

October 19, 2017

David Szymanski Project Manager **New York State Department of Environmental Conservation Division of Environmental Remediation, Region 9** 270 Michigan Avenue, Buffalo, New York 14203-2915

> BVNA Project No. 08017-000138.00 Transmitted via e-mail: david.szymanski@dec.ny.gov

Subject: 2017 Annual Groundwater Monitoring and Periodic Review Report Lexington Machining, LLC. 201 Winchester Road, Village of Lakewood, Town of Busti Chauataqua County, New York - NYSDEC Site Number: 907004

Dear Mr. Szymanski:

On behalf of Lexington Machining, LLC, Bureau Veritas North America, Inc. (BVNA) is pleased to present the attached 2017 Annual Groundwater Monitoring and Periodic Review Report for your review and approval. The monitoring was completed to satisfy the requirements of the Site Management Plan.

Please contact me at (732) 522-1970 or john.stangline@us.bureauveritas.com with any questions.

Sincerely,

LA Styli

John A. Stangline, ARM, CPEA, CHMM HSE Director - Cleveland Health Safety and Environmental Services Northeast Ohio Regional Office

cc: Michael Lubin, Chairman, Lexington Machining LLC

Bureau Veritas North America, Inc.

Raritan Plaza I, 4th Floor, 110 Fieldcrest Avenue Edison, NJ 08837

Annual Groundwater Monitoring, Periodic Review Report

Lexington Machining, LLC

NYSDEC Site Number: 907004 Premier Lakewood, Inc. Site 201 Winchester Road Village of Lakewood, Town of Busti Chauataqua County, New York

Bureau Veritas Project No. 08017-000138.00 OCTOBER -2017

Prepared by:

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For the benefit of business and people



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EXECUTIVE SUMMARY

A Site Management Plan (SMP) has been prepared for Lexington Machining LLC (LMLLC) for the LMLLC property located at 201 Winchester Road in the Village of Lakewood, Town of Busti, New York, Site #907044 (the Site) to address low levels of volatile organic compounds (VOCs) remaining in soil and groundwater of the Site. The SMP is required by the New York State Department of Environmental Conservation (NYSDEC) draft Order on Consent and Administrative Settlement Index # B9-0792-08-10.

VOCs were identified in Site soil and groundwater during due diligence environmental site investigations and underground storage tank (UST) closure activities between July 2002 and November 2006. The primary soil and groundwater contaminant, 1,1,1-trichloroethane (1,1,1-TCA), had been previously used at the Site as a solvent and degreaser from approximately 1960 through 1991. Breakdown products of 1,1,1-TCA have also been identified in Groundwater

An enhanced in-situ bioremediation program was conducted to address VOCs in groundwater at the Site in August through November 2006. The program included injection of bio-amendments into groundwater to support and increase the rate of naturally occurring degradation of contaminants by reductive dechlorination.

Post-remediation groundwater sampling conducted since remediation indicates a significant decrease in contaminant concentrations. Soil contaminants remaining at the site are located at depths of 4 to 11.5 feet beneath site structures and include chlorinated solvents and acetone at concentrations below criteria for protection of public health in residential, commercial or industrial settings, but above criteria for protection of groundwater.

Groundwater contaminants remaining at the Site, including chlorinated solvent VOCs, are present in overburden groundwater under approximately half of the 99,000 square foot manufacturing building and the northern portion of the LMLLC property. Groundwater elevations are generally encountered at depths of 10 to 16 feet below grade. One groundwater sample, collected from deep groundwater monitoring well (MW-11D) in June 2010, exhibited concentrations of four VOCs, three at concentrations below groundwater quality standards, and the fourth, acetone, detected slightly above standards. Monitoring well MW-11D is located outside the southwest corner of the manufacturing building and up-gradient of chemical use areas. No other VOCs have been detected above standards in the deep groundwater zone.

Based upon the indications of the continued degradation of VOCs on the Site, the preferred approach for site management is monitored natural attenuation of VOCs in groundwater on an annual basis.

The 2017 annual site-wide inspection and groundwater indicate compliance with the conditions of the SMP and continued natural attenuation of groundwater contaminants. No changes to the SMP, site inspection and monitoring requirements are recommended.



1.0 BACKGROUND and SITE OVERVIEW

Subsequent to active remediation, a Site Management Plan (SMP) was prepared for the Lexington Machining LLC (LMLLC) property located at 201 Winchester Road in the Village of Lakewood, Town of Busti, New York, Site # 907004 (the Site). A Site location map is presented in Figure 1. The SMP was prepared to address low levels of volatile organic compounds (VOCs) remaining in soil and groundwater of the Site and is required by the New York State Department of Environmental Conservation (NYSDEC) draft Order on Consent and Administrative Settlement Index # B9-0792-08-10.

Annual Groundwater monitoring is required within section 3.2.1 Groundwater Monitoring of the SMP. This report presents the methods and results of the annual groundwater monitoring conducted in September 2017.

The site is located in the Village of Lakewood, Town of Busti, County of Chautauqua, New York and is situated on three lots identified as Block 385 and Lots 06-3-58, 06-3-59 and 06-3-60 on the Chautauqua County Tax Map. The site is an approximately 5.7-acre area bounded by a Chautauqua Regional Railroad Authority rail line to the north, a residential property and a vacant commercial/industrial facility to the south, Matco Tools manufacturing facility and American Legion Lakewood Memorial Post 1286 to the east, and Winchester Road to the west (see Figure 2).

1.1 HISTORIC OPERATIONS

The site was undeveloped vacant land at least through the 1930s with initial construction of the existing manufacturing building beginning circa 1956. Die casting operations, including aluminum, magnesium, and zinc die castings manufactured for consumer and industrial products, have been located at the property since that time. The manufacturing plant was occupied through the 1980s by Falconer Metal Specialties, which was succeeded by Falconer Die Casting, Lexington Die Casting, and Premier Tool & Die, and Premier Lakewood, Inc. the current operator. Lexington Precision Corporation, the previous owner of the Property, was the owner of Lexington Die Casting before selling the manufacturing equipment and operation to Premier Tool & Die in 2006. The current site owner is LMLLC.

Operations at the site ceased circa April 2014 with removal of equipment and manufacturing materials through the end of August 2014.

1.2 SITE ENVIRONMENTAL SUMMARY

VOCs were identified in Site soil and groundwater during due diligence environmental site investigations and underground storage tank (UST) closure activities between July 2002 and November 2006. The primary soil and groundwater contaminant, 1,1,1-trichloroethane (1,1,1-TCA), had been previously used at the Site as a solvent and degreaser from approximately 1960 through 1991. Breakdown products of 1,1,1-TCA identified in groundwater include 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), chloroethane, and vinyl chloride.



Also identified in several groundwater samples were 1,1,2-trichloroethane (1,1,2-TCA) and its breakdown product 1,2-dichloroethane (1,2-DCA).

An enhanced in-situ bioremediation program was conducted to address VOCs in groundwater at the Site in August through November 2006. The program included injection of bio-amendments into groundwater to support and increase the rate of naturally occurring degradation of contaminants by reductive dechlorination.

Post-remediation groundwater sampling conducted in April 2007, indicated a reduction in 1,1,1-TCA concentrations and an increase in 1,1,1-TCA breakdown products such as 1,1-DCA, and chloroethane

A groundwater sampling program was conducted in June 2010 to evaluate groundwater quality conditions at the Site. The concentrations of the primary contaminant, 1,1,1-TCA, had fallen below NYSDEC Groundwater Quality Standard (GWQS) in all but one monitoring well. The secondary contaminant, 1,1,2-TCA was detected in only one monitoring well at a concentration above the GWQS; the concentration was lower than the previously detected concentrations. Concentrations of contaminant breakdown products are generally increasing at the site. Concentrations of tertiary breakdown products chloroethane and chloroethane are also increasing. Secondary breakdown product concentrations of 1,1-DCA, 1,2-DCA and 1,1-DCE increased under the Site building but decreased in most other areas of the Site. These changes indicate that natural attenuation of the VOC contaminants at the Site is occurring.

Soil contaminants remaining at the site were documented at depths of 4 to 11.5 feet beneath site structures and include chlorinated solvents and acetone at concentrations below criteria for protection of public health in residential, commercial or industrial settings, but above criteria for protection of groundwater.

Groundwater contaminants remaining at the Site, including chlorinated solvent VOCs, are present in overburden groundwater under approximately half of the 99,000 square foot manufacturing building and the northern portion of the LMLLC property. Groundwater elevations are generally encountered at depths of 10 to 16 feet below grade. One groundwater sample, collected from deep groundwater monitoring well (MW-11D) in June 2010, exhibited concentrations of four VOCs, three at concentrations below groundwater quality standards, and the fourth, acetone, detected slightly above standards. Monitoring well MW-11D is located outside the southwest corner of the manufacturing building and up-gradient of chemical use areas. No other VOCs have been detected above standards in the deep groundwater zone.

1.3 ENGINEERING AND INSTITUTIONAL CONTROL

Since remaining contaminated soil and groundwater exists beneath limited areas of the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. EC/ICs are described fully in SMP section 2.0.



1.3.1 Monitored Natural Attenuation

Site groundwater investigation and monitoring indicate ongoing natural attenuation and degradation of VOC contaminants. Monitored natural attenuation effectiveness will be evaluated through a groundwater monitoring program that will be implemented to monitor groundwater plume characteristics, horizontal and vertical contaminant migration and related controlling processes. Section 2.0 and subsequent sections of this report provide a summary of the 2017 annual groundwater monitoring, monitoring results, conclusions and recommendations.

1.3.2 Institutional Controls

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for industrial or commercial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted and restricted residential use, without an evaluation of potential additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area noted on SMP Figure 7, and any potential impacts that are identified at concentrations that may pose a hazard must be mitigated;
- Vegetable gardens and farming on the property are prohibited;
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC finds acceptable.



A site-wide inspection of engineering and institutional controls was completed on September 12, 2017 by representatives of Bureau Veritas North America. The completed Site-Wide Inspection Form is provided in Attachment A. Each of the engineering and institutional controls was in place and remained effective at the time of the inspection and no changes or revisions to the IC/EC plan are recommended or warranted. A completed Site Management Periodic Review Report, Institutional and Engineering Controls Certification Form is provided as Attachment B.

2.0 <u>Annual Groundwater Monitoring</u>

The 2017 annual groundwater monitoring was completed to satisfy the requirements of SMP Sections 2.2.1.1, Monitored Natural Attenuation, and 3.2.1, Groundwater Monitoring.

Monitoring well sampling activities were recorded in a field book and on groundwatersampling log sheets available in SMP Appendix F. Relevant field observations (e.g., well integrity, etc.) were noted on the well sampling logs. The completed well sampling logs are provided in Appendix C. Because of driveway work and placement of gravel along the northern exterior of the building, monitoring well MW-12 was covered and could not be located at the time of the 2017 annual groundwater sampling event. An attempt was made to locate the well using mapped coordinates and a magnetometer, however the well could not be located.

2.1 Sample Collection

Prior to collecting groundwater samples, the groundwater level in each well was measured and recorded. Observed groundwater elevations are recorded on the well sampling logs and provided in Table 1. Inferred groundwater elevations and contours are depicted in Figure 3. Inferred groundwater flow direction is consistent with historic observations toward the northeast.

Groundwater samples were collected using the low-flow purging and sampling technique using a peristaltic pump and polyethylene tubing at flow rates of 0.1 to 0.4 liters per minute. The samples were collected once stabilization for three consecutive readings was achieved for the following parameters and variances:

- turbidity (10 percent for values greater than 1 NTU),
- dissolved oxygen (10 percent),
- specific conductance (3 percent),
- temperature (3 percent),
- pH (0.1 units) and
- oxygen reduction potential (10 millivolts).

The groundwater field parameters were monitored using a Horiba U-52 multi-parameter water quality meter with flow-through cell. The U-52 meter was calibrated at the beginning of each sampling day using manufacturer provided calibration fluid.



Purge water was collected, contained in a 55-gallon drum and temporarily staged onsite pending disposal.

Groundwater samples were collected directly into laboratory provided bottles and shipped overnight in an ice-filled cooler to Integrated Analytical laboratories, LLC (IAL) in Randolph, New Jersey, a New York State certified laboratory (New York: (NELAP) #11402). Two field blank samples (one per field day) and one trip blank sample were collected for quality assurance/quality control (QA/QC). Appropriate decontamination procedures were followed, and proper chain of custody procedures employed.

Groundwater samples were analyzed for target compound list (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method 8260C. No contaminants were reported above laboratory detection limits in the field and trip blank samples.

The analytical results were compared to the NYSDEC Groundwater Quality Standards (Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), and ECL Part 703, Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) to evaluate targeted compounds present above laboratory detection limits.

3.0 ANALYTICAL RESULTS

IAL provided its Laboratory Report dated September 28, 2017 for the samples collected at the Lexington Machining site (Appendix D). IAL reported that all holding times were met and proper preservation noted for the methods performed on the samples.

Table 2 provides a summary of the sample analytical results for the contaminants of concern in groundwater of the site detected during the 2017 sampling event. Table 3 provides a summary of the historical analytical results for those compounds.

Acetone, methyl ethyl ketone, benzene, and toluene were not detected in any groundwater samples. Detected concentrations of cis-1,2-DCE, in groundwater samples MW-2 (1.08 ug/L), MW-3 (0.463 ug/L estimated) and MW-13 (0.960 ug/L), were not above the respective groundwater quality standard (GWQS) of 5.0 ug/L

Primary contaminants of concern at the site, 1,1,1-TCA and 1,1,2-TCA were detected in several groundwater samples.

1,1,1-TCA was detected at concentrations of 0.500 ug/L, 1.40 ug/L, and 0.761 ug/L in groundwater samples MW-3, MW-11, and MW-1 respectively. These detected concentrations are less than the GWQS for 1,1,1-TCA of 5 ug/L. 1,1,1-TCA was detected at a concentration of 11.2 ug/L in groundwater sample MW-9. The detected concentration exceeds the GWQS for 1,1,1-TCA. 1,1,1-TCA was not detected above the laboratory detection limits in the remaining groundwater samples analyzed.

1,1,2-TCA was detected in groundwater sample MW-10 at a concentration of 1,21 ug/L. The detected concentration exceeds the GWQS for 1,1,2-TCA of 1 ug/L. 1,1,2-TCA was not detected above the laboratory detection limits in the remaining groundwater samples analyzed.



Secondary (breakdown product) contaminants including, 1,1-DCA, 1,1,-DCE, 1,2-DCA (EDC), and chloroethene (vinyl chloride [VC]) were also detected in groundwater samples.

1,1-DCA was detected in twelve of the fourteen groundwater samples. Nine of the twelve detected concentrations exceeded the GWQS of 5 ug/L, while the remaining three detected concentrations were below the GWQS. The maximum concentration of 196 ug/L was detected in MW-9. The other reported concentrations of 1,1,-DCA are listed in Table 2. 1,1-DCA was not detected above the laboratory detection limits in the remaining two groundwater samples.

1,1,-DCE was detected in eleven of the fourteen groundwater samples with eight of the concentrations exceeding the GWQS of 5 ug/L. The maximum concentration of 181 ug/L was detected in MW-9. The other reported concentrations of 1,1,-DCE are listed in Table 2. 1,1-DCE was not detected above the laboratory detection limits in the remaining three groundwater samples.

1,2-DCA was detected in four of the fourteen groundwater samples. The maximum concentration of 3.97 ug/L was detected in MW-9 exceeding the GWQS of 0.6 ug/L. 1,2-DCA was detected at concentrations of 0.851 ug/L, 0.962 ug/L, and 0.955 ug/L in groundwater samples MW-2, MW-3 and MW-13, respectively, each above the GWQS for 1,2-DCA. 1,2-DCA was not reported above detection limits in the other 10 groundwater samples collected.

Vinyl chloride was detected in three of the fourteen groundwater samples with two of the reported concentrations exceeding the GWQS of 2 ug/L. The maximum concentration of 9.32 ug/L was detected in MW-7. Sample MW-14 exhibited a vinyl chloride concentration of 3.91 ug/L and sample MW-3 exhibited a vinyl chloride concentration of 1.23 ug/L. Vinyl chloride was not detected above the laboratory detection limits in the remaining groundwater samples.

Tertiary breakdown products, chloroethane, and 1,2-Dichlorobenzene were detected in several groundwater samples analyzed. Chloroethane was detected in six groundwater samples, with three concentrations exceeding the GWQS of 5 ug/L. The maximum chloroethane concentration of 900 ug/L was detected in MW-2. Groundwater samples MW-3 and MW-13 exhibited chloroethane concentrations of 41.8 ug/L and 665 ug/L, respectively. The other reported concentrations of chloroethane are listed in Table 2.

