	0.1	0.7
123	5/29/2019 12:10:03	0.1	0.7
124	5/29/2019 12:11:03	0.1	0.7
125	5/29/2019 12:12:03	0.1	0.7
126	5/29/2019 12:13:03	0.1	0.7
127	5/29/2019 12:14:03	0.1	0.7
128	5/29/2019 12:15:03	0.1	0.8
129	5/29/2019 12:16:03	0.1	0.8
130	5/29/2019 12:17:03	0.1	0.8
131	5/29/2019 12:18:03	0.1	0.8
132	5/29/2019 12:19:03	0.1	0.8
133	5/29/2019 12:20:03	0.1	0.8
134	5/29/2019 12:21:03	0.1	0.8
135	5/29/2019 12:22:03	0.1	0.8
136	5/29/2019 12:23:03	0.1	0.8
137	5/29/2019 12:24:03	0.1	0.8
138	5/29/2019 12:25:03	0.1	0.8
139	5/29/2019 12:26:03	0.1	0.8

140	5/29/2019 12:27:03	0.1	0.8
141	5/29/2019 12:28:03	0.1	0.9
142	5/29/2019 12:29:03	0.1	0.9
143	5/29/2019 12:30:03	0.1	0.9
144	5/29/2019 12:31:03	0.1	0.9
145	5/29/2019 12:32:03	0.1	0.9
146	5/29/2019 12:33:03	0.1	0.9
147	5/29/2019 12:34:03	0.1	0.9
148	5/29/2019 12:35:03	0.1	0.9
149	5/29/2019 12:36:03	0.1	0.9
150	5/29/2019 12:37:03	0.2	0.9
151	5/29/2019 12:38:03	0.2	0.9
152	5/29/2019 12:39:03	0.2	0.9
153	5/29/2019 12:40:03	0.2	1.0
154	5/29/2019 12:41:03	0.2	1.0
155	5/29/2019 12:42:03	0.2	1.0
156	5/29/2019 12:43:03	0.2	1.0
157	5/29/2019 12:44:03	0.2	1.0
158	5/29/2019 12:45:03	0.2	1.0
159	5/29/2019 12:46:03	0.2	1.0
160	5/29/2019 12:47:03	0.2	1.0
161	5/29/2019 12:48:03	0.2	1.0
162	5/29/2019 12:49:03	0.2	1.0
163	5/29/2019 12:50:03	0.2	1.0
164	5/29/2019 12:51:03	0.2	1.0
165	5/29/2019 12:52:03	0.2	1.0
166	5/29/2019 12:53:03	0.2	1.0
167	5/29/2019 12:54:03	0.2	1.0
168	5/29/2019 12:55:03	0.2	1.0
169	5/29/2019 12:56:03	0.2	1.0
170	5/29/2019 12:57:03	0.2	1.1

171	5/29/2019 12:58:03	0.2	1.1
172	5/29/2019 12:59:03	0.2	1.1
173	5/29/2019 13:00:03	0.2	1.1
174	5/29/2019 13:01:03	0.2	1.1
175	5/29/2019 13:02:03	0.2	1.1
176	5/29/2019 13:03:03	0.2	1.1
177	5/29/2019 13:04:03	0.2	1.1
178	5/29/2019 13:05:03	0.2	1.1
179	5/29/2019 13:06:03	0.2	1.1
180	5/29/2019 13:07:03	0.2	1.1
181	5/29/2019 13:08:03	0.2	1.1
182	5/29/2019 13:09:03	0.2	1.1
183	5/29/2019 13:10:03	0.2	1.1
184	5/29/2019 13:11:03	0.2	1.1
185	5/29/2019 13:12:03	0.2	1.1
186	5/29/2019 13:13:03	0.2	1.1
187	5/29/2019 13:14:03	0.2	1.1
188	5/29/2019 13:15:03	0.2	1.1
189	5/29/2019 13:16:03	0.2	1.1
190	5/29/2019 13:17:03	0.2	1.1
191	5/29/2019 13:18:03	0.2	1.1
192	5/29/2019 13:19:03	0.2	1.1
193	5/29/2019 13:20:03	0.2	1.1
194	5/29/2019 13:21:03	0.2	1.1
195	5/29/2019 13:22:03	0.2	1.1
196	5/29/2019 13:23:03	0.2	1.1
197	5/29/2019 13:24:03	0.2	1.1
198	5/29/2019 13:25:03	0.3	1.1
199	5/29/2019 13:26:03	0.3	1.1
200	5/29/2019 13:27:03	0.3	1.1
201	5/29/2019 13:28:03	0.3	1.1

202	5/29/2019 13:29:03	0.3	1.1
203	5/29/2019 13:30:03	0.3	1.1
204	5/29/2019 13:31:03	0.3	1.1
205	5/29/2019 13:32:03	0.3	1.1
206	5/29/2019 13:33:03	0.3	1.1
207	5/29/2019 13:34:03	0.3	1.1
208	5/29/2019 13:35:03	0.3	1.1
209	5/29/2019 13:36:03	0.3	1.0
210	5/29/2019 13:37:03	0.3	1.0
211	5/29/2019 13:38:03	0.3	1.0
212	5/29/2019 13:39:03	0.3	1.0
213	5/29/2019 13:40:03	0.3	1.0
214	5/29/2019 13:41:03	0.3	1.0
215	5/29/2019 13:42:03	0.3	1.0
216	5/29/2019 13:43:03	0.3	1.0
217	5/29/2019 13:44:03	0.3	1.0
218	5/29/2019 13:45:03	0.3	1.0
219	5/29/2019 13:46:03	0.3	1.0
220	5/29/2019 13:47:03	0.3	1.0
221	5/29/2019 13:48:03	0.3	1.0
222	5/29/2019 13:49:03	0.3	1.0
223	5/29/2019 13:50:03	0.3	1.0
224	5/29/2019 13:51:03	0.3	1.0
225	5/29/2019 13:52:03	0.3	1.0
226	5/29/2019 13:53:03	0.3	1.0
227	5/29/2019 13:54:03	0.3	1.0
228	5/29/2019 13:55:03	0.3	1.0
229	5/29/2019 13:56:03	0.3	1.0
230	5/29/2019 13:57:03	0.3	1.0
231	5/29/2019 13:58:03	0.3	1.0
232	5/29/2019 13:59:03	0.3	1.0

233	5/29/2019 14:00:03	0.3	1.0
234	5/29/2019 14:01:03	0.3	1.0
235	5/29/2019 14:02:03	0.3	1.0
236	5/29/2019 14:03:03	0.3	1.0
237	5/29/2019 14:04:03	0.3	1.0
238	5/29/2019 14:05:03	0.3	1.0
239	5/29/2019 14:06:03	0.3	1.0
240	5/29/2019 14:07:03	0.3	1.0
241	5/29/2019 14:08:03	0.3	1.0
242	5/29/2019 14:09:03	0.3	1.0
243	5/29/2019 14:10:03	0.3	1.0
244	5/29/2019 14:11:03	0.3	1.0
245	5/29/2019 14:12:03	0.3	1.0
246	5/29/2019 14:13:03	0.3	1.0
247	5/29/2019 14:14:03	0.3	1.0
248	5/29/2019 14:15:03	0.3	1.0
249	5/29/2019 14:16:03	0.3	1.0
250	5/29/2019 14:17:03	0.4	1.0
251	5/29/2019 14:18:03	0.4	1.0
252	5/29/2019 14:19:03	0.4	1.0
253	5/29/2019 14:20:03	0.4	1.0
254	5/29/2019 14:21:03	0.4	1.0
255	5/29/2019 14:22:03	0.4	1.0
256	5/29/2019 14:23:03	0.4	1.0
257	5/29/2019 14:24:03	0.4	1.0
258	5/29/2019 14:25:03	0.4	1.0
259	5/29/2019 14:26:03	0.4	1.0
260	5/29/2019 14:27:03	0.4	1.0
261	5/29/2019 14:28:03	0.4	1.1
262	5/29/2019 14:29:03	0.4	1.1
263	5/29/2019 14:30:03	0.4	1.1

264	5/29/2019 14:31:03	0.4	1.1
265	5/29/2019 14:32:03	0.4	1.1
266	5/29/2019 14:33:03	0.4	1.1
267	5/29/2019 14:34:03	0.4	1.1
268	5/29/2019 14:35:03	0.4	1.1
269	5/29/2019 14:36:03	0.4	1.1
270	5/29/2019 14:37:03	0.4	1.1
271	5/29/2019 14:38:03	0.4	1.1
272	5/29/2019 14:39:03	0.4	1.1
273	5/29/2019 14:40:03	0.4	1.1
274	5/29/2019 14:41:03	0.4	1.1
275	5/29/2019 14:42:03	0.4	1.1
276	5/29/2019 14:43:03	0.4	1.1
277	5/29/2019 14:44:03	0.4	1.1
278	5/29/2019 14:45:03	0.4	1.1
279	5/29/2019 14:46:03	0.4	1.1
280	5/29/2019 14:47:03	0.4	1.2
281	5/29/2019 14:48:03	0.4	1.2
282	5/29/2019 14:49:03	0.4	1.2
283	5/29/2019 14:50:03	0.4	1.2
284	5/29/2019 14:51:03	0.4	1.2
285	5/29/2019 14:52:03	0.4	1.2
286	5/29/2019 14:53:03	0.4	1.2
287	5/29/2019 14:54:03	0.4	1.2
288	5/29/2019 14:55:03	0.4	1.2
289	5/29/2019 14:56:03	0.4	1.2
290	5/29/2019 14:57:03	0.4	1.2
291	5/29/2019 14:58:03	0.4	1.2
292	5/29/2019 14:59:03	0.4	1.2
293	5/29/2019 15:00:03	0.4	1.2
294	5/29/2019 15:01:03	0.4	1.2

295	5/29/2019 15:02:03	0.5	1.2
296	5/29/2019 15:03:03	0.5	1.2
297	5/29/2019 15:04:03	0.5	1.2
298	5/29/2019 15:05:03	0.5	1.2
299	5/29/2019 15:06:03	0.5	1.2
300	5/29/2019 15:07:03	0.5	1.2
301	5/29/2019 15:08:03	0.5	1.2
302	5/29/2019 15:09:03	0.5	1.2
303	5/29/2019 15:10:03	0.5	1.2
304	5/29/2019 15:11:03	0.5	1.2
305	5/29/2019 15:12:03	0.5	1.2

甑==========
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19/05/30 08:57
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Battery Low

Site ID	RAE00002
User ID	00000001

Begin	5/30/2019 08:57:49
End	5/30/2019 16:52:31

Sample Period(s)	60
Number of Records	474

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.1
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/30/2019	08:58:49	0.0	0.0	0.1	0.0
002	5/30/2019	08:59:49	0.0	0.0	0.1	0.0
003	5/30/2019	09:00:49	0.0	0.0	0.0	0.0
004	5/30/2019	09:01:49	0.0	0.6	1.5	0.0
005	5/30/2019	09:02:49	0.0	0.0	0.1	0.0
006	5/30/2019	09:03:49	0.0	0.0	0.1	0.1
007	5/30/2019	09:04:49	0.0	0.0	0.1	0.0
008	5/30/2019	09:05:49	0.0	0.0	0.0	0.0

009	5/30/2019	09:06:49	0.0	0.0	0.0	0.0
010	5/30/2019	09:07:49	0.0	0.0	0.0	0.0
011	5/30/2019	09:08:49	0.0	0.0	0.0	0.0
012	5/30/2019	09:09:49	0.0	0.0	0.0	0.0
013	5/30/2019	09:10:49	0.0	0.0	0.0	0.0
014	5/30/2019	09:11:49	0.0	0.0	0.0	0.0
015	5/30/2019	09:12:49	0.0	0.0	0.0	0.0
016	5/30/2019	09:13:49	0.0	0.0	0.0	0.0
017	5/30/2019	09:14:49	0.0	0.0	0.0	0.0
018	5/30/2019	09:15:49	0.0	0.0	0.0	0.0
019	5/30/2019	09:16:49	0.0	0.0	0.0	0.0
020	5/30/2019	09:17:49	0.0	0.0	0.0	0.0
021	5/30/2019	09:18:49	0.0	0.0	0.0	0.0
022	5/30/2019	09:19:49	0.0	0.0	0.0	0.0
023	5/30/2019	09:20:49	0.0	0.0	0.0	0.0
024	5/30/2019	09:21:49	0.0	0.0	0.0	0.0
025	5/30/2019	09:22:49	0.0	0.0	0.0	0.0
026	5/30/2019	09:23:49	0.0	0.0	0.0	0.0
027	5/30/2019	09:24:49	0.0	0.0	0.0	0.0
028	5/30/2019	09:25:49	0.0	0.0	0.0	0.0
029	5/30/2019	09:26:49	0.0	0.0	0.0	0.0
030	5/30/2019	09:27:49	0.0	0.0	0.0	0.0
031	5/30/2019	09:28:49	0.0	0.0	0.0	0.0
032	5/30/2019	09:29:49	0.0	0.0	0.0	0.0
033	5/30/2019	09:30:49	0.0	0.0	0.0	0.0
034	5/30/2019	09:31:49	0.0	0.0	0.0	0.0
035	5/30/2019	09:32:49	0.0	0.0	0.0	0.0
036	5/30/2019	09:33:49	0.0	0.0	0.0	0.0
037	5/30/2019	09:34:49	0.0	0.0	0.0	0.0
038	5/30/2019	09:35:49	0.0	0.0	0.0	0.0
039	5/30/2019	09:36:49	0.0	0.0	0.0	0.0

040	5/30/2019 09:37:49	0.0	0.0	0.0	0.0
041	5/30/2019 09:38:49	0.0	0.0	0.0	0.0
042	5/30/2019 09:39:49	0.0	0.0	0.0	0.0
043	5/30/2019 09:40:49	0.0	0.0	0.0	0.0
044	5/30/2019 09:41:49	0.0	0.0	0.0	0.0
045	5/30/2019 09:42:49	0.0	0.0	0.0	0.0
046	5/30/2019 09:43:49	0.0	0.0	0.0	0.0
047	5/30/2019 09:44:49	0.0	0.0	0.0	0.0
048	5/30/2019 09:45:49	0.0	0.0	0.0	0.0
049	5/30/2019 09:46:49	0.0	0.0	0.0	0.0
050	5/30/2019 09:47:49	0.0	0.0	0.0	0.0
051	5/30/2019 09:48:49	0.0	0.0	0.0	0.0
052	5/30/2019 09:49:49	0.0	0.0	0.0	0.0
053	5/30/2019 09:50:49	0.0	0.0	0.0	0.0
054	5/30/2019 09:51:49	0.0	0.0	0.0	0.0
055	5/30/2019 09:52:49	0.0	0.0	0.0	0.0
056	5/30/2019 09:53:49	0.0	0.0	0.0	0.0
057	5/30/2019 09:54:49	0.0	0.0	0.0	0.0
058	5/30/2019 09:55:49	0.0	0.0	0.0	0.0
059	5/30/2019 09:56:49	0.0	0.0	0.0	0.0
060	5/30/2019 09:57:49	0.0	0.0	0.0	0.0
061	5/30/2019 09:58:49	0.0	0.0	0.0	0.0
062	5/30/2019 09:59:49	0.0	0.0	0.0	0.0
063	5/30/2019 10:00:49	0.0	0.0	0.0	0.0
064	5/30/2019 10:01:49	0.0	0.0	0.0	0.0
065	5/30/2019 10:02:49	0.0	0.0	0.0	0.0
066	5/30/2019 10:03:49	0.0	0.0	0.0	0.0
067	5/30/2019 10:04:49	0.0	0.0	0.0	0.0
068	5/30/2019 10:05:49	0.0	0.0	0.0	0.0
069	5/30/2019 10:06:49	0.0	0.0	0.0	0.0
070	5/30/2019 10:07:49	0.0	0.0	0.0	0.0

071	5/30/2019	10:08:49	0.0	0.0	0.0	0.0
072	5/30/2019	10:09:49	0.0	0.0	0.0	0.0
073	5/30/2019	10:10:49	0.0	0.0	0.0	0.0
074	5/30/2019	10:11:49	0.0	0.0	0.0	0.0
075	5/30/2019	10:12:49	0.0	0.0	0.0	0.0
076	5/30/2019	10:13:49	0.0	0.0	0.0	0.0
077	5/30/2019	10:14:49	0.0	0.0	0.0	0.0
078	5/30/2019	10:15:49	0.0	0.0	0.0	0.0
079	5/30/2019	10:16:49	0.0	0.0	0.0	0.0
080	5/30/2019	10:17:49	0.0	0.0	0.0	0.0
081	5/30/2019	10:18:49	0.0	0.0	0.0	0.0
082	5/30/2019	10:19:49	0.0	0.0	0.0	0.0
083	5/30/2019	10:20:49	0.0	0.0	0.0	0.0
084	5/30/2019	10:21:49	0.0	0.0	0.0	0.0
085	5/30/2019	10:22:49	0.0	0.0	0.0	0.0
086	5/30/2019	10:23:49	0.0	0.0	0.0	0.0
087	5/30/2019	10:24:49	0.0	0.0	0.0	0.0
088	5/30/2019	10:25:49	0.0	0.0	0.0	0.0
089	5/30/2019	10:26:49	0.0	0.0	0.0	0.0
090	5/30/2019	10:27:49	0.0	0.0	0.0	0.0
091	5/30/2019	10:28:49	0.0	0.0	0.0	0.0
092	5/30/2019	10:29:49	0.0	0.0	0.0	0.0
093	5/30/2019	10:30:49	0.0	0.0	0.0	0.0
094	5/30/2019	10:31:49	0.0	0.0	0.0	0.0
095	5/30/2019	10:32:49	0.0	0.0	0.0	0.0
096	5/30/2019	10:33:49	0.0	0.0	0.0	0.0
097	5/30/2019	10:34:49	0.0	0.0	0.0	0.0
098	5/30/2019	10:35:49	0.0	0.0	0.0	0.0
099	5/30/2019	10:36:49	0.0	0.0	0.0	0.0
100	5/30/2019	10:37:49	0.0	0.0	0.0	0.0
101	5/30/2019	10:38:49	0.0	0.0	0.0	0.0

102	5/30/2019	10:39:49	0.0	0.0	0.0	0.0
103	5/30/2019	10:40:49	0.0	0.0	0.0	0.0
104	5/30/2019	10:41:49	0.0	0.0	0.0	0.0
105	5/30/2019	10:42:49	0.0	0.0	0.0	0.0
106	5/30/2019	10:43:49	0.0	0.0	0.0	0.0
107	5/30/2019	10:44:49	0.0	0.0	0.0	0.0
108	5/30/2019	10:45:49	0.0	0.0	0.0	0.0
109	5/30/2019	10:46:49	0.0	0.0	0.0	0.0
110	5/30/2019	10:47:49	0.0	0.0	0.0	0.0
111	5/30/2019	10:48:49	0.0	0.0	0.0	0.0
112	5/30/2019	10:49:49	0.0	0.0	0.0	0.0
113	5/30/2019	10:50:49	0.0	0.0	0.0	0.0
114	5/30/2019	10:51:49	0.0	0.0	0.0	0.0
115	5/30/2019	10:52:49	0.0	0.0	0.0	0.0
116	5/30/2019	10:53:49	0.0	0.0	0.0	0.0
117	5/30/2019	10:54:49	0.0	0.0	0.0	0.0
118	5/30/2019	10:55:49	0.0	0.0	0.0	0.0
119	5/30/2019	10:56:49	0.0	0.0	0.0	0.0
120	5/30/2019	10:57:49	0.0	0.0	0.0	0.0
121	5/30/2019	10:58:49	0.0	0.0	0.0	0.0
122	5/30/2019	10:59:49	0.0	0.0	0.0	0.0
123	5/30/2019	11:00:49	0.0	0.0	0.0	0.0
124	5/30/2019	11:01:49	0.0	0.0	0.0	0.0
125	5/30/2019	11:02:49	0.0	0.0	0.0	0.0
126	5/30/2019	11:03:49	0.0	0.0	0.0	0.0
127	5/30/2019	11:04:49	0.0	0.0	0.0	0.0
128	5/30/2019	11:05:49	0.0	0.0	0.0	0.0
129	5/30/2019	11:06:49	0.0	0.0	0.0	0.0
130	5/30/2019	11:07:49	0.0	0.0	0.0	0.0
131	5/30/2019	11:08:49	0.0	0.0	0.0	0.0
132	5/30/2019	11:09:49	0.0	0.0	0.0	0.0

133	5/30/2019	11:10:49	0.0	0.0	0.0	0.0
134	5/30/2019	11:11:49	0.0	0.0	0.0	0.0
135	5/30/2019	11:12:49	0.0	0.0	0.0	0.0
136	5/30/2019	11:13:49	0.0	0.0	0.0	0.0
137	5/30/2019	11:14:49	0.0	0.0	0.0	0.0
138	5/30/2019	11:15:49	0.0	0.0	0.0	0.0
139	5/30/2019	11:16:49	0.0	0.0	0.0	0.0
140	5/30/2019	11:17:49	0.0	0.0	0.0	0.0
141	5/30/2019	11:18:49	0.0	0.0	0.0	0.0
142	5/30/2019	11:19:49	0.0	0.0	0.0	0.0
143	5/30/2019	11:20:49	0.0	0.0	0.0	0.0
144	5/30/2019	11:21:49	0.0	0.0	0.0	0.0
145	5/30/2019	11:22:49	0.0	0.0	0.0	0.0
146	5/30/2019	11:23:49	0.0	0.0	0.0	0.0
147	5/30/2019	11:24:49	0.0	0.0	0.0	0.0
148	5/30/2019	11:25:49	0.0	0.0	0.0	0.0
149	5/30/2019	11:26:49	0.0	0.0	0.0	0.0
150	5/30/2019	11:27:49	0.0	0.0	0.0	0.0
151	5/30/2019	11:28:49	0.0	0.0	0.0	0.0
152	5/30/2019	11:29:49	0.0	0.0	0.0	0.0
153	5/30/2019	11:30:49	0.0	0.0	0.0	0.0
154	5/30/2019	11:31:49	0.0	0.0	0.0	0.0
155	5/30/2019	11:32:49	0.0	0.0	0.0	0.0
156	5/30/2019	11:33:49	0.0	0.0	0.0	0.0
157	5/30/2019	11:34:49	0.0	0.0	0.0	0.0
158	5/30/2019	11:35:49	0.0	0.0	0.0	0.0
159	5/30/2019	11:36:49	0.0	0.0	0.0	0.0
160	5/30/2019	11:37:49	0.0	0.0	0.0	0.0
161	5/30/2019	11:38:49	0.0	0.0	0.0	0.0
162	5/30/2019	11:39:49	0.0	0.0	0.0	0.0
163	5/30/2019	11:40:49	0.0	0.0	0.0	0.0

164	5/30/2019	11:41:49	0.0	0.0	0.0	0.0
165	5/30/2019	11:42:49	0.0	0.0	0.0	0.0
166	5/30/2019	11:43:49	0.0	0.0	0.0	0.0
167	5/30/2019	11:44:49	0.0	0.0	0.0	0.0
168	5/30/2019	11:45:49	0.0	0.0	0.0	0.0
169	5/30/2019	11:46:49	0.0	0.0	0.0	0.0
170	5/30/2019	11:47:49	0.0	0.0	0.0	0.0
171	5/30/2019	11:48:49	0.0	0.0	0.0	0.0
172	5/30/2019	11:49:49	0.0	0.0	0.0	0.0
173	5/30/2019	11:50:49	0.0	0.0	0.0	0.0
174	5/30/2019	11:51:49	0.0	0.0	0.0	0.0
175	5/30/2019	11:52:49	0.0	0.0	0.0	0.0
176	5/30/2019	11:53:49	0.0	0.0	0.0	0.0
177	5/30/2019	11:54:49	0.0	0.0	0.0	0.0
178	5/30/2019	11:55:49	0.0	0.0	0.1	0.0
179	5/30/2019	11:56:49	0.0	0.0	0.1	0.0
180	5/30/2019	11:57:49	0.0	0.0	0.0	0.0
181	5/30/2019	11:58:49	0.0	0.0	0.0	0.0
182	5/30/2019	11:59:49	0.0	0.0	0.0	0.0
183	5/30/2019	12:00:49	0.0	0.0	0.0	0.0
184	5/30/2019	12:01:49	0.0	0.0	0.0	0.0
185	5/30/2019	12:02:49	0.0	0.0	0.0	0.0
186	5/30/2019	12:03:49	0.0	0.0	0.0	0.0
187	5/30/2019	12:04:49	0.0	0.0	0.0	0.0
188	5/30/2019	12:05:49	0.0	0.0	0.0	0.0
189	5/30/2019	12:06:49	0.0	0.0	0.0	0.0
190	5/30/2019	12:07:49	0.0	0.0	0.0	0.0
191	5/30/2019	12:08:49	0.0	0.0	0.0	0.0
192	5/30/2019	12:09:49	0.0	0.0	0.0	0.0
193	5/30/2019	12:10:49	0.0	0.0	0.0	0.0
194	5/30/2019	12:11:49	0.0	0.0	0.0	0.0

195	5/30/2019 12:12:49	0.0	0.0	0.0	0.0
196	5/30/2019 12:13:49	0.0	0.0	0.0	0.0
197	5/30/2019 12:14:49	0.0	0.0	0.0	0.0
198	5/30/2019 12:15:49	0.0	0.0	0.0	0.0
199	5/30/2019 12:16:49	0.0	0.0	0.0	0.0
200	5/30/2019 12:17:49	0.0	0.0	0.0	0.0
201	5/30/2019 12:18:49	0.0	0.0	0.0	0.0
202	5/30/2019 12:19:49	0.0	0.0	0.0	0.0
203	5/30/2019 12:20:49	0.0	0.0	0.0	0.0
204	5/30/2019 12:21:49	0.0	0.0	0.0	0.0
205	5/30/2019 12:22:49	0.0	0.0	0.0	0.0
206	5/30/2019 12:23:49	0.0	0.0	0.0	0.0
207	5/30/2019 12:24:49	0.0	0.0	0.0	0.0
208	5/30/2019 12:25:49	0.0	0.0	0.0	0.0
209	5/30/2019 12:26:49	0.0	0.0	0.0	0.0
210	5/30/2019 12:27:49	0.0	0.0	0.0	0.0
211	5/30/2019 12:28:49	0.0	0.0	0.0	0.0
212	5/30/2019 12:29:49	0.0	0.1	0.5	0.0
213	5/30/2019 12:30:49	0.0	0.0	0.0	0.0
214	5/30/2019 12:31:49	0.0	0.0	0.0	0.0
215	5/30/2019 12:32:49	0.0	0.0	0.0	0.0
216	5/30/2019 12:33:49	0.0	0.0	0.0	0.0
217	5/30/2019 12:34:49	0.0	0.0	0.0	0.0
218	5/30/2019 12:35:49	0.0	0.0	0.0	0.0
219	5/30/2019 12:36:49	0.0	0.0	0.0	0.0
220	5/30/2019 12:37:49	0.0	0.0	0.0	0.0
221	5/30/2019 12:38:49	0.0	0.0	0.0	0.0
222	5/30/2019 12:39:49	0.0	0.0	0.0	0.0
223	5/30/2019 12:40:49	0.0	0.0	0.0	0.0
224	5/30/2019 12:41:49	0.0	0.0	0.0	0.0
225	5/30/2019 12:42:49	0.0	0.0	0.0	0.0

226	5/30/2019 12:43:49	0.0	0.0	0.0	0.0
227	5/30/2019 12:44:49	0.0	0.0	0.0	0.0
228	5/30/2019 12:45:49	0.0	0.0	0.0	0.0
229	5/30/2019 12:46:49	0.0	0.0	0.0	0.0
230	5/30/2019 12:47:49	0.0	0.0	0.0	0.0
231	5/30/2019 12:48:49	0.0	0.0	0.0	0.0
232	5/30/2019 12:49:49	0.0	0.0	0.0	0.0
233	5/30/2019 12:50:49	0.0	0.0	0.0	0.0
234	5/30/2019 12:51:49	0.0	0.0	0.0	0.0
235	5/30/2019 12:52:49	0.0	0.0	0.0	0.0
236	5/30/2019 12:53:49	0.0	0.0	0.0	0.0
237	5/30/2019 12:54:49	0.0	0.0	0.0	0.0
238	5/30/2019 12:55:49	0.0	0.0	0.3	0.0
239	5/30/2019 12:56:49	0.0	0.0	0.0	0.0
240	5/30/2019 12:57:49	0.0	0.0	0.0	0.0
241	5/30/2019 12:58:49	0.0	0.0	0.0	0.0
242	5/30/2019 12:59:49	0.0	0.0	0.0	0.0
243	5/30/2019 13:00:49	0.0	0.0	0.0	0.0
244	5/30/2019 13:01:49	0.0	0.0	0.0	0.0
245	5/30/2019 13:02:49	0.0	0.0	0.0	0.0
246	5/30/2019 13:03:49	0.0	0.0	0.0	0.0
247	5/30/2019 13:04:49	0.0	0.0	0.0	0.0
248	5/30/2019 13:05:49	0.0	0.0	0.0	0.0
249	5/30/2019 13:06:49	0.0	0.0	0.0	0.0
250	5/30/2019 13:07:49	0.0	0.0	0.0	0.0
251	5/30/2019 13:08:49	0.0	0.0	0.0	0.0
252	5/30/2019 13:09:49	0.0	0.0	0.0	0.0
253	5/30/2019 13:10:49	0.0	0.0	0.0	0.0
254	5/30/2019 13:11:49	0.0	0.0	0.0	0.0
255	5/30/2019 13:12:49	0.0	0.0	0.0	0.0
256	5/30/2019 13:13:49	0.0	0.0	0.0	0.0

257	5/30/2019 13:14:49	0.0	0.0	0.0	0.0
258	5/30/2019 13:15:49	0.0	0.0	0.0	0.0
259	5/30/2019 13:16:49	0.0	0.0	0.0	0.0
260	5/30/2019 13:17:49	0.0	0.0	0.0	0.0
261	5/30/2019 13:18:49	0.0	0.0	0.0	0.0
262	5/30/2019 13:19:49	0.0	0.0	0.0	0.0
263	5/30/2019 13:20:49	0.0	0.0	0.0	0.0
264	5/30/2019 13:21:49	0.0	0.0	0.0	0.0
265	5/30/2019 13:22:49	0.0	0.0	0.0	0.0
266	5/30/2019 13:23:49	0.0	0.0	0.0	0.0
267	5/30/2019 13:24:49	0.0	0.0	0.0	0.0
268	5/30/2019 13:25:49	0.0	0.0	0.0	0.0
269	5/30/2019 13:26:49	0.0	0.0	0.0	0.0
270	5/30/2019 13:27:49	0.0	0.0	0.0	0.0
271	5/30/2019 13:28:49	0.0	0.0	0.0	0.0
272	5/30/2019 13:29:49	0.0	0.0	0.0	0.0
273	5/30/2019 13:30:49	0.0	0.0	0.0	0.0
274	5/30/2019 13:31:49	0.0	0.0	0.0	0.0
275	5/30/2019 13:32:49	0.0	0.0	0.0	0.0
276	5/30/2019 13:33:49	0.0	0.0	0.0	0.0
277	5/30/2019 13:34:49	0.0	0.0	0.0	0.0
278	5/30/2019 13:35:49	0.0	0.0	0.0	0.0
279	5/30/2019 13:36:49	0.0	0.0	0.0	0.0
280	5/30/2019 13:37:49	0.0	0.0	0.0	0.0
281	5/30/2019 13:38:49	0.0	0.0	0.0	0.0
282	5/30/2019 13:39:49	0.0	0.0	0.0	0.0
283	5/30/2019 13:40:49	0.0	0.0	0.0	0.0
284	5/30/2019 13:41:49	0.0	0.0	0.0	0.0
285	5/30/2019 13:42:49	0.0	0.0	0.0	0.0
286	5/30/2019 13:43:49	0.0	0.0	0.0	0.0
287	5/30/2019 13:44:49	0.0	0.0	0.0	0.0

288	5/30/2019 13:45:49	0.0	0.0	0.0	0.0
289	5/30/2019 13:46:49	0.0	0.0	0.0	0.0
290	5/30/2019 13:47:49	0.0	0.0	0.0	0.0
291	5/30/2019 13:48:49	0.0	0.0	0.0	0.0
292	5/30/2019 13:49:49	0.0	0.0	0.0	0.0
293	5/30/2019 13:50:49	0.0	0.0	0.0	0.0
294	5/30/2019 13:51:49	0.0	0.0	0.0	0.0
295	5/30/2019 13:52:49	0.0	0.0	0.0	0.0
296	5/30/2019 13:53:49	0.0	0.0	0.0	0.0
297	5/30/2019 13:54:49	0.0	0.0	0.0	0.0
298	5/30/2019 13:55:49	0.0	0.0	0.0	0.0
299	5/30/2019 13:56:49	0.0	0.0	0.0	0.0
300	5/30/2019 13:57:49	0.0	0.0	0.0	0.0
301	5/30/2019 13:58:49	0.0	0.0	0.0	0.0
302	5/30/2019 13:59:49	0.0	0.0	0.0	0.0
303	5/30/2019 14:00:49	0.0	0.0	0.0	0.0
304	5/30/2019 14:01:49	0.0	0.0	0.0	0.0
305	5/30/2019 14:02:49	0.0	0.0	0.0	0.0
306	5/30/2019 14:03:49	0.0	0.0	0.0	0.0
307	5/30/2019 14:04:49	0.0	0.0	0.0	0.0
308	5/30/2019 14:05:49	0.0	0.0	0.0	0.0
309	5/30/2019 14:06:49	0.0	0.0	0.0	0.0
310	5/30/2019 14:07:49	0.0	0.0	0.0	0.0
311	5/30/2019 14:08:49	0.0	0.0	0.0	0.0
312	5/30/2019 14:09:49	0.0	0.0	0.0	0.0
313	5/30/2019 14:10:49	0.0	0.0	0.0	0.0
314	5/30/2019 14:11:49	0.0	0.0	0.0	0.0
315	5/30/2019 14:12:49	0.0	0.0	0.0	0.0
316	5/30/2019 14:13:49	0.0	0.0	0.0	0.0
317	5/30/2019 14:14:49	0.0	0.0	0.0	0.0
318	5/30/2019 14:15:49	0.0	0.0	0.0	0.0

319	5/30/2019 14:16:49	0.0	0.0	0.0	0.0
320	5/30/2019 14:17:49	0.0	0.0	0.0	0.0
321	5/30/2019 14:18:49	0.0	0.0	0.0	0.0
322	5/30/2019 14:19:49	0.0	0.0	0.0	0.0
323	5/30/2019 14:20:49	0.0	0.0	0.0	0.0
324	5/30/2019 14:21:49	0.0	0.0	0.0	0.0
325	5/30/2019 14:22:49	0.0	0.0	0.0	0.0
326	5/30/2019 14:23:49	0.0	0.0	0.0	0.0
327	5/30/2019 14:24:49	0.0	0.0	0.0	0.0
328	5/30/2019 14:25:49	0.0	0.0	0.0	0.0
329	5/30/2019 14:26:49	0.0	0.0	0.0	0.0
330	5/30/2019 14:27:49	0.0	0.0	0.0	0.0
331	5/30/2019 14:28:49	0.0	0.0	0.0	0.0
332	5/30/2019 14:29:49	0.0	0.0	0.0	0.0
333	5/30/2019 14:30:49	0.0	0.0	0.0	0.0
334	5/30/2019 14:31:49	0.0	0.0	0.0	0.0
335	5/30/2019 14:32:49	0.0	0.0	0.0	0.0
336	5/30/2019 14:33:49	0.0	0.0	0.0	0.0
337	5/30/2019 14:34:49	0.0	0.0	0.0	0.0
338	5/30/2019 14:35:49	0.0	0.0	0.0	0.0
339	5/30/2019 14:36:49	0.0	0.0	0.0	0.0
340	5/30/2019 14:37:49	0.0	0.0	0.0	0.0
341	5/30/2019 14:38:49	0.0	0.0	0.0	0.0
342	5/30/2019 14:39:49	0.0	0.0	0.0	0.0
343	5/30/2019 14:40:49	0.0	0.0	0.0	0.0
344	5/30/2019 14:41:49	0.0	0.0	0.0	0.0
345	5/30/2019 14:42:49	0.0	0.0	0.0	0.0
346	5/30/2019 14:43:49	0.0	0.0	0.0	0.0
347	5/30/2019 14:44:49	0.0	0.0	0.0	0.0
348	5/30/2019 14:45:49	0.0	0.0	0.0	0.0
349	5/30/2019 14:46:49	0.0	0.0	0.0	0.0

350	5/30/2019 14:47:49	0.0	0.0	0.0	0.0
351	5/30/2019 14:48:49	0.0	0.0	0.0	0.0
352	5/30/2019 14:49:49	0.0	0.0	0.0	0.0
353	5/30/2019 14:50:49	0.0	0.0	0.0	0.0
354	5/30/2019 14:51:49	0.0	0.0	0.0	0.0
355	5/30/2019 14:52:49	0.0	0.0	0.0	0.0
356	5/30/2019 14:53:49	0.0	0.0	0.0	0.0
357	5/30/2019 14:54:49	0.0	0.0	0.0	0.0
358	5/30/2019 14:55:49	0.0	0.0	0.0	0.0
359	5/30/2019 14:56:49	0.0	0.0	0.0	0.0
360	5/30/2019 14:57:49	0.0	0.0	0.0	0.0
361	5/30/2019 14:58:49	0.0	0.0	0.0	0.0
362	5/30/2019 14:59:49	0.0	0.0	0.0	0.0
363	5/30/2019 15:00:49	0.0	0.0	0.0	0.0
364	5/30/2019 15:01:49	0.0	0.0	0.0	0.0
365	5/30/2019 15:02:49	0.0	0.0	0.0	0.0
366	5/30/2019 15:03:49	0.0	0.0	0.0	0.0
367	5/30/2019 15:04:49	0.0	0.0	0.0	0.0
368	5/30/2019 15:05:49	0.0	0.0	0.0	0.0
369	5/30/2019 15:06:49	0.0	0.0	0.0	0.0
370	5/30/2019 15:07:49	0.0	0.0	0.0	0.0
371	5/30/2019 15:08:49	0.0	0.0	0.0	0.0
372	5/30/2019 15:09:49	0.0	0.0	0.0	0.0
373	5/30/2019 15:10:49	0.0	0.0	0.0	0.0
374	5/30/2019 15:11:49	0.0	0.0	0.0	0.0
375	5/30/2019 15:12:49	0.0	0.0	0.0	0.0
376	5/30/2019 15:13:49	0.0	0.0	0.0	0.0
377	5/30/2019 15:14:49	0.0	0.0	0.0	0.0
378	5/30/2019 15:15:49	0.0	0.0	0.0	0.0
379	5/30/2019 15:16:49	0.0	0.0	0.0	0.0
380	5/30/2019 15:17:49	0.0	0.0	0.0	0.0

381	5/30/2019 15:18:49	0.0	0.0	0.0	0.0
382	5/30/2019 15:19:49	0.0	0.0	0.0	0.0
383	5/30/2019 15:20:49	0.0	0.0	0.0	0.0
384	5/30/2019 15:21:49	0.0	0.0	0.0	0.0
385	5/30/2019 15:22:49	0.0	0.0	0.0	0.0
386	5/30/2019 15:23:49	0.0	0.0	0.0	0.0
387	5/30/2019 15:24:49	0.0	0.0	0.0	0.0
388	5/30/2019 15:25:49	0.0	0.0	0.0	0.0
389	5/30/2019 15:26:49	0.0	0.0	0.0	0.0
390	5/30/2019 15:27:49	0.0	0.0	0.0	0.0
391	5/30/2019 15:28:49	0.0	0.0	0.0	0.0
392	5/30/2019 15:29:49	0.0	0.0	0.0	0.0
393	5/30/2019 15:30:49	0.0	0.0	0.0	0.0
394	5/30/2019 15:31:49	0.0	0.0	0.0	0.0
395	5/30/2019 15:32:49	0.0	0.0	0.0	0.0
396	5/30/2019 15:33:49	0.0	0.0	0.0	0.0
397	5/30/2019 15:34:49	0.0	0.0	0.0	0.0
398	5/30/2019 15:35:49	0.0	0.0	0.0	0.0
399	5/30/2019 15:36:49	0.0	0.0	0.0	0.0
400	5/30/2019 15:37:49	0.0	0.0	0.0	0.0
401	5/30/2019 15:38:49	0.0	0.0	0.0	0.0
402	5/30/2019 15:39:49	0.0	0.0	0.0	0.0
403	5/30/2019 15:40:49	0.0	0.0	0.0	0.0
404	5/30/2019 15:41:49	0.0	0.0	0.0	0.0
405	5/30/2019 15:42:49	0.0	0.0	0.0	0.0
406	5/30/2019 15:43:49	0.0	0.0	0.0	0.0
407	5/30/2019 15:44:49	0.0	0.0	0.0	0.0
408	5/30/2019 15:45:49	0.0	0.0	0.0	0.0
409	5/30/2019 15:46:49	0.0	0.0	0.0	0.0
410	5/30/2019 15:47:49	0.0	0.0	0.0	0.0
411	5/30/2019 15:48:49	0.0	0.0	0.0	0.0

412	5/30/2019 15:49:49	0.0	0.0	0.0	0.0
413	5/30/2019 15:50:49	0.0	0.0	0.0	0.0
414	5/30/2019 15:51:49	0.0	0.0	0.0	0.0
415	5/30/2019 15:52:49	0.0	0.0	0.0	0.0
416	5/30/2019 15:53:49	0.0	0.0	0.0	0.0
417	5/30/2019 15:54:49	0.0	0.0	0.0	0.0
418	5/30/2019 15:55:49	0.0	0.0	0.0	0.0
419	5/30/2019 15:56:49	0.0	0.0	0.0	0.0
420	5/30/2019 15:57:49	0.0	0.0	0.0	0.0
421	5/30/2019 15:58:49	0.0	0.0	0.0	0.0
422	5/30/2019 15:59:49	0.0	0.0	0.0	0.0
423	5/30/2019 16:00:49	0.0	0.0	0.0	0.0
424	5/30/2019 16:01:49	0.0	0.0	0.0	0.0
425	5/30/2019 16:02:49	0.0	0.0	0.0	0.0
426	5/30/2019 16:03:49	0.0	0.0	0.0	0.0
427	5/30/2019 16:04:49	0.0	0.0	0.0	0.0
428	5/30/2019 16:05:49	0.0	0.0	0.0	0.0
429	5/30/2019 16:06:49	0.0	0.0	0.0	0.0
430	5/30/2019 16:07:49	0.0	0.0	0.0	0.0
431	5/30/2019 16:08:49	0.0	0.0	0.0	0.0
432	5/30/2019 16:09:49	0.0	0.0	0.1	0.0
433	5/30/2019 16:10:49	0.0	0.0	0.1	0.1
434	5/30/2019 16:11:49	0.0	0.1	0.1	0.1
435	5/30/2019 16:12:49	0.0	0.1	0.1	0.1
436	5/30/2019 16:13:49	0.1	0.1	0.1	0.1
437	5/30/2019 16:14:49	0.1	0.1	0.1	0.1
438	5/30/2019 16:15:49	0.1	0.1	0.1	0.1
439	5/30/2019 16:16:49	0.1	0.1	0.1	0.1
440	5/30/2019 16:17:49	0.1	0.1	0.1	0.1
441	5/30/2019 16:18:49	0.1	0.1	0.1	0.1
442	5/30/2019 16:19:49	0.1	0.1	0.1	0.1

443	5/30/2019 16:20:49	0.1	0.1	0.1	0.1
444	5/30/2019 16:21:49	0.1	0.1	0.1	0.1
445	5/30/2019 16:22:49	0.1	0.1	0.1	0.1
446	5/30/2019 16:23:49	0.1	0.1	0.1	0.1
447	5/30/2019 16:24:49	0.1	0.1	0.1	0.1
448	5/30/2019 16:25:49	0.1	0.1	0.1	0.1
449	5/30/2019 16:26:49	0.1	0.1	0.1	0.1
450	5/30/2019 16:27:49	0.1	0.1	0.1	0.1
451	5/30/2019 16:28:49	0.1	0.1	0.1	0.1
452	5/30/2019 16:29:49	0.1	0.1	0.1	0.1
453	5/30/2019 16:30:49	0.1	0.1	0.1	0.1
454	5/30/2019 16:31:49	0.1	0.1	0.1	0.1
455	5/30/2019 16:32:49	0.1	0.1	0.1	0.1
456	5/30/2019 16:33:49	0.1	0.1	0.1	0.1
457	5/30/2019 16:34:49	0.1	0.1	0.1	0.1
458	5/30/2019 16:35:49	0.1	0.1	0.1	0.1
459	5/30/2019 16:36:49	0.1	0.1	0.1	0.1
460	5/30/2019 16:37:49	0.1	0.1	0.1	0.1
461	5/30/2019 16:38:49	0.1	0.1	0.1	0.1
462	5/30/2019 16:39:49	0.1	0.1	0.1	0.1
463	5/30/2019 16:40:49	0.1	0.1	0.1	0.1
464	5/30/2019 16:41:49	0.1	0.1	0.1	0.1
465	5/30/2019 16:42:49	0.1	0.1	0.1	0.1
466	5/30/2019 16:43:49	0.1	0.1	0.1	0.1
467	5/30/2019 16:44:49	0.1	0.1	0.1	0.1
468	5/30/2019 16:45:49	0.1	0.1	0.1	0.1
469	5/30/2019 16:46:49	0.1	0.1	0.1	0.1
470	5/30/2019 16:47:49	0.1	0.1	0.1	0.1
471	5/30/2019 16:48:49	0.1	0.1	0.1	0.1
472	5/30/2019 16:49:49	0.1	0.1	0.1	0.1
473	5/30/2019 16:50:49	0.1	0.1	0.1	0.1

474	5/30/2019	16:51:49	0.1	0.1	0.1	0.1
Peak		0.1	0.6	1.5	0.1	
Min		0.0	0.0	0.0	0.0	
Average		0.0	0.0	0.0	0.0	

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/30/2019	08:58:49	0.0	---
002	5/30/2019	08:59:49	0.0	---
003	5/30/2019	09:00:49	0.0	---
004	5/30/2019	09:01:49	0.0	---
005	5/30/2019	09:02:49	0.0	---
006	5/30/2019	09:03:49	0.0	---
007	5/30/2019	09:04:49	0.0	---
008	5/30/2019	09:05:49	0.0	---
009	5/30/2019	09:06:49	0.0	---
010	5/30/2019	09:07:49	0.0	---
011	5/30/2019	09:08:49	0.0	---
012	5/30/2019	09:09:49	0.0	---
013	5/30/2019	09:10:49	0.0	---
014	5/30/2019	09:11:49	0.0	---
015	5/30/2019	09:12:49	0.0	0.0
016	5/30/2019	09:13:49	0.0	0.0
017	5/30/2019	09:14:49	0.0	0.0
018	5/30/2019	09:15:49	0.0	0.0
019	5/30/2019	09:16:49	0.0	0.0
020	5/30/2019	09:17:49	0.0	0.0
021	5/30/2019	09:18:49	0.0	0.0
022	5/30/2019	09:19:49	0.0	0.0

023	5/30/2019 09:20:49	0.0	0.0
024	5/30/2019 09:21:49	0.0	0.0
025	5/30/2019 09:22:49	0.0	0.0
026	5/30/2019 09:23:49	0.0	0.0
027	5/30/2019 09:24:49	0.0	0.0
028	5/30/2019 09:25:49	0.0	0.0
029	5/30/2019 09:26:49	0.0	0.0
030	5/30/2019 09:27:49	0.0	0.0
031	5/30/2019 09:28:49	0.0	0.0
032	5/30/2019 09:29:49	0.0	0.0
033	5/30/2019 09:30:49	0.0	0.0
034	5/30/2019 09:31:49	0.0	0.0
035	5/30/2019 09:32:49	0.0	0.0
036	5/30/2019 09:33:49	0.0	0.0
037	5/30/2019 09:34:49	0.0	0.0
038	5/30/2019 09:35:49	0.0	0.0
039	5/30/2019 09:36:49	0.0	0.0
040	5/30/2019 09:37:49	0.0	0.0
041	5/30/2019 09:38:49	0.0	0.0
042	5/30/2019 09:39:49	0.0	0.0
043	5/30/2019 09:40:49	0.0	0.0
044	5/30/2019 09:41:49	0.0	0.0
045	5/30/2019 09:42:49	0.0	0.0
046	5/30/2019 09:43:49	0.0	0.0
047	5/30/2019 09:44:49	0.0	0.0
048	5/30/2019 09:45:49	0.0	0.0
049	5/30/2019 09:46:49	0.0	0.0
050	5/30/2019 09:47:49	0.0	0.0
051	5/30/2019 09:48:49	0.0	0.0
052	5/30/2019 09:49:49	0.0	0.0
053	5/30/2019 09:50:49	0.0	0.0

054	5/30/2019 09:51:49	0.0	0.0
055	5/30/2019 09:52:49	0.0	0.0
056	5/30/2019 09:53:49	0.0	0.0
057	5/30/2019 09:54:49	0.0	0.0
058	5/30/2019 09:55:49	0.0	0.0
059	5/30/2019 09:56:49	0.0	0.0
060	5/30/2019 09:57:49	0.0	0.0
061	5/30/2019 09:58:49	0.0	0.0
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427	5/30/2019 16:04:49	0.0	0.0
428	5/30/2019 16:05:49	0.0	0.0
429	5/30/2019 16:06:49	0.0	0.0
430	5/30/2019 16:07:49	0.0	0.0
431	5/30/2019 16:08:49	0.0	0.0
432	5/30/2019 16:09:49	0.0	0.0
433	5/30/2019 16:10:49	0.0	0.0
434	5/30/2019 16:11:49	0.0	0.0
435	5/30/2019 16:12:49	0.0	0.0
436	5/30/2019 16:13:49	0.0	0.0
437	5/30/2019 16:14:49	0.0	0.0
438	5/30/2019 16:15:49	0.0	0.0
439	5/30/2019 16:16:49	0.0	0.0
440	5/30/2019 16:17:49	0.0	0.1
441	5/30/2019 16:18:49	0.0	0.1
442	5/30/2019 16:19:49	0.0	0.1
443	5/30/2019 16:20:49	0.0	0.1
444	5/30/2019 16:21:49	0.0	0.1
445	5/30/2019 16:22:49	0.0	0.1
446	5/30/2019 16:23:49	0.0	0.1
447	5/30/2019 16:24:49	0.0	0.1
448	5/30/2019 16:25:49	0.0	0.1
449	5/30/2019 16:26:49	0.0	0.1
450	5/30/2019 16:27:49	0.0	0.1
451	5/30/2019 16:28:49	0.0	0.1
452	5/30/2019 16:29:49	0.0	0.1
453	5/30/2019 16:30:49	0.0	0.1
454	5/30/2019 16:31:49	0.0	0.1
455	5/30/2019 16:32:49	0.0	0.1
456	5/30/2019 16:33:49	0.0	0.1

457	5/30/2019 16:34:49	0.0	0.1
458	5/30/2019 16:35:49	0.0	0.1
459	5/30/2019 16:36:49	0.0	0.1
460	5/30/2019 16:37:49	0.0	0.1
461	5/30/2019 16:38:49	0.0	0.1
462	5/30/2019 16:39:49	0.0	0.1
463	5/30/2019 16:40:49	0.0	0.1
464	5/30/2019 16:41:49	0.0	0.1
465	5/30/2019 16:42:49	0.0	0.1
466	5/30/2019 16:43:49	0.0	0.1
467	5/30/2019 16:44:49	0.0	0.1
468	5/30/2019 16:45:49	0.0	0.1
469	5/30/2019 16:46:49	0.0	0.1
470	5/30/2019 16:47:49	0.0	0.1
471	5/30/2019 16:48:49	0.0	0.1
472	5/30/2019 16:49:49	0.0	0.1
473	5/30/2019 16:50:49	0.0	0.1
474	5/30/2019 16:51:49	0.0	0.1

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19/05/31 10:37
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No

Stop Reason	Battery Low

Site ID	RAE00002
User ID	00000001

Begin	5/31/2019 10:37:01
End	5/31/2019 11:21:30
Sample Period(s)	60
Number of Records	44

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.1
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	5/31/2019	10:38:01	0.0	0.0	0.0	0.0

002	5/31/2019 10:39:01	0.0	0.0	0.0	0.0
003	5/31/2019 10:40:01	0.0	0.0	0.0	0.0
004	5/31/2019 10:41:01	0.0	0.0	0.0	0.0
005	5/31/2019 10:42:01	0.0	0.0	0.0	0.0
006	5/31/2019 10:43:01	0.0	0.0	0.0	0.0
007	5/31/2019 10:44:01	0.0	0.0	0.0	0.0
008	5/31/2019 10:45:01	0.0	0.0	0.0	0.0
009	5/31/2019 10:46:01	0.0	0.0	0.0	0.0
010	5/31/2019 10:47:01	0.0	0.0	0.0	0.0
011	5/31/2019 10:48:01	0.0	0.0	0.0	0.0
012	5/31/2019 10:49:01	0.0	0.0	0.0	0.0
013	5/31/2019 10:50:01	0.0	0.0	0.0	0.0
014	5/31/2019 10:51:01	0.0	0.0	0.0	0.0
015	5/31/2019 10:52:01	0.0	0.0	0.0	0.0
016	5/31/2019 10:53:01	0.0	0.0	0.0	0.0
017	5/31/2019 10:54:01	0.0	0.0	0.1	0.0
018	5/31/2019 10:55:01	0.0	0.0	0.1	0.0
019	5/31/2019 10:56:01	0.0	0.0	0.0	0.0
020	5/31/2019 10:57:01	0.0	0.0	0.1	0.0
021	5/31/2019 10:58:01	0.0	0.0	0.0	0.0
022	5/31/2019 10:59:01	0.0	0.0	0.0	0.0
023	5/31/2019 11:00:01	0.0	0.0	0.0	0.0
024	5/31/2019 11:01:01	0.0	0.0	0.0	0.0
025	5/31/2019 11:02:01	0.0	0.0	0.0	0.0
026	5/31/2019 11:03:01	0.0	0.0	0.0	0.0
027	5/31/2019 11:04:01	0.0	0.0	0.0	0.0
028	5/31/2019 11:05:01	0.0	0.0	0.0	0.0
029	5/31/2019 11:06:01	0.0	0.0	0.1	0.0
030	5/31/2019 11:07:01	0.0	0.0	0.1	0.0
031	5/31/2019 11:08:01	0.0	0.1	0.1	0.1
032	5/31/2019 11:09:01	0.0	0.0	0.1	0.1

033	5/31/2019	11:10:01	0.0	0.1	0.1	0.1
034	5/31/2019	11:11:01	0.0	0.1	0.1	0.1
035	5/31/2019	11:12:01	0.0	0.1	0.1	0.1
036	5/31/2019	11:13:01	0.1	0.1	0.1	0.1
037	5/31/2019	11:14:01	0.1	0.1	0.1	0.1
038	5/31/2019	11:15:01	0.1	0.1	0.1	0.1
039	5/31/2019	11:16:01	0.1	0.1	0.1	0.1
040	5/31/2019	11:17:01	0.1	0.1	0.1	0.1
041	5/31/2019	11:18:01	0.1	0.1	0.1	0.1
042	5/31/2019	11:19:01	0.1	0.1	0.1	0.1
043	5/31/2019	11:20:01	0.1	0.1	0.1	0.1
044	5/31/2019	11:21:01	0.1	0.1	0.1	0.1
Peak			0.1	0.1	0.1	0.1
Min			0.0	0.0	0.0	0.0
Average			0.0	0.0	0.0	0.0

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TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	5/31/2019	10:38:01	0.0	---
002	5/31/2019	10:39:01	0.0	---
003	5/31/2019	10:40:01	0.0	---
004	5/31/2019	10:41:01	0.0	---
005	5/31/2019	10:42:01	0.0	---
006	5/31/2019	10:43:01	0.0	---
007	5/31/2019	10:44:01	0.0	---
008	5/31/2019	10:45:01	0.0	---
009	5/31/2019	10:46:01	0.0	---
010	5/31/2019	10:47:01	0.0	---
011	5/31/2019	10:48:01	0.0	---

012	5/31/2019 10:49:01	0.0	---
013	5/31/2019 10:50:01	0.0	---
014	5/31/2019 10:51:01	0.0	---
015	5/31/2019 10:52:01	0.0	0.0
016	5/31/2019 10:53:01	0.0	0.0
017	5/31/2019 10:54:01	0.0	0.0
018	5/31/2019 10:55:01	0.0	0.0
019	5/31/2019 10:56:01	0.0	0.0
020	5/31/2019 10:57:01	0.0	0.0
021	5/31/2019 10:58:01	0.0	0.0
022	5/31/2019 10:59:01	0.0	0.0
023	5/31/2019 11:00:01	0.0	0.0
024	5/31/2019 11:01:01	0.0	0.0
025	5/31/2019 11:02:01	0.0	0.0
026	5/31/2019 11:03:01	0.0	0.0
027	5/31/2019 11:04:01	0.0	0.0
028	5/31/2019 11:05:01	0.0	0.0
029	5/31/2019 11:06:01	0.0	0.0
030	5/31/2019 11:07:01	0.0	0.0
031	5/31/2019 11:08:01	0.0	0.0
032	5/31/2019 11:09:01	0.0	0.0
033	5/31/2019 11:10:01	0.0	0.0
034	5/31/2019 11:11:01	0.0	0.0
035	5/31/2019 11:12:01	0.0	0.0
036	5/31/2019 11:13:01	0.0	0.0
037	5/31/2019 11:14:01	0.0	0.0
038	5/31/2019 11:15:01	0.0	0.1
039	5/31/2019 11:16:01	0.0	0.1
040	5/31/2019 11:17:01	0.0	0.1
041	5/31/2019 11:18:01	0.0	0.1
042	5/31/2019 11:19:01	0.0	0.1

043 5/31/2019 11:20:01 0.0 0.1
044 5/31/2019 11:21:01 0.0 0.1
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19/06/03 09:42
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Summary

Unit Name MiniRAE 3000(PGM-7320)
Unit SN 592-904392
Unit Firmware Ver V2.16

Running Mode Hygiene Mode
Datalog Mode Manual
Diagnostic Mode No
Stop Reason Power Down

Site ID RAE00002
User ID 00000001

Begin 6/3/2019 09:42:26
End 6/3/2019 14:41:06
Sample Period(s) 60
Number of Records 298

Sensor PID(ppm)
Sensor SN S023030001MA
Measure Type Min; Avg; Max; Real
Span 100.0
Span 2 1000.0
Low Alarm 10050.0

High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0
Measurement Gas	Isobutylene
Calibration Time	5/15/2019 16:29
Peak	0.1
Min	0.0
Average	0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/3/2019	09:43:26	0.0	0.1	0.2	0.0
002	6/3/2019	09:44:26	0.0	0.0	0.0	0.0
003	6/3/2019	09:45:26	0.0	0.0	0.0	0.0
004	6/3/2019	09:46:26	0.0	0.0	0.0	0.0
005	6/3/2019	09:47:26	0.0	0.0	0.0	0.0
006	6/3/2019	09:48:26	0.0	0.0	0.0	0.0
007	6/3/2019	09:49:26	0.0	0.0	0.0	0.0
008	6/3/2019	09:50:26	0.0	0.0	0.0	0.0
009	6/3/2019	09:51:26	0.0	0.0	0.0	0.0
010	6/3/2019	09:52:26	0.0	0.0	0.0	0.0
011	6/3/2019	09:53:26	0.0	0.0	0.0	0.0
012	6/3/2019	09:54:26	0.0	0.0	0.0	0.0
013	6/3/2019	09:55:26	0.0	0.0	0.0	0.0
014	6/3/2019	09:56:26	0.0	0.0	0.0	0.0
015	6/3/2019	09:57:26	0.0	0.0	0.0	0.0
016	6/3/2019	09:58:26	0.0	0.0	0.0	0.0
017	6/3/2019	09:59:26	0.0	0.0	0.0	0.0

018	6/3/2019 10:00:26	0.0	0.0	0.0	0.0
019	6/3/2019 10:01:26	0.0	0.0	0.0	0.0
020	6/3/2019 10:02:26	0.0	0.0	0.0	0.0
021	6/3/2019 10:03:26	0.0	0.0	0.0	0.0
022	6/3/2019 10:04:26	0.0	0.0	0.0	0.0
023	6/3/2019 10:05:26	0.0	0.0	0.1	0.0
024	6/3/2019 10:06:26	0.0	0.0	0.0	0.0
025	6/3/2019 10:07:26	0.0	0.0	0.1	0.0
026	6/3/2019 10:08:26	0.0	0.0	0.1	0.0
027	6/3/2019 10:09:26	0.0	0.0	0.1	0.0
028	6/3/2019 10:10:26	0.0	0.0	0.1	0.0
029	6/3/2019 10:11:26	0.0	0.0	0.1	0.0
030	6/3/2019 10:12:26	0.0	0.0	0.0	0.0
031	6/3/2019 10:13:26	0.0	0.0	0.1	0.0
032	6/3/2019 10:14:26	0.0	0.0	0.1	0.0
033	6/3/2019 10:15:26	0.0	0.1	0.1	0.1
034	6/3/2019 10:16:26	0.0	0.1	0.1	0.1
035	6/3/2019 10:17:26	0.0	0.0	0.1	0.0
036	6/3/2019 10:18:26	0.0	0.0	0.1	0.0
037	6/3/2019 10:19:26	0.0	0.0	0.1	0.0
038	6/3/2019 10:20:26	0.0	0.0	0.0	0.0
039	6/3/2019 10:21:26	0.0	0.0	0.0	0.0
040	6/3/2019 10:22:26	0.0	0.0	0.0	0.0
041	6/3/2019 10:23:26	0.0	0.0	0.0	0.0
042	6/3/2019 10:24:26	0.0	0.0	0.1	0.1
043	6/3/2019 10:25:26	0.0	0.1	0.1	0.0
044	6/3/2019 10:26:26	0.0	0.1	0.1	0.1
045	6/3/2019 10:27:26	0.1	0.1	0.1	0.1
046	6/3/2019 10:28:26	0.1	0.1	0.1	0.1
047	6/3/2019 10:29:26	0.1	0.1	0.1	0.1
048	6/3/2019 10:30:26	0.1	0.1	0.1	0.1

049	6/3/2019 10:31:26	0.1	0.1	0.1	0.1
050	6/3/2019 10:32:26	0.1	0.1	0.1	0.1
051	6/3/2019 10:33:26	0.1	0.1	0.1	0.1
052	6/3/2019 10:34:26	0.1	0.1	0.1	0.1
053	6/3/2019 10:35:26	0.1	0.1	0.1	0.1
054	6/3/2019 10:36:26	0.1	0.1	0.1	0.1
055	6/3/2019 10:37:26	0.1	0.1	0.1	0.1
056	6/3/2019 10:38:26	0.1	0.1	0.1	0.1
057	6/3/2019 10:39:26	0.1	0.1	0.1	0.1
058	6/3/2019 10:40:26	0.1	0.1	0.1	0.1
059	6/3/2019 10:41:26	0.1	0.1	0.1	0.1
060	6/3/2019 10:42:26	0.1	0.1	0.1	0.1
061	6/3/2019 10:43:26	0.1	0.1	0.1	0.1
062	6/3/2019 10:44:26	0.1	0.1	0.1	0.1
063	6/3/2019 10:45:26	0.1	0.1	0.1	0.1
064	6/3/2019 10:46:26	0.1	0.1	0.1	0.1
065	6/3/2019 10:47:26	0.1	0.1	0.1	0.1
066	6/3/2019 10:48:26	0.1	0.1	0.1	0.1
067	6/3/2019 10:49:26	0.1	0.1	0.1	0.1
068	6/3/2019 10:50:26	0.1	0.1	0.1	0.1
069	6/3/2019 10:51:26	0.1	0.1	0.1	0.1
070	6/3/2019 10:52:26	0.1	0.1	0.1	0.1
071	6/3/2019 10:53:26	0.1	0.1	0.1	0.1
072	6/3/2019 10:54:26	0.1	0.1	0.1	0.1
073	6/3/2019 10:55:26	0.1	0.1	0.1	0.1
074	6/3/2019 10:56:26	0.1	0.1	0.1	0.1
075	6/3/2019 10:57:26	0.1	0.1	0.1	0.1
076	6/3/2019 10:58:26	0.1	0.1	0.1	0.1
077	6/3/2019 10:59:26	0.1	0.1	0.1	0.1
078	6/3/2019 11:00:26	0.1	0.1	0.1	0.1
079	6/3/2019 11:01:26	0.1	0.1	0.1	0.1

080	6/3/2019 11:02:26	0.1	0.1	0.1	0.1
081	6/3/2019 11:03:26	0.1	0.1	0.1	0.1
082	6/3/2019 11:04:26	0.1	0.1	0.1	0.1
083	6/3/2019 11:05:26	0.1	0.1	0.1	0.1
084	6/3/2019 11:06:26	0.1	0.1	0.1	0.1
085	6/3/2019 11:07:26	0.1	0.1	0.1	0.1
086	6/3/2019 11:08:26	0.1	0.1	0.1	0.1
087	6/3/2019 11:09:26	0.1	0.1	0.1	0.1
088	6/3/2019 11:10:26	0.1	0.1	0.1	0.1
089	6/3/2019 11:11:26	0.1	0.1	0.1	0.1
090	6/3/2019 11:12:26	0.1	0.1	0.1	0.1
091	6/3/2019 11:13:26	0.1	0.1	0.1	0.1
092	6/3/2019 11:14:26	0.1	0.1	0.1	0.1
093	6/3/2019 11:15:26	0.1	0.1	0.1	0.1
094	6/3/2019 11:16:26	0.1	0.1	0.1	0.1
095	6/3/2019 11:17:26	0.1	0.1	0.1	0.1
096	6/3/2019 11:18:26	0.1	0.1	0.1	0.1
097	6/3/2019 11:19:26	0.1	0.1	0.1	0.1
098	6/3/2019 11:20:26	0.1	0.1	0.1	0.1
099	6/3/2019 11:21:26	0.1	0.1	0.1	0.1
100	6/3/2019 11:22:26	0.1	0.1	0.1	0.1
101	6/3/2019 11:23:26	0.1	0.1	0.1	0.1
102	6/3/2019 11:24:26	0.1	0.1	0.1	0.1
103	6/3/2019 11:25:26	0.1	0.1	0.1	0.1
104	6/3/2019 11:26:26	0.1	0.1	0.1	0.1
105	6/3/2019 11:27:26	0.1	0.1	0.1	0.1
106	6/3/2019 11:28:26	0.1	0.1	0.1	0.1
107	6/3/2019 11:29:26	0.1	0.1	0.1	0.1
108	6/3/2019 11:30:26	0.1	0.1	0.1	0.1
109	6/3/2019 11:31:26	0.1	0.1	0.1	0.1
110	6/3/2019 11:32:26	0.1	0.1	0.1	0.1

111	6/3/2019 11:33:26	0.1	0.1	0.1	0.1
112	6/3/2019 11:34:26	0.1	0.1	0.1	0.1
113	6/3/2019 11:35:26	0.1	0.1	0.1	0.1
114	6/3/2019 11:36:26	0.1	0.1	0.1	0.1
115	6/3/2019 11:37:26	0.1	0.1	0.1	0.1
116	6/3/2019 11:38:26	0.1	0.1	0.1	0.1
117	6/3/2019 11:39:26	0.1	0.1	0.1	0.1
118	6/3/2019 11:40:26	0.1	0.1	0.1	0.1
119	6/3/2019 11:41:26	0.1	0.1	0.1	0.1
120	6/3/2019 11:42:26	0.1	0.1	0.1	0.1
121	6/3/2019 11:43:26	0.1	0.1	0.1	0.1
122	6/3/2019 11:44:26	0.1	0.1	0.1	0.1
123	6/3/2019 11:45:26	0.1	0.1	0.1	0.1
124	6/3/2019 11:46:26	0.1	0.1	0.1	0.1
125	6/3/2019 11:47:26	0.1	0.1	0.1	0.1
126	6/3/2019 11:48:26	0.1	0.1	0.1	0.1
127	6/3/2019 11:49:26	0.1	0.1	0.1	0.1
128	6/3/2019 11:50:26	0.1	0.1	0.1	0.1
129	6/3/2019 11:51:26	0.1	0.1	0.1	0.1
130	6/3/2019 11:52:26	0.1	0.1	0.1	0.1
131	6/3/2019 11:53:26	0.1	0.1	0.1	0.1
132	6/3/2019 11:54:26	0.1	0.1	0.1	0.1
133	6/3/2019 11:55:26	0.1	0.1	0.1	0.1
134	6/3/2019 11:56:26	0.1	0.1	0.1	0.1
135	6/3/2019 11:57:26	0.1	0.1	0.1	0.1
136	6/3/2019 11:58:26	0.1	0.1	0.1	0.1
137	6/3/2019 11:59:26	0.1	0.1	0.1	0.1
138	6/3/2019 12:00:26	0.1	0.1	0.1	0.1
139	6/3/2019 12:01:26	0.1	0.1	0.1	0.1
140	6/3/2019 12:02:26	0.1	0.1	0.1	0.1
141	6/3/2019 12:03:26	0.1	0.1	0.1	0.1

142	6/3/2019 12:04:26	0.1	0.1	0.1	0.1
143	6/3/2019 12:05:26	0.1	0.1	0.1	0.1
144	6/3/2019 12:06:26	0.1	0.1	0.1	0.1
145	6/3/2019 12:07:26	0.1	0.1	0.1	0.1
146	6/3/2019 12:08:26	0.1	0.1	0.1	0.1
147	6/3/2019 12:09:26	0.1	0.1	0.1	0.1
148	6/3/2019 12:10:26	0.1	0.1	0.1	0.1
149	6/3/2019 12:11:26	0.1	0.1	0.1	0.1
150	6/3/2019 12:12:26	0.1	0.1	0.1	0.1
151	6/3/2019 12:13:26	0.1	0.1	0.1	0.1
152	6/3/2019 12:14:26	0.1	0.1	0.1	0.1
153	6/3/2019 12:15:26	0.1	0.1	0.1	0.1
154	6/3/2019 12:16:26	0.1	0.1	0.1	0.1
155	6/3/2019 12:17:26	0.0	0.1	0.1	0.1
156	6/3/2019 12:18:26	0.1	0.1	0.1	0.1
157	6/3/2019 12:19:26	0.0	0.1	0.1	0.1
158	6/3/2019 12:20:26	0.0	0.1	0.1	0.0
159	6/3/2019 12:21:26	0.0	0.0	0.1	0.0
160	6/3/2019 12:22:26	0.0	0.0	0.0	0.0
161	6/3/2019 12:23:26	0.0	0.0	0.1	0.1
162	6/3/2019 12:24:26	0.0	0.1	0.1	0.0
163	6/3/2019 12:25:26	0.0	0.0	0.1	0.0
164	6/3/2019 12:26:26	0.0	0.0	0.0	0.0
165	6/3/2019 12:27:26	0.0	0.0	0.0	0.0
166	6/3/2019 12:28:26	0.0	0.0	0.1	0.1
167	6/3/2019 12:29:26	0.0	0.0	0.1	0.0
168	6/3/2019 12:30:26	0.0	0.0	0.0	0.0
169	6/3/2019 12:31:26	0.0	0.0	0.0	0.0
170	6/3/2019 12:32:26	0.0	0.0	0.0	0.0
171	6/3/2019 12:33:26	0.0	0.0	0.0	0.0
172	6/3/2019 12:34:26	0.0	0.0	0.0	0.0

173	6/3/2019 12:35:26	0.0	0.0	0.0	0.0
174	6/3/2019 12:36:26	0.0	0.0	0.0	0.0
175	6/3/2019 12:37:26	0.0	0.0	0.0	0.0
176	6/3/2019 12:38:26	0.0	0.0	0.0	0.0
177	6/3/2019 12:39:26	0.0	0.0	0.0	0.0
178	6/3/2019 12:40:26	0.0	0.0	0.0	0.0
179	6/3/2019 12:41:26	0.0	0.0	0.1	0.0
180	6/3/2019 12:42:26	0.0	0.0	0.0	0.0
181	6/3/2019 12:43:26	0.0	0.0	0.0	0.0
182	6/3/2019 12:44:26	0.0	0.0	0.0	0.0
183	6/3/2019 12:45:26	0.0	0.0	0.0	0.0
184	6/3/2019 12:46:26	0.0	0.0	0.1	0.0
185	6/3/2019 12:47:26	0.0	0.0	0.0	0.0
186	6/3/2019 12:48:26	0.0	0.0	0.0	0.0
187	6/3/2019 12:49:26	0.0	0.0	0.0	0.0
188	6/3/2019 12:50:26	0.0	0.0	0.0	0.0
189	6/3/2019 12:51:26	0.0	0.0	0.0	0.0
190	6/3/2019 12:52:26	0.0	0.0	0.0	0.0
191	6/3/2019 12:53:26	0.0	0.0	0.0	0.0
192	6/3/2019 12:54:26	0.0	0.0	0.0	0.0
193	6/3/2019 12:55:26	0.0	0.0	0.0	0.0
194	6/3/2019 12:56:26	0.0	0.0	0.0	0.0
195	6/3/2019 12:57:26	0.0	0.0	0.0	0.0
196	6/3/2019 12:58:26	0.0	0.0	0.0	0.0
197	6/3/2019 12:59:26	0.0	0.0	0.0	0.0
198	6/3/2019 13:00:26	0.0	0.0	0.0	0.0
199	6/3/2019 13:01:26	0.0	0.0	0.0	0.0
200	6/3/2019 13:02:26	0.0	0.0	0.0	0.0
201	6/3/2019 13:03:26	0.0	0.0	0.0	0.0
202	6/3/2019 13:04:26	0.0	0.0	0.0	0.0
203	6/3/2019 13:05:26	0.0	0.0	0.0	0.0

204	6/3/2019 13:06:26	0.0	0.0	0.0	0.0
205	6/3/2019 13:07:26	0.0	0.0	0.0	0.0
206	6/3/2019 13:08:26	0.0	0.0	0.0	0.0
207	6/3/2019 13:09:26	0.0	0.0	0.0	0.0
208	6/3/2019 13:10:26	0.0	0.0	0.0	0.0
209	6/3/2019 13:11:26	0.0	0.0	0.0	0.0
210	6/3/2019 13:12:26	0.0	0.0	0.0	0.0
211	6/3/2019 13:13:26	0.0	0.0	0.0	0.0
212	6/3/2019 13:14:26	0.0	0.0	0.0	0.0
213	6/3/2019 13:15:26	0.0	0.0	0.0	0.0
214	6/3/2019 13:16:26	0.0	0.0	0.1	0.0
215	6/3/2019 13:17:26	0.0	0.0	0.0	0.0
216	6/3/2019 13:18:26	0.0	0.0	0.1	0.0
217	6/3/2019 13:19:26	0.0	0.0	0.0	0.0
218	6/3/2019 13:20:26	0.0	0.0	0.0	0.0
219	6/3/2019 13:21:26	0.0	0.0	0.1	0.0
220	6/3/2019 13:22:26	0.0	0.0	0.1	0.1
221	6/3/2019 13:23:26	0.0	0.1	0.1	0.1
222	6/3/2019 13:24:26	0.0	0.0	0.1	0.0
223	6/3/2019 13:25:26	0.0	0.0	0.0	0.0
224	6/3/2019 13:26:26	0.0	0.0	0.0	0.0
225	6/3/2019 13:27:26	0.0	0.1	0.1	0.1
226	6/3/2019 13:28:26	0.0	0.1	0.1	0.0
227	6/3/2019 13:29:26	0.0	0.0	0.0	0.0
228	6/3/2019 13:30:26	0.0	0.0	0.0	0.0
229	6/3/2019 13:31:26	0.0	0.0	0.0	0.0
230	6/3/2019 13:32:26	0.0	0.0	0.0	0.0
231	6/3/2019 13:33:26	0.0	0.0	0.0	0.0
232	6/3/2019 13:34:26	0.0	0.0	0.0	0.0
233	6/3/2019 13:35:26	0.0	0.0	0.0	0.0
234	6/3/2019 13:36:26	0.0	0.0	0.0	0.0

235	6/3/2019 13:37:26	0.0	0.0	0.0	0.0
236	6/3/2019 13:38:26	0.0	0.0	0.0	0.0
237	6/3/2019 13:39:26	0.0	0.0	0.0	0.0
238	6/3/2019 13:40:26	0.0	0.0	0.0	0.0
239	6/3/2019 13:41:26	0.0	0.0	0.0	0.0
240	6/3/2019 13:42:26	0.0	0.0	0.0	0.0
241	6/3/2019 13:43:26	0.0	0.0	0.0	0.0
242	6/3/2019 13:44:26	0.0	0.0	0.0	0.0
243	6/3/2019 13:45:26	0.0	0.0	0.0	0.0
244	6/3/2019 13:46:26	0.0	0.0	0.0	0.0
245	6/3/2019 13:47:26	0.0	0.0	0.0	0.0
246	6/3/2019 13:48:26	0.0	0.0	0.0	0.0
247	6/3/2019 13:49:26	0.0	0.0	0.0	0.0
248	6/3/2019 13:50:26	0.0	0.0	0.0	0.0
249	6/3/2019 13:51:26	0.0	0.0	0.0	0.0
250	6/3/2019 13:52:26	0.0	0.0	0.0	0.0
251	6/3/2019 13:53:26	0.0	0.0	0.0	0.0
252	6/3/2019 13:54:26	0.0	0.0	0.0	0.0
253	6/3/2019 13:55:26	0.0	0.0	0.0	0.0
254	6/3/2019 13:56:26	0.0	0.0	0.0	0.0
255	6/3/2019 13:57:26	0.0	0.0	0.0	0.0
256	6/3/2019 13:58:26	0.0	0.0	0.0	0.0
257	6/3/2019 13:59:26	0.0	0.0	0.0	0.0
258	6/3/2019 14:00:26	0.0	0.0	0.0	0.0
259	6/3/2019 14:01:26	0.0	0.0	0.0	0.0
260	6/3/2019 14:02:26	0.0	0.0	0.0	0.0
261	6/3/2019 14:03:26	0.0	0.0	0.0	0.0
262	6/3/2019 14:04:26	0.0	0.0	0.0	0.0
263	6/3/2019 14:05:26	0.0	0.0	0.0	0.0
264	6/3/2019 14:06:26	0.0	0.0	0.0	0.0
265	6/3/2019 14:07:26	0.0	0.0	0.0	0.0

266	6/3/2019 14:08:26	0.0	0.0	0.0	0.0
267	6/3/2019 14:09:26	0.0	0.0	0.0	0.0
268	6/3/2019 14:10:26	0.0	0.0	0.0	0.0
269	6/3/2019 14:11:26	0.0	0.0	0.0	0.0
270	6/3/2019 14:12:26	0.0	0.0	0.0	0.0
271	6/3/2019 14:13:26	0.0	0.0	0.0	0.0
272	6/3/2019 14:14:26	0.0	0.0	0.0	0.0
273	6/3/2019 14:15:26	0.0	0.0	0.0	0.0
274	6/3/2019 14:16:26	0.0	0.0	0.0	0.0
275	6/3/2019 14:17:26	0.0	0.0	0.0	0.0
276	6/3/2019 14:18:26	0.0	0.0	0.0	0.0
277	6/3/2019 14:19:26	0.0	0.0	0.0	0.0
278	6/3/2019 14:20:26	0.0	0.0	0.0	0.0
279	6/3/2019 14:21:26	0.0	0.0	0.0	0.0
280	6/3/2019 14:22:26	0.0	0.0	0.0	0.0
281	6/3/2019 14:23:26	0.0	0.0	0.0	0.0
282	6/3/2019 14:24:26	0.0	0.0	0.0	0.0
283	6/3/2019 14:25:26	0.0	0.0	0.0	0.0
284	6/3/2019 14:26:26	0.0	0.0	0.0	0.0
285	6/3/2019 14:27:26	0.0	0.0	0.0	0.0
286	6/3/2019 14:28:26	0.0	0.0	0.0	0.0
287	6/3/2019 14:29:26	0.0	0.0	0.0	0.0
288	6/3/2019 14:30:26	0.0	0.0	0.0	0.0
289	6/3/2019 14:31:26	0.0	0.0	0.0	0.0
290	6/3/2019 14:32:26	0.0	0.0	0.0	0.0
291	6/3/2019 14:33:26	0.0	0.0	0.0	0.0
292	6/3/2019 14:34:26	0.0	0.0	0.0	0.0
293	6/3/2019 14:35:26	0.0	0.0	0.0	0.0
294	6/3/2019 14:36:26	0.0	0.0	0.0	0.0
295	6/3/2019 14:37:26	0.0	0.0	0.0	0.0
296	6/3/2019 14:38:26	0.0	0.0	0.0	0.0

297	6/3/2019 14:39:26	0.0	0.0	0.0	0.0
298	6/3/2019 14:40:26	0.0	0.0	0.0	0.0
Peak		0.1	0.1	0.2	0.1
Min		0.0	0.0	0.0	0.0
Average		0.0	0.0	0.1	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/3/2019 09:43:26	0.0	---	
002	6/3/2019 09:44:26	0.0	---	
003	6/3/2019 09:45:26	0.0	---	
004	6/3/2019 09:46:26	0.0	---	
005	6/3/2019 09:47:26	0.0	---	
006	6/3/2019 09:48:26	0.0	---	
007	6/3/2019 09:49:26	0.0	---	
008	6/3/2019 09:50:26	0.0	---	
009	6/3/2019 09:51:26	0.0	---	
010	6/3/2019 09:52:26	0.0	---	
011	6/3/2019 09:53:26	0.0	---	
012	6/3/2019 09:54:26	0.0	---	
013	6/3/2019 09:55:26	0.0	---	
014	6/3/2019 09:56:26	0.0	---	
015	6/3/2019 09:57:26	0.0	0.0	
016	6/3/2019 09:58:26	0.0	0.0	
017	6/3/2019 09:59:26	0.0	0.0	
018	6/3/2019 10:00:26	0.0	0.0	
019	6/3/2019 10:01:26	0.0	0.0	
020	6/3/2019 10:02:26	0.0	0.0	
021	6/3/2019 10:03:26	0.0	0.0	

022	6/3/2019 10:04:26	0.0	0.0
023	6/3/2019 10:05:26	0.0	0.0
024	6/3/2019 10:06:26	0.0	0.0
025	6/3/2019 10:07:26	0.0	0.0
026	6/3/2019 10:08:26	0.0	0.0
027	6/3/2019 10:09:26	0.0	0.0
028	6/3/2019 10:10:26	0.0	0.0
029	6/3/2019 10:11:26	0.0	0.0
030	6/3/2019 10:12:26	0.0	0.0
031	6/3/2019 10:13:26	0.0	0.0
032	6/3/2019 10:14:26	0.0	0.0
033	6/3/2019 10:15:26	0.0	0.0
034	6/3/2019 10:16:26	0.0	0.0
035	6/3/2019 10:17:26	0.0	0.0
036	6/3/2019 10:18:26	0.0	0.0
037	6/3/2019 10:19:26	0.0	0.0
038	6/3/2019 10:20:26	0.0	0.0
039	6/3/2019 10:21:26	0.0	0.0
040	6/3/2019 10:22:26	0.0	0.0
041	6/3/2019 10:23:26	0.0	0.0
042	6/3/2019 10:24:26	0.0	0.0
043	6/3/2019 10:25:26	0.0	0.0
044	6/3/2019 10:26:26	0.0	0.0
045	6/3/2019 10:27:26	0.0	0.0
046	6/3/2019 10:28:26	0.0	0.0
047	6/3/2019 10:29:26	0.0	0.0
048	6/3/2019 10:30:26	0.0	0.1
049	6/3/2019 10:31:26	0.0	0.1
050	6/3/2019 10:32:26	0.0	0.1
051	6/3/2019 10:33:26	0.0	0.1
052	6/3/2019 10:34:26	0.0	0.1

053	6/3/2019 10:35:26	0.0	0.1
054	6/3/2019 10:36:26	0.0	0.1
055	6/3/2019 10:37:26	0.0	0.1
056	6/3/2019 10:38:26	0.0	0.1
057	6/3/2019 10:39:26	0.0	0.1
058	6/3/2019 10:40:26	0.0	0.1
059	6/3/2019 10:41:26	0.0	0.1
060	6/3/2019 10:42:26	0.0	0.1
061	6/3/2019 10:43:26	0.0	0.1
062	6/3/2019 10:44:26	0.0	0.1
063	6/3/2019 10:45:26	0.0	0.1
064	6/3/2019 10:46:26	0.0	0.1
065	6/3/2019 10:47:26	0.0	0.1
066	6/3/2019 10:48:26	0.0	0.1
067	6/3/2019 10:49:26	0.0	0.1
068	6/3/2019 10:50:26	0.0	0.1
069	6/3/2019 10:51:26	0.0	0.1
070	6/3/2019 10:52:26	0.0	0.1
071	6/3/2019 10:53:26	0.0	0.1
072	6/3/2019 10:54:26	0.0	0.1
073	6/3/2019 10:55:26	0.0	0.1
074	6/3/2019 10:56:26	0.0	0.1
075	6/3/2019 10:57:26	0.0	0.1
076	6/3/2019 10:58:26	0.0	0.1
077	6/3/2019 10:59:26	0.0	0.1
078	6/3/2019 11:00:26	0.0	0.1
079	6/3/2019 11:01:26	0.0	0.1
080	6/3/2019 11:02:26	0.0	0.1
081	6/3/2019 11:03:26	0.0	0.1
082	6/3/2019 11:04:26	0.0	0.1
083	6/3/2019 11:05:26	0.0	0.1

084	6/3/2019 11:06:26	0.0	0.1
085	6/3/2019 11:07:26	0.0	0.1
086	6/3/2019 11:08:26	0.0	0.1
087	6/3/2019 11:09:26	0.0	0.1
088	6/3/2019 11:10:26	0.0	0.1
089	6/3/2019 11:11:26	0.0	0.1
090	6/3/2019 11:12:26	0.0	0.1
091	6/3/2019 11:13:26	0.0	0.1
092	6/3/2019 11:14:26	0.0	0.1
093	6/3/2019 11:15:26	0.0	0.1
094	6/3/2019 11:16:26	0.0	0.1
095	6/3/2019 11:17:26	0.0	0.1
096	6/3/2019 11:18:26	0.0	0.1
097	6/3/2019 11:19:26	0.0	0.1
098	6/3/2019 11:20:26	0.0	0.1
099	6/3/2019 11:21:26	0.0	0.1
100	6/3/2019 11:22:26	0.0	0.1
101	6/3/2019 11:23:26	0.0	0.1
102	6/3/2019 11:24:26	0.0	0.1
103	6/3/2019 11:25:26	0.0	0.1
104	6/3/2019 11:26:26	0.0	0.1
105	6/3/2019 11:27:26	0.0	0.1
106	6/3/2019 11:28:26	0.0	0.1
107	6/3/2019 11:29:26	0.0	0.1
108	6/3/2019 11:30:26	0.0	0.1
109	6/3/2019 11:31:26	0.0	0.1
110	6/3/2019 11:32:26	0.0	0.1
111	6/3/2019 11:33:26	0.0	0.1
112	6/3/2019 11:34:26	0.0	0.1
113	6/3/2019 11:35:26	0.0	0.1
114	6/3/2019 11:36:26	0.0	0.1

115	6/3/2019 11:37:26	0.0	0.1
116	6/3/2019 11:38:26	0.0	0.1
117	6/3/2019 11:39:26	0.0	0.1
118	6/3/2019 11:40:26	0.0	0.1
119	6/3/2019 11:41:26	0.0	0.1
120	6/3/2019 11:42:26	0.0	0.1
121	6/3/2019 11:43:26	0.0	0.1
122	6/3/2019 11:44:26	0.0	0.1
123	6/3/2019 11:45:26	0.0	0.1
124	6/3/2019 11:46:26	0.0	0.1
125	6/3/2019 11:47:26	0.0	0.1
126	6/3/2019 11:48:26	0.0	0.1
127	6/3/2019 11:49:26	0.0	0.1
128	6/3/2019 11:50:26	0.0	0.1
129	6/3/2019 11:51:26	0.0	0.1
130	6/3/2019 11:52:26	0.0	0.1
131	6/3/2019 11:53:26	0.0	0.1
132	6/3/2019 11:54:26	0.0	0.1
133	6/3/2019 11:55:26	0.0	0.1
134	6/3/2019 11:56:26	0.0	0.1
135	6/3/2019 11:57:26	0.0	0.1
136	6/3/2019 11:58:26	0.0	0.1
137	6/3/2019 11:59:26	0.0	0.1
138	6/3/2019 12:00:26	0.0	0.1
139	6/3/2019 12:01:26	0.0	0.1
140	6/3/2019 12:02:26	0.0	0.1
141	6/3/2019 12:03:26	0.0	0.1
142	6/3/2019 12:04:26	0.0	0.1
143	6/3/2019 12:05:26	0.0	0.1
144	6/3/2019 12:06:26	0.0	0.1
145	6/3/2019 12:07:26	0.0	0.1

146	6/3/2019 12:08:26	0.0	0.1
147	6/3/2019 12:09:26	0.0	0.1
148	6/3/2019 12:10:26	0.0	0.1
149	6/3/2019 12:11:26	0.0	0.1
150	6/3/2019 12:12:26	0.0	0.1
151	6/3/2019 12:13:26	0.0	0.1
152	6/3/2019 12:14:26	0.0	0.1
153	6/3/2019 12:15:26	0.0	0.1
154	6/3/2019 12:16:26	0.0	0.1
155	6/3/2019 12:17:26	0.0	0.1
156	6/3/2019 12:18:26	0.0	0.1
157	6/3/2019 12:19:26	0.0	0.1
158	6/3/2019 12:20:26	0.0	0.1
159	6/3/2019 12:21:26	0.0	0.1
160	6/3/2019 12:22:26	0.0	0.1
161	6/3/2019 12:23:26	0.0	0.1
162	6/3/2019 12:24:26	0.0	0.1
163	6/3/2019 12:25:26	0.0	0.1
164	6/3/2019 12:26:26	0.0	0.1
165	6/3/2019 12:27:26	0.0	0.1
166	6/3/2019 12:28:26	0.0	0.1
167	6/3/2019 12:29:26	0.0	0.1
168	6/3/2019 12:30:26	0.0	0.0
169	6/3/2019 12:31:26	0.0	0.0
170	6/3/2019 12:32:26	0.0	0.0
171	6/3/2019 12:33:26	0.0	0.0
172	6/3/2019 12:34:26	0.0	0.0
173	6/3/2019 12:35:26	0.0	0.0
174	6/3/2019 12:36:26	0.0	0.0
175	6/3/2019 12:37:26	0.0	0.0
176	6/3/2019 12:38:26	0.0	0.0

177	6/3/2019 12:39:26	0.0	0.0
178	6/3/2019 12:40:26	0.0	0.0
179	6/3/2019 12:41:26	0.0	0.0
180	6/3/2019 12:42:26	0.0	0.0
181	6/3/2019 12:43:26	0.0	0.0
182	6/3/2019 12:44:26	0.0	0.0
183	6/3/2019 12:45:26	0.0	0.0
184	6/3/2019 12:46:26	0.0	0.0
185	6/3/2019 12:47:26	0.0	0.0
186	6/3/2019 12:48:26	0.0	0.0
187	6/3/2019 12:49:26	0.0	0.0
188	6/3/2019 12:50:26	0.0	0.0
189	6/3/2019 12:51:26	0.0	0.0
190	6/3/2019 12:52:26	0.0	0.0
191	6/3/2019 12:53:26	0.0	0.0
192	6/3/2019 12:54:26	0.0	0.0
193	6/3/2019 12:55:26	0.0	0.0
194	6/3/2019 12:56:26	0.0	0.0
195	6/3/2019 12:57:26	0.0	0.0
196	6/3/2019 12:58:26	0.0	0.0
197	6/3/2019 12:59:26	0.0	0.0
198	6/3/2019 13:00:26	0.0	0.0
199	6/3/2019 13:01:26	0.0	0.0
200	6/3/2019 13:02:26	0.0	0.0
201	6/3/2019 13:03:26	0.0	0.0
202	6/3/2019 13:04:26	0.0	0.0
203	6/3/2019 13:05:26	0.0	0.0
204	6/3/2019 13:06:26	0.0	0.0
205	6/3/2019 13:07:26	0.0	0.0
206	6/3/2019 13:08:26	0.0	0.0
207	6/3/2019 13:09:26	0.0	0.0

208	6/3/2019 13:10:26	0.0	0.0
209	6/3/2019 13:11:26	0.0	0.0
210	6/3/2019 13:12:26	0.0	0.0
211	6/3/2019 13:13:26	0.0	0.0
212	6/3/2019 13:14:26	0.0	0.0
213	6/3/2019 13:15:26	0.0	0.0
214	6/3/2019 13:16:26	0.0	0.0
215	6/3/2019 13:17:26	0.0	0.0
216	6/3/2019 13:18:26	0.0	0.0
217	6/3/2019 13:19:26	0.0	0.0
218	6/3/2019 13:20:26	0.0	0.0
219	6/3/2019 13:21:26	0.0	0.0
220	6/3/2019 13:22:26	0.0	0.0
221	6/3/2019 13:23:26	0.0	0.0
222	6/3/2019 13:24:26	0.0	0.0
223	6/3/2019 13:25:26	0.0	0.0
224	6/3/2019 13:26:26	0.0	0.0
225	6/3/2019 13:27:26	0.0	0.0
226	6/3/2019 13:28:26	0.0	0.0
227	6/3/2019 13:29:26	0.0	0.0
228	6/3/2019 13:30:26	0.0	0.0
229	6/3/2019 13:31:26	0.0	0.0
230	6/3/2019 13:32:26	0.0	0.0
231	6/3/2019 13:33:26	0.0	0.0
232	6/3/2019 13:34:26	0.0	0.0
233	6/3/2019 13:35:26	0.0	0.0
234	6/3/2019 13:36:26	0.0	0.0
235	6/3/2019 13:37:26	0.0	0.0
236	6/3/2019 13:38:26	0.0	0.0
237	6/3/2019 13:39:26	0.0	0.0
238	6/3/2019 13:40:26	0.0	0.0

239	6/3/2019 13:41:26	0.0	0.0
240	6/3/2019 13:42:26	0.0	0.0
241	6/3/2019 13:43:26	0.0	0.0
242	6/3/2019 13:44:26	0.0	0.0
243	6/3/2019 13:45:26	0.0	0.0
244	6/3/2019 13:46:26	0.0	0.0
245	6/3/2019 13:47:26	0.0	0.0
246	6/3/2019 13:48:26	0.0	0.0
247	6/3/2019 13:49:26	0.0	0.0
248	6/3/2019 13:50:26	0.0	0.0
249	6/3/2019 13:51:26	0.0	0.0
250	6/3/2019 13:52:26	0.0	0.0
251	6/3/2019 13:53:26	0.0	0.0
252	6/3/2019 13:54:26	0.0	0.0
253	6/3/2019 13:55:26	0.0	0.0
254	6/3/2019 13:56:26	0.0	0.0
255	6/3/2019 13:57:26	0.0	0.0
256	6/3/2019 13:58:26	0.0	0.0
257	6/3/2019 13:59:26	0.0	0.0
258	6/3/2019 14:00:26	0.0	0.0
259	6/3/2019 14:01:26	0.0	0.0
260	6/3/2019 14:02:26	0.0	0.0
261	6/3/2019 14:03:26	0.0	0.0
262	6/3/2019 14:04:26	0.0	0.0
263	6/3/2019 14:05:26	0.0	0.0
264	6/3/2019 14:06:26	0.0	0.0
265	6/3/2019 14:07:26	0.0	0.0
266	6/3/2019 14:08:26	0.0	0.0
267	6/3/2019 14:09:26	0.0	0.0
268	6/3/2019 14:10:26	0.0	0.0
269	6/3/2019 14:11:26	0.0	0.0

270	6/3/2019 14:12:26	0.0	0.0
271	6/3/2019 14:13:26	0.0	0.0
272	6/3/2019 14:14:26	0.0	0.0
273	6/3/2019 14:15:26	0.0	0.0
274	6/3/2019 14:16:26	0.0	0.0
275	6/3/2019 14:17:26	0.0	0.0
276	6/3/2019 14:18:26	0.0	0.0
277	6/3/2019 14:19:26	0.0	0.0
278	6/3/2019 14:20:26	0.0	0.0
279	6/3/2019 14:21:26	0.0	0.0
280	6/3/2019 14:22:26	0.0	0.0
281	6/3/2019 14:23:26	0.0	0.0
282	6/3/2019 14:24:26	0.0	0.0
283	6/3/2019 14:25:26	0.0	0.0
284	6/3/2019 14:26:26	0.0	0.0
285	6/3/2019 14:27:26	0.0	0.0
286	6/3/2019 14:28:26	0.0	0.0
287	6/3/2019 14:29:26	0.0	0.0
288	6/3/2019 14:30:26	0.0	0.0
289	6/3/2019 14:31:26	0.0	0.0
290	6/3/2019 14:32:26	0.0	0.0
291	6/3/2019 14:33:26	0.0	0.0
292	6/3/2019 14:34:26	0.0	0.0
293	6/3/2019 14:35:26	0.0	0.0
294	6/3/2019 14:36:26	0.0	0.0
295	6/3/2019 14:37:26	0.0	0.0
296	6/3/2019 14:38:26	0.0	0.0
297	6/3/2019 14:39:26	0.0	0.0
298	6/3/2019 14:40:26	0.0	0.0

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19/06/05 08:31
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Summary

Unit Name	MiniRAE 3000(PGM-7320)
Unit SN	592-904392
Unit Firmware Ver	V2.16

Running Mode	Hygiene Mode
Datalog Mode	Manual
Diagnostic Mode	No
Stop Reason	Battery Low

Site ID	RAE00002
User ID	00000001

Begin	6/5/2019 08:31:01
End	6/5/2019 22:18:44
Sample Period(s)	60
Number of Records	827

Sensor	PID(ppm)
Sensor SN	S023030001MA
Measure Type	Min; Avg; Max; Real
Span	100.0
Span 2	1000.0
Low Alarm	10050.0
High Alarm	10100.0
Over Alarm	15000.0
STEL Alarm	100.0
TWA Alarm	50.0

Measurement Gas Isobutylene
Calibration Time 5/15/2019 16:29
Peak 0.2
Min 0.0
Average 0.0

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Datalog

Index	Date/Time	PID(ppm) (Min)	PID(ppm) (Avg)	PID(ppm) (Max)	PID(ppm) (Real)	
001	6/5/2019 08:32:01	0.0	0.0	0.0	0.0	
002	6/5/2019 08:33:01	0.0	0.0	0.0	0.0	
003	6/5/2019 08:34:01	0.0	0.0	0.0	0.0	
004	6/5/2019 08:35:01	0.0	0.0	0.0	0.0	
005	6/5/2019 08:36:01	0.0	0.0	0.0	0.0	
006	6/5/2019 08:37:01	0.0	0.0	0.0	0.0	
007	6/5/2019 08:38:01	0.0	0.0	0.0	0.0	
008	6/5/2019 08:39:01	0.0	0.0	0.0	0.0	
009	6/5/2019 08:40:01	0.0	0.0	0.0	0.0	
010	6/5/2019 08:41:01	0.0	0.0	0.0	0.0	
011	6/5/2019 08:42:01	0.0	0.0	0.0	0.0	
012	6/5/2019 08:43:01	0.0	0.0	0.0	0.0	
013	6/5/2019 08:44:01	0.0	0.0	0.0	0.0	
014	6/5/2019 08:45:01	0.0	0.0	0.0	0.0	
015	6/5/2019 08:46:01	0.0	0.0	0.0	0.0	
016	6/5/2019 08:47:01	0.0	0.0	0.0	0.0	
017	6/5/2019 08:48:01	0.0	0.0	0.0	0.0	
018	6/5/2019 08:49:01	0.0	0.0	0.0	0.0	
019	6/5/2019 08:50:01	0.0	0.0	0.0	0.0	
020	6/5/2019 08:51:01	0.0	0.0	0.0	0.0	
021	6/5/2019 08:52:01	0.0	0.0	0.0	0.0	

022	6/5/2019 08:53:01	0.0	0.0	0.0	0.0
023	6/5/2019 08:54:01	0.0	0.0	0.0	0.0
024	6/5/2019 08:55:01	0.0	0.0	0.0	0.0
025	6/5/2019 08:56:01	0.0	0.0	0.0	0.0
026	6/5/2019 08:57:01	0.0	0.0	0.0	0.0
027	6/5/2019 08:58:01	0.0	0.0	0.0	0.0
028	6/5/2019 08:59:01	0.0	0.0	0.0	0.0
029	6/5/2019 09:00:01	0.0	0.0	0.0	0.0
030	6/5/2019 09:01:01	0.0	0.0	0.0	0.0
031	6/5/2019 09:02:01	0.0	0.0	0.0	0.0
032	6/5/2019 09:03:01	0.0	0.0	0.0	0.0
033	6/5/2019 09:04:01	0.0	0.0	0.0	0.0
034	6/5/2019 09:05:01	0.0	0.0	0.0	0.0
035	6/5/2019 09:06:01	0.0	0.0	0.0	0.0
036	6/5/2019 09:07:01	0.0	0.0	0.0	0.0
037	6/5/2019 09:08:01	0.0	0.0	0.0	0.0
038	6/5/2019 09:09:01	0.0	0.0	0.0	0.0
039	6/5/2019 09:10:01	0.0	0.0	0.0	0.0
040	6/5/2019 09:11:01	0.0	0.0	0.0	0.0
041	6/5/2019 09:12:01	0.0	0.0	0.0	0.0
042	6/5/2019 09:13:01	0.0	0.0	0.0	0.0
043	6/5/2019 09:14:01	0.0	0.0	0.0	0.0
044	6/5/2019 09:15:01	0.0	0.0	0.0	0.0
045	6/5/2019 09:16:01	0.0	0.0	0.0	0.0
046	6/5/2019 09:17:01	0.0	0.0	0.0	0.0
047	6/5/2019 09:18:01	0.0	0.0	0.0	0.0
048	6/5/2019 09:19:01	0.0	0.0	0.0	0.0
049	6/5/2019 09:20:01	0.0	0.0	0.0	0.0
050	6/5/2019 09:21:01	0.0	0.0	0.0	0.0
051	6/5/2019 09:22:01	0.0	0.0	0.0	0.0
052	6/5/2019 09:23:01	0.0	0.0	0.0	0.0

053	6/5/2019 09:24:01	0.0	0.0	0.0	0.0
054	6/5/2019 09:25:01	0.0	0.0	0.0	0.0
055	6/5/2019 09:26:01	0.0	0.0	0.0	0.0
056	6/5/2019 09:27:01	0.0	0.0	0.0	0.0
057	6/5/2019 09:28:01	0.0	0.0	0.0	0.0
058	6/5/2019 09:29:01	0.0	0.0	0.0	0.0
059	6/5/2019 09:30:01	0.0	0.0	0.0	0.0
060	6/5/2019 09:31:01	0.0	0.0	0.0	0.0
061	6/5/2019 09:32:01	0.0	0.0	0.0	0.0
062	6/5/2019 09:33:01	0.0	0.0	0.0	0.0
063	6/5/2019 09:34:01	0.0	0.0	0.0	0.0
064	6/5/2019 09:35:01	0.0	0.0	0.0	0.0
065	6/5/2019 09:36:01	0.0	0.0	0.0	0.0
066	6/5/2019 09:37:01	0.0	0.0	0.0	0.0
067	6/5/2019 09:38:01	0.0	0.0	0.0	0.0
068	6/5/2019 09:39:01	0.0	0.0	0.0	0.0
069	6/5/2019 09:40:01	0.0	0.0	0.0	0.0
070	6/5/2019 09:41:01	0.0	0.0	0.0	0.0
071	6/5/2019 09:42:01	0.0	0.0	0.0	0.0
072	6/5/2019 09:43:01	0.0	0.0	0.0	0.0
073	6/5/2019 09:44:01	0.0	0.0	0.0	0.0
074	6/5/2019 09:45:01	0.0	0.0	0.0	0.0
075	6/5/2019 09:46:01	0.0	0.0	0.0	0.0
076	6/5/2019 09:47:01	0.0	0.0	0.0	0.0
077	6/5/2019 09:48:01	0.0	0.0	0.0	0.0
078	6/5/2019 09:49:01	0.0	0.0	0.0	0.0
079	6/5/2019 09:50:01	0.0	0.0	0.0	0.0
080	6/5/2019 09:51:01	0.0	0.0	0.0	0.0
081	6/5/2019 09:52:01	0.0	0.0	0.0	0.0
082	6/5/2019 09:53:01	0.0	0.0	0.0	0.0
083	6/5/2019 09:54:01	0.0	0.0	0.0	0.0

084	6/5/2019 09:55:01	0.0	0.0	0.0	0.0
085	6/5/2019 09:56:01	0.0	0.0	0.0	0.0
086	6/5/2019 09:57:01	0.0	0.0	0.0	0.0
087	6/5/2019 09:58:01	0.0	0.0	0.0	0.0
088	6/5/2019 09:59:01	0.0	0.0	0.0	0.0
089	6/5/2019 10:00:01	0.0	0.0	0.0	0.0
090	6/5/2019 10:01:01	0.0	0.0	0.0	0.0
091	6/5/2019 10:02:01	0.0	0.0	0.0	0.0
092	6/5/2019 10:03:01	0.0	0.0	0.0	0.0
093	6/5/2019 10:04:01	0.0	0.0	0.0	0.0
094	6/5/2019 10:05:01	0.0	0.0	0.0	0.0
095	6/5/2019 10:06:01	0.0	0.0	0.0	0.0
096	6/5/2019 10:07:01	0.0	0.0	0.0	0.0
097	6/5/2019 10:08:01	0.0	0.0	0.0	0.0
098	6/5/2019 10:09:01	0.0	0.0	0.0	0.0
099	6/5/2019 10:10:01	0.0	0.0	0.0	0.0
100	6/5/2019 10:11:01	0.0	0.0	0.0	0.0
101	6/5/2019 10:12:01	0.0	0.0	0.0	0.0
102	6/5/2019 10:13:01	0.0	0.0	0.0	0.0
103	6/5/2019 10:14:01	0.0	0.0	0.0	0.0
104	6/5/2019 10:15:01	0.0	0.0	0.0	0.0
105	6/5/2019 10:16:01	0.0	0.0	0.0	0.0
106	6/5/2019 10:17:01	0.0	0.0	0.0	0.0
107	6/5/2019 10:18:01	0.0	0.0	0.0	0.0
108	6/5/2019 10:19:01	0.0	0.0	0.0	0.0
109	6/5/2019 10:20:01	0.0	0.0	0.0	0.0
110	6/5/2019 10:21:01	0.0	0.0	0.0	0.0
111	6/5/2019 10:22:01	0.0	0.0	0.0	0.0
112	6/5/2019 10:23:01	0.0	0.0	0.0	0.0
113	6/5/2019 10:24:01	0.0	0.0	0.0	0.0
114	6/5/2019 10:25:01	0.0	0.0	0.0	0.0

115	6/5/2019 10:26:01	0.0	0.0	0.0	0.0
116	6/5/2019 10:27:01	0.0	0.0	0.0	0.0
117	6/5/2019 10:28:01	0.0	0.0	0.0	0.0
118	6/5/2019 10:29:01	0.0	0.0	0.0	0.0
119	6/5/2019 10:30:01	0.0	0.0	0.0	0.0
120	6/5/2019 10:31:01	0.0	0.0	0.0	0.0
121	6/5/2019 10:32:01	0.0	0.0	0.0	0.0
122	6/5/2019 10:33:01	0.0	0.0	0.0	0.0
123	6/5/2019 10:34:01	0.0	0.0	0.0	0.0
124	6/5/2019 10:35:01	0.0	0.0	0.0	0.0
125	6/5/2019 10:36:01	0.0	0.0	0.0	0.0
126	6/5/2019 10:37:01	0.0	0.0	0.0	0.0
127	6/5/2019 10:38:01	0.0	0.0	0.0	0.0
128	6/5/2019 10:39:01	0.0	0.0	0.0	0.0
129	6/5/2019 10:40:01	0.0	0.0	0.0	0.0
130	6/5/2019 10:41:01	0.0	0.0	0.0	0.0
131	6/5/2019 10:42:01	0.0	0.0	0.0	0.0
132	6/5/2019 10:43:01	0.0	0.0	0.0	0.0
133	6/5/2019 10:44:01	0.0	0.0	0.0	0.0
134	6/5/2019 10:45:01	0.0	0.0	0.0	0.0
135	6/5/2019 10:46:01	0.0	0.0	0.0	0.0
136	6/5/2019 10:47:01	0.0	0.0	0.0	0.0
137	6/5/2019 10:48:01	0.0	0.0	0.0	0.0
138	6/5/2019 10:49:01	0.0	0.0	0.0	0.0
139	6/5/2019 10:50:01	0.0	0.0	0.0	0.0
140	6/5/2019 10:51:01	0.0	0.0	0.0	0.0
141	6/5/2019 10:52:01	0.0	0.0	0.0	0.0
142	6/5/2019 10:53:01	0.0	0.0	0.0	0.0
143	6/5/2019 10:54:01	0.0	0.0	0.0	0.0
144	6/5/2019 10:55:01	0.0	0.0	0.0	0.0
145	6/5/2019 10:56:01	0.0	0.0	0.0	0.0

146	6/5/2019 10:57:01	0.0	0.0	0.0	0.0
147	6/5/2019 10:58:01	0.0	0.0	0.0	0.0
148	6/5/2019 10:59:01	0.0	0.0	0.0	0.0
149	6/5/2019 11:00:01	0.0	0.0	0.0	0.0
150	6/5/2019 11:01:01	0.0	0.0	0.0	0.0
151	6/5/2019 11:02:01	0.0	0.0	0.0	0.0
152	6/5/2019 11:03:01	0.0	0.0	0.0	0.0
153	6/5/2019 11:04:01	0.0	0.0	0.0	0.0
154	6/5/2019 11:05:01	0.0	0.0	0.0	0.0
155	6/5/2019 11:06:01	0.0	0.0	0.1	0.0
156	6/5/2019 11:07:01	0.0	0.0	0.0	0.0
157	6/5/2019 11:08:01	0.0	0.0	0.0	0.0
158	6/5/2019 11:09:01	0.0	0.0	0.0	0.0
159	6/5/2019 11:10:01	0.0	0.0	0.0	0.0
160	6/5/2019 11:11:01	0.0	0.0	0.0	0.0
161	6/5/2019 11:12:01	0.0	0.0	0.0	0.0
162	6/5/2019 11:13:01	0.0	0.0	0.0	0.0
163	6/5/2019 11:14:01	0.0	0.0	0.0	0.0
164	6/5/2019 11:15:01	0.0	0.0	0.0	0.0
165	6/5/2019 11:16:01	0.0	0.0	0.0	0.0
166	6/5/2019 11:17:01	0.0	0.0	0.0	0.0
167	6/5/2019 11:18:01	0.0	0.0	0.0	0.0
168	6/5/2019 11:19:01	0.0	0.0	0.0	0.0
169	6/5/2019 11:20:01	0.0	0.0	0.0	0.0
170	6/5/2019 11:21:01	0.0	0.0	0.0	0.0
171	6/5/2019 11:22:01	0.0	0.0	0.0	0.0
172	6/5/2019 11:23:01	0.0	0.0	0.0	0.0
173	6/5/2019 11:24:01	0.0	0.0	0.0	0.0
174	6/5/2019 11:25:01	0.0	0.0	0.0	0.0
175	6/5/2019 11:26:01	0.0	0.0	0.0	0.0
176	6/5/2019 11:27:01	0.0	0.0	0.0	0.0

177	6/5/2019 11:28:01	0.0	0.0	0.0	0.0
178	6/5/2019 11:29:01	0.0	0.0	0.0	0.0
179	6/5/2019 11:30:01	0.0	0.0	0.0	0.0
180	6/5/2019 11:31:01	0.0	0.0	0.0	0.0
181	6/5/2019 11:32:01	0.0	0.0	0.0	0.0
182	6/5/2019 11:33:01	0.0	0.0	0.0	0.0
183	6/5/2019 11:34:01	0.0	0.0	0.0	0.0
184	6/5/2019 11:35:01	0.0	0.0	0.0	0.0
185	6/5/2019 11:36:01	0.0	0.0	0.0	0.0
186	6/5/2019 11:37:01	0.0	0.0	0.0	0.0
187	6/5/2019 11:38:01	0.0	0.0	0.0	0.0
188	6/5/2019 11:39:01	0.0	0.0	0.0	0.0
189	6/5/2019 11:40:01	0.0	0.0	0.0	0.0
190	6/5/2019 11:41:01	0.0	0.0	0.0	0.0
191	6/5/2019 11:42:01	0.0	0.0	0.0	0.0
192	6/5/2019 11:43:01	0.0	0.0	0.0	0.0
193	6/5/2019 11:44:01	0.0	0.0	0.0	0.0
194	6/5/2019 11:45:01	0.0	0.0	0.0	0.0
195	6/5/2019 11:46:01	0.0	0.0	0.0	0.0
196	6/5/2019 11:47:01	0.0	0.0	0.0	0.0
197	6/5/2019 11:48:01	0.0	0.0	0.0	0.0
198	6/5/2019 11:49:01	0.0	0.0	0.0	0.0
199	6/5/2019 11:50:01	0.0	0.0	0.0	0.0
200	6/5/2019 11:51:01	0.0	0.0	0.0	0.0
201	6/5/2019 11:52:01	0.0	0.0	0.0	0.0
202	6/5/2019 11:53:01	0.0	0.0	0.0	0.0
203	6/5/2019 11:54:01	0.0	0.0	0.0	0.0
204	6/5/2019 11:55:01	0.0	0.0	0.0	0.0
205	6/5/2019 11:56:01	0.0	0.0	0.0	0.0
206	6/5/2019 11:57:01	0.0	0.0	0.0	0.0
207	6/5/2019 11:58:01	0.0	0.0	0.0	0.0

208	6/5/2019 11:59:01	0.0	0.0	0.0	0.0
209	6/5/2019 12:00:01	0.0	0.0	0.0	0.0
210	6/5/2019 12:01:01	0.0	0.0	0.0	0.0
211	6/5/2019 12:02:01	0.0	0.0	0.0	0.0
212	6/5/2019 12:03:01	0.0	0.0	0.0	0.0
213	6/5/2019 12:04:01	0.0	0.0	0.0	0.0
214	6/5/2019 12:05:01	0.0	0.0	0.0	0.0
215	6/5/2019 12:06:01	0.0	0.0	0.0	0.0
216	6/5/2019 12:07:01	0.0	0.0	0.0	0.0
217	6/5/2019 12:08:01	0.0	0.0	0.0	0.0
218	6/5/2019 12:09:01	0.0	0.0	0.0	0.0
219	6/5/2019 12:10:01	0.0	0.0	0.0	0.0
220	6/5/2019 12:11:01	0.0	0.0	0.0	0.0
221	6/5/2019 12:12:01	0.0	0.0	0.0	0.0
222	6/5/2019 12:13:01	0.0	0.0	0.0	0.0
223	6/5/2019 12:14:01	0.0	0.0	0.0	0.0
224	6/5/2019 12:15:01	0.0	0.0	0.0	0.0
225	6/5/2019 12:16:01	0.0	0.0	0.0	0.0
226	6/5/2019 12:17:01	0.0	0.0	0.1	0.0
227	6/5/2019 12:18:01	0.0	0.0	0.0	0.0
228	6/5/2019 12:19:01	0.0	0.0	0.0	0.0
229	6/5/2019 12:20:01	0.0	0.0	0.0	0.0
230	6/5/2019 12:21:01	0.0	0.0	0.0	0.0
231	6/5/2019 12:22:01	0.0	0.0	0.0	0.0
232	6/5/2019 12:23:01	0.0	0.0	0.0	0.0
233	6/5/2019 12:24:01	0.0	0.0	0.0	0.0
234	6/5/2019 12:25:01	0.0	0.0	0.0	0.0
235	6/5/2019 12:26:01	0.0	0.0	0.0	0.0
236	6/5/2019 12:27:01	0.0	0.0	0.0	0.0
237	6/5/2019 12:28:01	0.0	0.0	0.0	0.0
238	6/5/2019 12:29:01	0.0	0.0	0.0	0.0

239	6/5/2019 12:30:01	0.0	0.0	0.0	0.0
240	6/5/2019 12:31:01	0.0	0.0	0.0	0.0
241	6/5/2019 12:32:01	0.0	0.0	0.0	0.0
242	6/5/2019 12:33:01	0.0	0.0	0.0	0.0
243	6/5/2019 12:34:01	0.0	0.0	0.0	0.0
244	6/5/2019 12:35:01	0.0	0.0	0.0	0.0
245	6/5/2019 12:36:01	0.0	0.0	0.0	0.0
246	6/5/2019 12:37:01	0.0	0.0	0.0	0.0
247	6/5/2019 12:38:01	0.0	0.0	0.0	0.0
248	6/5/2019 12:39:01	0.0	0.0	0.0	0.0
249	6/5/2019 12:40:01	0.0	0.0	0.0	0.0
250	6/5/2019 12:41:01	0.0	0.0	0.0	0.0
251	6/5/2019 12:42:01	0.0	0.0	0.0	0.0
252	6/5/2019 12:43:01	0.0	0.0	0.0	0.0
253	6/5/2019 12:44:01	0.0	0.0	0.0	0.0
254	6/5/2019 12:45:01	0.0	0.0	0.0	0.0
255	6/5/2019 12:46:01	0.0	0.0	0.0	0.0
256	6/5/2019 12:47:01	0.0	0.0	0.0	0.0
257	6/5/2019 12:48:01	0.0	0.0	0.0	0.0
258	6/5/2019 12:49:01	0.0	0.0	0.0	0.0
259	6/5/2019 12:50:01	0.0	0.0	0.0	0.0
260	6/5/2019 12:51:01	0.0	0.0	0.0	0.0
261	6/5/2019 12:52:01	0.0	0.0	0.0	0.0
262	6/5/2019 12:53:01	0.0	0.0	0.0	0.0
263	6/5/2019 12:54:01	0.0	0.0	0.0	0.0
264	6/5/2019 12:55:01	0.0	0.0	0.0	0.0
265	6/5/2019 12:56:01	0.0	0.0	0.0	0.0
266	6/5/2019 12:57:01	0.0	0.0	0.0	0.0
267	6/5/2019 12:58:01	0.0	0.0	0.0	0.0
268	6/5/2019 12:59:01	0.0	0.0	0.0	0.0
269	6/5/2019 13:00:01	0.0	0.0	0.0	0.0

270	6/5/2019 13:01:01	0.0	0.0	0.0	0.0
271	6/5/2019 13:02:01	0.0	0.0	0.0	0.0
272	6/5/2019 13:03:01	0.0	0.0	0.2	0.2
273	6/5/2019 13:04:01	0.0	0.0	0.1	0.0
274	6/5/2019 13:05:01	0.0	0.0	0.0	0.0
275	6/5/2019 13:06:01	0.0	0.0	0.0	0.0
276	6/5/2019 13:07:01	0.0	0.0	0.0	0.0
277	6/5/2019 13:08:01	0.0	0.0	0.0	0.0
278	6/5/2019 13:09:01	0.0	0.0	0.0	0.0
279	6/5/2019 13:10:01	0.0	0.0	0.0	0.0
280	6/5/2019 13:11:01	0.0	0.0	0.0	0.0
281	6/5/2019 13:12:01	0.0	0.0	0.0	0.0
282	6/5/2019 13:13:01	0.0	0.0	0.0	0.0
283	6/5/2019 13:14:01	0.0	0.0	0.0	0.0
284	6/5/2019 13:15:01	0.0	0.0	0.0	0.0
285	6/5/2019 13:16:01	0.0	0.0	0.0	0.0
286	6/5/2019 13:17:01	0.0	0.0	0.0	0.0
287	6/5/2019 13:18:01	0.0	0.0	0.0	0.0
288	6/5/2019 13:19:01	0.0	0.0	0.0	0.0
289	6/5/2019 13:20:01	0.0	0.0	0.0	0.0
290	6/5/2019 13:21:01	0.0	0.0	0.0	0.0
291	6/5/2019 13:22:01	0.0	0.0	0.0	0.0
292	6/5/2019 13:23:01	0.0	0.0	0.0	0.0
293	6/5/2019 13:24:01	0.0	0.0	0.0	0.0
294	6/5/2019 13:25:01	0.0	0.0	0.0	0.0
295	6/5/2019 13:26:01	0.0	0.0	0.0	0.0
296	6/5/2019 13:27:01	0.0	0.0	0.0	0.0
297	6/5/2019 13:28:01	0.0	0.0	0.0	0.0
298	6/5/2019 13:29:01	0.0	0.0	0.0	0.0
299	6/5/2019 13:30:01	0.0	0.0	0.0	0.0
300	6/5/2019 13:31:01	0.0	0.0	0.0	0.0

301	6/5/2019 13:32:01	0.0	0.0	0.0	0.0
302	6/5/2019 13:33:01	0.0	0.0	0.0	0.0
303	6/5/2019 13:34:01	0.0	0.0	0.0	0.0
304	6/5/2019 13:35:01	0.0	0.0	0.0	0.0
305	6/5/2019 13:36:01	0.0	0.0	0.0	0.0
306	6/5/2019 13:37:01	0.0	0.0	0.0	0.0
307	6/5/2019 13:38:01	0.0	0.0	0.0	0.0
308	6/5/2019 13:39:01	0.0	0.0	0.0	0.0
309	6/5/2019 13:40:01	0.0	0.0	0.0	0.0
310	6/5/2019 13:41:01	0.0	0.0	0.0	0.0
311	6/5/2019 13:42:01	0.0	0.0	0.0	0.0
312	6/5/2019 13:43:01	0.0	0.0	0.0	0.0
313	6/5/2019 13:44:01	0.0	0.0	0.0	0.0
314	6/5/2019 13:45:01	0.0	0.0	0.0	0.0
315	6/5/2019 13:46:01	0.0	0.0	0.0	0.0
316	6/5/2019 13:47:01	0.0	0.0	0.0	0.0
317	6/5/2019 13:48:01	0.0	0.0	0.0	0.0
318	6/5/2019 13:49:01	0.0	0.0	0.0	0.0
319	6/5/2019 13:50:01	0.0	0.0	0.0	0.0
320	6/5/2019 13:51:01	0.0	0.0	0.0	0.0
321	6/5/2019 13:52:01	0.0	0.0	0.0	0.0
322	6/5/2019 13:53:01	0.0	0.0	0.0	0.0
323	6/5/2019 13:54:01	0.0	0.0	0.0	0.0
324	6/5/2019 13:55:01	0.0	0.0	0.0	0.0
325	6/5/2019 13:56:01	0.0	0.0	0.0	0.0
326	6/5/2019 13:57:01	0.0	0.0	0.0	0.0
327	6/5/2019 13:58:01	0.0	0.0	0.0	0.0
328	6/5/2019 13:59:01	0.0	0.0	0.0	0.0
329	6/5/2019 14:00:01	0.0	0.0	0.0	0.0
330	6/5/2019 14:01:01	0.0	0.0	0.0	0.0
331	6/5/2019 14:02:01	0.0	0.0	0.0	0.0

332	6/5/2019 14:03:01	0.0	0.0	0.0	0.0
333	6/5/2019 14:04:01	0.0	0.0	0.0	0.0
334	6/5/2019 14:05:01	0.0	0.0	0.0	0.0
335	6/5/2019 14:06:01	0.0	0.0	0.0	0.0
336	6/5/2019 14:07:01	0.0	0.0	0.0	0.0
337	6/5/2019 14:08:01	0.0	0.0	0.0	0.0
338	6/5/2019 14:09:01	0.0	0.0	0.0	0.0
339	6/5/2019 14:10:01	0.0	0.0	0.0	0.0
340	6/5/2019 14:11:01	0.0	0.0	0.0	0.0
341	6/5/2019 14:12:01	0.0	0.0	0.0	0.0
342	6/5/2019 14:13:01	0.0	0.0	0.0	0.0
343	6/5/2019 14:14:01	0.0	0.0	0.0	0.0
344	6/5/2019 14:15:01	0.0	0.0	0.0	0.0
345	6/5/2019 14:16:01	0.0	0.0	0.0	0.0
346	6/5/2019 14:17:01	0.0	0.0	0.0	0.0
347	6/5/2019 14:18:01	0.0	0.0	0.0	0.0
348	6/5/2019 14:19:01	0.0	0.0	0.0	0.0
349	6/5/2019 14:20:01	0.0	0.0	0.0	0.0
350	6/5/2019 14:21:01	0.0	0.0	0.0	0.0
351	6/5/2019 14:22:01	0.0	0.0	0.0	0.0
352	6/5/2019 14:23:01	0.0	0.0	0.0	0.0
353	6/5/2019 14:24:01	0.0	0.0	0.0	0.0
354	6/5/2019 14:25:01	0.0	0.0	0.0	0.0
355	6/5/2019 14:26:01	0.0	0.0	0.0	0.0
356	6/5/2019 14:27:01	0.0	0.0	0.0	0.0
357	6/5/2019 14:28:01	0.0	0.0	0.0	0.0
358	6/5/2019 14:29:01	0.0	0.0	0.0	0.0
359	6/5/2019 14:30:01	0.0	0.0	0.0	0.0
360	6/5/2019 14:31:01	0.0	0.0	0.0	0.0
361	6/5/2019 14:32:01	0.0	0.0	0.0	0.0
362	6/5/2019 14:33:01	0.0	0.0	0.0	0.0

363	6/5/2019 14:34:01	0.0	0.0	0.0	0.0
364	6/5/2019 14:35:01	0.0	0.0	0.0	0.0
365	6/5/2019 14:36:01	0.0	0.0	0.0	0.0
366	6/5/2019 14:37:01	0.0	0.0	0.0	0.0
367	6/5/2019 14:38:01	0.0	0.0	0.0	0.0
368	6/5/2019 14:39:01	0.0	0.0	0.0	0.0
369	6/5/2019 14:40:01	0.0	0.0	0.0	0.0
370	6/5/2019 14:41:01	0.0	0.0	0.0	0.0
371	6/5/2019 14:42:01	0.0	0.0	0.0	0.0
372	6/5/2019 14:43:01	0.0	0.0	0.0	0.0
373	6/5/2019 14:44:01	0.0	0.0	0.0	0.0
374	6/5/2019 14:45:01	0.0	0.0	0.0	0.0
375	6/5/2019 14:46:01	0.0	0.0	0.0	0.0
376	6/5/2019 14:47:01	0.0	0.0	0.0	0.0
377	6/5/2019 14:48:01	0.0	0.0	0.0	0.0
378	6/5/2019 14:49:01	0.0	0.0	0.0	0.0
379	6/5/2019 14:50:01	0.0	0.0	0.0	0.0
380	6/5/2019 14:51:01	0.0	0.0	0.0	0.0
381	6/5/2019 14:52:01	0.0	0.0	0.0	0.0
382	6/5/2019 14:53:01	0.0	0.0	0.0	0.0
383	6/5/2019 14:54:01	0.0	0.0	0.0	0.0
384	6/5/2019 14:55:01	0.0	0.0	0.0	0.0
385	6/5/2019 14:56:01	0.0	0.0	0.0	0.0
386	6/5/2019 14:57:01	0.0	0.0	0.0	0.0
387	6/5/2019 14:58:01	0.0	0.0	0.0	0.0
388	6/5/2019 14:59:01	0.0	0.0	0.0	0.0
389	6/5/2019 15:00:01	0.0	0.0	0.0	0.0
390	6/5/2019 15:01:01	0.0	0.0	0.0	0.0
391	6/5/2019 15:02:01	0.0	0.0	0.0	0.0
392	6/5/2019 15:03:01	0.0	0.0	0.0	0.0
393	6/5/2019 15:04:01	0.0	0.0	0.0	0.0

394	6/5/2019 15:05:01	0.0	0.0	0.0	0.0
395	6/5/2019 15:06:01	0.0	0.0	0.0	0.0
396	6/5/2019 15:07:01	0.0	0.0	0.0	0.0
397	6/5/2019 15:08:01	0.0	0.0	0.0	0.0
398	6/5/2019 15:09:01	0.0	0.0	0.0	0.0
399	6/5/2019 15:10:01	0.0	0.0	0.0	0.0
400	6/5/2019 15:11:01	0.0	0.0	0.0	0.0
401	6/5/2019 15:12:01	0.0	0.0	0.0	0.0
402	6/5/2019 15:13:01	0.0	0.0	0.0	0.0
403	6/5/2019 15:14:01	0.0	0.0	0.0	0.0
404	6/5/2019 15:15:01	0.0	0.0	0.0	0.0
405	6/5/2019 15:16:01	0.0	0.0	0.0	0.0
406	6/5/2019 15:17:01	0.0	0.0	0.0	0.0
407	6/5/2019 15:18:01	0.0	0.0	0.0	0.0
408	6/5/2019 15:19:01	0.0	0.0	0.0	0.0
409	6/5/2019 15:20:01	0.0	0.0	0.0	0.0
410	6/5/2019 15:21:01	0.0	0.0	0.0	0.0
411	6/5/2019 15:22:01	0.0	0.0	0.0	0.0
412	6/5/2019 15:23:01	0.0	0.0	0.0	0.0
413	6/5/2019 15:24:01	0.0	0.0	0.0	0.0
414	6/5/2019 15:25:01	0.0	0.0	0.0	0.0
415	6/5/2019 15:26:01	0.0	0.0	0.0	0.0
416	6/5/2019 15:27:01	0.0	0.0	0.0	0.0
417	6/5/2019 15:28:01	0.0	0.0	0.0	0.0
418	6/5/2019 15:29:01	0.0	0.0	0.0	0.0
419	6/5/2019 15:30:01	0.0	0.0	0.0	0.0
420	6/5/2019 15:31:01	0.0	0.0	0.0	0.0
421	6/5/2019 15:32:01	0.0	0.0	0.0	0.0
422	6/5/2019 15:33:01	0.0	0.0	0.0	0.0
423	6/5/2019 15:34:01	0.0	0.0	0.0	0.0
424	6/5/2019 15:35:01	0.0	0.0	0.0	0.0

425	6/5/2019 15:36:01	0.0	0.0	0.0	0.0
426	6/5/2019 15:37:01	0.0	0.0	0.0	0.0
427	6/5/2019 15:38:01	0.0	0.0	0.0	0.0
428	6/5/2019 15:39:01	0.0	0.0	0.0	0.0
429	6/5/2019 15:40:01	0.0	0.0	0.0	0.0
430	6/5/2019 15:41:01	0.0	0.0	0.0	0.0
431	6/5/2019 15:42:01	0.0	0.0	0.0	0.0
432	6/5/2019 15:43:01	0.0	0.0	0.0	0.0
433	6/5/2019 15:44:01	0.0	0.0	0.0	0.0
434	6/5/2019 15:45:01	0.0	0.0	0.0	0.0
435	6/5/2019 15:46:01	0.0	0.0	0.0	0.0
436	6/5/2019 15:47:01	0.0	0.0	0.0	0.0
437	6/5/2019 15:48:01	0.0	0.0	0.0	0.0
438	6/5/2019 15:49:01	0.0	0.0	0.0	0.0
439	6/5/2019 15:50:01	0.0	0.0	0.0	0.0
440	6/5/2019 15:51:01	0.0	0.0	0.0	0.0
441	6/5/2019 15:52:01	0.0	0.0	0.0	0.0
442	6/5/2019 15:53:01	0.0	0.0	0.0	0.0
443	6/5/2019 15:54:01	0.0	0.0	0.0	0.0
444	6/5/2019 15:55:01	0.0	0.0	0.0	0.0
445	6/5/2019 15:56:01	0.0	0.0	0.0	0.0
446	6/5/2019 15:57:01	0.0	0.0	0.0	0.0
447	6/5/2019 15:58:01	0.0	0.0	0.0	0.0
448	6/5/2019 15:59:01	0.0	0.0	0.0	0.0
449	6/5/2019 16:00:01	0.0	0.0	0.0	0.0
450	6/5/2019 16:01:01	0.0	0.0	0.0	0.0
451	6/5/2019 16:02:01	0.0	0.0	0.0	0.0
452	6/5/2019 16:03:01	0.0	0.0	0.0	0.0
453	6/5/2019 16:04:01	0.0	0.0	0.0	0.0
454	6/5/2019 16:05:01	0.0	0.0	0.0	0.0
455	6/5/2019 16:06:01	0.0	0.0	0.0	0.0

456	6/5/2019 16:07:01	0.0	0.0	0.0	0.0
457	6/5/2019 16:08:01	0.0	0.0	0.0	0.0
458	6/5/2019 16:09:01	0.0	0.0	0.0	0.0
459	6/5/2019 16:10:01	0.0	0.0	0.0	0.0
460	6/5/2019 16:11:01	0.0	0.0	0.0	0.0
461	6/5/2019 16:12:01	0.0	0.0	0.0	0.0
462	6/5/2019 16:13:01	0.0	0.0	0.0	0.0
463	6/5/2019 16:14:01	0.0	0.0	0.0	0.0
464	6/5/2019 16:15:01	0.0	0.0	0.0	0.0
465	6/5/2019 16:16:01	0.0	0.0	0.0	0.0
466	6/5/2019 16:17:01	0.0	0.0	0.0	0.0
467	6/5/2019 16:18:01	0.0	0.0	0.0	0.0
468	6/5/2019 16:19:01	0.0	0.0	0.0	0.0
469	6/5/2019 16:20:01	0.0	0.0	0.0	0.0
470	6/5/2019 16:21:01	0.0	0.0	0.0	0.0
471	6/5/2019 16:22:01	0.0	0.0	0.0	0.0
472	6/5/2019 16:23:01	0.0	0.0	0.0	0.0
473	6/5/2019 16:24:01	0.0	0.0	0.0	0.0
474	6/5/2019 16:25:01	0.0	0.0	0.0	0.0
475	6/5/2019 16:26:01	0.0	0.0	0.0	0.0
476	6/5/2019 16:27:01	0.0	0.0	0.0	0.0
477	6/5/2019 16:28:01	0.0	0.0	0.0	0.0
478	6/5/2019 16:29:01	0.0	0.0	0.0	0.0
479	6/5/2019 16:30:01	0.0	0.0	0.0	0.0
480	6/5/2019 16:31:01	0.0	0.0	0.0	0.0
481	6/5/2019 16:32:01	0.0	0.0	0.0	0.0
482	6/5/2019 16:33:01	0.0	0.0	0.0	0.0
483	6/5/2019 16:34:01	0.0	0.0	0.0	0.0
484	6/5/2019 16:35:01	0.0	0.0	0.0	0.0
485	6/5/2019 16:36:01	0.0	0.0	0.0	0.0
486	6/5/2019 16:37:01	0.0	0.0	0.0	0.0

487	6/5/2019 16:38:01	0.0	0.0	0.0	0.0
488	6/5/2019 16:39:01	0.0	0.0	0.0	0.0
489	6/5/2019 16:40:01	0.0	0.0	0.0	0.0
490	6/5/2019 16:41:01	0.0	0.0	0.0	0.0
491	6/5/2019 16:42:01	0.0	0.0	0.0	0.0
492	6/5/2019 16:43:01	0.0	0.0	0.0	0.0
493	6/5/2019 16:44:01	0.0	0.0	0.0	0.0
494	6/5/2019 16:45:01	0.0	0.0	0.0	0.0
495	6/5/2019 16:46:01	0.0	0.0	0.0	0.0
496	6/5/2019 16:47:01	0.0	0.0	0.0	0.0
497	6/5/2019 16:48:01	0.0	0.0	0.0	0.0
498	6/5/2019 16:49:01	0.0	0.0	0.0	0.0
499	6/5/2019 16:50:01	0.0	0.0	0.0	0.0
500	6/5/2019 16:51:01	0.0	0.0	0.0	0.0
501	6/5/2019 16:52:01	0.0	0.0	0.0	0.0
502	6/5/2019 16:53:01	0.0	0.0	0.0	0.0
503	6/5/2019 16:54:01	0.0	0.0	0.0	0.0
504	6/5/2019 16:55:01	0.0	0.0	0.0	0.0
505	6/5/2019 16:56:01	0.0	0.0	0.0	0.0
506	6/5/2019 16:57:01	0.0	0.0	0.0	0.0
507	6/5/2019 16:58:01	0.0	0.0	0.0	0.0
508	6/5/2019 16:59:01	0.0	0.0	0.0	0.0
509	6/5/2019 17:00:01	0.0	0.0	0.0	0.0
510	6/5/2019 17:01:01	0.0	0.0	0.0	0.0
511	6/5/2019 17:02:01	0.0	0.0	0.0	0.0
512	6/5/2019 17:03:01	0.0	0.0	0.0	0.0
513	6/5/2019 17:04:01	0.0	0.0	0.0	0.0
514	6/5/2019 17:05:01	0.0	0.0	0.0	0.0
515	6/5/2019 17:06:01	0.0	0.0	0.0	0.0
516	6/5/2019 17:07:01	0.0	0.0	0.0	0.0
517	6/5/2019 17:08:01	0.0	0.0	0.0	0.0

518	6/5/2019 17:09:01	0.0	0.0	0.0	0.0
519	6/5/2019 17:10:01	0.0	0.0	0.0	0.0
520	6/5/2019 17:11:01	0.0	0.0	0.0	0.0
521	6/5/2019 17:12:01	0.0	0.0	0.0	0.0
522	6/5/2019 17:13:01	0.0	0.0	0.0	0.0
523	6/5/2019 17:14:01	0.0	0.0	0.0	0.0
524	6/5/2019 17:15:01	0.0	0.0	0.0	0.0
525	6/5/2019 17:16:01	0.0	0.0	0.0	0.0
526	6/5/2019 17:17:01	0.0	0.0	0.0	0.0
527	6/5/2019 17:18:01	0.0	0.0	0.0	0.0
528	6/5/2019 17:19:01	0.0	0.0	0.0	0.0
529	6/5/2019 17:20:01	0.0	0.0	0.0	0.0
530	6/5/2019 17:21:01	0.0	0.0	0.0	0.0
531	6/5/2019 17:22:01	0.0	0.0	0.0	0.0
532	6/5/2019 17:23:01	0.0	0.0	0.0	0.0
533	6/5/2019 17:24:01	0.0	0.0	0.0	0.0
534	6/5/2019 17:25:01	0.0	0.0	0.0	0.0
535	6/5/2019 17:26:01	0.0	0.0	0.0	0.0
536	6/5/2019 17:27:01	0.0	0.0	0.0	0.0
537	6/5/2019 17:28:01	0.0	0.0	0.0	0.0
538	6/5/2019 17:29:01	0.0	0.0	0.0	0.0
539	6/5/2019 17:30:01	0.0	0.0	0.0	0.0
540	6/5/2019 17:31:01	0.0	0.0	0.0	0.0
541	6/5/2019 17:32:01	0.0	0.0	0.0	0.0
542	6/5/2019 17:33:01	0.0	0.0	0.0	0.0
543	6/5/2019 17:34:01	0.0	0.0	0.0	0.0
544	6/5/2019 17:35:01	0.0	0.0	0.0	0.0
545	6/5/2019 17:36:01	0.0	0.0	0.0	0.0
546	6/5/2019 17:37:01	0.0	0.0	0.0	0.0
547	6/5/2019 17:38:01	0.0	0.0	0.0	0.0
548	6/5/2019 17:39:01	0.0	0.0	0.0	0.0

549	6/5/2019 17:40:01	0.0	0.0	0.1	0.0
550	6/5/2019 17:41:01	0.0	0.0	0.0	0.0
551	6/5/2019 17:42:01	0.0	0.0	0.0	0.0
552	6/5/2019 17:43:01	0.0	0.0	0.0	0.0
553	6/5/2019 17:44:01	0.0	0.0	0.0	0.0
554	6/5/2019 17:45:01	0.0	0.0	0.0	0.0
555	6/5/2019 17:46:01	0.0	0.0	0.0	0.0
556	6/5/2019 17:47:01	0.0	0.0	0.0	0.0
557	6/5/2019 17:48:01	0.0	0.0	0.0	0.0
558	6/5/2019 17:49:01	0.0	0.0	0.0	0.0
559	6/5/2019 17:50:01	0.0	0.0	0.0	0.0
560	6/5/2019 17:51:01	0.0	0.0	0.0	0.0
561	6/5/2019 17:52:01	0.0	0.0	0.0	0.0
562	6/5/2019 17:53:01	0.0	0.0	0.0	0.0
563	6/5/2019 17:54:01	0.0	0.0	0.0	0.0
564	6/5/2019 17:55:01	0.0	0.0	0.0	0.0
565	6/5/2019 17:56:01	0.0	0.0	0.0	0.0
566	6/5/2019 17:57:01	0.0	0.0	0.0	0.0
567	6/5/2019 17:58:01	0.0	0.0	0.0	0.0
568	6/5/2019 17:59:01	0.0	0.0	0.0	0.0
569	6/5/2019 18:00:01	0.0	0.0	0.2	0.0
570	6/5/2019 18:01:01	0.0	0.0	0.0	0.0
571	6/5/2019 18:02:01	0.0	0.0	0.0	0.0
572	6/5/2019 18:03:01	0.0	0.0	0.0	0.0
573	6/5/2019 18:04:01	0.0	0.0	0.0	0.0
574	6/5/2019 18:05:01	0.0	0.0	0.0	0.0
575	6/5/2019 18:06:01	0.0	0.0	0.0	0.0
576	6/5/2019 18:07:01	0.0	0.0	0.0	0.0
577	6/5/2019 18:08:01	0.0	0.0	0.0	0.0
578	6/5/2019 18:09:01	0.0	0.0	0.0	0.0
579	6/5/2019 18:10:01	0.0	0.0	0.0	0.0

580	6/5/2019 18:11:01	0.0	0.0	0.0	0.0
581	6/5/2019 18:12:01	0.0	0.0	0.0	0.0
582	6/5/2019 18:13:01	0.0	0.0	0.0	0.0
583	6/5/2019 18:14:01	0.0	0.0	0.0	0.0
584	6/5/2019 18:15:01	0.0	0.0	0.0	0.0
585	6/5/2019 18:16:01	0.0	0.0	0.0	0.0
586	6/5/2019 18:17:01	0.0	0.0	0.0	0.0
587	6/5/2019 18:18:01	0.0	0.0	0.0	0.0
588	6/5/2019 18:19:01	0.0	0.0	0.0	0.0
589	6/5/2019 18:20:01	0.0	0.0	0.0	0.0
590	6/5/2019 18:21:01	0.0	0.0	0.0	0.0
591	6/5/2019 18:22:01	0.0	0.0	0.0	0.0
592	6/5/2019 18:23:01	0.0	0.0	0.0	0.0
593	6/5/2019 18:24:01	0.0	0.0	0.0	0.0
594	6/5/2019 18:25:01	0.0	0.0	0.0	0.0
595	6/5/2019 18:26:01	0.0	0.0	0.0	0.0
596	6/5/2019 18:27:01	0.0	0.0	0.0	0.0
597	6/5/2019 18:28:01	0.0	0.0	0.0	0.0
598	6/5/2019 18:29:01	0.0	0.0	0.0	0.0
599	6/5/2019 18:30:01	0.0	0.0	0.0	0.0
600	6/5/2019 18:31:01	0.0	0.0	0.0	0.0
601	6/5/2019 18:32:01	0.0	0.0	0.0	0.0
602	6/5/2019 18:33:01	0.0	0.0	0.0	0.0
603	6/5/2019 18:34:01	0.0	0.0	0.0	0.0
604	6/5/2019 18:35:01	0.0	0.0	0.0	0.0
605	6/5/2019 18:36:01	0.0	0.0	0.0	0.0
606	6/5/2019 18:37:01	0.0	0.0	0.0	0.0
607	6/5/2019 18:38:01	0.0	0.0	0.0	0.0
608	6/5/2019 18:39:01	0.0	0.0	0.0	0.0
609	6/5/2019 18:40:01	0.0	0.0	0.0	0.0
610	6/5/2019 18:41:01	0.0	0.0	0.0	0.0

611	6/5/2019 18:42:01	0.0	0.0	0.0	0.0
612	6/5/2019 18:43:01	0.0	0.0	0.0	0.0
613	6/5/2019 18:44:01	0.0	0.0	0.0	0.0
614	6/5/2019 18:45:01	0.0	0.0	0.0	0.0
615	6/5/2019 18:46:01	0.0	0.0	0.0	0.0
616	6/5/2019 18:47:01	0.0	0.0	0.0	0.0
617	6/5/2019 18:48:01	0.0	0.0	0.0	0.0
618	6/5/2019 18:49:01	0.0	0.0	0.0	0.0
619	6/5/2019 18:50:01	0.0	0.0	0.2	0.0
620	6/5/2019 18:51:01	0.0	0.0	0.0	0.0
621	6/5/2019 18:52:01	0.0	0.0	0.0	0.0
622	6/5/2019 18:53:01	0.0	0.0	0.0	0.0
623	6/5/2019 18:54:01	0.0	0.0	0.0	0.0
624	6/5/2019 18:55:01	0.0	0.0	0.0	0.0
625	6/5/2019 18:56:01	0.0	0.0	0.0	0.0
626	6/5/2019 18:57:01	0.0	0.0	0.0	0.0
627	6/5/2019 18:58:01	0.0	0.0	0.0	0.0
628	6/5/2019 18:59:01	0.0	0.0	0.0	0.0
629	6/5/2019 19:00:01	0.0	0.0	0.0	0.0
630	6/5/2019 19:01:01	0.0	0.0	0.0	0.0
631	6/5/2019 19:02:01	0.0	0.0	0.0	0.0
632	6/5/2019 19:03:01	0.0	0.0	0.0	0.0
633	6/5/2019 19:04:01	0.0	0.0	0.0	0.0
634	6/5/2019 19:05:01	0.0	0.0	0.0	0.0
635	6/5/2019 19:06:01	0.0	0.0	0.0	0.0
636	6/5/2019 19:07:01	0.0	0.0	0.0	0.0
637	6/5/2019 19:08:01	0.0	0.0	0.0	0.0
638	6/5/2019 19:09:01	0.0	0.0	0.0	0.0
639	6/5/2019 19:10:01	0.0	0.0	0.0	0.0
640	6/5/2019 19:11:01	0.0	0.0	0.0	0.0
641	6/5/2019 19:12:01	0.0	0.0	0.0	0.0

642	6/5/2019 19:13:01	0.0	0.0	0.0	0.0
643	6/5/2019 19:14:01	0.0	0.0	0.0	0.0
644	6/5/2019 19:15:01	0.0	0.0	0.0	0.0
645	6/5/2019 19:16:01	0.0	0.0	0.0	0.0
646	6/5/2019 19:17:01	0.0	0.0	0.0	0.0
647	6/5/2019 19:18:01	0.0	0.0	0.0	0.0
648	6/5/2019 19:19:01	0.0	0.0	0.0	0.0
649	6/5/2019 19:20:01	0.0	0.0	0.0	0.0
650	6/5/2019 19:21:01	0.0	0.0	0.0	0.0
651	6/5/2019 19:22:01	0.0	0.0	0.0	0.0
652	6/5/2019 19:23:01	0.0	0.0	0.0	0.0
653	6/5/2019 19:24:01	0.0	0.0	0.0	0.0
654	6/5/2019 19:25:01	0.0	0.0	0.0	0.0
655	6/5/2019 19:26:01	0.0	0.0	0.0	0.0
656	6/5/2019 19:27:01	0.0	0.0	0.0	0.0
657	6/5/2019 19:28:01	0.0	0.0	0.0	0.0
658	6/5/2019 19:29:01	0.0	0.0	0.0	0.0
659	6/5/2019 19:30:01	0.0	0.0	0.0	0.0
660	6/5/2019 19:31:01	0.0	0.0	0.0	0.0
661	6/5/2019 19:32:01	0.0	0.0	0.0	0.0
662	6/5/2019 19:33:01	0.0	0.0	0.0	0.0
663	6/5/2019 19:34:01	0.0	0.0	0.0	0.0
664	6/5/2019 19:35:01	0.0	0.0	0.0	0.0
665	6/5/2019 19:36:01	0.0	0.0	0.0	0.0
666	6/5/2019 19:37:01	0.0	0.0	0.0	0.0
667	6/5/2019 19:38:01	0.0	0.0	0.0	0.0
668	6/5/2019 19:39:01	0.0	0.0	0.0	0.0
669	6/5/2019 19:40:01	0.0	0.0	0.0	0.0
670	6/5/2019 19:41:01	0.0	0.0	0.0	0.0
671	6/5/2019 19:42:01	0.0	0.0	0.0	0.0
672	6/5/2019 19:43:01	0.0	0.0	0.0	0.0

673	6/5/2019 19:44:01	0.0	0.0	0.0	0.0
674	6/5/2019 19:45:01	0.0	0.0	0.0	0.0
675	6/5/2019 19:46:01	0.0	0.0	0.0	0.0
676	6/5/2019 19:47:01	0.0	0.0	0.0	0.0
677	6/5/2019 19:48:01	0.0	0.0	0.0	0.0
678	6/5/2019 19:49:01	0.0	0.0	0.0	0.0
679	6/5/2019 19:50:01	0.0	0.0	0.0	0.0
680	6/5/2019 19:51:01	0.0	0.0	0.0	0.0
681	6/5/2019 19:52:01	0.0	0.0	0.0	0.0
682	6/5/2019 19:53:01	0.0	0.0	0.0	0.0
683	6/5/2019 19:54:01	0.0	0.0	0.0	0.0
684	6/5/2019 19:55:01	0.0	0.0	0.0	0.0
685	6/5/2019 19:56:01	0.0	0.0	0.0	0.0
686	6/5/2019 19:57:01	0.0	0.0	0.0	0.0
687	6/5/2019 19:58:01	0.0	0.0	0.0	0.0
688	6/5/2019 19:59:01	0.0	0.0	0.0	0.0
689	6/5/2019 20:00:01	0.0	0.0	0.0	0.0
690	6/5/2019 20:01:01	0.0	0.0	0.0	0.0
691	6/5/2019 20:02:01	0.0	0.0	0.0	0.0
692	6/5/2019 20:03:01	0.0	0.0	0.0	0.0
693	6/5/2019 20:04:01	0.0	0.0	0.0	0.0
694	6/5/2019 20:05:01	0.0	0.0	0.0	0.0
695	6/5/2019 20:06:01	0.0	0.0	0.0	0.0
696	6/5/2019 20:07:01	0.0	0.0	0.0	0.0
697	6/5/2019 20:08:01	0.0	0.0	0.0	0.0
698	6/5/2019 20:09:01	0.0	0.0	0.0	0.0
699	6/5/2019 20:10:01	0.0	0.0	0.0	0.0
700	6/5/2019 20:11:01	0.0	0.0	0.0	0.0
701	6/5/2019 20:12:01	0.0	0.0	0.0	0.0
702	6/5/2019 20:13:01	0.0	0.0	0.0	0.0
703	6/5/2019 20:14:01	0.0	0.0	0.0	0.0

704	6/5/2019 20:15:01	0.0	0.0	0.0	0.0
705	6/5/2019 20:16:01	0.0	0.0	0.0	0.0
706	6/5/2019 20:17:01	0.0	0.0	0.0	0.0
707	6/5/2019 20:18:01	0.0	0.0	0.0	0.0
708	6/5/2019 20:19:01	0.0	0.0	0.0	0.0
709	6/5/2019 20:20:01	0.0	0.0	0.0	0.0
710	6/5/2019 20:21:01	0.0	0.0	0.0	0.0
711	6/5/2019 20:22:01	0.0	0.0	0.0	0.0
712	6/5/2019 20:23:01	0.0	0.0	0.0	0.0
713	6/5/2019 20:24:01	0.0	0.0	0.0	0.0
714	6/5/2019 20:25:01	0.0	0.0	0.0	0.0
715	6/5/2019 20:26:01	0.0	0.0	0.0	0.0
716	6/5/2019 20:27:01	0.0	0.0	0.0	0.0
717	6/5/2019 20:28:01	0.0	0.0	0.0	0.0
718	6/5/2019 20:29:01	0.0	0.0	0.0	0.0
719	6/5/2019 20:30:01	0.0	0.0	0.0	0.0
720	6/5/2019 20:31:01	0.0	0.0	0.0	0.0
721	6/5/2019 20:32:01	0.0	0.0	0.0	0.0
722	6/5/2019 20:33:01	0.0	0.0	0.0	0.0
723	6/5/2019 20:34:01	0.0	0.0	0.0	0.0
724	6/5/2019 20:35:01	0.0	0.0	0.0	0.0
725	6/5/2019 20:36:01	0.0	0.0	0.0	0.0
726	6/5/2019 20:37:01	0.0	0.0	0.0	0.0
727	6/5/2019 20:38:01	0.0	0.0	0.0	0.0
728	6/5/2019 20:39:01	0.0	0.0	0.0	0.0
729	6/5/2019 20:40:01	0.0	0.0	0.0	0.0
730	6/5/2019 20:41:01	0.0	0.0	0.0	0.0
731	6/5/2019 20:42:01	0.0	0.0	0.0	0.0
732	6/5/2019 20:43:01	0.0	0.0	0.0	0.0
733	6/5/2019 20:44:01	0.0	0.0	0.0	0.0
734	6/5/2019 20:45:01	0.0	0.0	0.0	0.0

735	6/5/2019 20:46:01	0.0	0.0	0.0	0.0
736	6/5/2019 20:47:01	0.0	0.0	0.0	0.0
737	6/5/2019 20:48:01	0.0	0.0	0.0	0.0
738	6/5/2019 20:49:01	0.0	0.0	0.0	0.0
739	6/5/2019 20:50:01	0.0	0.0	0.0	0.0
740	6/5/2019 20:51:01	0.0	0.0	0.0	0.0
741	6/5/2019 20:52:01	0.0	0.0	0.0	0.0
742	6/5/2019 20:53:01	0.0	0.0	0.0	0.0
743	6/5/2019 20:54:01	0.0	0.0	0.0	0.0
744	6/5/2019 20:55:01	0.0	0.0	0.0	0.0
745	6/5/2019 20:56:01	0.0	0.0	0.0	0.0
746	6/5/2019 20:57:01	0.0	0.0	0.0	0.0
747	6/5/2019 20:58:01	0.0	0.0	0.0	0.0
748	6/5/2019 20:59:01	0.0	0.0	0.0	0.0
749	6/5/2019 21:00:01	0.0	0.0	0.0	0.0
750	6/5/2019 21:01:01	0.0	0.0	0.0	0.0
751	6/5/2019 21:02:01	0.0	0.0	0.0	0.0
752	6/5/2019 21:03:01	0.0	0.0	0.0	0.0
753	6/5/2019 21:04:01	0.0	0.0	0.0	0.0
754	6/5/2019 21:05:01	0.0	0.0	0.0	0.0
755	6/5/2019 21:06:01	0.0	0.0	0.0	0.0
756	6/5/2019 21:07:01	0.0	0.0	0.0	0.0
757	6/5/2019 21:08:01	0.0	0.0	0.0	0.0
758	6/5/2019 21:09:01	0.0	0.0	0.0	0.0
759	6/5/2019 21:10:01	0.0	0.0	0.0	0.0
760	6/5/2019 21:11:01	0.0	0.0	0.0	0.0
761	6/5/2019 21:12:01	0.0	0.0	0.0	0.0
762	6/5/2019 21:13:01	0.0	0.0	0.0	0.0
763	6/5/2019 21:14:01	0.0	0.0	0.0	0.0
764	6/5/2019 21:15:01	0.0	0.0	0.0	0.0
765	6/5/2019 21:16:01	0.0	0.0	0.0	0.0

766	6/5/2019 21:17:01	0.0	0.0	0.0	0.0
767	6/5/2019 21:18:01	0.0	0.0	0.0	0.0
768	6/5/2019 21:19:01	0.0	0.0	0.0	0.0
769	6/5/2019 21:20:01	0.0	0.0	0.0	0.0
770	6/5/2019 21:21:01	0.0	0.0	0.0	0.0
771	6/5/2019 21:22:01	0.0	0.0	0.0	0.0
772	6/5/2019 21:23:01	0.0	0.0	0.0	0.0
773	6/5/2019 21:24:01	0.0	0.0	0.0	0.0
774	6/5/2019 21:25:01	0.0	0.0	0.0	0.0
775	6/5/2019 21:26:01	0.0	0.0	0.0	0.0
776	6/5/2019 21:27:01	0.0	0.0	0.0	0.0
777	6/5/2019 21:28:01	0.0	0.0	0.0	0.0
778	6/5/2019 21:29:01	0.0	0.0	0.0	0.0
779	6/5/2019 21:30:01	0.0	0.0	0.0	0.0
780	6/5/2019 21:31:01	0.0	0.0	0.0	0.0
781	6/5/2019 21:32:01	0.0	0.0	0.0	0.0
782	6/5/2019 21:33:01	0.0	0.0	0.0	0.0
783	6/5/2019 21:34:01	0.0	0.0	0.0	0.0
784	6/5/2019 21:35:01	0.0	0.0	0.0	0.0
785	6/5/2019 21:36:01	0.0	0.0	0.0	0.0
786	6/5/2019 21:37:01	0.0	0.0	0.0	0.0
787	6/5/2019 21:38:01	0.0	0.0	0.0	0.0
788	6/5/2019 21:39:01	0.0	0.0	0.0	0.0
789	6/5/2019 21:40:01	0.0	0.0	0.0	0.0
790	6/5/2019 21:41:01	0.0	0.0	0.0	0.0
791	6/5/2019 21:42:01	0.0	0.0	0.0	0.0
792	6/5/2019 21:43:01	0.0	0.0	0.0	0.0
793	6/5/2019 21:44:01	0.0	0.0	0.0	0.0
794	6/5/2019 21:45:01	0.0	0.0	0.0	0.0
795	6/5/2019 21:46:01	0.0	0.0	0.0	0.0
796	6/5/2019 21:47:01	0.0	0.0	0.0	0.0

797	6/5/2019 21:48:01	0.0	0.0	0.0	0.0
798	6/5/2019 21:49:01	0.0	0.0	0.0	0.0
799	6/5/2019 21:50:01	0.0	0.0	0.0	0.0
800	6/5/2019 21:51:01	0.0	0.0	0.0	0.0
801	6/5/2019 21:52:01	0.0	0.0	0.0	0.0
802	6/5/2019 21:53:01	0.0	0.0	0.0	0.0
803	6/5/2019 21:54:01	0.0	0.0	0.0	0.0
804	6/5/2019 21:55:01	0.0	0.0	0.0	0.0
805	6/5/2019 21:56:01	0.0	0.0	0.0	0.0
806	6/5/2019 21:57:01	0.0	0.0	0.0	0.0
807	6/5/2019 21:58:01	0.0	0.0	0.0	0.0
808	6/5/2019 21:59:01	0.0	0.0	0.0	0.0
809	6/5/2019 22:00:01	0.0	0.0	0.0	0.0
810	6/5/2019 22:01:01	0.0	0.0	0.0	0.0
811	6/5/2019 22:02:01	0.0	0.0	0.0	0.0
812	6/5/2019 22:03:01	0.0	0.0	0.0	0.0
813	6/5/2019 22:04:01	0.0	0.0	0.0	0.0
814	6/5/2019 22:05:01	0.0	0.0	0.0	0.0
815	6/5/2019 22:06:01	0.0	0.0	0.0	0.0
816	6/5/2019 22:07:01	0.0	0.0	0.0	0.0
817	6/5/2019 22:08:01	0.0	0.0	0.0	0.0
818	6/5/2019 22:09:01	0.0	0.0	0.0	0.0
819	6/5/2019 22:10:01	0.0	0.0	0.0	0.0
820	6/5/2019 22:11:01	0.0	0.0	0.0	0.0
821	6/5/2019 22:12:01	0.0	0.0	0.0	0.0
822	6/5/2019 22:13:01	0.0	0.0	0.0	0.0
823	6/5/2019 22:14:01	0.0	0.0	0.0	0.0
824	6/5/2019 22:15:01	0.0	0.0	0.0	0.0
825	6/5/2019 22:16:01	0.0	0.0	0.0	0.0
826	6/5/2019 22:17:01	0.0	0.0	0.0	0.0
827	6/5/2019 22:18:01	0.0	0.0	0.0	0.0

Peak	0.0	0.0	0.2	0.2
Min	0.0	0.0	0.0	0.0
Average	0.0	0.0	0.0	0.0

****

TWA/STEL

Index	Date/Time	PID(ppm) (TWA)	PID(ppm) (STEL)	
001	6/5/2019 08:32:01	0.0	---	
002	6/5/2019 08:33:01	0.0	---	
003	6/5/2019 08:34:01	0.0	---	
004	6/5/2019 08:35:01	0.0	---	
005	6/5/2019 08:36:01	0.0	---	
006	6/5/2019 08:37:01	0.0	---	
007	6/5/2019 08:38:01	0.0	---	
008	6/5/2019 08:39:01	0.0	---	
009	6/5/2019 08:40:01	0.0	---	
010	6/5/2019 08:41:01	0.0	---	
011	6/5/2019 08:42:01	0.0	---	
012	6/5/2019 08:43:01	0.0	---	
013	6/5/2019 08:44:01	0.0	---	
014	6/5/2019 08:45:01	0.0	---	
015	6/5/2019 08:46:01	0.0	0.0	
016	6/5/2019 08:47:01	0.0	0.0	
017	6/5/2019 08:48:01	0.0	0.0	
018	6/5/2019 08:49:01	0.0	0.0	
019	6/5/2019 08:50:01	0.0	0.0	
020	6/5/2019 08:51:01	0.0	0.0	
021	6/5/2019 08:52:01	0.0	0.0	
022	6/5/2019 08:53:01	0.0	0.0	
023	6/5/2019 08:54:01	0.0	0.0	

024	6/5/2019 08:55:01	0.0	0.0
025	6/5/2019 08:56:01	0.0	0.0
026	6/5/2019 08:57:01	0.0	0.0
027	6/5/2019 08:58:01	0.0	0.0
028	6/5/2019 08:59:01	0.0	0.0
029	6/5/2019 09:00:01	0.0	0.0
030	6/5/2019 09:01:01	0.0	0.0
031	6/5/2019 09:02:01	0.0	0.0
032	6/5/2019 09:03:01	0.0	0.0
033	6/5/2019 09:04:01	0.0	0.0
034	6/5/2019 09:05:01	0.0	0.0
035	6/5/2019 09:06:01	0.0	0.0
036	6/5/2019 09:07:01	0.0	0.0
037	6/5/2019 09:08:01	0.0	0.0
038	6/5/2019 09:09:01	0.0	0.0
039	6/5/2019 09:10:01	0.0	0.0
040	6/5/2019 09:11:01	0.0	0.0
041	6/5/2019 09:12:01	0.0	0.0
042	6/5/2019 09:13:01	0.0	0.0
043	6/5/2019 09:14:01	0.0	0.0
044	6/5/2019 09:15:01	0.0	0.0
045	6/5/2019 09:16:01	0.0	0.0
046	6/5/2019 09:17:01	0.0	0.0
047	6/5/2019 09:18:01	0.0	0.0
048	6/5/2019 09:19:01	0.0	0.0
049	6/5/2019 09:20:01	0.0	0.0
050	6/5/2019 09:21:01	0.0	0.0
051	6/5/2019 09:22:01	0.0	0.0
052	6/5/2019 09:23:01	0.0	0.0
053	6/5/2019 09:24:01	0.0	0.0
054	6/5/2019 09:25:01	0.0	0.0

055	6/5/2019 09:26:01	0.0	0.0
056	6/5/2019 09:27:01	0.0	0.0
057	6/5/2019 09:28:01	0.0	0.0
058	6/5/2019 09:29:01	0.0	0.0
059	6/5/2019 09:30:01	0.0	0.0
060	6/5/2019 09:31:01	0.0	0.0
061	6/5/2019 09:32:01	0.0	0.0
062	6/5/2019 09:33:01	0.0	0.0
063	6/5/2019 09:34:01	0.0	0.0
064	6/5/2019 09:35:01	0.0	0.0
065	6/5/2019 09:36:01	0.0	0.0
066	6/5/2019 09:37:01	0.0	0.0
067	6/5/2019 09:38:01	0.0	0.0
068	6/5/2019 09:39:01	0.0	0.0
069	6/5/2019 09:40:01	0.0	0.0
070	6/5/2019 09:41:01	0.0	0.0
071	6/5/2019 09:42:01	0.0	0.0
072	6/5/2019 09:43:01	0.0	0.0
073	6/5/2019 09:44:01	0.0	0.0
074	6/5/2019 09:45:01	0.0	0.0
075	6/5/2019 09:46:01	0.0	0.0
076	6/5/2019 09:47:01	0.0	0.0
077	6/5/2019 09:48:01	0.0	0.0
078	6/5/2019 09:49:01	0.0	0.0
079	6/5/2019 09:50:01	0.0	0.0
080	6/5/2019 09:51:01	0.0	0.0
081	6/5/2019 09:52:01	0.0	0.0
082	6/5/2019 09:53:01	0.0	0.0
083	6/5/2019 09:54:01	0.0	0.0
084	6/5/2019 09:55:01	0.0	0.0
085	6/5/2019 09:56:01	0.0	0.0

086	6/5/2019 09:57:01	0.0	0.0
087	6/5/2019 09:58:01	0.0	0.0
088	6/5/2019 09:59:01	0.0	0.0
089	6/5/2019 10:00:01	0.0	0.0
090	6/5/2019 10:01:01	0.0	0.0
091	6/5/2019 10:02:01	0.0	0.0
092	6/5/2019 10:03:01	0.0	0.0
093	6/5/2019 10:04:01	0.0	0.0
094	6/5/2019 10:05:01	0.0	0.0
095	6/5/2019 10:06:01	0.0	0.0
096	6/5/2019 10:07:01	0.0	0.0
097	6/5/2019 10:08:01	0.0	0.0
098	6/5/2019 10:09:01	0.0	0.0
099	6/5/2019 10:10:01	0.0	0.0
100	6/5/2019 10:11:01	0.0	0.0
101	6/5/2019 10:12:01	0.0	0.0
102	6/5/2019 10:13:01	0.0	0.0
103	6/5/2019 10:14:01	0.0	0.0
104	6/5/2019 10:15:01	0.0	0.0
105	6/5/2019 10:16:01	0.0	0.0
106	6/5/2019 10:17:01	0.0	0.0
107	6/5/2019 10:18:01	0.0	0.0
108	6/5/2019 10:19:01	0.0	0.0
109	6/5/2019 10:20:01	0.0	0.0
110	6/5/2019 10:21:01	0.0	0.0
111	6/5/2019 10:22:01	0.0	0.0
112	6/5/2019 10:23:01	0.0	0.0
113	6/5/2019 10:24:01	0.0	0.0
114	6/5/2019 10:25:01	0.0	0.0
115	6/5/2019 10:26:01	0.0	0.0
116	6/5/2019 10:27:01	0.0	0.0

117	6/5/2019 10:28:01	0.0	0.0
118	6/5/2019 10:29:01	0.0	0.0
119	6/5/2019 10:30:01	0.0	0.0
120	6/5/2019 10:31:01	0.0	0.0
121	6/5/2019 10:32:01	0.0	0.0
122	6/5/2019 10:33:01	0.0	0.0
123	6/5/2019 10:34:01	0.0	0.0
124	6/5/2019 10:35:01	0.0	0.0
125	6/5/2019 10:36:01	0.0	0.0
126	6/5/2019 10:37:01	0.0	0.0
127	6/5/2019 10:38:01	0.0	0.0
128	6/5/2019 10:39:01	0.0	0.0
129	6/5/2019 10:40:01	0.0	0.0
130	6/5/2019 10:41:01	0.0	0.0
131	6/5/2019 10:42:01	0.0	0.0
132	6/5/2019 10:43:01	0.0	0.0
133	6/5/2019 10:44:01	0.0	0.0
134	6/5/2019 10:45:01	0.0	0.0
135	6/5/2019 10:46:01	0.0	0.0
136	6/5/2019 10:47:01	0.0	0.0
137	6/5/2019 10:48:01	0.0	0.0
138	6/5/2019 10:49:01	0.0	0.0
139	6/5/2019 10:50:01	0.0	0.0
140	6/5/2019 10:51:01	0.0	0.0
141	6/5/2019 10:52:01	0.0	0.0
142	6/5/2019 10:53:01	0.0	0.0
143	6/5/2019 10:54:01	0.0	0.0
144	6/5/2019 10:55:01	0.0	0.0
145	6/5/2019 10:56:01	0.0	0.0
146	6/5/2019 10:57:01	0.0	0.0
147	6/5/2019 10:58:01	0.0	0.0

148	6/5/2019 10:59:01	0.0	0.0
149	6/5/2019 11:00:01	0.0	0.0
150	6/5/2019 11:01:01	0.0	0.0
151	6/5/2019 11:02:01	0.0	0.0
152	6/5/2019 11:03:01	0.0	0.0
153	6/5/2019 11:04:01	0.0	0.0
154	6/5/2019 11:05:01	0.0	0.0
155	6/5/2019 11:06:01	0.0	0.0
156	6/5/2019 11:07:01	0.0	0.0
157	6/5/2019 11:08:01	0.0	0.0
158	6/5/2019 11:09:01	0.0	0.0
159	6/5/2019 11:10:01	0.0	0.0
160	6/5/2019 11:11:01	0.0	0.0
161	6/5/2019 11:12:01	0.0	0.0
162	6/5/2019 11:13:01	0.0	0.0
163	6/5/2019 11:14:01	0.0	0.0
164	6/5/2019 11:15:01	0.0	0.0
165	6/5/2019 11:16:01	0.0	0.0
166	6/5/2019 11:17:01	0.0	0.0
167	6/5/2019 11:18:01	0.0	0.0
168	6/5/2019 11:19:01	0.0	0.0
169	6/5/2019 11:20:01	0.0	0.0
170	6/5/2019 11:21:01	0.0	0.0
171	6/5/2019 11:22:01	0.0	0.0
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542	6/5/2019 17:33:01	0.0	0.0
543	6/5/2019 17:34:01	0.0	0.0
544	6/5/2019 17:35:01	0.0	0.0
545	6/5/2019 17:36:01	0.0	0.0
546	6/5/2019 17:37:01	0.0	0.0
547	6/5/2019 17:38:01	0.0	0.0
548	6/5/2019 17:39:01	0.0	0.0
549	6/5/2019 17:40:01	0.0	0.0
550	6/5/2019 17:41:01	0.0	0.0

551	6/5/2019 17:42:01	0.0	0.0
552	6/5/2019 17:43:01	0.0	0.0
553	6/5/2019 17:44:01	0.0	0.0
554	6/5/2019 17:45:01	0.0	0.0
555	6/5/2019 17:46:01	0.0	0.0
556	6/5/2019 17:47:01	0.0	0.0
557	6/5/2019 17:48:01	0.0	0.0
558	6/5/2019 17:49:01	0.0	0.0
559	6/5/2019 17:50:01	0.0	0.0
560	6/5/2019 17:51:01	0.0	0.0
561	6/5/2019 17:52:01	0.0	0.0
562	6/5/2019 17:53:01	0.0	0.0
563	6/5/2019 17:54:01	0.0	0.0
564	6/5/2019 17:55:01	0.0	0.0
565	6/5/2019 17:56:01	0.0	0.0
566	6/5/2019 17:57:01	0.0	0.0
567	6/5/2019 17:58:01	0.0	0.0
568	6/5/2019 17:59:01	0.0	0.0
569	6/5/2019 18:00:01	0.0	0.0
570	6/5/2019 18:01:01	0.0	0.0
571	6/5/2019 18:02:01	0.0	0.0
572	6/5/2019 18:03:01	0.0	0.0
573	6/5/2019 18:04:01	0.0	0.0
574	6/5/2019 18:05:01	0.0	0.0
575	6/5/2019 18:06:01	0.0	0.0
576	6/5/2019 18:07:01	0.0	0.0
577	6/5/2019 18:08:01	0.0	0.0
578	6/5/2019 18:09:01	0.0	0.0
579	6/5/2019 18:10:01	0.0	0.0
580	6/5/2019 18:11:01	0.0	0.0
581	6/5/2019 18:12:01	0.0	0.0

582	6/5/2019 18:13:01	0.0	0.0
583	6/5/2019 18:14:01	0.0	0.0
584	6/5/2019 18:15:01	0.0	0.0
585	6/5/2019 18:16:01	0.0	0.0
586	6/5/2019 18:17:01	0.0	0.0
587	6/5/2019 18:18:01	0.0	0.0
588	6/5/2019 18:19:01	0.0	0.0
589	6/5/2019 18:20:01	0.0	0.0
590	6/5/2019 18:21:01	0.0	0.0
591	6/5/2019 18:22:01	0.0	0.0
592	6/5/2019 18:23:01	0.0	0.0
593	6/5/2019 18:24:01	0.0	0.0
594	6/5/2019 18:25:01	0.0	0.0
595	6/5/2019 18:26:01	0.0	0.0
596	6/5/2019 18:27:01	0.0	0.0
597	6/5/2019 18:28:01	0.0	0.0
598	6/5/2019 18:29:01	0.0	0.0
599	6/5/2019 18:30:01	0.0	0.0
600	6/5/2019 18:31:01	0.0	0.0
601	6/5/2019 18:32:01	0.0	0.0
602	6/5/2019 18:33:01	0.0	0.0
603	6/5/2019 18:34:01	0.0	0.0
604	6/5/2019 18:35:01	0.0	0.0
605	6/5/2019 18:36:01	0.0	0.0
606	6/5/2019 18:37:01	0.0	0.0
607	6/5/2019 18:38:01	0.0	0.0
608	6/5/2019 18:39:01	0.0	0.0
609	6/5/2019 18:40:01	0.0	0.0
610	6/5/2019 18:41:01	0.0	0.0
611	6/5/2019 18:42:01	0.0	0.0
612	6/5/2019 18:43:01	0.0	0.0

613	6/5/2019 18:44:01	0.0	0.0
614	6/5/2019 18:45:01	0.0	0.0
615	6/5/2019 18:46:01	0.0	0.0
616	6/5/2019 18:47:01	0.0	0.0
617	6/5/2019 18:48:01	0.0	0.0
618	6/5/2019 18:49:01	0.0	0.0
619	6/5/2019 18:50:01	0.0	0.0
620	6/5/2019 18:51:01	0.0	0.0
621	6/5/2019 18:52:01	0.0	0.0
622	6/5/2019 18:53:01	0.0	0.0
623	6/5/2019 18:54:01	0.0	0.0
624	6/5/2019 18:55:01	0.0	0.0
625	6/5/2019 18:56:01	0.0	0.0
626	6/5/2019 18:57:01	0.0	0.0
627	6/5/2019 18:58:01	0.0	0.0
628	6/5/2019 18:59:01	0.0	0.0
629	6/5/2019 19:00:01	0.0	0.0
630	6/5/2019 19:01:01	0.0	0.0
631	6/5/2019 19:02:01	0.0	0.0
632	6/5/2019 19:03:01	0.0	0.0
633	6/5/2019 19:04:01	0.0	0.0
634	6/5/2019 19:05:01	0.0	0.0
635	6/5/2019 19:06:01	0.0	0.0
636	6/5/2019 19:07:01	0.0	0.0
637	6/5/2019 19:08:01	0.0	0.0
638	6/5/2019 19:09:01	0.0	0.0
639	6/5/2019 19:10:01	0.0	0.0
640	6/5/2019 19:11:01	0.0	0.0
641	6/5/2019 19:12:01	0.0	0.0
642	6/5/2019 19:13:01	0.0	0.0
643	6/5/2019 19:14:01	0.0	0.0

644	6/5/2019 19:15:01	0.0	0.0
645	6/5/2019 19:16:01	0.0	0.0
646	6/5/2019 19:17:01	0.0	0.0
647	6/5/2019 19:18:01	0.0	0.0
648	6/5/2019 19:19:01	0.0	0.0
649	6/5/2019 19:20:01	0.0	0.0
650	6/5/2019 19:21:01	0.0	0.0
651	6/5/2019 19:22:01	0.0	0.0
652	6/5/2019 19:23:01	0.0	0.0
653	6/5/2019 19:24:01	0.0	0.0
654	6/5/2019 19:25:01	0.0	0.0
655	6/5/2019 19:26:01	0.0	0.0
656	6/5/2019 19:27:01	0.0	0.0
657	6/5/2019 19:28:01	0.0	0.0
658	6/5/2019 19:29:01	0.0	0.0
659	6/5/2019 19:30:01	0.0	0.0
660	6/5/2019 19:31:01	0.0	0.0
661	6/5/2019 19:32:01	0.0	0.0
662	6/5/2019 19:33:01	0.0	0.0
663	6/5/2019 19:34:01	0.0	0.0
664	6/5/2019 19:35:01	0.0	0.0
665	6/5/2019 19:36:01	0.0	0.0
666	6/5/2019 19:37:01	0.0	0.0
667	6/5/2019 19:38:01	0.0	0.0
668	6/5/2019 19:39:01	0.0	0.0
669	6/5/2019 19:40:01	0.0	0.0
670	6/5/2019 19:41:01	0.0	0.0
671	6/5/2019 19:42:01	0.0	0.0
672	6/5/2019 19:43:01	0.0	0.0
673	6/5/2019 19:44:01	0.0	0.0
674	6/5/2019 19:45:01	0.0	0.0

675	6/5/2019 19:46:01	0.0	0.0
676	6/5/2019 19:47:01	0.0	0.0
677	6/5/2019 19:48:01	0.0	0.0
678	6/5/2019 19:49:01	0.0	0.0
679	6/5/2019 19:50:01	0.0	0.0
680	6/5/2019 19:51:01	0.0	0.0
681	6/5/2019 19:52:01	0.0	0.0
682	6/5/2019 19:53:01	0.0	0.0
683	6/5/2019 19:54:01	0.0	0.0
684	6/5/2019 19:55:01	0.0	0.0
685	6/5/2019 19:56:01	0.0	0.0
686	6/5/2019 19:57:01	0.0	0.0
687	6/5/2019 19:58:01	0.0	0.0
688	6/5/2019 19:59:01	0.0	0.0
689	6/5/2019 20:00:01	0.0	0.0
690	6/5/2019 20:01:01	0.0	0.0
691	6/5/2019 20:02:01	0.0	0.0
692	6/5/2019 20:03:01	0.0	0.0
693	6/5/2019 20:04:01	0.0	0.0
694	6/5/2019 20:05:01	0.0	0.0
695	6/5/2019 20:06:01	0.0	0.0
696	6/5/2019 20:07:01	0.0	0.0
697	6/5/2019 20:08:01	0.0	0.0
698	6/5/2019 20:09:01	0.0	0.0
699	6/5/2019 20:10:01	0.0	0.0
700	6/5/2019 20:11:01	0.0	0.0
701	6/5/2019 20:12:01	0.0	0.0
702	6/5/2019 20:13:01	0.0	0.0
703	6/5/2019 20:14:01	0.0	0.0
704	6/5/2019 20:15:01	0.0	0.0
705	6/5/2019 20:16:01	0.0	0.0

706	6/5/2019 20:17:01	0.0	0.0
707	6/5/2019 20:18:01	0.0	0.0
708	6/5/2019 20:19:01	0.0	0.0
709	6/5/2019 20:20:01	0.0	0.0
710	6/5/2019 20:21:01	0.0	0.0
711	6/5/2019 20:22:01	0.0	0.0
712	6/5/2019 20:23:01	0.0	0.0
713	6/5/2019 20:24:01	0.0	0.0
714	6/5/2019 20:25:01	0.0	0.0
715	6/5/2019 20:26:01	0.0	0.0
716	6/5/2019 20:27:01	0.0	0.0
717	6/5/2019 20:28:01	0.0	0.0
718	6/5/2019 20:29:01	0.0	0.0
719	6/5/2019 20:30:01	0.0	0.0
720	6/5/2019 20:31:01	0.0	0.0
721	6/5/2019 20:32:01	0.0	0.0
722	6/5/2019 20:33:01	0.0	0.0
723	6/5/2019 20:34:01	0.0	0.0
724	6/5/2019 20:35:01	0.0	0.0
725	6/5/2019 20:36:01	0.0	0.0
726	6/5/2019 20:37:01	0.0	0.0
727	6/5/2019 20:38:01	0.0	0.0
728	6/5/2019 20:39:01	0.0	0.0
729	6/5/2019 20:40:01	0.0	0.0
730	6/5/2019 20:41:01	0.0	0.0
731	6/5/2019 20:42:01	0.0	0.0
732	6/5/2019 20:43:01	0.0	0.0
733	6/5/2019 20:44:01	0.0	0.0
734	6/5/2019 20:45:01	0.0	0.0
735	6/5/2019 20:46:01	0.0	0.0
736	6/5/2019 20:47:01	0.0	0.0

737	6/5/2019 20:48:01	0.0	0.0
738	6/5/2019 20:49:01	0.0	0.0
739	6/5/2019 20:50:01	0.0	0.0
740	6/5/2019 20:51:01	0.0	0.0
741	6/5/2019 20:52:01	0.0	0.0
742	6/5/2019 20:53:01	0.0	0.0
743	6/5/2019 20:54:01	0.0	0.0
744	6/5/2019 20:55:01	0.0	0.0
745	6/5/2019 20:56:01	0.0	0.0
746	6/5/2019 20:57:01	0.0	0.0
747	6/5/2019 20:58:01	0.0	0.0
748	6/5/2019 20:59:01	0.0	0.0
749	6/5/2019 21:00:01	0.0	0.0
750	6/5/2019 21:01:01	0.0	0.0
751	6/5/2019 21:02:01	0.0	0.0
752	6/5/2019 21:03:01	0.0	0.0
753	6/5/2019 21:04:01	0.0	0.0
754	6/5/2019 21:05:01	0.0	0.0
755	6/5/2019 21:06:01	0.0	0.0
756	6/5/2019 21:07:01	0.0	0.0
757	6/5/2019 21:08:01	0.0	0.0
758	6/5/2019 21:09:01	0.0	0.0
759	6/5/2019 21:10:01	0.0	0.0
760	6/5/2019 21:11:01	0.0	0.0
761	6/5/2019 21:12:01	0.0	0.0
762	6/5/2019 21:13:01	0.0	0.0
763	6/5/2019 21:14:01	0.0	0.0
764	6/5/2019 21:15:01	0.0	0.0
765	6/5/2019 21:16:01	0.0	0.0
766	6/5/2019 21:17:01	0.0	0.0
767	6/5/2019 21:18:01	0.0	0.0

768	6/5/2019 21:19:01	0.0	0.0
769	6/5/2019 21:20:01	0.0	0.0
770	6/5/2019 21:21:01	0.0	0.0
771	6/5/2019 21:22:01	0.0	0.0
772	6/5/2019 21:23:01	0.0	0.0
773	6/5/2019 21:24:01	0.0	0.0
774	6/5/2019 21:25:01	0.0	0.0
775	6/5/2019 21:26:01	0.0	0.0
776	6/5/2019 21:27:01	0.0	0.0
777	6/5/2019 21:28:01	0.0	0.0
778	6/5/2019 21:29:01	0.0	0.0
779	6/5/2019 21:30:01	0.0	0.0
780	6/5/2019 21:31:01	0.0	0.0
781	6/5/2019 21:32:01	0.0	0.0
782	6/5/2019 21:33:01	0.0	0.0
783	6/5/2019 21:34:01	0.0	0.0
784	6/5/2019 21:35:01	0.0	0.0
785	6/5/2019 21:36:01	0.0	0.0
786	6/5/2019 21:37:01	0.0	0.0
787	6/5/2019 21:38:01	0.0	0.0
788	6/5/2019 21:39:01	0.0	0.0
789	6/5/2019 21:40:01	0.0	0.0
790	6/5/2019 21:41:01	0.0	0.0
791	6/5/2019 21:42:01	0.0	0.0
792	6/5/2019 21:43:01	0.0	0.0
793	6/5/2019 21:44:01	0.0	0.0
794	6/5/2019 21:45:01	0.0	0.0
795	6/5/2019 21:46:01	0.0	0.0
796	6/5/2019 21:47:01	0.0	0.0
797	6/5/2019 21:48:01	0.0	0.0
798	6/5/2019 21:49:01	0.0	0.0

799	6/5/2019 21:50:01	0.0	0.0
800	6/5/2019 21:51:01	0.0	0.0
801	6/5/2019 21:52:01	0.0	0.0
802	6/5/2019 21:53:01	0.0	0.0
803	6/5/2019 21:54:01	0.0	0.0
804	6/5/2019 21:55:01	0.0	0.0
805	6/5/2019 21:56:01	0.0	0.0
806	6/5/2019 21:57:01	0.0	0.0
807	6/5/2019 21:58:01	0.0	0.0
808	6/5/2019 21:59:01	0.0	0.0
809	6/5/2019 22:00:01	0.0	0.0
810	6/5/2019 22:01:01	0.0	0.0
811	6/5/2019 22:02:01	0.0	0.0
812	6/5/2019 22:03:01	0.0	0.0
813	6/5/2019 22:04:01	0.0	0.0
814	6/5/2019 22:05:01	0.0	0.0
815	6/5/2019 22:06:01	0.0	0.0
816	6/5/2019 22:07:01	0.0	0.0
817	6/5/2019 22:08:01	0.0	0.0
818	6/5/2019 22:09:01	0.0	0.0
819	6/5/2019 22:10:01	0.0	0.0
820	6/5/2019 22:11:01	0.0	0.0
821	6/5/2019 22:12:01	0.0	0.0
822	6/5/2019 22:13:01	0.0	0.0
823	6/5/2019 22:14:01	0.0	0.0
824	6/5/2019 22:15:01	0.0	0.0
825	6/5/2019 22:16:01	0.0	0.0
826	6/5/2019 22:17:01	0.0	0.0
827	6/5/2019 22:18:01	0.0	0.0

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_001
Test Start T	########
Test Start D	4/1/2019
Test Length	0:04:07
Test Interva	1:00
Mass Avera	0.009
Mass Minir	0.004
Mass Maxir	0.023
Mass TWA	0.004
Photometr	1
Flow User C	0
Errors	
Number of	247

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.006		
120	0.006		
180	0.006		
240	0.005		
300	0.007		
360	0.004		
420	0.007		
480	0.006		
540	0.008		
600	0.007		
660	0.007		
720	0.011		
780	0.01		
840	0.012		
900	0.007		
960	0.009		
1020	0.012		
1080	0.012		
1140	0.013		
1200	0.017		
1260	0.008		
1320	0.009		
1380	0.008		
1440	0.009		
1500	0.006		
1560	0.005		
1620	0.005		

1680	0.006
1740	0.01
1800	0.009
1860	0.014
1920	0.006
1980	0.007
2040	0.007
2100	0.009
2160	0.005
2220	0.006
2280	0.005
2340	0.007
2400	0.009
2460	0.008
2520	0.007
2580	0.007
2640	0.007
2700	0.008
2760	0.007
2820	0.005
2880	0.007
2940	0.005
3000	0.008
3060	0.006
3120	0.006
3180	0.005
3240	0.006
3300	0.005
3360	0.005
3420	0.004
3480	0.005
3540	0.005
3600	0.006
3660	0.006
3720	0.007
3780	0.006
3840	0.006
3900	0.006
3960	0.005
4020	0.006
4080	0.005
4140	0.005
4200	0.006
4260	0.007
4320	0.007
4380	0.006
4440	0.008

4500	0.007
4560	0.006
4620	0.006
4680	0.005
4740	0.006
4800	0.006
4860	0.007
4920	0.006
4980	0.007
5040	0.006
5100	0.007
5160	0.009
5220	0.009
5280	0.009
5340	0.009
5400	0.008
5460	0.009
5520	0.008
5580	0.007
5640	0.007
5700	0.01
5760	0.008
5820	0.007
5880	0.007
5940	0.007
6000	0.007
6060	0.007
6120	0.008
6180	0.009
6240	0.008
6300	0.008
6360	0.009
6420	0.008
6480	0.008
6540	0.008
6600	0.007
6660	0.008
6720	0.008
6780	0.008
6840	0.01
6900	0.009
6960	0.009
7020	0.01
7080	0.01
7140	0.008
7200	0.01
7260	0.01

7320	0.01
7380	0.009
7440	0.009
7500	0.011
7560	0.01
7620	0.009
7680	0.01
7740	0.008
7800	0.007
7860	0.01
7920	0.01
7980	0.009
8040	0.009
8100	0.008
8160	0.011
8220	0.01
8280	0.011
8340	0.01
8400	0.009
8460	0.009
8520	0.011
8580	0.011
8640	0.01
8700	0.012
8760	0.014
8820	0.012
8880	0.011
8940	0.01
9000	0.011
9060	0.01
9120	0.01
9180	0.01
9240	0.008
9300	0.008
9360	0.01
9420	0.011
9480	0.012
9540	0.01
9600	0.01
9660	0.009
9720	0.012
9780	0.011
9840	0.01
9900	0.009
9960	0.01
10020	0.009
10080	0.018

10140	0.009
10200	0.009
10260	0.009
10320	0.011
10380	0.009
10440	0.009
10500	0.01
10560	0.009
10620	0.009
10680	0.008
10740	0.01
10800	0.011
10860	0.012
10920	0.01
10980	0.01
11040	0.01
11100	0.011
11160	0.012
11220	0.011
11280	0.011
11340	0.01
11400	0.009
11460	0.01
11520	0.009
11580	0.008
11640	0.008
11700	0.008
11760	0.01
11820	0.008
11880	0.01
11940	0.008
12000	0.008
12060	0.008
12120	0.009
12180	0.008
12240	0.008
12300	0.008
12360	0.008
12420	0.008
12480	0.01
12540	0.008
12600	0.008
12660	0.009
12720	0.008
12780	0.008
12840	0.009
12900	0.009

12960	0.013
13020	0.013
13080	0.009
13140	0.009
13200	0.008
13260	0.009
13320	0.009
13380	0.008
13440	0.008
13500	0.008
13560	0.008
13620	0.008
13680	0.008
13740	0.008
13800	0.008
13860	0.008
13920	0.008
13980	0.007
14040	0.008
14100	0.008
14160	0.007
14220	0.008
14280	0.008
14340	0.009
14400	0.01
14460	0.009
14520	0.009
14580	0.009
14640	0.01
14700	0.009
14760	0.009
14820	0.023

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_002
Test Start T	########
Test Start D	4/2/2019
Test Length	0:04:55
Test Interva	1:00
Mass Avera	0.01
Mass Minir	0.006
Mass Maxir	0.098
Mass TWA	0.006
Photometr	1
Flow User C	0
Errors	
Number of	295

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.009		
120	0.007		
180	0.007		
240	0.007		
300	0.007		
360	0.007		
420	0.008		
480	0.006		
540	0.006		
600	0.006		
660	0.006		
720	0.006		
780	0.006		
840	0.006		
900	0.006		
960	0.007		
1020	0.008		
1080	0.007		
1140	0.008		
1200	0.007		
1260	0.006		
1320	0.006		
1380	0.006		
1440	0.007		
1500	0.008		
1560	0.008		
1620	0.008		

1680	0.008
1740	0.009
1800	0.009
1860	0.009
1920	0.008
1980	0.009
2040	0.01
2100	0.008
2160	0.007
2220	0.007
2280	0.007
2340	0.009
2400	0.009
2460	0.01
2520	0.015
2580	0.011
2640	0.009
2700	0.007
2760	0.011
2820	0.01
2880	0.009
2940	0.008
3000	0.008
3060	0.009
3120	0.008
3180	0.007
3240	0.008
3300	0.007
3360	0.007
3420	0.007
3480	0.008
3540	0.007
3600	0.008
3660	0.009
3720	0.009
3780	0.009
3840	0.009
3900	0.01
3960	0.01
4020	0.011
4080	0.014
4140	0.013
4200	0.011
4260	0.009
4320	0.008
4380	0.008
4440	0.008

4500	0.009
4560	0.009
4620	0.009
4680	0.01
4740	0.009
4800	0.008
4860	0.007
4920	0.007
4980	0.007
5040	0.007
5100	0.007
5160	0.008
5220	0.007
5280	0.008
5340	0.01
5400	0.009
5460	0.008
5520	0.009
5580	0.01
5640	0.01
5700	0.009
5760	0.009
5820	0.008
5880	0.009
5940	0.009
6000	0.01
6060	0.009
6120	0.009
6180	0.008
6240	0.01
6300	0.009
6360	0.009
6420	0.01
6480	0.01
6540	0.009
6600	0.01
6660	0.008
6720	0.009
6780	0.009
6840	0.009
6900	0.009
6960	0.009
7020	0.009
7080	0.019
7140	0.01
7200	0.01
7260	0.009

7320	0.01
7380	0.011
7440	0.01
7500	0.008
7560	0.011
7620	0.011
7680	0.009
7740	0.008
7800	0.01
7860	0.01
7920	0.009
7980	0.011
8040	0.01
8100	0.009
8160	0.008
8220	0.008
8280	0.008
8340	0.008
8400	0.009
8460	0.008
8520	0.008
8580	0.008
8640	0.009
8700	0.009
8760	0.009
8820	0.008
8880	0.007
8940	0.007
9000	0.008
9060	0.01
9120	0.008
9180	0.009
9240	0.009
9300	0.009
9360	0.008
9420	0.009
9480	0.009
9540	0.01
9600	0.009
9660	0.016
9720	0.009
9780	0.009
9840	0.01
9900	0.009
9960	0.008
10020	0.008
10080	0.011

10140	0.01
10200	0.01
10260	0.009
10320	0.01
10380	0.009
10440	0.009
10500	0.009
10560	0.009
10620	0.008
10680	0.007
10740	0.007
10800	0.007
10860	0.008
10920	0.008
10980	0.008
11040	0.008
11100	0.008
11160	0.007
11220	0.009
11280	0.009
11340	0.009
11400	0.008
11460	0.011
11520	0.012
11580	0.01
11640	0.009
11700	0.009
11760	0.009
11820	0.008
11880	0.008
11940	0.011
12000	0.009
12060	0.01
12120	0.009
12180	0.009
12240	0.009
12300	0.01
12360	0.009
12420	0.009
12480	0.009
12540	0.009
12600	0.009
12660	0.01
12720	0.009
12780	0.009
12840	0.01
12900	0.008

12960	0.01
13020	0.009
13080	0.01
13140	0.009
13200	0.008
13260	0.008
13320	0.01
13380	0.011
13440	0.009
13500	0.009
13560	0.008
13620	0.009
13680	0.008
13740	0.008
13800	0.01
13860	0.009
13920	0.01
13980	0.011
14040	0.012
14100	0.009
14160	0.008
14220	0.008
14280	0.009
14340	0.008
14400	0.009
14460	0.008
14520	0.008
14580	0.009
14640	0.009
14700	0.009
14760	0.011
14820	0.01
14880	0.008
14940	0.008
15000	0.009
15060	0.009
15120	0.009
15180	0.009
15240	0.008
15300	0.008
15360	0.01
15420	0.009
15480	0.008
15540	0.008
15600	0.012
15660	0.083
15720	0.053

15780	0.098
15840	0.069
15900	0.022
15960	0.011
16020	0.008
16080	0.009
16140	0.011
16200	0.014
16260	0.01
16320	0.008
16380	0.01
16440	0.008
16500	0.009
16560	0.009
16620	0.01
16680	0.009
16740	0.009
16800	0.009
16860	0.009
16920	0.009
16980	0.01
17040	0.01
17100	0.008
17160	0.008
17220	0.009
17280	0.01
17340	0.011
17400	0.009
17460	0.01
17520	0.009
17580	0.011
17640	0.01
17700	0.011

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_003
Test Start T	########
Test Start D	4/3/2019
Test Length	0:07:10
Test Interva	1:00
Mass Avera	0.032
Mass Minir	0.015
Mass Maxir	0.144
Mass TWA	0.029
Photometr	1
Flow User C	0
Errors	
Number of	430

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.016		
120	0.017		
180	0.016		
240	0.017		
300	0.017		
360	0.018		
420	0.019		
480	0.018		
540	0.017		
600	0.017		
660	0.016		
720	0.015		
780	0.016		
840	0.017		
900	0.016		
960	0.017		
1020	0.017		
1080	0.016		
1140	0.017		
1200	0.017		
1260	0.018		
1320	0.019		
1380	0.02		
1440	0.019		
1500	0.021		
1560	0.02		
1620	0.018		

1680	0.019
1740	0.019
1800	0.018
1860	0.017
1920	0.019
1980	0.02
2040	0.02
2100	0.02
2160	0.019
2220	0.021
2280	0.018
2340	0.022
2400	0.023
2460	0.023
2520	0.023
2580	0.027
2640	0.027
2700	0.022
2760	0.021
2820	0.022
2880	0.021
2940	0.022
3000	0.025
3060	0.027
3120	0.029
3180	0.027
3240	0.031
3300	0.028
3360	0.024
3420	0.024
3480	0.027
3540	0.027
3600	0.031
3660	0.027
3720	0.023
3780	0.025
3840	0.028
3900	0.027
3960	0.024
4020	0.025
4080	0.024
4140	0.024
4200	0.025
4260	0.022
4320	0.023
4380	0.026
4440	0.028

4500	0.027
4560	0.023
4620	0.024
4680	0.02
4740	0.028
4800	0.023
4860	0.025
4920	0.025
4980	0.023
5040	0.027
5100	0.03
5160	0.023
5220	0.026
5280	0.023
5340	0.025
5400	0.037
5460	0.025
5520	0.024
5580	0.024
5640	0.024
5700	0.025
5760	0.029
5820	0.031
5880	0.023
5940	0.032
6000	0.024
6060	0.024
6120	0.025
6180	0.025
6240	0.028
6300	0.024
6360	0.029
6420	0.028
6480	0.028
6540	0.028
6600	0.026
6660	0.028
6720	0.029
6780	0.031
6840	0.03
6900	0.027
6960	0.03
7020	0.031
7080	0.026
7140	0.023
7200	0.025
7260	0.027

7320	0.027
7380	0.028
7440	0.026
7500	0.029
7560	0.026
7620	0.026
7680	0.029
7740	0.026
7800	0.029
7860	0.028
7920	0.034
7980	0.037
8040	0.031
8100	0.031
8160	0.023
8220	0.022
8280	0.023
8340	0.025
8400	0.022
8460	0.03
8520	0.027
8580	0.029
8640	0.026
8700	0.025
8760	0.026
8820	0.026
8880	0.023
8940	0.023
9000	0.022
9060	0.024
9120	0.048
9180	0.028
9240	0.037
9300	0.027
9360	0.024
9420	0.024
9480	0.024
9540	0.025
9600	0.024
9660	0.026
9720	0.024
9780	0.023
9840	0.026
9900	0.026
9960	0.027
10020	0.032
10080	0.036

10140	0.026
10200	0.029
10260	0.032
10320	0.034
10380	0.027
10440	0.026
10500	0.036
10560	0.043
10620	0.032
10680	0.029
10740	0.033
10800	0.032
10860	0.024
10920	0.025
10980	0.025
11040	0.026
11100	0.027
11160	0.028
11220	0.024
11280	0.025
11340	0.024
11400	0.028
11460	0.034
11520	0.031
11580	0.026
11640	0.023
11700	0.028
11760	0.032
11820	0.03
11880	0.036
11940	0.026
12000	0.029
12060	0.026
12120	0.028
12180	0.025
12240	0.03
12300	0.036
12360	0.029
12420	0.025
12480	0.021
12540	0.03
12600	0.039
12660	0.023
12720	0.023
12780	0.025
12840	0.022
12900	0.023

12960	0.029
13020	0.025
13080	0.028
13140	0.026
13200	0.027
13260	0.027
13320	0.025
13380	0.023
13440	0.024
13500	0.025
13560	0.024
13620	0.026
13680	0.033
13740	0.028
13800	0.023
13860	0.028
13920	0.029
13980	0.032
14040	0.029
14100	0.028
14160	0.025
14220	0.022
14280	0.024
14340	0.03
14400	0.038
14460	0.03
14520	0.025
14580	0.027
14640	0.025
14700	0.024
14760	0.026
14820	0.023
14880	0.022
14940	0.023
15000	0.024
15060	0.024
15120	0.023
15180	0.022
15240	0.031
15300	0.025
15360	0.023
15420	0.022
15480	0.021
15540	0.02
15600	0.019
15660	0.02
15720	0.022

15780	0.022
15840	0.023
15900	0.022
15960	0.022
16020	0.027
16080	0.026
16140	0.023
16200	0.021
16260	0.022
16320	0.022
16380	0.021
16440	0.021
16500	0.023
16560	0.021
16620	0.022
16680	0.022
16740	0.023
16800	0.023
16860	0.021
16920	0.023
16980	0.021
17040	0.021
17100	0.02
17160	0.021
17220	0.022
17280	0.023
17340	0.024
17400	0.028
17460	0.024
17520	0.025
17580	0.026
17640	0.028
17700	0.025
17760	0.04
17820	0.047
17880	0.036
17940	0.032
18000	0.029
18060	0.029
18120	0.026
18180	0.027
18240	0.033
18300	0.025
18360	0.025
18420	0.025
18480	0.029
18540	0.026

18600	0.026
18660	0.025
18720	0.036
18780	0.026
18840	0.025
18900	0.027
18960	0.026
19020	0.029
19080	0.031
19140	0.028
19200	0.028
19260	0.029
19320	0.038
19380	0.036
19440	0.031
19500	0.035
19560	0.029
19620	0.036
19680	0.03
19740	0.03
19800	0.028
19860	0.026
19920	0.026
19980	0.027
20040	0.027
20100	0.027
20160	0.029
20220	0.032
20280	0.039
20340	0.038
20400	0.032
20460	0.027
20520	0.03
20580	0.025
20640	0.024
20700	0.026
20760	0.027
20820	0.022
20880	0.028
20940	0.036
21000	0.024
21060	0.031
21120	0.03
21180	0.031
21240	0.023
21300	0.021
21360	0.021

21420	0.021
21480	0.023
21540	0.025
21600	0.024
21660	0.023
21720	0.02
21780	0.02
21840	0.021
21900	0.023
21960	0.031
22020	0.024
22080	0.023
22140	0.022
22200	0.021
22260	0.021
22320	0.022
22380	0.104
22440	0.144
22500	0.031
22560	0.025
22620	0.021
22680	0.02
22740	0.022
22800	0.116
22860	0.118
22920	0.111
22980	0.097
23040	0.09
23100	0.076
23160	0.085
23220	0.09
23280	0.109
23340	0.093
23400	0.088
23460	0.082
23520	0.086
23580	0.083
23640	0.091
23700	0.094
23760	0.108
23820	0.099
23880	0.096
23940	0.08
24000	0.081
24060	0.082
24120	0.087
24180	0.078

24240	0.076
24300	0.085
24360	0.07
24420	0.072
24480	0.077
24540	0.078
24600	0.073
24660	0.071
24720	0.068
24780	0.065
24840	0.064
24900	0.061
24960	0.068
25020	0.055
25080	0.061
25140	0.062
25200	0.056
25260	0.059
25320	0.059
25380	0.05
25440	0.039
25500	0.038
25560	0.039
25620	0.04
25680	0.033
25740	0.026
25800	0.037

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_004
Test Start T	########
Test Start D	4/4/2019
Test Length	0:06:14
Test Interva	1:00
Mass Avera	0.019
Mass Minir	0.011
Mass Maxir	0.04
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	374

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.022		
120	0.017		
180	0.012		
240	0.012		
300	0.015		
360	0.015		
420	0.015		
480	0.015		
540	0.013		
600	0.019		
660	0.016		
720	0.015		
780	0.015		
840	0.014		
900	0.014		
960	0.023		
1020	0.017		
1080	0.017		
1140	0.028		
1200	0.02		
1260	0.017		
1320	0.017		
1380	0.016		
1440	0.016		
1500	0.017		
1560	0.011		
1620	0.013		

1680	0.012
1740	0.014
1800	0.015
1860	0.012
1920	0.018
1980	0.015
2040	0.02
2100	0.019
2160	0.016
2220	0.015
2280	0.014
2340	0.014
2400	0.018
2460	0.018
2520	0.014
2580	0.018
2640	0.012
2700	0.013
2760	0.017
2820	0.019
2880	0.016
2940	0.016
3000	0.019
3060	0.017
3120	0.018
3180	0.013
3240	0.013
3300	0.015
3360	0.014
3420	0.017
3480	0.019
3540	0.03
3600	0.018
3660	0.022
3720	0.02
3780	0.023
3840	0.022
3900	0.021
3960	0.017
4020	0.014
4080	0.013
4140	0.015
4200	0.019
4260	0.017
4320	0.016
4380	0.02
4440	0.017

4500	0.013
4560	0.011
4620	0.014
4680	0.015
4740	0.014
4800	0.014
4860	0.015
4920	0.013
4980	0.015
5040	0.013
5100	0.012
5160	0.013
5220	0.015
5280	0.014
5340	0.012
5400	0.012
5460	0.012
5520	0.012
5580	0.011
5640	0.011
5700	0.011
5760	0.012
5820	0.015
5880	0.018
5940	0.016
6000	0.017
6060	0.015
6120	0.02
6180	0.022
6240	0.012
6300	0.015
6360	0.014
6420	0.015
6480	0.019
6540	0.014
6600	0.016
6660	0.027
6720	0.022
6780	0.019
6840	0.021
6900	0.014
6960	0.012
7020	0.014
7080	0.016
7140	0.022
7200	0.033
7260	0.019

7320	0.023
7380	0.022
7440	0.021
7500	0.02
7560	0.026
7620	0.018
7680	0.023
7740	0.02
7800	0.019
7860	0.017
7920	0.021
7980	0.028
8040	0.029
8100	0.04
8160	0.03
8220	0.023
8280	0.035
8340	0.028
8400	0.017
8460	0.021
8520	0.016
8580	0.015
8640	0.018
8700	0.022
8760	0.019
8820	0.021
8880	0.023
8940	0.029
9000	0.034
9060	0.023
9120	0.026
9180	0.026
9240	0.024
9300	0.024
9360	0.026
9420	0.021
9480	0.018
9540	0.026
9600	0.019
9660	0.017
9720	0.03
9780	0.023
9840	0.03
9900	0.02
9960	0.021
10020	0.018
10080	0.022

10140	0.022
10200	0.018
10260	0.032
10320	0.021
10380	0.017
10440	0.033
10500	0.024
10560	0.02
10620	0.022
10680	0.024
10740	0.023
10800	0.022
10860	0.019
10920	0.025
10980	0.021
11040	0.027
11100	0.017
11160	0.016
11220	0.022
11280	0.039
11340	0.023
11400	0.03
11460	0.022
11520	0.023
11580	0.019
11640	0.02
11700	0.028
11760	0.019
11820	0.024
11880	0.023
11940	0.018
12000	0.025
12060	0.024
12120	0.025
12180	0.024
12240	0.026
12300	0.025
12360	0.033
12420	0.027
12480	0.029
12540	0.031
12600	0.026
12660	0.019
12720	0.021
12780	0.02
12840	0.027
12900	0.024

12960	0.03
13020	0.026
13080	0.023
13140	0.027
13200	0.035
13260	0.025
13320	0.022
13380	0.017
13440	0.013
13500	0.022
13560	0.033
13620	0.026
13680	0.023
13740	0.018
13800	0.028
13860	0.021
13920	0.023
13980	0.025
14040	0.024
14100	0.024
14160	0.02
14220	0.016
14280	0.017
14340	0.015
14400	0.021
14460	0.014
14520	0.021
14580	0.019
14640	0.028
14700	0.027
14760	0.021
14820	0.02
14880	0.015
14940	0.021
15000	0.025
15060	0.025
15120	0.019
15180	0.019
15240	0.015
15300	0.016
15360	0.021
15420	0.021
15480	0.02
15540	0.017
15600	0.015
15660	0.016
15720	0.02

15780	0.015
15840	0.017
15900	0.015
15960	0.014
16020	0.016
16080	0.015
16140	0.014
16200	0.017
16260	0.019
16320	0.018
16380	0.019
16440	0.017
16500	0.018
16560	0.02
16620	0.017
16680	0.019
16740	0.019
16800	0.018
16860	0.019
16920	0.018
16980	0.018
17040	0.016
17100	0.017
17160	0.021
17220	0.015
17280	0.017
17340	0.021
17400	0.021
17460	0.02
17520	0.026
17580	0.022
17640	0.014
17700	0.013
17760	0.013
17820	0.017
17880	0.024
17940	0.023
18000	0.019
18060	0.018
18120	0.016
18180	0.014
18240	0.015
18300	0.019
18360	0.023
18420	0.019
18480	0.016
18540	0.015

18600	0.015
18660	0.016
18720	0.019
18780	0.018
18840	0.017
18900	0.021
18960	0.015
19020	0.015
19080	0.015
19140	0.015
19200	0.016
19260	0.019
19320	0.018
19380	0.019
19440	0.021
19500	0.025
19560	0.025
19620	0.032
19680	0.031
19740	0.025
19800	0.017
19860	0.02
19920	0.023
19980	0.018
20040	0.02
20100	0.019
20160	0.021
20220	0.019
20280	0.021
20340	0.019
20400	0.019
20460	0.021
20520	0.022
20580	0.026
20640	0.022
20700	0.02
20760	0.02
20820	0.017
20880	0.018
20940	0.016
21000	0.016
21060	0.017
21120	0.017
21180	0.017
21240	0.016
21300	0.016
21360	0.017

21420	0.016
21480	0.015
21540	0.021
21600	0.018
21660	0.016
21720	0.015
21780	0.016
21840	0.018
21900	0.017
21960	0.017
22020	0.017
22080	0.02
22140	0.015
22200	0.018
22260	0.018
22320	0.035
22380	0.021
22440	0.022

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_005
Test Start T	########
Test Start D	4/8/2019
Test Length	0:03:56
Test Interva	1:00
Mass Avera	0.041
Mass Minir	0
Mass Maxir	0.135
Mass TWA	0.02
Photometr	1
Flow User C	0
Errors	
Number of	226

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.054		
120	0.049		
180	0.05		
240	0.056		
300	0.05		
360	0.047		
420	0.047		
480	0.053		
540	0.048		
600	0.048		
660	0.048		
720	0.047		
780	0.047		
840	0.052		
900	0.045		
960	0.047		
1020	0.048		
1080	0.046		
1140	0.042		
1200	0.044		
1260	0.048		
1320	0.047		
1380	0.043		
1440	0.042		
1500	0.041		
1560	0.043		
1620	0.043		

1680	0.042
1740	0.044
1800	0.042
1860	0.046
1920	0.053
1980	0.048
2040	0.045
2100	0.04
2160	0.047
2220	0.046
2280	0.048
2340	0.045
2400	0.046
2460	0.049
2520	0.045
2580	0.046
2640	0.049
2700	0.046
2760	0.053
2820	0.046
2880	0.042
2940	0.044
3000	0.04
3060	0.042
3120	0.045
3180	0.056
3240	0.043
3300	0.042
3360	0.046
3420	0.045
3480	0.042
3540	0.045
3600	0.042
3660	0.051
3720	0.044
3780	0.044
3840	0.041
3900	0.046
3960	0.059
4020	0.044
4080	0.044
4140	0.045
4200	0.044
4260	0.043
4320	0.043
4380	0.042
4440	0.042

4500	0.041
4560	0.05
4620	0.04
4680	0.042
4740	0.041
4800	0.041
4860	0.045
4920	0.041
4980	0.045
5040	0.044
5100	0.041
5160	0.043
5220	0.042
5280	0.042
5340	0.04
5400	0.041
5460	0.04
5520	0.041
5580	0.04
5640	0.041
5700	0.04
5760	0.039
5820	0.039
5880	0.039
5940	0.038
6000	0.038
6060	0.037
6120	0.037
6180	0.039
6240	0.037
6300	0.037
6360	0.038
6420	0.038
6480	0.038
6540	0.039
6600	0.037
6660	0.037
6720	0.038
6780	0.039
6840	0.038
6900	0.037
6960	0.037
7020	0.037
7080	0.038
7140	0.037
7200	0.037
7260	0.038

7320	0.037
7380	0.038
7440	0.038
7500	0.038
7560	0.037
7620	0.037
7680	0.037
7740	0.037
7800	0.038
7860	0.037
7920	0.042
7980	0.042
8040	0.041
8100	0.039
8160	0.035
8220	0.034
8280	0.04
8340	0.038
8400	0.036
8460	0.036
8520	0.037
8580	0.036
8640	0.035
8700	0.036
8760	0.034
8820	0.034
8880	0.033
8940	0.033
9000	0.033
9060	0.033
9120	0.033
9180	0.034
9240	0.034
9300	0.035
9360	0.035
9420	0.034
9480	0.034
9540	0.036
9600	0.034
9660	0.035
9720	0.035
9780	0.036
9840	0.036
9900	0.036
9960	0.035
10020	0.035
10080	0.036

10140	0.099
10200	0.064
10260	0.044
10320	0.058
10380	0.036
10440	0.043
10500	0.038
10560	0.037
10620	0.037
10680	0.038
10740	0.039
10800	0.036
10860	0.034
10920	0.033
10980	0.033
11040	0.034
11100	0.035
11160	0.036
11220	0.039
11280	0.036
11340	0.032
11400	0.032
11460	0.036
11520	0.031
11580	0.033
11640	0.035
11700	0.032
11760	0.031
11820	0.03
11880	0.03
11940	0.029
12000	0.03
12060	0.03
12120	0.029
12180	0.028
12240	0.027
12300	0.028
12360	0.027
12420	0.028
12480	0.026
12540	0.027
12600	0.024
12660	0.026
12720	0.026
12780	0.025
12840	0.024
12900	0.023

12960	0.025
13020	0.023
13080	0.023
13140	0.024
13719	0
13740	0.056
13936	0
13980	0.103
14040	0.135
14100	0.111
14160	0.098

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_006
Test Start T	########
Test Start D	4/9/2019
Test Length	0:05:16
Test Interva	1:00
Mass Avera	0.03
Mass Minir	0.013
Mass Maxir	0.087
Mass TWA	0.02
Photometr	1
Flow User C	0
Errors	
Number of	316

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.035		
120	0.035		
180	0.035		
240	0.037		
300	0.039		
360	0.039		
420	0.039		
480	0.056		
540	0.053		
600	0.048		
660	0.049		
720	0.087		
780	0.075		
840	0.081		
900	0.071		
960	0.054		
1020	0.05		
1080	0.045		
1140	0.052		
1200	0.043		
1260	0.041		
1320	0.05		
1380	0.048		
1440	0.049		
1500	0.05		
1560	0.045		
1620	0.05		

1680	0.065
1740	0.057
1800	0.056
1860	0.052
1920	0.049
1980	0.052
2040	0.054
2100	0.05
2160	0.05
2220	0.047
2280	0.046
2340	0.044
2400	0.04
2460	0.039
2520	0.038
2580	0.037
2640	0.04
2700	0.039
2760	0.039
2820	0.039
2880	0.037
2940	0.039
3000	0.041
3060	0.045
3120	0.045
3180	0.045
3240	0.043
3300	0.042
3360	0.04
3420	0.04
3480	0.038
3540	0.04
3600	0.039
3660	0.038
3720	0.04
3780	0.04
3840	0.04
3900	0.038
3960	0.039
4020	0.04
4080	0.041
4140	0.037
4200	0.037
4260	0.04
4320	0.041
4380	0.041
4440	0.041

4500	0.041
4560	0.042
4620	0.042
4680	0.043
4740	0.044
4800	0.044
4860	0.044
4920	0.044
4980	0.043
5040	0.044
5100	0.042
5160	0.041
5220	0.038
5280	0.038
5340	0.037
5400	0.032
5460	0.03
5520	0.031
5580	0.029
5640	0.028
5700	0.028
5760	0.027
5820	0.028
5880	0.028
5940	0.028
6000	0.028
6060	0.027
6120	0.026
6180	0.028
6240	0.027
6300	0.027
6360	0.029
6420	0.028
6480	0.029
6540	0.027
6600	0.026
6660	0.025
6720	0.025
6780	0.026
6840	0.026
6900	0.026
6960	0.026
7020	0.027
7080	0.026
7140	0.025
7200	0.024
7260	0.025

7320	0.043
7380	0.026
7440	0.027
7500	0.026
7560	0.028
7620	0.025
7680	0.024
7740	0.025
7800	0.024
7860	0.023
7920	0.028
7980	0.024
8040	0.026
8100	0.024
8160	0.022
8220	0.023
8280	0.022
8340	0.022
8400	0.023
8460	0.023
8520	0.024
8580	0.024
8640	0.025
8700	0.024
8760	0.025
8820	0.025
8880	0.024
8940	0.029
9000	0.027
9060	0.025
9120	0.024
9180	0.024
9240	0.026
9300	0.026
9360	0.025
9420	0.026
9480	0.025
9540	0.023
9600	0.023
9660	0.023
9720	0.024
9780	0.023
9840	0.024
9900	0.024
9960	0.024
10020	0.024
10080	0.023

10140	0.023
10200	0.023
10260	0.023
10320	0.023
10380	0.024
10440	0.024
10500	0.025
10560	0.025
10620	0.026
10680	0.027
10740	0.027
10800	0.029
10860	0.028
10920	0.03
10980	0.033
11040	0.033
11100	0.034
11160	0.034
11220	0.034
11280	0.035
11340	0.035
11400	0.036
11460	0.037
11520	0.036
11580	0.036
11640	0.036
11700	0.036
11760	0.036
11820	0.039
11880	0.039
11940	0.037
12000	0.036
12060	0.038
12120	0.038
12180	0.037
12240	0.047
12300	0.037
12360	0.034
12420	0.046
12480	0.053
12540	0.032
12600	0.03
12660	0.03
12720	0.031
12780	0.029
12840	0.027
12900	0.027

12960	0.028
13020	0.035
13080	0.026
13140	0.026
13200	0.027
13260	0.026
13320	0.025
13380	0.028
13440	0.024
13500	0.025
13560	0.03
13620	0.024
13680	0.023
13740	0.024
13800	0.024
13860	0.023
13920	0.023
13980	0.023
14040	0.023
14100	0.023
14160	0.022
14220	0.023
14280	0.022
14340	0.022
14400	0.022
14460	0.022
14520	0.022
14580	0.022
14640	0.022
14700	0.024
14760	0.023
14820	0.022
14880	0.022
14940	0.02
15000	0.02
15060	0.022
15120	0.02
15180	0.021
15240	0.021
15300	0.019
15360	0.029
15420	0.036
15480	0.02
15540	0.019
15600	0.02
15660	0.018
15720	0.017

15780	0.02
15840	0.016
15900	0.016
15960	0.022
16020	0.016
16080	0.016
16140	0.016
16200	0.016
16260	0.016
16320	0.016
16380	0.016
16440	0.016
16500	0.016
16560	0.017
16620	0.016
16680	0.016
16740	0.016
16800	0.016
16860	0.016
16920	0.017
16980	0.013
17040	0.013
17100	0.014
17160	0.014
17220	0.014
17280	0.014
17340	0.013
17400	0.013
17460	0.014
17520	0.019
17580	0.017
17640	0.017
17700	0.016
17760	0.016
17820	0.016
17880	0.017
17940	0.017
18000	0.018
18060	0.017
18120	0.017
18180	0.016
18240	0.017
18300	0.018
18360	0.017
18420	0.017
18480	0.018
18540	0.021

18600	0.022
18660	0.015
18720	0.017
18780	0.017
18840	0.017
18900	0.017
18960	0.045

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_007
Test Start T	########
Test Start D	########
Test Length	0:05:47
Test Interva	1:00
Mass Avera	0.016
Mass Minir	0.005
Mass Maxir	0.111
Mass TWA	0.011
Photometr	1
Flow User C	0
Errors	
Number of	347

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.02		
120	0.01		
180	0.013		
240	0.012		
300	0.012		
360	0.012		
420	0.013		
480	0.009		
540	0.008		
600	0.009		
660	0.009		
720	0.008		
780	0.008		
840	0.008		
900	0.009		
960	0.009		
1020	0.006		
1080	0.007		
1140	0.008		
1200	0.008		
1260	0.01		
1320	0.009		
1380	0.009		
1440	0.008		
1500	0.007		
1560	0.007		
1620	0.009		

1680	0.006
1740	0.009
1800	0.012
1860	0.009
1920	0.008
1980	0.01
2040	0.009
2100	0.008
2160	0.007
2220	0.009
2280	0.009
2340	0.011
2400	0.014
2460	0.01
2520	0.009
2580	0.01
2640	0.009
2700	0.011
2760	0.013
2820	0.011
2880	0.009
2940	0.007
3000	0.007
3060	0.008
3120	0.007
3180	0.007
3240	0.008
3300	0.013
3360	0.009
3420	0.009
3480	0.01
3540	0.008
3600	0.007
3660	0.009
3720	0.008
3780	0.01
3840	0.01
3900	0.008
3960	0.012
4020	0.009
4080	0.007
4140	0.01
4200	0.015
4260	0.012
4320	0.027
4380	0.012
4440	0.027

4500	0.022
4560	0.015
4620	0.041
4680	0.02
4740	0.021
4800	0.015
4860	0.014
4920	0.028
4980	0.036
5040	0.011
5100	0.019
5160	0.021
5220	0.013
5280	0.028
5340	0.016
5400	0.014
5460	0.012
5520	0.017
5580	0.038
5640	0.014
5700	0.011
5760	0.013
5820	0.021
5880	0.019
5940	0.018
6000	0.018
6060	0.017
6120	0.029
6180	0.021
6240	0.012
6300	0.009
6360	0.013
6420	0.02
6480	0.014
6540	0.012
6600	0.019
6660	0.011
6720	0.017
6780	0.019
6840	0.013
6900	0.013
6960	0.009
7020	0.012
7080	0.013
7140	0.009
7200	0.011
7260	0.01

7320	0.009
7380	0.011
7440	0.009
7500	0.009
7560	0.01
7620	0.022
7680	0.024
7740	0.009
7800	0.017
7860	0.009
7920	0.016
7980	0.017
8040	0.019
8100	0.014
8160	0.012
8220	0.021
8280	0.017
8340	0.011
8400	0.009
8460	0.011
8520	0.016
8580	0.015
8640	0.012
8700	0.012
8760	0.014
8820	0.013
8880	0.01
8940	0.016
9000	0.011
9060	0.009
9120	0.01
9180	0.013
9240	0.016
9300	0.012
9360	0.012
9420	0.009
9480	0.012
9540	0.01
9600	0.013
9660	0.014
9720	0.012
9780	0.012
9840	0.01
9900	0.013
9960	0.011
10020	0.01
10080	0.01

10140	0.01
10200	0.009
10260	0.01
10320	0.008
10380	0.008
10440	0.007
10500	0.009
10560	0.007
10620	0.007
10680	0.009
10740	0.008
10800	0.007
10860	0.007
10920	0.006
10980	0.005
11040	0.005
11100	0.008
11160	0.012
11220	0.008
11280	0.008
11340	0.01
11400	0.009
11460	0.01
11520	0.01
11580	0.016
11640	0.007
11700	0.011
11760	0.01
11820	0.016
11880	0.01
11940	0.007
12000	0.016
12060	0.017
12120	0.011
12180	0.015
12240	0.014
12300	0.025
12360	0.02
12420	0.022
12480	0.012
12540	0.012
12600	0.008
12660	0.008
12720	0.025
12780	0.035
12840	0.013
12900	0.01

12960	0.028
13020	0.031
13080	0.023
13140	0.028
13200	0.039
13260	0.027
13320	0.046
13380	0.038
13440	0.024
13500	0.031
13560	0.049
13620	0.056
13680	0.034
13740	0.111
13800	0.037
13860	0.025
13920	0.035
13980	0.032
14040	0.03
14100	0.053
14160	0.016
14220	0.079
14280	0.066
14340	0.049
14400	0.075
14460	0.04
14520	0.034
14580	0.072
14640	0.085
14700	0.043
14760	0.058
14820	0.042
14880	0.026
14940	0.018
15000	0.018
15060	0.015
15120	0.019
15180	0.025
15240	0.017
15300	0.038
15360	0.079
15420	0.034
15480	0.008
15540	0.038
15600	0.018
15660	0.023
15720	0.024

15780	0.015
15840	0.019
15900	0.054
15960	0.056
16020	0.025
16080	0.014
16140	0.015
16200	0.01
16260	0.012
16320	0.016
16380	0.024
16440	0.022
16500	0.026
16560	0.024
16620	0.017
16680	0.013
16740	0.021
16800	0.028
16860	0.012
16920	0.01
16980	0.02
17040	0.009
17100	0.018
17160	0.009
17220	0.009
17280	0.015
17340	0.02
17400	0.01
17460	0.01
17520	0.006
17580	0.009
17640	0.012
17700	0.022
17760	0.008
17820	0.01
17880	0.009
17940	0.014
18000	0.011
18060	0.01
18120	0.007
18180	0.008
18240	0.014
18300	0.015
18360	0.007
18420	0.007
18480	0.006
18540	0.007

18600	0.006
18660	0.007
18720	0.006
18780	0.006
18840	0.007
18900	0.007
18960	0.007
19020	0.006
19080	0.006
19140	0.013
19200	0.007
19260	0.006
19320	0.006
19380	0.006
19440	0.006
19500	0.009
19560	0.007
19620	0.009
19680	0.008
19740	0.006
19800	0.006
19860	0.005
19920	0.005
19980	0.006
20040	0.007
20100	0.007
20160	0.006
20220	0.005
20280	0.005
20340	0.005
20400	0.007
20460	0.005
20520	0.006
20580	0.006
20640	0.006
20700	0.007
20760	0.008
20820	0.008

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_008
Test Start T	########
Test Start D	########
Test Length	0:04:33
Test Interva	1:00
Mass Avera	0
Mass Minir	0
Mass Maxir	0
Mass TWA	0
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	10

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0		Flow Error
120	0		Flow Error
180	0		Flow Error
240	0		Flow Error
300	0		Flow Error
360	0		Flow Error
16256	0		
16260	0		
16320	0		Flow Error
16380	0		Flow Error

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_009
Test Start T	########
Test Start D	########
Test Length	0:03:48
Test Interva	1:00
Mass Avera	0.019
Mass Minir	0.01
Mass Maxir	0.042
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	228

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.021		
120	0.016		
180	0.014		
240	0.014		
300	0.015		
360	0.011		
420	0.01		
480	0.014		
540	0.013		
600	0.014		
660	0.011		
720	0.012		
780	0.017		
840	0.015		
900	0.013		
960	0.015		
1020	0.012		
1080	0.012		
1140	0.013		
1200	0.012		
1260	0.013		
1320	0.013		
1380	0.018		
1440	0.016		
1500	0.016		
1560	0.018		
1620	0.019		

1680	0.018
1740	0.019
1800	0.013
1860	0.018
1920	0.021
1980	0.021
2040	0.017
2100	0.016
2160	0.016
2220	0.015
2280	0.015
2340	0.018
2400	0.017
2460	0.018
2520	0.016
2580	0.016
2640	0.018
2700	0.016
2760	0.042
2820	0.025
2880	0.04
2940	0.02
3000	0.026
3060	0.039
3120	0.024
3180	0.041
3240	0.029
3300	0.021
3360	0.029
3420	0.03
3480	0.025
3540	0.021
3600	0.023
3660	0.022
3720	0.021
3780	0.021
3840	0.021
3900	0.025
3960	0.031
4020	0.027
4080	0.025
4140	0.025
4200	0.022
4260	0.022
4320	0.025
4380	0.026
4440	0.024

4500	0.026
4560	0.024
4620	0.022
4680	0.02
4740	0.022
4800	0.021
4860	0.022
4920	0.023
4980	0.022
5040	0.022
5100	0.024
5160	0.024
5220	0.02
5280	0.019
5340	0.029
5400	0.02
5460	0.02
5520	0.018
5580	0.022
5640	0.021
5700	0.019
5760	0.018
5820	0.016
5880	0.016
5940	0.018
6000	0.022
6060	0.02
6120	0.02
6180	0.019
6240	0.018
6300	0.022
6360	0.019
6420	0.016
6480	0.017
6540	0.017
6600	0.017
6660	0.017
6720	0.017
6780	0.015
6840	0.015
6900	0.015
6960	0.015
7020	0.014
7080	0.015
7140	0.015
7200	0.015
7260	0.015

7320	0.015
7380	0.017
7440	0.015
7500	0.014
7560	0.014
7620	0.014
7680	0.014
7740	0.014
7800	0.015
7860	0.015
7920	0.016
7980	0.015
8040	0.017
8100	0.022
8160	0.016
8220	0.019
8280	0.016
8340	0.015
8400	0.016
8460	0.017
8520	0.019
8580	0.021
8640	0.017
8700	0.017
8760	0.017
8820	0.017
8880	0.018
8940	0.018
9000	0.018
9060	0.017
9120	0.017
9180	0.017
9240	0.017
9300	0.02
9360	0.021
9420	0.017
9480	0.017
9540	0.016
9600	0.017
9660	0.017
9720	0.017
9780	0.017
9840	0.021
9900	0.017
9960	0.017
10020	0.018
10080	0.017

10140	0.018
10200	0.018
10260	0.018
10320	0.019
10380	0.019
10440	0.019
10500	0.019
10560	0.018
10620	0.019
10680	0.02
10740	0.021
10800	0.02
10860	0.021
10920	0.021
10980	0.025
11040	0.024
11100	0.022
11160	0.021
11220	0.021
11280	0.021
11340	0.021
11400	0.023
11460	0.021
11520	0.022
11580	0.025
11640	0.021
11700	0.021
11760	0.021
11820	0.021
11880	0.021
11940	0.022
12000	0.021
12060	0.033
12120	0.03
12180	0.035
12240	0.032
12300	0.022
12360	0.023
12420	0.023
12480	0.018
12540	0.018
12600	0.018
12660	0.019
12720	0.02
12780	0.02
12840	0.018
12900	0.027

12960	0.02
13020	0.018
13080	0.02
13140	0.019
13200	0.019
13260	0.017
13320	0.018
13380	0.017
13440	0.018
13500	0.021
13560	0.022
13620	0.021
13680	0.019

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_010
Test Start T	########
Test Start D	########
Test Length	0:04:44
Test Interva	1:00
Mass Avera	0.022
Mass Minir	0.012
Mass Maxir	0.052
Mass TWA	0.013
Photometr	1
Flow User C	0
Errors	
Number of	284

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.018		
120	0.013		
180	0.013		
240	0.013		
300	0.013		
360	0.014		
420	0.014		
480	0.014		
540	0.014		
600	0.014		
660	0.015		
720	0.015		
780	0.016		
840	0.013		
900	0.012		
960	0.012		
1020	0.012		
1080	0.012		
1140	0.013		
1200	0.013		
1260	0.013		
1320	0.021		
1380	0.02		
1440	0.021		
1500	0.024		
1560	0.02		
1620	0.016		

1680	0.015
1740	0.013
1800	0.013
1860	0.013
1920	0.013
1980	0.026
2040	0.014
2100	0.015
2160	0.015
2220	0.015
2280	0.022
2340	0.027
2400	0.032
2460	0.036
2520	0.035
2580	0.018
2640	0.021
2700	0.017
2760	0.016
2820	0.042
2880	0.052
2940	0.016
3000	0.015
3060	0.017
3120	0.016
3180	0.016
3240	0.017
3300	0.026
3360	0.016
3420	0.018
3480	0.021
3540	0.019
3600	0.018
3660	0.017
3720	0.016
3780	0.016
3840	0.018
3900	0.018
3960	0.018
4020	0.017
4080	0.018
4140	0.017
4200	0.018
4260	0.017
4320	0.017
4380	0.017
4440	0.017

4500	0.017
4560	0.017
4620	0.017
4680	0.017
4740	0.018
4800	0.019
4860	0.021
4920	0.019
4980	0.017
5040	0.016
5100	0.017
5160	0.017
5220	0.017
5280	0.017
5340	0.02
5400	0.019
5460	0.02
5520	0.017
5580	0.018
5640	0.019
5700	0.019
5760	0.02
5820	0.02
5880	0.018
5940	0.018
6000	0.019
6060	0.019
6120	0.019
6180	0.02
6240	0.021
6300	0.021
6360	0.021
6420	0.021
6480	0.023
6540	0.029
6600	0.021
6660	0.021
6720	0.022
6780	0.022
6840	0.023
6900	0.025
6960	0.025
7020	0.024
7080	0.025
7140	0.025
7200	0.024
7260	0.025

7320	0.025
7380	0.024
7440	0.024
7500	0.025
7560	0.026
7620	0.032
7680	0.025
7740	0.025
7800	0.025
7860	0.027
7920	0.027
7980	0.026
8040	0.026
8100	0.025
8160	0.025
8220	0.025
8280	0.025
8340	0.025
8400	0.025
8460	0.025
8520	0.025
8580	0.024
8640	0.028
8700	0.026
8760	0.031
8820	0.029
8880	0.033
8940	0.038
9000	0.027
9060	0.044
9120	0.038
9180	0.033
9240	0.031
9300	0.03
9360	0.025
9420	0.024
9480	0.024
9540	0.025
9600	0.025
9660	0.025
9720	0.027
9780	0.027
9840	0.037
9900	0.025
9960	0.025
10020	0.034
10080	0.03

10140	0.028
10200	0.026
10260	0.033
10320	0.03
10380	0.028
10440	0.025
10500	0.032
10560	0.028
10620	0.025
10680	0.024
10740	0.025
10800	0.027
10860	0.026
10920	0.022
10980	0.019
11040	0.02
11100	0.022
11160	0.021
11220	0.018
11280	0.021
11340	0.032
11400	0.041
11460	0.036
11520	0.031
11580	0.028
11640	0.029
11700	0.029
11760	0.026
11820	0.023
11880	0.021
11940	0.021
12000	0.022
12060	0.025
12120	0.036
12180	0.022
12240	0.021
12300	0.035
12360	0.033
12420	0.028
12480	0.021
12540	0.022
12600	0.021
12660	0.022
12720	0.023
12780	0.029
12840	0.029
12900	0.034

12960	0.028
13020	0.026
13080	0.024
13140	0.026
13200	0.028
13260	0.024
13320	0.02
13380	0.02
13440	0.019
13500	0.021
13560	0.02
13620	0.02
13680	0.019
13740	0.019
13800	0.019
13860	0.018
13920	0.018
13980	0.017
14040	0.018
14100	0.018
14160	0.019
14220	0.019
14280	0.019
14340	0.018
14400	0.017
14460	0.017
14520	0.017
14580	0.018
14640	0.018
14700	0.018
14760	0.018
14820	0.018
14880	0.019
14940	0.019
15000	0.018
15060	0.018
15120	0.018
15180	0.018
15240	0.017
15300	0.017
15360	0.017
15420	0.017
15480	0.017
15540	0.018
15600	0.017
15660	0.017
15720	0.017

15780	0.017
15840	0.016
15900	0.017
15960	0.018
16020	0.019
16080	0.02
16140	0.018
16200	0.02
16260	0.019
16320	0.019
16380	0.02
16440	0.02
16500	0.02
16560	0.019
16620	0.02
16680	0.019
16740	0.02
16800	0.02
16860	0.02
16920	0.021
16980	0.02
17040	0.02

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_011
Test Start T	########
Test Start D	5/1/2019
Test Length	0:05:35
Test Interva	1:00
Mass Avera	0.011
Mass Minir	0.006
Mass Maxir	0.022
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	
Number of	335

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.011		
120	0.011		
180	0.013		
240	0.013		
300	0.014		
360	0.011		
420	0.012		
480	0.013		
540	0.011		
600	0.011		
660	0.011		
720	0.022		
780	0.014		
840	0.011		
900	0.016		
960	0.013		
1020	0.011		
1080	0.022		
1140	0.016		
1200	0.014		
1260	0.013		
1320	0.013		
1380	0.013		
1440	0.011		
1500	0.012		
1560	0.013		
1620	0.013		

1680	0.014
1740	0.01
1800	0.012
1860	0.013
1920	0.013
1980	0.012
2040	0.011
2100	0.012
2160	0.012
2220	0.014
2280	0.014
2340	0.012
2400	0.012
2460	0.012
2520	0.011
2580	0.01
2640	0.01
2700	0.011
2760	0.012
2820	0.014
2880	0.011
2940	0.012
3000	0.013
3060	0.012
3120	0.013
3180	0.013
3240	0.014
3300	0.012
3360	0.011
3420	0.013
3480	0.013
3540	0.012
3600	0.012
3660	0.013
3720	0.014
3780	0.016
3840	0.015
3900	0.014
3960	0.015
4020	0.014
4080	0.014
4140	0.014
4200	0.014
4260	0.015
4320	0.016
4380	0.015
4440	0.015

4500	0.016
4560	0.017
4620	0.013
4680	0.013
4740	0.012
4800	0.012
4860	0.012
4920	0.012
4980	0.012
5040	0.011
5100	0.011
5160	0.011
5220	0.011
5280	0.011
5340	0.011
5400	0.012
5460	0.012
5520	0.011
5580	0.013
5640	0.013
5700	0.015
5760	0.011
5820	0.011
5880	0.013
5940	0.012
6000	0.013
6060	0.013
6120	0.014
6180	0.013
6240	0.015
6300	0.015
6360	0.013
6420	0.013
6480	0.012
6540	0.011
6600	0.011
6660	0.011
6720	0.011
6780	0.01
6840	0.011
6900	0.013
6960	0.015
7020	0.017
7080	0.016
7140	0.011
7200	0.011
7260	0.012

7320	0.012
7380	0.01
7440	0.012
7500	0.012
7560	0.012
7620	0.01
7680	0.011
7740	0.011
7800	0.013
7860	0.012
7920	0.012
7980	0.013
8040	0.011
8100	0.011
8160	0.01
8220	0.009
8280	0.01
8340	0.012
8400	0.012
8460	0.012
8520	0.011
8580	0.01
8640	0.01
8700	0.011
8760	0.012
8820	0.011
8880	0.01
8940	0.009
9000	0.009
9060	0.009
9120	0.009
9180	0.01
9240	0.009
9300	0.009
9360	0.009
9420	0.01
9480	0.009
9540	0.009
9600	0.009
9660	0.009
9720	0.009
9780	0.01
9840	0.011
9900	0.011
9960	0.011
10020	0.011
10080	0.01

10140	0.01
10200	0.009
10260	0.01
10320	0.012
10380	0.018
10440	0.013
10500	0.016
10560	0.011
10620	0.01
10680	0.01
10740	0.01
10800	0.009
10860	0.009
10920	0.008
10980	0.009
11040	0.008
11100	0.007
11160	0.007
11220	0.006
11280	0.006
11340	0.008
11400	0.006
11460	0.006
11520	0.007
11580	0.012
11640	0.009
11700	0.007
11760	0.008
11820	0.008
11880	0.007
11940	0.007
12000	0.007
12060	0.007
12120	0.007
12180	0.007
12240	0.007
12300	0.007
12360	0.008
12420	0.011
12480	0.019
12540	0.014
12600	0.008
12660	0.011
12720	0.011
12780	0.009
12840	0.008
12900	0.008

12960	0.008
13020	0.009
13080	0.008
13140	0.008
13200	0.009
13260	0.01
13320	0.01
13380	0.011
13440	0.011
13500	0.01
13560	0.011
13620	0.01
13680	0.01
13740	0.009
13800	0.008
13860	0.008
13920	0.008
13980	0.008
14040	0.007
14100	0.008
14160	0.008
14220	0.009
14280	0.01
14340	0.01
14400	0.009
14460	0.008
14520	0.009
14580	0.009
14640	0.008
14700	0.008
14760	0.009
14820	0.01
14880	0.01
14940	0.011
15000	0.011
15060	0.009
15120	0.007
15180	0.007
15240	0.008
15300	0.009
15360	0.011
15420	0.011
15480	0.009
15540	0.008
15600	0.011
15660	0.011
15720	0.01

15780	0.01
15840	0.011
15900	0.012
15960	0.013
16020	0.011
16080	0.01
16140	0.011
16200	0.011
16260	0.011
16320	0.012
16380	0.009
16440	0.009
16500	0.009
16560	0.01
16620	0.009
16680	0.009
16740	0.008
16800	0.008
16860	0.008
16920	0.009
16980	0.01
17040	0.01
17100	0.008
17160	0.008
17220	0.009
17280	0.009
17340	0.009
17400	0.01
17460	0.01
17520	0.009
17580	0.009
17640	0.009
17700	0.009
17760	0.008
17820	0.007
17880	0.007
17940	0.007
18000	0.007
18060	0.007
18120	0.007
18180	0.008
18240	0.009
18300	0.008
18360	0.009
18420	0.008
18480	0.01
18540	0.009

18600	0.01
18660	0.01
18720	0.01
18780	0.009
18840	0.009
18900	0.009
18960	0.009
19020	0.009
19080	0.008
19140	0.008
19200	0.008
19260	0.009
19320	0.009
19380	0.009
19440	0.011
19500	0.011
19560	0.012
19620	0.012
19680	0.011
19740	0.011
19800	0.012
19860	0.01
19920	0.009
19980	0.01
20040	0.01
20100	0.01

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_012
Test Start T	########
Test Start D	5/2/2019
Test Length	0:03:56
Test Interva	1:00
Mass Avera	0.069
Mass Minir	0.049
Mass Maxir	0.089
Mass TWA	0.034
Photometr	1
Flow User C	0
Errors	
Number of	236

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.085		
120	0.086		
180	0.086		
240	0.084		
300	0.08		
360	0.08		
420	0.082		
480	0.081		
540	0.079		
600	0.082		
660	0.079		
720	0.077		
780	0.076		
840	0.076		
900	0.077		
960	0.076		
1020	0.076		
1080	0.075		
1140	0.073		
1200	0.073		
1260	0.071		
1320	0.073		
1380	0.071		
1440	0.07		
1500	0.07		
1560	0.07		
1620	0.07		

1680	0.071
1740	0.071
1800	0.07
1860	0.07
1920	0.07
1980	0.07
2040	0.071
2100	0.072
2160	0.072
2220	0.071
2280	0.071
2340	0.071
2400	0.072
2460	0.072
2520	0.072
2580	0.073
2640	0.072
2700	0.073
2760	0.072
2820	0.073
2880	0.073
2940	0.074
3000	0.074
3060	0.074
3120	0.074
3180	0.074
3240	0.075
3300	0.075
3360	0.073
3420	0.074
3480	0.076
3540	0.076
3600	0.075
3660	0.075
3720	0.074
3780	0.075
3840	0.074
3900	0.074
3960	0.076
4020	0.078
4080	0.089
4140	0.085
4200	0.084
4260	0.083
4320	0.083
4380	0.08
4440	0.081

4500	0.081
4560	0.078
4620	0.077
4680	0.077
4740	0.076
4800	0.076
4860	0.076
4920	0.076
4980	0.077
5040	0.078
5100	0.078
5160	0.078
5220	0.078
5280	0.078
5340	0.078
5400	0.076
5460	0.077
5520	0.077
5580	0.075
5640	0.076
5700	0.079
5760	0.079
5820	0.079
5880	0.08
5940	0.079
6000	0.079
6060	0.078
6120	0.076
6180	0.074
6240	0.073
6300	0.074
6360	0.074
6420	0.077
6480	0.077
6540	0.077
6600	0.077
6660	0.076
6720	0.077
6780	0.076
6840	0.077
6900	0.075
6960	0.076
7020	0.079
7080	0.078
7140	0.077
7200	0.081
7260	0.082

7320	0.08
7380	0.08
7440	0.078
7500	0.079
7560	0.079
7620	0.079
7680	0.078
7740	0.074
7800	0.071
7860	0.07
7920	0.069
7980	0.068
8040	0.067
8100	0.067
8160	0.07
8220	0.07
8280	0.07
8340	0.069
8400	0.07
8460	0.069
8520	0.068
8580	0.068
8640	0.067
8700	0.066
8760	0.065
8820	0.064
8880	0.064
8940	0.063
9000	0.061
9060	0.061
9120	0.059
9180	0.059
9240	0.06
9300	0.059
9360	0.058
9420	0.059
9480	0.058
9540	0.059
9600	0.058
9660	0.058
9720	0.067
9780	0.062
9840	0.067
9900	0.07
9960	0.068
10020	0.071
10080	0.069

10140	0.068
10200	0.058
10260	0.053
10320	0.051
10380	0.052
10440	0.051
10500	0.051
10560	0.051
10620	0.053
10680	0.053
10740	0.054
10800	0.054
10860	0.054
10920	0.054
10980	0.054
11040	0.062
11100	0.056
11160	0.056
11220	0.054
11280	0.051
11340	0.053
11400	0.052
11460	0.05
11520	0.049
11580	0.052
11640	0.053
11700	0.053
11760	0.053
11820	0.053
11880	0.052
11940	0.053
12000	0.055
12060	0.054
12120	0.053
12180	0.055
12240	0.054
12300	0.054
12360	0.055
12420	0.054
12480	0.054
12540	0.055
12600	0.054
12660	0.054
12720	0.054
12780	0.056
12840	0.057
12900	0.059

12960	0.06
13020	0.06
13080	0.06
13140	0.059
13200	0.059
13260	0.059
13320	0.059
13380	0.06
13440	0.059
13500	0.059
13560	0.06
13620	0.061
13680	0.061
13740	0.062
13800	0.061
13860	0.061
13920	0.062
13980	0.063
14040	0.061
14100	0.061
14160	0.06

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_013
Test Start T	########
Test Start D	5/7/2019
Test Length	0:07:22
Test Interva	1:00
Mass Avera	0.015
Mass Minir	0.006
Mass Maxir	0.071
Mass TWA	0.014
Photometr	1
Flow User C	0
Errors	
Number of	442

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.009		
120	0.012		
180	0.008		
240	0.008		
300	0.006		
360	0.007		
420	0.012		
480	0.01		
540	0.011		
600	0.009		
660	0.007		
720	0.008		
780	0.008		
840	0.012		
900	0.01		
960	0.007		
1020	0.007		
1080	0.01		
1140	0.009		
1200	0.007		
1260	0.007		
1320	0.006		
1380	0.007		
1440	0.007		
1500	0.007		
1560	0.011		
1620	0.008		

1680	0.008
1740	0.008
1800	0.008
1860	0.008
1920	0.008
1980	0.007
2040	0.008
2100	0.008
2160	0.008
2220	0.008
2280	0.009
2340	0.008
2400	0.01
2460	0.009
2520	0.008
2580	0.009
2640	0.009
2700	0.009
2760	0.009
2820	0.01
2880	0.01
2940	0.01
3000	0.01
3060	0.01
3120	0.011
3180	0.011
3240	0.011
3300	0.011
3360	0.011
3420	0.011
3480	0.013
3540	0.012
3600	0.011
3660	0.011
3720	0.013
3780	0.012
3840	0.011
3900	0.011
3960	0.012
4020	0.011
4080	0.012
4140	0.011
4200	0.011
4260	0.011
4320	0.011
4380	0.011
4440	0.011

4500	0.011
4560	0.012
4620	0.011
4680	0.012
4740	0.012
4800	0.011
4860	0.011
4920	0.012
4980	0.011
5040	0.012
5100	0.014
5160	0.015
5220	0.016
5280	0.02
5340	0.05
5400	0.028
5460	0.023
5520	0.02
5580	0.015
5640	0.013
5700	0.013
5760	0.013
5820	0.012
5880	0.012
5940	0.012
6000	0.014
6060	0.014
6120	0.013
6180	0.012
6240	0.014
6300	0.02
6360	0.02
6420	0.019
6480	0.013
6540	0.013
6600	0.012
6660	0.013
6720	0.017
6780	0.012
6840	0.012
6900	0.013
6960	0.017
7020	0.037
7080	0.043
7140	0.02
7200	0.012
7260	0.013

7320	0.011
7380	0.012
7440	0.011
7500	0.012
7560	0.012
7620	0.012
7680	0.012
7740	0.012
7800	0.011
7860	0.011
7920	0.012
7980	0.012
8040	0.019
8100	0.012
8160	0.013
8220	0.014
8280	0.017
8340	0.023
8400	0.012
8460	0.012
8520	0.015
8580	0.019
8640	0.013
8700	0.012
8760	0.012
8820	0.011
8880	0.019
8940	0.015
9000	0.014
9060	0.022
9120	0.019
9180	0.012
9240	0.012
9300	0.011
9360	0.011
9420	0.012
9480	0.012
9540	0.012
9600	0.02
9660	0.013
9720	0.011
9780	0.013
9840	0.013
9900	0.011
9960	0.011
10020	0.011
10080	0.011

10140	0.012
10200	0.012
10260	0.013
10320	0.013
10380	0.013
10440	0.014
10500	0.011
10560	0.012
10620	0.011
10680	0.011
10740	0.012
10800	0.013
10860	0.012
10920	0.012
10980	0.018
11040	0.011
11100	0.013
11160	0.012
11220	0.013
11280	0.014
11340	0.024
11400	0.036
11460	0.038
11520	0.021
11580	0.014
11640	0.012
11700	0.011
11760	0.011
11820	0.012
11880	0.013
11940	0.013
12000	0.014
12060	0.014
12120	0.016
12180	0.016
12240	0.016
12300	0.014
12360	0.016
12420	0.014
12480	0.013
12540	0.011
12600	0.012
12660	0.013
12720	0.012
12780	0.013
12840	0.013
12900	0.014

12960	0.013
13020	0.012
13080	0.013
13140	0.012
13200	0.012
13260	0.014
13320	0.015
13380	0.013
13440	0.013
13500	0.013
13560	0.012
13620	0.021
13680	0.018
13740	0.015
13800	0.013
13860	0.013
13920	0.018
13980	0.038
14040	0.019
14100	0.016
14160	0.014
14220	0.012
14280	0.012
14340	0.012
14400	0.013
14460	0.012
14520	0.011
14580	0.012
14640	0.013
14700	0.014
14760	0.071
14820	0.065
14880	0.056
14940	0.03
15000	0.024
15060	0.031
15120	0.038
15180	0.022
15240	0.018
15300	0.012
15360	0.015
15420	0.014
15480	0.013
15540	0.013
15600	0.012
15660	0.014
15720	0.018

15780	0.023
15840	0.021
15900	0.013
15960	0.014
16020	0.013
16080	0.018
16140	0.014
16200	0.014
16260	0.013
16320	0.015
16380	0.02
16440	0.024
16500	0.018
16560	0.017
16620	0.014
16680	0.016
16740	0.015
16800	0.014
16860	0.013
16920	0.015
16980	0.012
17040	0.013
17100	0.021
17160	0.03
17220	0.033
17280	0.019
17340	0.023
17400	0.029
17460	0.04
17520	0.03
17580	0.02
17640	0.034
17700	0.03
17760	0.031
17820	0.031
17880	0.02
17940	0.02
18000	0.023
18060	0.03
18120	0.021
18180	0.017
18240	0.016
18300	0.015
18360	0.013
18420	0.012
18480	0.011
18540	0.011

18600	0.011
18660	0.012
18720	0.012
18780	0.012
18840	0.012
18900	0.012
18960	0.012
19020	0.013
19080	0.012
19140	0.014
19200	0.012
19260	0.012
19320	0.012
19380	0.012
19440	0.013
19500	0.015
19560	0.018
19620	0.016
19680	0.013
19740	0.012
19800	0.012
19860	0.012
19920	0.012
19980	0.012
20040	0.013
20100	0.013
20160	0.012
20220	0.012
20280	0.012
20340	0.011
20400	0.011
20460	0.012
20520	0.012
20580	0.011
20640	0.012
20700	0.012
20760	0.012
20820	0.013
20880	0.014
20940	0.012
21000	0.013
21060	0.012
21120	0.011
21180	0.012
21240	0.012
21300	0.012
21360	0.011

21420	0.015
21480	0.028
21540	0.025
21600	0.019
21660	0.026
21720	0.024
21780	0.028
21840	0.028
21900	0.03
21960	0.027
22020	0.016
22080	0.017
22140	0.019
22200	0.02
22260	0.032
22320	0.035
22380	0.041
22440	0.03
22500	0.026
22560	0.022
22620	0.017
22680	0.023
22740	0.02
22800	0.029
22860	0.031
22920	0.027
22980	0.017
23040	0.018
23100	0.013
23160	0.014
23220	0.015
23280	0.014
23340	0.012
23400	0.013
23460	0.013
23520	0.015
23580	0.014
23640	0.014
23700	0.015
23760	0.015
23820	0.014
23880	0.014
23940	0.013
24000	0.013
24060	0.013
24120	0.013
24180	0.013

24240	0.014
24300	0.017
24360	0.013
24420	0.014
24480	0.015
24540	0.015
24600	0.014
24660	0.013
24720	0.013
24780	0.015
24840	0.017
24900	0.014
24960	0.015
25020	0.015
25080	0.014
25140	0.014
25200	0.015
25260	0.015
25320	0.013
25380	0.012
25440	0.012
25500	0.012
25560	0.013
25620	0.013
25680	0.012
25740	0.012
25800	0.012
25860	0.012
25920	0.012
25980	0.018
26040	0.021
26100	0.026
26160	0.023
26220	0.02
26280	0.014
26340	0.013
26400	0.012
26460	0.012
26520	0.013

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_014
Test Start T	########
Test Start D	5/8/2019
Test Length	0:00:03
Test Interva	1:00
Mass Avera	0.014
Mass Minir	0.012
Mass Maxir	0.016
Mass TWA	0
Photometr	1
Flow User C	0
Errors	
Number of	3

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.016		
120	0.012		
180	0.013		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_015
Test Start T	########
Test Start D	5/9/2019
Test Length	0:04:16
Test Interva	1:00
Mass Avera	0.013
Mass Minir	0.003
Mass Maxir	0.106
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	256

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.015		
120	0.014		
180	0.014		
240	0.012		
300	0.015		
360	0.016		
420	0.014		
480	0.011		
540	0.008		
600	0.012		
660	0.011		
720	0.01		
780	0.008		
840	0.006		
900	0.01		
960	0.008		
1020	0.011		
1080	0.013		
1140	0.023		
1200	0.013		
1260	0.005		
1320	0.006		
1380	0.006		
1440	0.007		
1500	0.01		
1560	0.018		
1620	0.017		

1680	0.017
1740	0.012
1800	0.014
1860	0.011
1920	0.014
1980	0.019
2040	0.015
2100	0.012
2160	0.009
2220	0.023
2280	0.024
2340	0.018
2400	0.011
2460	0.012
2520	0.009
2580	0.01
2640	0.009
2700	0.006
2760	0.008
2820	0.008
2880	0.009
2940	0.01
3000	0.013
3060	0.015
3120	0.012
3180	0.016
3240	0.009
3300	0.008
3360	0.009
3420	0.008
3480	0.007
3540	0.009
3600	0.011
3660	0.014
3720	0.009
3780	0.01
3840	0.012
3900	0.013
3960	0.01
4020	0.009
4080	0.014
4140	0.015
4200	0.01
4260	0.009
4320	0.01
4380	0.011
4440	0.015

4500	0.009
4560	0.011
4620	0.01
4680	0.015
4740	0.012
4800	0.011
4860	0.01
4920	0.013
4980	0.011
5040	0.016
5100	0.018
5160	0.013
5220	0.018
5280	0.014
5340	0.011
5400	0.013
5460	0.012
5520	0.02
5580	0.012
5640	0.01
5700	0.01
5760	0.012
5820	0.01
5880	0.01
5940	0.012
6000	0.009
6060	0.011
6120	0.011
6180	0.01
6240	0.01
6300	0.014
6360	0.015
6420	0.013
6480	0.012
6540	0.015
6600	0.014
6660	0.012
6720	0.015
6780	0.016
6840	0.015
6900	0.018
6960	0.016
7020	0.013
7080	0.013
7140	0.009
7200	0.01
7260	0.01

7320	0.011
7380	0.013
7440	0.009
7500	0.009
7560	0.013
7620	0.018
7680	0.018
7740	0.013
7800	0.01
7860	0.01
7920	0.01
7980	0.012
8040	0.015
8100	0.015
8160	0.012
8220	0.015
8280	0.01
8340	0.011
8400	0.01
8460	0.015
8520	0.017
8580	0.011
8640	0.009
8700	0.009
8760	0.009
8820	0.009
8880	0.01
8940	0.01
9000	0.01
9060	0.01
9120	0.01
9180	0.01
9240	0.01
9300	0.01
9360	0.015
9420	0.016
9480	0.016
9540	0.011
9600	0.011
9660	0.011
9720	0.017
9780	0.018
9840	0.016
9900	0.016
9960	0.016
10020	0.02
10080	0.012

10140	0.015
10200	0.01
10260	0.01
10320	0.023
10380	0.02
10440	0.017
10500	0.012
10560	0.019
10620	0.018
10680	0.014
10740	0.017
10800	0.011
10860	0.012
10920	0.022
10980	0.023
11040	0.015
11100	0.015
11160	0.012
11220	0.012
11280	0.011
11340	0.009
11400	0.009
11460	0.009
11520	0.008
11580	0.009
11640	0.011
11700	0.009
11760	0.008
11820	0.009
11880	0.01
11940	0.009
12000	0.009
12060	0.009
12120	0.009
12180	0.008
12240	0.008
12300	0.008
12360	0.011
12420	0.009
12480	0.01
12540	0.009
12600	0.009
12660	0.009
12720	0.01
12780	0.009
12840	0.009
12900	0.009

12960	0.009	
13020	0.012	
13080	0.011	
13140	0.01	
13200	0.01	
13260	0.011	
13320	0.011	
13380	0.012	
13440	0.013	
13500	0.015	
13560	0.013	
13620	0.016	
13680	0.011	
13740	0.008	
13800	0.009	
13860	0.01	
13920	0.014	
13980	0.014	
14040	0.016	
14100	0.01	
14160	0.013	
14220	0.014	
14280	0.012	
14340	0.011	
14400	0.01	
14460	0.02	
14520	0.019	
14580	0.014	
14640	0.004	Flow Error
14700	0.016	Flow Error
14760	0.008	Flow Error
14820	0.013	Flow Error
14880	0.093	Flow Error
14940	0.007	Flow Error
15000	0.003	Flow Error
15060	0.003	Flow Error
15120	0.004	Flow Error
15180	0.005	Flow Error
15240	0.106	Flow Error
15300	0.024	Flow Error
15360	0.003	Flow Error

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_016
Test Start T	########
Test Start D	########
Test Length	0:03:23
Test Interva	1:00
Mass Avera	0.025
Mass Minir	0.006
Mass Maxir	0.075
Mass TWA	0.011
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	203

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.039		
120	0.043		
180	0.056		
240	0.034		
300	0.037		
360	0.054		
420	0.038		
480	0.038		
540	0.054		
600	0.048		
660	0.053		
720	0.033		
780	0.044		
840	0.052		
900	0.056		
960	0.053		
1020	0.059		
1080	0.075		
1140	0.053		
1200	0.044		
1260	0.049		
1320	0.039		
1380	0.034		
1440	0.046		
1500	0.044		
1560	0.033		
1620	0.024		

1680	0.019
1740	0.019
1800	0.018
1860	0.031
1920	0.046
1980	0.021
2040	0.028
2100	0.027
2160	0.041
2220	0.044
2280	0.044
2340	0.033
2400	0.05
2460	0.026
2520	0.02
2580	0.019
2640	0.026
2700	0.032
2760	0.029
2820	0.026
2880	0.028
2940	0.053
3000	0.028
3060	0.045
3120	0.02
3180	0.02
3240	0.022
3300	0.025
3360	0.026
3420	0.02
3480	0.019
3540	0.021
3600	0.024
3660	0.017
3720	0.019
3780	0.019
3840	0.022
3900	0.025
3960	0.019
4020	0.016
4080	0.016
4140	0.015
4200	0.015
4260	0.018
4320	0.017
4380	0.016
4440	0.016

4500	0.017
4560	0.016
4620	0.019
4680	0.023
4740	0.02
4800	0.018
4860	0.019
4920	0.019
4980	0.022
5040	0.021
5100	0.017
5160	0.016
5220	0.017
5280	0.017
5340	0.022
5400	0.024
5460	0.017
5520	0.023
5580	0.02
5640	0.019
5700	0.017
5760	0.017
5820	0.017
5880	0.018
5940	0.017
6000	0.017
6060	0.016
6120	0.015
6180	0.016
6240	0.016
6300	0.016
6360	0.016
6420	0.03
6480	0.017
6540	0.016
6600	0.018
6660	0.018
6720	0.017
6780	0.018
6840	0.019
6900	0.019
6960	0.019
7020	0.018
7080	0.019
7140	0.019
7200	0.02
7260	0.02

7320	0.024
7380	0.025
7440	0.022
7500	0.021
7560	0.022
7620	0.023
7680	0.023
7740	0.027
7800	0.029
7860	0.035
7920	0.022
7980	0.022
8040	0.023
8100	0.023
8160	0.021
8220	0.02
8280	0.021
8340	0.021
8400	0.024
8460	0.022
8520	0.021
8580	0.026
8640	0.025
8700	0.029
8760	0.024
8820	0.026
8880	0.023
8940	0.019
9000	0.018
9060	0.019
9120	0.019
9180	0.019
9240	0.031
9300	0.034
9360	0.022
9420	0.022
9480	0.02
9540	0.017
9600	0.016
9660	0.017
9720	0.019
9780	0.018
9840	0.02
9900	0.021
9960	0.019
10020	0.019
10080	0.019

10140	0.025	
10200	0.038	
10260	0.051	
10320	0.038	
10380	0.028	
10440	0.028	
10500	0.023	
10560	0.023	
10620	0.02	
10680	0.023	
10740	0.021	
10800	0.021	
10860	0.023	
10920	0.025	
10980	0.023	
11040	0.021	
11100	0.019	
11160	0.029	
11220	0.021	
11280	0.022	
11340	0.024	
11400	0.02	
11460	0.013	Flow Error
11520	0.013	Flow Error
11580	0.013	Flow Error
11640	0.014	Flow Error
11700	0.009	Flow Error
11760	0.01	Flow Error
11820	0.012	Flow Error
11880	0.009	Flow Error
11940	0.012	Flow Error
12000	0.013	Flow Error
12060	0.007	Flow Error
12120	0.006	Flow Error
12180	0.007	Flow Error

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_017
Test Start T	########
Test Start D	########
Test Length	0:06:55
Test Interva	1:00
Mass Avera	0.045
Mass Minir	0.006
Mass Maxir	0.637
Mass TWA	0.039
Photometr	1
Flow User C	0
Errors	
Number of	415

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.017		
120	0.014		
180	0.019		
240	0.023		
300	0.018		
360	0.009		
420	0.01		
480	0.018		
540	0.03		
600	0.051		
660	0.087		
720	0.033		
780	0.018		
840	0.052		
900	0.027		
960	0.024		
1020	0.045		
1080	0.025		
1140	0.023		
1200	0.049		
1260	0.025		
1320	0.013		
1380	0.017		
1440	0.017		
1500	0.016		
1560	0.015		
1620	0.018		

1680	0.016
1740	0.018
1800	0.013
1860	0.012
1920	0.021
1980	0.018
2040	0.026
2100	0.029
2160	0.03
2220	0.017
2280	0.037
2340	0.035
2400	0.011
2460	0.047
2520	0.057
2580	0.066
2640	0.037
2700	0.013
2760	0.026
2820	0.021
2880	0.026
2940	0.03
3000	0.017
3060	0.06
3120	0.036
3180	0.042
3240	0.026
3300	0.065
3360	0.066
3420	0.091
3480	0.082
3540	0.039
3600	0.091
3660	0.062
3720	0.022
3780	0.015
3840	0.039
3900	0.043
3960	0.039
4020	0.057
4080	0.048
4140	0.028
4200	0.02
4260	0.031
4320	0.136
4380	0.049
4440	0.157

4500	0.061
4560	0.072
4620	0.03
4680	0.045
4740	0.023
4800	0.038
4860	0.05
4920	0.037
4980	0.014
5040	0.01
5100	0.032
5160	0.037
5220	0.026
5280	0.016
5340	0.018
5400	0.013
5460	0.023
5520	0.011
5580	0.009
5640	0.01
5700	0.01
5760	0.011
5820	0.014
5880	0.009
5940	0.013
6000	0.022
6060	0.015
6120	0.008
6180	0.009
6240	0.016
6300	0.013
6360	0.01
6420	0.009
6480	0.011
6540	0.009
6600	0.007
6660	0.01
6720	0.009
6780	0.022
6840	0.015
6900	0.021
6960	0.008
7020	0.01
7080	0.007
7140	0.009
7200	0.008
7260	0.01

7320	0.011
7380	0.033
7440	0.032
7500	0.03
7560	0.014
7620	0.027
7680	0.018
7740	0.033
7800	0.016
7860	0.019
7920	0.016
7980	0.018
8040	0.045
8100	0.014
8160	0.016
8220	0.015
8280	0.015
8340	0.021
8400	0.019
8460	0.015
8520	0.024
8580	0.016
8640	0.008
8700	0.03
8760	0.031
8820	0.057
8880	0.064
8940	0.082
9000	0.052
9060	0.06
9120	0.05
9180	0.135
9240	0.131
9300	0.132
9360	0.059
9420	0.039
9480	0.034
9540	0.032
9600	0.034
9660	0.018
9720	0.032
9780	0.042
9840	0.01
9900	0.006
9960	0.006
10020	0.007
10080	0.013

10140	0.01
10200	0.011
10260	0.016
10320	0.016
10380	0.018
10440	0.029
10500	0.014
10560	0.024
10620	0.022
10680	0.023
10740	0.013
10800	0.009
10860	0.009
10920	0.007
10980	0.008
11040	0.009
11100	0.008
11160	0.009
11220	0.01
11280	0.011
11340	0.008
11400	0.009
11460	0.01
11520	0.013
11580	0.011
11640	0.009
11700	0.009
11760	0.01
11820	0.007
11880	0.01
11940	0.008
12000	0.008
12060	0.007
12120	0.007
12180	0.011
12240	0.014
12300	0.011
12360	0.008
12420	0.008
12480	0.009
12540	0.009
12600	0.009
12660	0.008
12720	0.008
12780	0.009
12840	0.068
12900	0.637

12960	0.009
13020	0.011
13080	0.008
13140	0.008
13200	0.009
13260	0.009
13320	0.009
13380	0.009
13440	0.008
13500	0.008
13560	0.008
13620	0.008
13680	0.008
13740	0.009
13800	0.009
13860	0.009
13920	0.01
13980	0.01
14040	0.009
14100	0.009
14160	0.008
14220	0.009
14280	0.009
14340	0.061
14400	0.061
14460	0.033
14520	0.014
14580	0.158
14640	0.217
14700	0.212
14760	0.236
14820	0.221
14880	0.024
14940	0.068
15000	0.129
15060	0.066
15120	0.012
15180	0.042
15240	0.023
15300	0.049
15360	0.028
15420	0.038
15480	0.038
15540	0.031
15600	0.052
15660	0.031
15720	0.036

15780	0.019
15840	0.022
15900	0.02
15960	0.019
16020	0.084
16080	0.049
16140	0.052
16200	0.052
16260	0.076
16320	0.026
16380	0.043
16440	0.134
16500	0.043
16560	0.015
16620	0.036
16680	0.059
16740	0.087
16800	0.038
16860	0.056
16920	0.193
16980	0.056
17040	0.079
17100	0.011
17160	0.01
17220	0.017
17280	0.053
17340	0.053
17400	0.065
17460	0.081
17520	0.065
17580	0.108
17640	0.068
17700	0.04
17760	0.196
17820	0.095
17880	0.029
17940	0.113
18000	0.05
18060	0.052
18120	0.014
18180	0.075
18240	0.075
18300	0.057
18360	0.064
18420	0.022
18480	0.05
18540	0.049

18600	0.059
18660	0.101
18720	0.154
18780	0.089
18840	0.116
18900	0.129
18960	0.101
19020	0.148
19080	0.154
19140	0.078
19200	0.095
19260	0.075
19320	0.032
19380	0.052
19440	0.056
19500	0.06
19560	0.074
19620	0.062
19680	0.037
19740	0.029
19800	0.054
19860	0.045
19920	0.031
19980	0.021
20040	0.032
20100	0.028
20160	0.051
20220	0.036
20280	0.014
20340	0.012
20400	0.017
20460	0.037
20520	0.027
20580	0.026
20640	0.025
20700	0.023
20760	0.015
20820	0.013
20880	0.018
20940	0.022
21000	0.027
21060	0.061
21120	0.046
21180	0.118
21240	0.149
21300	0.034
21360	0.017

21420	0.022
21480	0.031
21540	0.019
21600	0.036
21660	0.048
21720	0.054
21780	0.023
21840	0.037
21900	0.015
21960	0.038
22020	0.186
22080	0.071
22140	0.135
22200	0.073
22260	0.258
22320	0.1
22380	0.176
22440	0.101
22500	0.166
22560	0.175
22620	0.159
22680	0.112
22740	0.024
22800	0.031
22860	0.021
22920	0.021
22980	0.117
23040	0.076
23100	0.014
23160	0.052
23220	0.163
23280	0.119
23340	0.076
23400	0.152
23460	0.12
23520	0.129
23580	0.117
23640	0.128
23700	0.068
23760	0.084
23820	0.066
23880	0.084
23940	0.02
24000	0.108
24060	0.158
24120	0.178
24180	0.107

24240	0.051
24300	0.029
24360	0.038
24420	0.017
24480	0.021
24540	0.024
24600	0.04
24660	0.031
24720	0.022
24780	0.041
24840	0.029
24900	0.019

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_001
Test Start T	########
Test Start D	4/1/2019
Test Length	0:04:05
Test Interva	1:00
Mass Avera	0.008
Mass Minir	0.004
Mass Maxir	0.033
Mass TWA	0.004
Photometr	1
Flow User C	0
Errors	
Number of	245

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.014		
120	0.013		
180	0.015		
240	0.013		
300	0.014		
360	0.013		
420	0.013		
480	0.013		
540	0.033		
600	0.013		
660	0.013		
720	0.012		
780	0.012		
840	0.011		
900	0.016		
960	0.013		
1020	0.014		
1080	0.011		
1140	0.012		
1200	0.01		
1260	0.015		
1320	0.015		
1380	0.015		
1440	0.015		
1500	0.013		
1560	0.011		
1620	0.011		

1680	0.01
1740	0.01
1800	0.009
1860	0.009
1920	0.009
1980	0.013
2040	0.013
2100	0.017
2160	0.009
2220	0.009
2280	0.009
2340	0.012
2400	0.009
2460	0.009
2520	0.008
2580	0.008
2640	0.01
2700	0.009
2760	0.009
2820	0.009
2880	0.008
2940	0.01
3000	0.008
3060	0.008
3120	0.008
3180	0.008
3240	0.009
3300	0.008
3360	0.008
3420	0.008
3480	0.008
3540	0.008
3600	0.008
3660	0.008
3720	0.007
3780	0.008
3840	0.008
3900	0.008
3960	0.009
4020	0.009
4080	0.008
4140	0.007
4200	0.007
4260	0.007
4320	0.007
4380	0.007
4440	0.008

4500	0.008
4560	0.008
4620	0.008
4680	0.009
4740	0.007
4800	0.007
4860	0.007
4920	0.007
4980	0.007
5040	0.007
5100	0.008
5160	0.008
5220	0.008
5280	0.008
5340	0.008
5400	0.009
5460	0.01
5520	0.009
5580	0.009
5640	0.008
5700	0.01
5760	0.008
5820	0.008
5880	0.008
5940	0.01
6000	0.008
6060	0.008
6120	0.007
6180	0.009
6240	0.007
6300	0.008
6360	0.007
6420	0.008
6480	0.008
6540	0.008
6600	0.008
6660	0.008
6720	0.007
6780	0.008
6840	0.007
6900	0.007
6960	0.008
7020	0.008
7080	0.008
7140	0.007
7200	0.008
7260	0.008

7320	0.008
7380	0.008
7440	0.009
7500	0.009
7560	0.008
7620	0.007
7680	0.007
7740	0.012
7800	0.008
7860	0.008
7920	0.008
7980	0.007
8040	0.007
8100	0.008
8160	0.008
8220	0.007
8280	0.008
8340	0.007
8400	0.008
8460	0.007
8520	0.008
8580	0.007
8640	0.007
8700	0.008
8760	0.008
8820	0.009
8880	0.009
8940	0.008
9000	0.011
9060	0.011
9120	0.009
9180	0.007
9240	0.008
9300	0.008
9360	0.008
9420	0.007
9480	0.007
9540	0.006
9600	0.006
9660	0.008
9720	0.008
9780	0.007
9840	0.007
9900	0.008
9960	0.008
10020	0.007
10080	0.007

10140	0.008
10200	0.008
10260	0.007
10320	0.01
10380	0.007
10440	0.008
10500	0.007
10560	0.008
10620	0.007
10680	0.006
10740	0.007
10800	0.006
10860	0.007
10920	0.006
10980	0.007
11040	0.009
11100	0.01
11160	0.008
11220	0.007
11280	0.008
11340	0.008
11400	0.009
11460	0.008
11520	0.01
11580	0.008
11640	0.007
11700	0.007
11760	0.007
11820	0.005
11880	0.006
11940	0.006
12000	0.006
12060	0.007
12120	0.007
12180	0.009
12240	0.006
12300	0.006
12360	0.006
12420	0.006
12480	0.006
12540	0.006
12600	0.005
12660	0.006
12720	0.008
12780	0.007
12840	0.005
12900	0.006

12960	0.005
13020	0.005
13080	0.006
13140	0.006
13200	0.014
13260	0.009
13320	0.006
13380	0.005
13440	0.005
13500	0.007
13560	0.005
13620	0.005
13680	0.006
13740	0.005
13800	0.005
13860	0.005
13920	0.005
13980	0.005
14040	0.005
14100	0.006
14160	0.005
14220	0.004
14280	0.005
14340	0.006
14400	0.005
14460	0.005
14520	0.006
14580	0.006
14640	0.008
14700	0.022

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_002
Test Start T	########
Test Start D	4/2/2019
Test Length	0:04:53
Test Interva	1:00
Mass Avera	0.011
Mass Minir	0.005
Mass Maxir	0.121
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	
Number of	293

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.012		
120	0.013		
180	0.013		
240	0.012		
300	0.013		
360	0.012		
420	0.013		
480	0.012		
540	0.012		
600	0.013		
660	0.014		
720	0.013		
780	0.012		
840	0.012		
900	0.011		
960	0.011		
1020	0.012		
1080	0.013		
1140	0.016		
1200	0.014		
1260	0.013		
1320	0.014		
1380	0.015		
1440	0.014		
1500	0.012		
1560	0.013		
1620	0.015		

1680	0.013
1740	0.012
1800	0.012
1860	0.012
1920	0.012
1980	0.013
2040	0.015
2100	0.019
2160	0.016
2220	0.016
2280	0.011
2340	0.01
2400	0.01
2460	0.01
2520	0.011
2580	0.01
2640	0.012
2700	0.012
2760	0.011
2820	0.01
2880	0.01
2940	0.009
3000	0.01
3060	0.009
3120	0.009
3180	0.01
3240	0.01
3300	0.011
3360	0.011
3420	0.011
3480	0.011
3540	0.012
3600	0.013
3660	0.017
3720	0.016
3780	0.013
3840	0.01
3900	0.009
3960	0.01
4020	0.009
4080	0.011
4140	0.01
4200	0.011
4260	0.012
4320	0.011
4380	0.009
4440	0.009

4500	0.008
4560	0.008
4620	0.008
4680	0.008
4740	0.009
4800	0.009
4860	0.009
4920	0.01
4980	0.01
5040	0.01
5100	0.01
5160	0.01
5220	0.011
5280	0.01
5340	0.01
5400	0.009
5460	0.009
5520	0.009
5580	0.011
5640	0.013
5700	0.011
5760	0.012
5820	0.012
5880	0.01
5940	0.01
6000	0.011
6060	0.011
6120	0.011
6180	0.011
6240	0.009
6300	0.01
6360	0.017
6420	0.022
6480	0.015
6540	0.021
6600	0.017
6660	0.019
6720	0.016
6780	0.013
6840	0.01
6900	0.014
6960	0.019
7020	0.018
7080	0.014
7140	0.021
7200	0.014
7260	0.017

7320	0.02
7380	0.021
7440	0.015
7500	0.022
7560	0.018
7620	0.011
7680	0.017
7740	0.013
7800	0.008
7860	0.012
7920	0.014
7980	0.018
8040	0.011
8100	0.011
8160	0.008
8220	0.015
8280	0.011
8340	0.019
8400	0.011
8460	0.016
8520	0.014
8580	0.014
8640	0.018
8700	0.015
8760	0.015
8820	0.016
8880	0.016
8940	0.013
9000	0.018
9060	0.018
9120	0.018
9180	0.018
9240	0.015
9300	0.008
9360	0.007
9420	0.007
9480	0.007
9540	0.007
9600	0.006
9660	0.007
9720	0.007
9780	0.008
9840	0.008
9900	0.008
9960	0.007
10020	0.007
10080	0.007

10140	0.006
10200	0.007
10260	0.006
10320	0.006
10380	0.006
10440	0.006
10500	0.006
10560	0.006
10620	0.006
10680	0.006
10740	0.006
10800	0.006
10860	0.007
10920	0.006
10980	0.006
11040	0.01
11100	0.009
11160	0.008
11220	0.007
11280	0.006
11340	0.006
11400	0.006
11460	0.006
11520	0.006
11580	0.007
11640	0.008
11700	0.007
11760	0.007
11820	0.007
11880	0.007
11940	0.006
12000	0.006
12060	0.007
12120	0.006
12180	0.006
12240	0.008
12300	0.006
12360	0.006
12420	0.007
12480	0.006
12540	0.007
12600	0.007
12660	0.006
12720	0.008
12780	0.007
12840	0.007
12900	0.007

12960	0.008
13020	0.007
13080	0.007
13140	0.006
13200	0.007
13260	0.006
13320	0.006
13380	0.007
13440	0.008
13500	0.009
13560	0.009
13620	0.009
13680	0.007
13740	0.006
13800	0.006
13860	0.006
13920	0.006
13980	0.006
14040	0.006
14100	0.007
14160	0.007
14220	0.007
14280	0.008
14340	0.008
14400	0.008
14460	0.007
14520	0.006
14580	0.007
14640	0.007
14700	0.007
14760	0.007
14820	0.006
14880	0.006
14940	0.007
15000	0.007
15060	0.006
15120	0.005
15180	0.012
15240	0.096
15300	0.069
15360	0.121
15420	0.085
15480	0.027
15540	0.01
15600	0.006
15660	0.005
15720	0.006

15780	0.007
15840	0.006
15900	0.005
15960	0.006
16020	0.005
16080	0.006
16140	0.007
16200	0.007
16260	0.006
16320	0.007
16380	0.007
16440	0.006
16500	0.006
16560	0.007
16620	0.007
16680	0.005
16740	0.006
16800	0.006
16860	0.007
16920	0.007
16980	0.006
17040	0.007
17100	0.007
17160	0.008
17220	0.008
17280	0.007
17340	0.006
17400	0.005
17460	0.005
17520	0.006
17580	0.026

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_003
Test Start T	########
Test Start D	4/3/2019
Test Length	0:23:27
Test Interva	1:00
Mass Avera	0.014
Mass Minir	0
Mass Maxir	0.172
Mass TWA	0
Photometr	1
Flow User C	0
Errors	Max Concentration
Number of	1342

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.022		
120	0.023		
180	0.024		
240	0.022		
300	0.022		
360	0.022		
420	0.024		
480	0.024		
540	0.024		
600	0.024		
660	0.023		
720	0.022		
780	0.021		
840	0.021		
900	0.021		
960	0.022		
1020	0.022		
1080	0.023		
1140	0.021		
1200	0.022		
1260	0.022		
1320	0.024		
1380	0.023		
1440	0.023		
1500	0.023		
1560	0.022		
1620	0.025		

1680	0.022
1740	0.021
1800	0.021
1860	0.021
1920	0.021
1980	0.022
2040	0.022
2100	0.021
2160	0.022
2220	0.023
2280	0.023
2340	0.021
2400	0.024
2460	0.024
2520	0.024
2580	0.027
2640	0.026
2700	0.026
2760	0.027
2820	0.025
2880	0.023
2940	0.025
3000	0.026
3060	0.026
3120	0.028
3180	0.028
3240	0.026
3300	0.026
3360	0.027
3420	0.025
3480	0.026
3540	0.025
3600	0.027
3660	0.026
3720	0.025
3780	0.024
3840	0.025
3900	0.026
3960	0.026
4020	0.025
4080	0.025
4140	0.025
4200	0.024
4260	0.024
4320	0.024
4380	0.024
4440	0.024

4500	0.023
4560	0.024
4620	0.023
4680	0.023
4740	0.022
4800	0.022
4860	0.023
4920	0.024
4980	0.025
5040	0.024
5100	0.024
5160	0.025
5220	0.022
5280	0.024
5340	0.025
5400	0.023
5460	0.023
5520	0.025
5580	0.022
5640	0.024
5700	0.025
5760	0.023
5820	0.024
5880	0.023
5940	0.025
6000	0.021
6060	0.023
6120	0.026
6180	0.025
6240	0.029
6300	0.025
6360	0.023
6420	0.024
6480	0.022
6540	0.026
6600	0.025
6660	0.024
6720	0.023
6780	0.026
6840	0.026
6900	0.024
6960	0.027
7020	0.025
7080	0.025
7140	0.025
7200	0.024
7260	0.025

7320	0.024
7380	0.023
7440	0.023
7500	0.024
7560	0.025
7620	0.027
7680	0.026
7740	0.023
7800	0.022
7860	0.021
7920	0.024
7980	0.023
8040	0.023
8100	0.023
8160	0.022
8220	0.022
8280	0.022
8340	0.023
8400	0.022
8460	0.022
8520	0.023
8580	0.024
8640	0.022
8700	0.021
8760	0.022
8820	0.022
8880	0.022
8940	0.022
9000	0.022
9060	0.021
9120	0.022
9180	0.021
9240	0.023
9300	0.022
9360	0.022
9420	0.022
9480	0.022
9540	0.021
9600	0.021
9660	0.022
9720	0.021
9780	0.021
9840	0.02
9900	0.023
9960	0.024
10020	0.02
10080	0.02

10140	0.021
10200	0.024
10260	0.026
10320	0.022
10380	0.021
10440	0.022
10500	0.023
10560	0.023
10620	0.022
10680	0.021
10740	0.021
10800	0.021
10860	0.023
10920	0.022
10980	0.024
11040	0.021
11100	0.025
11160	0.023
11220	0.021
11280	0.023
11340	0.021
11400	0.023
11460	0.024
11520	0.021
11580	0.02
11640	0.024
11700	0.018
11760	0.021
11820	0.02
11880	0.023
11940	0.022
12000	0.022
12060	0.023
12120	0.023
12180	0.022
12240	0.023
12300	0.022
12360	0.021
12420	0.021
12480	0.02
12540	0.023
12600	0.022
12660	0.022
12720	0.023
12780	0.022
12840	0.021
12900	0.021

12960	0.021
13020	0.023
13080	0.021
13140	0.022
13200	0.024
13260	0.023
13320	0.024
13380	0.023
13440	0.021
13500	0.023
13560	0.023
13620	0.023
13680	0.021
13740	0.02
13800	0.021
13860	0.02
13920	0.021
13980	0.022
14040	0.024
14100	0.021
14160	0.019
14220	0.02
14280	0.021
14340	0.021
14400	0.02
14460	0.027
14520	0.018
14580	0.018
14640	0.02
14700	0.017
14760	0.018
14820	0.017
14880	0.019
14940	0.018
15000	0.02
15060	0.018
15120	0.019
15180	0.018
15240	0.016
15300	0.029
15360	0.02
15420	0.017
15480	0.015
15540	0.016
15600	0.015
15660	0.015
15720	0.015

15780	0.018
15840	0.016
15900	0.017
15960	0.017
16020	0.016
16080	0.019
16140	0.021
16200	0.018
16260	0.017
16320	0.018
16380	0.018
16440	0.017
16500	0.018
16560	0.019
16620	0.018
16680	0.019
16740	0.018
16800	0.018
16860	0.018
16920	0.02
16980	0.02
17040	0.018
17100	0.019
17160	0.018
17220	0.018
17280	0.02
17340	0.019
17400	0.019
17460	0.02
17520	0.02
17580	0.019
17640	0.02
17700	0.02
17760	0.022
17820	0.029
17880	0.031
17940	0.025
18000	0.023
18060	0.025
18120	0.023
18180	0.022
18240	0.022
18300	0.021
18360	0.021
18420	0.022
18480	0.024
18540	0.022

18600	0.023
18660	0.021
18720	0.023
18780	0.022
18840	0.022
18900	0.023
18960	0.025
19020	0.024
19080	0.023
19140	0.022
19200	0.023
19260	0.023
19320	0.024
19380	0.024
19440	0.024
19500	0.025
19560	0.025
19620	0.024
19680	0.021
19740	0.022
19800	0.021
19860	0.022
19920	0.019
19980	0.02
20040	0.022
20100	0.021
20160	0.021
20220	0.019
20280	0.022
20340	0.025
20400	0.024
20460	0.023
20520	0.024
20580	0.018
20640	0.019
20700	0.018
20760	0.018
20820	0.019
20880	0.018
20940	0.019
21000	0.02
21060	0.018
21120	0.019
21180	0.021
21240	0.017
21300	0.015
21360	0.015

21420	0.018
21480	0.017
21540	0.017
21600	0.021
21660	0.018
21720	0.016
21780	0.016
21840	0.016
21900	0.02
21960	0.02
22020	0.022
22080	0.019
22140	0.019
22200	0.015
22260	0.015
22320	0.015
22380	0.016
22440	0.137
22500	0.06
22560	0.019
22620	0.021
22680	0.016
22740	0.016
22800	0.016
22860	0.019
22920	0.022
22980	0.02
23040	0.022
23100	0.017
23160	0.015
23220	0.018
23280	0.028
23340	0.033
23400	0.03
23460	0.023
23520	0.031
23580	0.028
23640	0.037
23700	0.022
23760	0.025
23820	0.025
23880	0.03
23940	0.024
24000	0.045
24060	0.035
24120	0.042
24180	0.035

24240	0.043
24300	0.029
24360	0.032
24420	0.027
24480	0.044
24540	0.043
24600	0.036
24660	0.059
24720	0.042
24780	0.03
24840	0.024
24900	0.033
24960	0.052
25020	0.069
25080	0.047
25140	0.035
25200	0.059
25260	0.024
25320	0.021
25380	0.019
25440	0.022
25500	0.021
25560	0.025
25620	0.059
25680	0.088
25740	0.172
25800	0.051
25860	0.027
25920	0.02
25980	0.11
26040	0.036
26100	0.019
26160	0.02
26220	0.018
26280	0.018
26340	0.018
26400	0.017
26460	0.017
26520	0.018
26580	0.019
26640	0.017
26700	0.018
26760	0.019
26820	0.018
26880	0.019
26940	0.017
27000	0.017

27060	0.017	
27120	0.018	
27180	0.017	
27240	0.017	
27300	0.018	
27360	0.016	
27420	0.016	
27480	0.016	
27540	0.016	
27600	0.016	
27660	0.016	
27720	0.017	
27780	0.016	
27840	0.017	
27900	0.017	
27960	0.018	
28020	0.016	
28080	0.017	
28140	0.019	
28200	0.015	
28260	0.016	
28320	0.016	
28380	0.016	
28440	0.015	
28500	0.017	
28560	0.016	
28620	0.016	
28680	0.017	
28740	0.019	
28800	0.017	
28860	0.017	
28920	0.017	
32891	0	Max Concentration
32940	0.028	Max Concentration
33000	0.027	Max Concentration
33060	0.024	Max Concentration
33120	0.023	Max Concentration
33180	0.024	Max Concentration
33240	0.021	Max Concentration
33300	0.021	Max Concentration
33360	0.022	Max Concentration
33420	0.021	Max Concentration
33480	0.021	Max Concentration
33540	0.021	Max Concentration
33600	0.021	Max Concentration
33660	0.021	Max Concentration
33720	0.023	Max Concentration

33780	0.023	Max Concentration
33840	0.024	Max Concentration
33900	0.023	Max Concentration
33960	0.023	Max Concentration
34020	0.022	Max Concentration
34080	0.021	Max Concentration
34140	0.019	Max Concentration
34200	0.021	Max Concentration
34260	0.019	Max Concentration
34320	0.018	Max Concentration
34380	0.018	Max Concentration
34440	0.018	Max Concentration
34500	0.018	Max Concentration
34560	0.018	Max Concentration
34620	0.018	Max Concentration
34680	0.019	Max Concentration
34740	0.02	Max Concentration
34800	0.021	Max Concentration
34860	0.021	Max Concentration
34920	0.019	Max Concentration
34980	0.019	Max Concentration
35040	0.019	Max Concentration
35100	0.021	Max Concentration
35160	0.021	Max Concentration
35220	0.019	Max Concentration
35280	0.019	Max Concentration
35340	0.018	Max Concentration
35400	0.017	Max Concentration
35460	0.017	Max Concentration
35520	0.017	Max Concentration
35580	0.016	Max Concentration
35640	0.018	Max Concentration
35700	0.017	Max Concentration
35760	0.016	Max Concentration
35820	0.017	Max Concentration
35880	0.016	Max Concentration
35940	0.016	Max Concentration
36000	0.016	Max Concentration
36060	0.015	Max Concentration
36120	0.015	Max Concentration
36180	0.015	Max Concentration
36240	0.015	Max Concentration
36300	0.015	Max Concentration
36360	0.015	Max Concentration
36420	0.015	Max Concentration
36480	0.015	Max Concentration
36540	0.014	Max Concentration

36600	0.014	Max Concentration
36660	0.015	Max Concentration
36720	0.016	Max Concentration
36780	0.017	Max Concentration
36840	0.016	Max Concentration
36900	0.016	Max Concentration
36960	0.017	Max Concentration
37020	0.018	Max Concentration
37080	0.018	Max Concentration
37140	0.016	Max Concentration
37200	0.016	Max Concentration
37260	0.015	Max Concentration
37320	0.015	Max Concentration
37380	0.014	Max Concentration
37440	0.014	Max Concentration
37500	0.013	Max Concentration
37560	0.013	Max Concentration
37620	0.013	Max Concentration
37680	0.013	Max Concentration
37740	0.013	Max Concentration
37800	0.013	Max Concentration
37860	0.013	Max Concentration
37920	0.012	Max Concentration
37980	0.012	Max Concentration
38040	0.012	Max Concentration
38100	0.012	Max Concentration
38160	0.012	Max Concentration
38220	0.013	Max Concentration
38280	0.012	Max Concentration
38340	0.012	Max Concentration
38400	0.012	Max Concentration
38460	0.012	Max Concentration
38520	0.012	Max Concentration
38580	0.012	Max Concentration
38640	0.012	Max Concentration
38700	0.012	Max Concentration
38760	0.012	Max Concentration
38820	0.012	Max Concentration
38880	0.013	Max Concentration
38940	0.012	Max Concentration
39000	0.013	Max Concentration
39060	0.013	Max Concentration
39120	0.013	Max Concentration
39180	0.012	Max Concentration
39240	0.012	Max Concentration
39300	0.013	Max Concentration
39360	0.012	Max Concentration

39420	0.013	Max Concentration
39480	0.012	Max Concentration
39540	0.013	Max Concentration
39600	0.012	Max Concentration
39660	0.012	Max Concentration
39720	0.013	Max Concentration
39780	0.013	Max Concentration
39840	0.012	Max Concentration
39900	0.012	Max Concentration
39960	0.013	Max Concentration
40020	0.012	Max Concentration
40080	0.012	Max Concentration
40140	0.012	Max Concentration
40200	0.012	Max Concentration
40260	0.013	Max Concentration
40320	0.013	Max Concentration
40380	0.013	Max Concentration
40440	0.012	Max Concentration
40500	0.012	Max Concentration
40560	0.012	Max Concentration
40620	0.012	Max Concentration
40680	0.012	Max Concentration
40740	0.012	Max Concentration
40800	0.012	Max Concentration
40860	0.013	Max Concentration
40920	0.012	Max Concentration
40980	0.012	Max Concentration
41040	0.012	Max Concentration
41100	0.013	Max Concentration
41160	0.012	Max Concentration
41220	0.013	Max Concentration
41280	0.013	Max Concentration
41340	0.012	Max Concentration
41400	0.012	Max Concentration
41460	0.012	Max Concentration
41520	0.012	Max Concentration
41580	0.011	Max Concentration
41640	0.012	Max Concentration
41700	0.012	Max Concentration
41760	0.013	Max Concentration
41820	0.011	Max Concentration
41880	0.011	Max Concentration
41940	0.011	Max Concentration
42000	0.011	Max Concentration
42060	0.011	Max Concentration
42120	0.011	Max Concentration
42180	0.011	Max Concentration

42240	0.011	Max Concentration
42300	0.012	Max Concentration
42360	0.011	Max Concentration
42420	0.011	Max Concentration
42480	0.011	Max Concentration
42540	0.012	Max Concentration
42600	0.011	Max Concentration
42660	0.011	Max Concentration
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43080	0.011	Max Concentration
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43380	0.01	Max Concentration
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45480	0.01	Max Concentration
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83040	0.01	Max Concentration
83100	0.01	Max Concentration
83160	0.012	Max Concentration
83220	0.013	Max Concentration
83280	0.011	Max Concentration
83340	0.012	Max Concentration
83400	0.011	Max Concentration
83460	0.011	Max Concentration
83520	0.01	Max Concentration
83580	0.011	Max Concentration
83640	0.01	Max Concentration
83700	0.011	Max Concentration
83760	0.011	Max Concentration
83820	0.011	Max Concentration
83880	0.011	Max Concentration
83940	0.011	Max Concentration
84000	0.011	Max Concentration
84060	0.013	Max Concentration
84120	0.012	Max Concentration
84180	0.011	Max Concentration
84240	0.01	Max Concentration
84300	0.011	Max Concentration
84360	0.01	Max Concentration
84420	0.011	Max Concentration

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_004
Test Start T	########
Test Start D	4/4/2019
Test Length	0:06:06
Test Interva	1:00
Mass Avera	0.013
Mass Minir	0
Mass Maxir	0.174
Mass TWA	0.01
Photometr	1
Flow User C	0
Errors	
Number of	362

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.003		Flow Error
120	0		Flow Error
180	0.001		Flow Error
240	0		Flow Error
540	0		
600	0.174		
660	0.01		
720	0.009		
780	0.011		
840	0.012		
900	0.012		
960	0.011		
1020	0.012		
1080	0.012		
1140	0.012		
1200	0.013		
1260	0.011		
1320	0.011		
1380	0.009		
1440	0.01		
1500	0.01		
1560	0.012		
1620	0.016		
1680	0.011		
1740	0.011		
1800	0.012		
1860	0.011		

1920	0.012
1980	0.011
2040	0.013
2100	0.011
2160	0.011
2220	0.01
2280	0.013
2340	0.011
2400	0.013
2460	0.009
2520	0.011
2580	0.011
2640	0.011
2700	0.01
2760	0.01
2820	0.009
2880	0.013
2940	0.013
3000	0.012
3060	0.012
3120	0.015
3180	0.014
3240	0.019
3300	0.017
3360	0.016
3420	0.013
3480	0.013
3540	0.013
3600	0.015
3660	0.016
3720	0.015
3780	0.015
3840	0.013
3900	0.012
3960	0.013
4020	0.014
4080	0.011
4140	0.011
4200	0.013
4260	0.01
4320	0.01
4380	0.01
4440	0.012
4500	0.013
4560	0.013
4620	0.011
4680	0.011

4740	0.011
4800	0.013
4860	0.01
4920	0.011
4980	0.011
5040	0.013
5100	0.012
5160	0.011
5220	0.011
5280	0.01
5340	0.009
5400	0.009
5460	0.009
5520	0.01
5580	0.01
5640	0.01
5700	0.01
5760	0.011
5820	0.012
5880	0.011
5940	0.011
6000	0.01
6060	0.01
6120	0.012
6180	0.012
6240	0.011
6300	0.011
6360	0.01
6420	0.01
6480	0.012
6540	0.013
6600	0.014
6660	0.013
6720	0.011
6780	0.011
6840	0.012
6900	0.012
6960	0.014
7020	0.016
7080	0.011
7140	0.013
7200	0.015
7260	0.015
7320	0.013
7380	0.013
7440	0.011
7500	0.013

7560	0.013
7620	0.011
7680	0.012
7740	0.012
7800	0.012
7860	0.012
7920	0.013
7980	0.014
8040	0.012
8100	0.015
8160	0.016
8220	0.012
8280	0.013
8340	0.01
8400	0.012
8460	0.012
8520	0.012
8580	0.009
8640	0.013
8700	0.011
8760	0.012
8820	0.014
8880	0.013
8940	0.012
9000	0.015
9060	0.011
9120	0.011
9180	0.012
9240	0.011
9300	0.01
9360	0.013
9420	0.012
9480	0.012
9540	0.013
9600	0.016
9660	0.015
9720	0.016
9780	0.011
9840	0.014
9900	0.013
9960	0.012
10020	0.011
10080	0.015
10140	0.011
10200	0.011
10260	0.01
10320	0.011

10380	0.01
10440	0.009
10500	0.011
10560	0.011
10620	0.01
10680	0.01
10740	0.011
10800	0.011
10860	0.011
10920	0.012
10980	0.012
11040	0.014
11100	0.012
11160	0.012
11220	0.014
11280	0.013
11340	0.015
11400	0.011
11460	0.013
11520	0.013
11580	0.014
11640	0.015
11700	0.013
11760	0.014
11820	0.015
11880	0.015
11940	0.011
12000	0.014
12060	0.011
12120	0.014
12180	0.018
12240	0.015
12300	0.017
12360	0.024
12420	0.018
12480	0.015
12540	0.014
12600	0.015
12660	0.015
12720	0.014
12780	0.013
12840	0.016
12900	0.017
12960	0.014
13020	0.011
13080	0.011
13140	0.012

13200	0.011
13260	0.009
13320	0.013
13380	0.015
13440	0.015
13500	0.016
13560	0.013
13620	0.014
13680	0.014
13740	0.014
13800	0.013
13860	0.012
13920	0.014
13980	0.011
14040	0.01
14100	0.011
14160	0.012
14220	0.011
14280	0.01
14340	0.012
14400	0.013
14460	0.013
14520	0.012
14580	0.013
14640	0.013
14700	0.014
14760	0.012
14820	0.011
14880	0.014
14940	0.012
15000	0.01
15060	0.01
15120	0.014
15180	0.011
15240	0.013
15300	0.012
15360	0.011
15420	0.01
15480	0.011
15540	0.011
15600	0.013
15660	0.012
15720	0.011
15780	0.012
15840	0.013
15900	0.011
15960	0.011

16020	0.011
16080	0.011
16140	0.011
16200	0.01
16260	0.01
16320	0.012
16380	0.011
16440	0.012
16500	0.013
16560	0.013
16620	0.013
16680	0.013
16740	0.014
16800	0.013
16860	0.012
16920	0.013
16980	0.014
17040	0.011
17100	0.012
17160	0.015
17220	0.017
17280	0.016
17340	0.017
17400	0.014
17460	0.011
17520	0.01
17580	0.011
17640	0.014
17700	0.018
17760	0.016
17820	0.013
17880	0.011
17940	0.012
18000	0.011
18060	0.011
18120	0.016
18180	0.015
18240	0.013
18300	0.012
18360	0.012
18420	0.012
18480	0.015
18540	0.014
18600	0.013
18660	0.013
18720	0.014
18780	0.012

18840	0.012
18900	0.012
18960	0.012
19020	0.012
19080	0.012
19140	0.012
19200	0.013
19260	0.018
19320	0.015
19380	0.017
19440	0.018
19500	0.02
19560	0.016
19620	0.014
19680	0.016
19740	0.016
19800	0.013
19860	0.016
19920	0.014
19980	0.016
20040	0.014
20100	0.013
20160	0.014
20220	0.013
20280	0.014
20340	0.017
20400	0.022
20460	0.019
20520	0.017
20580	0.013
20640	0.013
20700	0.013
20760	0.013
20820	0.011
20880	0.012
20940	0.012
21000	0.013
21060	0.012
21120	0.012
21180	0.011
21240	0.013
21300	0.013
21360	0.011
21420	0.013
21480	0.013
21540	0.011
21600	0.012

21660	0.014
21720	0.013
21780	0.013
21840	0.013
21900	0.013
21960	0.012

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_005
Test Start T	########
Test Start D	4/8/2019
Test Length	0:03:47
Test Interva	1:00
Mass Avera	0.042
Mass Minir	0
Mass Maxir	0.098
Mass TWA	0.02
Photometr	1
Flow User C	0
Errors	
Number of	218

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.092		
120	0.067		
180	0.066		
240	0.065		
300	0.064		
360	0.062		
420	0.06		
480	0.062		
540	0.058		
600	0.058		
660	0.057		
720	0.055		
780	0.059		
840	0.057		
900	0.055		
960	0.057		
1020	0.054		
1080	0.055		
1140	0.054		
1200	0.054		
1260	0.058		
1320	0.054		
1380	0.055		
1440	0.055		
1500	0.052		
1560	0.054		
1620	0.05		

1680	0.05
1740	0.053
1800	0.053
1860	0.056
1920	0.053
1980	0.052
2040	0.052
2100	0.053
2160	0.054
2220	0.051
2280	0.05
2340	0.05
2400	0.05
2460	0.051
2520	0.047
2580	0.048
2640	0.05
2700	0.05
2760	0.05
2820	0.049
2880	0.048
2940	0.05
3000	0.051
3060	0.049
3120	0.048
3180	0.048
3240	0.048
3300	0.048
3360	0.047
3420	0.047
3480	0.052
3540	0.049
3600	0.048
3660	0.049
3720	0.046
3780	0.049
3840	0.047
3900	0.048
3960	0.05
4020	0.046
4080	0.045
4140	0.043
4200	0.046
4260	0.047
4320	0.048
4380	0.046
4440	0.047

4500	0.047
4560	0.045
4620	0.045
4680	0.047
4740	0.046
4800	0.046
4860	0.045
4920	0.044
4980	0.045
5040	0.044
5100	0.044
5160	0.042
5220	0.043
5280	0.043
5340	0.042
5400	0.042
5460	0.041
5520	0.042
5580	0.041
5640	0.041
5700	0.04
5760	0.041
5820	0.041
5880	0.041
5940	0.042
6000	0.041
6060	0.041
6120	0.041
6180	0.041
6240	0.041
6300	0.041
6360	0.041
6420	0.04
6480	0.041
6540	0.042
6600	0.04
6660	0.038
6720	0.04
6780	0.041
6840	0.04
6900	0.04
6960	0.04
7020	0.04
7080	0.04
7140	0.039
7200	0.041
7260	0.04

7320	0.04
7380	0.04
7440	0.045
7500	0.04
7560	0.039
7620	0.039
7680	0.037
7740	0.036
7800	0.039
7860	0.036
7920	0.036
7980	0.036
8040	0.036
8100	0.036
8160	0.037
8220	0.035
8280	0.035
8340	0.035
8400	0.034
8460	0.035
8520	0.036
8580	0.035
8640	0.035
8700	0.035
8760	0.037
8820	0.038
8880	0.037
8940	0.035
9000	0.036
9060	0.04
9120	0.035
9180	0.036
9240	0.036
9300	0.038
9360	0.036
9420	0.036
9480	0.037
9540	0.037
9600	0.036
9660	0.035
9720	0.04
9780	0.037
9840	0.037
9900	0.035
9960	0.034
10020	0.037
10080	0.035

10140	0.036
10200	0.036
10260	0.035
10320	0.034
10380	0.033
10440	0.033
10500	0.033
10560	0.034
10620	0.034
10680	0.034
10740	0.034
10800	0.033
10860	0.029
10920	0.033
10980	0.031
11040	0.031
11100	0.032
11160	0.032
11220	0.03
11280	0.029
11340	0.029
11400	0.029
11460	0.03
11520	0.03
11580	0.028
11640	0.027
11700	0.026
11760	0.026
11820	0.026
11880	0.026
11940	0.025
12000	0.024
12060	0.023
12120	0.025
12180	0.026
12240	0.026
12300	0.023
12360	0.021
12420	0.021
12480	0.022
12540	0.021
12600	0.021
12660	0.02
12720	0.021
13110	0
13140	0.06
13461	0

13500	0.098
13560	0.091
13620	0.092

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_006
Test Start T	########
Test Start D	4/9/2019
Test Length	1:00:00
Test Interva	1:00
Mass Avera	0.021
Mass Minir	0
Mass Maxir	0.16
Mass TWA	0.03
Photometr	1
Flow User C	0
Errors	
Number of	1440

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.068		
120	0.048		
180	0.049		
240	0.052		
300	0.051		
360	0.048		
420	0.064		
480	0.072		
540	0.078		
600	0.075		
660	0.05		
720	0.049		
780	0.045		
840	0.046		
900	0.043		
960	0.04		
1020	0.044		
1080	0.042		
1140	0.043		
1200	0.043		
1260	0.043		
1320	0.045		
1380	0.051		
1440	0.048		
1500	0.05		
1560	0.053		
1620	0.052		

1680	0.049
1740	0.045
1800	0.051
1860	0.049
1920	0.049
1980	0.048
2040	0.045
2100	0.044
2160	0.044
2220	0.044
2280	0.047
2340	0.047
2400	0.049
2460	0.046
2520	0.044
2580	0.044
2640	0.044
2700	0.045
2760	0.048
2820	0.053
2880	0.047
2940	0.044
3000	0.046
3060	0.047
3120	0.045
3180	0.044
3240	0.046
3300	0.048
3360	0.048
3420	0.047
3480	0.047
3540	0.047
3600	0.045
3660	0.046
3720	0.055
3780	0.047
3840	0.045
3900	0.046
3960	0.046
4020	0.048
4080	0.048
4140	0.048
4200	0.049
4260	0.05
4320	0.051
4380	0.052
4440	0.052

4500	0.053
4560	0.053
4620	0.053
4680	0.052
4740	0.052
4800	0.05
4860	0.048
4920	0.046
4980	0.046
5040	0.043
5100	0.038
5160	0.037
5220	0.036
5280	0.034
5340	0.034
5400	0.033
5460	0.033
5520	0.033
5580	0.033
5640	0.034
5700	0.033
5760	0.033
5820	0.033
5880	0.033
5940	0.033
6000	0.034
6060	0.032
6120	0.032
6180	0.032
6240	0.032
6300	0.031
6360	0.03
6420	0.03
6480	0.031
6540	0.032
6600	0.031
6660	0.031
6720	0.031
6780	0.032
6840	0.03
6900	0.03
6960	0.031
7020	0.031
7080	0.03
7140	0.031
7200	0.031
7260	0.032

7320	0.031
7380	0.03
7440	0.031
7500	0.029
7560	0.028
7620	0.028
7680	0.03
7740	0.031
7800	0.029
7860	0.028
7920	0.028
7980	0.028
8040	0.027
8100	0.028
8160	0.028
8220	0.028
8280	0.029
8340	0.03
8400	0.029
8460	0.031
8520	0.03
8580	0.03
8640	0.032
8700	0.03
8760	0.03
8820	0.03
8880	0.03
8940	0.03
9000	0.03
9060	0.03
9120	0.03
9180	0.03
9240	0.029
9300	0.029
9360	0.028
9420	0.028
9480	0.028
9540	0.029
9600	0.03
9660	0.03
9720	0.029
9780	0.029
9840	0.028
9900	0.029
9960	0.03
10020	0.029
10080	0.029

10140	0.03
10200	0.03
10260	0.031
10320	0.033
10380	0.033
10440	0.035
10500	0.036
10560	0.035
10620	0.037
10680	0.04
10740	0.041
10800	0.041
10860	0.041
10920	0.041
10980	0.042
11040	0.042
11100	0.042
11160	0.043
11220	0.043
11280	0.042
11340	0.043
11400	0.043
11460	0.044
11520	0.046
11580	0.047
11640	0.045
11700	0.044
11760	0.045
11820	0.046
11880	0.044
11940	0.045
12000	0.042
12060	0.04
12120	0.04
12180	0.038
12240	0.037
12300	0.036
12360	0.036
12420	0.036
12480	0.034
12540	0.033
12600	0.033
12660	0.032
12720	0.032
12780	0.032
12840	0.032
12900	0.031

12960	0.03
13020	0.03
13080	0.03
13140	0.029
13200	0.03
13260	0.03
13320	0.029
13380	0.03
13440	0.029
13500	0.029
13560	0.028
13620	0.028
13680	0.029
13740	0.027
13800	0.027
13860	0.027
13920	0.027
13980	0.027
14040	0.026
14100	0.026
14160	0.027
14220	0.026
14280	0.027
14340	0.026
14400	0.026
14460	0.027
14520	0.026
14580	0.026
14640	0.025
14700	0.025
14760	0.026
14820	0.025
14880	0.025
14940	0.024
15000	0.022
15060	0.022
15120	0.023
15180	0.023
15240	0.024
15300	0.025
15360	0.021
15420	0.021
15480	0.02
15540	0.02
15600	0.02
15660	0.019
15720	0.019

15780	0.019
15840	0.019
15900	0.019
15960	0.019
16020	0.019
16080	0.02
16140	0.02
16200	0.019
16260	0.019
16320	0.019
16380	0.019
16440	0.019
16500	0.019
16560	0.018
16620	0.018
16680	0.016
16740	0.016
16800	0.017
16860	0.016
16920	0.016
16980	0.016
17040	0.016
17100	0.016
17160	0.017
17220	0.017
17280	0.018
17340	0.018
17400	0.018
17460	0.019
17520	0.02
17580	0.02
17640	0.02
17700	0.02
17760	0.02
17820	0.019
17880	0.019
17940	0.02
18000	0.02
18060	0.02
18120	0.02
18180	0.021
18240	0.063
18300	0.16
18360	0.108
18456	0
18480	0.093
18540	0.087

18600	0.079
18660	0.067
18720	0.066
18780	0.062
18840	0.057
18900	0.055
18960	0.053
19020	0.049
19080	0.047
19140	0.051
19200	0.051
19260	0.048
19320	0.046
19380	0.043
19440	0.045
19500	0.045
19560	0.038
19620	0.034
19680	0.034
19740	0.032
19800	0.032
19860	0.031
19920	0.03
19980	0.031
20040	0.031
20100	0.031
20160	0.031
20220	0.03
20280	0.029
20340	0.027
20400	0.028
20460	0.026
20520	0.025
20580	0.025
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81360	0.007
81420	0.007
81480	0.008
81540	0.007
81600	0.008
81660	0.008
81720	0.009
81780	0.012
81840	0.017
81900	0.019
81960	0.019
82020	0.02
82080	0.02
82140	0.017
82200	0.015
82260	0.014
82320	0.013
82380	0.012
82440	0.012
82500	0.011
82560	0.012
82620	0.011
82680	0.011
82740	0.011
82800	0.012
82860	0.011
82920	0.01
82980	0.011
83040	0.011
83100	0.012
83160	0.011
83220	0.011
83280	0.01
83340	0.01
83400	0.01

83460	0.011
83520	0.012
83580	0.012
83640	0.013
83700	0.015
83760	0.019
83820	0.023
83880	0.024
83940	0.025
84000	0.025
84060	0.022
84120	0.019
84180	0.019
84240	0.018
84300	0.016
84360	0.015
84420	0.014
84480	0.014
84540	0.014
84600	0.014
84660	0.014
84720	0.015
84780	0.015
84840	0.015
84900	0.014
84960	0.014
85020	0.014
85080	0.014
85140	0.013
85200	0.012
85260	0.012
85320	0.011
85380	0.011
85440	0.011
85500	0.01
85560	0.01
85620	0.01
85680	0.009
85740	0.01
85800	0.01
85860	0.009
85920	0.009
85980	0.01
86040	0.012
86100	0.009
86160	0.01
86220	0.009

86280	0.009
86340	0.009
86400	0.01

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_007
Test Start T	########
Test Start D	########
Test Length	0:05:41
Test Interva	1:00
Mass Avera	0.005
Mass Minir	0.001
Mass Maxir	0.018
Mass TWA	0.003
Photometr	1
Flow User C	0
Errors	
Number of	341

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.013		
120	0.008		
180	0.006		
240	0.004		
300	0.005		
360	0.005		
420	0.005		
480	0.004		
540	0.005		
600	0.006		
660	0.005		
720	0.005		
780	0.008		
840	0.009		
900	0.007		
960	0.006		
1020	0.005		
1080	0.006		
1140	0.005		
1200	0.005		
1260	0.006		
1320	0.006		
1380	0.006		
1440	0.006		
1500	0.007		
1560	0.006		
1620	0.005		

1680	0.006
1740	0.006
1800	0.007
1860	0.008
1920	0.011
1980	0.006
2040	0.007
2100	0.007
2160	0.006
2220	0.009
2280	0.01
2340	0.007
2400	0.005
2460	0.005
2520	0.006
2580	0.006
2640	0.005
2700	0.007
2760	0.007
2820	0.009
2880	0.006
2940	0.007
3000	0.008
3060	0.006
3120	0.005
3180	0.006
3240	0.006
3300	0.007
3360	0.007
3420	0.007
3480	0.008
3540	0.006
3600	0.005
3660	0.009
3720	0.008
3780	0.007
3840	0.009
3900	0.006
3960	0.008
4020	0.008
4080	0.007
4140	0.012
4200	0.007
4260	0.006
4320	0.005
4380	0.009
4440	0.007

4500	0.006
4560	0.005
4620	0.005
4680	0.007
4740	0.004
4800	0.006
4860	0.007
4920	0.007
4980	0.004
5040	0.004
5100	0.009
5160	0.007
5220	0.005
5280	0.006
5340	0.007
5400	0.007
5460	0.006
5520	0.005
5580	0.008
5640	0.008
5700	0.005
5760	0.005
5820	0.005
5880	0.005
5940	0.006
6000	0.006
6060	0.006
6120	0.005
6180	0.004
6240	0.006
6300	0.005
6360	0.005
6420	0.005
6480	0.004
6540	0.005
6600	0.005
6660	0.005
6720	0.004
6780	0.004
6840	0.004
6900	0.004
6960	0.004
7020	0.004
7080	0.004
7140	0.004
7200	0.004
7260	0.004

7320	0.004
7380	0.005
7440	0.005
7500	0.004
7560	0.006
7620	0.005
7680	0.007
7740	0.007
7800	0.005
7860	0.005
7920	0.005
7980	0.004
8040	0.006
8100	0.006
8160	0.006
8220	0.005
8280	0.005
8340	0.005
8400	0.005
8460	0.009
8520	0.005
8580	0.004
8640	0.005
8700	0.005
8760	0.005
8820	0.004
8880	0.005
8940	0.004
9000	0.005
9060	0.004
9120	0.004
9180	0.003
9240	0.004
9300	0.004
9360	0.004
9420	0.004
9480	0.004
9540	0.003
9600	0.003
9660	0.003
9720	0.004
9780	0.003
9840	0.002
9900	0.002
9960	0.003
10020	0.006
10080	0.004

10140	0.004
10200	0.004
10260	0.003
10320	0.004
10380	0.004
10440	0.003
10500	0.002
10560	0.002
10620	0.005
10680	0.008
10740	0.003
10800	0.004
10860	0.004
10920	0.003
10980	0.004
11040	0.003
11100	0.004
11160	0.003
11220	0.002
11280	0.005
11340	0.007
11400	0.005
11460	0.004
11520	0.004
11580	0.004
11640	0.003
11700	0.005
11760	0.004
11820	0.004
11880	0.003
11940	0.004
12000	0.003
12060	0.004
12120	0.002
12180	0.003
12240	0.006
12300	0.007
12360	0.003
12420	0.004
12480	0.006
12540	0.006
12600	0.007
12660	0.003
12720	0.011
12780	0.01
12840	0.012
12900	0.01

12960	0.007
13020	0.004
13080	0.008
13140	0.006
13200	0.004
13260	0.009
13320	0.012
13380	0.006
13440	0.009
13500	0.005
13560	0.003
13620	0.008
13680	0.005
13740	0.007
13800	0.008
13860	0.006
13920	0.007
13980	0.008
14040	0.008
14100	0.009
14160	0.008
14220	0.005
14280	0.018
14340	0.014
14400	0.005
14460	0.005
14520	0.004
14580	0.004
14640	0.007
14700	0.004
14760	0.004
14820	0.004
14880	0.009
14940	0.004
15000	0.001
15060	0.009
15120	0.003
15180	0.004
15240	0.004
15300	0.005
15360	0.004
15420	0.005
15480	0.006
15540	0.003
15600	0.002
15660	0.001
15720	0.002

15780	0.002
15840	0.006
15900	0.003
15960	0.003
16020	0.004
16080	0.003
16140	0.002
16200	0.003
16260	0.003
16320	0.002
16380	0.001
16440	0.001
16500	0.002
16560	0.002
16620	0.004
16680	0.002
16740	0.004
16800	0.006
16860	0.003
16920	0.002
16980	0.002
17040	0.002
17100	0.002
17160	0.003
17220	0.002
17280	0.002
17340	0.004
17400	0.002
17460	0.002
17520	0.003
17580	0.003
17640	0.003
17700	0.002
17760	0.002
17820	0.002
17880	0.001
17940	0.002
18000	0.002
18060	0.002
18120	0.002
18180	0.001
18240	0.001
18300	0.001
18360	0.002
18420	0.002
18480	0.002
18540	0.002

18600	0.003
18660	0.002
18720	0.001
18780	0.001
18840	0.001
18900	0.002
18960	0.002
19020	0.005
19080	0.002
19140	0.002
19200	0.002
19260	0.001
19320	0.001
19380	0.002
19440	0.002
19500	0.003
19560	0.003
19620	0.003
19680	0.003
19740	0.004
19800	0.002
19860	0.002
19920	0.002
19980	0.002
20040	0.003
20100	0.002
20160	0.002
20220	0.003
20280	0.003
20340	0.002
20400	0.003
20460	0.002

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_008
Test Start T	########
Test Start D	########
Test Length	0:02:45
Test Interva	1:00
Mass Avera	0.02
Mass Minir	0.012
Mass Maxir	0.036
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	165

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.022		
120	0.02		
180	0.02		
240	0.018		
300	0.02		
360	0.017		
420	0.02		
480	0.018		
540	0.02		
600	0.018		
660	0.017		
720	0.017		
780	0.016		
840	0.019		
900	0.017		
960	0.016		
1020	0.015		
1080	0.015		
1140	0.014		
1200	0.015		
1260	0.016		
1320	0.015		
1380	0.015		
1440	0.016		
1500	0.015		
1560	0.017		
1620	0.018		

1680	0.016
1740	0.016
1800	0.015
1860	0.017
1920	0.021
1980	0.019
2040	0.017
2100	0.017
2160	0.017
2220	0.018
2280	0.017
2340	0.018
2400	0.021
2460	0.021
2520	0.019
2580	0.017
2640	0.021
2700	0.018
2760	0.017
2820	0.016
2880	0.023
2940	0.017
3000	0.019
3060	0.016
3120	0.015
3180	0.015
3240	0.015
3300	0.028
3360	0.036
3420	0.023
3480	0.018
3540	0.018
3600	0.019
3660	0.025
3720	0.022
3780	0.018
3840	0.018
3900	0.018
3960	0.027
4020	0.023
4080	0.031
4140	0.033
4200	0.028
4260	0.028
4320	0.026
4380	0.023
4440	0.025

4500	0.027
4560	0.024
4620	0.024
4680	0.025
4740	0.024
4800	0.026
4860	0.026
4920	0.022
4980	0.021
5040	0.021
5100	0.02
5160	0.026
5220	0.022
5280	0.02
5340	0.019
5400	0.018
5460	0.017
5520	0.018
5580	0.019
5640	0.023
5700	0.032
5760	0.025
5820	0.021
5880	0.021
5940	0.021
6000	0.022
6060	0.018
6120	0.017
6180	0.019
6240	0.019
6300	0.019
6360	0.02
6420	0.019
6480	0.017
6540	0.02
6600	0.017
6660	0.018
6720	0.018
6780	0.018
6840	0.019
6900	0.02
6960	0.019
7020	0.019
7080	0.021
7140	0.021
7200	0.02
7260	0.021

7320	0.02	
7380	0.024	
7440	0.023	
7500	0.023	
7560	0.022	
7620	0.021	
7680	0.02	
7740	0.019	
7800	0.02	
7860	0.021	
7920	0.023	
7980	0.019	
8040	0.021	
8100	0.021	
8160	0.023	
8220	0.024	
8280	0.025	
8340	0.023	
8400	0.022	
8460	0.022	
8520	0.022	
8580	0.023	
8640	0.021	
8700	0.018	
8760	0.018	
8820	0.018	
8880	0.02	
8940	0.019	
9000	0.019	
9060	0.021	
9120	0.025	
9180	0.02	
9240	0.018	
9300	0.02	
9360	0.021	
9420	0.022	
9480	0.025	
9540	0.026	
9600	0.023	
9660	0.024	
9720	0.023	
9780	0.022	
9840	0.013	Flow Error
9900	0.012	Flow Error

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_009
Test Start T	########
Test Start D	########
Test Length	0:04:09
Test Interva	1:00
Mass Avera	0.004
Mass Minir	0.001
Mass Maxir	0.014
Mass TWA	0.002
Photometr	1
Flow User C	0
Errors	
Number of	249

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.005		
120	0.005		
180	0.006		
240	0.006		
300	0.005		
360	0.004		
420	0.004		
480	0.004		
540	0.004		
600	0.004		
660	0.004		
720	0.003		
780	0.004		
840	0.003		
900	0.003		
960	0.003		
1020	0.004		
1080	0.004		
1140	0.006		
1200	0.005		
1260	0.006		
1320	0.005		
1380	0.005		
1440	0.004		
1500	0.004		
1560	0.004		
1620	0.003		

1680	0.003
1740	0.004
1800	0.011
1860	0.007
1920	0.004
1980	0.004
2040	0.004
2100	0.004
2160	0.003
2220	0.003
2280	0.003
2340	0.003
2400	0.004
2460	0.004
2520	0.004
2580	0.006
2640	0.004
2700	0.003
2760	0.003
2820	0.003
2880	0.003
2940	0.003
3000	0.003
3060	0.004
3120	0.004
3180	0.003
3240	0.003
3300	0.005
3360	0.004
3420	0.004
3480	0.004
3540	0.004
3600	0.003
3660	0.003
3720	0.004
3780	0.004
3840	0.003
3900	0.004
3960	0.004
4020	0.005
4080	0.005
4140	0.007
4200	0.005
4260	0.004
4320	0.004
4380	0.003
4440	0.003

4500	0.005
4560	0.009
4620	0.003
4680	0.004
4740	0.005
4800	0.004
4860	0.008
4920	0.007
4980	0.007
5040	0.006
5100	0.004
5160	0.005
5220	0.005
5280	0.006
5340	0.008
5400	0.011
5460	0.014
5520	0.008
5580	0.005
5640	0.005
5700	0.003
5760	0.006
5820	0.008
5880	0.011
5940	0.005
6000	0.007
6060	0.01
6120	0.011
6180	0.001
6240	0.003
6300	0.005
6360	0.005
6420	0.006
6480	0.004
6540	0.002
6600	0.003
6660	0.002
6720	0.003
6780	0.002
6840	0.003
6900	0.003
6960	0.003
7020	0.004
7080	0.004
7140	0.003
7200	0.003
7260	0.004

7320	0.004
7380	0.006
7440	0.006
7500	0.005
7560	0.004
7620	0.006
7680	0.002
7740	0.004
7800	0.004
7860	0.002
7920	0.002
7980	0.002
8040	0.003
8100	0.002
8160	0.002
8220	0.002
8280	0.003
8340	0.003
8400	0.003
8460	0.004
8520	0.01
8580	0.003
8640	0.002
8700	0.002
8760	0.002
8820	0.003
8880	0.006
8940	0.005
9000	0.004
9060	0.008
9120	0.009
9180	0.004
9240	0.004
9300	0.004
9360	0.002
9420	0.002
9480	0.003
9540	0.002
9600	0.002
9660	0.002
9720	0.002
9780	0.003
9840	0.004
9900	0.004
9960	0.003
10020	0.003
10080	0.003

10140	0.003
10200	0.004
10260	0.003
10320	0.003
10380	0.003
10440	0.002
10500	0.002
10560	0.002
10620	0.003
10680	0.004
10740	0.004
10800	0.004
10860	0.005
10920	0.005
10980	0.006
11040	0.006
11100	0.006
11160	0.006
11220	0.006
11280	0.008
11340	0.005
11400	0.005
11460	0.004
11520	0.004
11580	0.004
11640	0.004
11700	0.004
11760	0.003
11820	0.004
11880	0.004
11940	0.004
12000	0.004
12060	0.004
12120	0.004
12180	0.005
12240	0.004
12300	0.005
12360	0.005
12420	0.005
12480	0.005
12540	0.004
12600	0.004
12660	0.004
12720	0.004
12780	0.005
12840	0.005
12900	0.004

12960	0.005
13020	0.005
13080	0.004
13140	0.004
13200	0.004
13260	0.004
13320	0.005
13380	0.005
13440	0.005
13500	0.005
13560	0.005
13620	0.005
13680	0.006
13740	0.007
13800	0.006
13860	0.006
13920	0.006
13980	0.005
14040	0.005
14100	0.005
14160	0.003
14220	0.005
14280	0.006
14340	0.004
14400	0.003
14460	0.003
14520	0.003
14580	0.004
14640	0.003
14700	0.004
14760	0.004
14820	0.004
14880	0.004
14940	0.004

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_010
Test Start T	########
Test Start D	########
Test Length	1:00:00
Test Interva	1:00
Mass Avera	0.018
Mass Minir	0
Mass Maxir	0.07
Mass TWA	0.014
Photometr	1
Flow User C	0
Errors	
Number of	396

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.015		
120	0.046		
180	0.01		
240	0.009		
300	0.012		
360	0.008		
420	0.007		
480	0.007		
540	0.005		
600	0.005		
660	0.004		
720	0.004		
780	0.006		
840	0.017		
900	0.013		
960	0.004		
1020	0.009		
1080	0.008		
1140	0.023		
1200	0.008		
1260	0.004		
1320	0.005		
1380	0.004		
1440	0.004		
1500	0.004		
1560	0.003		
1620	0.004		

1680	0.004
1740	0.003
1800	0.004
1860	0.004
1920	0.017
1980	0.006
2040	0.018
2100	0.004
2160	0.003
2220	0.003
2280	0.005
2340	0.006
2400	0.005
2460	0.003
2520	0.006
2580	0.004
2640	0.004
2700	0.004
2760	0.008
2820	0.006
2880	0.007
2940	0.005
3000	0.002
3060	0.003
3120	0.006
3180	0.007
3240	0.004
3300	0.007
3360	0.005
3420	0.004
3480	0.006
3540	0.006
3600	0.004
3660	0.005
3720	0.004
3780	0.006
3840	0.004
3900	0.007
3960	0.005
4020	0.004
4080	0.005
4140	0.005
4200	0.006
4260	0.003
4320	0.004
4380	0.002
4440	0.003

4500	0.002
4560	0.009
4620	0.004
4680	0.001
4740	0.002
4800	0.003
4860	0.002
4920	0.002
4980	0.005
5040	0.004
5100	0.009
5160	0.006
5220	0.004
5280	0.002
5340	0.004
5400	0.001
5460	0.002
5520	0.002
5580	0.001
5640	0.001
5700	0.001
5760	0.001
5820	0.002
5880	0.003
5940	0.006
6000	0.007
6060	0.01
6120	0.002
6180	0.002
6240	0.002
6300	0.011
6360	0.006
6420	0.002
6480	0
6540	0.002
6600	0.005
6660	0.005
6720	0.006
6780	0.032
6840	0.01
6900	0.01
6960	0.005
7020	0.02
7080	0.013
7140	0.005
7200	0.005
7260	0.005

7320	0.006
7380	0.004
7440	0.006
7500	0.005
7560	0.004
7620	0.005
7680	0.004
7740	0.01
7800	0.012
7860	0.006
7920	0.006
7980	0.007
8040	0.004
8100	0.002
8160	0.012
8220	0.01
8280	0.028
8340	0.014
8400	0.052
8460	0.023
8520	0.019
8580	0.02
8640	0.011
8700	0.014
8760	0.008
8820	0.031
8880	0.016
8940	0.043
9000	0.044
9060	0.013
9120	0.021
9180	0.02
9240	0.007
9300	0.013
9360	0.009
9420	0.011
9480	0.007
9540	0.007
9600	0.012
9660	0.012
9720	0.023
9780	0.008
9840	0.013
9900	0.005
9960	0.004
10020	0.006
10080	0.007

10140	0.007
10200	0.011
10260	0.019
10320	0.008
10380	0.008
10440	0.01
10500	0.004
10560	0.007
10620	0.01
10680	0.007
10740	0.007
10800	0.008
10860	0.008
10920	0.009
10980	0.011
11040	0.004
11100	0.006
11160	0.007
11220	0.007
11280	0.007
11340	0.002
11400	0.002
11460	0.003
11520	0.004
11580	0.005
11640	0.006
11700	0.005
11760	0.009
11820	0.004
11880	0.003
11940	0.003
12000	0.004
12060	0.004
12120	0.004
12180	0.006
12240	0.008
12300	0.006
12360	0.006
12420	0.005
12480	0.011
12540	0.012
12600	0.008
12660	0.006
12720	0.006
12780	0.004
12840	0.005
12900	0.005

12960	0.004
13020	0.004
13080	0.004
13140	0.005
13200	0.004
13260	0.004
13320	0.003
13380	0.005
13440	0.006
13500	0.007
13560	0.006
13620	0.008
13680	0.005
13740	0.01
13800	0.007
13860	0.009
13920	0.005
13980	0.005
14040	0.007
14100	0.006
14160	0.007
14220	0.011
14280	0.009
14340	0.008
14400	0.008
14460	0.009
14520	0.006
14580	0.006
14640	0.004
14700	0.005
14760	0.007
14820	0.007
14880	0.009
14940	0.008
15000	0.007
15060	0.007
15120	0.017
15180	0.012
15240	0.008
15300	0.01
15360	0.014
15420	0.01
15480	0.02
15540	0.012
15600	0.012
15660	0.008
15720	0.007

15780	0.014
15840	0.016
15900	0.007
15960	0.01
16020	0.005
16080	0.007
16140	0.024
16200	0.032
16260	0.01
16320	0.012
16380	0.013
16440	0.015
16500	0.018
16560	0.014
16620	0.007
16680	0.007
16740	0.063
16800	0.057
16860	0.057
16920	0.053
16980	0.049
17040	0.066
17100	0.057
17160	0.051
17220	0.066
17280	0.06
17340	0.049
17400	0.045
17460	0.049
17520	0.059
17580	0.056
17640	0.047
17700	0.061
17760	0.054
17820	0.045
17880	0.055
17940	0.047
18000	0.048
18060	0.055
18120	0.063
18180	0.051
18240	0.05
18300	0.046
18360	0.05
18420	0.049
18480	0.049
18540	0.048

18600	0.051
18660	0.05
18720	0.057
18780	0.059
18840	0.065
18900	0.067
18960	0.06
19020	0.06
19080	0.041
19140	0.045
19200	0.044
19260	0.041
19320	0.041
19380	0.037
19440	0.04
19500	0.046
19560	0.041
19620	0.043
19680	0.046
19740	0.049
19800	0.049
19860	0.051
19920	0.052
19980	0.043
20040	0.047
20100	0.043
20160	0.04
20220	0.047
20280	0.036
20340	0.04
20400	0.042
20460	0.045
20520	0.053
20580	0.046
20640	0.036
20700	0.044
20760	0.049
20820	0.047
20880	0.041
20940	0.045
21000	0.048
21060	0.038
21120	0.037
21180	0.036
21240	0.038
21300	0.043
21360	0.039

21420	0.048
21480	0.037
21540	0.035
21600	0.036
21660	0.039
21720	0.04
21780	0.043
21840	0.047
21900	0.048
21960	0.062
22020	0.07
84747	0
84780	0.021
84840	0.023
84900	0.024
84960	0.022
85020	0.022
85080	0.022
85140	0.021
85200	0.023
85260	0.022
85320	0.022
85380	0.021
85440	0.022
85500	0.022
85560	0.021
85620	0.021
85680	0.02
85740	0.019
85800	0.019
85860	0.018
85920	0.018
85980	0.019
86040	0.019
86100	0.018
86160	0.024
86220	0.023
86280	0.022
86340	0.031
86400	0.026

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_011
Test Start T	########
Test Start D	########
Test Length	1:00:00
Test Interva	1:00
Mass Avera	0.014
Mass Minir	0
Mass Maxir	0.099
Mass TWA	0.011
Photometr	1
Flow User C	0
Errors	
Number of	1433

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.033		
120	0.018		
180	0.017		
240	0.013		
300	0.014		
360	0.014		
420	0.013		
480	0.013		
540	0.017		
600	0.019		
660	0.015		
720	0.011		
780	0.013		
840	0.012		
900	0.014		
960	0.011		
1020	0.01		
1080	0.011		
1140	0.011		
1200	0.011		
1260	0.014		
1320	0.013		
1380	0.014		
1440	0.013		
1500	0.013		
1560	0.013		
1620	0.012		

1680	0.012
1740	0.012
1800	0.011
1860	0.011
1920	0.011
1980	0.011
2040	0.011
2100	0.011
2160	0.011
2220	0.011
2280	0.012
2340	0.011
2400	0.011
2460	0.012
2520	0.012
2580	0.012
2640	0.012
2700	0.012
2760	0.012
2820	0.012
2880	0.012
2940	0.012
3000	0.011
3060	0.011
3120	0.012
3180	0.011
3240	0.012
3300	0.012
3360	0.011
3420	0.01
3480	0.011
3540	0.011
3600	0.011
3660	0.011
3720	0.011
3780	0.011
3840	0.011
3900	0.013
3960	0.013
4020	0.012
4080	0.01
4140	0.01
4200	0.012
4260	0.013
4320	0.011
4380	0.012
4440	0.01

4500	0.01
4560	0.01
4620	0.01
4680	0.009
4740	0.009
4800	0.009
4860	0.009
4920	0.009
4980	0.009
5040	0.009
5100	0.009
5160	0.01
5220	0.01
5280	0.01
5340	0.01
5400	0.009
5460	0.01
5520	0.01
5580	0.009
5640	0.009
5700	0.009
5760	0.009
5820	0.009
5880	0.009
5940	0.009
6000	0.01
6060	0.01
6120	0.009
6180	0.009
6240	0.009
6300	0.01
6360	0.009
6420	0.01
6480	0.01
6540	0.009
6600	0.009
6660	0.009
6720	0.009
6780	0.009
6840	0.009
6900	0.009
6960	0.009
7020	0.009
7080	0.01
7140	0.01
7200	0.01
7260	0.01

7320	0.01
7380	0.01
7440	0.011
7500	0.011
7560	0.009
7620	0.009
7680	0.01
7740	0.012
7800	0.012
7860	0.01
7920	0.009
7980	0.01
8040	0.009
8100	0.01
8160	0.011
8220	0.011
8280	0.012
8340	0.014
8400	0.015
8460	0.015
8520	0.014
8580	0.017
8640	0.024
8700	0.023
8760	0.016
8820	0.013
8880	0.013
8940	0.013
9000	0.013
9060	0.013
9120	0.013
9180	0.013
9240	0.013
9300	0.015
9360	0.015
9420	0.014
9480	0.014
9540	0.013
9600	0.012
9660	0.012
9720	0.011
9780	0.012
9840	0.01
9900	0.009
9960	0.009
10020	0.009
10080	0.009

10140	0.01
10200	0.009
10260	0.009
10320	0.009
10380	0.009
10440	0.01
10500	0.01
10560	0.011
10620	0.011
10680	0.011
10740	0.011
10800	0.012
10860	0.009
10920	0.008
10980	0.01
11040	0.016
11100	0.016
11160	0.015
11220	0.016
11280	0.016
11340	0.017
11400	0.017
11460	0.017
11520	0.017
11580	0.017
11640	0.018
11700	0.018
11760	0.017
11820	0.017
11880	0.017
11940	0.016
12000	0.016
12060	0.017
12120	0.016
12180	0.017
12240	0.016
12300	0.017
12360	0.016
12420	0.015
12480	0.016
12540	0.017
12600	0.016
12660	0.016
12720	0.016
12780	0.017
12840	0.016
12900	0.016

12960	0.015
13020	0.014
13080	0.015
13140	0.015
13200	0.014
13260	0.014
13320	0.014
13380	0.015
13440	0.015
13500	0.016
13560	0.015
13620	0.015
13680	0.014
13740	0.015
13800	0.015
13860	0.015
13920	0.015
13980	0.015
14040	0.015
14100	0.013
14160	0.012
14220	0.011
14280	0.014
14340	0.015
14400	0.015
14460	0.013
14520	0.014
14580	0.017
14640	0.014
14700	0.013
14760	0.014
14820	0.013
14880	0.012
14940	0.012
15000	0.012
15060	0.013
15120	0.014
15180	0.012
15240	0.011
15300	0.012
15360	0.012
15420	0.012
15480	0.013
15540	0.014
15600	0.018
15660	0.013
15720	0.016

15780	0.023
15840	0.015
15900	0.014
15960	0.014
16020	0.014
16080	0.015
16140	0.013
16200	0.012
16260	0.013
16320	0.013
16380	0.014
16440	0.014
16500	0.013
16560	0.013
16620	0.014
16680	0.014
16740	0.014
16800	0.015
16860	0.014
16920	0.014
16980	0.015
17040	0.014
17100	0.015
17160	0.014
17220	0.015
17280	0.014
17340	0.015
17400	0.014
17460	0.015
17520	0.015
17580	0.014
17640	0.015
17700	0.014
17760	0.014
17820	0.013
17880	0.013
17940	0.012
18000	0.012
18060	0.011
18120	0.011
18180	0.011
18240	0.011
18300	0.012
18360	0.011
18420	0.011
18480	0.01
18540	0.009

18600	0.009
18660	0.01
18720	0.009
18780	0.01
18840	0.01
18900	0.008
18960	0.007
19020	0.007
19080	0.007
19140	0.007
19200	0.006
19260	0.007
19320	0.008
19380	0.007
19440	0.007
19500	0.007
19560	0.007
19620	0.006
19680	0.007
19740	0.007
19800	0.01
19860	0.008
19920	0.007
19980	0.006
20040	0.007
20100	0.008
20160	0.012
20220	0.014
20280	0.009
20340	0.008
20400	0.008
20460	0.007
20520	0.011
20580	0.009
20640	0.011
20700	0.009
20760	0.009
20820	0.01
20880	0.007
20940	0.007
21000	0.006
21060	0.009
21120	0.01
21180	0.008
21240	0.008
21300	0.006
21360	0.005

21420	0.006
21480	0.006
21540	0.006
21600	0.006
21660	0.006
21720	0.009
21780	0.01
21840	0.009
21900	0.01
21960	0.009
22020	0.008
22080	0.008
22140	0.008
22200	0.007
22260	0.007
22320	0.007
22380	0.008
22440	0.008
22500	0.008
22560	0.008
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22680	0.008
22740	0.007
22800	0.007
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22980	0.006
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23100	0.006
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23280	0.006
23340	0.006
23400	0.006
23460	0.006
23520	0.006
23580	0.007
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23700	0.008
23760	0.006
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23880	0.007
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24000	0.006
24060	0.006
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24180	0.007

24240	0.008
24300	0.008
24360	0.007
24420	0.006
24480	0.007
24540	0.007
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25200	0.007
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25380	0.007
25440	0.008
25500	0.007
25560	0.007
25620	0.007
25680	0.007
25740	0.007
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25920	0.009
25980	0.008
26040	0.008
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26400	0.009
26460	0.008
26520	0.01
26580	0.008
26640	0.008
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26760	0.008
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26880	0.01
26940	0.01
27000	0.009

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27686	0
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27840	0.014
27900	0.012
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28080	0.01
28140	0.011
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28320	0.01
28380	0.011
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28800	0.01
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29880	0.009
29940	0.009
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30180	0.009
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30300	0.009
30360	0.008
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30480	0.008
30540	0.008
30600	0.008
30660	0.008
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30780	0.008
30840	0.008
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31140	0.009
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31860	0.008
31920	0.008
31980	0.009
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32400	0.008
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32520	0.008
32580	0.008
32640	0.008
32700	0.008
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33000	0.008
33060	0.008

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36060	0.009
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37980	0.011
38040	0.008
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41460	0.009
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41580	0.008
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41760	0.008
41820	0.008
41880	0.008
41940	0.008
42000	0.007
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42660	0.008
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47220	0.009
47280	0.009
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54300	0.01
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55320	0.01
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55740	0.01
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55860	0.011
55920	0.011
55980	0.011
56040	0.011
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56340	0.01
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56520	0.01
56580	0.01
56640	0.01
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56760	0.01
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56880	0.011
56940	0.011
57000	0.011
57060	0.011
57120	0.011
57180	0.011
57240	0.011
57300	0.011
57360	0.011
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57600	0.01
57660	0.01
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58740	0.01
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58980	0.011
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63660	0.012
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66540	0.015
66600	0.015
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66720	0.016
66780	0.016
66840	0.015
66900	0.015

66960	0.014
67020	0.014
67080	0.015
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67200	0.017
67260	0.017
67320	0.017
67380	0.018
67440	0.018
67500	0.019
67560	0.019
67620	0.018
67680	0.018
67740	0.017
67800	0.017
67860	0.017
67920	0.016
67980	0.016
68040	0.017
68100	0.018
68160	0.018
68220	0.018
68280	0.018
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68520	0.019
68580	0.019
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68760	0.018
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68880	0.016
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69000	0.015
69060	0.017
69120	0.018
69180	0.018
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69300	0.018
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69660	0.02
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69900	0.017
69960	0.016
70020	0.016
70080	0.015
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71880	0.015
71940	0.014
72000	0.014
72060	0.014
72120	0.016
72180	0.015
72240	0.016
72300	0.016
72360	0.018
72420	0.017
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72600	0.018
72660	0.018
72720	0.019
72780	0.018
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72960	0.017
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73080	0.015
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73440	0.019
73500	0.02
73560	0.02
73620	0.02
73680	0.02
73740	0.02
73800	0.021
73860	0.021
73920	0.018
73980	0.018
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74220	0.018
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74340	0.019
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74760	0.022
74820	0.022
74880	0.022
74940	0.021
75000	0.019
75060	0.019
75120	0.017
75180	0.017
75240	0.019
75300	0.019
75360	0.019

75420	0.019
75480	0.02
75540	0.021
75600	0.022
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76020	0.022
76080	0.022
76140	0.023
76200	0.024
76260	0.025
76320	0.029
76380	0.027
76440	0.026
76500	0.027
76560	0.029
76620	0.033
76680	0.031
76740	0.037
76800	0.038
76860	0.034
76920	0.034
76980	0.034
77040	0.031
77100	0.031
77160	0.033
77220	0.033
77280	0.033
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77700	0.035
77760	0.034
77820	0.034
77880	0.033
77940	0.035
78000	0.033
78060	0.035
78120	0.036
78180	0.035

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78300	0.03
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78480	0.03
78540	0.033
78600	0.029
78660	0.029
78720	0.028
78780	0.03
78840	0.029
78900	0.03
78960	0.03
79020	0.031
79080	0.031
79140	0.03
79200	0.03
79260	0.026
79320	0.027
79380	0.031
79440	0.03
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79560	0.034
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79680	0.027
79740	0.027
79800	0.028
79860	0.027
79920	0.027
79980	0.027
80040	0.028
80100	0.027
80160	0.027
80220	0.024
80280	0.023
80340	0.023
80400	0.021
80460	0.023
80520	0.022
80580	0.022
80640	0.021
80700	0.022
80760	0.022
80820	0.023
80880	0.023
80940	0.023
81000	0.021

81060	0.022
81120	0.022
81180	0.021
81240	0.019
81300	0.02
81360	0.021
81420	0.021
81480	0.024
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81600	0.022
81660	0.022
81720	0.022
81780	0.022
81840	0.023
81900	0.024
81960	0.025
82020	0.027
82080	0.025
82140	0.028
82200	0.027
82260	0.031
82320	0.04
82380	0.038
82440	0.04
82500	0.051
82560	0.038
82620	0.038
82680	0.037
82740	0.037
82800	0.038
82860	0.037
82920	0.036
82980	0.039
83040	0.039
83100	0.039
83160	0.037
83220	0.039
83280	0.044
83340	0.043
83400	0.04
83460	0.052
83520	0.038
83580	0.036
83640	0.034
83700	0.033
83760	0.033
83820	0.035

83880	0.034
83940	0.03
84000	0.03
84060	0.028
84120	0.028
84180	0.029
84240	0.029
84300	0.037
84360	0.043
84420	0.032
84480	0.047
84540	0.037
84600	0.033
84660	0.032
84720	0.039
84780	0.046
84840	0.051
84900	0.055
84960	0.068
85020	0.069
85080	0.068
85140	0.077
85200	0.075
85260	0.06
85320	0.057
85380	0.056
85440	0.055
85500	0.082
85560	0.072
85620	0.073
85680	0.059
85740	0.062
85800	0.063
85860	0.062
85920	0.068
85980	0.067
86040	0.087
86100	0.099
86160	0.084
86220	0.084
86280	0.088
86340	0.09
86400	0.086

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_012
Test Start T	########
Test Start D	5/1/2019
Test Length	0:05:51
Test Interva	1:00
Mass Avera	0.021
Mass Minir	0.012
Mass Maxir	0.283
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	351

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.047		
120	0.028		
180	0.03		
240	0.021		
300	0.026		
360	0.016		
420	0.021		
480	0.017		
540	0.025		
600	0.021		
660	0.026		
720	0.03		
780	0.024		
840	0.021		
900	0.025		
960	0.024		
1020	0.027		
1080	0.026		
1140	0.019		
1200	0.02		
1260	0.02		
1320	0.018		
1380	0.019		
1440	0.022		
1500	0.046		
1560	0.025		
1620	0.044		

1680	0.048
1740	0.021
1800	0.027
1860	0.031
1920	0.034
1980	0.025
2040	0.024
2100	0.022
2160	0.018
2220	0.024
2280	0.021
2340	0.025
2400	0.024
2460	0.022
2520	0.022
2580	0.02
2640	0.022
2700	0.024
2760	0.035
2820	0.02
2880	0.02
2940	0.026
3000	0.024
3060	0.021
3120	0.019
3180	0.022
3240	0.024
3300	0.022
3360	0.024
3420	0.018
3480	0.02
3540	0.023
3600	0.02
3660	0.017
3720	0.019
3780	0.021
3840	0.022
3900	0.02
3960	0.02
4020	0.022
4080	0.017
4140	0.019
4200	0.019
4260	0.021
4320	0.02
4380	0.022
4440	0.025

4500	0.023
4560	0.025
4620	0.02
4680	0.024
4740	0.022
4800	0.033
4860	0.024
4920	0.02
4980	0.023
5040	0.024
5100	0.025
5160	0.024
5220	0.023
5280	0.026
5340	0.023
5400	0.019
5460	0.02
5520	0.018
5580	0.019
5640	0.02
5700	0.019
5760	0.018
5820	0.019
5880	0.016
5940	0.019
6000	0.025
6060	0.02
6120	0.024
6180	0.019
6240	0.021
6300	0.019
6360	0.022
6420	0.023
6480	0.02
6540	0.019
6600	0.018
6660	0.02
6720	0.023
6780	0.024
6840	0.02
6900	0.021
6960	0.024
7020	0.025
7080	0.021
7140	0.02
7200	0.022
7260	0.018

7320	0.018
7380	0.019
7440	0.018
7500	0.019
7560	0.021
7620	0.019
7680	0.023
7740	0.026
7800	0.028
7860	0.022
7920	0.02
7980	0.021
8040	0.019
8100	0.018
8160	0.02
8220	0.022
8280	0.02
8340	0.019
8400	0.021
8460	0.029
8520	0.042
8580	0.02
8640	0.019
8700	0.022
8760	0.026
8820	0.025
8880	0.031
8940	0.018
9000	0.018
9060	0.02
9120	0.02
9180	0.022
9240	0.02
9300	0.019
9360	0.054
9420	0.02
9480	0.024
9540	0.025
9600	0.026
9660	0.019
9720	0.02
9780	0.024
9840	0.283
9900	0.018
9960	0.02
10020	0.015
10080	0.016

10140	0.015
10200	0.018
10260	0.017
10320	0.016
10380	0.015
10440	0.013
10500	0.018
10560	0.019
10620	0.018
10680	0.016
10740	0.019
10800	0.017
10860	0.017
10920	0.017
10980	0.015
11040	0.017
11100	0.028
11160	0.037
11220	0.042
11280	0.023
11340	0.019
11400	0.015
11460	0.017
11520	0.017
11580	0.016
11640	0.015
11700	0.016
11760	0.014
11820	0.014
11880	0.014
11940	0.015
12000	0.013
12060	0.012
12120	0.014
12180	0.014
12240	0.013
12300	0.027
12360	0.046
12420	0.017
12480	0.015
12540	0.015
12600	0.014
12660	0.015
12720	0.014
12780	0.016
12840	0.013
12900	0.016

12960	0.014
13020	0.015
13080	0.015
13140	0.021
13200	0.032
13260	0.03
13320	0.018
13380	0.023
13440	0.022
13500	0.017
13560	0.015
13620	0.014
13680	0.015
13740	0.022
13800	0.014
13860	0.014
13920	0.016
13980	0.018
14040	0.016
14100	0.018
14160	0.018
14220	0.017
14280	0.018
14340	0.017
14400	0.016
14460	0.015
14520	0.014
14580	0.014
14640	0.014
14700	0.015
14760	0.014
14820	0.014
14880	0.013
14940	0.015
15000	0.018
15060	0.018
15120	0.017
15180	0.016
15240	0.016
15300	0.017
15360	0.016
15420	0.015
15480	0.016
15540	0.02
15600	0.017
15660	0.017
15720	0.018

15780	0.018
15840	0.013
15900	0.013
15960	0.014
16020	0.018
16080	0.021
16140	0.02
16200	0.016
16260	0.015
16320	0.016
16380	0.018
16440	0.016
16500	0.017
16560	0.018
16620	0.02
16680	0.021
16740	0.02
16800	0.019
16860	0.018
16920	0.018
16980	0.021
17040	0.019
17100	0.017
17160	0.016
17220	0.018
17280	0.018
17340	0.018
17400	0.016
17460	0.02
17520	0.017
17580	0.016
17640	0.017
17700	0.017
17760	0.02
17820	0.018
17880	0.015
17940	0.015
18000	0.016
18060	0.016
18120	0.017
18180	0.019
18240	0.017
18300	0.017
18360	0.018
18420	0.017
18480	0.019
18540	0.017

18600	0.017
18660	0.022
18720	0.016
18780	0.017
18840	0.017
18900	0.016
18960	0.018
19020	0.016
19080	0.017
19140	0.015
19200	0.017
19260	0.018
19320	0.018
19380	0.018
19440	0.018
19500	0.018
19560	0.016
19620	0.016
19680	0.016
19740	0.018
19800	0.017
19860	0.016
19920	0.018
19980	0.028
20040	0.021
20100	0.018
20160	0.021
20220	0.023
20280	0.025
20340	0.021
20400	0.023
20460	0.022
20520	0.024
20580	0.02
20640	0.02
20700	0.026
20760	0.023
20820	0.019
20880	0.022
20940	0.018
21000	0.016
21060	0.016

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_013
Test Start T	########
Test Start D	5/2/2019
Test Length	0:04:09
Test Interva	1:00
Mass Avera	0.014
Mass Minir	0
Mass Maxir	0.267
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	
Number of	245

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.136		
120	0.082		
180	0.066		
240	0.053		
300	0.042		
360	0.036		
420	0.03		
480	0.025		
540	0.02		
600	0.019		
660	0.016		
720	0.013		
780	0.011		
840	0.009		
900	0.009		
960	0.009		
1020	0.009		
1080	0.008		
1140	0.007		
1200	0.009		
1260	0.007		
1320	0.006		
1380	0.007		
1440	0.007		
1500	0.006		
1560	0.005		
1620	0.004		

1680	0.003
1740	0.003
1800	0.002
1860	0.003
1920	0.003
1980	0.003
2040	0.002
2100	0.001
2160	0.001
2220	0.001
2280	0.001
2340	0
2400	0
2460	0
2520	0
2580	0
2640	0.004
2700	0.003
2760	0.002
2820	0.001
2880	0.001
2940	0
3000	0
3060	0
3120	0
3180	0.003
3240	0.008
3300	0.008
3360	0.008
3420	0.006
3480	0.004
3540	0.002
3600	0.002
3660	0.002
3720	0.005
3780	0.004
3840	0.009
3900	0.01
3960	0.009
4020	0.005
4080	0.006
4140	0.005
4200	0.004
4260	0.002
4320	0.003
4380	0.002
4440	0.003

4500	0.003
4560	0.001
4620	0.001
4680	0.001
4740	0.004
4800	0.007
4860	0.004
4920	0.004
4980	0.005
5040	0.009
5100	0.009
5160	0.007
5220	0.002
5280	0.002
5340	0.001
5400	0.003
5460	0.002
5520	0.003
5580	0.004
5640	0.002
5700	0.003
5760	0.006
5820	0.003
5880	0.002
5940	0.001
6000	0.001
6060	0
6120	0
6180	0
6240	0
6300	0
6360	0
6420	0
6480	0
6540	0
6600	0
6660	0
6720	0
6780	0
6840	0
6900	0
6960	0
7020	0
7080	0
7140	0
7200	0
7260	0

7320	0
7380	0
7440	0
7500	0
7560	0
7620	0
7680	0.001
7740	0
7800	0
7860	0.001
7920	0.003
7980	0.002
8040	0.001
8100	0
8160	0
8220	0
8280	0
8340	0
8400	0
8460	0
8520	0
8580	0
8640	0
8700	0
8760	0
8820	0
8880	0
8940	0
9000	0
9060	0
9120	0
9180	0
9240	0
9300	0
9360	0.001
9420	0
9480	0.003
9540	0
9600	0
9660	0
9720	0
9780	0
9840	0
9900	0
9960	0
10020	0
10080	0

10140	0
10200	0
10260	0
10320	0
10380	0
10440	0
10500	0
10560	0
10620	0
10680	0
10740	0
10800	0
10860	0
10920	0
10980	0
11040	0
11100	0
11160	0
11220	0
11280	0
11340	0
11400	0
11460	0
11520	0
11580	0
11640	0
11700	0
11760	0
11820	0
11880	0
11940	0
12000	0
12060	0
12120	0
12180	0
12240	0
12300	0
12360	0
12420	0
12480	0
12540	0
12600	0
12660	0
12720	0
12780	0
12840	0
12900	0

12960	0
13020	0
13080	0
13140	0
13200	0
13260	0
13320	0
13380	0
13440	0
13500	0
13560	0
13620	0
13680	0
13740	0
13800	0
13860	0
13920	0
13980	0
14294	0
14340	0.267
14400	0.229
14460	0.225
14520	0.244
14580	0.202
14640	0.167
14700	0.181
14760	0.257
14820	0.232
14880	0.216
14940	0.217

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_014
Test Start T	########
Test Start D	5/7/2019
Test Length	0:07:22
Test Interva	1:00
Mass Avera	0.012
Mass Minir	0.006
Mass Maxir	0.067
Mass TWA	0.011
Photometr	1
Flow User C	0
Errors	
Number of	442

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.008		
120	0.008		
180	0.01		
240	0.012		
300	0.011		
360	0.009		
420	0.008		
480	0.009		
540	0.015		
600	0.009		
660	0.009		
720	0.008		
780	0.01		
840	0.009		
900	0.009		
960	0.011		
1020	0.009		
1080	0.008		
1140	0.009		
1200	0.01		
1260	0.011		
1320	0.009		
1380	0.008		
1440	0.008		
1500	0.008		
1560	0.007		
1620	0.007		

1680	0.007
1740	0.007
1800	0.007
1860	0.007
1920	0.008
1980	0.009
2040	0.009
2100	0.008
2160	0.007
2220	0.007
2280	0.008
2340	0.008
2400	0.008
2460	0.008
2520	0.008
2580	0.008
2640	0.008
2700	0.007
2760	0.008
2820	0.008
2880	0.007
2940	0.007
3000	0.008
3060	0.008
3120	0.008
3180	0.009
3240	0.009
3300	0.009
3360	0.008
3420	0.009
3480	0.01
3540	0.01
3600	0.011
3660	0.011
3720	0.01
3780	0.009
3840	0.01
3900	0.011
3960	0.008
4020	0.008
4080	0.009
4140	0.01
4200	0.01
4260	0.009
4320	0.009
4380	0.009
4440	0.009

4500	0.009
4560	0.009
4620	0.009
4680	0.009
4740	0.011
4800	0.01
4860	0.009
4920	0.009
4980	0.009
5040	0.009
5100	0.009
5160	0.009
5220	0.009
5280	0.008
5340	0.009
5400	0.009
5460	0.012
5520	0.014
5580	0.015
5640	0.018
5700	0.064
5760	0.044
5820	0.021
5880	0.018
5940	0.014
6000	0.011
6060	0.01
6120	0.01
6180	0.01
6240	0.009
6300	0.009
6360	0.01
6420	0.012
6480	0.011
6540	0.01
6600	0.011
6660	0.011
6720	0.018
6780	0.017
6840	0.013
6900	0.011
6960	0.01
7020	0.011
7080	0.011
7140	0.011
7200	0.01
7260	0.01

7320	0.012
7380	0.018
7440	0.032
7500	0.026
7560	0.012
7620	0.01
7680	0.009
7740	0.009
7800	0.009
7860	0.008
7920	0.008
7980	0.009
8040	0.009
8100	0.009
8160	0.009
8220	0.008
8280	0.008
8340	0.009
8400	0.008
8460	0.009
8520	0.009
8580	0.01
8640	0.011
8700	0.017
8760	0.015
8820	0.009
8880	0.009
8940	0.018
9000	0.012
9060	0.009
9120	0.009
9180	0.01
9240	0.008
9300	0.013
9360	0.009
9420	0.014
9480	0.024
9540	0.011
9600	0.008
9660	0.008
9720	0.008
9780	0.007
9840	0.008
9900	0.007
9960	0.01
10020	0.012
10080	0.008

10140	0.008
10200	0.012
10260	0.009
10320	0.008
10380	0.007
10440	0.007
10500	0.009
10560	0.009
10620	0.01
10680	0.01
10740	0.011
10800	0.01
10860	0.009
10920	0.008
10980	0.011
11040	0.008
11100	0.008
11160	0.008
11220	0.009
11280	0.008
11340	0.009
11400	0.01
11460	0.008
11520	0.008
11580	0.009
11640	0.01
11700	0.017
11760	0.024
11820	0.045
11880	0.024
11940	0.011
12000	0.01
12060	0.007
12120	0.007
12180	0.007
12240	0.008
12300	0.009
12360	0.009
12420	0.011
12480	0.012
12540	0.014
12600	0.013
12660	0.01
12720	0.011
12780	0.011
12840	0.01
12900	0.009

12960	0.008
13020	0.009
13080	0.009
13140	0.009
13200	0.009
13260	0.009
13320	0.009
13380	0.008
13440	0.008
13500	0.008
13560	0.008
13620	0.008
13680	0.012
13740	0.009
13800	0.008
13860	0.008
13920	0.008
13980	0.009
14040	0.015
14100	0.013
14160	0.01
14220	0.009
14280	0.01
14340	0.035
14400	0.022
14460	0.011
14520	0.011
14580	0.008
14640	0.008
14700	0.009
14760	0.009
14820	0.009
14880	0.008
14940	0.008
15000	0.008
15060	0.009
15120	0.014
15180	0.045
15240	0.067
15300	0.035
15360	0.016
15420	0.018
15480	0.033
15540	0.025
15600	0.02
15660	0.013
15720	0.008

15780	0.011
15840	0.011
15900	0.01
15960	0.009
16020	0.01
16080	0.016
16140	0.012
16200	0.016
16260	0.014
16320	0.011
16380	0.01
16440	0.015
16500	0.014
16560	0.011
16620	0.01
16680	0.011
16740	0.014
16800	0.022
16860	0.017
16920	0.014
16980	0.01
17040	0.012
17100	0.012
17160	0.011
17220	0.009
17280	0.009
17340	0.009
17400	0.007
17460	0.011
17520	0.021
17580	0.034
17640	0.024
17700	0.011
17760	0.023
17820	0.044
17880	0.033
17940	0.017
18000	0.024
18060	0.028
18120	0.023
18180	0.028
18240	0.02
18300	0.012
18360	0.018
18420	0.027
18480	0.025
18540	0.016

18600	0.013
18660	0.012
18720	0.009
18780	0.008
18840	0.007
18900	0.007
18960	0.007
19020	0.006
19080	0.007
19140	0.008
19200	0.007
19260	0.008
19320	0.007
19380	0.008
19440	0.008
19500	0.008
19560	0.008
19620	0.007
19680	0.007
19740	0.007
19800	0.008
19860	0.009
19920	0.015
19980	0.013
20040	0.011
20100	0.009
20160	0.008
20220	0.008
20280	0.008
20340	0.007
20400	0.007
20460	0.008
20520	0.008
20580	0.008
20640	0.007
20700	0.008
20760	0.008
20820	0.007
20880	0.008
20940	0.007
21000	0.008
21060	0.008
21120	0.008
21180	0.008
21240	0.011
21300	0.008
21360	0.009

21420	0.009
21480	0.009
21540	0.009
21600	0.009
21660	0.008
21720	0.009
21780	0.008
21840	0.019
21900	0.022
21960	0.016
22020	0.014
22080	0.02
22140	0.019
22200	0.023
22260	0.027
22320	0.029
22380	0.018
22440	0.012
22500	0.014
22560	0.015
22620	0.014
22680	0.031
22740	0.034
22800	0.042
22860	0.041
22920	0.027
22980	0.014
23040	0.015
23100	0.018
23160	0.013
23220	0.024
23280	0.015
23340	0.02
23400	0.015
23460	0.012
23520	0.01
23580	0.011
23640	0.012
23700	0.01
23760	0.009
23820	0.009
23880	0.011
23940	0.012
24000	0.011
24060	0.011
24120	0.012
24180	0.013

24240	0.011
24300	0.009
24360	0.01
24420	0.01
24480	0.01
24540	0.01
24600	0.01
24660	0.012
24720	0.011
24780	0.01
24840	0.011
24900	0.012
24960	0.012
25020	0.012
25080	0.01
25140	0.01
25200	0.013
25260	0.012
25320	0.012
25380	0.012
25440	0.014
25500	0.011
25560	0.013
25620	0.013
25680	0.011
25740	0.01
25800	0.01
25860	0.01
25920	0.01
25980	0.011
26040	0.011
26100	0.009
26160	0.009
26220	0.009
26280	0.009
26340	0.011
26400	0.017
26460	0.021
26520	0.022

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_015
Test Start T	########
Test Start D	5/8/2019
Test Length	0:06:59
Test Interva	1:00
Mass Avera	0.009
Mass Minir	0.003
Mass Maxir	0.03
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	419

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.014		
120	0.012		
180	0.012		
240	0.014		
300	0.015		
360	0.013		
420	0.011		
480	0.011		
540	0.013		
600	0.012		
660	0.013		
720	0.014		
780	0.013		
840	0.013		
900	0.012		
960	0.012		
1020	0.012		
1080	0.012		
1140	0.012		
1200	0.013		
1260	0.013		
1320	0.014		
1380	0.014		
1440	0.013		
1500	0.015		
1560	0.012		
1620	0.011		

1680	0.012
1740	0.012
1800	0.011
1860	0.011
1920	0.012
1980	0.015
2040	0.017
2100	0.012
2160	0.009
2220	0.007
2280	0.006
2340	0.008
2400	0.012
2460	0.015
2520	0.013
2580	0.009
2640	0.009
2700	0.01
2760	0.009
2820	0.009
2880	0.006
2940	0.006
3000	0.008
3060	0.008
3120	0.007
3180	0.006
3240	0.005
3300	0.005
3360	0.006
3420	0.005
3480	0.006
3540	0.006
3600	0.009
3660	0.007
3720	0.006
3780	0.005
3840	0.006
3900	0.005
3960	0.006
4020	0.005
4080	0.006
4140	0.005
4200	0.006
4260	0.006
4320	0.006
4380	0.006
4440	0.006

4500	0.005
4560	0.005
4620	0.005
4680	0.005
4740	0.005
4800	0.004
4860	0.005
4920	0.006
4980	0.006
5040	0.005
5100	0.005
5160	0.006
5220	0.006
5280	0.006
5340	0.007
5400	0.006
5460	0.006
5520	0.006
5580	0.005
5640	0.005
5700	0.006
5760	0.007
5820	0.01
5880	0.006
5940	0.008
6000	0.005
6060	0.004
6120	0.005
6180	0.011
6240	0.007
6300	0.008
6360	0.009
6420	0.011
6480	0.009
6540	0.006
6600	0.006
6660	0.008
6720	0.008
6780	0.011
6840	0.012
6900	0.013
6960	0.007
7020	0.008
7080	0.007
7140	0.007
7200	0.014
7260	0.01

7320	0.009
7380	0.009
7440	0.008
7500	0.01
7560	0.006
7620	0.005
7680	0.005
7740	0.005
7800	0.005
7860	0.005
7920	0.006
7980	0.005
8040	0.006
8100	0.006
8160	0.005
8220	0.007
8280	0.005
8340	0.005
8400	0.009
8460	0.006
8520	0.005
8580	0.004
8640	0.005
8700	0.004
8760	0.004
8820	0.004
8880	0.004
8940	0.004
9000	0.004
9060	0.004
9120	0.003
9180	0.003
9240	0.003
9300	0.004
9360	0.004
9420	0.003
9480	0.003
9540	0.003
9600	0.004
9660	0.004
9720	0.005
9780	0.009
9840	0.01
9900	0.008
9960	0.005
10020	0.006
10080	0.005

10140	0.005
10200	0.008
10260	0.011
10320	0.009
10380	0.008
10440	0.006
10500	0.009
10560	0.02
10620	0.012
10680	0.015
10740	0.007
10800	0.008
10860	0.007
10920	0.006
10980	0.006
11040	0.01
11100	0.009
11160	0.011
11220	0.015
11280	0.006
11340	0.006
11400	0.006
11460	0.007
11520	0.006
11580	0.005
11640	0.008
11700	0.009
11760	0.005
11820	0.005
11880	0.006
11940	0.006
12000	0.007
12060	0.006
12120	0.007
12180	0.007
12240	0.006
12300	0.006
12360	0.01
12420	0.007
12480	0.013
12540	0.007
12600	0.01
12660	0.012
12720	0.007
12780	0.009
12840	0.008
12900	0.007

12960	0.007
13020	0.008
13080	0.007
13140	0.009
13200	0.011
13260	0.009
13320	0.009
13380	0.008
13440	0.008
13500	0.008
13560	0.008
13620	0.007
13680	0.008
13740	0.009
13800	0.012
13860	0.008
13920	0.03
13980	0.007
14040	0.006
14100	0.007
14160	0.009
14220	0.012
14280	0.01
14340	0.009
14400	0.008
14460	0.009
14520	0.008
14580	0.007
14640	0.007
14700	0.008
14760	0.008
14820	0.013
14880	0.012
14940	0.009
15000	0.009
15060	0.01
15120	0.01
15180	0.013
15240	0.017
15300	0.015
15360	0.01
15420	0.008
15480	0.007
15540	0.007
15600	0.008
15660	0.009
15720	0.009

15780	0.013
15840	0.016
15900	0.009
15960	0.008
16020	0.007
16080	0.009
16140	0.01
16200	0.011
16260	0.012
16320	0.009
16380	0.009
16440	0.009
16500	0.01
16560	0.01
16620	0.011
16680	0.011
16740	0.008
16800	0.01
16860	0.015
16920	0.016
16980	0.009
17040	0.009
17100	0.009
17160	0.009
17220	0.009
17280	0.009
17340	0.008
17400	0.008
17460	0.008
17520	0.008
17580	0.007
17640	0.007
17700	0.007
17760	0.007
17820	0.008
17880	0.008
17940	0.007
18000	0.008
18060	0.007
18120	0.008
18180	0.008
18240	0.007
18300	0.008
18360	0.008
18420	0.008
18480	0.007
18540	0.008

18600	0.008
18660	0.008
18720	0.009
18780	0.013
18840	0.011
18900	0.01
18960	0.01
19020	0.011
19080	0.011
19140	0.011
19200	0.011
19260	0.011
19320	0.01
19380	0.011
19440	0.011
19500	0.011
19560	0.011
19620	0.01
19680	0.01
19740	0.01
19800	0.009
19860	0.011
19920	0.01
19980	0.012
20040	0.009
20100	0.01
20160	0.009
20220	0.009
20280	0.01
20340	0.01
20400	0.012
20460	0.011
20520	0.012
20580	0.012
20640	0.012
20700	0.011
20760	0.012
20820	0.011
20880	0.011
20940	0.011
21000	0.01
21060	0.011
21120	0.01
21180	0.01
21240	0.01
21300	0.01
21360	0.01

21420	0.01
21480	0.01
21540	0.01
21600	0.01
21660	0.01
21720	0.01
21780	0.011
21840	0.01
21900	0.01
21960	0.011
22020	0.01
22080	0.01
22140	0.01
22200	0.011
22260	0.011
22320	0.011
22380	0.01
22440	0.012
22500	0.013
22560	0.011
22620	0.011
22680	0.01
22740	0.01
22800	0.011
22860	0.011
22920	0.01
22980	0.01
23040	0.01
23100	0.011
23160	0.01
23220	0.01
23280	0.011
23340	0.012
23400	0.011
23460	0.01
23520	0.01
23580	0.01
23640	0.01
23700	0.009
23760	0.01
23820	0.01
23880	0.01
23940	0.01
24000	0.01
24060	0.01
24120	0.01
24180	0.01

24240	0.01
24300	0.01
24360	0.01
24420	0.01
24480	0.011
24540	0.012
24600	0.013
24660	0.014
24720	0.013
24780	0.014
24840	0.013
24900	0.013
24960	0.014
25020	0.013
25080	0.01
25140	0.011

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_016
Test Start T	########
Test Start D	5/9/2019
Test Length	0:23:42
Test Interva	1:00
Mass Avera	0.013
Mass Minir	0
Mass Maxir	0.035
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	245

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.015		
120	0.016		
180	0.015		
240	0.016		
300	0.016		
360	0.016		
420	0.014		
480	0.017		
540	0.019		
600	0.019		
660	0.017		
720	0.015		
780	0.014		
840	0.013		
900	0.015		
960	0.024		
1020	0.019		
1080	0.013		
1140	0.013		
1200	0.012		
1260	0.012		
1320	0.012		
1380	0.012		
1440	0.015		
1500	0.017		
1560	0.015		
1620	0.014		

1680	0.017
1740	0.019
1800	0.016
1860	0.035
1920	0.025
1980	0.016
2040	0.02
2100	0.017
2160	0.013
2220	0.016
2280	0.015
2340	0.017
2400	0.013
2460	0.012
2520	0.016
2580	0.014
2640	0.022
2700	0.013
2760	0.013
2820	0.012
2880	0.011
2940	0.011
3000	0.01
3060	0.011
3120	0.018
3180	0.018
3240	0.015
3300	0.012
3360	0.014
3420	0.017
3480	0.018
3540	0.018
3600	0.012
3660	0.013
3720	0.013
3780	0.013
3840	0.022
3900	0.013
3960	0.011
4020	0.014
4080	0.017
4140	0.013
4200	0.013
4260	0.014
4320	0.013
4380	0.016
4440	0.013

4500	0.017
4560	0.017
4620	0.02
4680	0.018
4740	0.017
4800	0.018
4860	0.014
4920	0.019
4980	0.021
5040	0.019
5100	0.017
5160	0.015
5220	0.02
5280	0.016
5340	0.013
5400	0.018
5460	0.012
5520	0.015
5580	0.016
5640	0.012
5700	0.013
5760	0.015
5820	0.017
5880	0.025
5940	0.018
6000	0.013
6060	0.02
6120	0.014
6180	0.017
6240	0.016
6300	0.011
6360	0.01
6420	0.013
6480	0.012
6540	0.011
6600	0.014
6660	0.011
6720	0.011
6780	0.012
6840	0.014
6900	0.011
6960	0.014
7020	0.012
7080	0.013
7140	0.011
7200	0.012
7260	0.013

7320	0.012
7380	0.012
7440	0.01
7500	0.011
7560	0.01
7620	0.011
7680	0.013
7740	0.014
7800	0.012
7860	0.016
7920	0.017
7980	0.02
8040	0.02
8100	0.012
8160	0.01
8220	0.011
8280	0.01
8340	0.011
8400	0.012
8460	0.01
8520	0.01
8580	0.01
8640	0.014
8700	0.015
8760	0.02
8820	0.016
8880	0.013
8940	0.01
9000	0.011
9060	0.01
9120	0.01
9180	0.011
9240	0.012
9300	0.011
9360	0.01
9420	0.011
9480	0.011
9540	0.01
9600	0.011
9660	0.011
9720	0.013
9780	0.015
9840	0.015
9900	0.011
9960	0.011
10020	0.011
10080	0.012

10140	0.017
10200	0.013
10260	0.015
10320	0.013
10380	0.011
10440	0.01
10500	0.009
10560	0.009
10620	0.017
10680	0.015
10740	0.01
10800	0.012
10860	0.013
10920	0.02
10980	0.014
11040	0.012
11100	0.012
11160	0.009
11220	0.011
11280	0.015
11340	0.019
11400	0.017
11460	0.014
11520	0.012
11580	0.01
11640	0.009
11700	0.009
11760	0.011
11820	0.009
11880	0.009
11940	0.01
12000	0.01
12060	0.01
12120	0.011
12180	0.009
12240	0.01
12300	0.012
12360	0.01
12420	0.009
12480	0.009
12540	0.009
12600	0.009
12660	0.008
12720	0.009
12780	0.009
12840	0.009
12900	0.009

12960	0.009	
13020	0.009	
13080	0.009	
13140	0.009	
13200	0.009	
13260	0.008	
13320	0.009	
13380	0.01	
13440	0.013	
13500	0.013	
13560	0.011	
13620	0.013	
13680	0.013	
13740	0.013	
13800	0.014	
13860	0.01	
13920	0.01	
13980	0.009	
14040	0.008	
14100	0.008	
14160	0.009	
14220	0.013	
14280	0.011	
14340	0.011	
85052	0	
85080	0.004	Flow Error
85140	0.004	Flow Error
85200	0.004	Flow Error
85260	0.004	Flow Error
85320	0.004	Flow Error

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_017
Test Start T	########
Test Start D	########
Test Length	0:06:53
Test Interva	1:00
Mass Avera	0.008
Mass Minir	0.002
Mass Maxir	0.257
Mass TWA	0.007
Photometr	1
Flow User C	0
Errors	
Number of	413

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.137		
120	0.011		
180	0.01		
240	0.011		
300	0.008		
360	0.008		
420	0.01		
480	0.053		
540	0.011		
600	0.008		
660	0.007		
720	0.007		
780	0.012		
840	0.009		
900	0.008		
960	0.009		
1020	0.009		
1080	0.01		
1140	0.008		
1200	0.008		
1260	0.008		
1320	0.009		
1380	0.009		
1440	0.008		
1500	0.007		
1560	0.006		
1620	0.006		

1680	0.006
1740	0.006
1800	0.006
1860	0.007
1920	0.021
1980	0.008
2040	0.034
2100	0.257
2160	0.007
2220	0.005
2280	0.007
2340	0.007
2400	0.006
2460	0.021
2520	0.007
2580	0.005
2640	0.005
2700	0.011
2760	0.012
2820	0.004
2880	0.017
2940	0.004
3000	0.005
3060	0.009
3120	0.005
3180	0.083
3240	0.007
3300	0.01
3360	0.005
3420	0.023
3480	0.008
3540	0.005
3600	0.005
3660	0.006
3720	0.014
3780	0.007
3840	0.009
3900	0.007
3960	0.005
4020	0.008
4080	0.008
4140	0.007
4200	0.005
4260	0.012
4320	0.006
4380	0.007
4440	0.006

4500	0.006
4560	0.005
4620	0.006
4680	0.011
4740	0.004
4800	0.003
4860	0.004
4920	0.012
4980	0.008
5040	0.005
5100	0.007
5160	0.005
5220	0.004
5280	0.004
5340	0.004
5400	0.005
5460	0.004
5520	0.004
5580	0.007
5640	0.004
5700	0.004
5760	0.004
5820	0.004
5880	0.002
5940	0.003
6000	0.005
6060	0.005
6120	0.004
6180	0.004
6240	0.003
6300	0.003
6360	0.003
6420	0.003
6480	0.004
6540	0.004
6600	0.004
6660	0.006
6720	0.004
6780	0.004
6840	0.003
6900	0.003
6960	0.003
7020	0.003
7080	0.003
7140	0.003
7200	0.004
7260	0.005

7320	0.005
7380	0.003
7440	0.003
7500	0.005
7560	0.004
7620	0.004
7680	0.003
7740	0.003
7800	0.005
7860	0.005
7920	0.004
7980	0.004
8040	0.004
8100	0.004
8160	0.004
8220	0.004
8280	0.003
8340	0.003
8400	0.003
8460	0.002
8520	0.004
8580	0.004
8640	0.007
8700	0.004
8760	0.006
8820	0.005
8880	0.005
8940	0.004
9000	0.008
9060	0.005
9120	0.006
9180	0.005
9240	0.005
9300	0.004
9360	0.007
9420	0.007
9480	0.006
9540	0.006
9600	0.02
9660	0.005
9720	0.002
9780	0.003
9840	0.004
9900	0.003
9960	0.003
10020	0.003
10080	0.003

10140	0.003
10200	0.003
10260	0.003
10320	0.004
10380	0.004
10440	0.005
10500	0.006
10560	0.005
10620	0.004
10680	0.003
10740	0.003
10800	0.003
10860	0.003
10920	0.003
10980	0.003
11040	0.004
11100	0.003
11160	0.004
11220	0.006
11280	0.004
11340	0.005
11400	0.003
11460	0.004
11520	0.004
11580	0.003
11640	0.003
11700	0.003
11760	0.003
11820	0.003
11880	0.003
11940	0.003
12000	0.003
12060	0.004
12120	0.006
12180	0.004
12240	0.004
12300	0.004
12360	0.004
12420	0.003
12480	0.003
12540	0.003
12600	0.004
12660	0.003
12720	0.004
12780	0.003
12840	0.022
12900	0.029

12960	0.004
13020	0.005
13080	0.005
13140	0.004
13200	0.004
13260	0.003
13320	0.003
13380	0.003
13440	0.004
13500	0.003
13560	0.004
13620	0.004
13680	0.004
13740	0.004
13800	0.004
13860	0.007
13920	0.005
13980	0.004
14040	0.005
14100	0.005
14160	0.01
14220	0.005
14280	0.014
14340	0.005
14400	0.012
14460	0.005
14520	0.014
14580	0.025
14640	0.012
14700	0.004
14760	0.005
14820	0.005
14880	0.005
14940	0.004
15000	0.007
15060	0.006
15120	0.005
15180	0.006
15240	0.006
15300	0.008
15360	0.007
15420	0.007
15480	0.006
15540	0.004
15600	0.005
15660	0.007
15720	0.007

15780	0.006
15840	0.007
15900	0.006
15960	0.005
16020	0.005
16080	0.006
16140	0.004
16200	0.006
16260	0.007
16320	0.006
16380	0.004
16440	0.006
16500	0.004
16560	0.011
16620	0.004
16680	0.005
16740	0.011
16800	0.004
16860	0.003
16920	0.003
16980	0.003
17040	0.004
17100	0.006
17160	0.007
17220	0.005
17280	0.007
17340	0.005
17400	0.009
17460	0.006
17520	0.007
17580	0.012
17640	0.006
17700	0.004
17760	0.005
17820	0.007
17880	0.01
17940	0.005
18000	0.006
18060	0.005
18120	0.005
18180	0.007
18240	0.005
18300	0.006
18360	0.005
18420	0.005
18480	0.007
18540	0.01

18600	0.007
18660	0.008
18720	0.007
18780	0.006
18840	0.007
18900	0.01
18960	0.01
19020	0.008
19080	0.009
19140	0.006
19200	0.008
19260	0.006
19320	0.006
19380	0.009
19440	0.006
19500	0.007
19560	0.006
19620	0.006
19680	0.006
19740	0.006
19800	0.005
19860	0.005
19920	0.006
19980	0.006
20040	0.006
20100	0.005
20160	0.005
20220	0.005
20280	0.006
20340	0.005
20400	0.007
20460	0.008
20520	0.007
20580	0.006
20640	0.006
20700	0.006
20760	0.008
20820	0.007
20880	0.014
20940	0.02
21000	0.008
21060	0.006
21120	0.005
21180	0.006
21240	0.006
21300	0.005
21360	0.006

21420	0.005
21480	0.006
21540	0.006
21600	0.006
21660	0.006
21720	0.006
21780	0.006
21840	0.009
21900	0.007
21960	0.01
22020	0.006
22080	0.018
22140	0.008
22200	0.015
22260	0.007
22320	0.017
22380	0.009
22440	0.042
22500	0.014
22560	0.007
22620	0.007
22680	0.008
22740	0.03
22800	0.02
22860	0.006
22920	0.005
22980	0.006
23040	0.009
23100	0.007
23160	0.007
23220	0.009
23280	0.006
23340	0.006
23400	0.007
23460	0.007
23520	0.006
23580	0.009
23640	0.006
23700	0.008
23760	0.008
23820	0.011
23880	0.009
23940	0.007
24000	0.006
24060	0.007
24120	0.008
24180	0.007

24240	0.005
24300	0.006
24360	0.006
24420	0.006
24480	0.008
24540	0.007
24600	0.007
24660	0.007
24720	0.007
24780	0.007

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_001
Test Start T	########
Test Start D	4/1/2019
Test Length	0:04:03
Test Interva	1:00
Mass Avera	0.011
Mass Minir	0.008
Mass Maxir	0.021
Mass TWA	0.006
Photometr	1
Flow User C	0
Errors	
Number of	243

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.016		
120	0.016		
180	0.016		
240	0.016		
300	0.015		
360	0.016		
420	0.016		
480	0.017		
540	0.015		
600	0.017		
660	0.016		
720	0.014		
780	0.014		
840	0.014		
900	0.014		
960	0.014		
1020	0.015		
1080	0.018		
1140	0.015		
1200	0.014		
1260	0.013		
1320	0.015		
1380	0.017		
1440	0.018		
1500	0.021		
1560	0.017		
1620	0.014		

1680	0.013
1740	0.012
1800	0.014
1860	0.011
1920	0.01
1980	0.01
2040	0.013
2100	0.015
2160	0.017
2220	0.012
2280	0.012
2340	0.011
2400	0.013
2460	0.012
2520	0.011
2580	0.011
2640	0.01
2700	0.013
2760	0.012
2820	0.012
2880	0.011
2940	0.01
3000	0.012
3060	0.012
3120	0.011
3180	0.011
3240	0.01
3300	0.011
3360	0.01
3420	0.011
3480	0.01
3540	0.01
3600	0.01
3660	0.01
3720	0.011
3780	0.01
3840	0.01
3900	0.01
3960	0.01
4020	0.011
4080	0.011
4140	0.01
4200	0.01
4260	0.009
4320	0.01
4380	0.01
4440	0.01

4500	0.01
4560	0.01
4620	0.012
4680	0.01
4740	0.011
4800	0.01
4860	0.01
4920	0.01
4980	0.01
5040	0.009
5100	0.01
5160	0.011
5220	0.011
5280	0.011
5340	0.011
5400	0.011
5460	0.012
5520	0.013
5580	0.013
5640	0.011
5700	0.011
5760	0.012
5820	0.011
5880	0.01
5940	0.01
6000	0.012
6060	0.011
6120	0.012
6180	0.011
6240	0.013
6300	0.011
6360	0.01
6420	0.01
6480	0.011
6540	0.011
6600	0.011
6660	0.011
6720	0.012
6780	0.01
6840	0.011
6900	0.01
6960	0.011
7020	0.011
7080	0.011
7140	0.011
7200	0.012
7260	0.011

7320	0.011
7380	0.012
7440	0.011
7500	0.011
7560	0.012
7620	0.011
7680	0.01
7740	0.01
7800	0.012
7860	0.011
7920	0.011
7980	0.01
8040	0.011
8100	0.01
8160	0.01
8220	0.011
8280	0.011
8340	0.01
8400	0.01
8460	0.011
8520	0.011
8580	0.011
8640	0.011
8700	0.01
8760	0.01
8820	0.011
8880	0.012
8940	0.012
9000	0.012
9060	0.013
9120	0.013
9180	0.012
9240	0.011
9300	0.011
9360	0.011
9420	0.011
9480	0.01
9540	0.01
9600	0.01
9660	0.01
9720	0.011
9780	0.012
9840	0.011
9900	0.01
9960	0.011
10020	0.01
10080	0.011

10140	0.01
10200	0.011
10260	0.012
10320	0.01
10380	0.014
10440	0.011
10500	0.012
10560	0.01
10620	0.012
10680	0.012
10740	0.01
10800	0.01
10860	0.01
10920	0.01
10980	0.01
11040	0.01
11100	0.011
11160	0.014
11220	0.012
11280	0.011
11340	0.011
11400	0.011
11460	0.012
11520	0.012
11580	0.011
11640	0.012
11700	0.01
11760	0.01
11820	0.009
11880	0.008
11940	0.009
12000	0.009
12060	0.009
12120	0.01
12180	0.01
12240	0.01
12300	0.009
12360	0.009
12420	0.01
12480	0.009
12540	0.01
12600	0.01
12660	0.009
12720	0.01
12780	0.01
12840	0.01
12900	0.01

12960	0.01
13020	0.009
13080	0.009
13140	0.009
13200	0.009
13260	0.013
13320	0.013
13380	0.01
13440	0.009
13500	0.009
13560	0.009
13620	0.009
13680	0.009
13740	0.009
13800	0.009
13860	0.008
13920	0.009
13980	0.009
14040	0.009
14100	0.008
14160	0.01
14220	0.009
14280	0.008
14340	0.009
14400	0.009
14460	0.009
14520	0.009
14580	0.009

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_002
Test Start T	########
Test Start D	4/2/2019
Test Length	1:00:00
Test Interva	1:00
Mass Avera	0.015
Mass Minir	0.008
Mass Maxir	0.107
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	346

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.017		
120	0.016		
180	0.016		
240	0.016		
300	0.016		
360	0.016		
420	0.016		
480	0.016		
540	0.016		
600	0.015		
660	0.015		
720	0.015		
780	0.013		
840	0.015		
900	0.016		
960	0.017		
1020	0.015		
1080	0.013		
1140	0.015		
1200	0.016		
1260	0.015		
1320	0.015		
1380	0.017		
1440	0.016		
1500	0.016		
1560	0.014		
1620	0.013		

1680	0.014
1740	0.014
1800	0.015
1860	0.016
1920	0.019
1980	0.02
2040	0.016
2100	0.014
2160	0.013
2220	0.015
2280	0.013
2340	0.015
2400	0.013
2460	0.014
2520	0.014
2580	0.013
2640	0.013
2700	0.012
2760	0.011
2820	0.013
2880	0.012
2940	0.012
3000	0.013
3060	0.013
3120	0.014
3180	0.014
3240	0.014
3300	0.014
3360	0.015
3420	0.015
3480	0.02
3540	0.021
3600	0.018
3660	0.014
3720	0.012
3780	0.012
3840	0.011
3900	0.013
3960	0.013
4020	0.013
4080	0.014
4140	0.014
4200	0.012
4260	0.011
4320	0.011
4380	0.011
4440	0.011

4500	0.011
4560	0.011
4620	0.012
4680	0.011
4740	0.012
4800	0.013
4860	0.012
4920	0.012
4980	0.013
5040	0.013
5100	0.013
5160	0.012
5220	0.011
5280	0.012
5340	0.012
5400	0.013
5460	0.015
5520	0.012
5580	0.011
5640	0.012
5700	0.013
5760	0.013
5820	0.013
5880	0.013
5940	0.014
6000	0.014
6060	0.012
6120	0.012
6180	0.013
6240	0.013
6300	0.013
6360	0.013
6420	0.012
6480	0.013
6540	0.012
6600	0.012
6660	0.012
6720	0.012
6780	0.015
6840	0.013
6900	0.011
6960	0.012
7020	0.014
7080	0.012
7140	0.011
7200	0.012
7260	0.015

7320	0.012
7380	0.012
7440	0.017
7500	0.012
7560	0.011
7620	0.012
7680	0.011
7740	0.01
7800	0.011
7860	0.01
7920	0.009
7980	0.011
8040	0.012
8100	0.013
8160	0.013
8220	0.011
8280	0.01
8340	0.01
8400	0.01
8460	0.013
8520	0.012
8580	0.01
8640	0.012
8700	0.011
8760	0.011
8820	0.011
8880	0.011
8940	0.012
9000	0.011
9060	0.012
9120	0.011
9180	0.01
9240	0.01
9300	0.01
9360	0.01
9420	0.009
9480	0.012
9540	0.011
9600	0.011
9660	0.011
9720	0.011
9780	0.01
9840	0.01
9900	0.011
9960	0.009
10020	0.01
10080	0.01

10140	0.01
10200	0.009
10260	0.01
10320	0.01
10380	0.009
10440	0.009
10500	0.009
10560	0.009
10620	0.009
10680	0.01
10740	0.01
10800	0.009
10860	0.012
10920	0.013
10980	0.012
11040	0.01
11100	0.009
11160	0.009
11220	0.01
11280	0.009
11340	0.009
11400	0.01
11460	0.011
11520	0.012
11580	0.01
11640	0.01
11700	0.011
11760	0.01
11820	0.009
11880	0.01
11940	0.01
12000	0.01
12060	0.01
12120	0.01
12180	0.01
12240	0.012
12300	0.009
12360	0.01
12420	0.01
12480	0.009
12540	0.01
12600	0.009
12660	0.01
12720	0.01
12780	0.011
12840	0.01
12900	0.01

12960	0.01
13020	0.009
13080	0.009
13140	0.009
13200	0.01
13260	0.011
13320	0.011
13380	0.011
13440	0.011
13500	0.01
13560	0.01
13620	0.009
13680	0.008
13740	0.008
13800	0.008
13860	0.009
13920	0.01
13980	0.011
14040	0.009
14100	0.011
14160	0.01
14220	0.01
14280	0.01
14340	0.009
14400	0.011
14460	0.011
14520	0.011
14580	0.01
14640	0.009
14700	0.009
14760	0.012
14820	0.01
14880	0.009
14940	0.008
15000	0.01
15060	0.059
15120	0.083
15180	0.1
15240	0.107
15300	0.033
15360	0.015
15420	0.01
15480	0.009
15540	0.009
15600	0.009
15660	0.008
15720	0.008

15780	0.008
15840	0.008
15900	0.009
15960	0.01
16020	0.01
16080	0.01
16140	0.009
16200	0.01
16260	0.009
16320	0.009
16380	0.01
16440	0.011
16500	0.008
16560	0.008
16620	0.01
16680	0.01
16740	0.009
16800	0.01
16860	0.01
16920	0.01
16980	0.01
17040	0.011
17100	0.011
17160	0.009
17220	0.008
17280	0.008
83016	0.016
83040	0.029
83100	0.028
83160	0.028
83220	0.027
83280	0.028
83340	0.027
83400	0.027
83460	0.027
83520	0.027
83580	0.028
83640	0.027
83700	0.027
83760	0.026
83820	0.025
83880	0.025
83940	0.024
84000	0.023
84060	0.024
84120	0.026
84180	0.025

84240	0.024
84300	0.025
84360	0.026
84420	0.028
84480	0.026
84540	0.027
84600	0.029
84660	0.029
84720	0.028
84780	0.026
84840	0.025
84900	0.026
84960	0.024
85020	0.026
85080	0.027
85140	0.027
85200	0.027
85260	0.028
85320	0.027
85380	0.027
85440	0.026
85500	0.028
85560	0.028
85620	0.029
85680	0.031
85740	0.031
85800	0.031
85860	0.031
85920	0.029
85980	0.028
86040	0.028
86100	0.029
86160	0.03
86220	0.033
86280	0.031
86340	0.03
86400	0.03

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_003
Test Start T	########
Test Start D	4/8/2019
Test Length	1:00:00
Test Interva	1:00
Mass Avera	0.05
Mass Minir	0
Mass Maxir	0.108
Mass TWA	0.021
Photometr	1
Flow User C	0
Errors	
Number of	314

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.069		
120	0.069		
180	0.067		
240	0.064		
300	0.062		
360	0.071		
420	0.062		
480	0.059		
540	0.059		
600	0.057		
660	0.063		
720	0.061		
780	0.063		
840	0.057		
900	0.056		
960	0.059		
1020	0.057		
1080	0.057		
1140	0.058		
1200	0.066		
1260	0.057		
1320	0.054		
1380	0.056		
1440	0.08		
1500	0.054		
1560	0.057		
1620	0.055		

1680	0.066
1740	0.075
1800	0.056
1860	0.055
1920	0.055
1980	0.054
2040	0.053
2100	0.055
2160	0.052
2220	0.051
2280	0.053
2340	0.053
2400	0.05
2460	0.074
2520	0.053
2580	0.055
2640	0.054
2700	0.052
2760	0.052
2820	0.054
2880	0.052
2940	0.051
3000	0.053
3060	0.052
3120	0.052
3180	0.054
3240	0.052
3300	0.052
3360	0.057
3420	0.055
3480	0.052
3540	0.064
3600	0.052
3660	0.05
3720	0.051
3780	0.054
3840	0.059
3900	0.055
3960	0.049
4020	0.047
4080	0.049
4140	0.051
4200	0.052
4260	0.051
4320	0.054
4380	0.054
4440	0.051

4500	0.051
4560	0.051
4620	0.051
4680	0.053
4740	0.05
4800	0.051
4860	0.05
4920	0.049
4980	0.049
5040	0.047
5100	0.049
5160	0.05
5220	0.048
5280	0.046
5340	0.045
5400	0.046
5460	0.046
5520	0.046
5580	0.045
5640	0.046
5700	0.047
5760	0.047
5820	0.046
5880	0.047
5940	0.046
6000	0.046
6060	0.046
6120	0.046
6180	0.046
6240	0.046
6300	0.046
6360	0.046
6420	0.046
6480	0.045
6540	0.043
6600	0.045
6660	0.046
6720	0.045
6780	0.046
6840	0.045
6900	0.045
6960	0.045
7020	0.044
7080	0.046
7140	0.046
7200	0.045
7260	0.045

7320	0.05
7380	0.045
7440	0.045
7500	0.047
7560	0.044
7620	0.042
7680	0.041
7740	0.04
7800	0.042
7860	0.041
7920	0.041
7980	0.042
8040	0.042
8100	0.04
8160	0.041
8220	0.041
8280	0.04
8340	0.041
8400	0.041
8460	0.039
8520	0.04
8580	0.039
8640	0.042
8700	0.042
8760	0.041
8820	0.04
8880	0.041
8940	0.059
9000	0.047
9060	0.044
9120	0.045
9180	0.044
9240	0.044
9300	0.042
9360	0.042
9420	0.045
9480	0.045
9540	0.043
9600	0.067
9660	0.049
9720	0.045
9780	0.04
9840	0.039
9900	0.042
9960	0.042
10020	0.041
10080	0.04

10140	0.04
10200	0.04
10260	0.039
10320	0.039
10380	0.039
10440	0.04
10500	0.042
10560	0.04
10620	0.039
10680	0.038
10740	0.034
10800	0.036
10860	0.036
10920	0.036
10980	0.038
11040	0.037
11100	0.035
11160	0.034
11220	0.033
11280	0.034
11340	0.036
11400	0.035
11460	0.034
11520	0.033
11580	0.031
11640	0.031
11700	0.032
11760	0.033
11820	0.031
11880	0.029
11940	0.03
12000	0.029
12060	0.031
12120	0.031
12180	0.027
12240	0.027
12300	0.026
12360	0.026
12420	0.025
12480	0.027
12540	0.026
12600	0.027
12660	0.027
13000	0
80350	0
80400	0.053
80460	0.058

80520	0.063
80580	0.061
80640	0.074
80700	0.074
80760	0.07
80820	0.065
80880	0.103
80940	0.101
81000	0.108
81060	0.1
81120	0.073
81180	0.076
81240	0.087
81300	0.069
81360	0.06
81420	0.053
81480	0.087
81540	0.077
81600	0.082
81660	0.059
81720	0.062
81780	0.065
81840	0.07
81900	0.064
81960	0.066
82020	0.078
82080	0.072
82140	0.073
82200	0.068
82260	0.059
82320	0.058
82380	0.062
82440	0.056
82500	0.056
82560	0.052
82620	0.051
82680	0.051
82740	0.053
82800	0.055
82860	0.053
82920	0.053
82980	0.052
83040	0.052
83100	0.052
83160	0.054
83220	0.055
83280	0.059

83340	0.058
83400	0.057
83460	0.055
83520	0.052
83580	0.051
83640	0.051
83700	0.052
83760	0.053
83820	0.055
83880	0.053
83940	0.054
84000	0.052
84060	0.052
84120	0.057
84180	0.055
84240	0.055
84300	0.05
84360	0.052
84420	0.055
84480	0.059
84540	0.055
84600	0.055
84660	0.055
84720	0.055
84780	0.057
84840	0.058
84900	0.059
84960	0.059
85020	0.06
85080	0.059
85140	0.058
85200	0.057
85260	0.055
85320	0.053
85380	0.05
85440	0.049
85500	0.048
85560	0.042
85620	0.041
85680	0.041
85740	0.039
85800	0.037
85860	0.037
85920	0.037
85980	0.038
86040	0.04
86100	0.037

86160	0.038
86220	0.037
86280	0.038
86340	0.036
86400	0.038

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_004
Test Start T	########
Test Start D	########
Test Length	0:05:38
Test Interva	1:00
Mass Avera	0.007
Mass Minir	0.003
Mass Maxir	0.017
Mass TWA	0.005
Photometr	1
Flow User C	0
Errors	
Number of	338

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.006		
120	0.006		
180	0.007		
240	0.006		
300	0.006		
360	0.006		
420	0.006		
480	0.007		
540	0.007		
600	0.007		
660	0.008		
720	0.009		
780	0.008		
840	0.006		
900	0.006		
960	0.007		
1020	0.006		
1080	0.006		
1140	0.007		
1200	0.008		
1260	0.007		
1320	0.008		
1380	0.008		
1440	0.007		
1500	0.006		
1560	0.008		
1620	0.007		

1680	0.008
1740	0.009
1800	0.009
1860	0.007
1920	0.008
1980	0.008
2040	0.007
2100	0.014
2160	0.01
2220	0.007
2280	0.007
2340	0.006
2400	0.007
2460	0.007
2520	0.009
2580	0.009
2640	0.009
2700	0.008
2760	0.008
2820	0.009
2880	0.008
2940	0.007
3000	0.007
3060	0.007
3120	0.008
3180	0.008
3240	0.008
3300	0.009
3360	0.008
3420	0.007
3480	0.007
3540	0.011
3600	0.008
3660	0.011
3720	0.008
3780	0.008
3840	0.009
3900	0.006
3960	0.007
4020	0.01
4080	0.007
4140	0.007
4200	0.006
4260	0.007
4320	0.007
4380	0.006
4440	0.005

4500	0.007
4560	0.006
4620	0.007
4680	0.007
4740	0.007
4800	0.006
4860	0.006
4920	0.006
4980	0.007
5040	0.007
5100	0.007
5160	0.008
5220	0.008
5280	0.01
5340	0.01
5400	0.008
5460	0.01
5520	0.008
5580	0.008
5640	0.007
5700	0.006
5760	0.009
5820	0.008
5880	0.007
5940	0.006
6000	0.007
6060	0.006
6120	0.008
6180	0.005
6240	0.006
6300	0.006
6360	0.008
6420	0.006
6480	0.007
6540	0.004
6600	0.004
6660	0.005
6720	0.006
6780	0.006
6840	0.005
6900	0.008
6960	0.007
7020	0.006
7080	0.006
7140	0.007
7200	0.006
7260	0.007

7320	0.008
7380	0.007
7440	0.007
7500	0.007
7560	0.009
7620	0.008
7680	0.008
7740	0.007
7800	0.006
7860	0.006
7920	0.01
7980	0.008
8040	0.01
8100	0.006
8160	0.007
8220	0.006
8280	0.007
8340	0.009
8400	0.006
8460	0.006
8520	0.007
8580	0.006
8640	0.007
8700	0.006
8760	0.005
8820	0.006
8880	0.007
8940	0.005
9000	0.007
9060	0.005
9120	0.006
9180	0.005
9240	0.005
9300	0.006
9360	0.005
9420	0.006
9480	0.006
9540	0.005
9600	0.005
9660	0.005
9720	0.004
9780	0.004
9840	0.007
9900	0.006
9960	0.006
10020	0.006
10080	0.006

10140	0.006
10200	0.005
10260	0.006
10320	0.004
10380	0.004
10440	0.005
10500	0.009
10560	0.007
10620	0.006
10680	0.008
10740	0.005
10800	0.006
10860	0.005
10920	0.006
10980	0.005
11040	0.004
11100	0.005
11160	0.006
11220	0.007
11280	0.007
11340	0.006
11400	0.006
11460	0.006
11520	0.006
11580	0.007
11640	0.007
11700	0.005
11760	0.005
11820	0.005
11880	0.005
11940	0.005
12000	0.004
12060	0.005
12120	0.011
12180	0.005
12240	0.011
12300	0.007
12360	0.013
12420	0.007
12480	0.014
12540	0.007
12600	0.014
12660	0.011
12720	0.013
12780	0.01
12840	0.006
12900	0.007

12960	0.01
13020	0.009
13080	0.012
13140	0.012
13200	0.009
13260	0.009
13320	0.014
13380	0.006
13440	0.01
13500	0.006
13560	0.012
13620	0.009
13680	0.01
13740	0.017
13800	0.011
13860	0.01
13920	0.011
13980	0.011
14040	0.01
14100	0.012
14160	0.012
14220	0.011
14280	0.007
14340	0.007
14400	0.004
14460	0.007
14520	0.008
14580	0.007
14640	0.009
14700	0.008
14760	0.008
14820	0.006
14880	0.006
14940	0.006
15000	0.009
15060	0.01
15120	0.01
15180	0.007
15240	0.007
15300	0.007
15360	0.006
15420	0.005
15480	0.005
15540	0.004
15600	0.005
15660	0.005
15720	0.007

15780	0.007
15840	0.005
15900	0.006
15960	0.004
16020	0.005
16080	0.005
16140	0.006
16200	0.004
16260	0.004
16320	0.006
16380	0.004
16440	0.005
16500	0.005
16560	0.005
16620	0.007
16680	0.005
16740	0.005
16800	0.004
16860	0.004
16920	0.005
16980	0.005
17040	0.004
17100	0.004
17160	0.005
17220	0.005
17280	0.004
17340	0.009
17400	0.006
17460	0.005
17520	0.004
17580	0.004
17640	0.004
17700	0.003
17760	0.003
17820	0.003
17880	0.004
17940	0.004
18000	0.003
18060	0.003
18120	0.003
18180	0.003
18240	0.004
18300	0.004
18360	0.004
18420	0.003
18480	0.003
18540	0.003

18600	0.003
18660	0.003
18720	0.004
18780	0.003
18840	0.006
18900	0.004
18960	0.004
19020	0.004
19080	0.004
19140	0.004
19200	0.003
19260	0.004
19320	0.005
19380	0.004
19440	0.005
19500	0.006
19560	0.005
19620	0.004
19680	0.003
19740	0.004
19800	0.004
19860	0.004
19920	0.004
19980	0.004
20040	0.004
20100	0.005
20160	0.005
20220	0.004
20280	0.004

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_005
Test Start T	########
Test Start D	########
Test Length	1:00:00
Test Interva	1:00
Mass Avera	0.009
Mass Minir	0.006
Mass Maxir	0.024
Mass TWA	0.005
Photometr	1
Flow User C	0
Errors	
Number of	249

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.012		
120	0.008		
180	0.009		
240	0.009		
300	0.008		
360	0.009		
420	0.012		
480	0.009		
540	0.01		
600	0.01		
660	0.009		
720	0.012		
780	0.011		
840	0.007		
900	0.009		
960	0.01		
1020	0.011		
1080	0.011		
1140	0.01		
1200	0.007		
1260	0.009		
1320	0.008		
1380	0.007		
1440	0.008		
1500	0.009		
1560	0.008		
1620	0.008		

1680	0.01
1740	0.013
1800	0.01
1860	0.012
1920	0.012
1980	0.01
2040	0.008
2100	0.009
2160	0.01
2220	0.01
2280	0.009
2340	0.011
2400	0.012
2460	0.01
2520	0.009
2580	0.011
2640	0.012
2700	0.011
2760	0.009
2820	0.01
2880	0.011
2940	0.01
3000	0.008
3060	0.008
3120	0.008
3180	0.008
3240	0.008
3300	0.009
3360	0.011
3420	0.008
3480	0.009
3540	0.011
3600	0.011
3660	0.012
3720	0.009
3780	0.01
3840	0.008
3900	0.008
3960	0.009
4020	0.009
4080	0.009
4140	0.01
4200	0.01
4260	0.009
4320	0.011
4380	0.009
4440	0.01

4500	0.012
4560	0.01
4620	0.009
4680	0.008
4740	0.007
4800	0.007
4860	0.008
4920	0.008
4980	0.008
5040	0.009
5100	0.009
5160	0.008
5220	0.009
5280	0.01
5340	0.01
5400	0.01
5460	0.009
5520	0.008
5580	0.007
5640	0.007
5700	0.007
5760	0.009
5820	0.008
5880	0.008
5940	0.01
6000	0.009
6060	0.01
6120	0.01
6180	0.01
6240	0.01
6300	0.01
6360	0.008
6420	0.008
6480	0.008
6540	0.008
6600	0.009
6660	0.011
6720	0.009
6780	0.01
6840	0.008
6900	0.008
6960	0.008
7020	0.008
7080	0.009
7140	0.008
7200	0.009
7260	0.008

7320	0.007
7380	0.007
7440	0.008
7500	0.009
7560	0.007
7620	0.009
7680	0.009
7740	0.009
7800	0.009
7860	0.009
7920	0.009
7980	0.01
8040	0.01
8100	0.01
8160	0.01
8220	0.008
8280	0.01
8340	0.009
8400	0.007
8460	0.008
8520	0.009
8580	0.008
8640	0.008
8700	0.009
8760	0.009
8820	0.007
8880	0.008
8940	0.009
9000	0.009
9060	0.008
9120	0.015
9180	0.012
9240	0.009
9300	0.008
9360	0.008
9420	0.007
9480	0.008
9540	0.008
9600	0.009
9660	0.009
9720	0.008
9780	0.008
9840	0.009
9900	0.009
9960	0.01
10020	0.012
10080	0.009

10140	0.008
10200	0.009
10260	0.007
10320	0.007
10380	0.007
10440	0.007
10500	0.007
10560	0.009
10620	0.008
10680	0.008
10740	0.009
10800	0.008
10860	0.008
10920	0.008
10980	0.009
11040	0.011
11100	0.008
11160	0.007
11220	0.008
11280	0.008
11340	0.009
11400	0.008
11460	0.007
11520	0.008
11580	0.008
11640	0.012
11700	0.01
11760	0.011
11820	0.012
11880	0.012
11940	0.01
12000	0.009
12060	0.008
12120	0.008
12180	0.007
12240	0.008
12300	0.009
12360	0.01
12420	0.01
12480	0.024
12540	0.01
12600	0.01
12660	0.01
12720	0.011
12780	0.01
12840	0.011
12900	0.01

12960	0.008
13020	0.008
13080	0.009
13140	0.01
13200	0.008
13260	0.01
13320	0.009
13380	0.017
13440	0.009
13500	0.01
13560	0.009
13620	0.008
13680	0.009
13740	0.008
13800	0.008
13860	0.009
13920	0.009
13980	0.01
14040	0.009
14100	0.008
14160	0.009
14220	0.01
14280	0.009
14340	0.008
14400	0.01
14460	0.011
14520	0.01
86064	0.015
86100	0.009
86160	0.008
86220	0.008
86280	0.008
86340	0.007
86400	0.006

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_006
Test Start T	########
Test Start D	########
Test Length	0:03:47
Test Interva	1:00
Mass Avera	0.02
Mass Minir	0.015
Mass Maxir	0.028
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	227

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.024		
120	0.019		
180	0.018		
240	0.017		
300	0.016		
360	0.016		
420	0.019		
480	0.019		
540	0.018		
600	0.017		
660	0.018		
720	0.018		
780	0.018		
840	0.018		
900	0.015		
960	0.016		
1020	0.015		
1080	0.016		
1140	0.016		
1200	0.016		
1260	0.017		
1320	0.016		
1380	0.018		
1440	0.02		
1500	0.017		
1560	0.017		
1620	0.02		

1680	0.016
1740	0.017
1800	0.017
1860	0.018
1920	0.018
1980	0.017
2040	0.018
2100	0.017
2160	0.017
2220	0.017
2280	0.018
2340	0.019
2400	0.018
2460	0.019
2520	0.019
2580	0.02
2640	0.023
2700	0.023
2760	0.022
2820	0.019
2880	0.021
2940	0.02
3000	0.022
3060	0.024
3120	0.022
3180	0.02
3240	0.021
3300	0.023
3360	0.023
3420	0.024
3480	0.023
3540	0.026
3600	0.026
3660	0.027
3720	0.026
3780	0.026
3840	0.025
3900	0.027
3960	0.027
4020	0.026
4080	0.026
4140	0.024
4200	0.026
4260	0.028
4320	0.028
4380	0.026
4440	0.026

4500	0.026
4560	0.026
4620	0.026
4680	0.026
4740	0.026
4800	0.027
4860	0.025
4920	0.025
4980	0.025
5040	0.026
5100	0.025
5160	0.023
5220	0.024
5280	0.022
5340	0.022
5400	0.021
5460	0.021
5520	0.023
5580	0.022
5640	0.019
5700	0.019
5760	0.018
5820	0.018
5880	0.021
5940	0.022
6000	0.021
6060	0.021
6120	0.02
6180	0.02
6240	0.019
6300	0.018
6360	0.018
6420	0.017
6480	0.017
6540	0.018
6600	0.017
6660	0.016
6720	0.018
6780	0.016
6840	0.017
6900	0.015
6960	0.015
7020	0.015
7080	0.016
7140	0.016
7200	0.016
7260	0.017

7320	0.016
7380	0.015
7440	0.015
7500	0.015
7560	0.015
7620	0.015
7680	0.017
7740	0.016
7800	0.016
7860	0.016
7920	0.016
7980	0.019
8040	0.017
8100	0.017
8160	0.017
8220	0.016
8280	0.017
8340	0.018
8400	0.019
8460	0.02
8520	0.018
8580	0.018
8640	0.019
8700	0.018
8760	0.018
8820	0.019
8880	0.019
8940	0.018
9000	0.017
9060	0.017
9120	0.018
9180	0.018
9240	0.02
9300	0.018
9360	0.018
9420	0.018
9480	0.018
9540	0.018
9600	0.018
9660	0.018
9720	0.018
9780	0.02
9840	0.018
9900	0.018
9960	0.018
10020	0.019
10080	0.018

10140	0.02
10200	0.02
10260	0.02
10320	0.021
10380	0.021
10440	0.02
10500	0.02
10560	0.022
10620	0.021
10680	0.021
10740	0.023
10800	0.023
10860	0.023
10920	0.023
10980	0.023
11040	0.023
11100	0.022
11160	0.023
11220	0.023
11280	0.024
11340	0.023
11400	0.022
11460	0.021
11520	0.021
11580	0.02
11640	0.02
11700	0.02
11760	0.022
11820	0.02
11880	0.02
11940	0.027
12000	0.024
12060	0.019
12120	0.024
12180	0.028
12240	0.023
12300	0.021
12360	0.018
12420	0.018
12480	0.018
12540	0.019
12600	0.02
12660	0.018
12720	0.018
12780	0.018
12840	0.018
12900	0.018

12960	0.017
13020	0.018
13080	0.018
13140	0.017
13200	0.017
13260	0.017
13320	0.017
13380	0.019
13440	0.019
13500	0.019
13560	0.02
13620	0.019

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_007
Test Start T	########
Test Start D	########
Test Length	0:06:02
Test Interva	1:00
Mass Avera	0.018
Mass Minir	0.003
Mass Maxir	0.083
Mass TWA	0.013
Photometr	1
Flow User C	0
Errors	
Number of	362

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.006		
120	0.006		
180	0.007		
240	0.006		
300	0.021		
360	0.005		
420	0.006		
480	0.005		
540	0.005		
600	0.005		
660	0.006		
720	0.007		
780	0.005		
840	0.004		
900	0.005		
960	0.007		
1020	0.007		
1080	0.005		
1140	0.004		
1200	0.005		
1260	0.005		
1320	0.005		
1380	0.004		
1440	0.004		
1500	0.004		
1560	0.005		
1620	0.005		

1680	0.005
1740	0.006
1800	0.005
1860	0.008
1920	0.005
1980	0.005
2040	0.005
2100	0.006
2160	0.007
2220	0.007
2280	0.006
2340	0.006
2400	0.007
2460	0.006
2520	0.006
2580	0.006
2640	0.013
2700	0.007
2760	0.005
2820	0.004
2880	0.004
2940	0.005
3000	0.006
3060	0.006
3120	0.005
3180	0.004
3240	0.005
3300	0.004
3360	0.004
3420	0.004
3480	0.004
3540	0.004
3600	0.004
3660	0.004
3720	0.004
3780	0.004
3840	0.004
3900	0.004
3960	0.004
4020	0.005
4080	0.005
4140	0.004
4200	0.005
4260	0.004
4320	0.005
4380	0.03
4440	0.007

4500	0.004
4560	0.004
4620	0.004
4680	0.005
4740	0.005
4800	0.005
4860	0.005
4920	0.004
4980	0.004
5040	0.005
5100	0.004
5160	0.004
5220	0.004
5280	0.003
5340	0.004
5400	0.003
5460	0.003
5520	0.004
5580	0.004
5640	0.005
5700	0.004
5760	0.005
5820	0.006
5880	0.007
5940	0.006
6000	0.003
6060	0.005
6120	0.011
6180	0.012
6240	0.004
6300	0.004
6360	0.004
6420	0.005
6480	0.007
6540	0.007
6600	0.009
6660	0.008
6720	0.011
6780	0.008
6840	0.007
6900	0.024
6960	0.007
7020	0.007
7080	0.008
7140	0.008
7200	0.005
7260	0.008

7320	0.007
7380	0.006
7440	0.006
7500	0.006
7560	0.006
7620	0.011
7680	0.008
7740	0.006
7800	0.006
7860	0.007
7920	0.006
7980	0.005
8040	0.007
8100	0.009
8160	0.009
8220	0.007
8280	0.008
8340	0.008
8400	0.011
8460	0.008
8520	0.006
8580	0.008
8640	0.007
8700	0.007
8760	0.008
8820	0.009
8880	0.008
8940	0.007
9000	0.005
9060	0.007
9120	0.007
9180	0.006
9240	0.006
9300	0.006
9360	0.006
9420	0.007
9480	0.006
9540	0.007
9600	0.011
9660	0.006
9720	0.007
9780	0.006
9840	0.007
9900	0.007
9960	0.007
10020	0.006
10080	0.007

10140	0.006
10200	0.005
10260	0.006
10320	0.007
10380	0.007
10440	0.007
10500	0.007
10560	0.006
10620	0.006
10680	0.006
10740	0.007
10800	0.006
10860	0.006
10920	0.006
10980	0.006
11040	0.007
11100	0.007
11160	0.009
11220	0.005
11280	0.006
11340	0.008
11400	0.008
11460	0.008
11520	0.007
11580	0.007
11640	0.007
11700	0.006
11760	0.007
11820	0.007
11880	0.007
11940	0.007
12000	0.008
12060	0.008
12120	0.008
12180	0.009
12240	0.009
12300	0.008
12360	0.01
12420	0.009
12480	0.009
12540	0.009
12600	0.008
12660	0.007
12720	0.008
12780	0.008
12840	0.009
12900	0.008

12960	0.009
13020	0.008
13080	0.007
13140	0.007
13200	0.006
13260	0.006
13320	0.008
13380	0.008
13440	0.008
13500	0.008
13560	0.007
13620	0.008
13680	0.008
13740	0.009
13800	0.008
13860	0.01
13920	0.009
13980	0.012
14040	0.009
14100	0.009
14160	0.01
14220	0.01
14280	0.011
14340	0.011
14400	0.009
14460	0.008
14520	0.008
14580	0.011
14640	0.009
14700	0.011
14760	0.012
14820	0.011
14880	0.011
14940	0.008
15000	0.008
15060	0.008
15120	0.007
15180	0.011
15240	0.009
15300	0.008
15360	0.008
15420	0.015
15480	0.011
15540	0.01
15600	0.011
15660	0.008
15720	0.007

15780	0.008
15840	0.008
15900	0.008
15960	0.008
16020	0.012
16080	0.012
16140	0.011
16200	0.011
16260	0.009
16320	0.009
16380	0.009
16440	0.008
16500	0.009
16560	0.008
16620	0.008
16680	0.061
16740	0.062
16800	0.057
16860	0.061
16920	0.069
16980	0.065
17040	0.083
17100	0.066
17160	0.072
17220	0.059
17280	0.059
17340	0.056
17400	0.059
17460	0.061
17520	0.057
17580	0.048
17640	0.051
17700	0.052
17760	0.058
17820	0.056
17880	0.058
17940	0.066
18000	0.07
18060	0.053
18120	0.051
18180	0.052
18240	0.056
18300	0.049
18360	0.055
18420	0.06
18480	0.065
18540	0.065

18600	0.066
18660	0.072
18720	0.075
18780	0.064
18840	0.049
18900	0.051
18960	0.049
19020	0.051
19080	0.047
19140	0.045
19200	0.039
19260	0.043
19320	0.048
19380	0.055
19440	0.048
19500	0.047
19560	0.046
19620	0.06
19680	0.058
19740	0.056
19800	0.047
19860	0.049
19920	0.057
19980	0.055
20040	0.052
20100	0.042
20160	0.042
20220	0.045
20280	0.046
20340	0.057
20400	0.05
20460	0.046
20520	0.049
20580	0.05
20640	0.042
20700	0.039
20760	0.048
20820	0.054
20880	0.041
20940	0.04
21000	0.039
21060	0.043
21120	0.044
21180	0.044
21240	0.043
21300	0.04
21360	0.038

21420	0.036
21480	0.037
21540	0.04
21600	0.043
21660	0.044
21720	0.074

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_008
Test Start T	########
Test Start D	########
Test Length	0:04:56
Test Interva	1:00
Mass Avera	0.025
Mass Minir	0
Mass Maxir	0.046
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	290

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.025		
120	0.026		
180	0.025		
240	0.021		
300	0.02		
360	0.022		
420	0.026		
480	0.022		
540	0.021		
600	0.021		
660	0.021		
720	0.022		
780	0.021		
840	0.023		
900	0.021		
960	0.022		
1020	0.022		
1080	0.023		
1140	0.021		
1200	0.021		
1260	0.02		
1320	0.018		
1380	0.018		
1440	0.018		
1500	0.019		
1560	0.02		
1620	0.018		

1680	0.021
1740	0.028
1800	0.028
1860	0.035
1920	0.036
1980	0.026
2040	0.02
2100	0.018
2160	0.019
2220	0.018
2280	0.018
2340	0.018
2400	0.019
2460	0.019
2520	0.02
2580	0.019
2640	0.019
2700	0.019
2760	0.025
2820	0.025
2880	0.024
2940	0.022
3000	0.023
3060	0.022
3120	0.02
3180	0.021
3240	0.022
3300	0.02
3360	0.02
3420	0.02
3480	0.022
3540	0.022
3600	0.023
3660	0.02
3720	0.021
3780	0.021
3840	0.025
3900	0.029
3960	0.023
4020	0.022
4080	0.022
4140	0.02
4200	0.02
4260	0.021
4320	0.021
4380	0.021
4440	0.021

4500	0.021
4560	0.021
4620	0.021
4680	0.021
4740	0.021
4800	0.021
4860	0.021
4920	0.021
4980	0.02
5040	0.02
5100	0.021
5160	0.025
5220	0.025
5280	0.024
5340	0.023
5400	0.02
5460	0.02
5520	0.022
5580	0.021
5640	0.02
5700	0.02
5760	0.02
5820	0.021
5880	0.021
5940	0.021
6000	0.021
6060	0.022
6120	0.022
6180	0.022
6240	0.023
6300	0.022
6360	0.023
6420	0.022
6480	0.023
6540	0.023
6600	0.022
6660	0.024
6720	0.023
6780	0.025
6840	0.026
6900	0.025
6960	0.024
7020	0.025
7080	0.025
7140	0.028
7200	0.028
7260	0.029

7320	0.028
7380	0.029
7440	0.029
7500	0.03
7560	0.032
7620	0.03
7680	0.03
7740	0.03
7800	0.03
7860	0.03
7920	0.03
7980	0.031
8040	0.031
8100	0.031
8160	0.031
8220	0.031
8280	0.034
8340	0.032
8400	0.032
8460	0.032
8520	0.03
8580	0.031
8640	0.031
8700	0.03
8760	0.03
8820	0.03
8880	0.031
8940	0.03
9000	0.029
9060	0.03
9120	0.03
9180	0.03
9240	0.032
9300	0.03
9360	0.03
9420	0.031
9480	0.032
9540	0.03
9600	0.031
9660	0.033
9720	0.03
9780	0.029
9840	0.029
9900	0.03
9960	0.029
10020	0.029
10080	0.029

10140	0.03
10200	0.031
10260	0.031
10320	0.03
10380	0.03
10440	0.03
10500	0.033
10560	0.033
10620	0.031
10680	0.029
10740	0.033
10800	0.032
10860	0.029
10920	0.029
10980	0.028
11040	0.026
11100	0.026
11160	0.027
11220	0.026
11280	0.025
11340	0.024
11400	0.024
11460	0.024
11520	0.024
11580	0.022
11640	0.022
11700	0.024
11760	0.035
11820	0.046
11880	0.039
11940	0.04
12000	0.035
12060	0.033
12120	0.034
12180	0.031
12240	0.024
12300	0.022
12360	0.027
12420	0.025
12480	0.031
12540	0.039
12600	0.025
12660	0.024
12720	0.046
12780	0.034
12840	0.03
12900	0.024

12960	0.027
13020	0.025
13080	0.026
13140	0.031
13200	0.037
13260	0.032
13320	0.038
13380	0.034
13440	0.033
13500	0.028
13560	0.027
13620	0.03
13680	0.025
13740	0.023
13800	0.023
13860	0.022
13920	0.022
13980	0.023
14040	0.023
14100	0.022
14160	0.023
14220	0.021
14280	0.02
14340	0.02
14400	0.02
14460	0.021
14520	0.021
14580	0.021
14640	0.021
14700	0.021
14760	0.02
14820	0.021
14880	0.02
14940	0.02
15000	0.021
15060	0.021
15120	0.021
15180	0.02
15240	0.021
15300	0.021
15360	0.022
15420	0.021
15480	0.021
15540	0.021
15600	0.021
15660	0.02
15720	0.021

15780	0.02
15840	0.02
15900	0.021
15960	0.02
16020	0.02
16080	0.02
16140	0.021
16200	0.02
16260	0.019
16320	0.02
16380	0.02
16440	0.022
16500	0.023
16560	0.022
16620	0.022
16680	0.022
16740	0.023
16800	0.022
16860	0.023
16920	0.023
16980	0.023
17040	0.022
17100	0.022
17160	0.022
17220	0.023
17280	0.023
17340	0.024
17809	0

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_009
Test Start T	########
Test Start D	########
Test Length	0:07:27
Test Interva	1:00
Mass Avera	0.016
Mass Minir	0.009
Mass Maxir	0.034
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	447

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.031		
120	0.019		
180	0.016		
240	0.016		
300	0.017		
360	0.017		
420	0.018		
480	0.017		
540	0.018		
600	0.017		
660	0.019		
720	0.017		
780	0.017		
840	0.017		
900	0.015		
960	0.014		
1020	0.016		
1080	0.016		
1140	0.017		
1200	0.017		
1260	0.017		
1320	0.017		
1380	0.017		
1440	0.018		
1500	0.016		
1560	0.017		
1620	0.016		

1680	0.015
1740	0.015
1800	0.016
1860	0.016
1920	0.016
1980	0.015
2040	0.016
2100	0.015
2160	0.015
2220	0.019
2280	0.016
2340	0.016
2400	0.016
2460	0.016
2520	0.016
2580	0.018
2640	0.018
2700	0.016
2760	0.016
2820	0.015
2880	0.015
2940	0.015
3000	0.015
3060	0.015
3120	0.015
3180	0.016
3240	0.016
3300	0.016
3360	0.034
3420	0.029
3480	0.02
3540	0.028
3600	0.019
3660	0.017
3720	0.015
3780	0.017
3840	0.018
3900	0.018
3960	0.016
4020	0.014
4080	0.016
4140	0.016
4200	0.018
4260	0.017
4320	0.014
4380	0.014
4440	0.013

4500	0.013
4560	0.013
4620	0.013
4680	0.012
4740	0.013
4800	0.013
4860	0.013
4920	0.013
4980	0.013
5040	0.014
5100	0.014
5160	0.014
5220	0.014
5280	0.014
5340	0.014
5400	0.014
5460	0.014
5520	0.014
5580	0.013
5640	0.014
5700	0.014
5760	0.013
5820	0.013
5880	0.014
5940	0.014
6000	0.013
6060	0.014
6120	0.013
6180	0.014
6240	0.013
6300	0.013
6360	0.013
6420	0.014
6480	0.014
6540	0.014
6600	0.014
6660	0.014
6720	0.014
6780	0.016
6840	0.015
6900	0.014
6960	0.016
7020	0.015
7080	0.016
7140	0.015
7200	0.015
7260	0.014

7320	0.015
7380	0.015
7440	0.014
7500	0.013
7560	0.016
7620	0.016
7680	0.019
7740	0.017
7800	0.014
7860	0.014
7920	0.014
7980	0.014
8040	0.016
8100	0.015
8160	0.016
8220	0.016
8280	0.019
8340	0.02
8400	0.02
8460	0.02
8520	0.026
8580	0.031
8640	0.024
8700	0.018
8760	0.019
8820	0.018
8880	0.018
8940	0.018
9000	0.018
9060	0.018
9120	0.018
9180	0.019
9240	0.02
9300	0.021
9360	0.02
9420	0.02
9480	0.019
9540	0.016
9600	0.016
9660	0.017
9720	0.017
9780	0.015
9840	0.015
9900	0.014
9960	0.014
10020	0.015
10080	0.015

10140	0.013
10200	0.014
10260	0.013
10320	0.014
10380	0.016
10440	0.017
10500	0.016
10560	0.017
10620	0.017
10680	0.017
10740	0.017
10800	0.013
10860	0.013
10920	0.021
10980	0.022
11040	0.024
11100	0.023
11160	0.022
11220	0.023
11280	0.023
11340	0.024
11400	0.024
11460	0.024
11520	0.024
11580	0.024
11640	0.025
11700	0.025
11760	0.024
11820	0.024
11880	0.024
11940	0.023
12000	0.023
12060	0.022
12120	0.023
12180	0.024
12240	0.023
12300	0.022
12360	0.022
12420	0.022
12480	0.022
12540	0.022
12600	0.022
12660	0.022
12720	0.022
12780	0.022
12840	0.022
12900	0.021

12960	0.021
13020	0.027
13080	0.026
13140	0.02
13200	0.02
13260	0.02
13320	0.021
13380	0.022
13440	0.022
13500	0.022
13560	0.023
13620	0.021
13680	0.02
13740	0.021
13800	0.021
13860	0.021
13920	0.021
13980	0.02
14040	0.019
14100	0.018
14160	0.018
14220	0.02
14280	0.02
14340	0.022
14400	0.019
14460	0.02
14520	0.02
14580	0.02
14640	0.02
14700	0.019
14760	0.019
14820	0.018
14880	0.019
14940	0.019
15000	0.02
15060	0.019
15120	0.018
15180	0.017
15240	0.017
15300	0.018
15360	0.019
15420	0.019
15480	0.019
15540	0.02
15600	0.02
15660	0.02
15720	0.02

15780	0.023
15840	0.022
15900	0.02
15960	0.02
16020	0.019
16080	0.019
16140	0.019
16200	0.02
16260	0.019
16320	0.02
16380	0.019
16440	0.019
16500	0.021
16560	0.02
16620	0.021
16680	0.021
16740	0.021
16800	0.021
16860	0.021
16920	0.022
16980	0.021
17040	0.021
17100	0.02
17160	0.02
17220	0.02
17280	0.02
17340	0.02
17400	0.021
17460	0.02
17520	0.021
17580	0.02
17640	0.019
17700	0.02
17760	0.021
17820	0.018
17880	0.017
17940	0.017
18000	0.016
18060	0.017
18120	0.016
18180	0.017
18240	0.016
18300	0.021
18360	0.022
18420	0.016
18480	0.014
18540	0.015

18600	0.015
18660	0.014
18720	0.015
18780	0.021
18840	0.013
18900	0.012
18960	0.012
19020	0.011
19080	0.011
19140	0.011
19200	0.012
19260	0.013
19320	0.012
19380	0.011
19440	0.012
19500	0.011
19560	0.014
19620	0.012
19680	0.014
19740	0.014
19800	0.012
19860	0.011
19920	0.012
19980	0.012
20040	0.013
20100	0.016
20160	0.015
20220	0.013
20280	0.012
20340	0.013
20400	0.014
20460	0.016
20520	0.014
20580	0.013
20640	0.013
20700	0.015
20760	0.015
20820	0.012
20880	0.011
20940	0.011
21000	0.015
21060	0.012
21120	0.012
21180	0.011
21240	0.01
21300	0.01
21360	0.011

21420	0.011
21480	0.012
21540	0.011
21600	0.011
21660	0.015
21720	0.011
21780	0.011
21840	0.012
21900	0.014
21960	0.012
22020	0.012
22080	0.011
22140	0.011
22200	0.011
22260	0.012
22320	0.013
22380	0.013
22440	0.013
22500	0.011
22560	0.013
22620	0.012
22680	0.012
22740	0.011
22800	0.012
22860	0.011
22920	0.009
22980	0.009
23040	0.01
23100	0.011
23160	0.011
23220	0.01
23280	0.01
23340	0.01
23400	0.012
23460	0.01
23520	0.011
23580	0.011
23640	0.012
23700	0.01
23760	0.011
23820	0.011
23880	0.013
23940	0.01
24000	0.009
24060	0.01
24120	0.01
24180	0.011

24240	0.011
24300	0.009
24360	0.009
24420	0.009
24480	0.01
24540	0.011
24600	0.012
24660	0.011
24720	0.009
24780	0.01
24840	0.009
24900	0.009
24960	0.009
25020	0.01
25080	0.011
25140	0.011
25200	0.01
25260	0.01
25320	0.011
25380	0.011
25440	0.011
25500	0.01
25560	0.01
25620	0.011
25680	0.011
25740	0.014
25800	0.012
25860	0.012
25920	0.011
25980	0.012
26040	0.012
26100	0.012
26160	0.012
26220	0.011
26280	0.011
26340	0.012
26400	0.012
26460	0.012
26520	0.011
26580	0.01
26640	0.01
26700	0.011
26760	0.012
26820	0.013

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_010
Test Start T	########
Test Start D	5/1/2019
Test Length	0:05:55
Test Interva	1:00
Mass Avera	0.018
Mass Minir	0.011
Mass Maxir	0.03
Mass TWA	0.013
Photometr	1
Flow User C	0
Errors	
Number of	355

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.029		
120	0.028		
180	0.026		
240	0.023		
300	0.024		
360	0.022		
420	0.021		
480	0.018		
540	0.016		
600	0.018		
660	0.02		
720	0.021		
780	0.02		
840	0.021		
900	0.02		
960	0.02		
1020	0.021		
1080	0.023		
1140	0.023		
1200	0.022		
1260	0.018		
1320	0.022		
1380	0.021		
1440	0.018		
1500	0.019		
1560	0.021		
1620	0.024		

1680	0.021
1740	0.023
1800	0.03
1860	0.019
1920	0.021
1980	0.021
2040	0.028
2100	0.025
2160	0.022
2220	0.022
2280	0.02
2340	0.019
2400	0.02
2460	0.021
2520	0.024
2580	0.02
2640	0.019
2700	0.021
2760	0.024
2820	0.027
2880	0.02
2940	0.019
3000	0.021
3060	0.023
3120	0.023
3180	0.02
3240	0.019
3300	0.018
3360	0.028
3420	0.021
3480	0.018
3540	0.019
3600	0.02
3660	0.022
3720	0.02
3780	0.018
3840	0.021
3900	0.019
3960	0.022
4020	0.021
4080	0.021
4140	0.02
4200	0.017
4260	0.02
4320	0.02
4380	0.02
4440	0.019

4500	0.021
4560	0.021
4620	0.024
4680	0.023
4740	0.021
4800	0.023
4860	0.023
4920	0.021
4980	0.021
5040	0.021
5100	0.023
5160	0.024
5220	0.025
5280	0.023
5340	0.024
5400	0.026
5460	0.023
5520	0.02
5580	0.02
5640	0.018
5700	0.019
5760	0.019
5820	0.018
5880	0.019
5940	0.018
6000	0.018
6060	0.018
6120	0.018
6180	0.019
6240	0.019
6300	0.019
6360	0.018
6420	0.02
6480	0.021
6540	0.022
6600	0.02
6660	0.017
6720	0.019
6780	0.02
6840	0.02
6900	0.02
6960	0.021
7020	0.021
7080	0.023
7140	0.024
7200	0.021
7260	0.02

7320	0.02
7380	0.018
7440	0.017
7500	0.018
7560	0.018
7620	0.017
7680	0.019
7740	0.02
7800	0.022
7860	0.025
7920	0.025
7980	0.019
8040	0.019
8100	0.019
8160	0.019
8220	0.017
8280	0.019
8340	0.019
8400	0.019
8460	0.018
8520	0.017
8580	0.019
8640	0.02
8700	0.018
8760	0.02
8820	0.02
8880	0.02
8940	0.017
9000	0.018
9060	0.016
9120	0.016
9180	0.02
9240	0.02
9300	0.02
9360	0.018
9420	0.016
9480	0.027
9540	0.019
9600	0.019
9660	0.019
9720	0.018
9780	0.016
9840	0.016
9900	0.02
9960	0.016
10020	0.016
10080	0.018

10140	0.015
10200	0.015
10260	0.017
10320	0.017
10380	0.028
10440	0.015
10500	0.016
10560	0.015
10620	0.017
10680	0.018
10740	0.018
10800	0.018
10860	0.018
10920	0.017
10980	0.016
11040	0.015
11100	0.016
11160	0.017
11220	0.024
11280	0.026
11340	0.025
11400	0.018
11460	0.016
11520	0.015
11580	0.016
11640	0.015
11700	0.015
11760	0.015
11820	0.015
11880	0.014
11940	0.013
12000	0.013
12060	0.012
12120	0.012
12180	0.012
12240	0.012
12300	0.011
12360	0.013
12420	0.019
12480	0.028
12540	0.014
12600	0.014
12660	0.015
12720	0.014
12780	0.013
12840	0.013
12900	0.013

12960	0.013
13020	0.013
13080	0.014
13140	0.013
13200	0.016
13260	0.018
13320	0.025
13380	0.025
13440	0.016
13500	0.016
13560	0.019
13620	0.015
13680	0.014
13740	0.014
13800	0.013
13860	0.015
13920	0.014
13980	0.014
14040	0.015
14100	0.017
14160	0.016
14220	0.019
14280	0.018
14340	0.016
14400	0.018
14460	0.017
14520	0.016
14580	0.015
14640	0.014
14700	0.013
14760	0.013
14820	0.013
14880	0.013
14940	0.014
15000	0.014
15060	0.014
15120	0.016
15180	0.016
15240	0.015
15300	0.014
15360	0.015
15420	0.015
15480	0.014
15540	0.014
15600	0.015
15660	0.016
15720	0.016

15780	0.017
15840	0.018
15900	0.016
15960	0.013
16020	0.013
16080	0.014
16140	0.015
16200	0.018
16260	0.019
16320	0.016
16380	0.015
16440	0.016
16500	0.019
16560	0.016
16620	0.016
16680	0.018
16740	0.019
16800	0.02
16860	0.019
16920	0.017
16980	0.017
17040	0.018
17100	0.018
17160	0.019
17220	0.017
17280	0.016
17340	0.016
17400	0.016
17460	0.016
17520	0.016
17580	0.015
17640	0.014
17700	0.014
17760	0.015
17820	0.016
17880	0.018
17940	0.016
18000	0.014
18060	0.015
18120	0.016
18180	0.015
18240	0.016
18300	0.018
18360	0.016
18420	0.017
18480	0.017
18540	0.015

18600	0.015
18660	0.013
18720	0.013
18780	0.014
18840	0.013
18900	0.012
18960	0.013
19020	0.015
19080	0.017
19140	0.015
19200	0.015
19260	0.014
19320	0.015
19380	0.016
19440	0.016
19500	0.017
19560	0.015
19620	0.016
19680	0.015
19740	0.015
19800	0.015
19860	0.016
19920	0.014
19980	0.014
20040	0.016
20100	0.018
20160	0.017
20220	0.016
20280	0.017
20340	0.019
20400	0.023
20460	0.019
20520	0.018
20580	0.019
20640	0.02
20700	0.018
20760	0.016
20820	0.019
20880	0.018
20940	0.019
21000	0.019
21060	0.016
21120	0.015
21180	0.015
21240	0.014
21300	0.014

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_011
Test Start T	########
Test Start D	5/2/2019
Test Length	0:05:11
Test Interva	1:00
Mass Avera	0.086
Mass Minir	0
Mass Maxir	0.124
Mass TWA	0.056
Photometr	1
Flow User C	0
Errors	
Number of	222

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.118		
120	0.124		
180	0.12		
240	0.115		
300	0.113		
360	0.113		
420	0.113		
480	0.11		
540	0.108		
600	0.106		
660	0.102		
720	0.1		
780	0.104		
840	0.103		
900	0.098		
960	0.096		
1020	0.096		
1080	0.095		
1140	0.096		
1200	0.095		
1260	0.094		
1320	0.094		
1380	0.094		
1440	0.093		
1500	0.094		
1560	0.098		
1620	0.096		

1680	0.094
1740	0.092
1800	0.095
1860	0.094
1920	0.092
1980	0.092
2040	0.092
2100	0.093
2160	0.093
2220	0.095
2280	0.095
2340	0.096
2400	0.095
2460	0.094
2520	0.094
2580	0.094
2640	0.095
2700	0.093
2760	0.094
2820	0.095
2880	0.095
2940	0.096
3000	0.095
3060	0.094
3120	0.095
3180	0.098
3240	0.096
3300	0.094
3360	0.098
3420	0.096
3480	0.099
3540	0.108
3600	0.108
3660	0.101
3720	0.1
3780	0.1
3840	0.099
3900	0.098
3960	0.099
4020	0.098
4080	0.097
4140	0.096
4200	0.095
4260	0.095
4320	0.095
4380	0.094
4440	0.095

4500	0.1
4560	0.099
4620	0.099
4680	0.098
4740	0.097
4800	0.096
4860	0.097
4920	0.096
4980	0.096
5040	0.096
5100	0.096
5160	0.097
5220	0.099
5280	0.099
5340	0.099
5400	0.104
5460	0.105
5520	0.097
5580	0.096
5640	0.093
5700	0.092
5760	0.091
5820	0.094
5880	0.098
5940	0.095
6000	0.094
6060	0.096
6120	0.094
6180	0.093
6240	0.093
6300	0.095
6360	0.095
6420	0.094
6480	0.096
6540	0.097
6600	0.098
6660	0.1
6720	0.1
6780	0.1
6840	0.099
6900	0.098
6960	0.097
7020	0.096
7080	0.099
7140	0.1
7200	0.096
7260	0.09

7320	0.088
7380	0.087
7440	0.086
7500	0.083
7560	0.091
7620	0.088
7680	0.088
7740	0.086
7800	0.087
7860	0.087
7920	0.084
7980	0.085
8040	0.084
8100	0.084
8160	0.082
8220	0.08
8280	0.079
8340	0.081
8400	0.078
8460	0.077
8520	0.074
8580	0.074
8640	0.074
8700	0.072
8760	0.072
8820	0.071
8880	0.073
8940	0.072
9000	0.071
9060	0.072
9120	0.071
9180	0.078
9240	0.086
9300	0.081
9360	0.081
9420	0.083
9480	0.069
9540	0.078
9600	0.074
9660	0.072
9720	0.068
9780	0.065
9840	0.064
9900	0.062
9960	0.068
10020	0.062
10080	0.062

10140	0.063
10200	0.063
10260	0.063
10320	0.068
10380	0.064
10440	0.065
10500	0.067
10560	0.069
10620	0.067
10680	0.066
10740	0.064
10800	0.063
10860	0.066
10920	0.064
10980	0.06
11040	0.06
11100	0.062
11160	0.063
11220	0.064
11280	0.064
11340	0.063
11400	0.065
11460	0.065
11520	0.065
11580	0.064
11640	0.065
11700	0.065
11760	0.066
11820	0.066
11880	0.067
11940	0.064
12000	0.067
12060	0.068
12120	0.069
12180	0.066
12240	0.067
12300	0.07
12360	0.071
12420	0.07
12480	0.071
12540	0.069
12600	0.069
12660	0.071
12720	0.069
12780	0.069
12840	0.073
12900	0.072

12960	0.072
13020	0.072
13080	0.072
13140	0.071
13200	0.072
13260	0.072
18697	0

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_012
Test Start T	########
Test Start D	5/8/2019
Test Length	0:07:07
Test Interva	1:00
Mass Avera	0.013
Mass Minir	0.006
Mass Maxir	0.091
Mass TWA	0.012
Photometr	1
Flow User C	0
Errors	
Number of	427

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.017		
120	0.015		
180	0.017		
240	0.016		
300	0.016		
360	0.018		
420	0.017		
480	0.016		
540	0.014		
600	0.014		
660	0.016		
720	0.016		
780	0.016		
840	0.014		
900	0.013		
960	0.013		
1020	0.014		
1080	0.014		
1140	0.017		
1200	0.015		
1260	0.016		
1320	0.014		
1380	0.014		
1440	0.014		
1500	0.014		
1560	0.014		
1620	0.017		

1680	0.017
1740	0.016
1800	0.016
1860	0.015
1920	0.018
1980	0.014
2040	0.014
2100	0.013
2160	0.016
2220	0.013
2280	0.016
2340	0.014
2400	0.016
2460	0.015
2520	0.014
2580	0.01
2640	0.009
2700	0.008
2760	0.007
2820	0.021
2880	0.017
2940	0.015
3000	0.013
3060	0.01
3120	0.012
3180	0.019
3240	0.091
3300	0.011
3360	0.008
3420	0.01
3480	0.008
3540	0.009
3600	0.008
3660	0.008
3720	0.008
3780	0.008
3840	0.007
3900	0.008
3960	0.008
4020	0.008
4080	0.009
4140	0.009
4200	0.007
4260	0.008
4320	0.007
4380	0.009
4440	0.008

4500	0.009
4560	0.008
4620	0.012
4680	0.009
4740	0.008
4800	0.007
4860	0.008
4920	0.007
4980	0.008
5040	0.007
5100	0.007
5160	0.007
5220	0.007
5280	0.008
5340	0.011
5400	0.011
5460	0.009
5520	0.01
5580	0.008
5640	0.009
5700	0.008
5760	0.008
5820	0.008
5880	0.008
5940	0.008
6000	0.007
6060	0.007
6120	0.008
6180	0.008
6240	0.01
6300	0.008
6360	0.011
6420	0.008
6480	0.007
6540	0.008
6600	0.009
6660	0.012
6720	0.01
6780	0.014
6840	0.014
6900	0.014
6960	0.011
7020	0.012
7080	0.014
7140	0.016
7200	0.019
7260	0.016

7320	0.018
7380	0.012
7440	0.012
7500	0.011
7560	0.011
7620	0.029
7680	0.018
7740	0.015
7800	0.013
7860	0.013
7920	0.014
7980	0.01
8040	0.011
8100	0.008
8160	0.008
8220	0.009
8280	0.008
8340	0.009
8400	0.008
8460	0.008
8520	0.01
8580	0.01
8640	0.009
8700	0.009
8760	0.008
8820	0.011
8880	0.01
8940	0.009
9000	0.008
9060	0.01
9120	0.007
9180	0.007
9240	0.007
9300	0.006
9360	0.007
9420	0.007
9480	0.008
9540	0.007
9600	0.006
9660	0.007
9720	0.007
9780	0.007
9840	0.008
9900	0.007
9960	0.007
10020	0.008
10080	0.009

10140	0.009
10200	0.014
10260	0.014
10320	0.014
10380	0.009
10440	0.01
10500	0.011
10560	0.009
10620	0.014
10680	0.018
10740	0.011
10800	0.016
10860	0.012
10920	0.014
10980	0.017
11040	0.012
11100	0.019
11160	0.014
11220	0.014
11280	0.014
11340	0.011
11400	0.012
11460	0.015
11520	0.013
11580	0.018
11640	0.023
11700	0.011
11760	0.011
11820	0.01
11880	0.009
11940	0.009
12000	0.009
12060	0.011
12120	0.014
12180	0.021
12240	0.012
12300	0.01
12360	0.009
12420	0.01
12480	0.01
12540	0.011
12600	0.012
12660	0.011
12720	0.01
12780	0.01
12840	0.011
12900	0.011

12960	0.011
13020	0.012
13080	0.016
13140	0.011
13200	0.013
13260	0.013
13320	0.011
13380	0.011
13440	0.011
13500	0.015
13560	0.012
13620	0.015
13680	0.017
13740	0.013
13800	0.012
13860	0.013
13920	0.014
13980	0.013
14040	0.012
14100	0.013
14160	0.014
14220	0.016
14280	0.013
14340	0.017
14400	0.011
14460	0.013
14520	0.012
14580	0.013
14640	0.016
14700	0.014
14760	0.014
14820	0.012
14880	0.014
14940	0.013
15000	0.012
15060	0.013
15120	0.012
15180	0.015
15240	0.014
15300	0.019
15360	0.022
15420	0.016
15480	0.013
15540	0.015
15600	0.028
15660	0.021
15720	0.023

15780	0.021
15840	0.014
15900	0.012
15960	0.012
16020	0.014
16080	0.015
16140	0.013
16200	0.02
16260	0.025
16320	0.017
16380	0.013
16440	0.012
16500	0.014
16560	0.014
16620	0.015
16680	0.016
16740	0.014
16800	0.015
16860	0.014
16920	0.014
16980	0.014
17040	0.014
17100	0.015
17160	0.013
17220	0.013
17280	0.016
17340	0.019
17400	0.013
17460	0.013
17520	0.013
17580	0.015
17640	0.014
17700	0.014
17760	0.013
17820	0.013
17880	0.013
17940	0.013
18000	0.013
18060	0.012
18120	0.012
18180	0.012
18240	0.013
18300	0.013
18360	0.013
18420	0.012
18480	0.013
18540	0.013

18600	0.014
18660	0.012
18720	0.013
18780	0.013
18840	0.013
18900	0.012
18960	0.012
19020	0.012
19080	0.013
19140	0.016
19200	0.021
19260	0.023
19320	0.018
19380	0.016
19440	0.016
19500	0.018
19560	0.016
19620	0.019
19680	0.017
19740	0.016
19800	0.016
19860	0.016
19920	0.016
19980	0.015
20040	0.015
20100	0.015
20160	0.016
20220	0.015
20280	0.015
20340	0.016
20400	0.015
20460	0.015
20520	0.015
20580	0.016
20640	0.015
20700	0.016
20760	0.015
20820	0.017
20880	0.017
20940	0.016
21000	0.018
21060	0.017
21120	0.016
21180	0.017
21240	0.017
21300	0.016
21360	0.016

21420	0.015
21480	0.015
21540	0.015
21600	0.015
21660	0.014
21720	0.015
21780	0.014
21840	0.015
21900	0.015
21960	0.015
22020	0.014
22080	0.015
22140	0.016
22200	0.015
22260	0.015
22320	0.015
22380	0.027
22440	0.017
22500	0.015
22560	0.015
22620	0.015
22680	0.015
22740	0.017
22800	0.015
22860	0.015
22920	0.015
22980	0.015
23040	0.015
23100	0.015
23160	0.014
23220	0.014
23280	0.017
23340	0.014
23400	0.014
23460	0.014
23520	0.015
23580	0.014
23640	0.014
23700	0.015
23760	0.017
23820	0.016
23880	0.015
23940	0.014
24000	0.014
24060	0.014
24120	0.014
24180	0.014

24240	0.014
24300	0.014
24360	0.023
24420	0.014
24480	0.015
24540	0.014
24600	0.014
24660	0.015
24720	0.014
24780	0.014
24840	0.015
24900	0.015
24960	0.015
25020	0.018
25080	0.018
25140	0.02
25200	0.018
25260	0.015
25320	0.017
25380	0.018
25440	0.017
25500	0.016
25560	0.015
25620	0.016

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_013
Test Start T	########
Test Start D	########
Test Length	0:06:55
Test Interva	1:00
Mass Avera	0.01
Mass Minir	0.004
Mass Maxir	0.359
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	415

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.359		
120	0.01		
180	0.011		
240	0.008		
300	0.008		
360	0.008		
420	0.008		
480	0.006		
540	0.01		
600	0.011		
660	0.007		
720	0.006		
780	0.007		
840	0.007		
900	0.006		
960	0.007		
1020	0.007		
1080	0.007		
1140	0.009		
1200	0.008		
1260	0.007		
1320	0.006		
1380	0.013		
1440	0.009		
1500	0.007		
1560	0.007		
1620	0.006		

1680	0.005
1740	0.005
1800	0.005
1860	0.005
1920	0.005
1980	0.007
2040	0.006
2100	0.004
2160	0.005
2220	0.006
2280	0.005
2340	0.005
2400	0.006
2460	0.012
2520	0.008
2580	0.006
2640	0.005
2700	0.005
2760	0.005
2820	0.007
2880	0.006
2940	0.005
3000	0.009
3060	0.005
3120	0.006
3180	0.006
3240	0.006
3300	0.012
3360	0.007
3420	0.009
3480	0.006
3540	0.008
3600	0.009
3660	0.005
3720	0.007
3780	0.009
3840	0.011
3900	0.009
3960	0.006
4020	0.007
4080	0.008
4140	0.009
4200	0.012
4260	0.007
4320	0.009
4380	0.017
4440	0.008

4500	0.01
4560	0.009
4620	0.005
4680	0.005
4740	0.01
4800	0.008
4860	0.006
4920	0.005
4980	0.006
5040	0.01
5100	0.008
5160	0.006
5220	0.01
5280	0.005
5340	0.005
5400	0.005
5460	0.006
5520	0.006
5580	0.005
5640	0.005
5700	0.004
5760	0.005
5820	0.005
5880	0.005
5940	0.005
6000	0.005
6060	0.006
6120	0.007
6180	0.006
6240	0.005
6300	0.004
6360	0.005
6420	0.005
6480	0.004
6540	0.004
6600	0.006
6660	0.005
6720	0.006
6780	0.006
6840	0.006
6900	0.005
6960	0.005
7020	0.005
7080	0.005
7140	0.005
7200	0.005
7260	0.005

7320	0.005
7380	0.006
7440	0.005
7500	0.005
7560	0.006
7620	0.005
7680	0.005
7740	0.005
7800	0.005
7860	0.005
7920	0.006
7980	0.007
8040	0.006
8100	0.006
8160	0.005
8220	0.006
8280	0.006
8340	0.006
8400	0.012
8460	0.005
8520	0.004
8580	0.004
8640	0.006
8700	0.005
8760	0.009
8820	0.006
8880	0.009
8940	0.007
9000	0.007
9060	0.008
9120	0.016
9180	0.013
9240	0.015
9300	0.008
9360	0.01
9420	0.01
9480	0.011
9540	0.011
9600	0.007
9660	0.014
9720	0.012
9780	0.007
9840	0.006
9900	0.005
9960	0.005
10020	0.005
10080	0.005

10140	0.005
10200	0.006
10260	0.005
10320	0.006
10380	0.006
10440	0.006
10500	0.007
10560	0.008
10620	0.008
10680	0.006
10740	0.005
10800	0.005
10860	0.005
10920	0.004
10980	0.005
11040	0.005
11100	0.006
11160	0.007
11220	0.005
11280	0.006
11340	0.006
11400	0.007
11460	0.008
11520	0.005
11580	0.007
11640	0.006
11700	0.006
11760	0.005
11820	0.006
11880	0.005
11940	0.005
12000	0.005
12060	0.007
12120	0.006
12180	0.008
12240	0.009
12300	0.008
12360	0.006
12420	0.007
12480	0.007
12540	0.005
12600	0.005
12660	0.006
12720	0.007
12780	0.006
12840	0.01
12900	0.01

12960	0.007
13020	0.006
13080	0.007
13140	0.007
13200	0.007
13260	0.007
13320	0.006
13380	0.007
13440	0.007
13500	0.006
13560	0.006
13620	0.008
13680	0.007
13740	0.008
13800	0.008
13860	0.008
13920	0.008
13980	0.01
14040	0.01
14100	0.009
14160	0.009
14220	0.008
14280	0.01
14340	0.012
14400	0.015
14460	0.012
14520	0.023
14580	0.018
14640	0.018
14700	0.017
14760	0.01
14820	0.007
14880	0.012
14940	0.012
15000	0.01
15060	0.008
15120	0.011
15180	0.011
15240	0.01
15300	0.011
15360	0.011
15420	0.011
15480	0.012
15540	0.011
15600	0.01
15660	0.008
15720	0.009

15780	0.012
15840	0.011
15900	0.011
15960	0.01
16020	0.009
16080	0.009
16140	0.009
16200	0.01
16260	0.01
16320	0.02
16380	0.013
16440	0.009
16500	0.008
16560	0.009
16620	0.01
16680	0.013
16740	0.011
16800	0.015
16860	0.013
16920	0.015
16980	0.009
17040	0.007
17100	0.009
17160	0.008
17220	0.01
17280	0.011
17340	0.01
17400	0.017
17460	0.011
17520	0.013
17580	0.009
17640	0.011
17700	0.015
17760	0.011
17820	0.012
17880	0.014
17940	0.012
18000	0.01
18060	0.009
18120	0.014
18180	0.009
18240	0.011
18300	0.011
18360	0.009
18420	0.011
18480	0.011
18540	0.011

18600	0.016
18660	0.014
18720	0.015
18780	0.013
18840	0.015
18900	0.01
18960	0.014
19020	0.013
19080	0.014
19140	0.012
19200	0.011
19260	0.01
19320	0.011
19380	0.013
19440	0.01
19500	0.013
19560	0.012
19620	0.011
19680	0.011
19740	0.011
19800	0.011
19860	0.01
19920	0.01
19980	0.01
20040	0.011
20100	0.011
20160	0.011
20220	0.009
20280	0.009
20340	0.01
20400	0.012
20460	0.011
20520	0.012
20580	0.011
20640	0.011
20700	0.01
20760	0.011
20820	0.012
20880	0.012
20940	0.013
21000	0.018
21060	0.016
21120	0.021
21180	0.012
21240	0.01
21300	0.01
21360	0.01

21420	0.012
21480	0.01
21540	0.011
21600	0.01
21660	0.011
21720	0.01
21780	0.012
21840	0.01
21900	0.018
21960	0.016
22020	0.016
22080	0.013
22140	0.016
22200	0.015
22260	0.013
22320	0.023
22380	0.024
22440	0.022
22500	0.017
22560	0.025
22620	0.014
22680	0.011
22740	0.012
22800	0.014
22860	0.013
22920	0.028
22980	0.011
23040	0.009
23100	0.017
23160	0.018
23220	0.014
23280	0.016
23340	0.015
23400	0.014
23460	0.013
23520	0.013
23580	0.019
23640	0.013
23700	0.014
23760	0.023
23820	0.016
23880	0.013
23940	0.017
24000	0.016
24060	0.027
24120	0.012
24180	0.012

24240	0.013
24300	0.012
24360	0.011
24420	0.011
24480	0.01
24540	0.012
24600	0.011
24660	0.012
24720	0.012
24780	0.011
24840	0.012
24900	0.014

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_057
Test Start T	########
Test Start D	########
Test Length	0:00:16
Test Interva	1:00
Mass Avera	0.042
Mass Minir	0.035
Mass Maxir	0.063
Mass TWA	0.001
Photometr	1
Flow User C	0
Errors	
Number of	16

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.042		
120	0.036		
180	0.035		
240	0.039		
300	0.036		
360	0.038		
420	0.04		
480	0.05		
540	0.039		
600	0.037		
660	0.035		
720	0.041		
780	0.045		
840	0.06		
900	0.042		
960	0.063		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_058
Test Start T	########
Test Start D	########
Test Length	0:00:09
Test Interva	1:00
Mass Avera	0.048
Mass Minir	0.038
Mass Maxir	0.07
Mass TWA	0
Photometr	1
Flow User C	0
Errors	
Number of	9

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.064		
120	0.04		
180	0.038		
240	0.044		
300	0.046		
360	0.041		
420	0.044		
480	0.07		
540	0.041		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_059
Test Start T	########
Test Start D	########
Test Length	0:07:09
Test Interva	1:00
Mass Avera	0.017
Mass Minir	0.008
Mass Maxir	0.092
Mass TWA	0.016
Photometr	1
Flow User C	0
Errors	
Number of	429

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.031		
120	0.05		
180	0.034		
240	0.033		
300	0.047		
360	0.023		
420	0.033		
480	0.02		
540	0.016		
600	0.018		
660	0.017		
720	0.016		
780	0.017		
840	0.016		
900	0.018		
960	0.025		
1020	0.015		
1080	0.019		
1140	0.023		
1200	0.036		
1260	0.033		
1320	0.034		
1380	0.027		
1440	0.02		
1500	0.024		
1560	0.019		
1620	0.018		

1680	0.017
1740	0.02
1800	0.031
1860	0.017
1920	0.028
1980	0.02
2040	0.031
2100	0.031
2160	0.034
2220	0.035
2280	0.021
2340	0.024
2400	0.019
2460	0.018
2520	0.016
2580	0.017
2640	0.017
2700	0.016
2760	0.02
2820	0.048
2880	0.022
2940	0.018
3000	0.018
3060	0.017
3120	0.016
3180	0.017
3240	0.016
3300	0.018
3360	0.018
3420	0.017
3480	0.02
3540	0.02
3600	0.021
3660	0.018
3720	0.019
3780	0.02
3840	0.02
3900	0.022
3960	0.019
4020	0.021
4080	0.019
4140	0.022
4200	0.022
4260	0.023
4320	0.023
4380	0.02
4440	0.02

4500	0.018
4560	0.017
4620	0.018
4680	0.017
4740	0.02
4800	0.018
4860	0.041
4920	0.021
4980	0.02
5040	0.02
5100	0.018
5160	0.025
5220	0.032
5280	0.02
5340	0.024
5400	0.053
5460	0.02
5520	0.017
5580	0.018
5640	0.024
5700	0.019
5760	0.02
5820	0.019
5880	0.019
5940	0.019
6000	0.017
6060	0.018
6120	0.019
6180	0.021
6240	0.025
6300	0.019
6360	0.019
6420	0.027
6480	0.029
6540	0.021
6600	0.018
6660	0.018
6720	0.018
6780	0.018
6840	0.018
6900	0.027
6960	0.02
7020	0.018
7080	0.019
7140	0.017
7200	0.017
7260	0.019

7320	0.017
7380	0.019
7440	0.019
7500	0.021
7560	0.021
7620	0.018
7680	0.017
7740	0.017
7800	0.019
7860	0.021
7920	0.019
7980	0.018
8040	0.019
8100	0.02
8160	0.02
8220	0.018
8280	0.018
8340	0.017
8400	0.018
8460	0.018
8520	0.017
8580	0.018
8640	0.019
8700	0.02
8760	0.019
8820	0.02
8880	0.019
8940	0.018
9000	0.019
9060	0.018
9120	0.019
9180	0.017
9240	0.019
9300	0.018
9360	0.021
9420	0.023
9480	0.021
9540	0.02
9600	0.037
9660	0.02
9720	0.026
9780	0.017
9840	0.017
9900	0.018
9960	0.018
10020	0.018
10080	0.018

10140	0.017
10200	0.017
10260	0.017
10320	0.016
10380	0.016
10440	0.016
10500	0.015
10560	0.014
10620	0.016
10680	0.015
10740	0.014
10800	0.014
10860	0.015
10920	0.018
10980	0.016
11040	0.016
11100	0.013
11160	0.018
11220	0.015
11280	0.013
11340	0.012
11400	0.012
11460	0.012
11520	0.012
11580	0.011
11640	0.011
11700	0.011
11760	0.012
11820	0.012
11880	0.01
11940	0.01
12000	0.012
12060	0.01
12120	0.01
12180	0.011
12240	0.014
12300	0.011
12360	0.012
12420	0.011
12480	0.01
12540	0.01
12600	0.01
12660	0.019
12720	0.012
12780	0.012
12840	0.011
12900	0.012

12960	0.01
13020	0.011
13080	0.012
13140	0.013
13200	0.013
13260	0.016
13320	0.013
13380	0.017
13440	0.018
13500	0.016
13560	0.015
13620	0.015
13680	0.014
13740	0.013
13800	0.014
13860	0.011
13920	0.012
13980	0.009
14040	0.009
14100	0.012
14160	0.042
14220	0.021
14280	0.013
14340	0.023
14400	0.019
14460	0.015
14520	0.01
14580	0.01
14640	0.026
14700	0.01
14760	0.01
14820	0.009
14880	0.008
14940	0.008
15000	0.016
15060	0.01
15120	0.01
15180	0.018
15240	0.01
15300	0.01
15360	0.011
15420	0.008
15480	0.01
15540	0.016
15600	0.014
15660	0.03
15720	0.017

15780	0.013
15840	0.014
15900	0.013
15960	0.013
16020	0.016
16080	0.012
16140	0.017
16200	0.016
16260	0.015
16320	0.014
16380	0.023
16440	0.022
16500	0.024
16560	0.011
16620	0.012
16680	0.011
16740	0.014
16800	0.012
16860	0.012
16920	0.012
16980	0.012
17040	0.017
17100	0.014
17160	0.012
17220	0.012
17280	0.018
17340	0.013
17400	0.01
17460	0.012
17520	0.022
17580	0.048
17640	0.013
17700	0.014
17760	0.01
17820	0.012
17880	0.012
17940	0.012
18000	0.015
18060	0.014
18120	0.015
18180	0.013
18240	0.011
18300	0.013
18360	0.013
18420	0.01
18480	0.012
18540	0.019

18600	0.016
18660	0.016
18720	0.014
18780	0.018
18840	0.015
18900	0.016
18960	0.015
19020	0.013
19080	0.034
19140	0.092
19200	0.025
19260	0.025
19320	0.021
19380	0.017
19440	0.018
19500	0.019
19560	0.017
19620	0.016
19680	0.015
19740	0.016
19800	0.017
19860	0.017
19920	0.014
19980	0.014
20040	0.015
20100	0.016
20160	0.017
20220	0.013
20280	0.016
20340	0.015
20400	0.017
20460	0.017
20520	0.016
20580	0.017
20640	0.017
20700	0.019
20760	0.018
20820	0.017
20880	0.014
20940	0.012
21000	0.013
21060	0.012
21120	0.015
21180	0.014
21240	0.014
21300	0.014
21360	0.013

21420	0.013
21480	0.014
21540	0.015
21600	0.013
21660	0.017
21720	0.017
21780	0.018
21840	0.018
21900	0.02
21960	0.015
22020	0.017
22080	0.016
22140	0.014
22200	0.016
22260	0.017
22320	0.014
22380	0.014
22440	0.015
22500	0.018
22560	0.018
22620	0.024
22680	0.017
22740	0.013
22800	0.015
22860	0.015
22920	0.016
22980	0.022
23040	0.014
23100	0.017
23160	0.015
23220	0.017
23280	0.016
23340	0.015
23400	0.013
23460	0.014
23520	0.016
23580	0.016
23640	0.015
23700	0.012
23760	0.012
23820	0.014
23880	0.014
23940	0.013
24000	0.013
24060	0.015
24120	0.014
24180	0.012

24240	0.014
24300	0.015
24360	0.016
24420	0.011
24480	0.012
24540	0.011
24600	0.013
24660	0.015
24720	0.012
24780	0.014
24840	0.018
24900	0.013
24960	0.013
25020	0.011
25080	0.01
25140	0.014
25200	0.012
25260	0.015
25320	0.013
25380	0.015
25440	0.012
25500	0.011
25560	0.012
25620	0.013
25680	0.013
25740	0.016

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_060
Test Start T	########
Test Start D	########
Test Length	0:08:16
Test Interva	1:00
Mass Avera	0.019
Mass Minir	0.013
Mass Maxir	0.15
Mass TWA	0.019
Photometr	1
Flow User C	0
Errors	
Number of	496

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.024		
120	0.023		
180	0.025		
240	0.025		
300	0.021		
360	0.022		
420	0.02		
480	0.021		
540	0.022		
600	0.021		
660	0.021		
720	0.021		
780	0.021		
840	0.022		
900	0.021		
960	0.02		
1020	0.019		
1080	0.02		
1140	0.019		
1200	0.018		
1260	0.02		
1320	0.019		
1380	0.02		
1440	0.02		
1500	0.02		
1560	0.019		
1620	0.02		

1680	0.018
1740	0.019
1800	0.019
1860	0.017
1920	0.017
1980	0.017
2040	0.017
2100	0.018
2160	0.017
2220	0.016
2280	0.016
2340	0.016
2400	0.016
2460	0.016
2520	0.018
2580	0.022
2640	0.018
2700	0.016
2760	0.017
2820	0.016
2880	0.016
2940	0.016
3000	0.017
3060	0.016
3120	0.015
3180	0.016
3240	0.015
3300	0.015
3360	0.016
3420	0.016
3480	0.016
3540	0.016
3600	0.016
3660	0.015
3720	0.016
3780	0.017
3840	0.017
3900	0.016
3960	0.017
4020	0.016
4080	0.016
4140	0.017
4200	0.017
4260	0.016
4320	0.016
4380	0.017
4440	0.016

4500	0.016
4560	0.016
4620	0.017
4680	0.017
4740	0.017
4800	0.017
4860	0.016
4920	0.016
4980	0.016
5040	0.016
5100	0.016
5160	0.016
5220	0.017
5280	0.017
5340	0.024
5400	0.017
5460	0.016
5520	0.016
5580	0.017
5640	0.016
5700	0.017
5760	0.016
5820	0.017
5880	0.017
5940	0.017
6000	0.016
6060	0.016
6120	0.016
6180	0.017
6240	0.016
6300	0.016
6360	0.016
6420	0.017
6480	0.016
6540	0.016
6600	0.018
6660	0.018
6720	0.018
6780	0.017
6840	0.017
6900	0.017
6960	0.017
7020	0.017
7080	0.018
7140	0.017
7200	0.016
7260	0.016

7320	0.017
7380	0.017
7440	0.018
7500	0.019
7560	0.017
7620	0.017
7680	0.017
7740	0.018
7800	0.017
7860	0.017
7920	0.017
7980	0.018
8040	0.018
8100	0.018
8160	0.018
8220	0.018
8280	0.017
8340	0.017
8400	0.018
8460	0.017
8520	0.019
8580	0.021
8640	0.02
8700	0.018
8760	0.018
8820	0.019
8880	0.018
8940	0.018
9000	0.019
9060	0.019
9120	0.018
9180	0.017
9240	0.017
9300	0.019
9360	0.019
9420	0.017
9480	0.02
9540	0.017
9600	0.019
9660	0.017
9720	0.017
9780	0.018
9840	0.017
9900	0.018
9960	0.019
10020	0.018
10080	0.019

10140	0.019
10200	0.017
10260	0.017
10320	0.016
10380	0.017
10440	0.018
10500	0.018
10560	0.017
10620	0.017
10680	0.017
10740	0.018
10800	0.019
10860	0.018
10920	0.019
10980	0.019
11040	0.019
11100	0.02
11160	0.02
11220	0.023
11280	0.022
11340	0.022
11400	0.024
11460	0.023
11520	0.024
11580	0.018
11640	0.018
11700	0.019
11760	0.019
11820	0.024
11880	0.029
11940	0.022
12000	0.018
12060	0.021
12120	0.02
12180	0.022
12240	0.028
12300	0.019
12360	0.018
12420	0.024
12480	0.018
12540	0.018
12600	0.019
12660	0.02
12720	0.02
12780	0.019
12840	0.02
12900	0.02

12960	0.018
13020	0.019
13080	0.02
13140	0.021
13200	0.02
13260	0.019
13320	0.018
13380	0.023
13440	0.02
13500	0.018
13560	0.017
13620	0.017
13680	0.016
13740	0.017
13800	0.017
13860	0.017
13920	0.016
13980	0.018
14040	0.017
14100	0.016
14160	0.017
14220	0.017
14280	0.014
14340	0.015
14400	0.015
14460	0.016
14520	0.016
14580	0.023
14640	0.018
14700	0.022
14760	0.022
14820	0.022
14880	0.017
14940	0.016
15000	0.018
15060	0.019
15120	0.019
15180	0.018
15240	0.017
15300	0.017
15360	0.022
15420	0.02
15480	0.019
15540	0.017
15600	0.016
15660	0.018
15720	0.018

15780	0.019
15840	0.017
15900	0.018
15960	0.02
16020	0.027
16080	0.037
16140	0.138
16200	0.026
16260	0.02
16320	0.018
16380	0.023
16440	0.024
16500	0.023
16560	0.017
16620	0.017
16680	0.018
16740	0.023
16800	0.025
16860	0.024
16920	0.02
16980	0.018
17040	0.018
17100	0.017
17160	0.018
17220	0.018
17280	0.018
17340	0.023
17400	0.024
17460	0.022
17520	0.027
17580	0.023
17640	0.02
17700	0.02
17760	0.02
17820	0.018
17880	0.017
17940	0.018
18000	0.018
18060	0.023
18120	0.021
18180	0.019
18240	0.019
18300	0.021
18360	0.019
18420	0.02
18480	0.02
18540	0.02

18600	0.019
18660	0.023
18720	0.021
18780	0.022
18840	0.023
18900	0.022
18960	0.022
19020	0.024
19080	0.018
19140	0.019
19200	0.021
19260	0.033
19320	0.022
19380	0.017
19440	0.028
19500	0.019
19560	0.016
19620	0.016
19680	0.037
19740	0.15
19800	0.032
19860	0.044
19920	0.048
19980	0.024
20040	0.022
20100	0.022
20160	0.022
20220	0.017
20280	0.017
20340	0.016
20400	0.015
20460	0.015
20520	0.016
20580	0.016
20640	0.017
20700	0.018
20760	0.017
20820	0.017
20880	0.017
20940	0.017
21000	0.017
21060	0.018
21120	0.017
21180	0.019
21240	0.017
21300	0.018
21360	0.019

21420	0.022
21480	0.018
21540	0.017
21600	0.017
21660	0.015
21720	0.015
21780	0.015
21840	0.015
21900	0.016
21960	0.017
22020	0.016
22080	0.019
22140	0.02
22200	0.016
22260	0.018
22320	0.018
22380	0.016
22440	0.017
22500	0.016
22560	0.014
22620	0.016
22680	0.014
22740	0.014
22800	0.021
22860	0.02
22920	0.018
22980	0.017
23040	0.015
23100	0.014
23160	0.015
23220	0.016
23280	0.018
23340	0.02
23400	0.019
23460	0.016
23520	0.019
23580	0.018
23640	0.016
23700	0.016
23760	0.018
23820	0.021
23880	0.015
23940	0.014
24000	0.015
24060	0.015
24120	0.02
24180	0.016

24240	0.014
24300	0.015
24360	0.014
24420	0.015
24480	0.015
24540	0.023
24600	0.019
24660	0.018
24720	0.017
24780	0.017
24840	0.016
24900	0.013
24960	0.014
25020	0.014
25080	0.015
25140	0.015
25200	0.017
25260	0.016
25320	0.016
25380	0.019
25440	0.014
25500	0.013
25560	0.017
25620	0.016
25680	0.015
25740	0.017
25800	0.017
25860	0.014
25920	0.016
25980	0.015
26040	0.015
26100	0.015
26160	0.015
26220	0.014
26280	0.014
26340	0.015
26400	0.016
26460	0.016
26520	0.016
26580	0.017
26640	0.018
26700	0.022
26760	0.019
26820	0.019
26880	0.014
26940	0.017
27000	0.017

27060	0.015
27120	0.017
27180	0.015
27240	0.018
27300	0.017
27360	0.017
27420	0.02
27480	0.019
27540	0.02
27600	0.02
27660	0.016
27720	0.017
27780	0.019
27840	0.017
27900	0.02
27960	0.015
28020	0.017
28080	0.014
28140	0.015
28200	0.014
28260	0.014
28320	0.016
28380	0.016
28440	0.021
28500	0.017
28560	0.016
28620	0.016
28680	0.016
28740	0.016
28800	0.014
28860	0.019
28920	0.021
28980	0.019
29040	0.015
29100	0.018
29160	0.02
29220	0.022
29280	0.021
29340	0.02
29400	0.019
29460	0.019
29520	0.017
29580	0.015
29640	0.017
29700	0.017
29760	0.016

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_061
Test Start T	########
Test Start D	3/1/2019
Test Length	0:07:55
Test Interva	1:00
Mass Avera	0.038
Mass Minir	0.028
Mass Maxir	0.108
Mass TWA	0.038
Photometr	1
Flow User C	0
Errors	
Number of	475

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.029		
120	0.029		
180	0.032		
240	0.031		
300	0.03		
360	0.028		
420	0.031		
480	0.034		
540	0.029		
600	0.033		
660	0.03		
720	0.03		
780	0.03		
840	0.033		
900	0.032		
960	0.031		
1020	0.033		
1080	0.037		
1140	0.034		
1200	0.035		
1260	0.034		
1320	0.034		
1380	0.037		
1440	0.034		
1500	0.033		
1560	0.037		
1620	0.036		

1680	0.035
1740	0.034
1800	0.037
1860	0.039
1920	0.039
1980	0.035
2040	0.036
2100	0.038
2160	0.036
2220	0.037
2280	0.042
2340	0.048
2400	0.04
2460	0.042
2520	0.04
2580	0.035
2640	0.035
2700	0.036
2760	0.036
2820	0.037
2880	0.039
2940	0.038
3000	0.036
3060	0.035
3120	0.034
3180	0.035
3240	0.035
3300	0.035
3360	0.034
3420	0.033
3480	0.034
3540	0.034
3600	0.034
3660	0.034
3720	0.034
3780	0.034
3840	0.035
3900	0.034
3960	0.035
4020	0.034
4080	0.033
4140	0.033
4200	0.032
4260	0.033
4320	0.034
4380	0.036
4440	0.032

4500	0.032
4560	0.032
4620	0.033
4680	0.032
4740	0.034
4800	0.034
4860	0.037
4920	0.034
4980	0.033
5040	0.042
5100	0.036
5160	0.034
5220	0.033
5280	0.032
5340	0.031
5400	0.031
5460	0.031
5520	0.034
5580	0.034
5640	0.034
5700	0.033
5760	0.035
5820	0.037
5880	0.033
5940	0.032
6000	0.033
6060	0.033
6120	0.034
6180	0.033
6240	0.032
6300	0.032
6360	0.034
6420	0.036
6480	0.037
6540	0.036
6600	0.036
6660	0.036
6720	0.035
6780	0.035
6840	0.036
6900	0.035
6960	0.033
7020	0.035
7080	0.036
7140	0.032
7200	0.033
7260	0.034

7320	0.034
7380	0.034
7440	0.035
7500	0.037
7560	0.034
7620	0.034
7680	0.032
7740	0.034
7800	0.043
7860	0.038
7920	0.037
7980	0.037
8040	0.036
8100	0.036
8160	0.033
8220	0.032
8280	0.032
8340	0.034
8400	0.039
8460	0.036
8520	0.035
8580	0.034
8640	0.033
8700	0.034
8760	0.037
8820	0.035
8880	0.035
8940	0.033
9000	0.033
9060	0.034
9120	0.031
9180	0.031
9240	0.032
9300	0.036
9360	0.035
9420	0.033
9480	0.032
9540	0.032
9600	0.032
9660	0.033
9720	0.035
9780	0.039
9840	0.03
9900	0.03
9960	0.03
10020	0.033
10080	0.033

10140	0.031
10200	0.033
10260	0.036
10320	0.034
10380	0.036
10440	0.036
10500	0.034
10560	0.033
10620	0.035
10680	0.034
10740	0.036
10800	0.038
10860	0.037
10920	0.034
10980	0.033
11040	0.032
11100	0.033
11160	0.037
11220	0.034
11280	0.033
11340	0.033
11400	0.036
11460	0.037
11520	0.041
11580	0.037
11640	0.034
11700	0.033
11760	0.035
11820	0.038
11880	0.035
11940	0.036
12000	0.035
12060	0.04
12120	0.041
12180	0.047
12240	0.038
12300	0.036
12360	0.037
12420	0.041
12480	0.037
12540	0.041
12600	0.039
12660	0.039
12720	0.039
12780	0.092
12840	0.08
12900	0.041

12960	0.041
13020	0.041
13080	0.037
13140	0.04
13200	0.038
13260	0.037
13320	0.04
13380	0.037
13440	0.043
13500	0.041
13560	0.042
13620	0.037
13680	0.038
13740	0.038
13800	0.04
13860	0.039
13920	0.04
13980	0.039
14040	0.039
14100	0.038
14160	0.038
14220	0.038
14280	0.038
14340	0.04
14400	0.044
14460	0.04
14520	0.041
14580	0.043
14640	0.108
14700	0.042
14760	0.042
14820	0.048
14880	0.042
14940	0.039
15000	0.037
15060	0.036
15120	0.037
15180	0.037
15240	0.037
15300	0.039
15360	0.044
15420	0.044
15480	0.064
15540	0.049
15600	0.044
15660	0.037
15720	0.039

15780	0.04
15840	0.042
15900	0.04
15960	0.038
16020	0.039
16080	0.041
16140	0.041
16200	0.04
16260	0.041
16320	0.039
16380	0.038
16440	0.044
16500	0.041
16560	0.037
16620	0.039
16680	0.047
16740	0.043
16800	0.045
16860	0.039
16920	0.038
16980	0.039
17040	0.045
17100	0.039
17160	0.04
17220	0.039
17280	0.04
17340	0.038
17400	0.038
17460	0.037
17520	0.036
17580	0.039
17640	0.038
17700	0.039
17760	0.04
17820	0.041
17880	0.038
17940	0.038
18000	0.039
18060	0.041
18120	0.04
18180	0.039
18240	0.038
18300	0.038
18360	0.04
18420	0.043
18480	0.041
18540	0.043

18600	0.05
18660	0.044
18720	0.044
18780	0.043
18840	0.042
18900	0.041
18960	0.038
19020	0.037
19080	0.036
19140	0.038
19200	0.046
19260	0.038
19320	0.039
19380	0.038
19440	0.039
19500	0.04
19560	0.039
19620	0.038
19680	0.055
19740	0.047
19800	0.042
19860	0.043
19920	0.043
19980	0.039
20040	0.041
20100	0.039
20160	0.041
20220	0.04
20280	0.042
20340	0.043
20400	0.048
20460	0.051
20520	0.047
20580	0.04
20640	0.038
20700	0.039
20760	0.04
20820	0.04
20880	0.039
20940	0.038
21000	0.041
21060	0.043
21120	0.046
21180	0.044
21240	0.047
21300	0.048
21360	0.054

21420	0.055
21480	0.052
21540	0.042
21600	0.041
21660	0.04
21720	0.039
21780	0.039
21840	0.038
21900	0.039
21960	0.04
22020	0.04
22080	0.038
22140	0.04
22200	0.046
22260	0.054
22320	0.043
22380	0.083
22440	0.07
22500	0.057
22560	0.049
22620	0.048
22680	0.039
22740	0.038
22800	0.038
22860	0.04
22920	0.044
22980	0.045
23040	0.043
23100	0.043
23160	0.039
23220	0.043
23280	0.042
23340	0.047
23400	0.046
23460	0.04
23520	0.042
23580	0.046
23640	0.042
23700	0.04
23760	0.041
23820	0.039
23880	0.038
23940	0.036
24000	0.037
24060	0.036
24120	0.039
24180	0.037

24240	0.036
24300	0.067
24360	0.053
24420	0.045
24480	0.04
24540	0.04
24600	0.041
24660	0.042
24720	0.041
24780	0.04
24840	0.042
24900	0.046
24960	0.041
25020	0.041
25080	0.039
25140	0.04
25200	0.05
25260	0.043
25320	0.042
25380	0.037
25440	0.035
25500	0.034
25560	0.039
25620	0.036
25680	0.036
25740	0.038
25800	0.038
25860	0.037
25920	0.04
25980	0.039
26040	0.044
26100	0.042
26160	0.04
26220	0.04
26280	0.039
26340	0.038
26400	0.037
26460	0.037
26520	0.033
26580	0.034
26640	0.038
26700	0.037
26760	0.034
26820	0.033
26880	0.034
26940	0.034
27000	0.035

27060	0.036
27120	0.033
27180	0.033
27240	0.036
27300	0.034
27360	0.033
27420	0.032
27480	0.033
27540	0.036
27600	0.034
27660	0.033
27720	0.033
27780	0.034
27840	0.036
27900	0.035
27960	0.038
28020	0.033
28080	0.035
28140	0.036
28200	0.047
28260	0.041
28320	0.036
28380	0.034
28440	0.035
28500	0.033

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_062
Test Start T	########
Test Start D	3/4/2019
Test Length	0:07:09
Test Interva	1:00
Mass Avera	0.023
Mass Minir	0.008
Mass Maxir	0.104
Mass TWA	0.02
Photometr	1
Flow User C	0
Errors	
Number of	429

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.069		
120	0.047		
180	0.047		
240	0.048		
300	0.046		
360	0.046		
420	0.047		
480	0.046		
540	0.045		
600	0.046		
660	0.046		
720	0.043		
780	0.044		
840	0.043		
900	0.044		
960	0.043		
1020	0.043		
1080	0.043		
1140	0.042		
1200	0.043		
1260	0.043		
1320	0.04		
1380	0.038		
1440	0.039		
1500	0.038		
1560	0.038		
1620	0.037		

1680	0.039
1740	0.037
1800	0.038
1860	0.038
1920	0.036
1980	0.038
2040	0.035
2100	0.034
2160	0.033
2220	0.033
2280	0.031
2340	0.031
2400	0.033
2460	0.032
2520	0.032
2580	0.032
2640	0.032
2700	0.034
2760	0.034
2820	0.031
2880	0.033
2940	0.032
3000	0.031
3060	0.029
3120	0.028
3180	0.028
3240	0.028
3300	0.027
3360	0.027
3420	0.028
3480	0.029
3540	0.029
3600	0.027
3660	0.027
3720	0.028
3780	0.029
3840	0.029
3900	0.028
3960	0.029
4020	0.029
4080	0.029
4140	0.029
4200	0.03
4260	0.031
4320	0.031
4380	0.031
4440	0.032

4500	0.03
4560	0.03
4620	0.031
4680	0.03
4740	0.031
4800	0.03
4860	0.03
4920	0.031
4980	0.031
5040	0.03
5100	0.03
5160	0.03
5220	0.032
5280	0.032
5340	0.031
5400	0.031
5460	0.033
5520	0.034
5580	0.035
5640	0.033
5700	0.033
5760	0.03
5820	0.03
5880	0.031
5940	0.031
6000	0.031
6060	0.032
6120	0.032
6180	0.034
6240	0.033
6300	0.033
6360	0.031
6420	0.031
6480	0.03
6540	0.03
6600	0.029
6660	0.029
6720	0.029
6780	0.029
6840	0.029
6900	0.029
6960	0.03
7020	0.03
7080	0.031
7140	0.031
7200	0.03
7260	0.03

7320	0.032
7380	0.029
7440	0.028
7500	0.028
7560	0.028
7620	0.028
7680	0.029
7740	0.029
7800	0.029
7860	0.03
7920	0.027
7980	0.027
8040	0.027
8100	0.027
8160	0.028
8220	0.028
8280	0.028
8340	0.028
8400	0.028
8460	0.028
8520	0.028
8580	0.027
8640	0.028
8700	0.028
8760	0.028
8820	0.029
8880	0.029
8940	0.03
9000	0.03
9060	0.03
9120	0.029
9180	0.029
9240	0.03
9300	0.029
9360	0.029
9420	0.028
9480	0.028
9540	0.027
9600	0.028
9660	0.028
9720	0.028
9780	0.029
9840	0.029
9900	0.029
9960	0.028
10020	0.031
10080	0.03

10140	0.03
10200	0.029
10260	0.028
10320	0.028
10380	0.027
10440	0.027
10500	0.027
10560	0.027
10620	0.027
10680	0.027
10740	0.027
10800	0.027
10860	0.027
10920	0.028
10980	0.028
11040	0.028
11100	0.026
11160	0.026
11220	0.026
11280	0.026
11340	0.026
11400	0.027
11460	0.027
11520	0.027
11580	0.027
11640	0.027
11700	0.026
11760	0.026
11820	0.025
11880	0.025
11940	0.025
12000	0.025
12060	0.025
12120	0.025
12180	0.025
12240	0.045
12300	0.068
12360	0.09
12420	0.025
12480	0.026
12540	0.025
12600	0.025
12660	0.025
12720	0.025
12780	0.025
12840	0.024
12900	0.026

12960	0.024
13020	0.023
13080	0.022
13140	0.023
13200	0.022
13260	0.021
13320	0.02
13380	0.021
13440	0.021
13500	0.021
13560	0.02
13620	0.02
13680	0.02
13740	0.021
13800	0.019
13860	0.02
13920	0.02
13980	0.02
14040	0.02
14100	0.02
14160	0.02
14220	0.02
14280	0.02
14340	0.02
14400	0.02
14460	0.104
14520	0.084
14580	0.02
14640	0.018
14700	0.018
14760	0.017
14820	0.017
14880	0.019
14940	0.017
15000	0.017
15060	0.016
15120	0.017
15180	0.016
15240	0.017
15300	0.017
15360	0.017
15420	0.016
15480	0.015
15540	0.015
15600	0.014
15660	0.014
15720	0.014

15780	0.014
15840	0.015
15900	0.015
15960	0.015
16020	0.014
16080	0.014
16140	0.013
16200	0.014
16260	0.014
16320	0.015
16380	0.017
16440	0.015
16500	0.016
16560	0.016
16620	0.015
16680	0.015
16740	0.013
16800	0.013
16860	0.013
16920	0.012
16980	0.013
17040	0.012
17100	0.014
17160	0.014
17220	0.015
17280	0.018
17340	0.017
17400	0.016
17460	0.016
17520	0.013
17580	0.012
17640	0.012
17700	0.012
17760	0.012
17820	0.012
17880	0.013
17940	0.013
18000	0.015
18060	0.013
18120	0.013
18180	0.013
18240	0.013
18300	0.014
18360	0.014
18420	0.013
18480	0.011
18540	0.011

18600	0.01
18660	0.01
18720	0.011
18780	0.011
18840	0.01
18900	0.01
18960	0.01
19020	0.011
19080	0.011
19140	0.011
19200	0.011
19260	0.01
19320	0.01
19380	0.01
19440	0.011
19500	0.01
19560	0.01
19620	0.01
19680	0.01
19740	0.01
19800	0.01
19860	0.01
19920	0.012
19980	0.009
20040	0.009
20100	0.009
20160	0.01
20220	0.01
20280	0.026
20340	0.009
20400	0.009
20460	0.009
20520	0.009
20580	0.009
20640	0.009
20700	0.009
20760	0.009
20820	0.009
20880	0.009
20940	0.009
21000	0.009
21060	0.009
21120	0.009
21180	0.009
21240	0.01
21300	0.009
21360	0.009

21420	0.01
21480	0.01
21540	0.012
21600	0.014
21660	0.01
21720	0.011
21780	0.011
21840	0.012
21900	0.01
21960	0.009
22020	0.013
22080	0.01
22140	0.009
22200	0.009
22260	0.01
22320	0.009
22380	0.009
22440	0.009
22500	0.009
22560	0.009
22620	0.008
22680	0.01
22740	0.01
22800	0.009
22860	0.009
22920	0.009
22980	0.009
23040	0.008
23100	0.012
23160	0.009
23220	0.009
23280	0.009
23340	0.009
23400	0.01
23460	0.013
23520	0.009
23580	0.009
23640	0.009
23700	0.009
23760	0.009
23820	0.01
23880	0.047
23940	0.016
24000	0.014
24060	0.012
24120	0.011
24180	0.011

24240	0.011
24300	0.011
24360	0.011
24420	0.012
24480	0.011
24540	0.012
24600	0.011
24660	0.011
24720	0.012
24780	0.012
24840	0.013
24900	0.013
24960	0.021
25020	0.013
25080	0.011
25140	0.012
25200	0.016
25260	0.014
25320	0.014
25380	0.012
25440	0.012
25500	0.015
25560	0.013
25620	0.013
25680	0.011
25740	0.012

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_063
Test Start T	########
Test Start D	3/5/2019
Test Length	0:04:10
Test Interva	1:00
Mass Avera	0.031
Mass Minir	0.025
Mass Maxir	0.059
Mass TWA	0.016
Photometr	1
Flow User C	0
Errors	
Number of	250

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.029		
120	0.027		
180	0.026		
240	0.026		
300	0.025		
360	0.027		
420	0.027		
480	0.028		
540	0.027		
600	0.027		
660	0.027		
720	0.028		
780	0.028		
840	0.028		
900	0.026		
960	0.027		
1020	0.026		
1080	0.027		
1140	0.026		
1200	0.027		
1260	0.027		
1320	0.028		
1380	0.03		
1440	0.027		
1500	0.028		
1560	0.033		
1620	0.028		

1680	0.027
1740	0.028
1800	0.027
1860	0.027
1920	0.027
1980	0.029
2040	0.027
2100	0.031
2160	0.028
2220	0.027
2280	0.031
2340	0.03
2400	0.029
2460	0.031
2520	0.029
2580	0.035
2640	0.046
2700	0.041
2760	0.033
2820	0.031
2880	0.034
2940	0.032
3000	0.034
3060	0.03
3120	0.032
3180	0.043
3240	0.034
3300	0.036
3360	0.032
3420	0.038
3480	0.043
3540	0.037
3600	0.037
3660	0.029
3720	0.03
3780	0.033
3840	0.032
3900	0.031
3960	0.035
4020	0.031
4080	0.028
4140	0.03
4200	0.031
4260	0.033
4320	0.031
4380	0.033
4440	0.03

4500	0.029
4560	0.03
4620	0.031
4680	0.032
4740	0.032
4800	0.032
4860	0.033
4920	0.034
4980	0.034
5040	0.034
5100	0.035
5160	0.032
5220	0.032
5280	0.031
5340	0.029
5400	0.029
5460	0.028
5520	0.027
5580	0.027
5640	0.029
5700	0.033
5760	0.029
5820	0.031
5880	0.032
5940	0.032
6000	0.028
6060	0.03
6120	0.025
6180	0.027
6240	0.029
6300	0.028
6360	0.029
6420	0.03
6480	0.027
6540	0.029
6600	0.029
6660	0.026
6720	0.027
6780	0.029
6840	0.03
6900	0.032
6960	0.029
7020	0.027
7080	0.029
7140	0.029
7200	0.028
7260	0.03

7320	0.03
7380	0.03
7440	0.03
7500	0.04
7560	0.028
7620	0.029
7680	0.034
7740	0.028
7800	0.028
7860	0.025
7920	0.025
7980	0.025
8040	0.027
8100	0.027
8160	0.026
8220	0.027
8280	0.026
8340	0.029
8400	0.029
8460	0.032
8520	0.031
8580	0.035
8640	0.031
8700	0.032
8760	0.03
8820	0.027
8880	0.029
8940	0.03
9000	0.028
9060	0.031
9120	0.028
9180	0.027
9240	0.037
9300	0.031
9360	0.029
9420	0.03
9480	0.028
9540	0.039
9600	0.057
9660	0.038
9720	0.034
9780	0.032
9840	0.03
9900	0.033
9960	0.038
10020	0.028
10080	0.032

10140	0.032
10200	0.033
10260	0.033
10320	0.032
10380	0.035
10440	0.028
10500	0.031
10560	0.033
10620	0.031
10680	0.038
10740	0.026
10800	0.026
10860	0.034
10920	0.026
10980	0.028
11040	0.037
11100	0.031
11160	0.032
11220	0.027
11280	0.029
11340	0.029
11400	0.028
11460	0.035
11520	0.038
11580	0.033
11640	0.029
11700	0.031
11760	0.05
11820	0.035
11880	0.031
11940	0.03
12000	0.032
12060	0.029
12120	0.03
12180	0.031
12240	0.032
12300	0.032
12360	0.031
12420	0.029
12480	0.03
12540	0.028
12600	0.029
12660	0.031
12720	0.031
12780	0.03
12840	0.031
12900	0.032

12960	0.038
13020	0.031
13080	0.032
13140	0.033
13200	0.03
13260	0.03
13320	0.028
13380	0.028
13440	0.029
13500	0.031
13560	0.03
13620	0.032
13680	0.03
13740	0.03
13800	0.029
13860	0.033
13920	0.032
13980	0.029
14040	0.029
14100	0.031
14160	0.059
14220	0.032
14280	0.028
14340	0.03
14400	0.03
14460	0.03
14520	0.03
14580	0.03
14640	0.028
14700	0.03
14760	0.03
14820	0.031
14880	0.03
14940	0.033
15000	0.031

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_064
Test Start T	########
Test Start D	3/7/2019
Test Length	0:00:27
Test Interva	1:00
Mass Avera	0.028
Mass Minir	0.023
Mass Maxir	0.038
Mass TWA	0.002
Photometr	1
Flow User C	0
Errors	
Number of	27

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.032		
120	0.028		
180	0.029		
240	0.031		
300	0.032		
360	0.026		
420	0.027		
480	0.024		
540	0.027		
600	0.033		
660	0.023		
720	0.029		
780	0.026		
840	0.026		
900	0.029		
960	0.032		
1020	0.027		
1080	0.029		
1140	0.027		
1200	0.025		
1260	0.029		
1320	0.03		
1380	0.026		
1440	0.038		
1500	0.03		
1560	0.027		
1620	0.027		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	MANUAL_065
Test Start T	########
Test Start D	3/7/2019
Test Length	0:00:01
Test Interva	1:00
Mass Avera	0.038
Mass Minir	0.038
Mass Maxir	0.038
Mass TWA	0
Photometr	1
Flow User C	0
Errors	
Number of	1

Elapsed Tin	Mass [mg/r	Alarms	Errors
60	0.038		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_001
Test Start T	########
Test Start D	########
Test Length	0:06:30
Test Interva	15:00
Mass Avera	0.007
Mass Minir	0.005
Mass Maxir	0.011
Mass TWA	0.006
Photometr	1
Flow User C	0
Errors	
Number of	26

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.008		
1800	0.007		
2700	0.007		
3600	0.007		
4500	0.007		
5400	0.006		
6300	0.006		
7200	0.007		
8100	0.007		
9000	0.006		
9900	0.006		
10800	0.009		
11700	0.007		
12600	0.005		
13500	0.005		
14400	0.006		
15300	0.007		
16200	0.007		
17100	0.007		
18000	0.01		
18900	0.009		
19800	0.009		
20700	0.009		
21600	0.011		
22500	0.009		
23400	0.009		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_002
Test Start T	########
Test Start D	########
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.02
Mass Minir	0.011
Mass Maxir	0.038
Mass TWA	0.017
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.038		
1800	0.029		
2700	0.026		
3600	0.027		
4500	0.028		
5400	0.028		
6300	0.025		
7200	0.025		
8100	0.024		
9000	0.022		
9900	0.021		
10800	0.017		
11700	0.014		
12600	0.014		
13500	0.011		
14400	0.012		
15300	0.014		
16200	0.013		
17100	0.012		
18000	0.013		
18900	0.014		
19800	0.016		
20700	0.016		
21600	0.017		
22500	0.02		
23400	0.017		
24300	0.018		

25200 0.018

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_003
Test Start T	########
Test Start D	########
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.03
Mass Minir	0.023
Mass Maxir	0.043
Mass TWA	0.027
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.038		
1800	0.029		
2700	0.025		
3600	0.023		
4500	0.023		
5400	0.023		
6300	0.023		
7200	0.023		
8100	0.023		
9000	0.025		
9900	0.025		
10800	0.026		
11700	0.027		
12600	0.029		
13500	0.032		
14400	0.037		
15300	0.035		
16200	0.039		
17100	0.043		
18000	0.042		
18900	0.04		
19800	0.037		
20700	0.033		
21600	0.033		
22500	0.03		
23400	0.03		
24300	0.03		

25200 0.03

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_004
Test Start T	########
Test Start D	########
Test Length	0:07:30
Test Interva	15:00
Mass Avera	0.037
Mass Minir	0.016
Mass Maxir	0.055
Mass TWA	0.035
Photometr	1
Flow User C	0
Errors	
Number of	30

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.055		
1800	0.05		
2700	0.049		
3600	0.043		
4500	0.042		
5400	0.042		
6300	0.041		
7200	0.041		
8100	0.041		
9000	0.044		
9900	0.044		
10800	0.05		
11700	0.054		
12600	0.052		
13500	0.047		
14400	0.043		
15300	0.041		
16200	0.039		
17100	0.038		
18000	0.037		
18900	0.037		
19800	0.032		
20700	0.026		
21600	0.023		
22500	0.022		
23400	0.02		
24300	0.018		

25200	0.016
26100	0.018
27000	0.017

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_005
Test Start T	########
Test Start D	########
Test Length	0:06:45
Test Interva	15:00
Mass Avera	0.017
Mass Minir	0.009
Mass Maxir	0.027
Mass TWA	0.014
Photometr	1
Flow User C	0
Errors	
Number of	27

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.027		
1800	0.024		
2700	0.024		
3600	0.023		
4500	0.02		
5400	0.02		
6300	0.02		
7200	0.019		
8100	0.018		
9000	0.014		
9900	0.015		
10800	0.016		
11700	0.013		
12600	0.009		
13500	0.01		
14400	0.013		
15300	0.011		
16200	0.012		
17100	0.016		
18000	0.019		
18900	0.021		
19800	0.018		
20700	0.014		
21600	0.013		
22500	0.013		
23400	0.013		
24300	0.012		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_006
Test Start T	########
Test Start D	########
Test Length	0:07:30
Test Interva	15:00
Mass Avera	0.009
Mass Minir	0.005
Mass Maxir	0.032
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	30

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.015		
1800	0.015		
2700	0.013		
3600	0.011		
4500	0.009		
5400	0.01		
6300	0.032		
7200	0.013		
8100	0.011		
9000	0.012		
9900	0.01		
10800	0.011		
11700	0.008		
12600	0.008		
13500	0.008		
14400	0.007		
15300	0.008		
16200	0.006		
17100	0.006		
18000	0.006		
18900	0.005		
19800	0.006		
20700	0.011		
21600	0.006		
22500	0.007		
23400	0.008		
24300	0.005		

25200	0.005
26100	0.006
27000	0.005

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_007
Test Start T	########
Test Start D	########
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.015
Mass Minir	0.009
Mass Maxir	0.023
Mass TWA	0.013
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.02		
1800	0.018		
2700	0.019		
3600	0.019		
4500	0.016		
5400	0.014		
6300	0.014		
7200	0.014		
8100	0.013		
9000	0.011		
9900	0.011		
10800	0.012		
11700	0.012		
12600	0.011		
13500	0.014		
14400	0.012		
15300	0.009		
16200	0.009		
17100	0.01		
18000	0.011		
18900	0.014		
19800	0.015		
20700	0.016		
21600	0.018		
22500	0.019		
23400	0.019		
24300	0.022		

25200 0.023

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_008
Test Start T	########
Test Start D	########
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.007
Mass Minir	0.004
Mass Maxir	0.011
Mass TWA	0.006
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.005		
1800	0.006		
2700	0.005		
3600	0.004		
4500	0.005		
5400	0.004		
6300	0.004		
7200	0.006		
8100	0.008		
9000	0.006		
9900	0.005		
10800	0.005		
11700	0.008		
12600	0.005		
13500	0.007		
14400	0.009		
15300	0.008		
16200	0.006		
17100	0.007		
18000	0.008		
18900	0.009		
19800	0.006		
20700	0.011		
21600	0.007		
22500	0.009		
23400	0.007		
24300	0.008		

25200 0.009

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_009
Test Start T	########
Test Start D	########
Test Length	0:06:45
Test Interva	15:00
Mass Avera	0.017
Mass Minir	0.01
Mass Maxir	0.038
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	27

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.038		
1800	0.023		
2700	0.031		
3600	0.022		
4500	0.022		
5400	0.023		
6300	0.015		
7200	0.015		
8100	0.014		
9000	0.014		
9900	0.015		
10800	0.016		
11700	0.014		
12600	0.014		
13500	0.013		
14400	0.015		
15300	0.013		
16200	0.014		
17100	0.011		
18000	0.012		
18900	0.011		
19800	0.012		
20700	0.015		
21600	0.01		
22500	0.019		
23400	0.016		
24300	0.028		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_010
Test Start T	########
Test Start D	########
Test Length	0:07:15
Test Interva	15:00
Mass Avera	0.003
Mass Minir	0.001
Mass Maxir	0.008
Mass TWA	0.003
Photometr	1
Flow User C	0
Errors	
Number of	29

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.002		
1800	0.003		
2700	0.001		
3600	0.001		
4500	0.008		
5400	0.001		
6300	0.001		
7200	0.001		
8100	0.001		
9000	0.001		
9900	0.001		
10800	0.002		
11700	0.002		
12600	0.004		
13500	0.004		
14400	0.004		
15300	0.004		
16200	0.004		
17100	0.006		
18000	0.004		
18900	0.006		
19800	0.004		
20700	0.005		
21600	0.002		
22500	0.002		
23400	0.002		
24300	0.004		

25200	0.002
26100	0.003

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_011
Test Start T	########
Test Start D	########
Test Length	0:06:45
Test Interva	15:00
Mass Avera	0.014
Mass Minir	0.008
Mass Maxir	0.018
Mass TWA	0.012
Photometr	1
Flow User C	0
Errors	
Number of	27

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.016		
1800	0.016		
2700	0.015		
3600	0.017		
4500	0.014		
5400	0.015		
6300	0.016		
7200	0.017		
8100	0.018		
9000	0.018		
9900	0.015		
10800	0.014		
11700	0.015		
12600	0.016		
13500	0.014		
14400	0.014		
15300	0.015		
16200	0.014		
17100	0.014		
18000	0.014		
18900	0.014		
19800	0.012		
20700	0.01		
21600	0.01		
22500	0.008		
23400	0.008		
24300	0.008		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_012
Test Start T	########
Test Start D	########
Test Length	0:06:15
Test Interva	15:00
Mass Avera	0.012
Mass Minir	0.007
Mass Maxir	0.016
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	25

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.016		
1800	0.014		
2700	0.012		
3600	0.011		
4500	0.016		
5400	0.01		
6300	0.008		
7200	0.007		
8100	0.009		
9000	0.011		
9900	0.014		
10800	0.01		
11700	0.01		
12600	0.01		
13500	0.011		
14400	0.01		
15300	0.01		
16200	0.01		
17100	0.011		
18000	0.012		
18900	0.011		
19800	0.013		
20700	0.013		
21600	0.015		
22500	0.014		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_013
Test Start T	########
Test Start D	########
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.021
Mass Minir	0.015
Mass Maxir	0.03
Mass TWA	0.019
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.018		
1800	0.018		
2700	0.02		
3600	0.024		
4500	0.02		
5400	0.02		
6300	0.018		
7200	0.02		
8100	0.025		
9000	0.03		
9900	0.029		
10800	0.026		
11700	0.026		
12600	0.028		
13500	0.027		
14400	0.024		
15300	0.025		
16200	0.023		
17100	0.022		
18000	0.02		
18900	0.02		
19800	0.018		
20700	0.017		
21600	0.016		
22500	0.016		
23400	0.016		
24300	0.016		

25200 0.015

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_014
Test Start T	########
Test Start D	########
Test Length	0:05:45
Test Interva	15:00
Mass Avera	0.011
Mass Minir	0.006
Mass Maxir	0.022
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	23

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.007		
1800	0.006		
2700	0.006		
3600	0.007		
4500	0.009		
5400	0.021		
6300	0.015		
7200	0.018		
8100	0.022		
9000	0.017		
9900	0.014		
10800	0.014		
11700	0.01		
12600	0.009		
13500	0.01		
14400	0.009		
15300	0.008		
16200	0.009		
17100	0.009		
18000	0.009		
18900	0.01		
19800	0.01		
20700	0.011		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_015
Test Start T	########
Test Start D	########
Test Length	0:05:30
Test Interva	15:00
Mass Avera	0.007
Mass Minir	0.004
Mass Maxir	0.01
Mass TWA	0.005
Photometr	1
Flow User C	0
Errors	
Number of	22

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.005		
1800	0.004		
2700	0.004		
3600	0.005		
4500	0.005		
5400	0.005		
6300	0.005		
7200	0.007		
8100	0.007		
9000	0.009		
9900	0.008		
10800	0.006		
11700	0.008		
12600	0.008		
13500	0.01		
14400	0.01		
15300	0.008		
16200	0.008		
17100	0.007		
18000	0.008		
18900	0.007		
19800	0.007		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_016
Test Start T	########
Test Start D	########
Test Length	0:05:30
Test Interva	15:00
Mass Avera	0
Mass Minir	0
Mass Maxir	0.004
Mass TWA	0
Photometr	1
Flow User C	0
Errors	
Number of	22

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.002		
1800	0		
2700	0		
3600	0		
4500	0		
5400	0		
6300	0		
7200	0		
8100	0		
9000	0		
9900	0		
10800	0		
11700	0		
12600	0		
13500	0		
14400	0		
15300	0		
16200	0		
17100	0		
18000	0		
18900	0		
19800	0.004		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_017
Test Start T	########
Test Start D	########
Test Length	0:06:00
Test Interva	15:00
Mass Avera	0.011
Mass Minir	0.005
Mass Maxir	0.02
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	24

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.02		
1800	0.017		
2700	0.019		
3600	0.018		
4500	0.014		
5400	0.013		
6300	0.013		
7200	0.013		
8100	0.014		
9000	0.013		
9900	0.013		
10800	0.011		
11700	0.01		
12600	0.011		
13500	0.008		
14400	0.008		
15300	0.008		
16200	0.008		
17100	0.007		
18000	0.007		
18900	0.006		
19800	0.005		
20700	0.005		
21600	0.005		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_018
Test Start T	########
Test Start D	########
Test Length	0:06:30
Test Interva	15:00
Mass Avera	0.01
Mass Minir	0.006
Mass Maxir	0.022
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	26

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.013		
1800	0.012		
2700	0.011		
3600	0.009		
4500	0.008		
5400	0.008		
6300	0.008		
7200	0.008		
8100	0.011		
9000	0.009		
9900	0.009		
10800	0.009		
11700	0.009		
12600	0.009		
13500	0.009		
14400	0.01		
15300	0.009		
16200	0.009		
17100	0.009		
18000	0.008		
18900	0.01		
19800	0.012		
20700	0.022		
21600	0.007		
22500	0.007		
23400	0.006		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_019
Test Start T	########
Test Start D	########
Test Length	0:06:30
Test Interva	15:00
Mass Avera	0.024
Mass Minir	0.015
Mass Maxir	0.034
Mass TWA	0.019
Photometr	1
Flow User C	0
Errors	
Number of	26

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.033		
1800	0.027		
2700	0.025		
3600	0.03		
4500	0.034		
5400	0.027		
6300	0.025		
7200	0.022		
8100	0.03		
9000	0.025		
9900	0.024		
10800	0.03		
11700	0.024		
12600	0.025		
13500	0.023		
14400	0.023		
15300	0.024		
16200	0.021		
17100	0.024		
18000	0.019		
18900	0.019		
19800	0.017		
20700	0.017		
21600	0.016		
22500	0.016		
23400	0.015		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_020
Test Start T	########
Test Start D	########
Test Length	0:05:30
Test Interva	15:00
Mass Avera	0.057
Mass Minir	0.047
Mass Maxir	0.069
Mass TWA	0.039
Photometr	1
Flow User C	0
Errors	
Number of	22

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.068		
1800	0.058		
2700	0.069		
3600	0.062		
4500	0.063		
5400	0.064		
6300	0.063		
7200	0.059		
8100	0.055		
9000	0.064		
9900	0.059		
10800	0.06		
11700	0.059		
12600	0.057		
13500	0.059		
14400	0.05		
15300	0.047		
16200	0.048		
17100	0.049		
18000	0.051		
18900	0.047		
19800	0.048		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_021
Test Start T	########
Test Start D	########
Test Length	0:06:30
Test Interva	15:00
Mass Avera	0.023
Mass Minir	0.016
Mass Maxir	0.048
Mass TWA	0.019
Photometr	1
Flow User C	0
Errors	
Number of	26

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.019		
1800	0.018		
2700	0.017		
3600	0.017		
4500	0.018		
5400	0.017		
6300	0.021		
7200	0.016		
8100	0.019		
9000	0.019		
9900	0.019		
10800	0.019		
11700	0.018		
12600	0.019		
13500	0.018		
14400	0.019		
15300	0.019		
16200	0.028		
17100	0.03		
18000	0.03		
18900	0.034		
19800	0.048		
20700	0.03		
21600	0.03		
22500	0.032		
23400	0.03		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_022
Test Start T	########
Test Start D	########
Test Length	0:06:00
Test Interva	15:00
Mass Avera	0.02
Mass Minir	0.017
Mass Maxir	0.025
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	24

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.022		
1800	0.025		
2700	0.025		
3600	0.022		
4500	0.023		
5400	0.019		
6300	0.017		
7200	0.018		
8100	0.017		
9000	0.017		
9900	0.018		
10800	0.024		
11700	0.019		
12600	0.021		
13500	0.02		
14400	0.02		
15300	0.021		
16200	0.02		
17100	0.017		
18000	0.017		
18900	0.017		
19800	0.019		
20700	0.017		
21600	0.017		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_023
Test Start T	########
Test Start D	########
Test Length	0:06:00
Test Interva	15:00
Mass Avera	0.013
Mass Minir	0.006
Mass Maxir	0.025
Mass TWA	0.01
Photometr	1
Flow User C	0
Errors	
Number of	24

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.022		
1800	0.025		
2700	0.022		
3600	0.018		
4500	0.014		
5400	0.015		
6300	0.013		
7200	0.012		
8100	0.009		
9000	0.011		
9900	0.019		
10800	0.017		
11700	0.011		
12600	0.011		
13500	0.01		
14400	0.011		
15300	0.008		
16200	0.009		
17100	0.01		
18000	0.008		
18900	0.006		
19800	0.01		
20700	0.009		
21600	0.012		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_024
Test Start T	########
Test Start D	########
Test Length	0:06:00
Test Interva	15:00
Mass Avera	0.011
Mass Minir	0.009
Mass Maxir	0.014
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	24

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.013		
1800	0.011		
2700	0.011		
3600	0.013		
4500	0.01		
5400	0.01		
6300	0.014		
7200	0.013		
8100	0.014		
9000	0.01		
9900	0.009		
10800	0.01		
11700	0.009		
12600	0.009		
13500	0.011		
14400	0.011		
15300	0.011		
16200	0.01		
17100	0.012		
18000	0.012		
18900	0.012		
19800	0.014		
20700	0.01		
21600	0.01		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_025
Test Start T	########
Test Start D	########
Test Length	0:06:30
Test Interva	15:00
Mass Avera	0.019
Mass Minir	0.015
Mass Maxir	0.024
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	26

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.022		
1800	0.016		
2700	0.017		
3600	0.018		
4500	0.016		
5400	0.015		
6300	0.02		
7200	0.017		
8100	0.017		
9000	0.02		
9900	0.022		
10800	0.017		
11700	0.017		
12600	0.018		
13500	0.023		
14400	0.02		
15300	0.019		
16200	0.016		
17100	0.018		
18000	0.023		
18900	0.018		
19800	0.017		
20700	0.016		
21600	0.02		
22500	0.017		
23400	0.024		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_026
Test Start T	########
Test Start D	########
Test Length	0:08:15
Test Interva	15:00
Mass Avera	0.011
Mass Minir	0.007
Mass Maxir	0.021
Mass TWA	0.011
Photometr	1
Flow User C	0
Errors	
Number of	33

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.014		
1800	0.015		
2700	0.015		
3600	0.017		
4500	0.021		
5400	0.012		
6300	0.013		
7200	0.007		
8100	0.008		
9000	0.009		
9900	0.009		
10800	0.01		
11700	0.01		
12600	0.01		
13500	0.009		
14400	0.011		
15300	0.009		
16200	0.009		
17100	0.01		
18000	0.008		
18900	0.008		
19800	0.009		
20700	0.009		
21600	0.01		
22500	0.011		
23400	0.012		
24300	0.013		

25200	0.01
26100	0.011
27000	0.01
27900	0.012
28800	0.013
29700	0.014

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_027
Test Start T	########
Test Start D	########
Test Length	0:06:30
Test Interva	15:00
Mass Avera	0.04
Mass Minir	0.025
Mass Maxir	0.074
Mass TWA	0.033
Photometr	1
Flow User C	0
Errors	
Number of	26

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.066		
1800	0.058		
2700	0.062		
3600	0.074		
4500	0.062		
5400	0.044		
6300	0.035		
7200	0.036		
8100	0.03		
9000	0.026		
9900	0.037		
10800	0.03		
11700	0.036		
12600	0.035		
13500	0.041		
14400	0.044		
15300	0.039		
16200	0.03		
17100	0.025		
18000	0.028		
18900	0.031		
19800	0.035		
20700	0.035		
21600	0.035		
22500	0.038		
23400	0.036		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_028
Test Start T	########
Test Start D	########
Test Length	0:06:15
Test Interva	15:00
Mass Avera	0.012
Mass Minir	0.004
Mass Maxir	0.026
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	25

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.017		
1800	0.015		
2700	0.013		
3600	0.013		
4500	0.011		
5400	0.011		
6300	0.011		
7200	0.011		
8100	0.011		
9000	0.011		
9900	0.009		
10800	0.008		
11700	0.008		
12600	0.006		
13500	0.005		
14400	0.004		
15300	0.004		
16200	0.005		
17100	0.006		
18000	0.009		
18900	0.014		
19800	0.019		
20700	0.022		
21600	0.024		
22500	0.026		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_029
Test Start T	########
Test Start D	1/7/2019
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.009
Mass Minir	0.007
Mass Maxir	0.012
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.011		
1800	0.01		
2700	0.011		
3600	0.01		
4500	0.01		
5400	0.01		
6300	0.011		
7200	0.01		
8100	0.009		
9000	0.009		
9900	0.008		
10800	0.01		
11700	0.011		
12600	0.012		
13500	0.01		
14400	0.007		
15300	0.008		
16200	0.009		
17100	0.008		
18000	0.008		
18900	0.009		
19800	0.009		
20700	0.008		
21600	0.009		
22500	0.009		
23400	0.009		
24300	0.011		

25200 0.009

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_030
Test Start T	########
Test Start D	1/8/2019
Test Length	0:06:15
Test Interva	15:00
Mass Avera	0.067
Mass Minir	0.044
Mass Maxir	0.102
Mass TWA	0.053
Photometr	1
Flow User C	0
Errors	
Number of	25

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.044		
1800	0.051		
2700	0.05		
3600	0.055		
4500	0.054		
5400	0.06		
6300	0.062		
7200	0.062		
8100	0.07		
9000	0.069		
9900	0.072		
10800	0.072		
11700	0.074		
12600	0.077		
13500	0.068		
14400	0.07		
15300	0.065		
16200	0.062		
17100	0.064		
18000	0.072		
18900	0.076		
19800	0.087		
20700	0.102		
21600	0.067		
22500	0.077		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_031
Test Start T	########
Test Start D	1/9/2019
Test Length	0:06:00
Test Interva	15:00
Mass Avera	0.008
Mass Minir	0.004
Mass Maxir	0.015
Mass TWA	0.006
Photometr	1
Flow User C	0
Errors	
Number of	24

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.014		
1800	0.013		
2700	0.014		
3600	0.015		
4500	0.011		
5400	0.011		
6300	0.009		
7200	0.009		
8100	0.009		
9000	0.009		
9900	0.008		
10800	0.009		
11700	0.007		
12600	0.007		
13500	0.007		
14400	0.006		
15300	0.005		
16200	0.005		
17100	0.005		
18000	0.007		
18900	0.005		
19800	0.005		
20700	0.006		
21600	0.004		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_032
Test Start T	########
Test Start D	########
Test Length	0:06:45
Test Interva	15:00
Mass Avera	0.008
Mass Minir	0.004
Mass Maxir	0.011
Mass TWA	0.006
Photometr	1
Flow User C	0
Errors	
Number of	27

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.005		
1800	0.004		
2700	0.011		
3600	0.01		
4500	0.007		
5400	0.009		
6300	0.008		
7200	0.009		
8100	0.007		
9000	0.007		
9900	0.007		
10800	0.009		
11700	0.009		
12600	0.008		
13500	0.008		
14400	0.008		
15300	0.007		
16200	0.008		
17100	0.008		
18000	0.008		
18900	0.007		
19800	0.007		
20700	0.006		
21600	0.006		
22500	0.006		
23400	0.007		
24300	0.007		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_033
Test Start T	########
Test Start D	########
Test Length	0:05:45
Test Interva	15:00
Mass Avera	0.011
Mass Minir	0.007
Mass Maxir	0.018
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	23

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.015		
1800	0.018		
2700	0.015		
3600	0.011		
4500	0.011		
5400	0.011		
6300	0.011		
7200	0.015		
8100	0.01		
9000	0.01		
9900	0.009		
10800	0.009		
11700	0.012		
12600	0.009		
13500	0.008		
14400	0.009		
15300	0.015		
16200	0.013		
17100	0.009		
18000	0.008		
18900	0.01		
19800	0.008		
20700	0.007		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_034
Test Start T	########
Test Start D	########
Test Length	0:06:45
Test Interva	15:00
Mass Avera	0.011
Mass Minir	0.003
Mass Maxir	0.015
Mass TWA	0.009
Photometr	1
Flow User C	0
Errors	
Number of	27

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.012		
1800	0.014		
2700	0.013		
3600	0.014		
4500	0.014		
5400	0.014		
6300	0.012		
7200	0.012		
8100	0.012		
9000	0.011		
9900	0.011		
10800	0.009		
11700	0.007		
12600	0.01		
13500	0.012		
14400	0.011		
15300	0.013		
16200	0.013		
17100	0.015		
18000	0.014		
18900	0.01		
19800	0.009		
20700	0.011		
21600	0.007		
22500	0.01		
23400	0.007		
24300	0.003		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_035
Test Start T	########
Test Start D	########
Test Length	0:05:00
Test Interva	15:00
Mass Avera	0.028
Mass Minir	0.017
Mass Maxir	0.057
Mass TWA	0.017
Photometr	1
Flow User C	0
Errors	
Number of	20

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.057		
1800	0.047		
2700	0.044		
3600	0.034		
4500	0.033		
5400	0.032		
6300	0.031		
7200	0.03		
8100	0.025		
9000	0.023		
9900	0.022		
10800	0.019		
11700	0.018		
12600	0.017		
13500	0.019		
14400	0.02		
15300	0.019		
16200	0.019		
17100	0.022		
18000	0.026		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_036
Test Start T	########
Test Start D	########
Test Length	0:06:00
Test Interva	15:00
Mass Avera	0.04
Mass Minir	0.015
Mass Maxir	0.086
Mass TWA	0.03
Photometr	1
Flow User C	0
Errors	
Number of	24

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.086		
1800	0.082		
2700	0.083		
3600	0.076		
4500	0.064		
5400	0.06		
6300	0.058		
7200	0.051		
8100	0.048		
9000	0.039		
9900	0.033		
10800	0.026		
11700	0.03		
12600	0.026		
13500	0.025		
14400	0.024		
15300	0.022		
16200	0.021		
17100	0.022		
18000	0.02		
18900	0.02		
19800	0.018		
20700	0.021		
21600	0.015		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_037
Test Start T	########
Test Start D	########
Test Length	0:08:00
Test Interva	15:00
Mass Avera	0.012
Mass Minir	0.006
Mass Maxir	0.02
Mass TWA	0.012
Photometr	1
Flow User C	0
Errors	
Number of	32

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.009		
1800	0.015		
2700	0.012		
3600	0.013		
4500	0.01		
5400	0.01		
6300	0.011		
7200	0.019		
8100	0.012		
9000	0.017		
9900	0.02		
10800	0.013		
11700	0.01		
12600	0.009		
13500	0.006		
14400	0.006		
15300	0.01		
16200	0.011		
17100	0.013		
18000	0.013		
18900	0.012		
19800	0.012		
20700	0.011		
21600	0.011		
22500	0.012		
23400	0.012		
24300	0.011		

25200	0.011
26100	0.011
27000	0.012
27900	0.011
28800	0.009

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_038
Test Start T	########
Test Start D	########
Test Length	0:05:45
Test Interva	15:00
Mass Avera	0.059
Mass Minir	0.029
Mass Maxir	0.093
Mass TWA	0.042
Photometr	1
Flow User C	0
Errors	
Number of	23

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.062		
1800	0.04		
2700	0.035		
3600	0.036		
4500	0.029		
5400	0.031		
6300	0.041		
7200	0.042		
8100	0.046		
9000	0.044		
9900	0.041		
10800	0.047		
11700	0.057		
12600	0.093		
13500	0.09		
14400	0.076		
15300	0.088		
16200	0.088		
17100	0.082		
18000	0.067		
18900	0.065		
19800	0.071		
20700	0.076		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_039
Test Start T	########
Test Start D	########
Test Length	0:05:15
Test Interva	15:00
Mass Avera	0.012
Mass Minir	0.009
Mass Maxir	0.019
Mass TWA	0.008
Photometr	1
Flow User C	0
Errors	
Number of	21

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.019		
1800	0.01		
2700	0.011		
3600	0.011		
4500	0.013		
5400	0.012		
6300	0.014		
7200	0.014		
8100	0.011		
9000	0.012		
9900	0.012		
10800	0.012		
11700	0.01		
12600	0.012		
13500	0.012		
14400	0.011		
15300	0.011		
16200	0.01		
17100	0.009		
18000	0.011		
18900	0.014		

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_040
Test Start T	########
Test Start D	########
Test Length	0:07:45
Test Interva	15:00
Mass Avera	0.026
Mass Minir	0.012
Mass Maxir	0.058
Mass TWA	0.025
Photometr	1
Flow User C	0
Errors	
Number of	31

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.014		
1800	0.012		
2700	0.013		
3600	0.013		
4500	0.012		
5400	0.012		
6300	0.015		
7200	0.017		
8100	0.016		
9000	0.019		
9900	0.02		
10800	0.016		
11700	0.017		
12600	0.017		
13500	0.018		
14400	0.019		
15300	0.021		
16200	0.023		
17100	0.025		
18000	0.032		
18900	0.029		
19800	0.043		
20700	0.05		
21600	0.048		
22500	0.049		
23400	0.048		
24300	0.045		

25200	0.058
26100	0.029
27000	0.031
27900	0.019

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_041
Test Start T	########
Test Start D	########
Test Length	0:09:00
Test Interva	15:00
Mass Avera	0.003
Mass Minir	0
Mass Maxir	0.029
Mass TWA	0.004
Photometr	1
Flow User C	0
Errors	
Number of	36

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.004		
1800	0.004		
2700	0.004		
3600	0.001		
4500	0		
5400	0.001		
6300	0.001		
7200	0.001		
8100	0.003		
9000	0.001		
9900	0		
10800	0.001		
11700	0.002		
12600	0.004		
13500	0.001		
14400	0.005		
15300	0.005		
16200	0.009		
17100	0.028		
18000	0.029		
18900	0.014		
19800	0.003		
20700	0		
21600	0		
22500	0		
23400	0		
24300	0		

25200	0
26100	0
27000	0
27900	0
28800	0
29700	0
30600	0.001
31500	0
32400	0.002

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_042
Test Start T	########
Test Start D	########
Test Length	0:07:30
Test Interva	15:00
Mass Avera	0.016
Mass Minir	0.009
Mass Maxir	0.02
Mass TWA	0.015
Photometr	1
Flow User C	0
Errors	
Number of	30

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.018		
1800	0.017		
2700	0.018		
3600	0.018		
4500	0.017		
5400	0.019		
6300	0.02		
7200	0.02		
8100	0.019		
9000	0.018		
9900	0.02		
10800	0.015		
11700	0.017		
12600	0.015		
13500	0.018		
14400	0.016		
15300	0.015		
16200	0.015		
17100	0.016		
18000	0.015		
18900	0.014		
19800	0.009		
20700	0.013		
21600	0.014		
22500	0.015		
23400	0.014		
24300	0.012		

25200	0.012
26100	0.012
27000	0.012

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_043
Test Start T	########
Test Start D	########
Test Length	0:05:00
Test Interva	15:00
Mass Avera	0.027
Mass Minir	0.022
Mass Maxir	0.033
Mass TWA	0.017
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	20

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.022		
1800	0.022		
2700	0.024		
3600	0.025		
4500	0.026		
5400	0.026		
6300	0.027		
7200	0.033		
8100	0.029		
9000	0.031		
9900	0.029		
10800	0.031		
11700	0.029		
12600	0.027		
13500	0.026		
14400	0.028		
15300	0.03		
16200	0.024		
17100	0.027		
18000	0.027		Flow Error

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_044
Test Start T	########
Test Start D	########
Test Length	0:07:00
Test Interva	15:00
Mass Avera	0.032
Mass Minir	0.02
Mass Maxir	0.043
Mass TWA	0.028
Photometr	1
Flow User C	0
Errors	
Number of	28

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.028		
1800	0.027		
2700	0.028		
3600	0.029		
4500	0.03		
5400	0.032		
6300	0.032		
7200	0.035		
8100	0.04		
9000	0.039		
9900	0.039		
10800	0.038		
11700	0.041		
12600	0.041		
13500	0.042		
14400	0.041		
15300	0.042		
16200	0.043		
17100	0.038		
18000	0.032		
18900	0.023		
19800	0.02		
20700	0.02		
21600	0.024		
22500	0.024		
23400	0.025		
24300	0.024		

25200 0.026

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_045
Test Start T	########
Test Start D	########
Test Length	0:09:00
Test Interva	15:00
Mass Avera	0.019
Mass Minir	0.014
Mass Maxir	0.027
Mass TWA	0.02
Photometr	1
Flow User C	0
Errors	
Number of	36

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.019		
1800	0.019		
2700	0.019		
3600	0.02		
4500	0.02		
5400	0.018		
6300	0.022		
7200	0.019		
8100	0.019		
9000	0.019		
9900	0.022		
10800	0.021		
11700	0.02		
12600	0.02		
13500	0.022		
14400	0.02		
15300	0.02		
16200	0.022		
17100	0.022		
18000	0.017		
18900	0.02		
19800	0.019		
20700	0.016		
21600	0.017		
22500	0.017		
23400	0.017		
24300	0.018		

25200	0.019
26100	0.02
27000	0.027
27900	0.024
28800	0.02
29700	0.017
30600	0.016
31500	0.014
32400	0.014

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_046
Test Start T	########
Test Start D	2/1/2019
Test Length	0:10:00
Test Interva	15:00
Mass Avera	0.025
Mass Minir	0.021
Mass Maxir	0.038
Mass TWA	0.026
Photometr	1
Flow User C	0
Errors	
Number of	40

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.024		
1800	0.025		
2700	0.031		
3600	0.027		
4500	0.028		
5400	0.025		
6300	0.023		
7200	0.023		
8100	0.023		
9000	0.029		
9900	0.028		
10800	0.026		
11700	0.024		
12600	0.024		
13500	0.026		
14400	0.038		
15300	0.027		
16200	0.03		
17100	0.03		
18000	0.025		
18900	0.024		
19800	0.024		
20700	0.024		
21600	0.025		
22500	0.026		
23400	0.028		
24300	0.028		

25200	0.022
26100	0.022
27000	0.021
27900	0.022
28800	0.023
29700	0.023
30600	0.021
31500	0.024
32400	0.024
33300	0.021
34200	0.021
35100	0.022
36000	0.022

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_047
Test Start T	########
Test Start D	2/4/2019
Test Length	0:08:45
Test Interva	15:00
Mass Avera	0.077
Mass Minir	0.037
Mass Maxir	0.14
Mass TWA	0.08
Photometr	1
Flow User C	0
Errors	
Number of	35

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.135		
1800	0.14		
2700	0.105		
3600	0.089		
4500	0.087		
5400	0.08		
6300	0.088		
7200	0.094		
8100	0.075		
9000	0.077		
9900	0.078		
10800	0.118		
11700	0.086		
12600	0.07		
13500	0.085		
14400	0.079		
15300	0.083		
16200	0.078		
17100	0.072		
18000	0.079		
18900	0.095		
19800	0.089		
20700	0.076		
21600	0.077		
22500	0.07		
23400	0.046		
24300	0.037		

25200	0.055
26100	0.054
27000	0.045
27900	0.057
28800	0.05
29700	0.046
30600	0.046
31500	0.051

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_048
Test Start T	########
Test Start D	2/5/2019
Test Length	0:08:30
Test Interva	15:00
Mass Avera	0.093
Mass Minir	0.058
Mass Maxir	0.155
Mass TWA	0.094
Photometr	1
Flow User C	0
Errors	
Number of	34

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.124		
1800	0.115		
2700	0.102		
3600	0.102		
4500	0.072		
5400	0.078		
6300	0.095		
7200	0.077		
8100	0.077		
9000	0.077		
9900	0.08		
10800	0.08		
11700	0.083		
12600	0.084		
13500	0.081		
14400	0.08		
15300	0.074		
16200	0.074		
17100	0.08		
18000	0.088		
18900	0.109		
19800	0.104		
20700	0.117		
21600	0.096		
22500	0.103		
23400	0.106		
24300	0.155		

25200	0.121
26100	0.14
27000	0.085
27900	0.076
28800	0.079
29700	0.058
30600	0.077

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_049
Test Start T	########
Test Start D	2/6/2019
Test Length	0:08:45
Test Interva	15:00
Mass Avera	0.012
Mass Minir	0.007
Mass Maxir	0.018
Mass TWA	0.012
Photometr	1
Flow User C	0
Errors	
Number of	35

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.008		
1800	0.008		
2700	0.007		
3600	0.01		
4500	0.011		
5400	0.01		
6300	0.01		
7200	0.011		
8100	0.01		
9000	0.009		
9900	0.009		
10800	0.01		
11700	0.012		
12600	0.009		
13500	0.01		
14400	0.011		
15300	0.012		
16200	0.012		
17100	0.013		
18000	0.013		
18900	0.013		
19800	0.014		
20700	0.013		
21600	0.013		
22500	0.013		
23400	0.012		
24300	0.015		

25200	0.016
26100	0.013
27000	0.014
27900	0.015
28800	0.015
29700	0.018
30600	0.017
31500	0.016

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_050
Test Start T	########
Test Start D	2/7/2019
Test Length	0:08:15
Test Interva	15:00
Mass Avera	0.021
Mass Minir	0.011
Mass Maxir	0.034
Mass TWA	0.021
Photometr	1
Flow User C	0
Errors	
Number of	33

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.02		
1800	0.018		
2700	0.015		
3600	0.012		
4500	0.014		
5400	0.017		
6300	0.024		
7200	0.027		
8100	0.022		
9000	0.019		
9900	0.023		
10800	0.022		
11700	0.029		
12600	0.034		
13500	0.03		
14400	0.026		
15300	0.03		
16200	0.026		
17100	0.03		
18000	0.028		
18900	0.019		
19800	0.025		
20700	0.021		
21600	0.013		
22500	0.011		
23400	0.011		
24300	0.011		

25200	0.011
26100	0.014
27000	0.015
27900	0.02
28800	0.021
29700	0.019

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_051
Test Start T	########
Test Start D	2/8/2019
Test Length	0:09:00
Test Interva	15:00
Mass Avera	0.025
Mass Minir	0.004
Mass Maxir	0.046
Mass TWA	0.028
Photometr	1
Flow User C	0
Errors	
Number of	36

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.031		
1800	0.029		
2700	0.037		
3600	0.033		
4500	0.033		
5400	0.036		
6300	0.031		
7200	0.033		
8100	0.04		
9000	0.046		
9900	0.043		
10800	0.042		
11700	0.041		
12600	0.044		
13500	0.042		
14400	0.041		
15300	0.037		
16200	0.04		
17100	0.037		
18000	0.034		
18900	0.027		
19800	0.015		
20700	0.01		
21600	0.006		
22500	0.01		
23400	0.012		
24300	0.013		

25200	0.01
26100	0.008
27000	0.01
27900	0.012
28800	0.007
29700	0.005
30600	0.004
31500	0.005
32400	0.006

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_052
Test Start T	########
Test Start D	########
Test Length	0:08:45
Test Interva	15:00
Mass Avera	0.088
Mass Minir	0.027
Mass Maxir	0.266
Mass TWA	0.094
Photometr	1
Flow User C	0
Errors	
Number of	35

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.109		
1800	0.232		
2700	0.179		
3600	0.094		
4500	0.199		
5400	0.111		
6300	0.055		
7200	0.032		
8100	0.084		
9000	0.13		
9900	0.123		
10800	0.05		
11700	0.067		
12600	0.181		
13500	0.266		
14400	0.082		
15300	0.073		
16200	0.037		
17100	0.029		
18000	0.031		
18900	0.051		
19800	0.053		
20700	0.04		
21600	0.032		
22500	0.049		
23400	0.075		
24300	0.088		

25200	0.098
26100	0.112
27000	0.167
27900	0.042
28800	0.033
29700	0.03
30600	0.029
31500	0.027

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_053
Test Start T	########
Test Start D	########
Test Length	0:07:30
Test Interva	15:00
Mass Avera	0.015
Mass Minir	0.009
Mass Maxir	0.018
Mass TWA	0.014
Photometr	1
Flow User C	0
Errors	
Number of	30

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.015		
1800	0.009		
2700	0.01		
3600	0.011		
4500	0.01		
5400	0.011		
6300	0.012		
7200	0.013		
8100	0.014		
9000	0.014		
9900	0.016		
10800	0.015		
11700	0.014		
12600	0.015		
13500	0.016		
14400	0.014		
15300	0.015		
16200	0.014		
17100	0.015		
18000	0.017		
18900	0.018		
19800	0.017		
20700	0.017		
21600	0.018		
22500	0.017		
23400	0.018		
24300	0.017		

25200	0.017
26100	0.016
27000	0.014

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_054
Test Start T	########
Test Start D	########
Test Length	0:08:30
Test Interva	15:00
Mass Avera	0.023
Mass Minir	0.014
Mass Maxir	0.055
Mass TWA	0.023
Photometr	1
Flow User C	0
Errors	
Number of	34

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.055		
1800	0.026		
2700	0.023		
3600	0.03		
4500	0.034		
5400	0.026		
6300	0.025		
7200	0.021		
8100	0.022		
9000	0.016		
9900	0.027		
10800	0.024		
11700	0.019		
12600	0.014		
13500	0.018		
14400	0.031		
15300	0.025		
16200	0.019		
17100	0.022		
18000	0.023		
18900	0.022		
19800	0.022		
20700	0.027		
21600	0.02		
22500	0.017		
23400	0.024		
24300	0.021		

25200	0.016
26100	0.015
27000	0.015
27900	0.018
28800	0.022
29700	0.017
30600	0.015

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_055
Test Start T	########
Test Start D	########
Test Length	0:09:30
Test Interva	15:00
Mass Avera	0.032
Mass Minir	0.014
Mass Maxir	0.067
Mass TWA	0.033
Photometr	1
Flow User C	0
Errors	
Number of	38

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.027		
1800	0.029		
2700	0.025		
3600	0.023		
4500	0.034		
5400	0.023		
6300	0.02		
7200	0.014		
8100	0.015		
9000	0.023		
9900	0.021		
10800	0.031		
11700	0.052		
12600	0.033		
13500	0.044		
14400	0.067		
15300	0.039		
16200	0.027		
17100	0.027		
18000	0.029		
18900	0.024		
19800	0.034		
20700	0.046		
21600	0.041		
22500	0.039		
23400	0.045		
24300	0.031		

25200	0.028
26100	0.031
27000	0.041
27900	0.062
28800	0.038
29700	0.02
30600	0.021
31500	0.033
32400	0.028
33300	0.025
34200	0.02

Instrument	DustTrak II
Model Nun	8530
Serial Num	8.53E+09
Firmware V	3.7
Calibration	########
Test Name	TEST 1_056
Test Start T	########
Test Start D	########
Test Length	0:01:15
Test Interva	15:00
Mass Avera	0.028
Mass Minir	0.018
Mass Maxir	0.041
Mass TWA	0.004
Photometr	1
Flow User C	0
Errors	Flow Error
Number of	5

Elapsed Tin	Mass [mg/r	Alarms	Errors
900	0.018		
1800	0.018		
2700	0.03		
3600	0.041		
4500	0.032		Flow Error

APPENDIX G

Raw Analytical Laboratory Data
(Incl. CD)

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVE**
IAL Case Number: **E17-10256**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

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Sample Summary

IAL Case No.

E17-10256

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 11/29/2017@12:30

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
10256-001	MW-1	n/a	11/29/2017@08:09	Aqueous	8
10256-002	MW-2	n/a	11/29/2017@08:38	Aqueous	8
10256-003	MW-3	n/a	11/29/2017@09:59	Aqueous	8
10256-004	FIELD	n/a	11/29/2017@07:45	Aqueous	8
10256-005	TRIP	n/a	11/29/2017	Aqueous	5

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10256

Integrated Analytical Laboratories, LLC. received five (5) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-10256**, Project: 27-10 49TH AVE) on November 29, 2017 for the analysis of :

(5) Low Level TCL VO for 8260+8011 + 15
(4) TCL BN + SIM + 15
(4) TCL PCB

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C/8011	**Batch: 171127A**	**Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-10256
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10256-001	1	NA
E17-10256-002	1	NA
E17-10256-003	1	NA
E17-10256-004	1	NA
E17-10256-005	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10256

Semivolatiles By 8270D SIM | **Batch: 171129-03** | **Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-10256
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- Sample(s) used for aqueous Semivolatiles analyses contained varying levels of sediment. Precautions were taken to take an aliquot representative of the sample. However, due to the nature of aqueous samples containing sediment, reproduction of results may prove difficult. The rough amount of sediment present in the samples is as follows: 10256-001:1%; 10256-002:1%; 10256-003:1%.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10256-001	1	NA
E17-10256-002	1	NA
E17-10256-003	1	NA
E17-10256-004	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

Microextractable By 8011 | **Batch: 171130-10** | **Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E17-10256
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10256-001	1	NA
E17-10256-002	1	NA
E17-10256-003	1	NA
E17-10256-004	1	NA
E17-10256-005	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10256

PCB By 8082A	Batch: 171130-06	Matrix: Aqueous

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery did not meet QC criteria for sample 001, due to matrix interfererence. NJDEP DKQP criteria not met.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004.

E17-10256

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10256-001	1	NA
E17-10256-002	1	NA
E17-10256-003	1	NA
E17-10256-004	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

12/5/2017
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-10256

Lab ID:	10256-001			10256-002			10256-003			10256-004		
Client ID:	MW-1			MW-2			MW-3			FIELD		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	11/29/17			11/29/17			11/29/17			11/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Vinyl chloride	ND		0.591	1.62		0.591	ND		0.591	ND		0.591
Methyl tert-butyl ether (MTBE)	ND		0.479	ND		0.479	1.55		0.479	ND		0.479
cis-1,2-Dichloroethene	ND		0.451	0.768		0.451	0.490	J	0.451	ND		0.451
Benzene	0.708		0.464	ND		0.464	0.689		0.464	ND		0.464
Tetrachloroethene	0.679		0.451	0.484	J	0.451	ND		0.451	ND		0.451
Isopropylbenzene	2.50		0.323	ND		0.323	ND		0.323	ND		0.323
1,2-Dichlorobenzene	0.608		0.364	ND		0.364	ND		0.364	ND		0.364
Cyclohexane	1.44		0.411	ND		0.411	ND		0.411	ND		0.411
Methylcyclohexane	1.15		0.411	ND		0.411	ND		0.411	ND		0.411
TOTAL VO's:	7.09			2.87	J		2.73	J		ND		
TOTAL TIC's:	133	JN		ND			71.0	J		ND		
TOTAL VO's & TIC's:	140	JN		2.87	J		73.7	J		ND		
Semivolatiles - BN (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Naphthalene	1.20		0.139	ND		0.139	ND		0.139	ND		0.139
2-Methylnaphthalene	2.20		0.128	ND		0.128	ND		0.128	ND		0.128
1,1'-Biphenyl	0.161	J	0.133	ND		0.133	ND		0.133	ND		0.133
Acenaphthene	4.71		0.129	ND		0.129	ND		0.129	ND		0.129
Dibenzofuran	0.792	J	0.133	ND		0.133	ND		0.133	ND		0.133
Fluorene	2.31		0.182	ND		0.182	ND		0.182	ND		0.182
Phenanthrene	3.63		0.175	ND		0.175	ND		0.175	ND		0.175
Anthracene	0.724	J	0.211	ND		0.211	ND		0.211	ND		0.211
Carbazole	1.34		0.221	ND		0.221	ND		0.221	ND		0.221
Fluoranthene	0.526	J	0.204	ND		0.204	ND		0.204	ND		0.204
Pyrene	0.483	J	0.339	ND		0.339	ND		0.339	ND		0.339
TOTAL BN'S:	18.1	J		ND			ND			ND		
TOTAL TIC's:	13.7	JNC		18.2	JNC		15.7	JNC		ND		
TOTAL BN'S & TIC's:	31.8	JNC		18.2	JNC		15.7	JNC		ND		
PCB's (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Aroclor-1016	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1221	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1232	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1242	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1248	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1254	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1260	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1262	ND		0.020	ND		0.020	ND		0.020	ND		0.020
Aroclor-1268	ND		0.020	ND		0.020	ND		0.020	ND		0.020
PCBs	ND		0.020	ND		0.020	ND		0.020	ND		0.020

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
C = Common Laboratory and/or Bottle Contaminant.
N = Presumptive evidence of a compound from the use of GC/MS library search.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-10256

	Lab ID:	**10256-005**	
	Client ID:	**TRIP**	
	Matrix:	**Aqueous**	
	Sampled Date	**11/29/17**	
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*		
TOTAL VO's:	ND		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	ND		

ND = Analyzed for but Not Detected at the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8582.D 12/ 1/17 02:59
Data file: P6034.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	0.708		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8582.D 12/ 1/17 02:59
Data file: P6034.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	0.679		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)^	ND		0.015	0.00888
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	2.50		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	0.608		0.500	0.364
1,2-Dibromo-3-chloropropane^	ND		0.015	0.00888
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	1.44		0.500	0.411
Methylcyclohexane	1.15		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 7.09

^ --- Results reported from SW-846 8011
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Date File: K8582.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000103-65-1	Benzene, propyl-	5.40	JN	11.96
000496-11-7	Indane	34.0	JN	13.39
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	9.50	JN	13.97
003454-07-7	Benzene, 1-ethenyl-4-ethyl-	11.7	JN	14.11
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	7.50	JN	14.45
002039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	20.3	JN	14.99
000091-20-3	Naphthalene	10.4	JN	15.66
000090-12-0	Naphthalene, 1-methyl-	12.6	JN	16.80
000091-57-6	Naphthalene, 2-methyl-	21.9	JN	16.99

Total TICs = 133 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8583.D 12/ 1/17 03:26
Data file: P6035.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	1.62		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	0.768		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8583.D 12/ 1/17 03:26
Data file: P6035.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	0.484	J	0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)^	ND		0.015	0.0088
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane^	ND		0.015	0.0088
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	2.87	J		

^ --- Results reported from SW-846 8011
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8583.D 12/ 1/17 03:26

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8584.D 12/ 1/17 03:52
Data file: P6036.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	1.55		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	0.490	J	0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	0.689		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8584.D 12/ 1/17 03:52
Data file: P6036.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)^	ND		0.015	0.00885
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane^	ND		0.015	0.00885
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	2.73	J		

^ --- Results reported from SW-846 8011
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Date File: K8584.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown VOA	71.0	J	1.74

Total TICs = 71.0 J

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8585.D 12/ 1/17 04:19
Data file: P6037.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8585.D 12/ 1/17 04:19
Data file: P6037.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)^	ND		0.014	0.0087
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane^	ND		0.014	0.0087
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

^ --- Results reported from SW-846 8011
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8585.D 12/ 1/17 04:19

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-005
Client ID: TRIP
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8586.D 12/ 1/17 04:46
Data file: P6038.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10256-005
Client ID: TRIP
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8586.D 12/ 1/17 04:46
Data file: P6038.D^

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)^	ND		0.014	0.00862
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane^	ND		0.014	0.00862
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

^ --- Results reported from SW-846 8011
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-005
Client ID: TRIP
Date Received: 11/29/2017
Date Analyzed: 12/01/2017
Data file: K8586.D 12/ 1/17 04:46

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9595.D 12/ 1/17 11:22
SIM Data file: B9576.D 11/30/17 18:59

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.192
Bis(2-chloroethyl) ether	ND		1.00	0.243
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Naphthalene	1.20		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Methylnaphthalene	2.20		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
1,1'-Biphenyl	0.161	J	1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9595.D 12/ 1/17 11:22
SIM Data file: B9576.D 11/30/17 18:59

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	4.71		1.00	0.129
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	0.792	J	1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	2.31		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
N-Nitrosodiphenylamine	ND		1.00	0.179
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Phenanthrene	3.63		1.00	0.175
Anthracene	0.724	J	1.00	0.211
Carbazole	1.34		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	0.526	J	1.00	0.204
Pyrene	0.483	J	1.00	0.339
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.672
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.139
Total Target Compounds (53):	18.1	J	* - RL & MDL from SIM run	

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Date File: B9595.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
005989-27-5	D-Limonene	13.7	JNC	3.75

Total TICs = 13.7 JNC

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9596.D 12/ 1/17 11:41
SIM Data file: B9577.D 11/30/17 19:15

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.192
Bis(2-chloroethyl) ether	ND		1.00	0.243
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9596.D 12/ 1/17 11:41
SIM Data file: B9577.D 11/30/17 19:15

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	ND		1.00	0.129
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	ND		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
N-Nitrosodiphenylamine	ND		1.00	0.179
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Phenanthrene	ND		1.00	0.175
Anthracene	ND		1.00	0.211
Carbazole	ND		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	ND		1.00	0.204
Pyrene	ND		1.00	0.339
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.672
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.139

Total Target Compounds (53): 0

* - RL & MDL from SIM run

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Date File: B9596.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
005989-27-5	D-Limonene	18.2	JNC	3.75

Total TICs = 18.2 JNC

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9597.D 12/ 1/17 11:59
SIM Data file: B9578.D 11/30/17 19:30

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.192
Bis(2-chloroethyl) ether	ND		1.00	0.243
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9597.D 12/ 1/17 11:59
SIM Data file: B9578.D 11/30/17 19:30

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	ND		1.00	0.129
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	ND		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
N-Nitrosodiphenylamine	ND		1.00	0.179
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Phenanthrene	ND		1.00	0.175
Anthracene	ND		1.00	0.211
Carbazole	ND		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	ND		1.00	0.204
Pyrene	ND		1.00	0.339
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.672
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.139

Total Target Compounds (53): 0

* - RL & MDL from SIM run

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Date File: B9597.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
005989-27-5	D-Limonene	15.7	JNC	3.75

Total TICs = 15.7 JNC

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9598.D 12/ 1/17 12:18
SIM Data file: B9579.D 11/30/17 19:46

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.192
Bis(2-chloroethyl) ether	ND		1.00	0.243
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9598.D 12/ 1/17 12:18
SIM Data file: B9579.D 11/30/17 19:46

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	ND		1.00	0.129
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	ND		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
N-Nitrosodiphenylamine	ND		1.00	0.179
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Phenanthrene	ND		1.00	0.175
Anthracene	ND		1.00	0.211
Carbazole	ND		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	ND		1.00	0.204
Pyrene	ND		1.00	0.339
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.672
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.139

Total Target Compounds (53): 0

* - RL & MDL from SIM run

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Extracted: 11/29/2017
Date Analyzed: 12/01/2017
Data file: B9598.D 12/ 1/17 12:18

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10256-001
Client ID: MW-1
Date Received: 11/29/2017
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: Y6630.D 11/30/17 19:45

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10256-002
Client ID: MW-2
Date Received: 11/29/2017
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: Y6631.D 11/30/17 20:03

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10256-003
Client ID: MW-3
Date Received: 11/29/2017
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: Y6632.D 11/30/17 20:20

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10256-004
Client ID: FIELD
Date Received: 11/29/2017
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: Y6633.D 11/30/17 20:37

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/30/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA171130a	AQUEOUS	K8574.D	104	99	100
E17-10108-001	AQUEOUS	K8575.D	104	99	100
E17-10108-002	AQUEOUS	K8576.D	105	97	98
LCSA171130a	AQUEOUS	K8577.D	102	99	99
E17-10138-008MS	AQUEOUS	K8578.D	102	98	98
E17-10138-008MSD	AQUEOUS	K8579.D	102	99	99
E17-10108-003	AQUEOUS	K8580.D	102	97	100
E17-10108-004	AQUEOUS	K8581.D	103	98	100
E17-10256-001	AQUEOUS	K8582.D	104	98	99
E17-10256-002	AQUEOUS	K8583.D	104	97	100
E17-10256-003	AQUEOUS	K8584.D	104	97	101
E17-10256-004	AQUEOUS	K8585.D	103	97	99
E17-10256-005	AQUEOUS	K8586.D	104	98	100
E17-10138-014	AQUEOUS	K8587.D	105	96	100
E17-10138-001	AQUEOUS	K8588.D	104	100	101
E17-10138-002	AQUEOUS	K8589.D	104	97	99
E17-10138-003	AQUEOUS	K8590.D	105	99	98
E17-10138-004	AQUEOUS	K8591.D	106	98	99
E17-10138-005	AQUEOUS	K8592.D	107	98	99
E17-10138-006	AQUEOUS	K8593.D	108	95	100
E17-10138-007	AQUEOUS	K8594.D	107	97	100
E17-10138-008	AQUEOUS	K8595.D	110	98	100

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

8260

LCS ACCURACY REPORT

Lab ID: LCSA171130a
Date Received: NA
Date Analyzed: 12/01/2017
LCS Data file: K8577.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	43.9	88		52-137
Chloromethane	50.0	37.0	74		39-129
Vinyl chloride	50.0	48.0	96		48-133
Bromomethane	50.0	61.8	124		71-143
Chloroethane	50.0	61.3	123		63-134
Trichlorofluoromethane	50.0	51.7	103		56-133
Acrolein	150	153.8	103		53-148
1,1-Dichloroethene	50.0	50.8	102		69-115
Acetone	100	111.2	111		16-211
Carbon disulfide	50.0	53.5	107		68-122
Vinyl acetate	50.0	45.1	90		59-114
Methylene chloride	50.0	53.8	108		72-133
Acrylonitrile	150.0	145.7	97		63-150
tert-Butyl alcohol (TBA)	100.0	119.3	119		58-135
trans-1,2-Dichloroethene	50.0	50.1	100		68-135
Methyl tert-butyl ether (MTBE)	50.0	53.2	106		41-142
1,1-Dichloroethane	50.0	51.7	103		73-128
Diisopropyl ether (DIPE)	50.0	53.5	107		57-137
cis-1,2-Dichloroethene	50.0	50.7	101		77-134
2,2-Dichloropropane	50.0	48.0	96		53-138
2-Butanone (MEK)	100	101.4	101		16-158
Bromochloromethane	50.0	49.7	99		76-134
Chloroform	50.0	52.6	105		78-133
1,1,1-Trichloroethane	50.0	57.4	115		70-137
Carbon tetrachloride	50.0	56.2	112		71-141
1,1-Dichloropropene	50.0	51.3	103		66-139
1,2-Dichloroethane (EDC)	50.0	50.6	101		75-132
Benzene	50.0	50.6	101		72-130
Trichloroethene	50.0	49.8	100		71-138
1,2-Dichloropropane	50.0	51.5	103		78-131
Dibromomethane	50.0	50.7	101		76-137
1,4-Dioxane	1500	1297	86		48-153
Bromodichloromethane	50.0	53.2	106		79-140
2-Chloroethyl vinyl ether	100	104.1	104		13-182
cis-1,3-Dichloropropene	50.0	48.5	97		71-140
4-Methyl-2-pentanone (MIBK)	100	105.0	105		13-164
Toluene	50.0	49.1	98		69-140
trans-1,3-Dichloropropene	50.0	49.4	99		63-150
1,1,2-Trichloroethane	50.0	50.6	101		76-140
Tetrachloroethene	50.0	48.6	97		63-141
1,3-Dichloropropane	50.0	49.7	99		68-144

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171130a
Date Received: NA
Date Analyzed: 12/01/2017
LCS Data file: K8577.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	101.6	102		13-163
Dibromochloromethane	50.0	48.5	97		70-148
1,2-Dibromoethane (EDB)	50.0	50.7	101		72-150
Chlorobenzene	50.0	48.7	97		75-125
1,1,1,2-Tetrachloroethane	50.0	56.8	114		80-121
Ethylbenzene	50.0	51.0	102		69-130
m,p-Xylene	100.0	101.1	101		62-128
o-Xylene	50.0	52.7	105		58-129
Styrene	50.0	54.6	109		67-130
Bromoform	50.0	42.1	84		79-134
Isopropylbenzene	50.0	53.5	107		68-127
1,1,2,2-Tetrachloroethane	50.0	49.1	98		71-120
Bromobenzene	50.0	49.5	99		73-136
1,2,3-Trichloropropane	50.0	48.4	97		72-123
n-Propylbenzene	50.0	50.8	102		67-133
2-Chlorotoluene	50.0	50.0	100		69-129
1,3,5-Trimethylbenzene	50.0	52.1	104		68-127
4-Chlorotoluene	50.0	48.3	97		72-129
tert-Butylbenzene	50.0	53.2	106		68-130
1,2,4-Trimethylbenzene	50.0	51.5	103		69-128
sec-Butylbenzene	50.0	51.7	103		62-130
1,3-Dichlorobenzene	50.0	48.2	96		60-142
4-Isopropyltoluene	50.0	51.5	103		62-131
1,4-Dichlorobenzene	50.0	48.0	96		63-134
n-Butylbenzene	50.0	49.0	98		54-130
1,2-Dichlorobenzene	50.0	49.4	99		63-134
1,2-Dibromo-3-chloropropane	50.0	53.2	106		51-138
1,2,4-Trichlorobenzene	50.0	48.7	97		62-126
Hexachlorobutadiene	50.0	47.6	95		47-153
Naphthalene	50.0	50.7	101		53-134
1,2,3-Trichlorobenzene	50.0	48.2	96		58-144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.1	98		49-126
Methyl acetate	50.0	52.4	105		40-147
Cyclohexane	50.0	50.9	102		59-120
Methylcyclohexane	50.0	49.0	98		62-131

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171130a
Date Received: NA
Date Analyzed: 12/01/2017
LCS Data file: K8577.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260 **MS/MSD ACCURACY REPORT**

Lab ID: E17-10138-008
Client ID: MW-9SI
Date Received: NA
Date Analyzed: 12/01/2017
MS Data file: K8578.D
MSD Data file: K8579.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
Dichlorodifluoromethane	50.0	0.0	44.2	88		42.6	85	4		61-164/17
Chloromethane	50.0	0.0	40.7	81		43.6	87	7		29-149/20
Vinyl chloride	50.0	0.0	48.7	97		48.2	96	1		30-167/23
Bromomethane	50.0	0.0	64.5	129		58.6	117	10		53-158/18
Chloroethane	50.0	0.0	56.8	114		52.1	104	9		57-144/14
Trichlorofluoromethane	50.0	0.0	54.9	110		53.5	107	3		50-159/18
Acrolein	150	0.0	147	98		146	97	1		21-151/22
1,1-Dichloroethene	50.0	0.0	51.4	103		51.3	103	0		55-135/13
Acetone	100	0.0	112.1	112		110.9	111	1		37-160/21
Carbon disulfide	50.0	0.0	55.9	112		54.3	109	3		46-143/16
Vinyl acetate	50.0	0.0	58.1	116		57.4	115	1		24-151/21
Methylene chloride	50.0	0.0	54.2	108		53.8	108	1		63-136/12
Acrylonitrile	150	0.0	150	100		150	100	0		55-180/21
tert-Butyl alcohol (TBA)	100	0.0	105.4	105		117.0	117	10		42-143/17
trans-1,2-Dichloroethene	50.0	0.0	51.8	104		50.6	101	2		58-142/14
Methyl tert-butyl ether (MTBE)	50.0	3.5	53.5	100		53.3	100	0		35-132/16
1,1-Dichloroethane	50.0	0.0	52.8	106		52.4	105	1		63-140/13
Diisopropyl ether (DIPE)	50.0	0.0	53.7	107		53.6	107	0		41-160/20
cis-1,2-Dichloroethene	50.0	0.0	51.9	104		51.0	102	2		54-158/17
2,2-Dichloropropane	50.0	0.0	49.4	99		46.5	93	6		29-152/21
2-Butanone (MEK)	100	0.0	100.1	100		101.5	102	1		50-163/19
Bromochloromethane	50.0	0.0	50.0	100		50.2	100	0		63-155/15
Chloroform	50.0	0.0	53.2	106		52.7	105	1		66-159/16
1,1,1-Trichloroethane	50.0	0.0	58.9	118		57.0	114	3		68-152/14
Carbon tetrachloride	50.0	0.0	58.5	117		57.1	114	2		60-165/18
1,1-Dichloropropene	50.0	0.0	51.9	104		51.0	102	2		52-141/15
1,2-Dichloroethane (EDC)	50.0	0.0	50.5	101		50.7	101	0		63-159/16
Benzene	50.0	0.0	51.3	103		50.8	102	1		53-143/15
Trichloroethene	50.0	0.0	50.7	101		49.8	100	2		62-153/15
1,2-Dichloropropane	50.0	0.0	51.9	104		51.9	104	0		55-147/15
Dibromomethane	50.0	0.0	50.2	100		50.8	102	1		51-146/16
1,4-Dioxane	1,500	0.0	1455	97		1540	103	6		40-173/22
Bromodichloromethane	50.0	0.0	54.5	109		54.4	109	0		63-150/14
2-Chloroethyl vinyl ether	100	0.0	103.5	104		106.5	107	3		0-198/54
cis-1,3-Dichloropropene	50.0	0.0	50.5	101		51.0	102	1		66-143/13
4-Methyl-2-pentanone (MIBK)	100	0.0	103.2	103		105.4	105	2		45-155/18
Toluene	50.0	0.0	49.7	99		49.6	99	0		70-138/12
trans-1,3-Dichloropropene	50.0	0.0	51.5	103		51.9	104	1		58-156/16
1,1,2-Trichloroethane	50.0	0.0	50.8	102		51.1	102	1		58-156/16
Tetrachloroethene	50.0	0.0	49.2	98		48.4	97	2		57-157/17
1,3-Dichloropropane	50.0	0.0	49.6	99		50.4	101	2		56-158/17

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10138-008
Client ID: MW-9SI
Date Received: NA
Date Analyzed: 12/01/2017
MS Data file: K8578.D
MSD Data file: K8579.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
2-Hexanone	100	0.0	99.4	99		103.6	104	4		36-169/22
Dibromochloromethane	50.0	0.0	48.6	97		48.1	96	1		53-153/17
1,2-Dibromoethane (EDB)	50.0	0.0	50.5	101		51.0	102	1		55-140/14
Chlorobenzene	50.0	0.0	49.2	98		48.6	97	1		65-136/12
1,1,1,2-Tetrachloroethane	50.0	0.0	57.8	116		56.8	114	2		60-136/13
Ethylbenzene	50.0	0.0	51.6	103		50.8	102	2		63-144/14
m,p-Xylene	100	0.0	101.8	102		100.3	100	1		51-144/15
o-Xylene	50.0	0.0	52.7	105		51.9	104	2		47-141/16
Styrene	50.0	0.0	54.9	110		54.3	109	1		59-140/14
Bromoform	50.0	0.0	43.8	88		46.6	93	6		63-135/12
Isopropylbenzene	50.0	0.0	53.7	107		52.9	106	2		61-139/13
1,1,2,2-Tetrachloroethane	50.0	0.0	49.6	99		48.6	97	2		62-119/10
Bromobenzene	50.0	0.0	50.0	100		49.6	99	1		63-144/14
1,2,3-Trichloropropane	50.0	0.0	48.2	96		48.7	97	1		37-149/19
n-Propylbenzene	50.0	0.0	51.1	102		50.5	101	1		63-149/14
2-Chlorotoluene	50.0	0.0	50.4	101		49.7	99	1		68-144/13
1,3,5-Trimethylbenzene	50.0	0.0	52.2	104		51.5	103	1		64-140/13
4-Chlorotoluene	50.0	0.0	48.4	97		47.9	96	1		67-144/13
tert-Butylbenzene	50.0	0.0	53.3	107		52.6	105	1		68-142/12
1,2,4-Trimethylbenzene	50.0	0.0	51.4	103		50.8	102	1		63-139/13
sec-Butylbenzene	50.0	0.0	51.6	103		51.5	103	0		61-146/14
1,3-Dichlorobenzene	50.0	0.0	48.1	96		48.1	96	0		70-141/12
4-Isopropyltoluene	50.0	0.0	51.1	102		51.0	102	0		65-144/13
1,4-Dichlorobenzene	50.0	0.0	47.9	96		48.3	97	1		70-147/13
n-Butylbenzene	50.0	0.0	48.8	98		48.7	97	0		53-147/16
1,2-Dichlorobenzene	50.0	0.0	49.2	98		49.5	99	1		71-133/10
1,2-Dibromo-3-chloropropane	50.0	0.0	52.3	105		53.0	106	1		51-131/13
1,2,4-Trichlorobenzene	50.0	0.0	48.1	96		48.6	97	1		49-140/15
Hexachlorobutadiene	50.0	0.0	47.9	96		49.1	98	2		48-141/16
Naphthalene	50.0	0.0	50.3	101		50.5	101	0		57-138/14
1,2,3-Trichlorobenzene	50.0	0.0	48.1	96		48.8	98	1		55-142/15
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	49.7	99		47.1	94	5		46-134/15
Methyl acetate	50.0	0.0	51.8	104		51.4	103	1		44-132/15
Cyclohexane	50.0	0.0	52.0	104		49.5	99	5		52-130/13
Methylcyclohexane	50.0	0.0	49.5	99		47.6	95	4		51-155/17

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10138-008
Client ID: MW-9SI
Date Received: NA
Date Analyzed: 12/01/2017
MS Data file: K8578.D
MSD Data file: K8579.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RP #

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: K8574.D Instrument ID: MSD_K

Date Analyzed: 11/30/2017 Time Analyzed: 11:22

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-2	E17-10108-001	11/30/2017	11:50
MW-3S	E17-10108-002	12/01/2017	12:17
LCSA171130a	LCSA171130a	12/01/2017	12:44
E17-10138-008MS	E17-10138-008MS	12/01/2017	1:11
E17-10138-008MSD	E17-10138-008MSD	12/01/2017	1:38
FB	E17-10108-003	12/01/2017	2:05
TB	E17-10108-004	12/01/2017	2:32
MW-1	E17-10256-001	12/01/2017	2:59
MW-2	E17-10256-002	12/01/2017	3:26
MW-3	E17-10256-003	12/01/2017	3:52
FIELD	E17-10256-004	12/01/2017	4:19
TRIP	E17-10256-005	12/01/2017	4:46
TRIP_BLANK	E17-10138-014	12/01/2017	5:13
MW-6R	E17-10138-001	12/01/2017	5:40
MW-12D	E17-10138-002	12/01/2017	6:07
MW-7I	E17-10138-003	12/01/2017	6:33
MW-7SW	E17-10138-004	12/01/2017	7:00
MW-7SE	E17-10138-005	12/01/2017	7:27
MW-9D	E17-10138-006	12/01/2017	7:54
MW-9DI	E17-10138-007	12/01/2017	8:20
MW-9SI	E17-10138-008	12/01/2017	8:47

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: K8531.D BFB Injection Date: 11/29/2017

Inst ID: MSD_K BFB Injection Time: 11:13

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.1			
75	30.0 - 60.0% of mass 95	50.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.8			
173	Less than 2.0% of mass 174	0.6	(	0.8	)1
174	Great than 50.0% of mass 95	77.5			
175	5.0 - 9.0% of mass 174	5.8	(	7.5	)1
176	95.0 - 101.0% of mass 174	75.8	(	97.8	)1
177	5.0 - 9.0% of mass 176	5.2	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC171129	ICC100	K8541.D	11/29/2017	3:46
ICC171129	ICC00.5	K8532.D	11/29/2017	11:42
ICC171129	ICC005	K8534.D	11/29/2017	12:37
ICC171129	ICC150	K8537.D	11/29/2017	1:58
ICC171129	ICC200	K8538.D	11/29/2017	2:25
ICC171129	ICC020	K8539.D	11/29/2017	2:51
ICC171129	ICC001	K8540.D	11/29/2017	3:19
ICV171129	ICV100	K8542.D	11/29/2017	4:12

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: K8570.D BFB Injection Date: 11/30/2017

Inst ID: MSD_K BFB Injection Time: 9:34

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.5			
75	30.0 - 60.0% of mass 95	48.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.3			
173	Less than 2.0% of mass 174	0.8	(	1.0	)1
174	Great than 50.0% of mass 95	75.0			
175	5.0 - 9.0% of mass 174	5.5	(	7.3	)1
176	95.0 - 101.0% of mass 174	72.1	(	96.1	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV171127	K8571.D	11/30/2017	10:01
BLKA171130a	BLKA171130a	K8574.D	11/30/2017	11:22
MW-2	E17-10108-001	K8575.D	11/30/2017	11:50
MW-3S	E17-10108-002	K8576.D	12/01/2017	12:17
LCSA171130a	LCSA171130a	K8577.D	12/01/2017	12:44
E17-10138-008MS	E17-10138-008MS	K8578.D	12/01/2017	1:11
E17-10138-008MSI	E17-10138-008MS	K8579.D	12/01/2017	1:38
FB	E17-10108-003	K8580.D	12/01/2017	2:05
TB	E17-10108-004	K8581.D	12/01/2017	2:32
MW-1	E17-10256-001	K8582.D	12/01/2017	2:59
MW-2	E17-10256-002	K8583.D	12/01/2017	3:26
MW-3	E17-10256-003	K8584.D	12/01/2017	3:52
FIELD	E17-10256-004	K8585.D	12/01/2017	4:19
TRIP	E17-10256-005	K8586.D	12/01/2017	4:46
TRIP_BLANK	E17-10138-014	K8587.D	12/01/2017	5:13
MW-6R	E17-10138-001	K8588.D	12/01/2017	5:40
MW-12D	E17-10138-002	K8589.D	12/01/2017	6:07
MW-7I	E17-10138-003	K8590.D	12/01/2017	6:33
MW-7SW	E17-10138-004	K8591.D	12/01/2017	7:00
MW-7SE	E17-10138-005	K8592.D	12/01/2017	7:27

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: K8570.D BFB Injection Date : 11/30/201

Inst ID: MSD_K BFB Injection Time: 9:34

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.5			
75	30.0 - 60.0% of mass 95	48.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.3			
173	Less than 2.0% of mass 174	0.8	(	1.0	)1
174	Great than 50.0% of mass 95	75.0			
175	5.0 - 9.0% of mass 174	5.5	(	7.3	)1
176	95.0 - 101.0% of mass 174	72.1	(	96.1	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-9D	E17-10138-006	K8593.D	12/01/2017	7:54
MW-9DI	E17-10138-007	K8594.D	12/01/2017	8:20
MW-9SI	E17-10138-008	K8595.D	12/01/2017	8:47

Response Factor Report K_MSD

Method Path : C:\MSDCHEM\1\METHODS\
Method File : K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Thu Nov 30 15:17:29 2017
Response Via : Initial Calibration

Calibration Files
0.5 =K8532.D 1.0 =K8540.D 5.0 =K8534.D
20. =K8539.D 100 =K8541.D 150 =K8537.D 200 =K8538.D

		Compound	0.5	1.0	5.0	20.	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom		0.372	0.351	0.343	0.339	0.334	0.328	0.345	4.58
3)	P	Chloromethane	0.389	0.387	0.373	0.382	0.387	0.383	0.384	0.384	1.33
4)	C	Vinyl chloride		0.355	0.294	0.313	0.311	0.310	0.301	0.314	6.78
5)	T	Bromomethane		0.104	0.118	0.126	0.112	0.110	0.099	0.111	8.84
6)	T	Chloroethane	0.145	0.162	0.127	0.137	0.125	0.126	0.118	0.134	11.24
7)	T	Trichlorofluorome		0.352	0.322	0.326	0.330	0.304	0.293	0.321	6.37
8)	T	Acrolein	0.026	0.025	0.026	0.023	0.024	0.022	0.021	0.024	8.73
9)	MC	1,1-Dichloroethen	0.263	0.312	0.285	0.284	0.289	0.282	0.268	0.283	5.67
10)	T	Acetone		0.153	0.171	0.158	0.150	0.133	0.122	0.148	11.97
11)	T	Carbon disulfide		0.776	0.464	0.693	0.640	0.636	0.617	0.638	16.14
12)	T	Vinyl acetate		0.963	0.974	1.168	0.946	0.926	0.889	0.978	10.03
13)	T	Methylene chlorid		0.425	0.445	0.442	0.391	0.369	0.334	0.401	11.07
14)	T	Acrylonitrile	0.298	0.340	0.305	0.300	0.299	0.295	0.291	0.304	5.41
15)	T	tert-Butyl alcoho		0.077	0.095	0.081	0.101	0.090	0.090	0.089	9.95
16)	T	trans-1,2-Dichlor	0.470	0.513	0.458	0.486	0.458	0.449	0.422	0.465	6.16
17)	T	Methyl tert-butyl	1.528	1.533	1.554	1.659	1.655	1.621	1.553	1.586	3.60
18)	P	1,1-Dichloroethan	0.852	0.914	0.886	0.937	0.947	0.948	0.911	0.914	3.85
19)	T	Diisopropyl ether	1.870	1.905	1.984	2.104	2.056	2.018	1.896	1.976	4.49
20)	T	cis-1,2-Dichloroe	0.517	0.600	0.515	0.554	0.522	0.511	0.480	0.528	7.24
21)	T	2,2-Dichloropropa	0.385	0.448	0.398	0.523	0.439	0.460	0.427	0.440	10.28
22)	T	2-Butanone (MEK)		0.431	0.447	0.419	0.412	0.400	0.372	0.413	6.24
23)	T	Bromochloromethan		0.289	0.244	0.264	0.260	0.257	0.247	0.260	6.18
25)	C	Chloroform	0.790	0.887	0.868	0.910	0.916	0.915	0.878	0.881	5.01
26)	T	1,1,1-Trichloroet	0.530	0.629	0.616	0.733	0.715	0.722	0.692	0.662	11.22
27)	T	Carbon tetrachlor	0.421	0.503	0.515	0.648	0.667	0.667	0.641	0.580	17.05
28)	T	1,1-Dichloroprope	0.566	0.736	0.672	0.684	0.644	0.633	0.599	0.648	8.69
29)	T	1,2-Dichloroethan	0.848	0.877	0.789	0.801	0.809	0.800	0.754	0.811	4.93
30)	S	1,2-Dichloroethan	0.673	0.667	0.675	0.658	0.663	0.666	0.672	0.668	0.90
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.235	1.335	1.284	1.292	1.189	1.135	1.036	1.215	8.54
33)	M	Trichloroethene	0.349	0.402	0.327	0.344	0.333	0.328	0.305	0.341	8.92
34)	C	1,2-Dichloropropa	0.303	0.320	0.319	0.326	0.310	0.296	0.270	0.306	6.21
35)	T	Dibromomethane	0.178	0.248	0.194	0.208	0.204	0.200	0.186	0.203	11.15
36)	T	1,4-Dioxane	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.005	9.54
37)	T	Bromodichlorometh	0.430	0.300	0.336	0.414	0.454	0.452	0.427	0.402	14.91
38)	T	2-Chloroethyl vin	0.179	0.211	0.224	0.238	0.242	0.237	0.215	0.221	9.97
39)	T	cis-1,3-Dichlorop	0.496	0.371	0.393	0.488	0.516	0.513	0.483	0.466	12.61
40)	T	4-Methyl-2-pentan	0.443	0.455	0.572	0.527	0.518	0.492	0.440	0.492	10.07
41)	S	Toluene-d8	1.093	1.063	1.078	1.066	1.080	1.089	1.071	1.077	1.06
42)	MC	Toluene	0.738	0.837	0.774	0.774	0.759	0.744	0.683	0.758	6.13
43)	T	trans-1,3-Dichlor	0.435	0.371	0.393	0.488	0.516	0.513	0.483	0.457	12.71
44)	T	1,1,2-Trichloroet	0.216	0.224	0.237	0.230	0.234	0.228	0.209	0.226	4.37
45)	T	Tetrachloroethene	0.290	0.369	0.337	0.319	0.306	0.296	0.269	0.312	10.56
46)	T	1,3-Dichloropropa	0.471	0.498	0.489	0.480	0.484	0.464	0.422	0.473	5.26
47)	T	2-Hexanone	0.316	0.322	0.436	0.392	0.396	0.372	0.326	0.366	12.53
48)	T	Dibromochlorometh	0.215	0.277	0.253	0.234	0.224	0.219	0.200	0.232	11.19
49)	T	1,2-Dibromoethane	0.239	0.309	0.284	0.298	0.313	0.305	0.279	0.289	8.82
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	0.966	1.118	0.987	0.979	0.945	0.926	0.863	0.969	8.02
52)	T	1,1,1,2-Tetrachlo	0.242	0.268	0.293	0.345	0.353	0.352	0.330	0.312	14.31

53)	C	Ethylbenzene	1.493	1.856	1.771	1.776	1.719	1.687	1.534	1.691	7.86
54)	T	m,p-Xylene	0.557	0.720	0.683	0.662	0.597	0.576	0.524	0.617	11.69
55)	T	o-Xylene	0.493	0.672	0.665	0.669	0.601	0.576	0.531	0.601	11.96
56)	T	Styrene	0.687	0.936	1.015	1.077	1.007	0.968	0.883	0.939	13.54
57)	P	Bromoform	0.179	0.218	0.263	0.193	0.266	0.268	0.251	0.234	15.87
58)	T	Isopropylbenzene	1.214	1.780	1.777	1.816	1.735	1.703	1.568	1.656	12.74
59)	S	Bromofluorobenzen	0.548	0.550	0.553	0.541	0.551	0.552	0.545	0.548	0.78
60)	P	1,1,2,2-Tetrachlo	0.357	0.541	0.603	0.513	0.484	0.469	0.439	0.487	16.02
61)	T	Bromobenzene	0.381	0.476	0.426	0.418	0.404	0.389	0.353	0.406	9.62
62)	T	1,2,3-Trichloropr	0.492	0.479	0.466	0.440	0.428	0.412	0.373	0.442	9.35
63)	T	n-Propylbenzene	1.609	2.262	2.181	2.116	2.010	1.971	1.785	1.991	11.49
64)	T	2-Chlorotoluene	1.103	1.356	1.315	1.261	1.223	1.203	1.105	1.224	7.93
65)	T	1,3,5-Trimethylbe	1.074	1.559	1.547	1.492	1.383	1.353	1.234	1.378	12.85
66)	T	4-Chlorotoluene	1.285	1.726	1.551	1.452	1.356	1.321	1.200	1.413	12.65
67)	T	tert-Butylbenzene	0.875	1.255	1.246	1.275	1.220	1.198	1.119	1.170	11.95
68)	T	1,2,4-Trimethylbe	1.137	1.611	1.572	1.535	1.443	1.423	1.298	1.431	11.66
69)	T	sec-Butylbenzene	1.247	2.047	1.916	1.873	1.774	1.734	1.590	1.740	15.01
70)	T	1,3-Dichlorobenze	0.757	0.795	0.829	0.770	0.738	0.722	0.655	0.752	7.41
71)	T	4-Isopropyltoluen	1.037	1.729	1.619	1.577	1.471	1.452	1.315	1.457	15.65
72)	T	1,4-Dichlorobenze	0.764	0.804	0.829	0.776	0.726	0.712	0.645	0.751	8.24
73)	T	n-Butylbenzene	0.969	1.772	1.528	1.457	1.294	1.280	1.149	1.350	19.49
74)	T	1,2-Dichlorobenze	0.710	0.760	0.779	0.739	0.649	0.619	0.561	0.688	11.70
75)	T	1,2-Dibromo-3-chl		0.084	0.078	0.098	0.117	0.117	0.111	0.101	16.84
76)	T	1,2,4-Trichlorobe		0.543	0.497	0.537	0.479	0.475	0.434	0.494	8.30
77)	T	Hexachlorobutadie			0.203	0.226	0.183	0.181	0.152	0.189	14.49
78)	T	Naphthalene	1.210	1.994	1.497	1.713	1.508	1.467	1.347	1.534	16.62
79)	T	1,2,3-Trichlorobe		0.504	0.475	0.503	0.438	0.434	0.400	0.459	9.11
80)	T	1,1,2-Trichloro-1		0.314	0.277	0.252	0.225	0.211	0.203	0.247	17.31
81)	T	Methyl acetate	0.732	0.714	0.713	0.665	0.590	0.535	0.475	0.632	15.82
82)	T	Cyclohexane	0.622	0.953	0.831	0.833	0.751	0.729	0.703	0.775	13.90
83)	T	Methylcyclohexane		0.850	0.738	0.736	0.620	0.588	0.566	0.683	16.14

(#) = Out of Range ### Number of calibration levels exceeded format ###

K8112917.M Mon Dec 04 12:19:48 2017

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\11-29-17\
Data File : K8542.D
Acq On : 29 Nov 2017 4:12 pm
Operator : BARBARA
Sample : ICV100,ICV171129,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 29 18:17:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Nov 29 18:16:43 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	T	Dichlorodifluoromethane	0.345	0.313	9.3	93	0.00
3	P	Chloromethane	0.384	0.363	5.5	94	0.00
4	C	Vinyl chloride	0.314	0.311	1.0	100	0.00
5	T	Bromomethane	0.111	0.117	-5.4	106	-0.02
6	T	Chloroethane	0.134	0.130	3.0	104	0.00
7	T	Trichlorofluoromethane	0.321	0.330	-2.8	101	0.04
8	T	Acrolein	0.024	0.021	12.5	89	0.00
9	MC	1,1-Dichloroethene	0.283	0.279	1.4	97	-0.01
10	T	Acetone	0.148	0.142	4.1	95	0.00
11	T	Carbon disulfide	0.638	0.698	-9.4	110	-0.01
12	T	Vinyl acetate	0.978	0.955	2.4	102	0.00
13	T	Methylene chloride	0.401	0.391	2.5	101	-0.01
14	T	Acrylonitrile	0.304	0.298	2.0	100	0.00
15	T	tert-Butyl alcohol (TBA)	0.089	0.082	7.9	81	0.00
16	T	trans-1,2-Dichloroethene	0.465	0.458	1.5	101	0.00
17	T	Methyl tert-butyl ether (MT	1.586	1.637	-3.2	100	0.00
18	P	1,1-Dichloroethane	0.914	0.938	-2.6	100	0.00
19	T	Diisopropyl ether (DIPE)	1.976	2.036	-3.0	100	0.00
20	T	cis-1,2-Dichloroethene	0.528	0.525	0.6	101	0.00
21	T	2,2-Dichloropropane	0.440	0.511	-16.1	117	0.00
22	T	2-Butanone (MEK)	0.413	0.401	2.9	98	0.00
23	T	Bromochloromethane	0.260	0.259	0.4	100	0.00
25	C	Chloroform	0.881	0.908	-3.1	100	0.00
26	T	1,1,1-Trichloroethane	0.662	0.748	-13.0	105	0.00
27	T	Carbon tetrachloride	0.580	0.678	-16.9	102	0.00
28	T	1,1-Dichloropropene	0.648	0.645	0.5	101	0.00
29	T	1,2-Dichloroethane (EDC)	0.811	0.793	2.2	99	0.00
30	S	1,2-Dichloroethane-d4	0.668	0.664	0.6	101	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
32	M	Benzene	1.215	1.170	3.7	100	0.00
33	M	Trichloroethene	0.341	0.329	3.5	101	0.00
34	C	1,2-Dichloropropane	0.306	0.301	1.6	99	0.00
35	T	Dibromomethane	0.203	0.201	1.0	100	0.00
36	T	1,4-Dioxane	0.005	0.005	0.0	94	0.00
37	T	Bromodichloromethane	0.402	0.443	-10.2	99	0.00
38	T	2-Chloroethyl vinyl ether	0.221	0.229	-3.6	96	0.00
39	T	cis-1,3-Dichloropropene	0.466	0.514	-10.3	101	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.492	0.487	1.0	96	0.00
41	S	Toluene-d8	1.077	1.069	0.7	101	0.00
42	MC	Toluene	0.758	0.740	2.4	99	0.00
43	T	trans-1,3-Dichloropropene	0.457	0.514	-12.5	101	0.00
44	T	1,1,2-Trichloroethane	0.226	0.224	0.9	97	0.00
45	T	Tetrachloroethene	0.312	0.302	3.2	101	0.00
46	T	1,3-Dichloropropane	0.473	0.455	3.8	96	0.00

47	T	2-Hexanone	0.366	0.346	5.5	89	0.00
48	T	Dibromochloromethane	0.232	0.222	4.3	101	0.00
49	T	1,2-Dibromoethane (EDB)	0.289	0.292	-1.0	95	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
51	MP	Chlorobenzene	0.969	0.936	3.4	99	0.00
52	T	1,1,1,2-Tetrachloroethane	0.312	0.351	-12.5	99	0.00
53	C	Ethylbenzene	1.691	1.687	0.2	98	0.00
54	T	m,p-Xylene	0.617	0.587	4.9	98	0.00
55	T	o-Xylene	0.601	0.592	1.5	98	0.00
56	T	Styrene	0.939	0.966	-2.9	95	0.00
57	P	Bromoform	0.234	0.246	-5.1	92	0.00
58	T	Isopropylbenzene	1.656	1.728	-4.3	99	0.00
59	S	Bromofluorobenzene	0.548	0.530	3.3	96	0.00
60	P	1,1,2,2-Tetrachloroethane	0.487	0.459	5.7	95	0.00
61	T	Bromobenzene	0.406	0.387	4.7	95	0.00
62	T	1,2,3-Trichloropropane	0.442	0.400	9.5	93	0.00
63	T	n-Propylbenzene	1.991	1.972	1.0	98	0.00
64	T	2-Chlorotoluene	1.224	1.191	2.7	97	0.00
65	T	1,3,5-Trimethylbenzene	1.378	1.367	0.8	98	0.00
66	T	4-Chlorotoluene	1.413	1.306	7.6	96	0.00
67	T	tert-Butylbenzene	1.170	1.225	-4.7	100	0.00
68	T	1,2,4-Trimethylbenzene	1.431	1.415	1.1	98	0.00
69	T	sec-Butylbenzene	1.740	1.767	-1.6	99	0.00
70	T	1,3-Dichlorobenzene	0.752	0.706	6.1	95	0.00
71	T	4-Isopropyltoluene	1.457	1.466	-0.6	99	0.00
72	T	1,4-Dichlorobenzene	0.751	0.701	6.7	96	0.00
73	T	n-Butylbenzene	1.350	1.290	4.4	99	0.00
74	T	1,2-Dichlorobenzene	0.688	0.629	8.6	97	0.00
75	T	1,2-Dibromo-3-chloropropane	0.101	0.093	7.9	79	0.00
76	T	1,2,4-Trichlorobenzene	0.494	0.484	2.0	101	0.00
77	T	Hexachlorobutadiene	0.189	0.189	0.0	102	0.00
78	T	Naphthalene	1.534	1.497	2.4	99	0.00
79	T	1,2,3-Trichlorobenzene	0.459	0.444	3.3	101	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.247	0.231	6.5	102	-0.02
81	T	Methyl acetate	0.632	0.578	8.5	97	0.00
82	T	Cyclohexane	0.775	0.768	0.9	102	0.00
83	T	Methylcyclohexane	0.683	0.641	6.1	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

X8112917.M Mon Dec 04 12:20:24 2017

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8571.D
Acq On : 30 Nov 2017 10:01 pm
Operator : BARBARA
Sample : CCV100,CCV171127,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 01 10:14:37 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	93	0.00
2	T	Dichlorodifluoromethane	0.345	0.291	15.7	80	0.00
3	P	Chloromethane	0.384	0.334	13.0	80	0.00
4	C	Vinyl chloride	0.314	0.283	9.9	85	0.00
5	T	Bromomethane	0.111	0.112	-0.9	94	-0.02
6	T	Chloroethane	0.134	0.123	8.2	92	0.00
7	T	Trichlorofluoromethane	0.321	0.309	3.7	87	0.04
8	T	Acrolein	0.024	0.024	0.0	92	0.01
9	MC	1,1-Dichloroethene	0.283	0.273	3.5	88	-0.01
10	T	Acetone	0.148	0.148	0.0	92	0.00
11	T	Carbon disulfide	0.638	0.629	1.4	92	-0.01
12	T	Vinyl acetate	0.978	0.955	2.4	94	0.00
13	T	Methylene chloride	0.401	0.384	4.2	92	0.00
14	T	Acrylonitrile	0.304	0.309	-1.6	96	0.00
15	T	tert-Butyl alcohol (TBA)	0.089	0.081	9.0	75	0.00
16	T	trans-1,2-Dichloroethene	0.465	0.443	4.7	90	0.00
17	T	Methyl tert-butyl ether (MT	1.586	1.616	-1.9	91	0.00
18	P	1,1-Dichloroethane	0.914	0.928	-1.5	91	0.00
19	T	Diisopropyl ether (DIPE)	1.976	2.026	-2.5	92	0.00
20	T	cis-1,2-Dichloroethene	0.528	0.511	3.2	91	0.00
21	T	2,2-Dichloropropane	0.440	0.431	2.0	92	0.00
22	T	2-Butanone (MEK)	0.413	0.415	-0.5	94	0.00
23	T	Bromochloromethane	0.260	0.253	2.7	91	0.00
25	C	Chloroform	0.881	0.902	-2.4	92	0.00
26	T	1,1,1-Trichloroethane	0.662	0.723	-9.2	94	0.00
27	T	Carbon tetrachloride	0.580	0.656	-13.1	92	0.00
28	T	1,1-Dichloropropene	0.648	0.630	2.8	91	0.00
29	T	1,2-Dichloroethane (EDC)	0.811	0.806	0.6	93	0.00
30	S	1,2-Dichloroethane-d4	0.668	0.683	-2.2	96	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
32	M	Benzene	1.215	1.151	5.3	90	0.00
33	M	Trichloroethene	0.341	0.326	4.4	92	0.00
34	C	1,2-Dichloropropane	0.306	0.299	2.3	90	0.00
35	T	Dibromomethane	0.203	0.202	0.5	92	0.00
36	T	1,4-Dioxane	0.005	0.005	0.0	81	0.00
37	T	Bromodichloromethane	0.402	0.440	-9.5	91	0.00
38	T	2-Chloroethyl vinyl ether	0.221	0.233	-5.4	90	0.00
39	T	cis-1,3-Dichloropropene	0.466	0.487	-4.5	88	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.492	0.507	-3.0	92	0.00
41	S	Toluene-d8	1.077	1.072	0.5	93	0.00
42	MC	Toluene	0.758	0.723	4.6	89	0.00
43	T	trans-1,3-Dichloropropene	0.457	0.487	-6.6	88	0.00
44	T	1,1,2-Trichloroethane	0.226	0.225	0.4	90	0.00
45	T	Tetrachloroethene	0.312	0.290	7.1	89	0.00
46	T	1,3-Dichloropropane	0.473	0.460	2.7	89	0.00

47	T	2-Hexanone	0.366	0.373	-1.9	88	0.00
48	T	Dibromochloromethane	0.232	0.215	7.3	90	0.00
49	T	1,2-Dibromoethane (EDB)	0.289	0.296	-2.4	89	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
51	MP	Chlorobenzene	0.969	0.904	6.7	88	0.00
52	T	1,1,1,2-Tetrachloroethane	0.312	0.350	-12.2	91	0.00
53	C	Ethylbenzene	1.691	1.653	2.2	89	0.00
54	T	m,p-Xylene	0.617	0.574	7.0	89	0.00
55	T	o-Xylene	0.601	0.580	3.5	89	0.00
56	T	Styrene	0.939	0.957	-1.9	88	0.00
57	P	Bromoform	0.234	0.246	-5.1	86	0.00
58	T	Isopropylbenzene	1.656	1.680	-1.4	89	0.00
59	S	Bromofluorobenzene	0.548	0.542	1.1	91	0.00
60	P	1,1,2,2-Tetrachloroethane	0.487	0.462	5.1	88	0.00
61	T	Bromobenzene	0.406	0.385	5.2	88	0.00
62	T	1,2,3-Trichloropropane	0.442	0.413	6.6	89	0.00
63	T	n-Propylbenzene	1.991	1.931	3.0	89	0.00
64	T	2-Chlorotoluene	1.224	1.164	4.9	88	0.00
65	T	1,3,5-Trimethylbenzene	1.378	1.335	3.1	89	0.00
66	T	4-Chlorotoluene	1.413	1.297	8.2	88	0.00
67	T	tert-Butylbenzene	1.170	1.186	-1.4	90	0.00
68	T	1,2,4-Trimethylbenzene	1.431	1.389	2.9	89	0.00
69	T	sec-Butylbenzene	1.740	1.702	2.2	89	0.00
70	T	1,3-Dichlorobenzene	0.752	0.698	7.2	87	0.00
71	T	4-Isopropyltoluene	1.457	1.415	2.9	89	0.00
72	T	1,4-Dichlorobenzene	0.751	0.690	8.1	88	0.00
73	T	n-Butylbenzene	1.350	1.241	8.1	88	0.00
74	T	1,2-Dichlorobenzene	0.688	0.628	8.7	89	0.00
75	T	1,2-Dibromo-3-chloropropane	0.101	0.112	-10.9	88	0.00
76	T	1,2,4-Trichlorobenzene	0.494	0.454	8.1	88	0.00
77	T	Hexachlorobutadiene	0.189	0.172	9.0	87	0.00
78	T	Naphthalene	1.534	1.447	5.7	89	0.00
79	T	1,2,3-Trichlorobenzene	0.459	0.417	9.2	88	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.247	0.219	11.3	90	-0.01
81	T	Methyl acetate	0.632	0.596	5.7	93	0.00
82	T	Cyclohexane	0.775	0.736	5.0	90	0.00
83	T	Methylcyclohexane	0.683	0.613	10.2	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

K8112917.M Mon Dec 04 11:58:59 2017

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): K8541.D

Date Analyzed: 11/29/2017

Instrument ID: MSD_K

Time Analyzed: 3:46

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	1259028		6.08		1969246		6.91		1708787		10.24	
	UPPER LIMIT	2518056		6.58		3938492		7.41		3417574		10.74	
	LOWER LIMIT	629514		5.58		984623		6.41		854393.5		9.74	
	LAB SAMPLE ID												
01	ICC00.5	1212853		6.08		1827818		6.91		1590781		10.24	
02	ICC005	1216650		6.08		1843592		6.90		1590294		10.24	
03	ICC150	1251856		6.08		1990616		6.91		1714238		10.24	
04	ICC200	1270184		6.08		2067391		6.90		1755203		10.24	
05	ICC020	1301186		6.08		1982676		6.91		1674399		10.24	
06	ICC001	1279517		6.08		1924123		6.91		1616889		10.24	
07	ICV100	1267430		6.08		2005448		6.91		1700913		10.24	
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): K8571.D Date Analyzed: 11/30/2017

Instrument ID: MSD_K Time Analyzed: 10:01

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1173486	6.08	1841679	6.91	1576415	10.24
	UPPER LIMIT	2346972	6.58	3683358	7.41	3152830	10.74
	LOWER LIMIT	586743	5.58	920839.5	6.41	788207.5	9.74
	LAB SAMPLE ID						
01	BLKA171130a	1139209	6.08	1724968	6.91	1455382	10.24
02	E17-10108-001	1127931	6.08	1709908	6.91	1464848	10.24
03	E17-10108-002	1135476	6.08	1728692	6.90	1448039	10.24
04	LCSA171130a	1183589	6.08	1848491	6.90	1559171	10.24
05	E17-10138-008MS	1198059	6.08	1872916	6.91	1579799	10.24
06	E17-10138-008MSD	1205843	6.08	1877587	6.90	1603517	10.24
07	E17-10108-003	1210273	6.08	1824203	6.91	1523006	10.24
08	E17-10108-004	1197479	6.08	1799047	6.90	1516165	10.24
09	E17-10256-001	1162441	6.08	1767458	6.90	1487427	10.24
10	E17-10256-002	1160202	6.08	1749974	6.90	1458108	10.24
11	E17-10256-003	1146385	6.08	1732799	6.90	1426948	10.24
12	E17-10256-004	1125686	6.08	1699674	6.90	1417460	10.24
13	E17-10256-005	1124120	6.08	1699921	6.90	1409819	10.24
14	E17-10138-014	1096234	6.08	1654141	6.90	1369076	10.24
15	E17-10138-001	1092540	6.08	1639491	6.90	1417383	10.24
16	E17-10138-002	1085663	6.08	1636226	6.90	1360671	10.24
17	E17-10138-003	1065170	6.08	1606174	6.90	1379546	10.24
18	E17-10138-004	1048662	6.08	1582315	6.90	1321294	10.24
19	E17-10138-005	1044414	6.08	1589410	6.90	1338807	10.24
20	E17-10138-006	1033920	6.08	1577366	6.90	1284930	10.24
21	E17-10138-007	1013691	6.08	1546481	6.90	1294145	10.24
22	E17-10138-008	1010620	6.08	1541534	6.90	1276423	10.24

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 01 10:46:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

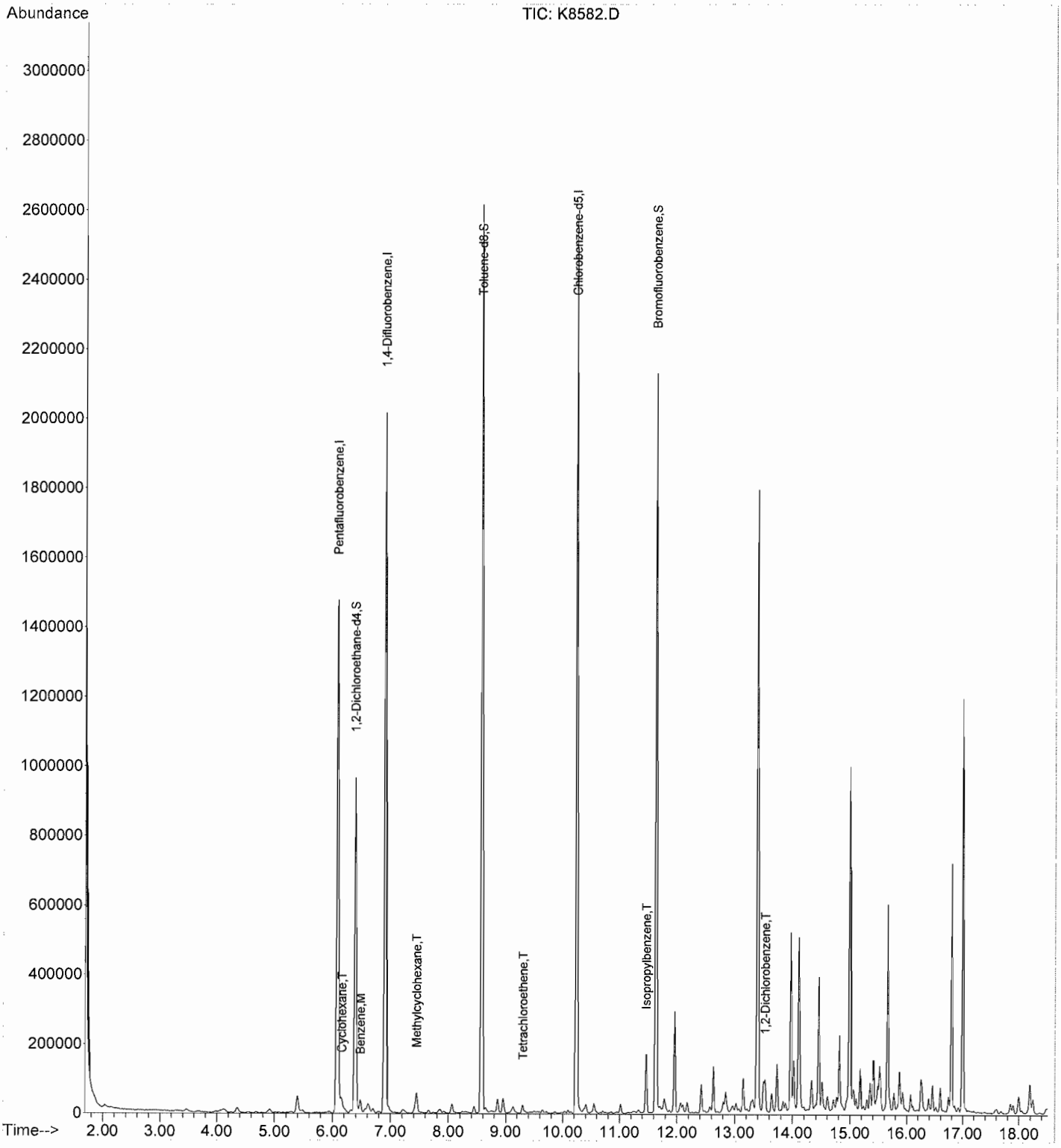
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.08	168	1162441	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.90	114	1767458	50.00	UG		0.00
50) Chlorobenzene-d5	10.24	117	1487427	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.39	65	808063	52.05	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.10%				
41) Toluene-d8	8.57	98	1866599	49.02	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.04%				
59) Bromofluorobenzene	11.64	95	808874	49.58	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.16%				
Target Compounds							Qvalue
32) Benzene	6.48	78	30396	0.71	UG		100
45) Tetrachloroethene	9.29	166	7500	0.68	UG	#	95
58) Isopropylbenzene	11.46	105	123360	2.50	UG		100
74) 1,2-Dichlorobenzene	13.53	146	12451	0.61	UG		99
82) Cyclohexane	6.16	56	33076	1.44	UG	#	38
83) Methylcyclohexane	7.45	83	23387	1.15	UG		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 01 10:46:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.031	62	67	299	rVB2	18221	344771	6.78%	0.777%
2	4.359	498	511	533	rVB4	13999	50899	1.00%	0.115%
3	5.397	699	709	743	rVB3	48444	156068	3.07%	0.352%
4	6.084	827	840	878	rBV	1475144	3523617	69.26%	7.938%
5	6.388	888	898	910	rVV	964622	2151377	42.29%	4.847%
6	6.477	910	915	926	rVV2	37167	88117	1.73%	0.199%
7	6.613	935	941	952	rVV6	25838	84286	1.66%	0.190%
8	6.902	985	996	1025	rBV	2014572	4224115	83.03%	9.516%
9	7.447	1083	1100	1127	rBV2	57832	174798	3.44%	0.394%
10	8.060	1207	1217	1241	rBV2	26227	71297	1.40%	0.161%
11	8.574	1304	1315	1326	rBV	2612995	5087642	100.00%	11.461%
12	8.857	1360	1369	1380	rVB2	38185	78460	1.54%	0.177%
13	8.952	1380	1387	1402	rVB5	41441	93763	1.84%	0.211%
14	9.130	1402	1421	1445	rVB6	18076	66433	1.31%	0.150%
15	9.298	1445	1453	1473	rBV4	22317	61476	1.21%	0.138%
16	10.236	1622	1632	1652	rBV	2563979	4761095	93.58%	10.726%
17	10.404	1652	1664	1676	rVV3	24961	84039	1.65%	0.189%
18	10.551	1676	1692	1708	rVB2	27707	78457	1.54%	0.177%
19	11.463	1851	1866	1887	rBV2	166930	311342	6.12%	0.701%
20	11.636	1887	1899	1921	rVV	2124945	3898903	76.63%	8.783%
21	11.783	1921	1927	1941	rVV3	39913	115781	2.28%	0.261%
22	11.961	1950	1961	1971	rVV	291235	517568	10.17%	1.166%
23	12.066	1971	1981	1985	rVV5	28935	65337	1.28%	0.147%
24	12.176	1995	2002	2015	rVB	29321	59850	1.18%	0.135%
25	12.422	2040	2049	2071	rBV	82777	177619	3.49%	0.400%
26	12.632	2083	2089	2099	rVB	130473	222515	4.37%	0.501%
27	12.805	2111	2122	2125	rBV	30151	62766	1.23%	0.141%
28	12.847	2125	2130	2143	rVV2	58817	133999	2.63%	0.302%
29	12.968	2143	2153	2158	rVV8	18498	52291	1.03%	0.118%
30	13.025	2158	2164	2179	rVV3	25857	72101	1.42%	0.162%
31	13.151	2179	2188	2207	rVV	96601	208642	4.10%	0.470%
32	13.314	2207	2219	2225	rVV3	35829	125893	2.47%	0.284%
33	13.392	2225	2234	2247	rVV	1787330	3236073	63.61%	7.290%
34	13.523	2247	2259	2275	rVB3	92460	310975	6.11%	0.701%
35	13.639	2275	2281	2291	rBV3	53107	109485	2.15%	0.247%
36	13.733	2291	2299	2309	rVV	136983	252914	4.97%	0.570%
37	13.838	2313	2319	2323	rVV2	29787	56284	1.11%	0.127%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

38	13.969	2335	2344	2349	rVV	515042	900848	17.71%	2.029%
39	14.022	2349	2354	2362	rVV	145759	279212	5.49%	0.629%
40	14.105	2362	2370	2404	rVV2	500820	1112126	21.86%	2.505%
41	14.326	2404	2412	2420	rVV3	89665	192477	3.78%	0.434%
42	14.446	2420	2435	2442	rVV	386772	714814	14.05%	1.610%
43	14.509	2442	2447	2459	rVV3	85165	183516	3.61%	0.413%
44	14.604	2459	2465	2479	rVV3	42727	104568	2.06%	0.236%
45	14.708	2479	2485	2492	rVV3	33353	75821	1.49%	0.171%
46	14.771	2492	2497	2500	rVV2	40938	78506	1.54%	0.177%
47	14.813	2500	2505	2523	rVV	218427	414785	8.15%	0.934%
48	14.992	2523	2539	2548	rVV3	990158	1931298	37.96%	4.351%
49	15.060	2548	2552	2557	rVV3	61371	120842	2.38%	0.272%
50	15.107	2557	2561	2567	rVV	35119	62108	1.22%	0.140%
51	15.175	2567	2574	2582	rVV3	121812	214480	4.22%	0.483%
52	15.296	2591	2597	2602	rVV5	32749	62719	1.23%	0.141%
53	15.348	2602	2607	2612	rVV	80024	142052	2.79%	0.320%
54	15.406	2612	2618	2625	rVV4	144983	278385	5.47%	0.627%
55	15.484	2625	2633	2635	rVV3	72136	152658	3.00%	0.344%
56	15.516	2635	2639	2653	rVV3	128245	288248	5.67%	0.649%
57	15.657	2653	2666	2681	rVV	592549	995447	19.57%	2.243%
58	15.773	2681	2688	2697	rVV2	50813	94590	1.86%	0.213%
59	15.872	2697	2707	2713	rVV3	111074	228563	4.49%	0.515%
60	15.930	2713	2718	2738	rVB2	55102	124467	2.45%	0.280%
61	16.066	2738	2744	2773	rBV2	48675	127578	2.51%	0.287%
62	16.250	2773	2779	2795	rBV2	89437	225851	4.44%	0.509%
63	16.386	2795	2805	2812	rBV3	33831	61043	1.20%	0.138%
64	16.454	2812	2818	2825	rVB2	72192	112616	2.21%	0.254%
65	16.596	2838	2845	2866	rBV3	68376	130487	2.56%	0.294%
66	16.743	2866	2873	2877	rVV	42086	71590	1.41%	0.161%
67	16.795	2877	2883	2901	rVB	712328	1198529	23.56%	2.700%
68	16.994	2913	2921	3025	rVB	1190409	2083233	40.95%	4.693%
69	17.849	3073	3084	3089	rBV2	26519	55393	1.09%	0.125%
70	17.996	3102	3112	3137	rBV3	47666	126315	2.48%	0.285%
71	18.190	3137	3149	3155	rVV3	83328	183497	3.61%	0.413%
72	18.242	3155	3159	3195	rVB2	40289	90064	1.77%	0.203%

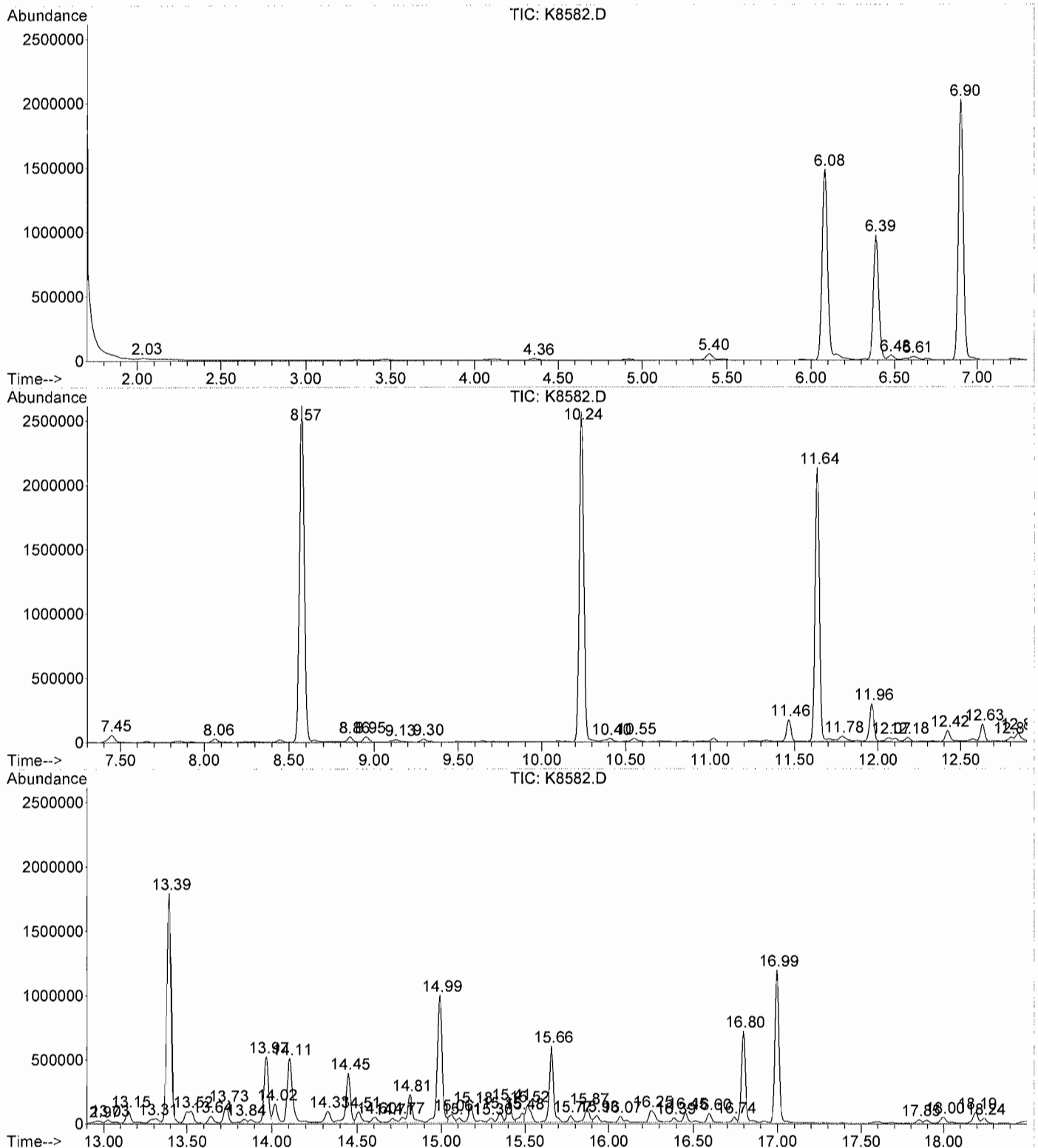
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LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
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ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

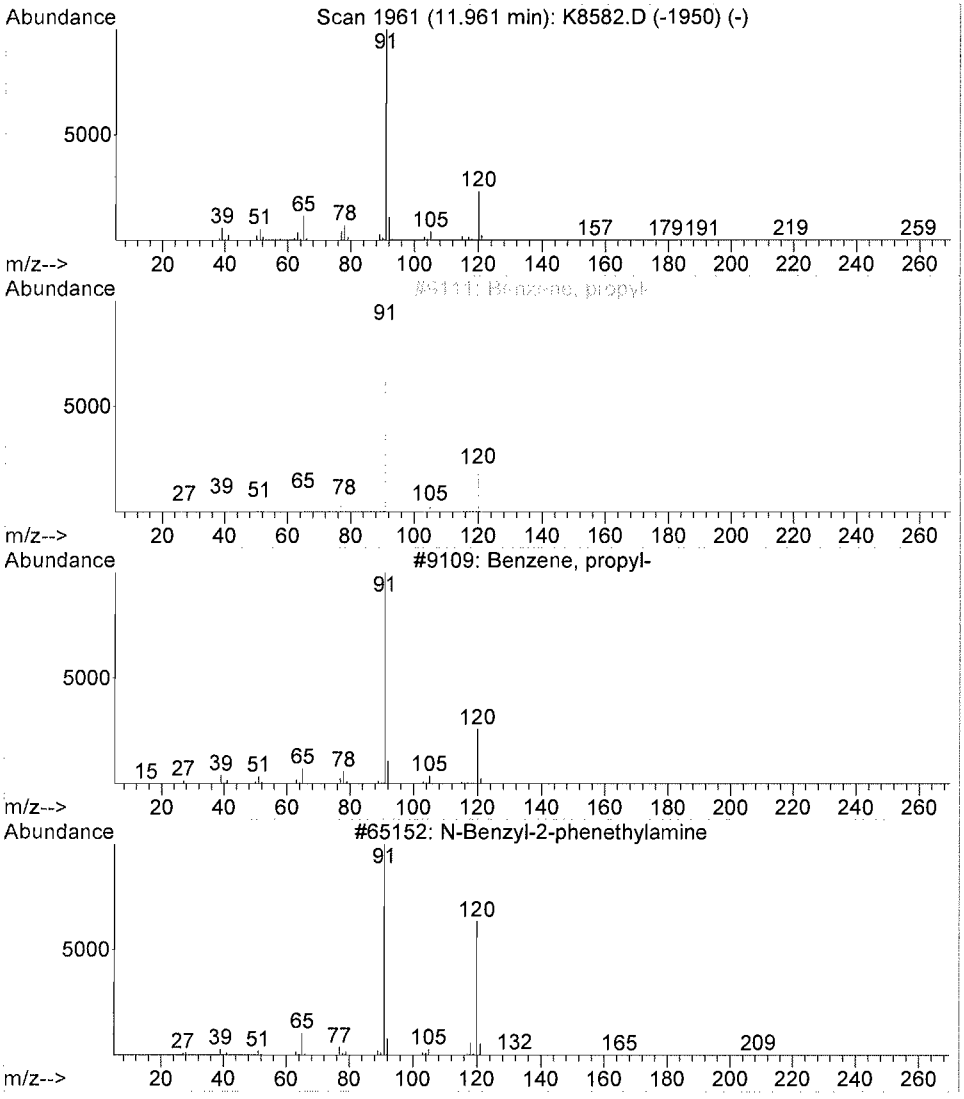
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

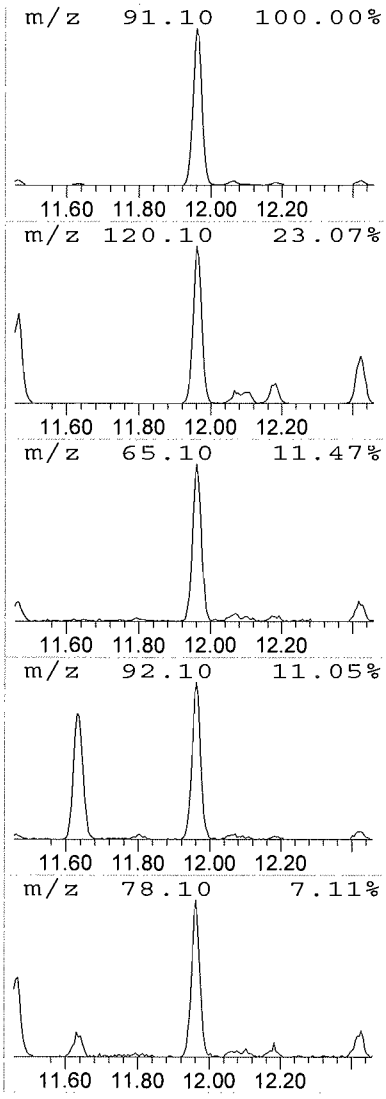
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Peak Number 1 Benzene, propyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.96	5.44 UG	517568	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, propyl-	120	C9H12	000103-65-1	90
2	Benzene, propyl-	120	C9H12	000103-65-1	87
3	N-Benzyl-2-phenethylamine	211	C15H17N	003647-71-0	72
4	1,2-Ethanediamine, N,N'-bis(phen...	240	C16H20N2	000140-28-3	72
5	Phenethylamine, N-benzyl-p-chloro-	245	C15H16ClN	013622-43-0	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

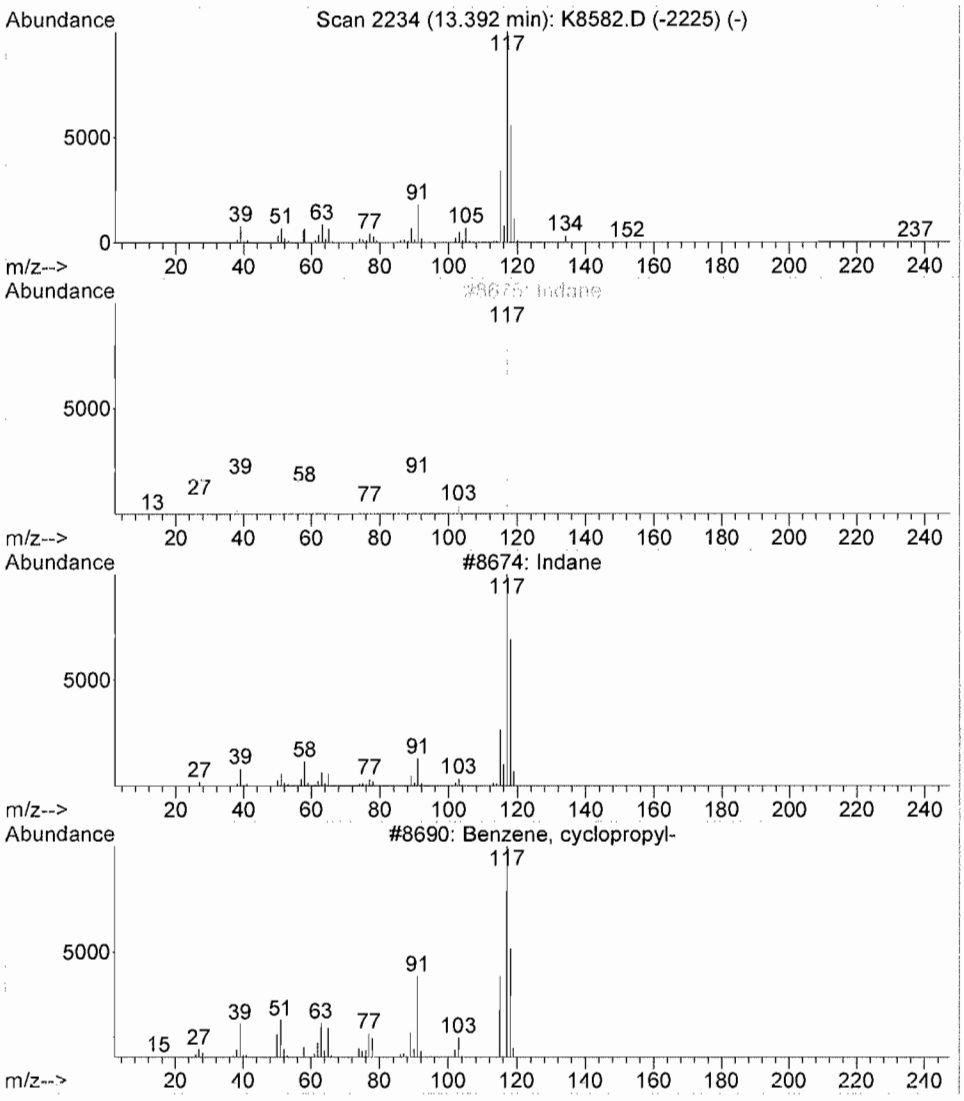
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TIC Integration Parameters: LSCINT.P

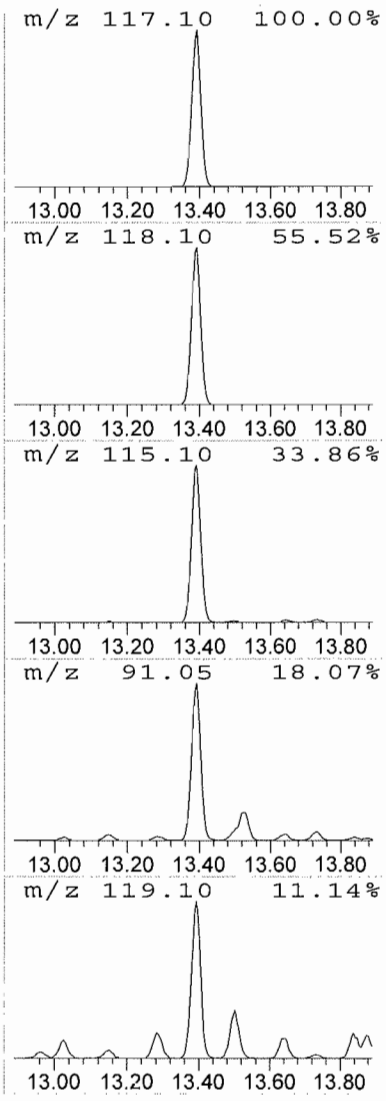
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Peak Number 2 Indane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.39	33.98 UG	3236070	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	87
2	Indane	118	C9H10	000496-11-7	83
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	81
4	Indane	118	C9H10	000496-11-7	81
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

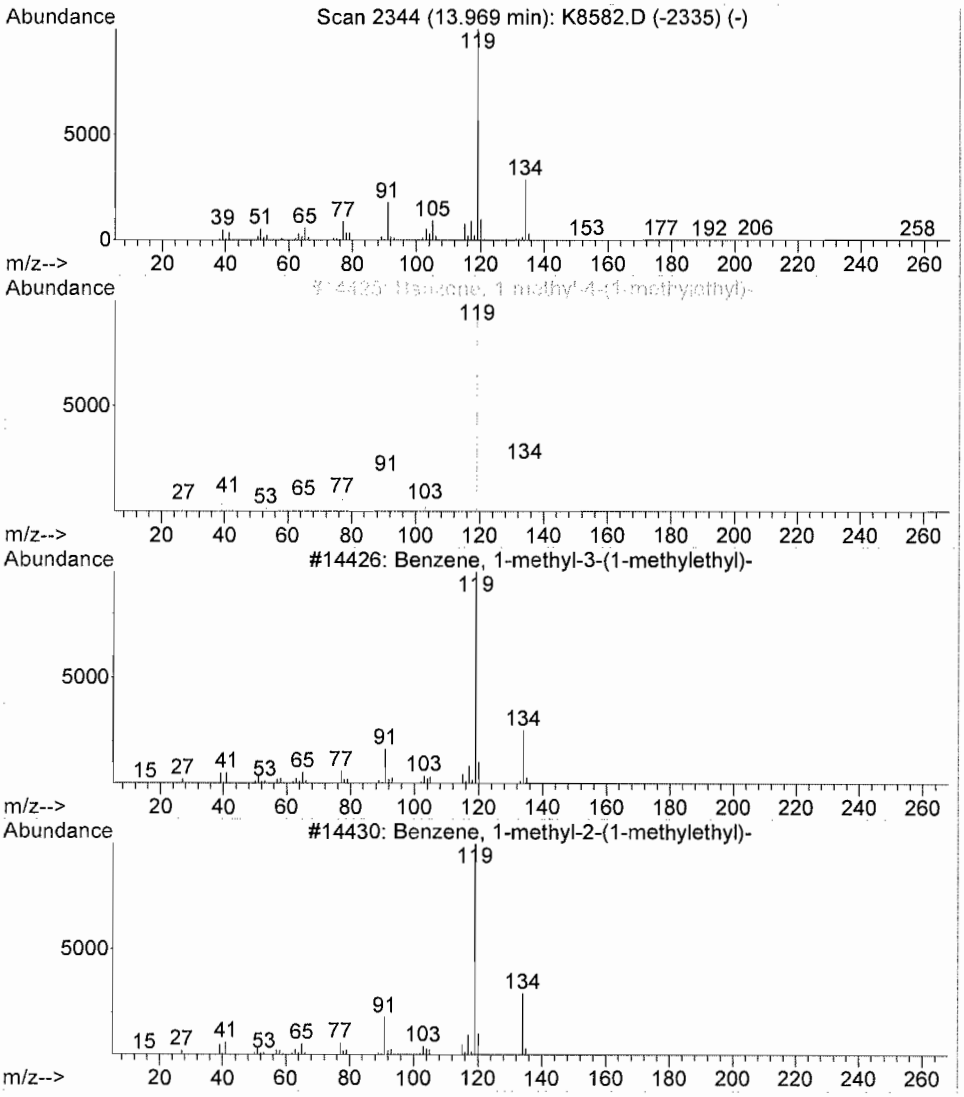
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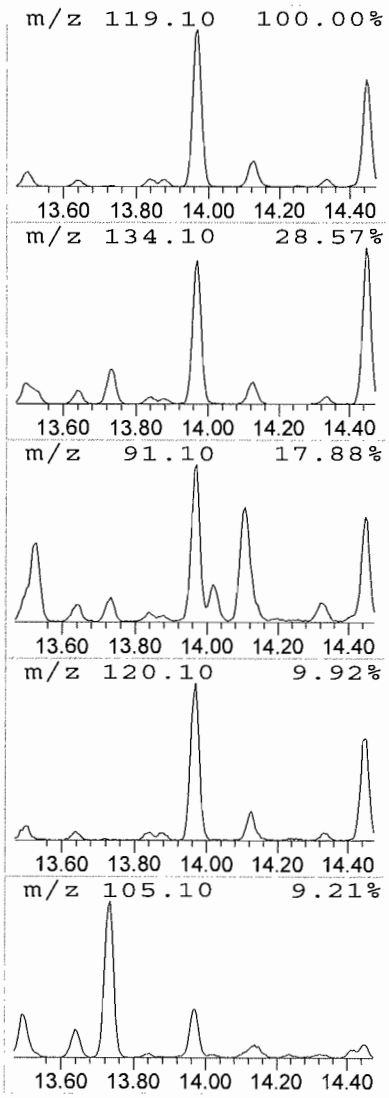
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Peak Number 3 Benzene, 1-methyl-4-(1-meth... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.97	9.46 UG	900848	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	95
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

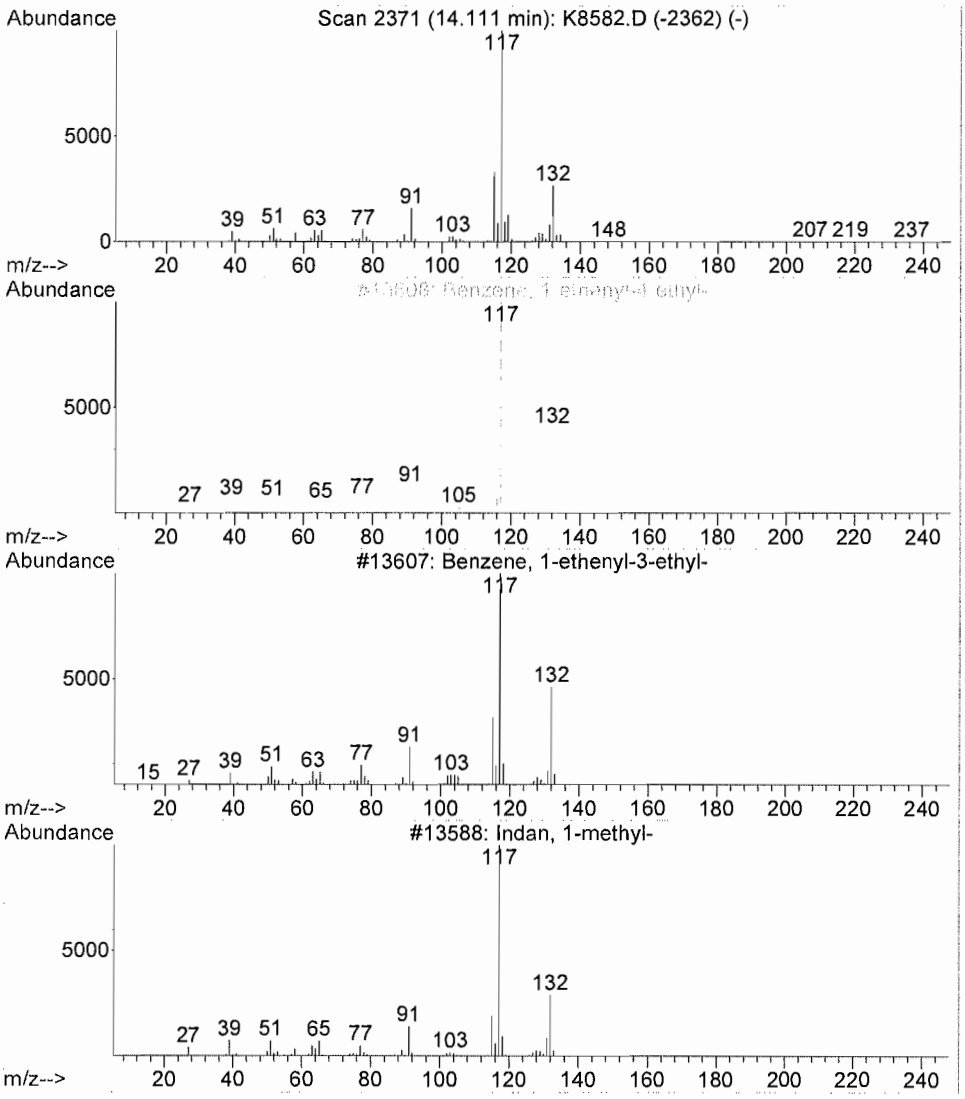
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

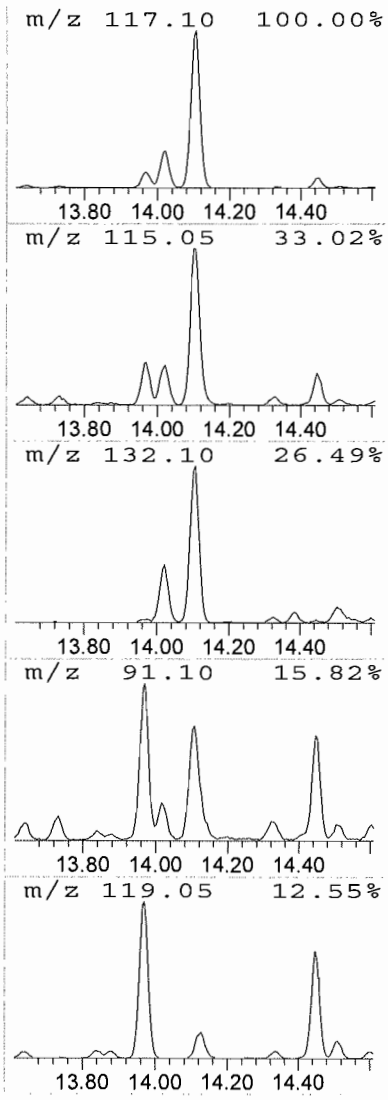
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Benzene, 1-ethenyl-4-ethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.11	11.68 UG	1112130	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87
2	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87
3	Indan, 1-methyl-	132	C10H12	000767-58-8	87
4	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	87
5	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

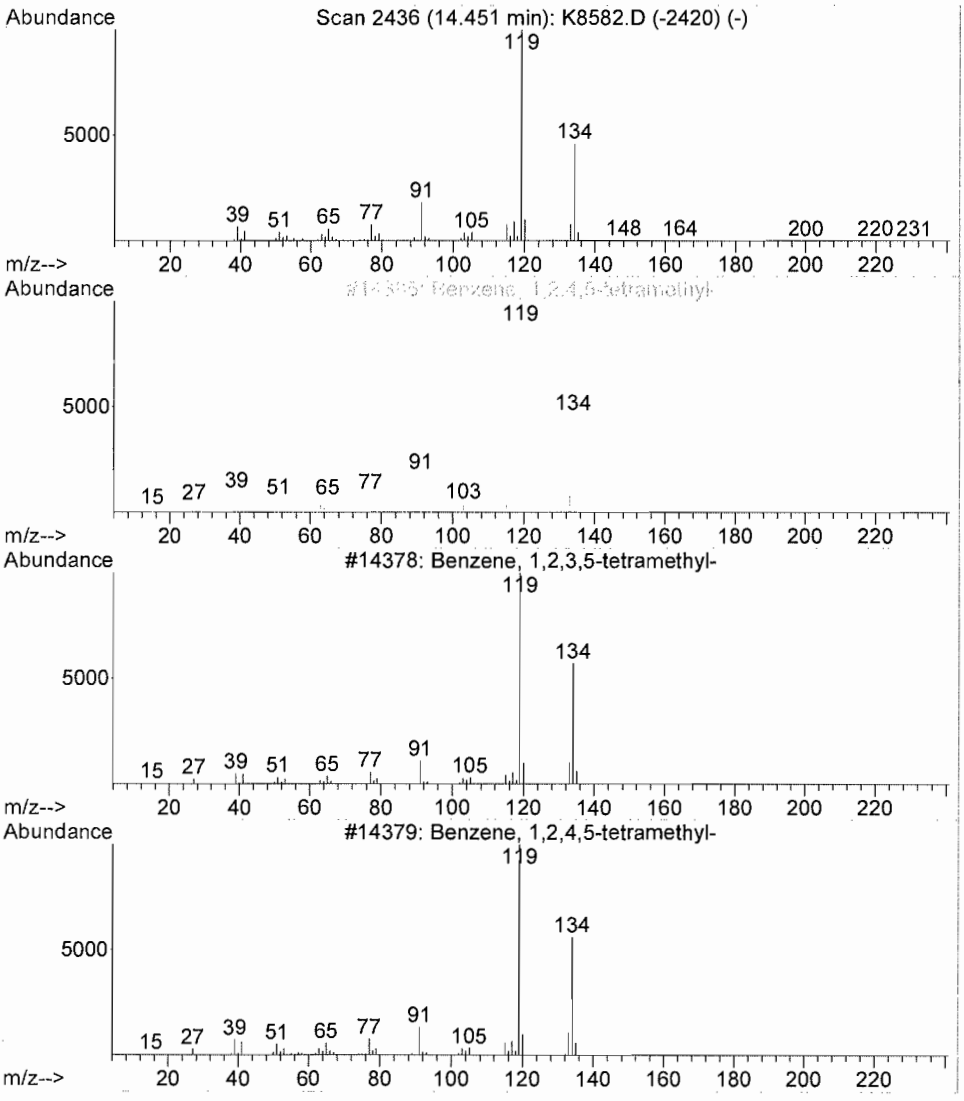
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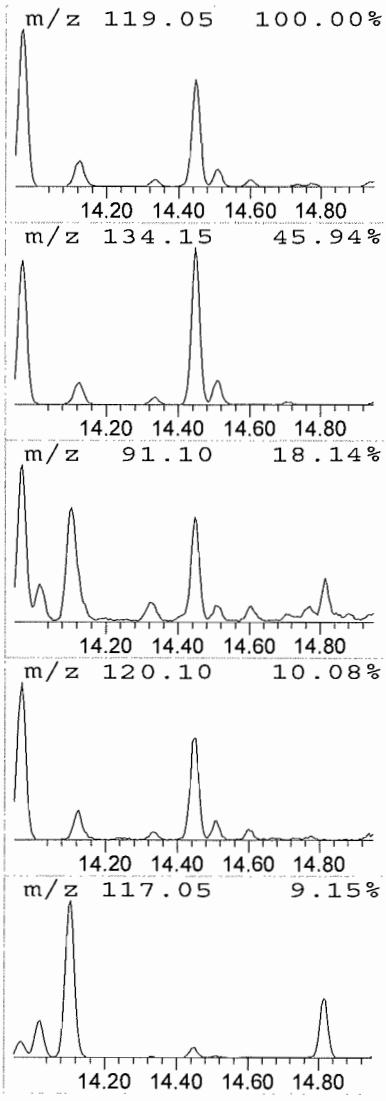
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Peak Number 5 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.45	7.51 UG	714814	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

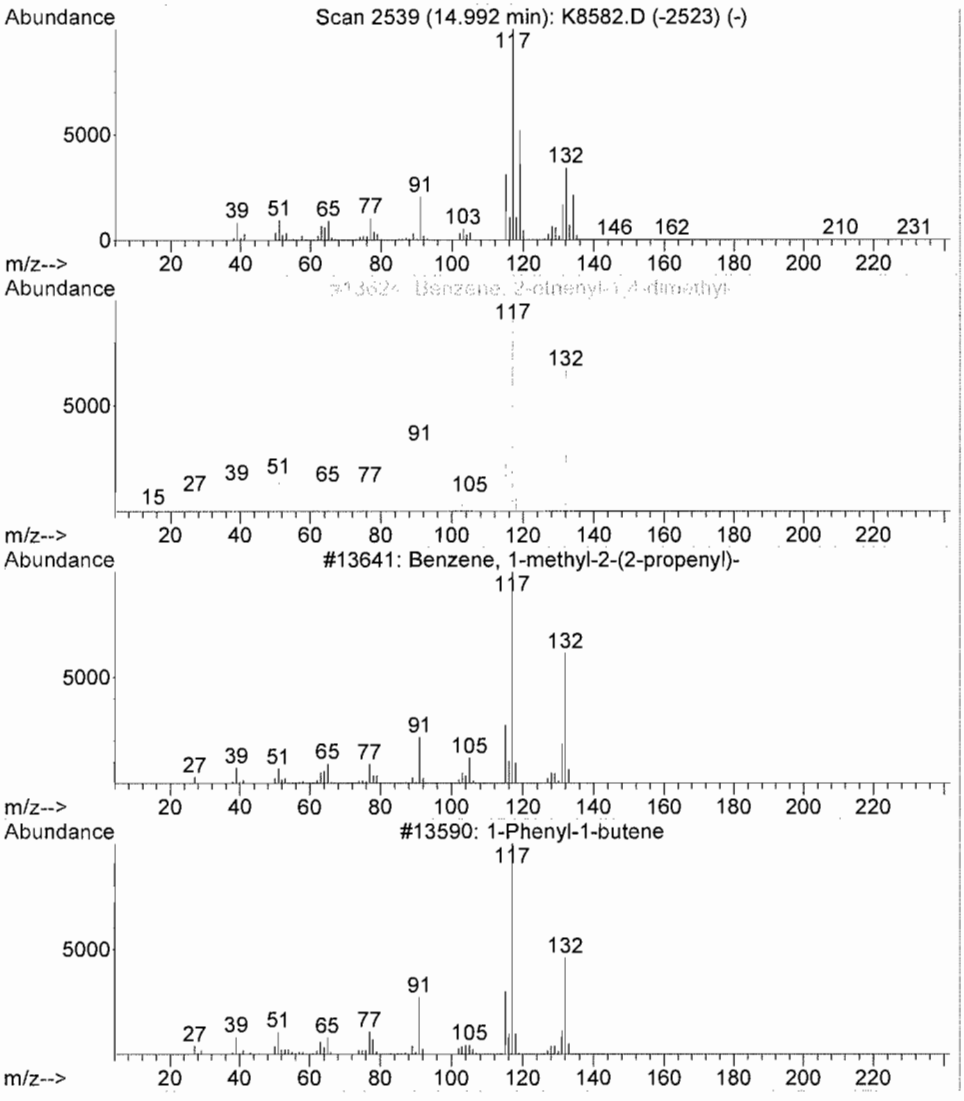
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

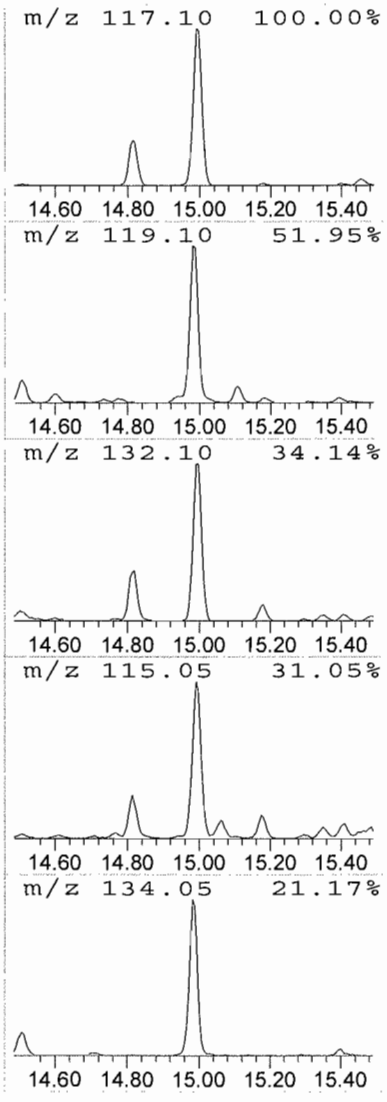
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 6 Benzene, 2-ethenyl-1,4-dime... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.99	20.28 UG	1931300	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	95
2	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	70
3	1-Phenyl-1-butene	132	C10H12	000824-90-8	70
4	Benzene, 2-butenyl-	132	C10H12	001560-06-1	70
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	70





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

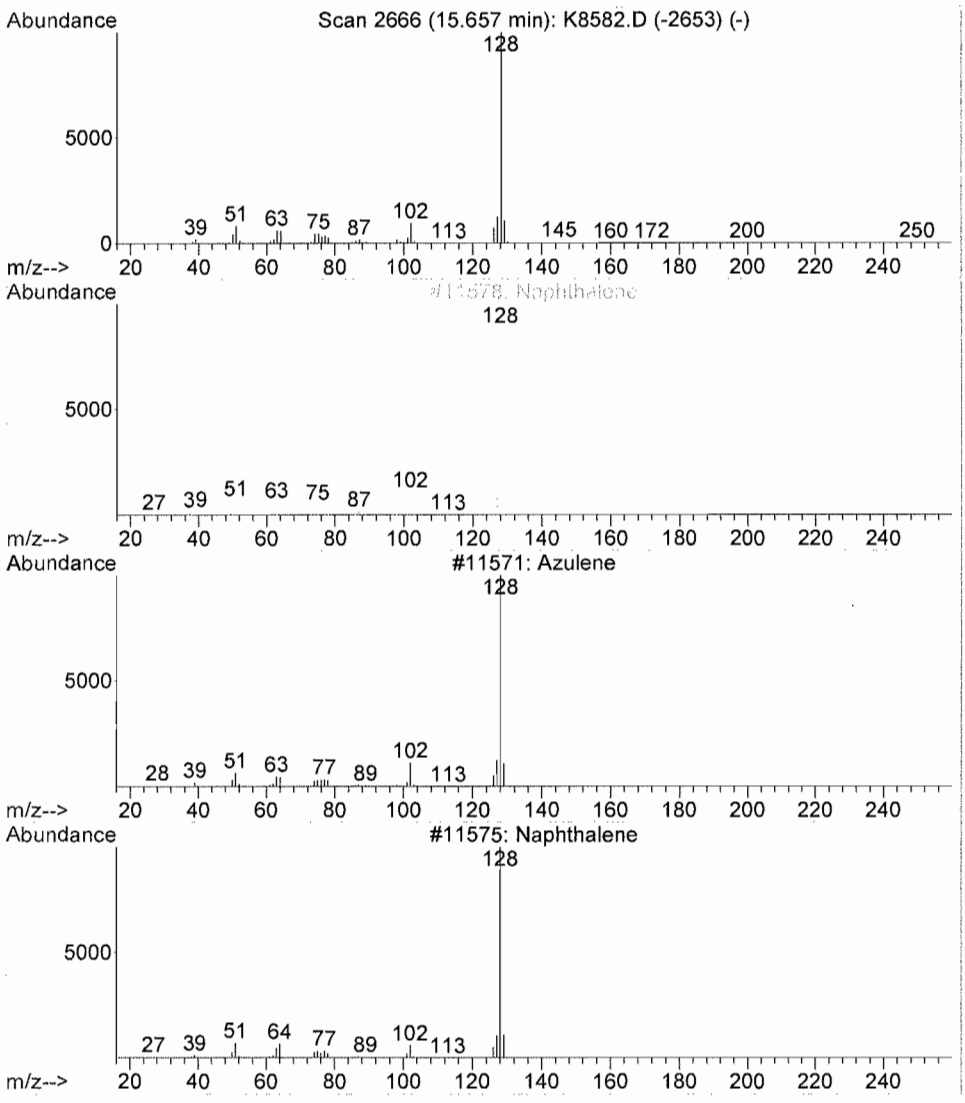
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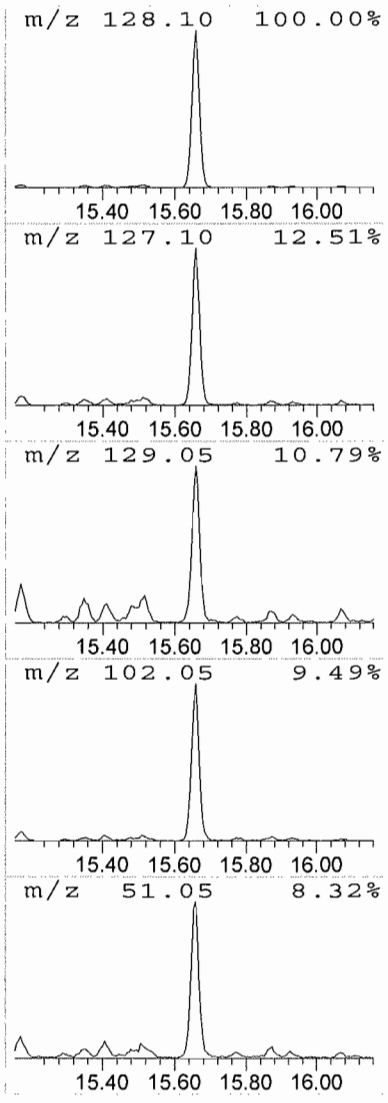
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Peak Number 7 Naphthalene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.66	10.45 UG	995447	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Azulene	128	C10H8	000275-51-4	95
3	Naphthalene	128	C10H8	000091-20-3	95
4	Azulene	128	C10H8	000275-51-4	91
5	Azulene	128	C10H8	000275-51-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

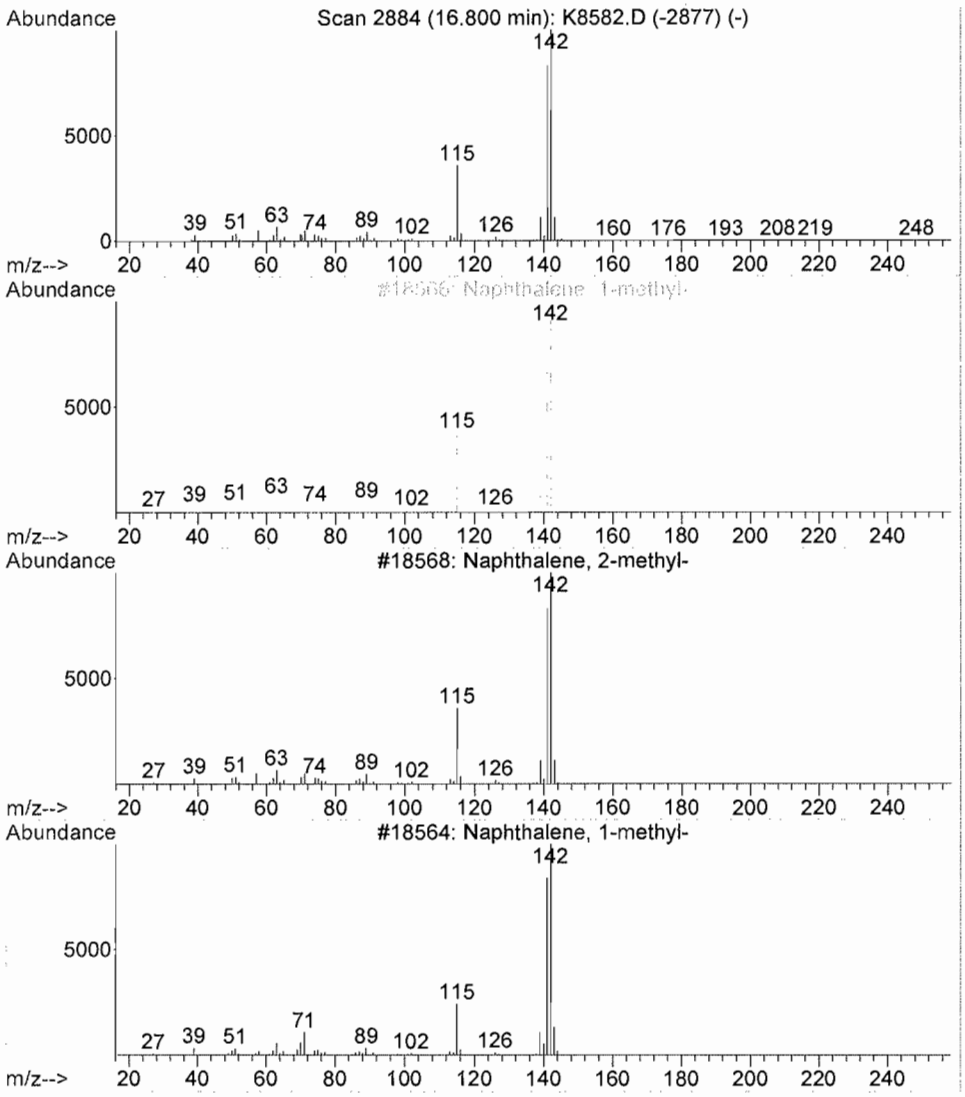
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

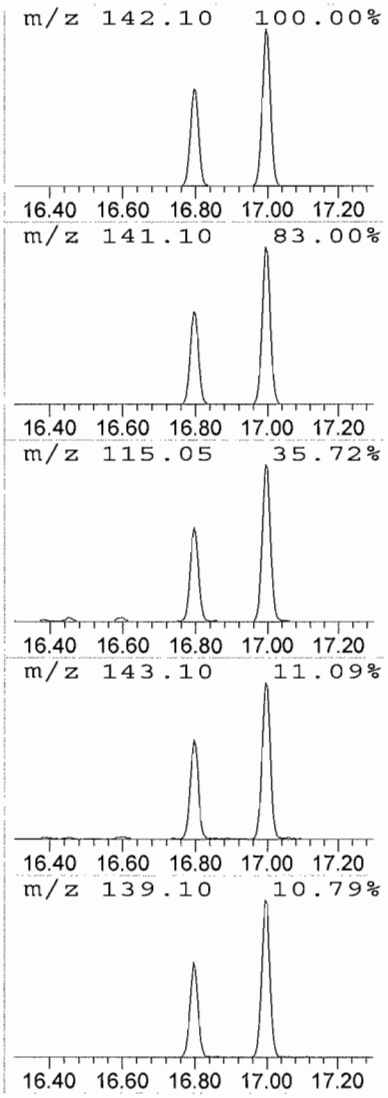
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 8 Naphthalene, 1-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.80	12.59 UG	1198530	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8582.D
Acq On : 1 Dec 2017 2:59 am
Operator : BARBARA
Sample : MW-1,E17-10256-001,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

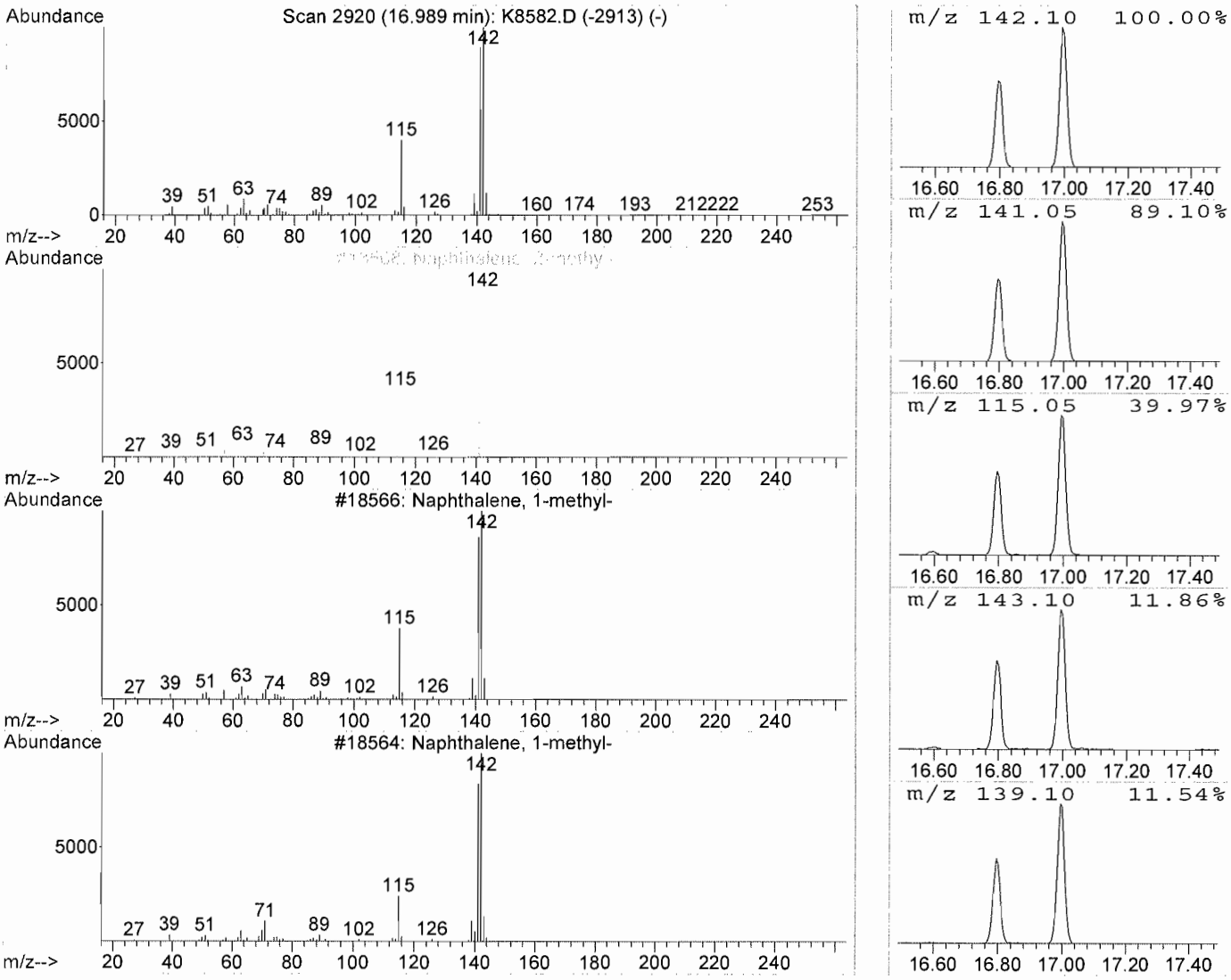
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Naphthalene, 2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.99	21.88 UG	2083230	Chlorobenzene-d5	10.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	93
5	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8583.D
Acq On : 1 Dec 2017 3:26 am
Operator : BARBARA
Sample : MW-2,E17-10256-002,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 04 12:50:26 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

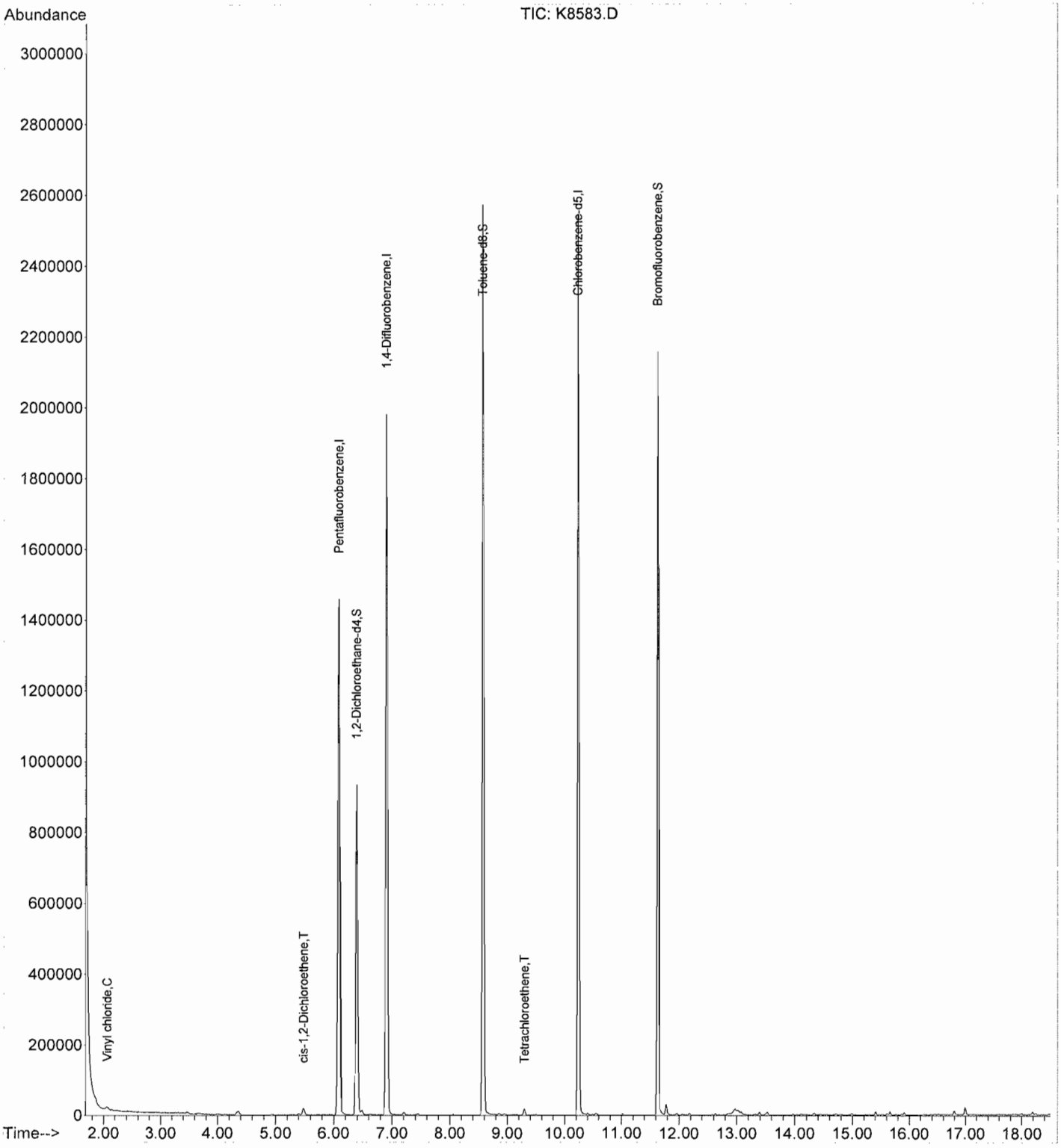
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.08	168	1160202	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.90	114	1749974	50.00	UG	0.00
50) Chlorobenzene-d5	10.24	117	1458108	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.39	65	802205	51.77	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.54%			
41) Toluene-d8	8.57	98	1835334	48.68	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.36%			
59) Bromofluorobenzene	11.64	95	801777	50.13	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%			
Target Compounds						Qvalue
4) Vinyl chloride	2.07	62	11774	1.62	UG	# 89
20) cis-1,2-Dichloroethene	5.48	96	9414	0.77	UG	# 67
45) Tetrachloroethene	9.30	166	5295	0.48	UG	# 95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8583.D
Acq On : 1 Dec 2017 3:26 am
Operator : BARBARA
Sample : MW-2,E17-10256-002,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 04 12:50:26 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8583.D
Acq On : 1 Dec 2017 3:26 am
Operator : BARBARA
Sample : MW-2,E17-10256-002,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.057	66	72	299	rVB2	16806	282779	5.63%	1.202%
2	6.084	826	840	868	rBV	1457509	3347328	66.68%	14.226%
3	6.388	885	898	912	rBV	931992	2140093	42.63%	9.095%
4	6.901	985	996	1021	rBV	1979112	4136745	82.40%	17.581%
5	8.574	1302	1315	1348	rBV	2569251	5020221	100.00%	21.336%
6	10.236	1622	1632	1661	rBV	2540941	4650574	92.64%	19.765%
7	11.636	1887	1899	1920	rBV	2154323	3820808	76.11%	16.238%
8	11.783	1920	1927	1941	rVB	29274	60639	1.21%	0.258%
9	12.973	2142	2154	2170	rBV10	13341	70368	1.40%	0.299%

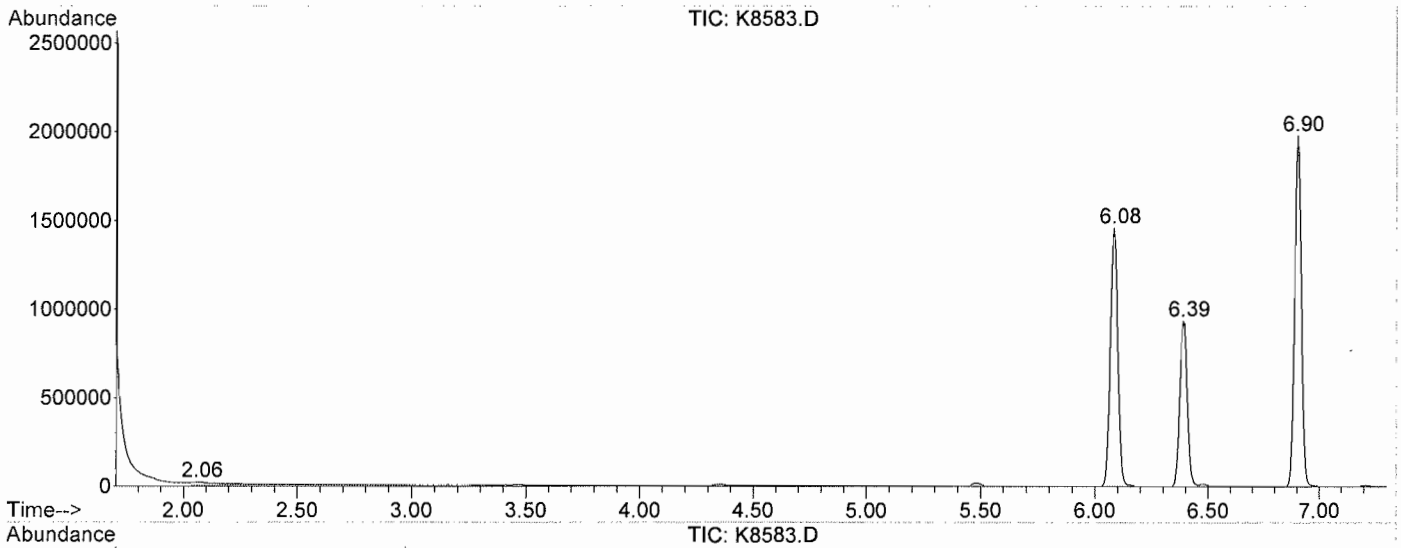
Sum of corrected areas: 23529555

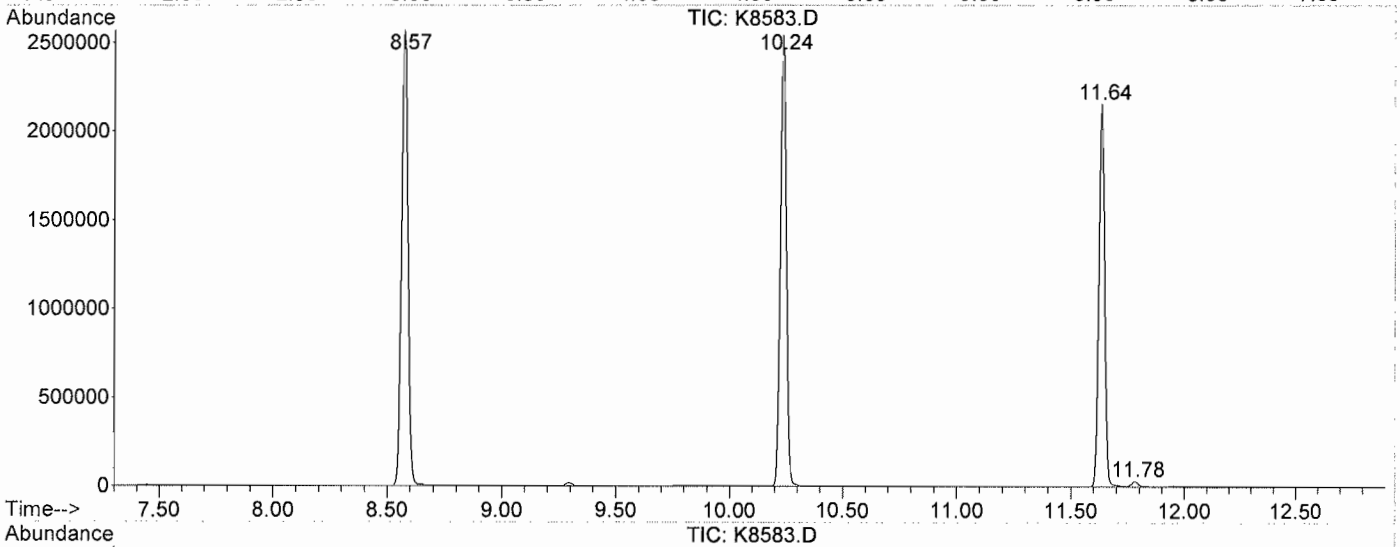
LSC Report - Integrated Chromatogram

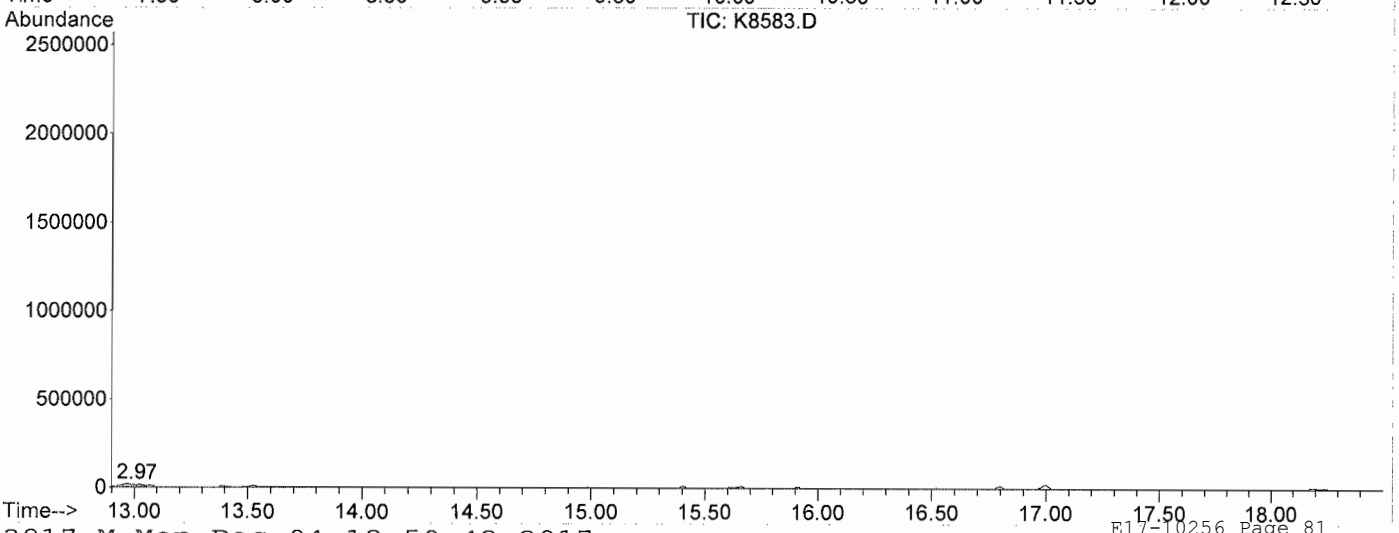
Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8583.D
Acq On : 1 Dec 2017 3:26 am
Operator : BARBARA
Sample : MW-2,E17-10256-002,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8584.D
Acq On : 1 Dec 2017 3:52 am
Operator : BARBARA
Sample : MW-3,E17-10256-003,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 04 12:51:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

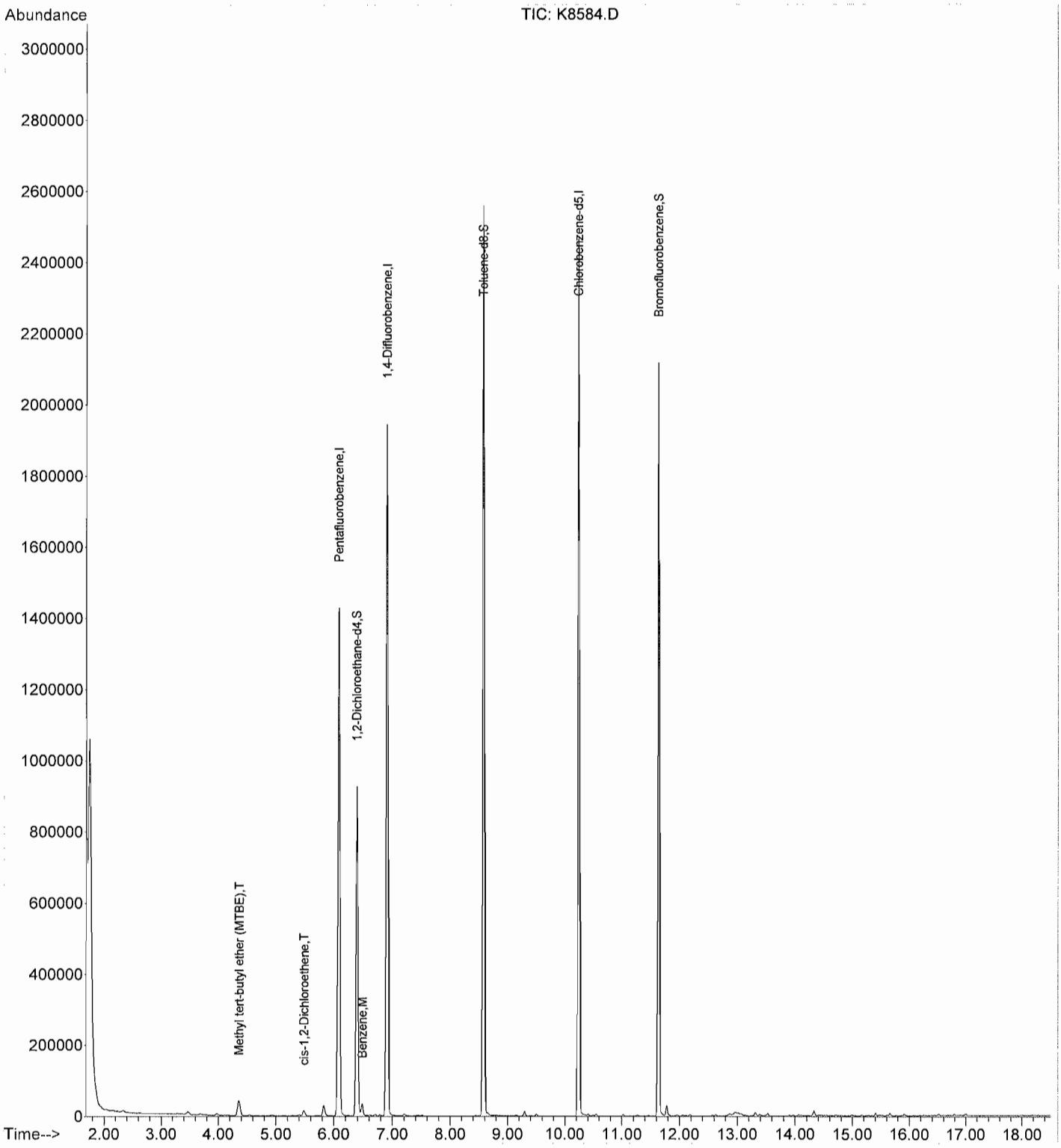
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.08	168	1146385	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.90	114	1732799	50.00	UG		0.00
50) Chlorobenzene-d5	10.24	117	1426948	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.39	65	794481	51.89	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.78%				
41) Toluene-d8	8.57	98	1808944	48.46	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.92%				
59) Bromofluorobenzene	11.64	95	789171	50.42	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%				
Target Compounds							Qvalue
17) Methyl tert-butyl ether (M	4.36	73	56501	1.55	UG		100
20) cis-1,2-Dichloroethene	5.48	96	5932	0.49	UG	#	67
32) Benzene	6.48	78	29012	0.69	UG		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8584.D
Acq On : 1 Dec 2017 3:52 am
Operator : BARBARA
Sample : MW-3,E17-10256-003,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 04 12:51:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8584.D
Acq On : 1 Dec 2017 3:52 am
Operator : BARBARA
Sample : MW-3,E17-10256-003,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 38 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.742	6	12	171	rVB	1053885	4700698	94.63%	16.848%
2	4.353	496	510	533	rVB3	42524	139996	2.82%	0.502%
3	5.826	779	791	809	rBV2	29433	78840	1.59%	0.283%
4	6.083	825	840	862	rBV	1428322	3308684	66.61%	11.859%
5	6.387	885	898	910	rBV	924570	2114076	42.56%	7.577%
6	6.482	910	916	935	rVB	33493	78196	1.57%	0.280%
7	6.901	984	996	1030	rBV	1942606	4108492	82.71%	14.726%
8	8.574	1301	1315	1352	rBV	2557618	4967321	100.00%	17.804%
9	10.236	1622	1632	1660	rBV	2470306	4569869	92.00%	16.379%
10	11.636	1886	1899	1919	rBV	2114304	3770026	75.90%	13.513%
11	11.783	1919	1927	1942	rVB3	28698	63751	1.28%	0.228%

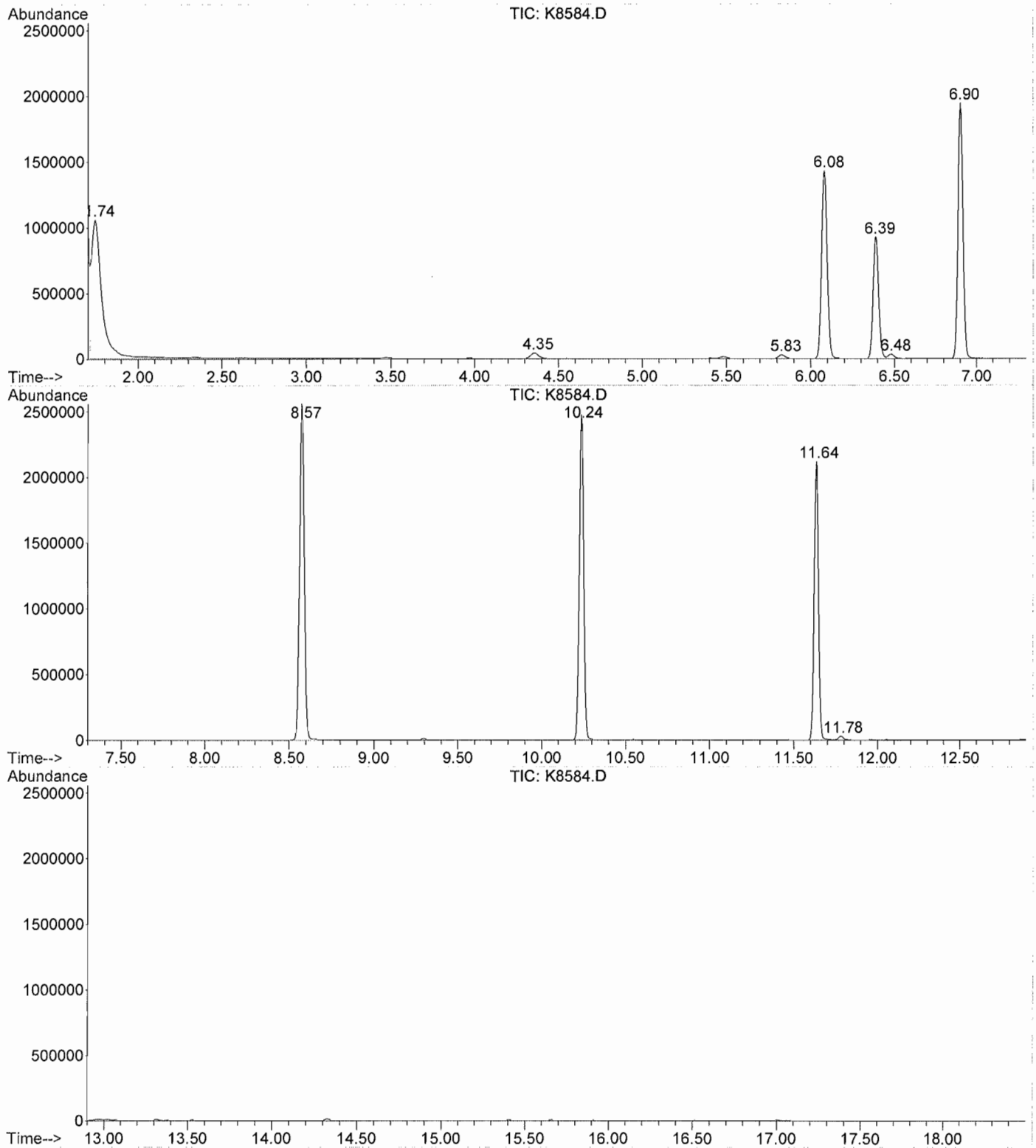
Sum of corrected areas: 27899949

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8584.D
Acq On : 1 Dec 2017 3:52 am
Operator : BARBARA
Sample : MW-3,E17-10256-003,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8584.D
Acq On : 1 Dec 2017 3:52 am
Operator : BARBARA
Sample : MW-3,E17-10256-003,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

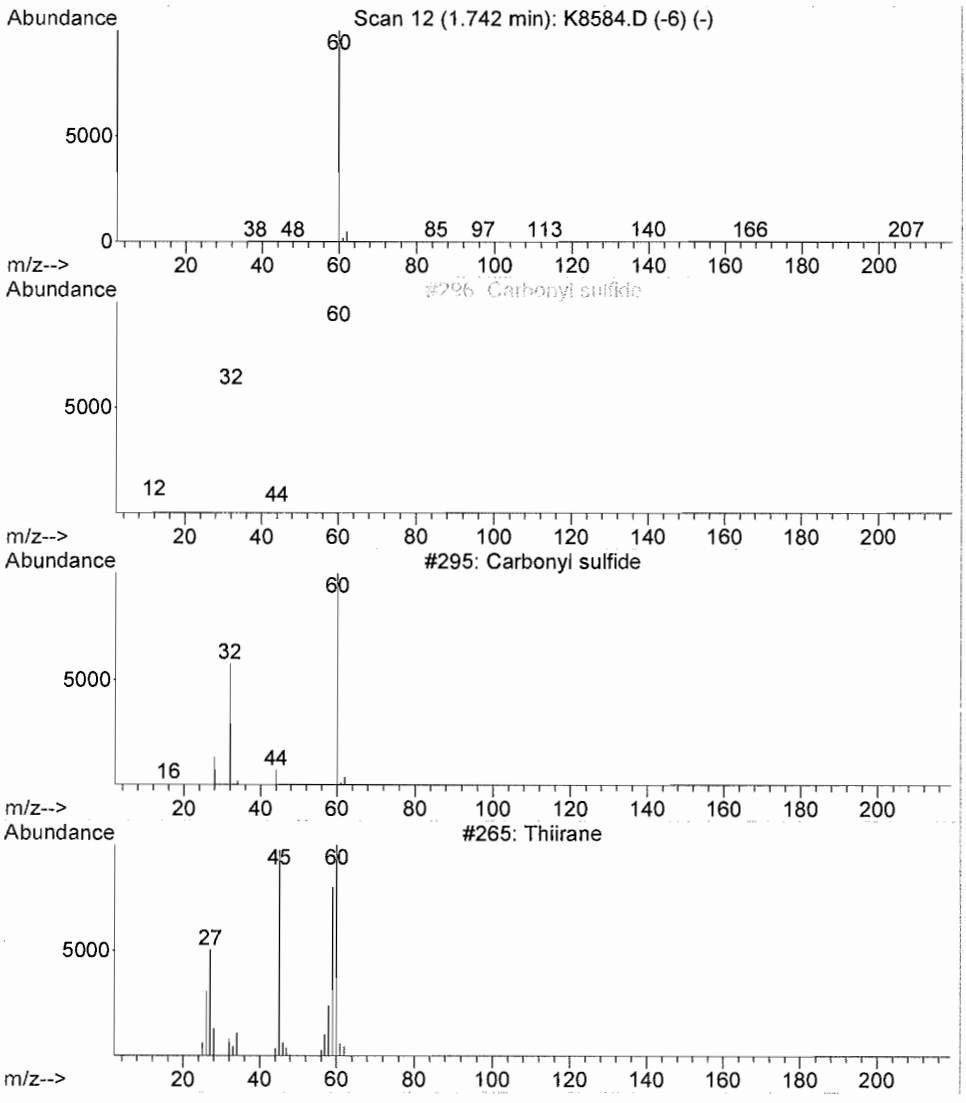
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

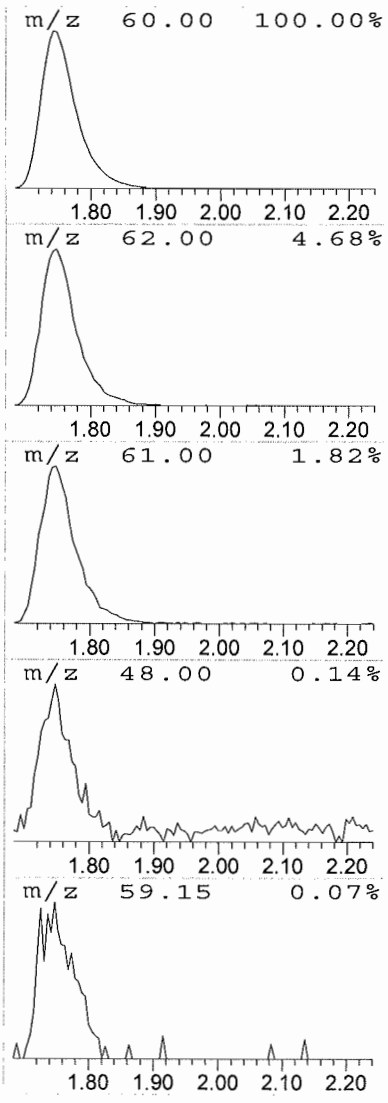
****

Peak Number 1 Unknown VOA Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.74	71.04 UG	4700700	Pentafluorobenzene	6.08

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbonyl sulfide	60	COS	000463-58-1	5
2	Carbonyl sulfide	60	COS	000463-58-1	5
3	Thiirane	60	C2H4S	000420-12-2	4
4	Urea	60	CH4N2O	000057-13-6	4
5	Urea	60	CH4N2O	000057-13-6	4





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8585.D
Acq On : 1 Dec 2017 4:19 am
Operator : BARBARA
Sample : FIELD,E17-10256-004,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 01 10:47:12 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.08	168	1125686	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.90	114	1699674	50.00	UG	0.00
50) Chlorobenzene-d5	10.24	117	1417460	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.39	65	777036	51.68	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.36%			
41) Toluene-d8	8.57	98	1784710	48.74	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.48%			
59) Bromofluorobenzene	11.64	95	767351	49.35	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.70%			

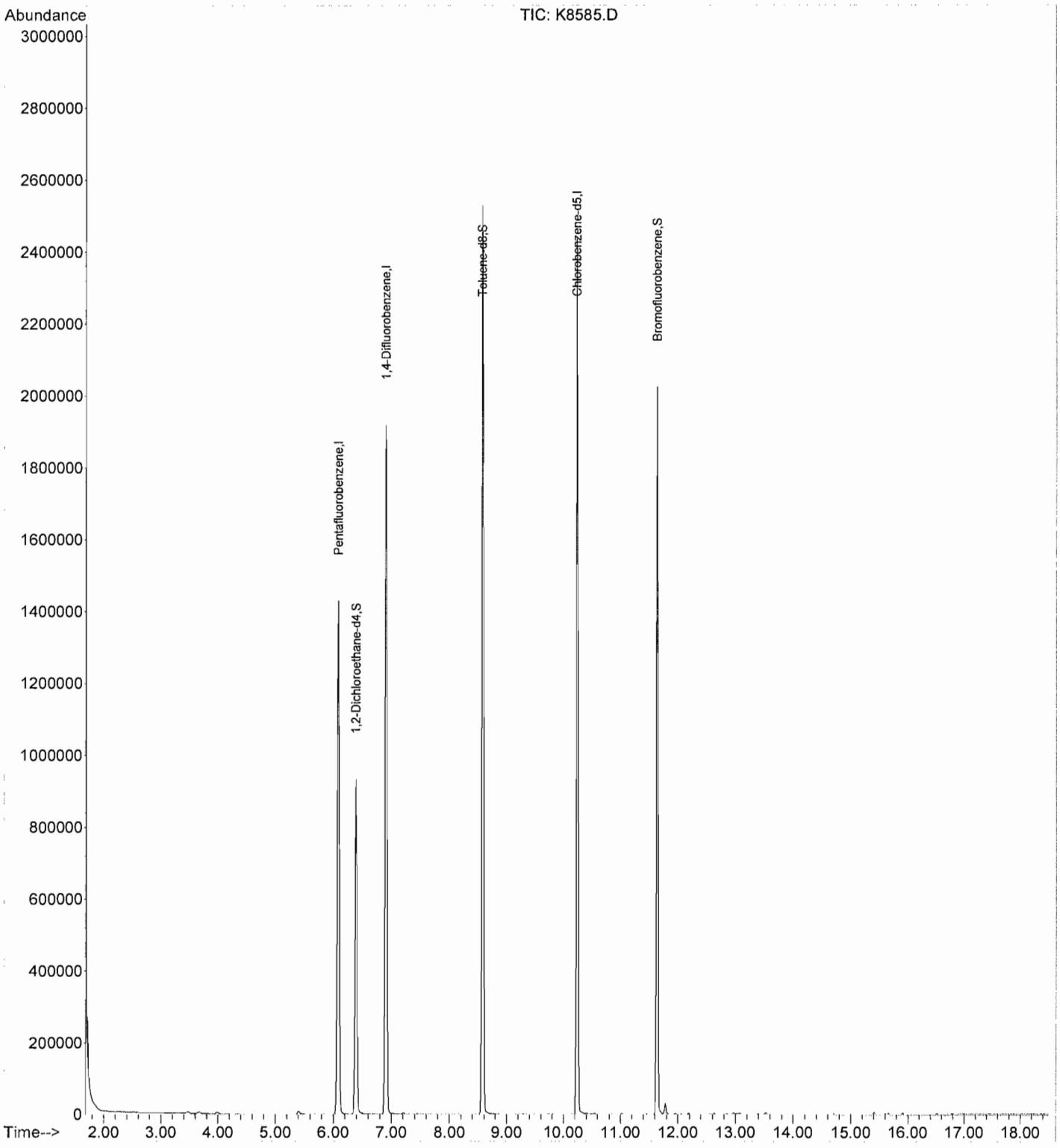
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8585.D
Acq On : 1 Dec 2017 4:19 am
Operator : BARBARA
Sample : FIELD,E17-10256-004,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 01 10:47:12 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8585.D
Acq On : 1 Dec 2017 4:19 am
Operator : BARBARA
Sample : FIELD,E17-10256-004,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 39 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.083	824	840	869	rBV	1429075	3248073	66.36%	14.427%
2	6.387	883	898	939	rBV	931344	2086114	42.62%	9.266%
3	6.901	984	996	1031	rBV	1916013	4030992	82.36%	17.905%
4	8.574	1299	1315	1352	rBV	2527202	4894465	100.00%	21.740%
5	10.236	1619	1632	1662	rBV	2441403	4514510	92.24%	20.052%
6	11.636	1885	1899	1918	rBV	2022985	3678620	75.16%	16.339%
7	11.783	1918	1927	1940	rVB2	30217	61065	1.25%	0.271%

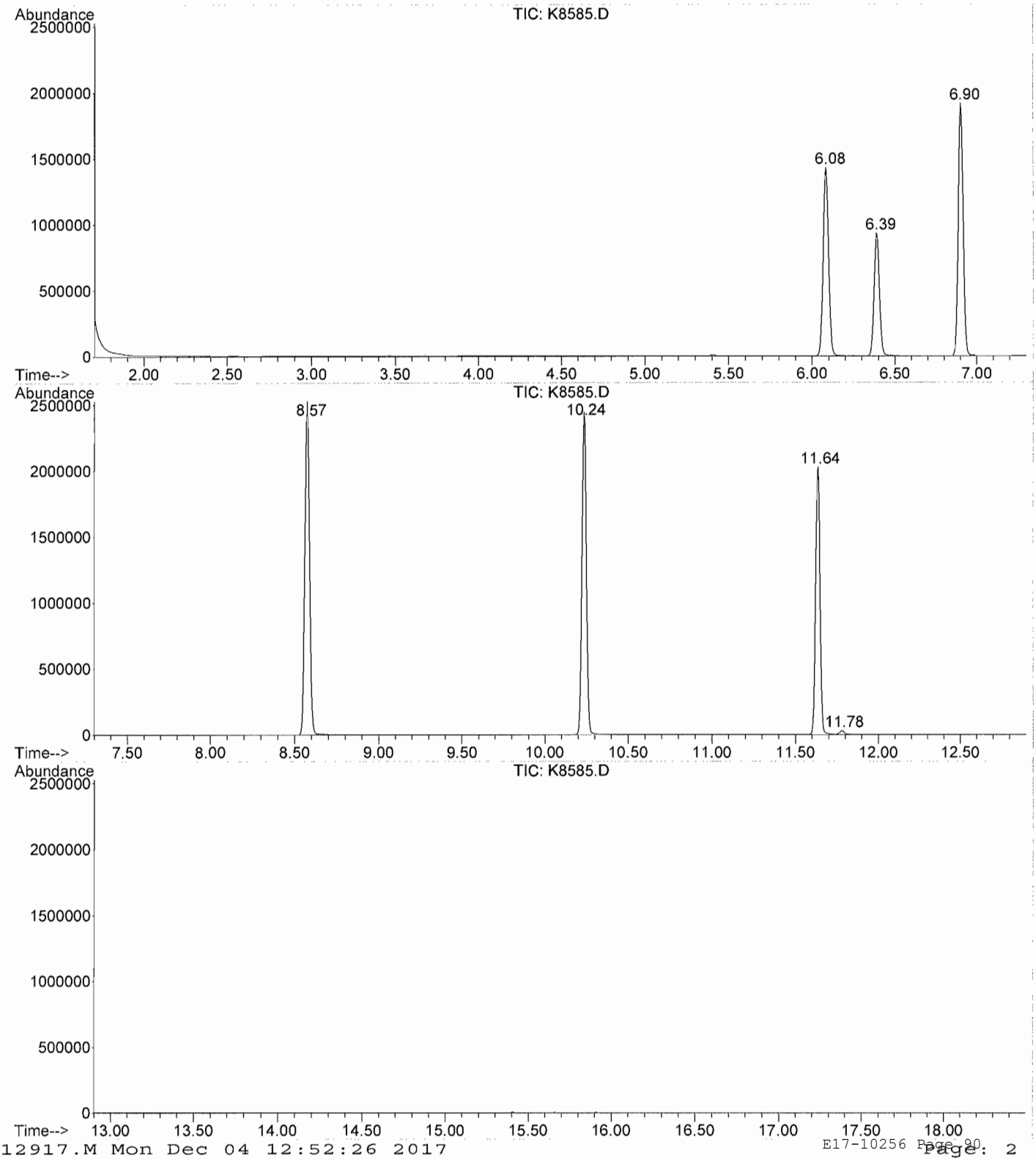
Sum of corrected areas: 22513839

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8585.D
Acq On : 1 Dec 2017 4:19 am
Operator : BARBARA
Sample : FIELD,E17-10256-004,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8586.D
Acq On : 1 Dec 2017 4:46 am
Operator : BARBARA
Sample : TRIP,E17-10256-005,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 01 10:47:44 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.08	168	1124120	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.90	114	1699921	50.00	UG	0.00
50) Chlorobenzene-d5	10.24	117	1409819	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.39	65	777072	51.76	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.52%			
41) Toluene-d8	8.57	98	1786562	48.78	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.56%			
59) Bromofluorobenzene	11.64	95	776669	50.22	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.44%			

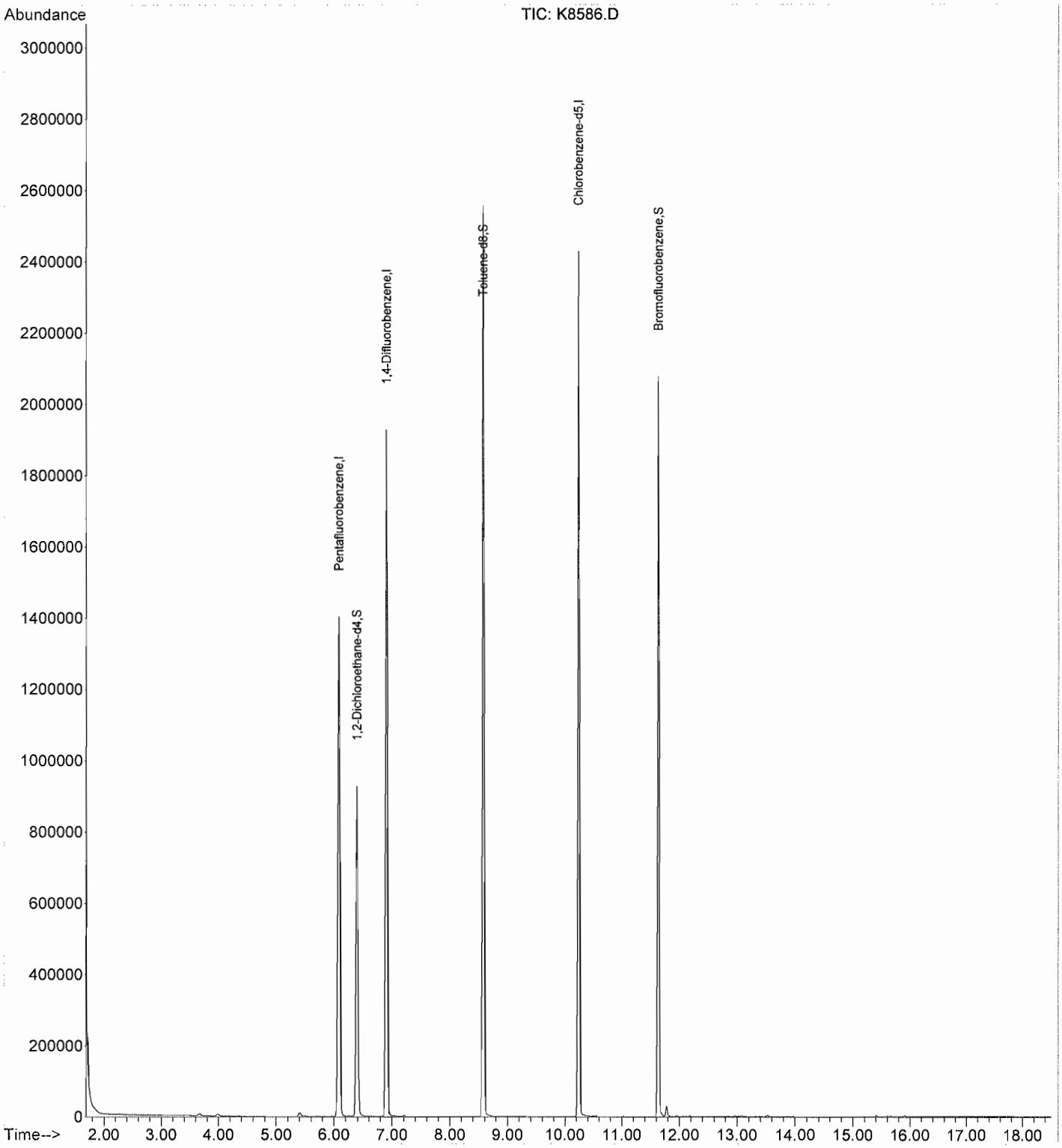
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8586.D
Acq On : 1 Dec 2017 4:46 am
Operator : BARBARA
Sample : TRIP,E17-10256-005,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 01 10:47:44 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8586.D
Acq On : 1 Dec 2017 4:46 am
Operator : BARBARA
Sample : TRIP,E17-10256-005,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 40 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.083	828	840	867	rBV	1402090	3242831	66.42%	14.406%
2	6.388	886	898	926	rBV	925998	2078507	42.57%	9.234%
3	6.901	985	996	1033	rBV	1926002	4029101	82.53%	17.899%
4	8.574	1302	1315	1356	rBV	2555489	4882216	100.00%	21.689%
5	10.236	1620	1632	1661	rBV	2426395	4499443	92.16%	19.989%
6	11.636	1885	1899	1919	rBV	2075744	3716746	76.13%	16.512%
7	11.783	1919	1927	1942	rVB2	28470	60964	1.25%	0.271%

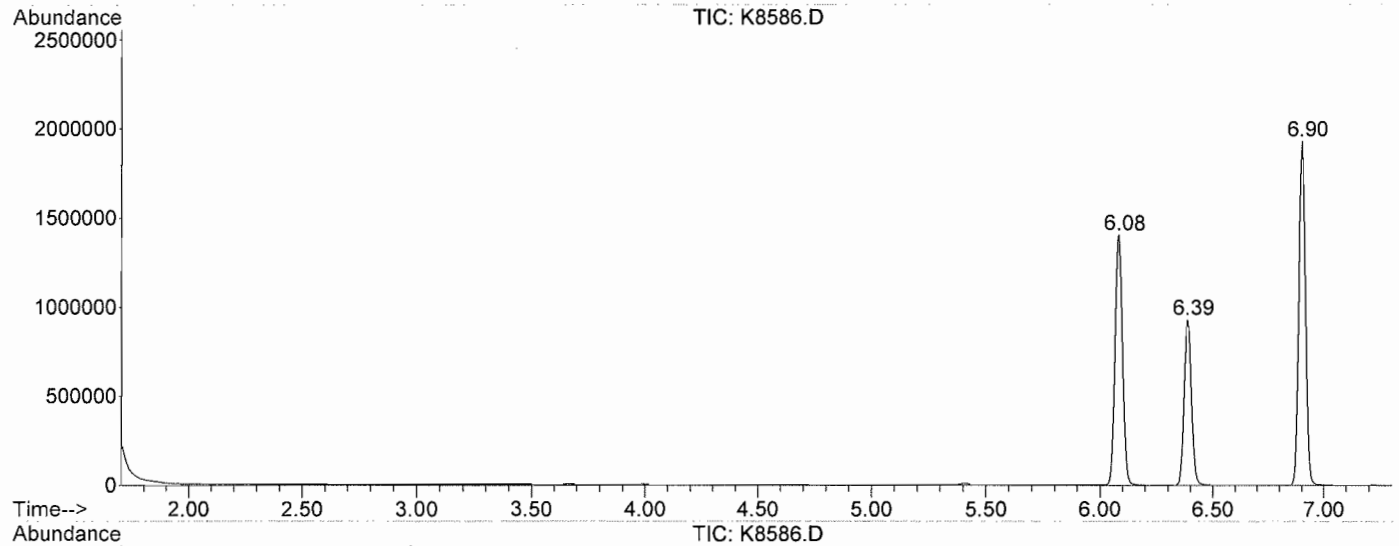
Sum of corrected areas: 22509808

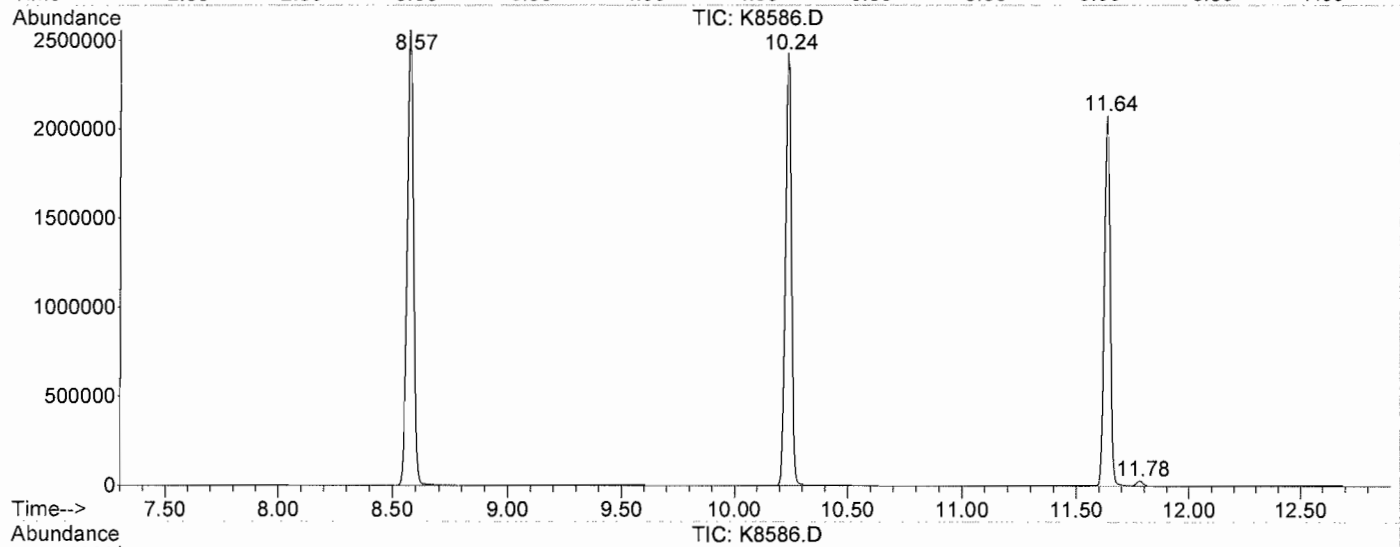
LSC Report - Integrated Chromatogram

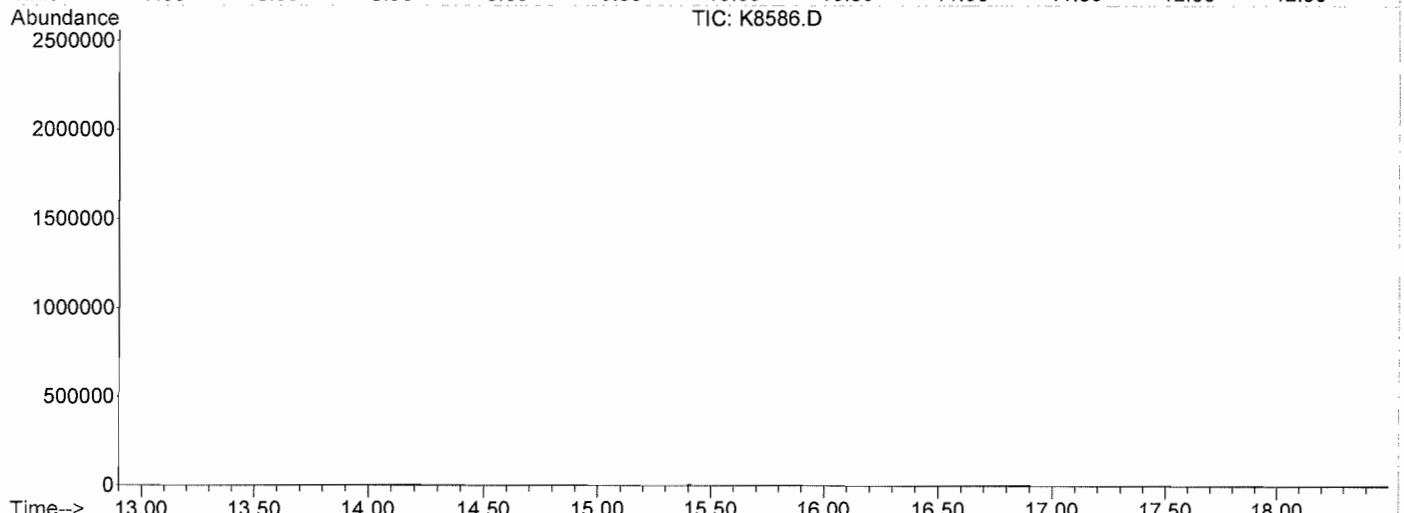
Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8586.D
Acq On : 1 Dec 2017 4:46 am
Operator : BARBARA
Sample : TRIP,E17-10256-005,A,5mL,100
Misc : AESI/27-10_49TH_AV,11/29/17,11/29/17,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171130a
Client ID: BLKA171130a
Date Received: NA
Date Analyzed: 11/30/2017
Data file: K8574.D 11/30/17 23:22

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		1.00	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171130a
Client ID: BLKA171130a
Date Received: NA
Date Analyzed: 11/30/2017
Data file: K8574.D 11/30/17 23:22

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171130a
Client ID: BLKA171130a
Date Received: NA
Date Analyzed: 11/30/2017
Data file: K8574.D 11/30/17 23:22

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8574.D
Acq On : 30 Nov 2017 11:22 pm
Operator : BARBARA
Sample : BLKA171130a,BLKA171130a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 04 11:59:57 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.08	168	1139209	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.91	114	1724968	50.00	UG	0.00
50) Chlorobenzene-d5	10.24	117	1455382	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.39	65	790415	51.95	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.90%			
41) Toluene-d8	8.57	98	1830515	49.26	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%			
59) Bromofluorobenzene	11.64	95	799242	50.06	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			

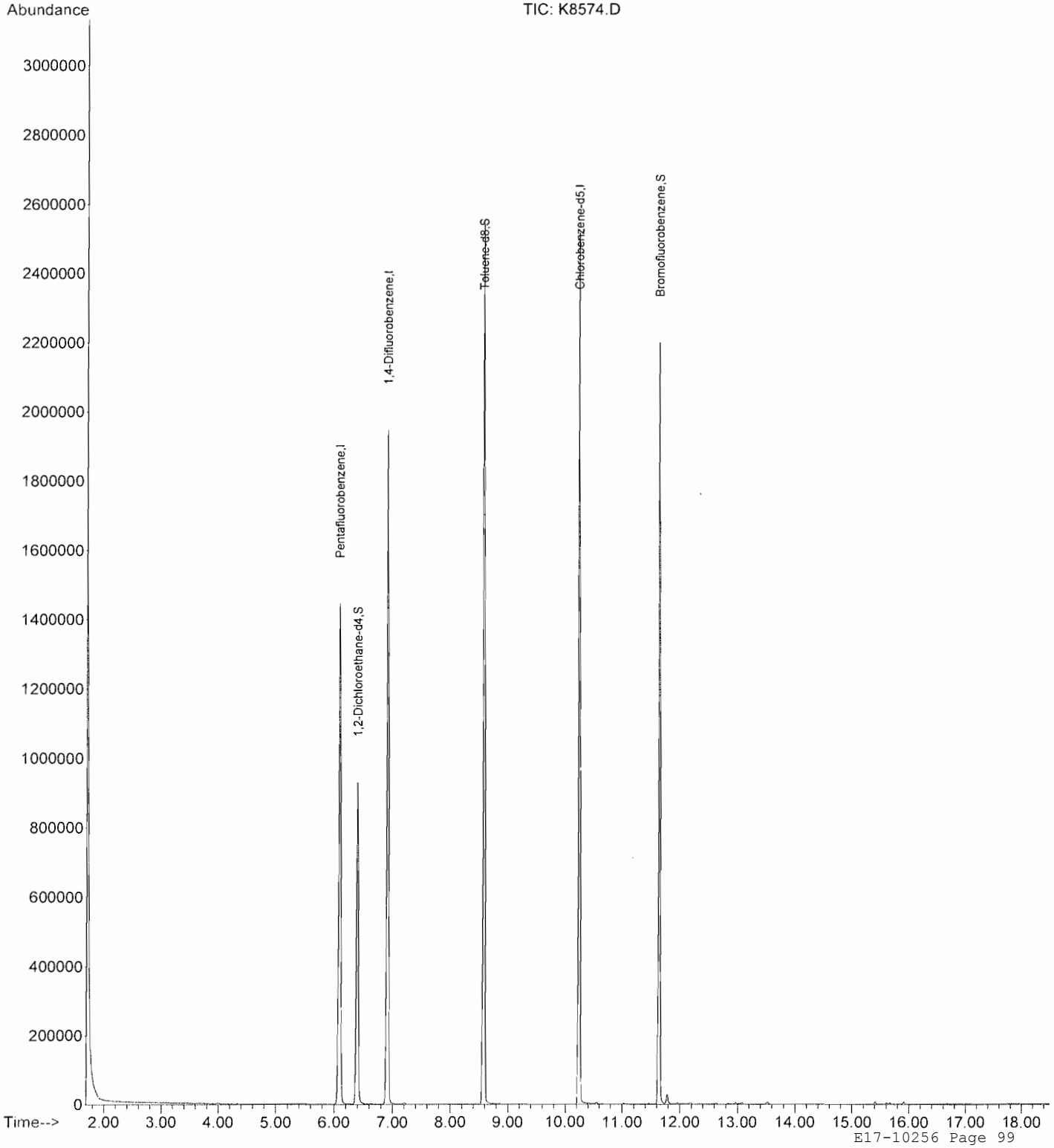
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8574.D
Acq On : 30 Nov 2017 11:22 pm
Operator : BARBARA
Sample : BLKA171130a,BLKA171130a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 04 11:59:57 2017
Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Nov 30 15:17:29 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8574.D
Acq On : 30 Nov 2017 11:22 pm
Operator : BARBARA
Sample : BLKA171130a,BLKA171130a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\K8112917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.025	64	66	235	rVB	8629	166357	3.32%	0.716%
2	6.083	827	840	865	rBV	1444695	3299508	65.80%	14.202%
3	6.393	885	899	928	rBV	929730	2113029	42.14%	9.095%
4	6.901	985	996	1025	rBV	1944594	4096212	81.68%	17.631%
5	8.574	1304	1315	1343	rBV	2545951	5014826	100.00%	21.585%
6	10.241	1622	1633	1662	rBV	2515032	4652605	92.78%	20.026%
7	11.636	1888	1899	1919	rBV	2197413	3823291	76.24%	16.456%
8	11.783	1919	1927	1945	rVB2	28874	67302	1.34%	0.290%

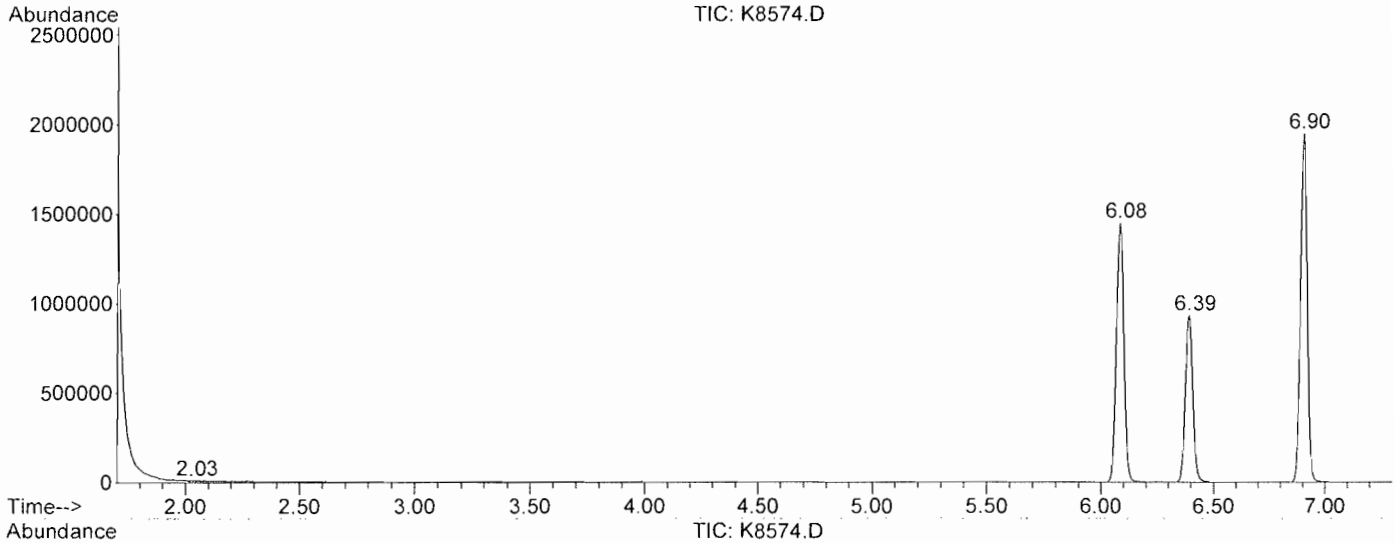
Sum of corrected areas: 23233130

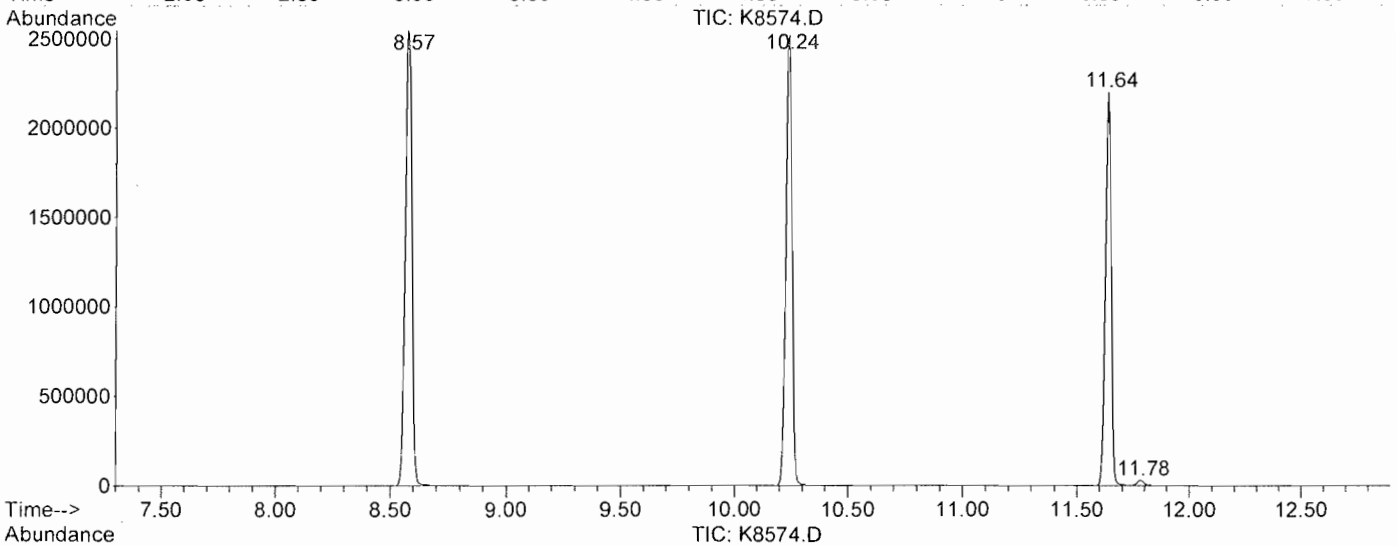
LSC Report - Integrated Chromatogram

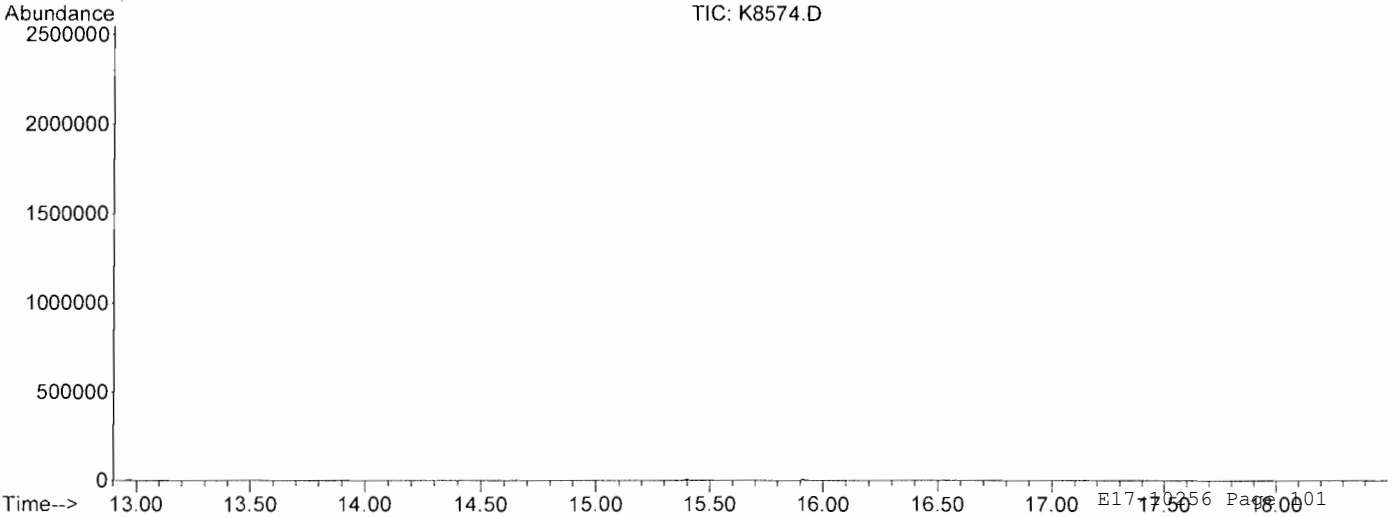
Data Path : C:\MSDChem\1\DATA\11-30-17\
Data File : K8574.D
Acq On : 30 Nov 2017 11:22 pm
Operator : BARBARA
Sample : BLKA171130a,BLKA171130a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\K8112917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







MICRO-EXTRACTABLE

MICRO-EXTRACTABLE
QC SUMMARY

8011 LCS ACCURACY RECOVERY

Lab ID: LCSA171130-10
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
LCS Data file: P6031.D

GC Column: DB-5/DB1701P
Sample wt/vol: 35ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	LCS CONC. (ug/L)	LCS % REC #	QC LIMITS REC.
1,2-Dibromoethane (EDB)	0.25	0.0	0.28	112	60 - 140
1,2-Dibromo-3-chloropropane	0.25	0.0	0.31	124	60 - 140
1,2,3-Trichloropropane	0.50	0.0	0.60	120	60 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

8011 MS/MSD ACCURACY RECOVERY

Lab ID: E17-10256-001
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
MS Data file: P6032.D
MSD Data file: P6033.D

GC Column: DB-5/DB1701P
Sample wt/vol: 33.8ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
Dilution Factor: 1

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
1,2-Dibromoethane (EDB)	1.00	0.0	0.80	80	60 - 140
1,2-Dibromo-3-chloropropane	1.00	0.0	0.94	94	60 - 140
1,2,3-Trichloropropane	2.00	0.0	1.69	85	60 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2-Dibromoethane (EDB)	0.0	0.86	86	7	20	60 - 140
1,2-Dibromo-3-chloropropane	0.0	1.02	102	8	20	60 - 140
1,2,3-Trichloropropane	0.0	1.75	88	3	20	60 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

8011 METHOD BLANK SUMMARY

Lab File ID:	P6030.D	Instrument ID:	GC-P
Date Extracted:	11/30/2017	Matrix:	AQUEOUS
Date Analyzed:	11/30/2017	Time Analyzed:	12:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
8011	LCSA171130-10	11/30/2017	12:59
8011	E17-10256-001MS	11/30/2017	13:14
8011	E17-10256-001MSD	11/30/2017	13:28
MW-1	E17-10256-001	11/30/2017	13:47
MW-2	E17-10256-002	11/30/2017	14:01
MW-3	E17-10256-003	11/30/2017	14:16
FIELD	E17-10256-004	11/30/2017	14:30
TRIP_	E17-10256-005	11/30/2017	14:45
TW-1	E17-10208-003	11/30/2017	14:59
TW-2	E17-10208-005	11/30/2017	15:13
TW-3	E17-10208-007	11/30/2017	15:28
MW-1R	E17-10269-001	11/30/2017	15:42
MW-24	E17-10269-002	11/30/2017	15:57
MW-3	E17-10269-003	11/30/2017	16:11
MW-8	E17-10269-004	11/30/2017	16:26
MW-14	E17-10269-006	11/30/2017	16:40

8011 INITIAL CALIBRATION

Date Analyzed: 11/28/2017 **Instrument ID:** GC-P
GC Column (1st): RTX-CLP1

Data File: P5985.D P5984.D P5983.D P5982.D P5981.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW FROM	RT WINDOW TO
	0.25	0.5	1	1.5	2			
1,2-Dibromoethane	2.28	2.28	2.28	2.28	2.28	2.28	2.21	2.37
1,2-Dibromo-3-chloropropane	4.04	4.04	4.04	4.04	4.04	4.04	3.96	4.12
1,2,3-Trichloropropane	3.30	3.30	3.30	3.30	3.30	3.30	3.22	3.38

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	0.25	0.5	1	1.5	2		
1,2-Dibromoethane	449512	513494	439571	403175	427011	446553	9.23
1,2-Dibromo-3-chloropropane	606134	555062	550963	512853	533963	551795	6.28
1,2,3-Trichloropropane	55879	51401	48177	43313	48133	49380	9.40

GC Column (2nd): RTX-CLP2

Data File: P5985.C P5984.C P5983.C P5982.C P5981.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW FROM	RT WINDOW TO
	0.25	0.5	1	1.5	2			
1,2-Dibromoethane	2.77	2.77	2.77	2.77	2.77	2.77	2.70	2.84
1,2-Dibromo-3-chloropropane	4.41	4.41	4.41	4.41	4.41	4.41	4.33	4.49
1,2,3-Trichloropropane	3.63	3.63	3.63	3.62	3.63	3.63	3.55	3.71

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	0.25	0.5	1	1.5	2		
1,2-Dibromoethane	230073	250317	237289	250554	283081	250263	8.12
1,2-Dibromo-3-chloropropane	399947	428825	386355	360594	378881	390920	6.53
1,2,3-Trichloropropane	36132	39389	37925	32770	32307	35705	8.73

8011 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/30/2017 **Instrument ID:** GC-P

Data File: P6029.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.28	2.21	2.37	446553	422054	5.49
1,2-Dibromo-3-chloropropane	4.04	3.96	4.12	551795	598400	8.45
1,2,3-Trichloropropane	3.30	3.22	3.38	49380	48363	2.06

GC Column (2nd): RTX-CLP2

Data File: P6029.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.77	2.70	2.84	250263	263148	5.15
1,2-Dibromo-3-chloropropane	4.41	4.33	4.49	390920	396538	1.44
1,2,3-Trichloropropane	3.62	3.55	3.71	35705	38361	7.44

8011 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/30/2017 **Instrument ID:** GC-P

Data File: P6047.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.28	2.21	2.37	446553	420824	5.76
1,2-Dibromo-3-chloropropane	4.04	3.96	4.12	551795	602271	9.15
1,2,3-Trichloropropane	3.31	3.22	3.38	49380	50849	2.97

GC Column (2nd): RTX-CLP2

Data File: P6047.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.77	2.70	2.84	250263	258926	3.46
1,2-Dibromo-3-chloropropane	4.41	4.33	4.49	390920	406265	3.93
1,2,3-Trichloropropane	3.63	3.55	3.71	35705	37557	5.19

MICRO-EXTRACTABLE
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6034.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 13:47
Operator : PSL
Sample : MW-1,E17-10256-001,A,33.8ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:17:09 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

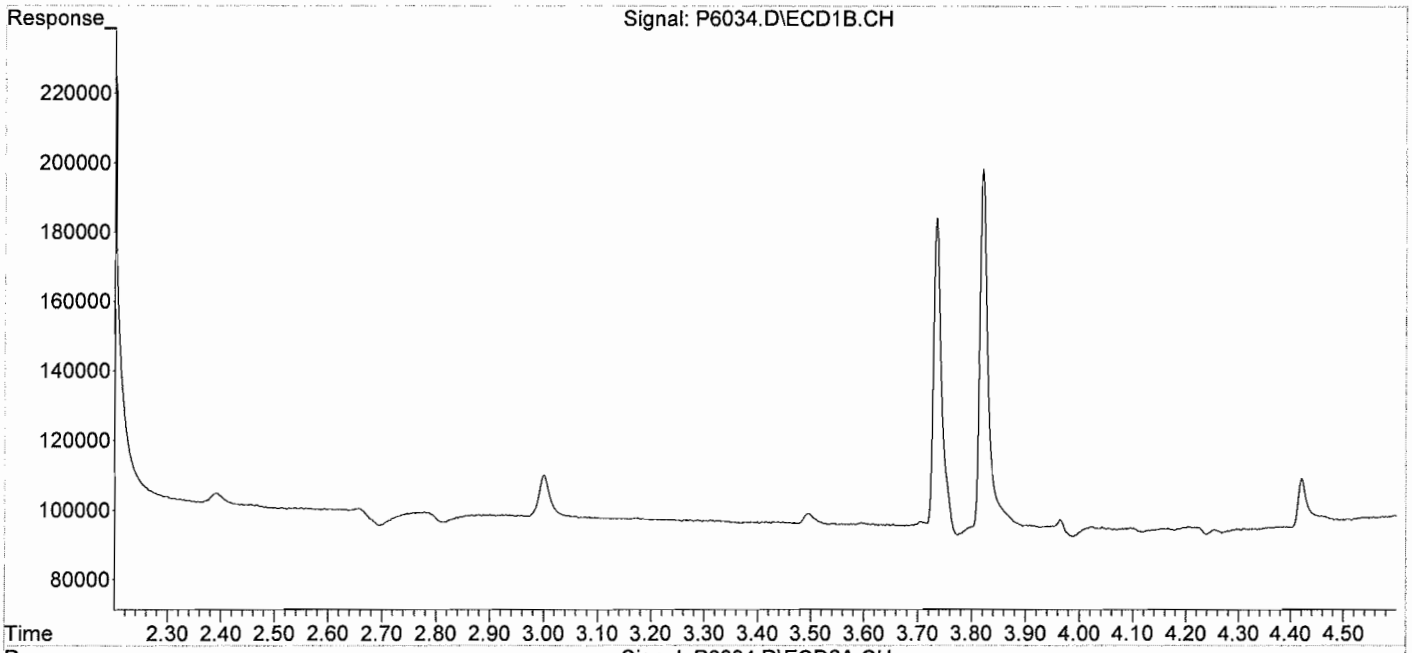
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

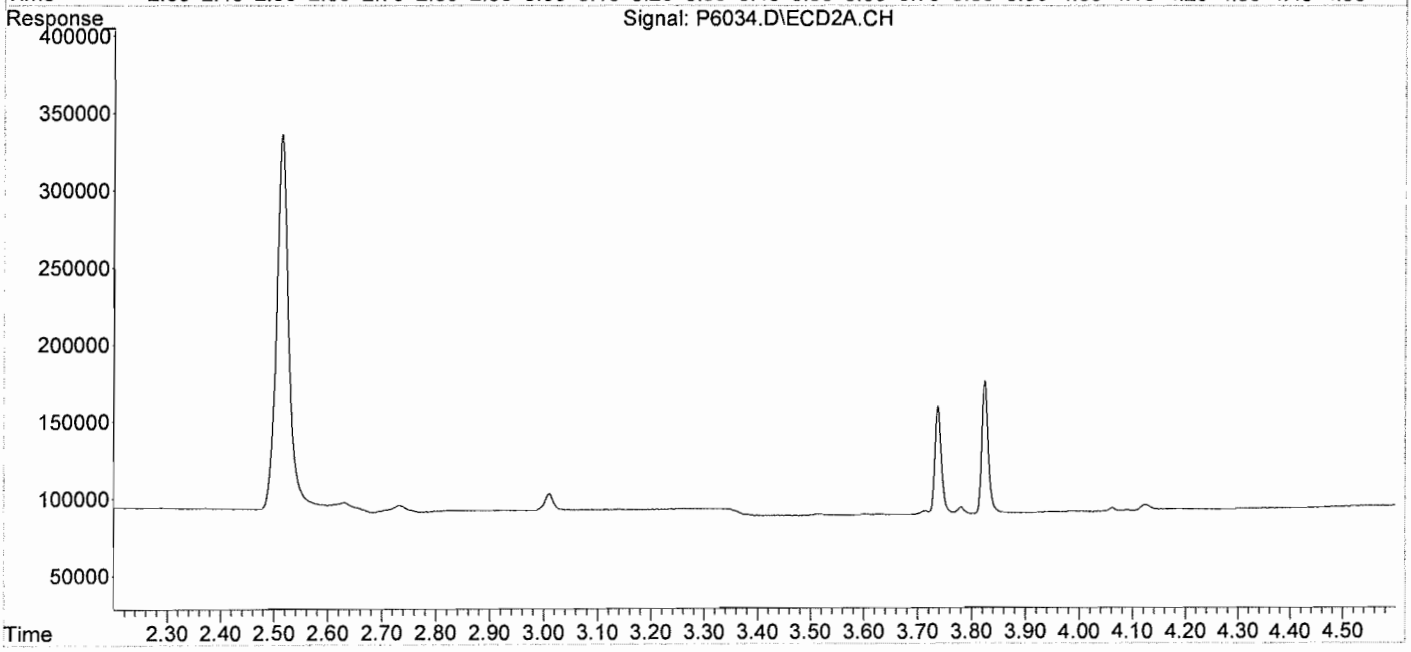
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6034.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 13:47
Operator : PSL
Sample : MW-1,E17-10256-001,A,33.8ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:17:09 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6035.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:01
Operator : PSL
Sample : MW-2,E17-10256-002,A,34.1ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:17:32 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

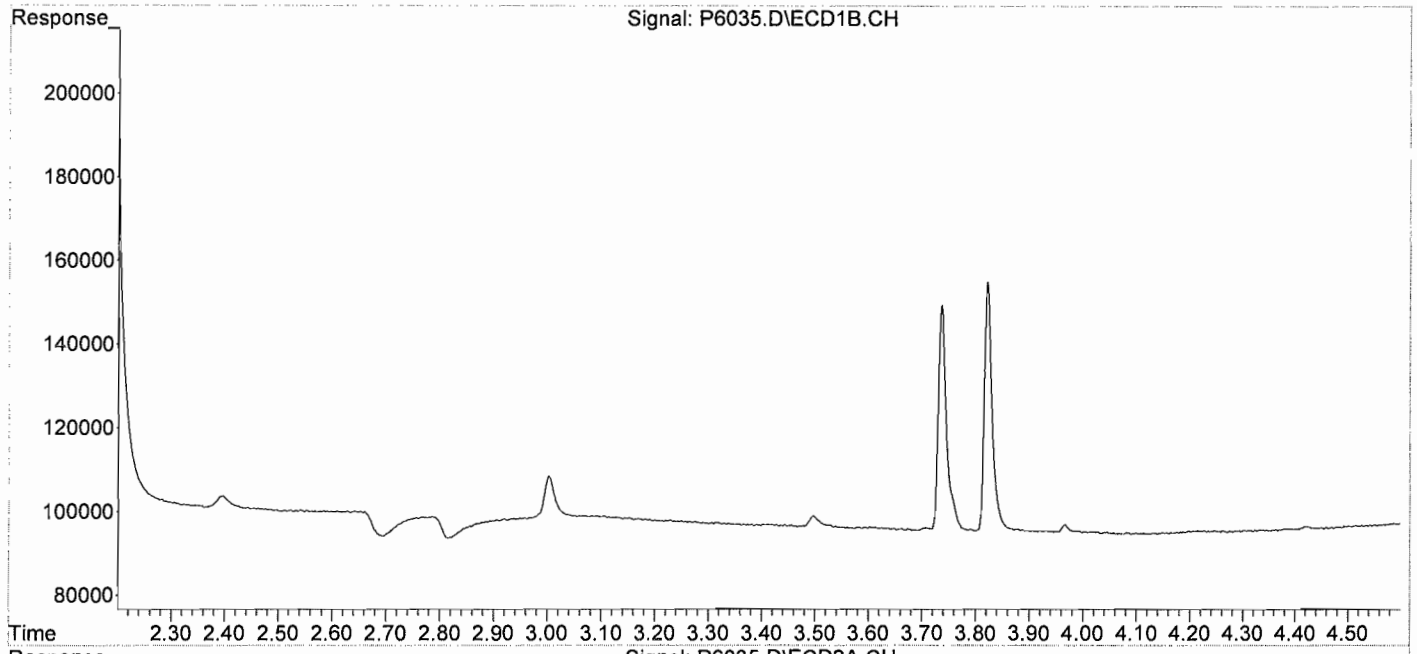
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

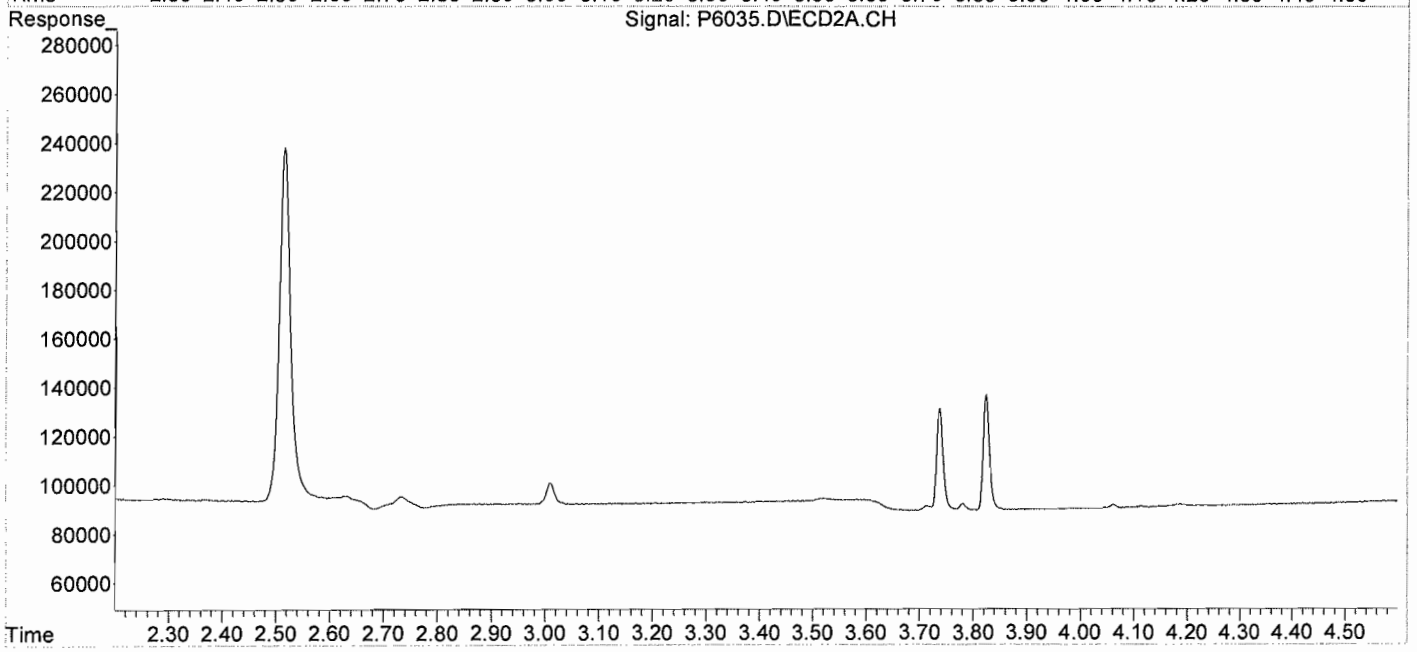
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6035.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:01
Operator : PSL
Sample : MW-2,E17-10256-002,A,34.1ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:17:32 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6036.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:16
Operator : PSL
Sample : MW-3,E17-10256-003,A,33.9ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:17:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

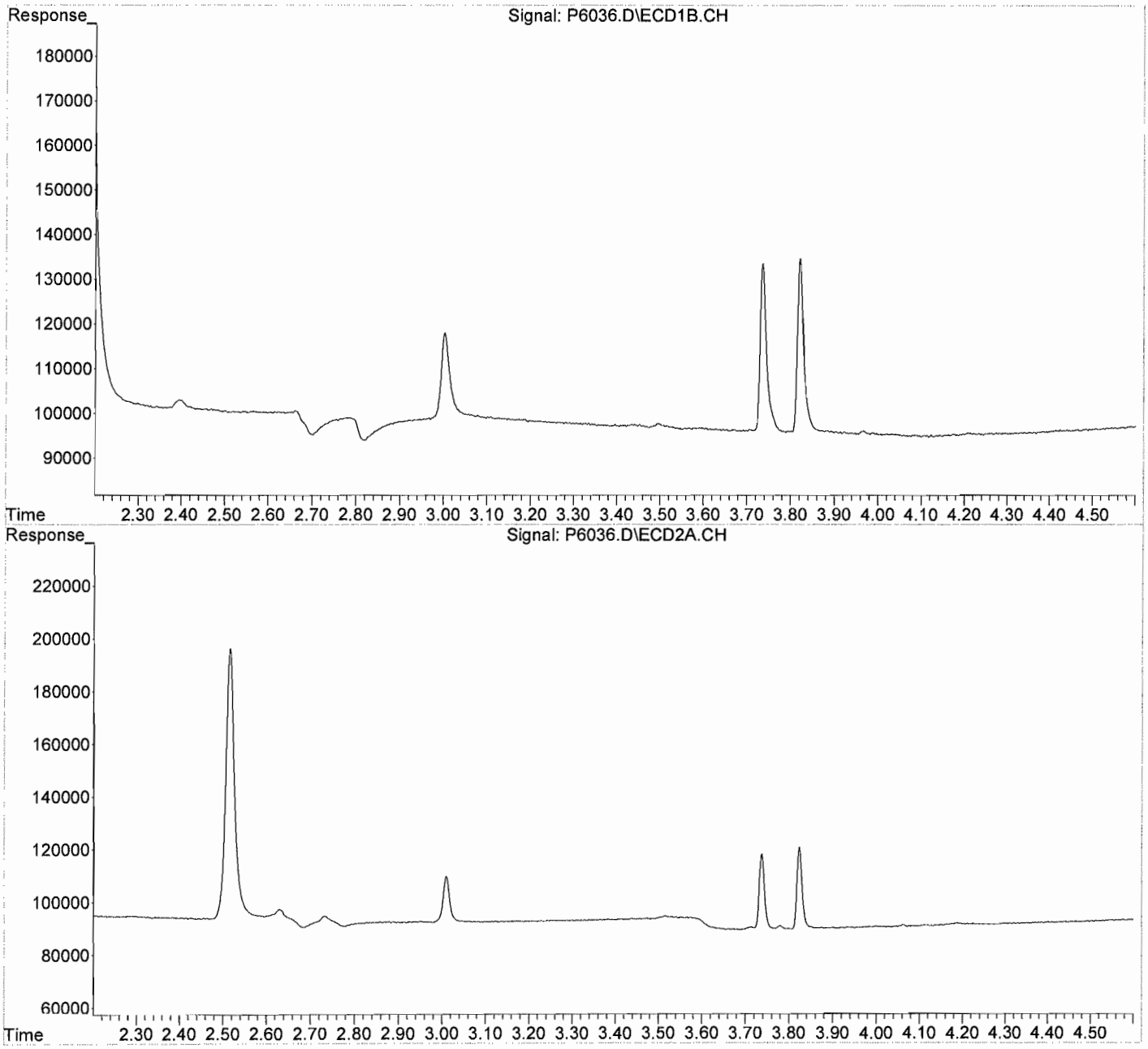
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6036.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:16
Operator : PSL
Sample : MW-3,E17-10256-003,A,33.9ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:17:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6037.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:30
Operator : PSL
Sample : FIELD,E17-10256-004,A,34.5ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:18:14 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

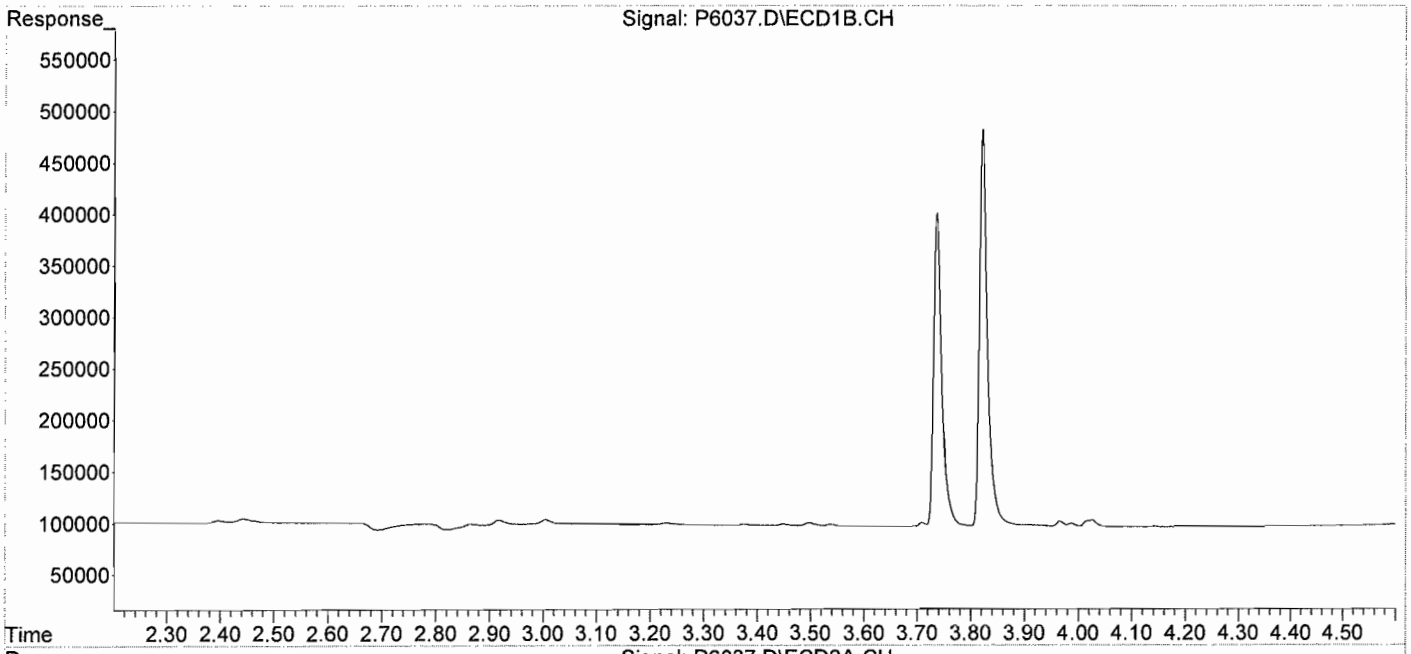
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

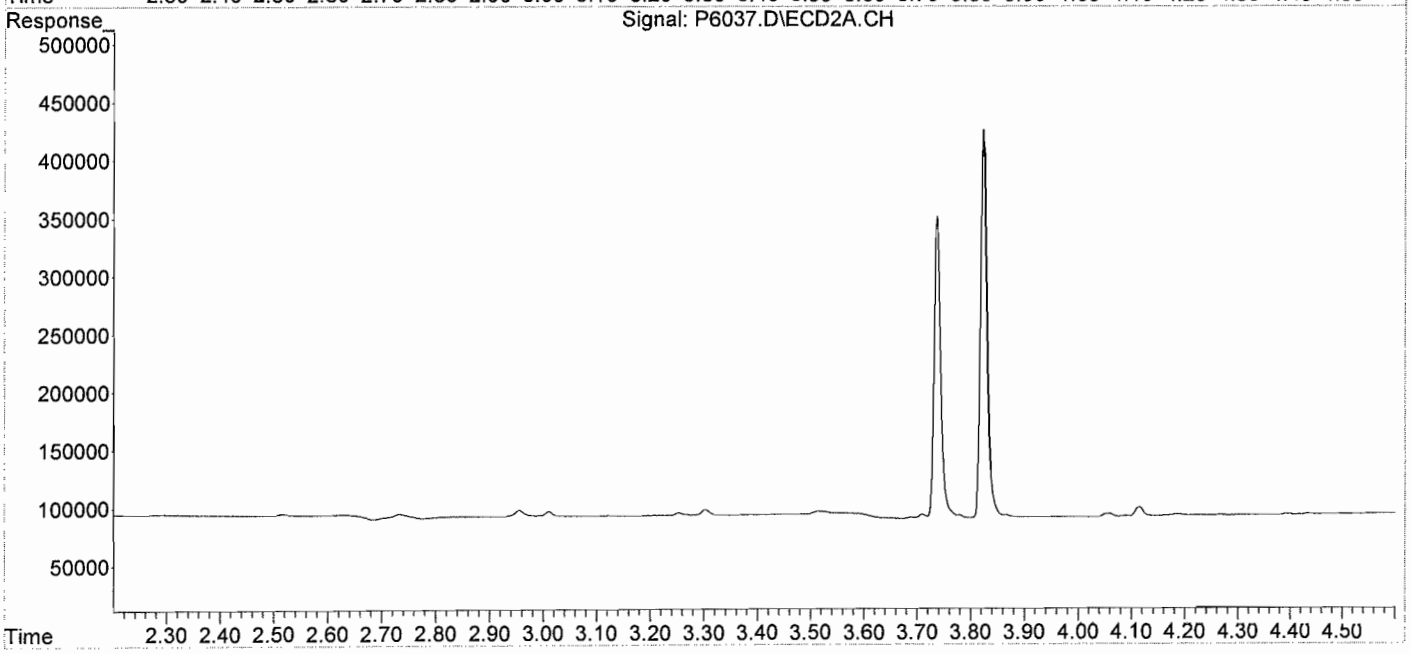
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6037.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:30
Operator : PSL
Sample : FIELD,E17-10256-004,A,34.5ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:18:14 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6038.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:45
Operator : PSL
Sample : TRIP_,E17-10256-005,A,34.8ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:18:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

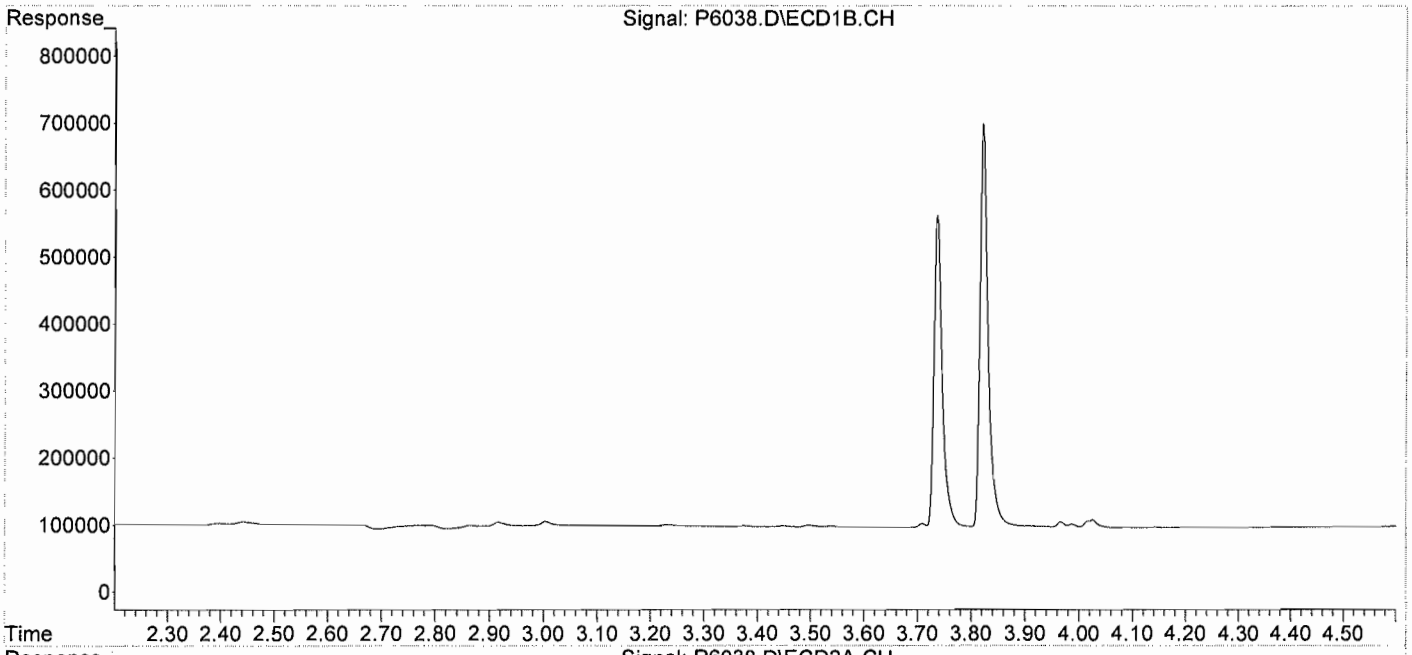
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

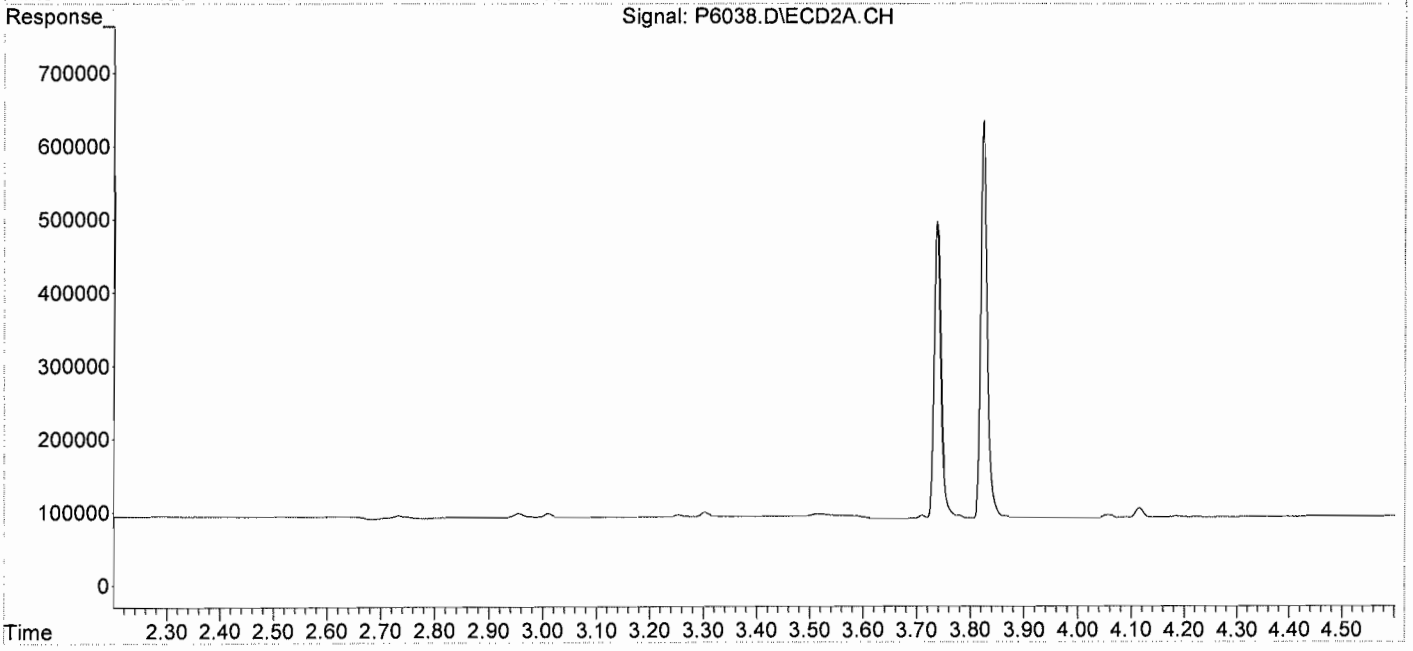
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : P6038.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 14:45
Operator : PSL
Sample : TRIP_,E17-10256-005,A,34.8ml,100,2
Misc : 171130-10,11/30/17,11/29/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 16:18:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

Volatiles (8011)

Lab ID: BLKA171130-10
Client ID: 8011
Date Received: NA
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: P6030.D 11/30/17 12:45

GC Column: DB-5/DB1701P
Sample wt/vol: 35ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00857
1,2-Dibromo-3-chloropropane	ND		0.014	0.00857
1,2,3-Trichloropropane	ND		0.029	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\17-11-30\
Data File : P6030.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 12:45
Operator : PSL
Sample : 8011,BLKA171130-10,A,35ml,100,2
Misc : 171130-10,11/30/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 13:13:04 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

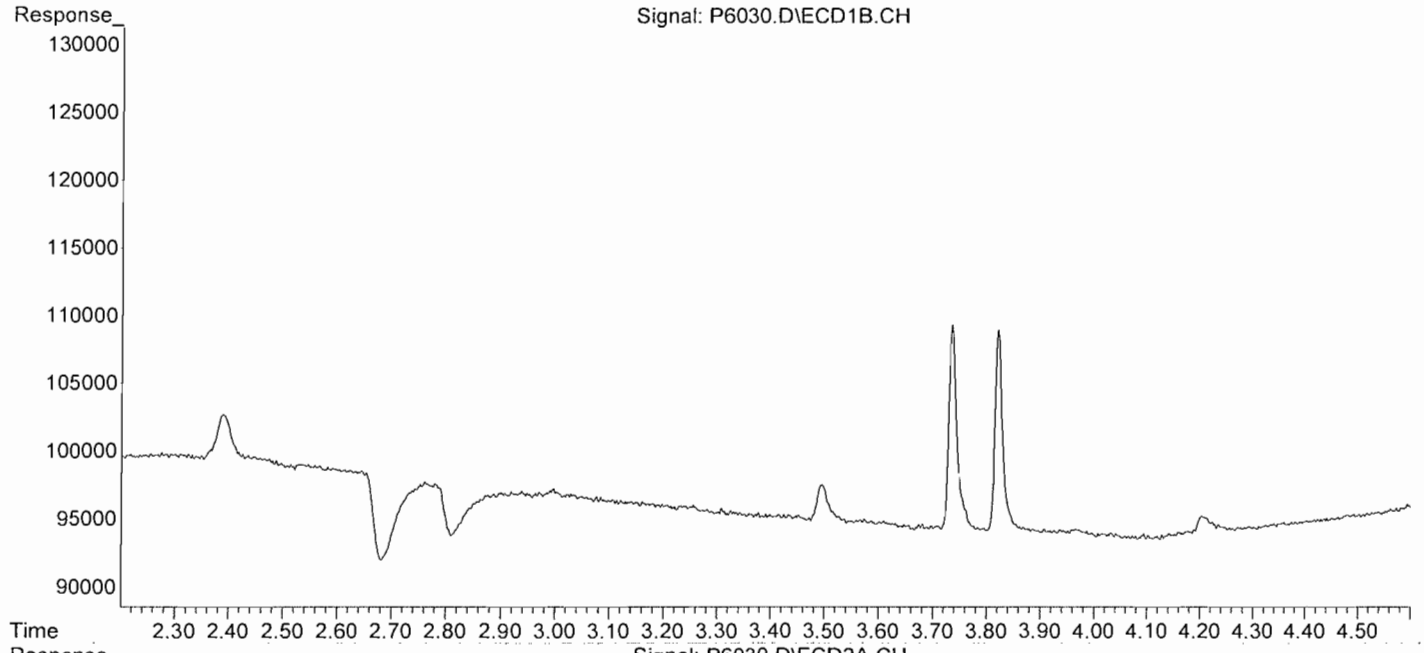
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

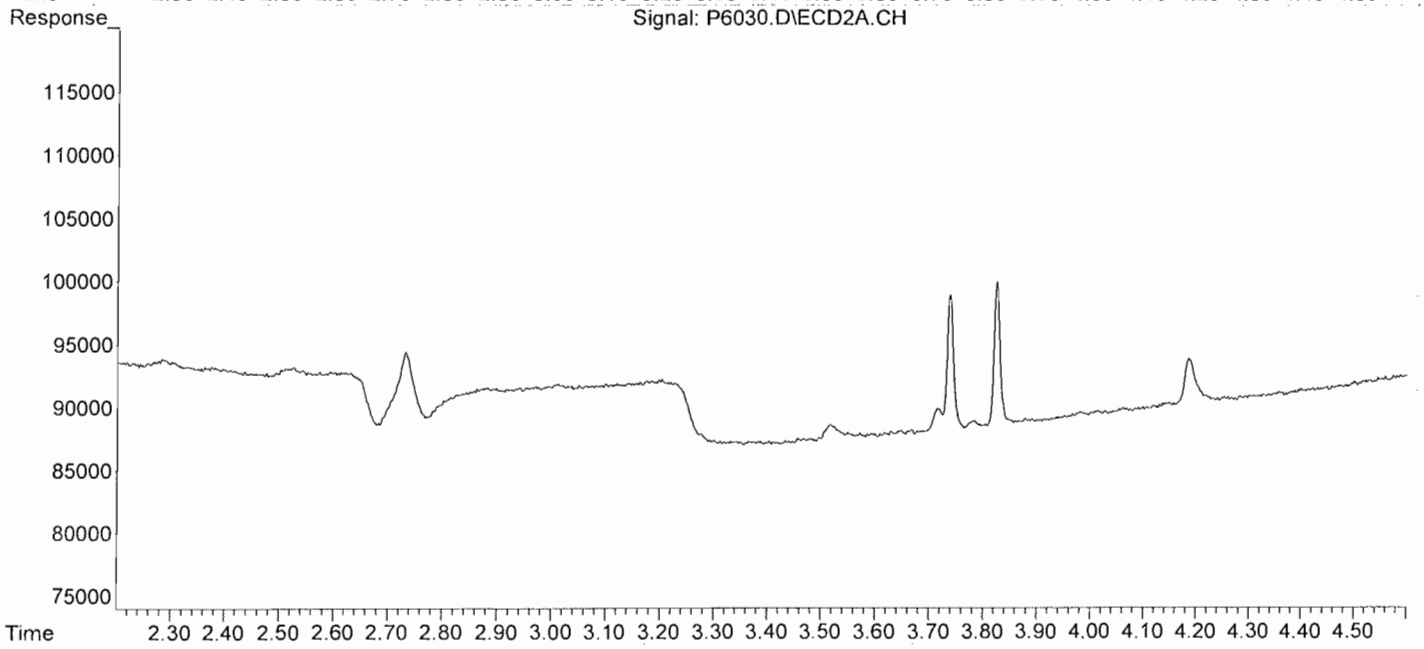
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\17-11-30\
Data File : P6030.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 12:45
Operator : PSL
Sample : 8011,BLKA171130-10,A,35ml,100,2
Misc : 171130-10,11/30/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 30 13:13:04 2017
Quant Method : C:\MSDCHEM\1\METHODS\5041128.M
Quant Title :
QLast Update : Tue Nov 28 14:33:12 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





8011
Aqueous

Batch ID: **171130-10**

Tray:

Start Date/Time: 11/30/2017 12:37

End Date/Time: 11/30/2017 12:37

QC Sample ID	Test	Initial (g/ml)	Final (ml)	Spike (8011) (ul)	Comments
BLKA171130-10	8011	35	2	NA	
LCSA171130-10	8011	35	2	10	
10256-001MS	8011	34.1	2	40	
10256-001MSD	8011	34.8	2	40	

No	Sample ID	Test	Initial (g/ml)	Final (ml)	% Sed	Comments	QC 1
1	10256-001	8011	33.8	2			10256-001MS / 171130-10
2	10256-002	8011	34.1	2			10256-001MS / 171130-10
3	10256-003	8011	33.9	2			10256-001MS / 171130-10
4	10256-004	8011	34.5	2			10256-001MS / 171130-10
5	10256-005	8011	34.8	2			10256-001MS / 171130-10
6	10208-003	8011	34.7	2			10256-001MS / 171130-10
7	10208-005	8011	33.9	2			10256-001MS / 171130-10
8	10208-007	8011	34.6	2			10256-001MS / 171130-10
9	10269-001	8011	35.1	2			10256-001MS / 171130-10
10	10269-002	8011	34.3	2			10256-001MS / 171130-10
11	10269-003	8011	34.9	2			10256-001MS / 171130-10
12	10269-004	8011	34.3	2			10256-001MS / 171130-10
13	10269-006	8011	34.2	2			10256-001MS / 171130-10
14							
15							
16							
17							
18							
19							
20							

Comments:

Solvent(s) & Reagent(s)		
	Lot/RA/IAS #	**Exp. Date**
Water	VOA TAP WATER #02	12/31/2017
Sodium thiosulfate (Na2S2O3)		
Hexane	158646	04/16/2026
Methanol (MeOH)	158718	06/14/2026
Sodium chloride (NaCl)	SZBE1470V	06/14/2026

Spike(s)		
	Lot/RA/IAS #	**Exp. Date**
8011	6000	12/07/2017

V/C=Vap/Cell, *F=Funnel

Color:1=Clear 2=Light Yellow 3=Yellow 4=Brown 5=Black 6=Other(See Comments)

SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/30/2017

Lab Sample ID	Matrix	File ID	S1	#	S2	#	S3	#	S4	#	S5	#	S6	#
CCV040BNA2		B9559.D	N/A		N/A		N/A		N/A		N/A		N/A	
BLKA171129-03	AQUEOUS	B9580.D	52		54		61		59		51		72	
LCSA171129-03	AQUEOUS	B9581.D	53		54		67		61		57		75	
E17-10220-001MS	AQUEOUS	B9582.D	30		22		54		50		63		85	
E17-10220-001MSD	AQUEOUS	B9583.D	30		22		55		49		62		84	
E17-10220-001	AQUEOUS	B9584.D	N/A		N/A		70		66		N/A		96	
E17-10216-001	AQUEOUS	B9585.D	N/A		N/A		69		70		N/A		91	
E17-10230-001	AQUEOUS	B9586.D	N/A		N/A		64		61		N/A		82	
E17-10213-001	AQUEOUS	B9587.D	N/A		N/A		63		58		N/A		75	

	DKQPs		IAL	
	Aqueous	Soil	Aqueous/Leachate	Soil
S1 (2FP) = 2-Fluorophenol	15-110	30-130	6-90	5-83
S2 (PHL) = Phenol-d5	15-110	30-130	4-98	8-84
S3 (NBZ) = Nitrobenzene-d5	30-130	30-130	26-111	18-103
S4 (FBP) = 2-Fluorobiphenyl	30-130	30-130	25-127	25-96
S5 (TBP) = 2,4,6-Tribromophenol	15-110	30-130	9-137	14-92
S6 (TPH) = Terphenyl-d14	30-130	30-130	49-137	20-131

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference
N/A Not applicable

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/01/2017

Lab Sample ID	Matrix	File ID	S1	#	S2	#	S3	#	S4	#	S5	#	S6	#
CCV040BNA2		B9590.D	N/A		N/A		N/A		N/A		N/A		N/A	
E17-10213-002	AQUEOUS	B9592.D	N/A		N/A		57		63		N/A		92	
E17-10213-003	AQUEOUS	B9593.D	N/A		N/A		62		61		N/A		96	
E17-10254-001	AQUEOUS	B9594.D	N/A		N/A		57		65		N/A		95	
E17-10256-001	AQUEOUS	B9595.D	N/A		N/A		49		56		N/A		66	
E17-10256-002	AQUEOUS	B9596.D	N/A		N/A		57		58		N/A		68	
E17-10256-003	AQUEOUS	B9597.D	N/A		N/A		62		62		N/A		58	
E17-10256-004	AQUEOUS	B9598.D	N/A		N/A		69		74		N/A		82	

	DKQPs		IAL	
	Aqueous	Soil	Aqueous/Leachate	Soil
S1 (2FP) = 2-Fluorophenol	15-110	30-130	6-90	5-83
S2 (PHL) = Phenol-d5	15-110	30-130	4-98	8-84
S3 (NBZ) = Nitrobenzene-d5	30-130	30-130	26-111	18-103
S4 (FBP) = 2-Fluorobiphenyl	30-130	30-130	25-127	25-96
S5 (TBP) = 2,4,6-Tribromophenol	15-110	30-130	9-137	14-92
S6 (TPH) = Terphenyl-d14	30-130	30-130	49-137	20-131

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference
N/A Not applicable

INTEGRATED ANALYTICAL LABORATORIES

8270

LCS ACCURACY REPORT

Lab ID: LCSA171129-03
Date Received: NA
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
Data file: B9581.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	DKQP
N-Nitrosodimethylamine	30.0	20.5	68	$	33-113	70-130
Pyridine	30.0	21.1	70		9-112	20-160
Benzaldehyde	30.0	5.3	18	$	4-48	20-160
Phenol	30.0	17.8	59		10-106	20-160
Aniline	30.0	20.2	67	$	37-109	70-130
Bis(2-chloroethyl) ether	30.0	19.3	64	$	38-107	70-130
2-Chlorophenol	30.0	19.4	65		37-107	20-160
1,3-Dichlorobenzene	30.0	19.3	64	$	38-105	70-130
1,4-Dichlorobenzene	30.0	19.5	65	$	38-104	70-130
Benzyl alcohol	30.0	18.5	62	$	35-113	70-130
1,2-Dichlorobenzene	30.0	19.7	66	$	38-105	70-130
2-Methylphenol	30.0	19.5	65		38-113	20-160
2,2'-Oxybis(1-Chloropropane)	30.0	19.4	65	$	37-105	70-130
4-Methylphenol	30.0	19.0	63	$	38-112	70-130
N-Nitrosodi-n-propylamine	30.0	21.1	70		37-106	70-130
Acetophenone	30.0	20.4	68	$	38-107	70-130
3-Methylphenol	30.0	19.0	63		38-112	20-160
Hexachloroethane	30.0	19.3	64	$	36-104	70-130
Nitrobenzene	30.0	19.4	65	$	32-102	70-130
Isophorone	30.0	20.7	69	$	33-103	70-130
2-Nitrophenol	30.0	20.6	69		28-118	20-160
2,4-Dimethylphenol	30.0	21.6	72		36-114	20-160
Bis(2-chloroethoxy) methane	30.0	20.0	67	$	37-103	70-130
Benzoic acid	30.0	21.9	73		5-140	20-160
2,4-Dimethylaniline	30.0	19.8	66	$	31-100	70-130
2,4-Dichlorophenol	30.0	20.5	68		37-109	20-160
1,2,4-Trichlorobenzene	30.0	19.8	66	$	36-105	70-130
Naphthalene	30.0	18.5	62	$	36-111	70-130
4-Chloroaniline	30.0	19.1	64	$	32-111	70-130
Hexachlorobutadiene	30.0	19.6	65	$	34-107	70-130
Caprolactam	30.0	26.4	88		35-112	70-130
4-Chloro-3-methylphenol	30.0	21.2	71		37-109	20-160
2-Methylnaphthalene	30.0	18.5	62	$	38-108	70-130
Hexachlorocyclopentadiene	30.0	18.6	62		6-98	20-160
2,4,6-Trichlorophenol	30.0	23.7	79		32-112	20-160
2,4,5-Trichlorophenol	30.0	22.0	73		34-115	20-160
1,1'-Biphenyl	30.0	18.2	61	$	34-108	70-130
2-Chloronaphthalene	30.0	19.3	64	$	34-106	70-130
2-Nitroaniline	30.0	21.9	73		32-117	70-130
Dimethyl phthalate	30.0	21.8	73		36-103	70-130
2,6-Dinitrotoluene	30.0	21.1	70		29-109	70-130
Acenaphthylene	30.0	18.7	62	$	33-113	70-130
3-Nitroaniline	30.0	20.8	69	$	31-116	70-130
Acenaphthene	30.0	18.6	62		34-112	20-160
2,4-Dinitrophenol	30.0	18.0	60		4-92	20-160

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171129-03
Date Received: NA
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
Data file: B9581.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	Rec Limits DKQP
4-Nitrophenol	30.0	24.3	81		29-115	20-160
2,4-Dinitrotoluene	30.0	25.8	86		26-125	70-130
Dibenzofuran	30.0	19.4	65	$	37-110	70-130
Diethyl phthalate	30.0	22.7	76		36-105	70-130
Fluorene	30.0	20.6	69	$	36-112	70-130
4-Chlorophenyl phenyl ether	30.0	20.6	69	$	34-107	70-130
4-Nitroaniline	30.0	22.6	75		32-114	70-130
1,2,4,5-Tetrachlorobenzene	30.0	19.7	66	$	17-134	70-130
2,3,4,6-Tetrachlorophenol	30.0	24.5	82		32-109	70-130
4,6-Dinitro-2-methylphenol	30.0	11.1	37		8-114	20-160
N-Nitrosodiphenylamine	30.0	19.8	66	$	32-110	70-130
1,2-Diphenylhydrazine	30.0	19.3	64	$	32-112	70-130
4-Bromophenyl phenyl ether	30.0	19.4	65	$	30-110	70-130
Hexachlorobenzene	30.0	19.6	65	$	33-107	70-130
Atrazine	30.0	30.1	100		29-107	20-160
Pentachlorophenol	30.0	18.4	61		28-102	20-160
Phenanthrene	30.0	19.5	65	$	34-110	70-130
Anthracene	30.0	20.7	69	$	34-112	70-130
Carbazole	30.0	21.9	73		36-102	70-130
Di-n-butyl phthalate	30.0	21.6	72		34-101	70-130
Fluoranthene	30.0	23.0	77		31-111	70-130
Benzidine	30.0	12.5	42		3-45	20-160
Pyrene	30.0	22.1	74		34-118	70-130
3,3'-Dimethylbenzidine	30.0	15.0	50		5-56	20-160
Butyl benzyl phthalate	30.0	23.9	80		26-118	70-130
3,3'-Dichlorobenzidine	30.0	26.6	89		27-118	70-130
Benzo[a]anthracene	30.0	25.2	84		33-111	70-130
Chrysene	30.0	24.0	80		36-110	70-130
Bis(2-ethylhexyl) phthalate	30.0	23.5	78		26-119	70-130
Di-n-octyl phthalate	30.0	26.8	89		4-140	70-130
Benzo[b]fluoranthene	30.0	18.4	61	$	24-120	70-130
Benzo[k]fluoranthene	30.0	21.9	73		37-115	70-130
Benzo[a]pyrene	30.0	19.2	64	$	29-123	70-130
Indeno[1,2,3-cd]pyrene	30.0	20.0	67	$	16-137	70-130
Dibenz[a,h]anthracene	30.0	19.2	64	$	14-138	70-130
Benzo[g,h,i]perylene	30.0	18.1	60	$	24-127	70-130

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8270 **MS/MSD ACCURACY REPORT**

Lab ID: E17-10220-001
Date Received: 11/28/2017
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
MS Data file: B9582.D
MSD Data file: B9583.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD limits IAL	DKQP
N-Nitrosodimethylamine	40.0	0.0	14.8	37	$	14.8	37	$	0		3-99/17	70-130/20
Pyridine	40.0	0.0	11.8	30		12.4	31		5		5-91/17	20-160/20
Benzaldehyde	40.0	0.0	3.1	8	$	2.8	7	$	10		3-68/17	20-160/20
Phenol	40.0	0.0	8.7	22		8.7	22		0		6-114/25	20-160/20
Aniline	40.0	0.0	19.7	49	$	19.2	48	$	3		5-112/18	70-130/20
Bis(2-chloroethyl) ether	40.0	0.0	20.0	50	$	20.3	51	$	1		14-120/18	70-130/20
2-Chlorophenol	40.0	0.0	18.8	47		19.0	48		1		4-115/20	20-160/20
1,3-Dichlorobenzene	40.0	0.0	19.2	48	$	19.2	48	$	0		15-109/16	70-130/20
1,4-Dichlorobenzene	40.0	0.0	19.5	49	$	20.1	50	$	3		15-110/16	70-130/20
Benzyl alcohol	40.0	0.0	17.4	44	$	16.9	42	$	3		4-120/21	70-130/20
1,2-Dichlorobenzene	40.0	0.0	19.4	49	$	19.6	49	$	1		15-114/17	70-130/20
2-Methylphenol	40.0	0.0	18.3	46		17.8	45		3		6-114/20	20-160/20
2,2'-Oxybis(1-Chloropropane)	40.0	0.0	20.8	52	$	21.2	53	$	2		16-116/17	70-130/20
4-Methylphenol	40.0	0.0	17.6	44	$	17.3	43	$	2		4-114/22	70-130/20
N-Nitrosodi-n-propylamine	40.0	0.0	23.8	60	$	24.5	61	$	3		11-133/20	70-130/20
Acetophenone	40.0	0.0	22.4	56	$	21.9	55	$	2		21-123/17	70-130/20
3-Methylphenol	40.0	0.0	17.6	44		17.3	43		2		4-114/22	20-160/20
Hexachloroethane	40.0	0.0	19.8	50	$	20.0	50	$	1		14-108/16	70-130/20
Nitrobenzene	40.0	0.0	20.3	51	$	20.8	52	$	2		19-116/16	70-130/20
Isophorone	40.0	0.0	23.6	59	$	24.3	61	$	3		22-125/17	70-130/20
2-Nitrophenol	40.0	0.0	21.2	53		21.4	54		1		4-119/19	20-160/20
2,4-Dimethylphenol	40.0	0.0	22.7	57		22.9	57		1		5-127/23	20-160/20
Bis(2-chloroethoxy) methane	40.0	0.0	21.9	55	$	21.5	54	$	2		21-122/17	70-130/20
Benzoic acid	40.0	0.0	10.3	26		10.3	26		0		4-93/22	20-160/20
2,4-Dimethylaniline	40.0	0.0	21.0	53	$	20.3	51	$	3		20-120/17	70-130/20
2,4-Dichlorophenol	40.0	0.0	22.2	56		22.2	56		0		2-128/22	20-160/20
1,2,4-Trichlorobenzene	40.0	0.0	20.6	52	$	21.0	53	$	2		17-119/17	70-130/20
Naphthalene	40.0	0.0	19.6	49	$	19.5	49	$	1		22-123/17	70-130/20
4-Chloroaniline	40.0	0.0	20.9	52	$	21.1	53	$	1		8-120/19	70-130/20
Hexachlorobutadiene	40.0	0.0	21.0	53	$	20.8	52	$	1		16-117/17	70-130/20
Caprolactam	40.0	0.0	10.0	25	$	10.4	26	$	4		5-98/21	70-130/20
4-Chloro-3-methylphenol	40.0	0.0	24.0	60		24.4	61		2		3-109/18	20-160/20
2-Methylnaphthalene	40.0	0.0	20.0	50	$	20.7	52	$	3		18-114/16	70-130/20
Hexachlorocyclopentadiene	40.0	0.0	20.3	51		20.5	51		1		3-107/17	20-160/20
2,4,6-Trichlorophenol	40.0	0.0	27.3	68		27.2	68		0		2-112/18	20-160/20
2,4,5-Trichlorophenol	40.0	0.0	25.3	63		25.5	64		1		2-106/17	20-160/20
1,1'-Biphenyl	40.0	0.0	20.2	51	$	20.1	50	$	0		18-146/21	70-130/20
2-Chloronaphthalene	40.0	0.0	21.4	54	$	21.3	53	$	0		17-139/20	70-130/20
2-Nitroaniline	40.0	0.0	26.4	66	$	26.4	66	$	0		15-136/20	70-130/20
Dimethyl phthalate	40.0	0.0	23.9	60	$	23.4	59	$	2		10-144/22	70-130/20
2,6-Dinitrotoluene	40.0	0.0	26.6	67	$	26.1	65	$	2		18-153/23	70-130/20
Acenaphthylene	40.0	0.0	21.4	54	$	21.2	53	$	1		21-137/19	70-130/20
3-Nitroaniline	40.0	0.0	26.3	66	$	26.1	65	$	1		18-134/19	70-130/20
Acenaphthene	40.0	0.0	21.1	53		21.3	53		1		20-139/20	20-160/20
2,4-Dinitrophenol	40.0	0.0	25.3	63		26.5	66		5		6-121/26	20-160/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10220-001
Date Received: 11/28/2017
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
MS Data file: B9582.D
MSD Data file: B9583.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD IAL Limits	Rec/RPD DKQP Limits
4-Nitrophenol	40.0	0.0	16.6	42		16.3	41		2		6-107/20	20-160/20
2,4-Dinitrotoluene	40.0	0.0	35.1	88		35.4	89		1		24-148/21	70-130/20
Dibenzofuran	40.0	0.0	22.2	56	$	22.0	55	$	1		19-128/18	70-130/20
Diethyl phthalate	40.0	0.0	28.8	72		28.8	72		0		24-148/21	70-130/20
Fluorene	40.0	0.0	24.1	60	$	23.6	59	$	2		27-140/19	70-130/20
4-Chlorophenyl phenyl ether	40.0	0.0	24.3	61	$	24.0	60	$	1		24-139/19	70-130/20
4-Nitroaniline	40.0	0.0	28.0	70		28.6	72		2		22-123/17	70-130/20
1,2,4,5-Tetrachlorobenzene	40.0	0.0	20.2	51	$	20.0	50	$	1		22-141/20	70-130/20
2,3,4,6-Tetrachlorophenol	40.0	0.0	30.2	76		29.7	74		2		8-143/29	70-130/20
4,6-Dinitro-2-methylphenol	40.0	0.0	17.7	44		18.7	47		5		4-131/28	20-160/20
N-Nitrosodiphenylamine	40.0	0.0	27.1	68	$	27.1	68	$	0		20-148/21	70-130/20
1,2-Diphenylhydrazine	40.0	0.0	24.2	61	$	24.1	60	$	0		11-151/23	70-130/20
4-Bromophenyl phenyl ether	40.0	0.0	25.0	63	$	24.7	62	$	1		22-142/20	70-130/20
Hexachlorobenzene	40.0	0.0	25.7	64	$	25.4	64	$	1		27-136/18	70-130/20
Atrazine	40.0	0.0	45.4	114		43.8	110		4		18-190/29	20-160/20
Pentachlorophenol	40.0	0.0	27.9	70		26.7	67		4		4-142/30	20-160/20
Phenanthrene	40.0	0.0	26.4	66	$	26.3	66	$	0		31-139/18	70-130/20
Anthracene	40.0	0.0	28.8	72		28.3	71		2		32-140/18	70-130/20
Carbazole	40.0	0.0	33.1	83		32.5	81		2		31-143/19	70-130/20
Di-n-butyl phthalate	40.0	0.0	32.9	82		32.3	81		2		11-175/27	70-130/20
Fluoranthene	40.0	0.0	34.1	85		33.6	84		1		34-139/18	70-130/20
Benzidine	40.0	0.0	9.7	24		10.3	26		6		4-53/11	20-160/20
Pyrene	40.0	0.0	33.9	85		33.5	84		1		47-149/17	70-130/20
3,3'-Dimethylbenzidine	40.0	0.0	12.8	32		14.0	35		9		3-65/14	20-160/20
Butyl benzyl phthalate	40.0	0.0	37.8	95		37.9	95		0		26-171/24	70-130/20
3,3'-Dichlorobenzidine	40.0	0.0	39.5	99		39.1	98		1		8-159/25	70-130/20
Benzo[a]anthracene	40.0	0.0	36.8	92		37.0	93		1		35-150/19	70-130/20
Chrysene	40.0	0.0	35.6	89		35.4	89		1		38-139/17	70-130/20
Bis(2-ethylhexyl) phthalate	40.0	0.0	37.3	93		37.4	94		0		11-169/26	70-130/20
Di-n-octyl phthalate	40.0	0.0	42.1	105		40.8	102		3		11-146/23	70-130/20
Benzo[b]fluoranthene	40.0	0.0	25.8	65	$	26.3	66	$	2		16-144/21	70-130/20
Benzo[k]fluoranthene	40.0	0.0	31.3	78		30.5	76		3		40-143/17	70-130/20
Benzo[a]pyrene	40.0	0.0	30.2	76		29.2	73		3		19-151/22	70-130/20
Indeno[1,2,3-cd]pyrene	40.0	0.0	31.7	79		31.6	79		0		13-156/24	70-130/20
Dibenz[a,h]anthracene	40.0	0.0	30.2	76		29.9	75		1		10-154/24	70-130/20
Benzo[g,h,i]perylene	40.0	0.0	28.0	70		28.1	70		0		24-150/21	70-130/20

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B9580.D Instrument ID: MSDB

Date Extracted: 11/29/17 Matrix: AQUEOUS

Date Analyzed: 11/30/2017 Time Analyzed: 20:03

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSA171129-03	11/30/2017	20:21
.	E17-10220-001MS	11/30/2017	20:40
.	E17-10220-001MSD	11/30/2017	20:58
TWP-1	E17-10220-001	11/30/2017	21:17
MW-1	E17-10216-001	11/30/2017	21:36
MW-1	E17-10230-001	11/30/2017	21:54
INFLUENT	E17-10213-001	11/30/2017	22:13
KO1	E17-10213-002	12/01/2017	10:26
KO2	E17-10213-003	12/01/2017	10:45
PW-1	E17-10254-001	12/01/2017	11:03
MW-1	E17-10256-001	12/01/2017	11:22
MW-2	E17-10256-002	12/01/2017	11:41
MW-3	E17-10256-003	12/01/2017	11:59
FIELD	E17-10256-004	12/01/2017	12:18

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B1407.D

Instrument ID: MSDB

Date Extracted: 03/02/11

Matrix: AQUEOUS

Date Analyzed: 12/01/2017

Time Analyzed: 21:19

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
K02	E17-10213-003	12/01/2017	10:45
PW-1	E17-10254-001	12/01/2017	11:03
MW-1	E17-10256-001	12/01/2017	11:22
MW-2	E17-10256-002	12/01/2017	11:41
MW-3	E17-10256-003	12/01/2017	11:59
FIELD	E17-10256-004	12/01/2017	12:18

FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B9568.D Instrument ID: MSDB

Date Extracted: 11/29/17 Matrix: AQUEOUS

Date Analyzed: 11/30/2017 Time Analyzed: 16:52

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TWP-1	E17-10220-001	11/30/2017	17:08
MW-1	E17-10216-001	11/30/2017	17:24
MW-1	E17-10230-001	11/30/2017	17:40
INFLUENT	E17-10213-001	11/30/2017	17:53
K01	E17-10213-002	11/30/2017	18:09
K02	E17-10213-003	11/30/2017	18:27
PW-1	E17-10254-001	11/30/2017	18:43
MW-1	E17-10256-001	11/30/2017	18:59
MW-2	E17-10256-002	11/30/2017	19:15
MW-3	E17-10256-003	11/30/2017	19:30
FIELD	E17-10256-004	11/30/2017	19:46

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B9475.D

DFTPP Injection Date : 11/27/2017

Inst ID: MSDB

DFTPP Injection Time: 08:22

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	41.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	52.1	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	56.9	
197	Less than 1.0% of mass 198	0.9	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.3	
275	10.0 - 30.0% of mass 198	27.4	
365	Greater than 1.0% of mass 198	3.5	
441	Present, but less than mass 443	11.61	(64.0)3
442	40.0 - 100.0% of mass 198	91.6	
443	17.0 - 23.0% of mass 442	18.1	(19.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN063-17	ICC001BNA1	B9476.D	11/27/2017	09:01
ABN064-17	ICC010BNA1	B9477.D	11/27/2017	09:20
ABN065-17	ICC020BNA1	B9478.D	11/27/2017	09:39
ABN066-17	ICC040BNA1	B9479.D	11/27/2017	09:57
ABN067-17	ICC080BNA1	B9480.D	11/27/2017	10:16
ABN068-17	ICC160BNA1	B9481.D	11/27/2017	10:35
ABN074-17	ICC160BNA2	B9482.D	11/27/2017	10:53
ABN073-17	ICC080BNA2	B9483.D	11/27/2017	11:12
ABN072-17	ICC040BNA2	B9484.D	11/27/2017	11:31
ABN071-17	ICC020BNA2	B9485.D	11/27/2017	11:49
ABN070-17	ICC010BNA2	B9486.D	11/27/2017	12:08
ABN069-17	ICC001BNA2	B9487.D	11/27/2017	12:27
ABN061-17	ICV040BNA1	B9488.D	11/27/2017	12:45
ABN062-17	ICV040BNA2	B9489.D	11/27/2017	13:02

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B9475.D

DFTPP Injection Date : 11/27/2017

Inst ID: MSDB

DFTPP Injection Time: 08:22

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	41.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	52.1	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	56.9	
197	Less than 1.0% of mass 198	0.9	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.3	
275	10.0 - 30.0% of mass 198	27.4	
365	Greater than 1.0% of mass 198	3.5	
441	Present, but less than mass 443	11.61	(64.0)3
442	40.0 - 100.0% of mass 198	91.6	
443	17.0 - 23.0% of mass 442	18.1	(19.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN049-17	ICC000.1SIM	B9490.D	11/27/2017	13:22
ABN050-17	ICC000.2SIM	B9491.D	11/27/2017	13:38
ABN051-17	ICC000.5SIM	B9492.D	11/27/2017	13:53
ABN052-17	ICC001.0SIM	B9493.D	11/27/2017	14:09
ABN053-17	ICC002.0SIM	B9494.D	11/27/2017	14:25
ABN054-17	ICC004.0SIM	B9495.D	11/27/2017	14:41
ABN055-17	ICV000.5SIM	B9496.D	11/27/2017	14:57

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B9557.D

DFTPP Injection Date : 11/30/2017

Inst ID: MSDB

DFTPP Injection Time: 10:35

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	51.0	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	54.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	29.6	
365	Greater than 1.0% of mass 198	4.8	
441	Present, but less than mass 443	14.01	(76.9)3
442	40.0 - 100.0% of mass 198	90.2	
443	17.0 - 23.0% of mass 442	18.2	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN061-17	CCV040BNA1	B9558.D	11/30/2017	10:45
ABN062-17	CCV040BNA2	B9559.D	11/30/2017	11:12
.	BLKA171129-03	B9580.D	11/30/2017	20:03
.	LCSA171129-03	B9581.D	11/30/2017	20:21
.	E17-10220-001MS	B9582.D	11/30/2017	20:40
.	E17-10220-001MSD	B9583.D	11/30/2017	20:58
TWP-1	E17-10220-001	B9584.D	11/30/2017	21:17
MW-1	E17-10216-001	B9585.D	11/30/2017	21:36
MW-1	E17-10230-001	B9586.D	11/30/2017	21:54
INFLUENT	E17-10213-001	B9587.D	11/30/2017	22:13

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B9588.D DFTPP Injection Date : 12/01/2017

Inst ID: MSDB DFTPP Injection Time: 09:00

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	53.5	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	40.0 - 60.0% of mass 198	55.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.2	
275	10.0 - 30.0% of mass 198	29.9	
365	Greater than 1.0% of mass 198	4.4	
441	Present, but less than mass 443	13.42	(76.2)3
442	40.0 - 100.0% of mass 198	93.2	
443	17.0 - 23.0% of mass 442	17.6	(18.9)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN061-17	CCV040BNA1	B9589.D	12/01/2017	09:29
ABN062-17	CCV040BNA2	B9590.D	12/01/2017	09:52
K01	E17-10213-002	B9592.D	12/01/2017	10:26
K02	E17-10213-003	B9593.D	12/01/2017	10:45
PW-1	E17-10254-001	B9594.D	12/01/2017	11:03
MW-1	E17-10256-001	B9595.D	12/01/2017	11:22
MW-2	E17-10256-002	B9596.D	12/01/2017	11:41
MW-3	E17-10256-003	B9597.D	12/01/2017	11:59
FIELD	E17-10256-004	B9598.D	12/01/2017	12:18

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B9557.D

DFTPP Injection Date : 11/30/2017

Inst ID: MSDB

DFTPP Injection Time: 10:35

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	51.0	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	54.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	29.6	
365	Greater than 1.0% of mass 198	4.8	
441	Present, but less than mass 443	14.01	(76.9)3
442	40.0 - 100.0% of mass 198	90.2	
443	17.0 - 23.0% of mass 442	18.2	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN055-17	CCV000.5SIM	B9567.D	11/30/2017	13:59
.	BLKA171129-03	B9568.D	11/30/2017	16:52
TWP-1	E17-10220-001	B9569.D	11/30/2017	17:08
MW-1	E17-10216-001	B9570.D	11/30/2017	17:24
MW-1	E17-10230-001	B9571.D	11/30/2017	17:40
INFLUENT	E17-10213-001	B9572.D	11/30/2017	17:53
K01	E17-10213-002	B9573.D	11/30/2017	18:09
K02	E17-10213-003	B9574.D	11/30/2017	18:27
PW-1	E17-10254-001	B9575.D	11/30/2017	18:43
MW-1	E17-10256-001	B9576.D	11/30/2017	18:59
MW-2	E17-10256-002	B9577.D	11/30/2017	19:15
MW-3	E17-10256-003	B9578.D	11/30/2017	19:30
FIELD	E17-10256-004	B9579.D	11/30/2017	19:46

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW1917.M
Title : BNA CALIBRATION METHOD
Last Update : Tue Nov 28 10:37:21 2017
Response Via : Initial Calibration

Calibration Files
1 =B9476.D 10 =B9477.D 20 =B9478.D
40 =B9479.D 80 =B9480.D 160 =B9481.D

		Compound	1	10	20	40	80	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.344	0.434	0.457	0.459	0.447	0.444	0.431	10.08
3)	T	Pyridine	0.411	0.420	0.434	0.425	0.437	0.437	0.427	2.50
4)	S	2-Fluorophenol	0.906	0.876	0.907	0.872	0.868	0.866	0.882	2.16
5)	T	Benzaldehyde	0.590	0.569	0.687	0.578	0.533	0.682	0.606	10.50
6)	S	Phenol-d5	1.166	1.122	1.182	1.093	1.099	1.122	1.131	3.18
7)	MC	Phenol	1.194	1.246	1.248	1.184	1.227	1.298	1.233	3.35
8)	T	Aniline	0.536	0.533	0.533	0.492	0.489	0.498	0.514	4.42
9)	T	Bis(2-chloroethyl	0.604	0.560	0.578	0.553	0.561	0.583	0.573	3.32
10)	M	2-Chlorophenol	0.849	0.979	1.015	0.994	1.010	1.057	0.984	7.22
11)	T	1,3-Dichlorobenze	1.156	1.108	1.177	1.166	1.162	1.186	1.159	2.36
12)	MC	1,4-Dichlorobenze	1.088	1.159	1.215	1.172	1.138	1.251	1.170	4.90
13)	T	Benzyl alcohol	0.841	0.831	0.895	0.875	0.928	0.831	0.867	4.58
14)	T	1,2-Dichlorobenze	1.042	1.087	1.165	1.094	1.070	1.128	1.098	3.95
15)	T	2-Methylphenol	0.828	0.808	0.827	0.814	0.825	0.832	0.822	1.14
16)	T	2,2'-Oxybis(1-Chl	0.795	0.746	0.787	0.760	0.729	0.801	0.770	3.78
17)	T	4-Methylphenol	0.841	0.831	0.895	0.875	0.927	0.919	0.881	4.54
18)	MP	N-Nitrosodi-n-pro	0.519	0.643	0.686	0.685	0.721	0.707	0.660	11.23
19)	T	Acetophenone	1.326	1.247	1.342	1.287	1.267	1.283	1.292	2.76
20)	T	3-Methylphenol	0.841	0.831	0.895	0.875	0.928	0.919	0.881	4.56
21)	T	Hexachloroethane	0.427	0.410	0.432	0.418	0.415	0.440	0.424	2.66
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.235	0.250	0.279	0.283	0.306	0.251	0.268	9.93
25)	T	Nitrobenzene	0.344	0.272	0.266	0.276	0.270	0.263	0.282	10.97
26)	T	Isophorone	0.309	0.353	0.377	0.376	0.411	0.406	0.372	10.09
27)	TC	2-Nitrophenol	0.141	0.093	0.106	0.121	0.138	0.150	0.125	17.62
28)	T	2,4-Dimethylpheno	0.183	0.229	0.236	0.250	0.268	0.277	0.240	13.99
29)	T	Bis(2-chloroethox	0.215	0.251	0.264	0.258	0.271	0.264	0.254	8.02
30)	T	Benzoic acid	0.106	0.094	0.143	0.115	0.133	0.140	0.122	16.25
31)	T	2,4-Dimethylanili	0.228	0.263	0.267	0.259	0.265	0.268	0.258	5.96
32)	TC	2,4-Dichloropheno	0.140	0.202	0.211	0.217	0.227	0.237	0.206	16.64
33)	M	1,2,4-Trichlorobe	0.235	0.242	0.241	0.242	0.249	0.252	0.244	2.43
34)	T	Naphthalene	0.806	0.814	0.801	0.789	0.830	0.808	0.808	1.68
35)	T	4-Chloroaniline	0.345	0.400	0.393	0.396	0.401	0.389	0.387	5.48
36)	T	4-Aminotoluene	0.312	0.369	0.372	0.355	0.349	0.287	0.340	9.96
37)	TC	Hexachlorobutadie	0.158	0.169	0.163	0.168	0.166	0.172	0.166	2.89
38)	T	Caprolactam	0.046	0.041	0.055	0.057	0.066	0.065	0.055	18.07
39)	T	2-Aminotoluene	0.312	0.369	0.372	0.355	0.349	0.287	0.340	9.96
40)	MC	4-Chloro-3-methyl	0.138	0.194	0.207	0.219	0.228	0.228	0.202	16.85
41)	T	2-Methylnaphthale	0.457	0.528	0.544	0.541	0.557	0.587	0.536	8.10
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.173	0.215	0.231	0.264	0.274	0.311	0.245	19.93
45)	TC	2,4,6-Trichloroph	0.134	0.223	0.237	0.244	0.230	0.250	0.220	19.57
46)	T	2,4,5-Trichloroph	0.156	0.266	0.274	0.291	0.283	0.285	0.259	19.72
47)	S	2-Fluorobiphenyl	1.156	1.105	1.128	1.082	1.089	1.067	1.105	2.97
48)	T	1,1'-Biphenyl	1.352	1.143	1.109	1.081	1.179	1.171	1.173	8.14
49)	T	2-Chloronaphthale	0.834	0.845	0.830	0.816	0.827	0.912	0.844	4.10
50)	T	2-Nitroaniline	0.200	0.150	0.178	0.203	0.227	0.231	0.198	15.40
51)	T	Dimethyl phthalat	0.749	0.889	0.927	0.917	0.936	0.989	0.901	9.03
52)	T	2,6-Dinitrotoluen	0.141	0.193	0.161	0.180	0.209	0.212	0.183	15.28
53)	T	Acenaphthylene	1.364	1.182	1.273	1.247	1.292	1.420	1.296	6.53

54)	T	3-Nitroaniline	0.241	0.160	0.180	0.190	0.198	0.200	0.195	13.85
55)	MC	Acenaphthene	0.874	0.809	0.840	0.792	0.848	0.883	0.841	4.25
56)	TP	2,4-Dinitrophenol	0.127	0.089	0.089	0.113	0.123	0.137	0.113	17.81
57)	MP	4-Nitrophenol	0.141	0.126	0.160	0.158	0.175	0.191	0.159	14.53
58)	M	2,4-Dinitrotoluen	0.132	0.188	0.217	0.234	0.233	0.235	0.206	19.82
59)	T	Dibenzofuran	1.204	1.166	1.209	1.158	1.195	1.277	1.202	3.53
60)	T	Diethyl phthalate	0.642	0.890	0.955	0.919	0.970	0.999	0.896	14.53
61)	T	Fluorene	0.858	0.933	0.969	0.931	0.992	1.028	0.952	6.18
62)	T	4-Chlorophenyl ph	0.475	0.506	0.501	0.489	0.523	0.538	0.505	4.49
63)	T	4-Nitroaniline	0.166	0.161	0.182	0.190	0.210	0.219	0.188	12.29
64)		1,2,4,5-Tetrachlo	0.540	0.462	0.461	0.453	0.485	0.499	0.483	6.78
65)	T	2,3,4,6-Tetrachlo	0.135	0.175	0.216	0.218	0.227	0.230	0.200	18.72
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.135	0.108	0.126	0.129	0.131	0.128	0.126	7.35
68)	TC	N-Nitrosodiphenyl	0.315	0.362	0.377	0.391	0.398	0.416	0.376	9.33
69)	T	1,2-Diphenylhydra	0.346	0.519	0.522	0.543	0.558	0.585	0.512	16.59
70)	S	2,4,6-Tribromophe	0.121	0.129	0.130	0.130	0.134	0.139	0.131	4.49
71)	T	4-Bromophenyl phe	0.162	0.170	0.179	0.185	0.193	0.202	0.182	8.15
72)	T	Hexachlorobenzene	0.209	0.227	0.222	0.224	0.237	0.253	0.229	6.46
73)	T	Atrazine	0.080	0.106	0.098	0.102	0.082	0.070	0.090	16.19
74)	MC	Pentachlorophenol	0.141	0.143	0.093	0.111	0.125	0.139	0.125	16.10
75)	T	Phenanthrene	0.747	0.735	0.735	0.746	0.733	0.773	0.745	2.02
76)	T	Anthracene	0.557	0.686	0.690	0.710	0.769	0.747	0.693	10.70
77)	T	Carbazole	0.487	0.640	0.643	0.632	0.646	0.635	0.614	10.17
78)	T	Di-n-butyl phthal	0.976	0.602	0.680	0.744	0.780	0.852	0.772	17.01
79)	TC	Fluoranthene	0.547	0.662	0.693	0.703	0.716	0.752	0.679	10.43
80)	T	Benzidine	0.161	0.183	0.241	0.278	0.252	0.227	0.224	19.73
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	0.790	0.810	0.854	0.880	0.928	0.881	0.857	5.93
84)	S	Terphenyl-d14	0.822	0.812	0.870	0.816	0.834	0.749	0.817	4.83
85)	T	3,3'-Dimethylbenz	0.331	0.253	0.357	0.421	0.444	0.326	0.355	19.50
86)	T	Butyl benzyl phth	0.406	0.424	0.251	0.293	0.337	0.361	0.345	19.22
87)	T	3,3'-Dichlorobenz	0.258	0.178	0.221	0.247	0.247	0.237	0.232	12.43
88)	T	Benzo[a]anthracen	0.576	0.664	0.699	0.707	0.728	0.745	0.687	8.83
89)	T	Chrysene	0.709	0.717	0.714	0.700	0.715	0.731	0.714	1.43
90)	T	Bis(2-ethylhexyl)	0.545	0.566	0.328	0.406	0.474	0.490	0.468	18.99
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.971	0.975	0.874	0.956	1.098	1.270	1.024	13.68
94)	T	Benzo[b]fluoranth	1.387	1.256	1.330	1.286	1.430	1.509	1.367	6.93
95)	T	Benzo[k]fluoranth	1.185	1.209	1.208	1.317	1.247	1.342	1.251	5.13
96)	TC	Benzo[a]pyrene	1.158	0.926	1.009	1.130	1.258	1.340	1.137	13.48
97)	T	Indeno[1,2,3-cd]p	0.867	1.237	1.448	1.536	1.528	1.539	1.359	19.66
98)	T	Dibenz[a,h]anthra	0.774	1.072	1.275	1.414	1.309	1.300	1.191	19.55
99)	T	Benzo[g,h,i]peryl	0.889	1.075	1.191	1.295	1.335	1.394	1.197	15.76

(#) = Out of Range

BW1917.M Tue Nov 28 10:38:58 2017 MSD_B

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BSIM2017.M
Title : BNA CALIBRATION METHOD
Last Update : Tue Nov 28 10:01:32 2017
Response Via : Initial Calibration

Calibration Files
0.1 =B9490.D 0.2 =B9491.D 0.5 =B9492.D
1.0 =B9493.D 2.0 =B9494.D 4.0 =B9495.D =

		Compound	0.1	0.2	0.5	1.0	2.0	4.0	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
23)	I	Naphthalene-d8	----------ISTD----------							
43)	I	Acenaphthene-d10	----------ISTD----------							
66)	I	Phenanthrene-d10	----------ISTD----------							
72)	T	Hexachlorobenzene	0.382	0.356	0.352	0.362	0.375	0.346	0.362	3.80
74)	MC	Pentachlorophenol	0.110	0.098	0.104	0.123	0.113	0.108	0.110	7.63
82)	I	Chrysene-d12	----------ISTD----------							
88)	T	Benzo[a]anthracen	0.874	0.902	0.841	0.816	0.886	0.937	0.876	4.94
92)	I	Perylene-d12	----------ISTD----------							
94)	T	Benzo[b]fluoranth	1.658	1.338	1.565	1.541	1.665	1.721	1.581	8.65
95)	T	Benzo[k]fluoranth	1.462	1.398	1.964	1.727	2.023	2.001	1.762	15.83
96)	TC	Benzo[a]pyrene	1.181	1.149	1.260	1.281	1.394	1.514	1.297	10.54
97)	T	Indeno[1,2,3-cd]p	1.498	1.460	1.555	1.660	1.749	1.761	1.614	7.96
98)	T	Dibenz[a,h]anthra	1.379	1.264	1.372	1.384	1.517	1.517	1.406	6.91

(#) = Out of Range

BSIM2017.M Tue Nov 28 10:01:36 2017 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\17-11-27BW\
Data File : B9488.D
Acq On : 27 Nov 2017 12:45
Operator : TN
Sample : ABN061-17,ICV040BNA1
Misc : NA,NA,NA,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 27 13:00:55 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 08:54:12 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
2	T	N-Nitrosodimethylamine	0.431	0.481	-11.6	94	-0.03
3	T	Pyridine	0.427	0.442	-3.5	93	-0.02
4	S	2-Fluorophenol	0.882	0.851	3.5	88	0.00
5	T	Benzaldehyde	0.606	0.648	-6.9	97	0.00
6	S	Phenol-d5	1.131	1.111	1.8	91	0.00
7	MC	Phenol	1.233	1.235	-0.2	94	-0.01
8	T	Aniline	0.514	0.529	-2.9	97	-0.01
9	T	Bis(2-chloroethyl) ether	0.573	0.579	-1.0	94	-0.01
10	M	2-Chlorophenol	0.984	0.993	-0.9	90	0.00
11	T	1,3-Dichlorobenzene	1.159	1.160	-0.1	89	0.00
12	MC	1,4-Dichlorobenzene	1.170	1.202	-2.7	92	0.00
13	T	Benzyl alcohol	0.867	0.809	6.7	83	0.00
14	T	1,2-Dichlorobenzene	1.098	1.085	1.2	89	0.00
15	T	2-Methylphenol	0.822	0.821	0.1	91	0.00
16	T	2,2'-Oxybis(1-Chloropropane	0.770	0.802	-4.2	95	0.00
17	T	4-Methylphenol	0.881	0.898	-1.9	92	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.660	0.688	-4.2	90	-0.01
19	T	Acetophenone	1.292	1.294	-0.2	90	0.00
20	T	3-Methylphenol	0.881	0.898	-1.9	92	-0.01
21	T	Hexachloroethane	0.424	0.421	0.7	91	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	91	0.00
24	S	Nitrobenzene-d5	0.268	0.290	-8.2	93	0.00
25	T	Nitrobenzene	0.282	0.278	1.4	91	0.00
26	T	Isophorone	0.372	0.393	-5.6	95	-0.01
27	TC	2-Nitrophenol	0.125	0.125	0.0	93	0.00
28	T	2,4-Dimethylphenol	0.240	0.251	-4.6	91	0.00
29	T	Bis(2-chloroethoxy) methane	0.254	0.260	-2.4	92	0.00
30	T	Benzoic acid	0.122	0.128	-4.9	101	-0.04
31	T	2,4-Dimethylaniline	0.258	0.255	1.2	89	-0.03
32	TC	2,4-Dichlorophenol	0.206	0.219	-6.3	91	0.00
33	M	1,2,4-Trichlorobenzene	0.244	0.248	-1.6	93	0.00
34	T	Naphthalene	0.808	0.788	2.5	91	0.00
35	T	4-Chloroaniline	0.387	0.391	-1.0	89	0.00
36	T	4-Aminotoluene	0.340	0.356	-4.7	91	-0.02
37	TC	Hexachlorobutadiene	0.166	0.162	2.4	87	0.00
38	T	Caprolactam	0.055	0.067	-21.8	106	-0.03
39	T	2-Aminotoluene	0.340	0.356	-4.7	91	-0.02
40	MC	4-Chloro-3-methylphenol	0.202	0.219	-8.4	91	0.00
41	T	2-Methylnaphthalene	0.536	0.540	-0.7	90	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00
44	TP	Hexachlorocyclopentadiene	0.245	0.256	-4.5	89	0.00
45	TC	2,4,6-Trichlorophenol	0.220	0.233	-5.9	87	0.00
46	T	2,4,5-Trichlorophenol	0.259	0.286	-10.4	90	0.00