1,2-Dichlorobenzene (ODCB) was detected in three groundwater samples (MW-3, MW-7, and MW-14) at concentrations below the GWQS of 3 ug/L. ODCB was not detected above the laboratory detection limits in the remaining groundwater samples.



4.0 DISCUSSION

Several groundwater samples collected from the monitoring well network at the site continue to exhibit concentrations of contaminants of concern exceeding GWQS. Historical groundwater quality data is provided in Table 3. Monitoring wells exhibited varying conditions including attainment of GWQS and/or non-detectable concentrations of contaminants, decreasing contaminant concentrations or elevated concentrations requiring continued monitoring.

4.1 Acceptable Groundwater Conditions

Five of the fourteen monitoring wells sampled exhibited no detected concentrations of contaminants or detections well below the GWQS, including the following:

Monitoring well ID	Location on Site
MW-2D	North center outside the building
MW-4	East of the building
MW-5	Northwest of the building
MVV-11	West of the building
MW-11D	West of the building

Monitoring Well ID Location on Site

These five monitoring wells have historically been free of concentrations of contaminants above detection limits and/or GWQS. Monitoring wells MW-11, MW-11D and MW-4 are up-gradient and monitoring well MW-5 is cross-gradient of impacted areas. Monitoring well MW-2D is down-gradient of impacted areas and is installed in the site's deeper water bearing zone to 27 feet below ground surface.

4.2 Improving Groundwater Conditions

Groundwater samples collected from four monitoring wells exhibited a decrease in contaminant concentrations between samples collected in October 2016 and in September 2017. The seven monitoring wells include the following:

Monitoring Well ID	Location on Site
MW-7	Northeast of the building
MW-8	Inside the secondary machining
	area of the building
MW-9	Inside the secondary machining
	area of the building
MW-10	Inside the compressor area of the
	building

Monitoring well MW-7 exhibited decreased concentrations of 1,1-DCE from 9.5 ug/L to 5.18 ug/L, 1,1-DCA from 10.2 ug/L to 9.15 ug/L; a slight increase in chloroethane from 3.4 ug/L to 3.58 ug/L and; an increase in chloroethene from 6.8 ug/L to 9.32 ug/L. Other contaminants remained below detection limits in MW-7 and total VOCs detected decreased from 29.9 ug/L to 27.7 ug/L.



MW-7 is the furthest down-gradient well and exhibited improving groundwater conditions with the exception of an increase in chloroethene concentrations since 2016 but comparable to concentrations detected in 2014 and 2015.

In monitoring well MW-8, detected concentrations of 1,1-DCA decreased from 9.7 ug/L to 6.43 ug/L; and 1,1-DCE decreased from 22.1 ug/L to 16.1 ug/L. Other contaminants remained below detection limits in MW-8 and total VOCs decreased from 31.8 ug/L to 22.5 ug/L.

In monitoring well MW-9, detected concentrations of 1,1-DCE decreased from 232 ug/L to 181 ug/L; concentrations of 1,2-DCA decreased from 9.1 ug/L to 3.97 ug/L. However; 1,1-DCA increased from 144 ug/L to 196 ug/L, and; 1,1,1-TCA increased slightly from 10.6 ug/L to 11.2 ug/L while still decreasing overall since 2015. Other contaminants remained below detection limits in MW-9 and total VOCs decreased from 395.7 ug/L to 392 ug/L.

In monitoring well MW-10, detected concentrations of 1,1,2-TCA increased from nondetectable concentrations to 1.21 ug/L, while still decreasing overall since 2015. Concentrations of 1,1-DCE decreased from 9.4 ug/L to 2.32 ug/L; concentration of 1,1-DCA exhibited a decrease from 44.7 ug/L to 38.1 ug/L, and 1,2-DCA concentrations decreased from 1.7 ug/L to below detection limits.

Groundwater samples collected from the monitoring wells within the building, MW-8, MW-9 and MW-10, exhibited improving conditions overall with a slight increase of approximately 0.6 ug/L in the primary contaminant 1,1,1-TCA and an increase in secondary contaminant 1,1-DCA in MW-9.

4.3 Groundwater Conditions for Continued Monitoring

Groundwater samples collected from five monitoring wells exhibited an overall increase in contaminant concentrations between October 2016 and September 2017.

Monitoring Well ID	Location on Site
MVV-1	North center outside the building
MW-2	North center outside the building
MW-3	Northeast outside the building
MW-13	Northeast outside the building
MW-14	Northeast outside the building

Monitoring Well ID	Location on Site
wonitoring well ID	Location on Site

In monitoring well MW-1, detected concentrations of 1,1-DCE increased from 10.7 ug/L to 11.4 ug/L, still below 2015 and earlier concentrations; 1,1-DCA increased from 5.8 ug/L to 6.71 ug/L, also below 2015 and earlier concentrations. 1,1,1-TCA was detected at a concentration of 0.761 ug/L but below the GWQS of 5.0 ug/L. Other contaminants remained below detection limits in MW-1 and total VOC increased slightly from 16.5 ug/L to 18.9 ug/L.



Monitoring well MW-2 exhibited an increase in concentrations of chloroethane from 417 ug/L to 900 ug/; 1,1-DCA from 6.4 ug/L to 28.1 ug/L; 1,2-DCA from below detection limits to 0.85 ug/L; 1,1-DCE from 3.8 ug/L to 7.65 ug/L; and cis-1,2-DCE from 1.0 ug/L to 1.08 ug/L. Other contaminants remained below detection limits in MW-2, and total VOC increased from 428.2 ug/L to 946 ug/L.

Monitoring well MW-3 exhibited an increase in concentrations of chloroethane from 21.7 ug/L to 41.8 ug/; chloroethene from below detection limits to 1.23 ug/L; 1,1-DCA from 28.2 ug/L to 31.2 ug/L; 1,2-DCA from below detection limits to 0.962 ug/L. Concentrations of 1,1-DCE decreased from 89.5 ug/L to 70.4 ug/L; and 1,2-dichlorobenzene decreased from 2.3 ug/L to 1.91 ug/L. 1,1,1-TCA was detected at a concentration of 0.5 ug/L and cis-1,2-DCE was detected at an estimated concentration of 0.46 ug/L. Other contaminants remained below detection limits in MW-3. Total VOCs detected in MW-3 increased slightly from 141.5 ug/L to 150 ug/L.

MW-13 exhibited an increase in concentrations of 1,1-DCE from 4.5 ug/L to 11.7 ug/L; 1,2-DCA increased from below detection limits to 0.995 ug/L; 1,1-DCA from 3.4 ug/L to 13.2 ug/L; and chloroethane from 44.5 ug/L to 665 ug/L. Cis-1,2-DCE was detected at a concentration of 0.96 ug/L, while other contaminants remained below detection limits in MW-13. Total VOCs detected in MW-13 increased from 52.5 ug/L to 699 ug/L.

Monitoring well MW-14 exhibited increases in detected concentrations of chloroethene from 1.1 ug/L to 4.33 ug/L; 1,1-DCA from 5.8 ug/L to 19 ug/L; chloroethane from 1.7 ug/L to 3.91 ug/L; and 1,1-DCE increased from 4.4 ug/L to 18.7 ug/L. 1,2-Dichlorobenzene was detected at a concentration of 0.845 ug/L. Total VOCs detected in MW-14 increased from 13 ug/L to 46.8 ug/L.

Each of these wells is on the downgradient side of the source area and plume and exhibited an increase of contaminant breakdown products. Contaminant increases observed were minimal since 2016 and 2015 or well below historical contaminant concentrations.



5.0 <u>CONCLUSIONS</u>

No non-compliance issues were observed or indicated for the SMP and requirements of the IC/EC have been met through October 2017. Based upon the results of the annual groundwater monitoring completed at the Lexington Machining, LLC site, continued groundwater monitoring is required under the NYSDEC approved Site Management Plan.

Groundwater contaminant concentrations are generally decreasing in the source area groundwater monitoring wells sampled (MW-8, MW-9 and MW-10 located within the building) or remaining below GWQS and/or detection limits in deep, cross-gradient and up-gradient wells (MW- 4, MW-5, MW-2D and MW-11, MW-11D). However, it should be noted that slight increases in concentrations of the primary contaminant 1,1,1-TCA and in secondary contaminant 1,1-DCA were detected in monitoring well MW-9 in the primary source area. In addition, monitoring well MW-1, downgradient from MW-9 also exhibited a slight increase in 1,1,1-TCA, 1,1-DCA and 1,1-DCE.

The furthest downgradient well, MW-7, has exhibited a decrease in detectable contaminants with a slight increase in the breakdown product, vinyl chloride (chloroethene).

Compounds exhibiting increasing or elevated concentrations are primarily breakdown products of the primary contaminants of concern at the site. The predominance of secondary and tertiary breakdown products (e.g., 900 ug/L chloroethane in MW-2) indicates that natural attenuation of groundwater contaminants is continuing at the site.

No additional action, investigation or revisions of the groundwater monitoring scope and schedule is recommended at the site. Lexington Machining will attempt to locate MW-12; if MW-12 is unable to be located it will be replaced / re-installed per applicable regulations and according to the SMP.



6.0 SIGNATURES

ThA Styli

Prepared by:

John A. Stangline, ARM, CPEA, CHMM HSE Director Northeast Ohio Regional Office

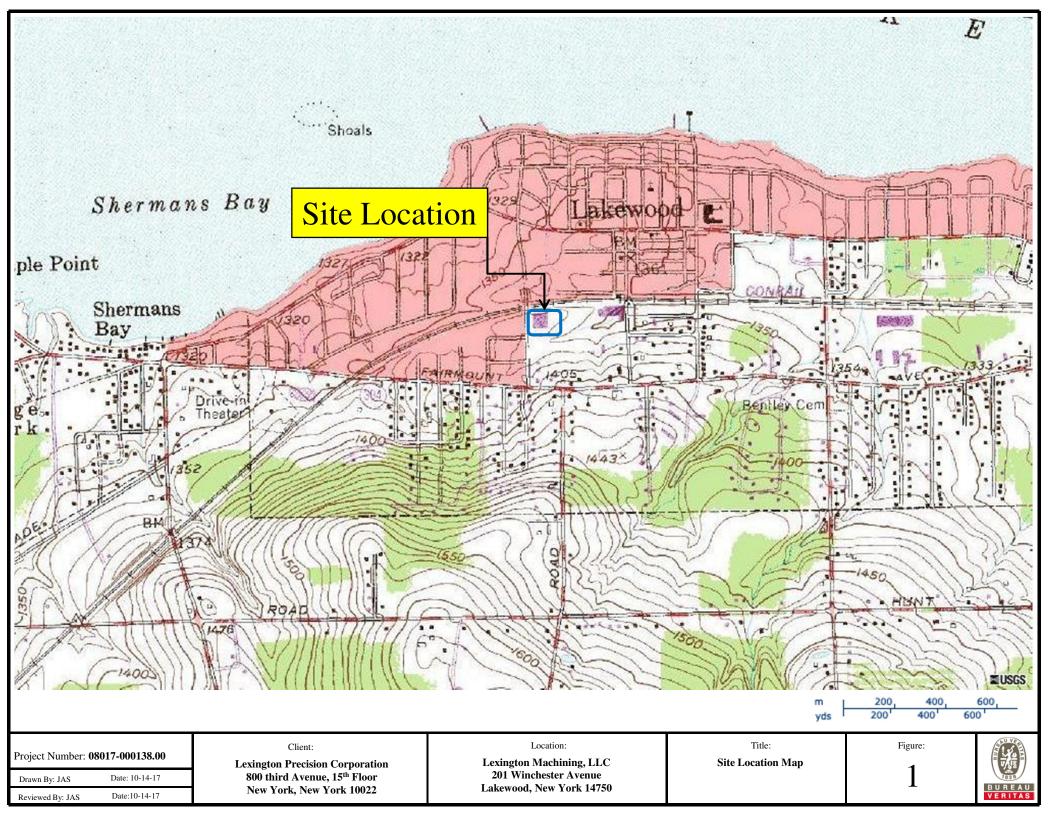
Jimothy N. M.C.

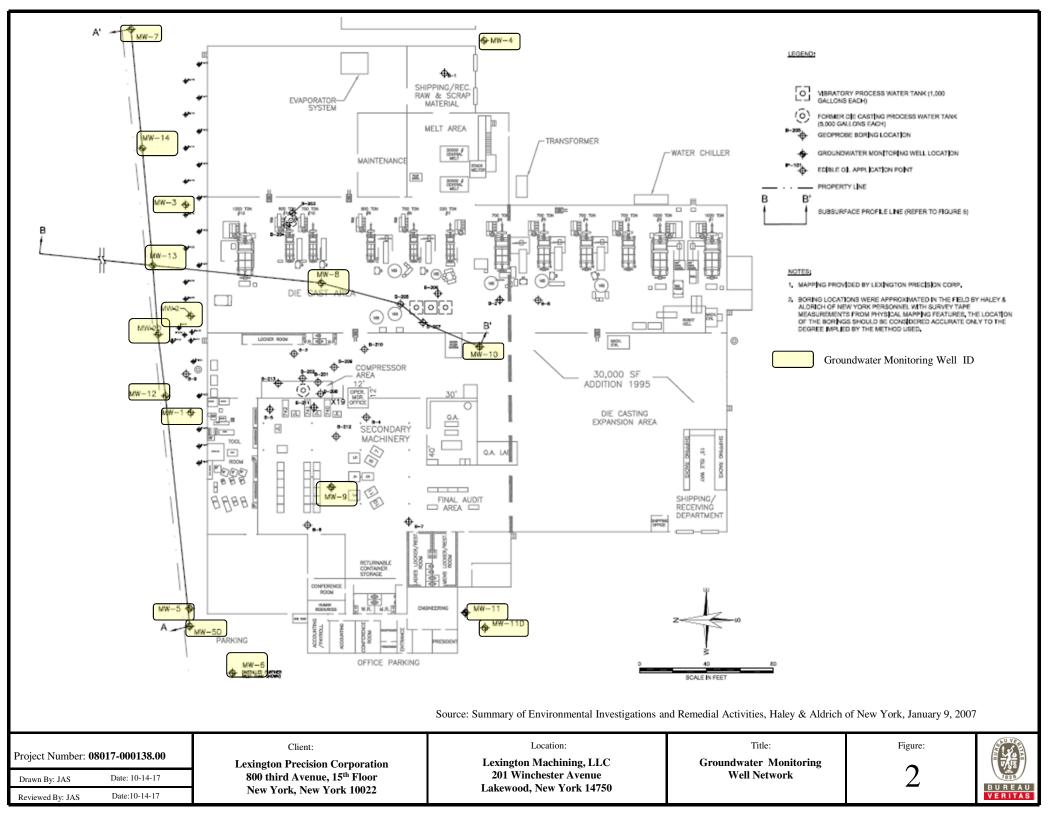
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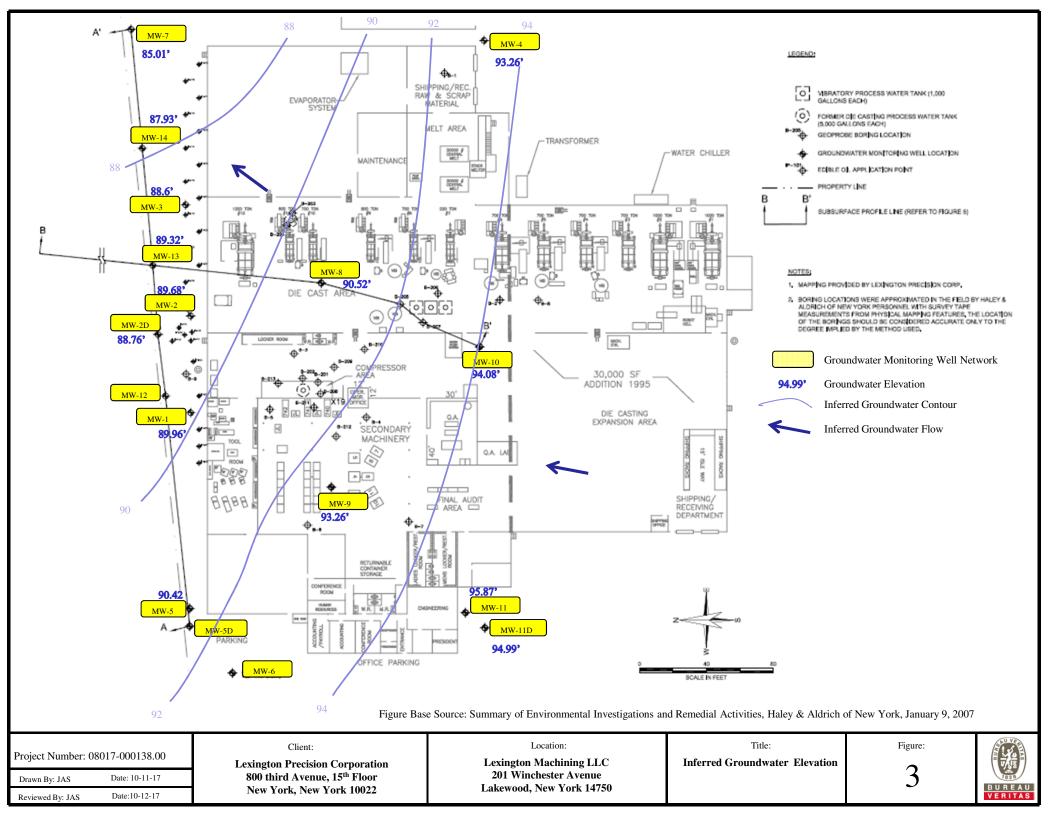
Timothy N. McCann Senior Project Manager Northeast Ohio Regional Office



FIGURES









TABLES

Table 1 September 2017 Groundwater Elevation Measurements

Well ID	Date	Depth to Water (ft)	Ground Surface Elevation (ft) *	Groundwater Elevation (ft)
MW-1	9/12/2017	11.86	101.82	89.96
MW-2	9/12/2017	11.62	101.3	89.68
MW-2D	9/12/2017	12.08	100.84	88.76
MW-3	9/12/2017	12.42	101.02	88.6
MW-4	9/12/2017	8.95	101.08	92.13
MW-5	9/12/2017	12.39	102.81	90.42
MW-7	9/12/2017	14.44	99.45	85.01
MW-8	9/13/2017	14.56	105.08	90.52
MW-9	9/13/2017	11.75	105.01	93.26
MW-10	9/13/2017	10.99	105.07	94.08
MW-11	9/13/2017	8.63	104.5	95.87
MW-11D	9/13/2017	9.24	104.23	94.99
MW-112	NA	NA	100.8	94.99 NA
MW-12				
	9/12/2017	11.48	100.8	89.32
MW-14	9/12/2017	12.57	100.5 January 9, 2007 Sun	87.93

* Ground Surface Elevations derived from the January 9, 2007 Summary of Environmental Investigation and Remedial Actions, Haley & Aldrich

Sample #:		TOGs - Table 5		MW-4				MW-7			FIEL	D BLANK -1	
Field ID:		Groundwater											
Lab ID:		Effluent		07838-001				07838-002				7838-003	
Date Sampled:		Limitations (Class GA)		09/12/2017			0	9/12/2017			0	9/12/2017	
Depth(ft):		(ug/L)											ļ
	CAS												
Volatiles (ug/L)				Q RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Vinyl chloride	75-01-4	2	ND	1.00	0.591	9.32		1.00	0.591	ND		1.00	0.591
Chloroethane	75-00-3	5	ND	0.500	0.495	3.58		0.500	0.495	ND		0.500	0.495
1,1-Dichloroethene	75-35-4	5	ND	0.500	0.493	5.18		0.500	0.493	ND		0.500	0.493
Acetone	67-64-1	50	ND	2.00	1.33	ND		2.00	1.33	ND		2.00	1.33
1,1-Dichloroethane	75-34-3	5	ND	0.500	0.493	9.15		0.500	0.493	ND		0.500	0.493
cis-1,2-Dichloroethene	156-59-2	5	ND	0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
2-Butanone (MEK)	78-93-3	50	ND	2.00	1.66	ND		2.00	1.66	ND		2.00	1.66
1,1,1-Trichloroethane	71-55-6	5	ND	0.500	0.462	ND		0.500	0.462	ND		0.500	0.462
1,2-Dichloroethane (EDC)	107-06-2	0.6	ND	0.500	0.458	ND		0.500	0.458	ND		0.500	0.458
Benzene	71-43-2	1	ND	0.500	0.464	ND		0.500	0.464	ND		0.500	0.464
Toluene	108-88-3	5	ND	0.500	0.379	ND		0.500	0.379	ND		0.500	0.379
1,1,2-Trichloroethane	79-00-5	1	ND	1.00	0.473	ND		1.00	0.473	ND		1.00	0.473
Tetrachloroethene	127-18-4	5	ND	0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
Chlorobenzene	108-90-7	5	ND	0.500	0.376	ND		0.500	0.376	ND		0.500	0.376
1,3-Dichlorobenzene	541-73-1	3	ND	0.500	0.351	ND		0.500	0.351	ND		0.500	0.351
1,4-Dichlorobenzene	106-46-7	3	ND	0.500	0.341	ND		0.500	0.341	ND		0.500	0.341
1,2-Dichlorobenzene	95-50-1	3	ND	0.500	0.364	0.482	J	0.500	0.364	ND		0.500	0.364
TOTAL VO's:		NS	ND		NA	27.7	J		NA	ND			NA
TOTAL TIC's:		NS	ND		NA	ND			NA	ND			NA
TOTAL VO's & TIC's:		NS	ND		NA	27.7	J		NA	ND			NA
Technical Guidance and Operational			1		1	1			1	Т	- I - I		ļ
Standards & Guidance Values and T	Table 5 New York State	Groundwater Effluent Limitations											
(Class GA), June 1998.	-												
BOLD Conc		ion that exceeds applicable criteria											ļ
BOLD RL	Indicates RL that exce												ļ
BOLD MDL	Indicates MDL that exc	ceeds applicable criteria.											
NS = No Standard Available													
ND = Analyzed for but Not Detected a													ļ
J = Concentration detected at a value		ě i			+								
For non-target compounds (i.e. TICs		timated concentrations.	-		+								
D = The compound was reported from					+								
N = Presumptive evidence of a comp	ound from the use of G	U/IVIS IIDrary search.			<u> </u>								

Field ID:									MW-3				MW-13	
		Groundwater												
Lab ID:		Effluent			7838-004				/838-005				7838-006	
Date Sampled:		Limitations (Class GA)		0	9/12/2017			09	/12/2017			0	9/12/2017	
Depth(ft):		(ug/L)												
	CAS													
Volatiles (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Vinyl chloride	75-01-4	2	3.91		1.00	0.591	1.23		1.00	0.591	ND		1.00	0.591
Chloroethane	75-00-3	5	4.33	I I	0.500	0.495	41.8		0.500	0.495	665	D	2.50	2.48
1,1-Dichloroethene	75-35-4	5	18.7		0.500	0.493	70.4		0.500	0.493	11.7		0.500	0.493
Acetone	67-64-1	50	ND	Ī	2.00	1.33	ND		2.00	1.33	ND		2.00	1.33
1,1-Dichloroethane	75-34-3	5	19.0	1	0.500	0.493	31.2		0.500	0.493	13.2		0.500	0.493
cis-1,2-Dichloroethene	156-59-2	5	ND		0.500	0.451	0.463	J	0.500	0.451	0.960		0.500	0.451
2-Butanone (MEK)	78-93-3	50	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66
1,1,1-Trichloroethane	71-55-6	5	ND		0.500	0.462	0.500		0.500	0.462	ND		0.500	0.462
1,2-Dichloroethane (EDC)	107-06-2	0.6	ND		0.500	0.458	0.962	1	0.500	0.458	0.955	1	0.500	0.458
Benzene	71-43-2	1	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464
Toluene	108-88-3	5	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379
1,1,2-Trichloroethane	79-00-5	1	ND		1.00	0.473	ND		1.00	0.473	ND		1.00	0.473
Tetrachloroethene	127-18-4	5	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
Chlorobenzene	108-90-7	5	ND		0.500	0.376	0.410	J	0.500	0.376	ND		0.500	0.376
1,3-Dichlorobenzene	541-73-1	3	ND		0.500	0.351	0.352	J	0.500	0.351	ND		0.500	0.351
1,4-Dichlorobenzene	106-46-7	3	ND		0.500	0.341	0.410	J	0.500	0.341	ND		0.500	0.341
1,2-Dichlorobenzene	95-50-1	3	0.845		0.500	0.364	1.91		0.500	0.364	ND		0.500	0.364
TOTAL VO's:		NS	46.8			NA	150	J		NA	692	D		NA
TOTAL TIC's:		NS	ND			NA	ND			NA	6.90	JN		NA
TOTAL VO's & TIC's:		NS	46.8			NA	150	J		NA	699	DJN		NA
														ļ
Technical Guidance and Operational Seri		,												ļ
Standards & Guidance Values and Table	le 5 New York State	Groundwater Effluent Limitations												ļ
(Class GA), June 1998.														ļ
		on that exceeds applicable criteria												ļ
		eds applicable criteria.												ļ
NS = No Standard Available	dicates MDL that exce	eeds applicable criteria.										_		├────┦
ND = Analyzed for but Not Detected at the														<u>├</u> ──── │
J = Concentration detected at a value bel		e the MDL for target compounds												<u>├</u> ─── ╿
For non-target compounds (i.e. TICs), qu		ě l												
D = The compound was reported from the														
N = Presumptive evidence of a compound	,	/MS library search.												

Sample #:		TOGs - Table 5			MW-2			I	MW-2D			TF	RIP BLANK	
Field ID:		Groundwater												
Lab ID:		Effluent		(07838-007			07	838-008			0	7838-009	
Date Sampled:		Limitations (Class GA)		C	9/12/2017			09	/12/2017			0	9/12/2017	
Depth(ft):		(ug/L)												,
	CAS											┶━━┥		
Volatiles (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Vinyl chloride	75-01-4	2	ND		1.00	0.591	ND		1.00	0.591	ND		1.00	0.591
Chloroethane	75-00-3	5	900	D	5.00	4.95	4.45		0.500	0.495	ND		0.500	0.495
1,1-Dichloroethene	75-35-4	5	7.65		0.500	0.493	ND		0.500	0.493	ND		0.500	0.493
Acetone	67-64-1	50	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33
1,1-Dichloroethane	75-34-3	5	28.1		0.500	0.493	0.499	J	0.500	0.493	ND		0.500	0.493
cis-1,2-Dichloroethene	156-59-2	5	1.08		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
2-Butanone (MEK)	78-93-3	50	ND		2.00	1.66	ND		2.00	1.66	ND		2.00	1.66
1,1,1-Trichloroethane	71-55-6	5	ND		0.500	0.462	ND		0.500	0.462	ND		0.500	0.462
1,2-Dichloroethane (EDC)	107-06-2	0.6	0.851		0.500	0.458	ND		0.500	0.458	ND		0.500	0.458
Benzene	71-43-2	1	ND		0.500	0.464	ND		0.500	0.464	ND		0.500	0.464
Toluene	108-88-3	5	ND		0.500	0.379	ND		0.500	0.379	ND		0.500	0.379
1,1,2-Trichloroethane	79-00-5	1	ND		1.00	0.473	ND		1.00	0.473	ND		1.00	0.473
Tetrachloroethene	127-18-4	5	ND		0.500	0.451	ND		0.500	0.451	ND		0.500	0.451
Chlorobenzene	108-90-7	5	ND		0.500	0.376	ND		0.500	0.376	ND		0.500	0.376
1,3-Dichlorobenzene	541-73-1	3	ND		0.500	0.351	ND		0.500	0.351	ND		0.500	0.351
1,4-Dichlorobenzene	106-46-7	3	ND		0.500	0.341	ND		0.500	0.341	ND		0.500	0.341
1,2-Dichlorobenzene	95-50-1	3	ND		0.500	0.364	ND		0.500	0.364	ND		0.500	0.364
TOTAL VO's:		NS	938	D		NA	4.95	J		NA	ND	+		NA
TOTAL TIC's:		NS	8.00	JN		NA	ND			NA	ND			NA
TOTAL VO's & TIC's:	I	NS	946	DJN		NA	4.95	J		NA	ND	++		NA
								_						·
Technical Guidance and Operational												+		ļ
Standards & Guidance Values and T	Table 5 New York State	Groundwater Effluent Limitations												
(Class GA), June 1998.														
BOLD Conc		ion that exceeds applicable criteria.												
BOLD RL	Indicates RL that excee													
BOLD MDL	Indicates MDL that exc	ceeds applicable criteria.												
NS = No Standard Available		l						+				+		
ND = Analyzed for but Not Detected a J = Concentration detected at a value		up the MDL for target comparing										+		
For non-target compounds (i.e. TICs		ş 1				+		+		+		+		
D = The compound was reported from						+				+		+		·
N = Presumptive evidence of a composition		C/MS library search.		-				+				++		
		onic notary sources.				1	1			1	1	┵━━┶		

Sample #:		TOGs - Table 5			MW-1			MW-5				MW-8	
Field ID:		Groundwater											
Lab ID:		Effluent			07838-010			07838-011				7838-012	
Date Sampled:		Limitations (Class GA)		0	9/12/2017			09/12/2017			0	9/13/2017	
Depth(ft):		(ug/L)											,
	CAS												
Volatiles (ug/L)			Conc	Q	RL	MDL	Conc	Q RL	MDL	Conc	Q	RL	MDL
Vinyl chloride	75-01-4	2	ND		1.00	0.591	ND	1.00	0.591	ND		1.00	0.591
Chloroethane	75-00-3	5	ND		0.500	0.495	ND	0.500	0.495	ND		0.500	0.495
1,1-Dichloroethene	75-35-4	5	11.4		0.500	0.493	ND	0.500	0.493	16.1		0.500	0.493
Acetone	67-64-1	50	ND		2.00	1.33	ND	2.00	1.33	ND		2.00	1.33
1,1-Dichloroethane	75-34-3	5	6.71	1	0.500	0.493	ND	0.500	0.493	6.43		0.500	0.493
cis-1,2-Dichloroethene	156-59-2	5	ND		0.500	0.451	ND	0.500	0.451	ND		0.500	0.451
2-Butanone (MEK)	78-93-3	50	ND		2.00	1.66	ND	2.00	1.66	ND		2.00	1.66
1,1,1-Trichloroethane	71-55-6	5	0.761		0.500	0.462	ND	0.500	0.462	ND		0.500	0.462
1,2-Dichloroethane (EDC)	107-06-2	0.6	ND		0.500	0.458	ND	0.500	0.458	ND		0.500	0.458
Benzene	71-43-2	1	ND		0.500	0.464	ND	0.500	0.464	ND		0.500	0.464
Toluene	108-88-3	5	ND		0.500	0.379	ND	0.500	0.379	ND		0.500	0.379
1,1,2-Trichloroethane	79-00-5	1	ND		1.00	0.473	ND	1.00	0.473	ND		1.00	0.473
Tetrachloroethene	127-18-4	5	ND		0.500	0.451	1.18	0.500	0.451	ND		0.500	0.451
Chlorobenzene	108-90-7	5	ND		0.500	0.376	ND	0.500	0.376	ND		0.500	0.376
1,3-Dichlorobenzene	541-73-1	3	ND		0.500	0.351	ND	0.500	0.351	ND		0.500	0.351
1,4-Dichlorobenzene	106-46-7	3	ND		0.500	0.341	ND	0.500	0.341	ND		0.500	0.341
1,2-Dichlorobenzene	95-50-1	3	ND		0.500	0.364	ND	0.500	0.364	ND	\square	0.500	0.364
TOTAL VO's:		NS	18.9			NA	1.18		NA	22.5	\vdash		NA
TOTAL TIC's:		NS	ND			NA	ND		NA	ND	\vdash		NA
TOTAL VO's & TIC's:		NS	18.9			NA	1.18		NA	22.5	\vdash		NA
											\vdash		·
Technical Guidance and Operational		,									\square		
Standards & Guidance Values and	Table 5 New York State	Groundwater Effluent Limitations									\square		
(Class GA), June 1998.											\square		
BOLD Conc		ion that exceeds applicable criteria.									\square		
BOLD RL	Indicates RL that excee										\square		
BOLD MDL	Indicates MDL that exc	ceeds applicable criteria.									\square		
NS = No Standard Available		+									\vdash		
ND = Analyzed for but Not Detected a						<u> </u>					\vdash		
J = Concentration detected at a value For non-target compounds (i.e. TICs		ě 1		+		<u> </u>					┢──┤		
D = The compound was reported from						<u> </u>					┢──┤		·
N = Presumptive evidence of a comp		C/MS library search				<u> </u>					┢──┼		·
r – r resumptive evidence of a comp		Sino ibialy scalon.		1		L				1	<u>ل</u> ــــــ		