47	S	2-Fluorobiphenyl	1.105	1.064	3.7	90	0.00
48	T	1,1'-Biphenyl	1.173	1.089	7.2	92	0.00
49	T	2-Chloronaphthalene	0.844	0.827	2.0	92	0.00
50	T	2-Nitroaniline	0.198	0.218	-10.1	98	0.00
51	T	Dimethyl phthalate	0.901	0.927	-2.9	92	0.00
52	T	2,6-Dinitrotoluene	0.183	0.191	-4.4	97	0.00
53	T	Acenaphthylene	1.296	1.258	2.9	92	0.00
54	T	3-Nitroaniline	0.195	0.196	-0.5	94	0.00
55	MC	Acenaphthene	0.841	0.822	2.3	95	0.00
56	TP	2,4-Dinitrophenol	0.113	0.092	18.6	75	0.00
57	MP	4-Nitrophenol	0.159	0.169	-6.3	97	0.00
58	M	2,4-Dinitrotoluene	0.206	0.251	-21.8	98	0.00
59	T	Dibenzofuran	1.202	1.184	1.5	93	0.00
60	T	Diethyl phthalate	0.896	0.953	-6.4	95	0.00
61	T	Fluorene	0.952	0.949	0.3	93	0.00
62	T	4-Chlorophenyl phenyl ether	0.505	0.500	1.0	93	0.00
63	T	4-Nitroaniline	0.188	0.198	-5.3	95	0.00
64		1,2,4,5-Tetrachlorobenzene	0.483	0.458	5.2	92	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.200	0.225	-12.5	94	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	96	0.03
67	T	4,6-Dinitro-2-methylphenol	0.126	0.132	-4.8	98	0.00
68	TC	N-Nitrosodiphenylamine	0.376	0.376	0.0	92	0.00
69	T	1,2-Diphenylhydrazine	0.512	0.551	-7.6	97	0.00
70	S	2,4,6-Tribromophenol	0.131	0.129	1.5	95	0.01
71	T	4-Bromophenyl phenyl ether	0.182	0.178	2.2	92	0.01
72	T	Hexachlorobenzene	0.229	0.229	0.0	98	0.02
73	T	Atrazine	0.090	0.064	28.9	60	0.02
74	MC	Pentachlorophenol	0.125	0.109	12.8	95	0.03
75	T	Phenanthrene	0.745	0.732	1.7	94	0.03
76	T	Anthracene	0.693	0.716	-3.3	97	0.03
77	T	Carbazole	0.614	0.642	-4.6	97	0.03
78	T	Di-n-butyl phthalate	0.772	0.768	0.5	99	0.05
79	TC	Fluoranthene	0.679	0.717	-5.6	98	0.07
80	T	Benzidine	0.220	0.252	-14.5	94	0.02
82	I	Chrysene-d12	1.000	1.000	0.0	99	0.15
83	M	Pyrene	0.857	0.891	-4.0	100	0.09
84	S	Terphenyl-d14	0.817	0.818	-0.1	99	0.10
85	T	3,3'-Dimethylbenzidine	0.355	0.354	0.3	97	0.02
86	T	Butyl benzyl phthalate	0.345	0.306	11.3	103	0.12
87	T	3,3'-Dichlorobenzidine	0.232	0.258	-11.2	103	0.14
88	T	Benzo[a]anthracene	0.687	0.718	-4.5	100	0.14
89	T	Chrysene	0.714	0.696	2.5	98	0.14
90	T	Bis(2-ethylhexyl) phthalate	0.468	0.421	10.0	102	0.16
92	I	Perylene-d12	1.000	1.000	0.0	107	0.17
93	TC	Di-n-octyl phthalate	1.024	0.968	5.5	108	0.16
94	T	Benzo[b]fluoranthene	1.367	1.345	1.6	112	0.15
95	T	Benzo[k]fluoranthene	1.251	1.249	0.2	101	0.15
96	TC	Benzo[a]pyrene	1.137	1.154	-1.5	109	0.15
97	T	Indeno[1,2,3-cd]pyrene	1.359	1.594	-17.3	111	0.14
98	T	Dibenz[a,h]anthracene	1.191	1.382	-16.0	105	0.14
99	T	Benzo[g,h,i]perylene	1.197	1.247	-4.2	103	0.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W1917.M Mon Nov 27 13:01:00 2017 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\17-11-27BW\
Data File : B9496.D
Acq On : 27 Nov 2017 14:57
Operator : TN
Sample : ABN055-17,ICV000.5SIM
Misc : NA,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 28 10:04:20 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	92	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	95	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	93	-0.01
72	T	Hexachlorobenzene	0.362	0.405	-11.9	107	0.00
74	MC	Pentachlorophenol	0.110	0.101	8.2	90	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	86	-0.04
88	T	Benzo[a]anthracene	0.876	0.963	-9.9	99	-0.04
92	I	Perylene-d12	1.000	1.000	0.0	94	0.00
94	T	Benzo[b]fluoranthene	1.581	1.633	-3.3	98	-0.01
95	T	Benzo[k]fluoranthene	1.762	2.092	-18.7	100	-0.01
96	TC	Benzo[a]pyrene	1.297	1.351	-4.2	101	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.614	1.675	-3.8	101	0.03
98	T	Dibenz[a,h]anthracene	1.406	1.536	-9.2	105	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

BSIM2017.M Tue Nov 28 10:04:24 2017 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\17-11-30BW\
Data File : B9558.D
Acq On : 30 Nov 2017 10:45
Operator : TN
Sample : ABN061-17,CCV040BNA1
Misc : NA,NA,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Nov 30 11:39:04 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00
2	T	N-Nitrosodimethylamine	0.431	0.461	-7.0	114	-0.02
3	T	Pyridine	0.427	0.441	-3.3	118	-0.01
4	S	2-Fluorophenol	0.882	0.885	-0.3	115	0.00
5	T	Benzaldehyde	0.606	0.547	9.7	104	0.00
6	S	Phenol-d5	1.131	1.110	1.9	115	0.00
7	MC	Phenol	1.233	1.206	2.2	116	-0.01
8	T	Aniline	0.514	0.511	0.6	118	-0.01
9	T	Bis(2-chloroethyl) ether	0.573	0.556	3.0	114	-0.01
10	M	2-Chlorophenol	0.984	1.017	-3.4	116	0.00
11	T	1,3-Dichlorobenzene	1.159	1.152	0.6	112	0.00
12	MC	1,4-Dichlorobenzene	1.170	1.150	1.7	111	0.00
13	T	Benzyl alcohol	0.867	0.812	6.3	105	0.00
14	T	1,2-Dichlorobenzene	1.098	1.087	1.0	113	0.00
15	T	2-Methylphenol	0.822	0.812	1.2	113	0.00
16	T	2,2'-Oxybis(1-Chloropropane	0.770	0.803	-4.3	120	0.00
17	T	4-Methylphenol	0.881	0.930	-5.6	121	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.660	0.735	-11.4	122	-0.01
19	T	Acetophenone	1.292	1.347	-4.3	119	0.00
20	T	3-Methylphenol	0.881	0.930	-5.6	121	-0.01
21	T	Hexachloroethane	0.424	0.434	-2.4	118	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	119	0.00
24	S	Nitrobenzene-d5	0.268	0.286	-6.7	120	0.00
25	T	Nitrobenzene	0.282	0.269	4.6	116	0.00
26	T	Isophorone	0.372	0.401	-7.8	127	-0.01
27	TC	2-Nitrophenol	0.125	0.131	-4.8	129	0.00
28	T	2,4-Dimethylphenol	0.240	0.248	-3.3	119	-0.01
29	T	Bis(2-chloroethoxy) methane	0.254	0.263	-3.5	122	0.00
30	T	Benzoic acid	0.122	0.108	11.5	113	-0.04
31	T	2,4-Dimethylaniline	0.258	0.261	-1.2	120	-0.03
32	TC	2,4-Dichlorophenol	0.206	0.218	-5.8	120	-0.01
33	M	1,2,4-Trichlorobenzene	0.244	0.239	2.0	118	0.00
34	T	Naphthalene	0.808	0.772	4.5	117	0.00
35	T	4-Chloroaniline	0.387	0.388	-0.3	117	-0.01
36	T	4-Aminotoluene	0.340	0.319	6.2	107	-0.02
37	TC	Hexachlorobutadiene	0.166	0.159	4.2	113	0.00
38	T	Caprolactam	0.055	0.071	-29.1	147	-0.03
39	T	2-Aminotoluene	0.340	0.319	6.2	107	-0.02
40	MC	4-Chloro-3-methylphenol	0.202	0.223	-10.4	121	0.00
41	T	2-Methylnaphthalene	0.536	0.540	-0.7	119	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	122	0.00
44	TP	Hexachlorocyclopentadiene	0.245	0.258	-5.3	120	0.00
45	TC	2,4,6-Trichlorophenol	0.220	0.275	-25.0	138	0.00
46	T	2,4,5-Trichlorophenol	0.259	0.304	-17.4	128	-0.01

47	S	2-Fluorobiphenyl	1.105	1.043	5.6	118	0.00
48	T	1,1'-Biphenyl	1.173	1.090	7.1	123	0.00
49	T	2-Chloronaphthalene	0.844	0.809	4.1	121	0.00
50	T	2-Nitroaniline	0.198	0.237	-19.7	143	0.00
51	T	Dimethyl phthalate	0.901	0.966	-7.2	129	0.00
52	T	2,6-Dinitrotoluene	0.183	0.206	-12.6	140	0.00
53	T	Acenaphthylene	1.296	1.270	2.0	125	0.00
54	T	3-Nitroaniline	0.195	0.207	-6.2	133	-0.01
55	MC	Acenaphthene	0.841	0.802	4.6	124	0.00
56	TP	2,4-Dinitrophenol	0.113	0.129	-14.2	140	-0.01
57	MP	4-Nitrophenol	0.159	0.206	-29.6	159	-0.01
58	M	2,4-Dinitrotoluene	0.206	0.265	-28.6	138	-0.02
59	T	Dibenzofuran	1.202	1.178	2.0	125	-0.01
60	T	Diethyl phthalate	0.896	1.019	-13.7	136	0.00
61	T	Fluorene	0.952	0.980	-2.9	129	-0.01
62	T	4-Chlorophenyl phenyl ether	0.505	0.520	-3.0	130	-0.01
63	T	4-Nitroaniline	0.188	0.231	-22.9	149	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.483	0.448	7.2	121	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.200	0.254	-27.0	142	-0.01
66	I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00
67	T	4,6-Dinitro-2-methylphenol	0.126	0.096	23.8	104	-0.02
68	TC	N-Nitrosodiphenylamine	0.376	0.367	2.4	132	0.00
69	T	1,2-Diphenylhydrazine	0.512	0.505	1.4	130	-0.01
70	S	2,4,6-Tribromophenol	0.131	0.129	1.5	139	0.00
71	T	4-Bromophenyl phenyl ether	0.182	0.174	4.4	132	0.00
72	T	Hexachlorobenzene	0.229	0.223	2.6	140	0.00
73	T	Atrazine	0.090	0.064	28.9	87	0.00
74	MC	Pentachlorophenol	0.125	0.126	-0.8	160	0.00
75	T	Phenanthrene	0.745	0.725	2.7	136	0.00
76	T	Anthracene	0.693	0.719	-3.8	142	0.00
77	T	Carbazole	0.614	0.665	-8.3	147	0.00
78	T	Di-n-butyl phthalate	0.772	0.847	-9.7	160	0.00
79	TC	Fluoranthene	0.679	0.780	-14.9	156	0.00
80	T	Benzidine	0.224	0.288	-28.6	142	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	157	0.00
83	M	Pyrene	0.857	0.869	-1.4	155	0.00
84	S	Terphenyl-d14	0.817	0.833	-2.0	161	0.00
85	T	3,3'-Dimethylbenzidine	0.355	0.382	-7.6	167	-0.01
86	T	Butyl benzyl phthalate	0.345	0.363	-5.2	195	0.00
87	T	3,3'-Dichlorobenzidine	0.232	0.263	-13.4	168	0.00
88	T	Benzo[a]anthracene	0.687	0.723	-5.2	161	0.00
89	T	Chrysene	0.714	0.718	-0.6	161	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.468	0.488	-4.3	189	0.00
92	I	Perylene-d12	1.000	1.000	0.0	141	0.00
93	TC	Di-n-octyl phthalate	1.024	1.279	-24.9	188	-0.01
94	T	Benzo[b]fluoranthene	1.367	1.364	0.2	149	-0.01
95	T	Benzo[k]fluoranthene	1.251	1.244	0.6	133	-0.02
96	TC	Benzo[a]pyrene	1.137	1.194	-5.0	149	-0.02
97	T	Indeno[1,2,3-cd]pyrene	1.359	1.528	-12.4	140	-0.05
98	T	Dibenz[a,h]anthracene	1.191	1.290	-8.3	128	-0.04
99	T	Benzo[g,h,i]perylene	1.197	1.202	-0.4	131	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out =0

BW1917.M Mon Dec 04 09:00:34 2017 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9589.D
Acq On : 1 Dec 2017 9:29
Operator : TN
Sample : ABN061-17,CCV040BNA1
Misc : NA,NA,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Dec 01 09:50:22 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
2	T	N-Nitrosodimethylamine	0.431	0.478	-10.9	109	-0.03
3	T	Pyridine	0.427	0.445	-4.2	110	-0.01
4	S	2-Fluorophenol	0.882	0.834	5.4	100	0.00
5	T	Benzaldehyde	0.606	0.647	-6.8	119	0.00
6	S	Phenol-d5	1.131	1.089	3.7	104	0.00
7	MC	Phenol	1.233	1.195	3.1	106	-0.01
8	T	Aniline	0.514	0.501	2.5	107	-0.01
9	T	Bis(2-chloroethyl) ether	0.573	0.563	1.7	107	-0.01
10	M	2-Chlorophenol	0.984	1.011	-2.7	106	0.00
11	T	1,3-Dichlorobenzene	1.159	1.115	3.8	100	0.00
12	MC	1,4-Dichlorobenzene	1.170	1.145	2.1	102	0.00
13	T	Benzyl alcohol	0.867	0.807	6.9	97	0.00
14	T	1,2-Dichlorobenzene	1.098	1.081	1.5	103	0.00
15	T	2-Methylphenol	0.822	0.812	1.2	104	0.00
16	T	2,2'-Oxybis(1-Chloropropane	0.770	0.750	2.6	103	0.00
17	T	4-Methylphenol	0.881	0.894	-1.5	107	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.660	0.716	-8.5	109	-0.01
19	T	Acetophenone	1.292	1.306	-1.1	106	-0.01
20	T	3-Methylphenol	0.881	0.894	-1.5	107	-0.01
21	T	Hexachloroethane	0.424	0.423	0.2	106	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00
24	S	Nitrobenzene-d5	0.268	0.293	-9.3	112	0.00
25	T	Nitrobenzene	0.282	0.271	3.9	106	-0.01
26	T	Isophorone	0.372	0.410	-10.2	118	-0.01
27	TC	2-Nitrophenol	0.125	0.135	-8.0	120	-0.01
28	T	2,4-Dimethylphenol	0.240	0.246	-2.5	107	-0.01
29	T	Bis(2-chloroethoxy) methane	0.254	0.260	-2.4	109	0.00
30	T	Benzoic acid	0.122	0.158	-29.5	149	-0.04
31	T	2,4-Dimethylaniline	0.258	0.261	-1.2	109	-0.03
32	TC	2,4-Dichlorophenol	0.206	0.221	-7.3	110	-0.01
33	M	1,2,4-Trichlorobenzene	0.244	0.249	-2.0	111	0.00
34	T	Naphthalene	0.808	0.776	4.0	106	0.00
35	T	4-Chloroaniline	0.387	0.395	-2.1	108	-0.01
36	T	4-Aminotoluene	0.340	0.316	7.1	96	-0.03
37	TC	Hexachlorobutadiene	0.166	0.169	-1.8	109	0.00
38	T	Caprolactam	0.055	0.071	-29.1	135	-0.03
39	T	2-Aminotoluene	0.340	0.316	7.1	96	-0.03
40	MC	4-Chloro-3-methylphenol	0.202	0.227	-12.4	112	-0.01
41	T	2-Methylnaphthalene	0.536	0.537	-0.2	107	-0.01
43	I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00
44	TP	Hexachlorocyclopentadiene	0.245	0.251	-2.4	110	0.00
45	TC	2,4,6-Trichlorophenol	0.220	0.273	-24.1	129	-0.01
46	T	2,4,5-Trichlorophenol	0.259	0.296	-14.3	118	-0.01

47	S	2-Fluorobiphenyl	1.105	1.001	9.4	107	0.00
48	T	1,1'-Biphenyl	1.173	1.051	10.4	112	0.00
49	T	2-Chloronaphthalene	0.844	0.790	6.4	112	-0.01
50	T	2-Nitroaniline	0.198	0.231	-16.7	131	-0.01
51	T	Dimethyl phthalate	0.901	0.920	-2.1	116	-0.01
52	T	2,6-Dinitrotoluene	0.183	0.201	-9.8	129	-0.01
53	T	Acenaphthylene	1.296	1.232	4.9	114	-0.01
54	T	3-Nitroaniline	0.195	0.210	-7.7	127	-0.01
55	MC	Acenaphthene	0.841	0.783	6.9	114	-0.01
56	TP	2,4-Dinitrophenol	0.113	0.124	-9.7	127	-0.02
57	MP	4-Nitrophenol	0.159	0.198	-24.5	145	-0.01
58	M	2,4-Dinitrotoluene	0.206	0.257	-24.8	127	-0.02
59	T	Dibenzofuran	1.202	1.184	1.5	118	-0.01
60	T	Diethyl phthalate	0.896	0.989	-10.4	124	0.00
61	T	Fluorene	0.952	0.954	-0.2	118	-0.01
62	T	4-Chlorophenyl phenyl ether	0.505	0.507	-0.4	120	-0.01
63	T	4-Nitroaniline	0.188	0.223	-18.6	135	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.483	0.447	7.5	114	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.200	0.258	-29.0	136	-0.01
66	I	Phenanthrene-d10	1.000	1.000	0.0	130	0.00
67	T	4,6-Dinitro-2-methylphenol	0.126	0.096	23.8	96	-0.01
68	TC	N-Nitrosodiphenylamine	0.376	0.370	1.6	123	0.00
69	T	1,2-Diphenylhydrazine	0.512	0.493	3.7	118	0.00
70	S	2,4,6-Tribromophenol	0.131	0.130	0.8	130	0.00
71	T	4-Bromophenyl phenyl ether	0.182	0.176	3.3	124	0.00
72	T	Hexachlorobenzene	0.229	0.223	2.6	130	0.00
73	T	Atrazine	0.090	0.064	28.9	81	0.00
74	MC	Pentachlorophenol	0.125	0.125	0.0	147	0.00
75	T	Phenanthrene	0.745	0.707	5.1	123	0.00
76	T	Anthracene	0.693	0.709	-2.3	130	0.00
77	T	Carbazole	0.614	0.661	-7.7	136	0.00
78	T	Di-n-butyl phthalate	0.772	0.803	-4.0	140	0.00
79	TC	Fluoranthene	0.679	0.757	-11.5	140	0.00
80	T	Benzidine	0.224	0.286	-27.7	139	0.02
82	I	Chrysene-d12	1.000	1.000	0.0	140	0.03
83	M	Pyrene	0.857	0.892	-4.1	142	0.01
84	S	Terphenyl-d14	0.817	0.832	-1.8	143	0.02
85	T	3,3'-Dimethylbenzidine	0.355	0.438	-23.4	165	0.04
86	T	Butyl benzyl phthalate	0.345	0.369	-7.0	177	0.02
87	T	3,3'-Dichlorobenzidine	0.232	0.265	-14.2	151	0.03
88	T	Benzo[a]anthracene	0.687	0.715	-4.1	142	0.03
89	T	Chrysene	0.714	0.707	1.0	142	0.03
90	T	Bis(2-ethylhexyl) phthalate	0.468	0.491	-4.9	170	0.03
92	I	Perylene-d12	1.000	1.000	0.0	134	0.02
93	TC	Di-n-octyl phthalate	1.024	1.304	-27.3	183	0.02
94	T	Benzo[b]fluoranthene	1.367	1.307	4.4	136	0.02
95	T	Benzo[k]fluoranthene	1.251	1.225	2.1	125	0.01
96	TC	Benzo[a]pyrene	1.137	1.137	0.0	135	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.359	1.497	-10.2	131	-0.04
98	T	Dibenz[a,h]anthracene	1.191	1.265	-6.2	120	-0.03
99	T	Benzo[g,h,i]perylene	1.197	1.187	0.8	123	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

BW1917.M Fri Dec 01 10:16:55 2017 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9567.D
Acq On : 30 Nov 2017 13:59
Operator : TN
Sample : ABN055-17,CCV000.5SIM
Misc : NA,NA,NA,1
ALS Vial : 99 Sample Multiplier: 1

Quant Time: Nov 30 17:56:49 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	95	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	116	0.02
72	T	Hexachlorobenzene	0.362	0.353	2.5	117	0.02
74	MC	Pentachlorophenol	0.110	0.100	9.1	111	0.02
82	I	Chrysene-d12	1.000	1.000	0.0	147	0.00
88	T	Benzo[a]anthracene	0.876	1.007	-15.0	176	0.00
92	I	Perylene-d12	1.000	1.000	0.0	164	0.03
94	T	Benzo[b]fluoranthene	1.581	1.448	8.4	152	0.02
95	T	Benzo[k]fluoranthene	1.762	2.099	-19.1	175	0.02
96	TC	Benzo[a]pyrene	1.297	1.434	-10.6	187	0.03
97	T	Indeno[1,2,3-cd]pyrene	1.614	1.439	10.8	152	0.06
98	T	Dibenz[a,h]anthracene	1.406	1.243	11.6	149	0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0

BSIM2017.M Fri Dec 01 15:10:49 2017 MSD_B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9479.D

Date Analyzed: 11/27/2017

Instrument ID: MSDB

Time Analyzed: 09:57

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	139277		3.67		531834		4.44		315266		5.47	
	UPPER LIMIT	278554		4.17		1063668		4.94		630532		5.97	
	LOWER LIMIT	69639		3.17		265917		3.94		157633		4.97	
	LAB SAMPLE ID												
01	ICC001BNA1	116335		3.67		469529		4.44		266912		5.47	
02	ICC010BNA1	122547		3.67		474421		4.44		277572		5.47	
03	ICC020BNA1	118178		3.67		476296		4.44		282614		5.47	
04	ICC080BNA1	137685		3.67		508978		4.44		300040		5.47	
05	ICC160BNA1	131552		3.68		504556		4.45		281781		5.47	
06	ICC160BNA2	152951		3.67		606734		4.44		345586		5.47	
07	ICC080BNA2	120792		3.67		496478		4.44		297225		5.47	
08	ICC040BNA2	123086		3.67		502977		4.44		304070		5.47	
09	ICC020BNA2	125659		3.67		509285		4.44		302404		5.47	
10	ICC010BNA2	111418		3.67		455614		4.44		267926		5.47	
11	ICC001BNA2	109632		3.67		435540		4.44		254023		5.47	
12	ICV040BNA1	125170		3.67		482049		4.44		287686		5.47	
13	ICV040BNA2	119963		3.67		486128		4.44		294363		5.47	
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9479.D

Date Analyzed: 11/27/2017

Instrument ID: MSDB

Time Analyzed: 09:57

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	543903		6.38		440079		7.98		223961		9.29	
	UPPER LIMIT	1087806		6.88		880158		8.48		447922		9.79	
	LOWER LIMIT	271952		5.88		220040		7.48		111981		8.79	
	LAB SAMPLE ID												
01	ICC001BNA1	516410		6.39		448755		8.01		183403		9.32	
02	ICC010BNA1	504258		6.38		440888		7.98		194247		9.29	
03	ICC020BNA1	524426		6.38		436046		7.98		197276		9.28	
04	ICC080BNA1	525681		6.39		398223		7.97		226890		9.28	
05	ICC160BNA1	486086		6.39		396345		7.99		241691		9.30	
06	ICC160BNA2	615797		6.38		481661		7.99		214627		9.30	
07	ICC080BNA2	554308		6.38		471721		8.00		196176		9.31	
08	ICC040BNA2	580836		6.38		521535		8.01		213318		9.32	
09	ICC020BNA2	572683		6.38		511499		8.02		202505		9.34	
10	ICC010BNA2	514699		6.39		445292		8.02		184651		9.34	
11	ICC001BNA2	480050		6.38		400614		8.01		169413		9.34	
12	ICV040BNA1	520758		6.41		434218		8.14		239520		9.47	
13	ICV040BNA2	566264		6.39		506966		8.02		203140		9.33	
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9492.D

Date Analyzed: 11/27/2017

Instrument ID: MSDB

Time Analyzed: 13:53

	1 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	7244		2.24		18104		2.78		8392		3.58	
	UPPER LIMIT	14488		2.74		36208		3.28		16784		4.08	
	LOWER LIMIT	3622		1.74		9052		2.28		4196		3.08	
	LAB SAMPLE ID												
01	ICC000.1SIM	7436		2.24		18788		2.78		8342		3.59	
02	ICC000.2SIM	7597		2.24		19104		2.78		8820		3.58	
03	ICC001.0SIM	6934		2.24		17400		2.78		8032		3.58	
04	ICC002.0SIM	6841		2.24		17221		2.78		8159		3.59	
05	ICC004.0SIM	6811		2.24		17064		2.78		8133		3.58	
06	ICV000.5SIM	6760		2.24		16728		2.78		7976		3.58	
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9492.D

Date Analyzed: 11/27/2017

Instrument ID: MSDB

Time Analyzed: 13:53

	1 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	13697	4.33	9058	6.12	5901	7.43
	UPPER LIMIT	27394	4.83	18116	6.62	11802	7.93
	LOWER LIMIT	6849	3.83	4529	5.62	2951	6.93
	LAB SAMPLE ID						
01	ICC000.1SIM	13868	4.34	8968	6.13	5867	7.44
02	ICC000.2SIM	14884	4.33	8911	6.11	5838	7.44
03	ICC001.0SIM	12917	4.33	9619	6.13	6482	7.43
04	ICC002.0SIM	13618	4.33	9927	6.10	6840	7.44
05	ICC004.0SIM	13755	4.32	11541	6.11	8011	7.41
06	ICV000.5SIM	12766	4.32	7820	6.09	5555	7.42
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9558.D

Date Analyzed: 11/30/2017

Instrument ID: MSDB

Time Analyzed: 10:45

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	158174	3.67	635057	4.44	385843	5.47
	UPPER LIMIT	316348	4.17	1270114	4.94	771686	5.97
	LOWER LIMIT	79087	3.17	317529	3.94	192922	4.97
	LAB SAMPLE ID						
01	CCV040BNA2	153210	3.67	605697	4.44	370799	5.47
02	BLKA171129-03	150224	3.67	599544	4.44	368688	5.46
03	LCSA171129-03	131123	3.67	521800	4.44	316433	5.47
04	E17-10220-001MS	158537	3.67	645648	4.44	392113	5.46
05	E17-10220-001MSD	146833	3.67	589008	4.44	362450	5.46
06	E17-10220-001	139102	3.67	565449	4.44	343565	5.46
07	E17-10216-001	129779	3.67	515260	4.44	308013	5.46
08	E17-10230-001	131215	3.67	511387	4.44	315597	5.46
09	E17-10213-001	125884	3.67	513653	4.44	320497	5.46
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9558.D

Date Analyzed: 11/30/2017

Instrument ID: MSDB

Time Analyzed: 10:45

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	762474		6.38		692697		7.99		315247		9.30	
	UPPER LIMIT	1524948		6.88		1385394		8.49		630494		9.80	
	LOWER LIMIT	381237		5.88		346349		7.49		157624		8.80	
	LAB SAMPLE ID												
01	CCV040BNA2	748280		6.38		810645		7.98		405100		9.29	
02	BLKA171129-03	718976		6.38		622604		7.94		320102		9.22	
03	LCSA171129-03	624710		6.38		532824		7.94		279451		9.24	
04	E17-10220-001MS	743447		6.38		606368		7.95		333472		9.24	
05	E17-10220-001MSD	684651		6.38		568035		7.95		320440		9.24	
06	E17-10220-001	675770		6.38		570984		7.95		294294		9.25	
07	E17-10216-001	604041		6.37		498186		7.95		255617		9.26	
08	E17-10230-001	602577		6.37		511528		7.96		261851		9.26	
09	E17-10213-001	618538		6.38		551009		7.94		295626		9.24	
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22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9589.D

Date Analyzed: 12/01/2017

Instrument ID: MSDB

Time Analyzed: 09:29

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	145842		3.67		575290		4.44		364351		5.47	
	UPPER LIMIT	291684		4.17		1150580		4.94		728702		5.97	
	LOWER LIMIT	72921		3.17		287645		3.94		182176		4.97	
	LAB SAMPLE ID												
01	CCV040BNA2	147345		3.67		576402		4.44		362403		5.46	
02	E17-10213-002	141921		3.67		577861		4.44		343731		5.46	
03	E17-10213-003	130758		3.67		508430		4.44		323745		5.46	
04	E17-10254-001	121228		3.67		478319		4.44		278362		5.46	
05	E17-10256-001	137967		3.67		536950		4.44		332471		5.46	
06	E17-10256-002	133283		3.67		529437		4.44		323061		5.46	
07	E17-10256-003	127639		3.67		498191		4.44		308100		5.46	
08	E17-10256-004	133678		3.67		527194		4.44		304539		5.46	
09													
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9589.D

Date Analyzed: 12/01/2017

Instrument ID: MSDB

Time Analyzed: 09:29

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	705926		6.39		617236		8.02		300494		9.32	
	UPPER LIMIT	1411852		6.89		1234472		8.52		600988		9.82	
	LOWER LIMIT	352963		5.89		308618		7.52		150247		8.82	
	LAB SAMPLE ID												
01	CCV040BNA2	735874		6.39		699799		8.04		277216		9.35	
02	E17-10213-002	654898		6.39		543704		7.99		280720		9.28	
03	E17-10213-003	601303		6.38		489413		8.03		250677		9.34	
04	E17-10254-001	535655		6.38		460246		8.01		246164		9.32	
05	E17-10256-001	637328		6.38		477708		7.99		255913		9.29	
06	E17-10256-002	612894		6.38		439304		7.99		232748		9.30	
07	E17-10256-003	575417		6.38		450178		8.00		240312		9.30	
08	E17-10256-004	579851		6.38		484348		7.99		247018		9.30	
09													
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9567.D

Date Analyzed: 11/30/2017

Instrument ID: MSDB

Time Analyzed: 13:59

	1 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	6500	2.24	17121	2.78	8740	3.59
	UPPER LIMIT	13000	2.74	34242	3.28	17480	4.09
	LOWER LIMIT	3250	1.74	8561	2.28	4370	3.09
	LAB SAMPLE ID						
01	BLKA171129-03	7651	2.24	21129	2.79	11464	3.64
02	E17-10220-001	7552	2.24	20171	2.78	10966	3.59
03	E17-10216-001	7087	2.24	19174	2.78	11000	3.58
04	E17-10230-001	8119	2.24	21827	2.78	12281	3.58
05	E17-10213-001	4690	2.24	17928	2.80	6467	3.66
06	E17-10213-002	5233	2.24	13307	2.78	7489	3.59
07	E17-10213-003	8401	2.24	23255	2.78	13317	3.58
08	E17-10254-001	7911	2.24	21298	2.78	11991	3.58
09	E17-10256-001	7553	2.24	20313	2.78	11565	3.57
10	E17-10256-002	7487	2.24	20300	2.78	11600	3.57
11	E17-10256-003	7248	2.24	19657	2.78	11197	3.57
12	E17-10256-004	8415	2.24	22969	2.78	12682	3.57
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B9567.D

Date Analyzed: 11/30/2017

Instrument ID: MSDB

Time Analyzed: 13:59

	1 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	15930	4.35	13277	6.13	9681	7.46
	UPPER LIMIT	31860	4.85	26554	6.63	19362	7.96
	LOWER LIMIT	7965	3.85	6639	5.63	4841	6.96
	LAB SAMPLE ID						
01	BLKA171129-03	22878	4.44	17780	6.26	13435	7.58
02	E17-10220-001	21631	4.34	18186	6.15	15478	7.44
03	E17-10216-001	21440	4.33	18289	6.10	16890	7.42
04	E17-10230-001	23593	4.32	18962	6.09	15650	7.42
05	E17-10213-001	13458	4.48	12782	6.30	11380	7.63
06	E17-10213-002	14736	4.34	12299	6.13	11692	7.45
07	E17-10213-003	26477	4.31	22841	6.09	18905	7.38
08	E17-10254-001	23472	4.30	21085	6.06	18641	7.39
09	E17-10256-001	21744	4.30	19513	6.08	18363	7.38
10	E17-10256-002	22194	4.30	18677	6.08	16477	7.38
11	E17-10256-003	21356	4.29	18498	6.07	16429	7.38
12	E17-10256-004	24523	4.30	19375	6.08	16566	7.38
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-01BW\
Data File : B9595.D
Acq On : 1 Dec 2017 11:22
Operator : TN
Sample : MW-1,E17-10256-001,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 01 13:05:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

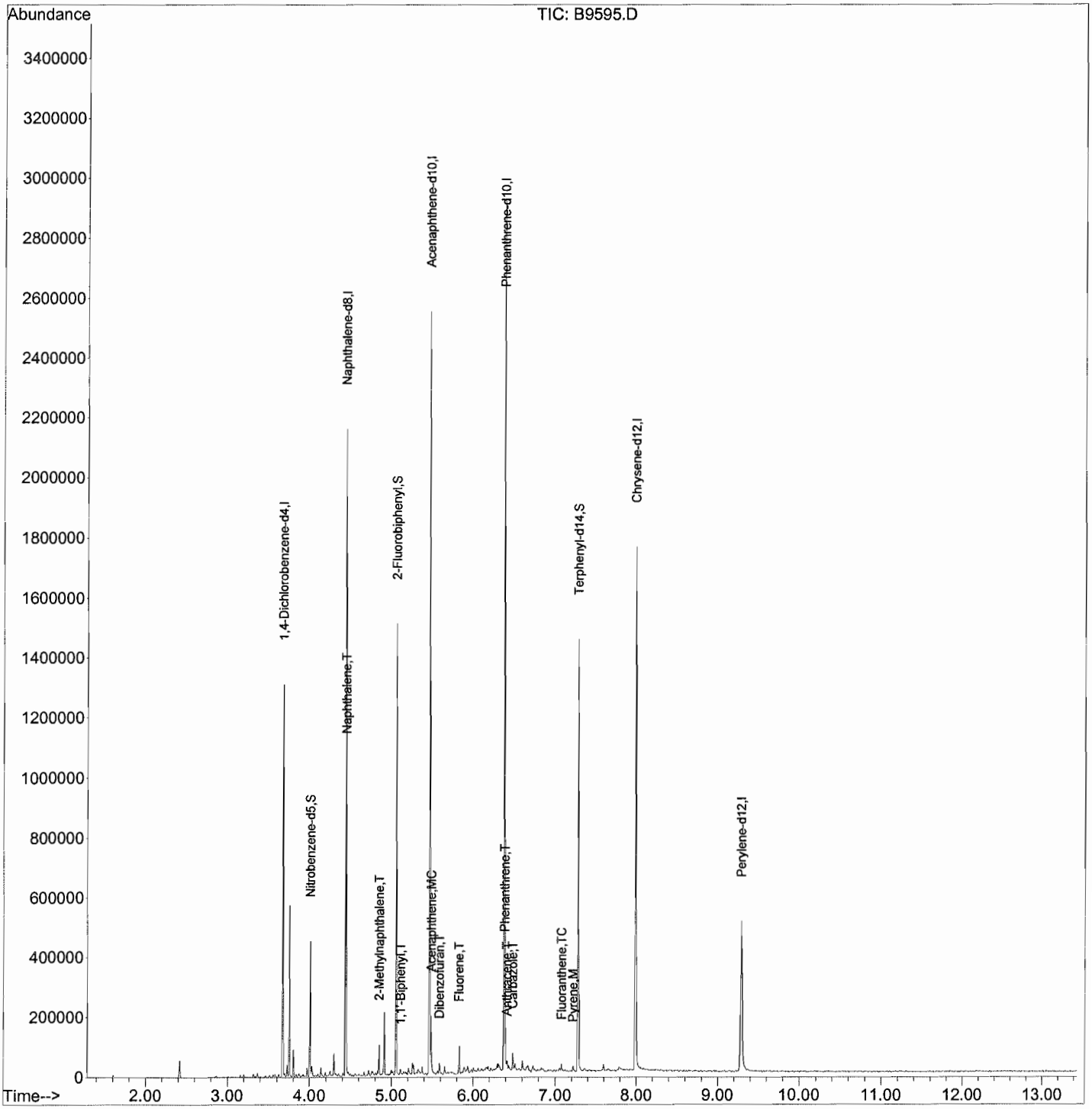
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.67	152	137967	40.00	UG	0.00
23) Naphthalene-d8	4.44	136	536950	40.00	UG	-0.01
43) Acenaphthene-d10	5.46	164	332471	40.00	UG	-0.01
66) Phenanthrene-d10	6.38	188	637328	40.00	UG	0.00
82) Chrysene-d12	7.99	240	477708	40.00	UG	0.00
92) Perylene-d12	9.29	264	255913	40.00	UG	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
24) Nitrobenzene-d5	4.01	82	87256	24.29	UG	0.00
Spiked Amount 50.000			Recovery =	48.58%		
47) 2-Fluorobiphenyl	5.06	172	258392	28.14	UG	0.00
Spiked Amount 50.000			Recovery =	56.28%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
84) Terphenyl-d14	7.28	244	322390	33.04	UG	0.00
Spiked Amount 50.000			Recovery =	66.08%		
Target Compounds						Qvalue
34) Naphthalene	4.45	128	13013	1.20	UG	# 92
41) 2-Methylnaphthalene	4.85	142	15785	2.20	UG	85
48) 1,1'-Biphenyl	5.11	154	1568m	0.16	UG	
55) Acenaphthene	5.48	153	32939	4.71	UG	90
59) Dibenzofuran	5.59	168	7914	0.79	UG	91
61) Fluorene	5.83	166	18271	2.31	UG	99
75) Phenanthrene	6.39	178	43082	3.63	UG	96
76) Anthracene	6.41	178	7998	0.72	UG	93
77) Carbazole	6.48	167	13130	1.34	UG	88
79) Fluoranthene	7.08	202	5687	0.53	UG	95
83) Pyrene	7.22	202	4947	0.48	UG	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-01BW\
Data File : B9595.D
Acq On : 1 Dec 2017 11:22
Operator : TN
Sample : MW-1,E17-10256-001,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 01 13:05:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9595.D
Acq On : 1 Dec 2017 11:22
Operator : TN
Sample : MW-1,E17-10256-001,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW1917.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.418	210	213	216	rVB	56332	36118	2.11%	0.367%
2	3.673	445	448	450	rBV	1308861	834758	48.69%	8.471%
3	3.753	460	463	465	rBV	570388	285048	16.62%	2.893%
4	3.801	469	472	475	rBV	91236	56306	3.28%	0.571%
5	4.010	508	511	513	rBV	451909	288286	16.81%	2.926%
6	4.031	513	515	521	rVB2	33980	29018	1.69%	0.294%
7	4.298	563	565	568	rBV	73897	52462	3.06%	0.532%
8	4.437	588	591	594	rBV	2157228	1181987	68.94%	11.995%
9	4.848	666	668	672	rVB	101211	53973	3.15%	0.548%
10	4.913	675	680	683	rVV	208286	117683	6.86%	1.194%
11	5.057	704	707	709	rBV	1505271	761947	44.44%	7.732%
12	5.254	742	744	746	rBV	38326	31594	1.84%	0.321%
13	5.463	780	783	785	rBV	2544057	1411094	82.30%	14.320%
14	5.484	785	787	795	rVB	192184	132273	7.71%	1.342%
15	5.826	848	851	854	rVB	92137	63189	3.69%	0.641%
16	6.382	952	955	957	rBV	2901064	1714592	100.00%	17.400%
17	6.483	972	974	977	rBV	55250	33118	1.93%	0.336%
18	7.279	1120	1123	1126	rBV	1442495	854241	49.82%	8.669%
19	7.990	1252	1256	1266	rBV	1745159	1245835	72.66%	12.643%
20	9.288	1493	1499	1512	rBV	501570	670334	39.10%	6.803%

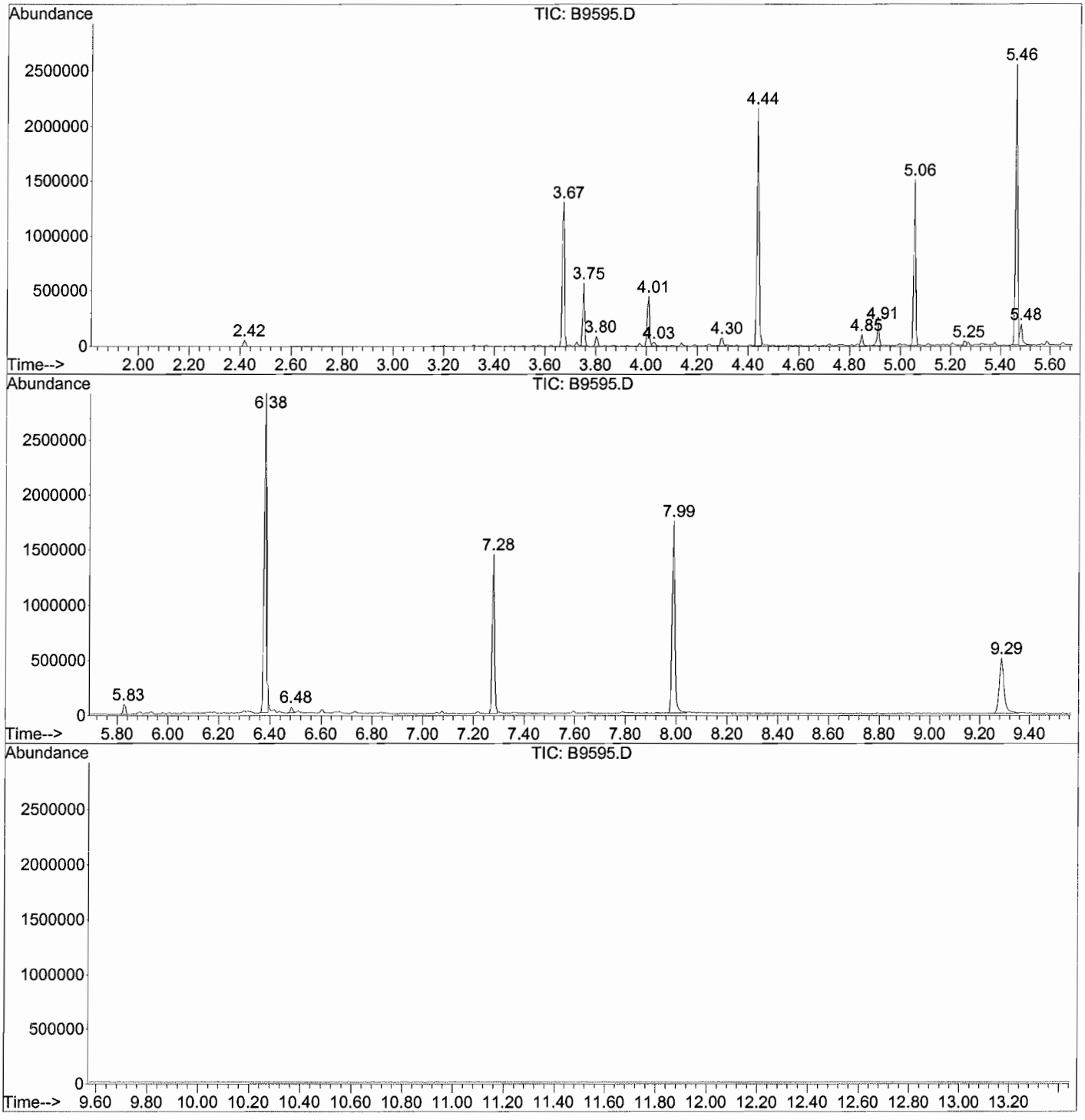
Sum of corrected areas: 9853856

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9595.D
Acq On : 1 Dec 2017 11:22
Operator : TN
Sample : MW-1,E17-10256-001,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9595.D
Acq On : 1 Dec 2017 11:22
Operator : TN
Sample : MW-1,E17-10256-001,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

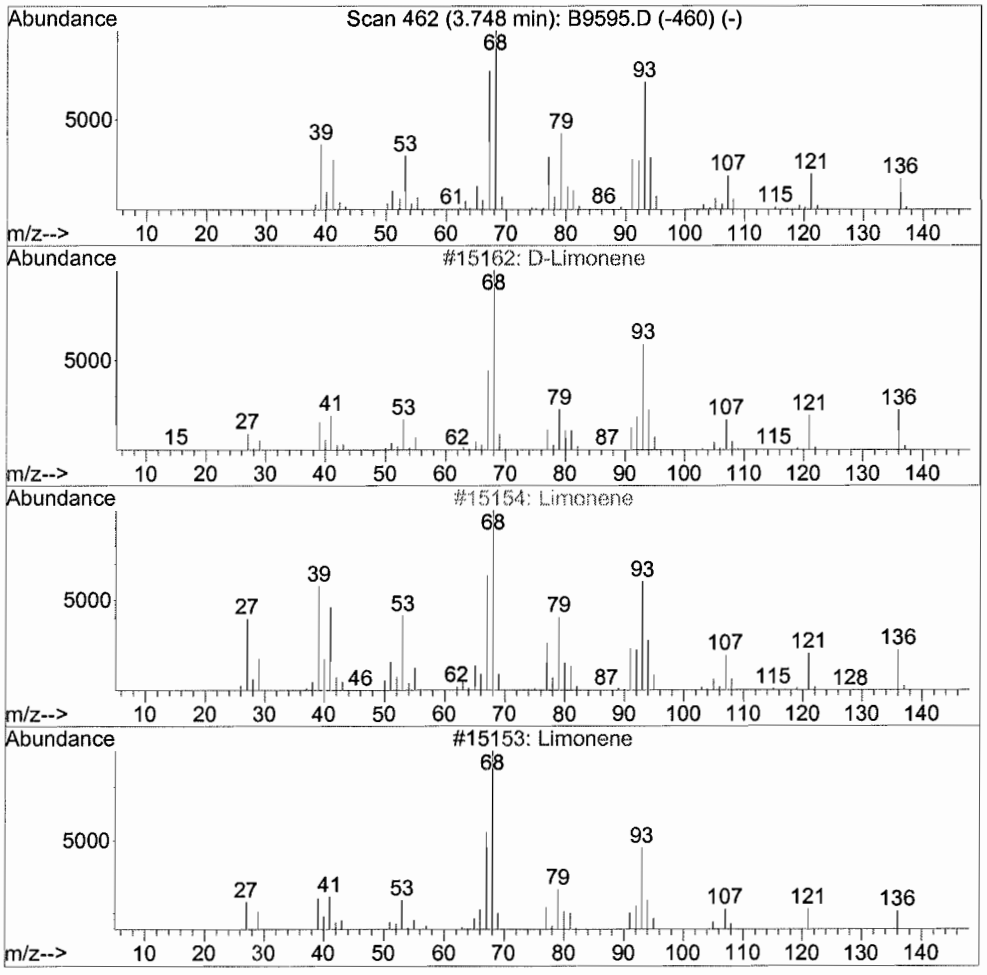
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

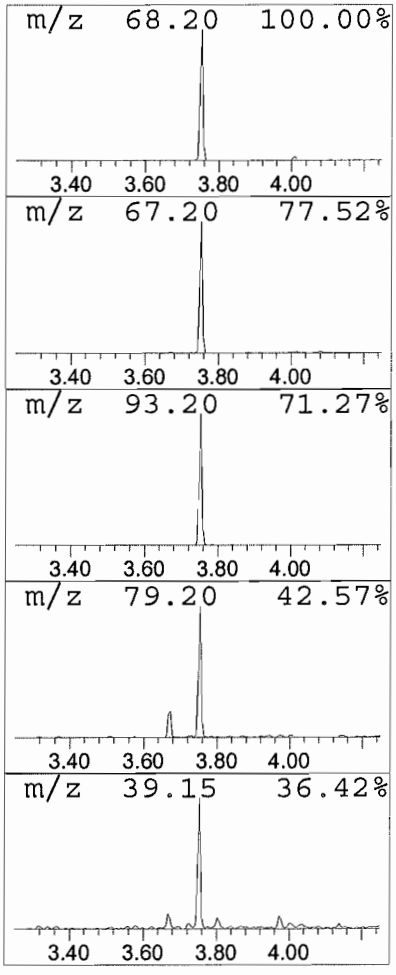
****

Peak Number 1 D-Limonene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.75	13.66 UG	285048	1,4-Dichlorobenzene-d4	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	Limonene	136	C10H16	000138-86-3	94
3	Limonene	136	C10H16	000138-86-3	94
4	D-Limonene	136	C10H16	005989-27-5	89
5	D-Limonene	136	C10H16	005989-27-5	86





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9576.D
Acq On : 30 Nov 2017 18:59
Operator : TN
Sample : MW-1,E17-10256-001,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 01 10:36:51 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	7553	1.00	UG	0.00
23) Naphthalene-d8	2.78	136	20313	1.00	UG	0.00
43) Acenaphthene-d10	3.57	164	11565	1.00	UG	0.00
66) Phenanthrene-d10	4.30	188	21744	1.00	UG	-0.02
82) Chrysene-d12	6.08	240	19513m	1.00	UG	-0.05
92) Perylene-d12	7.38	264	18363m	1.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

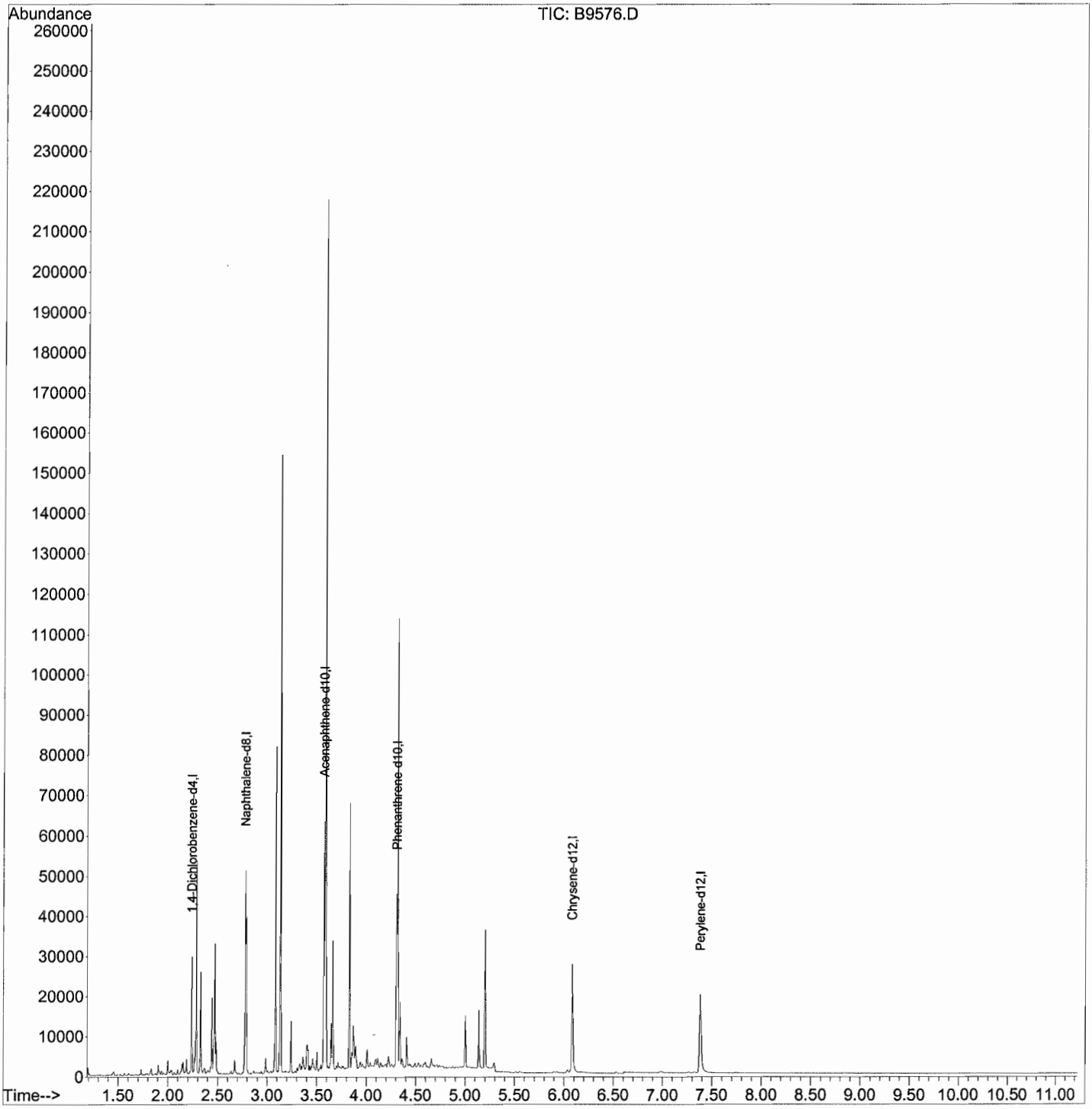
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9576.D
Acq On : 30 Nov 2017 18:59
Operator : TN
Sample : MW-1,E17-10256-001,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 01 10:36:51 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-01BW\
Data File : B9596.D
Acq On : 1 Dec 2017 11:41
Operator : TN
Sample : MW-2,E17-10256-002,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 01 13:09:18 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.67	152	133283	40.00	UG	0.00
23) Naphthalene-d8	4.44	136	529437	40.00	UG	-0.01
43) Acenaphthene-d10	5.46	164	323061	40.00	UG	-0.01
66) Phenanthrene-d10	6.38	188	612894	40.00	UG	-0.01
82) Chrysene-d12	7.99	240	439304	40.00	UG	0.00
92) Perylene-d12	9.30	264	232748	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
24) Nitrobenzene-d5	4.01	82	100348	28.33	UG	0.00
Spiked Amount 50.000			Recovery =	56.66%		
47) 2-Fluorobiphenyl	5.06	172	257355	28.84	UG	0.00
Spiked Amount 50.000			Recovery =	57.68%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
84) Terphenyl-d14	7.28	244	303266	33.79	UG	0.00
Spiked Amount 50.000			Recovery =	67.58%		

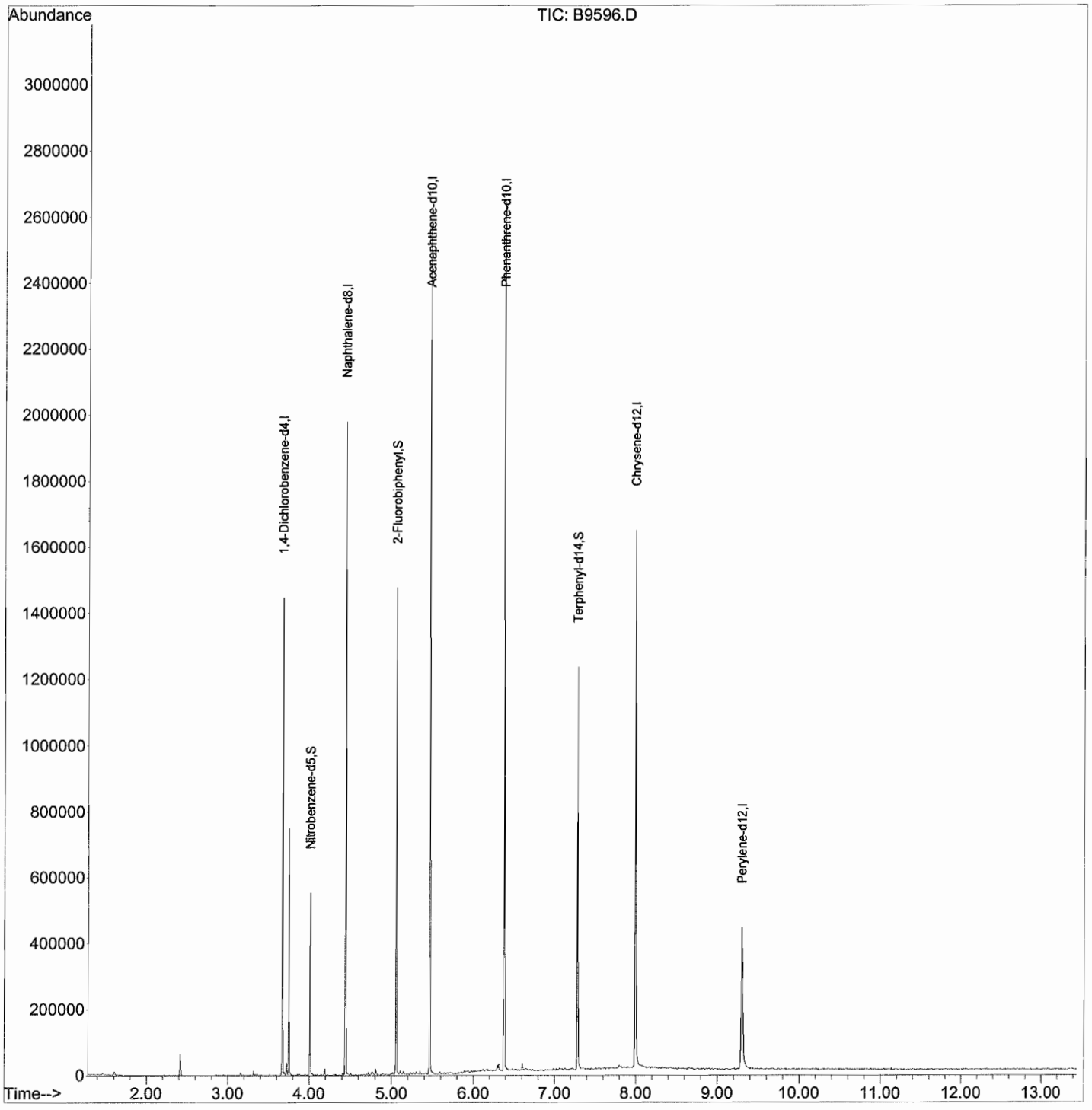
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-01BW\
Data File : B9596.D
Acq On : 1 Dec 2017 11:41
Operator : TN
Sample : MW-2,E17-10256-002,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 01 13:09:18 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9596.D
Acq On : 1 Dec 2017 11:41
Operator : TN
Sample : MW-2,E17-10256-002,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW1917.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.418	210	213	218	rVB	64781	42637	2.78%	0.481%
2	3.673	445	448	450	rBV	1445255	817021	53.19%	9.215%
3	3.753	460	463	465	rBV	747820	371902	24.21%	4.195%
4	4.010	508	511	513	rBV	554346	305717	19.90%	3.448%
5	4.437	589	591	594	rBV	1974601	1091187	71.04%	12.308%
6	5.057	704	707	709	rBV	1473462	747982	48.70%	8.437%
7	5.463	780	783	786	rBV	2570030	1375443	89.55%	15.514%
8	6.376	951	954	957	rBV	2639939	1536002	100.00%	17.325%
9	7.284	1121	1124	1131	rBV	1219234	818203	53.27%	9.229%
10	7.995	1254	1257	1267	rBV	1622814	1127885	73.43%	12.722%
11	9.298	1495	1501	1520	rBV	431356	631872	41.14%	7.127%

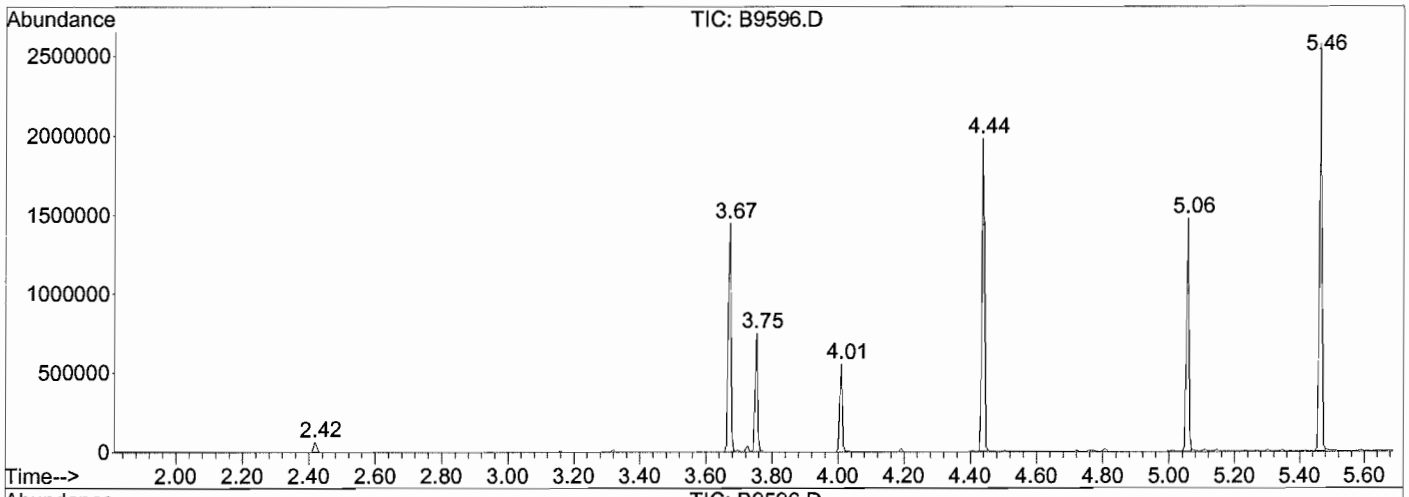
Sum of corrected areas: 8865851

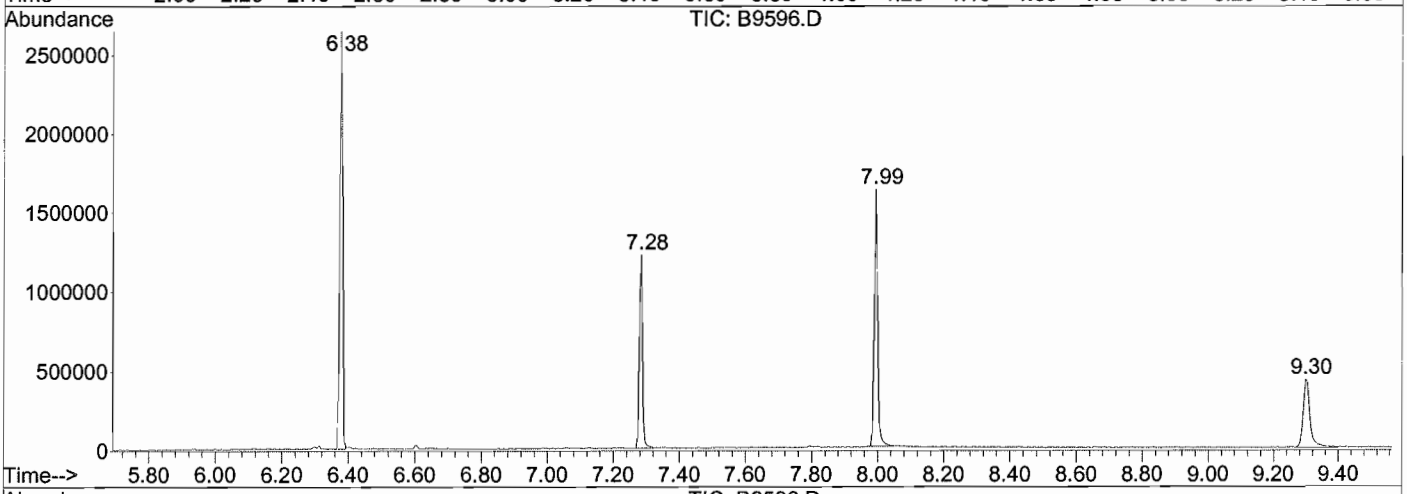
LSC Report - Integrated Chromatogram

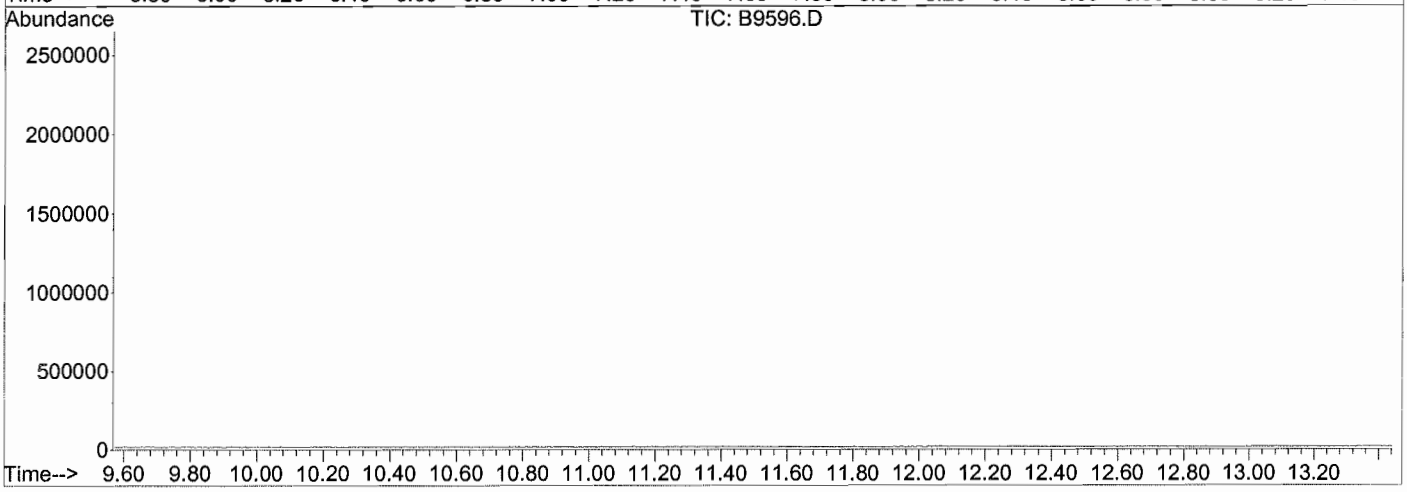
Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9596.D
Acq On : 1 Dec 2017 11:41
Operator : TN
Sample : MW-2,E17-10256-002,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9596.D
Acq On : 1 Dec 2017 11:41
Operator : TN
Sample : MW-2,E17-10256-002,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

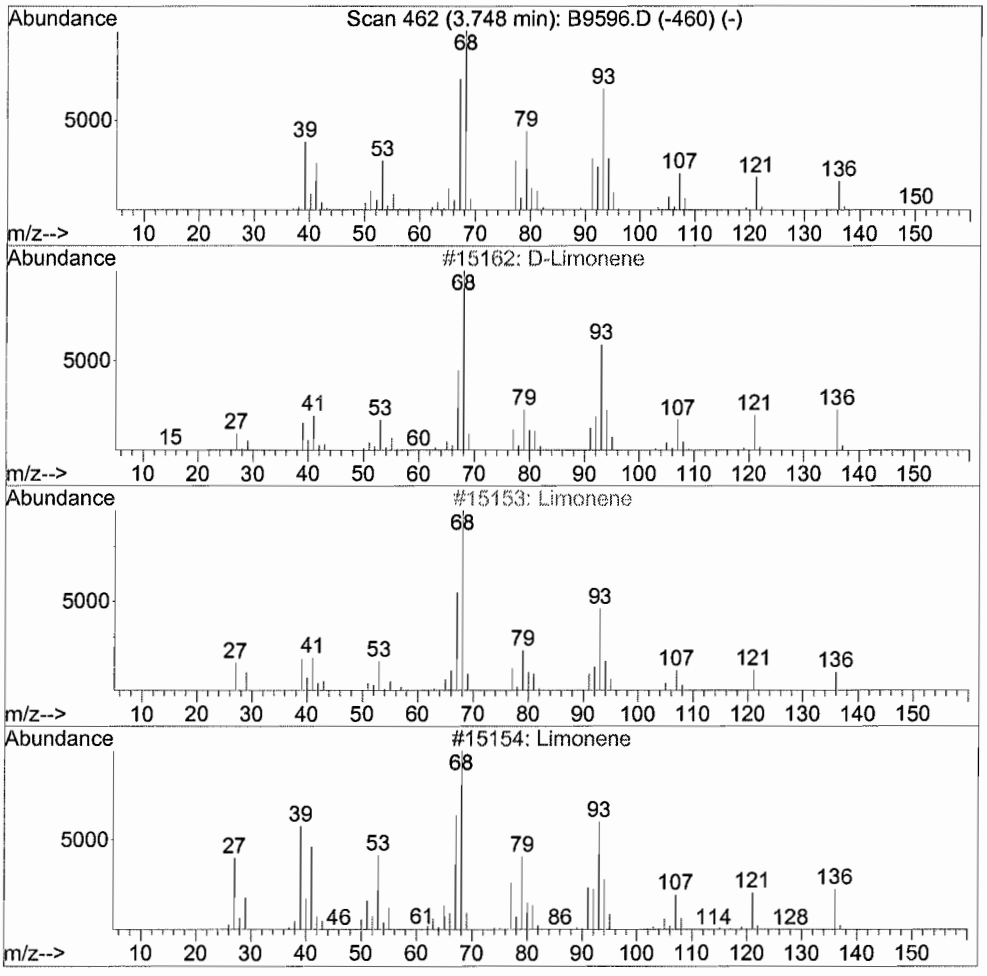
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

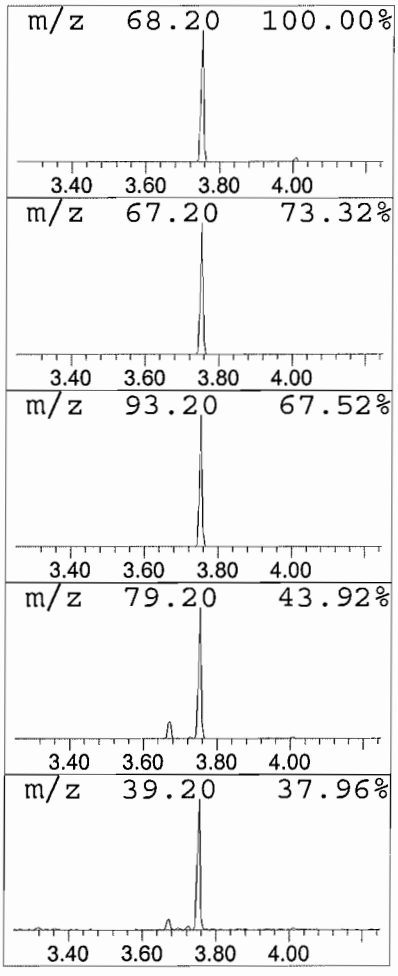
****

Peak Number 1 D-Limonene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.75	18.21 UG	371902	1,4-Dichlorobenzene-d4	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	Limonene	136	C10H16	000138-86-3	91
3	Limonene	136	C10H16	000138-86-3	91
4	D-Limonene	136	C10H16	005989-27-5	86
5	D-Limonene	136	C10H16	005989-27-5	86





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9577.D
Acq On : 30 Nov 2017 19:15
Operator : TN
Sample : MW-2,E17-10256-002,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 01 10:42:13 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	7487	1.00	UG	0.00
23) Naphthalene-d8	2.78	136	20300	1.00	UG	0.00
43) Acenaphthene-d10	3.57	164	11600	1.00	UG	-0.01
66) Phenanthrene-d10	4.30	188	22194m	1.00	UG	-0.02
82) Chrysene-d12	6.08	240	18677m	1.00	UG	-0.05
92) Perylene-d12	7.38	264	16477m	1.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

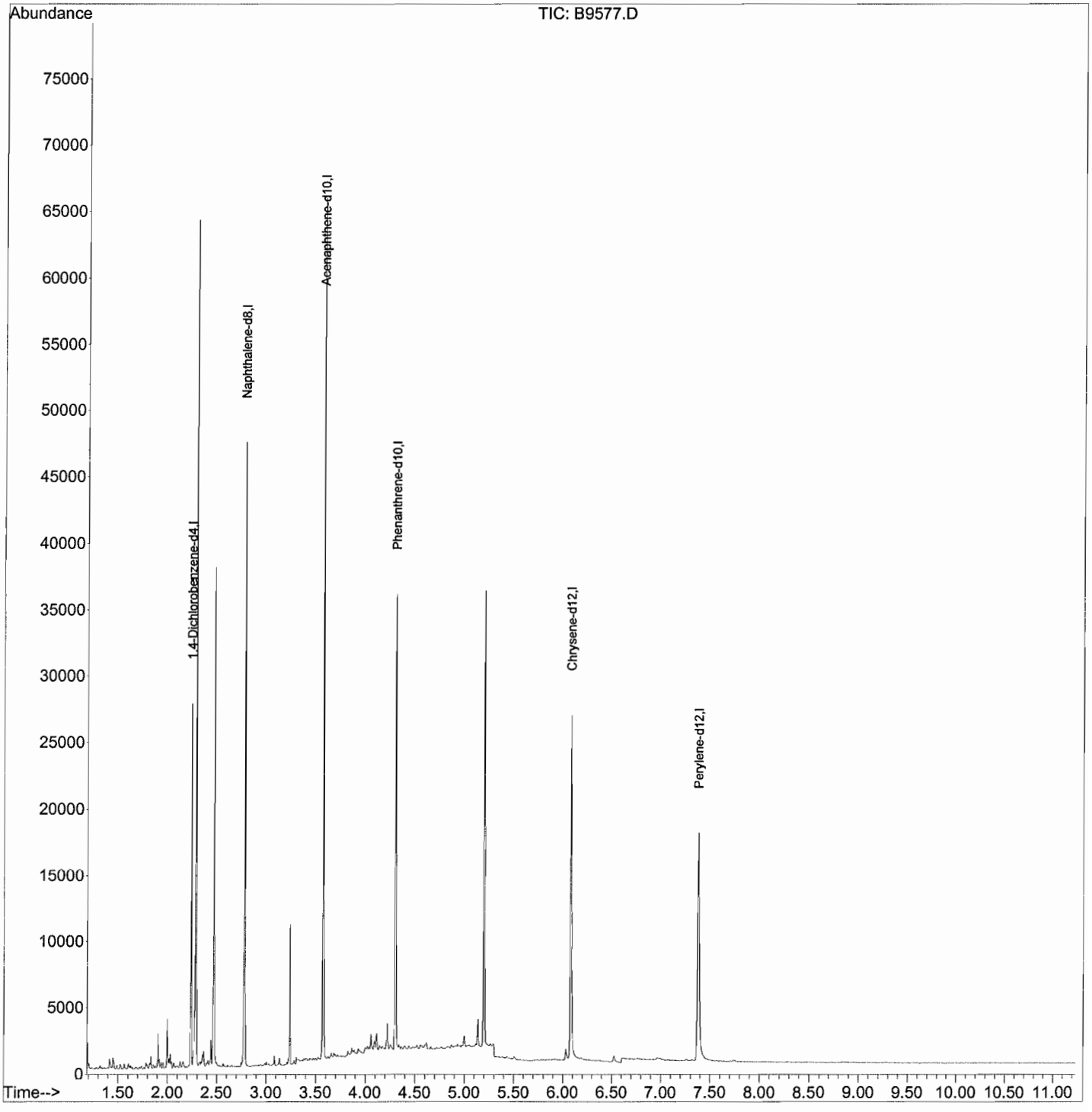
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9577.D
Acq On : 30 Nov 2017 19:15
Operator : TN
Sample : MW-2,E17-10256-002,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 01 10:42:13 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9597.D
Acq On : 1 Dec 2017 11:59
Operator : TN
Sample : MW-3,E17-10256-003,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 01 16:19:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.67	152	127639	40.00	UG	0.00
23) Naphthalene-d8	4.44	136	498191	40.00	UG	-0.01
43) Acenaphthene-d10	5.46	164	308100	40.00	UG	-0.01
66) Phenanthrene-d10	6.38	188	575417	40.00	UG	0.00
82) Chrysene-d12	8.00	240	450178	40.00	UG	0.01
92) Perylene-d12	9.30	264	240312	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
24) Nitrobenzene-d5	4.01	82	103070	30.93	UG	0.00
Spiked Amount 50.000			Recovery =	61.86%		
47) 2-Fluorobiphenyl	5.06	172	262267	30.82	UG	0.00
Spiked Amount 50.000			Recovery =	61.64%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
84) Terphenyl-d14	7.28	244	264456	28.76	UG	0.00
Spiked Amount 50.000			Recovery =	57.52%		

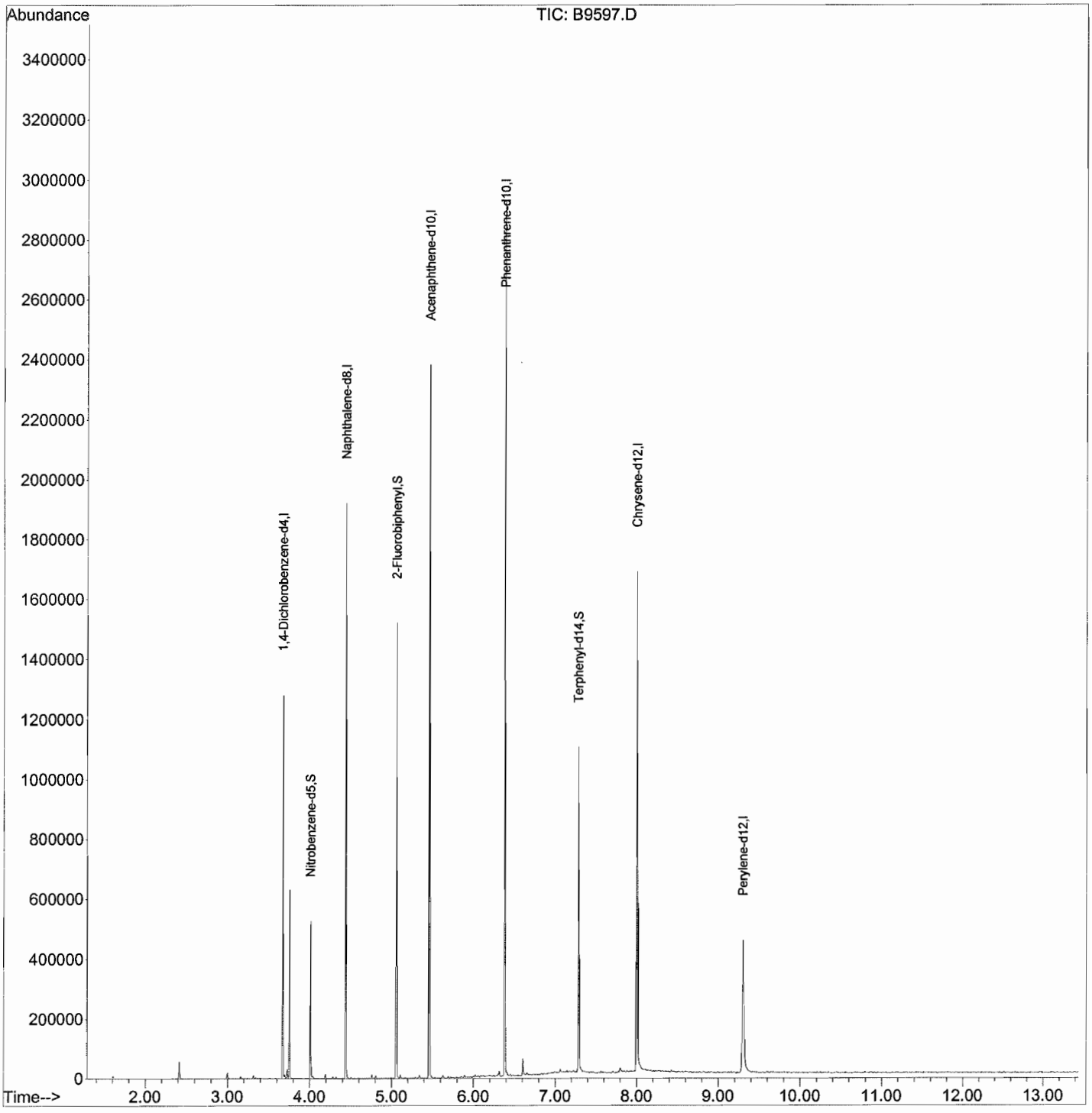
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9597.D
Acq On : 1 Dec 2017 11:59
Operator : TN
Sample : MW-3,E17-10256-003,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 01 16:19:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9597.D
Acq On : 1 Dec 2017 11:59
Operator : TN
Sample : MW-3,E17-10256-003,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW1917.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.418	210	213	217	rVB	57048	37913	2.62%	0.447%
2	3.673	445	448	450	rBV	1279605	776151	53.65%	9.154%
3	3.753	460	463	466	rBV	630547	305233	21.10%	3.600%
4	4.010	508	511	513	rBV	527330	302639	20.92%	3.569%
5	4.437	588	591	594	rBV	1921787	1044661	72.21%	12.320%
6	5.057	704	707	709	rBV	1520221	759385	52.49%	8.956%
7	5.463	780	783	786	rBV	2381168	1293300	89.39%	15.253%
8	6.382	952	955	958	rBV	2924411	1446793	100.00%	17.063%
9	6.606	994	997	1002	rBV	56934	33340	2.30%	0.393%
10	7.285	1121	1124	1133	rBV	1087094	702129	48.53%	8.281%
11	8.000	1255	1258	1270	rBV	1669035	1158233	80.06%	13.660%
12	9.299	1495	1501	1515	rBV	441235	619285	42.80%	7.304%

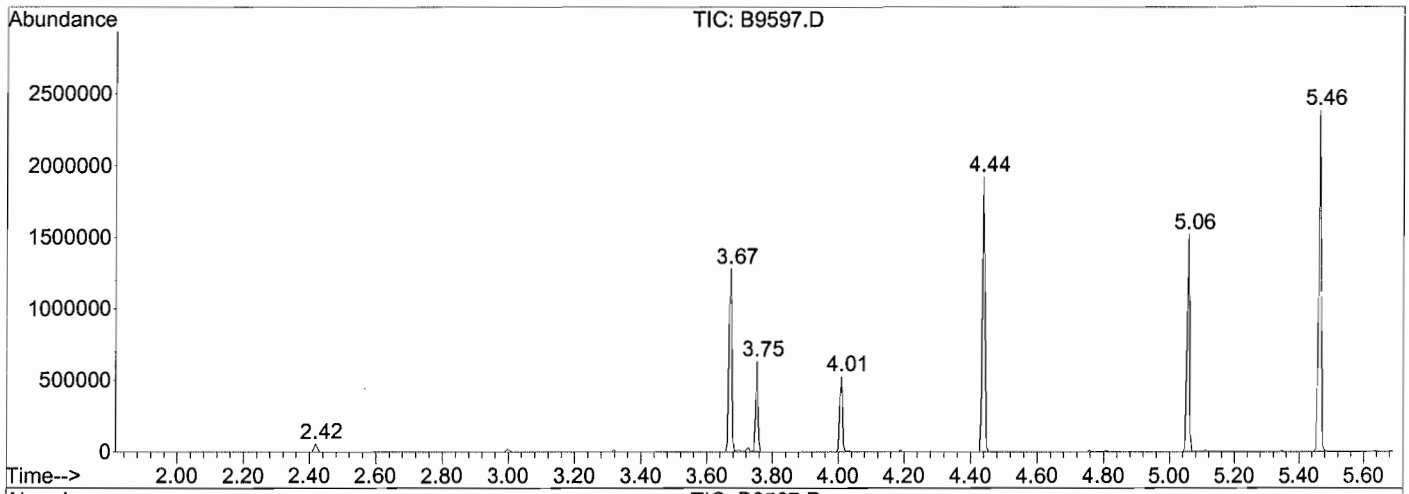
Sum of corrected areas: 8479062

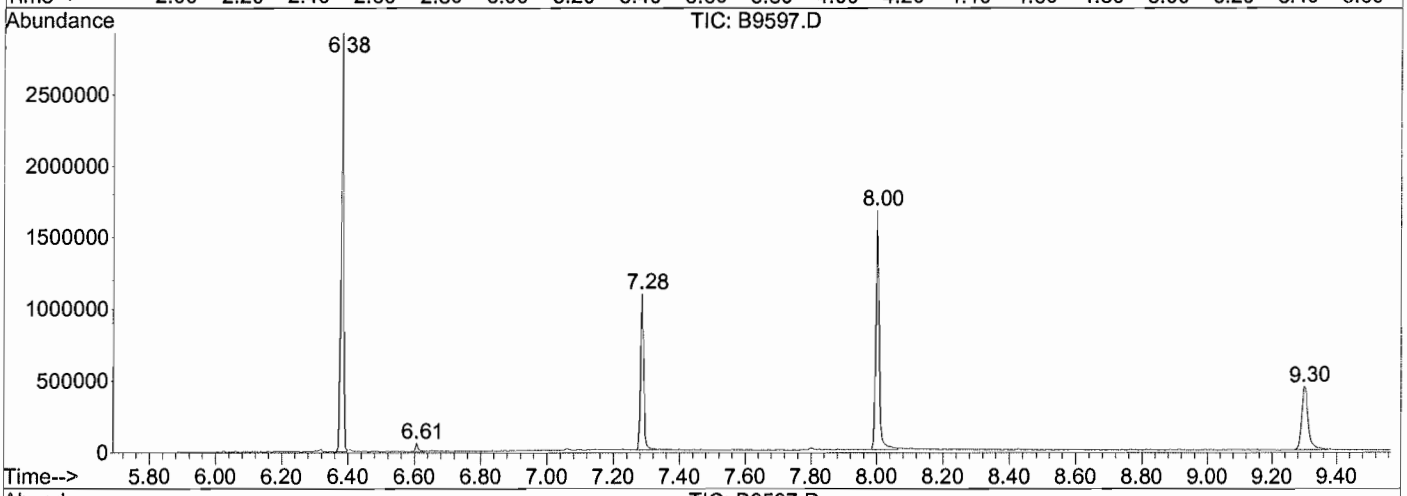
LSC Report - Integrated Chromatogram

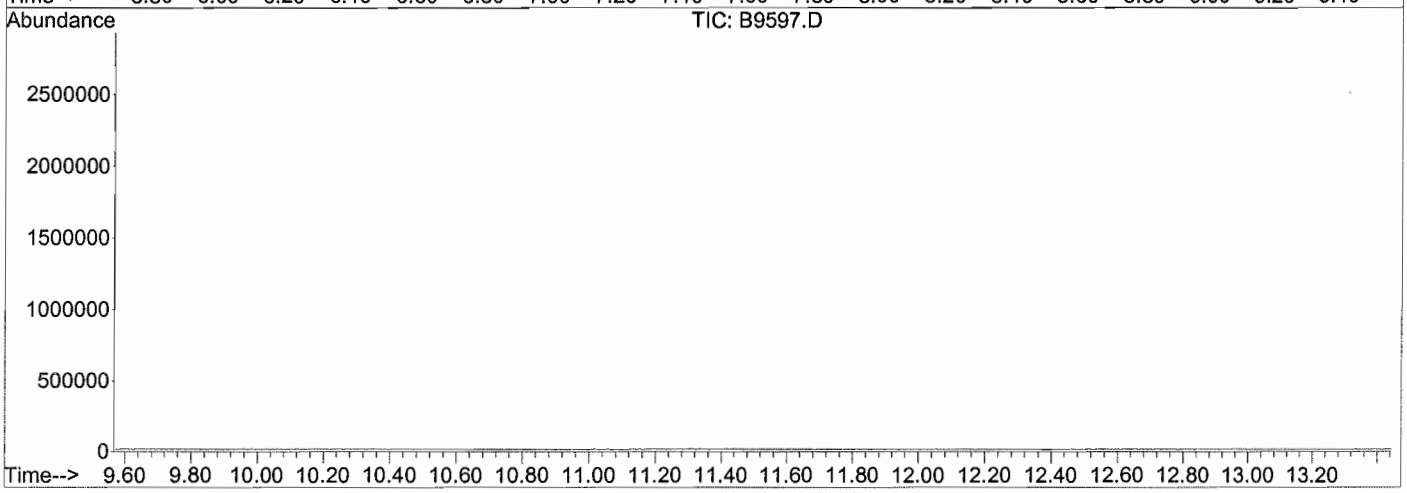
Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9597.D
Acq On : 1 Dec 2017 11:59
Operator : TN
Sample : MW-3,E17-10256-003,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9597.D
Acq On : 1 Dec 2017 11:59
Operator : TN
Sample : MW-3,E17-10256-003,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

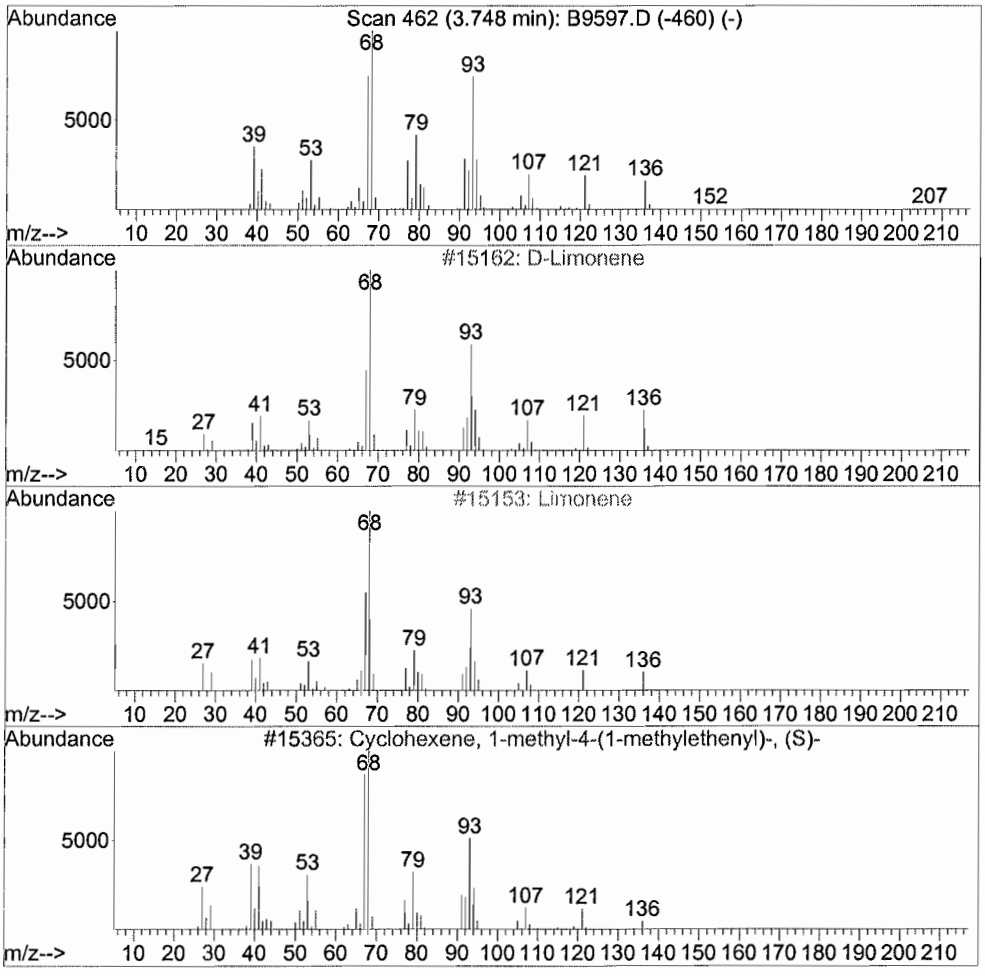
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

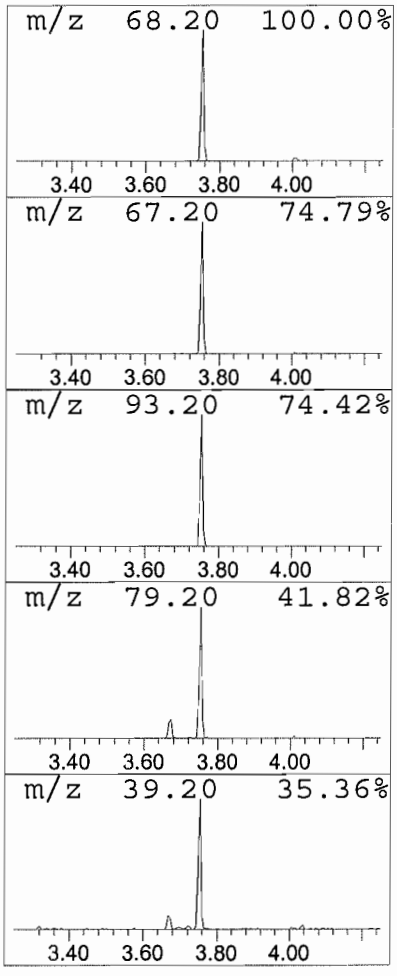
****

Peak Number 1 D-Limonene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.75	15.73 UG	305233	1,4-Dichlorobenzene-d4	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	Limonene	136	C10H16	000138-86-3	91
3	Cyclohexene, 1-methyl-4-(1-methy...	136	C10H16	005989-54-8	90
4	Limonene	136	C10H16	000138-86-3	87
5	D-Limonene	136	C10H16	005989-27-5	86





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9578.D
Acq On : 30 Nov 2017 19:30
Operator : TN
Sample : MW-3,E17-10256-003,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 01 10:43:21 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	7248	1.00	UG	0.00
23) Naphthalene-d8	2.78	136	19657	1.00	UG	0.00
43) Acenaphthene-d10	3.57	164	11197	1.00	UG	-0.01
66) Phenanthrene-d10	4.29	188	21356	1.00	UG	-0.03
82) Chrysene-d12	6.07	240	18498	1.00	UG	-0.05
92) Perylene-d12	7.38	264	16429m	1.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

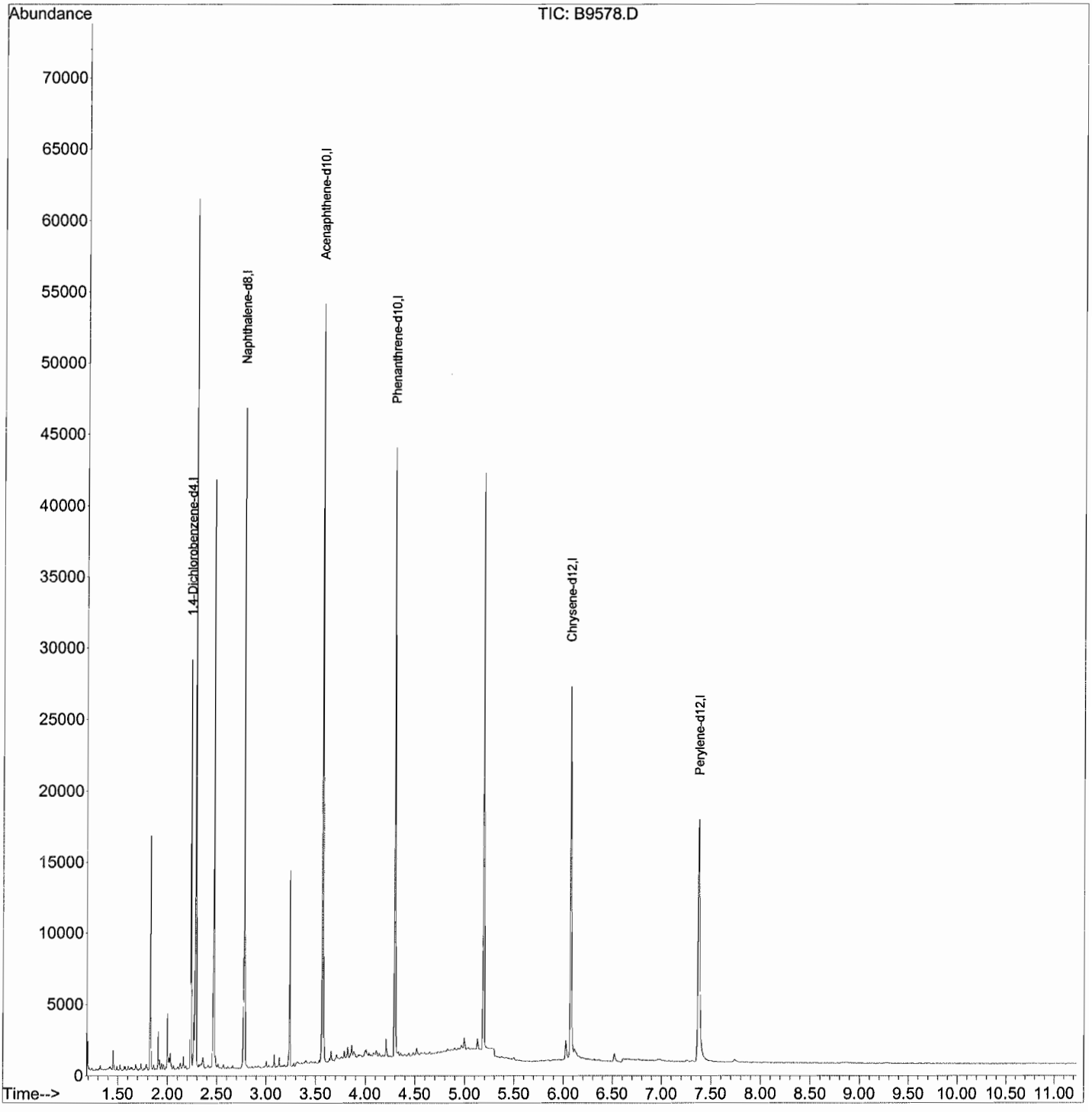
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9578.D
Acq On : 30 Nov 2017 19:30
Operator : TN
Sample : MW-3,E17-10256-003,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 01 10:43:21 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-01BW\
Data File : B9598.D
Acq On : 1 Dec 2017 12:18
Operator : TN
Sample : FIELD,E17-10256-004,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 01 13:11:09 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.67	152	133678	40.00	UG	0.00
23) Naphthalene-d8	4.44	136	527194	40.00	UG	-0.01
43) Acenaphthene-d10	5.46	164	304539	40.00	UG	-0.01
66) Phenanthrene-d10	6.38	188	579851	40.00	UG	-0.01
82) Chrysene-d12	7.99	240	484348	40.00	UG	0.00
92) Perylene-d12	9.30	264	247018	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
24) Nitrobenzene-d5	4.01	82	120863	34.27	UG	0.00
Spiked Amount 50.000			Recovery =	68.54%		
47) 2-Fluorobiphenyl	5.06	172	312417	37.15	UG	0.00
Spiked Amount 50.000			Recovery =	74.30%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000			Recovery =	0.00%		
84) Terphenyl-d14	7.28	244	406471	41.08	UG	0.00
Spiked Amount 50.000			Recovery =	82.16%		

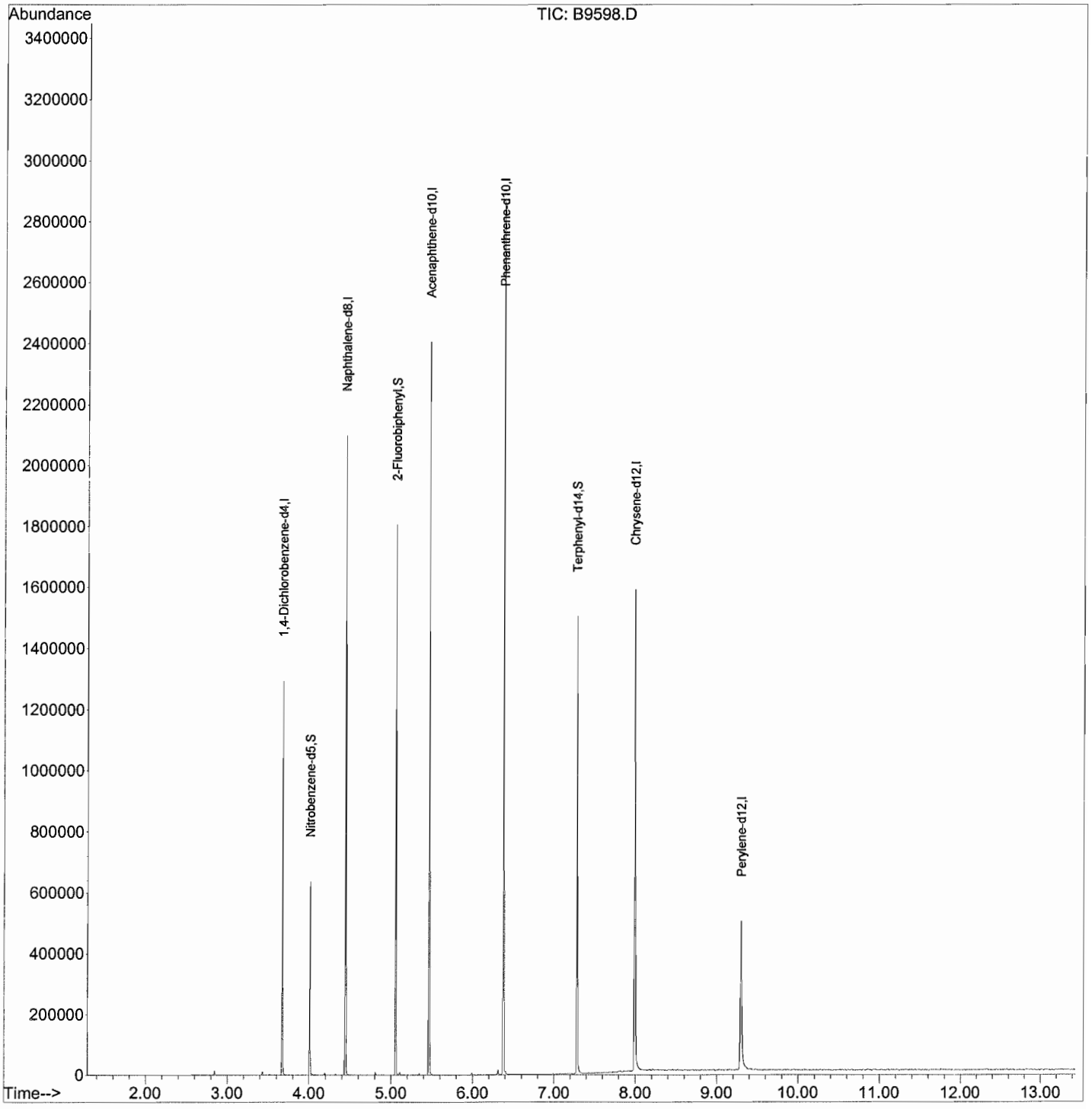
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-01BW\
Data File : B9598.D
Acq On : 1 Dec 2017 12:18
Operator : TN
Sample : FIELD,E17-10256-004,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 01 13:11:09 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\17-12-01BW\
Data File : B9598.D
Acq On : 1 Dec 2017 12:18
Operator : TN
Sample : FIELD,E17-10256-004,A,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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W1917.M Fri Dec 01 13:11:17 2017 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9579.D
Acq On : 30 Nov 2017 19:46
Operator : TN
Sample : FIELD,E17-10256-004,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 01 10:44:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	8415	1.00	UG	0.00
23) Naphthalene-d8	2.78	136	22969	1.00	UG	0.00
43) Acenaphthene-d10	3.57	164	12682	1.00	UG	0.00
66) Phenanthrene-d10	4.30	188	24523m	1.00	UG	-0.03
82) Chrysene-d12	6.08	240	19375m	1.00	UG	-0.05
92) Perylene-d12	7.38	264	16566m	1.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

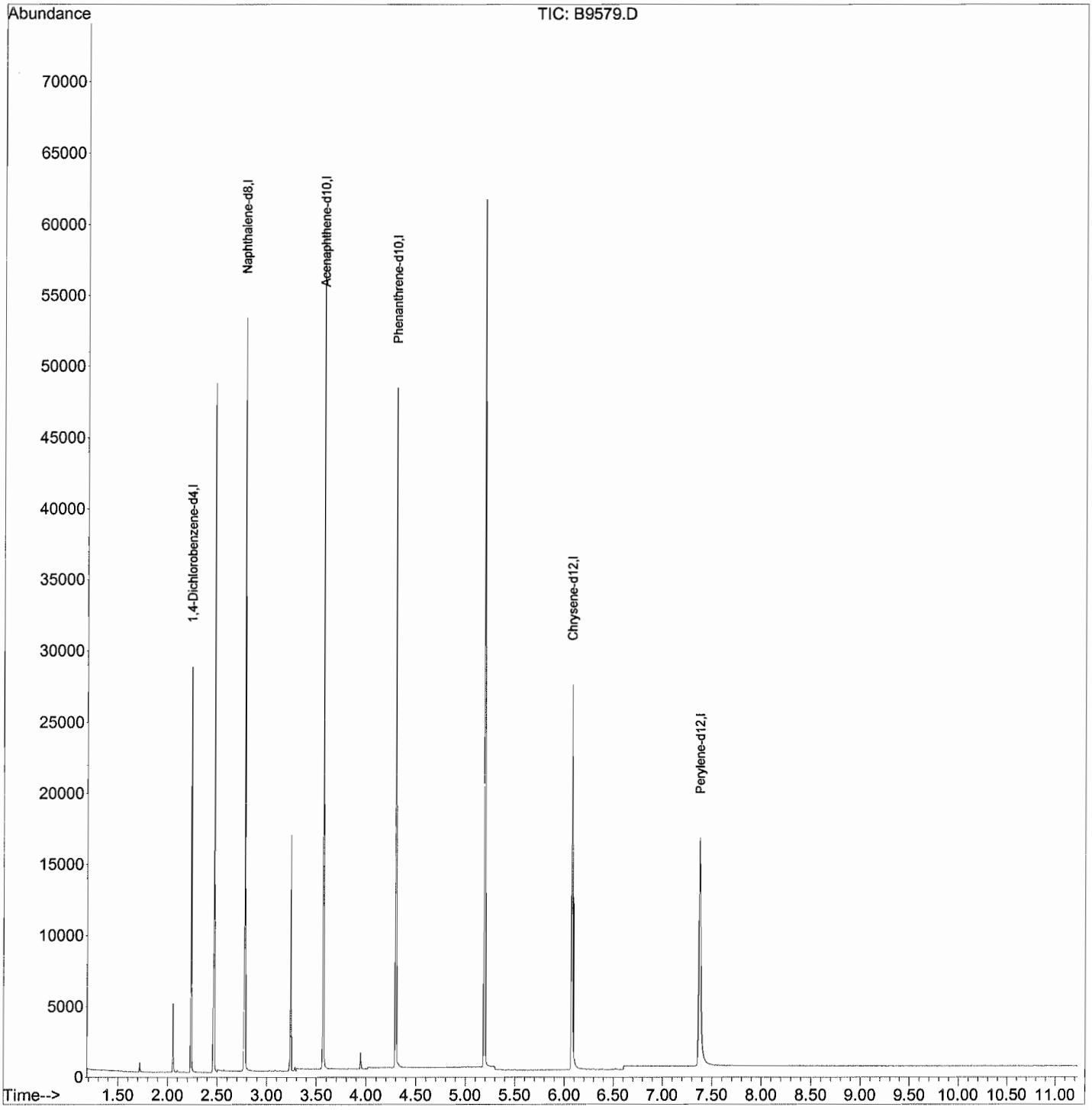
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9579.D
Acq On : 30 Nov 2017 19:46
Operator : TN
Sample : FIELD,E17-10256-004,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,11/29/17,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 01 10:44:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA171129-03
Client ID: .
Date Received: NA
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
Data file: B9580.D 11/30/17 20:03
SIM Data file: B9568.D 11/30/17 16:52

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.278
Pyridine	ND		1.00	0.320
Benzaldehyde	ND		1.00	0.192
Phenol	ND		1.00	0.201
Aniline	ND		1.00	0.169
Bis(2-chloroethyl) ether	ND		1.00	0.243
2-Chlorophenol	ND		1.00	0.116
1,3-Dichlorobenzene	ND		1.00	0.148
1,4-Dichlorobenzene	ND		1.00	0.200
Benzyl alcohol	ND		1.00	0.199
1,2-Dichlorobenzene	ND		1.00	0.144
2-Methylphenol	ND		1.00	0.162
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
4-Methylphenol **	ND		1.00	0.170
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
3-Methylphenol	ND		1.00	0.529
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
2-Nitrophenol	ND		1.00	0.160
2,4-Dimethylphenol	ND		1.00	0.137
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Benzoic acid	ND		1.00	0.876
2,4-Dimethylaniline	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.138
1,2,4-Trichlorobenzene	ND		1.00	0.187
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
4-Aminotoluene	ND		1.00	0.164
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Aminotoluene	ND		1.00	0.164
4-Chloro-3-methylphenol	ND		1.00	0.139
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
2,4,6-Trichlorophenol	ND		1.00	0.188
2,4,5-Trichlorophenol	ND		1.00	0.252
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA171129-03
Client ID: .
Date Received: NA
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
Data file: B9580.D 11/30/17 20:03
SIM Data file: B9568.D 11/30/17 16:52

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	ND		1.00	0.129
2,4-Dinitrophenol	ND		1.00	0.206
4-Nitrophenol	ND		1.00	0.466
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	ND		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
2,3,4,6-Tetrachlorophenol	ND		1.00	0.294
4,6-Dinitro-2-methylphenol	ND		1.00	0.273
N-Nitrosodiphenylamine	ND		1.00	0.179
1,2-Diphenylhydrazine	ND		1.00	0.214
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.175
Anthracene	ND		1.00	0.211
Carbazole	ND		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	ND		1.00	0.204
Benzidine	ND		1.00	0.664
Pyrene	ND		1.00	0.339
3,3'-Dimethylbenzidine	ND		1.00	0.188
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.672

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

* - RL & MDL from SIM run
** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171129-03
Client ID: .
Date Received: NA
Date Extracted: 11/29/2017
Date Analyzed: 11/30/2017
Data file: B9580.D 11/30/17 20:03

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9580.D
Acq On : 30 Nov 2017 20:03
Operator : TN
Sample : .,BLKA171129-03,A,500ml,100,0.5
Misc : 171129-03,11/29/17,NA,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 01 08:11:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration

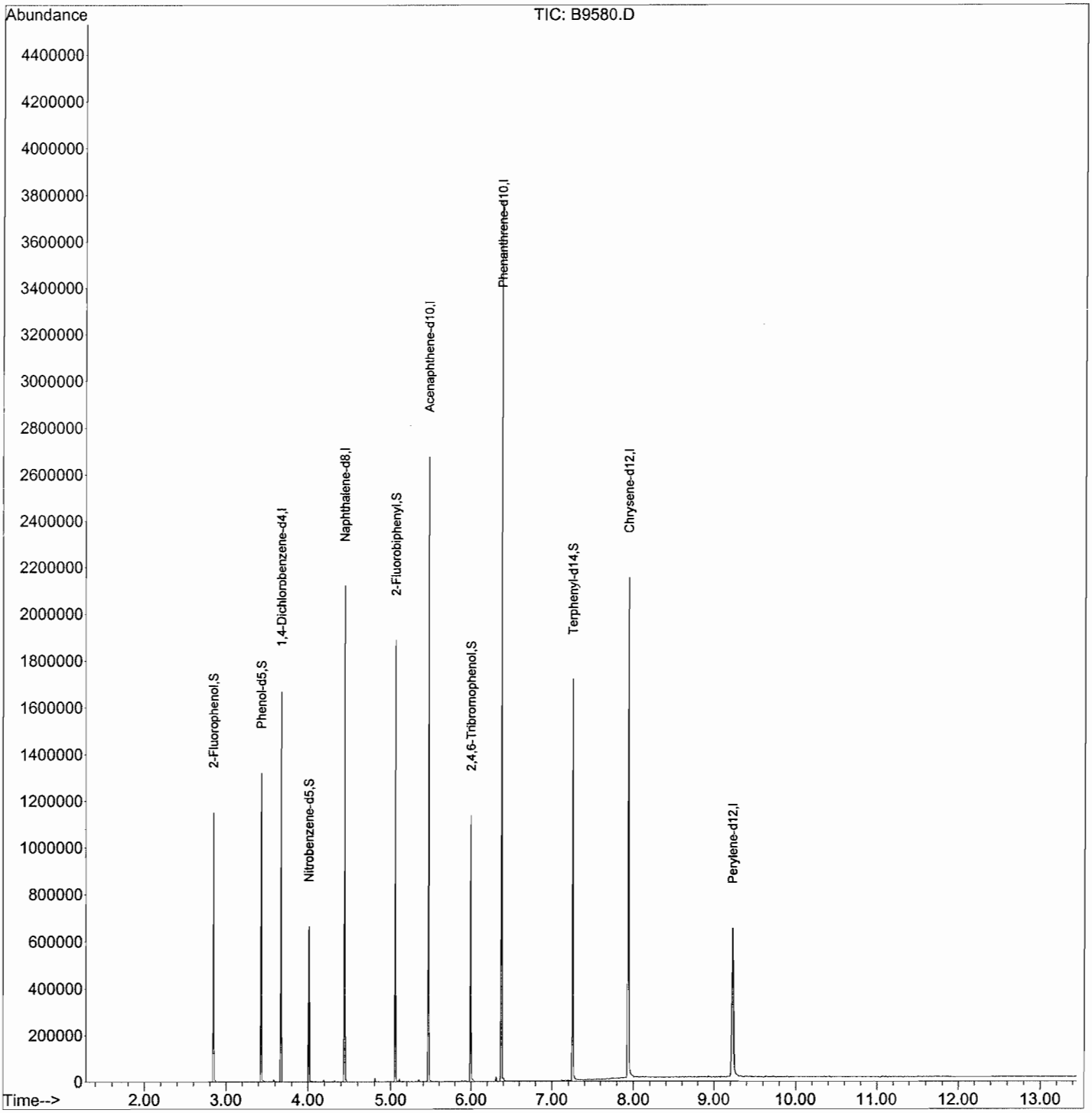
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.67	152	150224	40.00	UG	0.00
23) Naphthalene-d8	4.44	136	599544	40.00	UG	-0.01
43) Acenaphthene-d10	5.46	164	368688	40.00	UG	-0.01
66) Phenanthrene-d10	6.38	188	718976	40.00	UG	-0.01
82) Chrysene-d12	7.94	240	622604	40.00	UG	-0.05
92) Perylene-d12	9.22	264	320102	40.00	UG	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	2.85	112	171241	51.67	UG	0.00
Spiked Amount 100.000			Recovery = 51.67%			
6) Phenol-d5	3.43	99	230094	54.19	UG	-0.01
Spiked Amount 100.000			Recovery = 54.19%			
24) Nitrobenzene-d5	4.01	82	122863	30.63	UG	0.00
Spiked Amount 50.000			Recovery = 61.26%			
47) 2-Fluorobiphenyl	5.06	172	302046m	29.66	UG	0.00
Spiked Amount 50.000			Recovery = 59.32%			
70) 2,4,6-Tribromophenol	6.00	330	119006	50.73	UG	0.00
Spiked Amount 100.000			Recovery = 50.73%			
84) Terphenyl-d14	7.25	244	456211	35.87	UG	-0.03
Spiked Amount 50.000			Recovery = 71.74%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9580.D
Acq On : 30 Nov 2017 20:03
Operator : TN
Sample : .,BLKA171129-03,A,500ml,100,0.5
Misc : 171129-03,11/29/17,NA,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 01 08:11:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 12:03:17 2017
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\17-11-30BW\
Data File : B9580.D
Acq On : 30 Nov 2017 20:03
Operator : TN
Sample : .,BLKA171129-03,A,500ml,100,0.5
Misc : 171129-03,11/29/17,NA,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1917.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

W1917.M Fri Dec 01 13:42:00 2017 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9568.D
Acq On : 30 Nov 2017 16:52
Operator : TN
Sample : .,BLKA171129-03,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 01 15:32:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	7651	1.00	UG	0.00
23) Naphthalene-d8	2.79	136	21129	1.00	UG	0.00
43) Acenaphthene-d10	3.64	164	11464	1.00	UG	0.05
66) Phenanthrene-d10	4.44	188	22878m	1.00	UG	0.11
82) Chrysene-d12	6.26	240	17780m	1.00	UG	0.13
92) Perylene-d12	7.58	264	13435m	1.00	UG	0.16

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

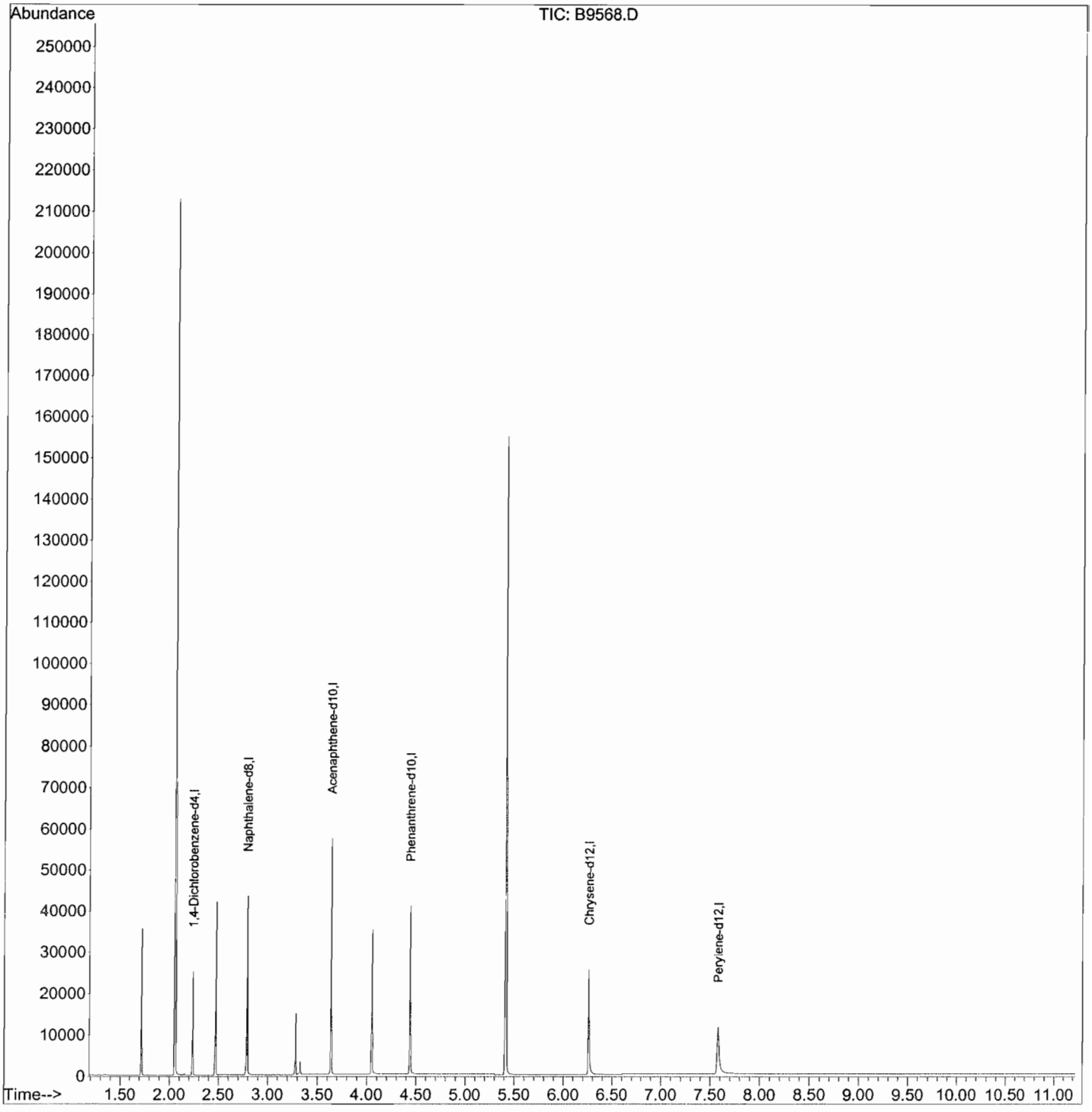
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30BW\
Data File : B9568.D
Acq On : 30 Nov 2017 16:52
Operator : TN
Sample : .,BLKA171129-03,Ia,500ml,100,0.5
Misc : 171129-03,11/29/17,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 01 15:32:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\BSIM2017.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 28 10:01:32 2017
Response via : Initial Calibration



PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/30/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKA171130-06	AQUEOUS	83		68		84		73	
PCB	LCSA171130-06	AQUEOUS	81		67		82		72	
PCB	E17-10256-003MS	AQUEOUS	67		77		71		88	
PCB	E17-10256-003MS	AQUEOUS	60		82		63		88	
MW-1	E17-10256-001	AQUEOUS	45	M	71		59		82	
MW-2	E17-10256-002	AQUEOUS	53		68		68		78	
MW-3	E17-10256-003	AQUEOUS	57		73		66		82	
FIELD	E17-10256-004	AQUEOUS	84		71		86		75	

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	25-162	52-131
DCB = Decachlorobiphenyl	24-172	58-149

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

PCB LCS ACCURACY REPORT

Lab ID: LCSA171130-06
Date Received: NA
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: Y6627.D 11/30/17 18:54

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
Aroclor-1016	500	0.0	439.0	88		32-132
Aroclor-1260	500	0.0	431.0	86		46-137

	Aqueous	Soil/Sediment
LCS Recovery Limits (DKQP)	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

PCB MS/MSD ACCURACY REPORT

Lab ID: E17-10256-001
Date Received: NA
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
MS Data file: Y6628.D
MSD Data file: Y6629.D

GC Column: DB-5/DB1701P
Sample wt/vol: 250ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
Aroclor-1016	500	0.0	410.0	82		416.9	83		2		15-144/21
Aroclor-1260	500	0.0	462.5	93		493.1	99		6		35-160/21

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	30-150	30-150
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

PCB METHOD BLANK SUMMARY

Lab File ID:	Y6626.D	Instrument ID:	GC-Y
Date Extracted:	11/30/2017	Matrix:	AQUEOUS
Date Analyzed:	11/30/2017	Time Analyzed:	06:36

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSA171130-06	11/30/2017	06:54
PCB	E17-10256-003MS	11/30/2017	07:11
PCB	E17-10256-003MSD	11/30/2017	07:28
MW-1	E17-10256-001	11/30/2017	07:45
MW-2	E17-10256-002	11/30/2017	08:03
MW-3	E17-10256-003	11/30/2017	08:20
FIELD	E17-10256-004	11/30/2017	08:37

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y6485.D Y6484.D Y6483.D Y6482.D Y6481.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.17	3.16	3.17	3.17	3.17	3.17	3.10	3.24
Aroclor-1016 {2}	3.99	3.99	3.99	3.99	3.99	3.99	3.92	4.06
Aroclor-1016 {3}	4.53	4.54	4.53	4.53	4.53	4.53	4.46	4.60
Aroclor-1016 {4}	5.04	5.04	5.04	5.04	5.04	5.04	4.97	5.11
Aroclor-1016 {5}	5.43	5.43	5.43	5.43	5.43	5.43	5.36	5.50
Aroclor-1221			2.09				2.02	2.16
Aroclor-1221 {2}			2.97				2.90	3.04
Aroclor-1221 {3}			3.09				3.02	3.16
Aroclor-1221 {4}			3.17				3.10	3.24
Aroclor-1221 {5}			3.75				3.68	3.82
Aroclor-1232			3.17				3.10	3.24
Aroclor-1232 {2}			3.99				3.92	4.06
Aroclor-1232 {3}			4.65				4.58	4.72
Aroclor-1232 {4}			5.24				5.17	5.31
Aroclor-1232 {5}			5.43				5.36	5.50
Aroclor-1242			3.99				3.92	4.06
Aroclor-1242 {2}			4.92				4.85	4.99
Aroclor-1242 {3}			5.24				5.17	5.31
Aroclor-1242 {4}			5.93				5.86	6.00
Aroclor-1242 {5}			6.20				6.13	6.27
Aroclor-1248			4.38				4.30	4.46
Aroclor-1248 {2}			4.92				4.84	5.00
Aroclor-1248 {3}			5.24				5.16	5.32
Aroclor-1248 {4}			5.93				5.85	6.01
Aroclor-1248 {5}			6.20				6.12	6.28
Aroclor-1254			6.33				6.25	6.41
Aroclor-1254 {2}			6.76				6.68	6.84
Aroclor-1254 {3}			6.92				6.83	7.01
Aroclor-1254 {4}			7.36				7.27	7.45
Aroclor-1254 {5}			8.20				8.11	8.29
Aroclor-1260	8.20	8.20	8.20	8.20	8.20	8.20	7.30	9.10
Aroclor-1260 {2}	8.87	8.87	8.87	8.87	8.87	8.87	7.97	9.77
Aroclor-1260 {3}	9.34	9.34	9.34	9.34	9.34	9.34	8.44	10.24
Aroclor-1260 {4}	9.82	9.82	9.82	9.82	9.82	9.82	8.92	10.72
Aroclor-1260 {5}	10.89	10.88	10.88	10.88	10.88	10.88	9.98	11.78

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y6485.D Y6484.D Y6483.D Y6482.D Y6481.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	696319	631868	696277	678176	689025	678333	3.98
Aroclor-1016 {2}	822546	829038	914907	909676	891022	873438	5.09
Aroclor-1016 {3}	1298725	1128742	1217523	1208231	1189463	1208537	5.06
Aroclor-1016 {4}	523932	489671	570594	563614	555559	540674	6.22
Aroclor-1016 {5}	951114	872801	971465	982580	978705	951333	4.79
Aroclor-1221			275769				
Aroclor-1221 {2}			505941				
Aroclor-1221 {3}			492385				
Aroclor-1221 {4}			1072714				
Aroclor-1221 {5}			230627				
Aroclor-1232			686120				
Aroclor-1232 {2}			374082				
Aroclor-1232 {3}			348579				
Aroclor-1232 {4}			376499				
Aroclor-1232 {5}			475458				
Aroclor-1242			745227				
Aroclor-1242 {2}			489673				
Aroclor-1242 {3}			681013				
Aroclor-1242 {4}			1023463				
Aroclor-1242 {5}			936944				
Aroclor-1248			1516732				
Aroclor-1248 {2}			882458				
Aroclor-1248 {3}			1169997				
Aroclor-1248 {4}			1782851				
Aroclor-1248 {5}			1437403				
Aroclor-1254			2310993				
Aroclor-1254 {2}			1442949				
Aroclor-1254 {3}			2798175				
Aroclor-1254 {4}			3315874				
Aroclor-1254 {5}			3066280				
Aroclor-1260	2844791	2637011	3032729	3142133	3156378	2962608	7.44
Aroclor-1260 {2}	1728405	1581024	1793741	1865118	1863954	1766448	6.69
Aroclor-1260 {3}	5066897	4636963	5445724	5783160	5819250	5350399	9.37
Aroclor-1260 {4}	2091182	1904801	2236616	2377314	2412174	2204417	9.53
Aroclor-1260 {5}	1302207	1164696	1278420	1346394	1412296	1300803	7.04
					Average %RSD		6.52

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2017

Instrument ID: GC-Y

GC Column (2nd): RTX-CLP2

Data File: Y6485.C Y6484.C Y6483.C Y6482.C Y6481.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.40	3.40	3.40	3.40	3.40	3.40	3.33	3.47
Aroclor-1016 {2}	3.98	3.97	3.97	3.97	3.97	3.97	3.90	4.04
Aroclor-1016 {3}	4.69	4.69	4.69	4.69	4.69	4.69	4.62	4.76
Aroclor-1016 {4}	4.89	4.89	4.89	4.89	4.89	4.89	4.82	4.96
Aroclor-1016 {5}	5.07	5.06	5.06	5.06	5.06	5.06	4.99	5.13
Aroclor-1221			2.18				2.11	2.25
Aroclor-1221 {2}			3.10				3.03	3.17
Aroclor-1221 {3}			3.32				3.25	3.39
Aroclor-1221 {4}			3.40				3.33	3.47
Aroclor-1221 {5}			4.69				4.62	4.76
Aroclor-1232			3.40				3.33	3.47
Aroclor-1232 {2}			4.34				4.27	4.41
Aroclor-1232 {3}			4.89				4.82	4.96
Aroclor-1232 {4}			5.06				4.99	5.13
Aroclor-1232 {5}			5.65				5.58	5.72
Aroclor-1242			4.34				4.27	4.41
Aroclor-1242 {2}			5.06				4.99	5.13
Aroclor-1242 {3}			5.65				5.58	5.72
Aroclor-1242 {4}			5.80				5.73	5.87
Aroclor-1242 {5}			6.32				6.25	6.39
Aroclor-1248			4.69				4.61	4.77
Aroclor-1248 {2}			5.26				5.18	5.34
Aroclor-1248 {3}			5.65				5.57	5.73
Aroclor-1248 {4}			5.80				5.72	5.88
Aroclor-1248 {5}			6.14				6.06	6.22
Aroclor-1254			6.63				6.55	6.71
Aroclor-1254 {2}			7.20				7.12	7.28
Aroclor-1254 {3}			7.63				7.54	7.72
Aroclor-1254 {4}			7.80				7.71	7.89
Aroclor-1254 {5}			8.62				8.53	8.71
Aroclor-1260	7.64	7.63	7.63	7.63	7.64	7.64	6.74	8.54
Aroclor-1260 {2}	8.04	8.04	8.04	8.04	8.04	8.04	7.14	8.94
Aroclor-1260 {3}	9.21	9.21	9.21	9.21	9.21	9.21	8.31	10.11
Aroclor-1260 {4}	9.72	9.71	9.71	9.71	9.71	9.71	8.81	10.61
Aroclor-1260 {5}	10.30	10.29	10.29	10.30	10.30	10.30	9.40	11.20

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2017 **Instrument ID:** GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y6485.C Y6484.C Y6483.C Y6482.C Y6481.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	454090	454795	446555	428024	426820	442057	3.11
Aroclor-1016 {2}	1072752	926169	862379	910681	889769	932350	8.80
Aroclor-1016 {3}	2259854	1930069	1944841	1921814	1923761	1996068	7.40
Aroclor-1016 {4}	916612	901861	861586	841885	827145	869818	4.41
Aroclor-1016 {5}	846410	715626	686577	679264	679551	721486	9.90
Aroclor-1221			196400				
Aroclor-1221 {2}			251303				
Aroclor-1221 {3}			190188				
Aroclor-1221 {4}			695156				
Aroclor-1221 {5}			134925				
Aroclor-1232			458301				
Aroclor-1232 {2}			173218				
Aroclor-1232 {3}			383344				
Aroclor-1232 {4}			305920				
Aroclor-1232 {5}			425270				
Aroclor-1242			332583				
Aroclor-1242 {2}			589203				
Aroclor-1242 {3}			773431				
Aroclor-1242 {4}			652996				
Aroclor-1242 {5}			1261921				
Aroclor-1248			992377				
Aroclor-1248 {2}			1574004				
Aroclor-1248 {3}			1146459				
Aroclor-1248 {4}			1054373				
Aroclor-1248 {5}			567965				
Aroclor-1254			1622507				
Aroclor-1254 {2}			1295139				
Aroclor-1254 {3}			914568				
Aroclor-1254 {4}			1319398				
Aroclor-1254 {5}			1978299				
Aroclor-1260	1445343	1278321	1215078	1204379	1193334	1267291	8.27
Aroclor-1260 {2}	1725863	1507175	1434925	1425141	1425112	1503643	8.57
Aroclor-1260 {3}	1531589	1306854	1284839	1285543	1293328	1340431	8.00
Aroclor-1260 {4}	3275848	2783932	2859961	2913018	3003930	2967338	6.41
Aroclor-1260 {5}	2433478	2045937	2079112	2097632	2145033	2160238	7.26
					Average %RSD		7.21

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y6485.D Y6484.D Y6483.D Y6482.D Y6481.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.49				7.59	7.59
Aroclor-1262 {2}			9.35				8.45	8.45
Aroclor-1262 {3}			9.98				9.08	9.08
Aroclor-1262 {4}			10.07				9.07	9.07
Aroclor-1262 {5}			10.89				9.89	9.89
Aroclor-1268			9.98				8.98	8.98
Aroclor-1268 {2}			10.06				8.96	8.96
Aroclor-1268 {3}			10.53				9.43	9.43
Aroclor-1268 {4}			10.67				9.57	9.57
Aroclor-1268 {5}			11.49				10.39	10.39

GC Column (2nd): DB-1701P

Data File: Y6485.C Y6484.C Y6483.C Y6482.C Y6481.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.21				8.31	8.31
Aroclor-1262 {2}			9.71				8.81	8.81
Aroclor-1262 {3}			10.21				9.31	9.31
Aroclor-1262 {4}			10.29				9.29	9.29
Aroclor-1262 {5}			10.89				9.89	9.89
Aroclor-1268			10.21				9.21	9.21
Aroclor-1268 {2}			10.29				9.19	9.19
Aroclor-1268 {3}			10.54				9.44	9.44
Aroclor-1268 {4}			11.33				10.23	10.23
Aroclor-1268 {5}			11.76				10.66	10.66

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y6485.D Y6484.D Y6483.D Y6482.D Y6481.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			3426273				
Aroclor-1262 {2}			6245698				
Aroclor-1262 {3}			2552093				
Aroclor-1262 {4}			2546762				
Aroclor-1262 {5}			1990879				
Aroclor-1268			8394884				
Aroclor-1268 {2}			7441243				
Aroclor-1268 {3}			6546850				
Aroclor-1268 {4}			1559199				
Aroclor-1268 {5}			18491634				

GC Column (2nd): DB-1701P

Data File: Y6485.C Y6484.C Y6483.C Y6482.C Y6481.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1518681				
Aroclor-1262 {2}			3333591				
Aroclor-1262 {3}			1212833				
Aroclor-1262 {4}			2356227				
Aroclor-1262 {5}			482756				
Aroclor-1268			4040387				
Aroclor-1268 {2}			3941882				
Aroclor-1268 {3}			3311719				
Aroclor-1268 {4}			1504505				
Aroclor-1268 {5}			10951287				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/30/2017 **Instrument ID:** GC-Y

Data File: Y6625.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	678333	708685	4.47
Aroclor-1016 {2}	3.99	3.92	4.06	873438	950345	8.81
Aroclor-1016 {3}	4.54	4.46	4.60	1208537	1277413	5.70
Aroclor-1016 {4}	5.04	4.97	5.11	540674	577386	6.79
Aroclor-1016 {5}	5.43	5.36	5.50	951333	1021349	7.36
Aroclor-1260	8.20	7.30	9.10	2962608	3160952	6.69
Aroclor-1260 {2}	8.87	7.97	9.77	1766448	1800700	1.94
Aroclor-1260 {3}	9.35	8.44	10.24	5350399	5636568	5.35
Aroclor-1260 {4}	9.82	8.92	10.72	2204417	2311738	4.87
Aroclor-1260 {5}	10.88	9.98	11.78	1300803	1401506	7.74
					Average %D	5.97

Data File: Y6625.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.40	3.33	3.47	442057	475057	7.47
Aroclor-1016 {2}	3.97	3.90	4.04	932350	915231	1.84
Aroclor-1016 {3}	4.69	4.62	4.76	1996068	2133883	6.90
Aroclor-1016 {4}	4.89	4.82	4.96	869818	928980	6.80
Aroclor-1016 {5}	5.06	4.99	5.13	721486	718643	0.39
Aroclor-1260	7.63	6.74	8.54	1267291	1279109	0.93
Aroclor-1260 {2}	8.03	7.14	8.94	1503643	1522932	1.28
Aroclor-1260 {3}	9.21	8.31	10.11	1340431	1338719	0.13
Aroclor-1260 {4}	9.71	8.81	10.61	2967338	3031858	2.17
Aroclor-1260 {5}	10.29	9.40	11.20	2160238	2166958	0.31
					Average %D	2.82

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/30/2017 **Instrument ID:** GC-Y

Data File: Y6634.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	678333	709492	4.59
Aroclor-1016 {2}	3.99	3.92	4.06	873438	945841	8.29
Aroclor-1016 {3}	4.54	4.46	4.60	1208537	1275558	5.55
Aroclor-1016 {4}	5.04	4.97	5.11	540674	576940	6.71
Aroclor-1016 {5}	5.43	5.36	5.50	951333	1021959	7.42
Aroclor-1260	8.20	7.30	9.10	2962608	3265381	10.22
Aroclor-1260 {2}	8.87	7.97	9.77	1766448	1868506	5.78
Aroclor-1260 {3}	9.35	8.44	10.24	5350399	5866795	9.65
Aroclor-1260 {4}	9.82	8.92	10.72	2204417	2396084	8.69
Aroclor-1260 {5}	10.88	9.98	11.78	1300803	1347997	3.63
					Average %D	7.05

Data File: Y6634.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.40	3.33	3.47	442057	485426	9.81
Aroclor-1016 {2}	3.97	3.90	4.04	932350	927613	0.51
Aroclor-1016 {3}	4.69	4.62	4.76	1996068	2168456	8.64
Aroclor-1016 {4}	4.89	4.82	4.96	869818	942844	8.40
Aroclor-1016 {5}	5.06	4.99	5.13	721486	730308	1.22
Aroclor-1260	7.63	6.74	8.54	1267291	1315584	3.81
Aroclor-1260 {2}	8.03	7.14	8.94	1503643	1576253	4.83
Aroclor-1260 {3}	9.20	8.31	10.11	1340431	1399191	4.38
Aroclor-1260 {4}	9.71	8.81	10.61	2967338	3140009	5.82
Aroclor-1260 {5}	10.29	9.40	11.20	2160238	2313376	7.09
					Average %D	5.45

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : Y6630.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 7:45 pm
Operator : PSL
Sample : MW-1,E17-10256-001,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 13:01:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	3472.0E6	3126.5E6	89.333	117.028 #
Spiked Amount 200.000			Recovery	=	44.67%	58.51%
2) S DCB	11.98	11.97	5729.7E6	4504.2E6	141.734m	163.795
Spiked Amount 200.000			Recovery	=	70.87%	81.90%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

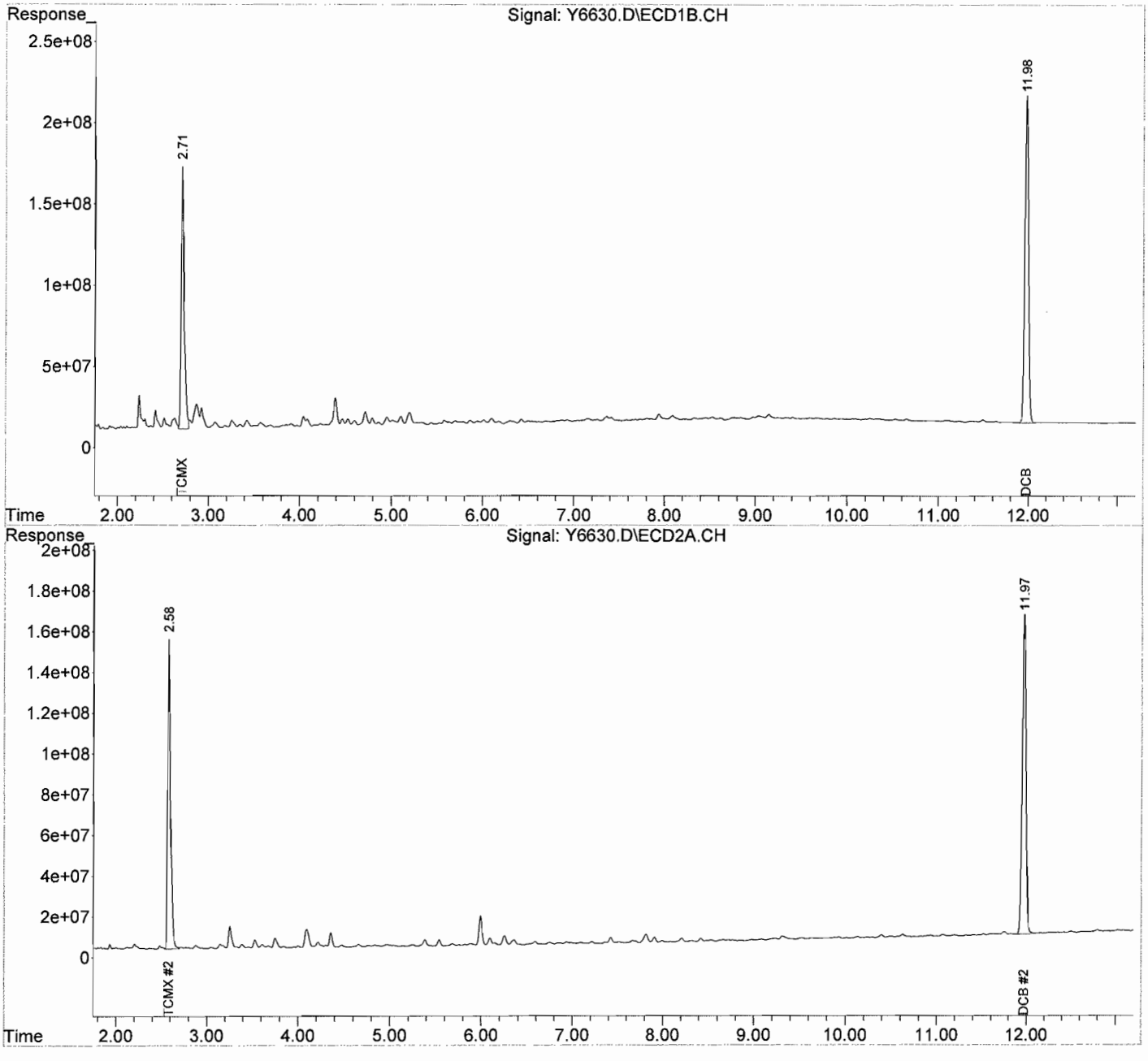
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : Y6630.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 7:45 pm
Operator : PSL
Sample : MW-1,E17-10256-001,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 13:01:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\17-11-30\
Data File : Y6631.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 8:03 pm
Operator : PSL
Sample : MW-2,E17-10256-002,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 13:02:18 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	4095.3E6	3624.2E6	105.370	135.656 #
Spiked Amount 200.000			Recovery	=	52.69%	67.83%
2) S DCB	11.98	11.97	5490.5E6	4278.7E6	135.815m	155.596m
Spiked Amount 200.000			Recovery	=	67.91%	77.80%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

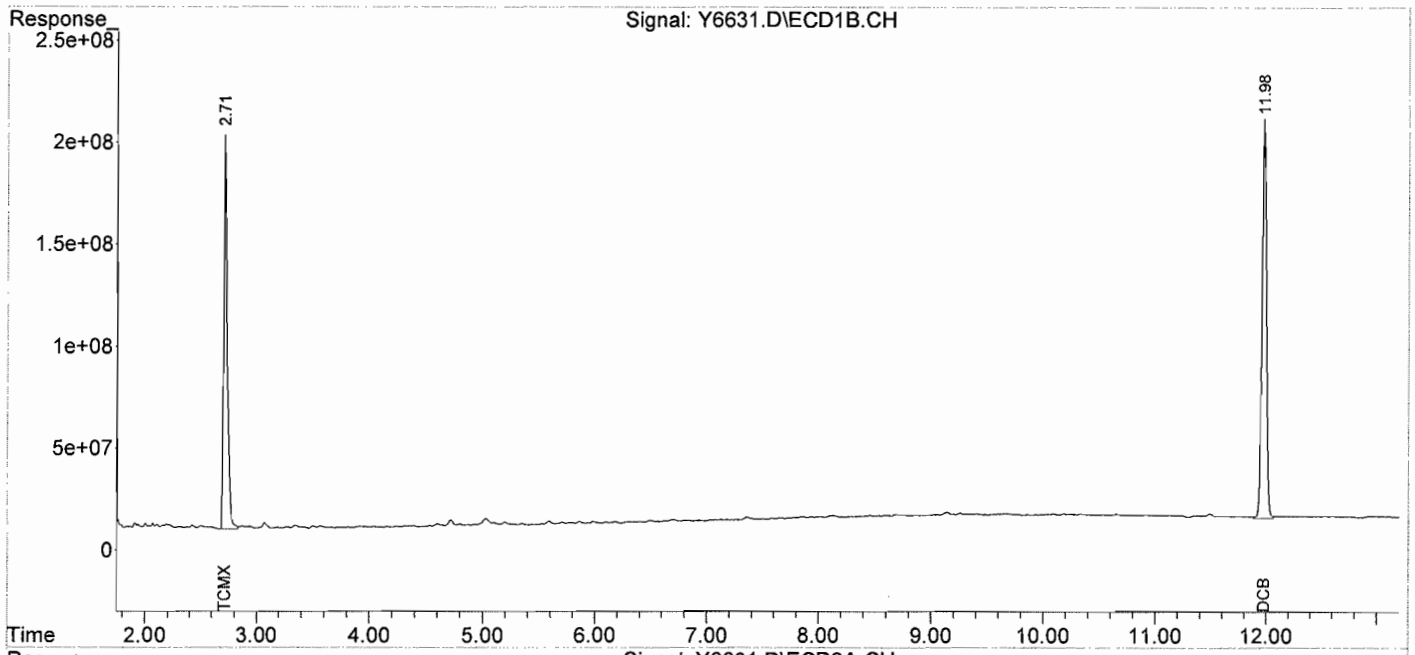
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

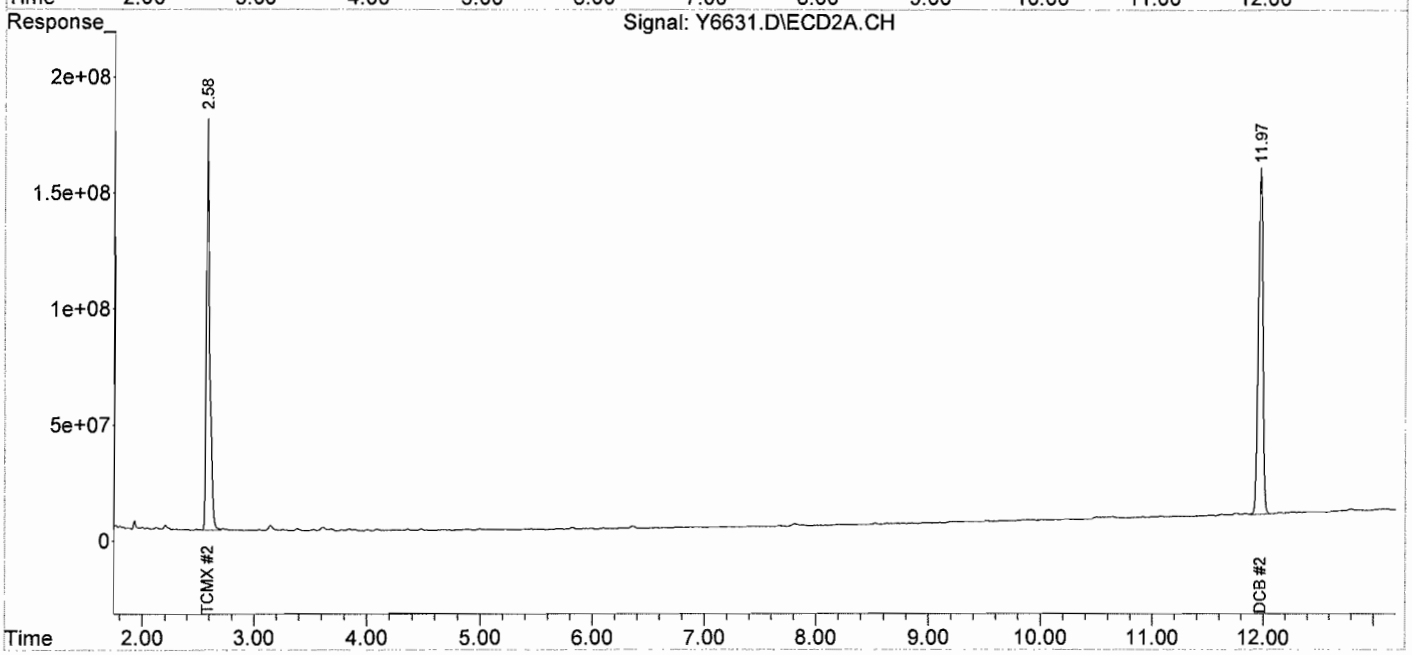
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\17-11-30\
Data File : Y6631.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 8:03 pm
Operator : PSL
Sample : MW-2,E17-10256-002,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 13:02:18 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\17-11-30\
Data File : Y6632.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 8:20 pm
Operator : PSL
Sample : MW-3,E17-10256-003,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 13:03:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

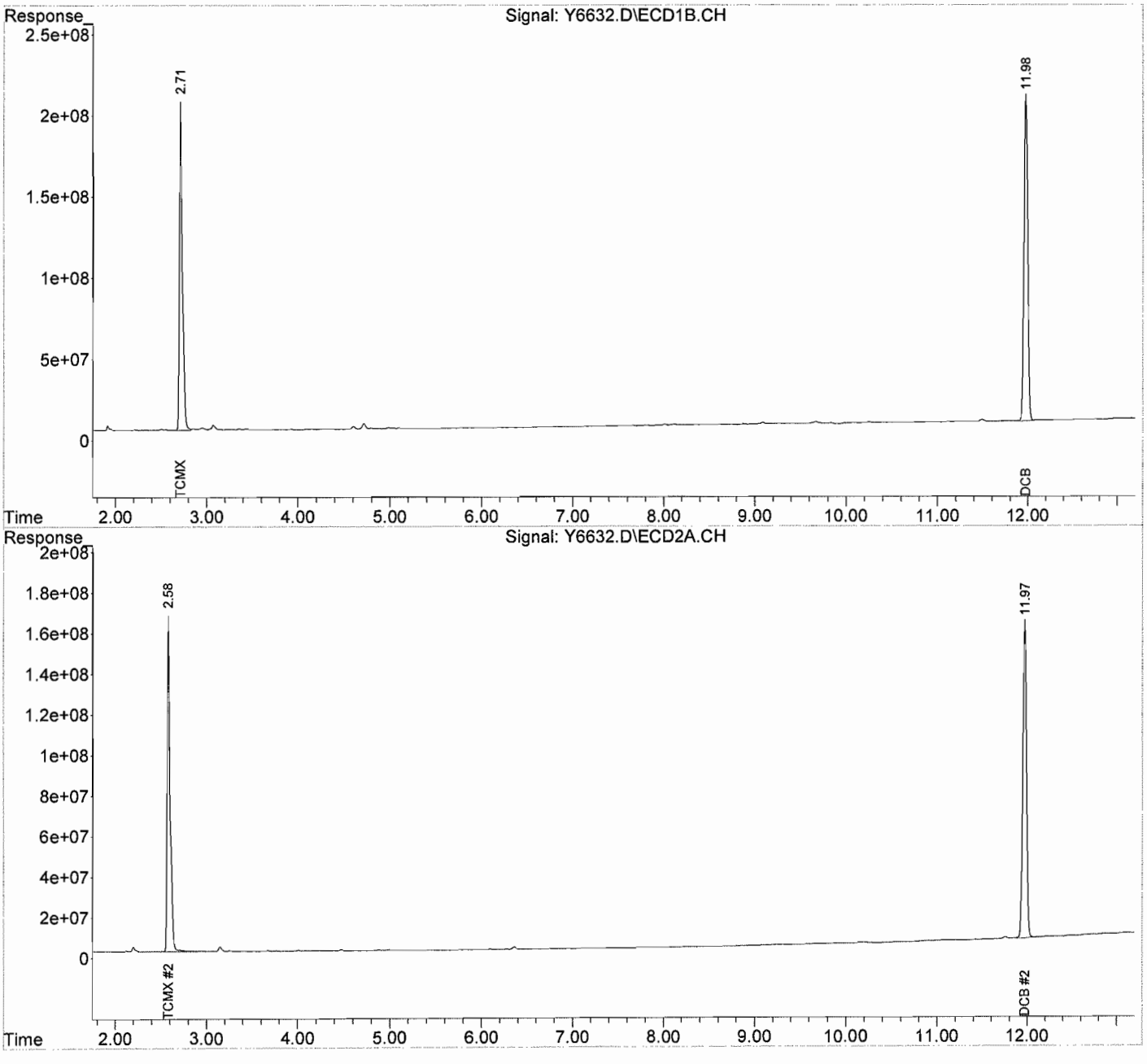
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	4457.8E6	3546.0E6	114.698	132.730
Spiked Amount 200.000			Recovery	=	57.35%	66.36%
2) S DCB	11.98	11.97	5896.7E6	4493.7E6	145.863m	163.412m
Spiked Amount 200.000			Recovery	=	72.93%	81.71%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDChem\1\DATA\17-11-30\
Data File : Y6632.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 8:20 pm
Operator : PSL
Sample : MW-3,E17-10256-003,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 13:03:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : Y6633.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 8:37 pm
Operator : PSL
Sample : FIELD,E17-10256-004,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 09:39:41 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

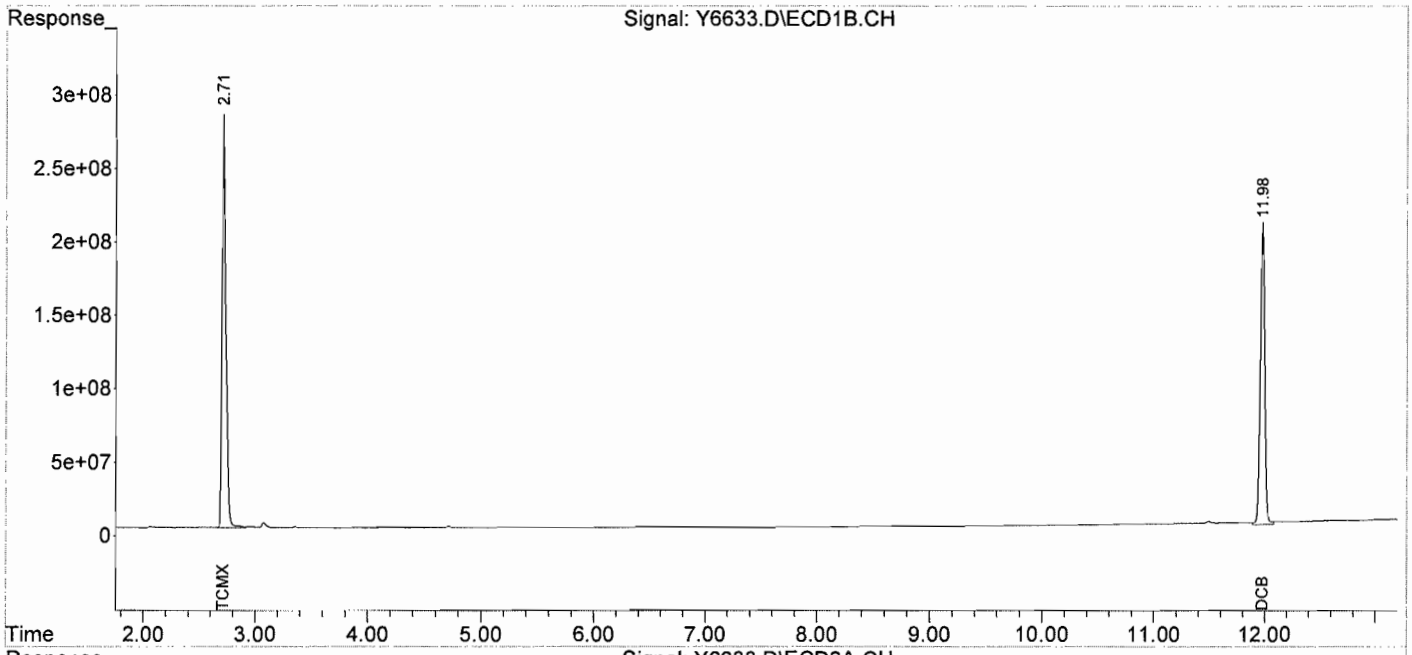
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	6547.3E6	4584.8E6	168.458	171.611
Spiked Amount 200.000			Recovery	=	84.23%	85.81%
2) S DCB	11.98	11.97	5776.8E6	4113.5E6	142.898	149.586
Spiked Amount 200.000			Recovery	=	71.45%	74.79%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

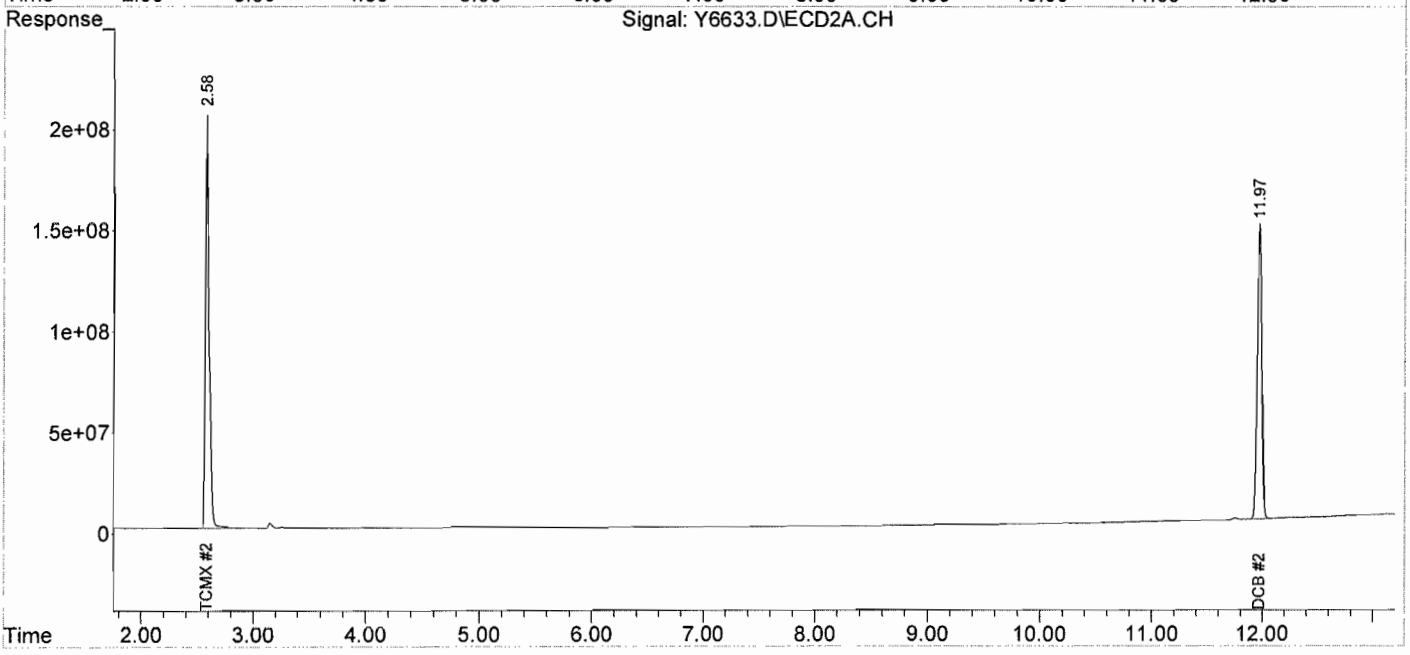
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : Y6633.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 8:37 pm
Operator : PSL
Sample : FIELD,E17-10256-004,A,1000ml,100,5
Misc : 171130-06,11/30/17,11/29/17,1
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 09:39:41 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKA171130-06
Client ID: PCB
Date Received: NA
Date Extracted: 11/30/2017
Date Analyzed: 11/30/2017
Data file: Y6626.D 11/30/17 18:36

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : Y6626.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 6:36 pm
Operator : PSL
Sample : PCB,BLKA171130-06,A,1000ml,100,5
Misc : 171130-06,11/30/17,NA,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 09:35:57 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	6447.2E6	4471.9E6	165.882	167.387
Spiked Amount 200.000			Recovery	=	82.94%	83.69%
2) S DCB	11.98	11.97	5476.2E6	3993.5E6	135.463	145.223m
Spiked Amount 200.000			Recovery	=	67.73%	72.61%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

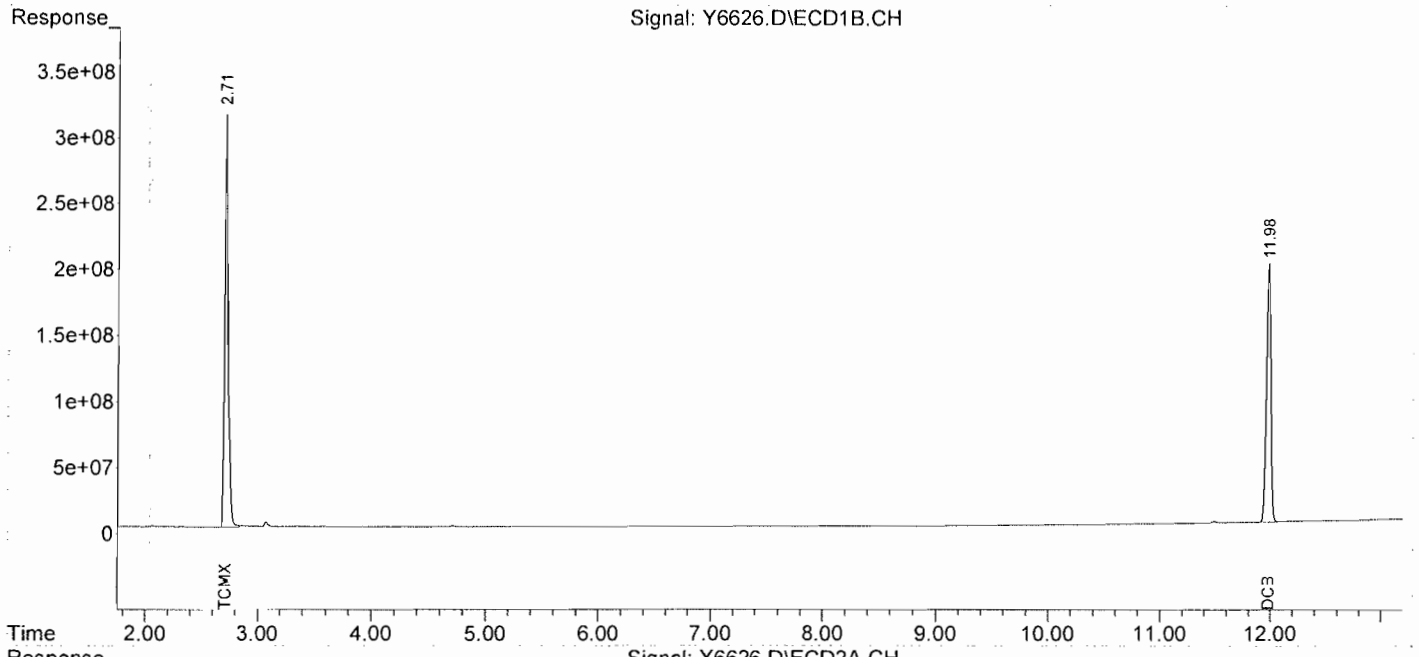
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

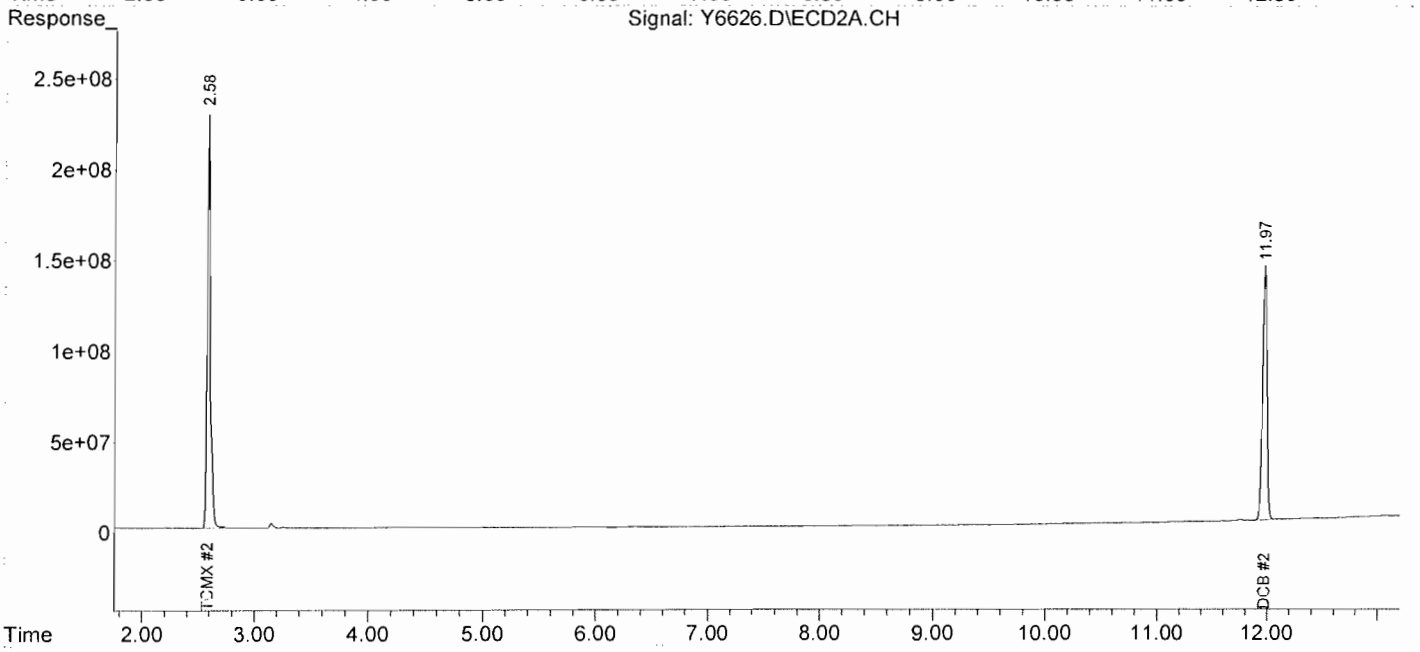
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-11-30\
Data File : Y6626.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Nov 2017 6:36 pm
Operator : PSL
Sample : PCB,BLKA171130-06,A,1000ml,100,5
Misc : 171130-06,11/30/17,NA,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 01 09:35:57 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1116.M
Quant Title :
QLast Update : Thu Nov 16 15:39:50 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Rd
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973 361-4252
fax: 973 989-5288
Web: www.ialonline.com

Customer Information	Reporting Information
Company: Atlantic Environmental Solutions, Inc	REPORT TO: AESI
Address: 5 Marine View Plaza, Suite 400	Address: 5 Marine View Plaza, Suite 400
Hoboken, NJ 07030	Hoboken, NJ 07030
Telephone #: 201-876-9400	Attn: Seamus Kelly
Fax #: 201-876-9563	FAX # 201-876-9563
Project Manager: Seamus Kelly	INVOICE TO: AESI
EMAIL Address:	Address: 5 Marine View Plaza, Suite 400
Project Name: 27-10 49th Ave	Hoboken, NJ 07030
Project Location (State): New York	Attn: Seamus Kelly
Bottle Order #:	PO # 37321
☐ "Report to"/"Invoice To" same as above	Quote #
Sampled by:	Sample Matrix

Rush TAT Charge: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
Reduced	
☐ Regulatory/ Full*	☐ ASP Category B*

EDDs: NJ SRP; X NYSDEC EQuIS lab approved custom EDD; ☐ NO EDD REQ'D

Concentrations Expected: Low Med High

These samples have been previously analyzed by IAL: ☐ YES ☒ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal — 48 hrs
Rush/date needed (only if pre-approved)**
Hard Copy: Std 3 week — Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2 ☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey	New York
GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

☐ "Report to"/"Invoice To" same as above

Sampled by:

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Sample Matrix

DW - Drinking Water; WW - Waste Water; GW - Groundwater; SW - Surface Water; LIQ - Liquid (Specify); OI - Oil; S - Soil; SOL - Solid; SL - Sludge; W - Wipe; B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs (TOGS)	SVOCs	PCBs	Sample Specific Notes:
MW-1		11/29/17	0809	GW	8	1	X	X	X	
MW-2		11/29/17	0838	GW	8	2	X	X	X	
MW-3		11/29/17	0959	GW	8	3	X	X	X	
FIELD		11/29/17	0745	GW	8	4	X	X	X	
TRIP		11/29/17	—	GW	5	5	X	X	X	

Preservative (use code): 2 1 1
Container Type (use code): C A A

Known Hazard: YES / NO
Describe: Gasoline/Chlorinateds

Preservative Code: 1 = None; 2 = HCl; 3 = HNO3; 4 = MeOH; 5 = NaOH; 6 = H2SO4; 7 = Other

Container Code: A = Amber Glass; B = Plastic; C = Vial; D = Glass; E = EnCore; T = Terracore

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 10256
Cooler Temp: 6 °C

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab ≥ 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Carrier (check one):
☐ IAL Courier
☒ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	11/29/17	1230		11/29/17	10:30

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PROJECT INFORMATION

RUSH

E17-10256: 27-10 49TH AVE

To: Seamus Kelly
Atlantic Environmental Solutions, Inc.
Fax: 201-876-9563
EMail: skelly@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced	37321	Nov 29, 2017 @ 12:30	NA	Dec 04, 2017	Dec 20, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY TOGS Tbl5 (GWEL)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10256-001	MW-1	NA	11/29/17@08:09	Aqueous	ug/L (ppb)	
10256-002	MW-2	NA	11/29/17@08:38	Aqueous	ug/L (ppb)	
10256-003	MW-3	NA	11/29/17@09:59	Aqueous	ug/L (ppb)	
10256-004	FIELD	NA	11/29/17@07:45	Aqueous	ug/L (ppb)	
10256-005	TRIP	NA	11/29/17	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	Low Level TCL VO for 8260+8011 + 15	Analyze	8260C/8011	RUSH 72 HRS	12/13/2017
	TCL BN + SIM + 15	Analyze	8270D SIM	RUSH 72 HRS	12/6/2017
	TCL PCB	Analyze	8082A	RUSH 72 HRS	11/29/2018
002	Low Level TCL VO for 8260+8011 + 15	Analyze	8260C/8011	RUSH 72 HRS	12/13/2017
	TCL BN + SIM + 15	Analyze	8270D SIM	RUSH 72 HRS	12/6/2017
	TCL PCB	Analyze	8082A	RUSH 72 HRS	11/29/2018
003	Low Level TCL VO for 8260+8011 + 15	Analyze	8260C/8011	RUSH 72 HRS	12/13/2017
	TCL BN + SIM + 15	Analyze	8270D SIM	RUSH 72 HRS	12/6/2017
	TCL PCB	Analyze	8082A	RUSH 72 HRS	11/29/2018
004	Low Level TCL VO for 8260+8011 + 15	Analyze	8260C/8011	RUSH 72 HRS	12/13/2017
	TCL BN + SIM + 15	Analyze	8270D SIM	RUSH 72 HRS	12/6/2017
	TCL PCB	Analyze	8082A	RUSH 72 HRS	11/29/2018
005	Low Level TCL VO for 8260+8011 + 15	Analyze	8260C/8011	RUSH 72 HRS	12/13/2017

Project Notes:

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00774).

PROJECT INFORMATION

RUSH

E17-10256: 27-10 49TH AVE

NOTE 2 taken by kfalconer on 11/29/2017 01:28

PER SEAMUS KELLY "NY SAMPLES SO WE WILL NEED PART 375 VOCS"

PART 375 IS NOT FOR AQUEOUS - TOGS IS

TOG REQUIRES LL-TCL VO+15 FOR 8260+8011, TCL BN +SIMS+15

COC REQUESTS 48HR TAT - BEST POSSIBLE TAT IS 72HR. PER SEAMUS KELLY, 72HRS IS FINE

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Randolph, NJ 07869
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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **10256** CLIENT: AESI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 11/23/17

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☒

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 12.4.17

Laboratory Custody Chronicle

IAL Case No.

E17-10256

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 11/29/2017@12:30

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Low Level TCL VO for 8260+8011 + 15	10256-001	Aqueous	n/a	n/a	12/ 1/17	Barbara
"	-002	"	n/a	n/a	12/ 1/17	Barbara
"	-003	"	n/a	n/a	12/ 1/17	Barbara
"	-004	"	n/a	n/a	12/ 1/17	Barbara
"	-005	"	n/a	n/a	12/ 1/17	Barbara

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + SIM + 15	-001	Aqueous	11/29/17	Frank L.	12/ 1/17	Trudy
"	-002	"	11/29/17	Frank L.	12/ 1/17	Trudy
"	-003	"	11/29/17	Frank L.	12/ 1/17	Trudy
"	-004	"	11/29/17	Frank L.	12/ 1/17	Trudy

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL PCB	-001	Aqueous	11/30/17	Archimede	12/ 1/17	Latha
"	-002	"	11/30/17	Archimede	12/ 1/17	Latha
"	-003	"	11/30/17	Archimede	12/ 1/17	Latha
"	-004	"	11/30/17	Archimede	12/ 1/17	Latha

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVE**
IAL Case Number: **E17-09161**

These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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Sample Summary

IAL Case No.

E17-09161

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 10/24/2017@16:50

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09161-001	SB-1	7.5/8	10/23/2017@09:57	Soil	2
09161-002	SB-2	15.5/16	10/23/2017@10:36	Soil	2
09161-003	SB-3	15/15.5	10/23/2017@11:15	Soil	2
09161-004	SB-4	15.5/16	10/23/2017@12:00	Soil	4
09161-005	SB-5	15/15.5	10/23/2017@12:57	Soil	5
09161-006	SB-6	11/11.5	10/23/2017@13:45	Soil	5
09161-007	SB-7	n/a	10/23/2017@14:10	Soil	5
09161-008	SB-2	n/a	10/23/2017@13:30	Aqueous	4

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09161

Integrated Analytical Laboratories, LLC. received eight (8) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-09161**, Project: 27-10 49TH AVE) on October 24, 2017 for the analysis of :

(8) TCL VO + 15
(7) TCL BN + 15
(1) TCL BN + SIM + 15
(2) TCL PCB

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C **Batch: F171024-02** **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS/MSD were not analyzed due to insufficient sample volume. LCS/LCSD were analyzed in their absence to meet method specific QC requirements.

E17-09161
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-002	1	NA

Volatiles By 8260C **Batch: F171026-02** **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09161
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-003	1	NA
E17-09161-005	1	NA
E17-09161-006	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09161

Volatiles By 8260C | **Batch: F171031-02** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS/MSD were not analyzed due to insufficient sample volume. LCS/LCSD were analyzed in their absence to meet method specific QC requirements.

E17-09161
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-004	1	NA

Volatiles By 8260C | **Batch: J171027-02** | **Matrix: MEOH**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-09161
- All samples were analyzed within holding time.
- Samples listed below were run using methanol preserved sample, as applicable. This sample preservation technique elevates RLs and MDLs 100x versus water preservation. If subsequent dilutions are performed, the RLs and MDLs will increase by that factor (e.g. a methanol sample run at a 5x dilution would elevate RLs and MDLs by 500x). Initial runs using methanol are considered "straight" runs and have a dilution factor of 1.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-001	1	NA
E17-09161-007	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09161

Semivolatiles By 8270D SIM | **Batch: 171024-04** | **Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09161
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- Sample(s) used for aqueous Semivolatiles analyses contained varying levels of sediment. Precautions were taken to take an aliquot representative of the sample. However, due to the nature of aqueous samples containing sediment, reproduction of results may prove difficult. The rough amount of sediment present in the samples is as follows: 09161-008:20%.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-008	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

Semivolatiles By 8270D | **Batch: 171025-01** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD did not meet QC criteria due to HIGH TARGET. NJDEP DKQP criteria not met.
- MS/MSD percent recovery did not meet QC criteria due to HIGH TARGET. NJDEP DKQP criteria not met.

E17-09161
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-001	1	NA
E17-09161-002	1	NA
E17-09161-003	1	NA
E17-09161-004	1	NA
E17-09161-005	1	NA
E17-09161-006	1	NA
E17-09161-007	2	Target compound(s).

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09161

PCB By 8082A	Batch: 171026-07	Matrix: Soil

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 005, 006.

E17-09161
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09161-005	1	NA
E17-09161-006	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

11/3/2017
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09161

Lab ID:	09161-001			09161-002			09161-003			09161-004		
Client ID:	SB-1			SB-2			SB-3			SB-4		
Depth:	7.5/8			15.5/16			15/15.5			15.5/16		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	10/23/17			10/23/17			10/23/17			10/23/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	ND		0.182	0.337		0.00213	0.060		0.0012	0.115		0.00162
Carbon disulfide	ND		0.063	0.0041		0.000676	0.0019		0.000381	0.099		0.000512
cis-1,2-Dichloroethene	ND		0.062	ND		0.000464	ND		0.000262	0.00304		0.000351
2-Butanone (MEK)	ND		0.227	0.072		0.00107	0.00805		0.000605	0.019		0.000812
Trichloroethene	0.088		0.067	ND		0.00061	ND		0.000344	ND		0.000462
Toluene	ND		0.052	0.000719	J	0.000704	ND		0.000397	ND		0.000533
Tetrachloroethene	10.5		0.062	ND		0.000558	ND		0.000315	ND		0.000422
TOTAL VO's:	10.6			0.413	J		0.070			0.235		
TOTAL TIC's:	ND			0.035	JN		ND			ND		
TOTAL VO's & TIC's:	10.6			0.448	JN		0.070			0.235		
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	0.080		0.032	0.044	J	0.042	ND		0.043	ND		0.046
2-Methylnaphthalene	0.047		0.026	ND		0.034	ND		0.034	ND		0.037
Acenaphthylene	0.233		0.031	0.090		0.040	ND		0.040	ND		0.043
Acenaphthene	0.219		0.033	0.190		0.043	ND		0.043	ND		0.047
Dibenzofuran	0.129		0.032	ND		0.041	ND		0.042	ND		0.045
Fluorene	0.209		0.034	0.052		0.044	ND		0.044	ND		0.047
Phenanthrene	2.92		0.034	0.233		0.044	0.053		0.044	ND		0.048
Anthracene	0.818		0.033	0.369		0.043	ND		0.043	ND		0.046
Carbazole	0.264		0.029	ND		0.037	ND		0.038	ND		0.041
Fluoranthene	4.01		0.031	1.49		0.041	0.072		0.041	ND		0.044
Pyrene	3.90		0.031	2.32		0.040	0.095		0.040	ND		0.043
Benzo[a]anthracene	2.29		0.032	1.72		0.042	0.072		0.042	ND		0.045
Chrysene	2.04		0.032	2.89		0.041	0.074		0.042	ND		0.045
Benzo[b]fluoranthene	1.00		0.030	0.707		0.039	ND		0.039	ND		0.042
Benzo[k]fluoranthene	1.09		0.031	0.524		0.041	ND		0.041	ND		0.044
Benzo[a]pyrene	1.20		0.030	0.600		0.040	ND		0.040	ND		0.043
Indeno[1,2,3-cd]pyrene	0.707		0.031	0.418		0.040	ND		0.040	ND		0.044
Dibenz[a,h]anthracene	0.332		0.037	0.477		0.047	ND		0.048	ND		0.052
Benzo[g,h,i]perylene	0.831		0.034	0.792		0.044	ND		0.044	ND		0.048
TOTAL BN'S:	22.3			12.9	J		0.366			ND		
TOTAL TIC's:	7.22	JN		4.76	JN		ND			ND		
TOTAL BN'S & TIC's:	29.5	JN		17.7	JN		0.366			ND		

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09161

Lab ID:	09161-005			09161-006			09161-007		
Client ID:	SB-5			SB-6			SB-7		
Depth:	15/15.5			11/11.5					
Matrix:	Soil			Soil			Soil		
Sampled Date	10/23/17			10/23/17			10/23/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.00894	J	0.00117	0.013	J	0.0013	ND		0.200
Carbon disulfide	0.00132		0.000372	0.00222		0.000412	ND		0.070
2-Butanone (MEK)	ND		0.00059	ND		0.000654	0.389		0.250
Trichloroethene	ND		0.000336	ND		0.000372	0.272		0.074
Toluene	ND		0.000388	ND		0.00043	0.174		0.057
Tetrachloroethene	ND		0.000307	ND		0.00034	7.78		0.068
Total Xylenes	ND		0.00052	ND		0.000576	0.166		0.139
TOTAL VO's:	0.010	J		0.015	J		8.78		
TOTAL TIC's:	ND			ND			ND		
TOTAL VO's & TIC's:	0.010	J		0.015	J		8.78		
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	ND		0.034	ND		0.033	0.171	D	0.066
2-Methylnaphthalene	ND		0.027	ND		0.027	0.158	D	0.053
Acenaphthylene	ND		0.032	ND		0.031	1.61	D	0.062
Acenaphthene	ND		0.034	ND		0.034	0.162	D	0.067
Dibenzofuran	ND		0.033	ND		0.032	0.182	D	0.065
Fluorene	ND		0.035	ND		0.034	0.233	D	0.069
Phenanthrene	ND		0.035	0.121		0.035	4.82	D	0.069
Anthracene	ND		0.034	0.041		0.033	1.16	D	0.067
Carbazole	ND		0.030	ND		0.029	0.713	D	0.059
Fluoranthene	ND		0.033	0.145		0.032	8.13	D	0.064
Pyrene	ND		0.032	0.143		0.031	6.89	D	0.063
Benzo[a]anthracene	ND		0.033	0.088		0.033	5.03	D	0.065
Chrysene	ND		0.033	0.091		0.033	5.16	D	0.065
Benzo[b]fluoranthene	ND		0.031	0.034	J	0.031	3.11	D	0.061
Benzo[k]fluoranthene	ND		0.033	0.045		0.032	3.27	D	0.064
Benzo[a]pyrene	ND		0.032	0.049		0.031	3.42	D	0.062
Indeno[1,2,3-cd]pyrene	ND		0.032	ND		0.031	2.85	D	0.063
Dibenz[a,h]anthracene	ND		0.038	ND		0.037	0.740	D	0.075
Benzo[g,h,i]perylene	ND		0.035	ND		0.034	3.35	D	0.069
TOTAL BN'S:	ND			0.757	J		51.2	D	
TOTAL TIC's:	ND			ND			16.9	DJN	
TOTAL BN'S & TIC's:	ND			0.757	J		68.1	DJN	

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09161

Lab ID:	09161-005			09161-006			09161-007		
Client ID:	SB-5			SB-6			SB-7		
Depth:	15/15.5			11/11.5					
Matrix:	Soil			Soil			Soil		
Sampled Date	10/23/17			10/23/17			10/23/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.019	ND		0.018	~		~
Aroclor-1221	ND		0.019	ND		0.018	~		~
Aroclor-1232	ND		0.019	ND		0.018	~		~
Aroclor-1242	ND		0.019	ND		0.018	~		~
Aroclor-1248	ND		0.019	ND		0.018	~		~
Aroclor-1254	ND		0.019	ND		0.018	~		~
Aroclor-1260	ND		0.019	ND		0.018	~		~
Aroclor-1262	ND		0.019	ND		0.018	~		~
Aroclor-1268	ND		0.019	ND		0.018	~		~
PCBs	ND		0.019	ND		0.018	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09161

Lab ID:	**09161-008**		
Client ID:	**SB-2**		
Matrix:	**Aqueous**		
Sampled Date	**10/23/17**		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*		
Tetrachloroethene	2.48		0.451
TOTAL VO's:	2.48		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	2.48		
Semivolatiles - BN (Units)	*(ug/L)*		
Acenaphthylene	0.602	J	0.141
Acenaphthene	0.967	J	0.129
Diethyl phthalate	6.18		0.166
Fluorene	0.506	J	0.182
Phenanthrene	4.88		0.175
Anthracene	1.28		0.211
Carbazole	0.713	J	0.221
Fluoranthene	9.30		0.204
Pyrene	10.7		0.339
Benzo[a]anthracene	2.98		0.100
Chrysene	9.28		0.245
Benzo[b]fluoranthene	2.54		0.100
Benzo[k]fluoranthene	1.13		0.100
Benzo[a]pyrene	1.97		0.100
Indeno[1,2,3-cd]pyrene	1.77		0.100
Dibenz[a,h]anthracene	1.45		0.100
Benzo[g,h,i]perylene	3.89		0.672
TOTAL BN'S:	60.1	J	
TOTAL TIC's:	ND		
TOTAL BN'S & TIC's:	60.1	J	

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-001
Client ID: SB-1/7.5-8
Date Received: 10/24/2017
Date Analyzed: 10/28/2017
Data file: J1461.D 10/28/17 01:29

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.137	0.090
Chloromethane	ND		0.068	0.063
Vinyl chloride	ND		0.137	0.081
Bromomethane	ND		0.137	0.074
Chloroethane	ND		0.068	0.068
Trichlorofluoromethane	ND		0.068	0.059
1,1-Dichloroethene	ND		0.068	0.067
Acetone	ND		0.273	0.182
Carbon disulfide	ND		0.068	0.063
Methylene chloride	ND		0.137	0.135
trans-1,2-Dichloroethene	ND		0.068	0.062
Methyl tert-butyl ether (MTBE)	ND		0.068	0.065
1,1-Dichloroethane	ND		0.068	0.067
cis-1,2-Dichloroethene	ND		0.068	0.062
2-Butanone (MEK)	ND		0.273	0.227
Bromochloromethane	ND		0.137	0.081
Chloroform	ND		0.068	0.064
1,1,1-Trichloroethane	ND		0.068	0.063
Carbon tetrachloride	ND		0.137	0.061
1,2-Dichloroethane (EDC)	ND		0.068	0.063
Benzene	ND		0.068	0.063
Trichloroethene	0.088		0.068	0.067
1,2-Dichloropropane	ND		0.068	0.061
1,4-Dioxane	ND		13.7	13.4
Bromodichloromethane	ND		0.068	0.048
cis-1,3-Dichloropropene	ND		0.068	0.045
4-Methyl-2-pentanone (MIBK)	ND		0.273	0.096

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-001
Client ID: SB-1/7.5-8
Date Received: 10/24/2017
Date Analyzed: 10/28/2017
Data file: J1461.D 10/28/17 01:29

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.068	0.052
trans-1,3-Dichloropropene	ND		0.068	0.044
1,1,2-Trichloroethane	ND		0.068	0.065
Tetrachloroethene	10.5		0.068	0.062
2-Hexanone	ND		0.273	0.104
Dibromochloromethane	ND		0.068	0.060
1,2-Dibromoethane (EDB)	ND		0.068	0.055
Chlorobenzene	ND		0.068	0.051
Ethylbenzene	ND		0.068	0.047
Total Xylenes	ND		0.137	0.126
Styrene	ND		0.068	0.040
Bromoform	ND		0.068	0.061
Isopropylbenzene	ND		0.068	0.044
1,1,2,2-Tetrachloroethane	ND		0.068	0.063
1,3-Dichlorobenzene	ND		0.068	0.048
1,4-Dichlorobenzene	ND		0.068	0.047
1,2-Dichlorobenzene	ND		0.068	0.050
1,2-Dibromo-3-chloropropane	ND		0.137	0.073
1,2,4-Trichlorobenzene	ND		0.137	0.042
1,2,3-Trichlorobenzene	ND		0.137	0.046
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.137	0.077
Methyl acetate	ND		0.068	0.066
Cyclohexane	ND		0.137	0.056
Methylcyclohexane	ND		0.068	0.056
1,3-Dichloropropene (cis- and trans-)	ND		0.068	0.045
Total Target Compounds (52):	10.6			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-001
Client ID: SB-1/7.5-8
Date Received: 10/24/2017
Date Analyzed: 10/28/2017
Date File: J1461.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.7

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-002
Client ID: SB-2/15.5-16
Date Received: 10/24/2017
Date Analyzed: 10/25/2017
Data file: F1400.D 10/25/17 09:48

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00218	0.000512
Chloromethane	ND		0.00218	0.000403
Vinyl chloride	ND		0.00218	0.000403
Bromomethane	ND		0.00218	0.00065
Chloroethane	ND		0.00218	0.000578
Trichlorofluoromethane	ND		0.00218	0.00041
1,1-Dichloroethene	ND		0.00218	0.000822
Acetone	0.337		0.022	0.00213
Carbon disulfide	0.0041		0.00218	0.000676
Methylene chloride	ND		0.00436	0.00434
trans-1,2-Dichloroethene	ND		0.00218	0.000632
Methyl tert-butyl ether (MTBE)	ND		0.00218	0.000421
1,1-Dichloroethane	ND		0.00218	0.000423
cis-1,2-Dichloroethene	ND		0.00218	0.000464
2-Butanone (MEK)	0.072		0.00436	0.00107
Bromochloromethane	ND		0.00218	0.000606
Chloroform	ND		0.00218	0.000458
1,1,1-Trichloroethane	ND		0.00218	0.000514
Carbon tetrachloride	ND		0.00218	0.000351
1,2-Dichloroethane (EDC)	ND		0.00218	0.000576
Benzene	ND		0.00218	0.000569
Trichloroethene	ND		0.00218	0.00061
1,2-Dichloropropane	ND		0.00218	0.000368
1,4-Dioxane	ND		0.436	0.078
Bromodichloromethane	ND		0.00218	0.000508
cis-1,3-Dichloropropene	ND		0.00218	0.000447
4-Methyl-2-pentanone (MIBK)	ND		0.00436	0.00126

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-002
Client ID: SB-2/15.5-16
Date Received: 10/24/2017
Date Analyzed: 10/25/2017
Data file: F1400.D 10/25/17 09:48

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	0.000719	J	0.00218	0.000704
trans-1,3-Dichloropropene	ND		0.00218	0.000504
1,1,2-Trichloroethane	ND		0.00218	0.000589
Tetrachloroethene	ND		0.00218	0.000558
2-Hexanone	ND		0.00436	0.00227
Dibromochloromethane	ND		0.00218	0.000408
1,2-Dibromoethane (EDB)	ND		0.00218	0.000386
Chlorobenzene	ND		0.00218	0.000491
Ethylbenzene	ND		0.00218	0.000532
Total Xylenes	ND		0.00436	0.000944
Styrene	ND		0.00218	0.000449
Bromoform	ND		0.00218	0.000626
Isopropylbenzene	ND		0.00218	0.000432
1,1,2,2-Tetrachloroethane	ND		0.00218	0.000586
1,3-Dichlorobenzene	ND		0.00218	0.000421
1,4-Dichlorobenzene	ND		0.00218	0.000373
1,2-Dichlorobenzene	ND		0.00218	0.000377
1,2-Dibromo-3-chloropropane	ND		0.00218	0.000589
1,2,4-Trichlorobenzene	ND		0.00218	0.000959
1,2,3-Trichlorobenzene	ND		0.00218	0.00105
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00436	0.000791
Methyl acetate	ND		0.00218	0.00102
Cyclohexane	ND		0.00218	0.000397
Methylcyclohexane	ND		0.00218	0.000453
1,3-Dichloropropene (cis- and trans-)	ND		0.00218	0.000504
Total Target Compounds (52):	0.413	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-002
Client ID: SB-2/15.5-16
Date Received: 10/24/2017
Date Analyzed: 10/25/2017
Date File: F1400.D

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 32.6

CAS #	Compound	Estimated Concentration	Q	Retention Time
004706-89-2	Benzene, 2,4-dimethyl-1-(1-methylethyl)	0.011	JN	14.66
000099-62-7	Benzene, 1,3-bis(1-methylethyl)-	0.024	JN	15.16

Total TICs = 0.035 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-003
Client ID: SB-3/15-15.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Data file: F1450.D 10/27/17 04:24

GC/MS Column: DB-624
Sample wt/vol: 6g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00123	0.000289
Chloromethane	ND		0.00123	0.000228
Vinyl chloride	ND		0.00123	0.000228
Bromomethane	ND		0.00123	0.000367
Chloroethane	ND		0.00123	0.000326
Trichlorofluoromethane	ND		0.00123	0.000231
1,1-Dichloroethene	ND		0.00123	0.000464
Acetone	0.060		0.012	0.0012
Carbon disulfide	0.0019		0.00123	0.000381
Methylene chloride	ND		0.00246	0.00245
trans-1,2-Dichloroethene	ND		0.00123	0.000357
Methyl tert-butyl ether (MTBE)	ND		0.00123	0.000237
1,1-Dichloroethane	ND		0.00123	0.000239
cis-1,2-Dichloroethene	ND		0.00123	0.000262
2-Butanone (MEK)	0.00805		0.00246	0.000605
Bromochloromethane	ND		0.00123	0.000342
Chloroform	ND		0.00123	0.000258
1,1,1-Trichloroethane	ND		0.00123	0.00029
Carbon tetrachloride	ND		0.00123	0.000198
1,2-Dichloroethane (EDC)	ND		0.00123	0.000325
Benzene	ND		0.00123	0.000321
Trichloroethene	ND		0.00123	0.000344
1,2-Dichloropropane	ND		0.00123	0.000208
1,4-Dioxane	ND		0.246	0.044
Bromodichloromethane	ND		0.00123	0.000287
cis-1,3-Dichloropropene	ND		0.00123	0.000252
4-Methyl-2-pentanone (MIBK)	ND		0.00246	0.000712

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-003
Client ID: SB-3/15-15.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Data file: F1450.D 10/27/17 04:24

GC/MS Column: DB-624
Sample wt/vol: 6g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00123	0.000397
trans-1,3-Dichloropropene	ND		0.00123	0.000284
1,1,2-Trichloroethane	ND		0.00123	0.000332
Tetrachloroethene	ND		0.00123	0.000315
2-Hexanone	ND		0.00246	0.00128
Dibromochloromethane	ND		0.00123	0.00023
1,2-Dibromoethane (EDB)	ND		0.00123	0.000218
Chlorobenzene	ND		0.00123	0.000277
Ethylbenzene	ND		0.00123	0.0003
Total Xylenes	ND		0.00246	0.000533
Styrene	ND		0.00123	0.000253
Bromoform	ND		0.00123	0.000353
Isopropylbenzene	ND		0.00123	0.000244
1,1,2,2-Tetrachloroethane	ND		0.00123	0.000331
1,3-Dichlorobenzene	ND		0.00123	0.000237
1,4-Dichlorobenzene	ND		0.00123	0.00021
1,2-Dichlorobenzene	ND		0.00123	0.000213
1,2-Dibromo-3-chloropropane	ND		0.00123	0.000332
1,2,4-Trichlorobenzene	ND		0.00123	0.000541
1,2,3-Trichlorobenzene	ND		0.00123	0.000592
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00246	0.000446
Methyl acetate	ND		0.00123	0.000574
Cyclohexane	ND		0.00123	0.000224
Methylcyclohexane	ND		0.00123	0.000256
1,3-Dichloropropene (cis- and trans-)	ND		0.00123	0.000284

Total Target Compounds (52): 0.070

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-003
Client ID: SB-3/15-15.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Date File: F1450.D

GC/MS Column: DB-624
Sample wt/vol: 6g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 32.4

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-004
Client ID: SB-4/15.5-16
Date Received: 10/24/2017
Date Analyzed: 11/01/2017
Data file: F1605.D 11/ 1/17 09:08

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 38.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00165	0.000388
Chloromethane	ND		0.00165	0.000305
Vinyl chloride	ND		0.00165	0.000305
Bromomethane	ND		0.00165	0.000492
Chloroethane	ND		0.00165	0.000437
Trichlorofluoromethane	ND		0.00165	0.00031
1,1-Dichloroethene	ND		0.00165	0.000622
Acetone	0.115		0.017	0.00162
Carbon disulfide	0.099		0.00165	0.000512
Methylene chloride	ND		0.0033	0.00328
trans-1,2-Dichloroethene	ND		0.00165	0.000479
Methyl tert-butyl ether (MTBE)	ND		0.00165	0.000318
1,1-Dichloroethane	ND		0.00165	0.00032
cis-1,2-Dichloroethene	0.00304		0.00165	0.000351
2-Butanone (MEK)	0.019		0.0033	0.000812
Bromochloromethane	ND		0.00165	0.000459
Chloroform	ND		0.00165	0.000347
1,1,1-Trichloroethane	ND		0.00165	0.000389
Carbon tetrachloride	ND		0.00165	0.000266
1,2-Dichloroethane (EDC)	ND		0.00165	0.000436
Benzene	ND		0.00165	0.000431
Trichloroethene	ND		0.00165	0.000462
1,2-Dichloropropane	ND		0.00165	0.000279
1,4-Dioxane	ND		0.330	0.059
Bromodichloromethane	ND		0.00165	0.000384
cis-1,3-Dichloropropene	ND		0.00165	0.000338
4-Methyl-2-pentanone (MIBK)	ND		0.0033	0.000955

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-004
Client ID: SB-4/15.5-16
Date Received: 10/24/2017
Date Analyzed: 11/01/2017
Data file: F1605.D 11/ 1/17 09:08

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 38.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00165	0.000533
trans-1,3-Dichloropropene	ND		0.00165	0.000381
1,1,2-Trichloroethane	ND		0.00165	0.000446
Tetrachloroethene	ND		0.00165	0.000422
2-Hexanone	ND		0.0033	0.00172
Dibromochloromethane	ND		0.00165	0.000309
1,2-Dibromoethane (EDB)	ND		0.00165	0.000292
Chlorobenzene	ND		0.00165	0.000371
Ethylbenzene	ND		0.00165	0.000403
Total Xylenes	ND		0.0033	0.000714
Styrene	ND		0.00165	0.00034
Bromoform	ND		0.00165	0.000474
Isopropylbenzene	ND		0.00165	0.000327
1,1,2,2-Tetrachloroethane	ND		0.00165	0.000444
1,3-Dichlorobenzene	ND		0.00165	0.000318
1,4-Dichlorobenzene	ND		0.00165	0.000282
1,2-Dichlorobenzene	ND		0.00165	0.000285
1,2-Dibromo-3-chloropropane	ND		0.00165	0.000446
1,2,4-Trichlorobenzene	ND		0.00165	0.000726
1,2,3-Trichlorobenzene	ND		0.00165	0.000794
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0033	0.000599
Methyl acetate	ND		0.00165	0.000771
Cyclohexane	ND		0.00165	0.0003
Methylcyclohexane	ND		0.00165	0.000343
1,3-Dichloropropene (cis- and trans-)	ND		0.00165	0.000381

Total Target Compounds (52): 0.235

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-004
Client ID: SB-4/15.5-16
Date Received: 10/24/2017
Date Analyzed: 11/01/2017
Date File: F1605.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 38.2

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-005
Client ID: SB-5/15-15.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Data file: F1451.D 10/27/17 04:54

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.0012	0.000282
Chloromethane	ND		0.0012	0.000222
Vinyl chloride	ND		0.0012	0.000222
Bromomethane	ND		0.0012	0.000358
Chloroethane	ND		0.0012	0.000318
Trichlorofluoromethane	ND		0.0012	0.000226
1,1-Dichloroethene	ND		0.0012	0.000452
Acetone	0.00894	J	0.012	0.00117
Carbon disulfide	0.00132		0.0012	0.000372
Methylene chloride	ND		0.0024	0.00239
trans-1,2-Dichloroethene	ND		0.0012	0.000348
Methyl tert-butyl ether (MTBE)	ND		0.0012	0.000232
1,1-Dichloroethane	ND		0.0012	0.000233
cis-1,2-Dichloroethene	ND		0.0012	0.000256
2-Butanone (MEK)	ND		0.0024	0.00059
Bromochloromethane	ND		0.0012	0.000334
Chloroform	ND		0.0012	0.000252
1,1,1-Trichloroethane	ND		0.0012	0.000283
Carbon tetrachloride	ND		0.0012	0.000193
1,2-Dichloroethane (EDC)	ND		0.0012	0.000317
Benzene	ND		0.0012	0.000313
Trichloroethene	ND		0.0012	0.000336
1,2-Dichloropropane	ND		0.0012	0.000203
1,4-Dioxane	ND		0.240	0.043
Bromodichloromethane	ND		0.0012	0.00028
cis-1,3-Dichloropropene	ND		0.0012	0.000246
4-Methyl-2-pentanone (MIBK)	ND		0.0024	0.000695

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-005
Client ID: SB-5/15-15.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Data file: F1451.D 10/27/17 04:54

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.0012	0.000388
trans-1,3-Dichloropropene	ND		0.0012	0.000277
1,1,2-Trichloroethane	ND		0.0012	0.000324
Tetrachloroethene	ND		0.0012	0.000307
2-Hexanone	ND		0.0024	0.00125
Dibromochloromethane	ND		0.0012	0.000224
1,2-Dibromoethane (EDB)	ND		0.0012	0.000212
Chlorobenzene	ND		0.0012	0.00027
Ethylbenzene	ND		0.0012	0.000293
Total Xylenes	ND		0.0024	0.00052
Styrene	ND		0.0012	0.000247
Bromoform	ND		0.0012	0.000344
Isopropylbenzene	ND		0.0012	0.000238
1,1,2,2-Tetrachloroethane	ND		0.0012	0.000323
1,3-Dichlorobenzene	ND		0.0012	0.000232
1,4-Dichlorobenzene	ND		0.0012	0.000205
1,2-Dichlorobenzene	ND		0.0012	0.000208
1,2-Dibromo-3-chloropropane	ND		0.0012	0.000324
1,2,4-Trichlorobenzene	ND		0.0012	0.000528
1,2,3-Trichlorobenzene	ND		0.0012	0.000577
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0024	0.000436
Methyl acetate	ND		0.0012	0.00056
Cyclohexane	ND		0.0012	0.000218
Methylcyclohexane	ND		0.0012	0.00025
1,3-Dichloropropene (cis- and trans-)	ND		0.0012	0.000277
Total Target Compounds (52):	0.010	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-005
Client ID: SB-5/15-15.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Date File: F1451.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-006
Client ID: SB-6/11-11.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Data file: F1452.D 10/27/17 05:23

GC/MS Column: DB-624
Sample wt/vol: 4.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00133	0.000313
Chloromethane	ND		0.00133	0.000246
Vinyl chloride	ND		0.00133	0.000246
Bromomethane	ND		0.00133	0.000396
Chloroethane	ND		0.00133	0.000352
Trichlorofluoromethane	ND		0.00133	0.00025
1,1-Dichloroethene	ND		0.00133	0.000501
Acetone	0.013	J	0.013	0.0013
Carbon disulfide	0.00222		0.00133	0.000412
Methylene chloride	ND		0.00266	0.00265
trans-1,2-Dichloroethene	ND		0.00133	0.000386
Methyl tert-butyl ether (MTBE)	ND		0.00133	0.000257
1,1-Dichloroethane	ND		0.00133	0.000258
cis-1,2-Dichloroethene	ND		0.00133	0.000283
2-Butanone (MEK)	ND		0.00266	0.000654
Bromochloromethane	ND		0.00133	0.00037
Chloroform	ND		0.00133	0.000279
1,1,1-Trichloroethane	ND		0.00133	0.000314
Carbon tetrachloride	ND		0.00133	0.000214
1,2-Dichloroethane (EDC)	ND		0.00133	0.000351
Benzene	ND		0.00133	0.000347
Trichloroethene	ND		0.00133	0.000372
1,2-Dichloropropane	ND		0.00133	0.000225
1,4-Dioxane	ND		0.266	0.048
Bromodichloromethane	ND		0.00133	0.00031
cis-1,3-Dichloropropene	ND		0.00133	0.000273
4-Methyl-2-pentanone (MIBK)	ND		0.00266	0.00077

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-006
Client ID: SB-6/11-11.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Data file: F1452.D 10/27/17 05:23

GC/MS Column: DB-624
Sample wt/vol: 4.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00133	0.00043
trans-1,3-Dichloropropene	ND		0.00133	0.000307
1,1,2-Trichloroethane	ND		0.00133	0.000359
Tetrachloroethene	ND		0.00133	0.00034
2-Hexanone	ND		0.00266	0.00138
Dibromochloromethane	ND		0.00133	0.000249
1,2-Dibromoethane (EDB)	ND		0.00133	0.000235
Chlorobenzene	ND		0.00133	0.000299
Ethylbenzene	ND		0.00133	0.000325
Total Xylenes	ND		0.00266	0.000576
Styrene	ND		0.00133	0.000274
Bromoform	ND		0.00133	0.000382
Isopropylbenzene	ND		0.00133	0.000263
1,1,2,2-Tetrachloroethane	ND		0.00133	0.000358
1,3-Dichlorobenzene	ND		0.00133	0.000257
1,4-Dichlorobenzene	ND		0.00133	0.000227
1,2-Dichlorobenzene	ND		0.00133	0.00023
1,2-Dibromo-3-chloropropane	ND		0.00133	0.000359
1,2,4-Trichlorobenzene	ND		0.00133	0.000585
1,2,3-Trichlorobenzene	ND		0.00133	0.00064
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00266	0.000483
Methyl acetate	ND		0.00133	0.000621
Cyclohexane	ND		0.00133	0.000242
Methylcyclohexane	ND		0.00133	0.000277
1,3-Dichloropropene (cis- and trans-)	ND		0.00133	0.000307
Total Target Compounds (52):	0.015	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-006
Client ID: SB-6/11-11.5
Date Received: 10/24/2017
Date Analyzed: 10/27/2017
Date File: F1452.D

GC/MS Column: DB-624
Sample wt/vol: 4.5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-007
Client ID: SB-7
Date Received: 10/24/2017
Date Analyzed: 10/28/2017
Data file: J1460.D 10/28/17 01:02

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.151	0.100
Chloromethane	ND		0.075	0.070
Vinyl chloride	ND		0.151	0.089
Bromomethane	ND		0.151	0.082
Chloroethane	ND		0.075	0.075
Trichlorofluoromethane	ND		0.075	0.065
1,1-Dichloroethene	ND		0.075	0.074
Acetone	ND		0.301	0.200
Carbon disulfide	ND		0.075	0.070
Methylene chloride	ND		0.151	0.149
trans-1,2-Dichloroethene	ND		0.075	0.068
Methyl tert-butyl ether (MTBE)	ND		0.075	0.072
1,1-Dichloroethane	ND		0.075	0.074
cis-1,2-Dichloroethene	ND		0.075	0.068
2-Butanone (MEK)	0.389		0.301	0.250
Bromochloromethane	ND		0.151	0.090
Chloroform	ND		0.075	0.071
1,1,1-Trichloroethane	ND		0.075	0.070
Carbon tetrachloride	ND		0.151	0.068
1,2-Dichloroethane (EDC)	ND		0.075	0.069
Benzene	ND		0.075	0.070
Trichloroethene	0.272		0.075	0.074
1,2-Dichloropropane	ND		0.075	0.067
1,4-Dioxane	ND		15.1	14.8
Bromodichloromethane	ND		0.075	0.053
cis-1,3-Dichloropropene	ND		0.075	0.050
4-Methyl-2-pentanone (MIBK)	ND		0.301	0.105

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-007
Client ID: SB-7
Date Received: 10/24/2017
Date Analyzed: 10/28/2017
Data file: J1460.D 10/28/17 01:02

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	0.174		0.075	0.057
trans-1,3-Dichloropropene	ND		0.075	0.048
1,1,2-Trichloroethane	ND		0.075	0.071
Tetrachloroethene	7.78		0.075	0.068
2-Hexanone	ND		0.301	0.115
Dibromochloromethane	ND		0.075	0.067
1,2-Dibromoethane (EDB)	ND		0.075	0.061
Chlorobenzene	ND		0.075	0.057
Ethylbenzene	ND		0.075	0.052
Total Xylenes	0.166		0.151	0.139
Styrene	ND		0.075	0.044
Bromoform	ND		0.075	0.067
Isopropylbenzene	ND		0.075	0.049
1,1,2,2-Tetrachloroethane	ND		0.075	0.069
1,3-Dichlorobenzene	ND		0.075	0.053
1,4-Dichlorobenzene	ND		0.075	0.051
1,2-Dichlorobenzene	ND		0.075	0.055
1,2-Dibromo-3-chloropropane	ND		0.151	0.080
1,2,4-Trichlorobenzene	ND		0.151	0.046
1,2,3-Trichlorobenzene	ND		0.151	0.051
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.151	0.085
Methyl acetate	ND		0.075	0.073
Cyclohexane	ND		0.151	0.062
Methylcyclohexane	ND		0.075	0.062
1,3-Dichloropropene (cis- and trans-)	ND		0.075	0.050

Total Target Compounds (52): 8.78

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-007
Client ID: SB-7
Date Received: 10/24/2017
Date Analyzed: 10/28/2017
Date File: J1460.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-008
Client ID: SB-2
Date Received: 10/24/2017
Date Analyzed: 10/25/2017
Data file: E2692.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09161-008
Client ID: SB-2
Date Received: 10/24/2017
Date Analyzed: 10/25/2017
Data file: E2692.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	2.48		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	2.48			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-008
Client ID: SB-2
Date Received: 10/24/2017
Date Analyzed: 10/25/2017
Data file: E2692.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171031-02
Client ID: BLKS171031-02
Date Received:
Date Analyzed: 10/31/2017
Data file: F1586.D 10/31/17 23:53

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171031-02
Client ID: BLKS171031-02
Date Received:
Date Analyzed: 10/31/2017
Data file: F1586.D 10/31/17 23:53

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.002	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171031-02
Client ID: BLKS171031-02
Date Received:
Date Analyzed: 10/31/2017
Date File: F1586.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171024-02
Client ID: BLKS171024-02
Date Received:
Date Analyzed: 10/25/2017
Data file: F1382.D 10/25/17 00:53

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171024-02
Client ID: BLKS171024-02
Date Received:
Date Analyzed: 10/25/2017
Data file: F1382.D 10/25/17 00:53

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.002	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171024-02
Client ID: BLKS171024-02
Date Received:
Date Analyzed: 10/25/2017
Date File: F1382.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171025
Client ID: BLKA171025
Date Received: NA
Date Analyzed: 10/25/2017
Data file: E2691.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		0.500	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		2.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171025
Client ID: BLKA171025
Date Received: NA
Date Analyzed: 10/25/2017
Data file: E2691.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		1.00	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		2.00	0.761
Dibromochloromethane	ND		1.00	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		1.00	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171025
Client ID: BLKA171025
Date Received: NA
Date Analyzed: 10/25/2017
Data file: E2691.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171026-02
Client ID: BLKS171026-02
Date Received:
Date Analyzed: 10/27/2017
Data file: F1442.D 10/27/17 00:31

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171026-02
Client ID: BLKS171026-02
Date Received:
Date Analyzed: 10/27/2017
Data file: F1442.D 10/27/17 00:31

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.002	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171026-02
Client ID: BLKS171026-02
Date Received:
Date Analyzed: 10/27/2017
Date File: F1442.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171027-02
Client ID: BLKM171027-02
Date Received:
Date Analyzed: 10/28/2017
Data file: J1458.D 10/28/17 00:09

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171027-02
Client ID: BLKM171027-02
Date Received:
Date Analyzed: 10/28/2017
Data file: J1458.D 10/28/17 00:09

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171027-02
Client ID: BLKM171027-02
Date Received:
Date Analyzed: 10/28/2017
Data file: J1458.D 10/28/17 00:09

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-001
Client ID: SB-1/7.5
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0427.D 10/25/17 20:31

GC/MS Column: DB-5
Sample wt/vol: 15.06g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.034
2,2'-Oxybis(1-Chloropropane)	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	0.080		0.037	0.032
4-Chloroaniline	ND		0.037	0.025
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.025
2-Methylnaphthalene	0.047		0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.033
1,1'-Biphenyl	ND		0.037	0.035
2-Chloronaphthalene	ND		0.037	0.031
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-001
Client ID: SB-1/7.5
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0427.D 10/25/17 20:31

GC/MS Column: DB-5
Sample wt/vol: 15.06g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	0.233		0.037	0.031
3-Nitroaniline	ND		0.037	0.030
Acenaphthene	0.219		0.037	0.033
2,4-Dinitrotoluene	ND		0.037	0.034
Dibenzofuran	0.129		0.037	0.032
Diethyl phthalate	ND		0.037	0.036
Fluorene	0.209		0.037	0.034
4-Chlorophenyl phenyl ether	ND		0.037	0.035
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	2.92		0.037	0.034
Anthracene	0.818		0.037	0.033
Carbazole	0.264		0.037	0.029
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	4.01		0.037	0.031
Pyrene	3.90		0.037	0.031
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.027
Benzo[a]anthracene	2.29		0.037	0.032
Chrysene	2.04		0.037	0.032
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	1.00		0.037	0.030
Benzo[k]fluoranthene	1.09		0.037	0.031
Benzo[a]pyrene	1.20		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.707		0.037	0.031
Dibenz[a,h]anthracene	0.332		0.037	0.037
Benzo[g,h,i]perylene	0.831		0.037	0.034
Dinitrotoluene (2,4- and 2,6-)	ND		0.037	0.034
Total Target Compounds (53):	22.3			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-001
Client ID: SB-1/7.5
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0427.D

GC/MS Column: DB-5
Sample wt/vol: 15.06g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	1.13	JN	1.83
000832-69-9	Phenanthrene, 1-methyl-	0.294	JN	4.99
002531-84-2	Phenanthrene, 2-methyl-	0.357	JN	5.01
000203-64-5	4H-Cyclopenta[def]phenanthrene	0.677	JN	5.07
	Unknown PAH	0.283	J	5.49
002381-21-7	Pyrene, 1-methyl-	0.431	JN	5.76
000243-17-4	11H-Benzo[b]fluorene	0.550	JN	5.86
	Unknown PAH	0.290	J	5.91
000479-79-8	11H-Benzo[a]fluoren-11-one	0.368	JN	6.26
	Unknown PAH	0.327	J	6.33
	Unknown PAH	0.335	J	6.38
000082-05-3	7H-Benz[de]anthracen-7-one	0.338	JN	6.40
002498-77-3	Benz[a]anthracene, 1-methyl-	0.361	JN	6.86
000192-97-2	Benzo[e]pyrene	0.402	JN	7.70
000198-55-0	Perylene	1.08	JN	7.92

Total TICs = 7.22 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-002
Client ID: SB-2/15.
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0428.D 10/25/17 20:46

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.048	0.047
Bis(2-chloroethyl) ether	ND		0.048	0.044
2,2'-Oxybis(1-Chloropropane)	ND		0.048	0.040
N-Nitrosodi-n-propylamine	ND		0.048	0.037
Acetophenone	ND		0.048	0.046
Hexachloroethane	ND		0.048	0.041
Nitrobenzene	ND		0.048	0.038
Isophorone	ND		0.048	0.041
Bis(2-chloroethoxy) methane	ND		0.048	0.043
Naphthalene	0.044	J	0.048	0.042
4-Chloroaniline	ND		0.048	0.032
Hexachlorobutadiene	ND		0.048	0.044
Caprolactam	ND		0.048	0.032
2-Methylnaphthalene	ND		0.048	0.034
Hexachlorocyclopentadiene	ND		0.048	0.043
1,1'-Biphenyl	ND		0.048	0.045
2-Chloronaphthalene	ND		0.048	0.040
2-Nitroaniline	ND		0.048	0.034
Dimethyl phthalate	ND		0.048	0.044

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-002
Client ID: SB-2/15.
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0428.D 10/25/17 20:46

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.048	0.037
Acenaphthylene	0.090		0.048	0.040
3-Nitroaniline	ND		0.048	0.039
Acenaphthene	0.190		0.048	0.043
2,4-Dinitrotoluene	ND		0.048	0.044
Dibenzofuran	ND		0.048	0.041
Diethyl phthalate	ND		0.048	0.047
Fluorene	0.052		0.048	0.044
4-Chlorophenyl phenyl ether	ND		0.048	0.045
4-Nitroaniline	ND		0.048	0.036
1,2,4,5-Tetrachlorobenzene	ND		0.048	0.042
N-Nitrosodiphenylamine	ND		0.048	0.042
4-Bromophenyl phenyl ether	ND		0.048	0.041
Hexachlorobenzene	ND		0.048	0.044
Atrazine	ND		0.048	0.042
Phenanthrene	0.233		0.048	0.044
Anthracene	0.369		0.048	0.043
Carbazole	ND		0.048	0.037
Di-n-butyl phthalate	ND		0.048	0.037
Fluoranthene	1.49		0.048	0.041
Pyrene	2.32		0.048	0.040
Butyl benzyl phthalate	ND		0.048	0.044
3,3'-Dichlorobenzidine	ND		0.048	0.035
Benzo[a]anthracene	1.72		0.048	0.042
Chrysene	2.89		0.048	0.041
Bis(2-ethylhexyl) phthalate	ND		0.048	0.030
Di-n-octyl phthalate	ND		0.048	0.042
Benzo[b]fluoranthene	0.707		0.048	0.039
Benzo[k]fluoranthene	0.524		0.048	0.041
Benzo[a]pyrene	0.600		0.048	0.040
Indeno[1,2,3-cd]pyrene	0.418		0.048	0.040
Dibenz[a,h]anthracene	0.477		0.048	0.047
Benzo[g,h,i]perylene	0.792		0.048	0.044
Dinitrotoluene (2,4- and 2,6-)	ND		0.048	0.044
Total Target Compounds (53):	12.9	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-002
Client ID: SB-2/15.
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0428.D

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 32.6

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown SV	0.759	J	4.09
	Unknown Hydrocarbon	0.667	J	4.33
	Unknown SV	0.459	J	4.38
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	1.38	JN	5.14
032624-67-2	10,18-Bisnorabieta-8,11,13-triene	1.49	JN	5.29

Total TICs = 4.76 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-003
Client ID: SB-3/15-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0429.D 10/25/17 21:02

GC/MS Column: DB-5
Sample wt/vol: 15.19g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.049	0.047
Bis(2-chloroethyl) ether	ND		0.049	0.044
2,2'-Oxybis(1-Chloropropane)	ND		0.049	0.041
N-Nitrosodi-n-propylamine	ND		0.049	0.037
Acetophenone	ND		0.049	0.046
Hexachloroethane	ND		0.049	0.041
Nitrobenzene	ND		0.049	0.038
Isophorone	ND		0.049	0.041
Bis(2-chloroethoxy) methane	ND		0.049	0.044
Naphthalene	ND		0.049	0.043
4-Chloroaniline	ND		0.049	0.032
Hexachlorobutadiene	ND		0.049	0.045
Caprolactam	ND		0.049	0.033
2-Methylnaphthalene	ND		0.049	0.034
Hexachlorocyclopentadiene	ND		0.049	0.043
1,1'-Biphenyl	ND		0.049	0.045
2-Chloronaphthalene	ND		0.049	0.040
2-Nitroaniline	ND		0.049	0.034
Dimethyl phthalate	ND		0.049	0.045

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-003
Client ID: SB-3/15-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0429.D 10/25/17 21:02

GC/MS Column: DB-5
Sample wt/vol: 15.19g
Matrix-Units: Soil-mg/Kg
% Moisture: 32.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.049	0.037
Acenaphthylene	ND		0.049	0.040
3-Nitroaniline	ND		0.049	0.039
Acenaphthene	ND		0.049	0.043
2,4-Dinitrotoluene	ND		0.049	0.044
Dibenzofuran	ND		0.049	0.042
Diethyl phthalate	ND		0.049	0.048
Fluorene	ND		0.049	0.044
4-Chlorophenyl phenyl ether	ND		0.049	0.045
4-Nitroaniline	ND		0.049	0.037
1,2,4,5-Tetrachlorobenzene	ND		0.049	0.042
N-Nitrosodiphenylamine	ND		0.049	0.042
4-Bromophenyl phenyl ether	ND		0.049	0.041
Hexachlorobenzene	ND		0.049	0.045
Atrazine	ND		0.049	0.042
Phenanthrene	0.053		0.049	0.044
Anthracene	ND		0.049	0.043
Carbazole	ND		0.049	0.038
Di-n-butyl phthalate	ND		0.049	0.037
Fluoranthene	0.072		0.049	0.041
Pyrene	0.095		0.049	0.040
Butyl benzyl phthalate	ND		0.049	0.045
3,3'-Dichlorobenzidine	ND		0.049	0.035
Benzo[a]anthracene	0.072		0.049	0.042
Chrysene	0.074		0.049	0.042
Bis(2-ethylhexyl) phthalate	ND		0.049	0.030
Di-n-octyl phthalate	ND		0.049	0.042
Benzo[b]fluoranthene	ND		0.049	0.039
Benzo[k]fluoranthene	ND		0.049	0.041
Benzo[a]pyrene	ND		0.049	0.040
Indeno[1,2,3-cd]pyrene	ND		0.049	0.040
Dibenz[a,h]anthracene	ND		0.049	0.048
Benzo[g,h,i]perylene	ND		0.049	0.044
Dinitrotoluene (2,4- and 2,6-)	ND		0.049	0.044

Total Target Compounds (53): 0.366

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-003
Client ID: SB-3/15-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0429.D

GC/MS Column: DB-5
Sample wt/vol: 15.19g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 32.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-004
Client ID: SB-4/15.
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0430.D 10/25/17 21:18

GC/MS Column: DB-5
Sample wt/vol: 15.36g
Matrix-Units: Soil-mg/Kg
% Moisture: 38.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.053	0.051
Bis(2-chloroethyl) ether	ND		0.053	0.048
2,2'-Oxybis(1-Chloropropane)	ND		0.053	0.044
N-Nitrosodi-n-propylamine	ND		0.053	0.040
Acetophenone	ND		0.053	0.050
Hexachloroethane	ND		0.053	0.044
Nitrobenzene	ND		0.053	0.041
Isophorone	ND		0.053	0.044
Bis(2-chloroethoxy) methane	ND		0.053	0.047
Naphthalene	ND		0.053	0.046
4-Chloroaniline	ND		0.053	0.035
Hexachlorobutadiene	ND		0.053	0.048
Caprolactam	ND		0.053	0.035
2-Methylnaphthalene	ND		0.053	0.037
Hexachlorocyclopentadiene	ND		0.053	0.046
1,1'-Biphenyl	ND		0.053	0.049
2-Chloronaphthalene	ND		0.053	0.043
2-Nitroaniline	ND		0.053	0.037
Dimethyl phthalate	ND		0.053	0.048

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-004
Client ID: SB-4/15.
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0430.D 10/25/17 21:18

GC/MS Column: DB-5
Sample wt/vol: 15.36g
Matrix-Units: Soil-mg/Kg
% Moisture: 38.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.053	0.040
Acenaphthylene	ND		0.053	0.043
3-Nitroaniline	ND		0.053	0.042
Acenaphthene	ND		0.053	0.047
2,4-Dinitrotoluene	ND		0.053	0.048
Dibenzofuran	ND		0.053	0.045
Diethyl phthalate	ND		0.053	0.052
Fluorene	ND		0.053	0.047
4-Chlorophenyl phenyl ether	ND		0.053	0.049
4-Nitroaniline	ND		0.053	0.040
1,2,4,5-Tetrachlorobenzene	ND		0.053	0.046
N-Nitrosodiphenylamine	ND		0.053	0.046
4-Bromophenyl phenyl ether	ND		0.053	0.044
Hexachlorobenzene	ND		0.053	0.048
Atrazine	ND		0.053	0.046
Phenanthrene	ND		0.053	0.048
Anthracene	ND		0.053	0.046
Carbazole	ND		0.053	0.041
Di-n-butyl phthalate	ND		0.053	0.040
Fluoranthene	ND		0.053	0.044
Pyrene	ND		0.053	0.043
Butyl benzyl phthalate	ND		0.053	0.048
3,3'-Dichlorobenzidine	ND		0.053	0.038
Benzo[a]anthracene	ND		0.053	0.045
Chrysene	ND		0.053	0.045
Bis(2-ethylhexyl) phthalate	ND		0.053	0.032
Di-n-octyl phthalate	ND		0.053	0.046
Benzo[b]fluoranthene	ND		0.053	0.042
Benzo[k]fluoranthene	ND		0.053	0.044
Benzo[a]pyrene	ND		0.053	0.043
Indeno[1,2,3-cd]pyrene	ND		0.053	0.044
Dibenz[a,h]anthracene	ND		0.053	0.052
Benzo[g,h,i]perylene	ND		0.053	0.048
Dinitrotoluene (2,4- and 2,6-)	ND		0.053	0.048

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-004
Client ID: SB-4/15.
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0430.D

GC/MS Column: DB-5
Sample wt/vol: 15.36g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 38.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-005
Client ID: SB-5/15-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0431.D 10/25/17 21:34

GC/MS Column: DB-5
Sample wt/vol: 15.48g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.039	0.032
N-Nitrosodi-n-propylamine	ND		0.039	0.030
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.033
Nitrobenzene	ND		0.039	0.030
Isophorone	ND		0.039	0.033
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	ND		0.039	0.034
4-Chloroaniline	ND		0.039	0.026
Hexachlorobutadiene	ND		0.039	0.036
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	ND		0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.036
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.036

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-005
Client ID: SB-5/15-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0431.D 10/25/17 21:34

GC/MS Column: DB-5
Sample wt/vol: 15.48g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.029
Acenaphthylene	ND		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	ND		0.039	0.034
2,4-Dinitrotoluene	ND		0.039	0.035
Dibenzofuran	ND		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	ND		0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.034
N-Nitrosodiphenylamine	ND		0.039	0.034
4-Bromophenyl phenyl ether	ND		0.039	0.033
Hexachlorobenzene	ND		0.039	0.036
Atrazine	ND		0.039	0.034
Phenanthrene	ND		0.039	0.035
Anthracene	ND		0.039	0.034
Carbazole	ND		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.030
Fluoranthene	ND		0.039	0.033
Pyrene	ND		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.036
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	ND		0.039	0.033
Chrysene	ND		0.039	0.033
Bis(2-ethylhexyl) phthalate	ND		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	ND		0.039	0.031
Benzo[k]fluoranthene	ND		0.039	0.033
Benzo[a]pyrene	ND		0.039	0.032
Indeno[1,2,3-cd]pyrene	ND		0.039	0.032
Dibenz[a,h]anthracene	ND		0.039	0.038
Benzo[g,h,i]perylene	ND		0.039	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.039	0.035

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-005
Client ID: SB-5/15-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0431.D

GC/MS Column: DB-5
Sample wt/vol: 15.48g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-006
Client ID: SB-6/11-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0432.D 10/25/17 21:50

GC/MS Column: DB-5
Sample wt/vol: 15.73g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.038	0.032
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	ND		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.025
2-Methylnaphthalene	ND		0.038	0.027
Hexachlorocyclopentadiene	ND		0.038	0.033
1,1'-Biphenyl	ND		0.038	0.035
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.027
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-006
Client ID: SB-6/11-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0432.D 10/25/17 21:50

GC/MS Column: DB-5
Sample wt/vol: 15.73g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	ND		0.038	0.031
3-Nitroaniline	ND		0.038	0.030
Acenaphthene	ND		0.038	0.034
2,4-Dinitrotoluene	ND		0.038	0.034
Dibenzofuran	ND		0.038	0.032
Diethyl phthalate	ND		0.038	0.037
Fluorene	ND		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.035
4-Nitroaniline	ND		0.038	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	0.121		0.038	0.035
Anthracene	0.041		0.038	0.033
Carbazole	ND		0.038	0.029
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	0.145		0.038	0.032
Pyrene	0.143		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.028
Benzo[a]anthracene	0.088		0.038	0.033
Chrysene	0.091		0.038	0.033
Bis(2-ethylhexyl) phthalate	ND		0.038	0.023
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.034	J	0.038	0.031
Benzo[k]fluoranthene	0.045		0.038	0.032
Benzo[a]pyrene	0.049		0.038	0.031
Indeno[1,2,3-cd]pyrene	ND		0.038	0.031
Dibenz[a,h]anthracene	ND		0.038	0.037
Benzo[g,h,i]perylene	ND		0.038	0.034
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.034
Total Target Compounds (53):	0.757	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-006
Client ID: SB-6/11-
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0432.D

GC/MS Column: DB-5
Sample wt/vol: 15.73g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-007
Client ID: SB-7
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0433.D 10/25/17 22:06

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.076	0.074
Bis(2-chloroethyl) ether	ND		0.076	0.069
2,2'-Oxybis(1-Chloropropane)	ND		0.076	0.063
N-Nitrosodi-n-propylamine	ND		0.076	0.058
Acetophenone	ND		0.076	0.072
Hexachloroethane	ND		0.076	0.064
Nitrobenzene	ND		0.076	0.060
Isophorone	ND		0.076	0.064
Bis(2-chloroethoxy) methane	ND		0.076	0.068
Naphthalene	0.171	D	0.076	0.066
4-Chloroaniline	ND		0.076	0.050
Hexachlorobutadiene	ND		0.076	0.070
Caprolactam	ND		0.076	0.051
2-Methylnaphthalene	0.158	D	0.076	0.053
Hexachlorocyclopentadiene	ND		0.076	0.067
1,1'-Biphenyl	ND		0.076	0.071
2-Chloronaphthalene	ND		0.076	0.062
2-Nitroaniline	ND		0.076	0.053
Dimethyl phthalate	ND		0.076	0.070

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-007
Client ID: SB-7
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0433.D 10/25/17 22:06

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.076	0.058
Acenaphthylene	1.61	D	0.076	0.062
3-Nitroaniline	ND		0.076	0.061
Acenaphthene	0.162	D	0.076	0.067
2,4-Dinitrotoluene	ND		0.076	0.069
Dibenzofuran	0.182	D	0.076	0.065
Diethyl phthalate	ND		0.076	0.075
Fluorene	0.233	D	0.076	0.069
4-Chlorophenyl phenyl ether	ND		0.076	0.071
4-Nitroaniline	ND		0.076	0.057
1,2,4,5-Tetrachlorobenzene	ND		0.076	0.066
N-Nitrosodiphenylamine	ND		0.076	0.066
4-Bromophenyl phenyl ether	ND		0.076	0.064
Hexachlorobenzene	ND		0.076	0.070
Atrazine	ND		0.076	0.066
Phenanthrene	4.82	D	0.076	0.069
Anthracene	1.16	D	0.076	0.067
Carbazole	0.713	D	0.076	0.059
Di-n-butyl phthalate	ND		0.076	0.058
Fluoranthene	8.13	D	0.076	0.064
Pyrene	6.89	D	0.076	0.063
Butyl benzyl phthalate	ND		0.076	0.070
3,3'-Dichlorobenzidine	ND		0.076	0.055
Benzo[a]anthracene	5.03	D	0.076	0.065
Chrysene	5.16	D	0.076	0.065
Bis(2-ethylhexyl) phthalate	ND		0.076	0.047
Di-n-octyl phthalate	ND		0.076	0.066
Benzo[b]fluoranthene	3.11	D	0.076	0.061
Benzo[k]fluoranthene	3.27	D	0.076	0.064
Benzo[a]pyrene	3.42	D	0.076	0.062
Indeno[1,2,3-cd]pyrene	2.85	D	0.076	0.063
Dibenz[a,h]anthracene	0.740	D	0.076	0.075
Benzo[g,h,i]perylene	3.35	D	0.076	0.069
Dinitrotoluene (2,4- and 2,6-)	ND		0.076	0.069
Total Target Compounds (53):	51.2	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-007
Client ID: SB-7
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Date File: C0433.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 2
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown SV	0.867	DJ	5.16
	Unknown PAH	0.723	DJ	5.62
002381-21-7	Pyrene, 1-methyl-	1.01	DJN	5.90
000243-17-4	11H-Benzo[b]fluorene	0.920	DJN	5.99
003442-78-2	Pyrene, 2-methyl-	0.631	DJN	6.08
003353-12-6	Pyrene, 4-methyl-	0.586	DJN	6.15
000479-79-8	11H-Benzo[a]fluoren-11-one	1.24	DJN	6.36
000082-05-3	7H-Benz[de]anthracen-7-one	0.981	DJN	6.44
	Unknown PAH	0.730	DJ	6.48
	Unknown PAH	1.27	DJ	6.50
	Unknown PAH	0.867	DJ	6.75
003351-28-8	Chrysene, 1-methyl-	0.928	DJN	6.95
	Unknown PAH	1.04	DJ	7.48
000205-82-3	Benzo[j]fluoranthene	1.70	DJN	7.78
	Unknown PAH	3.42	DJ	8.00

Total TICs = 16.9 DJN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-008
Client ID: SB-2
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: A8954.D 10/25/17 14:59
SIM Data file: A8965.D 10/25/17 17:38

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.192
Bis(2-chloroethyl) ether	ND		1.00	0.243
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09161-008
Client ID: SB-2
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: A8954.D 10/25/17 14:59
SIM Data file: A8965.D 10/25/17 17:38

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	0.602	J	1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	0.967	J	1.00	0.129
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	6.18		1.00	0.166
Fluorene	0.506	J	1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
N-Nitrosodiphenylamine	ND		1.00	0.179
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Phenanthrene	4.88		1.00	0.175
Anthracene	1.28		1.00	0.211
Carbazole	0.713	J	1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	9.30		1.00	0.204
Pyrene	10.7		1.00	0.339
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	2.98		0.100	0.100
Chrysene	9.28		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	2.54		0.100	0.100
Benzo[k]fluoranthene *	1.13		0.100	0.100
Benzo[a]pyrene *	1.97		0.100	0.100
Indeno[1,2,3-cd]pyrene *	1.77		0.100	0.100
Dibenz[a,h]anthracene *	1.45		0.100	0.100
Benzo[g,h,i]perylene	3.89		1.00	0.672
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.139
Total Target Compounds (53):	60.1	J	* - RL & MDL from SIM run	

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09161-008
Client ID: SB-2
Date Received: 10/24/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: A8954.D 10/25/17 14:59

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171025-01
Client ID: .
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0423.D 10/25/17 19:27

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171025-01
Client ID: .
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0423.D 10/25/17 19:27

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171025-01
Client ID: .
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0423.D 10/25/17 19:27

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA171024-04
Client ID: .
Date Received: NA
Date Extracted: 10/24/2017
Date Analyzed: 10/25/2017
Data file: A8938.D 10/25/17 10:46
SIM Data file: A8943.D 10/25/17 12:05

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.278
Pyridine	ND		1.00	0.320
Benzaldehyde	ND		1.00	0.192
Phenol	ND		1.00	0.201
Aniline	ND		1.00	0.169
Bis(2-chloroethyl) ether	ND		1.00	0.243
2-Chlorophenol	ND		1.00	0.116
1,3-Dichlorobenzene	ND		1.00	0.148
1,4-Dichlorobenzene	ND		1.00	0.200
Benzyl alcohol	ND		1.00	0.199
1,2-Dichlorobenzene	ND		1.00	0.144
2-Methylphenol	ND		1.00	0.162
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
4-Methylphenol **	ND		1.00	0.170
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
3-Methylphenol	ND		1.00	0.529
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
2-Nitrophenol	ND		1.00	0.160
2,4-Dimethylphenol	ND		1.00	0.137
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Benzoic acid	ND		1.00	0.876
2,4-Dimethylaniline	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.138
1,2,4-Trichlorobenzene	ND		1.00	0.187
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
4-Aminotoluene	ND		1.00	0.164
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Aminotoluene	ND		1.00	0.164
4-Chloro-3-methylphenol	ND		1.00	0.139
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
2,4,6-Trichlorophenol	ND		1.00	0.188
2,4,5-Trichlorophenol	ND		1.00	0.252
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA171024-04
Client ID: .
Date Received: NA
Date Extracted: 10/24/2017
Date Analyzed: 10/25/2017
Data file: A8938.D 10/25/17 10:46
SIM Data file: A8943.D 10/25/17 12:05

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	ND		1.00	0.129
2,4-Dinitrophenol	ND		1.00	0.206
4-Nitrophenol	ND		1.00	0.466
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	ND		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
2,3,4,6-Tetrachlorophenol	ND		1.00	0.294
4,6-Dinitro-2-methylphenol	ND		1.00	0.273
N-Nitrosodiphenylamine	ND		1.00	0.179
1,2-Diphenylhydrazine	ND		1.00	0.214
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.247
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.175
Anthracene	ND		1.00	0.211
Carbazole	ND		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	ND		1.00	0.204
Benzidine	ND		1.00	0.664
Pyrene	ND		1.00	0.339
3,3'-Dimethylbenzidine	ND		1.00	0.188
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.672

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

* - RL & MDL from SIM run
** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171024-04
Client ID: .
Date Received: NA
Date Extracted: 10/24/2017
Date Analyzed: 10/25/2017
Data file: A8938.D 10/25/17 10:46

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09161-005
Client ID: SB-5/15-
Date Received: 10/24/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: R0582.D 10/26/17 18:15

GC Column: DB-5/DB1701P
Sample wt/vol: 5.09g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.047	0.019
Aroclor-1221	ND		0.047	0.019
Aroclor-1232	ND		0.047	0.019
Aroclor-1242	ND		0.047	0.019
Aroclor-1248	ND		0.047	0.019
Aroclor-1254	ND		0.047	0.019
Aroclor-1260	ND		0.047	0.019
Aroclor-1262	ND		0.047	0.019
Aroclor-1268	ND		0.047	0.019
PCBs	ND		0.047	0.019

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09161-006
Client ID: SB-6/11-
Date Received: 10/24/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: R0583.D 10/26/17 18:33

GC Column: DB-5/DB1701P
Sample wt/vol: 5.36g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.045	0.018
Aroclor-1221	ND		0.045	0.018
Aroclor-1232	ND		0.045	0.018
Aroclor-1242	ND		0.045	0.018
Aroclor-1248	ND		0.045	0.018
Aroclor-1254	ND		0.045	0.018
Aroclor-1260	ND		0.045	0.018
Aroclor-1262	ND		0.045	0.018
Aroclor-1268	ND		0.045	0.018
PCBs	ND		0.045	0.018

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS171026-07
Client ID: PCB
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: R0577.D 10/26/17 16:49

GC Column: DB-5/DB1701P
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

SAMPLE TRACKING

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AESI
Address: 5 MARINE VIEW PLAZA
Hoboken, NJ
Telephone #: (201) 656-9460
Fax #:
Project Manager: Sal DeLucia
EMAIL Address: sdelucia@solutionsenvironmental.com
Project Name: 27-10 49th AVE
Project Location (State): NJ
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by:

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☒ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☒ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 6 days
Hard Copy: Std 3 week
Other - call for price

Regulatory Requirement

New Jersey	New York
☐ GWQS	☒ AWQS (TOGS Table 1)
☐ IGW	☒ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☒ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (If other than 2 weeks):

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	BN's	PCBs						Sample Specific Notes:
SB-1	7.5-8	10/23/17	957	S	2	1	X	X							
SB-2	15.5-16		1036	S	2	2	X	X							
SB-3	14.0-15.5		1145	S	2	3	X	X							
SB-4	15.5-16.0		1240	S	1	4	X	X							
SB-5	13.0-13.5		1257	S	5	5	X	X	X						
SB-6	11.0-11.5		1345	S	5	6	X	X	X						
SB-7			1410	S	5	7	X	X							
SB-2			1330	GW	4	8	X	X							
Preservative (use code)							4/2+1		1						
Container Type (use code)							E	P/A	D						

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Special Instructions/QC Requirements & Comments:

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

FOR LAB USE ONLY
SDG #: 9161
Cooler Temp: ____ °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	10/24	1225		10/24/17	1226
	10/24/17	1650		10/24	1650

PAGE: 1 of 1

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IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-09161: 27-10 49TH AVE

To: Sal DeLucia
Atlantic Environmental Solutions, Inc.
Fax:
EMail: sdelucia@solutionsenvironmental.cc

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Sal DeLucia

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Sal DeLucia

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category A		Oct 24, 2017 @ 16:50	NA	Nov 01, 2017	Nov 14, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY TOGS Tbl5 (GWEL)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09161-001	SB-1	7.5/8	10/23/17@09:57	Soil	mg/Kg (ppm)	
09161-002	SB-2	15.5/16	10/23/17@10:36	Soil	mg/Kg (ppm)	
09161-003	SB-3	15/15.5	10/23/17@11:15	Soil	mg/Kg (ppm)	
09161-004	SB-4	15.5/16	10/23/17@12:00	Soil	mg/Kg (ppm)	
09161-005	SB-5	15/15.5	10/23/17@12:57	Soil	mg/Kg (ppm)	
09161-006	SB-6	11/11.5	10/23/17@13:45	Soil	mg/Kg (ppm)	
09161-007	SB-7	NA	10/23/17@14:10	Soil	mg/Kg (ppm)	
09161-008	SB-2	NA	10/23/17@13:30	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
002	TCL VO + 15	Analyze	8260C	RUSH 48 HRS	11/6/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	11/6/2017
003	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
004	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
005	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
	TCL PCB	Analyze	8082A	6 Business Days	10/23/2018
006	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
	TCL PCB	Analyze	8082A	6 Business Days	10/23/2018

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Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-09161: 27-10 49TH AVE

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
007	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
008	TCL VO + 15	Analyze	8260C	RUSH 48 HRS	11/6/2017
	TCL BN + SIM + 15	Analyze	8270D SIM	RUSH 48 HRS	10/30/2017

Project Notes:

NOTE 2 taken by Frank on 10/24/2017 05:51
SAMPLES 001 - 004 : TERRACORES

SAMPLES 005 - 007: 3 ENCORS RECEIVED - 1 INTO MEOH/2 INTO H2O

REV 1 taken by kim on 10/25/2017 10:32
REV 01 DUE 10/26

PER SEAMUS KELLY, CHANGE TURNAROUND FOR SAMPLES 002 & 008 TO 48 HOUR RUSH.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **09161** CLIENT: AESI 27-10

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY
✓ = YES/NA
✗ = NO

VOA received: ☒ Encore ☐ IGW - Methanol
(check one) ☒ Terra Core ☐ No Preservative

✓	Bottles Intact	5 - 7 - 25g ENCORES
✓	no-Missing Bottles	1 - 4 Terracore Kit
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL AW DATE 10/24

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☒

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL RG DATE 10/25/17

Laboratory Custody Chronicle

IAL Case No.

E17-09161

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 10/24/2017@16:50

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	09161-001	Soil	n/a	n/a	10/27/17	Mei
"	-002	"	n/a	n/a	10/25/17	Xing
"	-003	"	n/a	n/a	10/27/17	Xing
"	-004	"	n/a	n/a	11/ 1/17	Xing
"	-005	"	n/a	n/a	10/27/17	Xing
"	-006	"	n/a	n/a	10/27/17	Xing
"	-007	"	n/a	n/a	10/27/17	Mei
"	-008	Aqueous	n/a	n/a	10/25/17	Barbara

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + 15	-001	Soil	10/25/17	Frank L.	10/25/17	Eleanor
"	-002	"	10/25/17	Frank L.	10/25/17	Eleanor
"	-003	"	10/25/17	Frank L.	10/25/17	Eleanor
"	-004	"	10/25/17	Frank L.	10/25/17	Eleanor
"	-005	"	10/25/17	Frank L.	10/25/17	Eleanor
"	-006	"	10/25/17	Frank L.	10/25/17	Eleanor
"	-007	"	10/25/17	Frank L.	10/25/17	Eleanor
TCL BN + SIM + 15	-008	Aqueous	10/25/17	Frank L.	10/25/17	Donnie

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL PCB	-005	Soil	10/26/17	Archimede	10/28/17	Latha
"	-006	"	10/26/17	Archimede	10/28/17	Latha

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVE**
IAL Case Number: **E17-09175**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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Sample Summary

IAL Case No.

E17-09175

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 10/25/2017@16:15

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09175-001	SB-8	n/a	10/23/2017@14:35	Soil	5
09175-002	SB-9	n/a	10/23/2017@15:10	Soil	5
09175-003	SB-10	n/a	10/23/2017@15:26	Soil	5
09175-004	SB-11	n/a	10/24/2017	Soil	5
09175-005	SB-12	n/a	10/24/2017	Soil	5
09175-006	SB-13	n/a	10/24/2017	Soil	5
09175-007	SB-15	n/a	10/24/2017	Soil	5
09175-008	SB-19	n/a	10/24/2017	Soil	5
09175-009	SB-14	n/a	10/24/2017	Soil	5
09175-010	SB-16	n/a	10/24/2017	Soil	5
09175-011	SB-17	n/a	10/24/2017	Soil	5
09175-012	SB-18	n/a	10/24/2017	Soil	5
09175-013	SB-20	n/a	10/24/2017	Soil	3
09175-014	SB-15	n/a	10/24/2017	Multi-phasic	4
09175-015	SB-15-AQ PHASE	n/a	10/24/2017	Aqueous	
09175-016	SB-15 OIL PHASE	n/a	10/24/2017	Liquid	

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

Integrated Analytical Laboratories, LLC. received sixteen (16) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-09175**, Project: 27-10 49TH AVE) on October 25, 2017 for the analysis of :

(1) Low Level TCL VO for 8260+8011 + 15
(13) TCL VO + 15
(13) TCL BN + 15
(1) TCL BN + SIM + 15
(1) GC Fingerprint
(5) TCL PCB

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: 171027**	**Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-09175
- All samples were analyzed within holding time.
- Sample(s) used for aqueous volatiles analyses contained varying levels of sediment. Precautions were taken to take an aliquot representative of the sample. However, due to the nature of aqueous samples containing sediment, reproduction of results may prove difficult. The rough amount of sediment present in the samples is as follows: E17-09175-015:10%.
- very oily sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-015	5	Matrix Interference.

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

Volatiles By 8260C | **Batch: F171027-01** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09175
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-002	1	NA
E17-09175-003	1	NA
E17-09175-004	1	NA
E17-09175-005	1	NA
E17-09175-006	1	NA
E17-09175-010	1	NA
E17-09175-012	1	NA
E17-09175-013	1	NA

Volatiles By 8260C | **Batch: J171026-01** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-09175
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-007	50	Non-target compound(s).

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

Volatiles By 8260C **Batch: J171027-02;J171030-01** **Matrix: MEOH**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-09175
- All samples were analyzed within holding time.
- Samples listed below were run using methanol preserved sample, as applicable. This sample preservation technique elevates RLs and MDLs 100x versus water preservation. If subsequent dilutions are performed, the RLs and MDLs will increase by that factor (e.g. a methanol sample run at a 5x dilution would elevate RLs and MDLs by 500x). Initial runs using methanol are considered "straight" runs and have a dilution factor of 1.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-001	1	NA
E17-09175-008	1	NA
E17-09175-009	1	NA
E17-09175-011	1	NA

Semivolatiles By 8270D **Batch: 171025-09** **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09175
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- 09175-007: *double final volume.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-007	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

Semivolatiles By 8270D	Batch: 171026-01	Matrix: Soil

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09175
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-001	1	NA
E17-09175-002	2	Target compound(s).
E17-09175-003	1	NA
E17-09175-004	1	NA
E17-09175-005	1	NA
E17-09175-006	1	NA
E17-09175-008	1	NA
E17-09175-009	2	Target compound(s).
E17-09175-010	1	NA
E17-09175-011	1	NA
E17-09175-012	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

Semivolatiles By 8270D SIM | **Batch: 171026-02** | **Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD RPD met QC criteria.
- LCS/LCSD percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD were not analysed because of Dirty Matrix. All QC criteria were met by the analysis of the LCS/LCSD.

E17-09175
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- Sample(s) used for aqueous Semivolatiles analyses contained varying levels of sediment. Precautions were taken to take an aliquot representative of the sample. However, due to the nature of aqueous samples containing sediment, reproduction of results may prove difficult. The rough amount of sediment present in the samples is as follows: 09175-015:10%.
- 09175-015: SIM run not used due to over curve.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-015	1;10	Target compound(s).

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

Semivolatiles By 8270D | **Batch: 171027-02** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09175
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-013	2	Matrix Interference.

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

Microextractable By 8011 | **Batch: 171026-13** | **Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E17-09175
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-015	1	NA

PCB By 8082A | **Batch: 171025-10** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 007.

E17-09175
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-007	1	NA

PCB By 8082A | **Batch: 171026-14** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD percent recovery did not meet QC criteria due to matrix interference. NJDEP DKQP criteria not met.
- The following samples were cleaned up using method 3660B to remove sulfur: 004, 005, 006, 008.

E17-09175
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09175-004	1	NA
E17-09175-005	1	NA
E17-09175-006	1	NA
E17-09175-008	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09175

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:



Reviewed by

11/4/2017
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09175

Lab ID:	09175-001			09175-002			09175-003			09175-004		
Client ID:	SB-8			SB-9			SB-10			SB-11		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	10/23/17			10/23/17			10/23/17			10/24/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	ND		0.067	0.033		0.00116	ND		0.00153	0.032		0.00122
Carbon disulfide	ND		0.023	ND		0.000366	ND		0.000484	0.00891		0.000388
2-Butanone (MEK)	ND		0.083	0.00541		0.000581	ND		0.000768	ND		0.000615
Benzene	0.065		0.023	0.000811	J	0.000308	ND		0.000407	ND		0.000326
Trichloroethene	0.028		0.025	ND		0.00033	0.000696	J	0.000437	0.000523	J	0.00035
Toluene	0.032		0.019	ND		0.000381	ND		0.000504	ND		0.000404
Tetrachloroethene	0.268		0.023	ND		0.000302	0.0032		0.000399	0.015		0.00032
Total Xylenes	0.049	J	0.046	ND		0.000511	ND		0.000675	ND		0.000541
TOTAL VO's:	0.441	J		0.040	J		0.0039	J		0.057	J	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	0.441	J		0.040	J		0.0039	J		0.057	J	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	ND		0.033	0.133	D	0.068	0.066		0.031	0.055		0.036
2-Methylnaphthalene	ND		0.027	ND		0.055	0.053		0.025	ND		0.029
Acenaphthylene	ND		0.031	0.441	D	0.064	0.140		0.029	0.131		0.034
Acenaphthene	ND		0.034	ND		0.069	0.122		0.032	ND		0.037
Dibenzofuran	ND		0.033	ND		0.067	0.070		0.031	0.047		0.035
Fluorene	ND		0.034	0.075	DJ	0.070	0.095		0.032	0.043		0.037
Phenanthrene	0.111		0.035	0.590	D	0.071	1.43		0.033	0.877		0.038
Anthracene	ND		0.034	0.485	D	0.069	0.332		0.032	0.112		0.036
Carbazole	ND		0.030	0.072	DJ	0.061	0.118		0.028	0.064		0.032
Fluoranthene	0.196		0.032	6.37	D	0.066	2.02		0.030	1.24		0.035
Pyrene	0.206		0.031	8.20	D	0.064	1.89		0.029	1.19		0.034
Benzo[a]anthracene	0.102		0.033	5.92	D	0.067	1.12		0.031	0.584		0.036
Chrysene	0.103		0.033	5.13	D	0.067	1.13		0.031	0.711		0.035
Bis(2-ethylhexyl) phthalate	ND		0.024	ND		0.048	0.044		0.022	ND		0.026
Benzo[b]fluoranthene	0.053		0.031	3.59	D	0.063	0.687		0.029	0.366		0.033
Benzo[k]fluoranthene	0.064		0.032	3.56	D	0.065	0.708		0.030	0.435		0.035
Benzo[a]pyrene	0.067		0.031	4.31	D	0.064	0.752		0.029	0.428		0.034
Indeno[1,2,3-cd]pyrene	0.035	J	0.032	2.65	D	0.065	0.498		0.030	0.317		0.034
Dibenz[a,h]anthracene	ND		0.038	1.03	D	0.077	0.169		0.035	0.106		0.041
Benzo[g,h,i]perylene	0.044		0.035	2.98	D	0.071	0.619		0.032	0.326		0.037
TOTAL BN'S:	0.981	J		45.5	DJ		12.1			7.03		
TOTAL TIC's:	ND			15.5	DJN		2.48	JN		1.06	JN	
TOTAL BN'S & TIC's:	0.981	J		61.0	DJN		14.6	JN		8.09	JN	

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.
☼= See attached pages

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09175

Lab ID:	09175-001			09175-002			09175-003			09175-004		
Client ID:	SB-8			SB-9			SB-10			SB-11		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	10/23/17			10/23/17			10/23/17			10/24/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	~		~	~		~	~		~	ND		0.00944
Aroclor-1221	~		~	~		~	~		~	ND		0.00944
Aroclor-1232	~		~	~		~	~		~	ND		0.00944
Aroclor-1242	~		~	~		~	~		~	ND		0.00944
Aroclor-1248	~		~	~		~	~		~	ND		0.00944
Aroclor-1254	~		~	~		~	~		~	ND		0.00944
Aroclor-1260	~		~	~		~	~		~	ND		0.00944
Aroclor-1262	~		~	~		~	~		~	ND		0.00944
Aroclor-1268	~		~	~		~	~		~	ND		0.00944
PCBs	~		~	~		~	~		~	ND		0.00944

Lab ID:	09175-005			09175-006			09175-007			09175-008		
Client ID:	SB-12			SB-13			SB-15			SB-19		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	10/24/17			10/24/17			10/24/17			10/24/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.060		0.00154	ND		0.00165	ND		9.03	ND		0.097
Carbon disulfide	0.028		0.000487	0.00299		0.000524	ND		3.15	ND		0.034
2-Butanone (MEK)	ND		0.000772	ND		0.000831	ND		11.3	0.218		0.120
Trichloroethene	ND		0.00044	0.000735	J	0.000473	ND		3.35	ND		0.036
Toluene	0.000507	J	0.000507	ND		0.000546	ND		2.57	ND		0.028
Tetrachloroethene	0.012		0.000402	0.019		0.000433	ND		3.06	1.84		0.033
TOTAL VO's:	0.101	J		0.023	J		ND			2.06		
TOTAL TIC's:	ND			D			4050	DJN		27.4	JN	
TOTAL VO's & TIC's:	0.101	J		0.023	J		4050	DJN		29.5	JN	

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09175

Lab ID:	09175-005			09175-006			09175-007			09175-008		
Client ID:	SB-12			SB-13			SB-15			SB-19		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	10/24/17			10/24/17			10/24/17			10/24/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	ND		0.033	0.056		0.031	0.089		0.063	0.104		0.031
2-Methylnaphthalene	ND		0.026	0.033	J	0.025	0.133		0.050	0.104		0.025
Acenaphthylene	0.065		0.031	0.215		0.029	0.123		0.059	0.186		0.029
Acenaphthene	ND		0.033	0.042		0.032	0.069	J	0.064	0.174		0.032
Dibenzofuran	ND		0.032	0.076		0.030	0.077		0.062	0.136		0.030
Fluorene	ND		0.034	0.095		0.032	0.089		0.065	0.159		0.032
Phenanthrene	0.219		0.034	1.76		0.032	0.932		0.066	2.71		0.033
Anthracene	0.049		0.033	0.268		0.031	0.287		0.063	0.508		0.031
Carbazole	ND		0.029	0.162		0.028	0.120		0.056	0.191		0.028
Di-n-butyl phthalate	ND		0.028	ND		0.027	0.066	J	0.055	0.099		0.027
Fluoranthene	0.390		0.031	2.55		0.030	1.66		0.061	3.56		0.030
Pyrene	0.366		0.031	2.06		0.029	1.59		0.059	3.04		0.029
Butyl benzyl phthalate	ND		0.034	ND		0.033	ND		0.066	0.090		0.033
Benzo[a]anthracene	0.218		0.032	1.07		0.031	0.793		0.062	1.66		0.031
Chrysene	0.235		0.032	1.13		0.031	0.840		0.062	1.71		0.031
Bis(2-ethylhexyl) phthalate	ND		0.023	ND		0.022	1.36		0.044	0.678		0.022
Di-n-octyl phthalate	ND		0.032	ND		0.031	ND		0.063	0.048		0.031
Benzo[b]fluoranthene	0.160		0.030	0.584		0.029	0.453		0.058	0.980		0.029
Benzo[k]fluoranthene	0.157		0.031	0.806		0.030	0.538		0.060	0.943		0.030
Benzo[a]pyrene	0.140		0.030	0.722		0.029	0.563		0.059	1.09		0.029
Indeno[1,2,3-cd]pyrene	0.128		0.031	0.484		0.029	0.287		0.060	0.674		0.030
Dibenz[a,h]anthracene	0.049		0.037	0.143		0.035	0.098		0.071	0.212		0.035
Benzo[g,h,i]perylene	0.168		0.034	0.647		0.032	0.335		0.065	0.862		0.032
TOTAL BN'S:	2.34			12.9	J		10.5	J		19.9		
TOTAL TIC's:	ND			0.680	JN		192	JN		23.6	JN	
TOTAL BN'S & TIC's:	2.34			13.6	JN		203	JN		43.5	JN	
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1221	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1232	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1242	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1248	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1254	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1260	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1262	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
Aroclor-1268	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824
PCBs	ND		0.00871	ND		0.0085	ND		0.00837	ND		0.00824

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09175

Lab ID:	09175-009			09175-010			09175-011			09175-012		
Client ID:	SB-14			SB-16			SB-17			SB-18		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	10/24/17			10/24/17			10/24/17			10/24/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	ND		0.277	0.202		0.00114	ND		0.217	0.154		0.00183
Carbon disulfide	ND		0.097	0.00401		0.00036	ND		0.076	0.00324		0.00058
cis-1,2-Dichloroethene	ND		0.094	ND		0.000247	0.118		0.074	ND		0.000398
2-Butanone (MEK)	ND		0.346	0.014		0.000571	ND		0.271	0.025		0.00092
Benzene	ND		0.097	0.00141		0.000303	ND		0.076	ND		0.000488
Trichloroethene	0.956		0.103	ND		0.000325	0.198		0.080	ND		0.000524
Tetrachloroethene	10.9		0.094	ND		0.000297	2.66		0.074	ND		0.000479
Ethylbenzene	ND		0.072	0.000396	J	0.000283	ND		0.056	ND		0.000456
Methyl acetate	ND		0.101	0.011		0.000542	ND		0.079	ND		0.000873
Methylcyclohexane	ND		0.086	0.011		0.000241	ND		0.067	ND		0.000389
TOTAL VO's:	11.9			0.245	J		2.98			0.183		
TOTAL TIC's:	ND			0.526	JN		ND			ND		
TOTAL VO's & TIC's:	11.9			0.771	JN		2.98			0.183		
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	0.229	D	0.064	ND		0.036	ND		0.035	ND		0.047
2-Methylnaphthalene	0.125	D	0.051	ND		0.029	ND		0.028	ND		0.037
Acenaphthylene	0.223	D	0.060	ND		0.034	ND		0.033	ND		0.044
Acenaphthene	0.536	D	0.065	0.073		0.036	ND		0.035	ND		0.047
Dibenzofuran	0.339	D	0.062	ND		0.035	ND		0.034	ND		0.046
Fluorene	0.311	D	0.066	ND		0.037	ND		0.036	ND		0.048
Phenanthrene	5.45	D	0.067	0.229		0.037	0.068		0.036	ND		0.049
Anthracene	1.15	D	0.064	0.063		0.036	ND		0.035	ND		0.047
Carbazole	0.498	D	0.057	ND		0.032	ND		0.031	ND		0.041
Fluoranthene	5.81	D	0.062	0.227		0.034	0.076		0.033	ND		0.045
Pyrene	5.44	D	0.060	0.224		0.034	0.072		0.033	ND		0.044
Benzo[a]anthracene	2.87	D	0.063	0.135		0.035	0.046		0.034	ND		0.046
Chrysene	2.77	D	0.063	0.129		0.035	0.050		0.034	ND		0.046
Benzo[b]fluoranthene	1.55	D	0.059	0.069		0.033	ND		0.032	ND		0.043
Benzo[k]fluoranthene	1.67	D	0.061	0.066		0.034	ND		0.033	ND		0.045
Benzo[a]pyrene	1.97	D	0.060	0.088		0.033	ND		0.032	ND		0.044
Indeno[1,2,3-cd]pyrene	1.22	D	0.061	0.059		0.034	ND		0.033	ND		0.044
Dibenz[a,h]anthracene	0.370	D	0.072	ND		0.040	ND		0.039	ND		0.052
Benzo[g,h,i]perylene	1.52	D	0.066	0.073		0.037	ND		0.036	ND		0.048
TOTAL BN'S:	34.1	D		1.44			0.312			ND		
TOTAL TIC's:	11.1	DJN		ND			0.681	JN		ND		
TOTAL BN'S & TIC's:	45.2	DJN		1.44			0.993	JN		ND		

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09175

Lab ID:	**09175-013**		
Client ID:	**SB-20**		
Matrix:	**Soil**		
Sampled Date	**10/24/17**		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*		
Acetone	0.00782	J	0.00138
Tetrachloroethene	0.00181		0.000361
TOTAL VO's:	0.00963	J	
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	0.00963	J	
Semivolatiles - BN (Units)	*(mg/Kg)*		
Naphthalene	0.091	D	0.064
2-Methylnaphthalene	0.060	DJ	0.051
Acenaphthylene	0.323	D	0.060
Acenaphthene	0.158	D	0.064
Dibenzofuran	0.125	D	0.062
Fluorene	0.155	D	0.066
Phenanthrene	1.96	D	0.066
Anthracene	0.655	D	0.064
Carbazole	0.291	D	0.056
Fluoranthene	2.76	D	0.061
Pyrene	3.30	D	0.060
Benzo[a]anthracene	1.82	D	0.063
Chrysene	1.91	D	0.062
Benzo[b]fluoranthene	1.29	D	0.058
Benzo[k]fluoranthene	1.31	D	0.061
Benzo[a]pyrene	1.39	D	0.060
Indeno[1,2,3-cd]pyrene	1.04	D	0.060
Dibenz[a,h]anthracene	0.363	D	0.072
Benzo[g,h,i]perylene	1.35	D	0.066
TOTAL BN'S:	20.4	DJ	
TOTAL TIC's:	2.91	DJN	
TOTAL BN'S & TIC's:	23.3	DJN	

Lab ID:	**09175-014**			**09175-016**		
Client ID:	**SB-15**			**SB-15 OIL PHASE**		
Matrix:	**Multi-phasic**			**Liquid**		
Sampled Date	**10/24/17**			**10/24/17**		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
GC-Fingerprint (Units)	*(ug/L)*			*(mg/Kg)*		
GC-Fingerprint	~		~	☼		

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.
☼= See attached pages

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-001
Client ID: SB-8
Date Received: 10/25/2017
Date Analyzed: 10/30/2017
Data file: J1493.D 10/30/17 12:21

GC/MS Column: DB-624
Sample wt/vol: 0.118g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	0.065		0.025	0.023
Trichloroethene	0.028		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.02	4.93
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-001
Client ID: SB-8
Date Received: 10/25/2017
Date Analyzed: 10/30/2017
Data file: J1493.D 10/30/17 12:21

GC/MS Column: DB-624
Sample wt/vol: 0.118g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	0.032		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	0.268		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	0.049	J	0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017
Total Target Compounds (52):	0.441	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-001
Client ID: SB-8
Date Received: 10/25/2017
Date Analyzed: 10/30/2017
Date File: J1493.D

GC/MS Column: DB-624
Sample wt/vol: 0.118g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 15.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-002
Client ID: SB-9
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1473.D 10/27/17 19:39

GC/MS Column: DB-624
Sample wt/vol: 5.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00118	0.000277
Chloromethane	ND		0.00118	0.000218
Vinyl chloride	ND		0.00118	0.000218
Bromomethane	ND		0.00118	0.000352
Chloroethane	ND		0.00118	0.000313
Trichlorofluoromethane	ND		0.00118	0.000222
1,1-Dichloroethene	ND		0.00118	0.000445
Acetone	0.033		0.012	0.00116
Carbon disulfide	ND		0.00118	0.000366
Methylene chloride	ND		0.00236	0.00235
trans-1,2-Dichloroethene	ND		0.00118	0.000342
Methyl tert-butyl ether (MTBE)	ND		0.00118	0.000228
1,1-Dichloroethane	ND		0.00118	0.000229
cis-1,2-Dichloroethene	ND		0.00118	0.000251
2-Butanone (MEK)	0.00541		0.00236	0.000581
Bromochloromethane	ND		0.00118	0.000328
Chloroform	ND		0.00118	0.000248
1,1,1-Trichloroethane	ND		0.00118	0.000278
Carbon tetrachloride	ND		0.00118	0.00019
1,2-Dichloroethane (EDC)	ND		0.00118	0.000312
Benzene	0.000811	J	0.00118	0.000308
Trichloroethene	ND		0.00118	0.00033
1,2-Dichloropropane	ND		0.00118	0.000199
1,4-Dioxane	ND		0.236	0.042
Bromodichloromethane	ND		0.00118	0.000275
cis-1,3-Dichloropropene	ND		0.00118	0.000242
4-Methyl-2-pentanone (MIBK)	ND		0.00236	0.000683

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-002
Client ID: SB-9
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1473.D 10/27/17 19:39

GC/MS Column: DB-624
Sample wt/vol: 5.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00118	0.000381
trans-1,3-Dichloropropene	ND		0.00118	0.000273
1,1,2-Trichloroethane	ND		0.00118	0.000319
Tetrachloroethene	ND		0.00118	0.000302
2-Hexanone	ND		0.00236	0.00123
Dibromochloromethane	ND		0.00118	0.000221
1,2-Dibromoethane (EDB)	ND		0.00118	0.000209
Chlorobenzene	ND		0.00118	0.000266
Ethylbenzene	ND		0.00118	0.000288
Total Xylenes	ND		0.00236	0.000511
Styrene	ND		0.00118	0.000243
Bromoform	ND		0.00118	0.000339
Isopropylbenzene	ND		0.00118	0.000234
1,1,2,2-Tetrachloroethane	ND		0.00118	0.000317
1,3-Dichlorobenzene	ND		0.00118	0.000228
1,4-Dichlorobenzene	ND		0.00118	0.000202
1,2-Dichlorobenzene	ND		0.00118	0.000204
1,2-Dibromo-3-chloropropane	ND		0.00118	0.000319
1,2,4-Trichlorobenzene	ND		0.00118	0.000519
1,2,3-Trichlorobenzene	ND		0.00118	0.000568
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00236	0.000428
Methyl acetate	ND		0.00118	0.000551
Cyclohexane	ND		0.00118	0.000215
Methylcyclohexane	ND		0.00118	0.000245
1,3-Dichloropropene (cis- and trans-)	ND		0.00118	0.000273
Total Target Compounds (52):	0.040	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-002
Client ID: SB-9
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1473.D

GC/MS Column: DB-624
Sample wt/vol: 5.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.9

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-003
Client ID: SB-10
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1474.D 10/27/17 20:08

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00156	0.000367
Chloromethane	ND		0.00156	0.000289
Vinyl chloride	ND		0.00156	0.000289
Bromomethane	ND		0.00156	0.000465
Chloroethane	ND		0.00156	0.000413
Trichlorofluoromethane	ND		0.00156	0.000293
1,1-Dichloroethene	ND		0.00156	0.000588
Acetone	ND		0.016	0.00153
Carbon disulfide	ND		0.00156	0.000484
Methylene chloride	ND		0.00312	0.0031
trans-1,2-Dichloroethene	ND		0.00156	0.000452
Methyl tert-butyl ether (MTBE)	ND		0.00156	0.000301
1,1-Dichloroethane	ND		0.00156	0.000303
cis-1,2-Dichloroethene	ND		0.00156	0.000332
2-Butanone (MEK)	ND		0.00312	0.000768
Bromochloromethane	ND		0.00156	0.000434
Chloroform	ND		0.00156	0.000328
1,1,1-Trichloroethane	ND		0.00156	0.000368
Carbon tetrachloride	ND		0.00156	0.000251
1,2-Dichloroethane (EDC)	ND		0.00156	0.000412
Benzene	ND		0.00156	0.000407
Trichloroethene	0.000696	J	0.00156	0.000437
1,2-Dichloropropane	ND		0.00156	0.000264
1,4-Dioxane	ND		0.312	0.056
Bromodichloromethane	ND		0.00156	0.000363
cis-1,3-Dichloropropene	ND		0.00156	0.00032
4-Methyl-2-pentanone (MIBK)	ND		0.00312	0.000903

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-003
Client ID: SB-10
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1474.D 10/27/17 20:08

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00156	0.000504
trans-1,3-Dichloropropene	ND		0.00156	0.00036
1,1,2-Trichloroethane	ND		0.00156	0.000421
Tetrachloroethene	0.0032		0.00156	0.000399
2-Hexanone	ND		0.00312	0.00162
Dibromochloromethane	ND		0.00156	0.000292
1,2-Dibromoethane (EDB)	ND		0.00156	0.000276
Chlorobenzene	ND		0.00156	0.000351
Ethylbenzene	ND		0.00156	0.000381
Total Xylenes	ND		0.00312	0.000675
Styrene	ND		0.00156	0.000321
Bromoform	ND		0.00156	0.000448
Isopropylbenzene	ND		0.00156	0.000309
1,1,2,2-Tetrachloroethane	ND		0.00156	0.00042
1,3-Dichlorobenzene	ND		0.00156	0.000301
1,4-Dichlorobenzene	ND		0.00156	0.000267
1,2-Dichlorobenzene	ND		0.00156	0.00027
1,2-Dibromo-3-chloropropane	ND		0.00156	0.000421
1,2,4-Trichlorobenzene	ND		0.00156	0.000686
1,2,3-Trichlorobenzene	ND		0.00156	0.00075
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00312	0.000566
Methyl acetate	ND		0.00156	0.000729
Cyclohexane	ND		0.00156	0.000284
Methylcyclohexane	ND		0.00156	0.000324
1,3-Dichloropropene (cis- and trans-)	ND		0.00156	0.00036
Total Target Compounds (52):	0.0039	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-003
Client ID: SB-10
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1474.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1475.D 10/27/17 20:38

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00125	0.000294
Chloromethane	ND		0.00125	0.000231
Vinyl chloride	ND		0.00125	0.000231
Bromomethane	ND		0.00125	0.000373
Chloroethane	ND		0.00125	0.000331
Trichlorofluoromethane	ND		0.00125	0.000235
1,1-Dichloroethene	ND		0.00125	0.000471
Acetone	0.032		0.013	0.00122
Carbon disulfide	0.00891		0.00125	0.000388
Methylene chloride	ND		0.0025	0.00249
trans-1,2-Dichloroethene	ND		0.00125	0.000363
Methyl tert-butyl ether (MTBE)	ND		0.00125	0.000241
1,1-Dichloroethane	ND		0.00125	0.000243
cis-1,2-Dichloroethene	ND		0.00125	0.000266
2-Butanone (MEK)	ND		0.0025	0.000615
Bromochloromethane	ND		0.00125	0.000348
Chloroform	ND		0.00125	0.000263
1,1,1-Trichloroethane	ND		0.00125	0.000295
Carbon tetrachloride	ND		0.00125	0.000201
1,2-Dichloroethane (EDC)	ND		0.00125	0.00033
Benzene	ND		0.00125	0.000326
Trichloroethene	0.000523	J	0.00125	0.00035
1,2-Dichloropropane	ND		0.00125	0.000211
1,4-Dioxane	ND		0.250	0.045
Bromodichloromethane	ND		0.00125	0.000291
cis-1,3-Dichloropropene	ND		0.00125	0.000256
4-Methyl-2-pentanone (MIBK)	ND		0.0025	0.000724

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1475.D 10/27/17 20:38

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00125	0.000404
trans-1,3-Dichloropropene	ND		0.00125	0.000289
1,1,2-Trichloroethane	ND		0.00125	0.000338
Tetrachloroethene	0.015		0.00125	0.00032
2-Hexanone	ND		0.0025	0.0013
Dibromochloromethane	ND		0.00125	0.000234
1,2-Dibromoethane (EDB)	ND		0.00125	0.000221
Chlorobenzene	ND		0.00125	0.000281
Ethylbenzene	ND		0.00125	0.000305
Total Xylenes	ND		0.0025	0.000541
Styrene	ND		0.00125	0.000258
Bromoform	ND		0.00125	0.000359
Isopropylbenzene	ND		0.00125	0.000248
1,1,2,2-Tetrachloroethane	ND		0.00125	0.000336
1,3-Dichlorobenzene	ND		0.00125	0.000241
1,4-Dichlorobenzene	ND		0.00125	0.000214
1,2-Dichlorobenzene	ND		0.00125	0.000216
1,2-Dibromo-3-chloropropane	ND		0.00125	0.000338
1,2,4-Trichlorobenzene	ND		0.00125	0.00055
1,2,3-Trichlorobenzene	ND		0.00125	0.000601
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0025	0.000454
Methyl acetate	ND		0.00125	0.000584
Cyclohexane	ND		0.00125	0.000228
Methylcyclohexane	ND		0.00125	0.00026
1,3-Dichloropropene (cis- and trans-)	ND		0.00125	0.000289
Total Target Compounds (52):	0.057	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1475.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 19.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1476.D 10/27/17 21:07

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00157	0.000369
Chloromethane	ND		0.00157	0.00029
Vinyl chloride	ND		0.00157	0.00029
Bromomethane	ND		0.00157	0.000468
Chloroethane	ND		0.00157	0.000416
Trichlorofluoromethane	ND		0.00157	0.000295
1,1-Dichloroethene	ND		0.00157	0.000592
Acetone	0.060		0.016	0.00154
Carbon disulfide	0.028		0.00157	0.000487
Methylene chloride	ND		0.00314	0.00312
trans-1,2-Dichloroethene	ND		0.00157	0.000455
Methyl tert-butyl ether (MTBE)	ND		0.00157	0.000303
1,1-Dichloroethane	ND		0.00157	0.000305
cis-1,2-Dichloroethene	ND		0.00157	0.000334
2-Butanone (MEK)	ND		0.00314	0.000772
Bromochloromethane	ND		0.00157	0.000436
Chloroform	ND		0.00157	0.00033
1,1,1-Trichloroethane	ND		0.00157	0.000371
Carbon tetrachloride	ND		0.00157	0.000253
1,2-Dichloroethane (EDC)	ND		0.00157	0.000414
Benzene	ND		0.00157	0.00041
Trichloroethene	ND		0.00157	0.00044
1,2-Dichloropropane	ND		0.00157	0.000265
1,4-Dioxane	ND		0.314	0.056
Bromodichloromethane	ND		0.00157	0.000366
cis-1,3-Dichloropropene	ND		0.00157	0.000322
4-Methyl-2-pentanone (MIBK)	ND		0.00314	0.000909

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1476.D 10/27/17 21:07

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	0.000507	J	0.00157	0.000507
trans-1,3-Dichloropropene	ND		0.00157	0.000363
1,1,2-Trichloroethane	ND		0.00157	0.000424
Tetrachloroethene	0.012		0.00157	0.000402
2-Hexanone	ND		0.00314	0.00163
Dibromochloromethane	ND		0.00157	0.000294
1,2-Dibromoethane (EDB)	ND		0.00157	0.000278
Chlorobenzene	ND		0.00157	0.000353
Ethylbenzene	ND		0.00157	0.000383
Total Xylenes	ND		0.00314	0.00068
Styrene	ND		0.00157	0.000323
Bromoform	ND		0.00157	0.000451
Isopropylbenzene	ND		0.00157	0.000311
1,1,2,2-Tetrachloroethane	ND		0.00157	0.000422
1,3-Dichlorobenzene	ND		0.00157	0.000303
1,4-Dichlorobenzene	ND		0.00157	0.000268
1,2-Dichlorobenzene	ND		0.00157	0.000272
1,2-Dibromo-3-chloropropane	ND		0.00157	0.000424
1,2,4-Trichlorobenzene	ND		0.00157	0.000691
1,2,3-Trichlorobenzene	ND		0.00157	0.000755
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00314	0.00057
Methyl acetate	ND		0.00157	0.000733
Cyclohexane	ND		0.00157	0.000286
Methylcyclohexane	ND		0.00157	0.000327
1,3-Dichloropropene (cis- and trans-)	ND		0.00157	0.000363
Total Target Compounds (52):	0.101	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1476.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1477.D 10/27/17 21:36

GC/MS Column: DB-624
Sample wt/vol: 3.3g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00169	0.000397
Chloromethane	ND		0.00169	0.000313
Vinyl chloride	ND		0.00169	0.000313
Bromomethane	ND		0.00169	0.000504
Chloroethane	ND		0.00169	0.000448
Trichlorofluoromethane	ND		0.00169	0.000318
1,1-Dichloroethene	ND		0.00169	0.000637
Acetone	ND		0.017	0.00165
Carbon disulfide	0.00299		0.00169	0.000524
Methylene chloride	ND		0.00338	0.00336
trans-1,2-Dichloroethene	ND		0.00169	0.00049
Methyl tert-butyl ether (MTBE)	ND		0.00169	0.000326
1,1-Dichloroethane	ND		0.00169	0.000328
cis-1,2-Dichloroethene	ND		0.00169	0.00036
2-Butanone (MEK)	ND		0.00338	0.000831
Bromochloromethane	ND		0.00169	0.00047
Chloroform	ND		0.00169	0.000355
1,1,1-Trichloroethane	ND		0.00169	0.000399
Carbon tetrachloride	ND		0.00169	0.000272
1,2-Dichloroethane (EDC)	ND		0.00169	0.000446
Benzene	ND		0.00169	0.000441
Trichloroethene	0.000735	J	0.00169	0.000473
1,2-Dichloropropane	ND		0.00169	0.000286
1,4-Dioxane	ND		0.338	0.061
Bromodichloromethane	ND		0.00169	0.000394
cis-1,3-Dichloropropene	ND		0.00169	0.000346
4-Methyl-2-pentanone (MIBK)	ND		0.00338	0.000979

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1477.D 10/27/17 21:36

GC/MS Column: DB-624
Sample wt/vol: 3.3g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00169	0.000546
trans-1,3-Dichloropropene	ND		0.00169	0.00039
1,1,2-Trichloroethane	ND		0.00169	0.000456
Tetrachloroethene	0.019		0.00169	0.000433
2-Hexanone	ND		0.00338	0.00176
Dibromochloromethane	ND		0.00169	0.000316
1,2-Dibromoethane (EDB)	ND		0.00169	0.000299
Chlorobenzene	ND		0.00169	0.00038
Ethylbenzene	ND		0.00169	0.000412
Total Xylenes	ND		0.00338	0.000732
Styrene	ND		0.00169	0.000348
Bromoform	ND		0.00169	0.000485
Isopropylbenzene	ND		0.00169	0.000335
1,1,2,2-Tetrachloroethane	ND		0.00169	0.000455
1,3-Dichlorobenzene	ND		0.00169	0.000326
1,4-Dichlorobenzene	ND		0.00169	0.000289
1,2-Dichlorobenzene	ND		0.00169	0.000292
1,2-Dibromo-3-chloropropane	ND		0.00169	0.000456
1,2,4-Trichlorobenzene	ND		0.00169	0.000744
1,2,3-Trichlorobenzene	ND		0.00169	0.000813
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00338	0.000613
Methyl acetate	ND		0.00169	0.000789
Cyclohexane	ND		0.00169	0.000308
Methylcyclohexane	ND		0.00169	0.000352
1,3-Dichloropropene (cis- and trans-)	ND		0.00169	0.00039
Total Target Compounds (52):	0.023	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1477.D

GC/MS Column: DB-624
Sample wt/vol: 3.3g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Analyzed: 10/26/2017
Data file: J1422.D 10/26/17 21:27

GC/MS Column: DB-624
Sample wt/vol: 0.0008g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.90
Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		6.79	4.49
Chloromethane	ND		3.39	3.14
Vinyl chloride	ND		6.79	4.01
Bromomethane	ND		6.79	3.69
Chloroethane	ND		3.39	3.36
Trichlorofluoromethane	ND		3.39	2.94
1,1-Dichloroethene	ND		3.39	3.35
Acetone	ND		13.6	9.03
Carbon disulfide	ND		3.39	3.15
Methylene chloride	ND		6.79	6.72
trans-1,2-Dichloroethene	ND		3.39	3.08
Methyl tert-butyl ether (MTBE)	ND		3.39	3.25
1,1-Dichloroethane	ND		3.39	3.35
cis-1,2-Dichloroethene	ND		3.39	3.06
2-Butanone (MEK)	ND		13.6	11.3
Bromochloromethane	ND		6.79	4.04
Chloroform	ND		3.39	3.18
1,1,1-Trichloroethane	ND		3.39	3.14
Carbon tetrachloride	ND		6.79	3.05
1,2-Dichloroethane (EDC)	ND		3.39	3.11
Benzene	ND		3.39	3.15
Trichloroethene	ND		3.39	3.35
1,2-Dichloropropane	ND		3.39	3.03
1,4-Dioxane	ND		679	668
Bromodichloromethane	ND		3.39	2.40
cis-1,3-Dichloropropene	ND		3.39	2.25
4-Methyl-2-pentanone (MIBK)	ND		13.6	4.74

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Analyzed: 10/26/2017
Data file: J1422.D 10/26/17 21:27

GC/MS Column: DB-624
Sample wt/vol: 0.0008g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.90
Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Toluene	ND		3.39	2.57
trans-1,3-Dichloropropene	ND		3.39	2.18
1,1,2-Trichloroethane	ND		3.39	3.21
Tetrachloroethene	ND		3.39	3.06
2-Hexanone	ND		13.6	5.16
Dibromochloromethane	ND		3.39	3.00
1,2-Dibromoethane (EDB)	ND		3.39	2.73
Chlorobenzene	ND		3.39	2.55
Ethylbenzene	ND		3.39	2.33
Total Xylenes	ND		6.79	6.26
Styrene	ND		3.39	1.97
Bromoform	ND		3.39	3.02
Isopropylbenzene	ND		3.39	2.19
1,1,2,2-Tetrachloroethane	ND		3.39	3.11
1,3-Dichlorobenzene	ND		3.39	2.38
1,4-Dichlorobenzene	ND		3.39	2.31
1,2-Dichlorobenzene	ND		3.39	2.47
1,2-Dibromo-3-chloropropane	ND		6.79	3.62
1,2,4-Trichlorobenzene	ND		6.79	2.06
1,2,3-Trichlorobenzene	ND		6.79	2.30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.79	3.82
Methyl acetate	ND		3.39	3.29
Cyclohexane	ND		6.79	2.79
Methylcyclohexane	ND		3.39	2.79
1,3-Dichloropropene (cis- and trans-)	ND		3.39	2.25

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Analyzed: 10/26/2017
Date File: J1422.D

GC/MS Column: DB-624
Sample wt/vol: 0.0008g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 50
% Moisture: 7.90

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	212	DJ	13.01
002847-72-5	Decane, 4-methyl-	134	DJN	13.06
	Unknown Hydrocarbon	193	DJ	13.11
	Unknown Hydrocarbon	519	DJ	13.22
	Unknown Hydrocarbon	201	DJ	13.35
	Unknown Hydrocarbon	287	DJ	13.46
	Unknown Hydrocarbon	202	DJ	13.61
	Unknown Hydrocarbon	415	DJ	13.70
	Unknown Hydrocarbon	193	DJ	13.83
	Unknown Hydrocarbon	253	DJ	13.88
	Unknown Hydrocarbon	140	DJ	13.95
055162-61-3	Tetracontane, 3,5,24-trimethyl-	197	DJN	14.03
002958-76-1	Naphthalene, decahydro-2-methyl-	211	DJN	14.23
	Unknown Hydrocarbon	753	DJ	14.34
	Unknown Hydrocarbon	136	DJ	14.58

Total TICs = 4050 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Data file: J1473.D 10/28/17 06:48

GC/MS Column: DB-624
Sample wt/vol: 0.076g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.30
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.073	0.048
Chloromethane	ND		0.036	0.034
Vinyl chloride	ND		0.073	0.043
Bromomethane	ND		0.073	0.040
Chloroethane	ND		0.036	0.036
Trichlorofluoromethane	ND		0.036	0.031
1,1-Dichloroethene	ND		0.036	0.036
Acetone	ND		0.145	0.097
Carbon disulfide	ND		0.036	0.034
Methylene chloride	ND		0.073	0.072
trans-1,2-Dichloroethene	ND		0.036	0.033
Methyl tert-butyl ether (MTBE)	ND		0.036	0.035
1,1-Dichloroethane	ND		0.036	0.036
cis-1,2-Dichloroethene	ND		0.036	0.033
2-Butanone (MEK)	0.218		0.145	0.120
Bromochloromethane	ND		0.073	0.043
Chloroform	ND		0.036	0.034
1,1,1-Trichloroethane	ND		0.036	0.034
Carbon tetrachloride	ND		0.073	0.033
1,2-Dichloroethane (EDC)	ND		0.036	0.033
Benzene	ND		0.036	0.034
Trichloroethene	ND		0.036	0.036
1,2-Dichloropropane	ND		0.036	0.032
1,4-Dioxane	ND		7.25	7.14
Bromodichloromethane	ND		0.036	0.026
cis-1,3-Dichloropropene	ND		0.036	0.024
4-Methyl-2-pentanone (MIBK)	ND		0.145	0.051

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Data file: J1473.D 10/28/17 06:48

GC/MS Column: DB-624
Sample wt/vol: 0.076g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.30
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.036	0.028
trans-1,3-Dichloropropene	ND		0.036	0.023
1,1,2-Trichloroethane	ND		0.036	0.034
Tetrachloroethene	1.84		0.036	0.033
2-Hexanone	ND		0.145	0.055
Dibromochloromethane	ND		0.036	0.032
1,2-Dibromoethane (EDB)	ND		0.036	0.029
Chlorobenzene	ND		0.036	0.027
Ethylbenzene	ND		0.036	0.025
Total Xylenes	ND		0.073	0.067
Styrene	ND		0.036	0.021
Bromoform	ND		0.036	0.032
Isopropylbenzene	ND		0.036	0.023
1,1,2,2-Tetrachloroethane	ND		0.036	0.033
1,3-Dichlorobenzene	ND		0.036	0.026
1,4-Dichlorobenzene	ND		0.036	0.025
1,2-Dichlorobenzene	ND		0.036	0.026
1,2-Dibromo-3-chloropropane	ND		0.073	0.039
1,2,4-Trichlorobenzene	ND		0.073	0.022
1,2,3-Trichlorobenzene	ND		0.073	0.025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.073	0.041
Methyl acetate	ND		0.036	0.035
Cyclohexane	ND		0.073	0.030
Methylcyclohexane	ND		0.036	0.030
1,3-Dichloropropene (cis- and trans-)	ND		0.036	0.024
Total Target Compounds (52):	2.06			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Date File: J1473.D

GC/MS Column: DB-624
Sample wt/vol: 0.076g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.30

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	0.747	J	13.01
	Unknown Hydrocarbon	0.820	J	13.10
013151-34-3	Decane, 3-methyl-	2.21	JN	13.21
	Unknown Hydrocarbon	0.841	J	13.35
	Unknown Hydrocarbon	1.03	J	13.46
003728-54-9	Cyclohexane, 1-ethyl-2-methyl-	0.885	JN	13.61
	Unknown Hydrocarbon	1.82	J	13.71
	Unknown Hydrocarbon	6.44	J	13.87
	Unknown Hydrocarbon	1.04	J	13.95
	Unknown Hydrocarbon	1.90	J	14.03
002958-76-1	Naphthalene, decahydro-2-methyl-	0.943	JN	14.23
	Unknown Hydrocarbon	5.06	J	14.34
	Unknown Hydrocarbon	1.36	J	14.43
	Unknown Hydrocarbon	1.33	J	14.58
	Unknown Hydrocarbon	0.972	J	14.95

Total TICs = 27.4 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-009
Client ID: SB-14
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Data file: J1472.D 10/28/17 06:22

GC/MS Column: DB-624
Sample wt/vol: 0.027g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.208	0.138
Chloromethane	ND		0.104	0.096
Vinyl chloride	ND		0.208	0.123
Bromomethane	ND		0.208	0.113
Chloroethane	ND		0.104	0.103
Trichlorofluoromethane	ND		0.104	0.090
1,1-Dichloroethene	ND		0.104	0.103
Acetone	ND		0.417	0.277
Carbon disulfide	ND		0.104	0.097
Methylene chloride	ND		0.208	0.206
trans-1,2-Dichloroethene	ND		0.104	0.095
Methyl tert-butyl ether (MTBE)	ND		0.104	0.100
1,1-Dichloroethane	ND		0.104	0.103
cis-1,2-Dichloroethene	ND		0.104	0.094
2-Butanone (MEK)	ND		0.417	0.346
Bromochloromethane	ND		0.208	0.124
Chloroform	ND		0.104	0.098
1,1,1-Trichloroethane	ND		0.104	0.096
Carbon tetrachloride	ND		0.208	0.094
1,2-Dichloroethane (EDC)	ND		0.104	0.095
Benzene	ND		0.104	0.097
Trichloroethene	0.956		0.104	0.103
1,2-Dichloropropane	ND		0.104	0.093
1,4-Dioxane	ND		20.8	20.5
Bromodichloromethane	ND		0.104	0.074
cis-1,3-Dichloropropene	ND		0.104	0.069
4-Methyl-2-pentanone (MIBK)	ND		0.417	0.146

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-009
Client ID: SB-14
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Data file: J1472.D 10/28/17 06:22

GC/MS Column: DB-624
Sample wt/vol: 0.027g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.104	0.079
trans-1,3-Dichloropropene	ND		0.104	0.067
1,1,2-Trichloroethane	ND		0.104	0.099
Tetrachloroethene	10.9		0.104	0.094
2-Hexanone	ND		0.417	0.159
Dibromochloromethane	ND		0.104	0.092
1,2-Dibromoethane (EDB)	ND		0.104	0.084
Chlorobenzene	ND		0.104	0.078
Ethylbenzene	ND		0.104	0.072
Total Xylenes	ND		0.208	0.192
Styrene	ND		0.104	0.060
Bromoform	ND		0.104	0.093
Isopropylbenzene	ND		0.104	0.067
1,1,2,2-Tetrachloroethane	ND		0.104	0.095
1,3-Dichlorobenzene	ND		0.104	0.073
1,4-Dichlorobenzene	ND		0.104	0.071
1,2-Dichlorobenzene	ND		0.104	0.076
1,2-Dibromo-3-chloropropane	ND		0.208	0.111
1,2,4-Trichlorobenzene	ND		0.208	0.063
1,2,3-Trichlorobenzene	ND		0.208	0.071
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.208	0.117
Methyl acetate	ND		0.104	0.101
Cyclohexane	ND		0.208	0.086
Methylcyclohexane	ND		0.104	0.086
1,3-Dichloropropene (cis- and trans-)	ND		0.104	0.069
Total Target Compounds (52):	11.9			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-009
Client ID: SB-14
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Date File: J1472.D

GC/MS Column: DB-624
Sample wt/vol: 0.027g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.1

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-010
Client ID: SB-16
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1478.D 10/27/17 22:06

GC/MS Column: DB-624
Sample wt/vol: 5.3g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00116	0.000273
Chloromethane	ND		0.00116	0.000215
Vinyl chloride	ND		0.00116	0.000215
Bromomethane	ND		0.00116	0.000346
Chloroethane	ND		0.00116	0.000307
Trichlorofluoromethane	ND		0.00116	0.000218
1,1-Dichloroethene	ND		0.00116	0.000437
Acetone	0.202		0.012	0.00114
Carbon disulfide	0.00401		0.00116	0.00036
Methylene chloride	ND		0.00232	0.00231
trans-1,2-Dichloroethene	ND		0.00116	0.000336
Methyl tert-butyl ether (MTBE)	ND		0.00116	0.000224
1,1-Dichloroethane	ND		0.00116	0.000225
cis-1,2-Dichloroethene	ND		0.00116	0.000247
2-Butanone (MEK)	0.014		0.00232	0.000571
Bromochloromethane	ND		0.00116	0.000322
Chloroform	ND		0.00116	0.000244
1,1,1-Trichloroethane	ND		0.00116	0.000274
Carbon tetrachloride	ND		0.00116	0.000187
1,2-Dichloroethane (EDC)	ND		0.00116	0.000306
Benzene	0.00141		0.00116	0.000303
Trichloroethene	ND		0.00116	0.000325
1,2-Dichloropropane	ND		0.00116	0.000196
1,4-Dioxane	ND		0.232	0.042
Bromodichloromethane	ND		0.00116	0.00027
cis-1,3-Dichloropropene	ND		0.00116	0.000238
4-Methyl-2-pentanone (MIBK)	ND		0.00232	0.000672

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-010
Client ID: SB-16
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1478.D 10/27/17 22:06

GC/MS Column: DB-624
Sample wt/vol: 5.3g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00116	0.000375
trans-1,3-Dichloropropene	ND		0.00116	0.000268
1,1,2-Trichloroethane	ND		0.00116	0.000313
Tetrachloroethene	ND		0.00116	0.000297
2-Hexanone	ND		0.00232	0.00121
Dibromochloromethane	ND		0.00116	0.000217
1,2-Dibromoethane (EDB)	ND		0.00116	0.000205
Chlorobenzene	ND		0.00116	0.000261
Ethylbenzene	0.000396	J	0.00116	0.000283
Total Xylenes	ND		0.00232	0.000502
Styrene	ND		0.00116	0.000239
Bromoform	ND		0.00116	0.000333
Isopropylbenzene	ND		0.00116	0.00023
1,1,2,2-Tetrachloroethane	ND		0.00116	0.000312
1,3-Dichlorobenzene	ND		0.00116	0.000224
1,4-Dichlorobenzene	ND		0.00116	0.000198
1,2-Dichlorobenzene	ND		0.00116	0.000201
1,2-Dibromo-3-chloropropane	ND		0.00116	0.000313
1,2,4-Trichlorobenzene	ND		0.00116	0.00051
1,2,3-Trichlorobenzene	ND		0.00116	0.000558
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00232	0.000421
Methyl acetate	0.011		0.00116	0.000542
Cyclohexane	ND		0.00116	0.000211
Methylcyclohexane	0.011		0.00116	0.000241
1,3-Dichloropropene (cis- and trans-)	ND		0.00116	0.000268
Total Target Compounds (52):	0.245	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-010
Client ID: SB-16
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1478.D

GC/MS Column: DB-624
Sample wt/vol: 5.3g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 18.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
001678-92-8	Cyclohexane, propyl-	0.035	JN	11.26
	Unknown Hydrocarbon	0.025	J	11.80
	Unknown VOA	0.024	J	12.79
001678-93-9	Cyclohexane, butyl-	0.035	JN	12.88
	Unknown Aromatic	0.045	J	13.35
000493-02-7	Naphthalene, decahydro-, trans-	0.042	JN	13.46
001074-55-1	Benzene, 1-methyl-4-propyl-	0.039	JN	13.69
002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	0.030	JN	13.92
007525-62-4	Benzene, 1-ethenyl-3-ethyl-	0.043	JN	14.06
002958-76-1	Naphthalene, decahydro-2-methyl-	0.032	JN	14.25
029949-27-7	n-Amylcyclohexane	0.022	JN	14.35
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	0.026	JN	14.41
003454-07-7	Benzene, 1-ethenyl-4-ethyl-	0.070	JN	14.96
	Unknown Aromatic	0.028	J	15.14
004912-92-9	1H-Indene, 2,3-dihydro-1,1-dimethyl-	0.032	JN	15.49

Total TICs = 0.526 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-011
Client ID: SB-17
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Data file: J1470.D 10/28/17 05:28

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.163	0.108
Chloromethane	ND		0.082	0.076
Vinyl chloride	ND		0.163	0.096
Bromomethane	ND		0.163	0.089
Chloroethane	ND		0.082	0.081
Trichlorofluoromethane	ND		0.082	0.071
1,1-Dichloroethene	ND		0.082	0.080
Acetone	ND		0.326	0.217
Carbon disulfide	ND		0.082	0.076
Methylene chloride	ND		0.163	0.161
trans-1,2-Dichloroethene	ND		0.082	0.074
Methyl tert-butyl ether (MTBE)	ND		0.082	0.078
1,1-Dichloroethane	ND		0.082	0.080
cis-1,2-Dichloroethene	0.118		0.082	0.074
2-Butanone (MEK)	ND		0.326	0.271
Bromochloromethane	ND		0.163	0.097
Chloroform	ND		0.082	0.077
1,1,1-Trichloroethane	ND		0.082	0.075
Carbon tetrachloride	ND		0.163	0.073
1,2-Dichloroethane (EDC)	ND		0.082	0.075
Benzene	ND		0.082	0.076
Trichloroethene	0.198		0.082	0.080
1,2-Dichloropropane	ND		0.082	0.073
1,4-Dioxane	ND		16.3	16.0
Bromodichloromethane	ND		0.082	0.058
cis-1,3-Dichloropropene	ND		0.082	0.054
4-Methyl-2-pentanone (MIBK)	ND		0.326	0.114

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-011
Client ID: SB-17
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Data file: J1470.D 10/28/17 05:28

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.082	0.062
trans-1,3-Dichloropropene	ND		0.082	0.052
1,1,2-Trichloroethane	ND		0.082	0.077
Tetrachloroethene	2.66		0.082	0.074
2-Hexanone	ND		0.326	0.124
Dibromochloromethane	ND		0.082	0.072
1,2-Dibromoethane (EDB)	ND		0.082	0.066
Chlorobenzene	ND		0.082	0.061
Ethylbenzene	ND		0.082	0.056
Total Xylenes	ND		0.163	0.150
Styrene	ND		0.082	0.047
Bromoform	ND		0.082	0.073
Isopropylbenzene	ND		0.082	0.053
1,1,2,2-Tetrachloroethane	ND		0.082	0.075
1,3-Dichlorobenzene	ND		0.082	0.057
1,4-Dichlorobenzene	ND		0.082	0.056
1,2-Dichlorobenzene	ND		0.082	0.059
1,2-Dibromo-3-chloropropane	ND		0.163	0.087
1,2,4-Trichlorobenzene	ND		0.163	0.050
1,2,3-Trichlorobenzene	ND		0.163	0.055
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.163	0.092
Methyl acetate	ND		0.082	0.079
Cyclohexane	ND		0.163	0.067
Methylcyclohexane	ND		0.082	0.067
1,3-Dichloropropene (cis- and trans-)	ND		0.082	0.054
Total Target Compounds (52):	2.98			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-011
Client ID: SB-17
Date Received: 10/25/2017
Date Analyzed: 10/28/2017
Date File: J1470.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 19.3

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-012
Client ID: SB-18
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1479.D 10/27/17 22:35

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 39.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00187	0.000439
Chloromethane	ND		0.00187	0.000346
Vinyl chloride	ND		0.00187	0.000346
Bromomethane	ND		0.00187	0.000557
Chloroethane	ND		0.00187	0.000496
Trichlorofluoromethane	ND		0.00187	0.000352
1,1-Dichloroethene	ND		0.00187	0.000705
Acetone	0.154		0.019	0.00183
Carbon disulfide	0.00324		0.00187	0.00058
Methylene chloride	ND		0.00374	0.00372
trans-1,2-Dichloroethene	ND		0.00187	0.000542
Methyl tert-butyl ether (MTBE)	ND		0.00187	0.000361
1,1-Dichloroethane	ND		0.00187	0.000363
cis-1,2-Dichloroethene	ND		0.00187	0.000398
2-Butanone (MEK)	0.025		0.00374	0.00092
Bromochloromethane	ND		0.00187	0.00052
Chloroform	ND		0.00187	0.000393
1,1,1-Trichloroethane	ND		0.00187	0.000441
Carbon tetrachloride	ND		0.00187	0.000301
1,2-Dichloroethane (EDC)	ND		0.00187	0.000494
Benzene	ND		0.00187	0.000488
Trichloroethene	ND		0.00187	0.000524
1,2-Dichloropropane	ND		0.00187	0.000316
1,4-Dioxane	ND		0.374	0.067
Bromodichloromethane	ND		0.00187	0.000436
cis-1,3-Dichloropropene	ND		0.00187	0.000383
4-Methyl-2-pentanone (MIBK)	ND		0.00374	0.00108

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-012
Client ID: SB-18
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1479.D 10/27/17 22:35

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 39.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00187	0.000604
trans-1,3-Dichloropropene	ND		0.00187	0.000432
1,1,2-Trichloroethane	ND		0.00187	0.000505
Tetrachloroethene	ND		0.00187	0.000479
2-Hexanone	ND		0.00374	0.00195
Dibromochloromethane	ND		0.00187	0.00035
1,2-Dibromoethane (EDB)	ND		0.00187	0.000331
Chlorobenzene	ND		0.00187	0.000421
Ethylbenzene	ND		0.00187	0.000456
Total Xylenes	ND		0.00374	0.00081
Styrene	ND		0.00187	0.000385
Bromoform	ND		0.00187	0.000537
Isopropylbenzene	ND		0.00187	0.00037
1,1,2,2-Tetrachloroethane	ND		0.00187	0.000503
1,3-Dichlorobenzene	ND		0.00187	0.000361
1,4-Dichlorobenzene	ND		0.00187	0.00032
1,2-Dichlorobenzene	ND		0.00187	0.000324
1,2-Dibromo-3-chloropropane	ND		0.00187	0.000505
1,2,4-Trichlorobenzene	ND		0.00187	0.000823
1,2,3-Trichlorobenzene	ND		0.00187	0.000899
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00374	0.000679
Methyl acetate	ND		0.00187	0.000873
Cyclohexane	ND		0.00187	0.00034
Methylcyclohexane	ND		0.00187	0.000389
1,3-Dichloropropene (cis- and trans-)	ND		0.00187	0.000432

Total Target Compounds (52): 0.183

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-012
Client ID: SB-18
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1479.D

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 39.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-013
Client ID: SB-20
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1480.D 10/27/17 23:04

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00141	0.000331
Chloromethane	ND		0.00141	0.000261
Vinyl chloride	ND		0.00141	0.000261
Bromomethane	ND		0.00141	0.00042
Chloroethane	ND		0.00141	0.000374
Trichlorofluoromethane	ND		0.00141	0.000265
1,1-Dichloroethene	ND		0.00141	0.000532
Acetone	0.00782	J	0.014	0.00138
Carbon disulfide	ND		0.00141	0.000437
Methylene chloride	ND		0.00282	0.00281
trans-1,2-Dichloroethene	ND		0.00141	0.000409
Methyl tert-butyl ether (MTBE)	ND		0.00141	0.000272
1,1-Dichloroethane	ND		0.00141	0.000274
cis-1,2-Dichloroethene	ND		0.00141	0.0003
2-Butanone (MEK)	ND		0.00282	0.000694
Bromochloromethane	ND		0.00141	0.000392
Chloroform	ND		0.00141	0.000296
1,1,1-Trichloroethane	ND		0.00141	0.000333
Carbon tetrachloride	ND		0.00141	0.000227
1,2-Dichloroethane (EDC)	ND		0.00141	0.000372
Benzene	ND		0.00141	0.000368
Trichloroethene	ND		0.00141	0.000395
1,2-Dichloropropane	ND		0.00141	0.000238
1,4-Dioxane	ND		0.282	0.051
Bromodichloromethane	ND		0.00141	0.000329
cis-1,3-Dichloropropene	ND		0.00141	0.000289
4-Methyl-2-pentanone (MIBK)	ND		0.00282	0.000816

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-013
Client ID: SB-20
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: F1480.D 10/27/17 23:04

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00141	0.000455
trans-1,3-Dichloropropene	ND		0.00141	0.000326
1,1,2-Trichloroethane	ND		0.00141	0.000381
Tetrachloroethene	0.00181		0.00141	0.000361
2-Hexanone	ND		0.00282	0.00147
Dibromochloromethane	ND		0.00141	0.000264
1,2-Dibromoethane (EDB)	ND		0.00141	0.00025
Chlorobenzene	ND		0.00141	0.000317
Ethylbenzene	ND		0.00141	0.000344
Total Xylenes	ND		0.00282	0.000611
Styrene	ND		0.00141	0.00029
Bromoform	ND		0.00141	0.000405
Isopropylbenzene	ND		0.00141	0.000279
1,1,2,2-Tetrachloroethane	ND		0.00141	0.000379
1,3-Dichlorobenzene	ND		0.00141	0.000272
1,4-Dichlorobenzene	ND		0.00141	0.000241
1,2-Dichlorobenzene	ND		0.00141	0.000244
1,2-Dibromo-3-chloropropane	ND		0.00141	0.000381
1,2,4-Trichlorobenzene	ND		0.00141	0.00062
1,2,3-Trichlorobenzene	ND		0.00141	0.000678
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00282	0.000512
Methyl acetate	ND		0.00141	0.000658
Cyclohexane	ND		0.00141	0.000257
Methylcyclohexane	ND		0.00141	0.000293
1,3-Dichloropropene (cis- and trans-)	ND		0.00141	0.000326
Total Target Compounds (52):	0.00963	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-013
Client ID: SB-20
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: F1480.D

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.4

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-015
Client ID: SB-15-AQ_PHA
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: G4123.D 10/27/17 12:04
Data file: P5861.D^

GC/MS Column: DB-624
Sample wt/vol: 1mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		5.00	3.31
Chloromethane	ND		2.50	2.32
Vinyl chloride	ND		5.00	2.96
Bromomethane	ND		5.00	2.72
Chloroethane	ND		2.50	2.48
Trichlorofluoromethane	ND		2.50	2.17
1,1-Dichloroethene	ND		2.50	2.47
Acetone	ND		10.0	6.65
Carbon disulfide	ND		2.50	2.32
Methylene chloride	ND		5.00	4.95
trans-1,2-Dichloroethene	ND		2.50	2.27
Methyl tert-butyl ether (MTBE)	ND		2.50	2.40
1,1-Dichloroethane	ND		2.50	2.47
cis-1,2-Dichloroethene	ND		2.50	2.26
2-Butanone (MEK)	ND		10.0	8.31
Bromochloromethane	ND		5.00	2.98
Chloroform	ND		2.50	2.35
1,1,1-Trichloroethane	ND		2.50	2.31
Carbon tetrachloride	ND		2.50	2.25
1,2-Dichloroethane (EDC)	ND		2.50	2.29
Benzene	ND		2.50	2.32
Trichloroethene	ND		2.50	2.47
1,2-Dichloropropane	ND		2.50	2.24
1,4-Dioxane	ND		500	492
Bromodichloromethane	ND		2.50	1.77
cis-1,3-Dichloropropene	ND		2.50	1.66
4-Methyl-2-pentanone (MIBK)	ND		5.00	3.50

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09175-015
Client ID: SB-15-AQ_PHA
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Data file: G4123.D 10/27/17 12:04
Data file: P5861.D^

GC/MS Column: DB-624
Sample wt/vol: 1mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Toluene	ND		2.50	1.90
trans-1,3-Dichloropropene	ND		2.50	1.61
1,1,2-Trichloroethane	ND		5.00	2.37
Tetrachloroethene	ND		2.50	2.26
2-Hexanone	ND		5.00	3.81
Dibromochloromethane	ND		5.00	2.21
1,2-Dibromoethane (EDB)^	ND		0.015	0.0088
Chlorobenzene	ND		2.50	1.88
Ethylbenzene	ND		2.50	1.72
Total Xylenes	ND		5.00	4.62
Styrene	ND		2.50	1.45
Bromoform	ND		2.50	2.23
Isopropylbenzene	26.1	D	2.50	1.62
1,1,2,2-Tetrachloroethane	ND		2.50	2.29
1,3-Dichlorobenzene	ND		2.50	1.76
1,4-Dichlorobenzene	ND		2.50	1.71
1,2-Dichlorobenzene	ND		2.50	1.82
1,2-Dibromo-3-chloropropane^	ND		0.015	0.0088
1,2,4-Trichlorobenzene	ND		2.50	1.52
1,2,3-Trichlorobenzene	ND		2.50	1.70
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.00	2.82
Methyl acetate	ND		2.50	2.43
Cyclohexane	13.4	D	5.00	2.06
Methylcyclohexane	14.9	D	2.50	2.06
1,3-Dichloropropene (cis- and trans-)	ND		2.50	1.66
Total Target Compounds (52):	54.4	D		

^ --- Results reported from SW-846 Method 8011 to meet Ground Water Quality Standards
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-015
Client ID: SB-15-AQ_PHA
Date Received: 10/25/2017
Date Analyzed: 10/27/2017
Date File: G4123.D

GC/MS Column: DB-624
Sample wt/vol: 1mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 5
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000103-65-1	Benzene, propyl-	103	DJN	11.88
	Unknown Aromatic	277	DJ	13.32
001074-55-1	Benzene, 1-methyl-4-propyl-	55.5	DJN	13.66
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	130	DJN	13.89
000767-58-8	Indan, 1-methyl-	124	DJN	14.04
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	101	DJN	14.38
000874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	73.0	DJN	14.75
000824-90-8	1-Phenyl-1-butene	288	DJN	14.93
	Unknown Aromatic	73.5	DJ	15.46
	Unknown Hydrocarbon	56.5	DJ	15.70
006682-71-9	1H-Indene, 2,3-dihydro-4,7-dimethy	61.0	DJN	16.01
004489-84-3	Benzene, (3-methyl-2-butenyl)-	85.5	DJN	16.21
001680-51-9	Naphthalene, 1,2,3,4-tetrahydro-6-	62.0	DJN	16.55
000091-57-6	Naphthalene, 2-methyl-	230	DJN	16.76
000090-12-0	Naphthalene, 1-methyl-	284	DJN	16.95

Total TICs = 2000 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171027-02
Client ID: BLKM171027-02
Date Received:
Date Analyzed: 10/28/2017
Data file: J1458.D 10/28/17 00:09

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171027-02
Client ID: BLKM171027-02
Date Received:
Date Analyzed: 10/28/2017
Data file: J1458.D 10/28/17 00:09

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171027-02
Client ID: BLKM171027-02
Date Received:
Date Analyzed: 10/28/2017
Data file: J1458.D 10/28/17 00:09

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171030-01
Client ID: BLKM171030-01
Date Received:
Date Analyzed: 10/30/2017
Data file: J1492.D 10/30/17 11:54

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171030-01
Client ID: BLKM171030-01
Date Received:
Date Analyzed: 10/30/2017
Data file: J1492.D 10/30/17 11:54

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171030-01
Client ID: BLKM171030-01
Date Received:
Date Analyzed: 10/30/2017
Data file: J1492.D 10/30/17 11:54

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171027-01
Client ID: BLKS171027-01
Date Received:
Date Analyzed: 10/27/2017
Data file: F1463.D 10/27/17 14:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171027-01
Client ID: BLKS171027-01
Date Received:
Date Analyzed: 10/27/2017
Data file: F1463.D 10/27/17 14:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.002	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171027-01
Client ID: BLKS171027-01
Date Received:
Date Analyzed: 10/27/2017
Date File: F1463.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171026-01
Client ID: BLKM171026-01
Date Received:
Date Analyzed: 10/26/2017
Data file: J1408.D 10/26/17 15:16

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171026-01
Client ID: BLKM171026-01
Date Received:
Date Analyzed: 10/26/2017
Data file: J1408.D 10/26/17 15:16

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171026-01
Client ID: BLKM171026-01
Date Received:
Date Analyzed: 10/26/2017
Data file: J1408.D 10/26/17 15:16

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

Volatiles (8011)

Lab ID: BLKA171025-03
Client ID: 8011
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: P5839.D 10/25/17 11:22

GC Column: DB-5/DB1701P
Sample wt/vol: 35ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00857
1,2-Dibromo-3-chloropropane	ND		0.014	0.00857
1,2,3-Trichloropropane	ND		0.029	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

Volatiles (8011)

Lab ID: BLKA171026-13
Client ID: 8011
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: P5859.D 10/26/17 17:10

GC Column: DB-5/DB1701P
Sample wt/vol: 35ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00857
1,2-Dibromo-3-chloropropane	ND		0.014	0.00857
1,2,3-Trichloropropane	ND		0.029	0.020

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-001
Client ID: SB-8
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0463.D 10/27/17 12:12

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.038	0.032
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	ND		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.026
2-Methylnaphthalene	ND		0.038	0.027
Hexachlorocyclopentadiene	ND		0.038	0.034
1,1'-Biphenyl	ND		0.038	0.036
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.027
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-001
Client ID: SB-8
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0463.D 10/27/17 12:12

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	ND		0.038	0.031
3-Nitroaniline	ND		0.038	0.031
Acenaphthene	ND		0.038	0.034
2,4-Dinitrotoluene	ND		0.038	0.035
Dibenzofuran	ND		0.038	0.033
Diethyl phthalate	ND		0.038	0.038
Fluorene	ND		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.036
4-Nitroaniline	ND		0.038	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	0.111		0.038	0.035
Anthracene	ND		0.038	0.034
Carbazole	ND		0.038	0.030
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	0.196		0.038	0.032
Pyrene	0.206		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.028
Benzo[a]anthracene	0.102		0.038	0.033
Chrysene	0.103		0.038	0.033
Bis(2-ethylhexyl) phthalate	ND		0.038	0.024
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.053		0.038	0.031
Benzo[k]fluoranthene	0.064		0.038	0.032
Benzo[a]pyrene	0.067		0.038	0.031
Indeno[1,2,3-cd]pyrene	0.035	J	0.038	0.032
Dibenz[a,h]anthracene	ND		0.038	0.038
Benzo[g,h,i]perylene	0.044		0.038	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.035
Total Target Compounds (53):	0.981	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-001
Client ID: SB-8
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0463.D

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 15.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-002
Client ID: SB-9
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0464.D 10/27/17 12:28

GC/MS Column: DB-5
Sample wt/vol: 15.39g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.9
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.078	0.076
Bis(2-chloroethyl) ether	ND		0.078	0.071
2,2'-Oxybis(1-Chloropropane)	ND		0.078	0.065
N-Nitrosodi-n-propylamine	ND		0.078	0.060
Acetophenone	ND		0.078	0.074
Hexachloroethane	ND		0.078	0.066
Nitrobenzene	ND		0.078	0.061
Isophorone	ND		0.078	0.066
Bis(2-chloroethoxy) methane	ND		0.078	0.070
Naphthalene	0.133	D	0.078	0.068
4-Chloroaniline	ND		0.078	0.051
Hexachlorobutadiene	ND		0.078	0.072
Caprolactam	ND		0.078	0.052
2-Methylnaphthalene	ND		0.078	0.055
Hexachlorocyclopentadiene	ND		0.078	0.069
1,1'-Biphenyl	ND		0.078	0.073
2-Chloronaphthalene	ND		0.078	0.064
2-Nitroaniline	ND		0.078	0.055
Dimethyl phthalate	ND		0.078	0.072

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-002
Client ID: SB-9
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0464.D 10/27/17 12:28

GC/MS Column: DB-5
Sample wt/vol: 15.39g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.9
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.078	0.059
Acenaphthylene	0.441	D	0.078	0.064
3-Nitroaniline	ND		0.078	0.062
Acenaphthene	ND		0.078	0.069
2,4-Dinitrotoluene	ND		0.078	0.071
Dibenzofuran	ND		0.078	0.067
Diethyl phthalate	ND		0.078	0.077
Fluorene	0.075	DJ	0.078	0.070
4-Chlorophenyl phenyl ether	ND		0.078	0.073
4-Nitroaniline	ND		0.078	0.059
1,2,4,5-Tetrachlorobenzene	ND		0.078	0.068
N-Nitrosodiphenylamine	ND		0.078	0.068
4-Bromophenyl phenyl ether	ND		0.078	0.066
Hexachlorobenzene	ND		0.078	0.072
Atrazine	ND		0.078	0.068
Phenanthrene	0.590	D	0.078	0.071
Anthracene	0.485	D	0.078	0.069
Carbazole	0.072	DJ	0.078	0.061
Di-n-butyl phthalate	ND		0.078	0.059
Fluoranthene	6.37	D	0.078	0.066
Pyrene	8.20	D	0.078	0.064
Butyl benzyl phthalate	ND		0.078	0.072
3,3'-Dichlorobenzidine	ND		0.078	0.057
Benzo[a]anthracene	5.92	D	0.078	0.067
Chrysene	5.13	D	0.078	0.067
Bis(2-ethylhexyl) phthalate	ND		0.078	0.048
Di-n-octyl phthalate	ND		0.078	0.068
Benzo[b]fluoranthene	3.59	D	0.078	0.063
Benzo[k]fluoranthene	3.56	D	0.078	0.065
Benzo[a]pyrene	4.31	D	0.078	0.064
Indeno[1,2,3-cd]pyrene	2.65	D	0.078	0.065
Dibenz[a,h]anthracene	1.03	D	0.078	0.077
Benzo[g,h,i]perylene	2.98	D	0.078	0.071
Dinitrotoluene (2,4- and 2,6-)	ND		0.078	0.071
Total Target Compounds (53):	45.5	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-002
Client ID: SB-9
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0464.D

GC/MS Column: DB-5
Sample wt/vol: 15.39g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 2
% Moisture: 16.9

CAS #	Compound	Estimated Concentration	Q	Retention Time
000243-17-4	11H-Benzo[b]fluorene	0.930	DJN	5.88
000238-84-6	11H-Benzo[a]fluorene	1.42	DJN	5.97
	Unknown PAH	0.813	DJ	6.01
002381-21-7	Pyrene, 1-methyl-	0.868	DJN	6.05
003442-78-2	Pyrene, 2-methyl-	0.610	DJN	6.13
000239-35-0	Benzo[b]naphtho[2,1-d]thiophene	0.610	DJN	6.42
	Unknown PAH	0.649	DJ	6.46
000082-05-3	7H-Benz[de]anthracen-7-one	0.594	DJN	6.48
002541-69-7	Benz[a]anthracene, 7-methyl-	1.23	DJN	6.94
	Unknown PAH	0.641	DJ	7.47
	Unknown PAH	1.18	DJ	7.77
	Unknown SV	0.813	DJ	7.87
000198-55-0	Perylene	3.82	DJN	7.99
000215-58-7	Benzo[b]triphenylene	0.649	DJN	10.06
	Unknown PAH	0.672	DJ	10.15

Total TICs = 15.5 DJN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-003
Client ID: SB-10
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0465.D 10/27/17 12:44

GC/MS Column: DB-5
Sample wt/vol: 15.72g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.036	0.035
Bis(2-chloroethyl) ether	ND		0.036	0.033
2,2'-Oxybis(1-Chloropropane)	ND		0.036	0.030
N-Nitrosodi-n-propylamine	ND		0.036	0.027
Acetophenone	ND		0.036	0.034
Hexachloroethane	ND		0.036	0.030
Nitrobenzene	ND		0.036	0.028
Isophorone	ND		0.036	0.030
Bis(2-chloroethoxy) methane	ND		0.036	0.032
Naphthalene	0.066		0.036	0.031
4-Chloroaniline	ND		0.036	0.024
Hexachlorobutadiene	ND		0.036	0.033
Caprolactam	ND		0.036	0.024
2-Methylnaphthalene	0.053		0.036	0.025
Hexachlorocyclopentadiene	ND		0.036	0.031
1,1'-Biphenyl	ND		0.036	0.033
2-Chloronaphthalene	ND		0.036	0.029
2-Nitroaniline	ND		0.036	0.025
Dimethyl phthalate	ND		0.036	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-003
Client ID: SB-10
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0465.D 10/27/17 12:44

GC/MS Column: DB-5
Sample wt/vol: 15.72g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.036	0.027
Acenaphthylene	0.140		0.036	0.029
3-Nitroaniline	ND		0.036	0.029
Acenaphthene	0.122		0.036	0.032
2,4-Dinitrotoluene	ND		0.036	0.033
Dibenzofuran	0.070		0.036	0.031
Diethyl phthalate	ND		0.036	0.035
Fluorene	0.095		0.036	0.032
4-Chlorophenyl phenyl ether	ND		0.036	0.033
4-Nitroaniline	ND		0.036	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.036	0.031
N-Nitrosodiphenylamine	ND		0.036	0.031
4-Bromophenyl phenyl ether	ND		0.036	0.030
Hexachlorobenzene	ND		0.036	0.033
Atrazine	ND		0.036	0.031
Phenanthrene	1.43		0.036	0.033
Anthracene	0.332		0.036	0.032
Carbazole	0.118		0.036	0.028
Di-n-butyl phthalate	ND		0.036	0.027
Fluoranthene	2.02		0.036	0.030
Pyrene	1.89		0.036	0.029
Butyl benzyl phthalate	ND		0.036	0.033
3,3'-Dichlorobenzidine	ND		0.036	0.026
Benzo[a]anthracene	1.12		0.036	0.031
Chrysene	1.13		0.036	0.031
Bis(2-ethylhexyl) phthalate	0.044		0.036	0.022
Di-n-octyl phthalate	ND		0.036	0.031
Benzo[b]fluoranthene	0.687		0.036	0.029
Benzo[k]fluoranthene	0.708		0.036	0.030
Benzo[a]pyrene	0.752		0.036	0.029
Indeno[1,2,3-cd]pyrene	0.498		0.036	0.030
Dibenz[a,h]anthracene	0.169		0.036	0.035
Benzo[g,h,i]perylene	0.619		0.036	0.032
Dinitrotoluene (2,4- and 2,6-)	ND		0.036	0.033
Total Target Compounds (53):	12.1			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-003
Client ID: SB-10
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0465.D

GC/MS Column: DB-5
Sample wt/vol: 15.72g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.219	JN	1.83
000832-64-4	Phenanthrene, 4-methyl-	0.186	JN	5.10
	Unknown PAH	0.308	J	5.16
002381-21-7	Pyrene, 1-methyl-	0.158	JN	5.89
000243-17-4	11H-Benzo[b]fluorene	0.215	JN	5.98
	Unknown PAH	0.161	J	6.47
000479-79-8	11H-Benzo[a]fluoren-11-one	0.150	JN	6.49
001705-84-6	Triphenylene, 2-methyl-	0.165	JN	6.95
000192-97-2	Benzo[e]pyrene	0.204	JN	7.78
000198-55-0	Perylene	0.716	JN	8.00

Total TICs = 2.48 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0466.D 10/27/17 12:59

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.041	0.040
Bis(2-chloroethyl) ether	ND		0.041	0.038
2,2'-Oxybis(1-Chloropropane)	ND		0.041	0.034
N-Nitrosodi-n-propylamine	ND		0.041	0.031
Acetophenone	ND		0.041	0.039
Hexachloroethane	ND		0.041	0.035
Nitrobenzene	ND		0.041	0.032
Isophorone	ND		0.041	0.035
Bis(2-chloroethoxy) methane	ND		0.041	0.037
Naphthalene	0.055		0.041	0.036
4-Chloroaniline	ND		0.041	0.027
Hexachlorobutadiene	ND		0.041	0.038
Caprolactam	ND		0.041	0.028
2-Methylnaphthalene	ND		0.041	0.029
Hexachlorocyclopentadiene	ND		0.041	0.036
1,1'-Biphenyl	ND		0.041	0.039
2-Chloronaphthalene	ND		0.041	0.034
2-Nitroaniline	ND		0.041	0.029
Dimethyl phthalate	ND		0.041	0.038

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0466.D 10/27/17 12:59

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.041	0.031
Acenaphthylene	0.131		0.041	0.034
3-Nitroaniline	ND		0.041	0.033
Acenaphthene	ND		0.041	0.037
2,4-Dinitrotoluene	ND		0.041	0.037
Dibenzofuran	0.047		0.041	0.035
Diethyl phthalate	ND		0.041	0.041
Fluorene	0.043		0.041	0.037
4-Chlorophenyl phenyl ether	ND		0.041	0.038
4-Nitroaniline	ND		0.041	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.041	0.036
N-Nitrosodiphenylamine	ND		0.041	0.036
4-Bromophenyl phenyl ether	ND		0.041	0.035
Hexachlorobenzene	ND		0.041	0.038
Atrazine	ND		0.041	0.036
Phenanthrene	0.877		0.041	0.038
Anthracene	0.112		0.041	0.036
Carbazole	0.064		0.041	0.032
Di-n-butyl phthalate	ND		0.041	0.031
Fluoranthene	1.24		0.041	0.035
Pyrene	1.19		0.041	0.034
Butyl benzyl phthalate	ND		0.041	0.038
3,3'-Dichlorobenzidine	ND		0.041	0.030
Benzo[a]anthracene	0.584		0.041	0.036
Chrysene	0.711		0.041	0.035
Bis(2-ethylhexyl) phthalate	ND		0.041	0.026
Di-n-octyl phthalate	ND		0.041	0.036
Benzo[b]fluoranthene	0.366		0.041	0.033
Benzo[k]fluoranthene	0.435		0.041	0.035
Benzo[a]pyrene	0.428		0.041	0.034
Indeno[1,2,3-cd]pyrene	0.317		0.041	0.034
Dibenz[a,h]anthracene	0.106		0.041	0.041
Benzo[g,h,i]perylene	0.326		0.041	0.037
Dinitrotoluene (2,4- and 2,6-)	ND		0.041	0.037

Total Target Compounds (53): 7.03

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0466.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 19.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown SV	0.227	J	1.71
	Unknown PAH	0.174	J	5.15
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	0.277	JN	6.16
000192-97-2	Benzo[e]pyrene	0.384	JN	7.99

Total TICs = 1.06 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0467.D 10/27/17 13:15

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.034
2,2'-Oxybis(1-Chloropropane)	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.034
Naphthalene	ND		0.037	0.033
4-Chloroaniline	ND		0.037	0.025
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.025
2-Methylnaphthalene	ND		0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.033
1,1'-Biphenyl	ND		0.037	0.035
2-Chloronaphthalene	ND		0.037	0.031
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0467.D 10/27/17 13:15

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	0.065		0.037	0.031
3-Nitroaniline	ND		0.037	0.030
Acenaphthene	ND		0.037	0.033
2,4-Dinitrotoluene	ND		0.037	0.034
Dibenzofuran	ND		0.037	0.032
Diethyl phthalate	ND		0.037	0.037
Fluorene	ND		0.037	0.034
4-Chlorophenyl phenyl ether	ND		0.037	0.035
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	0.219		0.037	0.034
Anthracene	0.049		0.037	0.033
Carbazole	ND		0.037	0.029
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	0.390		0.037	0.031
Pyrene	0.366		0.037	0.031
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.027
Benzo[a]anthracene	0.218		0.037	0.032
Chrysene	0.235		0.037	0.032
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	0.160		0.037	0.030
Benzo[k]fluoranthene	0.157		0.037	0.031
Benzo[a]pyrene	0.140		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.128		0.037	0.031
Dibenz[a,h]anthracene	0.049		0.037	0.037
Benzo[g,h,i]perylene	0.168		0.037	0.034
Dinitrotoluene (2,4- and 2,6-)	ND		0.037	0.034

Total Target Compounds (53): 2.34

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0467.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0468.D 10/27/17 13:31

GC/MS Column: DB-5
Sample wt/vol: 15.70g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.036	0.035
Bis(2-chloroethyl) ether	ND		0.036	0.032
2,2'-Oxybis(1-Chloropropane)	ND		0.036	0.030
N-Nitrosodi-n-propylamine	ND		0.036	0.027
Acetophenone	ND		0.036	0.034
Hexachloroethane	ND		0.036	0.030
Nitrobenzene	ND		0.036	0.028
Isophorone	ND		0.036	0.030
Bis(2-chloroethoxy) methane	ND		0.036	0.032
Naphthalene	0.056		0.036	0.031
4-Chloroaniline	ND		0.036	0.023
Hexachlorobutadiene	ND		0.036	0.033
Caprolactam	ND		0.036	0.024
2-Methylnaphthalene	0.033	J	0.036	0.025
Hexachlorocyclopentadiene	ND		0.036	0.031
1,1'-Biphenyl	ND		0.036	0.033
2-Chloronaphthalene	ND		0.036	0.029
2-Nitroaniline	ND		0.036	0.025
Dimethyl phthalate	ND		0.036	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0468.D 10/27/17 13:31

GC/MS Column: DB-5
Sample wt/vol: 15.70g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.036	0.027
Acenaphthylene	0.215		0.036	0.029
3-Nitroaniline	ND		0.036	0.028
Acenaphthene	0.042		0.036	0.032
2,4-Dinitrotoluene	ND		0.036	0.032
Dibenzofuran	0.076		0.036	0.030
Diethyl phthalate	ND		0.036	0.035
Fluorene	0.095		0.036	0.032
4-Chlorophenyl phenyl ether	ND		0.036	0.033
4-Nitroaniline	ND		0.036	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.036	0.031
N-Nitrosodiphenylamine	ND		0.036	0.031
4-Bromophenyl phenyl ether	ND		0.036	0.030
Hexachlorobenzene	ND		0.036	0.033
Atrazine	ND		0.036	0.031
Phenanthrene	1.76		0.036	0.032
Anthracene	0.268		0.036	0.031
Carbazole	0.162		0.036	0.028
Di-n-butyl phthalate	ND		0.036	0.027
Fluoranthene	2.55		0.036	0.030
Pyrene	2.06		0.036	0.029
Butyl benzyl phthalate	ND		0.036	0.033
3,3'-Dichlorobenzidine	ND		0.036	0.026
Benzo[a]anthracene	1.07		0.036	0.031
Chrysene	1.13		0.036	0.031
Bis(2-ethylhexyl) phthalate	ND		0.036	0.022
Di-n-octyl phthalate	ND		0.036	0.031
Benzo[b]fluoranthene	0.584		0.036	0.029
Benzo[k]fluoranthene	0.806		0.036	0.030
Benzo[a]pyrene	0.722		0.036	0.029
Indeno[1,2,3-cd]pyrene	0.484		0.036	0.029
Dibenz[a,h]anthracene	0.143		0.036	0.035
Benzo[g,h,i]perylene	0.647		0.036	0.032
Dinitrotoluene (2,4- and 2,6-)	ND		0.036	0.032
Total Target Compounds (53):	12.9	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0468.D

GC/MS Column: DB-5
Sample wt/vol: 15.70g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
000486-25-9	9H-Fluoren-9-one	0.160	JN	4.64
	Unknown SV	0.142	J	4.96
000779-02-2	Anthracene, 9-methyl-	0.189	JN	5.05
000479-79-8	11H-Benzo[a]fluoren-11-one	0.189	JN	6.31

Total TICs = 0.680 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/26/2017
Data file: C0441.D 10/26/17 00:11

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.90
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.072	0.070
Bis(2-chloroethyl) ether	ND		0.072	0.066
2,2'-Oxybis(1-Chloropropane)	ND		0.072	0.060
N-Nitrosodi-n-propylamine	ND		0.072	0.055
Acetophenone	ND		0.072	0.068
Hexachloroethane	ND		0.072	0.060
Nitrobenzene	ND		0.072	0.057
Isophorone	ND		0.072	0.061
Bis(2-chloroethoxy) methane	ND		0.072	0.065
Naphthalene	0.089		0.072	0.063
4-Chloroaniline	ND		0.072	0.047
Hexachlorobutadiene	ND		0.072	0.066
Caprolactam	ND		0.072	0.048
2-Methylnaphthalene	0.133		0.072	0.050
Hexachlorocyclopentadiene	ND		0.072	0.063
1,1'-Biphenyl	ND		0.072	0.067
2-Chloronaphthalene	ND		0.072	0.059
2-Nitroaniline	ND		0.072	0.050
Dimethyl phthalate	ND		0.072	0.066

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/26/2017
Data file: C0441.D 10/26/17 00:11

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.90
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.072	0.055
Acenaphthylene	0.123		0.072	0.059
3-Nitroaniline	ND		0.072	0.057
Acenaphthene	0.069	J	0.072	0.064
2,4-Dinitrotoluene	ND		0.072	0.065
Dibenzofuran	0.077		0.072	0.062
Diethyl phthalate	ND		0.072	0.071
Fluorene	0.089		0.072	0.065
4-Chlorophenyl phenyl ether	ND		0.072	0.067
4-Nitroaniline	ND		0.072	0.054
1,2,4,5-Tetrachlorobenzene	ND		0.072	0.062
N-Nitrosodiphenylamine	ND		0.072	0.062
4-Bromophenyl phenyl ether	ND		0.072	0.061
Hexachlorobenzene	ND		0.072	0.066
Atrazine	ND		0.072	0.062
Phenanthrene	0.932		0.072	0.066
Anthracene	0.287		0.072	0.063
Carbazole	0.120		0.072	0.056
Di-n-butyl phthalate	0.066	J	0.072	0.055
Fluoranthene	1.66		0.072	0.061
Pyrene	1.59		0.072	0.059
Butyl benzyl phthalate	ND		0.072	0.066
3,3'-Dichlorobenzidine	ND		0.072	0.052
Benzo[a]anthracene	0.793		0.072	0.062
Chrysene	0.840		0.072	0.062
Bis(2-ethylhexyl) phthalate	1.36		0.072	0.044
Di-n-octyl phthalate	ND		0.072	0.063
Benzo[b]fluoranthene	0.453		0.072	0.058
Benzo[k]fluoranthene	0.538		0.072	0.060
Benzo[a]pyrene	0.563		0.072	0.059
Indeno[1,2,3-cd]pyrene	0.287		0.072	0.060
Dibenz[a,h]anthracene	0.098		0.072	0.071
Benzo[g,h,i]perylene	0.335		0.072	0.065
Dinitrotoluene (2,4- and 2,6-)	ND		0.072	0.065
Total Target Compounds (53):	10.5	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/26/2017
Date File: C0441.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 7.90

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown SV	2.76	J	2.62
006975-98-0	Decane, 2-methyl-	25.8	JN	2.67
013151-34-3	Decane, 3-methyl-	14.4	JN	2.70
	Unknown SV	7.14	J	2.72
000091-17-8	Naphthalene, decahydro-	10.1	JN	2.74
	Unknown Hydrocarbon	5.09	J	2.85
	Unknown Hydrocarbon	23.9	J	2.87
	Unknown SV	10.7	J	2.89
002958-76-1	Naphthalene, decahydro-2-methyl-	22.8	JN	2.91
	Unknown SV	43.9	J	2.93
001002-43-3	Undecane, 3-methyl-	8.78	JN	2.99
	Unknown SV	4.09	J	3.00
	Unknown SV	1.58	J	3.02
1000309-34-6	Oxalic acid, bis(6-ethyloct-3-yl)	4.21	JN	3.04
	Unknown SV	7.09	J	3.07

Total TICs = 192 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0469.D 10/27/17 13:47

GC/MS Column: DB-5
Sample wt/vol: 15.45g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.30
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.036	0.035
Bis(2-chloroethyl) ether	ND		0.036	0.033
2,2'-Oxybis(1-Chloropropane)	ND		0.036	0.030
N-Nitrosodi-n-propylamine	ND		0.036	0.027
Acetophenone	ND		0.036	0.034
Hexachloroethane	ND		0.036	0.030
Nitrobenzene	ND		0.036	0.028
Isophorone	ND		0.036	0.030
Bis(2-chloroethoxy) methane	ND		0.036	0.032
Naphthalene	0.104		0.036	0.031
4-Chloroaniline	ND		0.036	0.024
Hexachlorobutadiene	ND		0.036	0.033
Caprolactam	ND		0.036	0.024
2-Methylnaphthalene	0.104		0.036	0.025
Hexachlorocyclopentadiene	ND		0.036	0.031
1,1'-Biphenyl	ND		0.036	0.033
2-Chloronaphthalene	ND		0.036	0.029
2-Nitroaniline	ND		0.036	0.025
Dimethyl phthalate	ND		0.036	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0469.D 10/27/17 13:47

GC/MS Column: DB-5
Sample wt/vol: 15.45g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.30
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.036	0.027
Acenaphthylene	0.186		0.036	0.029
3-Nitroaniline	ND		0.036	0.028
Acenaphthene	0.174		0.036	0.032
2,4-Dinitrotoluene	ND		0.036	0.032
Dibenzofuran	0.136		0.036	0.030
Diethyl phthalate	ND		0.036	0.035
Fluorene	0.159		0.036	0.032
4-Chlorophenyl phenyl ether	ND		0.036	0.033
4-Nitroaniline	ND		0.036	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.036	0.031
N-Nitrosodiphenylamine	ND		0.036	0.031
4-Bromophenyl phenyl ether	ND		0.036	0.030
Hexachlorobenzene	ND		0.036	0.033
Atrazine	ND		0.036	0.031
Phenanthrene	2.71		0.036	0.033
Anthracene	0.508		0.036	0.031
Carbazole	0.191		0.036	0.028
Di-n-butyl phthalate	0.099		0.036	0.027
Fluoranthene	3.56		0.036	0.030
Pyrene	3.04		0.036	0.029
Butyl benzyl phthalate	0.090		0.036	0.033
3,3'-Dichlorobenzidine	ND		0.036	0.026
Benzo[a]anthracene	1.66		0.036	0.031
Chrysene	1.71		0.036	0.031
Bis(2-ethylhexyl) phthalate	0.678		0.036	0.022
Di-n-octyl phthalate	0.048		0.036	0.031
Benzo[b]fluoranthene	0.980		0.036	0.029
Benzo[k]fluoranthene	0.943		0.036	0.030
Benzo[a]pyrene	1.09		0.036	0.029
Indeno[1,2,3-cd]pyrene	0.674		0.036	0.030
Dibenz[a,h]anthracene	0.212		0.036	0.035
Benzo[g,h,i]perylene	0.862		0.036	0.032
Dinitrotoluene (2,4- and 2,6-)	ND		0.036	0.032
Total Target Compounds (53):	19.9			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0469.D

GC/MS Column: DB-5
Sample wt/vol: 15.45g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.30

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.546	JN	1.83
1000152-47-3	trans-Decalin, 2-methyl-	0.307	JN	2.90
	Unknown Hydrocarbon	0.664	J	2.93
	Unknown Hydrocarbon	0.250	J	2.94
	Unknown SV	0.346	J	3.55
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	0.303	JN	4.36
000593-45-3	Octadecane	0.293	JN	4.59
000057-10-3	n-Hexadecanoic acid	0.350	JN	4.97
000949-41-7	1H-Cyclopropa[l]phenanthrene,1a,9b	0.253	JN	5.12
000630-02-4	Octacosane	0.328	JN	5.30
003674-65-5	Phenanthrene, 2,3-dimethyl-	0.314	JN	5.39
000243-17-4	11H-Benzo[b]fluorene	0.585	JN	5.96
	Unknown PAH	0.314	J	6.43
000630-04-6	Hentriacontane	0.621	JN	7.50
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	18.1	JN	6.16

Total TICs = 23.6 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-009
Client ID: SB-14
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0470.D 10/27/17 14:02

GC/MS Column: DB-5
Sample wt/vol: 15.37g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.1
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.073	0.071
Bis(2-chloroethyl) ether	ND		0.073	0.067
2,2'-Oxybis(1-Chloropropane)	ND		0.073	0.061
N-Nitrosodi-n-propylamine	ND		0.073	0.056
Acetophenone	ND		0.073	0.069
Hexachloroethane	ND		0.073	0.061
Nitrobenzene	ND		0.073	0.057
Isophorone	ND		0.073	0.062
Bis(2-chloroethoxy) methane	ND		0.073	0.066
Naphthalene	0.229	D	0.073	0.064
4-Chloroaniline	ND		0.073	0.048
Hexachlorobutadiene	ND		0.073	0.067
Caprolactam	ND		0.073	0.049
2-Methylnaphthalene	0.125	D	0.073	0.051
Hexachlorocyclopentadiene	ND		0.073	0.064
1,1'-Biphenyl	ND		0.073	0.068
2-Chloronaphthalene	ND		0.073	0.060
2-Nitroaniline	ND		0.073	0.051
Dimethyl phthalate	ND		0.073	0.067

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-009
Client ID: SB-14
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0470.D 10/27/17 14:02

GC/MS Column: DB-5
Sample wt/vol: 15.37g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.1
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.073	0.056
Acenaphthylene	0.223	D	0.073	0.060
3-Nitroaniline	ND		0.073	0.058
Acenaphthene	0.536	D	0.073	0.065
2,4-Dinitrotoluene	ND		0.073	0.066
Dibenzofuran	0.339	D	0.073	0.062
Diethyl phthalate	ND		0.073	0.072
Fluorene	0.311	D	0.073	0.066
4-Chlorophenyl phenyl ether	ND		0.073	0.068
4-Nitroaniline	ND		0.073	0.055
1,2,4,5-Tetrachlorobenzene	ND		0.073	0.063
N-Nitrosodiphenylamine	ND		0.073	0.063
4-Bromophenyl phenyl ether	ND		0.073	0.062
Hexachlorobenzene	ND		0.073	0.067
Atrazine	ND		0.073	0.063
Phenanthrene	5.45	D	0.073	0.067
Anthracene	1.15	D	0.073	0.064
Carbazole	0.498	D	0.073	0.057
Di-n-butyl phthalate	ND		0.073	0.056
Fluoranthene	5.81	D	0.073	0.062
Pyrene	5.44	D	0.073	0.060
Butyl benzyl phthalate	ND		0.073	0.067
3,3'-Dichlorobenzidine	ND		0.073	0.053
Benzo[a]anthracene	2.87	D	0.073	0.063
Chrysene	2.77	D	0.073	0.063
Bis(2-ethylhexyl) phthalate	ND		0.073	0.045
Di-n-octyl phthalate	ND		0.073	0.064
Benzo[b]fluoranthene	1.55	D	0.073	0.059
Benzo[k]fluoranthene	1.67	D	0.073	0.061
Benzo[a]pyrene	1.97	D	0.073	0.060
Indeno[1,2,3-cd]pyrene	1.22	D	0.073	0.061
Dibenz[a,h]anthracene	0.370	D	0.073	0.072
Benzo[g,h,i]perylene	1.52	D	0.073	0.066
Dinitrotoluene (2,4- and 2,6-)	ND		0.073	0.066
Total Target Compounds (53):	34.1	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-009
Client ID: SB-14
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0470.D

GC/MS Column: DB-5
Sample wt/vol: 15.37g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 2
% Moisture: 11.1

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	1.92	DJN	1.83
002531-84-2	Phenanthrene, 2-methyl-	0.476	DJN	5.04
000832-69-9	Phenanthrene, 1-methyl-	0.498	DJN	5.06
	Unknown PAH	0.856	DJ	5.12
002381-21-7	Pyrene, 1-methyl-	0.512	DJN	5.83
003442-78-2	Pyrene, 2-methyl-	0.564	DJN	5.93
000072-54-8	1,1-Dichloro-2,2-bis(p-chloropheny	0.805	DJN	5.98
	Unknown PAH	0.483	DJ	6.02
000479-79-8	11H-Benzo[a]fluoren-11-one	0.578	DJN	6.31
	Unknown SV	0.476	DJ	6.39
	Unknown SV	0.527	DJ	6.43
	Unknown PAH	0.439	DJ	6.45
002541-69-7	Benz[a]anthracene, 7-methyl-	0.461	DJN	6.91
000192-97-2	Benzo[e]pyrene	0.651	DJN	7.73
000198-55-0	Perylene	1.85	DJN	7.95

Total TICs = 11.1 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-010
Client ID: SB-16
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0471.D 10/27/17 14:18

GC/MS Column: DB-5
Sample wt/vol: 15.05g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.041	0.040
Bis(2-chloroethyl) ether	ND		0.041	0.037
2,2'-Oxybis(1-Chloropropane)	ND		0.041	0.034
N-Nitrosodi-n-propylamine	ND		0.041	0.031
Acetophenone	ND		0.041	0.039
Hexachloroethane	ND		0.041	0.034
Nitrobenzene	ND		0.041	0.032
Isophorone	ND		0.041	0.034
Bis(2-chloroethoxy) methane	ND		0.041	0.037
Naphthalene	ND		0.041	0.036
4-Chloroaniline	ND		0.041	0.027
Hexachlorobutadiene	ND		0.041	0.038
Caprolactam	ND		0.041	0.027
2-Methylnaphthalene	ND		0.041	0.029
Hexachlorocyclopentadiene	ND		0.041	0.036
1,1'-Biphenyl	ND		0.041	0.038
2-Chloronaphthalene	ND		0.041	0.034
2-Nitroaniline	ND		0.041	0.029
Dimethyl phthalate	ND		0.041	0.038

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-010
Client ID: SB-16
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0471.D 10/27/17 14:18

GC/MS Column: DB-5
Sample wt/vol: 15.05g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.041	0.031
Acenaphthylene	ND		0.041	0.034
3-Nitroaniline	ND		0.041	0.033
Acenaphthene	0.073		0.041	0.036
2,4-Dinitrotoluene	ND		0.041	0.037
Dibenzofuran	ND		0.041	0.035
Diethyl phthalate	ND		0.041	0.040
Fluorene	ND		0.041	0.037
4-Chlorophenyl phenyl ether	ND		0.041	0.038
4-Nitroaniline	ND		0.041	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.041	0.035
N-Nitrosodiphenylamine	ND		0.041	0.035
4-Bromophenyl phenyl ether	ND		0.041	0.034
Hexachlorobenzene	ND		0.041	0.038
Atrazine	ND		0.041	0.035
Phenanthrene	0.229		0.041	0.037
Anthracene	0.063		0.041	0.036
Carbazole	ND		0.041	0.032
Di-n-butyl phthalate	ND		0.041	0.031
Fluoranthene	0.227		0.041	0.034
Pyrene	0.224		0.041	0.034
Butyl benzyl phthalate	ND		0.041	0.037
3,3'-Dichlorobenzidine	ND		0.041	0.030
Benzo[a]anthracene	0.135		0.041	0.035
Chrysene	0.129		0.041	0.035
Bis(2-ethylhexyl) phthalate	ND		0.041	0.025
Di-n-octyl phthalate	ND		0.041	0.036
Benzo[b]fluoranthene	0.069		0.041	0.033
Benzo[k]fluoranthene	0.066		0.041	0.034
Benzo[a]pyrene	0.088		0.041	0.033
Indeno[1,2,3-cd]pyrene	0.059		0.041	0.034
Dibenz[a,h]anthracene	ND		0.041	0.040
Benzo[g,h,i]perylene	0.073		0.041	0.037
Dinitrotoluene (2,4- and 2,6-)	ND		0.041	0.037

Total Target Compounds (53): 1.44

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-010
Client ID: SB-16
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0471.D

GC/MS Column: DB-5
Sample wt/vol: 15.05g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 18.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-011
Client ID: SB-17
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0472.D 10/27/17 14:34

GC/MS Column: DB-5
Sample wt/vol: 15.63g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.040	0.039
Bis(2-chloroethyl) ether	ND		0.040	0.036
2,2'-Oxybis(1-Chloropropane)	ND		0.040	0.033
N-Nitrosodi-n-propylamine	ND		0.040	0.030
Acetophenone	ND		0.040	0.038
Hexachloroethane	ND		0.040	0.033
Nitrobenzene	ND		0.040	0.031
Isophorone	ND		0.040	0.033
Bis(2-chloroethoxy) methane	ND		0.040	0.036
Naphthalene	ND		0.040	0.035
4-Chloroaniline	ND		0.040	0.026
Hexachlorobutadiene	ND		0.040	0.036
Caprolactam	ND		0.040	0.026
2-Methylnaphthalene	ND		0.040	0.028
Hexachlorocyclopentadiene	ND		0.040	0.035
1,1'-Biphenyl	ND		0.040	0.037
2-Chloronaphthalene	ND		0.040	0.033
2-Nitroaniline	ND		0.040	0.028
Dimethyl phthalate	ND		0.040	0.036

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-011
Client ID: SB-17
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0472.D 10/27/17 14:34

GC/MS Column: DB-5
Sample wt/vol: 15.63g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.040	0.030
Acenaphthylene	ND		0.040	0.033
3-Nitroaniline	ND		0.040	0.032
Acenaphthene	ND		0.040	0.035
2,4-Dinitrotoluene	ND		0.040	0.036
Dibenzofuran	ND		0.040	0.034
Diethyl phthalate	ND		0.040	0.039
Fluorene	ND		0.040	0.036
4-Chlorophenyl phenyl ether	ND		0.040	0.037
4-Nitroaniline	ND		0.040	0.030
1,2,4,5-Tetrachlorobenzene	ND		0.040	0.034
N-Nitrosodiphenylamine	ND		0.040	0.034
4-Bromophenyl phenyl ether	ND		0.040	0.033
Hexachlorobenzene	ND		0.040	0.036
Atrazine	ND		0.040	0.034
Phenanthrene	0.068		0.040	0.036
Anthracene	ND		0.040	0.035
Carbazole	ND		0.040	0.031
Di-n-butyl phthalate	ND		0.040	0.030
Fluoranthene	0.076		0.040	0.033
Pyrene	0.072		0.040	0.033
Butyl benzyl phthalate	ND		0.040	0.036
3,3'-Dichlorobenzidine	ND		0.040	0.029
Benzo[a]anthracene	0.046		0.040	0.034
Chrysene	0.050		0.040	0.034
Bis(2-ethylhexyl) phthalate	ND		0.040	0.024
Di-n-octyl phthalate	ND		0.040	0.034
Benzo[b]fluoranthene	ND		0.040	0.032
Benzo[k]fluoranthene	ND		0.040	0.033
Benzo[a]pyrene	ND		0.040	0.032
Indeno[1,2,3-cd]pyrene	ND		0.040	0.033
Dibenz[a,h]anthracene	ND		0.040	0.039
Benzo[g,h,i]perylene	ND		0.040	0.036
Dinitrotoluene (2,4- and 2,6-)	ND		0.040	0.036

Total Target Compounds (53): 0.312

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-011
Client ID: SB-17
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0472.D

GC/MS Column: DB-5
Sample wt/vol: 15.63g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 19.3

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.341	JN	1.83
1000190-13-7	Octadec-9-enoic acid	0.170	JN	4.92
000057-10-3	n-Hexadecanoic acid	0.170	JN	4.95

Total TICs = 0.681 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-012
Client ID: SB-18
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0473.D 10/27/17 14:49

GC/MS Column: DB-5
Sample wt/vol: 15.43g
Matrix-Units: Soil-mg/Kg
% Moisture: 39.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.053	0.052
Bis(2-chloroethyl) ether	ND		0.053	0.049
2,2'-Oxybis(1-Chloropropane)	ND		0.053	0.044
N-Nitrosodi-n-propylamine	ND		0.053	0.041
Acetophenone	ND		0.053	0.050
Hexachloroethane	ND		0.053	0.045
Nitrobenzene	ND		0.053	0.042
Isophorone	ND		0.053	0.045
Bis(2-chloroethoxy) methane	ND		0.053	0.048
Naphthalene	ND		0.053	0.047
4-Chloroaniline	ND		0.053	0.035
Hexachlorobutadiene	ND		0.053	0.049
Caprolactam	ND		0.053	0.036
2-Methylnaphthalene	ND		0.053	0.037
Hexachlorocyclopentadiene	ND		0.053	0.047
1,1'-Biphenyl	ND		0.053	0.050
2-Chloronaphthalene	ND		0.053	0.044
2-Nitroaniline	ND		0.053	0.037
Dimethyl phthalate	ND		0.053	0.049

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-012
Client ID: SB-18
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0473.D 10/27/17 14:49

GC/MS Column: DB-5
Sample wt/vol: 15.43g
Matrix-Units: Soil-mg/Kg
% Moisture: 39.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.053	0.040
Acenaphthylene	ND		0.053	0.044
3-Nitroaniline	ND		0.053	0.042
Acenaphthene	ND		0.053	0.047
2,4-Dinitrotoluene	ND		0.053	0.048
Dibenzofuran	ND		0.053	0.046
Diethyl phthalate	ND		0.053	0.052
Fluorene	ND		0.053	0.048
4-Chlorophenyl phenyl ether	ND		0.053	0.049
4-Nitroaniline	ND		0.053	0.040
1,2,4,5-Tetrachlorobenzene	ND		0.053	0.046
N-Nitrosodiphenylamine	ND		0.053	0.046
4-Bromophenyl phenyl ether	ND		0.053	0.045
Hexachlorobenzene	ND		0.053	0.049
Atrazine	ND		0.053	0.046
Phenanthrene	ND		0.053	0.049
Anthracene	ND		0.053	0.047
Carbazole	ND		0.053	0.041
Di-n-butyl phthalate	ND		0.053	0.041
Fluoranthene	ND		0.053	0.045
Pyrene	ND		0.053	0.044
Butyl benzyl phthalate	ND		0.053	0.049
3,3'-Dichlorobenzidine	ND		0.053	0.039
Benzo[a]anthracene	ND		0.053	0.046
Chrysene	ND		0.053	0.046
Bis(2-ethylhexyl) phthalate	ND		0.053	0.033
Di-n-octyl phthalate	ND		0.053	0.046
Benzo[b]fluoranthene	ND		0.053	0.043
Benzo[k]fluoranthene	ND		0.053	0.045
Benzo[a]pyrene	ND		0.053	0.044
Indeno[1,2,3-cd]pyrene	ND		0.053	0.044
Dibenz[a,h]anthracene	ND		0.053	0.052
Benzo[g,h,i]perylene	ND		0.053	0.048
Dinitrotoluene (2,4- and 2,6-)	ND		0.053	0.048

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-012
Client ID: SB-18
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Date File: C0473.D

GC/MS Column: DB-5
Sample wt/vol: 15.43g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 39.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-013
Client ID: SB-20
Date Received: 10/25/2017
Date Extracted: 10/27/2017
Date Analyzed: 10/27/2017
Data file: C0485.D 10/27/17 17:59

GC/MS Column: DB-5
Sample wt/vol: 15.49g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.4
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.073	0.071
Bis(2-chloroethyl) ether	ND		0.073	0.066
2,2'-Oxybis(1-Chloropropane)	ND		0.073	0.061
N-Nitrosodi-n-propylamine	ND		0.073	0.055
Acetophenone	ND		0.073	0.069
Hexachloroethane	ND		0.073	0.061
Nitrobenzene	ND		0.073	0.057
Isophorone	ND		0.073	0.061
Bis(2-chloroethoxy) methane	ND		0.073	0.065
Naphthalene	0.091	D	0.073	0.064
4-Chloroaniline	ND		0.073	0.048
Hexachlorobutadiene	ND		0.073	0.067
Caprolactam	ND		0.073	0.049
2-Methylnaphthalene	0.060	DJ	0.073	0.051
Hexachlorocyclopentadiene	ND		0.073	0.064
1,1'-Biphenyl	ND		0.073	0.068
2-Chloronaphthalene	ND		0.073	0.060
2-Nitroaniline	ND		0.073	0.051
Dimethyl phthalate	ND		0.073	0.067

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-013
Client ID: SB-20
Date Received: 10/25/2017
Date Extracted: 10/27/2017
Date Analyzed: 10/27/2017
Data file: C0485.D 10/27/17 17:59

GC/MS Column: DB-5
Sample wt/vol: 15.49g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.4
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.073	0.055
Acenaphthylene	0.323	D	0.073	0.060
3-Nitroaniline	ND		0.073	0.058
Acenaphthene	0.158	D	0.073	0.064
2,4-Dinitrotoluene	ND		0.073	0.066
Dibenzofuran	0.125	D	0.073	0.062
Diethyl phthalate	ND		0.073	0.071
Fluorene	0.155	D	0.073	0.066
4-Chlorophenyl phenyl ether	ND		0.073	0.068
4-Nitroaniline	ND		0.073	0.055
1,2,4,5-Tetrachlorobenzene	ND		0.073	0.063
N-Nitrosodiphenylamine	ND		0.073	0.063
4-Bromophenyl phenyl ether	ND		0.073	0.061
Hexachlorobenzene	ND		0.073	0.067
Atrazine	ND		0.073	0.063
Phenanthrene	1.96	D	0.073	0.066
Anthracene	0.655	D	0.073	0.064
Carbazole	0.291	D	0.073	0.056
Di-n-butyl phthalate	ND		0.073	0.055
Fluoranthene	2.76	D	0.073	0.061
Pyrene	3.30	D	0.073	0.060
Butyl benzyl phthalate	ND		0.073	0.067
3,3'-Dichlorobenzidine	ND		0.073	0.053
Benzo[a]anthracene	1.82	D	0.073	0.063
Chrysene	1.91	D	0.073	0.062
Bis(2-ethylhexyl) phthalate	ND		0.073	0.045
Di-n-octyl phthalate	ND		0.073	0.063
Benzo[b]fluoranthene	1.29	D	0.073	0.058
Benzo[k]fluoranthene	1.31	D	0.073	0.061
Benzo[a]pyrene	1.39	D	0.073	0.060
Indeno[1,2,3-cd]pyrene	1.04	D	0.073	0.060
Dibenz[a,h]anthracene	0.363	D	0.073	0.072
Benzo[g,h,i]perylene	1.35	D	0.073	0.066
Dinitrotoluene (2,4- and 2,6-)	ND		0.073	0.066
Total Target Compounds (53):	20.4	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-013
Client ID: SB-20
Date Received: 10/25/2017
Date Extracted: 10/27/2017
Date Analyzed: 10/27/2017
Date File: C0485.D

GC/MS Column: DB-5
Sample wt/vol: 15.49g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 2
% Moisture: 11.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.299	DJN	1.83
	Unknown PAH	0.328	DJ	5.08
002381-21-7	Pyrene, 1-methyl-	0.291	DJN	5.88
000192-97-2	Benzo[e]pyrene	0.546	DJN	7.69
000198-55-0	Perylene	1.45	DJN	7.91

Total TICs = 2.91 DJN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-015
Client ID: SB-15-AQ
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: A9020.D 10/26/17 22:00

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.192
Bis(2-chloroethyl) ether	ND		1.00	0.243
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Methylnaphthalene	252	E	1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-015
Client ID: SB-15-AQ
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: A9020.D 10/26/17 22:00

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	269	E	1.00	0.129
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	99.9		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	199	E	1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
N-Nitrosodiphenylamine	ND		1.00	0.179
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene	ND		1.00	0.220
Atrazine	ND		1.00	0.247
Phenanthrene	725	E	1.00	0.175
Anthracene	237	E	1.00	0.211
Carbazole	4.77		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	548	E	1.00	0.204
Pyrene	540	E	1.00	0.339
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene	170	E	1.00	0.231
Chrysene	123		1.00	0.245
Bis(2-ethylhexyl) phthalate	11.4		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene	40.7		1.00	0.260
Benzo[k]fluoranthene	48.1		1.00	0.540
Benzo[a]pyrene	68.1		1.00	0.197
Indeno[1,2,3-cd]pyrene	24.4		1.00	0.448
Dibenz[a,h]anthracene	12.0		1.00	0.512
Benzo[g,h,i]perylene	29.7		1.00	0.672
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.139
Total Target Compounds (53):	3400	E		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09175-015
Client ID: SB-15-AQ
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Date File: A9020.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	47.4	JN	3.85
	Unknown Hydrocarbon	53.5	J	3.92
	Unknown Hydrocarbon	50.4	J	3.95
	Unknown Aromatic	64.5	J	4.01
	Unknown SV	67.9	J	4.30
	Unknown Hydrocarbon	96.6	J	4.38
	Unknown SV	51.3	J	4.48
	Unknown SV	42.5	J	4.50
000090-12-0	Naphthalene, 1-methyl-	84.2	JN	4.63
	Unknown SV	51.3	J	4.65
000581-42-0	Naphthalene, 2,6-dimethyl-	52.4	JN	4.92
	Unknown Hydrocarbon	171	J	4.98
000575-43-9	Naphthalene, 1,6-dimethyl-	41.4	JN	5.09
000829-26-5	Naphthalene, 2,3,6-trimethyl-	68.2	JN	5.35
002131-42-2	Naphthalene, 1,4,6-trimethyl-	44.5	JN	5.40

Total TICs = 987 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-015DL
Client ID: SB-15-AQ
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: A9040.D 10/27/17 12:54

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		10.0	1.92
Bis(2-chloroethyl) ether	ND		10.0	2.43
2,2'-Oxybis(1-Chloropropane)	ND		10.0	2.48
N-Nitrosodi-n-propylamine	ND		10.0	2.29
Acetophenone	ND		10.0	1.80
Hexachloroethane	ND		10.0	1.63
Nitrobenzene	ND		10.0	2.10
Isophorone	ND		10.0	1.15
Bis(2-chloroethoxy) methane	ND		10.0	1.71
Naphthalene	ND		10.0	1.39
4-Chloroaniline	ND		10.0	1.40
Hexachlorobutadiene	ND		10.0	1.87
Caprolactam	ND		10.0	5.47
2-Methylnaphthalene	345	D	10.0	1.28
Hexachlorocyclopentadiene	ND		10.0	1.40
1,1'-Biphenyl	ND		10.0	1.33
2-Chloronaphthalene	ND		10.0	1.54
2-Nitroaniline	ND		10.0	1.61
Dimethyl phthalate	ND		10.0	1.37

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09175-015DL
Client ID: SB-15-AQ
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: A9040.D 10/27/17 12:54

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		10.0	1.39
Acenaphthylene	ND		10.0	1.41
3-Nitroaniline	ND		10.0	2.14
Acenaphthene	334	D	10.0	1.29
2,4-Dinitrotoluene	ND		10.0	1.35
Dibenzofuran	135	D	10.0	1.33
Diethyl phthalate	ND		10.0	1.66
Fluorene	272	D	10.0	1.82
4-Chlorophenyl phenyl ether	ND		10.0	3.16
4-Nitroaniline	ND		10.0	2.05
1,2,4,5-Tetrachlorobenzene	ND		10.0	9.23
N-Nitrosodiphenylamine	ND		10.0	1.79
4-Bromophenyl phenyl ether	ND		10.0	2.91
Hexachlorobenzene	ND		10.0	2.20
Atrazine	ND		10.0	2.47
Phenanthrene	1010	D	10.0	1.75
Anthracene	305	D	10.0	2.11
Carbazole	7.22	DJ	10.0	2.21
Di-n-butyl phthalate	ND		10.0	1.96
Fluoranthene	652	D	10.0	2.04
Pyrene	721	D	10.0	3.39
Butyl benzyl phthalate	ND		10.0	2.15
3,3'-Dichlorobenzidine	ND		10.0	3.99
Benzo[a]anthracene	218	D	10.0	2.31
Chrysene	154	D	10.0	2.45
Bis(2-ethylhexyl) phthalate	14.2	D	10.0	2.77
Di-n-octyl phthalate	ND		10.0	3.06
Benzo[b]fluoranthene	58.9	D	10.0	2.60
Benzo[k]fluoranthene	53.3	D	10.0	5.40
Benzo[a]pyrene	80.6	D	10.0	1.97
Indeno[1,2,3-cd]pyrene	29.1	D	10.0	4.48
Dibenz[a,h]anthracene	15.7	D	10.0	5.12
Benzo[g,h,i]perylene	36.7	D	10.0	6.72
Dinitrotoluene (2,4- and 2,6-)	ND		10.0	1.39
Total Target Compounds (53):	4440	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171026-01
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0458.D 10/27/17 10:54

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171026-01
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0458.D 10/27/17 10:54

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171026-01
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: C0458.D 10/27/17 10:54

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171026-03
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: C0446.D 10/26/17 16:36

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171026-03
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: C0446.D 10/26/17 16:36

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171026-03
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: C0446.D 10/26/17 16:36

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171027-02
Client ID: .
Date Received: NA
Date Extracted: 10/27/2017
Date Analyzed: 10/27/2017
Data file: C0482.D 10/27/17 17:12

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171027-02
Client ID: .
Date Received: NA
Date Extracted: 10/27/2017
Date Analyzed: 10/27/2017
Data file: C0482.D 10/27/17 17:12

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171027-02
Client ID: .
Date Received: NA
Date Extracted: 10/27/2017
Date Analyzed: 10/27/2017
Data file: C0482.D 10/27/17 17:12

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171025-09
Client ID: .
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0435.D 10/25/17 22:37

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171025-09
Client ID: .
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0435.D 10/25/17 22:37

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171025-09
Client ID: .
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/25/2017
Data file: C0435.D 10/25/17 22:37

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA171026-02
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: A9017.D 10/26/17 21:12

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.278
Pyridine	ND		1.00	0.320
Benzaldehyde	ND		1.00	0.192
Phenol	ND		1.00	0.201
Aniline	ND		1.00	0.169
Bis(2-chloroethyl) ether	ND		1.00	0.243
2-Chlorophenol	ND		1.00	0.116
1,3-Dichlorobenzene	ND		1.00	0.148
1,4-Dichlorobenzene	ND		1.00	0.200
Benzyl alcohol	ND		1.00	0.199
1,2-Dichlorobenzene	ND		1.00	0.144
2-Methylphenol	ND		1.00	0.162
2,2'-Oxybis(1-Chloropropane)	ND		1.00	0.248
4-Methylphenol **	ND		1.00	0.170
N-Nitrosodi-n-propylamine	ND		1.00	0.229
Acetophenone	ND		1.00	0.180
3-Methylphenol	ND		1.00	0.529
Hexachloroethane	ND		1.00	0.163
Nitrobenzene	ND		1.00	0.210
Isophorone	ND		1.00	0.115
2-Nitrophenol	ND		1.00	0.160
2,4-Dimethylphenol	ND		1.00	0.137
Bis(2-chloroethoxy) methane	ND		1.00	0.171
Benzoic acid	ND		1.00	0.876
2,4-Dimethylaniline	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.138
1,2,4-Trichlorobenzene	ND		1.00	0.187
Naphthalene	ND		1.00	0.139
4-Chloroaniline	ND		1.00	0.140
4-Aminotoluene	ND		1.00	0.164
Hexachlorobutadiene	ND		1.00	0.187
Caprolactam	ND		1.00	0.547
2-Aminotoluene	ND		1.00	0.164
4-Chloro-3-methylphenol	ND		1.00	0.139
2-Methylnaphthalene	ND		1.00	0.128
Hexachlorocyclopentadiene	ND		1.00	0.140
2,4,6-Trichlorophenol	ND		1.00	0.188
2,4,5-Trichlorophenol	ND		1.00	0.252
1,1'-Biphenyl	ND		1.00	0.133
2-Chloronaphthalene	ND		1.00	0.154
2-Nitroaniline	ND		1.00	0.161
Dimethyl phthalate	ND		1.00	0.137

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA171026-02
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: A9017.D 10/26/17 21:12

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.139
Acenaphthylene	ND		1.00	0.141
3-Nitroaniline	ND		1.00	0.214
Acenaphthene	ND		1.00	0.129
2,4-Dinitrophenol	ND		1.00	0.206
4-Nitrophenol	ND		1.00	0.466
2,4-Dinitrotoluene	ND		1.00	0.135
Dibenzofuran	ND		1.00	0.133
Diethyl phthalate	ND		1.00	0.166
Fluorene	ND		1.00	0.182
4-Chlorophenyl phenyl ether	ND		1.00	0.316
4-Nitroaniline	ND		1.00	0.205
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.923
2,3,4,6-Tetrachlorophenol	ND		1.00	0.294
4,6-Dinitro-2-methylphenol	ND		1.00	0.273
N-Nitrosodiphenylamine	ND		1.00	0.179
1,2-Diphenylhydrazine	ND		1.00	0.214
4-Bromophenyl phenyl ether	ND		1.00	0.291
Hexachlorobenzene	ND		1.00	0.220
Atrazine	ND		1.00	0.247
Pentachlorophenol	ND		1.00	0.237
Phenanthrene	ND		1.00	0.175
Anthracene	ND		1.00	0.211
Carbazole	ND		1.00	0.221
Di-n-butyl phthalate	ND		1.00	0.196
Fluoranthene	ND		1.00	0.204
Benzidine	ND		1.00	0.664
Pyrene	ND		1.00	0.339
3,3'-Dimethylbenzidine	ND		1.00	0.188
Butyl benzyl phthalate	ND		1.00	0.215
3,3'-Dichlorobenzidine	ND		1.00	0.399
Benzo[a]anthracene	ND		1.00	0.231
Chrysene	ND		1.00	0.245
Bis(2-ethylhexyl) phthalate	ND		1.00	0.277
Di-n-octyl phthalate	ND		1.00	0.306
Benzo[b]fluoranthene	ND		1.00	0.260
Benzo[k]fluoranthene	ND		1.00	0.540
Benzo[a]pyrene	ND		1.00	0.197
Indeno[1,2,3-cd]pyrene	ND		1.00	0.448
Dibenz[a,h]anthracene	ND		1.00	0.512
Benzo[g,h,i]perylene	ND		1.00	0.672

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171026-02
Client ID: .
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/26/2017
Data file: A9017.D 10/26/17 21:12

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09175-004
Client ID: SB-11
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: Y6307.D 10/27/17 16:16

GC Column: DB-5/DB1701P
Sample wt/vol: 10.56g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.024	0.00944
Aroclor-1221	ND		0.024	0.00944
Aroclor-1232	ND		0.024	0.00944
Aroclor-1242	ND		0.024	0.00944
Aroclor-1248	ND		0.024	0.00944
Aroclor-1254	ND		0.024	0.00944
Aroclor-1260	ND		0.024	0.00944
Aroclor-1262	ND		0.024	0.00944
Aroclor-1268	ND		0.024	0.00944
PCBs	ND		0.024	0.00944

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09175-005
Client ID: SB-12
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: Y6308.D 10/27/17 16:34

GC Column: DB-5/DB1701P
Sample wt/vol: 10.40g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00871
Aroclor-1221	ND		0.022	0.00871
Aroclor-1232	ND		0.022	0.00871
Aroclor-1242	ND		0.022	0.00871
Aroclor-1248	ND		0.022	0.00871
Aroclor-1254	ND		0.022	0.00871
Aroclor-1260	ND		0.022	0.00871
Aroclor-1262	ND		0.022	0.00871
Aroclor-1268	ND		0.022	0.00871
PCBs	ND		0.022	0.00871

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09175-006
Client ID: SB-13
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: Y6309.D 10/27/17 16:51

GC Column: DB-5/DB1701P
Sample wt/vol: 10.52g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.021	0.0085
Aroclor-1221	ND		0.021	0.0085
Aroclor-1232	ND		0.021	0.0085
Aroclor-1242	ND		0.021	0.0085
Aroclor-1248	ND		0.021	0.0085
Aroclor-1254	ND		0.021	0.0085
Aroclor-1260	ND		0.021	0.0085
Aroclor-1262	ND		0.021	0.0085
Aroclor-1268	ND		0.021	0.0085
PCBs	ND		0.021	0.0085

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09175-007
Client ID: SB-15
Date Received: 10/25/2017
Date Extracted: 10/25/2017
Date Analyzed: 10/26/2017
Data file: R0562.D 10/26/17 11:29

GC Column: DB-5/DB1701P
Sample wt/vol: 10.38g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.90
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.021	0.00837
Aroclor-1221	ND		0.021	0.00837
Aroclor-1232	ND		0.021	0.00837
Aroclor-1242	ND		0.021	0.00837
Aroclor-1248	ND		0.021	0.00837
Aroclor-1254	ND		0.021	0.00837
Aroclor-1260	ND		0.021	0.00837
Aroclor-1262	ND		0.021	0.00837
Aroclor-1268	ND		0.021	0.00837
PCBs	ND		0.021	0.00837

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-09175-008
Client ID: SB-19
Date Received: 10/25/2017
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: Y6310.D 10/27/17 17:08

GC Column: DB-5/DB1701P
Sample wt/vol: 10.71g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.30
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.021	0.00824
Aroclor-1221	ND		0.021	0.00824
Aroclor-1232	ND		0.021	0.00824
Aroclor-1242	ND		0.021	0.00824
Aroclor-1248	ND		0.021	0.00824
Aroclor-1254	ND		0.021	0.00824
Aroclor-1260	ND		0.021	0.00824
Aroclor-1262	ND		0.021	0.00824
Aroclor-1268	ND		0.021	0.00824
PCBs	ND		0.021	0.00824

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS171026-14
Client ID: PCB
Date Received: NA
Date Extracted: 10/26/2017
Date Analyzed: 10/27/2017
Data file: Y6303.D 10/27/17 15:07

GC Column: DB-5/DB1701P
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.020	0.008
Aroclor-1221	ND		0.020	0.008
Aroclor-1232	ND		0.020	0.008
Aroclor-1242	ND		0.020	0.008
Aroclor-1248	ND		0.020	0.008
Aroclor-1254	ND		0.020	0.008
Aroclor-1260	ND		0.020	0.008
Aroclor-1262	ND		0.020	0.008
Aroclor-1268	ND		0.020	0.008
PCBs	ND		0.020	0.008

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS171025-10
Client ID: PCB
Date Received: NA
Date Extracted: 10/25/2017
Date Analyzed: 10/26/2017
Data file: R0558.D 10/26/17 10:19

GC Column: DB-5/DB1701P
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.020	0.008
Aroclor-1221	ND		0.020	0.008
Aroclor-1232	ND		0.020	0.008
Aroclor-1242	ND		0.020	0.008
Aroclor-1248	ND		0.020	0.008
Aroclor-1254	ND		0.020	0.008
Aroclor-1260	ND		0.020	0.008
Aroclor-1262	ND		0.020	0.008
Aroclor-1268	ND		0.020	0.008
PCBs	ND		0.020	0.008

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

GC FINGERPRINT ANALYSIS

Client/Project: Atlantic Environmental Solutions/27-10 49th Ave

Date Received: 10/25/17
Date Analyzed: 10/26/17

Lab ID	Client ID	RESULTS
09175-016	SB-15 OIL PHASE	The results of this analysis represents a close match to Road Tack. Slight variations can be attributed to weathering, aging or other environmental effects on the sample.

SAMPLE TRACKING

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AGSI
Address: SMARING VIEW PLAZA HOBOKEN, NJ
Telephone #: (201) 876-9400
Fax #:
Project Manager: S. Kelly
EMAIL Address: skelly@celticenvironmental.com
Project Name: 27-10 44th Ave
Project Location (State): NY
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: LD

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☒ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (*only* if pre-approved)**
Hard Copy: Std 3 week Other - call for price

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☒ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2 ☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS: VOCs	BNs	PCBs						Sample Specific Notes:
SB-8	[illegible]	10/23/17	1435	S	5	1	X	X							
SB-9	[illegible]	10/23/17	1510	S	5	2	X	X							
SB-10	[illegible]	10/23/17	1520	S	5	3	X	X							
SB-11		10/24/17		S	5	4	X	X	X						
SB-12		"		S	5	5	X	X	X						
SB-13		"		S	5	6	X	X	X						
SB-15		"		S	5	7	X	X	X						
SB-19		"		S	5	8	X	X	X						

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Preservative (use code)
Container Type (use code)

Special Instructions/QC Requirements & Comments:

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONSTITIONS (found on rear of pink copy).

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
[signature]	10/25/17	1130	[signature]	10.25.17	1630
[signature]	10.25.17	1615	[signature]	10/25	1615

FOR LAB USE ONLY
SDG #: 9175
Cooler Temp: 3 °C

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 1 of 2

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AEST
Address: SHARING VIEW PLAZA #HOBOKEN NJ
Telephone #: (201)870 4400
Fax #:
Project Manager: S. KELLY
EMAIL Address: skelly@aestsolutions.com
Project Name: L7-1047 AC
Project Location (State): NJ
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: EB

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address: [illegible].com
Attn:
PO #
Quote #

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA
☐ Results Only
☐ Reduced
☐ Regulatory/ Full*

NY
☒ ASP Category A
☐ ASP Category B*

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL
☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)**
Hard Copy: Std 3 week — Other - call for price

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☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

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Sample Matrix

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WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	BN's	PCB's	Sample Specific Notes:
SB-14		10/24		S	5	9	X	X		
SB-16		10/24		S	5	10	X	X		
SB-17		10/24		S	5	11	X	X		
SB-18		10/24		S	5	12	X	X		
SB-20		10/24		S	5	13	X	X		
SB-15		10/24		GW	4	14	X	X	X	

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Preservative (use code)
Container Type (use code)

Special Instructions/QC Requirements & Comments:

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	10/25/17	1630		10/25/17	17:30
	10/25/17	1715		10/25	1730

FOR LAB USE ONLY
SDG #: 9175
Cooler Temp: 3 °C

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 2 of 2

Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-09175: 27-10 49TH AVE

To: Seamus Kelly
Atlantic Environmental Solutions, Inc.
Fax: 1(201) 876-9563
EMail: skelly@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category A		Oct 25, 2017 @ 16:15	NA	Oct 27, 2017	Nov 15, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY Part 375-6.8(UUSCO+RUSCO)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09175-001	SB-8	NA	10/23/17@14:35	Soil	mg/Kg (ppm)	
09175-002	SB-9	NA	10/23/17@15:10	Soil	mg/Kg (ppm)	
09175-003	SB-10	NA	10/23/17@15:26	Soil	mg/Kg (ppm)	
09175-004	SB-11	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-005	SB-12	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-006	SB-13	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-007	SB-15	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-008	SB-19	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-009	SB-14	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-010	SB-16	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-011	SB-17	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-012	SB-18	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-013	SB-20	NA	10/24/17	Soil	mg/Kg (ppm)	
09175-014	SB-15	NA	10/24/17	Multi-phasic	ug/L (ppb)	
09175-015	SB-15-AQ PHASE	NA	10/24/17	Aqueous	ug/L (ppb)	
09175-016	SB-15 OIL PHASE	NA	10/24/17	Liquid	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
002	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
003	TCL VO + 15	Analyze	8260C	6 Business Days	11/6/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/6/2017
004	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-09175: 27-10 49TH AVE

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
004	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
	TCL PCB	Analyze	8082A	6 Business Days	10/24/2018
005	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
	TCL PCB	Analyze	8082A	6 Business Days	10/24/2018
006	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
	TCL PCB	Analyze	8082A	6 Business Days	10/24/2018
007	TCL VO + 15	Analyze	8260C	RUSH 48 HRS	11/7/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	11/7/2017
	TCL PCB	Analyze	8082A	RUSH 48 HRS	10/24/2018
008	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
	TCL PCB	Analyze	8082A	6 Business Days	10/24/2018
009	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
010	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
011	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
012	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
013	TCL VO + 15	Analyze	8260C	6 Business Days	11/7/2017
	TCL BN + 15	Analyze	8270D	6 Business Days	11/7/2017
014	Sample Phase Separation	Analyze		RUSH 48 HRS	10/24/2017
015	Low Level TCL VO for 8260+8011 + 15	Analyze	8260C/8011	RUSH 48 HRS	11/7/2017
	TCL BN + SIM + 15	Analyze	8270D SIM	RUSH 48 HRS	10/31/2017
016	GC Fingerprint	Analyze	D3328 Modified	RUSH 48 HRS	11/7/2017

Project Notes:

NOTE 1 taken by kfalconer on 10/25/2017 01:33
SAMPLES 007, 015 & 016 48-HR TAT DUE 10/27

ALL OTHER SAMPLES 6 DAY TAT DUE 11/2/17

NOTE 2 taken by kfalconer on 10/25/2017 01:33
SPECIAL PRICING FOR THIS CLIENT.(SEE 2016 IAL Price List - SR071611R1)

NOTE 3 taken by kfalconer on 10/25/2017 05:06
SAMPLES 2, 3, 8, 12
3 ENCORS RECEIVED - 1 INTO MEOH/2 INTO H2O

SAMPLES 1, 4, 5, 6, 7, 9, 10, 11 TERRACORE

SAMPLE 13 HAS ONLY 3 UNPRESERVED JARS - PROCESS VO FROM SOIL JAR

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-09175: 27-10 49TH AVE

NOTE 4 taken by kfalconer on 10/26/2017 10:21

SAMPLE 014 IS BI-PHASIC

PER SEAMUS KELLY, ANALYZE AQUEOUS PHASE FOR VOC & SVOC

ANALYZE LIQUID (OIL) PHASE FOR GC FINGERPRINT

NOTE 5 taken by kfalconer on 10/26/2017 10:43

SAMPLE 13 HAS ONLY 3 UNPRESERVED JARS - PROCESS VO FROM SOIL JAR

PER LEAH D., VO-KIT WAS MISSED

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **09175** CLIENT: AESI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody) 27-10 49th St Ave

Comments

COC: (COMPLETE) / INCOMPLETE

KEY
✓ = YES/NA
X = NO

VOA received: [✓] Encore [ ] IGW - Methanol
(check one) [✓] Terra Core [ ] No Preservative

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
[ ]	Multiphasic Sample
[ ]	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: Samples 1, 4, 5, 6, 7, 9, 10, 11 have terra core kits. 2, 3, 8, 12 have 5g encore's. 13 only has 3 unpreserved jars. Sample SB-15 (aqueous) is bi-phasic.

SAMPLE(S) VERIFIED BY: INITIAL [illegible] DATE 10/25/17

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [✓]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [illegible] DATE 10.26.17

Laboratory Custody Chronicle

IAL Case No.
E17-09175

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 10/25/2017@16:15

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
Low Level TCL VO for 8260+8011 + 15	09175-015	Aqueous	n/a	n/a	10/27/17	Sylvia
TCL VO + 15	-001	Soil	n/a	n/a	10/30/17	Mei
"	-002	"	n/a	n/a	10/27/17	Xing
"	-003	"	n/a	n/a	10/27/17	Xing
"	-004	"	n/a	n/a	10/27/17	Xing
"	-005	"	n/a	n/a	10/27/17	Xing
"	-006	"	n/a	n/a	10/27/17	Xing
"	-007	"	n/a	n/a	10/26/17	Mei
"	-008	"	n/a	n/a	10/27/17	Mei
"	-009	"	n/a	n/a	10/27/17	Mei
"	-010	"	n/a	n/a	10/27/17	Xing
"	-011	"	n/a	n/a	10/27/17	Mei
"	-012	"	n/a	n/a	10/27/17	Xing
"	-013	"	n/a	n/a	10/27/17	Xing

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BN + 15	-001	Soil	10/26/17	Frank L.	10/27/17	Eleanor
"	-002	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-003	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-004	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-005	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-006	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-007	"	10/25/17	Frank L.	10/25/17	Eleanor
"	-008	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-009	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-010	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-011	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-012	"	10/26/17	Frank L.	10/27/17	Eleanor
"	-013	"	10/27/17	Frank L.	10/27/17	Eleanor
TCL BN + SIM + 15	-015	Aqueous	10/26/17	Frank L.	10/27/17	Donnie

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
GC Fingerprint	-016	Liquid	10/26/17	Archimede	10/27/17	Margaret
TCL PCB	-004	Soil	10/26/17	Archimede	10/31/17	Latha
"	-005	"	10/26/17	Archimede	10/31/17	Latha
"	-006	"	10/26/17	Archimede	10/31/17	Latha
"	-007	"	10/25/17	Archimede	10/28/17	Latha
"	-008	"	10/26/17	Archimede	10/31/17	Latha

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVE**
IAL Case Number: **E17-09802**

These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

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Sample Summary

IAL Case No.

E17-09802

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 11/10/2017@17:00

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09802-001	SB-21	11/11.5	11/10/2017@10:26	Soil	2
09802-002	SB-22	11.5/12	11/10/2017@11:06	Soil	2
09802-003	SB-23	11.5/12	11/10/2017@11:33	Soil	2
09802-004	SB-24	11.5/12	11/10/2017@12:25	Soil	2
09802-005	SB-25	10/10.5	11/10/2017@13:45	Soil	2

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

- **B** Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
- **C** Indicates analyte is a common laboratory contaminant.
- **D** Indicates analyte was reported from diluted analysis.
- **E** Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
- **J** Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
- **M** Indicates matrix interference
- **N** Presumptive evidence of a compound from the use of GC/MS library search.
- **X** Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
- **Y** Indicates DO depletion in the BOD blank is >0.20ppm
- **Z** Indicates internal standard failure. Sample results are either biased high or biased low.
- **$** Value outside NJDEP DKQP Limits
- ***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09802

Integrated Analytical Laboratories, LLC. received five (5) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-09802**, Project: 27-10 49TH AVE) on November 10, 2017 for the analysis of :

(5) TCL VO + 15
(5) TCL BN + 15

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C **Batch: F171114-01** **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS/MSD were not analyzed due to insufficient sample volume. LCS/LCSD were analyzed in their absence to meet method specific QC requirements.

E17-09802
- All samples were analyzed within holding time.
- The method blank (BLKS171114-01)was flagged with a C qualifier and 09802-002,003, 004, 005 were flagged with a B qualifier, indicating laboratory contamination for Methylene chloride. Methylene chloride is used as a solvent in the laboratory, resulting in occasional laboratory contamination.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09802-002	1	NA
E17-09802-003	1	NA
E17-09802-004	1	NA
E17-09802-005	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-09802

Semivolatiles By 8270D	Batch: 171110-05	Matrix: Soil

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria. NJDEP DKQP criteria not met.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-09802
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-09802-001	1;3	Target compound(s).
E17-09802-002	1	NA
E17-09802-003	1	NA
E17-09802-004	1	NA
E17-09802-005	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

11/15/2017
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09802

Lab ID:	09802-001			09802-002			09802-003			09802-004		
Client ID:	SB-21			SB-22			SB-23			SB-24		
Depth:	11/11.5			11.5/12			11.5/12			11.5/12		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	11/10/17			11/10/17			11/10/17			11/10/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	ND		1.55	0.053		0.00149	0.065		0.00102	0.018		0.00115
Carbon disulfide	ND		0.542	0.00409		0.000471	0.00104		0.000322	ND		0.000363
Methylene chloride	ND		1.16	0.00474	B	0.00302	0.0024	B	0.00207	0.00414	B	0.00233
2-Butanone (MEK)	ND		1.94	ND		0.000748	0.00815		0.000512	ND		0.000576
Chloroform	ND		0.548	ND		0.000319	ND		0.000218	0.00152		0.000246
Benzene	ND		0.542	ND		0.000397	0.000341	J	0.000271	ND		0.000305
Trichloroethene	ND		0.576	ND		0.000426	ND		0.000291	0.000892	J	0.000328
Tetrachloroethene	ND		0.527	ND		0.000389	ND		0.000266	0.038		0.0003
Isopropylbenzene	5.02	D	0.377	ND		0.000301	ND		0.000206	ND		0.000232
Methylcyclohexane	17.9	D	0.480	ND		0.000316	0.00301		0.000216	ND		0.000243
TOTAL VO's:	22.9	D		0.062	B		0.080	BJ		0.063	BJ	
TOTAL TIC's:	841	DJN		ND			0.038	JN		ND		
TOTAL VO's & TIC's:	864	DJN		0.062	B		0.118	BJN		0.063	BJ	
Semivolatiles - BN	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	0.797		0.034	ND		0.035	ND		0.035	ND		0.032
2-Methylnaphthalene	15.7	D	0.081	ND		0.028	ND		0.028	ND		0.025
Acenaphthylene	0.149		0.032	ND		0.033	ND		0.033	ND		0.030
Acenaphthene	0.401		0.034	ND		0.036	ND		0.035	0.065		0.032
Dibenzofuran	0.613		0.033	ND		0.035	ND		0.034	0.034	J	0.031
Fluorene	0.733		0.035	ND		0.037	ND		0.036	0.052		0.033
Phenanthrene	1.55		0.035	ND		0.037	ND		0.037	0.616		0.033
Anthracene	0.279		0.034	ND		0.036	ND		0.035	0.120		0.032
Carbazole	ND		0.030	ND		0.032	ND		0.031	0.042		0.028
Fluoranthene	0.382		0.033	ND		0.034	ND		0.034	0.653		0.031
Pyrene	0.397		0.032	ND		0.033	ND		0.033	0.686		0.030
Benzo[a]anthracene	0.164		0.033	ND		0.035	ND		0.034	0.418		0.031
Chrysene	0.192		0.033	ND		0.035	ND		0.034	0.466		0.031
Bis(2-ethylhexyl) phthalate	0.276		0.024	ND		0.025	ND		0.025	ND		0.022
Benzo[b]fluoranthene	0.091		0.031	ND		0.033	ND		0.032	0.264		0.029
Benzo[k]fluoranthene	0.089		0.032	ND		0.034	ND		0.034	0.245		0.030
Benzo[a]pyrene	0.113		0.032	ND		0.033	ND		0.033	0.303		0.030
Indeno[1,2,3-cd]pyrene	0.064		0.032	ND		0.034	ND		0.033	0.190		0.030
Dibenz[a,h]anthracene	ND		0.038	ND		0.040	ND		0.039	0.073		0.036
Benzo[g,h,i]perylene	0.050		0.035	ND		0.037	ND		0.036	0.238		0.033
TOTAL BN'S:	22.0	D		ND			ND			4.46	J	
TOTAL TIC's:	67.4	JN		ND			ND			3.52	JN	
TOTAL BN'S & TIC's:	89.4	DJN		ND			ND			7.98	JN	

B = The compound was detected in the blank and the sample
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-09802

Lab ID:	**09802-005**		
Client ID:	**SB-25**		
Depth:	**10/10.5**		
Matrix:	**Soil**		
Sampled Date	**11/10/17**		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*		
Acetone	0.012		0.000813
Methylene chloride	0.00202	B	0.00165
Benzene	0.000257	J	0.000217
TOTAL VO's:	0.014	BJ	
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	0.014	BJ	
Semivolatiles - BN (Units)	*(mg/Kg)*		
Phenanthrene	0.060		0.032
Fluoranthene	0.088		0.030
Pyrene	0.095		0.029
Benzo[a]anthracene	0.067		0.030
Chrysene	0.069		0.030
Benzo[b]fluoranthene	0.045		0.028
Benzo[a]pyrene	0.043		0.029
TOTAL BN'S:	0.467		
TOTAL TIC's:	ND		
TOTAL BN'S & TIC's:	0.467		

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

B = The compound was detected in the blank and the sample

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-001
Client ID: SB-21/11-11.
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: J1790.D 11/14/17 14:18

GC/MS Column: DB-624
Sample wt/vol: 0.005g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.4
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.17	0.773
Chloromethane	ND		0.584	0.541
Vinyl chloride	ND		1.17	0.690
Bromomethane	ND		1.17	0.636
Chloroethane	ND		0.584	0.578
Trichlorofluoromethane	ND		0.584	0.506
1,1-Dichloroethene	ND		0.584	0.576
Acetone	ND		2.34	1.55
Carbon disulfide	ND		0.584	0.542
Methylene chloride	ND		1.17	1.16
trans-1,2-Dichloroethene	ND		0.584	0.530
Methyl tert-butyl ether (MTBE)	ND		0.584	0.560
1,1-Dichloroethane	ND		0.584	0.576
cis-1,2-Dichloroethene	ND		0.584	0.527
2-Butanone (MEK)	ND		2.34	1.94
Bromochloromethane	ND		1.17	0.696
Chloroform	ND		0.584	0.548
1,1,1-Trichloroethane	ND		0.584	0.540
Carbon tetrachloride	ND		1.17	0.525
1,2-Dichloroethane (EDC)	ND		0.584	0.535
Benzene	ND		0.584	0.542
Trichloroethene	ND		0.584	0.576
1,2-Dichloropropane	ND		0.584	0.522
1,4-Dioxane	ND		117	115
Bromodichloromethane	ND		0.584	0.412
cis-1,3-Dichloropropene	ND		0.584	0.387
4-Methyl-2-pentanone (MIBK)	ND		2.34	0.817

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-001
Client ID: SB-21/11-11.
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: J1790.D 11/14/17 14:18

GC/MS Column: DB-624
Sample wt/vol: 0.005g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.4
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.584	0.443
trans-1,3-Dichloropropene	ND		0.584	0.375
1,1,2-Trichloroethane	ND		0.584	0.553
Tetrachloroethene	ND		0.584	0.527
2-Hexanone	ND		2.34	0.889
Dibromochloromethane	ND		0.584	0.516
1,2-Dibromoethane (EDB)	ND		0.584	0.470
Chlorobenzene	ND		0.584	0.439
Ethylbenzene	ND		0.584	0.402
Total Xylenes	ND		1.17	1.08
Styrene	ND		0.584	0.339
Bromoform	ND		0.584	0.520
Isopropylbenzene	5.02	D	0.584	0.377
1,1,2,2-Tetrachloroethane	ND		0.584	0.535
1,3-Dichlorobenzene	ND		0.584	0.410
1,4-Dichlorobenzene	ND		0.584	0.398
1,2-Dichlorobenzene	ND		0.584	0.425
1,2-Dibromo-3-chloropropane	ND		1.17	0.623
1,2,4-Trichlorobenzene	ND		1.17	0.355
1,2,3-Trichlorobenzene	ND		1.17	0.396
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.17	0.658
Methyl acetate	ND		0.584	0.567
Cyclohexane	ND		1.17	0.480
Methylcyclohexane	17.9	D	0.584	0.480
1,3-Dichloropropene (cis- and trans-)	ND		0.584	0.387
Total Target Compounds (52):	22.9	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-001
Client ID: SB-21/11-11.
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Date File: J1790.D

GC/MS Column: DB-624
Sample wt/vol: 0.005g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 10
% Moisture: 14.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	45.9	DJ	9.92
001678-92-8	Cyclohexane, propyl-	53.6	DJN	11.26
017302-28-2	Nonane, 2,6-dimethyl-	44.9	DJN	12.50
	Unknown Hydrocarbon	77.6	DJ	12.87
000493-02-7	Naphthalene, decahydro-, trans-	80.0	DJN	13.44
	Unknown Aromatic	42.2	DJ	13.68
	Unknown Aromatic	46.8	DJ	14.03
002958-76-1	Naphthalene, decahydro-2-methyl-	72.2	DJN	14.23
029949-27-7	n-Amylcyclohexane	48.2	DJN	14.33
002958-75-0	1-Methyldecahydronaphthalene	55.1	DJN	14.49
	Unknown Aromatic	83.2	DJ	14.93
	Unknown Hydrocarbon	43.6	DJ	15.71
	Unknown PAH	46.4	DJ	16.21
000091-57-6	Naphthalene, 2-methyl-	45.9	DJN	16.73
000575-43-9	Naphthalene, 1,6-dimethyl-	55.5	DJN	17.93

Total TICs = 841 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-002
Client ID: SB-22/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1833.D 11/14/17 14:00

GC/MS Column: DB-624
Sample wt/vol: 4.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00152	0.000357
Chloromethane	ND		0.00152	0.000281
Vinyl chloride	ND		0.00152	0.000281
Bromomethane	ND		0.00152	0.000453
Chloroethane	ND		0.00152	0.000403
Trichlorofluoromethane	ND		0.00152	0.000286
1,1-Dichloroethene	ND		0.00152	0.000573
Acetone	0.053		0.015	0.00149
Carbon disulfide	0.00409		0.00152	0.000471
Methylene chloride	0.00474	B	0.00304	0.00302
trans-1,2-Dichloroethene	ND		0.00152	0.000441
Methyl tert-butyl ether (MTBE)	ND		0.00152	0.000293
1,1-Dichloroethane	ND		0.00152	0.000295
cis-1,2-Dichloroethene	ND		0.00152	0.000324
2-Butanone (MEK)	ND		0.00304	0.000748
Bromochloromethane	ND		0.00152	0.000423
Chloroform	ND		0.00152	0.000319
1,1,1-Trichloroethane	ND		0.00152	0.000359
Carbon tetrachloride	ND		0.00152	0.000245
1,2-Dichloroethane (EDC)	ND		0.00152	0.000401
Benzene	ND		0.00152	0.000397
Trichloroethene	ND		0.00152	0.000426
1,2-Dichloropropane	ND		0.00152	0.000257
1,4-Dioxane	ND		0.304	0.054
Bromodichloromethane	ND		0.00152	0.000354
cis-1,3-Dichloropropene	ND		0.00152	0.000312
4-Methyl-2-pentanone (MIBK)	ND		0.00304	0.00088

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-002
Client ID: SB-22/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1833.D 11/14/17 14:00

GC/MS Column: DB-624
Sample wt/vol: 4.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00152	0.000491
trans-1,3-Dichloropropene	ND		0.00152	0.000351
1,1,2-Trichloroethane	ND		0.00152	0.00041
Tetrachloroethene	ND		0.00152	0.000389
2-Hexanone	ND		0.00304	0.00158
Dibromochloromethane	ND		0.00152	0.000284
1,2-Dibromoethane (EDB)	ND		0.00152	0.000269
Chlorobenzene	ND		0.00152	0.000342
Ethylbenzene	ND		0.00152	0.000371
Total Xylenes	ND		0.00304	0.000658
Styrene	ND		0.00152	0.000313
Bromoform	ND		0.00152	0.000436
Isopropylbenzene	ND		0.00152	0.000301
1,1,2,2-Tetrachloroethane	ND		0.00152	0.000409
1,3-Dichlorobenzene	ND		0.00152	0.000293
1,4-Dichlorobenzene	ND		0.00152	0.00026
1,2-Dichlorobenzene	ND		0.00152	0.000263
1,2-Dibromo-3-chloropropane	ND		0.00152	0.00041
1,2,4-Trichlorobenzene	ND		0.00152	0.000669
1,2,3-Trichlorobenzene	ND		0.00152	0.000731
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00304	0.000552
Methyl acetate	ND		0.00152	0.00071
Cyclohexane	ND		0.00152	0.000277
Methylcyclohexane	ND		0.00152	0.000316
1,3-Dichloropropene (cis- and trans-)	ND		0.00152	0.000351
Total Target Compounds (52):	0.062	B		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-002
Client ID: SB-22/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Date File: F1833.D

GC/MS Column: DB-624
Sample wt/vol: 4.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 19.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-003
Client ID: SB-23/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1834.D 11/14/17 14:29

GC/MS Column: DB-624
Sample wt/vol: 5.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00104	0.000244
Chloromethane	ND		0.00104	0.000192
Vinyl chloride	ND		0.00104	0.000192
Bromomethane	ND		0.00104	0.00031
Chloroethane	ND		0.00104	0.000276
Trichlorofluoromethane	ND		0.00104	0.000196
1,1-Dichloroethene	ND		0.00104	0.000392
Acetone	0.065		0.010	0.00102
Carbon disulfide	0.00104		0.00104	0.000322
Methylene chloride	0.0024	B	0.00208	0.00207
trans-1,2-Dichloroethene	ND		0.00104	0.000302
Methyl tert-butyl ether (MTBE)	ND		0.00104	0.000201
1,1-Dichloroethane	ND		0.00104	0.000202
cis-1,2-Dichloroethene	ND		0.00104	0.000222
2-Butanone (MEK)	0.00815		0.00208	0.000512
Bromochloromethane	ND		0.00104	0.000289
Chloroform	ND		0.00104	0.000218
1,1,1-Trichloroethane	ND		0.00104	0.000245
Carbon tetrachloride	ND		0.00104	0.000167
1,2-Dichloroethane (EDC)	ND		0.00104	0.000275
Benzene	0.000341	J	0.00104	0.000271
Trichloroethene	ND		0.00104	0.000291
1,2-Dichloropropane	ND		0.00104	0.000176
1,4-Dioxane	ND		0.208	0.037
Bromodichloromethane	ND		0.00104	0.000242
cis-1,3-Dichloropropene	ND		0.00104	0.000213
4-Methyl-2-pentanone (MIBK)	ND		0.00208	0.000602

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-003
Client ID: SB-23/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1834.D 11/14/17 14:29

GC/MS Column: DB-624
Sample wt/vol: 5.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00104	0.000336
trans-1,3-Dichloropropene	ND		0.00104	0.00024
1,1,2-Trichloroethane	ND		0.00104	0.000281
Tetrachloroethene	ND		0.00104	0.000266
2-Hexanone	ND		0.00208	0.00108
Dibromochloromethane	ND		0.00104	0.000194
1,2-Dibromoethane (EDB)	ND		0.00104	0.000184
Chlorobenzene	ND		0.00104	0.000234
Ethylbenzene	ND		0.00104	0.000254
Total Xylenes	ND		0.00208	0.00045
Styrene	ND		0.00104	0.000214
Bromoform	ND		0.00104	0.000298
Isopropylbenzene	ND		0.00104	0.000206
1,1,2,2-Tetrachloroethane	ND		0.00104	0.00028
1,3-Dichlorobenzene	ND		0.00104	0.000201
1,4-Dichlorobenzene	ND		0.00104	0.000178
1,2-Dichlorobenzene	ND		0.00104	0.00018
1,2-Dibromo-3-chloropropane	ND		0.00104	0.000281
1,2,4-Trichlorobenzene	ND		0.00104	0.000458
1,2,3-Trichlorobenzene	ND		0.00104	0.0005
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00208	0.000378
Methyl acetate	ND		0.00104	0.000486
Cyclohexane	ND		0.00104	0.000189
Methylcyclohexane	0.00301		0.00104	0.000216
1,3-Dichloropropene (cis- and trans-)	ND		0.00104	0.00024
Total Target Compounds (52):	0.080	BJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-003
Client ID: SB-23/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Date File: F1834.D

GC/MS Column: DB-624
Sample wt/vol: 5.9g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 18.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	0.014	J	2.03
000078-78-4	Butane, 2-methyl-	0.013	JN	2.55
000109-66-0	Pentane	0.00676	JN	2.84
006876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	0.0053	JN	8.89

Total TICs = 0.038 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-004
Client ID: SB-24/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1835.D 11/14/17 14:58

GC/MS Column: DB-624
Sample wt/vol: 4.8g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00117	0.000275
Chloromethane	ND		0.00117	0.000216
Vinyl chloride	ND		0.00117	0.000216
Bromomethane	ND		0.00117	0.000349
Chloroethane	ND		0.00117	0.00031
Trichlorofluoromethane	ND		0.00117	0.00022
1,1-Dichloroethene	ND		0.00117	0.000441
Acetone	0.018		0.012	0.00115
Carbon disulfide	ND		0.00117	0.000363
Methylene chloride	0.00414	B	0.00234	0.00233
trans-1,2-Dichloroethene	ND		0.00117	0.000339
Methyl tert-butyl ether (MTBE)	ND		0.00117	0.000226
1,1-Dichloroethane	ND		0.00117	0.000227
cis-1,2-Dichloroethene	ND		0.00117	0.000249
2-Butanone (MEK)	ND		0.00234	0.000576
Bromochloromethane	ND		0.00117	0.000325
Chloroform	0.00152		0.00117	0.000246
1,1,1-Trichloroethane	ND		0.00117	0.000276
Carbon tetrachloride	ND		0.00117	0.000188
1,2-Dichloroethane (EDC)	ND		0.00117	0.000309
Benzene	ND		0.00117	0.000305
Trichloroethene	0.000892	J	0.00117	0.000328
1,2-Dichloropropane	ND		0.00117	0.000198
1,4-Dioxane	ND		0.234	0.042
Bromodichloromethane	ND		0.00117	0.000273
cis-1,3-Dichloropropene	ND		0.00117	0.00024
4-Methyl-2-pentanone (MIBK)	ND		0.00234	0.000677

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-004
Client ID: SB-24/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1835.D 11/14/17 14:58

GC/MS Column: DB-624
Sample wt/vol: 4.8g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00117	0.000378
trans-1,3-Dichloropropene	ND		0.00117	0.00027
1,1,2-Trichloroethane	ND		0.00117	0.000316
Tetrachloroethene	0.038		0.00117	0.0003
2-Hexanone	ND		0.00234	0.00122
Dibromochloromethane	ND		0.00117	0.000219
1,2-Dibromoethane (EDB)	ND		0.00117	0.000207
Chlorobenzene	ND		0.00117	0.000263
Ethylbenzene	ND		0.00117	0.000285
Total Xylenes	ND		0.00234	0.000507
Styrene	ND		0.00117	0.000241
Bromoform	ND		0.00117	0.000336
Isopropylbenzene	ND		0.00117	0.000232
1,1,2,2-Tetrachloroethane	ND		0.00117	0.000315
1,3-Dichlorobenzene	ND		0.00117	0.000226
1,4-Dichlorobenzene	ND		0.00117	0.0002
1,2-Dichlorobenzene	ND		0.00117	0.000202
1,2-Dibromo-3-chloropropane	ND		0.00117	0.000316
1,2,4-Trichlorobenzene	ND		0.00117	0.000515
1,2,3-Trichlorobenzene	ND		0.00117	0.000563
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00234	0.000425
Methyl acetate	ND		0.00117	0.000546
Cyclohexane	ND		0.00117	0.000213
Methylcyclohexane	ND		0.00117	0.000243
1,3-Dichloropropene (cis- and trans-)	ND		0.00117	0.00027
Total Target Compounds (52):	0.062	BJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-004
Client ID: SB-24/11.5-1
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Date File: F1835.D

GC/MS Column: DB-624
Sample wt/vol: 4.8g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.0

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-005
Client ID: SB-25/10-10.
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1836.D 11/14/17 15:28

GC/MS Column: DB-624
Sample wt/vol: 6.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.40
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00083	0.000195
Chloromethane	ND		0.00083	0.000154
Vinyl chloride	ND		0.00083	0.000154
Bromomethane	ND		0.00083	0.000247
Chloroethane	ND		0.00083	0.00022
Trichlorofluoromethane	ND		0.00083	0.000156
1,1-Dichloroethene	ND		0.00083	0.000313
Acetone	0.012		0.0083	0.000813
Carbon disulfide	ND		0.00083	0.000257
Methylene chloride	0.00202	B	0.00166	0.00165
trans-1,2-Dichloroethene	ND		0.00083	0.000241
Methyl tert-butyl ether (MTBE)	ND		0.00083	0.00016
1,1-Dichloroethane	ND		0.00083	0.000161
cis-1,2-Dichloroethene	ND		0.00083	0.000177
2-Butanone (MEK)	ND		0.00166	0.000408
Bromochloromethane	ND		0.00083	0.000231
Chloroform	ND		0.00083	0.000174
1,1,1-Trichloroethane	ND		0.00083	0.000196
Carbon tetrachloride	ND		0.00083	0.000134
1,2-Dichloroethane (EDC)	ND		0.00083	0.000219
Benzene	0.000257	J	0.00083	0.000217
Trichloroethene	ND		0.00083	0.000232
1,2-Dichloropropane	ND		0.00083	0.00014
1,4-Dioxane	ND		0.166	0.030
Bromodichloromethane	ND		0.00083	0.000193
cis-1,3-Dichloropropene	ND		0.00083	0.00017
4-Methyl-2-pentanone (MIBK)	ND		0.00166	0.000481

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-09802-005
Client ID: SB-25/10-10.
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Data file: F1836.D 11/14/17 15:28

GC/MS Column: DB-624
Sample wt/vol: 6.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.40
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00083	0.000268
trans-1,3-Dichloropropene	ND		0.00083	0.000192
1,1,2-Trichloroethane	ND		0.00083	0.000224
Tetrachloroethene	ND		0.00083	0.000212
2-Hexanone	ND		0.00166	0.000864
Dibromochloromethane	ND		0.00083	0.000155
1,2-Dibromoethane (EDB)	ND		0.00083	0.000147
Chlorobenzene	ND		0.00083	0.000187
Ethylbenzene	ND		0.00083	0.000203
Total Xylenes	ND		0.00166	0.000359
Styrene	ND		0.00083	0.000171
Bromoform	ND		0.00083	0.000238
Isopropylbenzene	ND		0.00083	0.000164
1,1,2,2-Tetrachloroethane	ND		0.00083	0.000223
1,3-Dichlorobenzene	ND		0.00083	0.00016
1,4-Dichlorobenzene	ND		0.00083	0.000142
1,2-Dichlorobenzene	ND		0.00083	0.000144
1,2-Dibromo-3-chloropropane	ND		0.00083	0.000224
1,2,4-Trichlorobenzene	ND		0.00083	0.000365
1,2,3-Trichlorobenzene	ND		0.00083	0.000399
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00166	0.000301
Methyl acetate	ND		0.00083	0.000388
Cyclohexane	ND		0.00083	0.000151
Methylcyclohexane	ND		0.00083	0.000173
1,3-Dichloropropene (cis- and trans-)	ND		0.00083	0.000192
Total Target Compounds (52):	0.015	BJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-005
Client ID: SB-25/10-10.
Date Received: 11/10/2017
Date Analyzed: 11/14/2017
Date File: F1836.D

GC/MS Column: DB-624
Sample wt/vol: 6.5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 7.40

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171114-01
Client ID: BLKS171114-01
Date Received:
Date Analyzed: 11/14/2017
Data file: F1832.D 11/14/17 13:31

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	0.00267	C	0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171114-01
Client ID: BLKS171114-01
Date Received:
Date Analyzed: 11/14/2017
Data file: F1832.D 11/14/17 13:31

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.002	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231
Total Target Compounds (52):	0.00267	C		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171114-01
Client ID: BLKS171114-01
Date Received:
Date Analyzed: 11/14/2017
Date File: F1832.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171114-01
Client ID: BLKM171114-01
Date Received:
Date Analyzed: 11/14/2017
Data file: J1785.D 11/14/17 12:05

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171114-01
Client ID: BLKM171114-01
Date Received:
Date Analyzed: 11/14/2017
Data file: J1785.D 11/14/17 12:05

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171114-01
Client ID: BLKM171114-01
Date Received:
Date Analyzed: 11/14/2017
Data file: J1785.D 11/14/17 12:05

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-001
Client ID: SB-21/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0899.D 11/13/17 19:48

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.039	0.032
N-Nitrosodi-n-propylamine	ND		0.039	0.029
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.032
Nitrobenzene	ND		0.039	0.030
Isophorone	ND		0.039	0.033
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.797		0.039	0.034
4-Chloroaniline	ND		0.039	0.026
Hexachlorobutadiene	ND		0.039	0.036
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	13.5	E	0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.036
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.036

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-001
Client ID: SB-21/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0899.D 11/13/17 19:48

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.029
Acenaphthylene	0.149		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	0.401		0.039	0.034
2,4-Dinitrotoluene	ND		0.039	0.035
Dibenzofuran	0.613		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	0.733		0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.033
N-Nitrosodiphenylamine	ND		0.039	0.034
4-Bromophenyl phenyl ether	ND		0.039	0.033
Hexachlorobenzene	ND		0.039	0.036
Atrazine	ND		0.039	0.034
Phenanthrene	1.55		0.039	0.035
Anthracene	0.279		0.039	0.034
Carbazole	ND		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.029
Fluoranthene	0.382		0.039	0.033
Pyrene	0.397		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.035
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	0.164		0.039	0.033
Chrysene	0.192		0.039	0.033
Bis(2-ethylhexyl) phthalate	0.276		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	0.091		0.039	0.031
Benzo[k]fluoranthene	0.089		0.039	0.032
Benzo[a]pyrene	0.113		0.039	0.032
Indeno[1,2,3-cd]pyrene	0.064		0.039	0.032
Dibenz[a,h]anthracene	ND		0.039	0.038
Benzo[g,h,i]perylene	0.050		0.039	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.039	0.035
Total Target Compounds (53):	19.8	E		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-001
Client ID: SB-21/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Date File: C0899.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
000103-65-1	Benzene, propyl-	2.48	JN	2.35
	Unknown SV	1.66	J	2.46
001678-93-9	Cyclohexane, butyl-	3.09	JN	2.62
006975-98-0	Decane, 2-methyl-	7.16	JN	2.67
	Unknown Hydrocarbon	4.35	J	2.69
000091-17-8	Naphthalene, decahydro-	2.91	JN	2.74
003891-98-3	Dodecane, 2,6,10-trimethyl-	4.34	JN	3.54
001127-76-0	Naphthalene, 1-ethyl-	1.70	JN	3.70
000582-16-1	Naphthalene, 2,7-dimethyl-	5.05	JN	3.73
	Unknown Hydrocarbon	4.82	J	3.74
000581-40-8	Naphthalene, 2,3-dimethyl-	7.01	JN	3.77
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	14.1	JN	4.33
003031-15-0	Naphthalene, 1,2,3,4-tetramethyl-	1.83	JN	4.44
	Unknown PAH	1.86	J	4.51
000638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	4.99	JN	4.58

Total TICs = 67.4 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-001DL
Client ID: SB-21/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0910.D 11/13/17 22:38

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.4
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.116	0.113
Bis(2-chloroethyl) ether	ND		0.116	0.106
2,2'-Oxybis(1-Chloropropane)	ND		0.116	0.097
N-Nitrosodi-n-propylamine	ND		0.116	0.088
Acetophenone	ND		0.116	0.110
Hexachloroethane	ND		0.116	0.097
Nitrobenzene	ND		0.116	0.091
Isophorone	ND		0.116	0.098
Bis(2-chloroethoxy) methane	ND		0.116	0.104
Naphthalene	0.940	D	0.116	0.101
4-Chloroaniline	ND		0.116	0.076
Hexachlorobutadiene	ND		0.116	0.107
Caprolactam	ND		0.116	0.077
2-Methylnaphthalene	15.7	D	0.116	0.081
Hexachlorocyclopentadiene	ND		0.116	0.102
1,1'-Biphenyl	ND		0.116	0.108
2-Chloronaphthalene	ND		0.116	0.095
2-Nitroaniline	ND		0.116	0.081
Dimethyl phthalate	ND		0.116	0.107

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-001DL
Client ID: SB-21/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0910.D 11/13/17 22:38

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.4
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.116	0.088
Acenaphthylene	0.167	D	0.116	0.095
3-Nitroaniline	ND		0.116	0.092
Acenaphthene	0.419	D	0.116	0.103
2,4-Dinitrotoluene	ND		0.116	0.105
Dibenzofuran	0.546	D	0.116	0.099
Diethyl phthalate	ND		0.116	0.114
Fluorene	0.857	D	0.116	0.104
4-Chlorophenyl phenyl ether	ND		0.116	0.108
4-Nitroaniline	ND		0.116	0.087
1,2,4,5-Tetrachlorobenzene	ND		0.116	0.100
N-Nitrosodiphenylamine	ND		0.116	0.100
4-Bromophenyl phenyl ether	ND		0.116	0.098
Hexachlorobenzene	ND		0.116	0.107
Atrazine	ND		0.116	0.100
Phenanthrene	1.66	D	0.116	0.106
Anthracene	0.230	D	0.116	0.102
Carbazole	ND		0.116	0.090
Di-n-butyl phthalate	ND		0.116	0.088
Fluoranthene	0.415	D	0.116	0.098
Pyrene	0.445	D	0.116	0.095
Butyl benzyl phthalate	ND		0.116	0.106
3,3'-Dichlorobenzidine	ND		0.116	0.084
Benzo[a]anthracene	0.188	D	0.116	0.100
Chrysene	0.213	D	0.116	0.100
Bis(2-ethylhexyl) phthalate	0.339	D	0.116	0.072
Di-n-octyl phthalate	ND		0.116	0.101
Benzo[b]fluoranthene	0.106	DJ	0.116	0.093
Benzo[k]fluoranthene	ND		0.116	0.097
Benzo[a]pyrene	0.122	D	0.116	0.095
Indeno[1,2,3-cd]pyrene	ND		0.116	0.096
Dibenz[a,h]anthracene	ND		0.116	0.114
Benzo[g,h,i]perylene	ND		0.116	0.105
Dinitrotoluene (2,4- and 2,6-)	ND		0.116	0.105
Total Target Compounds (53):	22.3	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-002
Client ID: SB-22/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0900.D 11/13/17 20:04

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.041	0.040
Bis(2-chloroethyl) ether	ND		0.041	0.037
2,2'-Oxybis(1-Chloropropane)	ND		0.041	0.034
N-Nitrosodi-n-propylamine	ND		0.041	0.031
Acetophenone	ND		0.041	0.038
Hexachloroethane	ND		0.041	0.034
Nitrobenzene	ND		0.041	0.032
Isophorone	ND		0.041	0.034
Bis(2-chloroethoxy) methane	ND		0.041	0.037
Naphthalene	ND		0.041	0.035
4-Chloroaniline	ND		0.041	0.027
Hexachlorobutadiene	ND		0.041	0.037
Caprolactam	ND		0.041	0.027
2-Methylnaphthalene	ND		0.041	0.028
Hexachlorocyclopentadiene	ND		0.041	0.036
1,1'-Biphenyl	ND		0.041	0.038
2-Chloronaphthalene	ND		0.041	0.033
2-Nitroaniline	ND		0.041	0.028
Dimethyl phthalate	ND		0.041	0.037

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-002
Client ID: SB-22/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0900.D 11/13/17 20:04

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg
% Moisture: 19.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.041	0.031
Acenaphthylene	ND		0.041	0.033
3-Nitroaniline	ND		0.041	0.032
Acenaphthene	ND		0.041	0.036
2,4-Dinitrotoluene	ND		0.041	0.037
Dibenzofuran	ND		0.041	0.035
Diethyl phthalate	ND		0.041	0.040
Fluorene	ND		0.041	0.037
4-Chlorophenyl phenyl ether	ND		0.041	0.038
4-Nitroaniline	ND		0.041	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.041	0.035
N-Nitrosodiphenylamine	ND		0.041	0.035
4-Bromophenyl phenyl ether	ND		0.041	0.034
Hexachlorobenzene	ND		0.041	0.037
Atrazine	ND		0.041	0.035
Phenanthrene	ND		0.041	0.037
Anthracene	ND		0.041	0.036
Carbazole	ND		0.041	0.032
Di-n-butyl phthalate	ND		0.041	0.031
Fluoranthene	ND		0.041	0.034
Pyrene	ND		0.041	0.033
Butyl benzyl phthalate	ND		0.041	0.037
3,3'-Dichlorobenzidine	ND		0.041	0.029
Benzo[a]anthracene	ND		0.041	0.035
Chrysene	ND		0.041	0.035
Bis(2-ethylhexyl) phthalate	ND		0.041	0.025
Di-n-octyl phthalate	ND		0.041	0.035
Benzo[b]fluoranthene	ND		0.041	0.033
Benzo[k]fluoranthene	ND		0.041	0.034
Benzo[a]pyrene	ND		0.041	0.033
Indeno[1,2,3-cd]pyrene	ND		0.041	0.034
Dibenz[a,h]anthracene	ND		0.041	0.040
Benzo[g,h,i]perylene	ND		0.041	0.037
Dinitrotoluene (2,4- and 2,6-)	ND		0.041	0.037

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-002
Client ID: SB-22/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Date File: C0900.D

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 19.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-003
Client ID: SB-23/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0901.D 11/13/17 20:19

GC/MS Column: DB-5
Sample wt/vol: 15.31g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.040	0.039
Bis(2-chloroethyl) ether	ND		0.040	0.037
2,2'-Oxybis(1-Chloropropane)	ND		0.040	0.033
N-Nitrosodi-n-propylamine	ND		0.040	0.031
Acetophenone	ND		0.040	0.038
Hexachloroethane	ND		0.040	0.034
Nitrobenzene	ND		0.040	0.031
Isophorone	ND		0.040	0.034
Bis(2-chloroethoxy) methane	ND		0.040	0.036
Naphthalene	ND		0.040	0.035
4-Chloroaniline	ND		0.040	0.026
Hexachlorobutadiene	ND		0.040	0.037
Caprolactam	ND		0.040	0.027
2-Methylnaphthalene	ND		0.040	0.028
Hexachlorocyclopentadiene	ND		0.040	0.035
1,1'-Biphenyl	ND		0.040	0.037
2-Chloronaphthalene	ND		0.040	0.033
2-Nitroaniline	ND		0.040	0.028
Dimethyl phthalate	ND		0.040	0.037

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-003
Client ID: SB-23/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0901.D 11/13/17 20:19

GC/MS Column: DB-5
Sample wt/vol: 15.31g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.040	0.030
Acenaphthylene	ND		0.040	0.033
3-Nitroaniline	ND		0.040	0.032
Acenaphthene	ND		0.040	0.035
2,4-Dinitrotoluene	ND		0.040	0.036
Dibenzofuran	ND		0.040	0.034
Diethyl phthalate	ND		0.040	0.039
Fluorene	ND		0.040	0.036
4-Chlorophenyl phenyl ether	ND		0.040	0.037
4-Nitroaniline	ND		0.040	0.030
1,2,4,5-Tetrachlorobenzene	ND		0.040	0.035
N-Nitrosodiphenylamine	ND		0.040	0.035
4-Bromophenyl phenyl ether	ND		0.040	0.034
Hexachlorobenzene	ND		0.040	0.037
Atrazine	ND		0.040	0.035
Phenanthrene	ND		0.040	0.037
Anthracene	ND		0.040	0.035
Carbazole	ND		0.040	0.031
Di-n-butyl phthalate	ND		0.040	0.031
Fluoranthene	ND		0.040	0.034
Pyrene	ND		0.040	0.033
Butyl benzyl phthalate	ND		0.040	0.037
3,3'-Dichlorobenzidine	ND		0.040	0.029
Benzo[a]anthracene	ND		0.040	0.034
Chrysene	ND		0.040	0.034
Bis(2-ethylhexyl) phthalate	ND		0.040	0.025
Di-n-octyl phthalate	ND		0.040	0.035
Benzo[b]fluoranthene	ND		0.040	0.032
Benzo[k]fluoranthene	ND		0.040	0.034
Benzo[a]pyrene	ND		0.040	0.033
Indeno[1,2,3-cd]pyrene	ND		0.040	0.033
Dibenz[a,h]anthracene	ND		0.040	0.039
Benzo[g,h,i]perylene	ND		0.040	0.036
Dinitrotoluene (2,4- and 2,6-)	ND		0.040	0.036

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-003
Client ID: SB-23/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Date File: C0901.D

GC/MS Column: DB-5
Sample wt/vol: 15.31g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 18.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-004
Client ID: SB-24/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0902.D 11/13/17 20:35

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.036	0.035
Bis(2-chloroethyl) ether	ND		0.036	0.033
2,2'-Oxybis(1-Chloropropane)	ND		0.036	0.030
N-Nitrosodi-n-propylamine	ND		0.036	0.028
Acetophenone	ND		0.036	0.034
Hexachloroethane	ND		0.036	0.031
Nitrobenzene	ND		0.036	0.029
Isophorone	ND		0.036	0.031
Bis(2-chloroethoxy) methane	ND		0.036	0.033
Naphthalene	ND		0.036	0.032
4-Chloroaniline	ND		0.036	0.024
Hexachlorobutadiene	ND		0.036	0.033
Caprolactam	ND		0.036	0.024
2-Methylnaphthalene	ND		0.036	0.025
Hexachlorocyclopentadiene	ND		0.036	0.032
1,1'-Biphenyl	ND		0.036	0.034
2-Chloronaphthalene	ND		0.036	0.030
2-Nitroaniline	ND		0.036	0.025
Dimethyl phthalate	ND		0.036	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-004
Client ID: SB-24/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0902.D 11/13/17 20:35

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.036	0.028
Acenaphthylene	ND		0.036	0.030
3-Nitroaniline	ND		0.036	0.029
Acenaphthene	0.065		0.036	0.032
2,4-Dinitrotoluene	ND		0.036	0.033
Dibenzofuran	0.034	J	0.036	0.031
Diethyl phthalate	ND		0.036	0.036
Fluorene	0.052		0.036	0.033
4-Chlorophenyl phenyl ether	ND		0.036	0.034
4-Nitroaniline	ND		0.036	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.036	0.031
N-Nitrosodiphenylamine	ND		0.036	0.032
4-Bromophenyl phenyl ether	ND		0.036	0.031
Hexachlorobenzene	ND		0.036	0.033
Atrazine	ND		0.036	0.031
Phenanthrene	0.616		0.036	0.033
Anthracene	0.120		0.036	0.032
Carbazole	0.042		0.036	0.028
Di-n-butyl phthalate	ND		0.036	0.028
Fluoranthene	0.653		0.036	0.031
Pyrene	0.686		0.036	0.030
Butyl benzyl phthalate	ND		0.036	0.033
3,3'-Dichlorobenzidine	ND		0.036	0.026
Benzo[a]anthracene	0.418		0.036	0.031
Chrysene	0.466		0.036	0.031
Bis(2-ethylhexyl) phthalate	ND		0.036	0.022
Di-n-octyl phthalate	ND		0.036	0.032
Benzo[b]fluoranthene	0.264		0.036	0.029
Benzo[k]fluoranthene	0.245		0.036	0.030
Benzo[a]pyrene	0.303		0.036	0.030
Indeno[1,2,3-cd]pyrene	0.190		0.036	0.030
Dibenz[a,h]anthracene	0.073		0.036	0.036
Benzo[g,h,i]perylene	0.238		0.036	0.033
Dinitrotoluene (2,4- and 2,6-)	ND		0.036	0.033
Total Target Compounds (53):	4.47	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-004
Client ID: SB-24/11
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Date File: C0902.D

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.0

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	3.22	JN	1.83
000192-97-2	Benzo[e]pyrene	0.298	JN	7.86

Total TICs = 3.52 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-005
Client ID: SB-25/10
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0903.D 11/13/17 20:50

GC/MS Column: DB-5
Sample wt/vol: 15.39g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.40
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.035	0.034
Bis(2-chloroethyl) ether	ND		0.035	0.032
2,2'-Oxybis(1-Chloropropane)	ND		0.035	0.029
N-Nitrosodi-n-propylamine	ND		0.035	0.027
Acetophenone	ND		0.035	0.033
Hexachloroethane	ND		0.035	0.029
Nitrobenzene	ND		0.035	0.028
Isophorone	ND		0.035	0.030
Bis(2-chloroethoxy) methane	ND		0.035	0.032
Naphthalene	ND		0.035	0.031
4-Chloroaniline	ND		0.035	0.023
Hexachlorobutadiene	ND		0.035	0.032
Caprolactam	ND		0.035	0.023
2-Methylnaphthalene	ND		0.035	0.025
Hexachlorocyclopentadiene	ND		0.035	0.031
1,1'-Biphenyl	ND		0.035	0.033
2-Chloronaphthalene	ND		0.035	0.029
2-Nitroaniline	ND		0.035	0.025
Dimethyl phthalate	ND		0.035	0.032

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-09802-005
Client ID: SB-25/10
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0903.D 11/13/17 20:50

GC/MS Column: DB-5
Sample wt/vol: 15.39g
Matrix-Units: Soil-mg/Kg
% Moisture: 7.40
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.035	0.027
Acenaphthylene	ND		0.035	0.029
3-Nitroaniline	ND		0.035	0.028
Acenaphthene	ND		0.035	0.031
2,4-Dinitrotoluene	ND		0.035	0.032
Dibenzofuran	ND		0.035	0.030
Diethyl phthalate	ND		0.035	0.034
Fluorene	ND		0.035	0.032
4-Chlorophenyl phenyl ether	ND		0.035	0.033
4-Nitroaniline	ND		0.035	0.026
1,2,4,5-Tetrachlorobenzene	ND		0.035	0.030
N-Nitrosodiphenylamine	ND		0.035	0.030
4-Bromophenyl phenyl ether	ND		0.035	0.030
Hexachlorobenzene	ND		0.035	0.032
Atrazine	ND		0.035	0.030
Phenanthrene	0.060		0.035	0.032
Anthracene	ND		0.035	0.031
Carbazole	ND		0.035	0.027
Di-n-butyl phthalate	ND		0.035	0.027
Fluoranthene	0.088		0.035	0.030
Pyrene	0.095		0.035	0.029
Butyl benzyl phthalate	ND		0.035	0.032
3,3'-Dichlorobenzidine	ND		0.035	0.025
Benzo[a]anthracene	0.067		0.035	0.030
Chrysene	0.069		0.035	0.030
Bis(2-ethylhexyl) phthalate	ND		0.035	0.022
Di-n-octyl phthalate	ND		0.035	0.030
Benzo[b]fluoranthene	0.045		0.035	0.028
Benzo[k]fluoranthene	ND		0.035	0.029
Benzo[a]pyrene	0.043		0.035	0.029
Indeno[1,2,3-cd]pyrene	ND		0.035	0.029
Dibenz[a,h]anthracene	ND		0.035	0.034
Benzo[g,h,i]perylene	ND		0.035	0.032
Dinitrotoluene (2,4- and 2,6-)	ND		0.035	0.032

Total Target Compounds (53): 0.467

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-09802-005
Client ID: SB-25/10
Date Received: 11/10/2017
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Date File: C0903.D

GC/MS Column: DB-5
Sample wt/vol: 15.39g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 7.40

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171110-05
Client ID: .
Date Received: NA
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0882.D 11/13/17 15:23

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171110-05
Client ID: .
Date Received: NA
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0882.D 11/13/17 15:23

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171110-05
Client ID: .
Date Received: NA
Date Extracted: 11/10/2017
Date Analyzed: 11/13/2017
Data file: C0882.D 11/13/17 15:23

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

SAMPLE TRACKING

Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: ECSI
Address: 5 Mainline View Plaza
Hasbrouck, NJ
Telephone #: (201) 876-9400
Fax #:
Project Manager: Seamus Kelly
EMAIL Address: skelly@ecsolutionsenviron.com
Project Name: 27-10 49th Ave
Project Location (State): NY
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: SP/LD
COMPLETED BY IAL: ☐ Field Sampling ☐ Equipment Rental

Reporting Information

REPORT TO:
Address: SAME
Attn:
FAX #
INVOICE TO:
Address:
Attn: SAME
PO #
Quote #

Rush TAT Charge

24 hr - 100%...
~~48 hr - 75%...~~
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☒ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☒ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 48 hrs
Hard Copy: Std 3 week Other - call for price

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☒ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015
TAT for PHC (if other than 2 weeks):

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	SVOCs	Sample Specific Notes:
SB-21	11-11.5	11/10/17	1026	S	2	1	X	X	
SB-22	11.5-12		1104			2	X	X	
SB-23	11.5-12		1133			3	X	X	
SB-24	11.5-12		1225			4	X	X	
SB-25	9.0-10.5		1345			5	X	X	
~~SB-26~~									

Preservative (use code): 4 1
Container Type (use code): T D

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	11/10/17	1700		11/11/17	17:00

FOR LAB USE ONLY
SDG #: 9802
Cooler Temp: 6 °C

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 1 of 1

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IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-09802: 27-10 49TH AVE

To: Seamus Kelly
Atlantic Environmental Solutions, Inc.
Fax: 201-876-9563
EMail: skelly@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category A		Nov 10, 2017 @ 17:00	NA	Nov 14, 2017	Dec 06, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY Part 375-6.8(UUSCO+RUSCO)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09802-001	SB-21	11/11.5	11/10/17@10:26	Soil	mg/Kg (ppm)	
09802-002	SB-22	11.5/12	11/10/17@11:06	Soil	mg/Kg (ppm)	
09802-003	SB-23	11.5/12	11/10/17@11:33	Soil	mg/Kg (ppm)	
09802-004	SB-24	11.5/12	11/10/17@12:25	Soil	mg/Kg (ppm)	
09802-005	SB-25	10/10.5	11/10/17@13:45	Soil	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	11/24/2017
	TCL BN + 15	Analyze	8270D	RUSH 24 HRS	11/24/2017
002	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	11/24/2017
	TCL BN + 15	Analyze	8270D	RUSH 24 HRS	11/24/2017
003	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	11/24/2017
	TCL BN + 15	Analyze	8270D	RUSH 24 HRS	11/24/2017
004	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	11/24/2017
	TCL BN + 15	Analyze	8270D	RUSH 24 HRS	11/24/2017
005	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	11/24/2017
	TCL BN + 15	Analyze	8270D	RUSH 24 HRS	11/24/2017

Project Notes:

REV 1 taken by epacella on 11/14/2017 09:46
PER SEAMUS KELLY, EXPEDITE SAMPLES TO 24 HR, DUE TODAY, 11/14

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **09802** CLIENT: AESI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA

X = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☒ Terra Core ☐ No Preservative

✓	Bottles Intact	all Terra core
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL AW DATE 11/20

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☒

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KF DATE 11/20/17 11/13/17

Laboratory Custody Chronicle

IAL Case No.

E17-09802

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 11/10/2017@17:00

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	09802-001	Soil	n/a	n/a	11/14/17	Xing
"	-002	"	n/a	n/a	11/14/17	Xing
"	-003	"	n/a	n/a	11/14/17	Xing
"	-004	"	n/a	n/a	11/14/17	Xing
"	-005	"	n/a	n/a	11/14/17	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + 15	-001	Soil	11/10/17	Frank L.	11/13/17	Eleanor
"	-002	"	11/10/17	Frank L.	11/13/17	Eleanor
"	-003	"	11/10/17	Frank L.	11/13/17	Eleanor
"	-004	"	11/10/17	Frank L.	11/13/17	Eleanor
"	-005	"	11/10/17	Frank L.	11/13/17	Eleanor

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVE**
IAL Case Number: **E17-10728**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

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Sample Summary

IAL Case No.

E17-10728

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 12/13/2017@16:34

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
10728-001	SB-26	n/a	12/13/2017	Soil	5
10728-002	SB-27	n/a	12/13/2017	Soil	5
10728-003	SB-28	n/a	12/13/2017	Soil	5
10728-004	SB-29	n/a	12/13/2017	Soil	5
10728-005	SB-30	n/a	12/13/2017	Soil	5
10728-006	SB-31A	n/a	12/13/2017	Soil	5
10728-007	SB-32A	n/a	12/13/2017	Soil	5
10728-008	SB-33A	n/a	12/13/2017	Soil	5
10728-009	SB-34A	n/a	12/13/2017	Soil	5
10728-010	SB-35A	n/a	12/13/2017	Soil	5

E17-10728REV

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B	Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C	Indicates analyte is a common laboratory contaminant.
D	Indicates analyte was reported from diluted analysis.
E	Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J	Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M	Indicates matrix interference
N	Presumptive evidence of a compound from the use of GC/MS library search.
X	Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y	Indicates DO depletion in the BOD blank is >0.20ppm
Z	Indicates internal standard failure. Sample results are either biased high or biased low.
$	Value outside NJDEP DKQP Limits
*	Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	^	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	<	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10728

Integrated Analytical Laboratories, LLC. received ten (10) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-10728**, Project: 27-10 49TH AVE) on December 13, 2017 for the analysis of :

(10) TCL VO + 15
(10) TCL BN + 15

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: F171213-02**	**Matrix: Soil**

QC

- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS/MSD were not analyzed due to insufficient sample volume. LCS/LCSD were analyzed in their absence to meet method specific QC requirements.

E17-10728

- All samples were analyzed within holding time.
- 10728-006, 007, 008, 009 and 010 were flagged with a C qualifier, indicating laboratory contamination for Methylene chloride. Methylene chloride is used as a solvent in the laboratory, resulting in occasional laboratory contamination.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10728-006	1	NA
E17-10728-007	1	NA
E17-10728-008	1	NA
E17-10728-009	1	NA
E17-10728-010	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10728

Volatiles By 8260C | **Batch: L171214-01** | **Matrix: MEOH**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-10728
- All samples were analyzed within holding time.
- Samples listed below were run using methanol preserved sample, as applicable. This sample preservation technique elevates RLs and MDLs 100x versus water preservation. If subsequent dilutions are performed, the RLs and MDLs will increase by that factor (e.g. a methanol sample run at a 5x dilution would elevate RLs and MDLs by 500x). Initial runs using methanol are considered "straight" runs and have a dilution factor of 1.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10728-001	2	Target compound(s).
E17-10728-002	1	NA
E17-10728-003	1	NA
E17-10728-004	1;2	Target compound(s).
E17-10728-005	1;5	Target compound(s).

Semivolatiles By 8270D | **Batch: 171213-05** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria. NJDEP DKQP criteria not met.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-10728
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- 10728-006: *oily.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10728-001	1	NA
E17-10728-002	1	NA
E17-10728-003	1	NA
E17-10728-004	1	NA
E17-10728-005	1	NA
E17-10728-006	10	Target compound(s).
E17-10728-007	1	NA
E17-10728-008	1	NA
E17-10728-009	1	NA
E17-10728-010	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10728

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

12/18/2017
Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Atlantic Environmental Solutions, Inc.
Project Location: 27-10 49TH AVE
IAL Project #: E17-10728
IAL Sample ID(s): E17-10728-001 ~ -010
Sampling Date(s): 12/13/2017

List of DKQP Method Used:
TCL VO by 8260C
TCL BN by 8270D

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case 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."

		YES	NO	N/A
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	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	X		
5B	Were these reporting limits met?	X		
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?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-10728

Lab ID:	10728-001			10728-002			10728-003			10728-004		
Client ID:	SB-26			SB-27			SB-28			SB-29		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/13/17			12/13/17			12/13/17			12/13/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Trichloroethene	0.449	D	0.136	0.260		0.075	0.348		0.091	0.625		0.080
Tetrachloroethene	29.0	D	0.124	14.8		0.069	15.0		0.083	45.5	D	0.143
TOTAL VO's:	29.4	D		15.1			15.3			46.1	D	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	29.4	D		15.1			15.3			46.1	D	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	0.038	J	0.034	ND		0.031	0.041		0.033	0.040		0.033
2-Methylnaphthalene	ND		0.027	ND		0.025	0.058		0.026	0.029	J	0.027
Acenaphthylene	0.044		0.032	ND		0.029	ND		0.031	0.053		0.031
Acenaphthene	0.097		0.034	ND		0.031	0.064		0.033	0.058		0.034
Dibenzofuran	0.057		0.033	ND		0.030	0.039		0.032	ND		0.032
Fluorene	0.066		0.035	ND		0.032	0.044		0.034	0.049		0.034
Phenanthrene	1.30		0.035	ND		0.032	0.656		0.034	0.908		0.035
Anthracene	0.274		0.034	ND		0.031	0.117		0.033	0.173		0.033
Carbazole	0.086		0.030	ND		0.027	0.043		0.029	0.051		0.029
Di-n-butyl phthalate	ND		0.029	ND		0.027	ND		0.029	0.049		0.029
Fluoranthene	1.74		0.033	0.037		0.030	0.770		0.032	1.72		0.032
Pyrene	1.80		0.032	0.046		0.029	0.763		0.031	2.15		0.031
Benzo[a]anthracene	1.01		0.033	ND		0.030	0.526		0.032	1.33		0.033
Chrysene	1.09		0.033	0.060		0.030	0.779		0.032	1.41		0.033
Benzo[b]fluoranthene	0.691		0.031	ND		0.028	0.420		0.030	0.895		0.030
Benzo[k]fluoranthene	0.487		0.032	ND		0.030	0.328		0.031	0.790		0.032
Benzo[a]pyrene	0.668		0.032	ND		0.029	0.351		0.031	0.930		0.031
Indeno[1,2,3-cd]pyrene	0.292		0.032	ND		0.029	0.279		0.031	0.528		0.031
Dibenz[a,h]anthracene	0.108		0.038	ND		0.035	0.128		0.037	0.203		0.037
Benzo[g,h,i]perylene	0.295		0.035	ND		0.032	0.357		0.034	0.663		0.034
TOTAL BN'S:	10.1	J		0.143			5.76			12.0	J	
TOTAL TIC's:	13.9	JN		0.803	JN		20.3	JN		20.6	JN	
TOTAL BN'S & TIC's:	24.0	JN		0.946	JN		26.1	JN		32.6	JN	

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES, LLC.

REVISED
SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVE
Lab Case No.: E17-10728

Lab ID:	10728-005			10728-006			10728-007			10728-008		
Client ID:	SB-30			SB-31A			SB-32A			SB-33A		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/13/17			12/13/17			12/13/17			12/13/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	ND		0.203	0.023		0.00187	0.00764	J	0.000979	0.044		0.00189
Methylene chloride	ND		0.151	0.0089	C	0.0038	0.00324	C	0.00199	0.00904	C	0.00384
Trichloroethene	0.946		0.075	0.00102	J	0.000535	ND		0.00028	0.00106	J	0.00054
Tetrachloroethene	61.6	D	0.327	0.091		0.000489	0.027		0.000256	0.052		0.000494
Methyl acetate	ND		0.074	0.00457		0.000892	ND		0.000467	0.00533		0.000901
Methylcyclohexane	0.316		0.063	ND		0.000397	ND		0.000208	ND		0.000401
TOTAL VO's:	62.9	D		0.128	CJ		0.038	JC		0.111	CJ	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	62.9	D		0.128	CJ		0.038	JC		0.111	CJ	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	0.066		0.033	ND		0.369	0.189		0.034	0.116		0.034
2-Methylnaphthalene	0.049		0.027	ND		0.296	0.086		0.027	0.063		0.027
Acenaphthylene	ND		0.031	4.78	D	0.347	0.106		0.032	0.177		0.032
Acenaphthene	0.130		0.034	0.792	D	0.374	0.228		0.035	0.266		0.034
Dibenzofuran	0.080		0.033	0.481	D	0.361	0.174		0.033	0.120		0.033
Fluorene	0.101		0.035	1.06	D	0.381	0.194		0.035	0.186		0.035
Phenanthrene	1.38		0.035	20.8	D	0.386	2.61		0.036	2.40		0.035
Anthracene	0.274		0.034	6.82	D	0.372	0.564		0.034	0.601		0.034
Carbazole	0.115		0.030	2.01	D	0.327	0.236		0.030	0.173		0.030
Fluoranthene	1.80		0.032	60.9	D	0.356	3.50		0.033	4.52		0.033
Pyrene	1.96		0.032	60.8	D	0.347	3.52		0.032	4.82		0.032
Benzo[a]anthracene	1.22		0.033	41.2	D	0.363	2.20		0.034	3.64		0.033
Chrysene	1.32		0.033	36.8	D	0.363	2.18		0.034	3.46		0.033
Bis(2-ethylhexyl) phthalate	ND		0.024	ND		0.261	0.079		0.024	0.089		0.024
Benzo[b]fluoranthene	0.852		0.031	25.7	D	0.339	1.45		0.031	2.68		0.031
Benzo[k]fluoranthene	0.682		0.032	20.8	D	0.354	1.27		0.033	2.28		0.032
Benzo[a]pyrene	0.926		0.031	26.1	D	0.345	1.62		0.032	3.17		0.032
Indeno[1,2,3-cd]pyrene	0.613		0.032	14.1	D	0.350	0.982		0.032	1.84		0.032
Dibenz[a,h]anthracene	0.246		0.038	5.63	D	0.415	0.378		0.038	0.693		0.038
Benzo[g,h,i]perylene	0.884		0.035	15.0	D	0.382	1.23		0.035	2.39		0.035
TOTAL BN'S:	12.7			344	D		22.8			33.7		
TOTAL TIC's:	22.3	JN		80.4	DJN		8.13	JN		14.4	JN	
TOTAL BN'S & TIC's:	35.0	JN		424	DJN		30.9	JN		48.1	JN	

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.

E17-10728REV

P.9A

INTEGRATED ANALYTICAL LABORATORIES, LLC.

REVISED

SUMMARY REPORT

Client: Atlantic Environmental Solutions, Inc.

Project: 27-10 49TH AVE

Lab Case No.: E17-10728

Lab ID:	10728-009			10728-010		
Client ID:	SB-34A			SB-35A		
Matrix:	Soil			Soil		
Sampled Date	12/13/17			12/13/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.015		0.00126	0.014		0.00103
Methylene chloride	0.00544	C	0.00257	0.00529	C	0.00209
Trichloroethene	0.000435	J	0.000361	0.000447	J	0.000294
Tetrachloroethene	0.029		0.00033	0.019		0.000269
Methyl acetate	0.0017		0.000602	0.00189		0.00049
TOTAL VO's:	0.052	CJ		0.041	CJ	
TOTAL TIC's:	0.020	JNC		ND		
TOTAL VO's & TIC's:	0.072	JNC		0.041	CJ	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*		
Acenaphthylene	0.057		0.034	0.233		0.033
Acenaphthene	0.102		0.037	ND		0.036
Dibenzofuran	0.042		0.036	ND		0.035
Fluorene	0.085		0.038	ND		0.037
Phenanthrene	0.897		0.038	0.319		0.037
Anthracene	0.222		0.037	0.410		0.036
Carbazole	0.072		0.032	0.114		0.031
Di-n-butyl phthalate	ND		0.032	0.048		0.031
Fluoranthene	1.36		0.035	0.789		0.034
Pyrene	1.44		0.034	0.899		0.033
Benzo[a]anthracene	0.949		0.036	0.775		0.035
Chrysene	0.971		0.036	1.12		0.035
Benzo[b]fluoranthene	0.611		0.033	1.83		0.033
Benzo[k]fluoranthene	0.672		0.035	1.14		0.034
Benzo[a]pyrene	0.738		0.034	1.44		0.033
Indeno[1,2,3-cd]pyrene	0.474		0.035	2.30		0.034
Dibenz[a,h]anthracene	0.160		0.041	0.911		0.040
Benzo[g,h,i]perylene	0.576		0.038	3.45		0.037
TOTAL BN'S:	9.43			15.8		
TOTAL TIC's:	1.70	JN		4.88	JN	
TOTAL BN'S & TIC's:	11.1	JN		20.7	JN	

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.

C = Common Laboratory and/or Bottle Contaminant.

E17-10728REV

P9B

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-001
Client ID: SB-26
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8700.D 12/14/17 12:15

GC/MS Column: DB-624
Sample wt/vol: 0.021g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.276	0.183
Chloromethane	ND		0.138	0.128
Vinyl chloride	ND		0.276	0.163
Bromomethane	ND		0.276	0.150
Chloroethane	ND		0.276	0.137
Trichlorofluoromethane	ND		0.138	0.119
1,1-Dichloroethene	ND		0.138	0.136
Acetone	ND		0.552	0.367
Carbon disulfide	ND		0.138	0.128
Methylene chloride	ND		0.276	0.273
trans-1,2-Dichloroethene	ND		0.138	0.125
Methyl tert-butyl ether (MTBE)	ND		0.138	0.132
1,1-Dichloroethane	ND		0.138	0.136
cis-1,2-Dichloroethene	ND		0.138	0.124
2-Butanone (MEK)	ND		0.552	0.458
Bromochloromethane	ND		0.276	0.164
Chloroform	ND		0.138	0.129
1,1,1-Trichloroethane	ND		0.138	0.127
Carbon tetrachloride	ND		0.138	0.124
1,2-Dichloroethane (EDC)	ND		0.138	0.126
Benzene	ND		0.138	0.128
Trichloroethene	0.449	D	0.138	0.136
1,2-Dichloropropane	ND		0.138	0.123
1,4-Dioxane	ND		27.6	27.1
Bromodichloromethane	ND		0.138	0.097
cis-1,3-Dichloropropene	ND		0.138	0.091
4-Methyl-2-pentanone (MIBK)	ND		0.552	0.193

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-001
Client ID: SB-26
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8700.D 12/14/17 12:15

GC/MS Column: DB-624
Sample wt/vol: 0.021g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.138	0.105
trans-1,3-Dichloropropene	ND		0.138	0.089
1,1,2-Trichloroethane	ND		0.138	0.130
Tetrachloroethene	29.0	D	0.138	0.124
2-Hexanone	ND		0.552	0.210
Dibromochloromethane	ND		0.138	0.122
1,2-Dibromoethane (EDB)	ND		0.138	0.111
Chlorobenzene	ND		0.138	0.104
Ethylbenzene	ND		0.138	0.095
Total Xylenes	ND		0.276	0.255
Styrene	ND		0.138	0.080
Bromoform	ND		0.138	0.123
Isopropylbenzene	ND		0.138	0.089
1,1,2,2-Tetrachloroethane	ND		0.138	0.126
1,3-Dichlorobenzene	ND		0.138	0.097
1,4-Dichlorobenzene	ND		0.138	0.094
1,2-Dichlorobenzene	ND		0.138	0.100
1,2-Dibromo-3-chloropropane	ND		0.276	0.147
1,2,4-Trichlorobenzene	ND		0.276	0.084
1,2,3-Trichlorobenzene	ND		0.276	0.094
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.276	0.155
Methyl acetate	ND		0.138	0.134
Cyclohexane	ND		0.276	0.113
Methylcyclohexane	ND		0.138	0.113
1,3-Dichloropropene (cis- and trans-)	ND		0.138	0.091
Total Target Compounds (52):	29.4	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-001
Client ID: SB-26
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: L8700.D

GC/MS Column: DB-624
Sample wt/vol: 0.021g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 2
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-002
Client ID: SB-27
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8701.D 12/14/17 12:42

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-mg/Kg
% Moisture: 6.00
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.152	0.101
Chloromethane	ND		0.076	0.070
Vinyl chloride	ND		0.152	0.090
Bromomethane	ND		0.152	0.083
Chloroethane	ND		0.152	0.075
Trichlorofluoromethane	ND		0.076	0.066
1,1-Dichloroethene	ND		0.076	0.075
Acetone	ND		0.304	0.202
Carbon disulfide	ND		0.076	0.071
Methylene chloride	ND		0.152	0.150
trans-1,2-Dichloroethene	ND		0.076	0.069
Methyl tert-butyl ether (MTBE)	ND		0.076	0.073
1,1-Dichloroethane	ND		0.076	0.075
cis-1,2-Dichloroethene	ND		0.076	0.069
2-Butanone (MEK)	ND		0.304	0.252
Bromochloromethane	ND		0.152	0.091
Chloroform	ND		0.076	0.071
1,1,1-Trichloroethane	ND		0.076	0.070
Carbon tetrachloride	ND		0.076	0.068
1,2-Dichloroethane (EDC)	ND		0.076	0.070
Benzene	ND		0.076	0.071
Trichloroethene	0.260		0.076	0.075
1,2-Dichloropropane	ND		0.076	0.068
1,4-Dioxane	ND		15.2	15.0
Bromodichloromethane	ND		0.076	0.054
cis-1,3-Dichloropropene	ND		0.076	0.050
4-Methyl-2-pentanone (MIBK)	ND		0.304	0.106

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-002
Client ID: SB-27
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8701.D 12/14/17 12:42

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-mg/Kg
% Moisture: 6.00
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.076	0.058
trans-1,3-Dichloropropene	ND		0.076	0.049
1,1,2-Trichloroethane	ND		0.076	0.072
Tetrachloroethene	14.8		0.076	0.069
2-Hexanone	ND		0.304	0.116
Dibromochloromethane	ND		0.076	0.067
1,2-Dibromoethane (EDB)	ND		0.076	0.061
Chlorobenzene	ND		0.076	0.057
Ethylbenzene	ND		0.076	0.052
Total Xylenes	ND		0.152	0.140
Styrene	ND		0.076	0.044
Bromoform	ND		0.076	0.068
Isopropylbenzene	ND		0.076	0.049
1,1,2,2-Tetrachloroethane	ND		0.076	0.070
1,3-Dichlorobenzene	ND		0.076	0.053
1,4-Dichlorobenzene	ND		0.076	0.052
1,2-Dichlorobenzene	ND		0.076	0.055
1,2-Dibromo-3-chloropropane	ND		0.152	0.081
1,2,4-Trichlorobenzene	ND		0.152	0.046
1,2,3-Trichlorobenzene	ND		0.152	0.052
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.152	0.086
Methyl acetate	ND		0.076	0.074
Cyclohexane	ND		0.152	0.063
Methylcyclohexane	ND		0.076	0.063
1,3-Dichloropropene (cis- and trans-)	ND		0.076	0.050
Total Target Compounds (52):	15.1			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-002
Client ID: SB-27
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: L8701.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 6.00

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-003
Client ID: SB-28
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8702.D 12/14/17 13:09

GC/MS Column: DB-624
Sample wt/vol: 0.031g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.184	0.122
Chloromethane	ND		0.092	0.085
Vinyl chloride	ND		0.184	0.109
Bromomethane	ND		0.184	0.100
Chloroethane	ND		0.184	0.091
Trichlorofluoromethane	ND		0.092	0.080
1,1-Dichloroethene	ND		0.092	0.091
Acetone	ND		0.367	0.244
Carbon disulfide	ND		0.092	0.085
Methylene chloride	ND		0.184	0.182
trans-1,2-Dichloroethene	ND		0.092	0.083
Methyl tert-butyl ether (MTBE)	ND		0.092	0.088
1,1-Dichloroethane	ND		0.092	0.091
cis-1,2-Dichloroethene	ND		0.092	0.083
2-Butanone (MEK)	ND		0.367	0.305
Bromochloromethane	ND		0.184	0.109
Chloroform	ND		0.092	0.086
1,1,1-Trichloroethane	ND		0.092	0.085
Carbon tetrachloride	ND		0.092	0.083
1,2-Dichloroethane (EDC)	ND		0.092	0.084
Benzene	ND		0.092	0.085
Trichloroethene	0.348		0.092	0.091
1,2-Dichloropropane	ND		0.092	0.082
1,4-Dioxane	ND		18.4	18.1
Bromodichloromethane	ND		0.092	0.065
cis-1,3-Dichloropropene	ND		0.092	0.061
4-Methyl-2-pentanone (MIBK)	ND		0.367	0.128

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-003
Client ID: SB-28
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8702.D 12/14/17 13:09

GC/MS Column: DB-624
Sample wt/vol: 0.031g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.092	0.070
trans-1,3-Dichloropropene	ND		0.092	0.059
1,1,2-Trichloroethane	ND		0.092	0.087
Tetrachloroethene	15.0		0.092	0.083
2-Hexanone	ND		0.367	0.140
Dibromochloromethane	ND		0.092	0.081
1,2-Dibromoethane (EDB)	ND		0.092	0.074
Chlorobenzene	ND		0.092	0.069
Ethylbenzene	ND		0.092	0.063
Total Xylenes	ND		0.184	0.170
Styrene	ND		0.092	0.053
Bromoform	ND		0.092	0.082
Isopropylbenzene	ND		0.092	0.059
1,1,2,2-Tetrachloroethane	ND		0.092	0.084
1,3-Dichlorobenzene	ND		0.092	0.065
1,4-Dichlorobenzene	ND		0.092	0.063
1,2-Dichlorobenzene	ND		0.092	0.067
1,2-Dibromo-3-chloropropane	ND		0.184	0.098
1,2,4-Trichlorobenzene	ND		0.184	0.056
1,2,3-Trichlorobenzene	ND		0.184	0.062
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.184	0.103
Methyl acetate	ND		0.092	0.089
Cyclohexane	ND		0.184	0.076
Methylcyclohexane	ND		0.092	0.076
1,3-Dichloropropene (cis- and trans-)	ND		0.092	0.061
Total Target Compounds (52):	15.3			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-003
Client ID: SB-28
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: L8702.D

GC/MS Column: DB-624
Sample wt/vol: 0.031g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-004
Client ID: SB-29
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8703.D 12/14/17 13:37

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.163	0.108
Chloromethane	ND		0.081	0.075
Vinyl chloride	ND		0.163	0.096
Bromomethane	ND		0.163	0.089
Chloroethane	ND		0.163	0.081
Trichlorofluoromethane	ND		0.081	0.071
1,1-Dichloroethene	ND		0.081	0.080
Acetone	ND		0.326	0.217
Carbon disulfide	ND		0.081	0.076
Methylene chloride	ND		0.163	0.161
trans-1,2-Dichloroethene	ND		0.081	0.074
Methyl tert-butyl ether (MTBE)	ND		0.081	0.078
1,1-Dichloroethane	ND		0.081	0.080
cis-1,2-Dichloroethene	ND		0.081	0.074
2-Butanone (MEK)	ND		0.326	0.271
Bromochloromethane	ND		0.163	0.097
Chloroform	ND		0.081	0.076
1,1,1-Trichloroethane	ND		0.081	0.075
Carbon tetrachloride	ND		0.081	0.073
1,2-Dichloroethane (EDC)	ND		0.081	0.075
Benzene	ND		0.081	0.076
Trichloroethene	0.625		0.081	0.080
1,2-Dichloropropane	ND		0.081	0.073
1,4-Dioxane	ND		16.3	16.0
Bromodichloromethane	ND		0.081	0.058
cis-1,3-Dichloropropene	ND		0.081	0.054
4-Methyl-2-pentanone (MIBK)	ND		0.326	0.114

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-004
Client ID: SB-29
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8703.D 12/14/17 13:37

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.081	0.062
trans-1,3-Dichloropropene	ND		0.081	0.052
1,1,2-Trichloroethane	ND		0.081	0.077
Tetrachloroethene	41.5	E	0.081	0.074
2-Hexanone	ND		0.326	0.124
Dibromochloromethane	ND		0.081	0.072
1,2-Dibromoethane (EDB)	ND		0.081	0.066
Chlorobenzene	ND		0.081	0.061
Ethylbenzene	ND		0.081	0.056
Total Xylenes	ND		0.163	0.150
Styrene	ND		0.081	0.047
Bromoform	ND		0.081	0.073
Isopropylbenzene	ND		0.081	0.053
1,1,2,2-Tetrachloroethane	ND		0.081	0.075
1,3-Dichlorobenzene	ND		0.081	0.057
1,4-Dichlorobenzene	ND		0.081	0.056
1,2-Dichlorobenzene	ND		0.081	0.059
1,2-Dibromo-3-chloropropane	ND		0.163	0.087
1,2,4-Trichlorobenzene	ND		0.163	0.050
1,2,3-Trichlorobenzene	ND		0.163	0.055
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.163	0.092
Methyl acetate	ND		0.081	0.079
Cyclohexane	ND		0.163	0.067
Methylcyclohexane	ND		0.081	0.067
1,3-Dichloropropene (cis- and trans-)	ND		0.081	0.054
Total Target Compounds (52):	42.1	E		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-004
Client ID: SB-29
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: L8703.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.3

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-004DL
Client ID: SB-29
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8705.D 12/14/17 14:31

GC/MS Column: DB-624
Sample wt/vol: 0.018g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.3
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.317	0.210
Chloromethane	ND		0.158	0.147
Vinyl chloride	ND		0.317	0.187
Bromomethane	ND		0.317	0.172
Chloroethane	ND		0.317	0.157
Trichlorofluoromethane	ND		0.158	0.137
1,1-Dichloroethene	ND		0.158	0.156
Acetone	ND		0.633	0.421
Carbon disulfide	ND		0.158	0.147
Methylene chloride	ND		0.317	0.314
trans-1,2-Dichloroethene	ND		0.158	0.144
Methyl tert-butyl ether (MTBE)	ND		0.158	0.152
1,1-Dichloroethane	ND		0.158	0.156
cis-1,2-Dichloroethene	ND		0.158	0.143
2-Butanone (MEK)	ND		0.633	0.526
Bromochloromethane	ND		0.317	0.189
Chloroform	ND		0.158	0.149
1,1,1-Trichloroethane	ND		0.158	0.146
Carbon tetrachloride	ND		0.158	0.142
1,2-Dichloroethane (EDC)	ND		0.158	0.145
Benzene	ND		0.158	0.147
Trichloroethene	0.677	D	0.158	0.156
1,2-Dichloropropane	ND		0.158	0.142
1,4-Dioxane	ND		31.7	31.2
Bromodichloromethane	ND		0.158	0.112
cis-1,3-Dichloropropene	ND		0.158	0.105
4-Methyl-2-pentanone (MIBK)	ND		0.633	0.221

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-004DL
Client ID: SB-29
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8705.D 12/14/17 14:31

GC/MS Column: DB-624
Sample wt/vol: 0.018g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.3
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.158	0.120
trans-1,3-Dichloropropene	ND		0.158	0.102
1,1,2-Trichloroethane	ND		0.158	0.150
Tetrachloroethene	45.5	D	0.158	0.143
2-Hexanone	ND		0.633	0.241
Dibromochloromethane	ND		0.158	0.140
1,2-Dibromoethane (EDB)	ND		0.158	0.127
Chlorobenzene	ND		0.158	0.119
Ethylbenzene	ND		0.158	0.109
Total Xylenes	ND		0.317	0.292
Styrene	ND		0.158	0.092
Bromoform	ND		0.158	0.141
Isopropylbenzene	ND		0.158	0.102
1,1,2,2-Tetrachloroethane	ND		0.158	0.145
1,3-Dichlorobenzene	ND		0.158	0.111
1,4-Dichlorobenzene	ND		0.158	0.108
1,2-Dichlorobenzene	ND		0.158	0.115
1,2-Dibromo-3-chloropropane	ND		0.317	0.169
1,2,4-Trichlorobenzene	ND		0.317	0.096
1,2,3-Trichlorobenzene	ND		0.317	0.107
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.317	0.178
Methyl acetate	ND		0.158	0.154
Cyclohexane	ND		0.317	0.130
Methylcyclohexane	ND		0.158	0.130
1,3-Dichloropropene (cis- and trans-)	ND		0.158	0.105
Total Target Compounds (52):	46.2	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-005
Client ID: SB-30
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8704.D 12/14/17 14:04

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.152	0.101
Chloromethane	ND		0.076	0.071
Vinyl chloride	ND		0.152	0.090
Bromomethane	ND		0.152	0.083
Chloroethane	ND		0.152	0.076
Trichlorofluoromethane	ND		0.076	0.066
1,1-Dichloroethene	ND		0.076	0.075
Acetone	ND		0.305	0.203
Carbon disulfide	ND		0.076	0.071
Methylene chloride	ND		0.152	0.151
trans-1,2-Dichloroethene	ND		0.076	0.069
Methyl tert-butyl ether (MTBE)	ND		0.076	0.073
1,1-Dichloroethane	ND		0.076	0.075
cis-1,2-Dichloroethene	ND		0.076	0.069
2-Butanone (MEK)	ND		0.305	0.253
Bromochloromethane	ND		0.152	0.091
Chloroform	ND		0.076	0.072
1,1,1-Trichloroethane	ND		0.076	0.070
Carbon tetrachloride	ND		0.076	0.069
1,2-Dichloroethane (EDC)	ND		0.076	0.070
Benzene	ND		0.076	0.071
Trichloroethene	0.946		0.076	0.075
1,2-Dichloropropane	ND		0.076	0.068
1,4-Dioxane	ND		15.2	15.0
Bromodichloromethane	ND		0.076	0.054
cis-1,3-Dichloropropene	ND		0.076	0.051
4-Methyl-2-pentanone (MIBK)	ND		0.305	0.107

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-005
Client ID: SB-30
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8704.D 12/14/17 14:04

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.076	0.058
trans-1,3-Dichloropropene	ND		0.076	0.049
1,1,2-Trichloroethane	ND		0.076	0.072
Tetrachloroethene	55.6	E	0.076	0.069
2-Hexanone	ND		0.305	0.116
Dibromochloromethane	ND		0.076	0.067
1,2-Dibromoethane (EDB)	ND		0.076	0.061
Chlorobenzene	ND		0.076	0.057
Ethylbenzene	ND		0.076	0.052
Total Xylenes	ND		0.152	0.141
Styrene	ND		0.076	0.044
Bromoform	ND		0.076	0.068
Isopropylbenzene	ND		0.076	0.049
1,1,2,2-Tetrachloroethane	ND		0.076	0.070
1,3-Dichlorobenzene	ND		0.076	0.054
1,4-Dichlorobenzene	ND		0.076	0.052
1,2-Dichlorobenzene	ND		0.076	0.056
1,2-Dibromo-3-chloropropane	ND		0.152	0.081
1,2,4-Trichlorobenzene	ND		0.152	0.046
1,2,3-Trichlorobenzene	ND		0.152	0.052
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.152	0.086
Methyl acetate	ND		0.076	0.074
Cyclohexane	ND		0.152	0.063
Methylcyclohexane	0.316		0.076	0.063
1,3-Dichloropropene (cis- and trans-)	ND		0.076	0.051
Total Target Compounds (52):	56.9	E		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-005
Client ID: SB-30
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: L8704.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-005DL
Client ID: SB-30
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8706.D 12/14/17 14:58

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.724	0.479
Chloromethane	ND		0.362	0.335
Vinyl chloride	ND		0.724	0.428
Bromomethane	ND		0.724	0.394
Chloroethane	ND		0.724	0.358
Trichlorofluoromethane	ND		0.362	0.314
1,1-Dichloroethene	ND		0.362	0.357
Acetone	ND		1.45	0.963
Carbon disulfide	ND		0.362	0.336
Methylene chloride	ND		0.724	0.717
trans-1,2-Dichloroethene	ND		0.362	0.329
Methyl tert-butyl ether (MTBE)	ND		0.362	0.347
1,1-Dichloroethane	ND		0.362	0.357
cis-1,2-Dichloroethene	ND		0.362	0.327
2-Butanone (MEK)	ND		1.45	1.20
Bromochloromethane	ND		0.724	0.432
Chloroform	ND		0.362	0.340
1,1,1-Trichloroethane	ND		0.362	0.335
Carbon tetrachloride	ND		0.362	0.325
1,2-Dichloroethane (EDC)	ND		0.362	0.332
Benzene	ND		0.362	0.336
Trichloroethene	1.07	D	0.362	0.357
1,2-Dichloropropane	ND		0.362	0.324
1,4-Dioxane	ND		72.4	71.3
Bromodichloromethane	ND		0.362	0.256
cis-1,3-Dichloropropene	ND		0.362	0.240
4-Methyl-2-pentanone (MIBK)	ND		1.45	0.506

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-005DL
Client ID: SB-30
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: L8706.D 12/14/17 14:58

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.362	0.274
trans-1,3-Dichloropropene	ND		0.362	0.232
1,1,2-Trichloroethane	ND		0.362	0.343
Tetrachloroethene	61.6	D	0.362	0.327
2-Hexanone	ND		1.45	0.551
Dibromochloromethane	ND		0.362	0.320
1,2-Dibromoethane (EDB)	ND		0.362	0.291
Chlorobenzene	ND		0.362	0.272
Ethylbenzene	ND		0.362	0.249
Total Xylenes	ND		0.724	0.668
Styrene	ND		0.362	0.210
Bromoform	ND		0.362	0.322
Isopropylbenzene	ND		0.362	0.234
1,1,2,2-Tetrachloroethane	ND		0.362	0.332
1,3-Dichlorobenzene	ND		0.362	0.254
1,4-Dichlorobenzene	ND		0.362	0.247
1,2-Dichlorobenzene	ND		0.362	0.264
1,2-Dibromo-3-chloropropane	ND		0.724	0.386
1,2,4-Trichlorobenzene	ND		0.724	0.220
1,2,3-Trichlorobenzene	ND		0.724	0.246
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.724	0.408
Methyl acetate	ND		0.362	0.351
Cyclohexane	ND		0.724	0.298
Methylcyclohexane	ND		0.362	0.298
1,3-Dichloropropene (cis- and trans-)	ND		0.362	0.240
Total Target Compounds (52):	62.7	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-006
Client ID: SB-31A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2456.D 12/14/17 09:09

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 23.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00191	0.000449
Chloromethane	ND		0.00382	0.000353
Vinyl chloride	ND		0.00191	0.000353
Bromomethane	ND		0.00191	0.000569
Chloroethane	ND		0.00191	0.000506
Trichlorofluoromethane	ND		0.00191	0.000359
1,1-Dichloroethene	ND		0.00191	0.00072
Acetone	0.023		0.019	0.00187
Carbon disulfide	ND		0.00191	0.000592
Methylene chloride	0.0089	C	0.00382	0.0038
trans-1,2-Dichloroethene	ND		0.00191	0.000554
Methyl tert-butyl ether (MTBE)	ND		0.00191	0.000369
1,1-Dichloroethane	ND		0.00191	0.000371
cis-1,2-Dichloroethene	ND		0.00191	0.000407
2-Butanone (MEK)	ND		0.00382	0.00094
Bromochloromethane	ND		0.00191	0.000531
Chloroform	ND		0.00191	0.000401
1,1,1-Trichloroethane	ND		0.00191	0.000451
Carbon tetrachloride	ND		0.00191	0.000308
1,2-Dichloroethane (EDC)	ND		0.00191	0.000504
Benzene	ND		0.00191	0.000499
Trichloroethene	0.00102	J	0.00191	0.000535
1,2-Dichloropropane	ND		0.00191	0.000323
1,4-Dioxane	ND		0.382	0.068
Bromodichloromethane	ND		0.00191	0.000445
cis-1,3-Dichloropropene	ND		0.00191	0.000392
4-Methyl-2-pentanone (MIBK)	ND		0.00382	0.00111

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-006
Client ID: SB-31A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2456.D 12/14/17 09:09

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 23.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00191	0.000617
trans-1,3-Dichloropropene	ND		0.00191	0.000441
1,1,2-Trichloroethane	ND		0.00191	0.000516
Tetrachloroethene	0.091		0.00191	0.000489
2-Hexanone	ND		0.00382	0.00199
Dibromochloromethane	ND		0.00191	0.000357
1,2-Dibromoethane (EDB)	ND		0.00191	0.000338
Chlorobenzene	ND		0.00191	0.00043
Ethylbenzene	ND		0.00191	0.000466
Total Xylenes	ND		0.00382	0.000827
Styrene	ND		0.00191	0.000393
Bromoform	ND		0.00191	0.000548
Isopropylbenzene	ND		0.00191	0.000378
1,1,2,2-Tetrachloroethane	ND		0.00191	0.000514
1,3-Dichlorobenzene	ND		0.00191	0.000369
1,4-Dichlorobenzene	ND		0.00191	0.000327
1,2-Dichlorobenzene	ND		0.00191	0.00033
1,2-Dibromo-3-chloropropane	ND		0.00191	0.000516
1,2,4-Trichlorobenzene	ND		0.00191	0.00084
1,2,3-Trichlorobenzene	ND		0.00191	0.000919
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00191	0.000693
Methyl acetate	0.00457		0.00191	0.000892
Cyclohexane	ND		0.00955	0.000348
Methylcyclohexane	ND		0.00191	0.000397
1,3-Dichloropropene (cis- and trans-)	ND		0.00191	0.000441
Total Target Compounds (52):	0.128	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-10728REV

P.31

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-006
Client ID: SB-31A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: F2456.D

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 23.0

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-007
Client ID: SB-32A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2457.D 12/14/17 09:38

GC/MS Column: DB-624
Sample wt/vol: 6.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.002	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	0.00764	J	0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	0.00324	C	0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-007
Client ID: SB-32A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2457.D 12/14/17 09:38

GC/MS Column: DB-624
Sample wt/vol: 6.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	0.027		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.005	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231
Total Target Compounds (52):	0.038	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-007
Client ID: SB-32A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: F2457.D

GC/MS Column: DB-624
Sample wt/vol: 6.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 18.1

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-008
Client ID: SB-33A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2458.D 12/14/17 10:08

GC/MS Column: DB-624
Sample wt/vol: 3.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00193	0.000454
Chloromethane	ND		0.00386	0.000357
Vinyl chloride	ND		0.00193	0.000357
Bromomethane	ND		0.00193	0.000575
Chloroethane	ND		0.00193	0.000511
Trichlorofluoromethane	ND		0.00193	0.000363
1,1-Dichloroethene	ND		0.00193	0.000728
Acetone	0.044		0.019	0.00189
Carbon disulfide	ND		0.00193	0.000598
Methylene chloride	0.00904	C	0.00386	0.00384
trans-1,2-Dichloroethene	ND		0.00193	0.00056
Methyl tert-butyl ether (MTBE)	ND		0.00193	0.000372
1,1-Dichloroethane	ND		0.00193	0.000374
cis-1,2-Dichloroethene	ND		0.00193	0.000411
2-Butanone (MEK)	ND		0.00386	0.00095
Bromochloromethane	ND		0.00193	0.000537
Chloroform	ND		0.00193	0.000405
1,1,1-Trichloroethane	ND		0.00193	0.000455
Carbon tetrachloride	ND		0.00193	0.000311
1,2-Dichloroethane (EDC)	ND		0.00193	0.00051
Benzene	ND		0.00193	0.000504
Trichloroethene	0.00106	J	0.00193	0.00054
1,2-Dichloropropane	ND		0.00193	0.000326
1,4-Dioxane	ND		0.386	0.069
Bromodichloromethane	ND		0.00193	0.00045
cis-1,3-Dichloropropene	ND		0.00193	0.000396
4-Methyl-2-pentanone (MIBK)	ND		0.00386	0.00112

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-008
Client ID: SB-33A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2458.D 12/14/17 10:08

GC/MS Column: DB-624
Sample wt/vol: 3.1g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00193	0.000623
trans-1,3-Dichloropropene	ND		0.00193	0.000446
1,1,2-Trichloroethane	ND		0.00193	0.000521
Tetrachloroethene	0.052		0.00193	0.000494
2-Hexanone	ND		0.00386	0.00201
Dibromochloromethane	ND		0.00193	0.000361
1,2-Dibromoethane (EDB)	ND		0.00193	0.000342
Chlorobenzene	ND		0.00193	0.000434
Ethylbenzene	ND		0.00193	0.000471
Total Xylenes	ND		0.00386	0.000836
Styrene	ND		0.00193	0.000398
Bromoform	ND		0.00193	0.000554
Isopropylbenzene	ND		0.00193	0.000382
1,1,2,2-Tetrachloroethane	ND		0.00193	0.000519
1,3-Dichlorobenzene	ND		0.00193	0.000372
1,4-Dichlorobenzene	ND		0.00193	0.00033
1,2-Dichlorobenzene	ND		0.00193	0.000334
1,2-Dibromo-3-chloropropane	ND		0.00193	0.000521
1,2,4-Trichlorobenzene	ND		0.00193	0.000849
1,2,3-Trichlorobenzene	ND		0.00193	0.000928
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00193	0.000701
Methyl acetate	0.00533		0.00193	0.000901
Cyclohexane	ND		0.00965	0.000351
Methylcyclohexane	ND		0.00193	0.000401
1,3-Dichloropropene (cis- and trans-)	ND		0.00193	0.000446
Total Target Compounds (52):	0.111	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-008
Client ID: SB-33A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: F2458.D

GC/MS Column: DB-624
Sample wt/vol: 3.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-009
Client ID: SB-34A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2459.D 12/14/17 10:37

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00129	0.000303
Chloromethane	ND		0.00258	0.000239
Vinyl chloride	ND		0.00129	0.000239
Bromomethane	ND		0.00129	0.000384
Chloroethane	ND		0.00129	0.000342
Trichlorofluoromethane	ND		0.00129	0.000243
1,1-Dichloroethene	ND		0.00129	0.000486
Acetone	0.015		0.013	0.00126
Carbon disulfide	ND		0.00129	0.0004
Methylene chloride	0.00544	C	0.00258	0.00257
trans-1,2-Dichloroethene	ND		0.00129	0.000374
Methyl tert-butyl ether (MTBE)	ND		0.00129	0.000249
1,1-Dichloroethane	ND		0.00129	0.00025
cis-1,2-Dichloroethene	ND		0.00129	0.000275
2-Butanone (MEK)	ND		0.00258	0.000635
Bromochloromethane	ND		0.00129	0.000359
Chloroform	ND		0.00129	0.000271
1,1,1-Trichloroethane	ND		0.00129	0.000304
Carbon tetrachloride	ND		0.00129	0.000208
1,2-Dichloroethane (EDC)	ND		0.00129	0.000341
Benzene	ND		0.00129	0.000337
Trichloroethene	0.000435	J	0.00129	0.000361
1,2-Dichloropropane	ND		0.00129	0.000218
1,4-Dioxane	ND		0.258	0.046
Bromodichloromethane	ND		0.00129	0.000301
cis-1,3-Dichloropropene	ND		0.00129	0.000264
4-Methyl-2-pentanone (MIBK)	ND		0.00258	0.000747

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-009
Client ID: SB-34A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2459.D 12/14/17 10:37

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00129	0.000417
trans-1,3-Dichloropropene	ND		0.00129	0.000298
1,1,2-Trichloroethane	ND		0.00129	0.000348
Tetrachloroethene	0.029		0.00129	0.00033
2-Hexanone	ND		0.00258	0.00134
Dibromochloromethane	ND		0.00129	0.000241
1,2-Dibromoethane (EDB)	ND		0.00129	0.000228
Chlorobenzene	ND		0.00129	0.00029
Ethylbenzene	ND		0.00129	0.000315
Total Xylenes	ND		0.00258	0.000559
Styrene	ND		0.00129	0.000266
Bromoform	ND		0.00129	0.00037
Isopropylbenzene	ND		0.00129	0.000255
1,1,2,2-Tetrachloroethane	ND		0.00129	0.000347
1,3-Dichlorobenzene	ND		0.00129	0.000249
1,4-Dichlorobenzene	ND		0.00129	0.000221
1,2-Dichlorobenzene	ND		0.00129	0.000223
1,2-Dibromo-3-chloropropane	ND		0.00129	0.000348
1,2,4-Trichlorobenzene	ND		0.00129	0.000568
1,2,3-Trichlorobenzene	ND		0.00129	0.00062
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00129	0.000468
Methyl acetate	0.0017		0.00129	0.000602
Cyclohexane	ND		0.00645	0.000235
Methylcyclohexane	ND		0.00129	0.000268
1,3-Dichloropropene (cis- and trans-)	ND		0.00129	0.000298
Total Target Compounds (52):	0.051	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-009
Client ID: SB-34A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: F2459.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 20.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	0.011	J	2.02
000109-66-0	Pentane	0.00903	JN	2.85

Total TICs = 0.020 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-010
Client ID: SB-35A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2460.D 12/14/17 11:06

GC/MS Column: DB-624
Sample wt/vol: 6g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00105	0.000247
Chloromethane	ND		0.0021	0.000194
Vinyl chloride	ND		0.00105	0.000194
Bromomethane	ND		0.00105	0.000313
Chloroethane	ND		0.00105	0.000278
Trichlorofluoromethane	ND		0.00105	0.000197
1,1-Dichloroethene	ND		0.00105	0.000396
Acetone	0.014		0.011	0.00103
Carbon disulfide	ND		0.00105	0.000326
Methylene chloride	0.00529	C	0.0021	0.00209
trans-1,2-Dichloroethene	ND		0.00105	0.000305
Methyl tert-butyl ether (MTBE)	ND		0.00105	0.000203
1,1-Dichloroethane	ND		0.00105	0.000204
cis-1,2-Dichloroethene	ND		0.00105	0.000224
2-Butanone (MEK)	ND		0.0021	0.000517
Bromochloromethane	ND		0.00105	0.000292
Chloroform	ND		0.00105	0.000221
1,1,1-Trichloroethane	ND		0.00105	0.000248
Carbon tetrachloride	ND		0.00105	0.000169
1,2-Dichloroethane (EDC)	ND		0.00105	0.000277
Benzene	ND		0.00105	0.000274
Trichloroethene	0.000447	J	0.00105	0.000294
1,2-Dichloropropane	ND		0.00105	0.000177
1,4-Dioxane	ND		0.210	0.038
Bromodichloromethane	ND		0.00105	0.000245
cis-1,3-Dichloropropene	ND		0.00105	0.000215
4-Methyl-2-pentanone (MIBK)	ND		0.0021	0.000608

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10728-010
Client ID: SB-35A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Data file: F2460.D 12/14/17 11:06

GC/MS Column: DB-624
Sample wt/vol: 6g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00105	0.000339
trans-1,3-Dichloropropene	ND		0.00105	0.000243
1,1,2-Trichloroethane	ND		0.00105	0.000284
Tetrachloroethene	0.019		0.00105	0.000269
2-Hexanone	ND		0.0021	0.00109
Dibromochloromethane	ND		0.00105	0.000196
1,2-Dibromoethane (EDB)	ND		0.00105	0.000186
Chlorobenzene	ND		0.00105	0.000236
Ethylbenzene	ND		0.00105	0.000256
Total Xylenes	ND		0.0021	0.000455
Styrene	ND		0.00105	0.000216
Bromoform	ND		0.00105	0.000301
Isopropylbenzene	ND		0.00105	0.000208
1,1,2,2-Tetrachloroethane	ND		0.00105	0.000282
1,3-Dichlorobenzene	ND		0.00105	0.000203
1,4-Dichlorobenzene	ND		0.00105	0.00018
1,2-Dichlorobenzene	ND		0.00105	0.000182
1,2-Dibromo-3-chloropropane	ND		0.00105	0.000284
1,2,4-Trichlorobenzene	ND		0.00105	0.000462
1,2,3-Trichlorobenzene	ND		0.00105	0.000505
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00105	0.000381
Methyl acetate	0.00189		0.00105	0.00049
Cyclohexane	ND		0.00525	0.000191
Methylcyclohexane	ND		0.00105	0.000218
1,3-Dichloropropene (cis- and trans-)	ND		0.00105	0.000243
Total Target Compounds (52):	0.040	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-010
Client ID: SB-35A
Date Received: 12/13/2017
Date Analyzed: 12/14/2017
Date File: F2460.D

GC/MS Column: DB-624
Sample wt/vol: 6g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 20.9

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171214-01
Client ID: BLKM171214-01
Date Received:
Date Analyzed: 12/14/2017
Data file: L8699.D 12/14/17 11:48

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.050	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.025	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171214-01
Client ID: BLKM171214-01
Date Received:
Date Analyzed: 12/14/2017
Data file: L8699.D 12/14/17 11:48

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171214-01
Client ID: BLKM171214-01
Date Received:
Date Analyzed: 12/14/2017
Data file: L8699.D 12/14/17 11:48

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171213-02
Client ID: BLKS171213-02
Date Received:
Date Analyzed: 12/14/2017
Data file: F2446.D 12/14/17 04:15

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.002	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171213-02
Client ID: BLKS171213-02
Date Received:
Date Analyzed: 12/14/2017
Data file: F2446.D 12/14/17 04:15

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.005	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171213-02
Client ID: BLKS171213-02
Date Received:
Date Analyzed: 12/14/2017
Date File: F2446.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-001
Client ID: SB-26
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1524.D 12/14/17 14:33

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.039	0.032
N-Nitrosodi-n-propylamine	ND		0.039	0.029
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.032
Nitrobenzene	ND		0.039	0.030
Isophorone	ND		0.039	0.032
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.038	J	0.039	0.034
4-Chloroaniline	ND		0.039	0.025
Hexachlorobutadiene	ND		0.039	0.035
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	ND		0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.036
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-001
Client ID: SB-26
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1524.D 12/14/17 14:33

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.029
Acenaphthylene	0.044		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	0.097		0.039	0.034
2,4-Dinitrotoluene	ND		0.039	0.035
Dibenzofuran	0.057		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	0.066		0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.033
N-Nitrosodiphenylamine	ND		0.039	0.033
4-Bromophenyl phenyl ether	ND		0.039	0.032
Hexachlorobenzene	ND		0.039	0.035
Atrazine	ND		0.039	0.033
Phenanthrene	1.30		0.039	0.035
Anthracene	0.274		0.039	0.034
Carbazole	0.086		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.029
Fluoranthene	1.74		0.039	0.033
Pyrene	1.80		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.035
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	1.01		0.039	0.033
Chrysene	1.09		0.039	0.033
Bis(2-ethylhexyl) phthalate	ND		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	0.691		0.039	0.031
Benzo[k]fluoranthene	0.487		0.039	0.032
Benzo[a]pyrene	0.668		0.039	0.032
Indeno[1,2,3-cd]pyrene	0.292		0.039	0.032
Dibenz[a,h]anthracene	0.108		0.039	0.038
Benzo[g,h,i]perylene	0.295		0.039	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.039	0.035
Total Target Compounds (53):	10.1	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-001
Client ID: SB-26
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1524.D

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	12.1	JN	1.73
	Unknown SV	0.220	J	2.04
000610-48-0	Anthracene, 1-methyl-	0.232	JN	4.88
000832-69-9	Phenanthrene, 1-methyl-	0.193	JN	4.90
	Unknown PAH	0.340	J	4.96
	Unknown PAH	0.158	J	5.14
000192-97-2	Benzo[e]pyrene	0.637	JN	7.60

Total TICs = 13.9 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-002
Client ID: SB-27
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1525.D 12/14/17 14:49

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Soil-mg/Kg
% Moisture: 6.00
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.035	0.034
Bis(2-chloroethyl) ether	ND		0.035	0.032
2,2'-Oxybis(1-Chloropropane)	ND		0.035	0.030
N-Nitrosodi-n-propylamine	ND		0.035	0.027
Acetophenone	ND		0.035	0.033
Hexachloroethane	ND		0.035	0.030
Nitrobenzene	ND		0.035	0.028
Isophorone	ND		0.035	0.030
Bis(2-chloroethoxy) methane	ND		0.035	0.032
Naphthalene	ND		0.035	0.031
4-Chloroaniline	ND		0.035	0.023
Hexachlorobutadiene	ND		0.035	0.033
Caprolactam	ND		0.035	0.024
2-Methylnaphthalene	ND		0.035	0.025
Hexachlorocyclopentadiene	ND		0.035	0.031
1,1'-Biphenyl	ND		0.035	0.033
2-Chloronaphthalene	ND		0.035	0.029
2-Nitroaniline	ND		0.035	0.025
Dimethyl phthalate	ND		0.035	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-002
Client ID: SB-27
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1525.D 12/14/17 14:49

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Soil-mg/Kg
% Moisture: 6.00
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.035	0.027
Acenaphthylene	ND		0.035	0.029
3-Nitroaniline	ND		0.035	0.028
Acenaphthene	ND		0.035	0.031
2,4-Dinitrotoluene	ND		0.035	0.032
Dibenzofuran	ND		0.035	0.030
Diethyl phthalate	ND		0.035	0.035
Fluorene	ND		0.035	0.032
4-Chlorophenyl phenyl ether	ND		0.035	0.033
4-Nitroaniline	ND		0.035	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.035	0.031
N-Nitrosodiphenylamine	ND		0.035	0.031
4-Bromophenyl phenyl ether	ND		0.035	0.030
Hexachlorobenzene	ND		0.035	0.033
Atrazine	ND		0.035	0.031
Phenanthrene	ND		0.035	0.032
Anthracene	ND		0.035	0.031
Carbazole	ND		0.035	0.027
Di-n-butyl phthalate	ND		0.035	0.027
Fluoranthene	0.037		0.035	0.030
Pyrene	0.046		0.035	0.029
Butyl benzyl phthalate	ND		0.035	0.032
3,3'-Dichlorobenzidine	ND		0.035	0.026
Benzo[a]anthracene	ND		0.035	0.030
Chrysene	0.060		0.035	0.030
Bis(2-ethylhexyl) phthalate	ND		0.035	0.022
Di-n-octyl phthalate	ND		0.035	0.031
Benzo[b]fluoranthene	ND		0.035	0.028
Benzo[k]fluoranthene	ND		0.035	0.030
Benzo[a]pyrene	ND		0.035	0.029
Indeno[1,2,3-cd]pyrene	ND		0.035	0.029
Dibenz[a,h]anthracene	ND		0.035	0.035
Benzo[g,h,i]perylene	ND		0.035	0.032
Dinitrotoluene (2,4- and 2,6-)	ND		0.035	0.032

Total Target Compounds (53): 0.143

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-002
Client ID: SB-27
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1525.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 6.00

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.492	JN	1.72
	Unknown SV	0.311	J	5.89

Total TICs = 0.803 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-003
Client ID: SB-28
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1526.D 12/14/17 15:05

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.034
2,2'-Oxybis(1-Chloropropane)	ND		0.038	0.031
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.029
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	0.041		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.025
2-Methylnaphthalene	0.058		0.038	0.026
Hexachlorocyclopentadiene	ND		0.038	0.033
1,1'-Biphenyl	ND		0.038	0.035
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.026
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-003
Client ID: SB-28
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1526.D 12/14/17 15:05

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	ND		0.038	0.031
3-Nitroaniline	ND		0.038	0.030
Acenaphthene	0.064		0.038	0.033
2,4-Dinitrotoluene	ND		0.038	0.034
Dibenzofuran	0.039		0.038	0.032
Diethyl phthalate	ND		0.038	0.037
Fluorene	0.044		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.035
4-Nitroaniline	ND		0.038	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.032
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	0.656		0.038	0.034
Anthracene	0.117		0.038	0.033
Carbazole	0.043		0.038	0.029
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	0.770		0.038	0.032
Pyrene	0.763		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.034
3,3'-Dichlorobenzidine	ND		0.038	0.027
Benzo[a]anthracene	0.526		0.038	0.032
Chrysene	0.779		0.038	0.032
Bis(2-ethylhexyl) phthalate	ND		0.038	0.023
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.420		0.038	0.030
Benzo[k]fluoranthene	0.328		0.038	0.031
Benzo[a]pyrene	0.351		0.038	0.031
Indeno[1,2,3-cd]pyrene	0.279		0.038	0.031
Dibenz[a,h]anthracene	0.128		0.038	0.037
Benzo[g,h,i]perylene	0.357		0.038	0.034
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.034

Total Target Compounds (53): 5.76

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-003
Client ID: SB-28
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1526.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.2

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	16.1	JN	1.73
	Unknown SV	0.364	J	2.04
000575-43-9	Naphthalene, 1,6-dimethyl-	0.255	JN	3.65
000629-62-9	Pentadecane	0.203	JN	3.73
000829-26-5	Naphthalene, 2,3,6-trimethyl-	0.289	JN	3.98
000629-78-7	Heptadecane	0.316	JN	4.22
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	0.289	JN	4.24
000593-45-3	Octadecane	0.270	JN	4.45
000832-71-3	Phenanthrene, 3-methyl-	0.248	JN	4.89
000832-69-9	Phenanthrene, 1-methyl-	0.323	JN	4.91
000613-12-7	Anthracene, 2-methyl-	0.372	JN	4.96
	Unknown PAH	0.327	J	5.15
003674-66-6	Phenanthrene, 2,5-dimethyl-	0.515	JN	5.22
000629-97-0	Docosane	0.233	JN	5.38
	Unknown PAH	0.207	J	5.62

Total TICs = 20.3 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-004
Client ID: SB-29
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1527.D 12/14/17 15:20

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.038	0.032
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	0.040		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.025
2-Methylnaphthalene	0.029	J	0.038	0.027
Hexachlorocyclopentadiene	ND		0.038	0.033
1,1'-Biphenyl	ND		0.038	0.035
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.027
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-004
Client ID: SB-29
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1527.D 12/14/17 15:20

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	0.053		0.038	0.031
3-Nitroaniline	ND		0.038	0.030
Acenaphthene	0.058		0.038	0.034
2,4-Dinitrotoluene	ND		0.038	0.034
Dibenzofuran	ND		0.038	0.032
Diethyl phthalate	ND		0.038	0.037
Fluorene	0.049		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.035
4-Nitroaniline	ND		0.038	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	0.908		0.038	0.035
Anthracene	0.173		0.038	0.033
Carbazole	0.051		0.038	0.029
Di-n-butyl phthalate	0.049		0.038	0.029
Fluoranthene	1.72		0.038	0.032
Pyrene	2.15		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.027
Benzo[a]anthracene	1.33		0.038	0.033
Chrysene	1.41		0.038	0.033
Bis(2-ethylhexyl) phthalate	ND		0.038	0.023
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.895		0.038	0.030
Benzo[k]fluoranthene	0.790		0.038	0.032
Benzo[a]pyrene	0.930		0.038	0.031
Indeno[1,2,3-cd]pyrene	0.528		0.038	0.031
Dibenz[a,h]anthracene	0.203		0.038	0.037
Benzo[g,h,i]perylene	0.663		0.038	0.034
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.034
Total Target Compounds (53):	12.0	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-004
Client ID: SB-29
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1527.D

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.3

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	19.0	JN	1.73
000779-02-2	Anthracene, 9-methyl-	0.372	JN	4.96
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	0.239	JN	5.94
	Unknown PAH	1.01	J	7.61

Total TICs = 20.6 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-005
Client ID: SB-30
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1528.D 12/14/17 15:36

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.035
2,2'-Oxybis(1-Chloropropane)	ND		0.038	0.032
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	0.066		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.026
2-Methylnaphthalene	0.049		0.038	0.027
Hexachlorocyclopentadiene	ND		0.038	0.034
1,1'-Biphenyl	ND		0.038	0.036
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.027
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-005
Client ID: SB-30
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1528.D 12/14/17 15:36

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	ND		0.038	0.031
3-Nitroaniline	ND		0.038	0.031
Acenaphthene	0.130		0.038	0.034
2,4-Dinitrotoluene	ND		0.038	0.035
Dibenzofuran	0.080		0.038	0.033
Diethyl phthalate	ND		0.038	0.038
Fluorene	0.101		0.038	0.035
4-Chlorophenyl phenyl ether	ND		0.038	0.036
4-Nitroaniline	ND		0.038	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	1.38		0.038	0.035
Anthracene	0.274		0.038	0.034
Carbazole	0.115		0.038	0.030
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	1.80		0.038	0.032
Pyrene	1.96		0.038	0.032
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.028
Benzo[a]anthracene	1.22		0.038	0.033
Chrysene	1.32		0.038	0.033
Bis(2-ethylhexyl) phthalate	ND		0.038	0.024
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.852		0.038	0.031
Benzo[k]fluoranthene	0.682		0.038	0.032
Benzo[a]pyrene	0.926		0.038	0.031
Indeno[1,2,3-cd]pyrene	0.613		0.038	0.032
Dibenz[a,h]anthracene	0.246		0.038	0.038
Benzo[g,h,i]perylene	0.884		0.038	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.035
Total Target Compounds (53):	12.7			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-005
Client ID: SB-30
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1528.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	20.9	JN	1.73
000192-97-2	Benzo[e]pyrene	1.36	JN	7.61

Total TICs = 22.3 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-006
Client ID: SB-31A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1529.D 12/14/17 15:51

GC/MS Column: DB-5
Sample wt/vol: 15.35g
Matrix-Units: Soil-mg/Kg
% Moisture: 23.0
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.423	0.411
Bis(2-chloroethyl) ether	ND		0.423	0.385
2,2'-Oxybis(1-Chloropropane	ND		0.423	0.352
N-Nitrosodi-n-propylamine	ND		0.423	0.322
Acetophenone	ND		0.423	0.400
Hexachloroethane	ND		0.423	0.354
Nitrobenzene	ND		0.423	0.332
Isophorone	ND		0.423	0.355
Bis(2-chloroethoxy) methane	ND		0.423	0.379
Naphthalene	ND		0.423	0.369
4-Chloroaniline	ND		0.423	0.278
Hexachlorobutadiene	ND		0.423	0.388
Caprolactam	ND		0.423	0.282
2-Methylnaphthalene	ND		0.423	0.296
Hexachlorocyclopentadiene	ND		0.423	0.371
1,1'-Biphenyl	ND		0.423	0.394
2-Chloronaphthalene	ND		0.423	0.347
2-Nitroaniline	ND		0.423	0.295
Dimethyl phthalate	ND		0.423	0.388

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-006
Client ID: SB-31A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1529.D 12/14/17 15:51

GC/MS Column: DB-5
Sample wt/vol: 15.35g
Matrix-Units: Soil-mg/Kg
% Moisture: 23.0
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.423	0.321
Acenaphthylene	4.78	D	0.423	0.347
3-Nitroaniline	ND		0.423	0.337
Acenaphthene	0.792	D	0.423	0.374
2,4-Dinitrotoluene	ND		0.423	0.383
Dibenzofuran	0.481	D	0.423	0.361
Diethyl phthalate	ND		0.423	0.415
Fluorene	1.06	D	0.423	0.381
4-Chlorophenyl phenyl ether	ND		0.423	0.392
4-Nitroaniline	ND		0.423	0.318
1,2,4,5-Tetrachlorobenzene	ND		0.423	0.365
N-Nitrosodiphenylamine	ND		0.423	0.366
4-Bromophenyl phenyl ether	ND		0.423	0.355
Hexachlorobenzene	ND		0.423	0.388
Atrazine	ND		0.423	0.366
Phenanthrene	20.8	D	0.423	0.386
Anthracene	6.82	D	0.423	0.372
Carbazole	2.01	D	0.423	0.327
Di-n-butyl phthalate	ND		0.423	0.322
Fluoranthene	60.9	D	0.423	0.356
Pyrene	60.8	D	0.423	0.347
Butyl benzyl phthalate	ND		0.423	0.387
3,3'-Dichlorobenzidine	ND		0.423	0.305
Benzo[a]anthracene	41.2	D	0.423	0.363
Chrysene	36.8	D	0.423	0.363
Bis(2-ethylhexyl) phthalate	ND		0.423	0.261
Di-n-octyl phthalate	ND		0.423	0.367
Benzo[b]fluoranthene	25.7	D	0.423	0.339
Benzo[k]fluoranthene	20.8	D	0.423	0.354
Benzo[a]pyrene	26.1	D	0.423	0.345
Indeno[1,2,3-cd]pyrene	14.1	D	0.423	0.350
Dibenz[a,h]anthracene	5.63	D	0.423	0.415
Benzo[g,h,i]perylene	15.0	D	0.423	0.382
Dinitrotoluene (2,4- and 2,6-)	ND		0.423	0.383
Total Target Compounds (53):	344	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-006
Client ID: SB-31A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1529.D

GC/MS Column: DB-5
Sample wt/vol: 15.35g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 10
% Moisture: 23.0

CAS #	Compound	Estimated Concentration	Q	Retention Time
000832-69-9	Phenanthrene, 1-methyl-	4.10	DJN	4.89
002531-84-2	Phenanthrene, 2-methyl-	4.48	DJN	4.90
	Unknown PAH	9.73	DJ	4.97
000084-65-1	9,10-Anthracenedione	2.58	DJN	5.07
003674-66-6	Phenanthrene, 2,5-dimethyl-	3.93	DJN	5.21
002789-88-0	di-p-Tolylacetylene	2.45	DJN	5.23
	Unknown PAH	2.50	DJ	5.38
000238-84-6	11H-Benzo[a]fluorene	2.83	DJN	5.62
000243-17-4	11H-Benzo[b]fluorene	2.92	DJN	5.70
000479-79-8	11H-Benzo[a]fluoren-11-one	2.20	DJN	6.13
	Unknown PAH	2.37	DJ	6.27
002541-69-7	Benz[a]anthracene, 7-methyl-	2.50	DJN	6.69
	Unknown SV	5.20	DJ	7.16
000192-97-2	Benzo[e]pyrene	9.22	DJN	7.43
000198-55-0	Perylene	23.4	DJN	7.63

Total TICs = 80.4 DJN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-007
Client ID: SB-32A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1530.D 12/14/17 16:06

GC/MS Column: DB-5
Sample wt/vol: 15.59g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.036
2,2'-Oxybis(1-Chloropropane	ND		0.039	0.033
N-Nitrosodi-n-propylamine	ND		0.039	0.030
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.033
Nitrobenzene	ND		0.039	0.031
Isophorone	ND		0.039	0.033
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.189		0.039	0.034
4-Chloroaniline	ND		0.039	0.026
Hexachlorobutadiene	ND		0.039	0.036
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	0.086		0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.037
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.036

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-007
Client ID: SB-32A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1530.D 12/14/17 16:06

GC/MS Column: DB-5
Sample wt/vol: 15.59g
Matrix-Units: Soil-mg/Kg
% Moisture: 18.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.030
Acenaphthylene	0.106		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	0.228		0.039	0.035
2,4-Dinitrotoluene	ND		0.039	0.036
Dibenzofuran	0.174		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	0.194		0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.034
N-Nitrosodiphenylamine	ND		0.039	0.034
4-Bromophenyl phenyl ether	ND		0.039	0.033
Hexachlorobenzene	ND		0.039	0.036
Atrazine	ND		0.039	0.034
Phenanthrene	2.61		0.039	0.036
Anthracene	0.564		0.039	0.034
Carbazole	0.236		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.030
Fluoranthene	3.50		0.039	0.033
Pyrene	3.52		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.036
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	2.20		0.039	0.034
Chrysene	2.18		0.039	0.034
Bis(2-ethylhexyl) phthalate	0.079		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	1.45		0.039	0.031
Benzo[k]fluoranthene	1.27		0.039	0.033
Benzo[a]pyrene	1.62		0.039	0.032
Indeno[1,2,3-cd]pyrene	0.982		0.039	0.032
Dibenz[a,h]anthracene	0.378		0.039	0.038
Benzo[g,h,i]perylene	1.23		0.039	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.039	0.036

Total Target Compounds (53): 22.8

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-007
Client ID: SB-32A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1530.D

GC/MS Column: DB-5
Sample wt/vol: 15.59g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 18.1

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	1.85	JN	1.72
	Unknown PAH	0.211	J	4.90
000779-02-2	Anthracene, 9-methyl-	0.262	JN	4.92
	Unknown PAH	0.497	J	4.98
003674-66-6	Phenanthrene, 2,5-dimethyl-	0.192	JN	5.23
002381-21-7	Pyrene, 1-methyl-	0.380	JN	5.65
000238-84-6	11H-Benzo[a]fluorene	0.329	JN	5.74
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	1.10	JN	5.97
000479-79-8	11H-Benzo[a]fluoren-11-one	0.208	JN	6.15
	Unknown SV	0.192	J	6.23
	Unknown PAH	0.255	J	6.27
000082-05-3	7H-Benz[de]anthracen-7-one	0.239	JN	6.29
003351-28-8	Chrysene, 1-methyl-	0.255	JN	6.70
000192-97-2	Benzo[e]pyrene	0.536	JN	7.43
000205-82-3	Benzo[j]fluoranthene	1.62	JN	7.62

Total TICs = 8.13 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-008
Client ID: SB-33A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1531.D 12/14/17 16:21

GC/MS Column: DB-5
Sample wt/vol: 15.49g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.035
2,2'-Oxybis(1-Chloropropane	ND		0.039	0.032
N-Nitrosodi-n-propylamine	ND		0.039	0.029
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.032
Nitrobenzene	ND		0.039	0.030
Isophorone	ND		0.039	0.032
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.116		0.039	0.034
4-Chloroaniline	ND		0.039	0.025
Hexachlorobutadiene	ND		0.039	0.035
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	0.063		0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.036
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.035

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-008
Client ID: SB-33A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1531.D 12/14/17 16:21

GC/MS Column: DB-5
Sample wt/vol: 15.49g
Matrix-Units: Soil-mg/Kg
% Moisture: 16.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.029
Acenaphthylene	0.177		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	0.266		0.039	0.034
2,4-Dinitrotoluene	ND		0.039	0.035
Dibenzofuran	0.120		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	0.186		0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.033
N-Nitrosodiphenylamine	ND		0.039	0.033
4-Bromophenyl phenyl ether	ND		0.039	0.032
Hexachlorobenzene	ND		0.039	0.035
Atrazine	ND		0.039	0.033
Phenanthrene	2.40		0.039	0.035
Anthracene	0.601		0.039	0.034
Carbazole	0.173		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.029
Fluoranthene	4.52		0.039	0.033
Pyrene	4.82		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.035
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	3.64		0.039	0.033
Chrysene	3.46		0.039	0.033
Bis(2-ethylhexyl) phthalate	0.089		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	2.68		0.039	0.031
Benzo[k]fluoranthene	2.28		0.039	0.032
Benzo[a]pyrene	3.17		0.039	0.032
Indeno[1,2,3-cd]pyrene	1.84		0.039	0.032
Dibenz[a,h]anthracene	0.693		0.039	0.038
Benzo[g,h,i]perylene	2.39		0.039	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.039	0.035

Total Target Compounds (53): 33.7

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-008
Client ID: SB-33A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1531.D

GC/MS Column: DB-5
Sample wt/vol: 15.49g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 16.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	2.26	JN	1.72
000779-02-2	Anthracene, 9-methyl-	0.382	JN	4.93
000203-64-5	4H-Cyclopenta[def]phenanthrene	0.803	JN	4.99
	Unknown Aromatic	0.371	J	5.41
002381-21-7	Pyrene, 1-methyl-	0.587	JN	5.67
033543-31-6	Fluoranthene, 2-methyl-	0.506	JN	5.75
003442-78-2	Pyrene, 2-methyl-	0.386	JN	5.85
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	3.69	JN	5.99
000479-79-8	11H-Benzo[a]fluoren-11-one	0.413	JN	6.16
	Unknown PAH	0.363	J	6.28
000082-05-3	7H-Benz[de]anthracen-7-one	0.386	JN	6.30
002381-31-9	Benz[a]anthracene, 8-methyl-	0.479	JN	6.71
	Unknown PAH	0.382	J	7.19
000192-97-2	Benzo[e]pyrene	0.784	JN	7.46
000198-55-0	Perylene	2.62	JN	7.65

Total TICs = 14.4 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-009
Client ID: SB-34A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1532.D 12/14/17 16:37

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.042	0.041
Bis(2-chloroethyl) ether	ND		0.042	0.038
2,2'-Oxybis(1-Chloropropane	ND		0.042	0.035
N-Nitrosodi-n-propylamine	ND		0.042	0.032
Acetophenone	ND		0.042	0.040
Hexachloroethane	ND		0.042	0.035
Nitrobenzene	ND		0.042	0.033
Isophorone	ND		0.042	0.035
Bis(2-chloroethoxy) methane	ND		0.042	0.038
Naphthalene	ND		0.042	0.036
4-Chloroaniline	ND		0.042	0.028
Hexachlorobutadiene	ND		0.042	0.038
Caprolactam	ND		0.042	0.028
2-Methylnaphthalene	ND		0.042	0.029
Hexachlorocyclopentadiene	ND		0.042	0.037
1,1'-Biphenyl	ND		0.042	0.039
2-Chloronaphthalene	ND		0.042	0.034
2-Nitroaniline	ND		0.042	0.029
Dimethyl phthalate	ND		0.042	0.038

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-009
Client ID: SB-34A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1532.D 12/14/17 16:37

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.042	0.032
Acenaphthylene	0.057		0.042	0.034
3-Nitroaniline	ND		0.042	0.033
Acenaphthene	0.102		0.042	0.037
2,4-Dinitrotoluene	ND		0.042	0.038
Dibenzofuran	0.042		0.042	0.036
Diethyl phthalate	ND		0.042	0.041
Fluorene	0.085		0.042	0.038
4-Chlorophenyl phenyl ether	ND		0.042	0.039
4-Nitroaniline	ND		0.042	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.042	0.036
N-Nitrosodiphenylamine	ND		0.042	0.036
4-Bromophenyl phenyl ether	ND		0.042	0.035
Hexachlorobenzene	ND		0.042	0.038
Atrazine	ND		0.042	0.036
Phenanthrene	0.897		0.042	0.038
Anthracene	0.222		0.042	0.037
Carbazole	0.072		0.042	0.032
Di-n-butyl phthalate	ND		0.042	0.032
Fluoranthene	1.36		0.042	0.035
Pyrene	1.44		0.042	0.034
Butyl benzyl phthalate	ND		0.042	0.038
3,3'-Dichlorobenzidine	ND		0.042	0.030
Benzo[a]anthracene	0.949		0.042	0.036
Chrysene	0.971		0.042	0.036
Bis(2-ethylhexyl) phthalate	ND		0.042	0.026
Di-n-octyl phthalate	ND		0.042	0.036
Benzo[b]fluoranthene	0.611		0.042	0.033
Benzo[k]fluoranthene	0.672		0.042	0.035
Benzo[a]pyrene	0.738		0.042	0.034
Indeno[1,2,3-cd]pyrene	0.474		0.042	0.035
Dibenz[a,h]anthracene	0.160		0.042	0.041
Benzo[g,h,i]perylene	0.576		0.042	0.038
Dinitrotoluene (2,4- and 2,6-)	ND		0.042	0.038

Total Target Compounds (53): 9.43

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-009
Client ID: SB-34A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1532.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 20.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.530	JN	1.72
	Unknown PAH	0.301	J	4.99
002381-21-7	Pyrene, 1-methyl-	0.175	JN	5.74
000192-97-2	Benzo[e]pyrene	0.689	JN	7.64

Total TICs = 1.70 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-010
Client ID: SB-35A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1533.D 12/14/17 16:52

GC/MS Column: DB-5
Sample wt/vol: 15.59g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.041	0.039
Bis(2-chloroethyl) ether	ND		0.041	0.037
2,2'-Oxybis(1-Chloropropane	ND		0.041	0.034
N-Nitrosodi-n-propylamine	ND		0.041	0.031
Acetophenone	ND		0.041	0.038
Hexachloroethane	ND		0.041	0.034
Nitrobenzene	ND		0.041	0.032
Isophorone	ND		0.041	0.034
Bis(2-chloroethoxy) methane	ND		0.041	0.036
Naphthalene	ND		0.041	0.035
4-Chloroaniline	ND		0.041	0.027
Hexachlorobutadiene	ND		0.041	0.037
Caprolactam	ND		0.041	0.027
2-Methylnaphthalene	ND		0.041	0.028
Hexachlorocyclopentadiene	ND		0.041	0.036
1,1'-Biphenyl	ND		0.041	0.038
2-Chloronaphthalene	ND		0.041	0.033
2-Nitroaniline	ND		0.041	0.028
Dimethyl phthalate	ND		0.041	0.037

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10728-010
Client ID: SB-35A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1533.D 12/14/17 16:52

GC/MS Column: DB-5
Sample wt/vol: 15.59g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.041	0.031
Acenaphthylene	0.233		0.041	0.033
3-Nitroaniline	ND		0.041	0.032
Acenaphthene	ND		0.041	0.036
2,4-Dinitrotoluene	ND		0.041	0.037
Dibenzofuran	ND		0.041	0.035
Diethyl phthalate	ND		0.041	0.040
Fluorene	ND		0.041	0.037
4-Chlorophenyl phenyl ether	ND		0.041	0.038
4-Nitroaniline	ND		0.041	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.041	0.035
N-Nitrosodiphenylamine	ND		0.041	0.035
4-Bromophenyl phenyl ether	ND		0.041	0.034
Hexachlorobenzene	ND		0.041	0.037
Atrazine	ND		0.041	0.035
Phenanthrene	0.319		0.041	0.037
Anthracene	0.410		0.041	0.036
Carbazole	0.114		0.041	0.031
Di-n-butyl phthalate	0.048		0.041	0.031
Fluoranthene	0.789		0.041	0.034
Pyrene	0.899		0.041	0.033
Butyl benzyl phthalate	ND		0.041	0.037
3,3'-Dichlorobenzidine	ND		0.041	0.029
Benzo[a]anthracene	0.775		0.041	0.035
Chrysene	1.12		0.041	0.035
Bis(2-ethylhexyl) phthalate	ND		0.041	0.025
Di-n-octyl phthalate	ND		0.041	0.035
Benzo[b]fluoranthene	1.83		0.041	0.033
Benzo[k]fluoranthene	1.14		0.041	0.034
Benzo[a]pyrene	1.44		0.041	0.033
Indeno[1,2,3-cd]pyrene	2.30		0.041	0.034
Dibenz[a,h]anthracene	0.911		0.041	0.040
Benzo[g,h,i]perylene	3.45		0.041	0.037
Dinitrotoluene (2,4- and 2,6-)	ND		0.041	0.037

Total Target Compounds (53): 15.8

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

E17-10728REV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10728-010
Client ID: SB-35A
Date Received: 12/13/2017
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Date File: C1533.D

GC/MS Column: DB-5
Sample wt/vol: 15.59g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 20.9

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.345	JN	1.72
	Unknown PAH	0.170	J	5.38
	Unknown PAH	0.191	J	6.69
	Unknown PAH	0.466	J	7.16
000192-97-2	Benzo[e]pyrene	0.908	JN	7.43
000198-55-0	Perylene	2.80	JN	7.62

Total TICs = 4.88 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171213-05
Client ID: .
Date Received: NA
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1517.D 12/14/17 12:44

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171213-05
Client ID: .
Date Received: NA
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1517.D 12/14/17 12:44

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171213-05
Client ID: .
Date Received: NA
Date Extracted: 12/13/2017
Date Analyzed: 12/14/2017
Data file: C1517.D 12/14/17 12:44

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AESI
Address: 5 Marine View Plaza Suite 401 Hoboken
Telephone #: 201-876-9400
Fax #: " - " -9563
Project Manager:
EMAIL Address: leah@solutionsenvironmental.com
Project Name: 27-10 49th ave
Project Location (State): NY
Bottle Order #:
☐ "Report to"/"Invoice To" same as above
Sampled by: LD

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO: Leah DeEgidio
Address:
Same
Attn:
FAX #
INVOICE TO: AESI
Address:
Same
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)**: 24 hr (Friday 12/15)

Hard Copy: Std 3 week — Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (If other than 2 weeks):

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☒ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs +15	SVOC's	Sample Specific Notes:
SB-26		12/13		S	5	1	X	X	
SB-27		↓		↓	↓	2	X	X	
SB-28						3	X	X	
SB-29						4	X	X	
SB-30						5	X	X	
SB-31						6	X	X	
SB-32						7	X	X	
SB 33		↓		↓	↓	8	X	X	

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Preservative (use code)
Container Type (use code)

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 10728
Cooler Temp: 4 °C

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received By (Signature and Company)	Date	Time
L DeEgidio	12/13	16:34 pm		12/13/17	16:34

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

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IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AESI
Address: 5 Marine View Plaza Suite 401 Hoboken
Telephone #:
Fax #:
Project Manager:
EMAIL Address: kara@solutionsenvironmental.com
Project Name: 27-10 49th ave
Project Location (State): NY
Bottle Order #:
☐ "Report to"/"Invoice To" same as above
Sampled by: LO

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL
☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed only if pre-approved)** 24hr Friday 12/15
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
TAT for PHC (if other than 2 weeks):
☐ DRO-8015

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☒ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS: VOC's TCL	SVOC's TCL
SB-34		12/13		S	5	9	X	X
SB-35						10	X	X

Sample Specific Notes:

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Preservative (use code)
Container Type (use code)

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 10773
Cooler Temp: 4 °C

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
L Vellegidio	12/13	3:34pm		12/13/17	16:35

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

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Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

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Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10728: 27-10 49TH AVE

To: Leah DeEgidio
Atlantic Environmental Solutions, Inc.
Fax: 1(201) 876-9563
EMail: leah@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category A	NA	Dec 13, 2017 @ 16:34	NA	Jan 04, 2018	Jan 11, 2018 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY Part 375-6.8(UUSCO+RUSCO)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10728-001	SB-26	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-002	SB-27	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-003	SB-28	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-004	SB-29	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-005	SB-30	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-006	SB-31A	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-007	SB-32A	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-008	SB-33A	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-009	SB-34A	NA	12/13/17	Soil	mg/Kg (ppm)	
10728-010	SB-35A	NA	12/13/17	Soil	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
002	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
003	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
004	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
005	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
006	VO Project Revision	Analyze		6 Business Days	12/27/2017
	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017

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Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

E17-10728EV

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PROJECT INFORMATION

RUSH

E17-10728: 27-10 49TH AVE

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
006	SVOC Project Revision	Analyze	8270D	6 Business Days	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
007	VO Project Revision	Analyze		6 Business Days	12/27/2017
	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
	SVOC Project Revision	Analyze	8270D	6 Business Days	12/27/2017
008	VO Project Revision	Analyze		6 Business Days	12/27/2017
	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
	SVOC Project Revision	Analyze	8270D	6 Business Days	12/27/2017
009	VO Project Revision	Analyze		6 Business Days	12/27/2017
	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
	SVOC Project Revision	Analyze	8270D	6 Business Days	12/27/2017
010	VO Project Revision	Analyze		6 Business Days	12/27/2017
	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	12/27/2017
	TCL BN + 15	Analyze	8270D	RUSH 48 HRS	12/27/2017
	SVOC Project Revision	Analyze	8270D	6 Business Days	12/27/2017

Project Notes:

NOTE 1 taken by kfalconer on 12/13/2017 04:59

PER LEAH D, SVOC = TCL BN+15

24HR TAT VOA

48HR TAT BN

NOTE 2 taken by kfalconer on 12/13/2017 05:01

SAMPLE 007 (SB-32) HAD ONLY ONE H2O VIAL IN TERRACORE

REV 1 taken by epacella on 12/27/2017 10:20

REV 1 DUE 1/4

AS PER SALVATORE DELUCIA, CHANGE SAMPLE IDS AS FOLLOWS:

006: SB-31A
007: SB-32A
008: SB-33A
009: SB-34A
010: SB-35A

ORIGINAL RESULTS SENT 12/18
ORIGINAL HARD COPY SENT 12/21

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **10728** CLIENT: ABSI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☒ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: No. 7 only had one H2O vial — SB 32

SAMPLE(S) VERIFIED BY: INITIAL [illegible] DATE 12/13/17

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☒

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KG DATE 12/14/15

REV 03/2013

Laboratory Custody Chronicle

IAL Case No.
E17-10728

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVE

Received On 12/13/2017@16:34

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL VO + 15	10728-001	Soil	n/a	n/a	12/14/17	Mei
"	-002	"	n/a	n/a	12/14/17	Mei
"	-003	"	n/a	n/a	12/14/17	Mei
"	-004	"	n/a	n/a	12/14/17	Mei
"	-005	"	n/a	n/a	12/14/17	Mei
"	-006	"	n/a	n/a	12/14/17	Xing
"	-007	"	n/a	n/a	12/14/17	Xing
"	-008	"	n/a	n/a	12/14/17	Xing
"	-009	"	n/a	n/a	12/14/17	Xing
"	-010	"	n/a	n/a	12/14/17	Xing

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BN + 15	-001	Soil	12/13/17	Frank L.	12/14/17	Eleanor
"	-002	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-003	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-004	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-005	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-006	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-007	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-008	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-009	"	12/13/17	Frank L.	12/14/17	Eleanor
"	-010	"	12/13/17	Frank L.	12/14/17	Eleanor

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

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LAST PAGE OF DOCUMENT

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH**
IAL Case Number: **E17-10862**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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Randolph, NJ 07869
Phone: 973 361 4252
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Sample Summary

IAL Case No.

E17-10862

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH

Received On 12/19/2017@07:40

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
10862-001	SB-31S	2/2.5	12/18/2017@12:05	Soil	2
10862-002	SB-31D	8/8.5	12/18/2017@12:05	Soil	2
10862-003	SB-32S	2/2.5	12/18/2017@12:30	Soil	2
10862-004	SB-32D	8/8.5	12/18/2017@12:30	Soil	2
10862-005	SB-32D1	12/12.5	12/18/2017@12:30	Soil	2
10862-006	SB-33S	2/2.5	12/18/2017@13:00	Soil	2
10862-007	SB-33D	8/8.5	12/18/2017@13:00	Soil	2
10862-008	SB-34S	2/2.5	12/18/2017@13:30	Soil	2
10862-009	SB-34D	8/8.5	12/18/2017@13:30	Soil	2
10862-010	SB-35S	2/2.5	12/18/2017@14:00	Soil	2
10862-011	SB-35D	8/8.5	12/18/2017@14:00	Soil	2
10862-012	SB-36S	2/2.5	12/18/2017@14:30	Soil	2
10862-013	SB-36D	8/8.5	12/18/2017@14:30	Soil	2
10862-014	SB-37S	2/2.5	12/18/2017@13:30	Soil	2
10862-015	SB-37D	8/8.5	12/18/2017@13:30	Soil	2

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10862

Integrated Analytical Laboratories, LLC. received fifteen (15) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-10862**, Project: 27-10 49TH) on December 19, 2017 for the analysis of :

(15) TCL VO + 15
(15) TCL BN + 15
(15) TCL PCB
(15) TCL Pesticides
(15) TAL Metals

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: F171219-01**	**Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS/MSD were not analyzed due to insufficient sample volume. LCS/LCSD were analyzed in their absence to meet method specific QC requirements.

E17-10862
- All samples were analyzed within holding time.
- 10862-002, 003, 005-008, 011 and 012 were flagged with a C qualifier, indicating laboratory contamination for Methylene chloride. Methylene chloride is used as a solvent in the laboratory, resulting in occasional laboratory contamination.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10862-001	1	NA
E17-10862-002	1	NA
E17-10862-003	1	NA
E17-10862-004	1	NA
E17-10862-005	1	NA
E17-10862-006	1	NA
E17-10862-007	1	NA
E17-10862-008	1	NA
E17-10862-009	1	NA
E17-10862-010	1	NA
E17-10862-011	1	NA
E17-10862-012	1	NA
E17-10862-013	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10862

Volatiles By 8260C | **Batch: J171219-01** | **Matrix: MEOH**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-10862
- All samples were analyzed within holding time.
- Samples listed below were run using methanol preserved sample, as applicable. This sample preservation technique elevates RLs and MDLs 100x versus water preservation. If subsequent dilutions are performed, the RLs and MDLs will increase by that factor (e.g. a methanol sample run at a 5x dilution would elevate RLs and MDLs by 500x). Initial runs using methanol are considered "straight" runs and have a dilution factor of 1.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10862-014	2	Non-target compound(s).
E17-10862-015	1	NA

Semivolatiles By 8270D | **Batch: 171219-05** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-10862
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10862-001	1	NA
E17-10862-002	1	NA
E17-10862-003	1	NA
E17-10862-004	1	NA
E17-10862-005	1	NA
E17-10862-006	1	NA
E17-10862-007	1	NA
E17-10862-008	1	NA
E17-10862-009	1	NA
E17-10862-010	1	NA
E17-10862-011	1	NA
E17-10862-012	1	NA
E17-10862-013	1	NA
E17-10862-014	1	NA
E17-10862-015	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10862

PCB By 8082A	Batch: 171219-09	Matrix: Soil

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015.

E17-10862

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10862-001	3	Matrix Interference.
E17-10862-002	3	Matrix Interference.
E17-10862-003	3	Matrix Interference.
E17-10862-004	3	Matrix Interference.
E17-10862-005	1	NA
E17-10862-006	1	NA
E17-10862-007	3	Matrix Interference.
E17-10862-008	3	Matrix Interference.
E17-10862-009	1	NA
E17-10862-010	3	Matrix Interference.
E17-10862-011	1	NA
E17-10862-012	1	NA
E17-10862-013	1	NA
E17-10862-014	3	Matrix Interference.
E17-10862-015	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10862

Pesticides By 8081B	Batch: 171219-09	Matrix: Soil

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The RPD between the primary and secondary column was >40% for the following samples: #003; #004; #008. Per SW-846 8000D, the lower of the two concentrations was reported.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015.

E17-10862

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10862-001	1	NA
E17-10862-002	1	NA
E17-10862-003	1	NA
E17-10862-004	1	NA
E17-10862-005	1	NA
E17-10862-006	1	NA
E17-10862-007	1	NA
E17-10862-008	1	NA
E17-10862-009	1	NA
E17-10862-010	1	NA
E17-10862-011	1	NA
E17-10862-012	1	NA
E17-10862-013	1	NA
E17-10862-014	1	NA
E17-10862-015	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10862

Metals By 6020A/7471B	Batch: S171220-01	Matrix: Soil

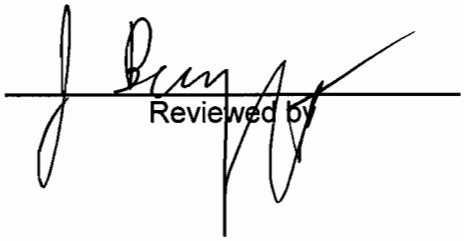
QC
- Calibration Curve Linearity met QC criteria.
- Internal Standard Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS Percent Recovery met QC criteria.
- RPD between Sample/Duplicate met QC criteria.
- Serial Dilution / Post Spike results met QC criteria.

E17-10862
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10862-001	1	NA
E17-10862-002	1	NA
E17-10862-003	1	NA
E17-10862-004	1	NA
E17-10862-005	1	NA
E17-10862-006	1	NA
E17-10862-007	1	NA
E17-10862-008	1	NA
E17-10862-009	1	NA
E17-10862-010	1	NA
E17-10862-011	1	NA
E17-10862-012	1	NA
E17-10862-013	1	NA
E17-10862-014	1	NA
E17-10862-015	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:



Reviewed by

12/28/2017
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-001			10862-002			10862-003			10862-004		
Client ID:	SB-31S			SB-31D			SB-32S			SB-32D		
Depth:	2/2.5			8/8.5			2/2.5			8/8.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.011	J	0.00104	0.020		0.00151	0.018		0.00137	0.025		0.00123
Methylene chloride	ND		0.00211	0.00512	C	0.00306	0.00689	C	0.00279	ND		0.00251
Trichloroethene	ND		0.000297	0.000507	J	0.000431	0.000652	J	0.000392	0.000483	J	0.000353
Tetrachloroethene	0.0032		0.000271	0.012		0.000394	0.019		0.000358	0.015		0.000323
TOTAL VO's:	0.014	J		0.038	CJ		0.045	CJ		0.041	J	
TOTAL TIC's:	ND			0.020	JN		ND			ND		
TOTAL VO's & TIC's:	0.014	J		0.058	CJN		0.045	CJ		0.041	J	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	0.048		0.033	0.162		0.034	0.057		0.032	0.032	J	0.032
2-Methylnaphthalene	0.052		0.027	0.078		0.027	0.030	J	0.026	ND		0.026
Acenaphthylene	0.614		0.031	0.291		0.032	0.245		0.031	0.113		0.030
Acenaphthene	0.077		0.034	0.131		0.034	0.123		0.033	0.077		0.032
Dibenzofuran	0.202		0.033	0.173		0.033	0.060		0.032	0.042		0.031
Fluorene	0.147		0.034	0.143		0.035	0.101		0.034	0.063		0.033
Phenanthrene	4.08		0.035	3.00		0.035	1.48		0.034	1.02		0.033
Anthracene	0.523		0.034	0.631		0.034	0.384		0.033	0.237		0.032
Carbazole	0.475		0.030	0.342		0.030	0.166		0.029	0.092		0.028
Fluoranthene	6.09		0.032	4.90		0.033	3.22		0.031	1.83		0.031
Pyrene	4.43		0.031	3.72		0.032	2.74		0.031	1.54		0.030
Benzo[a]anthracene	2.63		0.033	2.54		0.033	1.86		0.032	0.973		0.031
Chrysene	3.13		0.033	2.53		0.033	1.82		0.032	0.963		0.031
Benzo[b]fluoranthene	1.94		0.031	1.62		0.031	1.24		0.030	0.534		0.029
Benzo[k]fluoranthene	1.98		0.032	1.43		0.033	0.995		0.031	0.556		0.031
Benzo[a]pyrene	1.73		0.031	1.54		0.032	1.18		0.030	0.587		0.030
Indeno[1,2,3-cd]pyrene	1.04		0.032	0.788		0.032	0.573		0.031	0.248		0.030
Dibenz[a,h]anthracene	0.403		0.038	0.230		0.038	0.204		0.037	0.065		0.036
Benzo[g,h,i]perylene	0.993		0.035	0.883		0.035	0.622		0.034	0.264		0.033
TOTAL BN'S:	30.6			25.1			17.1	J		9.24	J	
TOTAL TIC's:	8.91	JN		6.59	JN		6.42	JN		1.27	JN	
TOTAL BN'S & TIC's:	39.5	JN		31.7	JN		23.5	JN		10.5	JN	

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-001			10862-002			10862-003			10862-004		
Client ID:	SB-31S			SB-31D			SB-32S			SB-32D		
Depth:	2/2.5			8/8.5			2/2.5			8/8.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1221	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1232	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1242	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1248	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1254	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1260	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1262	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1268	ND		0.028	ND		0.028	ND		0.026	ND		0.026
PCBs	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Pesticides (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
alpha-BHC	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
beta-BHC	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
gamma-BHC (Lindane)	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
delta-BHC	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Heptachlor	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Aldrin	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Heptachlor epoxide	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Endosulfan I	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
4,4'-DDE	ND		0.00229	ND		0.00233	0.068		0.00214	0.00688		0.00215
Dieldrin	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Endrin	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Endosulfan II	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
4,4'-DDD	ND		0.00229	ND		0.00233	0.030		0.00214	0.00473		0.00215
Endrin aldehyde	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Endosulfan sulfate	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
4,4'-DDT	ND		0.00229	ND		0.00233	0.174		0.00214	0.015		0.00215
Endrin ketone	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Methoxychlor	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
alpha-Chlordane	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
gamma-Chlordane	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Toxaphene	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Endosulfan (I and II)	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215
Chlordane (alpha and gamma)	ND		0.00229	ND		0.00233	ND		0.00214	ND		0.00215

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-001			10862-002			10862-003			10862-004		
Client ID:	SB-31S			SB-31D			SB-32S			SB-32D		
Depth:	2/2.5			8/8.5			2/2.5			8/8.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1221	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1232	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1242	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1248	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1254	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1260	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1262	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Aroclor-1268	ND		0.028	ND		0.028	ND		0.026	ND		0.026
PCBs	ND		0.028	ND		0.028	ND		0.026	ND		0.026
Metals (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aluminum	6320		1.23	9390		1.24	10800		1.20	7010		1.17
Antimony	0.831		0.247	0.864		0.248	1.97		0.240	1.94		0.233
Arsenic	3.84		0.370	5.53		0.372	14.3		0.361	6.04		0.350
Barium	385		0.309	218		0.310	935		0.300	91.0		0.291
Beryllium	0.359	J	0.309	0.483	J	0.310	1.64		0.300	0.480	J	0.291
Cadmium	0.451	J	0.370	ND		0.372	1.43		0.361	ND		0.350
Calcium	54400		12.3	19900		12.4	40900		12.0	5850		11.7
Chromium	41.5		0.432	18.6		0.434	34.6		0.421	12.3		0.408
Cobalt	5.01		0.185	6.99		0.186	14.0		0.180	8.01		0.175
Copper	14.8		0.247	28.3		0.248	172		0.240	25.4		0.233
Iron	13200		6.17	19700		6.20	29400		6.01	16200		5.83
Lead	566		0.185	167		0.186	970		0.180	98.7		0.175
Magnesium	3920		6.17	5080		6.20	4640		6.01	2940		5.83
Manganese	237		0.309	322		0.310	366		0.300	443		0.291
Mercury	0.346		0.012	0.241		0.010	0.650		0.010	0.156		0.011
Nickel	14.1		0.309	18.7		0.310	28.6		0.300	95.2		0.291
Potassium	1610		24.7	1880		24.8	2250		24.0	1170		23.3
Selenium	1.04		0.247	2.36		0.248	1.80		0.240	1.12		0.233
Silver	ND		0.247	ND		0.248	0.311	J	0.240	ND		0.233
Sodium	380		12.3	468		12.4	1050		12.0	416		11.7
Thallium	0.315	J	0.247	ND		0.248	0.273	J	0.240	ND		0.233
Vanadium	19.0		0.309	26.1		0.310	33.4		0.300	19.1		0.291
Zinc	1070		0.370	246		0.372	1760		0.361	119		0.350

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-005			10862-006			10862-007			10862-008		
Client ID:	SB-32D1			SB-33S			SB-33D			SB-34S		
Depth:	12/12.5			2/2.5			8/8.5			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.029		0.00105	0.041		0.00169	0.022		0.00161	0.012	J	0.00119
Methylene chloride	0.00328	C	0.00213	0.011	C	0.00344	0.00542	C	0.00326	0.00368	C	0.00243
2-Butanone (MEK)	0.00431		0.000526	ND		0.000851	ND		0.000807	ND		0.0006
Trichloroethene	ND		0.0003	0.000507	J	0.000484	ND		0.000459	0.00269		0.000342
Tetrachloroethene	ND		0.000274	0.00424		0.000443	0.00817		0.00042	0.019		0.000312
TOTAL VO's:	0.036	C		0.057	CJ		0.036	C		0.038	CJ	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	0.036	C		0.057	CJ		0.036	C		0.038	CJ	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	ND		0.036	0.211		0.033	0.060		0.034	0.058		0.032
2-Methylnaphthalene	ND		0.029	0.064		0.027	ND		0.027	0.038		0.026
Acenaphthylene	ND		0.034	0.262		0.031	0.113		0.032	0.232		0.030
Acenaphthene	ND		0.037	0.049		0.034	ND		0.035	0.086		0.032
Dibenzofuran	ND		0.036	0.119		0.033	0.039		0.033	0.057		0.031
Fluorene	ND		0.038	0.124		0.034	0.039	J	0.035	0.096		0.033
Phenanthrene	0.150		0.038	1.24		0.035	0.531		0.036	1.62		0.033
Anthracene	0.039	J	0.037	0.163		0.034	0.119		0.034	0.315		0.032
Carbazole	ND		0.032	0.208		0.030	0.066		0.030	0.147		0.028
Fluoranthene	0.224		0.035	1.52		0.032	0.908		0.033	3.65		0.031
Pyrene	0.186		0.034	1.09		0.031	0.759		0.032	2.93		0.030
Benzo[a]anthracene	0.133		0.036	0.572		0.033	0.418		0.033	1.81		0.032
Chrysene	0.124		0.036	0.736		0.033	0.469		0.033	2.08		0.031
Bis(2-ethylhexyl) phthalate	ND		0.026	ND		0.024	0.061		0.024	ND		0.023
Benzo[b]fluoranthene	0.081		0.033	0.439		0.031	0.302		0.031	1.21		0.029
Benzo[k]fluoranthene	0.058		0.035	0.446		0.032	0.291		0.033	1.22		0.031
Benzo[a]pyrene	0.074		0.034	0.423		0.031	0.304		0.032	1.12		0.030
Indeno[1,2,3-cd]pyrene	0.044		0.035	0.212		0.032	0.158		0.032	0.407		0.030
Dibenz[a,h]anthracene	ND		0.041	0.063		0.037	ND		0.038	0.206		0.036
Benzo[g,h,i]perylene	0.080		0.038	0.214		0.034	0.181		0.035	0.416		0.033
TOTAL BN'S:	1.19	J		8.16			4.82	J		17.7		
TOTAL TIC's:	ND			0.755	JN		3.77	JN		7.54	JN	
TOTAL BN'S & TIC's:	1.19	J		8.92	JN		8.59	JN		25.2	JN	

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
C = Common Laboratory and/or Bottle Contaminant.
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-005			10862-006			10862-007			10862-008		
Client ID:	SB-32D1			SB-33S			SB-33D			SB-34S		
Depth:	12/12.5			2/2.5			8/8.5			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1221	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1232	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1242	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1248	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1254	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1260	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1262	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Aroclor-1268	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
PCBs	ND		0.00978	ND		0.00909	ND		0.027	ND		0.026
Pesticides (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
alpha-BHC	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
beta-BHC	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
gamma-BHC (Lindane)	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
delta-BHC	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Heptachlor	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Aldrin	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Heptachlor epoxide	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Endosulfan I	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
4,4'-DDE	ND		0.00245	ND		0.00227	ND		0.00228	0.046		0.00216
Dieldrin	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Endrin	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Endosulfan II	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
4,4'-DDD	ND		0.00245	ND		0.00227	ND		0.00228	0.021		0.00216
Endrin aldehyde	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Endosulfan sulfate	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
4,4'-DDT	ND		0.00245	ND		0.00227	ND		0.00228	0.081		0.00216
Endrin ketone	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Methoxychlor	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
alpha-Chlordane	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
gamma-Chlordane	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Toxaphene	ND		0.029	ND		0.027	ND		0.027	ND		0.026
Endosulfan (I and II)	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216
Chlordane (alpha and gamma)	ND		0.00245	ND		0.00227	ND		0.00228	ND		0.00216

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-005			10862-006			10862-007			10862-008		
Client ID:	SB-32D1			SB-33S			SB-33D			SB-34S		
Depth:	12/12.5			2/2.5			8/8.5			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aluminum	10000		1.26	5210		1.21	8210		1.23	7810		1.16
Antimony	0.332	J	0.252	2.16		0.243	1.86		0.247	2.36		0.232
Arsenic	3.44		0.378	21.7		0.364	19.2		0.370	8.42		0.348
Barium	45.6		0.315	707		0.303	508		0.309	283		0.290
Beryllium	0.420	J	0.315	ND		0.303	0.349	J	0.309	1.76		0.290
Cadmium	ND		0.378	1.30		0.364	1.25		0.370	1.31		0.348
Calcium	1500		12.6	59600		12.1	72000		12.3	11700		11.6
Chromium	16.3		0.441	11.6		0.425	19.5		0.432	39.0		0.406
Cobalt	7.04		0.189	3.99		0.182	5.40		0.185	17.4		0.174
Copper	16.8		0.252	22.7		0.243	35.5		0.247	322		0.232
Iron	17300		6.30	12100		6.07	20000		6.17	26400		5.80
Lead	38.0		0.189	2730		0.182	2360		0.185	592		0.174
Magnesium	3390		6.30	3150		6.07	7270		6.17	2550		5.80
Manganese	142		0.315	205		0.303	277		0.309	301		0.290
Mercury	0.066		0.013	1.59		0.011	1.41		0.011	0.422		0.0093
Nickel	18.1		0.315	8.32		0.303	11.2		0.309	44.0		0.290
Potassium	1200		25.2	1250		24.3	2370		24.7	1100		23.2
Selenium	1.65		0.252	2.42		0.243	3.12		0.247	1.54		0.232
Silver	ND		0.252	0.338	J	0.243	0.254	J	0.247	0.255	J	0.232
Sodium	174		12.6	348		12.1	1150		12.3	483		11.6
Thallium	ND		0.252	ND		0.243	ND		0.247	ND		0.232
Vanadium	19.4		0.315	15.8		0.303	27.9		0.309	28.2		0.290
Zinc	53.1		0.378	1260		0.364	963		0.370	2290		0.348

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-009			10862-010			10862-011			10862-012		
Client ID:	SB-34D			SB-35S			SB-35D			SB-36S		
Depth:	8/8.5			2/2.5			8/8.5			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.019		0.00111	0.012	J	0.00155	0.086		0.00119	0.033		0.00127
Methylene chloride	ND		0.00225	ND		0.00314	0.00382	C	0.00243	0.00671	C	0.00259
2-Butanone (MEK)	0.00246		0.000556	ND		0.000777	ND		0.0006	ND		0.00064
Benzene	0.000355	J	0.000295	ND		0.000412	ND		0.000318	ND		0.000339
Trichloroethene	0.00234		0.000316	0.000803	J	0.000442	0.00055	J	0.000342	0.000415	J	0.000364
Tetrachloroethene	0.022		0.000289	0.026		0.000404	0.023		0.000312	0.012		0.000333
TOTAL VO's:	0.045	J		0.039	J		0.113	CJ		0.052	CJ	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	0.045	J		0.039	J		0.113	CJ		0.052	CJ	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	ND		0.032	0.069		0.032	ND		0.033	ND		0.032
2-Methylnaphthalene	ND		0.026	0.036	J	0.026	ND		0.026	ND		0.025
Acenaphthylene	ND		0.030	0.112		0.030	0.046		0.031	0.048		0.030
Acenaphthene	ND		0.033	0.213		0.032	ND		0.033	ND		0.032
Dibenzofuran	ND		0.032	0.105		0.031	ND		0.032	ND		0.031
Fluorene	ND		0.033	0.147		0.033	ND		0.034	ND		0.033
Phenanthrene	0.060		0.034	1.72		0.033	0.071		0.034	0.315		0.033
Anthracene	ND		0.033	0.377		0.032	ND		0.033	0.052		0.032
Carbazole	ND		0.029	0.176		0.028	ND		0.029	0.030	J	0.028
Fluoranthene	0.086		0.031	2.31		0.031	0.136		0.032	0.561		0.031
Pyrene	0.076		0.030	2.03		0.030	0.121		0.031	0.416		0.030
Benzo[a]anthracene	0.055		0.032	1.14		0.031	0.095		0.032	0.227		0.031
Chrysene	0.048		0.032	1.14		0.031	0.101		0.032	0.252		0.031
Benzo[b]fluoranthene	ND		0.030	0.552		0.029	0.048		0.030	0.114		0.029
Benzo[k]fluoranthene	ND		0.031	0.721		0.031	0.068		0.032	0.157		0.030
Benzo[a]pyrene	ND		0.030	0.665		0.030	0.057		0.031	0.121		0.030
Indeno[1,2,3-cd]pyrene	0.060		0.031	0.242		0.030	0.050		0.031	0.067		0.030
Dibenz[a,h]anthracene	ND		0.036	0.105		0.036	ND		0.037	ND		0.036
Benzo[g,h,i]perylene	0.121		0.033	0.230		0.033	0.099		0.034	0.069		0.033
TOTAL BN'S:	0.506			12.1	J		0.892			2.43	J	
TOTAL TIC's:	ND			2.53	JN		ND			ND		
TOTAL BN'S & TIC's:	0.506			14.6	JN		0.892			2.43	J	

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
C = Common Laboratory and/or Bottle Contaminant.
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-009			10862-010			10862-011			10862-012		
Client ID:	SB-34D			SB-35S			SB-35D			SB-36S		
Depth:	8/8.5			2/2.5			8/8.5			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1221	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1232	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1242	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1248	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1254	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1260	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1262	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Aroclor-1268	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
PCBs	ND		0.00894	ND		0.026	ND		0.00915	ND		0.00877
Pesticides (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
alpha-BHC	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
beta-BHC	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
gamma-BHC (Lindane)	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
delta-BHC	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Heptachlor	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Aldrin	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Heptachlor epoxide	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Endosulfan I	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
4,4'-DDE	ND		0.00224	0.00255	J	0.00216	ND		0.00229	ND		0.00219
Dieldrin	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Endrin	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Endosulfan II	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
4,4'-DDD	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Endrin aldehyde	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Endosulfan sulfate	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
4,4'-DDT	ND		0.00224	0.00736		0.00216	ND		0.00229	0.00338	J	0.00219
Endrin ketone	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Methoxychlor	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
alpha-Chlordane	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
gamma-Chlordane	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Toxaphene	ND		0.027	ND		0.026	ND		0.028	ND		0.026
Endosulfan (I and II)	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219
Chlordane (alpha and gamma)	ND		0.00224	ND		0.00216	ND		0.00229	ND		0.00219

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-009			10862-010			10862-011			10862-012		
Client ID:	SB-34D			SB-35S			SB-35D			SB-36S		
Depth:	8/8.5			2/2.5			8/8.5			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aluminum	10000		1.18	9100		1.14	10100		1.22	7940		1.18
Antimony	0.616		0.235	0.765		0.228	ND		0.245	0.695		0.235
Arsenic	5.72		0.353	78.4		0.343	4.28		0.367	5.38		0.353
Barium	52.9		0.294	696		0.285	67.7		0.306	524		0.294
Beryllium	0.495	J	0.294	0.463	J	0.285	0.538	J	0.306	0.448	J	0.294
Cadmium	ND		0.353	0.538	J	0.343	ND		0.367	0.593		0.353
Calcium	2230		11.8	54500		11.4	4170		12.2	41400		11.8
Chromium	21.7		0.412	19.0		0.400	17.9		0.428	21.0		0.412
Cobalt	7.71		0.177	5.73		0.171	7.09		0.183	6.10		0.176
Copper	15.1		0.235	33.5		0.228	14.7		0.245	27.1		0.235
Iron	19700		5.89	15200		5.71	18400		6.12	14900		5.88
Lead	34.3		0.177	620		0.171	79.7		0.183	1020		0.176
Magnesium	3410		5.89	8220		5.71	3740		6.12	3920		5.88
Manganese	171		0.294	295		0.285	354		0.306	306		0.294
Mercury	0.063		0.011	0.421		0.011	0.091		0.011	ND		0.011
Nickel	17.9		0.294	13.1		0.285	16.5		0.306	16.0		0.294
Potassium	1500		23.5	2330		22.8	1650		24.5	2270		23.5
Selenium	2.37		0.235	0.676		0.228	2.40		0.245	1.46		0.235
Silver	ND		0.235	ND		0.228	ND		0.245	ND		0.235
Sodium	246		11.8	1030		11.4	211		12.2	342		11.8
Thallium	ND		0.235	ND		0.228	ND		0.245	ND		0.235
Vanadium	28.5		0.294	21.7		0.285	21.9		0.306	23.0		0.294
Zinc	53.5		0.353	470		0.343	58.6		0.367	587		0.353

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-013			10862-014			10862-015		
Client ID:	SB-36D			SB-37S			SB-37D		
Depth:	8/8.5			2/2.5			8/8.5		
Matrix:	Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone	0.014		0.0011	ND		0.291	ND		0.093
Trichloroethene	0.00109	J	0.000314	ND		0.108	ND		0.034
Toluene	ND		0.000362	0.105	DJ	0.083	ND		0.026
Tetrachloroethene	0.017		0.000287	2.41	D	0.099	0.429		0.032
Ethylbenzene	ND		0.000273	0.105	DJ	0.075	ND		0.024
Total Xylenes	ND		0.000485	0.767	D	0.202	0.072		0.064
Isopropylbenzene	ND		0.000222	0.081	DJ	0.071	ND		0.023
Methylcyclohexane	ND		0.000233	0.573	D	0.090	0.071		0.029
TOTAL VO's:	0.032	J		4.04	DJ		0.572		
TOTAL TIC's:	ND			429	DJN		78.7	JN	
TOTAL VO's & TIC's:	0.032	J		433	DJN		79.3	JN	
Semivolatiles - BN (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Naphthalene	ND		0.032	0.377		0.034	ND		0.032
2-Methylnaphthalene	ND		0.026	1.07		0.028	ND		0.026
1,1'-Biphenyl	ND		0.035	0.174		0.037	ND		0.034
Acenaphthylene	ND		0.031	0.209		0.032	ND		0.030
Acenaphthene	ND		0.033	0.211		0.035	ND		0.032
Dibenzofuran	ND		0.032	0.151		0.034	ND		0.031
Fluorene	ND		0.034	0.328		0.036	ND		0.033
Phenanthrene	0.110		0.034	2.08		0.036	0.138		0.033
Anthracene	ND		0.033	0.487		0.035	0.038		0.032
Carbazole	ND		0.029	0.184		0.031	ND		0.028
Di-n-butyl phthalate	ND		0.028	0.100		0.030	ND		0.028
Fluoranthene	0.240		0.031	3.04		0.033	0.231		0.031
Pyrene	0.239		0.031	1.99		0.032	0.210		0.030
Benzo[a]anthracene	0.142		0.032	1.55		0.034	0.134		0.031
Chrysene	0.142		0.032	1.36		0.034	0.131		0.031
Bis(2-ethylhexyl) phthalate	ND		0.023	5.61		0.024	0.202		0.023
Di-n-octyl phthalate	ND		0.032	0.403		0.034	ND		0.032
Benzo[b]fluoranthene	0.080		0.030	0.944		0.032	0.074		0.029
Benzo[k]fluoranthene	0.083		0.031	1.07		0.033	0.082		0.031
Benzo[a]pyrene	0.091		0.030	0.380		0.032	0.082		0.030
Indeno[1,2,3-cd]pyrene	0.041		0.031	0.174		0.033	0.102		0.030
Dibenz[a,h]anthracene	ND		0.037	0.079		0.039	ND		0.036
Benzo[g,h,i]perylene	0.040		0.034	0.126		0.036	0.197		0.033
TOTAL BN'S:	1.21			22.1			1.62		
TOTAL TIC's:	ND			41.6	JN		8.37	JN	
TOTAL BN'S & TIC's:	1.21			63.7	JN		9.99	JN	

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-013			10862-014			10862-015		
Client ID:	SB-36D			SB-37S			SB-37D		
Depth:	8/8.5			2/2.5			8/8.5		
Matrix:	Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1221	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1232	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1242	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1248	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1254	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1260	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1262	ND		0.00908	ND		0.027	ND		0.0088
Aroclor-1268	ND		0.00908	ND		0.027	ND		0.0088
PCBs	ND		0.00908	ND		0.027	ND		0.0088
Pesticides (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
alpha-BHC	ND		0.00227	ND		0.00224	ND		0.0022
beta-BHC	ND		0.00227	ND		0.00224	ND		0.0022
gamma-BHC (Lindane)	ND		0.00227	ND		0.00224	ND		0.0022
delta-BHC	ND		0.00227	ND		0.00224	ND		0.0022
Heptachlor	ND		0.00227	ND		0.00224	ND		0.0022
Aldrin	ND		0.00227	ND		0.00224	ND		0.0022
Heptachlor epoxide	ND		0.00227	ND		0.00224	ND		0.0022
Endosulfan I	ND		0.00227	ND		0.00224	ND		0.0022
4,4'-DDE	ND		0.00227	0.100		0.00224	0.00402	J	0.0022
Dieldrin	ND		0.00227	ND		0.00224	ND		0.0022
Endrin	ND		0.00227	ND		0.00224	ND		0.0022
Endosulfan II	ND		0.00227	ND		0.00224	ND		0.0022
4,4'-DDD	ND		0.00227	0.027		0.00224	ND		0.0022
Endrin aldehyde	ND		0.00227	ND		0.00224	ND		0.0022
Endosulfan sulfate	ND		0.00227	ND		0.00224	ND		0.0022
4,4'-DDT	ND		0.00227	0.201		0.00224	0.00891		0.0022
Endrin ketone	ND		0.00227	ND		0.00224	ND		0.0022
Methoxychlor	ND		0.00227	ND		0.00224	ND		0.0022
alpha-Chlordane	ND		0.00227	ND		0.00224	ND		0.0022
gamma-Chlordane	ND		0.00227	ND		0.00224	ND		0.0022
Toxaphene	ND		0.027	ND		0.027	ND		0.026
Endosulfan (I and II)	ND		0.00227	ND		0.00224	ND		0.0022
Chlordane (alpha and gamma)	ND		0.00227	ND		0.00224	ND		0.0022

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH
Lab Case No.: E17-10862

Lab ID:	10862-013			10862-014			10862-015		
Client ID:	SB-36D			SB-37S			SB-37D		
Depth:	8/8.5			2/2.5			8/8.5		
Matrix:	Soil			Soil			Soil		
Sampled Date	12/18/17			12/18/17			12/18/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aluminum	9550		1.23	8900		1.23	8180		1.18
Antimony	0.656		0.246	2.77		0.247	0.287	J	0.235
Arsenic	1.96		0.369	11.0		0.370	2.45		0.353
Barium	52.6		0.307	680		0.309	84.0		0.294
Beryllium	0.520	J	0.307	0.761		0.309	0.404	J	0.294
Cadmium	ND		0.369	2.01		0.370	ND		0.353
Calcium	3680		12.3	45400		12.3	6930		11.8
Chromium	18.1		0.430	44.9		0.432	15.9		0.412
Cobalt	6.18		0.184	10.8		0.185	6.21		0.176
Copper	22.5		0.246	147		0.247	19.3		0.235
Iron	17400		6.14	30900		6.17	16000		5.88
Lead	16.9		0.184	751		0.185	94.3		0.176
Magnesium	4210		6.14	6150		6.17	3070		5.88
Manganese	254		0.307	348		0.309	353		0.294
Mercury	ND		0.0098	0.467		0.012	0.274		0.0097
Nickel	17.7		0.307	27.4		0.309	14.1		0.294
Potassium	1620		24.6	1650		24.7	1400		23.5
Selenium	1.55		0.246	1.62		0.247	1.41		0.235
Silver	ND		0.246	0.357	J	0.247	ND		0.235
Sodium	729		12.3	889		12.3	325		11.8
Thallium	ND		0.246	ND		0.247	ND		0.235
Vanadium	23.4		0.307	29.0		0.309	22.7		0.294
Zinc	53.8		0.369	1120		0.370	71.4		0.353

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

N = Presumptive evidence of a compound from the use of GC/MS library search.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-001
Client ID: SB-31S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2601.D 12/19/17 12:38

GC/MS Column: DB-624
Sample wt/vol: 5.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00106	0.000249
Chloromethane	ND		0.00212	0.000196
Vinyl chloride	ND		0.00106	0.000196
Bromomethane	ND		0.00106	0.000316
Chloroethane	ND		0.00106	0.000281
Trichlorofluoromethane	ND		0.00106	0.000199
1,1-Dichloroethene	ND		0.00106	0.0004
Acetone	0.011	J	0.011	0.00104
Carbon disulfide	ND		0.00106	0.000329
Methylene chloride	ND		0.00212	0.00211
trans-1,2-Dichloroethene	ND		0.00106	0.000307
Methyl tert-butyl ether (MTBE)	ND		0.00106	0.000205
1,1-Dichloroethane	ND		0.00106	0.000206
cis-1,2-Dichloroethene	ND		0.00106	0.000226
2-Butanone (MEK)	ND		0.00212	0.000522
Bromochloromethane	ND		0.00106	0.000295
Chloroform	ND		0.00106	0.000223
1,1,1-Trichloroethane	ND		0.00106	0.00025
Carbon tetrachloride	ND		0.00106	0.000171
1,2-Dichloroethane (EDC)	ND		0.00106	0.00028
Benzene	ND		0.00106	0.000277
Trichloroethene	ND		0.00106	0.000297
1,2-Dichloropropane	ND		0.00106	0.000179
1,4-Dioxane	ND		0.212	0.038
Bromodichloromethane	ND		0.00106	0.000247
cis-1,3-Dichloropropene	ND		0.00106	0.000217
4-Methyl-2-pentanone (MIBK)	ND		0.00212	0.000614

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-001
Client ID: SB-31S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2601.D 12/19/17 12:38

GC/MS Column: DB-624
Sample wt/vol: 5.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00106	0.000342
trans-1,3-Dichloropropene	ND		0.00106	0.000245
1,1,2-Trichloroethane	ND		0.00106	0.000286
Tetrachloroethene	0.0032		0.00106	0.000271
2-Hexanone	ND		0.00212	0.0011
Dibromochloromethane	ND		0.00106	0.000198
1,2-Dibromoethane (EDB)	ND		0.00106	0.000188
Chlorobenzene	ND		0.00106	0.000239
Ethylbenzene	ND		0.00106	0.000259
Total Xylenes	ND		0.00212	0.000459
Styrene	ND		0.00106	0.000218
Bromoform	ND		0.00106	0.000304
Isopropylbenzene	ND		0.00106	0.00021
1,1,2,2-Tetrachloroethane	ND		0.00106	0.000285
1,3-Dichlorobenzene	ND		0.00106	0.000205
1,4-Dichlorobenzene	ND		0.00106	0.000181
1,2-Dichlorobenzene	ND		0.00106	0.000183
1,2-Dibromo-3-chloropropane	ND		0.00106	0.000286
1,2,4-Trichlorobenzene	ND		0.00106	0.000466
1,2,3-Trichlorobenzene	ND		0.00106	0.00051
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00106	0.000385
Methyl acetate	ND		0.00106	0.000495
Cyclohexane	ND		0.0053	0.000193
Methylcyclohexane	ND		0.00106	0.00022
1,3-Dichloropropene (cis- and trans-)	ND		0.00106	0.000245
Total Target Compounds (52):	0.014	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-001
Client ID: SB-31S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2601.D

GC/MS Column: DB-624
Sample wt/vol: 5.5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.3

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-002
Client ID: SB-31D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2602.D 12/19/17 13:08

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00154	0.000362
Chloromethane	ND		0.00308	0.000285
Vinyl chloride	ND		0.00154	0.000285
Bromomethane	ND		0.00154	0.000459
Chloroethane	ND		0.00154	0.000408
Trichlorofluoromethane	ND		0.00154	0.00029
1,1-Dichloroethene	ND		0.00154	0.000581
Acetone	0.020		0.015	0.00151
Carbon disulfide	ND		0.00154	0.000477
Methylene chloride	0.00512	C	0.00308	0.00306
trans-1,2-Dichloroethene	ND		0.00154	0.000447
Methyl tert-butyl ether (MTBE)	ND		0.00154	0.000297
1,1-Dichloroethane	ND		0.00154	0.000299
cis-1,2-Dichloroethene	ND		0.00154	0.000328
2-Butanone (MEK)	ND		0.00308	0.000758
Bromochloromethane	ND		0.00154	0.000428
Chloroform	ND		0.00154	0.000323
1,1,1-Trichloroethane	ND		0.00154	0.000363
Carbon tetrachloride	ND		0.00154	0.000248
1,2-Dichloroethane (EDC)	ND		0.00154	0.000407
Benzene	ND		0.00154	0.000402
Trichloroethene	0.000507	J	0.00154	0.000431
1,2-Dichloropropane	ND		0.00154	0.00026
1,4-Dioxane	ND		0.308	0.055
Bromodichloromethane	ND		0.00154	0.000359
cis-1,3-Dichloropropene	ND		0.00154	0.000316
4-Methyl-2-pentanone (MIBK)	ND		0.00308	0.000892

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-002
Client ID: SB-31D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2602.D 12/19/17 13:08

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00154	0.000497
trans-1,3-Dichloropropene	ND		0.00154	0.000356
1,1,2-Trichloroethane	ND		0.00154	0.000416
Tetrachloroethene	0.012		0.00154	0.000394
2-Hexanone	ND		0.00308	0.0016
Dibromochloromethane	ND		0.00154	0.000288
1,2-Dibromoethane (EDB)	ND		0.00154	0.000273
Chlorobenzene	ND		0.00154	0.000347
Ethylbenzene	ND		0.00154	0.000376
Total Xylenes	ND		0.00308	0.000667
Styrene	ND		0.00154	0.000317
Bromoform	ND		0.00154	0.000442
Isopropylbenzene	ND		0.00154	0.000305
1,1,2,2-Tetrachloroethane	ND		0.00154	0.000414
1,3-Dichlorobenzene	ND		0.00154	0.000297
1,4-Dichlorobenzene	ND		0.00154	0.000263
1,2-Dichlorobenzene	ND		0.00154	0.000266
1,2-Dibromo-3-chloropropane	ND		0.00154	0.000416
1,2,4-Trichlorobenzene	ND		0.00154	0.000678
1,2,3-Trichlorobenzene	ND		0.00154	0.000741
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00154	0.000559
Methyl acetate	ND		0.00154	0.000719
Cyclohexane	ND		0.0077	0.00028
Methylcyclohexane	ND		0.00154	0.00032
1,3-Dichloropropene (cis- and trans-)	ND		0.00154	0.000356
Total Target Compounds (52):	0.038	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-002
Client ID: SB-31D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2602.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
000091-20-3	Naphthalene	0.020	JN	15.64

Total TICs = 0.020 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-003
Client ID: SB-32S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2603.D 12/19/17 13:37

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.0014	0.000329
Chloromethane	ND		0.0028	0.000259
Vinyl chloride	ND		0.0014	0.000259
Bromomethane	ND		0.0014	0.000417
Chloroethane	ND		0.0014	0.000371
Trichlorofluoromethane	ND		0.0014	0.000263
1,1-Dichloroethene	ND		0.0014	0.000528
Acetone	0.018		0.014	0.00137
Carbon disulfide	ND		0.0014	0.000434
Methylene chloride	0.00689	C	0.0028	0.00279
trans-1,2-Dichloroethene	ND		0.0014	0.000406
Methyl tert-butyl ether (MTBE)	ND		0.0014	0.00027
1,1-Dichloroethane	ND		0.0014	0.000272
cis-1,2-Dichloroethene	ND		0.0014	0.000298
2-Butanone (MEK)	ND		0.0028	0.000689
Bromochloromethane	ND		0.0014	0.000389
Chloroform	ND		0.0014	0.000294
1,1,1-Trichloroethane	ND		0.0014	0.00033
Carbon tetrachloride	ND		0.0014	0.000225
1,2-Dichloroethane (EDC)	ND		0.0014	0.00037
Benzene	ND		0.0014	0.000365
Trichloroethene	0.000652	J	0.0014	0.000392
1,2-Dichloropropane	ND		0.0014	0.000237
1,4-Dioxane	ND		0.280	0.050
Bromodichloromethane	ND		0.0014	0.000326
cis-1,3-Dichloropropene	ND		0.0014	0.000287
4-Methyl-2-pentanone (MIBK)	ND		0.0028	0.000811

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-003
Client ID: SB-32S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2603.D 12/19/17 13:37

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.0014	0.000452
trans-1,3-Dichloropropene	ND		0.0014	0.000323
1,1,2-Trichloroethane	ND		0.0014	0.000378
Tetrachloroethene	0.019		0.0014	0.000358
2-Hexanone	ND		0.0028	0.00146
Dibromochloromethane	ND		0.0014	0.000262
1,2-Dibromoethane (EDB)	ND		0.0014	0.000248
Chlorobenzene	ND		0.0014	0.000315
Ethylbenzene	ND		0.0014	0.000342
Total Xylenes	ND		0.0028	0.000606
Styrene	ND		0.0014	0.000288
Bromoform	ND		0.0014	0.000402
Isopropylbenzene	ND		0.0014	0.000277
1,1,2,2-Tetrachloroethane	ND		0.0014	0.000377
1,3-Dichlorobenzene	ND		0.0014	0.00027
1,4-Dichlorobenzene	ND		0.0014	0.000239
1,2-Dichlorobenzene	ND		0.0014	0.000242
1,2-Dibromo-3-chloropropane	ND		0.0014	0.000378
1,2,4-Trichlorobenzene	ND		0.0014	0.000616
1,2,3-Trichlorobenzene	ND		0.0014	0.000673
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0014	0.000508
Methyl acetate	ND		0.0014	0.000654
Cyclohexane	ND		0.007	0.000255
Methylcyclohexane	ND		0.0014	0.000291
1,3-Dichloropropene (cis- and trans-)	ND		0.0014	0.000323
Total Target Compounds (52):	0.045	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-003
Client ID: SB-32S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2603.D

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-004
Client ID: SB-32D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2604.D 12/19/17 14:07

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00126	0.000296
Chloromethane	ND		0.00252	0.000233
Vinyl chloride	ND		0.00126	0.000233
Bromomethane	ND		0.00126	0.000375
Chloroethane	ND		0.00126	0.000334
Trichlorofluoromethane	ND		0.00126	0.000237
1,1-Dichloroethene	ND		0.00126	0.000475
Acetone	0.025		0.013	0.00123
Carbon disulfide	ND		0.00126	0.000391
Methylene chloride	ND		0.00252	0.00251
trans-1,2-Dichloroethene	ND		0.00126	0.000365
Methyl tert-butyl ether (MTBE)	ND		0.00126	0.000243
1,1-Dichloroethane	ND		0.00126	0.000244
cis-1,2-Dichloroethene	ND		0.00126	0.000268
2-Butanone (MEK)	ND		0.00252	0.00062
Bromochloromethane	ND		0.00126	0.00035
Chloroform	ND		0.00126	0.000265
1,1,1-Trichloroethane	ND		0.00126	0.000297
Carbon tetrachloride	ND		0.00126	0.000203
1,2-Dichloroethane (EDC)	ND		0.00126	0.000333
Benzene	ND		0.00126	0.000329
Trichloroethene	0.000483	J	0.00126	0.000353
1,2-Dichloropropane	ND		0.00126	0.000213
1,4-Dioxane	ND		0.252	0.045
Bromodichloromethane	ND		0.00126	0.000294
cis-1,3-Dichloropropene	ND		0.00126	0.000258
4-Methyl-2-pentanone (MIBK)	ND		0.00252	0.00073

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-004
Client ID: SB-32D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2604.D 12/19/17 14:07

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00126	0.000407
trans-1,3-Dichloropropene	ND		0.00126	0.000291
1,1,2-Trichloroethane	ND		0.00126	0.00034
Tetrachloroethene	0.015		0.00126	0.000323
2-Hexanone	ND		0.00252	0.00131
Dibromochloromethane	ND		0.00126	0.000236
1,2-Dibromoethane (EDB)	ND		0.00126	0.000223
Chlorobenzene	ND		0.00126	0.000284
Ethylbenzene	ND		0.00126	0.000307
Total Xylenes	ND		0.00252	0.000546
Styrene	ND		0.00126	0.00026
Bromoform	ND		0.00126	0.000362
Isopropylbenzene	ND		0.00126	0.000249
1,1,2,2-Tetrachloroethane	ND		0.00126	0.000339
1,3-Dichlorobenzene	ND		0.00126	0.000243
1,4-Dichlorobenzene	ND		0.00126	0.000215
1,2-Dichlorobenzene	ND		0.00126	0.000218
1,2-Dibromo-3-chloropropane	ND		0.00126	0.00034
1,2,4-Trichlorobenzene	ND		0.00126	0.000554
1,2,3-Trichlorobenzene	ND		0.00126	0.000606
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00126	0.000457
Methyl acetate	ND		0.00126	0.000588
Cyclohexane	ND		0.0063	0.000229
Methylcyclohexane	ND		0.00126	0.000262
1,3-Dichloropropene (cis- and trans-)	ND		0.00126	0.000291
Total Target Compounds (52):	0.041	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-004
Client ID: SB-32D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2604.D

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.70

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-005
Client ID: SB-32D1/12-1
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2605.D 12/19/17 14:36

GC/MS Column: DB-624
Sample wt/vol: 5.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00107	0.000251
Chloromethane	ND		0.00214	0.000198
Vinyl chloride	ND		0.00107	0.000198
Bromomethane	ND		0.00107	0.000319
Chloroethane	ND		0.00107	0.000284
Trichlorofluoromethane	ND		0.00107	0.000201
1,1-Dichloroethene	ND		0.00107	0.000403
Acetone	0.029		0.011	0.00105
Carbon disulfide	ND		0.00107	0.000332
Methylene chloride	0.00328	C	0.00214	0.00213
trans-1,2-Dichloroethene	ND		0.00107	0.00031
Methyl tert-butyl ether (MTBE)	ND		0.00107	0.000207
1,1-Dichloroethane	ND		0.00107	0.000208
cis-1,2-Dichloroethene	ND		0.00107	0.000228
2-Butanone (MEK)	0.00431		0.00214	0.000526
Bromochloromethane	ND		0.00107	0.000297
Chloroform	ND		0.00107	0.000225
1,1,1-Trichloroethane	ND		0.00107	0.000253
Carbon tetrachloride	ND		0.00107	0.000172
1,2-Dichloroethane (EDC)	ND		0.00107	0.000282
Benzene	ND		0.00107	0.000279
Trichloroethene	ND		0.00107	0.0003
1,2-Dichloropropane	ND		0.00107	0.000181
1,4-Dioxane	ND		0.214	0.038
Bromodichloromethane	ND		0.00107	0.000249
cis-1,3-Dichloropropene	ND		0.00107	0.000219
4-Methyl-2-pentanone (MIBK)	ND		0.00214	0.00062

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-005
Client ID: SB-32D1/12-1
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2605.D 12/19/17 14:36

GC/MS Column: DB-624
Sample wt/vol: 5.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00107	0.000346
trans-1,3-Dichloropropene	ND		0.00107	0.000247
1,1,2-Trichloroethane	ND		0.00107	0.000289
Tetrachloroethene	ND		0.00107	0.000274
2-Hexanone	ND		0.00214	0.00111
Dibromochloromethane	ND		0.00107	0.0002
1,2-Dibromoethane (EDB)	ND		0.00107	0.000189
Chlorobenzene	ND		0.00107	0.000241
Ethylbenzene	ND		0.00107	0.000261
Total Xylenes	ND		0.00214	0.000463
Styrene	ND		0.00107	0.00022
Bromoform	ND		0.00107	0.000307
Isopropylbenzene	ND		0.00107	0.000212
1,1,2,2-Tetrachloroethane	ND		0.00107	0.000288
1,3-Dichlorobenzene	ND		0.00107	0.000207
1,4-Dichlorobenzene	ND		0.00107	0.000183
1,2-Dichlorobenzene	ND		0.00107	0.000185
1,2-Dibromo-3-chloropropane	ND		0.00107	0.000289
1,2,4-Trichlorobenzene	ND		0.00107	0.000471
1,2,3-Trichlorobenzene	ND		0.00107	0.000515
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00107	0.000388
Methyl acetate	ND		0.00107	0.0005
Cyclohexane	ND		0.00535	0.000195
Methylcyclohexane	ND		0.00107	0.000223
1,3-Dichloropropene (cis- and trans-)	ND		0.00107	0.000247
Total Target Compounds (52):	0.036	C		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-005
Client ID: SB-32D1/12-1
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2605.D

GC/MS Column: DB-624
Sample wt/vol: 5.9g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 20.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-006
Client ID: SB-33S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2617.D 12/19/17 20:28

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00173	0.000407
Chloromethane	ND		0.00346	0.00032
Vinyl chloride	ND		0.00173	0.00032
Bromomethane	ND		0.00173	0.000516
Chloroethane	ND		0.00173	0.000458
Trichlorofluoromethane	ND		0.00173	0.000325
1,1-Dichloroethene	ND		0.00173	0.000652
Acetone	0.041		0.017	0.00169
Carbon disulfide	ND		0.00173	0.000536
Methylene chloride	0.011	C	0.00346	0.00344
trans-1,2-Dichloroethene	ND		0.00173	0.000502
Methyl tert-butyl ether (MTBE)	ND		0.00173	0.000334
1,1-Dichloroethane	ND		0.00173	0.000336
cis-1,2-Dichloroethene	ND		0.00173	0.000368
2-Butanone (MEK)	ND		0.00346	0.000851
Bromochloromethane	ND		0.00173	0.000481
Chloroform	ND		0.00173	0.000363
1,1,1-Trichloroethane	ND		0.00173	0.000408
Carbon tetrachloride	ND		0.00173	0.000279
1,2-Dichloroethane (EDC)	ND		0.00173	0.000457
Benzene	ND		0.00173	0.000452
Trichloroethene	0.000507	J	0.00173	0.000484
1,2-Dichloropropane	ND		0.00173	0.000292
1,4-Dioxane	ND		0.346	0.062
Bromodichloromethane	ND		0.00173	0.000403
cis-1,3-Dichloropropene	ND		0.00173	0.000355
4-Methyl-2-pentanone (MIBK)	ND		0.00346	0.001

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-006
Client ID: SB-33S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2617.D 12/19/17 20:28

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00173	0.000559
trans-1,3-Dichloropropene	ND		0.00173	0.0004
1,1,2-Trichloroethane	ND		0.00173	0.000467
Tetrachloroethene	0.00424		0.00173	0.000443
2-Hexanone	ND		0.00346	0.0018
Dibromochloromethane	ND		0.00173	0.000324
1,2-Dibromoethane (EDB)	ND		0.00173	0.000306
Chlorobenzene	ND		0.00173	0.000389
Ethylbenzene	ND		0.00173	0.000422
Total Xylenes	ND		0.00346	0.000749
Styrene	ND		0.00173	0.000356
Bromoform	ND		0.00173	0.000497
Isopropylbenzene	ND		0.00173	0.000343
1,1,2,2-Tetrachloroethane	ND		0.00173	0.000465
1,3-Dichlorobenzene	ND		0.00173	0.000334
1,4-Dichlorobenzene	ND		0.00173	0.000296
1,2-Dichlorobenzene	ND		0.00173	0.000299
1,2-Dibromo-3-chloropropane	ND		0.00173	0.000467
1,2,4-Trichlorobenzene	ND		0.00173	0.000761
1,2,3-Trichlorobenzene	ND		0.00173	0.000832
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00173	0.000628
Methyl acetate	ND		0.00173	0.000808
Cyclohexane	ND		0.00865	0.000315
Methylcyclohexane	ND		0.00173	0.00036
1,3-Dichloropropene (cis- and trans-)	ND		0.00173	0.0004
Total Target Compounds (52):	0.057	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-006
Client ID: SB-33S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2617.D

GC/MS Column: DB-624
Sample wt/vol: 3.4g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.9

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-007
Client ID: SB-33D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2610.D 12/19/17 17:03

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00164	0.000385
Chloromethane	ND		0.00328	0.000303
Vinyl chloride	ND		0.00164	0.000303
Bromomethane	ND		0.00164	0.000489
Chloroethane	ND		0.00164	0.000435
Trichlorofluoromethane	ND		0.00164	0.000308
1,1-Dichloroethene	ND		0.00164	0.000618
Acetone	0.022		0.016	0.00161
Carbon disulfide	ND		0.00164	0.000508
Methylene chloride	0.00542	C	0.00328	0.00326
trans-1,2-Dichloroethene	ND		0.00164	0.000476
Methyl tert-butyl ether (MTBE)	ND		0.00164	0.000317
1,1-Dichloroethane	ND		0.00164	0.000318
cis-1,2-Dichloroethene	ND		0.00164	0.000349
2-Butanone (MEK)	ND		0.00328	0.000807
Bromochloromethane	ND		0.00164	0.000456
Chloroform	ND		0.00164	0.000344
1,1,1-Trichloroethane	ND		0.00164	0.000387
Carbon tetrachloride	ND		0.00164	0.000264
1,2-Dichloroethane (EDC)	ND		0.00164	0.000433
Benzene	ND		0.00164	0.000428
Trichloroethene	ND		0.00164	0.000459
1,2-Dichloropropane	ND		0.00164	0.000277
1,4-Dioxane	ND		0.328	0.059
Bromodichloromethane	ND		0.00164	0.000382
cis-1,3-Dichloropropene	ND		0.00164	0.000336
4-Methyl-2-pentanone (MIBK)	ND		0.00328	0.00095

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-007
Client ID: SB-33D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2610.D 12/19/17 17:03

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00164	0.00053
trans-1,3-Dichloropropene	ND		0.00164	0.000379
1,1,2-Trichloroethane	ND		0.00164	0.000443
Tetrachloroethene	0.00817		0.00164	0.00042
2-Hexanone	ND		0.00328	0.00171
Dibromochloromethane	ND		0.00164	0.000307
1,2-Dibromoethane (EDB)	ND		0.00164	0.00029
Chlorobenzene	ND		0.00164	0.000369
Ethylbenzene	ND		0.00164	0.0004
Total Xylenes	ND		0.00328	0.00071
Styrene	ND		0.00164	0.000338
Bromoform	ND		0.00164	0.000471
Isopropylbenzene	ND		0.00164	0.000325
1,1,2,2-Tetrachloroethane	ND		0.00164	0.000441
1,3-Dichlorobenzene	ND		0.00164	0.000317
1,4-Dichlorobenzene	ND		0.00164	0.00028
1,2-Dichlorobenzene	ND		0.00164	0.000284
1,2-Dibromo-3-chloropropane	ND		0.00164	0.000443
1,2,4-Trichlorobenzene	ND		0.00164	0.000722
1,2,3-Trichlorobenzene	ND		0.00164	0.000789
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00164	0.000595
Methyl acetate	ND		0.00164	0.000766
Cyclohexane	ND		0.0082	0.000298
Methylcyclohexane	ND		0.00164	0.000341
1,3-Dichloropropene (cis- and trans-)	ND		0.00164	0.000379
Total Target Compounds (52):	0.036	C		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-007
Client ID: SB-33D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2610.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 15.1

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-008
Client ID: SB-34S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2611.D 12/19/17 17:32

GC/MS Column: DB-624
Sample wt/vol: 4.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00122	0.000287
Chloromethane	ND		0.00244	0.000226
Vinyl chloride	ND		0.00122	0.000226
Bromomethane	ND		0.00122	0.000364
Chloroethane	ND		0.00122	0.000323
Trichlorofluoromethane	ND		0.00122	0.000229
1,1-Dichloroethene	ND		0.00122	0.00046
Acetone	0.012	J	0.012	0.00119
Carbon disulfide	ND		0.00122	0.000378
Methylene chloride	0.00368	C	0.00244	0.00243
trans-1,2-Dichloroethene	ND		0.00122	0.000354
Methyl tert-butyl ether (MTBE)	ND		0.00122	0.000235
1,1-Dichloroethane	ND		0.00122	0.000237
cis-1,2-Dichloroethene	ND		0.00122	0.00026
2-Butanone (MEK)	ND		0.00244	0.0006
Bromochloromethane	ND		0.00122	0.000339
Chloroform	ND		0.00122	0.000256
1,1,1-Trichloroethane	ND		0.00122	0.000288
Carbon tetrachloride	ND		0.00122	0.000196
1,2-Dichloroethane (EDC)	ND		0.00122	0.000322
Benzene	ND		0.00122	0.000318
Trichloroethene	0.00269		0.00122	0.000342
1,2-Dichloropropane	ND		0.00122	0.000206
1,4-Dioxane	ND		0.244	0.044
Bromodichloromethane	ND		0.00122	0.000284
cis-1,3-Dichloropropene	ND		0.00122	0.00025
4-Methyl-2-pentanone (MIBK)	ND		0.00244	0.000706

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-008
Client ID: SB-34S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2611.D 12/19/17 17:32

GC/MS Column: DB-624
Sample wt/vol: 4.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00122	0.000394
trans-1,3-Dichloropropene	ND		0.00122	0.000282
1,1,2-Trichloroethane	ND		0.00122	0.000329
Tetrachloroethene	0.019		0.00122	0.000312
2-Hexanone	ND		0.00244	0.00127
Dibromochloromethane	ND		0.00122	0.000228
1,2-Dibromoethane (EDB)	ND		0.00122	0.000216
Chlorobenzene	ND		0.00122	0.000275
Ethylbenzene	ND		0.00122	0.000298
Total Xylenes	ND		0.00244	0.000528
Styrene	ND		0.00122	0.000251
Bromoform	ND		0.00122	0.00035
Isopropylbenzene	ND		0.00122	0.000242
1,1,2,2-Tetrachloroethane	ND		0.00122	0.000328
1,3-Dichlorobenzene	ND		0.00122	0.000235
1,4-Dichlorobenzene	ND		0.00122	0.000209
1,2-Dichlorobenzene	ND		0.00122	0.000211
1,2-Dibromo-3-chloropropane	ND		0.00122	0.000329
1,2,4-Trichlorobenzene	ND		0.00122	0.000537
1,2,3-Trichlorobenzene	ND		0.00122	0.000587
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00122	0.000443
Methyl acetate	ND		0.00122	0.00057
Cyclohexane	ND		0.0061	0.000222
Methylcyclohexane	ND		0.00122	0.000254
1,3-Dichloropropene (cis- and trans-)	ND		0.00122	0.000282
Total Target Compounds (52):	0.038	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-008
Client ID: SB-34S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2611.D

GC/MS Column: DB-624
Sample wt/vol: 4.5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.10

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-009
Client ID: SB-34D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2612.D 12/19/17 18:02

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00113	0.000266
Chloromethane	ND		0.00226	0.000209
Vinyl chloride	ND		0.00113	0.000209
Bromomethane	ND		0.00113	0.000337
Chloroethane	ND		0.00113	0.000299
Trichlorofluoromethane	ND		0.00113	0.000212
1,1-Dichloroethene	ND		0.00113	0.000426
Acetone	0.019		0.011	0.00111
Carbon disulfide	ND		0.00113	0.00035
Methylene chloride	ND		0.00226	0.00225
trans-1,2-Dichloroethene	ND		0.00113	0.000328
Methyl tert-butyl ether (MTBE)	ND		0.00113	0.000218
1,1-Dichloroethane	ND		0.00113	0.000219
cis-1,2-Dichloroethene	ND		0.00113	0.000241
2-Butanone (MEK)	0.00246		0.00226	0.000556
Bromochloromethane	ND		0.00113	0.000314
Chloroform	ND		0.00113	0.000237
1,1,1-Trichloroethane	ND		0.00113	0.000267
Carbon tetrachloride	ND		0.00113	0.000182
1,2-Dichloroethane (EDC)	ND		0.00113	0.000298
Benzene	0.000355	J	0.00113	0.000295
Trichloroethene	0.00234		0.00113	0.000316
1,2-Dichloropropane	ND		0.00113	0.000191
1,4-Dioxane	ND		0.226	0.041
Bromodichloromethane	ND		0.00113	0.000263
cis-1,3-Dichloropropene	ND		0.00113	0.000232
4-Methyl-2-pentanone (MIBK)	ND		0.00226	0.000654

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-009
Client ID: SB-34D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2612.D 12/19/17 18:02

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00113	0.000365
trans-1,3-Dichloropropene	ND		0.00113	0.000261
1,1,2-Trichloroethane	ND		0.00113	0.000305
Tetrachloroethene	0.022		0.00113	0.000289
2-Hexanone	ND		0.00226	0.00118
Dibromochloromethane	ND		0.00113	0.000211
1,2-Dibromoethane (EDB)	ND		0.00113	0.0002
Chlorobenzene	ND		0.00113	0.000254
Ethylbenzene	ND		0.00113	0.000276
Total Xylenes	ND		0.00226	0.000489
Styrene	ND		0.00113	0.000233
Bromoform	ND		0.00113	0.000324
Isopropylbenzene	ND		0.00113	0.000224
1,1,2,2-Tetrachloroethane	ND		0.00113	0.000304
1,3-Dichlorobenzene	ND		0.00113	0.000218
1,4-Dichlorobenzene	ND		0.00113	0.000193
1,2-Dichlorobenzene	ND		0.00113	0.000195
1,2-Dibromo-3-chloropropane	ND		0.00113	0.000305
1,2,4-Trichlorobenzene	ND		0.00113	0.000497
1,2,3-Trichlorobenzene	ND		0.00113	0.000544
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00113	0.00041
Methyl acetate	ND		0.00113	0.000528
Cyclohexane	ND		0.00565	0.000206
Methylcyclohexane	ND		0.00113	0.000235
1,3-Dichloropropene (cis- and trans-)	ND		0.00113	0.000261
Total Target Compounds (52):	0.045	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-009
Client ID: SB-34D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2612.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-010
Client ID: SB-35S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2613.D 12/19/17 18:31

GC/MS Column: DB-624
Sample wt/vol: 3.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00158	0.000371
Chloromethane	ND		0.00316	0.000292
Vinyl chloride	ND		0.00158	0.000292
Bromomethane	ND		0.00158	0.000471
Chloroethane	ND		0.00158	0.000419
Trichlorofluoromethane	ND		0.00158	0.000297
1,1-Dichloroethene	ND		0.00158	0.000596
Acetone	0.012	J	0.016	0.00155
Carbon disulfide	ND		0.00158	0.00049
Methylene chloride	ND		0.00316	0.00314
trans-1,2-Dichloroethene	ND		0.00158	0.000458
Methyl tert-butyl ether (MTBE)	ND		0.00158	0.000305
1,1-Dichloroethane	ND		0.00158	0.000307
cis-1,2-Dichloroethene	ND		0.00158	0.000337
2-Butanone (MEK)	ND		0.00316	0.000777
Bromochloromethane	ND		0.00158	0.000439
Chloroform	ND		0.00158	0.000332
1,1,1-Trichloroethane	ND		0.00158	0.000373
Carbon tetrachloride	ND		0.00158	0.000254
1,2-Dichloroethane (EDC)	ND		0.00158	0.000417
Benzene	ND		0.00158	0.000412
Trichloroethene	0.000803	J	0.00158	0.000442
1,2-Dichloropropane	ND		0.00158	0.000267
1,4-Dioxane	ND		0.316	0.057
Bromodichloromethane	ND		0.00158	0.000368
cis-1,3-Dichloropropene	ND		0.00158	0.000324
4-Methyl-2-pentanone (MIBK)	ND		0.00316	0.000915

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-010
Client ID: SB-35S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2613.D 12/19/17 18:31

GC/MS Column: DB-624
Sample wt/vol: 3.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00158	0.00051
trans-1,3-Dichloropropene	ND		0.00158	0.000365
1,1,2-Trichloroethane	ND		0.00158	0.000427
Tetrachloroethene	0.026		0.00158	0.000404
2-Hexanone	ND		0.00316	0.00164
Dibromochloromethane	ND		0.00158	0.000295
1,2-Dibromoethane (EDB)	ND		0.00158	0.00028
Chlorobenzene	ND		0.00158	0.000356
Ethylbenzene	ND		0.00158	0.000386
Total Xylenes	ND		0.00316	0.000684
Styrene	ND		0.00158	0.000325
Bromoform	ND		0.00158	0.000453
Isopropylbenzene	ND		0.00158	0.000313
1,1,2,2-Tetrachloroethane	ND		0.00158	0.000425
1,3-Dichlorobenzene	ND		0.00158	0.000305
1,4-Dichlorobenzene	ND		0.00158	0.00027
1,2-Dichlorobenzene	ND		0.00158	0.000273
1,2-Dibromo-3-chloropropane	ND		0.00158	0.000427
1,2,4-Trichlorobenzene	ND		0.00158	0.000695
1,2,3-Trichlorobenzene	ND		0.00158	0.00076
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00158	0.000574
Methyl acetate	ND		0.00158	0.000738
Cyclohexane	ND		0.0079	0.000288
Methylcyclohexane	ND		0.00158	0.000329
1,3-Dichloropropene (cis- and trans-)	ND		0.00158	0.000365
Total Target Compounds (52):	0.039	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-010
Client ID: SB-35S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2613.D

GC/MS Column: DB-624
Sample wt/vol: 3.5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.70

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-011
Client ID: SB-35D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2619.D 12/19/17 21:27

GC/MS Column: DB-624
Sample wt/vol: 4.7g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00122	0.000287
Chloromethane	ND		0.00244	0.000226
Vinyl chloride	ND		0.00122	0.000226
Bromomethane	ND		0.00122	0.000364
Chloroethane	ND		0.00122	0.000323
Trichlorofluoromethane	ND		0.00122	0.000229
1,1-Dichloroethene	ND		0.00122	0.00046
Acetone	0.086		0.012	0.00119
Carbon disulfide	ND		0.00122	0.000378
Methylene chloride	0.00382	C	0.00244	0.00243
trans-1,2-Dichloroethene	ND		0.00122	0.000354
Methyl tert-butyl ether (MTBE)	ND		0.00122	0.000235
1,1-Dichloroethane	ND		0.00122	0.000237
cis-1,2-Dichloroethene	ND		0.00122	0.00026
2-Butanone (MEK)	ND		0.00244	0.0006
Bromochloromethane	ND		0.00122	0.000339
Chloroform	ND		0.00122	0.000256
1,1,1-Trichloroethane	ND		0.00122	0.000288
Carbon tetrachloride	ND		0.00122	0.000196
1,2-Dichloroethane (EDC)	ND		0.00122	0.000322
Benzene	ND		0.00122	0.000318
Trichloroethene	0.00055	J	0.00122	0.000342
1,2-Dichloropropane	ND		0.00122	0.000206
1,4-Dioxane	ND		0.244	0.044
Bromodichloromethane	ND		0.00122	0.000284
cis-1,3-Dichloropropene	ND		0.00122	0.00025
4-Methyl-2-pentanone (MIBK)	ND		0.00244	0.000706

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-011
Client ID: SB-35D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2619.D 12/19/17 21:27

GC/MS Column: DB-624
Sample wt/vol: 4.7g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00122	0.000394
trans-1,3-Dichloropropene	ND		0.00122	0.000282
1,1,2-Trichloroethane	ND		0.00122	0.000329
Tetrachloroethene	0.023		0.00122	0.000312
2-Hexanone	ND		0.00244	0.00127
Dibromochloromethane	ND		0.00122	0.000228
1,2-Dibromoethane (EDB)	ND		0.00122	0.000216
Chlorobenzene	ND		0.00122	0.000275
Ethylbenzene	ND		0.00122	0.000298
Total Xylenes	ND		0.00244	0.000528
Styrene	ND		0.00122	0.000251
Bromoform	ND		0.00122	0.00035
Isopropylbenzene	ND		0.00122	0.000242
1,1,2,2-Tetrachloroethane	ND		0.00122	0.000328
1,3-Dichlorobenzene	ND		0.00122	0.000235
1,4-Dichlorobenzene	ND		0.00122	0.000209
1,2-Dichlorobenzene	ND		0.00122	0.000211
1,2-Dibromo-3-chloropropane	ND		0.00122	0.000329
1,2,4-Trichlorobenzene	ND		0.00122	0.000537
1,2,3-Trichlorobenzene	ND		0.00122	0.000587
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00122	0.000443
Methyl acetate	ND		0.00122	0.00057
Cyclohexane	ND		0.0061	0.000222
Methylcyclohexane	ND		0.00122	0.000254
1,3-Dichloropropene (cis- and trans-)	ND		0.00122	0.000282
Total Target Compounds (52):	0.113	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-011
Client ID: SB-35D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2619.D

GC/MS Column: DB-624
Sample wt/vol: 4.7g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-012
Client ID: SB-36S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2615.D 12/19/17 19:30

GC/MS Column: DB-624
Sample wt/vol: 4.3g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.0013	0.000306
Chloromethane	ND		0.0026	0.000241
Vinyl chloride	ND		0.0013	0.000241
Bromomethane	ND		0.0013	0.000387
Chloroethane	ND		0.0013	0.000345
Trichlorofluoromethane	ND		0.0013	0.000244
1,1-Dichloroethene	ND		0.0013	0.00049
Acetone	0.033		0.013	0.00127
Carbon disulfide	ND		0.0013	0.000403
Methylene chloride	0.00671	C	0.0026	0.00259
trans-1,2-Dichloroethene	ND		0.0013	0.000377
Methyl tert-butyl ether (MTBE)	ND		0.0013	0.000251
1,1-Dichloroethane	ND		0.0013	0.000252
cis-1,2-Dichloroethene	ND		0.0013	0.000277
2-Butanone (MEK)	ND		0.0026	0.00064
Bromochloromethane	ND		0.0013	0.000361
Chloroform	ND		0.0013	0.000273
1,1,1-Trichloroethane	ND		0.0013	0.000307
Carbon tetrachloride	ND		0.0013	0.000209
1,2-Dichloroethane (EDC)	ND		0.0013	0.000343
Benzene	ND		0.0013	0.000339
Trichloroethene	0.000415	J	0.0013	0.000364
1,2-Dichloropropane	ND		0.0013	0.00022
1,4-Dioxane	ND		0.260	0.047
Bromodichloromethane	ND		0.0013	0.000303
cis-1,3-Dichloropropene	ND		0.0013	0.000267
4-Methyl-2-pentanone (MIBK)	ND		0.0026	0.000753

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-012
Client ID: SB-36S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2615.D 12/19/17 19:30

GC/MS Column: DB-624
Sample wt/vol: 4.3g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.0013	0.00042
trans-1,3-Dichloropropene	ND		0.0013	0.0003
1,1,2-Trichloroethane	ND		0.0013	0.000351
Tetrachloroethene	0.012		0.0013	0.000333
2-Hexanone	ND		0.0026	0.00135
Dibromochloromethane	ND		0.0013	0.000243
1,2-Dibromoethane (EDB)	ND		0.0013	0.00023
Chlorobenzene	ND		0.0013	0.000293
Ethylbenzene	ND		0.0013	0.000317
Total Xylenes	ND		0.0026	0.000563
Styrene	ND		0.0013	0.000268
Bromoform	ND		0.0013	0.000373
Isopropylbenzene	ND		0.0013	0.000257
1,1,2,2-Tetrachloroethane	ND		0.0013	0.00035
1,3-Dichlorobenzene	ND		0.0013	0.000251
1,4-Dichlorobenzene	ND		0.0013	0.000222
1,2-Dichlorobenzene	ND		0.0013	0.000225
1,2-Dibromo-3-chloropropane	ND		0.0013	0.000351
1,2,4-Trichlorobenzene	ND		0.0013	0.000572
1,2,3-Trichlorobenzene	ND		0.0013	0.000625
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0013	0.000472
Methyl acetate	ND		0.0013	0.000607
Cyclohexane	ND		0.0065	0.000237
Methylcyclohexane	ND		0.0013	0.00027
1,3-Dichloropropene (cis- and trans-)	ND		0.0013	0.0003
Total Target Compounds (52):	0.052	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-012
Client ID: SB-36S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2615.D

GC/MS Column: DB-624
Sample wt/vol: 4.3g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-013
Client ID: SB-36D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2616.D 12/19/17 19:59

GC/MS Column: DB-624
Sample wt/vol: 5.2g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00112	0.000263
Chloromethane	ND		0.00224	0.000207
Vinyl chloride	ND		0.00112	0.000207
Bromomethane	ND		0.00112	0.000334
Chloroethane	ND		0.00112	0.000297
Trichlorofluoromethane	ND		0.00112	0.000211
1,1-Dichloroethene	ND		0.00112	0.000422
Acetone	0.014		0.011	0.0011
Carbon disulfide	ND		0.00112	0.000347
Methylene chloride	ND		0.00224	0.00223
trans-1,2-Dichloroethene	ND		0.00112	0.000325
Methyl tert-butyl ether (MTBE)	ND		0.00112	0.000216
1,1-Dichloroethane	ND		0.00112	0.000217
cis-1,2-Dichloroethene	ND		0.00112	0.000239
2-Butanone (MEK)	ND		0.00224	0.000551
Bromochloromethane	ND		0.00112	0.000311
Chloroform	ND		0.00112	0.000235
1,1,1-Trichloroethane	ND		0.00112	0.000264
Carbon tetrachloride	ND		0.00112	0.00018
1,2-Dichloroethane (EDC)	ND		0.00112	0.000296
Benzene	ND		0.00112	0.000292
Trichloroethene	0.00109	J	0.00112	0.000314
1,2-Dichloropropane	ND		0.00112	0.000189
1,4-Dioxane	ND		0.224	0.040
Bromodichloromethane	ND		0.00112	0.000261
cis-1,3-Dichloropropene	ND		0.00112	0.00023
4-Methyl-2-pentanone (MIBK)	ND		0.00224	0.000648

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-013
Client ID: SB-36D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: F2616.D 12/19/17 19:59

GC/MS Column: DB-624
Sample wt/vol: 5.2g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00112	0.000362
trans-1,3-Dichloropropene	ND		0.00112	0.000259
1,1,2-Trichloroethane	ND		0.00112	0.000302
Tetrachloroethene	0.017		0.00112	0.000287
2-Hexanone	ND		0.00224	0.00117
Dibromochloromethane	ND		0.00112	0.000209
1,2-Dibromoethane (EDB)	ND		0.00112	0.000198
Chlorobenzene	ND		0.00112	0.000252
Ethylbenzene	ND		0.00112	0.000273
Total Xylenes	ND		0.00224	0.000485
Styrene	ND		0.00112	0.000231
Bromoform	ND		0.00112	0.000321
Isopropylbenzene	ND		0.00112	0.000222
1,1,2,2-Tetrachloroethane	ND		0.00112	0.000301
1,3-Dichlorobenzene	ND		0.00112	0.000216
1,4-Dichlorobenzene	ND		0.00112	0.000192
1,2-Dichlorobenzene	ND		0.00112	0.000194
1,2-Dibromo-3-chloropropane	ND		0.00112	0.000302
1,2,4-Trichlorobenzene	ND		0.00112	0.000493
1,2,3-Trichlorobenzene	ND		0.00112	0.000539
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00112	0.000407
Methyl acetate	ND		0.00112	0.000523
Cyclohexane	ND		0.0056	0.000204
Methylcyclohexane	ND		0.00112	0.000233
1,3-Dichloropropene (cis- and trans-)	ND		0.00112	0.000259
Total Target Compounds (52):	0.032	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-013
Client ID: SB-36D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: F2616.D

GC/MS Column: DB-624
Sample wt/vol: 5.2g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 13.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-014
Client ID: SB-37S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: J2392.D 12/19/17 17:35

GC/MS Column: DB-624
Sample wt/vol: 0.027g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.219	0.145
Chloromethane	ND		0.110	0.101
Vinyl chloride	ND		0.219	0.130
Bromomethane	ND		0.219	0.119
Chloroethane	ND		0.110	0.108
Trichlorofluoromethane	ND		0.110	0.095
1,1-Dichloroethene	ND		0.110	0.108
Acetone	ND		0.438	0.291
Carbon disulfide	ND		0.110	0.102
Methylene chloride	ND		0.219	0.217
trans-1,2-Dichloroethene	ND		0.110	0.100
Methyl tert-butyl ether (MTBE)	ND		0.110	0.105
1,1-Dichloroethane	ND		0.110	0.108
cis-1,2-Dichloroethene	ND		0.110	0.099
2-Butanone (MEK)	ND		0.438	0.364
Bromochloromethane	ND		0.219	0.131
Chloroform	ND		0.110	0.103
1,1,1-Trichloroethane	ND		0.110	0.101
Carbon tetrachloride	ND		0.219	0.098
1,2-Dichloroethane (EDC)	ND		0.110	0.100
Benzene	ND		0.110	0.102
Trichloroethene	ND		0.110	0.108
1,2-Dichloropropane	ND		0.110	0.098
1,4-Dioxane	ND		21.9	21.6
Bromodichloromethane	ND		0.110	0.077
cis-1,3-Dichloropropene	ND		0.110	0.073
4-Methyl-2-pentanone (MIBK)	ND		0.438	0.153

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-014
Client ID: SB-37S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: J2392.D 12/19/17 17:35

GC/MS Column: DB-624
Sample wt/vol: 0.027g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 2

Compound	Concentration	Q	RL	MDL
Toluene	0.105	DJ	0.110	0.083
trans-1,3-Dichloropropene	ND		0.110	0.070
1,1,2-Trichloroethane	ND		0.110	0.104
Tetrachloroethene	2.41	D	0.110	0.099
2-Hexanone	ND		0.438	0.167
Dibromochloromethane	ND		0.110	0.097
1,2-Dibromoethane (EDB)	ND		0.110	0.088
Chlorobenzene	ND		0.110	0.082
Ethylbenzene	0.105	DJ	0.110	0.075
Total Xylenes	0.767	D	0.219	0.202
Styrene	ND		0.110	0.064
Bromoform	ND		0.110	0.098
Isopropylbenzene	0.081	DJ	0.110	0.071
1,1,2,2-Tetrachloroethane	ND		0.110	0.100
1,3-Dichlorobenzene	ND		0.110	0.077
1,4-Dichlorobenzene	ND		0.110	0.075
1,2-Dichlorobenzene	ND		0.110	0.080
1,2-Dibromo-3-chloropropane	ND		0.219	0.117
1,2,4-Trichlorobenzene	ND		0.219	0.067
1,2,3-Trichlorobenzene	ND		0.219	0.074
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.219	0.123
Methyl acetate	ND		0.110	0.106
Cyclohexane	ND		0.219	0.090
Methylcyclohexane	0.573	D	0.110	0.090
1,3-Dichloropropene (cis- and trans-)	ND		0.110	0.073
Total Target Compounds (52):	4.04	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-014
Client ID: SB-37S/2-2.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: J2392.D

GC/MS Column: DB-624
Sample wt/vol: 0.027g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 2
% Moisture: 15.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
001678-98-4	Cyclohexane, (2-methylpropyl)-	9.73	DJN	12.87
	Unknown Hydrocarbon	20.2	DJ	13.21
000091-17-8	Naphthalene, decahydro-	41.6	DJN	13.44
	Unknown Hydrocarbon	63.0	DJ	13.61
	Unknown Hydrocarbon	26.1	DJ	13.69
	Unknown Hydrocarbon	15.8	DJ	13.82
	Unknown Hydrocarbon	9.36	DJ	13.88
	Unknown Hydrocarbon	10.7	DJ	14.03
	Unknown Hydrocarbon	12.7	DJ	14.14
002958-76-1	Naphthalene, decahydro-2-methyl-	59.5	DJN	14.23
004292-92-6	Cyclohexane, pentyl-	49.9	DJN	14.34
	Unknown Aromatic	37.3	DJ	14.49
002958-75-0	1-Methyldecahydronaphthalene	16.8	DJN	14.58
	Unknown PAH	29.2	DJ	14.94
066633-38-3	Cyclodecene, 1-methyl-	27.3	DJN	15.11

Total TICs = 429 DJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-015
Client ID: SB-37D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: J2391.D 12/19/17 17:08

GC/MS Column: DB-624
Sample wt/vol: 0.08g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.070	0.046
Chloromethane	ND		0.035	0.032
Vinyl chloride	ND		0.070	0.041
Bromomethane	ND		0.070	0.038
Chloroethane	ND		0.035	0.035
Trichlorofluoromethane	ND		0.035	0.030
1,1-Dichloroethene	ND		0.035	0.034
Acetone	ND		0.140	0.093
Carbon disulfide	ND		0.035	0.032
Methylene chloride	ND		0.070	0.069
trans-1,2-Dichloroethene	ND		0.035	0.032
Methyl tert-butyl ether (MTBE)	ND		0.035	0.033
1,1-Dichloroethane	ND		0.035	0.034
cis-1,2-Dichloroethene	ND		0.035	0.032
2-Butanone (MEK)	ND		0.140	0.116
Bromochloromethane	ND		0.070	0.042
Chloroform	ND		0.035	0.033
1,1,1-Trichloroethane	ND		0.035	0.032
Carbon tetrachloride	ND		0.070	0.031
1,2-Dichloroethane (EDC)	ND		0.035	0.032
Benzene	ND		0.035	0.032
Trichloroethene	ND		0.035	0.034
1,2-Dichloropropane	ND		0.035	0.031
1,4-Dioxane	ND		6.98	6.86
Bromodichloromethane	ND		0.035	0.025
cis-1,3-Dichloropropene	ND		0.035	0.023
4-Methyl-2-pentanone (MIBK)	ND		0.140	0.049

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10862-015
Client ID: SB-37D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Data file: J2391.D 12/19/17 17:08

GC/MS Column: DB-624
Sample wt/vol: 0.08g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.035	0.026
trans-1,3-Dichloropropene	ND		0.035	0.022
1,1,2-Trichloroethane	ND		0.035	0.033
Tetrachloroethene	0.429		0.035	0.032
2-Hexanone	ND		0.140	0.053
Dibromochloromethane	ND		0.035	0.031
1,2-Dibromoethane (EDB)	ND		0.035	0.028
Chlorobenzene	ND		0.035	0.026
Ethylbenzene	ND		0.035	0.024
Total Xylenes	0.072		0.070	0.064
Styrene	ND		0.035	0.020
Bromoform	ND		0.035	0.031
Isopropylbenzene	ND		0.035	0.023
1,1,2,2-Tetrachloroethane	ND		0.035	0.032
1,3-Dichlorobenzene	ND		0.035	0.025
1,4-Dichlorobenzene	ND		0.035	0.024
1,2-Dichlorobenzene	ND		0.035	0.025
1,2-Dibromo-3-chloropropane	ND		0.070	0.037
1,2,4-Trichlorobenzene	ND		0.070	0.021
1,2,3-Trichlorobenzene	ND		0.070	0.024
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.070	0.039
Methyl acetate	ND		0.035	0.034
Cyclohexane	ND		0.070	0.029
Methylcyclohexane	0.071		0.035	0.029
1,3-Dichloropropene (cis- and trans-)	ND		0.035	0.023

Total Target Compounds (52): 0.572

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-015
Client ID: SB-37D/8-8.5
Date Received: 12/19/2017
Date Analyzed: 12/19/2017
Date File: J2391.D

GC/MS Column: DB-624
Sample wt/vol: 0.08g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown Hydrocarbon	1.89	J	13.10
	Unknown Hydrocarbon	3.93	J	13.21
000493-02-7	Naphthalene, decahydro-, trans-	4.48	JN	13.44
	Unknown Hydrocarbon	15.7	J	13.60
	Unknown Hydrocarbon	3.87	J	13.69
	Unknown Hydrocarbon	2.10	J	13.82
	Unknown Hydrocarbon	2.93	J	13.87
	Unknown Hydrocarbon	3.17	J	14.02
	Unknown Hydrocarbon	2.04	J	14.14
066633-38-3	Cyclodecene, 1-methyl-	7.11	JN	14.23
	Unknown Hydrocarbon	10.7	J	14.33
	Unknown PAH	5.30	J	14.49
	Unknown Hydrocarbon	3.07	J	14.58
	Unknown Hydrocarbon	7.19	J	14.91
	Unknown Aromatic	5.19	J	15.11

Total TICs = 78.7 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171219-01
Client ID: BLKS171219-01
Date Received:
Date Analyzed: 12/19/2017
Data file: F2598.D 12/19/17 11:11

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.002	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171219-01
Client ID: BLKS171219-01
Date Received:
Date Analyzed: 12/19/2017
Data file: F2598.D 12/19/17 11:11

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.005	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231
Total Target Compounds (52):	0			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171219-01
Client ID: BLKS171219-01
Date Received:
Date Analyzed: 12/19/2017
Date File: F2598.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171219-01
Client ID: BLKM171219-01
Date Received:
Date Analyzed: 12/19/2017
Data file: J2378.D 12/19/17 11:17

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171219-01
Client ID: BLKM171219-01
Date Received:
Date Analyzed: 12/19/2017
Data file: J2378.D 12/19/17 11:17

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171219-01
Client ID: BLKM171219-01
Date Received:
Date Analyzed: 12/19/2017
Data file: J2378.D 12/19/17 11:17

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-001
Client ID: SB-31S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1715.D 12/20/17 18:37

GC/MS Column: DB-5
Sample wt/vol: 15.25g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.035
2,2'-Oxybis(1-Chloropropane	ND		0.038	0.032
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	0.048		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.026
2-Methylnaphthalene	0.052		0.038	0.027
Hexachlorocyclopentadiene	ND		0.038	0.034
1,1'-Biphenyl	ND		0.038	0.036
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.027
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-001
Client ID: SB-31S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1715.D 12/20/17 18:37

GC/MS Column: DB-5
Sample wt/vol: 15.25g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	0.614		0.038	0.031
3-Nitroaniline	ND		0.038	0.031
Acenaphthene	0.077		0.038	0.034
2,4-Dinitrotoluene	ND		0.038	0.035
Dibenzofuran	0.202		0.038	0.033
Diethyl phthalate	ND		0.038	0.038
Fluorene	0.147		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.036
4-Nitroaniline	ND		0.038	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	4.08		0.038	0.035
Anthracene	0.523		0.038	0.034
Carbazole	0.475		0.038	0.030
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	6.09		0.038	0.032
Pyrene	4.43		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.028
Benzo[a]anthracene	2.63		0.038	0.033
Chrysene	3.13		0.038	0.033
Bis(2-ethylhexyl) phthalate	ND		0.038	0.024
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	1.94		0.038	0.031
Benzo[k]fluoranthene	1.98		0.038	0.032
Benzo[a]pyrene	1.73		0.038	0.031
Indeno[1,2,3-cd]pyrene	1.04		0.038	0.032
Dibenz[a,h]anthracene	0.403		0.038	0.038
Benzo[g,h,i]perylene	0.993		0.038	0.035
Dinitrotoluene (2,4- and 2,6-	ND		0.038	0.035

Total Target Compounds (53): 30.6

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-001
Client ID: SB-31S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1715.D

GC/MS Column: DB-5
Sample wt/vol: 15.25g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.3

CAS #	Compound	Estimated Concentration	Q	Retention Time
000832-69-9	Phenanthrene, 1-methyl-	0.409	JN	4.85
002531-84-2	Phenanthrene, 2-methyl-	0.455	JN	4.87
	Unknown PAH	0.723	J	4.93
000084-65-1	9,10-Anthracenedione	0.543	JN	5.03
	Unknown PAH	0.559	J	5.33
002381-21-7	Pyrene, 1-methyl-	0.425	JN	5.56
000243-17-4	11H-Benzo[b]fluorene	0.375	JN	5.65
000479-79-8	11H-Benzo[a]fluoren-11-one	0.562	JN	6.08
000082-05-3	7H-Benz[de]anthracen-7-one	0.413	JN	6.16
	Unknown PAH	0.455	J	6.22
	Unknown PAH	0.429	J	6.44
	Unknown PAH	0.570	J	7.09
	Unknown SV	0.406	J	7.17
	Unknown PAH	0.673	J	7.35
000192-97-2	Benzo[e]pyrene	1.91	JN	7.55

Total TICs = 8.91 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-002
Client ID: SB-31D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1716.D 12/20/17 18:52

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.035
2,2'-Oxybis(1-Chloropropane	ND		0.039	0.032
N-Nitrosodi-n-propylamine	ND		0.039	0.030
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.033
Nitrobenzene	ND		0.039	0.030
Isophorone	ND		0.039	0.033
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.162		0.039	0.034
4-Chloroaniline	ND		0.039	0.026
Hexachlorobutadiene	ND		0.039	0.036
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	0.078		0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.036
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.036

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-002
Client ID: SB-31D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1716.D 12/20/17 18:52

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.029
Acenaphthylene	0.291		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	0.131		0.039	0.034
2,4-Dinitrotoluene	ND		0.039	0.035
Dibenzofuran	0.173		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	0.143		0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.034
N-Nitrosodiphenylamine	ND		0.039	0.034
4-Bromophenyl phenyl ether	ND		0.039	0.033
Hexachlorobenzene	ND		0.039	0.036
Atrazine	ND		0.039	0.034
Phenanthrene	3.00		0.039	0.035
Anthracene	0.631		0.039	0.034
Carbazole	0.342		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.030
Fluoranthene	4.90		0.039	0.033
Pyrene	3.72		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.036
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	2.54		0.039	0.033
Chrysene	2.53		0.039	0.033
Bis(2-ethylhexyl) phthalate	ND		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	1.62		0.039	0.031
Benzo[k]fluoranthene	1.43		0.039	0.033
Benzo[a]pyrene	1.54		0.039	0.032
Indeno[1,2,3-cd]pyrene	0.788		0.039	0.032
Dibenz[a,h]anthracene	0.230		0.039	0.038
Benzo[g,h,i]perylene	0.883		0.039	0.035
Dinitrotoluene (2,4- and 2,6-	ND		0.039	0.035

Total Target Compounds (53): 25.1

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-002
Client ID: SB-31D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1716.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.647	JN	1.72
002531-84-2	Phenanthrene, 2-methyl-	0.299	JN	4.85
000832-69-9	Phenanthrene, 1-methyl-	0.287	JN	4.87
	Unknown PAH	0.485	J	4.93
	Unknown PAH	0.225	J	5.34
002381-21-7	Pyrene, 1-methyl-	0.333	JN	5.57
000243-17-4	11H-Benzo[b]fluorene	0.326	JN	5.65
000479-79-8	11H-Benzo[a]fluoren-11-one	0.318	JN	6.08
	Unknown PAH	0.268	J	6.16
000082-05-3	7H-Benz[de]anthracen-7-one	0.268	JN	6.22
002541-69-7	Benz[a]anthracene, 7-methyl-	0.260	JN	6.63
000112-84-5	13-Docosenamide, (Z)-	0.337	JN	6.87
	Unknown PAH	0.314	J	7.09
000192-97-2	Benzo[e]pyrene	0.613	JN	7.35
000198-55-0	Perylene	1.61	JN	7.54

Total TICs = 6.59 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-003
Client ID: SB-32S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1717.D 12/20/17 19:07

GC/MS Column: DB-5
Sample wt/vol: 15.02g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.034
2,2'-Oxybis(1-Chloropropane	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	0.057		0.037	0.032
4-Chloroaniline	ND		0.037	0.025
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.025
2-Methylnaphthalene	0.030	J	0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.033
1,1'-Biphenyl	ND		0.037	0.035
2-Chloronaphthalene	ND		0.037	0.031
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-003
Client ID: SB-32S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1717.D 12/20/17 19:07

GC/MS Column: DB-5
Sample wt/vol: 15.02g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	0.245		0.037	0.031
3-Nitroaniline	ND		0.037	0.030
Acenaphthene	0.123		0.037	0.033
2,4-Dinitrotoluene	ND		0.037	0.034
Dibenzofuran	0.060		0.037	0.032
Diethyl phthalate	ND		0.037	0.036
Fluorene	0.101		0.037	0.034
4-Chlorophenyl phenyl ether	ND		0.037	0.035
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	1.48		0.037	0.034
Anthracene	0.384		0.037	0.033
Carbazole	0.166		0.037	0.029
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	3.22		0.037	0.031
Pyrene	2.74		0.037	0.031
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.027
Benzo[a]anthracene	1.86		0.037	0.032
Chrysene	1.82		0.037	0.032
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	1.24		0.037	0.030
Benzo[k]fluoranthene	0.995		0.037	0.031
Benzo[a]pyrene	1.18		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.573		0.037	0.031
Dibenz[a,h]anthracene	0.204		0.037	0.037
Benzo[g,h,i]perylene	0.622		0.037	0.034
Dinitrotoluene (2,4- and 2,6-	ND		0.037	0.034
Total Target Compounds (53):	17.1	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-003
Client ID: SB-32S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1717.D

GC/MS Column: DB-5
Sample wt/vol: 15.02g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.948	JN	1.72
	Unknown PAH	0.431	J	4.92
002381-21-7	Pyrene, 1-methyl-	0.379	JN	5.54
000243-17-4	11H-Benzo[b]fluorene	0.491	JN	5.63
	Unknown PAH	0.279	J	5.73
003442-78-2	Pyrene, 2-methyl-	0.231	JN	5.81
000479-79-8	11H-Benzo[a]fluoren-11-one	0.301	JN	6.07
	Unknown PAH	0.279	J	6.15
	Unknown PAH	0.245	J	6.20
000082-05-3	7H-Benz[de]anthracen-7-one	0.301	JN	6.21
	Unknown PAH	0.249	J	6.43
002541-69-7	Benz[a]anthracene, 7-methyl-	0.368	JN	6.62
	Unknown PAH	0.219	J	7.07
000192-97-2	Benzo[e]pyrene	0.465	JN	7.33
	Unknown PAH	1.23	J	7.52

Total TICs = 6.42 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-004
Client ID: SB-32D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1718.D 12/20/17 19:22

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.036	0.035
Bis(2-chloroethyl) ether	ND		0.036	0.033
2,2'-Oxybis(1-Chloropropane	ND		0.036	0.030
N-Nitrosodi-n-propylamine	ND		0.036	0.028
Acetophenone	ND		0.036	0.034
Hexachloroethane	ND		0.036	0.031
Nitrobenzene	ND		0.036	0.029
Isophorone	ND		0.036	0.031
Bis(2-chloroethoxy) methane	ND		0.036	0.033
Naphthalene	0.032	J	0.036	0.032
4-Chloroaniline	ND		0.036	0.024
Hexachlorobutadiene	ND		0.036	0.033
Caprolactam	ND		0.036	0.024
2-Methylnaphthalene	ND		0.036	0.026
Hexachlorocyclopentadiene	ND		0.036	0.032
1,1'-Biphenyl	ND		0.036	0.034
2-Chloronaphthalene	ND		0.036	0.030
2-Nitroaniline	ND		0.036	0.025
Dimethyl phthalate	ND		0.036	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-004
Client ID: SB-32D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1718.D 12/20/17 19:22

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.036	0.028
Acenaphthylene	0.113		0.036	0.030
3-Nitroaniline	ND		0.036	0.029
Acenaphthene	0.077		0.036	0.032
2,4-Dinitrotoluene	ND		0.036	0.033
Dibenzofuran	0.042		0.036	0.031
Diethyl phthalate	ND		0.036	0.036
Fluorene	0.063		0.036	0.033
4-Chlorophenyl phenyl ether	ND		0.036	0.034
4-Nitroaniline	ND		0.036	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.036	0.031
N-Nitrosodiphenylamine	ND		0.036	0.032
4-Bromophenyl phenyl ether	ND		0.036	0.031
Hexachlorobenzene	ND		0.036	0.033
Atrazine	ND		0.036	0.032
Phenanthrene	1.02		0.036	0.033
Anthracene	0.237		0.036	0.032
Carbazole	0.092		0.036	0.028
Di-n-butyl phthalate	ND		0.036	0.028
Fluoranthene	1.83		0.036	0.031
Pyrene	1.54		0.036	0.030
Butyl benzyl phthalate	ND		0.036	0.033
3,3'-Dichlorobenzidine	ND		0.036	0.026
Benzo[a]anthracene	0.973		0.036	0.031
Chrysene	0.963		0.036	0.031
Bis(2-ethylhexyl) phthalate	ND		0.036	0.022
Di-n-octyl phthalate	ND		0.036	0.032
Benzo[b]fluoranthene	0.534		0.036	0.029
Benzo[k]fluoranthene	0.556		0.036	0.031
Benzo[a]pyrene	0.587		0.036	0.030
Indeno[1,2,3-cd]pyrene	0.248		0.036	0.030
Dibenz[a,h]anthracene	0.065		0.036	0.036
Benzo[g,h,i]perylene	0.264		0.036	0.033
Dinitrotoluene (2,4- and 2,6-	ND		0.036	0.033
Total Target Compounds (53):	9.24	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-004
Client ID: SB-32D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1718.D

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.70

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.251	JN	1.72
	Unknown PAH	0.197	J	4.91
002381-21-7	Pyrene, 1-methyl-	0.149	JN	5.62
000192-97-2	Benzo[e]pyrene	0.186	JN	7.33
000198-55-0	Perylene	0.488	JN	7.52

Total TICs = 1.27 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-005
Client ID: SB-32D1/
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1719.D 12/20/17 19:37

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.042	0.041
Bis(2-chloroethyl) ether	ND		0.042	0.038
2,2'-Oxybis(1-Chloropropane	ND		0.042	0.035
N-Nitrosodi-n-propylamine	ND		0.042	0.032
Acetophenone	ND		0.042	0.039
Hexachloroethane	ND		0.042	0.035
Nitrobenzene	ND		0.042	0.033
Isophorone	ND		0.042	0.035
Bis(2-chloroethoxy) methane	ND		0.042	0.037
Naphthalene	ND		0.042	0.036
4-Chloroaniline	ND		0.042	0.027
Hexachlorobutadiene	ND		0.042	0.038
Caprolactam	ND		0.042	0.028
2-Methylnaphthalene	ND		0.042	0.029
Hexachlorocyclopentadiene	ND		0.042	0.037
1,1'-Biphenyl	ND		0.042	0.039
2-Chloronaphthalene	ND		0.042	0.034
2-Nitroaniline	ND		0.042	0.029
Dimethyl phthalate	ND		0.042	0.038

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-005
Client ID: SB-32D1/
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1719.D 12/20/17 19:37

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.042	0.032
Acenaphthylene	ND		0.042	0.034
3-Nitroaniline	ND		0.042	0.033
Acenaphthene	ND		0.042	0.037
2,4-Dinitrotoluene	ND		0.042	0.038
Dibenzofuran	ND		0.042	0.036
Diethyl phthalate	ND		0.042	0.041
Fluorene	ND		0.042	0.038
4-Chlorophenyl phenyl ether	ND		0.042	0.039
4-Nitroaniline	ND		0.042	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.042	0.036
N-Nitrosodiphenylamine	ND		0.042	0.036
4-Bromophenyl phenyl ether	ND		0.042	0.035
Hexachlorobenzene	ND		0.042	0.038
Atrazine	ND		0.042	0.036
Phenanthrene	0.150		0.042	0.038
Anthracene	0.039	J	0.042	0.037
Carbazole	ND		0.042	0.032
Di-n-butyl phthalate	ND		0.042	0.032
Fluoranthene	0.224		0.042	0.035
Pyrene	0.186		0.042	0.034
Butyl benzyl phthalate	ND		0.042	0.038
3,3'-Dichlorobenzidine	ND		0.042	0.030
Benzo[a]anthracene	0.133		0.042	0.036
Chrysene	0.124		0.042	0.036
Bis(2-ethylhexyl) phthalate	ND		0.042	0.026
Di-n-octyl phthalate	ND		0.042	0.036
Benzo[b]fluoranthene	0.081		0.042	0.033
Benzo[k]fluoranthene	0.058		0.042	0.035
Benzo[a]pyrene	0.074		0.042	0.034
Indeno[1,2,3-cd]pyrene	0.044		0.042	0.035
Dibenz[a,h]anthracene	ND		0.042	0.041
Benzo[g,h,i]perylene	0.080		0.042	0.038
Dinitrotoluene (2,4- and 2,6-	ND		0.042	0.038
Total Target Compounds (53):	1.19	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-005
Client ID: SB-32D1/
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1719.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 20.7

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-006
Client ID: SB-33S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1720.D 12/20/17 19:53

GC/MS Column: DB-5
Sample wt/vol: 15.42g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.035
2,2'-Oxybis(1-Chloropropane	ND		0.038	0.032
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	0.211		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.025
2-Methylnaphthalene	0.064		0.038	0.027
Hexachlorocyclopentadiene	ND		0.038	0.034
1,1'-Biphenyl	ND		0.038	0.036
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.027
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-006
Client ID: SB-33S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1720.D 12/20/17 19:53

GC/MS Column: DB-5
Sample wt/vol: 15.42g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	0.262		0.038	0.031
3-Nitroaniline	ND		0.038	0.030
Acenaphthene	0.049		0.038	0.034
2,4-Dinitrotoluene	ND		0.038	0.035
Dibenzofuran	0.119		0.038	0.033
Diethyl phthalate	ND		0.038	0.037
Fluorene	0.124		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.035
4-Nitroaniline	ND		0.038	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	1.24		0.038	0.035
Anthracene	0.163		0.038	0.034
Carbazole	0.208		0.038	0.030
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	1.52		0.038	0.032
Pyrene	1.09		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.028
Benzo[a]anthracene	0.572		0.038	0.033
Chrysene	0.736		0.038	0.033
Bis(2-ethylhexyl) phthalate	ND		0.038	0.024
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.439		0.038	0.031
Benzo[k]fluoranthene	0.446		0.038	0.032
Benzo[a]pyrene	0.423		0.038	0.031
Indeno[1,2,3-cd]pyrene	0.212		0.038	0.032
Dibenz[a,h]anthracene	0.063		0.038	0.037
Benzo[g,h,i]perylene	0.214		0.038	0.034
Dinitrotoluene (2,4- and 2,6-	ND		0.038	0.035

Total Target Compounds (53): 8.16

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-006
Client ID: SB-33S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1720.D

GC/MS Column: DB-5
Sample wt/vol: 15.42g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.9

CAS #	Compound	Estimated Concentration	Q	Retention Time
000203-64-5	4H-Cyclopenta[def]phenanthrene	0.156	JN	4.91
000192-97-2	Benzo[e]pyrene	0.168	JN	7.32
	Unknown PAH	0.431	J	7.51

Total TICs = 0.755 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-007
Client ID: SB-33D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1721.D 12/20/17 20:08

GC/MS Column: DB-5
Sample wt/vol: 15.11g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.036
2,2'-Oxybis(1-Chloropropane	ND		0.039	0.033
N-Nitrosodi-n-propylamine	ND		0.039	0.030
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.033
Nitrobenzene	ND		0.039	0.031
Isophorone	ND		0.039	0.033
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.060		0.039	0.034
4-Chloroaniline	ND		0.039	0.026
Hexachlorobutadiene	ND		0.039	0.036
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	ND		0.039	0.027
Hexachlorocyclopentadiene	ND		0.039	0.034
1,1'-Biphenyl	ND		0.039	0.036
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.027
Dimethyl phthalate	ND		0.039	0.036

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-007
Client ID: SB-33D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1721.D 12/20/17 20:08

GC/MS Column: DB-5
Sample wt/vol: 15.11g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.030
Acenaphthylene	0.113		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	ND		0.039	0.035
2,4-Dinitrotoluene	ND		0.039	0.035
Dibenzofuran	0.039		0.039	0.033
Diethyl phthalate	ND		0.039	0.038
Fluorene	0.039	J	0.039	0.035
4-Chlorophenyl phenyl ether	ND		0.039	0.036
4-Nitroaniline	ND		0.039	0.029
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.034
N-Nitrosodiphenylamine	ND		0.039	0.034
4-Bromophenyl phenyl ether	ND		0.039	0.033
Hexachlorobenzene	ND		0.039	0.036
Atrazine	ND		0.039	0.034
Phenanthrene	0.531		0.039	0.036
Anthracene	0.119		0.039	0.034
Carbazole	0.066		0.039	0.030
Di-n-butyl phthalate	ND		0.039	0.030
Fluoranthene	0.908		0.039	0.033
Pyrene	0.759		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.036
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	0.418		0.039	0.033
Chrysene	0.469		0.039	0.033
Bis(2-ethylhexyl) phthalate	0.061		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.034
Benzo[b]fluoranthene	0.302		0.039	0.031
Benzo[k]fluoranthene	0.291		0.039	0.033
Benzo[a]pyrene	0.304		0.039	0.032
Indeno[1,2,3-cd]pyrene	0.158		0.039	0.032
Dibenz[a,h]anthracene	ND		0.039	0.038
Benzo[g,h,i]perylene	0.181		0.039	0.035
Dinitrotoluene (2,4- and 2,6-	ND		0.039	0.035
Total Target Compounds (53):	4.82	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-007
Client ID: SB-33D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1721.D

GC/MS Column: DB-5
Sample wt/vol: 15.11g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 15.1

CAS #	Compound	Estimated Concentration	Q	Retention Time
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	3.44	JN	5.83
000192-97-2	Benzo[e]pyrene	0.327	JN	7.50

Total TICs = 3.77 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-008
Client ID: SB-34S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1722.D 12/20/17 20:23

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.033
2,2'-Oxybis(1-Chloropropane	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	0.058		0.037	0.032
4-Chloroaniline	ND		0.037	0.024
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.025
2-Methylnaphthalene	0.038		0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.032
1,1'-Biphenyl	ND		0.037	0.034
2-Chloronaphthalene	ND		0.037	0.030
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-008
Client ID: SB-34S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1722.D 12/20/17 20:23

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	0.232		0.037	0.030
3-Nitroaniline	ND		0.037	0.029
Acenaphthene	0.086		0.037	0.032
2,4-Dinitrotoluene	ND		0.037	0.033
Dibenzofuran	0.057		0.037	0.031
Diethyl phthalate	ND		0.037	0.036
Fluorene	0.096		0.037	0.033
4-Chlorophenyl phenyl ether	ND		0.037	0.034
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	1.62		0.037	0.033
Anthracene	0.315		0.037	0.032
Carbazole	0.147		0.037	0.028
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	3.65		0.037	0.031
Pyrene	2.93		0.037	0.030
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.027
Benzo[a]anthracene	1.81		0.037	0.032
Chrysene	2.08		0.037	0.031
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	1.21		0.037	0.029
Benzo[k]fluoranthene	1.22		0.037	0.031
Benzo[a]pyrene	1.12		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.407		0.037	0.030
Dibenz[a,h]anthracene	0.206		0.037	0.036
Benzo[g,h,i]perylene	0.416		0.037	0.033
Dinitrotoluene (2,4- and 2,6-	ND		0.037	0.033

Total Target Compounds (53): 17.7

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-008
Client ID: SB-34S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1722.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.10

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	1.64	JN	1.72
000613-12-7	Anthracene, 2-methyl-	0.249	JN	4.83
	Unknown PAH	0.484	J	4.89
002381-21-7	Pyrene, 1-methyl-	0.385	JN	5.50
000238-84-6	11H-Benzo[a]fluorene	0.539	JN	5.58
003442-78-2	Pyrene, 2-methyl-	0.301	JN	5.68
000479-79-8	11H-Benzo[a]fluoren-11-one	0.323	JN	6.02
	Unknown PAH	0.304	J	6.11
	Unknown PAH	0.264	J	6.15
000082-05-3	7H-Benz[de]anthracen-7-one	0.323	JN	6.17
	Unknown PAH	0.271	J	6.39
001705-84-6	Triphenylene, 2-methyl-	0.323	JN	6.59
	Unknown PAH	0.345	J	7.05
000192-97-2	Benzo[e]pyrene	0.484	JN	7.31
000198-55-0	Perylene	1.30	JN	7.50

Total TICs = 7.54 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-009
Client ID: SB-34D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1723.D 12/20/17 20:38

GC/MS Column: DB-5
Sample wt/vol: 15.33g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.034
2,2'-Oxybis(1-Chloropropane	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	ND		0.037	0.032
4-Chloroaniline	ND		0.037	0.024
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.025
2-Methylnaphthalene	ND		0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.033
1,1'-Biphenyl	ND		0.037	0.035
2-Chloronaphthalene	ND		0.037	0.030
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-009
Client ID: SB-34D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1723.D 12/20/17 20:38

GC/MS Column: DB-5
Sample wt/vol: 15.33g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	ND		0.037	0.030
3-Nitroaniline	ND		0.037	0.029
Acenaphthene	ND		0.037	0.033
2,4-Dinitrotoluene	ND		0.037	0.034
Dibenzofuran	ND		0.037	0.032
Diethyl phthalate	ND		0.037	0.036
Fluorene	ND		0.037	0.033
4-Chlorophenyl phenyl ether	ND		0.037	0.034
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	0.060		0.037	0.034
Anthracene	ND		0.037	0.033
Carbazole	ND		0.037	0.029
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	0.086		0.037	0.031
Pyrene	0.076		0.037	0.030
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.027
Benzo[a]anthracene	0.055		0.037	0.032
Chrysene	0.048		0.037	0.032
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	ND		0.037	0.030
Benzo[k]fluoranthene	ND		0.037	0.031
Benzo[a]pyrene	ND		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.060		0.037	0.031
Dibenz[a,h]anthracene	ND		0.037	0.036
Benzo[g,h,i]perylene	0.121		0.037	0.033
Dinitrotoluene (2,4- and 2,6-	ND		0.037	0.034

Total Target Compounds (53): 0.506

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-009
Client ID: SB-34D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1723.D

GC/MS Column: DB-5
Sample wt/vol: 15.33g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-010
Client ID: SB-35S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1724.D 12/20/17 20:53

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.033
2,2'-Oxybis(1-Chloropropane	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	0.069		0.037	0.032
4-Chloroaniline	ND		0.037	0.024
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.024
2-Methylnaphthalene	0.036	J	0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.032
1,1'-Biphenyl	ND		0.037	0.034
2-Chloronaphthalene	ND		0.037	0.030
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-010
Client ID: SB-35S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1724.D 12/20/17 20:53

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	0.112		0.037	0.030
3-Nitroaniline	ND		0.037	0.029
Acenaphthene	0.213		0.037	0.032
2,4-Dinitrotoluene	ND		0.037	0.033
Dibenzofuran	0.105		0.037	0.031
Diethyl phthalate	ND		0.037	0.036
Fluorene	0.147		0.037	0.033
4-Chlorophenyl phenyl ether	ND		0.037	0.034
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	1.72		0.037	0.033
Anthracene	0.377		0.037	0.032
Carbazole	0.176		0.037	0.028
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	2.31		0.037	0.031
Pyrene	2.03		0.037	0.030
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.026
Benzo[a]anthracene	1.14		0.037	0.031
Chrysene	1.14		0.037	0.031
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	0.552		0.037	0.029
Benzo[k]fluoranthene	0.721		0.037	0.031
Benzo[a]pyrene	0.665		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.242		0.037	0.030
Dibenz[a,h]anthracene	0.105		0.037	0.036
Benzo[g,h,i]perylene	0.230		0.037	0.033
Dinitrotoluene (2,4- and 2,6-	ND		0.037	0.033
Total Target Compounds (53):	12.1	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-010
Client ID: SB-35S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1724.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 9.70

CAS #	Compound	Estimated Concentration	Q	Retention Time
000127-18-4	Tetrachloroethylene	0.187	JN	1.72
	Unknown Hydrocarbon	0.161	J	4.18
000832-71-3	Phenanthrene, 3-methyl-	0.146	JN	4.82
000832-69-9	Phenanthrene, 1-methyl-	0.165	JN	4.84
000112-95-8	Eicosane	0.154	JN	4.86
000203-64-5	4H-Cyclopenta[def]phenanthrene	0.315	JN	4.90
	Unknown PAH	0.179	J	5.30
033543-31-6	Fluoranthene, 2-methyl-	0.194	JN	5.52
000205-82-3	Benzo[j]fluoranthene	0.264	JN	7.32
000198-55-0	Perylene	0.765	JN	7.52

Total TICs = 2.53 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-011
Client ID: SB-35D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1725.D 12/20/17 21:08

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.037
Bis(2-chloroethyl) ether	ND		0.038	0.034
2,2'-Oxybis(1-Chloropropane	ND		0.038	0.031
N-Nitrosodi-n-propylamine	ND		0.038	0.029
Acetophenone	ND		0.038	0.036
Hexachloroethane	ND		0.038	0.032
Nitrobenzene	ND		0.038	0.030
Isophorone	ND		0.038	0.032
Bis(2-chloroethoxy) methane	ND		0.038	0.034
Naphthalene	ND		0.038	0.033
4-Chloroaniline	ND		0.038	0.025
Hexachlorobutadiene	ND		0.038	0.035
Caprolactam	ND		0.038	0.025
2-Methylnaphthalene	ND		0.038	0.026
Hexachlorocyclopentadiene	ND		0.038	0.033
1,1'-Biphenyl	ND		0.038	0.035
2-Chloronaphthalene	ND		0.038	0.031
2-Nitroaniline	ND		0.038	0.026
Dimethyl phthalate	ND		0.038	0.035

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-011
Client ID: SB-35D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1725.D 12/20/17 21:08

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.029
Acenaphthylene	0.046		0.038	0.031
3-Nitroaniline	ND		0.038	0.030
Acenaphthene	ND		0.038	0.033
2,4-Dinitrotoluene	ND		0.038	0.034
Dibenzofuran	ND		0.038	0.032
Diethyl phthalate	ND		0.038	0.037
Fluorene	ND		0.038	0.034
4-Chlorophenyl phenyl ether	ND		0.038	0.035
4-Nitroaniline	ND		0.038	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.033
N-Nitrosodiphenylamine	ND		0.038	0.033
4-Bromophenyl phenyl ether	ND		0.038	0.032
Hexachlorobenzene	ND		0.038	0.035
Atrazine	ND		0.038	0.033
Phenanthrene	0.071		0.038	0.034
Anthracene	ND		0.038	0.033
Carbazole	ND		0.038	0.029
Di-n-butyl phthalate	ND		0.038	0.029
Fluoranthene	0.136		0.038	0.032
Pyrene	0.121		0.038	0.031
Butyl benzyl phthalate	ND		0.038	0.035
3,3'-Dichlorobenzidine	ND		0.038	0.027
Benzo[a]anthracene	0.095		0.038	0.032
Chrysene	0.101		0.038	0.032
Bis(2-ethylhexyl) phthalate	ND		0.038	0.023
Di-n-octyl phthalate	ND		0.038	0.033
Benzo[b]fluoranthene	0.048		0.038	0.030
Benzo[k]fluoranthene	0.068		0.038	0.032
Benzo[a]pyrene	0.057		0.038	0.031
Indeno[1,2,3-cd]pyrene	0.050		0.038	0.031
Dibenz[a,h]anthracene	ND		0.038	0.037
Benzo[g,h,i]perylene	0.099		0.038	0.034
Dinitrotoluene (2,4- and 2,6-	ND		0.038	0.034
Total Target Compounds (53):	0.892			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-011
Client ID: SB-35D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1725.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-012
Client ID: SB-36S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1726.D 12/20/17 21:23

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.036	0.035
Bis(2-chloroethyl) ether	ND		0.036	0.033
2,2'-Oxybis(1-Chloropropane	ND		0.036	0.030
N-Nitrosodi-n-propylamine	ND		0.036	0.028
Acetophenone	ND		0.036	0.034
Hexachloroethane	ND		0.036	0.030
Nitrobenzene	ND		0.036	0.028
Isophorone	ND		0.036	0.031
Bis(2-chloroethoxy) methane	ND		0.036	0.033
Naphthalene	ND		0.036	0.032
4-Chloroaniline	ND		0.036	0.024
Hexachlorobutadiene	ND		0.036	0.033
Caprolactam	ND		0.036	0.024
2-Methylnaphthalene	ND		0.036	0.025
Hexachlorocyclopentadiene	ND		0.036	0.032
1,1'-Biphenyl	ND		0.036	0.034
2-Chloronaphthalene	ND		0.036	0.030
2-Nitroaniline	ND		0.036	0.025
Dimethyl phthalate	ND		0.036	0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-012
Client ID: SB-36S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1726.D 12/20/17 21:23

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.036	0.028
Acenaphthylene	0.048		0.036	0.030
3-Nitroaniline	ND		0.036	0.029
Acenaphthene	ND		0.036	0.032
2,4-Dinitrotoluene	ND		0.036	0.033
Dibenzofuran	ND		0.036	0.031
Diethyl phthalate	ND		0.036	0.036
Fluorene	ND		0.036	0.033
4-Chlorophenyl phenyl ether	ND		0.036	0.034
4-Nitroaniline	ND		0.036	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.036	0.031
N-Nitrosodiphenylamine	ND		0.036	0.031
4-Bromophenyl phenyl ether	ND		0.036	0.031
Hexachlorobenzene	ND		0.036	0.033
Atrazine	ND		0.036	0.031
Phenanthrene	0.315		0.036	0.033
Anthracene	0.052		0.036	0.032
Carbazole	0.030	J	0.036	0.028
Di-n-butyl phthalate	ND		0.036	0.028
Fluoranthene	0.561		0.036	0.031
Pyrene	0.416		0.036	0.030
Butyl benzyl phthalate	ND		0.036	0.033
3,3'-Dichlorobenzidine	ND		0.036	0.026
Benzo[a]anthracene	0.227		0.036	0.031
Chrysene	0.252		0.036	0.031
Bis(2-ethylhexyl) phthalate	ND		0.036	0.022
Di-n-octyl phthalate	ND		0.036	0.032
Benzo[b]fluoranthene	0.114		0.036	0.029
Benzo[k]fluoranthene	0.157		0.036	0.030
Benzo[a]pyrene	0.121		0.036	0.030
Indeno[1,2,3-cd]pyrene	0.067		0.036	0.030
Dibenz[a,h]anthracene	ND		0.036	0.036
Benzo[g,h,i]perylene	0.069		0.036	0.033
Dinitrotoluene (2,4- and 2,6-	ND		0.036	0.033
Total Target Compounds (53):	2.43	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-012
Client ID: SB-36S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1726.D

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-013
Client ID: SB-36D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1727.D 12/20/17 21:38

GC/MS Column: DB-5
Sample wt/vol: 15.60g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.034
2,2'-Oxybis(1-Chloropropane	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	ND		0.037	0.032
4-Chloroaniline	ND		0.037	0.025
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.025
2-Methylnaphthalene	ND		0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.033
1,1'-Biphenyl	ND		0.037	0.035
2-Chloronaphthalene	ND		0.037	0.031
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-013
Client ID: SB-36D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1727.D 12/20/17 21:38

GC/MS Column: DB-5
Sample wt/vol: 15.60g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	ND		0.037	0.031
3-Nitroaniline	ND		0.037	0.030
Acenaphthene	ND		0.037	0.033
2,4-Dinitrotoluene	ND		0.037	0.034
Dibenzofuran	ND		0.037	0.032
Diethyl phthalate	ND		0.037	0.036
Fluorene	ND		0.037	0.034
4-Chlorophenyl phenyl ether	ND		0.037	0.035
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	0.110		0.037	0.034
Anthracene	ND		0.037	0.033
Carbazole	ND		0.037	0.029
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	0.240		0.037	0.031
Pyrene	0.239		0.037	0.031
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.027
Benzo[a]anthracene	0.142		0.037	0.032
Chrysene	0.142		0.037	0.032
Bis(2-ethylhexyl) phthalate	ND		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	0.080		0.037	0.030
Benzo[k]fluoranthene	0.083		0.037	0.031
Benzo[a]pyrene	0.091		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.041		0.037	0.031
Dibenz[a,h]anthracene	ND		0.037	0.037
Benzo[g,h,i]perylene	0.040		0.037	0.034
Dinitrotoluene (2,4- and 2,6-	ND		0.037	0.034

Total Target Compounds (53): 1.21

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-013
Client ID: SB-36D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1727.D

GC/MS Column: DB-5
Sample wt/vol: 15.60g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 13.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-014
Client ID: SB-37S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1728.D 12/20/17 21:53

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.038
Bis(2-chloroethyl) ether	ND		0.039	0.036
2,2'-Oxybis(1-Chloropropane	ND		0.039	0.033
N-Nitrosodi-n-propylamine	ND		0.039	0.030
Acetophenone	ND		0.039	0.037
Hexachloroethane	ND		0.039	0.033
Nitrobenzene	ND		0.039	0.031
Isophorone	ND		0.039	0.033
Bis(2-chloroethoxy) methane	ND		0.039	0.035
Naphthalene	0.377		0.039	0.034
4-Chloroaniline	ND		0.039	0.026
Hexachlorobutadiene	ND		0.039	0.036
Caprolactam	ND		0.039	0.026
2-Methylnaphthalene	1.07		0.039	0.028
Hexachlorocyclopentadiene	ND		0.039	0.035
1,1'-Biphenyl	0.174		0.039	0.037
2-Chloronaphthalene	ND		0.039	0.032
2-Nitroaniline	ND		0.039	0.028
Dimethyl phthalate	ND		0.039	0.036

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-014
Client ID: SB-37S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1728.D 12/20/17 21:53

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.030
Acenaphthylene	0.209		0.039	0.032
3-Nitroaniline	ND		0.039	0.031
Acenaphthene	0.211		0.039	0.035
2,4-Dinitrotoluene	ND		0.039	0.036
Dibenzofuran	0.151		0.039	0.034
Diethyl phthalate	ND		0.039	0.039
Fluorene	0.328		0.039	0.036
4-Chlorophenyl phenyl ether	ND		0.039	0.037
4-Nitroaniline	ND		0.039	0.030
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.034
N-Nitrosodiphenylamine	ND		0.039	0.034
4-Bromophenyl phenyl ether	ND		0.039	0.033
Hexachlorobenzene	ND		0.039	0.036
Atrazine	ND		0.039	0.034
Phenanthrene	2.08		0.039	0.036
Anthracene	0.487		0.039	0.035
Carbazole	0.184		0.039	0.031
Di-n-butyl phthalate	0.100		0.039	0.030
Fluoranthene	3.04		0.039	0.033
Pyrene	1.99		0.039	0.032
Butyl benzyl phthalate	ND		0.039	0.036
3,3'-Dichlorobenzidine	ND		0.039	0.029
Benzo[a]anthracene	1.55		0.039	0.034
Chrysene	1.36		0.039	0.034
Bis(2-ethylhexyl) phthalate	5.61		0.039	0.024
Di-n-octyl phthalate	0.403		0.039	0.034
Benzo[b]fluoranthene	0.944		0.039	0.032
Benzo[k]fluoranthene	1.07		0.039	0.033
Benzo[a]pyrene	0.380		0.039	0.032
Indeno[1,2,3-cd]pyrene	0.174		0.039	0.033
Dibenz[a,h]anthracene	0.079		0.039	0.039
Benzo[g,h,i]perylene	0.126		0.039	0.036
Dinitrotoluene (2,4- and 2,6-	ND		0.039	0.036

Total Target Compounds (53): 22.1

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-014
Client ID: SB-37S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1728.D

GC/MS Column: DB-5
Sample wt/vol: 15.01g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 15.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown SV	2.81	J	2.51
	Unknown Hydrocarbon	4.27	J	2.58
	Unknown SV	1.42	J	2.85
000575-37-1	Naphthalene, 1,7-dimethyl-	1.65	JN	3.59
000112-04-9	Silane, trichlorooctadecyl-	1.56	JN	3.62
000582-16-1	Naphthalene, 2,7-dimethyl-	3.71	JN	3.63
000544-76-3	Hexadecane	5.11	JN	3.95
000629-78-7	Heptadecane	3.69	JN	4.19
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	3.53	JN	4.20
	Unknown Hydrocarbon	1.49	J	4.29
000593-45-3	Octadecane	4.12	JN	4.42
000638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	1.90	JN	4.45
000638-68-6	Triacontane	2.76	JN	5.10
013287-24-6	Nonadecane, 9-methyl-	2.01	JN	5.32
000078-51-3	Ethanol, 2-butoxy-, phosphate (3:1	1.58	JN	5.88

Total TICs = 41.6 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-015
Client ID: SB-37D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1729.D 12/20/17 22:08

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.036
Bis(2-chloroethyl) ether	ND		0.037	0.033
2,2'-Oxybis(1-Chloropropane	ND		0.037	0.031
N-Nitrosodi-n-propylamine	ND		0.037	0.028
Acetophenone	ND		0.037	0.035
Hexachloroethane	ND		0.037	0.031
Nitrobenzene	ND		0.037	0.029
Isophorone	ND		0.037	0.031
Bis(2-chloroethoxy) methane	ND		0.037	0.033
Naphthalene	ND		0.037	0.032
4-Chloroaniline	ND		0.037	0.024
Hexachlorobutadiene	ND		0.037	0.034
Caprolactam	ND		0.037	0.024
2-Methylnaphthalene	ND		0.037	0.026
Hexachlorocyclopentadiene	ND		0.037	0.032
1,1'-Biphenyl	ND		0.037	0.034
2-Chloronaphthalene	ND		0.037	0.030
2-Nitroaniline	ND		0.037	0.026
Dimethyl phthalate	ND		0.037	0.034

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10862-015
Client ID: SB-37D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1729.D 12/20/17 22:08

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.028
Acenaphthylene	ND		0.037	0.030
3-Nitroaniline	ND		0.037	0.029
Acenaphthene	ND		0.037	0.032
2,4-Dinitrotoluene	ND		0.037	0.033
Dibenzofuran	ND		0.037	0.031
Diethyl phthalate	ND		0.037	0.036
Fluorene	ND		0.037	0.033
4-Chlorophenyl phenyl ether	ND		0.037	0.034
4-Nitroaniline	ND		0.037	0.028
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.032
N-Nitrosodiphenylamine	ND		0.037	0.032
4-Bromophenyl phenyl ether	ND		0.037	0.031
Hexachlorobenzene	ND		0.037	0.034
Atrazine	ND		0.037	0.032
Phenanthrene	0.138		0.037	0.033
Anthracene	0.038		0.037	0.032
Carbazole	ND		0.037	0.028
Di-n-butyl phthalate	ND		0.037	0.028
Fluoranthene	0.231		0.037	0.031
Pyrene	0.210		0.037	0.030
Butyl benzyl phthalate	ND		0.037	0.034
3,3'-Dichlorobenzidine	ND		0.037	0.026
Benzo[a]anthracene	0.134		0.037	0.031
Chrysene	0.131		0.037	0.031
Bis(2-ethylhexyl) phthalate	0.202		0.037	0.023
Di-n-octyl phthalate	ND		0.037	0.032
Benzo[b]fluoranthene	0.074		0.037	0.029
Benzo[k]fluoranthene	0.082		0.037	0.031
Benzo[a]pyrene	0.082		0.037	0.030
Indeno[1,2,3-cd]pyrene	0.102		0.037	0.030
Dibenz[a,h]anthracene	ND		0.037	0.036
Benzo[g,h,i]perylene	0.197		0.037	0.033
Dinitrotoluene (2,4- and 2,6-	ND		0.037	0.033

Total Target Compounds (53): 1.62

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10862-015
Client ID: SB-37D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Date File: C1729.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.4

CAS #	Compound	Estimated Concentration	Q	Retention Time
013151-35-4	Decane, 5-methyl-	0.311	JN	2.54
	Unknown Hydrocarbon	0.633	J	2.56
	Unknown Hydrocarbon	0.380	J	2.58
000091-17-8	Naphthalene, decahydro-	1.03	JN	2.62
	Unknown Hydrocarbon	0.574	J	2.75
	Unknown Hydrocarbon	0.267	J	2.77
002958-76-1	Naphthalene, decahydro-2-methyl-	0.878	JN	2.79
	Unknown SV	1.07	J	2.81
	Unknown PAH	0.987	J	2.84
1000152-34-3	Borane, diethyl(decyloxy)-	0.285	JN	2.87
	Unknown SV	0.271	J	2.88
	Unknown SV	0.271	J	2.90
	Unknown Hydrocarbon	0.271	J	2.92
000112-40-3	Dodecane	0.826	JN	2.94
000599-64-4	Phenol, 4-(1-methyl-1-phenylethyl)	0.318	JN	4.65

Total TICs = 8.37 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171219-05
Client ID: .
Date Received: NA
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1709.D 12/20/17 17:06

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS171219-05
Client ID: .
Date Received: NA
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1709.D 12/20/17 17:06

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
Q --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171219-05
Client ID: .
Date Received: NA
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: C1709.D 12/20/17 17:06

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-001
Client ID: SB-31S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6963.D 12/20/17 13:55

GC Column: DB-5/DB1701P
Sample wt/vol: 10.20g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.3
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.069	0.028
Aroclor-1221	ND		0.069	0.028
Aroclor-1232	ND		0.069	0.028
Aroclor-1242	ND		0.069	0.028
Aroclor-1248	ND		0.069	0.028
Aroclor-1254	ND		0.069	0.028
Aroclor-1260	ND		0.069	0.028
Aroclor-1262	ND		0.069	0.028
Aroclor-1268	ND		0.069	0.028
PCBs	ND		0.069	0.028

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-002
Client ID: SB-31D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6964.D 12/20/17 14:12

GC Column: DB-5/DB1701P
Sample wt/vol: 10.07g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.7
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.070	0.028
Aroclor-1221	ND		0.070	0.028
Aroclor-1232	ND		0.070	0.028
Aroclor-1242	ND		0.070	0.028
Aroclor-1248	ND		0.070	0.028
Aroclor-1254	ND		0.070	0.028
Aroclor-1260	ND		0.070	0.028
Aroclor-1262	ND		0.070	0.028
Aroclor-1268	ND		0.070	0.028
PCBs	ND		0.070	0.028

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-003
Client ID: SB-32S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6965.D 12/20/17 14:29

GC Column: DB-5/DB1701P
Sample wt/vol: 10.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.064	0.026
Aroclor-1221	ND		0.064	0.026
Aroclor-1232	ND		0.064	0.026
Aroclor-1242	ND		0.064	0.026
Aroclor-1248	ND		0.064	0.026
Aroclor-1254	ND		0.064	0.026
Aroclor-1260	ND		0.064	0.026
Aroclor-1262	ND		0.064	0.026
Aroclor-1268	ND		0.064	0.026
PCBs	ND		0.064	0.026

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-004
Client ID: SB-32D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6966.D 12/20/17 14:47

GC Column: DB-5/DB1701P
Sample wt/vol: 10.30g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.065	0.026
Aroclor-1221	ND		0.065	0.026
Aroclor-1232	ND		0.065	0.026
Aroclor-1242	ND		0.065	0.026
Aroclor-1248	ND		0.065	0.026
Aroclor-1254	ND		0.065	0.026
Aroclor-1260	ND		0.065	0.026
Aroclor-1262	ND		0.065	0.026
Aroclor-1268	ND		0.065	0.026
PCBs	ND		0.065	0.026

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-005
Client ID: SB-32D1/
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6967.D 12/20/17 15:04

GC Column: DB-5/DB1701P
Sample wt/vol: 10.31g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.025	0.00978
Aroclor-1221	ND		0.025	0.00978
Aroclor-1232	ND		0.025	0.00978
Aroclor-1242	ND		0.025	0.00978
Aroclor-1248	ND		0.025	0.00978
Aroclor-1254	ND		0.025	0.00978
Aroclor-1260	ND		0.025	0.00978
Aroclor-1262	ND		0.025	0.00978
Aroclor-1268	ND		0.025	0.00978
PCBs	ND		0.025	0.00978

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-006
Client ID: SB-33S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6968.D 12/20/17 15:21

GC Column: DB-5/DB1701P
Sample wt/vol: 10.34g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.023	0.00909
Aroclor-1221	ND		0.023	0.00909
Aroclor-1232	ND		0.023	0.00909
Aroclor-1242	ND		0.023	0.00909
Aroclor-1248	ND		0.023	0.00909
Aroclor-1254	ND		0.023	0.00909
Aroclor-1260	ND		0.023	0.00909
Aroclor-1262	ND		0.023	0.00909
Aroclor-1268	ND		0.023	0.00909
PCBs	ND		0.023	0.00909

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-007
Client ID: SB-33D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6969.D 12/20/17 15:39

GC Column: DB-5/DB1701P
Sample wt/vol: 10.32g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.1
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.069	0.027
Aroclor-1221	ND		0.069	0.027
Aroclor-1232	ND		0.069	0.027
Aroclor-1242	ND		0.069	0.027
Aroclor-1248	ND		0.069	0.027
Aroclor-1254	ND		0.069	0.027
Aroclor-1260	ND		0.069	0.027
Aroclor-1262	ND		0.069	0.027
Aroclor-1268	ND		0.069	0.027
PCBs	ND		0.069	0.027

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-008
Client ID: SB-34S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6970.D 12/20/17 15:56

GC Column: DB-5/DB1701P
Sample wt/vol: 10.20g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.10
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.065	0.026
Aroclor-1221	ND		0.065	0.026
Aroclor-1232	ND		0.065	0.026
Aroclor-1242	ND		0.065	0.026
Aroclor-1248	ND		0.065	0.026
Aroclor-1254	ND		0.065	0.026
Aroclor-1260	ND		0.065	0.026
Aroclor-1262	ND		0.065	0.026
Aroclor-1268	ND		0.065	0.026
PCBs	ND		0.065	0.026

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-009
Client ID: SB-34D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6971.D 12/20/17 16:13

GC Column: DB-5/DB1701P
Sample wt/vol: 10.14g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00894
Aroclor-1221	ND		0.022	0.00894
Aroclor-1232	ND		0.022	0.00894
Aroclor-1242	ND		0.022	0.00894
Aroclor-1248	ND		0.022	0.00894
Aroclor-1254	ND		0.022	0.00894
Aroclor-1260	ND		0.022	0.00894
Aroclor-1262	ND		0.022	0.00894
Aroclor-1268	ND		0.022	0.00894
PCBs	ND		0.022	0.00894

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-010
Client ID: SB-35S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6972.D 12/20/17 16:34

GC Column: DB-5/DB1701P
Sample wt/vol: 10.27g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.065	0.026
Aroclor-1221	ND		0.065	0.026
Aroclor-1232	ND		0.065	0.026
Aroclor-1242	ND		0.065	0.026
Aroclor-1248	ND		0.065	0.026
Aroclor-1254	ND		0.065	0.026
Aroclor-1260	ND		0.065	0.026
Aroclor-1262	ND		0.065	0.026
Aroclor-1268	ND		0.065	0.026
PCBs	ND		0.065	0.026

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-011
Client ID: SB-35D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6973.D 12/20/17 16:51

GC Column: DB-5/DB1701P
Sample wt/vol: 10.00g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.023	0.00915
Aroclor-1221	ND		0.023	0.00915
Aroclor-1232	ND		0.023	0.00915
Aroclor-1242	ND		0.023	0.00915
Aroclor-1248	ND		0.023	0.00915
Aroclor-1254	ND		0.023	0.00915
Aroclor-1260	ND		0.023	0.00915
Aroclor-1262	ND		0.023	0.00915
Aroclor-1268	ND		0.023	0.00915
PCBs	ND		0.023	0.00915

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-012
Client ID: SB-36S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6974.D 12/20/17 17:08

GC Column: DB-5/DB1701P
Sample wt/vol: 10.23g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00877
Aroclor-1221	ND		0.022	0.00877
Aroclor-1232	ND		0.022	0.00877
Aroclor-1242	ND		0.022	0.00877
Aroclor-1248	ND		0.022	0.00877
Aroclor-1254	ND		0.022	0.00877
Aroclor-1260	ND		0.022	0.00877
Aroclor-1262	ND		0.022	0.00877
Aroclor-1268	ND		0.022	0.00877
PCBs	ND		0.022	0.00877

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-013
Client ID: SB-36D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6975.D 12/20/17 17:26

GC Column: DB-5/DB1701P
Sample wt/vol: 10.22g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.023	0.00908
Aroclor-1221	ND		0.023	0.00908
Aroclor-1232	ND		0.023	0.00908
Aroclor-1242	ND		0.023	0.00908
Aroclor-1248	ND		0.023	0.00908
Aroclor-1254	ND		0.023	0.00908
Aroclor-1260	ND		0.023	0.00908
Aroclor-1262	ND		0.023	0.00908
Aroclor-1268	ND		0.023	0.00908
PCBs	ND		0.023	0.00908

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-014
Client ID: SB-37S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6976.D 12/20/17 17:43

GC Column: DB-5/DB1701P
Sample wt/vol: 10.57g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.067	0.027
Aroclor-1221	ND		0.067	0.027
Aroclor-1232	ND		0.067	0.027
Aroclor-1242	ND		0.067	0.027
Aroclor-1248	ND		0.067	0.027
Aroclor-1254	ND		0.067	0.027
Aroclor-1260	ND		0.067	0.027
Aroclor-1262	ND		0.067	0.027
Aroclor-1268	ND		0.067	0.027
PCBs	ND		0.067	0.027

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10862-015
Client ID: SB-37D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6977.D 12/20/17 18:00

GC Column: DB-5/DB1701P
Sample wt/vol: 10.15g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.0088
Aroclor-1221	ND		0.022	0.0088
Aroclor-1232	ND		0.022	0.0088
Aroclor-1242	ND		0.022	0.0088
Aroclor-1248	ND		0.022	0.0088
Aroclor-1254	ND		0.022	0.0088
Aroclor-1260	ND		0.022	0.0088
Aroclor-1262	ND		0.022	0.0088
Aroclor-1268	ND		0.022	0.0088
PCBs	ND		0.022	0.0088

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS171219-09
Client ID: PCB
Date Received: NA
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: Y6959.D 12/20/17 12:46

GC Column: DB-5/DB1701P
Sample wt/vol: 10g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.020	0.008
Aroclor-1221	ND		0.020	0.008
Aroclor-1232	ND		0.020	0.008
Aroclor-1242	ND		0.020	0.008
Aroclor-1248	ND		0.020	0.008
Aroclor-1254	ND		0.020	0.008
Aroclor-1260	ND		0.020	0.008
Aroclor-1262	ND		0.020	0.008
Aroclor-1268	ND		0.020	0.008
PCBs	ND		0.020	0.008

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-001
Client ID: SB-31S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0052.D 12/20/17 16:21

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.20g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.3
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00458	0.00229
beta-BHC	ND		0.00458	0.00229
gamma-BHC (Lindane)	ND		0.00458	0.00229
delta-BHC	ND		0.00458	0.00229
Heptachlor	ND		0.00458	0.00229
Aldrin	ND		0.00458	0.00229
Heptachlor epoxide	ND		0.00458	0.00229
Endosulfan I	ND		0.00458	0.00229
4,4'-DDE	ND		0.00458	0.00229
Dieldrin	ND		0.00458	0.00229
Endrin	ND		0.00458	0.00229
Endosulfan II	ND		0.00458	0.00229
4,4'-DDD	ND		0.00458	0.00229
Endrin aldehyde	ND		0.00458	0.00229
Endosulfan sulfate	ND		0.00458	0.00229
4,4'-DDT	ND		0.00458	0.00229
Endrin ketone	ND		0.00458	0.00229
Methoxychlor	ND		0.00458	0.00229
alpha-Chlordane	ND		0.00458	0.00229
gamma-Chlordane	ND		0.00458	0.00229
Toxaphene	ND		0.057	0.028
Endosulfan (I and II)	ND		0.00458	0.00229
Chlordane (alpha and gamma)	ND		0.00458	0.00229

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-002
Client ID: SB-31D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0053.D 12/20/17 16:33

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.07g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00466	0.00233
beta-BHC	ND		0.00466	0.00233
gamma-BHC (Lindane)	ND		0.00466	0.00233
delta-BHC	ND		0.00466	0.00233
Heptachlor	ND		0.00466	0.00233
Aldrin	ND		0.00466	0.00233
Heptachlor epoxide	ND		0.00466	0.00233
Endosulfan I	ND		0.00466	0.00233
4,4'-DDE	ND		0.00466	0.00233
Dieldrin	ND		0.00466	0.00233
Endrin	ND		0.00466	0.00233
Endosulfan II	ND		0.00466	0.00233
4,4'-DDD	ND		0.00466	0.00233
Endrin aldehyde	ND		0.00466	0.00233
Endosulfan sulfate	ND		0.00466	0.00233
4,4'-DDT	ND		0.00466	0.00233
Endrin ketone	ND		0.00466	0.00233
Methoxychlor	ND		0.00466	0.00233
alpha-Chlordane	ND		0.00466	0.00233
gamma-Chlordane	ND		0.00466	0.00233
Toxaphene	ND		0.058	0.028
Endosulfan (I and II)	ND		0.00466	0.00233
Chlordane (alpha and gamma)	ND		0.00466	0.00233

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-003
Client ID: SB-32S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0054.D 12/20/17 16:46

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.46g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00427	0.00214
beta-BHC	ND		0.00427	0.00214
gamma-BHC (Lindane)	ND		0.00427	0.00214
delta-BHC	ND		0.00427	0.00214
Heptachlor	ND		0.00427	0.00214
Aldrin	ND		0.00427	0.00214
Heptachlor epoxide	ND		0.00427	0.00214
Endosulfan I	ND		0.00427	0.00214
4,4'-DDE	0.068		0.00427	0.00214
Dieldrin	ND		0.00427	0.00214
Endrin	ND		0.00427	0.00214
Endosulfan II	ND		0.00427	0.00214
4,4'-DDD	0.030		0.00427	0.00214
Endrin aldehyde	ND		0.00427	0.00214
Endosulfan sulfate	ND		0.00427	0.00214
4,4'-DDT	0.174		0.00427	0.00214
Endrin ketone	ND		0.00427	0.00214
Methoxychlor	ND		0.00427	0.00214
alpha-Chlordane	ND		0.00427	0.00214
gamma-Chlordane	ND		0.00427	0.00214
Toxaphene	ND		0.053	0.026
Endosulfan (I and II)	ND		0.00427	0.00214
Chlordane (alpha and gamma)	ND		0.00427	0.00214

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-004
Client ID: SB-32D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0055.D 12/20/17 16:59

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.30g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.0043	0.00215
beta-BHC	ND		0.0043	0.00215
gamma-BHC (Lindane)	ND		0.0043	0.00215
delta-BHC	ND		0.0043	0.00215
Heptachlor	ND		0.0043	0.00215
Aldrin	ND		0.0043	0.00215
Heptachlor epoxide	ND		0.0043	0.00215
Endosulfan I	ND		0.0043	0.00215
4,4'-DDE	0.00688		0.0043	0.00215
Dieldrin	ND		0.0043	0.00215
Endrin	ND		0.0043	0.00215
Endosulfan II	ND		0.0043	0.00215
4,4'-DDD	0.00473		0.0043	0.00215
Endrin aldehyde	ND		0.0043	0.00215
Endosulfan sulfate	ND		0.0043	0.00215
4,4'-DDT	0.015		0.0043	0.00215
Endrin ketone	ND		0.0043	0.00215
Methoxychlor	ND		0.0043	0.00215
alpha-Chlordane	ND		0.0043	0.00215
gamma-Chlordane	ND		0.0043	0.00215
Toxaphene	ND		0.054	0.026
Endosulfan (I and II)	ND		0.0043	0.00215
Chlordane (alpha and gamma)	ND		0.0043	0.00215

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-005
Client ID: SB-32D1/
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0056.D 12/20/17 17:11

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.31g
Matrix-Units: Soil-mg/Kg
% Moisture: 20.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00489	0.00245
beta-BHC	ND		0.00489	0.00245
gamma-BHC (Lindane)	ND		0.00489	0.00245
delta-BHC	ND		0.00489	0.00245
Heptachlor	ND		0.00489	0.00245
Aldrin	ND		0.00489	0.00245
Heptachlor epoxide	ND		0.00489	0.00245
Endosulfan I	ND		0.00489	0.00245
4,4'-DDE	ND		0.00489	0.00245
Dieldrin	ND		0.00489	0.00245
Endrin	ND		0.00489	0.00245
Endosulfan II	ND		0.00489	0.00245
4,4'-DDD	ND		0.00489	0.00245
Endrin aldehyde	ND		0.00489	0.00245
Endosulfan sulfate	ND		0.00489	0.00245
4,4'-DDT	ND		0.00489	0.00245
Endrin ketone	ND		0.00489	0.00245
Methoxychlor	ND		0.00489	0.00245
alpha-Chlordane	ND		0.00489	0.00245
gamma-Chlordane	ND		0.00489	0.00245
Toxaphene	ND		0.061	0.029
Endosulfan (I and II)	ND		0.00489	0.00245
Chlordane (alpha and gamma)	ND		0.00489	0.00245

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-006
Client ID: SB-33S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0057.D 12/20/17 17:24

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.34g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.9
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00455	0.00227
beta-BHC	ND		0.00455	0.00227
gamma-BHC (Lindane)	ND		0.00455	0.00227
delta-BHC	ND		0.00455	0.00227
Heptachlor	ND		0.00455	0.00227
Aldrin	ND		0.00455	0.00227
Heptachlor epoxide	ND		0.00455	0.00227
Endosulfan I	ND		0.00455	0.00227
4,4'-DDE	ND		0.00455	0.00227
Dieldrin	ND		0.00455	0.00227
Endrin	ND		0.00455	0.00227
Endosulfan II	ND		0.00455	0.00227
4,4'-DDD	ND		0.00455	0.00227
Endrin aldehyde	ND		0.00455	0.00227
Endosulfan sulfate	ND		0.00455	0.00227
4,4'-DDT	ND		0.00455	0.00227
Endrin ketone	ND		0.00455	0.00227
Methoxychlor	ND		0.00455	0.00227
alpha-Chlordane	ND		0.00455	0.00227
gamma-Chlordane	ND		0.00455	0.00227
Toxaphene	ND		0.057	0.027
Endosulfan (I and II)	ND		0.00455	0.00227
Chlordane (alpha and gamma)	ND		0.00455	0.00227

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-007
Client ID: SB-33D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0058.D 12/20/17 17:36

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.32g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00457	0.00228
beta-BHC	ND		0.00457	0.00228
gamma-BHC (Lindane)	ND		0.00457	0.00228
delta-BHC	ND		0.00457	0.00228
Heptachlor	ND		0.00457	0.00228
Aldrin	ND		0.00457	0.00228
Heptachlor epoxide	ND		0.00457	0.00228
Endosulfan I	ND		0.00457	0.00228
4,4'-DDE	ND		0.00457	0.00228
Dieldrin	ND		0.00457	0.00228
Endrin	ND		0.00457	0.00228
Endosulfan II	ND		0.00457	0.00228
4,4'-DDD	ND		0.00457	0.00228
Endrin aldehyde	ND		0.00457	0.00228
Endosulfan sulfate	ND		0.00457	0.00228
4,4'-DDT	ND		0.00457	0.00228
Endrin ketone	ND		0.00457	0.00228
Methoxychlor	ND		0.00457	0.00228
alpha-Chlordane	ND		0.00457	0.00228
gamma-Chlordane	ND		0.00457	0.00228
Toxaphene	ND		0.057	0.027
Endosulfan (I and II)	ND		0.00457	0.00228
Chlordane (alpha and gamma)	ND		0.00457	0.00228

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-008
Client ID: SB-34S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0059.D 12/20/17 17:49

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.20g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00431	0.00216
beta-BHC	ND		0.00431	0.00216
gamma-BHC (Lindane)	ND		0.00431	0.00216
delta-BHC	ND		0.00431	0.00216
Heptachlor	ND		0.00431	0.00216
Aldrin	ND		0.00431	0.00216
Heptachlor epoxide	ND		0.00431	0.00216
Endosulfan I	ND		0.00431	0.00216
4,4'-DDE	0.046		0.00431	0.00216
Dieldrin	ND		0.00431	0.00216
Endrin	ND		0.00431	0.00216
Endosulfan II	ND		0.00431	0.00216
4,4'-DDD	0.021		0.00431	0.00216
Endrin aldehyde	ND		0.00431	0.00216
Endosulfan sulfate	ND		0.00431	0.00216
4,4'-DDT	0.081		0.00431	0.00216
Endrin ketone	ND		0.00431	0.00216
Methoxychlor	ND		0.00431	0.00216
alpha-Chlordane	ND		0.00431	0.00216
gamma-Chlordane	ND		0.00431	0.00216
Toxaphene	ND		0.054	0.026
Endosulfan (I and II)	ND		0.00431	0.00216
Chlordane (alpha and gamma)	ND		0.00431	0.00216

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-009
Client ID: SB-34D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0060.D 12/20/17 18:02

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.14g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00447	0.00224
beta-BHC	ND		0.00447	0.00224
gamma-BHC (Lindane)	ND		0.00447	0.00224
delta-BHC	ND		0.00447	0.00224
Heptachlor	ND		0.00447	0.00224
Aldrin	ND		0.00447	0.00224
Heptachlor epoxide	ND		0.00447	0.00224
Endosulfan I	ND		0.00447	0.00224
4,4'-DDE	ND		0.00447	0.00224
Dieldrin	ND		0.00447	0.00224
Endrin	ND		0.00447	0.00224
Endosulfan II	ND		0.00447	0.00224
4,4'-DDD	ND		0.00447	0.00224
Endrin aldehyde	ND		0.00447	0.00224
Endosulfan sulfate	ND		0.00447	0.00224
4,4'-DDT	ND		0.00447	0.00224
Endrin ketone	ND		0.00447	0.00224
Methoxychlor	ND		0.00447	0.00224
alpha-Chlordane	ND		0.00447	0.00224
gamma-Chlordane	ND		0.00447	0.00224
Toxaphene	ND		0.056	0.027
Endosulfan (I and II)	ND		0.00447	0.00224
Chlordane (alpha and gamma)	ND		0.00447	0.00224

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-010
Client ID: SB-35S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0061.D 12/20/17 18:14

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.27g
Matrix-Units: Soil-mg/Kg
% Moisture: 9.70
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00431	0.00216
beta-BHC	ND		0.00431	0.00216
gamma-BHC (Lindane)	ND		0.00431	0.00216
delta-BHC	ND		0.00431	0.00216
Heptachlor	ND		0.00431	0.00216
Aldrin	ND		0.00431	0.00216
Heptachlor epoxide	ND		0.00431	0.00216
Endosulfan I	ND		0.00431	0.00216
4,4'-DDE	0.00255	J	0.00431	0.00216
Dieldrin	ND		0.00431	0.00216
Endrin	ND		0.00431	0.00216
Endosulfan II	ND		0.00431	0.00216
4,4'-DDD	ND		0.00431	0.00216
Endrin aldehyde	ND		0.00431	0.00216
Endosulfan sulfate	ND		0.00431	0.00216
4,4'-DDT	0.00736		0.00431	0.00216
Endrin ketone	ND		0.00431	0.00216
Methoxychlor	ND		0.00431	0.00216
alpha-Chlordane	ND		0.00431	0.00216
gamma-Chlordane	ND		0.00431	0.00216
Toxaphene	ND		0.054	0.026
Endosulfan (I and II)	ND		0.00431	0.00216
Chlordane (alpha and gamma)	ND		0.00431	0.00216

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-011
Client ID: SB-35D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0062.D 12/20/17 18:27

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.00g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.6
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00458	0.00229
beta-BHC	ND		0.00458	0.00229
gamma-BHC (Lindane)	ND		0.00458	0.00229
delta-BHC	ND		0.00458	0.00229
Heptachlor	ND		0.00458	0.00229
Aldrin	ND		0.00458	0.00229
Heptachlor epoxide	ND		0.00458	0.00229
Endosulfan I	ND		0.00458	0.00229
4,4'-DDE	ND		0.00458	0.00229
Dieldrin	ND		0.00458	0.00229
Endrin	ND		0.00458	0.00229
Endosulfan II	ND		0.00458	0.00229
4,4'-DDD	ND		0.00458	0.00229
Endrin aldehyde	ND		0.00458	0.00229
Endosulfan sulfate	ND		0.00458	0.00229
4,4'-DDT	ND		0.00458	0.00229
Endrin ketone	ND		0.00458	0.00229
Methoxychlor	ND		0.00458	0.00229
alpha-Chlordane	ND		0.00458	0.00229
gamma-Chlordane	ND		0.00458	0.00229
Toxaphene	ND		0.057	0.028
Endosulfan (I and II)	ND		0.00458	0.00229
Chlordane (alpha and gamma)	ND		0.00458	0.00229

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-012
Client ID: SB-36S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0063.D 12/20/17 18:39

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.23g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00438	0.00219
beta-BHC	ND		0.00438	0.00219
gamma-BHC (Lindane)	ND		0.00438	0.00219
delta-BHC	ND		0.00438	0.00219
Heptachlor	ND		0.00438	0.00219
Aldrin	ND		0.00438	0.00219
Heptachlor epoxide	ND		0.00438	0.00219
Endosulfan I	ND		0.00438	0.00219
4,4'-DDE	ND		0.00438	0.00219
Dieldrin	ND		0.00438	0.00219
Endrin	ND		0.00438	0.00219
Endosulfan II	ND		0.00438	0.00219
4,4'-DDD	ND		0.00438	0.00219
Endrin aldehyde	ND		0.00438	0.00219
Endosulfan sulfate	ND		0.00438	0.00219
4,4'-DDT	0.00338	J	0.00438	0.00219
Endrin ketone	ND		0.00438	0.00219
Methoxychlor	ND		0.00438	0.00219
alpha-Chlordane	ND		0.00438	0.00219
gamma-Chlordane	ND		0.00438	0.00219
Toxaphene	ND		0.055	0.026
Endosulfan (I and II)	ND		0.00438	0.00219
Chlordane (alpha and gamma)	ND		0.00438	0.00219

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-013
Client ID: SB-36D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0064.D 12/20/17 18:52

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.22g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00454	0.00227
beta-BHC	ND		0.00454	0.00227
gamma-BHC (Lindane)	ND		0.00454	0.00227
delta-BHC	ND		0.00454	0.00227
Heptachlor	ND		0.00454	0.00227
Aldrin	ND		0.00454	0.00227
Heptachlor epoxide	ND		0.00454	0.00227
Endosulfan I	ND		0.00454	0.00227
4,4'-DDE	ND		0.00454	0.00227
Dieldrin	ND		0.00454	0.00227
Endrin	ND		0.00454	0.00227
Endosulfan II	ND		0.00454	0.00227
4,4'-DDD	ND		0.00454	0.00227
Endrin aldehyde	ND		0.00454	0.00227
Endosulfan sulfate	ND		0.00454	0.00227
4,4'-DDT	ND		0.00454	0.00227
Endrin ketone	ND		0.00454	0.00227
Methoxychlor	ND		0.00454	0.00227
alpha-Chlordane	ND		0.00454	0.00227
gamma-Chlordane	ND		0.00454	0.00227
Toxaphene	ND		0.057	0.027
Endosulfan (I and II)	ND		0.00454	0.00227
Chlordane (alpha and gamma)	ND		0.00454	0.00227

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-014
Client ID: SB-37S/2
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0065.D 12/20/17 19:04

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.57g
Matrix-Units: Soil-mg/Kg
% Moisture: 15.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00448	0.00224
beta-BHC	ND		0.00448	0.00224
gamma-BHC (Lindane)	ND		0.00448	0.00224
delta-BHC	ND		0.00448	0.00224
Heptachlor	ND		0.00448	0.00224
Aldrin	ND		0.00448	0.00224
Heptachlor epoxide	ND		0.00448	0.00224
Endosulfan I	ND		0.00448	0.00224
4,4'-DDE	0.100		0.00448	0.00224
Dieldrin	ND		0.00448	0.00224
Endrin	ND		0.00448	0.00224
Endosulfan II	ND		0.00448	0.00224
4,4'-DDD	0.027		0.00448	0.00224
Endrin aldehyde	ND		0.00448	0.00224
Endosulfan sulfate	ND		0.00448	0.00224
4,4'-DDT	0.201		0.00448	0.00224
Endrin ketone	ND		0.00448	0.00224
Methoxychlor	ND		0.00448	0.00224
alpha-Chlordane	ND		0.00448	0.00224
gamma-Chlordane	ND		0.00448	0.00224
Toxaphene	ND		0.056	0.027
Endosulfan (I and II)	ND		0.00448	0.00224
Chlordane (alpha and gamma)	ND		0.00448	0.00224

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10862-015
Client ID: SB-37D/8
Date Received: 12/19/2017
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0066.D 12/20/17 19:17

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.15g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.4
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.0044	0.0022
beta-BHC	ND		0.0044	0.0022
gamma-BHC (Lindane)	ND		0.0044	0.0022
delta-BHC	ND		0.0044	0.0022
Heptachlor	ND		0.0044	0.0022
Aldrin	ND		0.0044	0.0022
Heptachlor epoxide	ND		0.0044	0.0022
Endosulfan I	ND		0.0044	0.0022
4,4'-DDE	0.00402	J	0.0044	0.0022
Dieldrin	ND		0.0044	0.0022
Endrin	ND		0.0044	0.0022
Endosulfan II	ND		0.0044	0.0022
4,4'-DDD	ND		0.0044	0.0022
Endrin aldehyde	ND		0.0044	0.0022
Endosulfan sulfate	ND		0.0044	0.0022
4,4'-DDT	0.00891		0.0044	0.0022
Endrin ketone	ND		0.0044	0.0022
Methoxychlor	ND		0.0044	0.0022
alpha-Chlordane	ND		0.0044	0.0022
gamma-Chlordane	ND		0.0044	0.0022
Toxaphene	ND		0.055	0.026
Endosulfan (I and II)	ND		0.0044	0.0022
Chlordane (alpha and gamma)	ND		0.0044	0.0022

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS171219-09
Client ID: Pest
Date Received: NA
Date Extracted: 12/19/2017
Date Analyzed: 12/20/2017
Data file: O0048.D 12/20/17 15:31

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.004	0.002
beta-BHC	ND		0.004	0.002
gamma-BHC (Lindane)	ND		0.004	0.002
delta-BHC	ND		0.004	0.002
Heptachlor	ND		0.004	0.002
Aldrin	ND		0.004	0.002
Heptachlor epoxide	ND		0.004	0.002
Endosulfan I	ND		0.004	0.002
4,4'-DDE	ND		0.004	0.002
Dieldrin	ND		0.004	0.002
Endrin	ND		0.004	0.002
Endosulfan II	ND		0.004	0.002
4,4'-DDD	ND		0.004	0.002
Endrin aldehyde	ND		0.004	0.002
Endosulfan sulfate	ND		0.004	0.002
4,4'-DDT	ND		0.004	0.002
Endrin ketone	ND		0.004	0.002
Methoxychlor	ND		0.004	0.002
alpha-Chlordane	ND		0.004	0.002
gamma-Chlordane	ND		0.004	0.002
Toxaphene	ND		0.050	0.024
Endosulfan (I and II)	ND		0.004	0.002
Chlordane (alpha and gamma)	ND		0.004	0.002

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-001
Client ID: SB-31S
Date Collected: 12/18/17 12:05
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.3
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	6320		1	6.17	1.23	12/20/17 16:25	6020A
Antimony	0.831		1	0.617	0.247	12/20/17 16:25	6020A
Arsenic	3.84		1	0.617	0.370	12/20/17 16:25	6020A
Barium	385		1	0.617	0.309	12/20/17 16:25	6020A
Beryllium	0.359	J	1	0.617	0.309	12/20/17 16:25	6020A
Cadmium	0.451	J	1	0.617	0.370	12/20/17 16:25	6020A
Calcium	54400		1	61.7	12.3	12/20/17 16:25	6020A
Chromium	41.5		1	0.617	0.432	12/20/17 16:25	6020A
Cobalt	5.01		1	0.617	0.185	12/20/17 16:25	6020A
Copper	14.8		1	0.617	0.247	12/20/17 16:25	6020A
Iron	13200		1	61.7	6.17	12/20/17 16:25	6020A
Lead	566		1	0.617	0.185	12/20/17 16:25	6020A
Magnesium	3920		1	61.7	6.17	12/20/17 16:25	6020A
Manganese	237		1	0.617	0.309	12/20/17 16:25	6020A
Mercury	0.346		1	0.029	0.012	12/20/17 14:39	7471B
Nickel	14.1		1	0.617	0.309	12/20/17 16:25	6020A
Potassium	1610		1	61.7	24.7	12/20/17 16:25	6020A
Selenium	1.04		1	0.617	0.247	12/20/17 16:25	6020A
Silver	ND		1	0.617	0.247	12/20/17 16:25	6020A
Sodium	380		1	61.7	12.3	12/20/17 16:25	6020A
Thallium	0.315	J	1	0.617	0.247	12/20/17 16:25	6020A
Vanadium	19.0		1	0.617	0.309	12/20/17 16:25	6020A
Zinc	1070		1	0.617	0.370	12/20/17 16:25	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-002
Client ID: SB-31D
Date Collected: 12/18/17 12:05
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.7
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9390		1	6.20	1.24	12/20/17 16:41	6020A
Antimony	0.864		1	0.620	0.248	12/20/17 16:41	6020A
Arsenic	5.53		1	0.620	0.372	12/20/17 16:41	6020A
Barium	218		1	0.620	0.310	12/20/17 16:41	6020A
Beryllium	0.483	J	1	0.620	0.310	12/20/17 16:41	6020A
Cadmium	ND		1	0.620	0.372	12/20/17 16:41	6020A
Calcium	19900		1	62.0	12.4	12/20/17 16:41	6020A
Chromium	18.6		1	0.620	0.434	12/20/17 16:41	6020A
Cobalt	6.99		1	0.620	0.186	12/20/17 16:41	6020A
Copper	28.3		1	0.620	0.248	12/20/17 16:41	6020A
Iron	19700		1	62.0	6.20	12/20/17 16:41	6020A
Lead	167		1	0.620	0.186	12/20/17 16:41	6020A
Magnesium	5080		1	62.0	6.20	12/20/17 16:41	6020A
Manganese	322		1	0.620	0.310	12/20/17 16:41	6020A
Mercury	0.241		1	0.025	0.010	12/20/17 14:42	7471B
Nickel	18.7		1	0.620	0.310	12/20/17 16:41	6020A
Potassium	1880		1	62.0	24.8	12/20/17 16:41	6020A
Selenium	2.36		1	0.620	0.248	12/20/17 16:41	6020A
Silver	ND		1	0.620	0.248	12/20/17 16:41	6020A
Sodium	468		1	62.0	12.4	12/20/17 16:41	6020A
Thallium	ND		1	0.620	0.248	12/20/17 16:41	6020A
Vanadium	26.1		1	0.620	0.310	12/20/17 16:41	6020A
Zinc	246		1	0.620	0.372	12/20/17 16:41	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-003
Client ID: SB-32S
Date Collected: 12/18/17 12:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 10.5
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	10800		1	6.01	1.20	12/20/17 16:46	6020A
Antimony	1.97		1	0.601	0.240	12/20/17 16:46	6020A
Arsenic	14.3		1	0.601	0.361	12/20/17 16:46	6020A
Barium	935		1	0.601	0.300	12/20/17 16:46	6020A
Beryllium	1.64		1	0.601	0.300	12/20/17 16:46	6020A
Cadmium	1.43		1	0.601	0.361	12/20/17 16:46	6020A
Calcium	40900		1	60.1	12.0	12/20/17 16:46	6020A
Chromium	34.6		1	0.601	0.421	12/20/17 16:46	6020A
Cobalt	14.0		1	0.601	0.180	12/20/17 16:46	6020A
Copper	172		1	0.601	0.240	12/20/17 16:46	6020A
Iron	29400		1	60.1	6.01	12/20/17 16:46	6020A
Lead	970		1	0.601	0.180	12/20/17 16:46	6020A
Magnesium	4640		1	60.1	6.01	12/20/17 16:46	6020A
Manganese	366		1	0.601	0.300	12/20/17 16:46	6020A
Mercury	0.650		1	0.026	0.010	12/20/17 14:45	7471B
Nickel	28.6		1	0.601	0.300	12/20/17 16:46	6020A
Potassium	2250		1	60.1	24.0	12/20/17 16:46	6020A
Selenium	1.80		1	0.601	0.240	12/20/17 16:46	6020A
Silver	0.311	J	1	0.601	0.240	12/20/17 16:46	6020A
Sodium	1050		1	60.1	12.0	12/20/17 16:46	6020A
Thallium	0.273	J	1	0.601	0.240	12/20/17 16:46	6020A
Vanadium	33.4		1	0.601	0.300	12/20/17 16:46	6020A
Zinc	1760		1	0.601	0.361	12/20/17 16:46	6020A

J = Concentration detected at a value below the RL and above the MDL for target compounds

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-004
Client ID: SB-32D
Date Collected: 12/18/17 12:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.70
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	7010		1	5.83	1.17	12/20/17 16:52	6020A
Antimony	1.94		1	0.583	0.233	12/20/17 16:52	6020A
Arsenic	6.04		1	0.583	0.350	12/20/17 16:52	6020A
Barium	91.0		1	0.583	0.291	12/20/17 16:52	6020A
Beryllium	0.480	J	1	0.583	0.291	12/20/17 16:52	6020A
Cadmium	ND		1	0.583	0.350	12/20/17 16:52	6020A
Calcium	5850		1	58.3	11.7	12/20/17 16:52	6020A
Chromium	12.3		1	0.583	0.408	12/20/17 16:52	6020A
Cobalt	8.01		1	0.583	0.175	12/20/17 16:52	6020A
Copper	25.4		1	0.583	0.233	12/20/17 16:52	6020A
Iron	16200		1	58.3	5.83	12/20/17 16:52	6020A
Lead	98.7		1	0.583	0.175	12/20/17 16:52	6020A
Magnesium	2940		1	58.3	5.83	12/20/17 16:52	6020A
Manganese	443		1	0.583	0.291	12/20/17 16:52	6020A
Mercury	0.156		1	0.027	0.011	12/20/17 14:47	7471B
Nickel	95.2		1	0.583	0.291	12/20/17 16:52	6020A
Potassium	1170		1	58.3	23.3	12/20/17 16:52	6020A
Selenium	1.12		1	0.583	0.233	12/20/17 16:52	6020A
Silver	ND		1	0.583	0.233	12/20/17 16:52	6020A
Sodium	416		1	58.3	11.7	12/20/17 16:52	6020A
Thallium	ND		1	0.583	0.233	12/20/17 16:52	6020A
Vanadium	19.1		1	0.583	0.291	12/20/17 16:52	6020A
Zinc	119		1	0.583	0.350	12/20/17 16:52	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-005
Client ID: SB-32D1
Date Collected: 12/18/17 12:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 20.7
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	10000		1	6.30	1.26	12/20/17 15:42	6020A
Antimony	0.332	J	1	0.630	0.252	12/20/17 15:42	6020A
Arsenic	3.44		1	0.630	0.378	12/20/17 15:42	6020A
Barium	45.6		1	0.630	0.315	12/20/17 15:42	6020A
Beryllium	0.420	J	1	0.630	0.315	12/20/17 15:42	6020A
Cadmium	ND		1	0.630	0.378	12/20/17 15:42	6020A
Calcium	1500		1	63.0	12.6	12/20/17 15:42	6020A
Chromium	16.3		1	0.630	0.441	12/20/17 15:42	6020A
Cobalt	7.04		1	0.630	0.189	12/20/17 15:42	6020A
Copper	16.8		1	0.630	0.252	12/20/17 15:42	6020A
Iron	17300		1	63.0	6.30	12/20/17 15:42	6020A
Lead	38.0		1	0.630	0.189	12/20/17 15:42	6020A
Magnesium	3390		1	63.0	6.30	12/20/17 15:42	6020A
Manganese	142		1	0.630	0.315	12/20/17 15:42	6020A
Mercury	0.066		1	0.032	0.013	12/20/17 14:31	7471B
Nickel	18.1		1	0.630	0.315	12/20/17 15:42	6020A
Potassium	1200		1	63.0	25.2	12/20/17 15:42	6020A
Selenium	1.65		1	0.630	0.252	12/20/17 15:42	6020A
Silver	ND		1	0.630	0.252	12/20/17 15:42	6020A
Sodium	174		1	63.0	12.6	12/20/17 15:42	6020A
Thallium	ND		1	0.630	0.252	12/20/17 15:42	6020A
Vanadium	19.4		1	0.630	0.315	12/20/17 15:42	6020A
Zinc	53.1		1	0.630	0.378	12/20/17 15:42	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-006
Client ID: SB-33S
Date Collected: 12/18/17 13:00
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.9
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	5210		1	6.07	1.21	12/20/17 16:57	6020A
Antimony	2.16		1	0.607	0.243	12/20/17 16:57	6020A
Arsenic	21.7		1	0.607	0.364	12/20/17 16:57	6020A
Barium	707		1	0.607	0.303	12/20/17 16:57	6020A
Beryllium	ND		1	0.607	0.303	12/20/17 16:57	6020A
Cadmium	1.30		1	0.607	0.364	12/20/17 16:57	6020A
Calcium	59600		1	60.7	12.1	12/20/17 16:57	6020A
Chromium	11.6		1	0.607	0.425	12/20/17 16:57	6020A
Cobalt	3.99		1	0.607	0.182	12/20/17 16:57	6020A
Copper	22.7		1	0.607	0.243	12/20/17 16:57	6020A
Iron	12100		1	60.7	6.07	12/20/17 16:57	6020A
Lead	2730		1	0.607	0.182	12/20/17 16:57	6020A
Magnesium	3150		1	60.7	6.07	12/20/17 16:57	6020A
Manganese	205		1	0.607	0.303	12/20/17 16:57	6020A
Mercury	1.59		1	0.028	0.011	12/20/17 14:50	7471B
Nickel	8.32		1	0.607	0.303	12/20/17 16:57	6020A
Potassium	1250		1	60.7	24.3	12/20/17 16:57	6020A
Selenium	2.42		1	0.607	0.243	12/20/17 16:57	6020A
Silver	0.338	J	1	0.607	0.243	12/20/17 16:57	6020A
Sodium	348		1	60.7	12.1	12/20/17 16:57	6020A
Thallium	ND		1	0.607	0.243	12/20/17 16:57	6020A
Vanadium	15.8		1	0.607	0.303	12/20/17 16:57	6020A
Zinc	1260		1	0.607	0.364	12/20/17 16:57	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-007
Client ID: SB-33D
Date Collected: 12/18/17 13:00
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 15.1
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8210		1	6.17	1.23	12/20/17 17:03	6020A
Antimony	1.86		1	0.617	0.247	12/20/17 17:03	6020A
Arsenic	19.2		1	0.617	0.370	12/20/17 17:03	6020A
Barium	508		1	0.617	0.309	12/20/17 17:03	6020A
Beryllium	0.349	J	1	0.617	0.309	12/20/17 17:03	6020A
Cadmium	1.25		1	0.617	0.370	12/20/17 17:03	6020A
Calcium	72000		1	61.7	12.3	12/20/17 17:03	6020A
Chromium	19.5		1	0.617	0.432	12/20/17 17:03	6020A
Cobalt	5.40		1	0.617	0.185	12/20/17 17:03	6020A
Copper	35.5		1	0.617	0.247	12/20/17 17:03	6020A
Iron	20000		1	61.7	6.17	12/20/17 17:03	6020A
Lead	2360		1	0.617	0.185	12/20/17 17:03	6020A
Magnesium	7270		1	61.7	6.17	12/20/17 17:03	6020A
Manganese	277		1	0.617	0.309	12/20/17 17:03	6020A
Mercury	1.41		1	0.028	0.011	12/20/17 14:58	7471B
Nickel	11.2		1	0.617	0.309	12/20/17 17:03	6020A
Potassium	2370		1	61.7	24.7	12/20/17 17:03	6020A
Selenium	3.12		1	0.617	0.247	12/20/17 17:03	6020A
Silver	0.254	J	1	0.617	0.247	12/20/17 17:03	6020A
Sodium	1150		1	61.7	12.3	12/20/17 17:03	6020A
Thallium	ND		1	0.617	0.247	12/20/17 17:03	6020A
Vanadium	27.9		1	0.617	0.309	12/20/17 17:03	6020A
Zinc	963		1	0.617	0.370	12/20/17 17:03	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-008
Client ID: SB-34S
Date Collected: 12/18/17 13:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.10
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	7810		1	5.80	1.16	12/20/17 17:08	6020A
Antimony	2.36		1	0.580	0.232	12/20/17 17:08	6020A
Arsenic	8.42		1	0.580	0.348	12/20/17 17:08	6020A
Barium	283		1	0.580	0.290	12/20/17 17:08	6020A
Beryllium	1.76		1	0.580	0.290	12/20/17 17:08	6020A
Cadmium	1.31		1	0.580	0.348	12/20/17 17:08	6020A
Calcium	11700		1	58.0	11.6	12/20/17 17:08	6020A
Chromium	39.0		1	0.580	0.406	12/20/17 17:08	6020A
Cobalt	17.4		1	0.580	0.174	12/20/17 17:08	6020A
Copper	322		1	0.580	0.232	12/20/17 17:08	6020A
Iron	26400		1	58.0	5.80	12/20/17 17:08	6020A
Lead	592		1	0.580	0.174	12/20/17 17:08	6020A
Magnesium	2550		1	58.0	5.80	12/20/17 17:08	6020A
Manganese	301		1	0.580	0.290	12/20/17 17:08	6020A
Mercury	0.422		1	0.023	0.0093	12/20/17 15:02	7471B
Nickel	44.0		1	0.580	0.290	12/20/17 17:08	6020A
Potassium	1100		1	58.0	23.2	12/20/17 17:08	6020A
Selenium	1.54		1	0.580	0.232	12/20/17 17:08	6020A
Silver	0.255	J	1	0.580	0.232	12/20/17 17:08	6020A
Sodium	483		1	58.0	11.6	12/20/17 17:08	6020A
Thallium	ND		1	0.580	0.232	12/20/17 17:08	6020A
Vanadium	28.2		1	0.580	0.290	12/20/17 17:08	6020A
Zinc	2290		1	0.580	0.348	12/20/17 17:08	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-009
Client ID: SB-34D
Date Collected: 12/18/17 13:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.8
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	10000		1	5.89	1.18	12/20/17 17:13	6020A
Antimony	0.616		1	0.589	0.235	12/20/17 17:13	6020A
Arsenic	5.72		1	0.589	0.353	12/20/17 17:13	6020A
Barium	52.9		1	0.589	0.294	12/20/17 17:13	6020A
Beryllium	0.495	J	1	0.589	0.294	12/20/17 17:13	6020A
Cadmium	ND		1	0.589	0.353	12/20/17 17:13	6020A
Calcium	2230		1	58.9	11.8	12/20/17 17:13	6020A
Chromium	21.7		1	0.589	0.412	12/20/17 17:13	6020A
Cobalt	7.71		1	0.589	0.177	12/20/17 17:13	6020A
Copper	15.1		1	0.589	0.235	12/20/17 17:13	6020A
Iron	19700		1	58.9	5.89	12/20/17 17:13	6020A
Lead	34.3		1	0.589	0.177	12/20/17 17:13	6020A
Magnesium	3410		1	58.9	5.89	12/20/17 17:13	6020A
Manganese	171		1	0.589	0.294	12/20/17 17:13	6020A
Mercury	0.063		1	0.026	0.011	12/20/17 15:04	7471B
Nickel	17.9		1	0.589	0.294	12/20/17 17:13	6020A
Potassium	1500		1	58.9	23.5	12/20/17 17:13	6020A
Selenium	2.37		1	0.589	0.235	12/20/17 17:13	6020A
Silver	ND		1	0.589	0.235	12/20/17 17:13	6020A
Sodium	246		1	58.9	11.8	12/20/17 17:13	6020A
Thallium	ND		1	0.589	0.235	12/20/17 17:13	6020A
Vanadium	28.5		1	0.589	0.294	12/20/17 17:13	6020A
Zinc	53.5		1	0.589	0.353	12/20/17 17:13	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-010
Client ID: SB-35S
Date Collected: 12/18/17 14:00
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.70
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9100		1	5.71	1.14	12/20/17 17:19	6020A
Antimony	0.765		1	0.571	0.228	12/20/17 17:19	6020A
Arsenic	78.4		1	0.571	0.343	12/20/17 17:19	6020A
Barium	696		1	0.571	0.285	12/20/17 17:19	6020A
Beryllium	0.463	J	1	0.571	0.285	12/20/17 17:19	6020A
Cadmium	0.538	J	1	0.571	0.343	12/20/17 17:19	6020A
Calcium	54500		1	57.1	11.4	12/20/17 17:19	6020A
Chromium	19.0		1	0.571	0.400	12/20/17 17:19	6020A
Cobalt	5.73		1	0.571	0.171	12/20/17 17:19	6020A
Copper	33.5		1	0.571	0.228	12/20/17 17:19	6020A
Iron	15200		1	57.1	5.71	12/20/17 17:19	6020A
Lead	620		1	0.571	0.171	12/20/17 17:19	6020A
Magnesium	8220		1	57.1	5.71	12/20/17 17:19	6020A
Manganese	295		1	0.571	0.285	12/20/17 17:19	6020A
Mercury	0.421		1	0.027	0.011	12/20/17 15:07	7471B
Nickel	13.1		1	0.571	0.285	12/20/17 17:19	6020A
Potassium	2330		1	57.1	22.8	12/20/17 17:19	6020A
Selenium	0.676		1	0.571	0.228	12/20/17 17:19	6020A
Silver	ND		1	0.571	0.228	12/20/17 17:19	6020A
Sodium	1030		1	57.1	11.4	12/20/17 17:19	6020A
Thallium	ND		1	0.571	0.228	12/20/17 17:19	6020A
Vanadium	21.7		1	0.571	0.285	12/20/17 17:19	6020A
Zinc	470		1	0.571	0.343	12/20/17 17:19	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-011
Client ID: SB-35D
Date Collected: 12/18/17 14:00
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.6
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	10100		1	6.12	1.22	12/20/17 17:24	6020A
Antimony	ND		1	0.612	0.245	12/20/17 17:24	6020A
Arsenic	4.28		1	0.612	0.367	12/20/17 17:24	6020A
Barium	67.7		1	0.612	0.306	12/20/17 17:24	6020A
Beryllium	0.538	J	1	0.612	0.306	12/20/17 17:24	6020A
Cadmium	ND		1	0.612	0.367	12/20/17 17:24	6020A
Calcium	4170		1	61.2	12.2	12/20/17 17:24	6020A
Chromium	17.9		1	0.612	0.428	12/20/17 17:24	6020A
Cobalt	7.09		1	0.612	0.183	12/20/17 17:24	6020A
Copper	14.7		1	0.612	0.245	12/20/17 17:24	6020A
Iron	18400		1	61.2	6.12	12/20/17 17:24	6020A
Lead	79.7		1	0.612	0.183	12/20/17 17:24	6020A
Magnesium	3740		1	61.2	6.12	12/20/17 17:24	6020A
Manganese	354		1	0.612	0.306	12/20/17 17:24	6020A
Mercury	0.091		1	0.026	0.011	12/20/17 15:10	7471B
Nickel	16.5		1	0.612	0.306	12/20/17 17:24	6020A
Potassium	1650		1	61.2	24.5	12/20/17 17:24	6020A
Selenium	2.40		1	0.612	0.245	12/20/17 17:24	6020A
Silver	ND		1	0.612	0.245	12/20/17 17:24	6020A
Sodium	211		1	61.2	12.2	12/20/17 17:24	6020A
Thallium	ND		1	0.612	0.245	12/20/17 17:24	6020A
Vanadium	21.9		1	0.612	0.306	12/20/17 17:24	6020A
Zinc	58.6		1	0.612	0.367	12/20/17 17:24	6020A

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-012
Client ID: SB-36S
Date Collected: 12/18/17 14:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 10.8
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	7940		1	5.88	1.18	12/20/17 17:30	6020A
Antimony	0.695		1	0.588	0.235	12/20/17 17:30	6020A
Arsenic	5.38		1	0.588	0.353	12/20/17 17:30	6020A
Barium	524		1	0.588	0.294	12/20/17 17:30	6020A
Beryllium	0.448	J	1	0.588	0.294	12/20/17 17:30	6020A
Cadmium	0.593		1	0.588	0.353	12/20/17 17:30	6020A
Calcium	41400		1	58.8	11.8	12/20/17 17:30	6020A
Chromium	21.0		1	0.588	0.412	12/20/17 17:30	6020A
Cobalt	6.10		1	0.588	0.176	12/20/17 17:30	6020A
Copper	27.1		1	0.588	0.235	12/20/17 17:30	6020A
Iron	14900		1	58.8	5.88	12/20/17 17:30	6020A
Lead	1020		1	0.588	0.176	12/20/17 17:30	6020A
Magnesium	3920		1	58.8	5.88	12/20/17 17:30	6020A
Manganese	306		1	0.588	0.294	12/20/17 17:30	6020A
Mercury	ND		1	0.027	0.011	12/20/17 15:12	7471B
Nickel	16.0		1	0.588	0.294	12/20/17 17:30	6020A
Potassium	2270		1	58.8	23.5	12/20/17 17:30	6020A
Selenium	1.46		1	0.588	0.235	12/20/17 17:30	6020A
Silver	ND		1	0.588	0.235	12/20/17 17:30	6020A
Sodium	342		1	58.8	11.8	12/20/17 17:30	6020A
Thallium	ND		1	0.588	0.235	12/20/17 17:30	6020A
Vanadium	23.0		1	0.588	0.294	12/20/17 17:30	6020A
Zinc	587		1	0.588	0.353	12/20/17 17:30	6020A

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J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-013
Client ID: SB-36D
Date Collected: 12/18/17 14:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.8
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9550		1	6.14	1.23	12/20/17 17:46	6020A
Antimony	0.656		1	0.614	0.246	12/20/17 17:46	6020A
Arsenic	1.96		1	0.614	0.369	12/20/17 17:46	6020A
Barium	52.6		1	0.614	0.307	12/20/17 17:46	6020A
Beryllium	0.520	J	1	0.614	0.307	12/20/17 17:46	6020A
Cadmium	ND		1	0.614	0.369	12/20/17 17:46	6020A
Calcium	3680		1	61.4	12.3	12/20/17 17:46	6020A
Chromium	18.1		1	0.614	0.430	12/20/17 17:46	6020A
Cobalt	6.18		1	0.614	0.184	12/20/17 17:46	6020A
Copper	22.5		1	0.614	0.246	12/20/17 17:46	6020A
Iron	17400		1	61.4	6.14	12/20/17 17:46	6020A
Lead	16.9		1	0.614	0.184	12/20/17 17:46	6020A
Magnesium	4210		1	61.4	6.14	12/20/17 17:46	6020A
Manganese	254		1	0.614	0.307	12/20/17 17:46	6020A
Mercury	ND		1	0.025	0.0098	12/20/17 15:15	7471B
Nickel	17.7		1	0.614	0.307	12/20/17 17:46	6020A
Potassium	1620		1	61.4	24.6	12/20/17 17:46	6020A
Selenium	1.55		1	0.614	0.246	12/20/17 17:46	6020A
Silver	ND		1	0.614	0.246	12/20/17 17:46	6020A
Sodium	729		1	61.4	12.3	12/20/17 17:46	6020A
Thallium	ND		1	0.614	0.246	12/20/17 17:46	6020A
Vanadium	23.4		1	0.614	0.307	12/20/17 17:46	6020A
Zinc	53.8		1	0.614	0.369	12/20/17 17:46	6020A

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-014
Client ID: SB-37S
Date Collected: 12/18/17 13:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 15.5
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8900		1	6.17	1.23	12/20/17 17:51	6020A
Antimony	2.77		1	0.617	0.247	12/20/17 17:51	6020A
Arsenic	11.0		1	0.617	0.370	12/20/17 17:51	6020A
Barium	680		1	0.617	0.309	12/20/17 17:51	6020A
Beryllium	0.761		1	0.617	0.309	12/20/17 17:51	6020A
Cadmium	2.01		1	0.617	0.370	12/20/17 17:51	6020A
Calcium	45400		1	61.7	12.3	12/20/17 17:51	6020A
Chromium	44.9		1	0.617	0.432	12/20/17 17:51	6020A
Cobalt	10.8		1	0.617	0.185	12/20/17 17:51	6020A
Copper	147		1	0.617	0.247	12/20/17 17:51	6020A
Iron	30900		1	61.7	6.17	12/20/17 17:51	6020A
Lead	751		1	0.617	0.185	12/20/17 17:51	6020A
Magnesium	6150		1	61.7	6.17	12/20/17 17:51	6020A
Manganese	348		1	0.617	0.309	12/20/17 17:51	6020A
Mercury	0.467		1	0.029	0.012	12/20/17 15:18	7471B
Nickel	27.4		1	0.617	0.309	12/20/17 17:51	6020A
Potassium	1650		1	61.7	24.7	12/20/17 17:51	6020A
Selenium	1.62		1	0.617	0.247	12/20/17 17:51	6020A
Silver	0.357	J	1	0.617	0.247	12/20/17 17:51	6020A
Sodium	889		1	61.7	12.3	12/20/17 17:51	6020A
Thallium	ND		1	0.617	0.247	12/20/17 17:51	6020A
Vanadium	29.0		1	0.617	0.309	12/20/17 17:51	6020A
Zinc	1120		1	0.617	0.370	12/20/17 17:51	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH

Lab ID: E17-10862-015
Client ID: SB-37D
Date Collected: 12/18/17 13:30
Date Received: 12/19/17 07:40
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 10.4
Batch #: 719

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8180		1	5.88	1.18	12/20/17 17:57	6020A
Antimony	0.287	J	1	0.588	0.235	12/20/17 17:57	6020A
Arsenic	2.45		1	0.588	0.353	12/20/17 17:57	6020A
Barium	84.0		1	0.588	0.294	12/20/17 17:57	6020A
Beryllium	0.404	J	1	0.588	0.294	12/20/17 17:57	6020A
Cadmium	ND		1	0.588	0.353	12/20/17 17:57	6020A
Calcium	6930		1	58.8	11.8	12/20/17 17:57	6020A
Chromium	15.9		1	0.588	0.412	12/20/17 17:57	6020A
Cobalt	6.21		1	0.588	0.176	12/20/17 17:57	6020A
Copper	19.3		1	0.588	0.235	12/20/17 17:57	6020A
Iron	16000		1	58.8	5.88	12/20/17 17:57	6020A
Lead	94.3		1	0.588	0.176	12/20/17 17:57	6020A
Magnesium	3070		1	58.8	5.88	12/20/17 17:57	6020A
Manganese	353		1	0.588	0.294	12/20/17 17:57	6020A
Mercury	0.274		1	0.024	0.0097	12/20/17 15:20	7471B
Nickel	14.1		1	0.588	0.294	12/20/17 17:57	6020A
Potassium	1400		1	58.8	23.5	12/20/17 17:57	6020A
Selenium	1.41		1	0.588	0.235	12/20/17 17:57	6020A
Silver	ND		1	0.588	0.235	12/20/17 17:57	6020A
Sodium	325		1	58.8	11.8	12/20/17 17:57	6020A
Thallium	ND		1	0.588	0.235	12/20/17 17:57	6020A
Vanadium	22.7		1	0.588	0.294	12/20/17 17:57	6020A
Zinc	71.4		1	0.588	0.353	12/20/17 17:57	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

12/20/2017 03:36 PM

Batch (Page) #: 719
Associated Lab Case for Blank 1: E17-10558, E17-10862, E17-10914

Matrix: Soil Unit: ppm (mg/kg) Method: 6020A/7471B

ANALYTE	SAMPLE RL	REAGENT BLANK BLKS171220-01
Aluminum	5.00	ND
Antimony	0.500	ND
Arsenic	0.500	ND
Barium	0.500	ND
Beryllium	0.500	ND
Cadmium	0.500	ND
Calcium	50.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	0.500	ND
Mercury	0.025	ND
Nickel	0.500	ND
Potassium	50.0	ND
Selenium	0.500	ND
Silver	0.500	ND
Sodium	50.0	ND
Thallium	0.500	ND
Vanadium	0.500	ND
Zinc	0.500	ND

Associated Sample for Blank 1:
10558-002; 10862-001~015; 10914-004,006,008,010

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AGSI
Address: 5 MARINE VIEW Plaza, Hoboken, NJ
Telephone #: (201) 876-9400
Fax #:
Project Manager: Scamus Kelly
EMAIL Address: skelly@sohtionsenvironmental.com
Project Name: 27-10 49th
Project Location (State): NJ
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: SD

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☒ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☒ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 24 hrs for VOCs
Hard Copy: Std 3 week Other - call for price

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☒ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015
TAT for PHC (if other than 2 weeks):

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	SVOCs	PCBs	TAL metals	Pesticides					Sample Specific Notes:
SB-31S	2-2.5	12/18/17	1205	S	2	1	X	X	X	X	X					
SB-31D	8-8.5		1205			2	X	X	X	X	X					
SB-32S	2-2.5		1230			3	X	X	X	X	X					
SB-32D	8-8.5		1230			4	X	X	X	X	X					
SB-32D1	12-12.5		1230			5	X	X	X	X	X					
SB-33S	2-2.5		1300			6	X	X	X	X	X					
SB-33D	8-8.5		1300			7	X	X	X	X	X					
SB-34S	2-2.5		1330			8	X	X	X	X	X					
Known Hazard: YES / NO																
Describe:	Preservative Code:	Container Code:	Preservative (use code)				4	1	1	1	1					
			Container Type (use code)				P	D	D	D	D					

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 10867
Cooler Temp: 4 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	12/19/17	7:40Am	Fed Ex/IAL	12-19-17	07:40

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 1 of 2

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AGST
Address: 5 MARINE VIEW PLAZA
HOBOKEN, NJ
Telephone #: (201) 876-9400
Fax #:
Project Manager: SEANS KELLY
EMAIL Address: skelly@solutionsenvironmental.com
Project Name: 29-10 44TH
Project Location (State): NY
Bottle Order #:
☑ "Report to"/"Invoice To" same as above
Sampled by: SP

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn:
FAX #
INVOICE TO:
Address:
Attn:
PO #
Quote #

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

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NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☑ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 24 hrs for VOCs
Hard Copy: Std 3 week Other - call for price

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☑ Part 375-6.8(a) - Unrestricted
☐ Ecological	☑ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2 ☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	SVOCs	PCBs	TAL Metals	Pesticides					Sample Specific Notes:
SB-34D	8-8.5	12/6/17	1320	S	2	9	X	X	X	X	X					
SB-35S	2-2.5		1400			10	X	X	X	X	X					
SB-35D	8-8.5		1400			11	X	X	X	X	X					
SB-36S	2-2.5		1430			12	X	X	X	X	X					
SB-36D	8-8.5		1430			13	X	X	X	X	X					
SB-37S	2-2.5		1370			14	X	X	X	X	X					
SB-37D	8-8.5		1330			15	X	X	X	X	X					
Preservative (use code)							4	1	1	1	1					
Container Type (use code)							J	D	b	D	D					

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
[signature]	12-19-17	7:40AM	[signature] / IAL	12.19.17	07:40

FOR LAB USE ONLY
SDG #: 10862
Cooler Temp: 4 °C

PAGE: 2 of 2

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

#17-10862 Page 2 of 2

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10862: 27-10 49TH

To: Seamus Kelly
Atlantic Environmental Solutions, Inc.
Fax: 201-876-9563
EMail: skelly@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Seamus Kelly

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Category A		Dec 19, 2017 @ 07:40	NA	Dec 20, 2017	Jan 11, 2018 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

**** QC Requirement (must meet):** NY Part 375-6.8(UUSCO+RUSCO)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10862-001	SB-31S	2/2.5	12/18/17@12:05	Soil	mg/Kg (ppm)	
10862-002	SB-31D	8/8.5	12/18/17@12:05	Soil	mg/Kg (ppm)	
10862-003	SB-32S	2/2.5	12/18/17@12:30	Soil	mg/Kg (ppm)	
10862-004	SB-32D	8/8.5	12/18/17@12:30	Soil	mg/Kg (ppm)	
10862-005	SB-32D1	12/12.5	12/18/17@12:30	Soil	mg/Kg (ppm)	
10862-006	SB-33S	2/2.5	12/18/17@13:00	Soil	mg/Kg (ppm)	
10862-007	SB-33D	8/8.5	12/18/17@13:00	Soil	mg/Kg (ppm)	
10862-008	SB-34S	2/2.5	12/18/17@13:30	Soil	mg/Kg (ppm)	
10862-009	SB-34D	8/8.5	12/18/17@13:30	Soil	mg/Kg (ppm)	
10862-010	SB-35S	2/2.5	12/18/17@14:00	Soil	mg/Kg (ppm)	
10862-011	SB-35D	8/8.5	12/18/17@14:00	Soil	mg/Kg (ppm)	
10862-012	SB-36S	2/2.5	12/18/17@14:30	Soil	mg/Kg (ppm)	
10862-013	SB-36D	8/8.5	12/18/17@14:30	Soil	mg/Kg (ppm)	
10862-014	SB-37S	2/2.5	12/18/17@13:30	Soil	mg/Kg (ppm)	
10862-015	SB-37D	8/8.5	12/18/17@13:30	Soil	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
002	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018

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IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10862: 27-10 49TH

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
002	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
003	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
004	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
005	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
006	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
007	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
008	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
009	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
010	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
011	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018

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Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10862: 27-10 49TH

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
011	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
012	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
013	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
014	TCL VO + 15	Analyze	8260C	6 Business Days	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018
015	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/1/2018
	TCL BN + 15	Analyze	8270D	6 Business Days	1/1/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/18/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/1/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/15/2018

Project Notes:

NOTE 1 taken by kfalconer on 12/19/2017 12:55

COC REQUESTS 24HR TAT ON VOC, BEST AVAILABLE IS 48 HR TAT PER DISCUSSION BETWEEN KIM JAMES & SEAMUS KELLY

ALL OTHER PARAMETERS 6 DAY TAT DUE 12/28

REV 1 taken by kim on 12/19/2017 02:17

REV 01 DUE 12/20

PER SEAMUS KELLY, 24 HOUR RUSH ON SAMPLES 002, 004, 005, 007, 009, 011, 013, 015 ONLY.

VO ON ALL OTHER SAMPLES, ALL 6 DAY RUSH DUE 12/28

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **10862** CLIENT: AESI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
X = NO

VOA received: ☐ Encore ☐ IGW - Methanol
(check one) ☒ Terra Core ☐ No Preservative

- ✓ Bottles Intact
- ✓ no-Missing Bottles
- ✓ no-Extra Bottles
- ✓ Sufficient Sample Volume
- ✓ no-headspace/bubbles in VOs
- ✓ Labels intact/correct
- ✓ pH Check (exclude VOs)[1]
- ✓ Correct bottles/preservative
- ✓ Sufficient Holding/Prep Time[1]
- ☐ Multiphasic Sample
- ☐ Sample to be Subcontracted
- ✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: No 11 SB-35D one H2O vial leak -

SAMPLE(S) VERIFIED BY: INITIAL [initials] DATE 12/19/17

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☒

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [initials] DATE 12/19/17

Laboratory Custody Chronicle

IAL Case No.
E17-10862

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH

Received On 12/19/2017@07:40

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL VO + 15	10862-001	Soil	n/a	n/a	12/19/17	Xing
"	-002	"	n/a	n/a	12/19/17	Xing
"	-003	"	n/a	n/a	12/19/17	Xing
"	-004	"	n/a	n/a	12/19/17	Xing
"	-005	"	n/a	n/a	12/19/17	Xing
"	-006	"	n/a	n/a	12/19/17	Xing
"	-007	"	n/a	n/a	12/19/17	Xing
"	-008	"	n/a	n/a	12/19/17	Xing
"	-009	"	n/a	n/a	12/19/17	Xing
"	-010	"	n/a	n/a	12/19/17	Xing
"	-011	"	n/a	n/a	12/19/17	Xing
"	-012	"	n/a	n/a	12/19/17	Xing
"	-013	"	n/a	n/a	12/19/17	Xing
"	-014	"	n/a	n/a	12/19/17	Mei
"	-015	"	n/a	n/a	12/19/17	Mei

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BN + 15	-001	Soil	12/19/17	Frank L.	12/20/17	Eleanor
"	-002	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-003	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-004	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-005	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-006	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-007	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-008	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-009	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-010	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-011	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-012	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-013	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-014	"	12/19/17	Frank L.	12/20/17	Eleanor
"	-015	"	12/19/17	Frank L.	12/20/17	Eleanor

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
TCL PCB	-001	Soil	12/19/17	Archimede	12/21/17	Iwona
"	-002	"	12/19/17	Archimede	12/21/17	Iwona
"	-003	"	12/19/17	Archimede	12/21/17	Iwona
"	-004	"	12/19/17	Archimede	12/21/17	Iwona
"	-005	"	12/19/17	Archimede	12/21/17	Iwona
"	-006	"	12/19/17	Archimede	12/21/17	Iwona
"	-007	"	12/19/17	Archimede	12/21/17	Iwona
"	-008	"	12/19/17	Archimede	12/21/17	Iwona
"	-009	"	12/19/17	Archimede	12/21/17	Iwona

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

Laboratory Custody Chronicle

IAL Case No. E17-10862

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH

Received On 12/19/2017@07:40

"	-010	"	12/19/17	Archimede	12/21/17	Iwona
"	-011	"	12/19/17	Archimede	12/21/17	Iwona
"	-012	"	12/19/17	Archimede	12/21/17	Iwona
"	-013	"	12/19/17	Archimede	12/21/17	Iwona
"	-014	"	12/19/17	Archimede	12/21/17	Iwona
"	-015	"	12/19/17	Archimede	12/21/17	Iwona
TCL Pesticides	-001	Soil	12/19/17	Archimede	12/21/17	Iwona
"	-002	"	12/19/17	Archimede	12/21/17	Iwona
"	-003	"	12/19/17	Archimede	12/21/17	Iwona
"	-004	"	12/19/17	Archimede	12/21/17	Iwona
"	-005	"	12/19/17	Archimede	12/21/17	Iwona
"	-006	"	12/19/17	Archimede	12/21/17	Iwona
"	-007	"	12/19/17	Archimede	12/21/17	Iwona
"	-008	"	12/19/17	Archimede	12/21/17	Iwona
"	-009	"	12/19/17	Archimede	12/21/17	Iwona
"	-010	"	12/19/17	Archimede	12/21/17	Iwona
"	-011	"	12/19/17	Archimede	12/21/17	Iwona
"	-012	"	12/19/17	Archimede	12/21/17	Iwona
"	-013	"	12/19/17	Archimede	12/21/17	Iwona
"	-014	"	12/19/17	Archimede	12/21/17	Iwona
"	-015	"	12/19/17	Archimede	12/21/17	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-001	Soil	12/20/17	Frank R.	12/20/17	Danielle
"	-002	"	12/20/17	Frank R.	12/20/17	Danielle
"	-003	"	12/20/17	Frank R.	12/20/17	Danielle
"	-004	"	12/20/17	Frank R.	12/20/17	Danielle
"	-005	"	12/20/17	Frank R.	12/20/17	Danielle
"	-006	"	12/20/17	Frank R.	12/20/17	Danielle
"	-007	"	12/20/17	Frank R.	12/20/17	Danielle
"	-008	"	12/20/17	Frank R.	12/20/17	Danielle
"	-009	"	12/20/17	Frank R.	12/20/17	Danielle
"	-010	"	12/20/17	Frank R.	12/20/17	Danielle
"	-011	"	12/20/17	Frank R.	12/20/17	Danielle
"	-012	"	12/20/17	Frank R.	12/20/17	Danielle
"	-013	"	12/20/17	Frank R.	12/20/17	Danielle
"	-014	"	12/20/17	Frank R.	12/20/17	Danielle
"	-015	"	12/20/17	Frank R.	12/20/17	Danielle

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

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LAST PAGE OF DOCUMENT

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVENUE**
IAL Case Number: **E17-10966**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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Sample Summary

IAL Case No.

E17-10966

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVENUE

Received On 12/20/2017@19:00

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
10966-001	SB-38(S)	n/a	12/20/2017@09:40	Soil	
10966-002	SB-38(D)	n/a	12/20/2017@09:45	Soil	
10966-003	SB-39(S)	n/a	12/20/2017@10:00	Soil	
10966-004	SB-39(D)	n/a	12/20/2017@10:05	Soil	
10966-005	SB-40(S)	n/a	12/20/2017@10:30	Soil	
10966-006	SB-40(D)	n/a	12/20/2017@10:35	Soil	
10966-007	SB-38	n/a	12/20/2017@11:00	Aqueous	
10966-008	SB-39	n/a	12/20/2017@11:40	Aqueous	

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Integrated Analytical Laboratories, LLC. received eight (8) samples** from Atlantic Environmental Solutions, Inc. (IAL SDG# **E17-10966**, Project: 27-10 49TH AVENUE) on December 20, 2017 for the analysis of :

(8) TCL VO + 15
(6) TCL PCB
(6) TCL Pesticides
(6) TAL Metals

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C | **Batch: 171221** | **Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-10966
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-007	1	NA
E17-10966-008	1	NA

Volatiles By 8260C | **Batch: F171221-01** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E17-10966
- All samples were analyzed within holding time.
- 10966-002 and 006 were flagged with a C qualifier, indicating laboratory contamination for Methylene chloride. Methylene chloride is used as a solvent in the laboratory, resulting in occasional laboratory contamination.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-002	1	NA
E17-10966-004	1	NA
E17-10966-006	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Volatiles By 8260C | **Batch: J171222-01** | **Matrix: MEOH**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E17-10966
- All samples were analyzed within holding time.
- Samples listed below were run using methanol preserved sample, as applicable. This sample preservation technique elevates RLs and MDLs 100x versus water preservation. If subsequent dilutions are performed, the RLs and MDLs will increase by that factor (e.g. a methanol sample run at a 5x dilution would elevate RLs and MDLs by 500x). Initial runs using methanol are considered "straight" runs and have a dilution factor of 1.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-001	1	NA
E17-10966-003	1	NA
E17-10966-005	1	NA

PCB By 8082A | **Batch: 171221-01** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 002, 004, 006.

E17-10966
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-002	1	NA
E17-10966-004	3	Matrix Interference.
E17-10966-006	3	Matrix Interference.

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

PCB By 8082A | **Batch: 171222-03** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 003, 005.

E17-10966
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-001	1	NA
E17-10966-003	1	NA
E17-10966-005	1	NA

Pesticides By 8081B | **Batch: 171221-01** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 002, 004, 006.

E17-10966
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-002	1	NA
E17-10966-004	1	NA
E17-10966-006	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Pesticides By 8081B | **Batch: 171222-03** | **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 003, 005.

E17-10966
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-001	1	NA
E17-10966-003	1	NA
E17-10966-005	1	NA

Metals By 6020A/7471B | **Batch: S171221-01** | **Matrix: Soil**

QC
- Calibration Curve Linearity met QC criteria.
- Internal Standard Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS Percent Recovery met QC criteria.
- RPD between Sample/Duplicate met QC criteria.
- Serial Dilution / Post Spike results met QC criteria.

E17-10966
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-001	1	NA
E17-10966-002	1	NA
E17-10966-003	1	NA
E17-10966-004	1	NA
E17-10966-005	1	NA
E17-10966-006	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/2/2018
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

	Lab ID:	10966-007			10966-008		
	Client ID:	SB-38			SB-39		
	Matrix:	Aqueous			Aqueous		
	Sampled Date	12/20/17			12/20/17		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L)*			*(ug/L)*		
Chloromethane		1.32		0.463	1.20		0.463
Methyl tert-butyl ether (MTBE)		0.874		0.479	8.77		0.479
Trichloroethene		ND		0.493	0.944		0.493
Tetrachloroethene		3.88		0.451	1.56		0.451
Cyclohexane		2.91		0.411	ND		0.411
Methylcyclohexane		2.89		0.411	ND		0.411
TOTAL VO's:		11.9			12.5		
TOTAL TIC's:		27.5	J		ND		
TOTAL VO's & TIC's:		39.4	J		12.5		

	Lab ID:	10966-001			10966-002			10966-003			10966-004		
	Client ID:	SB-38(S)			SB-38(D)			SB-39(S)			SB-39(D)		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/20/17			12/20/17			12/20/17			12/20/17		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Acetone		ND		0.280	0.015		0.000862	ND		0.197	ND		0.00117
Carbon disulfide		ND		0.098	0.00134		0.000273	ND		0.069	ND		0.000369
Methylene chloride		ND		0.209	0.00471	C	0.00175	ND		0.146	ND		0.00237
Trichloroethene		ND		0.104	ND		0.000246	0.216		0.073	0.00272		0.000333
Tetrachloroethene		1.82		0.095	ND		0.000225	2.95		0.067	0.00337		0.000305
Methyl acetate		0.478		0.102	0.00161		0.000411	ND		0.072	ND		0.000556
Cyclohexane		0.290		0.087	ND		0.00016	ND		0.061	ND		0.000217
TOTAL VO's:		2.59			0.023	C		3.17			0.00609		
TOTAL TIC's:		ND			ND			ND			ND		
TOTAL VO's & TIC's:		2.59			0.023	C		3.17			0.00609		
PCB's (Units)		*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1221		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1232		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1242		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1248		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1254		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1260		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1262		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
Aroclor-1268		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026
PCBs		ND		0.00842	ND		0.00868	ND		0.00863	ND		0.026

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
C = Common Laboratory and/or Bottle Contaminant.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

	Lab ID:	10966-001			10966-002			10966-003			10966-004		
	Client ID:	SB-38(S)			SB-38(D)			SB-39(S)			SB-39(D)		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/20/17			12/20/17			12/20/17			12/20/17		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)		*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
alpha-BHC		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
beta-BHC		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
gamma-BHC (Lindane)		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
delta-BHC		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Heptachlor		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Aldrin		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Heptachlor epoxide		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Endosulfan I		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
4,4'-DDE		0.018		0.00211	ND		0.00217	0.00994		0.00216	ND		0.00218
Dieldrin		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Endrin		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Endosulfan II		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
4,4'-DDD		0.00922		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Endrin aldehyde		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Endosulfan sulfate		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
4,4'-DDT		0.061		0.00211	ND		0.00217	0.065		0.00216	ND		0.00218
Endrin ketone		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Methoxychlor		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
alpha-Chlordane		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
gamma-Chlordane		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Toxaphene		ND		0.025	ND		0.026	ND		0.026	ND		0.026
Endosulfan (I and II)		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Chlordane (alpha and gamma)		ND		0.00211	ND		0.00217	ND		0.00216	ND		0.00218
Metals (Units)		*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aluminum		8330		1.17	9270		1.15	7940		1.17	11400		1.22
Antimony		0.868		0.234	ND		0.230	3.32		0.233	1.44		0.244
Arsenic		8.81		0.351	1.35		0.345	16.2		0.350	7.60		0.366
Barium		1310		0.293	67.6		0.288	865		0.292	244		0.305
Beryllium		0.585	J	0.293	0.945		0.288	5.72		0.292	0.572	J	0.305
Cadmium		0.829		0.351	ND		0.345	1.65		0.350	0.942		0.366
Calcium		58300		11.7	11400		11.5	28100		11.7	16500		12.2
Chromium		29.7		0.410	23.0		0.403	88.0		0.408	99.9		0.426
Cobalt		6.96		0.176	12.1		0.173	13.8		0.175	7.90		0.183
Copper		56.4		0.234	21.1		0.230	192		0.233	41.5		0.244
Iron		16500		5.85	22600		5.75	36600		5.83	20000		6.09
Lead		613		0.176	9.22		0.173	1950		0.175	723		0.183
Magnesium		11300		5.85	6600		5.75	3840		5.83	2920		6.09
Manganese		260		0.293	575		0.288	352		0.292	276		0.305
Mercury		0.477		0.010	0.055		0.012	1.17		0.0095	0.464		0.011
Nickel		17.7		0.293	19.0		0.288	34.7		0.292	18.7		0.305
Potassium		2610		23.4	2670		23.0	1550		23.3	1420		24.4
Selenium		1.09		0.234	2.39		0.230	1.65		0.233	1.42		0.244

ND = Analyzed for but Not Detected at the MDL
Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

Lab ID:	10966-001			10966-002			10966-003			10966-004		
Client ID:	SB-38(S)			SB-38(D)			SB-39(S)			SB-39(D)		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	12/20/17			12/20/17			12/20/17			12/20/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Silver	ND		0.234	ND		0.230	0.583	J	0.233	0.312	J	0.244
Sodium	631		11.7	197		11.5	389		11.7	819		12.2
Thallium	0.309	J	0.234	0.255	J	0.230	0.253	J	0.233	ND		0.244
Vanadium	23.8		0.293	33.6		0.288	34.2		0.292	28.6		0.305
Zinc	927		0.351	66.3		0.345	1420		0.350	396		0.366

Lab ID:	10966-005			10966-006		
Client ID:	SB-40(S)			SB-40(D)		
Matrix:	Soil			Soil		
Sampled Date	12/20/17			12/20/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg)*			*(mg/Kg)*		
Methylene chloride	ND		0.115	0.00878	C	0.0032
Trichloroethene	ND		0.057	0.000586	J	0.000451
Toluene	ND		0.044	0.000794	J	0.00052
Tetrachloroethene	1.55		0.052	0.011		0.000412
TOTAL VO's:	1.55			0.021	CJ	
TOTAL TIC's:	ND			ND		
TOTAL VO's & TIC's:	1.55			0.021	CJ	
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.00859	ND		0.027
Aroclor-1221	ND		0.00859	ND		0.027
Aroclor-1232	ND		0.00859	ND		0.027
Aroclor-1242	ND		0.00859	ND		0.027
Aroclor-1248	ND		0.00859	ND		0.027
Aroclor-1254	ND		0.00859	ND		0.027
Aroclor-1260	ND		0.00859	ND		0.027
Aroclor-1262	ND		0.00859	ND		0.027
Aroclor-1268	ND		0.00859	ND		0.027
PCBs	ND		0.00859	ND		0.027

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
C = Common Laboratory and/or Bottle Contaminant.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

	Lab ID:	10966-005		10966-006	
	Client ID:	SB-40(S)		SB-40(D)	
	Matrix:	Soil		Soil	
	Sampled Date	12/20/17		12/20/17	
PARAMETER(Units)		Conc Q	MDL	Conc Q	MDL
Pesticides (Units)		*(mg/Kg)*		*(mg/Kg)*	
alpha-BHC		ND	0.00215	ND	0.00225
beta-BHC		ND	0.00215	ND	0.00225
gamma-BHC (Lindane)		ND	0.00215	ND	0.00225
delta-BHC		ND	0.00215	ND	0.00225
Heptachlor		ND	0.00215	ND	0.00225
Aldrin		ND	0.00215	ND	0.00225
Heptachlor epoxide		ND	0.00215	ND	0.00225
Endosulfan I		ND	0.00215	ND	0.00225
4,4'-DDE		0.00694	0.00215	ND	0.00225
Dieldrin		ND	0.00215	ND	0.00225
Endrin		ND	0.00215	ND	0.00225
Endosulfan II		ND	0.00215	ND	0.00225
4,4'-DDD		ND	0.00215	ND	0.00225
Endrin aldehyde		ND	0.00215	ND	0.00225
Endosulfan sulfate		ND	0.00215	ND	0.00225
4,4'-DDT		0.046	0.00215	ND	0.00225
Endrin ketone		ND	0.00215	ND	0.00225
Methoxychlor		ND	0.00215	ND	0.00225
alpha-Chlordane		ND	0.00215	ND	0.00225
gamma-Chlordane		ND	0.00215	ND	0.00225
Toxaphene		ND	0.026	ND	0.027
Endosulfan (I and II)		ND	0.00215	ND	0.00225
Chlordane (alpha and gamma)		ND	0.00215	ND	0.00225

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

	Lab ID:	10966-005			10966-006		
	Client ID:	SB-40(S)			SB-40(D)		
	Matrix:	Soil			Soil		
	Sampled Date	12/20/17			12/20/17		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
Metals (Units)		*(mg/Kg)*			*(mg/Kg)*		
Aluminum		8670		1.20	8700		1.21
Antimony		138		0.239	2.28		0.243
Arsenic		9.22		0.359	9.69		0.364
Barium		567		0.299	86.0		0.303
Beryllium		0.998		0.299	0.459	J	0.303
Cadmium		0.971		0.359	1.44		0.364
Calcium		24300		12.0	9980		12.1
Chromium		28.8		0.419	15.3		0.425
Cobalt		10.9		0.179	7.02		0.182
Copper		111		0.239	96.7		0.243
Iron		20900		5.98	15400		6.07
Lead		3850		0.179	195		0.182
Magnesium		3740		5.98	3720		6.07
Manganese		278		0.299	200		0.303
Mercury		0.692		0.011	0.169		0.0098
Nickel		26.8		0.299	26.2		0.303
Potassium		2550		23.9	1450		24.3
Selenium		1.10		0.239	0.927		0.243
Silver		1.07		0.239	ND		0.243
Sodium		406		12.0	436		12.1
Thallium		0.240	J	0.239	0.296	J	0.243
Vanadium		30.3		0.299	22.7		0.303
Zinc		1100		0.359	297		0.364

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-001
Client ID: SB-38(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Data file: J2457.D 12/22/17 15:53

GC/MS Column: DB-624
Sample wt/vol: 0.026g
Matrix-Units: Soil-mg/Kg
% Moisture: 8.80
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.211	0.140
Chloromethane	ND		0.105	0.098
Vinyl chloride	ND		0.211	0.125
Bromomethane	ND		0.211	0.115
Chloroethane	ND		0.105	0.104
Trichlorofluoromethane	ND		0.105	0.091
1,1-Dichloroethene	ND		0.105	0.104
Acetone	ND		0.422	0.280
Carbon disulfide	ND		0.105	0.098
Methylene chloride	ND		0.211	0.209
trans-1,2-Dichloroethene	ND		0.105	0.096
Methyl tert-butyl ether (MTBE)	ND		0.105	0.101
1,1-Dichloroethane	ND		0.105	0.104
cis-1,2-Dichloroethene	ND		0.105	0.095
2-Butanone (MEK)	ND		0.422	0.350
Bromochloromethane	ND		0.211	0.126
Chloroform	ND		0.105	0.099
1,1,1-Trichloroethane	ND		0.105	0.097
Carbon tetrachloride	ND		0.211	0.095
1,2-Dichloroethane (EDC)	ND		0.105	0.097
Benzene	ND		0.105	0.098
Trichloroethene	ND		0.105	0.104
1,2-Dichloropropane	ND		0.105	0.094
1,4-Dioxane	ND		21.1	20.7
Bromodichloromethane	ND		0.105	0.074
cis-1,3-Dichloropropene	ND		0.105	0.070
4-Methyl-2-pentanone (MIBK)	ND		0.422	0.147

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-001
Client ID: SB-38(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Data file: J2457.D 12/22/17 15:53

GC/MS Column: DB-624
Sample wt/vol: 0.026g
Matrix-Units: Soil-mg/Kg
% Moisture: 8.80
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.105	0.080
trans-1,3-Dichloropropene	ND		0.105	0.068
1,1,2-Trichloroethane	ND		0.105	0.100
Tetrachloroethene	1.82		0.105	0.095
2-Hexanone	ND		0.422	0.160
Dibromochloromethane	ND		0.105	0.093
1,2-Dibromoethane (EDB)	ND		0.105	0.085
Chlorobenzene	ND		0.105	0.079
Ethylbenzene	ND		0.105	0.073
Total Xylenes	ND		0.211	0.195
Styrene	ND		0.105	0.061
Bromoform	ND		0.105	0.094
Isopropylbenzene	ND		0.105	0.068
1,1,2,2-Tetrachloroethane	ND		0.105	0.097
1,3-Dichlorobenzene	ND		0.105	0.074
1,4-Dichlorobenzene	ND		0.105	0.072
1,2-Dichlorobenzene	ND		0.105	0.077
1,2-Dibromo-3-chloropropane	ND		0.211	0.112
1,2,4-Trichlorobenzene	ND		0.211	0.064
1,2,3-Trichlorobenzene	ND		0.211	0.072
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.211	0.119
Methyl acetate	0.478		0.105	0.102
Cyclohexane	0.290		0.211	0.087
Methylcyclohexane	ND		0.105	0.087
1,3-Dichloropropene (cis- and trans-)	ND		0.105	0.070
Total Target Compounds (52):	2.59			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-001
Client ID: SB-38(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Date File: J2457.D

GC/MS Column: DB-624
Sample wt/vol: 0.026g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 8.80

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-002
Client ID: SB-38(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: F2679.D 12/21/17 17:40

GC/MS Column: DB-624
Sample wt/vol: 6.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00088	0.000207
Chloromethane	ND		0.00088	0.000163
Vinyl chloride	ND		0.00088	0.000163
Bromomethane	ND		0.00088	0.000262
Chloroethane	ND		0.00088	0.000233
Trichlorofluoromethane	ND		0.00088	0.000165
1,1-Dichloroethene	ND		0.00088	0.000332
Acetone	0.015		0.0088	0.000862
Carbon disulfide	0.00134		0.00088	0.000273
Methylene chloride	0.00471	C	0.00176	0.00175
trans-1,2-Dichloroethene	ND		0.00088	0.000255
Methyl tert-butyl ether (MTBE)	ND		0.00088	0.00017
1,1-Dichloroethane	ND		0.00088	0.000171
cis-1,2-Dichloroethene	ND		0.00088	0.000187
2-Butanone (MEK)	ND		0.00176	0.000433
Bromochloromethane	ND		0.00088	0.000245
Chloroform	ND		0.00088	0.000185
1,1,1-Trichloroethane	ND		0.00088	0.000208
Carbon tetrachloride	ND		0.00088	0.000142
1,2-Dichloroethane (EDC)	ND		0.00088	0.000232
Benzene	ND		0.00088	0.00023
Trichloroethene	ND		0.00088	0.000246
1,2-Dichloropropane	ND		0.00088	0.000149
1,4-Dioxane	ND		0.176	0.032
Bromodichloromethane	ND		0.00088	0.000205
cis-1,3-Dichloropropene	ND		0.00088	0.00018
4-Methyl-2-pentanone (MIBK)	ND		0.00176	0.00051

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-002
Client ID: SB-38(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: F2679.D 12/21/17 17:40

GC/MS Column: DB-624
Sample wt/vol: 6.5g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00088	0.000284
trans-1,3-Dichloropropene	ND		0.00088	0.000203
1,1,2-Trichloroethane	ND		0.00088	0.000238
Tetrachloroethene	ND		0.00088	0.000225
2-Hexanone	ND		0.00176	0.000916
Dibromochloromethane	ND		0.00088	0.000165
1,2-Dibromoethane (EDB)	ND		0.00088	0.000156
Chlorobenzene	ND		0.00088	0.000198
Ethylbenzene	ND		0.00088	0.000215
Total Xylenes	ND		0.00176	0.000381
Styrene	ND		0.00088	0.000181
Bromoform	ND		0.00088	0.000253
Isopropylbenzene	ND		0.00088	0.000174
1,1,2,2-Tetrachloroethane	ND		0.00088	0.000237
1,3-Dichlorobenzene	ND		0.00088	0.00017
1,4-Dichlorobenzene	ND		0.00088	0.00015
1,2-Dichlorobenzene	ND		0.00088	0.000152
1,2-Dibromo-3-chloropropane	ND		0.00088	0.000238
1,2,4-Trichlorobenzene	ND		0.00088	0.000387
1,2,3-Trichlorobenzene	ND		0.00088	0.000423
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00088	0.000319
Methyl acetate	0.00161		0.00088	0.000411
Cyclohexane	ND		0.00088	0.00016
Methylcyclohexane	ND		0.00088	0.000183
1,3-Dichloropropene (cis- and trans-)	ND		0.00088	0.000203
Total Target Compounds (52):	0.023	C		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-002
Client ID: SB-38(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Date File: F2679.D

GC/MS Column: DB-624
Sample wt/vol: 6.5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 12.8

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-003
Client ID: SB-39(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Data file: J2458.D 12/22/17 16:19

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.148	0.098
Chloromethane	ND		0.074	0.068
Vinyl chloride	ND		0.148	0.087
Bromomethane	ND		0.148	0.080
Chloroethane	ND		0.074	0.073
Trichlorofluoromethane	ND		0.074	0.064
1,1-Dichloroethene	ND		0.074	0.073
Acetone	ND		0.296	0.197
Carbon disulfide	ND		0.074	0.069
Methylene chloride	ND		0.148	0.146
trans-1,2-Dichloroethene	ND		0.074	0.067
Methyl tert-butyl ether (MTBE)	ND		0.074	0.071
1,1-Dichloroethane	ND		0.074	0.073
cis-1,2-Dichloroethene	ND		0.074	0.067
2-Butanone (MEK)	ND		0.296	0.246
Bromochloromethane	ND		0.148	0.088
Chloroform	ND		0.074	0.069
1,1,1-Trichloroethane	ND		0.074	0.068
Carbon tetrachloride	ND		0.148	0.066
1,2-Dichloroethane (EDC)	ND		0.074	0.068
Benzene	ND		0.074	0.069
Trichloroethene	0.216		0.074	0.073
1,2-Dichloropropane	ND		0.074	0.066
1,4-Dioxane	ND		14.8	14.5
Bromodichloromethane	ND		0.074	0.052
cis-1,3-Dichloropropene	ND		0.074	0.049
4-Methyl-2-pentanone (MIBK)	ND		0.296	0.103

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-003
Client ID: SB-39(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Data file: J2458.D 12/22/17 16:19

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.074	0.056
trans-1,3-Dichloropropene	ND		0.074	0.048
1,1,2-Trichloroethane	ND		0.074	0.070
Tetrachloroethene	2.95		0.074	0.067
2-Hexanone	ND		0.296	0.113
Dibromochloromethane	ND		0.074	0.065
1,2-Dibromoethane (EDB)	ND		0.074	0.059
Chlorobenzene	ND		0.074	0.056
Ethylbenzene	ND		0.074	0.051
Total Xylenes	ND		0.148	0.136
Styrene	ND		0.074	0.043
Bromoform	ND		0.074	0.066
Isopropylbenzene	ND		0.074	0.048
1,1,2,2-Tetrachloroethane	ND		0.074	0.068
1,3-Dichlorobenzene	ND		0.074	0.052
1,4-Dichlorobenzene	ND		0.074	0.050
1,2-Dichlorobenzene	ND		0.074	0.054
1,2-Dibromo-3-chloropropane	ND		0.148	0.079
1,2,4-Trichlorobenzene	ND		0.148	0.045
1,2,3-Trichlorobenzene	ND		0.148	0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.148	0.083
Methyl acetate	ND		0.074	0.072
Cyclohexane	ND		0.148	0.061
Methylcyclohexane	ND		0.074	0.061
1,3-Dichloropropene (cis- and trans-)	ND		0.074	0.049
Total Target Compounds (52):	3.17			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-003
Client ID: SB-39(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Date File: J2458.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 11.0

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-004
Client ID: SB-39(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: F2680.D 12/21/17 18:09

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00119	0.00028
Chloromethane	ND		0.00119	0.00022
Vinyl chloride	ND		0.00119	0.00022
Bromomethane	ND		0.00119	0.000355
Chloroethane	ND		0.00119	0.000315
Trichlorofluoromethane	ND		0.00119	0.000224
1,1-Dichloroethene	ND		0.00119	0.000449
Acetone	ND		0.012	0.00117
Carbon disulfide	ND		0.00119	0.000369
Methylene chloride	ND		0.00238	0.00237
trans-1,2-Dichloroethene	ND		0.00119	0.000345
Methyl tert-butyl ether (MTBE)	ND		0.00119	0.00023
1,1-Dichloroethane	ND		0.00119	0.000231
cis-1,2-Dichloroethene	ND		0.00119	0.000253
2-Butanone (MEK)	ND		0.00238	0.000585
Bromochloromethane	ND		0.00119	0.000331
Chloroform	ND		0.00119	0.00025
1,1,1-Trichloroethane	ND		0.00119	0.000281
Carbon tetrachloride	ND		0.00119	0.000192
1,2-Dichloroethane (EDC)	ND		0.00119	0.000314
Benzene	ND		0.00119	0.000311
Trichloroethene	0.00272		0.00119	0.000333
1,2-Dichloropropane	ND		0.00119	0.000201
1,4-Dioxane	ND		0.238	0.043
Bromodichloromethane	ND		0.00119	0.000277
cis-1,3-Dichloropropene	ND		0.00119	0.000244
4-Methyl-2-pentanone (MIBK)	ND		0.00238	0.000689

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-004
Client ID: SB-39(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: F2680.D 12/21/17 18:09

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00119	0.000384
trans-1,3-Dichloropropene	ND		0.00119	0.000275
1,1,2-Trichloroethane	ND		0.00119	0.000321
Tetrachloroethene	0.00337		0.00119	0.000305
2-Hexanone	ND		0.00238	0.00124
Dibromochloromethane	ND		0.00119	0.000223
1,2-Dibromoethane (EDB)	ND		0.00119	0.000211
Chlorobenzene	ND		0.00119	0.000268
Ethylbenzene	ND		0.00119	0.00029
Total Xylenes	ND		0.00238	0.000515
Styrene	ND		0.00119	0.000245
Bromoform	ND		0.00119	0.000342
Isopropylbenzene	ND		0.00119	0.000236
1,1,2,2-Tetrachloroethane	ND		0.00119	0.00032
1,3-Dichlorobenzene	ND		0.00119	0.00023
1,4-Dichlorobenzene	ND		0.00119	0.000203
1,2-Dichlorobenzene	ND		0.00119	0.000206
1,2-Dibromo-3-chloropropane	ND		0.00119	0.000321
1,2,4-Trichlorobenzene	ND		0.00119	0.000524
1,2,3-Trichlorobenzene	ND		0.00119	0.000572
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00119	0.000432
Methyl acetate	ND		0.00119	0.000556
Cyclohexane	ND		0.00119	0.000217
Methylcyclohexane	ND		0.00119	0.000248
1,3-Dichloropropene (cis- and trans-)	ND		0.00119	0.000275

Total Target Compounds (52): 0.00609

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-004
Client ID: SB-39(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Date File: F2680.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 14.0

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-005
Client ID: SB-40(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Data file: J2459.D 12/22/17 16:46

GC/MS Column: DB-624
Sample wt/vol: 0.048g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.116	0.077
Chloromethane	ND		0.058	0.054
Vinyl chloride	ND		0.116	0.069
Bromomethane	ND		0.116	0.063
Chloroethane	ND		0.058	0.057
Trichlorofluoromethane	ND		0.058	0.050
1,1-Dichloroethene	ND		0.058	0.057
Acetone	ND		0.232	0.154
Carbon disulfide	ND		0.058	0.054
Methylene chloride	ND		0.116	0.115
trans-1,2-Dichloroethene	ND		0.058	0.053
Methyl tert-butyl ether (MTBE)	ND		0.058	0.056
1,1-Dichloroethane	ND		0.058	0.057
cis-1,2-Dichloroethene	ND		0.058	0.052
2-Butanone (MEK)	ND		0.232	0.193
Bromochloromethane	ND		0.116	0.069
Chloroform	ND		0.058	0.054
1,1,1-Trichloroethane	ND		0.058	0.054
Carbon tetrachloride	ND		0.116	0.052
1,2-Dichloroethane (EDC)	ND		0.058	0.053
Benzene	ND		0.058	0.054
Trichloroethene	ND		0.058	0.057
1,2-Dichloropropane	ND		0.058	0.052
1,4-Dioxane	ND		11.6	11.4
Bromodichloromethane	ND		0.058	0.041
cis-1,3-Dichloropropene	ND		0.058	0.038
4-Methyl-2-pentanone (MIBK)	ND		0.232	0.081

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-005
Client ID: SB-40(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Data file: J2459.D 12/22/17 16:46

GC/MS Column: DB-624
Sample wt/vol: 0.048g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.058	0.044
trans-1,3-Dichloropropene	ND		0.058	0.037
1,1,2-Trichloroethane	ND		0.058	0.055
Tetrachloroethene	1.55		0.058	0.052
2-Hexanone	ND		0.232	0.088
Dibromochloromethane	ND		0.058	0.051
1,2-Dibromoethane (EDB)	ND		0.058	0.047
Chlorobenzene	ND		0.058	0.044
Ethylbenzene	ND		0.058	0.040
Total Xylenes	ND		0.116	0.107
Styrene	ND		0.058	0.034
Bromoform	ND		0.058	0.052
Isopropylbenzene	ND		0.058	0.038
1,1,2,2-Tetrachloroethane	ND		0.058	0.053
1,3-Dichlorobenzene	ND		0.058	0.041
1,4-Dichlorobenzene	ND		0.058	0.040
1,2-Dichlorobenzene	ND		0.058	0.042
1,2-Dibromo-3-chloropropane	ND		0.116	0.062
1,2,4-Trichlorobenzene	ND		0.116	0.035
1,2,3-Trichlorobenzene	ND		0.116	0.039
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.116	0.065
Methyl acetate	ND		0.058	0.056
Cyclohexane	ND		0.116	0.048
Methylcyclohexane	ND		0.058	0.048
1,3-Dichloropropene (cis- and trans-)	ND		0.058	0.038
Total Target Compounds (52):	1.55			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-005
Client ID: SB-40(S)
Date Received: 12/20/2017
Date Analyzed: 12/22/2017
Date File: J2459.D

GC/MS Column: DB-624
Sample wt/vol: 0.048g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 10.2

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-006
Client ID: SB-40(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: F2681.D 12/21/17 18:39

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00161	0.000378
Chloromethane	ND		0.00161	0.000298
Vinyl chloride	ND		0.00161	0.000298
Bromomethane	ND		0.00161	0.00048
Chloroethane	ND		0.00161	0.000427
Trichlorofluoromethane	ND		0.00161	0.000303
1,1-Dichloroethene	ND		0.00161	0.000607
Acetone	ND		0.016	0.00158
Carbon disulfide	ND		0.00161	0.000499
Methylene chloride	0.00878	C	0.00322	0.0032
trans-1,2-Dichloroethene	ND		0.00161	0.000467
Methyl tert-butyl ether (MTBE)	ND		0.00161	0.000311
1,1-Dichloroethane	ND		0.00161	0.000312
cis-1,2-Dichloroethene	ND		0.00161	0.000343
2-Butanone (MEK)	ND		0.00322	0.000792
Bromochloromethane	ND		0.00161	0.000448
Chloroform	ND		0.00161	0.000338
1,1,1-Trichloroethane	ND		0.00161	0.00038
Carbon tetrachloride	ND		0.00161	0.000259
1,2-Dichloroethane (EDC)	ND		0.00161	0.000425
Benzene	ND		0.00161	0.00042
Trichloroethene	0.000586	J	0.00161	0.000451
1,2-Dichloropropane	ND		0.00161	0.000272
1,4-Dioxane	ND		0.322	0.058
Bromodichloromethane	ND		0.00161	0.000375
cis-1,3-Dichloropropene	ND		0.00161	0.00033
4-Methyl-2-pentanone (MIBK)	ND		0.00322	0.000932

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-006
Client ID: SB-40(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: F2681.D 12/21/17 18:39

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	0.000794	J	0.00161	0.00052
trans-1,3-Dichloropropene	ND		0.00161	0.000372
1,1,2-Trichloroethane	ND		0.00161	0.000435
Tetrachloroethene	0.011		0.00161	0.000412
2-Hexanone	ND		0.00322	0.00168
Dibromochloromethane	ND		0.00161	0.000301
1,2-Dibromoethane (EDB)	ND		0.00161	0.000285
Chlorobenzene	ND		0.00161	0.000362
Ethylbenzene	ND		0.00161	0.000393
Total Xylenes	ND		0.00322	0.000697
Styrene	ND		0.00161	0.000332
Bromoform	ND		0.00161	0.000462
Isopropylbenzene	ND		0.00161	0.000319
1,1,2,2-Tetrachloroethane	ND		0.00161	0.000433
1,3-Dichlorobenzene	ND		0.00161	0.000311
1,4-Dichlorobenzene	ND		0.00161	0.000275
1,2-Dichlorobenzene	ND		0.00161	0.000279
1,2-Dibromo-3-chloropropane	ND		0.00161	0.000435
1,2,4-Trichlorobenzene	ND		0.00161	0.000708
1,2,3-Trichlorobenzene	ND		0.00161	0.000774
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00161	0.000584
Methyl acetate	ND		0.00161	0.000752
Cyclohexane	ND		0.00161	0.000293
Methylcyclohexane	ND		0.00161	0.000335
1,3-Dichloropropene (cis- and trans-)	ND		0.00161	0.000372
Total Target Compounds (52):	0.021	CJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-006
Client ID: SB-40(D)
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Date File: F2681.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: 13.5

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-007
Client ID: SB-38
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: E3750.D 12/21/17 14:47

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	1.32		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	0.874		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-007
Client ID: SB-38
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: E3750.D 12/21/17 14:47

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	3.88		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	2.91		0.500	0.411
Methylcyclohexane	2.89		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	11.9			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-007
Client ID: SB-38
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Date File: E3750.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown VOA	27.5	J	1.95

Total TICs = 27.5 J

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-008
Client ID: SB-39
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: E3751.D 12/21/17 15:17

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	1.20		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	8.77		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	0.944		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-008
Client ID: SB-39
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: E3751.D 12/21/17 15:17

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	1.56		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331
Total Target Compounds (52):	12.5			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E17-10966-008
Client ID: SB-39
Date Received: 12/20/2017
Date Analyzed: 12/21/2017
Data file: E3751.D 12/21/17 15:17

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-001
Client ID: SB-38(S)
Date Received: 12/20/2017
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: R1698.D 12/26/17 10:59

GC Column: DB-5/DB1701P
Sample wt/vol: 10.42g
Matrix-Units: Soil-mg/Kg
% Moisture: 8.80
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.021	0.00842
Aroclor-1221	ND		0.021	0.00842
Aroclor-1232	ND		0.021	0.00842
Aroclor-1242	ND		0.021	0.00842
Aroclor-1248	ND		0.021	0.00842
Aroclor-1254	ND		0.021	0.00842
Aroclor-1260	ND		0.021	0.00842
Aroclor-1262	ND		0.021	0.00842
Aroclor-1268	ND		0.021	0.00842
PCBs	ND		0.021	0.00842

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-002
Client ID: SB-38(D)
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: Y6989.D 12/22/17 11:33

GC Column: DB-5/DB1701P
Sample wt/vol: 10.57g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00868
Aroclor-1221	ND		0.022	0.00868
Aroclor-1232	ND		0.022	0.00868
Aroclor-1242	ND		0.022	0.00868
Aroclor-1248	ND		0.022	0.00868
Aroclor-1254	ND		0.022	0.00868
Aroclor-1260	ND		0.022	0.00868
Aroclor-1262	ND		0.022	0.00868
Aroclor-1268	ND		0.022	0.00868
PCBs	ND		0.022	0.00868

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-003
Client ID: SB-39(S)
Date Received: 12/20/2017
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: R1699.D 12/26/17 11:16

GC Column: DB-5/DB1701P
Sample wt/vol: 10.42g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00863
Aroclor-1221	ND		0.022	0.00863
Aroclor-1232	ND		0.022	0.00863
Aroclor-1242	ND		0.022	0.00863
Aroclor-1248	ND		0.022	0.00863
Aroclor-1254	ND		0.022	0.00863
Aroclor-1260	ND		0.022	0.00863
Aroclor-1262	ND		0.022	0.00863
Aroclor-1268	ND		0.022	0.00863
PCBs	ND		0.022	0.00863

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-004
Client ID: SB-39(D)
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: Y6990.D 12/22/17 11:50

GC Column: DB-5/DB1701P
Sample wt/vol: 10.66g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.0
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.066	0.026
Aroclor-1221	ND		0.066	0.026
Aroclor-1232	ND		0.066	0.026
Aroclor-1242	ND		0.066	0.026
Aroclor-1248	ND		0.066	0.026
Aroclor-1254	ND		0.066	0.026
Aroclor-1260	ND		0.066	0.026
Aroclor-1262	ND		0.066	0.026
Aroclor-1268	ND		0.066	0.026
PCBs	ND		0.066	0.026

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-005
Client ID: SB-40(S)
Date Received: 12/20/2017
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: R1700.D 12/26/17 11:34

GC Column: DB-5/DB1701P
Sample wt/vol: 10.37g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00859
Aroclor-1221	ND		0.022	0.00859
Aroclor-1232	ND		0.022	0.00859
Aroclor-1242	ND		0.022	0.00859
Aroclor-1248	ND		0.022	0.00859
Aroclor-1254	ND		0.022	0.00859
Aroclor-1260	ND		0.022	0.00859
Aroclor-1262	ND		0.022	0.00859
Aroclor-1268	ND		0.022	0.00859
PCBs	ND		0.022	0.00859

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-006
Client ID: SB-40(D)
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: Y6991.D 12/22/17 12:08

GC Column: DB-5/DB1701P
Sample wt/vol: 10.30g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.5
Dilution Factor: 3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.067	0.027
Aroclor-1221	ND		0.067	0.027
Aroclor-1232	ND		0.067	0.027
Aroclor-1242	ND		0.067	0.027
Aroclor-1248	ND		0.067	0.027
Aroclor-1254	ND		0.067	0.027
Aroclor-1260	ND		0.067	0.027
Aroclor-1262	ND		0.067	0.027
Aroclor-1268	ND		0.067	0.027
PCBs	ND		0.067	0.027

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10966-001
Client ID: SB-38(S)
Date Received: 12/20/2017
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: O0147.D 12/26/17 19:29

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.42g
Matrix-Units: Soil-mg/Kg
% Moisture: 8.80
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00421	0.00211
beta-BHC	ND		0.00421	0.00211
gamma-BHC (Lindane)	ND		0.00421	0.00211
delta-BHC	ND		0.00421	0.00211
Heptachlor	ND		0.00421	0.00211
Aldrin	ND		0.00421	0.00211
Heptachlor epoxide	ND		0.00421	0.00211
Endosulfan I	ND		0.00421	0.00211
4,4'-DDE	0.018		0.00421	0.00211
Dieldrin	ND		0.00421	0.00211
Endrin	ND		0.00421	0.00211
Endosulfan II	ND		0.00421	0.00211
4,4'-DDD	0.00922		0.00421	0.00211
Endrin aldehyde	ND		0.00421	0.00211
Endosulfan sulfate	ND		0.00421	0.00211
4,4'-DDT	0.061		0.00421	0.00211
Endrin ketone	ND		0.00421	0.00211
Methoxychlor	ND		0.00421	0.00211
alpha-Chlordane	ND		0.00421	0.00211
gamma-Chlordane	ND		0.00421	0.00211
Toxaphene	ND		0.053	0.025
Endosulfan (I and II)	ND		0.00421	0.00211
Chlordane (alpha and gamma)	ND		0.00421	0.00211

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10966-002
Client ID: SB-38(D)
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: V0670.D 12/22/17 11:59

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.57g
Matrix-Units: Soil-mg/Kg
% Moisture: 12.8
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00434	0.00217
beta-BHC	ND		0.00434	0.00217
gamma-BHC (Lindane)	ND		0.00434	0.00217
delta-BHC	ND		0.00434	0.00217
Heptachlor	ND		0.00434	0.00217
Aldrin	ND		0.00434	0.00217
Heptachlor epoxide	ND		0.00434	0.00217
Endosulfan I	ND		0.00434	0.00217
4,4'-DDE	ND		0.00434	0.00217
Dieldrin	ND		0.00434	0.00217
Endrin	ND		0.00434	0.00217
Endosulfan II	ND		0.00434	0.00217
4,4'-DDD	ND		0.00434	0.00217
Endrin aldehyde	ND		0.00434	0.00217
Endosulfan sulfate	ND		0.00434	0.00217
4,4'-DDT	ND		0.00434	0.00217
Endrin ketone	ND		0.00434	0.00217
Methoxychlor	ND		0.00434	0.00217
alpha-Chlordane	ND		0.00434	0.00217
gamma-Chlordane	ND		0.00434	0.00217
Toxaphene	ND		0.054	0.026
Endosulfan (I and II)	ND		0.00434	0.00217
Chlordane (alpha and gamma)	ND		0.00434	0.00217

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10966-003
Client ID: SB-39(S)
Date Received: 12/20/2017
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: O0148.D 12/26/17 19:41

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.42g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00431	0.00216
beta-BHC	ND		0.00431	0.00216
gamma-BHC (Lindane)	ND		0.00431	0.00216
delta-BHC	ND		0.00431	0.00216
Heptachlor	ND		0.00431	0.00216
Aldrin	ND		0.00431	0.00216
Heptachlor epoxide	ND		0.00431	0.00216
Endosulfan I	ND		0.00431	0.00216
4,4'-DDE	0.00994		0.00431	0.00216
Dieldrin	ND		0.00431	0.00216
Endrin	ND		0.00431	0.00216
Endosulfan II	ND		0.00431	0.00216
4,4'-DDD	ND		0.00431	0.00216
Endrin aldehyde	ND		0.00431	0.00216
Endosulfan sulfate	ND		0.00431	0.00216
4,4'-DDT	0.065		0.00431	0.00216
Endrin ketone	ND		0.00431	0.00216
Methoxychlor	ND		0.00431	0.00216
alpha-Chlordane	ND		0.00431	0.00216
gamma-Chlordane	ND		0.00431	0.00216
Toxaphene	ND		0.054	0.026
Endosulfan (I and II)	ND		0.00431	0.00216
Chlordane (alpha and gamma)	ND		0.00431	0.00216

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10966-004
Client ID: SB-39(D)
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: V0671.D 12/22/17 12:11

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.66g
Matrix-Units: Soil-mg/Kg
% Moisture: 14.0
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00436	0.00218
beta-BHC	ND		0.00436	0.00218
gamma-BHC (Lindane)	ND		0.00436	0.00218
delta-BHC	ND		0.00436	0.00218
Heptachlor	ND		0.00436	0.00218
Aldrin	ND		0.00436	0.00218
Heptachlor epoxide	ND		0.00436	0.00218
Endosulfan I	ND		0.00436	0.00218
4,4'-DDE	ND		0.00436	0.00218
Dieldrin	ND		0.00436	0.00218
Endrin	ND		0.00436	0.00218
Endosulfan II	ND		0.00436	0.00218
4,4'-DDD	ND		0.00436	0.00218
Endrin aldehyde	ND		0.00436	0.00218
Endosulfan sulfate	ND		0.00436	0.00218
4,4'-DDT	ND		0.00436	0.00218
Endrin ketone	ND		0.00436	0.00218
Methoxychlor	ND		0.00436	0.00218
alpha-Chlordane	ND		0.00436	0.00218
gamma-Chlordane	ND		0.00436	0.00218
Toxaphene	ND		0.055	0.026
Endosulfan (I and II)	ND		0.00436	0.00218
Chlordane (alpha and gamma)	ND		0.00436	0.00218

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10966-005
Client ID: SB-40(S)
Date Received: 12/20/2017
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: O0149.D 12/26/17 19:54

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.37g
Matrix-Units: Soil-mg/Kg
% Moisture: 10.2
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.0043	0.00215
beta-BHC	ND		0.0043	0.00215
gamma-BHC (Lindane)	ND		0.0043	0.00215
delta-BHC	ND		0.0043	0.00215
Heptachlor	ND		0.0043	0.00215
Aldrin	ND		0.0043	0.00215
Heptachlor epoxide	ND		0.0043	0.00215
Endosulfan I	ND		0.0043	0.00215
4,4'-DDE	0.00694		0.0043	0.00215
Dieldrin	ND		0.0043	0.00215
Endrin	ND		0.0043	0.00215
Endosulfan II	ND		0.0043	0.00215
4,4'-DDD	ND		0.0043	0.00215
Endrin aldehyde	ND		0.0043	0.00215
Endosulfan sulfate	ND		0.0043	0.00215
4,4'-DDT	0.046		0.0043	0.00215
Endrin ketone	ND		0.0043	0.00215
Methoxychlor	ND		0.0043	0.00215
alpha-Chlordane	ND		0.0043	0.00215
gamma-Chlordane	ND		0.0043	0.00215
Toxaphene	ND		0.054	0.026
Endosulfan (I and II)	ND		0.0043	0.00215
Chlordane (alpha and gamma)	ND		0.0043	0.00215

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: E17-10966-006
Client ID: SB-40(D)
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: V0672.D 12/22/17 12:24

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.30g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00449	0.00225
beta-BHC	ND		0.00449	0.00225
gamma-BHC (Lindane)	ND		0.00449	0.00225
delta-BHC	ND		0.00449	0.00225
Heptachlor	ND		0.00449	0.00225
Aldrin	ND		0.00449	0.00225
Heptachlor epoxide	ND		0.00449	0.00225
Endosulfan I	ND		0.00449	0.00225
4,4'-DDE	ND		0.00449	0.00225
Dieldrin	ND		0.00449	0.00225
Endrin	ND		0.00449	0.00225
Endosulfan II	ND		0.00449	0.00225
4,4'-DDD	ND		0.00449	0.00225
Endrin aldehyde	ND		0.00449	0.00225
Endosulfan sulfate	ND		0.00449	0.00225
4,4'-DDT	ND		0.00449	0.00225
Endrin ketone	ND		0.00449	0.00225
Methoxychlor	ND		0.00449	0.00225
alpha-Chlordane	ND		0.00449	0.00225
gamma-Chlordane	ND		0.00449	0.00225
Toxaphene	ND		0.056	0.027
Endosulfan (I and II)	ND		0.00449	0.00225
Chlordane (alpha and gamma)	ND		0.00449	0.00225

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-001
Client ID: SB-38(S)
Date Collected: 12/20/17 09:40
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 8.80
Batch #: 722

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8330		1	5.85	1.17	12/22/17 00:24	6020A
Antimony	0.868		1	0.585	0.234	12/22/17 00:24	6020A
Arsenic	8.81		1	0.585	0.351	12/22/17 00:24	6020A
Barium	1310		1	0.585	0.293	12/22/17 00:24	6020A
Beryllium	0.585	J	1	0.585	0.293	12/22/17 00:24	6020A
Cadmium	0.829		1	0.585	0.351	12/22/17 00:24	6020A
Calcium	58300		1	58.5	11.7	12/22/17 00:24	6020A
Chromium	29.7		1	0.585	0.410	12/22/17 00:24	6020A
Cobalt	6.96		1	0.585	0.176	12/22/17 00:24	6020A
Copper	56.4		1	0.585	0.234	12/22/17 00:24	6020A
Iron	16500		1	58.5	5.85	12/22/17 00:24	6020A
Lead	613		1	0.585	0.176	12/22/17 00:24	6020A
Magnesium	11300		1	58.5	5.85	12/22/17 00:24	6020A
Manganese	260		1	0.585	0.293	12/22/17 00:24	6020A
Mercury	0.477		1	0.026	0.010	12/21/17 16:14	7471B
Nickel	17.7		1	0.585	0.293	12/22/17 00:24	6020A
Potassium	2610		1	58.5	23.4	12/22/17 00:24	6020A
Selenium	1.09		1	0.585	0.234	12/22/17 00:24	6020A
Silver	ND		1	0.585	0.234	12/22/17 00:24	6020A
Sodium	631		1	58.5	11.7	12/22/17 00:24	6020A
Thallium	0.309	J	1	0.585	0.234	12/22/17 00:24	6020A
Vanadium	23.8		1	0.585	0.293	12/22/17 00:24	6020A
Zinc	927		1	0.585	0.351	12/22/17 00:24	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-002
Client ID: SB-38(D)
Date Collected: 12/20/17 09:45
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.8
Batch #: 722

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9270		1	5.75	1.15	12/21/17 23:40	6020A
Antimony	ND		1	0.575	0.230	12/21/17 23:40	6020A
Arsenic	1.35		1	0.575	0.345	12/21/17 23:40	6020A
Barium	67.6		1	0.575	0.288	12/21/17 23:40	6020A
Beryllium	0.945		1	0.575	0.288	12/21/17 23:40	6020A
Cadmium	ND		1	0.575	0.345	12/21/17 23:40	6020A
Calcium	11400		1	57.5	11.5	12/21/17 23:40	6020A
Chromium	23.0		1	0.575	0.403	12/21/17 23:40	6020A
Cobalt	12.1		1	0.575	0.173	12/21/17 23:40	6020A
Copper	21.1		1	0.575	0.230	12/21/17 23:40	6020A
Iron	22600		1	57.5	5.75	12/21/17 23:40	6020A
Lead	9.22		1	0.575	0.173	12/21/17 23:40	6020A
Magnesium	6600		1	57.5	5.75	12/21/17 23:40	6020A
Manganese	575		1	0.575	0.288	12/21/17 23:40	6020A
Mercury	0.055		1	0.029	0.012	12/21/17 16:06	7471B
Nickel	19.0		1	0.575	0.288	12/21/17 23:40	6020A
Potassium	2670		1	57.5	23.0	12/21/17 23:40	6020A
Selenium	2.39		1	0.575	0.230	12/21/17 23:40	6020A
Silver	ND		1	0.575	0.230	12/21/17 23:40	6020A
Sodium	197		1	57.5	11.5	12/21/17 23:40	6020A
Thallium	0.255	J	1	0.575	0.230	12/21/17 23:40	6020A
Vanadium	33.6		1	0.575	0.288	12/21/17 23:40	6020A
Zinc	66.3		1	0.575	0.345	12/21/17 23:40	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-003
Client ID: SB-39(S)
Date Collected: 12/20/17 10:00
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.0
Batch #: 722

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	7940		1	5.83	1.17	12/22/17 00:40	6020A
Antimony	3.32		1	0.583	0.233	12/22/17 00:40	6020A
Arsenic	16.2		1	0.583	0.350	12/22/17 00:40	6020A
Barium	865		1	0.583	0.292	12/22/17 00:40	6020A
Beryllium	5.72		1	0.583	0.292	12/22/17 00:40	6020A
Cadmium	1.65		1	0.583	0.350	12/22/17 00:40	6020A
Calcium	28100		1	58.3	11.7	12/22/17 00:40	6020A
Chromium	88.0		1	0.583	0.408	12/22/17 00:40	6020A
Cobalt	13.8		1	0.583	0.175	12/22/17 00:40	6020A
Copper	192		1	0.583	0.233	12/22/17 00:40	6020A
Iron	36600		1	58.3	5.83	12/22/17 00:40	6020A
Lead	1950		1	0.583	0.175	12/22/17 00:40	6020A
Magnesium	3840		1	58.3	5.83	12/22/17 00:40	6020A
Manganese	352		1	0.583	0.292	12/22/17 00:40	6020A
Mercury	1.17		1	0.024	0.0095	12/21/17 16:17	7471B
Nickel	34.7		1	0.583	0.292	12/22/17 00:40	6020A
Potassium	1550		1	58.3	23.3	12/22/17 00:40	6020A
Selenium	1.65		1	0.583	0.233	12/22/17 00:40	6020A
Silver	0.583	J	1	0.583	0.233	12/22/17 00:40	6020A
Sodium	389		1	58.3	11.7	12/22/17 00:40	6020A
Thallium	0.253	J	1	0.583	0.233	12/22/17 00:40	6020A
Vanadium	34.2		1	0.583	0.292	12/22/17 00:40	6020A
Zinc	1420		1	0.583	0.350	12/22/17 00:40	6020A

J = Concentration detected at a value below the RL and above the MDL for target compounds

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-004
Client ID: SB-39(D)
Date Collected: 12/20/17 10:05
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.0
Batch #: 722

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	11400		1	6.09	1.22	12/22/17 00:45	6020A
Antimony	1.44		1	0.609	0.244	12/22/17 00:45	6020A
Arsenic	7.60		1	0.609	0.366	12/22/17 00:45	6020A
Barium	244		1	0.609	0.305	12/22/17 00:45	6020A
Beryllium	0.572	J	1	0.609	0.305	12/22/17 00:45	6020A
Cadmium	0.942		1	0.609	0.366	12/22/17 00:45	6020A
Calcium	16500		1	60.9	12.2	12/22/17 00:45	6020A
Chromium	99.9		1	0.609	0.426	12/22/17 00:45	6020A
Cobalt	7.90		1	0.609	0.183	12/22/17 00:45	6020A
Copper	41.5		1	0.609	0.244	12/22/17 00:45	6020A
Iron	20000		1	60.9	6.09	12/22/17 00:45	6020A
Lead	723		1	0.609	0.183	12/22/17 00:45	6020A
Magnesium	2920		1	60.9	6.09	12/22/17 00:45	6020A
Manganese	276		1	0.609	0.305	12/22/17 00:45	6020A
Mercury	0.464		1	0.026	0.011	12/21/17 16:20	7471B
Nickel	18.7		1	0.609	0.305	12/22/17 00:45	6020A
Potassium	1420		1	60.9	24.4	12/22/17 00:45	6020A
Selenium	1.42		1	0.609	0.244	12/22/17 00:45	6020A
Silver	0.312	J	1	0.609	0.244	12/22/17 00:45	6020A
Sodium	819		1	60.9	12.2	12/22/17 00:45	6020A
Thallium	ND		1	0.609	0.244	12/22/17 00:45	6020A
Vanadium	28.6		1	0.609	0.305	12/22/17 00:45	6020A
Zinc	396		1	0.609	0.366	12/22/17 00:45	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-005
Client ID: SB-40(S)
Date Collected: 12/20/17 10:30
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 10.2
Batch #: 722

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8670		1	5.98	1.20	12/22/17 00:51	6020A
Antimony	138		1	0.598	0.239	12/22/17 00:51	6020A
Arsenic	9.22		1	0.598	0.359	12/22/17 00:51	6020A
Barium	567		1	0.598	0.299	12/22/17 00:51	6020A
Beryllium	0.998		1	0.598	0.299	12/22/17 00:51	6020A
Cadmium	0.971		1	0.598	0.359	12/22/17 00:51	6020A
Calcium	24300		1	59.8	12.0	12/22/17 00:51	6020A
Chromium	28.8		1	0.598	0.419	12/22/17 00:51	6020A
Cobalt	10.9		1	0.598	0.179	12/22/17 00:51	6020A
Copper	111		1	0.598	0.239	12/22/17 00:51	6020A
Iron	20900		1	59.8	5.98	12/22/17 00:51	6020A
Lead	3850		1	0.598	0.179	12/22/17 00:51	6020A
Magnesium	3740		1	59.8	5.98	12/22/17 00:51	6020A
Manganese	278		1	0.598	0.299	12/22/17 00:51	6020A
Mercury	0.692		1	0.026	0.011	12/21/17 16:23	7471B
Nickel	26.8		1	0.598	0.299	12/22/17 00:51	6020A
Potassium	2550		1	59.8	23.9	12/22/17 00:51	6020A
Selenium	1.10		1	0.598	0.239	12/22/17 00:51	6020A
Silver	1.07		1	0.598	0.239	12/22/17 00:51	6020A
Sodium	406		1	59.8	12.0	12/22/17 00:51	6020A
Thallium	0.240	J	1	0.598	0.239	12/22/17 00:51	6020A
Vanadium	30.3		1	0.598	0.299	12/22/17 00:51	6020A
Zinc	1100		1	0.598	0.359	12/22/17 00:51	6020A

J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-006
Client ID: SB-40(D)
Date Collected: 12/20/17 10:35
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.5
Batch #: 722

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8700		1	6.07	1.21	12/22/17 00:56	6020A
Antimony	2.28		1	0.607	0.243	12/22/17 00:56	6020A
Arsenic	9.69		1	0.607	0.364	12/22/17 00:56	6020A
Barium	86.0		1	0.607	0.303	12/22/17 00:56	6020A
Beryllium	0.459	J	1	0.607	0.303	12/22/17 00:56	6020A
Cadmium	1.44		1	0.607	0.364	12/22/17 00:56	6020A
Calcium	9980		1	60.7	12.1	12/22/17 00:56	6020A
Chromium	15.3		1	0.607	0.425	12/22/17 00:56	6020A
Cobalt	7.02		1	0.607	0.182	12/22/17 00:56	6020A
Copper	96.7		1	0.607	0.243	12/22/17 00:56	6020A
Iron	15400		1	60.7	6.07	12/22/17 00:56	6020A
Lead	195		1	0.607	0.182	12/22/17 00:56	6020A
Magnesium	3720		1	60.7	6.07	12/22/17 00:56	6020A
Manganese	200		1	0.607	0.303	12/22/17 00:56	6020A
Mercury	0.169		1	0.025	0.0098	12/21/17 16:25	7471B
Nickel	26.2		1	0.607	0.303	12/22/17 00:56	6020A
Potassium	1450		1	60.7	24.3	12/22/17 00:56	6020A
Selenium	0.927		1	0.607	0.243	12/22/17 00:56	6020A
Silver	ND		1	0.607	0.243	12/22/17 00:56	6020A
Sodium	436		1	60.7	12.1	12/22/17 00:56	6020A
Thallium	0.296	J	1	0.607	0.243	12/22/17 00:56	6020A
Vanadium	22.7		1	0.607	0.303	12/22/17 00:56	6020A
Zinc	297		1	0.607	0.364	12/22/17 00:56	6020A

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/21/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS171221-01	SOIL	F2669.D	107	94	93
E17-10861-022	SOIL	F2670.D	94	98	91
E17-10861-023	SOIL	F2671.D	92	96	88
E17-10861-024	SOIL	F2672.D	108	98	90
E17-10861-025	SOIL	F2673.D	105	97	89
E17-10754-008	SOIL	F2674.D	97	98	91
LCSS171221-01	SOIL	F2675.D	105	102	105
E17-10861-026	SOIL	F2676.D	98	100	103
E17-10861-027	SOIL	F2677.D	97	101	103
E17-10966-002	SOIL	F2679.D	110	94	98
E17-10966-004	SOIL	F2680.D	105	97	91
E17-10966-006	SOIL	F2681.D	102	94	85
E17-10914-002	SOIL	F2682.D	107	97	91
E17-10914-005	SOIL	F2683.D	111	96	94
E17-10914-009	SOIL	F2684.D	104	97	91
E17-10914-011	SOIL	F2685.D	102	95	92
E17-10914-013	SOIL	F2686.D	108	97	92
E17-10914-015	SOIL	F2687.D	117	99	82
E17-10909-003	SOIL	F2688.D	99	98	86
E17-10909-004	SOIL	F2689.D	113	99	90
E17-10909-006	SOIL	F2690.D	103	100	91

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	55-153	36-162
SMC2 = Toluene-d8	50 ppb	70-130	56-151	46-156
SMC3 = Bromofluorobenzene	50 ppb	70-130	67-140	43-151

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

D Surrogate diluted out

M Matrix interference

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/21/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA171221	AQUEOUS	E3745.D	100	99	102
E17-10913-001	AQUEOUS	E3746.D	99	100	100
E17-10913-003	AQUEOUS	E3747.D	100	101	102
E17-10913-002	AQUEOUS	E3748.D	102	99	101
E17-10913-004	AQUEOUS	E3749.D	103	101	102
E17-10966-007	AQUEOUS	E3750.D	101	101	102
E17-10966-008	AQUEOUS	E3751.D	101	102	101
E17-10877-001	AQUEOUS	E3752.D	101	100	100
LCSA171221	AQUEOUS	E3753.D	97	101	102
E17-10966-007MS	AQUEOUS	E3754.D	94	100	100
E17-10966-007MSD	AQUEOUS	E3755.D	96	101	102
E17-10913-001DL	AQUEOUS	E3756.D	97	99	99
E17-10877-002	AQUEOUS	E3757.D	96	101	102
E17-10877-003	AQUEOUS	E3758.D	97	100	100
E17-10739-008DL	AQUEOUS	E3759.D	98	101	102
E17-10739-003DL	AQUEOUS	E3760.D	100	101	102
E17-10899-003	AQUEOUS	E3761.D	99	100	100
E17-10899-002	AQUEOUS	E3762.D	98	99	101
E17-10899-001	AQUEOUS	E3763.D	96	99	101
E17-10953-001	AQUEOUS	E3764.D	101	98	101

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/22/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKM171222-01	MEOH	J2447.D	95	96	98
E17-10905-001	MEOH	J2448.D	92	100	98
E17-10878-007DL	MEOH	J2449.D	98	99	99
E17-10878-008DL	MEOH	J2450.D	92	99	100
LCSM171222-01	MEOH	J2451.D	92	100	97
E17-10961-013MS	MEOH	J2452.D	91	99	98
E17-10961-013MSD	MEOH	J2453.D	92	99	98
E17-10961-013	MEOH	J2456.D	91	96	102
E17-10966-001	MEOH	J2457.D	92	95	98
E17-10966-003	MEOH	J2458.D	90	96	99
E17-10966-005	MEOH	J2459.D	94	95	99
E17-10873-010	MEOH	J2460.D	92	97	100
E17-10873-015	MEOH	J2461.D	92	97	99
E17-10908-005	MEOH	J2462.D	93	94	99
E17-10908-009	MEOH	J2463.D	92	96	101
E17-10908-004	MEOH	J2464.D	93	96	98
E17-10908-008	MEOH	J2465.D	95	96	98
E17-10908-001	MEOH	J2466.D	94	96	98
E17-10908-007	MEOH	J2469.D	104	99	103

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	61-147	45-162
SMC2 = Toluene-d8	50 ppb	70-130	58-143	41-150
SMC3 = Bromofluorobenzene	50 ppb	70-130	64-144	42-149

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSS171221-01
Date Received:
Date Analyzed: 12/21/2017
LCS Data file: F2675.D

GC/MS Column: DB-624
Sample wt/vol: 0
Matrix-Units: Soil-µg/Kg
% Moisture: NA
#######

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	42.7	85		67-130
Chloromethane	50.0	45.4	91		68-126
Vinyl chloride	50.0	44.9	90		71-131
Bromomethane	50.0	45.3	91		71-135
Chloroethane	50.0	44.5	89		69-131
Trichlorofluoromethane	50.0	43.4	87		71-134
Acrolein	150	130.2	87		52-142
1,1-Dichloroethene	50.0	43.8	88		73-129
Acetone	100	102.5	103		61-142
Carbon disulfide	50.0	45.0	90		72-128
Vinyl acetate	50.0	47.1	94		67-127
Methylene chloride	50.0	44.6	89		69-132
Acrylonitrile	150.0	144.8	97		71-144
tert-Butyl alcohol (TBA)	100.0	98.1	98		67-141
trans-1,2-Dichloroethene	50.0	46.3	93		68-131
Methyl tert-butyl ether (MTBE)	50.0	49.6	99		83-133
1,1-Dichloroethane	50.0	47.6	95		71-130
Diisopropyl ether (DIPE)	50.0	51.3	103		74-134
cis-1,2-Dichloroethene	50.0	47.5	95		73-132
2,2-Dichloropropane	50.0	45.6	91		71-134
2-Butanone (MEK)	100	99.8	100		62-140
Bromochloromethane	50.0	46.9	94		77-134
Chloroform	50.0	46.5	93		77-130
1,1,1-Trichloroethane	50.0	45.9	92		73-132
Carbon tetrachloride	50.0	47.6	95		71-134
1,1-Dichloropropene	50.0	48.1	96		76-125
1,2-Dichloroethane (EDC)	50.0	50.3	101		75-135
Benzene	50.0	46.5	93		74-129
Trichloroethene	50.0	47.3	95		73-126
1,2-Dichloropropane	50.0	49.0	98		70-133
Dibromomethane	50.0	48.4	97		80-128
1,4-Dioxane	1500	1808	121		56-140
Bromodichloromethane	50.0	48.4	97		72-133
2-Chloroethyl vinyl ether	100	101.2	101		69-131
cis-1,3-Dichloropropene	50.0	51.3	103		72-131
4-Methyl-2-pentanone (MIBK)	100	106.3	106		69-140
Toluene	50.0	47.1	94		73-127
trans-1,3-Dichloropropene	50.0	52.2	104		75-133
1,1,2-Trichloroethane	50.0	49.2	98		77-132
Tetrachloroethene	50.0	44.6	89		65-124
1,3-Dichloropropane	50.0	49.3	99		76-135

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS171221-01
Date Received:
Date Analyzed: 12/21/2017
LCS Data file: F2675.D

GC/MS Column: DB-624
Sample wt/vol: 0
Matrix-Units: Soil-µg/Kg
% Moisture: NA
#######

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	113.9	114		68-139
Dibromochloromethane	50.0	49.3	99		74-136
1,2-Dibromoethane (EDB)	50.0	49.2	98		81-137
Chlorobenzene	50.0	45.1	90		71-119
1,1,1,2-Tetrachloroethane	50.0	47.8	96		73-128
Ethylbenzene	50.0	48.1	96		71-125
m,p-Xylene	100.0	97.2	97		71-126
o-Xylene	50.0	50.4	101		74-132
Styrene	50.0	52.5	105		72-133
Bromoform	50.0	46.2	92		67-122
Isopropylbenzene	50.0	50.4	101		74-124
1,1,2,2-Tetrachloroethane	50.0	47.3	95		70-128
Bromobenzene	50.0	47.7	95		70-124
1,2,3-Trichloropropane	50.0	49.1	98		74-124
n-Propylbenzene	50.0	49.2	98		67-124
2-Chlorotoluene	50.0	49.2	98		69-125
1,3,5-Trimethylbenzene	50.0	51.6	103		68-127
4-Chlorotoluene	50.0	49.8	100		66-130
tert-Butylbenzene	50.0	52.4	105		74-129
1,2,4-Trimethylbenzene	50.0	52.5	105		73-128
sec-Butylbenzene	50.0	52.1	104		70-124
1,3-Dichlorobenzene	50.0	48.0	96		65-127
4-Isopropyltoluene	50.0	53.0	106		70-126
1,4-Dichlorobenzene	50.0	48.8	98		64-127
n-Butylbenzene	50.0	53.3	107		65-126
1,2-Dichlorobenzene	50.0	49.9	100		67-130
1,2-Dibromo-3-chloropropane	50.0	52.3	105		67-124
1,2,4-Trichlorobenzene	50.0	48.7	97		69-128
Hexachlorobutadiene	50.0	47.6	95		62-127
Naphthalene	50.0	57.1	114		67-136
1,2,3-Trichlorobenzene	50.0	49.9	100		72-127
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	43.0	86		71-131
Methyl acetate	50.0	47.1	94		68-142
Cyclohexane	50.0	46.1	92		67-127
Methylcyclohexane	50.0	48.0	96		70-126

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS171221-01
Date Received:
Date Analyzed: 12/21/2017
LCS Data file: F2675.D

GC/MS Column: DB-624
Sample wt/vol: 0
Matrix-Units: Soil-µg/Kg
% Moisture: NA
#######

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA171221
Date Received: NA
Date Analyzed: 12/21/2017
LCS Data file: E3753.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	42.6	85		47-146
Chloromethane	50.0	41.2	82		43-151
Vinyl chloride	50.0	43.7	87		40-147
Bromomethane	50.0	48.5	97		55-151
Chloroethane	50.0	47.0	94		51-144
Trichlorofluoromethane	50.0	48.2	96		50-146
1,1-Dichloroethene	50.0	46.3	93		43-158
Acetone	100	94.8	95		46-161
Carbon disulfide	50.0	44.1	88		53-145
Vinyl acetate	50.0	52.8	106		48-139
Methylene chloride	50.0	47.9	96		52-142
Acrylonitrile	150.0	149.8	100		63-150
tert-Butyl alcohol (TBA)	100.0	93.6	94		48-151
trans-1,2-Dichloroethene	50.0	45.8	92		61-136
Methyl tert-butyl ether (MTBE)	50.0	51.2	102		41-142
1,1-Dichloroethane	50.0	47.3	95		57-145
Diisopropyl ether (DIPE)	50.0	49.8	100		57-137
cis-1,2-Dichloroethene	50.0	48.8	98		63-141
2,2-Dichloropropane	50.0	49.6	99		46-149
2-Butanone (MEK)	100	98.9	99		49-151
Bromochloromethane	50.0	49.5	99		61-162
Chloroform	50.0	45.4	91		46-146
1,1,1-Trichloroethane	50.0	47.1	94		52-144
Carbon tetrachloride	50.0	47.9	96		59-149
1,1-Dichloropropene	50.0	45.7	91		58-147
1,2-Dichloroethane (EDC)	50.0	49.5	99		46-148
Benzene	50.0	48.6	97		50-148
Trichloroethene	50.0	47.5	95		52-151
1,2-Dichloropropane	50.0	50.3	101		56-148
Dibromomethane	50.0	52.7	105		61-146
1,4-Dioxane	1500	1271	85		48-153
Bromodichloromethane	50.0	52.9	106		60-153
cis-1,3-Dichloropropene	50.0	54.4	109		57-153
4-Methyl-2-pentanone (MIBK)	100	106.6	107		42-157
Toluene	50.0	49.8	100		49-151
trans-1,3-Dichloropropene	50.0	54.1	108		54-159
1,1,2-Trichloroethane	50.0	54.1	108		60-153
Tetrachloroethene	50.0	48.4	97		53-146
1,3-Dichloropropane	50.0	53.3	107		55-149

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171221
Date Received: NA
Date Analyzed: 12/21/2017
LCS Data file: E3753.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	103.1	103		36-158
Dibromochloromethane	50.0	56.3	113		50-154
1,2-Dibromoethane (EDB)	50.0	53.4	107		53-161
Chlorobenzene	50.0	49.9	100		56-141
1,1,1,2-Tetrachloroethane	50.0	52.4	105		51-144
Ethylbenzene	50.0	49.6	99		50-147
m,p-Xylene	100.0	99.6	100		53-149
o-Xylene	50.0	50.2	100		50-144
Styrene	50.0	52.4	105		46-148
Bromoform	50.0	46.4	93		54-155
Isopropylbenzene	50.0	48.1	96		51-143
1,1,2,2-Tetrachloroethane	50.0	51.7	103		56-144
Bromobenzene	50.0	51.1	102		63-146
1,2,3-Trichloropropane	50.0	52.1	104		55-146
n-Propylbenzene	50.0	48.2	96		60-145
2-Chlorotoluene	50.0	48.4	97		60-139
1,3,5-Trimethylbenzene	50.0	47.8	96		56-144
4-Chlorotoluene	50.0	48.7	97		58-142
tert-Butylbenzene	50.0	47.6	95		56-143
1,2,4-Trimethylbenzene	50.0	48.9	98		57-142
sec-Butylbenzene	50.0	46.5	93		55-144
1,3-Dichlorobenzene	50.0	49.0	98		60-142
4-Isopropyltoluene	50.0	47.2	94		56-144
1,4-Dichlorobenzene	50.0	48.0	96		60-140
n-Butylbenzene	50.0	46.0	92		43-152
1,2-Dichlorobenzene	50.0	49.8	100		58-145
1,2-Dibromo-3-chloropropane	50.0	51.9	104		45-147
1,2,4-Trichlorobenzene	50.0	48.1	96		54-145
Hexachlorobutadiene	50.0	47.3	95		47-153
Naphthalene	50.0	50.6	101		46-144
1,2,3-Trichlorobenzene	50.0	47.9	96		58-144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.9	92		44-146
Methyl acetate	50.0	51.5	103		49-144
Cyclohexane	50.0	44.4	89		45-145
Methylcyclohexane	50.0	42.8	86		42-151

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA171221
Date Received: NA
Date Analyzed: 12/21/2017
LCS Data file: E3753.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSM171222-01
Date Received:
Date Analyzed: 12/22/2017
LCS Data file: J2451.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	58.8	118		52-137
Chloromethane	50.0	43.5	87		39-129
Vinyl chloride	50.0	47.4	95		48-133
Bromomethane	50.0	47.7	95		71-143
Chloroethane	50.0	47.9	96		63-134
Trichlorofluoromethane	50.0	42.4	85		56-133
Acrolein	150	164.2	109		53-148
1,1-Dichloroethene	50.0	48.1	96		69-115
Acetone	100	92.5	93		16-211
Carbon disulfide	50.0	48.3	97		68-122
Vinyl acetate	50.0	45.5	91		59-114
Methylene chloride	50.0	49.1	98		72-133
Acrylonitrile	150.0	150.5	100		63-150
tert-Butyl alcohol (TBA)	100.0	92.8	93		58-135
trans-1,2-Dichloroethene	50.0	50.7	101		68-135
Methyl tert-butyl ether (MTBE)	50.0	51.9	104		41-142
1,1-Dichloroethane	50.0	47.5	95		73-128
Diisopropyl ether (DIPE)	50.0	46.4	93		57-137
cis-1,2-Dichloroethene	50.0	52.2	104		77-134
2,2-Dichloropropane	50.0	46.9	94		53-138
2-Butanone (MEK)	100	98.3	98		16-158
Bromochloromethane	50.0	49.5	99		76-134
Chloroform	50.0	47.5	95		78-133
1,1,1-Trichloroethane	50.0	47.7	95		70-137
Carbon tetrachloride	50.0	44.1	88		71-141
1,1-Dichloropropene	50.0	49.2	98		66-139
1,2-Dichloroethane (EDC)	50.0	46.2	92		75-132
Benzene	50.0	50.5	101		72-130
Trichloroethene	50.0	48.1	96		71-138
1,2-Dichloropropane	50.0	48.7	97		78-131
Dibromomethane	50.0	49.3	99		76-137
1,4-Dioxane	1500	1809	121		48-153
Bromodichloromethane	50.0	48.7	97		79-140
2-Chloroethyl vinyl ether	100	111.4	111		13-182
cis-1,3-Dichloropropene	50.0	52.0	104		71-140
4-Methyl-2-pentanone (MIBK)	100	98.8	99		13-164
Toluene	50.0	47.9	96		69-140
trans-1,3-Dichloropropene	50.0	58.1	116		63-150
1,1,2-Trichloroethane	50.0	52.5	105		76-140
Tetrachloroethene	50.0	48.3	97		63-141
1,3-Dichloropropane	50.0	53.1	106		68-144

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSM171222-01
Date Received:
Date Analyzed: 12/22/2017
LCS Data file: J2451.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	104.3	104		13-163
Dibromochloromethane	50.0	48.2	96		70-148
1,2-Dibromoethane (EDB)	50.0	55.1	110		72-150
Chlorobenzene	50.0	48.5	97		75-125
1,1,1,2-Tetrachloroethane	50.0	49.9	100		80-121
Ethylbenzene	50.0	47.9	96		69-130
m,p-Xylene	100.0	96.1	96		62-128
o-Xylene	50.0	49.5	99		58-129
Styrene	50.0	51.4	103		67-130
Bromoform	50.0	44.7	89		79-134
Isopropylbenzene	50.0	50.8	102		68-127
1,1,2,2-Tetrachloroethane	50.0	51.2	102		71-120
Bromobenzene	50.0	48.4	97		73-136
1,2,3-Trichloropropane	50.0	49.8	100		72-123
n-Propylbenzene	50.0	50.2	100		67-133
2-Chlorotoluene	50.0	45.8	92		69-129
1,3,5-Trimethylbenzene	50.0	45.7	91		68-127
4-Chlorotoluene	50.0	44.6	89		72-129
tert-Butylbenzene	50.0	47.4	95		68-130
1,2,4-Trimethylbenzene	50.0	46.0	92		69-128
sec-Butylbenzene	50.0	46.6	93		62-130
1,3-Dichlorobenzene	50.0	44.6	89		60-142
4-Isopropyltoluene	50.0	46.0	92		62-131
1,4-Dichlorobenzene	50.0	43.5	87		63-134
n-Butylbenzene	50.0	46.2	92		54-130
1,2-Dichlorobenzene	50.0	45.4	91		63-134
1,2-Dibromo-3-chloropropane	50.0	50.3	101		51-138
1,2,4-Trichlorobenzene	50.0	48.4	97		62-126
Hexachlorobutadiene	50.0	49.7	99		47-153
Naphthalene	50.0	54.2	108		53-134
1,2,3-Trichlorobenzene	50.0	53.6	107		58-144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.5	91		49-126
Methyl acetate	50.0	45.3	91		40-147
Cyclohexane	50.0	43.2	86		59-120
Methylcyclohexane	50.0	43.5	87		62-131

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSM171222-01
Date Received:
Date Analyzed: 12/22/2017
LCS Data file: J2451.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

8260 **MS/MSD ACCURACY REPORT**

Lab ID: E17-10861-024
Client ID: COMPOSITE_C
Date Received: 12/18/2017
Date Analyzed: 12/21/2017
MS Data file: F2676.D
MSD Data file: F2677.D

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-µg/Kg
% Moisture: 54.3
Dilution Factor: 5
Dilution Factor: 5

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Limits
Dichlorodifluoromethane	50.0	0.0	40.7	81		39.4	79		3		20-169/25
Chloromethane	50.0	0.0	39.3	79		39.3	79		0		24-183/27
Vinyl chloride	50.0	0.0	40.3	81		40.4	81		0		28-177/25
Bromomethane	50.0	0.0	40.5	81		40.8	82		1		39-185/24
Chloroethane	50.0	0.0	39.3	79		40.3	81		3		32-181/25
Trichlorofluoromethane	50.0	0.0	39.8	80		39.9	80		0		31-182/25
Acrolein	150	0.0	39	26	$	32	21	$	20		3-198/28
1,1-Dichloroethene	50.0	0.0	40.1	80		40.3	81		0		28-175/24
Acetone	100	11.7	84.9	73		82.9	71		2		22-171/25
Carbon disulfide	50.0	0.0	39.0	78		39.8	80		2		22-183/27
Vinyl acetate	50.0	0.0	30.3	61	$	30.8	62	$	2		21-164/24
Methylene chloride	50.0	3.1	38.8	71		39.2	72		1		22-177/26
Acrylonitrile	150	0.0	143	95		112	75		24		34-189/26
tert-Butyl alcohol (TBA)	100	0.0	84.1	84		82.7	83		2		22-191/28
trans-1,2-Dichloroethene	50.0	0.0	39.9	80		40.5	81		1		27-180/26
Methyl tert-butyl ether (MTBE)	50.0	0.0	40.8	82		41.7	83		2		38-183/24
1,1-Dichloroethane	50.0	0.0	40.3	81		40.6	81		1		29-181/25
Diisopropyl ether (DIPE)	50.0	0.0	40.1	80		40.8	82		2		35-184/25
cis-1,2-Dichloroethene	50.0	0.0	41.1	82		42.1	84		2		41-175/22
2,2-Dichloropropane	50.0	0.0	40.9	82		41.4	83		1		33-179/24
2-Butanone (MEK)	100	2.7	77.0	74		77.3	75		0		36-170/22
Bromochloromethane	50.0	0.0	41.2	82		42.0	84		2		43-172/22
Chloroform	50.0	1.0	40.0	78		40.6	79		1		34-171/23
1,1,1-Trichloroethane	50.0	0.0	40.8	82		41.8	84		2		36-174/23
Carbon tetrachloride	50.0	0.0	41.7	83		42.0	84		1		36-177/24
1,1-Dichloropropene	50.0	0.0	40.5	81		41.4	83		2		37-167/22
1,2-Dichloroethane (EDC)	50.0	0.0	40.3	81		41.6	83		3		38-179/23
Benzene	50.0	0.0	39.9	80		41.8	84		5		32-172/23
Trichloroethene	50.0	0.0	38.9	78		41.0	82		5		19-197/30
1,2-Dichloropropane	50.0	0.0	40.4	81		42.4	85		5		36-169/22
Dibromomethane	50.0	0.0	40.8	82		42.9	86		5		39-171/22
1,4-Dioxane	1,500	0.0	1291	86		1326	88		3		31-173/24
Bromodichloromethane	50.0	0.0	39.3	79		41.3	83		5		37-182/24
2-Chloroethyl vinyl ether	100	0.0	67.6	68	$	71.4	71		5		26-180/26
cis-1,3-Dichloropropene	50.0	0.0	39.3	79		41.8	84		6		45-180/23
4-Methyl-2-pentanone (MIBK)	100	0.0	83.1	83		86.3	86		4		33-187/26
Toluene	50.0	0.0	39.3	79		41.4	83		5		31-172/23
trans-1,3-Dichloropropene	50.0	0.0	39.0	78		41.1	82		5		41-183/24
1,1,2-Trichloroethane	50.0	0.0	39.1	78		41.7	83		6		38-173/23
Tetrachloroethene	50.0	0.3	38.8	77		40.3	80		4		23-170/25
1,3-Dichloropropane	50.0	0.0	39.6	79		41.3	83		4		44-178/22

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10861-024
Client ID: COMPOSITE_C
Date Received: 12/18/2017
Date Analyzed: 12/21/2017
MS Data file: F2676.D
MSD Data file: F2677.D

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-µg/Kg
% Moisture: 54.3
Dilution Factor: 5
Dilution Factor: 5

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Limits
2-Hexanone	100	0.0	87.4	87		91.6	92		5		30-187/26
Dibromochloromethane	50.0	0.0	39.3	79		42.2	84		7		41-184/24
1,2-Dibromoethane (EDB)	50.0	0.0	41.3	83		42.9	86		4		43-176/22
Chlorobenzene	50.0	0.0	36.5	73		38.0	76		4		23-170/24
1,1,1,2-Tetrachloroethane	50.0	0.0	39.7	79		41.8	84		5		36-176/23
Ethylbenzene	50.0	0.0	38.3	77		40.0	80		4		29-170/24
m,p-Xylene	100	0.0	77.6	78		80.5	81		4		23-179/26
o-Xylene	50.0	0.0	40.5	81		42.5	85		5		29-181/25
Styrene	50.0	0.0	37.8	76		39.4	79		4		35-173/23
Bromoform	50.0	0.0	36.3	73		38.2	76		5		18-167/25
Isopropylbenzene	50.0	0.0	39.8	80		40.7	81		2		34-167/22
1,1,2,2-Tetrachloroethane	50.0	0.0	38.2	76		39.2	78		3		4-176/28
Bromobenzene	50.0	0.0	36.6	73		38.6	77		5		27-169/24
1,2,3-Trichloropropane	50.0	0.0	37.7	75		39.5	79		5		31-168/23
n-Propylbenzene	50.0	0.0	36.5	73		37.8	76		3		23-167/24
2-Chlorotoluene	50.0	0.0	35.5	71		37.3	75		5		26-168/24
1,3,5-Trimethylbenzene	50.0	0.0	37.5	75		39.3	79		5		27-170/24
4-Chlorotoluene	50.0	0.0	34.9	70		36.4	73		4		18-175/26
tert-Butylbenzene	50.0	0.0	39.8	80		40.8	82		2		26-169/24
1,2,4-Trimethylbenzene	50.0	0.0	37.6	75		39.1	78		4		29-166/23
sec-Butylbenzene	50.0	0.0	37.7	75		37.8	76		0		19-167/25
1,3-Dichlorobenzene	50.0	0.0	32.1	64	$	33.7	67	$	5		14-170/26
4-Isopropyltoluene	50.0	0.0	37.5	75		37.9	76		1		20-167/24
1,4-Dichlorobenzene	50.0	0.0	32.6	65	$	34.2	68	$	5		11-174/27
n-Butylbenzene	50.0	0.0	33.8	68	$	33.4	67	$	1		14-167/25
1,2-Dichlorobenzene	50.0	0.0	32.9	66	$	34.6	69	$	5		20-167/25
1,2-Dibromo-3-chloropropane	50.0	0.0	39.1	78		40.3	81		3		12-172/27
1,2,4-Trichlorobenzene	50.0	0.0	21.5	43	$	22.8	46	$	6		8-155/24
Hexachlorobutadiene	50.0	0.0	25.6	51	$	23.1	46	$	10		3-141/23
Naphthalene	50.0	0.0	29.6	59	$	31.3	63	$	6		4-176/29
1,2,3-Trichlorobenzene	50.0	0.0	20.4	41	$	21.7	43	$	6		9-147/23
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	40.4	81		40.5	81		0		26-170/24
Methyl acetate	50.0	0.0	40.3	81		40.9	82		1		5-169/24
Cyclohexane	50.0	0.0	38.3	77		38.5	77		1		17-167/25
Methylcyclohexane	50.0	0.0	37.6	75		36.7	73		2		23-164/24

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10861-024
Client ID: COMPOSITE_C
Date Received: 12/18/2017
Date Analyzed: 12/21/2017
MS Data file: F2676.D
MSD Data file: F2677.D

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-µg/Kg
% Moisture: 54.3
Dilution Factor: 5
Dilution Factor: 5

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RP #

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

8260

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-007
Client ID: SB-38
Date Received: NA
Date Analyzed: 12/21/2017
MS Data file: E3754.D
MSD Data file: E3755.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
Dichlorodifluoromethane	50.0	0.0	42.6	85		44.8	90	5		51-174/21
Chloromethane	50.0	1.3	43.5	84		45.5	88	4		29-149/20
Vinyl chloride	50.0	0.0	47.5	95		49.1	98	3		30-167/23
Bromomethane	50.0	0.0	50.2	100		53.0	106	5		53-158/18
Chloroethane	50.0	0.0	49.7	99		52.3	105	5		57-144/14
Trichlorofluoromethane	50.0	0.0	52.3	105		53.6	107	2		50-159/18
1,1-Dichloroethene	50.0	0.0	51.3	103		52.1	104	2		46-135/15
Acetone	100	0.0	96.1	96		102.5	103	6		37-160/21
Carbon disulfide	50.0	0.0	53.2	106		51.7	103	3		46-143/16
Vinyl acetate	50.0	0.0	49.8	100		51.0	102	2		24-151/21
Methylene chloride	50.0	0.0	49.4	99		50.0	100	1		55-149/16
Acrylonitrile	150	0.0	143	95		148	99	3		55-180/21
tert-Butyl alcohol (TBA)	100	0.0	93.6	94		92.2	92	2		42-143/17
trans-1,2-Dichloroethene	50.0	0.0	48.9	98		50.4	101	3		58-142/14
Methyl tert-butyl ether (MTBE)	50.0	0.9	49.7	98		51.6	101	4		35-132/16
1,1-Dichloroethane	50.0	0.0	49.0	98		50.0	100	2		57-148/15
Diisopropyl ether (DIPE)	50.0	0.0	49.4	99		50.9	102	3		41-160/20
cis-1,2-Dichloroethene	50.0	0.0	50.1	100		51.8	104	3		54-158/17
2,2-Dichloropropane	50.0	0.0	51.4	103		49.1	98	5		29-152/21
2-Butanone (MEK)	100	0.0	94.3	94		97.8	98	4		50-163/19
Bromochloromethane	50.0	0.0	50.8	102		52.0	104	2		63-155/15
Chloroform	50.0	0.0	46.9	94		47.9	96	2		66-159/16
1,1,1-Trichloroethane	50.0	0.0	50.3	101		51.6	103	3		68-152/14
Carbon tetrachloride	50.0	0.0	51.5	103		52.6	105	2		60-165/18
1,1-Dichloropropene	50.0	0.0	49.7	99		50.1	100	1		52-141/15
1,2-Dichloroethane (EDC)	50.0	0.0	48.3	97		50.0	100	3		63-159/16
Benzene	50.0	0.0	51.1	102		52.4	105	3		53-143/15
Trichloroethene	50.0	0.0	50.9	102		51.1	102	0		62-153/15
1,2-Dichloropropane	50.0	0.0	51.2	102		52.3	105	2		55-147/15
Dibromomethane	50.0	0.0	52.2	104		53.6	107	3		51-146/16
1,4-Dioxane	1,500	0.0	1479	99		1519	101	3		40-173/22
Bromodichloromethane	50.0	0.0	53.4	107		54.9	110	3		63-150/14
cis-1,3-Dichloropropene	50.0	0.0	54.9	110		55.6	111	1		55-167/19
4-Methyl-2-pentanone (MIBK)	100	0.0	102.2	102		104.3	104	2		45-155/18
Toluene	50.0	0.0	51.3	103		52.2	104	2		52-156/17
trans-1,3-Dichloropropene	50.0	0.0	54.6	109		54.5	109	0		58-156/16
1,1,2-Trichloroethane	50.0	0.0	53.4	107		54.5	109	2		58-156/16
Tetrachloroethene	50.0	3.9	51.4	95		52.7	98	2		57-157/17
1,3-Dichloropropane	50.0	0.0	52.9	106		53.5	107	1		56-158/17

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-007
Client ID: SB-38
Date Received: NA
Date Analyzed: 12/21/2017
MS Data file: E3754.D
MSD Data file: E3755.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
2-Hexanone	100	0.0	98.9	99		100.7	101	2		36-169/22
Dibromochloromethane	50.0	0.0	55.3	111		57.4	115	4		53-153/17
1,2-Dibromoethane (EDB)	50.0	0.0	52.8	106		54.3	109	3		55-140/14
Chlorobenzene	50.0	0.0	50.6	101		51.6	103	2		59-144/14
1,1,1,2-Tetrachloroethane	50.0	0.0	51.6	103		52.6	105	2		48-138/15
Ethylbenzene	50.0	0.0	50.6	101		51.8	104	2		67-155/15
m,p-Xylene	100	0.0	102.1	102		103.8	104	2		52-144/15
o-Xylene	50.0	0.0	51.3	103		52.2	104	2		48-142/16
Styrene	50.0	0.0	52.7	105		53.1	106	1		53-155/17
Bromoform	50.0	0.0	45.4	91		46.9	94	3		59-148/15
Isopropylbenzene	50.0	0.0	50.7	101		51.4	103	1		55-155/17
1,1,2,2-Tetrachloroethane	50.0	0.0	49.9	100		52.1	104	4		45-153/18
Bromobenzene	50.0	0.0	50.6	101		52.2	104	3		60-146/14
1,2,3-Trichloropropane	50.0	0.0	50.3	101		51.7	103	3		37-149/19
n-Propylbenzene	50.0	0.0	50.1	100		51.0	102	2		63-149/14
2-Chlorotoluene	50.0	0.0	48.3	97		49.3	99	2		54-160/18
1,3,5-Trimethylbenzene	50.0	0.0	48.9	98		50.4	101	3		52-150/16
4-Chlorotoluene	50.0	0.0	49.3	99		49.9	100	1		62-147/14
tert-Butylbenzene	50.0	0.0	50.1	100		50.3	101	0		57-148/15
1,2,4-Trimethylbenzene	50.0	0.0	49.4	99		50.8	102	3		65-150/14
sec-Butylbenzene	50.0	0.0	48.5	97		49.5	99	2		61-146/14
1,3-Dichlorobenzene	50.0	0.0	49.1	98		49.7	99	1		57-160/17
4-Isopropyltoluene	50.0	0.0	49.0	98		49.8	100	2		53-158/18
1,4-Dichlorobenzene	50.0	0.0	47.5	95		49.3	99	4		57-164/18
n-Butylbenzene	50.0	0.0	47.6	95		48.9	98	3		53-147/16
1,2-Dichlorobenzene	50.0	0.0	48.4	97		50.0	100	3		52-154/17
1,2-Dibromo-3-chloropropane	50.0	0.0	48.5	97		50.7	101	4		42-147/17
1,2,4-Trichlorobenzene	50.0	0.0	45.5	91		47.0	94	3		49-140/15
Hexachlorobutadiene	50.0	0.0	48.7	97		49.5	99	2		48-141/16
Naphthalene	50.0	0.0	47.9	96		49.0	98	2		56-151/16
1,2,3-Trichlorobenzene	50.0	0.0	45.8	92		46.7	93	2		52-148/16
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	52.4	105		52.2	104	0		46-134/15
Methyl acetate	50.0	0.0	48.6	97		49.9	100	3		44-132/15
Cyclohexane	50.0	2.9	50.3	95		45.3	85	10		50-146/16
Methylcyclohexane	50.0	2.9	48.1	90		47.6	89	1		51-155/17