Viny chloride75-01-42ND1.000.591ND1.000.591ND1.000.591ND1.000.591ND1.000.591ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.495ND0.5000.4931.000.591ND0.5000.493ND0.5000.495ND0.5000.493ND <th< th=""><th>Sample #:</th><th></th><th>TOGs - Table 5</th><th></th><th></th><th>MW-10</th><th></th><th></th><th>MW-9</th><th></th><th></th><th>IELD BLANK</th><th>-2</th></th<>	Sample #:		TOGs - Table 5			MW-10			MW-9			IELD BLANK	-2
Date Sampled Depth(1) Limitations (class GA) (up L) UPU13207 UPU13207 UPU13207 Color (up L) (up L) Image Sampled (up L)	Field ID:		Groundwater										
Beprint(t) (ug1.) (ug	Lab ID:		Effluent		(07838-013			07838-014			07838-015	
CAS Conc Concon Conc Conc <t< td=""><td></td><td></td><td>Limitations (Class GA)</td><td></td><td>0</td><td>9/13/2017</td><td></td><td></td><td>09/13/2017</td><td></td><td></td><td>09/13/2017</td><td></td></t<>			Limitations (Class GA)		0	9/13/2017			09/13/2017			09/13/2017	
Volatilies (ug1) Conc Conc <th>Depth(ft):</th> <th></th> <th>(ug/L)</th> <th></th>	Depth(ft):		(ug/L)										
VinyLabland 76-01-4 2 ND 1.00 0.591 ND 1.00 0.591 ND 0.500 0.495 ND 0.500 0.493 ND 2.00 1.33 ND 2.00 1.66 ND 0.500 0.442 ND 0.500 0.442		CAS											
Charace 75-00.3 5 ND 0.500 0.495 ND 0.500 0.493 RD 0.500 0.493 RD 0.500 0.493 RD 0.500 0.493 RD 0.500 0.493 ND 2.00 1.33 ND 0.500 0.493 0.100000000000000000000000000000000000	Volatiles (ug/L)				Ø		=						=
1.1 Dichloroethane 75-35-4 5 2.32 0.500 0.433 181 D 1.00 0.986 ND 0.500 0.493 Acetone 67-64-1 50 ND 2.00 1.33 ND 2.00 1.66 ND 0.500 0.452 ND 0.500 0.452 ND 0.500 0.452 ND 0.500 0.454 ND 0.500 0.454 ND 0.500 0.454 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451 ND <	Vinyl chloride	75-01-4	2	ND		1.00	0.591	ND	1.00	0.591	ND	1.00	0.591
Acetone 67-64-1 50 ND 2.00 1.33 ND 0.500 0.493 ND 0.500 0.493 ND 0.500 0.493 ND 0.500 0.493 ND 0.500 0.451 ND 0.500 0.461 ND 0.500 0.462 ND 0.500 0.462 ND 0.500 0.462 ND 0.500 0.464 ND 0.500 0.464 ND 0.500 0.462 ND 0.500 0.464 ND 0.500 0.464 ND 0.500 0.464 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451	Chloroethane	75-00-3	5	ND		0.500	0.495	ND	0.500	0.495	ND	0.500	0.495
1,1-Dichloroethane 75-34-3 5 38.1 0.500 0.493 196 0.500 0.483 ND 0.500 0.493 0is 1,2-Dichloroethene 166-59-2 5 ND 0.500 0.451 ND 0.500 0.462 ND 2.00 1.66 ND 2.00 1.66 ND 2.00 1.66 ND 0.500 0.442 ND 0.500 0.448 ND 0.500 0.448 ND 0.500 0.448 ND 0.500 0.444 ND 0.500 0.441 ND 0.500 0.441 ND 0.500 0.473 ND 0.500 0.473 ND 0.500 0.473 ND 1.00 0.473 ND 1.00 0.473 ND 1.00 0.473 <	1,1-Dichloroethene	75-35-4	5	2.32		0.500	0.493	181	D 1.00	0.986	ND	0.500	0.493
bits 156-59-2 5 ND 0.500 0.451 ND 0.500 0.451 ND 2.00 1.66 2-Butanon (MEK) 78-93-3 50 ND 2.00 1.66 ND 0.500 0.458 ND 0.500 0.458 ND 0.500 0.458 ND 0.500 0.451 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500	Acetone	67-64-1	50	ND		2.00	1.33	ND	2.00	1.33	ND	2.00	1.33
2-Butanone (MEK) 78-93-3 50 ND 2.00 1.66 ND 0.500 0.462 ND 0.500 0.462 ND 0.500 0.464 ND 0.500 0.473 ND 1.00 0.473 ND 1.00 0.473 ND 1.00 0.473 ND 1.00 0.473 ND 0.500 0.376 ND 0.500 0.361 ND 0.500 0.361	1,1-Dichloroethane	75-34-3	5	38.1	1	0.500	0.493	196	0.500	0.493	ND	0.500	0.493
1,1-Trichkoroethane 71-55-6 5 ND 0.500 0.462 11.2 0.500 0.482 ND 0.500 0.482 1,2-Dichloroethane (EDC) 107-06-2 0.6 ND 0.500 0.458 3.97 0.500 0.482 ND 0.500 0.482 Benzene 71-43-2 1 ND 0.500 0.484 ND 0.500 0.473 ND 1.00 0.473 ND 1.00 0.473 ND 1.00 0.473 ND 0.500 0.376 ND 0.500 0.371 ND 0.500 0.371 ND 0.500 0.341 ND 0.500 0.341 ND 0.500 <td>cis-1,2-Dichloroethene</td> <td>156-59-2</td> <td>5</td> <td>ND</td> <td></td> <td>0.500</td> <td>0.451</td> <td>ND</td> <td>0.500</td> <td>0.451</td> <td>ND</td> <td>0.500</td> <td>0.451</td>	cis-1,2-Dichloroethene	156-59-2	5	ND		0.500	0.451	ND	0.500	0.451	ND	0.500	0.451
1.2.Dichloroethane (EDC) 107-06-2 0.6 ND 0.500 0.458 3.97 0.500 0.458 ND 0.500 0.458 Benzene 71-43-2 1 ND 0.500 0.464 ND 0.500 0.448 ND 0.500 0.464 Benzene 106-88-3 5 ND 0.500 0.379 ND 0.500 0.473 ND 0.500 0.471 ND 0.500 0.451 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.371 ND 0.500 0.361 ND 0.500	2-Butanone (MEK)	78-93-3	50	ND		2.00	1.66	ND	2.00	1.66	ND	2.00	1.66
Denzene 71-43-2 1 ND 0.500 0.464 ND 0.500 0.464 ND 0.500 0.379 ND 0.500 0.371 ND 0.500 0.464 Tetrachloroethane 127.18-4 5 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.371 ND 0.500 0.371 ND 0.500 0.331 ND 0.500 0.331 ND 0.500 0.341 ND 0.500 0.341 ND 0.500 0.364 ND 0.500 0.364 ND 0.500 0.364 ND 0.500 0.364 ND	1,1,1-Trichloroethane	71-55-6	5	ND		0.500	0.462	11.2	0.500	0.462	ND	0.500	0.462
Toluene 108-88-3 5 ND 0.500 0.379 ND 0.500 0.473 ND 0.500 0.473 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.371 ND 0.500 0.364 ND NA <th< td=""><td>1,2-Dichloroethane (EDC)</td><td>107-06-2</td><td>0.6</td><td>ND</td><td></td><td>0.500</td><td>0.458</td><td>3.97</td><td>0.500</td><td>0.458</td><td>ND</td><td>0.500</td><td>0.458</td></th<>	1,2-Dichloroethane (EDC)	107-06-2	0.6	ND		0.500	0.458	3.97	0.500	0.458	ND	0.500	0.458
1,1_2-Trichloroethane 79-00-5 1 1.21 1.00 0.473 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.473 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.376 ND 0.500 0.364 ND 0.500 0.364 ND 0.500 0.364 ND NA ND	Benzene	71-43-2	1	ND		0.500	0.464	ND	0.500	0.464	ND	0.500	0.464
Tetrachloroethene 127:18-4 5 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.451 ND 0.500 0.376 ND 0.500 0.381 ND 0.500 0.341 ND 0.500 0.341 ND 0.500 0.364 ND ND NA ND NA ND NA ND NA ND NA ND NA NA	Toluene	108-88-3	5	ND		0.500	0.379	ND	0.500	0.379	ND	0.500	0.379
Chlorobenzene 108-90-7 5 ND 0.500 0.376 ND 0.500 0.351 ND 0.500 0.341 ND 0.500	1,1,2-Trichloroethane	79-00-5	1	1.21	1	1.00	0.473	ND	1.00	0.473	ND	1.00	0.473
1,3-Dichlorobenzene 541-73-1 3 ND 0.500 0.351 ND 0.500 0.341 ND 0.500 0.364 ND NA NA ND NA N	Tetrachloroethene	127-18-4	5	ND		0.500	0.451	ND	0.500	0.451	ND	0.500	0.451
1.4-Dichlorobenzene 106-46-7 3 ND 0.500 0.341 ND N	Chlorobenzene	108-90-7	5	ND		0.500				0.376		0.500	0.376
J.2-Dichlorobenzene95-50-13ND0.5000.364ND0.5000.364ND0.5000.364ND0.5000.364NDNATOTAL VO's:NS41.6NA392DNANDNANDNANDNATOTAL TIC's:NSNDNDNANDNANDNANDNANDNATOTAL VO's & TIC's:NS41.6NANA392DNANDNANDNATotAL vo's & TIC's:NS41.6NANA392DNANDNANDNAStandards & Guidance Values and Table 5 New York State Ambient Water QualityImage: Standards and table 5 New York State Groundwater Effluent LimitationsImage: Standards and table 5 New York State Groundwater Standards applicable criteria.Image: Standards and table 5 New York State Groundwater Criteria.Image: Standards and table 5 New York State Grouped and State standard AvailableImage: Standard AvailableImage: Standard AvailableImage: S	1,3-Dichlorobenzene		3										
NS 41.6 NA 392 D NA ND NA NA NA TOTAL VO's & TIC's: NS 41.6 NA NA ND NA ND NA ND NA NA ND NA	,												
NS ND NA NA TOTAL VO's & TIC's: NS 41.6 NA 392 D NA ND NA NA ND NA NA ND NA NA NA ND Image: NA NA NA NA NA ND Image: NA NA NA NA ND Image: NA NA NA NA NA NA NA ND Image: NA ND Image: NA ND Image: NA Image: NA Image: NA Image: NA <td>,</td> <td>95-50-1</td> <td></td> <td></td> <td></td> <td>0.500</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.500</td> <td></td>	,	95-50-1				0.500						0.500	
NS 41.6 NA 392 D NA ND NA NA Technical Guidance and Operational Series - Table 1 New York State Ambient Water Quality Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Constraint of the Standards & Guidance Values and Table 5 New York State Ambient Mater Constraints Image: Constraint of the Standard Naulable Image: Constraint of the Standard Nau				-					D				
Technical Guidance and Operational Series - Table 1 New York State Ambient Water Quality Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Groundwater Effluent Limitations Image: Constraint of the series - Table 1 New York State Ambient New York New York New York State Ambient New York New York New York New York New													
Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Class GA), June 1998. Image: Class GA), Ju	TOTAL VO's & TIC's:		NS	41.6			NA	392	D	NA	ND		NA
Standards & Guidance Values and Table 5 New York State Groundwater Effluent Limitations Image: Class GA), June 1998. Image: Class GA), Ju													
(Class GA), June 1998. Indicates a concentration that exceeds applicable criteria. Indicates a concentration that exceeds applicable criteria. Indicates RL that exceeds app	•			1									
BOLD Conc Indicates a concentration that exceeds applicable criteria. Indicates a concentration that exceeds applicable criteria. Indicates RL that exceeds applicable crite		lable 5 New York State	Groundwater Effluent Limitations										
BOLD RL Indicates RL that exceeds applicable criteria. Indicates RL that exceeds applicable criteria. Indicates MDL that exceeds applicable cri	, , , , , , , , , , , , , , , , , , ,	1											
BOLD MDL Indicates MDL that exceeds applicable criteria. Image: Constraint of the second				•									
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 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 Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentration detected at a value below the RL and above the MDL for target compounds. Concentr													
ND = Analyzed for but Not Detected at the MDL Image: compounds of the MDL for target compounds. Image: compounds of		indicates MDL that exc	ceeds applicable criteria.										
J = Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the RL and above the MDL for target compounds. Image: Concentration detected at a value below the MDL for target compounds. Image: Concentration detected at a value below to target compound was reported from the Diluted analysis Image: Concentration detected at a value below to target compounds. Image: Concentration detected at a value below to target compound was reported from the		t the MDI							+				
For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations. Image: Compound was reported from the Diluted analysis Image: Compound was report			ve the MDL for target compounds										
D = The compound was reported from the Diluted analysis			ê 1										
		,	C/MS library search.										-

Sample #:		TOGs - Table 5			MW-11D		MW-11					
Field ID:		Groundwater				07838-017						
Lab ID:		Effluent		7838-016								
Date Sampled:		Limitations (Class GA)		0	9/13/2017			09/13/2017				
Depth(ft):		(ug/L)										
	CAS											
Volatiles (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL		
Vinyl chloride	75-01-4	2	ND		1.00	0.591	ND		1.00	0.591		
Chloroethane	75-00-3	5	ND		0.500	0.495	ND		0.500	0.495		
1,1-Dichloroethene	75-35-4	5	1.51		0.500	0.493	1.35		0.500	0.493		
Acetone	67-64-1	50	ND		2.00	1.33	ND		2.00	1.33		
1,1-Dichloroethane	75-34-3	5	1.00		0.500	0.493	1.24		0.500	0.493		
cis-1,2-Dichloroethene	156-59-2	5	ND		0.500	0.451	ND		0.500	0.451		
2-Butanone (MEK)	78-93-3	50	ND		2.00	1.66	ND		2.00	1.66		
1,1,1-Trichloroethane	71-55-6	5	ND		0.500	0.462	1.40		0.500	0.462		
1,2-Dichloroethane (EDC)	107-06-2	0.6	ND		0.500	0.458	ND		0.500	0.458		
Benzene	71-43-2	1	ND		0.500	0.464	ND		0.500	0.464		
Toluene	108-88-3	5	ND		0.500	0.379	ND		0.500	0.379		
1,1,2-Trichloroethane	79-00-5	1	ND		1.00	0.473	ND		1.00	0.473		
Tetrachloroethene	127-18-4	5	ND		0.500	0.451	ND		0.500	0.451		
Chlorobenzene	108-90-7	5	ND		0.500	0.376	ND		0.500	0.376		
1,3-Dichlorobenzene	541-73-1	3	ND		0.500	0.351	ND		0.500	0.351		
1,4-Dichlorobenzene	106-46-7	3	ND		0.500	0.341	ND		0.500	0.341		
1,2-Dichlorobenzene	95-50-1	3	ND		0.500	0.364	ND		0.500	0.364		
TOTAL VO's:		NS	2.51			NA	3.99			NA		
TOTAL TIC's:		NS	ND			NA	ND			NA		
TOTAL VO's & TIC's:		NS	2.51			NA	3.99			NA		
Technical Guidance and Operational		,										
Standards & Guidance Values and T	Table 5 New York State	Groundwater Effluent Limitations										
(Class GA), June 1998.												
BOLD Conc	Indicates a concentration	on that exceeds applicable criteria.										
BOLD RL	Indicates RL that excee											
BOLD MDL	Indicates MDL that exc	eeds applicable criteria.										
NS = No Standard Available												
ND = Analyzed for but Not Detected a												
J = Concentration detected at a value		ů i										
For non-target compounds (i.e. TICs		mated concentrations.										
D = The compound was reported from	,											
N = Presumptive evidence of a comp	ound from the use of GC	/MS library search.								<u> </u>		

Lexington Machining LLC 201 Winchester Road, Lakewood, NY Table 3 - Historic Groundwater Sample Data