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-007
Client ID: SB-38
Date Received: NA
Date Analyzed: 12/21/2017
MS Data file: E3754.D
MSD Data file: E3755.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RP #

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260 **MS/MSD ACCURACY REPORT**

Lab ID: E17-10961-013
Client ID: SLP121917-CO
Date Received:
Date Analyzed: 12/22/2017
MS Data file: J2452.D
MSD Data file: J2453.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% # RPD #	Limits
Dichlorodifluoromethane	50.0	0.0	54.9	110		59.6	119	8	61-164/17
Chloromethane	50.0	0.0	44.1	88		46.7	93	6	29-149/20
Vinyl chloride	50.0	0.0	47.9	96		51.7	103	8	30-167/23
Bromomethane	50.0	0.0	50.3	101		52.1	104	4	53-158/18
Chloroethane	50.0	0.0	49.2	98		51.4	103	4	57-144/14
Trichlorofluoromethane	50.0	0.0	41.4	83		45.3	91	9	50-159/18
Acrolein	150	0.0	137	91		152	101	10	21-151/22
1,1-Dichloroethene	50.0	0.0	49.1	98		53.3	107	8	55-135/13
Acetone	100	0.0	97.8	98		109.6	110	11	37-160/21
Carbon disulfide	50.0	0.0	50.1	100		54.7	109	9	46-143/16
Vinyl acetate	50.0	0.0	47.2	94		51.3	103	8	24-151/21
Methylene chloride	50.0	0.0	51.7	103		56.3	113	9	63-136/12
Acrylonitrile	150	0.0	125	83		137	91	9	55-180/21
tert-Butyl alcohol (TBA)	100	0.0	99.6	100		112.7	113	12	42-143/17
trans-1,2-Dichloroethene	50.0	0.0	52.0	104		57.5	115	10	58-142/14
Methyl tert-butyl ether (MTBE)	50.0	0.0	54.0	108		60.0	120	11	35-132/16
1,1-Dichloroethane	50.0	0.0	49.7	99		54.3	109	9	63-140/13
Diisopropyl ether (DIPE)	50.0	0.0	48.1	96		52.3	105	8	41-160/20
cis-1,2-Dichloroethene	50.0	0.0	54.8	110		60.0	120	9	54-158/17
2,2-Dichloropropane	50.0	0.0	48.8	98		51.8	104	6	29-152/21
2-Butanone (MEK)	100	0.0	102.3	102		113.0	113	10	50-163/19
Bromochloromethane	50.0	0.0	52.6	105		57.1	114	8	63-155/15
Chloroform	50.0	0.0	49.6	99		54.1	108	9	66-159/16
1,1,1-Trichloroethane	50.0	0.0	49.4	99		53.8	108	9	68-152/14
Carbon tetrachloride	50.0	0.0	45.8	92		49.8	100	8	60-165/18
1,1-Dichloropropene	50.0	0.0	50.1	100		54.5	109	8	52-141/15
1,2-Dichloroethane (EDC)	50.0	0.0	47.9	96		52.7	105	10	63-159/16
Benzene	50.0	0.0	51.7	103		56.4	113	9	53-143/15
Trichloroethene	50.0	0.0	49.5	99		53.5	107	8	62-153/15
1,2-Dichloropropane	50.0	0.0	50.8	102		55.3	111	8	55-147/15
Dibromomethane	50.0	0.0	50.9	102		55.8	112	9	51-146/16
1,4-Dioxane	1,500	0.0	1755	117		1476	98	17	40-173/22
Bromodichloromethane	50.0	0.0	51.7	103		56.7	113	9	63-150/14
2-Chloroethyl vinyl ether	100	0.0	114.4	114		124.4	124	8	0-198/54
cis-1,3-Dichloropropene	50.0	0.0	54.5	109		59.3	119	8	66-143/13
4-Methyl-2-pentanone (MIBK)	100	0.0	101.0	101		110.0	110	9	45-155/18
Toluene	50.0	0.0	50.0	100		54.2	108	8	70-138/12
trans-1,3-Dichloropropene	50.0	0.0	60.2	120		64.4	129	7	58-156/16
1,1,2-Trichloroethane	50.0	0.0	54.2	108		59.6	119	9	58-156/16
Tetrachloroethene	50.0	0.0	49.1	98		52.6	105	7	57-157/17
1,3-Dichloropropane	50.0	0.0	54.5	109		60.1	120	10	56-158/17

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10961-013
Client ID: SLP121917-CO
Date Received:
Date Analyzed: 12/22/2017
MS Data file: J2452.D
MSD Data file: J2453.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
2-Hexanone	100	0.0	106.8	107		119.7	120	11		36-169/22
Dibromochloromethane	50.0	0.0	50.5	101		55.7	111	10		53-153/17
1,2-Dibromoethane (EDB)	50.0	0.0	57.2	114		62.0	124	8		55-140/14
Chlorobenzene	50.0	0.0	50.8	102		55.9	112	10		65-136/12
1,1,1,2-Tetrachloroethane	50.0	0.0	52.8	106		57.9	116	9		60-136/13
Ethylbenzene	50.0	0.6	49.5	98		53.9	107	9		63-144/14
m,p-Xylene	100	0.0	100.2	100		109.1	109	9		51-144/15
o-Xylene	50.0	0.0	52.1	104		56.3	113	8		47-141/16
Styrene	50.0	0.0	53.9	108		58.5	117	8		59-140/14
Bromoform	50.0	0.0	47.9	96		53.2	106	10		63-135/12
Isopropylbenzene	50.0	0.0	52.5	105		55.9	112	6		61-139/13
1,1,2,2-Tetrachloroethane	50.0	0.0	53.6	107		58.3	117	8		62-119/10
Bromobenzene	50.0	0.0	51.0	102		54.9	110	7		63-144/14
1,2,3-Trichloropropane	50.0	0.0	52.0	104		57.7	115	10		37-149/19
n-Propylbenzene	50.0	0.0	48.9	98		52.4	105	7		63-149/14
2-Chlorotoluene	50.0	0.0	48.6	97		52.1	104	7		68-144/13
1,3,5-Trimethylbenzene	50.0	0.0	48.9	98		52.3	105	7		64-140/13
4-Chlorotoluene	50.0	0.0	46.9	94		50.6	101	8		67-144/13
tert-Butylbenzene	50.0	0.0	50.8	102		54.3	109	7		68-142/12
1,2,4-Trimethylbenzene	50.0	0.0	48.5	97		52.2	104	7		63-139/13
sec-Butylbenzene	50.0	0.0	48.9	98		52.5	105	7		61-146/14
1,3-Dichlorobenzene	50.0	0.0	47.4	95		51.1	102	8		70-141/12
4-Isopropyltoluene	50.0	0.0	49.4	99		53.3	107	8		65-144/13
1,4-Dichlorobenzene	50.0	0.0	46.7	93		49.7	99	6		70-147/13
n-Butylbenzene	50.0	0.0	48.5	97		52.6	105	8		53-147/16
1,2-Dichlorobenzene	50.0	0.0	48.8	98		52.7	105	8		71-133/10
1,2-Dibromo-3-chloropropane	50.0	0.0	53.4	107		60.3	121	12		51-131/13
1,2,4-Trichlorobenzene	50.0	0.0	55.4	111		60.1	120	8		49-140/15
Hexachlorobutadiene	50.0	0.0	53.0	106		57.1	114	7		48-141/16
Naphthalene	50.0	0.0	59.6	119		64.6	129	8		57-138/14
1,2,3-Trichlorobenzene	50.0	0.0	61.8	124		64.2	128	4		55-142/15
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	43.1	86		48.9	98	13		46-134/15
Methyl acetate	50.0	0.0	47.6	95		51.9	104	9		44-132/15
Cyclohexane	50.0	1.4	41.9	81		45.4	88	8		52-130/13
Methylcyclohexane	50.0	0.0	42.4	85		46.7	93	10		51-155/17

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10961-013
Client ID: SLP121917-CO
Date Received:
Date Analyzed: 12/22/2017
MS Data file: J2452.D
MSD Data file: J2453.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RP	#

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F2669.D Instrument ID: MSD_F

Date Analyzed: 12/21/2017 Time Analyzed: 12:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
COMPOSITE_A	E17-10861-022	12/21/2017	13:16
COMPOSITE_B	E17-10861-023	12/21/2017	13:45
COMPOSITE_C	E17-10861-024	12/21/2017	14:15
COMPOSITE_D	E17-10861-025	12/21/2017	14:44
PE-8/4.5-5	E17-10754-008	12/21/2017	15:13
LCS-50PPB	LCSS171221-01	12/21/2017	15:43
MATRIX_SPIKE	E17-10861-026	12/21/2017	16:12
MATRIX_SPIKE	E17-10861-027	12/21/2017	16:42
SB-38(D)	E17-10966-002	12/21/2017	17:40
SB-39(D)	E17-10966-004	12/21/2017	18:09
SB-40(D)	E17-10966-006	12/21/2017	18:39
BL-1_VO/9.5-	E17-10914-002	12/21/2017	19:08
BL-3_VO/9.5-	E17-10914-005	12/21/2017	19:37
BL-5_VO/9.5-	E17-10914-009	12/21/2017	20:07
PB-1/3.5-4	E17-10914-011	12/21/2017	20:35
BL-2_VO/9.5-	E17-10914-013	12/21/2017	21:05
BL-4_VO/9.5-	E17-10914-015	12/21/2017	21:34
SB-5/0.5-1	E17-10909-003	12/21/2017	22:03
SB-4/1.5-2	E17-10909-004	12/21/2017	22:33
SB-1/1.5-2	E17-10909-006	12/21/2017	23:02

FORM 4

VOLATILE METHOD BLANK SUMMARY

Lab File ID: E3745.D Instrument ID: MSD_E

Date Analyzed: 12/21/2017 Time Analyzed: 12:18

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-23D	E17-10913-001	12/21/2017	12:47
FB	E17-10913-003	12/21/2017	1:17
MW-13D	E17-10913-002	12/21/2017	1:47
TB	E17-10913-004	12/21/2017	2:17
SB-38	E17-10966-007	12/21/2017	2:47
SB-39	E17-10966-008	12/21/2017	3:17
MW-4	E17-10877-001	12/21/2017	3:47
LCSA171221	LCSA171221	12/21/2017	4:17
E17-10966-007MS	E17-10966-007MS	12/21/2017	4:47
E17-10966-007MSD	E17-10966-007MSD	12/21/2017	5:17
MW-23D	E17-10913-001DL	12/21/2017	5:47
FB	E17-10877-002	12/21/2017	6:16
TB	E17-10877-003	12/21/2017	6:47
MW-15D	E17-10739-008DL	12/21/2017	7:17
PMW-2	E17-10739-003DL	12/21/2017	7:47
KO2	E17-10899-003	12/21/2017	8:16
KO1	E17-10899-002	12/21/2017	8:46
INFLUENT	E17-10899-001	12/21/2017	9:16
PZ-9/10.25	E17-10953-001	12/21/2017	9:46

FORM 4

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J2447.D Instrument ID: MSD_J

Date Analyzed: 12/22/2017 Time Analyzed: 11:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TROUGH_WC	E17-10905-001	12/22/2017	11:53
SB-66(3.5-4)	E17-10878-007DL	12/22/2017	12:20
SB-67(6-6.5)	E17-10878-008DL	12/22/2017	12:47
LCS-50PPB	LCSM171222-01	12/22/2017	13:13
MS	E17-10961-013MS	12/22/2017	13:40
MSD	E17-10961-013MSD	12/22/2017	14:06
SLP121917-CO	E17-10961-013	12/22/2017	15:26
SB-38(S)	E17-10966-001	12/22/2017	15:53
SB-39(S)	E17-10966-003	12/22/2017	16:19
SB-40(S)	E17-10966-005	12/22/2017	16:46
SB-10/2-2.5	E17-10873-010	12/22/2017	17:13
SB-15/4.5-5	E17-10873-015	12/22/2017	17:39
B-32_(11-11.	E17-10908-005	12/22/2017	18:06
B-38_(9.5-10	E17-10908-009	12/22/2017	18:32
B-31_(7.5-8)	E17-10908-004	12/22/2017	18:59
B-37_(8.5-9)	E17-10908-008	12/22/2017	19:25
B-36_(9.5-10	E17-10908-001	12/22/2017	19:52
B-29_(8-8.5)	E17-10908-007	12/22/2017	21:11

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F2620.D

BFB Injection Date: 12/20/2017

Inst ID: MSD_F

BFB Injection Time: 11:02

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.4			
75	30.0 - 60.0% of mass 95	49.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.4			
173	Less than 2.0% of mass 174	1.1	(	1.6	)1
174	Great than 50.0% of mass 95	71.8			
175	5.0 - 9.0% of mass 174	6.2	(	8.6	)1
176	95.0 - 101.0% of mass 174	68.4	(	95.3	)1
177	5.0 - 9.0% of mass 176	5.4	(	7.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC171220	ICC1	F2621.D	12/20/2017	11:54
ICC171220a	ICC2	F2622.D	12/20/2017	12:23
ICC171220b	ICC5	F2623.D	12/20/2017	12:59
ICC171220c	ICC20	F2624.D	12/20/2017	13:36
ICC171220d	ICC100	F2625.D	12/20/2017	14:05
ICC171220e	ICC150	F2626.D	12/20/2017	14:37
ICC171220f	ICC200	F2627.D	12/20/2017	15:09
ICV100	ICV171220	F2629.D	12/20/2017	16:08
BLKS171220-01	BLKS171220-01	F2631.D	12/20/2017	17:06
WC	E17-10770-001	F2632.D	12/20/2017	17:36
GPEC-TP551_(	E17-10796-002	F2633.D	12/20/2017	18:05
LCS-50PPB	LCSS171220-01	F2634.D	12/20/2017	18:34
MS	E10770-001MS	F2635.D	12/20/2017	19:03
MSD	E10770-001MSD	F2636.D	12/20/2017	19:33
PE-6	E17-10617-004	F2638.D	12/20/2017	20:31
NATURAL_AND_	E17-10838-001	F2639.D	12/20/2017	21:01
S-1	E17-10850-001	F2640.D	12/20/2017	21:30
S-2	E17-10850-002	F2641.D	12/20/2017	21:59
PR-1	E17-10850-003	F2642.D	12/20/2017	22:28

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F2666.D

Inst ID: MSD_F

BFB Injection Date: 12/21/2017

BFB Injection Time: 11:13

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.3			
75	30.0 - 60.0% of mass 95	49.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.3			
173	Less than 2.0% of mass 174	0.8	(	1.2	)1
174	Great than 50.0% of mass 95	70.0			
175	5.0 - 9.0% of mass 174	6.2	(	8.9	)1
176	95.0 - 101.0% of mass 174	67.0	(	95.7	)1
177	5.0 - 9.0% of mass 176	5.1	(	7.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV171221	F2667.D	12/21/2017	11:47
BKLS171221-01	BLKS171221-01	F2669.D	12/21/2017	12:47
COMPOSITE_A	E17-10861-022	F2670.D	12/21/2017	13:16
COMPOSITE_B	E17-10861-023	F2671.D	12/21/2017	13:45
COMPOSITE_C	E17-10861-024	F2672.D	12/21/2017	14:15
COMPOSITE_D	E17-10861-025	F2673.D	12/21/2017	14:44
PE-8/4.5-5	E17-10754-008	F2674.D	12/21/2017	15:13
LCS-50PPB	LCSS171221-01	F2675.D	12/21/2017	15:43
MATRIX_SPIKE	E17-10861-026	F2676.D	12/21/2017	16:12
MATRIX_SPIKE	E17-10861-027	F2677.D	12/21/2017	16:42
SB-38(D)	E17-10966-002	F2679.D	12/21/2017	17:40
SB-39(D)	E17-10966-004	F2680.D	12/21/2017	18:09
SB-40(D)	E17-10966-006	F2681.D	12/21/2017	18:39
BL-1_VO/9.5-	E17-10914-002	F2682.D	12/21/2017	19:08
BL-3_VO/9.5-	E17-10914-005	F2683.D	12/21/2017	19:37
BL-5_VO/9.5-	E17-10914-009	F2684.D	12/21/2017	20:07
PB-1/3.5-4	E17-10914-011	F2685.D	12/21/2017	20:35
BL-2_VO/9.5-	E17-10914-013	F2686.D	12/21/2017	21:05
BL-4_VO/9.5-	E17-10914-015	F2687.D	12/21/2017	21:34
SB-5/0.5-1	E17-10909-003	F2688.D	12/21/2017	22:03

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F2666.D BFB Injection Date : 12/21/201

Inst ID: MSD_F BFB Injection Time: 11:13

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.3			
75	30.0 - 60.0% of mass 95	49.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.3			
173	Less than 2.0% of mass 174	0.8	(	1.2	)1
174	Great than 50.0% of mass 95	70.0			
175	5.0 - 9.0% of mass 174	6.2	(	8.9	)1
176	95.0 - 101.0% of mass 174	67.0	(	95.7	)1
177	5.0 - 9.0% of mass 176	5.1	(	7.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SB-4/1.5-2	E17-10909-004	F2689.D	12/21/2017	22:33
SB-1/1.5-2	E17-10909-006	F2690.D	12/21/2017	23:02

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E3648.D

BFB Injection Date: 12/19/2017

Inst ID: MSD_E

BFB Injection Time: 7:49

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	16.8			
75	30.0 - 60.0% of mass 95	45.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.7	(	1.0	)1
174	Great than 50.0% of mass 95	74.6			
175	5.0 - 9.0% of mass 174	5.6	(	7.5	)1
176	95.0 - 101.0% of mass 174	71.8	(	96.3	)1
177	5.0 - 9.0% of mass 176	4.7	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC00.5	ICC171219	E3649.D	12/19/2017	8:19
ICC005	ICC171219	E3651.D	12/19/2017	9:20
ICC020	ICC171219	E3652.D	12/19/2017	9:50
ICC100	ICC171219	E3653.D	12/19/2017	10:20
ICC150	ICC171219	E3654.D	12/19/2017	10:50
ICC200	ICC171219	E3655.D	12/19/2017	11:19
ICC001	ICC171219	E3658.D	12/19/2017	12:50
ICV100	ICV171219	E3659.D	12/19/2017	1:34
BLKA171219	BLKA171219	E3662.D	12/19/2017	3:04
TB(12/12/17)	E17-10754-009	E3663.D	12/19/2017	3:34
MW-21S	E17-10784-001	E3664.D	12/19/2017	4:05
FB-12142017	E17-10784-002	E3665.D	12/19/2017	4:35
TB-12142017	E17-10784-003	E3666.D	12/19/2017	5:06
LCSA171219	LCSA171220	E3667.D	12/19/2017	5:36
E17-10784-001MS	E17-10784-001MS	E3668.D	12/19/2017	6:06
E17-10784-001MSI	E17-10784-001MS	E3669.D	12/19/2017	6:37

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E3741.D

BFB Injection Date: 12/21/2017

Inst ID: MSD_E

BFB Injection Time: 10:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.4			
75	30.0 - 60.0% of mass 95	41.3			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.9	(	1.1	)1
174	Great than 50.0% of mass 95	84.9			
175	5.0 - 9.0% of mass 174	6.2	(	7.3	)1
176	95.0 - 101.0% of mass 174	80.7	(	95.1	)1
177	5.0 - 9.0% of mass 176	5.2	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV171221	E3742.D	12/21/2017	10:48
BLKA171221	BLKA171221	E3745.D	12/21/2017	12:18
MW-23D	E17-10913-001	E3746.D	12/21/2017	12:47
FB	E17-10913-003	E3747.D	12/21/2017	1:17
MW-13D	E17-10913-002	E3748.D	12/21/2017	1:47
TB	E17-10913-004	E3749.D	12/21/2017	2:17
SB-38	E17-10966-007	E3750.D	12/21/2017	2:47
SB-39	E17-10966-008	E3751.D	12/21/2017	3:17
MW-4	E17-10877-001	E3752.D	12/21/2017	3:47
LCSA171221	LCSA171221	E3753.D	12/21/2017	4:17
E17-10966-007MS	E17-10966-007MS	E3754.D	12/21/2017	4:47
E17-10966-007MSI	E17-10966-007MS	E3755.D	12/21/2017	5:17
MW-23D	E17-10913-001DL	E3756.D	12/21/2017	5:47
FB	E17-10877-002	E3757.D	12/21/2017	6:16
TB	E17-10877-003	E3758.D	12/21/2017	6:47
MW-15D	E17-10739-008DL	E3759.D	12/21/2017	7:17
PMW-2	E17-10739-003DL	E3760.D	12/21/2017	7:47
KO2	E17-10899-003	E3761.D	12/21/2017	8:16
KO1	E17-10899-002	E3762.D	12/21/2017	8:46
INFLUENT	E17-10899-001	E3763.D	12/21/2017	9:16

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E3741.D

BFB Injection Date : 12/21/201

Inst ID: MSD_E

BFB Injection Time: 10:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.4			
75	30.0 - 60.0% of mass 95	41.3			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.9	(	1.1	)1
174	Great than 50.0% of mass 95	84.9			
175	5.0 - 9.0% of mass 174	6.2	(	7.3	)1
176	95.0 - 101.0% of mass 174	80.7	(	95.1	)1
177	5.0 - 9.0% of mass 176	5.2	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
PZ-9/10.25	E17-10953-001	E3764.D	12/21/2017	9:46

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2248.D

BFB Injection Date: 12/14/2017

Inst ID: MSD_J

BFB Injection Time: 14:43

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.4			
75	30.0 - 60.0% of mass 95	59.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.3			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	71.9			
175	5.0 - 9.0% of mass 174	5.5	(	7.7	)1
176	95.0 - 101.0% of mass 174	68.9	(	95.8	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC171214	ICC0.5	J2249.D	12/14/2017	15:10
ICC171214a	ICC1	J2250.D	12/14/2017	15:37
ICC171214b	ICC5	J2251.D	12/14/2017	16:03
ICC171214c	ICC20	J2252.D	12/14/2017	16:29
ICC171214d	ICC100	J2253.D	12/14/2017	16:56
ICC171214e	ICC150	J2254.D	12/14/2017	17:23
ICC171214f	ICC200	J2255.D	12/14/2017	17:50
ICV171214	ICV100	J2258.D	12/14/2017	19:10

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2443.D

BFB Injection Date: 12/22/2017

Inst ID: MSD_J

BFB Injection Time: 9:42

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.2			
75	30.0 - 60.0% of mass 95	58.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	64.9			
175	5.0 - 9.0% of mass 174	5.0	(	7.7	)1
176	95.0 - 101.0% of mass 174	61.9	(	95.4	)1
177	5.0 - 9.0% of mass 176	4.1	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV171222	J2444.D	12/22/2017	10:09
BLKM171222-01	BLKM171222-01	J2447.D	12/22/2017	11:27
TROUGH_WC	E17-10905-001	J2448.D	12/22/2017	11:53
SB-66(3.5-4)	E17-10878-007DL	J2449.D	12/22/2017	12:20
SB-67(6-6.5)	E17-10878-008DL	J2450.D	12/22/2017	12:47
LCS-50PPB	LCSM171222-01	J2451.D	12/22/2017	13:13
MS	E17-10961-013MS	J2452.D	12/22/2017	13:40
MSD	E17-10961-013MS	J2453.D	12/22/2017	14:06
SLP121917-CO	E17-10961-013	J2456.D	12/22/2017	15:26
SB-38(S)	E17-10966-001	J2457.D	12/22/2017	15:53
SB-39(S)	E17-10966-003	J2458.D	12/22/2017	16:19
SB-40(S)	E17-10966-005	J2459.D	12/22/2017	16:46
SB-10/2-2.5	E17-10873-010	J2460.D	12/22/2017	17:13
SB-15/4.5-5	E17-10873-015	J2461.D	12/22/2017	17:39
B-32_(11-11.	E17-10908-005	J2462.D	12/22/2017	18:06
B-38_(9.5-10	E17-10908-009	J2463.D	12/22/2017	18:32
B-31_(7.5-8)	E17-10908-004	J2464.D	12/22/2017	18:59
B-37_(8.5-9)	E17-10908-008	J2465.D	12/22/2017	19:25
B-36_(9.5-10	E17-10908-001	J2466.D	12/22/2017	19:52
B-29_(8-8.5)	E17-10908-007	J2469.D	12/22/2017	21:11

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Thu Dec 21 09:38:34 2017
Response Via : Initial Calibration

MXF 12/21/17
12/21/17

Calibration Files
1 =F2621.D 2 =F2622.D 5 =F2623.D
20 =F2624.D 100 =F2625.D 150 =F2626.D 200 =F2627.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	1.015	1.103	0.979	0.834	0.804	0.730	0.736	0.886	16.56
3)	P	Chloromethane	1.137	1.073	1.051	0.997	0.895	0.851	0.844	0.978	11.86
4)	C	Vinyl chloride	1.105	1.043	0.968	0.927	0.850	0.811	0.801	0.929	12.59
5)	T	Bromomethane	0.504	0.478	0.489	0.438	0.374	0.343	0.325	0.421	17.51
6)	T	Chloroethane	0.579	0.529	0.506	0.480	0.442	0.417	0.397	0.479	13.52
7)	T	Trichlorofluorome	1.299	1.275	1.162	1.054	1.012	0.987	0.985	1.111	12.14
8)	T	Acrolein	0.083	0.081	0.084	0.083	0.073	0.062	0.068	0.076	11.47
9)	MC	1,1-Dichloroethen	0.711	0.687	0.638	0.586	0.551	0.532	0.530	0.605	12.30
10)	T	Acetone			0.214	0.225	0.199	0.176	0.164	0.196	12.94
11)	T	Carbon disulfide	2.111	2.005	1.805	1.745	1.705	1.604	1.595	1.796	10.92
12)	T	Vinyl acetate	1.971	1.845	1.737	1.835	1.732	1.568	1.491	1.740	9.52
13)	T	Methylene chlorid		0.748	0.696	0.583	0.535	0.491	0.486	0.590	18.53
14)	T	Acrylonitrile	0.187	0.187	0.186	0.191	0.170	0.138	0.152	0.173	11.90
15)	T	tert-Butyl alcoho	0.077	0.083	0.073	0.076	0.067	0.060	0.058	0.071	13.14
16)	T	trans-1,2-Dichlor	0.745	0.780	0.726	0.711	0.655	0.605	0.604	0.689	10.04
17)	T	Methyl tert-butyl	1.619	1.488	1.433	1.400	1.361	1.238	1.227	1.395	9.90
18)	P	1,1-Dichloroethan	1.479	1.391	1.307	1.269	1.204	1.068	1.050	1.253	12.66
19)	T	Diisopropyl ether	2.533	2.312	2.172	2.375	2.240	2.037	1.973	2.235	8.68
20)	T	cis-1,2-Dichloroe	0.727	0.736	0.702	0.684	0.653	0.620	0.619	0.677	7.10
21)	T	2,2-Dichloropropa	0.931	0.910	0.834	0.839	0.828	0.799	0.806	0.849	6.01
22)	T	2-Butanone (MEK)	0.321	0.283	0.277	0.294	0.254	0.225	0.208	0.266	14.96
23)	T	Bromochloromethan	0.390	0.352	0.358	0.329	0.318	0.304	0.308	0.337	9.31
25)	C	Chloroform	1.254	1.206	1.119	1.066	0.994	0.929	0.920	1.070	12.24
26)	T	1,1,1-Trichloroet	1.171	1.167	1.079	1.044	0.998	0.951	0.961	1.053	8.64
27)	T	Carbon tetrachlor	1.145	1.117	1.053	1.047	1.020	0.972	0.996	1.050	5.96
28)	T	1,1-Dichloroprope	1.006	0.978	0.882	0.901	0.854	0.784	0.779	0.883	9.87
29)	T	1,2-Dichloroethan	0.948	0.894	0.840	0.832	0.789	0.711	0.696	0.816	11.22
30)	S	1,2-Dichloroethan	0.559	0.517	0.489	0.528	0.510	0.491	0.478	0.510	5.42
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.624	1.593	1.482	1.431	1.374	1.274	1.283	1.437	9.67
33)	M	Trichloroethene	0.484	0.477	0.455	0.427	0.417	0.403	0.408	0.439	7.54
34)	C	1,2-Dichloropropa	0.448	0.427	0.416	0.408	0.403	0.380	0.370	0.407	6.57
35)	T	Dibromomethane	0.226	0.227	0.220	0.212	0.208	0.200	0.198	0.213	5.64
36)	T	1,4-Dioxane	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.003	14.52
37)	T	Bromodichlorometh	0.453	0.495	0.451	0.444	0.450	0.434	0.432	0.451	4.66
38)	T	2-Chloroethyl vin	0.145	0.153	0.137	0.150	0.155	0.150	0.145	0.148	3.91
39)	T	cis-1,3-Dichlorop	0.416	0.443	0.465	0.451	0.485	0.471	0.471	0.457	5.02
40)	T	4-Methyl-2-pentan	0.342	0.285	0.305	0.325	0.313	0.289	0.274	0.305	7.79
41)	S	Toluene-d8	0.949	0.947	0.942	0.962	0.994	1.000	0.989	0.969	2.54
42)	MC	Toluene	0.990	0.951	0.920	0.862	0.854	0.830	0.825	0.890	7.17
43)	T	trans-1,3-Dichlor	0.347	0.373	0.363	0.389	0.412	0.404	0.399	0.384	6.11
44)	T	1,1,2-Trichloroet	0.216	0.241	0.230	0.212	0.209	0.201	0.200	0.216	6.99
45)	T	Tetrachloroethene	0.497	0.478	0.451	0.403	0.404	0.401	0.415	0.436	9.11
46)	T	1,3-Dichloropropa	0.461	0.446	0.444	0.415	0.414	0.396	0.384	0.423	6.66
47)	T	2-Hexanone	0.214	0.205	0.197	0.233	0.228	0.214	0.191	0.212	7.29
48)	T	Dibromochlorometh	0.336	0.328	0.347	0.332	0.349	0.352	0.357	0.343	3.19
49)	T	1,2-Dibromoethane	0.259	0.261	0.280	0.264	0.261	0.257	0.255	0.262	3.19
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.420	1.426	1.338	1.244	1.178	1.125	1.126	1.265	10.34
52)	T	1,1,1,2-Tetrachlo	0.506	0.495	0.483	0.477	0.492	0.468	0.481	0.486	2.58

53)	C	Ethylbenzene	2.106	2.113	2.033	2.018	1.987	1.864	1.845	1.995	5.34
54)	T	m,p-Xylene	0.838	0.868	0.826	0.830	0.813	0.762	0.762	0.814	4.81
55)	T	o-Xylene	0.750	0.715	0.750	0.803	0.804	0.762	0.771	0.765	4.11
56)	T	Styrene	1.064	1.189	1.249	1.313	1.324	1.252	1.251	1.235	7.10
57)	P	Bromoform	0.249	0.274	0.236	0.224	0.240	0.236	0.243	0.243	6.47
58)	T	Isopropylbenzene	1.916	1.981	2.001	2.117	2.162	2.022	2.049	2.035	4.08
59)	S	Bromofluorobenzen	0.469	0.461	0.462	0.497	0.511	0.494	0.494	0.484	4.05
60)	P	1,1,2,2-Tetrachlo	0.459	0.428	0.451	0.427	0.401	0.362	0.361	0.413	9.59
61)	T	Bromobenzene	0.532	0.543	0.528	0.517	0.502	0.480	0.487	0.513	4.59
62)	T	1,2,3-Trichloropr	0.451	0.414	0.381	0.400	0.372	0.336	0.330	0.383	11.18
63)	T	n-Propylbenzene	2.459	2.421	2.384	2.501	2.492	2.300	2.289	2.407	3.59
64)	T	2-Chlorotoluene	1.499	1.554	1.451	1.508	1.481	1.357	1.355	1.458	5.22
65)	T	1,3,5-Trimethylbe	1.706	1.762	1.757	1.900	1.890	1.723	1.741	1.783	4.44
66)	T	4-Chlorotoluene	1.718	1.794	1.708	1.768	1.750	1.622	1.612	1.710	4.11
67)	T	tert-Butylbenzene	1.435	1.489	1.538	1.679	1.687	1.530	1.548	1.558	6.00
68)	T	1,2,4-Trimethylbe	1.567	1.696	1.750	1.905	1.900	1.729	1.728	1.754	6.74
69)	T	sec-Butylbenzene	2.054	2.249	2.260	2.450	2.402	2.180	2.169	2.252	6.09
70)	T	1,3-Dichlorobenze	1.070	1.136	1.078	1.086	1.058	0.982	1.001	1.059	4.95
71)	T	4-Isopropyltoluen	1.781	1.941	1.975	2.180	2.171	1.944	1.954	1.992	7.07
72)	T	1,4-Dichlorobenze	1.013	1.114	1.048	1.082	1.055	0.971	0.989	1.039	4.93
73)	T	n-Butylbenzene	0.823	0.889	0.895	1.031	1.074	0.955	0.952	0.946	9.13
74)	T	1,2-Dichlorobenze	0.939	0.998	0.953	0.971	0.933	0.841	0.843	0.925	6.58
75)	T	1,2-Dibromo-3-chl	0.077	0.077	0.064	0.071	0.064	0.055	0.055	0.066	14.05
76)	T	1,2,4-Trichlorobe	0.519	0.521	0.487	0.508	0.483	0.457	0.465	0.491	5.13
77)	T	Hexachlorobutadie	0.315	0.340	0.330	0.317	0.285	0.265	0.272	0.304	9.75
78)	T	Naphthalene	0.930	0.894	0.913	1.131	1.104	1.034	1.026	1.004	9.40
79)	T	1,2,3-Trichlorobe	0.447	0.500	0.476	0.489	0.455	0.426	0.420	0.459	6.70
80)	T	1,1,2-Trichloro-1	0.632	0.631	0.608	0.555	0.540	0.508	0.514	0.570	9.41
81)	T	Methyl acetate	0.595	0.560	0.519	0.518	0.471	0.414	0.392	0.496	14.95
82)	T	Cyclohexane	1.225	1.340	1.392	1.255	1.147	1.006	1.001	1.195	12.81
83)	T	Methylcyclohexane	1.015	0.966	0.903	0.956	0.947	0.849	0.850	0.926	6.70

(#) = Out of Range ### Number of calibration levels exceeded format ###

FS122017.M Thu Dec 21 09:38:41 2017 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\12-20-17\
Data File : F2629.D
Acq On : 20 Dec 2017 16:08
Operator : XING
Sample : ICV100,ICV171220,S,5g,0
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 21 09:40:30 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	115	0.00
2	T	Dichlorodifluoromethane	0.886	0.724	18.3	104	0.00
3	P	Chloromethane	0.978	0.795	18.7	102	0.00
4	C	Vinyl chloride	0.929	0.781	15.9	106	0.00
5	T	Bromomethane	0.421	0.362	14.0	111	0.00
6	T	Chloroethane	0.479	0.412	14.0	107	0.00
7	T	Trichlorofluoromethane	1.111	0.988	11.1	112	0.00
8	T	Acrolein	0.076	0.073	3.9	115	0.00
9	MC	1,1-Dichloroethene	0.605	0.545	9.9	114	0.00
10	T	Acetone	0.196	0.183	6.6	105	0.00
11	T	Carbon disulfide	1.796	1.660	7.6	112	0.00
12	T	Vinyl acetate	1.740	1.576	9.4	105	0.00
13	T	Methylene chloride	0.590	0.510	13.6	110	0.00
14	T	Acrylonitrile	0.173	0.168	2.9	114	0.00
15	T	tert-Butyl alcohol (TBA)	0.071	0.065	8.5	112	0.00
16	T	trans-1,2-Dichloroethene	0.689	0.631	8.4	111	0.00
17	T	Methyl tert-butyl ether (MT	1.395	1.295	7.2	110	0.00
18	P	1,1-Dichloroethane	1.253	1.100	12.2	105	0.00
19	T	Diisopropyl ether (DIPE)	2.235	2.062	7.7	106	0.00
20	T	cis-1,2-Dichloroethene	0.677	0.648	4.3	114	0.01
21	T	2,2-Dichloropropane	0.849	0.803	5.4	112	0.00
22	T	2-Butanone (MEK)	0.266	0.235	11.7	107	0.00
23	T	Bromochloromethane	0.337	0.323	4.2	117	0.00
25	C	Chloroform	1.070	0.973	9.1	113	0.00
26	T	1,1,1-Trichloroethane	1.053	0.996	5.4	115	0.00
27	T	Carbon tetrachloride	1.050	1.034	1.5	117	0.00
28	T	1,1-Dichloropropene	0.883	0.822	6.9	111	0.00
29	T	1,2-Dichloroethane (EDC)	0.816	0.752	7.8	110	0.00
30	S	1,2-Dichloroethane-d4	0.510	0.476	6.7	107	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	111	0.00
32	M	Benzene	1.437	1.357	5.6	110	0.00
33	M	Trichloroethene	0.439	0.430	2.1	115	0.00
34	C	1,2-Dichloropropane	0.407	0.398	2.2	110	0.00
35	T	Dibromomethane	0.213	0.211	0.9	113	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	125	0.00
37	T	Bromodichloromethane	0.451	0.456	-1.1	113	0.00
38	T	2-Chloroethyl vinyl ether	0.148	0.155	-4.7	111	0.00
39	T	cis-1,3-Dichloropropene	0.457	0.492	-7.7	113	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.305	0.303	0.7	108	0.00
41	S	Toluene-d8	0.969	0.984	-1.5	110	0.00
42	MC	Toluene	0.890	0.868	2.5	113	0.00
43	T	trans-1,3-Dichloropropene	0.384	0.418	-8.9	113	0.00
44	T	1,1,2-Trichloroethane	0.216	0.213	1.4	113	0.00
45	T	Tetrachloroethene	0.436	0.435	0.2	120	0.00
46	T	1,3-Dichloropropane	0.423	0.419	0.9	112	0.00

47	I	2-Hexanone	0.212	0.224	-5.7	109	0.00
48	T	Dibromochloromethane	0.343	0.373	-8.7	119	0.00
49	T	1,2-Dibromoethane (EDB)	0.262	0.275	-5.0	117	0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
51	MP	Chlorobenzene	1.265	1.199	5.2	116	0.00
52	T	1,1,1,2-Tetrachloroethane	0.486	0.508	-4.5	118	0.00
53	C	Ethylbenzene	1.995	1.966	1.5	113	0.00
54	T	m,p-Xylene	0.814	0.816	-0.2	114	0.00
55	T	o-Xylene	0.765	0.813	-6.3	115	0.00
56	T	Styrene	1.235	1.334	-8.0	115	0.00
57	P	Bromoform	0.243	0.257	-5.8	122	0.00
58	T	Isopropylbenzene	2.035	2.159	-6.1	114	0.00
59	S	Bromofluorobenzene	0.484	0.494	-2.1	110	0.00
60	P	1,1,2,2-Tetrachloroethane	0.413	0.392	5.1	111	0.00
61	T	Bromobenzene	0.513	0.529	-3.1	120	0.00
62	T	1,2,3-Trichloropropane	0.383	0.368	3.9	113	0.00
63	T	n-Propylbenzene	2.407	2.438	-1.3	112	0.00
64	T	2-Chlorotoluene	1.458	1.452	0.4	112	0.00
65	T	1,3,5-Trimethylbenzene	1.783	1.871	-4.9	113	0.00
66	T	4-Chlorotoluene	1.710	1.722	-0.7	112	0.00
67	T	tert-Butylbenzene	1.558	1.682	-8.0	114	0.00
68	T	1,2,4-Trimethylbenzene	1.754	1.870	-6.6	112	0.00
69	T	sec-Butylbenzene	2.252	2.389	-6.1	113	0.00
70	T	1,3-Dichlorobenzene	1.059	1.083	-2.3	117	0.00
71	T	4-Isopropyltoluene	1.992	2.152	-8.0	113	0.01
72	T	1,4-Dichlorobenzene	1.039	1.067	-2.7	115	0.00
73	T	n-Butylbenzene	0.946	1.035	-9.4	110	0.00
74	T	1,2-Dichlorobenzene	0.925	0.945	-2.2	115	0.01
75	T	1,2-Dibromo-3-chloropropane	0.066	0.063	4.5	113	0.00
76	T	1,2,4-Trichlorobenzene	0.491	0.506	-3.1	119	0.00
77	T	Hexachlorobutadiene	0.304	0.304	0.0	122	0.00
78	T	Naphthalene	1.004	1.156	-15.1	119	0.00
79	T	1,2,3-Trichlorobenzene	0.459	0.480	-4.6	120	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.570	0.537	5.8	113	0.00
81	T	Methyl acetate	0.496	0.439	11.5	106	0.00
82	T	Cyclohexane	1.195	1.075	10.0	107	0.00
83	T	Methylcyclohexane	0.926	0.892	3.7	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FS122017.M Thu Dec 21 09:40:39 2017 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2667.D
Acq On : 21 Dec 2017 11:47
Operator : XING
Sample : CCV100,CCV171221,S,5g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 21 12:07:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	0.886	0.777	12.3	103	0.00
3	P	Chloromethane	0.978	0.862	11.9	102	0.00
4	C	Vinyl chloride	0.929	0.840	9.6	105	0.00
5	T	Bromomethane	0.421	0.384	8.8	109	0.00
6	T	Chloroethane	0.479	0.434	9.4	104	0.00
7	T	Trichlorofluoromethane	1.111	1.061	4.5	111	0.00
8	T	Acrolein	0.076	0.079	-3.9	114	0.00
9	MC	1,1-Dichloroethene	0.605	0.574	5.1	111	0.00
10	T	Acetone	0.196	0.202	-3.1	107	0.00
11	T	Carbon disulfide	1.796	1.741	3.1	108	0.00
12	T	Vinyl acetate	1.740	1.642	5.6	101	0.00
13	T	Methylene chloride	0.590	0.544	7.8	108	0.00
14	T	Acrylonitrile	0.173	0.179	-3.5	111	0.00
15	T	tert-Butyl alcohol (TBA)	0.071	0.070	1.4	112	0.00
16	T	trans-1,2-Dichloroethene	0.689	0.666	3.3	108	0.00
17	T	Methyl tert-butyl ether (MT	1.395	1.380	1.1	107	0.00
18	P	1,1-Dichloroethane	1.253	1.176	6.1	104	0.00
19	T	Diisopropyl ether (DIPE)	2.235	2.202	1.5	104	0.00
20	T	cis-1,2-Dichloroethene	0.677	0.680	-0.4	110	0.00
21	T	2,2-Dichloropropane	0.849	0.872	-2.7	112	0.00
22	T	2-Butanone (MEK)	0.266	0.251	5.6	105	0.00
23	T	Bromochloromethane	0.337	0.340	-0.9	113	0.00
25	C	Chloroform	1.070	1.017	5.0	108	0.00
26	T	1,1,1-Trichloroethane	1.053	1.041	1.1	111	0.00
27	T	Carbon tetrachloride	1.050	1.078	-2.7	112	0.00
28	T	1,1-Dichloropropene	0.883	0.843	4.5	105	0.00
29	T	1,2-Dichloroethane (EDC)	0.816	0.763	6.5	102	0.00
30	S	1,2-Dichloroethane-d4	0.510	0.501	1.8	104	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	103	0.00
32	M	Benzene	1.437	1.393	3.1	104	0.00
33	M	Trichloroethene	0.439	0.434	1.1	107	0.00
34	C	1,2-Dichloropropane	0.407	0.403	1.0	103	0.00
35	T	Dibromomethane	0.213	0.219	-2.8	108	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	119	0.00
37	T	Bromodichloromethane	0.451	0.462	-2.4	105	0.00
38	T	2-Chloroethyl vinyl ether	0.148	0.145	2.0	97	0.00
39	T	cis-1,3-Dichloropropene	0.457	0.490	-7.2	104	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.305	0.313	-2.6	103	0.00
41	S	Toluene-d8	0.969	0.997	-2.9	103	0.00
42	MC	Toluene	0.890	0.883	0.8	106	0.00
43	T	trans-1,3-Dichloropropene	0.384	0.409	-6.5	102	0.00
44	T	1,1,2-Trichloroethane	0.216	0.216	0.0	106	0.00
45	T	Tetrachloroethene	0.436	0.446	-2.3	114	0.00
46	T	1,3-Dichloropropane	0.423	0.418	1.2	104	0.00

47	T	2-Hexanone	0.212	0.211	0.5	95	0.00
48	T	Dibromochloromethane	0.343	0.374	-9.0	110	0.00
49	T	1,2-Dibromoethane (EDB)	0.262	0.274	-4.6	108	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
51	MP	Chlorobenzene	1.265	1.193	5.7	107	0.00
52	T	1,1,1,2-Tetrachloroethane	0.486	0.515	-6.0	111	0.00
53	C	Ethylbenzene	1.995	1.966	1.5	105	0.00
54	T	m,p-Xylene	0.814	0.828	-1.7	108	0.00
55	T	o-Xylene	0.765	0.839	-9.7	110	0.00
56	T	Styrene	1.235	1.344	-8.8	107	0.00
57	P	Bromoform	0.243	0.261	-7.4	115	0.00
58	T	Isopropylbenzene	2.035	2.231	-9.6	109	0.00
59	S	Bromofluorobenzene	0.484	0.499	-3.1	103	0.00
60	P	1,1,2,2-Tetrachloroethane	0.413	0.417	-1.0	110	0.00
61	T	Bromobenzene	0.513	0.535	-4.3	113	0.00
62	T	1,2,3-Trichloropropane	0.383	0.383	0.0	109	0.00
63	T	n-Propylbenzene	2.407	2.529	-5.1	107	0.00
64	T	2-Chlorotoluene	1.458	1.523	-4.5	109	0.00
65	T	1,3,5-Trimethylbenzene	1.783	1.959	-9.9	110	0.00
66	T	4-Chlorotoluene	1.710	1.767	-3.3	107	0.00
67	T	tert-Butylbenzene	1.558	1.774	-13.9	111	0.00
68	T	1,2,4-Trimethylbenzene	1.754	1.975	-12.6	110	0.00
69	T	sec-Butylbenzene	2.252	2.505	-11.2	110	0.00
70	T	1,3-Dichlorobenzene	1.059	1.137	-7.4	114	0.00
71	T	4-Isopropyltoluene	1.992	2.262	-13.6	110	0.01
72	T	1,4-Dichlorobenzene	1.039	1.122	-8.0	112	0.00
73	T	n-Butylbenzene	0.946	1.099	-16.2	108	0.00
74	T	1,2-Dichlorobenzene	0.925	1.006	-8.8	114	0.00
75	T	1,2-Dibromo-3-chloropropane	0.066	0.069	-4.5	114	0.00
76	T	1,2,4-Trichlorobenzene	0.491	0.520	-5.9	114	0.00
77	T	Hexachlorobutadiene	0.304	0.316	-3.9	117	0.00
78	T	Naphthalene	1.004	1.203	-19.8	115	0.00
79	T	1,2,3-Trichlorobenzene	0.459	0.491	-7.0	114	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.570	0.577	-1.2	113	0.00
81	T	Methyl acetate	0.496	0.472	4.8	106	0.00
82	T	Cyclohexane	1.195	1.138	4.8	105	0.00
83	T	Methylcyclohexane	0.926	0.934	-0.9	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FS122017.M Thu Dec 21 12:47:10 2017 RP1

Response Factor Report MSD_E

Method Path : C:\MSDCHEM\1\METHODS\
Method File : E8121917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Wed Dec 20 10:33:45 2017
Response Via : Initial Calibration

Calibration Files
0.5 =E3649.D 1.0 =E3658.D 5.0 =E3651.D
20. =E3652.D 100 =E3653.D 150 =E3654.D 200 =E3655.D

		Compound	0.5	1.0	5.0	20.	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------						
2)	T	Dichlorodifluorom		0.346	0.289	0.301	0.344	0.283	0.339	0.317	9.19
3)	P	Chloromethane	0.490	0.665	0.475	0.487	0.499	0.460	0.510	0.512	13.52
4)	C	Vinyl chloride		0.544	0.440	0.450	0.483	0.427	0.489	0.472	9.11
5)	T	Bromomethane		0.252	0.228	0.228	0.222	0.200	0.217	0.225	7.49
6)	T	Chloroethane	0.211	0.297	0.246	0.238	0.242	0.218	0.244	0.242	11.47
7)	T	Trichlorofluorome	0.393	0.391	0.347	0.364	0.466	0.394	0.472	0.404	11.81
8)	T	Acrolein	0.029	0.026	0.025	0.024	0.022	0.024	0.022	0.025	9.64
9)	MC	1,1-Dichloroethen	0.295	0.420	0.332	0.328	0.345	0.301	0.346	0.338	12.17
10)	T	Acetone		0.148	0.167	0.157	0.148	0.131	0.133	0.147	9.33
11)	T	Carbon disulfide		1.258	0.934	1.081	1.078	0.958	1.066	1.063	10.83
12)	T	Vinyl acetate		0.491	0.518	0.513	0.532	0.477	0.482	0.502	4.41
13)	T	Methylene chlorid		0.512	0.522	0.504	0.498	0.453	0.481	0.495	5.04
14)	T	Acrylonitrile	0.229	0.224	0.246	0.242	0.232	0.239	0.222	0.233	3.95
15)	T	tert-Butyl alcoho		0.070	0.076	0.069	0.069	0.060	0.062	0.068	8.52
16)	T	trans-1,2-Dichlor	0.516	0.540	0.467	0.498	0.511	0.448	0.482	0.495	6.31
17)	T	Methyl tert-butyl	1.343	1.403	1.478	1.501	1.557	1.409	1.440	1.447	4.90
18)	P	1,1-Dichloroethan	0.890	0.853	0.871	0.893	0.927	0.824	0.875	0.876	3.73
19)	T	Diisopropyl ether	1.629	1.769	1.795	1.822	1.900	1.680	1.757	1.765	5.08
20)	T	cis-1,2-Dichloroe	0.481	0.557	0.535	0.551	0.570	0.510	0.542	0.535	5.72
21)	T	2,2-Dichloropropa	0.412	0.387	0.334	0.371	0.422	0.364	0.387	0.382	7.83
22)	T	2-Butanone (MEK)		0.287	0.280	0.284	0.286	0.251	0.255	0.274	6.03
23)	T	Bromochloromethan		0.241	0.258	0.265	0.276	0.251	0.263	0.259	4.67
25)	C	Chloroform	0.992	0.944	0.855	0.834	0.858	0.765	0.813	0.866	8.96
26)	T	1,1,1-Trichloroet	0.560	0.708	0.650	0.672	0.717	0.617	0.680	0.658	8.32
27)	T	Carbon tetrachlor	0.424	0.653	0.550	0.588	0.642	0.540	0.608	0.572	13.62
28)	T	1,1-Dichloroprope	0.538	0.792	0.644	0.657	0.691	0.588	0.655	0.652	12.25
29)	T	1,2-Dichloroethan	0.630	0.673	0.674	0.693	0.700	0.622	0.638	0.661	4.69
30)	S	1,2-Dichloroethan	0.547	0.517	0.554	0.542	0.542	0.532	0.517	0.536	2.70
31)	I	1,4-Difluorobenzene	----------	ISTD	----------						
32)	M	Benzene	1.088	1.424	1.250	1.285	1.298	1.136	1.244	1.246	8.85
33)	M	Trichloroethene	0.237	0.390	0.309	0.311	0.315	0.275	0.304	0.306	15.16
34)	C	1,2-Dichloropropa	0.287	0.361	0.337	0.342	0.339	0.304	0.324	0.328	7.61
35)	T	Dibromomethane	0.157	0.189	0.188	0.194	0.197	0.176	0.184	0.184	7.28
36)	T	1,4-Dioxane	0.004	0.003	0.004	0.004	0.004	0.004	0.003	0.004	9.15
37)	T	Bromodichlorometh	0.306	0.354	0.383	0.399	0.422	0.374	0.402	0.377	10.09
39)	T	cis-1,3-Dichlorop	0.354	0.428	0.490	0.516	0.548	0.495	0.529	0.480	14.04
40)	T	4-Methyl-2-pentan	0.311	0.340	0.374	0.368	0.372	0.322	0.325	0.345	7.72
41)	S	Toluene-d8	1.119	1.127	1.136	1.155	1.154	1.150	1.161	1.143	1.40
42)	MC	Toluene	0.674	0.951	0.804	0.829	0.846	0.747	0.820	0.810	10.56
43)	T	trans-1,3-Dichlor	0.320	0.405	0.434	0.458	0.497	0.448	0.477	0.434	13.42
44)	T	1,1,2-Trichloroet	0.180	0.229	0.231	0.233	0.243	0.216	0.230	0.223	9.28
45)	T	Tetrachloroethene	0.251	0.389	0.301	0.313	0.318	0.276	0.314	0.309	13.85
46)	T	1,3-Dichloropropa	0.437	0.489	0.497	0.493	0.508	0.453	0.478	0.479	5.33
47)	T	2-Hexanone	0.275	0.274	0.266	0.271	0.263	0.227	0.234	0.258	7.58
48)	T	Dibromochlorometh	0.218	0.248	0.275	0.298	0.338	0.302	0.328	0.287	14.93
49)	T	1,2-Dibromoethane	0.266	0.255	0.273	0.286	0.295	0.262	0.280	0.274	5.09
50)	I	Chlorobenzene-d5	----------	ISTD	----------						
51)	MP	Chlorobenzene	0.849	1.115	0.962	0.962	0.970	0.865	0.931	0.951	9.16
52)	T	1,1,1,2-Tetrachlo	0.276	0.331	0.336	0.342	0.346	0.312	0.330	0.325	7.45
53)	C	Ethylbenzene	1.377	1.934	1.592	1.631	1.632	1.418	1.570	1.593	11.38

54)	T	m,p-Xylene	0.546	0.752	0.638	0.642	0.643	0.567	0.608	0.628	10.64
55)	T	o-Xylene	0.536	0.724	0.654	0.669	0.667	0.591	0.636	0.640	9.45
56)	T	Styrene	0.811	1.142	1.062	1.089	1.124	0.989	1.066	1.040	10.81
57)	P	Bromoform	0.287	0.277	0.229	0.190	0.223	0.207	0.216	0.233	15.55
58)	T	Isopropylbenzene	1.377	1.968	1.580	1.645	1.696	1.465	1.633	1.623	11.59
59)	S	Bromofluorobenzen	0.566	0.564	0.563	0.570	0.563	0.558	0.557	0.563	0.79
60)	P	1,1,2,2-Tetrachlo	0.421	0.420	0.596	0.482	0.452	0.399	0.414	0.455	14.97
61)	T	Bromobenzene	0.364	0.447	0.397	0.403	0.408	0.365	0.385	0.395	7.23
62)	T	1,2,3-Trichloropr		0.414	0.389	0.387	0.377	0.331	0.339	0.373	8.54
63)	T	n-Propylbenzene	1.718	2.370	1.875	1.917	1.937	1.705	1.858	1.911	11.60
64)	T	2-Chlorotoluene	1.125	1.457	1.176	1.169	1.169	1.044	1.127	1.181	10.99
65)	T	1,3,5-Trimethylbe	1.388	1.714	1.349	1.426	1.433	1.247	1.370	1.418	10.20
66)	T	4-Chlorotoluene	1.268	1.665	1.359	1.365	1.351	1.216	1.297	1.360	10.67
67)	T	tert-Butylbenzene	1.098	1.494	1.156	1.223	1.239	1.088	1.211	1.216	11.23
68)	T	1,2,4-Trimethylbe	1.291	1.745	1.431	1.444	1.457	1.295	1.396	1.437	10.58
69)	T	sec-Butylbenzene	1.719	2.240	1.705	1.746	1.797	1.560	1.742	1.787	11.92
70)	T	1,3-Dichlorobenze	0.856	0.975	0.798	0.814	0.805	0.709	0.764	0.817	10.17
71)	T	4-Isopropyltoluen	1.517	1.933	1.499	1.535	1.594	1.382	1.522	1.569	11.01
72)	T	1,4-Dichlorobenze	0.853	1.047	0.827	0.809	0.814	0.731	0.764	0.835	12.19
73)	T	n-Butylbenzene	1.539	1.786	1.350	1.368	1.391	1.197	1.340	1.425	13.21
74)	T	1,2-Dichlorobenze	0.872	0.945	0.805	0.793	0.793	0.701	0.738	0.807	10.06
75)	T	1,2-Dibromo-3-chl		0.075	0.084	0.082	0.088	0.081	0.083	0.082	5.09
76)	T	1,2,4-Trichlorobe		0.719	0.576	0.556	0.571	0.501	0.532	0.576	13.12
77)	T	Hexachlorobutadie			0.162	0.168	0.170	0.148	0.171	0.164	5.70
78)	T	Naphthalene	1.981	1.761	1.645	1.715	1.735	1.577	1.596	1.716	7.95
79)	T	1,2,3-Trichlorobe		0.672	0.535	0.538	0.548	0.502	0.496	0.548	11.70
80)	T	1,1,2-Trichloro-1		0.238	0.239	0.218	0.223	0.186	0.226	0.222	8.78
81)	T	Methyl acetate	0.430	0.356	0.358	0.347	0.345	0.309	0.314	0.351	11.32
82)	T	Cyclohexane	0.497	0.818	0.640	0.637	0.640	0.530	0.613	0.625	16.43
83)	T	Methylcyclohexane		0.795	0.565	0.545	0.580	0.473	0.554	0.585	18.64

(#) = Out of Range ### Number of calibration levels exceeded format ###

E8121917.M Wed Dec 20 10:33:52 2017

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\12-19-17\
Data File : E3671.D
Acq On : 19 Dec 2017 7:37 pm
Operator : BARBARA
Sample : CCV100,CCV171219,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 20 10:42:17 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	100	0.00
2	T	Dichlorodifluoromethane	0.317	0.340	-7.3	99	-0.01
3	P	Chloromethane	0.512	0.514	-0.4	104	-0.01
4	C	Vinyl chloride	0.472	0.476	-0.8	99	0.00
5	T	Bromomethane	0.225	0.241	-7.1	109	-0.03
6	T	Chloroethane	0.242	0.260	-7.4	108	-0.02
7	T	Trichlorofluoromethane	0.404	0.457	-13.1	99	0.00
8	T	Acrolein	0.025	0.021	16.0	94	0.00
9	MC	1,1-Dichloroethene	0.338	0.369	-9.2	108	-0.01
10	T	Acetone	0.147	0.124	15.6	85	0.00
11	T	Carbon disulfide	1.063	1.193	-12.2	111	-0.03
12	T	Vinyl acetate	0.502	0.435	13.3	82	0.00
13	T	Methylene chloride	0.495	0.533	-7.7	107	0.00
14	T	Acrylonitrile	0.233	0.211	9.4	91	0.00
15	T	tert-Butyl alcohol (TBA)	0.068	0.064	5.9	93	0.00
16	T	trans-1,2-Dichloroethene	0.495	0.539	-8.9	106	0.00
17	T	Methyl tert-butyl ether (MT	1.447	1.501	-3.7	97	0.00
18	P	1,1-Dichloroethane	0.876	0.981	-12.0	106	-0.01
19	T	Diisopropyl ether (DIPE)	1.765	1.963	-11.2	104	0.00
20	T	cis-1,2-Dichloroethene	0.535	0.602	-12.5	106	0.00
21	T	2,2-Dichloropropane	0.382	0.443	-16.0	105	0.00
22	T	2-Butanone (MEK)	0.274	0.226	17.5	79	-0.01
23	T	Bromochloromethane	0.259	0.281	-8.5	102	-0.01
24	T	Tetrahydrofuran	0.000	0.000	0.0	94	-0.02
25	C	Chloroform	0.866	0.916	-5.8	107	-0.01
26	T	1,1,1-Trichloroethane	0.658	0.763	-16.0	107	0.00
27	T	Carbon tetrachloride	0.572	0.673	-17.7	105	0.00
28	T	1,1-Dichloropropene	0.652	0.720	-10.4	105	0.00
29	T	1,2-Dichloroethane (EDC)	0.661	0.692	-4.7	99	0.00
30	S	1,2-Dichloroethane-d4	0.536	0.532	0.7	99	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	101	0.00
32	M	Benzene	1.246	1.349	-8.3	105	-0.01
33	M	Trichloroethene	0.306	0.327	-6.9	105	0.00
34	C	1,2-Dichloropropane	0.328	0.346	-5.5	103	0.00
35	T	Dibromomethane	0.184	0.187	-1.6	96	-0.01
36	T	1,4-Dioxane	0.004	0.004	0.0	101	0.00
37	T	Bromodichloromethane	0.377	0.426	-13.0	102	0.00
39	T	cis-1,3-Dichloropropene	0.480	0.537	-11.9	99	-0.02
40	T	4-Methyl-2-pentanone (MIBK)	0.345	0.300	13.0	81	0.00
41	S	Toluene-d8	1.143	1.152	-0.8	101	0.00
42	MC	Toluene	0.810	0.855	-5.6	102	0.00
43	T	trans-1,3-Dichloropropene	0.434	0.460	-6.0	93	-0.02
44	T	1,1,2-Trichloroethane	0.223	0.222	0.4	92	0.00
45	T	Tetrachloroethene	0.309	0.321	-3.9	102	0.00
46	T	1,3-Dichloropropane	0.479	0.469	2.1	93	-0.02

47	T	2-Hexanone	0.258	0.211	18.2	81	-0.03
48	T	Dibromochloromethane	0.287	0.321	-11.8	96	0.00
49	T	1,2-Dibromoethane (EDB)	0.274	0.267	2.6	91	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
51	MP	Chlorobenzene	0.951	0.985	-3.6	101	0.00
52	T	1,1,1,2-Tetrachloroethane	0.325	0.364	-12.0	104	0.00
53	C	Ethylbenzene	1.593	1.676	-5.2	102	-0.01
54	T	m,p-Xylene	0.628	0.660	-5.1	102	0.00
55	T	o-Xylene	0.640	0.695	-8.6	103	0.00
56	T	Styrene	1.040	1.146	-10.2	101	-0.01
57	P	Bromoform	0.233	0.208	10.7	92	0.00
58	T	Isopropylbenzene	1.623	1.749	-7.8	102	0.00
59	S	Bromofluorobenzene	0.563	0.575	-2.1	101	0.00
60	P	1,1,2,2-Tetrachloroethane	0.455	0.406	10.8	89	0.00
61	T	Bromobenzene	0.395	0.414	-4.8	101	0.00
62	T	1,2,3-Trichloropropane	0.373	0.336	9.9	88	-0.01
63	T	n-Propylbenzene	1.911	2.011	-5.2	103	0.00
64	T	2-Chlorotoluene	1.181	1.227	-3.9	104	-0.01
65	T	1,3,5-Trimethylbenzene	1.418	1.506	-6.2	104	0.00
66	T	4-Chlorotoluene	1.360	1.403	-3.2	103	0.00
67	T	tert-Butylbenzene	1.216	1.311	-7.8	105	0.00
68	T	1,2,4-Trimethylbenzene	1.437	1.536	-6.9	105	0.00
69	T	sec-Butylbenzene	1.787	1.902	-6.4	105	0.00
70	T	1,3-Dichlorobenzene	0.817	0.838	-2.6	103	0.00
71	T	4-Isopropyltoluene	1.569	1.659	-5.7	103	0.00
72	T	1,4-Dichlorobenzene	0.835	0.847	-1.4	103	0.00
73	T	n-Butylbenzene	1.425	1.472	-3.3	105	0.00
74	T	1,2-Dichlorobenzene	0.807	0.826	-2.4	103	-0.01
75	T	1,2-Dibromo-3-chloropropane	0.082	0.073	11.0	82	0.00
76	T	1,2,4-Trichlorobenzene	0.576	0.581	-0.9	101	0.00
77	T	Hexachlorobutadiene	0.164	0.175	-6.7	102	0.00
78	T	Naphthalene	1.716	1.533	10.7	88	0.00
79	T	1,2,3-Trichlorobenzene	0.548	0.546	0.4	99	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.222	0.239	-7.7	107	-0.02
81	T	Methyl acetate	0.351	0.286	18.5	82	0.00
82	T	Cyclohexane	0.625	0.674	-7.8	104	0.00
83	T	Methylcyclohexane	0.585	0.607	-3.8	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

E8121917.M Wed Dec 20 11:16:35 2017

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3742.D
Acq On : 21 Dec 2017 10:48 am
Operator : BARBARA
Sample : CCV100,CCV171221,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 21 13:40:43 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Tue Dec 19 13:16:12 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	107	0.00
2	T	Dichlorodifluoromethane	0.317	0.311	1.9	96	0.00
3	P	Chloromethane	0.512	0.477	6.8	102	0.00
4	C	Vinyl chloride	0.472	0.452	4.2	100	0.02
5	T	Bromomethane	0.225	0.212	5.8	102	-0.02
6	T	Chloroethane	0.242	0.235	2.9	104	0.00
7	T	Trichlorofluoromethane	0.404	0.456	-12.9	105	0.01
8	T	Acrolein	0.025	0.021	16.0	102	0.00
9	MC	1,1-Dichloroethene	0.338	0.348	-3.0	108	0.00
10	T	Acetone	0.147	0.152	-3.4	110	0.00
11	T	Carbon disulfide	1.063	1.076	-1.2	107	-0.03
12	T	Vinyl acetate	0.502	0.570	-13.5	115	0.00
13	T	Methylene chloride	0.495	0.504	-1.8	108	-0.01
14	T	Acrylonitrile	0.233	0.245	-5.2	113	0.00
15	T	tert-Butyl alcohol (TBA)	0.068	0.067	1.5	104	0.00
16	T	trans-1,2-Dichloroethene	0.495	0.509	-2.8	107	0.00
17	T	Methyl tert-butyl ether (MT	1.447	1.543	-6.6	106	0.00
18	P	1,1-Dichloroethane	0.876	0.918	-4.8	106	0.00
19	T	Diisopropyl ether (DIPE)	1.765	1.867	-5.8	105	0.00
20	T	cis-1,2-Dichloroethene	0.535	0.559	-4.5	105	0.00
21	T	2,2-Dichloropropane	0.382	0.403	-5.5	102	0.00
22	T	2-Butanone (MEK)	0.274	0.299	-9.1	112	0.00
23	T	Bromochloromethane	0.259	0.271	-4.6	105	-0.01
25	C	Chloroform	0.866	0.855	1.3	107	-0.01
26	T	1,1,1-Trichloroethane	0.658	0.697	-5.9	104	0.00
27	T	Carbon tetrachloride	0.572	0.640	-11.9	107	0.00
28	T	1,1-Dichloropropene	0.652	0.688	-5.5	107	0.00
29	T	1,2-Dichloroethane (EDC)	0.661	0.692	-4.7	106	0.00
30	S	1,2-Dichloroethane-d4	0.536	0.530	1.1	105	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
32	M	Benzene	1.246	1.320	-5.9	106	-0.01
33	M	Trichloroethene	0.306	0.322	-5.2	107	0.00
34	C	1,2-Dichloropropane	0.328	0.350	-6.7	108	0.00
35	T	Dibromomethane	0.184	0.202	-9.8	107	-0.01
36	T	1,4-Dioxane	0.004	0.004	0.0	117	-0.01
37	T	Bromodichloromethane	0.377	0.422	-11.9	105	-0.01
39	T	cis-1,3-Dichloropropene	0.480	0.562	-17.1	107	-0.02
40	T	4-Methyl-2-pentanone (MIBK)	0.345	0.389	-12.8	110	0.00
41	S	Toluene-d8	1.143	1.166	-2.0	106	0.00
42	MC	Toluene	0.810	0.875	-8.0	108	0.00
43	T	trans-1,3-Dichloropropene	0.434	0.509	-17.3	107	-0.02
44	T	1,1,2-Trichloroethane	0.223	0.251	-12.6	108	0.00
45	T	Tetrachloroethene	0.309	0.338	-9.4	111	0.00
46	T	1,3-Dichloropropane	0.479	0.534	-11.5	110	-0.01
47	T	2-Hexanone	0.258	0.285	-10.5	113	-0.03

48	T	Dibromochloromethane	0.287	0.309	-7.7	96	0.00
49	T	1,2-Dibromoethane (EDB)	0.274	0.314	-14.6	112	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
51	MP	Chlorobenzene	0.951	0.986	-3.7	108	0.00
52	T	1,1,1,2-Tetrachloroethane	0.325	0.349	-7.4	107	0.00
53	C	Ethylbenzene	1.593	1.699	-6.7	110	0.00
54	T	m,p-Xylene	0.628	0.669	-6.5	110	0.00
55	T	o-Xylene	0.640	0.684	-6.9	109	0.00
56	T	Styrene	1.040	1.156	-11.2	109	-0.01
57	P	Bromoform	0.233	0.234	-0.4	112	-0.01
58	T	Isopropylbenzene	1.623	1.754	-8.1	110	0.00
59	S	Bromofluorobenzene	0.563	0.581	-3.2	110	0.00
60	P	1,1,2,2-Tetrachloroethane	0.455	0.488	-7.3	115	0.00
61	T	Bromobenzene	0.395	0.419	-6.1	109	0.00
62	T	1,2,3-Trichloropropane	0.373	0.407	-9.1	115	-0.01
63	T	n-Propylbenzene	1.911	2.074	-8.5	114	0.00
64	T	2-Chlorotoluene	1.181	1.212	-2.6	110	-0.01
65	T	1,3,5-Trimethylbenzene	1.418	1.478	-4.2	109	0.00
66	T	4-Chlorotoluene	1.360	1.444	-6.2	113	0.00
67	T	tert-Butylbenzene	1.216	1.281	-5.3	110	0.00
68	T	1,2,4-Trimethylbenzene	1.437	1.535	-6.8	112	0.00
69	T	sec-Butylbenzene	1.787	1.897	-6.2	112	0.00
70	T	1,3-Dichlorobenzene	0.817	0.856	-4.8	113	0.00
71	T	4-Isopropyltoluene	1.569	1.664	-6.1	111	0.00
72	T	1,4-Dichlorobenzene	0.835	0.869	-4.1	113	0.00
73	T	n-Butylbenzene	1.425	1.491	-4.6	114	0.00
74	T	1,2-Dichlorobenzene	0.807	0.833	-3.2	111	-0.01
75	T	1,2-Dibromo-3-chloropropane	0.082	0.092	-12.2	111	0.00
76	T	1,2,4-Trichlorobenzene	0.576	0.591	-2.6	110	0.00
77	T	Hexachlorobutadiene	0.164	0.180	-9.8	112	0.00
78	T	Naphthalene	1.716	1.795	-4.6	110	0.00
79	T	1,2,3-Trichlorobenzene	0.548	0.544	0.7	105	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.222	0.226	-1.8	108	0.00
81	T	Methyl acetate	0.351	0.373	-6.3	115	0.00
82	T	Cyclohexane	0.625	0.633	-1.3	105	0.00
83	T	Methylcyclohexane	0.585	0.576	1.5	105	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

E8121917.M Tue Dec 26 11:47:29 2017

Response Factor Report MSD_J

Method Path : C:\MSDCHEM\1\METHODS\
Method File : JM121417.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Fri Dec 15 16:19:33 2017
Response Via : Initial Calibration

CO 12/15/17
WXF 12/15/17

Calibration Files
0.5 =J2249.D 1 =J2250.D 5 =J2251.D
20 =J2252.D 100 =J2253.D 150 =J2254.D 200 =J2255.D

		Compound	0.5	1	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom		0.654	0.562	0.644	0.603	0.629	0.682	0.629	6.71
3)	P	Chloromethane	0.712	0.745	0.799	0.765	0.695	0.775	0.730	0.746	4.90
4)	C	Vinyl chloride		0.895	0.748	0.922	0.818	0.972	0.875	0.872	9.09
5)	T	Bromomethane		0.498	0.505	0.473	0.445	0.512	0.476	0.485	5.15
6)	T	Chloroethane	0.524	0.479	0.533	0.543	0.484	0.564	0.517	0.521	5.88
7)	T	Trichlorofluorome	1.203	1.200	0.904	1.351	1.122	1.377	1.149	1.186	13.30
8)	T	Acrolein	0.074	0.066	0.072	0.083	0.084	0.075	0.075	0.075	8.13
9)	MC	1,1-Dichloroethen	0.510	0.623	0.484	0.575	0.502	0.608	0.538	0.548	9.88
10)	T	Acetone		0.127	0.129	0.149	0.128	0.143	0.134	0.135	6.71
11)	T	Carbon disulfide	1.680	1.483	1.522	1.801	1.687	2.003	1.830	1.715	10.55
12)	T	Vinyl acetate		2.106	2.182	2.179	1.932	2.191	1.954	2.091	5.67
13)	T	Methylene chlorid		0.621	0.730	0.711	0.609	0.710	0.655	0.673	7.64
14)	T	Acrylonitrile	0.150	0.181	0.197	0.176	0.166	0.183	0.171	0.175	8.29
15)	T	tert-Butyl alcoho		0.058	0.061	0.046	0.048	0.054	0.051	0.053	11.19
16)	T	trans-1,2-Dichlor	0.530	0.630	0.646	0.665	0.594	0.680	0.627	0.624	8.06
17)	T	Methyl tert-butyl	1.523	1.987	2.009	1.924	1.733	2.044	1.904	1.875	9.89
18)	P	1,1-Dichloroethan	1.506	1.950	1.864	1.826	1.647	1.909	1.763	1.781	8.82
19)	T	Diisopropyl ether	2.206	2.883	3.046	3.049	2.707	3.098	2.798	2.827	10.95
20)	T	cis-1,2-Dichloroe	0.498	0.714	0.719	0.700	0.633	0.732	0.681	0.668	12.24
21)	T	2,2-Dichloropropa		1.101	0.998	1.188	1.129	1.312	1.183	1.152	9.06
22)	T	2-Butanone (MEK)		0.219	0.242	0.243	0.214	0.242	0.218	0.230	6.16
23)	T	Bromochloromethan		0.339	0.328	0.312	0.284	0.332	0.312	0.318	6.21
25)	C	Chloroform	1.308	1.708	1.637	1.605	1.425	1.658	1.528	1.553	9.17
26)	T	1,1,1-Trichloroet	1.012	1.243	1.092	1.369	1.263	1.505	1.362	1.264	13.40
27)	T	Carbon tetrachlor		0.973	0.729	1.006	0.962	1.165	1.036	0.978	14.56
28)	T	1,1-Dichloroprope	0.861	0.919	0.767	0.918	0.828	0.982	0.885	0.880	7.94
29)	T	1,2-Dichloroethan	1.517	1.792	1.782	1.749	1.539	1.777	1.623	1.683	7.15
30)	S	1,2-Dichloroethan	0.969	1.000	1.053	1.003	1.018	1.021	0.996	1.008	2.55
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.480	1.731	1.646	1.661	1.494	1.756	1.636	1.629	6.56
33)	M	Trichloroethene	0.428	0.483	0.426	0.474	0.424	0.502	0.465	0.457	6.93
34)	C	1,2-Dichloropropa	0.491	0.604	0.578	0.588	0.521	0.604	0.560	0.564	7.63
35)	T	Dibromomethane		0.248	0.266	0.268	0.239	0.276	0.260	0.259	5.39
36)	T	1,4-Dioxane	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.002	19.19
37)	T	Bromodichlorometh	0.531	0.603	0.658	0.715	0.708	0.819	0.774	0.687	14.37
38)	T	2-Chloroethyl vin		0.182	0.237	0.277	0.259	0.309	0.290	0.259	17.48
39)	T	cis-1,3-Dichlorop	0.713	0.489	0.574	0.676	0.659	0.784	0.743	0.663	15.30
40)	T	4-Methyl-2-pentan		0.267	0.343	0.363	0.329	0.374	0.340	0.336	11.18
41)	S	Toluene-d8	1.238	1.228	1.236	1.253	1.251	1.279	1.276	1.252	1.56
42)	MC	Toluene	0.863	0.996	0.918	0.954	0.856	1.005	0.932	0.932	6.29
43)	T	trans-1,3-Dichlor	0.362	0.451	0.548	0.626	0.618	0.609	0.629	0.549	19.01
44)	T	1,1,2-Trichloroet	0.177	0.267	0.259	0.267	0.237	0.281	0.260	0.249	13.87
45)	T	Tetrachloroethene	0.269	0.310	0.275	0.323	0.283	0.335	0.303	0.300	8.33
46)	T	1,3-Dichloropropa	0.446	0.512	0.573	0.592	0.542	0.631	0.590	0.555	11.04
47)	T	2-Hexanone		0.149	0.205	0.245	0.227	0.255	0.237	0.220	17.67
48)	T	Dibromochlorometh	0.375	0.369	0.344	0.379	0.394	0.478	0.445	0.398	11.83
49)	T	1,2-Dibromoethane	0.193	0.264	0.320	0.329	0.305	0.359	0.339	0.301	18.67

50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.019	1.013	1.159	1.140	0.985	1.153	1.061	1.076	6.84
52)	T	1,1,1,2-Tetrachlo	0.367	0.428	0.458	0.502	0.472	0.542	0.512	0.469	12.49
53)	C	Ethylbenzene	1.670	1.819	1.799	1.950	1.723	2.004	1.884	1.835	6.50
54)	T	m,p-Xylene	0.574	0.668	0.667	0.672	0.619	0.710	0.656	0.652	6.70
55)	T	o-Xylene	0.507	0.646	0.648	0.707	0.631	0.722	0.675	0.648	10.90
56)	T	Styrene	0.788	0.990	1.185	1.300	1.142	1.312	1.231	1.135	16.53
57)	P	Bromoform	0.249	0.280	0.209	0.212	0.229	0.274	0.261	0.245	11.78
58)	T	Isopropylbenzene	1.252	1.416	1.328	1.698	1.560	1.801	1.654	1.530	13.32
59)	S	Bromofluorobenzen	0.609	0.602	0.618	0.614	0.612	0.586	0.596	0.605	1.85
60)	P	1,1,2,2-Tetrachlo	0.446	0.408	0.383	0.446	0.365	0.414	0.383	0.406	7.85
61)	T	Bromobenzene	0.467	0.419	0.447	0.489	0.428	0.487	0.448	0.455	5.99
62)	T	1,2,3-Trichloropr	0.356	0.460	0.455	0.472	0.395	0.455	0.430	0.432	9.78
63)	T	n-Propylbenzene	1.668	1.654	1.541	1.888	1.666	1.919	1.802	1.734	7.98
64)	T	2-Chlorotoluene	1.183	1.288	1.279	1.348	1.187	1.365	1.272	1.275	5.53
65)	T	1,3,5-Trimethylbe		1.343	1.365	1.552	1.368	1.581	1.475	1.447	7.16
66)	T	4-Chlorotoluene	1.529	1.621	1.628	1.681	1.457	1.649	1.549	1.588	4.96
67)	T	tert-Butylbenzene		0.857	0.794	1.062	0.950	1.091	1.005	0.960	12.12
68)	T	1,2,4-Trimethylbe		1.337	1.496	1.673	1.445	1.659	1.543	1.525	8.44
69)	T	sec-Butylbenzene	1.417	1.406	1.261	1.611	1.408	1.671	1.524	1.471	9.52
70)	T	1,3-Dichlorobenze	0.833	0.819	0.797	0.788	0.690	0.790	0.724	0.777	6.64
71)	T	4-Isopropyltoluen		1.143	1.098	1.368	1.216	1.449	1.325	1.266	10.80
72)	T	1,4-Dichlorobenze	0.889	0.879	0.849	0.814	0.711	0.797	0.736	0.811	8.42
73)	T	n-Butylbenzene	0.663	0.603	0.492	0.621	0.587	0.685	0.639	0.613	10.31
74)	T	1,2-Dichlorobenze	0.789	0.792	0.755	0.770	0.658	0.740	0.689	0.742	6.85
75)	T	1,2-Dibromo-3-chl		0.062	0.068	0.074	0.077	0.090	0.085	0.076	13.62
76)	T	1,2,4-Trichlorobe		0.259	0.361	0.375	0.355	0.434	0.403	0.364	16.26
77)	T	Hexachlorobutadie		0.171	0.216	0.213	0.225	0.262	0.238	0.221	13.66
78)	T	Naphthalene		0.521	0.590	0.756	0.757	0.898	0.841	0.727	19.95
79)	T	1,2,3-Trichlorobe		0.231	0.309	0.310	0.299	0.356	0.335	0.307	13.86
80)	T	1,1,2-Trichloro-1		0.420	0.254	0.422	0.339	0.412	0.335	0.364	18.35
81)	T	Methyl acetate	0.327	0.338	0.325	0.306	0.266	0.297	0.279	0.305	8.70
82)	T	Cyclohexane		0.853	0.857	0.997	0.764	0.925	0.759	0.859	10.72
83)	T	Methylcyclohexane	0.562	0.594	0.383	0.641	0.505	0.619	0.501	0.543	16.31

(#) = Out of Range ### Number of calibration levels exceeded format ###

JM121417.M Fri Dec 15 16:19:38 2017 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-14-17\
Data File : J2258.D
Acq On : 14 Dec 2017 19:10
Operator : MEI
Sample : ICV171214,ICV100,A,5ml,100
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 15 16:22:43 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	90	0.01
2	T	Dichlorodifluoromethane	0.629	0.690	-9.7	103	0.00
3	P	Chloromethane	0.746	0.732	1.9	95	0.01
4	C	Vinyl chloride	0.872	0.872	0.0	96	0.00
5	T	Bromomethane	0.485	0.489	-0.8	99	0.00
6	T	Chloroethane	0.521	0.528	-1.3	98	0.00
7	T	Trichlorofluoromethane	1.186	1.183	0.3	95	0.00
8	T	Acrolein	0.075	0.087	-16.0	93	0.01
9	MC	1,1-Dichloroethene	0.548	0.549	-0.2	98	0.00
10	T	Acetone	0.135	0.137	-1.5	96	0.00
11	T	Carbon disulfide	1.715	1.833	-6.9	98	0.00
12	T	Vinyl acetate	2.091	1.969	5.8	92	0.01
13	T	Methylene chloride	0.673	0.680	-1.0	100	0.00
14	T	Acrylonitrile	0.175	0.180	-2.9	97	0.00
15	T	tert-Butyl alcohol (TBA)	0.053	0.050	5.7	95	0.01
16	T	trans-1,2-Dichloroethene	0.624	0.651	-4.3	99	0.00
17	T	Methyl tert-butyl ether (MT	1.875	1.922	-2.5	100	0.00
18	P	1,1-Dichloroethane	1.781	1.819	-2.1	99	0.00
19	T	Diisopropyl ether (DIPE)	2.827	2.972	-5.1	99	0.01
20	T	cis-1,2-Dichloroethene	0.668	0.702	-5.1	100	0.00
21	T	2,2-Dichloropropane	1.152	1.173	-1.8	93	0.00
22	T	2-Butanone (MEK)	0.230	0.228	0.9	96	0.00
23	T	Bromochloromethane	0.318	0.313	1.6	99	0.01
25	C	Chloroform	1.553	1.580	-1.7	100	0.00
26	T	1,1,1-Trichloroethane	1.264	1.394	-10.3	99	0.00
27	T	Carbon tetrachloride	0.978	1.042	-6.5	97	0.00
28	T	1,1-Dichloropropene	0.880	0.896	-1.8	97	0.00
29	T	1,2-Dichloroethane (EDC)	1.683	1.683	0.0	98	0.00
30	S	1,2-Dichloroethane-d4	1.008	1.008	0.0	89	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
32	M	Benzene	1.629	1.661	-2.0	100	0.00
33	M	Trichloroethene	0.457	0.478	-4.6	101	0.00
34	C	1,2-Dichloropropane	0.564	0.573	-1.6	98	0.00
35	T	Dibromomethane	0.259	0.262	-1.2	98	0.00
36	T	1,4-Dioxane	0.002	0.002	0.0	84	0.00
37	T	Bromodichloromethane	0.687	0.775	-12.8	98	0.00
38	T	2-Chloroethyl vinyl ether	0.259	0.287	-10.8	99	0.00
39	T	cis-1,3-Dichloropropene	0.663	0.722	-8.9	98	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.336	0.355	-5.7	97	0.00
41	S	Toluene-d8	1.252	1.270	-1.4	91	0.00
42	MC	Toluene	0.932	0.947	-1.6	99	0.00

43	T	trans-1,3-Dichloropropene	0.549	0.627	-14.2	91	0.00
44	T	1,1,2-Trichloroethane	0.249	0.263	-5.6	99	0.00
45	T	Tetrachloroethene	0.300	0.312	-4.0	99	0.00
46	T	1,3-Dichloropropane	0.555	0.598	-7.7	99	0.00
47	T	2-Hexanone	0.220	0.242	-10.0	95	0.00
48	T	Dibromochloromethane	0.398	0.434	-9.0	99	0.00
49	T	1,2-Dibromoethane (EDB)	0.301	0.336	-11.6	99	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	90	0.00
51	MP	Chlorobenzene	1.076	1.099	-2.1	100	0.00
52	T	1,1,1,2-Tetrachloroethane	0.469	0.527	-12.4	100	0.00
53	C	Ethylbenzene	1.835	1.925	-4.9	100	0.00
54	T	m,p-Xylene	0.652	0.674	-3.4	98	0.00
55	T	o-Xylene	0.648	0.698	-7.7	99	0.00
56	T	Styrene	1.135	1.275	-12.3	100	0.00
57	P	Bromoform	0.245	0.257	-4.9	101	0.00
58	T	Isopropylbenzene	1.530	1.712	-11.9	99	0.00
59	S	Bromofluorobenzene	0.605	0.608	-0.5	89	0.00
60	P	1,1,2,2-Tetrachloroethane	0.406	0.392	3.4	97	0.00
61	T	Bromobenzene	0.455	0.472	-3.7	99	0.00
62	T	1,2,3-Trichloropropane	0.432	0.441	-2.1	100	-0.01
63	T	n-Propylbenzene	1.734	1.817	-4.8	98	0.00
64	T	2-Chlorotoluene	1.275	1.334	-4.6	101	0.00
65	T	1,3,5-Trimethylbenzene	1.447	1.506	-4.1	99	0.00
66	T	4-Chlorotoluene	1.588	1.629	-2.6	100	0.00
67	T	tert-Butylbenzene	0.960	1.027	-7.0	97	-0.01
68	T	1,2,4-Trimethylbenzene	1.525	1.588	-4.1	99	0.00
69	T	sec-Butylbenzene	1.471	1.540	-4.7	98	0.00
70	T	1,3-Dichlorobenzene	0.777	0.762	1.9	99	0.00
71	T	4-Isopropyltoluene	1.266	1.346	-6.3	99	0.00
72	T	1,4-Dichlorobenzene	0.811	0.778	4.1	98	0.00
73	T	n-Butylbenzene	0.613	0.641	4.6	98	0.00
74	T	1,2-Dichlorobenzene	0.742	0.735	0.9	100	0.00
75	T	1,2-Dibromo-3-chloropropane	0.076	0.084	-10.5	98	0.00
76	T	1,2,4-Trichlorobenzene	0.364	0.402	-10.4	102	0.00
77	T	Hexachlorobutadiene	0.221	0.260	-17.6	104	0.00
78	T	Naphthalene	0.727	0.844	-16.1	100	0.00
79	T	1,2,3-Trichlorobenzene	0.307	0.332	-8.1	100	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.364	0.350	3.8	93	0.00
81	T	Methyl acetate	0.305	0.287	5.9	97	0.00
82	T	Cyclohexane	0.859	0.805	6.3	95	0.00
83	T	Methylcyclohexane	0.543	0.525	3.3	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

JM121417.M Fri Dec 15 16:22:47 2017 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2444.D
Acq On : 22 Dec 2017 10:09
Operator : MEI
Sample : CCV100,CCV171222,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 14:32:17 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	0.629	0.724	-15.1	119	0.00
3	P	Chloromethane	0.746	0.711	4.7	101	0.00
4	C	Vinyl chloride	0.872	0.905	-3.8	109	0.00
5	T	Bromomethane	0.485	0.481	0.8	107	0.00
6	T	Chloroethane	0.521	0.526	-1.0	107	0.00
7	T	Trichlorofluoromethane	1.186	1.115	6.0	98	-0.01
8	T	Acrolein	0.075	0.084	-12.0	99	0.00
9	MC	1,1-Dichloroethene	0.548	0.568	-3.6	112	0.00
10	T	Acetone	0.135	0.137	-1.5	105	0.00
11	T	Carbon disulfide	1.715	1.868	-8.9	109	-0.01
12	T	Vinyl acetate	2.091	1.954	6.6	100	0.00
13	T	Methylene chloride	0.673	0.685	-1.8	111	0.00
14	T	Acrylonitrile	0.175	0.174	0.6	103	0.00
15	T	tert-Butyl alcohol (TBA)	0.053	0.055	-3.8	115	0.00
16	T	trans-1,2-Dichloroethene	0.624	0.663	-6.3	110	-0.01
17	T	Methyl tert-butyl ether (MT	1.875	1.983	-5.8	113	-0.01
18	P	1,1-Dichloroethane	1.781	1.802	-1.2	108	-0.01
19	T	Diisopropyl ether (DIPE)	2.827	2.687	5.0	98	0.00
20	T	cis-1,2-Dichloroethene	0.668	0.732	-9.6	114	0.00
21	T	2,2-Dichloropropane	1.152	1.192	-3.5	104	0.00
22	T	2-Butanone (MEK)	0.230	0.229	0.4	106	0.00
23	T	Bromochloromethane	0.318	0.331	-4.1	115	0.00
25	C	Chloroform	1.553	1.539	0.9	107	0.00
26	T	1,1,1-Trichloroethane	1.264	1.328	-5.1	104	0.00
27	T	Carbon tetrachloride	0.978	0.997	-1.9	102	0.00
28	T	1,1-Dichloropropene	0.880	0.926	-5.2	110	0.00
29	T	1,2-Dichloroethane (EDC)	1.683	1.610	4.3	103	0.00
30	S	1,2-Dichloroethane-d4	1.008	0.935	7.2	91	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	101	0.00
32	M	Benzene	1.629	1.693	-3.9	115	0.00
33	M	Trichloroethene	0.457	0.467	-2.2	111	-0.01
34	C	1,2-Dichloropropane	0.564	0.570	-1.1	110	0.00
35	T	Dibromomethane	0.259	0.264	-1.9	112	0.00
36	T	1,4-Dioxane	0.002	0.002	0.0	94	0.00
37	T	Bromodichloromethane	0.687	0.737	-7.3	105	-0.01
38	T	2-Chloroethyl vinyl ether	0.259	0.304	-17.4	119	0.00
39	T	cis-1,3-Dichloropropene	0.663	0.746	-12.5	114	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.336	0.332	1.2	102	-0.01
41	S	Toluene-d8	1.252	1.247	0.4	101	0.00
42	MC	Toluene	0.932	0.949	-1.8	112	0.00

43	T	trans-1,3-Dichloropropene	0.549	0.656	-19.5	107	0.00
44	T	1,1,2-Trichloroethane	0.249	0.273	-9.6	116	0.00
45	T	Tetrachloroethene	0.300	0.310	-3.3	111	0.00
46	T	1,3-Dichloropropane	0.555	0.613	-10.5	114	0.00
47	T	2-Hexanone	0.220	0.232	-5.5	103	0.00
48	T	Dibromochloromethane	0.398	0.426	-7.0	109	0.00
49	T	1,2-Dibromoethane (EDB)	0.301	0.346	-15.0	115	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
51	MP	Chlorobenzene	1.076	1.106	-2.8	112	-0.01
52	T	1,1,1,2-Tetrachloroethane	0.469	0.497	-6.0	106	0.00
53	C	Ethylbenzene	1.835	1.872	-2.0	109	0.00
54	T	m,p-Xylene	0.652	0.666	-2.1	108	0.00
55	T	o-Xylene	0.648	0.674	-4.0	107	0.00
56	T	Styrene	1.135	1.234	-8.7	108	-0.01
57	P	Bromoform	0.245	0.251	-2.4	110	0.00
58	T	Isopropylbenzene	1.530	1.620	-5.9	104	-0.01
59	S	Bromofluorobenzene	0.605	0.591	2.3	97	0.00
60	P	1,1,2,2-Tetrachloroethane	0.406	0.410	-1.0	113	0.00
61	T	Bromobenzene	0.455	0.455	0.0	106	0.00
62	T	1,2,3-Trichloropropane	0.432	0.440	-1.9	112	-0.01
63	T	n-Propylbenzene	1.734	1.732	0.1	104	0.00
64	T	2-Chlorotoluene	1.275	1.249	2.0	105	0.00
65	T	1,3,5-Trimethylbenzene	1.447	1.421	1.8	104	0.00
66	T	4-Chlorotoluene	1.588	1.503	5.4	103	0.00
67	T	tert-Butylbenzene	0.960	0.982	-2.3	104	-0.01
68	T	1,2,4-Trimethylbenzene	1.525	1.485	2.6	103	0.00
69	T	sec-Butylbenzene	1.471	1.453	1.2	103	0.00
70	T	1,3-Dichlorobenzene	0.777	0.727	6.4	106	0.00
71	T	4-Isopropyltoluene	1.266	1.282	-1.3	106	0.00
72	T	1,4-Dichlorobenzene	0.811	0.737	9.1	104	0.00
73	T	n-Butylbenzene	0.613	0.603	1.6	103	0.00
74	T	1,2-Dichlorobenzene	0.742	0.695	6.3	106	0.00
75	T	1,2-Dibromo-3-chloropropane	0.076	0.082	-7.9	106	0.00
76	T	1,2,4-Trichlorobenzene	0.364	0.370	-1.6	105	0.00
77	T	Hexachlorobutadiene	0.221	0.236	-6.8	105	0.00
78	T	Naphthalene	0.727	0.798	-9.8	106	0.00
79	T	1,2,3-Trichlorobenzene	0.307	0.327	-6.5	110	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.364	0.355	2.5	105	0.00
81	T	Methyl acetate	0.305	0.287	5.9	108	-0.01
82	T	Cyclohexane	0.859	0.783	8.8	103	0.00
83	T	Methylcyclohexane	0.543	0.506	6.8	100	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

JM121417.M Fri Dec 22 14:32:21 2017 RT1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F2625.D

Date Analyzed: 12/20/2017

Instrument ID: MSD_F

Time Analyzed: 14:05

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	211123		6.04		326400		6.86		268165		10.19	
	UPPER LIMIT	422246		6.54		652800		7.36		536330		10.69	
	LOWER LIMIT	105561.5		5.54		163200		6.36		134082.5		9.69	
	LAB SAMPLE ID												
01	ICC1	188909		6.04		314286		6.86		260390		10.19	
02	ICC2	203510		6.04		327856		6.86		272699		10.19	
03	ICC5	213208		6.04		336841		6.86		276269		10.19	
04	ICC20	206675		6.04		329221		6.86		268085		10.19	
05	ICC150	244485		6.04		372468		6.86		316159		10.19	
06	ICC200	253276		6.04		381497		6.86		322910		10.19	
07	ICV171220	243036		6.04		363090		6.86		305695		10.19	
08	BLKS171220-01	210815		6.04		341262		6.86		288763		10.19	
09	E17-10770-001	204238		6.04		325418		6.86		266268		10.19	
10	E17-10796-002	165894		6.04		273255		6.86		220881		10.19	
11	LCSS171220-01	204590		6.04		314711		6.86		253034		10.19	
12	E10770-001MS	232174		6.04		360818		6.86		288676		10.19	
13	E10770-001MSD	240045		6.04		367841		6.85		295516		10.19	
14	E17-10617-004	200531		6.04		321072		6.86		261438		10.19	
15	E17-10838-001	199097		6.04		325817		6.86		259677		10.19	
16	E17-10850-001	176659		6.04		291112		6.86		230363		10.19	
17	E17-10850-002	179266		6.04		290072		6.86		235491		10.19	
18	E17-10850-003	204830		6.04		321864		6.86		257606		10.19	
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F2667.D

Date Analyzed: 12/21/2017

Instrument ID: MSD_F

Time Analyzed: 11:47

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	223877	6.04	335596	6.85	283341	10.19
	UPPER LIMIT	447754	6.54	671192	7.35	566682	10.69
	LOWER LIMIT	111938.5	5.54	167798	6.35	141670.5	9.69
	LAB SAMPLE ID						
01	BLKS171221-01	198267	6.04	328589	6.86	262861	10.19
02	E17-10861-022	178866	6.04	288034	6.86	239553	10.19
03	E17-10861-023	198416	6.04	320416	6.86	267229	10.19
04	E17-10861-024	164880	6.04	278482	6.86	236371	10.19
05	E17-10861-025	192580	6.04	318599	6.86	266839	10.19
06	E17-10754-008	199841	6.04	327229	6.86	275325	10.19
07	LCSS171221-01	199680	6.04	318537	6.86	265155	10.19
08	E17-10861-026	227776	6.04	355594	6.86	296880	10.19
09	E17-10861-027	249232	6.04	382912	6.86	322656	10.19
10	E17-10966-002	186908	6.04	302459	6.86	249118	10.19
11	E17-10966-004	175009	6.04	288335	6.86	241894	10.19
12	E17-10966-006	198680	6.04	323514	6.86	266339	10.19
13	E17-10914-002	187017	6.04	310880	6.86	264464	10.19
14	E17-10914-005	166624	6.04	280803	6.86	230364	10.19
15	E17-10914-009	196589	6.04	322391	6.86	275571	10.19
16	E17-10914-011	181507	6.04	297812	6.86	239860	10.19
17	E17-10914-013	179104	6.04	301291	6.86	258759	10.19
18	E17-10914-015	139863	6.04	235783	6.86	191642	10.19
19	E17-10909-003	179952	6.04	293123	6.86	249917	10.19
20	E17-10909-004	152446	6.04	256825	6.86	221769	10.19
21	E17-10909-006	137965	6.04	217045	6.86	194103	10.19
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E3649.D

Date Analyzed: 12/19/2017

Instrument ID: MSD_E

Time Analyzed: 8:19

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	567650	6.40	914288	7.22	807447	10.57
	UPPER LIMIT	1135300	6.90	1828576	7.72	1614894	11.07
	LOWER LIMIT	283825	5.90	457144	6.72	403723.5	10.07
	LAB SAMPLE ID						
01	ICC171219	564928	6.40	899869	7.22	817310	10.57
02	ICC171219	560903	6.40	898337	7.22	828027	10.57
03	ICC171219	565607	6.40	923208	7.22	871656	10.57
04	ICC171219	583489	6.40	959627	7.22	899246	10.57
05	ICC171219	608328	6.40	982126	7.22	934308	10.57
06	ICC171219	610314	6.40	944016	7.22	842403	10.57
07	ICV171219	607391	6.40	968027	7.22	901311	10.57
08	BLKA171219	581481	6.40	924650	7.22	839259	10.57
09	E17-10754-009	584795	6.40	933805	7.22	829046	10.57
10	E17-10784-001	565020	6.40	894767	7.22	796315	10.57
11	E17-10784-002	559377	6.40	918238	7.22	822867	10.57
12	E17-10784-003	556334	6.40	899022	7.22	810579	10.57
13	LCSA171220	565287	6.40	913992	7.22	835317	10.57
14	E17-10784-001MS	575493	6.40	914092	7.22	835803	10.57
15	E17-10784-001MSD	576239	6.40	922042	7.22	839802	10.57
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E3742.D

Date Analyzed: 12/21/2017

Instrument ID: MSD_E

Time Analyzed: 10:48

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	604788		6.40		965988		7.22		924746		10.57	
	UPPER LIMIT	1209576		6.90		1931976		7.72		1849492		11.07	
	LOWER LIMIT	302394		5.90		482994		6.72		462373		10.07	
	LAB SAMPLE ID												
01	BLKA171221	600268		6.40		933685		7.22		850584		10.57	
02	E17-10913-001	590275		6.40		923323		7.22		852422		10.57	
03	E17-10913-003	588120		6.40		916099		7.22		835900		10.57	
04	E17-10913-002	576991		6.40		906801		7.22		829926		10.57	
05	E17-10913-004	563776		6.40		902140		7.22		830158		10.57	
06	E17-10966-007	569907		6.40		893210		7.22		832736		10.57	
07	E17-10966-008	571047		6.40		898314		7.22		832249		10.57	
08	E17-10877-001	567487		6.40		889957		7.22		814728		10.57	
09	LCSA171221	618612		6.39		976684		7.22		905905		10.57	
10	E17-10966-007MS	661868		6.40		1038571		7.22		968457		10.57	
11	E17-10966-007MSD	647511		6.40		1025937		7.22		946212		10.57	
12	E17-10913-001DL	656967		6.40		1034126		7.22		952985		10.57	
13	E17-10877-002	645710		6.40		1006370		7.22		929269		10.57	
14	E17-10877-003	624899		6.40		992973		7.22		904686		10.57	
15	E17-10739-008DL	608919		6.40		957155		7.22		881707		10.57	
16	E17-10739-003DL	597124		6.40		956260		7.22		885681		10.57	
17	E17-10899-003	599755		6.40		949939		7.22		885300		10.57	
18	E17-10899-002	596645		6.40		940024		7.22		856917		10.57	
19	E17-10899-001	624520		6.40		985835		7.22		905457		10.57	
20	E17-10953-001	599318		6.40		961881		7.22		881780		10.57	
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J2253.D

Date Analyzed: 12/14/2017

Instrument ID: MSD_J

Time Analyzed: 16:56

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	298853	6.00	441378	6.82	395201	10.16
	UPPER LIMIT	597706	6.50	882756	7.32	790402	10.66
	LOWER LIMIT	149426.5	5.50	220689	6.32	197600.5	9.66
	LAB SAMPLE ID						
01	ICC0.5	283788	6.01	416410	6.82	361290	10.16
02	ICC1	246628	6.01	365281	6.82	325615	10.16
03	ICC5	248404	6.01	369638	6.82	325163	10.16
04	ICC20	259233	6.01	377416	6.82	332167	10.16
05	ICC150	265873	6.00	394268	6.82	362233	10.16
06	ICC200	300224	6.00	446244	6.82	407196	10.16
07	ICV100	268855	6.01	395437	6.82	354942	10.16
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J2444.D Date Analyzed: 12/22/2017

Instrument ID: MSD_J Time Analyzed: 10:09

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	294985	6.00	445989	6.82	396013	10.16
	UPPER LIMIT	589970	6.50	891978	7.32	792026	10.66
	LOWER LIMIT	147492.5	5.50	222994.5	6.32	198006.5	9.66
	LAB SAMPLE ID						
01	BLKM171222-01	274415	6.00	408307	6.82	354031	10.16
02	E17-10905-001	269572	6.00	401746	6.82	363767	10.16
03	E17-10878-007DL	253364	6.00	388967	6.82	348929	10.16
04	E17-10878-008DL	307684	6.00	461881	6.82	412440	10.16
05	LCSM171222-01	290148	6.00	435129	6.82	386919	10.16
06	E17-10961-013MS	285743	6.00	431698	6.82	378098	10.16
07	E17-10961-013MSD	268507	6.00	405077	6.82	353010	10.16
08	E17-10961-013	281888	6.00	423343	6.82	362037	10.16
09	E17-10966-001	281311	6.00	421825	6.82	367982	10.16
10	E17-10966-003	294204	6.00	437506	6.82	381950	10.16
11	E17-10966-005	246671	6.00	376752	6.82	324893	10.16
12	E17-10873-010	291603	6.00	430354	6.82	375569	10.16
13	E17-10873-015	245847	6.00	358954	6.82	314538	10.16
14	E17-10908-005	276832	6.00	417019	6.82	355833	10.16
15	E17-10908-009	266651	6.00	394586	6.82	343429	10.16
16	E17-10908-004	287888	6.00	442996	6.82	383365	10.16
17	E17-10908-008	274071	6.00	419250	6.82	362907	10.16
18	E17-10908-001	241586	6.00	365146	6.82	324502	10.16
19	E17-10908-007	240946	6.00	361462	6.82	327063	10.16
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2457.D
Acq On : 22 Dec 2017 15:53
Operator : MEI
Sample : SB-38(S),E17-10966-001,M,0.026g,8.80
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 26 11:26:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration

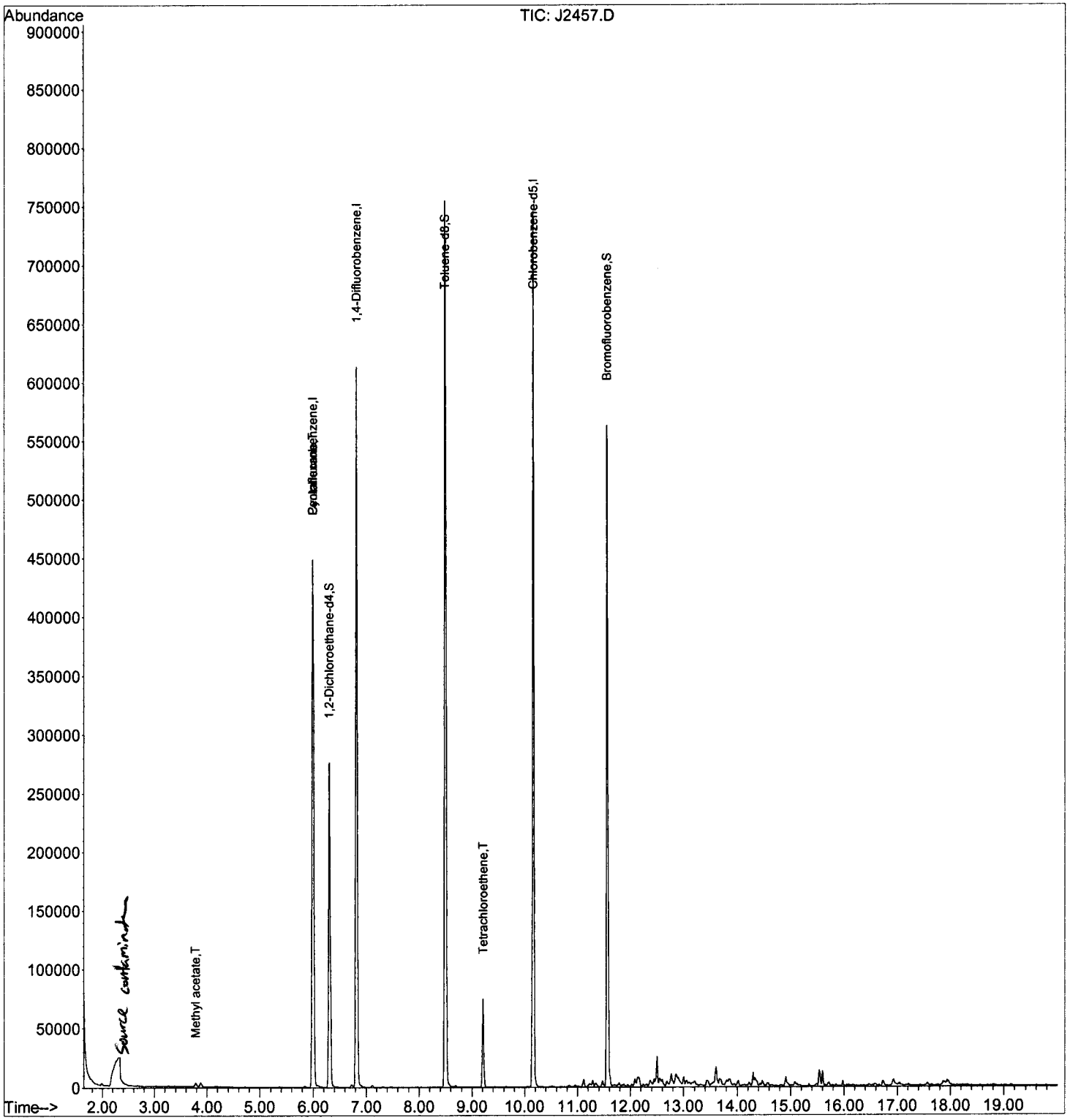
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	281311	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	421825	50.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	367982	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.30	65	260641	45.94	UG		-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 91.88%				
41) Toluene-d8	8.49	98	503442	47.67	UG		-0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 95.34%				
59) Bromofluorobenzene	11.56	95	218232	48.98	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.96%				
Target Compounds							Qvalue
45) Tetrachloroethene	9.21	166	21778	8.61	UG		96
81) Methyl acetate	3.78	43	5102	2.27	UG	#	93
82) Cyclohexane	6.00	56	8682	1.37	UG		88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2457.D
Acq On : 22 Dec 2017 15:53
Operator : MEI
Sample : SB-38(S),E17-10966-001,M,0.026g,8.80
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 26 11:26:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2457.D
Acq On : 22 Dec 2017 15:53
Operator : MEI
Sample : SB-38(S),E17-10966-001,M,0.026g,8.80
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM121417.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.324	50	69	90	rBB6	23917	224497	15.34%	3.120%
2	6.000	426	432	453	rBB	448716	940559	64.27%	13.070%
3	6.313	453	463	482	rBB	276304	604854	41.33%	8.405%
4	6.820	507	513	531	rBB	613038	1189745	81.29%	16.533%
5	8.491	672	678	692	rBB	754936	1463545	100.00%	20.338%
6	9.210	744	749	755	rBB	74596	138310	9.45%	1.922%
7	10.161	837	843	854	rBB	745651	1347113	92.04%	18.720%
8	11.559	977	981	990	rBB	562969	1086351	74.23%	15.096%
9	12.146	1036	1039	1045	rBB4	6294	18427	1.26%	0.256%
10	12.501	1066	1074	1077	rBB	22257	43470	2.97%	0.604%
11	12.774	1097	1101	1105	rBB3	8163	17548	1.20%	0.244%
12	12.855	1105	1109	1120	rBB7	7909	33617	2.30%	0.467%
13	13.604	1172	1183	1188	rBB4	14557	34192	2.34%	0.475%
14	14.911	1306	1312	1320	rBB3	7601	16583	1.13%	0.230%
15	15.538	1371	1374	1378	rBB2	12332	20377	1.39%	0.283%
16	15.599	1378	1380	1383	rBB	11623	16987	1.16%	0.236%

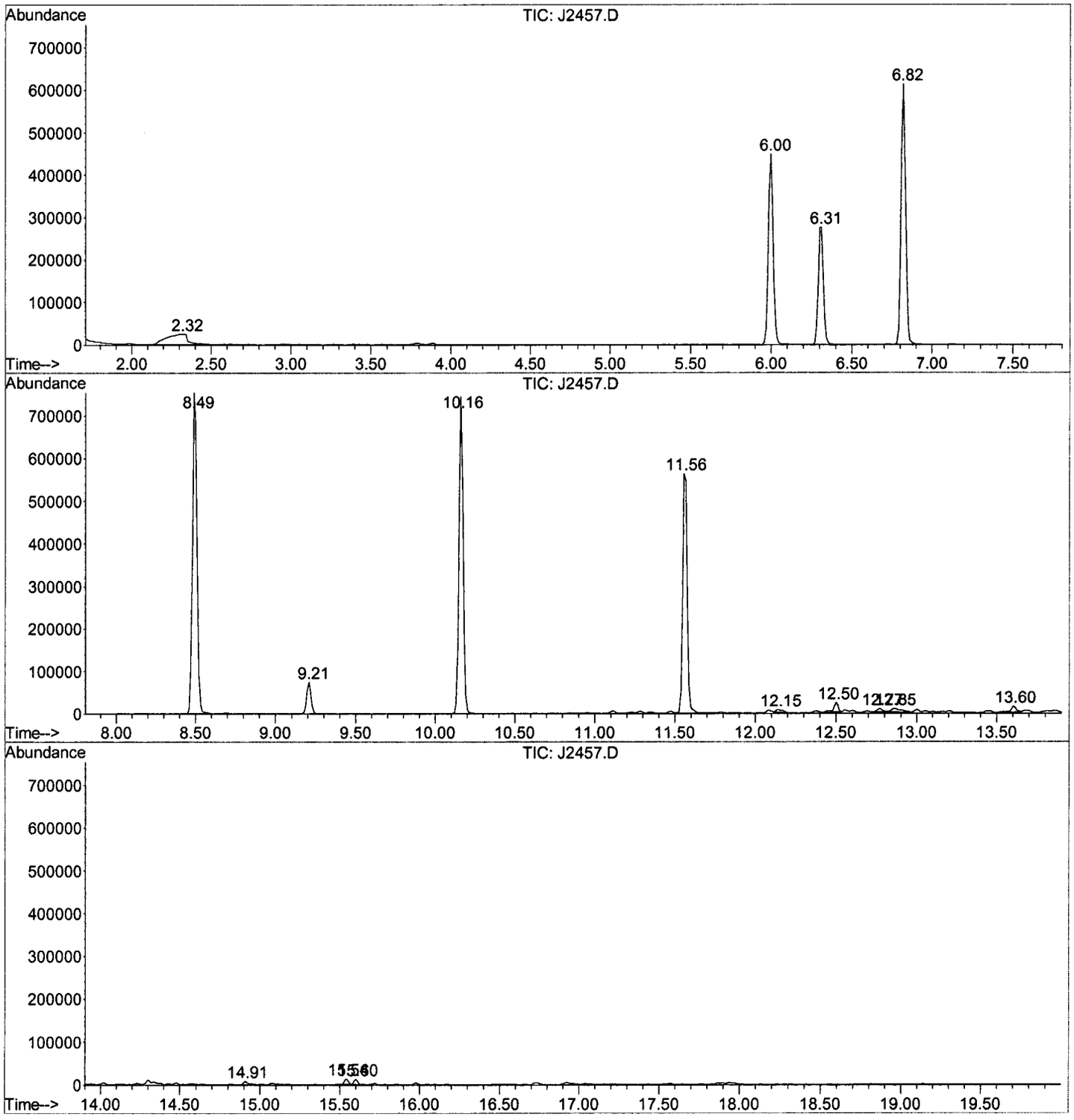
Sum of corrected areas: 7196175

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2457.D
Acq On : 22 Dec 2017 15:53
Operator : MEI
Sample : SB-38(S),E17-10966-001,M,0.026g,8.80
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2679.D
Acq On : 21 Dec 2017 17:40
Operator : XING
Sample : SB-38(D),E17-10966-002,S,6.5g,12.8
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 22 09:13:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

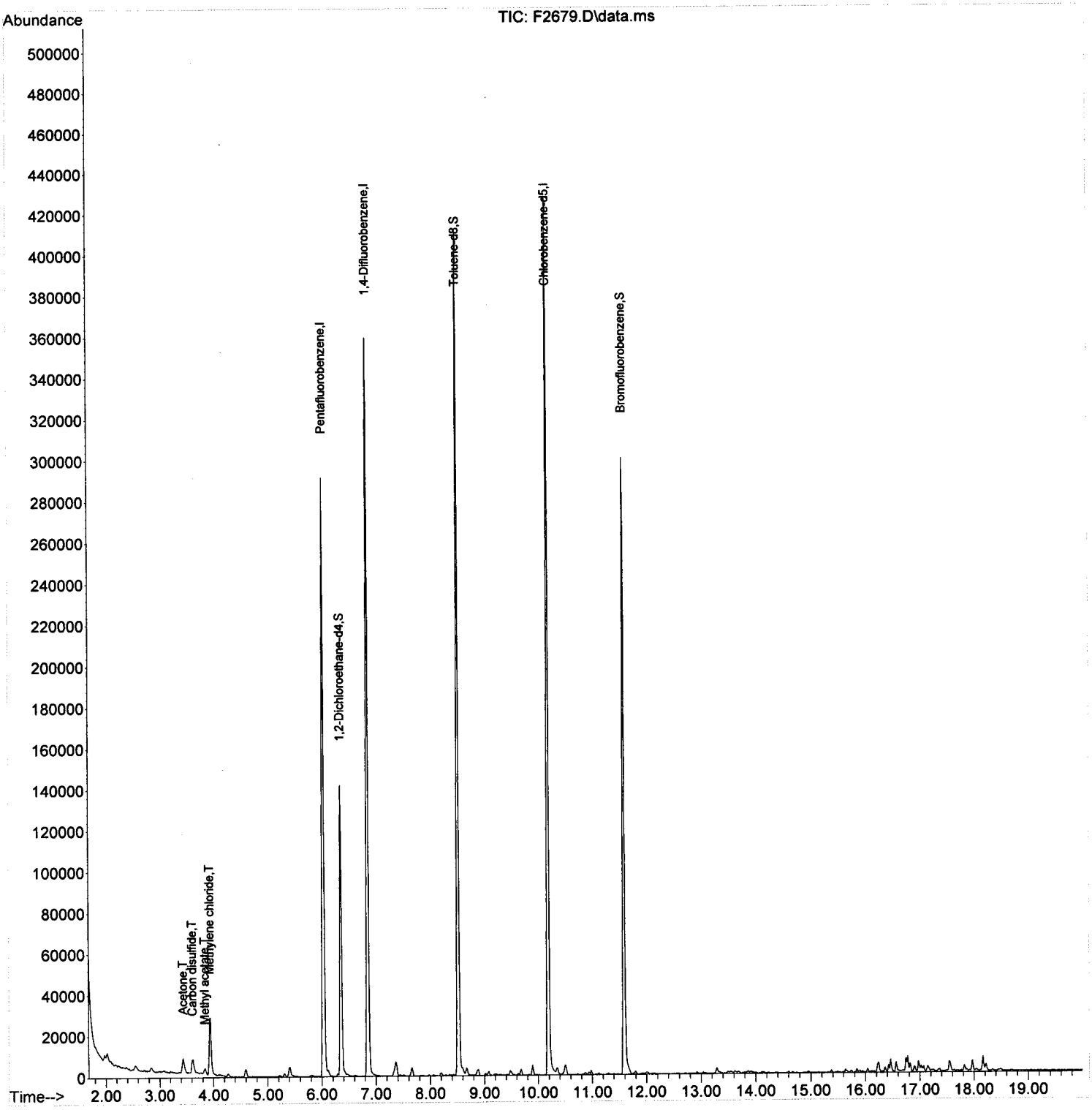
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.035	168	186908	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.858	114	302459	50.00	UG		0.00
50) Chlorobenzene-d5	10.187	117	249118	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.350	65	105084	55.07	UG		0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 110.14%				
41) Toluene-d8	8.523	98	275114	46.94	UG		0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 93.88%				
59) Bromofluorobenzene	11.588	95	118203	49.02	UG		0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 98.04%				
Target Compounds							Qvalue
10) Acetone	3.436	43	12837	17.55	UG		100
11) Carbon disulfide	3.609	76	10211	1.52	UG		100
13) Methylene chloride	3.934	84	11798	5.35	UG		99
81) Methyl acetate	3.843	43	4525	1.83	UG	#	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2679.D
Acq On : 21 Dec 2017 17:40
Operator : XING
Sample : SB-38(D),E17-10966-002,S,6.5g,12.8
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 22 09:13:25 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2679.D
Acq On : 21 Dec 2017 17:40
Operator : XING
Sample : SB-38(D),E17-10966-002,S,6.5g,12.8
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC: F2679.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.543	83	86	96	rVB4	2457	9243	1.10%	0.213%
2	3.436	169	174	182	rVB	7169	20388	2.42%	0.469%
3	3.619	186	192	203	rVB2	6859	22031	2.62%	0.507%
4	3.843	209	214	219	rVB	3113	9385	1.12%	0.216%
5	3.944	219	224	237	rVB	28161	75030	8.91%	1.726%
6	4.594	282	288	297	rVB2	3762	9446	1.12%	0.217%
7	5.406	362	368	378	rVB2	4675	13738	1.63%	0.316%
8	6.035	417	430	448	rVB	291602	639370	75.97%	14.706%
9	6.350	448	461	481	rBV	142005	316678	37.63%	7.284%
10	6.847	504	510	533	rBV	359577	784541	93.21%	18.046%
11	7.365	548	561	566	rBV5	6934	22466	2.67%	0.517%
12	7.660	581	590	597	rBV2	4087	9537	1.13%	0.219%
13	8.523	668	675	686	rBV	410780	841658	100.00%	19.359%
14	8.665	686	689	696	rVB	3608	8505	1.01%	0.196%
15	9.893	806	810	815	rVB	4992	8902	1.06%	0.205%
16	10.187	830	839	851	rBV	427001	824775	97.99%	18.971%
17	10.350	851	855	861	rVV4	3422	9677	1.15%	0.223%
18	10.492	863	869	875	rVB2	4753	14374	1.71%	0.331%
19	11.588	971	977	991	rBV	300623	597971	71.05%	13.754%
20	13.284	1137	1144	1155	rVB	2746	9081	1.08%	0.209%
21	16.238	1430	1435	1440	rVB3	4810	12633	1.50%	0.291%
22	16.461	1451	1457	1464	rBV2	6260	17211	2.04%	0.396%
23	16.563	1464	1467	1474	rBV3	4844	10268	1.22%	0.236%
24	16.746	1476	1485	1486	rBV3	6244	11507	1.37%	0.265%
25	16.969	1504	1507	1510	rBV	4839	9206	1.09%	0.212%
26	17.547	1552	1564	1570	rBV4	4847	13787	1.64%	0.317%
27	17.974	1598	1606	1609	rBV	5188	11455	1.36%	0.263%
28	18.167	1619	1625	1628	rBV2	6999	14672	1.74%	0.337%

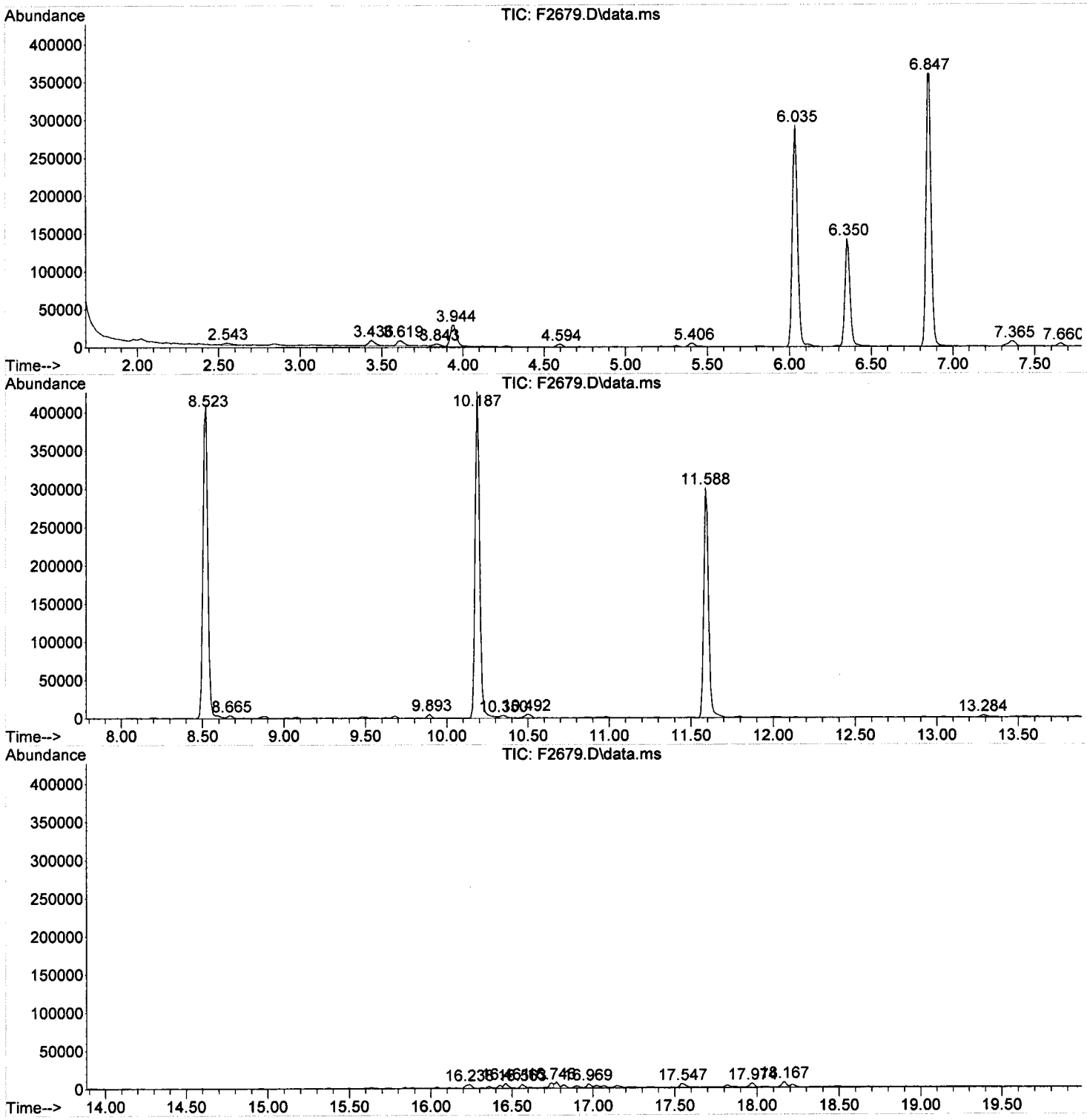
Sum of corrected areas: 4347535

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2679.D
Acq On : 21 Dec 2017 17:40
Operator : XING
Sample : SB-38(D),E17-10966-002,S,6.5g,12.8
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2458.D
Acq On : 22 Dec 2017 16:19
Operator : MEI
Sample : SB-39(S),E17-10966-003,M,0.038g,11.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 26 12:11:00 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration

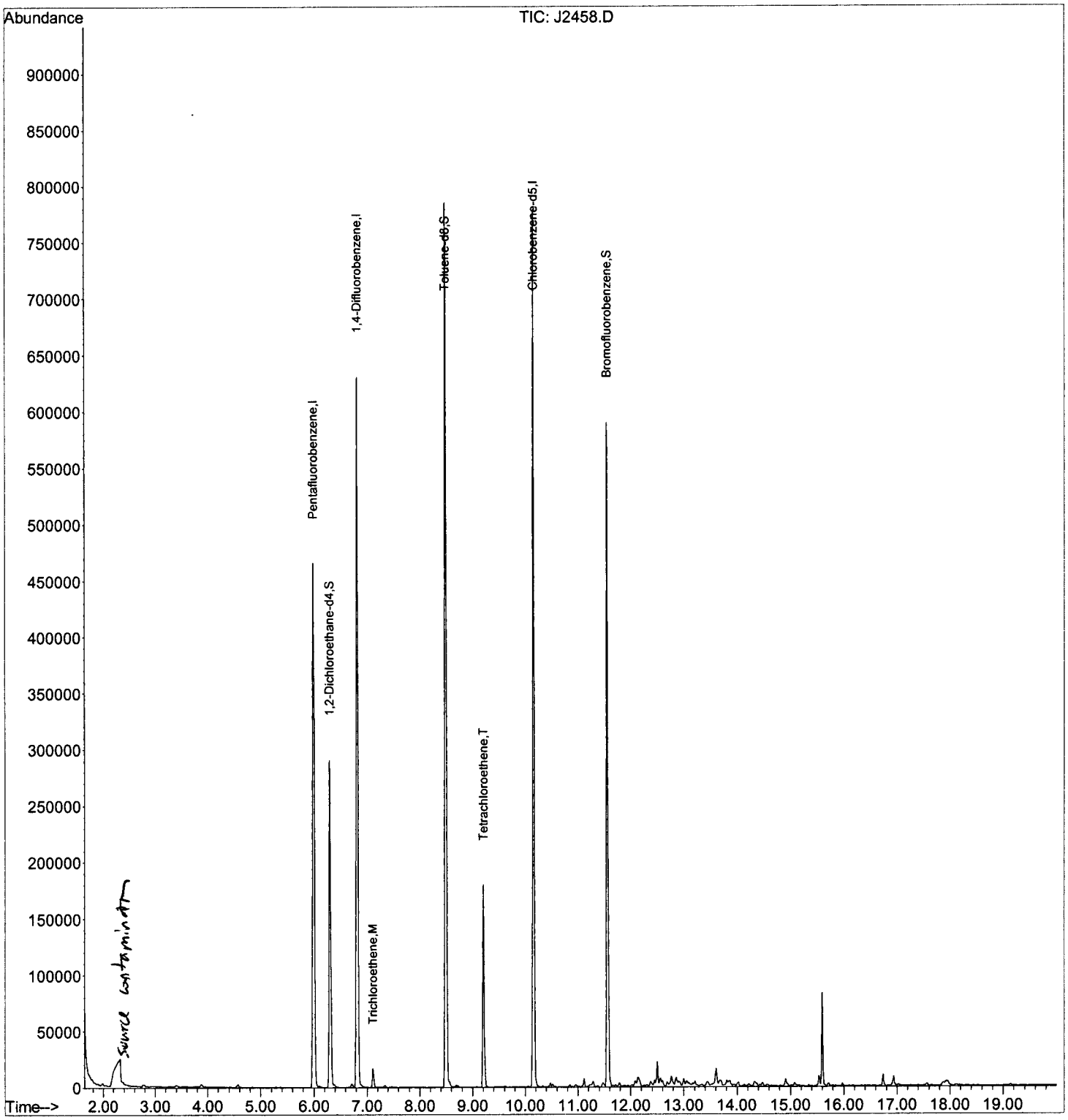
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	294204	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	437506	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	381950	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.30	65	267899	45.15	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 90.30%			
41) Toluene-d8	8.49	98	524682	47.91	UG	-0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 95.82%			
59) Bromofluorobenzene	11.56	95	228991	49.51	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 99.02%			
Target Compounds						Qvalue
33) Trichloroethene	7.11	95	5854	1.46	UG	87
45) Tetrachloroethene	9.21	166	52281	19.93	UG	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2458.D
Acq On : 22 Dec 2017 16:19
Operator : MEI
Sample : SB-39(S),E17-10966-003,M,0.038g,11.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 26 12:11:00 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2458.D
Acq On : 22 Dec 2017 16:19
Operator : MEI
Sample : SB-39(S),E17-10966-003,M,0.038g,11.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM121417.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.334	47	70	91	rBB4	24021	208170	13.55%	2.678%
2	5.999	422	432	452	rBB	465681	979959	63.77%	12.608%
3	6.303	456	462	474	rBB	290114	624973	40.67%	8.041%
4	6.820	508	513	527	rBB	630282	1245675	81.07%	16.027%
5	7.113	536	542	554	rBB	17059	34134	2.22%	0.439%
6	8.490	673	678	690	rBB	785325	1536610	100.00%	19.770%
7	9.209	743	749	758	rBB	179929	338185	22.01%	4.351%
8	10.161	836	843	856	rBB	778918	1414408	92.05%	18.197%
9	11.285	941	954	958	rBB3	4657	15957	1.04%	0.205%
10	11.559	977	981	990	rBB	589065	1125349	73.24%	14.479%
11	12.136	1036	1038	1045	rBB4	6239	15552	1.01%	0.200%
12	12.500	1071	1074	1077	rBB	19011	29864	1.94%	0.384%
13	12.774	1096	1101	1106	rBB3	7155	16759	1.09%	0.216%
14	13.604	1172	1183	1187	rBB3	13896	28766	1.87%	0.370%
15	15.599	1377	1380	1387	rBB	81981	124334	8.09%	1.600%
16	16.743	1487	1493	1499	rBB	10353	17273	1.12%	0.222%
17	16.936	1507	1512	1518	rBB2	8402	16574	1.08%	0.213%

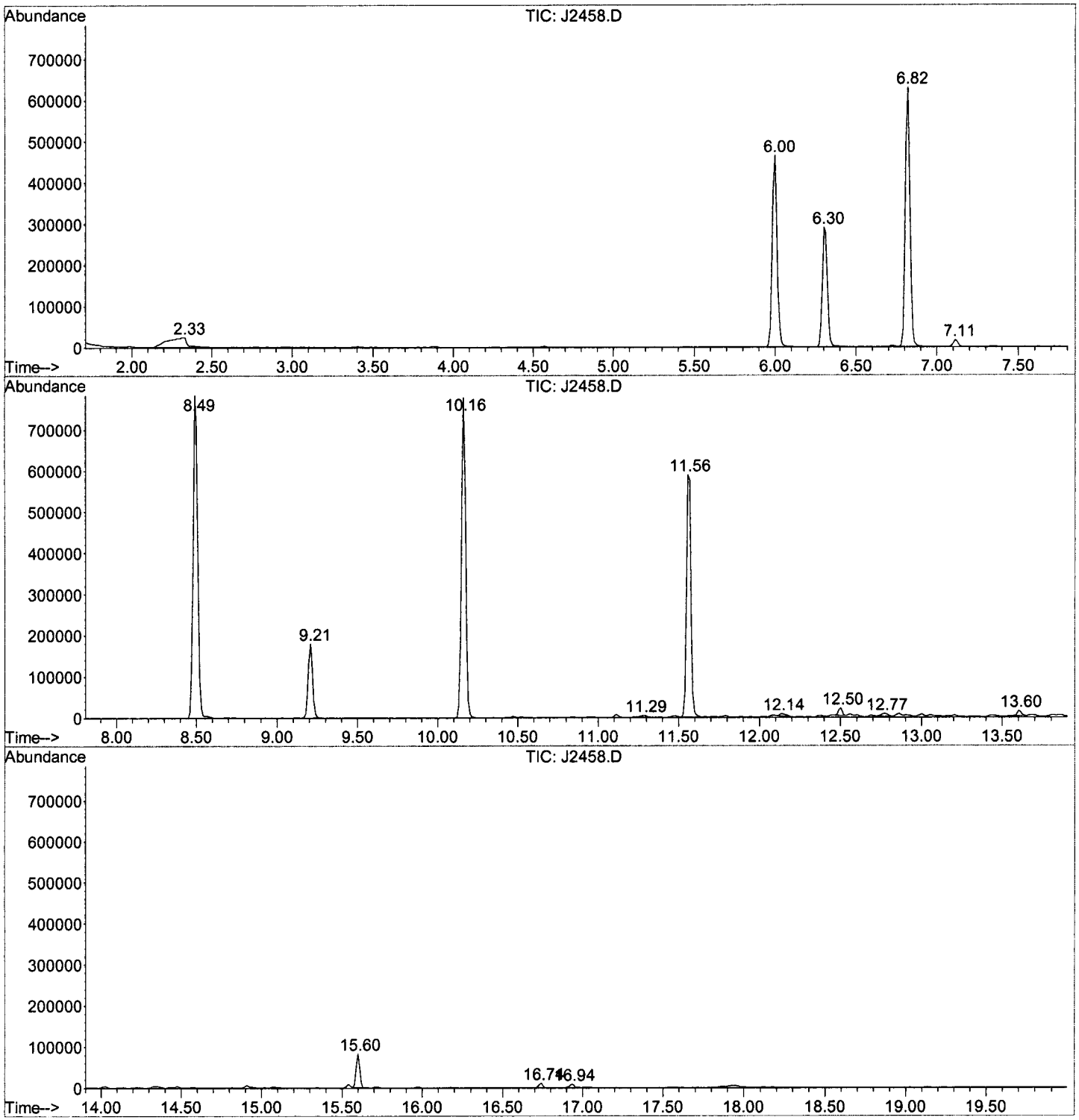
Sum of corrected areas: 7772542

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2458.D
Acq On : 22 Dec 2017 16:19
Operator : MEI
Sample : SB-39(S),E17-10966-003,M,0.038g,11.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2680.D
Acq On : 21 Dec 2017 18:09
Operator : XING
Sample : SB-39(D),E17-10966-004,S,4.9g,14.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 22 09:14:29 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

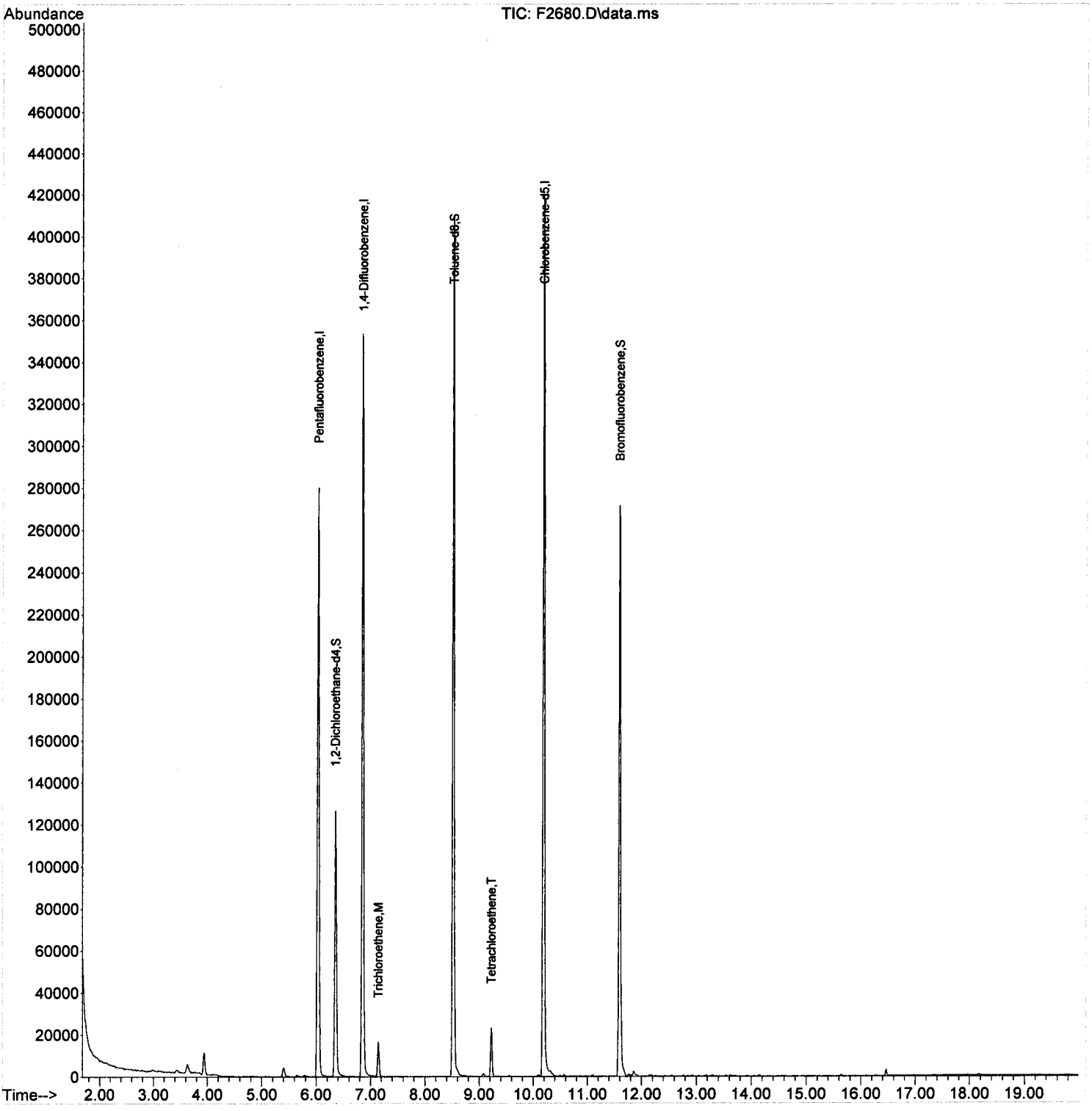
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.035	168	175009	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.858	114	288335	50.00	UG	0.00
50) Chlorobenzene-d5	10.187	117	241894	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.350	65	94068	52.65	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 105.30%			
41) Toluene-d8	8.523	98	272106	48.70	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 97.40%			
59) Bromofluorobenzene	11.588	95	106562	45.51	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 91.02%			
Target Compounds						Qvalue
33) Trichloroethene	7.142	95	5776	2.28	UG	88
45) Tetrachloroethene	9.223	166	7125	2.84	UG	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2680.D
Acq On : 21 Dec 2017 18:09
Operator : XING
Sample : SB-39(D),E17-10966-004,S,4.9g,14.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 22 09:14:29 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2680.D
Acq On : 21 Dec 2017 18:09
Operator : XING
Sample : SB-39(D),E17-10966-004,S,4.9g,14.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC: F2680.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.629	188	193	202	rVB	4131	12692	1.51%	0.317%
2	3.934	219	223	230	rVB	10447	24809	2.95%	0.620%
3	5.406	360	368	379	rBV	4069	12233	1.46%	0.306%
4	6.035	423	430	447	rBV	280485	600157	71.39%	14.989%
5	6.350	455	461	480	rBV	126601	282249	33.58%	7.049%
6	6.848	502	510	525	rBV	353663	762156	90.66%	19.035%
7	7.142	534	539	547	rVB	16575	34172	4.06%	0.853%
8	8.523	668	675	692	rBV	408997	840642	100.00%	20.995%
9	9.223	740	744	750	rBV	23260	44972	5.35%	1.123%
10	10.187	834	839	863	rBV	419288	820571	97.61%	20.494%
11	11.588	971	977	991	rBV	271971	569331	67.73%	14.219%

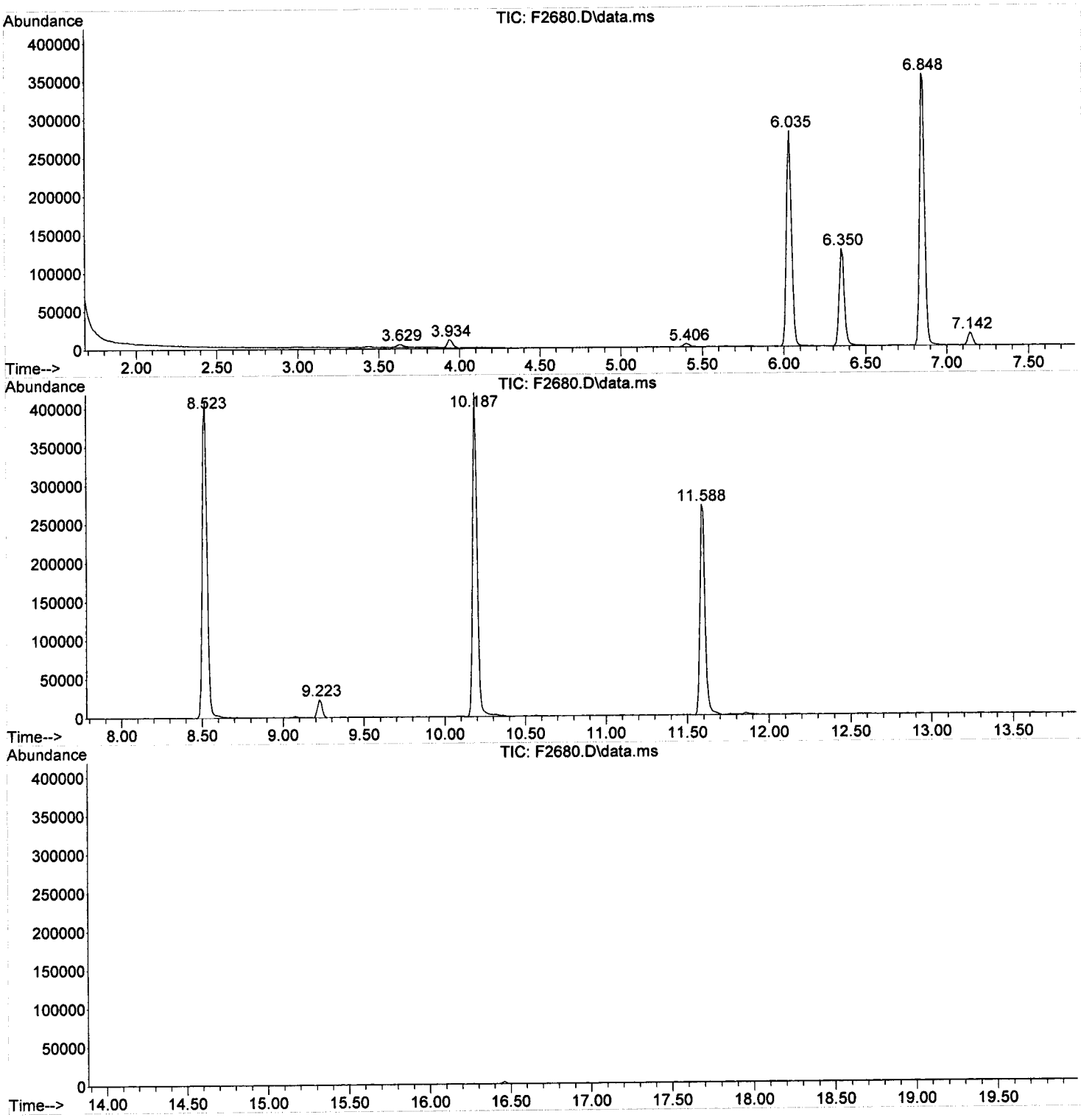
Sum of corrected areas: 4003984

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2680.D
Acq On : 21 Dec 2017 18:09
Operator : XING
Sample : SB-39(D),E17-10966-004,S,4.9g,14.0
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2459.D
Acq On : 22 Dec 2017 16:46
Operator : MEI
Sample : SB-40(S),E17-10966-005,M,0.048g,10.2
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 26 12:12:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration

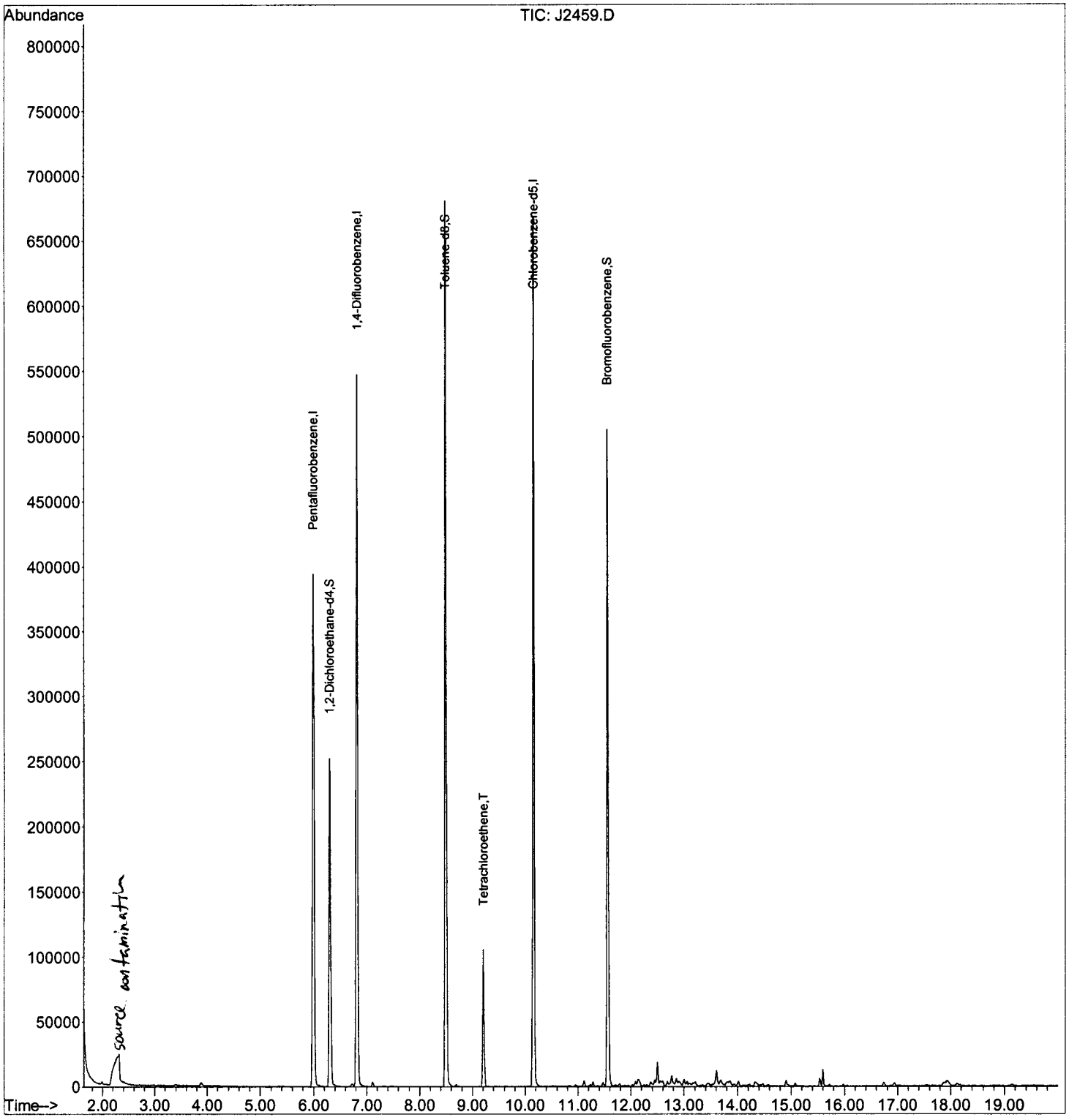
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	246671	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	376752	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	324893	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.30	65	233704	46.98	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 93.96%			
41) Toluene-d8	8.49	98	449372	47.65	UG	-0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 95.30%			
59) Bromofluorobenzene	11.56	95	193781	49.26	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 98.52%			
Target Compounds						Qvalue
45) Tetrachloroethene	9.21	166	30153	13.35	UG	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2459.D
Acq On : 22 Dec 2017 16:46
Operator : MEI
Sample : SB-40(S),E17-10966-005,M,0.048g,10.2
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 26 12:12:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2459.D
Acq On : 22 Dec 2017 16:46
Operator : MEI
Sample : SB-40(S),E17-10966-005,M,0.048g,10.2
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM121417.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.324	48	69	87	rBB3	23646	193309	14.70%	3.023%
2	6.000	426	432	447	rBB	394398	826692	62.88%	12.930%
3	6.303	453	462	484	rBB	252136	541241	41.17%	8.465%
4	6.820	507	513	530	rBB	547066	1063207	80.87%	16.629%
5	8.491	672	678	693	rBB	680802	1314772	100.00%	20.564%
6	9.210	742	749	761	rBB	105517	198029	15.06%	3.097%
7	10.161	837	843	859	rBB	669032	1208129	91.89%	18.896%
8	11.559	976	981	992	rBB	504559	948517	72.14%	14.835%
9	12.501	1071	1074	1077	rBB	16088	25853	1.97%	0.404%
10	12.774	1096	1101	1106	rBB3	6477	13798	1.05%	0.216%
11	13.604	1178	1183	1188	rBB3	10397	19796	1.51%	0.310%
12	15.599	1377	1380	1384	rBB	12286	17352	1.32%	0.271%
13	17.938	1599	1611	1618	rBB10	4178	22982	1.75%	0.359%

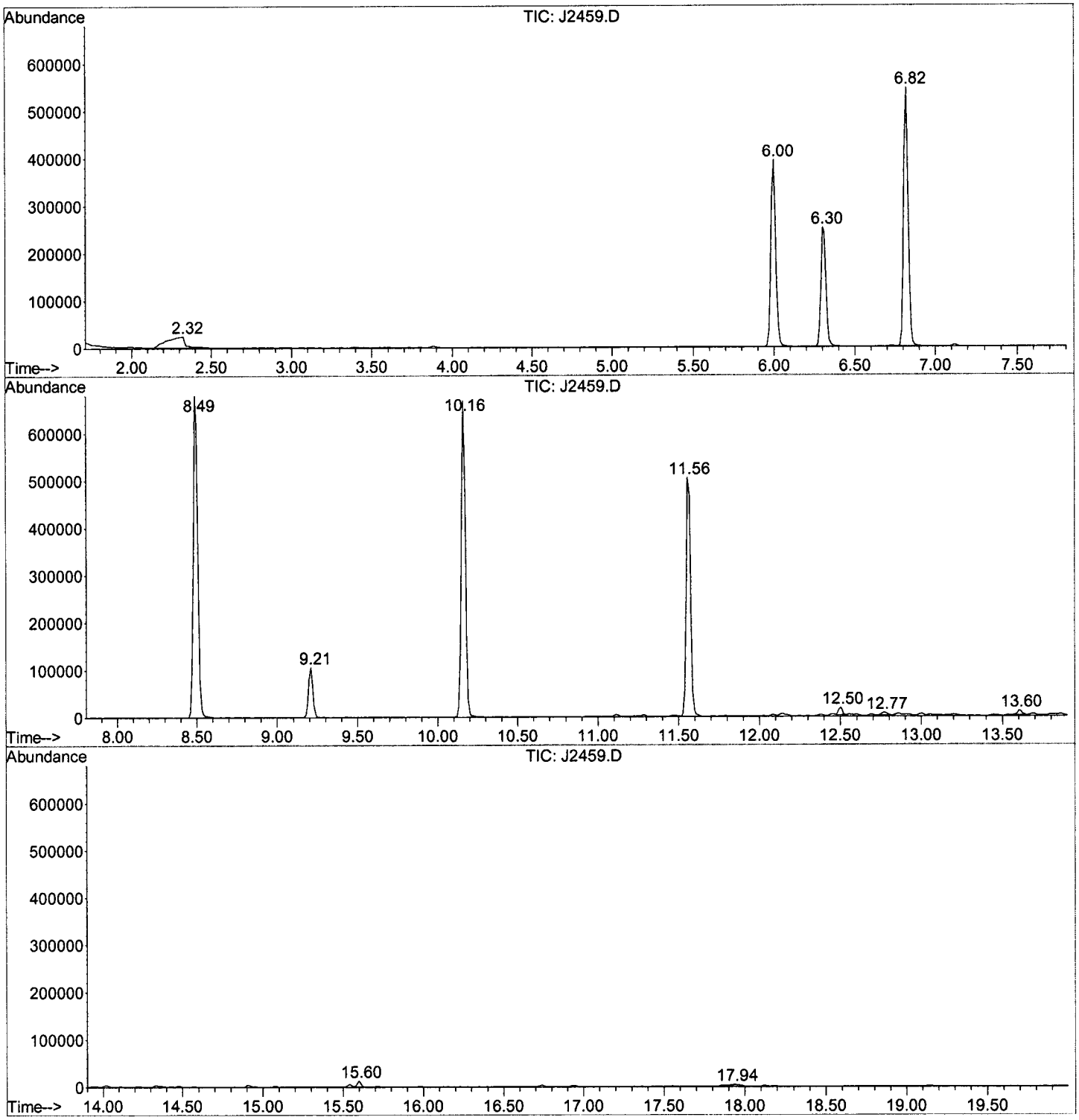
Sum of corrected areas: 6393677

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2459.D
Acq On : 22 Dec 2017 16:46
Operator : MEI
Sample : SB-40(S),E17-10966-005,M,0.048g,10.2
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2681.D
Acq On : 21 Dec 2017 18:39
Operator : XING
Sample : SB-40(D),E17-10966-006,S,3.6g,13.5
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 22 09:15:49 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

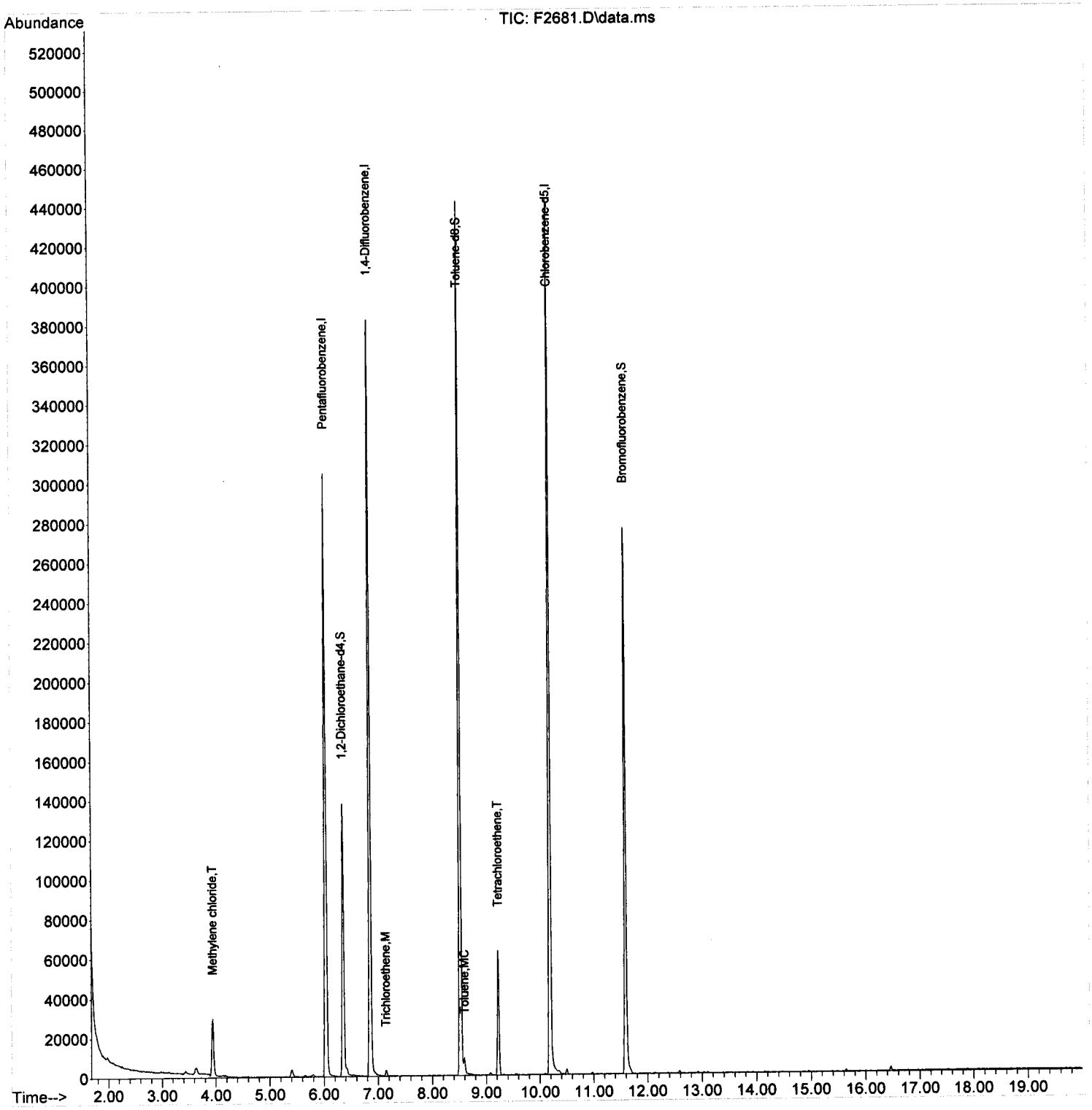
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.035	168	198680	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.858	114	323514	50.00	UG	0.00
50) Chlorobenzene-d5	10.187	117	266339	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.350	65	102932	50.75	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 101.50%			
41) Toluene-d8	8.523	98	296119	47.23	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 94.46%			
59) Bromofluorobenzene	11.588	95	109346	42.41	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 84.82%			
Target Compounds						Qvalue
13) Methylene chloride	3.944	84	12785	5.46	UG	98
33) Trichloroethene	7.142	95	1034	0.36	UG	94
42) Toluene	8.594	92	2841	0.49	UG	99
45) Tetrachloroethene	9.223	166	19046	6.76	UG	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2681.D
Acq On : 21 Dec 2017 18:39
Operator : XING
Sample : SB-40(D),E17-10966-006,S,3.6g,13.5
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 22 09:15:49 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2681.D
Acq On : 21 Dec 2017 18:39
Operator : XING
Sample : SB-40(D),E17-10966-006,S,3.6g,13.5
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC: F2681.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.629	188	193	199	rVB2	3138	10001	1.13%	0.230%
2	3.944	219	224	235	rVB	28965	72115	8.15%	1.659%
3	5.406	363	368	375	rBV	3556	10000	1.13%	0.230%
4	6.035	422	430	454	rBV	304986	665183	75.16%	15.299%
5	6.350	454	461	477	rBV	138125	315707	35.67%	7.261%
6	6.858	505	511	535	rBV	382518	832723	94.09%	19.153%
7	8.523	667	675	680	rBV	442555	885073	100.00%	20.357%
8	9.223	738	744	752	rBV	63082	123574	13.96%	2.842%
9	10.187	833	839	853	rBV	442745	868493	98.13%	19.975%
10	11.588	972	977	992	rBV	276648	564968	63.83%	12.994%

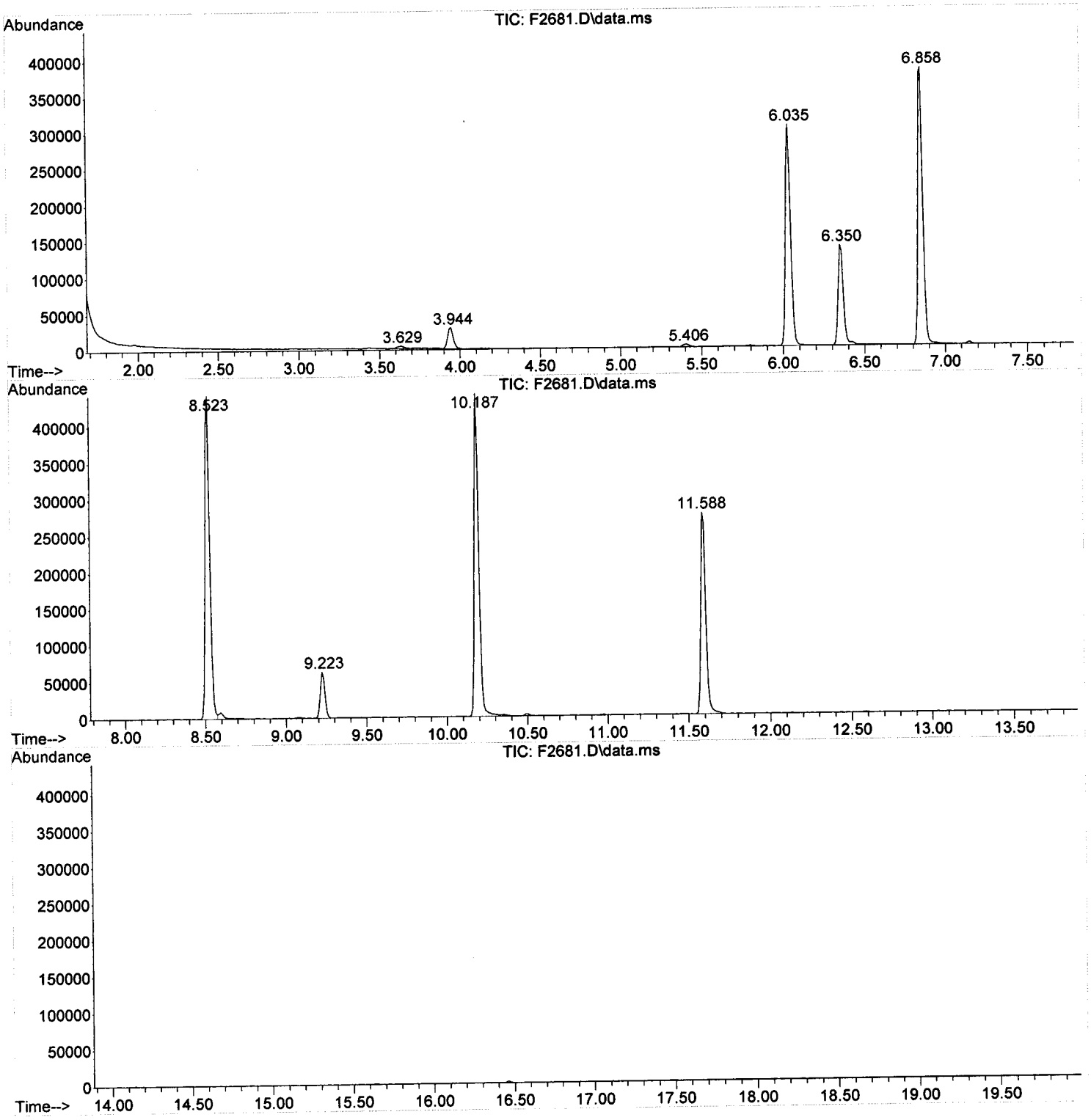
Sum of corrected areas: 4347837

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2681.D
Acq On : 21 Dec 2017 18:39
Operator : XING
Sample : SB-40(D),E17-10966-006,S,3.6g,13.5
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 22 10:25:19 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration

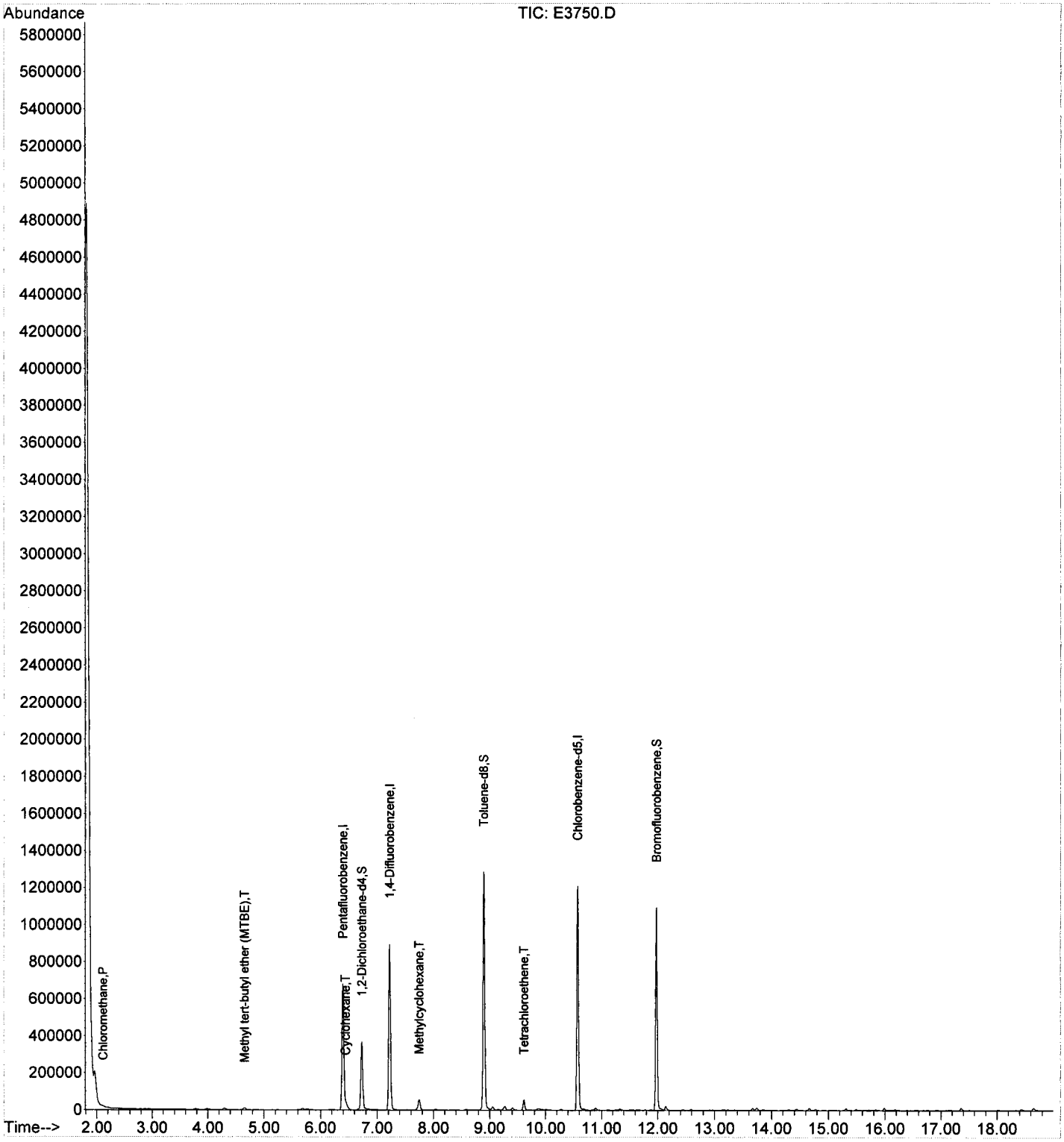
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.40	168	569907	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.22	114	893210	50.00	UG		0.00
50) Chlorobenzene-d5	10.57	117	832736	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.73	65	307700	50.38	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%				
41) Toluene-d8	8.90	98	1031269	50.51	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.02%				
59) Bromofluorobenzene	11.98	95	476528	50.81	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%				
Target Compounds							Qvalue
3) Chloromethane	2.11	50	7707	1.32	UG	#	96
17) Methyl tert-butyl ether (M	4.66	73	14422	0.87	UG		100
45) Tetrachloroethene	9.61	166	21419	3.88	UG		96
82) Cyclohexane	6.45	56	30330	2.91	UG	#	36
83) Methylcyclohexane	7.75	83	28204	2.89	UG		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 22 10:25:19 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8121917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.954	29	32	170	rVB	205129	937308	34.65%	6.911%
2	2.788	170	191	243	rVV2	3279	39459	1.46%	0.291%
3	3.213	243	272	308	rVV2	2362	31367	1.16%	0.231%
4	4.293	463	478	493	rBV6	8154	31810	1.18%	0.235%
5	4.644	532	545	564	rBV3	10642	38519	1.42%	0.284%
6	6.395	865	879	915	rBV	679756	1705995	63.07%	12.578%
7	6.731	923	943	963	rBV	366495	892277	32.98%	6.579%
8	7.224	1026	1037	1083	rVB	895449	1989834	73.56%	14.671%
9	7.748	1121	1137	1156	rBV3	56431	158847	5.87%	1.171%
10	8.896	1339	1356	1380	rBV	1283922	2705109	100.00%	19.945%
11	9.054	1380	1386	1400	rVB3	16568	40174	1.49%	0.296%
12	9.268	1417	1427	1438	rVB6	19579	55881	2.07%	0.412%
13	9.410	1443	1454	1471	rVB4	13083	38550	1.43%	0.284%
14	9.615	1481	1493	1515	rVB2	55492	124067	4.59%	0.915%
15	9.856	1531	1539	1553	rBV10	7438	32281	1.19%	0.238%
16	10.574	1663	1676	1695	rBV	1208559	2433152	89.95%	17.940%
17	10.899	1727	1738	1759	rVB10	12147	37833	1.40%	0.279%
18	11.979	1934	1944	1968	rBV	1091763	2120870	78.40%	15.637%
19	12.142	1968	1975	1996	rVB2	21322	52422	1.94%	0.387%
20	14.664	2442	2456	2467	rBV10	12247	30082	1.11%	0.222%
21	17.358	2964	2970	2995	rVB3	13620	29342	1.08%	0.216%
22	18.648	3207	3216	3235	rBV4	12750	37714	1.39%	0.278%

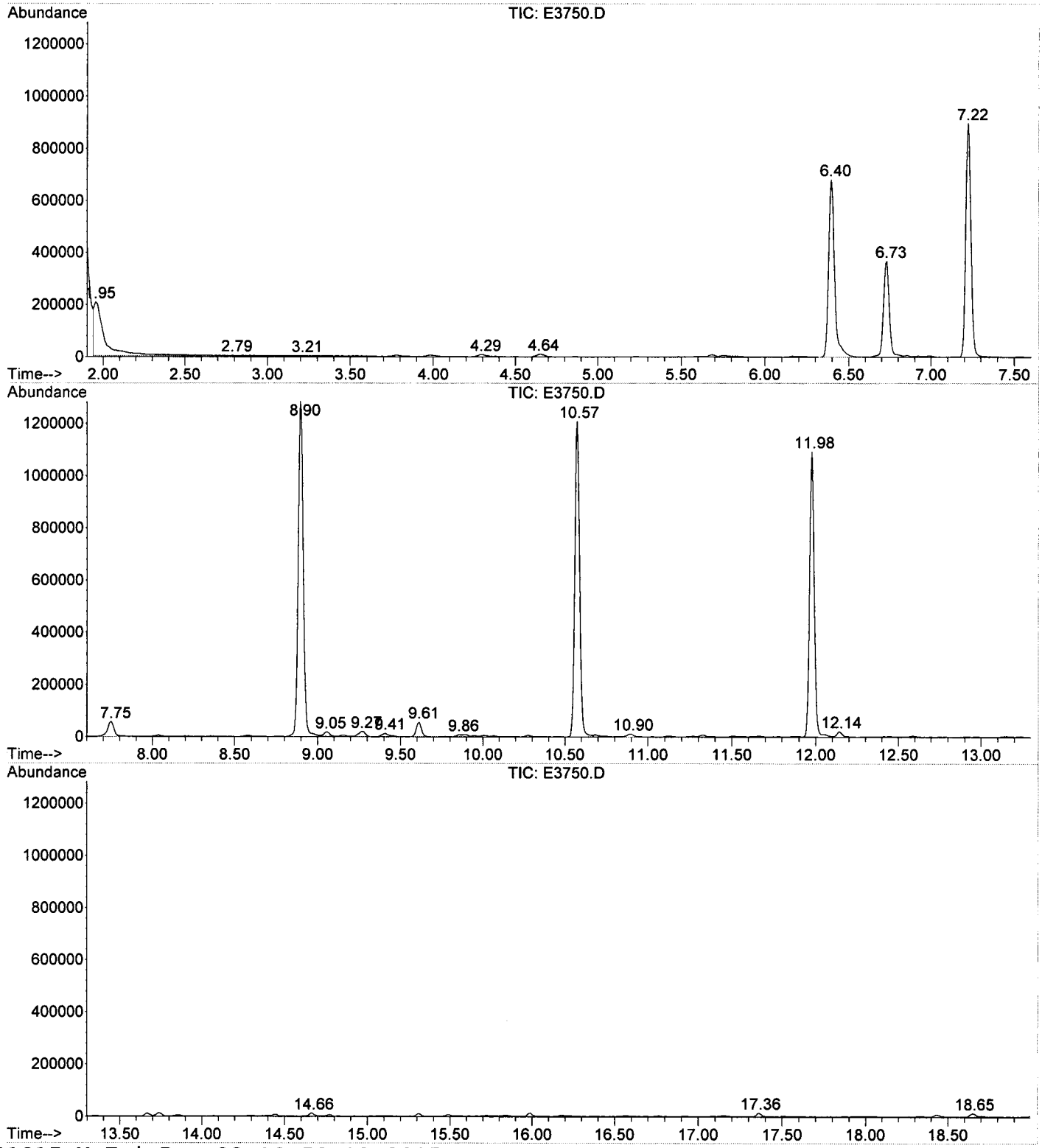
Sum of corrected areas: 13562893

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

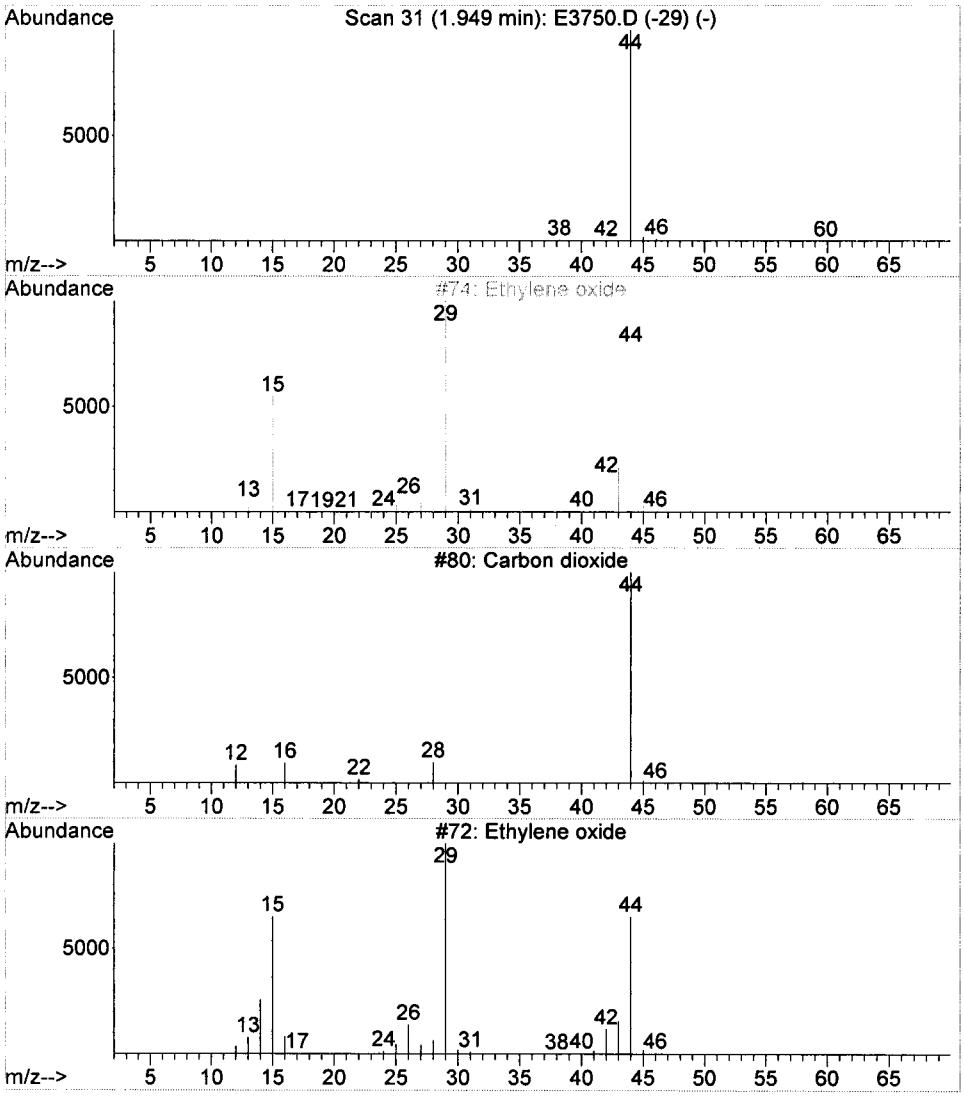
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

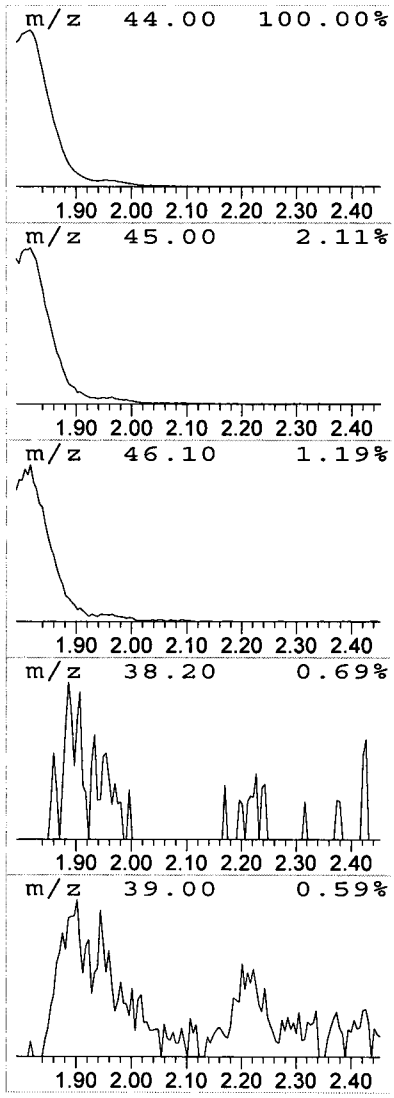
****

Peak Number 1 Unknown VOA Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.95	27.47 UG	937308	Pentafluorobenzene	6.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3
5	Nitrous Oxide	44	N2O	010024-97-2	3





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3751.D
Acq On : 21 Dec 2017 3:17 pm
Operator : BARBARA
Sample : SB-39,E17-10966-008,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 22 10:26:40 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration

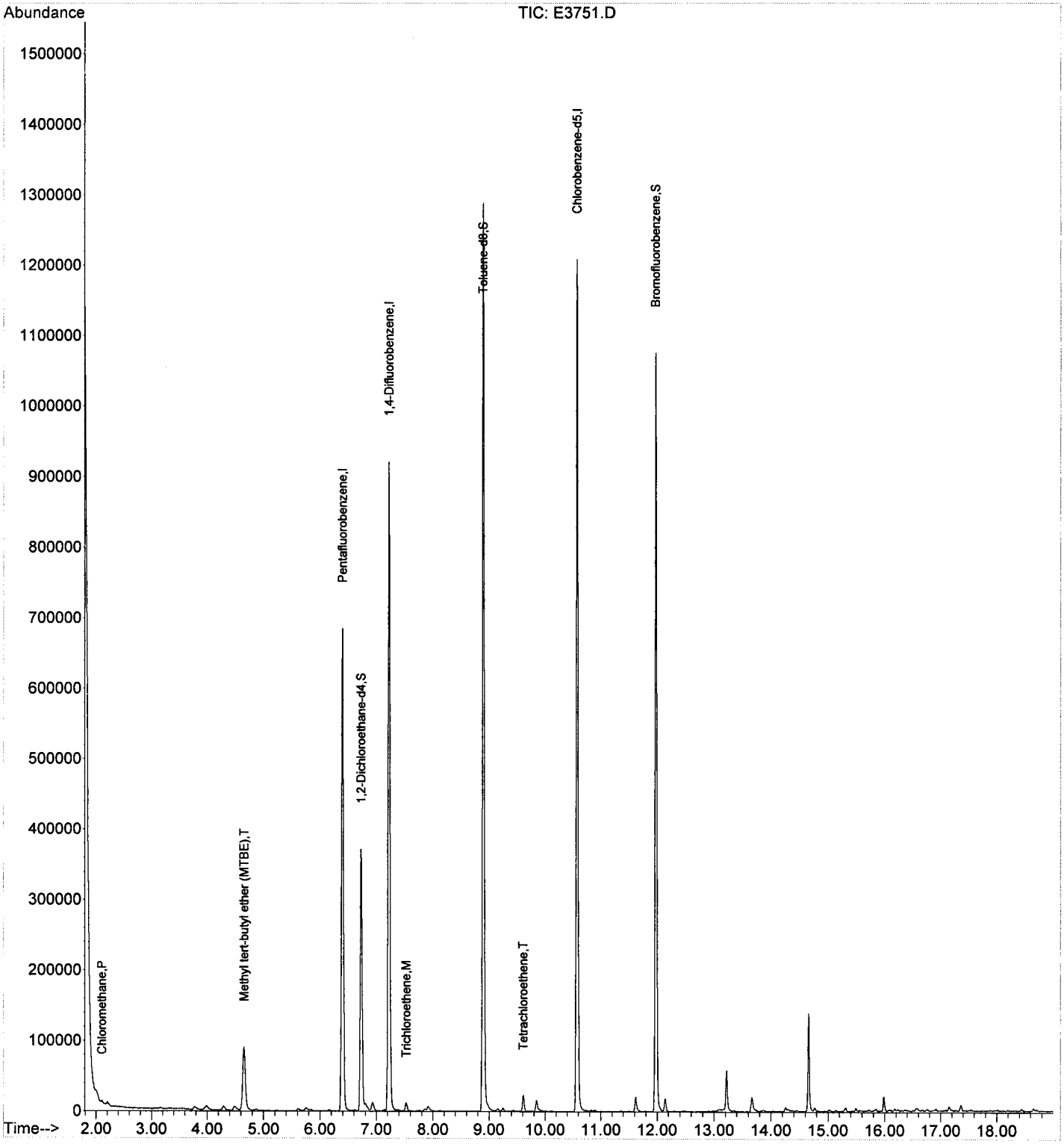
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.40	168	571047	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.22	114	898314	50.00	UG		0.00
50) Chlorobenzene-d5	10.57	117	832249	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.73	65	310310	50.70	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.40%				
41) Toluene-d8	8.90	98	1042463	50.76	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%				
59) Bromofluorobenzene	11.97	95	472460	50.41	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.82%				
Target Compounds							Qvalue
3) Chloromethane	2.11	50	6996	1.20	UG		99
17) Methyl tert-butyl ether (M	4.65	73	144965	8.77	UG		100
33) Trichloroethene	7.53	95	5190	0.94	UG	#	100
45) Tetrachloroethene	9.61	166	8644	1.56	UG		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3751.D
Acq On : 21 Dec 2017 3:17 pm
Operator : BARBARA
Sample : SB-39,E17-10966-008,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 22 10:26:40 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3751.D
Acq On : 21 Dec 2017 3:17 pm
Operator : BARBARA
Sample : SB-39,E17-10966-008,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8121917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.201	77	79	168	rVB3	9345	73295	2.71%	0.571%
2	3.978	406	418	449	rVB3	6287	31611	1.17%	0.246%
3	4.655	533	547	576	rVB	89944	299510	11.07%	2.334%
4	6.395	866	879	915	rBV	685093	1584090	58.56%	12.345%
5	6.726	930	942	972	rBV	371708	893642	33.04%	6.964%
6	6.930	972	981	998	rVB4	12036	37331	1.38%	0.291%
7	7.224	1027	1037	1086	rVV	920120	2000088	73.94%	15.586%
8	7.528	1086	1095	1116	rVB4	11596	29480	1.09%	0.230%
9	8.896	1342	1356	1394	rBV	1287574	2705059	100.00%	21.080%
10	9.609	1484	1492	1506	rVB2	22588	49588	1.83%	0.386%
11	9.845	1527	1537	1567	rBV4	15726	45927	1.70%	0.358%
12	10.574	1664	1676	1706	rBV	1207913	2439644	90.19%	19.012%
13	11.618	1864	1875	1895	rVB3	20928	47238	1.75%	0.368%
14	11.974	1928	1943	1968	rBV	1075402	2112661	78.10%	16.464%
15	12.147	1968	1976	1992	rVB3	18068	39096	1.45%	0.305%
16	13.222	2174	2181	2204	rVB3	57322	114403	4.23%	0.892%
17	13.668	2256	2266	2290	rBV4	20315	57991	2.14%	0.452%
18	14.659	2444	2455	2470	rBV	139244	236067	8.73%	1.840%
19	15.985	2702	2708	2719	rVB	20443	35465	1.31%	0.276%

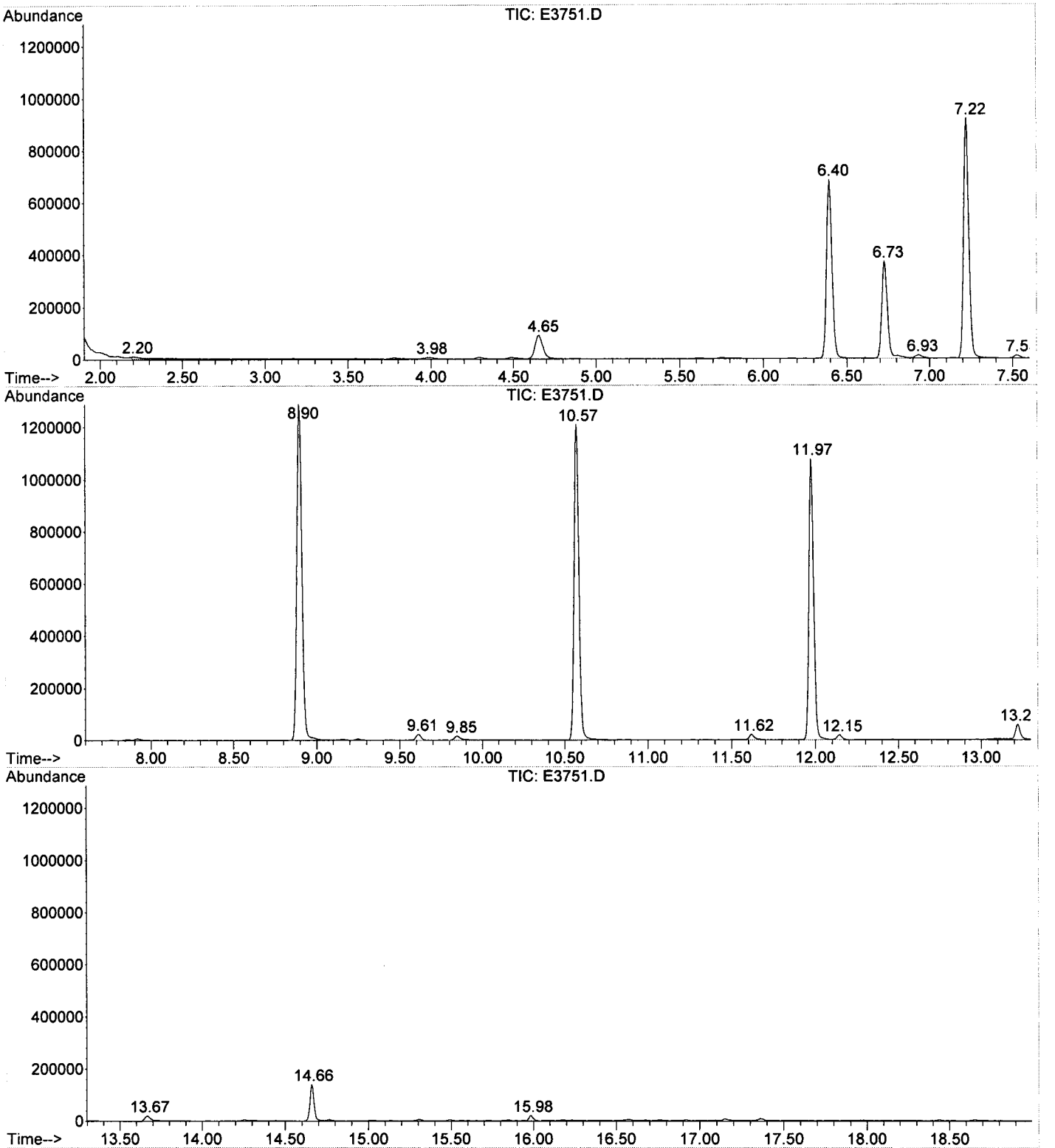
Sum of corrected areas: 12832186

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3751.D
Acq On : 21 Dec 2017 3:17 pm
Operator : BARBARA
Sample : SB-39,E17-10966-008,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171221-01
Client ID: BKLS171221-01
Date Received:
Date Analyzed: 12/21/2017
Data file: F2669.D 12/21/17 12:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS171221-01
Client ID: BKLS171221-01
Date Received:
Date Analyzed: 12/21/2017
Data file: F2669.D 12/21/17 12:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS171221-01
Client ID: BKLS171221-01
Date Received:
Date Analyzed: 12/21/2017
Date File: F2669.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2669.D
Acq On : 21 Dec 2017 12:47
Operator : XING
Sample : BKLS171221-01,BLKS171221-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 21 13:28:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.035	168	198267	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.858	114	328589	50.00	UG	0.00
50) Chlorobenzene-d5	10.188	117	262861	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.350	65	107995	53.36	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 106.72%			
41) Toluene-d8	8.523	98	300191	47.14	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 94.28%			
59) Bromofluorobenzene	11.589	95	117858	46.32	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 92.64%			

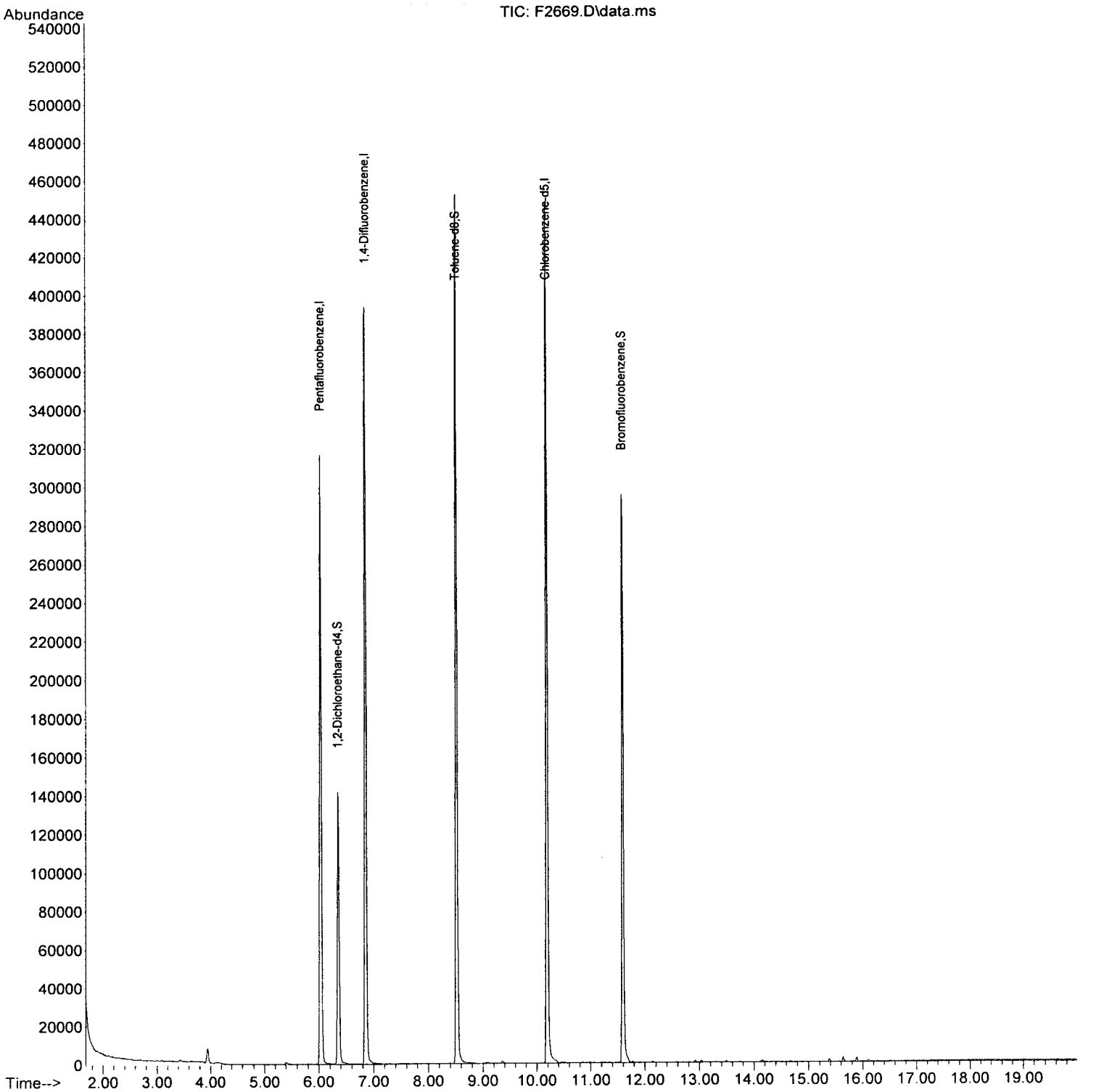
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2669.D
Acq On : 21 Dec 2017 12:47
Operator : XING
Sample : BKLS171221-01,BLKS171221-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 21 13:28:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2669.D
Acq On : 21 Dec 2017 12:47
Operator : XING
Sample : BKLS171221-01,BLKS171221-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC: F2669.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.944	219	224	235	rVB	7645	20008	2.19%	0.470%
2	6.035	421	430	442	rBV	316575	674816	73.87%	15.851%
3	6.350	453	461	480	rBV	141541	318479	34.86%	7.481%
4	6.858	504	511	524	rBV	393480	855714	93.67%	20.101%
5	8.523	669	675	692	rBV	452327	913568	100.00%	21.460%
6	10.188	831	839	861	rBV	447184	876321	95.92%	20.585%
7	11.589	970	977	993	rBV	295238	598234	65.48%	14.052%

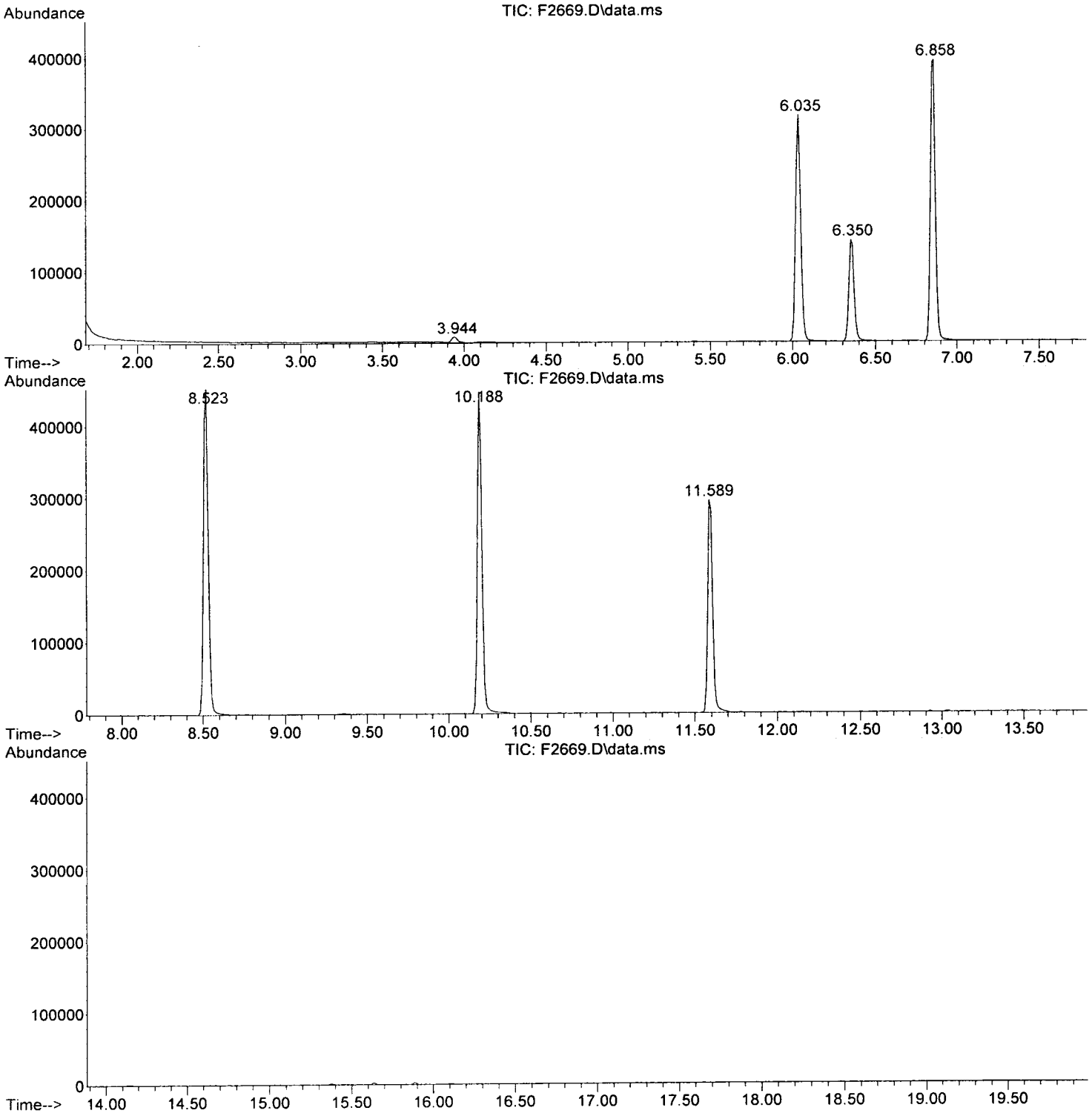
Sum of corrected areas: 4257140

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\12-21-17\
Data File : F2669.D
Acq On : 21 Dec 2017 12:47
Operator : XING
Sample : BKLS171221-01,BLKS171221-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171221
Client ID: BLKA171221
Date Received: NA
Date Analyzed: 12/21/2017
Data file: E3745.D 12/21/17 12:18

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	ND		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	ND		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	ND		0.500	0.493
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.464
Methylene chloride	ND		1.00	0.990
trans-1,2-Dichloroethene	ND		0.500	0.454
Methyl tert-butyl ether (MTBE)	ND		0.500	0.479
1,1-Dichloroethane	ND		0.500	0.493
cis-1,2-Dichloroethene	ND		0.500	0.451
2-Butanone (MEK)	ND		2.00	1.66
Bromochloromethane	ND		1.00	0.596
Chloroform	ND		0.500	0.469
1,1,1-Trichloroethane	ND		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	ND		0.500	0.458
Benzene	ND		0.500	0.464
Trichloroethene	ND		0.500	0.493
1,2-Dichloropropane	ND		0.500	0.447
1,4-Dioxane	ND		100	98.4
Bromodichloromethane	ND		0.500	0.353
cis-1,3-Dichloropropene	ND		0.500	0.331
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.699

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA171221
Client ID: BLKA171221
Date Received: NA
Date Analyzed: 12/21/2017
Data file: E3745.D 12/21/17 12:18

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.379
trans-1,3-Dichloropropene	ND		0.500	0.321
1,1,2-Trichloroethane	ND		0.500	0.473
Tetrachloroethene	ND		0.500	0.451
2-Hexanone	ND		1.00	0.761
Dibromochloromethane	ND		0.500	0.442
1,2-Dibromoethane (EDB)	ND		0.500	0.402
Chlorobenzene	ND		0.500	0.376
Ethylbenzene	ND		0.500	0.344
Total Xylenes	ND		1.00	0.923
Styrene	ND		0.500	0.290
Bromoform	ND		0.500	0.445
Isopropylbenzene	ND		0.500	0.323
1,1,2,2-Tetrachloroethane	ND		0.500	0.458
1,3-Dichlorobenzene	ND		0.500	0.351
1,4-Dichlorobenzene	ND		0.500	0.341
1,2-Dichlorobenzene	ND		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		1.00	0.304
1,2,3-Trichlorobenzene	ND		1.00	0.339
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.563
Methyl acetate	ND		0.500	0.485
Cyclohexane	ND		0.500	0.411
Methylcyclohexane	ND		1.00	0.411
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.331

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA171221
Client ID: BLKA171221
Date Received: NA
Date Analyzed: 12/21/2017
Data file: E3745.D 12/21/17 12:18

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8121917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.954	29	32	170	rVB	205129	937308	34.65%	6.911%
2	2.788	170	191	243	rVV2	3279	39459	1.46%	0.291%
3	3.213	243	272	308	rVV2	2362	31367	1.16%	0.231%
4	4.293	463	478	493	rBV6	8154	31810	1.18%	0.235%
5	4.644	532	545	564	rBV3	10642	38519	1.42%	0.284%
6	6.395	865	879	915	rBV	679756	1705995	63.07%	12.578%
7	6.731	923	943	963	rBV	366495	892277	32.98%	6.579%
8	7.224	1026	1037	1083	rVB	895449	1989834	73.56%	14.671%
9	7.748	1121	1137	1156	rBV3	56431	158847	5.87%	1.171%
10	8.896	1339	1356	1380	rBV	1283922	2705109	100.00%	19.945%
11	9.054	1380	1386	1400	rVB3	16568	40174	1.49%	0.296%
12	9.268	1417	1427	1438	rVB6	19579	55881	2.07%	0.412%
13	9.410	1443	1454	1471	rVB4	13083	38550	1.43%	0.284%
14	9.615	1481	1493	1515	rVB2	55492	124067	4.59%	0.915%
15	9.856	1531	1539	1553	rBV10	7438	32281	1.19%	0.238%
16	10.574	1663	1676	1695	rBV	1208559	2433152	89.95%	17.940%
17	10.899	1727	1738	1759	rVB10	12147	37833	1.40%	0.279%
18	11.979	1934	1944	1968	rBV	1091763	2120870	78.40%	15.637%
19	12.142	1968	1975	1996	rVB2	21322	52422	1.94%	0.387%
20	14.664	2442	2456	2467	rBV10	12247	30082	1.11%	0.222%
21	17.358	2964	2970	2995	rVB3	13620	29342	1.08%	0.216%
22	18.648	3207	3216	3235	rBV4	12750	37714	1.39%	0.278%

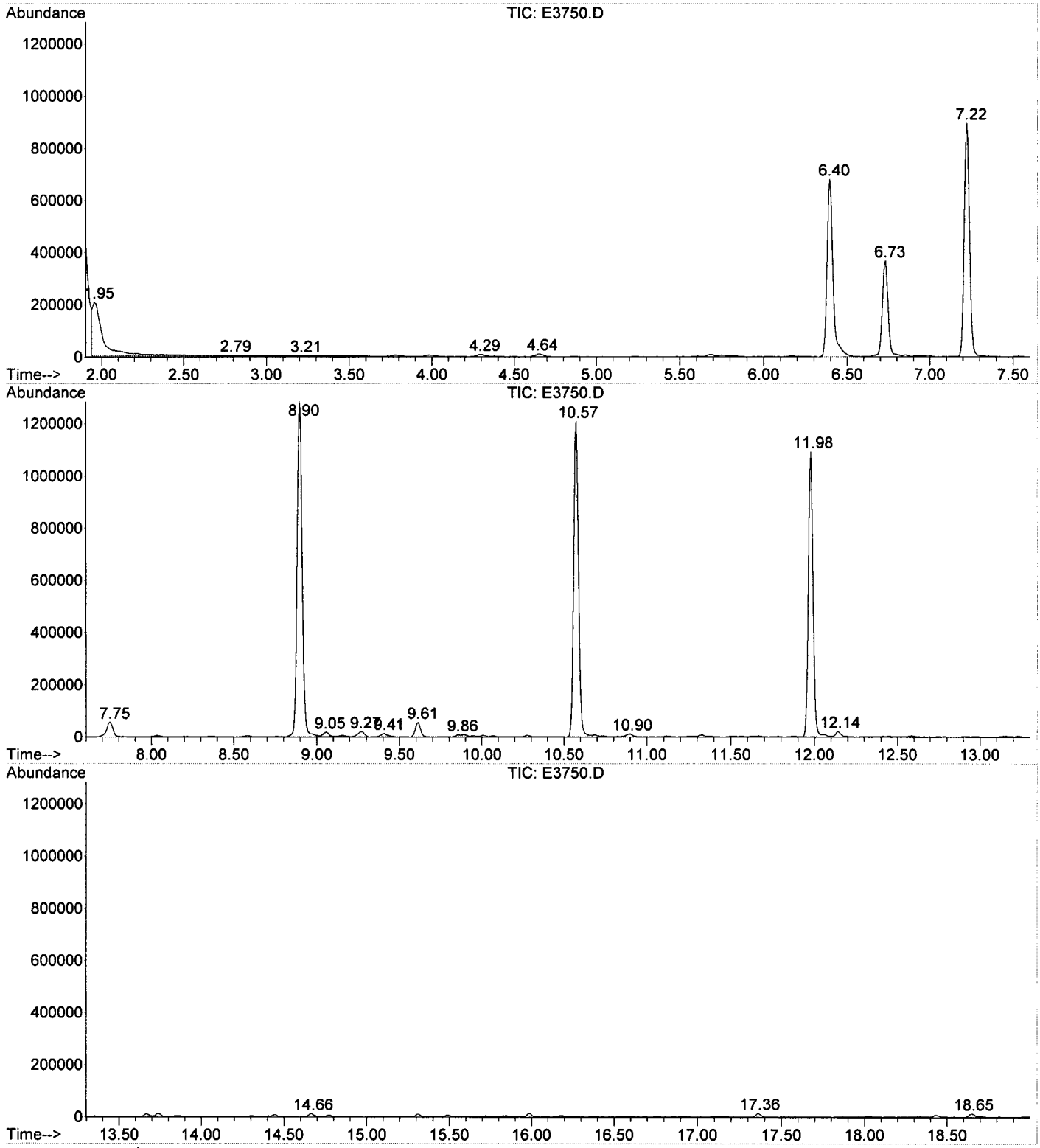
Sum of corrected areas: 13562893

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3750.D
Acq On : 21 Dec 2017 2:47 pm
Operator : BARBARA
Sample : SB-38,E17-10966-007,A,5mL,100
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3745.D
Acq On : 21 Dec 2017 12:18 pm
Operator : BARBARA
Sample : BLKA171221,BLKA171221,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 10:27:46 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration

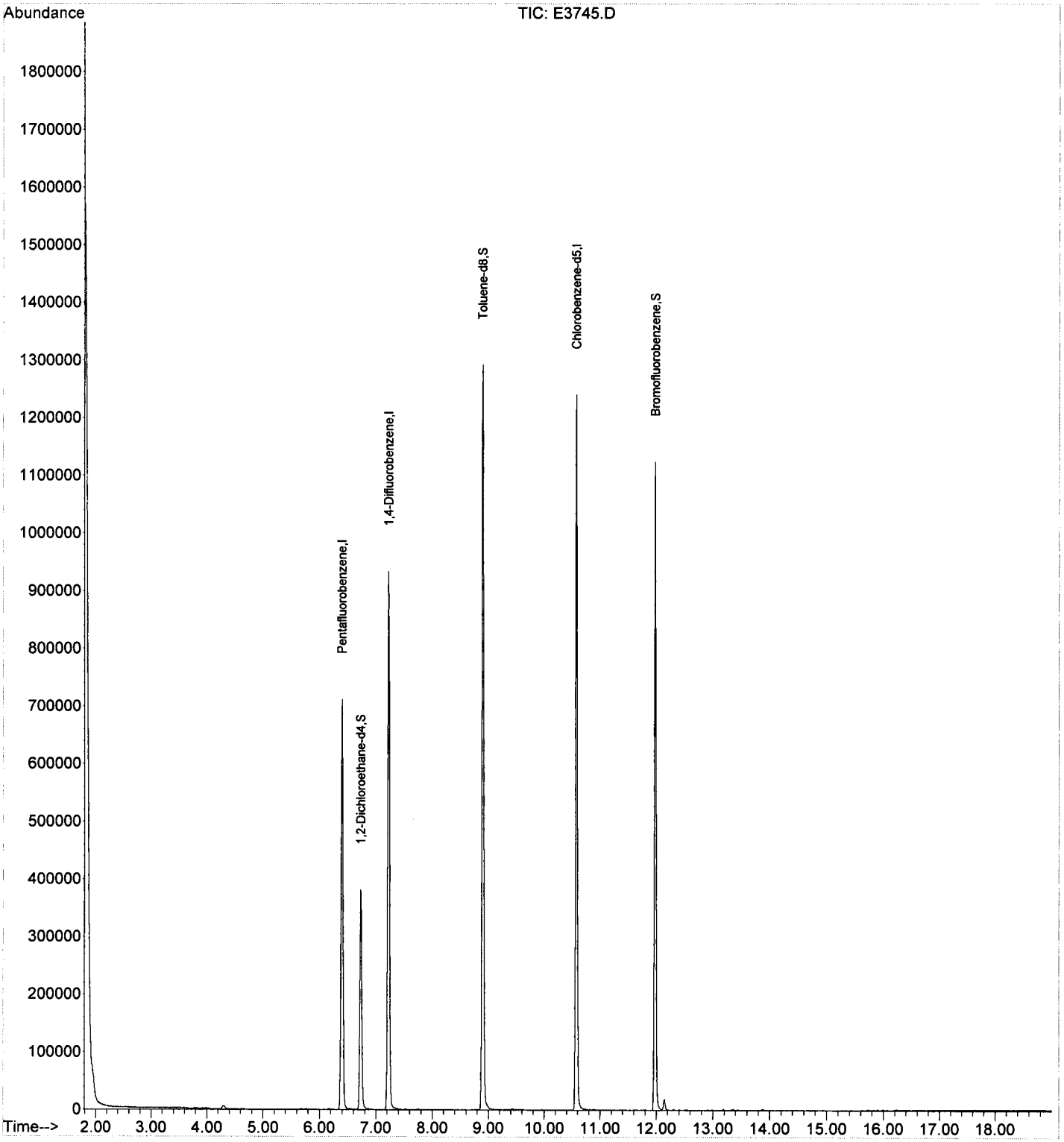
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.40	168	600268	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	933685	50.00	UG	0.00
50) Chlorobenzene-d5	10.57	117	850584	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	322444	50.12	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.24%			
41) Toluene-d8	8.90	98	1059396	49.64	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%			
59) Bromofluorobenzene	11.98	95	490694	51.23	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.46%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3745.D
Acq On : 21 Dec 2017 12:18 pm
Operator : BARBARA
Sample : BLKA171221,BLKA171221,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 10:27:46 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Dec 20 10:33:45 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3745.D
Acq On : 21 Dec 2017 12:18 pm
Operator : BARBARA
Sample : BLKA171221,BLKA171221,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.07 Max Peaks: 100
Stop Thrs : 0.2 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8121917.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.396	864	879	906	rBV	711710	1653959	60.22%	13.685%
2	6.726	930	942	973	rBV	380377	898065	32.70%	7.431%
3	7.224	1026	1037	1088	rBV	932924	2072627	75.47%	17.150%
4	8.896	1346	1356	1399	rBV	1291344	2746316	100.00%	22.724%
5	10.574	1661	1676	1717	rBV	1239669	2492011	90.74%	20.620%
6	11.979	1931	1944	1967	rBV	1123256	2184712	79.55%	18.077%
7	12.142	1967	1975	1985	rVB2	17786	37802	1.38%	0.313%

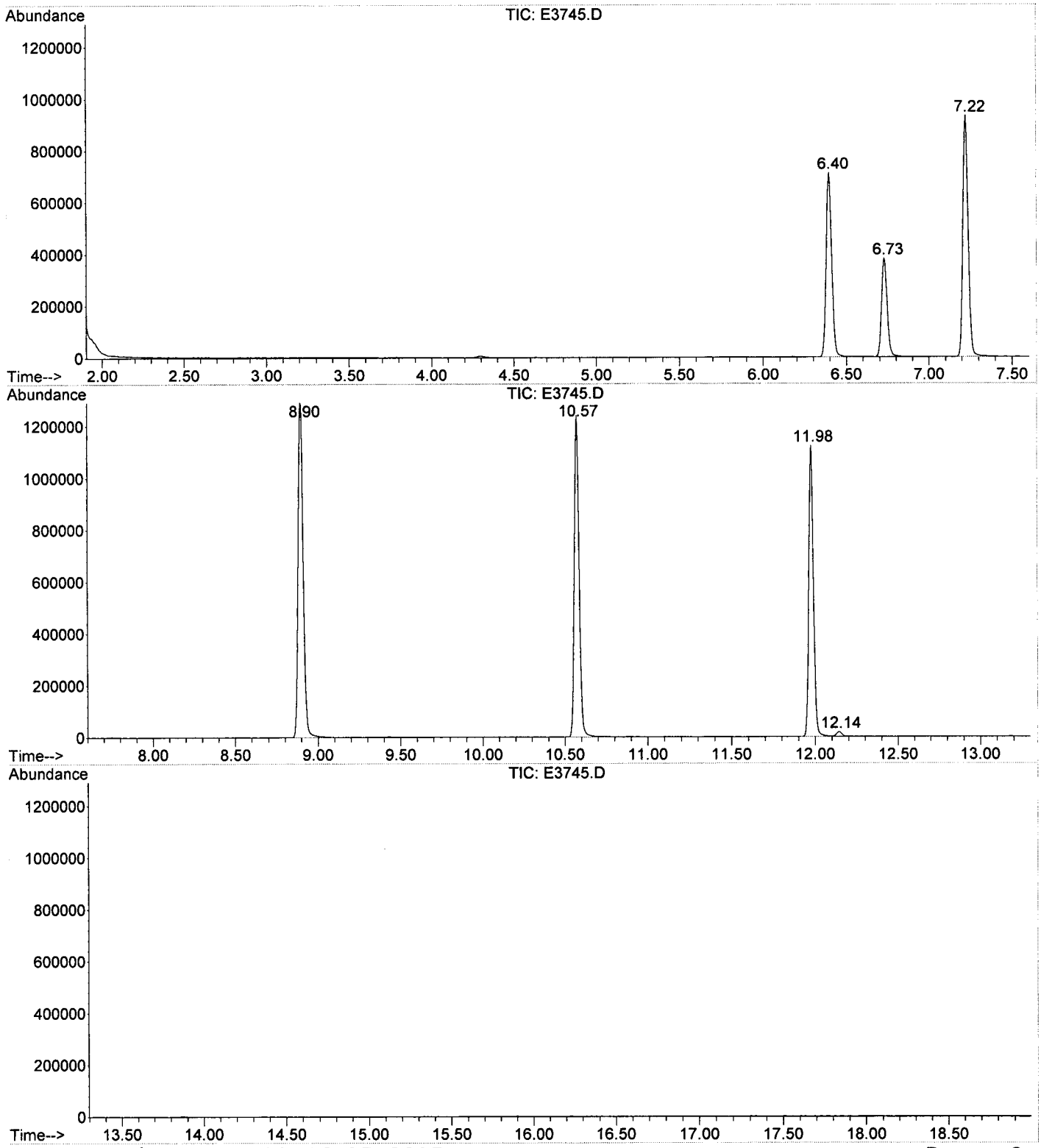
Sum of corrected areas: 12085492

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-21-17\
Data File : E3745.D
Acq On : 21 Dec 2017 12:18 pm
Operator : BARBARA
Sample : BLKA171221,BLKA171221,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8121917.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171222-01
Client ID: BLKM171222-01
Date Received:
Date Analyzed: 12/22/2017
Data file: J2447.D 12/22/17 11:27

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.033
Chloromethane	ND		0.025	0.023
Vinyl chloride	ND		0.050	0.030
Bromomethane	ND		0.050	0.027
Chloroethane	ND		0.025	0.025
Trichlorofluoromethane	ND		0.025	0.022
1,1-Dichloroethene	ND		0.025	0.025
Acetone	ND		0.100	0.067
Carbon disulfide	ND		0.025	0.023
Methylene chloride	ND		0.050	0.050
trans-1,2-Dichloroethene	ND		0.025	0.023
Methyl tert-butyl ether (MTBE)	ND		0.025	0.024
1,1-Dichloroethane	ND		0.025	0.025
cis-1,2-Dichloroethene	ND		0.025	0.023
2-Butanone (MEK)	ND		0.100	0.083
Bromochloromethane	ND		0.050	0.030
Chloroform	ND		0.025	0.024
1,1,1-Trichloroethane	ND		0.025	0.023
Carbon tetrachloride	ND		0.050	0.023
1,2-Dichloroethane (EDC)	ND		0.025	0.023
Benzene	ND		0.025	0.023
Trichloroethene	ND		0.025	0.025
1,2-Dichloropropane	ND		0.025	0.022
1,4-Dioxane	ND		5.00	4.92
Bromodichloromethane	ND		0.025	0.018
cis-1,3-Dichloropropene	ND		0.025	0.017
4-Methyl-2-pentanone (MIBK)	ND		0.100	0.035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKM171222-01
Client ID: BLKM171222-01
Date Received:
Date Analyzed: 12/22/2017
Data file: J2447.D 12/22/17 11:27

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.025	0.019
trans-1,3-Dichloropropene	ND		0.025	0.016
1,1,2-Trichloroethane	ND		0.025	0.024
Tetrachloroethene	ND		0.025	0.023
2-Hexanone	ND		0.100	0.038
Dibromochloromethane	ND		0.025	0.022
1,2-Dibromoethane (EDB)	ND		0.025	0.020
Chlorobenzene	ND		0.025	0.019
Ethylbenzene	ND		0.025	0.017
Total Xylenes	ND		0.050	0.046
Styrene	ND		0.025	0.015
Bromoform	ND		0.025	0.022
Isopropylbenzene	ND		0.025	0.016
1,1,2,2-Tetrachloroethane	ND		0.025	0.023
1,3-Dichlorobenzene	ND		0.025	0.018
1,4-Dichlorobenzene	ND		0.025	0.017
1,2-Dichlorobenzene	ND		0.025	0.018
1,2-Dibromo-3-chloropropane	ND		0.050	0.027
1,2,4-Trichlorobenzene	ND		0.050	0.015
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.028
Methyl acetate	ND		0.025	0.024
Cyclohexane	ND		0.050	0.021
Methylcyclohexane	ND		0.025	0.021
1,3-Dichloropropene (cis- and trans-)	ND		0.025	0.017

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKM171222-01
Client ID: BLKM171222-01
Date Received:
Date Analyzed: 12/22/2017
Date File: J2447.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2447.D
Acq On : 22 Dec 2017 11:27
Operator : MEI
Sample : BLKM171222-01,BLKM171222-01,M,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 14:37:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	274415	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	408307	50.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	354031	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.31	65	263826	47.67	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 95.34%			
41) Toluene-d8	8.50	98	491211	48.06	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 96.12%			
59) Bromofluorobenzene	11.56	95	210950	49.21	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 98.42%			

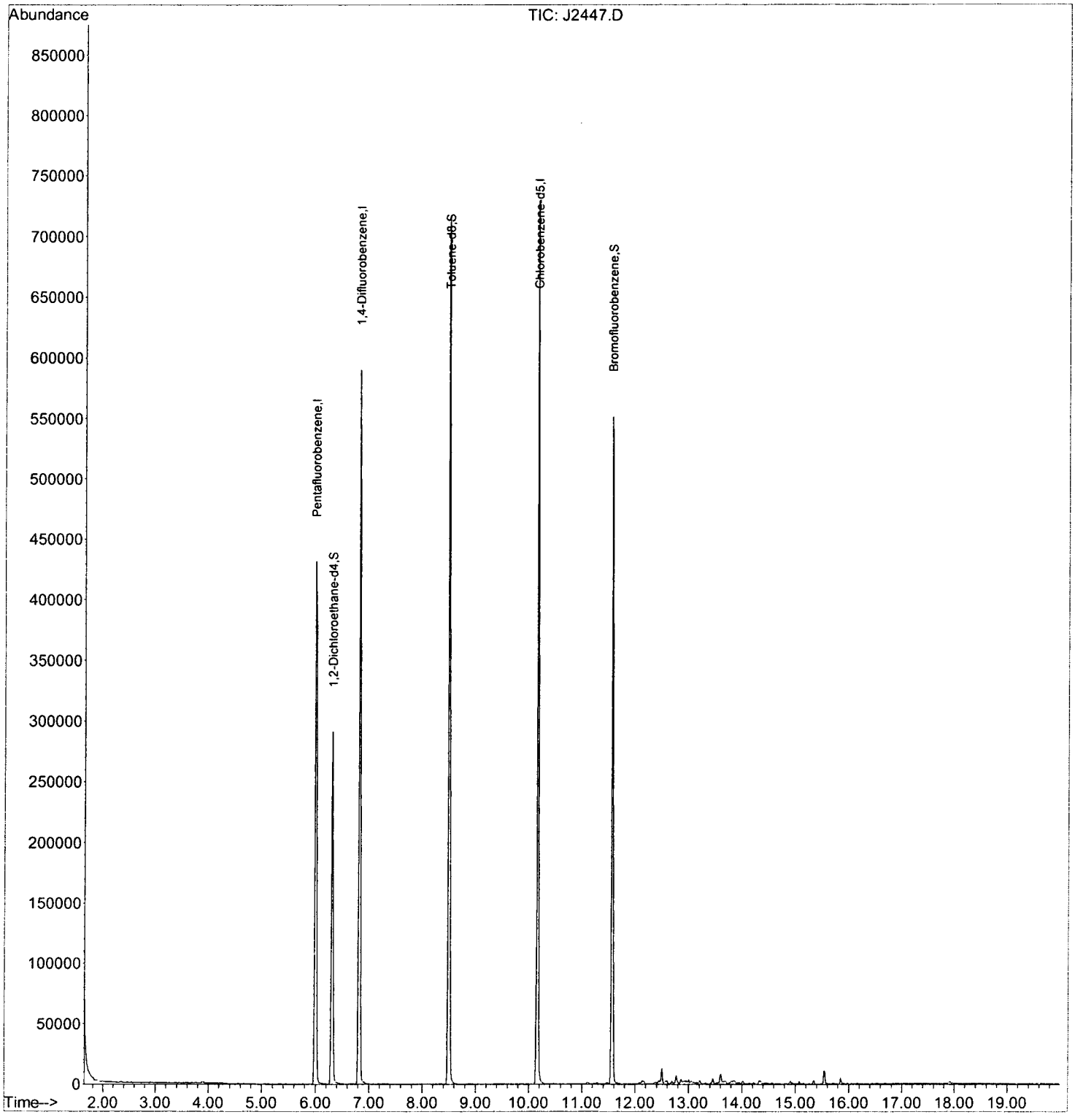
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2447.D
Acq On : 22 Dec 2017 11:27
Operator : MEI
Sample : BLKM171222-01,BLKM171222-01,M,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 14:37:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Fri Dec 15 16:21:03 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2447.D
Acq On : 22 Dec 2017 11:27
Operator : MEI
Sample : BLKM171222-01,BLKM171222-01,M,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM121417.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.999	426	432	449	rBB	431601	910101	63.10%	13.972%
2	6.313	457	463	489	rBB	291358	612244	42.45%	9.399%
3	6.820	504	513	539	rBB	589987	1171708	81.23%	17.988%
4	8.501	671	679	696	rBB	717927	1442384	100.00%	22.143%
5	10.161	834	843	861	rBB	729712	1306279	90.56%	20.054%
6	11.559	976	981	994	rBB	551523	1033481	71.65%	15.866%
7	12.501	1071	1074	1078	rBB	11692	19383	1.34%	0.298%
8	15.538	1370	1374	1378	rBB2	11345	18270	1.27%	0.280%

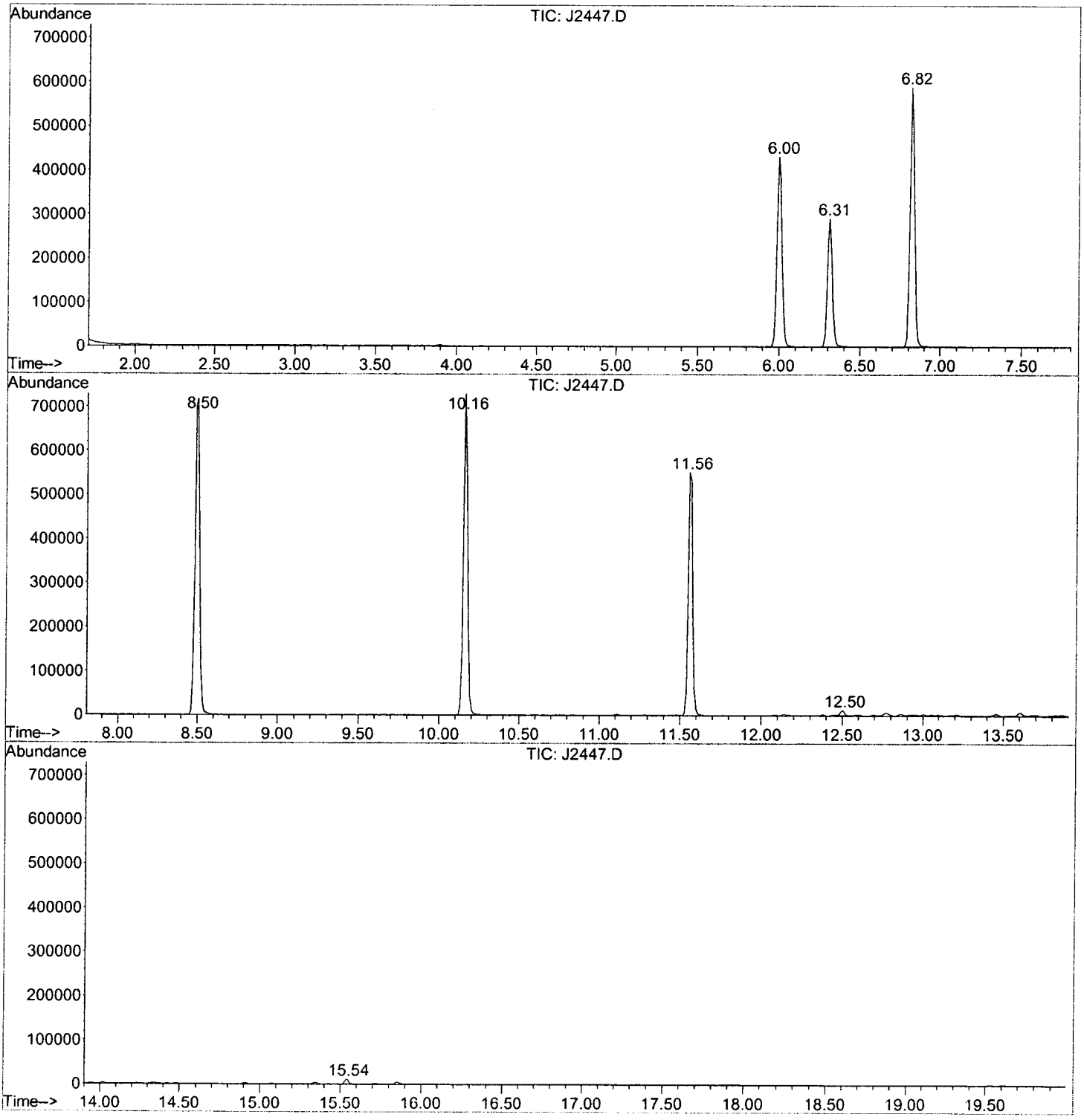
Sum of corrected areas: 6513850

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-22-17\
Data File : J2447.D
Acq On : 22 Dec 2017 11:27
Operator : MEI
Sample : BLKM171222-01,BLKM171222-01,M,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM121417.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/22/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS171221-01	SOIL	96		94		99		85	
PCB	LCSS171221-01	SOIL	96		96		96		87	
PCB	E17-10966-002MS	SOIL	103		105		104		96	
PCB	E17-10966-002MS	SOIL	102		105		104		96	
SB-38(D)	E17-10966-002	SOIL	104		104		106		97	
SB-39(D)	E17-10966-004	SOIL	99		91		99		95	
SB-40(D)	E17-10966-006	SOIL	94		85		99		92	

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	25-162	52-131
DCB = Decachlorobiphenyl	24-172	58-149

\# Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/26/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS171222-03	SOIL	95		66		93		67	
PCB	LCSS171222-03	SOIL	91		77		89		78	
PCB	E17-10966-001MS	SOIL	98		93		96		92	
PCB	E17-10966-001MS	SOIL	98		93		96		93	
SB-38(S)	E17-10966-001	SOIL	100		94		99		93	
SB-39(S)	E17-10966-003	SOIL	99		102		99		99	
SB-40(S)	E17-10966-005	SOIL	97		95		97		94	

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	25-162	52-131
DCB = Decachlorobiphenyl	24-172	58-149

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

PCB LCS ACCURACY REPORT

Lab ID: LCSS171221-01
Date Received: NA
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: Y6986.D 12/22/17 10:41

GC Column: DB-5/DB1701P
Sample wt/vol: 10.0g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
Aroclor-1016	500	0.0	485.1	97		40-137
Aroclor-1260	500	0.0	488.7	98		57-147

	Aqueous	Soil/Sediment
LCS Recovery Limits (DKQP)	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

PCB LCS ACCURACY REPORT

Lab ID: LCSS171222-03
Date Received: NA
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: R1695.D 12/26/17 10:07

GC Column: DB-5/DB1701P
Sample wt/vol: 10g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
Aroclor-1016	500	0.0	513.9	103		40-137
Aroclor-1260	500	0.0	513.7	103		57-147

	Aqueous	Soil/Sediment
LCS Recovery Limits (DKQP)	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

PCB MS/MSD ACCURACY REPORT

Lab ID: E17-10966-002
Date Received: NA
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
MS Data file: Y6987.D
MSD Data file: Y6988.D

GC Column: DB-5/DB1701P
Sample wt/vol: 10.52g
Matrix-Units: Soil-µg/Kg
% Moisture: 12.8
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
Aroclor-1016	500	0.0	576.2	115		573.9	115		0		12-163/25
Aroclor-1260	500	0.0	600.1	120		599.3	120		0		16-178/27

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	30-150	30-150
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

PCB MS/MSD ACCURACY REPORT

Lab ID: E17-10966-001
Date Received: NA
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
MS Data file: R1696.D
MSD Data file: R1697.D

GC Column: DB-5/DB1701P
Sample wt/vol: 10.87g
Matrix-Units: Soil-µg/Kg
% Moisture: 8.80
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
Aroclor-1016	500	0.0	536.4	107		536.7	107		0		12-163/25
Aroclor-1260	500	0.0	603.9	121		604.9	121		0		16-178/27

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	30-150	30-150
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

PCB METHOD BLANK SUMMARY

Lab File ID: Y6985.D

Instrument ID: GC-Y

Date Extracted: 12/21/2017

Matrix: SOIL

Date Analyzed: 12/22/2017

Time Analyzed: 10:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSS171221-01	12/22/2017	10:41
PCB	E17-10966-002MS	12/22/2017	10:58
PCB	E17-10966-002MSD	12/22/2017	11:16
SB-38(D)	E17-10966-002	12/22/2017	11:33
SB-39(D)	E17-10966-004	12/22/2017	11:50
SB-40(D)	E17-10966-006	12/22/2017	12:08

PCB METHOD BLANK SUMMARY

Lab File ID: R1694.D

Instrument ID: GC-R

Date Extracted: 12/22/2017

Matrix: SOIL

Date Analyzed: 12/26/2017

Time Analyzed: 09:50

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSS171222-03	12/26/2017	10:07
PCB	E17-10966-001MS	12/26/2017	10:25
PCB	E17-10966-001MSD	12/26/2017	10:42
SB-38(S)	E17-10966-001	12/26/2017	10:59
SB-39(S)	E17-10966-003	12/26/2017	11:16
SB-40(S)	E17-10966-005	12/26/2017	11:34

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/01/2017 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R1214.D R1213.D R1212.D R1211.D R1210.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.17	3.17	3.17	3.17	3.17	3.17	3.10	3.24
Aroclor-1016 {2}	3.99	3.99	3.99	3.99	3.99	3.99	3.92	4.06
Aroclor-1016 {3}	4.54	4.54	4.54	4.54	4.54	4.54	4.47	4.61
Aroclor-1016 {4}	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
Aroclor-1016 {5}	5.45	5.44	5.44	5.44	5.44	5.44	5.37	5.51
Aroclor-1221			2.09				2.02	2.16
Aroclor-1221 {2}			2.97				2.90	3.04
Aroclor-1221 {3}			3.09				3.02	3.16
Aroclor-1221 {4}			3.17				3.10	3.24
Aroclor-1221 {5}			3.76				3.69	3.83
Aroclor-1232			3.17				3.10	3.24
Aroclor-1232 {2}			3.99				3.92	4.06
Aroclor-1232 {3}			4.66				4.59	4.73
Aroclor-1232 {4}			5.25				5.18	5.32
Aroclor-1232 {5}			5.44				5.37	5.51
Aroclor-1242			3.99				3.92	4.06
Aroclor-1242 {2}			4.93				4.86	5.00
Aroclor-1242 {3}			5.25				5.18	5.32
Aroclor-1242 {4}			5.95				5.88	6.02
Aroclor-1242 {5}			6.22				6.15	6.29
Aroclor-1248			4.39				4.31	4.47
Aroclor-1248 {2}			4.93				4.85	5.01
Aroclor-1248 {3}			5.25				5.17	5.33
Aroclor-1248 {4}			5.95				5.87	6.03
Aroclor-1248 {5}			6.22				6.14	6.30
Aroclor-1254			6.35				6.27	6.43
Aroclor-1254 {2}			6.78				6.70	6.86
Aroclor-1254 {3}			6.95				6.86	7.04
Aroclor-1254 {4}			7.39				7.30	7.48
Aroclor-1254 {5}			8.24				8.15	8.33
Aroclor-1260	8.23	8.24	8.23	8.23	8.23	8.24	7.34	9.14
Aroclor-1260 {2}	8.91	8.91	8.91	8.91	8.91	8.91	8.01	9.81
Aroclor-1260 {3}	9.39	9.39	9.39	9.39	9.39	9.39	8.49	10.29
Aroclor-1260 {4}	9.88	9.87	9.87	9.87	9.87	9.87	8.97	10.77
Aroclor-1260 {5}	10.94	10.94	10.94	10.94	10.94	10.94	10.04	11.84

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/01/2017 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R1214.D R1213.D R1212.D R1211.D R1210.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	131135	129858	126817	119907	112868	124117	6.16
Aroclor-1016 {2}	172391	182632	167387	159758	151295	166692	7.18
Aroclor-1016 {3}	239183	229749	216552	207715	198896	218419	7.45
Aroclor-1016 {4}	100521	112341	107619	100303	93909	102938	6.95
Aroclor-1016 {5}	178544	176955	174749	166846	158242	171067	4.95
Aroclor-1221			56595				
Aroclor-1221 {2}			97074				
Aroclor-1221 {3}			93141				
Aroclor-1221 {4}			190549				
Aroclor-1221 {5}			47382				
Aroclor-1232			126526				
Aroclor-1232 {2}			76452				
Aroclor-1232 {3}			67436				
Aroclor-1232 {4}			73274				
Aroclor-1232 {5}			91766				
Aroclor-1242			139401				
Aroclor-1242 {2}			91781				
Aroclor-1242 {3}			126016				
Aroclor-1242 {4}			184180				
Aroclor-1242 {5}			152336				
Aroclor-1248			275768				
Aroclor-1248 {2}			164922				
Aroclor-1248 {3}			209233				
Aroclor-1248 {4}			323863				
Aroclor-1248 {5}			242660				
Aroclor-1254			384233				
Aroclor-1254 {2}			238594				
Aroclor-1254 {3}			450428				
Aroclor-1254 {4}			484636				
Aroclor-1254 {5}			450733				
Aroclor-1260	496070	441052	441636	437170	435598	450305	5.71
Aroclor-1260 {2}	302030	270592	260853	255056	252711	268248	7.49
Aroclor-1260 {3}	685130	594332	638319	623615	634089	635097	5.17
Aroclor-1260 {4}	336393	299444	309237	304719	306700	311299	4.65
Aroclor-1260 {5}	174477	157998	163372	157977	157991	162363	4.41
					Average %RSD		6.01

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/01/2017

Instrument ID: GC-R

GC Column (2nd): DB-1701P

Data File: R1214.C R1213.C R1212.C R1211.C R1210.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.52	3.52	3.52	3.52	3.52	3.52	3.45	3.59
Aroclor-1016 {2}	4.10	4.10	4.10	4.10	4.10	4.10	4.03	4.17
Aroclor-1016 {3}	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
Aroclor-1016 {4}	5.04	5.04	5.04	5.04	5.04	5.04	4.97	5.11
Aroclor-1016 {5}	5.21	5.21	5.21	5.21	5.21	5.21	5.14	5.28
Aroclor-1221			2.27				2.20	2.34
Aroclor-1221 {2}			3.21				3.14	3.28
Aroclor-1221 {3}			3.43				3.36	3.50
Aroclor-1221 {4}			3.52				3.45	3.59
Aroclor-1221 {5}			4.83				4.76	4.90
Aroclor-1232			3.52				3.45	3.59
Aroclor-1232 {2}			4.47				4.40	4.54
Aroclor-1232 {3}			5.04				4.97	5.11
Aroclor-1232 {4}			5.21				5.14	5.28
Aroclor-1232 {5}			5.80				5.73	5.87
Aroclor-1242			4.47				4.40	4.54
Aroclor-1242 {2}			5.21				5.14	5.28
Aroclor-1242 {3}			5.80				5.73	5.87
Aroclor-1242 {4}			5.95				5.88	6.02
Aroclor-1242 {5}			6.49				6.42	6.56
Aroclor-1248			4.83				4.75	4.91
Aroclor-1248 {2}			5.41				5.33	5.49
Aroclor-1248 {3}			5.80				5.72	5.88
Aroclor-1248 {4}			5.95				5.87	6.03
Aroclor-1248 {5}			6.30				6.22	6.38
Aroclor-1254			6.79				6.71	6.87
Aroclor-1254 {2}			7.37				7.29	7.45
Aroclor-1254 {3}			7.81				7.72	7.90
Aroclor-1254 {4}			7.98				7.89	8.07
Aroclor-1254 {5}			8.80				8.71	8.89
Aroclor-1260	7.81	7.81	7.81	7.81	7.81	7.81	6.91	8.71
Aroclor-1260 {2}	8.21	8.21	8.21	8.21	8.21	8.21	7.31	9.11
Aroclor-1260 {3}	9.39	9.40	9.39	9.39	9.39	9.39	8.49	10.29
Aroclor-1260 {4}	9.90	9.90	9.90	9.90	9.90	9.90	9.00	10.80
Aroclor-1260 {5}	10.49	10.49	10.49	10.49	10.49	10.49	9.59	11.39

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/01/2017 **Instrument ID:** GC-R
GC Column (2nd): DB-1701P

Data File: R1214.C R1213.C R1212.C R1211.C R1210.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	298153	295146	282235	267624	250590	278750	7.12
Aroclor-1016 {2}	601029	579912	538266	515599	488687	544699	8.43
Aroclor-1016 {3}	1335442	1187531	1183264	1182859	1164760	1210771	5.80
Aroclor-1016 {4}	512550	560452	539658	514783	491004	523690	5.12
Aroclor-1016 {5}	444026	410776	404687	392133	378902	406105	6.03
Aroclor-1221			127979				
Aroclor-1221 {2}			173679				
Aroclor-1221 {3}			126164				
Aroclor-1221 {4}			433153				
Aroclor-1221 {5}			84434				
Aroclor-1232			287300				
Aroclor-1232 {2}			109987				
Aroclor-1232 {3}			243464				
Aroclor-1232 {4}			179887				
Aroclor-1232 {5}			254328				
Aroclor-1242			200566				
Aroclor-1242 {2}			341193				
Aroclor-1242 {3}			448631				
Aroclor-1242 {4}			375362				
Aroclor-1242 {5}			724666				
Aroclor-1248			623550				
Aroclor-1248 {2}			951970				
Aroclor-1248 {3}			683621				
Aroclor-1248 {4}			631743				
Aroclor-1248 {5}			345490				
Aroclor-1254			915005				
Aroclor-1254 {2}			719646				
Aroclor-1254 {3}			505578				
Aroclor-1254 {4}			706120				
Aroclor-1254 {5}			1125453				
Aroclor-1260	785257	720192	682313	662865	648141	699754	7.85
Aroclor-1260 {2}	901429	813585	802875	781352	771846	814217	6.33
Aroclor-1260 {3}	727283	687174	677347	666140	667938	685176	3.65
Aroclor-1260 {4}	1652487	1451399	1498103	1506494	1540592	1529815	4.94
Aroclor-1260 {5}	972142	1013862	1080687	1074652	1097595	1047787	5.04
					Average %RSD		6.03

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/01/2017 **Instrument ID:** GC-R

GC Column (1st): DB-5

Data File: R1214.D R1213.D R1212.D R1211.D R1210.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.53				8.41	8.65
Aroclor-1262 {2}			9.39				9.27	9.51
Aroclor-1262 {3}			10.03				9.91	10.15
Aroclor-1262 {4}			10.12				10.00	10.24
Aroclor-1262 {5}			10.94				10.82	11.06
Aroclor-1268			10.03				9.91	10.15
Aroclor-1268 {2}			10.11				9.99	10.23
Aroclor-1268 {3}			10.58				10.46	10.70
Aroclor-1268 {4}			10.71				10.59	10.83
Aroclor-1268 {5}			11.55				11.43	11.67

GC Column (2nd): DB-1701P

Data File: R1214.C R1213.C R1212.C R1211.C R1210.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.39				9.27	9.51
Aroclor-1262 {2}			9.90				9.78	10.02
Aroclor-1262 {3}			10.40				10.28	10.52
Aroclor-1262 {4}			10.49				10.37	10.61
Aroclor-1262 {5}			11.09				10.97	11.21
Aroclor-1268			10.40				10.28	10.52
Aroclor-1268 {2}			10.48				10.36	10.60
Aroclor-1268 {3}			10.73				10.61	10.85
Aroclor-1268 {4}			11.53				11.41	11.65
Aroclor-1268 {5}			11.96				11.84	12.08

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/01/2017 **Instrument ID:** GC-R

GC Column (1st): DB-5

Data File: R1214.D R1213.D R1212.D R1211.D R1210.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			390373				
Aroclor-1262 {2}			752568				
Aroclor-1262 {3}			309521				
Aroclor-1262 {4}			336928				
Aroclor-1262 {5}			274197				
Aroclor-1268			899168				
Aroclor-1268 {2}			927049				
Aroclor-1268 {3}			726963				
Aroclor-1268 {4}			198876				
Aroclor-1268 {5}			2354065				

GC Column (2nd): DB-1701P

Data File: R1214.C R1213.C R1212.C R1211.C R1210.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			829454				
Aroclor-1262 {2}			1803386				
Aroclor-1262 {3}			627580				
Aroclor-1262 {4}			1265917				
Aroclor-1262 {5}			244781				
Aroclor-1268			2030020				
Aroclor-1268 {2}			2043017				
Aroclor-1268 {3}			1632269				
Aroclor-1268 {4}			725551				
Aroclor-1268 {5}			5175638				

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/18/2017

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y6875.D Y6874.D Y6873.D Y6872.D Y6871.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.16	3.17	3.17	3.16	3.16	3.17	3.10	3.24
Aroclor-1016 {2}	3.99	3.99	3.99	3.99	3.99	3.99	3.92	4.06
Aroclor-1016 {3}	4.53	4.53	4.53	4.53	4.53	4.53	4.46	4.60
Aroclor-1016 {4}	5.03	5.04	5.04	5.04	5.04	5.04	4.97	5.11
Aroclor-1016 {5}	5.43	5.43	5.43	5.43	5.43	5.43	5.36	5.50
Aroclor-1221			2.09				2.02	2.16
Aroclor-1221 {2}			2.96				2.89	3.03
Aroclor-1221 {3}			3.07				3.00	3.14
Aroclor-1221 {4}			3.16				3.09	3.23
Aroclor-1221 {5}			3.74				3.67	3.81
Aroclor-1232			3.17				3.10	3.24
Aroclor-1232 {2}			3.99				3.92	4.06
Aroclor-1232 {3}			4.65				4.58	4.72
Aroclor-1232 {4}			5.24				5.17	5.31
Aroclor-1232 {5}			5.43				5.36	5.50
Aroclor-1242			3.99				3.92	4.06
Aroclor-1242 {2}			4.92				4.85	4.99
Aroclor-1242 {3}			5.24				5.17	5.31
Aroclor-1242 {4}			5.93				5.86	6.00
Aroclor-1242 {5}			6.20				6.13	6.27
Aroclor-1248			4.38				4.30	4.46
Aroclor-1248 {2}			4.92				4.84	5.00
Aroclor-1248 {3}			5.24				5.16	5.32
Aroclor-1248 {4}			5.93				5.85	6.01
Aroclor-1248 {5}			6.20				6.12	6.28
Aroclor-1254			6.32				6.24	6.40
Aroclor-1254 {2}			6.76				6.68	6.84
Aroclor-1254 {3}			6.92				6.83	7.01
Aroclor-1254 {4}			7.36				7.27	7.45
Aroclor-1254 {5}			8.20				8.11	8.29
Aroclor-1260	8.20	8.20	8.19	8.20	8.20	8.20	7.30	9.10
Aroclor-1260 {2}	8.87	8.87	8.87	8.87	8.87	8.87	7.97	9.77
Aroclor-1260 {3}	9.34	9.34	9.34	9.34	9.34	9.34	8.44	10.24
Aroclor-1260 {4}	9.82	9.82	9.82	9.82	9.82	9.82	8.92	10.72
Aroclor-1260 {5}	10.88	10.88	10.88	10.88	10.88	10.88	9.98	11.78

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/18/2017 **Instrument ID:** GC-Y
GC Column (1st): DB-5

Data File: Y6875.D Y6874.D Y6873.D Y6872.D Y6871.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	645302	665555	755198	675778	642123	676791	6.80
Aroclor-1016 {2}	869797	872787	1009793	910443	878812	908326	6.49
Aroclor-1016 {3}	1124659	1200680	1365229	1224932	1184162	1219932	7.32
Aroclor-1016 {4}	543071	516406	621057	553564	535693	553958	7.20
Aroclor-1016 {5}	908127	1004921	1097491	994022	966784	994269	6.92
Aroclor-1221			170946				
Aroclor-1221 {2}			307524				
Aroclor-1221 {3}			396859				
Aroclor-1221 {4}			703317				
Aroclor-1221 {5}			265982				
Aroclor-1232			1102725				
Aroclor-1232 {2}			67598				
Aroclor-1232 {3}			57010				
Aroclor-1232 {4}			22580				
Aroclor-1232 {5}			22719				
Aroclor-1242			811770				
Aroclor-1242 {2}			537588				
Aroclor-1242 {3}			757000				
Aroclor-1242 {4}			1117400				
Aroclor-1242 {5}			1039676				
Aroclor-1248			1642788				
Aroclor-1248 {2}			947844				
Aroclor-1248 {3}			1253008				
Aroclor-1248 {4}			1920796				
Aroclor-1248 {5}			1581583				
Aroclor-1254			2526017				
Aroclor-1254 {2}			1575895				
Aroclor-1254 {3}			3058082				
Aroclor-1254 {4}			3660855				
Aroclor-1254 {5}			3371652				
Aroclor-1260	2905519	2599229	3391645	3085560	2948554	2986101	9.65
Aroclor-1260 {2}	1658109	1510685	1955721	1734534	1624480	1696706	9.77
Aroclor-1260 {3}	4869976	4765716	5890503	5360142	4769185	5131104	9.56
Aroclor-1260 {4}	2107304	2060489	2484981	2217550	1959632	2165991	9.28
Aroclor-1260 {5}	1289945	1180853	1457496	1272839	1262006	1292628	7.83
					Average %RSD		8.08

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/18/2017

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y6875.C Y6874.C Y6873.C Y6872.C Y6871.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.39	3.39	3.40	3.39	3.40	3.39	3.32	3.46
Aroclor-1016 {2}	3.96	3.96	3.96	3.96	3.96	3.96	3.89	4.03
Aroclor-1016 {3}	4.68	4.68	4.68	4.68	4.68	4.68	4.61	4.75
Aroclor-1016 {4}	4.88	4.88	4.88	4.88	4.88	4.88	4.81	4.95
Aroclor-1016 {5}	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
Aroclor-1221			2.18				2.11	2.25
Aroclor-1221 {2}			3.10				3.03	3.17
Aroclor-1221 {3}			3.32				3.25	3.39
Aroclor-1221 {4}			3.40				3.33	3.47
Aroclor-1221 {5}			4.69				4.62	4.76
Aroclor-1232			3.40				3.33	3.47
Aroclor-1232 {2}			4.33				4.26	4.40
Aroclor-1232 {3}			4.89				4.82	4.96
Aroclor-1232 {4}			5.05				4.98	5.12
Aroclor-1232 {5}			5.64				5.57	5.71
Aroclor-1242			4.33				4.26	4.40
Aroclor-1242 {2}			5.05				4.98	5.12
Aroclor-1242 {3}			5.64				5.57	5.71
Aroclor-1242 {4}			5.79				5.72	5.86
Aroclor-1242 {5}			6.31				6.24	6.38
Aroclor-1248			4.68				4.60	4.76
Aroclor-1248 {2}			5.25				5.17	5.33
Aroclor-1248 {3}			5.64				5.56	5.72
Aroclor-1248 {4}			5.79				5.71	5.87
Aroclor-1248 {5}			6.13				6.05	6.21
Aroclor-1254			6.62				6.54	6.70
Aroclor-1254 {2}			7.19				7.11	7.27
Aroclor-1254 {3}			7.62				7.53	7.71
Aroclor-1254 {4}			7.79				7.70	7.88
Aroclor-1254 {5}			8.61				8.52	8.70
Aroclor-1260	7.62	7.62	7.62	7.62	7.63	7.62	6.72	8.52
Aroclor-1260 {2}	8.03	8.03	8.02	8.02	8.03	8.03	7.13	8.93
Aroclor-1260 {3}	9.20	9.20	9.20	9.20	9.20	9.20	8.30	10.10
Aroclor-1260 {4}	9.70	9.70	9.70	9.70	9.70	9.70	8.80	10.60
Aroclor-1260 {5}	10.28	10.28	10.28	10.28	10.29	10.28	9.38	11.18

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/18/2017 **Instrument ID:** GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y6875.C Y6874.C Y6873.C Y6872.C Y6871.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	498530	457331	475911	434431	419483	457137	6.92
Aroclor-1016 {2}	1037762	908460	928121	846206	819828	908075	9.35
Aroclor-1016 {3}	2408733	1939109	2159790	1999173	1983043	2097970	9.19
Aroclor-1016 {4}	991917	920340	943044	860540	831626	909493	7.06
Aroclor-1016 {5}	833568	714259	738646	694521	651525	726504	9.34
Aroclor-1221			115892				
Aroclor-1221 {2}			150631				
Aroclor-1221 {3}			120701				
Aroclor-1221 {4}			486190				
Aroclor-1221 {5}			909869				
Aroclor-1232			714982				
Aroclor-1232 {2}			39591				
Aroclor-1232 {3}			74094				
Aroclor-1232 {4}			55069				
Aroclor-1232 {5}			28501				
Aroclor-1242			345482				
Aroclor-1242 {2}			603617				
Aroclor-1242 {3}			825515				
Aroclor-1242 {4}			700997				
Aroclor-1242 {5}			1370185				
Aroclor-1248			1071462				
Aroclor-1248 {2}			1605229				
Aroclor-1248 {3}			1219771				
Aroclor-1248 {4}			1061371				
Aroclor-1248 {5}			612561				
Aroclor-1254			1751902				
Aroclor-1254 {2}			1391334				
Aroclor-1254 {3}			979408				
Aroclor-1254 {4}			1433480				
Aroclor-1254 {5}			2142449				
Aroclor-1260	1388277	1243072	1340672	1211604	1184967	1273718	6.83
Aroclor-1260 {2}	1577314	1473995	1589290	1436434	1409276	1497262	5.47
Aroclor-1260 {3}	1512773	1220720	1414375	1295992	1264409	1341654	8.92
Aroclor-1260 {4}	2975604	2554248	3121893	2933331	2906243	2898264	7.23
Aroclor-1260 {5}	2154590	1840046	2239356	2101214	2059296	2078901	7.19
					Average %RSD		7.75

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/18/2017

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y6875.D Y6874.D Y6873.D Y6872.D Y6871.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.49				7.59	7.59
Aroclor-1262 {2}			9.35				8.45	8.45
Aroclor-1262 {3}			9.98				9.08	9.08
Aroclor-1262 {4}			10.06				9.06	9.06
Aroclor-1262 {5}			10.88				9.88	9.88
Aroclor-1268			9.98				8.98	8.98
Aroclor-1268 {2}			10.06				8.96	8.96
Aroclor-1268 {3}			10.53				9.43	9.43
Aroclor-1268 {4}			10.66				9.56	9.56
Aroclor-1268 {5}			11.49				10.39	10.39

GC Column (2nd): DB-1701P

Data File: Y6875.C Y6874.C Y6873.C Y6872.C Y6871.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.20				8.30	8.30
Aroclor-1262 {2}			9.70				8.80	8.80
Aroclor-1262 {3}			10.20				9.30	9.30
Aroclor-1262 {4}			10.28				9.28	9.28
Aroclor-1262 {5}			10.88				9.88	9.88
Aroclor-1268			10.20				9.20	9.20
Aroclor-1268 {2}			10.28				9.18	9.18
Aroclor-1268 {3}			10.53				9.43	9.43
Aroclor-1268 {4}			11.32				10.22	10.22
Aroclor-1268 {5}			11.74				10.64	10.64

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/18/2017

Instrument ID: GC-Y

GC Column (1st): DB-5

Data File: Y6875.D Y6874.D Y6873.D Y6872.D Y6871.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			3810741				
Aroclor-1262 {2}			6928754				
Aroclor-1262 {3}			2765238				
Aroclor-1262 {4}			2778146				
Aroclor-1262 {5}			2193448				
Aroclor-1268			9065901				
Aroclor-1268 {2}			8102696				
Aroclor-1268 {3}			7064624				
Aroclor-1268 {4}			1624825				
Aroclor-1268 {5}			20104584				

GC Column (2nd): DB-1701P

Data File: Y6875.C Y6874.C Y6873.C Y6872.C Y6871.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1641207				
Aroclor-1262 {2}			3607853				
Aroclor-1262 {3}			1275829				
Aroclor-1262 {4}			2525937				
Aroclor-1262 {5}			480539				
Aroclor-1268			4155752				
Aroclor-1268 {2}			4115920				
Aroclor-1268 {3}			3404254				
Aroclor-1268 {4}			1510899				
Aroclor-1268 {5}			11392467				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/22/2017 **Instrument ID:** GC-Y

Data File: Y6984.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	676791	716452	5.86
Aroclor-1016 {2}	3.99	3.92	4.06	908326	962175	5.93
Aroclor-1016 {3}	4.54	4.46	4.60	1219932	1294850	6.14
Aroclor-1016 {4}	5.04	4.97	5.11	553958	592286	6.92
Aroclor-1016 {5}	5.43	5.36	5.50	994269	1028047	3.40
Aroclor-1260	8.20	7.30	9.10	2986101	3233662	8.29
Aroclor-1260 {2}	8.87	7.97	9.77	1696706	1879092	10.75
Aroclor-1260 {3}	9.35	8.44	10.24	5131104	5795973	12.96
Aroclor-1260 {4}	9.83	8.92	10.72	2165991	2341644	8.11
Aroclor-1260 {5}	10.88	9.98	11.78	1292628	1388035	7.38
					Average %D	7.57

Data File: Y6984.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.40	3.32	3.46	457137	465047	1.73
Aroclor-1016 {2}	3.97	3.89	4.03	908075	898602	1.04
Aroclor-1016 {3}	4.68	4.61	4.75	2097970	2084514	0.64
Aroclor-1016 {4}	4.88	4.81	4.95	909493	913471	0.44
Aroclor-1016 {5}	5.05	4.98	5.12	726504	703709	3.14
Aroclor-1260	7.63	6.72	8.52	1273718	1268788	0.39
Aroclor-1260 {2}	8.03	7.13	8.93	1497262	1507604	0.69
Aroclor-1260 {3}	9.20	8.30	10.10	1341654	1335926	0.43
Aroclor-1260 {4}	9.70	8.80	10.60	2898264	2981971	2.89
Aroclor-1260 {5}	10.28	9.38	11.18	2078901	2158412	3.82
					Average %D	1.52

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/22/2017 **Instrument ID:** GC-Y

Data File: Y6992.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	676791	708320	4.66
Aroclor-1016 {2}	3.99	3.92	4.06	908326	934639	2.90
Aroclor-1016 {3}	4.54	4.46	4.60	1219932	1262917	3.52
Aroclor-1016 {4}	5.04	4.97	5.11	553958	575767	3.94
Aroclor-1016 {5}	5.43	5.36	5.50	994269	988065	0.62
Aroclor-1260	8.20	7.30	9.10	2986101	3053284	2.25
Aroclor-1260 {2}	8.88	7.97	9.77	1696706	1745571	2.88
Aroclor-1260 {3}	9.35	8.44	10.24	5131104	5388503	5.02
Aroclor-1260 {4}	9.83	8.92	10.72	2165991	2244817	3.64
Aroclor-1260 {5}	10.89	9.98	11.78	1292628	1306418	1.07
					Average %D	3.05

Data File: Y6992.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.40	3.32	3.46	457137	466654	2.08
Aroclor-1016 {2}	3.97	3.89	4.03	908075	897986	1.11
Aroclor-1016 {3}	4.69	4.61	4.75	2097970	2196794	4.71
Aroclor-1016 {4}	4.89	4.81	4.95	909493	938867	3.23
Aroclor-1016 {5}	5.06	4.98	5.12	726504	718741	1.07
Aroclor-1260	7.63	6.72	8.52	1273718	1270363	0.26
Aroclor-1260 {2}	8.03	7.13	8.93	1497262	1518178	1.40
Aroclor-1260 {3}	9.20	8.30	10.10	1341654	1303158	2.87
Aroclor-1260 {4}	9.70	8.80	10.60	2898264	2943920	1.58
Aroclor-1260 {5}	10.29	9.38	11.18	2078901	2167409	4.26
					Average %D	2.26

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/26/2017 **Instrument ID:** GC-R

Data File: R1693.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.18	3.10	3.24	124117	120744	2.72
Aroclor-1016 {2}	4.00	3.92	4.06	166692	156908	5.87
Aroclor-1016 {3}	4.56	4.47	4.61	218419	202124	7.46
Aroclor-1016 {4}	5.06	4.98	5.12	102938	102388	0.53
Aroclor-1016 {5}	5.45	5.37	5.51	171067	162918	4.76
Aroclor-1260	8.24	7.34	9.14	450305	404645	10.14
Aroclor-1260 {2}	8.92	8.01	9.81	268248	235436	12.23
Aroclor-1260 {3}	9.40	8.49	10.29	635097	568554	10.48
Aroclor-1260 {4}	9.88	8.97	10.77	311299	266869	14.27
Aroclor-1260 {5}	10.95	10.04	11.84	162363	137475	15.33

Data File: R1693.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.53	3.45	3.59	278750	261226	6.29
Aroclor-1016 {2}	4.11	4.03	4.17	544699	491590	9.75
Aroclor-1016 {3}	4.84	4.76	4.90	1210771	1076969	11.05
Aroclor-1016 {4}	5.04	4.97	5.11	523690	488802	6.66
Aroclor-1016 {5}	5.21	5.14	5.28	406105	370283	8.82
Aroclor-1260	7.81	6.91	8.71	699754	618926	11.55
Aroclor-1260 {2}	8.22	7.31	9.11	814217	721635	11.37
Aroclor-1260 {3}	9.40	8.49	10.29	685176	603121	11.98
Aroclor-1260 {4}	9.91	9.00	10.80	1529815	1298099	15.15
Aroclor-1260 {5}	10.49	9.59	11.39	1047787	942656	10.03

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/26/2017 **Instrument ID:** GC-R

Data File: R1703.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.18	3.10	3.24	124117	134693	8.52
Aroclor-1016 {2}	4.00	3.92	4.06	166692	177587	6.54
Aroclor-1016 {3}	4.55	4.47	4.61	218419	224953	2.99
Aroclor-1016 {4}	5.06	4.98	5.12	102938	114971	11.69
Aroclor-1016 {5}	5.45	5.37	5.51	171067	182130	6.47
Aroclor-1260	8.24	7.34	9.14	450305	456649	1.41
Aroclor-1260 {2}	8.92	8.01	9.81	268248	265423	1.05
Aroclor-1260 {3}	9.40	8.49	10.29	635097	650468	2.42
Aroclor-1260 {4}	9.88	8.97	10.77	311299	312845	0.50
Aroclor-1260 {5}	10.95	10.04	11.84	162363	165634	2.01

Data File: R1703.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.53	3.45	3.59	278750	299893	7.58
Aroclor-1016 {2}	4.11	4.03	4.17	544699	562716	3.31
Aroclor-1016 {3}	4.84	4.76	4.90	1210771	1251915	3.40
Aroclor-1016 {4}	5.04	4.97	5.11	523690	573534	9.52
Aroclor-1016 {5}	5.21	5.14	5.28	406105	430140	5.92
Aroclor-1260	7.81	6.91	8.71	699754	714128	2.05
Aroclor-1260 {2}	8.22	7.31	9.11	814217	851366	4.56
Aroclor-1260 {3}	9.40	8.49	10.29	685176	724454	5.73
Aroclor-1260 {4}	9.91	9.00	10.80	1529815	1558393	1.87
Aroclor-1260 {5}	10.49	9.59	11.39	1047787	1108680	5.81

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.71 **DCB 1** 11.98 **TCMX 2** 2.59 **DCB 2** 11.97

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS171221-01	12/22/2017	10:24	2.71		11.98		2.59		11.97	
PCB	LCSS171221-01	12/22/2017	10:41	2.71		11.98		2.58		11.96	
PCB	E17-10966-002MS	12/22/2017	10:58	2.71		11.98		2.58		11.96	
PCB	E17-10966-002MSD	12/22/2017	11:16	2.71		11.98		2.58		11.96	
SB-38(D)	E17-10966-002	12/22/2017	11:33	2.71		11.98		2.58		11.96	
SB-39(D)	E17-10966-004	12/22/2017	11:50	2.71		11.98		2.58		11.96	
SB-40(D)	E17-10966-006	12/22/2017	12:08	2.71		11.98		2.58		11.96	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.73 **DCB 1** 12.05 **TCMX 2** 2.71 **DCB 2** 12.19

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS171222-03	12/26/2017	09:50	2.73		12.05		2.71		12.19	
PCB	LCSS171222-03	12/26/2017	10:07	2.72		12.04		2.70		12.18	
PCB	E17-10966-001MS	12/26/2017	10:25	2.72		12.04		2.70		12.18	
PCB	E17-10966-001MSD	12/26/2017	10:42	2.72		12.04		2.70		12.18	
SB-38(S)	E17-10966-001	12/26/2017	10:59	2.72		12.04		2.70		12.18	
SB-39(S)	E17-10966-003	12/26/2017	11:16	2.72		12.04		2.70		12.18	
SB-40(S)	E17-10966-005	12/26/2017	11:34	2.72		12.04		2.70		12.18	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1698.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 10:59
Operator : PSL
Sample : SB-38(S),E17-10966-001,S,10.42g,8.80,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 15:13:43 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.72	2.70	1378.9E6	3239.8E6	200.268	197.421
Spiked Amount 200.000			Recovery	=	100.13%	98.71%
2) S DCB	12.04	12.18	1041.2E6	2333.7E6	187.545	186.238
Spiked Amount 200.000			Recovery	=	93.77%	93.12%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

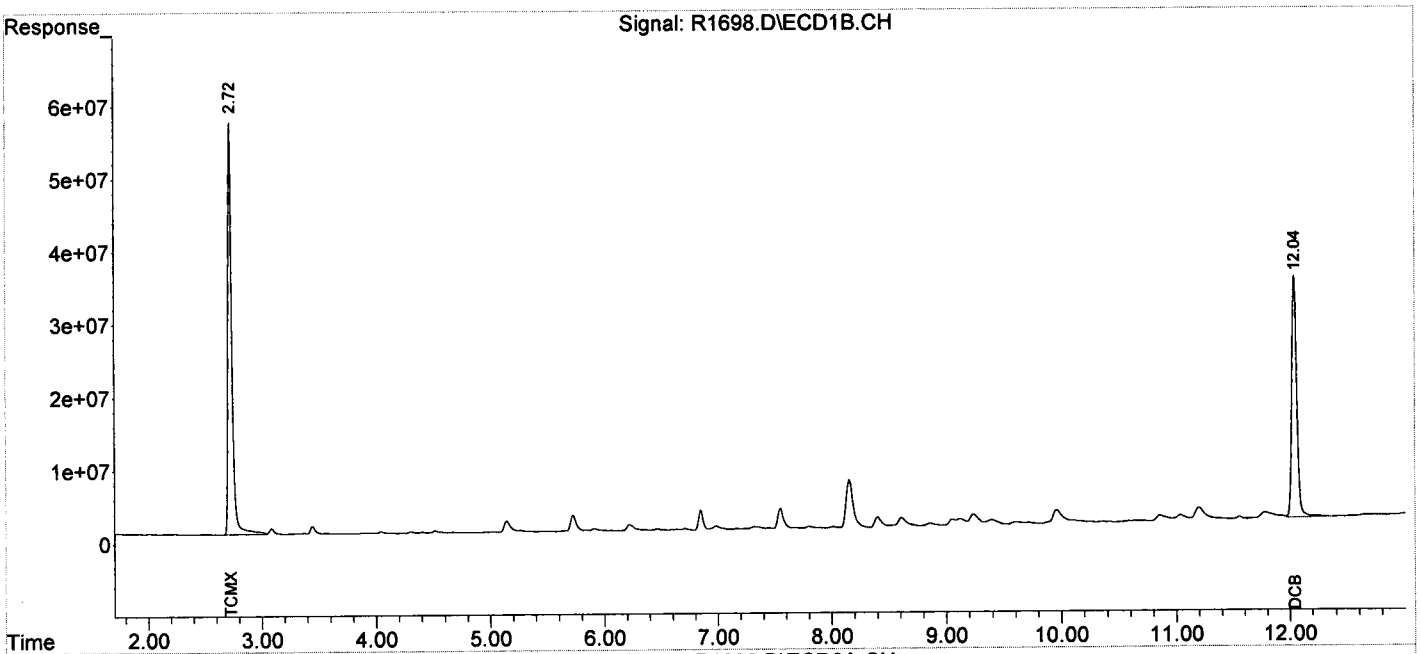
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

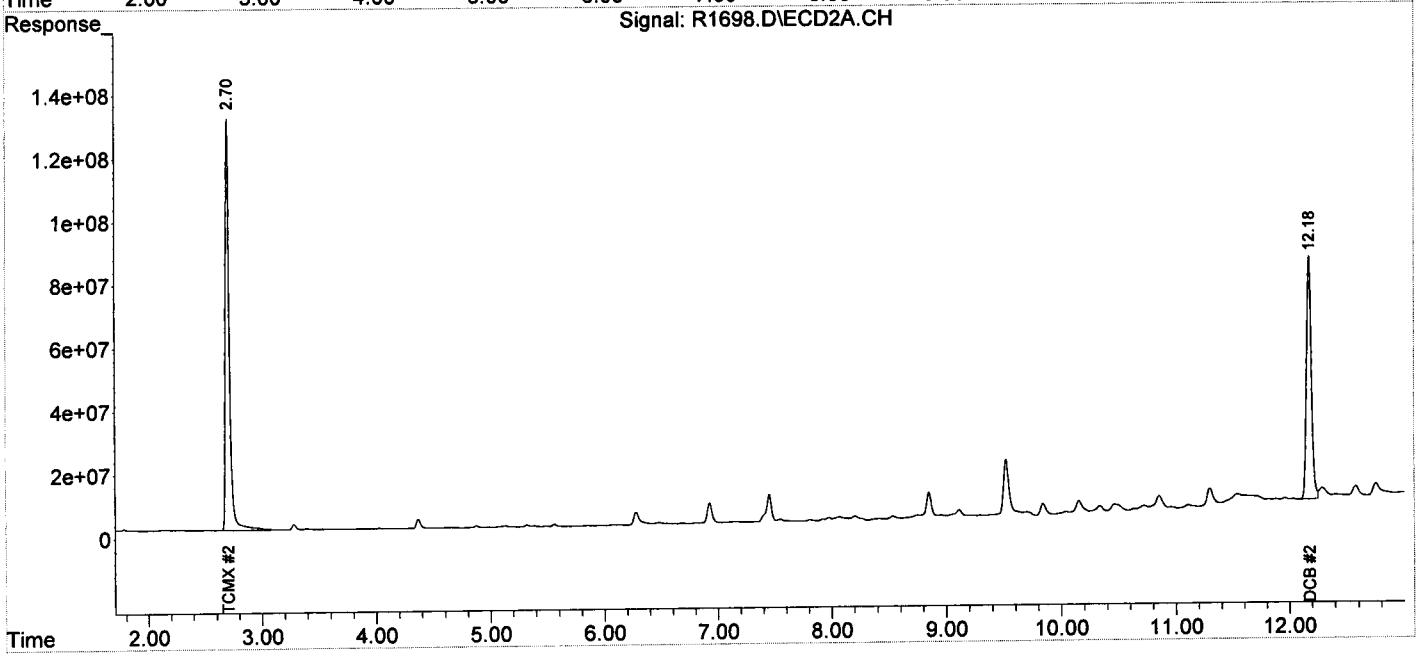
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1698.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 10:59
Operator : PSL
Sample : SB-38(S),E17-10966-001,S,10.42g,8.80,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 15:13:43 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6989.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:33 am
Operator : PSL
Sample : SB-38(D),E17-10966-002,S,10.57g,12.8,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:36:48 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	8289.0E6	5904.2E6	207.607	212.865
Spiked Amount 200.000			Recovery	=	103.80%	106.43%
2) S DCB	11.98	11.96	8005.5E6	5201.8E6	207.693	194.315
Spiked Amount 200.000			Recovery	=	103.85%	97.16%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

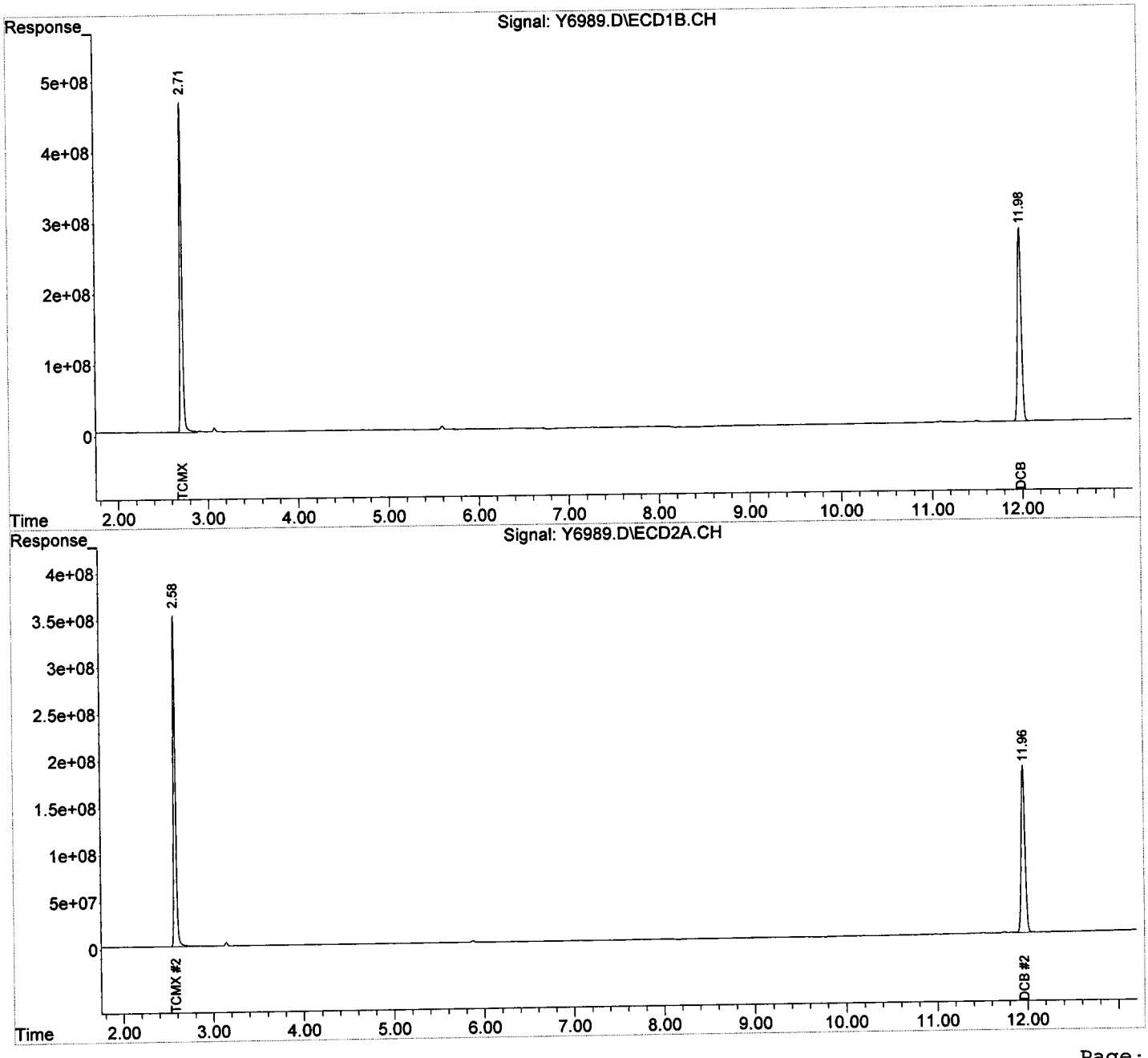
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6989.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:33 am
Operator : PSL
Sample : SB-38(D),E17-10966-002,S,10.57g,12.8,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:36:48 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1699.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 11:16
Operator : PSL
Sample : SB-39(S),E17-10966-003,S,10.42g,11.0,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 15:14:05 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.72	2.70	1360.0E6	3238.1E6	197.533	197.321
Spiked Amount 200.000			Recovery	=	98.77%	98.66%
2) S DCB	12.04	12.18	1130.9E6	2468.9E6	203.699	197.031m
Spiked Amount 200.000			Recovery	=	101.85%	98.52%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

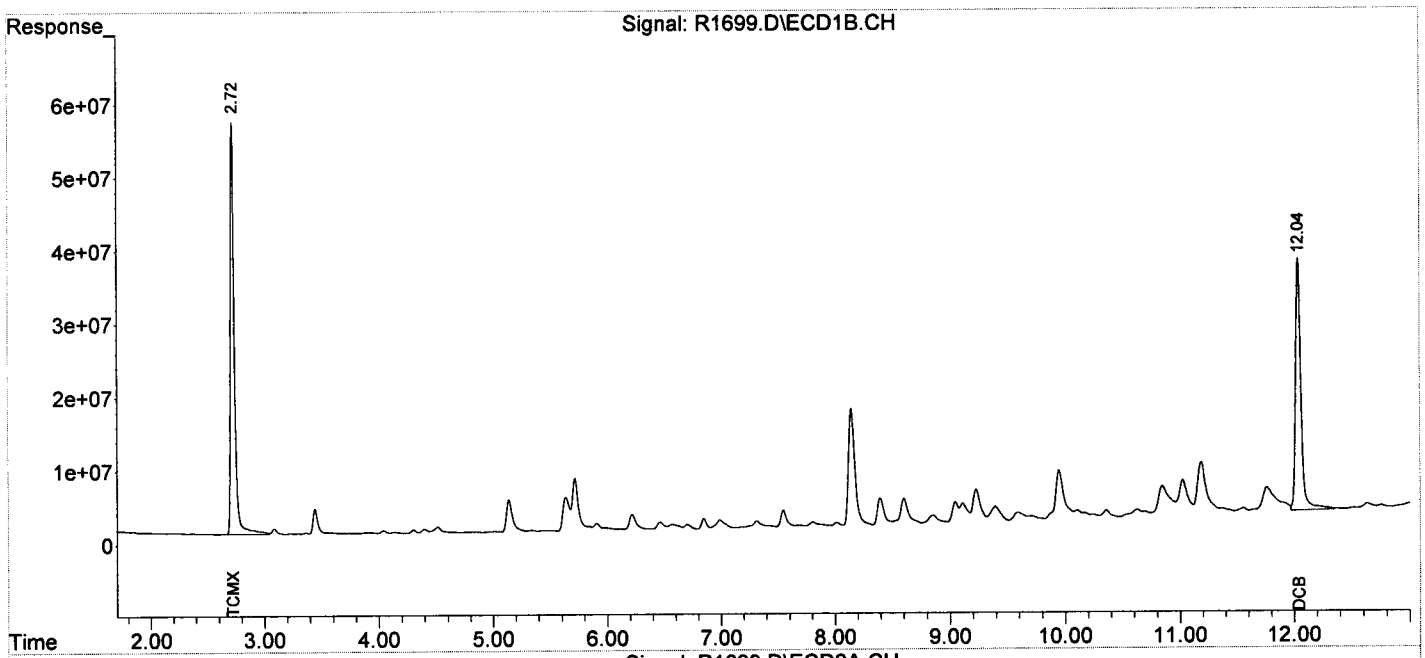
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

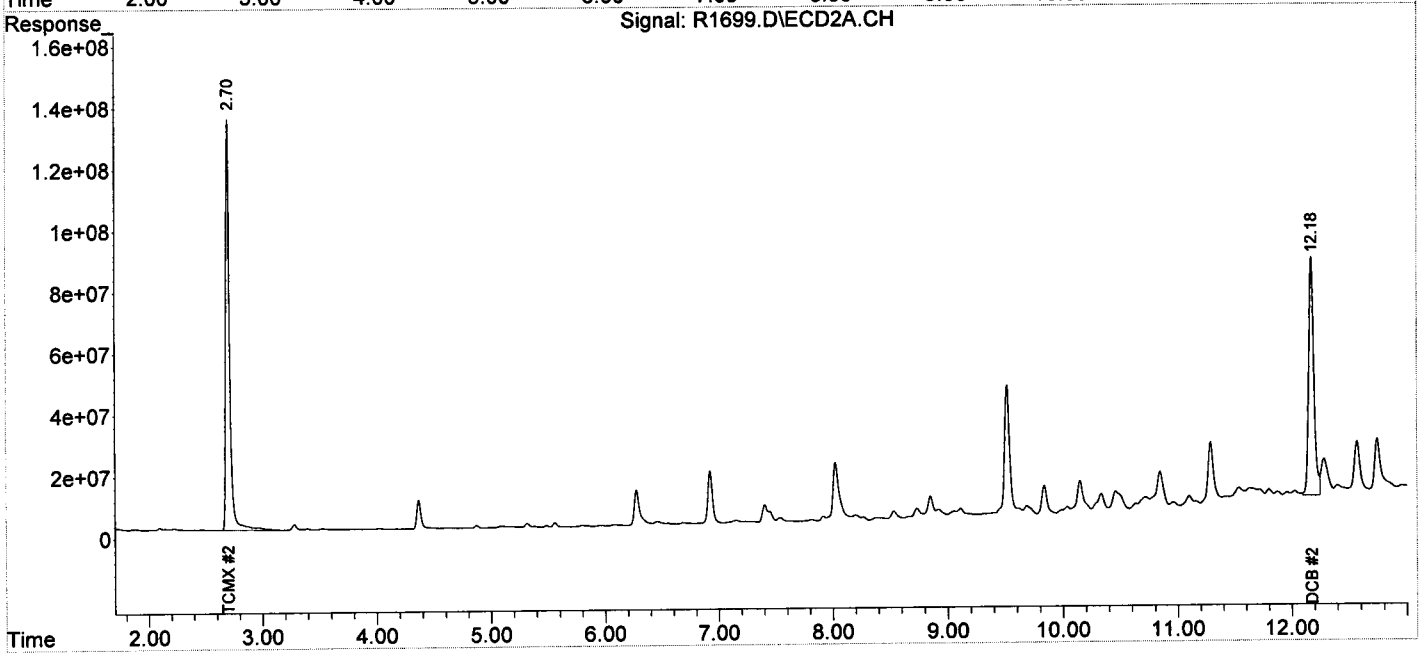
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1699.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 11:16
Operator : PSL
Sample : SB-39(S),E17-10966-003,S,10.42g,11.0,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 15:14:05 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6990.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:50 am
Operator : PSL
Sample : SB-39(D),E17-10966-004,S,10.66g,14.0,20
Misc : 171221-01,12/21/17,12/20/17,3
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:37:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	2627.1E6	1826.3E6	65.798	65.843
Spiked Amount 200.000			Recovery	=	32.90%	32.92%
2) S DCB	11.98	11.96	2343.6E6	1694.7E6	60.802m	63.308
Spiked Amount 200.000			Recovery	=	30.40%	31.65%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

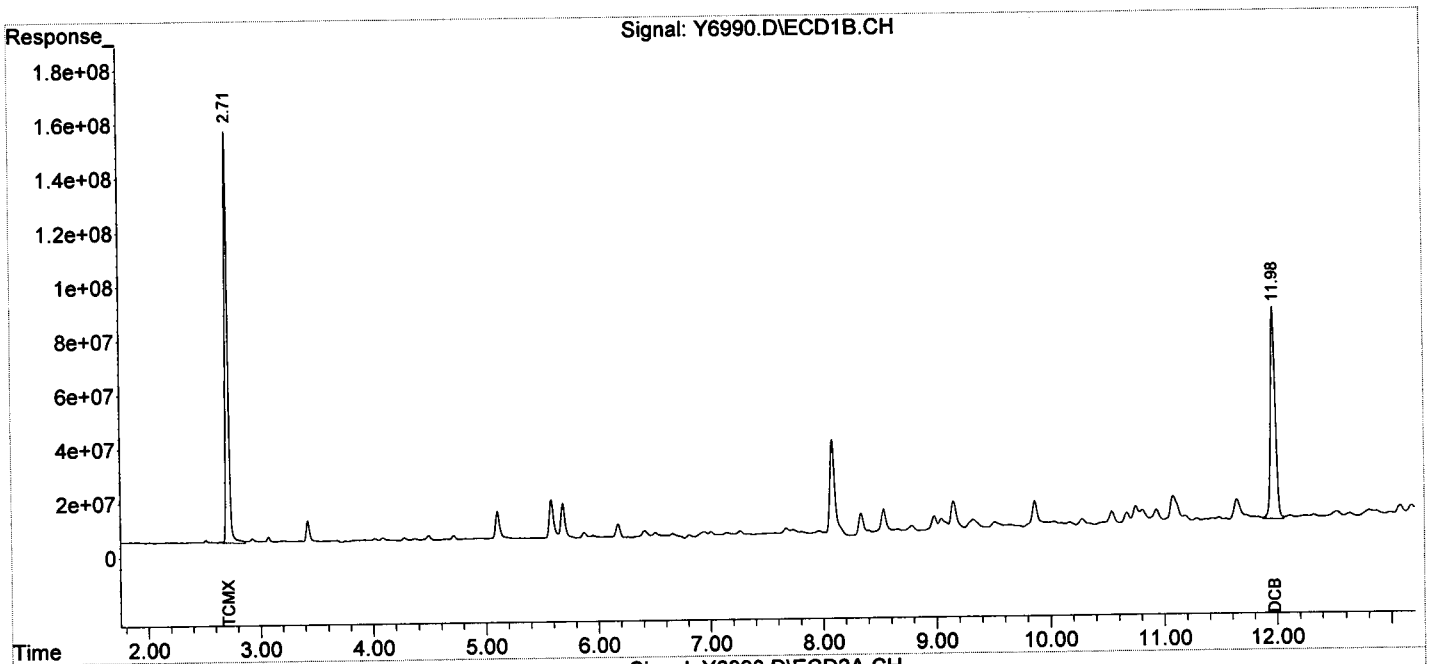
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

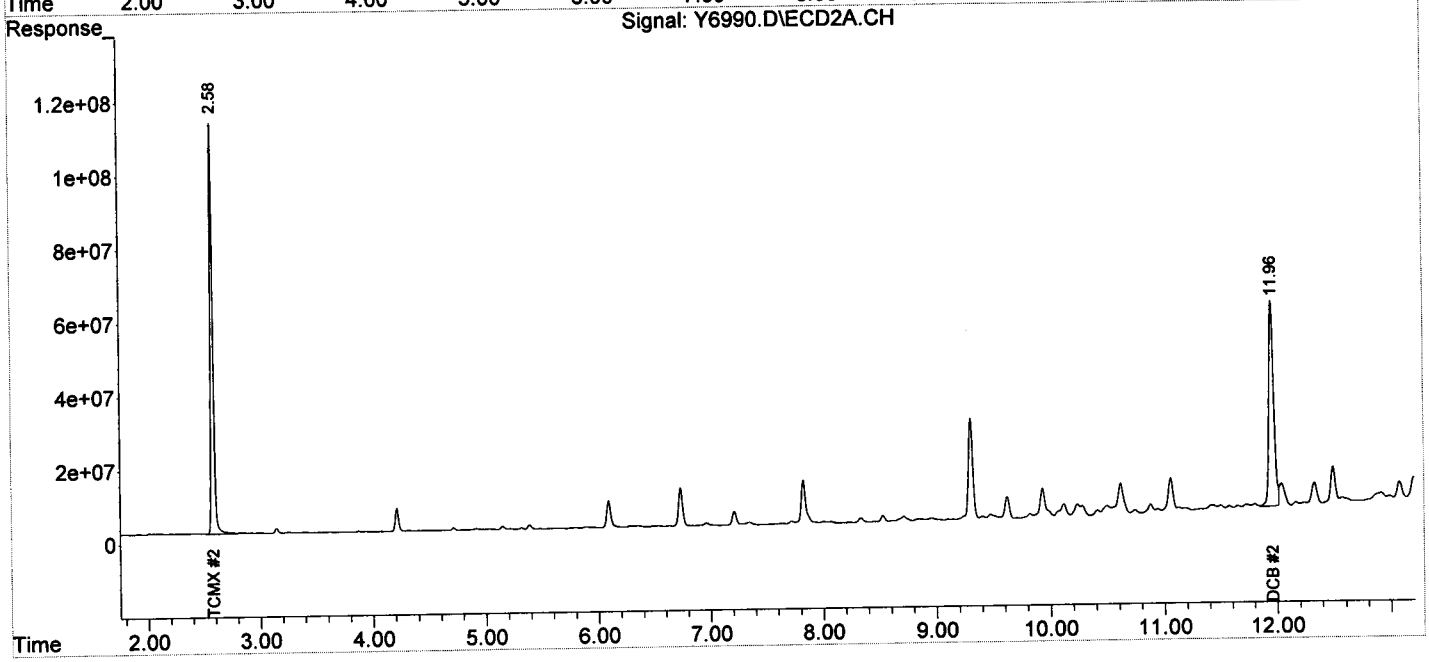
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6990.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:50 am
Operator : PSL
Sample : SB-39(D),E17-10966-004,S,10.66g,14.0,20
Misc : 171221-01,12/21/17,12/20/17,3
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:37:16 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1700.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 11:34
Operator : PSL
Sample : SB-40(S),E17-10966-005,S,10.37g,10.2,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 11:58:42 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.72	2.70	1340.1E6	3194.3E6	194.640	194.652
Spiked Amount 200.000			Recovery	=	97.32%	97.33%
2) S DCB	12.04	12.18	1056.6E6	2364.8E6	190.309	188.724
Spiked Amount 200.000			Recovery	=	95.15%	94.36%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

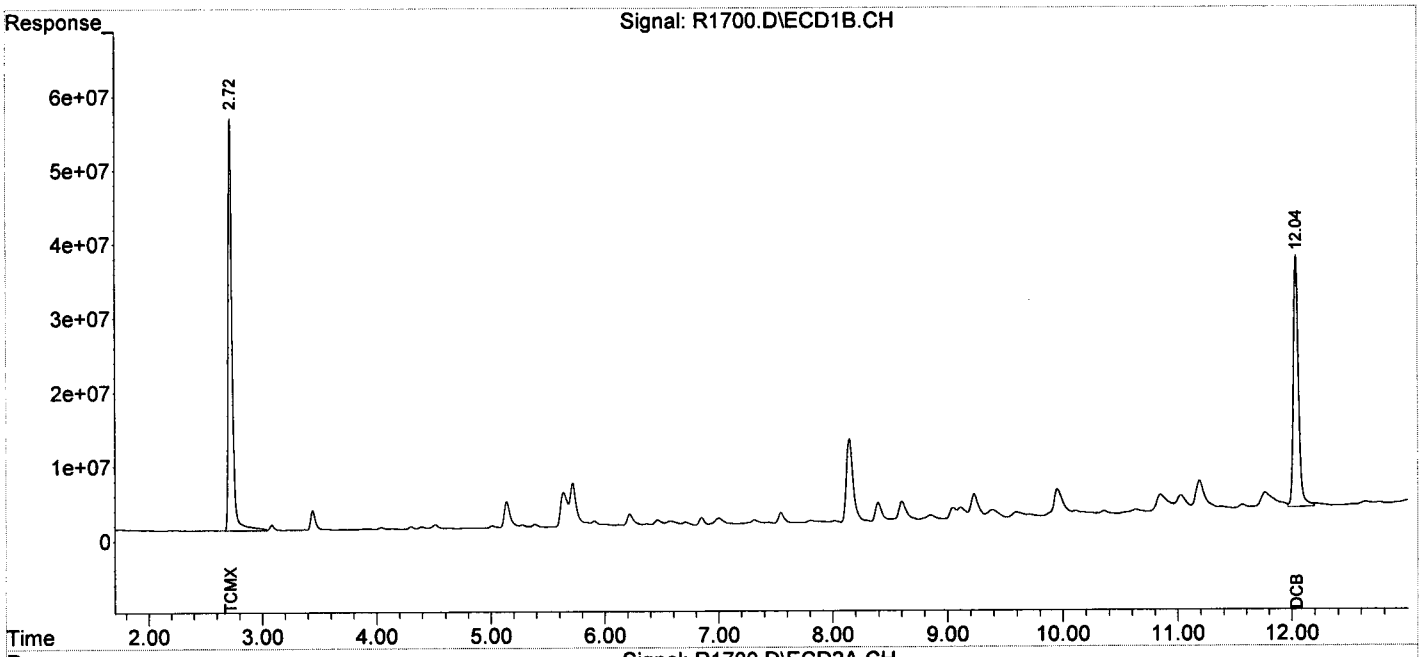
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

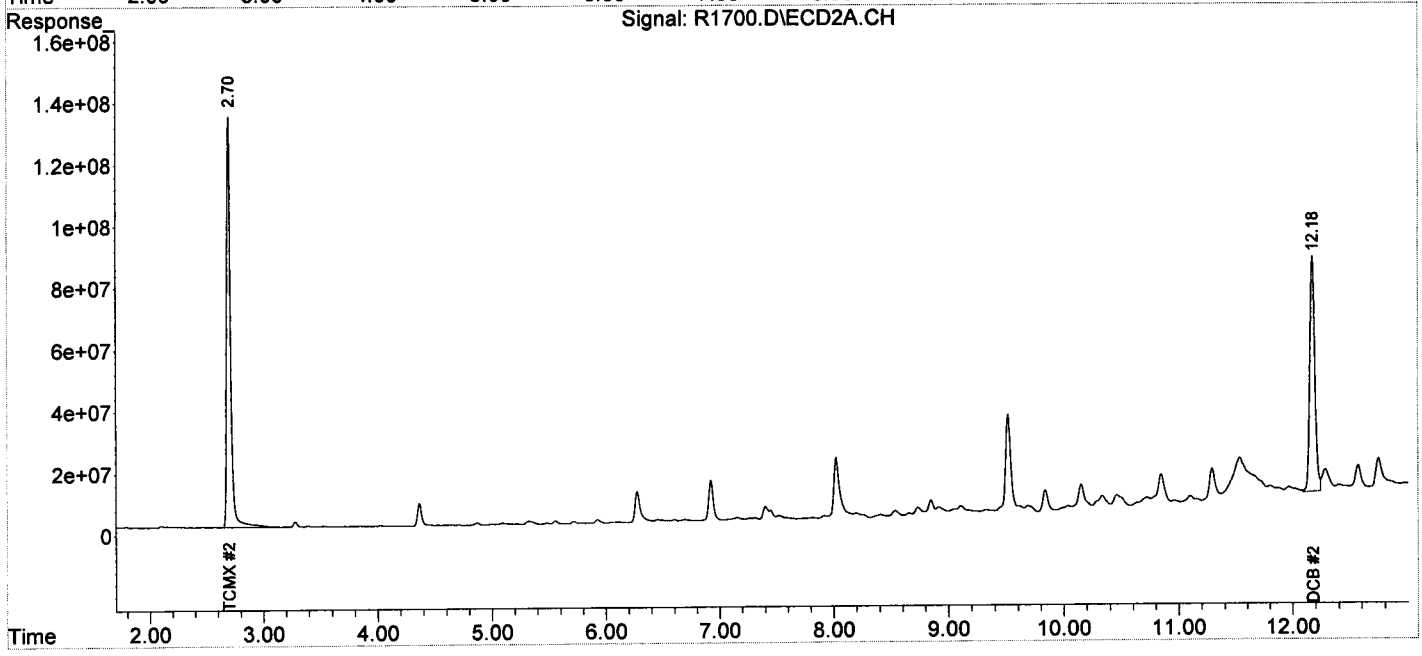
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1700.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 11:34
Operator : PSL
Sample : SB-40(S),E17-10966-005,S,10.37g,10.2,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 11:58:42 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6991.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 12:08 pm
Operator : PSL
Sample : SB-40(D),E17-10966-006,S,10.30g,13.5,20
Misc : 171221-01,12/21/17,12/20/17,3
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:37:42 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.58	2492.0E6	1833.0E6	62.414	66.086
Spiked Amount 200.000			Recovery	=	31.21%	33.04%
2) S DCB	11.98	11.96	2180.4E6	1631.4E6	56.567m	60.940
Spiked Amount 200.000			Recovery	=	28.28%	30.47%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

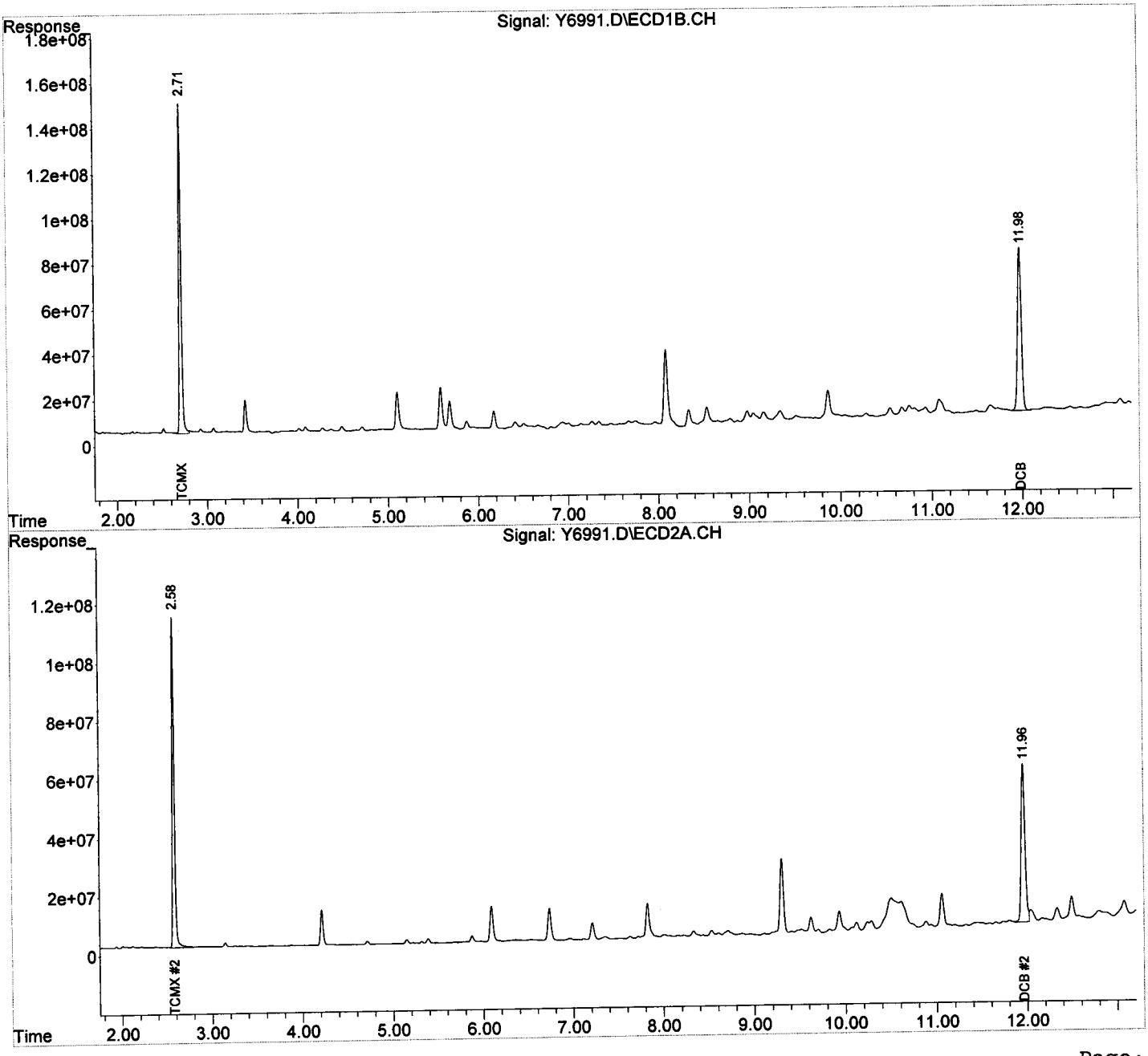
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6991.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 12:08 pm
Operator : PSL
Sample : SB-40(D),E17-10966-006,S,10.30g,13.5,20
Misc : 171221-01,12/21/17,12/20/17,3
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:37:42 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS171221-01
Client ID: PCB
Date Received: NA
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: Y6985.D 12/22/17 10:24

GC Column: DB-5/DB1701P
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.020	0.008
Aroclor-1221	ND		0.020	0.008
Aroclor-1232	ND		0.020	0.008
Aroclor-1242	ND		0.020	0.008
Aroclor-1248	ND		0.020	0.008
Aroclor-1254	ND		0.020	0.008
Aroclor-1260	ND		0.020	0.008
Aroclor-1262	ND		0.020	0.008
Aroclor-1268	ND		0.020	0.008
PCBs	ND		0.020	0.008

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6985.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 10:24 am
Operator : PSL
Sample : PCB,BLKS171221-01,S,10.0g,0,20
Misc : 171221-01,12/21/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:37:58 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.59	7630.6E6	5504.9E6	191.117	198.469
Spiked Amount 200.000			Recovery	=	95.56%	99.23%
2) S DCB	11.98	11.97	7279.5E6	4572.0E6	188.859	170.791
Spiked Amount 200.000			Recovery	=	94.43%	85.40%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

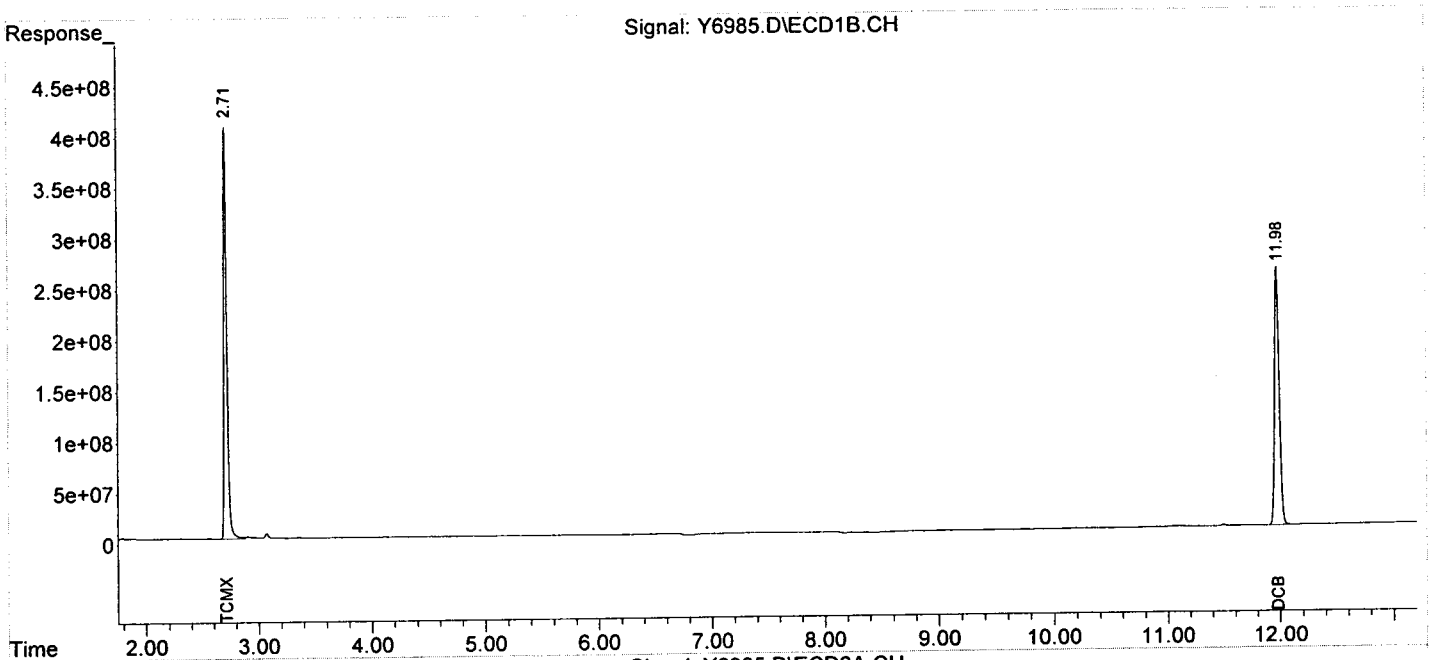
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

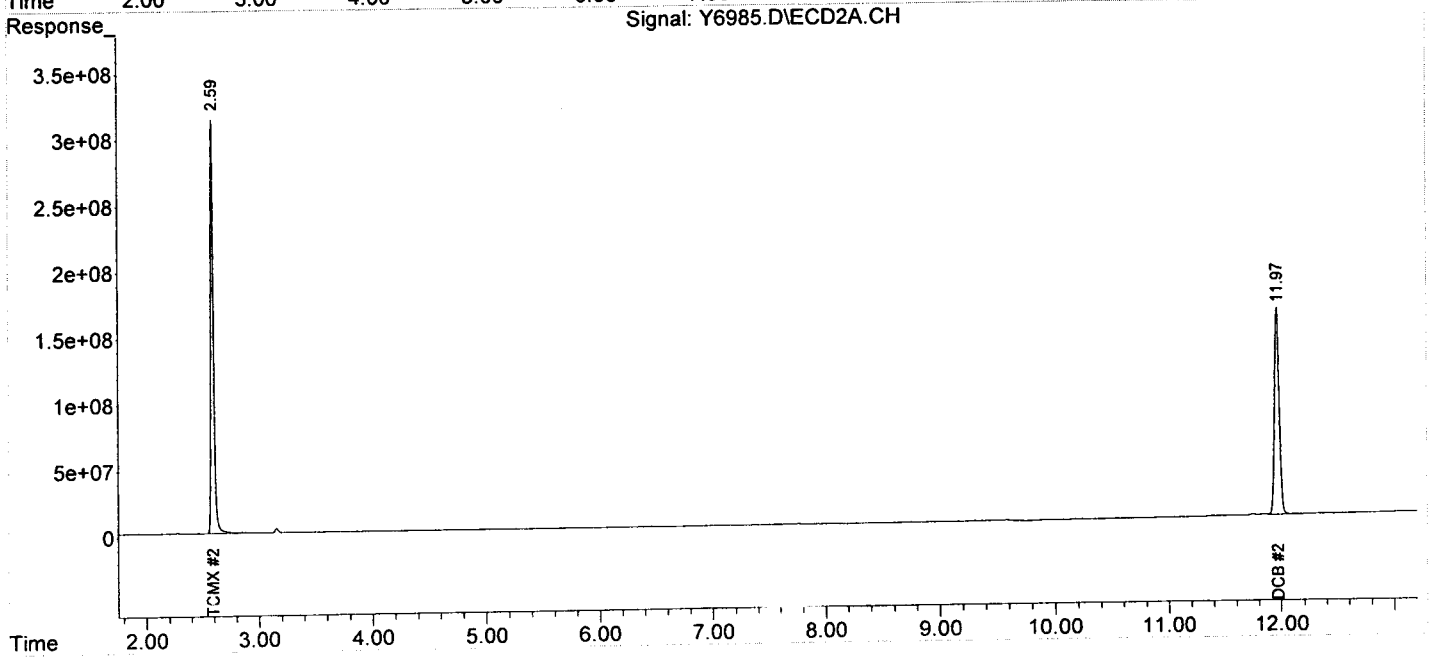
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : Y6985.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 10:24 am
Operator : PSL
Sample : PCB,BLKS171221-01,S,10.0g,0,20
Misc : 171221-01,12/21/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 17:37:58 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB1218.M
Quant Title :
QLast Update : Mon Dec 18 16:37:17 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS171222-03
Client ID: PCB
Date Received: NA
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: R1694.D 12/26/17 09:50

GC Column: DB-5/DB1701P
Sample wt/vol: 10g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.020	0.008
Aroclor-1221	ND		0.020	0.008
Aroclor-1232	ND		0.020	0.008
Aroclor-1242	ND		0.020	0.008
Aroclor-1248	ND		0.020	0.008
Aroclor-1254	ND		0.020	0.008
Aroclor-1260	ND		0.020	0.008
Aroclor-1262	ND		0.020	0.008
Aroclor-1268	ND		0.020	0.008
PCBs	ND		0.020	0.008

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1694.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 9:50
Operator : PSL
Sample : PCB,BLKS171222-03,S,10g,0,20
Misc : 171222-03,12/22/17,NA,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 15:11:48 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.73	2.71	1309.1E6	3042.8E6	190.137	185.421
Spiked Amount 200.000			Recovery	=	95.07%	92.71%
2) S DCB	12.05	12.19	735.1E6	1670.9E6	132.399	133.347
Spiked Amount 200.000			Recovery	=	66.20%	66.67%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

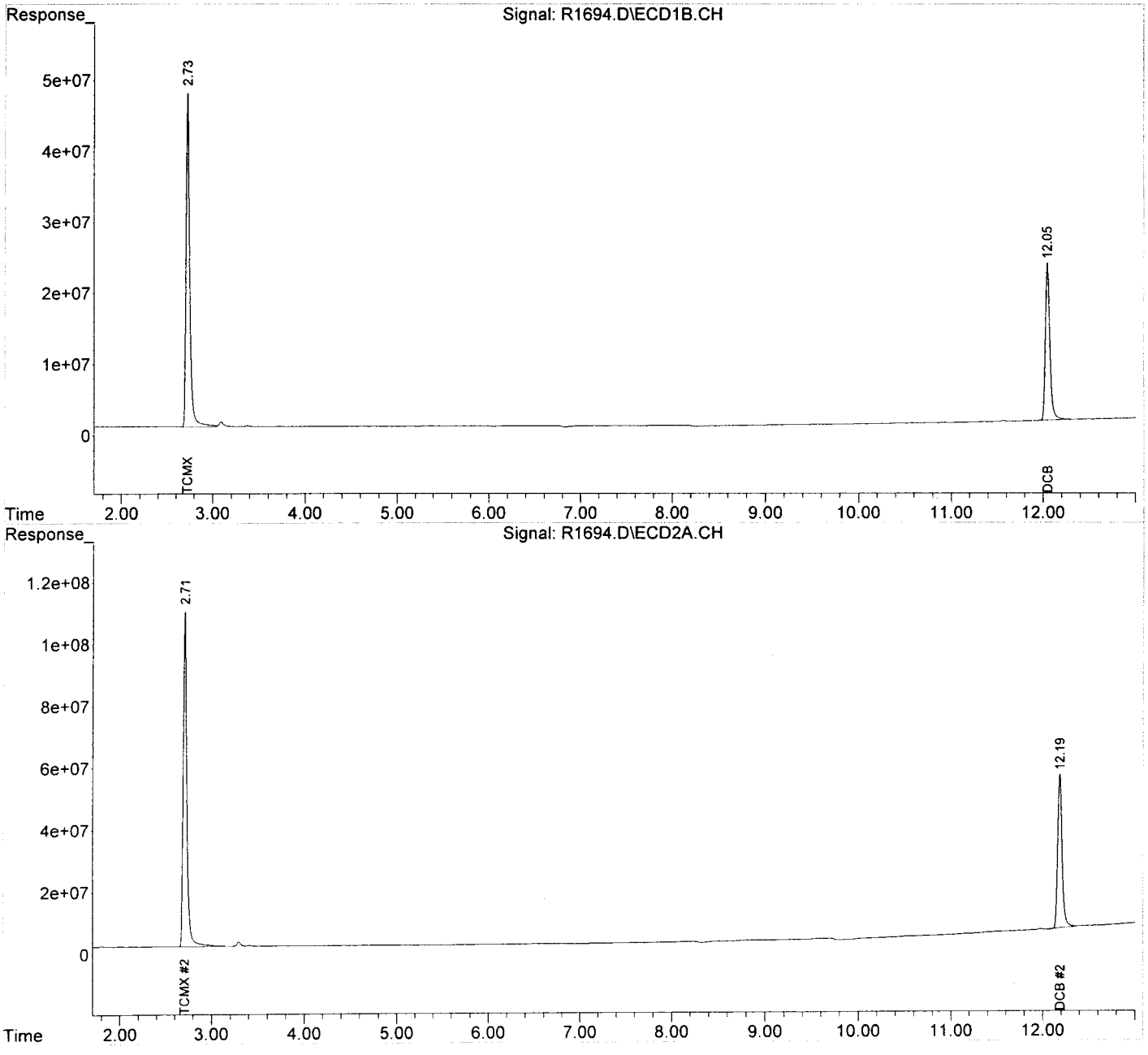
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : R1694.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 9:50
Operator : PSL
Sample : PCB,BLKS171222-03,S,10g,0,20
Misc : 171222-03,12/22/17,NA,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 26 15:11:48 2017
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1201.M
Quant Title :
QLast Update : Thu Dec 21 08:58:36 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/22/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS171221-01	SOIL	85		71		86		79	
Pest	LCSS171221-01	SOIL	85		66		87		78	
Pest	E17-10966-002MS	SOIL	90		81		90		91	
Pest	E17-10966-002MS	SOIL	91		85		92		90	
SB-38(D)	E17-10966-002	SOIL	90		75		91		86	
SB-39(D)	E17-10966-004	SOIL	90		68		88		88	
SB-40(D)	E17-10966-006	SOIL	88		66		86		85	

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	44-124	45-117
DCB = Decachlorobiphenyl	38-134	44-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/26/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS171222-03	SOIL	98		107		98		106	
Pest	LCSS171222-03	SOIL	94		100		91		102	
Pest	E17-10966-001MS	SOIL	97		102		95		110	
Pest	E17-10966-001MS	SOIL	90		92		88		99	
SB-38(S)	E17-10966-001	SOIL	84		83		82		89	
SB-39(S)	E17-10966-003	SOIL	85		92		82		105	
SB-40(S)	E17-10966-005	SOIL	90		89		86		92	

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	44-124	45-117
DCB = Decachlorobiphenyl	38-134	44-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

Pest

LCS ACCURACY REPORT

Lab ID: LCSS171221-01
Date Received: NA
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: V0667.D 12/22/17 11:21

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.0g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
alpha-BHC	100.0	0.0	90.8	91		48-130
beta-BHC	100.0	0.0	88.8	89		52-120
gamma-BHC (Lindane)	100.0	0.0	90.9	91		54-132
delta-BHC	100.0	0.0	89.2	89		59-131
Heptachlor	100.0	0.0	86.8	87		56-123
Aldrin	100.0	0.0	89.5	90		54-128
Heptachlor epoxide	100.0	0.0	90.1	90		58-130
Endosulfan I	100.0	0.0	65.6	66		42-133
4,4'-DDE	100.0	0.0	88.7	89		59-133
Dieldrin	100.0	0.0	78.1	78		54-117
Endrin	100.0	0.0	92.2	92		53-138
Endosulfan II	100.0	0.0	96.7	97		64-133
4,4'-DDD	100.0	0.0	87.2	87		55-145
Endrin aldehyde	100.0	0.0	74.7	75		31-137
Endosulfan sulfate	100.0	0.0	82.2	82		60-123
4,4'-DDT	100.0	0.0	74.5	75		26-136
Endrin ketone	100.0	0.0	87.3	87		65-126
Methoxychlor	100.0	0.0	78.6	79		30-141
alpha-Chlordane	100.0	0.0	82.6	83		60-125
gamma-Chlordane	100.0	0.0	88.5	89		60-130

	Aqueous	Soil/Sediment
NJ DKQP Limits	40-140	40-140

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

Pest

LCS ACCURACY REPORT

Lab ID: LCSS171222-03
Date Received: NA
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: O0144.D 12/26/17 18:51

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
alpha-BHC	100.0	0.0	93.6	94		48-130
beta-BHC	100.0	0.0	89.3	89		52-120
gamma-BHC (Lindane)	100.0	0.0	96.1	96		54-132
delta-BHC	100.0	0.0	97.9	98		59-131
Heptachlor	100.0	0.0	96.4	96		56-123
Aldrin	100.0	0.0	93.0	93		54-128
Heptachlor epoxide	100.0	0.0	97.3	97		58-130
Endosulfan I	100.0	0.0	80.0	80		42-133
4,4'-DDE	100.0	0.0	100.5	101		59-133
Dieldrin	100.0	0.0	87.2	87		54-117
Endrin	100.0	0.0	100.8	101		53-138
Endosulfan II	100.0	0.0	102.6	103		64-133
4,4'-DDD	100.0	0.0	104.3	104		55-145
Endrin aldehyde	100.0	0.0	66.0	66		31-137
Endosulfan sulfate	100.0	0.0	97.9	98		60-123
4,4'-DDT	100.0	0.0	85.4	85		26-136
Endrin ketone	100.0	0.0	102.5	103		65-126
Methoxychlor	100.0	0.0	87.7	88		30-141
alpha-Chlordane	100.0	0.0	96.5	97		60-125
gamma-Chlordane	100.0	0.0	99.1	99		60-130

	Aqueous	Soil/Sediment
NJ DKQP Limits	40-140	40-140

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

Pest

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-002
Date Received: 12/20/2017
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
MS Data file: V0668.D
MSD Data file: V0669.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.57g
Matrix-Units: Soil-µg/Kg
% Moisture: 12.8
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
alpha-BHC	100.0	0.0	92.2	92		93.8	94		2		48-129/14
beta-BHC	100.0	0.0	87.7	88		88.0	88		0		43-125/14
gamma-BHC (Lindane)	100.0	0.0	91.4	91		93.6	94		2		55-128/12
delta-BHC	100.0	0.0	93.3	93		94.5	95		1		57-129/12
Heptachlor	100.0	0.0	80.5	81		86.3	86		7		48-130/14
Aldrin	100.0	0.0	90.7	91		92.2	92		2		48-130/14
Heptachlor epoxide	100.0	0.0	90.5	91		92.7	93		2		51-129/13
Endosulfan I	100.0	0.0	87.0	87		90.7	91		4		42-130/15
4,4'-DDE	100.0	0.0	87.7	88		91.4	91		4		43-137/16
Dieldrin	100.0	0.0	81.8	82		83.3	83		2		50-116/11
Endrin	100.0	0.0	72.9	73		79.5	80		9		46-144/16
Endosulfan II	100.0	0.0	96.2	96		95.4	95		1		54-134/13
4,4'-DDD	100.0	0.0	92.6	93		94.0	94		2		55-140/14
Endrin aldehyde	100.0	0.0	94.8	95		96.3	96		2		37-121/14
Endosulfan sulfate	100.0	0.0	87.6	88		89.2	89		2		54-126/12
4,4'-DDT	100.0	0.0	67.1	67		69.9	70		4		34-136/17
Endrin ketone	100.0	0.0	95.4	95		95.7	96		0		56-134/13
Methoxychlor	100.0	0.0	65.1	65		69.9	70		7		41-135/16
alpha-Chlordane	100.0	0.0	85.6	86		88.8	89		4		57-123/11
gamma-Chlordane	100.0	0.0	89.0	89		91.9	92		3		51-131/13

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (NJ DKQP)	30-150	30-150
MS/MSD RPD Limits (NJ DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

Pest

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-001
Date Received: NA
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
MS Data file: O0145.D
MSD Data file: O0146.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.84g
Matrix-Units: Soil-µg/Kg
% Moisture: 8.80
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
alpha-BHC	100.0	0.0	105.6	106		105.7	106		0		48-129/14
beta-BHC	100.0	0.0	92.6	93		95.9	96		4		43-125/14
gamma-BHC (Lindane)	100.0	0.0	109.2	109		111.4	111		2		55-128/12
delta-BHC	100.0	0.0	110.4	110		112.9	113		2		57-129/12
Heptachlor	100.0	0.0	105.4	105		104.2	104		1		48-130/14
Aldrin	100.0	0.0	103.2	103		97.5	98		6		48-130/14
Heptachlor epoxide	100.0	0.0	105.6	106		106.6	107		1		51-129/13
Endosulfan I	100.0	0.0	100.7	101		99.9	100		1		42-130/15
4,4'-DDE	100.0	8.6	107.2	99		104.3	96		3		43-137/16
Dieldrin	100.0	0.0	95.8	96		95.9	96		0		50-116/11
Endrin	100.0	0.0	107.1	107		108.6	109		1		46-144/16
Endosulfan II	100.0	0.0	111.3	111		113.2	113		2		54-134/13
4,4'-DDD	100.0	4.4	117.3	113		117.5	113		0		55-140/14
Endrin aldehyde	100.0	0.0	92.0	92		102.7	103		11		37-121/14
Endosulfan sulfate	100.0	0.0	105.7	106		113.8	114		7		54-126/12
4,4'-DDT	100.0	28.8	131.6	103		141.4	113		7		34-136/17
Endrin ketone	100.0	0.0	118.0	118		124.3	124		5		56-134/13
Methoxychlor	100.0	0.0	99.2	99		109.9	110		10		41-135/16
alpha-Chlordane	100.0	0.0	104.0	104		102.8	103		1		57-123/11
gamma-Chlordane	100.0	0.0	94.4	94		93.0	93		1		51-131/13

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (NJ DKQP)	30-150	30-150
MS/MSD RPD Limits (NJ DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V0666.D

Instrument ID: GC-V

Date Extracted: 12/21/2017

Matrix: SOIL

Date Analyzed: 12/22/2017

Time Analyzed: 11:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Pest	LCSS171221-01	12/22/2017	11:21
Pest	E17-10966-002MS	12/22/2017	11:34
Pest	E17-10966-002MSD	12/22/2017	11:46
SB-38(D)	E17-10966-002	12/22/2017	11:59
SB-39(D)	E17-10966-004	12/22/2017	12:11
SB-40(D)	E17-10966-006	12/22/2017	12:24

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: O0143.D

Instrument ID: GC-O

Date Extracted: 12/22/2017

Matrix: SOIL

Date Analyzed: 12/26/2017

Time Analyzed: 18:38

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Pest	LCSS171222-03	12/26/2017	18:51
Pest	E17-10966-001MS	12/26/2017	19:03
Pest	E17-10966-001MSD	12/26/2017	19:16
SB-38(S)	E17-10966-001	12/26/2017	19:29
SB-39(S)	E17-10966-003	12/26/2017	19:41
SB-40(S)	E17-10966-005	12/26/2017	19:54

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/14/2017 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V0578.D V0577.D V0576.D V0575.D V0574.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	2	50	100	200	300	RT	FROM	TO
alpha-BHC	2.45	2.45	2.45	2.45	2.45	2.45	2.39	2.51
beta-BHC	2.74	2.74	2.74	2.74	2.74	2.74	2.68	2.80
gamma-BHC	2.68	2.68	2.68	2.68	2.68	2.68	2.62	2.74
delta-BHC	2.88	2.88	2.88	2.88	2.88	2.88	2.82	2.94
Heptachlor	3.04	3.05	3.05	3.05	3.05	3.05	2.97	3.13
Aldrin	3.29	3.29	3.29	3.29	3.30	3.29	3.21	3.37
Heptachlor epoxide	3.82	3.82	3.82	3.82	3.82	3.82	3.74	3.90
Endosulfan I	4.19	4.18	4.18	4.19	4.19	4.19	4.11	4.27
4,4'-DDE	4.13	4.13	4.13	4.13	4.14	4.13	4.03	4.23
Dieldrin	4.41	4.41	4.41	4.41	4.41	4.41	4.31	4.51
Endrin	4.64	4.64	4.63	4.64	4.64	4.64	4.54	4.74
Endosulfan II	4.86	4.86	4.86	4.86	4.86	4.86	4.76	4.96
4,4'-DDD	4.71	4.71	4.71	4.71	4.72	4.71	4.61	4.81
Endrin aldehyde	5.29	5.28	5.28	5.29	5.29	5.29	5.17	5.41
Endosulfan sulfate	5.74	5.74	5.74	5.74	5.74	5.74	5.62	5.86
4,4'-DDT	4.99	4.99	4.99	4.99	4.99	4.99	4.87	5.11
Endrin ketone	6.03	6.03	6.03	6.03	6.03	6.03	5.91	6.15
Methoxychlor	5.51	5.51	5.51	5.51	5.51	5.51	5.39	5.63
alpha-Chlordane	4.06	4.06	4.06	4.06	4.06	4.06	3.98	4.14
gamma-Chlordane	3.94	3.93	3.93	3.94	3.94	3.94	3.86	4.02
Chlordane 500 ppb			2.98				2.90	3.06
Chlordane {2}			3.41				3.33	3.49
Chlordane {3}			3.93				3.85	4.01
Chlordane {4}			4.05				3.97	4.13
Chlordane {5}			4.79				4.71	4.87
Toxaphene 500 ppb			4.50				4.42	4.58
Toxaphene {2}			4.85				4.77	4.93
Toxaphene {3}			4.97				4.89	5.05
Toxaphene {4}			5.19				5.11	5.27
Toxaphene {5}			5.63				5.55	5.71

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/14/2017 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V0578.D V0577.D V0576.D V0575.D V0574.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	321029	313112	332870	333975	337270	327651	3.11
beta-BHC	145551	111206	114477	114743	115132	120222	11.85
gamma-BHC	295186	276670	293715	294029	296184	291157	2.80
delta-BHC	289688	271268	285418	295691	298718	288156	3.74
Heptachlor	284503	263355	278116	277326	277615	276183	2.81
Aldrin	295265	272564	286655	282588	282510	283916	2.89
Heptachlor epoxide	279659	241636	250142	242818	239155	250682	6.66
Endosulfan I	264566	234624	243246	235998	233470	242381	5.35
4,4'-DDE	217328	205135	224493	230197	231943	221819	4.93
Dieldrin	269450	241075	256412	249953	245928	252564	4.35
Endrin	183773	178319	196158	205417	200546	192843	5.92
Endosulfan II	233254	195614	206856	204016	201454	208239	7.00
4,4'-DDD	228861	196738	206884	207822	207942	209650	5.59
Endrin aldehyde	222196	160952	167908	163624	161685	175273	15.04
Endosulfan sulfate	223749	172549	180328	180272	177852	186950	11.13
4,4'-DDT	126260	120340	152500	172972	176664	149747	17.31
Endrin ketone	272148	218355	223631	219729	216291	230031	10.30
Methoxychlor	66842	64553	75366	83335	82787	74576	11.71
alpha-Chlordane	274277	237580	249760	247430	247620	251334	5.44
gamma-Chlordane	286793	244012	258521	257809	258839	261195	5.98
Chlordane 500 ppb			6952				
Chlordane {2}			8482				
Chlordane {3}			24542				
Chlordane {4}			38521				
Chlordane {5}			6481				
Toxaphene 500 ppb			3164				
Toxaphene {2}			8581				
Toxaphene {3}			6936				
Toxaphene {4}			6019				
Toxaphene {5}			5566				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/14/2017 **Instrument ID:** GC-V

GC Column (2nd): RTX-CLP2

Data File: V0578.C V0577.C V0576.C V0575.C V0574.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	2	50	100	200	300	RT	FROM	TO
alpha-BHC	2.95	2.95	2.95	2.95	2.96	2.95	2.89	3.01
beta-BHC	3.34	3.34	3.34	3.34	3.34	3.34	3.28	3.40
gamma-BHC	3.27	3.27	3.27	3.27	3.28	3.27	3.21	3.33
delta-BHC	3.62	3.62	3.62	3.62	3.62	3.62	3.56	3.68
Heptachlor	3.69	3.69	3.69	3.69	3.69	3.69	3.61	3.77
Aldrin	4.01	4.01	4.01	4.01	4.01	4.01	3.93	4.09
Heptachlor epoxide	4.58	4.58	4.58	4.58	4.59	4.58	4.50	4.66
Endosulfan I	4.99	4.99	4.99	4.99	5.00	4.99	4.91	5.07
4,4'-DDE	5.09	5.09	5.09	5.09	5.10	5.09	4.99	5.19
Dieldrin	5.28	5.28	5.28	5.28	5.28	5.28	5.18	5.38
Endrin	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Endosulfan II	5.84	5.84	5.84	5.84	5.84	5.84	5.74	5.94
4,4'-DDD	5.72	5.72	5.72	5.72	5.72	5.72	5.62	5.82
Endrin aldehyde	6.21	6.21	6.21	6.21	6.21	6.21	6.09	6.33
Endosulfan sulfate	6.52	6.52	6.52	6.52	6.52	6.52	6.40	6.64
4,4'-DDT	6.06	6.06	6.06	6.06	6.06	6.06	5.94	6.18
Endrin ketone	7.12	7.12	7.12	7.12	7.12	7.12	7.00	7.24
Methoxychlor	6.83	6.83	6.83	6.83	6.83	6.83	6.71	6.95
alpha-Chlordane	4.93	4.93	4.93	4.93	4.93	4.93	4.85	5.01
gamma-Chlordane	4.77	4.78	4.77	4.77	4.78	4.78	4.70	4.86
Chlordane 500 ppb			3.55				3.47	3.63
Chlordane {2}			4.15				4.07	4.23
Chlordane {3}			4.77				4.69	4.85
Chlordane {4}			4.87				4.79	4.95
Chlordane {5}			4.93				4.85	5.01
Toxaphene 500 ppb			5.26				5.18	5.34
Toxaphene {2}			5.82				5.74	5.90
Toxaphene {3}			5.93				5.85	6.01
Toxaphene {4}			6.21				6.13	6.29
Toxaphene {5}			6.79				6.71	6.87

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/14/2017 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V0578.C V0577.C V0576.C V0575.C V0574.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	883506	750878	799492	809766	825777	813884	5.89
beta-BHC	382789	275287	272447	271158	269677	294271	16.83
gamma-BHC	804983	663968	702817	711947	722385	721220	7.18
delta-BHC	746138	627768	677461	685236	685663	684453	6.14
Heptachlor	781247	633842	663155	659506	653852	678320	8.64
Aldrin	819689	635607	660010	655065	653533	684781	11.10
Heptachlor epoxide	741670	571180	582909	565781	554548	603217	12.94
Endosulfan I	685447	516352	526357	508730	497704	546918	14.29
4,4'-DDE	607079	503290	534202	543361	545996	546786	6.90
Dieldrin	693402	563609	582657	571957	563002	594926	9.35
Endrin	496179	419674	446995	465908	453477	456447	6.12
Endosulfan II	637365	484295	484897	475816	466766	509828	14.06
4,4'-DDD	612243	467725	468850	467271	466893	496596	13.02
Endrin aldehyde	530603	376385	377300	358771	351431	398898	18.67
Endosulfan sulfate	576773	412833	421265	428574	421416	452172	15.45
4,4'-DDT	301559	287366	338546	379307	387030	338761	13.20
Endrin ketone	625767	480571	487999	477387	471182	508581	12.94
Methoxychlor	162180	150571	166484	176101	174123	165892	6.18
alpha-Chlordane	696119	540033	565546	548327	540140	578033	11.56
gamma-Chlordane	729519	576539	598509	596957	599224	620150	9.98
Chlordane 500 ppb			17503				
Chlordane {2}			18598				
Chlordane {3}			53257				
Chlordane {4}			43387				
Chlordane {5}			43932				
Toxaphene 500 ppb			12032				
Toxaphene {2}			13438				
Toxaphene {3}			25042				
Toxaphene {4}			13479				
Toxaphene {5}			11210				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-O
GC Column (1st): RTX-CLP1

Data File: O0112.D O0111.D O0110.D O0109.D O0108.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.46	2.46	2.46	2.46	2.46	2.46	2.40	2.52
beta-BHC	2.75	2.75	2.75	2.75	2.75	2.75	2.69	2.81
gamma-BHC	2.69	2.69	2.69	2.69	2.69	2.69	2.63	2.75
delta-BHC	2.89	2.89	2.89	2.89	2.89	2.89	2.83	2.95
Heptachlor	3.05	3.05	3.05	3.05	3.05	3.05	2.97	3.13
Aldrin	3.30	3.30	3.30	3.30	3.30	3.30	3.22	3.38
Heptachlor epoxide	3.82	3.82	3.82	3.82	3.82	3.82	3.74	3.90
Endosulfan I	4.18	4.18	4.18	4.18	4.18	4.18	4.10	4.26
4,4'-DDE	4.11	4.12	4.12	4.12	4.11	4.12	4.02	4.22
Dieldrin	4.40	4.40	4.40	4.40	4.40	4.40	4.30	4.50
Endrin	4.62	4.62	4.62	4.62	4.62	4.62	4.52	4.72
Endosulfan II	4.84	4.84	4.84	4.84	4.84	4.84	4.74	4.94
4,4'-DDD	4.69	4.69	4.69	4.69	4.69	4.69	4.59	4.79
Endrin aldehyde	5.26	5.26	5.26	5.26	5.26	5.26	5.14	5.38
Endosulfan sulfate	5.71	5.71	5.71	5.71	5.71	5.71	5.59	5.83
4,4'-DDT	4.96	4.96	4.96	4.96	4.96	4.96	4.84	5.08
Endrin ketone	6.00	6.00	6.00	6.00	6.00	6.00	5.88	6.12
Methoxychlor	5.46	5.46	5.46	5.46	5.46	5.46	5.34	5.58
alpha-Chlordane	4.05	4.05	4.05	4.05	4.05	4.05	3.97	4.13
gamma-Chlordane	3.93	3.93	3.93	3.93	3.93	3.93	3.85	4.01
Chlordane 500 ppb			2.99				2.91	3.07
Chlordane {2}			3.41				3.33	3.49
Chlordane {3}			3.93				3.85	4.01
Chlordane {4}			4.04				3.96	4.12
Chlordane {5}			4.77				4.69	4.85
Toxaphene 500 ppb			4.83				4.75	4.91
Toxaphene {2}			4.95				4.87	5.03
Toxaphene {3}			5.17				5.09	5.25
Toxaphene {4}			5.39				5.31	5.47
Toxaphene {5}			5.60				5.52	5.68

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-O

GC Column (1st): RTX-CLP1

Data File: O0112.D O0111.D O0110.D O0109.D O0108.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	267214	323529	335562	360585	345714	326521	10.98
beta-BHC	134966	112546	116043	119542	114762	119572	7.50
gamma-BHC	246649	284981	294063	314767	301168	288326	8.92
delta-BHC	236459	274375	288355	307691	297055	280787	9.84
Heptachlor	248474	250786	262284	268936	259002	257896	3.25
Aldrin	240431	259722	264786	276891	262114	260789	5.05
Heptachlor epoxide	228153	233416	236080	244749	231094	234698	2.70
Endosulfan I	206830	212252	215972	223889	211966	214182	2.95
4,4'-DDE	182225	200575	207875	217981	209478	203627	6.61
Dieldrin	207216	225316	231909	242679	231614	227747	5.74
Endrin	174531	184847	191348	199200	197419	189469	5.32
Endosulfan II	187230	181707	186365	192639	185949	186778	2.09
4,4'-DDD	158756	169167	173126	181287	174368	171341	4.83
Endrin aldehyde	156248	141238	146543	150350	145060	147888	3.85
Endosulfan sulfate	180834	153913	158649	163234	160167	163359	6.32
4,4'-DDT	110047	117231	134783	142913	150490	131093	13.02
Endrin ketone	185711	179714	186042	189969	184770	185241	1.98
Methoxychlor	66462	62530	68482	68948	71269	67538	4.86
alpha-Chlordane	216812	219759	223652	233571	222250	223209	2.85
gamma-Chlordane	240870	228331	233242	245031	233030	236101	2.84
Chlordane 500 ppb			7320				
Chlordane {2}			8660				
Chlordane {3}			25146				
Chlordane {4}			39469				
Chlordane {5}			5522				
Toxaphene 500 ppb			7046				
Toxaphene {2}			8924				
Toxaphene {3}			4613				
Toxaphene {4}			3504				
Toxaphene {5}			4350				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-O
GC Column (2nd): RTX-CLP2

Data File: O0112.C O0111.C O0110.C O0109.C O0108.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.84	2.85	2.85	2.85	2.85	2.85	2.79	2.91
beta-BHC	3.22	3.22	3.22	3.22	3.22	3.22	3.16	3.28
gamma-BHC	3.15	3.15	3.15	3.15	3.15	3.15	3.09	3.21
delta-BHC	3.49	3.49	3.49	3.49	3.49	3.49	3.43	3.55
Heptachlor	3.56	3.56	3.56	3.56	3.56	3.56	3.48	3.64
Aldrin	3.87	3.87	3.87	3.87	3.87	3.87	3.79	3.95
Heptachlor epoxide	4.42	4.42	4.43	4.43	4.43	4.43	4.35	4.51
Endosulfan I	4.83	4.83	4.83	4.83	4.83	4.83	4.75	4.91
4,4'-DDE	4.92	4.92	4.92	4.93	4.93	4.92	4.82	5.02
Dieldrin	5.11	5.11	5.11	5.11	5.11	5.11	5.01	5.21
Endrin	5.43	5.43	5.43	5.43	5.43	5.43	5.33	5.53
Endosulfan II	5.65	5.65	5.65	5.66	5.66	5.66	5.56	5.76
4,4'-DDD	5.54	5.54	5.54	5.54	5.54	5.54	5.44	5.64
Endrin aldehyde	6.02	6.02	6.02	6.02	6.02	6.02	5.90	6.14
Endosulfan sulfate	6.32	6.32	6.32	6.32	6.32	6.32	6.20	6.44
4,4'-DDT	5.87	5.87	5.87	5.87	5.87	5.87	5.75	5.99
Endrin ketone	6.92	6.92	6.92	6.92	6.92	6.92	6.80	7.04
Methoxychlor	6.63	6.63	6.63	6.63	6.63	6.63	6.51	6.75
alpha-Chlordane	4.76	4.76	4.76	4.76	4.76	4.76	4.68	4.84
gamma-Chlordane	4.61	4.61	4.61	4.61	4.61	4.61	4.53	4.69
Chlordane 500 ppb			3.42				3.34	3.50
Chlordane {2}			4.00				3.92	4.08
Chlordane {3}			4.61				4.53	4.69
Chlordane {4}			4.70				4.62	4.78
Chlordane {5}			4.76				4.68	4.84
Toxaphene 500 ppb			5.09				5.01	5.17
Toxaphene {2}			5.64				5.56	5.72
Toxaphene {3}			5.74				5.66	5.82
Toxaphene {4}			6.02				5.94	6.10
Toxaphene {5}			6.59				6.51	6.67

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-O
GC Column (2nd): RTX-CLP2

Data File: O0112.C O0111.C O0110.C O0109.C O0108.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	328572	395753	418852	461693	449686	410911	12.85
beta-BHC	162045	137195	142562	150116	146725	147728	6.33
gamma-BHC	307835	348650	367997	403384	393235	364220	10.47
delta-BHC	282898	324632	346694	374462	366018	338941	10.84
Heptachlor	290573	300528	320893	340270	335510	317555	6.80
Aldrin	340473	319328	332694	359355	346405	339651	4.41
Heptachlor epoxide	279227	281959	290397	309352	297755	291738	4.20
Endosulfan I	249777	253729	263266	280074	270320	263433	4.67
4,4'-DDE	243423	257358	270581	292193	286114	269934	7.45
Dieldrin	257926	275250	288534	310963	302691	287073	7.40
Endrin	216098	224080	235873	252644	256157	236970	7.36
Endosulfan II	238247	232979	240621	253654	249387	242978	3.46
4,4'-DDD	202248	209070	216575	233720	229338	218190	6.09
Endrin aldehyde	189066	174649	180253	188196	184977	183428	3.27
Endosulfan sulfate	196130	192766	201018	211775	210544	202446	4.19
4,4'-DDT	135379	136741	160690	174200	189639	159330	14.80
Endrin ketone	227579	224261	230751	237889	235732	231243	2.43
Methoxychlor	96339	82728	85933	86340	90715	88411	5.96
alpha-Chlordane	266079	265144	277287	296067	287265	278368	4.82
gamma-Chlordane	271432	276385	288247	312330	303936	290466	6.02
Chlordane 500 ppb			9402				
Chlordane {2}			9290				
Chlordane {3}			28315				
Chlordane {4}			22513				
Chlordane {5}			23790				
Toxaphene 500 ppb			4387				
Toxaphene {2}			5220				
Toxaphene {3}			10049				
Toxaphene {4}			5380				
Toxaphene {5}			4846				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-V

Data File: V0663.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.45	2.39	2.51	327651	320558	2.16
beta-BHC	2.74	2.68	2.80	120222	118293	1.60
gamma-BHC	2.68	2.62	2.74	291157	277247	4.78
delta-BHC	2.88	2.82	2.94	288156	284778	1.17
Heptachlor	3.04	2.97	3.13	276183	257196	6.87
Aldrin	3.29	3.21	3.37	283916	274656	3.26
Heptachlor epoxide	3.82	3.74	3.90	250682	240246	4.16
Endosulfan I	4.18	4.11	4.27	242381	249487	2.93
4,4'-DDE	4.13	4.03	4.23	221819	206258	7.02
Dieldrin	4.41	4.31	4.51	252564	246181	2.53
Endrin	4.63	4.54	4.74	192843	158458	17.83
Endosulfan II	4.86	4.76	4.96	208239	204667	1.72
4,4'-DDD	4.71	4.61	4.81	209650	193666	7.62
Endrin aldehyde	5.28	5.17	5.41	175273	169102	3.52
Endosulfan sulfate	5.73	5.62	5.86	186950	174028	6.91
4,4'-DDT	4.99	4.87	5.11	149747	136843	8.62
Endrin ketone	6.03	5.91	6.15	230031	222750	3.17
Methoxychlor	5.51	5.39	5.63	74576	67193	9.90
alpha-Chlordane	4.06	3.98	4.14	251334	237325	5.57
gamma-Chlordane	3.93	3.86	4.02	261195	246996	5.44
Chlordane 500 ppb	2.98	2.90	3.06	6952	6514	6.30
Chlordane {2}	3.41	3.33	3.49	8482	7915	6.69
Chlordane {3}	3.93	3.85	4.01	24542	22517	8.25
Chlordane {4}	4.05	3.97	4.13	38521	35775	7.13
Chlordane {5}	4.79	4.71	4.87	6481	5717	11.78
Toxaphene 500 ppb	4.50	4.42	4.58	3164	3023	4.47
Toxaphene {2}	4.85	4.77	4.93	8581	8124	5.33
Toxaphene {3}	4.97	4.89	5.05	6936	6495	6.36
Toxaphene {4}	5.19	5.11	5.27	6019	5527	8.18
Toxaphene {5}	5.63	5.55	5.71	5566	5223	6.17

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-V

Data File: V0663.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.95	2.89	3.01	813884	790859	2.83
beta-BHC	3.34	3.28	3.40	294271	275380	6.42
gamma-BHC	3.27	3.21	3.33	721220	692391	4.00
delta-BHC	3.62	3.56	3.68	684453	664669	2.89
Heptachlor	3.69	3.61	3.77	678320	628947	7.28
Aldrin	4.01	3.93	4.09	684781	645604	5.72
Heptachlor epoxide	4.58	4.50	4.66	603217	570759	5.38
Endosulfan I	4.99	4.91	5.07	546918	514963	5.84
4,4'-DDE	5.09	4.99	5.19	546786	519636	4.97
Dieldrin	5.28	5.18	5.38	594926	564122	5.18
Endrin	5.61	5.51	5.71	456447	366712	19.66
Endosulfan II	5.83	5.74	5.94	509828	476480	6.54
4,4'-DDD	5.72	5.62	5.82	496596	447979	9.79
Endrin aldehyde	6.21	6.09	6.33	398898	381984	4.24
Endosulfan sulfate	6.51	6.40	6.64	452172	420557	6.99
4,4'-DDT	6.06	5.94	6.18	338761	306489	9.53
Endrin ketone	7.11	7.00	7.24	508581	512434	0.76
Methoxychlor	6.83	6.71	6.95	165892	145851	12.08
alpha-Chlordane	4.92	4.85	5.01	578033	544757	5.76
gamma-Chlordane	4.77	4.70	4.86	620150	583940	5.84
Chlordane 500 ppb	3.55	3.47	3.63	17503	17134	2.11
Chlordane {2}	4.15	4.07	4.23	18598	17675	4.96
Chlordane {3}	4.77	4.69	4.85	53257	52925	0.62
Chlordane {4}	4.87	4.79	4.95	43387	41002	5.50
Chlordane {5}	4.92	4.85	5.01	43932	41696	5.09
Toxaphene 500 ppb	5.26	5.18	5.34	12032	11375	5.46
Toxaphene {2}	5.82	5.74	5.90	13438	13477	0.29
Toxaphene {3}	5.93	5.85	6.01	25042	22512	10.10
Toxaphene {4}	6.21	6.13	6.29	13479	12798	5.05
Toxaphene {5}	6.78	6.71	6.87	11210	10421	7.04

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-V

Data File: V0673.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.45	2.39	2.51	327651	328327	0.21
beta-BHC	2.74	2.68	2.80	120222	120302	0.07
gamma-BHC	2.68	2.62	2.74	291157	284514	2.28
delta-BHC	2.88	2.82	2.94	288156	290727	0.89
Heptachlor	3.04	2.97	3.13	276183	268025	2.95
Aldrin	3.29	3.21	3.37	283916	279304	1.62
Heptachlor epoxide	3.82	3.74	3.90	250682	243827	2.73
Endosulfan I	4.18	4.11	4.27	242381	249711	3.02
4,4'-DDE	4.13	4.03	4.23	221819	208391	6.05
Dieldrin	4.41	4.31	4.51	252564	246782	2.29
Endrin	4.63	4.54	4.74	192843	200417	3.93
Endosulfan II	4.86	4.76	4.96	208239	202497	2.76
4,4'-DDD	4.71	4.61	4.81	209650	196210	6.41
Endrin aldehyde	5.28	5.17	5.41	175273	148020	15.55
Endosulfan sulfate	5.73	5.62	5.86	186950	171705	8.15
4,4'-DDT	4.99	4.87	5.11	149747	140664	6.07
Endrin ketone	6.03	5.91	6.15	230031	213949	6.99
Methoxychlor	5.51	5.39	5.63	74576	69290	7.09
alpha-Chlordane	4.06	3.98	4.14	251334	236949	5.72
gamma-Chlordane	3.93	3.86	4.02	261195	247525	5.23

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/22/2017 **Instrument ID:** GC-V

Data File: V0673.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.95	2.89	3.01	813884	786499	3.36
beta-BHC	3.34	3.28	3.40	294271	267180	9.21
gamma-BHC	3.27	3.21	3.33	721220	688731	4.50
delta-BHC	3.62	3.56	3.68	684453	656693	4.06
Heptachlor	3.69	3.61	3.77	678320	637236	6.06
Aldrin	4.01	3.93	4.09	684781	633023	7.56
Heptachlor epoxide	4.58	4.50	4.66	603217	550700	8.71
Endosulfan I	4.99	4.91	5.07	546918	498614	8.83
4,4'-DDE	5.09	4.99	5.19	546786	493191	9.80
Dieldrin	5.28	5.18	5.38	594926	539763	9.27
Endrin	5.61	5.51	5.71	456447	436539	4.36
Endosulfan II	5.83	5.74	5.94	509828	459816	9.81
4,4'-DDD	5.72	5.62	5.82	496596	430678	13.27
Endrin aldehyde	6.21	6.09	6.33	398898	331447	16.91
Endosulfan sulfate	6.51	6.40	6.64	452172	416193	7.96
4,4'-DDT	6.06	5.94	6.18	338761	294614	13.03
Endrin ketone	7.11	7.00	7.24	508581	472313	7.13
Methoxychlor	6.83	6.71	6.95	165892	178040	7.32
alpha-Chlordane	4.92	4.85	5.01	578033	519786	10.08
gamma-Chlordane	4.77	4.70	4.86	620150	556278	10.30

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/26/2017 **Instrument ID:** GC-O

Data File: O0140.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.46	2.40	2.52	326521	333597	2.17
beta-BHC	2.75	2.69	2.81	119572	112648	5.79
gamma-BHC	2.69	2.63	2.75	288326	292870	1.58
delta-BHC	2.89	2.83	2.95	280787	281665	0.31
Heptachlor	3.05	2.97	3.13	257896	263072	2.01
Aldrin	3.30	3.22	3.38	260789	274464	5.24
Heptachlor epoxide	3.82	3.74	3.90	234698	244758	4.29
Endosulfan I	4.18	4.10	4.26	214182	228288	6.59
4,4'-DDE	4.12	4.02	4.22	203627	221623	8.84
Dieldrin	4.40	4.30	4.50	227747	243363	6.86
Endrin	4.62	4.52	4.72	189469	186637	1.49
Endosulfan II	4.84	4.74	4.94	186778	199804	6.97
4,4'-DDD	4.69	4.59	4.79	171341	188319	9.91
Endrin aldehyde	5.26	5.14	5.38	147888	160648	8.63
Endosulfan sulfate	5.71	5.59	5.83	163359	171057	4.71
4,4'-DDT	4.96	4.84	5.08	131093	143184	9.22
Endrin ketone	6.00	5.88	6.12	185241	207505	12.02
Methoxychlor	5.46	5.34	5.58	67538	69107	2.32
alpha-Chlordane	4.05	3.97	4.13	223209	235165	5.36
gamma-Chlordane	3.93	3.85	4.01	236101	242916	2.89
Chlordane 500 ppb	2.99	2.91	3.07	7320	7700	5.18
Chlordane {2}	3.41	3.33	3.49	8660	9788	13.03
Chlordane {3}	3.93	3.85	4.01	25146	26856	6.80
Chlordane {4}	4.04	3.96	4.12	39469	42360	7.32
Chlordane {5}	4.77	4.69	4.85	5522	5884	6.55
Toxaphene 500 ppb	4.83	4.75	4.91	7046	6644	5.71
Toxaphene {2}	4.95	4.87	5.03	8924	8303	6.96
Toxaphene {3}	5.17	5.09	5.25	4613	4613	0.00
Toxaphene {4}	5.39	5.31	5.47	3504	3230	7.84
Toxaphene {5}	5.60	5.52	5.68	4350	4231	2.74

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/26/2017 **Instrument ID:** GC-O

Data File: O0140.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.85	2.79	2.91	410911	429882	4.62
beta-BHC	3.22	3.16	3.28	147728	144394	2.26
gamma-BHC	3.15	3.09	3.21	364220	377370	3.61
delta-BHC	3.49	3.43	3.55	338941	356757	5.26
Heptachlor	3.56	3.48	3.64	317555	337437	6.26
Aldrin	3.87	3.79	3.95	339651	351484	3.48
Heptachlor epoxide	4.43	4.35	4.51	291738	310125	6.30
Endosulfan I	4.83	4.75	4.91	263433	283160	7.49
4,4'-DDE	4.92	4.82	5.02	269934	296673	9.91
Dieldrin	5.11	5.01	5.21	287073	309759	7.90
Endrin	5.43	5.33	5.53	236970	235375	0.67
Endosulfan II	5.65	5.56	5.76	242978	263243	8.34
4,4'-DDD	5.54	5.44	5.64	218190	242923	11.34
Endrin aldehyde	6.02	5.90	6.14	183428	201824	10.03
Endosulfan sulfate	6.32	6.20	6.44	202446	224478	10.88
4,4'-DDT	5.87	5.75	5.99	159330	172356	8.18
Endrin ketone	6.92	6.80	7.04	231243	262001	13.30
Methoxychlor	6.63	6.51	6.75	88411	88999	0.67
alpha-Chlordane	4.76	4.68	4.84	278368	297667	6.93
gamma-Chlordane	4.61	4.53	4.69	290466	310700	6.97
Chlordane 500 ppb	3.42	3.34	3.50	9402	9527	1.33
Chlordane {2}	4.00	3.92	4.08	9290	10106	8.78
Chlordane {3}	4.61	4.53	4.69	28315	31269	10.43
Chlordane {4}	4.70	4.62	4.78	22513	24931	10.74
Chlordane {5}	4.76	4.68	4.84	23790	26197	10.12
Toxaphene 500 ppb	5.09	5.01	5.17	4387	4170	4.96
Toxaphene {2}	5.64	5.56	5.72	5220	5678	8.77
Toxaphene {3}	5.74	5.66	5.82	10049	10057	0.08
Toxaphene {4}	6.02	5.94	6.10	5380	5901	9.69
Toxaphene {5}	6.59	6.51	6.67	4846	5118	5.61

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/26/2017 **Instrument ID:** GC-O

Data File: O0150.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.46	2.40	2.52	326521	337429	3.34
beta-BHC	2.75	2.69	2.81	119572	118059	1.27
gamma-BHC	2.69	2.63	2.75	288326	296819	2.95
delta-BHC	2.89	2.83	2.95	280787	296109	5.46
Heptachlor	3.05	2.97	3.13	257896	270210	4.77
Aldrin	3.30	3.22	3.38	260789	275826	5.77
Heptachlor epoxide	3.82	3.74	3.90	234698	246343	4.96
Endosulfan I	4.18	4.10	4.26	214182	228273	6.58
4,4'-DDE	4.11	4.02	4.22	203627	223910	9.96
Dieldrin	4.40	4.30	4.50	227747	244965	7.56
Endrin	4.62	4.52	4.72	189469	202061	6.65
Endosulfan II	4.84	4.74	4.94	186778	200750	7.48
4,4'-DDD	4.69	4.59	4.79	171341	192009	12.06
Endrin aldehyde	5.26	5.14	5.38	147888	151430	2.40
Endosulfan sulfate	5.71	5.59	5.83	163359	169283	3.63
4,4'-DDT	4.96	4.84	5.08	131093	141342	7.82
Endrin ketone	6.00	5.88	6.12	185241	206089	11.25
Methoxychlor	5.46	5.34	5.58	67538	70290	4.07
alpha-Chlordane	4.05	3.97	4.13	223209	235719	5.60
gamma-Chlordane	3.93	3.85	4.01	236101	243626	3.19

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/26/2017 **Instrument ID:** GC-O

Data File: O0150.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.85	2.79	2.91	410911	411207	0.07
beta-BHC	3.22	3.16	3.28	147728	142292	3.68
gamma-BHC	3.15	3.09	3.21	364220	361951	0.62
delta-BHC	3.49	3.43	3.55	338941	354420	4.57
Heptachlor	3.56	3.48	3.64	317555	325126	2.38
Aldrin	3.87	3.79	3.95	339651	333076	1.94
Heptachlor epoxide	4.42	4.35	4.51	291738	294883	1.08
Endosulfan I	4.82	4.75	4.91	263433	270645	2.74
4,4'-DDE	4.92	4.82	5.02	269934	285197	5.65
Dieldrin	5.11	5.01	5.21	287073	296641	3.33
Endrin	5.43	5.33	5.53	236970	243244	2.65
Endosulfan II	5.65	5.56	5.76	242978	255895	5.32
4,4'-DDD	5.53	5.44	5.64	218190	236938	8.59
Endrin aldehyde	6.02	5.90	6.14	183428	184556	0.61
Endosulfan sulfate	6.32	6.20	6.44	202446	214606	6.01
4,4'-DDT	5.87	5.75	5.99	159330	171714	7.77
Endrin ketone	6.92	6.80	7.04	231243	252223	9.07
Methoxychlor	6.63	6.51	6.75	88411	89642	1.39
alpha-Chlordane	4.76	4.68	4.84	278368	281210	1.02
gamma-Chlordane	4.61	4.53	4.69	290466	296101	1.94

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.08 **DCB 1** 7.14 **TCMX 2** 2.45 **DCB 2** 8.49

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS171221-01	12/22/2017	11:08	2.08		7.14		2.45		8.49	
Pest	LCSS171221-01	12/22/2017	11:21	2.08		7.14		2.45		8.49	
Pest	E17-10966-002MS	12/22/2017	11:34	2.08		7.14		2.45		8.49	
Pest	E17-10966-002MSD	12/22/2017	11:46	2.08		7.14		2.45		8.49	
SB-38(D)	E17-10966-002	12/22/2017	11:59	2.08		7.14		2.45		8.49	
SB-39(D)	E17-10966-004	12/22/2017	12:11	2.08		7.14		2.44		8.48	
SB-40(D)	E17-10966-006	12/22/2017	12:24	2.07		7.14		2.44		8.48	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-O **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.10 **DCB 1** 7.10 **TCMX 2** 2.36 **DCB 2** 8.58

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS171222-03	12/26/2017	18:38	2.10		7.10		2.36		8.58	
Pest	LCSS171222-03	12/26/2017	18:51	2.10		7.10		2.36		8.58	
Pest	E17-10966-001MS	12/26/2017	19:03	2.10		7.10		2.36		8.58	
Pest	E17-10966-001MSD	12/26/2017	19:16	2.10		7.10		2.36		8.58	
SB-38(S)	E17-10966-001	12/26/2017	19:29	2.10		7.10		2.36		8.58	
SB-39(S)	E17-10966-003	12/26/2017	19:41	2.10		7.10		2.36		8.58	
SB-40(S)	E17-10966-005	12/26/2017	19:54	2.10		7.10		2.36		8.58	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 12/22/2017

Data file: V0661.D : Fri Dec 22 09:52:07 2017

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	10261830	Endrin (1)	12612689	8.56	14.56
DDD	960682	Endrin ketone	1293242		
DDE	0	Endrin aldehyde	855412		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	23969662	Endrin (2)	29188360	8.73	14.62
DDD	2291799	Endrin ketone	2848202		
DDE	0	Endrin aldehyde	2151413		

Date Analyzed: 12/26/2017

Data file: O0137B.D Tue Dec 26 17:18:51 2017

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	11493897	Endrin (1)	16116570	10.84	5.93
DDD	1176641	Endrin ketone	820952		
DDE	221110	Endrin aldehyde	195373		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	14443300	Endrin (2)	20630015	12.21	6.80
DDD	1613443	Endrin ketone	981366		
DDE	395839	Endrin aldehyde	523949		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : O0147.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 19:29
Operator : IB
Sample : SB-38(S),E17-10966-001,S,10.42g,8.80,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:20:17 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.10	2.36	29709420	38241133	167.617	163.315
	Spiked Amount 200.000	Range 10 - 180		Recovery =		83.81%	81.66%
2) S	DCB	7.10	8.58	23287588	32957785	166.738	178.865
	Spiked Amount 200.000	Range 10 - 180		Recovery =		83.37%	89.43%
	Target Compounds						
11) T	4,4'-DDE	4.11	4.92	1941693	2332615	9.536m	8.641m
15) T	4,4'-DDD	4.69	5.54	793146	955791	4.629m	4.381m
18) T	4,4'-DDT	4.96	5.87	3779107	4689474	28.828	29.433
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

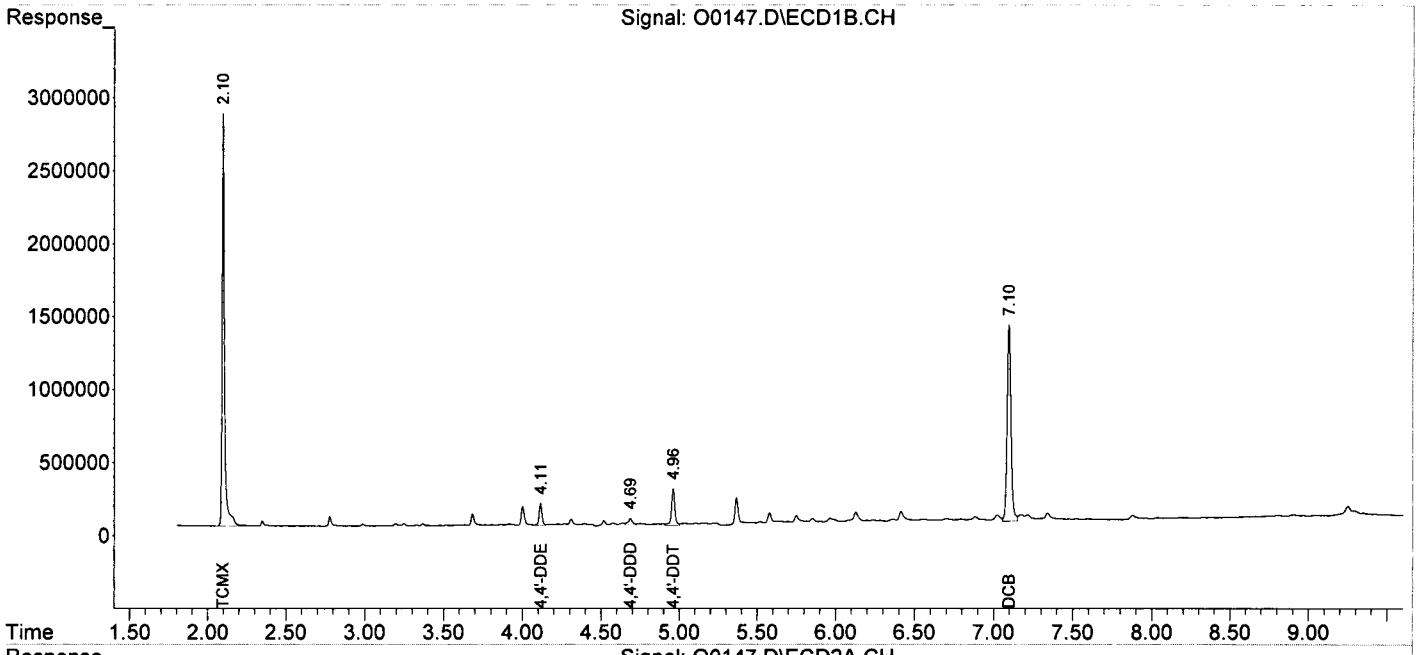
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

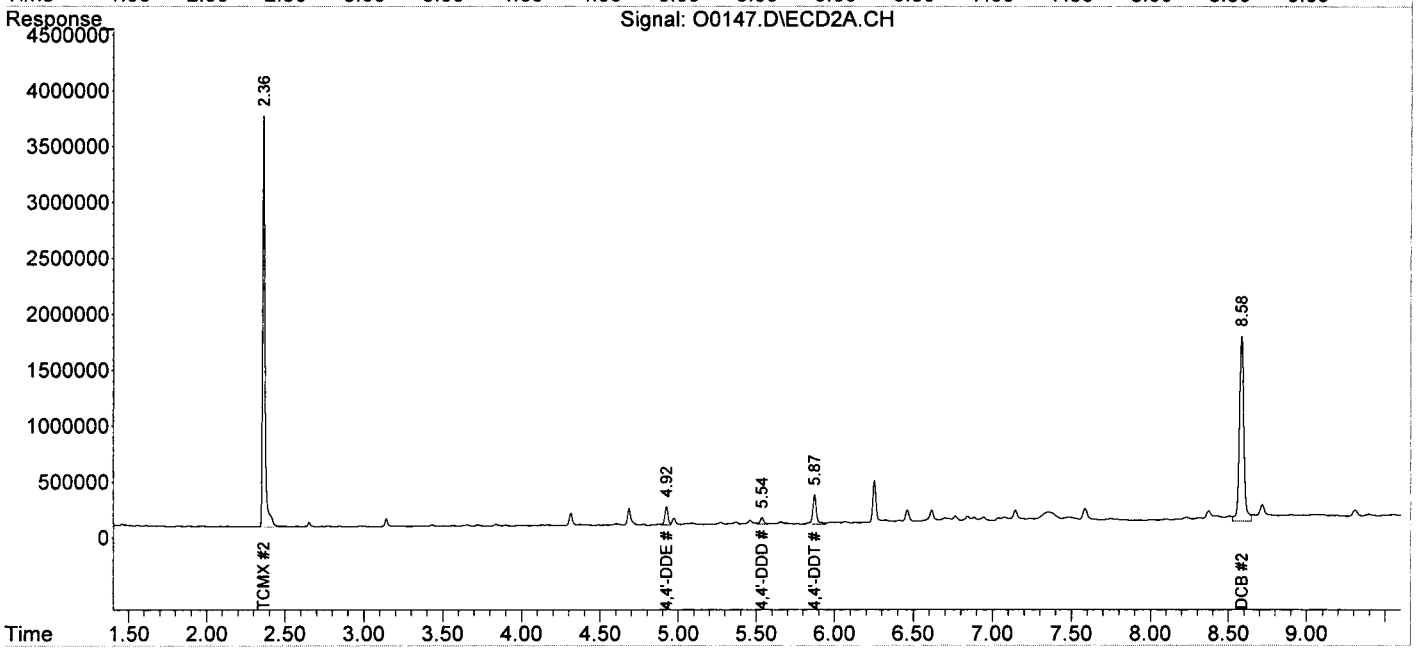
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : O0147.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 19:29
Operator : IB
Sample : SB-38(S),E17-10966-001,S,10.42g,8.80,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:20:17 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0670.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:59
Operator : IB
Sample : SB-38(D),E17-10966-002,S,10.57g,12.8,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 12:26:36 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

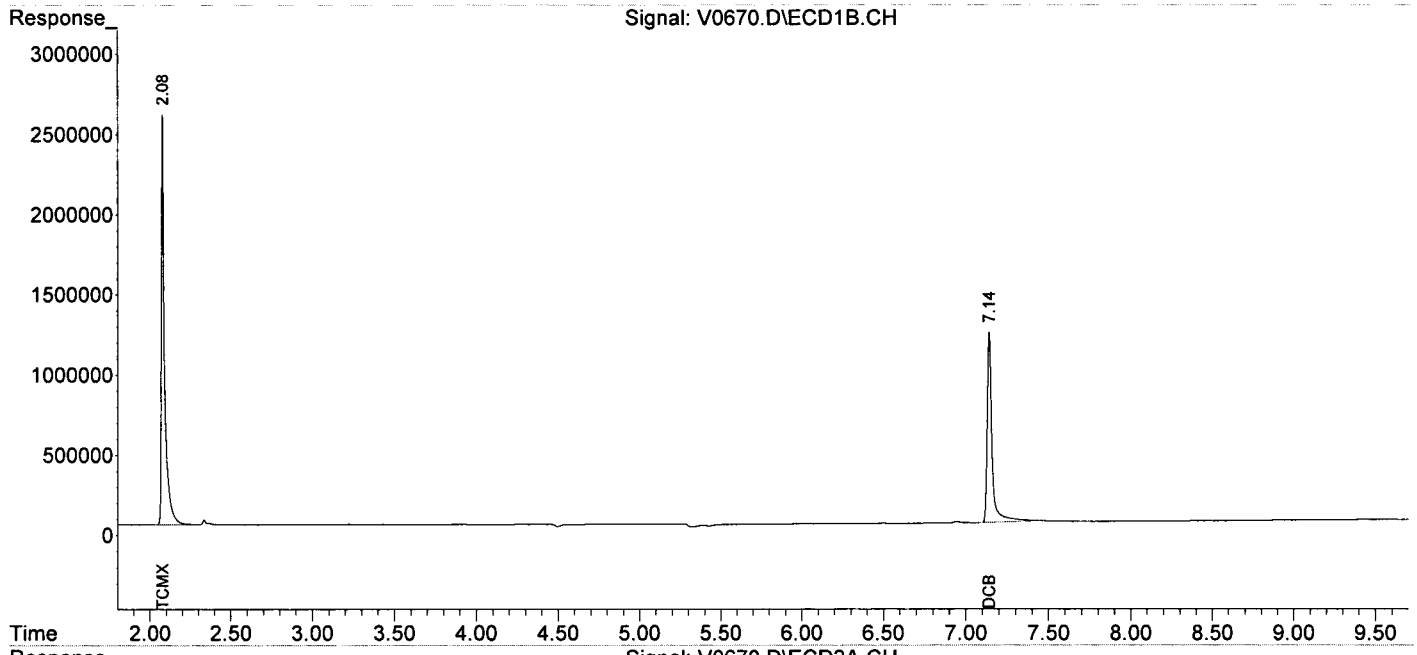
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.08	2.45	35063763	84821686	180.298	181.752
Spiked Amount 200.000			Recovery	=	90.15%	90.88%
2) S DCB	7.14	8.49	24502842	58038548	149.585	171.192m
Spiked Amount 200.000			Recovery	=	74.79%	85.60%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

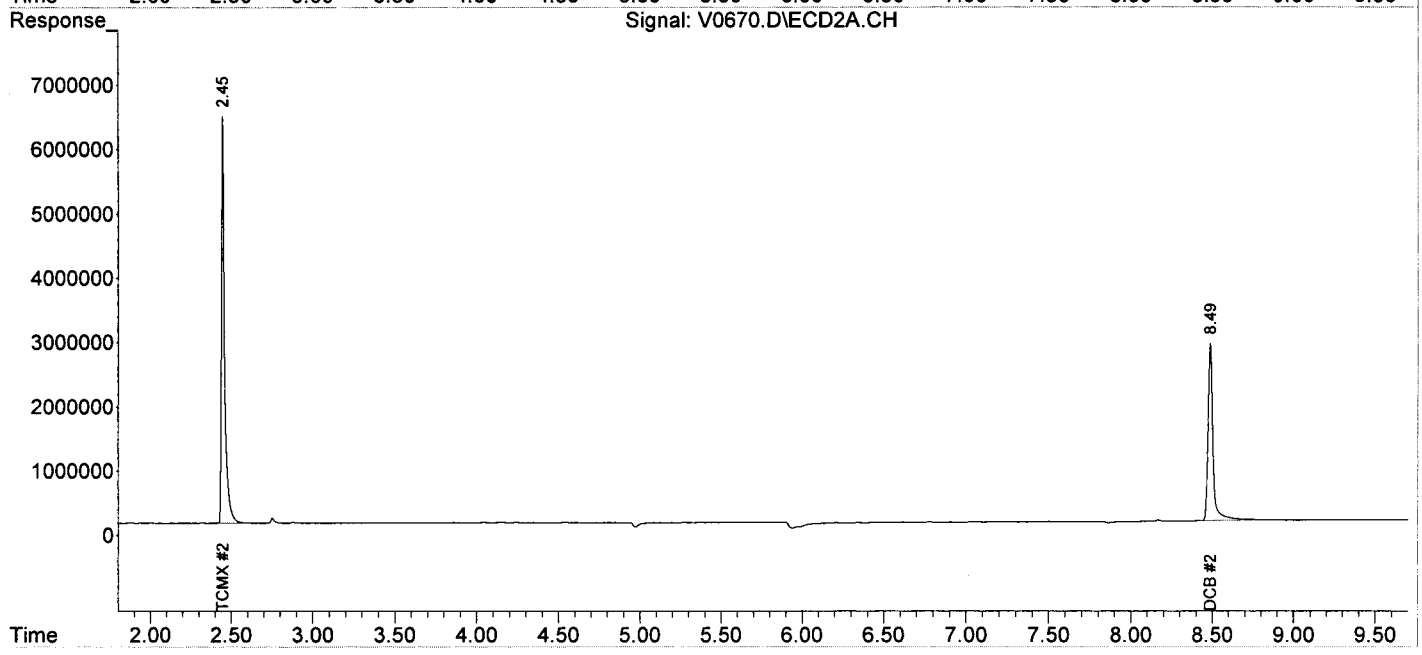
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0670.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:59
Operator : IB
Sample : SB-38(D),E17-10966-002,S,10.57g,12.8,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 12:26:36 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : O0148.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 19:41
Operator : IB
Sample : SB-39(S),E17-10966-003,S,10.42g,11.0,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:21:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.10	2.36	30137977	38549091	170.035	164.630
	Spiked Amount 200.000	Range 10 - 180		Recovery =		85.02%	82.31%
2) S	DCB	7.10	8.58	25687767	38740254	183.923	210.247
	Spiked Amount 200.000	Range 10 - 180		Recovery =		91.96%	105.12%
	Target Compounds						
11) T	4,4'-DDE	4.11	4.92	1189696	1245252	5.843	4.613
18) T	4,4'-DDT	4.96	5.87	4493397	4820465	34.276	30.255
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

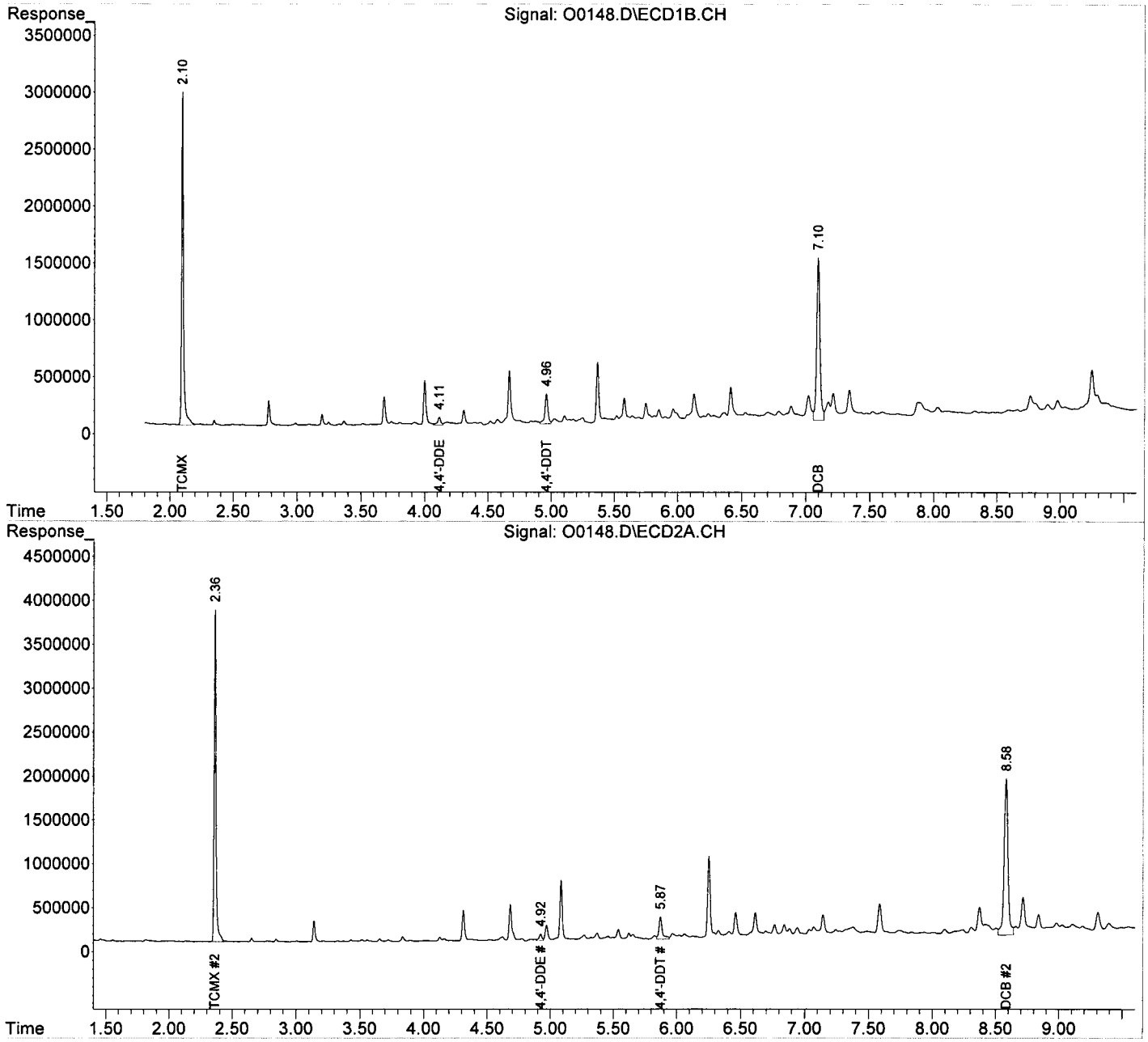
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : O0148.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 19:41
Operator : IB
Sample : SB-39(S),E17-10966-003,S,10.42g,11.0,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:21:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0671.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 12:11
Operator : IB
Sample : SB-39(D),E17-10966-004,S,10.66g,14.0,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 12:27:26 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.08	2.44	35172709	82538360	180.858	176.859
Spiked Amount 200.000			Recovery	=	90.43%	88.43%
2) S DCB	7.14	8.48	22274790	59795541	135.984	176.374 #
Spiked Amount 200.000			Recovery	=	67.99%	88.19%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

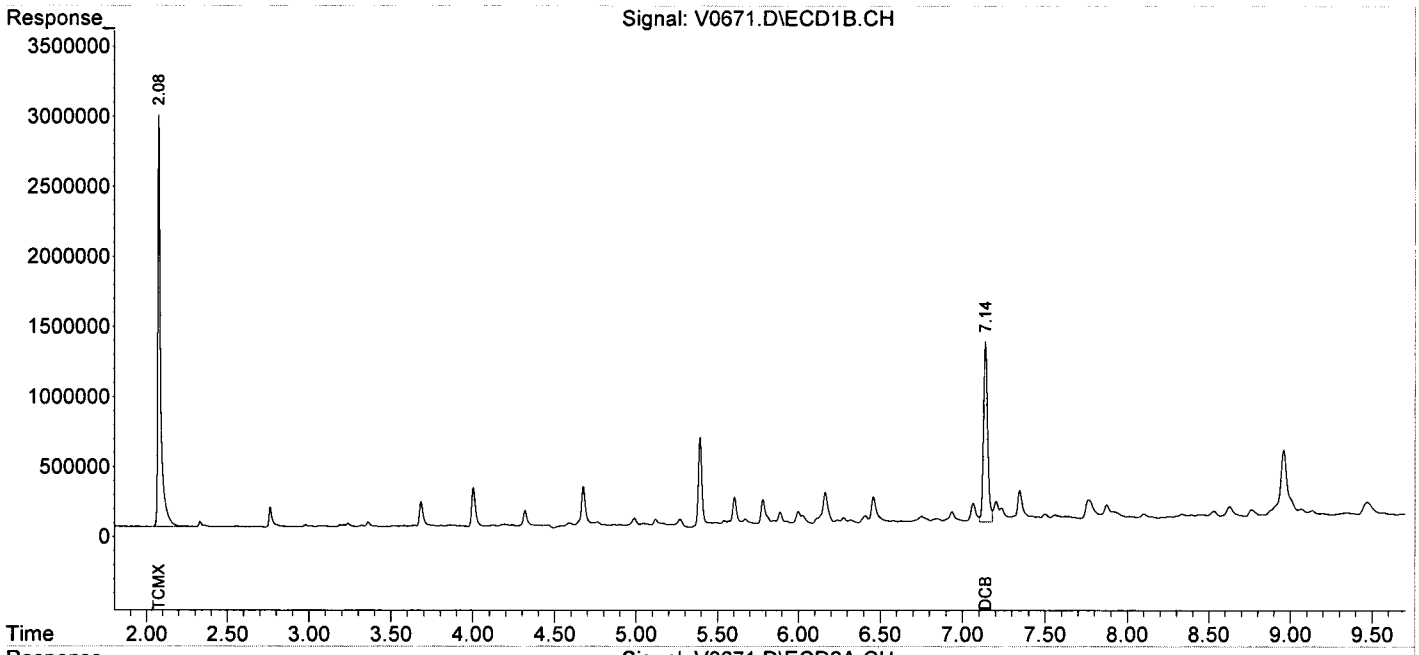
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

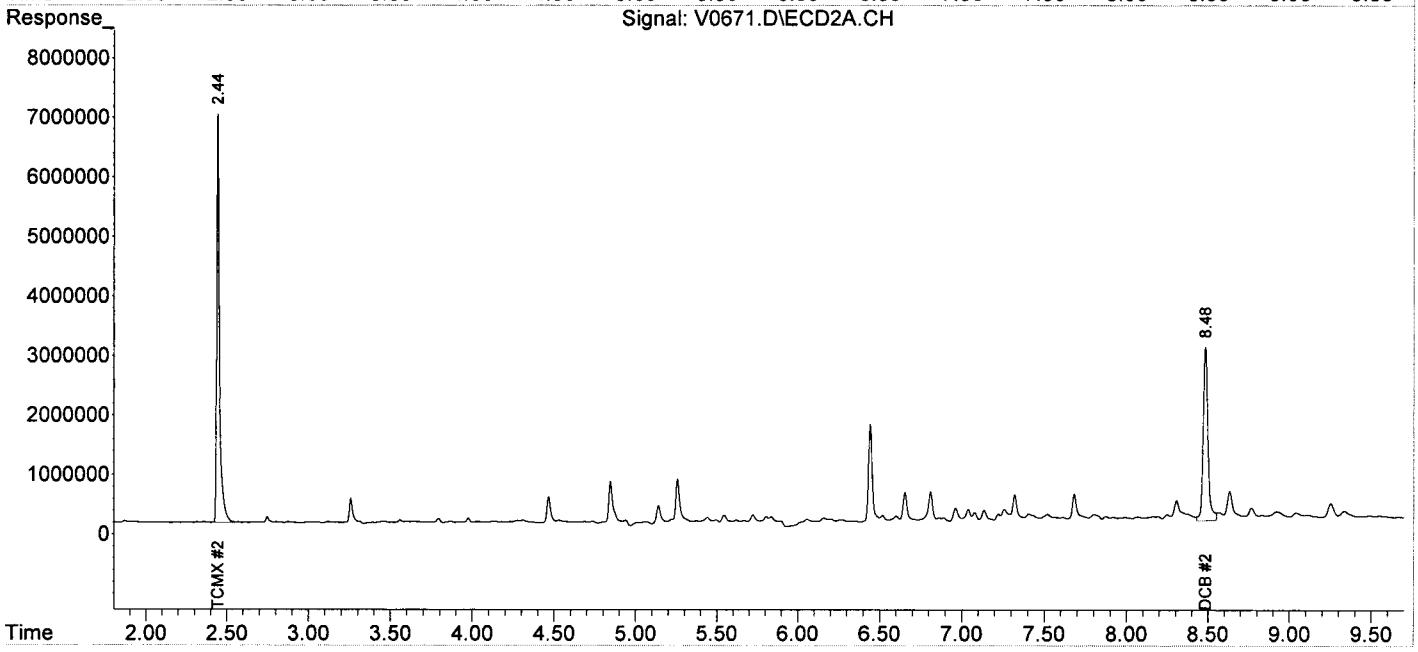
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0671.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 12:11
Operator : IB
Sample : SB-39(D),E17-10966-004,S,10.66g,14.0,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 12:27:26 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : 00149.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 19:54
Operator : IB
Sample : SB-40(S),E17-10966-005,S,10.37g,10.2,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 49 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:22:22 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1)	S TCMX	2.10	2.36	31731251	40100598	179.024	171.256
	Spiked Amount 200.000	Range 10 - 180		Recovery =		89.51%	85.63%
2)	S DCB	7.10	8.58	24780680	34016381	177.428	184.610
	Spiked Amount 200.000	Range 10 - 180		Recovery =		88.71%	92.31%
	Target Compounds						
11)	T 4,4'-DDE	4.11	4.92	802291	871932	3.940m	3.230m
18)	T 4,4'-DDT	4.96	5.87	3081181	3433155	23.504m	21.547m
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

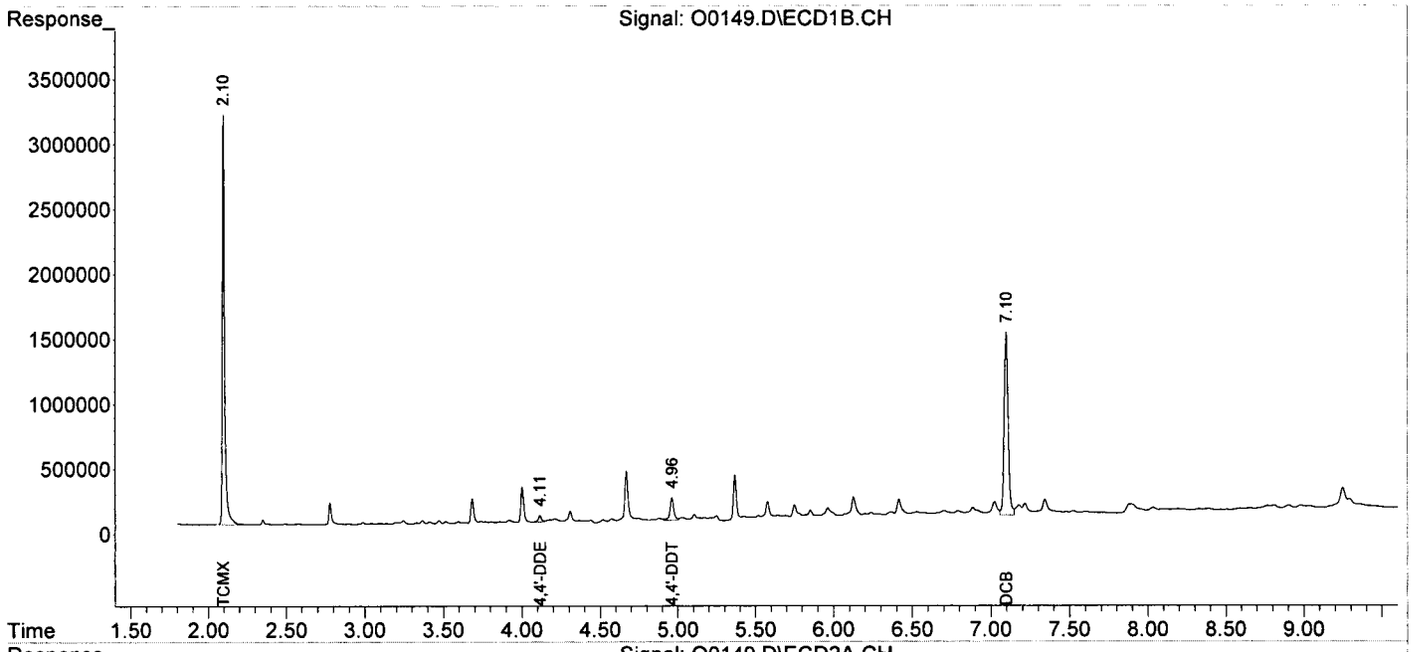
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

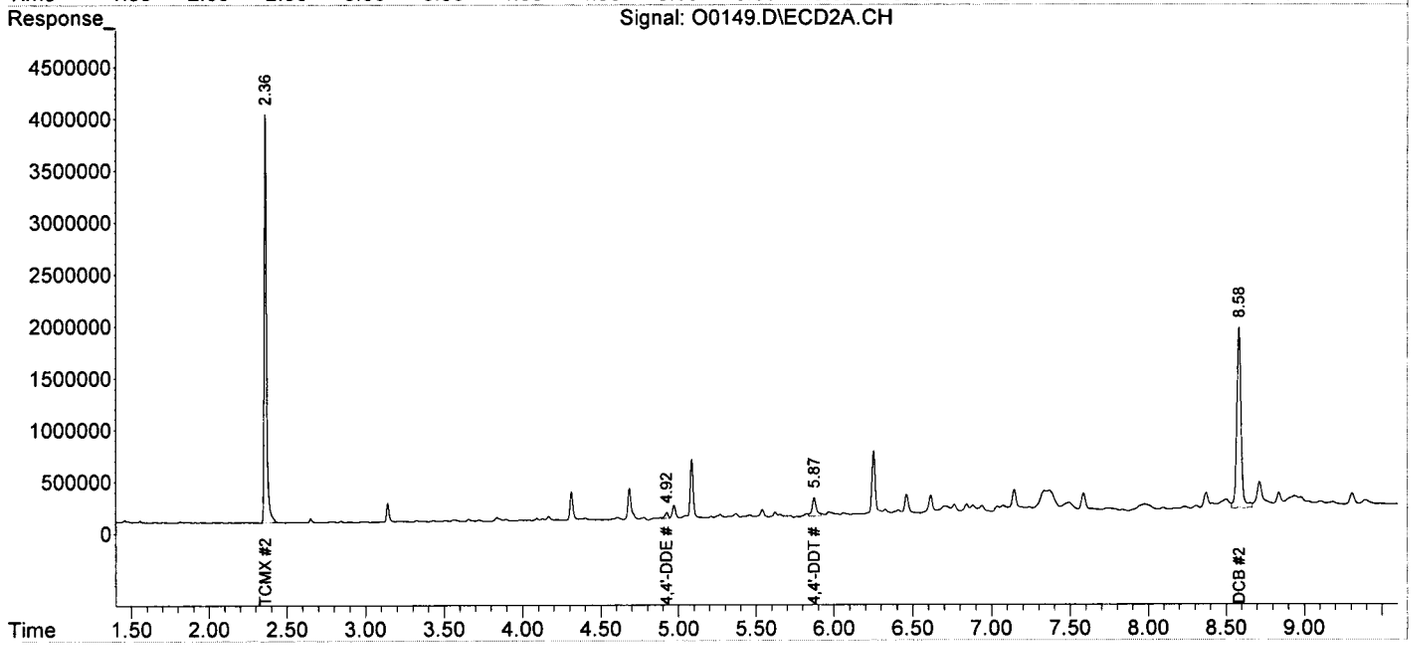
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : O0149.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 19:54
Operator : IB
Sample : SB-40(S),E17-10966-005,S,10.37g,10.2,20
Misc : 171222-03,12/22/17,12/20/17,1
ALS Vial : 49 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:22:22 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0672.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 12:24
Operator : IB
Sample : SB-40(D),E17-10966-006,S,10.30g,13.5,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 12:43:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.07	2.44	34121019	79765410	175.450	170.918
Spiked Amount 200.000			Recovery	=	87.72%	85.46%
2) S DCB	7.14	8.48	21489288	57476140	131.188	169.533m#
Spiked Amount 200.000			Recovery	=	65.59%	84.77%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

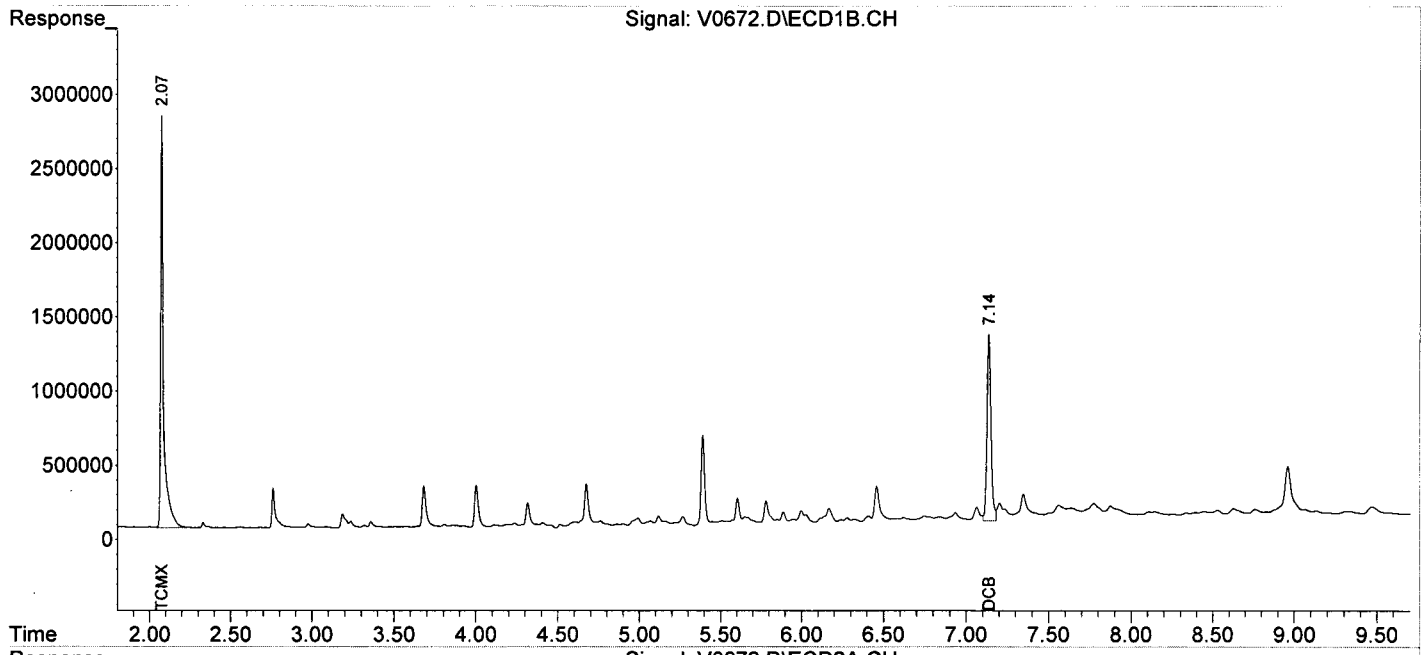
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

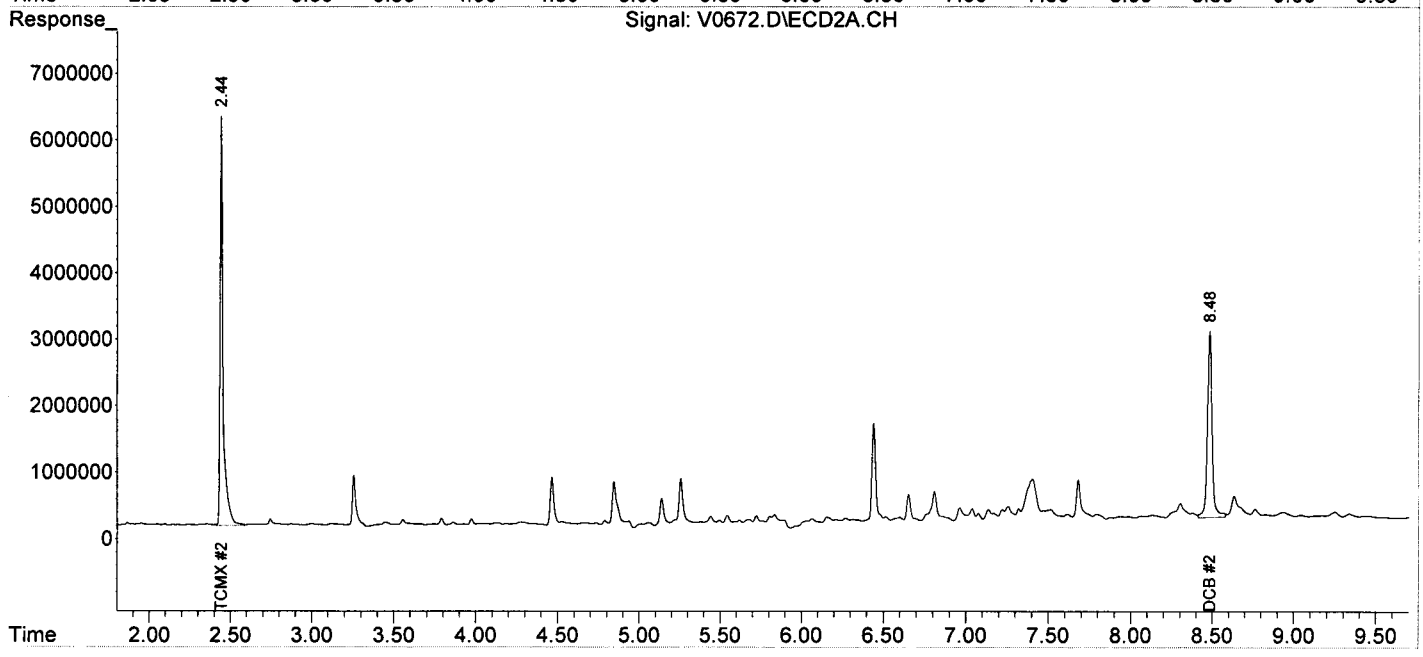
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0672.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 12:24
Operator : IB
Sample : SB-40(D),E17-10966-006,S,10.30g,13.5,20
Misc : 171221-01,12/21/17,12/20/17,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 12:43:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS171221-01
Client ID: Pest
Date Received: NA
Date Extracted: 12/21/2017
Date Analyzed: 12/22/2017
Data file: V0666.D 12/22/17 11:08

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.004	0.002
beta-BHC	ND		0.004	0.002
gamma-BHC (Lindane)	ND		0.004	0.002
delta-BHC	ND		0.004	0.002
Heptachlor	ND		0.004	0.002
Aldrin	ND		0.004	0.002
Heptachlor epoxide	ND		0.004	0.002
Endosulfan I	ND		0.004	0.002
4,4'-DDE	ND		0.004	0.002
Dieldrin	ND		0.004	0.002
Endrin	ND		0.004	0.002
Endosulfan II	ND		0.004	0.002
4,4'-DDD	ND		0.004	0.002
Endrin aldehyde	ND		0.004	0.002
Endosulfan sulfate	ND		0.004	0.002
4,4'-DDT	ND		0.004	0.002
Endrin ketone	ND		0.004	0.002
Methoxychlor	ND		0.004	0.002
alpha-Chlordane	ND		0.004	0.002
gamma-Chlordane	ND		0.004	0.002
Toxaphene	ND		0.050	0.024
Endosulfan (I and II)	ND		0.004	0.002
Chlordane (alpha and gamma)	ND		0.004	0.002

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0666.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:08
Operator : IB
Sample : Pest,BLKS171221-01,S,10.0g,0,20
Misc : 171221-01,12/21/17,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 11:42:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

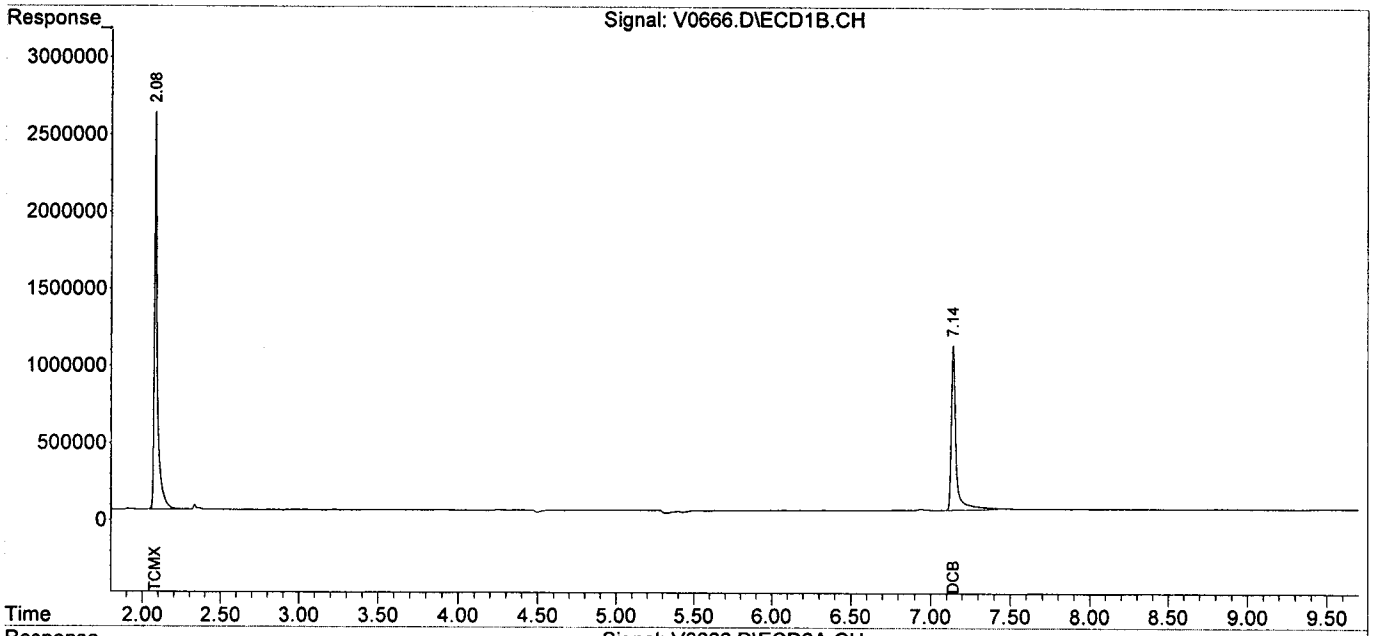
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.08	2.45	33206042	80023287	170.745	171.470
Spiked Amount 200.000			Recovery	=	85.37%	85.73%
2) S DCB	7.14	8.49	23177721	53473841	141.496	157.728m
Spiked Amount 200.000			Recovery	=	70.75%	78.86%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

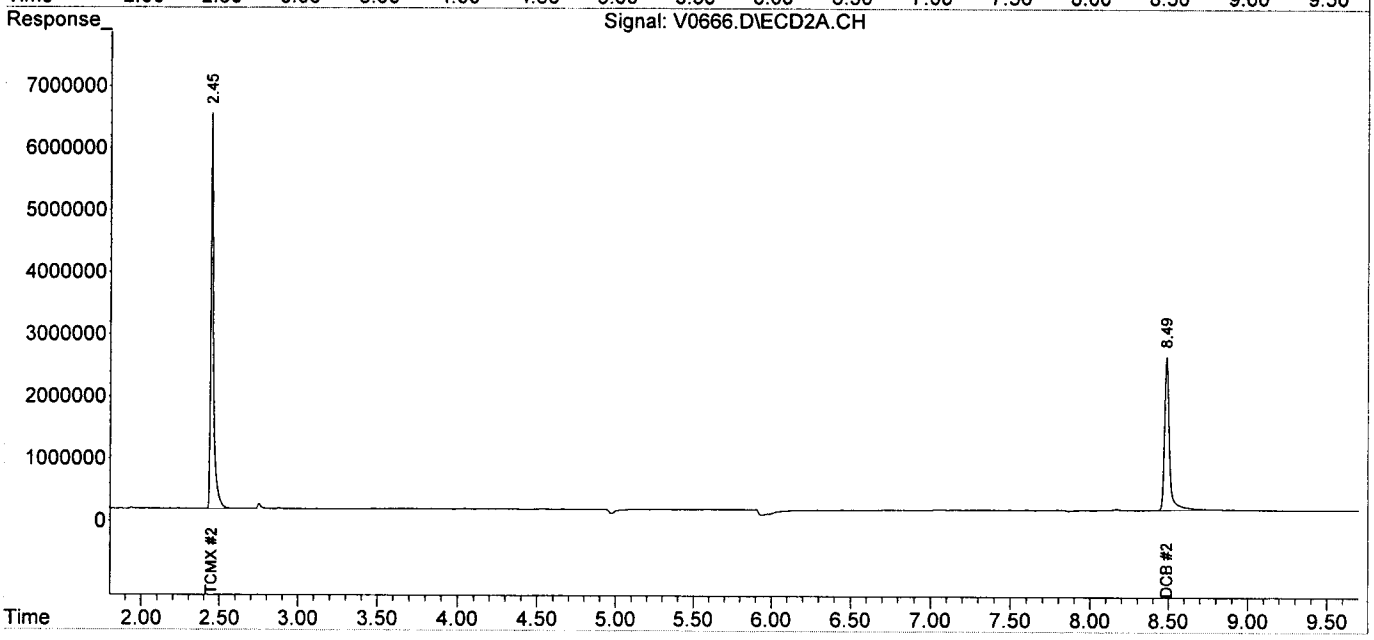
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\17-12-22\
Data File : V0666.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 22 Dec 2017 11:08
Operator : IB
Sample : Pest,BLKS171221-01,S,10.0g,0,20
Misc : 171221-01,12/21/17,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 22 11:42:56 2017
Quant Method : C:\MSDCHEM\1\METHODS\VPST1214.M
Quant Title :
QLast Update : Fri Dec 22 11:09:00 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB/Pest
Soil

Batch ID: **171221-01**

Tray:

Start Date/Time: 12/21/2017 09:16

End Date/Time: 12/21/2017 15:46

QC Sample ID	Test	Initial (g/ml)	Final (ml)	Surrogate (ul)	Spike (PCB) (ul)	Spike (Pesticides) (ul)	Color	Comments
BLKS171221-01	PCB/Pesticides	10.0	20	40	NA	NA	1	NY PART
LCSS171221-01	PCB	10.0	20	40	100	NA	1	
10966-002MS	PCB	10.51	20	40	100	NA	1	R-24
10966-002MSD	PCB	10.52	20	40	100	NA	1	R-24
LCSS171221-01	Pesticides	10.0	20	40	NA	100	1	
10966-002MS	Pesticides	10.35	20	40	NA	100	1	R-24
10966-002MSD	Pesticides	10.44	20	40	NA	100	1	R-24

No	Sample ID	Test	Initial (g/ml)	Final (ml)	Surrogate (ul)	Color	NH	% Sed	Comments	QC 1	QC 2
1	10966-002	PCB/Pesticides	10.57	20	40	1	Yes		R-24	10966-002MS / 171221-01	10966-002MS / 171221-01
2	10966-004	PCB/Pesticides	10.66	20	40	4	Yes		R-24	10966-002MS / 171221-01	10966-002MS / 171221-01
3	10966-006	PCB/Pesticides	10.30	20	40	3	Yes		R-24	10966-002MS / 171221-01	10966-002MS / 171221-01
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Comments:

Solvent(s) & Reagent(s)		
	Lot/RA/IAS #	**Exp. Date**
Acetone	RA#93-8	09/23/2018
Hexane	RA#95-4	01/01/9999
Diatomaceous earth	RA#84-23	04/21/2026

Surrogate(s)		
	Lot/RA/IAS #	**Exp. Date**
TCMX/DCB	IAS#6055(100ppm)	10/19/2018
Spike(s)		
	Lot/RA/IAS #	**Exp. Date**
PCB	IAS#6051	04/04/2018
Pesticides	IAS#6024(20ppm)	03/01/2018

*V/C=Vap/Cell, *F=Funnel

Color:1=Clear 2=Light Yellow 3=Yellow 4=Brown 5=Black 6=Other(See Comments)

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS171222-03
Client ID: Pest
Date Received: NA
Date Extracted: 12/22/2017
Date Analyzed: 12/26/2017
Data file: O0143.D 12/26/17 18:38

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 10g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.004	0.002
beta-BHC	ND		0.004	0.002
gamma-BHC (Lindane)	ND		0.004	0.002
delta-BHC	ND		0.004	0.002
Heptachlor	ND		0.004	0.002
Aldrin	ND		0.004	0.002
Heptachlor epoxide	ND		0.004	0.002
Endosulfan I	ND		0.004	0.002
4,4'-DDE	ND		0.004	0.002
Dieldrin	ND		0.004	0.002
Endrin	ND		0.004	0.002
Endosulfan II	ND		0.004	0.002
4,4'-DDD	ND		0.004	0.002
Endrin aldehyde	ND		0.004	0.002
Endosulfan sulfate	ND		0.004	0.002
4,4'-DDT	ND		0.004	0.002
Endrin ketone	ND		0.004	0.002
Methoxychlor	ND		0.004	0.002
alpha-Chlordane	ND		0.004	0.002
gamma-Chlordane	ND		0.004	0.002
Toxaphene	ND		0.050	0.024
Endosulfan (I and II)	ND		0.004	0.002
Chlordane (alpha and gamma)	ND		0.004	0.002

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : 00143.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 18:38
Operator : IB
Sample : Pest,BLKS171222-03,S,10g,0,20
Misc : 171222-03,12/22/17,NA,1
ALS Vial : 43 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:17:24 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

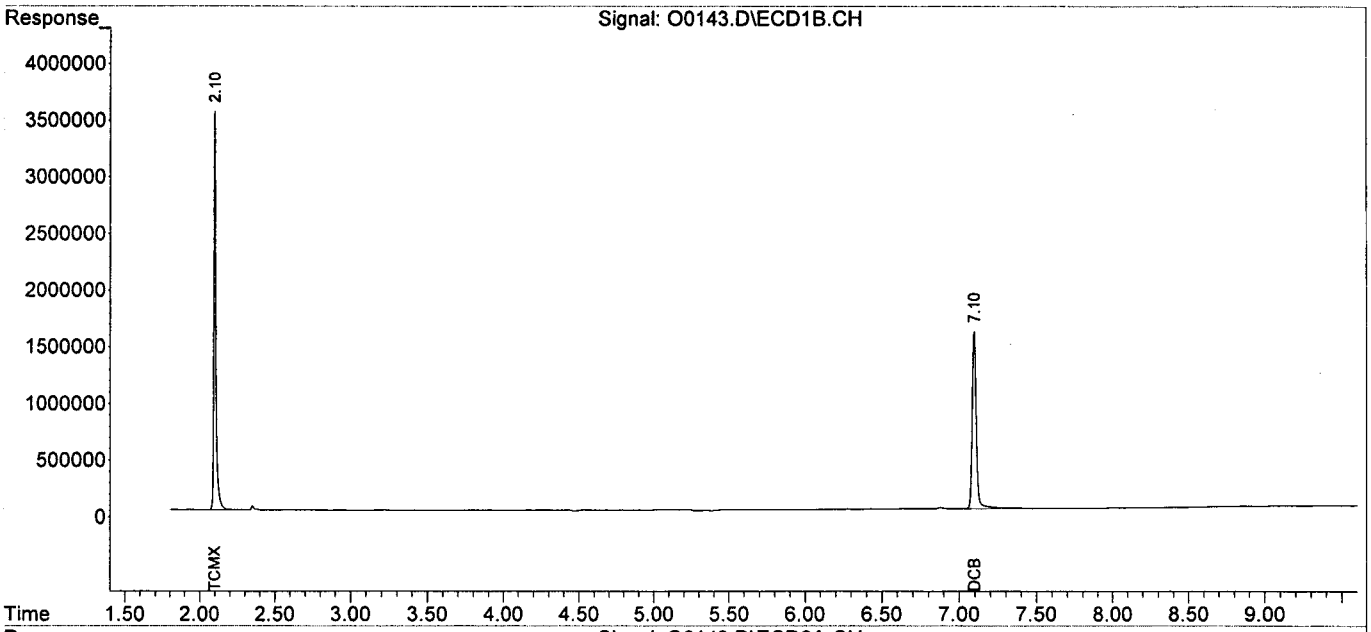
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.10	2.36	34768003	45712234	196.157	195.221
Spiked Amount 200.000	Range 10 - 180		Recovery =		98.08%	97.61%
2) S DCB	7.10	8.58	29762606	39018138	213.098	211.755m
Spiked Amount 200.000	Range 10 - 180		Recovery =		106.55%	105.88%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

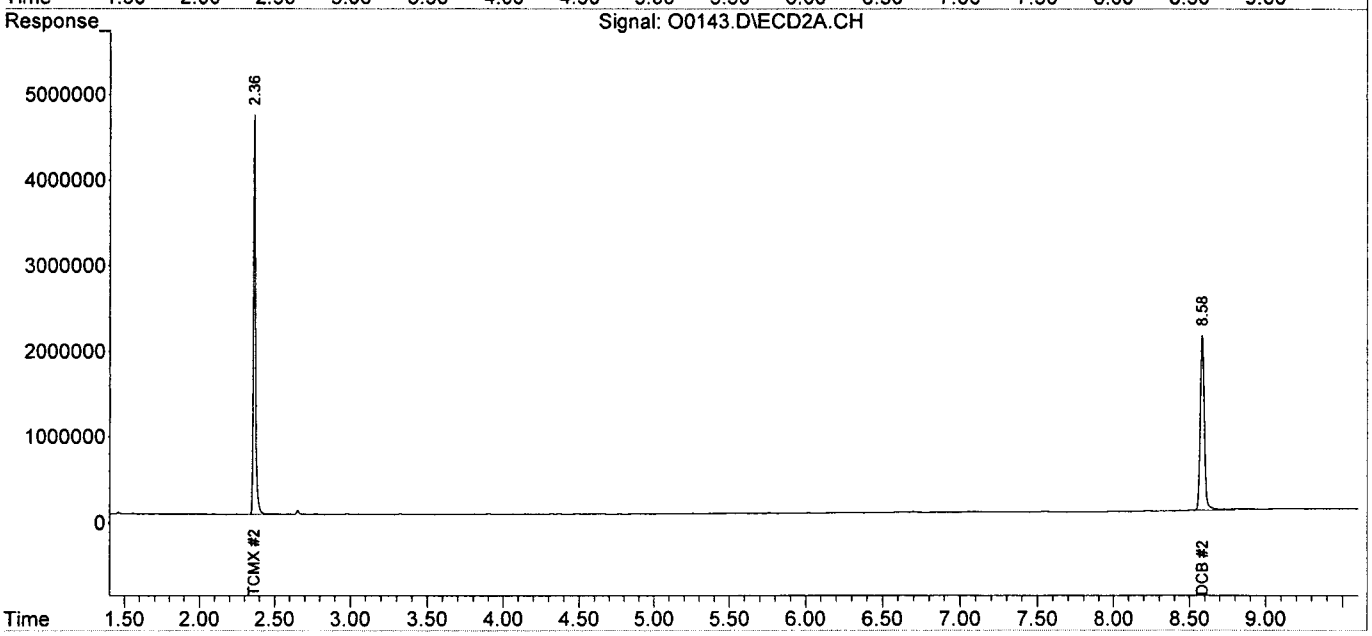
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\17-12-26\
Data File : O0143.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 26 Dec 2017 18:38
Operator : IB
Sample : Pest,BLKS171222-03,S,10g,0,20
Misc : 171222-03,12/22/17,NA,1
ALS Vial : 43 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 27 08:17:24 2017
Quant Method : C:\MSDCHEM\1\METHODS\OPST1222.M
Quant Title :
QLast Update : Fri Dec 22 11:01:34 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 722
SDG #: E17-10966, E17-10617, E17-10957, E17-10972, E17-10860, E17-10954

Matrix: Soil Method: 6020A/7471B Units: ppb (ug/L)

		12/21/17 23:19		12/22/17 00:29		12/22/17 01:34		12/22/17 02:39	
	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	Ture Value	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	25.0	23.0	92.0	24.8	99.2	24.3	97.2	24.3	97.2
Antimony	25.0	25.6	102	25.4	102	25.6	102	27.4	110
Arsenic	25.0	25.4	102	25.9	104	25.5	102	26.9	108
Barium	25.0	25.0	100	25.9	104	24.8	99.2	26.8	107
Beryllium	25.0	26.3	105	26.5	106	25.8	103	27.0	108
Cadmium	25.0	25.5	102	25.4	102	24.9	99.6	26.1	104
Calcium	250	253	101	247	98.8	266	106	262	105
Chromium	25.0	24.5	98.0	25.1	100	25.7	103	26.2	105
Cobalt	25.0	25.1	100	25.4	102	26.3	105	26.6	106
Copper	25.0	24.8	99.2	24.6	98.4	25.1	100	25.8	103
Iron	250	245	98.0	250	100	257	103	265	106
Lead	25.0	24.6	98.4	25.0	100	24.7	98.8	26.2	105
Magnesium	250	247	98.8	256	102	262	105	271	108
Manganese	25.0	24.7	98.8	25.1	100	25.8	103	25.6	102
Mercury	5.00	5.01	100	5.04	101	5.10	102	5.06	101
Molybdenum	25.0	25.8	103	25.7	103	26.0	104	27.3	109
Nickel	25.0	26.2	105	26.1	104	27.1	108	27.1	108
Potassium	250	242	96.8	254	102	261	104	272	109
Selenium	25.0	26.0	104	27.1	108	26.3	105	27.0	108
Silver	25.0	25.4	102	25.4	102	25.2	101	27.0	108
Sodium	250	233	93.2	234	93.6	242	96.8	260	104
Thallium	25.0	25.1	100	25.5	102	25.2	101	26.6	106
Vanadium	25.0	25.3	101	25.6	102	26.2	105	26.6	106
Zinc	25.0	24.7	98.8	25.5	102	25.6	102	26.5	106

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 722
SDG #: E17-10966, E17-10617, E17-10957, E17-10972, E17-10860, E17-10954

Matrix: Soil Method: 6020A/7471B Units: ppb (ug/L)

12/22/17 03:01

ANALYTE	ICV & CCV Ture Value	CCV							
		FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	25.0	25.3	101						
Antimony	25.0	26.6	106						
Arsenic	25.0	26.3	105						
Barium	25.0	25.9	104						
Beryllium	25.0	26.5	106						
Cadmium	25.0	26.6	106						
Calcium	250	271	108						
Chromium	25.0	25.9	104						
Cobalt	25.0	26.4	106						
Copper	25.0	25.8	103						
Iron	250	266	106						
Lead	25.0	25.6	102						
Magnesium	250	271	108						
Manganese	25.0	25.9	104						
Molybdenum	25.0	24.2	96.8						
Nickel	25.0	27.3	109						
Potassium	250	271	108						
Selenium	25.0	24.9	99.6						
Silver	25.0	26.2	105						
Sodium	250	259	104						
Thallium	25.0	26.4	106						
Vanadium	25.0	26.6	106						
Zinc	25.0	26.3	105						

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 722
SDG #: E17-10966, E17-10617, E17-10957, E17-10972, E17-10860, E17-10954

Matrix: Soil Method: 6020A/7471B Units: ppb (ug/L)

		12/21/17 23:30	12/22/17 00:34	12/22/17 01:39	12/22/17 02:44	12/22/17 03:06	
ANALYTE	INST. RL	ICB	CCB	CCB	CCB	CCB	
Aluminum	5.00	ND	ND	ND	ND	ND	
Antimony	0.500	ND	ND	ND	ND	ND	
Arsenic	0.500	ND	ND	ND	ND	ND	
Barium	0.500	ND	ND	ND	ND	ND	
Beryllium	0.500	ND	ND	ND	ND	ND	
Cadmium	0.500	ND	ND	ND	ND	ND	
Calcium	50.0	ND	ND	ND	ND	ND	
Chromium	0.500	ND	ND	ND	ND	ND	
Cobalt	0.500	ND	ND	ND	ND	ND	
Copper	0.500	ND	ND	ND	ND	ND	
Iron	50.0	ND	ND	ND	ND	ND	
Lead	0.500	ND	ND	ND	ND	ND	
Magnesium	50.0	ND	ND	ND	ND	ND	
Manganese	0.500	ND	ND	ND	ND	ND	
Mercury	0.500	ND	ND	ND	ND		
Molybdenum	0.500	ND	ND	ND	ND	ND	
Nickel	0.500	ND	ND	ND	ND	ND	
Potassium	50.0	ND	ND	ND	ND	ND	
Selenium	0.500	ND	ND	ND	ND	ND	
Silver	0.500	ND	ND	ND	ND	ND	
Sodium	50.0	ND	ND	ND	ND	ND	
Thallium	0.500	ND	ND	ND	ND	ND	
Vanadium	0.500	ND	ND	ND	ND	ND	
Zinc	0.500	ND	ND	ND	ND	ND	

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

12/21/2017 11:35 PM

Batch (Page) #: 722
Associated Lab Case for Blank 1: E17-10617, E17-10860, E17-10954, E17-10957, E17-10966, E17-10972

Matrix: Soil Unit: ppm (mg/kg) Method: 6020A/7471B

ANALYTE	SAMPLE RL	REAGENT BLANK BLKS171221-01
Aluminum	5.00	ND
Antimony	0.500	ND
Arsenic	0.500	ND
Barium	0.500	ND
Beryllium	0.500	ND
Cadmium	0.500	ND
Calcium	50.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	0.500	ND
Mercury	0.025	ND
Molybdenum	0.500	ND
Nickel	0.500	ND
Potassium	50.0	ND
Selenium	0.500	ND
Silver	0.500	ND
Sodium	50.0	ND
Thallium	0.500	ND
Vanadium	0.500	ND
Zinc	0.500	ND

Associated Sample for Blank 1:
10617-004; 10860-001; 10954-001; 10957-001~008
10966-001~006; 10972-001~003

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7700
Batch (Page) #: 722
SDG #: E17-10966, E17-10617, E17-10957, E17-10972, E17-10860, E17-10954

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	88700	89900	89.9	NA
Calcium	100000	-	103000	105000	105	NA
Iron	100000	-	97100	98500	98.5	NA
Potassium	100000	-	90700	92600	92.6	NA
Magnesium	100000	-	90400	91600	91.6	NA
Sodium	100000	-	91000	92100	92.1	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2040	2000	100	NA
Titanium	2000	-	2050	2090	105	NA
Silver	-	20.0	-	18.5	92.5	80-120
Arsenic	-	20.0	-	22.0	110	80-120
Cadmium	-	20.0	-	20.3	102	80-120
Cobalt	-	20.0	-	20.7	104	80-120
Chromium	-	20.0	-	23.0	115	80-120
Copper	-	20.0	-	19.7	98.5	80-120
Manganese	-	20.0	-	23.1	116	80-120
Nickel	-	20.0	-	21.5	108	80-120
Zinc	-	20.0	-	21.4	107	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 722
SDG #: E17-10617, E17-10860, E17-10954, E17-10957, E17-10966, E17-10972

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	LCSS171221-01					
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	212	106			
Antimony	40.0	39.6	99.0			
Arsenic	40.0	41.3	103			
Barium	40.0	40.9	102			
Beryllium	40.0	41.2	103			
Cadmium	40.0	40.6	102			
Calcium	200	207	104			
Chromium	40.0	42.4	106			
Cobalt	40.0	41.6	104			
Copper	40.0	40.8	102			
Iron	200	238	119			
Lead	40.0	43.0	108			
Magnesium	200	217	109			
Manganese	40.0	41.6	104			
Mercury	0.500	0.493	98.6			
Molybdenum	40.0	40.9	102			
Nickel	40.0	42.2	106			
Potassium	200	216	108			
Selenium	40.0	40.0	100			
Silver	40.0	39.6	99.0			
Sodium	200	215	108			
Thallium	40.0	38.2	95.5			
Vanadium	40.0	42.4	106			
Zinc	40.0	40.8	102			

(1) Control Limits % Recovery = 80-120%

LCSS171221-01 12/21/17 23:57

10617-004; 10860-001; 10954-001; 10957-001~008
10966-001~006; 10972-001~003

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

LOW LEVEL INITIAL CALIBRATION VERIFICATION

Batch (Page) #: 722
SDG #: E17-10966, E17-10617, E17-10957, E17-10972, E17-10860, E17-10954

Matrix: Soil Method: 6020A/7471B Units: ppb (ug/L)

12/21/17 23:24

ANALYTE	LLICV True Value	LLICV FOUND	LLICV % R
Aluminum	0.500	0.515	103
Antimony	0.500	0.522	104
Arsenic	0.500	0.374	74.8
Barium	0.500	0.481	96.2
Beryllium	0.500	0.564	113
Cadmium	0.500	0.557	111
Calcium	50.0	52.6	105
Chromium	0.500	0.464	92.8
Cobalt	0.500	0.534	107
Copper	0.500	0.558	112
Iron	50.0	55.5	111
Lead	0.500	0.531	106
Magnesium	50.0	50.2	100
Manganese	0.500	0.507	101
Molybdenum	0.500	0.506	101
Nickel	0.500	0.394	78.8
Potassium	50.0	46.7	93.4
Selenium	0.500	0.430	86.0
Silver	0.500	0.530	106
Sodium	50.0	49.7	99.4
Thallium	0.500	0.565	113
Vanadium	0.500	0.521	104
Zinc	0.500	0.353	70.6

(1) Control Limits: 70-130

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 722
SDG #: E17-10617, E17-10860, E17-10954, E17-10957, E17-10966, E17-10972

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	12/22/17 00:02 SSR1	12/21/17 23:40 SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	9440	9270	NC	230					75-125
Antimony	47.4	ND	103	46.0					75-125
Arsenic	49.7	1.35	105	46.0					75-125
Barium	118	67.6	110	46.0					75-125
Beryllium	50.2	0.945	107	46.0					75-125
Cadmium	47.0	ND	102	46.0					75-125
Calcium	11400	11400	NC	230					75-125
Chromium	70.9	23.0	104	46.0					75-125
Cobalt	58.7	12.1	101	46.0					75-125
Copper	67.5	21.1	101	46.0					75-125
Iron	22500	22600	NC	230					75-125
Lead	60.1	9.22	111	46.0					75-125
Magnesium	6500	6600	NC	230					75-125
Manganese	613	575	82.6	46.0					75-125
Mercury	0.669	0.055	107	0.575					75-125
Molybdenum	50.6	0.407	109	46.0					75-125
Nickel	66.4	19.0	103	46.0					75-125
Potassium	2900	2670	100	230					75-125
Selenium	48.6	2.39	100	46.0					75-125
Silver	48.3	ND	105	46.0					75-125
Sodium	433	197	103	230					75-125
Thallium	46.9	0.255	101	46.0					75-125
Vanadium	82.1	33.6	105	46.0					75-125
Zinc	111	66.3	97.2	46.0					75-125

SSR = Spike Sample Result
SR = Sample Result
SA = Spike Added
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E17-10966-002
% Solids: 87.2
QC Sample 1 for following samples:
10617-004; 10860-001; 10954-001; 10957-001~008
10966-001~006; 10972-001~003

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 722
SDG #: E17-10617, E17-10860, E17-10954, E17-10957, E17-10966, E17-10972

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	12/21/17 23:40 S1	12/21/17 23:46 D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	9270	9170	1.08				
Antimony	NA	ND	ND	NC				
Arsenic	20	1.35	1.56	14.4				
Barium	20	67.6	64.0	5.47				
Beryllium	20	0.945	0.918	2.90				
Cadmium	NA	ND	ND	NC				
Calcium	20	11400	11100	2.67				
Chromium	20	23.0	22.5	2.20				
Cobalt	20	12.1	11.6	4.22				
Copper	20	21.1	20.2	4.36				
Iron	20	22600	22200	1.79				
Lead	20	9.22	9.05	1.86				
Magnesium	20	6600	6530	1.07				
Manganese	20	575	562	2.29				
Mercury	20	0.055	0.054	1.83				
Molybdenum	20	0.407	0.465	13.3				
Nickel	20	19.0	19.1	0.525				
Potassium	20	2670	2630	1.51				
Selenium	20	2.39	2.41	0.833				
Silver	NA	ND	ND	NC				
Sodium	20	197	192	2.57				
Thallium	20	0.255	0.254	0.393				
Vanadium	20	33.6	32.9	2.11				
Zinc	20	66.3	63.7	4.00				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E17-10966-002
% Solids: 87.2
QC Sample 1 for following samples:
10617-004; 10860-001; 10954-001; 10957-001~008
10966-001~006; 10972-001~003

QC Sample 2:
% Solids:
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 722
SDG #: E17-10617, E17-10860, E17-10954, E17-10957, E17-10966, E17-10972

Matrix: Soil Concentration/Units: ppm (mg/kg)

	SERIAL DILUTION			POST SPIKE		
ANALYTE	12/21/17 23:40 SR	12/21/17 23:51 SDR	% Difference	12/22/17 00:07 SPR	SA	% Recovery
Aluminum	9270	9150	1.30			
Antimony	ND	ND	NC	48.2	46.0	105
Arsenic	1.35	ND	NC	48.9	46.0	103.0
Barium	67.6	71.2	5.19			
Beryllium	0.945	ND	NC	51.8	46.0	111.0
Cadmium	ND	ND	NC	46.0	46.0	100
Calcium	11400	11200	1.77			
Chromium	23.0	24.4	5.91			
Cobalt	12.1	11.5	5.08			
Copper	21.1	21.7	2.80			
Iron	22600	22000	2.69			
Lead	9.22	8.79	4.78			
Magnesium	6600	6460	2.14			
Manganese	575	559	2.82			
Molybdenum	0.407	ND	NC	50.4	46.0	109.0
Nickel	19.0	19.6	3.11			
Potassium	2670	2640	1.13			
Selenium	2.39	2.20	8.28	52.2	46.0	108.0
Silver	ND	ND	NC	41.9	46.0	91.1
Sodium	197	213	7.80			
Thallium	0.255	ND	NC	49.5	46.0	107.0
Vanadium	33.6	31.7	5.82			
Zinc	66.3	63.3	4.63			

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 80-120% Recovery

QC Sample1: E17-10966-002
QC Sample 1 for following samples:
10617-004; 10860-001; 10954-001; 10957-001~008
10966-001~006; 10972-001~003

METALS INTERNAL STANDARD AREA SUMMARY
2017 PG722
December 21, 2017
Method: 6020A

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
003CALB.d	BLANK	539303		24928		168845		1174853		1791734		1255141		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	377512	70	17450	70	118191	70	822397	70	1254214	70	878599	70	
	Upper Limit	701094	130	32406	130	219498	130	1527309	130	2329254	130	1631683	130	
004CALS.d	STD1	518602	96	23956	96	161727	96	1118351	95	1727538	96	1196019	95	
005CALS.d	STD2	510453	95	24830	100	159788	95	1096188	93	1675706	94	1173378	93	
006CALS.d	STD3	526038	98	25244	101	163673	97	1151525	98	1767086	99	1242670	99	
007CALS.d	STD4	530292	98	26192	105	163276	97	1145032	97	1800988	101	1256600	100	
008CALS.d	STD5	548151	102	26438	106	169049	100	1178961	100	1799418	100	1248472	99	
010_CCV.d	ICV	530332	98	25718	103	165050	98	1154571	98	1766279	99	1247700	99	
011LCCV.d	LLICV	521984	97	25417	102	161357	96	1131580	96	1736923	97	1206258	96	
012_ICB.d	ICB	519115	96	24943	100	162686	96	1130307	96	1724225	96	1200638	96	
013SMPL.d	BLKS171221-01	525239	97	25222	101	163493	97	1152535	98	1752605	98	1227594	98	
014SMPL.d	E17-10966-002	533901	99	25662	103	168138	100	1111434	95	1726250	96	1183827	94	
015SMPL.d	E17-10966-002DUP	559936	104	27025	108	176767	105	1174465	100	1808351	101	1230552	98	
016SMPL.d	E17-10966-002SD	554721	103	27699	111	172007	102	1170589	100	1772582	99	1222841	97	
017SMPL.d	LCSS171221-01	552341	102	27047	109	170831	101	1192858	102	1815339	101	1238166	99	
018SMPL.d	E17-10966-002MS	544628	101	27277	109	171288	101	1133208	96	1770386	99	1204305	96	
019SMPL.d	E17-10966-002PS	553187	103	27391	110	175697	104	1162098	99	1829022	102	1226483	98	
022SMPL.d	E17-10966-001	533379	99	25450	102	166722	99	1121573	95	1781475	99	1204661	96	
023_CCV.d	CCV	533312	99	25779	103	164236	97	1166102	99	1803205	101	1258053	100	
024_CCB.d	CCB	531712	99	25175	101	163800	97	1145287	97	1755000	98	1228296	98	
025SMPL.d	E17-10966-003	568335	105	26969	108	176875	105	1182859	101	1828044	102	1248678	99	
026SMPL.d	E17-10966-004	566645	105	27200	109	174585	103	1178962	100	1828487	102	1240092	99	
027SMPL.d	E17-10966-005	573919	106	27211	109	174888	104	1190640	101	1837707	103	1263063	101	
028SMPL.d	E17-10966-006	560470	104	27253	109	171920	102	1177297	100	1804547	101	1230979	98	
029SMPL.d	E17-10617-004	565107	105	27181	109	172353	102	1198388	102	1792753	100	1250062	100	
030SMPL.d	E17-10957-001	563441	104	27566	111	171057	101	1160962	99	1745036	97	1220500	97	
031SMPL.d	E17-10957-002	566837	105	27655	111	174795	104	1182590	101	1794288	100	1236036	98	
032SMPL.d	E17-10957-003	564978	105	27547	111	170915	101	1182290	101	1796182	100	1239014	99	
033SMPL.d	E17-10957-004	552798	103	27027	108	166125	98	1149902	98	1729769	97	1209134	96	
034SMPL.d	E17-10957-005	525521	97	26122	105	162987	97	1101716	94	1663189	93	1151921	92	
035_CCV.d	CCV	549637	102	26221	105	169170	100	1190855	101	1797133	100	1251235	100	
036_CCB.d	CCB	527902	98	26282	105	162932	96	1113217	95	1674201	93	1157009	92	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

METALS INTERNAL STANDARD AREA SUMMARY
2017 PG722
December 21, 2017
Method: 6020A

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
003CALB.d	BLANK	539303		24928		168845		1174853		1791734		1255141		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	377512	70	17450	70	118191	70	822397	70	1254214	70	878599	70	
	Upper Limit	701094	130	32406	130	219498	130	1527309	130	2329254	130	1631683	130	
037SMPL.d	E17-10957-006	542665	101	26734	107	166288	98	1155858	98	1760316	98	1222812	97	
038SMPL.d	E17-10957-007	533091	99	26426	106	170768	101	1144878	97	1771657	99	1215839	97	
039SMPL.d	E17-10957-008	527857	98	26347	106	162862	96	1121701	95	1683373	94	1172751	93	
040SMPL.d	E17-10972-001	555383	103	26572	107	170699	101	1153543	98	1768960	99	1200341	96	
041SMPL.d	E17-10972-002	582452	108	27521	110	177657	105	1175194	100	1786448	100	1219385	97	
042SMPL.d	E17-10972-003	565375	105	28178	113	176356	104	1168248	99	1770899	99	1203776	96	
043SMPL.d	E17-10860-001	494723	92	23316	94	150761	89	1041471	89	1632742	91	1256190	100	
044SMPL.d	E17-10954-001	543976	101	25515	102	167704	99	1111393	95	1729805	97	1181558	94	
046ICSA.d	ICSA	545591	101	25279	101	181263	107	1052913	90	1769829	99	1119989	89	
047_CCV.d	CCV	546586	101	25692	103	167982	99	1137537	97	1722383	96	1206277	96	
048_CCB.d	CCB	531915	99	24993	100	164341	97	1141270	97	1744400	97	1199336	96	
049ICSB.d	ICSAB	579307	107	25540	102	189991	113	1113557	95	1870439	104	1167579	93	
051_CCV.d	FINAL CCV	554968	103	26358	106	168516	100	1180953	101	1801395	101	1247419	99	
052_CCB.d	FINAL CCB	536443	99	24864	100	165616	98	1137062	97	1715412	96	1200523	96	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

SAMPLE TRACKING

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AEST
Address: 5 Marine View Plaza Suite 401, Hoboken
Telephone #:
Fax #:
Project Manager: Ian D.
EMAIL Address: IanD@solutionsenvironmental.com
Project Name: 27-10 49th Avenue
Project Location (State): NY
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: LD/SD

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn: Same
FAX #
INVOICE TO:
Address:
Attn: Same
PO #
Quote #

Rush TAT Charge
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☐ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs
☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:
Low Med High
These samples have been previously analyzed by IAL
☐ YES ☐ NO

Turn-Around Time (TAT)
Standard (10 business days) Verbal: *See comments!
Rush/date needed only if pre-approved)**: Standard 6 day
Hard Copy: Std 3 week Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED
☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
TAT for PHC (if other than 2 weeks):
☐ DRO-8015

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Sample Matrix
DW - Drinking Water; WW - Waste Water; GW - Groundwater; SW - Surface Water; LIQ - Liquid (Specify)
OI - Oil; S - Soil; SOL - Solid; SL - Sludge; W - Wipe; B - Biphasic

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	SVOCs	PCBs	TAL metals	Pesticides					Sample Specific Notes:
SB-38(S)		12/20	9:40	S		1	X	X	X	X	X					
SB-38(D)			9:45	S		2	X	X	X	X	X					
SB-39(S)			10:00	S		3	X	X	X	X	X					
SB-39(D)			10:05	S		4	X	X	X	X	X					
SB-40(S)			10:30	S		5	X	X	X	X	X					
SB-40(D)			10:35	S		6	X	X	X	X	X					
SB-38			11:00	GW		7	X	X	X	X	X					
SB-39			11:40	GW		8	X	X	X	X	X					

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None; 2 = HCl; 3 = HNO3; 4 = MeOH; 5 = NaOH; 6 = H2SO4; 7 = Other
Container Code: A = Amber Glass; B = Plastic; C = Vial; D = Glass; E = EnCore; T = Terracore
Preservative (use code)
Container Type (use code)

Special Instructions/QC Requirements & Comments:
24 hr for SB-38(D); SB-39(D); SB-40(D); SB-38 (GW), SB-39 (GW)
6 day for SB-

FOR LAB USE ONLY
SDG #: 10966
Cooler Temp: 6 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
L DeGidio	12/20			12/20/17	16:00
George Hess	12/20	19:00		12/20/17	19:00

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one):
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

E17-0966 Page 284

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: of

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10966: 27-10 49TH AVENUE

To: Leah DeEgidio
Atlantic Environmental Solutions, Inc.
Fax: 1(201) 876-9563
EMail: leah@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Dec 20, 2017 @ 19:00	NA	Jan 02, 2018	Jan 15, 2018 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. Not Required

**** QC Requirement (must meet):** NY Part 375-6.8(UUSCO+RUSCO)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10966-001	SB-38(S)	NA	12/20/17@09:40	Soil	mg/Kg (ppm)	
10966-002	SB-38(D)	NA	12/20/17@09:45	Soil	mg/Kg (ppm)	
10966-003	SB-39(S)	NA	12/20/17@10:00	Soil	mg/Kg (ppm)	
10966-004	SB-39(D)	NA	12/20/17@10:05	Soil	mg/Kg (ppm)	
10966-005	SB-40(S)	NA	12/20/17@10:30	Soil	mg/Kg (ppm)	
10966-006	SB-40(D)	NA	12/20/17@10:35	Soil	mg/Kg (ppm)	
10966-007	SB-38	NA	12/20/17@11:00	Aqueous	ug/L (ppb)	
10966-008	SB-39	NA	12/20/17@11:40	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	6 Business Days	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/20/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/17/2018
002	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/20/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/17/2018
003	TCL VO + 15	Analyze	8260C	6 Business Days	1/3/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/20/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/17/2018
004	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/20/2018

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10966: 27-10 49TH AVENUE

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
004	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/17/2018
005	TCL VO + 15	Analyze	8260C	6 Business Days	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/20/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/17/2018
006	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL PCB	Analyze	8082A	6 Business Days	12/20/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	TAL Metals	Analyze	6020A/7471B	6 Business Days	1/17/2018
007	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Cancel	8081B	6 Business Days	12/27/2017
	TCL PCB	Cancel	8082A	6 Business Days	12/20/2018
	TAL Metals	Cancel	6020A/7470A	6 Business Days	1/17/2018
008	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL PCB	Cancel	8082A	6 Business Days	12/20/2018
	TCL Pesticides	Cancel	8081B	6 Business Days	12/27/2017
	TAL Metals	Cancel	6020A/7470A	6 Business Days	1/17/2018

Project Notes:

NOTE 1 taken by Frank on 12/20/2017 10:22

SAMPLE #1 - 1 5 g ENCORE, 2 25 g ENCORES RECEIVED, - 1 INTO MEOH/2 INTO H2O

SAMPLE #2 - TERRACORE KIT

SAMPLE #3 - 2 5 g ENCORES, 1 25 g ENCORE RECEIVED - 1 INTO MEOH/2 INTO H2O

SAMPLES #4, #5, & #6 - 3 5 g ENCORES RECEIVED - 1 INTO MEOH/2 INTO H2O

NOTE 3 taken by Frank on 12/20/2017 10:36

VO FOR SAMPLES #2, #4, #6, #7 & #8: 24HR TAT, DUE 12/22

ALL OTHER ANALYSIS: 6 DAT TAT, DUE 12/29

NOTE 4 taken by kim on 12/21/2017 11:22

ONLY VO VIALS RECEIVED FOR SAMPLES 007 & 008. ALL OTHER ANALYSES REQUESTED ON CHAIN ARE CANCELED.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **10966** CLIENT: AESI

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY
✓ = YES/NA
✗ = NO

VOA received: ☒ Encore ☐ IGW - Methanol
(check one) ☒ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	SB-38S - 15g 225g Encores
✓	no-headspace/bubbles in VOs	SB-38D - Terra Core
✓	Labels intact/correct	SB-39S - 25g, 2 125g Encores
✓	pH Check (exclude VOs)[1]	SB-39D, SB405, SB405 3 5g Encores
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: Samples 7 + 8 only VOA vials received.