Well	Date	Chloroethane (ug/L)	Chloroethene (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	1,1-DCE (ug/L)	cis-1,2-DCE (ug/L)	1,1,1-TCA (ug/L)	1,1,2-TCA (ug/L)	Benzene (ug/L)	Acetone (ug/L)	Toluene (ug/L)	ODCB (ug/L)	MEK (ug/L)	Total VOCs (ug/L)
NYSDEC GW	VQS	5	2	5	0.6	5	5	5	1	1	50	5	3	50	
Well	Date	Chloroethane (ug/L)	Chloroethene (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	1,1-DCE (ug/L)	cis-1,2-DCE (ug/L)	1,1,1-TCA (ug/L)	1,1,2-TCA (ug/L)	Benzene (ug/L)	Acetone (ug/L)	Toluene (ug/L)	ODCB (ug/L)	MEK (ug/L)	Total VOCs (ug/L)
MW-1	5/23/2005	BDL	BDL	210	9.15	370	BDL	174	BDL	BDL	BDL	-	-	-	763.2
	8/17/2006 11/6/2006	BDL 13.8	BDL BDL	85 16.6	3.6 BDL	190 19.4	BDL BDL	61 5.34	BDL BDL	BDL BDL	BDL BDL	-	-	-	339.6 55.1
	4/18/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-			-	0
	6/2/2010	137	2.02	25.1	0.331	75.9	BDL	12.6	BDL	BDL	19.7 FB	0.502 J	0.737 J	BDL	274
	6/30/2014 11/9/2015	11 1.2	BDL BDL	9 10.7	0.32 J BDL	26 16.1	BDL BDL	0.53 J BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	0.45 J BDL	BDL BDL	47.42 28
	10/25/2016	BDL	BDL	5.8	BDL	10.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	16.5
	9/12/2017	BDL	BDL	6.71	BDL	11.4	BDL	0.761	BDL	BDL	BDL	BDL	BDL	BDL	18.9
MW-2	5/23/2005 8/17/2006	1100 750	BDL BDL	81.2 82	3.92 7.3	68.3 86	BDL 2.6	53.8 42	BDL BDL	BDL BDL	10.3 BDL	-	-	-	1317.5 969.9
	11/6/2006	701	BDL	18.6	9.06	6.8	2.68	BDL	BDL	BDL	BDL	-	-	-	738.1
	4/18/2007	760	BDL	19	6.8	8.4	3.2	BDL	BDL	-		-	-	-	799
	6/2/2010 6/30/2014	1300 100	BDL BDL	27.2 11	BDL 0.55 J	27.6 2.5	BDL 0.40 J	BDL BDL	BDL BDL	BDL BDL	200 FB BDL	BDL BDL	BDL BDL	BDL BDL	1550 114.45
	11/9/2015	950	BDL	16.4	1.7	9.6	1.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	979.1
	10/25/2016	417	BDL	6.4	BDL	3.8	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	428.2
MW-2D	9/12/2017 8/1/2005	900 BDL	BDL BDL	28.1 BDL	0.85 BDL	7.65 BDL	1.08 BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL	BDL	BDL	946 0
10107 20	6/2/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	- BDL	0
	6/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	11/9/2015 10/25/2016	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	- BDL	- BDL	- BDL	BDL BDL	- BDL	0
	9/12/2017	4.45	BDL	0.499 J	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.95
MW-3	5/23/2005	15.3	BDL	87.3	2.4	72.7	BDL	98.9	BDL	0.815	58.1	-	-		335.5
	8/17/2006	5.4 72.8	BDL BDL	35 34.1	BDL BDL	62 63.4	BDL BDL	43 22.1	BDL BDL	BDL BDL	BDL BDL	-	-	-	145.4 192.4
	11/6/2006 4/18/2007	72.8 BDL	BDL	34.1 4.1	BDL	63.4 6	BDL	1.8	BDL	- BDL	- BDL	-	-	-	192.4
	6/2/2010	31.1	1.23	BDL	BDL	41.6	10.3	BDL	BDL	BDL	4.96 FB	BDL	BDL	BDL	89.2
	6/30/2014	16	0.70 J	60	0.68 J	74	0.46 J	17	BDL	0.15 J	BDL	BDL	10	BDL	070.4
	11/9/2015 10/25/2016	57 21.7	2.5 BDL	58.5 28.2	1.8 BDL	152 89.5	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	3.1 2.3	BDL BDL	272.4 141.7
	9/12/2017	41.8	1.23	31.2	0.962	70.4	0.46 J	0.5	BDL	BDL	BDL	BDL	1.91	BDL	150
MW-4	5/23/2005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	12.7	-	-	-	12.7
	6/2/2010 7/1/2014	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	0
	11/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	10/26/2016	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
MW-5	9/12/2017 8/1/2005	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL -	BDL	BDL	0.0
11111 0	6/2/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	6/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	11/9/2015 10/25/2016	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	0 0
	9/12/2017	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.18
MW-5D	8/1/2005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-	0.0
	6/2/2010 6/30/2014	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL 0.14 J	5.23 FB BDL	BDL BDL	BDL BDL	BDL BDL	5.23 0.14
MW-6	8/1/2005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-	0.14
	6/2/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
MW-7	6/30/2014 8/1/2005	BDL 5.93	BDL BDL	BDL 34	BDL BDL	BDL 21.9	BDL BDL	BDL 42.4	BDL BDL	BDL BDL	BDL BDL	BDL	BDL	BDL -	0 104.2
10100-7	8/17/2005	3.3	BDL	34	BDL	49	BDL	52	BDL	BDL	BDL			-	142.3
	11/6/2006	17.2	BDL	25.6	BDL	70.9	BDL	48.9	BDL	BDL	BDL	-	-	-	162.6
	4/18/2007	BDL 15.5	1.4 22.3	6 22.3	BDL	15 19.5	BDL BDL	8 BDL	BDL BDL	- BDL	- BDL	- BDL	- BDL	- BDL	30
	6/2/2010 7/1/2014	15.5	9.2	22.3	0.453 J 0.33 J	35	БDL 0.27 J	0.32 J	BDL	BDL	BDL	BDL	БDL 0.62 J	BDL	80.1 79
	11/9/2015	5.3	9	12.8	BDL	10.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	28.8
	10/25/2016 9/12/2017	3.4 3.58	6.8 9.32	10.2 9.15	BDL BDL	9.5 5.18	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL 0.482 J	BDL BDL	29.9 27.7
MW-8	8/1/2005	BDL	BDL	28.7	BDL	10.5	BDL	2.02	2.02	BDL	BDL	-	-	-	43.2
	8/17/2006	BDL	BDL	14	BDL	7.6	BDL	BDL	BDL	BDL	BDL	-	-	-	21.6
	11/6/2006 4/19/2007	BDL BDL	BDL	15.3 7.9	BDL BDL	7.78 3.8	BDL BDL	BDL 2.6	BDL BDL	BDL	BDL	-	-		23.1
	4/19/2007 6/2/2010	BDL 1.08	1.5 0.631 J	7.9 36.2	0.587 J	3.8 61.2	BDL	2.6 BDL	BDL	- BDL	BDL	- BDL	- BDL	- BDL	16 99.7
	7/1/2014	BDL	BDL	390	11	410	BDL	7.5	0.64 J	0.25 J	BDL	BDL	BDL	BDL	818.5
	11/9/2015	BDL	BDL	7.1	BDL	13.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	21
	10/26/2016 9/13/2017	BDL BDL	BDL BDL	9.7 6.43	BDL BDL	22.1 16.1	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	31.8 22.5
MW-9	8/1/2005	BDL	BDL	108	4.35	294	BDL	19	BDL	BDL	BDL	-	-	-	425.4
	8/17/2006	18	BDL	400	16	500	BDL	42	BDL	BDL	BDL	-	-	-	976
	11/6/2006 4/19/2007	BDL BDL	BDL 33	71.5 180	3.44 15	15 590	BDL BDL	6.92 43	BDL BDL	BDL	BDL -	-	-	-	238.9 846
	6/2/2010	BDL	BDL	346	11.4	788	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1150
	7/1/2014	BDL	BDL	15	0.27 J	36	0.33	0.21 J	BDL	BDL	BDL	BDL	BDL	BDL	51.33
	11/9/2015 10/26/2016	BDL BDL	BDL BDL	216 144	6.8 9.1	328 232	BDL BDL	17.6 10.6	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	BDL BDL	568.4 395.7
	9/13/2017	BDL	BDL	196	3.97	181	BDL	11.2	BDL	BDL	BDL	BDL	BDL	BDL	395.7
		BDL	BDL	77	BDL	5.9	BDL	BDL	BDL	BDL	BDL	-	-	-	83
MW-10	8/1/2005								0.4		DDI				132.5
MW-10	8/17/2006	BDL	BDL	110 BDI	1.6 0.715 J	14 58 7	BDL	3.5 BDI	3.4	BDL	BDL	- BDI	- BDI	- BDI	
MW-10				110 BDL 44	1.6 0.715 J BDL	14 58.7 8.2	BDL 0.496 J BDL	3.5 BDL 0.18 J	3.4 2.65 1.8	BDL BDL 0.11 J	BDL BDL BDL	- BDL BDL	- BDL BDL	- BDL BDL	169 55.1
MW-10	8/17/2006 6/2/2010 7/1/2014 11/9/2015	BDL BDL BDL BDL	BDL BDL BDL BDL	BDL 44 40	0.715 J BDL BDL	58.7 8.2 4.1	0.496 J BDL BDL	BDL 0.18 J BDL	2.65 1.8 1.9	BDL 0.11 J BDL	BDL BDL BDL	BDL BDL BDL	BDL BDL BDL	BDL BDL BDL	169 55.1 44.1
MW-10	8/17/2006 6/2/2010 7/1/2014	BDL BDL BDL	BDL BDL BDL	BDL 44	0.715 J BDL	58.7 8.2	0.496 J BDL	BDL 0.18 J	2.65 1.8	BDL 0.11 J	BDL BDL	BDL BDL	BDL BDL	BDL BDL	169 55.1

Lexington Machining LLC 201 Winchester Road, Lakewood, NY Table 3 - Historic Groundwater Sample Data

NYSDEC GV	wqs	5	2	5	0.6	5	5	5	1	1	50	5	3	50	
Well	Date	Chloroethane (ug/L)	Chloroethene (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	1,1-DCE (ug/L)	cis-1,2-DCE (ug/L)	1,1,1-TCA (ug/L)	1,1,2-TCA (ug/L)	Benzene (ug/L)	Acetone (ug/L)	Toluene (ug/L)	ODCB (ug/L)	MEK (ug/L)	Total VOCs (ug/L)
MW-11	8/1/2005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			-		-	0.0
	4/19/2007	BDL	BDL	BDL	BDL	BDL	BDL	1.6	BDL	-	-	-	-	-	
	6/2/2010	BDL	BDL	0.502 J	BDL	0.572 J	BDL	BDL	BDL	BDL	3.79 FB	BDL	BDL	BDL	4.86
	7/1/2014	BDL	BDL	0.53 J	BDL	BDL	BDL	1.1	BDL	BDL	BDL	BDL	BDL	BDL	1.63
	11/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	1.3	BDL	BDL	BDL	BDL	BDL	BDL	3.2
	10/26/2016	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	9/13/2017	BDL	BDL	1.24	BDL	1.35	BDL	1.4	BDL	BDL	BDL	BDL	BDL	BDL	3.99
MW-11D	8/1/2005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		-				0.0
	6/2/2010	BDL	BDL	0.999 J	BDL	BDL	BDL	BDL	BDL	0.458 J	58.2 FB	BDL	BDL	3.13	62.8
	7/1/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.18 J	BDL	BDL	BDL	BDL	0.18
	11/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	10/26/2016	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
	9/13/2017	BDL	BDL	1	BDL	1.51	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.51
MW-12	11/6/2006	19.2	BDL	7.5	BDL	14	BDL	3.4	BDL	-	-				44
	4/19/2007	190	BDL	6.8	BDL	2.2	BDL	BDL	BDL	-	-	-	-	-	199
	6/2/2010	851	BDL	20.9	BDL	28.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	900
	6/30/2014	BDL	BDL	9.3	0.19 J	17	BDL	1	BDL	BDL	BDL	BDL	0.43 J	BDL	27.9
	11/9/2015						Unable to Lo	cate Well - no	sample						
	10/26/2016		Unable to Locate Well - no sample												
	9/12/2017						Unable to Lo	cate Well - no	sample						
MW-13	11/6/2006	BDL	BDL	3.8	BDL	BDL	BDL	BDL	BDL	-					3.8
	4/19/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-	-	-	0
	6/2/2010	25.9	BDL	1.96	BDL	9.06	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	36.9
	6/30/2014	1200	BDL	69	2.9 J	8.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	11/9/2015	272	BDL	10.6	1	12.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	296.1
	10/25/2016	44.5	BDL	3.4	BDL	4.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	52.5
	9/12/2017	665	BDL	13.2	0.955	11.7	0.96	BDL	BDL	BDL	BDL	BDL	BDL	BDL	699
MW-14	11/6/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-	-	-	0
	4/18/2007	BDL	BDL	5.5	BDL	16	BDL	8.5	BDL	-	-	-	-	-	30
	6/2/2010	1.59	1.49	2.12	BDL	2.96	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	8.16
	7/1/2014	14	3.1	33	0.21 J	42	0.22 J	3.2	BDL	BDL	BDL	BDL	2.3	BDL	99.68
	11/9/2015	BDL	1.2	10.5	BDL	1.8	BDL	BDL	BDL	BDL	BDL	BDL	1.6	BDL	12.3
	10/25/2016	1.7	1.1	5.8	BDL	4.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	13
	9/12/2017	3.91	4.33	19	BDL	18.7	BDL	BDL	BDL	BDL	BDL	BDL	0.845	BDL	46.8
Field Blank-1	9/12/2017	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
Field Blank-2	9/13/2017	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0
Trip Blank	9/12/2017	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0

te Department of Environmental conservation groundwater quality stan NYSDEC GWQS - New York "-" Not anlayzed or sampled C GWQS - New York S

"BDL" Below detection limit

"J" estimated concentration "FB" Also detected in field blank sample "1,1-DCA" 1,1-dichloroethane "1,2-DCA" 1,2-dichloroethane

"1,1-DCE" 1,1-dichloroethane "cis 1,2-DEC" cis-1,2-dichloroethane "1,1,1-TCA" 1,1,1-Trichloroethane

"1,1,2-TCA" 1,1,2-Trichloroethane

"ODCB" 1,2-Dichlorobenzene

"MEK" 2-butanone (aka Methyl ethyl ketone)

Chloroethene (a.k.a. vinyl chloride) Bold type and shading indicates an exceedance of GWQS



Appendix A

SITE-WIDE INSPECTION FORM

SITE-WIDE INSPECTION FORM

Inspection Period: October 2016 through September 2017

Reason for inspection: <u>X</u> Annual Severe Weather Event

(Site-wide inspection required annually or following a severe weather event that may have damaged site engineering controls or monitoring wells)

Project location: 201 Winchester Road, Lakewood, New York

Inspection date / time: <u>9/12/2017 @ 1200</u> conducted by: <u>Kyle Young, EHS Consultant</u> Weather: <u>Mostly sunny and dry in with temperatures circa 60°F</u>

Site remains industrial/commercial use? X Yes No

If no, what is the current use?

Is site occupied and operational? Vacant

Are structures indicated on the Site Layout Map of SMP Figure 2 remaining?

<u>X</u> Yes <u>No</u> If no, described current site conditions, specifically condition of the concrete floor of the existing / former structure

Are monitoring wells depicted on SMP Figure 8 in place and undamaged?

Yes X No If no, described monitoring well conditions <u>MW-12 is buried under gravel and cannot be</u> located. The metal bolt rings associated with MW-5 and MW-6 are broken.

Has the annual groundwater monitoring program been implemented for the inspection period? X Yes No

Have monitoring results been reported to the NYSDEC as indicated in the SMP?

Are records required by the SMP complete, current and available at the Site? Yes X No

If not available on-site are there records available elsewhere?