SAMPLE(S) VERIFIED BY: INITIAL [initials] DATE 12/20/17

CORRECTIVE ACTION REQUIRED: **YES** ☒ (SEE BELOW) **NO** ~~☐~~

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KG DATE 12/21/17

Laboratory Custody Chronicle

IAL Case No.
E17-10966

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVENUE

Received On 12/20/2017@19:00

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	10966-001	Soil	n/a	n/a	12/22/17	Xing
"	-002	"	n/a	n/a	12/21/17	Xing
"	-003	"	n/a	n/a	12/22/17	Xing
"	-004	"	n/a	n/a	12/21/17	Xing
"	-005	"	n/a	n/a	12/22/17	Xing
"	-006	"	n/a	n/a	12/21/17	Xing
"	-007	Aqueous	n/a	n/a	12/21/17	Barbara
"	-008	"	n/a	n/a	12/21/17	Barbara

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL PCB	-001	Soil	12/22/17	Archimede	12/26/17	Latha
"	-002	"	12/21/17	Archimede	12/26/17	Latha
"	-003	"	12/22/17	Archimede	12/26/17	Latha
"	-004	"	12/21/17	Archimede	12/26/17	Latha
"	-005	"	12/22/17	Archimede	12/26/17	Latha
"	-006	"	12/21/17	Archimede	12/26/17	Latha
TCL Pesticides	-001	Soil	12/22/17	Archimede	12/27/17	Iwona
"	-002	"	12/21/17	Archimede	12/27/17	Iwona
"	-003	"	12/22/17	Archimede	12/27/17	Iwona
"	-004	"	12/21/17	Archimede	12/27/17	Iwona
"	-005	"	12/22/17	Archimede	12/27/17	Iwona
"	-006	"	12/21/17	Archimede	12/27/17	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-001	Soil	12/21/17	Frank R.	12/22/17	Danielle
"	-002	"	12/21/17	Frank R.	12/21/17	Danielle
"	-003	"	12/21/17	Frank R.	12/22/17	Danielle
"	-004	"	12/21/17	Frank R.	12/22/17	Danielle
"	-005	"	12/21/17	Frank R.	12/22/17	Danielle
"	-006	"	12/21/17	Frank R.	12/22/17	Danielle

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT ADDENDUM

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030

Project Name: **27-10 49TH AVENUE**
IAL Case Number: **E17-10966**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

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Sample Summary

IAL Case No.

E17-10966

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVENUE

Received On 12/20/2017@19:00

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
10966-001	SB-38(S)	n/a	12/20/2017@09:40	Soil	4
10966-002	SB-38(D)	n/a	12/20/2017@09:45	Soil	4
10966-003	SB-39(S)	n/a	12/20/2017@10:00	Soil	4
10966-004	SB-39(D)	n/a	12/20/2017@10:05	Soil	4
10966-005	SB-40(S)	n/a	12/20/2017@10:30	Soil	4
10966-006	SB-40(D)	n/a	12/20/2017@10:35	Soil	4
10966-007	SB-38	n/a	12/20/2017@11:00	Aqueous	2
10966-008	SB-39	n/a	12/20/2017@11:40	Aqueous	2
10966-009	COMPOSITE	n/a	12/20/2017	Soil	

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

DATA QUALIFIERS AND FLAGS

B Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C Indicates analyte is a common laboratory contaminant.
D Indicates analyte was reported from diluted analysis.
E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
M Indicates matrix interference
N Presumptive evidence of a compound from the use of GC/MS library search.
X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y Indicates DO depletion in the BOD blank is >0.20ppm
Z Indicates internal standard failure. Sample results are either biased high or biased low.
$ Value outside NJDEP DKQP Limits
***** Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative
- The case narrative for this SDG should be consulted to determine any non-conformances
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	**ND**	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank		
CCV	Continuing Calibration Verification	**NTU**	Nephelometric Turbidity Units
DF	Dilution Factor	**ppb**	Parts per billion. Reported as µg/L or µg/kg
DL	Attached as a suffix to a diluted sample	**ppm**	Parts per million. Reported as mg/L, µg/mL or mg/kg
DUP	Duplicate	**QC**	Quality Control
ICB	Initial Calibration Blank	**% Rec**	Percent Recovery
ICC	Initial Calibration Curve	**RL**	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICV	Initial Calibration Verification		
kg	kilogram		
L	Liter	**RPD**	Relative Percent Difference
LCS	Laboratory Control Sample	**RSD**	Relative Standard Deviation
LCSD	Laboratory Control Sample Duplicate	**RT**	Retention Time
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	**SU**	Standard Units
		TIC	Tentatively Identified Compound AKA Library Search Compounds
MF	Membrane Filter		
mg	milligram (1000mg = 1g)	**TNI**	The NELAC (National Environmental Laboratory Accreditation Council) Institute
µg	microgram (1000µg = 1mg)		
ml	milliliter (1000ml = 1L)	**TNTC**	Too numerous to count
µl	microliter (1000µl = 1ml)	*****	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number	**^**	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable	**<**	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC.

ADDENDUM

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received two (2) aqueous and six (6) soil sample(s) from Atlantic Environmental Solutions, Inc. (IAL SDG # E17-10966, Project: 27-10 49TH AVENUE) on December 20, 2017 for the analysis of:

(1) TCL VO
(1) TCL/PAH
(1) TCL PCB
(1) NJ-EPH (DRO) Cat 1
(1) TAL Metals
(1) TCLP Metals

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/18/18
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Volatiles By 8260C

Batch ID: F180109-01	**Matrix:** Soil

QC

- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.

E17-10966

- The following samples were not analyzed within holding time:E17-10966-009 was past holding time when it was activated.

Dilution Summary:

Sample ID	DF(s)	Diluted For
E17-10966-009	1	NA

1/10/2018

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Semivolatiles By 8270D

Batch ID: 180105-03 **Matrix: Soil**

QC
- Calibration curve met QC criteria.
- Internal standard recovery met QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.

E17-10966
- E17-10966-009 did not meet extraction holding time requirement; NJDEP DKQP did not met.
- Analysis holding time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-10966-009	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-diphenylhydrazine will be directly compared to the applicable criteria for azobenzene and/or 1,2-diphenylhydrazine.

Note: Per EPA & TNI, the compound name for CAS# 108-60-1 has been changed from "Bis(2-chloroisopropyl) Ether" to "2,2'-Oxybis(1-Chloropropane)"

John 1/18/2018

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

PCB By 8082A

Batch ID: 180108-05	**Matrix:** Soil

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 009.

E17-10966

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Diluted For
E17-10966-009	1	NA

1/9/2018

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

NJ-EPH-DRO By Method 10.08 Rev 3

Batch ID: 180108-02	**Matrix:** Soil

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery met QC criteria.
- RPD between the Sample/Duplicate met QC criteria.

E17-10966

- The following sample was not extracted within holding time: E17-10966-009. NJDEP DKQP criteria not met.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Diluted For
E17-10966-009	1	NA

1/10/2018

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Metals By 6020B/7471B

Batch ID: S180108-01 (PG010) **Matrix:** Soil

QC

- Calibration Curve Linearity met QC criteria.
- Internal Standard Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS Percent Recovery met QC criteria.
- RPD between Sample/Duplicate met QC criteria.
- Serial Dilution met QC criteria.

E17-10966

- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Diluted For
E17-10966-009	1	NA

1/9/2018

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-10966

Metals By 1311/6020B/7470A

Batch ID: T180108-01 (PG011) **Matrix:** TCLP Leachate

QC

- Calibration Curve Linearity met QC criteria.
- Internal Standard Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS Percent Recovery met QC criteria.
- RPD between Sample/Duplicate met QC criteria.
- Serial Dilution met QC criteria.

E17-10966

- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

Dilution Summary:

Sample ID	DF(s)	Diluted For
E17-10966-009	1	NA



Signature

1/11/2018

Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Atlantic Environmental Solutions, Inc.
Project Location: 27-10 49TH AVENUE
IAL Project #: E17-10966
IAL Sample ID(s): E17-10966-001 ~ -009
Sampling Date(s): 12/20/2017

List of DKQP Method Used:

TCL VO by 8260C
TCL/PAH by 8270D
NJ-EPH (DRO) Cat 1 by Method 10.08 Rev 3
TCL PCB by 8082A
TAL Metals by 6020B/7471B
TCLP Metals by 1311/6020B/7470A
Sample Composition by

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case 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."

		YES	NO	N/A
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	X		
1A	Were the method specified handling, preservation, and holding time requirements met?		X	
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	X		
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	X		
5B	Were these reporting limits met?	X		
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?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

ADDENDUM

SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

Lab ID:	**10966-009**		
Client ID:	**COMPOSITE**		
Matrix:	**Soil**		
TCLP Matrix:	**TCLP Leachate**		
Sampled Date	**12/20/17**		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)		*(mg/Kg)*	
Dichlorodifluoromethane	ND		0.00133
Chloromethane	ND		0.00105
Vinyl chloride	ND		0.00105
Bromomethane	ND		0.00169
Chloroethane	ND		0.0015
Trichlorofluoromethane	ND		0.00106
1,1-Dichloroethene	ND		0.00213
Acetone	ND		0.00554
Carbon disulfide	ND		0.00175
Methylene chloride	ND		0.011
trans-1,2-Dichloroethene	ND		0.00164
Methyl tert-butyl ether (MTBE)	ND		0.00109
1,1-Dichloroethane	ND		0.0011
cis-1,2-Dichloroethene	ND		0.00121
2-Butanone (MEK)	ND		0.00278
Bromochloromethane	ND		0.00157
Chloroform	ND		0.00119
1,1,1-Trichloroethane	ND		0.00134
Carbon tetrachloride	ND		0.000911
1,2-Dichloroethane (EDC)	ND		0.00149
Benzene	ND		0.00148
Trichloroethene	ND		0.00158
1,2-Dichloropropane	ND		0.000957
1,4-Dioxane	ND		0.203
Bromodichloromethane	ND		0.00132
cis-1,3-Dichloropropene	ND		0.00116
4-Methyl-2-pentanone (MIBK)	ND		0.00328
Toluene	ND		0.00183
trans-1,3-Dichloropropene	ND		0.00131
1,1,2-Trichloroethane	ND		0.00153
Tetrachloroethene	0.00375	DJ	0.00145
2-Hexanone	ND		0.00589
Dibromochloromethane	ND		0.00106
1,2-Dibromoethane (EDB)	ND		0.001
Chlorobenzene	ND		0.00127
Ethylbenzene	ND		0.00138
Total Xylenes	ND		0.00245
Styrene	ND		0.00117

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

ADDENDUM

SUMMARY REPORT

Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

Lab ID:	**10966-009**		
Client ID:	**COMPOSITE**		
Matrix:	**Soil**		
TCLP Matrix:	**TCLP Leachate**		
Sampled Date	**12/20/17**		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)		***(mg/Kg)***	
Bromoform	ND		0.00162
Isopropylbenzene	ND		0.00112
1,1,2,2-Tetrachloroethane	ND		0.00152
1,3-Dichlorobenzene	ND		0.00109
1,4-Dichlorobenzene	ND		0.000968
1,2-Dichlorobenzene	ND		0.000979
1,2-Dibromo-3-chloropropane	ND		0.00153
1,2,4-Trichlorobenzene	ND		0.00249
1,2,3-Trichlorobenzene	ND		0.00272
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00205
Methyl acetate	ND		0.00264
Cyclohexane	ND		0.00103
Methylcyclohexane	ND		0.00118
1,3-Dichloropropene (cis- and trans-)	ND		0.00131
TOTAL VO's:	0.00375	DJ	
Semivolatiles - PAH (Units)		***(mg/Kg)***	
Naphthalene	0.105		0.031
2-Methylnaphthalene	0.065		0.025
Acenaphthylene	0.250		0.029
Acenaphthene	0.140		0.032
Fluorene	0.131		0.032
Phenanthrene	1.69		0.033
Anthracene	0.400		0.031
Fluoranthene	2.85		0.030
Pyrene	1.58		0.029
Benzo[a]anthracene	1.01		0.031
Chrysene	1.06		0.031
Benzo[b]fluoranthene	0.881		0.029
Benzo[k]fluoranthene	0.897		0.030
Benzo[a]pyrene	1.06		0.029
Indeno[1,2,3-cd]pyrene	0.637		0.030
Dibenz[a,h]anthracene	0.208		0.035
Benzo[g,h,i]perylene	0.686		0.032

ND = Analyzed for but Not Detected at the MDL

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

ADDENDUM

SUMMARY REPORT

Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

Lab ID:	**10966-009**		
Client ID:	**COMPOSITE**		
Matrix:	**Soil**		
TCLP Matrix:	**TCLP Leachate**		
Sampled Date	**12/20/17**		
PARAMETER(Units)	Conc	Q	MDL
PCB's (Units)		***(mg/Kg)***	
Aroclor-1016	ND		0.00886
Aroclor-1221	ND		0.00886
Aroclor-1232	ND		0.00886
Aroclor-1242	ND		0.00886
Aroclor-1248	ND		0.00886
Aroclor-1254	ND		0.00886
Aroclor-1260	ND		0.00886
Aroclor-1262	ND		0.00886
Aroclor-1268	ND		0.00886
PCBs	ND		0.00886
NJ-EPH-DRO (Units)		***(mg/Kg)***	
C9-C28	140		21.7
C28-C40	155		21.7
C9-C40 Total	295		21.7

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

ADDENDUM
SUMMARY REPORT
Client: Atlantic Environmental Solutions, Inc.
Project: 27-10 49TH AVENUE
Lab Case No.: E17-10966

Lab ID:	**10966-009**		
Client ID:	**COMPOSITE**		
Matrix:	**Soil**		
TCLP Matrix:	**TCLP Leachate**		
Sampled Date	**12/20/17**		
PARAMETER(Units)	Conc	Q	MDL
Metals (Units)	*(mg/Kg)*		
Aluminum	9330		1.14
Antimony	4.31		0.229
Arsenic	9.55		0.343
Barium	718		0.286
Beryllium	0.759		0.286
Cadmium	1.11		0.343
Calcium	26100		11.4
Chromium	66.5		0.400
Cobalt	10.0		0.172
Copper	83.9		0.229
Iron	21300		5.72
Lead	745		0.172
Magnesium	5330		5.72
Manganese	351		0.286
Mercury	0.327		0.011
Nickel	26.3		0.286
Potassium	2090		22.9
Selenium	2.04		0.229
Silver	0.310	J	0.229
Sodium	436		11.4
Thallium	0.310	J	0.229
Vanadium	31.0		0.286
Zinc	667		0.343
TCLP Metals (Units)	*(mg/L)*		
TCLP Arsenic	ND		0.060
TCLP Barium	0.309		0.060
TCLP Cadmium	ND		0.060
TCLP Chromium	ND		0.050
TCLP Lead	0.325		0.030
TCLP Mercury	ND		0.010
TCLP Selenium	ND		0.070
TCLP Silver	ND		0.040

ND = Analyzed for but Not Detected at the MDL
Sample #1-#6 were composited to create sample #9

All required protocols were followed during analyses. These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D
Laboratory Director

The liability of Integrated Analytical Laboratories, LLC. is limited to the actual cost of the analyses performed.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Received: 12/20/2017
Date Analyzed: 01/09/2018
Data file: F2895.D 01/ 9/18 12:16

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00566	0.00133
Chloromethane	ND		0.00566	0.00105
Vinyl chloride	ND		0.00566	0.00105
Bromomethane	ND		0.00566	0.00169
Chloroethane	ND		0.00566	0.0015
Trichlorofluoromethane	ND		0.00566	0.00106
1,1-Dichloroethene	ND		0.00566	0.00213
Acetone	ND		0.057	0.00554
Carbon disulfide	ND		0.00566	0.00175
Methylene chloride	ND		0.011	0.011
trans-1,2-Dichloroethene	ND		0.00566	0.00164
Methyl tert-butyl ether (MTBE)	ND		0.00566	0.00109
1,1-Dichloroethane	ND		0.00566	0.0011
cis-1,2-Dichloroethene	ND		0.00566	0.00121
2-Butanone (MEK)	ND		0.011	0.00278
Bromochloromethane	ND		0.00566	0.00157
Chloroform	ND		0.00566	0.00119
1,1,1-Trichloroethane	ND		0.00566	0.00134
Carbon tetrachloride	ND		0.00566	0.000911
1,2-Dichloroethane (EDC)	ND		0.00566	0.00149
Benzene	ND		0.00566	0.00148
Trichloroethene	ND		0.00566	0.00158
1,2-Dichloropropane	ND		0.00566	0.000957
1,4-Dioxane	ND		1.13	0.203
Bromodichloromethane	ND		0.00566	0.00132
cis-1,3-Dichloropropene	ND		0.00566	0.00116
4-Methyl-2-pentanone (MIBK)	ND		0.011	0.00328

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Received: 12/20/2017
Date Analyzed: 01/09/2018
Data file: F2895.D 01/ 9/18 12:16

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00566	0.00183
trans-1,3-Dichloropropene	ND		0.00566	0.00131
1,1,2-Trichloroethane	ND		0.00566	0.00153
Tetrachloroethene	0.00375	DJ	0.00566	0.00145
2-Hexanone	ND		0.011	0.00589
Dibromochloromethane	ND		0.00566	0.00106
1,2-Dibromoethane (EDB)	ND		0.00566	0.001
Chlorobenzene	ND		0.00566	0.00127
Ethylbenzene	ND		0.00566	0.00138
Total Xylenes	ND		0.011	0.00245
Styrene	ND		0.00566	0.00117
Bromoform	ND		0.00566	0.00162
Isopropylbenzene	ND		0.00566	0.00112
1,1,2,2-Tetrachloroethane	ND		0.00566	0.00152
1,3-Dichlorobenzene	ND		0.00566	0.00109
1,4-Dichlorobenzene	ND		0.00566	0.000968
1,2-Dichlorobenzene	ND		0.00566	0.000979
1,2-Dibromo-3-chloropropane	ND		0.00566	0.00153
1,2,4-Trichlorobenzene	ND		0.00566	0.00249
1,2,3-Trichlorobenzene	ND		0.00566	0.00272
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00566	0.00205
Methyl acetate	ND		0.00566	0.00264
Cyclohexane	ND		0.00566	0.00103
Methylcyclohexane	ND		0.00566	0.00118
1,3-Dichloropropene (cis- and trans-)	ND		0.00566	0.00131
Total Target Compounds (52):	0.00375	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E17-10966-009
Client ID: COMPOSIT
Date Received: 12/20/2017
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
Data file: C1924.D 01/ 5/18 18:18

GC/MS Column: DB-5
Sample wt/vol: 15.83g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Naphthalene	0.105		0.036	0.031
2-Methylnaphthalene	0.065		0.036	0.025
Acenaphthylene	0.250		0.036	0.029
Acenaphthene	0.140		0.036	0.032
Fluorene	0.131		0.036	0.032
Phenanthrene	1.69		0.036	0.033
Anthracene	0.400		0.036	0.031
Fluoranthene	2.85		0.036	0.030
Pyrene	1.58		0.036	0.029
Benzo[a]anthracene	1.01		0.036	0.031
Chrysene	1.06		0.036	0.031
Benzo[b]fluoranthene	0.881		0.036	0.029
Benzo[k]fluoranthene	0.897		0.036	0.030
Benzo[a]pyrene	1.06		0.036	0.029
Indeno[1,2,3-cd]pyrene	0.637		0.036	0.030
Dibenz[a,h]anthracene	0.208		0.036	0.035
Benzo[g,h,i]perylene	0.686		0.036	0.032

Total Target Compounds (17): 13.7

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-10966-009
Client ID: COMPOSIT
Date Received: 12/20/2017
Date Extracted: 01/08/2018
Date Analyzed: 01/08/2018
Data file: R1849.D 01/08/18 17:16

GC Column: DB-5/DB1701P
Sample wt/vol: 10.22g
Matrix-Units: Soil-mg/Kg
% Moisture: 11.7
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.022	0.00886
Aroclor-1221	ND		0.022	0.00886
Aroclor-1232	ND		0.022	0.00886
Aroclor-1242	ND		0.022	0.00886
Aroclor-1248	ND		0.022	0.00886
Aroclor-1254	ND		0.022	0.00886
Aroclor-1260	ND		0.022	0.00886
Aroclor-1262	ND		0.022	0.00886
Aroclor-1268	ND		0.022	0.00886
PCBs	ND		0.022	0.00886

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-DRO

Lab ID:	E17-10966-009	GC Column:	RTX-5
Client ID:	COMPOSIT	Sample wt/vol:	10.44g
Date Received:	12/20/2017	Matrix-Units:	Soil-mg/Kg
Date Extracted:	01/08/2018	Dilution Factor:	1
Date Analyzed:	01/10/2018	% Moisture:	11.7
Data File:	IB7108.D		

Compound	Concentration	Q	RL	MDL
C9-C28	140		54.2	21.7
C28-C40	155		54.2	21.7
C9-C40 Total	295		54.2	21.7

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Collected: 12/20/17
Date Received: 12/20/17 19:00
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.7
Batch #: 010

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9330		1	5.72	1.14	01/08/18 19:34	6020B
Antimony	4.31		1	0.572	0.229	01/08/18 19:34	6020B
Arsenic	9.55		1	0.572	0.343	01/08/18 19:34	6020B
Barium	718		1	0.572	0.286	01/08/18 19:34	6020B
Beryllium	0.759		1	0.572	0.286	01/08/18 19:34	6020B
Cadmium	1.11		1	0.572	0.343	01/08/18 19:34	6020B
Calcium	26100		1	57.2	11.4	01/08/18 19:34	6020B
Chromium	66.5		1	0.572	0.400	01/08/18 19:34	6020B
Cobalt	10.0		1	0.572	0.172	01/08/18 19:34	6020B
Copper	83.9		1	0.572	0.229	01/08/18 19:34	6020B
Iron	21300		1	57.2	5.72	01/08/18 19:34	6020B
Lead	745		1	0.572	0.172	01/08/18 19:34	6020B
Magnesium	5330		1	57.2	5.72	01/08/18 19:34	6020B
Manganese	351		1	0.572	0.286	01/08/18 19:34	6020B
Mercury	0.327		1	0.027	0.011	01/09/18 08:52	7471B
Nickel	26.3		1	0.572	0.286	01/08/18 19:34	6020B
Potassium	2090		1	57.2	22.9	01/08/18 19:34	6020B
Selenium	2.04		1	0.572	0.229	01/08/18 19:34	6020B
Silver	0.310	J	1	0.572	0.229	01/08/18 19:34	6020B
Sodium	436		1	57.2	11.4	01/08/18 19:34	6020B
Thallium	0.310	J	1	0.572	0.229	01/08/18 19:34	6020B
Vanadium	31.0		1	0.572	0.286	01/08/18 19:34	6020B
Zinc	667		1	0.572	0.343	01/08/18 19:34	6020B

J = Concentration detected at a value below the RL and above the MDL for target compounds

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TCLP METALS

Client/Project: AESI/27-10 49TH AVENUE

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Collected: 12/20/17
Date Received: 12/20/17 19:00
Matrix-Units: TCLP Leachate-mg/L (ppm)
% Moisture: NA
Batch #: 011

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
TCLP Arsenic	ND		1	0.100	0.060	01/10/18 12:30	1311/6020B
TCLP Barium	0.309		1	0.100	0.060	01/10/18 12:30	1311/6020B
TCLP Cadmium	ND		1	0.100	0.060	01/10/18 12:30	1311/6020B
TCLP Chromium	ND		1	0.100	0.050	01/10/18 12:30	1311/6020B
TCLP Lead	0.325		1	0.100	0.030	01/10/18 12:30	1311/6020B
TCLP Mercury	ND		1	0.025	0.010	01/09/18 11:49	1311/7470A
TCLP Selenium	ND		1	0.400	0.070	01/10/18 12:30	1311/6020B
TCLP Silver	ND		1	0.100	0.040	01/10/18 12:30	1311/6020B

ND = Analyzed for but Not Detected at the MDL

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/09/2018

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #	
BLKS180109-01	SOIL	F2894.D	87	98	91	
E17-10966-009	SOIL	F2895.D	97	96	93	
E18-00106-001	SOIL	F2896.D	85	98	89	
E18-00106-002	SOIL	F2897.D	98	99	91	
E18-00106-003	SOIL	F2898.D	92	99	89	
E18-00106-005	SOIL	F2899.D	102	97	95	
E18-00106-004	SOIL	F2900.D	95	95	91	
LCSS180109-01	SOIL	F2901.D	88	100	103	
E17-10966-009MS	SOIL	F2902.D	86	100	104	
E17-10966-009MSD	SOIL	F2903.D	89	99	103	
E18-00052-008	SOIL	F2905.D	123	108	86	
E18-00109-002	SOIL	F2906.D	95	97	92	
E18-00109-008	SOIL	F2907.D	100	98	92	
E18-00109-014	SOIL	F2908.D	97	97	90	
E18-00109-020	SOIL	F2909.D	97	98	92	
E18-00109-026	SOIL	F2910.D	103	98	90	
E18-00109-032	SOIL	F2911.D	106	116	52	$
E18-00123-001	SOIL	F2913.D	100	97	92	
E18-00123-002	SOIL	F2914.D	100	96	94	
E18-00123-003	SOIL	F2915.D	98	100	91	

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	61-147	45-162
SMC2 = Toluene-d8	50 ppb	70-130	58-143	41-150
SMC3 = Bromofluorobenzene	50 ppb	70-130	64-144	42-149

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSS180109-01
Date Received:
Date Analyzed: 01/09/2018
LCS Data file: F2901.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	36.0	72		52-132
Chloromethane	50.0	42.4	85		50-132
Vinyl chloride	50.0	39.3	79		52-137
Bromomethane	50.0	42.0	84		58-140
Chloroethane	50.0	39.8	80		55-141
Trichlorofluoromethane	50.0	35.6	71		54-146
Acrolein	150	172.3	115		45-141
1,1-Dichloroethene	50.0	39.7	79		58-134
Acetone	100	86.7	87		67-148
Carbon disulfide	50.0	41.2	82		55-141
Vinyl acetate	50.0	46.9	94		58-114
Methylene chloride	50.0	41.0	82		53-132
Acrylonitrile	150.0	187.6	125		52-171
tert-Butyl alcohol (TBA)	100.0	84.0	84		51-154
trans-1,2-Dichloroethene	50.0	47.3	95		58-131
Methyl tert-butyl ether (MTBE)	50.0	47.4	95		65-131
1,1-Dichloroethane	50.0	45.2	90		59-132
Diisopropyl ether (DIPE)	50.0	47.4	95		64-137
cis-1,2-Dichloroethene	50.0	49.4	99		63-134
2,2-Dichloropropane	50.0	46.5	93		49-131
2-Butanone (MEK)	100	92.5	93		61-137
Bromochloromethane	50.0	49.8	100		68-137
Chloroform	50.0	47.7	95		67-138
1,1,1-Trichloroethane	50.0	47.3	95		66-133
Carbon tetrachloride	50.0	47.9	96		66-131
1,1-Dichloropropene	50.0	47.3	95		66-132
1,2-Dichloroethane (EDC)	50.0	48.4	97		69-140
Benzene	50.0	50.4	101		65-129
Trichloroethene	50.0	51.0	102		66-132
1,2-Dichloropropane	50.0	50.9	102		65-131
Dibromomethane	50.0	51.5	103		70-135
1,4-Dioxane	1500	1390	93		51-154
Bromodichloromethane	50.0	52.5	105		69-132
2-Chloroethyl vinyl ether	100	100.3	100		41-157
cis-1,3-Dichloropropene	50.0	54.6	109		67-125
4-Methyl-2-pentanone (MIBK)	100	100.0	100		67-133
Toluene	50.0	51.2	102		67-128
trans-1,3-Dichloropropene	50.0	54.7	109		59-134
1,1,2-Trichloroethane	50.0	52.3	105		70-128
Tetrachloroethene	50.0	51.0	102		62-132
1,3-Dichloropropane	50.0	51.6	103		69-128

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS180109-01
Date Received:
Date Analyzed: 01/09/2018
LCS Data file: F2901.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	106.3	106		59-134
Dibromochloromethane	50.0	55.6	111		67-137
1,2-Dibromoethane (EDB)	50.0	54.1	108		70-129
Chlorobenzene	50.0	48.9	98		67-131
1,1,1,2-Tetrachloroethane	50.0	52.8	106		70-130
Ethylbenzene	50.0	50.5	101		69-129
m,p-Xylene	100.0	102.9	103		70-130
o-Xylene	50.0	54.3	109		66-141
Styrene	50.0	55.5	111		70-134
Bromoform	50.0	53.1	106		62-130
Isopropylbenzene	50.0	52.7	105		71-133
1,1,2,2-Tetrachloroethane	50.0	50.3	101		54-128
Bromobenzene	50.0	53.5	107		70-135
1,2,3-Trichloropropane	50.0	49.2	98		68-130
n-Propylbenzene	50.0	50.6	101		70-133
2-Chlorotoluene	50.0	51.4	103		67-134
1,3,5-Trimethylbenzene	50.0	53.7	107		70-135
4-Chlorotoluene	50.0	51.8	104		70-135
tert-Butylbenzene	50.0	54.7	109		69-139
1,2,4-Trimethylbenzene	50.0	54.9	110		70-140
sec-Butylbenzene	50.0	52.7	105		66-140
1,3-Dichlorobenzene	50.0	53.4	107		69-135
4-Isopropyltoluene	50.0	55.1	110		68-143
1,4-Dichlorobenzene	50.0	54.0	108		69-137
n-Butylbenzene	50.0	53.3	107		68-138
1,2-Dichlorobenzene	50.0	55.0	110		61-143
1,2-Dibromo-3-chloropropane	50.0	52.7	105		55-142
1,2,4-Trichlorobenzene	50.0	54.4	109		65-138
Hexachlorobutadiene	50.0	52.4	105		65-138
Naphthalene	50.0	60.8	122		68-141
1,2,3-Trichlorobenzene	50.0	55.7	111		62-136
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	36.0	72		55-134
Methyl acetate	50.0	39.9	80		61-156
Cyclohexane	50.0	38.0	76		50-134
Methylcyclohexane	50.0	39.3	79		61-132

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS180109-01
Date Received:
Date Analyzed: 01/09/2018
LCS Data file: F2901.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260 **MS/MSD ACCURACY REPORT**

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Received:
Date Analyzed: 01/09/2018
MS Data file: F2902.D
MSD Data file: F2903.D

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 5
Dilution Factor: 5

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% # RPD #	Limits
Dichlorodifluoromethane	50.0	0.0	39.0	78		35.6	71	9	23-155/22
Chloromethane	50.0	0.0	43.1	86		42.3	85	2	28-153/21
Vinyl chloride	50.0	0.0	40.7	81		39.2	78	4	24-160/23
Bromomethane	50.0	0.0	44.1	88		43.6	87	1	30-166/23
Chloroethane	50.0	0.0	41.3	83		40.4	81	2	25-166/23
Trichlorofluoromethane	50.0	0.0	39.6	79		35.1	70	12	25-161/23
Acrolein	150	0.0	136	91		134	89	1	3-198/24
1,1-Dichloroethene	50.0	0.0	41.6	83		39.5	79	5	29-151/20
Acetone	100	0.0	86.5	87		89.6	90	4	34-158/21
Carbon disulfide	50.0	0.0	41.5	83		38.8	78	7	26-148/20
Vinyl acetate	50.0	0.0	45.8	92		43.6	87	5	3-150/25
Methylene chloride	50.0	0.0	42.3	85		41.7	83	1	28-153/21
Acrylonitrile	150	0.0	186	124		181	121	3	42-177/23
tert-Butyl alcohol (TBA)	100	0.0	88.3	88		95.4	95	8	31-162/22
trans-1,2-Dichloroethene	50.0	0.0	47.6	95		45.2	90	5	32-159/21
Methyl tert-butyl ether (MTBE)	50.0	0.0	47.3	95		48.2	96	2	33-170/23
1,1-Dichloroethane	50.0	0.0	45.5	91		44.7	89	2	25-168/24
Diisopropyl ether (DIPE)	50.0	0.0	47.6	95		46.9	94	1	23-176/26
cis-1,2-Dichloroethene	50.0	0.0	50.1	100		48.5	97	3	28-168/23
2,2-Dichloropropane	50.0	0.0	47.6	95		45.6	91	4	28-163/23
2-Butanone (MEK)	100	0.0	92.1	92		95.3	95	3	48-143/16
Bromochloromethane	50.0	0.0	50.1	100		50.3	101	0	27-174/24
Chloroform	50.0	0.0	48.0	96		46.5	93	3	26-168/24
1,1,1-Trichloroethane	50.0	0.0	47.6	95		46.3	93	3	25-172/25
Carbon tetrachloride	50.0	0.0	48.8	98		45.6	91	7	27-165/23
1,1-Dichloropropene	50.0	0.0	46.9	94		43.3	87	8	22-166/24
1,2-Dichloroethane (EDC)	50.0	0.0	48.1	96		47.6	95	1	26-171/24
Benzene	50.0	0.0	50.8	102		49.2	98	3	27-165/23
Trichloroethene	50.0	0.0	50.5	101		48.0	96	5	24-180/26
1,2-Dichloropropane	50.0	0.0	50.8	102		49.3	99	3	29-165/23
Dibromomethane	50.0	0.0	52.3	105		51.3	103	2	24-169/24
1,4-Dioxane	1,500	0.0	1741	116		1845	123	6	47-179/22
Bromodichloromethane	50.0	0.0	52.0	104		51.5	103	1	32-167/23
2-Chloroethyl vinyl ether	100	0.0	100.1	100		101.1	101	1	27-169/24
cis-1,3-Dichloropropene	50.0	0.0	54.9	110		53.2	106	3	22-154/22
4-Methyl-2-pentanone (MIBK)	100	0.0	104.1	104		107.5	108	3	43-154/19
Toluene	50.0	0.0	50.5	101		48.6	97	4	29-157/21
trans-1,3-Dichloropropene	50.0	0.0	54.5	109		53.5	107	2	21-155/22
1,1,2-Trichloroethane	50.0	0.0	51.9	104		52.5	105	1	25-173/25
Tetrachloroethene	50.0	0.7	49.8	98		44.9	88	10	21-156/23
1,3-Dichloropropane	50.0	0.0	50.9	102		50.8	102	0	25-173/25

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Received:
Date Analyzed: 01/09/2018
MS Data file: F2902.D
MSD Data file: F2903.D

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 5
Dilution Factor: 5

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	% RPD	#	Limits
2-Hexanone	100	0.0	113.6	114		116.8	117	3		37-162/21
Dibromochloromethane	50.0	0.0	56.0	112		55.7	111	1		23-177/26
1,2-Dibromoethane (EDB)	50.0	0.0	54.5	109		54.4	109	0		25-173/25
Chlorobenzene	50.0	0.0	48.3	97		44.6	89	8		24-148/21
1,1,1,2-Tetrachloroethane	50.0	0.0	53.5	107		50.3	101	6		25-154/22
Ethylbenzene	50.0	0.0	49.6	99		45.0	90	10		22-149/21
m,p-Xylene	100	0.0	100.8	101		92.1	92	9		24-147/21
o-Xylene	50.0	0.0	53.2	106		48.8	98	9		22-154/22
Styrene	50.0	0.0	54.5	109		49.8	100	9		11-161/25
Bromoform	50.0	0.0	52.8	106		52.3	105	1		21-147/21
Isopropylbenzene	50.0	0.0	50.6	101		45.3	91	11		11-156/24
1,1,2,2-Tetrachloroethane	50.0	0.0	49.6	99		48.6	97	2		4-165/27
Bromobenzene	50.0	0.0	52.5	105		47.4	95	10		21-147/21
1,2,3-Trichloropropane	50.0	0.0	49.3	99		48.1	96	2		23-161/23
n-Propylbenzene	50.0	0.0	47.8	96		41.5	83	14		7-153/24
2-Chlorotoluene	50.0	0.0	48.9	98		51.3	103	5		9-154/24
1,3,5-Trimethylbenzene	50.0	0.0	50.6	101		44.9	90	12		6-158/25
4-Chlorotoluene	50.0	0.0	49.2	98		43.7	87	12		5-156/25
tert-Butylbenzene	50.0	0.0	51.8	104		45.4	91	13		8-155/24
1,2,4-Trimethylbenzene	50.0	0.0	51.8	104		46.2	92	11		12-151/23
sec-Butylbenzene	50.0	0.0	48.3	97		41.3	83	16		5-151/24
1,3-Dichlorobenzene	50.0	0.0	49.9	100		45.0	90	10		4-149/24
4-Isopropyltoluene	50.0	0.0	50.3	101		43.2	86	15		3-154/25
1,4-Dichlorobenzene	50.0	0.0	51.4	103		45.3	91	13		7-147/23
n-Butylbenzene	50.0	0.0	47.4	95		38.8	78	20		3-153/25
1,2-Dichlorobenzene	50.0	0.0	52.2	104		46.7	93	11		11-150/23
1,2-Dibromo-3-chloropropane	50.0	0.0	51.8	104		51.8	104	0		14-164/25
1,2,4-Trichlorobenzene	50.0	0.0	49.3	99		40.8	82	19		5-139/22
Hexachlorobutadiene	50.0	0.0	35.1	70		29.5	59	17	$	5-155/25
Naphthalene	50.0	0.0	57.0	114		52.0	104	9		10-146/23
1,2,3-Trichlorobenzene	50.0	0.0	49.5	99		42.5	85	15		5-154/25
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	39.2	78		42.4	85	8		19-162/24
Methyl acetate	50.0	0.0	41.1	82		41.7	83	1		5-188/31
Cyclohexane	50.0	0.0	41.0	82		37.5	75	9		19-144/21
Methylcyclohexane	50.0	0.0	40.4	81		35.4	71	13		5-151/24

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E17-10966-009
Client ID: COMPOSITE
Date Received:
Date Analyzed: 01/09/2018
MS Data file: F2902.D
MSD Data file: F2903.D

GC/MS Column: DB-624
Sample wt/vol: 1g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 5
Dilution Factor: 5

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RP #

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	70-130	70-130
MS/MSD RPD Limits (DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F2894.D Instrument ID: MSD_F

Date Analyzed: 01/09/2018 Time Analyzed: 11:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
COMPOSITE	E17-10966-009	01/09/2018	12:16
B4-3-1/.5-1	E18-00106-001	01/09/2018	12:45
B4-1-1/.5-1	E18-00106-002	01/09/2018	13:15
B4-2-1/.5-1	E18-00106-003	01/09/2018	13:44
B4-0/2-2.5	E18-00106-005	01/09/2018	14:13
B4-4-1/.5-1	E18-00106-004	01/09/2018	14:42
LCS-50PPB	LCSS180109-01	01/09/2018	15:11
MS	E17-10966-009MS	01/09/2018	15:41
MSD	E17-10966-009MSD	01/09/2018	16:10
WC-5-GRAB/0-	E18-00052-008	01/09/2018	17:09
CELL_08-G1/1	E18-00109-002	01/09/2018	17:38
CELL_07-G1/1	E18-00109-008	01/09/2018	18:07
CELL_06-G1/1	E18-00109-014	01/09/2018	18:36
CELL_05-G1/1	E18-00109-020	01/09/2018	19:06
CELL_04-G1/1	E18-00109-026	01/09/2018	19:35
CELL_03-G1/1	E18-00109-032	01/09/2018	20:04
T4-1/12	E18-00123-001	01/09/2018	21:03
T4-2/12	E18-00123-002	01/09/2018	21:32
T4-3/12	E18-00123-003	01/09/2018	22:00

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F2620.D

BFB Injection Date: 12/20/2017

Inst ID: MSD_F

BFB Injection Time: 11:02

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.4			
75	30.0 - 60.0% of mass 95	49.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.4			
173	Less than 2.0% of mass 174	1.1	(	1.6	)1
174	Great than 50.0% of mass 95	71.8			
175	5.0 - 9.0% of mass 174	6.2	(	8.6	)1
176	95.0 - 101.0% of mass 174	68.4	(	95.3	)1
177	5.0 - 9.0% of mass 176	5.4	(	7.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC171220	ICC1	F2621.D	12/20/2017	11:54
ICC171220a	ICC2	F2622.D	12/20/2017	12:23
ICC171220b	ICC5	F2623.D	12/20/2017	12:59
ICC171220c	ICC20	F2624.D	12/20/2017	13:36
ICC171220d	ICC100	F2625.D	12/20/2017	14:05
ICC171220e	ICC150	F2626.D	12/20/2017	14:37
ICC171220f	ICC200	F2627.D	12/20/2017	15:09
ICV100	ICV171220	F2629.D	12/20/2017	16:08
BLKS171220-01	BLKS171220-01	F2631.D	12/20/2017	17:06
WC	E17-10770-001	F2632.D	12/20/2017	17:36
GPEC-TP551_(	E17-10796-002	F2633.D	12/20/2017	18:05
LCS-50PPB	LCSS171220-01	F2634.D	12/20/2017	18:34
MS	E10770-001MS	F2635.D	12/20/2017	19:03
MSD	E10770-001MSD	F2636.D	12/20/2017	19:33
PE-6	E17-10617-004	F2638.D	12/20/2017	20:31
NATURAL_AND_	E17-10838-001	F2639.D	12/20/2017	21:01
S-1	E17-10850-001	F2640.D	12/20/2017	21:30
S-2	E17-10850-002	F2641.D	12/20/2017	21:59
PR-1	E17-10850-003	F2642.D	12/20/2017	22:28

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F2891.D

Inst ID: MSD_F

BFB Injection Date: 01/09/2018

BFB Injection Time: 10:19

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.8			
75	30.0 - 60.0% of mass 95	49.3			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.0			
173	Less than 2.0% of mass 174	0.9	(	1.3	)1
174	Great than 50.0% of mass 95	72.5			
175	5.0 - 9.0% of mass 174	6.2	(	8.6	)1
176	95.0 - 101.0% of mass 174	69.0	(	95.2	)1
177	5.0 - 9.0% of mass 176	5.7	(	8.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV180109	F2892.D	01/09/2018	10:48
BLKS180109-01	BLKS180109-01	F2894.D	01/09/2018	11:47
COMPOSITE	E17-10966-009	F2895.D	01/09/2018	12:16
B4-3-1/.5-1	E18-00106-001	F2896.D	01/09/2018	12:45
B4-1-1/.5-1	E18-00106-002	F2897.D	01/09/2018	13:15
B4-2-1/.5-1	E18-00106-003	F2898.D	01/09/2018	13:44
B4-0/2-2.5	E18-00106-005	F2899.D	01/09/2018	14:13
B4-4-1/.5-1	E18-00106-004	F2900.D	01/09/2018	14:42
LCS-50PPB	LCSS180109-01	F2901.D	01/09/2018	15:11
MS	E17-10966-009MS	F2902.D	01/09/2018	15:41
MSD	E17-10966-009MS	F2903.D	01/09/2018	16:10
WC-5-GRAB/0-	E18-00052-008	F2905.D	01/09/2018	17:09
CELL_08-G1/1	E18-00109-002	F2906.D	01/09/2018	17:38
CELL_07-G1/1	E18-00109-008	F2907.D	01/09/2018	18:07
CELL_06-G1/1	E18-00109-014	F2908.D	01/09/2018	18:36
CELL_05-G1/1	E18-00109-020	F2909.D	01/09/2018	19:06
CELL_04-G1/1	E18-00109-026	F2910.D	01/09/2018	19:35
CELL_03-G1/1	E18-00109-032	F2911.D	01/09/2018	20:04
T4-1/12	E18-00123-001	F2913.D	01/09/2018	21:03
T4-2/12	E18-00123-002	F2914.D	01/09/2018	21:32

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F2891.D BFB Injection Date : 01/09/201

Inst ID: MSD_F BFB Injection Time: 10:19

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.8			
75	30.0 - 60.0% of mass 95	49.3			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.0			
173	Less than 2.0% of mass 174	0.9	(	1.3	)1
174	Great than 50.0% of mass 95	72.5			
175	5.0 - 9.0% of mass 174	6.2	(	8.6	)1
176	95.0 - 101.0% of mass 174	69.0	(	95.2	)1
177	5.0 - 9.0% of mass 176	5.7	(	8.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
T4-3/12	E18-00123-003	F2915.D	01/09/2018	22:00

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Thu Dec 21 09:38:34 2017
Response Via : Initial Calibration

WF 12/21/17
CO 12/21/17

Calibration Files
1 =F2621.D 2 =F2622.D 5 =F2623.D
20 =F2624.D 100 =F2625.D 150 =F2626.D 200 =F2627.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	1.015	1.103	0.979	0.834	0.804	0.730	0.736	0.886	16.56
3)	P	Chloromethane	1.137	1.073	1.051	0.997	0.895	0.851	0.844	0.978	11.86
4)	C	Vinyl chloride	1.105	1.043	0.968	0.927	0.850	0.811	0.801	0.929	12.59
5)	T	Bromomethane	0.504	0.478	0.489	0.438	0.374	0.343	0.325	0.421	17.51
6)	T	Chloroethane	0.579	0.529	0.506	0.480	0.442	0.417	0.397	0.479	13.52
7)	T	Trichlorofluorome	1.299	1.275	1.162	1.054	1.012	0.987	0.985	1.111	12.14
8)	T	Acrolein	0.083	0.081	0.084	0.083	0.073	0.062	0.068	0.076	11.47
9)	MC	1,1-Dichloroethen	0.711	0.687	0.638	0.586	0.551	0.532	0.530	0.605	12.30
10)	T	Acetone			0.214	0.225	0.199	0.176	0.164	0.196	12.94
11)	T	Carbon disulfide	2.111	2.005	1.805	1.745	1.705	1.604	1.595	1.796	10.92
12)	T	Vinyl acetate	1.971	1.845	1.737	1.835	1.732	1.568	1.491	1.740	9.52
13)	T	Methylene chlorid		0.748	0.696	0.583	0.535	0.491	0.486	0.590	18.53
14)	T	Acrylonitrile	0.187	0.187	0.186	0.191	0.170	0.138	0.152	0.173	11.90
15)	T	tert-Butyl alcoho	0.077	0.083	0.073	0.076	0.067	0.060	0.058	0.071	13.14
16)	T	trans-1,2-Dichlor	0.745	0.780	0.726	0.711	0.655	0.605	0.604	0.689	10.04
17)	T	Methyl tert-butyl	1.619	1.488	1.433	1.400	1.361	1.238	1.227	1.395	9.90
18)	P	1,1-Dichloroethan	1.479	1.391	1.307	1.269	1.204	1.068	1.050	1.253	12.66
19)	T	Diisopropyl ether	2.533	2.312	2.172	2.375	2.240	2.037	1.973	2.235	8.68
20)	T	cis-1,2-Dichloroe	0.727	0.736	0.702	0.684	0.653	0.620	0.619	0.677	7.10
21)	T	2,2-Dichloropropa	0.931	0.910	0.834	0.839	0.828	0.799	0.806	0.849	6.01
22)	T	2-Butanone (MEK)	0.321	0.283	0.277	0.294	0.254	0.225	0.208	0.266	14.96
23)	T	Bromochloromethan	0.390	0.352	0.358	0.329	0.318	0.304	0.308	0.337	9.31
25)	C	Chloroform	1.254	1.206	1.119	1.066	0.994	0.929	0.920	1.070	12.24
26)	T	1,1,1-Trichloroet	1.171	1.167	1.079	1.044	0.998	0.951	0.961	1.053	8.64
27)	T	Carbon tetrachlor	1.145	1.117	1.053	1.047	1.020	0.972	0.996	1.050	5.96
28)	T	1,1-Dichloroprope	1.006	0.978	0.882	0.901	0.854	0.784	0.779	0.883	9.87
29)	T	1,2-Dichloroethan	0.948	0.894	0.840	0.832	0.789	0.711	0.696	0.816	11.22
30)	S	1,2-Dichloroethan	0.559	0.517	0.489	0.528	0.510	0.491	0.478	0.510	5.42
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.624	1.593	1.482	1.431	1.374	1.274	1.283	1.437	9.67
33)	M	Trichloroethene	0.484	0.477	0.455	0.427	0.417	0.403	0.408	0.439	7.54
34)	C	1,2-Dichloropropa	0.448	0.427	0.416	0.408	0.403	0.380	0.370	0.407	6.57
35)	T	Dibromomethane	0.226	0.227	0.220	0.212	0.208	0.200	0.198	0.213	5.64
36)	T	1,4-Dioxane	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.003	14.52
37)	T	Bromodichlorometh	0.453	0.495	0.451	0.444	0.450	0.434	0.432	0.451	4.66
38)	T	2-Chloroethyl vin	0.145	0.153	0.137	0.150	0.155	0.150	0.145	0.148	3.91
39)	T	cis-1,3-Dichlorop	0.416	0.443	0.465	0.451	0.485	0.471	0.471	0.457	5.02
40)	T	4-Methyl-2-pentan	0.342	0.285	0.305	0.325	0.313	0.289	0.274	0.305	7.79
41)	S	Toluene-d8	0.949	0.947	0.942	0.962	0.994	1.000	0.989	0.969	2.54
42)	MC	Toluene	0.990	0.951	0.920	0.862	0.854	0.830	0.825	0.890	7.17
43)	T	trans-1,3-Dichlor	0.347	0.373	0.363	0.389	0.412	0.404	0.399	0.384	6.11
44)	T	1,1,2-Trichloroet	0.216	0.241	0.230	0.212	0.209	0.201	0.200	0.216	6.99
45)	T	Tetrachloroethene	0.497	0.478	0.451	0.403	0.404	0.401	0.415	0.436	9.11
46)	T	1,3-Dichloropropa	0.461	0.446	0.444	0.415	0.414	0.396	0.384	0.423	6.66
47)	T	2-Hexanone	0.214	0.205	0.197	0.233	0.228	0.214	0.191	0.212	7.29
48)	T	Dibromochlorometh	0.336	0.328	0.347	0.332	0.349	0.352	0.357	0.343	3.19
49)	T	1,2-Dibromoethane	0.259	0.261	0.280	0.264	0.261	0.257	0.255	0.262	3.19
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.420	1.426	1.338	1.244	1.178	1.125	1.126	1.265	10.34
52)	T	1,1,1,2-Tetrachlo	0.506	0.495	0.483	0.477	0.492	0.468	0.481	0.486	2.58

53)	C	Ethylbenzene	2.106	2.113	2.033	2.018	1.987	1.864	1.845	1.995	5.34
54)	T	m,p-Xylene	0.838	0.868	0.826	0.830	0.813	0.762	0.762	0.814	4.81
55)	T	o-Xylene	0.750	0.715	0.750	0.803	0.804	0.762	0.771	0.765	4.11
56)	T	Styrene	1.064	1.189	1.249	1.313	1.324	1.252	1.251	1.235	7.10
57)	P	Bromoform	0.249	0.274	0.236	0.224	0.240	0.236	0.243	0.243	6.47
58)	T	Isopropylbenzene	1.916	1.981	2.001	2.117	2.162	2.022	2.049	2.035	4.08
59)	S	Bromofluorobenzen	0.469	0.461	0.462	0.497	0.511	0.494	0.494	0.484	4.05
60)	P	1,1,2,2-Tetrachlo	0.459	0.428	0.451	0.427	0.401	0.362	0.361	0.413	9.59
61)	T	Bromobenzene	0.532	0.543	0.528	0.517	0.502	0.480	0.487	0.513	4.59
62)	T	1,2,3-Trichloropr	0.451	0.414	0.381	0.400	0.372	0.336	0.330	0.383	11.18
63)	T	n-Propylbenzene	2.459	2.421	2.384	2.501	2.492	2.300	2.289	2.407	3.59
64)	T	2-Chlorotoluene	1.499	1.554	1.451	1.508	1.481	1.357	1.355	1.458	5.22
65)	T	1,3,5-Trimethylbe	1.706	1.762	1.757	1.900	1.890	1.723	1.741	1.783	4.44
66)	T	4-Chlorotoluene	1.718	1.794	1.708	1.768	1.750	1.622	1.612	1.710	4.11
67)	T	tert-Butylbenzene	1.435	1.489	1.538	1.679	1.687	1.530	1.548	1.558	6.00
68)	T	1,2,4-Trimethylbe	1.567	1.696	1.750	1.905	1.900	1.729	1.728	1.754	6.74
69)	T	sec-Butylbenzene	2.054	2.249	2.260	2.450	2.402	2.180	2.169	2.252	6.09
70)	T	1,3-Dichlorobenze	1.070	1.136	1.078	1.086	1.058	0.982	1.001	1.059	4.95
71)	T	4-Isopropyltoluen	1.781	1.941	1.975	2.180	2.171	1.944	1.954	1.992	7.07
72)	T	1,4-Dichlorobenze	1.013	1.114	1.048	1.082	1.055	0.971	0.989	1.039	4.93
73)	T	n-Butylbenzene	0.823	0.889	0.895	1.031	1.074	0.955	0.952	0.946	9.13
74)	T	1,2-Dichlorobenze	0.939	0.998	0.953	0.971	0.933	0.841	0.843	0.925	6.58
75)	T	1,2-Dibromo-3-chl	0.077	0.077	0.064	0.071	0.064	0.055	0.055	0.066	14.05
76)	T	1,2,4-Trichlorobe	0.519	0.521	0.487	0.508	0.483	0.457	0.465	0.491	5.13
77)	T	Hexachlorobutadie	0.315	0.340	0.330	0.317	0.285	0.265	0.272	0.304	9.75
78)	T	Naphthalene	0.930	0.894	0.913	1.131	1.104	1.034	1.026	1.004	9.40
79)	T	1,2,3-Trichlorobe	0.447	0.500	0.476	0.489	0.455	0.426	0.420	0.459	6.70
80)	T	1,1,2-Trichloro-1	0.632	0.631	0.608	0.555	0.540	0.508	0.514	0.570	9.41
81)	T	Methyl acetate	0.595	0.560	0.519	0.518	0.471	0.414	0.392	0.496	14.95
82)	T	Cyclohexane	1.225	1.340	1.392	1.255	1.147	1.006	1.001	1.195	12.81
83)	T	Methylcyclohexane	1.015	0.966	0.903	0.956	0.947	0.849	0.850	0.926	6.70

(#) = Out of Range ### Number of calibration levels exceeded format ###

FS122017.M Thu Dec 21 09:38:41 2017 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\12-20-17\
Data File : F2629.D
Acq On : 20 Dec 2017 16:08
Operator : XING
Sample : ICV100,ICV171220,S,5g,0
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 21 09:40:30 2017
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	115	0.00
2	T	Dichlorodifluoromethane	0.886	0.724	18.3	104	0.00
3	P	Chloromethane	0.978	0.795	18.7	102	0.00
4	C	Vinyl chloride	0.929	0.781	15.9	106	0.00
5	T	Bromomethane	0.421	0.362	14.0	111	0.00
6	T	Chloroethane	0.479	0.412	14.0	107	0.00
7	T	Trichlorofluoromethane	1.111	0.988	11.1	112	0.00
8	T	Acrolein	0.076	0.073	3.9	115	0.00
9	MC	1,1-Dichloroethene	0.605	0.545	9.9	114	0.00
10	T	Acetone	0.196	0.183	6.6	105	0.00
11	T	Carbon disulfide	1.796	1.660	7.6	112	0.00
12	T	Vinyl acetate	1.740	1.576	9.4	105	0.00
13	T	Methylene chloride	0.590	0.510	13.6	110	0.00
14	T	Acrylonitrile	0.173	0.168	2.9	114	0.00
15	T	tert-Butyl alcohol (TBA)	0.071	0.065	8.5	112	0.00
16	T	trans-1,2-Dichloroethene	0.689	0.631	8.4	111	0.00
17	T	Methyl tert-butyl ether (MT	1.395	1.295	7.2	110	0.00
18	P	1,1-Dichloroethane	1.253	1.100	12.2	105	0.00
19	T	Diisopropyl ether (DIPE)	2.235	2.062	7.7	106	0.00
20	T	cis-1,2-Dichloroethene	0.677	0.648	4.3	114	0.01
21	T	2,2-Dichloropropane	0.849	0.803	5.4	112	0.00
22	T	2-Butanone (MEK)	0.266	0.235	11.7	107	0.00
23	T	Bromochloromethane	0.337	0.323	4.2	117	0.00
25	C	Chloroform	1.070	0.973	9.1	113	0.00
26	T	1,1,1-Trichloroethane	1.053	0.996	5.4	115	0.00
27	T	Carbon tetrachloride	1.050	1.034	1.5	117	0.00
28	T	1,1-Dichloropropene	0.883	0.822	6.9	111	0.00
29	T	1,2-Dichloroethane (EDC)	0.816	0.752	7.8	110	0.00
30	S	1,2-Dichloroethane-d4	0.510	0.476	6.7	107	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	111	0.00
32	M	Benzene	1.437	1.357	5.6	110	0.00
33	M	Trichloroethene	0.439	0.430	2.1	115	0.00
34	C	1,2-Dichloropropane	0.407	0.398	2.2	110	0.00
35	T	Dibromomethane	0.213	0.211	0.9	113	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	125	0.00
37	T	Bromodichloromethane	0.451	0.456	-1.1	113	0.00
38	T	2-Chloroethyl vinyl ether	0.148	0.155	-4.7	111	0.00
39	T	cis-1,3-Dichloropropene	0.457	0.492	-7.7	113	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.305	0.303	0.7	108	0.00
41	S	Toluene-d8	0.969	0.984	-1.5	110	0.00
42	MC	Toluene	0.890	0.868	2.5	113	0.00

43	T	trans-1,3-Dichloropropene	0.384	0.418	-8.9	113	0.00
44	T	1,1,2-Trichloroethane	0.216	0.213	1.4	113	0.00
45	T	Tetrachloroethene	0.436	0.435	0.2	120	0.00
46	T	1,3-Dichloropropane	0.423	0.419	0.9	112	0.00
47	T	2-Hexanone	0.212	0.224	-5.7	109	0.00
48	T	Dibromochloromethane	0.343	0.373	-8.7	119	0.00
49	T	1,2-Dibromoethane (EDB)	0.262	0.275	-5.0	117	0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
51	MP	Chlorobenzene	1.265	1.199	5.2	116	0.00
52	T	1,1,1,2-Tetrachloroethane	0.486	0.508	-4.5	118	0.00
53	C	Ethylbenzene	1.995	1.966	1.5	113	0.00
54	T	m,p-Xylene	0.814	0.816	-0.2	114	0.00
55	T	o-Xylene	0.765	0.813	-6.3	115	0.00
56	T	Styrene	1.235	1.334	-8.0	115	0.00
57	P	Bromoform	0.243	0.257	-5.8	122	0.00
58	T	Isopropylbenzene	2.035	2.159	-6.1	114	0.00
59	S	Bromofluorobenzene	0.484	0.494	-2.1	110	0.00
60	P	1,1,2,2-Tetrachloroethane	0.413	0.392	5.1	111	0.00
61	T	Bromobenzene	0.513	0.529	-3.1	120	0.00
62	T	1,2,3-Trichloropropane	0.383	0.368	3.9	113	0.00
63	T	n-Propylbenzene	2.407	2.438	-1.3	112	0.00
64	T	2-Chlorotoluene	1.458	1.452	0.4	112	0.00
65	T	1,3,5-Trimethylbenzene	1.783	1.871	-4.9	113	0.00
66	T	4-Chlorotoluene	1.710	1.722	-0.7	112	0.00
67	T	tert-Butylbenzene	1.558	1.682	-8.0	114	0.00
68	T	1,2,4-Trimethylbenzene	1.754	1.870	-6.6	112	0.00
69	T	sec-Butylbenzene	2.252	2.389	-6.1	113	0.00
70	T	1,3-Dichlorobenzene	1.059	1.083	-2.3	117	0.00
71	T	4-Isopropyltoluene	1.992	2.152	-8.0	113	0.01
72	T	1,4-Dichlorobenzene	1.039	1.067	-2.7	115	0.00
73	T	n-Butylbenzene	0.946	1.035	-9.4	110	0.00
74	T	1,2-Dichlorobenzene	0.925	0.945	-2.2	115	0.01
75	T	1,2-Dibromo-3-chloropropane	0.066	0.063	4.5	113	0.00
76	T	1,2,4-Trichlorobenzene	0.491	0.506	-3.1	119	0.00
77	T	Hexachlorobutadiene	0.304	0.304	0.0	122	0.00
78	T	Naphthalene	1.004	1.156	-15.1	119	0.00
79	T	1,2,3-Trichlorobenzene	0.459	0.480	-4.6	120	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.570	0.537	5.8	113	0.00
81	T	Methyl acetate	0.496	0.439	11.5	106	0.00
82	T	Cyclohexane	1.195	1.075	10.0	107	0.00
83	T	Methylcyclohexane	0.926	0.892	3.7	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FS122017.M Tue Jan 09 16:01:50 2018 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2892.D
Acq On : 9 Jan 2018 10:48
Operator : MEI
Sample : CCV100,CCV180109,S,5g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 10 12:05:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	105	0.00
2	T	Dichlorodifluoromethane	0.886	0.739	16.6	96	0.00
3	P	Chloromethane	0.978	0.794	18.8	93	0.01
4	C	Vinyl chloride	0.929	0.750	19.3	93	0.01
5	T	Bromomethane	0.421	0.344	18.3	96	0.01
6	T	Chloroethane	0.479	0.386	19.4	92	0.00
7	T	Trichlorofluoromethane	1.111	0.959	13.7	99	0.00
8	T	Acrolein	0.076	0.072	5.3	103	0.00
9	MC	1,1-Dichloroethene	0.605	0.528	12.7	101	0.00
10	T	Acetone	0.196	0.170	13.3	89	0.00
11	T	Carbon disulfide	1.796	1.608	10.5	99	0.00
12	T	Vinyl acetate	1.740	1.645	5.5	100	0.00
13	T	Methylene chloride	0.590	0.504	14.6	99	0.01
14	T	Acrylonitrile	0.173	0.196	-13.3	120	0.00
15	T	tert-Butyl alcohol (TBA)	0.071	0.059	16.9	93	0.00
16	T	trans-1,2-Dichloroethene	0.689	0.668	3.0	107	0.00
17	T	Methyl tert-butyl ether (MT	1.395	1.314	5.8	101	0.00
18	P	1,1-Dichloroethane	1.253	1.147	8.5	100	0.00
19	T	Diisopropyl ether (DIPE)	2.235	2.148	3.9	101	0.00
20	T	cis-1,2-Dichloroethene	0.677	0.688	-1.6	111	0.01
21	T	2,2-Dichloropropane	0.849	0.829	2.4	105	0.00
22	T	2-Butanone (MEK)	0.266	0.234	12.0	97	0.00
23	T	Bromochloromethane	0.337	0.346	-2.7	114	0.00
25	C	Chloroform	1.070	1.031	3.6	109	0.00
26	T	1,1,1-Trichloroethane	1.053	1.033	1.9	109	0.00
27	T	Carbon tetrachloride	1.050	1.076	-2.5	111	0.00
28	T	1,1-Dichloropropene	0.883	0.858	2.8	105	0.00
29	T	1,2-Dichloroethane (EDC)	0.816	0.766	6.1	102	0.00
30	S	1,2-Dichloroethane-d4	0.510	0.420	17.6	86	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
32	M	Benzene	1.437	1.499	-4.3	107	0.00
33	M	Trichloroethene	0.439	0.468	-6.6	110	0.00
34	C	1,2-Dichloropropane	0.407	0.433	-6.4	105	0.00
35	T	Dibromomethane	0.213	0.231	-8.5	109	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	130	0.00
37	T	Bromodichloromethane	0.451	0.503	-11.5	109	0.00
38	T	2-Chloroethyl vinyl ether	0.148	0.155	-4.7	98	0.00
39	T	cis-1,3-Dichloropropene	0.457	0.532	-16.4	107	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.305	0.313	-2.6	98	0.00
41	S	Toluene-d8	0.969	1.000	-3.2	99	0.00
42	MC	Toluene	0.890	0.963	-8.2	110	0.00

43	T	trans-1,3-Dichloropropene	0.384	0.456	-18.8	108	0.00
44	T	1,1,2-Trichloroethane	0.216	0.235	-8.8	110	0.00
45	T	Tetrachloroethene	0.436	0.490	-12.4	119	0.00
46	T	1,3-Dichloropropane	0.423	0.453	-7.1	107	0.00
47	T	2-Hexanone	0.212	0.229	-8.0	98	0.00
48	T	Dibromochloromethane	0.343	0.404	-17.8	113	0.00
49	T	1,2-Dibromoethane (EDB)	0.262	0.299	-14.1	112	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
51	MP	Chlorobenzene	1.265	1.276	-0.9	114	-0.01
52	T	1,1,1,2-Tetrachloroethane	0.486	0.543	-11.7	116	0.00
53	C	Ethylbenzene	1.995	2.061	-3.3	109	0.00
54	T	m,p-Xylene	0.814	0.850	-4.4	110	0.00
55	T	o-Xylene	0.765	0.854	-11.6	112	0.00
56	T	Styrene	1.235	1.386	-12.2	110	0.00
57	P	Bromoform	0.243	0.271	-11.5	119	0.00
58	T	Isopropylbenzene	2.035	2.254	-10.8	110	-0.01
59	S	Bromofluorobenzene	0.484	0.500	-3.3	103	0.00
60	P	1,1,2,2-Tetrachloroethane	0.413	0.409	1.0	107	0.00
61	T	Bromobenzene	0.513	0.558	-8.8	117	0.00
62	T	1,2,3-Trichloropropane	0.383	0.372	2.9	105	0.00
63	T	n-Propylbenzene	2.407	2.539	-5.5	107	0.00
64	T	2-Chlorotoluene	1.458	1.519	-4.2	108	0.00
65	T	1,3,5-Trimethylbenzene	1.783	1.940	-8.8	108	0.00
66	T	4-Chlorotoluene	1.710	1.770	-3.5	106	-0.01
67	T	tert-Butylbenzene	1.558	1.766	-13.4	110	0.00
68	T	1,2,4-Trimethylbenzene	1.754	1.943	-10.8	108	0.00
69	T	sec-Butylbenzene	2.252	2.485	-10.3	109	0.00
70	T	1,3-Dichlorobenzene	1.059	1.139	-7.6	113	0.00
71	T	4-Isopropyltoluene	1.992	2.236	-12.2	108	0.00
72	T	1,4-Dichlorobenzene	1.039	1.109	-6.7	111	0.00
73	T	n-Butylbenzene	0.946	1.059	-11.9	104	0.00
74	T	1,2-Dichlorobenzene	0.925	0.980	-5.9	110	0.00
75	T	1,2-Dibromo-3-chloropropane	0.066	0.060	9.1	99	0.00
76	T	1,2,4-Trichlorobenzene	0.491	0.514	-4.7	112	0.00
77	T	Hexachlorobutadiene	0.304	0.322	-5.9	119	0.00
78	T	Naphthalene	1.004	1.139	-13.4	109	0.00
79	T	1,2,3-Trichlorobenzene	0.459	0.493	-7.4	114	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.570	0.518	9.1	101	0.00
81	T	Methyl acetate	0.496	0.433	12.7	97	0.00
82	T	Cyclohexane	1.195	1.098	8.1	101	0.00
83	T	Methylcyclohexane	0.926	0.917	1.0	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FS122017.M Wed Jan 10 12:05:51 2018 RP1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F2625.D

Date Analyzed: 12/20/2017

Instrument ID: MSD_F

Time Analyzed: 14:05

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	211123	6.04	326400	6.86	268165	10.19
	UPPER LIMIT	422246	6.54	652800	7.36	536330	10.69
	LOWER LIMIT	105561.5	5.54	163200	6.36	134082.5	9.69
	LAB SAMPLE ID						
01	ICC1	188909	6.04	314286	6.86	260390	10.19
02	ICC2	203510	6.04	327856	6.86	272699	10.19
03	ICC5	213208	6.04	336841	6.86	276269	10.19
04	ICC20	206675	6.04	329221	6.86	268085	10.19
05	ICC150	244485	6.04	372468	6.86	316159	10.19
06	ICC200	253276	6.04	381497	6.86	322910	10.19
07	ICV171220	243036	6.04	363090	6.86	305695	10.19
08	BLKS171220-01	210815	6.04	341262	6.86	288763	10.19
09	E17-10770-001	204238	6.04	325418	6.86	266268	10.19
10	E17-10796-002	165894	6.04	273255	6.86	220881	10.19
11	LCSS171220-01	204590	6.04	314711	6.86	253034	10.19
12	E10770-001MS	232174	6.04	360818	6.86	288676	10.19
13	E10770-001MSD	240045	6.04	367841	6.85	295516	10.19
14	E17-10617-004	200531	6.04	321072	6.86	261438	10.19
15	E17-10838-001	199097	6.04	325817	6.86	259677	10.19
16	E17-10850-001	176659	6.04	291112	6.86	230363	10.19
17	E17-10850-002	179266	6.04	290072	6.86	235491	10.19
18	E17-10850-003	204830	6.04	321864	6.86	257606	10.19
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F2892.D

Date Analyzed: 01/09/2018

Instrument ID: MSD_F

Time Analyzed: 10:48

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	221497	6.04	319758	6.86	282282	10.19
	UPPER LIMIT	442994	6.54	639516	7.36	564564	10.69
	LOWER LIMIT	110748.5	5.54	159879	6.36	141141	9.69
	LAB SAMPLE ID						
01	BLKS180109-01	136109	6.04	218967	6.86	191094	10.19
02	E17-10966-009	152642	6.04	247163	6.86	210941	10.19
03	E18-00106-001	166060	6.04	262448	6.86	230928	10.19
04	E18-00106-002	138896	6.04	232287	6.86	202813	10.19
05	E18-00106-003	157167	6.04	255592	6.86	227353	10.19
06	E18-00106-005	168675	6.04	282530	6.86	247689	10.19
07	E18-00106-004	156840	6.04	255035	6.86	211248	10.19
08	LCSS180109-01	245384	6.04	369756	6.85	317638	10.19
09	E17-10966-009MS	248582	6.04	370509	6.85	314072	10.19
10	E17-10966-009MSD	246322	6.04	368587	6.85	317703	10.19
11	E18-00052-008	46751*	6.04	75913*	6.86	81531*	10.19
12	E18-00109-002	187556	6.04	300093	6.85	267940	10.19
13	E18-00109-008	184997	6.04	301638	6.86	271709	10.19
14	E18-00109-014	188315	6.04	302794	6.86	271051	10.19
15	E18-00109-020	185196	6.04	299355	6.86	272479	10.19
16	E18-00109-026	185457	6.04	302691	6.86	275087	10.19
17	E18-00109-032	2029*	6.04	3022*	6.85	2920*	10.20
18	E18-00123-001	168912	6.04	273330	6.86	238052	10.19
19	E18-00123-002	169932	6.04	275937	6.86	240848	10.19
20	E18-00123-003	175794	6.04	284800	6.85	266393	10.19
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2895.D
Acq On : 9 Jan 2018 12:16
Operator : MEI
Sample : COMPOSITE,E17-10966-009,S,1g,11.7
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 10 12:10:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

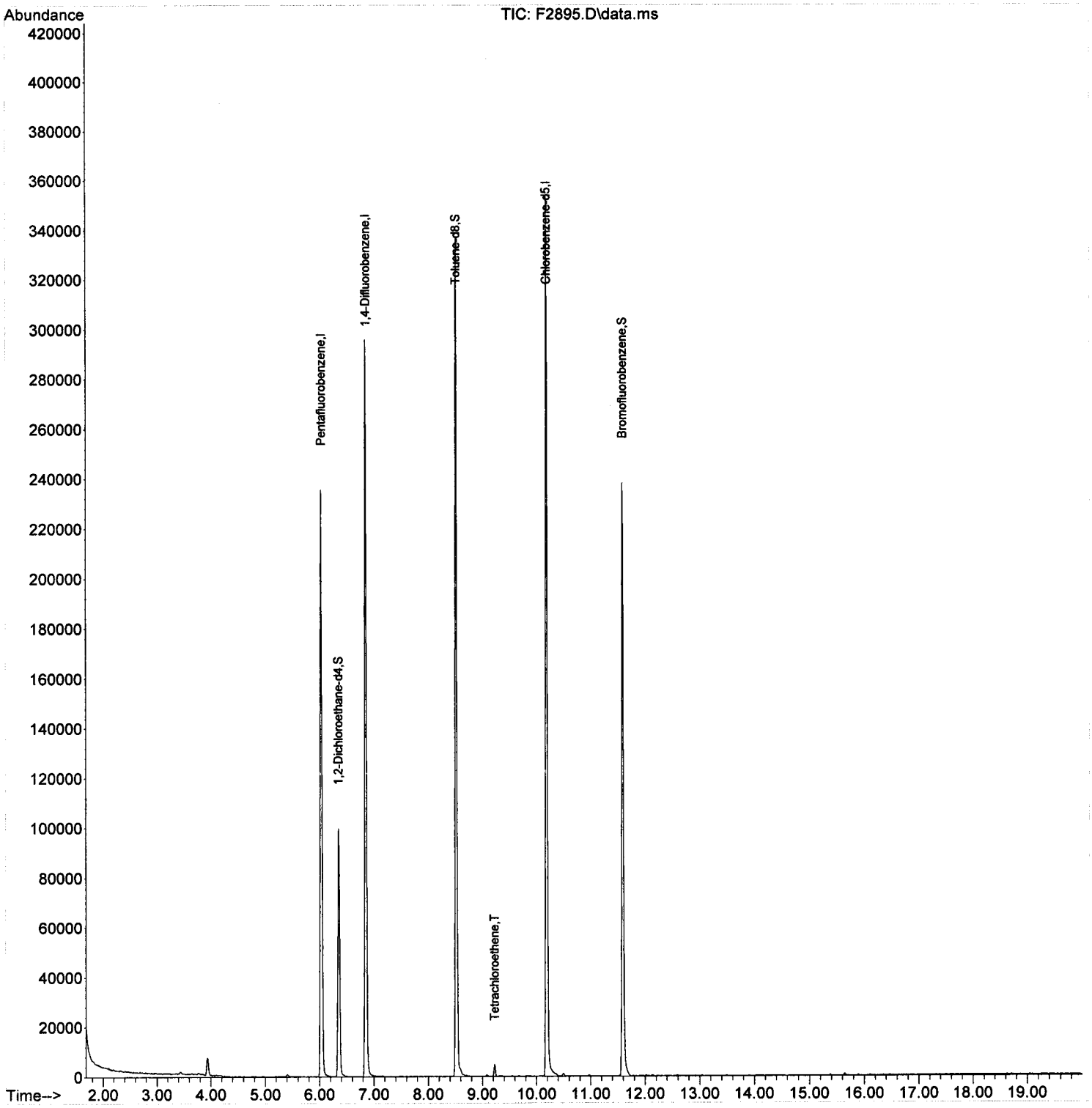
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.036	168	152642	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.858	114	247163	50.00	UG	0.00
50) Chlorobenzene-d5	10.188	117	210941	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.350	65	75961	48.75	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 97.50%			
41) Toluene-d8	8.523	98	230175	48.06	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 96.12%			
59) Bromofluorobenzene	11.589	95	94970	46.51	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 93.02%			
Target Compounds						Qvalue
45) Tetrachloroethene	9.223	166	1426	0.66	UG	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2895.D
Acq On : 9 Jan 2018 12:16
Operator : MEI
Sample : COMPOSITE,E17-10966-009,S,1g,11.7
Misc : AESI/27-10_49TH_AV,12/20/17,12/20/17,5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 10 12:10:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS180109-01
Client ID: BLKS180109-01
Date Received:
Date Analyzed: 01/09/2018
Data file: F2894.D 01/ 9/18 11:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.000235
Chloromethane	ND		0.001	0.000185
Vinyl chloride	ND		0.001	0.000185
Bromomethane	ND		0.001	0.000298
Chloroethane	ND		0.001	0.000265
Trichlorofluoromethane	ND		0.001	0.000188
1,1-Dichloroethene	ND		0.001	0.000377
Acetone	ND		0.010	0.000979
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00199
trans-1,2-Dichloroethene	ND		0.001	0.00029
Methyl tert-butyl ether (MTBE)	ND		0.001	0.000193
1,1-Dichloroethane	ND		0.001	0.000194
cis-1,2-Dichloroethene	ND		0.001	0.000213
2-Butanone (MEK)	ND		0.002	0.000492
Bromochloromethane	ND		0.001	0.000278
Chloroform	ND		0.001	0.00021
1,1,1-Trichloroethane	ND		0.001	0.000236
Carbon tetrachloride	ND		0.001	0.000161
1,2-Dichloroethane (EDC)	ND		0.001	0.000264
Benzene	ND		0.001	0.000261
Trichloroethene	ND		0.001	0.00028
1,2-Dichloropropane	ND		0.001	0.000169
1,4-Dioxane	ND		0.200	0.036
Bromodichloromethane	ND		0.001	0.000233
cis-1,3-Dichloropropene	ND		0.001	0.000205
4-Methyl-2-pentanone (MIBK)	ND		0.002	0.000579

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS180109-01
Client ID: BLKS180109-01
Date Received:
Date Analyzed: 01/09/2018
Data file: F2894.D 01/ 9/18 11:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.000323
trans-1,3-Dichloropropene	ND		0.001	0.000231
1,1,2-Trichloroethane	ND		0.001	0.00027
Tetrachloroethene	ND		0.001	0.000256
2-Hexanone	ND		0.002	0.00104
Dibromochloromethane	ND		0.001	0.000187
1,2-Dibromoethane (EDB)	ND		0.001	0.000177
Chlorobenzene	ND		0.001	0.000225
Ethylbenzene	ND		0.001	0.000244
Total Xylenes	ND		0.002	0.000433
Styrene	ND		0.001	0.000206
Bromoform	ND		0.001	0.000287
Isopropylbenzene	ND		0.001	0.000198
1,1,2,2-Tetrachloroethane	ND		0.001	0.000269
1,3-Dichlorobenzene	ND		0.001	0.000193
1,4-Dichlorobenzene	ND		0.001	0.000171
1,2-Dichlorobenzene	ND		0.001	0.000173
1,2-Dibromo-3-chloropropane	ND		0.001	0.00027
1,2,4-Trichlorobenzene	ND		0.001	0.00044
1,2,3-Trichlorobenzene	ND		0.001	0.000481
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.000363
Methyl acetate	ND		0.001	0.000467
Cyclohexane	ND		0.001	0.000182
Methylcyclohexane	ND		0.001	0.000208
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.000231

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS180109-01
Client ID: BLKS180109-01
Date Received:
Date Analyzed: 01/09/2018
Data file: F2894.D 01/ 9/18 11:47

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2894.D
Acq On : 9 Jan 2018 11:47
Operator : MEI
Sample : BLKS180109-01,BLKS180109-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 10 12:08:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.035	168	136109	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.858	114	218967	50.00	UG	0.00
50) Chlorobenzene-d5	10.188	117	191094	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.350	65	60365	43.45	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 86.90%			
41) Toluene-d8	8.523	98	208971	49.25	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 98.50%			
59) Bromofluorobenzene	11.589	95	83751	45.28	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 90.56%			

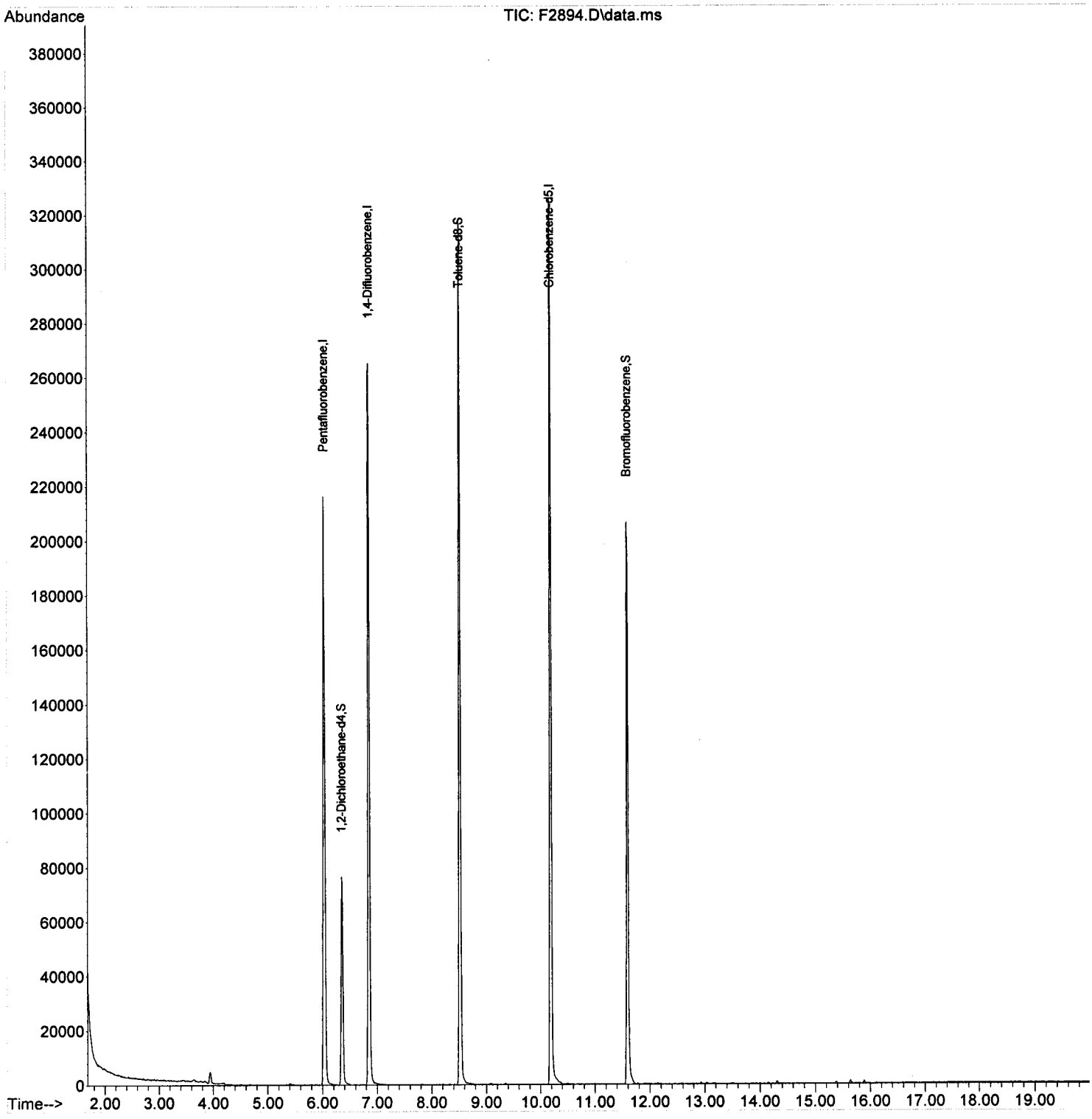
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2894.D
Acq On : 9 Jan 2018 11:47
Operator : MEI
Sample : BLKS180109-01,BLKS180109-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 10 12:08:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Thu Dec 21 09:38:34 2017
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2894.D
Acq On : 9 Jan 2018 11:47
Operator : MEI
Sample : BLKS180109-01,BLKS180109-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FS122017.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC: F2894.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.944	219	224	233	rVB2	4282	10636	1.67%	0.366%
2	6.035	423	430	454	rBV	216502	461309	72.61%	15.891%
3	6.350	454	461	478	rVV	76567	173207	27.26%	5.967%
4	6.858	502	511	531	rBV	265437	568537	89.48%	19.585%
5	8.523	667	675	700	rBV	317189	635078	99.95%	21.877%
6	10.188	831	839	863	rBV	325590	635365	100.00%	21.887%
7	11.589	972	977	993	rBV	206869	418785	65.91%	14.426%

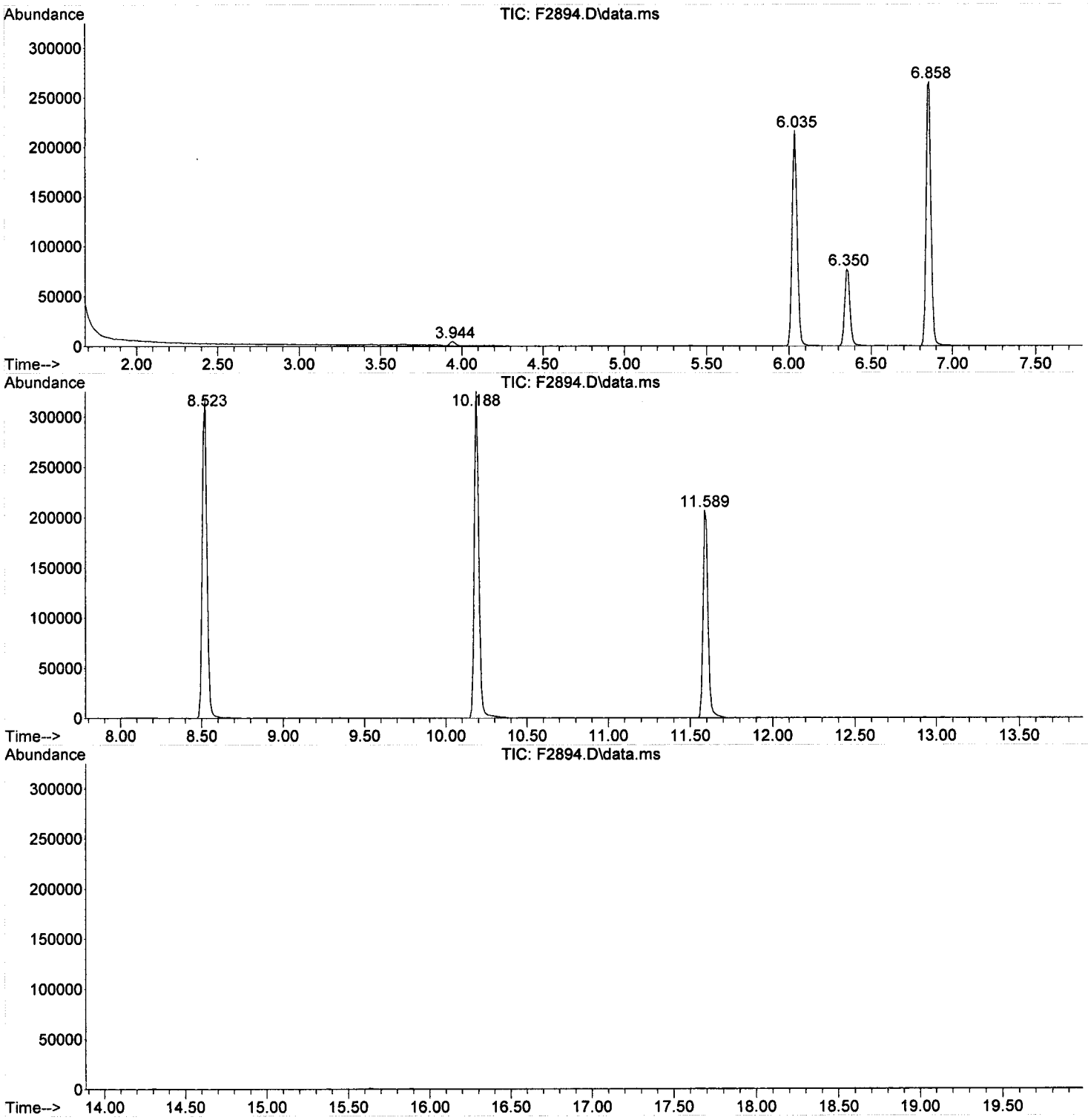
Sum of corrected areas: 2902917

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\01-09-18\
Data File : F2894.D
Acq On : 9 Jan 2018 11:47
Operator : MEI
Sample : BLKS180109-01,BLKS180109-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FS122017.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/05/2018

Lab Sample ID	Matrix	File ID	S1	#	S2	#	S3	#	S4	#	S5	#	S6	#
BLKS180105-03	SOIL	C1910.D	58		68		59		66		67		56	
LCSS180105-03	SOIL	C1911.D	53		61		65		71		70		59	
E18-00100-001MS	SOIL	C1912.D	55		62		69		78		72		63	
E18-00100-001MSD	SOIL	C1913.D	50		56		61		66		67		56	
E18-00100-001	SOIL	C1914.D	43		46		49		58		53		45	
E18-00100-007	SOIL	C1915.D	45		52		53		65		65		55	
E18-00100-013	SOIL	C1916.D	49		55		51		61		60		44	
E18-00100-019	SOIL	C1917.D	47		52		53		59		57		47	
E18-00100-025	SOIL	C1918.D	48		55		53		61		60		48	
E18-00100-031	SOIL	C1919.D	40		50		40		50		50		40	
E18-00100-037	SOIL	C1920.D	54		61		59		67		70		51	
E18-00100-043	SOIL	C1921.D	48		54		45		51		54		39	
E17-11056-004	SOIL	C1922.D	N/A		N/A		50		60		N/A		45	
E18-00099-001	SOIL	C1923.D	N/A		N/A		35		46		N/A		32	
E17-10966-009	SOIL	C1924.D	N/A		N/A		49		62		N/A		43	

	DKQPs		IAL	
	Aqueous	Soil	Aqueous/Leachate	Soil
S1 (2FP) = 2-Fluorophenol	15-110	30-130	6-90	5-83
S2 (PHL) = Phenol-d5	15-110	30-130	4-98	8-84
S3 (NBZ) = Nitrobenzene-d5	30-130	30-130	26-111	18-103
S4 (FBP) = 2-Fluorobiphenyl	30-130	30-130	25-127	25-96
S5 (TBP) = 2,4,6-Tribromophenol	15-110	30-130	9-137	14-92
S6 (TPH) = Terphenyl-d14	30-130	30-130	49-137	20-131

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference
N/A Not applicable

INTEGRATED ANALYTICAL LABORATORIES

8270

LCS ACCURACY REPORT

Lab ID: LCSS180105-03
Date Received: NA
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
Data file: C1911.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	DKQP
N-Nitrosodimethylamine	50.0	26.9	54	$	31-86	70-130
Pyridine	50.0	25.5	51		26-85	20-160
Benzaldehyde	50.0	2.3	5	$	4-39	20-160
Phenol	50.0	28.7	57		10-94	20-160
Aniline	50.0	26.5	53	$	38-92	70-130
Bis(2-chloroethyl) ether	50.0	28.1	56	$	32-86	70-130
2-Chlorophenol	50.0	28.0	56		36-93	20-160
1,3-Dichlorobenzene	50.0	29.5	59	$	34-87	70-130
1,4-Dichlorobenzene	50.0	31.1	62	$	32-88	70-130
Benzyl alcohol	50.0	26.6	53	$	35-86	70-130
1,2-Dichlorobenzene	50.0	30.2	60	$	35-89	70-130
2-Methylphenol	50.0	29.4	59		33-105	20-160
2,2'-Oxybis(1-Chloropropane)	50.0	27.4	55	$	32-87	70-130
4-Methylphenol	50.0	28.1	56	$	30-109	70-130
N-Nitrosodi-n-propylamine	50.0	27.6	55	$	38-92	70-130
Acetophenone	50.0	27.6	55	$	40-97	70-130
3-Methylphenol	50.0	28.1	56		30-109	20-160
Hexachloroethane	50.0	30.5	61	$	35-84	70-130
Nitrobenzene	50.0	29.6	59	$	32-91	70-130
Isophorone	50.0	31.2	62	$	33-94	70-130
2-Nitrophenol	50.0	26.7	53		36-95	20-160
2,4-Dimethylphenol	50.0	28.5	57		38-94	20-160
Bis(2-chloroethoxy) methane	50.0	28.5	57	$	34-94	70-130
Benzoic acid	50.0	42.2	84		5-106	20-160
2,4-Dimethylaniline	50.0	29.6	59	$	40-95	70-130
2,4-Dichlorophenol	50.0	29.6	59		38-97	20-160
1,2,4-Trichlorobenzene	50.0	31.0	62	$	33-93	70-130
Naphthalene	50.0	30.2	60	$	36-95	70-130
4-Chloroaniline	50.0	28.7	57	$	39-97	70-130
Hexachlorobutadiene	50.0	31.0	62	$	31-93	70-130
Caprolactam	50.0	29.0	58	$	39-103	70-130
4-Chloro-3-methylphenol	50.0	30.3	61		42-98	20-160
2-Methylnaphthalene	50.0	29.4	59	$	38-98	70-130
Hexachlorocyclopentadiene	50.0	27.4	55		4-103	20-160
2,4,6-Trichlorophenol	50.0	27.9	56		39-100	20-160
2,4,5-Trichlorophenol	50.0	29.2	58		42-103	20-160
1,1'-Biphenyl	50.0	30.1	60	$	41-101	70-130
2-Chloronaphthalene	50.0	30.2	60	$	37-96	70-130
2-Nitroaniline	50.0	27.5	55	$	44-100	70-130
Dimethyl phthalate	50.0	30.6	61	$	41-99	70-130
2,6-Dinitrotoluene	50.0	29.8	60	$	41-103	70-130
Acenaphthylene	50.0	30.0	60	$	40-102	70-130
3-Nitroaniline	50.0	28.2	56	$	44-103	70-130
Acenaphthene	50.0	31.5	63		41-102	20-160
2,4-Dinitrophenol	50.0	32.3	65		4-127	20-160

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS180105-03
Date Received: NA
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
Data file: C1911.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	Rec Limits DKQP
4-Nitrophenol	50.0	35.6	71		36-94	20-160
2,4-Dinitrotoluene	50.0	31.4	63	$	44-105	70-130
Dibenzofuran	50.0	29.9	60	$	42-101	70-130
Diethyl phthalate	50.0	32.1	64	$	41-101	70-130
Fluorene	50.0	32.2	64	$	39-102	70-130
4-Chlorophenyl phenyl ether	50.0	32.4	65	$	38-102	70-130
4-Nitroaniline	50.0	26.8	54	$	28-97	70-130
1,2,4,5-Tetrachlorobenzene	50.0	29.3	59	$	37-104	70-130
2,3,4,6-Tetrachlorophenol	50.0	33.2	66	$	37-100	70-130
4,6-Dinitro-2-methylphenol	50.0	29.5	59		1-118	20-160
N-Nitrosodiphenylamine	50.0	31.4	63	$	41-108	70-130
1,2-Diphenylhydrazine	50.0	30.9	62	$	35-104	70-130
4-Bromophenyl phenyl ether	50.0	31.2	62	$	36-110	70-130
Hexachlorobenzene	50.0	32.1	64	$	36-106	70-130
Atrazine	50.0	33.2	66		28-118	20-160
Pentachlorophenol	50.0	30.8	62		28-91	20-160
Phenanthrene	50.0	32.3	65	$	38-103	70-130
Anthracene	50.0	33.0	66	$	35-108	70-130
Carbazole	50.0	32.6	65	$	36-99	70-130
Di-n-butyl phthalate	50.0	31.4	63	$	41-102	70-130
Fluoranthene	50.0	33.6	67	$	26-107	70-130
Benzidine	50.0	5.3	11	$	3-65	20-160
Pyrene	50.0	26.2	52	$	35-131	70-130
3,3'-Dimethylbenzidine	50.0	10.6	21		12-70	20-160
Butyl benzyl phthalate	50.0	25.5	51	$	51-109	70-130
3,3'-Dichlorobenzidine	50.0	28.8	58	$	45-115	70-130
Benzo[a]anthracene	50.0	28.9	58	$	41-107	70-130
Chrysene	50.0	28.8	58	$	41-106	70-130
Bis(2-ethylhexyl) phthalate	50.0	25.0	50	$	40-114	70-130
Di-n-octyl phthalate	50.0	19.5	39	$	38-129	70-130
Benzo[b]fluoranthene	50.0	23.6	47	$	34-129	70-130
Benzo[k]fluoranthene	50.0	24.6	49	$	29-126	70-130
Benzo[a]pyrene	50.0	24.0	48	$	38-124	70-130
Indeno[1,2,3-cd]pyrene	50.0	24.7	49	$	45-132	70-130
Dibenz[a,h]anthracene	50.0	24.5	49	$	47-134	70-130
Benzo[g,h,i]perylene	50.0	24.8	50	$	43-132	70-130

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8270

MS/MSD ACCURACY REPORT

Lab ID: E18-00100-001
Date Received: 01/04/2018
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
MS Data file: C1912.D
MSD Data file: C1913.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.0
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD limits IAL	DKQP
N-Nitrosodimethylamine	50.0	0.0	26.7	53	$	26.2	52	$	2		9-96/15	70-130/30
Pyridine	50.0	0.0	22.6	45		22.8	46		1		4-90/17	20-160/30
Benzaldehyde	50.0	0.0	1.6	3	$	1.6	3	$	0		3-70/16	20-160/30
Phenol	50.0	0.0	26.7	53		26.3	53		2		17-97/13	20-160/30
Aniline	50.0	0.0	24.8	50	$	25.2	50	$	2		3-102/17	70-130/30
Bis(2-chloroethyl) ether	50.0	0.0	27.3	55	$	27.6	55	$	1		5-101/16	70-130/30
2-Chlorophenol	50.0	0.0	26.8	54		26.7	53		0		15-100/14	20-160/30
1,3-Dichlorobenzene	50.0	0.0	30.8	62	$	29.7	59	$	4		9-100/15	70-130/30
1,4-Dichlorobenzene	50.0	0.0	29.4	59	$	28.8	58	$	2		12-97/14	70-130/30
Benzyl alcohol	50.0	0.0	25.5	51	$	25.9	52	$	2		4-102/17	70-130/30
1,2-Dichlorobenzene	50.0	0.0	30.3	61	$	29.8	60	$	2		12-100/15	70-130/30
2-Methylphenol	50.0	0.0	25.7	51		25.6	51		0		16-101/14	20-160/30
2,2'-Oxybis(1-Chloropropane)	50.0	0.0	26.3	53	$	26.6	53	$	1		6-100/16	70-130/30
4-Methylphenol	50.0	0.0	26.4	53	$	25.7	51	$	3		16-100/14	70-130/30
N-Nitrosodi-n-propylamine	50.0	0.0	27.7	55	$	27.7	55	$	0		11-108/16	70-130/30
Acetophenone	50.0	0.0	26.7	53	$	27.5	55	$	3		16-108/15	70-130/30
3-Methylphenol	50.0	0.0	26.4	53		25.7	51		3		16-100/14	20-160/30
Hexachloroethane	50.0	0.0	30.5	61	$	29.6	59	$	3		3-129/24	70-130/30
Nitrobenzene	50.0	0.0	28.7	57	$	28.0	56	$	2		5-108/17	70-130/30
Isophorone	50.0	0.0	30.4	61	$	30.0	60	$	1		8-110/17	70-130/30
2-Nitrophenol	50.0	0.0	25.7	51		25.2	50		2		9-118/18	20-160/30
2,4-Dimethylphenol	50.0	0.0	22.2	44		20.9	42		6		2-102/17	20-160/30
Bis(2-chloroethoxy) methane	50.0	0.0	27.7	55	$	27.0	54	$	3		7-111/17	70-130/30
Benzoic acid	50.0	0.0	4.7	9	$	4.5	9	$	4		4-150/36	20-160/30
2,4-Dimethylaniline	50.0	0.0	25.5	51	$	24.1	48	$	6		5-105/17	70-130/30
2,4-Dichlorophenol	50.0	0.0	27.3	55		26.3	53		4		14-113/16	20-160/30
1,2,4-Trichlorobenzene	50.0	0.0	30.6	61	$	29.1	58	$	5		10-107/16	70-130/30
Naphthalene	50.0	0.0	29.1	58	$	27.3	55	$	6		13-111/16	70-130/30
4-Chloroaniline	50.0	0.0	25.7	51	$	25.4	51	$	1		3-124/22	70-130/30
Hexachlorobutadiene	50.0	0.0	30.7	61	$	28.4	57	$	8		14-99/14	70-130/30
Caprolactam	50.0	0.0	26.6	53	$	27.3	55	$	3		10-112/17	70-130/30
4-Chloro-3-methylphenol	50.0	0.0	27.4	55		26.4	53		4		18-110/15	20-160/30
2-Methylnaphthalene	50.0	0.0	28.1	56	$	26.7	53	$	5		10-122/19	70-130/30
Hexachlorocyclopentadiene	50.0	0.0	24.1	48		25.7	51		6		6-121/29	20-160/30
2,4,6-Trichlorophenol	50.0	0.0	29.7	59		28.3	57		5		18-105/15	20-160/30
2,4,5-Trichlorophenol	50.0	0.0	30.3	61		29.1	58		4		21-113/15	20-160/30
1,1'-Biphenyl	50.0	0.0	30.6	61	$	30.8	62	$	1		20-110/15	70-130/30
2-Chloronaphthalene	50.0	0.0	32.1	64	$	30.9	62	$	4		19-107/15	70-130/30
2-Nitroaniline	50.0	0.0	29.6	59	$	31.0	62	$	5		23-113/15	70-130/30
Dimethyl phthalate	50.0	0.0	30.8	62	$	30.1	60	$	2		21-111/15	70-130/30
2,6-Dinitrotoluene	50.0	0.0	29.9	60	$	31.0	62	$	4		26-115/15	70-130/30
Acenaphthylene	50.0	0.0	31.2	62	$	31.3	63	$	0		21-113/15	70-130/30
3-Nitroaniline	50.0	0.0	30.0	60	$	30.6	61	$	2		22-117/16	70-130/30
Acenaphthene	50.0	0.0	30.8	62		30.4	61		1		9-129/20	20-160/30
2,4-Dinitrophenol	50.0	0.0	9.8	20		10.2	20		4		3-153/34	20-160/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E18-00100-001
Date Received: 01/04/2018
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
MS Data file: C1912.D
MSD Data file: C1913.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-mg/Kg
% Moisture: 13.0
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD IAL Limits	Rec/RPD DKQP Limits
4-Nitrophenol	50.0	0.0	27.3	55		25.6	51		6		2-116/20	20-160/30
2,4-Dinitrotoluene	50.0	0.0	29.5	59	$	30.5	61	$	3		21-120/16	70-130/30
Dibenzofuran	50.0	0.0	30.5	61	$	29.4	59	$	4		21-115/16	70-130/30
Diethyl phthalate	50.0	0.0	31.0	62	$	31.1	62	$	0		23-111/15	70-130/30
Fluorene	50.0	0.0	31.4	63	$	31.0	62	$	1		19-118/17	70-130/30
4-Chlorophenyl phenyl ether	50.0	0.0	32.4	65	$	30.9	62	$	5		18-112/16	70-130/30
4-Nitroaniline	50.0	0.0	24.0	48	$	23.3	47	$	3		18-98/13	70-130/30
1,2,4,5-Tetrachlorobenzene	50.0	0.0	30.6	61	$	29.0	58	$	5		18-111/16	70-130/30
2,3,4,6-Tetrachlorophenol	50.0	0.0	29.1	58	$	29.2	58	$	0		11-112/17	70-130/30
4,6-Dinitro-2-methylphenol	50.0	0.0	20.2	40		22.0	44		9		3-175/37	20-160/30
N-Nitrosodiphenylamine	50.0	0.0	31.9	64	$	30.9	62	$	3		29-116/14	70-130/30
1,2-Diphenylhydrazine	50.0	0.0	32.3	65	$	31.9	64	$	1		14-124/18	70-130/30
4-Bromophenyl phenyl ether	50.0	0.0	31.9	64	$	30.7	61	$	4		25-116/15	70-130/30
Hexachlorobenzene	50.0	0.0	31.5	63	$	30.7	61	$	3		23-116/16	70-130/30
Atrazine	50.0	0.0	33.9	68		32.6	65		4		6-151/24	20-160/30
Pentachlorophenol	50.0	0.0	21.0	42		18.8	38		11		3-114/19	20-160/30
Phenanthrene	50.0	4.7	38.7	68	$	37.7	66	$	3		22-120/16	70-130/30
Anthracene	50.0	1.1	34.6	67	$	32.7	63	$	6		25-119/16	70-130/30
Carbazole	50.0	0.0	31.8	64	$	31.3	63	$	2		22-117/16	70-130/30
Di-n-butyl phthalate	50.0	0.0	31.0	62	$	30.4	61	$	2		27-113/15	70-130/30
Fluoranthene	50.0	9.8	44.4	69	$	44.1	69	$	1		5-134/22	70-130/30
Benzidine	50.0	0.0	1.7	3	$	1.5	3	$	13		3-58/14	20-160/30
Pyrene	50.0	7.1	35.4	57	$	36.0	58	$	2		10-144/22	70-130/30
3,3'-Dimethylbenzidine	50.0	0.0	5.9	12	$	5.6	11	$	5		3-63/14	20-160/30
Butyl benzyl phthalate	50.0	0.0	27.9	56	$	28.9	58	$	4		36-119/14	70-130/30
3,3'-Dichlorobenzidine	50.0	0.0	30.0	60	$	29.3	59	$	2		7-125/20	70-130/30
Benzo[a]anthracene	50.0	5.3	35.1	60	$	34.9	59	$	1		6-143/23	70-130/30
Chrysene	50.0	5.0	34.6	59	$	33.8	58	$	2		29-111/14	70-130/30
Bis(2-ethylhexyl) phthalate	50.0	0.0	27.1	54	$	26.8	54	$	1		30-129/17	70-130/30
Di-n-octyl phthalate	50.0	0.0	17.3	35	$	17.3	35	$	0		26-144/20	70-130/30
Benzo[b]fluoranthene	50.0	3.4	26.9	47	$	25.2	44	$	7		26-140/19	70-130/30
Benzo[k]fluoranthene	50.0	3.5	23.8	41	$	25.4	44	$	7		23-136/19	70-130/30
Benzo[a]pyrene	50.0	3.7	27.1	47	$	27.1	47	$	0		27-137/18	70-130/30
Indeno[1,2,3-cd]pyrene	50.0	2.5	28.8	53	$	27.7	50	$	4		8-148/27	70-130/30
Dibenz[a,h]anthracene	50.0	0.0	26.1	52	$	25.0	50	$	4		27-144/20	70-130/30
Benzo[g,h,i]perylene	50.0	2.9	28.3	51	$	27.1	48	$	4		10-145/26	70-130/30

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C1910.D

Instrument ID: MSDC

Date Extracted: 01/05/18

Matrix: SOIL

Date Analyzed: 01/05/2018

Time Analyzed: 14:41

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS180105-03	01/05/2018	14:56
.	E18-00100-001MS	01/05/2018	15:12
.	E18-00100-001MSD	01/05/2018	15:28
CELL_15-	E18-00100-001	01/05/2018	15:43
CELL_14-	E18-00100-007	01/05/2018	15:59
CELL_13-	E18-00100-013	01/05/2018	16:15
CELL_02-	E18-00100-019	01/05/2018	16:30
CELL_12-	E18-00100-025	01/05/2018	16:46
CELL_11-	E18-00100-031	01/05/2018	17:01
CELL_10-	E18-00100-037	01/05/2018	17:17
CELL_09-	E18-00100-043	01/05/2018	17:32
S-4/6.5-	E17-11056-004	01/05/2018	17:47
BG-1	E18-00099-001	01/05/2018	18:03
COMPOSIT	E17-10966-009	01/05/2018	18:18

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C1892.D DFTPP Injection Date : 01/04/2018

Inst ID: MSDC DFTPP Injection Time: 15:09

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	31.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	40.3	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	40.0 - 60.0% of mass 198	48.5	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.3	
275	10.0 - 30.0% of mass 198	28.3	
365	Greater than 1.0% of mass 198	3.8	
441	Present, but less than mass 443	11.53	(63.2)3
442	40.0 - 100.0% of mass 198	83.7	
443	17.0 - 23.0% of mass 442	18.2	(21.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN101-17	ICC001BNA1_180104	C1893.D	01/04/2018	15:35
ABN102-17	ICC010BNA1_180104	C1894.D	01/04/2018	15:51
ABN103-17	ICC020BNA1_180104	C1895.D	01/04/2018	16:06
ABN104-17	ICC040BNA1_180104	C1896.D	01/04/2018	16:22
ABN105-17	ICC080BNA1_180104	C1897.D	01/04/2018	16:38
ABN106-17	ICC160BNA1_180104	C1898.D	01/04/2018	16:53
ABN115-17	ICV040BNA1_180104	C1899.D	01/04/2018	17:09
ABN112-17	ICC160BNA2_180104	C1900.D	01/04/2018	17:24
ABN111-17	ICC080BNA2_180104	C1901.D	01/04/2018	17:40
ABN110-17	ICC040BNA2_180104	C1902.D	01/04/2018	17:55
ABN109-17	ICC020BNA2_180104	C1903.D	01/04/2018	18:11
ABN108-17	ICC010BNA2_180104	C1904.D	01/04/2018	18:26
ABN107-17	ICC001BNA2_180104	C1905.D	01/04/2018	18:42
ABN116-17	ICV040BNA2_180104	C1906.D	01/04/2018	18:58

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C1907.D

DFTPP Injection Date : 01/05/2018

Inst ID: MSDC

DFTPP Injection Time: 10:20

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	42.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	47.6	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	40.0 - 60.0% of mass 198	56.7	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.3	
275	10.0 - 30.0% of mass 198	27.5	
365	Greater than 1.0% of mass 198	2.6	
441	Present, but less than mass 443	10.32	(80.3)3
442	40.0 - 100.0% of mass 198	62.1	
443	17.0 - 23.0% of mass 442	12.9	(20.7)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN115-17	CCV0040BNA1_18010!	C1908.D	01/05/2018	10:30
ABN116-17	CCV040BNA2_180105	C1909.D	01/05/2018	10:45
.	BLKS180105-03	C1910.D	01/05/2018	14:41
.	LCSS180105-03	C1911.D	01/05/2018	14:56
.	E18-00100-001MS	C1912.D	01/05/2018	15:12
.	E18-00100-001MSD	C1913.D	01/05/2018	15:28
CELL_15-	E18-00100-001	C1914.D	01/05/2018	15:43
CELL_14-	E18-00100-007	C1915.D	01/05/2018	15:59
CELL_13-	E18-00100-013	C1916.D	01/05/2018	16:15
CELL_02-	E18-00100-019	C1917.D	01/05/2018	16:30
CELL_12-	E18-00100-025	C1918.D	01/05/2018	16:46
CELL_11-	E18-00100-031	C1919.D	01/05/2018	17:01
CELL_10-	E18-00100-037	C1920.D	01/05/2018	17:17
CELL_09-	E18-00100-043	C1921.D	01/05/2018	17:32
S-4/6.5-	E17-11056-004	C1922.D	01/05/2018	17:47
BG-1	E18-00099-001	C1923.D	01/05/2018	18:03
COMPOSIT	E17-10966-009	C1924.D	01/05/2018	18:18

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS0118.M
Title : BNA CALIBRATION METHOD
Last Update : Fri Jan 05 10:20:16 2018
Response Via : Initial Calibration

Calibration Files
1 =C1893.D 10 =C1894.D 20 =C1895.D
40 =C1896.D 80 =C1897.D 160 =C1898.D

		Compound	1	10	20	40	80	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.482	0.382	0.353	0.381	0.375	0.345	0.386	12.76
3)	T	Pyridine	0.479	0.339	0.307	0.335	0.328	0.310	0.350	18.54
4)	S	2-Fluorophenol	0.902	0.965	0.930	0.945	0.948	0.877	0.928	3.54
5)	T	Benzaldehyde	0.686	0.801	0.610	0.658	0.690	0.540	0.664	13.15
6)	S	Phenol-d5	1.013	1.071	1.042	1.089	1.074	1.042	1.055	2.65
7)	MC	Phenol	1.350	1.105	1.030	0.962	1.058	1.038	1.091	12.39
8)	T	Aniline	0.601	0.417	0.404	0.402	0.397	0.375	0.433	19.30
9)	T	Bis(2-chloroethyl	0.459	0.484	0.485	0.502	0.500	0.487	0.486	3.22
10)	M	2-Chlorophenol	1.235	1.031	1.004	1.025	1.003	1.014	1.052	8.60
11)	T	1,3-Dichlorobenze	0.871	1.325	1.186	1.252	1.239	1.206	1.180	13.45
12)	MC	1,4-Dichlorobenze	0.850	1.203	1.149	1.244	1.268	1.198	1.152	13.33
13)	T	Benzyl alcohol	0.896	0.609	0.558	0.612	0.636	0.591	0.650	18.95
14)	T	1,2-Dichlorobenze	0.952	1.189	1.130	1.166	1.139	1.104	1.113	7.58
15)	T	2-Methylphenol	1.052	0.807	0.765	0.800	0.771	0.732	0.821	14.14
16)	T	2,2'-Oxybis(1-Chl	0.547	0.539	0.536	0.546	0.538	0.496	0.534	3.55
17)	T	4-Methylphenol	1.176	0.929	0.859	0.847	0.913	0.789	0.919	14.73
18)	MP	N-Nitrosodi-n-pro	0.695	0.570	0.546	0.567	0.578	0.508	0.577	10.90
19)	T	Acetophenone	1.712	1.202	1.175	1.278	1.232	1.142	1.290	16.42
20)	T	3-Methylphenol	1.176	0.929	0.859	0.847	0.912	0.789	0.919	14.74
21)	T	Hexachloroethane	0.317	0.403	0.387	0.418	0.422	0.391	0.389	9.82
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.247	0.247	0.239	0.271	0.284	0.317	0.268	11.09
25)	T	Nitrobenzene	0.283	0.243	0.225	0.235	0.229	0.219	0.239	9.69
26)	T	Isophorone	0.258	0.355	0.347	0.346	0.366	0.339	0.335	11.59
27)	TC	2-Nitrophenol	0.221	0.151	0.154	0.167	0.163	0.166	0.170	15.12
28)	T	2,4-Dimethylpheno	0.375	0.272	0.251	0.250	0.248	0.248	0.274	18.41
29)	T	Bis(2-chloroethox	0.264	0.234	0.225	0.242	0.234	0.250	0.242	5.77
30)	T	Benzoic acid	0.054	0.056	0.081	0.083	0.077	0.083	0.072	19.11
31)	T	2,4-Dimethylanili	0.343	0.313	0.272	0.316	0.302	0.278	0.304	8.63
32)	TC	2,4-Dichloropheno	0.350	0.245	0.241	0.254	0.245	0.249	0.264	16.04
33)	M	1,2,4-Trichlorobe	0.251	0.275	0.269	0.288	0.293	0.292	0.278	5.81
34)	T	Naphthalene	0.912	0.838	0.807	0.882	0.872	0.897	0.868	4.49
35)	T	4-Chloroaniline	0.539	0.431	0.409	0.446	0.449	0.438	0.452	9.94
36)	T	4-Aminotoluene	0.554	0.411	0.403	0.430	0.401	0.383	0.431	14.53
37)	TC	Hexachlorobutadie	0.186	0.190	0.177	0.199	0.199	0.191	0.190	4.44
38)	T	Caprolactam	0.079	0.056	0.055	0.060	0.057	0.050	0.059	17.08
39)	T	2-Aminotoluene	0.554	0.411	0.403	0.430	0.401	0.383	0.431	14.53
40)	MC	4-Chloro-3-methyl	0.318	0.216	0.212	0.221	0.216	0.219	0.234	17.70
41)	T	2-Methylnaphthale	0.819	0.587	0.534	0.583	0.575	0.562	0.610	17.04
42)	T	1-Methylnaphthale							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.251	0.291	0.282	0.315	0.334	0.376	0.308	14.17
45)	TC	2,4,6-Trichloroph	0.476	0.343	0.326	0.320	0.318	0.328	0.352	17.45
46)	T	2,4,5-Trichloroph	0.436	0.349	0.341	0.358	0.356	0.349	0.365	9.71
47)	S	2-Fluorobiphenyl	1.172	1.206	1.224	1.223	1.157	1.204	1.198	2.29

48)	T	1,1'-Biphenyl	1.323	1.156	1.193	1.185	1.189	1.171	1.203	5.02
49)	T	2-Chloronaphthale	0.900	0.928	0.903	0.931	0.905	0.880	0.908	2.09
50)	T	2-Nitroaniline	0.257	0.180	0.181	0.188	0.181	0.168	0.193	16.71
51)	T	Dimethyl phthalat	1.211	1.062	1.017	1.008	1.016	1.013	1.054	7.51
52)	T	2,6-Dinitrotoluen	0.255	0.230	0.219	0.244	0.251	0.229	0.238	5.92
53)	T	Acenaphthylene	1.400	1.394	1.399	1.415	1.390	1.380	1.396	0.85
54)	T	3-Nitroaniline	0.364	0.269	0.277	0.290	0.278	0.269	0.291	12.62
55)	MC	Acenaphthene	0.930	0.850	0.870	0.870	0.854	0.864	0.873	3.36
56)	TP	2,4-Dinitrophenol	0.156	0.122	0.141	0.157	0.118	0.122	0.136	13.10
57)	MP	4-Nitrophenol	0.113	0.147	0.145	0.151	0.141	0.135	0.139	10.07
58)	M	2,4-Dinitrotoluen	0.315	0.320	0.312	0.325	0.308	0.292	0.312	3.74
59)	T	Dibenzofuran	1.764	1.312	1.239	1.271	1.267	1.182	1.339	15.87
60)	T	Diethyl phthalate	1.113	1.011	0.988	1.021	0.990	0.986	1.018	4.76
61)	T	Fluorene	1.067	1.082	1.039	1.033	1.049	1.035	1.051	1.87
62)	T	4-Chlorophenyl ph	0.620	0.569	0.566	0.559	0.568	0.540	0.570	4.67
63)	T	4-Nitroaniline	0.239	0.251	0.211	0.203	0.221	0.218	0.224	7.97
64)		1,2,4,5-Tetrachlo	0.701	0.551	0.522	0.510	0.516	0.529	0.555	13.16
65)	T	2,3,4,6-Tetrachlo	0.336	0.274	0.272	0.290	0.287	0.290	0.292	7.95
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.117	0.097	0.104	0.107	0.124	0.135	0.114	12.28
68)	TC	N-Nitrosodiphenyl	0.478	0.466	0.438	0.437	0.463	0.467	0.458	3.64
69)	T	1,2-Diphenylhydra	0.463	0.430	0.412	0.422	0.434	0.436	0.433	3.95
70)	S	2,4,6-Tribromophe	0.149	0.164	0.162	0.160	0.176	0.178	0.165	6.49
71)	T	4-Bromophenyl phe	0.242	0.222	0.209	0.214	0.227	0.229	0.224	5.18
72)	T	Hexachlorobenzene	0.326	0.263	0.248	0.265	0.281	0.273	0.276	9.78
73)	T	Atrazine	0.145	0.197	0.168	0.161	0.158	0.138	0.161	12.90
74)	MC	Pentachlorophenol	0.190	0.142	0.151	0.152	0.166	0.169	0.162	10.49
75)	T	Phenanthrene	0.898	0.862	0.828	0.847	0.864	0.845	0.857	2.79
76)	T	Anthracene	0.854	0.843	0.846	0.857	0.893	0.854	0.858	2.09
77)	T	Carbazole	0.804	0.776	0.723	0.737	0.751	0.698	0.748	5.05
78)	T	Di-n-butyl phthal	1.084	0.880	0.853	0.865	0.894	0.862	0.906	9.73
79)	TC	Fluoranthene	0.831	0.897	0.851	0.888	0.865	0.778	0.852	5.11
80)	T	Benzidine	0.433	0.414	0.318	0.434	0.500	0.433	0.422	13.96
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.361	1.176	1.230	1.243	1.220	1.264	1.249	5.00
84)	S	Terphenyl-d14	1.157	1.147	1.175	1.201	1.156	1.228	1.177	2.64
85)	T	3,3'-Dimethylbenz	0.860	0.564	0.595	0.671	0.779	0.809	0.713	16.94
86)	T	Butyl benzyl phth	0.578	0.478	0.486	0.490	0.481	0.493	0.501	7.59
87)	T	3,3'-Dichlorobenz	0.430	0.373	0.391	0.418	0.386	0.284	0.380	13.58
88)	T	Benzo[a]anthracen	1.081	1.018	1.023	1.035	1.009	0.995	1.027	2.91
89)	T	Chrysene	1.061	1.027	0.989	1.021	0.983	0.974	1.009	3.28
90)	T	Bis(2-ethylhexyl)	0.775	0.627	0.635	0.635	0.638	0.655	0.661	8.61
91)	T	3,3'-Dimethoxyben							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.965	1.751	1.963	1.758	1.661	1.551	1.775	9.28
94)	T	Benzo[b]fluoranth	1.793	1.821	1.776	1.675	1.600	1.570	1.706	6.23
95)	T	Benzo[k]fluoranth	1.838	1.559	1.742	1.613	1.556	1.474	1.630	8.27
96)	TC	Benzo[a]pyrene	1.491	1.531	1.556	1.536	1.520	1.499	1.522	1.60
97)	T	Indeno[1,2,3-cd]p	1.602	1.696	1.797	1.888	1.944	1.991	1.820	8.26
98)	T	Dibenz[a,h]anthra	1.339	1.477	1.476	1.538	1.611	1.685	1.521	7.91
99)	T	Benzo[g,h,i]peryl	1.694	1.375	1.486	1.505	1.568	1.548	1.529	6.89

(#) = Out of Range

CS0118.M Fri Jan 05 10:20:23 2018

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\18-01-04C\
Data File : C1899.D
Acq On : 4 Jan 2018 17:09
Operator : EDM
Sample : ABN115-17,ICV040BNA1_180104
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jan 05 10:25:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 04 19:11:05 2018
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
2	T	N-Nitrosodimethylamine	0.386	0.376	2.6	102	0.00
3	T	Pyridine	0.350	0.360	-2.9	111	0.00
4	S	2-Fluorophenol	0.928	1.022	-10.1	111	0.00
5	T	Benzaldehyde	0.664	0.673	-1.4	95	0.00
6	S	Phenol-d5	1.055	1.111	-5.3	105	0.00
7	MC	Phenol	1.091	1.032	5.4	111	0.00
8	T	Aniline	0.433	0.402	7.2	103	0.00
9	T	Bis(2-chloroethyl) ether	0.486	0.531	-9.3	109	0.00
10	M	2-Chlorophenol	1.052	1.126	-7.0	113	0.00
11	T	1,3-Dichlorobenzene	1.180	1.275	-8.1	105	0.00
12	MC	1,4-Dichlorobenzene	1.152	1.269	-10.2	105	0.00
13	T	Benzyl alcohol	0.650	0.618	4.9	104	0.00
14	T	1,2-Dichlorobenzene	1.113	1.161	-4.3	103	0.00
15	T	2-Methylphenol	0.821	0.840	-2.3	108	0.00
16	T	2,2'-Oxybis(1-Chloropropane	0.534	0.562	-5.2	106	0.00
17	T	4-Methylphenol	0.919	0.936	-1.8	114	0.00
18	MP	N-Nitrosodi-n-propylamine	0.577	0.586	-1.6	106	0.00
19	T	Acetophenone	1.290	1.297	-0.5	104	0.00
20	T	3-Methylphenol	0.919	0.932	-1.4	113	0.00
21	T	Hexachloroethane	0.389	0.418	-7.5	103	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	108	0.01
24	S	Nitrobenzene-d5	0.268	0.257	4.1	103	0.00
25	T	Nitrobenzene	0.239	0.234	2.1	108	0.01
26	T	Isophorone	0.335	0.415	-23.9	130	0.00
27	TC	2-Nitrophenol	0.170	0.152	10.6	99	0.01
28	T	2,4-Dimethylphenol	0.274	0.249	9.1	108	0.01
29	T	Bis(2-chloroethoxy) methane	0.242	0.242	0.0	108	0.01
30	T	Benzoic acid	0.072	0.076	-5.6	99	0.03
31	T	2,4-Dimethylaniline	0.304	0.293	3.6	101	0.01
32	TC	2,4-Dichlorophenol	0.264	0.247	6.4	105	0.01
33	M	1,2,4-Trichlorobenzene	0.278	0.282	-1.4	106	0.01
34	T	Naphthalene	0.868	0.878	-1.2	108	0.02
35	T	4-Chloroaniline	0.452	0.424	6.2	103	0.01
36	T	4-Aminotoluene	0.431	0.353	18.1	89	0.00
37	TC	Hexachlorobutadiene	0.190	0.197	-3.7	107	0.02
38	T	Caprolactam	0.059	0.057	3.4	104	0.03
39	T	2-Aminotoluene	0.431	0.353	18.1	89	0.00
40	MC	4-Chloro-3-methylphenol	0.234	0.224	4.3	110	0.02
41	T	2-Methylnaphthalene	0.610	0.548	10.2	102	0.02
42	T	1-Methylnaphthalene					
43	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.04
44	TP	Hexachlorocyclopentadiene	0.308	0.325	-5.5	113	0.03

45	TC	2,4,6-Trichlorophenol	0.352	0.304	13.6	104	0.03
46	T	2,4,5-Trichlorophenol	0.365	0.346	5.2	106	0.03
47	S	2-Fluorobiphenyl	1.198	1.162	3.0	104	0.03
48	T	1,1'-Biphenyl	1.203	1.183	1.7	109	0.03
49	T	2-Chloronaphthalene	0.908	0.878	3.3	103	0.04
50	T	2-Nitroaniline	0.193	0.179	7.3	104	0.04
51	T	Dimethyl phthalate	1.054	1.036	1.7	112	0.04
52	T	2,6-Dinitrotoluene	0.238	0.223	6.3	100	0.04
53	T	Acenaphthylene	1.396	1.354	3.0	105	0.04
54	T	3-Nitroaniline	0.291	0.271	6.9	102	0.04
55	MC	Acenaphthene	0.873	0.861	1.4	108	0.05
56	TP	2,4-Dinitrophenol	0.136	0.122	10.3	85	0.05
57	MP	4-Nitrophenol	0.139	0.142	-2.2	103	0.05
58	M	2,4-Dinitrotoluene	0.312	0.304	2.6	102	0.05
59	T	Dibenzofuran	1.339	1.229	8.2	106	0.05
60	T	Diethyl phthalate	1.018	0.986	3.1	105	0.06
61	T	Fluorene	1.051	1.068	-1.6	113	0.06
62	T	4-Chlorophenyl phenyl ether	0.570	0.541	5.1	106	0.05
63	T	4-Nitroaniline	0.224	0.204	8.9	110	0.06
64		1,2,4,5-Tetrachlorobenzene	0.555	0.526	5.2	113	0.03
65	T	2,3,4,6-Tetrachlorophenol	0.292	0.300	-2.7	113	0.05
66	I	Phenanthrene-d10	1.000	1.000	0.0	113	0.09
67	T	4,6-Dinitro-2-methylphenol	0.114	0.100	12.3	105	0.06
68	TC	N-Nitrosodiphenylamine	0.458	0.419	8.5	108	0.06
69	T	1,2-Diphenylhydrazine	0.433	0.402	7.2	108	0.06
70	S	2,4,6-Tribromophenol	0.165	0.162	1.8	114	0.06
71	T	4-Bromophenyl phenyl ether	0.224	0.211	5.8	111	0.07
72	T	Hexachlorobenzene	0.276	0.253	8.3	108	0.07
73	T	Atrazine	0.161	0.143	11.2	100	0.07
74	MC	Pentachlorophenol	0.162	0.146	9.9	109	0.08
75	T	Phenanthrene	0.857	0.818	4.6	109	0.08
76	T	Anthracene	0.858	0.819	4.5	108	0.09
77	T	Carbazole	0.748	0.692	7.5	106	0.09
78	T	Di-n-butyl phthalate	0.906	0.847	6.5	110	0.10
79	TC	Fluoranthene	0.852	0.784	8.0	100	0.13
80	T	Benzidine	0.422	0.420	0.5	92	0.08
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	125	0.10
83	M	Pyrene	1.249	0.994	20.4	100	0.15
84	S	Terphenyl-d14	1.177	0.932	20.8	97	0.15
85	T	3,3'-Dimethylbenzidine	0.713	0.569	20.2	99	0.06
86	T	Butyl benzyl phthalate	0.501	0.388	22.6	99	0.11
87	T	3,3'-Dichlorobenzidine	0.380	0.339	10.8	102	0.11
88	T	Benzo[a]anthracene	1.027	0.836	18.6	101	0.10
89	T	Chrysene	1.009	0.843	16.5	103	0.10
90	T	Bis(2-ethylhexyl) phthalate	0.661	0.512	22.5	101	0.10
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	113	0.11
93	TC	Di-n-octyl phthalate	1.775	1.467	17.4	94	0.10
94	T	Benzo[b]fluoranthene	1.706	1.488	12.8	100	0.11
95	T	Benzo[k]fluoranthene	1.630	1.605	1.5	112	0.11
96	TC	Benzo[a]pyrene	1.522	1.421	6.6	105	0.11
97	T	Indeno[1,2,3-cd]pyrene	1.820	1.646	9.6	98	0.13
98	T	Dibenz[a,h]anthracene	1.521	1.346	11.5	99	0.12
99	T	Benzo[g,h,i]perylene	1.529	1.285	16.0	96	0.13

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\18-01-05C\
Data File : C1908.D
Acq On : 5 Jan 2018 10:30
Operator : EDM
Sample : ABN115-17,CCV0040BNA1_180105
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jan 05 11:12:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jan 05 10:20:16 2018
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
2	T	N-Nitrosodimethylamine	0.386	0.381	1.3	98	0.00
3	T	Pyridine	0.350	0.357	-2.0	104	0.00
4	S	2-Fluorophenol	0.928	0.990	-6.7	102	0.00
5	T	Benzaldehyde	0.664	0.671	-1.1	100	0.00
6	S	Phenol-d5	1.055	1.077	-2.1	97	0.00
7	MC	Phenol	1.091	1.002	8.2	102	0.00
8	T	Aniline	0.433	0.389	10.2	95	0.00
9	T	Bis(2-chloroethyl) ether	0.486	0.501	-3.1	98	0.00
10	M	2-Chlorophenol	1.052	1.072	-1.9	102	0.00
11	T	1,3-Dichlorobenzene	1.180	1.241	-5.2	97	0.00
12	MC	1,4-Dichlorobenzene	1.152	1.245	-8.1	98	0.00
13	T	Benzyl alcohol	0.650	0.595	8.5	95	0.00
14	T	1,2-Dichlorobenzene	1.113	1.141	-2.5	96	0.00
15	T	2-Methylphenol	0.821	0.830	-1.1	102	0.00
16	T	2,2'-Oxybis(1-Chloropropane	0.534	0.527	1.3	94	0.00
17	T	4-Methylphenol	0.919	0.870	5.3	100	0.00
18	MP	N-Nitrosodi-n-propylamine	0.577	0.545	5.5	94	0.00
19	T	Acetophenone	1.290	1.242	3.7	95	0.00
20	T	3-Methylphenol	0.919	0.868	5.5	100	0.00
21	T	Hexachloroethane	0.389	0.417	-7.2	98	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	97	0.00
24	S	Nitrobenzene-d5	0.268	0.262	2.2	94	0.00
25	T	Nitrobenzene	0.239	0.231	3.3	95	0.00
26	T	Isophorone	0.335	0.427	-27.5	120	0.00
27	TC	2-Nitrophenol	0.170	0.151	11.2	87	0.00
28	T	2,4-Dimethylphenol	0.274	0.254	7.3	98	0.00
29	T	Bis(2-chloroethoxy) methane	0.242	0.254	-5.0	102	0.01
30	T	Benzoic acid	0.072	0.079	-9.7	92	0.02
31	T	2,4-Dimethylaniline	0.304	0.282	7.2	87	0.00
32	TC	2,4-Dichlorophenol	0.264	0.255	3.4	97	0.01
33	M	1,2,4-Trichlorobenzene	0.278	0.289	-4.0	97	0.00
34	T	Naphthalene	0.868	0.895	-3.1	98	0.01
35	T	4-Chloroaniline	0.452	0.447	1.1	97	0.01
36	T	4-Aminotoluene	0.431	0.362	16.0	81	0.00
37	TC	Hexachlorobutadiene	0.190	0.202	-6.3	98	0.01
38	T	Caprolactam	0.059	0.058	1.7	94	0.03
39	T	2-Aminotoluene	0.431	0.362	16.0	81	0.00
40	MC	4-Chloro-3-methylphenol	0.234	0.230	1.7	101	0.02
41	T	2-Methylnaphthalene	0.610	0.567	7.0	94	0.02
42	T	1-Methylnaphthalene					
43	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.04
44	TP	Hexachlorocyclopentadiene	0.308	0.316	-2.6	102	0.02

45	TC	2,4,6-Trichlorophenol	0.352	0.347	1.4	110	0.04
46	T	2,4,5-Trichlorophenol	0.365	0.347	4.9	98	0.02
47	S	2-Fluorobiphenyl	1.198	1.112	7.2	92	0.02
48	T	1,1'-Biphenyl	1.203	1.165	3.2	99	0.03
49	T	2-Chloronaphthalene	0.908	0.866	4.6	94	0.03
50	T	2-Nitroaniline	0.193	0.177	8.3	95	0.03
51	T	Dimethyl phthalate	1.054	1.053	0.1	106	0.03
52	T	2,6-Dinitrotoluene	0.238	0.223	6.3	93	0.04
53	T	Acenaphthylene	1.396	1.371	1.8	98	0.03
54	T	3-Nitroaniline	0.291	0.265	8.9	93	0.03
55	MC	Acenaphthene	0.873	0.849	2.7	99	0.04
56	TP	2,4-Dinitrophenol	0.136	0.122	10.3	79	0.04
57	MP	4-Nitrophenol	0.139	0.146	-5.0	98	0.04
58	M	2,4-Dinitrotoluene	0.312	0.303	2.9	94	0.04
59	T	Dibenzofuran	1.339	1.226	8.4	98	0.04
60	T	Diethyl phthalate	1.018	1.001	1.7	99	0.05
61	T	Fluorene	1.051	1.069	-1.7	105	0.05
62	T	4-Chlorophenyl phenyl ether	0.570	0.545	4.4	99	0.04
63	T	4-Nitroaniline	0.224	0.213	4.9	106	0.05
64		1,2,4,5-Tetrachlorobenzene	0.555	0.528	4.9	105	0.02
65	T	2,3,4,6-Tetrachlorophenol	0.292	0.286	2.1	100	0.04
66	I	Phenanthrene-d10	1.000	1.000	0.0	103	0.07
67	T	4,6-Dinitro-2-methylphenol	0.114	0.096	15.8	92	0.05
68	TC	N-Nitrosodiphenylamine	0.458	0.426	7.0	100	0.05
69	T	1,2-Diphenylhydrazine	0.433	0.411	5.1	100	0.05
70	S	2,4,6-Tribromophenol	0.165	0.167	-1.2	108	0.05
71	T	4-Bromophenyl phenyl ether	0.224	0.208	7.1	100	0.06
72	T	Hexachlorobenzene	0.276	0.258	6.5	100	0.06
73	T	Atrazine	0.161	0.142	11.8	90	0.06
74	MC	Pentachlorophenol	0.162	0.150	7.4	102	0.06
75	T	Phenanthrene	0.857	0.839	2.1	102	0.07
76	T	Anthracene	0.858	0.840	2.1	101	0.07
77	T	Carbazole	0.748	0.695	7.1	97	0.07
78	T	Di-n-butyl phthalate	0.906	0.872	3.8	104	0.09
79	TC	Fluoranthene	0.852	0.833	2.2	96	0.12
80	T	Benzidine	0.422	0.410	2.8	93	0.04
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	116	0.09
83	M	Pyrene	1.249	1.043	16.5	97	0.13
84	S	Terphenyl-d14	1.177	0.969	17.7	93	0.13
85	T	3,3'-Dimethylbenzidine	0.713	0.585	18.0	99	0.03
86	T	Butyl benzyl phthalate	0.501	0.420	16.2	99	0.09
87	T	3,3'-Dichlorobenzidine	0.380	0.353	7.1	98	0.10
88	T	Benzo[a]anthracene	1.027	0.844	17.8	94	0.09
89	T	Chrysene	1.009	0.845	16.3	96	0.09
90	T	Bis(2-ethylhexyl) phthalate	0.661	0.530	19.8	97	0.09
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	108	0.12
93	TC	Di-n-octyl phthalate	1.775	1.439	18.9	88	0.10
94	T	Benzo[b]fluoranthene	1.706	1.441	15.5	93	0.11
95	T	Benzo[k]fluoranthene	1.630	1.523	6.6	102	0.11
96	TC	Benzo[a]pyrene	1.522	1.374	9.7	97	0.12
97	T	Indeno[1,2,3-cd]pyrene	1.820	1.680	7.7	96	0.17
98	T	Dibenz[a,h]anthracene	1.521	1.388	8.7	98	0.16
99	T	Benzo[g,h,i]perylene	1.529	1.237	19.1	89	0.17

(#) = Out of Range

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1893.D Date Analyzed: 01/04/2018

Instrument ID: MSDC Time Analyzed: 15:35

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	127893		2.57		468754		3.13		280900		3.95	
	UPPER LIMIT	255786		3.07		937508		3.63		561800		4.45	
	LOWER LIMIT	63947		2.07		234377		2.63		140450		3.45	
	LAB SAMPLE ID												
01	ICC010BNA1_180104	118017		2.57		450543		3.13		269432		3.95	
02	ICC020BNA1_180104	157957		2.57		594070		3.13		341264		3.96	
03	ICC040BNA1_180104	137756		2.57		501816		3.13		307962		3.96	
04	ICC080BNA1_180104	133271		2.57		483825		3.13		299523		3.96	
05	ICC160BNA1_180104	176234		2.58		606944		3.13		359051		3.97	
06	ICV040BNA1_180104	141869		2.57		543836		3.14		336532		3.99	
07	ICC160BNA2_180104	134200		2.57		525316		3.13		313917		3.96	
08	ICC080BNA2_180104	140777		2.57		524764		3.13		309325		3.96	
09	ICC040BNA2_180104	137715		2.57		510904		3.13		310958		3.95	
10	ICC020BNA2_180104	137722		2.57		528992		3.12		316006		3.95	
11	ICC010BNA2_180104	130690		2.57		487831		3.12		298520		3.95	
12	ICC001BNA2_180104	120748		2.57		431853		3.12		256613		3.95	
13	ICV040BNA2_180104	128224		2.57		471417		3.13		284031		3.98	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1893.D

Date Analyzed: 01/04/2018

Instrument ID: MSDC

Time Analyzed: 15:35

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	477014	4.72	328446	6.54	176855	8.03
	UPPER LIMIT	954028	5.22	656892	7.04	353710	8.53
	LOWER LIMIT	238507	4.22	164223	6.04	88428	7.53
	LAB SAMPLE ID						
01	ICC010BNA1_180104	467526	4.73	360904	6.54	195627	8.04
02	ICC020BNA1_180104	603278	4.74	413450	6.55	199798	8.05
03	ICC040BNA1_180104	531621	4.74	374409	6.57	203407	8.07
04	ICC080BNA1_180104	491993	4.74	344298	6.57	199611	8.07
05	ICC160BNA1_180104	570055	4.75	339218	6.58	212346	8.08
06	ICV040BNA1_180104	599965	4.81	468892	6.64	229743	8.14
07	ICC160BNA2_180104	538673	4.73	449209	6.55	235715	8.06
08	ICC080BNA2_180104	534948	4.73	449772	6.55	226395	8.06
09	ICC040BNA2_180104	524482	4.72	447217	6.54	224068	8.05
10	ICC020BNA2_180104	545389	4.71	473071	6.52	230371	8.05
11	ICC010BNA2_180104	514528	4.71	426932	6.52	201823	8.02
12	ICC001BNA2_180104	453462	4.72	366961	6.53	186588	8.02
13	ICV040BNA2_180104	507259	4.78	438475	6.61	209587	8.13
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1908.D

Date Analyzed: 01/05/2018

Instrument ID: MSDC

Time Analyzed: 10:30

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	134814	2.57	486142	3.13	311644	3.99
	UPPER LIMIT	269628	3.07	972284	3.63	623288	4.49
	LOWER LIMIT	67407	2.07	243071	2.63	155822	3.49
	LAB SAMPLE ID						
01	CCV040BNA2_18010	135160	2.57	479914	3.13	289915	3.97
02	BLKS180105-03	107971	2.57	416316	3.13	266632	3.96
03	LCSS180105-03	114933	2.57	418920	3.13	266854	3.97
04	E18-00100-001MS	127939	2.57	474127	3.13	273579	3.96
05	E18-00100-001MSD	127212	2.57	484377	3.13	279015	3.96
06	E18-00100-001	121356	2.57	462564	3.13	270374	3.95
07	E18-00100-007	117215	2.57	436404	3.13	253369	3.96
08	E18-00100-013	112030	2.57	427513	3.13	229383	3.96
09	E18-00100-019	114971	2.57	423758	3.13	251408	3.96
10	E18-00100-025	117551	2.57	437442	3.13	252795	3.95
11	E18-00100-031	123055	2.57	499136	3.14	299649	4.00
12	E18-00100-037	120135	2.57	432453	3.12	252574	3.95
13	E18-00100-043	113298	2.57	429911	3.13	260180	3.97
14	E17-11056-004	126623	2.57	474145	3.13	292799	3.97
15	E18-00099-001	149030	2.57	605702	3.13	351872	3.95
16	E17-10966-009	155815	2.57	518164	3.13	302743	3.95
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1908.D

Date Analyzed: 01/05/2018

Instrument ID: MSDC

Time Analyzed: 10:30

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	546465		4.79		432824		6.63		219803		8.15	
	UPPER LIMIT	1092930		5.29		865648		7.13		439606		8.65	
	LOWER LIMIT	273233		4.29		216412		6.13		109902		7.65	
	LAB SAMPLE ID												
01	CCV040BNA2_18010	521817		4.76		425600		6.58		210143		8.11	
02	BLKS180105-03	485825		4.75		468252		6.57		319740		8.08	
03	LCSS180105-03	464109		4.75		400740		6.58		274603		8.10	
04	E18-00100-001MS	450316		4.74		370344		6.56		322565		8.07	
05	E18-00100-001MSD	469815		4.74		364269		6.55		301473		8.08	
06	E18-00100-001	443772		4.73		353871		6.54		292313		8.06	
07	E18-00100-007	417119		4.74		345825		6.56		290319		8.07	
08	E18-00100-013	372938		4.75		373154		6.58		350449		8.11	
09	E18-00100-019	423761		4.73		375374		6.55		321759		8.08	
10	E18-00100-025	425142		4.73		386225		6.54		338700		8.08	
11	E18-00100-031	506268		4.82		439731		6.66		382432		8.17	
12	E18-00100-037	423941		4.71		390739		6.52		330900		8.02	
13	E18-00100-043	431711		4.75		452786		6.58		358232		8.08	
14	E17-11056-004	496303		4.75		444786		6.58		429383		8.09	
15	E18-00099-001	559553		4.73		601952		6.54		395929		8.08	
16	E17-10966-009	551987		4.73		587653		6.55		428547		8.07	
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\18-01-05C\
Data File : C1924.D
Acq On : 5 Jan 2018 18:18
Operator : EDM
Sample : COMPOSIT,E17-10966-009,S,15.83g,11.7,0.5
Misc : 180105-03,01/05/18,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 08 10:07:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jan 05 10:20:16 2018
Response via : Initial Calibration

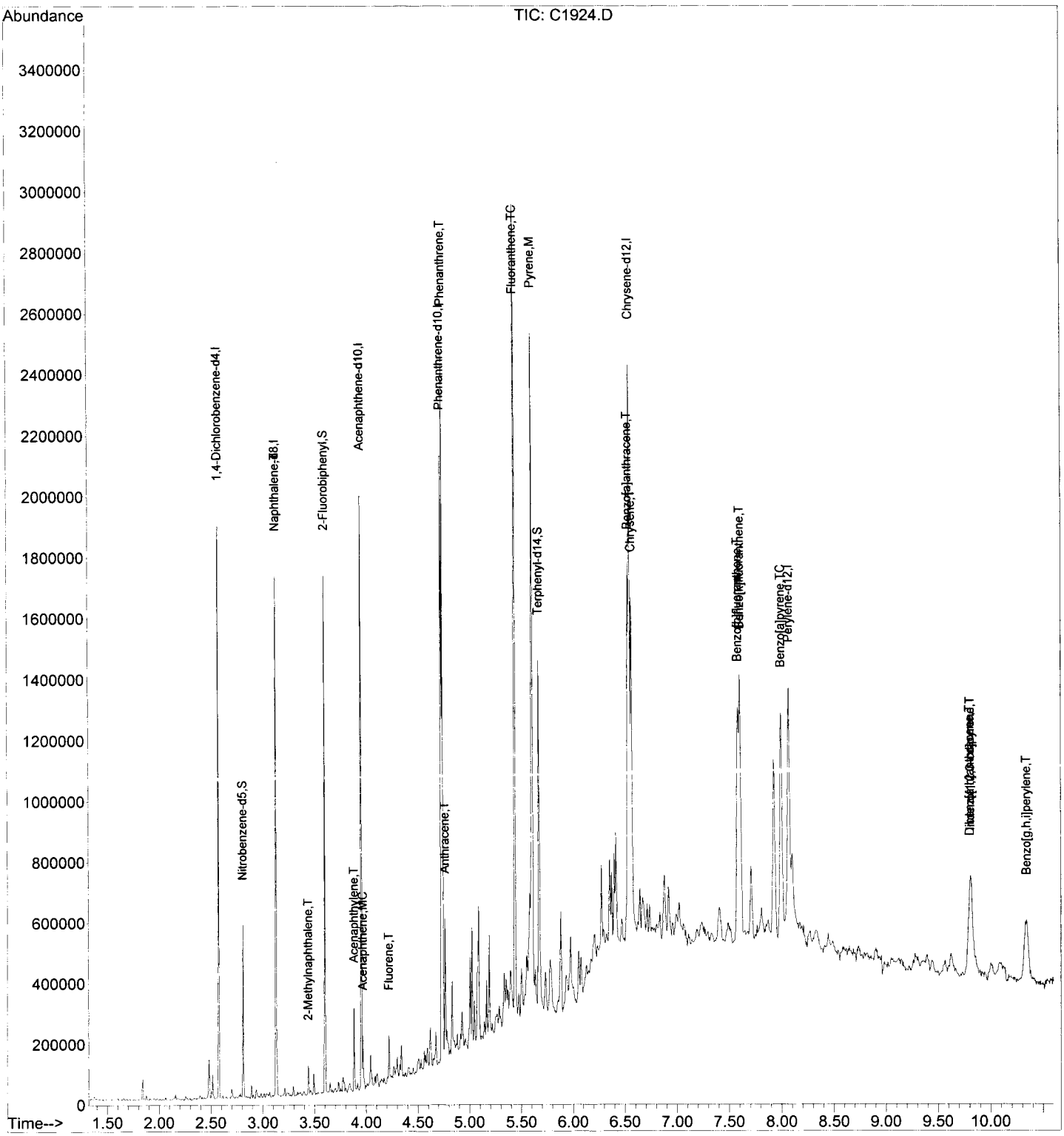
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.57	152	155815	40.00	UG		0.00
23) Naphthalene-d8	3.13	136	518164	40.00	UG		0.00
43) Acenaphthene-d10	3.95	164	302743	40.00	UG		0.00
66) Phenanthrene-d10	4.73	188	551987	40.00	UG		0.00
82) Chrysene-d12	6.55	240	587653	40.00	UG		0.00
92) Perylene-d12	8.07	264	428547m	40.00	UG		0.04
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0d	0.00	UG		
Spiked Amount 100.000			Recovery =	0.00%			
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000			Recovery =	0.00%			
24) Nitrobenzene-d5	2.81	82	84527	24.38	UG		0.00
Spiked Amount 50.000			Recovery =	48.76%			
47) 2-Fluorobiphenyl	3.60	172	282080	31.11	UG		0.00
Spiked Amount 50.000			Recovery =	62.22%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG		
Spiked Amount 100.000			Recovery =	0.00%			
84) Terphenyl-d14	5.67	244	370512	21.42	UG		0.00
Spiked Amount 50.000			Recovery =	42.84%			
Target Compounds							Qvalue
34) Naphthalene	3.13	128	33137	2.95	UG	#	54
41) 2-Methylnaphthalene	3.44	142	14272	1.81	UG		99
53) Acenaphthylene	3.88	152	73866	6.99	UG		97
55) Acenaphthene	3.97	153	25923	3.92	UG		95
61) Fluorene	4.22	166	29221	3.67	UG		93
75) Phenanthrene	4.74	178	559932	47.33	UG		97
76) Anthracene	4.76	178	132222m	11.17	UG		
79) Fluoranthene	5.44	202	937450	79.77	UG		87
83) Pyrene	5.61	202	809269	44.11	UG		88
88) Benzo[a]anthracene	6.53	228	428066	28.37	UG	#	90
89) Chrysene	6.56	228	440996	29.74	UG		93
94) Benzo[b]fluoranthene	7.59	252	450295m	24.64	UG		
95) Benzo[k]fluoranthene	7.61	252	438020m	25.08	UG		
96) Benzo[a]pyrene	8.00	252	483007	29.62	UG	#	97
97) Indeno[1,2,3-cd]pyrene	9.81	276	347221	17.81	UG		81
98) Dibenz[a,h]anthracene	9.80	278	94627	5.81	UG		92
99) Benzo[g,h,i]perylene	10.34	276	314329	19.18	UG		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\18-01-05C\
Data File : C1924.D
Acq On : 5 Jan 2018 18:18
Operator : EDM
Sample : COMPOSIT,E17-10966-009,S,15.83g,11.7,0.5
Misc : 180105-03,01/05/18,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 08 10:07:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jan 05 10:20:16 2018
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS180105-03
Client ID: .
Date Received: NA
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
Data file: C1910.D 01/ 5/18 14:41

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.029
Pyridine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.032
Phenol	ND		0.033	0.031
Aniline	ND		0.033	0.031
Bis(2-chloroethyl) ether	ND		0.033	0.030
2-Chlorophenol	ND		0.033	0.025
1,3-Dichlorobenzene	ND		0.033	0.027
1,4-Dichlorobenzene	ND		0.033	0.027
Benzyl alcohol	ND		0.033	0.025
1,2-Dichlorobenzene	ND		0.033	0.031
2-Methylphenol	ND		0.033	0.030
2,2'-Oxybis(1-Chloropropane	ND		0.033	0.028
4-Methylphenol **	ND		0.033	0.027
N-Nitrosodi-n-propylamine	ND		0.033	0.025
Acetophenone	ND		0.033	0.032
3-Methylphenol	ND		0.033	0.023
Hexachloroethane	ND		0.033	0.028
Nitrobenzene	ND		0.033	0.026
Isophorone	ND		0.033	0.028
2-Nitrophenol	ND		0.033	0.028
2,4-Dimethylphenol	ND		0.033	0.024
Bis(2-chloroethoxy) methane	ND		0.033	0.030
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.027
2,4-Dichlorophenol	ND		0.033	0.029
1,2,4-Trichlorobenzene	ND		0.033	0.029
Naphthalene	ND		0.033	0.029
4-Chloroaniline	ND		0.033	0.022
4-Aminotoluene	ND		0.033	0.026
Hexachlorobutadiene	ND		0.033	0.031
Caprolactam	ND		0.033	0.022
2-Aminotoluene	ND		0.033	0.031
4-Chloro-3-methylphenol	ND		0.033	0.028
2-Methylnaphthalene	ND		0.033	0.023
Hexachlorocyclopentadiene	ND		0.033	0.029
2,4,6-Trichlorophenol	ND		0.033	0.028
2,4,5-Trichlorophenol	ND		0.033	0.029
1,1'-Biphenyl	ND		0.033	0.031
2-Chloronaphthalene	ND		0.033	0.027
2-Nitroaniline	ND		0.033	0.023
Dimethyl phthalate	ND		0.033	0.031

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS180105-03
Client ID: .
Date Received: NA
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
Data file: C1910.D 01/ 5/18 14:41

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.025
Acenaphthylene	ND		0.033	0.027
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.030
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.029
2,4-Dinitrotoluene	ND		0.033	0.030
Dibenzofuran	ND		0.033	0.028
Diethyl phthalate	ND		0.033	0.033
Fluorene	ND		0.033	0.030
4-Chlorophenyl phenyl ether	ND		0.033	0.031
4-Nitroaniline	ND		0.033	0.025
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.029
2,3,4,6-Tetrachlorophenol	ND		0.033	0.023
4,6-Dinitro-2-methylphenol	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.029
1,2-Diphenylhydrazine	ND		0.033	0.033
4-Bromophenyl phenyl ether	ND		0.033	0.028
Hexachlorobenzene	ND		0.033	0.031
Atrazine	ND		0.033	0.029
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.030
Anthracene	ND		0.033	0.029
Carbazole	ND		0.033	0.026
Di-n-butyl phthalate	ND		0.033	0.025
Fluoranthene	ND		0.033	0.028
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.027
3,3'-Dimethylbenzidine	ND		0.033	0.021
Butyl benzyl phthalate	ND		0.033	0.031
3,3'-Dichlorobenzidine	ND		0.033	0.024
Benzo[a]anthracene	ND		0.033	0.029
Chrysene	ND		0.033	0.029
Bis(2-ethylhexyl) phthalate	ND		0.033	0.021
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.027
Benzo[k]fluoranthene	ND		0.033	0.028
Benzo[a]pyrene	ND		0.033	0.027
Indeno[1,2,3-cd]pyrene	ND		0.033	0.028
Dibenz[a,h]anthracene	ND		0.033	0.033
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (83): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS180105-03
Client ID: .
Date Received: NA
Date Extracted: 01/05/2018
Date Analyzed: 01/05/2018
Data file: C1910.D 01/ 5/18 14:41

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\18-01-05C\
Data File : C1910.D
Acq On : 5 Jan 2018 14:41
Operator : EDM
Sample : .,BLKS180105-03,S,15.00g,0,0.5
Misc : 180105-03,01/05/18,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 05 14:55:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jan 05 10:20:16 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.57	152	107971	40.00	UG	0.00
23) Naphthalene-d8	3.13	136	416316	40.00	UG	0.00
43) Acenaphthene-d10	3.96	164	266632	40.00	UG	0.01
66) Phenanthrene-d10	4.75	188	485825	40.00	UG	0.03
82) Chrysene-d12	6.57	240	468252	40.00	UG	0.03
92) Perylene-d12	8.08	264	319740	40.00	UG	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	2.04	112	146094	58.32	UG	0.00
Spiked Amount 100.000			Recovery = 58.32%			
6) Phenol-d5	2.39	99	193866	68.07	UG	0.00
Spiked Amount 100.000			Recovery = 68.07%			
24) Nitrobenzene-d5	2.81	82	82602	29.65	UG	0.00
Spiked Amount 50.000			Recovery = 59.30%			
47) 2-Fluorobiphenyl	3.60	172	264744	33.16	UG	0.00
Spiked Amount 50.000			Recovery = 66.32%			
70) 2,4,6-Tribromophenol	4.37	330	134696	67.30	UG	0.02
Spiked Amount 100.000			Recovery = 67.30%			
84) Terphenyl-d14	5.71	244	387752	28.13	UG	0.05
Spiked Amount 50.000			Recovery = 56.26%			

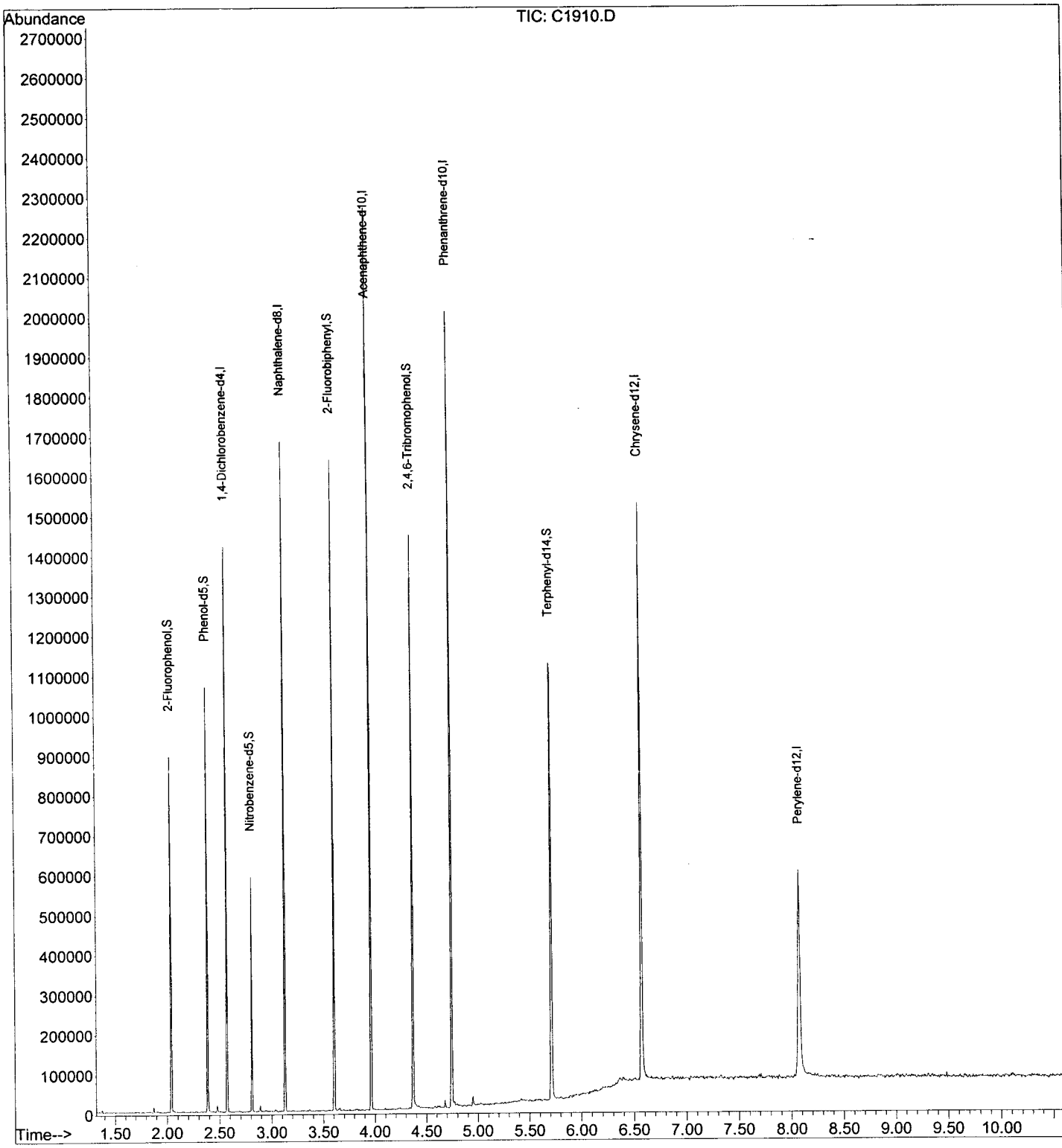
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\18-01-05C\
Data File : C1910.D
Acq On : 5 Jan 2018 14:41
Operator : EDM
Sample : .,BLKS180105-03,S,15.00g,0,0.5
Misc : 180105-03,01/05/18,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 05 14:55:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jan 05 10:20:16 2018
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\18-01-05C\
Data File : C1910.D
Acq On : 5 Jan 2018 14:41
Operator : EDM
Sample : .,BLKS180105-03,S,15.00g,0,0.5
Misc : 180105-03,01/05/18,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS0118.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS0118.M Fri Jan 05 14:55:21 2018

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/08/2018

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS180108-05	SOIL	99		92		103		90	
PCB	LCSS180108-05	SOIL	97		92		101		90	
PCB	E17-10966-009MS	SOIL	102		100		106		93	
PCB	E17-10966-009MS	SOIL	103		98		107		93	
COMPOSIT	E17-10966-009	SOIL	103		99		107		93	
GPEC-SB5	E18-00143-001	SOIL	111		99		115		97	
GPEC-SB5	E18-00143-002	SOIL	115		106		119		105	
GPEC-SB5	E18-00143-004	SOIL	103		95		106		94	
GPEC-SB5	E18-00143-006	SOIL	112		106		116		103	

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	46-155	36-144
DCB = Decachlorobiphenyl	37-172	50-146

\# Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

PCB LCS ACCURACY REPORT

Lab ID: LCSS180108-05
Date Received: NA
Date Extracted: 01/08/2018
Date Analyzed: 01/08/2018
Data file: R1846.D 01/08/18 16:24

GC Column: DB-5/DB1701P
Sample wt/vol: 10.00g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
Aroclor-1016	500	0.0	504.8	101		53-140
Aroclor-1260	500	0.0	504.2	101		53-157

	Aqueous	Soil/Sediment
LCS Recovery Limits (DKQP)	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

PCB MS/MSD ACCURACY REPORT

Lab ID: E17-10966-009
Date Received: NA
Date Extracted: 01/08/2018
Date Analyzed: 01/08/2018
MS Data file: R1847.D
MSD Data file: R1848.D

GC Column: DB-5/DB1701P
Sample wt/vol: 10.44g
Matrix-Units: Soil-µg/Kg
% Moisture: 11.7
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
Aroclor-1016	500	0.0	528.1	106		503.0	101		5		39-161/20
Aroclor-1260	500	0.0	595.7	119		569.8	114		4		38-182/24

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	30-150	30-150
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

PCB METHOD BLANK SUMMARY

Lab File ID:	R1845.D	Instrument ID:	GC-R
Date Extracted:	01/08/2018	Matrix:	SOIL
Date Analyzed:	01/08/2018	Time Analyzed:	16:07

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSS180108-05	01/08/2018	16:24
PCB	E17-10966-009MS	01/08/2018	16:41
PCB	E17-10966-009MSD	01/08/2018	16:58
COMPOSIT	E17-10966-009	01/08/2018	17:16
GPEC-SB5	E18-00143-001	01/09/2018	10:52
GPEC-SB5	E18-00143-002	01/09/2018	11:10
GPEC-SB5	E18-00143-004	01/09/2018	11:27
GPEC-SB5	E18-00143-006	01/09/2018	11:44

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/02/2018

Instrument ID: GC-R

GC Column (1st): DB-5

Data File: R1757.D R1756.D R1755.D R1754.D R1753.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.17	3.17	3.17	3.17	3.17	3.17	3.10	3.24
Aroclor-1016 {2}	3.99	3.99	3.99	3.99	3.99	3.99	3.92	4.06
Aroclor-1016 {3}	4.55	4.54	4.54	4.54	4.54	4.54	4.47	4.61
Aroclor-1016 {4}	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
Aroclor-1016 {5}	5.45	5.44	5.44	5.44	5.44	5.44	5.37	5.51
Aroclor-1221			2.09				2.02	2.16
Aroclor-1221 {2}			2.97				2.90	3.04
Aroclor-1221 {3}			3.08				3.01	3.15
Aroclor-1221 {4}			3.17				3.10	3.24
Aroclor-1221 {5}			3.73				3.66	3.80
Aroclor-1232			3.17				3.10	3.24
Aroclor-1232 {2}			3.99				3.92	4.06
Aroclor-1232 {3}			4.66				4.59	4.73
Aroclor-1232 {4}			5.25				5.18	5.32
Aroclor-1232 {5}			5.45				5.38	5.52
Aroclor-1242			3.99				3.92	4.06
Aroclor-1242 {2}			4.93				4.86	5.00
Aroclor-1242 {3}			5.25				5.18	5.32
Aroclor-1242 {4}			5.95				5.88	6.02
Aroclor-1242 {5}			6.22				6.15	6.29
Aroclor-1248			4.39				4.31	4.47
Aroclor-1248 {2}			4.93				4.85	5.01
Aroclor-1248 {3}			5.25				5.17	5.33
Aroclor-1248 {4}			5.95				5.87	6.03
Aroclor-1248 {5}			6.22				6.14	6.30
Aroclor-1254			6.35				6.27	6.43
Aroclor-1254 {2}			6.78				6.70	6.86
Aroclor-1254 {3}			6.95				6.86	7.04
Aroclor-1254 {4}			7.39				7.30	7.48
Aroclor-1254 {5}			8.24				8.15	8.33
Aroclor-1260	8.24	8.24	8.24	8.23	8.24	8.24	7.34	9.14
Aroclor-1260 {2}	8.92	8.92	8.91	8.91	8.91	8.91	8.01	9.81
Aroclor-1260 {3}	9.39	9.39	9.39	9.39	9.39	9.39	8.49	10.29
Aroclor-1260 {4}	9.88	9.88	9.88	9.88	9.87	9.88	8.98	10.78
Aroclor-1260 {5}	10.94	10.94	10.94	10.94	10.94	10.94	10.04	11.84

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/02/2018 **Instrument ID:** GC-R

GC Column (1st): DB-5

Data File: R1757.D R1756.D R1755.D R1754.D R1753.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	119630	128965	130765	117501	109895	121351	7.08
Aroclor-1016 {2}	157706	181818	174972	154786	145363	162929	9.23
Aroclor-1016 {3}	236873	213493	222255	199456	189443	212304	8.79
Aroclor-1016 {4}	117068	107016	113901	100453	93494	106386	9.07
Aroclor-1016 {5}	182772	166923	182140	162687	154599	169824	7.27
Aroclor-1221			33842				
Aroclor-1221 {2}			60801				
Aroclor-1221 {3}			70444				
Aroclor-1221 {4}			130804				
Aroclor-1221 {5}			125421				
Aroclor-1232			196513				
Aroclor-1232 {2}			15128				
Aroclor-1232 {3}			10703				
Aroclor-1232 {4}			4071				
Aroclor-1232 {5}			4948				
Aroclor-1242			140658				
Aroclor-1242 {2}			92471				
Aroclor-1242 {3}			122930				
Aroclor-1242 {4}			192842				
Aroclor-1242 {5}			175818				
Aroclor-1248			261729				
Aroclor-1248 {2}			156052				
Aroclor-1248 {3}			198039				
Aroclor-1248 {4}			323188				
Aroclor-1248 {5}			221752				
Aroclor-1254			382209				
Aroclor-1254 {2}			232471				
Aroclor-1254 {3}			453107				
Aroclor-1254 {4}			476700				
Aroclor-1254 {5}			449467				
Aroclor-1260	454660	441507	464931	428226	422492	442363	4.01
Aroclor-1260 {2}	339641	282342	276569	250879	245572	279001	13.41
Aroclor-1260 {3}	643313	600975	689937	642771	637300	642859	4.92
Aroclor-1260 {4}	312153	273968	330678	307139	303390	305466	6.71
Aroclor-1260 {5}	175652	169321	193690	175380	170033	176815	5.59
					Average %RSD		7.61

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/02/2018 **Instrument ID:** GC-R

GC Column (2nd): DB-1701P

Data File: R1757.C R1756.C R1755.C R1754.C R1753.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.52	3.52	3.52	3.52	3.52	3.52	3.45	3.59
Aroclor-1016 {2}	4.10	4.10	4.10	4.09	4.10	4.10	4.03	4.17
Aroclor-1016 {3}	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
Aroclor-1016 {4}	5.03	5.03	5.03	5.03	5.03	5.03	4.96	5.10
Aroclor-1016 {5}	5.20	5.20	5.20	5.20	5.20	5.20	5.13	5.27
Aroclor-1221			2.26				2.19	2.33
Aroclor-1221 {2}			3.21				3.14	3.28
Aroclor-1221 {3}			3.43				3.36	3.50
Aroclor-1221 {4}			3.52				3.45	3.59
Aroclor-1221 {5}			4.83				4.76	4.90
Aroclor-1232			3.52				3.45	3.59
Aroclor-1232 {2}			4.47				4.40	4.54
Aroclor-1232 {3}			5.03				4.96	5.10
Aroclor-1232 {4}			5.20				5.13	5.27
Aroclor-1232 {5}			5.79				5.72	5.86
Aroclor-1242			4.47				4.40	4.54
Aroclor-1242 {2}			5.20				5.13	5.27
Aroclor-1242 {3}			5.79				5.72	5.86
Aroclor-1242 {4}			5.95				5.88	6.02
Aroclor-1242 {5}			6.49				6.42	6.56
Aroclor-1248			4.83				4.75	4.91
Aroclor-1248 {2}			5.40				5.32	5.48
Aroclor-1248 {3}			5.79				5.71	5.87
Aroclor-1248 {4}			5.95				5.87	6.03
Aroclor-1248 {5}			6.29				6.21	6.37
Aroclor-1254			6.78				6.70	6.86
Aroclor-1254 {2}			7.36				7.28	7.44
Aroclor-1254 {3}			7.80				7.71	7.89
Aroclor-1254 {4}			7.98				7.89	8.07
Aroclor-1254 {5}			8.79				8.70	8.88
Aroclor-1260	7.80	7.80	7.80	7.80	7.80	7.80	6.90	8.70
Aroclor-1260 {2}	8.21	8.21	8.21	8.21	8.21	8.21	7.31	9.11
Aroclor-1260 {3}	9.39	9.39	9.39	9.39	9.39	9.39	8.49	10.29
Aroclor-1260 {4}	9.90	9.90	9.90	9.90	9.90	9.90	9.00	10.80
Aroclor-1260 {5}	10.49	10.49	10.48	10.48	10.48	10.49	9.59	11.39

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/02/2018 **Instrument ID:** GC-R

GC Column (2nd): DB-1701P

Data File: R1757.C R1756.C R1755.C R1754.C R1753.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	291671	275912	286692	256244	238358	269775	8.23
Aroclor-1016 {2}	571654	563537	546935	490089	461798	526803	9.17
Aroclor-1016 {3}	1330066	1127348	1202167	1106043	1072890	1167703	8.77
Aroclor-1016 {4}	511814	547686	552894	490506	463833	513346	7.37
Aroclor-1016 {5}	434035	384144	411680	371002	356160	391404	8.02
Aroclor-1221			77998				
Aroclor-1221 {2}			86001				
Aroclor-1221 {3}			74970				
Aroclor-1221 {4}			290548				
Aroclor-1221 {5}			494885				
Aroclor-1232			438989				
Aroclor-1232 {2}			24470				
Aroclor-1232 {3}			42271				
Aroclor-1232 {4}			26357				
Aroclor-1232 {5}			15056				
Aroclor-1242			201934				
Aroclor-1242 {2}			337081				
Aroclor-1242 {3}			449135				
Aroclor-1242 {4}			375718				
Aroclor-1242 {5}			730810				
Aroclor-1248			603599				
Aroclor-1248 {2}			938282				
Aroclor-1248 {3}			666666				
Aroclor-1248 {4}			617685				
Aroclor-1248 {5}			348664				
Aroclor-1254			906952				
Aroclor-1254 {2}			715346				
Aroclor-1254 {3}			506414				
Aroclor-1254 {4}			696233				
Aroclor-1254 {5}			1148057				
Aroclor-1260	790081	706853	716791	646698	629706	698026	9.12
Aroclor-1260 {2}	908651	842494	849713	762802	746852	822102	8.13
Aroclor-1260 {3}	646987	611056	734022	658649	654505	661044	6.80
Aroclor-1260 {4}	1338324	1360945	1659792	1528481	1526285	1482765	8.99
Aroclor-1260 {5}	1098273	1039564	1211245	1105152	1100003	1110847	5.60
					Average %RSD		8.02

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/02/2018 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R1757.D R1756.D R1755.D R1754.D R1753.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.53				8.41	8.65
Aroclor-1262 {2}			9.39				9.27	9.51
Aroclor-1262 {3}			10.03				9.91	10.15
Aroclor-1262 {4}			10.11				9.99	10.23
Aroclor-1262 {5}			10.94				10.82	11.06
Aroclor-1268			10.03				9.91	10.15
Aroclor-1268 {2}			10.11				9.99	10.23
Aroclor-1268 {3}			10.58				10.46	10.70
Aroclor-1268 {4}			10.71				10.59	10.83
Aroclor-1268 {5}			11.55				11.43	11.67

GC Column (2nd): DB-1701P

Data File: R1757.C R1756.C R1755.C R1754.C R1753.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.39				9.27	9.51
Aroclor-1262 {2}			9.90				9.78	10.02
Aroclor-1262 {3}			10.40				10.28	10.52
Aroclor-1262 {4}			10.48				10.36	10.60
Aroclor-1262 {5}			11.08				10.96	11.20
Aroclor-1268			10.39				10.27	10.51
Aroclor-1268 {2}			10.48				10.36	10.60
Aroclor-1268 {3}			10.73				10.61	10.85
Aroclor-1268 {4}			11.53				11.41	11.65
Aroclor-1268 {5}			11.95				11.83	12.07

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/02/2018 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R1757.D R1756.D R1755.D R1754.D R1753.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			386269				
Aroclor-1262 {2}			746519				
Aroclor-1262 {3}			306858				
Aroclor-1262 {4}			343417				
Aroclor-1262 {5}			280587				
Aroclor-1268			892625				
Aroclor-1268 {2}			974787				
Aroclor-1268 {3}			744949				
Aroclor-1268 {4}			208574				
Aroclor-1268 {5}			2440903				

GC Column (2nd): DB-1701P

Data File: R1757.C R1756.C R1755.C R1754.C R1753.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			827876				
Aroclor-1262 {2}			1900872				
Aroclor-1262 {3}			634261				
Aroclor-1262 {4}			1335539				
Aroclor-1262 {5}			272024				
Aroclor-1268			2081123				
Aroclor-1268 {2}			2187129				
Aroclor-1268 {3}			1722043				
Aroclor-1268 {4}			739009				
Aroclor-1268 {5}			5501736				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/08/2018 **Instrument ID:** GC-R

Data File: R1844.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	121351	122796	1.19
Aroclor-1016 {2}	4.00	3.92	4.06	162929	165076	1.32
Aroclor-1016 {3}	4.55	4.47	4.61	212304	207939	2.06
Aroclor-1016 {4}	5.05	4.98	5.12	106386	109725	3.14
Aroclor-1016 {5}	5.45	5.37	5.51	169824	169703	0.07
Aroclor-1260	8.24	7.34	9.14	442363	434798	1.71
Aroclor-1260 {2}	8.92	8.01	9.81	279001	257561	7.68
Aroclor-1260 {3}	9.40	8.49	10.29	642859	648704	0.91
Aroclor-1260 {4}	9.89	8.98	10.78	305466	312835	2.41
Aroclor-1260 {5}	10.95	10.04	11.84	176815	176345	0.27

Data File: R1844.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.53	3.45	3.59	269775	276885	2.64
Aroclor-1016 {2}	4.11	4.03	4.17	526803	526102	0.13
Aroclor-1016 {3}	4.84	4.76	4.90	1167703	1149141	1.59
Aroclor-1016 {4}	5.04	4.96	5.10	513346	536800	4.57
Aroclor-1016 {5}	5.21	5.13	5.27	391404	396414	1.28
Aroclor-1260	7.81	6.90	8.70	698026	682922	2.16
Aroclor-1260 {2}	8.22	7.31	9.11	822102	812966	1.11
Aroclor-1260 {3}	9.40	8.49	10.29	661044	714198	8.04
Aroclor-1260 {4}	9.91	9.00	10.80	1482765	1578895	6.48
Aroclor-1260 {5}	10.50	9.59	11.39	1110847	1150121	3.54

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/08/2018 **Instrument ID:** GC-R

Data File: R1854.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	121351	121936	0.48
Aroclor-1016 {2}	3.99	3.92	4.06	162929	165435	1.54
Aroclor-1016 {3}	4.54	4.47	4.61	212304	206926	2.53
Aroclor-1016 {4}	5.05	4.98	5.12	106386	106662	0.26
Aroclor-1016 {5}	5.45	5.37	5.51	169824	167937	1.11
Aroclor-1260	8.24	7.34	9.14	442363	427415	3.38
Aroclor-1260 {2}	8.92	8.01	9.81	279001	254341	8.84
Aroclor-1260 {3}	9.40	8.49	10.29	642859	642941	0.01
Aroclor-1260 {4}	9.88	8.98	10.78	305466	309979	1.48
Aroclor-1260 {5}	10.95	10.04	11.84	176815	199803	13.00

Data File: R1854.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.52	3.45	3.59	269775	277385	2.82
Aroclor-1016 {2}	4.09	4.03	4.17	526803	526734	0.01
Aroclor-1016 {3}	4.83	4.76	4.90	1167703	1155797	1.02
Aroclor-1016 {4}	5.03	4.96	5.10	513346	535049	4.23
Aroclor-1016 {5}	5.20	5.13	5.27	391404	395763	1.11
Aroclor-1260	7.80	6.90	8.70	698026	678184	2.84
Aroclor-1260 {2}	8.21	7.31	9.11	822102	809528	1.53
Aroclor-1260 {3}	9.39	8.49	10.29	661044	697468	5.51
Aroclor-1260 {4}	9.90	9.00	10.80	1482765	1590940	7.30
Aroclor-1260 {5}	10.49	9.59	11.39	1110847	1158972	4.33

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/09/2018 **Instrument ID:** GC-R

Data File: R1855.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	121351	132826	9.46
Aroclor-1016 {2}	3.99	3.92	4.06	162929	179982	10.47
Aroclor-1016 {3}	4.54	4.47	4.61	212304	226203	6.55
Aroclor-1016 {4}	5.05	4.98	5.12	106386	117611	10.55
Aroclor-1016 {5}	5.45	5.37	5.51	169824	184794	8.81
Aroclor-1260	8.24	7.34	9.14	442363	473830	7.11
Aroclor-1260 {2}	8.91	8.01	9.81	279001	281621	0.94
Aroclor-1260 {3}	9.39	8.49	10.29	642859	711332	10.65
Aroclor-1260 {4}	9.88	8.98	10.78	305466	341843	11.91
Aroclor-1260 {5}	10.94	10.04	11.84	176815	183333	3.69

Data File: R1855.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.52	3.45	3.59	269775	300802	11.50
Aroclor-1016 {2}	4.10	4.03	4.17	526803	569433	8.09
Aroclor-1016 {3}	4.83	4.76	4.90	1167703	1262828	8.15
Aroclor-1016 {4}	5.03	4.96	5.10	513346	580235	13.03
Aroclor-1016 {5}	5.20	5.13	5.27	391404	433088	10.65
Aroclor-1260	7.80	6.90	8.70	698026	751491	7.66
Aroclor-1260 {2}	8.21	7.31	9.11	822102	889998	8.26
Aroclor-1260 {3}	9.39	8.49	10.29	661044	766462	15.95
Aroclor-1260 {4}	9.90	9.00	10.80	1482765	1741177	17.43
Aroclor-1260 {5}	10.49	9.59	11.39	1110847	1283042	15.50

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/09/2018 **Instrument ID:** GC-R

Data File: R1860.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.17	3.10	3.24	121351	133188	9.75
Aroclor-1016 {2}	3.99	3.92	4.06	162929	181603	11.46
Aroclor-1016 {3}	4.54	4.47	4.61	212304	225679	6.30
Aroclor-1016 {4}	5.05	4.98	5.12	106386	116821	9.81
Aroclor-1016 {5}	5.44	5.37	5.51	169824	184485	8.63
Aroclor-1260	8.24	7.34	9.14	442363	476370	7.69
Aroclor-1260 {2}	8.91	8.01	9.81	279001	284808	2.08
Aroclor-1260 {3}	9.39	8.49	10.29	642859	715458	11.29
Aroclor-1260 {4}	9.88	8.98	10.78	305466	345447	13.09
Aroclor-1260 {5}	10.95	10.04	11.84	176815	199246	12.69

Data File: R1860.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.52	3.45	3.59	269775	300478	11.38
Aroclor-1016 {2}	4.09	4.03	4.17	526803	571099	8.41
Aroclor-1016 {3}	4.83	4.76	4.90	1167703	1260717	7.97
Aroclor-1016 {4}	5.03	4.96	5.10	513346	584970	13.95
Aroclor-1016 {5}	5.20	5.13	5.27	391404	432368	10.47
Aroclor-1260	7.80	6.90	8.70	698026	753551	7.95
Aroclor-1260 {2}	8.21	7.31	9.11	822102	898723	9.32
Aroclor-1260 {3}	9.39	8.49	10.29	661044	765356	15.78
Aroclor-1260 {4}	9.90	9.00	10.80	1482765	1750358	18.05
Aroclor-1260 {5}	10.49	9.59	11.39	1110847	1275119	14.79

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.71 **DCB 1** 12.05 **TCMX 2** 2.70 **DCB 2** 12.19

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS180108-05	01/08/2018	16:07	2.71		12.05		2.70		12.19	
PCB	LCSS180108-05	01/08/2018	16:24	2.71		12.04		2.69		12.18	
PCB	E17-10966-009MS	01/08/2018	16:41	2.71		12.04		2.69		12.17	
PCB	E17-10966-009MSD	01/08/2018	16:58	2.71		12.04		2.69		12.17	
COMPOSIT	E17-10966-009	01/08/2018	17:16	2.71		12.04		2.69		12.17	
GPEC-SB5	E18-00143-001	01/09/2018	10:52	2.71		12.04		2.70		12.19	
GPEC-SB5	E18-00143-002	01/09/2018	11:10	2.71		12.04		2.69		12.18	
GPEC-SB5	E18-00143-004	01/09/2018	11:27	2.71		12.04		2.69		12.17	
GPEC-SB5	E18-00143-006	01/09/2018	11:44	2.71		12.04		2.69		12.17	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\18-01-08\
Data File : R1849.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 08 Jan 2018 17:16
Operator : PSL
Sample : COMPOSIT,E17-10966-009,S,10.22g,11.7,20
Misc : 180108-05,01/08/18,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 09 10:24:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0102.M
Quant Title :
QLast Update : Tue Jan 02 15:42:51 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.69	1387.0E6	3399.3E6	206.638	214.839
Spiked Amount 200.000			Recovery	=	103.32%	107.42%
2) S DCB	12.04	12.17	1192.2E6	2648.0E6	197.466	186.023
Spiked Amount 200.000			Recovery	=	98.73%	93.01%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

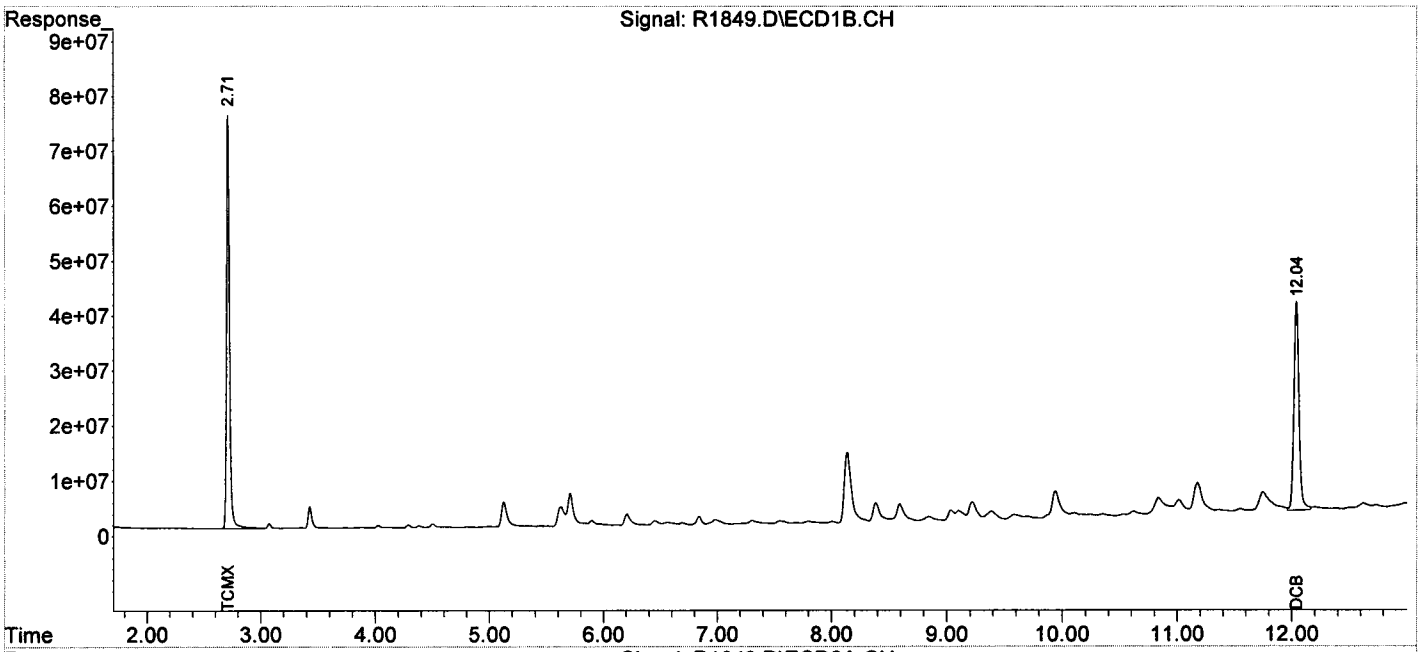
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

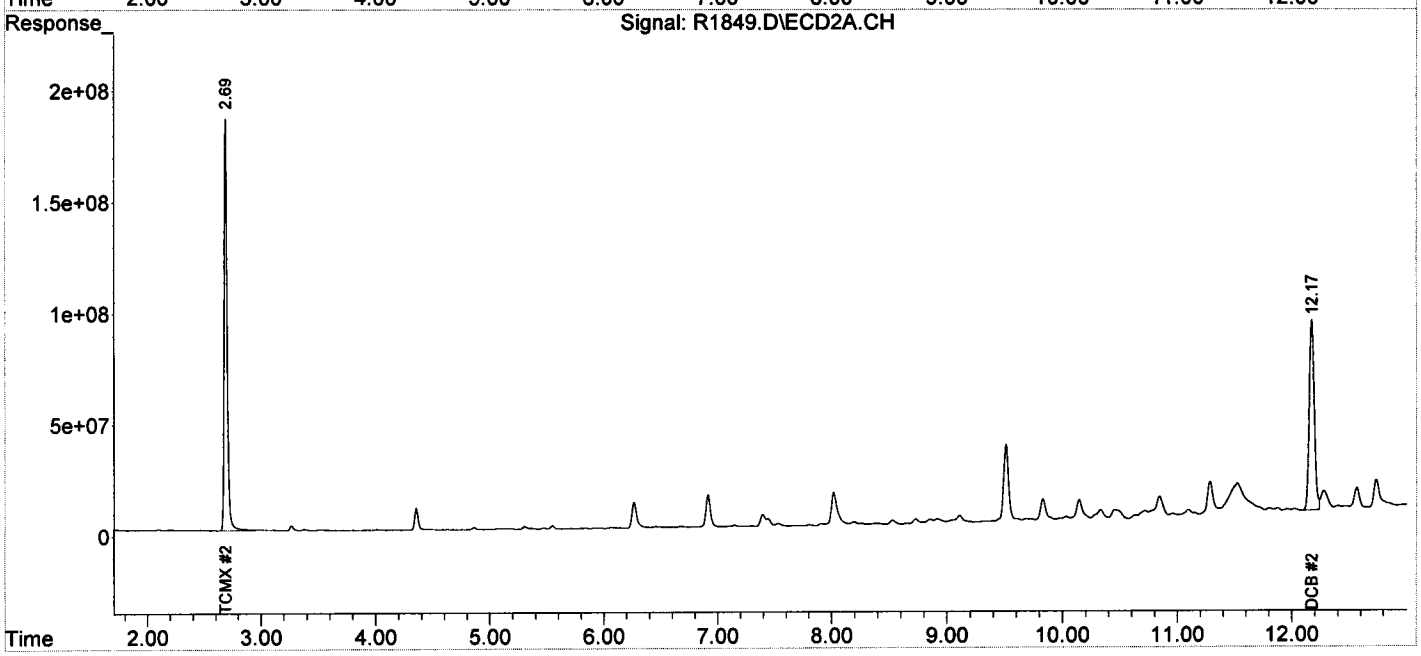
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\18-01-08\
Data File : R1849.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 08 Jan 2018 17:16
Operator : PSL
Sample : COMPOSIT,E17-10966-009,S,10.22g,11.7,20
Misc : 180108-05,01/08/18,12/20/17,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 09 10:24:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0102.M
Quant Title :
QLast Update : Tue Jan 02 15:42:51 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS180108-05
Client ID: PCB
Date Received: NA
Date Extracted: 01/08/2018
Date Analyzed: 01/08/2018
Data file: R1845.D 01/08/18 16:07

GC Column: DB-5/DB1701P
Sample wt/vol: 10.00g
Matrix-Units: Soil-mg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.020	0.008
Aroclor-1221	ND		0.020	0.008
Aroclor-1232	ND		0.020	0.008
Aroclor-1242	ND		0.020	0.008
Aroclor-1248	ND		0.020	0.008
Aroclor-1254	ND		0.020	0.008
Aroclor-1260	ND		0.020	0.008
Aroclor-1262	ND		0.020	0.008
Aroclor-1268	ND		0.020	0.008
PCBs	ND		0.020	0.008

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\18-01-08\
Data File : R1845.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 08 Jan 2018 16:07
Operator : PSL
Sample : PCB,BLKS180108-05,S,10.00g,0,20
Misc : 180108-05,01/08/18,NA,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 08 16:32:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0102.M
Quant Title :
QLast Update : Tue Jan 02 15:42:51 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.70	1323.8E6	3272.3E6	197.222	206.812
Spiked Amount 200.000			Recovery	=	98.61%	103.41%
2) S DCB	12.05	12.19	1105.1E6	2564.8E6	183.036	180.180
Spiked Amount 200.000			Recovery	=	91.52%	90.09%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

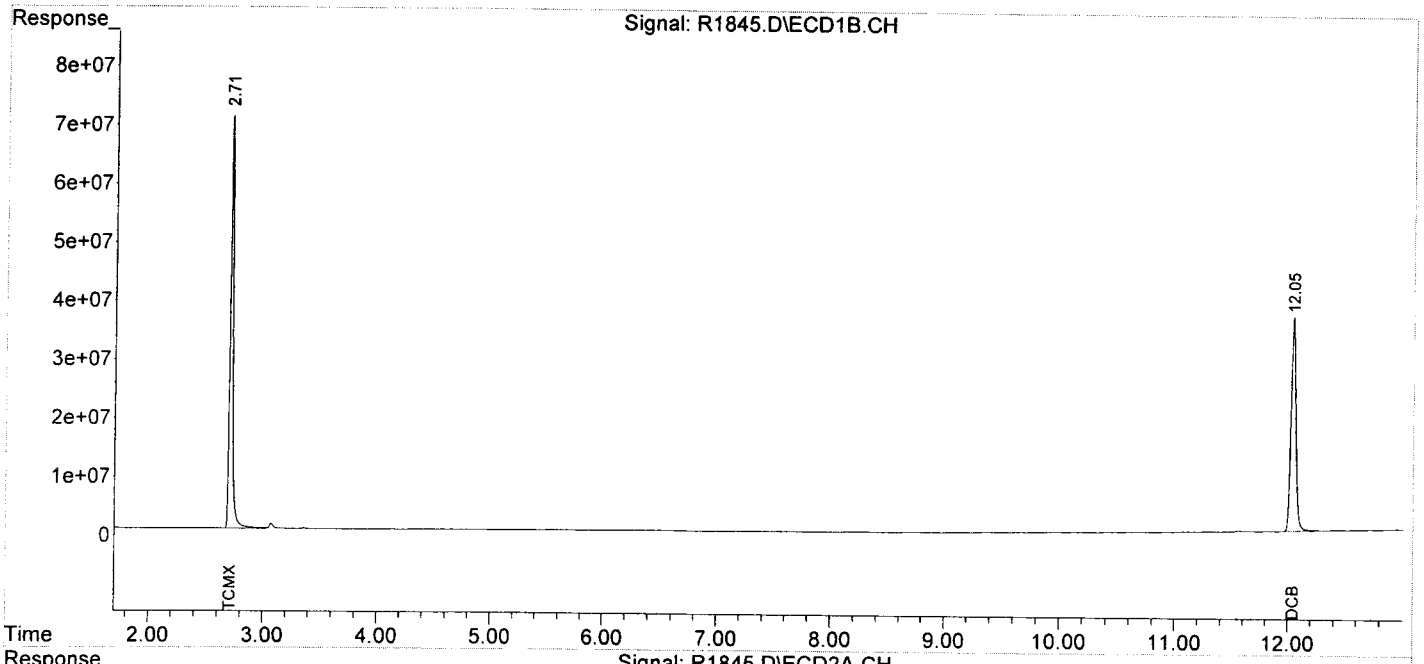
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

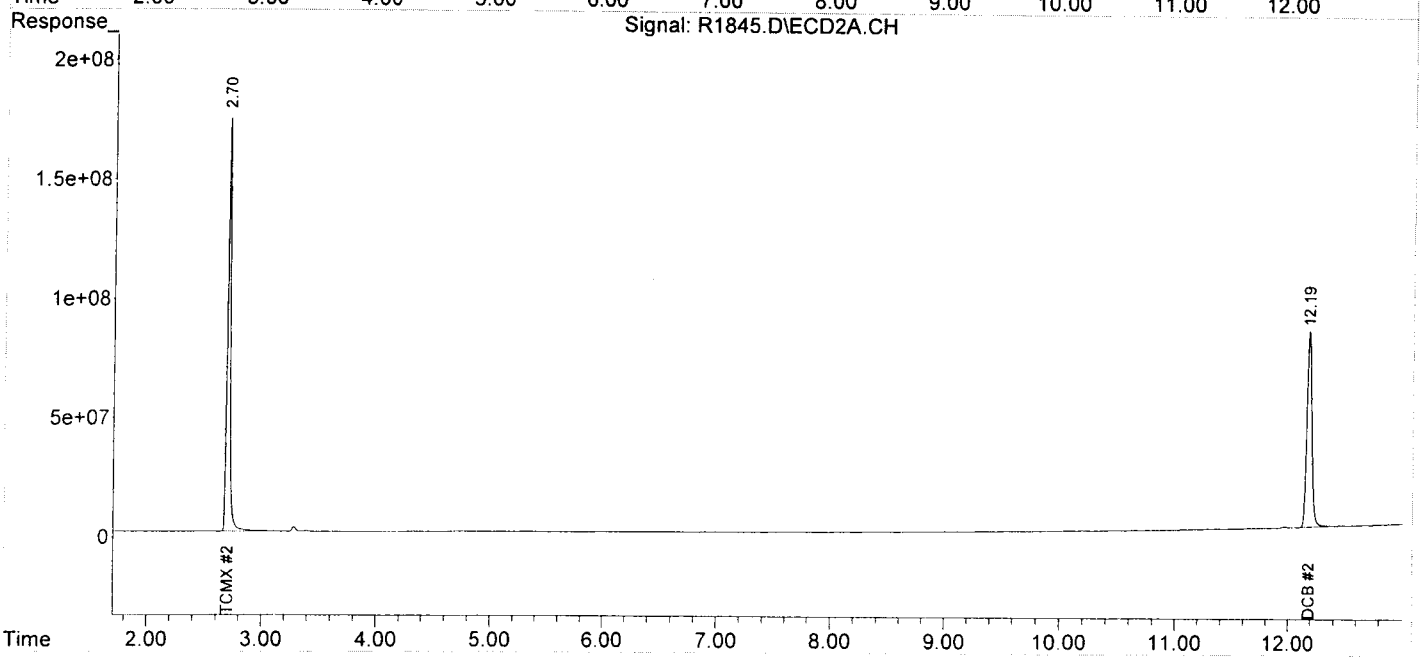
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\18-01-08\
Data File : R1845.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 08 Jan 2018 16:07
Operator : PSL
Sample : PCB,BLKS180108-05,S,10.00g,0,20
Misc : 180108-05,01/08/18,NA,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 08 16:32:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0102.M
Quant Title :
QLast Update : Tue Jan 02 15:42:51 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





EXTRACTABLE PETROLEUM HYDROCARBON

EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH-DRO SURROGATE PERCENT RECOVERY SUMMARY

Instrument ID: GC-I

Column: RTX-5

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	COD % rec	#	OTP % rec	#
NJ-EPH-D	BLKS180108-02	SOIL	01/10/2018	9:58	111		113	
NJ-EPH-D	LCSS180108-02	SOIL	01/10/2018	10:20	128		139	
NJ-EPH-D	LCSDS180108-02	SOIL	01/10/2018	10:42	127		138	
COMPOSIT	E17-10966-009	SOIL	01/10/2018	11:04	103		111	
S-1	E18-00122-001	SOIL	01/10/2018	11:48	101		103	
S-2	E18-00122-002	SOIL	01/10/2018	12:10	109		107	
S-3	E18-00122-003	SOIL	01/10/2018	12:32	121		118	
S-4	E18-00122-004	SOIL	01/10/2018	12:54	107		107	
S-5	E18-00122-005	SOIL	01/10/2018	13:16	108		106	
S-6	E18-00122-006	SOIL	01/10/2018	14:00	111		111	
S-1	E18-00122-001DUP	SOIL	01/10/2018	14:22	92		94	
NJ-EPH-D	E18-00122-001MS	SOIL	01/10/2018	14:44	106		118	

Surrogate QC Limits	Soil	Aqueous
OTP = o-Terphenyl	40 - 140	40 - 140
COD = 1-Chlorooctadecane	40 - 140	40 - 140

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

NJ-EPH-DRO LCS/LCSD ACCURACY REPORT

BS Lab Sample ID: LCSDS180108-02

Date Extracted: 01/08/2018

Date Analyzed: 01/10/2018

GC Column: RTX-5

Sample wt/vol 10.0g

Matrix-Units: Soil-mg/Kg

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	LCS CONC. (mg/Kg)	LCS % REC	#	QC LIMITS REC
C9-C28	3000	0	2860	95.2		40 - 140

COMPOUND	SAMPLE CONC. (mg/Kg)	LCSD CONC. (mg/Kg)	LCSD % REC	#	% RPD	#	QC LIMITS RPD	REC
C9-C28	0	2830	94.4		0.763		25	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

NJ-EPH-DRO MS ACCURACY REPORT

MS Lab Sample ID E18-00122-001MS

Date Extracted: 01/08/2018

Date Analyzed: 01/10/2018

GC Column: RTX-5

Sample wt/vol 10.7g

Matrix-Units: Soil-mg/Kg

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC	#	QC LIMITS REC
C9-C28	3000	621	3000	79.2		40 - 140

Column to be used to flag recovery values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

Spike Recovery: 0 out of 1 outside limits

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-DRO DUPLICATE RESULTS SUMMARY

Client ID:	S-1	GC Column:	RTX-5
Date Received:	01/05/2018	Matrix-Units:	Soil-mg/Kg
Date Extracted:	01/08/2018	% Moisture:	18.8
Lab ID:	E18-00122-001	Lab ID:	E18-00122-001DUP
Sample wt/vol:	10.32g	Sample wt/vol:	10.25g
Date Analyzed:	01/10/2018	Date Analyzed:	01/10/2018
Aliphatics Sample Data File:	IB7109.D	Aliphatics Sample Dup Data File	IB7115.D
Dilution Factor:	1	Dilution Factor:	1

Compound	Concentration	Sample Dup Conc	% RPD
C9-C28	71.5	68.3	4.58
C28-C40	ND	ND	NC
C9-C40 Total	71.5	68.3	4.58

	Aqueous	Soil/Sediment
Sample/Sample Duplicate PRECISION (% RPD)	50	50

NC -- Not Calculable

NJ-EPH-DRO METHOD BLANK SUMMARY

Lab File ID: IB7105.D
Instrument ID: GC-I
Date Extracted: 01/08/2018
Matrix: SOIL
Date Analyzed: 01/10/2018
Time Analyzed: 9:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS and LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NJ-EPH-D	LCSS180108-02	01/10/2018	10:20
NJ-EPH-D	LCSDS180108-02	01/10/2018	10:42
COMPOSIT	E17-10966-009	01/10/2018	11:04
S-1	E18-00122-001	01/10/2018	11:48
S-2	E18-00122-002	01/10/2018	12:10
S-3	E18-00122-003	01/10/2018	12:32
S-4	E18-00122-004	01/10/2018	12:54
S-5	E18-00122-005	01/10/2018	13:16
S-6	E18-00122-006	01/10/2018	14:00
S-1	E18-00122-001DUP	01/10/2018	14:22
NJ-EPH-D	E18-00122-001MS	01/10/2018	14:44

NJ-EPH-DRO RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-I

Column: RTX-5

Surrogate RT from initial calibration:

COD 8.39 **OTP** 6.75

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	COD RT	#	OTP RT	#
NJ-EPH-D	BLKS180108-02	SOIL	01/10/2018	9:58	8.38		6.74	
NJ-EPH-D	LCSS180108-02	SOIL	01/10/2018	10:20	8.39		6.74	
NJ-EPH-D	LCSDS180108-02	SOIL	01/10/2018	10:42	8.39		6.74	
COMPOSIT	E17-10966-009	SOIL	01/10/2018	11:04	8.39		6.74	
S-1	E18-00122-001	SOIL	01/10/2018	11:48	8.39		6.74	
S-2	E18-00122-002	SOIL	01/10/2018	12:10	8.39		6.74	
S-3	E18-00122-003	SOIL	01/10/2018	12:32	8.39		6.74	
S-4	E18-00122-004	SOIL	01/10/2018	12:54	8.39		6.74	
S-5	E18-00122-005	SOIL	01/10/2018	13:16	8.39		6.74	
S-6	E18-00122-006	SOIL	01/10/2018	14:00	8.39		6.74	
S-1	E18-00122-001DU	SOIL	01/10/2018	14:22	8.39		6.74	
NJ-EPH-D	E18-00122-001MS	SOIL	01/10/2018	14:44	8.39		6.74	

Surrogate QC Limits

OTP = o-Terphenyl ± 0.1 Minutes

COD = 1-Chlorooctadecane ± 0.1 Minutes

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

EXTRACTABLE PETROLEUM HYDROCARBON SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7108.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 11:04
Operator : JOLANTA
Sample : COMPOSIT,E17-10966-009,S,10.44g,11.7,1
Misc : 180108-02,01/08/18,12/20/17,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 11:30:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.39	35490409	102.914	ng	m
Spiked Amount 100.000		Recovery = 102.91%			
23) S o-Terphenyl	6.74	48272046	111.434	ng	m
Spiked Amount 100.000		Recovery = 111.43%			
Target Compounds					
20) H C9-C28	5.80	537803637	1286.940	ng	
21) H C28-C40	12.00	580808027	1433.368	ng	

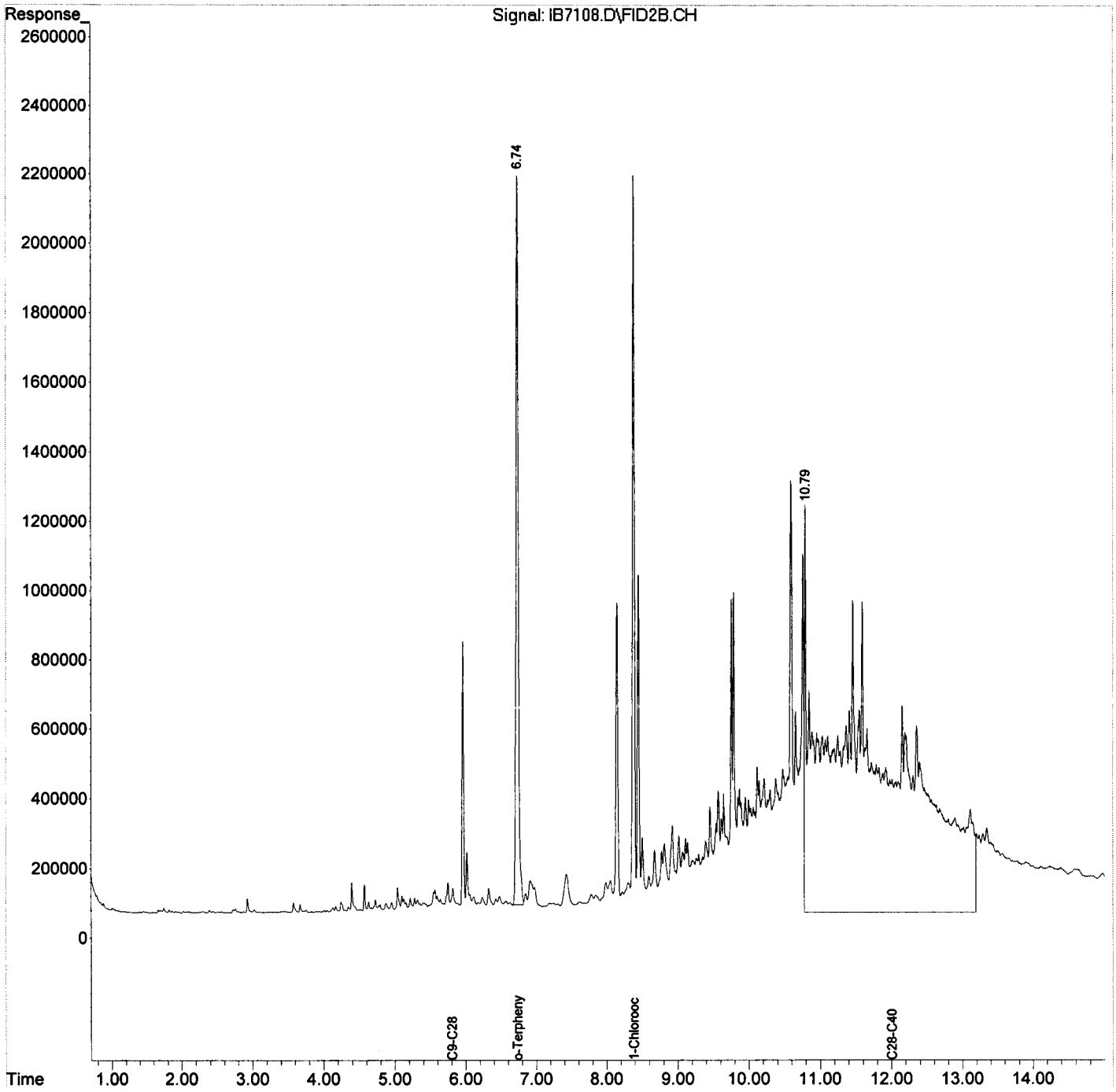
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7108.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 11:04
Operator : JOLANTA
Sample : COMPOSIT,E17-10966-009,S,10.44g,11.7,1
Misc : 180108-02,01/08/18,12/20/17,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 11:30:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON STANDARDS

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/09/2018 Instrument ID: GC-I

Date File: IB7100.D IB7099.D IB7098.D IB7097.D IB7096.D GC Column: RTX-5

COMPOUND	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.03	1.03	1.04	1.04	1.04	1.04	0.91	1.17
n-Decane (C10)	1.70	1.70	1.71	1.71	1.72	1.71	1.58	1.84
n-Dodecane (C12)	3.02	3.03	3.03	3.04	3.04	3.03	2.90	3.16
n-Tetradecane (C14)	4.13	4.13	4.14	4.14	4.15	4.14	4.01	4.27
n-Hexadecane (C16)	5.10	5.10	5.11	5.11	5.12	5.11	4.98	5.24
n-Octadecane (C18)	6.06	6.06	6.07	6.08	6.10	6.07	5.94	6.20
n-Eicosane (C20)	7.79	7.80	7.81	7.83	7.86	7.82	7.69	7.95
n-Heneicosane (C21)	8.46	8.47	8.48	8.49	8.51	8.48	8.34	8.62
n-Docosane (C22)	8.92	8.93	8.93	8.94	8.96	8.94	8.80	9.08
n-Tetracosane (C24)	9.61	9.61	9.62	9.63	9.64	9.62	9.48	9.76
n-Hexacosane (C26)	10.15	10.15	10.16	10.16	10.17	10.16	10.02	10.30
n-Octacosane (C28)	10.61	10.62	10.62	10.63	10.64	10.62	10.46	10.78
n-Triacontane (C30)	11.04	11.04	11.04	11.05	11.06	11.05	10.89	11.21
n-Dotriacontane (C32)	11.43	11.43	11.43	11.44	11.45	11.44	11.28	11.60
n-Tetratriacontane (C34)	11.80	11.80	11.80	11.81	11.82	11.81	11.61	12.01
n-Hexatriacontane (C36)	12.15	12.15	12.16	12.17	12.18	12.16	11.96	12.36
n-Octatriacontane (C38)	12.50	12.50	12.51	12.52	12.53	12.51	12.31	12.71
n-Tetracontane (C40)	12.90	12.90	12.91	12.92	12.94	12.91	12.71	13.11
C9-C28	5.80	5.80	5.80	5.80	5.80	5.80	5.64	5.96
C28-C40	12.00	12.00	12.00	12.00	12.00	12.00	11.84	12.16
C9-C40	7.00	7.00	7.00	7.00	7.00	7.00	6.84	7.16

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/09/2018 Instrument ID: GC-I

Date File: IB7100.D IB7099.D IB7098.D IB7097.D IB7096.D GC Column: RTX-5

COMPOUND	CALIBRATION FACTORS					MEAN	%RSD
	20	100	250	500	1000		
n-Nonane (C9)	403751	405804	383135	364727	384525	388388	4.35
n-Decane (C10)	408935	411761	386993	369215	389270	393235	4.44
n-Dodecane (C12)	401139	406983	386817	369896	391741	391315	3.66
n-Tetradecane (C14)	404806	403985	385794	369101	391563	391050	3.76
n-Hexadecane (C16)	404093	403315	386119	369377	391282	390837	3.65
n-Octadecane (C18)	410955	409224	391558	374952	331188	383575	8.54
n-Eicosane (C20)	412235	407583	345629	348252	363400	375420	8.59
n-Heneicosane (C21)	420392	386471	350687	339661	361808	371804	8.67
n-Docosane (C22)	418384	414761	366812	354623	375441	386004	7.49
n-Tetracosane (C24)	421160	411126	371296	362750	380976	389462	6.53
n-Hexacosane (C26)	430937	413514	378620	369471	383108	395130	6.57
n-Octacosane (C28)	433504	415344	382771	373351	383006	397595	6.44
n-Triacontane (C30)	444074	420131	380622	375136	379048	399802	7.69
n-Dotriacontane (C32)	433167	412166	373410	368922	370298	391593	7.50
n-Tetratriacontane (C34)	431104	403697	364645	358899	359946	383658	8.44
n-Hexatriacontane (C36)	431366	397514	358249	351583	356930	379128	9.09
n-Octatriacontane (C38)	416179	381413	344124	338534	348762	365802	8.95
n-Tetracontane (C40)	389209	371640	339441	334550	348518	356672	6.48
C9-C28	466991	444711	396742	381354	399667	417893	8.66
C28-C40	515503	417201	369205	359882	364232	405205	16.25
C9-C40	517205	441255	390606	375686	388436	422638	13.84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7096.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 14:37
Operator : JOLANTA
Sample : ALI_L5_IAS_6045.1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:29:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.42	341508189	989.375 ng
Spiked Amount	100.000		Recovery =	989.38%
23) S	o-Terphenyl	6.80	384098380	886.677 ng
Spiked Amount	100.000		Recovery =	886.68%
	Target Compounds			
2) T	n-Nonane (C9)	1.04	384524764	990.052 ng
3) T	n-Decane (C10)	1.72	389269769	989.916 ng
4) T	n-Dodecane (C12)	3.04	391740770	1001.087 ng
5) T	n-Tetradecane (C14)	4.15	391562510	1001.311 ng
6) T	n-Hexadecane (C16)	5.12	391282090	1001.137 ng
7) T	n-Octadecane (C18)	6.10	331188322	863.423 ng
8) T	n-Eicosane (C20)	7.86	363400049	965.944 ng
9) T	n-Heneicosane (C21)	8.51	361807861	973.114 ng
10) T	n-Docosane (C22)	8.96	375440936	972.634 ng
11) T	n-Tetracosane (C24)	9.64	380976001	978.212 ng
12) T	n-Hexacosane (C26)	10.17	383107718	969.574 ng
13) T	n-Octacosane (C28)	10.64	383005609	963.305 ng
14) T	n-Triacontane (C30)	11.06	379047711	948.087 ng
15) T	n-Dotriacontane (C32)	11.45	370298098	945.620 ng
16) T	n-Tetratriacontane (C34)	11.82	359945697	938.194 ng
17) T	n-Hexatriacontane (C36)	12.18	356929686	941.448 ng
18) T	n-Octatriacontane (C38)	12.53	348762232	953.416 ng
19) T	n-Tetracontane (C40)	12.94	348517787	977.138 ng
20) H	C9-C28	5.80	4796000189	11477.350 ng
21) H	C28-C40	12.00	2185391966	5393.300 ng
22) H	C9-C40	7.00	6991851461	16544.050 ng

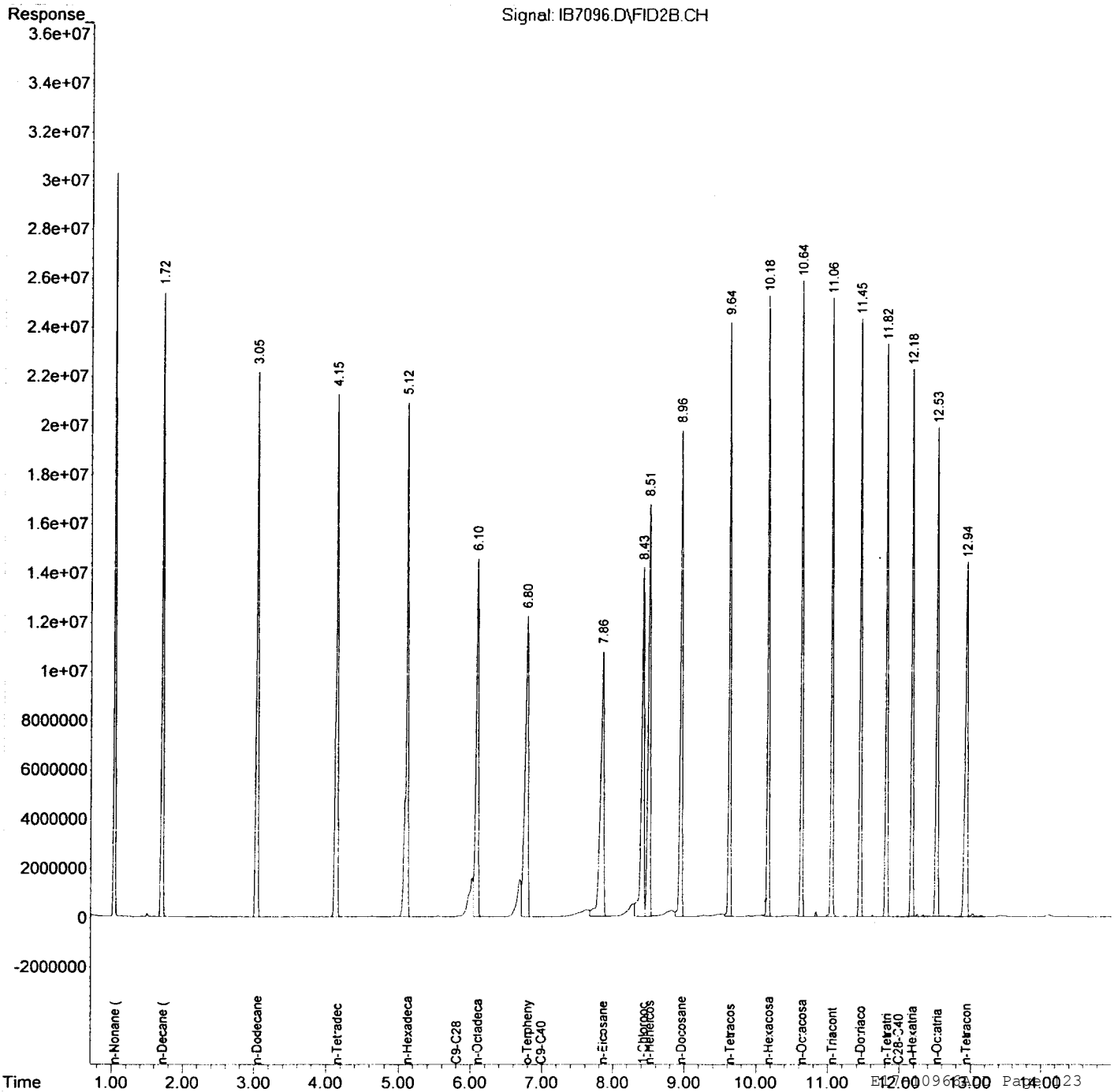
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7096.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 14:37
Operator : JOLANTA
Sample : ALI_L5_IAS_6045,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:29:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7097.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 14:59
Operator : JOLANTA
Sample : ALI_L4_IAS_6046,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:30:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.40	158982007	460.583	ng	m
Spiked Amount	100.000		Recovery =	460.58%		
23) S	o-Terphenyl	6.77	210428339	485.766	ng	
Spiked Amount	100.000		Recovery =	485.77%		
	Target Compounds					
2) T	n-Nonane (C9)	1.04	182363732	469.539	ng	
3) T	n-Decane (C10)	1.71	184607632	469.459	ng	
4) T	n-Dodecane (C12)	3.04	184947817	472.631	ng	
5) T	n-Tetradecane (C14)	4.14	184550369	471.936	ng	
6) T	n-Hexadecane (C16)	5.11	184688450	472.545	ng	
7) T	n-Octadecane (C18)	6.08	187475984	488.759	ng	
8) T	n-Eicosane (C20)	7.83	174125956	462.840	ng	
9) T	n-Heneicosane (C21)	8.49	169830680	456.775	ng	
10) T	n-Docosane (C22)	8.94	177311507	459.351	ng	
11) T	n-Tetracosane (C24)	9.63	181375167	465.707	ng	
12) T	n-Hexacosane (C26)	10.16	184735272	467.530	ng	
13) T	n-Octacosane (C28)	10.63	186675460	469.511	ng	
14) T	n-Triacontane (C30)	11.05	187568108	469.152	ng	
15) T	n-Dotriacontane (C32)	11.44	184461109	471.053	ng	
16) T	n-Tetratriacontane (C34)	11.81	179449301	467.732	ng	
17) T	n-Hexatriacontane (C36)	12.17	175791321	463.672	ng	
18) T	n-Octatriacontane (C38)	12.52	169267080	462.728	ng	
19) T	n-Tetracontane (C40)	12.92	167274999	468.988	ng	
20) H	C9-C28	5.80	2288125214	5475.732	ng	
21) H	C28-C40	12.00	1079646613	2664.446	ng	
22) H	C9-C40	7.00	3381176906	8000.507	ng	

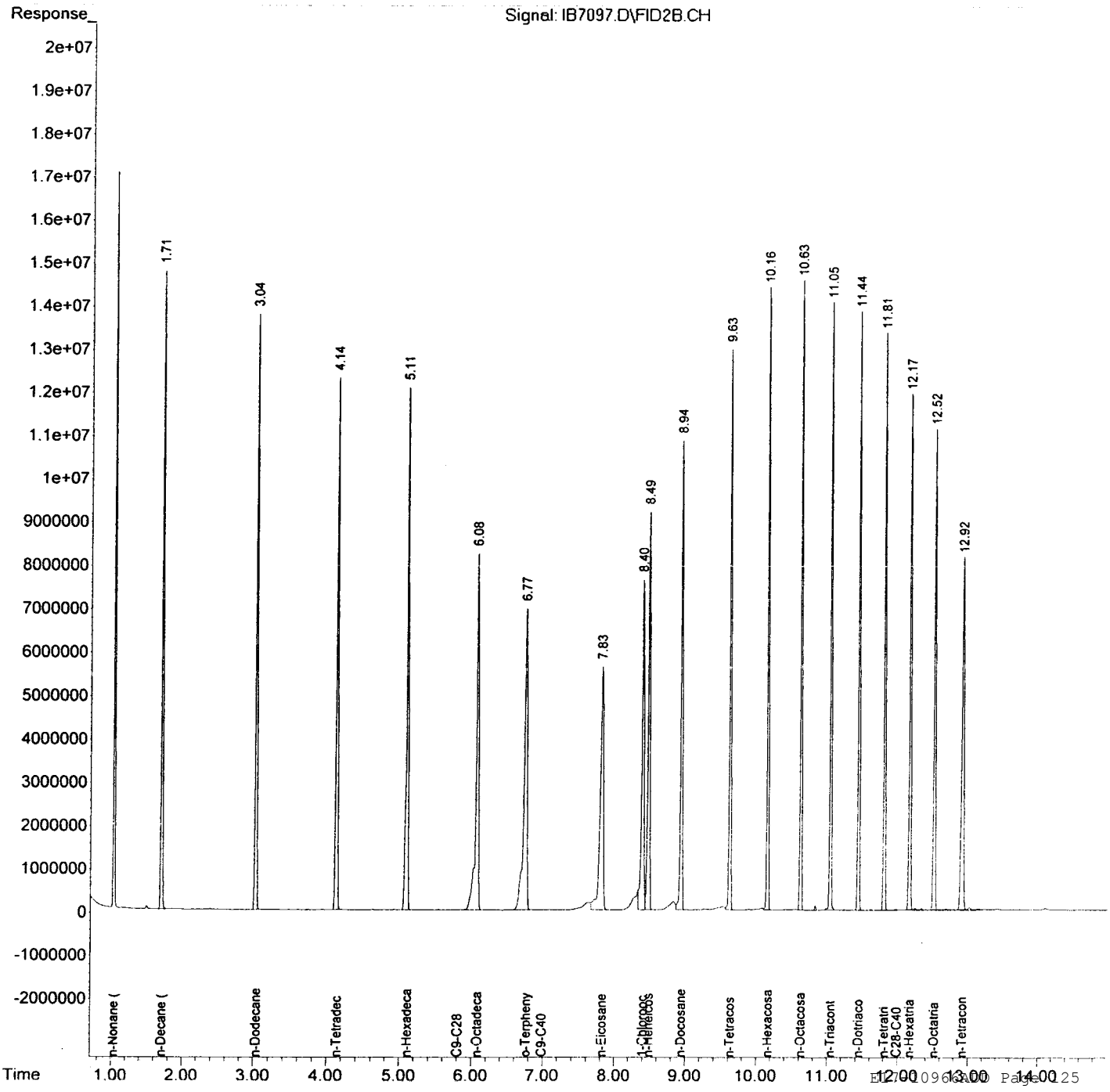
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7097.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 14:59
Operator : JOLANTA
Sample : ALI_L4_IAS_6046,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:30:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7098.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 15:21
Operator : JOLANTA
Sample : ALI_L3_IAS_6047.250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.39	83364586	241.514	ng	m
Spiked Amount	100.000		Recovery =	241.51%		
23) S	o-Terphenyl	6.75	109688029	253.211	ng	
Spiked Amount	100.000		Recovery =	253.21%		
	Target Compounds					
2) T	n-Nonane (C9)	1.04	95783882	246.619	ng	
3) T	n-Decane (C10)	1.71	96748312	246.032	ng	
4) T	n-Dodecane (C12)	3.03	96704448	247.127	ng	
5) T	n-Tetradecane (C14)	4.14	96448613	246.640	ng	
6) T	n-Hexadecane (C16)	5.11	96529751	246.982	ng	
7) T	n-Octadecane (C18)	6.07	97889743	255.203	ng	
8) T	n-Eicosane (C20)	7.81	86407491	229.677	ng	m
9) T	n-Heneicosane (C21)	8.48	87671946	235.801	ng	
10) T	n-Docosane (C22)	8.93	91703173	237.570	ng	
11) T	n-Tetracosane (C24)	9.62	92824012	238.339	ng	
12) T	n-Hexacosane (C26)	10.16	94655060	239.554	ng	
13) T	n-Octacosane (C28)	10.62	95692992	240.679	ng	
14) T	n-Triacontane (C30)	11.04	95155678	238.007	ng	
15) T	n-Dotriacontane (C32)	11.43	93352552	238.392	ng	
16) T	n-Tetratriacontane (C34)	11.80	91161272	237.611	ng	
17) T	n-Hexatriacontane (C36)	12.16	89562258	236.232	ng	
18) T	n-Octatriacontane (C38)	12.51	86031240	235.185	ng	
19) T	n-Tetracontane (C40)	12.91	84860479	237.923	ng	
20) H	C9-C28	5.80	1190226010	2848.340	ng	
21) H	C28-C40	12.00	553808816	1366.737	ng	
22) H	C9-C40	7.00	1757730468	4159.124	ng	

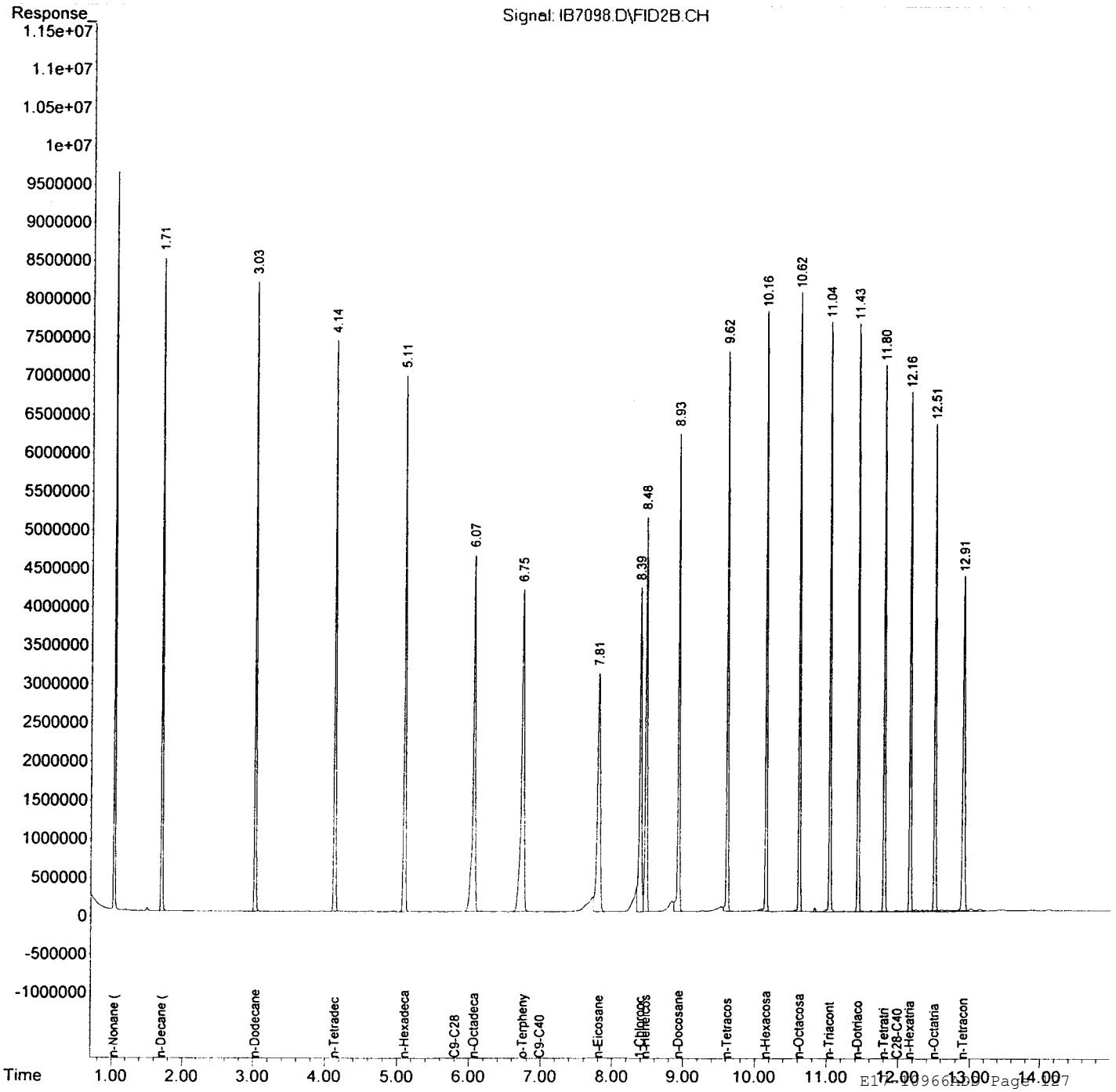
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7098.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 15:21
Operator : JOLANTA
Sample : ALI_L3_IAS_6047.250_PPM
Misc : .NA.NA.1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7099.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 15:44
Operator : JOLANTA
Sample : ALI_L2_IAS_6048,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:31:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.39	37666639	109.123 ng
Spiked Amount	100.000		Recovery =	109.12%
23) S	o-Terphenyl	6.73	45863100	105.873 ng
Spiked Amount	100.000		Recovery =	105.87%
	Target Compounds			
2) T	n-Nonane (C9)	1.03	40580404	104.484 ng
3) T	n-Decane (C10)	1.70	41176161	104.711 ng
4) T	n-Dodecane (C12)	3.03	40698368	104.004 ng
5) T	n-Tetradecane (C14)	4.13	40398517	103.308 ng
6) T	n-Hexadecane (C16)	5.10	40331593	103.193 ng
7) T	n-Octadecane (C18)	6.06	40922498	106.687 ng
8) T	n-Eicosane (C20)	7.80	40758328	108.339 ng
9) T	n-Heneicosane (C21)	8.47	38647117	103.945 ng
10) T	n-Docosane (C22)	8.93	41476127	107.450 ng
11) T	n-Tetracosane (C24)	9.61	41112611	105.563 ng
12) T	n-Hexacosane (C26)	10.15	41351442	104.653 ng
13) T	n-Octacosane (C28)	10.62	41534414	104.464 ng
14) T	n-Triacontane (C30)	11.04	42013140	105.085 ng
15) T	n-Dotriacontane (C32)	11.43	41216634	105.254 ng
16) T	n-Tetratriacontane (C34)	11.80	40369726	105.223 ng
17) T	n-Hexatriacontane (C36)	12.15	39751409	104.849 ng
18) T	n-Octatriacontane (C38)	12.50	38141349	104.267 ng
19) T	n-Tetracontane (C40)	12.90	37164079	104.197 ng
20) H	C9-C28	5.80	533653626	1277.091 ng
21) H	C28-C40	12.00	250320932	617.764 ng
22) H	C9-C40	7.00	794260419	1879.371 ng

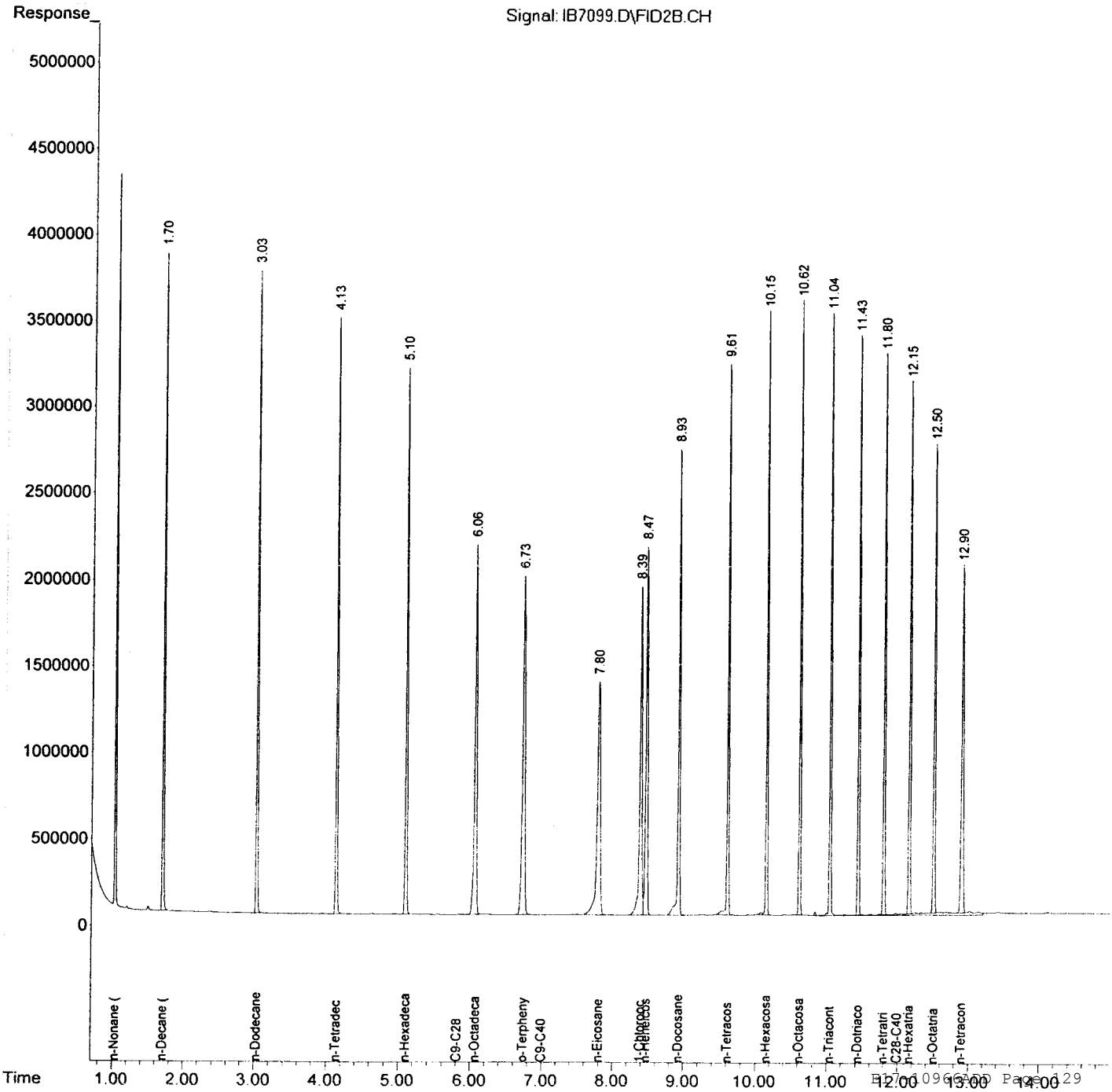
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7099.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 15:44
Operator : JOLANTA
Sample : ALI_L2_IAS_6048.100_PPM
Misc : .NA.NA.1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:31:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7100.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 16:06
Operator : JOLANTA
Sample : ALI_L1_IAS_6049,20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:32:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.38	7093602	20.551 ng
Spiked Amount	100.000		Recovery =	20.55%
23) S	o-Terphenyl	6.73	9272098	21.404 ng
Spiked Amount	100.000		Recovery =	21.40%
	Target Compounds			
2) T	n-Nonane (C9)	1.03	8075023	20.791 ng
3) T	n-Decane (C10)	1.70	8178708	20.799 ng
4) T	n-Dodecane (C12)	3.02	8022786	20.502 ng
5) T	n-Tetradecane (C14)	4.13	8096136	20.704 ng
6) T	n-Hexadecane (C16)	5.10	8081873	20.678 ng
7) T	n-Octadecane (C18)	6.06	8219104	21.428 ng
8) T	n-Eicosane (C20)	7.79	8244714	21.915 ng
9) T	n-Heneicosane (C21)	8.46	8407856	22.614 ng
10) T	n-Docosane (C22)	8.92	8367694	21.678 ng
11) T	n-Tetracosane (C24)	9.61	8423200	21.628 ng
12) T	n-Hexacosane (C26)	10.15	8618741	21.812 ng
13) T	n-Octacosane (C28)	10.61	8670094	21.806 ng
14) T	n-Triacontane (C30)	11.04	8881486	22.215 ng
15) T	n-Dotriacontane (C32)	11.43	8663359	22.123 ng
16) T	n-Tetratriacontane (C34)	11.80	8622091	22.473 ng
17) T	n-Hexatriacontane (C36)	12.15	8627325	22.756 ng
18) T	n-Octatriacontane (C38)	12.50	8323590	22.754 ng
19) T	n-Tetracontane (C40)	12.90	7784193	21.825 ng
20) H	C9-C28	5.80	112078007	268.215 ng
21) H	C28-C40	12.00	61860388	152.664 ng
22) H	C9-C40	7.00	186193943	440.570 ng

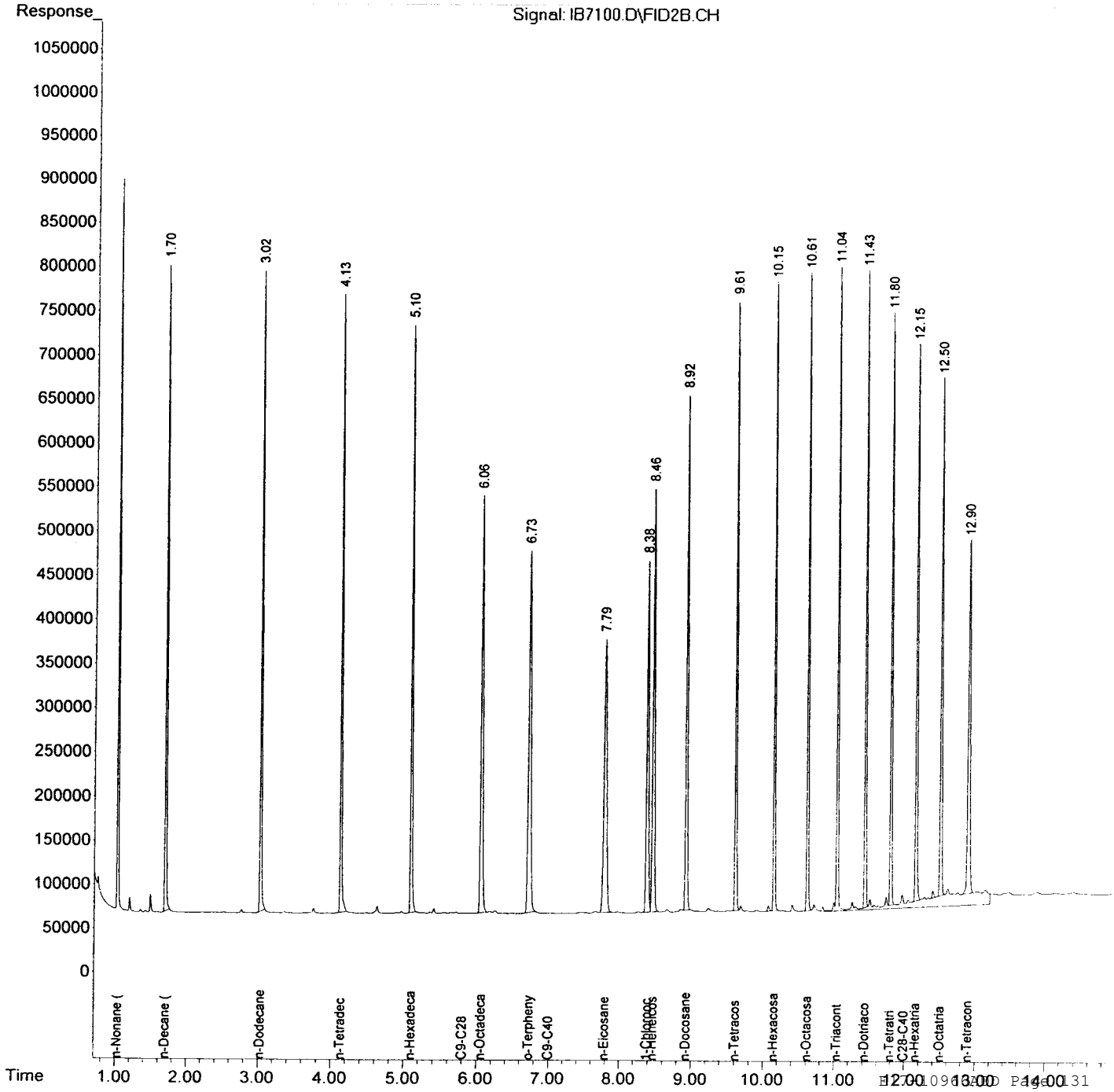
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-09-18\
Data File : IB7100.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 16:06
Operator : JOLANTA
Sample : ALI_L1_IAS_6049.20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:32:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:29:14 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-09-18\
Data File : IB7101.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 16:28
Operator : JOLANTA
Sample : ALI_C_IAS_6047.250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:46:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.39	80328830	232.935	ng	m
Spiked Amount	100.000		Recovery =	232.93%		
23) S	o-Terphenyl	6.75	106401647	245.624	ng	
Spiked Amount	100.000		Recovery =	245.62%		
	Target Compounds					
2) T	n-Nonane (C9)	1.03	91445436	235.448	ng	
3) T	n-Decane (C10)	1.71	92773007	235.923	ng	
4) T	n-Dodecane (C12)	3.03	93396110	238.672	ng	
5) T	n-Tetradecane (C14)	4.14	93383706	238.803	ng	
6) T	n-Hexadecane (C16)	5.11	93458352	239.123	ng	
7) T	n-Octadecane (C18)	6.07	94867540	247.324	ng	
8) T	n-Eicosane (C20)	7.81	93538835	249.158	ng	
9) T	n-Heneicosane (C21)	8.48	86472090	232.574	ng	
10) T	n-Docosane (C22)	8.93	90064270	233.324	ng	
11) T	n-Tetracosane (C24)	9.62	91343395	234.538	ng	
12) T	n-Hexacosane (C26)	10.16	93113107	235.652	ng	
13) T	n-Octacosane (C28)	10.62	94525530	237.743	ng	
14) T	n-Triacontane (C30)	11.04	95036026	237.707	ng	
15) T	n-Dotriacontane (C32)	11.43	93772171	239.463	ng	
16) T	n-Tetratriacontane (C34)	11.80	91577039	238.694	ng	
17) T	n-Hexatriacontane (C36)	12.16	90087023	237.616	ng	
18) T	n-Octatriacontane (C38)	12.51	86300050	235.920	ng	
19) T	n-Tetracontane (C40)	12.91	84120715	235.849	ng	
20) H	C9-C28	5.80	1165153655	2788.161	ng	
21) H	C28-C40	12.00	553379980	1365.679	ng	
22) H	C9-C40	7.00	1729710613	4092.652	ng	

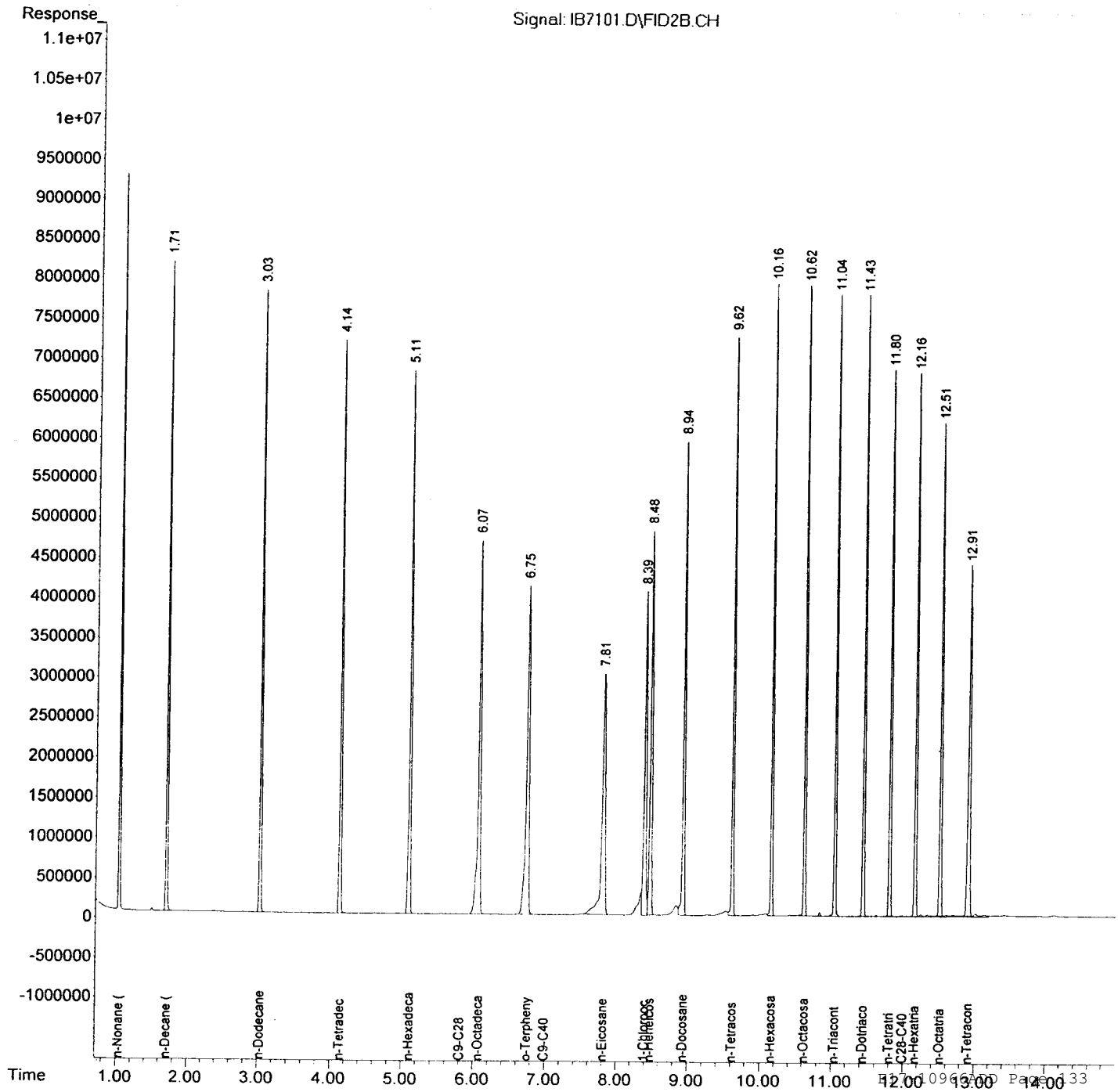
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-09-18\
Data File : IB7101.D
Signal(s) : FID2B.CH
Acq On : 09 Jan 2018 16:28
Operator : JOLANTA
Sample : ALI_C_IAS_6047,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 09 16:46:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 01/10/2018 Instrument ID: GC-I

Date File: IB7104.D GC Column: RTX-5

COMPOUND	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
n-Nonane (C9)	1.03	0.90	1.16	388388	366849	5.55
n-Decane (C10)	1.71	1.58	1.84	393235	371973	5.41
n-Dodecane (C12)	3.03	2.90	3.16	391315	374546	4.29
n-Tetradecane (C14)	4.14	4.01	4.27	391050	373932	4.38
n-Hexadecane (C16)	5.11	4.98	5.24	390837	374368	4.21
n-Octadecane (C18)	6.07	5.94	6.20	383575	380227	0.87
n-Eicosane (C20)	7.81	7.68	7.94	375420	338534	9.83
n-Heneicosane (C21)	8.48	8.34	8.62	371804	345447	7.09
n-Docosane (C22)	8.93	8.79	9.07	386004	360193	6.69
n-Tetracosane (C24)	9.62	9.48	9.76	389462	364974	6.29
n-Hexacosane (C26)	10.16	10.02	10.30	395130	371799	5.90
n-Octacosane (C28)	10.62	10.46	10.78	397595	377077	5.16
n-Triacontane (C30)	11.04	10.88	11.20	399802	379626	5.05
n-Dotriacontane (C32)	11.43	11.27	11.59	391593	375316	4.16
n-Tetratriacontane (C34)	11.80	11.60	12.00	383658	367761	4.14
n-Hexatriacontane (C36)	12.16	11.96	12.36	379128	363209	4.20
n-Octatriacontane (C38)	12.50	12.30	12.70	365802	347130	5.10
n-Tetracontane (C40)	12.90	12.70	13.10	356672	339218	4.89
C9-C28	5.80	5.64	5.96	417893	383056	8.34
C28-C40	12.00	11.84	12.16	405205	371377	8.35
C9-C40	7.00	6.84	7.16	422638	382230	9.56

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 01/10/2018 Instrument ID: GC-I

Date File: IB7117.D GC Column: RTX-5

COMPOUND	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
n-Nonane (C9)	1.03	0.90	1.16	388388	369018	4.99
n-Decane (C10)	1.71	1.58	1.84	393235	373654	4.98
n-Dodecane (C12)	3.03	2.90	3.16	391315	376490	3.79
n-Tetradecane (C14)	4.14	4.01	4.27	391050	376301	3.77
n-Hexadecane (C16)	5.11	4.98	5.24	390837	376785	3.60
n-Octadecane (C18)	6.07	5.94	6.20	383575	382191	0.36
n-Eicosane (C20)	7.81	7.68	7.94	375420	377115	0.45
n-Heneicosane (C21)	8.48	8.34	8.62	371804	354787	4.58
n-Docosane (C22)	8.94	8.80	9.08	386004	365461	5.32
n-Tetracosane (C24)	9.62	9.48	9.76	389462	368472	5.39
n-Hexacosane (C26)	10.16	10.02	10.30	395130	370790	6.16
n-Octacosane (C28)	10.62	10.46	10.78	397595	373293	6.11
n-Triacontane (C30)	11.05	10.89	11.21	399802	373620	6.55
n-Dotriacontane (C32)	11.44	11.28	11.60	391593	368622	5.87
n-Tetratriacontane (C34)	11.81	11.61	12.01	383658	360211	6.11
n-Hexatriacontane (C36)	12.18	11.98	12.38	379128	357578	5.68
n-Octatriacontane (C38)	12.53	12.33	12.73	365802	345517	5.55
n-Tetracontane (C40)	12.94	12.74	13.14	356672	340877	4.43
C9-C28	5.80	5.64	5.96	417893	383710	8.18
C28-C40	12.00	11.84	12.16	405205	371743	8.26
C9-C40	7.00	6.84	7.16	422638	384739	8.97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7104.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 9:36
Operator : JOLANTA
Sample : ALI_C_IAS_6047,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 10:01:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.39	79426815	230.319 ng	m
Spiked Amount	100.000		Recovery =	230.32%	
23) S	o-Terphenyl	6.75	106615985	246.119 ng	
Spiked Amount	100.000		Recovery =	246.12%	
	Target Compounds				
2) T	n-Nonane (C9)	1.03	91712273	236.135 ng	
3) T	n-Decane (C10)	1.71	92993204	236.482 ng	
4) T	n-Dodecane (C12)	3.03	93636493	239.286 ng	
5) T	n-Tetradecane (C14)	4.14	93482944	239.056 ng	
6) T	n-Hexadecane (C16)	5.11	93592000	239.465 ng	
7) T	n-Octadecane (C18)	6.07	95056771	247.817 ng	
8) T	n-Eicosane (C20)	7.81	84633424	225.437 ng	
9) T	n-Heneicosane (C21)	8.48	86361631	232.277 ng	
10) T	n-Docosane (C22)	8.93	90048132	233.283 ng	
11) T	n-Tetracosane (C24)	9.62	91243462	234.281 ng	
12) T	n-Hexacosane (C26)	10.16	92949810	235.239 ng	
13) T	n-Octacosane (C28)	10.62	94269352	237.099 ng	
14) T	n-Triacontane (C30)	11.04	94906586	237.384 ng	
15) T	n-Dotriacontane (C32)	11.43	93828923	239.608 ng	
16) T	n-Tetratriacontane (C34)	11.80	91940343	239.641 ng	
17) T	n-Hexatriacontane (C36)	12.16	90802141	239.502 ng	
18) T	n-Octatriacontane (C38)	12.50	86782383	237.238 ng	
19) T	n-Tetracontane (C40)	12.90	84804466	237.766 ng	
20) H	C9-C28	5.80	1149166527	2749.905 ng	
21) H	C28-C40	12.00	557064821	1374.773 ng	
22) H	C9-C40	7.00	1720036001	4069.761 ng	

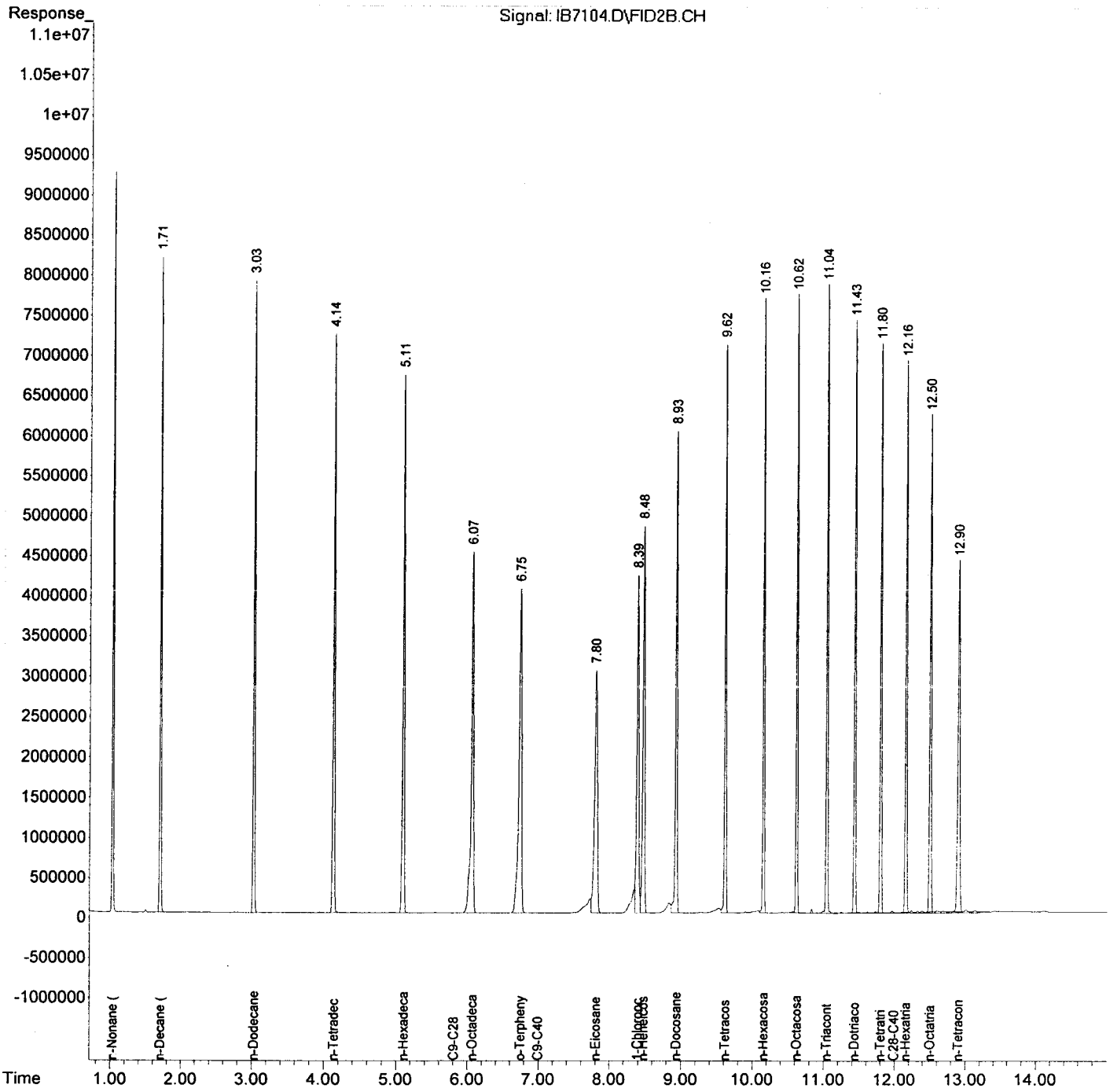
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7104.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 9:36
Operator : JOLANTA
Sample : ALI_C_IAS_6047,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 10:01:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7117.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 15:06
Operator : JOLANTA
Sample : ALI_C_IAS_6047,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 15:29:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.39	83119794	241.028	ng	m
Spiked Amount	100.000		Recovery =	241.03%		
23) S	o-Terphenyl	6.75	107046831	247.114	ng	
Spiked Amount	100.000		Recovery =	247.11%		
	Target Compounds					
2) T	n-Nonane (C9)	1.03	92254621	237.532	ng	
3) T	n-Decane (C10)	1.71	93413466	237.551	ng	
4) T	n-Dodecane (C12)	3.03	94122573	240.529	ng	
5) T	n-Tetradecane (C14)	4.14	94075135	240.571	ng	
6) T	n-Hexadecane (C16)	5.11	94196197	241.011	ng	
7) T	n-Octadecane (C18)	6.07	95547770	249.097	ng	
8) T	n-Eicosane (C20)	7.81	94278707	251.129	ng	
9) T	n-Heneicosane (C21)	8.48	88696823	238.558	ng	
10) T	n-Docosane (C22)	8.94	91365351	236.695	ng	
11) T	n-Tetracosane (C24)	9.62	92118088	236.527	ng	
12) T	n-Hexacosane (C26)	10.16	92697448	234.600	ng	
13) T	n-Octacosane (C28)	10.62	93323233	234.719	ng	
14) T	n-Triacontane (C30)	11.05	93405095	233.628	ng	
15) T	n-Dotriacontane (C32)	11.44	92155402	235.335	ng	
16) T	n-Tetratriacontane (C34)	11.81	90052837	234.722	ng	
17) T	n-Hexatriacontane (C36)	12.18	89394497	235.790	ng	
18) T	n-Octatriacontane (C38)	12.53	86379278	236.136	ng	
19) T	n-Tetracontane (C40)	12.94	85219330	238.929	ng	
20) H	C9-C28	5.80	1151130934	2754.606	ng	
21) H	C28-C40	12.00	557615001	1376.131	ng	
22) H	C9-C40	7.00	1731325351	4096.473	ng	

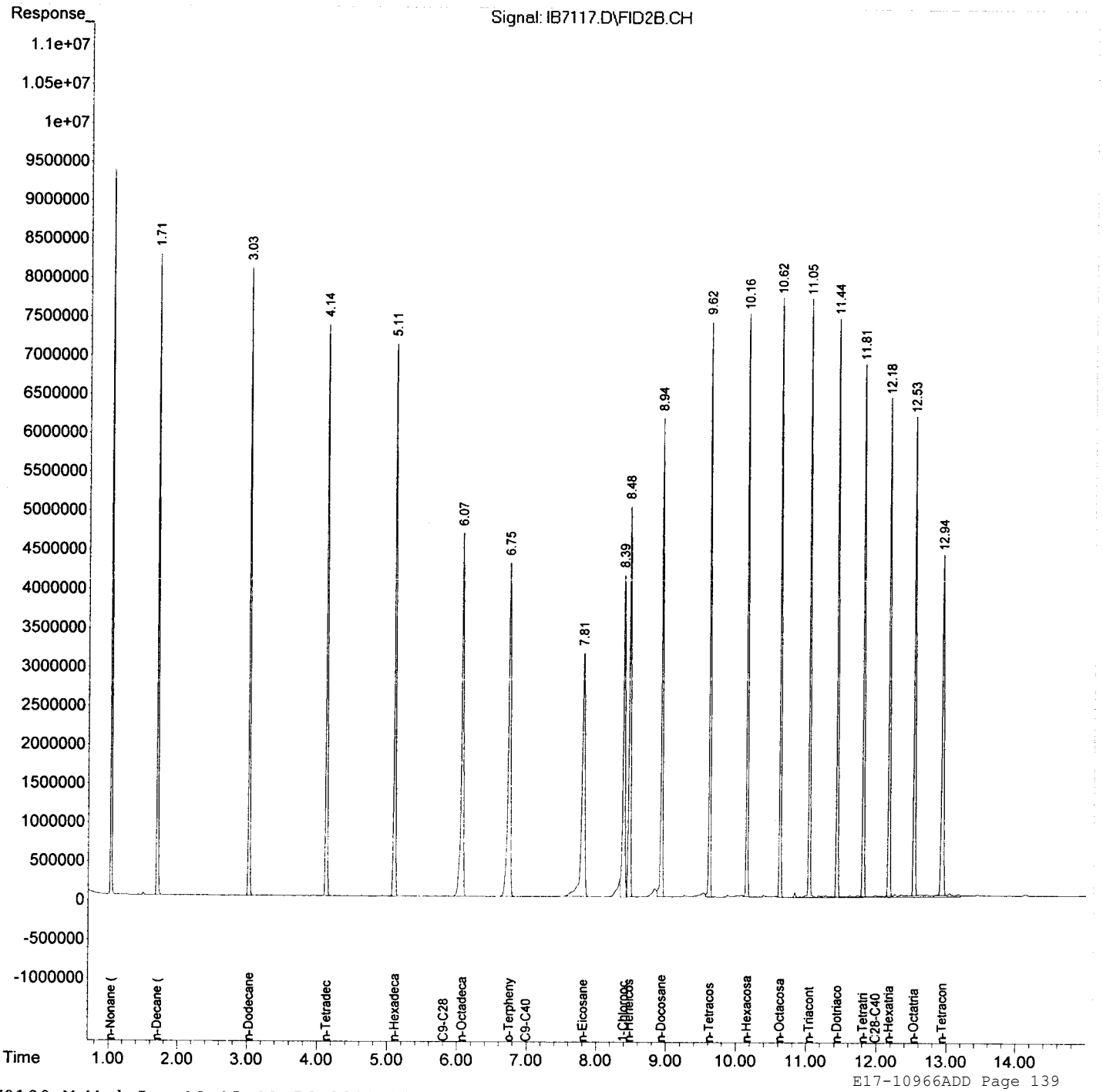
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7117.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 15:06
Operator : JOLANTA
Sample : ALI_C_IAS_6047.250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 15:29:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7106.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 10:20
Operator : JOLANTA
Sample : NJ-EPH-D,LCSS180108-02,S,10.0g,0,1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 11:11:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.39	44292631	128.438 ng m
Spiked Amount 100.000		Recovery = 128.44%	
23) S o-Terphenyl	6.74	60300104	139.201 ng m
Spiked Amount 100.000		Recovery = 139.20%	
Target Compounds			
20) H C9-C28	5.80	1193128608	2855.104 ng

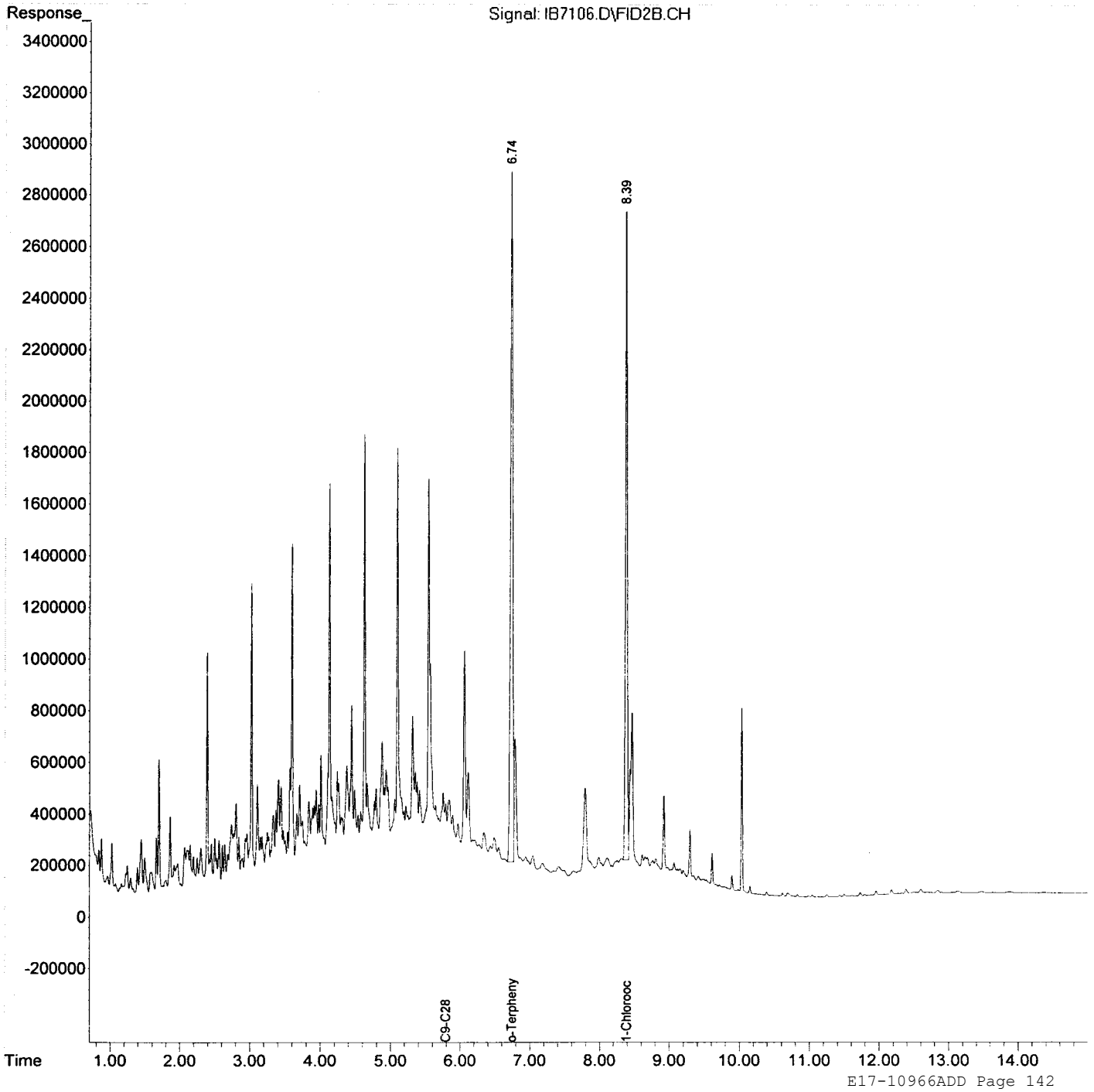
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7106.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 10:20
Operator : JOLANTA
Sample : NJ-EPH-D,LCSS180108-02,S,10.0g,0,1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 11:11:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7107.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 10:42
Operator : JOLANTA
Sample : NJ-EPH-D,LCSDS180108-02,S,10.0g,0,1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 11:12:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.39	43901672	127.305	ng	m
Spiked Amount 100.000		Recovery = 127.31%			
23) S o-Terphenyl	6.74	59748367	137.927	ng	m
Spiked Amount 100.000		Recovery = 137.93%			
Target Compounds					
20) H C9-C28	5.80	1184055036	2833.392	ng	

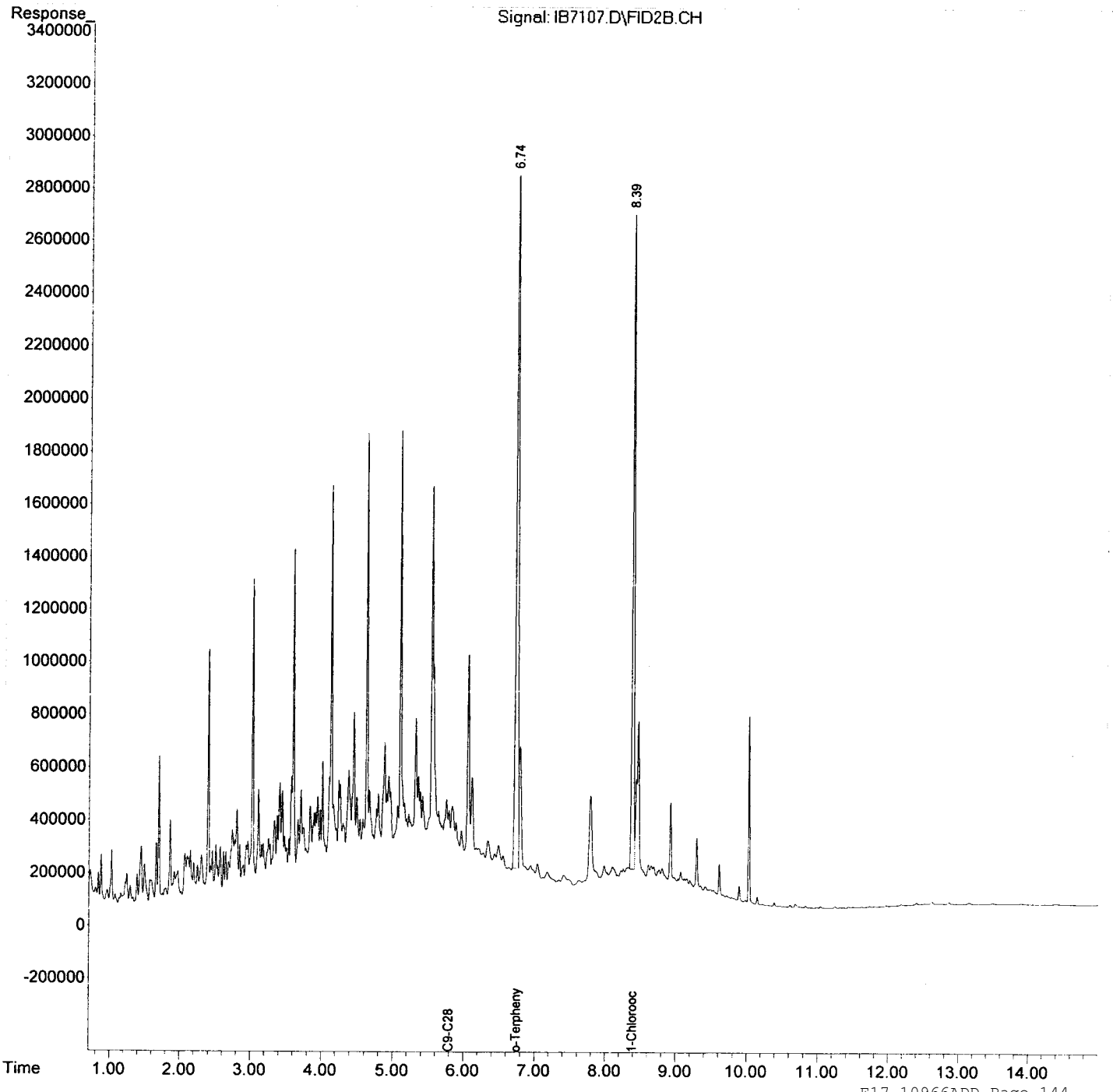
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7107.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 10:42
Operator : JOLANTA
Sample : NJ-EPH-D,LCSDS180108-02,S,10.0g,0.1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 11:12:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7116.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 14:44
Operator : JOLANTA
Sample : NJ-EPH-D,E18-00122-001MS,S,10.7g,18.8,1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 70 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 15:20:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.39	36516812	105.890 ng m
Spiked Amount 100.000		Recovery = 105.89%	
23) S o-Terphenyl	6.74	51109517	117.984 ng
Spiked Amount 100.000		Recovery = 117.98%	
Target Compounds			
20) H C9-C28	5.80	1251892388	2995.723 ng

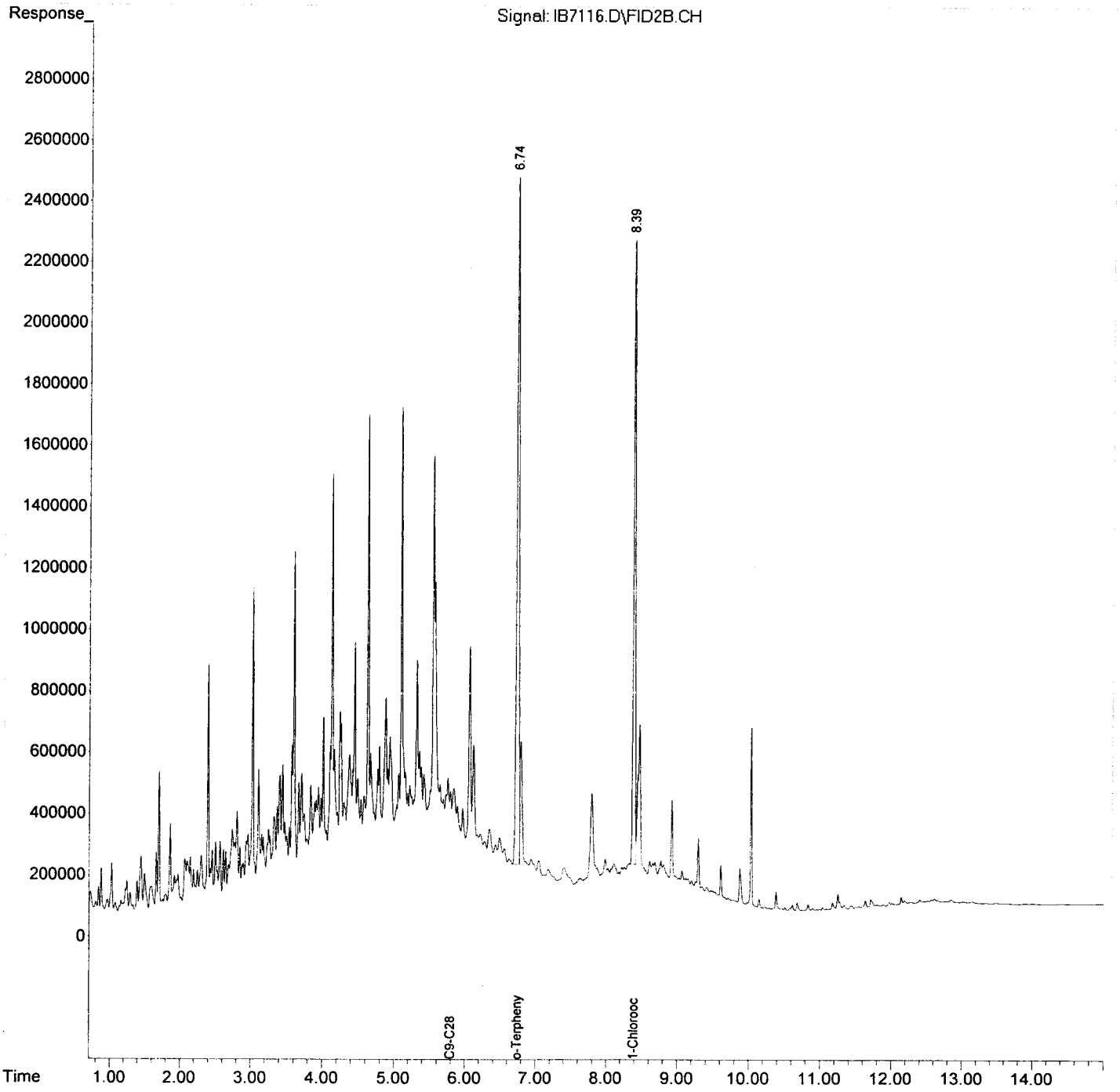
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7116.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 14:44
Operator : JOLANTA
Sample : NJ-EPH-D,E18-00122-001MS,S,10.7g,18.8,1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 70 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 15:20:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7109.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 11:48
Operator : JOLANTA
Sample : S-1,E18-00122-001,S,10.32g,18.8,1
Misc : 180108-02,01/08/18,01/05/18,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 12:08:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.39	34949229	101.345 ng
Spiked Amount 100.000		Recovery = 101.35%	
23) S o-Terphenyl	6.74	44762768	103.333 ng
Spiked Amount 100.000		Recovery = 103.33%	
Target Compounds			
20) H C9-C28	5.80	250314941	598.993 ng

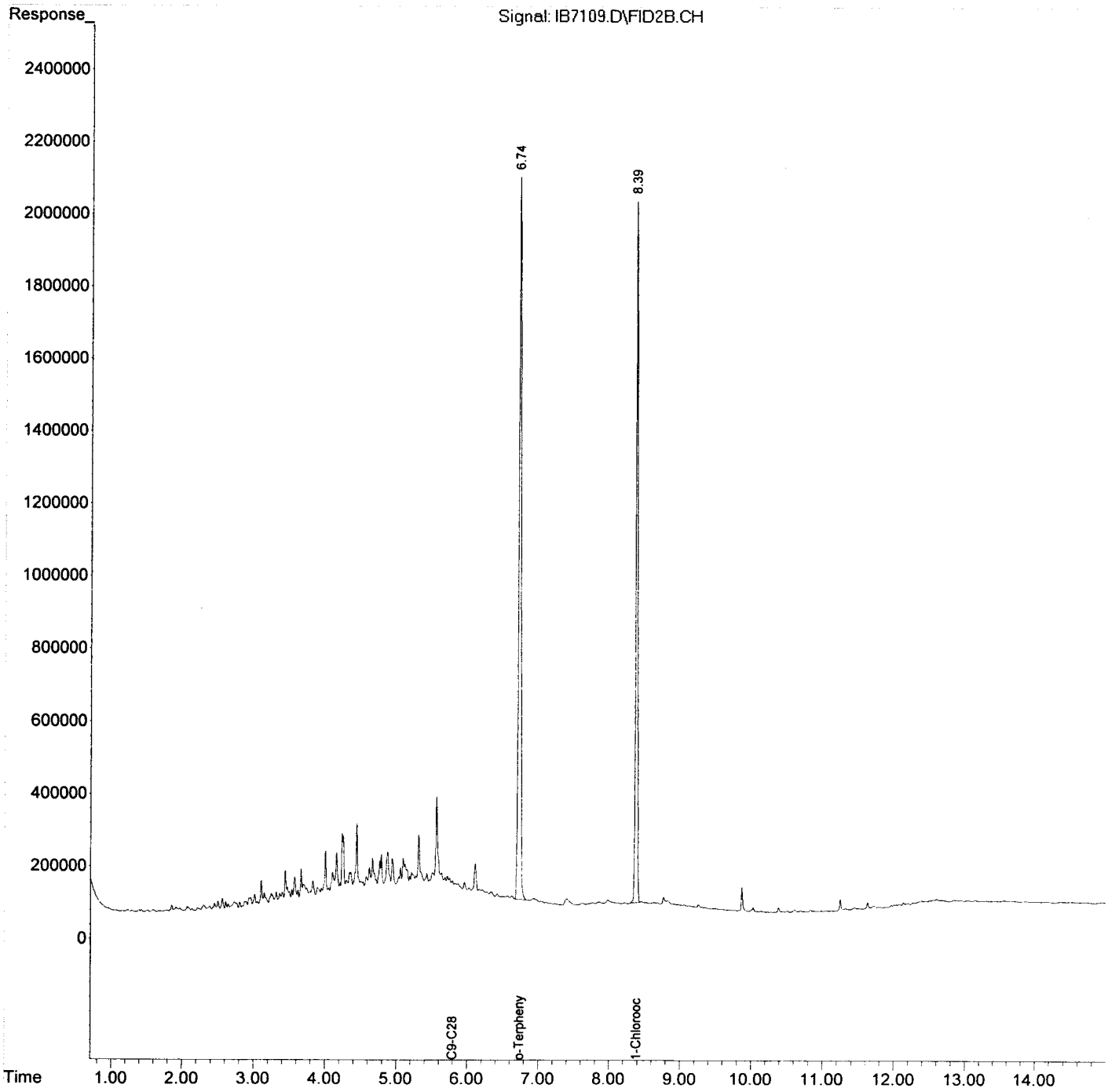
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7109.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 11:48
Operator : JOLANTA
Sample : S-1,E18-00122-001,S,10.32g,18.8,1
Misc : 180108-02,01/08/18,01/05/18,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 12:08:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7115.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 14:22
Operator : JOLANTA
Sample : S-1,E18-00122-001DUP,S,10.25g,18.8,1
Misc : 180108-02,01/08/18,01/05/18,1
ALS Vial : 69 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 15:20:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.39	31834669	92.313 ng
Spiked Amount 100.000		Recovery =	92.31%
23) S o-Terphenyl	6.74	40683324	93.916 ng
Spiked Amount 100.000		Recovery =	93.92%
Target Compounds			
20) H C9-C28	5.80	237496574	568.319 ng

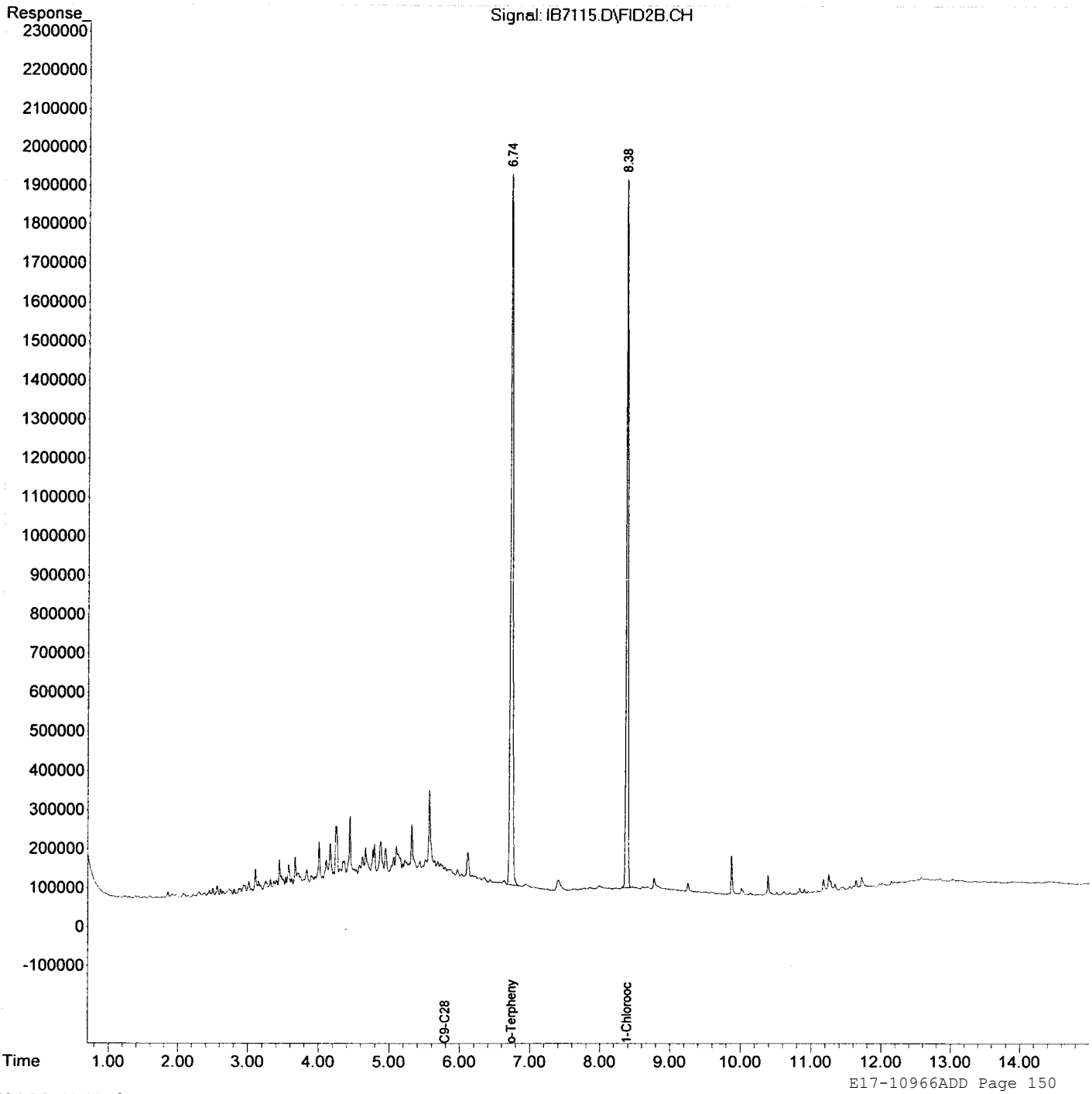
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\01-10-18\
Data File : IB7115.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 14:22
Operator : JOLANTA
Sample : S-1,E18-00122-001DUP,S,10.25g,18.8,1
Misc : 180108-02,01/08/18,01/05/18,1
ALS Vial : 69 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 15:20:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-DRO

Lab ID:	BLKS180108-02	GC Column:	RTX-5
Client ID:	NJ-EPH-D	Sample wt/vol:	10.0g
Date Received:	NA	Matrix-Units:	Soil-mg/Kg
Date Extracted:	01/08/2018	Dilution Factor:	1
Date Analyzed:	01/10/2018	% Moisture:	NA
Data File:	IB7105.D		

Compound	Concentration	Q	RL	MDL
C9-C28	ND		50.0	20.0
C28-C40	ND		50.0	20.0
C9-C40 Total	ND		50.0	20.0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7105.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 9:58
Operator : JOLANTA
Sample : NJ-EPH-D,BLKS180108-02,S,10.0g,0,1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 10:23:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.38	38336701	111.167 ng
Spiked Amount 100.000		Recovery = 111.17%	
23) S o-Terphenyl	6.74	48962192	113.027 ng
Spiked Amount 100.000		Recovery = 113.03%	
Target Compounds			

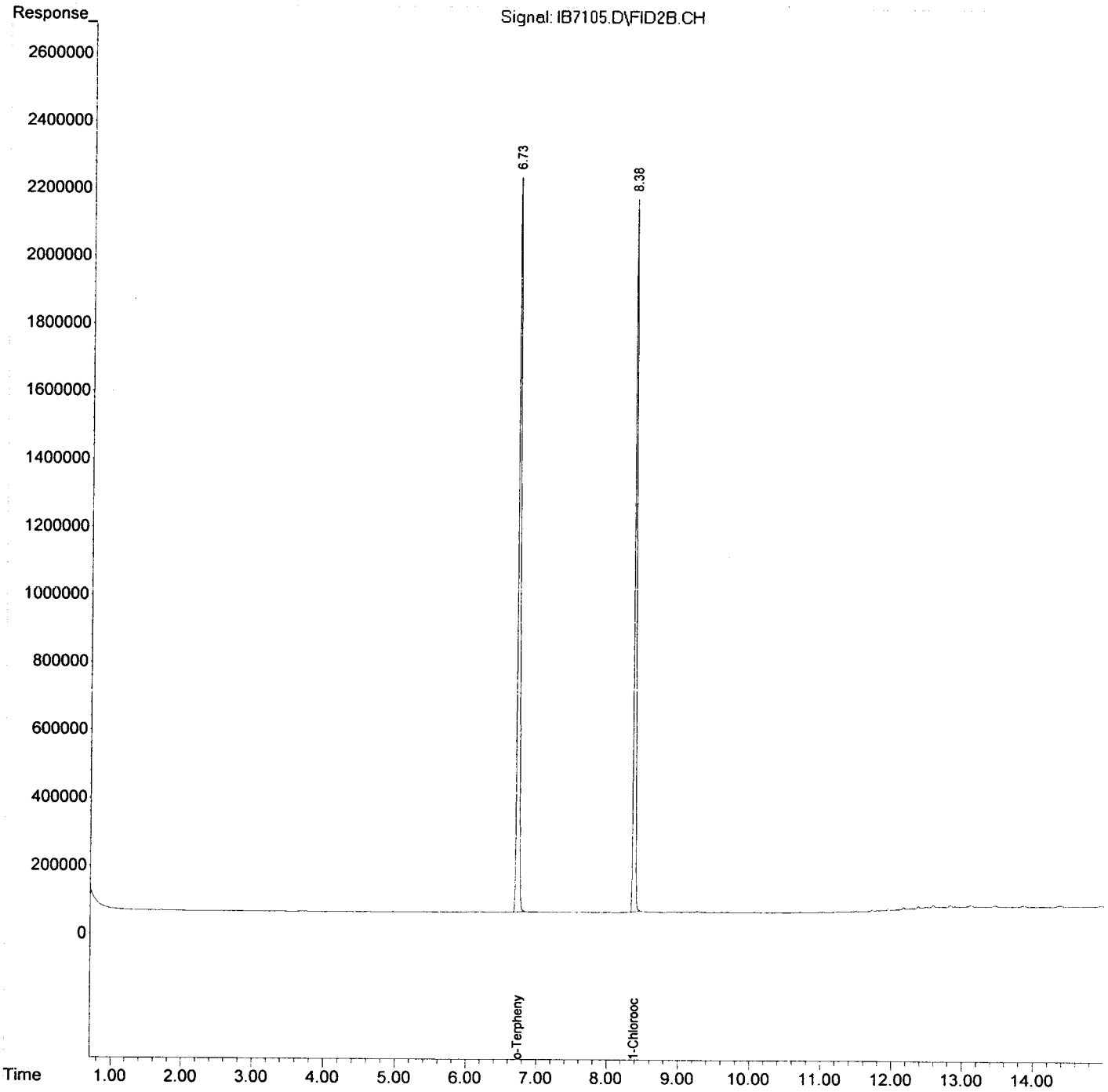
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\01-10-18\
Data File : IB7105.D
Signal(s) : FID2B.CH
Acq On : 10 Jan 2018 9:58
Operator : JOLANTA
Sample : NJ-EPH-D,BLKS180108-02,S,10.0g,0.1
Misc : 180108-02,01/08/18,NA,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jan 10 10:23:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0109.M
Quant Title :
QLast Update : Tue Jan 09 16:32:42 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 010
SDG #: E18-00100, E17-10966, E18-00109, E18-00106

Matrix: Soil Method: 6020B/7471B Units: ppb (ug/L)

		1/8/18 18:28		1/8/18 19:45		1/8/18 20:51		1/8/18 21:40	
ANALYTE	ICV & CCV Ture Value	ICV		CCV		CCV		CCV	
		FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	25.0	22.7	90.8	26.6	106	22.9	91.6	27.3	109
Antimony	25.0	23.1	92.4	23.5	94.0	24.0	96.0	27.2	109
Arsenic	25.0	24.2	96.8	23.9	95.6	26.6	106	25.3	101
Barium	25.0	22.8	91.2	23.1	92.4	23.6	94.4	26.8	107
Beryllium	25.0	25.8	103	26.1	104	26.2	105	26.5	106
Cadmium	25.0	22.7	90.8	23.2	92.8	23.5	94.0	26.7	107
Calcium	250	230	92.0	229	91.6	267	107	242	96.8
Chromium	25.0	23.7	94.8	24.3	97.2	26.7	107	24.0	96.0
Cobalt	25.0	23.8	95.2	23.8	95.2	26.2	105	24.2	96.8
Copper	25.0	24.5	98.0	24.2	96.8	26.9	108	24.7	98.8
Iron	250	233	93.2	236	94.4	258	103	260	104
Lead	25.0	22.6	90.4	22.7	90.8	23.2	92.8	26.6	106
Magnesium	250	235	94.0	245	98.0	274	110	247	98.8
Manganese	25.0	23.9	95.6	23.8	95.2	25.9	104	23.5	94.0
Mercury	5.00	4.88	97.6	4.94	98.8	5.06	101	5.02	100
Nickel	25.0	23.7	94.8	24.3	97.2	26.4	106	24.6	98.4
Potassium	250	253	101	264	106	274	110	228	91.2
Selenium	25.0	25.5	102	25.0	100	25.9	104	25.5	102
Silver	25.0	22.7	90.8	22.8	91.2	23.3	93.2	26.7	107
Sodium	250	228	91.2	235	94.0	271	108	238	95.2
Thallium	25.0	25.0	100	25.4	102	22.7	90.8	26.6	106
Vanadium	25.0	23.8	95.2	23.7	94.8	26.5	106	24.2	96.8
Zinc	25.0	25.1	100	24.3	97.2	26.9	108	25.2	101

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 010
SDG #: E18-00100, E17-10966, E18-00109, E18-00106

Matrix: Soil Method: 6020B/7471B Units: ppb (ug/L)

		1/8/18 18:45		1/8/18 19:51	1/8/18 20:56	1/8/18 21:45	
ANALYTE	1/2 INST. RL	ICB	INST. RL	CCB	CCB	CCB	
Aluminum	2.50	ND	5.00	ND	ND	ND	
Antimony	0.250	ND	0.500	ND	ND	ND	
Arsenic	0.250	ND	0.500	ND	ND	ND	
Barium	0.250	ND	0.500	ND	ND	ND	
Beryllium	0.250	ND	0.500	ND	ND	ND	
Cadmium	0.250	ND	0.500	ND	ND	ND	
Calcium	25.0	ND	50.0	ND	ND	ND	
Chromium	0.250	ND	0.500	ND	ND	ND	
Cobalt	0.250	ND	0.500	ND	ND	ND	
Copper	0.250	ND	0.500	ND	ND	ND	
Iron	25.0	ND	50.0	ND	ND	ND	
Lead	0.250	ND	0.500	ND	ND	ND	
Magnesium	25.0	ND	50.0	ND	ND	ND	
Manganese	0.250	ND	0.500	ND	ND	ND	
Mercury	0.250	ND	0.500	ND	ND	ND	
Nickel	0.250	ND	0.500	ND	ND	ND	
Potassium	25.0	ND	50.0	ND	ND	ND	
Selenium	0.250	ND	0.500	ND	ND	ND	
Silver	0.250	ND	0.500	ND	ND	ND	
Sodium	25.0	ND	50.0	ND	ND	ND	
Thallium	0.250	ND	0.500	ND	ND	ND	
Vanadium	0.250	ND	0.500	ND	ND	ND	
Zinc	0.250	ND	0.500	ND	ND	ND	

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

01/08/2018 06:50 PM

Batch (Page) #: 010
Associated Lab Case for Blank 1: E17-10966, E18-00100, E18-00106, E18-00109

Matrix: Soil Unit: ppm (mg/kg) Method: 6020B/7471B

ANALYTE	1/2 Sample RL	REAGENT BLANK BLKS180108-01
Aluminum	2.50	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	0.250	ND
Beryllium	0.250	ND
Cadmium	0.250	ND
Calcium	25.0	ND
Chromium	0.250	ND
Cobalt	0.250	ND
Copper	0.250	ND
Iron	25.0	ND
Lead	0.250	ND
Magnesium	25.0	ND
Manganese	0.250	ND
Mercury	0.013	ND
Nickel	0.250	ND
Potassium	25.0	ND
Selenium	0.250	ND
Silver	0.250	ND
Sodium	25.0	ND
Thallium	0.250	ND
Vanadium	0.250	ND
Zinc	0.250	ND

Associated Sample for Blank 1:
10966-009; 00100-001,007,013,019,025,031,037,043
00106-001~004; 00109-001,007,013,019,025,031,037

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7700
Batch (Page) #: 010
SDG #: E18-00100, E17-10966, E18-00109, E18-00106

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	95600	91500	91.5	NA
Calcium	100000	-	91500	89700	89.7	NA
Iron	100000	-	92400	91700	91.7	NA
Potassium	100000	-	90400	86800	86.8	NA
Magnesium	100000	-	91100	88000	88.0	NA
Sodium	100000	-	90000	86300	86.3	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2170	2310	116	NA
Titanium	2000	-	1990	1940	97.0	NA
Silver	-	20.0	-	19.7	98.5	80-120
Arsenic	-	20.0	-	20.6	103	80-120
Cadmium	-	20.0	-	19.2	96.0	80-120
Cobalt	-	20.0	-	19.2	96.0	80-120
Chromium	-	20.0	-	18.7	93.5	80-120
Copper	-	20.0	-	18.5	92.5	80-120
Manganese	-	20.0	-	20.7	104	80-120
Nickel	-	20.0	-	18.9	94.5	80-120
Zinc	-	20.0	-	19.9	99.5	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 010
SDG #: E17-10966, E18-00100, E18-00106, E18-00109

Matrix: Soil Unit: ppm (mg/kg)

	LCSS180108-01					
ANALYTE	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	209	105			
Antimony	40.0	37.5	93.8			
Arsenic	40.0	39.6	99.0			
Barium	40.0	40.0	100			
Beryllium	40.0	41.4	104			
Cadmium	40.0	39.6	99.0			
Calcium	200	199	99.5			
Chromium	40.0	40.2	101			
Cobalt	40.0	40.1	100			
Copper	40.0	39.4	98.5			
Iron	200	200	100			
Lead	40.0	38.3	95.8			
Magnesium	200	201	101			
Manganese	40.0	39.5	98.8			
Mercury	0.500	0.506	101			
Nickel	40.0	40.1	100			
Potassium	200	211	106			
Selenium	40.0	38.1	95.3			
Silver	40.0	40.1	100			
Sodium	200	208	104			
Thallium	40.0	36.2	90.5			
Vanadium	40.0	40.6	102			
Zinc	40.0	38.3	95.8			

(1) Control Limits % Recovery = 80-120%

LCSS180108-01 1/8/18 19:12

10966-009; 00100-001,007,013,019,025,031,037,043

00106-001~004; 00109-001,007,013,019,025,031,037

METALS QUALITY CONTROL

LOW LEVEL INITIAL CALIBRATION VERIFICATION

Batch (Page) #: 010
SDG #: E18-00100, E17-10966, E18-00109, E18-00106

Matrix: Soil Method: 6020B/7471B Units: ppb (ug/L)

1/8/18 18:34

ANALYTE	LLICV True Value	LLICV FOUND	LLICV % R
Aluminum	0.500	0.520	104
Antimony	0.500	0.558	112
Arsenic	0.500	0.485	97.0
Barium	0.500	0.531	106
Beryllium	0.500	0.591	118
Cadmium	0.500	0.515	103
Calcium	50.0	42.3	84.6
Chromium	0.500	0.440	88.0
Cobalt	0.500	0.533	107
Copper	0.500	0.484	96.8
Iron	50.0	47.7	95.4
Lead	0.500	0.502	100
Magnesium	50.0	49.1	98.2
Manganese	0.500	0.536	107
Nickel	0.500	0.566	113
Potassium	50.0	57.3	115
Selenium	0.500	0.411	82.2
Silver	0.500	0.527	105
Sodium	50.0	55.7	111
Thallium	0.500	0.502	100
Vanadium	0.500	0.511	102
Zinc	0.500	0.551	110

(1) Control Limits: 80-120

METALS QUALITY CONTROL

MID LEVEL INITIAL CALIBRATION VERIFICATION

Batch (Page) #: 010
SDG #: E18-00100, E17-10966, E18-00109, E18-00106

Matrix: Soil Method: 6020B/7471B Units: ppb (ug/L)

1/8/18 18:39

ANALYTE	MLICV True Value	MLICV FOUND	MLICV % R
Aluminum	25.0	27.0	108
Antimony	25.0	24.4	97.6
Arsenic	25.0	24.5	98.0
Barium	25.0	24.8	99.2
Beryllium	25.0	26.3	105
Cadmium	25.0	25.0	100
Calcium	500	472	94.4
Chromium	25.0	24.2	96.8
Cobalt	25.0	24.8	99.2
Copper	25.0	25.9	104
Iron	500	463	92.6
Lead	25.0	23.8	95.2
Magnesium	500	470	94.0
Manganese	25.0	24.5	98.0
Nickel	25.0	24.6	98.4
Potassium	500	473	94.6
Selenium	25.0	24.6	98.4
Silver	25.0	24.2	96.8
Sodium	500	465	93.0
Thallium	25.0	23.6	94.4
Vanadium	25.0	24.4	97.6
Zinc	25.0	24.8	99.2

(1) Control Limits: 90-110

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 010
SDG #: E17-10966, E18-00100, E18-00106, E18-00109

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	1/8/18 19:18 SSR1	1/8/18 18:56 SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	10800	10800	NC	230					75-125
Antimony	43.3	0.701	92.6	46.0					75-125
Arsenic	52.2	8.01	96.1	46.0					75-125
Barium	117	71.6	98.7	46.0					75-125
Beryllium	48.6	0.638	104	46.0					75-125
Cadmium	44.9	ND	97.6	46.0					75-125
Calcium	4190	4060	NC	230					75-125
Chromium	66.9	22.0	97.6	46.0					75-125
Cobalt	51.5	7.32	96.0	46.0					75-125
Copper	74.9	31.2	95.0	46.0					75-125
Iron	19300	19900	NC	230					75-125
Lead	178	136	91.3	46.0					75-125
Magnesium	3200	3230	NC	230					75-125
Manganese	356	324	NC	46.0					75-125
Mercury	0.653	0.170	84.0	0.575					75-125
Nickel	61.4	17.3	95.9	46.0					75-125
Potassium	1090	895	84.8	230					75-125
Selenium	48.3	2.80	98.9	46.0					75-125
Silver	46.5	ND	101	46.0					75-125
Sodium	338	120	94.8	230					75-125
Thallium	43.2	ND	93.9	46.0					75-125
Vanadium	72.9	26.5	101	46.0					75-125
Zinc	153	113	87.0	46.0					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E18-00100-001
% Solids: 87
QC Sample 1 for following samples:
10966-009; 00100-001,007,013,019,025,031,037,043
00106-001~004; 00109-001,007,013,019,025,031,037

QC Sample 2:
% Solids:
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 010
SDG #: E17-10966, E18-00100, E18-00106, E18-00109

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	1/8/18 18:56 S1	1/8/18 19:01 D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	10800	11400	5.41				
Antimony	20	0.701	0.713	1.70				
Arsenic	20	8.01	8.42	4.99				
Barium	20	71.6	74.8	4.37				
Beryllium	20	0.638	0.672	5.19				
Cadmium	NA	ND	ND	NC				
Calcium	20	4060	4300	5.74				
Chromium	20	22.0	23.0	4.44				
Cobalt	20	7.32	7.77	5.96				
Copper	20	31.2	32.2	3.15				
Iron	20	19900	20900	4.90				
Lead	20	136	142	4.32				
Magnesium	20	3230	3270	1.23				
Manganese	20	324	340	4.82				
Mercury	20	0.170	0.173	1.75				
Nickel	20	17.3	18.1	4.52				
Potassium	20	895	929	3.73				
Selenium	20	2.80	3.25	14.9				
Silver	NA	ND	ND	NC				
Sodium	20	120	122	1.65				
Thallium	NA	ND	ND	NC				
Vanadium	20	26.5	28.1	5.86				
Zinc	20	113	118	4.33				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E18-00100-001
% Solids: 87
QC Sample 1 for following samples:
10966-009; 00100-001,007,013,019,025,031,037,043
00106-001~004; 00109-001,007,013,019,025,031,037

QC Sample 2:
% Solids:
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 010
SDG #: E17-10966, E18-00100, E18-00106, E18-00109

Matrix: Soil Concentration/Units: ppm (mg/kg) Method: 6020B/7471B

ANALYTE	SERIAL DILUTION 1/8/18 18:56 MS	SERIAL DILUTION 1/8/18 19:07 SDR	% Difference
Aluminum	10800	11700	8.00
Antimony	43.3	48.5	11.3
Arsenic	52.2	53.6	2.65
Barium	117	131	11.3
Beryllium	48.6	57.0	15.9
Cadmium	44.9	52.5	15.6
Calcium	4190	4280	2.13
Chromium	66.9	68.0	1.63
Cobalt	51.5	53.2	3.25
Copper	74.9	77.8	3.80
Iron	19300	20200	4.56
Lead	178	194	8.60
Magnesium	3200	3530	9.81
Manganese	356	369	3.59
Nickel	61.4	63.7	3.68
Potassium	1090	1200	9.61
Selenium	48.3	51.4	6.22
Silver	46.5	53.0	13.1
Sodium	338	408	18.8
Thallium	43.2	44.7	3.41
Vanadium	72.9	73.4	0.684
Zinc	153	159	3.85

MS = Matrix Spike Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 20% Difference.

QC Sample1: E18-00100-001
QC Sample 1 for following samples:
10966-009; 00100-001,007,013,019,025,031,037,043
00106-001~004; 00109-001,007,013,019,025,031,037

METALS INTERNAL STANDARD AREA SUMMARY
2018 PG010
January 8, 2018
Method: 6020B

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.d	BLANK	1569904		30540		636835		3762010		4249125		2193079		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	1098933	70	21378	70	445784	70	2633407	70	2974388	70	1535155	70	
	Upper Limit	2040875	130	39702	130	827886	130	4890613	130	5523862	130	2851003	130	
005CALS.d	STD1	1589739	101	32021	105	640314	101	3798112	101	4331081	102	2241524	102	
006CALS.d	STD2	1395922	89	31120	102	555911	87	3286547	87	3648582	86	1904789	87	
007CALS.d	STD3	1575373	100	29835	98	624452	98	3721385	99	4188840	99	2136722	97	
008CALS.d	STD4	1571842	100	28366	93	618356	97	3684312	98	4138206	97	2141489	98	
009CALS.d	STD5	1599080	102	30137	99	623709	98	3684182	98	4147625	98	2164236	99	
011_CCV.d	ICV	1608682	102	30181	99	630703	99	3718603	99	4113998	97	2125995	97	
012LCCV.d	LLICV	1601943	102	29235	96	635116	100	3738877	99	4132199	97	2085385	95	
013_QC1.d	MLICV	1605139	102	29207	96	624400	98	3672973	98	4129659	97	2126593	97	
014_ICB.d	ICB	1562362	100	28819	94	616662	97	3641261	97	4039594	95	2090601	95	
015SMPL.d	BLKS180108-01	1570217	100	28758	94	618844	97	3666386	97	4127285	97	2121848	97	
016SMPL.d	E18-00100-001	1616921	103	29179	96	632270	99	3600633	96	4045176	95	2062286	94	
017SMPL.d	E18-00100-001DUP	1655853	105	29781	98	637764	100	3639378	97	4151190	98	2086788	95	
018SMPL.d	E18-00100-001SD	1398039	89	28122	92	542352	85	3222309	86	3635604	86	1831197	83	
019SMPL.d	LCSS180108-01	1619360	103	28263	93	621047	98	3621873	96	4022714	95	2049964	93	
020SMPL.d	E18-00100-001MS	1652936	105	29805	98	630974	99	3639863	97	4124328	97	2118883	97	
023SMPL.d	E17-10966-009	1647927	105	29146	95	626161	98	3584992	95	4143776	98	2150814	98	
024SMPL.d	E18-00100-007	1651281	105	29675	97	619435	97	3580982	95	4074833	96	2084349	95	
025_CCV.d	CCV	1635571	104	29884	98	613049	96	3608789	96	4003683	94	2089783	95	
026_CCB.d	CCB	1575116	100	28016	92	595453	94	3531849	94	3918541	92	2019808	92	
027SMPL.d	E18-00100-013	1629815	104	29480	97	632176	99	3602266	96	4077135	96	2086148	95	
028SMPL.d	E18-00100-019	1627659	104	29369	96	616203	97	3547815	94	3997579	94	2055972	94	
029SMPL.d	E18-00100-025	1646213	105	25905	85	616172	97	3548784	94	4020602	95	2061760	94	
030SMPL.d	E18-00100-031	1604853	102	28240	92	606989	95	3503782	93	3887414	91	2048828	93	
031SMPL.d	E18-00100-037	1594792	102	29181	96	617811	97	3480930	93	3959050	93	2044565	93	
032SMPL.d	E18-00100-043	1642106	105	27602	90	627657	99	3591166	95	4073017	96	2094332	95	
033SMPL.d	E18-00109-001	1632709	104	28200	92	616709	97	3502774	93	3933532	93	2039333	93	
034SMPL.d	E18-00109-007	1528082	97	28610	94	561452	88	3064489	81	3382297	80	1806284	82	
035SMPL.d	E18-00109-013	1618638	103	28287	93	612228	96	3544282	94	4021801	95	2071863	94	
036SMPL.d	E18-00109-019	1662432	106	29491	97	624754	98	3599994	96	4069633	96	2115861	96	
037_CCV.d	CCV	1622834	103	26664	87	599512	94	3557444	95	3912779	92	2050667	94	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

METALS INTERNAL STANDARD AREA SUMMARY
2018 PG010
January 8, 2018
Method: 6020B

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.d	BLANK	1569904		30540		636835		3762010		4249125		2193079		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	1098933	70	21378	70	445784	70	2633407	70	2974388	70	1535155	70	
	Upper Limit	2040875	130	39702	130	827886	130	4890613	130	5523862	130	2851003	130	
038_CCB.d	CCB	1563334	100	26922	88	587330	92	3464174	92	3871643	91	1984866	91	
039SMPL.d	E18-00109-025	1624808	103	28528	93	608819	96	3516526	93	4009412	94	2070430	94	
040SMPL.d	E18-00109-031	1516992	97	29598	97	567784	89	3257402	87	3666363	86	1894465	86	
041SMPL.d	E18-00109-037	1683468	107	30447	100	621679	98	3598271	96	4026344	95	2079360	95	
043ICSA.d	ICSA	1506853	96	30033	98	645987	101	3337132	89	4038233	95	1820692	83	
044ICSB.d	ICSAB	1432208	91	29592	97	648281	102	3192725	85	3738271	88	1686734	77	
046_CCV.d	FINAL CCV	1284907	82	29390	96	539560	85	3228003	86	3591123	85	1743440	79	
047_CCB.d	FINAL CCB	1465590	93	28596	94	625484	98	3615552	96	3892948	92	1933915	88	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

TCLP
METALS

TCLP
METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 011
SDG #: E18-00100, E18-00109, E18-00126, E18-00127, E17-10966, E18-00034

Matrix: TCLP Method: 1311/6020B/7470A Units: ppb (ug/L)

		1/10/18 11:57		1/10/18 13:14		1/10/18 14:19		1/10/18 15:25	
	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	Ture Value	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	25.0	25.3	101	26.0	104	26.4	106	26.8	107
Barium	25.0	26.5	106	26.6	106	26.3	105	27.3	109
Beryllium	25.0	26.1	104	25.4	102	25.3	101	25.3	101
Cadmium	25.0	24.9	99.6	25.4	102	25.7	103	26.5	106
Chromium	25.0	23.9	95.6	24.7	98.8	25.5	102	26.4	106
Copper	25.0	25.3	101	25.7	103	26.2	105	26.7	107
Lead	25.0	25.3	101	25.1	100	25.0	100	25.4	102
Mercury	5.00	5.12	102	5.06	101	5.15	103	5.12	102
Nickel	25.0	25.6	102	25.9	104	26.8	107	27.4	110
Selenium	25.0	23.3	93.2	25.3	101	25.7	103	27.1	108
Silver	25.0	24.9	99.6	25.0	100	24.9	99.6	25.4	102
Zinc	25.0	24.3	97.2	25.2	101	26.1	104	26.6	106

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 011
SDG #: E18-00100, E18-00109, E18-00126, E18-00127, E17-10966, E18-00034

Matrix: TCLP Method: 1311/6020B/7470A Units: ppb (ug/L)

		1/10/18 12:13		1/10/18 13:19	1/10/18 14:25	1/10/18 15:31	
ANALYTE	1/2 INST. RL	ICB	INST. RL	CCB	CCB	CCB	
Arsenic	0.250	ND	0.500	ND	ND	ND	
Barium	0.250	ND	0.500	ND	ND	ND	
Beryllium	0.250	ND	0.500	ND	ND	ND	
Cadmium	0.250	ND	0.500	ND	ND	ND	
Chromium	0.250	ND	0.500	ND	ND	ND	
Copper	0.250	ND	0.500	ND	ND	ND	
Lead	0.250	ND	0.500	ND	ND	ND	
Mercury	6.25	ND	12.5	ND	ND	ND	
Nickel	0.250	ND	0.500	ND	ND	ND	
Selenium	1.00	ND	2.00	ND	ND	ND	
Silver	0.250	ND	0.500	ND	ND	ND	
Zinc	0.250	ND	0.500	ND	ND	ND	

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

01/10/2018 12:57 PM

Batch (Page) #: 011
Associated Lab Case for Blank 1: E17-10966, E18-00034, E18-00100, E18-00109, E18-00126, E18-00127

Matrix: TCLP Unit: ppm (mg/L) Method: 1311/6020B/7470A

ANALYTE	1/2 Sample RL	REAGENT BLANK BLKT180108-01
Arsenic	0.050	ND
Barium	0.050	ND
Beryllium	0.050	ND
Cadmium	0.050	ND
Chromium	0.050	ND
Copper	0.050	ND
Lead	0.050	ND
Mercury	0.013	ND
Nickel	0.050	ND
Selenium	0.200	ND
Silver	0.050	ND
Zinc	0.050	ND

Associated Sample for Blank 1:
10966-009; 00034-009; 00100-001,007,013,019,025
00100-031,037,043; 00109-001,007,013,019,025,031
00109-037; 00126-001; 00127-001

METALS QUALITY CONTROL

TUMBLE BLANK RESULTS SUMMARY

Batch (Page) #: 011
Associated Lab Case: 10966, 00100, 00109, 00126, 00127

Matrix: TCLP Unit: ppm (mg/L) Method: 1311/6020B/7470A

ANALYTE	SAMPLE MDL	TCLP180105-01 BLANK
Arsenic	0.06	ND
Barium	0.06	ND
Beryllium	0.05	ND
Cadmium	0.06	ND
Chromium	0.05	ND
Copper	0.07	ND
Lead	0.03	ND
Mercury	0.01	ND
Nickel	0.05	ND
Selenium	0.07	ND
Silver	0.04	ND
Zinc	0.06	ND

Associated Sample ID:
10966-009, 00100-001, 00100-007, 00100-013, 00100-019, 00100-025, 00100-031, 00100-037, 00100-043, 00109-001, 00109-007, 00109-013, 00109-019, 00109-025, 00109-031, 00109-037, 00126-001, 00127-001

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7700
Batch (Page) #: 011
SDG #: E18-00100, E18-00109, E18-00126, E18-00127, E17-10966, E18-00034

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	93400	88100	88.1	NA
Calcium	100000	-	96600	91500	91.5	NA
Iron	100000	-	98400	96000	96.0	NA
Potassium	100000	-	97100	91900	91.9	NA
Magnesium	100000	-	96200	90400	90.4	NA
Sodium	100000	-	97000	91700	91.7	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2230	2180	109	NA
Titanium	2000	-	2100	1990	99.5	NA
Silver	-	20.0	-	20.3	102	80-120
Arsenic	-	20.0	-	20.3	102	80-120
Cadmium	-	20.0	-	20.0	100	80-120
Cobalt	-	20.0	-	19.4	97.0	80-120
Chromium	-	20.0	-	19.9	99.5	80-120
Copper	-	20.0	-	18.4	92.0	80-120
Manganese	-	20.0	-	20.8	104	80-120
Nickel	-	20.0	-	19.4	97.0	80-120
Zinc	-	20.0	-	19.4	97.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 011
SDG #: E17-10966, E18-00034, E18-00100, E18-00109, E18-00126, E18-00127

Matrix: TCLP Unit: ppm (mg/L)

ANALYTE	LCST180108-01					
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Arsenic	4.00	4.23	106			
Barium	4.00	4.31	108			
Beryllium	4.00	4.10	103			
Cadmium	4.00	4.31	108			
Chromium	4.00	4.36	109			
Copper	4.00	4.27	107			
Lead	4.00	4.22	106			
Mercury	0.010	0.010	100			
Nickel	4.00	4.30	108			
Selenium	4.00	4.33	108			
Silver	4.00	4.57	114			
Zinc	4.00	4.18	105			

(1) Control Limits % Recovery = 80-120%

LCST180108-01 1/10/18 13:30

10966-009; 00034-009; 00100-001,007,013,019,025
00100-031,037,043; 00109-001,007,013,019,025,031
00109-037; 00126-001; 00127-001

METALS QUALITY CONTROL

LOW LEVEL INITIAL CALIBRATION VERIFICATION

Batch (Page) #: 011
SDG #: E18-00100, E18-00109, E18-00126, E18-00127, E17-10966, E18-00034

Matrix: TCLP Method: 1311/6020B/7470A Units: ppb (ug/L)

1/10/18 12:02

ANALYTE	LLICV True Value	LLICV FOUND	LLICV % R
Arsenic	0.500	0.522	104
Barium	0.500	0.575	115
Beryllium	0.500	0.464	92.8
Cadmium	0.500	0.509	102
Chromium	0.500	0.471	94.2
Copper	0.500	0.415	83.0
Lead	0.500	0.506	101
Nickel	0.500	0.487	97.4
Selenium	0.500	0.458	91.6
Silver	0.500	0.517	103
Zinc	0.500	0.545	109

(1) Control Limits: 80-120

METALS QUALITY CONTROL

MID LEVEL INITIAL CALIBRATION VERIFICATION

Batch (Page) #: 011
SDG #: E18-00100, E18-00109, E18-00126, E18-00127, E17-10966, E18-00034

Matrix: TCLP Method: 1311/6020B/7470A Units: ppb (ug/L)

1/10/18 12:08

ANALYTE	MLICV True Value	MLICV FOUND	MLICV % R
Arsenic	25.0	26.4	106
Barium	25.0	25.5	102
Beryllium	25.0	25.5	102
Cadmium	25.0	25.4	102
Chromium	25.0	26.5	106
Copper	25.0	26.5	106
Lead	25.0	25.3	101
Nickel	25.0	25.9	104
Selenium	25.0	25.9	104
Silver	25.0	25.4	102
Zinc	25.0	25.7	103

(1) Control Limits: 90-110

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 011
SDG #: E17-10966, E18-00034, E18-00100, E18-00109, E18-00126, E18-00127

Matrix: TCLP Concentration/Units: ppm (mg/L)

ANALYTE	1/10/18 13:35 SSR1	1/10/18 13:03 SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Arsenic	4.18	ND	105	4.00					75-125
Barium	4.72	0.595	103	4.00					75-125
Beryllium	4.07	ND	102	4.00					75-125
Cadmium	4.27	ND	107	4.00					75-125
Chromium	4.26	ND	107	4.00					75-125
Copper	4.96	ND	124	4.00					75-125
Lead	5.32	1.44	97.0	4.00					75-125
Mercury	0.00887	ND	88.7	0.010					75-125
Nickel	4.19	ND	105	4.00					75-125
Selenium	4.09	ND	102	4.00					75-125
Silver	4.55	ND	114	4.00					75-125
Zinc	4.43	0.245	105	4.00					75-125

SSR = Spike Sample Result
SR = Sample Result
SA = Spike Added
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E18-00100-001
% Solids: NA
QC Sample 1 for following samples:
10966-009; 00034-009; 00100-001,007,013,019,025
00100-031,037,043; 00109-001,007,013,019,025,031
00109-037; 00126-001; 00127-001

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 011
SDG #: E17-10966, E18-00034, E18-00100, E18-00109, E18-00126, E18-00127

Matrix: TCLP Concentration/Units: ppm (mg/L)

ANALYTE	CONTROL LIMIT 1	1/10/18 13:03 S1	1/10/18 13:08 D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Arsenic	NA	ND	ND	NC				
Barium	20	0.595	0.606	1.83				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Chromium	NA	ND	ND	NC				
Copper	NA	ND	ND	NC				
Lead	20	1.44	1.44	0				
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Zinc	20	0.245	0.241	1.65				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E18-00100-001
% Solids: NA
QC Sample 1 for following samples:
10966-009; 00034-009; 00100-001,007,013,019,025
00100-031,037,043; 00109-001,007,013,019,025,031
00109-037; 00126-001; 00127-001

QC Sample 2:
% Solids:
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 011
SDG #: E17-10966, E18-00034, E18-00100, E18-00109, E18-00126, E18-00127

Matrix: TCLP Concentration/Units: ppm (mg/L) Method: 1311/6020B/7470A

ANALYTE	SERIAL DILUTION 1/10/18 13:03 MS	SERIAL DILUTION 1/10/18 13:24 SDR	% Difference
Arsenic	4.18	4.07	2.67
Barium	4.72	4.64	1.71
Beryllium	4.07	3.98	2.24
Cadmium	4.27	4.18	2.13
Chromium	4.26	4.29	0.702
Copper	4.96	4.85	2.24
Lead	5.32	5.29	0.566
Nickel	4.19	4.00	4.64
Selenium	4.09	3.92	4.24
Silver	4.55	4.32	5.19
Zinc	4.43	4.11	7.49

MS = Matrix Spike Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 20% Difference.

QC Sample1: E18-00100-001
QC Sample 1 for following samples:
10966-009; 00034-009; 00100-001,007,013,019,025
00100-031,037,043; 00109-001,007,013,019,025,031
00109-037; 00126-001; 00127-001

METALS INTERNAL STANDARD AREA SUMMARY
2018 PG011
January 10, 2018
Method: 1311/6020B

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.d	BLANK	1512830		24092		879622		4682314		4320024		1923861		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	1058981	70	16864	70	615735	70	3277620	70	3024017	70	1346703	70	
	Upper Limit	1966679	130	31320	130	1143509	130	6087008	130	5616031	130	2501019	130	
005CALS.d	STD1	1498622	99	24777	103	882718	100	4712431	101	4365511	101	1936539	101	
006CALS.d	STD2	1524381	101	25311	105	886217	101	4715814	101	4397157	102	1970750	102	
007CALS.d	STD3	1546380	102	25809	107	876067	100	4725165	101	4382249	101	2002017	104	
008CALS.d	STD4	1582481	105	25052	104	886719	101	4761824	102	4461555	103	2043700	106	
009CALS.d	STD5	1606467	106	26620	110	875217	99	4780106	102	4504432	104	2077151	108	
011_CCV.d	ICV	1504596	99	26037	108	863086	98	4700948	100	4522938	105	2079953	108	
012LCCV.d	LLICV	1590017	105	26343	109	876971	100	4782094	102	4557485	105	2043443	106	
013_QC1.d	MLICV	1582717	105	25817	107	866910	99	4708455	101	4451865	103	2031343	106	
014_ICB.d	ICB	1551285	103	25147	104	855524	97	4668699	100	4464257	103	2047041	106	
015SMPL.d	E18-00126-001	1588713	105	25478	106	881696	100	4759488	102	4554683	105	2079969	108	
016SMPL.d	E18-00127-001	1597236	106	26267	109	865851	98	4729556	101	4470984	103	2060825	107	
017SMPL.d	E17-10966-009	1635507	108	27045	112	871220	99	4728660	101	4544677	105	2097237	109	
020SMPL.d	TCLP180104-02	1626267	107	27025	112	873339	99	4726603	101	4544375	105	2099714	109	
021SMPL.d	TCLP180105-01	1607948	106	26387	110	846299	96	4645231	99	4434830	103	2048789	106	
022SMPL.d	BLKT180108-01	1595694	105	27124	113	850914	97	4654806	99	4428196	103	2041755	106	
023SMPL.d	E18-00100-001	1633238	108	27581	114	856473	97	4675209	100	4489461	104	2121580	110	
024SMPL.d	E18-00100-001DUP	1648529	109	28262	117	863694	98	4704279	100	4559245	106	2101951	109	
025_CCV.d	CCV	1613065	107	27557	114	871707	99	4782628	102	4647032	108	2151835	112	
026_CCB.d	CCB	1613329	107	27893	116	849166	97	4601555	98	4488596	104	2083614	108	
027SMPL.d	E18-00100-001SD	1652861	109	27920	116	868529	99	4745939	101	4531361	105	2113246	110	
028SMPL.d	LCST180108-01	1638914	108	28441	118	853424	97	4697008	100	4552676	105	2088793	109	
029SMPL.d	E18-00100-001MS	1695233	112	28881	120	855576	97	4698115	100	4532882	105	2153166	112	
032SMPL.d	E18-00100-007	1709125	113	28867	120	865428	98	4703841	100	4541460	105	2130424	111	
033SMPL.d	E18-00100-013	1654593	109	28219	117	835378	95	4561316	97	4418190	102	2098281	109	
034SMPL.d	E18-00100-019	1689803	112	28915	120	838802	95	4592406	98	4465611	103	2112064	110	
035SMPL.d	E18-00100-025	1714600	113	29694	123	851246	97	4684189	100	4579305	106	2129903	111	
036SMPL.d	E18-00100-031	1701715	112	29831	124	843676	96	4607111	98	4533075	105	2115836	110	
037_CCV.d	CCV	1673137	111	28609	119	848029	96	4714093	101	4601878	107	2176700	113	
038_CCB.d	CCB	1652255	109	29019	120	834683	95	4628668	99	4529950	105	2095247	109	
039SMPL.d	E18-00100-037	1687093	112	29820	124	838595	95	4642046	99	4494994	104	2125622	110	

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A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

METALS INTERNAL STANDARD AREA SUMMARY
2018 PG011
January 10, 2018
Method: 1311/6020B

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.d	BLANK	1512830		24092		879622		4682314		4320024		1923861		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	1058981	70	16864	70	615735	70	3277620	70	3024017	70	1346703	70	
	Upper Limit	1966679	130	31320	130	1143509	130	6087008	130	5616031	130	2501019	130	
040SMPL.d	E18-00100-043	1697474	112	29503	122	829869	94	4615131	99	4518822	105	2146242	112	
041SMPL.d	E18-00109-001	1691711	112	29767	124	819461	93	4500992	96	4465929	103	2098572	109	
042SMPL.d	E18-00109-007	1724433	114	30720	128	841561	96	4620643	99	4512110	104	2150388	112	
043SMPL.d	E18-00109-013	1736082	115	30151	125	849290	97	4652511	99	4512502	104	2146904	112	
044SMPL.d	E18-00109-019	1727539	114	30279	126	840921	96	4599658	98	4501056	104	2135706	111	
045SMPL.d	E18-00109-025	1731665	114	28984	120	828179	94	4623765	99	4493623	104	2135976	111	
046SMPL.d	E18-00109-031	1714403	113	29069	121	828421	94	4566730	98	4502118	104	2143596	111	
047SMPL.d	E18-00109-037	1710858	113	31053	129	826657	94	4569597	98	4471169	103	2104991	109	
048SMPL.d	E18-00034-009	1725052	114	29345	122	823250	94	4478133	96	4354545	101	2095952	109	
049_CCV.d	CCV	1686348	111	29848	124	823178	94	4591896	98	4564680	106	2189353	114	
050_CCB.d	CCB	1678552	111	30634	127	815999	93	4598347	98	4508950	104	2108194	110	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

METALS INTERNAL STANDARD AREA SUMMARY
2018 PG011
January 10, 2018
Method: 1311/6020B

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
003CALB.d	BLANK	1818727		35618		846109		4769091		4795484		2275960		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	1273109	70	24933	70	592276	70	3338364	70	3356839	70	1593172	70	
	Upper Limit	2364345	130	46303	130	1099942	130	6199818	130	6234129	130	2958748	130	
004CALS.d	STD1	1832603	101	33560	94	857412	101	4833017	101	4734427	99	2265680	100	
005CALS.d	STD2	1782897	98	34249	96	828200	98	4639338	97	4617198	96	2184307	96	
006CALS.d	STD3	1776952	98	35288	99	826226	98	4710229	99	4700541	98	2257921	99	
007CALS.d	STD4	1818877	100	35282	99	837347	99	4748618	100	4835874	101	2342860	103	
008CALS.d	STD5	1808074	99	36486	102	840447	99	4807211	101	4893850	102	2361594	104	
035ICSA.d	ICSA	1689198	93	39360	111	801932	95	3934246	82	4456800	93	1993354	88	
038ICSB.d	ICSAB	1705755	94	38111	107	842741	100	4170974	87	4694824	98	2054428	90	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-130% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-130% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

SAMPLE TRACKING

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: AESI
Address: 5 Marine View Plaza Suite 401, Hoboken
Telephone #:
Fax #:
Project Manager: Ican D.
EMAIL Address: Ican@solutionsenvironmental.com
Project Name: 27-10 49th Avenue
Project Location (State): NY
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: LD/SD

COMPLETED BY IAL:
Field Sampling | Equipment Rental

Reporting Information

REPORT TO:
Address:
Attn: Sam
FAX #
INVOICE TO:
Address:
.com
Attn: Sam
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA: ☐ Results Only ☐ Reduced ☐ Regulatory/ Full*
NY: ☐ ASP Category A ☐ ASP Category B*

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low | Med | High

These samples have been previously analyzed by IAL
☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal: **See comments!**
Rush/date needed only if pre-approved)**: Standard 6 day
Hard Copy: Std 3 week | Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
TAT for PHC (if other than 2 weeks):
☐ DRO-8015

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☒ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOCs	SVOCs	PCBs	TAL metals	Pesticides	Sample Specific Notes:
SB-38(S)		12/20	9:40	S		1	X	X	X	X	X	
SB-38(D)			9:45	S		2	X	X	X	X	X	
SB-39(S)			10:00	S		3	X	X	X	X	X	
SB-39(D)			10:05	S		4	X	X	X	X	X	
SB-40(S)			10:30	S		5	X	X	X	X	X	
SB-40(D)			10:35	S		6	X	X	X	X	X	
SB-38			11:00	GW		7	X	X	X	X	X	
SB-39			11:40	GW		8	X	X	X	8	X	

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other
Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Preservative (use code):
Container Type (use code):

Special Instructions/QC Requirements & Comments:
24 hr for SB-38(D); SB-39(D); SB-40(D); SB-38 (GW), SB-39 (GW)
6 day for SB-

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one):
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
J. DeFazio	12/20				
George Hall	12/20	[redacted]			
		19:20			

FOR LAB USE ONLY
SDG #: 10966
Cooler Temp: 6 °C

PAGE: of

IAL Rev 2/2014
LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK
Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

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IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10966: 27-10 49TH AVENUE

To: Leah DeEgidio
Atlantic Environmental Solutions, Inc.
Fax: 1(201) 876-9563
EMail: leah@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced	NA	Dec 20, 2017 @ 19:00	NA	Jan 10, 2018	Jan 17, 2018 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. Not Required

**** QC Requirement (must meet):** NY Part 375-6.8(UUSCO+RUSCO)

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10966-001	SB-38(S)	NA	12/20/17@09:40	Soil	mg/Kg (ppm)	
10966-002	SB-38(D)	NA	12/20/17@09:45	Soil	mg/Kg (ppm)	
10966-003	SB-39(S)	NA	12/20/17@10:00	Soil	mg/Kg (ppm)	
10966-004	SB-39(D)	NA	12/20/17@10:05	Soil	mg/Kg (ppm)	
10966-005	SB-40(S)	NA	12/20/17@10:30	Soil	mg/Kg (ppm)	
10966-006	SB-40(D)	NA	12/20/17@10:35	Soil	mg/Kg (ppm)	
10966-007	SB-38	NA	12/20/17@11:00	Aqueous	ug/L (ppb)	
10966-008	SB-39	NA	12/20/17@11:40	Aqueous	ug/L (ppb)	
10966-009	COMPOSITE	NA	12/20/17	Soil	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	6 Business Days	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	Sample Composition	Analyze		RUSH 72 HRS	12/20/2017
002	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	Sample Composition	Analyze		RUSH 72 HRS	12/20/2017
003	TCL VO + 15	Analyze	8260C	6 Business Days	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	Sample Composition	Analyze		RUSH 72 HRS	12/20/2017
004	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	Sample Composition	Analyze		RUSH 72 HRS	12/20/2017
005	TCL VO + 15	Analyze	8260C	6 Business Days	1/3/2018

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-10966: 27-10 49TH AVENUE

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
005	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	Sample Composition	Analyze		RUSH 72 HRS	12/20/2017
006	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Analyze	8081B	6 Business Days	1/3/2018
	Sample Composition	Analyze		RUSH 72 HRS	12/20/2017
007	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Cancel	8081B	6 Business Days	12/27/2017
008	TCL VO + 15	Analyze	8260C	RUSH 24 HRS	1/3/2018
	TCL Pesticides	Cancel	8081B	6 Business Days	12/27/2017
009	TCL VO	Analyze	8260C	RUSH 72 HRS	1/3/2018
	TCL/PAH	Analyze	8270D	RUSH 72 HRS	1/3/2018
	TCL PCB	Analyze	8082A	RUSH 72 HRS	12/20/2018
	NJ-EPH (DRO) Cat 1	Analyze	Method 10.08 Rev 3	RUSH 72 HRS	1/3/2018
	TCLP Metals	Analyze	1311/6020B/7470A	RUSH 72 HRS	1/17/2018
	TAL Metals	Analyze	6020B/7471B	RUSH 72 HRS	1/17/2018

Project Notes:

NOTE 1 taken by Frank on 12/20/2017 10:22

SAMPLE #1 - 1 5 g ENCORE, 2 25 g ENCORES RECEIVED, - 1 INTO MEOH/2 INTO H2O

SAMPLE #2 - TERRACORE KIT

SAMPLE #3 - 2 5 g ENCORES, 1 25 g ENCORE RECEIVED - 1 INTO MEOH/2 INTO H2O

SAMPLES #4, #5, & #6 - 3 5 g ENCORES RECEIVED - 1 INTO MEOH/2 INTO H2O

NOTE 3 taken by Frank on 12/20/2017 10:36

VO FOR SAMPLES #2, #4, #6, #7 & #8: 24HR TAT, DUE 12/22

ALL OTHER ANALYSIS: 6 DAT TAT, DUE 12/29

NOTE 4 taken by kim on 12/21/2017 11:22

ONLY VO VIALS RECEIVED FOR SAMPLES 007 & 008. ALL OTHER ANALYSES REQUESTED ON CHAIN ARE CANCELED.

ADD taken by kim on 01/05/2018 10:07

ADDENDUM DUE 1/10

PER LEAH DeEGIDIO, COMPOSITE SAMPLES 001 THROUGH 006 TO FORM SAMPLE 009.

ANALYZE SAMPLE 009 FOR SOIL SAFE METRO 12 WC - TCL VO, TCL PAH, TCL PCB, EPH-DRO, TAL METALS, TCLP METALS ON 72 TURNAROUND DUE 1/10. OK TO ANALYZE PAST HOLDING TIME.

ORIGINAL RESULTS EMAILED 1/2

ORIGINAL HC 1/4

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **10966** CLIENT: AES

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

VOA received: ☒ Encore ☐ IGW - Methanol
(check one) ☒ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	SB-38S – 15g, 225g Encores
✓	no-headspace/bubbles in VOs	SB-38D – Terra Core
✓	Labels intact/correct	SB-39S – 25g, 2 (25g Encores
✓	pH Check (exclude VOs)[1]	SB-39D, SB40S, SB40D 3 5g Encores
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: Samples 7 + 8 only VOA vials received.

SAMPLE(S) VERIFIED BY: INITIAL [KG] DATE 12/20/17

CORRECTIVE ACTION REQUIRED: **YES** ☒ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KG DATE 12/21/17

REV 03/2013

Laboratory Custody Chronicle

IAL Case No.
E17-10966

Client Atlantic Environmental Solutions, Inc.

Project 27-10 49TH AVENUE

Received On 12/20/2017@19:00

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL VO	10966-009	Soil	n/a	n/a	1/ 9/18	Xing
TCL VO + 15	-001	Soil	n/a	n/a	12/22/17	Xing
"	-002	"	n/a	n/a	12/21/17	Xing
"	-003	"	n/a	n/a	12/22/17	Xing
"	-004	"	n/a	n/a	12/21/17	Xing
"	-005	"	n/a	n/a	12/22/17	Xing
"	-006	"	n/a	n/a	12/21/17	Xing
"	-007	Aqueous	n/a	n/a	12/21/17	Barbara
"	-008	"	n/a	n/a	12/21/17	Barbara

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL/PAH	-009	Soil	1/ 5/18	Frank L.	1/ 5/18	Eleanor

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
NJ-EPH (DRO) Cat 1	-009	Soil	1/ 8/18	Archimede	1/10/18	Iolanta
TCL PCB	-009	Soil	1/ 8/18	Archimede	1/ 9/18	Latha
TCL Pesticides	-001	Soil	12/22/17	Archimede	12/27/17	Iwona
"	-002	"	12/21/17	Archimede	12/27/17	Iwona
"	-003	"	12/22/17	Archimede	12/27/17	Iwona
"	-004	"	12/21/17	Archimede	12/27/17	Iwona
"	-005	"	12/22/17	Archimede	12/27/17	Iwona
"	-006	"	12/21/17	Archimede	12/27/17	Iwona

Department: Metals			Prep. Date	Analyst	Analysis Date	Analyst
TAL Metals	-009	Soil	1/ 8/18	Frank R.	1/ 8/18	Danielle
TCLP Metals	-009	Soil	1/ 8/18	Frank R.	1/10/18	Danielle

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

EPA TO-15 DATA PACKAGE

ANALYTICAL DATA PACKAGE FOR THE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project#: 27-10 49th Ave — **NY ELAP Certification#: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

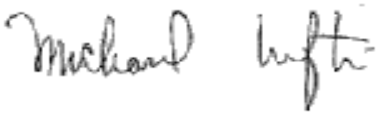
Client: Atlantic Environmental Solutions Inc.

Project/Site: 27-10 49th Ave/NY

Client Sample Number	Laboratory Sample	Sample Location	Date/Time of Collection
SV-1	E17-10917-01	NA	12/20/2017 11:11
SV-2	E17-10917-02	NA	12/20/2017 11:20
SV-3	E17-10917-03	NA	12/20/2017 11:22

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of data contained in this hardcopy data package and in the computer-readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his designee, as verified by the following signature.



Michael H. Leftin, Ph.D.
Laboratory Director

Date: January 04, 2018



Lauren Jenkins
Air Division Quality Assurance Officer

Date: January 04, 2018

Integrated Analytical Laboratories LLC

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Laboratory Acronyms

The following is a list of laboratory acronyms commonly used in EPA Method TO-15 testing:

Acronym	Definition
BLK	Blank/Method Blank
BFB	4-Bromofluorobenzene (Tuning Standard)
CAS Number	Chemical Abstract Service Registry Number
cc	cubic centimeters
CCCVS	Closing Calibration Check Verification Standard
COC	Chain of Custody
DCVS	Daily Calibration Verification Standard
DF	Dilution Factor
EPA	U. S. Environmental Protection Agency (aka USEPA)
"Hg	Inches of Mercury
IA	Indoor Air
IASL	Indoor Air Screening Level
ICAL	Initial Calibration
ICVSS	Initial Calibration Verification Standard
ISTD	Internal Standard
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LCS	Laboratory Control Sample/Spike
LLTO-15	Low Level TO-15
MDL	Method Detection Limit
MDLV	Method Detection Limit Verification
ml	milliliters
ND	Not Detected (at or above RL)
NJDEP	New Jersey Department of Environmental Protection
PM	Project Manager
ppbv	parts per billion, volume-to-volume ratio
PQL	Practical Quantitation Limit - MDLx3
QA	Quality Assurance
QC	Quality Control
RAL	Rapid Action Limit
RL	Reporting Limit
RLLCS	Reporting Limit Laboratory Control Sample
RPD	Relative Percent Difference
RRF	Relative Response Factor
RSD	Relative Standard Deviation
SDG	Sample Delivery Group
SGSL	Soil Gas Screening Levels
SS	Sub Slab
TAT	Turnaround Time
TIC	Tentatively Identified Compound
µg/m3	micrograms per cubic meter

Section I: Chain of Custody

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

External Chain of Custody Record/ Field Test Data Sheet
USEPA Method TO-15

10917

Contact Us: 973-361-4252
Fax: 973-366-5613
Web: www.ialonline.com

Client Contact Information	Project Information	Carrier (check one): ✓ IAL Courier ___ Client Courier ___ FedEx/UPS	pg 1 of 1
Company: AESI	Project Name: 2710 49th Ave	Invoice Information	
Address: 5 Marine View Plaza, Suite 401	Project Location (State): NY	Attn:	
Hoboken, NJ 07030	Project Manager: Leah DeEgidio	Address: SAME	
Phone: 201-876-9400	PM Signature:		
Fax: 201-876-9563	PM E-Mail: leah@solutionsenvironmental.com	PO #:	
Report to: Leah DeEgidio	Sampler: Leah DeEgido/Sal DeLuca	Quote #:	

Analysis Turnaround Time - IF NO TAT IS SPECIFIED, 2 WEEK TAT IS ASSUMED

IAL Standard: 2 weeks (10 business days)

Rush (**pre-approved by lab): 24hr** 48hr** 72hr** 96hr** 1wk**

	Sample Identification	Start DATE & TIME (24hr Clock)	End DATE & TIME (24hr Clock)	Starting Vacuum ("Hg)	Ending Vacuum ("Hg)	Starting Temp. (°F)	Ending Temp. (°F)	Outgoing Vacuum - Lab ("Hg)	Barometric Pressure Start: Incoming Vacuum - Lab ("Hg)	Start: Flow Regulator ID	Stop: Canister ID	Stop: Canister Size (1L or 6L)	Stop: Flow Controller Readout (cc/min)
1	SV-1	12/20/17 - 11:11 am	12/20/17 11:21 a.m	29		40°	40°	-29	0	[illegible]	1541	1L	118.2
2	SV-2	12/20/17 - 11:22 a.m.	12/20/17 - 11:30 a.m	29		40°	40°	-29	0	4016003-1	1558	1L	100.8
3	SV-3	12/20/17 - 11:22 a.m	12/20/17 - 11:32 a.m.	29		40°	40°	-29	0	7130542	1767	1L	103.4

EPA TO-15	NJDEP LLTO-15 (includes 30 TICs)	Library Search (10, 20, or 30 TICs)	Other (Explain in Comments)	Report: Regulatory/ NY Cat B / Full (NJ Required)	Reduced / NY Cat A Data Package	Results Only	Matrix: Indoor Air	Ambient / Outdoor Air	Sub Slab / Soil Gas / Near Slab (Circle One)	Stack Emission / SVE System	High Concentrations Expected

Comments/ Special Analysis Instructions / QC Requirements:

10121701 1555
10161700

Note: Hold or contingent samples may be designated by writing an "H" or "C" in the appropriate analysis box.

ALL FIELDS IN RED ARE REQUIRED

Shipping Information / Canister Preparation (for laboratory use only)

Individual Preparing Canisters / Title: P. Jenkins, J. Walukiewicz / Air Department Sample Custodians

Lab Affixed Seal Number(s): IAL20170359

Date/Time Shipping Container Sealed: 12/15/17 1445

Laboratory Canister Certification

GC/MS Analyst Signature

IAL SDG#: 10917

External Chain of Custody

Relinquished	Received	Date / Time	Reason for Change of External Custody
George Fiorentino	George M	12/15/17 1445	shipment from laboratory to client
		12/20/17 16:05	
		12/21/17 14:00	
		12/21/17 1030	received at lab

Name/Title Resealing Shipping Container Name:

Date/Time Sample Shipping Container Resealed:

Date/Time Sample Shipping Container Opened:

NJDEP Affixed Seal Number:

Individual Opening Sample Shipping Container: Padraic Jenkins / Joseph Walukiewicz

Date/Time Internal Chain of Custody Initiated:

White and yellow - lab copies; Pink - client copy

Use appropriate care with IAL sampling equipment when sampling and packing for shipment. The client is responsible for all damage incurred to IAL equipment. Notify IAL if equipment is damaged upon receipt. Holding time before sampling is 15 days, after sampling is 30 days; failure to follow these times may result in data rejection by regulatory agencies. The lab will contact you if your COC is not clear, incomplete, or if discrepancies exist. The use of initials is not permitted on the COC except when correcting errors.

06/2014

RUSH

PROJECT INFORMATION

E17-10917: 27-10 49TH AVE

To: Leah DeEgidio
Atlantic Environmental Solutions, Inc.
Fax: 1(201) 876-9563
EMail: leah@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due	
Air Regulatory		Dec 21, 2017 @ 10:30	NA	Jan 02, 2018	Jan 15, 2018	*

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. Not Required

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10917-001	SV-1	NA	12/20/17@11:21	Air-Sub Slab	ppbV	
10917-002	SV-2	NA	12/20/17@11:30	Air-Sub Slab	ppbV	
10917-003	SV-3	NA	12/20/17@11:32	Air-Sub Slab	ppbV	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TO-15 analysis	Analyze	TO-15	6 Business Days	1/19/2018
002	TO-15 analysis	Analyze	TO-15	6 Business Days	1/19/2018
003	TO-15 analysis	Analyze	TO-15	6 Business Days	1/19/2018

Project Notes:

REV 1 taken by lauren on 12/27/2017 02:38
Per Seamus Kelly, change name to 27-10 49th Avenue

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

Integrated Analytical Laboratories

Internal Chain of Custody

Instructions: Use 1 form for each 20 samples of aliquot.

Laboratory Person Accepting Responsibility for Sample(s)			
Laboratory:	Integrated Analytical Laboratories	Location:	273 Franklin Rd Randolph, NJ 07869
Name:	Padraic Jenkins	Title:	Air Department Receiving
Case No.:	E17- 10917	Analytical Parameter/Fraction: (check one)	___ NJDEP LLTO-15 X EPA TO-15

Sample No.	Aliquot/Extract No.
SV-1	E17- 10917.01
SV-2	E17- " .02
SV-3	E17- " .03
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-

Sample No.	Aliquot/Extract No.
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-
	E17-

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
12/21/17	1030	SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME PADRAIC JENKINS	1. Sample log-in 2. Pressure Check 3. Pre-analysis storage
12/21/17	1045	SIGNATURE PRINTED NAME PADRAIC JENKINS	SIGNATURE PRINTED NAME	Placement in TO-15 sample storage area until ready for analysis
12 27 17	1315	SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME JEFF SCHMITT	TO-15/LLTO-15 analysis on: 10917-01, 02, 03
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	

Section II: Methodology Review

Methodology Summary for Air Collected from Hazardous Waste Site Contract

Laboratory:	**Integrated Analytical Lab, LLC**	**Project No:**	**27-10 49th Ave**
Location:	**Randolph, NJ**	**SDG No:**	**E17-10917**

Name	Required Methodology	Indicate Method
Volatile Organics	US EPA TO-15	US EPA Method TO-15

Section III: Case Narrative

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

Client ID	Lab ID	Receipt Date	Analysis Date	DF	Diluted For
SV-1	E17-10917-01	12/21/2017	12/27/2017	10.0	NA
SV-2	E17-10917-02	12/21/2017	12/27/2017	10.0	NA
SV-3	E17-10917-03	12/21/2017	12/27/2017	10.0	NA

IAL Sample ID	Canister ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Controller ID	Outgoing Flow Rate (cc/min)	Incoming Flow Rate (cc/min)	Flow Rate RPD*
E17-10917-01	1541	-29	0	7339897	98.20	97.30	0.92
E17-10917-02	1558	-29	0	A0160003-1	100.80	105.00	4.08
E17-10917-03	1767	-29	0	7340542	103.40	101.90	1.46

*Pre-sampling and Post-sampling Flow Controller calibration check RPD ≤ 20%

Flow Controller Note: none

Sample Receipt: Samples were received in good condition. Documentation was in order.
Samples were received at IAL by: Padraic Jenkins

Sample Preparation: None required.

Sample Analysis:

Hold Time: All within recommended hold times.

Instrument Calibration: Meets method criteria.

Analysis performed by: Jeff Schmitt

SDG Non-Conformances: none

Tentatively Identified Compounds: Tentatively Identified Compounds (TICs) are determined using a NIST library search. TICs are reported at 10% of the applicable internal standard. Dilution factors are calculated into the final reported result. Since the compounds found are tentatively identified, the conversion from ppbv to ug/m3 may not be made.

Canister-to-Canister dilutions: none

Dilutions: Dilutions, if necessary, will be conducted directly on the instrument up to a 500x dilution. When dilutions of 1000x or higher are necessary, the laboratory must inject a volume of sample into another certified clean canister and add humidified Z-1 zero air to the remainder of the canister volume. Tedlar bags are not used for dilutions.

If a sample is received with historically high levels of analytes, a 100x can-to-can dilution my be used from the start. A 100x canister-to-canister dilution may be also be used at the analyst's discretion.

CASE NARRATIVE

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Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

On-instrument dilutions are conducted as follows:

Dilution Factor	Sample Volume Injected (cc)
1	500
2.5	200
5	100
10	50
20	25
25	20
50	10
100	5
200	2.5
250	2
500	1

Canister-to-canister dilutions are conducted as follows:

A certified clean canister is obtained and evacuated to approximately -30"Hg. Both the clean/dilution canister and sample canister are fitted with a ¼" Swagelok® nut fitting equipped with septa. Depending on dilution factor necessary, a sample aliquot is removed from the canister and injected into the clean canister using 30cc Multifit gas-tight syringe. Once the correct sample aliquot has been transferred, the dilution canister should be connected to the humidified Z-1 zero air supply and filled to ambient pressure (0"Hg).

Dilution Factor	Sample Aliquot	Z-1 Make-up Added
100	60ml	5940ml
1000	6ml	5994ml

If further dilutions need to be made from the dilution canister, they may be made on-instrument. Using a 100x dilution canister, the following on-instrument dilutions can be produced:

Dilution Factor	Sample Volume Injected
100	500ml
250	200ml
500	100ml
1000	50ml
2000	25ml
2500	20ml
5000	10ml

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Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

Using a 1000x dilution canister, the following on-instrument dilutions can be produced:

Dilution Factor	Sample Volume Injected
1000	500ml
2500	200ml
5000	100ml
10,000	50ml
20,000	25ml
25,000	20ml
50,000	10ml

If further dilutions need to be made from the dilution canister, beyond 50,000x, a subsequent canister-to-canister dilution must be made using the above prescribed protocol.

GC Column and ID: RTX-1 SN 1119138 or equivalent

Calibration Standards: Only gas phase standards were used. Primary and second-source standards provided by Scott Specialty Gases or Airgas Specialty Gases/ Air Liquide

Working Standards: Primary source standards* are created from:
- Scott Gas Cylinder #AAL071156, valid 3/9/15 through 2/25/17
- Airgas Specialty Gases Cylinder #CC483586, valid 3/6/17 through 3/6/18

@ 100ppb per compound, with exception of m&p-xylenes @ 200ppb. Standard is directly introduced into the instrument for all calibration standard concentrations. Dilutions are made accordingly, on instrument, with humidified clean air. The 10ppbv standard is also used for the Daily Calibration Verification Standard (DCVS) and Closing Calibration Verification Standard (CCCVS).

The second source standard*, used as the Initial Calibration Verification Standard (ICVSS) and Laboratory Control Sample (LCS), is introduced into the instrument in the same manner as the primary source standard, using:
- Scott Gas Cylinder #AAL07303, valid 6/11/15 through 5/14/17
- Airgas Specialty Gases Cylinder #CC483422, valid 5/4/17 through 5/4/18

@ 100ppb per compound, with exception of m&p-xylenes @ 200ppb.

Internal standards* are created from:
- Scott Gas, Cylinder #ALM029426, valid 5/11/2016 through 5/12/2019

@ 5ppm per compound. Standard is directly introduced into the instrument to reach the 10ppbv concentrations. 1:500 Dilutions are made on instrument with humidified clean air. 1cc of internal standard is added to every standard, method blank, instrument blank, and sample run.

*Standard may be used past its expiration date provided that concentrations are verified by a current/unexpired second source standard.

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

09/12/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
40 ppbv standard - 200 ml injected
20 ppbv standard - 100 ml injected
10 ppbv standard* - 50 ml injected
*Standard also used for CCCVS
2 ppbv standard - 10 ml injected
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS

10/16/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
10 ppbv standard* - 50 ml injected
*Standard also used for DCVS & CCCVS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127
500 ml injected

12/08/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
40 ppbv standard - 200 ml injected
20 ppbv standard - 100 ml injected
10 ppbv standard* - 50 ml injected
*Standard also used for CCCVS
2 ppbv standard - 10 ml injected
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS

12/27/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
10 ppbv standard* - 50 ml injected
*Standard also used for DCVS & CCCVS

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127
500 ml injected
Sample E17-10917-01 - sample taken in canister #1541
50 ml sample volume injected, 10x dilution
Sample E17-10917-02 - sample taken in canister #1558
50 ml sample volume injected, 10x dilution
Sample E17-10917-03 - sample taken in canister #1767
50 ml sample volume injected, 10x dilution

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. All conversions are based upon a room temperature of 77°F(25°C) and room pressure of 101.325 kPa (1atm).

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of data contained in this hardcopy data package and in the computer-readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his designee, as verified by the following signature.

Michael H. Leftin, Ph.D.
Laboratory Director

January 04, 2018
Date

Section IV: Method Detection Limit Summary

METHOD DETECTION LIMIT (MDL) REPORT

Integrated Analytical Laboratories - Randolph, NJ

Matrix: Air
Column ID: Restek Rtx-1, 60 meter, 0.32mm ID, 1 um
Instrument ID: GC - Agilent 7890A / MS - Agilent 5975C (IAL ID: *Instrument AA*)
Report Prepared by: Jeff Schmitt
Preparation Date: 6/27/17

MDL Effective Date: 6/27/2017
MDL Expiration Date: 6/27/2018
MDL Analysis Date: 6/27/2017
Analyst: Jeff Schmitt

Filename	Run #	Date	Time	Filename	Run #	Date	Time
aa2539	Run 1	6/27/2017	11:54	aa2544	Run 6	6/27/2017	14:44
aa2540	Run 2	6/27/2017	12:28	aa2545	Run 7	6/27/2017	15:18
aa2541	Run 3	6/27/2017	13:02				
aa2542	Run 4	6/27/2017	13:36				
aa2543	Run 5	6/27/2017	14:10				

Compound Name	Run 1*	Run 2*	Run 3*	Run 4*	Run 5*	Run 6*	Run 7*	MEAN Value	TRUE Value	Percent Recovery	Std Dev Conc	MDL ppbv	PQL ppbv	NY/ LLTO-15/ PA RL ppbv	NY/ LLTO-15/ PA RL µg/m³	NJ TO-15 RL ppbv	NJ TO-15 RL µg/m³	True value/ MDL
Propene	0.18	0.15	0.10	0.08	0.15	0.05	0.13	0.12	0.20	61	0.045	0.14	0.43	0.20	0.34	0.40	0.69	1.4
Dichlorodifluoromethane	0.18	0.20	0.18	0.16	0.21	0.21	0.18	0.19	0.20	94	0.016	0.050	0.15	0.20	0.99	0.40	2.0	4.0
Chloromethane	0.08	0.17	0.12	0.08	0.13	0.10	0.17	0.12	0.20	61	0.038	0.12	0.36	0.20	0.41	0.40	0.83	1.7
1,2-Dichlorotetrafluoroethane	0.31	0.32	0.31	0.28	0.34	0.34	0.32	0.32	0.20	159	0.019	0.059	0.18	0.20	1.4	0.40	2.8	3.4
Vinyl chloride	0.12	0.14	0.13	0.11	0.15	0.14	0.12	0.13	0.20	65	0.015	0.046	0.14	0.20	0.51	0.40	1.0	4.3
1,3-Butadiene	0.18	0.21	0.19	0.15	0.21	0.20	0.18	0.19	0.20	96	0.022	0.069	0.21	0.20	0.44	0.40	0.88	2.9
n-Butane	0.28	0.29	0.27	0.24	0.30	0.29	0.26	0.28	0.20	139	0.022	0.068	0.20	0.20	0.47	0.40	0.95	3.0
Bromomethane	0.12	0.12	0.12	0.09	0.12	0.06	0.11	0.11	0.20	53	0.023	0.073	0.22	0.20	0.78	0.40	1.6	2.7
Chloroethane	0.08	0.16	0.08	0.16	0.24	0.20	0.17	0.15	0.20	77	0.058	0.18	0.54	0.20	0.53	0.40	1.1	1.1
Ethanol	0.24	0.11	0.17	0.20	0.27	0.29	0.22	0.21	0.20	107	0.061	0.19	0.57	0.20	0.38	0.40	0.75	1.0
Vinyl bromide	0.14	0.14	0.14	0.12	0.16	0.17	0.14	0.14	0.20	72	0.015	0.047	0.14	0.20	0.87	0.40	1.7	4.3
Acrolein	0.20	0.24	0.21	0.19	0.10	0.22	0.20	0.19	0.20	97	0.043	0.14	0.41	0.20	0.46	0.40	0.92	1.5
Acetone	0.26	0.26	0.25	0.23	0.28	0.19	0.24	0.24	0.20	122	0.028	0.088	0.26	0.20	0.48	0.40	0.95	2.3
Trichlorofluoromethane	0.33	0.35	0.35	0.32	0.38	0.38	0.35	0.35	0.20	176	0.023	0.072	0.22	0.20	1.1	0.40	2.2	3
Isopropanol	0.34	0.35	0.33	0.30	0.40	0.34	0.32	0.34	0.20	170	0.032	0.10	0.30	0.20	0.49	0.40	0.98	2.0
n-Pentane	0.31	0.33	0.32	0.28	0.31	0.32	0.30	0.31	0.20	155	0.015	0.046	0.14	0.20	0.59	0.40	1.2	4.3
1,1-Dichloroethene	0.21	0.23	0.22	0.20	0.25	0.25	0.22	0.23	0.20	113	0.017	0.054	0.16	0.20	0.79	0.40	1.6	3.7
Methylene chloride	0.27	0.27	0.26	0.25	0.29	0.29	0.28	0.27	0.20	137	0.014	0.045	0.13	0.20	0.69	0.40	1.4	4.5
Tert-butyl alcohol	0.36	0.36	0.35	0.30	0.34	0.38	0.31	0.34	0.20	172	0.030	0.093	0.28	0.20	0.61	0.40	1.2	2.2
Allyl Chloride	0.22	0.22	0.21	0.18	0.22	0.23	0.19	0.21	0.20	105	0.017	0.054	0.16	0.20	0.63	0.40	1.3	3.7
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	0.36	0.35	0.31	0.37	0.38	0.35	0.35	0.20	175	0.022	0.068	0.20	0.20	1.5	0.40	3.1	2.9
Carbon disulfide	0.17	0.19	0.18	0.15	0.20	0.19	0.17	0.18	0.20	89	0.017	0.052	0.16	0.20	0.62	0.40	1.2	3.8
1,2-Dichloroethene (trans)	0.21	0.24	0.22	0.20	0.24	0.24	0.21	0.22	0.20	112	0.018	0.057	0.17	0.20	0.79	0.40	1.6	3.5
1,1-Dichloroethane	0.29	0.32	0.29	0.28	0.33	0.34	0.30	0.31	0.20	155	0.022	0.069	0.21	0.20	0.81	0.40	1.6	2.9
Methyl tert-butyl ether	0.26	0.28	0.25	0.22	0.27	0.27	0.24	0.26	0.20	128	0.020	0.064	0.19	0.20	0.72	0.40	1.4	3.1
Methyl ethyl ketone	0.35	0.37	0.34	0.31	0.38	0.37	0.34	0.35	0.20	176	0.024	0.077	0.23	0.20	0.59	0.40	1.2	2.6
1,2-Dichloroethene (cis)	0.25	0.27	0.25	0.22	0.27	0.27	0.24	0.25	0.20	127	0.019	0.058	0.17	0.20	0.79	0.40	1.6	3.4
Ethyl acetate	0.46	0.48	0.49	0.44	0.51	0.54	0.45	0.48	0.20	241	0.035	0.11	0.33	0.20	0.72	0.40	1.4	1.8
n-Hexane	0.33	0.35	0.34	0.31	0.38	0.35	0.32	0.34	0.20	170	0.022	0.069	0.21	0.20	0.70	0.40	1.4	2.9
Chloroform	0.29	0.33	0.31	0.29	0.34	0.34	0.31	0.31	0.20	157	0.022	0.068	0.20	0.20	0.98	0.40	2.0	2.9
Tetrahydrofuran	0.39	0.41	0.41	0.35	0.43	0.43	0.38	0.40	0.20	200	0.026	0.082	0.24	0.20	0.59	0.40	1.2	2.5
1,2-Dichloroethane	0.32	0.34	0.33	0.30	0.37	0.37	0.34	0.34	0.20	170	0.026	0.082	0.25	0.20	0.81	0.40	1.6	2.4
1,1,1-Trichloroethane	0.31	0.33	0.31	0.28	0.34	0.34	0.31	0.32	0.20	158	0.020	0.064	0.19	0.20	1.1	0.40	2.2	3.1
Benzene	0.33	0.35	0.33	0.30	0.35	0.36	0.32	0.33	0.20	167	0.021	0.065	0.20	0.20	0.64	0.40	1.3	3
Carbon tetrachloride	0.25	0.27	0.24	0.22	0.26	0.27	0.25	0.25	0.20	126	0.016	0.050	0.15	0.20	1.3	0.40	2.5	4.0
Cyclohexane	0.27	0.29	0.27	0.24	0.29	0.28	0.25	0.27	0.20	134	0.019	0.061	0.18	0.20	0.69	0.40	1.4	3.3
1,2-Dichloropropane	0.40	0.41	0.41	0.38	0.44	0.44	0.40	0.41	0.20	206	0.023	0.071	0.21	0.20	0.92	0.40	1.8	2.8
Bromodichloromethane	0.32	0.34	0.33	0.30	0.36	0.35	0.32	0.33	0.20	165	0.021	0.066	0.20	0.20	1.3	0.40	2.7	3.0
2,2,4-Trimethylpentane	0.22	0.25	0.24	0.20	0.25	0.26	0.22	0.23	0.20	117	0.021	0.065	0.20	0.20	0.93	0.40	1.9	3.1
Trichloroethene	0.36	0.38	0.37	0.32	0.39	0.39	0.35	0.37	0.20	183	0.026	0.080	0.24	0.20	1.1	0.40	2.1	2.5
1,4-Dioxane	0.39	0.41	0.38	0.35	0.41	0.41	0.36	0.39	0.20	194	0.024	0.076	0.23	0.20	0.72	0.40	1.4	2.6
Methyl methacrylate	0.39	0.42	0.38	0.37	0.42	0.41	0.38	0.40	0.20	198	0.023	0.071	0.21	0.20	0.82	0.40	1.6	2.8
n-Heptane	0.35	0.37	0.35	0.31	0.37	0.36	0.34	0.35	0.20	175	0.022	0.068	0.20	0.20	0.82	0.40	1.6	3.0
1,3-Dichloropropene (cis)	0.33	0.35	0.33	0.31	0.36	0.36	0.32	0.34	0.20	169	0.020	0.063	0.19	0.20	0.91	0.40	1.8	3.2
Methyl isobutyl ketone	0.44	0.48	0.45	0.42	0.51	0.50	0.44	0.46	0.20	232	0.034	0.11	0.32	0.20	0.82	0.40	1.6	1.9
1,3-Dichloropropene (trans)	0.37	0.39	0.36	0.34	0.40	0.39	0.35	0.37	0.20	186	0.020	0.063	0.19	0.20	0.91	0.40	1.8	3.2
1,1,2-Trichloroethane	0.40	0.42	0.39	0.36	0.42	0.45	0.41	0.41	0.20	203	0.027	0.085	0.26	0.20	1.1	0.40	2.2	2.4

METHOD DETECTION LIMIT (MDL) REPORT

Integrated Analytical Laboratories - Randolph, NJ

Matrix: Air
Column ID: Restek Rtx-1, 60 meter, 0.32mm ID, 1 um
Instrument ID: GC - Agilent 7890A / MS - Agilent 5975C (IAL ID: *Instrument AA*)
Report Prepared by: Jeff Schmitt
Preparation Date: 6/27/17

MDL Effective Date: 6/27/2017
MDL Expiration Date: 6/27/2018
MDL Analysis Date: 6/27/2017
Analyst: Jeff Schmitt

Filename	Run #	Date	Time	Filename	Run #	Date	Time
aa2539	Run 1	6/27/2017	11:54	aa2544	Run 6	6/27/2017	14:44
aa2540	Run 2	6/27/2017	12:28	aa2545	Run 7	6/27/2017	15:18
aa2541	Run 3	6/27/2017	13:02				
aa2542	Run 4	6/27/2017	13:36				
aa2543	Run 5	6/27/2017	14:10				

Compound Name	Run 1*	Run 2*	Run 3*	Run 4*	Run 5*	Run 6*	Run 7*	MEAN Value	TRUE Value	Percent Recovery	Std Dev Conc	MDL ppbv	PQL ppbv	NY/ LLTO-15/ PA RL ppbv	NY/ LLTO-15/ PA RL µg/m³	NJ TO-15 RL ppbv	NJ TO-15 RL µg/m³	True value/ MDL
Toluene	0.43	0.45	0.43	0.38	0.45	0.44	0.42	0.43	0.20	214	0.025	0.077	0.23	0.20	0.75	0.40	1.5	2.6
Methyl n-butyl ketone	0.48	0.50	0.47	0.43	0.51	0.52	0.46	0.48	0.20	240	0.031	0.10	0.30	0.20	0.82	0.40	1.6	2.0
Dibromochloromethane	0.27	0.28	0.27	0.24	0.29	0.29	0.27	0.27	0.20	136	0.016	0.051	0.15	0.20	1.7	0.40	3.4	4
1,2-Dibromoethane	0.38	0.40	0.38	0.34	0.41	0.41	0.36	0.38	0.20	192	0.025	0.078	0.23	0.20	1.5	0.40	3.1	2.6
Tetrachloroethene	0.41	0.43	0.43	0.39	0.46	0.46	0.41	0.43	0.20	213	0.025	0.078	0.24	0.20	1.4	0.40	2.7	2.5
Chlorobenzene	0.39	0.41	0.40	0.36	0.43	0.43	0.39	0.40	0.20	200	0.026	0.080	0.24	0.20	0.92	0.40	1.8	2.5
Ethylbenzene	0.36	0.38	0.35	0.32	0.38	0.37	0.34	0.36	0.20	179	0.023	0.071	0.21	0.20	0.87	0.40	1.7	3
Xylenes (m&p)	0.75	0.76	0.72	0.67	0.77	0.76	0.68	0.73	0.40	182	0.040	0.13	0.38	0.40	1.7	0.40	1.7	1.6
Bromoform	0.22	0.23	0.22	0.20	0.24	0.24	0.22	0.23	0.20	113	0.014	0.045	0.13	0.20	2.1	0.40	4.1	4
Styrene	0.33	0.34	0.32	0.28	0.35	0.33	0.30	0.32	0.20	161	0.022	0.069	0.21	0.20	0.85	0.40	1.7	3
1,1,2,2-Tetrachloroethane	0.37	0.38	0.37	0.32	0.38	0.38	0.34	0.36	0.20	182	0.023	0.073	0.22	0.20	1.4	0.40	2.7	2.8
Xylene (o)	0.40	0.41	0.39	0.35	0.43	0.43	0.38	0.40	0.20	199	0.026	0.083	0.25	0.20	0.87	0.40	1.7	2.4
n-Nonane	0.34	0.35	0.32	0.30	0.36	0.36	0.31	0.33	0.20	167	0.023	0.072	0.22	0.20	1.4	0.40	2.1	3
Cumene	0.34	0.36	0.34	0.31	0.37	0.37	0.33	0.35	0.20	173	0.024	0.075	0.23	0.20	1.0	0.40	2.0	3
2-Chlorotoluene	0.36	0.36	0.34	0.32	0.37	0.37	0.34	0.35	0.20	175	0.019	0.059	0.18	0.20	0.98	0.40	2.1	3.4
n-Propyl benzene	0.35	0.37	0.34	0.31	0.37	0.36	0.33	0.35	0.20	173	0.023	0.072	0.22	0.20	1.0	0.40	2.0	2.8
4-Ethyltoluene	0.32	0.34	0.32	0.29	0.34	0.34	0.30	0.32	0.20	161	0.020	0.062	0.19	0.20	0.98	0.40	2.0	3.2
1,3,5-Trimethylbenzene	0.32	0.34	0.32	0.28	0.34	0.34	0.30	0.32	0.20	160	0.022	0.069	0.21	0.20	0.98	0.40	2.0	2.9
1,2,4-Trimethylbenzene	0.31	0.32	0.30	0.27	0.32	0.31	0.28	0.30	0.20	151	0.022	0.069	0.21	0.20	0.98	0.40	2.0	3
Benzyl chloride	0.27	0.27	0.25	0.23	0.27	0.27	0.24	0.26	0.20	129	0.018	0.056	0.17	0.20	1.0	0.40	2.1	3.6
1,3-Dichlorobenzene	0.38	0.39	0.37	0.34	0.40	0.40	0.36	0.38	0.20	189	0.023	0.072	0.22	0.20	1.2	0.40	2.4	2.8
1,4-Dichlorobenzene	0.36	0.38	0.35	0.32	0.38	0.38	0.34	0.36	0.20	179	0.024	0.076	0.23	0.20	1.2	0.40	2.4	2.6
1,2-Dichlorobenzene	0.36	0.37	0.36	0.33	0.38	0.38	0.34	0.36	0.20	179	0.020	0.063	0.19	0.20	1.2	0.40	2.4	3.2
1,2,4-Trichlorobenzene	0.41	0.41	0.39	0.35	0.41	0.41	0.38	0.40	0.20	198	0.024	0.077	0.23	0.20	1.5	0.40	3.0	3
Naphthalene	0.41	0.41	0.39	0.36	0.41	0.40	0.35	0.39	0.20	194	0.025	0.079	0.24	0.20	1.0	0.40	2.1	2.5
1,3-Hexachlorobutadiene	0.40	0.42	0.40	0.38	0.43	0.45	0.40	0.41	0.20	206	0.024	0.075	0.22	0.20	2.1	0.40	4.3	2.7

Processing Method: C:\MSDCHEM\1\METHODS\AA0612.M
Initial Calibration: C:\MSDCHEM\1\METHODS\AA0612.M
Location of this file: P:\PAL Reports\2015\LLTO-15 and TO-15 Common Files\Agilent MDL

Michael Leftin, Ph.D.
Laboratory Director

Date: July 5, 2017

Lauren Jenkins
Air Division Quality Assurance Officer

Date: July 5, 2017

Instrument used for Clean Canister Certification Analysis? YES

Section V: Quality Control Data Summary

BFB Tune Summary

Method Blank

Laboratory Control Sample

Laboratory Sample Duplicate

Internal Standard Area Summary

BFB

Data Path: C:\DATA\09-12-17\

Data File: AA3441BFB.D

Acq On: 9/12/2017 8:18:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0816.M

Last Update: Thu Aug 17 08:51:27 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	77682	13.2
PASS	75	95	30	66	348928	59.5
PASS	95	95	100	100	586303	100.0
PASS	96	95	5	9	39699	6.8
PASS	173	174	0.00	2	3809	0.9
PASS	174	95	50	100	410368	70.0
PASS	175	174	4	9	30821	7.5
PASS	176	174	93	101	385131	93.9
PASS	177	176	5	9	25240	6.6

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA3441BFB	NA	9/12/2017 8:18:00 AM
40 PPBV STD	AA3443STD01	NA	9/12/2017 9:44:00 AM
20 PPBV STD	AA3444STD02	NA	9/12/2017 10:17:00 AM
10 PPBV STD	AA3445STD03	NA	9/12/2017 10:51:00 AM
2 PPBV STD	AA3446STD04	NA	9/12/2017 11:24:00 AM
0.2 PPBV STD	AA3447STD05	NA	9/12/2017 12:06:00 PM
10 PPBV ICVSS	AA3448ICVSS	NA	9/12/2017 1:28:00 PM

BFB

Data Path: C:\DATA\10-16-17\

Data File: AA3811BFB.D

Acq On: 10/16/2017 8:37:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	80995	13.1
PASS	75	95	30	66	376384	61.1
PASS	95	95	100	100	616467	100.0
PASS	96	95	5	9	41181	6.7
PASS	173	174	0.00	2	2780	0.6
PASS	174	95	50	100	443029	71.9
PASS	175	174	4	9	31224	7.0
PASS	176	174	93	101	418236	94.4
PASS	177	176	5	9	28827	6.9

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA3811BFB	NA	10/16/2017 8:37:00 AM
10 PPBV DCVS	AA3812DCVS	NA	10/16/2017 9:38:00 AM
10 PPBV LCS	AA3813LCS	NA	10/16/2017 10:17:00 AM
METHOD BLANK	AA3814BLK	NA	10/16/2017 10:57:00 AM
02 PPBV RLLCS	AA3815RLLCS	NA	10/16/2017 11:48:00 AM
1555	AA3821	NA	10/16/2017 4:19:00 PM
10 PPBV CCCVS	AA3822CCCVS	NA	10/16/2017 4:53:00 PM

BFB

Data Path: C:\DATA\12-08-17\

Data File: AA4421BFB.D

Acq On: 12/8/2017 11:01:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	79277	18.1
PASS	75	95	30	66	190647	43.6
PASS	95	95	100	100	437324	100.0
PASS	96	95	5	9	32059	7.3
PASS	173	174	0.00	2	350	0.1
PASS	174	95	50	100	317504	72.6
PASS	175	174	4	9	19316	6.1
PASS	176	174	93	101	308691	97.2
PASS	177	176	5	9	21179	6.9

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4421BFB	NA	12/8/2017 11:01:00 AM
40 PPBV STD	AA4423STD01	NA	12/8/2017 3:47:00 PM
20 PPBV STD	AA4424STD02	NA	12/8/2017 4:21:00 PM
10 PPBV STD	AA4425STD03	NA	12/8/2017 4:55:00 PM
2 PPBV STD	AA4426STD04	NA	12/8/2017 5:29:00 PM
0.2 PPBV STD	AA4427STD05	NA	12/8/2017 6:02:00 PM
10 PPBV ICVSS	AA4428ICVSS	NA	12/8/2017 6:36:00 PM
10 PPBV LCS	AA4428LCS	NA	12/8/2017 6:36:00 PM
BLK	AA4429BLK	NA	12/8/2017 7:10:00 PM
RLLCS	AA4430RLLCS	NA	12/8/2017 7:50:00 PM
2160	AA4431	NA	12/8/2017 8:24:00 PM
2066	AA4432	NA	12/8/2017 8:58:00 PM
CCCVS	AA4433CCCVS	NA	12/8/2017 9:31:00 PM

BFB

Data Path: C:\DATA\12-27-17\

Data File: AA4701BFB.D

Acq On: 12/27/2017 8:38:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\1208.M

Last Update: Tue Dec 12 09:25:44 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	105304	18.9
PASS	75	95	30	66	254123	45.7
PASS	95	95	100	100	556437	100.0
PASS	96	95	5	9	30496	5.5
PASS	173	174	0.00	2	1937	0.4
PASS	174	95	50	100	458027	82.3
PASS	175	174	4	9	29992	6.5
PASS	176	174	93	101	444907	97.1
PASS	177	176	5	9	23603	5.3

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4701BFB	NA	12/27/2017 8:38:00 AM
10 PPBV DCVS	AA4702DCVS	NA	12/27/2017 9:19:00 AM
10 PPBV LCS	AA4703LCS	NA	12/27/2017 9:57:00 AM
METHOD BLANK	AA4704BLK	NA	12/27/2017 11:28:00 AM
02 PPBV RLLCS	AA4705RLLCS	NA	12/27/2017 12:09:00 PM
E17-10917-01	AA4707	SV-1	12/27/2017 2:53:00 PM
E17-10917-02	AA4708	SV-2	12/27/2017 3:27:00 PM
E17-10917-22	AA4709	SV-2 Dup	12/27/2017 4:00:00 PM
E17-10917-03	AA4710	SV-3	12/27/2017 4:34:00 PM
10 PPBV CCCVS	AA4721CCCVS	NA	12/27/2017 10:43:00 PM

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA3814BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**10/16/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA3814BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**10/16/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4704BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**12/27/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4704BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**12/27/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA3813LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 10/16/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	9.9	99
Benzene	71-43-2	8.8	88
Bromodichloromethane	75-27-4	9.7	97
Bromoform	75-25-2	9.6	96
Bromomethane	74-83-9	11	110
1,3-Butadiene	106-99-0	9.5	95
Chlorobenzene	108-90-7	8.9	89
Chloroethane	75-00-3	11	110
Chloroform	67-66-3	9.4	94
Chloromethane	74-87-3	10	100
Carbon disulfide	75-15-0	9.3	93
Carbon tetrachloride	56-23-5	9.1	91
Cyclohexane	110-82-7	8.9	89
Dibromochloromethane	124-48-1	9.6	96
1,2-Dibromoethane	106-93-4	9.3	93
1,2-Dichlorobenzene	95-50-1	9.4	94
1,3-Dichlorobenzene	541-73-1	9.4	94
1,4-Dichlorobenzene	106-46-7	9.4	94
Dichlorodifluoromethane	75-71-8	9.9	99
1,1-Dichloroethane	75-34-3	8.9	89
1,2-Dichloroethane	107-06-2	9.3	93
1,1-Dichloroethene	75-35-4	9.5	95
1,2-Dichloroethene (cis)	156-59-2	8.8	88
1,2-Dichloroethene (trans)	156-60-5	9.0	90
1,2-Dichloropropane	78-87-5	8.8	88
1,3-Dichloropropene (cis)	10061-01-5	9.6	96
1,3-Dichloropropene (trans)	10061-02-6	9.6	96
1,2-Dichlorotetrafluoroethane	76-14-2	9.3	93
1,4-Dioxane	123-91-1	8.5	85
Ethylbenzene	100-41-4	9.5	95
n-Heptane	142-82-5	11	110
1,3-Hexachlorobutadiene	87-68-3	8.6	86
n-Hexane	110-54-3	8.5	85

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA3813LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **10/16/2017**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Methylene chloride	75-09-2	8.8	88
Methyl ethyl ketone	78-93-3	10	100
Methyl isobutyl ketone	108-10-1	9.0	90
Methyl tert-butyl ether	1634-04-4	8.7	87
Styrene	100-42-5	10.0	100
Tert-butyl alcohol	75-65-0	8.4	84
1,1,2,2-Tetrachloroethane	79-34-5	9.1	91
Tetrachloroethene	127-18-4	9.1	91
Toluene	108-88-3	9.6	96
1,2,4-Trichlorobenzene	120-82-1	9.0	90
1,1,1-Trichloroethane	71-55-6	9.0	90
1,1,2-Trichloroethane	79-00-5	9.2	92
Trichloroethene	79-01-6	9.7	97
Trichlorofluoromethane	75-69-4	9.4	94
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8.6	86
1,2,4-Trimethylbenzene	95-63-6	10	100
1,3,5-Trimethylbenzene	108-67-8	10	100
2,2,4-Trimethylpentane	540-84-1	9.6	96
Vinyl bromide	593-60-2	10.0	100
Vinyl chloride	75-01-4	9.6	96
Xylenes (m&p)	179601-23-1	20	98
Xylenes (o)	95-47-6	9.8	98

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.
*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4703LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 12/27/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	11	110
Benzene	71-43-2	11	110
Bromodichloromethane	75-27-4	8.1	81
Bromoform	75-25-2	11	110
Bromomethane	74-83-9	9.6	96
1,3-Butadiene	106-99-0	9.9	99
Chlorobenzene	108-90-7	13	130
Chloroethane	75-00-3	11	110
Chloroform	67-66-3	11	110
Chloromethane	74-87-3	8.7	87
Carbon disulfide	75-15-0	11	110
Carbon tetrachloride	56-23-5	8.9	89
Cyclohexane	110-82-7	9.2	92
Dibromochloromethane	124-48-1	11	110
1,2-Dibromoethane	106-93-4	10	100
1,2-Dichlorobenzene	95-50-1	9.7	97
1,3-Dichlorobenzene	541-73-1	11	110
1,4-Dichlorobenzene	106-46-7	11	110
Dichlorodifluoromethane	75-71-8	8.6	86
1,1-Dichloroethane	75-34-3	11	110
1,2-Dichloroethane	107-06-2	7.9	79
1,1-Dichloroethene	75-35-4	11	110
1,2-Dichloroethene (cis)	156-59-2	10.0	100
1,2-Dichloroethene (trans)	156-60-5	11	110
1,2-Dichloropropane	78-87-5	11	110
1,3-Dichloropropene (cis)	10061-01-5	11	110
1,3-Dichloropropene (trans)	10061-02-6	11	110
1,2-Dichlorotetrafluoroethane	76-14-2	11	110
1,4-Dioxane	123-91-1	12	120
Ethylbenzene	100-41-4	12	120

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4703LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 12/27/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
n-Heptane	142-82-5	10	100
1,3-Hexachlorobutadiene	87-68-3	9.8	98
n-Hexane	110-54-3	11	110
Methylene chloride	75-09-2	12	120
Methyl ethyl ketone	78-93-3	11	110
Methyl isobutyl ketone	108-10-1	11	110
Methyl tert-butyl ether	1634-04-4	8.8	88
Styrene	100-42-5	12	120
Tert-butyl alcohol	75-65-0	8.9	89
1,1,2,2-Tetrachloroethane	79-34-5	9.4	94
Tetrachloroethene	127-18-4	12	120
Toluene	108-88-3	12	120
1,2,4-Trichlorobenzene	120-82-1	9.0	90
1,1,1-Trichloroethane	71-55-6	11	110
1,1,2-Trichloroethane	79-00-5	12	120
Trichloroethene	79-01-6	11	110
Trichlorofluoromethane	75-69-4	7.5	75
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	12	120
1,2,4-Trimethylbenzene	95-63-6	11	110
1,3,5-Trimethylbenzene	108-67-8	10	100
2,2,4-Trimethylpentane	540-84-1	12	120
Vinyl bromide	593-60-2	10	100
Vinyl chloride	75-01-4	8.1	81
Xylenes (m&p)	179601-23-1	17	86
Xylenes (o)	95-47-6	9.0	90

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-08818
IAL Sample ID: E17-08818-01
Matrix: Air
Summa ID: 3132

Date Received: 10/16/17
Date Analyzed: 10/16/17,10/16/17
Lab Data File#: AA3816,AA3817
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-08818-01 Concentration Reported ppbv	Q	Sample Dup E17-08818-21 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Acetone	67-64-1	**18**		**20**		0.20	**-10.53%**
Allyl Chloride	107-05-1	0.20	U	0.20	U	0.20	0.00%
Benzene	71-43-2	0.20	U	0.20	U	0.20	0.00%
Bromodichloromethane	75-27-4	0.20	U	0.20	U	0.20	0.00%
Bromoform	75-25-2	0.20	U	0.20	U	0.20	0.00%
Bromomethane	74-83-9	0.20	U	0.20	U	0.20	0.00%
1,3-Butadiene	106-99-0	0.20	U	0.20	U	0.20	0.00%
Chlorobenzene	108-90-7	0.20	U	0.20	U	0.20	0.00%
Chloroethane	75-00-3	0.20	U	0.20	U	0.20	0.00%
Chloroform	67-66-3	0.20	U	0.20	U	0.20	0.00%
Chloromethane	74-87-3	0.20	U	0.20	U	0.20	0.00%
Carbon disulfide	75-15-0	0.20	U	0.20	U	0.20	0.00%
Carbon tetrachloride	56-23-5	0.20	U	0.20	U	0.20	0.00%
2-Chlorotoluene	95-49-8	0.20	U	0.20	U	0.20	0.00%
Cyclohexane	110-82-7	0.20	U	0.20	U	0.20	0.00%
Dibromochloromethane	124-48-1	0.20	U	0.20	U	0.20	0.00%
1,2-Dibromoethane	106-93-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorobenzene	95-50-1	0.20	U	0.20	U	0.20	0.00%
1,3-Dichlorobenzene	541-73-1	0.20	U	0.20	U	0.20	0.00%
1,4-Dichlorobenzene	106-46-7	0.20	U	0.20	U	0.20	0.00%
Dichlorodifluoromethane	75-71-8	**0.42**		**0.44**		0.20	**-4.65%**
1,1-Dichloroethane	75-34-3	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethane	107-06-2	0.20	U	0.20	U	0.20	0.00%
1,1-Dichloroethene	75-35-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (cis)	156-59-2	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (trans)	156-60-5	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloropropane	78-87-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (cis)	10061-01-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (trans)	10061-02-6	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	U	0.20	U	0.20	0.00%
1,4-Dioxane	123-91-1	0.20	U	0.20	U	0.20	0.00%
Ethanol	64-17-5	**79**	E	**89**	E	0.20	**-11.90%**
Ethylbenzene	100-41-4	0.20	U	0.20	U	0.20	0.00%
4-Ethyltoluene	622-96-8	**0.20**		**0.21**		0.20	**-4.88%**
n-Heptane	142-82-5	**0.56**		**0.60**		0.20	**-6.90%**
1,3-Hexachlorobutadiene	87-68-3	0.20	U	0.20	U	0.20	0.00%
n-Hexane	110-54-3	0.20	U	0.20	U	0.20	0.00%
Isopropanol	67-63-0	**2.8**		**3.0**		0.20	**-6.90%**

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-08818
IAL Sample ID: E17-08818-01
Matrix: Air
Summa ID: 3132

Date Received: 10/16/17
Date Analyzed: 10/16/17,10/16/17
Lab Data File#: AA3816,AA3817
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-08818-01 Concentration Reported ppbv	Q	Sample Dup E17-08818-21 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Methylene chloride	75-09-2	0.20	U	0.20	U	0.20	0.00%
Methyl ethyl ketone	78-93-3	0.20	U	0.20	U	0.20	0.00%
Methyl isobutyl ketone	108-10-1	0.20	U	0.20	U	0.20	0.00%
Methyl methacrylate	80-62-6	0.20	U	0.20	U	0.20	0.00%
Methyl tert-butyl ether	1634-04-4	0.20	U	0.20	U	0.20	0.00%
Styrene	100-42-5	0.20	U	0.20	U	0.20	0.00%
Tert-butyl alcohol	75-65-0	**0.50**		**0.41**		0.20	**19.78%**
1,1,2,2-Tetrachloroethane	79-34-5	0.20	U	0.20	U	0.20	0.00%
Tetrachloroethene	127-18-4	0.20	U	0.20	U	0.20	0.00%
Tetrahydrofuran	109-99-9	0.20	U	0.20	U	0.20	0.00%
Toluene	108-88-3	**0.39**		**0.41**		0.20	**-5.00%**
1,2,4-Trichlorobenzene	120-82-1	0.20	U	0.20	U	0.20	0.00%
1,1,1-Trichloroethane	71-55-6	0.20	U	0.20	U	0.20	0.00%
1,1,2-Trichloroethane	79-00-5	0.20	U	0.20	U	0.20	0.00%
Trichloroethene	79-01-6	0.20	U	0.20	U	0.20	0.00%
Trichlorofluoromethane	75-69-4	0.20	U	0.20	U	0.20	0.00%
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	U	0.20	U	0.20	0.00%
1,2,4-Trimethylbenzene	95-63-6	**0.93**		**0.97**		0.20	**-4.21%**
1,3,5-Trimethylbenzene	108-67-8	**0.21**		**0.22**		0.20	**-4.65%**
2,2,4-Trimethylpentane	540-84-1	0.20	U	0.20	U	0.20	0.00%
Vinyl bromide	593-60-2	0.20	U	0.20	U	0.20	0.00%
Vinyl chloride	75-01-4	0.20	U	0.20	U	0.20	0.00%
Xylenes (m&p)	179601-23-1	0.40	U	0.40	U	0.40	0.00%
Xylenes (o)	95-47-6	0.20	U	0.20	U	0.20	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-10917
IAL Sample ID: E17-10917-02
Matrix: Air
Summa ID: 1558

Date Received: 12/21/17
Date Analyzed: 12/27/17,12/27/17
Lab Data File#: AA4708,AA4709
Dilution Factor: 10
Injection Volume: 50ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-10917-02 Concentration Reported ppbv	Q	Sample Dup E17-10917-22 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Acetone	67-64-1	**44**		**50**		2.0	**-12.77%**
Benzene	71-43-2	**11**		**10**		2.0	**9.52%**
Bromodichloromethane	75-27-4	2.0	U	2.0	U	2.0	0.00%
Bromoform	75-25-2	2.0	U	2.0	U	2.0	0.00%
Bromomethane	74-83-9	2.0	U	2.0	U	2.0	0.00%
1,3-Butadiene	106-99-0	2.0	U	2.0	U	2.0	0.00%
Chlorobenzene	108-90-7	2.0	U	2.0	U	2.0	0.00%
Chloroethane	75-00-3	2.0	U	2.0	U	2.0	0.00%
Chloroform	67-66-3	**2.6**		2.0	U	2.0	**NC**
Chloromethane	74-87-3	2.0	U	2.0	U	2.0	0.00%
Carbon disulfide	75-15-0	**13**		**11**		2.0	**16.67%**
Carbon tetrachloride	56-23-5	0.40	U	0.40	U	0.40	0.00%
Cyclohexane	110-82-7	**35**		**34**		2.0	**2.90%**
Dibromochloromethane	124-48-1	2.0	U	2.0	U	2.0	0.00%
1,2-Dibromoethane	106-93-4	2.0	U	2.0	U	2.0	0.00%
1,2-Dichlorobenzene	95-50-1	2.0	U	2.0	U	2.0	0.00%
1,3-Dichlorobenzene	541-73-1	2.0	U	2.0	U	2.0	0.00%
1,4-Dichlorobenzene	106-46-7	2.0	U	2.0	U	2.0	0.00%
Dichlorodifluoromethane	75-71-8	2.0	U	2.0	U	2.0	0.00%
1,1-Dichloroethane	75-34-3	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethane	107-06-2	2.0	U	2.0	U	2.0	0.00%
1,1-Dichloroethene	75-35-4	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethene (cis)	156-59-2	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethene (trans)	156-60-5	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloropropane	78-87-5	2.0	U	2.0	U	2.0	0.00%
1,3-Dichloropropene (cis)	10061-01-5	2.0	U	2.0	U	2.0	0.00%
1,3-Dichloropropene (trans)	10061-02-6	2.0	U	2.0	U	2.0	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	2.0	U	2.0	U	2.0	0.00%
1,4-Dioxane	123-91-1	2.0	U	2.0	U	2.0	0.00%
Ethylbenzene	100-41-4	2.0	U	2.0	U	2.0	0.00%
n-Heptane	142-82-5	**2.4**		2.0	U	2.0	**NC**
1,3-Hexachlorobutadiene	87-68-3	2.0	U	2.0	U	2.0	0.00%
n-Hexane	110-54-3	**5.6**	J	**7.9**	J	2.0	**-34.07%**
Methylene chloride	75-09-2	2.0	U	2.0	U	2.0	0.00%
Methyl ethyl ketone	78-93-3	**26**		**26**		2.0	**0.00%**
Methyl isobutyl ketone	108-10-1	2.0	U	2.0	U	2.0	0.00%
Methyl tert-butyl ether	1634-04-4	2.0	U	2.0	U	2.0	0.00%
Styrene	100-42-5	2.0	U	2.0	U	2.0	0.00%

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-10917
IAL Sample ID: E17-10917-02
Matrix: Air
Summa ID: 1558

Date Received: 12/21/17
Date Analyzed: 12/27/17,12/27/17
Lab Data File#: AA4708,AA4709
Dilution Factor: 10
Injection Volume: 50ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-10917-02 Concentration Reported ppbv	Q	Sample Dup E17-10917-22 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Tert-butyl alcohol	75-65-0	**11**		**12**		2.0	**-8.70%**
1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	U	2.0	0.00%
Tetrachloroethene	127-18-4	**71**		**68**		2.0	**4.32%**
Toluene	108-88-3	**7.0**		**7.1**		2.0	**-1.42%**
1,2,4-Trichlorobenzene	120-82-1	2.0	U	2.0	U	2.0	0.00%
1,1,1-Trichloroethane	71-55-6	2.0	U	2.0	U	2.0	0.00%
1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	U	2.0	0.00%
Trichloroethene	79-01-6	**23**		**22**		0.50	**4.44%**
Trichlorofluoromethane	75-69-4	2.0	U	2.0	U	2.0	0.00%
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.0	U	2.0	U	2.0	0.00%
1,2,4-Trimethylbenzene	95-63-6	2.0	U	2.0	U	2.0	0.00%
1,3,5-Trimethylbenzene	108-67-8	2.0	U	2.0	U	2.0	0.00%
2,2,4-Trimethylpentane	540-84-1	2.0	U	2.0	U	2.0	0.00%
Vinyl bromide	593-60-2	2.0	U	2.0	U	2.0	0.00%
Vinyl chloride	75-01-4	2.0	U	2.0	U	2.0	0.00%
Xylenes (m&p)	179601-23-1	2.0	U	2.0	U	2.0	0.00%
Xylenes (o)	95-47-6	2.0	U	2.0	U	2.0	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories LLC

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA3812DCVS **Date Analyzed:** 10/16/2017

Instrument: AA **ICAL Date:** 9/12/2017

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
CALIBRATION STANDARD			563895		7.753		1864232		9.807		1701030		15.145	
UPPER LIMIT			789453		8.08		2609925		10.14		2381442		15.48	
LOWER LIMIT			338337		7.42		1118539		9.48		1020618		14.82	
Lab ID		**DF**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**
Method Blank	AA3814BLK	1.0	575752	2.10	7.743	-0.01	1836646	-1.48	9.804	0.00	1706455	0.32	15.141	0.00
Reporting Limit Laboratory Control Standard	AA3815RLLCS	1.0	568537	0.82	7.746	-0.01	1746330	-6.32	9.801	-0.01	1698244	-0.16	15.141	0.00
1555	AA3821	1.0	542782	-3.74	7.743	-0.01	1748848	-6.19	9.801	-0.01	1611121	-5.29	15.138	-0.01
Closing Calibration	AA3822CCCVS	1.0	550344	-2.40	7.746	-0.01	1903276	2.09	9.801	-0.01	1702796	0.10	15.138	-0.01

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Integrated Analytical Laboratories LLC

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4702DCVS **Date Analyzed:** 12/27/2017

Instrument: AA **ICAL Date:** 12/8/2017

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
	CALIBRATION STANDARD		567099		7.778		2311556		9.833		2042827		15.151	
	UPPER LIMIT		793939		8.11		3236178		10.16		2859958		15.48	
	LOWER LIMIT		340259		7.45		1386934		9.50		1225696		14.82	
Lab ID		DF	Area #	%	RT	+/-	Area #	%	RT	+/-	Area #	%	RT	+/-
Method Blank	AA4704BLK	1.0	564805	-0.40	7.766	-0.01	2044333	-11.56	9.827	-0.01	1737643	-14.94	15.151	0.00
Reporting Limit Laboratory Control Standard	AA4705RLLCS	1.0	538355	-5.07	7.772	-0.01	2058171	-10.96	9.820	-0.01	1728154	-15.40	15.151	0.00
E17-10917-01	AA4707	1.0	467664	-17.53	7.778	0.00	1866664	-19.25	9.830	0.00	1763657	-13.67	15.148	0.00
E17-10917-02	AA4708	1.0	545406	-3.83	7.788	0.01	2210499	-4.37	9.833	0.00	2194030	7.40	15.151	0.00
E17-10917-22	AA4709	1.0	592316	4.45	7.775	0.00	2447395	5.88	9.833	0.00	2306054	12.89	15.148	0.00
E17-10917-03	AA4710	1.0	648271	14.31	7.782	0.00	2766085	19.66	9.833	0.00	2625046	28.50	15.151	0.00
Closing Calibration	AA4721CCCVS	1.0	449424	-20.75	7.785	0.01	1703676	-26.30	9.826	-0.01	1518268	-25.68	15.151	0.00

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Section VI: Sample Data Summary

Certificate of Analysis

Summary of Results

**Quantitation Reports, Chromatograms,
and Peak Integration Reports**

CERTIFICATE OF ANALYSIS

ANALYTICAL DATA PACKAGE FOR THE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project#: 27-10 49th Ave — **NY ELAP Certification#: 11402**
SDG #: E17-10917 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 12/21/2017 — **Date of last sample receipt: 12/21/2017**

Client: Atlantic Environmental Solutions Inc.
5 Marine View Plaza
Hoboken, NJ 07030
Attention: Attention: Leah DeEgidio

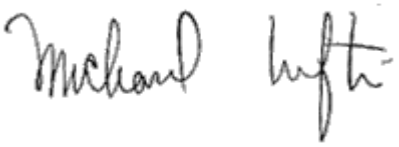
Project/Site: 27-10 49th Ave/NY

Analysis conducted at: Integrated Analytical Laboratories, LLC
273 Franklin Road
Randolph, NJ 07869
Contact: Michael H. Leftin, Ph.D.

Sample(s):
E17-10917-01
E17-10917-02
E17-10917-03

Samples for this analysis were received in good condition with a chain of custody.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Once analysis has been performed on canisters that meets regulatory criteria, samples are recycled for future use, unless other provisions have been made by the client.



Michael H. Leftin, Ph.D.
Laboratory Director

Date: January 04, 2018

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio
Project: 27-10 49th Ave
Site: NY

Report Date: 12/28/17
SDG Number: E17-10917
Date Sampled: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Data File: AA4707
Summa ID: 1541
DF: 10

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:		SV-1			Reporting Limits	
	IAL ID:		E17-10917-01				
Compound	**CAS #**		**ppbv**	**ug/m3**		**ppbv**	**ug/m3**
Acetone	67-64-1	D	14	33		2.0	4.8
Benzene	71-43-2		ND	ND		2.0	6.4
Bromodichloromethane	75-27-4		ND	ND		2.0	13
Bromoform	75-25-2		ND	ND		2.0	21
Bromomethane	74-83-9		ND	ND		2.0	7.8
1,3-Butadiene	106-99-0		ND	ND		2.0	4.4
Chlorobenzene	108-90-7		ND	ND		2.0	9.2
Chloroethane	75-00-3		ND	ND		2.0	5.3
Chloroform	67-66-3		ND	ND		2.0	9.8
Chloromethane	74-87-3		ND	ND		2.0	4.1
Carbon disulfide	75-15-0	D	7.8	24		2.0	6.2
Carbon tetrachloride	56-23-5		ND	ND		0.40	2.5
Cyclohexane	110-82-7	D	3.9	13		2.0	6.9
Dibromochloromethane	124-48-1		ND	ND		2.0	17
1,2-Dibromoethane	106-93-4		ND	ND		2.0	15
1,2-Dichlorobenzene	95-50-1		ND	ND		2.0	12
1,3-Dichlorobenzene	541-73-1		ND	ND		2.0	12
1,4-Dichlorobenzene	106-46-7		ND	ND		2.0	12
Dichlorodifluoromethane	75-71-8		ND	ND		2.0	9.9
1,1-Dichloroethane	75-34-3		ND	ND		2.0	8.1
1,2-Dichloroethane	107-06-2		ND	ND		2.0	8.1
1,1-Dichloroethene	75-35-4		ND	ND		2.0	7.9
1,2-Dichloroethene (cis)	156-59-2		ND	ND		2.0	7.9
1,2-Dichloroethene (trans)	156-60-5		ND	ND		2.0	7.9
1,2-Dichloropropane	78-87-5		ND	ND		2.0	9.2
1,3-Dichloropropene (cis)	10061-01-5		ND	ND		2.0	9.1
1,3-Dichloropropene (trans)	10061-02-6		ND	ND		2.0	9.1
1,2-Dichlorotetrafluoroethane	76-14-2		ND	ND		2.0	14
1,4-Dioxane	123-91-1		ND	ND		2.0	7.2
Ethylbenzene	100-41-4		ND	ND		2.0	8.7
n-Heptane	142-82-5		ND	ND		2.0	8.2
1,3-Hexachlorobutadiene	87-68-3		ND	ND		2.0	21
n-Hexane	110-54-3	D	2.8	9.9		2.0	7.1
Methylene chloride	75-09-2	D	5.5	19		2.0	7.0
Methyl ethyl ketone	78-93-3	D	20	59		2.0	5.9
Methyl isobutyl ketone	108-10-1		ND	ND		2.0	8.2
Methyl tert-butyl ether	1634-04-4		ND	ND		2.0	7.2
Styrene	100-42-5		ND	ND		2.0	8.5
Tert-butyl alcohol	75-65-0		ND	ND		2.0	6.1
1,1,2,2-Tetrachloroethane	79-34-5		ND	ND		2.0	14
Tetrachloroethene	127-18-4	D	98	660		2.0	14
Toluene	108-88-3	D	6.3	24		2.0	7.5
1,2,4-Trichlorobenzene	120-82-1		ND	ND		2.0	15
1,1,1-Trichloroethane	71-55-6		ND	ND		2.0	11
1,1,2-Trichloroethane	79-00-5		ND	ND		2.0	11
Trichloroethene	79-01-6	D	9.1	49		0.46	2.5

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio
Project: 27-10 49th Ave
Site: NY

Report Date: 12/28/17
SDG Number: E17-10917
Date Sampled: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Data File: AA4707
Summa ID: 1541
DF: 10

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	SV-1			Reporting
	IAL ID:	E17-10917-01			Limits
Trichlorofluoromethane	75-69-4	ND	ND	2.0	11
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	2.0	15
1,2,4-Trimethylbenzene	95-63-6	ND	ND	2.0	9.8
1,3,5-Trimethylbenzene	108-67-8	ND	ND	2.0	9.8
2,2,4-Trimethylpentane	540-84-1	ND	ND	2.0	9.3
Vinyl bromide	593-60-2	ND	ND	2.0	8.7
Vinyl chloride	75-01-4	ND	ND	2.0	5.1
Xylenes (m&p)	179601-23-1	ND	ND	2.0	8.7
Xylenes (o)	95-47-6	ND	ND	2.0	8.7

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4707.D
Acq On : 27 Dec 2017 2:53 pm
Operator : jls
Sample : E17-10917-01 x 10 dil
Misc : 1541, 50cc
ALS Vial : 7 Sample Multiplier: 1

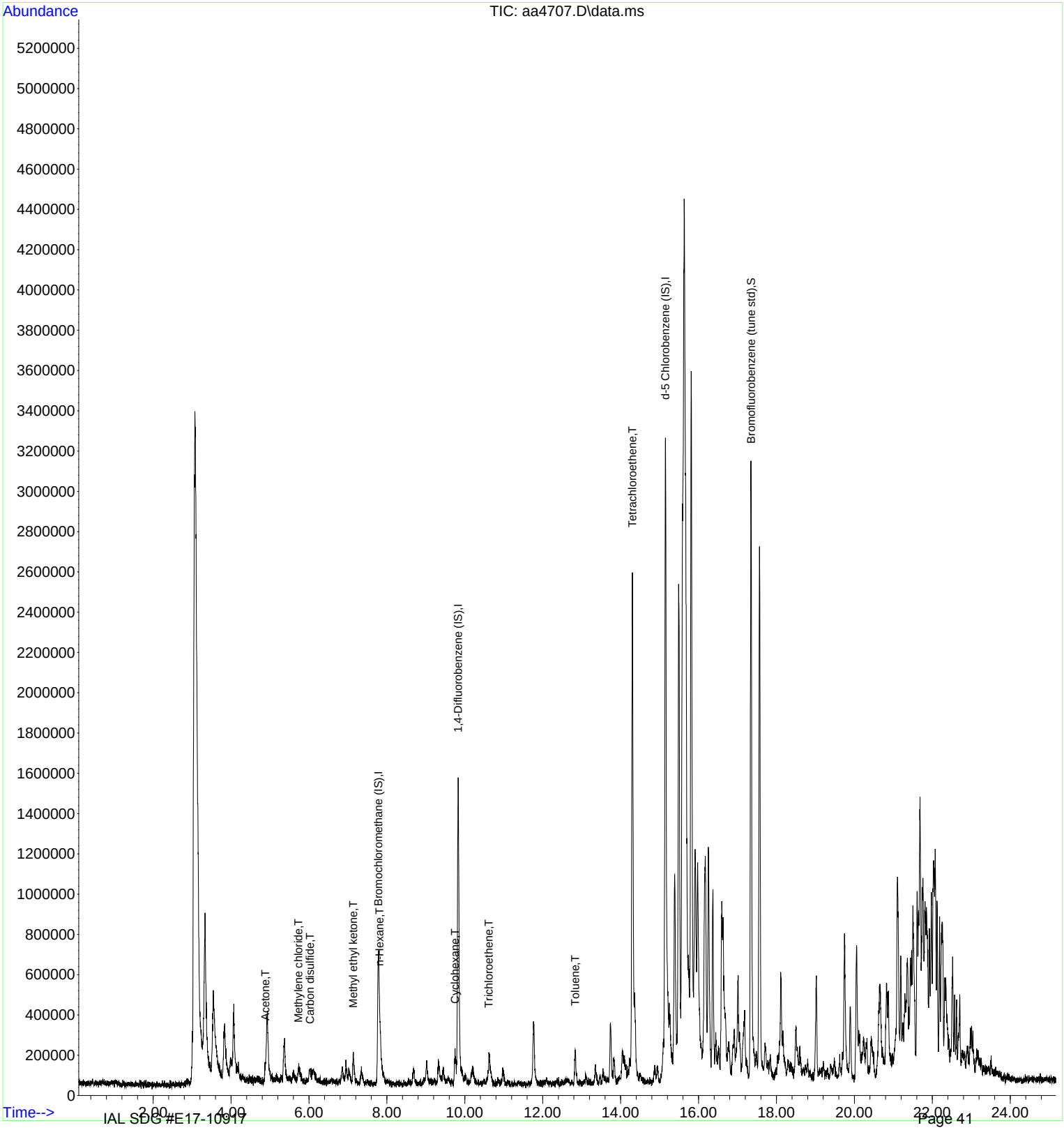
Quant Time: Dec 28 08:32:46 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

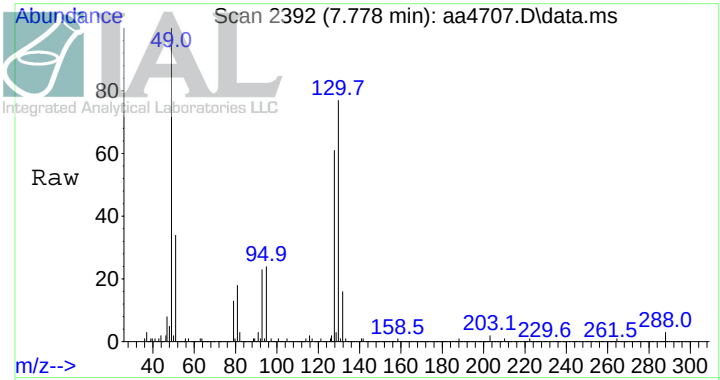
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.778	130	467664	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.830	114	1866664	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.148	117	1763657	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.347	95	1407252	10.05	ppbV		0.00
Target Compounds							Qvalue
14) Acetone	4.881	58	44459	1.39	ppbV	#	1
19) Methylene chloride	5.730	49	41654	0.55	ppbV		83
23) Carbon disulfide	6.029	76	168180	0.78	ppbV		98
27) Methyl ethyl ketone	7.139	43	274900	1.99	ppbV	#	61
30) n-Hexane	7.814	57	27569	0.28	ppbV	#	73
37) Cyclohexane	9.749	56	49606	0.39	ppbV		85
42) Trichloroethene	10.618	130	70677m	0.91	ppbV		
50) Toluene	12.836	91	163737	0.63	ppbV	#	83
54) Tetrachloroethene	14.302	166	911990	9.79	ppbV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\DATA\12-27-17\
Data File : aa4707.D
Acq On : 27 Dec 2017 2:53 pm
Operator : jls
Sample : E17-10917-01 x 10 dil
Misc : 1541, 50cc
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 28 08:32:46 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

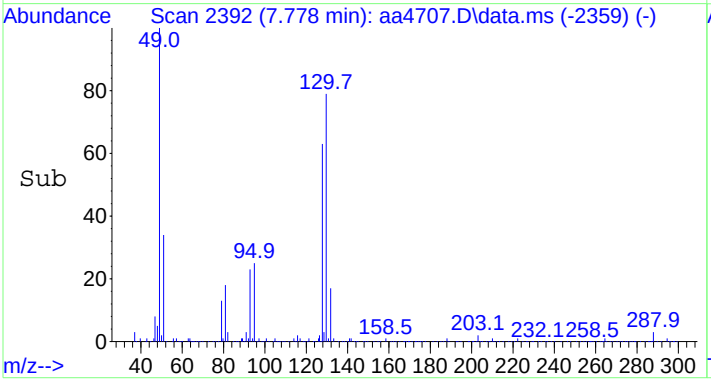


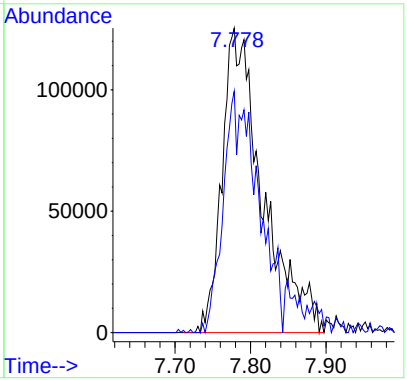


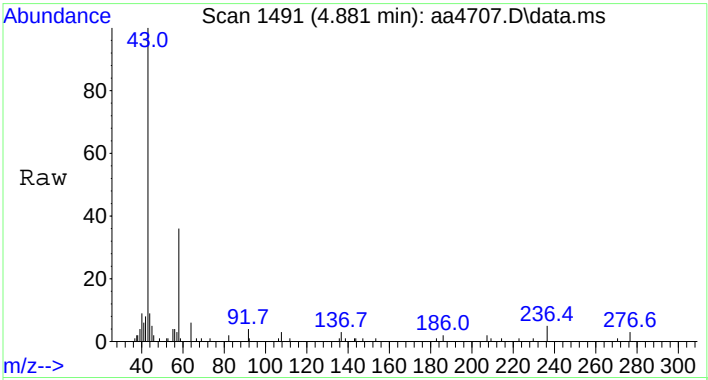
#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.778 min Scan# 2392
Delta R.T. 0.006 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion:130 Resp: 467664

Ion	Ratio	Lower	Upper
130	100		
128	68.2	62.6	94.0



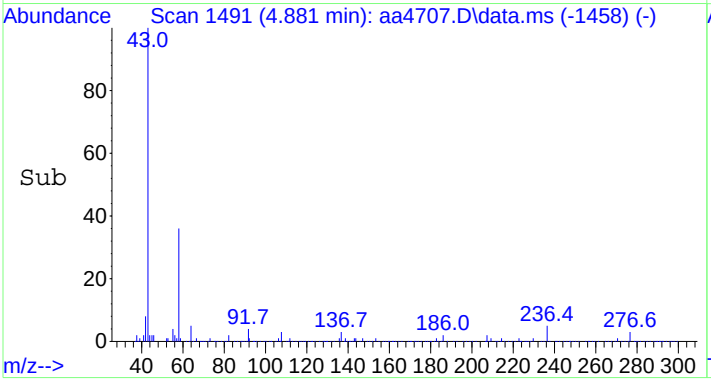


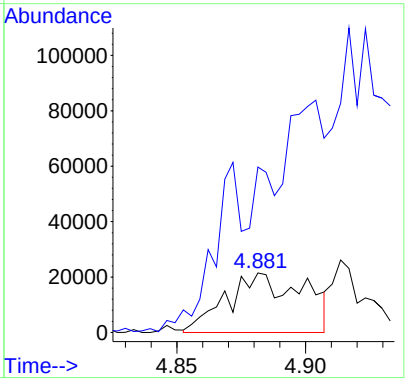


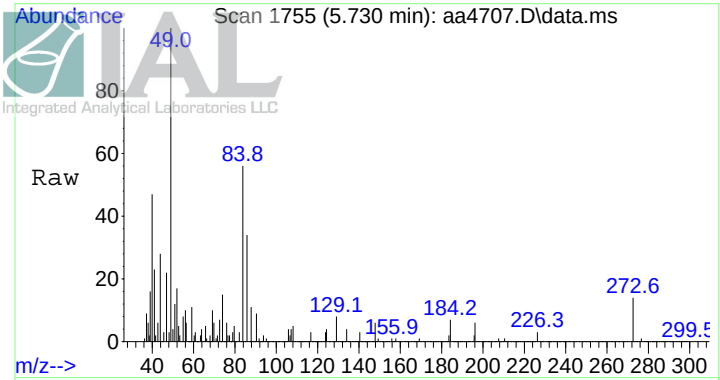
#14
Acetone
Concen: 1.39 ppbV
RT: 4.881 min Scan# 1491
Delta R.T. 0.006 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 58 Resp: 44459

Ion	Ratio	Lower	Upper
58	100		
43	71.4	229.6	344.4#



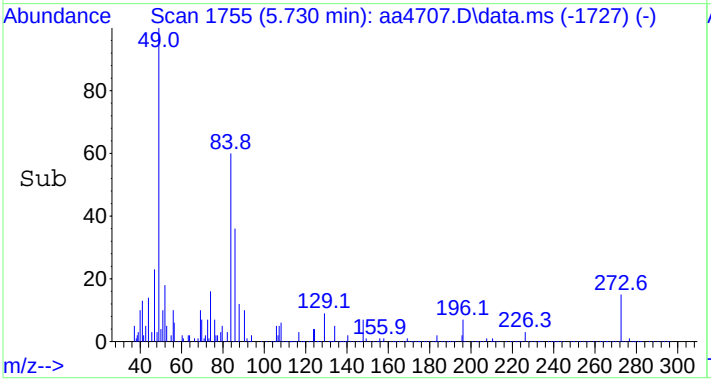


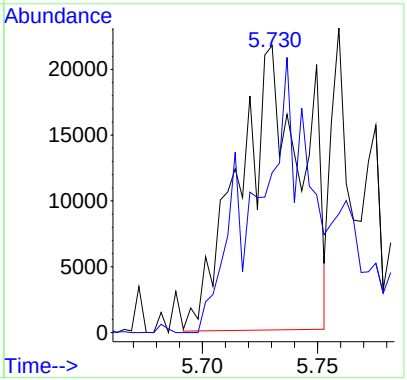


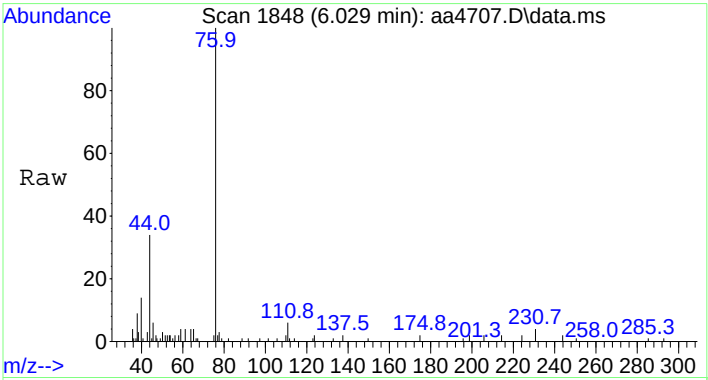
#19
Methylene chloride
Concen: 0.55 ppbV
RT: 5.730 min Scan# 1755
Delta R.T. -0.010 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 49 Resp: 41654

Ion	Ratio	Lower	Upper
49	100		
84	86.3	57.6	86.4



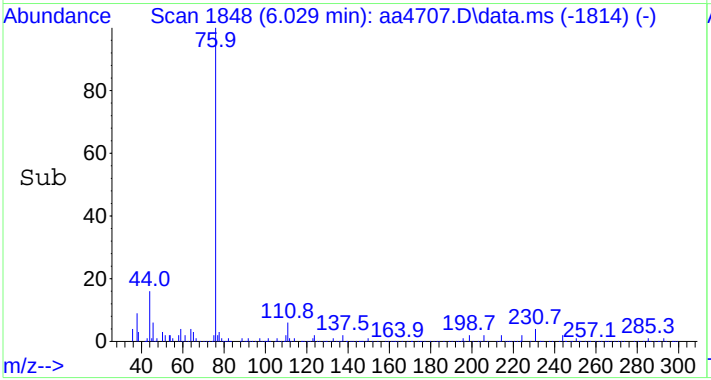


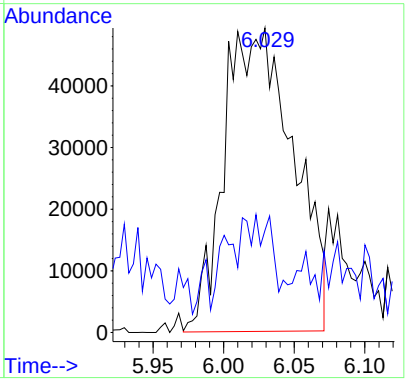


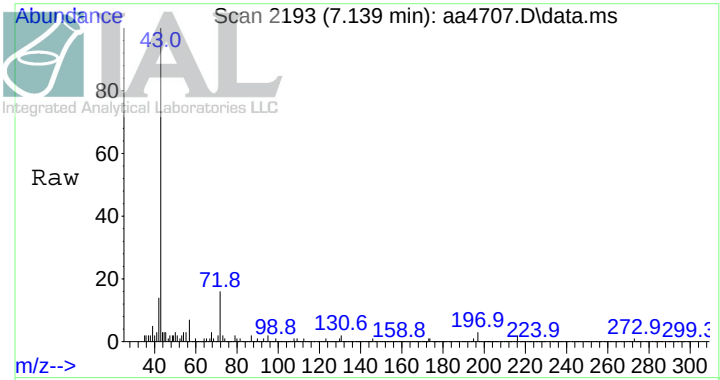
#23
Carbon disulfide
Concen: 0.78 ppbV
RT: 6.029 min Scan# 1848
Delta R.T. 0.010 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 76 Resp: 168180

Ion	Ratio	Lower	Upper
76	100		
44	13.9	10.4	15.6



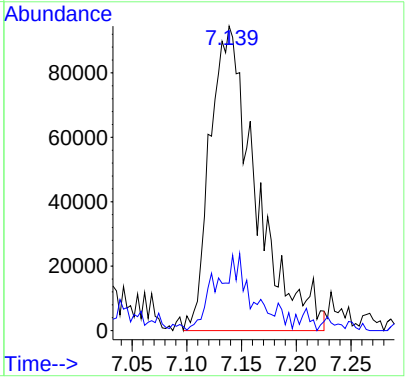


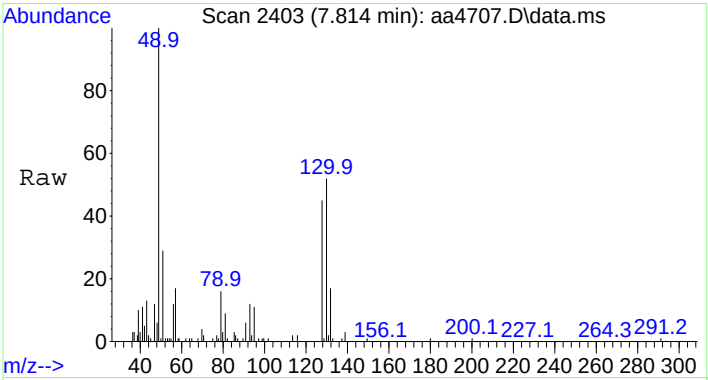


#27
Methyl ethyl ketone
Concen: 1.99 ppbV
RT: 7.139 min Scan# 2193
Delta R.T. 0.010 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 43 Resp: 274900

Ion	Ratio	Lower	Upper
43	100		
72	9.1	24.0	36.0#

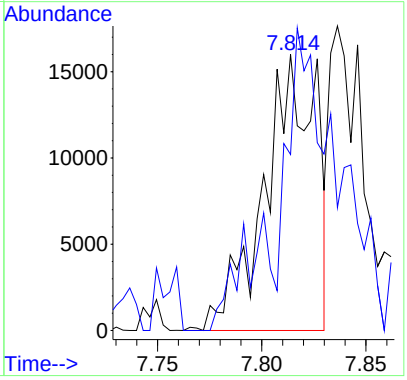


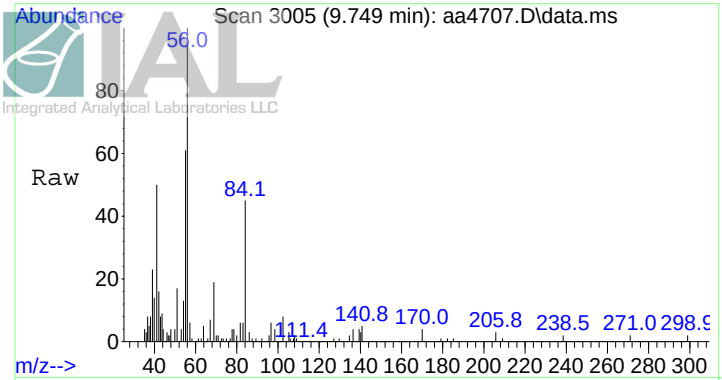


#30
n-Hexane
Concen: 0.28 ppbV
RT: 7.814 min Scan# 2403
Delta R.T. -0.003 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 57 Resp: 27569

Ion	Ratio	Lower	Upper
57	100		
41	104.6	64.8	97.2#

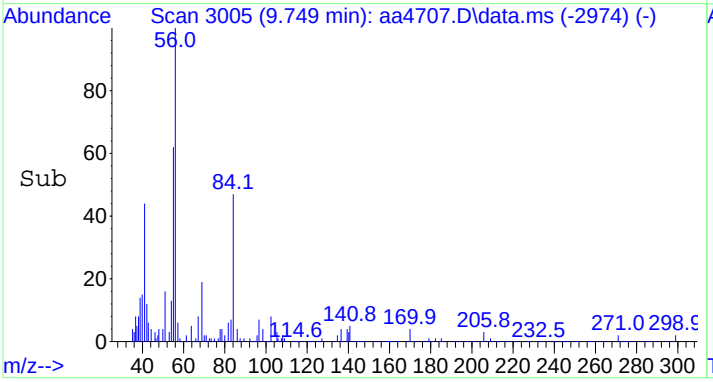


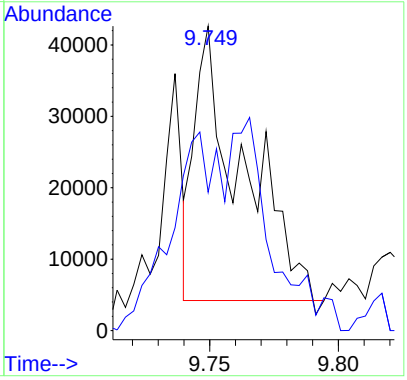


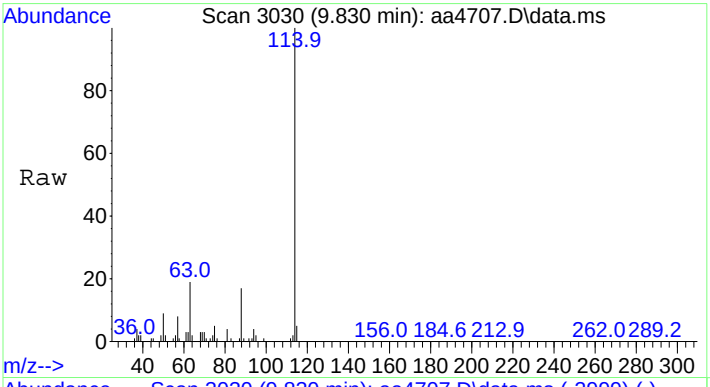
#37
Cyclohexane
Concen: 0.39 ppbV
RT: 9.749 min Scan# 3005
Delta R.T. 0.000 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 56 Resp: 49606

Ion	Ratio	Lower	Upper
56	100		
84	75.9	72.0	108.0



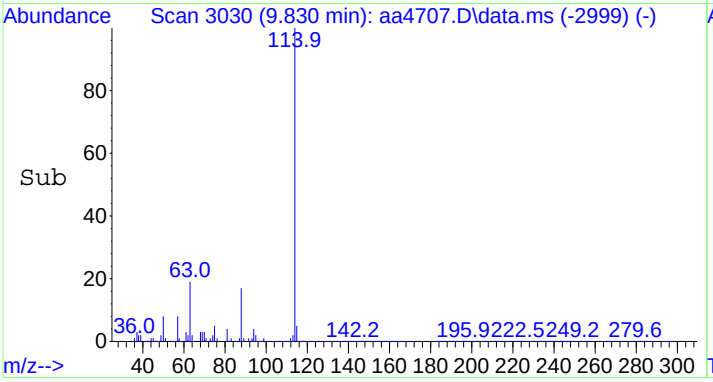


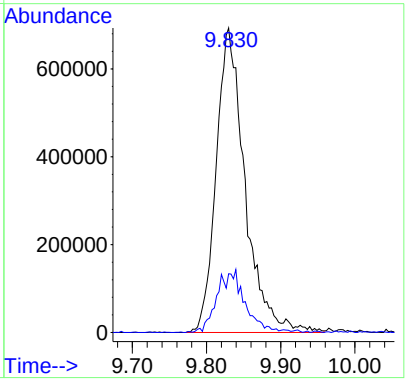


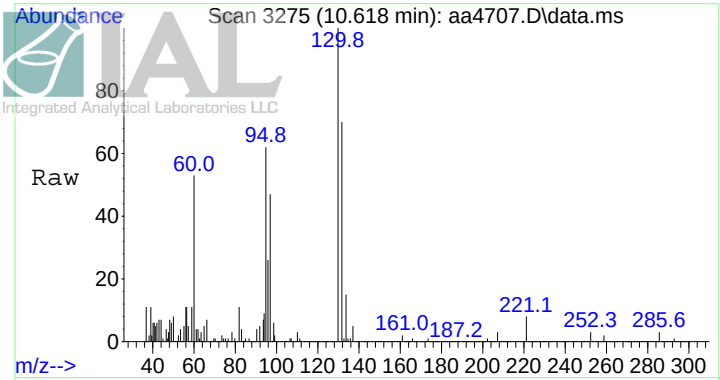
#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.830 min Scan# 3030
Delta R.T. -0.000 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion:114 Resp: 1866664

Ion	Ratio	Lower	Upper
114	100		
63	19.9	16.8	25.2



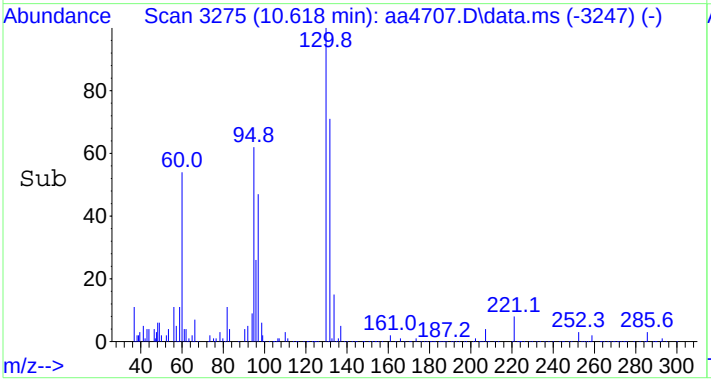


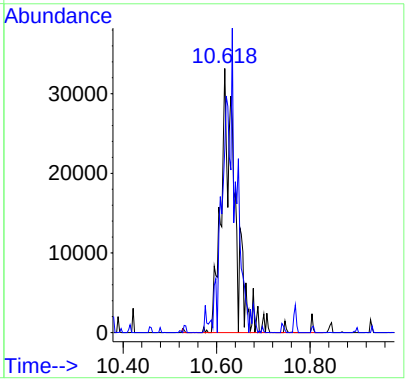


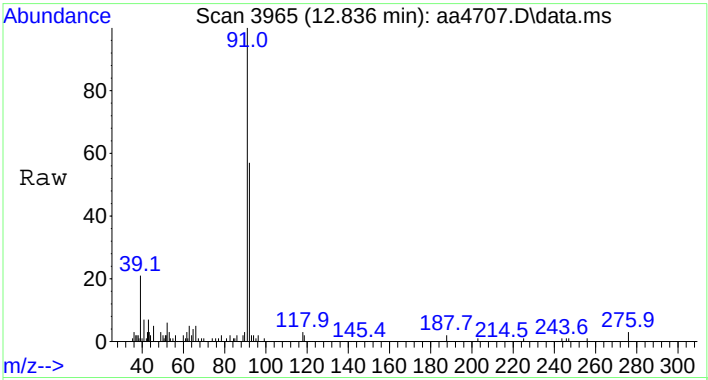
#42
Trichloroethene
Concen: 0.91 ppbV m
RT: 10.618 min Scan# 3275
Delta R.T. -0.009 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion:130 Resp: 70677

Ion	Ratio	Lower	Upper
130	100		
132	95.7	77.8	116.6



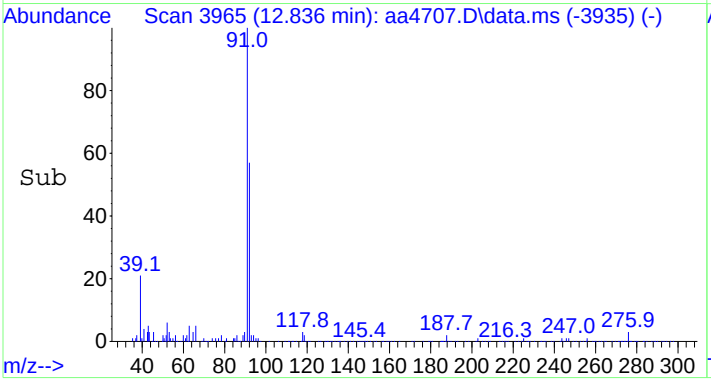


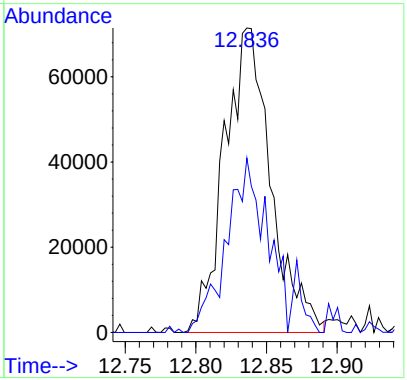


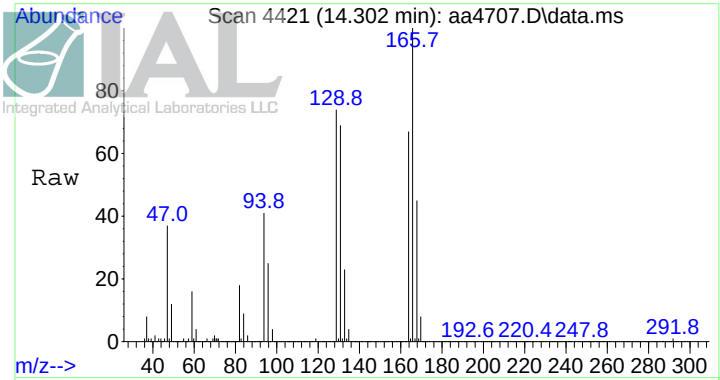
#50
Toluene
Concen: 0.63 ppbV
RT: 12.836 min Scan# 3965
Delta R.T. -0.003 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 91 Resp: 163737

Ion	Ratio	Lower	Upper
91	100		
92	49.4	50.0	75.0#



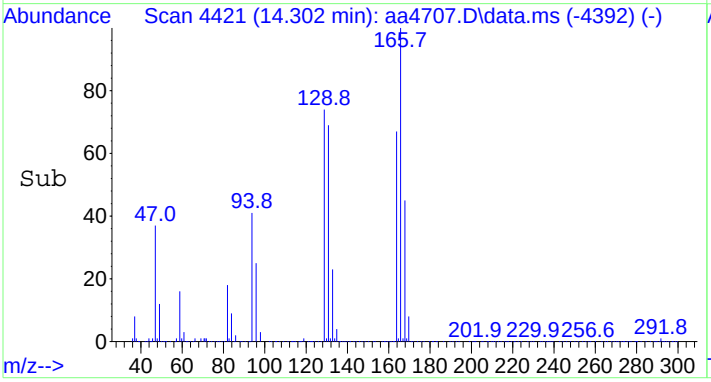


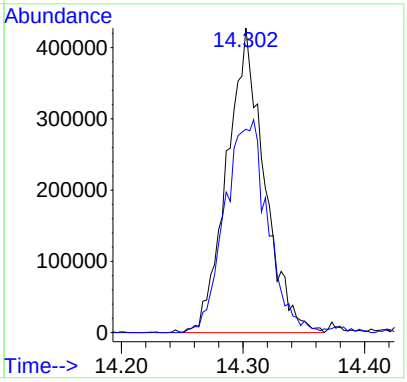


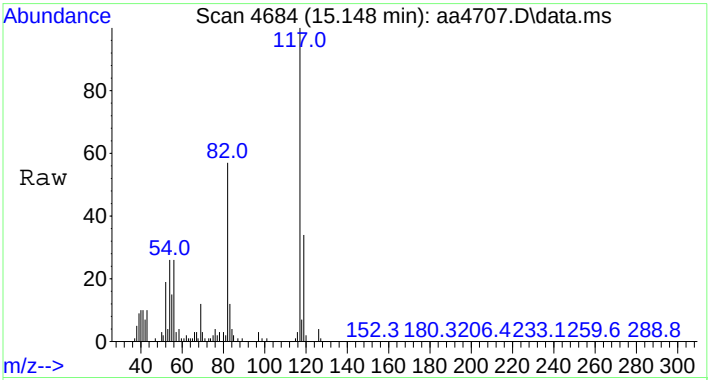
#54
Tetrachloroethene
Concen: 9.79 ppbV
RT: 14.302 min Scan# 4421
Delta R.T. -0.007 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion:166 Resp: 911990

Ion	Ratio	Lower	Upper
166	100		
164	80.1	64.6	96.8



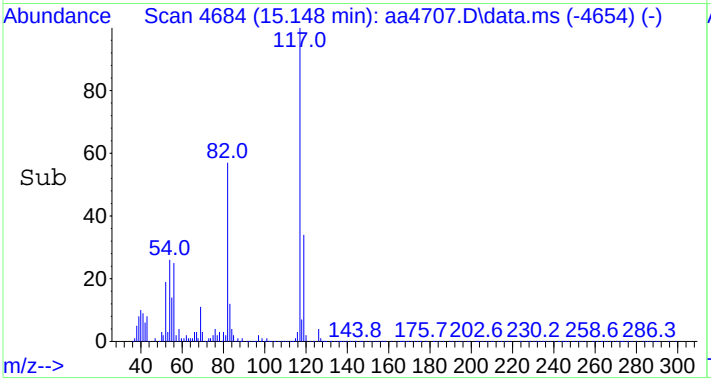


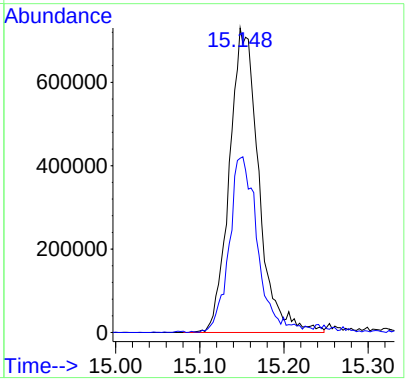


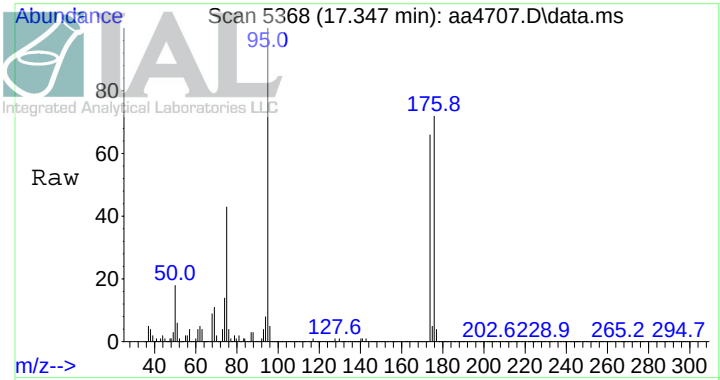
#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.148 min Scan# 4684
Delta R.T. -0.003 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion:117 Resp: 1763657

Ion	Ratio	Lower	Upper
117	100		
82	56.0	44.8	67.2



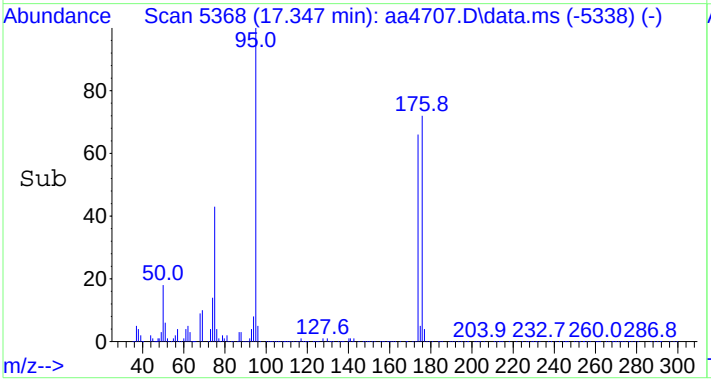


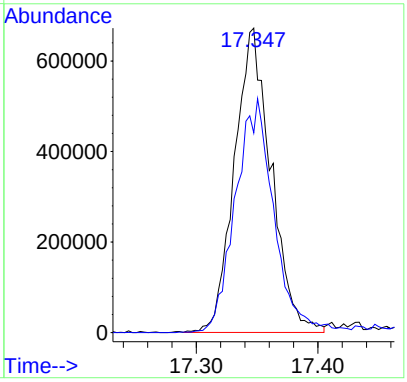


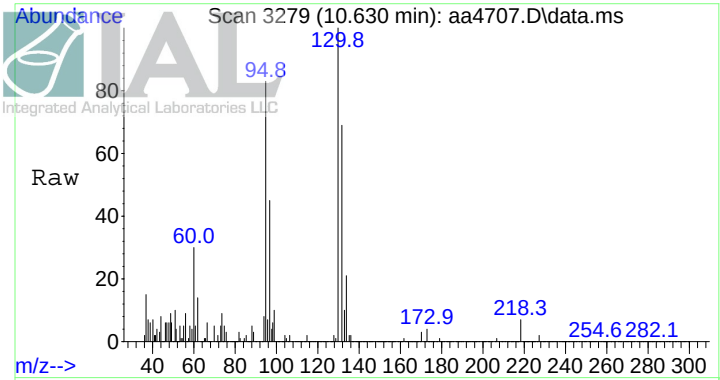
#64
Bromofluorobenzene (tune std)
Concen: 10.05 ppbV
RT: 17.347 min Scan# 5368
Delta R.T. -0.003 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion: 95 Resp: 1407252

Ion	Ratio	Lower	Upper
95	100		
174	81.1	61.5	92.3



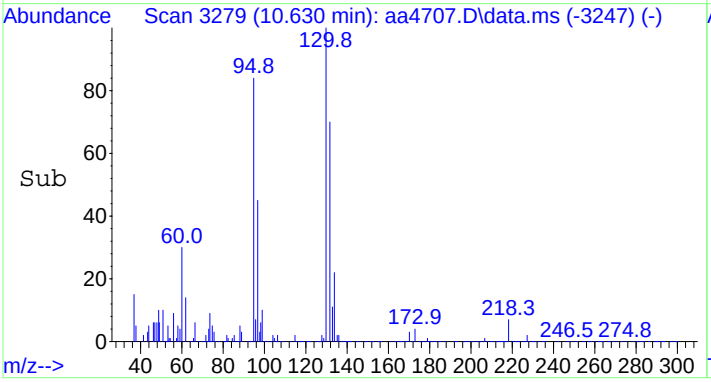


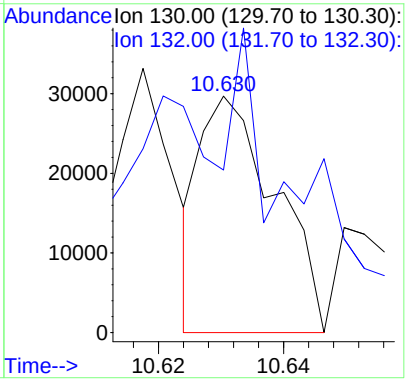


#42
Trichloroethene
Concen: 0.32 ppbV
RT: 10.630 min Scan# 3279
Delta R.T. 0.003 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

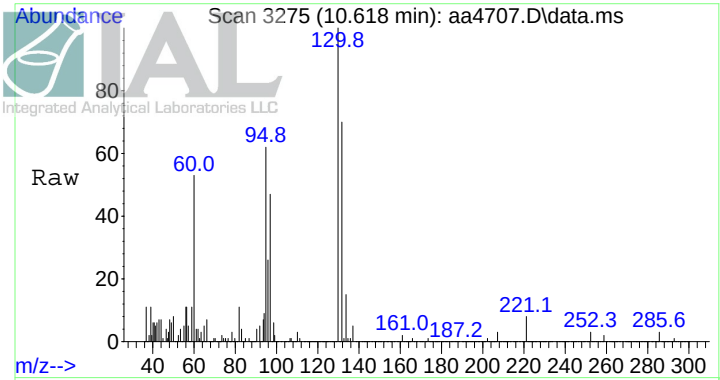
Tgt Ion:130 Resp: 24878

Ion	Ratio	Lower	Upper
130	100		
132	272.0	77.8	116.6#





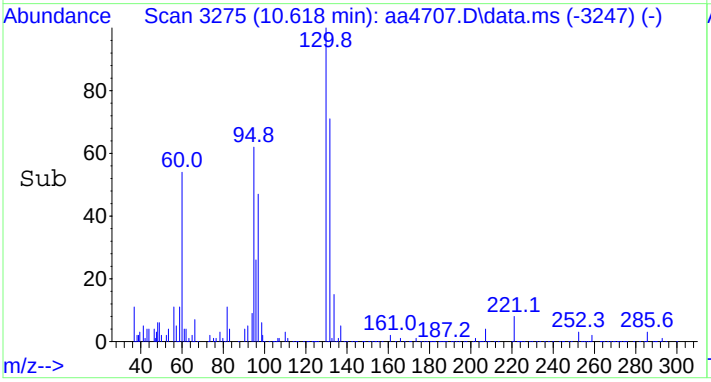
Before manual integration for Trichloroethene.

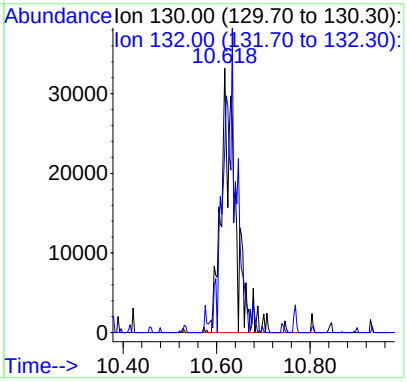


#42
Trichloroethene
Concen: 0.91 ppbV m
RT: 10.618 min Scan# 3275
Delta R.T. -0.009 min
Lab File: aa4707.D
Acq: 27 Dec 2017 2:53 pm

Tgt Ion:130 Resp: 70677

Ion	Ratio	Lower	Upper
130	100		
132	95.7	77.8	116.6





After manual integration for Trichloroethene.

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio
Project: 27-10 49th Ave
Site: NY

Report Date: 12/28/17
SDG Number: E17-10917
Date Sampled: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Data File: AA4708
Summa ID: 1558
DF: 10

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:		SV-2		Reporting Limits	
	IAL ID:		E17-10917-02			
Compound	**CAS #**		**ppbv**	**ug/m3**	**ppbv**	**ug/m3**
Acetone	67-64-1	D	44	110	2.0	4.8
Benzene	71-43-2	D	11	35	2.0	6.4
Bromodichloromethane	75-27-4		ND	ND	2.0	13
Bromoform	75-25-2		ND	ND	2.0	21
Bromomethane	74-83-9		ND	ND	2.0	7.8
1,3-Butadiene	106-99-0		ND	ND	2.0	4.4
Chlorobenzene	108-90-7		ND	ND	2.0	9.2
Chloroethane	75-00-3		ND	ND	2.0	5.3
Chloroform	67-66-3	D	2.6	13	2.0	9.8
Chloromethane	74-87-3		ND	ND	2.0	4.1
Carbon disulfide	75-15-0	D	13	40	2.0	6.2
Carbon tetrachloride	56-23-5		ND	ND	0.40	2.5
Cyclohexane	110-82-7	D	35	120	2.0	6.9
Dibromochloromethane	124-48-1		ND	ND	2.0	17
1,2-Dibromoethane	106-93-4		ND	ND	2.0	15
1,2-Dichlorobenzene	95-50-1		ND	ND	2.0	12
1,3-Dichlorobenzene	541-73-1		ND	ND	2.0	12
1,4-Dichlorobenzene	106-46-7		ND	ND	2.0	12
Dichlorodifluoromethane	75-71-8		ND	ND	2.0	9.9
1,1-Dichloroethane	75-34-3		ND	ND	2.0	8.1
1,2-Dichloroethane	107-06-2		ND	ND	2.0	8.1
1,1-Dichloroethene	75-35-4		ND	ND	2.0	7.9
1,2-Dichloroethene (cis)	156-59-2		ND	ND	2.0	7.9
1,2-Dichloroethene (trans)	156-60-5		ND	ND	2.0	7.9
1,2-Dichloropropane	78-87-5		ND	ND	2.0	9.2
1,3-Dichloropropene (cis)	10061-01-5		ND	ND	2.0	9.1
1,3-Dichloropropene (trans)	10061-02-6		ND	ND	2.0	9.1
1,2-Dichlorotetrafluoroethane	76-14-2		ND	ND	2.0	14
1,4-Dioxane	123-91-1		ND	ND	2.0	7.2
Ethylbenzene	100-41-4		ND	ND	2.0	8.7
n-Heptane	142-82-5	D	2.4	9.8	2.0	8.2
1,3-Hexachlorobutadiene	87-68-3		ND	ND	2.0	21
n-Hexane	110-54-3	D	5.6	20	2.0	7.1
Methylene chloride	75-09-2		ND	ND	2.0	7.0
Methyl ethyl ketone	78-93-3	D	26	76	2.0	5.9
Methyl isobutyl ketone	108-10-1		ND	ND	2.0	8.2
Methyl tert-butyl ether	1634-04-4		ND	ND	2.0	7.2
Styrene	100-42-5		ND	ND	2.0	8.5
Tert-butyl alcohol	75-65-0	D	11	35	2.0	6.1
1,1,2,2-Tetrachloroethane	79-34-5		ND	ND	2.0	14
Tetrachloroethene	127-18-4	D	71	480	2.0	14
Toluene	108-88-3	D	7.0	26	2.0	7.5
1,2,4-Trichlorobenzene	120-82-1		ND	ND	2.0	15
1,1,1-Trichloroethane	71-55-6		ND	ND	2.0	11
1,1,2-Trichloroethane	79-00-5		ND	ND	2.0	11
Trichloroethene	79-01-6	D	23	120	0.46	2.5

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio
Project: 27-10 49th Ave
Site: NY

Report Date: 12/28/17
SDG Number: E17-10917
Date Sampled: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Data File: AA4708
Summa ID: 1558
DF: 10

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	**SV-2**			**Reporting**
	IAL ID:	**E17-10917-02**			**Limits**
Trichlorofluoromethane	75-69-4	ND	ND	2.0	11
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	2.0	15
1,2,4-Trimethylbenzene	95-63-6	ND	ND	2.0	9.8
1,3,5-Trimethylbenzene	108-67-8	ND	ND	2.0	9.8
2,2,4-Trimethylpentane	540-84-1	ND	ND	2.0	9.3
Vinyl bromide	593-60-2	ND	ND	2.0	8.7
Vinyl chloride	75-01-4	ND	ND	2.0	5.1
Xylenes (m&p)	179601-23-1	ND	ND	2.0	8.7
Xylenes (o)	95-47-6	ND	ND	2.0	8.7

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4708.D
Acq On : 27 Dec 2017 3:27 pm
Operator : jls
Sample : E17-10917-02 x 10 dil
Misc : 1558, 50cc
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 28 08:37:32 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

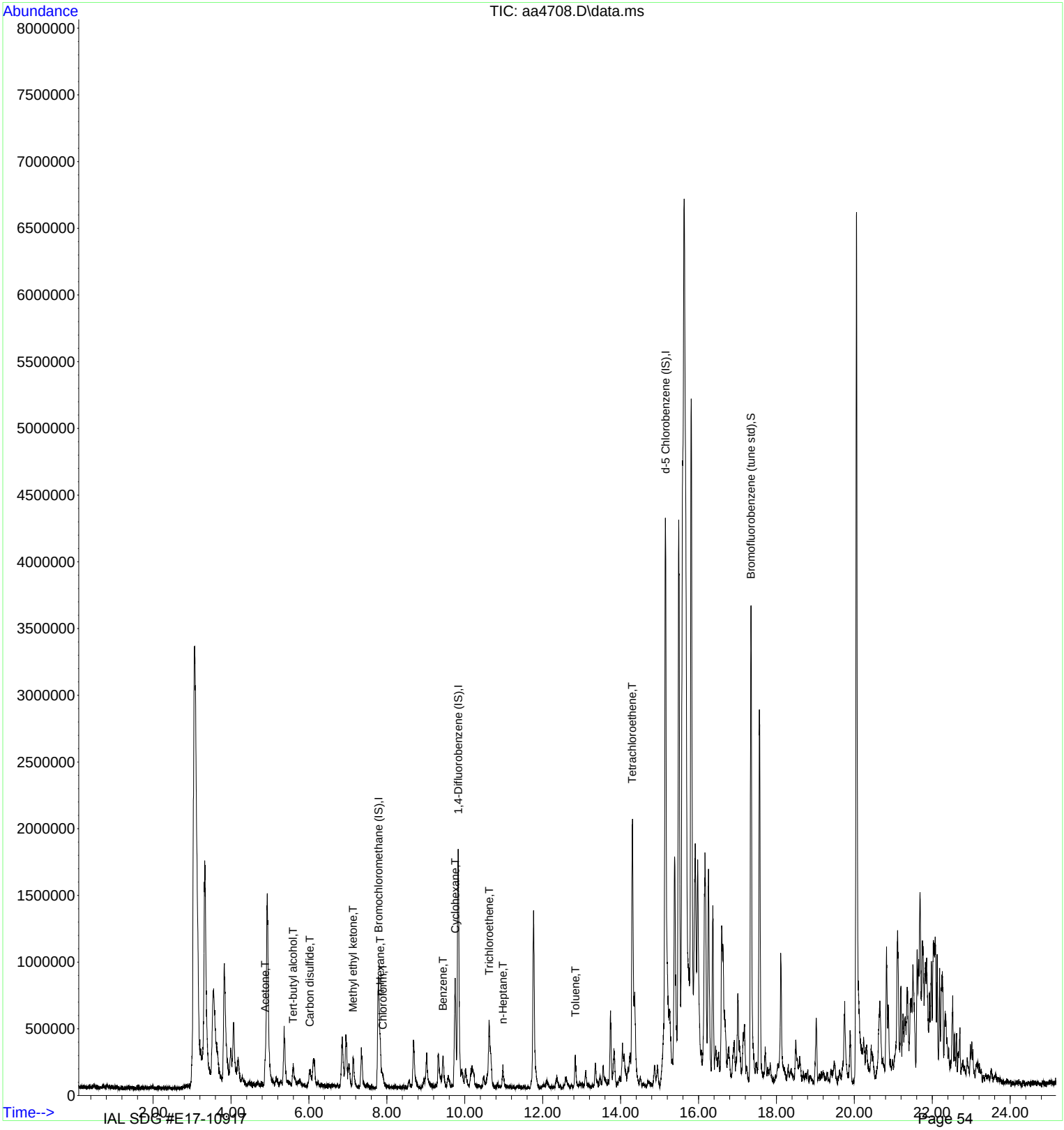
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.788	130	545406	10.00	ppbV		0.02
38) 1,4-Difluorobenzene (IS)	9.833	114	2210499	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.151	117	2194030	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.344	95	1659839	9.53	ppbV		0.00
Target Compounds							Qvalue
14) Acetone	4.878	58	164683	4.43	ppbV	#	1
20) Tert-butyl alcohol	5.592	59	183091	1.14	ppbV		100
23) Carbon disulfide	6.023	76	318205	1.27	ppbV	#	74
27) Methyl ethyl ketone	7.129	43	412627	2.56	ppbV	#	85
30) n-Hexane	7.830	57	63836	0.56	ppbV	#	75
31) Chloroform	7.894	83	39689	0.26	ppbV		90
35) Benzene	9.441	78	276215	1.08	ppbV	#	83
37) Cyclohexane	9.753	56	515158	3.46	ppbV		91
42) Trichloroethene	10.624	130	211335	2.30	ppbV		96
45) n-Heptane	10.981	43	38347	0.24	ppbV	#	65
50) Toluene	12.839	91	214446	0.70	ppbV		94
54) Tetrachloroethene	14.296	166	783774	7.10	ppbV		97

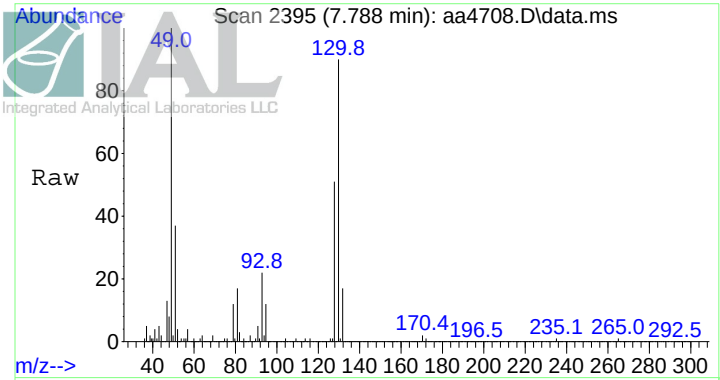
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4708.D
Acq On : 27 Dec 2017 3:27 pm
Operator : jls
Sample : E17-10917-02 x 10 dil
Misc : 1558, 50cc
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 28 08:37:32 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

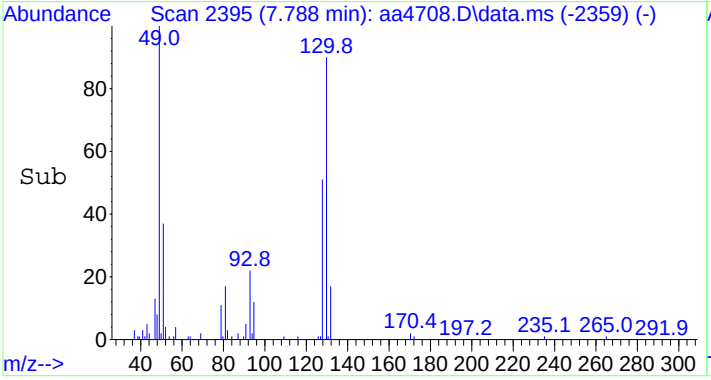


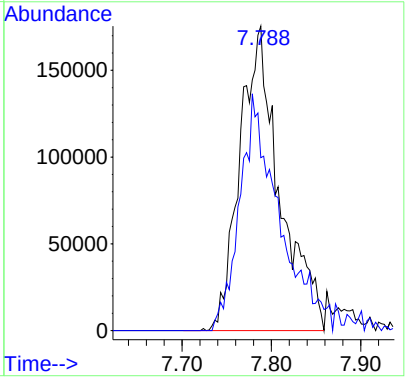


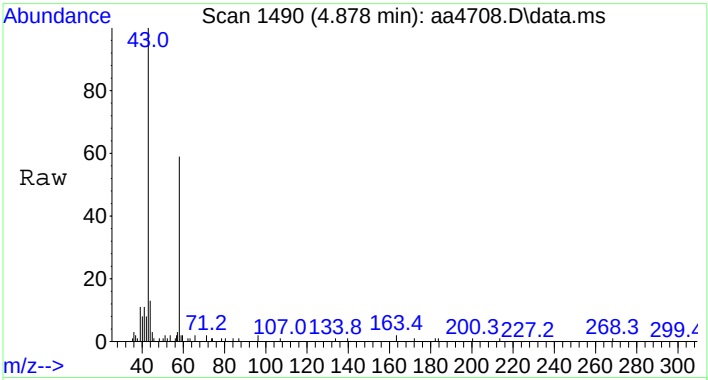
#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.788 min Scan# 2395
Delta R.T. 0.016 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:130 Resp: 545406

Ion	Ratio	Lower	Upper
130	100		
128	76.4	62.6	94.0



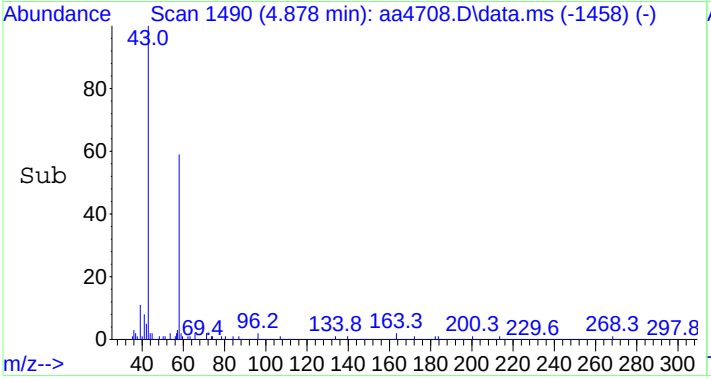


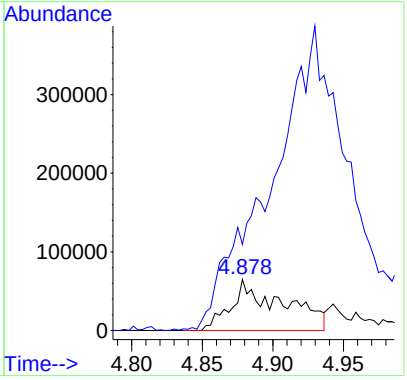


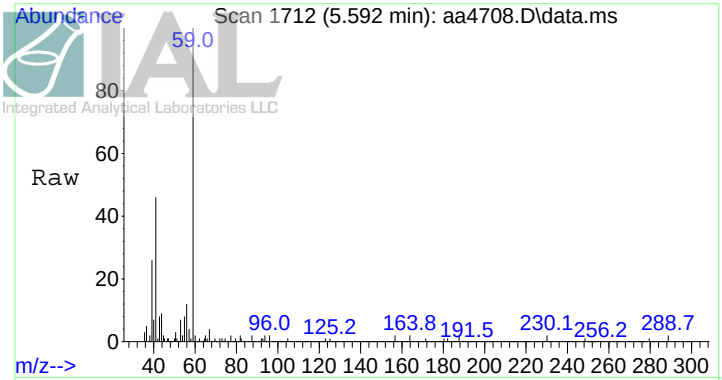
#14
Acetone
Concen: 4.43 ppbV
RT: 4.878 min Scan# 1490
Delta R.T. 0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 58 Resp: 164683

Ion	Ratio	Lower	Upper
58	100		
43	0.0	229.6	344.4#

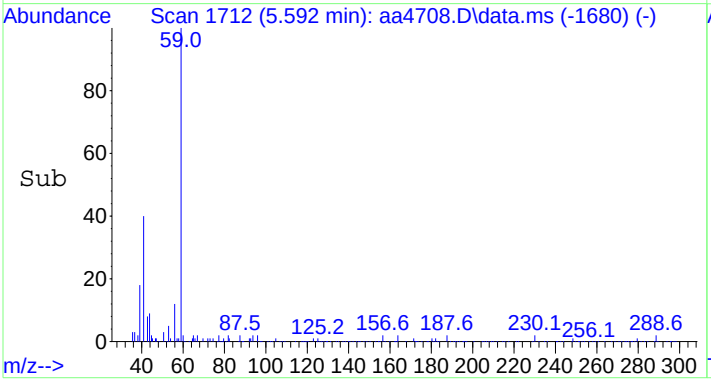


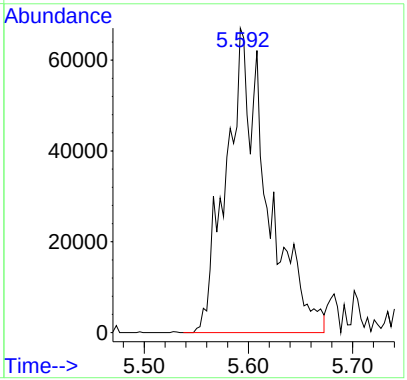


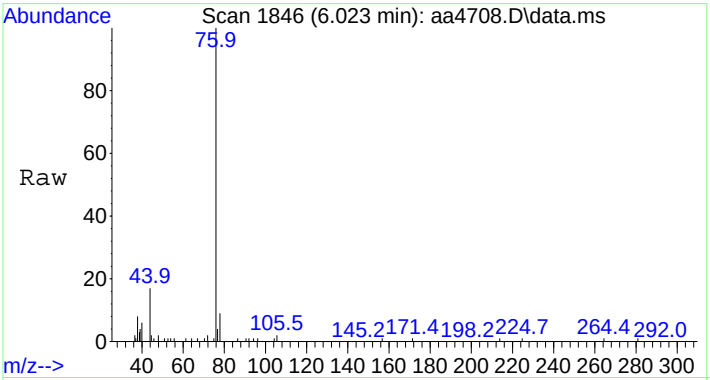


#20
Tert-butyl alcohol
Concen: 1.14 ppbV
RT: 5.592 min Scan# 1712
Delta R.T. 0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 59 Resp: 183091



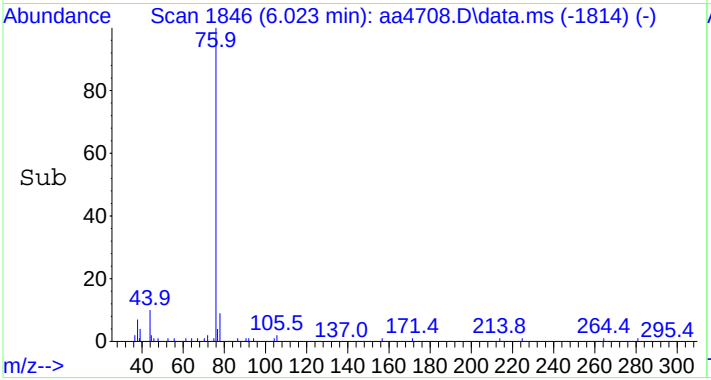


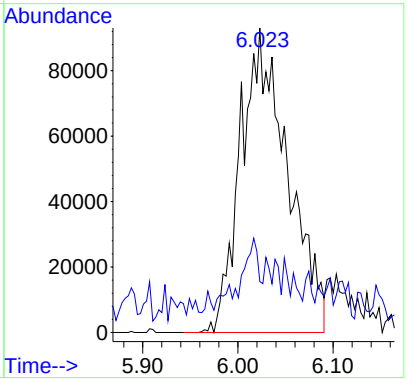


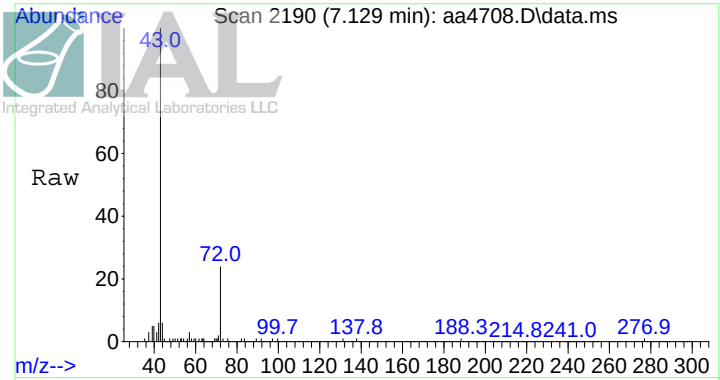
#23
Carbon disulfide
Concen: 1.27 ppbV
RT: 6.023 min Scan# 1846
Delta R.T. 0.004 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 76 Resp: 318205

Ion	Ratio	Lower	Upper
76	100		
44	2.8	10.4	15.6#



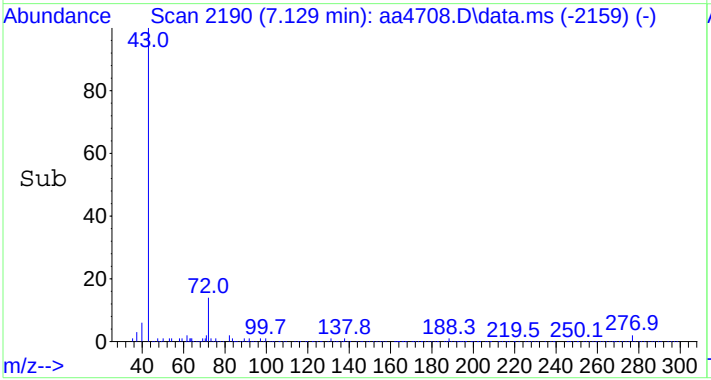


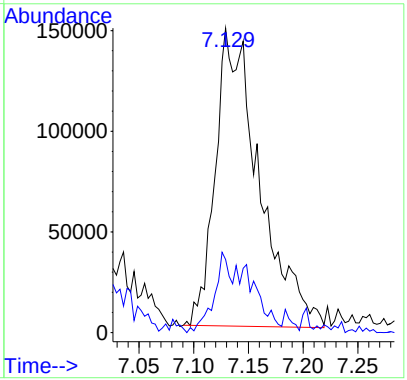


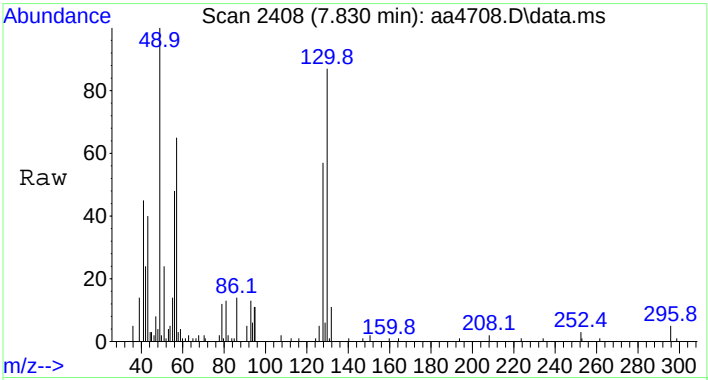
#27
Methyl ethyl ketone
Concen: 2.56 ppbV
RT: 7.129 min Scan# 2190
Delta R.T. 0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 43 Resp: 412627

Ion	Ratio	Lower	Upper
43	100		
72	21.9	24.0	36.0#



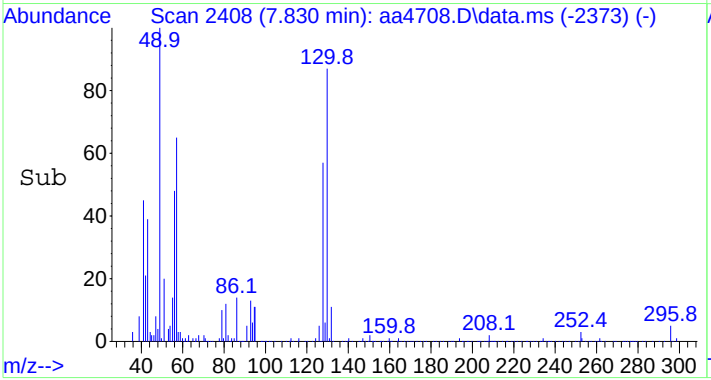


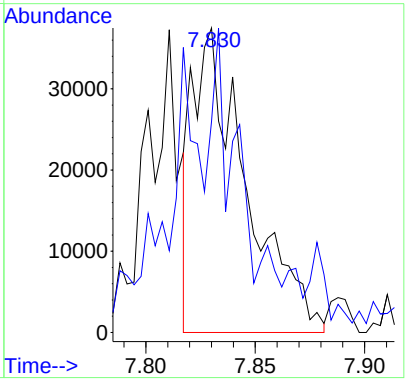


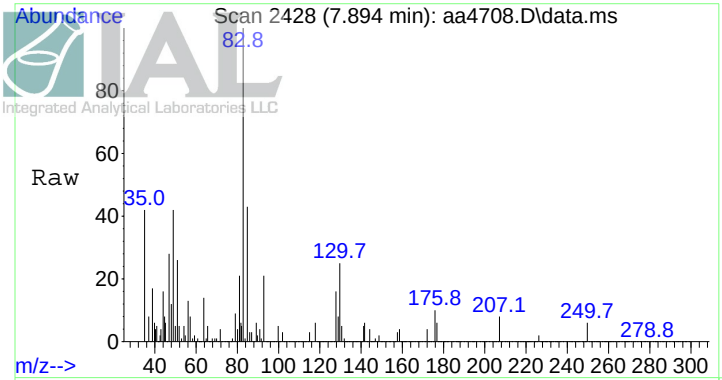
#30
n-Hexane
Concen: 0.56 ppbV
RT: 7.830 min Scan# 2408
Delta R.T. 0.013 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 57 Resp: 63836

Ion	Ratio	Lower	Upper
57	100		
41	58.9	64.8	97.2#



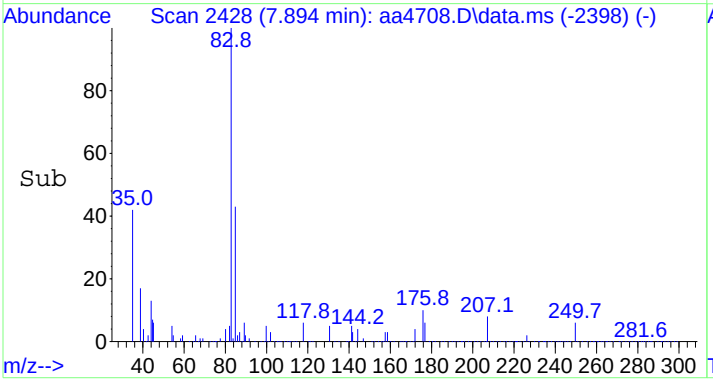


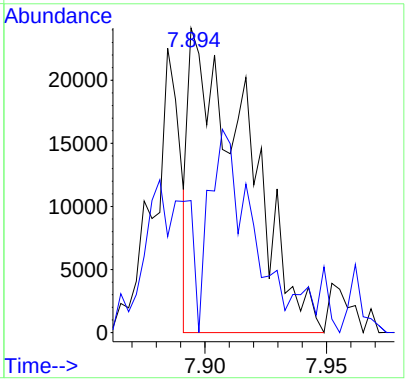


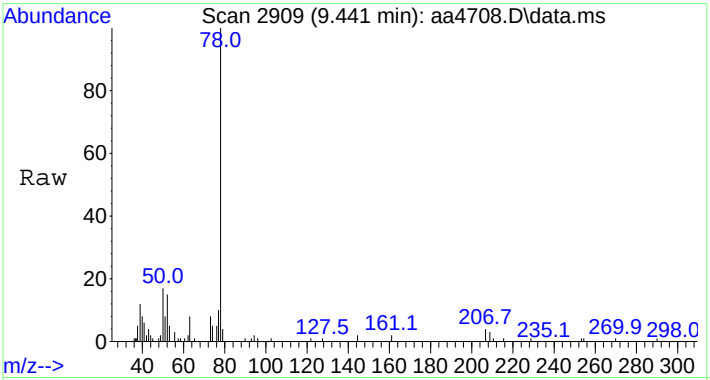
#31
Chloroform
Concen: 0.26 ppbV
RT: 7.894 min Scan# 2428
Delta R.T. -0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 83 Resp: 39689

Ion	Ratio	Lower	Upper
83	100		
85	55.7	51.0	76.6



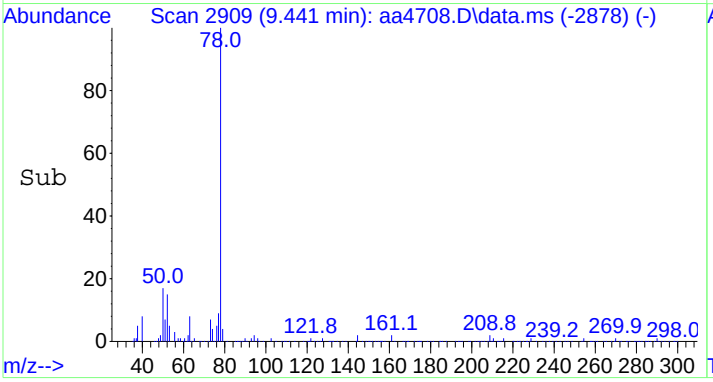


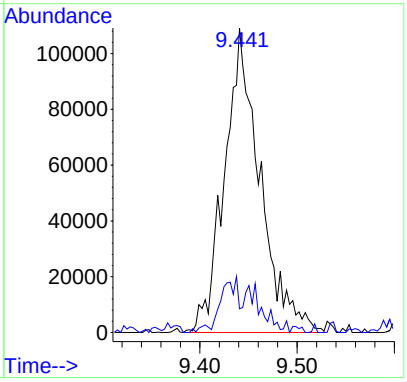


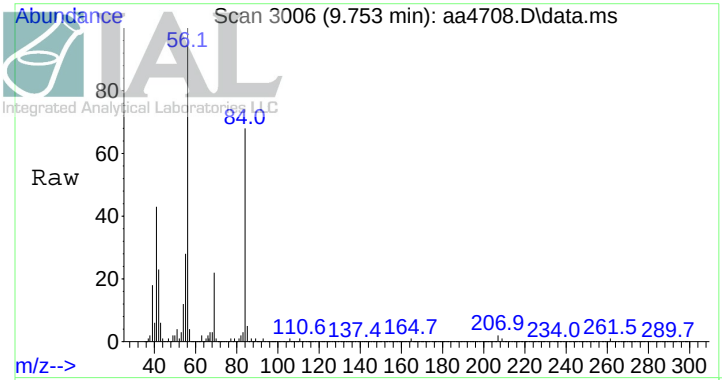
#35
Benzene
Concen: 1.08 ppbV
RT: 9.441 min Scan# 2909
Delta R.T. -0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 78 Resp: 276215

Ion	Ratio	Lower	Upper
78	100		
51	8.9	12.8	19.2#



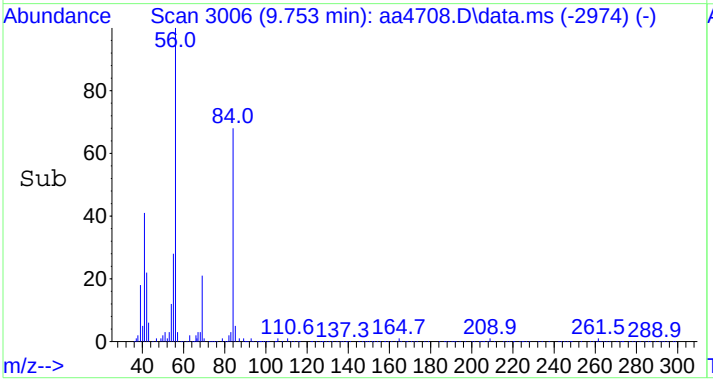


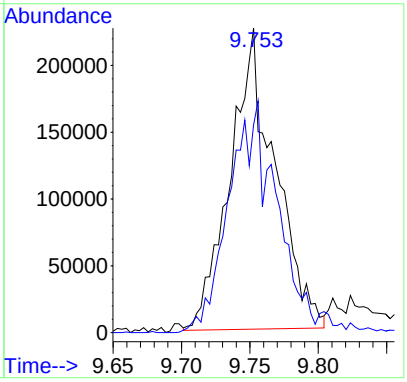


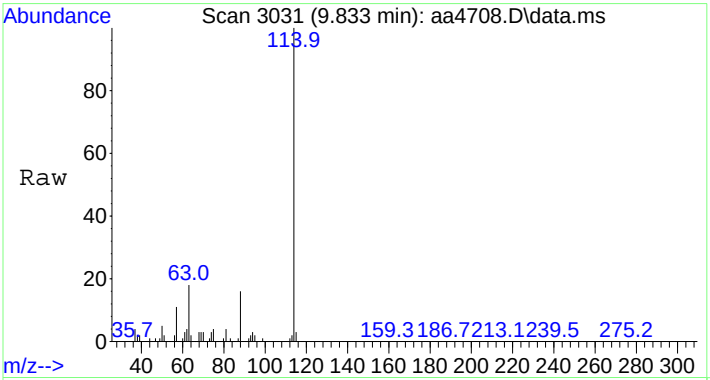
#37
Cyclohexane
Concen: 3.46 ppbV
RT: 9.753 min Scan# 3006
Delta R.T. 0.004 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 56 Resp: 515158

Ion	Ratio	Lower	Upper
56	100		
84	81.1	72.0	108.0



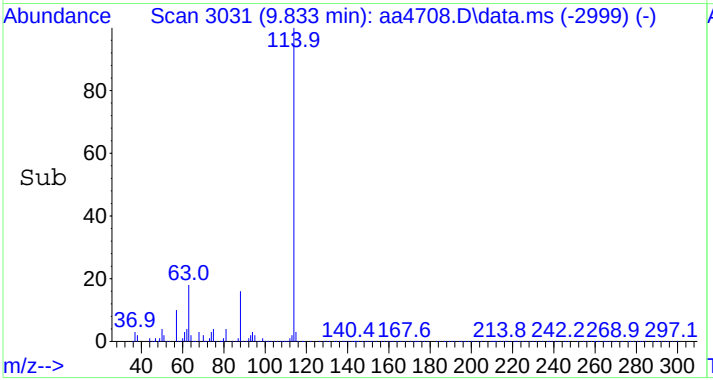


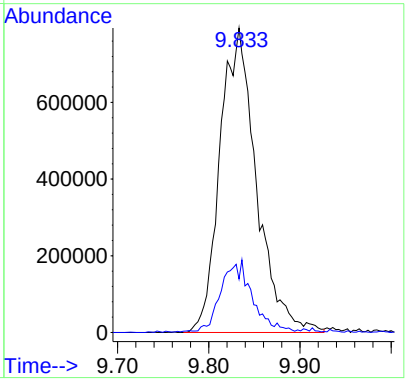


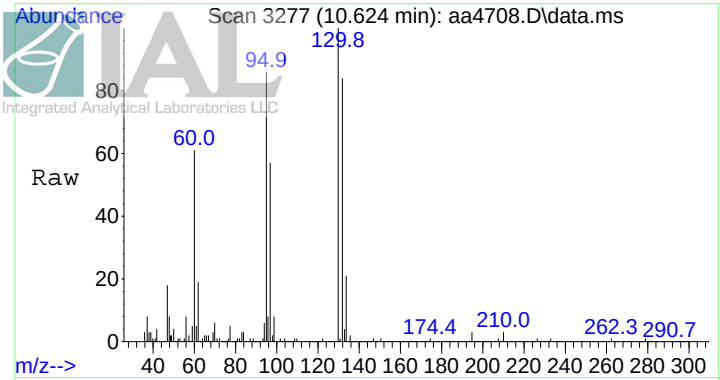
#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.833 min Scan# 3031
Delta R.T. 0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:114 Resp: 2210499

Ion	Ratio	Lower	Upper
114	100		
63	19.9	16.8	25.2



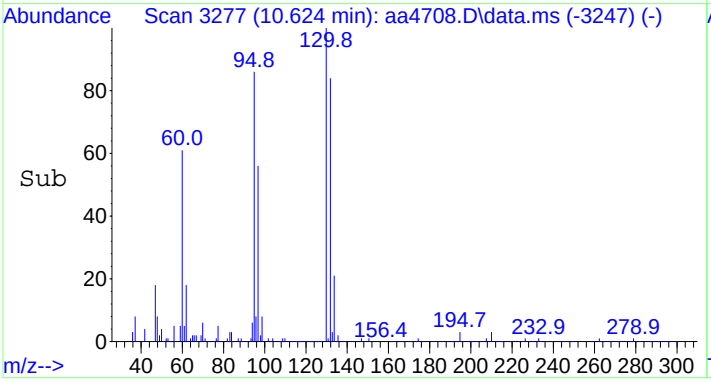


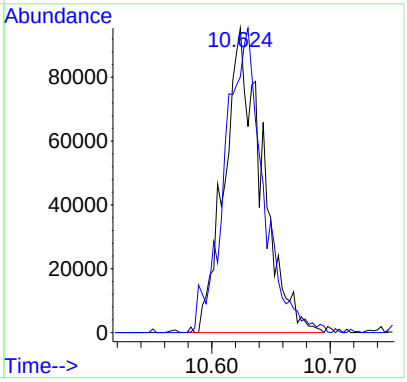


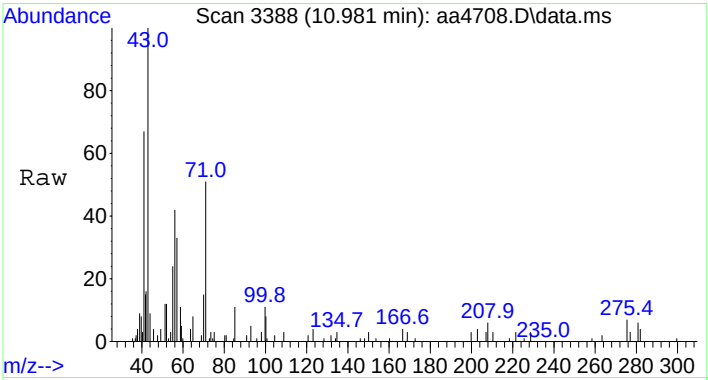
#42
Trichloroethene
Concen: 2.30 ppbV
RT: 10.624 min Scan# 3277
Delta R.T. -0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:130 Resp: 211335

Ion	Ratio	Lower	Upper
130	100		
132	101.2	77.8	116.6



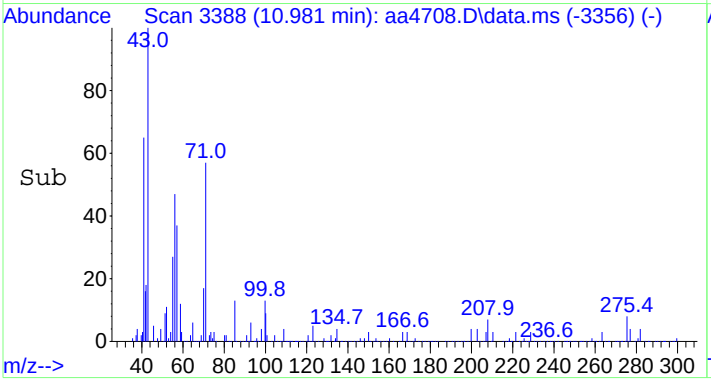


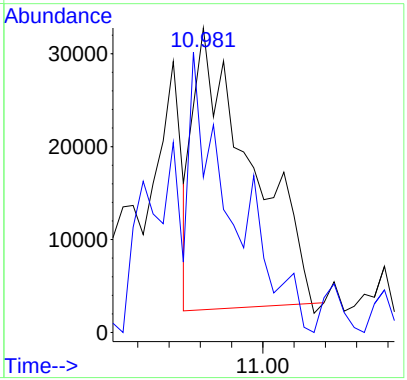


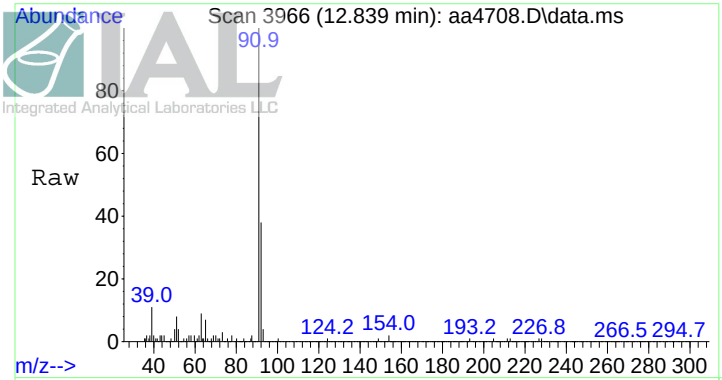
#45
n-Heptane
Concen: 0.24 ppbV
RT: 10.981 min Scan# 3388
Delta R.T. 0.004 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 43 Resp: 38347

Ion	Ratio	Lower	Upper
43	100		
71	86.8	48.0	72.0#



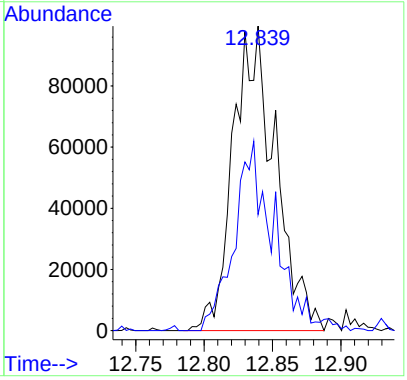


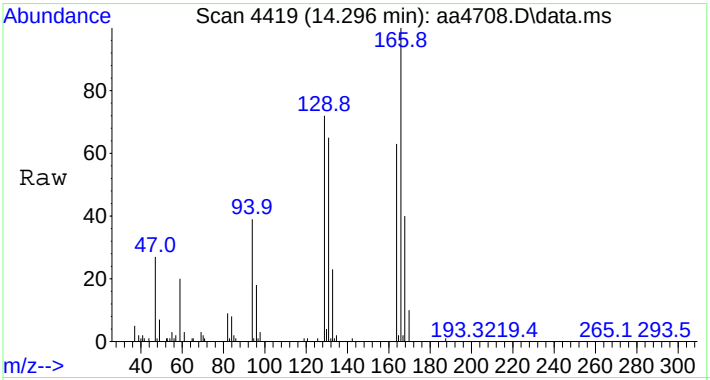


#50
Toluene
Concen: 0.70 ppbV
RT: 12.839 min Scan# 3966
Delta R.T. 0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 91 Resp: 214446

Ion	Ratio	Lower	Upper
91	100		
92	58.1	50.0	75.0

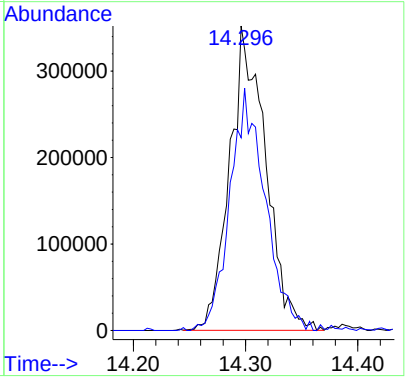


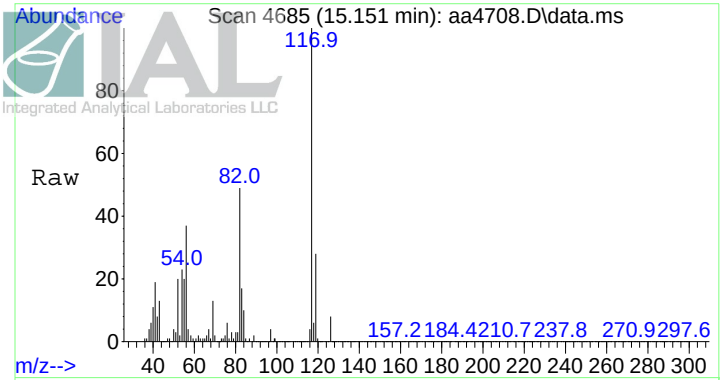


#54
Tetrachloroethene
Concen: 7.10 ppbV
RT: 14.296 min Scan# 4419
Delta R.T. -0.013 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:166 Resp: 783774

Ion	Ratio	Lower	Upper
166	100		
164	77.8	64.6	96.8

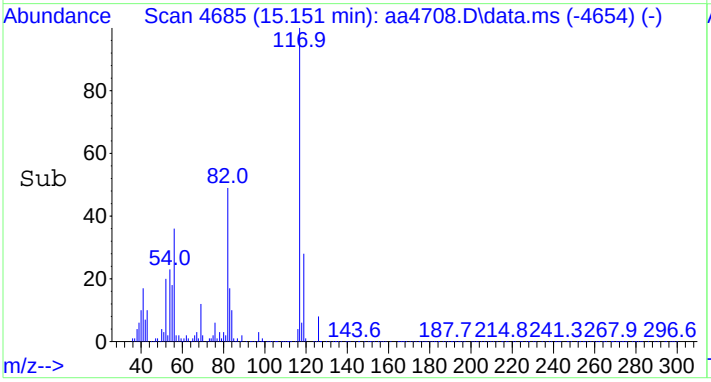


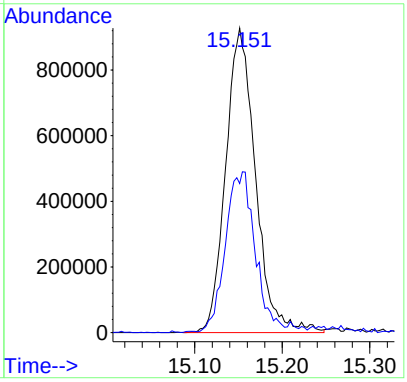


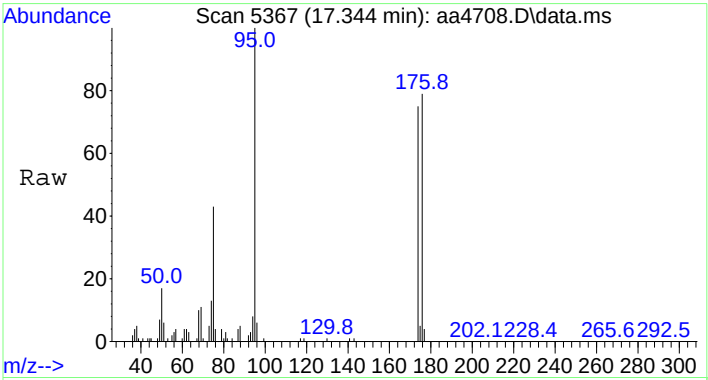
#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.151 min Scan# 4685
Delta R.T. 0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:117 Resp: 2194030

Ion	Ratio	Lower	Upper
117	100		
82	51.9	44.8	67.2



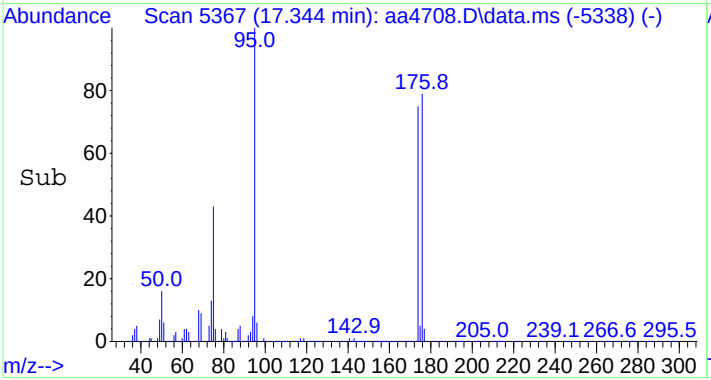


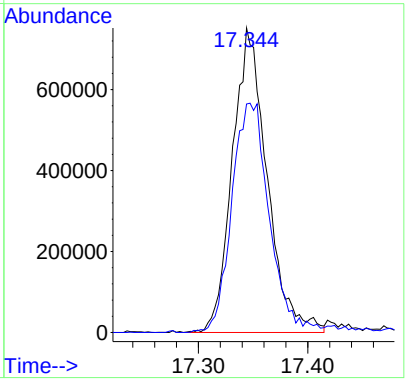


#64
Bromofluorobenzene (tune std)
Concen: 9.53 ppbV
RT: 17.344 min Scan# 5367
Delta R.T. -0.006 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 95 Resp: 1659839

Ion	Ratio	Lower	Upper
95	100		
174	81.3	61.5	92.3





Integrated Analytical Laboratories LLC

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio
Project: 27-10 49th Ave
Site: NY

Report Date: 12/28/17
SDG Number: E17-10917
Date Sampled: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Data File: AA4710
Summa ID: 1767
DF: 10

Analysis: Volatile Organic Compounds by EPA Method TO-15

Sample Name:			SV-3			Reporting Limits	
IAL ID:			E17-10917-03				
Compound	CAS #		ppbv		ug/m3	ppbv	ug/m3
Acetone	67-64-1	D	220		530	2.0	4.8
Benzene	71-43-2	D	49		160	2.0	6.4
Bromodichloromethane	75-27-4			ND	ND	2.0	13
Bromoform	75-25-2			ND	ND	2.0	21
Bromomethane	74-83-9			ND	ND	2.0	7.8
1,3-Butadiene	106-99-0			ND	ND	2.0	4.4
Chlorobenzene	108-90-7			ND	ND	2.0	9.2
Chloroethane	75-00-3			ND	ND	2.0	5.3
Chloroform	67-66-3	D	3.8		19	2.0	9.8
Chloromethane	74-87-3			ND	ND	2.0	4.1
Carbon disulfide	75-15-0	D	35		110	2.0	6.2
Carbon tetrachloride	56-23-5			ND	ND	0.40	2.5
Cyclohexane	110-82-7	D	45		160	2.0	6.9
Dibromochloromethane	124-48-1			ND	ND	2.0	17
1,2-Dibromoethane	106-93-4			ND	ND	2.0	15
1,2-Dichlorobenzene	95-50-1			ND	ND	2.0	12
1,3-Dichlorobenzene	541-73-1			ND	ND	2.0	12
1,4-Dichlorobenzene	106-46-7			ND	ND	2.0	12
Dichlorodifluoromethane	75-71-8			ND	ND	2.0	9.9
1,1-Dichloroethane	75-34-3			ND	ND	2.0	8.1
1,2-Dichloroethane	107-06-2			ND	ND	2.0	8.1
1,1-Dichloroethene	75-35-4			ND	ND	2.0	7.9
1,2-Dichloroethene (cis)	156-59-2			ND	ND	2.0	7.9
1,2-Dichloroethene (trans)	156-60-5			ND	ND	2.0	7.9
1,2-Dichloropropane	78-87-5			ND	ND	2.0	9.2
1,3-Dichloropropene (cis)	10061-01-5			ND	ND	2.0	9.1
1,3-Dichloropropene (trans)	10061-02-6			ND	ND	2.0	9.1
1,2-Dichlorotetrafluoroethane	76-14-2			ND	ND	2.0	14
1,4-Dioxane	123-91-1			ND	ND	2.0	7.2
Ethylbenzene	100-41-4			ND	ND	2.0	8.7
n-Heptane	142-82-5	D	8.5		35	2.0	8.2
1,3-Hexachlorobutadiene	87-68-3			ND	ND	2.0	21
n-Hexane	110-54-3	D	12		42	2.0	7.1
Methylene chloride	75-09-2			ND	ND	2.0	7.0
Methyl ethyl ketone	78-93-3	D	38		110	2.0	5.9
Methyl isobutyl ketone	108-10-1			ND	ND	2.0	8.2
Methyl tert-butyl ether	1634-04-4			ND	ND	2.0	7.2
Styrene	100-42-5			ND	ND	2.0	8.5
Tert-butyl alcohol	75-65-0	D	19		58	2.0	6.1
1,1,2,2-Tetrachloroethane	79-34-5			ND	ND	2.0	14
Tetrachloroethene	127-18-4	D	160		1100	2.0	14
Toluene	108-88-3	D	8.3		31	2.0	7.5
1,2,4-Trichlorobenzene	120-82-1			ND	ND	2.0	15
1,1,1-Trichloroethane	71-55-6	D	6.1		33	2.0	11
1,1,2-Trichloroethane	79-00-5			ND	ND	2.0	11
Trichloroethene	79-01-6	D	7.3		39	0.46	2.5

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Leah DeEgidio
Project: 27-10 49th Ave
Site: NY

Report Date: 12/28/17
SDG Number: E17-10917
Date Sampled: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Data File: AA4710
Summa ID: 1767
DF: 10

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	SV-3			Reporting
	IAL ID:	E17-10917-03			Limits
Trichlorofluoromethane	75-69-4	ND	ND	2.0	11
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	2.0	15
1,2,4-Trimethylbenzene	95-63-6	ND	ND	2.0	9.8
1,3,5-Trimethylbenzene	108-67-8	ND	ND	2.0	9.8
2,2,4-Trimethylpentane	540-84-1	ND	ND	2.0	9.3
Vinyl bromide	593-60-2	ND	ND	2.0	8.7
Vinyl chloride	75-01-4	ND	ND	2.0	5.1
Xylenes (m&p)	179601-23-1	ND	ND	2.0	8.7
Xylenes (o)	95-47-6	ND	ND	2.0	8.7

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4710.D
Acq On : 27 Dec 2017 4:34 pm
Operator : jls
Sample : E17-10917-03 x 10 dil
Misc : 1767, 50cc
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 28 09:41:54 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

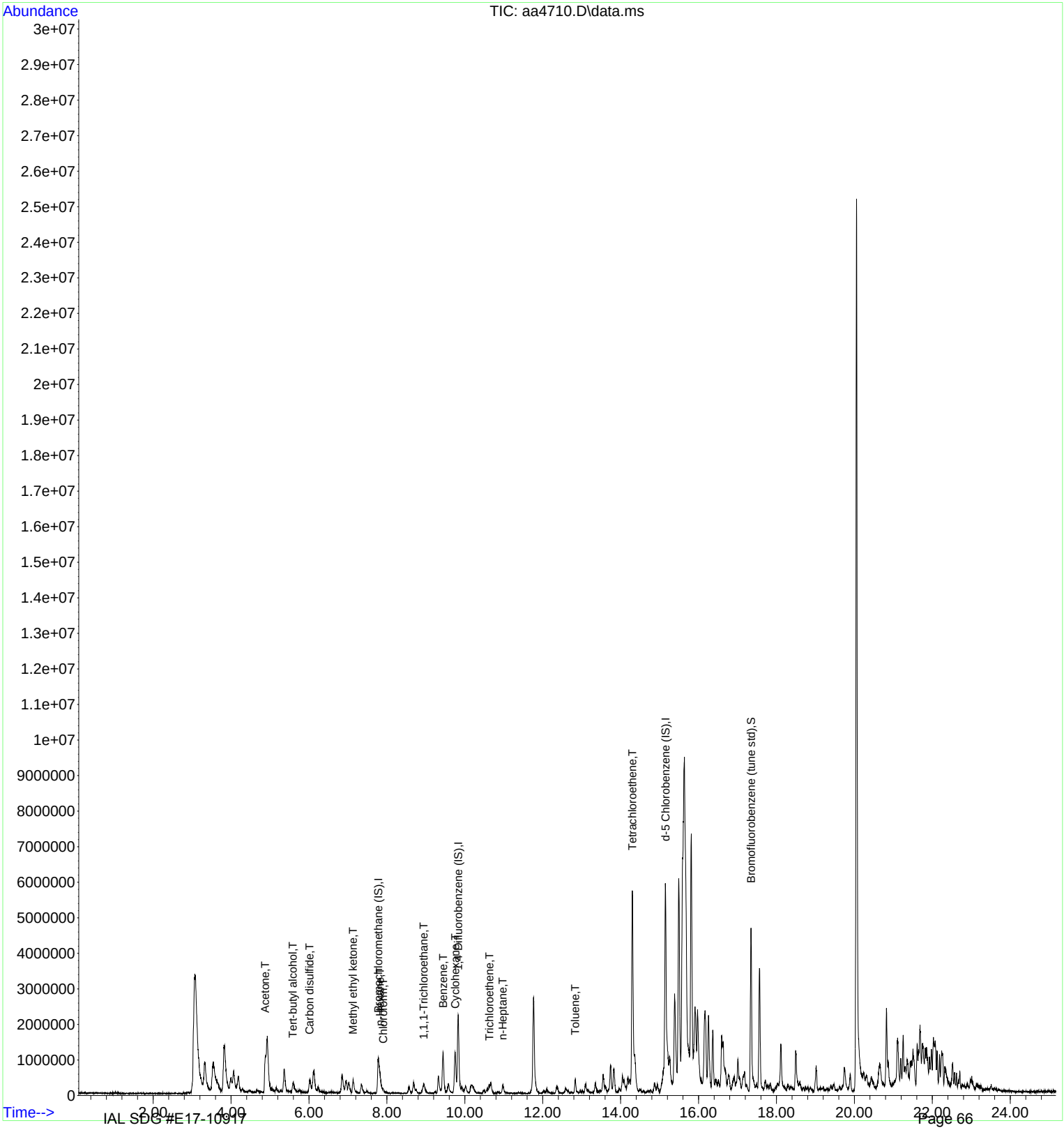
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.782	130	648271	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.833	114	2766085	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.151	117	2625046	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.347	95	2198694	10.55	ppbV		0.00
Target Compounds							Qvalue
14) Acetone	4.875	58	980416	22.17	ppbV	#	58
20) Tert-butyl alcohol	5.589	59	361549	1.90	ppbV		100
23) Carbon disulfide	6.016	76	1030738	3.45	ppbV	#	92
27) Methyl ethyl ketone	7.132	43	734804	3.84	ppbV	#	85
30) n-Hexane	7.820	57	160998	1.18	ppbV	#	28
31) Chloroform	7.907	83	69423	0.38	ppbV	#	76
34) 1,1,1-Trichloroethane	8.946	97	95158	0.61	ppbV	#	77
35) Benzene	9.447	78	1490481	4.89	ppbV		99
37) Cyclohexane	9.756	56	796698	4.51	ppbV		88
42) Trichloroethene	10.630	130	84477m	0.73	ppbV		
45) n-Heptane	10.974	43	170022	0.85	ppbV	#	82
50) Toluene	12.833	91	317236	0.83	ppbV		95
54) Tetrachloroethene	14.305	166	2225010	16.11	ppbV		97

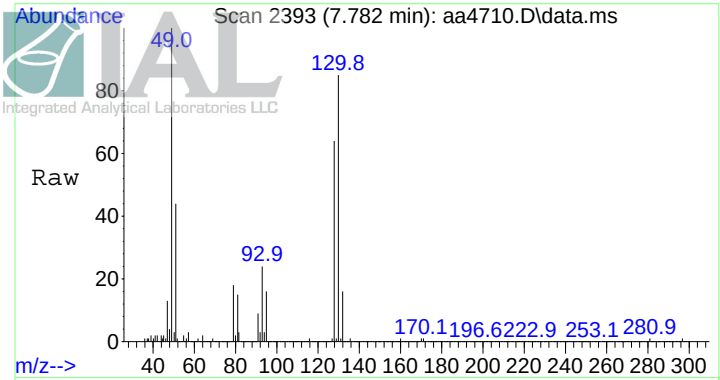
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4710.D
Acq On : 27 Dec 2017 4:34 pm
Operator : jls
Sample : E17-10917-03 x 10 dil
Misc : 1767, 50cc
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 28 09:41:54 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

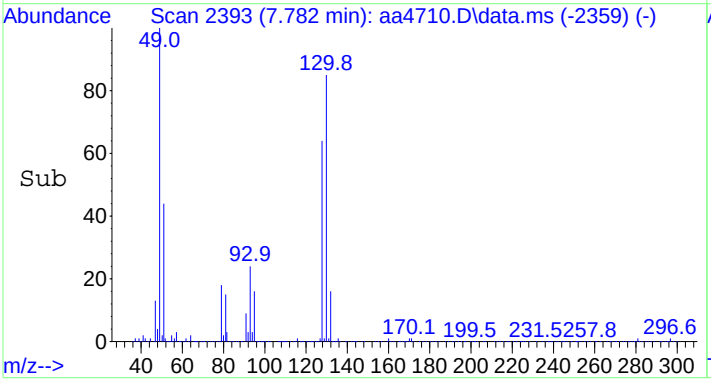


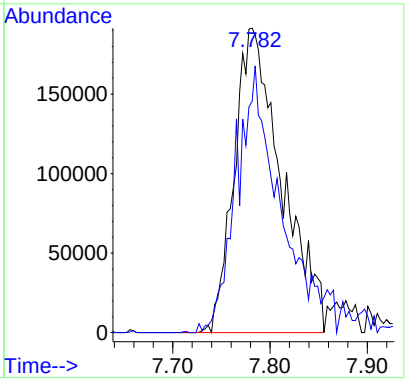


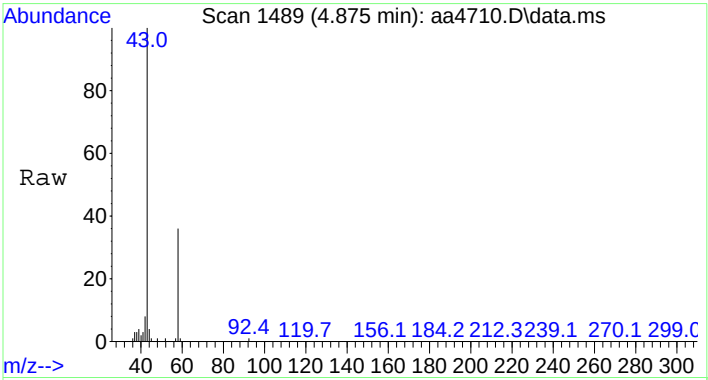
#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.782 min Scan# 2393
Delta R.T. 0.010 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion:130 Resp: 648271

Ion	Ratio	Lower	Upper
130	100		
128	65.9	62.6	94.0



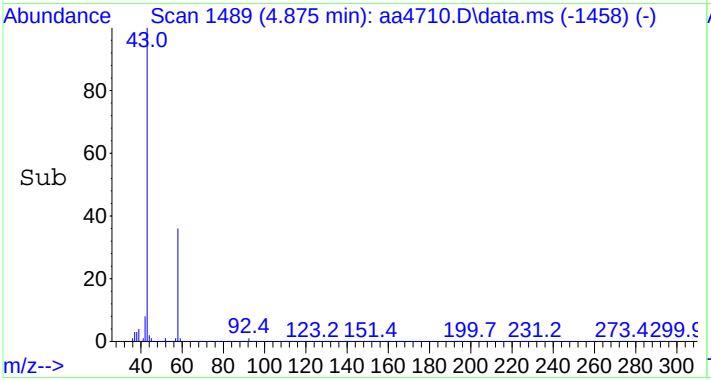


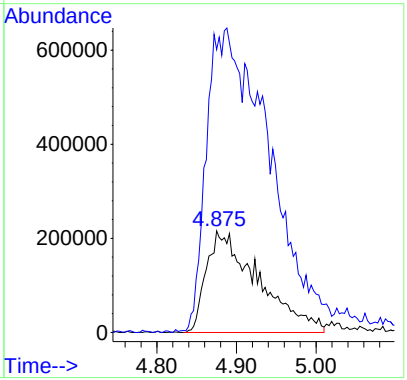


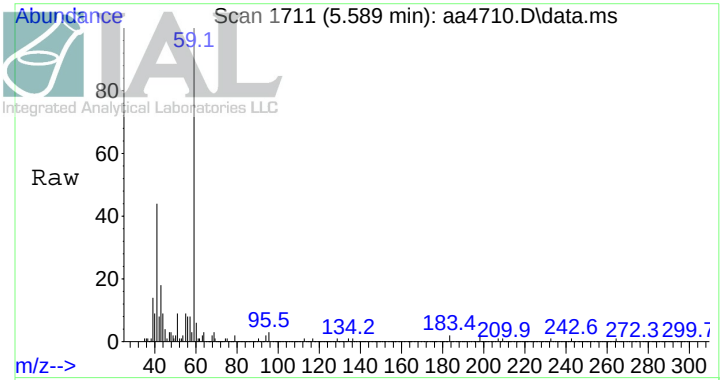
#14
Acetone
Concen: 22.17 ppbV
RT: 4.875 min Scan# 1489
Delta R.T. -0.000 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 58 Resp: 980416

Ion	Ratio	Lower	Upper
58	100		
43	367.3	229.6	344.4#

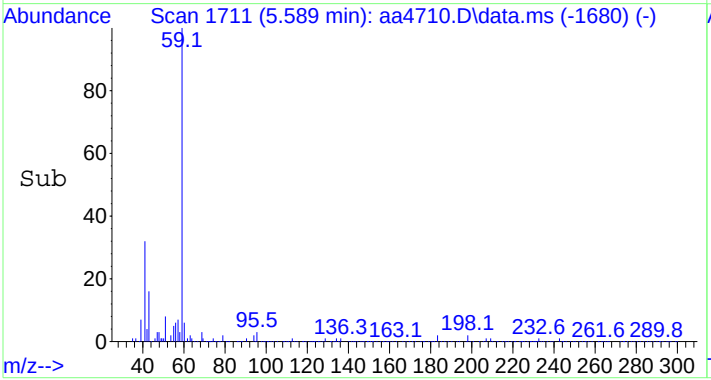


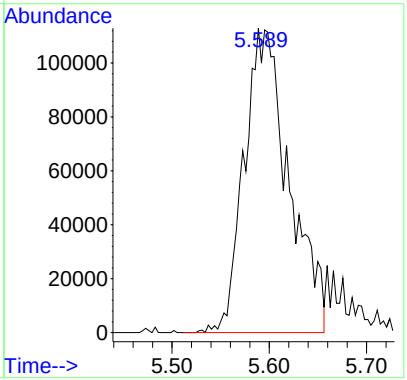


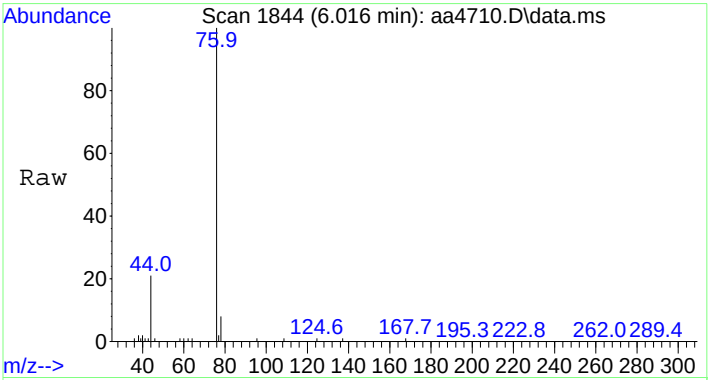


#20
Tert-butyl alcohol
Concen: 1.90 ppbV
RT: 5.589 min Scan# 1711
Delta R.T. -0.000 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 59 Resp: 361549



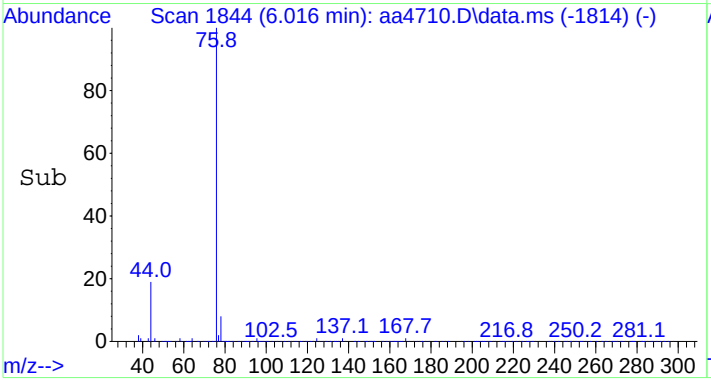


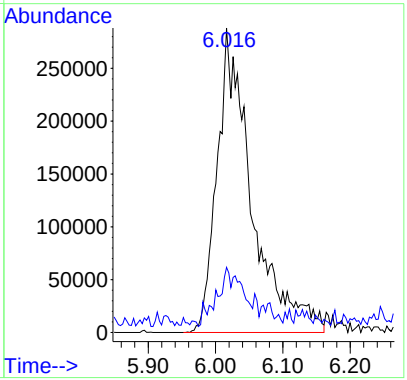


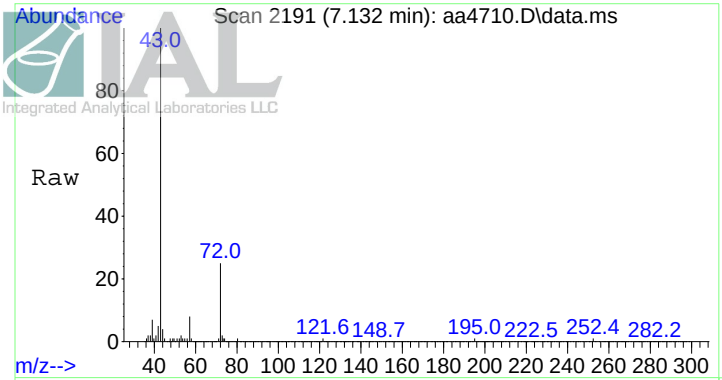
#23
Carbon disulfide
Concen: 3.45 ppbV
RT: 6.016 min Scan# 1844
Delta R.T. -0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 76 Resp: 1030738

Ion	Ratio	Lower	Upper
76	100		
44	9.6	10.4	15.6#



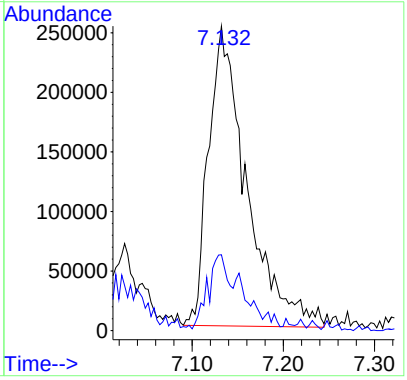


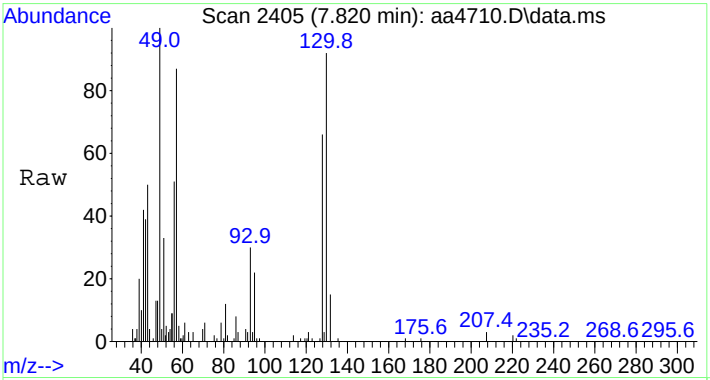


#27
Methyl ethyl ketone
Concen: 3.84 ppbV
RT: 7.132 min Scan# 2191
Delta R.T. 0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 43 Resp: 734804

Ion	Ratio	Lower	Upper
43	100		
72	21.7	24.0	36.0#

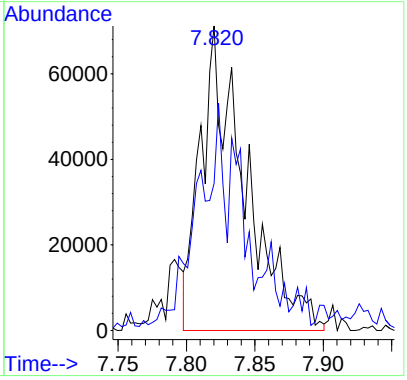


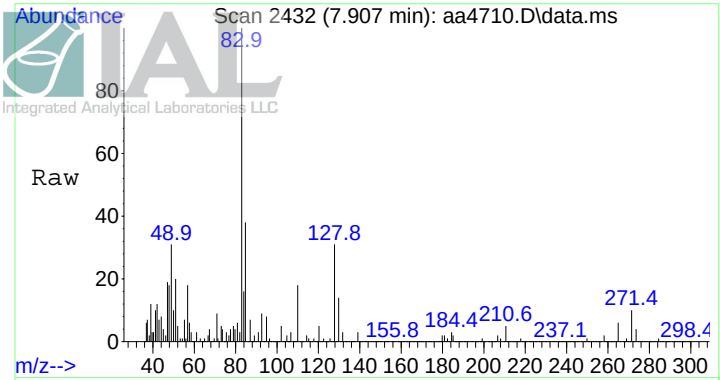


#30
n-Hexane
Concen: 1.18 ppbV
RT: 7.820 min Scan# 2405
Delta R.T. 0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 57 Resp: 160998

Ion	Ratio	Lower	Upper
57	100		
41	17.1	64.8	97.2#

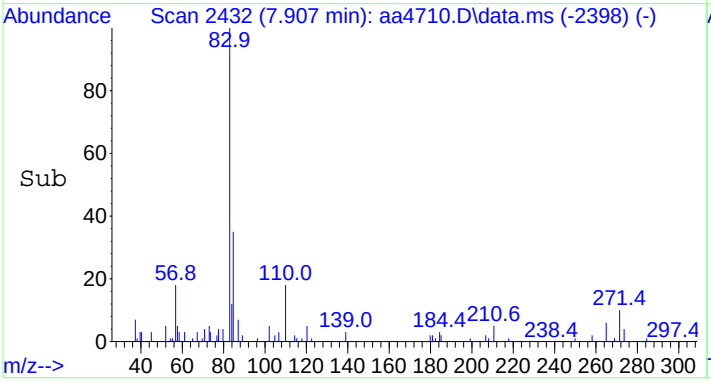


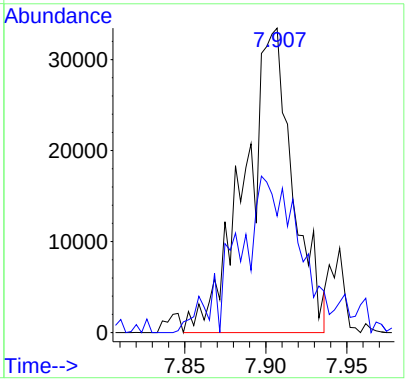


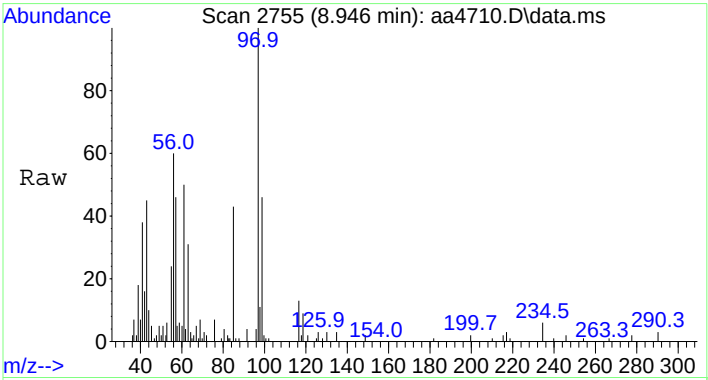
#31
Chloroform
Concen: 0.38 ppbV
RT: 7.907 min Scan# 2432
Delta R.T. 0.010 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 83 Resp: 69423

Ion	Ratio	Lower	Upper
83	100		
85	45.0	51.0	76.6#



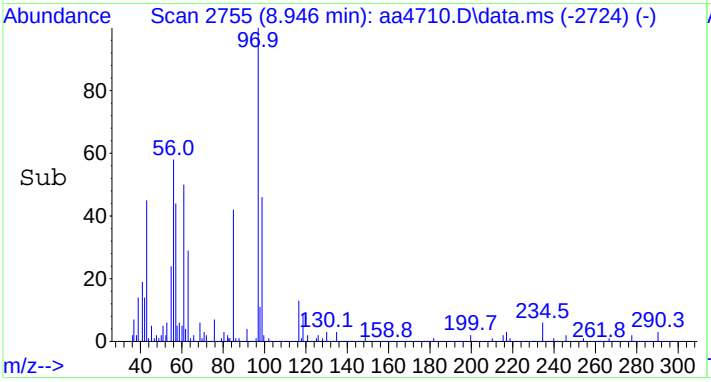


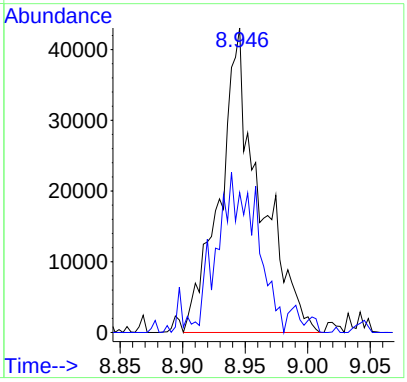


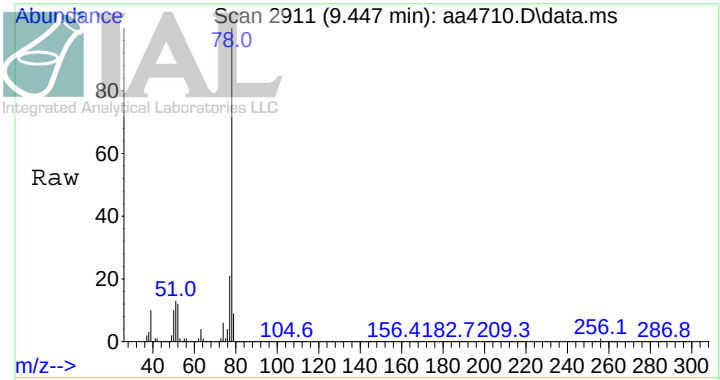
#34
1,1,1-Trichloroethane
Concen: 0.61 ppbV
RT: 8.946 min Scan# 2755
Delta R.T. 0.001 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 97 Resp: 95158

Ion	Ratio	Lower	Upper
97	100		
99	46.4	51.9	77.9#



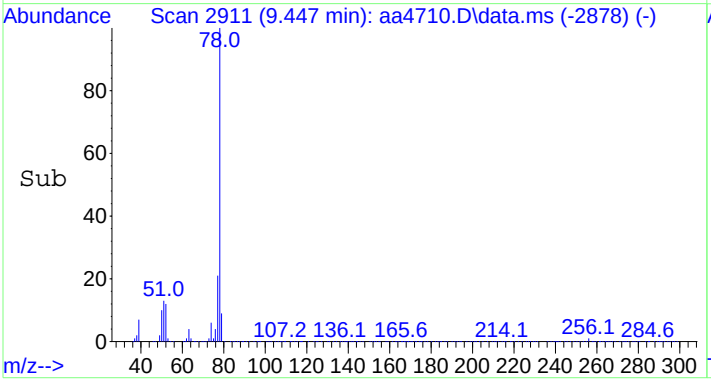


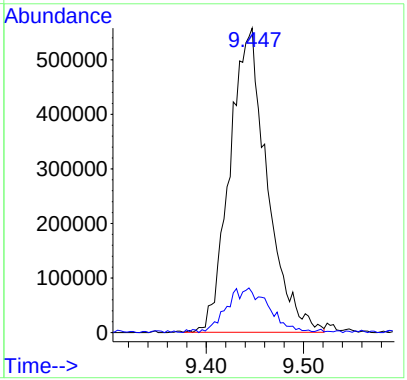


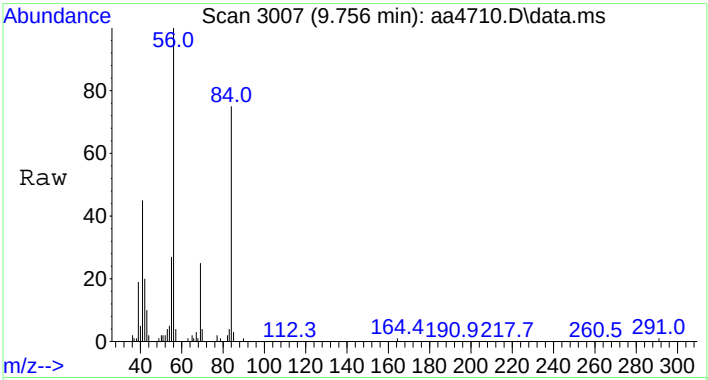
#35
Benzene
Concen: 4.89 ppbV
RT: 9.447 min Scan# 2911
Delta R.T. 0.006 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 78 Resp: 1490481

Ion	Ratio	Lower	Upper
78	100		
51	16.5	12.8	19.2



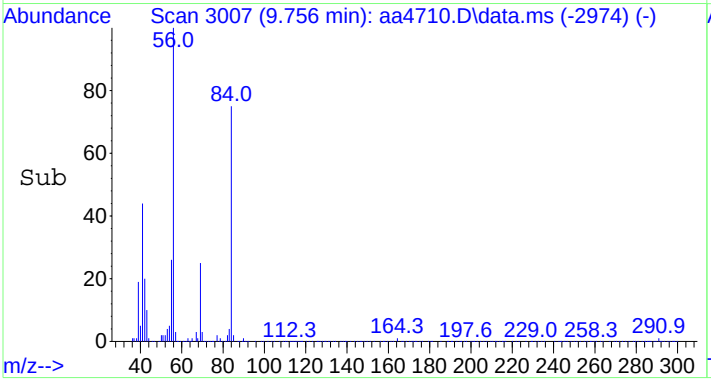


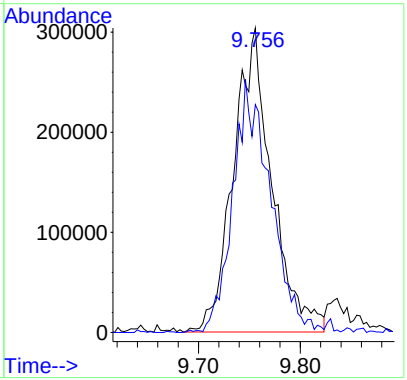


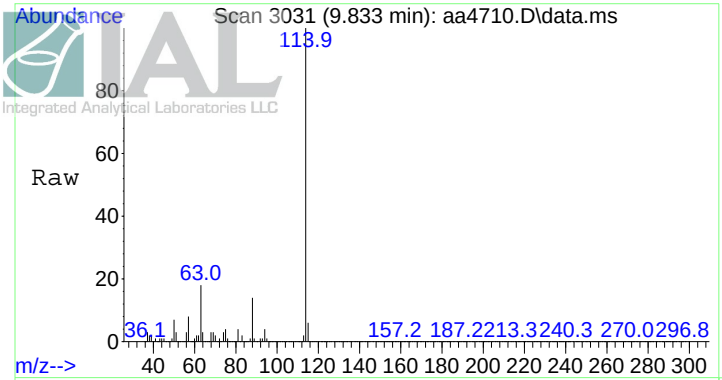
#37
Cyclohexane
Concen: 4.51 ppbV
RT: 9.756 min Scan# 3007
Delta R.T. 0.007 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 56 Resp: 796698

Ion	Ratio	Lower	Upper
56	100		
84	79.1	72.0	108.0



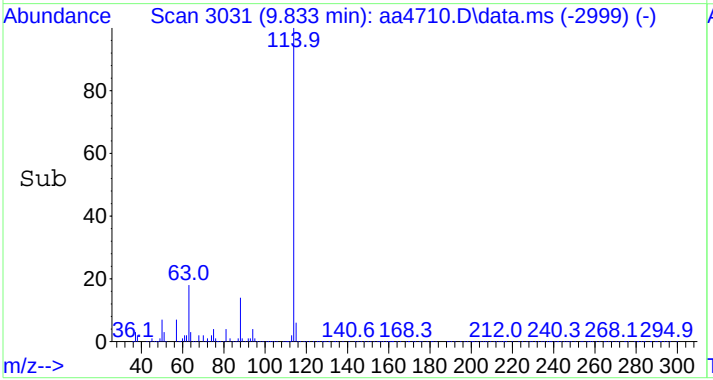


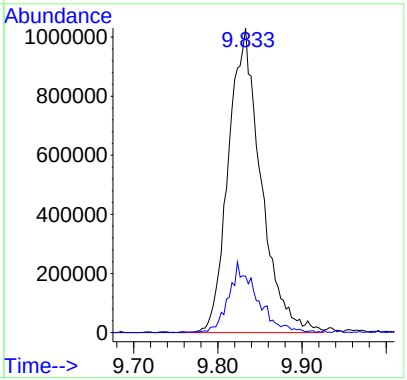


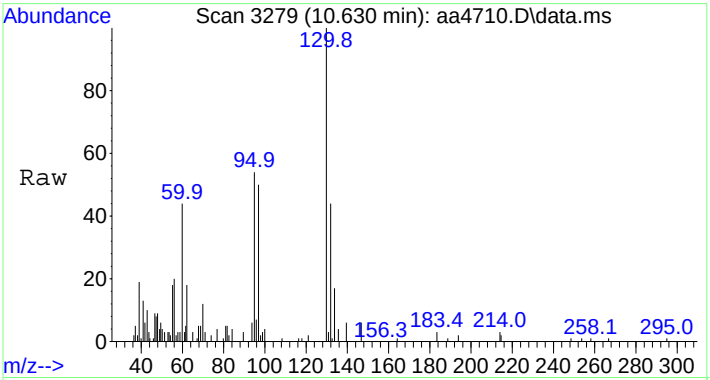
#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.833 min Scan# 3031
Delta R.T. 0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion:114 Resp: 2766085

Ion	Ratio	Lower	Upper
114	100		
63	20.0	16.8	25.2



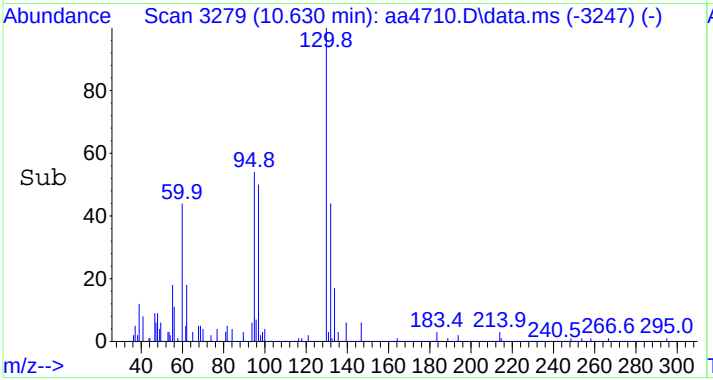


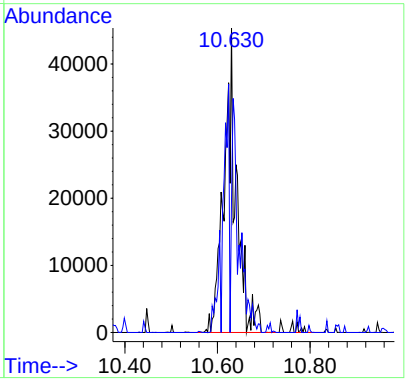


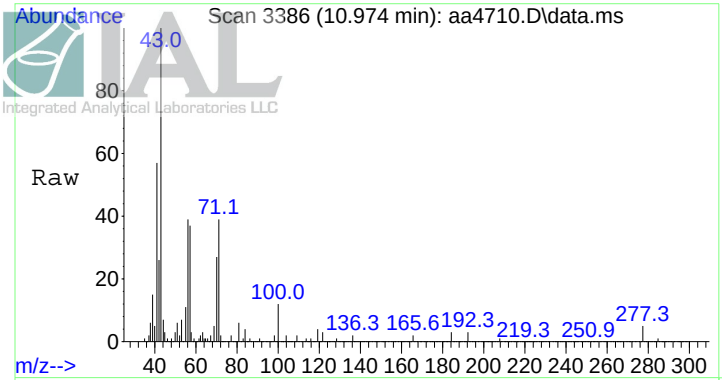
#42
Trichloroethene
Concen: 0.73 ppbV m
RT: 10.630 min Scan# 3279
Delta R.T. 0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion:130 Resp: 84477

Ion	Ratio	Lower	Upper
130	100		
132	44.4	77.8	116.6#



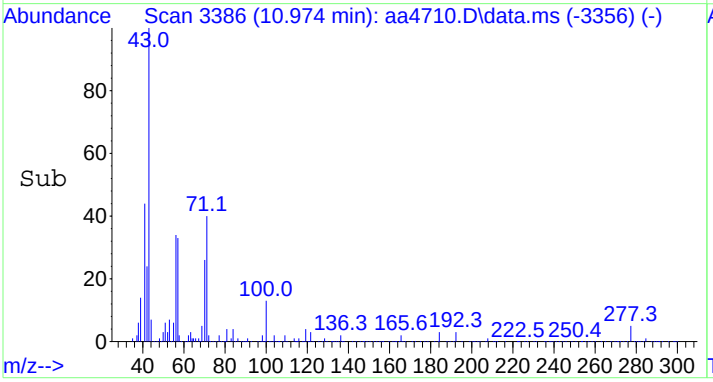


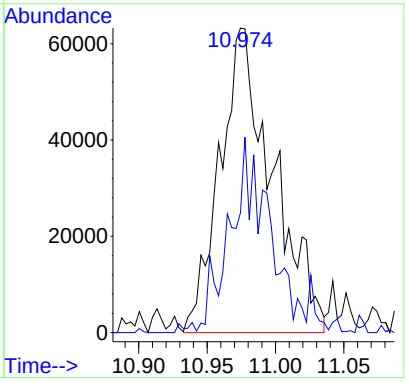


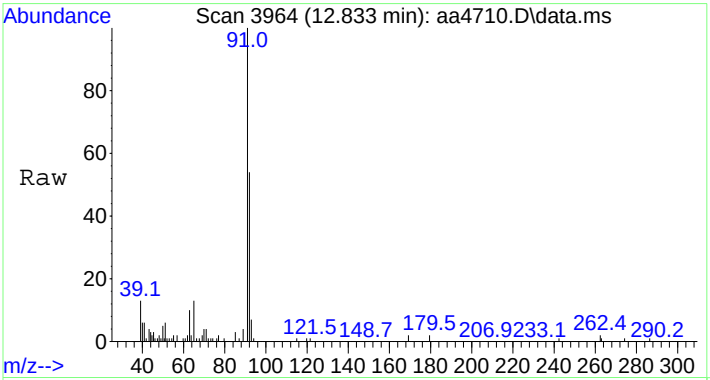
#45
n-Heptane
Concen: 0.85 ppbV
RT: 10.974 min Scan# 3386
Delta R.T. -0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 43 Resp: 170022

Ion	Ratio	Lower	Upper
43	100		
71	46.7	48.0	72.0#



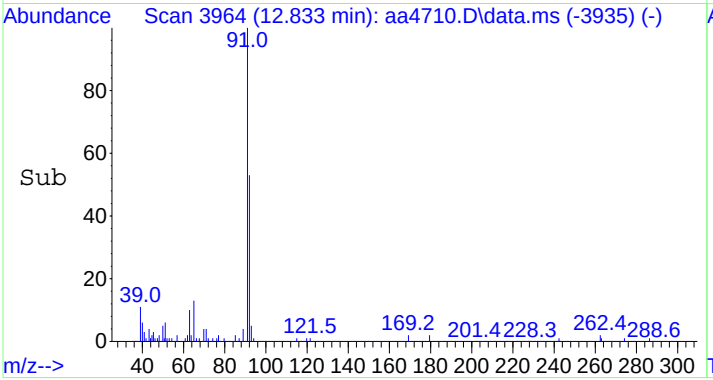


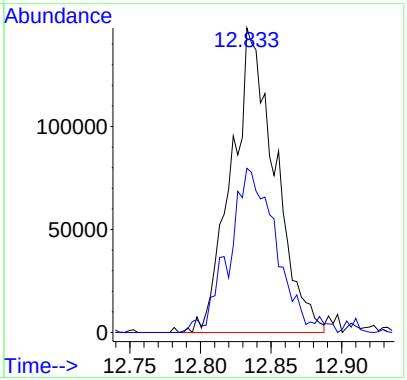


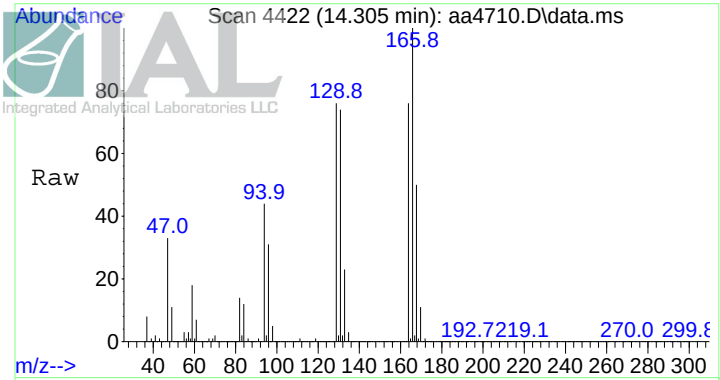
#50
Toluene
Concen: 0.83 ppbV
RT: 12.833 min Scan# 3964
Delta R.T. -0.006 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 91 Resp: 317236

Ion	Ratio	Lower	Upper
91	100		
92	58.7	50.0	75.0



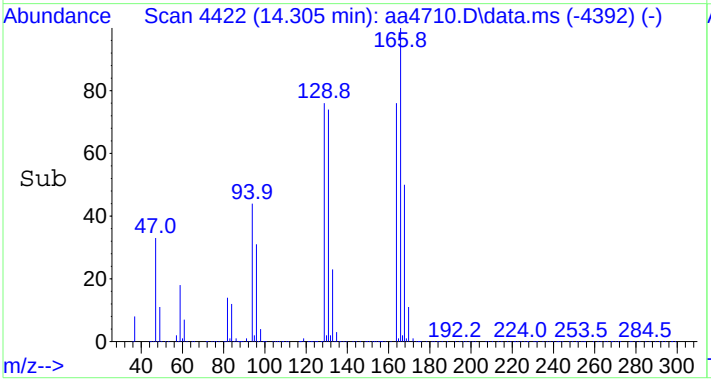


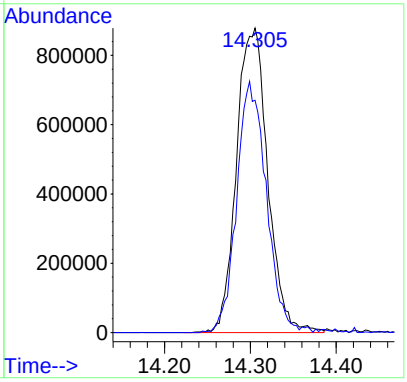


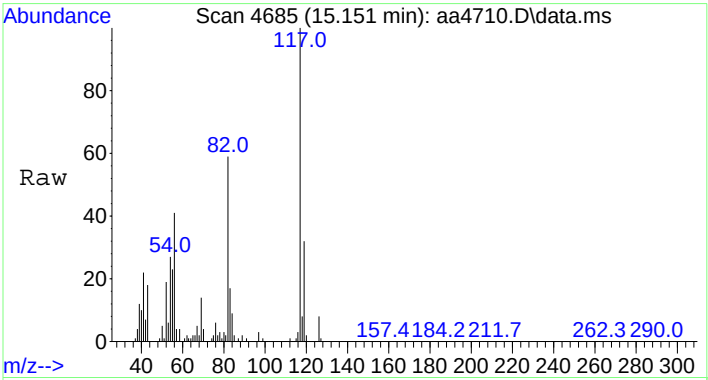
#54
Tetrachloroethene
Concen: 16.11 ppbV
RT: 14.305 min Scan# 4422
Delta R.T. -0.004 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion:166 Resp: 2225010

Ion	Ratio	Lower	Upper
166	100		
164	77.7	64.6	96.8



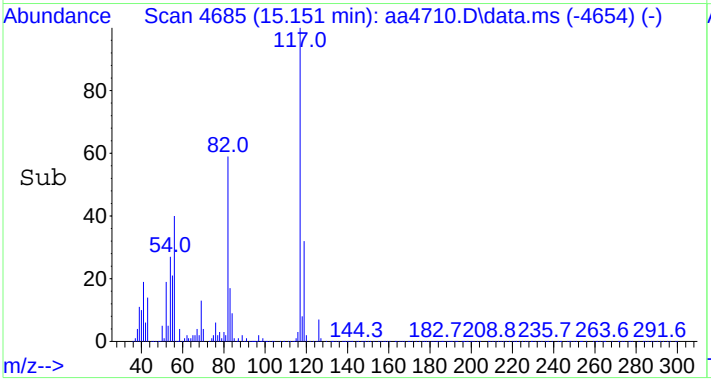


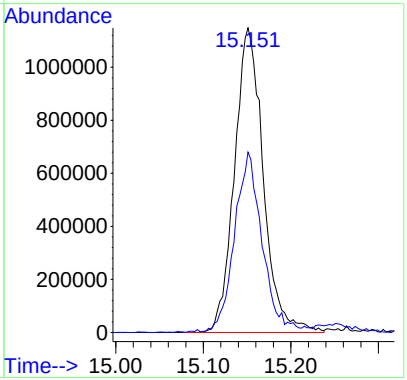


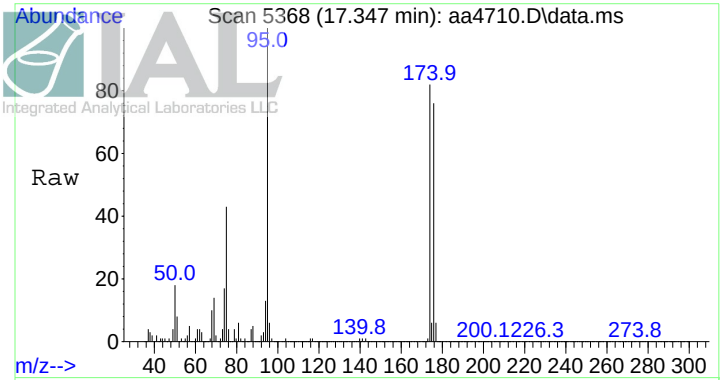
#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.151 min Scan# 4685
Delta R.T. 0.000 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion:117 Resp: 2625046

Ion	Ratio	Lower	Upper
117	100		
82	56.5	44.8	67.2



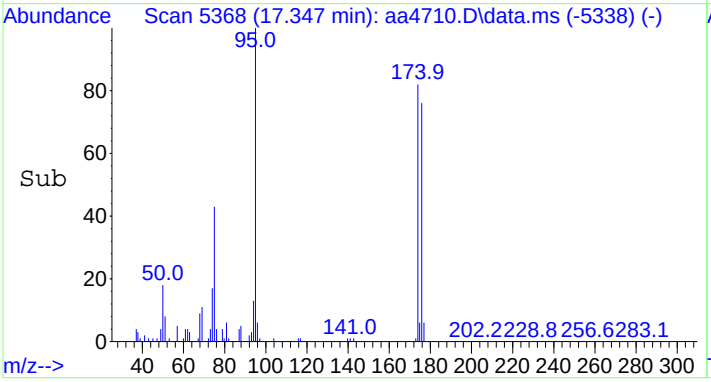


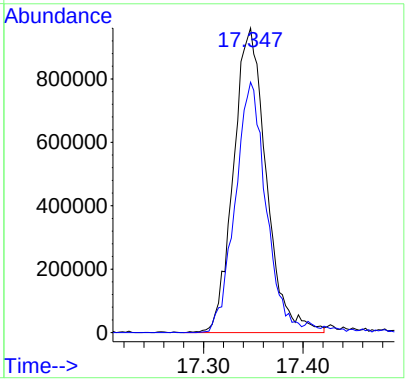


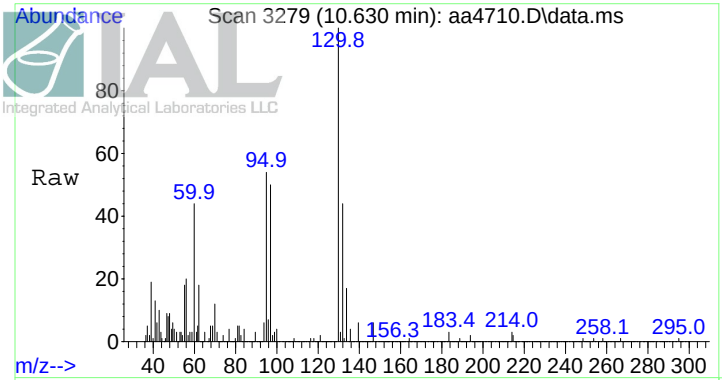
#64
Bromofluorobenzene (tune std)
Concen: 10.55 ppbV
RT: 17.347 min Scan# 5368
Delta R.T. -0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion: 95 Resp: 2198694

Ion	Ratio	Lower	Upper
95	100		
174	77.0	61.5	92.3



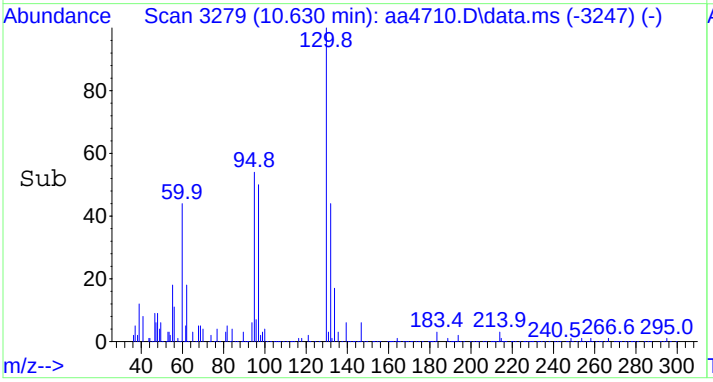


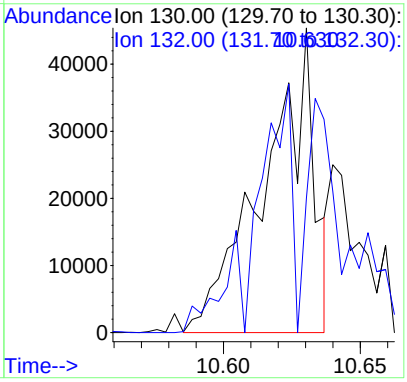


#42
Trichloroethene
Concen: 0.50 ppbV
RT: 10.630 min Scan# 3279
Delta R.T. 0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

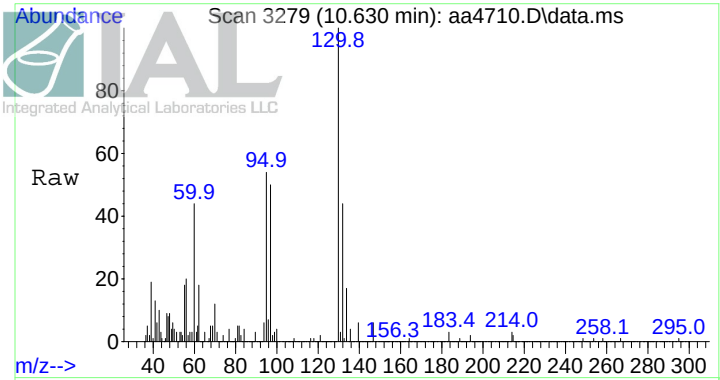
Tgt Ion:130 Resp: 57324

Ion	Ratio	Lower	Upper
130	100		
132	65.5	77.8	116.6#





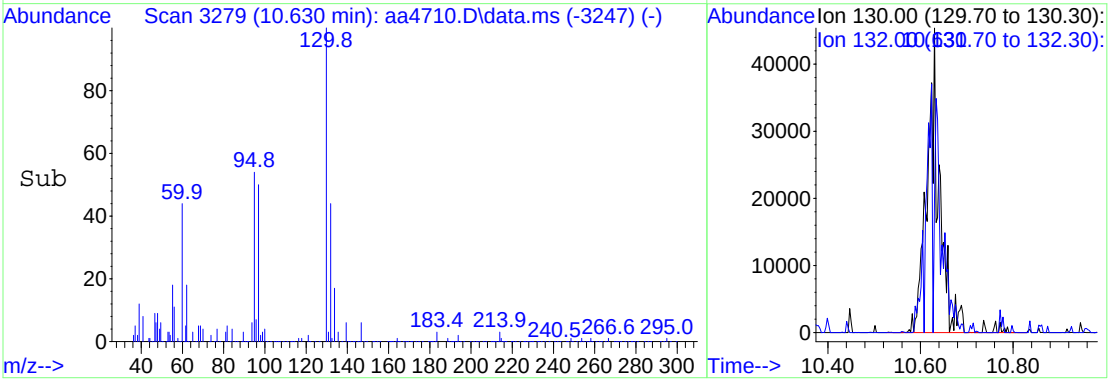
Before manual integration for Trichloroethene.



#42
Trichloroethene
Concen: 0.73 ppbV m
RT: 10.630 min Scan# 3279
Delta R.T. 0.003 min
Lab File: aa4710.D
Acq: 27 Dec 2017 4:34 pm

Tgt Ion:130 Resp: 84477

Ion	Ratio	Lower	Upper
130	100		
132	44.4	77.8	116.6#



After manual integration for Trichloroethene.

Section VII: Standards Data

Initial Calibration Data

Continuing Calibration Data

Initial Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017 **Method ID:** 0912.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3441BFB]	09/12/2017 08:18
40 PPBV STD [AA3443STD01]	09/12/2017 09:44
20 PPBV STD [AA3444STD02]	09/12/2017 10:17
10 PPBV STD [AA3445STD03]	09/12/2017 10:51
2 PPBV STD [AA3446STD04]	09/12/2017 11:24
0.2 PPBV STD [AA3447STD05]	09/12/2017 12:06
10 PPBV ICVSS [AA3448ICVSS]	09/12/2017 13:28

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
Bromochloromethane	----------ISTD----------						
1,4-Difluorobenzene	----------ISTD----------						
d-5 Chlorobenzene	----------ISTD----------						
Acetone	0.13	0.27	0.28	0.28	0.28	0.25	27
Acrolein	0.085	0.17	0.18	0.20	0.19	0.17	28
Allyl Chloride	0.39	0.36	0.41	0.42	0.37	0.39	6.2
Benzene	3.4	2.6	2.8	3.0	3.0	2.9	9.5
Benzyl chloride	1.5	1.6	1.7	1.7	1.7	1.6	6.0
Bromodichloromethane	1.2	0.85	0.86	0.89	0.90	0.94	15
Bromoform	1.2	1.0	0.96	0.95	0.96	1.0	11
Bromomethane	0.49	0.65	0.66	0.61	0.51	0.58	14
1,3-Butadiene	0.24	0.32	0.34	0.34	0.33	0.31	14
Chlorobenzene	1.7	1.3	1.2	1.1	1.1	1.3	20
Chloroethane	0.16	0.33	0.33	0.34	0.33	0.30	26
Chloroform	3.5	2.8	2.9	3.0	3.1	3.0	9.9
Chloromethane	0.050	0.083	0.10	0.098	0.087	0.084	25
Carbon disulfide	2.9	2.6	2.6	2.6	2.7	2.7	5.1
Carbon tetrachloride	5.5	4.1	3.9	4.1	4.3	4.4	15
2-Chlorotoluene	1.8	1.7	1.6	1.6	1.6	1.7	4.9
Cumene	2.5	2.3	2.2	2.1	2.0	2.2	9.1
Cyclohexane	1.2	1.1	1.2	1.3	1.3	1.2	5.0
Dibromochloromethane	1.4	1.0	1.0	1.0	1.0	1.1	15
1,2-Dibromoethane	0.96	0.75	0.74	0.74	0.75	0.79	12
1,2-Dichlorobenzene	1.7	1.4	1.4	1.3	1.3	1.4	11
1,3-Dichlorobenzene	1.9	1.6	1.4	1.3	1.3	1.5	16
1,4-Dichlorobenzene	1.8	1.6	1.4	1.4	1.4	1.5	12
Dichlorodifluoromethane	4.3	3.5	3.5	3.6	3.7	3.7	8.8
1,1-Dichloroethane	2.0	1.4	1.5	1.5	1.6	1.6	15
1,2-Dichloroethane	2.2	1.8	1.8	1.9	2.0	1.9	9.4
1,1-Dichloroethene	1.4	1.3	1.4	1.4	1.4	1.4	4.2
1,2-Dichloroethene (trans)	1.1	1.0	1.1	1.2	1.2	1.1	6.1
1,2-Dichloroethene (trans)	1.1	1.0	1.1	1.2	1.2	1.1	5.6
1,2-Dichloropropane	0.35	0.24	0.23	0.24	0.24	0.26	20
1,3-Dichloropropene (cis)	0.63	0.51	0.56	0.57	0.58	0.57	7.1
1,3-Dichloropropene (trans)	0.62	0.54	0.60	0.62	0.63	0.60	6.1
1,2-Dichlorotetrafluoroethane	3.9	2.7	2.7	2.7	2.6	2.9	19
1,4-Dioxane	0.26	0.16	0.16	0.17	0.17	0.18	25
Ethanol	0.045	0.14	0.13	0.14	0.14	0.12	34
Ethylbenzene	2.1	1.9	1.8	1.8	1.8	1.9	7.0
4-Ethyltoluene	2.2	2.3	2.2	2.1	2.1	2.2	4.3
n-Heptane	0.15	0.26	0.27	0.27	0.27	0.24	22
1,3-Hexachlorobutadiene	1.6	1.1	0.94	0.94	0.93	1.1	26

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017 **Method ID:** 0912.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3441BFB]	09/12/2017 08:18
40 PPBV STD [AA3443STD01]	09/12/2017 09:44
20 PPBV STD [AA3444STD02]	09/12/2017 10:17
10 PPBV STD [AA3445STD03]	09/12/2017 10:51
2 PPBV STD [AA3446STD04]	09/12/2017 11:24
0.2 PPBV STD [AA3447STD05]	09/12/2017 12:06
10 PPBV ICVSS [AA3448ICVSS]	09/12/2017 13:28

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
n-Hexane	0.90	0.73	0.77	0.83	0.84	0.82	7.9
Isopropanol	0.51	0.67	0.72	0.74	0.71	0.67	14
Methylene chloride	1.2	0.77	0.80	0.82	0.83	0.89	21
Methyl ethyl ketone	0.18	0.38	0.43	0.48	0.49	0.39	32
Methyl isobutyl ketone	0.39	0.35	0.34	0.35	0.35	0.36	6.0
Methyl methacrylate	0.34	0.28	0.31	0.32	0.32	0.32	6.5
Methyl n-butyl ketone	0.36	0.31	0.34	0.35	0.36	0.35	5.4
Methyl tert-butyl ether	3.4	2.9	3.1	3.2	3.2	3.2	6.4
Naphthalene	0.25	0.47	0.45	0.44	0.43	0.41	22
Propene	0.23	0.25	0.26	0.27	0.24	0.25	5.0
Styrene	0.96	1.0	1.1	1.1	1.1	1.0	4.8
Tert-butyl alcohol	1.7	1.5	1.6	1.7	1.7	1.6	6.5
1,1,2,2-Tetrachloroethane	1.6	1.2	1.0	0.98	0.98	1.1	23
Tetrachloroethene	0.86	0.62	0.59	0.59	0.59	0.65	18
Tetrahydrofuran	0.28	0.39	0.44	0.48	0.48	0.41	20
Toluene	1.3	1.1	1.1	1.1	1.1	1.1	6.0
1,2,4-Trichlorobenzene	1.6	1.3	1.3	1.2	1.2	1.3	12
1,1,1-Trichloroethane	4.6	3.4	3.3	3.5	3.6	3.7	15
1,1,2-Trichloroethane	0.60	0.44	0.42	0.42	0.42	0.46	18
Trichloroethene	0.64	0.50	0.49	0.50	0.49	0.52	13
Trichlorofluoromethane	6.2	4.6	4.5	4.6	4.7	4.9	14
1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	2.9	2.6	2.7	2.7	3.0	21
1,2,4-Trimethylbenzene	1.7	2.0	2.0	2.0	2.0	1.9	6.2
1,3,5-Trimethylbenzene	2.0	2.1	2.0	2.0	1.9	2.0	4.2
2,2,4-Trimethylpentane	0.72	0.72	0.75	0.74	0.74	0.73	2.0
Vinyl bromide	0.69	0.92	1.0	1.0	1.0	0.94	16
Vinyl chloride	0.41	0.58	0.61	0.62	0.62	0.57	16
Xylenes (m&p)	1.7	1.7	1.5	1.5	1.4	1.6	6.7
Xylenes (o)	1.7	1.7	1.6	1.5	1.5	1.6	5.9

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

IAL
Integrated Analytical Laboratories LLC

Method Path : C:\msdchem\1\METHODS\
Method File : 0912.M
Title : TO-15 on the Agilent 7890A / 5975C
Last Update : Tue Sep 12 13:00:02 2017
Response Via : Initial Calibration

Calibration Files
0.2 =aa3447std05.D 2 =aa3446std04.D 10 =aa3445std03.D 20 =aa3444std02.D 40 =aa3443std01.D

		Compound	0.2	2	10	20	40	Avg	%RSD
1)	I	Bromochloromethane...	----------ISTD----------						
2)	T	Propene	0.232	0.249	0.258	0.265	0.242	0.249	5.09
3)	T	Dichlorodifluoro...	4.313	3.527	3.518	3.632	3.674	3.733	8.87
4)	T	Chloromethane	0.050	0.083	0.103	0.098	0.087	0.084	24.63
5)	T	1,2-Dichlorotetr...	3.891	2.711	2.713	2.686	2.554	2.911	18.96
6)	T	Vinyl chloride	0.406	0.582	0.606	0.619	0.621	0.567	16.10
7)	T	1,3-Butadiene	0.235	0.320	0.342	0.344	0.331	0.314	14.43
8)	T	n-Butane	0.299	0.552	0.585	0.589	0.570	0.519	23.84
9)	T	Bromomethane	0.487	0.645	0.659	0.605	0.508	0.581	13.63
10)	T	Chloroethane	0.158	0.334	0.329	0.340	0.332	0.298	26.36
11)	T	Ethanol	0.045	0.138	0.130	0.136	0.137	0.117	34.45
12)	T	Vinyl bromide	0.691	0.922	1.001	1.044	1.047	0.941	15.81
13)	T	Acrolein	0.085	0.174	0.178	0.196	0.194	0.165	27.70
14)	T	Acetone	0.129	0.266	0.281	0.279	0.282	0.247	26.85
15)	T	Trichlorofluorom...	6.192	4.572	4.536	4.648	4.657	4.921	14.48
16)	T	Isopropanol	0.506	0.665	0.720	0.739	0.709	0.668	14.14
17)	T	n-Pentane	0.498	0.565	0.639	0.671	0.677	0.610	12.61
18)	T	1,1-Dichloroethene	1.401	1.289	1.406	1.441	1.418	1.391	4.26
19)	T	Methylene chloride	1.213	0.774	0.804	0.816	0.828	0.887	20.69
20)	T	Tert-butyl alcohol	1.702	1.480	1.596	1.719	1.736	1.646	6.54
21)	T	Allyl chloride	0.390	0.362	0.408	0.416	0.366	0.388	6.21
22)	T	1,1,2-Trichloro-...	4.098	2.869	2.572	2.662	2.714	2.983	21.21
23)	T	Carbon disulfide	2.916	2.566	2.603	2.630	2.662	2.675	5.19
24)	T	1,2-Dichloroethe...	1.124	1.039	1.114	1.180	1.204	1.132	5.69
25)	T	1,1-Dichloroethane	1.994	1.389	1.491	1.547	1.556	1.595	14.58
26)	T	Methyl tert-buty...	3.383	2.853	3.062	3.235	3.245	3.156	6.46
27)	T	Methyl ethyl ketone	0.182	0.383	0.431	0.475	0.492	0.393	31.82
28)	T	1,2-Dichloroethe...	1.141	1.010	1.110	1.168	1.185	1.123	6.18
29)	T	Ethyl acetate	0.078	0.131	0.145	0.150	0.151	0.131	23.56
30)	T	n-Hexane	0.901	0.734	0.772	0.830	0.839	0.815	7.90
31)	T	Chloroform	3.534	2.757	2.852	2.979	3.051	3.034	9.93
32)	T	Tetrahydrofuran	0.279	0.385	0.436	0.476	0.476	0.411	20.05
33)	T	1,2-Dichloroethane	2.240	1.761	1.830	1.923	1.988	1.948	9.46
34)	T	1,1,1-Trichloroe...	4.621	3.447	3.308	3.460	3.561	3.679	14.51
35)	T	Benzene	3.385	2.639	2.773	2.959	2.976	2.946	9.58
36)	T	Carbon tetrachlo...	5.534	4.090	3.942	4.139	4.288	4.399	14.70
37)	T	Cyclohexane	1.208	1.117	1.189	1.259	1.269	1.208	5.08
38)	I	1,4-Difluorobenzen...	----------ISTD----------						
39)	T	1,2-Dichloropropane	0.349	0.240	0.231	0.235	0.237	0.258	19.57
40)	T	Bromodichloromet...	1.185	0.853	0.864	0.888	0.901	0.938	14.85
41)	T	2,2,4-Trimethylp...	0.723	0.716	0.753	0.736	0.744	0.734	2.02
42)	T	Trichloroethene	0.640	0.495	0.491	0.498	0.491	0.523	12.50
43)	T	1,4-Dioxane	0.264	0.156	0.164	0.168	0.166	0.183	24.64
44)	T	Methyl methacrylate	0.340	0.284	0.314	0.321	0.323	0.317	6.53
45)	T	n-Heptane	0.149	0.259	0.267	0.269	0.270	0.243	21.71
46)	T	cis-1,3-Dichloro...	0.626	0.513	0.558	0.572	0.578	0.569	7.12
47)	T	Methyl isobutyl ...	0.394	0.347	0.344	0.346	0.348	0.356	6.08
48)	T	trans-1,3-Dichlo...	0.624	0.540	0.596	0.617	0.630	0.601	6.10
49)	T	1,1,2-Trichloroe...	0.603	0.436	0.415	0.415	0.422	0.458	17.79
50)	T	Toluene	1.268	1.091	1.120	1.133	1.131	1.148	6.00
51)	T	Methyl n-butyl k...	0.363	0.314	0.342	0.351	0.355	0.345	5.48
52)	T	Dibromochloromet...	1.381	1.020	1.005	1.021	1.036	1.092	14.79
53)	T	1,2-Dibromoethane	0.956	0.753	0.737	0.742	0.748	0.787	12.00
54)	T	Tetrachloroethene	0.858	0.621	0.593	0.594	0.594	0.652	17.77
55)	I	d-5 Chlorobenzene ...	----------ISTD----------						
56)	T	Chlorobenzene	1.747	1.280	1.152	1.136	1.130	1.289	20.42
57)	T	Ethylbenzene	2.119	1.929	1.839	1.820	1.789	1.899	7.02
58)	T	Xylenes (m&p)	1.674	1.657	1.524	1.476	1.443	1.555	6.77
59)	T	Bromoform	1.215	1.002	0.957	0.947	0.964	1.017	11.08
60)	T	Styrene	0.963	1.035	1.079	1.080	1.076	1.047	4.80

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Integrated Analytical Laboratories LLC

Method Path : C:\msdchem\1\METHODS\
Method File : 0912.M

61)	T	Xylene (o)	1.739	1.721	1.597	1.543	1.536	1.627	5.95
62)	T	1,1,2,2-Tetrachl...	1.580	1.164	1.000	0.979	0.978	1.140	22.60
63)	T	n-Nonane	0.430	0.454	0.447	0.441	0.441	0.443	2.02
64)	S	Bromofluorobenze...	0.879	0.874	0.868	0.869	0.889	0.876	1.01
65)	T	Cumene	2.544	2.295	2.158	2.080	2.041	2.224	9.17
66)	T	2-Chlorotoluene	1.806	1.704	1.632	1.627	1.603	1.674	4.94
67)	T	n-Propyl benzene	0.676	0.684	0.626	0.610	0.601	0.639	5.99
68)	T	4-Ethyltoluene	2.155	2.311	2.172	2.116	2.057	2.162	4.37
69)	T	1,3,5-Trimethylb...	2.023	2.149	2.028	1.956	1.925	2.016	4.29
70)	T	1,2,4-Trimethylb...	1.736	2.011	2.036	2.003	1.960	1.949	6.28
71)	T	Benzyl chloride	1.526	1.561	1.663	1.732	1.749	1.646	6.08
72)	T	1,3-Dichlorobenzene	1.874	1.561	1.379	1.328	1.281	1.485	16.31
73)	T	1,4-Dichlorobenzene	1.804	1.560	1.429	1.397	1.362	1.510	11.95
74)	T	1,2-Dichlorobenzene	1.672	1.446	1.351	1.332	1.301	1.420	10.62
75)	T	1,2,4-Trichlorob...	1.596	1.317	1.257	1.237	1.187	1.319	12.29
76)	T	Naphthalene	0.245	0.467	0.445	0.443	0.429	0.406	22.36
77)	T	1,3-Hexachlorobu...	1.591	1.066	0.943	0.935	0.930	1.093	25.99

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3443std01.D
Acq On : 12 Sep 2017 9:44 am
Operator : jls
Sample : 40 ppbv Std
Misc : CC483586
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 12 11:51:51 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:51:33 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.762	130	507733	10.00	ppbV		0.02
38) 1,4-Difluorobenzene (IS)	9.811	114	1906808	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.145	117	1755772	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.341	95	1561727	10.24	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.518	41	492432	37.12	ppbV		91
3) Dichlorodifluoromethane	3.573	85	7460967	41.10	ppbV		97
4) Chloromethane	3.801	52	176957	34.74	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.788	85	5186871	37.84	ppbV		94
6) Vinyl chloride	3.904	62	1261033	40.53	ppbV		87
7) 1,3-Butadiene	4.007	54	671693	38.57	ppbV		88
8) n-Butane	4.052	43	1158072	38.85	ppbV		98
9) Bromomethane	4.255	94	1031392	32.15	ppbV		99
10) Chloroethane	4.396	64	673911	39.68	ppbV		100
11) Ethanol	4.438	45	278522	41.26	ppbV		96
12) Vinyl bromide	4.695	106	2125768	40.94	ppbV		100
13) Acrolein	4.766	56	393474	41.39	ppbV		98
14) Acetone	4.862	58	573042	40.29	ppbV		79
15) Trichlorofluoromethane	5.039	101	9457088	40.56	ppbV		99
16) Isopropanol	5.042	45	1440637	38.88	ppbV		99
17) n-Pentane	5.338	43	1374915	41.34	ppbV		92
18) 1,1-Dichloroethene	5.602	61	2880621	39.86	ppbV		97
19) Methylene chloride	5.714	84	1682116	40.92	ppbV		99
20) Tert-butyl alcohol	5.563	59	3524873	41.88	ppbV		100
21) Allyl chloride	5.811	76	742595	35.52	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.936	101	5510941	41.48	ppbV		97
23) Carbon disulfide	6.000	76	5405476	40.68	ppbV		100
24) 1,2-Dichloroethene (tr...	6.570	61	2446220	42.01	ppbV		100
25) 1,1-Dichloroethane	6.759	63	3160526	40.99	ppbV		93
26) Methyl tert-butyl ether	6.785	73	6590613	41.22	ppbV		99
27) Methyl ethyl ketone	7.100	72	998273	43.42	ppbV		97
28) 1,2-Dichloroethene (cis)	7.576	61	2407103	41.63	ppbV		100
29) Ethyl acetate	7.766	45	307654	41.07	ppbV		100
30) n-Hexane	7.798	57	1703258	41.90	ppbV		96
31) Chloroform	7.875	83	6196559	41.86	ppbV		100
32) Tetrahydrofuran	8.264	42	967589	41.77	ppbV		84
33) 1,2-Dichloroethane	8.643	62	4037399	42.37	ppbV		96
34) 1,1,1-Trichloroethane	8.923	97	7233141	42.10	ppbV		99
35) Benzene	9.418	78	6043342	41.53	ppbV		98
36) Carbon tetrachloride	9.586	117	8708585	42.45	ppbV		100
37) Cyclohexane	9.730	84	2578071	41.47	ppbV		89
39) 1,2-Dichloropropane	10.328	63	1805213	40.61	ppbV		96
40) Bromodichloromethane	10.553	83	6868949	41.14	ppbV		100
41) 2,2,4-Trimethylpentane	10.656	57	5675000	39.99	ppbV		94
42) Trichloroethene	10.608	130	3743603	39.68	ppbV		99
43) 1,4-Dioxane	10.573	88	1263305	39.99	ppbV		95
44) Methyl methacrylate	10.823	69	2461365	40.60	ppbV		99
45) n-Heptane	10.962	71	2055547	40.22	ppbV		99
46) cis-1,3-Dichloropropene	11.618	75	4412336	40.96	ppbV		100
47) Methyl isobutyl ketone	11.640	43	2651290	40.33	ppbV		99
48) trans-1,3-Dichloropropene	12.257	75	4804821	41.55	ppbV		99
49) 1,1,2-Trichloroethane	12.466	97	3219746	40.69	ppbV		97
50) Toluene	12.827	91	8622801	40.14	ppbV		97
51) Methyl n-butyl ketone	13.142	43	2711307	41.05	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3443std01.D
Acq On : 12 Sep 2017 9:44 am
Operator : jls
Sample : 40 ppbv Std
Misc : CC483586
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 12 11:51:51 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:51:33 2017
Response via : Initial Calibration

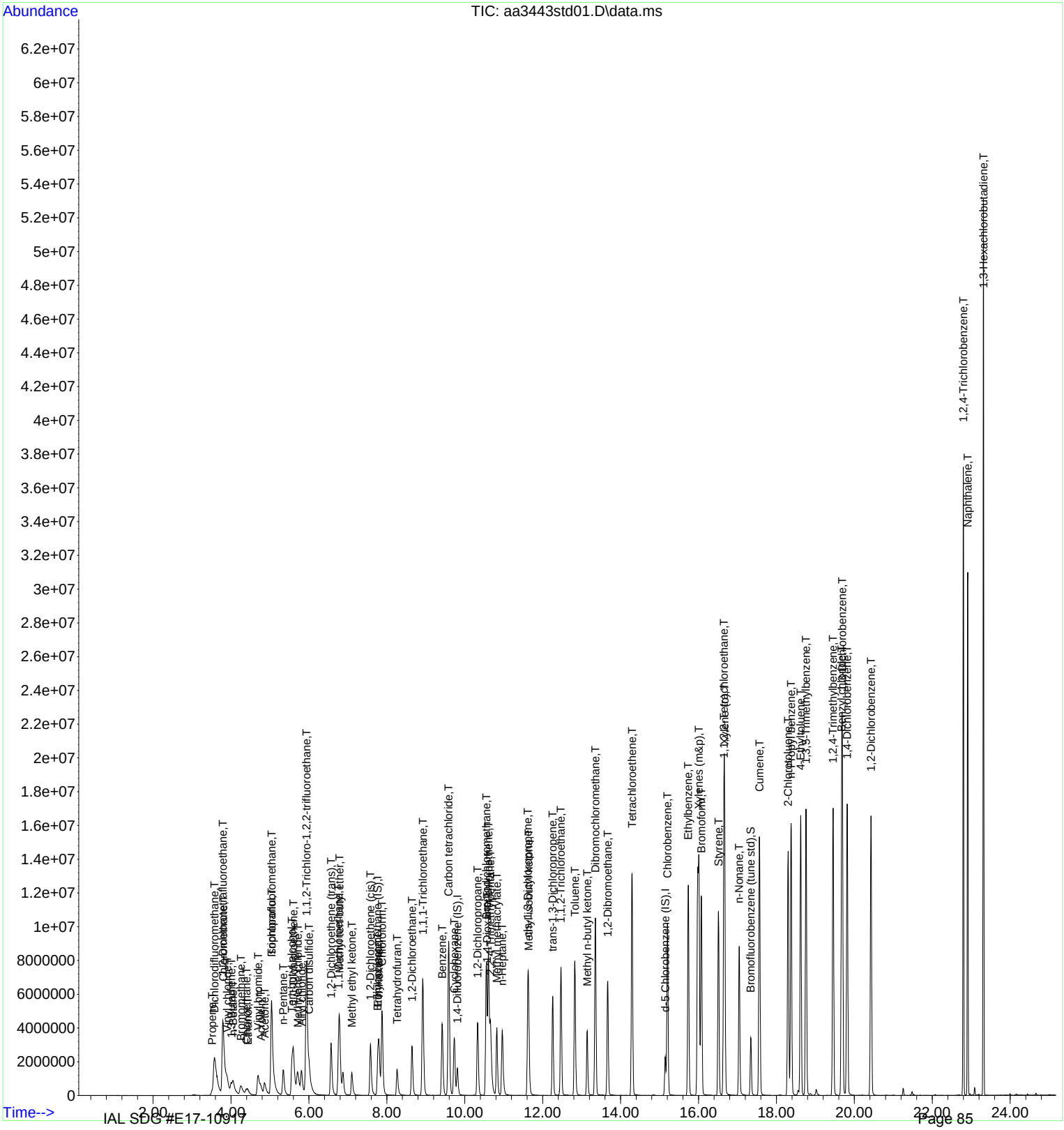
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.351	129	7900815	40.91	ppbV	100
53) 1,2-Dibromoethane	13.669	107	5702953	40.44	ppbV	100
54) Tetrachloroethene	14.293	166	4530332	40.01	ppbV	98
56) Chlorobenzene	15.203	112	7933943	39.49	ppbV	99
57) Ethylbenzene	15.736	91	12566983	39.12	ppbV	99
58) Xylenes (m&p)	16.007	91	20265038	76.94	ppbV	98
59) Bromoform	16.074	173	6772595	40.54	ppbV	98
60) Styrene	16.511	104	7555611	39.87	ppbV	100
61) Xylene (o)	16.669	91	10787232	39.12	ppbV	89
62) 1,1,2,2-Tetrachloroethane	16.650	83	6871754	39.55	ppbV	99
63) n-Nonane	17.042	57	3100414	39.74	ppbV	98
65) Cumene	17.563	105	14336619	38.54	ppbV	93
66) 2-Chlorotoluene	18.299	91	11254947	39.34	ppbV	90
67) n-Propyl benzene	18.376	120	4220680	38.92	ppbV	78
68) 4-Ethyltoluene	18.624	105	14443758	38.37	ppbV	90
69) 1,3,5-Trimethylbenzene	18.759	105	13516198	38.64	ppbV	89
70) 1,2,4-Trimethylbenzene	19.453	105	13763803	38.82	ppbV	97
71) Benzyl chloride	19.672	91	12286327	41.21	ppbV	98
72) 1,3-Dichlorobenzene	19.691	146	8998162	37.86	ppbV	99
73) 1,4-Dichlorobenzene	19.813	146	9562690	38.55	ppbV	98
74) 1,2-Dichlorobenzene	20.428	146	9139233	38.81	ppbV	99
75) 1,2,4-Trichlorobenzene	22.797	180	8334126	38.07	ppbV	99
76) Naphthalene	22.910	127	3010750	38.64	ppbV	100
77) 1,3-Hexachlorobutadiene	23.315	225	6529476	39.61	ppbV	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3443std01.D
Acq On : 12 Sep 2017 9:44 am
Operator : jls
Sample : 40 ppbv Std
Misc : CC483586
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 12 11:51:51 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:51:33 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3444std02.D
Acq On : 12 Sep 2017 10:17 am
Operator : jls
Sample : 20 ppbv Std
Misc : CC483586
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 12 11:51:12 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:51:02 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.756	130	536726	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.804	114	1995834	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.141	117	1812496	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.341	95	1575408	10.02	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.512	41	284157	20.53	ppbV		91
3) Dichlorodifluoromethane	3.573	85	3898861	20.65	ppbV		97
4) Chloromethane	3.740	52	105038	19.04	ppbV	#	37
5) 1,2-Dichlorotetrafluor...	3.785	85	2883051	19.80	ppbV		97
6) Vinyl chloride	3.901	62	664979	20.45	ppbV		87
7) 1,3-Butadiene	3.994	54	369678	20.17	ppbV		86
8) n-Butane	4.045	43	632383	20.13	ppbV		99
9) Bromomethane	4.248	94	648986	18.34	ppbV		97
10) Chloroethane	4.389	64	365222	20.70	ppbV		96
11) Ethanol	4.428	45	145944	20.93	ppbV		90
12) Vinyl bromide	4.692	106	1121183	20.88	ppbV		100
13) Acrolein	4.756	56	210610	22.01	ppbV		97
14) Acetone	4.849	58	299330	19.82	ppbV		74
15) Trichlorofluoromethane	5.032	101	4989557	20.49	ppbV		99
16) Isopropanol	5.026	45	793737	20.53	ppbV		97
17) n-Pentane	5.341	43	720477	21.01	ppbV		92
18) 1,1-Dichloroethene	5.592	61	1546934	20.50	ppbV		98
19) Methylene chloride	5.708	84	875809	20.31	ppbV		99
20) Tert-butyl alcohol	5.563	59	1845060	21.54	ppbV		100
21) Allyl chloride	5.807	76	446165	20.39	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.936	101	2857551	20.70	ppbV		96
23) Carbon disulfide	5.994	76	2823312	20.20	ppbV		100
24) 1,2-Dichloroethene (tr...	6.566	61	1266294	21.17	ppbV		99
25) 1,1-Dichloroethane	6.756	63	1660587	20.76	ppbV		93
26) Methyl tert-butyl ether	6.782	73	3472754	21.13	ppbV		99
27) Methyl ethyl ketone	7.097	72	509854	22.06	ppbV		98
28) 1,2-Dichloroethene (cis)	7.572	61	1253582	21.05	ppbV		100
29) Ethyl acetate	7.765	45	160817	20.63	ppbV		100
30) n-Hexane	7.794	57	890645	21.51	ppbV		97
31) Chloroform	7.871	83	3197684	20.89	ppbV		100
32) Tetrahydrofuran	8.257	42	511090	21.82	ppbV		85
33) 1,2-Dichloroethane	8.640	62	2064604	21.02	ppbV		95
34) 1,1,1-Trichloroethane	8.920	97	3713894	20.92	ppbV		99
35) Benzene	9.415	78	3176455	21.35	ppbV		98
36) Carbon tetrachloride	9.582	117	4442760	21.00	ppbV		99
37) Cyclohexane	9.727	84	1351600	21.17	ppbV		89
39) 1,2-Dichloropropane	10.328	63	939339	20.38	ppbV		96
40) Bromodichloromethane	10.547	83	3543255	20.55	ppbV		100
41) 2,2,4-Trimethylpentane	10.656	57	2936211	19.54	ppbV		93
42) Trichloroethene	10.605	130	1988500	20.27	ppbV		98
43) 1,4-Dioxane	10.569	88	668684	20.45	ppbV		94
44) Methyl methacrylate	10.820	69	1283086	20.44	ppbV		99
45) n-Heptane	10.961	71	1075322	20.21	ppbV		99
46) cis-1,3-Dichloropropene	11.614	75	2283836	20.52	ppbV		99
47) Methyl isobutyl ketone	11.640	43	1380338	20.12	ppbV		99
48) trans-1,3-Dichloropropene	12.254	75	2463442	20.72	ppbV		100
49) 1,1,2-Trichloroethane	12.466	97	1655459	19.98	ppbV		98
50) Toluene	12.820	91	4522808	20.23	ppbV		96
51) Methyl n-butyl ketone	13.138	43	1400833	20.54	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3444std02.D
Acq On : 12 Sep 2017 10:17 am
Operator : jls
Sample : 20 ppbv Std
Misc : CC483586
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 12 11:51:12 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:51:02 2017
Response via : Initial Calibration

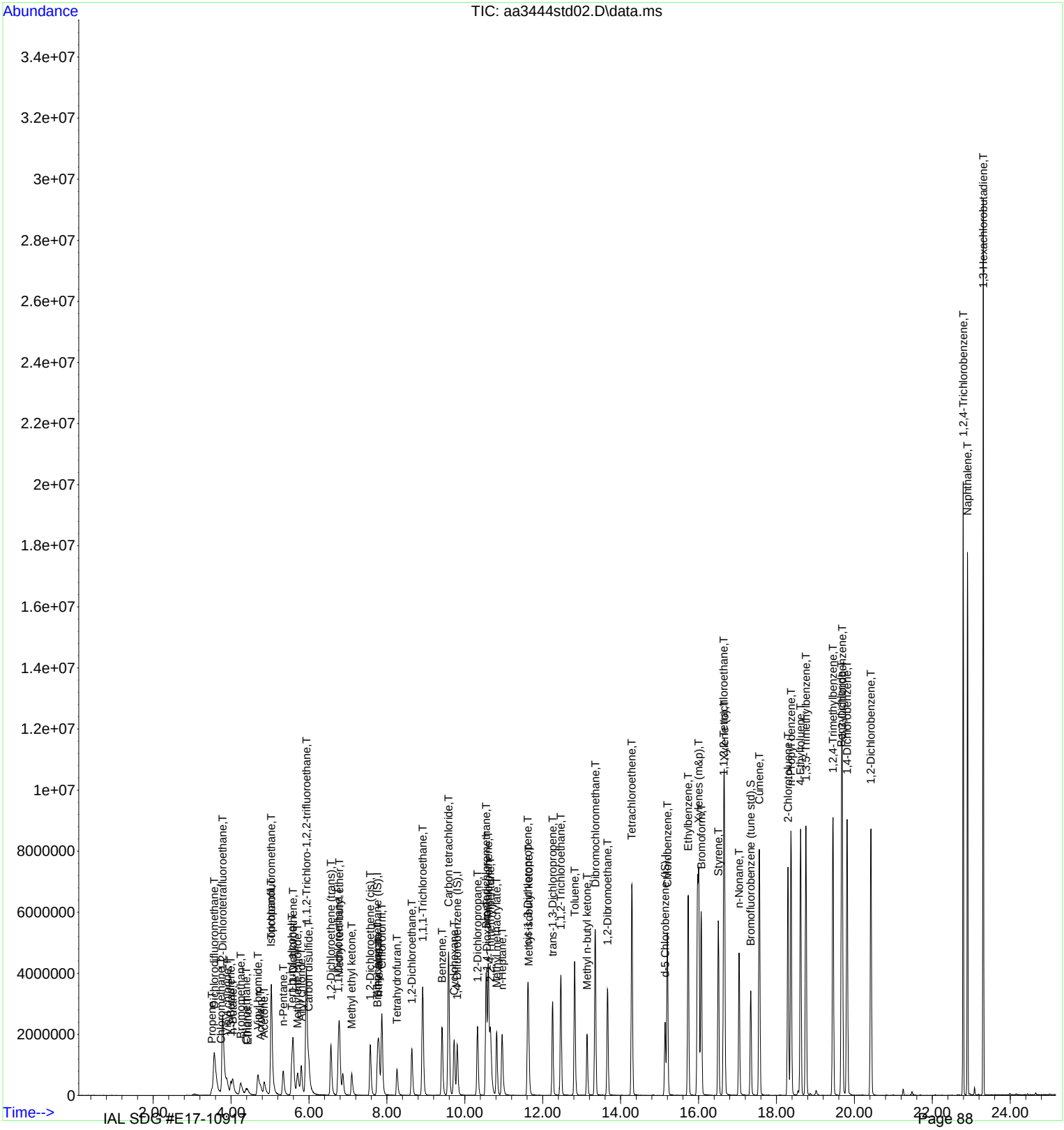
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.350	129	4074164	20.31	ppbV	99
53) 1,2-Dibromoethane	13.665	107	2962274	20.14	ppbV	100
54) Tetrachloroethene	14.286	166	2371415	20.02	ppbV	97
56) Chlorobenzene	15.199	112	4119514	19.73	ppbV	98
57) Ethylbenzene	15.733	91	6596793	19.79	ppbV	98
58) Xylenes (m&p)	16.003	91	10704404	38.76	ppbV	97
59) Bromoform	16.071	173	3431127	19.79	ppbV	97
60) Styrene	16.505	104	3914430	20.02	ppbV	99
61) Xylene (o)	16.665	91	5595101	19.33	ppbV	90
62) 1,1,2,2-Tetrachloroethane	16.646	83	3550423	19.60	ppbV	99
63) n-Nonane	17.042	57	1600156	19.74	ppbV	100
65) Cumene	17.559	105	7538238	19.28	ppbV	93
66) 2-Chlorotoluene	18.296	91	5898107	19.94	ppbV	90
67) n-Propyl benzene	18.373	120	2209626	19.49	ppbV	80
68) 4-Ethyltoluene	18.617	105	7669686	19.48	ppbV	91
69) 1,3,5-Trimethylbenzene	18.755	105	7091872	19.29	ppbV	88
70) 1,2,4-Trimethylbenzene	19.450	105	7260050	19.67	ppbV	98
71) Benzyl chloride	19.668	91	6279617	20.83	ppbV	99
72) 1,3-Dichlorobenzene	19.691	146	4815398	19.26	ppbV	98
73) 1,4-Dichlorobenzene	19.813	146	5063095	19.55	ppbV	97
74) 1,2-Dichlorobenzene	20.424	146	4827586	19.72	ppbV	99
75) 1,2,4-Trichlorobenzene	22.794	180	4482857	19.68	ppbV	99
76) Naphthalene	22.906	127	1604537	19.90	ppbV	100
77) 1,3-Hexachlorobutadiene	23.308	225	3389411	19.84	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3444std02.D
Acq On : 12 Sep 2017 10:17 am
Operator : jls
Sample : 20 ppbv Std
Misc : CC483586
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 12 11:51:12 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:51:02 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3445std03.D
Acq On : 12 Sep 2017 10:51 am
Operator : jls
Sample : 10 ppbv Std
Misc : CC483586
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 12 11:50:40 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:50:23 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.747	130	570548	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.804	114	2010687	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.139	117	1794220	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.338	95	1556791	10.00	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.506	41	147143	10.00	ppbV		91
3) Dichlorodifluoromethane	3.563	85	2007436	10.00	ppbV		97
4) Chloromethane	3.731	52	58646	10.00	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.776	85	1547891	10.00	ppbV		99
6) Vinyl chloride	3.891	62	345730	10.00	ppbV		91
7) 1,3-Butadiene	3.994	54	194863	10.00	ppbV		85
8) n-Butane	4.043	43	333874	10.00	ppbV		99
9) Bromomethane	4.248	94	376116	10.00	ppbV		100
10) Chloroethane	4.387	64	187557	10.00	ppbV		97
11) Ethanol	4.422	45	74127	10.00	ppbV		98
12) Vinyl bromide	4.686	106	570899	10.00	ppbV		99
13) Acrolein	4.753	56	101704	10.00	ppbV		93
14) Acetone	4.853	58	160554	10.00	ppbV		76
15) Trichlorofluoromethane	5.030	101	2588011	10.00	ppbV		98
16) Isopropanol	5.023	45	410895	10.00	ppbV		98
17) n-Pentane	5.335	43	364542	10.00	ppbV		93
18) 1,1-Dichloroethene	5.589	61	802065	10.00	ppbV		98
19) Methylene chloride	5.705	84	458466	10.00	ppbV		100
20) Tert-butyl alcohol	5.563	59	910734	10.00	ppbV		100
21) Allyl chloride	5.801	76	232657	10.00	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.933	101	1467207	10.00	ppbV		94
23) Carbon disulfide	5.988	76	1485399	10.00	ppbV		99
24) 1,2-Dichloroethene (tr...	6.560	61	635713	10.00	ppbV		99
25) 1,1-Dichloroethane	6.753	63	850442	10.00	ppbV		92
26) Methyl tert-butyl ether	6.785	73	1747277	10.00	ppbV		99
27) Methyl ethyl ketone	7.094	72	245732	10.00	ppbV		99
28) 1,2-Dichloroethene (cis)	7.570	61	633188	10.00	ppbV		99
29) Ethyl acetate	7.769	45	82877	10.00	ppbV		100
30) n-Hexane	7.792	57	440238	10.00	ppbV		98
31) Chloroform	7.869	83	1627065	10.00	ppbV		99
32) Tetrahydrofuran	8.258	42	248981	10.00	ppbV		84
33) 1,2-Dichloroethane	8.640	62	1044255	10.00	ppbV		95
34) 1,1,1-Trichloroethane	8.917	97	1887264	10.00	ppbV		98
35) Benzene	9.415	78	1581888	10.00	ppbV		98
36) Carbon tetrachloride	9.586	117	2249151	10.00	ppbV		100
37) Cyclohexane	9.724	84	678629	10.00	ppbV		89
39) 1,2-Dichloropropane	10.325	63	464264	10.00	ppbV		96
40) Bromodichloromethane	10.547	83	1736726	10.00	ppbV		99
41) 2,2,4-Trimethylpentane	10.653	57	1513568	10.00	ppbV		95
42) Trichloroethene	10.605	130	988236	10.00	ppbV		100
43) 1,4-Dioxane	10.563	88	329465	10.00	ppbV		93
44) Methyl methacrylate	10.817	69	632275	10.00	ppbV		99
45) n-Heptane	10.952	71	536121	10.00	ppbV		100
46) cis-1,3-Dichloropropene	11.611	75	1121341	10.00	ppbV		99
47) Methyl isobutyl ketone	11.637	43	691185	10.00	ppbV		99
48) trans-1,3-Dichloropropene	12.251	75	1197976	10.00	ppbV		100
49) 1,1,2-Trichloroethane	12.463	97	834801	10.00	ppbV		97
50) Toluene	12.817	91	2252121	10.00	ppbV		96
51) Methyl n-butyl ketone	13.139	43	687207	10.00	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3445std03.D
Acq On : 12 Sep 2017 10:51 am
Operator : jls
Sample : 10 ppbv Std
Misc : CC483586
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 12 11:50:40 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:50:23 2017
Response via : Initial Calibration

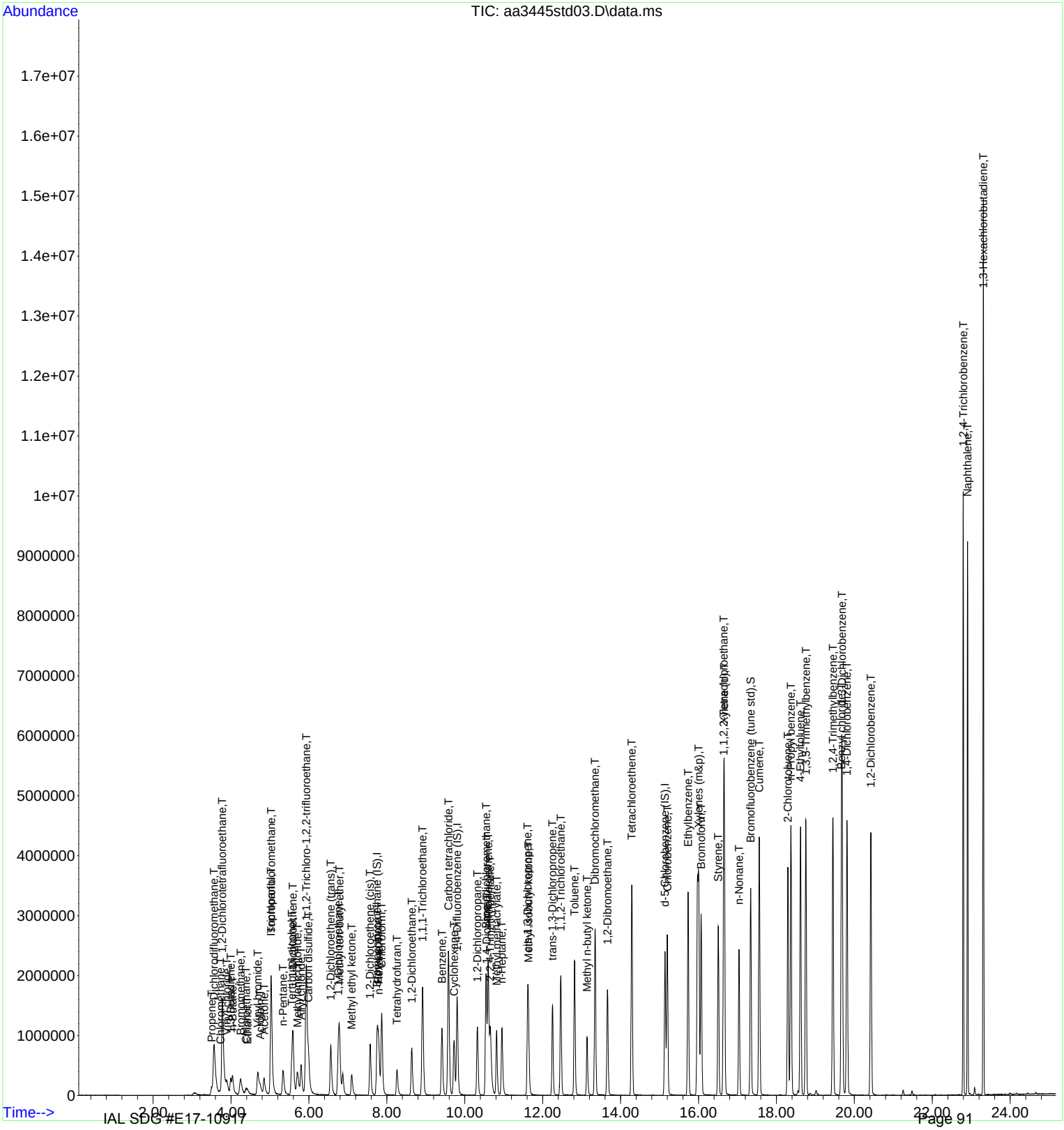
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.344	129	2021003	10.00	ppbV	100
53) 1,2-Dibromoethane	13.663	107	1481958	10.00	ppbV	99
54) Tetrachloroethene	14.286	166	1193178	10.00	ppbV	97
56) Chlorobenzene	15.200	112	2067104	10.00	ppbV	99
57) Ethylbenzene	15.733	91	3300022	10.00	ppbV	98
58) Xylenes (m&p)	16.003	91	5468436	20.00	ppbV	97
59) Bromoform	16.068	173	1716257	10.00	ppbV	96
60) Styrene	16.505	104	1935850	10.00	ppbV	99
61) Xylene (o)	16.659	91	2865975	10.00	ppbV	90
62) 1,1,2,2-Tetrachloroethane	16.647	83	1793518	10.00	ppbV	99
63) n-Nonane	17.042	57	802552	10.00	ppbV	99
65) Cumene	17.560	105	3871150	10.00	ppbV	94
66) 2-Chlorotoluene	18.293	91	2928043	10.00	ppbV	91
67) n-Propyl benzene	18.373	120	1122548	10.00	ppbV	82
68) 4-Ethyltoluene	18.617	105	3897621	10.00	ppbV	92
69) 1,3,5-Trimethylbenzene	18.756	105	3638674	10.00	ppbV	89
70) 1,2,4-Trimethylbenzene	19.450	105	3653697	10.00	ppbV	97
71) Benzyl chloride	19.666	91	2984625	10.00	ppbV	98
72) 1,3-Dichlorobenzene	19.685	146	2474639	10.00	ppbV	99
73) 1,4-Dichlorobenzene	19.810	146	2563799	10.00	ppbV	97
74) 1,2-Dichlorobenzene	20.424	146	2423252	10.00	ppbV	99
75) 1,2,4-Trichlorobenzene	22.794	180	2255037	10.00	ppbV	99
76) Naphthalene	22.907	127	798205	10.00	ppbV	100
77) 1,3-Hexachlorobutadiene	23.312	225	1691282	10.00	ppbV	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3445std03.D
Acq On : 12 Sep 2017 10:51 am
Operator : jls
Sample : 10 ppbv Std
Misc : CC483586
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 12 11:50:40 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:50:23 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3446std04.D
Acq On : 12 Sep 2017 11:24 am
Operator : jls
Sample : 2 ppbv Std
Misc : CC483586
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 12 11:52:39 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:52:15 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.740	130	558591	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.801	114	1941470	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.138	117	1681997	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.337	95	1469868	9.98	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.505	41	27834	1.95	ppbV		84
3) Dichlorodifluoromethane	3.563	85	394053	1.96	ppbV		96
4) Chloromethane	3.724	52	9280	1.73	ppbV		81
5) 1,2-Dichlorotetrafluor...	3.769	85	302888	2.05	ppbV		96
6) Vinyl chloride	3.891	62	64970	1.89	ppbV		85
7) 1,3-Butadiene	3.984	54	35718	1.89	ppbV		87
8) n-Butane	4.033	43	61720	1.90	ppbV		93
9) Bromomethane	4.245	94	72076	2.18	ppbV		97
10) Chloroethane	4.373	64	37286	2.00	ppbV		90
11) Ethanol	4.415	45	15408	2.05	ppbV		98
12) Vinyl bromide	4.679	106	102959	1.79	ppbV		95
13) Acrolein	4.750	56	19384	1.83	ppbV		91
14) Acetone	4.849	58	29669	1.89	ppbV		75
15) Trichlorofluoromethane	5.023	101	510797	1.98	ppbV		99
16) Isopropanol	5.020	45	74323	1.84	ppbV		92
17) n-Pentane	5.338	43	63142	1.71	ppbV		93
18) 1,1-Dichloroethene	5.589	61	143956	1.81	ppbV		97
19) Methylene chloride	5.698	84	86495	1.90	ppbV		95
20) Tert-butyl alcohol	5.553	59	165357	1.76	ppbV		100
21) Allyl chloride	5.798	76	40464	1.83	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.926	101	320550	2.17	ppbV		97
23) Carbon disulfide	5.981	76	286701	1.95	ppbV		98
24) 1,2-Dichloroethene (tr...	6.563	61	116060	1.78	ppbV		100
25) 1,1-Dichloroethane	6.753	63	155224	1.81	ppbV		90
26) Methyl tert-butyl ether	6.782	73	318717	1.79	ppbV		99
27) Methyl ethyl ketone	7.094	72	42822	1.65	ppbV		99
28) 1,2-Dichloroethene (cis)	7.576	61	112786	1.75	ppbV		98
29) Ethyl acetate	7.778	45	14639	1.76	ppbV		100
30) n-Hexane	7.788	57	82043	1.81	ppbV		96
31) Chloroform	7.865	83	307969	1.86	ppbV		100
32) Tetrahydrofuran	8.277	42	43025	1.66	ppbV	#	77
33) 1,2-Dichloroethane	8.634	62	196757	1.84	ppbV		95
34) 1,1,1-Trichloroethane	8.920	97	385057	2.00	ppbV		98
35) Benzene	9.415	78	294781	1.82	ppbV		97
36) Carbon tetrachloride	9.582	117	456955	1.98	ppbV		100
37) Cyclohexane	9.720	84	124758	1.80	ppbV		91
39) 1,2-Dichloropropane	10.325	63	93202	2.05	ppbV		93
40) Bromodichloromethane	10.544	83	331208	1.93	ppbV		98
41) 2,2,4-Trimethylpentane	10.656	57	278128	1.93	ppbV		95
42) Trichloroethene	10.601	130	192180	2.01	ppbV		98
43) 1,4-Dioxane	10.566	88	60551	1.88	ppbV		95
44) Methyl methacrylate	10.817	69	110169	1.78	ppbV		93
45) n-Heptane	10.952	71	100545	1.93	ppbV		99
46) cis-1,3-Dichloropropene	11.611	75	199150	1.80	ppbV		98
47) Methyl isobutyl ketone	11.643	43	134611	2.01	ppbV		96
48) trans-1,3-Dichloropropene	12.248	75	209618	1.76	ppbV		99
49) 1,1,2-Trichloroethane	12.463	97	169444	2.09	ppbV		98
50) Toluene	12.820	91	423556	1.93	ppbV		97
51) Methyl n-butyl ketone	13.142	43	121934	1.80	ppbV		96

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3446std04.D
Acq On : 12 Sep 2017 11:24 am
Operator : jls
Sample : 2 ppbv Std
Misc : CC483586
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 12 11:52:39 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:52:15 2017
Response via : Initial Calibration

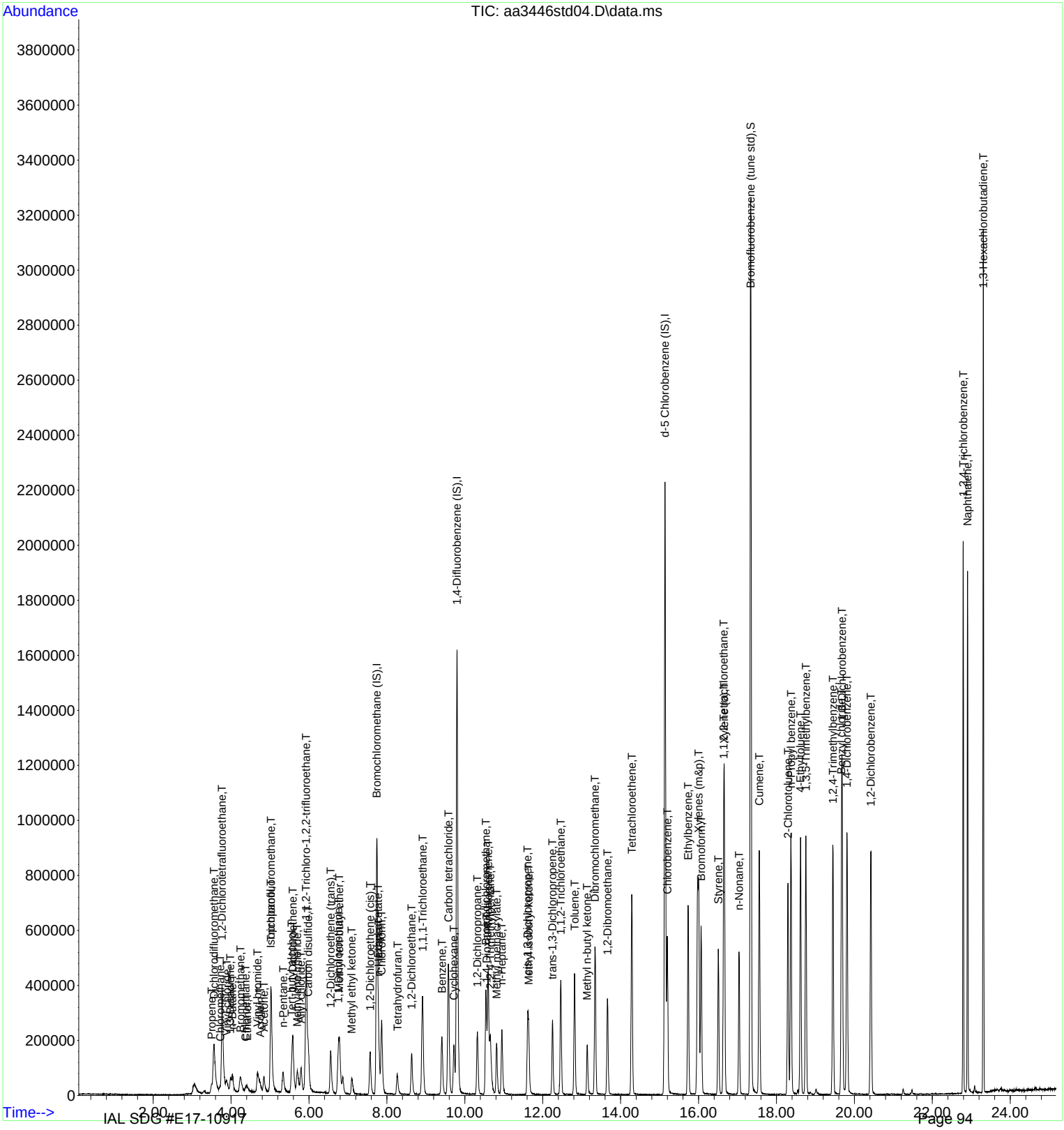
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.341	129	396000	2.00	ppbV	99
53) 1,2-Dibromoethane	13.666	107	292260	2.03	ppbV	99
54) Tetrachloroethene	14.289	166	241029	2.09	ppbV	97
56) Chlorobenzene	15.199	112	430581	2.25	ppbV	98
57) Ethylbenzene	15.733	91	648836	2.12	ppbV	97
58) Xylenes (m&p)	16.000	91	1114763	4.47	ppbV	97
59) Bromoform	16.064	173	337047	2.10	ppbV	98
60) Styrene	16.508	104	348108	1.92	ppbV	99
61) Xylene (o)	16.662	91	578894	2.21	ppbV	89
62) 1,1,2,2-Tetrachloroethane	16.646	83	391692	2.36	ppbV	100
63) n-Nonane	17.042	57	152751	2.05	ppbV	99
65) Cumene	17.559	105	772189	2.19	ppbV	94
66) 2-Chlorotoluene	18.296	91	573326	2.10	ppbV	89
67) n-Propyl benzene	18.373	120	229992	2.23	ppbV	82
68) 4-Ethyltoluene	18.617	105	777516	2.19	ppbV	92
69) 1,3,5-Trimethylbenzene	18.755	105	723062	2.18	ppbV	89
70) 1,2,4-Trimethylbenzene	19.450	105	676515	2.01	ppbV	98
71) Benzyl chloride	19.669	91	525084	1.82	ppbV	99
72) 1,3-Dichlorobenzene	19.685	146	525042	2.35	ppbV	98
73) 1,4-Dichlorobenzene	19.810	146	524634	2.23	ppbV	96
74) 1,2-Dichlorobenzene	20.424	146	486418	2.18	ppbV	98
75) 1,2,4-Trichlorobenzene	22.794	180	442983	2.15	ppbV	99
76) Naphthalene	22.906	127	157227	2.13	ppbV	100
77) 1,3-Hexachlorobutadiene	23.312	225	358706	2.28	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3446std04.D
Acq On : 12 Sep 2017 11:24 am
Operator : jls
Sample : 2 ppbv Std
Misc : CC483586
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 12 11:52:39 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 11:52:15 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3447std05.D
Acq On : 12 Sep 2017 12:06 pm
Operator : jls
Sample : 0.2 ppbv Std
Misc : CC483586
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 12 12:55:11 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 12:52:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.743	130	540977	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.801	114	1832450	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.141	117	1639395	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.341	95	1441128	10.04	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.502	41	2514	0.19	ppbV	#	41
3) Dichlorodifluoromethane	3.563	85	46664	0.23	ppbV		98
4) Chloromethane	3.711	52	540	0.12	ppbV	#	62
5) 1,2-Dichlorotetrafluor...	3.772	85	42103	0.27	ppbV		98
6) Vinyl chloride	3.897	62	4393	0.14	ppbV		86
7) 1,3-Butadiene	3.991	54	2543	0.15	ppbV		84
8) n-Butane	4.026	43	3238	0.12	ppbV	#	62
9) Bromomethane	4.238	94	5265	0.17	ppbV		89
10) Chloroethane	4.367	64	1709	0.11	ppbV	#	82
11) Ethanol	4.399	45	489	0.08	ppbV		100
12) Vinyl bromide	4.679	106	7473	0.16	ppbV		69
13) Acrolein	4.730	56	923	0.10	ppbV		84
14) Acetone	4.833	58	1398	0.10	ppbV	#	1
15) Trichlorofluoromethane	5.029	101	66999	0.25	ppbV		96
16) Isopropanol	5.020	45	5477	0.16	ppbV		73
17) n-Pentane	5.335	43	5385	0.16	ppbV	#	28
18) 1,1-Dichloroethene	5.585	61	15158	0.20	ppbV		95
19) Methylene chloride	5.695	84	13128	0.37	ppbV	#	46
20) Tert-butyl alcohol	5.566	59	18411	0.21	ppbV		100
21) Allyl chloride	5.788	76	4219	0.20	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.926	101	44337	0.27	ppbV		99
23) Carbon disulfide	5.981	76	31545	0.22	ppbV		100
24) 1,2-Dichloroethene (tr...	6.556	61	12162	0.20	ppbV		86
25) 1,1-Dichloroethane	6.740	63	21576	0.25	ppbV	#	80
26) Methyl tert-butyl ether	6.791	73	36602	0.21	ppbV		94
27) Methyl ethyl ketone	7.116	72	1971	0.09	ppbV	#	37
28) 1,2-Dichloroethene (cis)	7.573	61	12342	0.20	ppbV		96
29) Ethyl acetate	7.765	45	841	0.12	ppbV		100
30) n-Hexane	7.791	57	9749	0.22	ppbV	#	64
31) Chloroform	7.872	83	38234	0.23	ppbV		99
32) Tetrahydrofuran	8.277	42	3024	0.14	ppbV	#	13
33) 1,2-Dichloroethane	8.643	62	24232	0.23	ppbV	#	88
34) 1,1,1-Trichloroethane	8.910	97	49996	0.25	ppbV		100
35) Benzene	9.408	78	36629	0.23	ppbV		96
36) Carbon tetrachloride	9.576	117	59878	0.25	ppbV		99
37) Cyclohexane	9.714	84	13068	0.20	ppbV		85
39) 1,2-Dichloropropane	10.334	63	12774	0.27	ppbV		86
40) Bromodichloromethane	10.537	83	43420	0.25	ppbV		97
41) 2,2,4-Trimethylpentane	10.653	57	26508	0.20	ppbV		98
42) Trichloroethene	10.605	130	23453	0.24	ppbV		98
43) 1,4-Dioxane	10.582	88	9667	0.29	ppbV		91
44) Methyl methacrylate	10.823	69	12474	0.22	ppbV	#	63
45) n-Heptane	10.955	71	5450	0.12	ppbV	#	70
46) cis-1,3-Dichloropropene	11.614	75	22926	0.22	ppbV		98
47) Methyl isobutyl ketone	11.650	43	14448	0.22	ppbV		95
48) trans-1,3-Dichloropropene	12.257	75	22856	0.21	ppbV		89
49) 1,1,2-Trichloroethane	12.466	97	22115	0.26	ppbV		95
50) Toluene	12.820	91	46471	0.22	ppbV		96
51) Methyl n-butyl ketone	13.154	43	13295	0.21	ppbV		95

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3447std05.D
Acq On : 12 Sep 2017 12:06 pm
Operator : jls
Sample : 0.2 ppbv Std
Misc : CC483586
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 12 12:55:11 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 12:52:29 2017
Response via : Initial Calibration

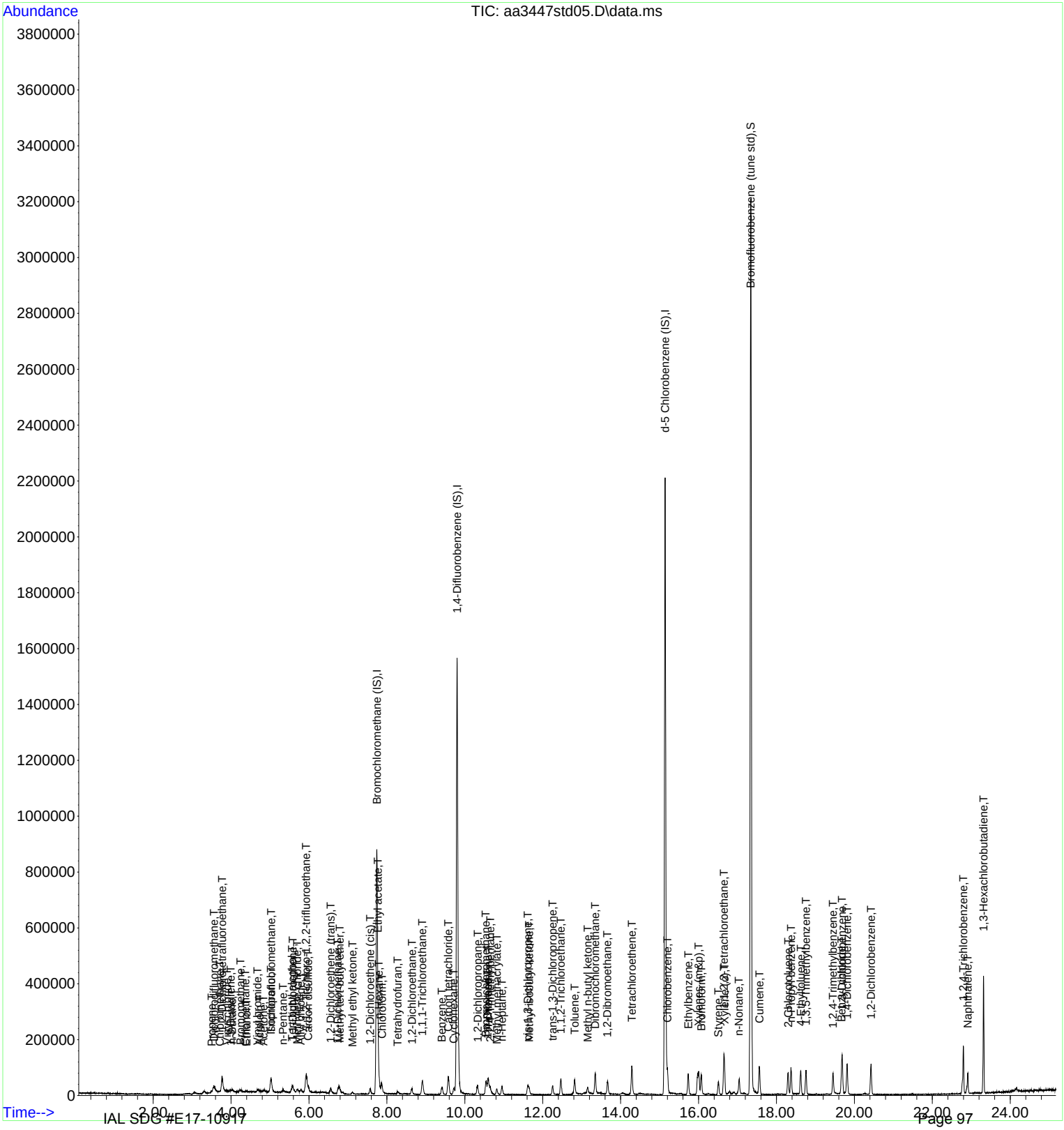
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.344	129	50607	0.25	ppbV		99
53) 1,2-Dibromoethane	13.659	107	35027	0.24	ppbV		95
54) Tetrachloroethene	14.289	166	31459	0.26	ppbV		99
56) Chlorobenzene	15.202	112	57275	0.27	ppbV		99
57) Ethylbenzene	15.739	91	69474	0.22	ppbV		100
58) Xylenes (m&p)	16.003	91	109780	0.43	ppbV	#	28
59) Bromoform	16.071	173	39834	0.24	ppbV		100
60) Styrene	16.508	104	31584	0.18	ppbV		96
61) Xylene (o)	16.672	91	57018	0.21	ppbV		90
62) 1,1,2,2-Tetrachloroethane	16.653	83	51800	0.28	ppbV		99
63) n-Nonane	17.035	57	14093	0.19	ppbV		99
65) Cumene	17.566	105	83411	0.23	ppbV		93
66) 2-Chlorotoluene	18.302	91	59214	0.22	ppbV		90
67) n-Propyl benzene	18.373	120	22169	0.21	ppbV		79
68) 4-Ethyltoluene	18.627	105	70651	0.20	ppbV	#	89
69) 1,3,5-Trimethylbenzene	18.755	105	66346	0.20	ppbV		88
70) 1,2,4-Trimethylbenzene	19.453	105	56911	0.18	ppbV		98
71) Benzyl chloride	19.669	91	50044	0.19	ppbV	#	80
72) 1,3-Dichlorobenzene	19.685	146	61456	0.25	ppbV		98
73) 1,4-Dichlorobenzene	19.813	146	59144	0.24	ppbV		94
74) 1,2-Dichlorobenzene	20.427	146	54832	0.24	ppbV		98
75) 1,2,4-Trichlorobenzene	22.797	180	52344	0.24	ppbV		99
76) Naphthalene	22.913	127	8045	0.12	ppbV		100
77) 1,3-Hexachlorobutadiene	23.315	225	52156	0.29	ppbV		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\09-12-17\
Data File : aa3447std05.D
Acq On : 12 Sep 2017 12:06 pm
Operator : jls
Sample : 0.2 ppbv Std
Misc : CC483586
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 12 12:55:11 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 12:52:29 2017
Response via : Initial Calibration



Initial Calibration Data Summary Report

Initial Calibration Curve: 12/8/2017 **Method ID:** 1208.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV STD [AA4423STD01]	12/08/2017 15:47
20 PPBV STD [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV STD [AA4426STD04]	12/08/2017 17:29
0.2 PPBV STD [AA4427STD05]	12/08/2017 18:02
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
Bromochloromethane	----------ISTD----------						
1,4-Difluorobenzene	----------ISTD----------						
d-5 Chlorobenzene	----------ISTD----------						
Acetone	0.68	0.38	0.74	0.76	0.85	0.68	26
Acrolein	0.43	0.40	0.55	0.56	0.66	0.52	20
Allyl Chloride	0.94	0.51	0.69	0.67	0.72	0.71	22
Benzene	5.3	4.0	4.6	4.6	5.1	4.7	11
Benzyl chloride	1.9	1.3	1.4	1.4	1.2	1.4	17
Bromodichloromethane	0.91	0.56	0.66	0.63	0.64	0.68	20
Bromoform	0.96	0.66	0.70	0.66	0.59	0.71	20
Bromomethane	0.57	0.58	0.93	0.88	0.90	0.78	23
1,3-Butadiene	1.2	0.97	1.1	1.1	1.2	1.1	7.8
Chlorobenzene	1.5	1.2	1.1	1.0	0.94	1.2	20
Chloroethane	0.43	0.41	0.69	0.70	0.79	0.60	29
Chloroform	3.9	2.0	2.6	2.6	2.9	2.8	25
Chloromethane	0.29	0.12	0.33	0.36	0.38	0.29	36
Carbon disulfide	6.8	3.3	4.1	4.2	4.6	4.6	28
Carbon tetrachloride	2.7	1.1	2.1	2.1	2.4	2.1	29
2-Chlorotoluene	2.1	1.6	1.5	1.4	1.3	1.6	22
Cumene	2.8	2.0	1.9	1.7	1.5	2.0	25
Cyclohexane	4.0	2.3	2.4	2.4	2.6	2.7	27
Dibromochloromethane	1.0	0.59	0.64	0.61	0.59	0.69	27
1,2-Dibromoethane	1.0	0.63	0.68	0.63	0.61	0.71	24
1,2-Dichlorobenzene	1.7	1.2	1.1	0.98	0.87	1.2	27
1,3-Dichlorobenzene	1.6	1.2	1.1	0.92	0.78	1.1	28
1,4-Dichlorobenzene	1.5	1.2	1.1	1.0	0.89	1.2	20
Dichlorodifluoromethane	2.0	2.2	2.6	2.6	3.0	2.5	15
1,1-Dichloroethane	3.3	2.0	2.5	2.6	2.8	2.6	18
1,2-Dichloroethane	2.6	1.4	1.7	1.8	2.1	1.9	23
1,1-Dichloroethene	3.4	1.6	2.1	2.1	2.3	2.3	28
1,2-Dichloroethene (trans)	2.9	1.6	1.9	2.0	2.2	2.1	24
1,2-Dichloroethene (trans)	2.0	1.6	2.0	2.0	2.3	2.0	14
1,2-Dichloropropane	0.52	0.42	0.46	0.44	0.43	0.46	8.8
1,3-Dichloropropene (cis)	0.92	0.55	0.65	0.62	0.60	0.67	22
1,3-Dichloropropene (trans)	0.72	0.46	0.57	0.57	0.57	0.58	16
1,2-Dichlorotetrafluoroethane	4.8	2.5	2.8	2.8	2.9	3.2	29
1,4-Dioxane	0.26	0.17	0.21	0.20	0.18	0.21	16
Ethanol	0.40	0.48	0.55	0.56	0.63	0.52	17
Ethylbenzene	3.0	2.0	1.9	1.7	1.6	2.0	26
4-Ethyltoluene	2.2	1.9	1.8	1.6	1.4	1.8	16
n-Heptane	0.98	0.66	0.69	0.65	0.64	0.73	20
1,3-Hexachlorobutadiene	0.83	0.82	0.70	0.56	0.45	0.67	24

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 12/8/2017 **Method ID:** 1208.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV STD [AA4423STD01]	12/08/2017 15:47
20 PPBV STD [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV STD [AA4426STD04]	12/08/2017 17:29
0.2 PPBV STD [AA4427STD05]	12/08/2017 18:02
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
n-Hexane	1.6	2.0	2.2	2.3	2.5	2.1	16
Isopropanol	3.3	1.9	2.3	2.4	2.5	2.5	21
Methylene chloride	1.8	1.2	1.6	1.6	1.9	1.6	17
Methyl ethyl ketone	3.3	2.1	2.9	3.0	3.5	3.0	18
Methyl isobutyl ketone	1.4	0.87	0.91	0.87	0.86	0.98	23
Methyl methacrylate	0.72	0.47	0.51	0.50	0.52	0.55	19
Methyl n-butyl ketone	1.4	0.75	0.86	0.85	0.86	0.95	28
Methyl tert-butyl ether	6.3	3.4	3.5	3.6	4.0	4.2	29
Naphthalene	0.44	0.44	0.33	0.27	0.22	0.34	29
Propene	0.73	0.66	0.92	0.95	1.0	0.86	19
Styrene	1.7	1.1	1.1	1.0	0.94	1.2	25
Tert-butyl alcohol	2.4	2.7	3.0	3.1	3.5	2.9	14
1,1,2,2-Tetrachloroethane	1.7	1.4	1.2	1.0	0.89	1.2	26
Tetrachloroethene	0.49	0.53	0.54	0.49	0.45	0.50	7.2
Tetrahydrofuran	2.3	1.2	1.6	1.7	1.9	1.7	24
Toluene	2.0	1.3	1.3	1.2	1.2	1.4	24
1,2,4-Trichlorobenzene	0.79	1.3	1.0	0.82	0.65	0.91	27
1,1,1-Trichloroethane	3.3	2.0	2.2	2.2	2.5	2.4	21
1,1,2-Trichloroethane	0.68	0.42	0.45	0.42	0.40	0.47	25
Trichloroethene	0.49	0.37	0.44	0.41	0.38	0.42	12
Trichlorofluoromethane	3.1	2.2	2.4	2.5	2.8	2.6	14
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	2.7	2.5	2.4	2.7	2.7	13
1,2,4-Trimethylbenzene	2.1	1.7	1.7	1.5	1.4	1.7	16
1,3,5-Trimethylbenzene	2.5	1.7	1.7	1.5	1.4	1.8	24
2,2,4-Trimethylpentane	1.4	1.6	1.9	1.8	1.7	1.7	9.8
Vinyl bromide	0.54	0.88	1.2	1.2	1.4	1.1	33
Vinyl chloride	0.71	1.0	1.4	1.4	1.6	1.2	29
Xylenes (m&p)	2.0	1.6	1.5	1.4	1.2	1.5	18
Xylenes (o)	1.9	1.6	1.5	1.3	1.1	1.5	19

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

IAL
Integrated Analytical Laboratories LLC

Method Path : C:\msdchem\1\METHODS\
Method File : 1208.M
Title : TO-15 on the Agilent 7890A / 5975C
Last Update : Tue Dec 12 09:25:44 2017
Response Via : Initial Calibration

Calibration Files
0.2 =aa4427std05.D 2 =aa4426std04.D 10 =aa4425std03.D 20 =aa4424std02.D 40 =aa4423std01.D

		Compound	0.2	2	10	20	40	Avg	%RSD
1)	I	Bromochloromethane...	----------ISTD----------						
2)	T	Propene	0.729	0.658	0.922	0.954	1.044	0.861	18.77
3)	T	Dichlorodifluoro...	2.017	2.172	2.591	2.625	2.958	2.473	15.29
4)	T	Chloromethane	0.290	0.115	0.330	0.355	0.379	0.294	35.81
5)	T	1,2-Dichlorotetr...	4.783	2.547	2.791	2.804	2.935	3.172	28.74
6)	T	Vinyl chloride	0.714	1.040	1.440	1.419	1.575	1.238	28.59
7)	T	1,3-Butadiene	1.163	0.969	1.105	1.127	1.197	1.112	7.86
8)	T	n-Butane	3.507	1.994	2.204	2.222	2.405	2.466	24.31
9)	T	Bromomethane	0.572	0.584	0.934	0.882	0.902	0.775	23.29
10)	T	Chloroethane	0.427	0.406	0.694	0.700	0.791	0.604	29.02
11)	T	Ethanol	0.395	0.477	0.546	0.555	0.626	0.520	16.81
12)	T	Vinyl bromide	0.536	0.883	1.223	1.236	1.407	1.057	32.91
13)	T	Acrolein	0.431	0.404	0.547	0.563	0.657	0.521	19.85
14)	T	Acetone	0.679	0.382	0.744	0.758	0.847	0.682	26.14
15)	T	Trichlorofluorom...	3.148	2.237	2.444	2.520	2.847	2.639	13.61
16)	T	Isopropanol	3.332	1.889	2.294	2.355	2.537	2.481	21.40
17)	T	n-Pentane	3.766	2.166	2.508	2.546	2.852	2.768	22.00
18)	T	1,1-Dichloroethene	3.354	1.612	2.081	2.107	2.342	2.299	28.11
19)	T	Methylene chloride	1.783	1.169	1.613	1.631	1.850	1.609	16.52
20)	T	Tert-butyl alcohol	2.444	2.679	2.974	3.078	3.508	2.937	13.81
21)	T	Allyl chloride	0.941	0.508	0.687	0.670	0.717	0.705	22.03
22)	T	1,1,2-Trichloro-...	3.335	2.650	2.508	2.426	2.678	2.719	13.20
23)	T	Carbon disulfide	6.777	3.344	4.147	4.161	4.618	4.610	28.11
24)	T	1,2-Dichloroethe...	1.951	1.559	1.979	2.027	2.300	1.963	13.51
25)	T	1,1-Dichloroethane	3.284	1.990	2.549	2.559	2.830	2.642	17.82
26)	T	Methyl tert-buty...	6.301	3.401	3.516	3.553	4.002	4.155	29.40
27)	T	Methyl ethyl ketone	3.319	2.100	2.895	2.984	3.473	2.954	18.04
28)	T	1,2-Dichloroethe...	2.921	1.561	1.909	1.978	2.215	2.117	23.94
29)	T	Ethyl acetate	0.586	0.185	0.446	0.493	0.541	0.450	34.91
30)	T	n-Hexane	1.573	2.031	2.201	2.261	2.469	2.107	15.99
31)	T	Chloroform	3.918	2.043	2.564	2.595	2.948	2.814	24.76
32)	T	Tetrahydrofuran	2.319	1.184	1.602	1.665	1.923	1.738	24.10
33)	T	1,2-Dichloroethane	2.577	1.418	1.685	1.780	2.070	1.906	23.15
34)	T	1,1,1-Trichloroe...	3.267	1.994	2.152	2.158	2.492	2.412	21.18
35)	T	Benzene	5.325	3.963	4.563	4.583	5.094	4.706	11.25
36)	T	Carbon tetrachlo...	2.675	1.112	2.089	2.118	2.425	2.084	28.51
37)	T	Cyclohexane	4.005	2.255	2.384	2.369	2.623	2.727	26.65
38)	I	1,4-Difluorobenzen...	----------ISTD----------						
39)	T	1,2-Dichloropropane	0.523	0.419	0.461	0.444	0.433	0.456	8.89
40)	T	Bromodichloromet...	0.912	0.558	0.658	0.632	0.640	0.680	19.90
41)	T	2,2,4-Trimethylp...	1.428	1.592	1.853	1.751	1.736	1.672	9.88
42)	T	Trichloroethene	0.491	0.369	0.439	0.407	0.375	0.416	12.06
43)	T	1,4-Dioxane	0.256	0.174	0.213	0.196	0.184	0.205	15.64
44)	T	Methyl methacrylate	0.724	0.470	0.513	0.503	0.516	0.545	18.62
45)	T	n-Heptane	0.984	0.659	0.685	0.654	0.643	0.725	20.11
46)	T	cis-1,3-Dichloro...	0.916	0.545	0.648	0.620	0.604	0.666	21.69
47)	T	Methyl isobutyl ...	1.382	0.872	0.910	0.871	0.864	0.980	23.01
48)	T	trans-1,3-Dichlo...	0.722	0.455	0.567	0.565	0.574	0.577	16.45
49)	T	1,1,2-Trichloroe...	0.682	0.417	0.448	0.416	0.402	0.473	24.94
50)	T	Toluene	1.981	1.300	1.297	1.205	1.168	1.390	24.12
51)	T	Methyl n-butyl k...	1.417	0.745	0.860	0.853	0.856	0.946	28.28
52)	T	Dibromochloromet...	1.012	0.585	0.635	0.608	0.586	0.685	26.87
53)	T	1,2-Dibromoethane	1.024	0.633	0.675	0.630	0.608	0.714	24.48
54)	T	Tetrachloroethene	0.494	0.527	0.539	0.488	0.447	0.499	7.21
55)	I	d-5 Chlorobenzene ...	----------ISTD----------						
56)	T	Chlorobenzene	1.544	1.186	1.129	1.023	0.937	1.164	20.03
57)	T	Ethylbenzene	2.960	1.987	1.948	1.731	1.580	2.041	26.43
58)	T	Xylenes (m&p)	1.952	1.603	1.546	1.376	1.223	1.540	17.83
59)	T	Bromoform	0.955	0.663	0.702	0.657	0.585	0.712	19.97
60)	T	Styrene	1.681	1.096	1.124	1.025	0.941	1.173	24.94

Method Path : C:\msdchem\1\METHODS\
Method File : 1208.M

61)	T	Xylene (o)	1.886	1.612	1.486	1.325	1.149	1.491	18.82
62)	T	1,1,2,2-Tetrachl...	1.711	1.354	1.212	1.028	0.886	1.238	25.73
63)	T	n-Nonane	1.628	1.161	1.080	1.006	0.915	1.158	23.98
64)	S	Bromofluorobenze...	0.814	0.781	0.795	0.800	0.780	0.794	1.79
65)	T	Cumene	2.844	2.018	1.936	1.732	1.540	2.014	24.82
66)	T	2-Chlorotoluene	2.143	1.581	1.489	1.363	1.261	1.567	21.95
67)	T	n-Propyl benzene	3.667	2.682	2.524	2.318	2.049	2.648	23.29
68)	T	4-Ethyltoluene	2.197	1.899	1.813	1.631	1.439	1.796	15.90
69)	T	1,3,5-Trimethylb...	2.471	1.713	1.740	1.506	1.355	1.757	24.42
70)	T	1,2,4-Trimethylb...	2.091	1.747	1.686	1.521	1.355	1.680	16.41
71)	T	Benzyl chloride	1.857	1.334	1.441	1.354	1.234	1.444	16.80
72)	T	1,3-Dichlorobenzene	1.591	1.206	1.071	0.920	0.778	1.113	27.96
73)	T	1,4-Dichlorobenzene	1.487	1.244	1.145	1.019	0.890	1.157	19.67
74)	T	1,2-Dichlorobenzene	1.693	1.224	1.102	0.982	0.867	1.174	27.23
75)	T	1,2,4-Trichlorob...	0.791	1.291	1.010	0.822	0.646	0.912	27.25
76)	T	Naphthalene	0.435	0.440	0.327	0.271	0.215	0.338	29.44
77)	T	1,3-Hexachlorobu...	0.828	0.819	0.697	0.564	0.454	0.672	24.21

(#) = Out of Range

Data Path : C:\DATA\12-08-17\
Data File : aa4423std01.D
Acq On : 8 Dec 2017 3:47 pm
Operator : jls
Sample : 40 ppbv Std
Misc : CC483586
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 12 08:36:03 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.792	130	447297	10.00	ppbV		0.02
38) 1,4-Difluorobenzene (IS)	9.833	114	2120378	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.155	117	1939137	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.351	95	1512854	9.81	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.541	41	1867749	45.29	ppbV		86
3) Dichlorodifluoromethane	3.596	85	5293222	45.67	ppbV		96
4) Chloromethane	3.792	52	677255	45.91	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.808	85	5251313	42.06	ppbV		89
6) Vinyl chloride	3.920	62	2818422	43.75	ppbV		81
7) 1,3-Butadiene	4.026	54	2140952	43.30	ppbV		85
8) n-Butane	4.071	43	4303532	43.65	ppbV		99
9) Bromomethane	4.274	94	1613101	38.63	ppbV		99
10) Chloroethane	4.419	64	1414638	45.55	ppbV		95
11) Ethanol	4.444	45	1119550	45.85	ppbV		99
12) Vinyl bromide	4.714	106	2517678	46.01	ppbV		98
13) Acrolein	4.795	56	1175958	48.05	ppbV		99
14) Acetone	4.888	58	1515555	45.52	ppbV		95
15) Trichlorofluoromethane	5.062	101	5094295	46.61	ppbV		100
16) Isopropanol	5.071	45	4538538	44.23	ppbV		97
17) n-Pentane	5.367	43	5102585	45.49	ppbV		92
18) 1,1-Dichloroethene	5.621	61	4190043	45.01	ppbV		84
19) Methylene chloride	5.743	49	3310404	45.88	ppbV		99
20) Tert-butyl alcohol	5.589	59	6276995	47.18	ppbV		100
21) Allyl chloride	5.833	76	1283719	41.80	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.965	101	4792264	42.72	ppbV		99
23) Carbon disulfide	6.030	76	8262904	44.54	ppbV		99
24) 1,2-Dichloroethene (tr...	6.592	61	4114323	46.49	ppbV		97
25) 1,1-Dichloroethane	6.785	63	5063669	44.42	ppbV		97
26) Methyl tert-butyl ether	6.814	73	7160664	45.54	ppbV		100
27) Methyl ethyl ketone	7.126	43	6213878	47.99	ppbV		91
28) 1,2-Dichloroethene (cis)	7.605	61	3962496	46.39	ppbV		99
29) Ethyl acetate	7.792	45	967939	48.47	ppbV		100
30) n-Hexane	7.830	57	4416991	44.87	ppbV		95
31) Chloroform	7.901	83	5274918	45.99	ppbV		99
32) Tetrahydrofuran	8.287	42	3439867	48.01	ppbV		86
33) 1,2-Dichloroethane	8.669	62	3702809	49.12	ppbV		99
34) 1,1,1-Trichloroethane	8.943	97	4458065	46.31	ppbV		99
35) Benzene	9.444	78	9114128	44.65	ppbV		96
36) Carbon tetrachloride	9.611	117	4338921	46.44	ppbV		100
37) Cyclohexane	9.753	56	4692704	44.02	ppbV		86
39) 1,2-Dichloropropane	10.348	63	3669103	37.57	ppbV		97
40) Bromodichloromethane	10.573	83	5424282	38.90	ppbV		99
41) 2,2,4-Trimethylpentane	10.685	57	14726987	37.48	ppbV		92
42) Trichloroethene	10.631	130	3179437	34.17	ppbV		98
43) 1,4-Dioxane	10.589	88	1563280	34.60	ppbV		96
44) Methyl methacrylate	10.843	41	4379163	40.27	ppbV		98
45) n-Heptane	10.981	43	5453598	37.54	ppbV		96
46) cis-1,3-Dichloropropene	11.637	75	5119715	37.27	ppbV		99
47) Methyl isobutyl ketone	11.660	43	7331087	37.98	ppbV		86
48) trans-1,3-Dichloropropene	12.277	75	4869088	40.50	ppbV		92
49) 1,1,2-Trichloroethane	12.489	97	3409903	35.90	ppbV		92
50) Toluene	12.843	91	9902689	36.02	ppbV		97
51) Methyl n-butyl ketone	13.155	43	7258678	39.80	ppbV		89

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4423std01.D
Acq On : 8 Dec 2017 3:47 pm
Operator : jls
Sample : 40 ppbv Std
Misc : CC483586
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 12 08:36:03 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

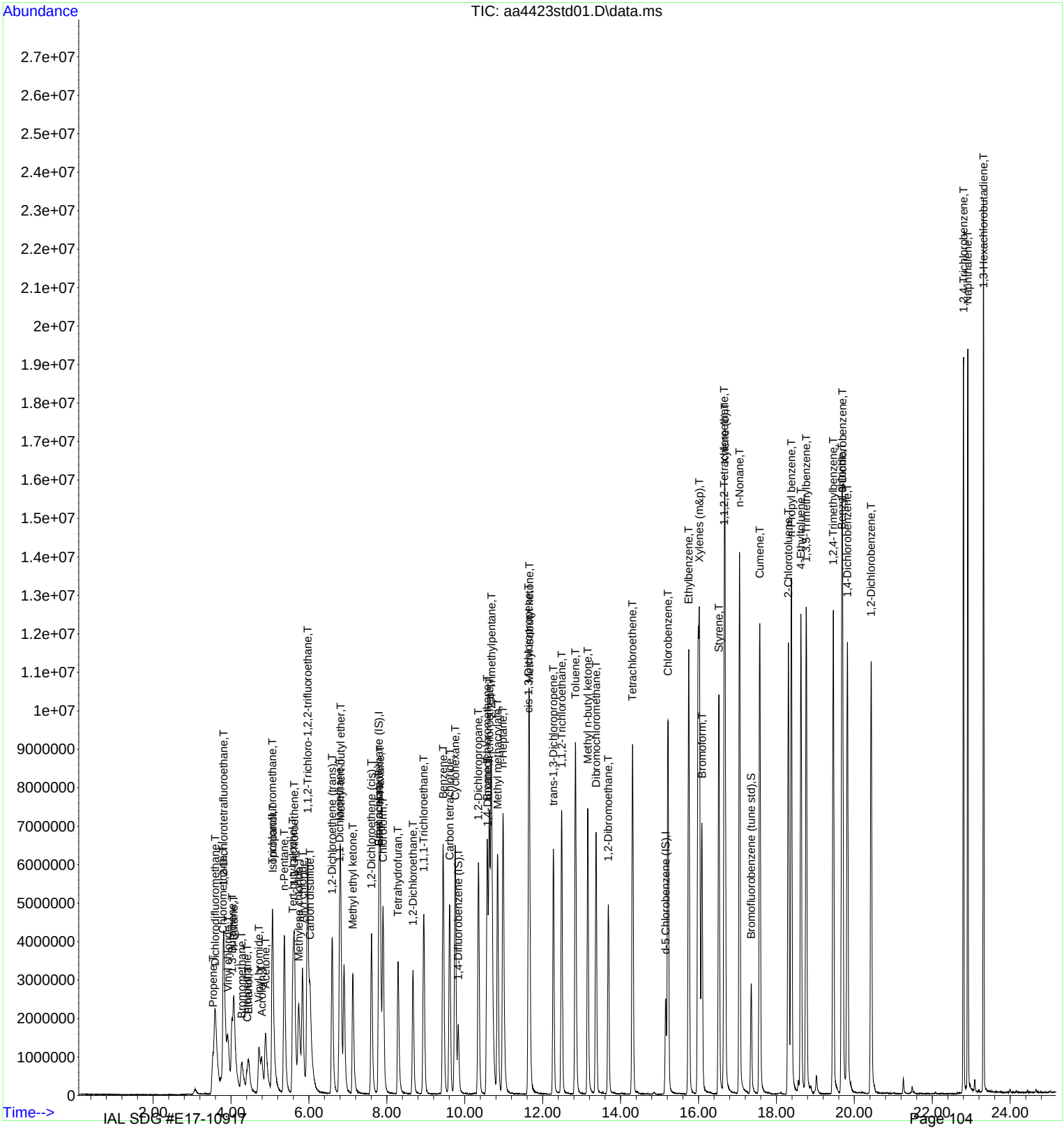
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.370	129	4968604	36.88	ppbV		99
53) 1,2-Dibromoethane	13.682	107	5157851	36.02	ppbV		100
54) Tetrachloroethene	14.306	166	3794043	33.20	ppbV		97
56) Chlorobenzene	15.216	112	7271169	33.23	ppbV	#	84
57) Ethylbenzene	15.749	91	12255339	32.44	ppbV		99
58) Xylenes (m&p)	16.019	91	18965426	63.27	ppbV		93
59) Bromoform	16.087	173	4533796	33.30	ppbV		96
60) Styrene	16.524	104	7295232	33.48	ppbV		98
61) Xylene (o)	16.679	91	8911498	30.93	ppbV		99
62) 1,1,2,2-Tetrachloroethane	16.659	83	6871943	29.24	ppbV		100
63) n-Nonane	17.052	57	7101038	33.90	ppbV	#	77
65) Cumene	17.572	105	11945406	31.82	ppbV		92
66) 2-Chlorotoluene	18.306	91	9781537	33.88	ppbV		96
67) n-Propyl benzene	18.386	91	15892039	32.47	ppbV		98
68) 4-Ethyltoluene	18.627	105	11163135	31.75	ppbV		99
69) 1,3,5-Trimethylbenzene	18.765	105	10508167	31.15	ppbV		99
70) 1,2,4-Trimethylbenzene	19.460	105	10512012	32.16	ppbV		99
71) Benzyl chloride	19.675	91	9569521	34.25	ppbV		98
72) 1,3-Dichlorobenzene	19.698	146	6036897	29.06	ppbV		98
73) 1,4-Dichlorobenzene	19.820	146	6900447	31.09	ppbV		97
74) 1,2-Dichlorobenzene	20.431	146	6724227	31.47	ppbV		99
75) 1,2,4-Trichlorobenzene	22.801	180	5009259	25.58	ppbV		98
76) Naphthalene	22.913	127	1666031	26.25	ppbV		100
77) 1,3-Hexachlorobutadiene	23.315	225	3519035	26.03	ppbV		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4423std01.D
Acq On : 8 Dec 2017 3:47 pm
Operator : jls
Sample : 40 ppbv Std
Misc : CC483586
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 12 08:36:03 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration



IAL Integrated Analytical Laboratories LLC

Data Path : C:\DATA\12-08-17\
Data File : aa4424std02.D
Acq On : 8 Dec 2017 4:21 pm
Operator : jls
Sample : 20 ppbv Std
Misc : CC483586
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 12 08:36:31 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.779	130	517335	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.830	114	2174056	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.158	117	1916060	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.351	95	1532212	10.15	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.531	41	986826	19.41	ppbV		86
3) Dichlorodifluoromethane	3.596	85	2716384	18.92	ppbV		97
4) Chloromethane	3.763	52	367074	20.03	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.805	85	2900731	19.58	ppbV		86
6) Vinyl chloride	3.920	62	1468229	18.82	ppbV		81
7) 1,3-Butadiene	4.017	54	1166525	19.59	ppbV		83
8) n-Butane	4.068	43	2299533	19.29	ppbV		99
9) Bromomethane	4.280	94	912579	19.22	ppbV		97
10) Chloroethane	4.415	64	724496	18.86	ppbV		93
11) Ethanol	4.460	45	574245	18.95	ppbV		98
12) Vinyl bromide	4.714	106	1278497	18.79	ppbV		100
13) Acrolein	4.779	56	582687	18.70	ppbV		98
14) Acetone	4.882	58	784738	19.06	ppbV		94
15) Trichlorofluoromethane	5.062	101	2607697	19.05	ppbV		99
16) Isopropanol	5.052	45	2436194	19.50	ppbV		92
17) n-Pentane	5.364	43	2634400	19.00	ppbV		91
18) 1,1-Dichloroethene	5.624	61	2180082	19.06	ppbV		84
19) Methylene chloride	5.740	49	1687201	18.83	ppbV		96
20) Tert-butyl alcohol	5.589	59	3185005	18.99	ppbV		100
21) Allyl chloride	5.830	76	692810	19.08	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.959	101	2510594	18.71	ppbV		99
23) Carbon disulfide	6.020	76	4305153	18.99	ppbV		100
24) 1,2-Dichloroethene (tr...	6.589	61	2097181	18.95	ppbV		99
25) 1,1-Dichloroethane	6.785	63	2647575	19.03	ppbV		99
26) Methyl tert-butyl ether	6.811	73	3676432	18.91	ppbV		100
27) Methyl ethyl ketone	7.126	43	3087304	18.74	ppbV		91
28) 1,2-Dichloroethene (cis)	7.599	61	2046203	19.18	ppbV		98
29) Ethyl acetate	7.795	45	509695	19.96	ppbV		100
30) n-Hexane	7.824	57	2339280	19.37	ppbV		90
31) Chloroform	7.901	83	2685316	18.83	ppbV		99
32) Tetrahydrofuran	8.290	42	1723223	18.90	ppbV		87
33) 1,2-Dichloroethane	8.669	62	1842100	18.97	ppbV		99
34) 1,1,1-Trichloroethane	8.946	97	2232687	18.59	ppbV		100
35) Benzene	9.441	78	4741409	18.98	ppbV		98
36) Carbon tetrachloride	9.611	117	2191405	18.77	ppbV		99
37) Cyclohexane	9.756	56	2451347	18.93	ppbV		86
39) 1,2-Dichloropropane	10.351	63	1932000	19.90	ppbV		96
40) Bromodichloromethane	10.573	83	2746005	19.47	ppbV		98
41) 2,2,4-Trimethylpentane	10.685	57	7613803	19.51	ppbV		90
42) Trichloroethene	10.627	130	1769190	20.00	ppbV		97
43) 1,4-Dioxane	10.592	88	853546	19.76	ppbV		99
44) Methyl methacrylate	10.840	41	2187147	19.55	ppbV		95
45) n-Heptane	10.981	43	2841604	19.68	ppbV		96
46) cis-1,3-Dichloropropene	11.634	75	2695095	19.81	ppbV		99
47) Methyl isobutyl ketone	11.656	43	3787042	19.63	ppbV		87
48) trans-1,3-Dichloropropene	12.270	75	2456637	19.81	ppbV		93
49) 1,1,2-Trichloroethane	12.486	97	1810859	19.60	ppbV		91
50) Toluene	12.840	91	5238497	19.56	ppbV		97
51) Methyl n-butyl ketone	13.155	43	3710673	19.89	ppbV		88

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4424std02.D
Acq On : 8 Dec 2017 4:21 pm
Operator : jls
Sample : 20 ppbv Std
Misc : CC483586
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 12 08:36:31 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

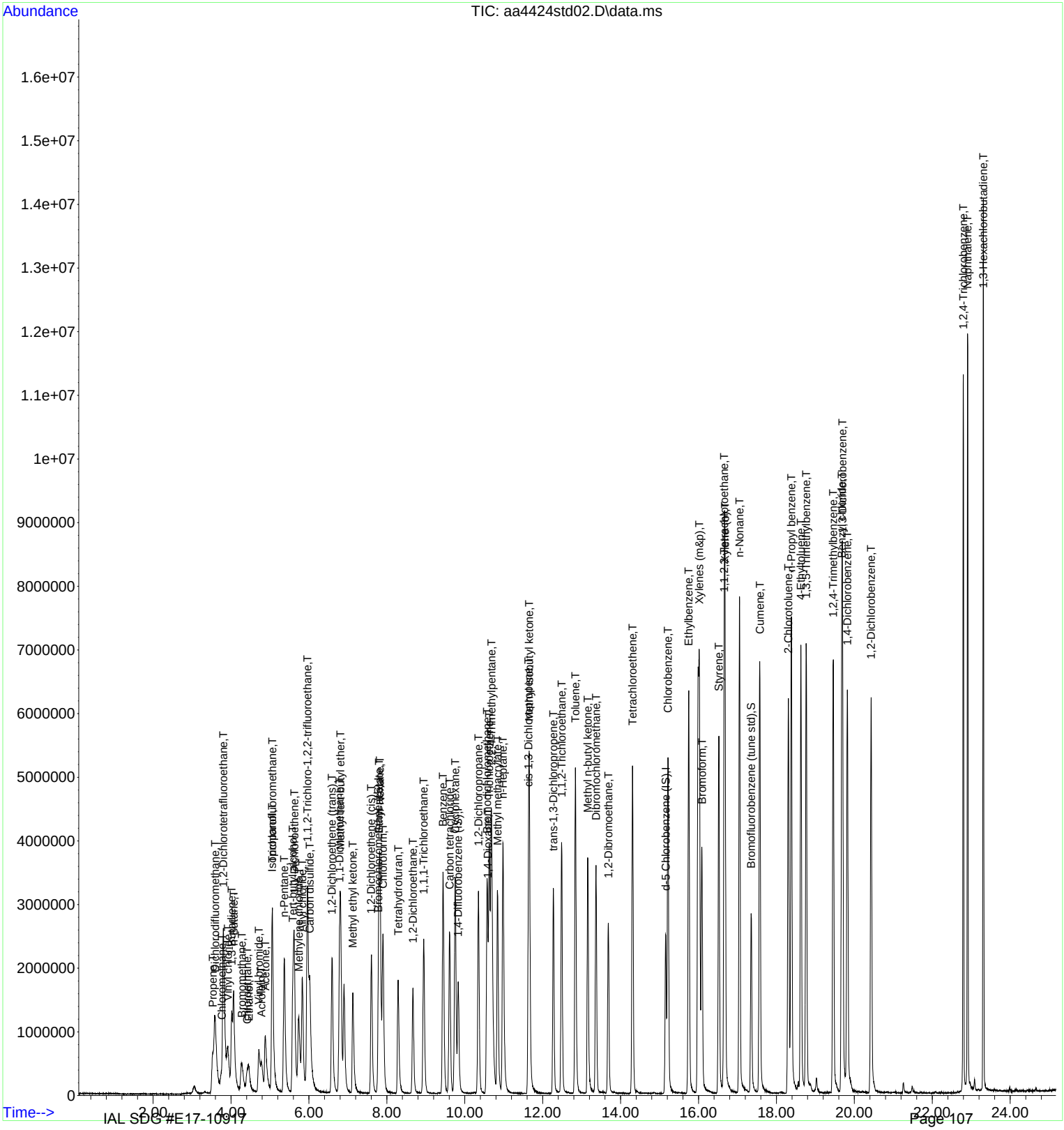
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.370	129	2641664	19.90	ppbV		99
53) 1,2-Dibromoethane	13.685	107	2740895	19.65	ppbV		99
54) Tetrachloroethene	14.309	166	2123640	19.81	ppbV		98
56) Chlorobenzene	15.216	112	3919138	19.80	ppbV	#	84
57) Ethylbenzene	15.749	91	6633975	19.63	ppbV		99
58) Xylenes (m&p)	16.016	91	10542670	39.75	ppbV		95
59) Bromoform	16.087	173	2519190	20.44	ppbV		96
60) Styrene	16.521	104	3928828	19.87	ppbV		98
61) Xylene (o)	16.682	91	5076615	20.11	ppbV		99
62) 1,1,2,2-Tetrachloroethane	16.656	83	3940558	19.61	ppbV		100
63) n-Nonane	17.055	57	3855365	20.16	ppbV		82
65) Cumene	17.576	105	6635681	19.93	ppbV		91
66) 2-Chlorotoluene	18.306	91	5222589	19.82	ppbV		94
67) n-Propyl benzene	18.383	91	8883320	20.28	ppbV		98
68) 4-Ethyltoluene	18.627	105	6251874	20.06	ppbV		98
69) 1,3,5-Trimethylbenzene	18.762	105	5772928	19.47	ppbV		97
70) 1,2,4-Trimethylbenzene	19.457	105	5827907	20.01	ppbV		99
71) Benzyl chloride	19.675	91	5188724	20.25	ppbV		99
72) 1,3-Dichlorobenzene	19.695	146	3525847	19.90	ppbV		99
73) 1,4-Dichlorobenzene	19.820	146	3903372	20.03	ppbV		94
74) 1,2-Dichlorobenzene	20.428	146	3762952	19.95	ppbV		99
75) 1,2,4-Trichlorobenzene	22.797	180	3149528	19.85	ppbV		99
76) Naphthalene	22.907	127	1040222	20.03	ppbV		100
77) 1,3-Hexachlorobutadiene	23.312	225	2161108	19.60	ppbV		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4424std02.D
Acq On : 8 Dec 2017 4:21 pm
Operator : jls
Sample : 20 ppbv Std
Misc : CC483586
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 12 08:36:31 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4425std03.D
Acq On : 8 Dec 2017 4:55 pm
Operator : jls
Sample : 10 ppbv Std
Misc : CC483586
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 08:35:39 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.772	130	535307	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.830	114	2117078	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.151	117	1821276	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.350	95	1448230	10.00	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.524	41	493584	10.00	ppbV		88
3) Dichlorodifluoromethane	3.582	85	1387158	10.00	ppbV		96
4) Chloromethane	3.772	52	176557	10.00	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.791	85	1494071	10.00	ppbV		87
6) Vinyl chloride	3.910	62	770898	10.00	ppbV		78
7) 1,3-Butadiene	4.016	54	591778	10.00	ppbV		83
8) n-Butane	4.058	43	1179831	10.00	ppbV		99
9) Bromomethane	4.270	94	499788	10.00	ppbV		95
10) Chloroethane	4.415	64	371693	10.00	ppbV		92
11) Ethanol	4.463	45	292199	10.00	ppbV		96
12) Vinyl bromide	4.708	106	654899	10.00	ppbV		98
13) Acrolein	4.775	56	292896	10.00	ppbV		95
14) Acetone	4.875	58	398437	10.00	ppbV		98
15) Trichlorofluoromethane	5.055	101	1308140	10.00	ppbV		100
16) Isopropanol	5.052	45	1228092	10.00	ppbV		100
17) n-Pentane	5.364	43	1342296	10.00	ppbV		91
18) 1,1-Dichloroethene	5.621	61	1113978	10.00	ppbV		88
19) Methylene chloride	5.740	49	863570	10.00	ppbV		97
20) Tert-butyl alcohol	5.589	59	1592207	10.00	ppbV		100
21) Allyl chloride	5.830	76	367529	10.00	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.962	101	1342431	10.00	ppbV		98
23) Carbon disulfide	6.019	76	2220016	10.00	ppbV		98
24) 1,2-Dichloroethene (tr...	6.589	61	1059150	10.00	ppbV		100
25) 1,1-Dichloroethane	6.781	63	1364388	10.00	ppbV		99
26) Methyl tert-butyl ether	6.810	73	1881872	10.00	ppbV		100
27) Methyl ethyl ketone	7.129	43	1549699	10.00	ppbV		90
28) 1,2-Dichloroethene (cis)	7.598	61	1022150	10.00	ppbV		99
29) Ethyl acetate	7.798	45	238978	10.00	ppbV		100
30) n-Hexane	7.817	57	1178193	10.00	ppbV		91
31) Chloroform	7.897	83	1372787	10.00	ppbV		99
32) Tetrahydrofuran	8.289	42	857540	10.00	ppbV		86
33) 1,2-Dichloroethane	8.666	62	902193	10.00	ppbV		97
34) 1,1,1-Trichloroethane	8.945	97	1151962	10.00	ppbV		99
35) Benzene	9.441	78	2442805	10.00	ppbV		99
36) Carbon tetrachloride	9.608	117	1118227	10.00	ppbV		100
37) Cyclohexane	9.749	56	1275921	9.93	ppbV		87
39) 1,2-Dichloropropane	10.350	63	975135	10.00	ppbV		97
40) Bromodichloromethane	10.569	83	1392189	10.00	ppbV		99
41) 2,2,4-Trimethylpentane	10.682	57	3922764	10.00	ppbV		91
42) Trichloroethene	10.627	130	928977	10.00	ppbV		98
43) 1,4-Dioxane	10.592	88	451065	10.00	ppbV		99
44) Methyl methacrylate	10.836	41	1085868	10.00	ppbV		93
45) n-Heptane	10.977	43	1450552	10.00	ppbV		98
46) cis-1,3-Dichloropropene	11.633	75	1371538	10.00	ppbV		99
47) Methyl isobutyl ketone	11.662	43	1927247	10.00	ppbV		87
48) trans-1,3-Dichloropropene	12.273	75	1200229	10.00	ppbV		99
49) 1,1,2-Trichloroethane	12.482	97	948303	10.00	ppbV		93
50) Toluene	12.839	91	2745185	10.00	ppbV		97
51) Methyl n-butyl ketone	13.154	43	1820862	10.00	ppbV		89

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4425std03.D
Acq On : 8 Dec 2017 4:55 pm
Operator : jls
Sample : 10 ppbv Std
Misc : CC483586
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 08:35:39 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

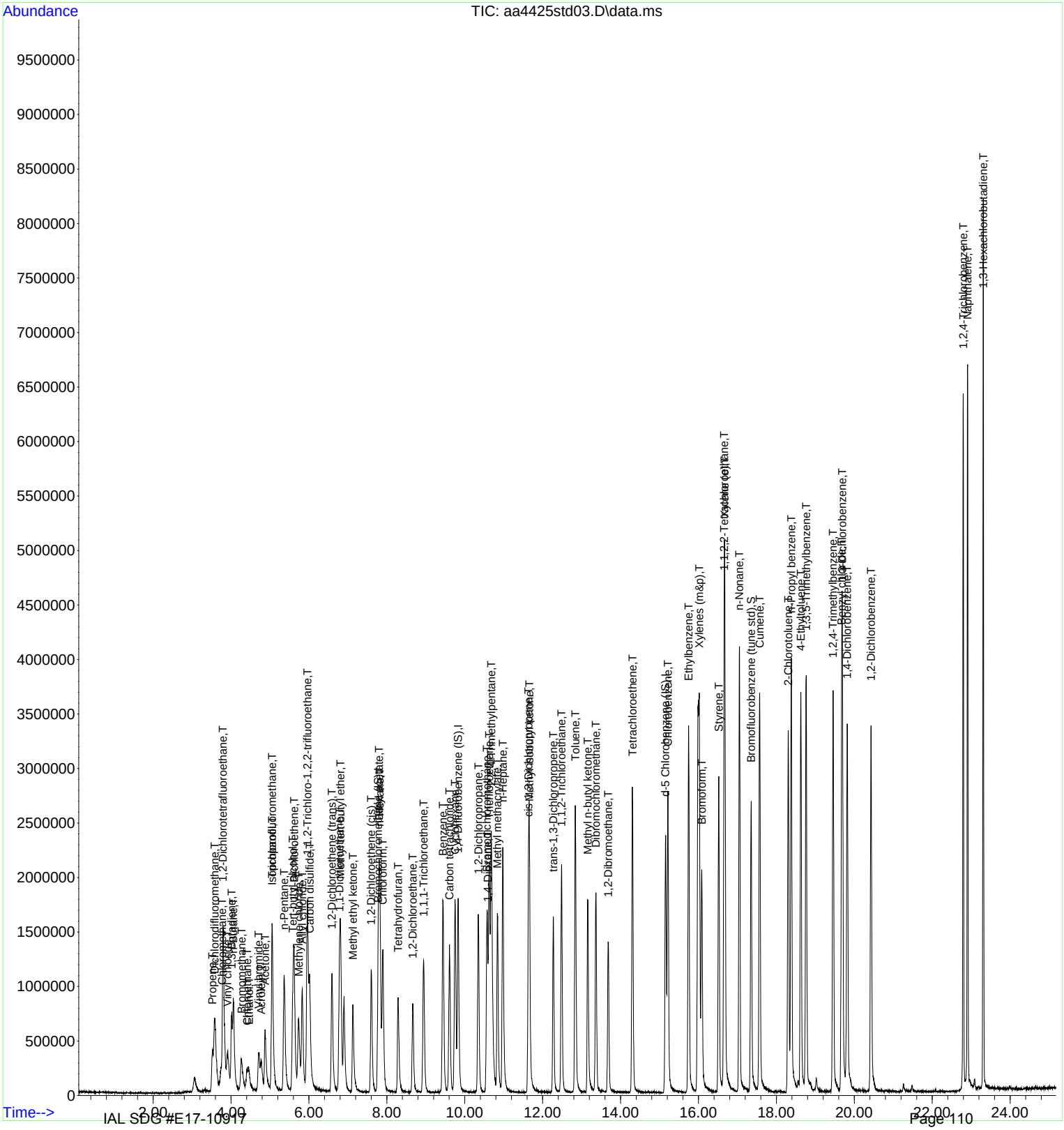
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.366	129	1345077	10.00	ppbV		98
53) 1,2-Dibromoethane	13.682	107	1429532	10.00	ppbV		99
54) Tetrachloroethene	14.309	166	1140951	10.00	ppbV		96
56) Chlorobenzene	15.215	112	2055345	10.00	ppbV		89
57) Ethylbenzene	15.746	91	3548606	10.00	ppbV		98
58) Xylenes (m&p)	16.019	91	5630781	20.00	ppbV	#	28
59) Bromoform	16.083	173	1278651	10.00	ppbV		96
60) Styrene	16.521	104	2046317	10.00	ppbV		98
61) Xylene (o)	16.675	91	2705927	10.00	ppbV		99
62) 1,1,2,2-Tetrachloroethane	16.659	83	2207152	10.00	ppbV		100
63) n-Nonane	17.048	57	1967606	10.00	ppbV		81
65) Cumene	17.569	105	3525888	10.00	ppbV		91
66) 2-Chlorotoluene	18.305	91	2711343	10.00	ppbV		92
67) n-Propyl benzene	18.382	91	4596194	10.00	ppbV		99
68) 4-Ethyltoluene	18.627	105	3302717	10.00	ppbV		99
69) 1,3,5-Trimethylbenzene	18.765	105	3168533	10.00	ppbV		100
70) 1,2,4-Trimethylbenzene	19.453	105	3069844	10.00	ppbV		99
71) Benzyl chloride	19.675	91	2624025	10.00	ppbV		98
72) 1,3-Dichlorobenzene	19.694	146	1951285	10.00	ppbV		98
73) 1,4-Dichlorobenzene	19.820	146	2084640	10.00	ppbV		94
74) 1,2-Dichlorobenzene	20.430	146	2006957	10.00	ppbV		100
75) 1,2,4-Trichlorobenzene	22.797	180	1839441	10.00	ppbV		99
76) Naphthalene	22.909	127	596124	10.00	ppbV		100
77) 1,3-Hexachlorobutadiene	23.311	225	1269826	10.00	ppbV		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4425std03.D
Acq On : 8 Dec 2017 4:55 pm
Operator : jls
Sample : 10 ppbv Std
Misc : CC483586
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 08:35:39 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4426std04.D
Acq On : 8 Dec 2017 5:29 pm
Operator : jls
Sample : 2 ppbv Std
Misc : CC483586
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 08:36:57 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.772	130	524338	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.823	114	2073129	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.154	117	1761259	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.354	95	1375426	9.86	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.528	41	68980	1.35	ppbV	#	72
3) Dichlorodifluoromethane	3.582	85	227748	1.59	ppbV		91
4) Chloromethane	3.740	52	12059	0.65	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.791	85	267074	1.79	ppbV		84
6) Vinyl chloride	3.910	62	109100	1.41	ppbV		77
7) 1,3-Butadiene	4.020	54	101593	1.69	ppbV	#	52
8) n-Butane	4.055	43	209073	1.75	ppbV		93
9) Bromomethane	4.258	94	61242	1.29	ppbV		85
10) Chloroethane	4.412	64	42606	1.12	ppbV		93
11) Ethanol	4.447	45	50045	1.66	ppbV	#	86
12) Vinyl bromide	4.714	106	92553	1.37	ppbV	#	80
13) Acrolein	4.766	56	42402	1.37	ppbV	#	81
14) Acetone	4.885	58	40033	0.97	ppbV	#	49
15) Trichlorofluoromethane	5.049	101	234556	1.72	ppbV		98
16) Isopropanol	5.049	45	198145	1.58	ppbV	#	91
17) n-Pentane	5.354	43	227168	1.64	ppbV		88
18) 1,1-Dichloroethene	5.618	61	169024	1.48	ppbV		90
19) Methylene chloride	5.724	49	122589	1.38	ppbV		95
20) Tert-butyl alcohol	5.579	59	280893	1.68	ppbV		100
21) Allyl chloride	5.836	76	53290	1.47	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.958	101	277904	2.09	ppbV		96
23) Carbon disulfide	6.007	76	350724	1.55	ppbV		96
24) 1,2-Dichloroethene (tr...	6.585	61	163457	1.48	ppbV		93
25) 1,1-Dichloroethane	6.778	63	208732	1.50	ppbV		96
26) Methyl tert-butyl ether	6.814	73	356634	1.84	ppbV		96
27) Methyl ethyl ketone	7.135	43	220190	1.35	ppbV		92
28) 1,2-Dichloroethene (cis)	7.595	61	163673	1.53	ppbV		100
29) Ethyl acetate	7.804	45	19409	0.75	ppbV		100
30) n-Hexane	7.814	57	212969	1.76	ppbV		89
31) Chloroform	7.897	83	214195	1.51	ppbV		97
32) Tetrahydrofuran	8.293	42	124122	1.37	ppbV		95
33) 1,2-Dichloroethane	8.663	62	148734	1.54	ppbV		99
34) 1,1,1-Trichloroethane	8.945	97	209076	1.76	ppbV		99
35) Benzene	9.441	78	415579	1.67	ppbV		100
36) Carbon tetrachloride	9.605	117	116622	1.01	ppbV	#	23
37) Cyclohexane	9.743	56	236518	1.83	ppbV		89
39) 1,2-Dichloropropane	10.344	63	173797	1.88	ppbV		99
40) Bromodichloromethane	10.566	83	231393	1.74	ppbV		98
41) 2,2,4-Trimethylpentane	10.679	57	660002	1.79	ppbV		93
42) Trichloroethene	10.621	130	153192	1.82	ppbV		100
43) 1,4-Dioxane	10.601	88	72147	1.76	ppbV		92
44) Methyl methacrylate	10.846	41	194693	1.84	ppbV		100
45) n-Heptane	10.974	43	273404	2.00	ppbV		97
46) cis-1,3-Dichloropropene	11.640	75	225959	1.75	ppbV		99
47) Methyl isobutyl ketone	11.659	43	361593	1.98	ppbV		87
48) trans-1,3-Dichloropropene	12.270	75	188802	1.60	ppbV		92
49) 1,1,2-Trichloroethane	12.482	97	172865	1.98	ppbV		89
50) Toluene	12.839	91	538989	2.13	ppbV		93
51) Methyl n-butyl ketone	13.161	43	308862	1.74	ppbV		87

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4426std04.D
Acq On : 8 Dec 2017 5:29 pm
Operator : jls
Sample : 2 ppbv Std
Misc : CC483586
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 08:36:57 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration

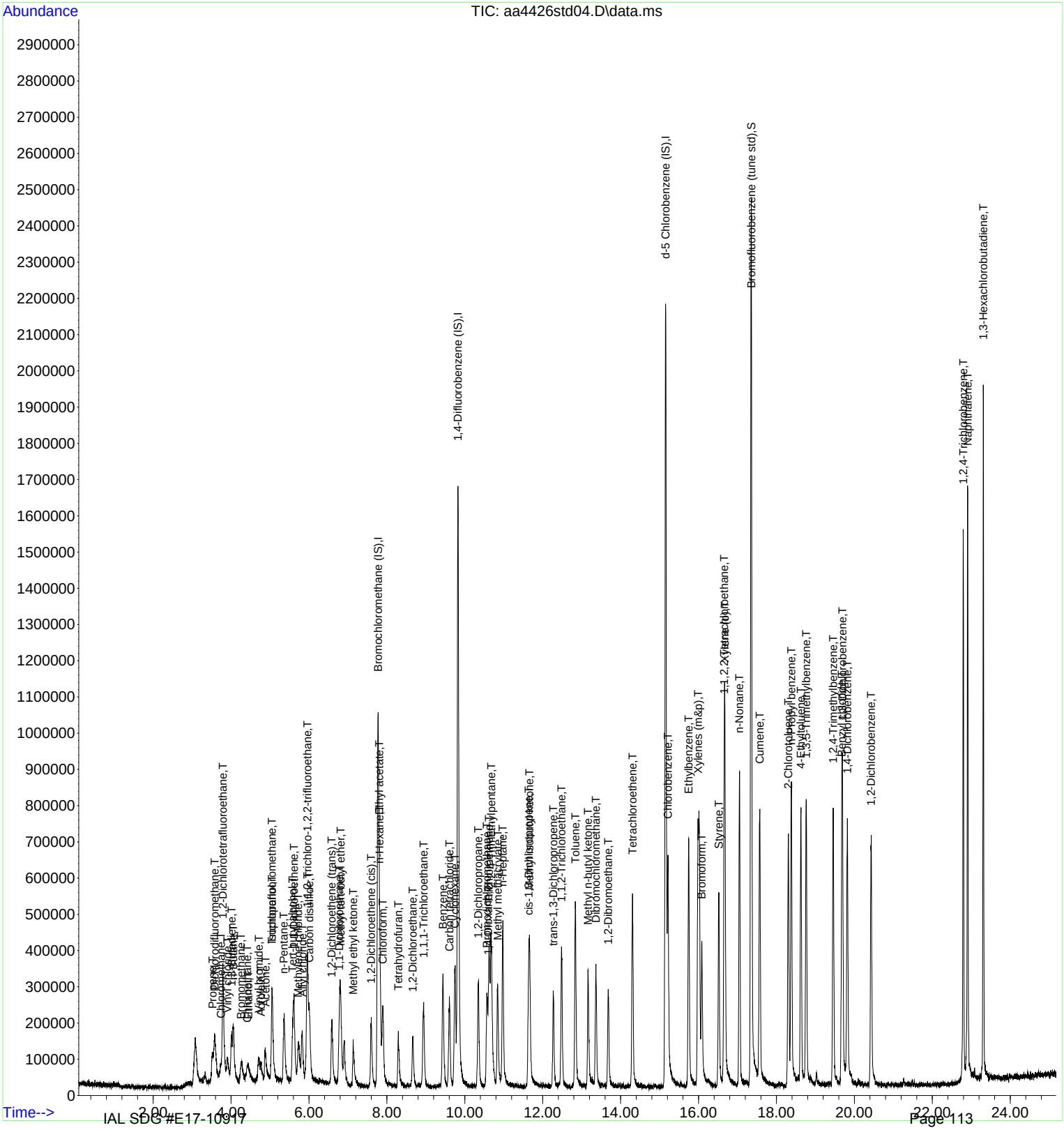
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.363	129	242393	1.92	ppbV	94
53) 1,2-Dibromoethane	13.682	107	262296	1.98	ppbV	98
54) Tetrachloroethene	14.309	166	218484	2.14	ppbV	100
56) Chlorobenzene	15.212	112	417628	2.30	ppbV	94
57) Ethylbenzene	15.746	91	700082	2.27	ppbV	99
58) Xylenes (m&p)	15.987	91	1129115	4.64	ppbV	96
59) Bromoform	16.080	173	233418	2.05	ppbV	92
60) Styrene	16.518	104	385903	2.13	ppbV	96
61) Xylene (o)	16.675	91	567666	2.44	ppbV	96
62) 1,1,2,2-Tetrachloroethane	16.659	83	476873	2.60	ppbV	98
63) n-Nonane	17.048	57	409005	2.32	ppbV	89
65) Cumene	17.572	105	710861	2.33	ppbV	91
66) 2-Chlorotoluene	18.305	91	557014	2.31	ppbV	91
67) n-Propyl benzene	18.386	91	944864	2.34	ppbV	99
68) 4-Ethyltoluene	18.627	105	669072	2.33	ppbV	96
69) 1,3,5-Trimethylbenzene	18.762	105	603427	2.23	ppbV	92
70) 1,2,4-Trimethylbenzene	19.456	105	615391	2.30	ppbV	97
71) Benzyl chloride	19.675	91	469865	1.99	ppbV	98
72) 1,3-Dichlorobenzene	19.694	146	424736	2.61	ppbV	97
73) 1,4-Dichlorobenzene	19.820	146	438199	2.44	ppbV	97
74) 1,2-Dichlorobenzene	20.427	146	431074	2.49	ppbV	94
75) 1,2,4-Trichlorobenzene	22.794	180	454797	3.13	ppbV	100
76) Naphthalene	22.910	127	154926	3.24	ppbV	100
77) 1,3-Hexachlorobutadiene	23.308	225	288641	2.87	ppbV	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4426std04.D
Acq On : 8 Dec 2017 5:29 pm
Operator : jls
Sample : 2 ppbv Std
Misc : CC483586
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 08:36:57 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 08:24:17 2017
Response via : Initial Calibration



Data Path : C:\DATA\12-08-17\
Data File : aa4427std05.D
Acq On : 8 Dec 2017 6:02 pm
Operator : jls
Sample : 0.2 ppbv Std
Misc : CC483586
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:25:31 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:24:55 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.769	130	512240	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.826	114	1970078	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.154	117	1697650	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.353	95	1382495	10.26	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.508	41	7467	0.17	ppbV	#	43
3) Dichlorodifluoromethane	3.589	85	20664	0.16	ppbV	#	84
4) Chloromethane	3.749	52	2966	0.20	ppbV	#	37
5) 1,2-Dichlorotetrafluor...	3.798	85	49002	0.30	ppbV		88
6) Vinyl chloride	3.904	62	7317	0.12	ppbV		100
7) 1,3-Butadiene	4.003	54	11916	0.21	ppbV		99
8) n-Butane	4.052	43	35925	0.28	ppbV	#	65
9) Bromomethane	4.277	94	5862	0.15	ppbV		100
10) Chloroethane	4.444	64	4373	0.14	ppbV		92
11) Ethanol	4.438	45	4046	0.15	ppbV		97
12) Vinyl bromide	4.704	106	5493	0.10	ppbV	#	59
13) Acrolein	4.782	56	4416	0.17	ppbV	#	19
14) Acetone	4.888	58	6953	0.20	ppbV		95
15) Trichlorofluoromethane	5.048	101	32247	0.24	ppbV		94
16) Isopropanol	5.052	45	34132	0.27	ppbV	#	70
17) n-Pentane	5.354	43	38584	0.27	ppbV	#	51
18) 1,1-Dichloroethene	5.611	61	34357	0.29	ppbV		92
19) Methylene chloride	5.727	49	18267	0.22	ppbV	#	83
20) Tert-butyl alcohol	5.598	59	25037	0.17	ppbV		100
21) Allyl chloride	5.823	76	9644	0.27	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.968	101	34162	0.25	ppbV	#	82
23) Carbon disulfide	6.010	76	69433	0.29	ppbV		95
24) 1,2-Dichloroethene (tr...	6.582	61	19990	0.20	ppbV	#	62
25) 1,1-Dichloroethane	6.775	63	33641	0.25	ppbV	#	65
26) Methyl tert-butyl ether	6.830	73	64554	0.30	ppbV	#	61
27) Methyl ethyl ketone	7.148	43	33999	0.22	ppbV	#	79
28) 1,2-Dichloroethene (cis)	7.595	61	29922	0.28	ppbV		98
29) Ethyl acetate	7.804	45	6006	0.26	ppbV		100
30) n-Hexane	7.823	57	16119	0.15	ppbV	#	66
31) Chloroform	7.891	83	40138	0.28	ppbV		96
32) Tetrahydrofuran	8.306	42	23754	0.27	ppbV		97
33) 1,2-Dichloroethane	8.662	62	26399	0.27	ppbV	#	78
34) 1,1,1-Trichloroethane	8.942	97	33467	0.27	ppbV	#	58
35) Benzene	9.444	78	54553	0.23	ppbV		96
36) Carbon tetrachloride	9.605	117	27405	0.26	ppbV	#	73
37) Cyclohexane	9.762	56	41029	0.29	ppbV		95
39) 1,2-Dichloropropane	10.341	63	20614	0.23	ppbV	#	58
40) Bromodichloromethane	10.569	83	35937	0.27	ppbV		90
41) 2,2,4-Trimethylpentane	10.678	57	56264	0.17	ppbV	#	70
42) Trichloroethene	10.624	130	19343	0.24	ppbV	#	35
43) 1,4-Dioxane	10.605	88	10075	0.25	ppbV	#	12
44) Methyl methacrylate	10.849	41	28509	0.27	ppbV		91
45) n-Heptane	10.974	43	38789	0.27	ppbV		86
46) cis-1,3-Dichloropropene	11.637	75	36097	0.27	ppbV	#	77
47) Methyl isobutyl ketone	11.682	43	54457	0.28	ppbV	#	39
48) trans-1,3-Dichloropropene	12.276	75	28438	0.25	ppbV		98
49) 1,1,2-Trichloroethane	12.482	97	26869	0.29	ppbV		96
50) Toluene	12.836	91	78045	0.29	ppbV		100
51) Methyl n-butyl ketone	13.177	43	55831	0.30	ppbV	#	79

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4427std05.D
Acq On : 8 Dec 2017 6:02 pm
Operator : jls
Sample : 0.2 ppbv Std
Misc : CC483586
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:25:31 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:24:55 2017
Response via : Initial Calibration

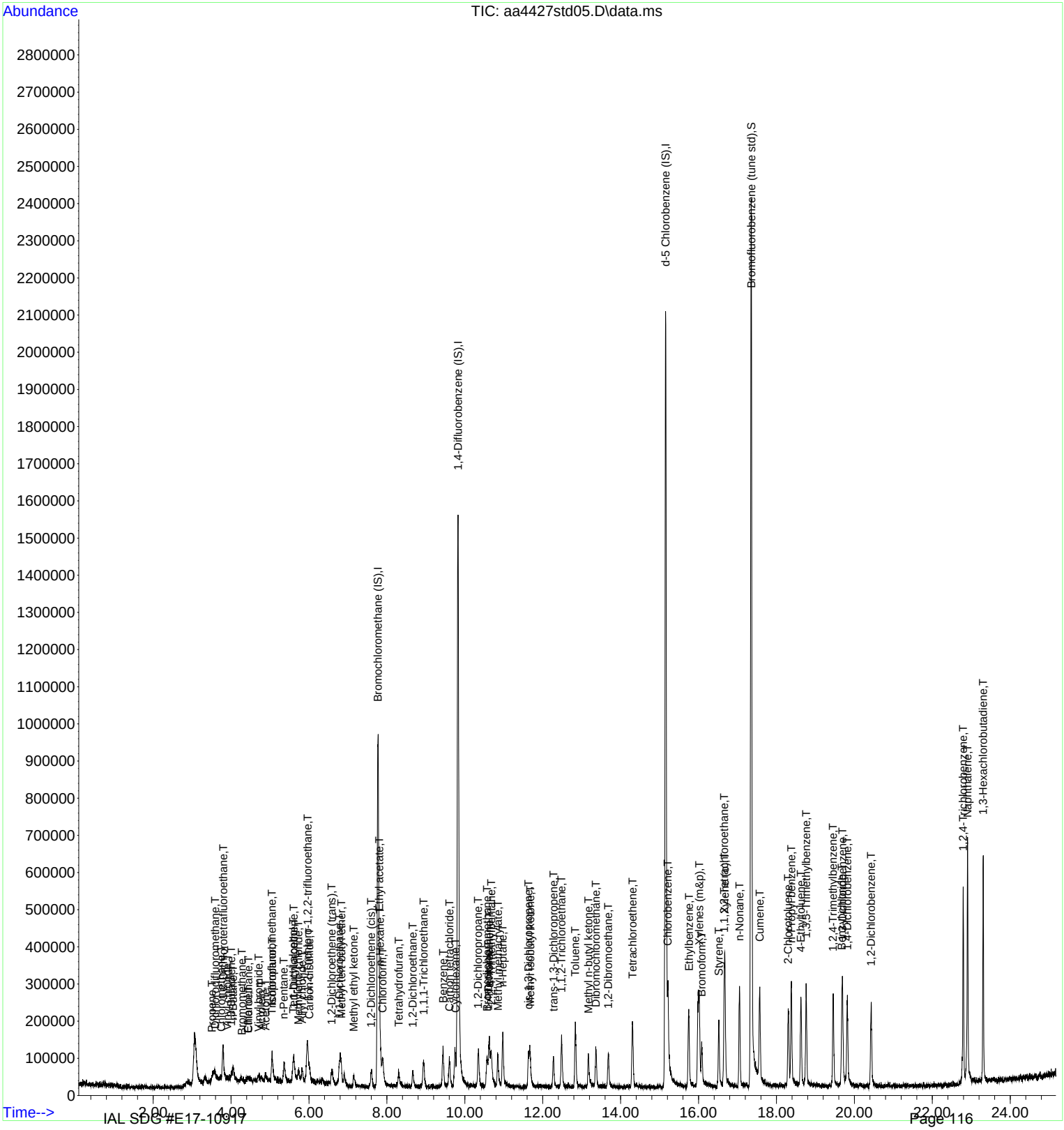
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.363	129	39891	0.30	ppbV		90
53) 1,2-Dibromoethane	13.682	107	40330	0.29	ppbV		94
54) Tetrachloroethene	14.309	166	19473	0.20	ppbV	#	68
56) Chlorobenzene	15.209	112	52420	0.27	ppbV		87
57) Ethylbenzene	15.755	91	100490	0.29	ppbV		94
58) Xylenes (m&p)	16.016	91	132537	0.44	ppbV	#	58
59) Bromoform	16.080	173	32433	0.27	ppbV	#	61
60) Styrene	16.517	104	57074	0.29	ppbV		87
61) Xylene (o)	16.675	91	64028	0.25	ppbV		88
62) 1,1,2,2-Tetrachloroethane	16.659	83	58109	0.28	ppbV		89
63) n-Nonane	17.051	57	55262	0.28	ppbV	#	74
65) Cumene	17.572	105	96559	0.28	ppbV		97
66) 2-Chlorotoluene	18.299	91	72770	0.27	ppbV		89
67) n-Propyl benzene	18.379	91	124490	0.28	ppbV		98
68) 4-Ethyltoluene	18.627	105	74601	0.24	ppbV	#	82
69) 1,3,5-Trimethylbenzene	18.762	105	83897	0.28	ppbV		97
70) 1,2,4-Trimethylbenzene	19.453	105	70992	0.25	ppbV	#	75
71) Benzyl chloride	19.678	91	63064	0.26	ppbV		99
72) 1,3-Dichlorobenzene	19.697	146	54004	0.29	ppbV		91
73) 1,4-Dichlorobenzene	19.820	146	50482	0.26	ppbV		98
74) 1,2-Dichlorobenzene	20.427	146	57495	0.29	ppbV		93
75) 1,2,4-Trichlorobenzene	22.791	180	26856	0.17	ppbV		92
76) Naphthalene	22.903	127	14777	0.26	ppbV		100
77) 1,3-Hexachlorobutadiene	23.305	225	28115	0.25	ppbV		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-08-17\
Data File : aa4427std05.D
Acq On : 8 Dec 2017 6:02 pm
Operator : jls
Sample : 0.2 ppbv Std
Misc : CC483586
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:25:31 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:24:55 2017
Response via : Initial Calibration



Continuing Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017
Instrument: AA
Amount of standard injected (ml): 50

Date/Time of Calibration: 10/16/2017 09:38
Sample ID: DCS
Laboratory ID: AA3812DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 08:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 09:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
CLEAN CAN CERTIFICATION, BATCH MASTER 1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Acetone	0.25	0.25	-1.2	PASS	
Benzene	2.9	2.6	13	PASS	
Bromodichloromethane	0.94	0.98	-3.9	PASS	
Bromoform	1.0	1.0	-2.1	PASS	
Bromomethane	0.58	0.64	-9.3	PASS	
1,3-Butadiene	0.31	0.29	9.2	PASS	
Chlorobenzene	1.3	1.2	6.0	PASS	
Chloroethane	0.30	0.30	0.70	PASS	
Chloroform	3.0	3.0	2.7	PASS	
Chloromethane	0.084	0.083	1.2	PASS	
Carbon disulfide	2.7	2.5	5.6	PASS	
Carbon tetrachloride	4.4	4.0	8.3	PASS	
Cyclohexane	1.2	1.1	10	PASS	
Dibromochloromethane	1.1	1.1	-1.1	PASS	
1,2-Dibromoethane	0.79	0.76	4.1	PASS	
1,2-Dichlorobenzene	1.4	1.4	0.40	PASS	
1,3-Dichlorobenzene	1.5	1.5	-2.0	PASS	
1,4-Dichlorobenzene	1.5	1.5	-1.3	PASS	
Dichlorodifluoromethane	3.7	3.7	0.20	PASS	
1,1-Dichloroethane	1.6	1.4	9.8	PASS	
1,2-Dichloroethane	1.9	1.8	6.0	PASS	
1,1-Dichloroethene	1.4	1.3	4.8	PASS	
1,2-Dichloroethene (cis)	1.1	0.97	13	PASS	
1,2-Dichloroethene (trans)	1.1	0.99	12	PASS	
1,2-Dichloropropane	0.26	0.23	9.7	PASS	
1,3-Dichloropropene (cis)	0.57	0.56	1.1	PASS	
1,3-Dichloropropene (trans)	0.60	0.58	3.3	PASS	
1,2-Dichlorotetrafluoroethane	2.9	2.7	8.9	PASS	
1,4-Dioxane	0.18	0.16	12	PASS	
Ethylbenzene	1.9	1.9	1.9	PASS	
n-Heptane	0.24	0.27	-9.9	PASS	
1,3-Hexachlorobutadiene	1.1	1.0	8.0	PASS	
n-Hexane	0.82	0.69	15	PASS	
Methylene chloride	0.89	0.79	12	PASS	
Methyl ethyl ketone	0.39	0.40	-0.50	PASS	
Methyl isobutyl ketone	0.36	0.33	6.7	PASS	
Methyl tert-butyl ether	3.2	2.6	16	PASS	
Styrene	1.0	1.1	-3.7	PASS	
Tert-butyl alcohol	1.6	1.3	21	PASS	
1,1,2,2-Tetrachloroethane	1.1	1.1	2.9	PASS	
Tetrachloroethene	0.65	0.60	7.4	PASS	
Toluene	1.1	1.1	0.70	PASS	
1,2,4-Trichlorobenzene	1.3	1.3	4.5	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve:	**9/12/2017**	**Date/Time of Calibration:**	**10/16/2017 09:38**
Instrument:	**AA**	**Sample ID:**	**DCS**
Amount of standard injected (ml):	**50**	**Laboratory ID:**	**AA3812DCVS**

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 08:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 09:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
CLEAN CAN CERTIFICATION, BATCH MASTER 1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
1,1,1-Trichloroethane	3.7	3.4	7.6	PASS	
1,1,2-Trichloroethane	0.46	0.44	3.7	PASS	
Trichloroethene	0.52	0.53	-0.40	PASS	
Trichlorofluoromethane	4.9	4.8	3.4	PASS	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	2.6	12	PASS	
1,2,4-Trimethylbenzene	1.9	2.2	-10	PASS	
1,3,5-Trimethylbenzene	2.0	2.2	-8.7	PASS	
2,2,4-Trimethylpentane	0.73	0.72	1.5	PASS	
Vinyl bromide	0.94	0.90	4.8	PASS	
Vinyl chloride	0.57	0.52	8.6	PASS	
Xylenes (m&p)	1.6	1.6	-3.7	PASS	
Xylenes (o)	1.6	1.7	-4.3	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Evaluate Continuing Calibration Report

IAL
Integrated Analytical Laboratories LLC

Data Path : C:\DATA\10-16-17\
Data File : aa3812dcvs.D
Acq On : 16 Oct 2017 9:38 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 10:05:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 0% Max. R.T. Dev 0.40min
Max. RRF Dev : 30% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane (IS)	1.000	1.000	0.0	99	0.00
2	T	Propene	0.249	0.233	6.4	89	0.00
3	T	Dichlorodifluoromethane	3.733	3.726	0.2	105	0.00
4	T	Chloromethane	0.084	0.083	1.2	80	0.00
5	T	1,2-Dichlorotetrafluoroetha	2.911	2.653	8.9	97	0.00
6	T	Vinyl chloride	0.567	0.518	8.6	84	0.00
7	T	1,3-Butadiene	0.314	0.285	9.2	83	0.00
8	T	n-Butane	0.519	0.495	4.6	84	0.00
9	T	Bromomethane	0.581	0.635	-9.3	95	0.00
10	T	Chloroethane	0.298	0.296	0.7	89	0.00
11	T	Ethanol	0.117	0.094	19.7	72	0.02
12	T	Vinyl bromide	0.941	0.896	4.8	89	0.00
13	T	Acrolein	0.165	0.145	12.1	80	0.00
14	T	Acetone	0.247	0.250	-1.2	88	0.00
15	T	Trichlorofluoromethane	4.921	4.753	3.4	104	0.00
16	T	Isopropanol	0.668	0.528	21.0	72	0.00
17	T	n-Pentane	0.610	0.507	16.9	78	0.00
18	T	1,1-Dichloroethene	1.391	1.324	4.8	93	0.00
19	T	Methylene chloride	0.887	0.785	11.5	97	0.00
20	T	Tert-butyl alcohol	1.646	1.300	21.0	80	0.00
21	T	Allyl chloride	0.388	0.355	8.5	86	0.00
22	T	1,1,2-Trichloro-1,2,2-trifl	2.983	2.612	12.4	100	0.00
23	T	Carbon disulfide	2.675	2.524	5.6	96	0.00
24	T	1,2-Dichloroethene (trans)	1.132	0.992	12.4	88	0.00
25	T	1,1-Dichloroethane	1.595	1.438	9.8	95	0.00
26	T	Methyl tert-butyl ether	3.156	2.642	16.3	85	0.00
27	T	Methyl ethyl ketone	0.393	0.395	-0.5	91	0.00
28	T	1,2-Dichloroethene (cis)	1.123	0.974	13.3	87	0.00
29	T	Ethyl acetate	0.131	0.124	5.3	84	0.00
30	T	n-Hexane	0.815	0.690	15.3	88	0.00
31	T	Chloroform	3.034	2.951	2.7	102	0.00
32	T	Tetrahydrofuran	0.411	0.353	14.1	80	0.00
33	T	1,2-Dichloroethane	1.948	1.831	6.0	99	0.00
34	T	1,1,1-Trichloroethane	3.679	3.398	7.6	102	0.00
35	T	Benzene	2.946	2.577	12.5	92	0.00
36	T	Carbon tetrachloride	4.399	4.035	8.3	101	0.00
37	T	Cyclohexane	1.208	1.082	10.4	90	0.00
38	I	1,4-Difluorobenzene (IS)	1.000	1.000	0.0	93	0.00
39	T	1,2-Dichloropropane	0.258	0.233	9.7	94	0.00
40	T	Bromodichloromethane	0.938	0.975	-3.9	105	0.00
41	T	2,2,4-Trimethylpentane	0.734	0.723	1.5	89	0.00
42	T	Trichloroethene	0.523	0.525	-0.4	99	0.00
43	T	1,4-Dioxane	0.183	0.161	12.0	91	0.00
44	T	Methyl methacrylate	0.317	0.305	3.8	90	0.00
45	T	n-Heptane	0.243	0.267	-9.9	93	0.00
46	T	cis-1,3-Dichloropropene	0.569	0.563	1.1	94	0.00
47	T	Methyl isobutyl ketone	0.356	0.332	6.7	90	0.00
48	T	trans-1,3-Dichloropropene	0.601	0.581	3.3	90	0.00
49	T	1,1,2-Trichloroethane	0.458	0.441	3.7	98	0.00
50	T	Toluene	1.148	1.140	0.7	94	0.00
51	T	Methyl n-butyl ketone	0.345	0.323	6.4	88	0.00
52	T	Dibromochloromethane	1.092	1.104	-1.1	102	0.00
53	T	1,2-Dibromoethane	0.787	0.755	4.1	95	0.00

Evaluate Continuing Calibration Report

Data Path : C:\DATA\10-16-17\
Data File : aa3812dcvs.D
Acq On : 16 Oct 2017 9:38 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 10:05:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 0% Max. R.T. Dev 0.40min
Max. RRF Dev : 30% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	T	Tetrachloroethene	0.652	0.604	7.4	94	0.00
55	I	d-5 Chlorobenzene (IS)	1.000	1.000	0.0	95	0.00
56	T	Chlorobenzene	1.289	1.212	6.0	100	0.00
57	T	Ethylbenzene	1.899	1.863	1.9	96	0.00
58	T	Xylenes (m&p)	1.555	1.612	-3.7	100	0.00
59	T	Bromoform	1.017	1.038	-2.1	103	0.00
60	T	Styrene	1.047	1.086	-3.7	95	0.00
61	T	Xylene (o)	1.627	1.697	-4.3	101	0.00
62	T	1,1,2,2-Tetrachloroethane	1.140	1.107	2.9	105	0.00
63	T	n-Nonane	0.443	0.456	-2.9	97	0.00
64	S	Bromofluorobenzene (tune st	0.876	0.927	-5.8	101	0.00
65	T	Cumene	2.224	2.279	-2.5	100	0.00
66	T	2-Chlorotoluene	1.674	1.734	-3.6	101	0.00
67	T	n-Propyl benzene	0.639	0.681	-6.6	103	0.00
68	T	4-Ethyltoluene	2.162	2.350	-8.7	103	0.00
69	T	1,3,5-Trimethylbenzene	2.016	2.192	-8.7	102	0.00
70	T	1,2,4-Trimethylbenzene	1.949	2.151	-10.4	100	0.00
71	T	Benzyl chloride	1.646	1.728	-5.0	99	0.00
72	T	1,3-Dichlorobenzene	1.485	1.514	-2.0	104	0.00
73	T	1,4-Dichlorobenzene	1.510	1.529	-1.3	101	0.00
74	T	1,2-Dichlorobenzene	1.420	1.414	0.4	99	0.00
75	T	1,2,4-Trichlorobenzene	1.319	1.260	4.5	95	0.00
76	T	Naphthalene	0.406	0.444	-9.4	95	0.00
77	T	1,3-Hexachlorobutadiene	1.093	1.006	8.0	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3812dcvs.D
Acq On : 16 Oct 2017 9:38 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 10:05:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.753	130	563895	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.807	114	1864232	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.145	117	1701030	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.344	95	1577258	10.59	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.515	41	131562	9.36	ppbV		90
3) Dichlorodifluoromethane	3.566	85	2101072	9.98	ppbV		96
4) Chloromethane	3.724	52	46677	9.84	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.779	85	1496195	9.11	ppbV		100
6) Vinyl chloride	3.894	62	291919	9.13	ppbV		86
7) 1,3-Butadiene	3.997	54	160980	9.08	ppbV	#	75
8) n-Butane	4.039	43	278940	9.53	ppbV		94
9) Bromomethane	4.248	94	358134	10.94	ppbV		98
10) Chloroethane	4.389	64	167050	9.92	ppbV		96
11) Ethanol	4.441	45	53039	8.02	ppbV	#	85
12) Vinyl bromide	4.688	106	505276	9.52	ppbV		100
13) Acrolein	4.756	56	81668	8.76	ppbV		91
14) Acetone	4.849	58	140763	10.09	ppbV		73
15) Trichlorofluoromethane	5.029	101	2680015	9.66	ppbV		99
16) Isopropanol	5.026	45	297722	7.90	ppbV	#	84
17) n-Pentane	5.338	43	286086	8.32	ppbV		97
18) 1,1-Dichloroethene	5.595	61	746694	9.52	ppbV		98
19) Methylene chloride	5.701	84	442738	8.85	ppbV		100
20) Tert-butyl alcohol	5.560	59	733005	7.89	ppbV		100
21) Allyl chloride	5.804	76	200237	9.15	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.933	101	1473149	8.76	ppbV		96
23) Carbon disulfide	5.987	76	1423319	9.43	ppbV		99
24) 1,2-Dichloroethene (tr...	6.566	61	559308	8.76	ppbV		100
25) 1,1-Dichloroethane	6.756	63	810985	9.01	ppbV		93
26) Methyl tert-butyl ether	6.785	73	1489634	8.37	ppbV		100
27) Methyl ethyl ketone	7.100	72	222508	10.05	ppbV		96
28) 1,2-Dichloroethene (cis)	7.576	61	549504	8.68	ppbV		99
29) Ethyl acetate	7.772	45	69831	9.45	ppbV		100
30) n-Hexane	7.791	57	388881	8.46	ppbV		93
31) Chloroform	7.872	83	1663858	9.72	ppbV		99
32) Tetrahydrofuran	8.264	42	199310	8.61	ppbV	#	77
33) 1,2-Dichloroethane	8.640	62	1032342	9.40	ppbV		95
34) 1,1,1-Trichloroethane	8.923	97	1915888	9.23	ppbV		99
35) Benzene	9.418	78	1453085	8.75	ppbV		98
36) Carbon tetrachloride	9.585	117	2275445	9.17	ppbV		99
37) Cyclohexane	9.730	84	610393	8.96	ppbV		92
39) 1,2-Dichloropropane	10.328	63	434604	9.03	ppbV		95
40) Bromodichloromethane	10.547	83	1818161	10.40	ppbV		100
41) 2,2,4-Trimethylpentane	10.656	57	1347735	9.84	ppbV		92
42) Trichloroethene	10.608	130	979399	10.04	ppbV		99
43) 1,4-Dioxane	10.569	88	300311	8.79	ppbV		92
44) Methyl methacrylate	10.820	69	568217	9.63	ppbV		96
45) n-Heptane	10.958	71	498001	11.01	ppbV		94
46) cis-1,3-Dichloropropene	11.617	75	1049877	9.89	ppbV		99
47) Methyl isobutyl ketone	11.637	43	618981	9.34	ppbV		100
48) trans-1,3-Dichloropropene	12.254	75	1083619	9.67	ppbV		99
49) 1,1,2-Trichloroethane	12.470	97	821971	9.62	ppbV		97
50) Toluene	12.823	91	2124506	9.92	ppbV		96
51) Methyl n-butyl ketone	13.142	43	602901	9.37	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3812dcvs.D
Acq On : 16 Oct 2017 9:38 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 10:05:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

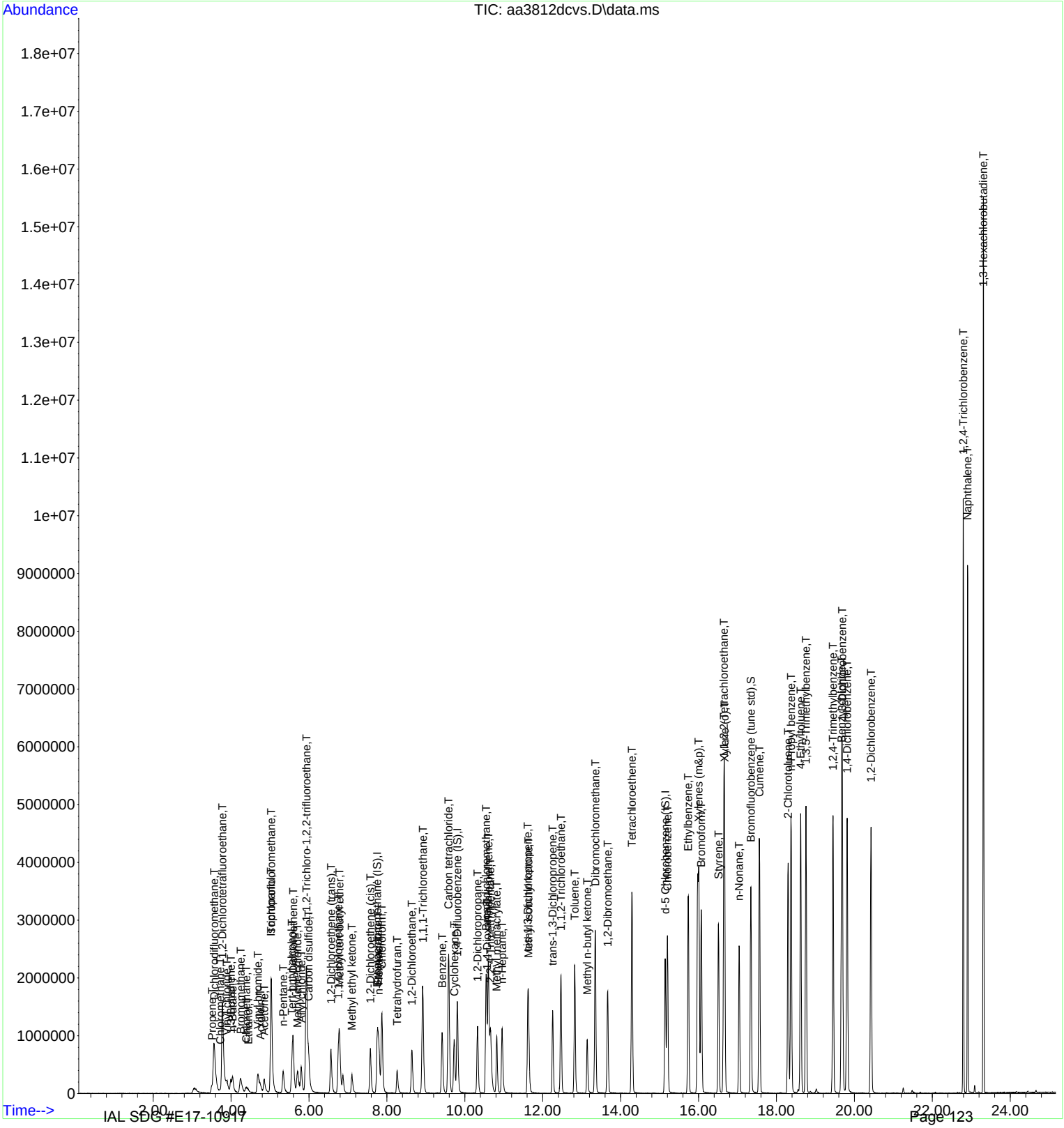
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.351	129	2058527	10.11	ppbV	99
53) 1,2-Dibromoethane	13.669	107	1406847	9.59	ppbV	100
54) Tetrachloroethene	14.289	166	1125593	9.26	ppbV	97
56) Chlorobenzene	15.203	112	2061524	9.40	ppbV	98
57) Ethylbenzene	15.736	91	3169382	9.81	ppbV	99
58) Xylenes (m&p)	16.003	91	5485748	20.74	ppbV	96
59) Bromoform	16.067	173	1765948	10.21	ppbV	97
60) Styrene	16.511	104	1847623	10.38	ppbV	98
61) Xylene (o)	16.669	91	2886387	10.43	ppbV	90
62) 1,1,2,2-Tetrachloroethane	16.649	83	1883332	9.71	ppbV	100
63) n-Nonane	17.042	57	776333	10.31	ppbV	99
65) Cumene	17.563	105	3877348	10.25	ppbV	94
66) 2-Chlorotoluene	18.299	91	2948989	10.35	ppbV	90
67) n-Propyl benzene	18.373	120	1157594	10.65	ppbV	84
68) 4-Ethyltoluene	18.620	105	3997318	10.87	ppbV	91
69) 1,3,5-Trimethylbenzene	18.755	105	3728897	10.87	ppbV	88
70) 1,2,4-Trimethylbenzene	19.450	105	3658307	11.03	ppbV	98
71) Benzyl chloride	19.672	91	2940089	10.50	ppbV	99
72) 1,3-Dichlorobenzene	19.691	146	2575507	10.20	ppbV	98
73) 1,4-Dichlorobenzene	19.813	146	2600508	10.12	ppbV	97
74) 1,2-Dichlorobenzene	20.427	146	2405361	9.96	ppbV	99
75) 1,2,4-Trichlorobenzene	22.794	180	2143940	9.56	ppbV	99
76) Naphthalene	22.906	127	755724	10.95	ppbV	100
77) 1,3-Hexachlorobutadiene	23.312	225	1711820	9.21	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3812dcvs.D
Acq On : 16 Oct 2017 9:38 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 10:05:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration



Continuing Calibration Data Summary Report

Initial Calibration Curve: 12/8/2017
Instrument: AA
Amount of standard injected (ml): 50
Date/Time of Calibration: 12/27/2017 09:19
Sample ID: DCS
Laboratory ID: AA4702DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 08:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 09:19
10 PPBV LCS [AA4703LCS]	12/27/2017 09:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Acetone	0.68	0.54	21	PASS	
Benzene	4.7	5.4	-15	PASS	
Bromodichloromethane	0.68	0.62	9.4	PASS	
Bromoform	0.71	0.78	-9.4	PASS	
Bromomethane	0.78	0.68	12	PASS	
1,3-Butadiene	1.1	1.2	-8.2	PASS	
Chlorobenzene	1.2	1.5	-28	PASS	
Chloroethane	0.60	0.76	-25	PASS	
Chloroform	2.8	3.3	-16	PASS	
Chloromethane	0.29	0.30	-0.70	PASS	
Carbon disulfide	4.6	5.1	-10	PASS	
Carbon tetrachloride	2.1	2.0	4.4	PASS	
Cyclohexane	2.7	2.6	3.6	PASS	
Dibromochloromethane	0.69	0.79	-15	PASS	
1,2-Dibromoethane	0.71	0.76	-6.9	PASS	
1,2-Dichlorobenzene	1.2	1.2	-4.8	PASS	
1,3-Dichlorobenzene	1.1	1.3	-14	PASS	
1,4-Dichlorobenzene	1.2	1.4	-19	PASS	
Dichlorodifluoromethane	2.5	2.2	9.4	PASS	
1,1-Dichloroethane	2.6	3.0	-15	PASS	
1,2-Dichloroethane	1.9	1.5	20	PASS	
1,1-Dichloroethene	2.3	2.5	-9.7	PASS	
1,2-Dichloroethene (cis)	2.1	2.2	-3.0	PASS	
1,2-Dichloroethene (trans)	2.0	2.2	-14	PASS	
1,2-Dichloropropane	0.46	0.53	-16	PASS	
1,3-Dichloropropene (cis)	0.67	0.68	-1.8	PASS	
1,3-Dichloropropene (trans)	0.58	0.62	-8.1	PASS	
1,2-Dichlorotetrafluoroethane	3.2	3.5	-11	PASS	
1,4-Dioxane	0.21	0.24	-17	PASS	
Ethylbenzene	2.0	2.4	-18	PASS	
n-Heptane	0.73	0.77	-6.6	PASS	
1,3-Hexachlorobutadiene	0.67	0.68	-1.5	PASS	
n-Hexane	2.1	2.5	-18	PASS	
Methylene chloride	1.6	2.0	-26	PASS	
Methyl ethyl ketone	3.0	3.3	-13	PASS	
Methyl isobutyl ketone	0.98	1.1	-11	PASS	
Methyl tert-butyl ether	4.2	3.6	14	PASS	
Styrene	1.2	1.4	-23	PASS	
Tert-butyl alcohol	2.9	2.4	17	PASS	
1,1,2,2-Tetrachloroethane	1.2	1.1	10	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve: 12/8/2017
Instrument: AA
Amount of standard injected (ml): 50

Date/Time of Calibration: 12/27/2017 09:19
Sample ID: DCS
Laboratory ID: AA4702DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 08:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 09:19
10 PPBV LCS [AA4703LCS]	12/27/2017 09:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Tetrachloroethene	0.50	0.58	-16	PASS	
Toluene	1.4	1.6	-17	PASS	
1,2,4-Trichlorobenzene	0.91	0.94	-2.7	PASS	
1,1,1-Trichloroethane	2.4	2.8	-15	PASS	
1,1,2-Trichloroethane	0.47	0.59	-24	PASS	
Trichloroethene	0.42	0.47	-13	PASS	
Trichlorofluoromethane	2.6	2.3	13	PASS	
1,1,2-Trichloro-1,2,2-trifluoroethane	2.7	3.3	-21	PASS	
1,2,4-Trimethylbenzene	1.7	2.0	-20	PASS	
1,3,5-Trimethylbenzene	1.8	2.0	-11	PASS	
2,2,4-Trimethylpentane	1.7	2.1	-25	PASS	
Vinyl bromide	1.1	1.1	-6.3	PASS	
Vinyl chloride	1.2	0.94	24	PASS	
Xylenes (m&p)	1.5	1.4	11	PASS	
Xylenes (o)	1.5	1.4	8.2	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Evaluate Continuing Calibration Report

Data Path : C:\DATA\12-27-17\
Data File : aa4702dcvs.D
Acq On : 27 Dec 2017 9:19 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 11:14:29 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 0% Max. R.T. Dev 0.40min
Max. RRF Dev : 30% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane (IS)	1.000	1.000	0.0	106	0.00
2	T	Propene	0.861	1.055	-22.5	121	0.00
3	T	Dichlorodifluoromethane	2.473	2.241	9.4	92	0.00
4	T	Chloromethane	0.294	0.296	-0.7	95	-0.02
5	T	1,2-Dichlorotetrafluoroetha	3.172	3.528	-11.2	134	0.00
6	T	Vinyl chloride	1.238	0.943	23.8	69	0.00
7	T	1,3-Butadiene	1.112	1.203	-8.2	115	0.00
8	T	n-Butane	2.466	2.412	2.2	116	0.00
9	T	Bromomethane	0.775	0.683	11.9	78	0.00
10	T	Chloroethane	0.604	0.756	-25.2	115	0.00
11	T	Ethanol	0.520	0.377	27.5	73	-0.01
12	T	Vinyl bromide	1.057	1.124	-6.3	97	0.01
13	T	Acrolein	0.521	0.467	10.4	90	0.00
14	T	Acetone	0.682	0.539	21.0	77	0.00
15	T	Trichlorofluoromethane	2.639	2.305	12.7	100	0.00
16	T	Isopropanol	2.481	2.075	16.4	96	0.00
17	T	n-Pentane	2.768	2.781	-0.5	117	0.00
18	T	1,1-Dichloroethene	2.299	2.522	-9.7	128	0.00
19	T	Methylene chloride	1.609	2.027	-26.0	133	0.00
20	T	Tert-butyl alcohol	2.937	2.425	17.4	86	0.00
21	T	Allyl chloride	0.705	0.741	-5.1	114	0.00
22	T	1,1,2-Trichloro-1,2,2-trifl	2.719	3.290	-21.0	139	0.00
23	T	Carbon disulfide	4.610	5.088	-10.4	130	0.00
24	T	1,2-Dichloroethene (trans)	1.963	2.232	-13.7	120	0.00
25	T	1,1-Dichloroethane	2.642	3.032	-14.8	126	0.00
26	T	Methyl tert-butyl ether	4.155	3.562	14.3	107	0.00
27	T	Methyl ethyl ketone	2.954	3.346	-13.3	122	0.00
28	T	1,2-Dichloroethene (cis)	2.117	2.180	-3.0	121	0.00
29	T	Ethyl acetate	0.450	0.570	-26.7	135	0.00
30	T	n-Hexane	2.107	2.480	-17.7	119	0.00
31	T	Chloroform	2.814	3.261	-15.9	135	0.00
32	T	Tetrahydrofuran	1.738	1.813	-4.3	120	0.00
33	T	1,2-Dichloroethane	1.906	1.525	20.0	96	0.00
34	T	1,1,1-Trichloroethane	2.412	2.763	-14.6	136	0.00
35	T	Benzene	4.706	5.421	-15.2	126	0.00
36	T	Carbon tetrachloride	2.084	1.992	4.4	101	0.00
37	T	Cyclohexane	2.727	2.628	3.6	117	0.00
38	I	1,4-Difluorobenzene (IS)	1.000	1.000	0.0	109	0.00
39	T	1,2-Dichloropropane	0.456	0.528	-15.8	125	0.00
40	T	Bromodichloromethane	0.680	0.616	9.4	102	0.00
41	T	2,2,4-Trimethylpentane	1.672	2.081	-24.5	123	0.00
42	T	Trichloroethene	0.416	0.468	-12.5	116	0.00
43	T	1,4-Dioxane	0.205	0.239	-16.6	122	0.00
44	T	Methyl methacrylate	0.545	0.583	-7.0	124	0.00
45	T	n-Heptane	0.725	0.773	-6.6	123	0.00
46	T	cis-1,3-Dichloropropene	0.666	0.678	-1.8	114	0.00
47	T	Methyl isobutyl ketone	0.980	1.089	-11.1	131	-0.01
48	T	trans-1,3-Dichloropropene	0.577	0.624	-8.1	120	0.00
49	T	1,1,2-Trichloroethane	0.473	0.587	-24.1	143	0.00
50	T	Toluene	1.390	1.622	-16.7	137	0.00
51	T	Methyl n-butyl ketone	0.946	1.043	-10.3	132	0.00
52	T	Dibromochloromethane	0.685	0.789	-15.2	136	0.00
53	T	1,2-Dibromoethane	0.714	0.763	-6.9	123	0.00

Evaluate Continuing Calibration Report

Data Path : C:\DATA\12-27-17\
Data File : aa4702dcvs.D
Acq On : 27 Dec 2017 9:19 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 11:14:29 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 0% Max. R.T. Dev 0.40min
Max. RRF Dev : 30% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	T	Tetrachloroethene	0.499	0.581	-16.4	118	0.00
55	I	d-5 Chlorobenzene (IS)	1.000	1.000	0.0	112	0.00
56	T	Chlorobenzene	1.164	1.492	-28.2	148	0.00
57	T	Ethylbenzene	2.041	2.400	-17.6	138	0.00
58	T	Xylenes (m&p)	1.540	1.379	10.5	100	0.00
59	T	Bromoform	0.712	0.779	-9.4	125	0.00
60	T	Styrene	1.173	1.448	-23.4	145	0.00
61	T	Xylene (o)	1.491	1.368	8.2	103	0.00
62	T	1,1,2,2-Tetrachloroethane	1.238	1.110	10.3	103	0.00
63	T	n-Nonane	1.158	1.209	-4.4	126	0.00
64	S	Bromofluorobenzene (tune st	0.794	0.791	0.4	112	0.00
65	T	Cumene	2.014	1.989	1.2	115	0.00
66	T	2-Chlorotoluene	1.567	1.685	-7.5	127	0.00
67	T	n-Propyl benzene	2.648	2.747	-3.7	122	0.00
68	T	4-Ethyltoluene	1.796	2.119	-18.0	131	0.00
69	T	1,3,5-Trimethylbenzene	1.757	1.958	-11.4	126	0.00
70	T	1,2,4-Trimethylbenzene	1.680	2.015	-19.9	134	0.00
71	T	Benzyl chloride	1.444	1.557	-7.8	121	0.00
72	T	1,3-Dichlorobenzene	1.113	1.266	-13.7	133	0.00
73	T	1,4-Dichlorobenzene	1.157	1.374	-18.8	135	0.00
74	T	1,2-Dichlorobenzene	1.174	1.230	-4.8	125	0.00
75	T	1,2,4-Trichlorobenzene	0.912	0.937	-2.7	104	0.00
76	T	Naphthalene	0.338	0.393	-16.3	135	0.00
77	T	1,3-Hexachlorobutadiene	0.672	0.682	-1.5	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

IAL Integrated Analytical Laboratories LLC

Data Path : C:\DATA\12-27-17\
Data File : aa4702dcvs.D
Acq On : 27 Dec 2017 9:19 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 11:14:29 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.778	130	567099	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.833	114	2311556	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.151	117	2042827	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.347	95	1616659	9.97	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.521	41	598151	12.25	ppbV		91
3) Dichlorodifluoromethane	3.589	85	1270859	9.06	ppbV		94
4) Chloromethane	3.750	52	167596	10.07	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.795	85	2000876	11.12	ppbV		90
6) Vinyl chloride	3.914	62	534970	7.62	ppbV	#	82
7) 1,3-Butadiene	4.016	54	682162	10.81	ppbV		84
8) n-Butane	4.068	43	1367892	9.78	ppbV		97
9) Bromomethane	4.264	94	387594	8.82	ppbV		97
10) Chloroethane	4.406	64	428815	12.53	ppbV	#	71
11) Ethanol	4.451	45	213540	7.24	ppbV	#	66
12) Vinyl bromide	4.721	106	637570	10.64	ppbV		99
13) Acrolein	4.782	56	264814	8.97	ppbV		91
14) Acetone	4.878	58	305497	7.90	ppbV	#	23
15) Trichlorofluoromethane	5.058	101	1307346	8.74	ppbV		97
16) Isopropanol	5.052	45	1177013	8.36	ppbV		99
17) n-Pentane	5.367	43	1577140	10.05	ppbV		93
18) 1,1-Dichloroethene	5.621	61	1429941	10.97	ppbV		90
19) Methylene chloride	5.733	49	1149446	12.60	ppbV		99
20) Tert-butyl alcohol	5.586	59	1375410	8.26	ppbV		100
21) Allyl chloride	5.827	76	420141	10.51	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.958	101	1865605	12.10	ppbV		99
23) Carbon disulfide	6.016	76	2885644	11.04	ppbV		94
24) 1,2-Dichloroethene (tr...	6.592	61	1265851	11.37	ppbV		93
25) 1,1-Dichloroethane	6.772	63	1719671	11.48	ppbV		98
26) Methyl tert-butyl ether	6.811	73	2020200	8.57	ppbV		98
27) Methyl ethyl ketone	7.126	43	1897709	11.33	ppbV		90
28) 1,2-Dichloroethene (cis)	7.598	61	1236336	10.30	ppbV		91
29) Ethyl acetate	7.788	45	323152	12.66	ppbV		100
30) n-Hexane	7.827	57	1406448	11.77	ppbV		96
31) Chloroform	7.891	83	1849137	11.59	ppbV		99
32) Tetrahydrofuran	8.283	42	1028282	10.43	ppbV		97
33) 1,2-Dichloroethane	8.663	62	864754	8.00	ppbV		96
34) 1,1,1-Trichloroethane	8.942	97	1566702	11.45	ppbV		100
35) Benzene	9.437	78	3074235	11.52	ppbV		99
36) Carbon tetrachloride	9.605	117	1129918	9.56	ppbV		90
37) Cyclohexane	9.746	56	1490524	9.64	ppbV		93
39) 1,2-Dichloropropane	10.344	63	1220895	11.58	ppbV		93
40) Bromodichloromethane	10.569	83	1423964	9.06	ppbV		98
41) 2,2,4-Trimethylpentane	10.675	57	4810121	12.45	ppbV		89
42) Trichloroethene	10.621	130	1081138	11.24	ppbV		100
43) 1,4-Dioxane	10.582	88	552421	11.68	ppbV		97
44) Methyl methacrylate	10.839	41	1348036	10.70	ppbV		82
45) n-Heptane	10.978	43	1787191	10.66	ppbV		96
46) cis-1,3-Dichloropropene	11.630	75	1567135	10.17	ppbV		95
47) Methyl isobutyl ketone	11.650	43	2517458	11.11	ppbV	#	83
48) trans-1,3-Dichloropropene	12.267	75	1443092	10.83	ppbV		86
49) 1,1,2-Trichloroethane	12.479	97	1356722	12.41	ppbV		97
50) Toluene	12.833	91	3749310	11.67	ppbV		96
51) Methyl n-butyl ketone	13.151	43	2410044	11.02	ppbV	#	83

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4702dcvs.D
Acq On : 27 Dec 2017 9:19 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 11:14:29 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

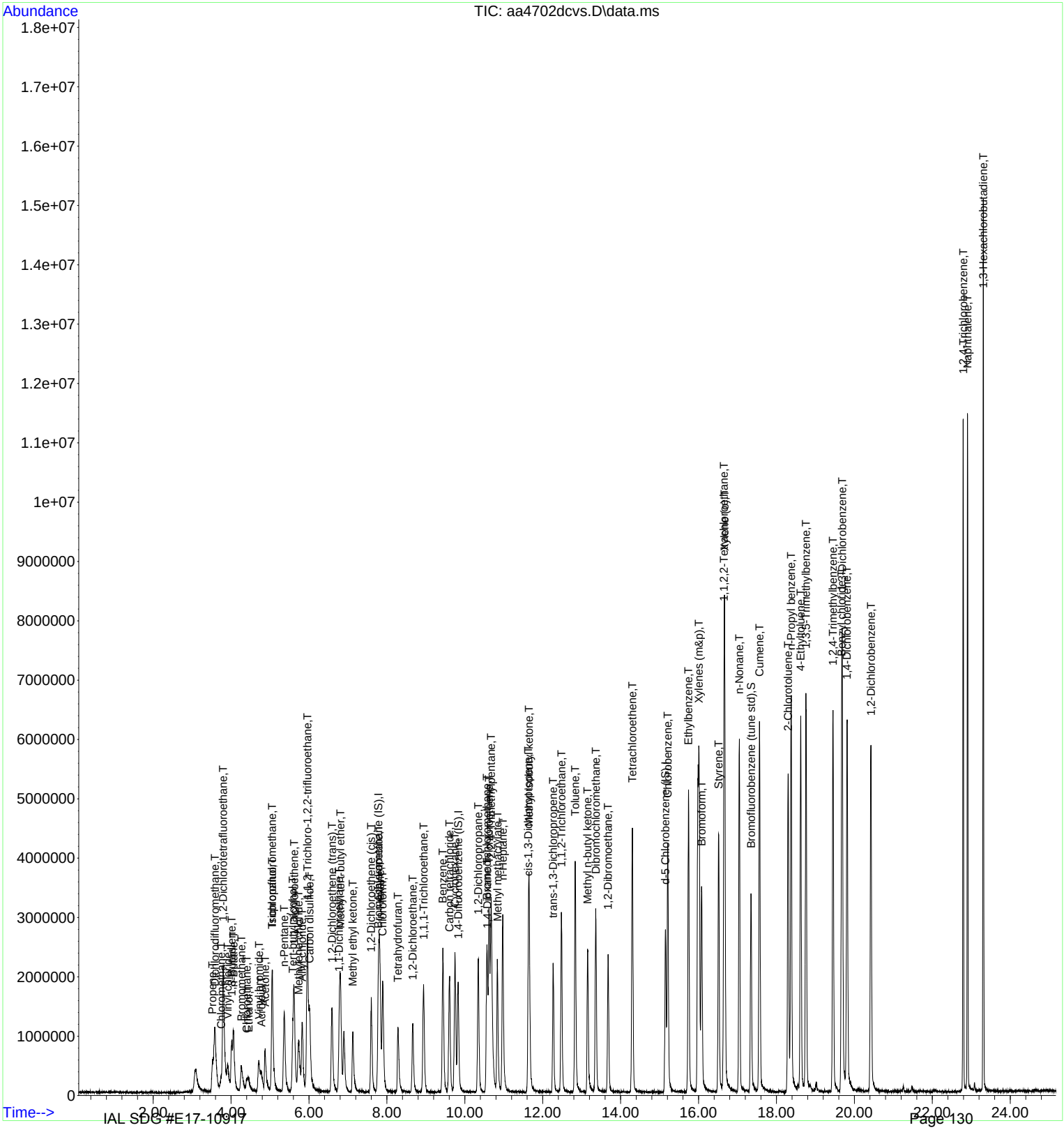
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.367	129	1824868	11.52	ppbV		96
53) 1,2-Dibromoethane	13.678	107	1763890	10.69	ppbV		98
54) Tetrachloroethene	14.302	166	1342534	11.64	ppbV		96
56) Chlorobenzene	15.209	112	3048287	12.82	ppbV		97
57) Ethylbenzene	15.743	91	4901966	11.76	ppbV		97
58) Xylenes (m&p)	16.010	91	5633684	17.91	ppbV		90
59) Bromoform	16.083	173	1592109	10.94	ppbV		96
60) Styrene	16.514	104	2957795	12.34	ppbV		99
61) Xylene (o)	16.669	91	2794379	9.17	ppbV		95
62) 1,1,2,2-Tetrachloroethane	16.656	83	2267633	8.96	ppbV		98
63) n-Nonane	17.048	57	2470644	10.44	ppbV	#	70
65) Cumene	17.566	105	4064169	9.88	ppbV		94
66) 2-Chlorotoluene	18.296	91	3441687	10.75	ppbV		93
67) n-Propyl benzene	18.379	91	5611786	10.37	ppbV		96
68) 4-Ethyltoluene	18.624	105	4328212	11.80	ppbV		97
69) 1,3,5-Trimethylbenzene	18.755	105	4000871	11.15	ppbV		92
70) 1,2,4-Trimethylbenzene	19.450	105	4117095	12.00	ppbV		99
71) Benzyl chloride	19.672	91	3179756	10.78	ppbV		99
72) 1,3-Dichlorobenzene	19.688	146	2587049	11.38	ppbV		99
73) 1,4-Dichlorobenzene	19.810	146	2807844	11.88	ppbV		99
74) 1,2-Dichlorobenzene	20.427	146	2513298	10.48	ppbV		97
75) 1,2,4-Trichlorobenzene	22.794	180	1914581	10.28	ppbV		100
76) Naphthalene	22.903	127	803211	11.64	ppbV		100
77) 1,3-Hexachlorobutadiene	23.308	225	1392911	10.14	ppbV		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4702dcvs.D
Acq On : 27 Dec 2017 9:19 am
Operator : jls
Sample : 10 ppbv DCVS
Misc : CC483586
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 11:14:29 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration



Section VIII: Raw Quality Control Data Package

BFB Tune Spectra

Method Blank

Laboratory Control Sample

Laboratory Sample Duplicate

Instrument Run Logs

Pressure Gauge Readings (initial and final)

Example Calculations

Screening Data

Clean Canister Certification

BFB

Data Path: C:\DATA\09-12-17\

Data File: AA3441BFB.D

Acq On: 9/12/2017 8:18:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0816.M

Last Update: Thu Aug 17 08:51:27 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	77682	13.2
PASS	75	95	30	66	348928	59.5
PASS	95	95	100	100	586303	100.0
PASS	96	95	5	9	39699	6.8
PASS	173	174	0.00	2	3809	0.9
PASS	174	95	50	100	410368	70.0
PASS	175	174	4	9	30821	7.5
PASS	176	174	93	101	385131	93.9
PASS	177	176	5	9	25240	6.6

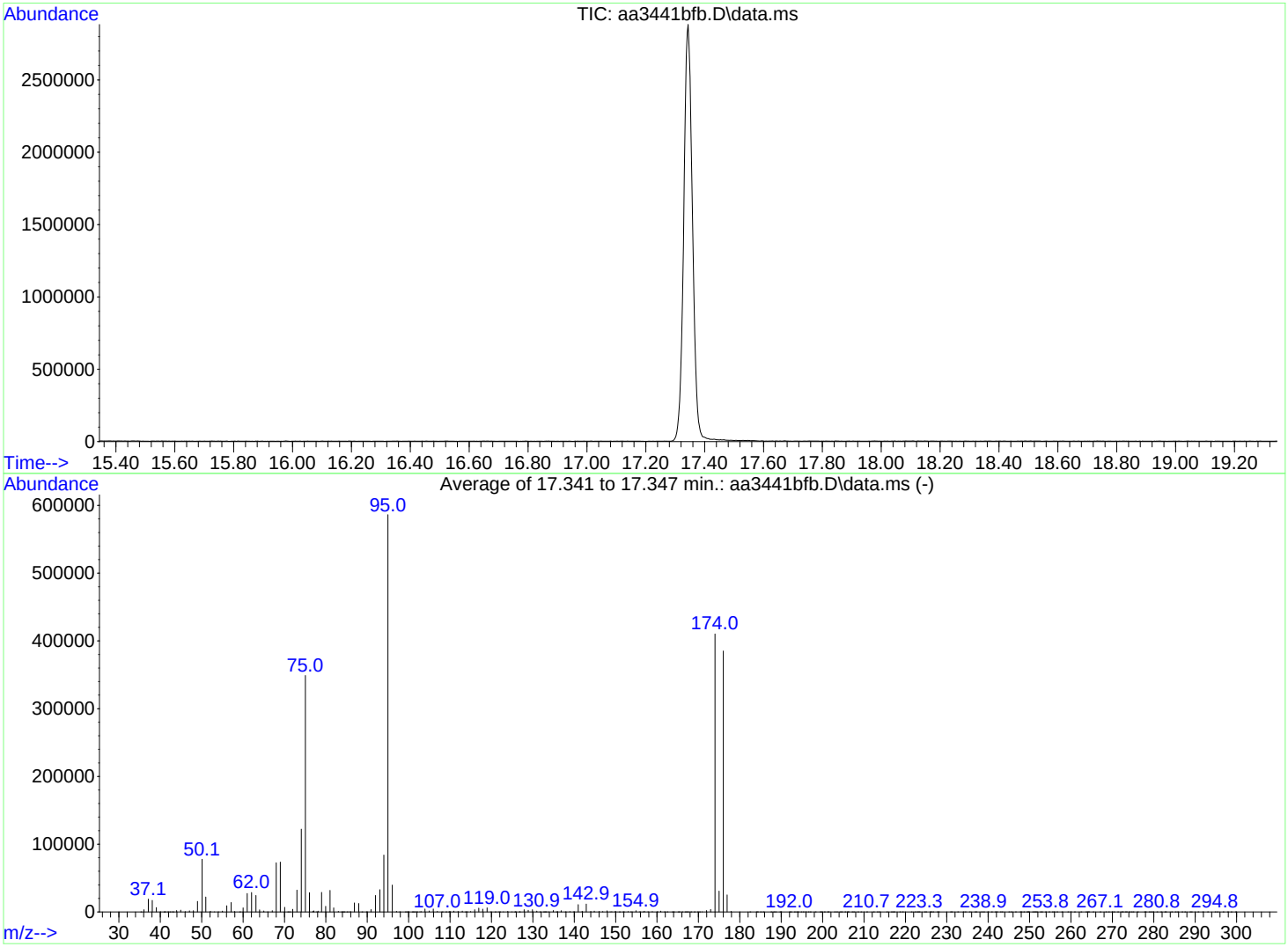
Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA3441BFB	NA	9/12/2017 8:18:00 AM
40 PPBV STD	AA3443STD01	NA	9/12/2017 9:44:00 AM
20 PPBV STD	AA3444STD02	NA	9/12/2017 10:17:00 AM
10 PPBV STD	AA3445STD03	NA	9/12/2017 10:51:00 AM
2 PPBV STD	AA3446STD04	NA	9/12/2017 11:24:00 AM
0.2 PPBV STD	AA3447STD05	NA	9/12/2017 12:06:00 PM
10 PPBV ICVSS	AA3448ICVSS	NA	9/12/2017 1:28:00 PM

Data Path : C:\DATA\09-12-17\
Data File : aa3441bfb.D
Acq On : 12 Sep 2017 8:18 am
Operator : jls
Sample : BFB
Misc : ALM029426
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\0912.M
Title : TO-15 on the Agilent 7890A / 5975C
Last Update : Tue Sep 12 13:00:02 2017



AutoFind: Scans 5366, 5367, 5368; Background Corrected with Scan 5345

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.2	77682	PASS
75	95	30	66	59.5	348928	PASS
95	95	100	100	100.0	586303	PASS
96	95	5	9	6.8	39699	PASS
173	174	0.00	2	0.9	3809	PASS
174	95	50	100	70.0	410368	PASS
175	174	4	9	7.5	30821	PASS
176	174	93	101	93.9	385131	PASS
177	176	5	9	6.6	25240	PASS

BFB

Data Path: C:\DATA\10-16-17\

Data File: AA3811BFB.D

Acq On: 10/16/2017 8:37:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	80995	13.1
PASS	75	95	30	66	376384	61.1
PASS	95	95	100	100	616467	100.0
PASS	96	95	5	9	41181	6.7
PASS	173	174	0.00	2	2780	0.6
PASS	174	95	50	100	443029	71.9
PASS	175	174	4	9	31224	7.0
PASS	176	174	93	101	418236	94.4
PASS	177	176	5	9	28827	6.9

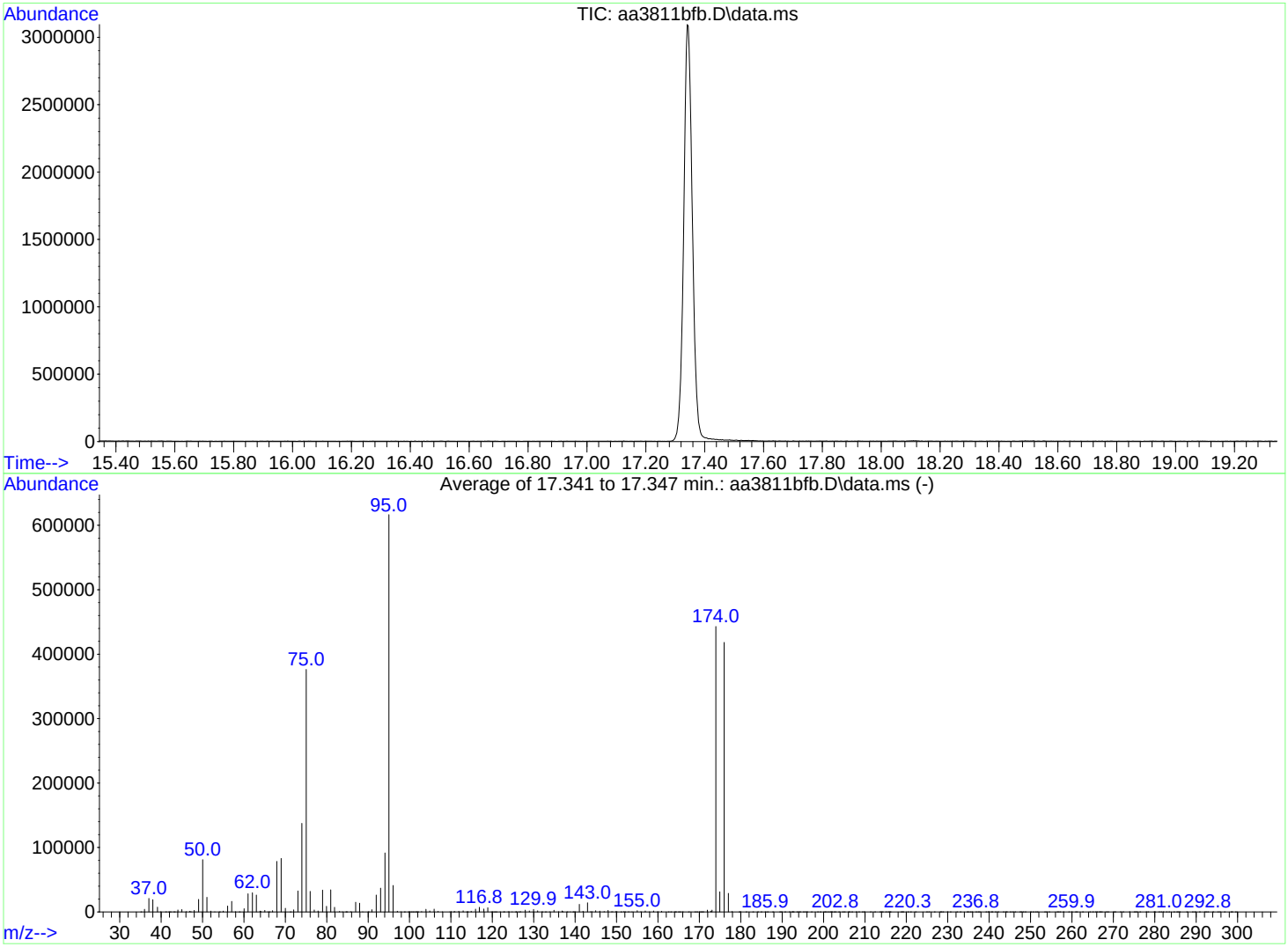
Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA3811BFB	NA	10/16/2017 8:37:00 AM
10 PPBV DCVS	AA3812DCVS	NA	10/16/2017 9:38:00 AM
10 PPBV LCS	AA3813LCS	NA	10/16/2017 10:17:00 AM
METHOD BLANK	AA3814BLK	NA	10/16/2017 10:57:00 AM
02 PPBV RLLCS	AA3815RLLCS	NA	10/16/2017 11:48:00 AM
1555	AA3821	NA	10/16/2017 4:19:00 PM
10 PPBV CCCVS	AA3822CCCVS	NA	10/16/2017 4:53:00 PM

Data Path : C:\DATA\10-16-17\
Data File : aa3811bfb.D
Acq On : 16 Oct 2017 8:37 am
Operator : jls
Sample : BFB
Misc : ALM029426
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\0912.M
Title : TO-15 on the Agilent 7890A / 5975C
Last Update : Tue Sep 12 13:00:02 2017



AutoFind: Scans 5366, 5367, 5368; Background Corrected with Scan 5345

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.1	80995	PASS
75	95	30	66	61.1	376384	PASS
95	95	100	100	100.0	616467	PASS
96	95	5	9	6.7	41181	PASS
173	174	0.00	2	0.6	2780	PASS
174	95	50	100	71.9	443029	PASS
175	174	4	9	7.0	31224	PASS
176	174	93	101	94.4	418236	PASS
177	176	5	9	6.9	28827	PASS

BFB

Data Path: C:\DATA\12-08-17\

Data File: AA4421BFB.D

Acq On: 12/8/2017 11:01:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	79277	18.1
PASS	75	95	30	66	190647	43.6
PASS	95	95	100	100	437324	100.0
PASS	96	95	5	9	32059	7.3
PASS	173	174	0.00	2	350	0.1
PASS	174	95	50	100	317504	72.6
PASS	175	174	4	9	19316	6.1
PASS	176	174	93	101	308691	97.2
PASS	177	176	5	9	21179	6.9

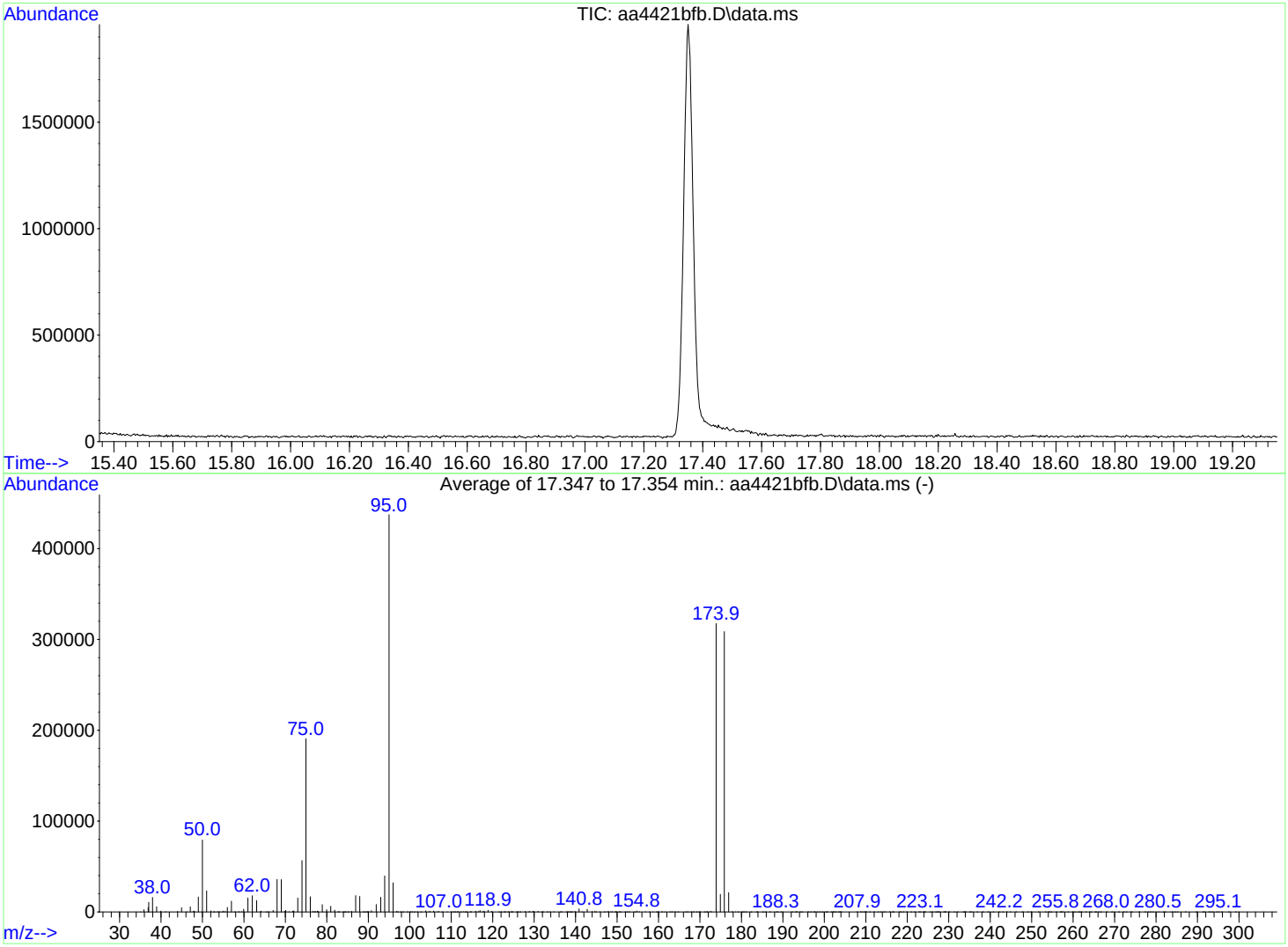
Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4421BFB	NA	12/8/2017 11:01:00 AM
40 PPBV STD	AA4423STD01	NA	12/8/2017 3:47:00 PM
20 PPBV STD	AA4424STD02	NA	12/8/2017 4:21:00 PM
10 PPBV STD	AA4425STD03	NA	12/8/2017 4:55:00 PM
2 PPBV STD	AA4426STD04	NA	12/8/2017 5:29:00 PM
0.2 PPBV STD	AA4427STD05	NA	12/8/2017 6:02:00 PM
10 PPBV ICVSS	AA4428ICVSS	NA	12/8/2017 6:36:00 PM
10 PPBV LCS	AA4428LCS	NA	12/8/2017 6:36:00 PM
BLK	AA4429BLK	NA	12/8/2017 7:10:00 PM
RLLCS	AA4430RLLCS	NA	12/8/2017 7:50:00 PM
2160	AA4431	NA	12/8/2017 8:24:00 PM
2066	AA4432	NA	12/8/2017 8:58:00 PM
CCCVS	AA4433CCCVS	NA	12/8/2017 9:31:00 PM

Data Path : C:\DATA\12-08-17\
Data File : aa4421bfb.D
Acq On : 8 Dec 2017 11:01 am
Operator : jls
Sample : BFB
Misc : ALM029426
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\1208.M
Title : TO-15 on the Agilent 7890A / 5975C
Last Update : Tue Dec 12 09:25:44 2017



AutoFind: Scans 5368, 5369, 5370; Background Corrected with Scan 5348

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.1	79277	PASS
75	95	30	66	43.6	190647	PASS
95	95	100	100	100.0	437324	PASS
96	95	5	9	7.3	32059	PASS
173	174	0.00	2	0.1	350	PASS
174	95	50	100	72.6	317504	PASS
175	174	4	9	6.1	19316	PASS
176	174	93	101	97.2	308691	PASS
177	176	5	9	6.9	21179	PASS

BFB

Data Path: C:\DATA\12-27-17\

Data File: AA4701BFB.D

Acq On: 12/27/2017 8:38:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\1208.M

Last Update: Tue Dec 12 09:25:44 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	105304	18.9
PASS	75	95	30	66	254123	45.7
PASS	95	95	100	100	556437	100.0
PASS	96	95	5	9	30496	5.5
PASS	173	174	0.00	2	1937	0.4
PASS	174	95	50	100	458027	82.3
PASS	175	174	4	9	29992	6.5
PASS	176	174	93	101	444907	97.1
PASS	177	176	5	9	23603	5.3

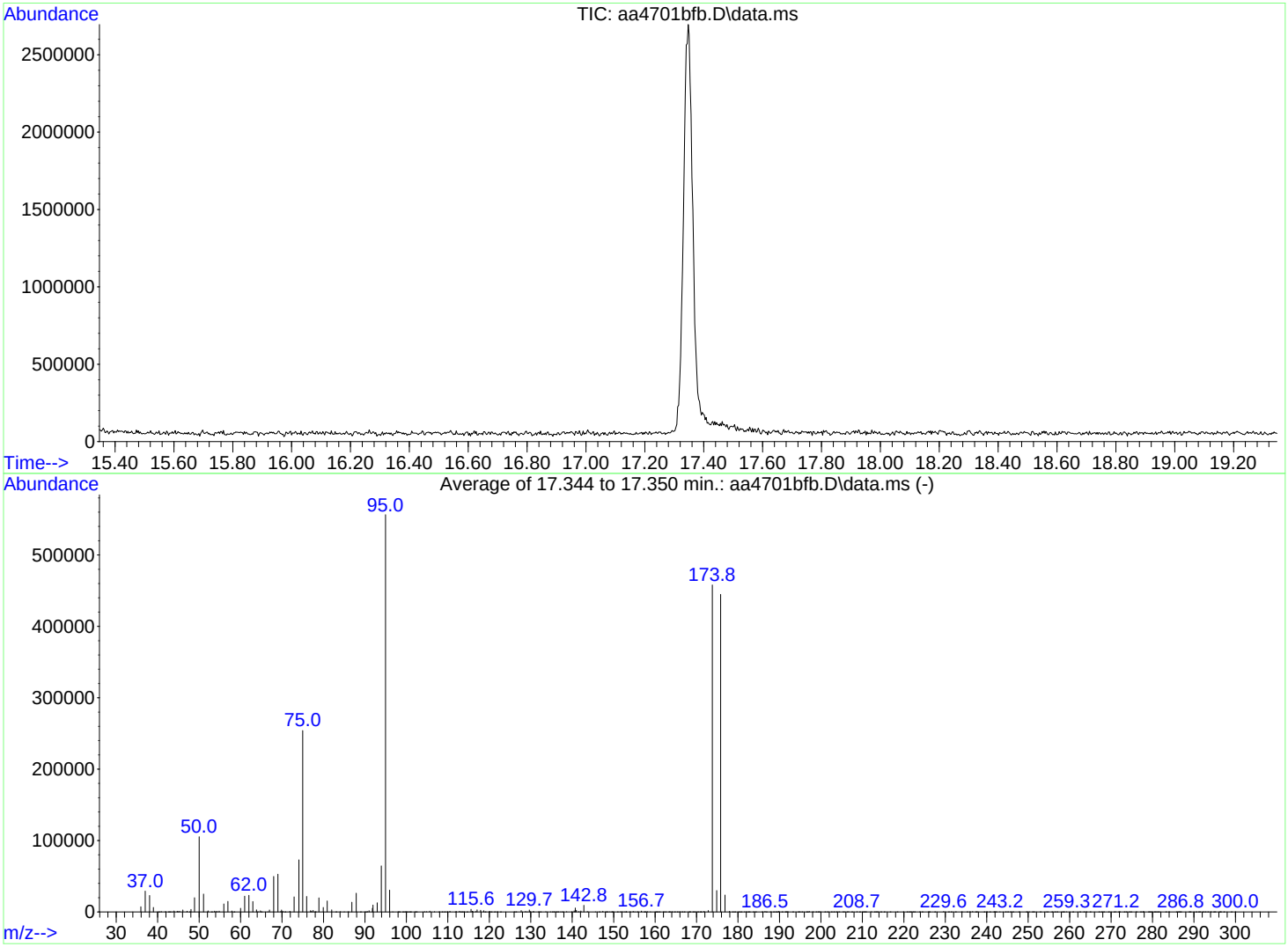
Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4701BFB	NA	12/27/2017 8:38:00 AM
10 PPBV DCVS	AA4702DCVS	NA	12/27/2017 9:19:00 AM
10 PPBV LCS	AA4703LCS	NA	12/27/2017 9:57:00 AM
METHOD BLANK	AA4704BLK	NA	12/27/2017 11:28:00 AM
02 PPBV RLLCS	AA4705RLLCS	NA	12/27/2017 12:09:00 PM
E17-10917-01	AA4707	SV-1	12/27/2017 2:53:00 PM
E17-10917-02	AA4708	SV-2	12/27/2017 3:27:00 PM
E17-10917-22	AA4709	SV-2 Dup	12/27/2017 4:00:00 PM
E17-10917-03	AA4710	SV-3	12/27/2017 4:34:00 PM
10 PPBV CCCVS	AA4721CCCVS	NA	12/27/2017 10:43:00 PM

Data Path : C:\DATA\12-27-17\
Data File : aa4701bfb.D
Acq On : 27 Dec 2017 8:38 am
Operator : jls
Sample : BFB
Misc : ALM029426
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\1208.M
Title : TO-15 on the Agilent 7890A / 5975C
Last Update : Tue Dec 12 09:25:44 2017



AutoFind: Scans 5367, 5368, 5369; Background Corrected with Scan 5350

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.9	105304	PASS
75	95	30	66	45.7	254123	PASS
95	95	100	100	100.0	556437	PASS
96	95	5	9	5.5	30496	PASS
173	174	0.00	2	0.4	1937	PASS
174	95	50	100	82.3	458027	PASS
175	174	4	9	6.5	29992	PASS
176	174	93	101	97.1	444907	PASS
177	176	5	9	5.3	23603	PASS

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA3814BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**10/16/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA3814BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**10/16/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3814blk.D
Acq On : 16 Oct 2017 10:57 am
Operator : jls
Sample : Method Blank
Misc : 1127, 500cc
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 18 10:00:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

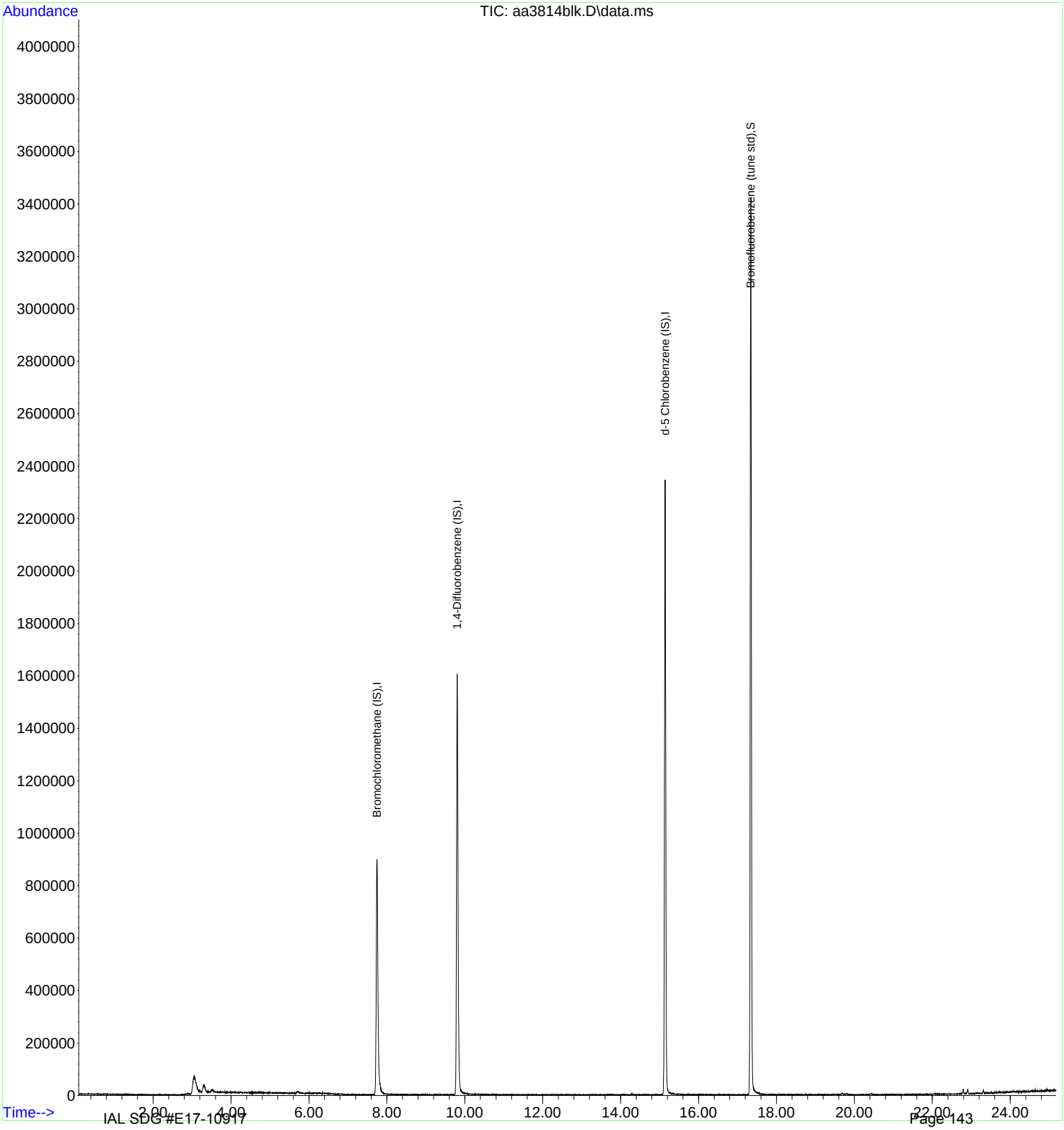
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane (IS)	7.743	130	575752	10.00	ppbV	0.00
38) 1,4-Difluorobenzene (IS)	9.804	114	1836646	10.00	ppbV	0.00
55) d-5 Chlorobenzene (IS)	15.141	117	1706455	10.00	ppbV	0.00
System Monitoring Compounds						
64) Bromofluorobenzene (tu...	17.341	95	1433107	9.59	ppbV	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3814blk.D
Acq On : 16 Oct 2017 10:57 am
Operator : jls
Sample : Method Blank
Misc : 1127, 500cc
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 18 10:00:05 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration



Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4704BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**12/27/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4704BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**12/27/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4704blk.D
Acq On : 27 Dec 2017 11:28 am
Operator : jls
Sample : Method Blank
Misc : 1127, 500cc
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 16:16:22 2018
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

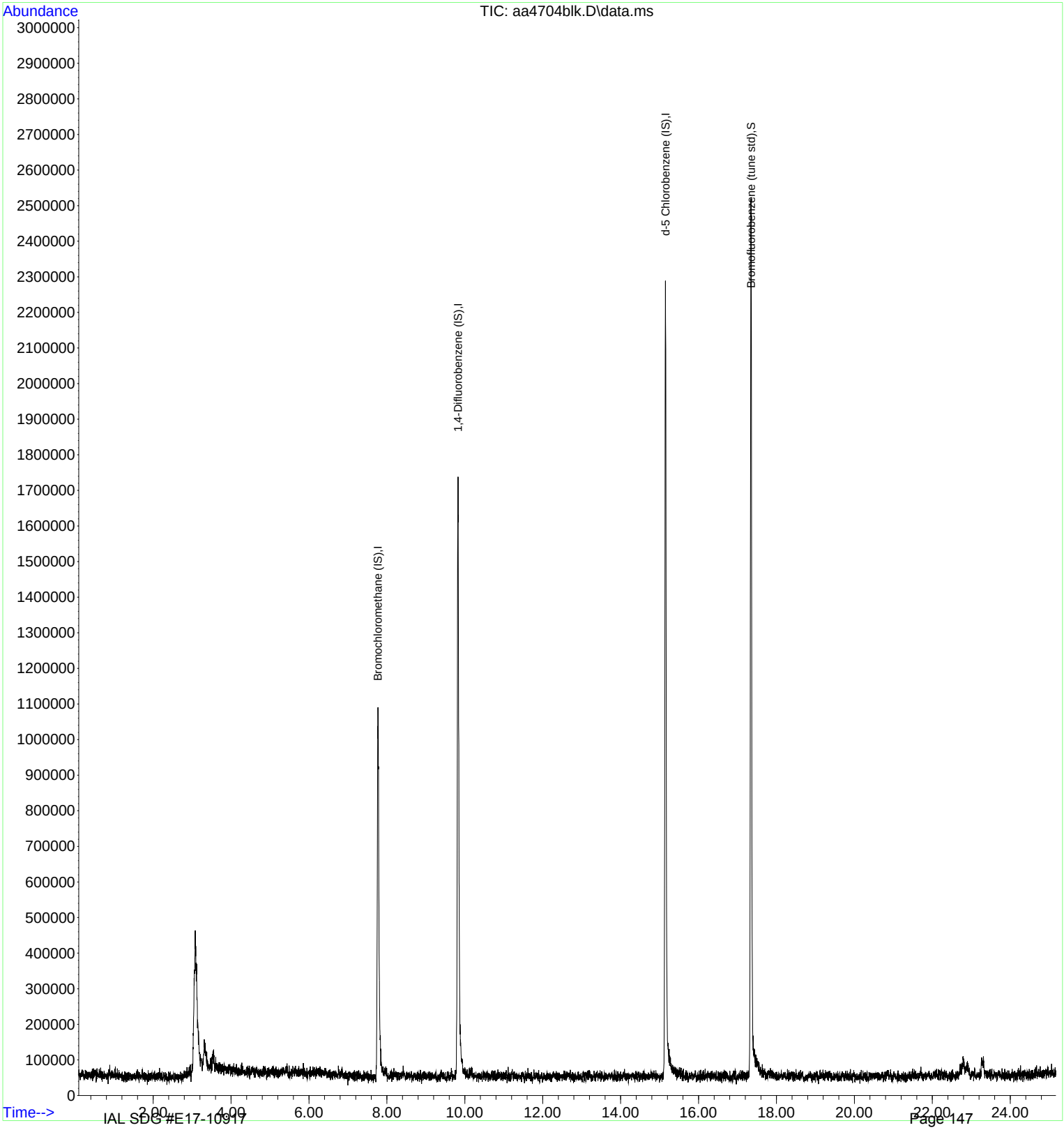
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane (IS)	7.766	130	564805	10.00	ppbV	0.00
38) 1,4-Difluorobenzene (IS)	9.827	114	2044333	10.00	ppbV	0.00
55) d-5 Chlorobenzene (IS)	15.151	117	1737643	10.00	ppbV	0.00
System Monitoring Compounds						
64) Bromofluorobenzene (tu...	17.347	95	1116955	8.10	ppbV	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4704blk.D
Acq On : 27 Dec 2017 11:28 am
Operator : jls
Sample : Method Blank
Misc : 1127, 500cc
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 16:16:22 2018
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration



Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA3813LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 10/16/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	9.9	99
Benzene	71-43-2	8.8	88
Bromodichloromethane	75-27-4	9.7	97
Bromoform	75-25-2	9.6	96
Bromomethane	74-83-9	11	110
1,3-Butadiene	106-99-0	9.5	95
Chlorobenzene	108-90-7	8.9	89
Chloroethane	75-00-3	11	110
Chloroform	67-66-3	9.4	94
Chloromethane	74-87-3	10	100
Carbon disulfide	75-15-0	9.3	93
Carbon tetrachloride	56-23-5	9.1	91
Cyclohexane	110-82-7	8.9	89
Dibromochloromethane	124-48-1	9.6	96
1,2-Dibromoethane	106-93-4	9.3	93
1,2-Dichlorobenzene	95-50-1	9.4	94
1,3-Dichlorobenzene	541-73-1	9.4	94
1,4-Dichlorobenzene	106-46-7	9.4	94
Dichlorodifluoromethane	75-71-8	9.9	99
1,1-Dichloroethane	75-34-3	8.9	89
1,2-Dichloroethane	107-06-2	9.3	93
1,1-Dichloroethene	75-35-4	9.5	95
1,2-Dichloroethene (cis)	156-59-2	8.8	88
1,2-Dichloroethene (trans)	156-60-5	9.0	90
1,2-Dichloropropane	78-87-5	8.8	88
1,3-Dichloropropene (cis)	10061-01-5	9.6	96
1,3-Dichloropropene (trans)	10061-02-6	9.6	96
1,2-Dichlorotetrafluoroethane	76-14-2	9.3	93
1,4-Dioxane	123-91-1	8.5	85
Ethylbenzene	100-41-4	9.5	95
n-Heptane	142-82-5	11	110
1,3-Hexachlorobutadiene	87-68-3	8.6	86
n-Hexane	110-54-3	8.5	85

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA3813LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 10/16/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 8:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 9:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Methylene chloride	75-09-2	8.8	88
Methyl ethyl ketone	78-93-3	10	100
Methyl isobutyl ketone	108-10-1	9.0	90
Methyl tert-butyl ether	1634-04-4	8.7	87
Styrene	100-42-5	10.0	100
Tert-butyl alcohol	75-65-0	8.4	84
1,1,2,2-Tetrachloroethane	79-34-5	9.1	91
Tetrachloroethene	127-18-4	9.1	91
Toluene	108-88-3	9.6	96
1,2,4-Trichlorobenzene	120-82-1	9.0	90
1,1,1-Trichloroethane	71-55-6	9.0	90
1,1,2-Trichloroethane	79-00-5	9.2	92
Trichloroethene	79-01-6	9.7	97
Trichlorofluoromethane	75-69-4	9.4	94
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8.6	86
1,2,4-Trimethylbenzene	95-63-6	10	100
1,3,5-Trimethylbenzene	108-67-8	10	100
2,2,4-Trimethylpentane	540-84-1	9.6	96
Vinyl bromide	593-60-2	10.0	100
Vinyl chloride	75-01-4	9.6	96
Xylenes (m&p)	179601-23-1	20	98
Xylenes (o)	95-47-6	9.8	98

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Data Path : C:\DATA\10-16-17\
Data File : aa3813lcs.D
Acq On : 16 Oct 2017 10:17 am
Operator : jls
Sample : 10 ppbv LCS
Misc : AAL073030
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 18 09:45:33 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.753	130	586904	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.807	114	1984830	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.142	117	1818350	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.338	95	1635844	10.27	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.512	41	150483	10.28	ppbV		89
3) Dichlorodifluoromethane	3.563	85	2166621	9.89	ppbV		97
4) Chloromethane	3.727	52	51792	10.49	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.776	85	1593517	9.33	ppbV		99
6) Vinyl chloride	3.894	62	319726	9.61	ppbV		84
7) 1,3-Butadiene	3.994	54	174789	9.48	ppbV		81
8) n-Butane	4.042	43	296260	9.72	ppbV		93
9) Bromomethane	4.242	94	384189	11.27	ppbV		98
10) Chloroethane	4.390	64	185542	10.59	ppbV		96
11) Ethanol	4.422	45	57486	8.36	ppbV		93
12) Vinyl bromide	4.692	106	549228	9.95	ppbV		100
13) Acrolein	4.750	56	94078	9.69	ppbV		98
14) Acetone	4.846	58	144158	9.93	ppbV		71
15) Trichlorofluoromethane	5.029	101	2702027	9.36	ppbV		99
16) Isopropanol	5.026	45	343683	8.77	ppbV		90
17) n-Pentane	5.335	43	316526	8.84	ppbV		93
18) 1,1-Dichloroethene	5.599	61	775843	9.50	ppbV		97
19) Methylene chloride	5.701	84	455647	8.75	ppbV		100
20) Tert-butyl alcohol	5.563	59	813629	8.42	ppbV		100
21) Allyl chloride	5.801	76	217735	9.56	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.930	101	1504888	8.60	ppbV		96
23) Carbon disulfide	5.988	76	1466347	9.34	ppbV		100
24) 1,2-Dichloroethene (tr...	6.560	61	596086	8.97	ppbV		97
25) 1,1-Dichloroethane	6.756	63	835450	8.92	ppbV		93
26) Methyl tert-butyl ether	6.785	73	1606513	8.67	ppbV		100
27) Methyl ethyl ketone	7.100	72	236714	10.27	ppbV		94
28) 1,2-Dichloroethene (cis)	7.576	61	582185	8.84	ppbV		96
29) Ethyl acetate	7.769	45	70817	9.21	ppbV		100
30) n-Hexane	7.791	57	403987	8.45	ppbV		94
31) Chloroform	7.872	83	1674935	9.40	ppbV		100
32) Tetrahydrofuran	8.261	42	211831	8.79	ppbV	#	76
33) 1,2-Dichloroethane	8.640	62	1057702	9.25	ppbV		94
34) 1,1,1-Trichloroethane	8.920	97	1947875	9.02	ppbV		99
35) Benzene	9.412	78	1520093	8.79	ppbV		98
36) Carbon tetrachloride	9.582	117	2359099	9.14	ppbV		100
37) Cyclohexane	9.727	84	627649	8.85	ppbV		88
39) 1,2-Dichloropropane	10.328	63	449426	8.77	ppbV		94
40) Bromodichloromethane	10.547	83	1796758	9.65	ppbV		98
41) 2,2,4-Trimethylpentane	10.656	57	1400678	9.61	ppbV		93
42) Trichloroethene	10.605	130	1005567	9.69	ppbV		99
43) 1,4-Dioxane	10.563	88	309128	8.49	ppbV		95
44) Methyl methacrylate	10.820	69	588950	9.37	ppbV		95
45) n-Heptane	10.955	71	512878	10.65	ppbV		94
46) cis-1,3-Dichloropropene	11.618	75	1089941	9.64	ppbV		99
47) Methyl isobutyl ketone	11.637	43	637233	9.03	ppbV		100
48) trans-1,3-Dichloropropene	12.254	75	1145529	9.60	ppbV		99
49) 1,1,2-Trichloroethane	12.463	97	834577	9.17	ppbV		98
50) Toluene	12.820	91	2192373	9.62	ppbV		96
51) Methyl n-butyl ketone	13.142	43	621904	9.08	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3813lcs.D
Acq On : 16 Oct 2017 10:17 am
Operator : jls
Sample : 10 ppbv LCS
Misc : AAL073030
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 18 09:45:33 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

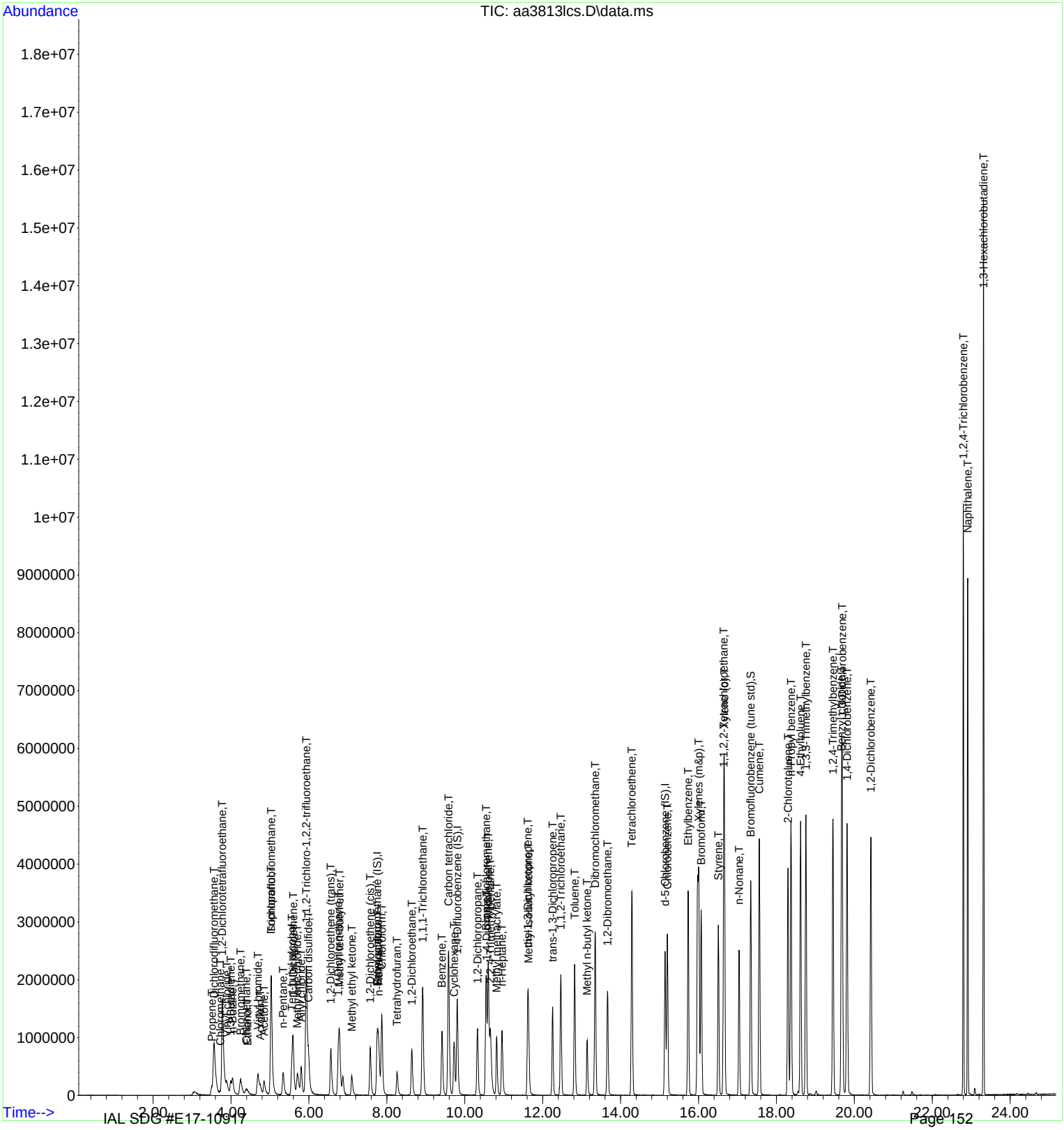
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Dibromochloromethane	13.344	129	2073126	9.56	ppbV	100
53) 1,2-Dibromoethane	13.666	107	1447143	9.26	ppbV	100
54) Tetrachloroethene	14.286	166	1172618	9.06	ppbV	98
56) Chlorobenzene	15.200	112	2084771	8.89	ppbV	98
57) Ethylbenzene	15.733	91	3268508	9.46	ppbV	99
58) Xylenes (m&p)	16.000	91	5567762	19.69	ppbV	96
59) Bromoform	16.068	173	1781332	9.63	ppbV	97
60) Styrene	16.508	104	1894748	9.96	ppbV	99
61) Xylene (o)	16.662	91	2898522	9.80	ppbV	89
62) 1,1,2,2-Tetrachloroethane	16.646	83	1879741	9.07	ppbV	99
63) n-Nonane	17.042	57	786014	9.76	ppbV	97
65) Cumene	17.560	105	3909220	9.67	ppbV	94
66) 2-Chlorotoluene	18.296	91	2961217	9.73	ppbV	90
67) n-Propyl benzene	18.373	120	1163415	10.01	ppbV	81
68) 4-Ethyltoluene	18.621	105	3960985	10.07	ppbV	91
69) 1,3,5-Trimethylbenzene	18.756	105	3724449	10.16	ppbV	89
70) 1,2,4-Trimethylbenzene	19.450	105	3660905	10.33	ppbV	98
71) Benzyl chloride	19.669	91	3011864	10.06	ppbV	99
72) 1,3-Dichlorobenzene	19.688	146	2546881	9.43	ppbV	98
73) 1,4-Dichlorobenzene	19.813	146	2590524	9.43	ppbV	97
74) 1,2-Dichlorobenzene	20.424	146	2423738	9.38	ppbV	99
75) 1,2,4-Trichlorobenzene	22.797	180	2165192	9.03	ppbV	99
76) Naphthalene	22.910	127	757498	10.27	ppbV	100
77) 1,3-Hexachlorobutadiene	23.315	225	1715125	8.63	ppbV	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3813lcs.D
Acq On : 16 Oct 2017 10:17 am
Operator : jls
Sample : 10 ppbv LCS
Misc : AAL073030
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 18 09:45:33 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration



Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4703LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 12/27/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	11	110
Benzene	71-43-2	11	110
Bromodichloromethane	75-27-4	8.1	81
Bromoform	75-25-2	11	110
Bromomethane	74-83-9	9.6	96
1,3-Butadiene	106-99-0	9.9	99
Chlorobenzene	108-90-7	13	130
Chloroethane	75-00-3	11	110
Chloroform	67-66-3	11	110
Chloromethane	74-87-3	8.7	87
Carbon disulfide	75-15-0	11	110
Carbon tetrachloride	56-23-5	8.9	89
Cyclohexane	110-82-7	9.2	92
Dibromochloromethane	124-48-1	11	110
1,2-Dibromoethane	106-93-4	10	100
1,2-Dichlorobenzene	95-50-1	9.7	97
1,3-Dichlorobenzene	541-73-1	11	110
1,4-Dichlorobenzene	106-46-7	11	110
Dichlorodifluoromethane	75-71-8	8.6	86
1,1-Dichloroethane	75-34-3	11	110
1,2-Dichloroethane	107-06-2	7.9	79
1,1-Dichloroethene	75-35-4	11	110
1,2-Dichloroethene (cis)	156-59-2	10.0	100
1,2-Dichloroethene (trans)	156-60-5	11	110
1,2-Dichloropropane	78-87-5	11	110
1,3-Dichloropropene (cis)	10061-01-5	11	110
1,3-Dichloropropene (trans)	10061-02-6	11	110
1,2-Dichlorotetrafluoroethane	76-14-2	11	110
1,4-Dioxane	123-91-1	12	120
Ethylbenzene	100-41-4	12	120

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4703LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 12/27/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4701BFB]	12/27/2017 8:38
10 PPBV DCVS [AA4702DCVS]	12/27/2017 9:19
10 PPBV LCS [AA4703LCS]	12/27/2017 9:57
METHOD BLANK [AA4704BLK]	12/27/2017 11:28
02 PPBV RLLCS [AA4705RLLCS]	12/27/2017 12:09
E17-10917-01 [AA4707]	12/27/2017 14:53
E17-10917-02 [AA4708]	12/27/2017 15:27
E17-10917-22 [AA4709]	12/27/2017 16:00
E17-10917-03 [AA4710]	12/27/2017 16:34
10 PPBV CCCVS [AA4721CCCVS]	12/27/2017 22:43

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
n-Heptane	142-82-5	10	100
1,3-Hexachlorobutadiene	87-68-3	9.8	98
n-Hexane	110-54-3	11	110
Methylene chloride	75-09-2	12	120
Methyl ethyl ketone	78-93-3	11	110
Methyl isobutyl ketone	108-10-1	11	110
Methyl tert-butyl ether	1634-04-4	8.8	88
Styrene	100-42-5	12	120
Tert-butyl alcohol	75-65-0	8.9	89
1,1,2,2-Tetrachloroethane	79-34-5	9.4	94
Tetrachloroethene	127-18-4	12	120
Toluene	108-88-3	12	120
1,2,4-Trichlorobenzene	120-82-1	9.0	90
1,1,1-Trichloroethane	71-55-6	11	110
1,1,2-Trichloroethane	79-00-5	12	120
Trichloroethene	79-01-6	11	110
Trichlorofluoromethane	75-69-4	7.5	75
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	12	120
1,2,4-Trimethylbenzene	95-63-6	11	110
1,3,5-Trimethylbenzene	108-67-8	10	100
2,2,4-Trimethylpentane	540-84-1	12	120
Vinyl bromide	593-60-2	10	100
Vinyl chloride	75-01-4	8.1	81
Xylenes (m&p)	179601-23-1	17	86
Xylenes (o)	95-47-6	9.0	90