X Yes No Where? Lexington Machining LLC offices, 677 Buffalo Road, Rochester, NY 14611

Have any reportable spills of regulated materials occurred or evidence of former spills be discovered? _____Yes __X___No . If Yes, describe: _____



Appendix B

SITE MANAGEMENT PERIODIC REVIEW REPORT, INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICAITON FORM



Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Sit	e No. 907044		
Sit	e Name Lexington Machining LLC		
Cit Co	e Address: 201 Winchester Road Zip Code: 14750 y/Town: Lakewood unty: Chautauqua e Acreage: 6.2		
Re	porting Period: September 18, 2016 to September 18, 2017		
		YES	NO
1.	Is the information above correct?		
	If NO, include handwritten above or on a separate sheet.		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	a ` []	
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		1
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	k D	
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form		
5.	Is the site currently undergoing development?	D	
		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Industrial		
7.	Are all ICs/ECs in place and functioning as designed?		
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.	v and	
AC	corrective Measures Work Plan must be submitted along with this form to address	these is	sues.
Sig	nature of Owner, Remedial Party or Designated Representative Date		

SITE NO. 907044

Description of Institutional Controls

Owner

Lexington Machining LLC

Parcel 385.06-3-58

Institutional Control

Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan IC/EC Plan

• The property may only be used for industrial or commercial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

• The property may not be used for a higher level of use, such as unrestricted and restricted residential use, without an evaluation of potential additional remediation and amendment of the Environmental Easemen as approved by the NYSDEC;

• All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the Site Mnagament Plan;

• The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;

• The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified at concentrations that may pose a hazard must be mitigated;

· Vegetable gardens and farming on the site are prohibited;

• The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

385.06-3-59 Lexington Machining LLC

Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan IC/EC Plan

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• The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;

• The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified at concentrations that may pose a hazard must be mitigated;

Vegetable gardens and farming on the site are prohibited;

• The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

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Box 4

Description of Engineering Controls

Parcel 385.06-3-58

Engineering Control Vapor Mitigation

Monitored Natural Attenuation

Site groundwater investigation and monitoring indicate ongoing natural attenuation and degradation of VC contaminants. Monitored natural attenuation effectiveness will be evaluated through a groundwater monitorir program that will be implemented to monitor groundwater plume characteristics, horizontal and vertical contaminant migration and related controlling processes. The groundwater monitoring program will be conducted on an annual basis and in accordance with the USEPA guidance for monitored natural attenuation

Vapor Mitigation

Periodic certification of industrial use will be required. In conformance with the Site Management Plan, any future reuse of existing on-site buildings for uses other than industrial will require an updated soil vapor intrusion (SVI) assessment. If the updated SVI assessment determines SVI is occurring and the values pose a health risk for intended use of the building(s), a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil and/or groundwater will be required. **385.06-3-59**

Vapor Mitigation

Monitored Natural Attenuation

Site groundwater investigation and monitoring indicate ongoing natural attenuation and degradation of V(contaminants. Monitored natural attenuation effectiveness will be evaluated through a groundwater monitorir program that will be implemented to monitor groundwater plume characteristics, horizontal and vertical contaminant migration and related controlling processes. The groundwater monitoring program will be conducted on an annual basis and in accordance with the USEPA guidance for monitored natural attenuation

Vapor Mitigation

Periodic certification of industrial use will be required. In conformance with the Site Management Plan, any future reuse of existing on-site buildings for uses other than industrial will require an updated soil vapor intrusion (SVI) assessment. If the updated SVI assessment determines SVI is occurring and the values pose a health risk for intended use of the building(s), a sub-slab depressurization system, or a similar engineered

	Box 5
	Periodic Review Report (PRR) Certification Statements
	I certify by checking "YES" below that:
	 a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
	 b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.
	regineering practices, and the mormation presented is accurate and compete. YES NO
	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutiona or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
	(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
A	Corrective Measures Work Plan must be submitted along with this form to address these issues.
- c	innoture of Owner, Demodial Darty on Designated Depresentative
C	ignature of Owner, Remedial Party or Designated Representative Date Date

Parcel

Engineering Control

system, to prevent the migration of vapors into the building from soil and/or groundwater will be required. **385.06-3-60**

Vapor Mitigation

Monitored Natural Attenuation

Site groundwater investigation and monitoring indicate ongoing natural attenuation and degradation of V(contaminants. Monitored natural attenuation effectiveness will be evaluated through a groundwater monitorir program that will be implemented to monitor groundwater plume characteristics, horizontal and vertical contaminant migration and related controlling processes. The groundwater monitoring program will be conducted on an annual basis and in accordance with the USEPA guidance for monitored natural attenuation

Vapor Mitigation

Periodic certification of industrial use will be required. In conformance with the Site Management Plan, any future reuse of existing on-site buildings for uses other than industrial will require an updated soil vapor intrusion (SVI) assessment. If the updated SVI assessment determines SVI is occurring and the values pose a health risk for intended use of the building(s), a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil and/or groundwater will be required.

IC CERTIFICATIONS SITE NO. 907044

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Michael	Lubin,	Chairman
	· · ·	

at ⁴⁷⁴ 48th Avenue, Long Island City, NY 11109

print name

print business address

am certifying as _Lexington Machining, LLC

_(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

17 17 Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I John A. Stangline, ARM, CHMM print name at 520 South Main Street, Suite 2444, Akron, Ohio 44311, print business address

am certifying as a Qualified Environmental Professional for the Lexington Machining, LLC

(Owner or Remedial Party)

10/12/2017

Date

Ash

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)



Appendix C

GROUNDWATER SAMPLING LOGS

WELL NO. MW-1

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY	
SAMPLING DATE: <u>9/12/2017</u> SAMPLED BY: <u>KYLE YOUNG</u>	
SAMPLING METHOD: <u>PERISTALTIC PUMP</u> WEATHER: <u>SUNNY</u>	
SAMPLING TIME: 1520 AMBIENT TEMP: 75°F	

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 11.86
PURGE METHOD: PERISTALTIC PUMP / LOW FLOW
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY? YES X NO
TOTAL GALLONS PURGED: ~1.25

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	ТЕМР	DO	РН	ORP
1450	11.85	18.6	.226	18.10	3.56	7.046.98	130
1454	12.30	1.4	.221	16.31	3.08	6.98	151
1458	12.23	0.0	.220	16.42	2.51	6.94	126
1502	12.19	0.0	.225	16.34	1.26	6.91	72
1506	12.19	0.0	.227	16.12	1.10	6.88	63
1510	12.19	0.0	.229	16.11	1.02	6.87	65
1514	12.19	0.0	.231	15.89	.98	6.85	64
1	I	1	1		I	I	I

Comments: Clear, No Odor, No Sheen

WELL NO. MW-2

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE: <u>9/12/2017</u> SAMPLED BY: <u>KYLE YOUNG</u> SAMPLING METHOD: <u>PERISTALTIC PUMP</u> WEATHER: <u>SUNNY</u>

SAMPLING TIME: 1255 AMBIENT TEMP: 65°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:		
WATER LEVEL GAUGE:	Х	
DEPTH TO WATER (FT): 11.62	_	
PURGE METHOD: PERISTALTIC PUMP		
DEPTH OF PUMP BELOW TOP OF CASING (FT):		
WAS WELL PUMPED DRY? YES X NO		
TOTAL GALLONS PURGED: ~0.75		

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
1240	12.18	2.7	.328	17.23	0.25	7.06	-61
1244	12.10	0.0	.317	16.13	0.0	7.02	-64
1248	12.09	0.0	.315	15.81	0.0	7.00	-67
1252	12.09	0.0	.315	15.69	0.0	6.99	-69

Comments: Light Gray - Clear, Sulfur-like Odor, No Sheen

WELL NO. <u>MW-2D</u>

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:9/12/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:SUNNYSAMPLING TIME:1320AMBIENT TEMP:65°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:	
WATER LEVEL GAUGE: X	
DEPTH TO WATER (FT): 12.08	
PURGE METHOD: PERISTALTIC PUMP	
DEPTH OF PUMP BELOW TOP OF CASING (FT):	
WAS WELL PUMPED DRY? YES X NO	
TOTAL GALLONS PURGED: ~1.0	

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
1304	12.98	83.7	.145	17.22	.37	8.33	-219
1308	13.14	13.7	.144	16.68	.09	8.40	-256
1312	13.35	12.2	.141	17.15	.09	8.31	-249
1316	13.49	11.7	.140	17.55	.06	8.25	-242

Comments: Clear, no odor, no sheen, some black rust particles

WELL NO. MW-3

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:9/12/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:CLOUDYSAMPLING TIME:1130AMBIENT TEMP:65°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 12.42
PURGE METHOD: PERISTALTIC PUMP
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY? X YES NO
TOTAL GALLONS PURGED: ~1.2

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
1101	13.43	12.1	.732	15.79	.24	6.92	-84
1105	13.74	1.1	.714	15.52	0.0	6.85	-92
1109	13.89	4.2	.734	15.53	0.0	6.87	-101
1113	14.34	18.9	.741	15.54	0.0	6.90	-107
1117	14.60	12.1	.747	15.57	0.0	6.91	-110
1121	14.71	10.1	.742	15.64	0.0	6.90	-108

Comments: gray to clear, no sheen, sulfur odor, Pumped dry @ 1123

WELL NO. MW-4

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:9/12/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:SUNNYSAMPLING TIME:0930AMBIENT TEMP:58°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 8.95
PURGE METHOD: PERISTALTIC PUMP
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY?YES X_NO
TOTAL GALLONS PURGED: ~1.25

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
0914	10.01	14.0	.867	18.76	.91	6.88	7
0918	10.35	0.0	.867	18.72	.75	6.90	13
0922	10.47	0.0	.868	18.64	.66	6.91	17
0926	10.54	0.0	.866	18.68	.62	6.92	20

Comments: Clear, no odor

WELL NO. MW-5

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE: 09/12/2017 SAMPLED BY: KYLE YOUNG SAMPLING METHOD: PERISTALTIC PUMP WEATHER: SUNNY SAMPLING TIME: $16\overline{05}$ AMBIENT TEMP: $75^{\circ F}$

WATER ELEVATION DATA:

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
1542	13.57	33.7	.935	18.67	8.09	7.24	130
1546	14.02	81.3	.769	18.59	7.09	7.18	159
1550	14.35	109	.611	18.56	6.49	7.08	164
1554	14.75	132	.612	18.21	6.15	7.07	168
1558	14.87	140	.632	18.26	5.97	7.08	169
1602	14.92	131	.654	18.18	5.81	7.08	169

Comments: LIGHT GRAY TO CLEAR, NO ODOR, NO SHEEN

WELL NO. MW-7

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:09/12/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:CLOUDYSAMPLING TIME:1000AMBIENT TEMP:60°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:	
WATER LEVEL GAUGE: X	
DEPTH TO WATER (FT): 14.44	
PURGE METHOD: PERISTALTIC PUMP	
DEPTH OF PUMP BELOW TOP OF CASING (FT):	
WAS WELL PUMPED DRY? YES X NO	
TOTAL GALLONS PURGED: ~1.0	

	TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	ТЕМР	DO	РН	ORP
_	0949	14.55	0.0	.670	13.94	0.0	6.67	-56
	0953	14.56	0.0	.670	13.96	0.0	6.67	-63
	0957	14.57	0.0	.670	13.98	0.0	6.67	-66

Comments: Sulfur odor, clear, no sheen

WELL NO. MW-8

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:09/13/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:INDOORSSAMPLING TIME:0820AMBIENT TEMP:65°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:	
WATER LEVEL GAUGE:	Х
DEPTH TO WATER (FT): 14.56	
PURGE METHOD: PERISTALTIC PUMP	
DEPTH OF PUMP BELOW TOP OF CASING (FT):	
WAS WELL PUMPED DRY? YES X NO	
TOTAL GALLONS PURGED: ~1.25	

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
0755	16.65	5.2	.599	14.91	3.38	7.44	-27
0759	16.29	1.2	.589	15.12	4.38	7.45	-80
0803	16.29	0.0	.590	15.17	3.94	7.46	-87
0805	16.55	8.3	.581	15.35	5.63	7.52	-82
0809	16.60	9.8	.570	15.27	5.12	7.53	-91
0813	16.64	8.4	.567	15.28	5.05	7.53	-100

Comments: Clear, No Odor, No Sheen

WELL NO. MW-9

PROJECT: 08017-000138.00

LOCATION: 201 WINCHE	ESTER RD, LAKEWOOD, NY
SAMPLING DATE: 09/13/	2017 SAMPLED BY: <u>KYLE YOUNG</u>
SAMPLING METHOD: PER	RISTALTIC PUMP WEATHER: INDOOR
SAMPLING TIME: 0935	AMBIENT TEMP: $60^{\circ F}$

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 11.75
PURGE METHOD: PERISTALTIC PUMP
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY? YES X NO
TOTAL GALLONS PURGED: ~1.5

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
0910	12.53	27.1	.782	16.14	0.69	7.20	93
0914	12.65	28.6	.785	16.25	3.41	7.20	104
0918	12.88	17.6	.807	15.99	3.40	7.18	119
0922	13.09	17.7	.823	15.90	3.17	7.17	129
0926	13.16	17.2	.832	15.90	3.07	7.17	132

Comments: light brown, clear, no odor, no sheen

WELL NO. <u>MW-10</u>

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

 SAMPLING DATE:
 08/13/2017
 SAMPLED BY:
 KYLE YOUNG

 SAMPLING METHOD:
 PERISTALTIC PUMP
 WEATHER:
 INDOORS

 SAMPLING TIME:
 0850
 AMBIENT TEMP:
 65°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 10.99
PURGE METHOD: PERISTALTIC PUMP
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY? X YES NO
TOTAL GALLONS PURGED: ~0.75

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
0831	11.60	20.2	.848	16.15	6.04	7.27	-20
0835	11.72	19.9	.843	16.15	5.90	7.26	-14

Comments: well pumped dry after 0835 reading

WELL NO. <u>MW-11</u>

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:09/13/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:INDOORSSAMPLING TIME:1130AMBIENT TEMP:65°F

WATER ELEVATION DATA:

METHOD OF MEASUREM	ENT: DEPTH SOUNDER:
	WATER LEVEL GAUGE: X
DEPTH TO WATER (FT):	8.63
PURGE METHOD:	PERISTALTIC PUMP
DEPTH OF PUMP BELOW	TOP OF CASING (FT):
WAS WELL PUMPED DRY	/?YES <u>X</u> NO
TOTAL GALLONS PURGE	D: <u>~1.0</u>

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	ТЕМР	DO	РН	ORP
1100	9.89	31.8	.483	16.52	1.85	7.69	131
1104	10.71	27.1	.490	16.87	1.25	7.66	136
1108	11.59	3.4	.489	17.54	1.00	7.65	135
1112	11.62	3.2	.488	17.52	.98	7.65	135
1116	11.72	0.7	.489	17.22	.92	7.65	134

Comments: No odor, no sheen, light gray to light brown with some black rust particles recovered.

WELL NO. <u>MW-11D</u>

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:09/13/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:SUNNYSAMPLING TIME:1055AMBIENT TEMP:65°F

WATER ELEVATION DATA:

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	ТЕМР	DO	РН	ORP
1021	9.74	94.4	.129	16.01	.12	10.54	38
1025	10.22	69.0	.128	15.97	0.0	10.54	20
1029	10.61	78.3	.127	16.11	0.0	10.53	10
1033	10.86	68.1	.127	16.53	0.0	10.51	1
1037	10.94	79.4	.127	17.25	0.0	10.51	-4
1041	11.07	81.2	.127	17.33	0.0	10.50	-8
1045	11.19	87.3	.126	17.22	0.0	10.50	-10

Comments: light gray to light brown, no sheen, no odor, rust particles recovered, one cover bolt missing

WELL NO. <u>MW-13</u>

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE:09/12/2017SAMPLED BY:KYLE YOUNGSAMPLING METHOD:PERISTALTIC PUMPWEATHER:CLOUDYSAMPLING TIME:1220AMBIENT TEMP:65°F

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 11.48
PURGE METHOD: PERISTALTIC PUMP
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY? YES X NO
TOTAL GALLONS PURGED: <u>~0.5</u>

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	TEMP	DO	РН	ORP
1205	11.94	2.9	.399	21.15	1.06	6.73	-11
1209	12.08	0.0	.400	20.86	0.0	6.74	-14
1213	12.25	0.0	.401	20.12	0.0	6.77	-20
1217	12.32	0.0	.411	18.26	0.0	6.79	-22

Comments: Clear, No Odor, No Sheen

WELL NO. <u>MW-14</u>

PROJECT: 08017-000138.00

LOCATION: 201 WINCHESTER RD, LAKEWOOD, NY

SAMPLING DATE: 09/12/2017 SAMPLED BY: KYLE YOUNG SAMPLING METHOD: PERISTALTIC PUMP WEATHER: SUNNY SAMPLING TIME: $10\overline{45}$ AMBIENT TEMP: $65^{\circ F}$

WATER ELEVATION DATA:

METHOD OF MEASUREMENT: DEPTH SOUNDER:
WATER LEVEL GAUGE: X
DEPTH TO WATER (FT): 12.57
PURGE METHOD: PERISTALTIC PUMP
DEPTH OF PUMP BELOW TOP OF CASING (FT):
WAS WELL PUMPED DRY? YES X NO
TOTAL GALLONS PURGED: ~1.5

TIME	DEPTH TO WATER	TURBIDITY	CONDUCTIVITY	ТЕМР	DO	РН	ORP
1014	13.24	34.1	.587	15.36	0.63	6.95	-9
1018	13.62	1.2	.563	15.41	0.09	6.81	-26
1022	13.84	4.9	.557	15.54	0.20	6.80	-33
1026	13.97	3.0	.561	15.63	0.36	6.83	-37
1030	14.11	5.0	.580	15.75	0.37	6.91	-54
1034	14.14	1.1	.565	16.11	3.64	6.89	-54
1038	14.15	1.0	.580	16.36	3.69	6.89	-49
1042	14.15	0.0	.573	16.49	3.71	8.89	-46
	1	1	1		I		1

Comments: clear, sulfur odor, no sheen



Appendix D

IAL ANALYTICAL LABORATORY REPORT



ANALYTICAL DATA REPORT

Bureau Veritas 110 Fieldcrest Ave. 4th Floor Edison, NJ 08837

Project Name: LEXINGTON MACHINING IAL Case Number: E17-07838

These data have been reviewed and accepted by:

Micha

Michael H. Left, Ph.D. Laboratory Director

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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 (ab (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.