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

IAL Integrated Analytical Laboratories LLC

Data Path : C:\DATA\12-27-17\
Data File : aa4703lcs.D
Acq On : 27 Dec 2017 9:57 am
Operator : jls
Sample : 10 ppbv LCS
Misc : AAL073030
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 27 11:15:58 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.778	130	675112	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.833	114	2650680	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.154	117	2354534	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.350	95	1648663	8.82	ppbV		0.00
Target Compounds							Qvalue
2) Propene	3.521	41	795628	13.68	ppbV	#	78
3) Dichlorodifluoromethane	3.585	85	1438550	8.62	ppbV		90
4) Chloromethane	3.762	52	172454	8.70	ppbV	#	1
5) 1,2-Dichlorotetrafluor...	3.801	85	2348046	10.97	ppbV		93
6) Vinyl chloride	3.910	62	674066	8.07	ppbV		98
7) 1,3-Butadiene	4.010	54	745384	9.93	ppbV	#	77
8) n-Butane	4.068	43	1562373	9.38	ppbV		97
9) Bromomethane	4.270	94	502274	9.60	ppbV		96
10) Chloroethane	4.421	64	432860	10.62	ppbV	#	59
11) Ethanol	4.457	45	301680	8.60	ppbV	#	66
12) Vinyl bromide	4.717	106	726730	10.18	ppbV		97
13) Acrolein	4.791	56	314752	8.96	ppbV		90
14) Acetone	4.878	58	528616	11.48	ppbV		90
15) Trichlorofluoromethane	5.055	101	1338934	7.51	ppbV		92
16) Isopropanol	5.052	45	1408748	8.41	ppbV		95
17) n-Pentane	5.370	43	1777170	9.51	ppbV		90
18) 1,1-Dichloroethene	5.621	61	1657091	10.68	ppbV		88
19) Methylene chloride	5.737	49	1263339	11.63	ppbV		99
20) Tert-butyl alcohol	5.589	59	1754362	8.85	ppbV		100
21) Allyl chloride	5.839	76	492831	10.36	ppbV		100
22) 1,1,2-Trichloro-1,2,2-...	5.952	101	2216525	12.07	ppbV		99
23) Carbon disulfide	6.013	76	3307259	10.63	ppbV		97
24) 1,2-Dichloroethene (tr...	6.589	61	1411680	10.65	ppbV		89
25) 1,1-Dichloroethane	6.781	63	1976738	11.08	ppbV		98
26) Methyl tert-butyl ether	6.807	73	2460268	8.77	ppbV		96
27) Methyl ethyl ketone	7.126	43	2155681	10.81	ppbV	#	88
28) 1,2-Dichloroethene (cis)	7.601	61	1426073	9.98	ppbV		92
29) Ethyl acetate	7.791	45	332596	10.94	ppbV		100
30) n-Hexane	7.823	57	1601429	11.26	ppbV		99
31) Chloroform	7.894	83	2154602	11.34	ppbV		99
32) Tetrahydrofuran	8.286	42	1139223	9.71	ppbV		89
33) 1,2-Dichloroethane	8.666	62	1010309	7.85	ppbV		99
34) 1,1,1-Trichloroethane	8.945	97	1815387	11.15	ppbV		99
35) Benzene	9.441	78	3509801	11.05	ppbV		99
36) Carbon tetrachloride	9.605	117	1248792	8.88	ppbV		99
37) Cyclohexane	9.756	56	1693416	9.20	ppbV		91
39) 1,2-Dichloropropane	10.341	63	1350868	11.18	ppbV		99
40) Bromodichloromethane	10.569	83	1450253	8.05	ppbV		91
41) 2,2,4-Trimethylpentane	10.675	57	5270642	11.89	ppbV		89
42) Trichloroethene	10.621	130	1196652	10.85	ppbV		96
43) 1,4-Dioxane	10.592	88	636433	11.73	ppbV		94
44) Methyl methacrylate	10.830	41	1500481	10.39	ppbV		86
45) n-Heptane	10.971	43	1938589	10.09	ppbV		100
46) cis-1,3-Dichloropropene	11.637	75	1927313	10.91	ppbV		99
47) Methyl isobutyl ketone	11.649	43	2788628	10.74	ppbV	#	82
48) trans-1,3-Dichloropropene	12.267	75	1694523	11.09	ppbV		90
49) 1,1,2-Trichloroethane	12.473	97	1539933	12.28	ppbV		99
50) Toluene	12.833	91	4276204	11.61	ppbV		95
51) Methyl n-butyl ketone	13.151	43	2530031	10.09	ppbV		87

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4703lcs.D
Acq On : 27 Dec 2017 9:57 am
Operator : jls
Sample : 10 ppbv LCS
Misc : AAL073030
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 27 11:15:58 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

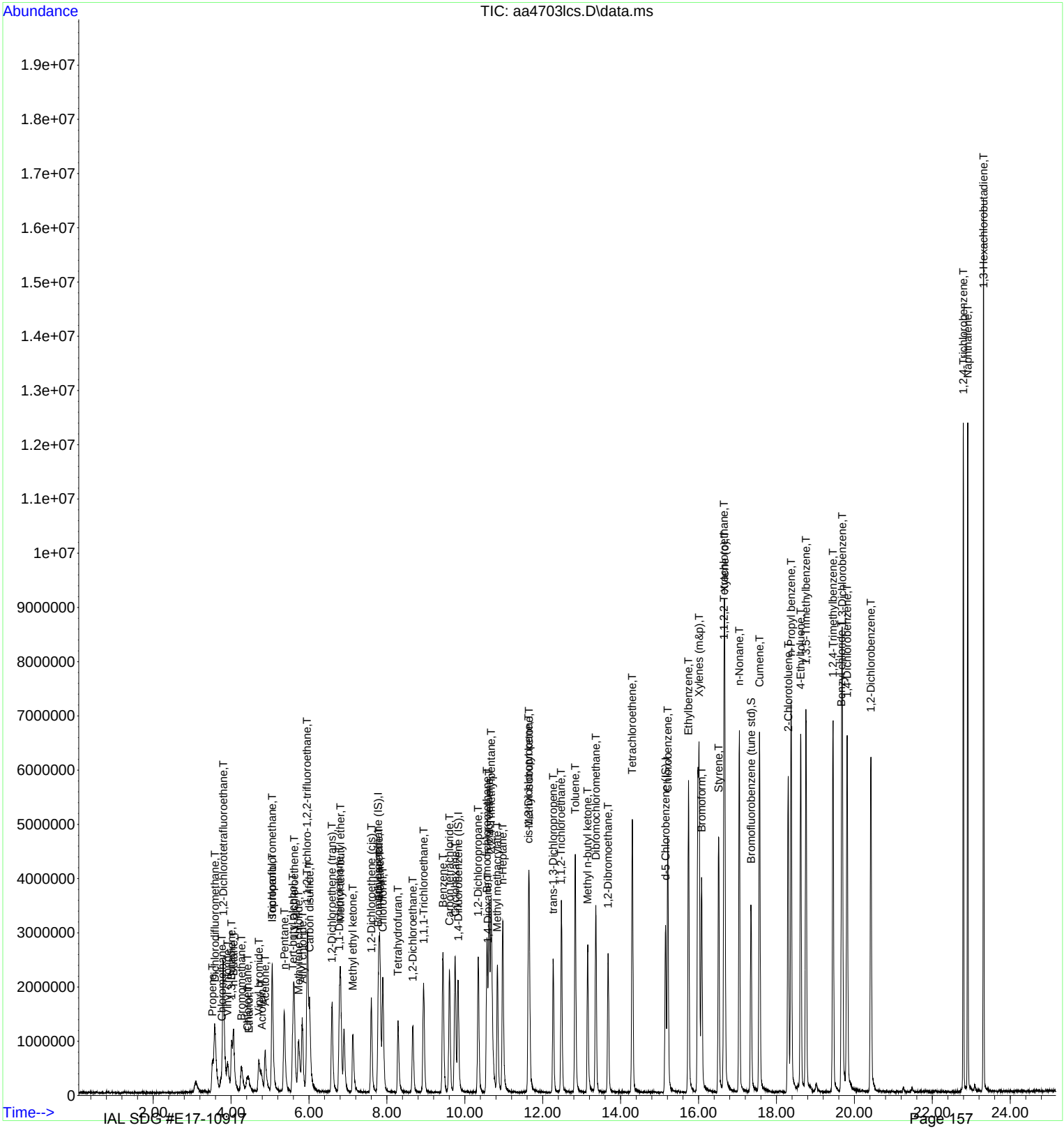
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Dibromochloromethane	13.363	129	2063961	11.36	ppbV		98
53) 1,2-Dibromoethane	13.678	107	1957418	10.34	ppbV		98
54) Tetrachloroethene	14.299	166	1545908	11.68	ppbV		99
56) Chlorobenzene	15.209	112	3560781	13.00	ppbV		100
57) Ethylbenzene	15.743	91	5577100	11.60	ppbV		98
58) Xylenes (m&p)	16.013	91	6241647	17.22	ppbV		87
59) Bromoform	16.077	173	1819956	10.85	ppbV		96
60) Styrene	16.514	104	3361162	12.17	ppbV		94
61) Xylene (o)	16.672	91	3143885	8.95	ppbV		99
62) 1,1,2,2-Tetrachloroethane	16.652	83	2729834	9.36	ppbV		92
63) n-Nonane	17.048	57	2749129	10.08	ppbV	#	76
65) Cumene	17.566	105	4387028	9.25	ppbV		95
66) 2-Chlorotoluene	18.302	91	3346317	9.07	ppbV	#	87
67) n-Propyl benzene	18.376	91	6094062	9.77	ppbV		96
68) 4-Ethyltoluene	18.620	105	4695978	11.10	ppbV		98
69) 1,3,5-Trimethylbenzene	18.755	105	4268129	10.32	ppbV		94
70) 1,2,4-Trimethylbenzene	19.450	105	4183357	10.58	ppbV		92
71) Benzyl chloride	19.668	91	3499867	10.29	ppbV		99
72) 1,3-Dichlorobenzene	19.691	146	2763070	10.54	ppbV		98
73) 1,4-Dichlorobenzene	19.816	146	3039601	11.16	ppbV		96
74) 1,2-Dichlorobenzene	20.424	146	2668922	9.66	ppbV		98
75) 1,2,4-Trichlorobenzene	22.794	180	1925580	8.97	ppbV		99
76) Naphthalene	22.909	127	896302	11.27	ppbV		100
77) 1,3-Hexachlorobutadiene	23.315	225	1549509	9.79	ppbV		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4703lcs.D
Acq On : 27 Dec 2017 9:57 am
Operator : jls
Sample : 10 ppbv LCS
Misc : AAL073030
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 27 11:15:58 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration



Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

		Date Received:	10/16/17
SDG Number:	E17-08818	Date Analyzed:	10/16/17,10/16/17
IAL Sample ID:	E17-08818-01	Lab Data File#:	AA3816,AA3817
Matrix:	Air	Dilution Factor:	1
Summa ID:	3132	Injection Volume:	500ml
		GC/MS Column:	RTX-1, 0.32 mmID

		Sample		Sample Dup			
		E17-08818-01		**E17-08818-21**			
		Concentration Reported		**Concentration Reported**		**Reporting Limits**	
Compound	**CAS #**	**ppbv**	**Q**	**ppbv**	**Q**	**ppbv**	**RPD**
Acetone	67-64-1	**18**		**20**		0.20	**-10.53%**
Allyl Chloride	107-05-1	0.20	U	0.20	U	0.20	0.00%
Benzene	71-43-2	0.20	U	0.20	U	0.20	0.00%
Bromodichloromethane	75-27-4	0.20	U	0.20	U	0.20	0.00%
Bromoform	75-25-2	0.20	U	0.20	U	0.20	0.00%
Bromomethane	74-83-9	0.20	U	0.20	U	0.20	0.00%
1,3-Butadiene	106-99-0	0.20	U	0.20	U	0.20	0.00%
Chlorobenzene	108-90-7	0.20	U	0.20	U	0.20	0.00%
Chloroethane	75-00-3	0.20	U	0.20	U	0.20	0.00%
Chloroform	67-66-3	0.20	U	0.20	U	0.20	0.00%
Chloromethane	74-87-3	0.20	U	0.20	U	0.20	0.00%
Carbon disulfide	75-15-0	0.20	U	0.20	U	0.20	0.00%
Carbon tetrachloride	56-23-5	0.20	U	0.20	U	0.20	0.00%
2-Chlorotoluene	95-49-8	0.20	U	0.20	U	0.20	0.00%
Cyclohexane	110-82-7	0.20	U	0.20	U	0.20	0.00%
Dibromochloromethane	124-48-1	0.20	U	0.20	U	0.20	0.00%
1,2-Dibromoethane	106-93-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorobenzene	95-50-1	0.20	U	0.20	U	0.20	0.00%
1,3-Dichlorobenzene	541-73-1	0.20	U	0.20	U	0.20	0.00%
1,4-Dichlorobenzene	106-46-7	0.20	U	0.20	U	0.20	0.00%
Dichlorodifluoromethane	75-71-8	**0.42**		**0.44**		0.20	**-4.65%**
1,1-Dichloroethane	75-34-3	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethane	107-06-2	0.20	U	0.20	U	0.20	0.00%
1,1-Dichloroethene	75-35-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (cis)	156-59-2	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (trans)	156-60-5	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloropropane	78-87-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (cis)	10061-01-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (trans)	10061-02-6	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	U	0.20	U	0.20	0.00%
1,4-Dioxane	123-91-1	0.20	U	0.20	U	0.20	0.00%
Ethanol	64-17-5	**79**	E	**89**	E	0.20	**-11.90%**
Ethylbenzene	100-41-4	0.20	U	0.20	U	0.20	0.00%
4-Ethyltoluene	622-96-8	**0.20**		**0.21**		0.20	**-4.88%**
n-Heptane	142-82-5	**0.56**		**0.60**		0.20	**-6.90%**
1,3-Hexachlorobutadiene	87-68-3	0.20	U	0.20	U	0.20	0.00%
n-Hexane	110-54-3	0.20	U	0.20	U	0.20	0.00%
Isopropanol	67-63-0	**2.8**		**3.0**		0.20	**-6.90%**

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-08818
IAL Sample ID: E17-08818-01
Matrix: Air
Summa ID: 3132

Date Received: 10/16/17
Date Analyzed: 10/16/17,10/16/17
Lab Data File#: AA3816,AA3817
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-08818-01 Concentration Reported ppbv	Q	Sample Dup E17-08818-21 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Methylene chloride	75-09-2	0.20	U	0.20	U	0.20	0.00%
Methyl ethyl ketone	78-93-3	0.20	U	0.20	U	0.20	0.00%
Methyl isobutyl ketone	108-10-1	0.20	U	0.20	U	0.20	0.00%
Methyl methacrylate	80-62-6	0.20	U	0.20	U	0.20	0.00%
Methyl tert-butyl ether	1634-04-4	0.20	U	0.20	U	0.20	0.00%
Styrene	100-42-5	0.20	U	0.20	U	0.20	0.00%
Tert-butyl alcohol	75-65-0	**0.50**		**0.41**		0.20	**19.78%**
1,1,2,2-Tetrachloroethane	79-34-5	0.20	U	0.20	U	0.20	0.00%
Tetrachloroethene	127-18-4	0.20	U	0.20	U	0.20	0.00%
Tetrahydrofuran	109-99-9	0.20	U	0.20	U	0.20	0.00%
Toluene	108-88-3	**0.39**		**0.41**		0.20	**-5.00%**
1,2,4-Trichlorobenzene	120-82-1	0.20	U	0.20	U	0.20	0.00%
1,1,1-Trichloroethane	71-55-6	0.20	U	0.20	U	0.20	0.00%
1,1,2-Trichloroethane	79-00-5	0.20	U	0.20	U	0.20	0.00%
Trichloroethene	79-01-6	0.20	U	0.20	U	0.20	0.00%
Trichlorofluoromethane	75-69-4	0.20	U	0.20	U	0.20	0.00%
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	U	0.20	U	0.20	0.00%
1,2,4-Trimethylbenzene	95-63-6	**0.93**		**0.97**		0.20	**-4.21%**
1,3,5-Trimethylbenzene	108-67-8	**0.21**		**0.22**		0.20	**-4.65%**
2,2,4-Trimethylpentane	540-84-1	0.20	U	0.20	U	0.20	0.00%
Vinyl bromide	593-60-2	0.20	U	0.20	U	0.20	0.00%
Vinyl chloride	75-01-4	0.20	U	0.20	U	0.20	0.00%
Xylenes (m&p)	179601-23-1	0.40	U	0.40	U	0.40	0.00%
Xylenes (o)	95-47-6	0.20	U	0.20	U	0.20	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3816.D
Acq On : 16 Oct 2017 1:31 pm
Operator : jls
Sample : E17-08818-01
Misc : 3132, 500cc
ALS Vial : 6 Sample Multiplier: 1

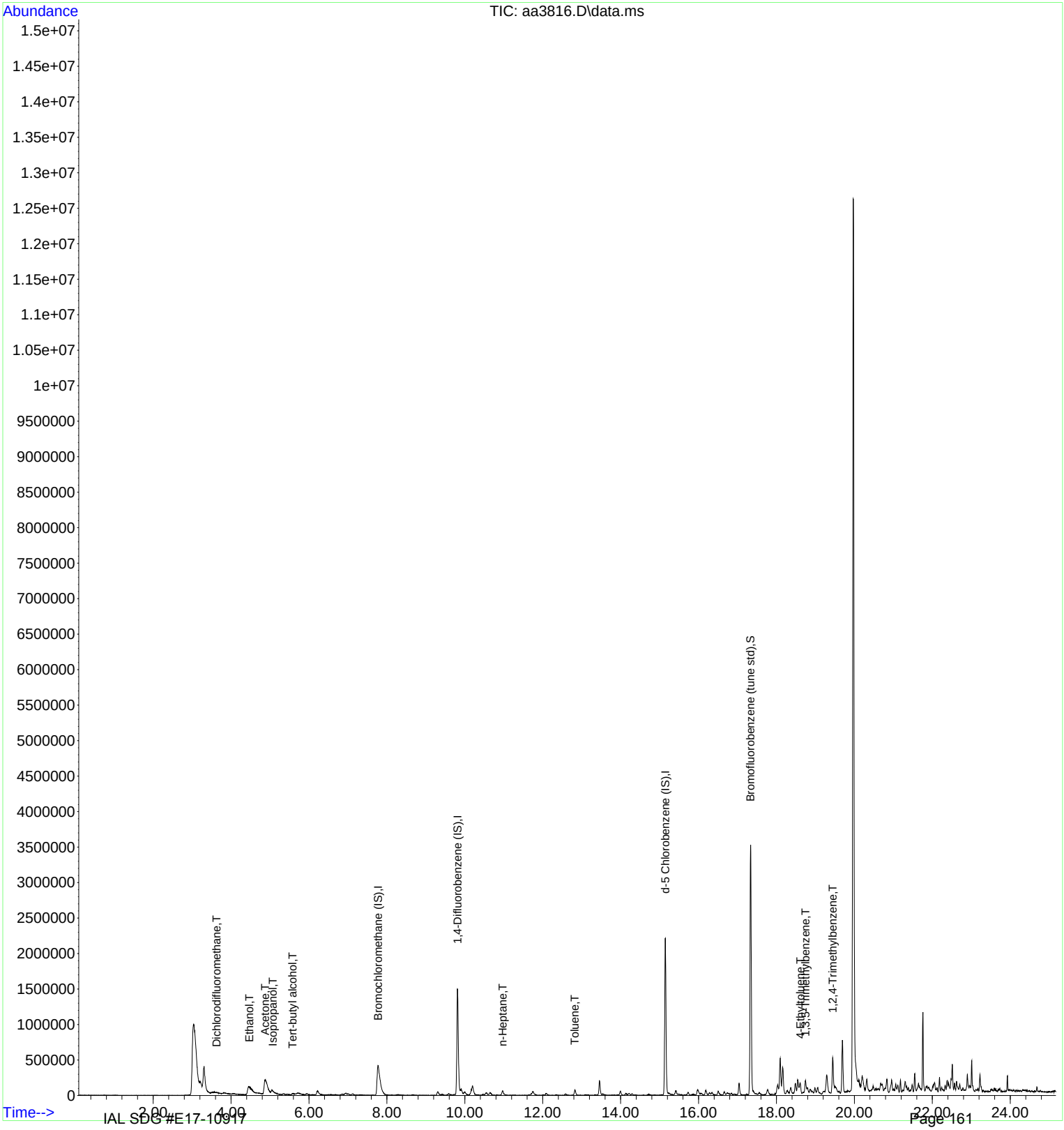
Quant Time: Oct 17 10:33:40 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

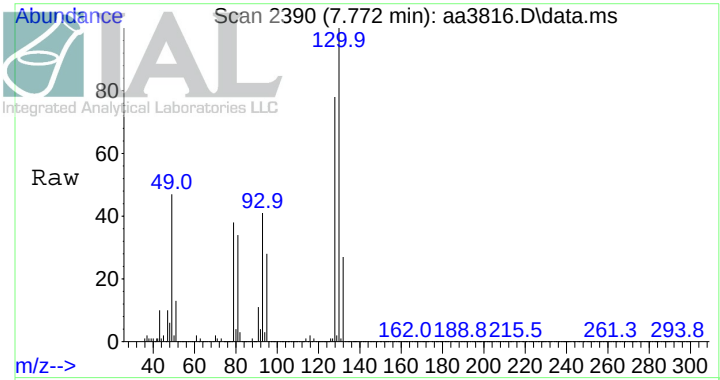
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.772	130	471045	10.00	ppbV		0.02
38) 1,4-Difluorobenzene (IS)	9.814	114	1724990	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.145	117	1695833	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.334	95	1555711	10.47	ppbV		0.00
Target Compounds							Qvalue
3) Dichlorodifluoromethane	3.631	85	74145	0.42	ppbV	#	54
11) Ethanol	4.467	45	433899	78.58	ppbV		95
14) Acetone	4.875	58	214495	18.40	ppbV	#	67
16) Isopropanol	5.074	45	86390	2.75	ppbV	#	46
20) Tert-butyl alcohol	5.579	59	38605	0.50	ppbV		100
45) n-Heptane	10.971	71	23237	0.56	ppbV		99
50) Toluene	12.823	91	77507	0.39	ppbV		95
68) 4-Ethyltoluene	18.614	105	75138	0.20	ppbV		98
69) 1,3,5-Trimethylbenzene	18.749	105	72668	0.21	ppbV		90
70) 1,2,4-Trimethylbenzene	19.443	105	308290	0.93	ppbV		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\DATA\10-16-17\
Data File : aa3816.D
Acq On : 16 Oct 2017 1:31 pm
Operator : jls
Sample : E17-08818-01
Misc : 3132, 500cc
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 10:33:40 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

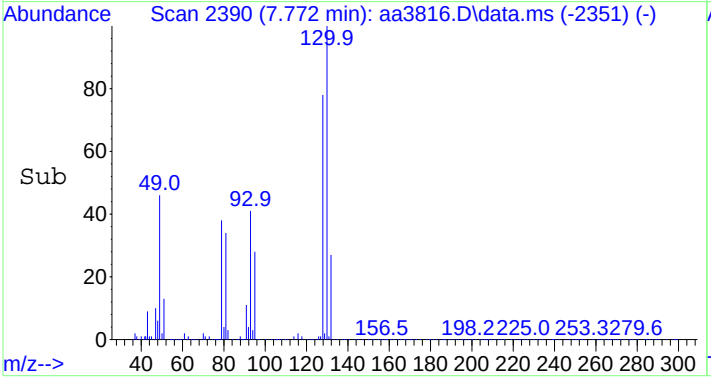


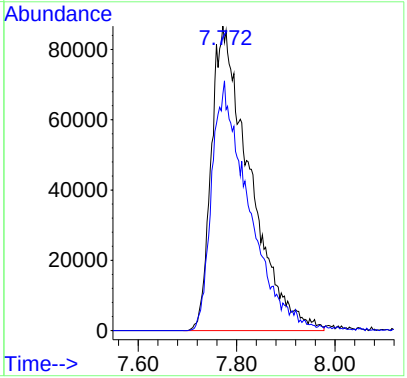


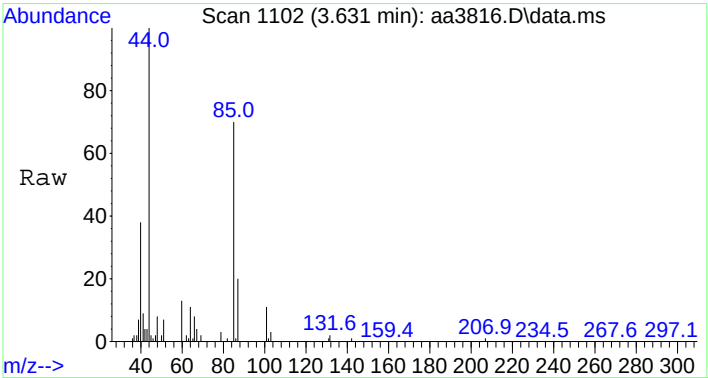
#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.772 min Scan# 2390
Delta R.T. 0.025 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion:130 Resp: 471045

Ion	Ratio	Lower	Upper
130	100		
128	78.4	62.6	94.0



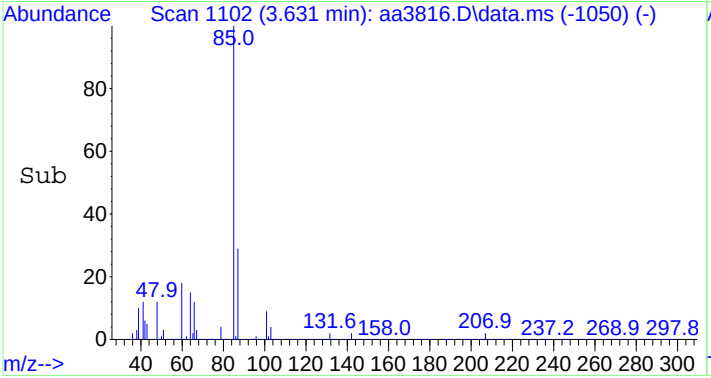


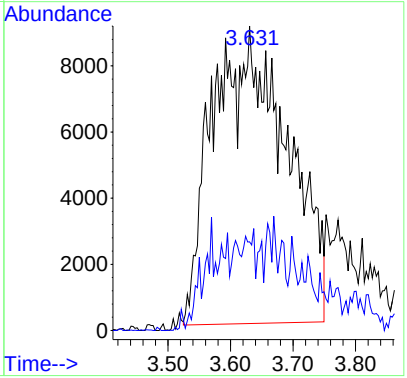


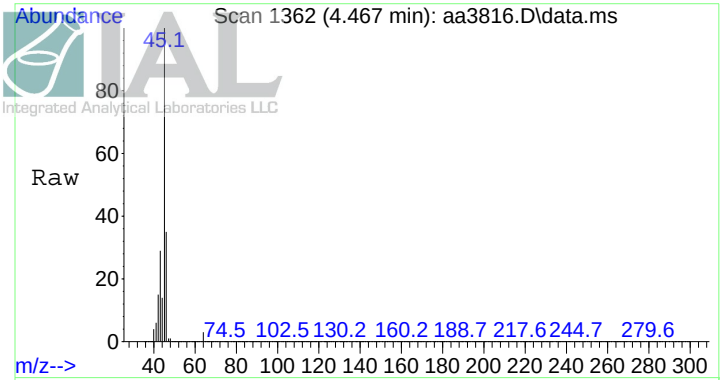
#3
Dichlorodifluoromethane
Concen: 0.42 ppbV
RT: 3.631 min Scan# 1102
Delta R.T. 0.067 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 85 Resp: 74145

Ion	Ratio	Lower	Upper
85	100		
87	7.7	27.4	41.0#



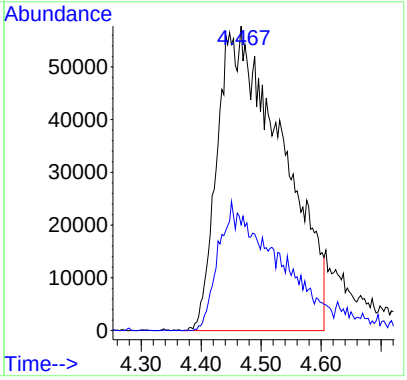


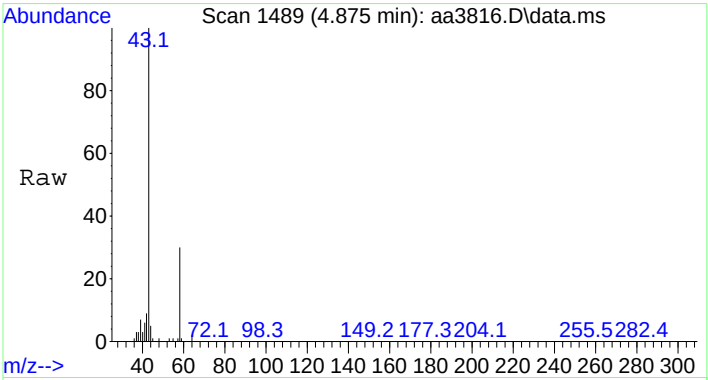


#11
Ethanol
Concen: 78.58 ppbV
RT: 4.467 min Scan# 1362
Delta R.T. 0.045 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 45 Resp: 433899

Ion	Ratio	Lower	Upper
45	100		
46	37.9	32.6	48.8

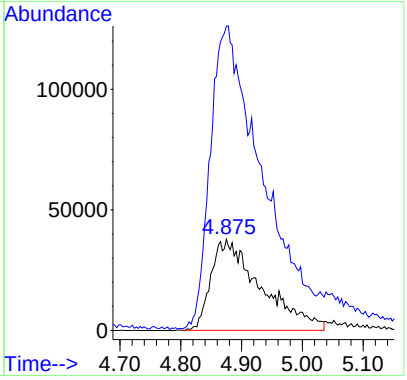


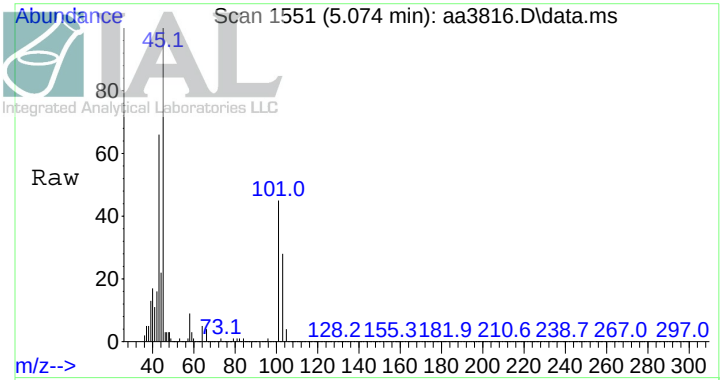


#14
Acetone
Concen: 18.40 ppbV
RT: 4.875 min Scan# 1489
Delta R.T. 0.022 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 58 Resp: 214495

Ion	Ratio	Lower	Upper
58	100		
43	349.3	229.6	344.4#

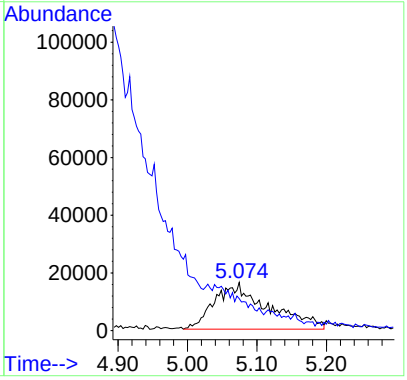


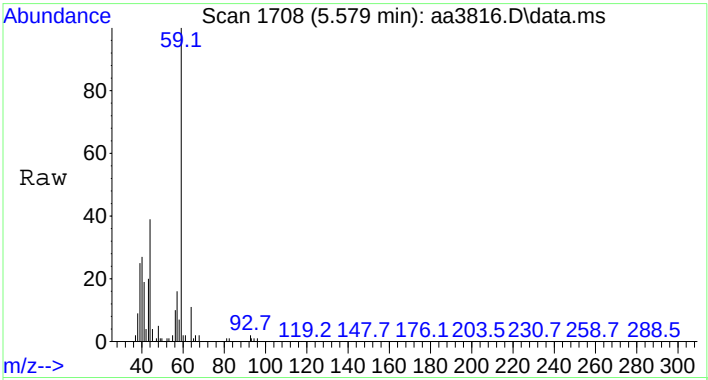


#16
Isopropanol
Concen: 2.75 ppbV
RT: 5.074 min Scan# 1551
Delta R.T. 0.051 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 45 Resp: 86390

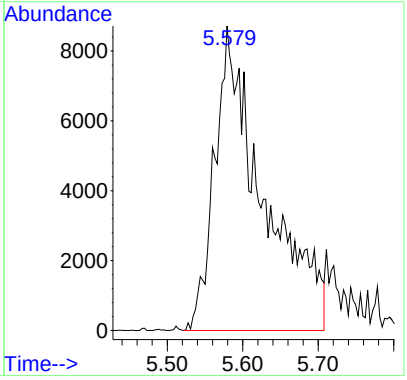
Ion	Ratio	Lower	Upper
45	100		
43	0.0	23.2	34.8#

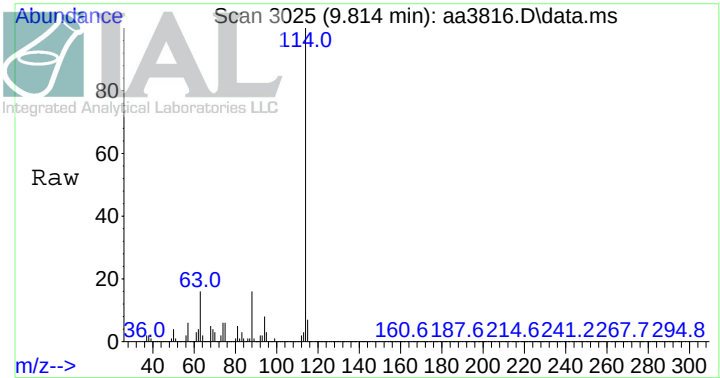




#20
Tert-butyl alcohol
Concen: 0.50 ppbV
RT: 5.579 min Scan# 1708
Delta R.T. 0.016 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 59 Resp: 38605

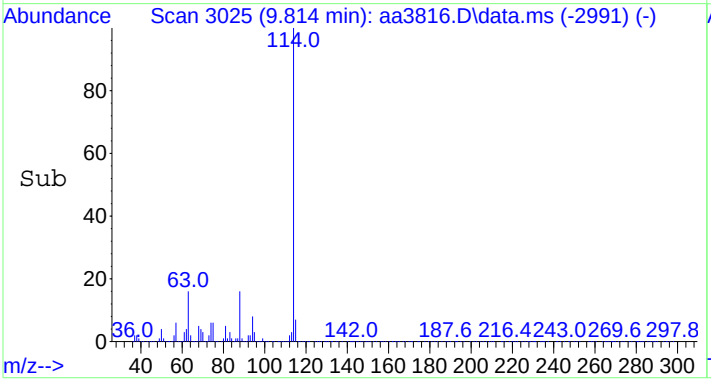


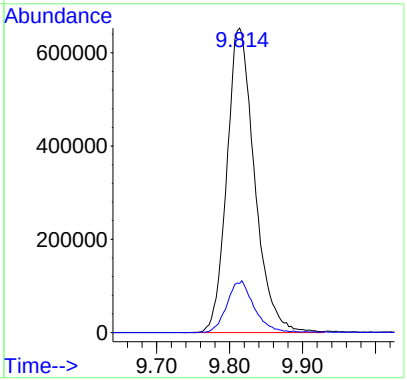


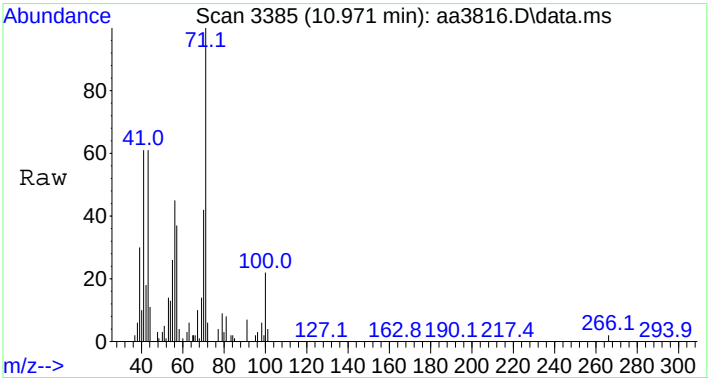
#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.814 min Scan# 3025
Delta R.T. 0.009 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion:114 Resp: 1724990

Ion	Ratio	Lower	Upper
114	100		
63	16.7	14.4	21.6



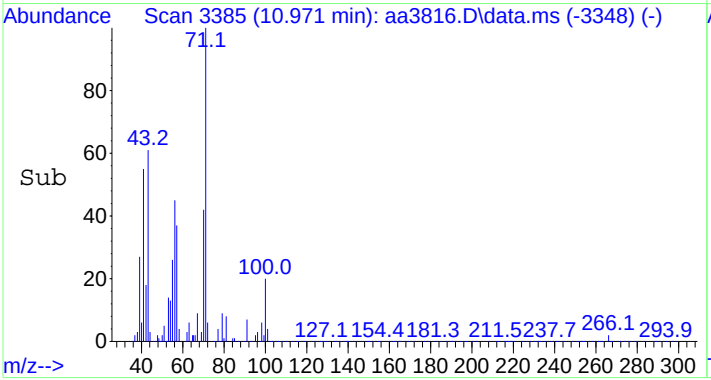


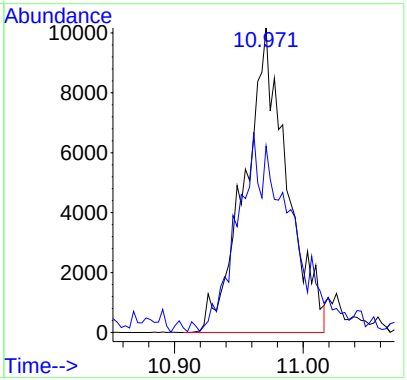


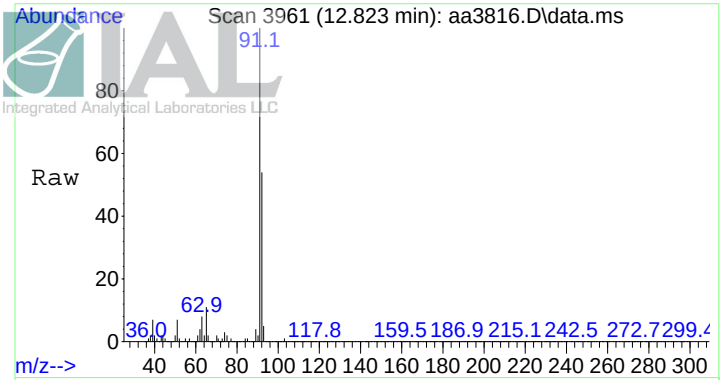
#45
n-Heptane
Concen: 0.56 ppbV
RT: 10.971 min Scan# 3385
Delta R.T. 0.019 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 71 Resp: 23237

Ion	Ratio	Lower	Upper
71	100		
43	80.9	64.0	96.0



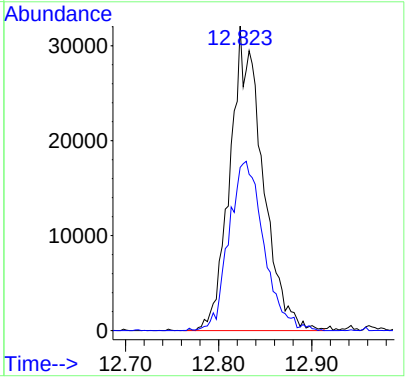


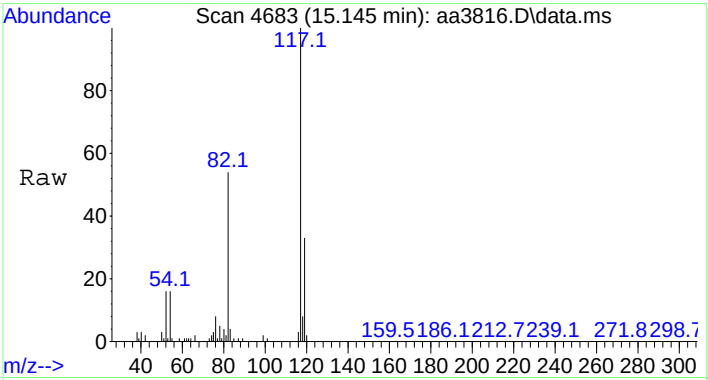


#50
Toluene
Concen: 0.39 ppbV
RT: 12.823 min Scan# 3961
Delta R.T. 0.006 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 91 Resp: 77507

Ion	Ratio	Lower	Upper
91	100		
92	58.9	50.0	75.0

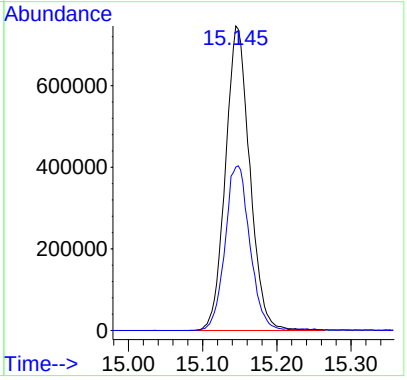


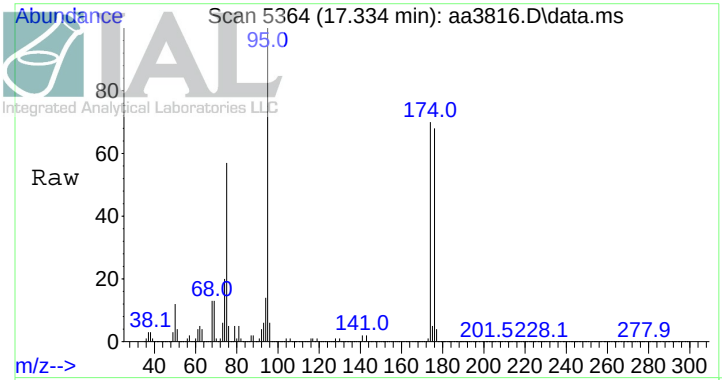


#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.145 min Scan# 4683
Delta R.T. 0.006 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion:117 Resp: 1695833

Ion	Ratio	Lower	Upper
117	100		
82	55.4	44.8	67.2

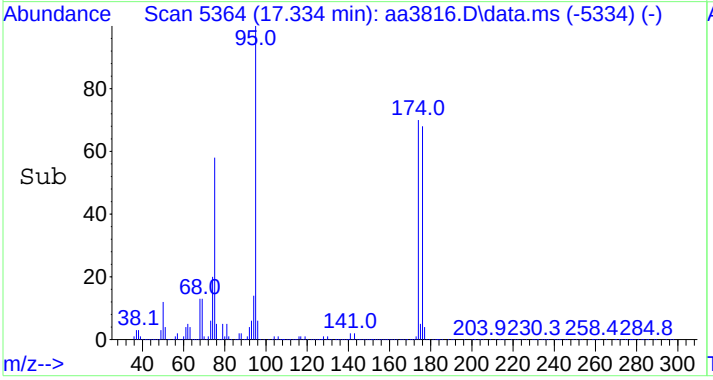


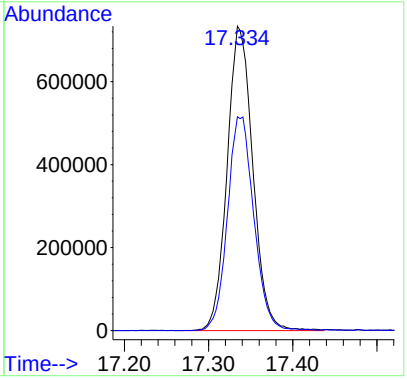


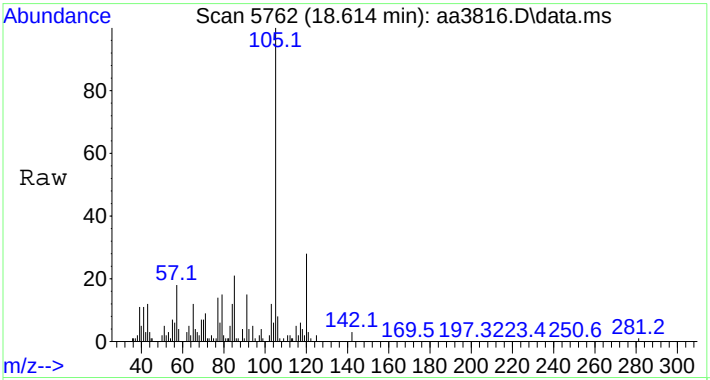
#64
Bromofluorobenzene (tune std)
Concen: 10.47 ppbV
RT: 17.334 min Scan# 5364
Delta R.T. -0.004 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion: 95 Resp: 1555711

Ion	Ratio	Lower	Upper
95	100		
174	71.9	61.5	92.3



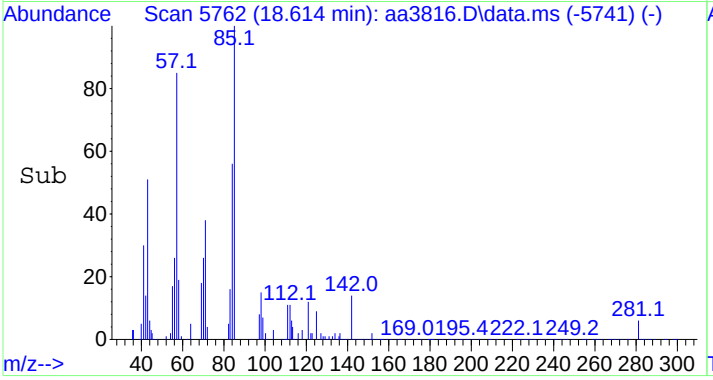


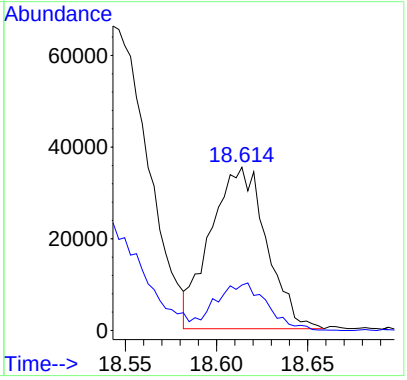


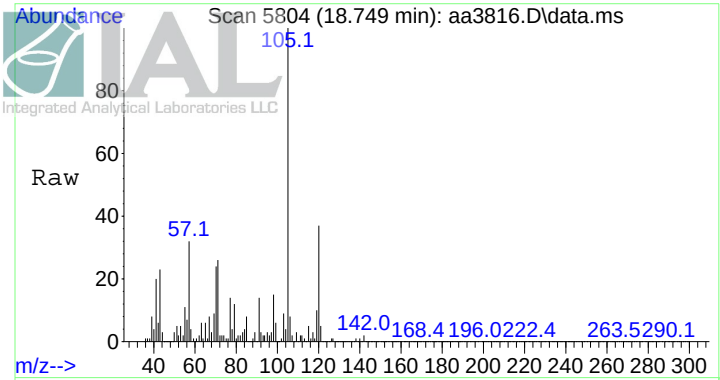
#68
4-Ethyltoluene
Concen: 0.20 ppbV
RT: 18.614 min Scan# 5762
Delta R.T. -0.004 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion:105 Resp: 75138

Ion	Ratio	Lower	Upper
105	100		
120	26.1	20.0	30.0



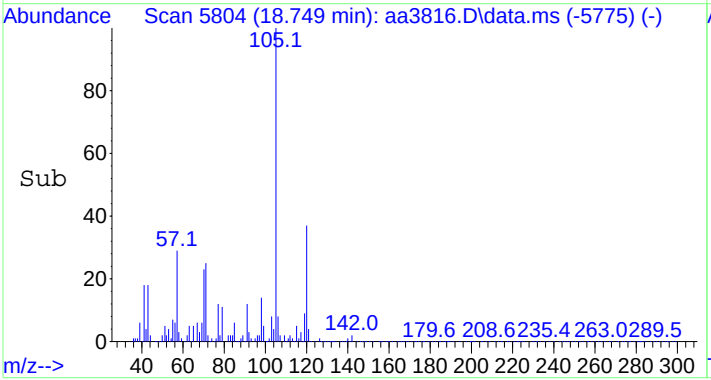


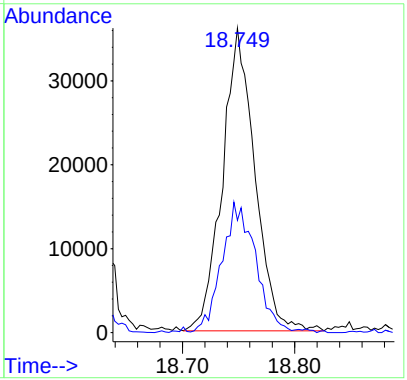


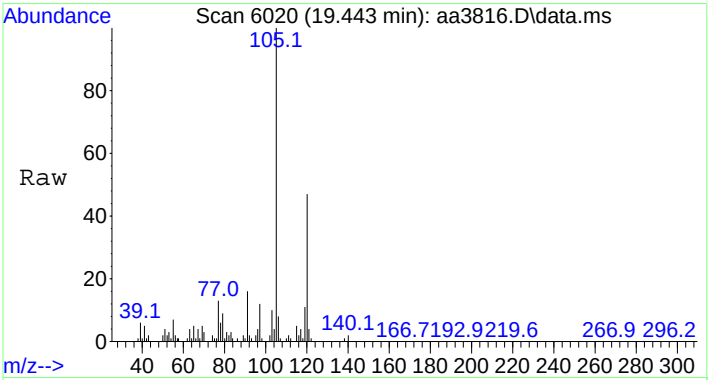
#69
1,3,5-Trimethylbenzene
Concen: 0.21 ppbV
RT: 18.749 min Scan# 5804
Delta R.T. -0.007 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion:105 Resp: 72668

Ion	Ratio	Lower	Upper
105	100		
120	44.8	31.2	46.8



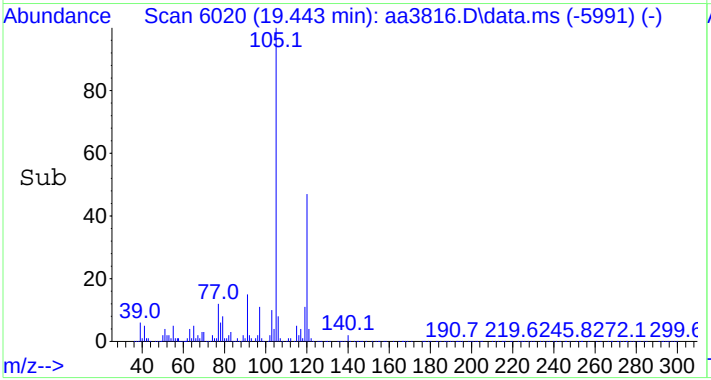


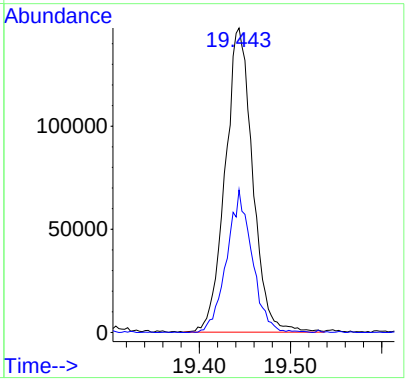


#70
1,2,4-Trimethylbenzene
Concen: 0.93 ppbV
RT: 19.443 min Scan# 6020
Delta R.T. -0.007 min
Lab File: aa3816.D
Acq: 16 Oct 2017 1:31 pm

Tgt Ion:105 Resp: 308290

Ion	Ratio	Lower	Upper
105	100		
120	43.3	36.0	54.0





Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3817.D
Acq On : 16 Oct 2017 2:04 pm
Operator : jls
Sample : E17-08818-21
Misc : dup of E17-08818-01, can 3132
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 17 10:38:23 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

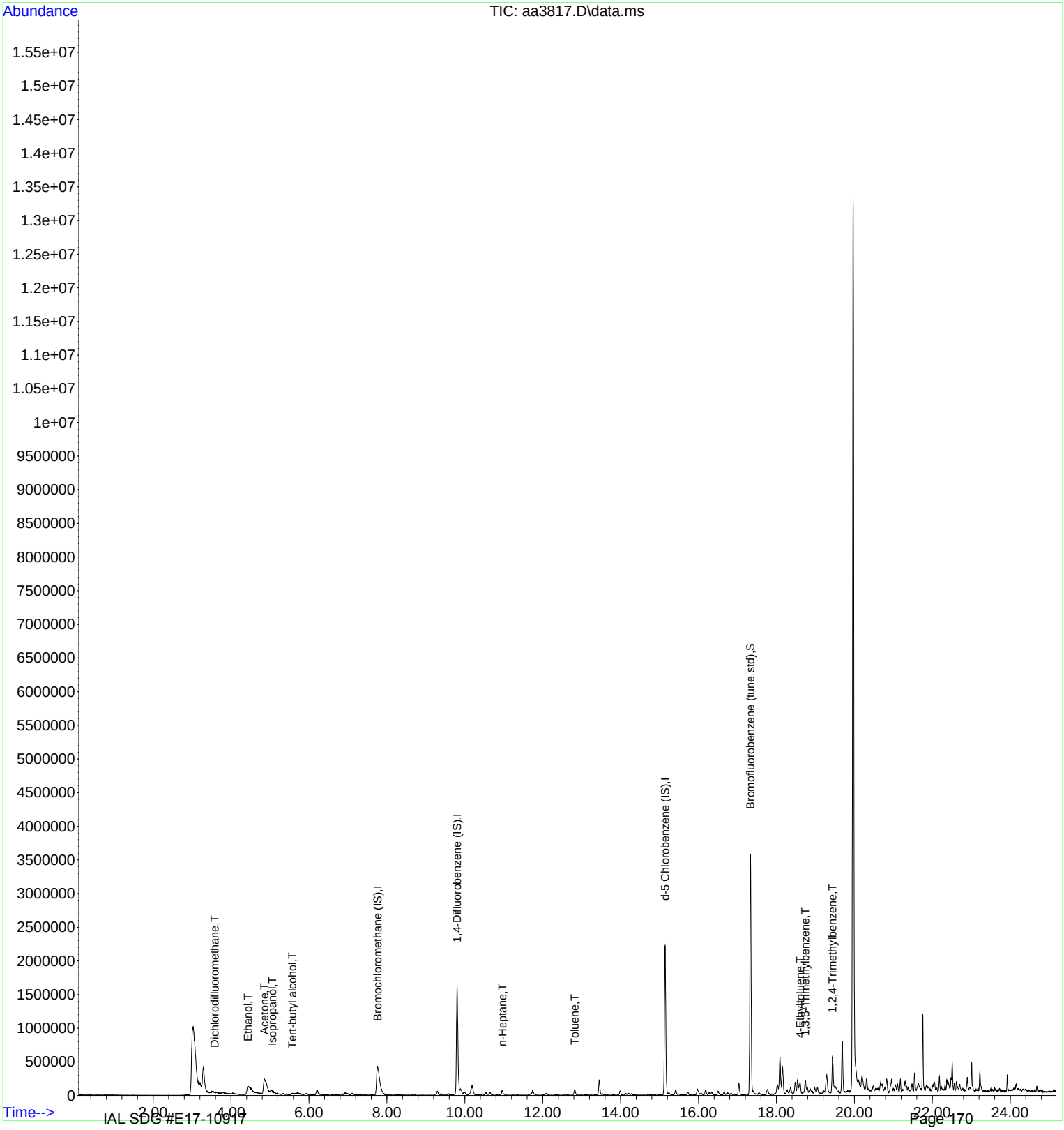
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane (IS)	7.762	130	497670	10.00	ppbV	0.02
38) 1,4-Difluorobenzene (IS)	9.804	114	1897240	10.00	ppbV	0.00
55) d-5 Chlorobenzene (IS)	15.141	117	1752960	10.00	ppbV	0.00
System Monitoring Compounds						
64) Bromofluorobenzene (tu...	17.331	95	1594521	10.39	ppbV	0.00
Target Compounds						Qvalue
3) Dichlorodifluoromethane	3.582	85	81974	0.44	ppbV #	44
11) Ethanol	4.438	45	520739	89.26	ppbV	96
14) Acetone	4.859	58	246352	20.01	ppbV	70
16) Isopropanol	5.058	45	99275	2.99	ppbV #	46
20) Tert-butyl alcohol	5.576	59	33673	0.41	ppbV	100
45) n-Heptane	10.968	71	27622	0.60	ppbV	91
50) Toluene	12.823	91	89379	0.41	ppbV	95
68) 4-Ethyltoluene	18.608	105	81049	0.21	ppbV	91
69) 1,3,5-Trimethylbenzene	18.743	105	76624	0.22	ppbV	90
70) 1,2,4-Trimethylbenzene	19.437	105	329905	0.97	ppbV	99

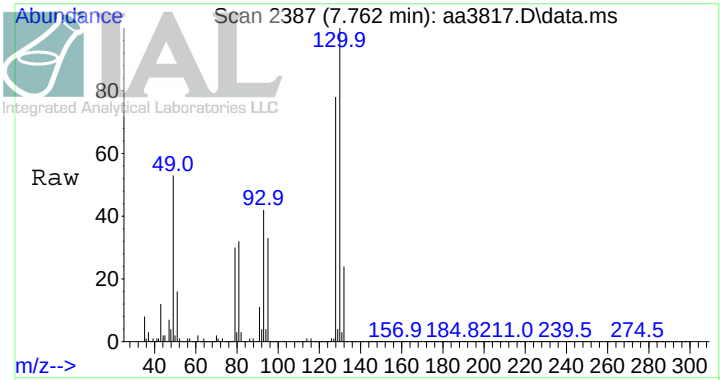
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3817.D
Acq On : 16 Oct 2017 2:04 pm
Operator : jls
Sample : E17-08818-21
Misc : dup of E17-08818-01, can 3132
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 17 10:38:23 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

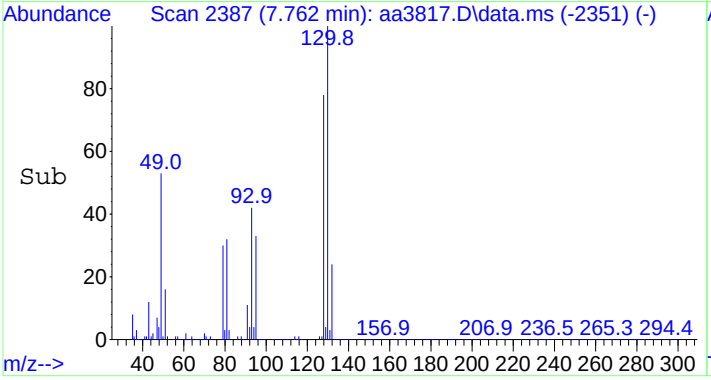


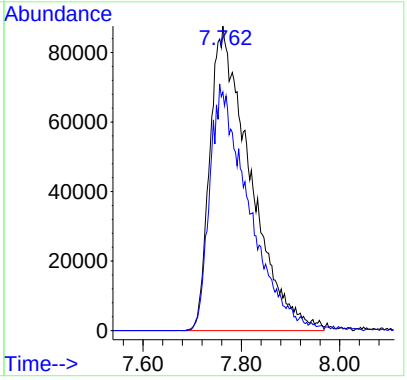


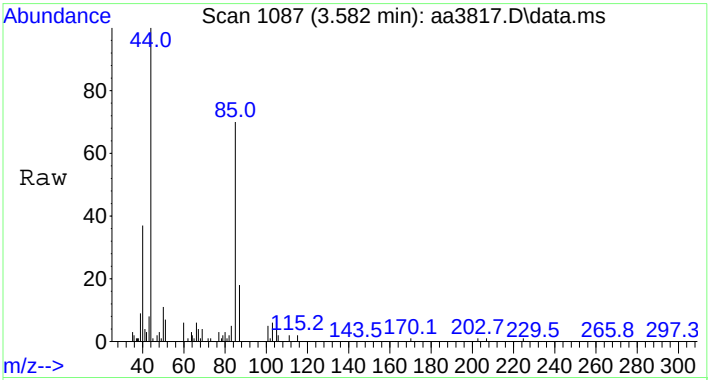
#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.762 min Scan# 2387
Delta R.T. 0.015 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion:130 Resp: 497670

Ion	Ratio	Lower	Upper
130	100		
128	78.4	62.6	94.0



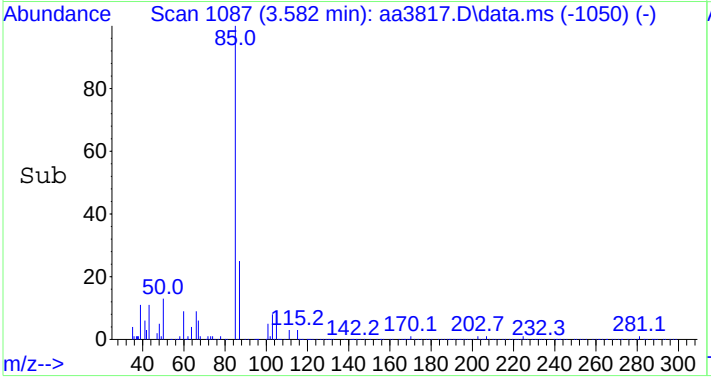


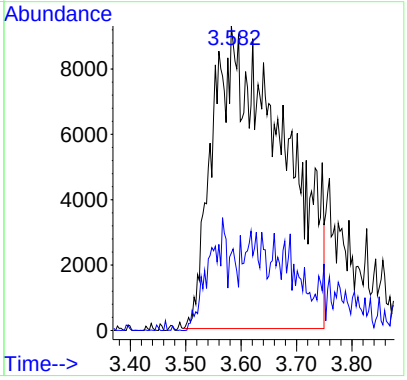


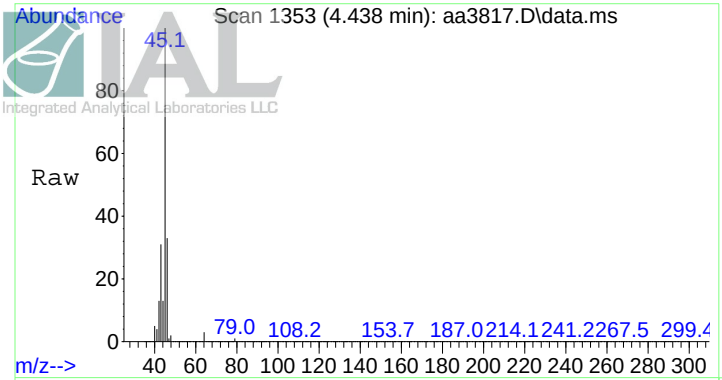
#3
Dichlorodifluoromethane
Concen: 0.44 ppbV
RT: 3.582 min Scan# 1087
Delta R.T. 0.019 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 85 Resp: 81974

Ion	Ratio	Lower	Upper
85	100		
87	2.2	27.4	41.0#



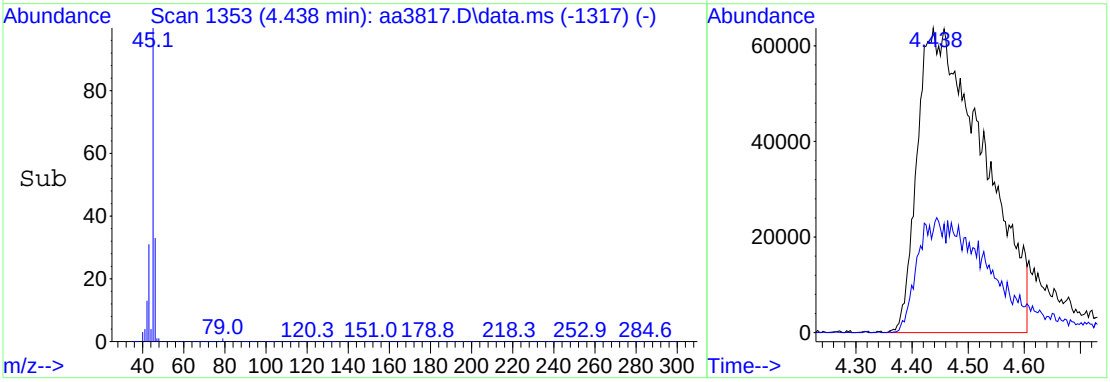


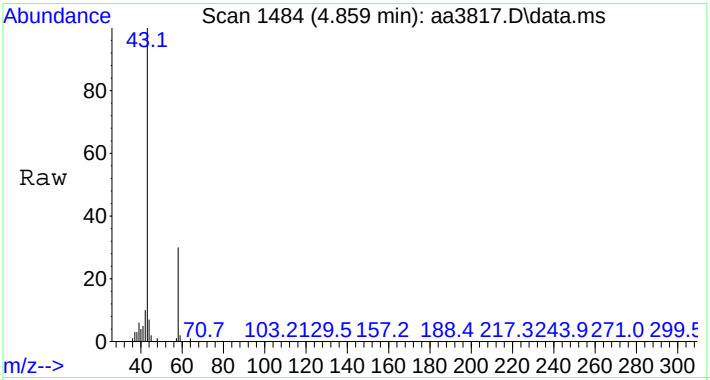


#11
Ethanol
Concen: 89.26 ppbV
RT: 4.438 min Scan# 1353
Delta R.T. 0.016 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 45 Resp: 520739

Ion	Ratio	Lower	Upper
45	100		
46	38.1	32.6	48.8

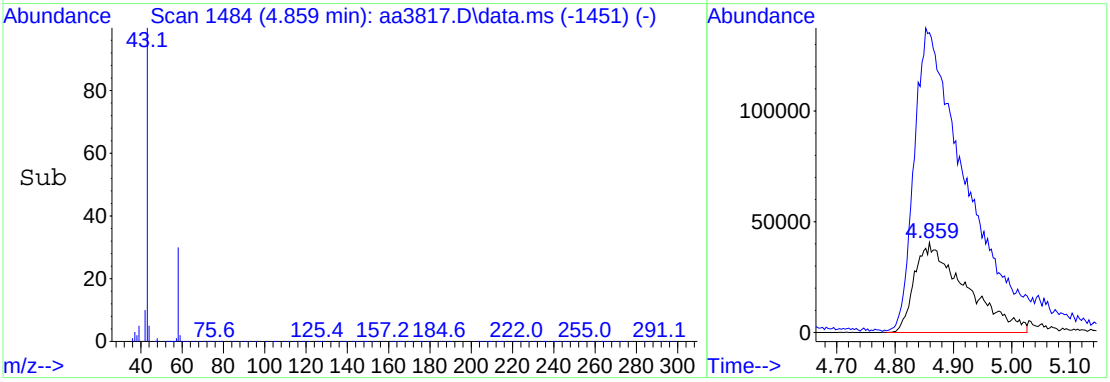


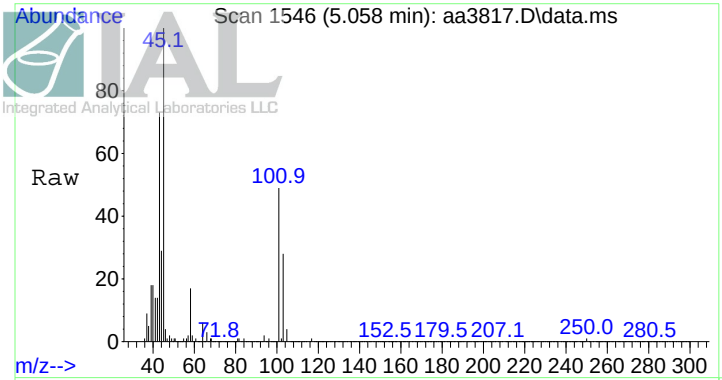


#14
Acetone
Concen: 20.01 ppbV
RT: 4.859 min Scan# 1484
Delta R.T. 0.006 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 58 Resp: 246352

Ion	Ratio	Lower	Upper
58	100		
43	343.4	229.6	344.4

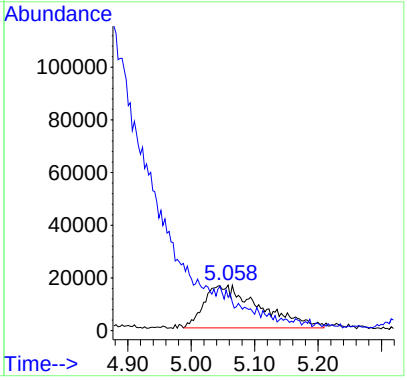


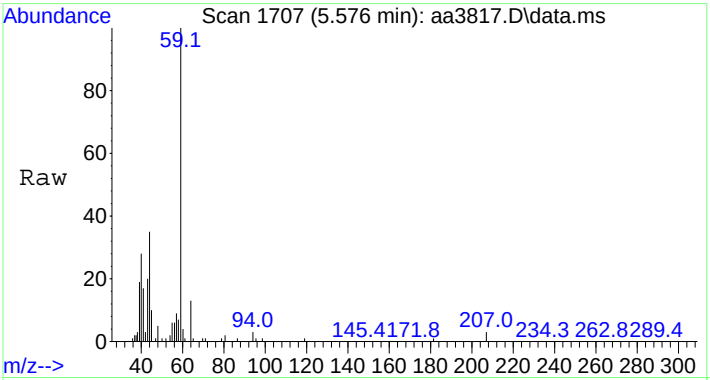


#16
Isopropanol
Concen: 2.99 ppbV
RT: 5.058 min Scan# 1546
Delta R.T. 0.035 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 45 Resp: 99275

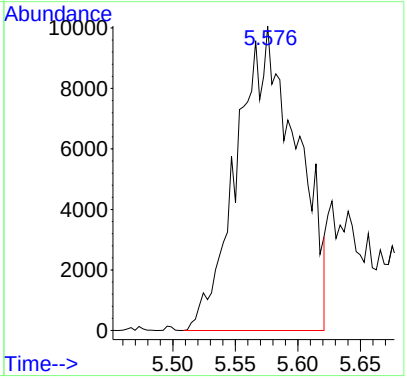
Ion	Ratio	Lower	Upper
45	100		
43	0.0	23.2	34.8#

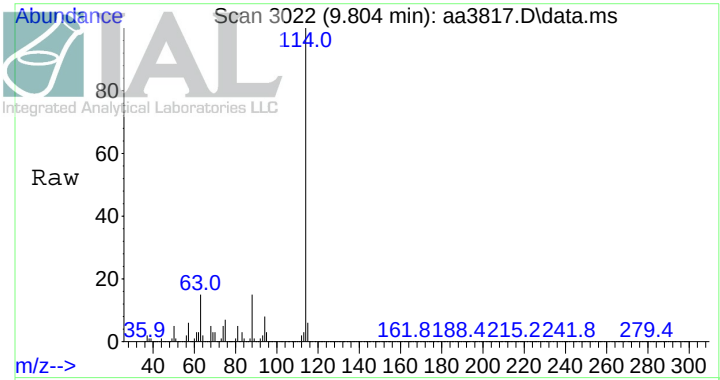




#20
Tert-butyl alcohol
Concen: 0.41 ppbV
RT: 5.576 min Scan# 1707
Delta R.T. 0.013 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 59 Resp: 33673

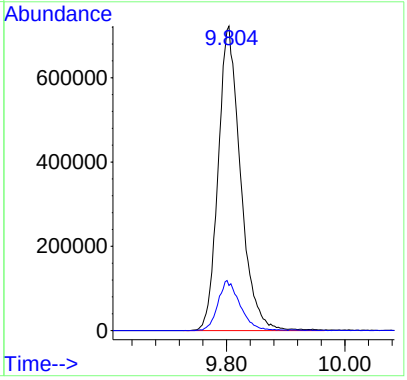


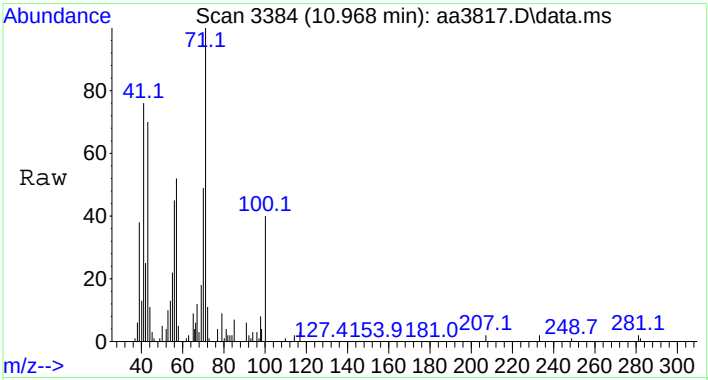


#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.804 min Scan# 3022
Delta R.T. -0.000 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion:114 Resp: 1897240

Ion	Ratio	Lower	Upper
114	100		
63	16.3	14.4	21.6

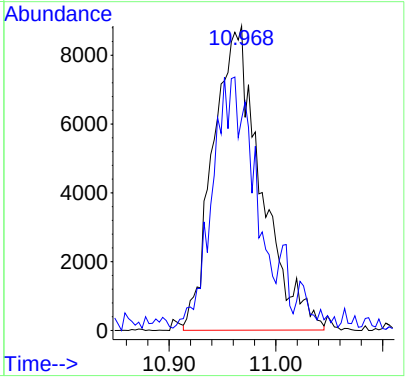


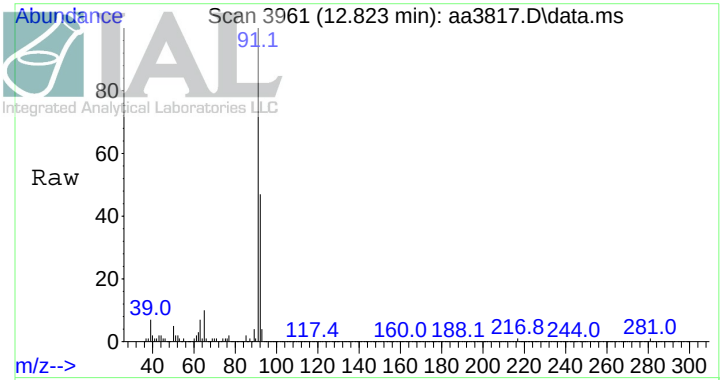


#45
n-Heptane
Concen: 0.60 ppbV
RT: 10.968 min Scan# 3384
Delta R.T. 0.016 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 71 Resp: 27622

Ion	Ratio	Lower	Upper
71	100		
43	72.1	64.0	96.0

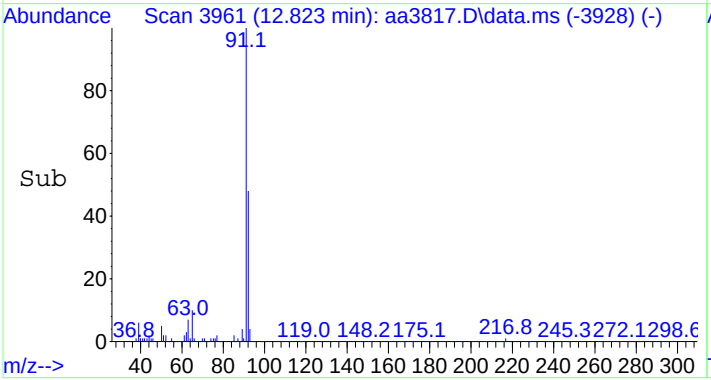


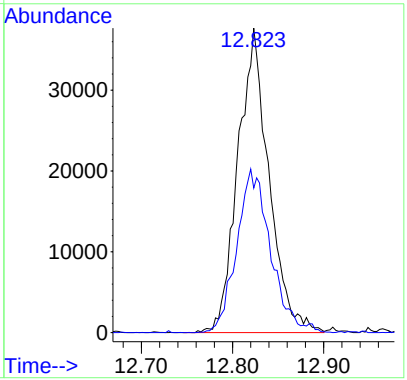


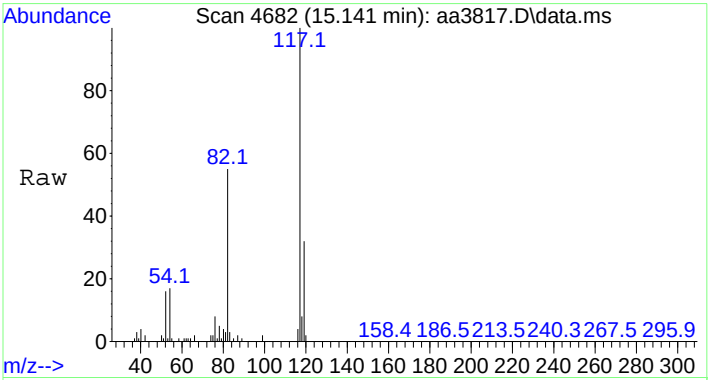
#50
Toluene
Concen: 0.41 ppbV
RT: 12.823 min Scan# 3961
Delta R.T. 0.006 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 91 Resp: 89379

Ion	Ratio	Lower	Upper
91	100		
92	58.4	50.0	75.0



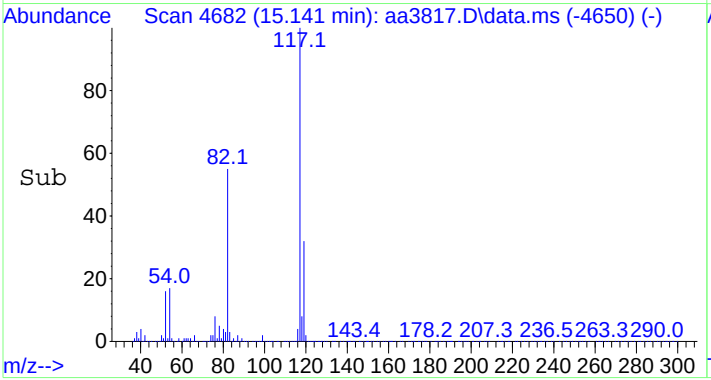


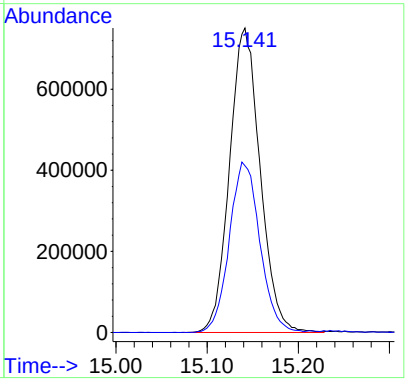


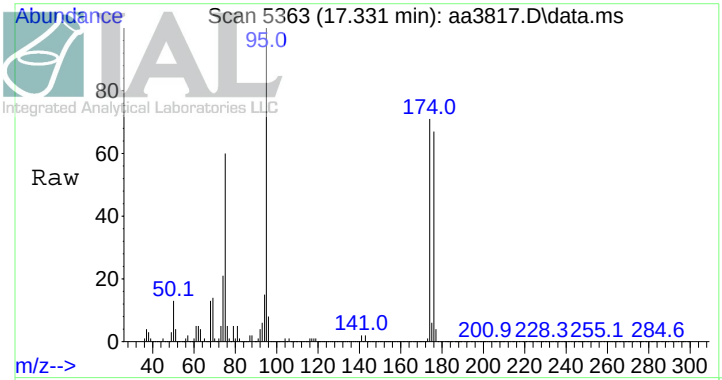
#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.141 min Scan# 4682
Delta R.T. 0.003 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion:117 Resp: 1752960

Ion	Ratio	Lower	Upper
117	100		
82	55.8	44.8	67.2



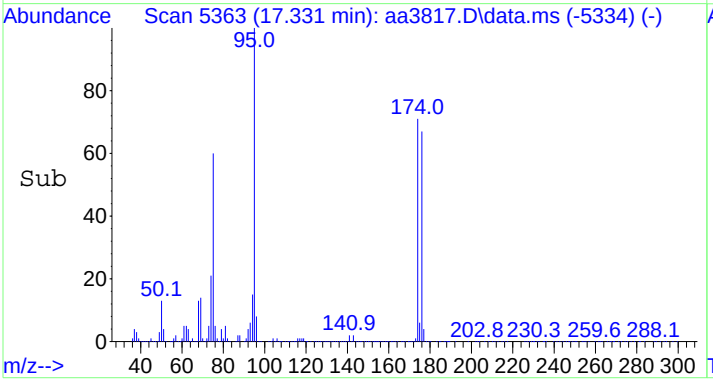


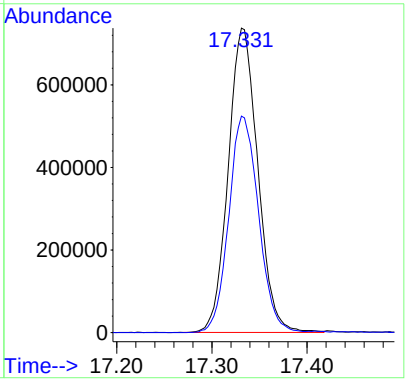


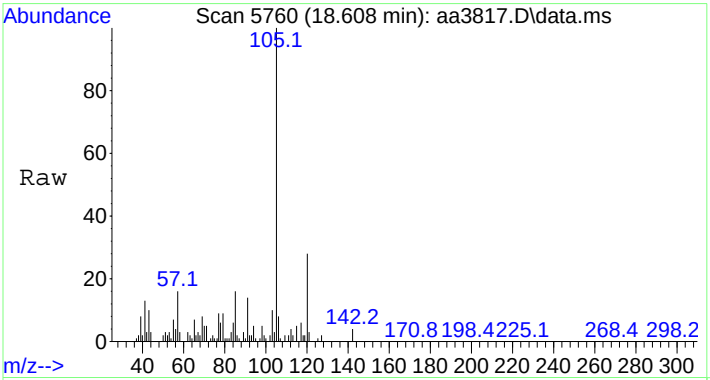
#64
Bromofluorobenzene (tune std)
Concen: 10.39 ppbV
RT: 17.331 min Scan# 5363
Delta R.T. -0.007 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion: 95 Resp: 1594521

Ion	Ratio	Lower	Upper
95	100		
174	71.8	61.5	92.3



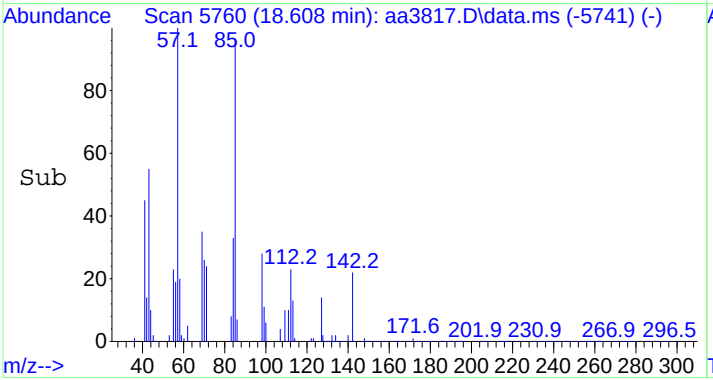


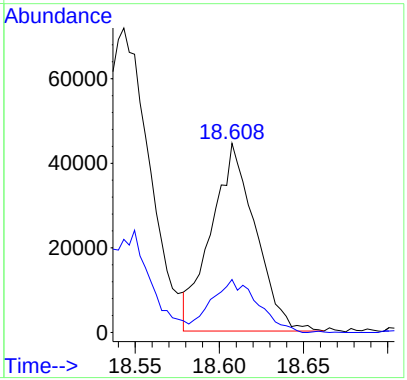


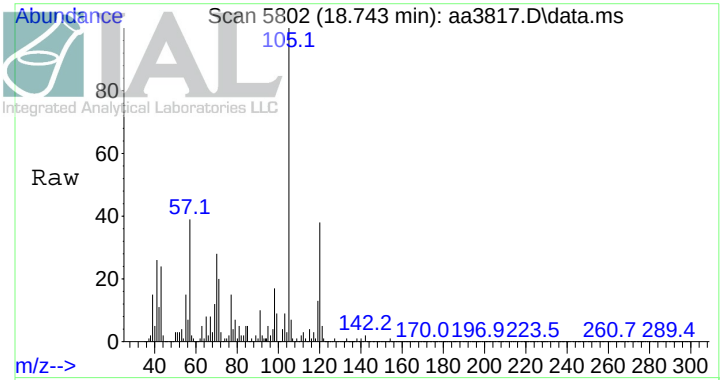
#68
4-Ethyltoluene
Concen: 0.21 ppbV
RT: 18.608 min Scan# 5760
Delta R.T. -0.010 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion:105 Resp: 81049

Ion	Ratio	Lower	Upper
105	100		
120	29.6	20.0	30.0



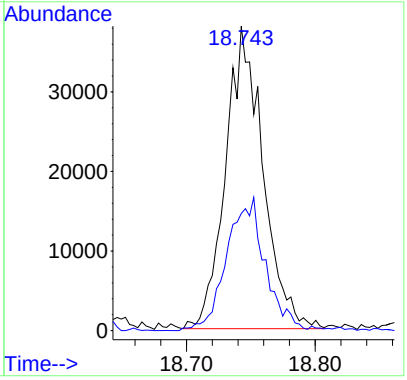


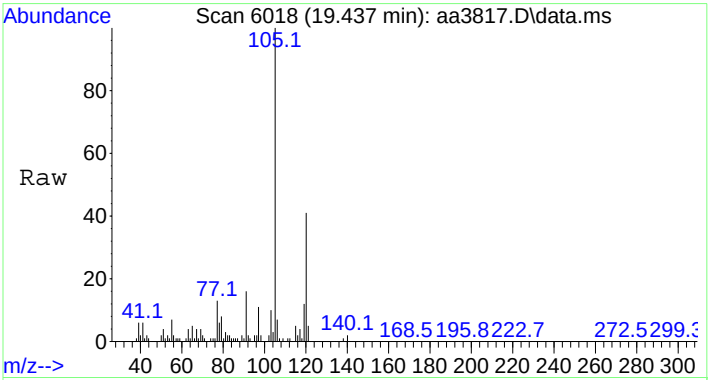


#69
1,3,5-Trimethylbenzene
Concen: 0.22 ppbV
RT: 18.743 min Scan# 5802
Delta R.T. -0.013 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion:105 Resp: 76624

Ion	Ratio	Lower	Upper
105	100		
120	44.9	31.2	46.8

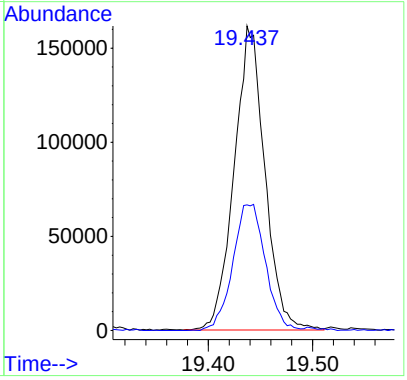




#70
1,2,4-Trimethylbenzene
Concen: 0.97 ppbV
RT: 19.437 min Scan# 6018
Delta R.T. -0.013 min
Lab File: aa3817.D
Acq: 16 Oct 2017 2:04 pm

Tgt Ion:105 Resp: 329905

Ion	Ratio	Lower	Upper
105	100		
120	44.1	36.0	54.0



Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

		Date Received:	12/21/17
SDG Number:	E17-10917	Date Analyzed:	12/27/17,12/27/17
IAL Sample ID:	E17-10917-02	Lab Data File#:	AA4708,AA4709
Matrix:	Air	Dilution Factor:	10
Summa ID:	1558	Injection Volume:	50ml
		GC/MS Column:	RTX-1, 0.32 mmID

		Sample		Sample Dup			
		E17-10917-02		**E17-10917-22**			
		Concentration Reported		**Concentration Reported**		**Reporting Limits**	
Compound	**CAS #**	**ppbv**	**Q**	**ppbv**	**Q**	**ppbv**	**RPD**
Acetone	67-64-1	**44**		**50**		2.0	**-12.77%**
Benzene	71-43-2	**11**		**10**		2.0	**9.52%**
Bromodichloromethane	75-27-4	2.0	U	2.0	U	2.0	0.00%
Bromoform	75-25-2	2.0	U	2.0	U	2.0	0.00%
Bromomethane	74-83-9	2.0	U	2.0	U	2.0	0.00%
1,3-Butadiene	106-99-0	2.0	U	2.0	U	2.0	0.00%
Chlorobenzene	108-90-7	2.0	U	2.0	U	2.0	0.00%
Chloroethane	75-00-3	2.0	U	2.0	U	2.0	0.00%
Chloroform	67-66-3	**2.6**		2.0	U	2.0	**NC**
Chloromethane	74-87-3	2.0	U	2.0	U	2.0	0.00%
Carbon disulfide	75-15-0	**13**		**11**		2.0	**16.67%**
Carbon tetrachloride	56-23-5	0.40	U	0.40	U	0.40	0.00%
Cyclohexane	110-82-7	**35**		**34**		2.0	**2.90%**
Dibromochloromethane	124-48-1	2.0	U	2.0	U	2.0	0.00%
1,2-Dibromoethane	106-93-4	2.0	U	2.0	U	2.0	0.00%
1,2-Dichlorobenzene	95-50-1	2.0	U	2.0	U	2.0	0.00%
1,3-Dichlorobenzene	541-73-1	2.0	U	2.0	U	2.0	0.00%
1,4-Dichlorobenzene	106-46-7	2.0	U	2.0	U	2.0	0.00%
Dichlorodifluoromethane	75-71-8	2.0	U	2.0	U	2.0	0.00%
1,1-Dichloroethane	75-34-3	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethane	107-06-2	2.0	U	2.0	U	2.0	0.00%
1,1-Dichloroethene	75-35-4	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethene (cis)	156-59-2	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethene (trans)	156-60-5	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloropropane	78-87-5	2.0	U	2.0	U	2.0	0.00%
1,3-Dichloropropene (cis)	10061-01-5	2.0	U	2.0	U	2.0	0.00%
1,3-Dichloropropene (trans)	10061-02-6	2.0	U	2.0	U	2.0	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	2.0	U	2.0	U	2.0	0.00%
1,4-Dioxane	123-91-1	2.0	U	2.0	U	2.0	0.00%
Ethylbenzene	100-41-4	2.0	U	2.0	U	2.0	0.00%
n-Heptane	142-82-5	**2.4**		2.0	U	2.0	**NC**
1,3-Hexachlorobutadiene	87-68-3	2.0	U	2.0	U	2.0	0.00%
n-Hexane	110-54-3	**5.6**	J	**7.9**	J	2.0	**-34.07%**
Methylene chloride	75-09-2	2.0	U	2.0	U	2.0	0.00%
Methyl ethyl ketone	78-93-3	**26**		**26**		2.0	**0.00%**
Methyl isobutyl ketone	108-10-1	2.0	U	2.0	U	2.0	0.00%
Methyl tert-butyl ether	1634-04-4	2.0	U	2.0	U	2.0	0.00%
Styrene	100-42-5	2.0	U	2.0	U	2.0	0.00%

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

		Date Received:	12/21/17
SDG Number:	E17-10917	Date Analyzed:	12/27/17,12/27/17
IAL Sample ID:	E17-10917-02	Lab Data File#:	AA4708,AA4709
Matrix:	Air	Dilution Factor:	10
Summa ID:	1558	Injection Volume:	50ml
		GC/MS Column:	RTX-1, 0.32 mmID

		Sample		Sample Dup			
		E17-10917-02		**E17-10917-22**			
		Concentration Reported		**Concentration Reported**		**Reporting Limits**	
Compound	**CAS #**	**ppbv**	**Q**	**ppbv**	**Q**	**ppbv**	**RPD**
Tert-butyl alcohol	75-65-0	**11**		**12**		2.0	**-8.70%**
1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	U	2.0	0.00%
Tetrachloroethene	127-18-4	**71**		**68**		2.0	**4.32%**
Toluene	108-88-3	**7.0**		**7.1**		2.0	**-1.42%**
1,2,4-Trichlorobenzene	120-82-1	2.0	U	2.0	U	2.0	0.00%
1,1,1-Trichloroethane	71-55-6	2.0	U	2.0	U	2.0	0.00%
1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	U	2.0	0.00%
Trichloroethene	79-01-6	**23**		**22**		0.50	**4.44%**
Trichlorofluoromethane	75-69-4	2.0	U	2.0	U	2.0	0.00%
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.0	U	2.0	U	2.0	0.00%
1,2,4-Trimethylbenzene	95-63-6	2.0	U	2.0	U	2.0	0.00%
1,3,5-Trimethylbenzene	108-67-8	2.0	U	2.0	U	2.0	0.00%
2,2,4-Trimethylpentane	540-84-1	2.0	U	2.0	U	2.0	0.00%
Vinyl bromide	593-60-2	2.0	U	2.0	U	2.0	0.00%
Vinyl chloride	75-01-4	2.0	U	2.0	U	2.0	0.00%
Xylenes (m&p)	179601-23-1	2.0	U	2.0	U	2.0	0.00%
Xylenes (o)	95-47-6	2.0	U	2.0	U	2.0	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4708.D
Acq On : 27 Dec 2017 3:27 pm
Operator : jls
Sample : E17-10917-02 x 10 dil
Misc : 1558, 50cc
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 28 08:37:32 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

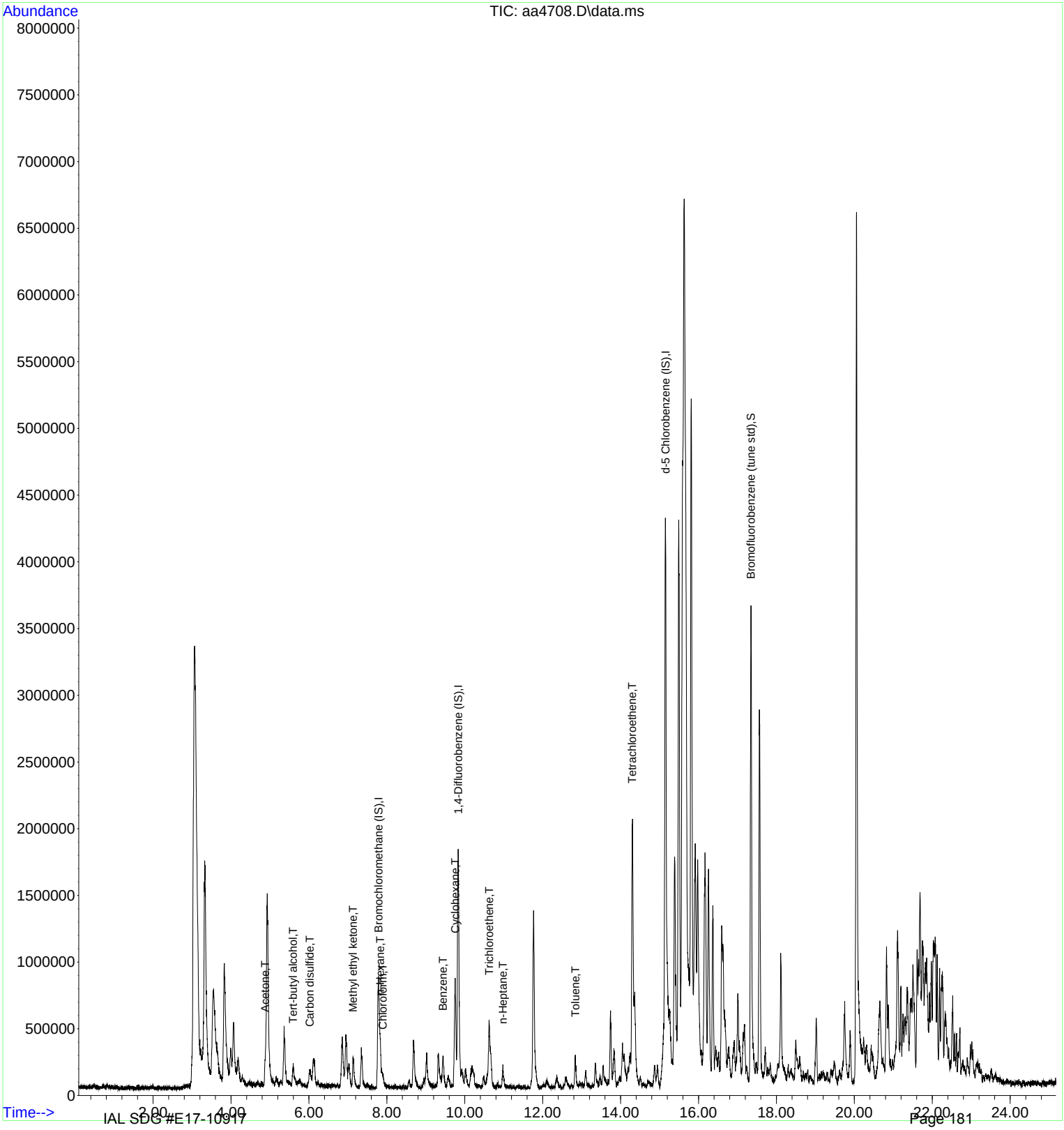
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.788	130	545406	10.00	ppbV		0.02
38) 1,4-Difluorobenzene (IS)	9.833	114	2210499	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.151	117	2194030	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.344	95	1659839	9.53	ppbV		0.00
Target Compounds							Qvalue
14) Acetone	4.878	58	164683	4.43	ppbV	#	1
20) Tert-butyl alcohol	5.592	59	183091	1.14	ppbV		100
23) Carbon disulfide	6.023	76	318205	1.27	ppbV	#	74
27) Methyl ethyl ketone	7.129	43	412627	2.56	ppbV	#	85
30) n-Hexane	7.830	57	63836	0.56	ppbV	#	75
31) Chloroform	7.894	83	39689	0.26	ppbV		90
35) Benzene	9.441	78	276215	1.08	ppbV	#	83
37) Cyclohexane	9.753	56	515158	3.46	ppbV		91
42) Trichloroethene	10.624	130	211335	2.30	ppbV		96
45) n-Heptane	10.981	43	38347	0.24	ppbV	#	65
50) Toluene	12.839	91	214446	0.70	ppbV		94
54) Tetrachloroethene	14.296	166	783774	7.10	ppbV		97

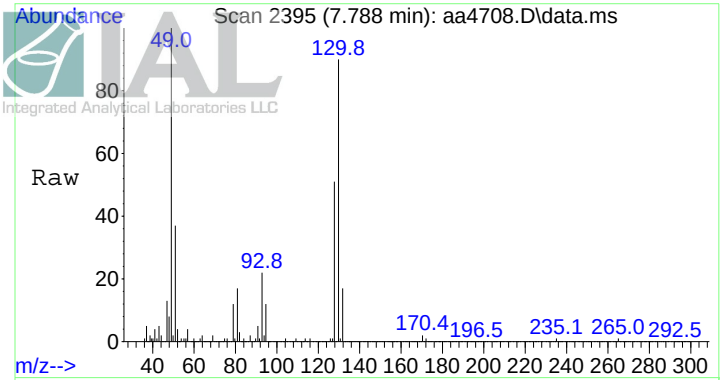
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4708.D
Acq On : 27 Dec 2017 3:27 pm
Operator : jls
Sample : E17-10917-02 x 10 dil
Misc : 1558, 50cc
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 28 08:37:32 2017
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

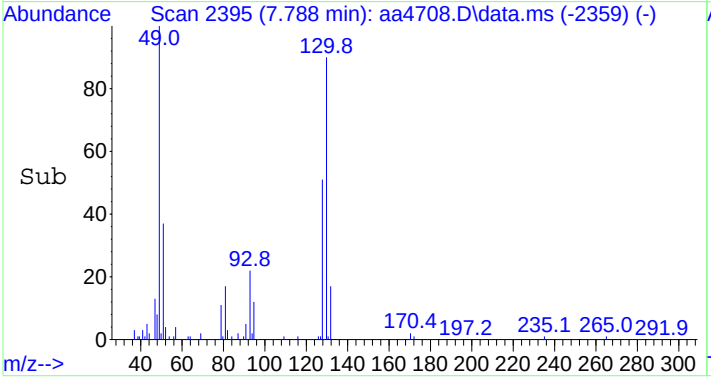


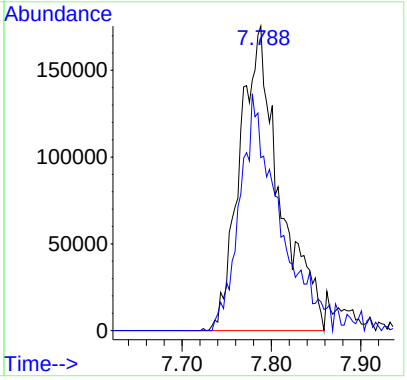


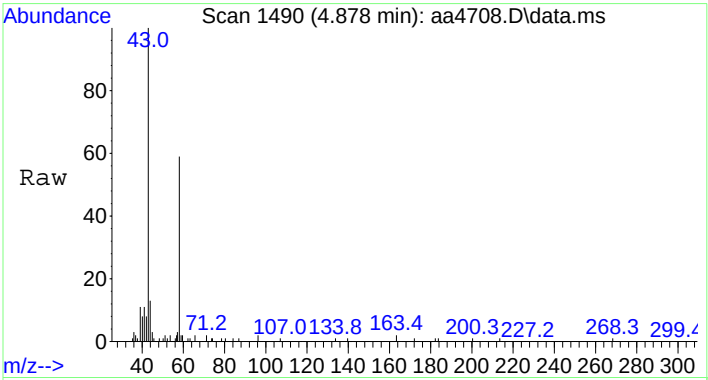
#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.788 min Scan# 2395
Delta R.T. 0.016 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:130 Resp: 545406

Ion	Ratio	Lower	Upper
130	100		
128	76.4	62.6	94.0



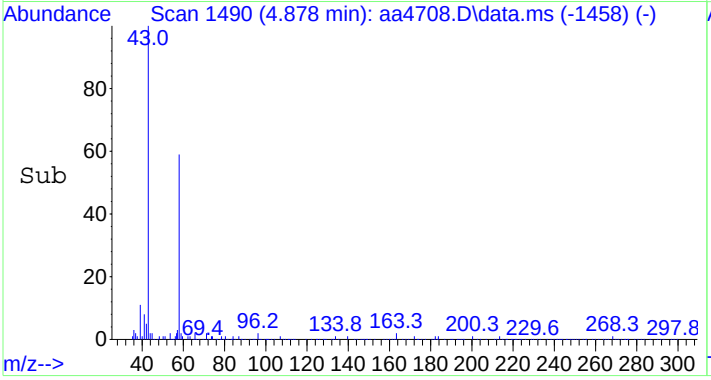


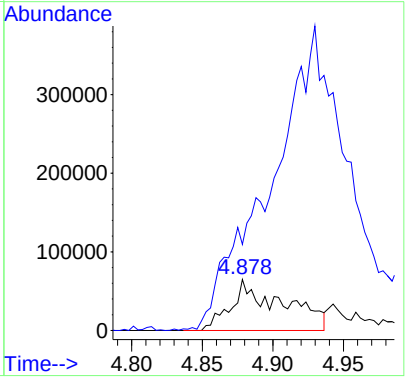


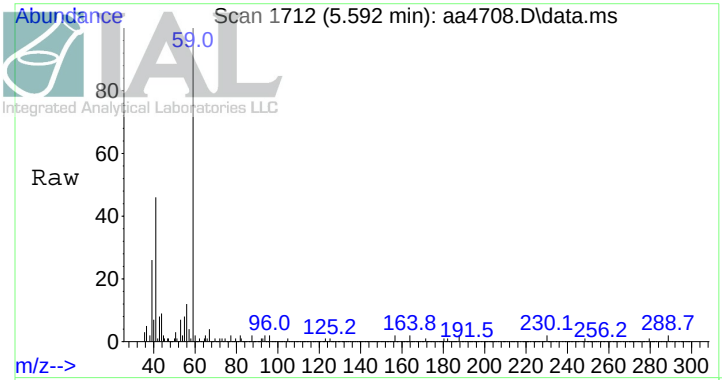
#14
Acetone
Concen: 4.43 ppbV
RT: 4.878 min Scan# 1490
Delta R.T. 0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 58 Resp: 164683

Ion	Ratio	Lower	Upper
58	100		
43	0.0	229.6	344.4#

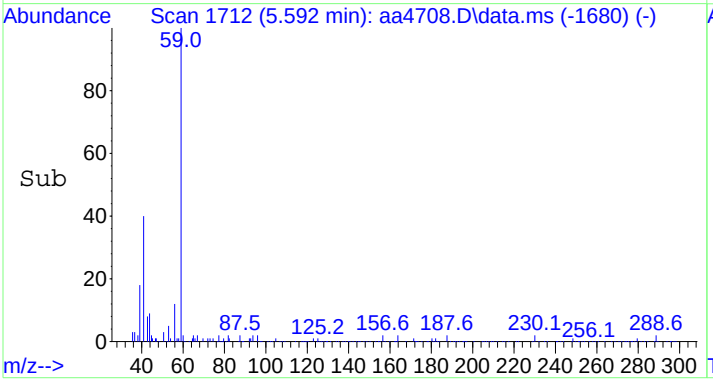


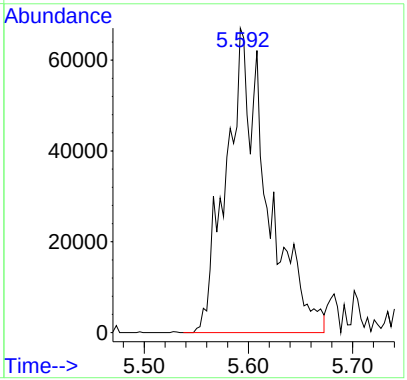


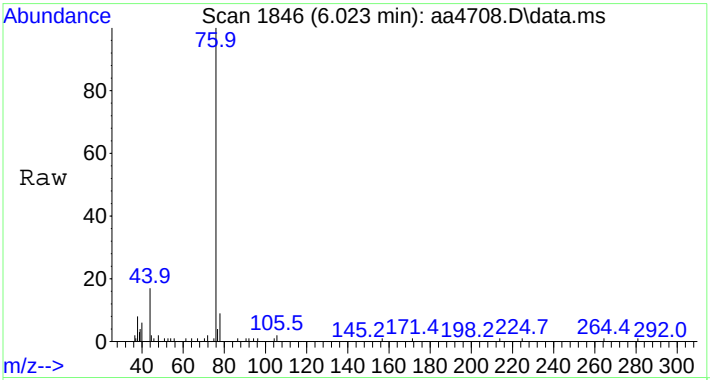


#20
Tert-butyl alcohol
Concen: 1.14 ppbV
RT: 5.592 min Scan# 1712
Delta R.T. 0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 59 Resp: 183091



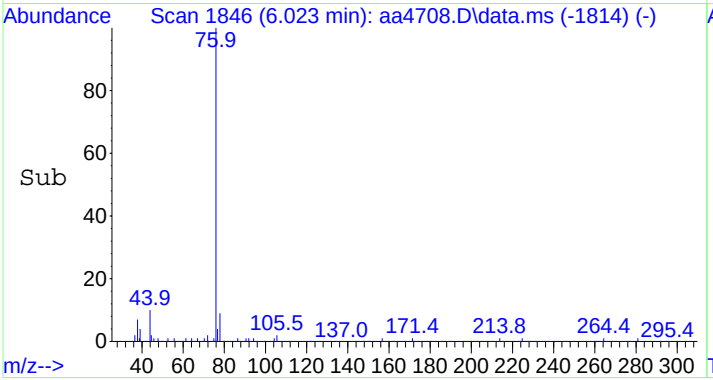


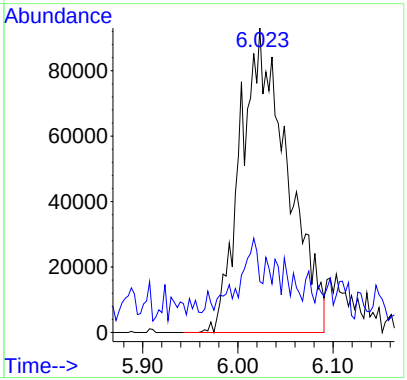


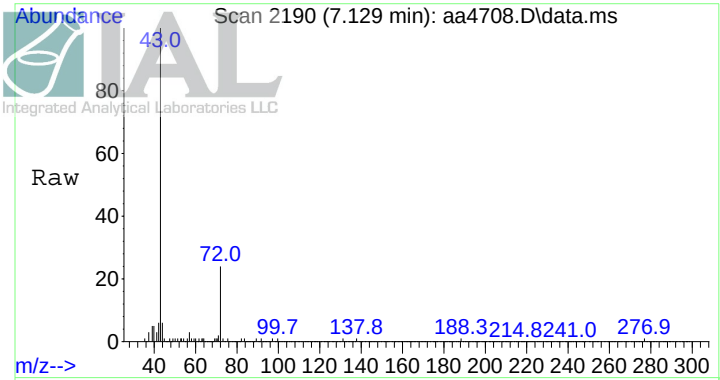
#23
Carbon disulfide
Concen: 1.27 ppbV
RT: 6.023 min Scan# 1846
Delta R.T. 0.004 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 76 Resp: 318205

Ion	Ratio	Lower	Upper
76	100		
44	2.8	10.4	15.6#



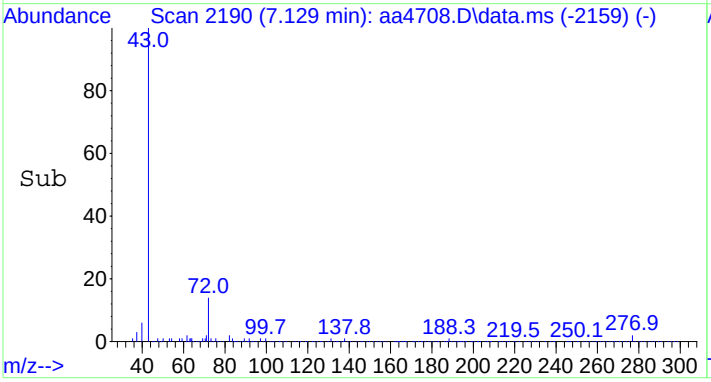


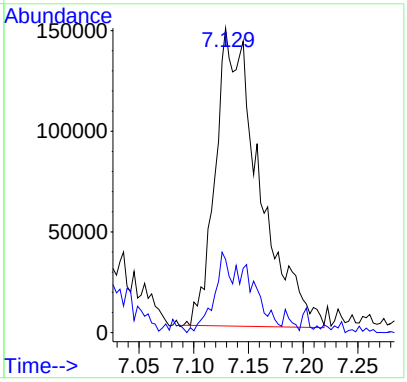


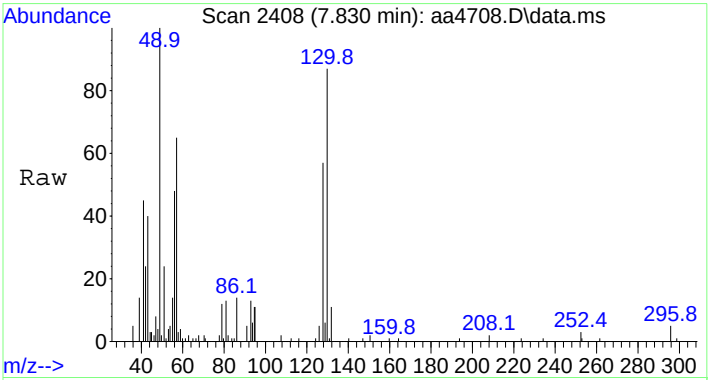
#27
Methyl ethyl ketone
Concen: 2.56 ppbV
RT: 7.129 min Scan# 2190
Delta R.T. 0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 43 Resp: 412627

Ion	Ratio	Lower	Upper
43	100		
72	21.9	24.0	36.0#



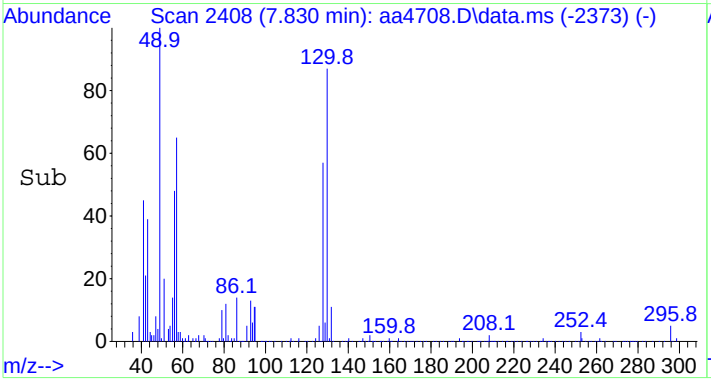


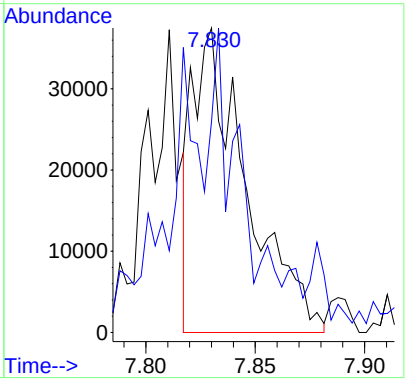


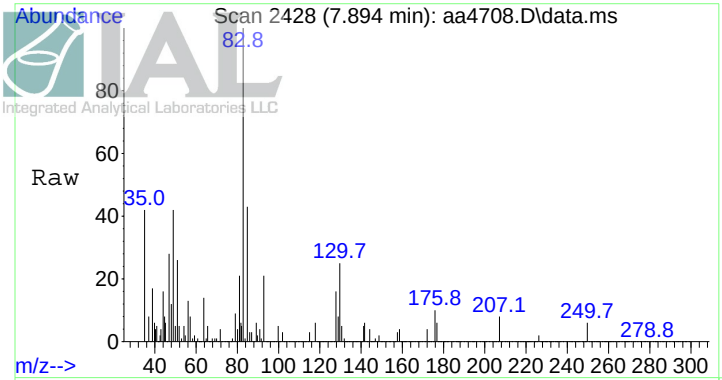
#30
n-Hexane
Concen: 0.56 ppbV
RT: 7.830 min Scan# 2408
Delta R.T. 0.013 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 57 Resp: 63836

Ion	Ratio	Lower	Upper
57	100		
41	58.9	64.8	97.2#



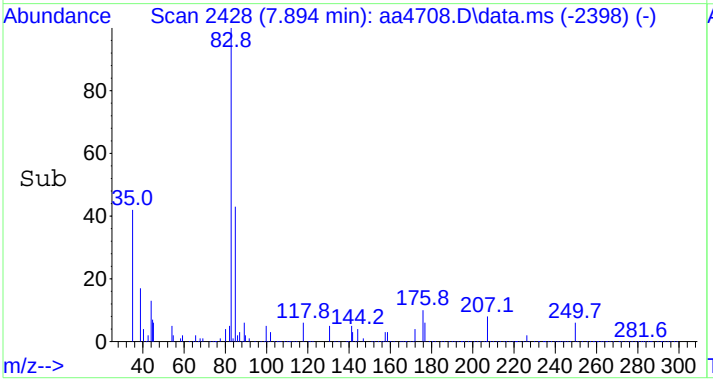


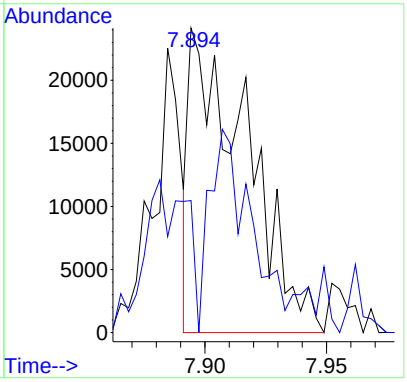


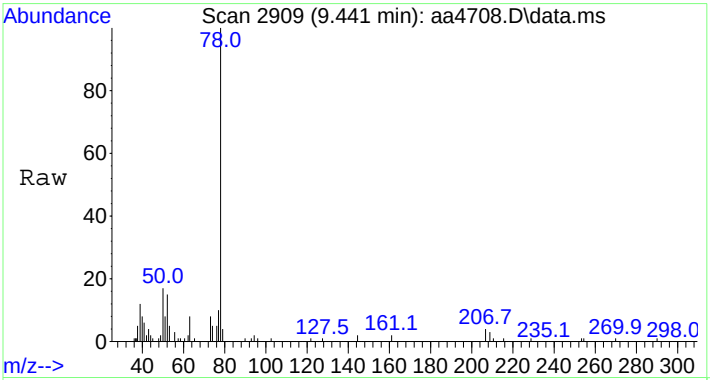
#31
Chloroform
Concen: 0.26 ppbV
RT: 7.894 min Scan# 2428
Delta R.T. -0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 83 Resp: 39689

Ion	Ratio	Lower	Upper
83	100		
85	55.7	51.0	76.6



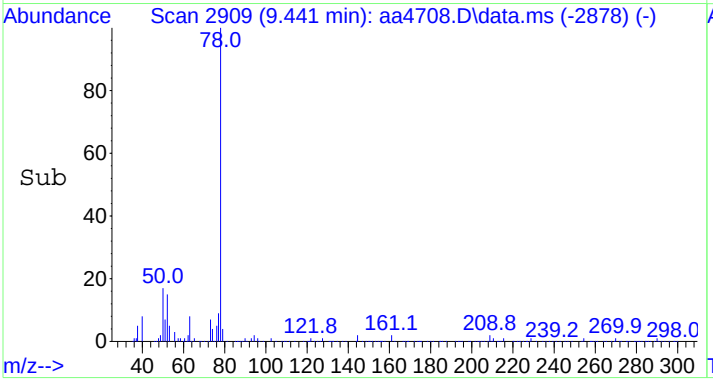


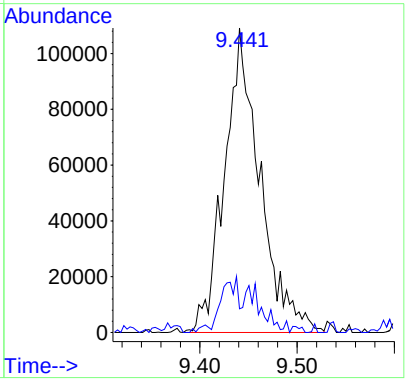


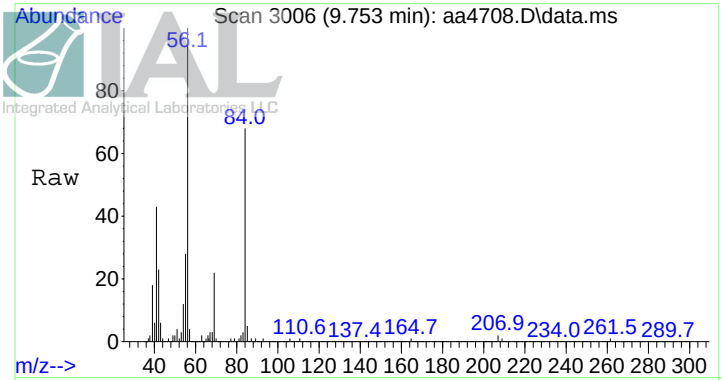
#35
Benzene
Concen: 1.08 ppbV
RT: 9.441 min Scan# 2909
Delta R.T. -0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 78 Resp: 276215

Ion	Ratio	Lower	Upper
78	100		
51	8.9	12.8	19.2#



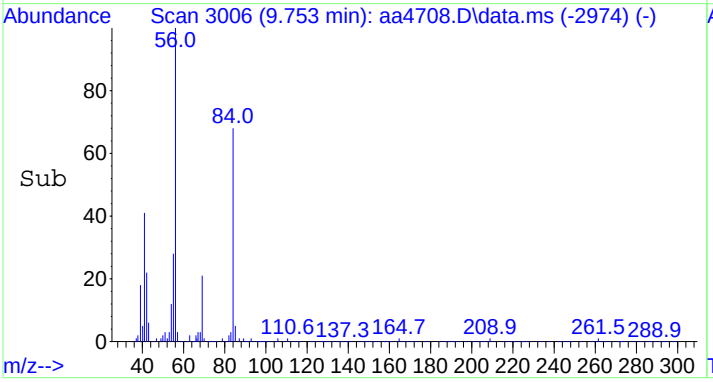


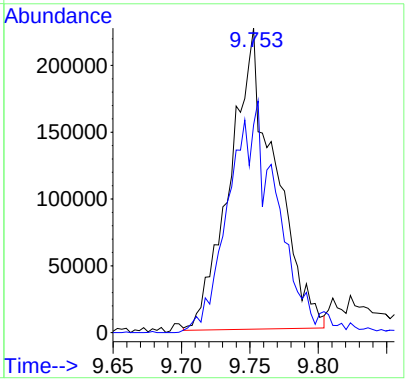


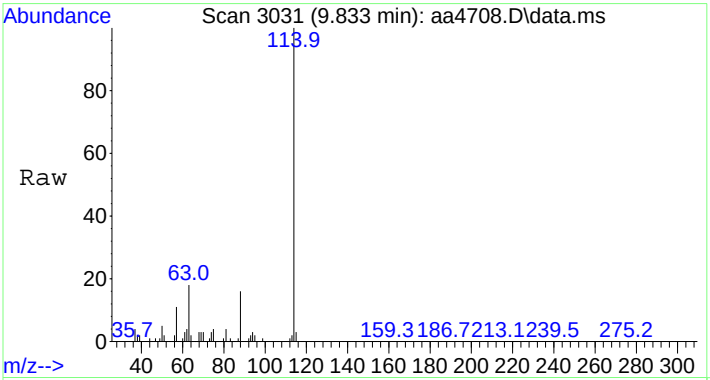
#37
Cyclohexane
Concen: 3.46 ppbV
RT: 9.753 min Scan# 3006
Delta R.T. 0.004 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 56 Resp: 515158

Ion	Ratio	Lower	Upper
56	100		
84	81.1	72.0	108.0



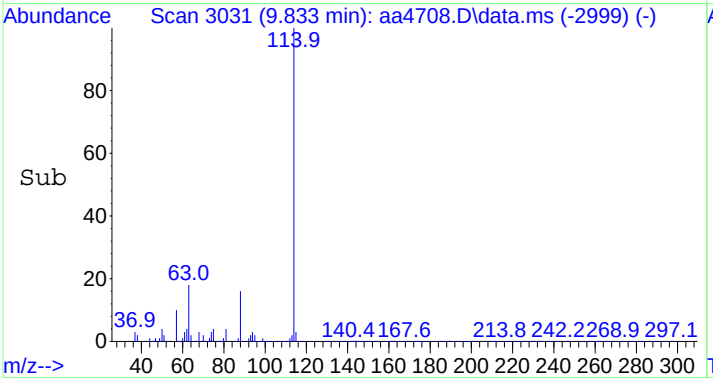


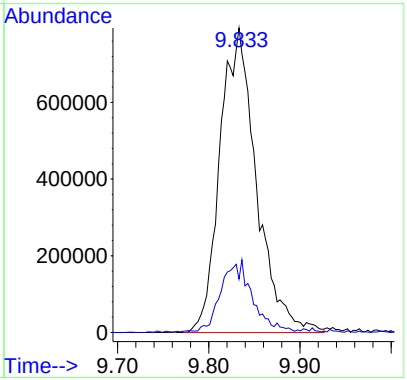


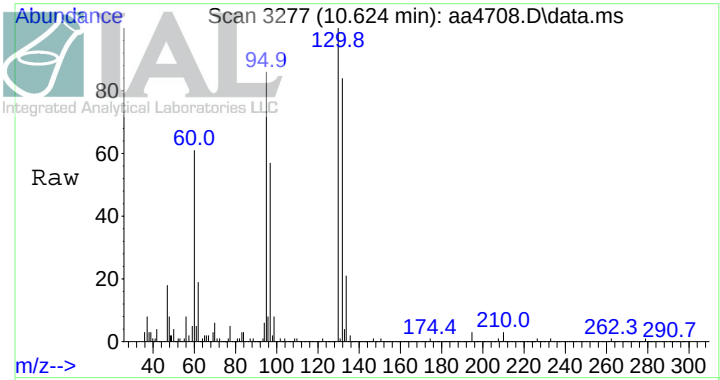
#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.833 min Scan# 3031
Delta R.T. 0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:114 Resp: 2210499

Ion	Ratio	Lower	Upper
114	100		
63	19.9	16.8	25.2



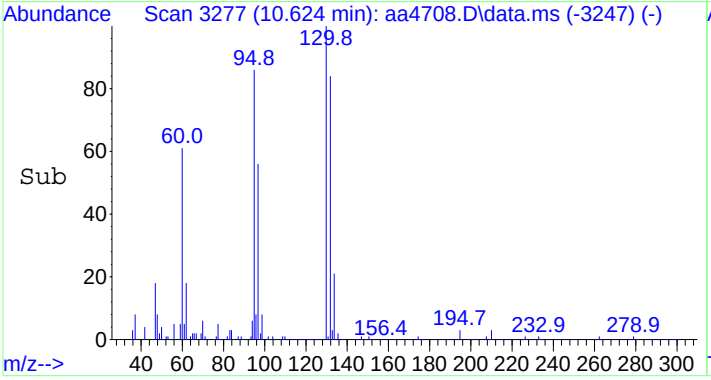


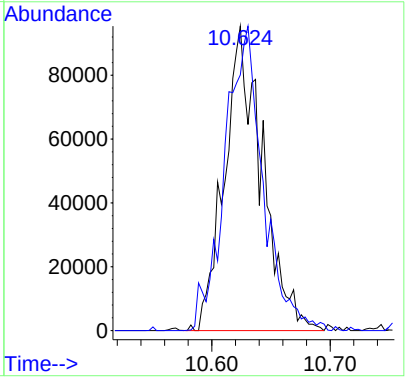


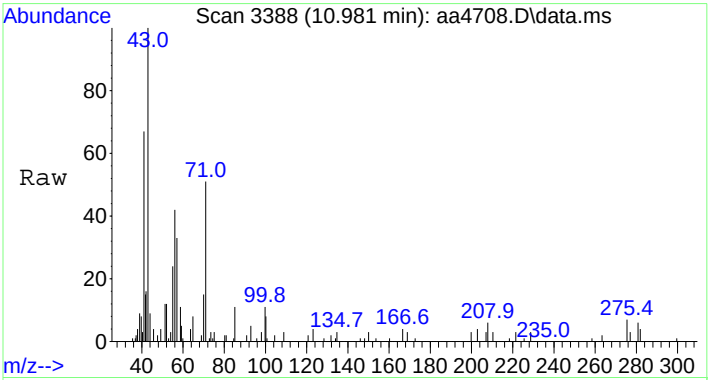
#42
Trichloroethene
Concen: 2.30 ppbV
RT: 10.624 min Scan# 3277
Delta R.T. -0.003 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:130 Resp: 211335

Ion	Ratio	Lower	Upper
130	100		
132	101.2	77.8	116.6



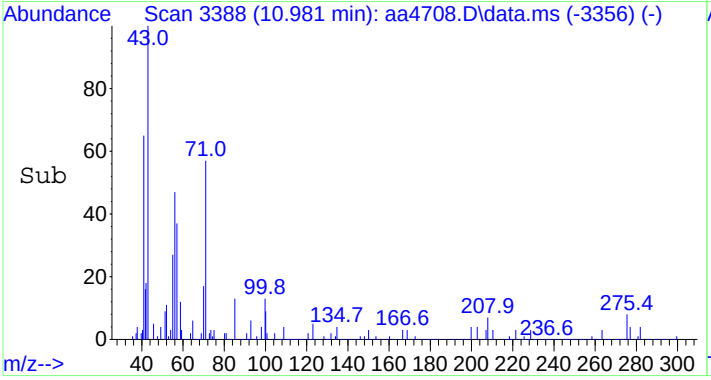


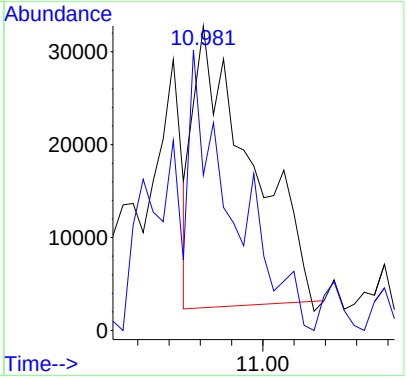


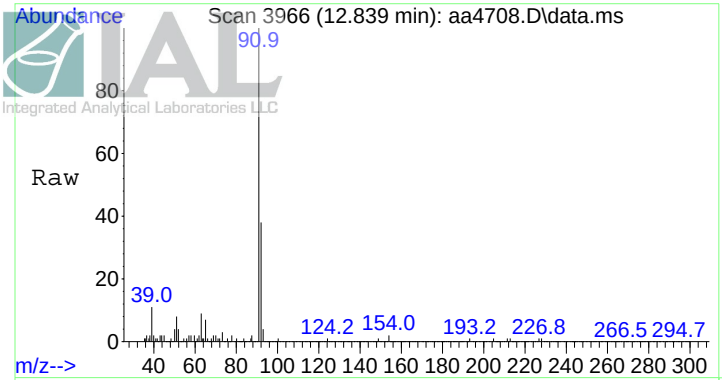
#45
n-Heptane
Concen: 0.24 ppbV
RT: 10.981 min Scan# 3388
Delta R.T. 0.004 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 43 Resp: 38347

Ion	Ratio	Lower	Upper
43	100		
71	86.8	48.0	72.0#



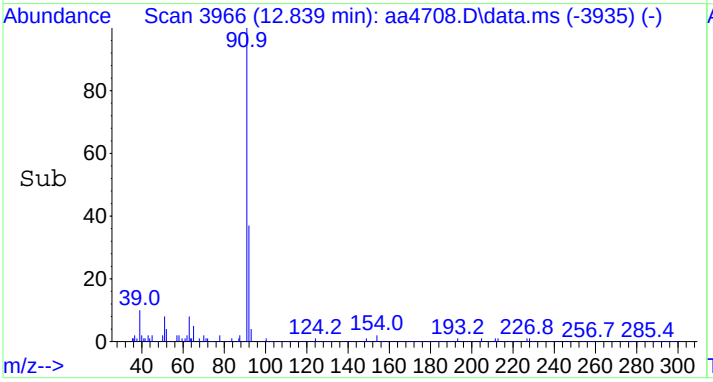


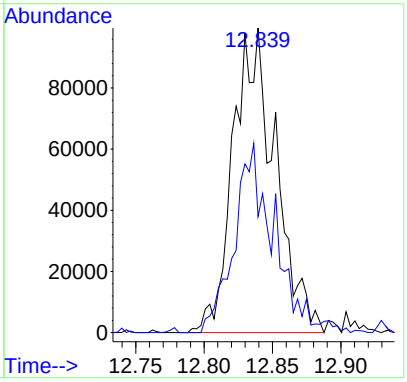


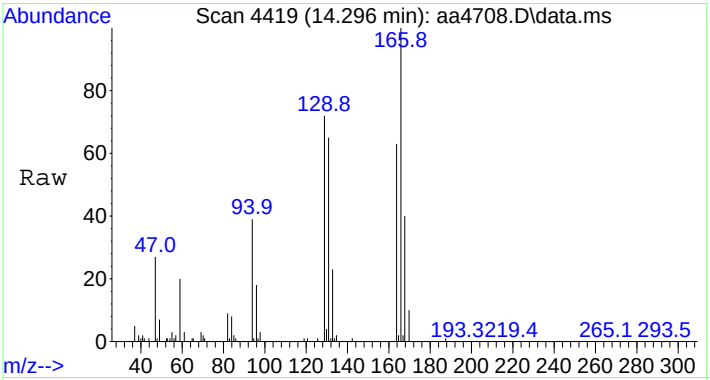
#50
Toluene
Concen: 0.70 ppbV
RT: 12.839 min Scan# 3966
Delta R.T. 0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 91 Resp: 214446

Ion	Ratio	Lower	Upper
91	100		
92	58.1	50.0	75.0



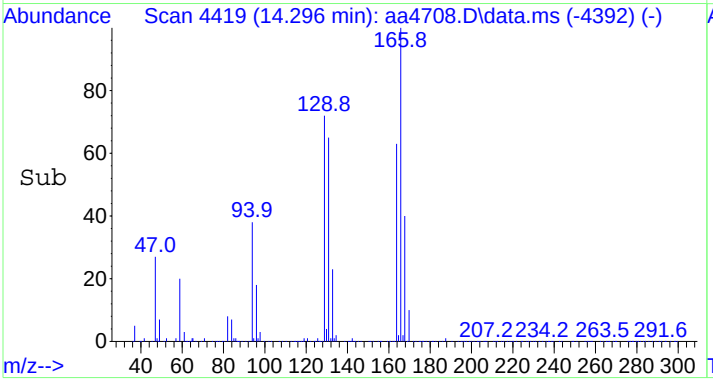


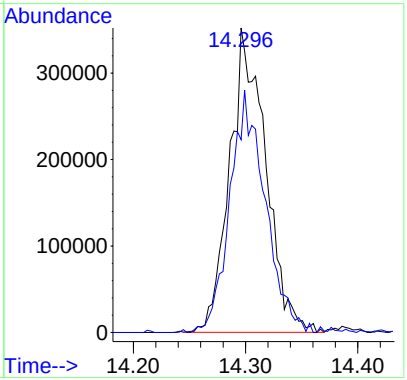


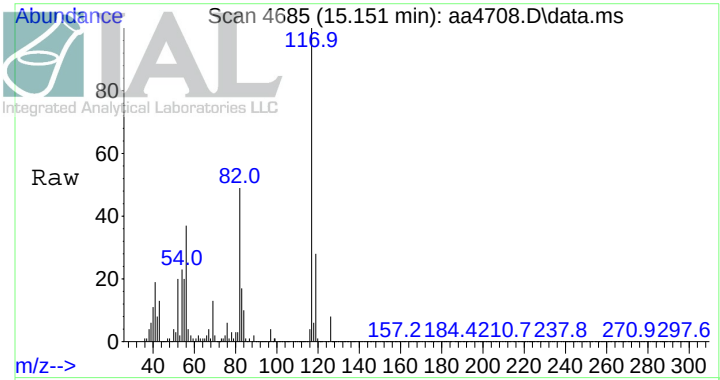
#54
Tetrachloroethene
Concen: 7.10 ppbV
RT: 14.296 min Scan# 4419
Delta R.T. -0.013 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:166 Resp: 783774

Ion	Ratio	Lower	Upper
166	100		
164	77.8	64.6	96.8



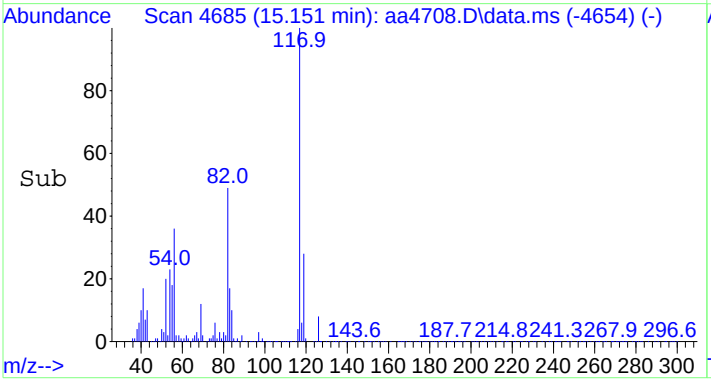


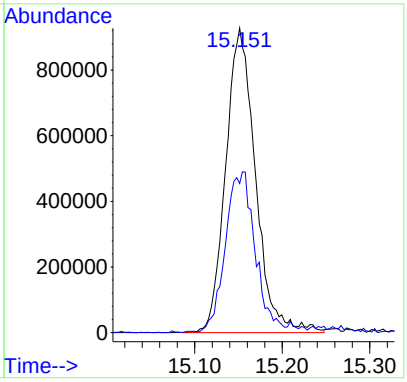


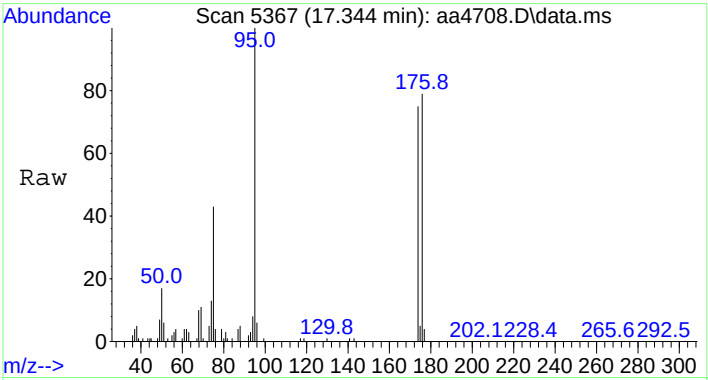
#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.151 min Scan# 4685
Delta R.T. 0.000 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion:117 Resp: 2194030

Ion	Ratio	Lower	Upper
117	100		
82	51.9	44.8	67.2



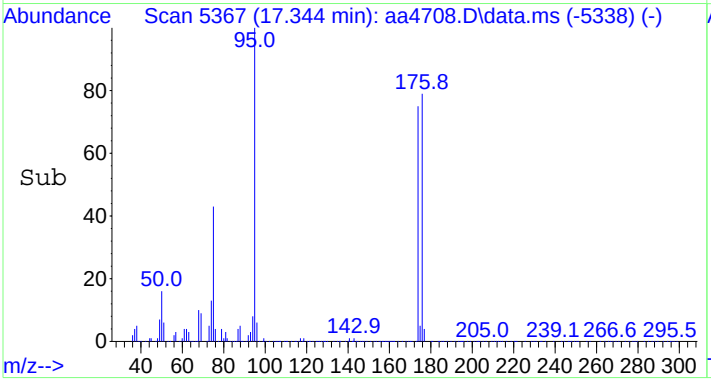


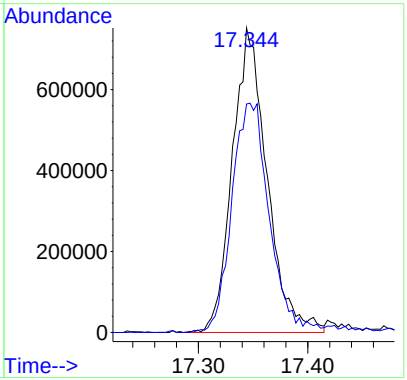


#64
Bromofluorobenzene (tune std)
Concen: 9.53 ppbV
RT: 17.344 min Scan# 5367
Delta R.T. -0.006 min
Lab File: aa4708.D
Acq: 27 Dec 2017 3:27 pm

Tgt Ion: 95 Resp: 1659839

Ion	Ratio	Lower	Upper
95	100		
174	81.3	61.5	92.3





Quantitation Report (QT Reviewed)

Data Path : C:\DATA\12-27-17\
Data File : aa4709.D
Acq On : 27 Dec 2017 4:00 pm
Operator : jls
Sample : E17-10917-22 x 10 dil
Misc : dup of E17-10917-02 x 10 dil, can 1558
ALS Vial : 9 Sample Multiplier: 1

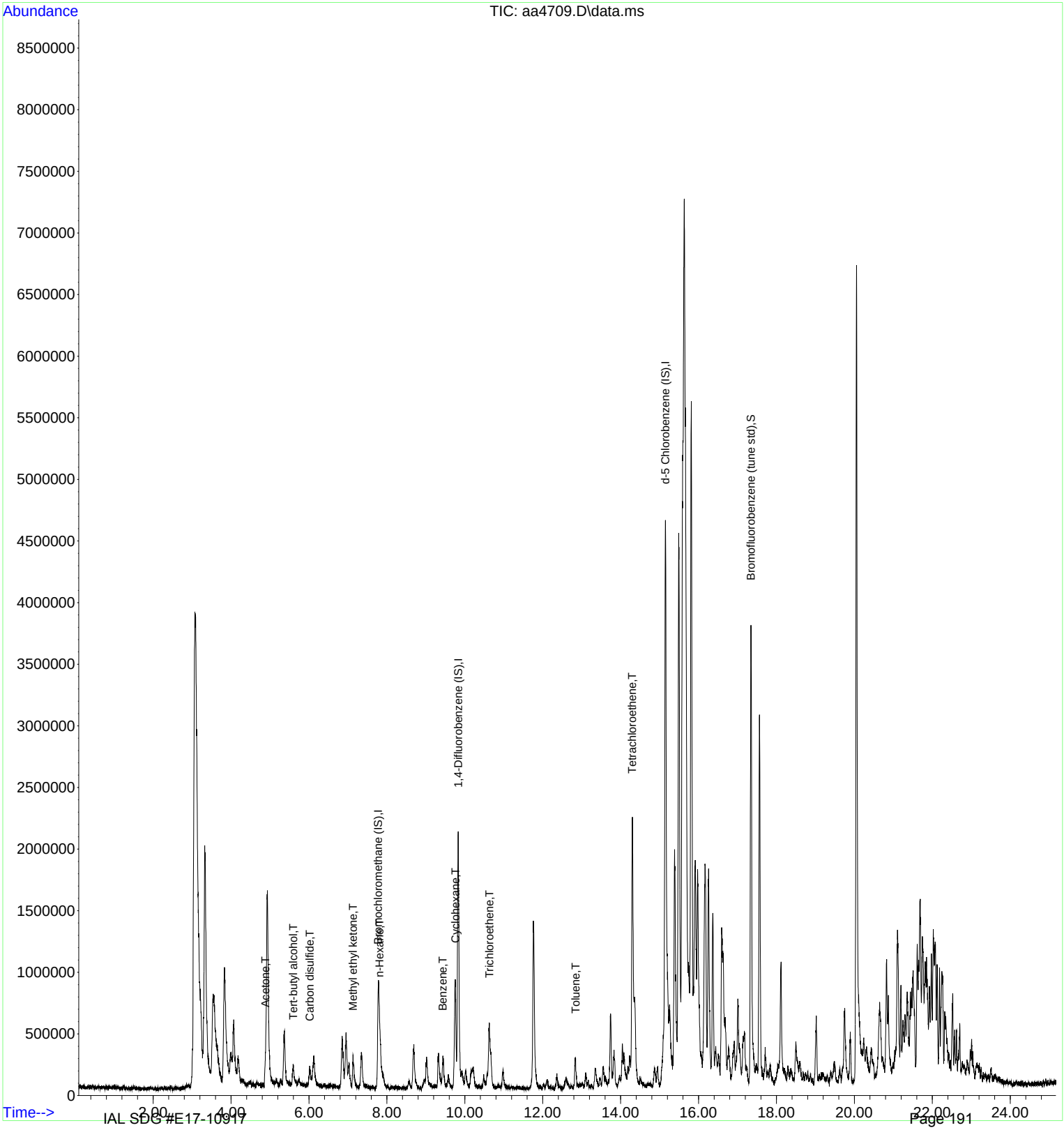
Quant Time: Jan 03 10:15:30 2018
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

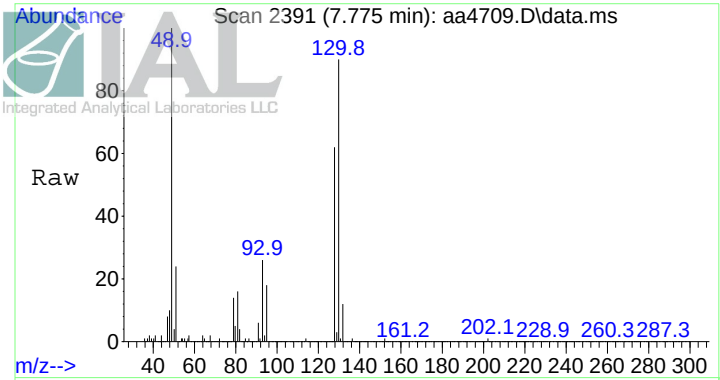
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS)	7.775	130	592316	10.00	ppbV		0.00
38) 1,4-Difluorobenzene (IS)	9.833	114	2447395	10.00	ppbV		0.00
55) d-5 Chlorobenzene (IS)	15.148	117	2306054	10.00	ppbV		0.00
System Monitoring Compounds							
64) Bromofluorobenzene (tu...	17.344	95	1815038	9.91	ppbV		0.00
Target Compounds							Qvalue
14) Acetone	4.881	58	200811m	4.97	ppbV		
20) Tert-butyl alcohol	5.595	59	208587	1.20	ppbV		100
23) Carbon disulfide	6.020	76	305691	1.12	ppbV	#	88
27) Methyl ethyl ketone	7.132	43	449152	2.57	ppbV	#	64
30) n-Hexane	7.814	57	98281	0.79	ppbV		85
35) Benzene	9.437	78	280329m	1.01	ppbV		
37) Cyclohexane	9.759	56	543087	3.36	ppbV		94
42) Trichloroethene	10.630	130	226980	2.23	ppbV		99
50) Toluene	12.846	91	240314m	0.71	ppbV		
54) Tetrachloroethene	14.299	166	828661	6.78	ppbV		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\DATA\12-27-17\
Data File : aa4709.D
Acq On : 27 Dec 2017 4:00 pm
Operator : jls
Sample : E17-10917-22 x 10 dil
Misc : dup of E17-10917-02 x 10 dil, can 1558
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 10:15:30 2018
Quant Method : C:\msdchem\1\METHODS\1208.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Dec 12 09:25:44 2017
Response via : Initial Calibration

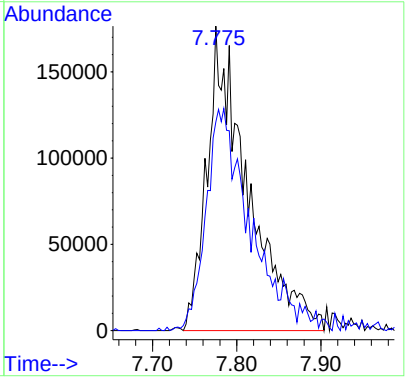


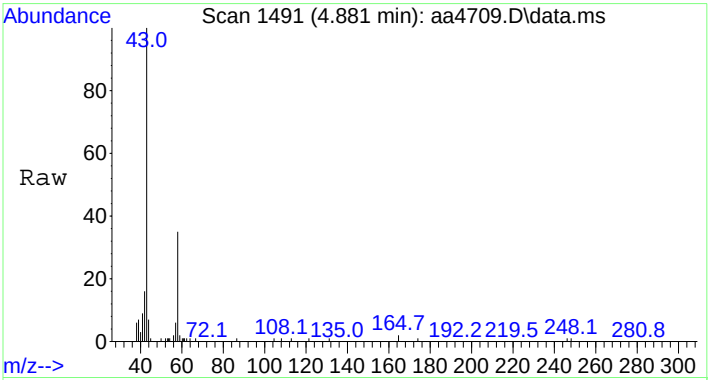


#1
Bromochloromethane (IS)
Concen: 10.00 ppbV
RT: 7.775 min Scan# 2391
Delta R.T. 0.003 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion:130 Resp: 592316

Ion	Ratio	Lower	Upper
130	100		
128	73.7	62.6	94.0

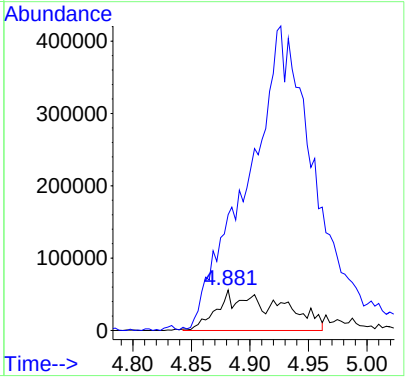


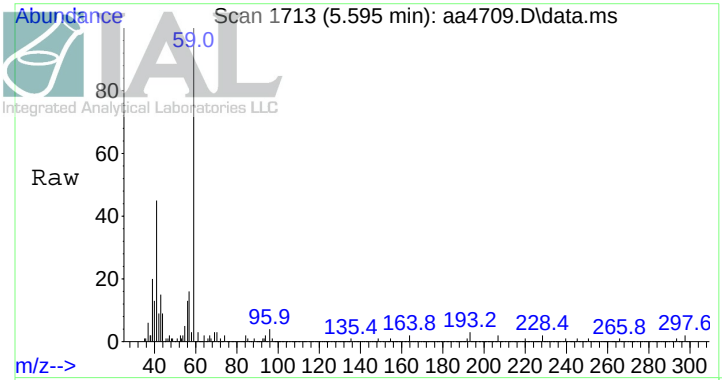


#14
Acetone
Concen: 4.97 ppbV m
RT: 4.881 min Scan# 1491
Delta R.T. 0.006 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 58 Resp: 200811

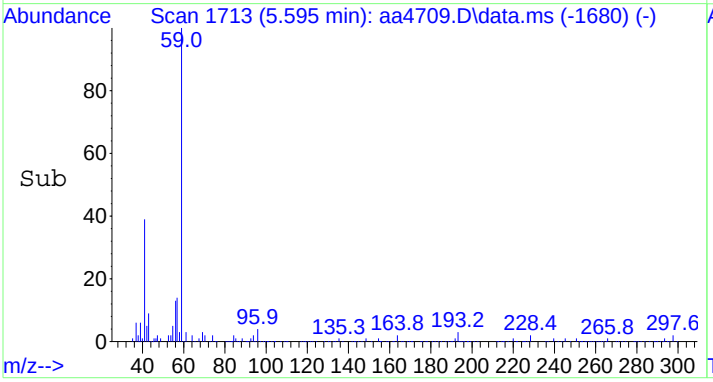
Ion	Ratio	Lower	Upper
58	100		
43	0.0	229.6	344.4#

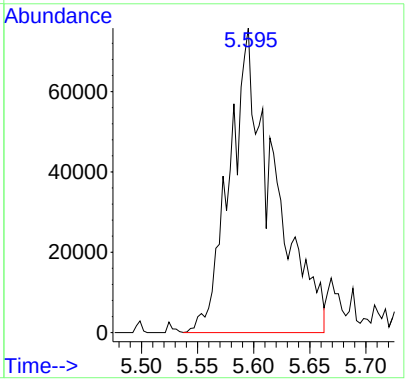


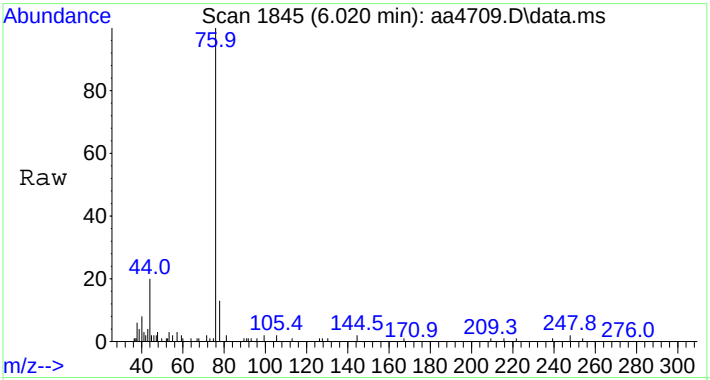


#20
Tert-butyl alcohol
Concen: 1.20 ppbV
RT: 5.595 min Scan# 1713
Delta R.T. 0.006 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 59 Resp: 208587



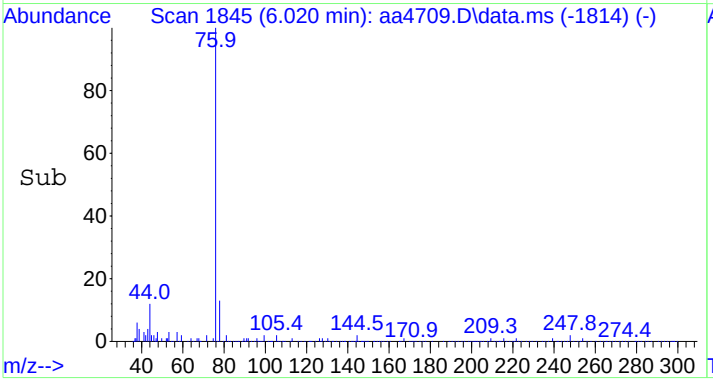


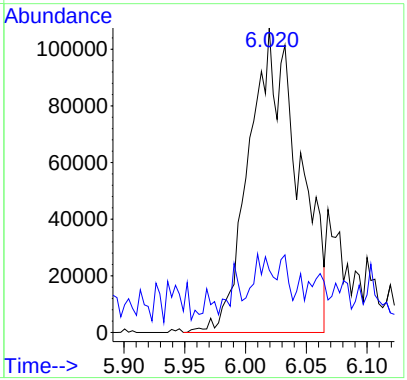


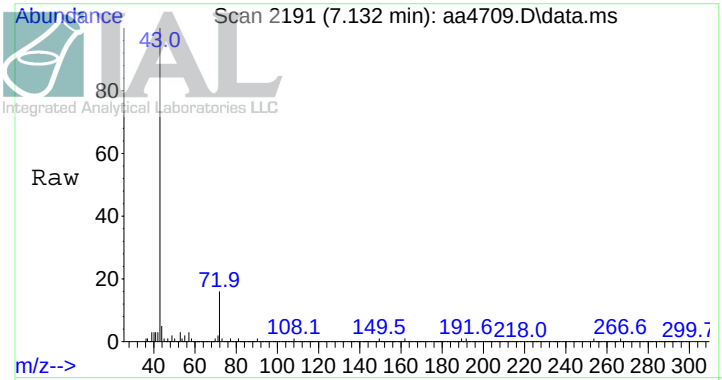
#23
Carbon disulfide
Concen: 1.12 ppbV
RT: 6.020 min Scan# 1845
Delta R.T. 0.001 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 76 Resp: 305691

Ion	Ratio	Lower	Upper
76	100		
44	8.2	10.4	15.6#



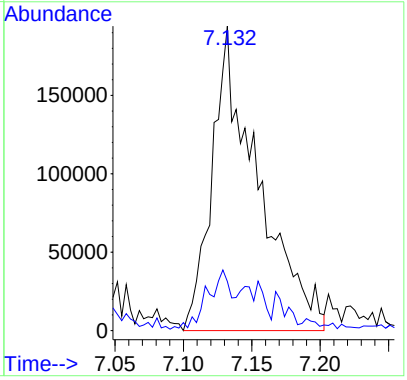


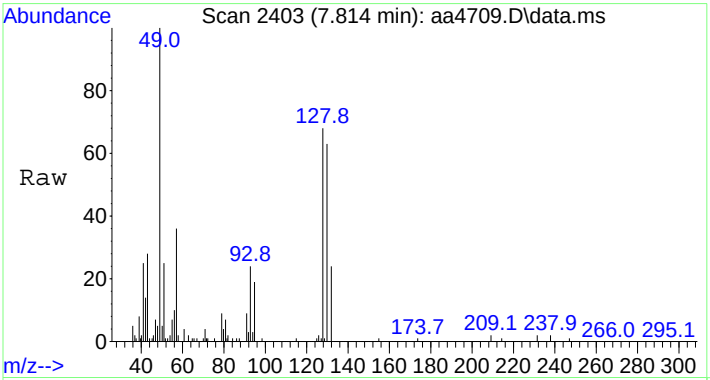


#27
Methyl ethyl ketone
Concen: 2.57 ppbV
RT: 7.132 min Scan# 2191
Delta R.T. 0.003 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 43 Resp: 449152

Ion	Ratio	Lower	Upper
43	100		
72	10.4	24.0	36.0#

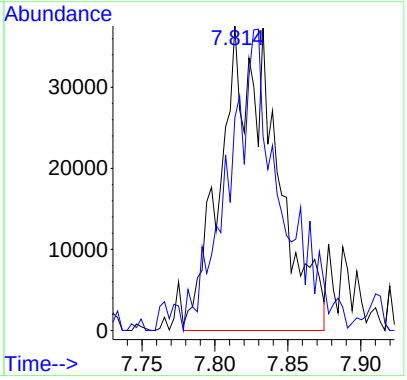


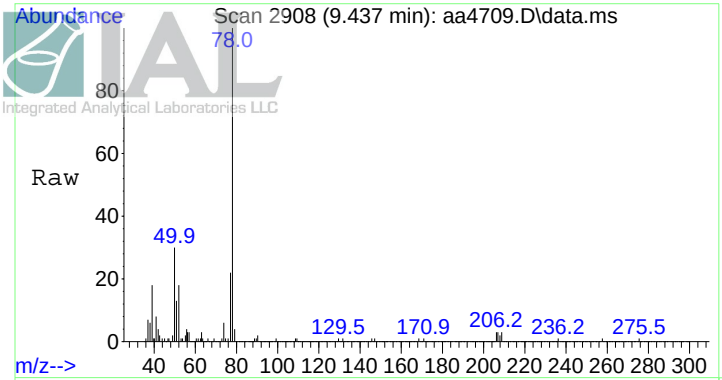


#30
n-Hexane
Concen: 0.79 ppbV
RT: 7.814 min Scan# 2403
Delta R.T. -0.003 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 57 Resp: 98281

Ion	Ratio	Lower	Upper
57	100		
41	94.3	64.8	97.2

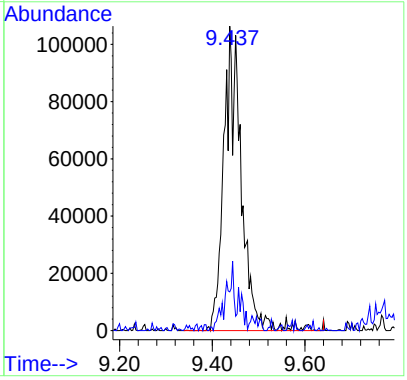


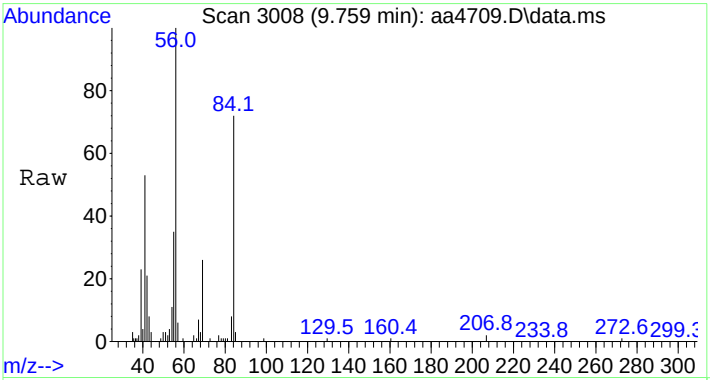


#35
Benzene
Concen: 1.01 ppbV m
RT: 9.437 min Scan# 2908
Delta R.T. -0.004 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 78 Resp: 280329

Ion	Ratio	Lower	Upper
78	100		
51	3.8	12.8	19.2#

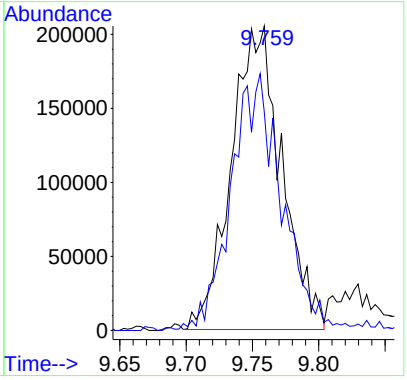


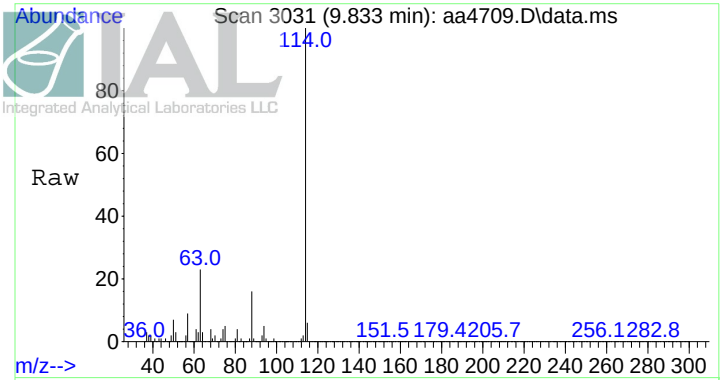


#37
Cyclohexane
Concen: 3.36 ppbV
RT: 9.759 min Scan# 3008
Delta R.T. 0.010 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 56 Resp: 543087

Ion	Ratio	Lower	Upper
56	100		
84	84.5	72.0	108.0

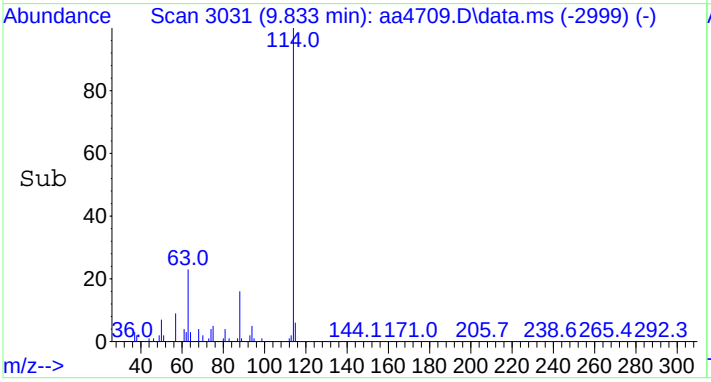


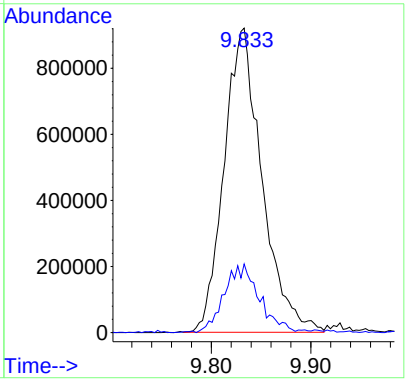


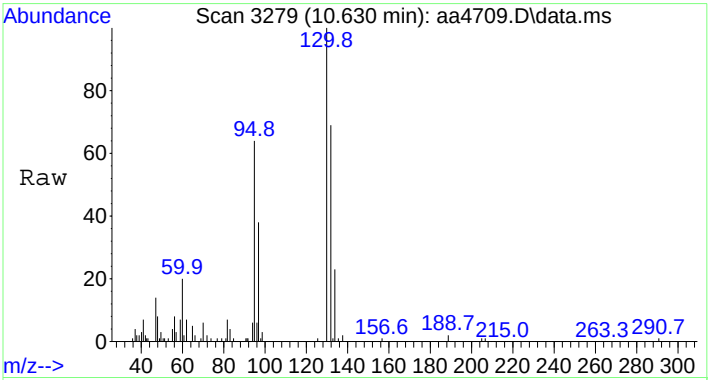
#38
1,4-Difluorobenzene (IS)
Concen: 10.00 ppbV
RT: 9.833 min Scan# 3031
Delta R.T. 0.003 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion:114 Resp: 2447395

Ion	Ratio	Lower	Upper
114	100		
63	20.7	16.8	25.2



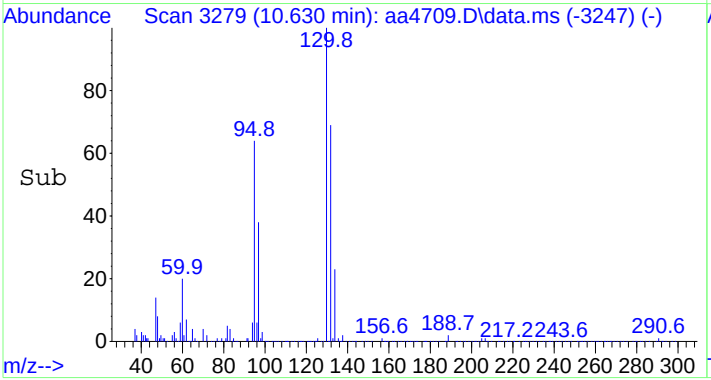


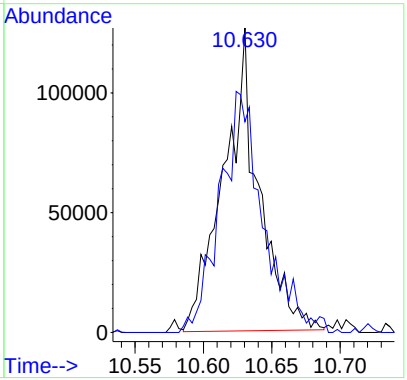


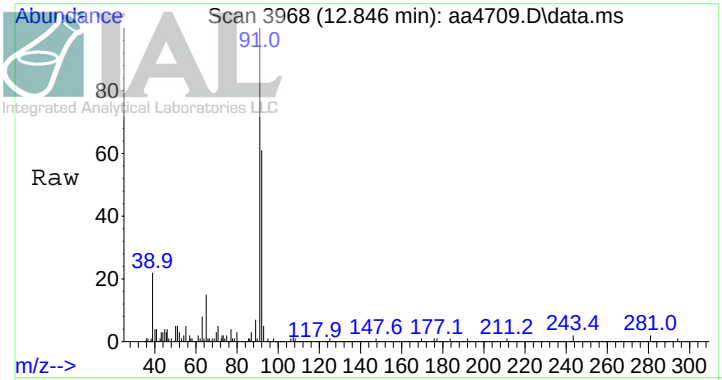
#42
Trichloroethene
Concen: 2.23 ppbV
RT: 10.630 min Scan# 3279
Delta R.T. 0.003 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion:130 Resp: 226980

Ion	Ratio	Lower	Upper
130	100		
132	97.9	77.8	116.6



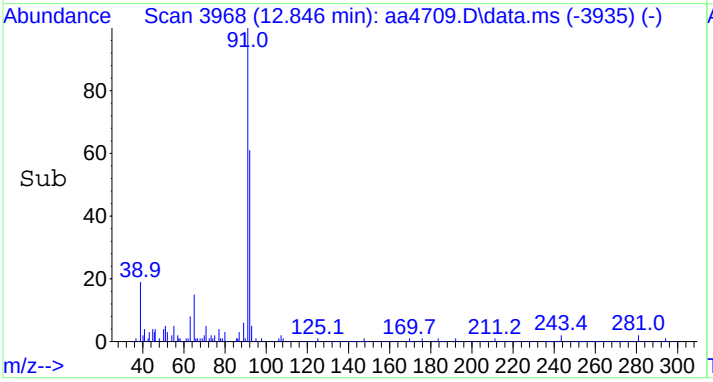


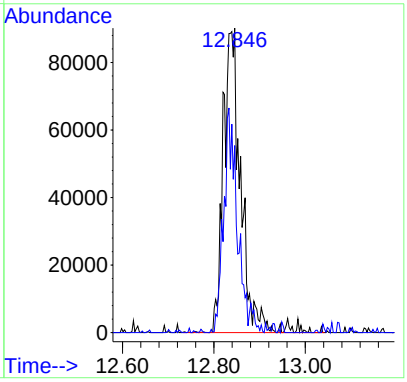


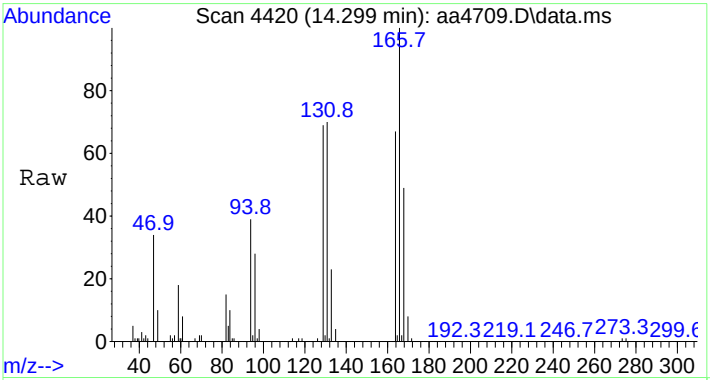
#50
Toluene
Concen: 0.71 ppbV m
RT: 12.846 min Scan# 3968
Delta R.T. 0.007 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 91 Resp: 240314

Ion	Ratio	Lower	Upper
91	100		
92	54.7	50.0	75.0



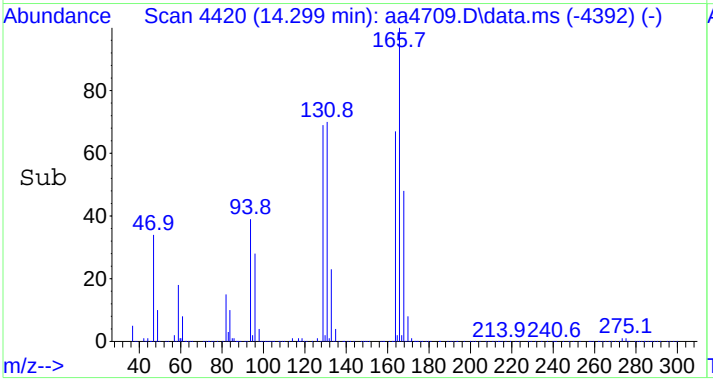


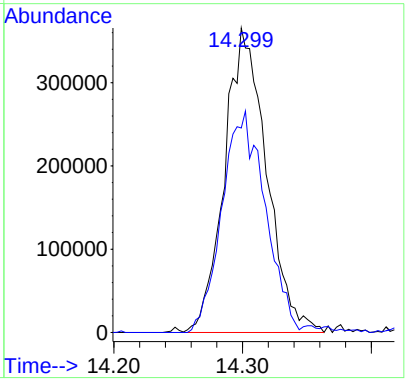


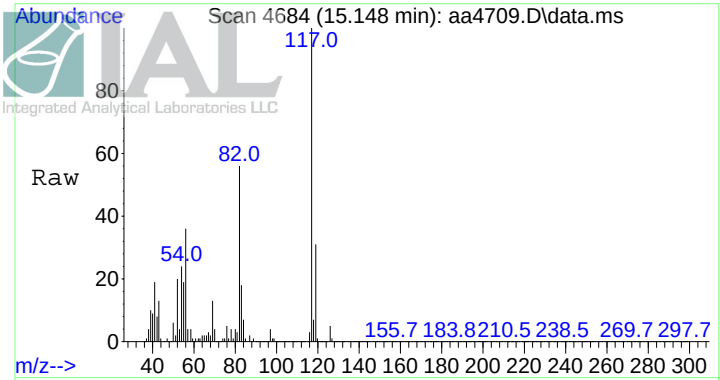
#54
Tetrachloroethene
Concen: 6.78 ppbV
RT: 14.299 min Scan# 4420
Delta R.T. -0.010 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion:166 Resp: 828661

Ion	Ratio	Lower	Upper
166	100		
164	74.8	64.6	96.8



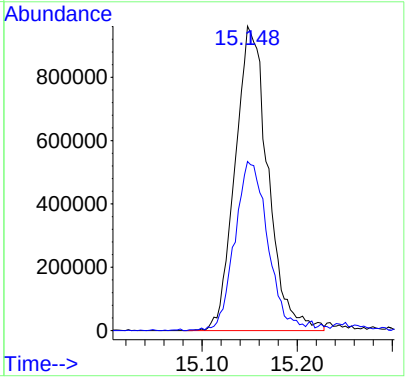


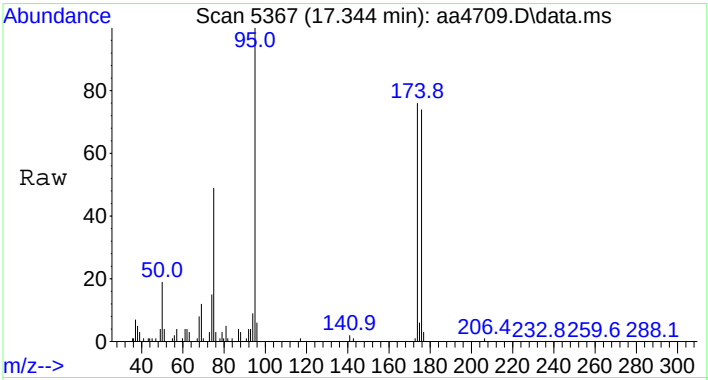


#55
d-5 Chlorobenzene (IS)
Concen: 10.00 ppbV
RT: 15.148 min Scan# 4684
Delta R.T. -0.003 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion:117 Resp: 2306054

Ion	Ratio	Lower	Upper
117	100		
82	55.7	44.8	67.2

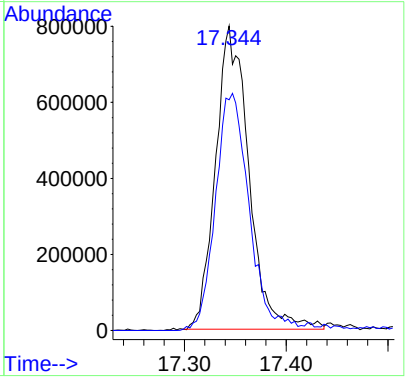


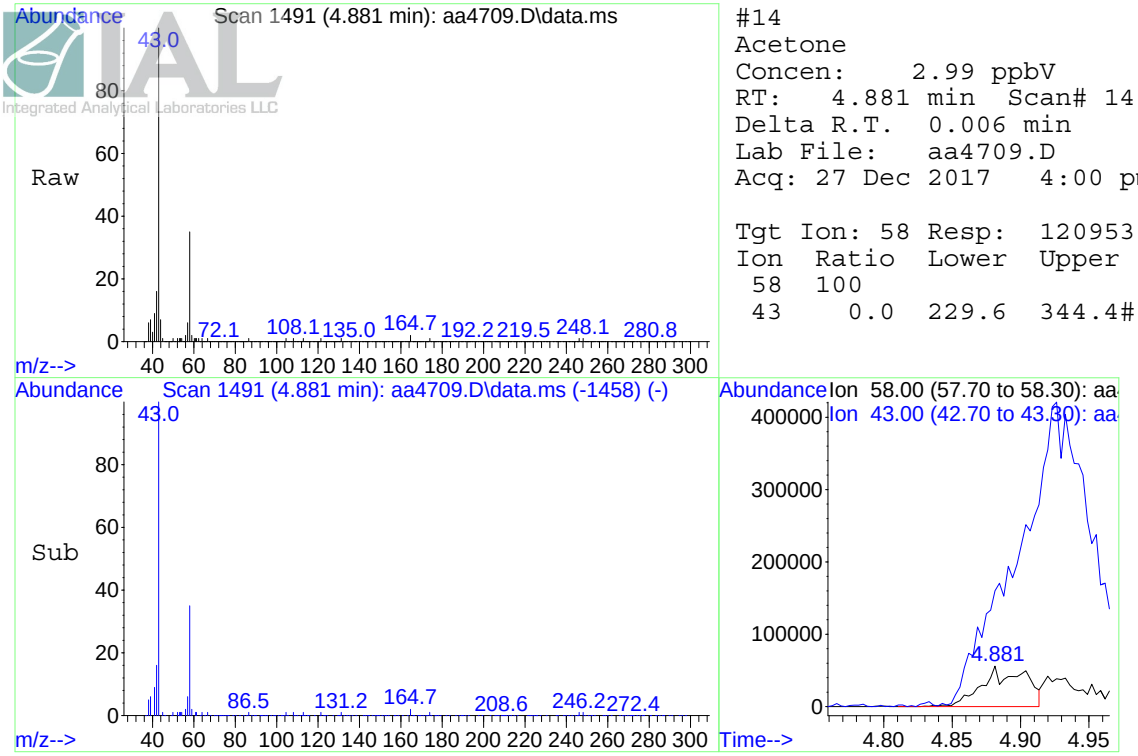


#64
Bromofluorobenzene (tune std)
Concen: 9.91 ppbV
RT: 17.344 min Scan# 5367
Delta R.T. -0.006 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 95 Resp: 1815038

Ion	Ratio	Lower	Upper
95	100		
174	79.1	61.5	92.3

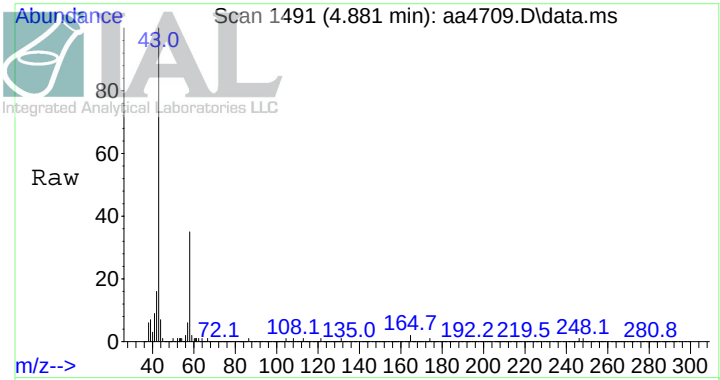





```
#14
Acetone
Concen:     2.99 ppbV
RT:    4.881 min   Scan# 1491
Delta R.T.   0.006 min
Lab File:    aa4709.D
Acq: 27 Dec 2017    4:00 pm

Tgt Ion: 58 Resp:   120953
Ion  Ratio  Lower   Upper
 58  100
 43    0.0  229.6   344.4#
```

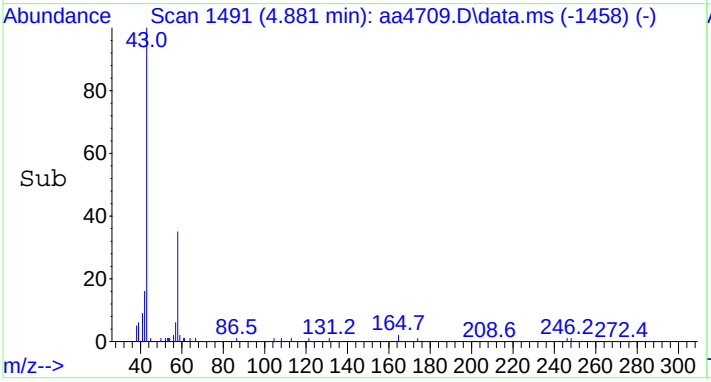

Before manual integration for Acetone.

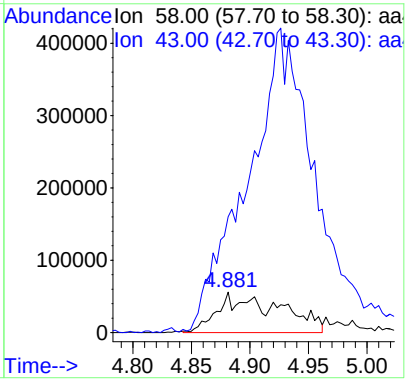


#14
Acetone
Concen: 4.97 ppbV m
RT: 4.881 min Scan# 1491
Delta R.T. 0.006 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

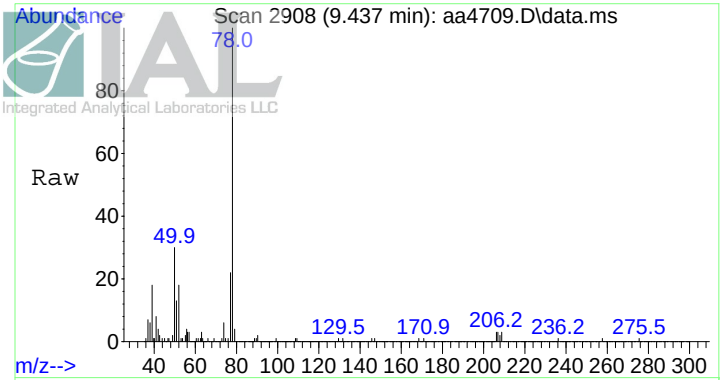
Tgt Ion: 58 Resp: 200811

Ion	Ratio	Lower	Upper
58	100		
43	0.0	229.6	344.4#





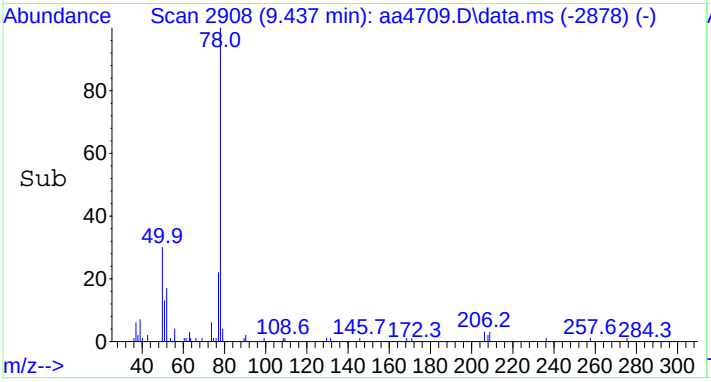
After manual integration for Acetone.

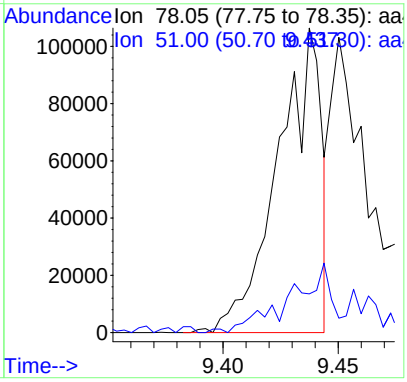


#35
Benzene
Concen: 0.50 ppbV
RT: 9.437 min Scan# 2908
Delta R.T. -0.004 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

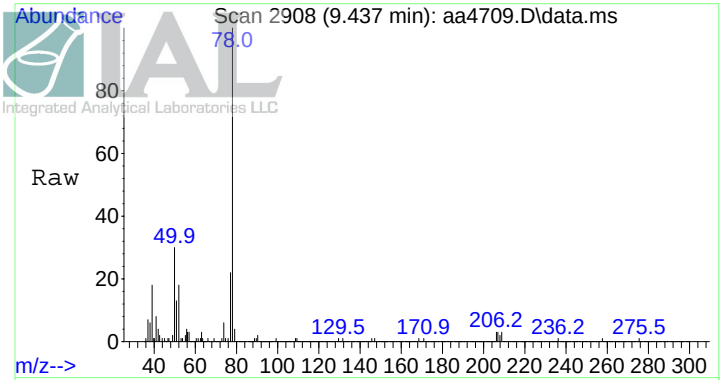
Tgt Ion: 78 Resp: 139321

Ion	Ratio	Lower	Upper
78	100		
51	7.7	12.8	19.2#





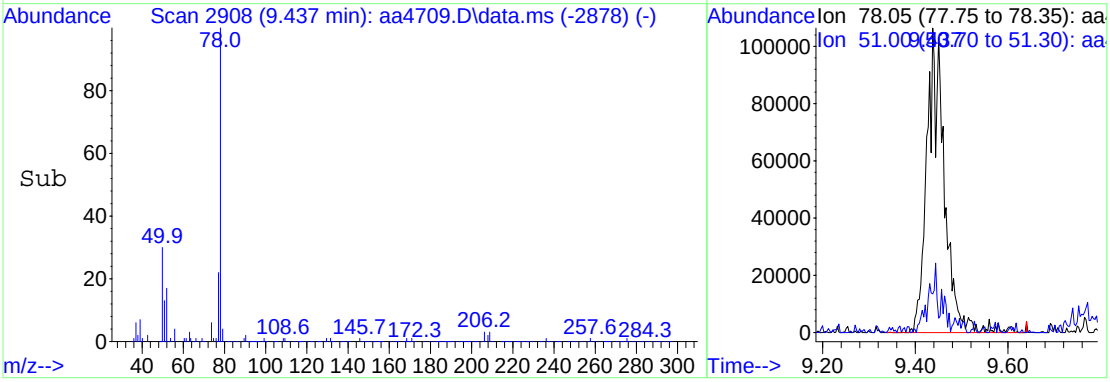
Before manual integration for Benzene.



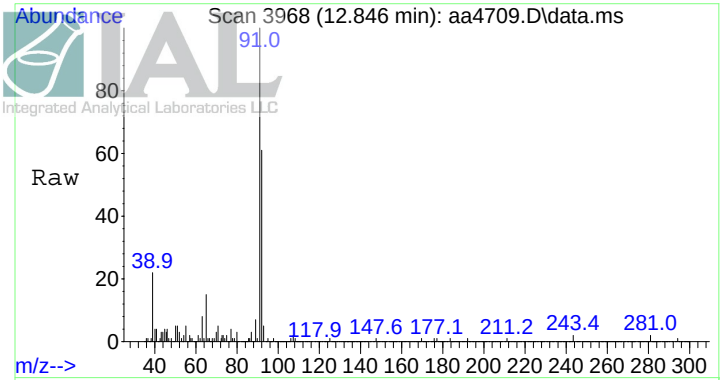
#35
Benzene
Concen: 1.01 ppbV m
RT: 9.437 min Scan# 2908
Delta R.T. -0.004 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 78 Resp: 280329

Ion	Ratio	Lower	Upper
78	100		
51	3.8	12.8	19.2#



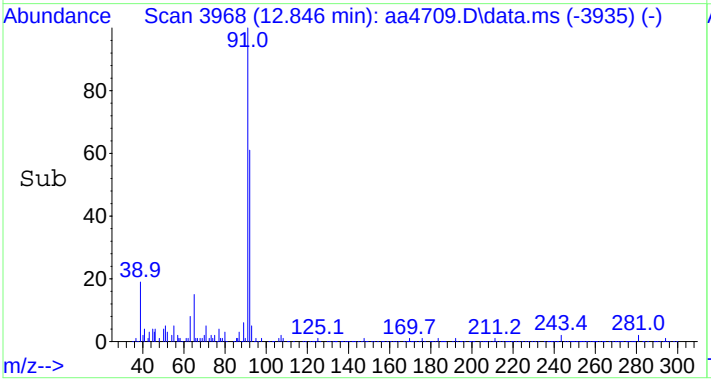
After manual integration for Benzene.

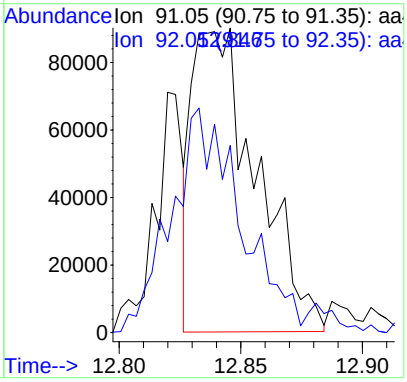


#50
Toluene
Concen: 0.49 ppbV
RT: 12.846 min Scan# 3968
Delta R.T. 0.007 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

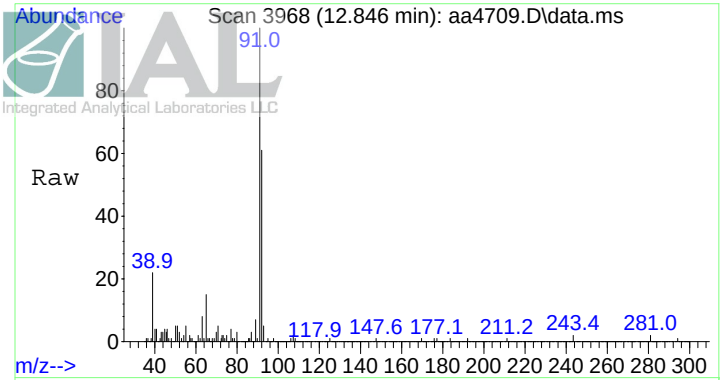
Tgt Ion: 91 Resp: 165783

Ion	Ratio	Lower	Upper
91	100		
92	79.3	50.0	75.0#





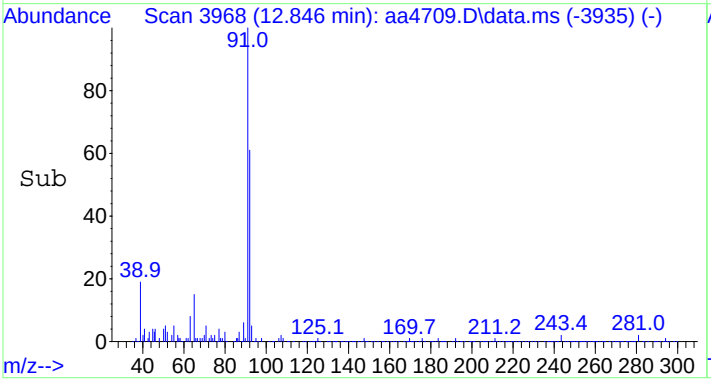
Before manual integration for Toluene.

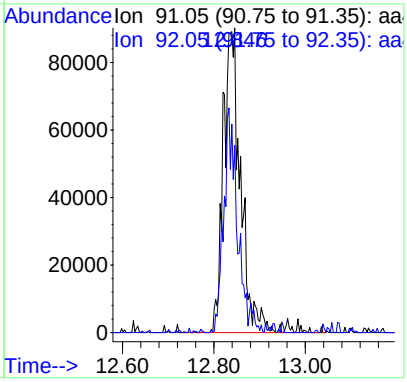


#50
Toluene
Concen: 0.71 ppbV m
RT: 12.846 min Scan# 3968
Delta R.T. 0.007 min
Lab File: aa4709.D
Acq: 27 Dec 2017 4:00 pm

Tgt Ion: 91 Resp: 240314

Ion	Ratio	Lower	Upper
91	100		
92	54.7	50.0	75.0





After manual integration for Toluene.

Integrated Analytical Laboratories
GC/MS Run Log

Instrument ID: Agilent 7890A / 5975C
Column: Restek RTX-1 SN 992567

Target Directory: D:\Agilent GCMS\

Date of Analysis: 12/27/2017
Date of Initial Calibration: 9/12/2017, 12/8/2017
SDG #: E17-10917

File #	Laboratory Sample ID	QC Check	Dilution Factor	Can #	Analyst	Injection Volume (cc)	Comments	*Make-up Air*		*Acquisition*		*Room*		*TO-15 Standard*	
								Added to canister (cc)	Added for dilution (cc)	Date	Time	Temp	BP "Hg	Working ID	Vendor ID (Lot#)
aa3441bfb	BFB	✓		ALM029426	JLS	50				**9/12/2017**	8:18	74	30.07		403-402623
aa3442dcvs	10 ppbv DCVS	✓		AAL071156	JLS	50	not used							8/16/2017	160-400853978-1
aa3443std01	40 ppbv Std	✓		CC483586	JLS	200								9/12/2017	160-400853978-1
aa3444std02	20 ppbv Std	✓		CC483586	JLS	100								9/12/2017	160-400853978-1
aa3445std03	10 ppbv Std	✓		CC483586	JLS	50								9/12/2017	160-400853978-1
aa3446std04	2 ppbv Std	✓		CC483586	JLS	10								9/12/2017	160-400853978-1
aa3447std05	0.2 ppbv Std	✓		CC483586	JLS	1								9/12/2017	160-400853978-1
aa3448icvss	10 ppbv ICVSS	✓		AAL073030	JLS	50									403-402622

Analyst Name: Jeff Schmitt
Signature: Jeff Schmitt

Supervisor Name: Lauren Jenkins
Signature: Lauren Jenkins

Integrated Analytical Laboratories
GC/MS Run Log

Instrument ID: Agilent 7890A / 5975C
Column: Restek RTX-1 SN 992567

Target Directory: D:\Agilent GCMS\

Date of Analysis: 12/27/2017
Date of Initial Calibration: 9/12/2017, 12/8/2017
SDG #: E17-10917

File #	Laboratory Sample ID	QC Check	Dilution Factor	Can #	Analyst	Injection Volume (cc)	Comments	*Make-up Air*		*Acquisition*		*Room*		*TO-15 Standard*	
								Added to canister (cc)	Added for dilution (cc)	Date	Time	Temp	BP "Hg	Working ID	Vendor ID (Lot#)
aa3811bfb	BFB	✓		ALM029426	JLS	50				**10/16/2017**	8:37	74	29.78		403-402623
aa3812dcvs	10 ppbv DCVS	✓		AAL071156	JLS	50								9/12/2017	160-400853978-1
aa3813lcs	10 ppbv LCS	✓		AAL073030	JLS	50									160-400895415-1
aa3814blk	Method Blank	✓		1127	JLS	500									
aa3815rllcs	0.2 ppbv RLLCS	✓		AAL071156	JLS	1								9/12/2017	160-400853978-1
aa3816	E17-08818-01	✓		3132	JLS	500									
aa3817	E17-08818-21	✓	dup of E17-08818-01, c		JLS	500									
aa3818	E17-08818-02	✓		3047	JLS	500									
aa3819	E17-08818-03	✓		2891	JLS	500									
aa3820	blk	✓			JLS	500									
aa3821	1555	✓			JLS	50									
aa3822cccvs	10 ppbv CCCVS	✓		CC483586	JLS	50				10/16/2017	16:53			9/12/2017	160-400853978-1

Analyst Name: Jeff Schmitt
Signature: Jeff Schmitt

Supervisor Name: Lauren Jenkins
Signature: Lauren Jenkins

Integrated Analytical Laboratories
GC/MS Run Log

Instrument ID: Agilent 7890A / 5975C
Column: Restek RTX-1 SN 992567

Target Directory: D:\Agilent GCMS\

Date of Analysis: 12/27/2017
Date of Initial Calibration: 9/12/2017, 12/8/2017
SDG #: E17-10917

File #	Laboratory Sample ID	QC Check	Dilution Factor	Can #	Analyst	Injection Volume (cc)	Comments	*Make-up Air*		*Acquisition*		*Room*		*TO-15 Standard*	
								Added to canister (cc)	Added for dilution (cc)	Date	Time	Temp	BP "Hg	Working ID	Vendor ID (Lot#)
aa4421bfb	BFB	✓		ALM029426	JLS	50				**12/8/2017**	11:01	74	29.73		403-402623
aa4422	blk	✓			JLS	500									
aa4423std01	40 ppbv Std	✓		CC483586	JLS	200								12/8/2017	160-400853978-1
aa4424std02	20 ppbv Std	✓		CC483586	JLS	100								12/8/2017	160-400853978-1
aa4425std03	10 ppbv Std	✓		CC483586	JLS	50								12/8/2017	160-400853978-1
aa4426std04	2 ppbv Std	✓		CC483586	JLS	10								12/8/2017	160-400853978-1
aa4427std05	0.2 ppbv Std	✓		CC483586	JLS	1								12/8/2017	160-400853978-1
aa4428icvss	10 ppbv ICVSS	✓		AAL073030	JLS	50									403-402622
aa4428lcs	10 ppbv LCS	✓		AAL073030	JLS	50									160-400895415-1
aa4429blk	Method Blank	✓		1127	JLS	500									
aa4430rllcs	0.2 ppbv RLLCS	✓		AAL071156	JLS	1								12/8/2017	160-400853978-1
aa4431	2160	✓			JLS	500									
aa4432	2066	✓			JLS	500									
aa4433cccvs	10 ppbv CCCVS	✓		CC483586	JLS	50				12/8/2017	21:31			12/8/2017	160-400853978-1

Analyst Name: Jeff Schmitt
Signature: Jeff Schmitt

Supervisor Name: Lauren Jenkins
Signature: Lauren Jenkins

Integrated Analytical Laboratories
GC/MS Run Log

Instrument ID: Agilent 7890A / 5975C
Column: Restek RTX-1 SN 992567

Target Directory: D:\Agilent GCMS\

Date of Analysis: 12/27/2017
Date of Initial Calibration: 9/12/2017, 12/8/2017
SDG #: E17-10917

File #	Laboratory Sample ID	QC Check	Dilution Factor	Can #	Analyst	Injection Volume (cc)	Comments	*Make-up Air*		*Acquisition*		*Room*		*TO-15 Standard*	
								Added to canister (cc)	Added for dilution (cc)	Date	Time	Temp	BP "Hg	Working ID	Vendor ID (Lot#)
aa4701bfb	BFB	✓		ALM029426	JLS	50				**12/27/2017**	8:38	73	30.09		403-402623
aa4702dcvs	10 ppbv DCVS	✓		AAL071156	JLS	50								12/8/2017	160-400853978-1
aa4703lcs	10 ppbv LCS	✓		AAL073030	JLS	50									160-400895415-1
aa4704blk	Method Blank	✓		1127	JLS	500									
aa4705rllcs	0.2 ppbv RLLCS	✓		AAL071156	JLS	1								12/8/2017	160-400853978-1
aa4706	3027	✓			JLS	500									
aa4707	E17-10917-01 x 10	✓	10	1541	JLS	50									
aa4708	E17-10917-02 x 10	✓	10	1558	JLS	50									
aa4709	E17-10917-22 x 10	✓	10	10917-02 x 10	JLS	50									
aa4710	E17-10917-03 x 10	✓	10	1767	JLS	50									
aa4711	blk	✓			JLS	500									
aa4712	blk	✓			JLS	500									
aa4713	E17-10683-01 x 100	✓	100	1517	JLS	5	not used								
aa4714	E17-10683-02 x 100	✓	100	1554	JLS	5	not used								
aa4715	E17-10683-03 x 100	✓	100	1409	JLS	5	not used								
aa4716	E17-10683-04 x 100	✓	100	1521	JLS	5	not used								
aa4717	E17-10683-05 x 100	✓	100	1522	JLS	5	not used								
aa4718	E17-10683-06 x 100	✓	100	1604	JLS	5	not used								
aa4719	E17-10786-01 x 100	✓	100	1772	JLS	5	not used								
aa4720	blk	✓			JLS	500									
aa4721cccvs	10 ppbv CCCVS	✓		CC483586	JLS	50				12/27/2017	22:43			12/8/2017	160-400853978-1

Analyst Name: Jeff Schmitt
Signature: Jeff Schmitt

Supervisor Name: Lauren Jenkins
Signature: Lauren Jenkins

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

External Chain of Custody Record/ Field Test Data Sheet
USEPA Method TO-15

10917

Contact Us: 973-361-4252
Fax: 973-366-5613
Web: www.ialonline.com

Carrier (check one): ✓ IAL Courier ___ Client Courier ___ FedEx/UPS

pg 1 of 1

Client Contact Information	Project Information	Invoice Information
Company: AESI	Project Name: 2710 49th Ave	Attn:
Address: 5 Marine View Plaza, Suite 401	Project Location (State): NY	Address: SAME
Hoboken, NJ 07030	Project Manager: Leah DeEgidio	
Phone: 201-876-9400	PM Signature:	
Fax: 201-876-9563	PM E-Mail: leah@solutionsenvironmental.com	PO #:
Report to: Leah DeEgidio	Sampler: Leah DeEgido/Sal DeLuca	Quote #:

Analysis Turnaround Time - IF NO TAT IS SPECIFIED, 2 WEEK TAT IS ASSUMED

IAL Standard: 2 weeks (10 business days)

Rush (**pre-approved by lab): 24hr** 48hr** 72hr** 96hr** 1wk**

Barometric Pressure

	Sample Identification	Start DATE & TIME (24hr Clock)	End DATE & TIME (24hr Clock)	Starting Vacuum ("Hg)	Ending Vacuum ("Hg)	Starting Temp. (°F)	Ending Temp. (°F)	Outgoing Vacuum - Lab ("Hg)	Start: Incoming Vacuum - Lab ("Hg)	Start: Flow Regulator ID	Stop: Canister ID	Stop: Canister Size (1L or 6L)	Stop: Flow Controller Readout (cc/min)
1	SV-1	12/20/17 - 11:11 am	12/20/17 11:21 a.m	-29		40°	40°	-29	0	[illegible]	1541	1L	118.2
2	SV-2	12/20/17 - 11:22 a.m.	12/20/17 - 11:30 a.m	29		40°	40°	-29	0	4016003-1	1558	1L	100.8
3	SV-3	12/20/17 - 11:22 a.m	12/20/17 - 11:32 a.m.	29		40°	40°	-29	0	7130542	1767	1L	103.4

Analysis				Report			Matrix					
EPA TO - 15	NJDEP LLTO-15 (includes 30 TICs)	Library Search (10, 20, or 30 TICs)	Other (Explain in Comments)	Regulatory/ NY Cat B / Full (NJ Required)	Reduced / NY Cat A Data Package	Results Only	Indoor Air	Ambient / Outdoor Air	Sub Slab / Soil Gas / Near Slab (Circle One)	Stack Emission / SVE System	High Concentrations Expected

Comments/ Special Analysis Instructions / QC Requirements:

10121701 1555
10:61Tam

Note: Hold or contingent samples may be designated by writing an "H" or "C" in the appropriate analysis box.

ALL FIELDS IN RED ARE REQUIRED

Shipping Information / Canister Preparation (for laboratory use only)

Individual Preparing Canisters / Title: P. Jenkins, J. Walukiewicz / Air Department Sample Custodians

Lab Affixed Seal Number(s): IAL20170359

Date/Time Shipping Container Sealed: 12/15/17 1445

Laboratory Canister Certification

GC/MS Analyst Signature

IAL SDG#: 10917

External Chain of Custody

Relinquished	Received	Date / Time	Reason for Change of External Custody
	George [illegible]	12/15/17 1445	shipment from laboratory to client
George [illegible]		12/20/17 16:05	
		12/21/17 14:00	
		12/21/17 1030	received at lab

Name/Title Resealing Shipping Container Name:

Date/Time Sample Shipping Container Resealed:

Date/Time Sample Shipping Container Opened:

NJDEP Affixed Seal Number:

Individual Opening Sample Shipping Container: Padraic Jenkins / Joseph Walukiewicz

Date/Time Internal Chain of Custody Initiated:

White and yellow - lab copies; Pink - client copy

Use appropriate care with IAL sampling equipment when sampling and packing for shipment. The client is responsible for all damage incurred to IAL equipment. Notify IAL if equipment is damaged upon receipt. Holding time before sampling is 15 days, after sampling is 30 days; failure to follow these times may result in data rejection by regulatory agencies. The lab will contact you if your COC is not clear, incomplete, or if discrepancies exist. The use of initials is not permitted on the COC except when corrections.

06/2014

Example Calculation (EPA TO-15)

$$\frac{\text{Area of Sample}}{\text{Area of Internal Standard}} \times \frac{\text{Concentration of Internal Standard (10 ppbv)}}{\text{Response Factor}} = \text{Concentration of Sample (ppbv)}$$

Conversion from ppbv to µg/m ^{3}

$$\frac{\text{Concentration of Compound (ppbv)} \times \text{Molecular Weight of Compound}}{24.45} = \text{Concentration of Compound (µg/m3)}$$

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 1555**	**Data File:**	**AA3821**
Field Sample Name:	**Canister 1555**	**Date Analyzed:**	**10/16/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 1555,1541(used for E17-10917-01),1558(used for E17-10917-02),1559,1592,1596,1767(used for E17-10917-03),1778

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 08:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 09:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
CLEAN CAN CERTIFICATION, BATCH MASTER 1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.20	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.20	ND
Carbon tetrachloride	56-23-5	0.20	ND
Cyclohexane	110-82-7	0.20	ND
Dibromochloromethane	124-48-1	0.20	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.20	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.20	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.20	ND
1,2-Dichloroethene (cis)	156-59-2	0.20	ND
1,2-Dichloroethene (trans)	156-60-5	0.20	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.20	ND
1,3-Dichloropropene (trans)	10061-02-6	0.20	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 1555**	**Data File:**	**AA3821**
Field Sample Name:	**Canister 1555**	**Date Analyzed:**	**10/16/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 1555,1541(used for E17-10917-01),1558(used for E17-10917-02),1559,1592,1596,1767(used for E17-10917-03),1778

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3811BFB]	10/16/2017 08:37
10 PPBV DCVS [AA3812DCVS]	10/16/2017 09:38
10 PPBV LCS [AA3813LCS]	10/16/2017 10:17
METHOD BLANK [AA3814BLK]	10/16/2017 10:57
02 PPBV RLLCS [AA3815RLLCS]	10/16/2017 11:48
CLEAN CAN CERTIFICATION, BATCH MASTER 1555 [AA3821]	10/16/2017 16:19
10 PPBV CCCVS [AA3822CCCVS]	10/16/2017 16:53

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.20	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.20	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.20	ND
Vinyl chloride	75-01-4	0.20	ND
Xylenes (m&p)	179601-23-1	0.40	ND
Xylenes (o)	95-47-6	0.20	ND

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3821.D
Acq On : 16 Oct 2017 4:19 pm
Operator : jls
Sample : 1555
Misc : 1541, 1558, 1559, 1592, 1596, 1767, 1778
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 18 09:31:06 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration

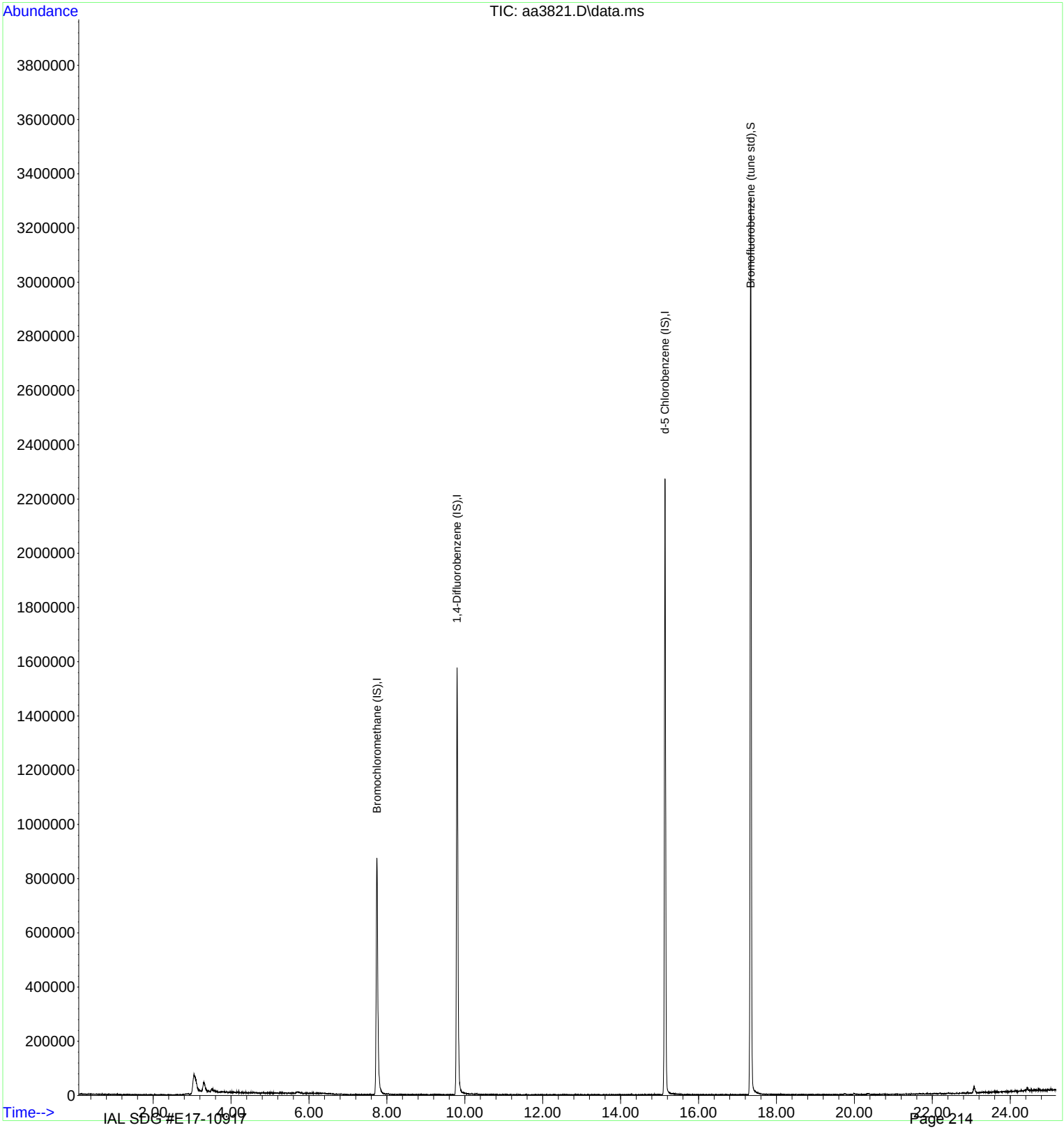
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane (IS)	7.743	130	542782	10.00	ppbV	0.00
38) 1,4-Difluorobenzene (IS)	9.801	114	1748848	10.00	ppbV	0.00
55) d-5 Chlorobenzene (IS)	15.138	117	1611121	10.00	ppbV	0.00
System Monitoring Compounds						
64) Bromofluorobenzene (tu...	17.341	95	1389988	9.85	ppbV	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\DATA\10-16-17\
Data File : aa3821.D
Acq On : 16 Oct 2017 4:19 pm
Operator : jls
Sample : 1555
Misc : 1541, 1558, 1559, 1592, 1596, 1767, 1778
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 18 09:31:06 2017
Quant Method : C:\msdchem\1\METHODS\0912.M
Quant Title : TO-15 on the Agilent 7890A / 5975C
QLast Update : Tue Sep 12 13:00:02 2017
Response via : Initial Calibration



LAST PAGE OF DOCUMENT

EPA TO-15 DATA PACKAGE

ANALYTICAL DATA PACKAGE FOR THE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project#: 27-10 49th Ave — **NY ELAP Certification#: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.

Project/Site: 27-10 49th Ave/NY

Client Sample Number	Laboratory Sample	Sample Location	Date/Time of Collection
A1	E18-00010-01	NA	1/10/2018 16:30
A2	E18-00010-02	NA	1/10/2018 16:30
A3	E18-00010-03	NA	1/10/2018 16:30
A4	E18-00010-04	NA	1/10/2018 16:30

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of data contained in this hardcopy data package and in the computer-readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his designee, as verified by the following signature.



Michael H. Leftin, Ph.D.
Laboratory Director

Date: January 18, 2018



Lauren Jenkins
Air Division Quality Assurance Officer

Date: January 18, 2018

Integrated Analytical Laboratories LLC

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Laboratory Acronyms

The following is a list of laboratory acronyms commonly used in EPA Method TO-15 testing:

Acronym	Definition
BLK	Blank/Method Blank
BFB	4-Bromofluorobenzene (Tuning Standard)
CAS Number	Chemical Abstract Service Registry Number
cc	cubic centimeters
CCCVS	Closing Calibration Check Verification Standard
COC	Chain of Custody
DCVS	Daily Calibration Verification Standard
DF	Dilution Factor
EPA	U. S. Environmental Protection Agency (aka USEPA)
"Hg	Inches of Mercury
IA	Indoor Air
IASL	Indoor Air Screening Level
ICAL	Initial Calibration
ICVSS	Initial Calibration Verification Standard
ISTD	Internal Standard
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LCS	Laboratory Control Sample/Spike
LLTO-15	Low Level TO-15
MDL	Method Detection Limit
MDLV	Method Detection Limit Verification
ml	milliliters
ND	Not Detected (at or above RL)
NJDEP	New Jersey Department of Environmental Protection
PM	Project Manager
ppbv	parts per billion, volume-to-volume ratio
PQL	Practical Quantitation Limit - MDLx3
QA	Quality Assurance
QC	Quality Control
RAL	Rapid Action Limit
RL	Reporting Limit
RLLCS	Reporting Limit Laboratory Control Sample
RPD	Relative Percent Difference
RRF	Relative Response Factor
RSD	Relative Standard Deviation
SDG	Sample Delivery Group
SGSL	Soil Gas Screening Levels
SS	Sub Slab
TAT	Turnaround Time
TIC	Tentatively Identified Compound
µg/m3	micrograms per cubic meter

Section I: Chain of Custody

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

External Chain of Custody Record/ Field Test Data Sheet
USEPA Method TO-15

00010

Contact Us: 973-361-4252
Fax: 973-366-5613
Web: www.ialonline.com

Client Contact Information	Project Information	Carrier (check one): ___ IAL Courier ___ Client Courier ___ FedEx/UPS	pg ___ of ___
Company: AES I	Project Name: 27-10 4/7th AVE	Invoice Information	Analysis / Report / Matrix
Address: 5 MAIDEN VIEW PLAZA Hoboken, NJ	Project Location (State): NY	Attn:	
Phone: (201)826-9400	Project Manager: Sal Delucia	Address:	
Fax:	PM Signature:		
Report to:	PM E-Mail: sdelucia@solutionsenvironmental.com	PO#:	
	Sampler: SD	Quote #:	

Analysis Turnaround Time - IF NO TAT IS SPECIFIED, 2 WEEK TAT IS ASSUMED

IAL Standard: 2 weeks (10 business days)
Rush (**pre-approved by lab): 24hr** 48hr** 72hr** 96hr** (1wk**)

Barometric Pressure — Start: ____ Stop: ____

	Sample Identification	Start DATE & TIME (24hr Clock)	End DATE & TIME (24hr Clock)	Starting Vacuum ("Hg)	Ending Vacuum ("Hg)	Starting Temp. (°F)	Ending Temp. (°F)	Outgoing Vacuum - Lab ("Hg)	Incoming Vacuum - Lab ("Hg)	Flow Regulator ID	Canister ID	Canister Size (1L or 6L)	Flow Controller Readout (cc/min)	EPA TO - 15	NJDEP LLTO-15 (includes 30 TICs)	Library Search (10, 20, or 30 TICs)	Other (Explain in Comments)	Regulatory/ NY Cat B / Full (NJ Required)	Reduced / NY Cat A Data Package	Results Only	Indoor Air	Ambient / Outdoor Air	Sub Slab / Soil Gas / Near Slab (Circle One)	Stack Emission / SVE System	High Concentrations Expected
1)	A1	1/10/18 1630	1/11/18 1430	30	2			-29	-2	AO21686-D	3290	6L	3.60	X					X		X				
2)	A2	1/10/18 1630		25	0			-29	0	7340751	3289	6L	3.13	X					X		X				
3)	A3	1/10/18 1630		20	0			-29	0	A01044245	2755	6L	3.18	X					X		X				
4)	A4	1/10/18 1630		25	0			-25	0	A01991919	4853	6L	3.28	X					X		X				

Comments/ Special Analysis Instructions / QC Requirements:

① 120517O1 120817aa 2066 ② 1108170I 1114170a 3289 ③ 1125170I 1129170a 3059 ④ 1130170I 120517aa 4853

Note: Hold or contingent samples may be designated by writing an "H" or "C" in the appropriate analysis box.

ALL FIELDS IN RED ARE REQUIRED

Shipping Information / Canister Preparation (for laboratory use only)

Individual Preparing Canisters / Title: P. Jenkins, J. Walukiewicz / Air Department Sample Custodians
Lab Affixed Seal Number(s): IAL 2018 0006
Date/Time Shipping Container Sealed: 1/9/18 1100

Laboratory Canister Certification
GC/MS Analyst Signature

IAL SDG#: 00010

External Chain of Custody

Relinquished	Received	Date / Time	Reason for Change of External Custody
		1/9/18 1100	shipment from laboratory to client
		1/12/18 10:42	
		1/15/18 800	receive at air

Name/Title Resealing Shipping Container Name:
Date/Time Sample Shipping Container Resealed:
Date/Time Sample Shipping Container Opened:
NJDEP Affixed Seal Number:
Individual Opening Sample Shipping Container: Padraic Jenkins / Joseph Walukiewicz
Date/Time Internal Chain of Custody Initiated:

White and yellow - lab copies; Pink - client copy

Use appropriate care with IAL sampling equipment when sampling and packing for shipment. The client is responsible for all damage incurred to IAL equipment. Notify IAL if equipment is damaged upon receipt. Holding time before sampling is 15 days, after sampling is 30 days; failure to follow these times may result in data rejection by regulatory agencies. The lab will contact you if your COC is not clear, incomplete, or if discrepancies exist. The use of initials is not permitted on the COC except when correcting errors. 06/2014

RUSH

PROJECT INFORMATION

E18-00010: 27-10 49TH AVE

To: Salvatore DeLucia
Atlantic Environmental Solutions, Inc.
Fax: 201-876-9563
EMail: sdelucia@solutionsenvironmental.com

Report To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Salvatore DeLucia

Bill To

Atlantic Environmental Solutions, Inc.
5 Marine View Plaza
Suite 303
Hoboken, NJ 07030
Attn: Salvatore DeLucia

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Air Reduced		Jan 15, 2018 @ 08:00	NA	Jan 18, 2018	Feb 05, 2018 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. Not Required

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
00010-001	A1	NA	01/11/18@14:30	Air-Indoor	ppbV	
00010-002	A2	NA	01/11/18@14:30	Air-Indoor	ppbV	
00010-003	A3	NA	01/11/18@14:30	Air-Indoor	ppbV	
00010-004	A4	NA	01/11/18@14:30	Air-Indoor	ppbV	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TO-15 analysis	Analyze	TO-15	RUSH 72 HRS	2/10/2018
002	TO-15 analysis	Analyze	TO-15	RUSH 72 HRS	2/10/2018
003	TO-15 analysis	Analyze	TO-15	RUSH 72 HRS	2/10/2018
004	TO-15 analysis	Analyze	TO-15	RUSH 72 HRS	2/10/2018

Project Notes:

REV 1 taken by lauren on 01/17/2018 11:07
PER SEAMUS KELLY, CHANGE TAT TO 72 HOURS - DUE 1/18/18

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

Integrated Analytical Laboratories

Internal Chain of Custody

Instructions: Use 1 form for each 20 samples of aliquot.

Laboratory Person Accepting Responsibility for Sample(s)			
Laboratory:	Integrated Analytical Laboratories	Location:	273 Franklin Rd Randolph, NJ 07869
Name:	Padraic Jenkins	Title:	Air Department Receiving
Case No.:	E18- 00010	Analytical Parameter/Fraction: (check one)	___ NJDEP LLTO-15 _X_ EPA TO-15

Sample No.	Aliquot/Extract No.
A1	E18- 00010 -01
A2	E18- " -02
A3	E18- " -03
A4	E18- " -04
	E18-
	E18-
	E18-
	E18-
	E18-
	E18-

Sample No.	Aliquot/Extract No.
	E18-
	E18-
	E18-
	E18-
	E18-
	E18-
	E18-
	E18-
	E18-
	E18-

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
11/5/18	800	SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME PADRAIC JENKINS	1. Sample log-in 2. Pressure Check 3. Pre-analysis storage
11/5/18	900	SIGNATURE PRINTED NAME PADRAIC JENKINS	SIGNATURE PRINTED NAME	Placement in TO-15 sample storage area until ready for analysis
11/15/18	1330	SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME JEFF SCHMITT	TO-15/LLTO-15 analysis on: 00010-01, 02, 03, -04
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	
		SIGNATURE PRINTED NAME	SIGNATURE PRINTED NAME	

Section II: Methodology Review

Methodology Summary for Air Collected from Hazardous Waste Site Contract

Laboratory:	**Integrated Analytical Lab, LLC**	**Project No:**	**27-10 49th Ave**
Location:	**Randolph, NJ**	**SDG No:**	**E18-00010**

Name	Required Methodology	Indicate Method
Volatile Organics	US EPA TO-15	US EPA Method TO-15

Section III: Case Narrative

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

Client ID	Lab ID	Receipt Date	Analysis Date	DF	Diluted For
A1	E18-00010-01	01/15/2018	01/15/2018	1.0	NA
A2	E18-00010-02	01/15/2018	01/15/2018	1.0	NA
A3	E18-00010-03	01/15/2018	01/15/2018	1.0	NA
A4	E18-00010-04	01/15/2018	01/15/2018	1.0	NA

IAL Sample ID	Canister ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Controller ID	Outgoing Flow Rate (cc/min)	Incoming Flow Rate (cc/min)	Flow Rate RPD*
E18-00010-01	3290	-29	-2	A0121686-10	3.10	3.24	4.42
E18-00010-02	3289	-29	0	7340751	3.13	3.30	5.29
E18-00010-03	2755	-29	0	A0104424-5	3.18	3.19	0.31
E18-00010-04	4853	-29	0	A0194191-9	3.28	3.34	1.81

*Pre-sampling and Post-sampling Flow Controller calibration check RPD ≤ 20%

Flow Controller Note: none

Sample Receipt: Samples were received in good condition. Documentation was in order. Samples were received at IAL by: Padraic Jenkins

Sample Preparation: None required.

Sample Analysis:

Hold Time: All within recommended hold times.

Instrument Calibration: Meets method criteria.

Analysis performed by: Jeff Schmitt

SDG Non-Conformances: none

Tentatively Identified Compounds: Tentatively Identified Compounds (TICs) are determined using a NIST library search. TICs are reported at 10% of the applicable internal standard. Dilution factors are calculated into the final reported result. Since the compounds found are tentatively identified, the conversion from ppbv to ug/m3 may not be made.

Canister-to-Canister dilutions: none

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Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

Dilutions: Dilutions, if necessary, will be conducted directly on the instrument up to a 500x dilution. When dilutions of 1000x or higher are necessary, the laboratory must inject a volume of sample into another certified clean canister and add humidified Z-1 zero air to the remainder of the canister volume. Tedlar bags are not used for dilutions.

If a sample is received with historically high levels of analytes, a 100x can-to-can dilution my be used from the start. A 100x canister-to-canister dilution may be also be used at the analyst's discretion.

On-instrument dilutions are conducted as follows:

Dilution Factor	Sample Volume Injected (cc)
1	500
2.5	200
5	100
10	50
20	25
25	20
50	10
100	5
200	2.5
250	2
500	1

Canister-to-canister dilutions are conducted as follows:

A certified clean canister is obtained and evacuated to approximately -30"Hg. Both the clean/dilution canister and sample canister are fitted with a ¼" Swagelok® nut fitting equipped with septa. Depending on dilution factor necessary, a sample aliquot is removed from the canister and injected into the clean canister using 30cc Multifit gas-tight syringe. Once the correct sample aliquot has been transferred, the dilution canister should be connected to the humidified Z-1 zero air supply and filled to ambient pressure (0"Hg).

Dilution Factor	Sample Aliquot	Z-1 Make-up Added
100	60ml	5940ml
1000	6ml	5994ml

If further dilutions need to be made from the dilution canister, they may be made on-instrument. Using a 100x dilution canister, the following on-instrument dilutions can be produced:

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Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
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Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

Dilution Factor	Sample Volume Injected
100	500ml
250	200ml
500	100ml
1000	50ml
2000	25ml
2500	20ml
5000	10ml

Using a 1000x dilution canister, the following on-instrument dilutions can be produced:

Dilution Factor	Sample Volume Injected
1000	500ml
2500	200ml
5000	100ml
10,000	50ml
20,000	25ml
25,000	20ml
50,000	10ml

If further dilutions need to be made from the dilution canister, beyond 50,000x, a subsequent canister-to-canister dilution must be made using the above prescribed protocol.

GC Column and ID: RTX-1 SN 1119138 or equivalent

Calibration Standards: Only gas phase standards were used. Primary and second-source standards provided by Scott Specialty Gases or Airgas Specialty Gases/ Air Liquide

Working Standards: Primary source standards* are created from:
- Scott Gas Cylinder #AAL071156, valid 3/9/15 through 2/25/17
- Airgas Specialty Gases Cylinder #CC483586, valid 3/6/17 through 3/6/18

@ 100ppb per compound, with exception of m&p-xylenes @ 200ppb. Standard is directly introduced into the instrument for all calibration standard concentrations. Dilutions are made accordingly, on instrument, with humidified clean air. The 10ppbv standard is also used for the Daily Calibration Verification Standard (DCVS) and Closing Calibration Verification Standard (CCCVS).

The second source standard*, used as the Initial Calibration Verification Standard (ICVSS) and Laboratory Control Sample (LCS), is introduced into the instrument in the same manner as the primary source standard, using:
- Scott Gas Cylinder #AAL07303, valid 6/11/15 through 5/14/17
- Airgas Specialty Gases Cylinder #CC483422, valid 5/4/17 through 5/4/18

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

@ 100ppb per compound, with exception of m&p-xylenes @ 200ppb.

Internal standards* are created from:
- Scott Gas, Cylinder #ALM029426, valid 5/11/2016 through 5/12/2019
@ 5ppm per compound. Standard is directly introduced into the instrument to reach the 10ppbv concentrations. 1:500 Dilutions are made on instrument with humidified clean air. 1cc of internal standard is added to every standard, method blank, instrument blank, and sample run.

*Standard may be used past its expiration date provided that concentrations are verified by a current/unexpired second source standard.

09/12/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
40 ppbv standard - 200 ml injected
20 ppbv standard - 100 ml injected
10 ppbv standard* - 50 ml injected
*Standard also used for CCCVS
2 ppbv standard - 10 ml injected
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS

11/14/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
10 ppbv standard* - 50 ml injected
*Standard also used for DCVS & CCCVS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127
500 ml injected

11/29/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
10 ppbv standard* - 50 ml injected
*Standard also used for DCVS & CCCVS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

500 ml injected

12/05/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
10 ppbv standard* - 50 ml injected
*Standard also used for DCVS & CCCVS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127
500 ml injected

12/08/2017

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
40 ppbv standard - 200 ml injected
20 ppbv standard - 100 ml injected
10 ppbv standard* - 50 ml injected
*Standard also used for CCCVS
2 ppbv standard - 10 ml injected
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS

01/12/2018

100 ppbv internal standard mix - prepared in cylinder #ALM029426
10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
40 ppbv standard - 200 ml injected
20 ppbv standard - 100 ml injected
10 ppbv standard* - 50 ml injected
*Standard also used for CCCVS
2 ppbv standard - 10 ml injected
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127
500 ml injected

01/15/2018

100 ppbv internal standard mix - prepared in cylinder #ALM029426

CASE NARRATIVE

ANALYTICAL DATA PACKAGE FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project #: 27-10 49th Ave — **NY ELAP Certification #: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
Project/Site: 27-10 49th Ave / NY

10 ppbv per standard/sample - 50 ml injected
100 ppbv calibration standard - prepared in cylinder #CC483586
10 ppbv standard* - 50 ml injected
*Standard also used for DCVS & CCCVS
0.20 ppbv standard* - 1 ml injected
*Standard also used for RLLCS
Method Blank - prepared in canister #1127
500 ml injected
Sample E18-00010-01 - sample taken in canister #3290
500 ml sample volume injected, 1x dilution
Sample E18-00010-02 - sample taken in canister #3289
500 ml sample volume injected, 1x dilution
Sample E18-00010-03 - sample taken in canister #2755
500 ml sample volume injected, 1x dilution
Sample E18-00010-04 - sample taken in canister #4853
500 ml sample volume injected, 1x dilution

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. All conversions are based upon a room temperature of 77°F(25°C) and room pressure of 101.325 kPa (1atm).

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of data contained in this hardcopy data package and in the computer-readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his designee, as verified by the following signature.

Michael H. Leftin, Ph.D.
Laboratory Director

January 18, 2018
Date

Section IV: Method Detection Limit Summary

METHOD DETECTION LIMIT (MDL) REPORT

Integrated Analytical Laboratories - Randolph, NJ

Matrix: Air
Column ID: Restek Rtx-1, 60 meter, 0.32mm ID, 1 um
Instrument ID: GC - Agilent 7890A / MS - Agilent 5975C (IAL ID: *Instrument AA*)
Report Prepared by: Jeff Schmitt
Preparation Date: 6/27/17

MDL Effective Date: 6/27/2017
MDL Expiration Date: 6/27/2018
MDL Analysis Date: 6/27/2017
Analyst: Jeff Schmitt

Filename	Run #	Date	Time	Filename	Run #	Date	Time
aa2539	Run 1	6/27/2017	11:54	aa2544	Run 6	6/27/2017	14:44
aa2540	Run 2	6/27/2017	12:28	aa2545	Run 7	6/27/2017	15:18
aa2541	Run 3	6/27/2017	13:02				
aa2542	Run 4	6/27/2017	13:36				
aa2543	Run 5	6/27/2017	14:10				

Compound Name	Run 1*	Run 2*	Run 3*	Run 4*	Run 5*	Run 6*	Run 7*	MEAN Value	TRUE Value	Percent Recovery	Std Dev Conc	MDL ppbv	PQL ppbv	NY/ LLTO-15/ PA RL ppbv	NY/ LLTO-15/ PA RL µg/m³	NJ TO-15 RL ppbv	NJ TO-15 RL µg/m³	True value/ MDL
Propene	0.18	0.15	0.10	0.08	0.15	0.05	0.13	0.12	0.20	61	0.045	0.14	0.43	0.20	0.34	0.40	0.69	1.4
Dichlorodifluoromethane	0.18	0.20	0.18	0.16	0.21	0.21	0.18	0.19	0.20	94	0.016	0.050	0.15	0.20	0.99	0.40	2.0	4.0
Chloromethane	0.08	0.17	0.12	0.08	0.13	0.10	0.17	0.12	0.20	61	0.038	0.12	0.36	0.20	0.41	0.40	0.83	1.7
1,2-Dichlorotetrafluoroethane	0.31	0.32	0.31	0.28	0.34	0.34	0.32	0.32	0.20	159	0.019	0.059	0.18	0.20	1.4	0.40	2.8	3.4
Vinyl chloride	0.12	0.14	0.13	0.11	0.15	0.14	0.12	0.13	0.20	65	0.015	0.046	0.14	0.20	0.51	0.40	1.0	4.3
1,3-Butadiene	0.18	0.21	0.19	0.15	0.21	0.20	0.18	0.19	0.20	96	0.022	0.069	0.21	0.20	0.44	0.40	0.88	2.9
n-Butane	0.28	0.29	0.27	0.24	0.30	0.29	0.26	0.28	0.20	139	0.022	0.068	0.20	0.20	0.47	0.40	0.95	3.0
Bromomethane	0.12	0.12	0.12	0.09	0.12	0.06	0.11	0.11	0.20	53	0.023	0.073	0.22	0.20	0.78	0.40	1.6	2.7
Chloroethane	0.08	0.16	0.08	0.16	0.24	0.20	0.17	0.15	0.20	77	0.058	0.18	0.54	0.20	0.53	0.40	1.1	1.1
Ethanol	0.24	0.11	0.17	0.20	0.27	0.29	0.22	0.21	0.20	107	0.061	0.19	0.57	0.20	0.38	0.40	0.75	1.0
Vinyl bromide	0.14	0.14	0.14	0.12	0.16	0.17	0.14	0.14	0.20	72	0.015	0.047	0.14	0.20	0.87	0.40	1.7	4.3
Acrolein	0.20	0.24	0.21	0.19	0.10	0.22	0.20	0.19	0.20	97	0.043	0.14	0.41	0.20	0.46	0.40	0.92	1.5
Acetone	0.26	0.26	0.25	0.23	0.28	0.19	0.24	0.24	0.20	122	0.028	0.088	0.26	0.20	0.48	0.40	0.95	2.3
Trichlorofluoromethane	0.33	0.35	0.35	0.32	0.38	0.38	0.35	0.35	0.20	176	0.023	0.072	0.22	0.20	1.1	0.40	2.2	3
Isopropanol	0.34	0.35	0.33	0.30	0.40	0.34	0.32	0.34	0.20	170	0.032	0.10	0.30	0.20	0.49	0.40	0.98	2.0
n-Pentane	0.31	0.33	0.32	0.28	0.31	0.32	0.30	0.31	0.20	155	0.015	0.046	0.14	0.20	0.59	0.40	1.2	4.3
1,1-Dichloroethene	0.21	0.23	0.22	0.20	0.25	0.25	0.22	0.23	0.20	113	0.017	0.054	0.16	0.20	0.79	0.40	1.6	3.7
Methylene chloride	0.27	0.27	0.26	0.25	0.29	0.29	0.28	0.27	0.20	137	0.014	0.045	0.13	0.20	0.69	0.40	1.4	4.5
Tert-butyl alcohol	0.36	0.36	0.35	0.30	0.34	0.38	0.31	0.34	0.20	172	0.030	0.093	0.28	0.20	0.61	0.40	1.2	2.2
Allyl Chloride	0.22	0.22	0.21	0.18	0.22	0.23	0.19	0.21	0.20	105	0.017	0.054	0.16	0.20	0.63	0.40	1.3	3.7
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	0.36	0.35	0.31	0.37	0.38	0.35	0.35	0.20	175	0.022	0.068	0.20	0.20	1.5	0.40	3.1	2.9
Carbon disulfide	0.17	0.19	0.18	0.15	0.20	0.19	0.17	0.18	0.20	89	0.017	0.052	0.16	0.20	0.62	0.40	1.2	3.8
1,2-Dichloroethene (trans)	0.21	0.24	0.22	0.20	0.24	0.24	0.21	0.22	0.20	112	0.018	0.057	0.17	0.20	0.79	0.40	1.6	3.5
1,1-Dichloroethane	0.29	0.32	0.29	0.28	0.33	0.34	0.30	0.31	0.20	155	0.022	0.069	0.21	0.20	0.81	0.40	1.6	2.9
Methyl tert-butyl ether	0.26	0.28	0.25	0.22	0.27	0.27	0.24	0.26	0.20	128	0.020	0.064	0.19	0.20	0.72	0.40	1.4	3.1
Methyl ethyl ketone	0.35	0.37	0.34	0.31	0.38	0.37	0.34	0.35	0.20	176	0.024	0.077	0.23	0.20	0.59	0.40	1.2	2.6
1,2-Dichloroethene (cis)	0.25	0.27	0.25	0.22	0.27	0.27	0.24	0.25	0.20	127	0.019	0.058	0.17	0.20	0.79	0.40	1.6	3.4
Ethyl acetate	0.46	0.48	0.49	0.44	0.51	0.54	0.45	0.48	0.20	241	0.035	0.11	0.33	0.20	0.72	0.40	1.4	1.8
n-Hexane	0.33	0.35	0.34	0.31	0.38	0.35	0.32	0.34	0.20	170	0.022	0.069	0.21	0.20	0.70	0.40	1.4	2.9
Chloroform	0.29	0.33	0.31	0.29	0.34	0.34	0.31	0.31	0.20	157	0.022	0.068	0.20	0.20	0.98	0.40	2.0	2.9
Tetrahydrofuran	0.39	0.41	0.41	0.35	0.43	0.43	0.38	0.40	0.20	200	0.026	0.082	0.24	0.20	0.59	0.40	1.2	2.5
1,2-Dichloroethane	0.32	0.34	0.33	0.30	0.37	0.37	0.34	0.34	0.20	170	0.026	0.082	0.25	0.20	0.81	0.40	1.6	2.4
1,1,1-Trichloroethane	0.31	0.33	0.31	0.28	0.34	0.34	0.31	0.32	0.20	158	0.020	0.064	0.19	0.20	1.1	0.40	2.2	3.1
Benzene	0.33	0.35	0.33	0.30	0.35	0.36	0.32	0.33	0.20	167	0.021	0.065	0.20	0.20	0.64	0.40	1.3	3
Carbon tetrachloride	0.25	0.27	0.24	0.22	0.26	0.27	0.25	0.25	0.20	126	0.016	0.050	0.15	0.20	1.3	0.40	2.5	4.0
Cyclohexane	0.27	0.29	0.27	0.24	0.29	0.28	0.25	0.27	0.20	134	0.019	0.061	0.18	0.20	0.69	0.40	1.4	3.3
1,2-Dichloropropane	0.40	0.41	0.41	0.38	0.44	0.44	0.40	0.41	0.20	206	0.023	0.071	0.21	0.20	0.92	0.40	1.8	2.8
Bromodichloromethane	0.32	0.34	0.33	0.30	0.36	0.35	0.32	0.33	0.20	165	0.021	0.066	0.20	0.20	1.3	0.40	2.7	3.0
2,2,4-Trimethylpentane	0.22	0.25	0.24	0.20	0.25	0.26	0.22	0.23	0.20	117	0.021	0.065	0.20	0.20	0.93	0.40	1.9	3.1
Trichloroethene	0.36	0.38	0.37	0.32	0.39	0.39	0.35	0.37	0.20	183	0.026	0.080	0.24	0.20	1.1	0.40	2.1	2.5
1,4-Dioxane	0.39	0.41	0.38	0.35	0.41	0.41	0.36	0.39	0.20	194	0.024	0.076	0.23	0.20	0.72	0.40	1.4	2.6
Methyl methacrylate	0.39	0.42	0.38	0.37	0.42	0.41	0.38	0.40	0.20	198	0.023	0.071	0.21	0.20	0.82	0.40	1.6	2.8
n-Heptane	0.35	0.37	0.35	0.31	0.37	0.36	0.34	0.35	0.20	175	0.022	0.068	0.20	0.20	0.82	0.40	1.6	3.0
1,3-Dichloropropene (cis)	0.33	0.35	0.33	0.31	0.36	0.36	0.32	0.34	0.20	169	0.020	0.063	0.19	0.20	0.91	0.40	1.8	3.2
Methyl isobutyl ketone	0.44	0.48	0.45	0.42	0.51	0.50	0.44	0.46	0.20	232	0.034	0.11	0.32	0.20	0.82	0.40	1.6	1.9
1,3-Dichloropropene (trans)	0.37	0.39	0.36	0.34	0.40	0.39	0.35	0.37	0.20	186	0.020	0.063	0.19	0.20	0.91	0.40	1.8	3.2
1,1,2-Trichloroethane	0.40	0.42	0.39	0.36	0.42	0.45	0.41	0.41	0.20	203	0.027	0.085	0.26	0.20	1.1	0.40	2.2	2.4

METHOD DETECTION LIMIT (MDL) REPORT

Integrated Analytical Laboratories - Randolph, NJ

Matrix: Air
Column ID: Restek Rtx-1, 60 meter, 0.32mm ID, 1 um
Instrument ID: GC - Agilent 7890A / MS - Agilent 5975C (IAL ID: *Instrument AA*)
Report Prepared by: Jeff Schmitt
Preparation Date: 6/27/17

MDL Effective Date: 6/27/2017
MDL Expiration Date: 6/27/2018
MDL Analysis Date: 6/27/2017
Analyst: Jeff Schmitt

Filename	Run #	Date	Time	Filename	Run #	Date	Time
aa2539	Run 1	6/27/2017	11:54	aa2544	Run 6	6/27/2017	14:44
aa2540	Run 2	6/27/2017	12:28	aa2545	Run 7	6/27/2017	15:18
aa2541	Run 3	6/27/2017	13:02				
aa2542	Run 4	6/27/2017	13:36				
aa2543	Run 5	6/27/2017	14:10				

Compound Name	Run 1*	Run 2*	Run 3*	Run 4*	Run 5*	Run 6*	Run 7*	MEAN Value	TRUE Value	Percent Recovery	Std Dev Conc	**MDL ppbv**	**PQL ppbv**	NY/ LLTO-15/ PA RL ppbv	NY/ LLTO-15/ PA RL µg/m³	NJ TO-15 RL ppbv	NJ TO-15 RL µg/m³	True value/ MDL
Toluene	0.43	0.45	0.43	0.38	0.45	0.44	0.42	0.43	0.20	214	0.025	0.077	0.23	0.20	0.75	0.40	1.5	2.6
Methyl n-butyl ketone	0.48	0.50	0.47	0.43	0.51	0.52	0.46	0.48	0.20	240	0.031	0.10	0.30	0.20	0.82	0.40	1.6	2.0
Dibromochloromethane	0.27	0.28	0.27	0.24	0.29	0.29	0.27	0.27	0.20	136	0.016	0.051	0.15	0.20	1.7	0.40	3.4	4
1,2-Dibromoethane	0.38	0.40	0.38	0.34	0.41	0.41	0.36	0.38	0.20	192	0.025	0.078	0.23	0.20	1.5	0.40	3.1	2.6
Tetrachloroethene	0.41	0.43	0.43	0.39	0.46	0.46	0.41	0.43	0.20	213	0.025	0.078	0.24	0.20	1.4	0.40	2.7	2.5
Chlorobenzene	0.39	0.41	0.40	0.36	0.43	0.43	0.39	0.40	0.20	200	0.026	0.080	0.24	0.20	0.92	0.40	1.8	2.5
Ethylbenzene	0.36	0.38	0.35	0.32	0.38	0.37	0.34	0.36	0.20	179	0.023	0.071	0.21	0.20	0.87	0.40	1.7	3
Xylenes (m&p)	0.75	0.76	0.72	0.67	0.77	0.76	0.68	0.73	0.40	182	0.040	0.13	0.38	0.40	1.7	0.40	1.7	1.6
Bromoform	0.22	0.23	0.22	0.20	0.24	0.24	0.22	0.23	0.20	113	0.014	0.045	0.13	0.20	2.1	0.40	4.1	4
Styrene	0.33	0.34	0.32	0.28	0.35	0.33	0.30	0.32	0.20	161	0.022	0.069	0.21	0.20	0.85	0.40	1.7	3
1,1,2,2-Tetrachloroethane	0.37	0.38	0.37	0.32	0.38	0.38	0.34	0.36	0.20	182	0.023	0.073	0.22	0.20	1.4	0.40	2.7	2.8
Xylene (o)	0.40	0.41	0.39	0.35	0.43	0.43	0.38	0.40	0.20	199	0.026	0.083	0.25	0.20	0.87	0.40	1.7	2.4
n-Nonane	0.34	0.35	0.32	0.30	0.36	0.36	0.31	0.33	0.20	167	0.023	0.072	0.22	0.20	1.4	0.40	2.1	3
Cumene	0.34	0.36	0.34	0.31	0.37	0.37	0.33	0.35	0.20	173	0.024	0.075	0.23	0.20	1.0	0.40	2.0	3
2-Chlorotoluene	0.36	0.36	0.34	0.32	0.37	0.37	0.34	0.35	0.20	175	0.019	0.059	0.18	0.20	0.98	0.40	2.1	3.4
n-Propyl benzene	0.35	0.37	0.34	0.31	0.37	0.36	0.33	0.35	0.20	173	0.023	0.072	0.22	0.20	1.0	0.40	2.0	2.8
4-Ethyltoluene	0.32	0.34	0.32	0.29	0.34	0.34	0.30	0.32	0.20	161	0.020	0.062	0.19	0.20	0.98	0.40	2.0	3.2
1,3,5-Trimethylbenzene	0.32	0.34	0.32	0.28	0.34	0.34	0.30	0.32	0.20	160	0.022	0.069	0.21	0.20	0.98	0.40	2.0	2.9
1,2,4-Trimethylbenzene	0.31	0.32	0.30	0.27	0.32	0.31	0.28	0.30	0.20	151	0.022	0.069	0.21	0.20	0.98	0.40	2.0	3
Benzyl chloride	0.27	0.27	0.25	0.23	0.27	0.27	0.24	0.26	0.20	129	0.018	0.056	0.17	0.20	1.0	0.40	2.1	3.6
1,3-Dichlorobenzene	0.38	0.39	0.37	0.34	0.40	0.40	0.36	0.38	0.20	189	0.023	0.072	0.22	0.20	1.2	0.40	2.4	2.8
1,4-Dichlorobenzene	0.36	0.38	0.35	0.32	0.38	0.38	0.34	0.36	0.20	179	0.024	0.076	0.23	0.20	1.2	0.40	2.4	2.6
1,2-Dichlorobenzene	0.36	0.37	0.36	0.33	0.38	0.38	0.34	0.36	0.20	179	0.020	0.063	0.19	0.20	1.2	0.40	2.4	3.2
1,2,4-Trichlorobenzene	0.41	0.41	0.39	0.35	0.41	0.41	0.38	0.40	0.20	198	0.024	0.077	0.23	0.20	1.5	0.40	3.0	3
Naphthalene	0.41	0.41	0.39	0.36	0.41	0.40	0.35	0.39	0.20	194	0.025	0.079	0.24	0.20	1.0	0.40	2.1	2.5
1,3-Hexachlorobutadiene	0.40	0.42	0.40	0.38	0.43	0.45	0.40	0.41	0.20	206	0.024	0.075	0.22	0.20	2.1	0.40	4.3	2.7

Processing Method: C:\MSDCHEM\1\METHODS\AA0612.M
Initial Calibration: C:\MSDCHEM\1\METHODS\AA0612.M
Location of this file: P:\PAL Reports\2015\LLTO-15 and TO-15 Common Files\Agilent MDL

Michael Leftin, Ph.D.
Laboratory Director
Date: July 5, 2017

Lauren Jenkins
Air Division Quality Assurance Officer
Date: July 5, 2017

Instrument used for Clean Canister Certification Analysis? YES

Section V: Quality Control Data Summary

BFB Tune Summary

Method Blank

Laboratory Control Sample

Laboratory Sample Duplicate

Clean Canister Certification

Internal Standard Area Summary

BFB

Data Path: C:\DATA\09-12-17\

Data File: AA3441BFB.D

Acq On: 9/12/2017 8:18:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0816.M

Last Update: Thu Aug 17 08:51:27 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	77682	13.2
PASS	75	95	30	66	348928	59.5
PASS	95	95	100	100	586303	100.0
PASS	96	95	5	9	39699	6.8
PASS	173	174	0.00	2	3809	0.9
PASS	174	95	50	100	410368	70.0
PASS	175	174	4	9	30821	7.5
PASS	176	174	93	101	385131	93.9
PASS	177	176	5	9	25240	6.6

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA3441BFB	NA	9/12/2017 8:18:00 AM
40 PPBV STD	AA3443STD01	NA	9/12/2017 9:44:00 AM
20 PPBV STD	AA3444STD02	NA	9/12/2017 10:17:00 AM
10 PPBV STD	AA3445STD03	NA	9/12/2017 10:51:00 AM
2 PPBV STD	AA3446STD04	NA	9/12/2017 11:24:00 AM
0.2 PPBV STD	AA3447STD05	NA	9/12/2017 12:06:00 PM
10 PPBV ICVSS	AA3448ICVSS	NA	9/12/2017 1:28:00 PM

BFB

Data Path: C:\DATA\11-14-17\

Data File: AA4081BFB.D

Acq On: 11/14/2017 5:53:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	69276	14.4
PASS	75	95	30	66	312555	64.9
PASS	95	95	100	100	481259	100.0
PASS	96	95	5	9	30610	6.4
PASS	173	174	0.00	2	2363	0.7
PASS	174	95	50	100	344595	71.6
PASS	175	174	4	9	23955	7.0
PASS	176	174	93	101	326059	94.6
PASS	177	176	5	9	21201	6.5

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4081BFB	NA	11/14/2017 5:53:00 AM
10 PPBV DCVS	AA4082DCVS	NA	11/14/2017 7:01:00 AM
10 PPBV LCS	AA4083LCS	NA	11/14/2017 8:21:00 AM
METHOD BLANK	AA4084BLK	NA	11/14/2017 8:55:00 AM
02 PPBV RLLCS	AA4085RLLCS	NA	11/14/2017 10:08:00 AM
3289	AA4086	NA	11/14/2017 10:57:00 AM
10 PPBV CCCVS	AA4103CCCVS	NA	11/14/2017 7:58:00 PM

BFB

Data Path: C:\DATA\11-29-17\

Data File: AA4301BFB.D

Acq On: 11/29/2017 8:42:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	97565	15.2
PASS	75	95	30	66	400064	62.3
PASS	95	95	100	100	641984	100.0
PASS	96	95	5	9	39141	6.1
PASS	173	174	0.00	2	5077	1.1
PASS	174	95	50	100	482837	75.2
PASS	175	174	4	9	36367	7.5
PASS	176	174	93	101	469473	97.2
PASS	177	176	5	9	28931	6.2

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4301BFB	NA	11/29/2017 8:42:00 AM
10 PPBV DCVS	AA4302DCVS	NA	11/29/2017 10:04:00 AM
10 PPBV LCS	AA4303LCS	NA	11/29/2017 10:45:00 AM
METHOD BLANK	AA4304BLK	NA	11/29/2017 11:19:00 AM
02 PPBV RLLCS	AA4305RLLCS	NA	11/29/2017 11:59:00 AM
3059	AA4306	NA	11/29/2017 2:35:00 PM
10 PPBV CCCVS	AA4319CCCVS	NA	11/29/2017 10:05:00 PM

BFB

Data Path: C:\DATA\12-05-17\

Data File: AA4401BFB.D

Acq On: 12/5/2017 8:49:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	67656	15.4
PASS	75	95	30	66	270699	61.7
PASS	95	95	100	100	438955	100.0
PASS	96	95	5	9	29584	6.7
PASS	173	174	0.00	2	2950	0.9
PASS	174	95	50	100	337749	76.9
PASS	175	174	4	9	24002	7.1
PASS	176	174	93	101	326443	96.7
PASS	177	176	5	9	20030	6.1

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4401BFB	NA	12/5/2017 8:49:00 AM
10 PPBV DCVS	AA4402DCVS	NA	12/5/2017 10:03:00 AM
10 PPBV LCS	AA4403LCS	NA	12/5/2017 10:38:00 AM
METHOD BLANK	AA4404BLK	NA	12/5/2017 11:09:00 AM
02 PPBV RLLCS	AA4405RLLCS	NA	12/5/2017 11:49:00 AM
4853	AA4406	NA	12/5/2017 12:22:00 PM
2156	AA4407	NA	12/5/2017 12:56:00 PM
10 PPBV CCCVS	AA4412CCCVS	NA	12/5/2017 3:44:00 PM

BFB

Data Path: C:\DATA\12-08-17\

Data File: AA4421BFB.D

Acq On: 12/8/2017 11:01:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0912.M

Last Update: Tue Sep 12 13:00:02 2017

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	79277	18.1
PASS	75	95	30	66	190647	43.6
PASS	95	95	100	100	437324	100.0
PASS	96	95	5	9	32059	7.3
PASS	173	174	0.00	2	350	0.1
PASS	174	95	50	100	317504	72.6
PASS	175	174	4	9	19316	6.1
PASS	176	174	93	101	308691	97.2
PASS	177	176	5	9	21179	6.9

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4421BFB	NA	12/8/2017 11:01:00 AM
40 PPBV STD	AA4423STD01	NA	12/8/2017 3:47:00 PM
20 PPBV STD	AA4424STD02	NA	12/8/2017 4:21:00 PM
10 PPBV STD	AA4425STD03	NA	12/8/2017 4:55:00 PM
2 PPBV STD	AA4426STD04	NA	12/8/2017 5:29:00 PM
0.2 PPBV STD	AA4427STD05	NA	12/8/2017 6:02:00 PM
10 PPBV ICVSS	AA4428ICVSS	NA	12/8/2017 6:36:00 PM
10 PPBV LCS	AA4428LCS	NA	12/8/2017 6:36:00 PM
BLK	AA4429BLK	NA	12/8/2017 7:10:00 PM
RLLCS	AA4430RLLCS	NA	12/8/2017 7:50:00 PM
2160	AA4431	NA	12/8/2017 8:24:00 PM
2066	AA4432	NA	12/8/2017 8:58:00 PM
CCCVS	AA4433CCCVS	NA	12/8/2017 9:31:00 PM

BFB

Data Path: C:\DATA\01-12-18\

Data File: AA4871BFB.D

Acq On: 1/12/2018 10:59:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0112.M

Last Update: Mon Jan 15 08:28:10 2018

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	177318	21.2
PASS	75	95	30	66	450788	53.8
PASS	95	95	100	100	837606	100.0
PASS	96	95	5	9	58213	6.9
PASS	173	174	0.00	2	3622	0.7
PASS	174	95	50	100	489579	58.4
PASS	175	174	4	9	34217	7.0
PASS	176	174	93	101	477606	97.6
PASS	177	176	5	9	30512	6.4

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4871BFB	NA	1/12/2018 10:59:00 AM
40 PPBV STD	AA4873STD01	NA	1/12/2018 12:42:00 PM
20 PPBV STD	AA4874STD02	NA	1/12/2018 1:15:00 PM
10 PPBV STD	AA4875STD03	NA	1/12/2018 1:49:00 PM
2 PPBV STD	AA4876STD04	NA	1/12/2018 2:22:00 PM
0.2 PPBV STD	AA4877STD05	NA	1/12/2018 3:42:00 PM
10 PPBV ICVSS	AA4878ICVSS	NA	1/12/2018 4:23:00 PM
10 PPBV LCS	AA4878LCS	NA	1/12/2018 4:23:00 PM
METHOD BLANK	AA4879BLK	NA	1/12/2018 4:57:00 PM

BFB

Data Path: C:\DATA\01-15-18\

Data File: AA4891BFB.D

Acq On: 1/15/2018 8:20:00AM

Operator: jls

Sample: BFB

Misc: ALM029426

ALS Vial: 1 **Multiplier:** 1

Integration File: rteint.p

Method: C:\msdchem\1\METHODS\0112.M

Last Update: Mon Jan 15 08:28:10 2018

Spectrum Information:

PassFail	Target Mass	Rel. to Mass	Lower Limit %	Higher Limit %	Raw Abundance	% Relative Abundance
PASS	50	95	8	40	127079	21.6
PASS	75	95	30	66	318489	54.2
PASS	95	95	100	100	587470	100.0
PASS	96	95	5	9	39953	6.8
PASS	173	174	0.00	2	2531	0.7
PASS	174	95	50	100	342839	58.4
PASS	175	174	4	9	24723	7.2
PASS	176	174	93	101	330375	96.4
PASS	177	176	5	9	21812	6.6

Runs with this BFB:

Lab Sample Number	Date File	Field Sample	Date/Time of Sample/Standard Analysis
BFB	AA4891BFB	NA	1/15/2018 8:20:00 AM
10 PPBV DCVS	AA4892DCVS	NA	1/15/2018 8:59:00 AM
10 PPBV LCS	AA4893LCS	NA	1/15/2018 9:43:00 AM
METHOD BLANK	AA4894BLK	NA	1/15/2018 10:57:00 AM
02 PPBV RLLCS	AA4895RLLCS	NA	1/15/2018 12:11:00 PM
5073	AA4902	NA	1/15/2018 4:05:00 PM
3016	AA4903	NA	1/15/2018 4:39:00 PM
2162	AA4904	NA	1/15/2018 5:12:00 PM
3281	AA4905	NA	1/15/2018 5:46:00 PM
E18-00010-01	AA4908	A1	1/15/2018 7:27:00 PM
E18-00010-21	AA4909	A1 Dup	1/15/2018 8:01:00 PM
E18-00010-02	AA4910	A2	1/15/2018 8:35:00 PM
E18-00010-03	AA4911	A3	1/15/2018 9:09:00 PM
E18-00010-04	AA4912	A4	1/15/2018 9:42:00 PM
10 PPBV CCCVS	AA4914CCCVS	NA	1/15/2018 10:50:00 PM

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4084BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**11/14/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 5:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 7:01
10 PPBV LCS [AA4083LCS]	11/14/2017 8:21
METHOD BLANK [AA4084BLK]	11/14/2017 8:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4084BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**11/14/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 5:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 7:01
10 PPBV LCS [AA4083LCS]	11/14/2017 8:21
METHOD BLANK [AA4084BLK]	11/14/2017 8:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4304BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**11/29/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 8:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4304BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**11/29/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 8:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4404BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**12/5/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 8:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
4853 [AA4406]	12/05/2017 12:22
2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4404BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**12/5/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 8:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
4853 [AA4406]	12/05/2017 12:22
2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**BLK**	**Data File:**	**AA4429BLK**
Field Sample Name:	**BLK**	**Date Analyzed:**	**12/8/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV STD [AA4423STD01]	12/08/2017 15:47
20 PPBV STD [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV STD [AA4426STD04]	12/08/2017 17:29
0.2 PPBV STD [AA4427STD05]	12/08/2017 18:02
10 PPBV LCS [AA4428LCS]	12/08/2017 18:36
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36
BLK [AA4429BLK]	12/08/2017 19:10
RLLCS [AA4430RLLCS]	12/08/2017 19:50
2160 [AA4431]	12/08/2017 20:24
2066 [AA4432]	12/08/2017 20:58
CCCVS [AA4433CCCVS]	12/08/2017 21:31

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**BLK**	**Data File:**	**AA4429BLK**
Field Sample Name:	**BLK**	**Date Analyzed:**	**12/8/2017**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV STD [AA4423STD01]	12/08/2017 15:47
20 PPBV STD [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV STD [AA4426STD04]	12/08/2017 17:29
0.2 PPBV STD [AA4427STD05]	12/08/2017 18:02
10 PPBV LCS [AA4428LCS]	12/08/2017 18:36
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36
BLK [AA4429BLK]	12/08/2017 19:10
RLLCS [AA4430RLLCS]	12/08/2017 19:50
2160 [AA4431]	12/08/2017 20:24
2066 [AA4432]	12/08/2017 20:58
CCCVS [AA4433CCCVS]	12/08/2017 21:31

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4894BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**1/15/2018**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 8:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 8:59
10 PPBV LCS [AA4893LCS]	01/15/2018 9:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
5073 [AA4902]	01/15/2018 16:05
3016 [AA4903]	01/15/2018 16:39
2162 [AA4904]	01/15/2018 17:12
3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.14	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.16	ND
Carbon tetrachloride	56-23-5	0.15	ND
Cyclohexane	110-82-7	0.18	ND
Dibromochloromethane	124-48-1	0.15	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.19	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.15	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.16	ND
1,2-Dichloroethene (cis)	156-59-2	0.17	ND
1,2-Dichloroethene (trans)	156-60-5	0.17	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.19	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4894BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**1/15/2018**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 8:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 8:59
10 PPBV LCS [AA4893LCS]	01/15/2018 9:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
5073 [AA4902]	01/15/2018 16:05
3016 [AA4903]	01/15/2018 16:39
2162 [AA4904]	01/15/2018 17:12
3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
1,3-Dichloropropene (trans)	10061-02-6	0.19	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.18	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.14	ND
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.19	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.19	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.14	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Method Blank Report

Lab Sample Name:	**METHOD BLANK**	**Data File:**	**AA4894BLK**
Field Sample Name:	**METHOD BLANK**	**Date Analyzed:**	**1/15/2018**
Matrix:	**Air**	**Sample Volume:**	**500ml**
Dilution Factor:	**1**	**GC/MS Column:**	**RTX-1, 0.32 mmID**

Runs with this Method Blank:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 8:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 8:59
10 PPBV LCS [AA4893LCS]	01/15/2018 9:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
5073 [AA4902]	01/15/2018 16:05
3016 [AA4903]	01/15/2018 16:39
2162 [AA4904]	01/15/2018 17:12
3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound	CAS #	Reporting Limit (ppbv)	Concentration (ppbv)
Vinyl chloride	75-01-4	0.14	ND
Xylenes (m&p)	179601-23-1	0.20	ND
Xylenes (o)	95-47-6	0.20	ND

Method Blank must be less than the Practical Quantitation Limit (PQL).

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4083LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 11/14/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 5:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 7:01
10 PPBV LCS [AA4083LCS]	11/14/2017 8:21
METHOD BLANK [AA4084BLK]	11/14/2017 8:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	9.1	91
Benzene	71-43-2	8.5	85
Bromodichloromethane	75-27-4	10	100
Bromoform	75-25-2	10	100
Bromomethane	74-83-9	11	110
1,3-Butadiene	106-99-0	8.7	87
Chlorobenzene	108-90-7	9.1	91
Chloroethane	75-00-3	9.1	91
Chloroform	67-66-3	9.6	96
Chloromethane	74-87-3	8.6	86
Carbon disulfide	75-15-0	9.0	90
Carbon tetrachloride	56-23-5	10	100
Cyclohexane	110-82-7	9.0	90
Dibromochloromethane	124-48-1	10	100
1,2-Dibromoethane	106-93-4	9.4	94
1,2-Dichlorobenzene	95-50-1	9.8	98
1,3-Dichlorobenzene	541-73-1	9.8	98
1,4-Dichlorobenzene	106-46-7	9.8	98
Dichlorodifluoromethane	75-71-8	10	100
1,1-Dichloroethane	75-34-3	8.5	85
1,2-Dichloroethane	107-06-2	9.6	96
1,1-Dichloroethene	75-35-4	9.6	96
1,2-Dichloroethene (cis)	156-59-2	8.7	87
1,2-Dichloroethene (trans)	156-60-5	8.7	87
1,2-Dichloropropane	78-87-5	8.2	82
1,3-Dichloropropene (cis)	10061-01-5	9.4	94
1,3-Dichloropropene (trans)	10061-02-6	9.7	97
1,2-Dichlorotetrafluoroethane	76-14-2	9.3	93
1,4-Dioxane	123-91-1	8.5	85
Ethylbenzene	100-41-4	10	100
n-Heptane	142-82-5	11	110
1,3-Hexachlorobutadiene	87-68-3	9.4	94
n-Hexane	110-54-3	7.8	78

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA4083LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **11/14/2017**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 5:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 7:01
10 PPBV LCS [AA4083LCS]	11/14/2017 8:21
METHOD BLANK [AA4084BLK]	11/14/2017 8:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Methylene chloride	75-09-2	8.2	82
Methyl ethyl ketone	78-93-3	9.7	97
Methyl isobutyl ketone	108-10-1	8.9	89
Methyl tert-butyl ether	1634-04-4	8.9	89
Styrene	100-42-5	10	100
Tert-butyl alcohol	75-65-0	8.2	82
1,1,2,2-Tetrachloroethane	79-34-5	9.2	92
Tetrachloroethene	127-18-4	9.4	94
Toluene	108-88-3	9.7	97
1,2,4-Trichlorobenzene	120-82-1	9.2	92
1,1,1-Trichloroethane	71-55-6	9.7	97
1,1,2-Trichloroethane	79-00-5	9.1	91
Trichloroethene	79-01-6	9.5	95
Trichlorofluoromethane	75-69-4	10	100
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8.8	88
1,2,4-Trimethylbenzene	95-63-6	11	110
1,3,5-Trimethylbenzene	108-67-8	11	110
2,2,4-Trimethylpentane	540-84-1	8.9	89
Vinyl bromide	593-60-2	9.4	94
Vinyl chloride	75-01-4	8.5	85
Xylenes (m&p)	179601-23-1	21	110
Xylenes (o)	95-47-6	11	110

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.
*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4303LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 11/29/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 8:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	9.3	93
Benzene	71-43-2	9.5	95
Bromodichloromethane	75-27-4	11	110
Bromoform	75-25-2	12	120
Bromomethane	74-83-9	12	120
1,3-Butadiene	106-99-0	8.9	89
Chlorobenzene	108-90-7	9.5	95
Chloroethane	75-00-3	9.2	92
Chloroform	67-66-3	10	100
Chloromethane	74-87-3	10	100
Carbon disulfide	75-15-0	8.9	89
Carbon tetrachloride	56-23-5	12	120
Cyclohexane	110-82-7	9.4	94
Dibromochloromethane	124-48-1	12	120
1,2-Dibromoethane	106-93-4	11	110
1,2-Dichlorobenzene	95-50-1	10	100
1,3-Dichlorobenzene	541-73-1	10	100
1,4-Dichlorobenzene	106-46-7	10	100
Dichlorodifluoromethane	75-71-8	12	120
1,1-Dichloroethane	75-34-3	9.1	91
1,2-Dichloroethane	107-06-2	11	110
1,1-Dichloroethene	75-35-4	11	110
1,2-Dichloroethene (cis)	156-59-2	9.7	97
1,2-Dichloroethene (trans)	156-60-5	9.7	97
1,2-Dichloropropane	78-87-5	9.0	90
1,3-Dichloropropene (cis)	10061-01-5	10	100
1,3-Dichloropropene (trans)	10061-02-6	11	110
1,2-Dichlorotetrafluoroethane	76-14-2	10	100
1,4-Dioxane	123-91-1	9.5	95
Ethylbenzene	100-41-4	9.9	99
n-Heptane	142-82-5	11	110
1,3-Hexachlorobutadiene	87-68-3	11	110
n-Hexane	110-54-3	9.5	95

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA4303LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **11/29/2017**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 8:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Methylene chloride	75-09-2	8.1	81
Methyl ethyl ketone	78-93-3	10	100
Methyl isobutyl ketone	108-10-1	11	110
Methyl tert-butyl ether	1634-04-4	9.8	98
Styrene	100-42-5	11	110
Tert-butyl alcohol	75-65-0	9.7	97
1,1,2,2-Tetrachloroethane	79-34-5	9.0	90
Tetrachloroethene	127-18-4	12	120
Toluene	108-88-3	10	100
1,2,4-Trichlorobenzene	120-82-1	10	100
1,1,1-Trichloroethane	71-55-6	11	110
1,1,2-Trichloroethane	79-00-5	10	100
Trichloroethene	79-01-6	11	110
Trichlorofluoromethane	75-69-4	11	110
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	9.6	96
1,2,4-Trimethylbenzene	95-63-6	11	110
1,3,5-Trimethylbenzene	108-67-8	11	110
2,2,4-Trimethylpentane	540-84-1	11	110
Vinyl bromide	593-60-2	11	110
Vinyl chloride	75-01-4	9.6	96
Xylenes (m&p)	179601-23-1	21	100
Xylenes (o)	95-47-6	10	100

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.
*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4403LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 12/5/2017

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 8:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
4853 [AA4406]	12/05/2017 12:22
2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	9.3	93
Benzene	71-43-2	9.0	90
Bromodichloromethane	75-27-4	11	110
Bromoform	75-25-2	12	120
Bromomethane	74-83-9	11	110
1,3-Butadiene	106-99-0	8.6	86
Chlorobenzene	108-90-7	9.2	92
Chloroethane	75-00-3	8.7	87
Chloroform	67-66-3	9.7	97
Chloromethane	74-87-3	8.7	87
Carbon disulfide	75-15-0	8.6	86
Carbon tetrachloride	56-23-5	11	110
Cyclohexane	110-82-7	9.0	90
Dibromochloromethane	124-48-1	12	120
1,2-Dibromoethane	106-93-4	10	100
1,2-Dichlorobenzene	95-50-1	10	100
1,3-Dichlorobenzene	541-73-1	10	100
1,4-Dichlorobenzene	106-46-7	10	100
Dichlorodifluoromethane	75-71-8	12	120
1,1-Dichloroethane	75-34-3	8.7	87
1,2-Dichloroethane	107-06-2	11	110
1,1-Dichloroethene	75-35-4	10	100
1,2-Dichloroethene (cis)	156-59-2	9.3	93
1,2-Dichloroethene (trans)	156-60-5	9.5	95
1,2-Dichloropropane	78-87-5	8.6	86
1,3-Dichloropropene (cis)	10061-01-5	10	100
1,3-Dichloropropene (trans)	10061-02-6	10	100
1,2-Dichlorotetrafluoroethane	76-14-2	9.8	98
1,4-Dioxane	123-91-1	9.5	95
Ethylbenzene	100-41-4	9.6	96
n-Heptane	142-82-5	11	110
1,3-Hexachlorobutadiene	87-68-3	11	110

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA4403LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **12/5/2017**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 8:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
4853 [AA4406]	12/05/2017 12:22
2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
n-Hexane	110-54-3	9.0	90
Methylene chloride	75-09-2	7.8	78
Methyl ethyl ketone	78-93-3	9.6	96
Methyl isobutyl ketone	108-10-1	10	100
Methyl tert-butyl ether	1634-04-4	9.5	95
Styrene	100-42-5	10	100
Tert-butyl alcohol	75-65-0	9.7	97
1,1,2,2-Tetrachloroethane	79-34-5	8.8	88
Tetrachloroethene	127-18-4	11	110
Toluene	108-88-3	9.9	99
1,2,4-Trichlorobenzene	120-82-1	10	100
1,1,1-Trichloroethane	71-55-6	10	100
1,1,2-Trichloroethane	79-00-5	9.9	99
Trichloroethene	79-01-6	11	110
Trichlorofluoromethane	75-69-4	11	110
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	9.2	92
1,2,4-Trimethylbenzene	95-63-6	11	110
1,3,5-Trimethylbenzene	108-67-8	11	110
2,2,4-Trimethylpentane	540-84-1	10	100
Vinyl bromide	593-60-2	10	100
Vinyl chloride	75-01-4	9.3	93
Xylenes (m&p)	179601-23-1	19	96
Xylenes (o)	95-47-6	10	100

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.
*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA4428LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **12/8/2017**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
10 PPBV LCS [AA4428LCS]	12/08/2017 18:36
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36
BLK [AA4429BLK]	12/08/2017 19:10
RLLCS [AA4430RLLCS]	12/08/2017 19:50
2160 [AA4431]	12/08/2017 20:24
2066 [AA4432]	12/08/2017 20:58
CCCVS [AA4433CCCVS]	12/08/2017 21:31

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	11	110
Benzene	71-43-2	10.0	100
Bromodichloromethane	75-27-4	9.4	94
Bromoform	75-25-2	9.6	96
Bromomethane	74-83-9	12	120
1,3-Butadiene	106-99-0	10	100
Chlorobenzene	108-90-7	9.7	97
Chloroethane	75-00-3	12	120
Chloroform	67-66-3	9.4	94
Chloromethane	74-87-3	8.5	85
Carbon disulfide	75-15-0	9.4	94
Carbon tetrachloride	56-23-5	10	100
Cyclohexane	110-82-7	9.1	91
Dibromochloromethane	124-48-1	9.1	91
1,2-Dibromoethane	106-93-4	9.2	92
1,2-Dichlorobenzene	95-50-1	9.3	93
1,3-Dichlorobenzene	541-73-1	9.4	94
1,4-Dichlorobenzene	106-46-7	9.2	92
Dichlorodifluoromethane	75-71-8	11	110
1,1-Dichloroethane	75-34-3	9.8	98
1,2-Dichloroethane	107-06-2	8.8	88
1,1-Dichloroethene	75-35-4	9.1	91
1,2-Dichloroethene (cis)	156-59-2	9.1	91
1,2-Dichloroethene (trans)	156-60-5	10	100
1,2-Dichloropropane	78-87-5	9.7	97
1,3-Dichloropropene (cis)	10061-01-5	9.3	93
1,3-Dichloropropene (trans)	10061-02-6	9.3	93
1,2-Dichlorotetrafluoroethane	76-14-2	9.3	93
1,4-Dioxane	123-91-1	10	100
Ethylbenzene	100-41-4	9.5	95
n-Heptane	142-82-5	9.0	90

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA4428LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **12/8/2017**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
10 PPBV LCS [AA4428LCS]	12/08/2017 18:36
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36
BLK [AA4429BLK]	12/08/2017 19:10
RLLCS [AA4430RLLCS]	12/08/2017 19:50
2160 [AA4431]	12/08/2017 20:24
2066 [AA4432]	12/08/2017 20:58
CCCVS [AA4433CCCVS]	12/08/2017 21:31

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
1,3-Hexachlorobutadiene	87-68-3	9.5	95
n-Hexane	110-54-3	11	110
Methylene chloride	75-09-2	10	100
Methyl ethyl ketone	78-93-3	9.6	96
Methyl isobutyl ketone	108-10-1	8.9	89
Methyl tert-butyl ether	1634-04-4	8.4	84
Styrene	100-42-5	9.3	93
Tert-butyl alcohol	75-65-0	9.8	98
1,1,2,2-Tetrachloroethane	79-34-5	9.7	97
Tetrachloroethene	127-18-4	10	100
Toluene	108-88-3	9.1	91
1,2,4-Trichlorobenzene	120-82-1	9.9	99
1,1,1-Trichloroethane	71-55-6	9.2	92
1,1,2-Trichloroethane	79-00-5	9.3	93
Trichloroethene	79-01-6	10	100
Trichlorofluoromethane	75-69-4	9.7	97
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	9.5	95
1,2,4-Trimethylbenzene	95-63-6	10.0	100
1,3,5-Trimethylbenzene	108-67-8	9.5	95
2,2,4-Trimethylpentane	540-84-1	11	110
Vinyl bromide	593-60-2	12	120
Vinyl chloride	75-01-4	12	120
Xylenes (m&p)	179601-23-1	20	99
Xylenes (o)	95-47-6	9.7	97

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.
*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: **10 PPBV LCS** **Data File:** **AA4893LCS**
Spike Amount: **10 ppbv, except m&p-Xylenes at 20 ppbv** **Date Analyzed:** **1/15/2018**

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 8:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 8:59
10 PPBV LCS [AA4893LCS]	01/15/2018 9:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
5073 [AA4902]	01/15/2018 16:05
3016 [AA4903]	01/15/2018 16:39
2162 [AA4904]	01/15/2018 17:12
3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
Acetone	67-64-1	9.5	95
Benzene	71-43-2	9.1	91
Bromodichloromethane	75-27-4	10	100
Bromoform	75-25-2	11	110
Bromomethane	74-83-9	10	100
1,3-Butadiene	106-99-0	9.5	95
Chlorobenzene	108-90-7	9.6	96
Chloroethane	75-00-3	9.3	93
Chloroform	67-66-3	10	100
Chloromethane	74-87-3	8.9	89
Carbon disulfide	75-15-0	10.0	100
Carbon tetrachloride	56-23-5	10	100
Cyclohexane	110-82-7	8.9	89
Dibromochloromethane	124-48-1	10	100
1,2-Dibromoethane	106-93-4	9.8	98
1,2-Dichlorobenzene	95-50-1	9.3	93
1,3-Dichlorobenzene	541-73-1	9.4	94
1,4-Dichlorobenzene	106-46-7	9.3	93
Dichlorodifluoromethane	75-71-8	10	100
1,1-Dichloroethane	75-34-3	9.6	96
1,2-Dichloroethane	107-06-2	9.8	98
1,1-Dichloroethene	75-35-4	10.0	100
1,2-Dichloroethene (cis)	156-59-2	9.7	97
1,2-Dichloroethene (trans)	156-60-5	9.8	98
1,2-Dichloropropane	78-87-5	9.2	92

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4893LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 1/15/2018

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 8:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 8:59
10 PPBV LCS [AA4893LCS]	01/15/2018 9:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
5073 [AA4902]	01/15/2018 16:05
3016 [AA4903]	01/15/2018 16:39
2162 [AA4904]	01/15/2018 17:12
3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
1,3-Dichloropropene (cis)	10061-01-5	9.9	99
1,3-Dichloropropene (trans)	10061-02-6	9.9	99
1,2-Dichlorotetrafluoroethane	76-14-2	9.8	98
1,4-Dioxane	123-91-1	8.9	89
Ethylbenzene	100-41-4	9.9	99
n-Heptane	142-82-5	9.2	92
1,3-Hexachlorobutadiene	87-68-3	9.6	96
n-Hexane	110-54-3	9.0	90
Methylene chloride	75-09-2	8.9	89
Methyl ethyl ketone	78-93-3	9.2	92
Methyl isobutyl ketone	108-10-1	9.1	91
Methyl tert-butyl ether	1634-04-4	9.1	91
Styrene	100-42-5	9.7	97
Tert-butyl alcohol	75-65-0	8.9	89
1,1,2,2-Tetrachloroethane	79-34-5	9.5	95
Tetrachloroethene	127-18-4	9.7	97
Toluene	108-88-3	9.5	95
1,2,4-Trichlorobenzene	120-82-1	9.5	95
1,1,1-Trichloroethane	71-55-6	9.8	98
1,1,2-Trichloroethane	79-00-5	9.6	96
Trichloroethene	79-01-6	10	100
Trichlorofluoromethane	75-69-4	10	100
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	9.2	92
1,2,4-Trimethylbenzene	95-63-6	9.7	97
1,3,5-Trimethylbenzene	108-67-8	9.8	98

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Laboratory Control Spike

Lab Sample Name: 10 PPBV LCS **Data File:** AA4893LCS
Spike Amount: 10 ppbv, except m&p-Xylenes at 20 ppbv **Date Analyzed:** 1/15/2018

Runs with this LCS:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 8:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 8:59
10 PPBV LCS [AA4893LCS]	01/15/2018 9:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
5073 [AA4902]	01/15/2018 16:05
3016 [AA4903]	01/15/2018 16:39
2162 [AA4904]	01/15/2018 17:12
3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound	CAS #	Calculated Amount (ppbv)	% Recovery
2,2,4-Trimethylpentane	540-84-1	9.8	98
Vinyl bromide	593-60-2	10	100
Vinyl chloride	75-01-4	9.5	95
Xylenes (m&p)	179601-23-1	20	98
Xylenes (o)	95-47-6	9.8	98

LCS recovery must be within 70-130% of the spiked value for all compounds except Acetone, Dioxane (1,4-), Hexachlorobutadiene, Naphthalene, and 1,2,4-Trichlorobenzene. These compounds must be within 40-160%.

*** Values outside of QC limits* Values outside of 70-130% QC limits**

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-09832
IAL Sample ID: E17-09832-08
Matrix: Air
Summa ID: 3002

Date Received: 11/13/17
Date Analyzed: 11/14/17,11/14/17
Lab Data File#: AA4091,AA4092
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-09832-08 Concentration Reported ppbv	Q	Sample Dup E17-09832-28 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Acetone	67-64-1	0.20	U	0.20	U	0.20	0.00%
Allyl Chloride	107-05-1	0.20	U	0.20	U	0.20	0.00%
Benzene	71-43-2	0.20	U	0.20	U	0.20	0.00%
Bromodichloromethane	75-27-4	0.20	U	0.20	U	0.20	0.00%
Bromoform	75-25-2	0.20	U	0.20	U	0.20	0.00%
Bromomethane	74-83-9	0.20	U	0.20	U	0.20	0.00%
1,3-Butadiene	106-99-0	0.20	U	0.20	U	0.20	0.00%
Chlorobenzene	108-90-7	0.20	U	0.20	U	0.20	0.00%
Chloroethane	75-00-3	0.20	U	0.20	U	0.20	0.00%
Chloroform	67-66-3	0.20	U	0.20	U	0.20	0.00%
Chloromethane	74-87-3	0.20	U	0.20	U	0.20	0.00%
Carbon disulfide	75-15-0	0.20	U	0.20	U	0.20	0.00%
Carbon tetrachloride	56-23-5	0.20	U	0.20	U	0.20	0.00%
2-Chlorotoluene	95-49-8	0.20	U	0.20	U	0.20	0.00%
Cyclohexane	110-82-7	0.20	U	0.20	U	0.20	0.00%
Dibromochloromethane	124-48-1	0.20	U	0.20	U	0.20	0.00%
1,2-Dibromoethane	106-93-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorobenzene	95-50-1	0.20	U	0.20	U	0.20	0.00%
1,3-Dichlorobenzene	541-73-1	0.20	U	0.20	U	0.20	0.00%
1,4-Dichlorobenzene	106-46-7	0.20	U	0.20	U	0.20	0.00%
Dichlorodifluoromethane	75-71-8	0.20	U	0.20	U	0.20	0.00%
1,1-Dichloroethane	75-34-3	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethane	107-06-2	0.20	U	0.20	U	0.20	0.00%
1,1-Dichloroethene	75-35-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (cis)	156-59-2	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (trans)	156-60-5	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloropropane	78-87-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (cis)	10061-01-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (trans)	10061-02-6	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	U	0.20	U	0.20	0.00%
1,4-Dioxane	123-91-1	0.20	U	0.20	U	0.20	0.00%
Ethanol	64-17-5	**99**	E	**95**	E	0.20	**4.12%**
Ethylbenzene	100-41-4	0.20	U	0.20	U	0.20	0.00%
4-Ethyltoluene	622-96-8	0.20	U	0.20	U	0.20	0.00%
n-Heptane	142-82-5	0.20	U	0.20	U	0.20	0.00%
1,3-Hexachlorobutadiene	87-68-3	0.20	U	0.20	U	0.20	0.00%
n-Hexane	110-54-3	0.20	U	0.20	U	0.20	0.00%
Isopropanol	67-63-0	**5.3**		**5.3**		0.20	**0.00%**

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-09832
IAL Sample ID: E17-09832-08
Matrix: Air
Summa ID: 3002

Date Received: 11/13/17
Date Analyzed: 11/14/17,11/14/17
Lab Data File#: AA4091,AA4092
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-09832-08 Concentration Reported ppbv	Q	Sample Dup E17-09832-28 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Methylene chloride	75-09-2	**6.0**		**6.2**		0.20	**-3.28%**
Methyl ethyl ketone	78-93-3	0.20	U	**0.20**		0.20	**NC**
Methyl isobutyl ketone	108-10-1	0.20	U	0.20	U	0.20	0.00%
Methyl methacrylate	80-62-6	0.20	U	0.20	U	0.20	0.00%
Methyl tert-butyl ether	1634-04-4	0.20	U	0.20	U	0.20	0.00%
Styrene	100-42-5	0.20	U	0.20	U	0.20	0.00%
Tert-butyl alcohol	75-65-0	0.20	U	0.20	U	0.20	0.00%
1,1,2,2-Tetrachloroethane	79-34-5	0.20	U	0.20	U	0.20	0.00%
Tetrachloroethene	127-18-4	0.20	U	0.20	U	0.20	0.00%
Tetrahydrofuran	109-99-9	0.20	U	0.20	U	0.20	0.00%
Toluene	108-88-3	**0.42**		**0.41**		0.20	**2.41%**
1,2,4-Trichlorobenzene	120-82-1	0.20	U	0.20	U	0.20	0.00%
1,1,1-Trichloroethane	71-55-6	0.20	U	0.20	U	0.20	0.00%
1,1,2-Trichloroethane	79-00-5	0.20	U	0.20	U	0.20	0.00%
Trichloroethene	79-01-6	0.20	U	0.20	U	0.20	0.00%
Trichlorofluoromethane	75-69-4	0.20	U	**0.28**		0.20	**NC**
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	U	0.20	U	0.20	0.00%
1,2,4-Trimethylbenzene	95-63-6	0.20	U	0.20	U	0.20	0.00%
1,3,5-Trimethylbenzene	108-67-8	0.20	U	0.20	U	0.20	0.00%
2,2,4-Trimethylpentane	540-84-1	0.20	U	0.20	U	0.20	0.00%
Vinyl bromide	593-60-2	0.20	U	0.20	U	0.20	0.00%
Vinyl chloride	75-01-4	0.20	U	0.20	U	0.20	0.00%
Xylenes (m&p)	179601-23-1	0.40	U	0.40	U	0.40	0.00%
Xylenes (o)	95-47-6	0.20	U	0.20	U	0.20	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-09836
IAL Sample ID: E17-09836-02
Matrix: Air
Summa ID: 2029

Date Received: 11/16/17
Date Analyzed: 11/28/17,11/28/17
Lab Data File#: AA4280,AA4281
Dilution Factor: 10
Injection Volume: 50ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-09836-02 Concentration Reported ppbv	Q	Sample Dup E17-09836-22 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Acetone	67-64-1	**230**	D	**230**	D	4.0	**0.00%**
Allyl Chloride	107-05-1	4.0	U	4.0	U	4.0	0.00%
Benzene	71-43-2	4.0	U	4.0	U	4.0	0.00%
Bromodichloromethane	75-27-4	4.0	U	4.0	U	4.0	0.00%
Bromoform	75-25-2	4.0	U	4.0	U	4.0	0.00%
Bromomethane	74-83-9	4.0	U	4.0	U	4.0	0.00%
1,3-Butadiene	106-99-0	4.0	U	4.0	U	4.0	0.00%
Chlorobenzene	108-90-7	4.0	U	4.0	U	4.0	0.00%
Chloroethane	75-00-3	4.0	U	4.0	U	4.0	0.00%
Chloroform	67-66-3	4.0	U	4.0	U	4.0	0.00%
Chloromethane	74-87-3	4.0	U	4.0	U	4.0	0.00%
Carbon disulfide	75-15-0	4.0	U	4.0	U	4.0	0.00%
Carbon tetrachloride	56-23-5	4.0	U	4.0	U	4.0	0.00%
2-Chlorotoluene	95-49-8	4.0	U	4.0	U	4.0	0.00%
Cyclohexane	110-82-7	4.0	U	4.0	U	4.0	0.00%
Dibromochloromethane	124-48-1	4.0	U	4.0	U	4.0	0.00%
1,2-Dibromoethane	106-93-4	4.0	U	4.0	U	4.0	0.00%
1,2-Dichlorobenzene	95-50-1	4.0	U	4.0	U	4.0	0.00%
1,3-Dichlorobenzene	541-73-1	4.0	U	4.0	U	4.0	0.00%
1,4-Dichlorobenzene	106-46-7	4.0	U	4.0	U	4.0	0.00%
Dichlorodifluoromethane	75-71-8	4.0	U	4.0	U	4.0	0.00%
1,1-Dichloroethane	75-34-3	4.0	U	4.0	U	4.0	0.00%
1,2-Dichloroethane	107-06-2	4.0	U	4.0	U	4.0	0.00%
1,1-Dichloroethene	75-35-4	4.0	U	4.0	U	4.0	0.00%
1,2-Dichloroethene (cis)	156-59-2	4.0	U	4.0	U	4.0	0.00%
1,2-Dichloroethene (trans)	156-60-5	4.0	U	4.0	U	4.0	0.00%
1,2-Dichloropropane	78-87-5	4.0	U	4.0	U	4.0	0.00%
1,3-Dichloropropene (cis)	10061-01-5	4.0	U	4.0	U	4.0	0.00%
1,3-Dichloropropene (trans)	10061-02-6	4.0	U	4.0	U	4.0	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	4.0	U	4.0	U	4.0	0.00%
Ethylbenzene	100-41-4	4.0	U	4.0	U	4.0	0.00%
4-Ethyltoluene	622-96-8	4.0	U	4.0	U	4.0	0.00%
n-Heptane	142-82-5	4.0	U	4.0	U	4.0	0.00%
1,3-Hexachlorobutadiene	87-68-3	4.0	U	4.0	U	4.0	0.00%
n-Hexane	110-54-3	4.0	U	4.0	U	4.0	0.00%
Methylene chloride	75-09-2	4.0	U	4.0	U	4.0	0.00%
Methyl ethyl ketone	78-93-3	**130**	D	**130**	D	4.0	**0.00%**
Methyl isobutyl ketone	108-10-1	4.0	U	4.0	U	4.0	0.00%

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

		Date Received:	11/16/17
SDG Number:	E17-09836	Date Analyzed:	11/28/17,11/28/17
IAL Sample ID:	E17-09836-02	Lab Data File#:	AA4280,AA4281
Matrix:	Air	Dilution Factor:	10
Summa ID:	2029	Injection Volume:	50ml
		GC/MS Column:	RTX-1, 0.32 mmID

		Sample		Sample Dup			
		E17-09836-02		**E17-09836-22**			
		Concentration Reported		**Concentration Reported**		**Reporting Limits**	
Compound	**CAS #**	**ppbv**	**Q**	**ppbv**	**Q**	**ppbv**	**RPD**
Methyl tert-butyl ether	1634-04-4	4.0	U	4.0	U	4.0	0.00%
Styrene	100-42-5	4.0	U	4.0	U	4.0	0.00%
Tert-butyl alcohol	75-65-0	4.0	U	4.0	U	4.0	0.00%
1,1,2,2-Tetrachloroethane	79-34-5	4.0	U	4.0	U	4.0	0.00%
Tetrachloroethene	127-18-4	4.0	U	4.0	U	4.0	0.00%
Toluene	108-88-3	4.0	U	4.0	U	4.0	0.00%
1,2,4-Trichlorobenzene	120-82-1	4.0	U	4.0	U	4.0	0.00%
1,1,1-Trichloroethane	71-55-6	4.0	U	4.0	U	4.0	0.00%
1,1,2-Trichloroethane	79-00-5	4.0	U	4.0	U	4.0	0.00%
Trichloroethene	79-01-6	4.0	U	4.0	U	4.0	0.00%
Trichlorofluoromethane	75-69-4	4.0	U	4.0	U	4.0	0.00%
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	4.0	U	4.0	U	4.0	0.00%
1,2,4-Trimethylbenzene	95-63-6	4.0	U	4.0	U	4.0	0.00%
1,3,5-Trimethylbenzene	108-67-8	4.0	U	4.0	U	4.0	0.00%
2,2,4-Trimethylpentane	540-84-1	4.0	U	4.0	U	4.0	0.00%
Vinyl bromide	593-60-2	4.0	U	4.0	U	4.0	0.00%
Vinyl chloride	75-01-4	4.0	U	4.0	U	4.0	0.00%
Xylenes (m&p)	179601-23-1	4.0	U	4.0	U	4.0	0.00%
Xylenes (o)	95-47-6	4.0	U	4.0	U	4.0	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
E=Concentration exceeds upper level of calibration range for instrument.
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Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-10097
IAL Sample ID: E17-10097-02
Matrix: Air
Summa ID: 2749

Date Received: 11/30/17
Date Analyzed: 12/5/17,12/5/17
Lab Data File#: AA4408,AA4409
Dilution Factor: 10
Injection Volume: 50ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-10097-02 Concentration Reported ppbv	Q	Sample Dup E17-10097-22 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Acetone	67-64-1	**230**	D	**230**	D	2.0	**0.00%**
Allyl Chloride	107-05-1	2.0	U	2.0	U	2.0	0.00%
Benzene	71-43-2	**2.0**	D	**2.1**	D	2.0	**-4.88%**
Bromodichloromethane	75-27-4	2.0	U	2.0	U	2.0	0.00%
Bromoform	75-25-2	2.0	U	2.0	U	2.0	0.00%
Bromomethane	74-83-9	2.0	U	2.0	U	2.0	0.00%
1,3-Butadiene	106-99-0	2.0	U	2.0	U	2.0	0.00%
Chlorobenzene	108-90-7	2.0	U	2.0	U	2.0	0.00%
Chloroethane	75-00-3	2.0	U	2.0	U	2.0	0.00%
Chloroform	67-66-3	2.0	U	2.0	U	2.0	0.00%
Chloromethane	74-87-3	2.0	U	2.0	U	2.0	0.00%
Carbon disulfide	75-15-0	2.0	U	2.0	U	2.0	0.00%
Carbon tetrachloride	56-23-5	2.0	U	2.0	U	2.0	0.00%
2-Chlorotoluene	95-49-8	2.0	U	2.0	U	2.0	0.00%
Cyclohexane	110-82-7	**2.1**	D	2.0	U	2.0	**NC**
Dibromochloromethane	124-48-1	2.0	U	2.0	U	2.0	0.00%
1,2-Dibromoethane	106-93-4	2.0	U	2.0	U	2.0	0.00%
1,2-Dichlorobenzene	95-50-1	2.0	U	2.0	U	2.0	0.00%
1,3-Dichlorobenzene	541-73-1	2.0	U	2.0	U	2.0	0.00%
1,4-Dichlorobenzene	106-46-7	2.0	U	2.0	U	2.0	0.00%
Dichlorodifluoromethane	75-71-8	2.0	U	2.0	U	2.0	0.00%
1,1-Dichloroethane	75-34-3	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethane	107-06-2	2.0	U	2.0	U	2.0	0.00%
1,1-Dichloroethene	75-35-4	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethene (cis)	156-59-2	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloroethene (trans)	156-60-5	2.0	U	2.0	U	2.0	0.00%
1,2-Dichloropropane	78-87-5	2.0	U	2.0	U	2.0	0.00%
1,3-Dichloropropene (cis)	10061-01-5	2.0	U	2.0	U	2.0	0.00%
1,3-Dichloropropene (trans)	10061-02-6	2.0	U	2.0	U	2.0	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	2.0	U	2.0	U	2.0	0.00%
1,4-Dioxane	123-91-1	2.0	U	2.0	U	2.0	0.00%
Ethanol	64-17-5	**71**	D	**72**	D	2.0	**-1.40%**
Ethylbenzene	100-41-4	2.0	U	2.0	U	2.0	0.00%
4-Ethyltoluene	622-96-8	2.0	U	2.0	U	2.0	0.00%
n-Heptane	142-82-5	**5.3**	D	**6.2**	D	2.0	**-15.65%**
1,3-Hexachlorobutadiene	87-68-3	2.0	U	2.0	U	2.0	0.00%
n-Hexane	110-54-3	**3.2**	J	**4.9**	J	2.0	**-41.98%**
Isopropanol	67-63-0	2.0	U	2.0	U	2.0	0.00%

Qualifir:
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D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E17-10097
IAL Sample ID: E17-10097-02
Matrix: Air
Summa ID: 2749

Date Received: 11/30/17
Date Analyzed: 12/5/17,12/5/17
Lab Data File#: AA4408,AA4409
Dilution Factor: 10
Injection Volume: 50ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E17-10097-02 Concentration Reported ppbv	Q	Sample Dup E17-10097-22 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Methylene chloride	75-09-2	2.0	U	2.0	U	2.0	0.00%
Methyl ethyl ketone	78-93-3	2.0	U	2.0	U	2.0	0.00%
Methyl isobutyl ketone	108-10-1	2.0	U	2.0	U	2.0	0.00%
Methyl methacrylate	80-62-6	2.0	U	2.0	U	2.0	0.00%
Methyl tert-butyl ether	1634-04-4	2.0	U	2.0	U	2.0	0.00%
Styrene	100-42-5	2.0	U	2.0	U	2.0	0.00%
Tert-butyl alcohol	75-65-0	2.0	U	2.0	U	2.0	0.00%
1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	U	2.0	0.00%
Tetrachloroethene	127-18-4	2.0	U	2.0	U	2.0	0.00%
Tetrahydrofuran	109-99-9	2.0	U	2.0	U	2.0	0.00%
Toluene	108-88-3	**72**	D	**71**	D	2.0	**1.40%**
1,2,4-Trichlorobenzene	120-82-1	2.0	U	2.0	U	2.0	0.00%
1,1,1-Trichloroethane	71-55-6	2.0	U	2.0	U	2.0	0.00%
1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	U	2.0	0.00%
Trichloroethene	79-01-6	2.0	U	2.0	U	2.0	0.00%
Trichlorofluoromethane	75-69-4	2.0	U	2.0	U	2.0	0.00%
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.0	U	2.0	U	2.0	0.00%
1,2,4-Trimethylbenzene	95-63-6	**3.1**	D	**3.2**	D	2.0	**-3.17%**
1,3,5-Trimethylbenzene	108-67-8	2.0	U	2.0	U	2.0	0.00%
2,2,4-Trimethylpentane	540-84-1	**3.7**	D	**3.7**	D	2.0	**0.00%**
Vinyl bromide	593-60-2	2.0	U	2.0	U	2.0	0.00%
Vinyl chloride	75-01-4	2.0	U	2.0	U	2.0	0.00%
Xylenes (m&p)	179601-23-1	**5.4**	D	**5.5**	D	4.0	**-1.83%**
Xylenes (o)	95-47-6	2.0	U	2.0	U	2.0	0.00%

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

NC = The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample.

Qualifir:
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Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E18-00010
IAL Sample ID: E18-00010-01
Matrix: Air
Summa ID: 3290

Date Received: 1/15/18
Date Analyzed: 1/15/18,1/15/18
Lab Data File#: AA4908,AA4909
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E18-00010-01 Concentration Reported ppbv	Q	Sample Dup E18-00010-21 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Acetone	67-64-1	**4.4**		**4.5**		0.20	**-2.25%**
Benzene	71-43-2	**0.30**		**0.31**		0.20	**-3.28%**
Bromodichloromethane	75-27-4	0.20	U	0.20	U	0.20	0.00%
Bromoform	75-25-2	0.20	U	0.20	U	0.20	0.00%
Bromomethane	74-83-9	0.20	U	0.20	U	0.20	0.00%
1,3-Butadiene	106-99-0	0.20	U	0.20	U	0.20	0.00%
Chlorobenzene	108-90-7	0.20	U	0.20	U	0.20	0.00%
Chloroethane	75-00-3	0.20	U	0.20	U	0.20	0.00%
Chloroform	67-66-3	0.20	U	0.20	U	0.20	0.00%
Chloromethane	74-87-3	0.20	U	0.20	U	0.20	0.00%
Carbon disulfide	75-15-0	0.20	U	0.20	U	0.20	0.00%
Carbon tetrachloride	56-23-5	**0.06**		**0.06**		0.04	**0.00%**
Cyclohexane	110-82-7	0.20	U	0.20	U	0.20	0.00%
Dibromochloromethane	124-48-1	0.20	U	0.20	U	0.20	0.00%
1,2-Dibromoethane	106-93-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorobenzene	95-50-1	0.20	U	0.20	U	0.20	0.00%
1,3-Dichlorobenzene	541-73-1	0.20	U	0.20	U	0.20	0.00%
1,4-Dichlorobenzene	106-46-7	0.20	U	0.20	U	0.20	0.00%
Dichlorodifluoromethane	75-71-8	0.20	U	0.20	U	0.20	0.00%
1,1-Dichloroethane	75-34-3	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethane	107-06-2	0.20	U	0.20	U	0.20	0.00%
1,1-Dichloroethene	75-35-4	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (cis)	156-59-2	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloroethene (trans)	156-60-5	0.20	U	0.20	U	0.20	0.00%
1,2-Dichloropropane	78-87-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (cis)	10061-01-5	0.20	U	0.20	U	0.20	0.00%
1,3-Dichloropropene (trans)	10061-02-6	0.20	U	0.20	U	0.20	0.00%
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	U	0.20	U	0.20	0.00%
1,4-Dioxane	123-91-1	0.20	U	0.20	U	0.20	0.00%
Ethylbenzene	100-41-4	**0.34**		**0.34**		0.20	**0.00%**
n-Heptane	142-82-5	0.20	U	0.20	U	0.20	0.00%
1,3-Hexachlorobutadiene	87-68-3	0.20	U	0.20	U	0.20	0.00%
n-Hexane	110-54-3	**0.27**		**0.28**		0.20	**-3.64%**
Methylene chloride	75-09-2	**0.93**		**0.95**		0.20	**-2.13%**
Methyl ethyl ketone	78-93-3	**0.34**		**0.35**		0.20	**-2.90%**
Methyl isobutyl ketone	108-10-1	0.20	U	0.20	U	0.20	0.00%
Methyl tert-butyl ether	1634-04-4	0.20	U	0.20	U	0.20	0.00%
Styrene	100-42-5	0.20	U	0.20	U	0.20	0.00%

Qualifir:
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Integrated Analytical Laboratories, LLC

Volatile Organic Compounds by EPA Method TO-15

Laboratory Sample Duplicate Report

SDG Number: E18-00010
IAL Sample ID: E18-00010-01
Matrix: Air
Summa ID: 3290

Date Received: 1/15/18
Date Analyzed: 1/15/18,1/15/18
Lab Data File#: AA4908,AA4909
Dilution Factor: 1
Injection Volume: 500ml
GC/MS Column: RTX-1, 0.32 mmID

Compound	CAS #	Sample E18-00010-01 Concentration Reported ppbv	Q	Sample Dup E18-00010-21 Concentration Reported ppbv	Q	Reporting Limits ppbv	RPD
Tert-butyl alcohol	75-65-0	0.20	U	0.20	U	0.20	0.00%
1,1,2,2-Tetrachloroethane	79-34-5	0.20	U	0.20	U	0.20	0.00%
Tetrachloroethene	127-18-4	**1.8**		**1.8**		0.20	**0.00%**
Toluene	108-88-3	**1.3**		**1.3**		0.20	**0.00%**
1,2,4-Trichlorobenzene	120-82-1	0.20	U	0.20	U	0.20	0.00%
1,1,1-Trichloroethane	71-55-6	0.20	U	0.20	U	0.20	0.00%
1,1,2-Trichloroethane	79-00-5	0.20	U	0.20	U	0.20	0.00%
Trichloroethene	79-01-6	**0.07**	J	**0.05**	J	0.05	**33.33%**
Trichlorofluoromethane	75-69-4	**0.27**		**0.27**		0.20	**0.00%**
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	U	0.20	U	0.20	0.00%
1,2,4-Trimethylbenzene	95-63-6	**0.47**		**0.48**		0.20	**-2.11%**
1,3,5-Trimethylbenzene	108-67-8	0.20	U	0.20	U	0.20	0.00%
2,2,4-Trimethylpentane	540-84-1	**0.53**		**0.54**		0.20	**-1.87%**
Vinyl bromide	593-60-2	0.20	U	0.20	U	0.20	0.00%
Vinyl chloride	75-01-4	0.20	U	0.20	U	0.20	0.00%
Xylenes (m&p)	179601-23-1	**1.2**		**1.3**		0.20	**-8.00%**
Xylenes (o)	95-47-6	**0.54**		**0.55**		0.20	**-1.83%**

RPD must be <25% for all laboratory duplicate samples. Laboratory duplicate samples are run once daily.

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Qualifir:
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D=Extra dilution required for this compound. J=Duplicate samples do not met RPD criteria.
U=Compound ND or under reporting limit.

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 3289**	**Data File:**	**AA4086**
Field Sample Name:	**Canister 3289**	**Date Analyzed:**	**11/14/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 3289(used for E18-00010-02),2033,2891,3015A,3047,3132,3281,5073

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 05:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 07:01
10 PPBV LCS [AA4083LCS]	11/14/2017 08:21
METHOD BLANK [AA4084BLK]	11/14/2017 08:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
CLEAN CAN CERTIFICATION, BATCH MASTER 3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.20	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.20	ND
Carbon tetrachloride	56-23-5	0.20	ND
Cyclohexane	110-82-7	0.20	ND
Dibromochloromethane	124-48-1	0.20	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.20	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.20	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.20	ND
1,2-Dichloroethene (cis)	156-59-2	0.20	ND
1,2-Dichloroethene (trans)	156-60-5	0.20	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.20	ND
1,3-Dichloropropene (trans)	10061-02-6	0.20	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.20	ND
Methyl ethyl ketone	78-93-3	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 3289**	**Data File:**	**AA4086**
Field Sample Name:	**Canister 3289**	**Date Analyzed:**	**11/14/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 3289(used for E18-00010-02),2033,2891,3015A,3047,3132,3281,5073

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 05:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 07:01
10 PPBV LCS [AA4083LCS]	11/14/2017 08:21
METHOD BLANK [AA4084BLK]	11/14/2017 08:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
CLEAN CAN CERTIFICATION, BATCH MASTER 3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.20	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.20	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.20	ND
Vinyl chloride	75-01-4	0.20	ND
Xylenes (m&p)	179601-23-1	0.40	ND
Xylenes (o)	95-47-6	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 3059**	**Data File:**	**AA4306**
Field Sample Name:	**Canister 3059**	**Date Analyzed:**	**11/29/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 3059,2755(used for E18-00010-03),3003A,3043,3125,5075,5091,5099

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 08:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
CLEAN CAN CERTIFICATION, BATCH MASTER 3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.20	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.20	ND
Carbon tetrachloride	56-23-5	0.20	ND
Cyclohexane	110-82-7	0.20	ND
Dibromochloromethane	124-48-1	0.20	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.20	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.20	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.20	ND
1,2-Dichloroethene (cis)	156-59-2	0.20	ND
1,2-Dichloroethene (trans)	156-60-5	0.20	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.20	ND
1,3-Dichloropropene (trans)	10061-02-6	0.20	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.20	ND
Methyl ethyl ketone	78-93-3	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 3059**	**Data File:**	**AA4306**
Field Sample Name:	**Canister 3059**	**Date Analyzed:**	**11/29/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 3059,2755(used for E18-00010-03),3003A,3043,3125,5075,5091,5099

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 08:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
CLEAN CAN CERTIFICATION, BATCH MASTER 3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.20	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.20	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.20	ND
Vinyl chloride	75-01-4	0.20	ND
Xylenes (m&p)	179601-23-1	0.40	ND
Xylenes (o)	95-47-6	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 4853**	**Data File:**	**AA4406**
Field Sample Name:	**Canister 4853**	**Date Analyzed:**	**12/5/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 4853(used for E18-00010-04),2751,2954,3051,3052,3283,3813,5101

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 08:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
CLEAN CAN CERTIFICATION, BATCH MASTER 4853 [AA4406]	12/05/2017 12:22
CLEAN CAN CERTIFICATION, BATCH MASTER 2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.20	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.20	ND
Carbon tetrachloride	56-23-5	0.20	ND
Cyclohexane	110-82-7	0.20	ND
Dibromochloromethane	124-48-1	0.20	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.20	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.20	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.20	ND
1,2-Dichloroethene (cis)	156-59-2	0.20	ND
1,2-Dichloroethene (trans)	156-60-5	0.20	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.20	ND
1,3-Dichloropropene (trans)	10061-02-6	0.20	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	ND
1,4-Dioxane	123-91-1	0.20	ND
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 4853**	**Data File:**	**AA4406**
Field Sample Name:	**Canister 4853**	**Date Analyzed:**	**12/5/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 4853(used for E18-00010-04),2751,2954,3051,3052,3283,3813,5101

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 08:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
CLEAN CAN CERTIFICATION, BATCH MASTER 4853 [AA4406]	12/05/2017 12:22
CLEAN CAN CERTIFICATION, BATCH MASTER 2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.20	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.20	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.20	ND
Vinyl chloride	75-01-4	0.20	ND
Xylenes (m&p)	179601-23-1	0.40	ND
Xylenes (o)	95-47-6	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 2066**	**Data File:**	**AA4432**
Field Sample Name:	**Canister 2066**	**Date Analyzed:**	**12/8/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 2066,2157,2756,3016,3033,3038A,3290(used for E18-00010-01),5100

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV [AA4423STD01]	12/08/2017 15:47
20 PPBV [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV [AA4426STD04]	12/08/2017 17:29
0.2 PPBV [AA4427STD05]	12/08/2017 18:02
10 PPBV LCS [AA4428LCS]	12/08/2017 18:36
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36
BLK [AA4429BLK]	12/08/2017 19:10
RLLCS [AA4430RLLCS]	12/08/2017 19:50
CLEAN CAN CERTIFICATION, BATCH MASTER 2160 [AA4431]	12/08/2017 20:24
CLEAN CAN CERTIFICATION, BATCH MASTER 2066 [AA4432]	12/08/2017 20:58
CCCVS [AA4433CCCVS]	12/08/2017 21:31

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Acetone	67-64-1	0.20	ND
Benzene	71-43-2	0.20	ND
Bromodichloromethane	75-27-4	0.20	ND
Bromoform	75-25-2	0.20	ND
Bromomethane	74-83-9	0.20	ND
1,3-Butadiene	106-99-0	0.20	ND
Chlorobenzene	108-90-7	0.20	ND
Chloroethane	75-00-3	0.20	ND
Chloroform	67-66-3	0.20	ND
Chloromethane	74-87-3	0.20	ND
Carbon disulfide	75-15-0	0.20	ND
Carbon tetrachloride	56-23-5	0.20	ND
Cyclohexane	110-82-7	0.20	ND
Dibromochloromethane	124-48-1	0.20	ND
1,2-Dibromoethane	106-93-4	0.20	ND
1,2-Dichlorobenzene	95-50-1	0.20	ND
1,3-Dichlorobenzene	541-73-1	0.20	ND
1,4-Dichlorobenzene	106-46-7	0.20	ND
Dichlorodifluoromethane	75-71-8	0.20	ND
1,1-Dichloroethane	75-34-3	0.20	ND
1,2-Dichloroethane	107-06-2	0.20	ND
1,1-Dichloroethene	75-35-4	0.20	ND
1,2-Dichloroethene (cis)	156-59-2	0.20	ND
1,2-Dichloroethene (trans)	156-60-5	0.20	ND
1,2-Dichloropropane	78-87-5	0.20	ND
1,3-Dichloropropene (cis)	10061-01-5	0.20	ND
1,3-Dichloropropene (trans)	10061-02-6	0.20	ND
1,2-Dichlorotetrafluoroethane	76-14-2	0.20	ND
1,4-Dioxane	123-91-1	0.20	ND

Clean Canister Certification Report

Lab Sample Name:	**Clean Canister, Batch Master 2066**	**Data File:**	**AA4432**
Field Sample Name:	**Canister 2066**	**Date Analyzed:**	**12/8/2017**
Sample Volume:	**500ml**	**Matrix:**	**Air**

Canisters associated with this run: 2066,2157,2756,3016,3033,3038A,3290(used for E18-00010-01),5100

Runs with this Clean Canister Certification:

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV [AA4423STD01]	12/08/2017 15:47
20 PPBV [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV [AA4426STD04]	12/08/2017 17:29
0.2 PPBV [AA4427STD05]	12/08/2017 18:02
10 PPBV LCS [AA4428LCS]	12/08/2017 18:36
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36
BLK [AA4429BLK]	12/08/2017 19:10
RLLCS [AA4430RLLCS]	12/08/2017 19:50
CLEAN CAN CERTIFICATION, BATCH MASTER 2160 [AA4431]	12/08/2017 20:24
CLEAN CAN CERTIFICATION, BATCH MASTER 2066 [AA4432]	12/08/2017 20:58
CCCVS [AA4433CCCVS]	12/08/2017 21:31

This canister has been certified clean, all compounds are below 0.2 ppbv.

Compound	CAS #	RL (ppbv)	Calculated Amount (ppbv)
Ethylbenzene	100-41-4	0.20	ND
n-Heptane	142-82-5	0.20	ND
1,3-Hexachlorobutadiene	87-68-3	0.20	ND
n-Hexane	110-54-3	0.20	ND
Methylene chloride	75-09-2	0.20	ND
Methyl ethyl ketone	78-93-3	0.20	ND
Methyl isobutyl ketone	108-10-1	0.20	ND
Methyl tert-butyl ether	1634-04-4	0.20	ND
Styrene	100-42-5	0.20	ND
Tert-butyl alcohol	75-65-0	0.20	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.20	ND
Tetrachloroethene	127-18-4	0.20	ND
Toluene	108-88-3	0.20	ND
1,2,4-Trichlorobenzene	120-82-1	0.20	ND
1,1,1-Trichloroethane	71-55-6	0.20	ND
1,1,2-Trichloroethane	79-00-5	0.20	ND
Trichloroethene	79-01-6	0.20	ND
Trichlorofluoromethane	75-69-4	0.20	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.20	ND
1,2,4-Trimethylbenzene	95-63-6	0.20	ND
1,3,5-Trimethylbenzene	108-67-8	0.20	ND
2,2,4-Trimethylpentane	540-84-1	0.20	ND
Vinyl bromide	593-60-2	0.20	ND
Vinyl chloride	75-01-4	0.20	ND
Xylenes (m&p)	179601-23-1	0.40	ND
Xylenes (o)	95-47-6	0.20	ND

Integrated Analytical Laboratories LLC

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4082DCVS **Date Analyzed:** 11/14/2017

Instrument: AA **ICAL Date:** 9/12/2017

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
CALIBRATION STANDARD			467548		7.743		1628106		9.798		1432529		15.135	
UPPER LIMIT			654567		8.07		2279348		10.13		2005541		15.47	
LOWER LIMIT			280529		7.41		976864		9.47		859517		14.81	
Lab ID		**DF**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**
Method Blank	AA4084BLK	1.0	431584	-7.69	7.746	0.00	1471262	-9.63	9.801	0.00	1337457	-6.64	15.135	0.00
Reporting Limit Laboratory Control Standard	AA4085RLLCS	1.0	439920	-5.91	7.740	0.00	1431967	-12.05	9.801	0.00	1339201	-6.51	15.142	0.01
3289	AA4086	1.0	427756	-8.51	7.740	0.00	1366153	-16.09	9.801	0.00	1268660	-11.44	15.138	0.00
Closing Calibration	AA4103CCCVS	1.0	491698	5.17	7.740	0.00	1672703	2.74	9.798	0.00	1609357	12.34	15.135	0.00

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Integrated Analytical Laboratories LLC

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4302DCVS **Date Analyzed:** 11/29/2017

Instrument: AA **ICAL Date:** 9/12/2017

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
CALIBRATION STANDARD			565734		7.746		1860863		9.801		1814288		15.138	
UPPER LIMIT			792028		8.08		2605208		10.13		2540003		15.47	
LOWER LIMIT			339440		7.42		1116518		9.47		1088573		14.81	
Lab ID		**DF**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**
Method Blank	AA4304BLK	1.0	573088	1.30	7.740	-0.01	1791275	-3.74	9.798	0.00	1711339	-5.67	15.135	0.00
Reporting Limit Laboratory Control Standard	AA4305RLLCS	1.0	498695	-11.85	7.740	-0.01	1665280	-10.51	9.798	0.00	1718165	-5.30	15.138	0.00
3059	AA4306	1.0	501677	-11.32	7.743	0.00	1558445	-16.25	9.804	0.00	1508649	-16.85	15.138	0.00
Closing Calibration	AA4319CCCVS	1.0	511202	-9.64	7.743	0.00	1724864	-7.31	9.801	0.00	1634373	-9.92	15.135	0.00

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Integrated Analytical Laboratories LLC

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4402DCVS **Date Analyzed:** 12/5/2017

Instrument: AA **ICAL Date:** 9/12/2017

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
CALIBRATION STANDARD			533707		7.743		1758504		9.801		1732696		15.138	
UPPER LIMIT			747190		8.07		2461906		10.13		2425774		15.47	
LOWER LIMIT			320224		7.41		1055102		9.47		1039618		14.81	
Lab ID		**DF**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**
Method Blank	AA4404BLK	1.0	520949	-2.39	7.740	0.00	1667859	-5.15	9.798	0.00	1606553	-7.28	15.135	0.00
Reporting Limit Laboratory Control Standard	AA4405RLLCS	1.0	505394	-5.30	7.740	0.00	1601029	-8.96	9.801	0.00	1609354	-7.12	15.139	0.00
4853	AA4406	1.0	485727	-8.99	7.740	0.00	1517004	-13.73	9.795	-0.01	1438117	-17.00	15.135	0.00
2156	AA4407	1.0	470633	-11.82	7.736	-0.01	1446412	-17.75	9.801	0.00	1409350	-18.66	15.138	0.00
Closing Calibration	AA4412CCCVS	1.0	514670	-3.57	7.740	0.00	1635436	-7.00	9.804	0.00	1566226	-9.61	15.139	0.00

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4425STD03 **Date Analyzed:** 12/8/2017

Instrument: AA **ICAL Date:** 12/8/2017

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
CALIBRATION STANDARD			535307		7.772		2117078		9.830		1821276		15.151	
UPPER LIMIT			749430		8.10		2963909		10.16		2549786		15.48	
LOWER LIMIT			321184		7.44		1270247		9.50		1092766		14.82	
Lab ID		**DF**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**	**Area #**	**%**	**RT**	**+/-**
Initial Calibration Verification Standard	AA4428ICVSS	1.0	490032	-8.46	7.772	0.00	2058184	-2.78	9.830	0.00	1746951	-4.08	15.154	0.00
BLK	AA4429BLK	1.0	481314	-10.09	7.779	0.01	1959063	-7.46	9.830	0.00	1684523	-7.51	15.155	0.00
Reporting Limit Laboratory Control Standard	AA4430RLLCS	1.0	484880	-9.42	7.772	0.00	1839753	-13.10	9.820	-0.01	1649621	-9.42	15.154	0.00
2160	AA4431	1.0	454327	-15.13	7.779	0.01	1808742	-14.56	9.827	0.00	1450442	-20.36	15.151	0.00
2066	AA4432	1.0	413937	-22.67	7.775	0.00	1733377	-18.12	9.824	-0.01	1388604	-23.76	15.151	0.00
Closing Calibration	AA4433CCCVS	1.0	431884	-19.32	7.769	0.00	1720467	-18.73	9.830	0.00	1529426	-16.02	15.158	0.01

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Integrated Analytical Laboratories LLC

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4892DCVS **Date Analyzed:** 1/15/2018

Instrument: AA **ICAL Date:** 1/12/2018

			BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
			Area #		RT		Area #		RT		Area #		RT	
	CALIBRATION STANDARD		480778		7.736		1944608		9.791		1693566		15.119	
	UPPER LIMIT		673089		8.07		2722451		10.12		2370992		15.45	
	LOWER LIMIT		288467		7.41		1166765		9.46		1016140		14.79	
Lab ID		DF	Area #	%	RT	+/-	Area #	%	RT	+/-	Area #	%	RT	+/-
Method Blank	AA4894BLK	1.0	482644	0.39	7.737	0.00	1950648	0.31	9.791	0.00	1653363	-2.37	15.116	0.00
Reporting Limit Laboratory Control Standard	AA4895RLLCS	1.0	474165	-1.38	7.733	0.00	1897901	-2.40	9.788	0.00	1630263	-3.74	15.116	0.00
5073	AA4902	1.0	425876	-11.42	7.733	0.00	1696747	-12.75	9.791	0.00	1455221	-14.07	15.119	0.00
3016	AA4903	1.0	413124	-14.07	7.737	0.00	1656964	-14.79	9.788	0.00	1422977	-15.98	15.116	0.00
2162	AA4904	1.0	403679	-16.04	7.740	0.00	1615988	-16.90	9.791	0.00	1406469	-16.95	15.116	0.00
3281	AA4905	1.0	397245	-17.37	7.737	0.00	1597699	-17.84	9.791	0.00	1385859	-18.17	15.116	0.00
E18-00010-01	AA4908	1.0	337374	-29.83	7.756	0.02	1507690	-22.47	9.798	0.01	1327278	-21.63	15.122	0.00
E18-00010-21	AA4909	1.0	343954	-28.46	7.762	0.03	1553690	-20.10	9.797	0.01	1362807	-19.53	15.122	0.00
E18-00010-02	AA4910	1.0	353900	-26.39	7.766	0.03	1595494	-17.95	9.798	0.01	1371612	-19.01	15.119	0.00
E18-00010-03	AA4911	1.0	348433	-27.53	7.756	0.02	1558654	-19.85	9.801	0.01	1376889	-18.70	15.122	0.00
E18-00010-04	AA4912	1.0	356080	-25.94	7.765	0.03	1609603	-17.23	9.797	0.01	1383559	-18.30	15.125	0.01
Closing Calibration	AA4914CCCVS	1.0	402788	-16.22	7.736	0.00	1668851	-14.18	9.788	0.00	1467014	-13.38	15.119	0.00

Internal Standard Area and Retention Time Summary

Lab File ID (Standard): AA4892DCVS **Date Analyzed:** 1/15/2018

Instrument: AA **ICAL Date:** 1/12/2018

		BROMOCHLOROMETHANE				1,4-DIFLUOROBENZENE				D-5 CHLOROBENZENE			
		Area #		RT		Area #		RT		Area #		RT	
CALIBRATION STANDARD		480778		7.736		1944608		9.791		1693566		15.119	
UPPER LIMIT		673089		8.07		2722451		10.12		2370992		15.45	
LOWER LIMIT		288467		7.41		1166765		9.46		1016140		14.79	
Lab ID	DF	Area #	%	RT	+/-	Area #	%	RT	+/-	Area #	%	RT	+/-

Difference of Internal Area must be within +/- 40%; Retention Times must be within +/- 0.33 minute.
* Values outsite QC limits.

Section VI: Sample Data Summary

Certificate of Analysis

Summary of Results

CERTIFICATE OF ANALYSIS

ANALYTICAL DATA PACKAGE FOR THE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY NEW YORK 12233

Integrated Analytical Laboratories, LLC — **Randolph, NJ 07869**
Project#: 27-10 49th Ave — **NY ELAP Certification#: 11402**
SDG #: E18-00010 — **NJDEP (Primary AB) Certification#: 14751**
Date of first sample receipt: 1/15/2018 — **Date of last sample receipt: 1/15/2018**

Client: Atlantic Environmental Solutions Inc.
5 Marine View Plaza
Hoboken, NJ 07030
Attention: Attention: Sal Delucia

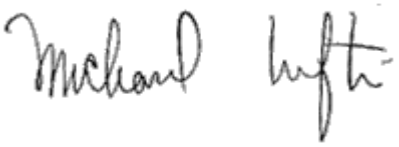
Project/Site: 27-10 49th Ave/NY

Analysis conducted at: Integrated Analytical Laboratories, LLC
273 Franklin Road
Randolph, NJ 07869
Contact: Michael H. Leftin, Ph.D.

Sample(s):
E18-00010-01
E18-00010-02
E18-00010-03
E18-00010-04

Samples for this analysis were received in good condition with a chain of custody.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Once analysis has been performed on canisters that meets regulatory criteria, samples are recycled for future use, unless other provisions have been made by the client.



Michael H. Leftin, Ph.D.
Laboratory Director

Date: January 18, 2018

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4908
Summa ID: 3290
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A1		Reporting Limits	
	IAL ID:	E18-00010-01			
Compound	**CAS #**	**ppbv**	**ug/m3**	**ppbv**	**ug/m3**
Acetone	67-64-1	4.4	10	0.20	0.48
Benzene	71-43-2	0.30	0.96	0.20	0.64
Bromodichloromethane	75-27-4	ND	ND	0.20	1.3
Bromoform	75-25-2	ND	ND	0.20	2.1
Bromomethane	74-83-9	ND	ND	0.20	0.78
1,3-Butadiene	106-99-0	ND	ND	0.20	0.44
Chlorobenzene	108-90-7	ND	ND	0.20	0.92
Chloroethane	75-00-3	ND	ND	0.20	0.53
Chloroform	67-66-3	ND	ND	0.20	0.98
Chloromethane	74-87-3	ND	ND	0.20	0.41
Carbon disulfide	75-15-0	ND	ND	0.20	0.62
Carbon tetrachloride	56-23-5	0.06	0.38	0.04	0.25
Cyclohexane	110-82-7	ND	ND	0.20	0.69
Dibromochloromethane	124-48-1	ND	ND	0.20	1.7
1,2-Dibromoethane	106-93-4	ND	ND	0.20	1.5
1,2-Dichlorobenzene	95-50-1	ND	ND	0.20	1.2
1,3-Dichlorobenzene	541-73-1	ND	ND	0.20	1.2
1,4-Dichlorobenzene	106-46-7	ND	ND	0.20	1.2
Dichlorodifluoromethane	75-71-8	ND	ND	0.20	0.99
1,1-Dichloroethane	75-34-3	ND	ND	0.20	0.81
1,2-Dichloroethane	107-06-2	ND	ND	0.20	0.81
1,1-Dichloroethene	75-35-4	ND	ND	0.20	0.79
1,2-Dichloroethene (cis)	156-59-2	ND	ND	0.20	0.79
1,2-Dichloroethene (trans)	156-60-5	ND	ND	0.20	0.79
1,2-Dichloropropane	78-87-5	ND	ND	0.20	0.92
1,3-Dichloropropene (cis)	10061-01-5	ND	ND	0.20	0.91
1,3-Dichloropropene (trans)	10061-02-6	ND	ND	0.20	0.91
1,2-Dichlorotetrafluoroethane	76-14-2	ND	ND	0.20	1.4
1,4-Dioxane	123-91-1	ND	ND	0.20	0.72
Ethylbenzene	100-41-4	0.34	1.5	0.20	0.87
n-Heptane	142-82-5	ND	ND	0.20	0.82
1,3-Hexachlorobutadiene	87-68-3	ND	ND	0.20	2.1
n-Hexane	110-54-3	0.27	0.95	0.20	0.71
Methylene chloride	75-09-2	0.93	3.2	0.20	0.70
Methyl ethyl ketone	78-93-3	0.34	1.0	0.20	0.59
Methyl isobutyl ketone	108-10-1	ND	ND	0.20	0.82
Methyl tert-butyl ether	1634-04-4	ND	ND	0.20	0.72
Styrene	100-42-5	ND	ND	0.20	0.85
Tert-butyl alcohol	75-65-0	ND	ND	0.20	0.61
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	0.20	1.4
Tetrachloroethene	127-18-4	1.8	12	0.20	1.4
Toluene	108-88-3	1.3	5.0	0.20	0.75
1,2,4-Trichlorobenzene	120-82-1	ND	ND	0.20	1.5
1,1,1-Trichloroethane	71-55-6	ND	ND	0.20	1.1
1,1,2-Trichloroethane	79-00-5	ND	ND	0.20	1.1
Trichloroethene	79-01-6	0.07	0.38	0.05	0.25

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4908
Summa ID: 3290
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A1			Reporting
	IAL ID:	E18-00010-01			Limits
Trichlorofluoromethane	75-69-4	0.27	1.5	0.20	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	0.20	1.5
1,2,4-Trimethylbenzene	95-63-6	0.47	2.3	0.20	0.98
1,3,5-Trimethylbenzene	108-67-8	ND	ND	0.20	0.98
2,2,4-Trimethylpentane	540-84-1	0.53	2.5	0.20	0.93
Vinyl bromide	593-60-2	ND	ND	0.20	0.87
Vinyl chloride	75-01-4	ND	ND	0.20	0.51
Xylenes (m&p)	179601-23-1	1.2	5.4	0.20	0.87
Xylenes (o)	95-47-6	0.54	2.4	0.20	0.87

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4910
Summa ID: 3289
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A2				Reporting Limits	
	IAL ID:	E18-00010-02					
Compound	**CAS #**	**ppbv**		**ug/m3**		**ppbv**	**ug/m3**
Acetone	67-64-1	5.6		13		0.20	0.48
Benzene	71-43-2	0.30		0.96		0.20	0.64
Bromodichloromethane	75-27-4	ND		ND		0.20	1.3
Bromoform	75-25-2	ND		ND		0.20	2.1
Bromomethane	74-83-9	ND		ND		0.20	0.78
1,3-Butadiene	106-99-0	ND		ND		0.20	0.44
Chlorobenzene	108-90-7	ND		ND		0.20	0.92
Chloroethane	75-00-3	ND		ND		0.20	0.53
Chloroform	67-66-3	ND		ND		0.20	0.98
Chloromethane	74-87-3	ND		ND		0.20	0.41
Carbon disulfide	75-15-0	ND		ND		0.20	0.62
Carbon tetrachloride	56-23-5	0.06		0.38		0.04	0.25
Cyclohexane	110-82-7	0.20		0.69		0.20	0.69
Dibromochloromethane	124-48-1	ND		ND		0.20	1.7
1,2-Dibromoethane	106-93-4	ND		ND		0.20	1.5
1,2-Dichlorobenzene	95-50-1	ND		ND		0.20	1.2
1,3-Dichlorobenzene	541-73-1	ND		ND		0.20	1.2
1,4-Dichlorobenzene	106-46-7	ND		ND		0.20	1.2
Dichlorodifluoromethane	75-71-8	0.49		2.4		0.20	0.99
1,1-Dichloroethane	75-34-3	ND		ND		0.20	0.81
1,2-Dichloroethane	107-06-2	ND		ND		0.20	0.81
1,1-Dichloroethene	75-35-4	ND		ND		0.20	0.79
1,2-Dichloroethene (cis)	156-59-2	ND		ND		0.20	0.79
1,2-Dichloroethene (trans)	156-60-5	ND		ND		0.20	0.79
1,2-Dichloropropane	78-87-5	ND		ND		0.20	0.92
1,3-Dichloropropene (cis)	10061-01-5	ND		ND		0.20	0.91
1,3-Dichloropropene (trans)	10061-02-6	ND		ND		0.20	0.91
1,2-Dichlorotetrafluoroethane	76-14-2	ND		ND		0.20	1.4
1,4-Dioxane	123-91-1	ND		ND		0.20	0.72
Ethylbenzene	100-41-4	ND		ND		0.20	0.87
n-Heptane	142-82-5	ND		ND		0.20	0.82
1,3-Hexachlorobutadiene	87-68-3	ND		ND		0.20	2.1
n-Hexane	110-54-3	0.31		1.1		0.20	0.71
Methylene chloride	75-09-2	0.88		3.1		0.20	0.70
Methyl ethyl ketone	78-93-3	0.37		1.1		0.20	0.59
Methyl isobutyl ketone	108-10-1	ND		ND		0.20	0.82
Methyl tert-butyl ether	1634-04-4	ND		ND		0.20	0.72
Styrene	100-42-5	ND		ND		0.20	0.85
Tert-butyl alcohol	75-65-0	ND		ND		0.20	0.61
1,1,2,2-Tetrachloroethane	79-34-5	ND		ND		0.20	1.4
Tetrachloroethene	127-18-4	1.2		8.3		0.20	1.4
Toluene	108-88-3	0.70		2.6		0.20	0.75
1,2,4-Trichlorobenzene	120-82-1	ND		ND		0.20	1.5
1,1,1-Trichloroethane	71-55-6	ND		ND		0.20	1.1
1,1,2-Trichloroethane	79-00-5	ND		ND		0.20	1.1
Trichloroethene	79-01-6	0.07		0.38		0.05	0.25

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4910
Summa ID: 3289
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A2			Reporting
	IAL ID:	E18-00010-02			Limits
Trichlorofluoromethane	75-69-4	0.25	1.4	0.20	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	0.20	1.5
1,2,4-Trimethylbenzene	95-63-6	ND	ND	0.20	0.98
1,3,5-Trimethylbenzene	108-67-8	ND	ND	0.20	0.98
2,2,4-Trimethylpentane	540-84-1	0.31	1.5	0.20	0.93
Vinyl bromide	593-60-2	ND	ND	0.20	0.87
Vinyl chloride	75-01-4	ND	ND	0.20	0.51
Xylenes (m&p)	179601-23-1	ND	ND	0.20	0.87
Xylenes (o)	95-47-6	ND	ND	0.20	0.87

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4911
Summa ID: 2753
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A3				Reporting Limits	
	IAL ID:	E18-00010-03					
Compound	**CAS #**	**ppbv**		**ug/m3**		**ppbv**	**ug/m3**
Acetone	67-64-1	5.4		13		0.20	0.48
Benzene	71-43-2	0.27		0.86		0.20	0.64
Bromodichloromethane	75-27-4	ND		ND		0.20	1.3
Bromoform	75-25-2	ND		ND		0.20	2.1
Bromomethane	74-83-9	ND		ND		0.20	0.78
1,3-Butadiene	106-99-0	ND		ND		0.20	0.44
Chlorobenzene	108-90-7	ND		ND		0.20	0.92
Chloroethane	75-00-3	ND		ND		0.20	0.53
Chloroform	67-66-3	ND		ND		0.20	0.98
Chloromethane	74-87-3	ND		ND		0.20	0.41
Carbon disulfide	75-15-0	ND		ND		0.20	0.62
Carbon tetrachloride	56-23-5	0.06		0.38		0.04	0.25
Cyclohexane	110-82-7	ND		ND		0.20	0.69
Dibromochloromethane	124-48-1	ND		ND		0.20	1.7
1,2-Dibromoethane	106-93-4	ND		ND		0.20	1.5
1,2-Dichlorobenzene	95-50-1	ND		ND		0.20	1.2
1,3-Dichlorobenzene	541-73-1	ND		ND		0.20	1.2
1,4-Dichlorobenzene	106-46-7	ND		ND		0.20	1.2
Dichlorodifluoromethane	75-71-8	0.50		2.5		0.20	0.99
1,1-Dichloroethane	75-34-3	ND		ND		0.20	0.81
1,2-Dichloroethane	107-06-2	ND		ND		0.20	0.81
1,1-Dichloroethene	75-35-4	ND		ND		0.20	0.79
1,2-Dichloroethene (cis)	156-59-2	ND		ND		0.20	0.79
1,2-Dichloroethene (trans)	156-60-5	ND		ND		0.20	0.79
1,2-Dichloropropane	78-87-5	ND		ND		0.20	0.92
1,3-Dichloropropene (cis)	10061-01-5	ND		ND		0.20	0.91
1,3-Dichloropropene (trans)	10061-02-6	ND		ND		0.20	0.91
1,2-Dichlorotetrafluoroethane	76-14-2	ND		ND		0.20	1.4
1,4-Dioxane	123-91-1	ND		ND		0.20	0.72
Ethylbenzene	100-41-4	0.38		1.7		0.20	0.87
n-Heptane	142-82-5	ND		ND		0.20	0.82
1,3-Hexachlorobutadiene	87-68-3	ND		ND		0.20	2.1
n-Hexane	110-54-3	0.25		0.88		0.20	0.71
Methylene chloride	75-09-2	1.2		4.2		0.20	0.70
Methyl ethyl ketone	78-93-3	0.35		1.0		0.20	0.59
Methyl isobutyl ketone	108-10-1	ND		ND		0.20	0.82
Methyl tert-butyl ether	1634-04-4	ND		ND		0.20	0.72
Styrene	100-42-5	ND		ND		0.20	0.85
Tert-butyl alcohol	75-65-0	ND		ND		0.20	0.61
1,1,2,2-Tetrachloroethane	79-34-5	ND		ND		0.20	1.4
Tetrachloroethene	127-18-4	2.4		16		0.20	1.4
Toluene	108-88-3	1.5		5.5		0.20	0.75
1,2,4-Trichlorobenzene	120-82-1	ND		ND		0.20	1.5
1,1,1-Trichloroethane	71-55-6	ND		ND		0.20	1.1
1,1,2-Trichloroethane	79-00-5	ND		ND		0.20	1.1
Trichloroethene	79-01-6	0.09		0.48		0.05	0.25

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4911
Summa ID: 2753
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A3			Reporting
	IAL ID:	E18-00010-03			Limits
Trichlorofluoromethane	75-69-4	0.22	1.2	0.20	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	0.20	1.5
1,2,4-Trimethylbenzene	95-63-6	0.51	2.5	0.20	0.98
1,3,5-Trimethylbenzene	108-67-8	ND	ND	0.20	0.98
2,2,4-Trimethylpentane	540-84-1	0.53	2.5	0.20	0.93
Vinyl bromide	593-60-2	ND	ND	0.20	0.87
Vinyl chloride	75-01-4	ND	ND	0.20	0.51
Xylenes (m&p)	179601-23-1	1.4	6.2	0.20	0.87
Xylenes (o)	95-47-6	0.60	2.6	0.20	0.87

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4912
Summa ID: 4853
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A4		Reporting Limits	
	IAL ID:	E18-00010-04			
Compound	**CAS #**	**ppbv**	**ug/m3**	**ppbv**	**ug/m3**
Acetone	67-64-1	3.2	7.6	0.20	0.48
Benzene	71-43-2	0.44	1.4	0.20	0.64
Bromodichloromethane	75-27-4	ND	ND	0.20	1.3
Bromoform	75-25-2	ND	ND	0.20	2.1
Bromomethane	74-83-9	ND	ND	0.20	0.78
1,3-Butadiene	106-99-0	ND	ND	0.20	0.44
Chlorobenzene	108-90-7	ND	ND	0.20	0.92
Chloroethane	75-00-3	ND	ND	0.20	0.53
Chloroform	67-66-3	ND	ND	0.20	0.98
Chloromethane	74-87-3	ND	ND	0.20	0.41
Carbon disulfide	75-15-0	ND	ND	0.20	0.62
Carbon tetrachloride	56-23-5	0.06	0.38	0.04	0.25
Cyclohexane	110-82-7	ND	ND	0.20	0.69
Dibromochloromethane	124-48-1	ND	ND	0.20	1.7
1,2-Dibromoethane	106-93-4	ND	ND	0.20	1.5
1,2-Dichlorobenzene	95-50-1	ND	ND	0.20	1.2
1,3-Dichlorobenzene	541-73-1	ND	ND	0.20	1.2
1,4-Dichlorobenzene	106-46-7	ND	ND	0.20	1.2
Dichlorodifluoromethane	75-71-8	0.48	2.4	0.20	0.99
1,1-Dichloroethane	75-34-3	ND	ND	0.20	0.81
1,2-Dichloroethane	107-06-2	ND	ND	0.20	0.81
1,1-Dichloroethene	75-35-4	ND	ND	0.20	0.79
1,2-Dichloroethene (cis)	156-59-2	ND	ND	0.20	0.79
1,2-Dichloroethene (trans)	156-60-5	ND	ND	0.20	0.79
1,2-Dichloropropane	78-87-5	ND	ND	0.20	0.92
1,3-Dichloropropene (cis)	10061-01-5	ND	ND	0.20	0.91
1,3-Dichloropropene (trans)	10061-02-6	ND	ND	0.20	0.91
1,2-Dichlorotetrafluoroethane	76-14-2	ND	ND	0.20	1.4
1,4-Dioxane	123-91-1	ND	ND	0.20	0.72
Ethylbenzene	100-41-4	ND	ND	0.20	0.87
n-Heptane	142-82-5	ND	ND	0.20	0.82
1,3-Hexachlorobutadiene	87-68-3	ND	ND	0.20	2.1
n-Hexane	110-54-3	0.35	1.2	0.20	0.71
Methylene chloride	75-09-2	1.2	4.2	0.20	0.70
Methyl ethyl ketone	78-93-3	0.40	1.2	0.20	0.59
Methyl isobutyl ketone	108-10-1	0.50	2.1	0.20	0.82
Methyl tert-butyl ether	1634-04-4	ND	ND	0.20	0.72
Styrene	100-42-5	ND	ND	0.20	0.85
Tert-butyl alcohol	75-65-0	ND	ND	0.20	0.61
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	0.20	1.4
Tetrachloroethene	127-18-4	ND	ND	0.20	1.4
Toluene	108-88-3	1.1	4.2	0.20	0.75
1,2,4-Trichlorobenzene	120-82-1	ND	ND	0.20	1.5
1,1,1-Trichloroethane	71-55-6	ND	ND	0.20	1.1
1,1,2-Trichloroethane	79-00-5	ND	ND	0.20	1.1
Trichloroethene	79-01-6	ND	ND	0.05	0.25

Summary of Results

Atlantic Environmental Solutions Inc.
5 Marine View Plaza, Suite 303
Hoboken, NJ 07030
Attn: Sal Delucia
Project: 27-10 49th Ave
Site: NY

Report Date: 01/17/18
SDG Number: E18-00010
Date Sampled: 01/10/18
Date Received: 01/15/18
Date Analyzed: 01/15/18
Data File: AA4912
Summa ID: 4853
DF: 1

Analysis: Volatile Organic Compounds by EPA Method TO-15

	Sample Name:	A4			Reporting
	IAL ID:	E18-00010-04			Limits
Trichlorofluoromethane	75-69-4	0.25	1.4	0.20	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	ND	0.20	1.5
1,2,4-Trimethylbenzene	95-63-6	ND	ND	0.20	0.98
1,3,5-Trimethylbenzene	108-67-8	ND	ND	0.20	0.98
2,2,4-Trimethylpentane	540-84-1	0.20	0.93	0.20	0.93
Vinyl bromide	593-60-2	ND	ND	0.20	0.87
Vinyl chloride	75-01-4	ND	ND	0.20	0.51
Xylenes (m&p)	179601-23-1	0.41	1.8	0.20	0.87
Xylenes (o)	95-47-6	ND	ND	0.20	0.87

Section VII: Standards Summary

Initial Calibration Summary

Continuing Calibration Summary

Initial Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017 **Method ID:** 0912.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3441BFB]	09/12/2017 08:18
40 PPBV STD [AA3443STD01]	09/12/2017 09:44
20 PPBV STD [AA3444STD02]	09/12/2017 10:17
10 PPBV STD [AA3445STD03]	09/12/2017 10:51
2 PPBV STD [AA3446STD04]	09/12/2017 11:24
0.2 PPBV STD [AA3447STD05]	09/12/2017 12:06
10 PPBV ICVSS [AA3448ICVSS]	09/12/2017 13:28

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
Bromochloromethane	----------ISTD----------						
1,4-Difluorobenzene	----------ISTD----------						
d-5 Chlorobenzene	----------ISTD----------						
Acetone	0.13	0.27	0.28	0.28	0.28	0.25	27
Acrolein	0.085	0.17	0.18	0.20	0.19	0.17	28
Allyl Chloride	0.39	0.36	0.41	0.42	0.37	0.39	6.2
Benzene	3.4	2.6	2.8	3.0	3.0	2.9	9.5
Benzyl chloride	1.5	1.6	1.7	1.7	1.7	1.6	6.0
Bromodichloromethane	1.2	0.85	0.86	0.89	0.90	0.94	15
Bromoform	1.2	1.0	0.96	0.95	0.96	1.0	11
Bromomethane	0.49	0.65	0.66	0.61	0.51	0.58	14
1,3-Butadiene	0.24	0.32	0.34	0.34	0.33	0.31	14
Chlorobenzene	1.7	1.3	1.2	1.1	1.1	1.3	20
Chloroethane	0.16	0.33	0.33	0.34	0.33	0.30	26
Chloroform	3.5	2.8	2.9	3.0	3.1	3.0	9.9
Chloromethane	0.050	0.083	0.10	0.098	0.087	0.084	25
Carbon disulfide	2.9	2.6	2.6	2.6	2.7	2.7	5.1
Carbon tetrachloride	5.5	4.1	3.9	4.1	4.3	4.4	15
2-Chlorotoluene	1.8	1.7	1.6	1.6	1.6	1.7	4.9
Cumene	2.5	2.3	2.2	2.1	2.0	2.2	9.1
Cyclohexane	1.2	1.1	1.2	1.3	1.3	1.2	5.0
Dibromochloromethane	1.4	1.0	1.0	1.0	1.0	1.1	15
1,2-Dibromoethane	0.96	0.75	0.74	0.74	0.75	0.79	12
1,2-Dichlorobenzene	1.7	1.4	1.4	1.3	1.3	1.4	11
1,3-Dichlorobenzene	1.9	1.6	1.4	1.3	1.3	1.5	16
1,4-Dichlorobenzene	1.8	1.6	1.4	1.4	1.4	1.5	12
Dichlorodifluoromethane	4.3	3.5	3.5	3.6	3.7	3.7	8.8
1,1-Dichloroethane	2.0	1.4	1.5	1.5	1.6	1.6	15
1,2-Dichloroethane	2.2	1.8	1.8	1.9	2.0	1.9	9.4
1,1-Dichloroethene	1.4	1.3	1.4	1.4	1.4	1.4	4.2
1,2-Dichloroethene (trans)	1.1	1.0	1.1	1.2	1.2	1.1	6.1
1,2-Dichloroethene (trans)	1.1	1.0	1.1	1.2	1.2	1.1	5.6
1,2-Dichloropropane	0.35	0.24	0.23	0.24	0.24	0.26	20
1,3-Dichloropropene (cis)	0.63	0.51	0.56	0.57	0.58	0.57	7.1
1,3-Dichloropropene (trans)	0.62	0.54	0.60	0.62	0.63	0.60	6.1
1,2-Dichlorotetrafluoroethane	3.9	2.7	2.7	2.7	2.6	2.9	19
1,4-Dioxane	0.26	0.16	0.16	0.17	0.17	0.18	25
Ethanol	0.045	0.14	0.13	0.14	0.14	0.12	34
Ethylbenzene	2.1	1.9	1.8	1.8	1.8	1.9	7.0
4-Ethyltoluene	2.2	2.3	2.2	2.1	2.1	2.2	4.3
n-Heptane	0.15	0.26	0.27	0.27	0.27	0.24	22
1,3-Hexachlorobutadiene	1.6	1.1	0.94	0.94	0.93	1.1	26

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017 **Method ID:** 0912.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA3441BFB]	09/12/2017 08:18
40 PPBV STD [AA3443STD01]	09/12/2017 09:44
20 PPBV STD [AA3444STD02]	09/12/2017 10:17
10 PPBV STD [AA3445STD03]	09/12/2017 10:51
2 PPBV STD [AA3446STD04]	09/12/2017 11:24
0.2 PPBV STD [AA3447STD05]	09/12/2017 12:06
10 PPBV ICVSS [AA3448ICVSS]	09/12/2017 13:28

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
n-Hexane	0.90	0.73	0.77	0.83	0.84	0.82	7.9
Isopropanol	0.51	0.67	0.72	0.74	0.71	0.67	14
Methylene chloride	1.2	0.77	0.80	0.82	0.83	0.89	21
Methyl ethyl ketone	0.18	0.38	0.43	0.48	0.49	0.39	32
Methyl isobutyl ketone	0.39	0.35	0.34	0.35	0.35	0.36	6.0
Methyl methacrylate	0.34	0.28	0.31	0.32	0.32	0.32	6.5
Methyl n-butyl ketone	0.36	0.31	0.34	0.35	0.36	0.35	5.4
Methyl tert-butyl ether	3.4	2.9	3.1	3.2	3.2	3.2	6.4
Naphthalene	0.25	0.47	0.45	0.44	0.43	0.41	22
Propene	0.23	0.25	0.26	0.27	0.24	0.25	5.0
Styrene	0.96	1.0	1.1	1.1	1.1	1.0	4.8
Tert-butyl alcohol	1.7	1.5	1.6	1.7	1.7	1.6	6.5
1,1,2,2-Tetrachloroethane	1.6	1.2	1.0	0.98	0.98	1.1	23
Tetrachloroethene	0.86	0.62	0.59	0.59	0.59	0.65	18
Tetrahydrofuran	0.28	0.39	0.44	0.48	0.48	0.41	20
Toluene	1.3	1.1	1.1	1.1	1.1	1.1	6.0
1,2,4-Trichlorobenzene	1.6	1.3	1.3	1.2	1.2	1.3	12
1,1,1-Trichloroethane	4.6	3.4	3.3	3.5	3.6	3.7	15
1,1,2-Trichloroethane	0.60	0.44	0.42	0.42	0.42	0.46	18
Trichloroethene	0.64	0.50	0.49	0.50	0.49	0.52	13
Trichlorofluoromethane	6.2	4.6	4.5	4.6	4.7	4.9	14
1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	2.9	2.6	2.7	2.7	3.0	21
1,2,4-Trimethylbenzene	1.7	2.0	2.0	2.0	2.0	1.9	6.2
1,3,5-Trimethylbenzene	2.0	2.1	2.0	2.0	1.9	2.0	4.2
2,2,4-Trimethylpentane	0.72	0.72	0.75	0.74	0.74	0.73	2.0
Vinyl bromide	0.69	0.92	1.0	1.0	1.0	0.94	16
Vinyl chloride	0.41	0.58	0.61	0.62	0.62	0.57	16
Xylenes (m&p)	1.7	1.7	1.5	1.5	1.4	1.6	6.7
Xylenes (o)	1.7	1.7	1.6	1.5	1.5	1.6	5.9

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 12/8/2017 **Method ID:** 1208.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV STD [AA4423STD01]	12/08/2017 15:47
20 PPBV STD [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV STD [AA4426STD04]	12/08/2017 17:29
0.2 PPBV STD [AA4427STD05]	12/08/2017 18:02
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
Bromochloromethane	----------ISTD----------						
1,4-Difluorobenzene	----------ISTD----------						
d-5 Chlorobenzene	----------ISTD----------						
Acetone	0.68	0.38	0.74	0.76	0.85	0.68	26
Acrolein	0.43	0.40	0.55	0.56	0.66	0.52	20
Allyl Chloride	0.94	0.51	0.69	0.67	0.72	0.71	22
Benzene	5.3	4.0	4.6	4.6	5.1	4.7	11
Benzyl chloride	1.9	1.3	1.4	1.4	1.2	1.4	17
Bromodichloromethane	0.91	0.56	0.66	0.63	0.64	0.68	20
Bromoform	0.96	0.66	0.70	0.66	0.59	0.71	20
Bromomethane	0.57	0.58	0.93	0.88	0.90	0.78	23
1,3-Butadiene	1.2	0.97	1.1	1.1	1.2	1.1	7.8
Chlorobenzene	1.5	1.2	1.1	1.0	0.94	1.2	20
Chloroethane	0.43	0.41	0.69	0.70	0.79	0.60	29
Chloroform	3.9	2.0	2.6	2.6	2.9	2.8	25
Chloromethane	0.29	0.12	0.33	0.36	0.38	0.29	36
Carbon disulfide	6.8	3.3	4.1	4.2	4.6	4.6	28
Carbon tetrachloride	2.7	1.1	2.1	2.1	2.4	2.1	29
2-Chlorotoluene	2.1	1.6	1.5	1.4	1.3	1.6	22
Cumene	2.8	2.0	1.9	1.7	1.5	2.0	25
Cyclohexane	4.0	2.3	2.4	2.4	2.6	2.7	27
Dibromochloromethane	1.0	0.59	0.64	0.61	0.59	0.69	27
1,2-Dibromoethane	1.0	0.63	0.68	0.63	0.61	0.71	24
1,2-Dichlorobenzene	1.7	1.2	1.1	0.98	0.87	1.2	27
1,3-Dichlorobenzene	1.6	1.2	1.1	0.92	0.78	1.1	28
1,4-Dichlorobenzene	1.5	1.2	1.1	1.0	0.89	1.2	20
Dichlorodifluoromethane	2.0	2.2	2.6	2.6	3.0	2.5	15
1,1-Dichloroethane	3.3	2.0	2.5	2.6	2.8	2.6	18
1,2-Dichloroethane	2.6	1.4	1.7	1.8	2.1	1.9	23
1,1-Dichloroethene	3.4	1.6	2.1	2.1	2.3	2.3	28
1,2-Dichloroethene (trans)	2.9	1.6	1.9	2.0	2.2	2.1	24
1,2-Dichloroethene (trans)	2.0	1.6	2.0	2.0	2.3	2.0	14
1,2-Dichloropropane	0.52	0.42	0.46	0.44	0.43	0.46	8.8
1,3-Dichloropropene (cis)	0.92	0.55	0.65	0.62	0.60	0.67	22
1,3-Dichloropropene (trans)	0.72	0.46	0.57	0.57	0.57	0.58	16
1,2-Dichlorotetrafluoroethane	4.8	2.5	2.8	2.8	2.9	3.2	29
1,4-Dioxane	0.26	0.17	0.21	0.20	0.18	0.21	16
Ethanol	0.40	0.48	0.55	0.56	0.63	0.52	17
Ethylbenzene	3.0	2.0	1.9	1.7	1.6	2.0	26
4-Ethyltoluene	2.2	1.9	1.8	1.6	1.4	1.8	16
n-Heptane	0.98	0.66	0.69	0.65	0.64	0.73	20
1,3-Hexachlorobutadiene	0.83	0.82	0.70	0.56	0.45	0.67	24

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 12/8/2017 **Method ID:** 1208.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4421BFB]	12/08/2017 11:01
40 PPBV STD [AA4423STD01]	12/08/2017 15:47
20 PPBV STD [AA4424STD02]	12/08/2017 16:21
10 PPBV STD [AA4425STD03]	12/08/2017 16:55
2 PPBV STD [AA4426STD04]	12/08/2017 17:29
0.2 PPBV STD [AA4427STD05]	12/08/2017 18:02
10 PPBV ICVSS [AA4428ICVSS]	12/08/2017 18:36

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
n-Hexane	1.6	2.0	2.2	2.3	2.5	2.1	16
Isopropanol	3.3	1.9	2.3	2.4	2.5	2.5	21
Methylene chloride	1.8	1.2	1.6	1.6	1.9	1.6	17
Methyl ethyl ketone	3.3	2.1	2.9	3.0	3.5	3.0	18
Methyl isobutyl ketone	1.4	0.87	0.91	0.87	0.86	0.98	23
Methyl methacrylate	0.72	0.47	0.51	0.50	0.52	0.55	19
Methyl n-butyl ketone	1.4	0.75	0.86	0.85	0.86	0.95	28
Methyl tert-butyl ether	6.3	3.4	3.5	3.6	4.0	4.2	29
Naphthalene	0.44	0.44	0.33	0.27	0.22	0.34	29
Propene	0.73	0.66	0.92	0.95	1.0	0.86	19
Styrene	1.7	1.1	1.1	1.0	0.94	1.2	25
Tert-butyl alcohol	2.4	2.7	3.0	3.1	3.5	2.9	14
1,1,2,2-Tetrachloroethane	1.7	1.4	1.2	1.0	0.89	1.2	26
Tetrachloroethene	0.49	0.53	0.54	0.49	0.45	0.50	7.2
Tetrahydrofuran	2.3	1.2	1.6	1.7	1.9	1.7	24
Toluene	2.0	1.3	1.3	1.2	1.2	1.4	24
1,2,4-Trichlorobenzene	0.79	1.3	1.0	0.82	0.65	0.91	27
1,1,1-Trichloroethane	3.3	2.0	2.2	2.2	2.5	2.4	21
1,1,2-Trichloroethane	0.68	0.42	0.45	0.42	0.40	0.47	25
Trichloroethene	0.49	0.37	0.44	0.41	0.38	0.42	12
Trichlorofluoromethane	3.1	2.2	2.4	2.5	2.8	2.6	14
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	2.7	2.5	2.4	2.7	2.7	13
1,2,4-Trimethylbenzene	2.1	1.7	1.7	1.5	1.4	1.7	16
1,3,5-Trimethylbenzene	2.5	1.7	1.7	1.5	1.4	1.8	24
2,2,4-Trimethylpentane	1.4	1.6	1.9	1.8	1.7	1.7	9.8
Vinyl bromide	0.54	0.88	1.2	1.2	1.4	1.1	33
Vinyl chloride	0.71	1.0	1.4	1.4	1.6	1.2	29
Xylenes (m&p)	2.0	1.6	1.5	1.4	1.2	1.5	18
Xylenes (o)	1.9	1.6	1.5	1.3	1.1	1.5	19

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 1/12/2018 **Method ID:** 0112.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4871BFB]	01/12/2018 10:59
40 PPBV STD [AA4873STD01]	01/12/2018 12:42
20 PPBV STD [AA4874STD02]	01/12/2018 13:15
10 PPBV STD [AA4875STD03]	01/12/2018 13:49
2 PPBV STD [AA4876STD04]	01/12/2018 14:22
0.2 PPBV STD [AA4877STD05]	01/12/2018 15:42
10 PPBV ICVSS [AA4878ICVSS]	01/12/2018 16:23

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
Bromochloromethane	----------ISTD----------						
1,4-Difluorobenzene	----------ISTD----------						
d-5 Chlorobenzene	----------ISTD----------						
Acetone	1.0	0.62	0.87	0.88	0.90	0.86	17
Acrolein	0.74	0.47	0.67	0.69	0.70	0.65	16
Allyl Chloride	0.79	0.49	0.73	0.75	0.72	0.70	17
Benzene	6.3	3.8	5.0	5.2	5.3	5.1	17
Benzyl chloride	1.7	1.4	1.7	1.7	1.6	1.6	7.3
Bromodichloromethane	1.0	0.60	0.84	0.84	0.83	0.82	17
Bromoform	0.69	0.53	0.65	0.65	0.62	0.63	9.3
Bromomethane	1.1	0.76	1.0	0.96	0.91	0.95	14
1,3-Butadiene	1.5	1.0	1.3	1.3	1.3	1.3	14
Chlorobenzene	1.6	1.0	1.1	1.1	1.0	1.1	21
Chloroethane	1.0	0.59	0.80	0.81	0.85	0.82	20
Chloroform	4.0	2.4	3.4	3.5	3.6	3.4	18
Chloromethane	0.59	0.35	0.45	0.45	0.45	0.46	18
Carbon disulfide	4.9	3.1	4.5	4.5	4.6	4.3	16
Carbon tetrachloride	3.8	2.5	3.1	3.2	3.3	3.2	15
2-Chlorotoluene	2.2	1.5	1.6	1.6	1.5	1.7	17
Cumene	2.8	1.9	2.0	1.9	1.8	2.1	19
Cyclohexane	3.7	2.4	2.8	2.9	2.9	2.9	16
Dibromochloromethane	0.89	0.52	0.68	0.68	0.68	0.69	19
1,2-Dibromoethane	0.90	0.57	0.69	0.69	0.69	0.71	17
1,2-Dichlorobenzene	1.4	0.96	1.0	0.96	0.90	1.0	20
1,3-Dichlorobenzene	1.4	0.95	0.96	0.91	0.83	1.0	22
1,4-Dichlorobenzene	1.4	1.00	1.0	0.98	0.91	1.1	19
Dichlorodifluoromethane	4.3	2.7	3.8	3.9	4.1	3.7	17
1,1-Dichloroethane	3.7	2.2	3.1	3.2	3.3	3.1	18
1,2-Dichloroethane	3.1	1.8	2.6	2.7	2.8	2.6	18
1,1-Dichloroethene	3.1	1.9	2.8	2.8	2.9	2.7	17
1,2-Dichloroethene (trans)	2.7	1.7	2.4	2.5	2.6	2.4	17
1,2-Dichloroethene (trans)	2.6	1.7	2.5	2.6	2.7	2.4	17
1,2-Dichloropropane	0.67	0.41	0.49	0.49	0.49	0.51	19
1,3-Dichloropropene (cis)	0.90	0.57	0.75	0.75	0.73	0.74	16
1,3-Dichloropropene (trans)	0.82	0.53	0.71	0.72	0.72	0.70	15
1,2-Dichlorotetrafluoroethane	5.0	3.0	3.6	3.6	3.5	3.7	20
1,4-Dioxane	0.35	0.19	0.23	0.23	0.23	0.25	26
Ethanol	0.56	0.60	0.66	0.68	0.73	0.65	10
Ethylbenzene	2.7	2.0	2.1	2.0	1.8	2.1	17
4-Ethyltoluene	2.5	1.8	1.9	1.8	1.7	2.0	16
n-Heptane	0.98	0.63	0.72	0.71	0.69	0.75	18
1,3-Hexachlorobutadiene	0.92	0.65	0.68	0.61	0.53	0.68	21

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Initial Calibration Data Summary Report

Initial Calibration Curve: 1/12/2018 **Method ID:** 0112.M
Instrument: AA

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4871BFB]	01/12/2018 10:59
40 PPBV STD [AA4873STD01]	01/12/2018 12:42
20 PPBV STD [AA4874STD02]	01/12/2018 13:15
10 PPBV STD [AA4875STD03]	01/12/2018 13:49
2 PPBV STD [AA4876STD04]	01/12/2018 14:22
0.2 PPBV STD [AA4877STD05]	01/12/2018 15:42
10 PPBV ICVSS [AA4878ICVSS]	01/12/2018 16:23

RParameter	RRF 0.2ppbv	RRF 2ppbv	RRF 10ppbv	RRF 20ppbv	RRF 40ppbv	Avg ppbv	% RSD
n-Hexane	3.3	2.0	2.7	2.7	2.8	2.7	17
Isopropanol	2.9	2.1	2.8	2.9	2.9	2.7	13
Methylene chloride	3.0	1.4	2.0	2.0	2.1	2.1	27
Methyl ethyl ketone	4.0	2.3	3.3	3.5	3.6	3.3	19
Methyl isobutyl ketone	1.4	0.87	0.98	0.95	0.91	1.0	20
Methyl methacrylate	0.70	0.45	0.56	0.57	0.57	0.57	15
Methyl n-butyl ketone	1.2	0.81	0.94	0.93	0.91	0.96	17
Methyl tert-butyl ether	6.5	4.0	4.8	4.9	5.0	5.0	18
Naphthalene	0.35	0.28	0.34	0.32	0.28	0.31	9.7
Propene	1.5	0.75	1.0	1.0	1.1	1.1	24
Styrene	1.3	0.98	1.1	1.1	1.0	1.1	11
Tert-butyl alcohol	5.4	3.3	4.1	4.3	4.4	4.3	17
1,1,2,2-Tetrachloroethane	1.8	1.2	1.2	1.2	1.1	1.3	21
Tetrachloroethene	0.71	0.43	0.50	0.48	0.46	0.52	22
Tetrahydrofuran	2.3	1.3	1.9	2.0	2.1	1.9	19
Toluene	1.8	1.2	1.4	1.3	1.3	1.4	18
1,2,4-Trichlorobenzene	1.0	0.76	0.99	0.90	0.77	0.89	14
1,1,1-Trichloroethane	4.3	2.6	3.2	3.3	3.4	3.4	17
1,1,2-Trichloroethane	0.62	0.39	0.46	0.46	0.45	0.47	18
Trichloroethene	0.53	0.31	0.41	0.40	0.39	0.41	19
Trichlorofluoromethane	5.1	2.9	3.8	3.9	4.0	4.0	19
1,1,2-Trichloro-1,2,2-trifluoroethane	4.3	2.7	2.9	2.9	3.0	3.2	20
1,2,4-Trimethylbenzene	2.3	1.7	1.8	1.7	1.6	1.8	15
1,3,5-Trimethylbenzene	2.3	1.7	1.8	1.7	1.6	1.8	16
2,2,4-Trimethylpentane	2.5	1.5	2.1	2.0	2.0	2.0	17
Vinyl bromide	1.2	0.90	1.3	1.3	1.4	1.2	15
Vinyl chloride	1.9	1.2	1.7	1.7	1.8	1.7	16
Xylenes (m&p)	2.2	1.6	1.7	1.6	1.5	1.7	18
Xylenes (o)	2.3	1.6	1.6	1.5	1.4	1.7	20

***% RSD (Relative Standard Deviation) must be within 30%**
****An exception is made for 2 compounds that must be within 40%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017
Instrument: AA
Amount of standard injected (ml): 50

Date/Time of Calibration: 11/14/2017 07:01
Sample ID: DCS
Laboratory ID: AA4082DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 05:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 07:01
10 PPBV LCS [AA4083LCS]	11/14/2017 08:21
METHOD BLANK [AA4084BLK]	11/14/2017 08:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
CLEAN CAN CERTIFICATION, BATCH MASTER 3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Acetone	0.25	0.23	5.7	PASS	
Benzene	2.9	2.6	11	PASS	
Bromodichloromethane	0.94	0.96	-2.3	PASS	
Bromoform	1.0	1.1	-5.7	PASS	
Bromomethane	0.58	0.67	-16	PASS	
1,3-Butadiene	0.31	0.29	8.9	PASS	
Chlorobenzene	1.3	1.2	6.7	PASS	
Chloroethane	0.30	0.28	6.4	PASS	
Chloroform	3.0	3.0	0.70	PASS	
Chloromethane	0.084	0.083	1.2	PASS	
Carbon disulfide	2.7	2.5	7.8	PASS	
Carbon tetrachloride	4.4	4.5	-1.9	PASS	
Cyclohexane	1.2	1.1	7.1	PASS	
Dibromochloromethane	1.1	1.1	1.0	PASS	
1,2-Dibromoethane	0.79	0.74	5.8	PASS	
1,2-Dichlorobenzene	1.4	1.4	2.3	PASS	
1,3-Dichlorobenzene	1.5	1.5	1.8	PASS	
1,4-Dichlorobenzene	1.5	1.5	2.4	PASS	
Dichlorodifluoromethane	3.7	4.0	-6.5	PASS	
1,1-Dichloroethane	1.6	1.4	13	PASS	
1,2-Dichloroethane	1.9	1.9	0.10	PASS	
1,1-Dichloroethene	1.4	1.4	0.40	PASS	
1,2-Dichloroethene (cis)	1.1	1.0	8.3	PASS	
1,2-Dichloroethene (trans)	1.1	1.0	10	PASS	
1,2-Dichloropropane	0.26	0.21	19	PASS	
1,3-Dichloropropene (cis)	0.57	0.54	5.4	PASS	
1,3-Dichloropropene (trans)	0.60	0.59	2.7	PASS	
1,2-Dichlorotetrafluoroethane	2.9	2.8	3.7	PASS	
1,4-Dioxane	0.18	0.16	15	PASS	
Ethylbenzene	1.9	1.9	-2.1	PASS	
n-Heptane	0.24	0.26	-7.0	PASS	
1,3-Hexachlorobutadiene	1.1	1.0	7.1	PASS	
n-Hexane	0.82	0.68	17	PASS	
Methylene chloride	0.89	0.76	15	PASS	
Methyl ethyl ketone	0.39	0.38	2.3	PASS	
Methyl isobutyl ketone	0.36	0.32	10	PASS	
Methyl tert-butyl ether	3.2	2.9	6.9	PASS	
Styrene	1.0	1.1	-5.9	PASS	
Tert-butyl alcohol	1.6	1.4	12	PASS	
1,1,2,2-Tetrachloroethane	1.1	1.1	6.9	PASS	
Tetrachloroethene	0.65	0.61	6.6	PASS	
Toluene	1.1	1.1	2.6	PASS	
1,2,4-Trichlorobenzene	1.3	1.2	10	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve:	**9/12/2017**	**Date/Time of Calibration:**	**11/14/2017 07:01**
Instrument:	**AA**	**Sample ID:**	**DCS**
Amount of standard injected (ml):	**50**	**Laboratory ID:**	**AA4082DCVS**

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4081BFB]	11/14/2017 05:53
10 PPBV DCVS [AA4082DCVS]	11/14/2017 07:01
10 PPBV LCS [AA4083LCS]	11/14/2017 08:21
METHOD BLANK [AA4084BLK]	11/14/2017 08:55
02 PPBV RLLCS [AA4085RLLCS]	11/14/2017 10:08
CLEAN CAN CERTIFICATION, BATCH MASTER 3289 [AA4086]	11/14/2017 10:57
10 PPBV CCCVS [AA4103CCCVS]	11/14/2017 19:58

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
1,1,1-Trichloroethane	3.7	3.6	1.3	PASS	
1,1,2-Trichloroethane	0.46	0.42	9.0	PASS	
Trichloroethene	0.52	0.49	5.7	PASS	
Trichlorofluoromethane	4.9	5.1	-3.6	PASS	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	2.7	9.9	PASS	
1,2,4-Trimethylbenzene	1.9	2.2	-11	PASS	
1,3,5-Trimethylbenzene	2.0	2.2	-9.6	PASS	
2,2,4-Trimethylpentane	0.73	0.68	7.1	PASS	
Vinyl bromide	0.94	0.95	-1.1	PASS	
Vinyl chloride	0.57	0.54	4.8	PASS	
Xylenes (m&p)	1.6	1.7	-6.4	PASS	
Xylenes (o)	1.6	1.7	-7.3	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017
Instrument: AA
Amount of standard injected (ml): 50

Date/Time of Calibration: 11/29/2017 10:04
Sample ID: DCS
Laboratory ID: AA4302DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 08:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
CLEAN CAN CERTIFICATION, BATCH MASTER 3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Acetone	0.25	0.23	5.7	PASS	
Benzene	2.9	2.7	7.4	PASS	
Bromodichloromethane	0.94	1.0	-12	PASS	
Bromoform	1.0	1.3	-24	PASS	
Bromomethane	0.58	0.69	-19	PASS	
1,3-Butadiene	0.31	0.28	12	PASS	
Chlorobenzene	1.3	1.2	5.1	PASS	
Chloroethane	0.30	0.26	12	PASS	
Chloroform	3.0	3.1	-1.3	PASS	
Chloromethane	0.084	0.081	3.6	PASS	
Carbon disulfide	2.7	2.3	13	PASS	
Carbon tetrachloride	4.4	5.3	-22	PASS	
Cyclohexane	1.2	1.1	10	PASS	
Dibromochloromethane	1.1	1.3	-22	PASS	
1,2-Dibromoethane	0.79	0.83	-5.0	PASS	
1,2-Dichlorobenzene	1.4	1.6	-10	PASS	
1,3-Dichlorobenzene	1.5	1.7	-11	PASS	
1,4-Dichlorobenzene	1.5	1.7	-11	PASS	
Dichlorodifluoromethane	3.7	4.5	-19	PASS	
1,1-Dichloroethane	1.6	1.4	9.7	PASS	
1,2-Dichloroethane	1.9	2.1	-8.7	PASS	
1,1-Dichloroethene	1.4	1.5	-4.7	PASS	
1,2-Dichloroethene (cis)	1.1	1.1	4.3	PASS	
1,2-Dichloroethene (trans)	1.1	1.1	4.7	PASS	
1,2-Dichloropropane	0.26	0.22	13	PASS	
1,3-Dichloropropene (cis)	0.57	0.58	-1.9	PASS	
1,3-Dichloropropene (trans)	0.60	0.64	-6.3	PASS	
1,2-Dichlorotetrafluoroethane	2.9	3.0	-3.2	PASS	
1,4-Dioxane	0.18	0.17	5.5	PASS	
Ethylbenzene	1.9	1.9	1.0	PASS	
n-Heptane	0.24	0.27	-9.9	PASS	
1,3-Hexachlorobutadiene	1.1	1.3	-16	PASS	
n-Hexane	0.82	0.75	8.3	PASS	
Methylene chloride	0.89	0.72	18	PASS	
Methyl ethyl ketone	0.39	0.38	3.6	PASS	
Methyl isobutyl ketone	0.36	0.38	-6.5	PASS	
Methyl tert-butyl ether	3.2	3.1	3.0	PASS	
Styrene	1.0	1.2	-15	PASS	
Tert-butyl alcohol	1.6	1.6	5.3	PASS	
1,1,2,2-Tetrachloroethane	1.1	1.1	4.6	PASS	
Tetrachloroethene	0.65	0.74	-14	PASS	
Toluene	1.1	1.2	-2.5	PASS	
1,2,4-Trichlorobenzene	1.3	1.5	-13	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve:	**9/12/2017**	**Date/Time of Calibration:**	**11/29/2017 10:04**
Instrument:	**AA**	**Sample ID:**	**DCS**
Amount of standard injected (ml):	**50**	**Laboratory ID:**	**AA4302DCVS**

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4301BFB]	11/29/2017 08:42
10 PPBV DCVS [AA4302DCVS]	11/29/2017 10:04
10 PPBV LCS [AA4303LCS]	11/29/2017 10:45
METHOD BLANK [AA4304BLK]	11/29/2017 11:19
02 PPBV RLLCS [AA4305RLLCS]	11/29/2017 11:59
CLEAN CAN CERTIFICATION, BATCH MASTER 3059 [AA4306]	11/29/2017 14:35
10 PPBV CCCVS [AA4319CCCVS]	11/29/2017 22:05

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
1,1,1-Trichloroethane	3.7	4.0	-8.3	PASS	
1,1,2-Trichloroethane	0.46	0.47	-1.7	PASS	
Trichloroethene	0.52	0.61	-16	PASS	
Trichlorofluoromethane	4.9	5.7	-15	PASS	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	2.9	3.0	PASS	
1,2,4-Trimethylbenzene	1.9	2.3	-19	PASS	
1,3,5-Trimethylbenzene	2.0	2.4	-17	PASS	
2,2,4-Trimethylpentane	0.73	0.78	-6.3	PASS	
Vinyl bromide	0.94	1.0	-6.8	PASS	
Vinyl chloride	0.57	0.54	4.1	PASS	
Xylenes (m&p)	1.6	1.6	-5.3	PASS	
Xylenes (o)	1.6	1.8	-10	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve: 9/12/2017
Instrument: AA
Amount of standard injected (ml): 50
Date/Time of Calibration: 12/5/2017 10:03
Sample ID: DCS
Laboratory ID: AA4402DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 08:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
CLEAN CAN CERTIFICATION, BATCH MASTER 4853 [AA4406]	12/05/2017 12:22
CLEAN CAN CERTIFICATION, BATCH MASTER 2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Acetone	0.25	0.23	8.9	PASS	
Benzene	2.9	2.7	9.8	PASS	
Bromodichloromethane	0.94	1.0	-8.6	PASS	
Bromoform	1.0	1.2	-17	PASS	
Bromomethane	0.58	0.69	-18	PASS	
1,3-Butadiene	0.31	0.27	16	PASS	
Chlorobenzene	1.3	1.2	8.4	PASS	
Chloroethane	0.30	0.26	13	PASS	
Chloroform	3.0	3.0	1.2	PASS	
Chloromethane	0.084	0.076	9.5	PASS	
Carbon disulfide	2.7	2.3	14	PASS	
Carbon tetrachloride	4.4	5.2	-19	PASS	
Cyclohexane	1.2	1.1	11	PASS	
Dibromochloromethane	1.1	1.3	-20	PASS	
1,2-Dibromoethane	0.79	0.82	-3.7	PASS	
1,2-Dichlorobenzene	1.4	1.5	-3.8	PASS	
1,3-Dichlorobenzene	1.5	1.5	-2.2	PASS	
1,4-Dichlorobenzene	1.5	1.6	-5.8	PASS	
Dichlorodifluoromethane	3.7	4.4	-18	PASS	
1,1-Dichloroethane	1.6	1.4	12	PASS	
1,2-Dichloroethane	1.9	2.1	-7.2	PASS	
1,1-Dichloroethene	1.4	1.4	-2.7	PASS	
1,2-Dichloroethene (cis)	1.1	1.1	5.7	PASS	
1,2-Dichloroethene (trans)	1.1	1.1	5.5	PASS	
1,2-Dichloropropane	0.26	0.22	14	PASS	
1,3-Dichloropropene (cis)	0.57	0.57	0.70	PASS	
1,3-Dichloropropene (trans)	0.60	0.64	-5.7	PASS	
1,2-Dichlorotetrafluoroethane	2.9	2.9	-0.90	PASS	
1,4-Dioxane	0.18	0.18	4.4	PASS	
Ethylbenzene	1.9	1.8	5.5	PASS	
n-Heptane	0.24	0.26	-7.4	PASS	
1,3-Hexachlorobutadiene	1.1	1.1	-4.8	PASS	
n-Hexane	0.82	0.74	9.7	PASS	
Methylene chloride	0.89	0.71	20	PASS	
Methyl ethyl ketone	0.39	0.38	3.3	PASS	
Methyl isobutyl ketone	0.36	0.38	-5.3	PASS	
Methyl tert-butyl ether	3.2	3.0	3.9	PASS	
Styrene	1.0	1.1	-2.0	PASS	
Tert-butyl alcohol	1.6	1.6	5.4	PASS	
1,1,2,2-Tetrachloroethane	1.1	1.0	12	PASS	
Tetrachloroethene	0.65	0.74	-13	PASS	
Toluene	1.1	1.1	0.80	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve:	**9/12/2017**	**Date/Time of Calibration:**	**12/5/2017 10:03**
Instrument:	**AA**	**Sample ID:**	**DCS**
Amount of standard injected (ml):	**50**	**Laboratory ID:**	**AA4402DCVS**

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4401BFB]	12/05/2017 08:49
10 PPBV DCVS [AA4402DCVS]	12/05/2017 10:03
10 PPBV LCS [AA4403LCS]	12/05/2017 10:38
METHOD BLANK [AA4404BLK]	12/05/2017 11:09
02 PPBV RLLCS [AA4405RLLCS]	12/05/2017 11:49
CLEAN CAN CERTIFICATION, BATCH MASTER 4853 [AA4406]	12/05/2017 12:22
CLEAN CAN CERTIFICATION, BATCH MASTER 2156 [AA4407]	12/05/2017 12:56
10 PPBV CCCVS [AA4412CCCVS]	12/05/2017 15:44

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
1,2,4-Trichlorobenzene	1.3	1.3	-0.40	PASS	
1,1,1-Trichloroethane	3.7	3.9	-6.5	PASS	
1,1,2-Trichloroethane	0.46	0.45	2.2	PASS	
Trichloroethene	0.52	0.60	-14	PASS	
Trichlorofluoromethane	4.9	5.6	-13	PASS	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	2.8	4.6	PASS	
1,2,4-Trimethylbenzene	1.9	2.1	-8.0	PASS	
1,3,5-Trimethylbenzene	2.0	2.3	-12	PASS	
2,2,4-Trimethylpentane	0.73	0.75	-2.0	PASS	
Vinyl bromide	0.94	0.98	-4.5	PASS	
Vinyl chloride	0.57	0.52	8.5	PASS	
Xylenes (m&p)	1.6	1.5	2.9	PASS	
Xylenes (o)	1.6	1.6	-0.70	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve: 1/12/2018
Instrument: AA
Amount of standard injected (ml): 50
Date/Time of Calibration: 1/15/2018 08:59
Sample ID: DCS
Laboratory ID: AA4892DCVS

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 08:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 08:59
10 PPBV LCS [AA4893LCS]	01/15/2018 09:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
CLEAN CAN CERTIFICATION, BATCH MASTER 5073 [AA4902]	01/15/2018 16:05
CLEAN CAN CERTIFICATION, BATCH MASTER 3016 [AA4903]	01/15/2018 16:39
CLEAN CAN CERTIFICATION, BATCH MASTER 2162 [AA4904]	01/15/2018 17:12
CLEAN CAN CERTIFICATION, BATCH MASTER 3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Acetone	0.86	0.83	3.6	PASS	
Benzene	5.1	4.7	8.7	PASS	
Bromodichloromethane	0.82	0.88	-7.3	PASS	
Bromoform	0.63	0.70	-13	PASS	
Bromomethane	0.95	1.0	-4.9	PASS	
1,3-Butadiene	1.3	1.3	4.5	PASS	
Chlorobenzene	1.1	1.1	4.1	PASS	
Chloroethane	0.82	0.76	7.3	PASS	
Chloroform	3.4	3.4	-1.2	PASS	
Chloromethane	0.46	0.42	7.2	PASS	
Carbon disulfide	4.3	4.3	0.10	PASS	
Carbon tetrachloride	3.2	3.2	-2.6	PASS	
Cyclohexane	2.9	2.6	11	PASS	
Dibromochloromethane	0.69	0.73	-6.4	PASS	
1,2-Dibromoethane	0.71	0.70	1.0	PASS	
1,2-Dichlorobenzene	1.0	0.96	8.5	PASS	
1,3-Dichlorobenzene	1.0	0.94	7.8	PASS	
1,4-Dichlorobenzene	1.1	0.98	8.4	PASS	
Dichlorodifluoromethane	3.7	3.9	-5.6	PASS	
1,1-Dichloroethane	3.1	3.0	2.9	PASS	
1,2-Dichloroethane	2.6	2.6	0.30	PASS	
1,1-Dichloroethene	2.7	2.7	-1.0	PASS	
1,2-Dichloroethene (cis)	2.4	2.3	3.4	PASS	
1,2-Dichloroethene (trans)	2.4	2.4	1.9	PASS	
1,2-Dichloropropane	0.51	0.48	6.3	PASS	
1,3-Dichloropropene (cis)	0.74	0.74	0.80	PASS	
1,3-Dichloropropene (trans)	0.70	0.70	0.70	PASS	
1,2-Dichlorotetrafluoroethane	3.7	3.6	2.5	PASS	
1,4-Dioxane	0.25	0.22	11	PASS	
Ethylbenzene	2.1	2.1	1.9	PASS	
n-Heptane	0.75	0.70	5.8	PASS	
1,3-Hexachlorobutadiene	0.68	0.63	6.8	PASS	
n-Hexane	2.7	2.5	9.2	PASS	
Methylene chloride	2.1	1.9	8.9	PASS	
Methyl ethyl ketone	3.3	3.1	8.1	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

Continuing Calibration Data Summary Report

Initial Calibration Curve:	**1/12/2018**	**Date/Time of Calibration:**	**1/15/2018 08:59**
Instrument:	**AA**	**Sample ID:**	**DCS**
Amount of standard injected (ml):	**50**	**Laboratory ID:**	**AA4892DCVS**

Standard/Sample Run	Date/Time of Sample/Standard Injection
BFB [AA4891BFB]	01/15/2018 08:20
10 PPBV DCVS [AA4892DCVS]	01/15/2018 08:59
10 PPBV LCS [AA4893LCS]	01/15/2018 09:43
METHOD BLANK [AA4894BLK]	01/15/2018 10:57
02 PPBV RLLCS [AA4895RLLCS]	01/15/2018 12:11
CLEAN CAN CERTIFICATION, BATCH MASTER 5073 [AA4902]	01/15/2018 16:05
CLEAN CAN CERTIFICATION, BATCH MASTER 3016 [AA4903]	01/15/2018 16:39
CLEAN CAN CERTIFICATION, BATCH MASTER 2162 [AA4904]	01/15/2018 17:12
CLEAN CAN CERTIFICATION, BATCH MASTER 3281 [AA4905]	01/15/2018 17:46
E18-00010-01 [AA4908]	01/15/2018 19:27
E18-00010-21 [AA4909]	01/15/2018 20:01
E18-00010-02 [AA4910]	01/15/2018 20:35
E18-00010-03 [AA4911]	01/15/2018 21:09
E18-00010-04 [AA4912]	01/15/2018 21:42
10 PPBV CCCVS [AA4914CCCVS]	01/15/2018 22:50

Compound Name	Average RRF	Standard RRF	% Difference	PassFail	*
Methyl isobutyl ketone	1.0	0.94	7.2	PASS	
Methyl tert-butyl ether	5.0	4.6	9.5	PASS	
Styrene	1.1	1.1	4.2	PASS	
Tert-butyl alcohol	4.3	3.8	11	PASS	
1,1,2,2-Tetrachloroethane	1.3	1.2	4.2	PASS	
Tetrachloroethene	0.52	0.50	3.5	PASS	
Toluene	1.4	1.3	5.2	PASS	
1,2,4-Trichlorobenzene	0.89	0.82	8.0	PASS	
1,1,1-Trichloroethane	3.4	3.3	1.3	PASS	
1,1,2-Trichloroethane	0.47	0.46	3.0	PASS	
Trichloroethene	0.41	0.42	-2.2	PASS	
Trichlorofluoromethane	4.0	4.1	-3.3	PASS	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.2	2.9	6.7	PASS	
1,2,4-Trimethylbenzene	1.8	1.7	4.5	PASS	
1,3,5-Trimethylbenzene	1.8	1.8	3.4	PASS	
2,2,4-Trimethylpentane	2.0	2.0	0.00	PASS	
Vinyl bromide	1.2	1.2	-1.4	PASS	
Vinyl chloride	1.7	1.6	4.7	PASS	
Xylenes (m&p)	1.7	1.5	11	PASS	
Xylenes (o)	1.7	1.6	1.8	PASS	

***%Difference must be within +/- 30%**
RRF - Relative Response Factor

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APPENDIX H

DUSRs For All Endpoint Samples
(Incl CD)

Data Usability Summary Report (DUSR)
27-10 49th Avenue, Long Island City, NY

Information included in this DUSR was taken from York Analytical Laboratories' QA Summary Reports (Project No: 19E1278 and 19f0039). The DUSR for the soil samples analyzed by York labs showed that the overall performances of the analyses are acceptable and did fulfill the requirements of the analytical methods. The samples were analyzed within the USEPA SW-846 holding times. None of the analytical data changed based on the DUSR. Some issues were identified resulting in data qualifiers for certain compounds in some samples as described on the following pages.

Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Definitions: LCS - Laboratory Control Sample
LCS dup - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
BS - Blank Spike also called LCS
BSD - Blank Spike Duplicate also called LCS dup
SRM - Standard Reference Material
DUP - Duplicate

VOCs

QC Sample Nonconformances

Batch ID: BE91703 **Affected Samples:** See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BE91703-BS1	Vinyl Chloride - 75-01-4	65.5 ug/L	LCS	131	52-130	High Bias				

Batch ID: Y9E2910 **Affected Samples:** See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y9E2910-SCV1	Acrolein - 107-02-8	24.4 ug/L	Secondary Cal Check	48.8	70-130	Low Bias				

Batch ID: Y9F0438 **Affected Samples:** See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y9F0438-CCV1	Carbon disulfide - 75-15-0	61.5 ug/L	Calibration Check	123	80-120	High Bias				
Y9F0438-CCV1	Dichlorodifluoromethane - 75-71-8	65.7 ug/L	Calibration Check	131	80-120	High Bias				
Y9F0438-CCV1	n-Butylbenzene - 104-51-8	61.2 ug/L	Calibration Check	122	80-120	High Bias				

Batch ID: BE91703 **General Method:** Volatile Organic Compounds by GC/MS

YORK Sample ID	Client Sample ID
19E1278-01	OWS-PE-1
19E1278-02	OWS-PE-2
19E1278-03	OWS-PE-3
19E1278-04	OWS-PE-4
19E1278-05	OWS-PE-5
BE91703-BLK1	Blank
BE91703-BS1	LCS
BE91703-BSD1	LCS Dup

QC DATA QUALIFIERS

LabID	Analysis	Analyte	Qualifier	Definition
Y9F0438-CCV1	VOA, 8260 Comprehensive	n-Butylbenzene	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F0438-CCV1	VOA, 8260 Comprehensive	Dichlorodifluoromethane	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F0438-CCV1	VOA, 8260 Comprehensive	Carbon disulfide	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
BE91703-BS1	VOA, 8260 Comprehensive	Vinyl Chloride	QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.

SVOA

QC Sample Nonconformances

Batch ID: BF90313 **Affected Samples:** **See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BF90313-BS1	Benzoic acid - 65-85-0	89.7 ug/kg wet	LCS	9.44	10-140	Low Bias				
BF90313-MS1	2,3,4,6-Tetrachlorophenol - 58-90-2	1150 ug/kg dry	Matrix Spike (OWS-PE-1)	133	30-130	High Bias				
BF90313-MS1	2,4-Dinitrophenol - 51-28-5	<172 ug/kg dry	Matrix Spike (OWS-PE-1)	NR	10-171	Low Bias				
BF90313-MS1	4,6-Dinitro-2-methylphenol - 534-52-1	<172 ug/kg dry	Matrix Spike (OWS-PE-1)	NR	10-155	Low Bias				
BF90313-MS1	Hexachlorocyclopentadiene - 77-47-4	<86.3 ug/kg dr	Matrix Spike (OWS-PE-1)	NR	10-106	Low Bias				
BF90313-MSD1	Benzyl butyl phthalate - 85-68-7	666 ug/kg dry	Matrix Spike Dup (OWS-PE-1)	77.3	10-154		31.5	30	Non-dir.	
BF90313-MSD1	Bis(2-ethylhexyl)phthalate - 117-81-7	749 ug/kg dry	Matrix Spike Dup (OWS-PE-1)	75.5	10-167		57.6	30	Non-dir.	

Batch ID: Y9F1037 **Affected Samples:** **See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y9F1037-CCV1	2,4-Dinitrophenol - 51-28-5	40.4 ug/mL	Calibration Check	135	80-120	High Bias				
Y9F1037-CCV1	Benzidine - 92-87-5	56.8 ug/mL	Calibration Check	189	80-120	High Bias				
Y9F1037-CCV1	Di-n-octyl phthalate - 117-84-0	41.2 ug/mL	Calibration Check	137	80-120	High Bias				
Y9F1037-CCV1	Hexachlorocyclopentadiene - 77-47-4	23.0 ug/mL	Calibration Check	76.7	80-120	Low Bias				
Y9F1037-CCV1	N-Nitrosodiphenylamine - 86-30-6	22.6 ug/mL	Calibration Check	75.4	80-120	Low Bias				
Y9F1037-CCV1	Pentachlorophenol - 87-86-5	22.2 ug/mL	Calibration Check	74.1	80-120	Low Bias				
Y9F1037-CCV1	Phenol - 108-95-2	37.7 ug/mL	Calibration Check	126	80-120	High Bias				
Y9F1037-CCV1	Parathion - 56-38-2	42.4 ug/mL	Calibration Check	141	80-120	High Bias				

Batch ID: Y9F1120 **Affected Samples:** **See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y9F1120-CCV1	2,4-Dinitrophenol - 51-28-5	42.9 ug/mL	Calibration Check	143	80-120	High Bias				
Y9F1120-CCV1	2-Nitrophenol - 88-75-5	38.7 ug/mL	Calibration Check	129	80-120	High Bias				
Y9F1120-CCV1	3,3-Dichlorobenzidine - 91-94-1	75.1 ug/mL	Calibration Check	125	80-120	High Bias				
Y9F1120-CCV1	4,6-Dinitro-2-methylphenol - 534-52-1	36.8 ug/mL	Calibration Check	123	80-120	High Bias				
Y9F1120-CCV1	Benzaldehyde - 100-52-7	21.0 ug/mL	Calibration Check	69.9	80-120	Low Bias				
Y9F1120-CCV1	Benzidine - 92-87-5	36.6 ug/mL	Calibration Check	122	80-120	High Bias				
Y9F1120-CCV1	Benzyl butyl phthalate - 85-68-7	37.6 ug/mL	Calibration Check	125	80-120	High Bias				
Y9F1120-CCV1	Bis(2-ethylhexyl)phthalate - 117-81-7	38.1 ug/mL	Calibration Check	127	80-120	High Bias				
Y9F1120-CCV1	Di-n-octyl phthalate - 117-84-0	40.5 ug/mL	Calibration Check	135	80-120	High Bias				
Y9F1120-CCV1	Indeno(1,2,3-cd)pyrene - 193-39-5	37.4 ug/mL	Calibration Check	125	80-120	High Bias				
Y9F1120-CCV1	Parathion - 56-38-2	49.8 ug/mL	Calibration Check	166	80-120	High Bias				

Batch ID: BF90313 **General Method:** Semivolatile Organic Compounds by GC/MS

YORK Sample ID	Client Sample ID
19F0039-01	OWS-PE-1
19F0039-02	OWS-PE-2
19F0039-03	OWS-PE-3
19F0039-04	OWS-PE-4
19F0039-05	OWS-PE-5
BF90313-BLK1	Blank
BF90313-BS1	LCS
BF90313-MS1	Matrix Spike
BF90313-MSD1	Matrix Spike Dup

QC DATA QUALIFIERS

LabID	Analysis	Analyte	Qualifier	Definition
Y9F1037-CCV1	SVOA, 8270 Comprehensive	Pentachlorophenol	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
BF90313-MS1	SVOA, 8270 Comprehensive	2,4-Dinitrophenol	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
BF90313-MS1	SVOA, 8270 Comprehensive	4,6-Dinitro-2-methylphenol	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
BF90313-MS1	SVOA, 8270 Comprehensive	Hexachlorocyclopentadiene	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
BF90313-BS1	SVOA, 8270 Comprehensive	Benzoic acid	QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
BF90313-MSD1	SVOA, 8270 Comprehensive	2,4-Dinitrophenol	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
BF90313-MSD1	SVOA, 8270 Comprehensive	4,6-Dinitro-2-methylphenol	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.

BF90313-MSD1	SVOA, 8270 Comprehensive	Aniline	J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
BF90313-MSD1	SVOA, 8270 Comprehensive	Benzyl butyl phthalate	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
BF90313-MSD1	SVOA, 8270 Comprehensive	Bis(2-ethylhexyl)phthalate	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
BF90313-MSD1	SVOA, 8270 Comprehensive	Hexachlorocyclopentadiene	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
Y9F1037-CCV1	SVOA, 8270 Comprehensive	2,4-Dinitrophenol	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1037-CCV1	SVOA, 8270 Comprehensive	Benzidine	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
BF90313-MS1	SVOA, 8270 Comprehensive	2,3,4,6-Tetrachlorophenol	QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
Y9F1037-CCV1	SVOA, 8270 Comprehensive	Hexachlorocyclopentadiene	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit)

Y9F1120-CCV1	SVOA, 8270 Comprehensive	Parathion	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1037-CCV1	SVOA, 8270 Comprehensive	N-Nitrosodiphenylamine	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1037-CCV1	SVOA, 8270 Comprehensive	Parathion	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1037-CCV1	SVOA, 8270 Comprehensive	Phenol	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	2,4-Dinitrophenol	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	3,3-Dichlorobenzidine	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	4,6-Dinitro-2-methylphenol	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	2-Nitrophenol	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Y9F1120-CCV1	SVOA, 8270 Comprehensive	Benzaldehyde	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	Benzidine	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	Bis(2-ethylhexyl)phthalate	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	Benzyl butyl phthalate	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	Di-n-octyl phthalate	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1120-CCV1	SVOA, 8270 Comprehensive	Indeno(1,2,3-cd)pyrene	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
Y9F1037-CCV1	SVOA, 8270 Comprehensive	Di-n-octyl phthalate	CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

APPENDIX I

Engineering Blower Information

RadonAway
The world's leading radon fan manufacturer

RP PRO SERIES



Installs white, stays white

Radon Mitigation Fan

All RadonAway® fans are specifically designed for radon mitigation. RP Series Fans provide superb performance, run ultra-quiet and are attractive. They are ideal for most sub-slab radon mitigation systems.

Features

- Eternalast™ polycarbonate plastic housing
- Energy efficient
- Ultra-quiet operation
- Meets all electrical code requirements
- Water-hardened motorized impeller
- Seams sealed to inhibit radon leakage (RP140 & RP145 double snap sealed)
- ETL Listed - for indoor or outdoor use
- Thermally protected motor
- Rated for commercial and residential use





MODEL	P/N	FAN DUCT DIAMETER	WATTS	RECOM. MAX. OP. PRESSURE "WC	TYPICAL CFM vs. STATIC PRESSURE WC				
					0"	.5"	1.0"	1.5"	2.0"
RP140	28460	4"	15-21	0.7	135	70	-	-	-
RP145	28461	4"	41-72	1.7	166	126	82	41	3
RP260	28462	6"	47-65	1.3	251	157	90	-	-
RP265	28463	6"	95-139	2.3	375	282	204	140	70
RP380	28464	8"	96-138	2.0	531	415	268	139	41

Model	A	B	C
RP140	4.5"	9.7"	8.5"
RP145	4.5"	9.7"	8.5"
RP260	6"	11.75"	8.6"
RP265	6"	11.75"	8.6"
RP380	8"	13.41"	10.53"

MADE IN USA

ETL Listed
Intertek

5 YEAR WARRANTY
All RadonAway® inline radon fans are covered by our 5-year, hassle-free warranty.

RP140 Only

For Further Information, Contact Your Radon Professional:

© 2021 RadonAway

Rev E 0921
P/N 02047

APPENDIX J

Imported Materials Documentation

TILCON
A CRH COMPANY

TILCON NEW YORK INC.
162 OLD MILL ROAD
WEST NYACK, NY 10994
New York Orders : (800) 872-7762
New Jersey Orders : (800) 789-7625

Ticket #: 20921804

Ticket #	Date	Time	Dispatch	Plant #	Plant Description	Source	Facility ID
20921804	04/22/2019	06:53	126259	00209	West Nyack Quarry 845-353-04	8-8R	

Sold To:
Mark 413 348 0886
Job Description:
Highground L.I.C. 27-10 49th Ave Sean 973 713 8006

Customer #	Order #	Purchase Order
99107		

Zone	Truck #	Hauler
55044-3	2663	237315 OLD RIDGE INDUSTRY CORP.

Product #	Product Description	DOT Mix ID	Delivery Method
1014007	ASTM 57		Delivered

Long Island City 27-10 49th Ave

Loads: 1 **Accum Amount:** 37.40 Tons 33.93 Metric Tonnes

GROSS: 111,060 L
TARE: 36,260 L
NET: 74,800 L

UNIT PRICE:	26.27
SUBTOTAL:	982.50
FREIGHT:	435.71
TAX:	118.78
TOTAL:	1536.99

This Load: 37.40 Tons 33.93 Metric Tonnes

Weighmaster Steve Collins

TILCON NEW YORK, INC. ISSUES THIS RECEIPT SOLELY FOR THE PURPOSE OF ESTABLISHING WEIGHT.OPERATION OF THIS VEHICLE IN EXCESS OF ALLOWABLE LEGAL PERMITS MAY RESULT IN DELAY OF THE VEHICLE AND/OR ARREST OF ITS OPERATOR. WE ARE NOT RESPONSIBLE FOR DAMAGE WHEN DELIVERY IS ORDERED OFF PUBLIC ROADS ANY DAMAGE WILL BE CHARGED TO THE CUSTOMER

Received By: _____ **Driver Name:** _____

TILCON NEW YORK INC.

162 OLD MILL ROAD
WEST NYACK, NY 10994
New York Orders : (800) 872-7762
New Jersey Orders : (800) 789-7625

Ticket #: 20925169

TICKET #	DATE	TIME	PLANT #	Plant Description
20925169	05/09/2019	08:19	00209	West Nyack Quarry 845-353-0470

SOLD TO:	Customer #	Order #	Purchase Order
Cash-West Nyack Stone	99107		Sean 973 713 8006

JOB DESCRIPTION:	Zone	TRUCK #	HAULER
Highground L.I.C. 27-10 49th Ave MARK 413 348 0886	55044-3	2317	231519 STARFIRE INDUSTRIES, INC.

PRODUCT #	PRODUCT DESCRIPTION	Delivery Method	
1014007	ASTM 57	Delivered	

LOADS: 2 **ACCUM. AMOUNT:** 76.35 Tons 69.26 Metric Tonnes

OUT	GROSS:	115,180 L	52,246 kg
	TARE:	38,460 L	17,445 kg
	NET:	76,720 L	34,800 kg

* P. T.

THIS LOAD: 38.36 Tons 34.80 Metric Tonnes

UNIT PRICE:	26.27
SUBTOTAL:	1007.72
FREIGHT:	446.89
TAX:	121.82
TOTAL:	1576.43

Received By: _____ **Driver Name:** _____

TILCON NEW YORK, INC. ISSUES THIS RECEIPT SOLELY FOR THE PURPOSE OF ESTABLISHING WEIGHT.OPERATION OF THIS VEHICLE IN EXCESS OF ALLOWABLE LEGAL PERMITS MAY RESULT IN DELAY OF THE VEHICLE AND/OR ARREST OF ITS OPERATOR. WE ARE NOT RESPONSIBLE FOR DAMAGE WHEN DELIVERY IS ORDERED OFF PUBLIC ROADS ANY DAMAGE WILL BE CHARGED TO THE CUSTOMER

TILCON
A CRH COMPANY

TILCON NEW YORK INC.

162 OLD MILL ROAD
WEST NYACK, NY 10994
New York Orders : (800) 872-7762
New Jersey Orders : (800) 789-7625

Ticket #: 20925100

TICKET #	DATE	TIME	PLANT #	Plant Description
20925100	05/09/2019	05:33	00209	West Nyack Quarry 845-353-0470

SOLD TO:	Customer #	Order #	Purchase Order
Cash-West Nyack Stone	99107		Sean 973 713 8006

JOB DESCRIPTION:	Zone	TRUCK #	HAULER
Highground L.I.C. 27-10 49th Ave MARK 413 348 0886	55044-3	2317	231519 STARFIRE INDUSTRIES, INC.

PRODUCT #	PRODUCT DESCRIPTION	Delivery Method	
1014007	ASTM 57	Delivered	

LOADS: 1 **ACCUM. AMOUNT:** 37.99 Tons 34.46 Metric Tonnes

OUT	GROSS:	114,440 L	51,910 kg
	TARE:	38,460 L	17,445 kg
	NET:	75,980 L	34,465 kg

* P. T.

THIS LOAD: 37.99 Tons 34.46 Metric Tonnes

UNIT PRICE:	26.27
SUBTOTAL:	998.00
FREIGHT:	442.58
TAX:	120.65
TOTAL:	1561.23

Received By: _____ **Driver Name:** _____

TILCON NEW YORK, INC. ISSUES THIS RECEIPT SOLELY FOR THE PURPOSE OF ESTABLISHING WEIGHT.OPERATION OF THIS VEHICLE IN EXCESS OF ALLOWABLE LEGAL PERMITS MAY RESULT IN DELAY OF THE VEHICLE AND/OR ARREST OF ITS OPERATOR. WE ARE NOT RESPONSIBLE FOR DAMAGE WHEN DELIVERY IS ORDERED OFF PUBLIC ROADS ANY DAMAGE WILL BE CHARGED TO THE CUSTOMER

TILCON NEW YORK INC.

162 OLD MILL ROAD
WEST NYACK, NY 10994
New York Orders : (800) 872-7762
New Jersey Orders : (800) 789-7625

Ticket #: 20927267

TICKET #	DATE	TIME	PLANT #	Plant Description
20927267	05/21/2019	06:04	00209	West Nyack Quarry 845-353-0470

SOLD TO:	Customer #	Order #	Purchase Order
Cash-West Nyack Stone	99107		MARK 413 348 0886

JOB DESCRIPTION:	Zone	TRUCK #	HAULER
Highground 27-10 49th Ave L.I.C. MARK 413 348 0886	55044-3	7754	104037 RJL INDUSTRIES, INC.

PRODUCT #	PRODUCT DESCRIPTION	Delivery Method	
1014007	ASTM 57	Delivered	

LOADS: 1 **ACCUM. AMOUNT:** 41.21 Tons 37.38 Metric Tonnes

OUT	GROSS:	119,920 L	54,396 kg
	TARE:	37,500 L	17,010 kg
	NET:	82,420 L	37,386 kg

* P. T.

THIS LOAD: 41.21 Tons 37.38 Metric Tonnes

UNIT PRICE:	26.27
SUBTOTAL:	1082.59
FREIGHT:	480.10
TAX:	130.88
TOTAL:	1693.57

Received By: _____ **Driver Name:** _____

TILCON NEW YORK, INC. ISSUES THIS RECEIPT SOLELY FOR THE PURPOSE OF ESTABLISHING WEIGHT.OPERATION OF THIS VEHICLE IN EXCESS OF ALLOWABLE LEGAL PERMITS MAY RESULT IN DELAY OF THE VEHICLE AND/OR ARREST OF ITS OPERATOR. WE ARE NOT RESPONSIBLE FOR DAMAGE WHEN DELIVERY IS ORDERED OFF PUBLIC ROADS ANY DAMAGE WILL BE CHARGED TO THE CUSTOMER

TILCON NEW YORK INC.
162 OLD MILL ROAD
WEST NYACK, NY 10994
New York Orders : (800) 872-7762
New Jersey Orders : (800) 789-7625

Ticket #: 20928625

TICKET #	DATE	TIME	PLANT #	Plant Description
20928625	05/29/2019	05:35	00209	West Nyack Quarry 845-353-0470

SOLD TO:	Customer #	Order #	Purchase Order
Cash-West Nyack Stone	99107		
JOB DESCRIPTION:	**Zone**	**TRUCK #**	**HAULER**
Highground 27-10 49th Ave L.I.C. Sean 973 713 8006	55044-3	4712	12768 LONG ISLAND SOUND TRANSPORT, IN

PRODUCT #	PRODUCT DESCRIPTION	Delivery Method	
1014007	ASTM 57	Delivered	

LOADS: 1 **ACCUM. AMOUNT:** 36.83 Tons 33.41 Metric Tonnes

OUT	GROSS:	107,720 L	48,862 kg
	TARE:	34,060 L	15,450 kg
	NET:	73,660 L	33,412 kg

* P. T.

THIS LOAD: 36.83 Tons 33.41 Metric Tonnes

UNIT PRICE:	26.27
SUBTOTAL:	967.52
FREIGHT:	429.07
TAX:	116.96
TOTAL:	1513.55

Received By: _____ **Driver Name:** _____

TILCON NEW YORK, INC. ISSUES THIS RECEIPT SOLELY FOR THE PURPOSE OF ESTABLISHING WEIGHT.OPERATION OF THIS VEHICLE IN EXCESS OF ALLOWABLE LEGAL PERMITS MAY RESULT IN DELAY OF THE VEHICLE AND/OR ARREST OF ITS OPERATOR. WE ARE NOT RESPONSIBLE FOR DAMAGE WHEN DELIVERY IS ORDERED OFF PUBLIC ROADS ANY DAMAGE WILL BE CHARGED TO THE CUSTOMER

TILCON NEW YORK INC.
162 OLD MILL ROAD
WEST NYACK, NY 10994
New York Orders : (800) 872-7762
New Jersey Orders : (800) 789-7625

Ticket #: 20927280

TICKET #	DATE	TIME	PLANT #	Plant Description
20927280	05/21/2019	06:28	00209	West Nyack Quarry 845-353-0470

SOLD TO:	Customer #	Order #	Purchase Order
Cash-West Nyack Stone	99107		MARK 413 348 0886

JOB DESCRIPTION:	Zone	TRUCK #	HAULER
Highground 27-10 49th Ave L.I.C. MARK 413 348 0886	55044-3	7755	104037 RJL INDUSTRIES, INC.

PRODUCT #	PRODUCT DESCRIPTION	Delivery Method	
1014007	ASTM 57	Delivered	

LOADS: 2 **ACCUM. AMOUNT:** 79.30 Tons 71.94 Metric Tonnes

OUT	GROSS:	119,580 L	54,241 kg	
	TARE:	43,400 L	19,686 kg	
	NET:	76,180 L	34,555 kg	

* P. T.

THIS LOAD: 38.09 Tons 34.55 Metric Tonnes

UNIT PRICE:	26.27
SUBTOTAL:	1000.62
FREIGHT:	443.75
TAX:	120.97
TOTAL:	1565.34

Received By: _____ **Driver Name:** _____

TILCON NEW YORK, INC. ISSUES THIS RECEIPT SOLELY FOR THE PURPOSE OF ESTABLISHING WEIGHT.OPERATION OF THIS VEHICLE IN EXCESS OF ALLOWABLE LEGAL PERMITS MAY RESULT IN DELAY OF THE VEHICLE AND/OR ARREST OF ITS OPERATOR. WE ARE NOT RESPONSIBLE FOR DAMAGE WHEN DELIVERY IS ORDERED OFF PUBLIC ROADS ANY DAMAGE WILL BE CHARGED TO THE CUSTOMER