E17-07838

Client Bureau Veritas

Project LEXINGTON MACHINING

Received On <u>9/14/2017@11:00</u>

Lab ID	<u>Client Sample ID</u>	<u>Depth Top/Bottom</u>	Sampling Time	<u>Matrix</u>	<u># of</u> <u>Container</u>
07838-001	MW-4	n/a	9/12/2017@09:30	Aqueous	2
07838-002	MW-7	n/a	9/12/2017@10:00	Aqueous	2
07838-003	FIELD BLANK -1	n/a	9/12/2017@10:38	Aqueous	2
07838-004	MW-14	n/a	9/12/2017@10:45	Aqueous	2
07838-005	MW-3	n/a	9/12/2017@11:30	Aqueous	2
07838-006	MW-13	n/a	9/12/2017@12:20	Aqueous	2
07838-007	MW-2	n/a	9/12/2017@12:55	Aqueous	2
07838-008	MW-2D	n/a	9/12/2017@13:20	Aqueous	2
07838-009	TRIP BLANK	n/a	9/12/2017	Aqueous	2
07838-010	MW-1	n/a	9/12/2017@15:20	Aqueous	2
07838-011	MW-5	n/a	9/12/2017@16:05	Aqueous	2
07838-012	MW-8	n/a	9/13/2017@08:20	Aqueous	2
07838-013	MW-10	n/a	9/13/2017@08:50	Aqueous	2
07838-014	MW-9	n/a	9/13/2017@09:35	Aqueous	2
07838-015	FIELD BLANK -2	n/a	9/13/2017@10:30	Aqueous	2
07838-016	MW-11D	n/a	9/13/2017@10:55	Aqueous	2
07838-017	MW-11	n/a	9/13/2017@11:30	Aqueous	2

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.

CFU	Colony Forming Unit	ND	Indicates analyte was analyzed for but not detected	
CCB	Continuing Calibration Blank		at MDL or RL (only if MDL is not used)	
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		Reporting Limit. The RL is typically determined by	
ICV			the concentration of the lowest standard in the	
kg	kilogram	1	calibration curve	
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	SU	Standard Units	
MUL	40 CFR Part 136 Appendix B	тіс	Tentatively Identified Compound AKA Library Search	
MF	Membrane Filter		Compounds	
mg	milligram (1000mg = 1g)	TNI	The NELAC (National Environmental Laboratory	
μg	microgram (1000µg = 1mg)		Accreditation Council) Institute	
ml	milliliter (1000ml = 1L)	TNTC	Too numerous to count	
μΙ	microliter (1000µl = 1ml)	*	When attached to a compound name, indicates this	
µmhos	Conductivity units - resistance expressed in ohms		analyte was analyzed by Method SW-846 8270 SIM	
MPN	Most Probable Number		When attached to a compound name, indicates this	
MS	MS Matrix Spike		analyte was analyzed by Method SW-846 8011 or	
MSD	Matrix Spike Duplicate		EPA 504.1	
NA	Not applicable	<	Less than; In conjunction with a numerical value,	
NC	Not calculated		indicates a concentration less than the RL or MDL	

ACRONYMS AND ABBREVIATIONS

SAMPLE DELIVERY GROUP CASE NARRATIVE (Conformance / Non-Conformance Summary)

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-07838

Integrated Analytical Laboratories, LLC. received seventeen (17) samples** from Bureau Veritas (IAL SDG# **E17-07838**, Project: LEXINGTON MACHINING) on September 14, 2017 for the analysis of :

(17) TCL VO + 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 $4 \pm 2^{\circ}C$

Volatiles By	y 8260C		Batch: 170918,170918A	Matrix: Aqueous
QC	- Calibration curve met QC	C criteria.	11661188.commenter en	
	- Internal standards recover	ery met QC o	criteria.	
	- Surrogate percent recover	erv met QC o	criteria.	
	- Method blank met QC cr	•		
	- LCS percent recovery me		1.	
	 MS/MSD RPD met QC c 	riteria.		
	 MS/MSD percent recove 	ry met QC cr	riteria.	
E17-07838	- All samples were analyze	ling time.		
	Dilution Summary:			
	Sample ID	DF(s)	Dilution For	
	E17-07838-001	1	NA	
	E17-07838-002	1	NA	
	E17-07838-003	1	NA	
	E17-07838-004	1	NA	
	E17-07838-005	1	NA	
	E17-07838-006	1;5	Target compound(s).	
	E17-07838-007	1;10	Target compound(s).	
	E17-07838-008	1	NA	
	E17-07838-009	1	NA	
	E17-07838-010 E17-07838-011	1	NA NA	
	E17-07838-012	1	NA	
	E17-07838-013	1	NA	
	E17-07838-014	1;2	Target compound(s).	
	E17-07838-015	1	NA	
	E17-07838-016	1	NA	
	E17-07838-017	1	NA	

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by: $\rho \wedge$

ved by

____<u>10/2/2017</u>____ Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

 Laboratory Name: Integrated Analytical Laboratories Client: Bureau Veritas
 Project Location: LEXINGTON MACHINING IAL Project #: E17-07838
 IAL Sample ID(s): E17-07838-001 ~ -017
 Sampling Date(s): 9/12/2017

List of DKQP Method Used:

TCL VO by 8260C

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 Data of Known Quality performance standards?	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

SUMMARY REPORT

			Client	Bureau								
	Р	roie					Ŧ					
Project: LEXINGTON MACHINING Lab Case No.: E17-07838												
Lab ID:	07	838-			7838-0		Ō	7838-0	03	07	838-(04
Client ID:	MW-4		MW-7		FIELD BLANK -1			MW-14				
Matrix:	1	que			Aqueo		Aqueous			Aqueous		
Sampled Date)/12/			9/12/1		9/12/17			9/12/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		(ug/l	5)		(ug/L)			(ug/L)			(ug/L))
Vinyl chloride	ND		0.591	9.32		0.591	ND		0.591	3.91		0.591
Chloroethane	ND		0.495	3.58		0.495	ND		0.495	4.33		0.495
1,1-Dichloroethene	ND		0.493	5.18		0.493	ND		0.493	18.7		0.493
1,1-Dichloroethane	ND		0.493	9.15		0.493	ND		0.493	19.0		0.493
1,2-Dichlorobenzene	ND		0.364	0.482	J	0.364	ND		0.364	0.845		0.364
					_							
TOTAL VO's:	ND			27.7	J		ND			46.8		
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	ND			27.7	J		ND			46.8		
	Lab ID: 07838-005			07838-006		07838-007		07838-008 MW-2D				
Client ID:	1	MW	-3	1	MW-1	3		MW-2	2	j N	LM-2	D
Matrix:		que			queo			Aqueo			queo	
Sampled Date	9)/12/	17		9/12/1	7		9/12/1	7	9	/12/1	7
Sampled Date	9 Conc)/12/	17 MDL		9/12/1	7 MDL		9/12/1	7 MDL	9 Conc	/12/1	7 MDL
Sampled Date PARAMETER(Units)	9 Conc	0/12/ Q	17 MDL	Conc	9/12/1 Q	7 MDL		9/12/1 Q	7 MDL	9 Conc ND	/12/1 Q	7 MDL 0.591
Sampled Date <u>PARAMETER(Units)</u> Volatiles (Units)	29 Conc 1.23 41.8	0/12/ Q	17 MDL 0.591 0.495	Conc ND 665	9/12/1 Q	7 MDL 0.591 2.48	Conc ND 900	9/12/1 Q	7 MDL 0.591 4.95	9 Conc	/12/1 Q	7 MDL 0.591 0.495
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride	9 Conc 1.23 41.8 70.4	0/12/ Q	17 MDL 0.591 0.495 0.493	Conc ND 665 11.7	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493	Conc ND 900 7.65	9/12/1 Q (ug/L)	7 <u>MDL</u> 0.591 4.95 0.493	9 Conc ND 4.45 ND	/12/1 Q	7 MDL 0.591 0.495 0.493
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethane	9 Conc 1.23 41.8 70.4 31.2	0/12/ Q	17 MDL 0.591 0.495 0.493 0.493	ND 665 11.7 13.2	9/12/1 Q (ug/L)	7 <u>MDL</u> 0.591 2.48 0.493 0.493	ND 900 7.65 28.1	9/12/1 Q (ug/L)	7 <u>MDL</u> 0.591 4.95 0.493 0.493	9 Conc ND 4.45 ND 0.499	/12/1 Q	7 MDL 0.591 0.495 0.493 0.493
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene	Conc 1.23 41.8 70.4 31.2 0.463	0/12/ Q	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451	ND 665 11.7 13.2 0.960	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451	ND 900 7.65 28.1 1.08	9/12/1 Q (ug/L)	7 <u>MDL</u> 0.591 4.95 0.493 0.493 0.451	9 Conc ND 4.45 ND 0.499 ND	(ug/L)	7 <u>MDL</u> 0.591 0.495 0.493 0.493 0.493
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethane	9 Conc 1.23 41.8 70.4 31.2 0.463 0.500)/12/ Q (ug/I	17 MDL 0.591 0.495 0.493 0.493	ND 665 11.7 13.2 0.960 ND	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462	ND 900 7.65 28.1 1.08 ND	9/12/1 Q (ug/L)	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462	9 Conc ND 4.45 ND 0.499 ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.451 0.462
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethene 1,1,1-Trichloroethane 1,2-Dichloroethane (EDC)	Conc 1.23 41.8 70.4 31.2 0.463 0.500 0.962)/12/ Q (ug/I	17 MDL 0.591 0.495 0.493 0.493 0.451 0.462 0.458	ND 665 11.7 13.2 0.960 ND 0.955	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.451 0.462 0.458	ND 900 7.65 28.1 1.08 ND 0.851	9/12/1 Q (ug/L)	7 MDL 0.591 4.95 0.493 0.493 0.451 0.462 0.458	9 Conc ND 4.45 ND 0.499 ND ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.451 0.462 0.458
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethane 1,1-Dichloroethane cis-1,2-Dichloroethane 1,1,1-Trichloroethane	2 Conc 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410)/12/ Q (ug/I	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376	ND 665 11.7 13.2 0.960 ND 0.955 ND	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.451 0.462 0.458 0.376	ND 900 7.65 28.1 1.08 ND	9/12/1 Q (ug/L)	7 MDL 0.591 4.95 0.493 0.493 0.451 0.462 0.458 0.376	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethene 1,1,1-Trichloroethane 1,2-Dichloroethane (EDC)	2 Conc 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410 0.352	J	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351	Conc ND 665 11.7 13.2 0.960 ND 0.955 ND ND	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351	Conc ND 900 7.65 28.1 1.08 ND 0.851 ND ND	9/12/1 Q (ug/L)	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethane cis-1,2-Dichloroethane 1,1-Trichloroethane 1,2-Dichloroethane (EDC) Chlorobenzene	9 Conc 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410 0.352 0.410)/12/ Q (ug/I J	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	Conc ND 665 11.7 13.2 0.960 ND 0.955 ND ND ND ND ND	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	Conc ND 900 7.65 28.1 1.08 ND 0.851 ND	9/12/1 Q (ug/L)	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethene 1,1,1-Trichloroethane 1,2-Dichloroethane (EDC) Chlorobenzene 1,3-Dichlorobenzene	2 Conc 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410 0.352)/ 12 / <u>Q</u> (ug/I J J J	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351	Conc ND 665 11.7 13.2 0.960 ND 0.955 ND ND	9/12/1 Q (ug/L)	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351	Conc ND 900 7.65 28.1 1.08 ND 0.851 ND ND	9/12/1 Q (ug/L)	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethene 1,1-Trichloroethene 1,2-Dichloroethane (EDC) Chlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene	2000 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410 0.352 0.410 1.91	J J J J J J J J	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	Conc ND 665 11.7 13.2 0.960 ND 0.955 ND ND ND ND ND ND ND	9/12/1 Q (ug/L) D	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	ND 900 7.65 28.1 1.08 ND 0.851 ND ND ND ND	9/12/1 Q (ug/L) 	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND ND ND ND ND ND	/12/1 Q ((ug/L) J	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethene 1,1-Dichloroethane cis-1,2-Dichloroethane 1,2-Dichloroethane (EDC) Chlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene	2 Conc 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410 0.352 0.410 1.91 150)/ 12 / <u>Q</u> (ug/I J J J	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	Conc ND 665 11.7 13.2 0.960 ND 0.955 ND ND ND ND ND ND ND 0.955	9/12/1 Q (ug/L) D	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	Conc ND 900 7.65 28.1 1.08 ND 0.851 ND ND ND ND 938	9/12/1 Q (ug/L) D	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND ND ND ND ND ND ND ND	(ug/L)	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341
Sampled Date PARAMETER(Units) Volatiles (Units) Vinyl chloride Chloroethane 1,1-Dichloroethene 1,1-Dichloroethene 1,1-Trichloroethene 1,2-Dichloroethane (EDC) Chlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene	2000 1.23 41.8 70.4 31.2 0.463 0.500 0.962 0.410 0.352 0.410 1.91	J J J J J J J J	17 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	ND 665 11.7 13.2 0.960 ND 0.955 ND ND ND ND ND ND ND	9/12/1 Q (ug/L) D	7 MDL 0.591 2.48 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	ND 900 7.65 28.1 1.08 ND 0.851 ND ND ND ND	9/12/1 Q (ug/L) 	7 MDL 0.591 4.95 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341	9 Conc ND 4.45 ND 0.499 ND ND ND ND ND ND ND ND ND ND	/12/1 Q ((ug/L) J	7 MDL 0.591 0.495 0.493 0.493 0.493 0.451 0.462 0.458 0.376 0.351 0.341

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

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

SUMMARY REPORT

Client: Bureau Veritas										
Project: LEXINGTON MACHINING										
Lab Case No.: E17-07838										
Lab ID:	07	838-009	0'	7838-0	10	0	7838-0)11	0783	38-012
Client ID:	TRI	P BLANK		MW-1	l	MW-5			MW-8	
Matrix:		queous	A	Aqueou	15	Aqueous		us	Aq	ueous
Sampled Date	9	/12/17		9/12/17		9/12/17		9/13/17		
PARAMETER(Units)	Conc	Q MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q MDL
Volatiles (Units)		(ug/L)		(ug/L)			(ug/L)		(u	g/L)
1,1-Dichloroethene	ND	0.493	11.4		0.493	ND		0.493	16.1	0.493
1,1-Dichloroethane	ND	0.493	6.71		0.493	ND		0.493	6.43	0.493
1,1,1-Trichloroethane	ND	0.462	0.761		0.462	ND		0.462	ND	0.462
Tetrachloroethene	ND	0.451	ND		0.451	1.18		0.451	ND	0.451
TOTAL VO's:	ND		18.9			1.18			22.5	
TOTAL TIC's:	ND		ND			ND			ND	
TOTAL VO's & TIC's:	ND		18.9			1.18			22.5	
Lab ID:	07	838-013	0'	7838-0	14	0	7838-0)15	0783	38-016
Client ID:	N	IW-10	MW-9		FIELD BLANK -2			MW-11D		
Matrix:		queous	Aqueous		Aqueous			Aqueous		
Sampled Date		/13/17	i	9/13/1			9/13/1			3/17
PARAMETER(Units)	Conc	Q MDL	Conc	<u>Q</u>	MDL	Conc	<u>Q</u>	MDL	Conc	Q MDL
Volatiles (Units)	((ug/L)	(ug/L)		(ug/L)		(ug/L)			
1,1-Dichloroethene	2.32	0.493	181	D	0.986	ND		0.493	1.51	0.493
1,1-Dichloroethane	38.1	0.493	196		0.493	ND		0.493	1.00	0.493
1,1,1-Trichloroethane	ND	0.462	11.2		0.462	ND		0.462	ND	0.462
1,2-Dichloroethane (EDC)	ND	0.458	3.97		0.458	ND		0.458	ND	0.458
1,1,2-Trichloroethane	1.21	0.473	ND	_	0.473	ND		0.473	ND	0.473
TOTAL VO's:	41.6		392	D		ND			2.51	
TOTAL TIC's:	ND		ND	_		ND			ND	
TOTAL VO's & TIC's:	41.6		392	D		ND			2.51	
Lab ID:	07	838-017								
Client ID:	N	IW-11								
Matrix:		queous								
Sampled Date		/13/17								
PARAMETER(Units)	Conc	Q MDL								
Volatiles (Units)	((ug/L)								
1,1-Dichloroethene	1.35	0.493								
1,1-Dichloroethane	1.24	0.493								
1,1,1-Trichloroethane	1.40	0.462								
TOTAL VO's:	3.99									
TOTAL TIC's:	ND									
TOTAL VO's & TIC's:	3.99									

ND = Analyzed for but Not Detected at the MDL D = The compound was reported from the Diluted analysis

ANALYTICAL RESULTS

VOLATILE ORGANICS

Lab ID: E17-07838-001 Client ID: MW-4 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1530.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

VOLATILE ORGANICS

Lab ID: E17-07838-001 Client ID: MW-4 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1530.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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

VOLATILE ORGANICS Tentatively Identified Compounds

Client ID: MW-4 Date Received: 09/14/2017	Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L	
	1 . 5	
Date Analyzed: 09/18/2017	Dilution Factor: 1	
Date File: E1530.D	% Moisture: 100	
	Estimated Retention	on

		Estimated	Retention
CAS #	Compound	Concentration	Q Time

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E17-07838-002 Client ID: MW-7 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1531.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	9.32		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	3.58		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	5.18		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	9.15		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

VOLATILE ORGANICS

Lab ID: E17-07838-002 Client ID: MW-7 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1531.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	0.482	J	0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	27.7	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

VOLATILE ORGANICS Tentatively Identified Compounds

	Estimated	Retention
Date File: E1531.D	% Moisture: 100	
Date Analyzed: 09/18/2017	Dilution Factor: 1	
Date Received: 09/14/2017	Matrix-Units: Aque	ous-µg/L
Client ID: MW-7	Sample wt/vol: 5mI	1
Lab ID: E17-07838-002	GC/MS Column: D	B-624

No peaks detected

Compound

CAS #

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

Concentration Q

Time

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E17-07838-003 Client ID: FIELD_BLANK_ Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1532.D

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

VOLATILE ORGANICS

Lab ID: E17-07838-003 Client ID: FIELD_BLANK_ Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1532.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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

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VOLATILE ORGANICS Tentatively Identified Compounds

CAS # Compound	Estimated Retention Concentration Q Time			
Date File: E1532.D	% Moisture: 100			
Date Analyzed: 09/18/2017	Dilution Factor: 1			
Date Received: 09/14/2017	Matrix-Units: Aqueous-µg/L			
Client ID: FIELD_BLANKSample wt/vol: 5mL				
Lab ID: E17-07838-003 GC/MS Column: DB-624				

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-004 Client ID: MW-14 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1533.D

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	3.91		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	4.33		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	18.7		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	19.0		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

VOLATILE ORGANICS

Lab ID: E17-07838-004 Client ID: MW-14 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1533.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	0.845		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	46.8			

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

VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: E17-07838-004	GC/MS Column: DB-624
Client ID: MW-14	Sample wt/vol: 5mL
Date Received: 09/14/2017	Matrix-Units: Aqueous-µg/L
Date Analyzed: 09/18/2017	Dilution Factor: 1
Date File: E1533.D	% Moisture: 100
	Estimated Retention

		Estimated	Retention
CAS #	Compound	Concentration	Q Time

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-005 Client ID: MW-3 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1534.D

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.662
Chloromethane	ND		0.500	0.463
Vinyl chloride	1.23		1.00	0.591
Bromomethane	ND		1.00	0.544
Chloroethane	41.8		0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	70.4		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	31.2		0.500	0.493
cis-1,2-Dichloroethene	0.463	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	0.500		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	0.962		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

VOLATILE ORGANICS

Lab ID: E17-07838-005 Client ID: MW-3 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1534.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	0.410	J	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	0.352	J	0.500	0.351
1,4-Dichlorobenzene	0.410	J	0.500	0.341
1,2-Dichlorobenzene	1.91		0.500	0.364
1,2-Dibromo-3-chloropropane	ND		1.00	0.533
1,2,4-Trichlorobenzene	ND		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	150	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

VOLATILE ORGANICS Tentatively Identified Compounds

CAS #	Compound	Estimated Retention Concentration Q Time				
Date File: E	E1534.D	% Moisture: 100				
•	red: 09/18/2017	Dilution Factor: 1				
Date Receiv	ed: 09/14/2017	Matrix-Units: Aqueous-µg/L				
Client ID: N	AW-3	Sample wt/vol: 5mL				
Lab ID: E1	7-07838-005	GC/MS Column: DB-624				

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-006 Client ID: MW-13 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1535.D

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	581	Е	0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	11.7		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	13.2		0.500	0.493
cis-1,2-Dichloroethene	0.960		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)	0.955		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

VOLATILE ORGANICS

Lab ID: E17-07838-006 Client ID: MW-13 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1535.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	608	Е		

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 Tentatively Identified Compounds

Lab ID: E17-0	07838-006	GC/MS Column: DB-624				
Client ID: MV	W-13	Sample wt/vol: 5mL				
Date Received	: 09/14/2017	Matrix-Units: Aqueous-µg/L				
Date Analyzed	l: 09/18/2017	Dilution Factor: 1				
Date File: E15	535.D	% Moisture: 100				
		Estimated Retention				
CAS #	Compound	<u>Concentration</u> Q	Time			
000074-96-4	Ethane, bromo-	6.90 JN	3.95			
000074-20-4	L'indité, oronno-	0.70 514	5.75			

Total TICs = 6.90

D --- Dilution Performed

J --- Estimated concentration for TICs

JN

VOLATILE ORGANICS

Lab ID: E17-07838-006DL Client ID: MW-13 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1542.D

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	665	D	2.50	2.48
Trichlorofluoromethane	ND		2.50	2.17
1,1-Dichloroethene	13.7	D	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	15.2	D	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		10.0	3.50

VOLATILE ORGANICS

Lab ID: E17-07838-006DL Client ID: MW-13 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1542.D

GC/MS Column: DB-624 Sample wt/vol: 1mL Matrix-Units: Aqueous-µg/L Dilution Factor: 5 % Moisture: 100

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		10.0	3.81
Dibromochloromethane	ND		5.00	2.21
1,2-Dibromoethane (EDB)	ND		2.50	2.01
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	ND		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		5.00	2.67
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	ND		5.00	2.06
Methylcyclohexane	ND		5.00	2.06
1,3-Dichloropropene (cis- and trans-)	ND		2.50	1.66
Total Target Compounds (52):	694	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

VOLATILE ORGANICS

Lab ID: E17-07838-007 Client ID: MW-2 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1536.D

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	978	E	0.500	0.495
Trichlorofluoromethane	ND		0.500	0.433
1,1-Dichloroethene	7.65		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	28.1		0.500	0.493
cis-1,2-Dichloroethene	1.08		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)	0.851		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

VOLATILE ORGANICS

Lab ID: E17-07838-007 Client ID: MW-2 Date Received: 09/14/2017 Date Analyzed: 09/18/2017 Data file: E1536.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	1020	Е		

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 Tentatively Identified Compounds

Lab ID: E17-0	07838-007	GC/MS Column: DB-624				
Client ID: MV	W-2	Sample wt/vol: 5mL				
Date Received	: 09/14/2017	Matrix-Units: Aqueous-µg/L				
Date Analyzed	l: 09/18/2017	Dilution Factor: 1				
Date File: E15	536.D	% Moisture: 100				
		Estimated	Retention			
CAS #	Compound	Concentration Q	Time			
000074 06 4	Ethone brome	9 .00 IN	2.05			
000074-96-4	Ethane, bromo-	8.00 JN 3.95				

Total TICs = 8.00

D --- Dilution Performed

J ---- Estimated concentration for TICs

JN

VOLATILE ORGANICS

Lab ID: E17-07838-007DL Client ID: MW-2 Date Received: 09/13/2017 Date Analyzed: 09/19/2017 Data file: E1572.D

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		10.0	6.62
Chloromethane	ND		5.00	4.63
Vinyl chloride	ND		10.0	5.91
Bromomethane	ND		10.0	5.44
Chloroethane	900	D	5.00	4.95
Trichlorofluoromethane	ND		5.00	4.33
1,1-Dichloroethene	10.3	D	5.00	4.93
Acetone	ND		20.0	13.3
Carbon disulfide	ND		5.00	4.64
Methylene chloride	ND		10.0	9.90
trans-1,2-Dichloroethene	ND		5.00	4.54
Methyl tert-butyl ether (MTBE)	ND		5.00	4.79
1,1-Dichloroethane	31.8	D	5.00	4.93
cis-1,2-Dichloroethene	ND		5.00	4.51
2-Butanone (MEK)	ND		20.0	16.6
Bromochloromethane	ND		10.0	5.96
Chloroform	ND		5.00	4.69
1,1,1-Trichloroethane	ND		5.00	4.62
Carbon tetrachloride	ND		5.00	4.49
1,2-Dichloroethane (EDC)	ND		5.00	4.58
Benzene	ND		5.00	4.64
Trichloroethene	ND		5.00	4.93
1,2-Dichloropropane	ND		5.00	4.47
1,4-Dioxane	ND		1000	984
Bromodichloromethane	ND		5.00	3.53
cis-1,3-Dichloropropene	ND		5.00	3.31
4-Methyl-2-pentanone (MIBK)	ND		20.0	6.99

VOLATILE ORGANICS

Lab ID: E17-07838-007DL Client ID: MW-2 Date Received: 09/13/2017 Date Analyzed: 09/19/2017 Data file: E1572.D GC/MS Column: DB-624 Sample wt/vol: 0.5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 10 % Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		5.00	3.79
trans-1,3-Dichloropropene	ND		5.00	3.21
1,1,2-Trichloroethane	ND		10.0	4.73
Tetrachloroethene	ND		5.00	4.51
2-Hexanone	ND		20.0	7.61
Dibromochloromethane	ND		10.0	4.42
1,2-Dibromoethane (EDB)	ND		5.00	4.02
Chlorobenzene	ND		5.00	3.76
Ethylbenzene	ND		5.00	3.44
Total Xylenes	ND		10.0	9.23
Styrene	ND		5.00	2.90
Bromoform	ND		5.00	4.45
Isopropylbenzene	ND		5.00	3.23
1,1,2,2-Tetrachloroethane	ND		5.00	4.58
1,3-Dichlorobenzene	ND		5.00	3.51
1,4-Dichlorobenzene	ND		5.00	3.41
1,2-Dichlorobenzene	ND		5.00	3.64
1,2-Dibromo-3-chloropropane	ND		10.0	5.33
1,2,4-Trichlorobenzene	ND		5.00	3.04
1,2,3-Trichlorobenzene	ND		5.00	3.39
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	5.63
Methyl acetate	ND		5.00	4.85
Cyclohexane	ND		10.0	4.11
Methylcyclohexane	ND		10.0	4.11
1,3-Dichloropropene (cis- and trans-)	ND		5.00	3.31
Total Target Compounds (52):	942	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

VOLATILE ORGANICS

Lab ID: E17-07838-008 Client ID: MW-2D Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1559.D

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	4.45		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	0.499	J	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

VOLATILE ORGANICS

Lab ID: E17-07838-008 Client ID: MW-2D Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1559.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	4.95	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

VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: E1' Client ID: N	7-07838-008 ЛW-2D	GC/MS Column: DB-624 Sample wt/vol: 5mL				
Date Received: 09/14/2017 Matrix-Units: Aqueo						
Date Analyz	te Analyzed: 09/19/2017 Dilution Factor: 1					
Date File: E	E1559.D	% Moisture: 100				
		Estimated Retention				
CAS #	Compound	Concentration Q Time				

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-009 Client ID: TRIP_BLANK Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1560.D

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

VOLATILE ORGANICS

Lab ID: E17-07838-009 Client ID: TRIP_BLANK Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1560.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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

VOLATILE ORGANICS Tentatively Identified Compounds

CAS #	Compound	Concentration Q Time				
	31300.17	Estimated Retention				
Date File: I	F1560 D	% Moisture: 100				
Date Analyz	zed: 09/19/2017	Dilution Factor: 1				
Date Receiv	ved: 09/14/2017	Matrix-Units: Aqueous-µg/L				
Client ID: 7	FRIP_BLANK	Sample wt/vol: 5mL				
Lab ID: E1	7-07838-009	GC/MS Column: DB-624				

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-010 Client ID: MW-1 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1561.D

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	11.4		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	6.71		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	0.761		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

VOLATILE ORGANICS

Lab ID: E17-07838-010 Client ID: MW-1 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1561.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	18.9			

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

VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: E17-07838-010	GC/MS Column: DB-624		
Client ID: MW-1	Sample wt/vol: 5mL		
Date Received: 09/14/2017	Matrix-Units: Aqueous-µg/L		
Date Analyzed: 09/19/2017	Dilution Factor: 1		
Date File: E1561.D	% Moisture: 100		
	Estimated Retention		

CAS #CompoundEstimatedRetentionCAS #ConcentrationQTime

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-011 Client ID: MW-5 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1562.D

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

VOLATILE ORGANICS

Lab ID: E17-07838-011 Client ID: MW-5 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1562.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	1.18		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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	1.18			

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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VOLATILE ORGANICS Tentatively Identified Compounds

CAS #	Compound	Estimated Retention Concentration Q Time				
Date File: 1	E1562.D	% Moisture: 100				
Date Analy:	zed: 09/19/2017	Dilution Factor: 1				
Date Receiv	ved: 09/14/2017	Matrix-Units: Aqueous-µg/L				
Client ID: 1	MW-5	Sample wt/vol: 5mL				
Lab ID: E1	7-07838-011	GC/MS Column: DB-624				

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-012 Client ID: MW-8 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1563.D

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	16.1		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	6.43		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

VOLATILE ORGANICS

Lab ID: E17-07838-012 Client ID: MW-8 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1563.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	22.5			

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

VOLATILE ORGANICS Tentatively Identified Compounds

CAS #	Compound	Estimated Retention Concentration Q Time	1			
Date File: E	1563.D	% Moisture: 100				
Date Analyze	ed: 09/19/2017	Dilution Factor: 1				
Date Receive	ed: 09/14/2017	Matrix-Units: Aqueous-µg/L				
Client ID: M	(W-8	Sample wt/vol: 5mL				
Lab ID: E17	-07838-012	GC/MS Column: DB-624				

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

VOLATILE ORGANICS

Lab ID: E17-07838-013 Client ID: MW-10 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1564.D

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	2.32		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	38.1		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

VOLATILE ORGANICS

Lab ID: E17-07838-013 Client ID: MW-10 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1564.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	1.21		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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	41.6			

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

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VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: E17-07838-013	GC/MS Column: DB-624		
Client ID: MW-10	Sample wt/vol: 5mL		
Date Received: 09/14/2017	Matrix-Units: Aqueous-µg/L		
Date Analyzed: 09/19/2017	Dilution Factor: 1		
Date File: E1564.D	% Moisture: 100		
	Estimated Retention		

		Estimated	Retention
CAS #	Compound	Concentration Q	Time

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

N ---- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E17-07838-014 Client ID: MW-9 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1565.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	228	Е	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	196		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	11.2		0.500	0.462
Carbon tetrachloride	ND		0.500	0.449
1,2-Dichloroethane (EDC)	3.97		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

VOLATILE ORGANICS

Lab ID: E17-07838-014 Client ID: MW-9 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1565.D GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 1 % Moisture: 100

Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 2-Hexanone Dibromochloromethane 1,2-Dibromoethane (EDB)	ND ND ND ND ND ND ND	0.500 0.500 1.00 0.500 2.00 1.00 0.500	0.379 0.321 0.473 0.451 0.761 0.442 0.402
1,1,2-Trichloroethane Tetrachloroethene 2-Hexanone Dibromochloromethane	ND ND ND ND ND ND	1.00 0.500 2.00 1.00	0.473 0.451 0.761 0.442
Tetrachloroethene 2-Hexanone Dibromochloromethane	ND ND ND ND ND	0.500 2.00 1.00	0.451 0.761 0.442
2-Hexanone Dibromochloromethane	ND ND ND ND	2.00 1.00	0.761 0.442
Dibromochloromethane	ND ND ND	1.00	0.442
	ND ND		
1,2-Dibromoethane (EDB)	ND	0.500	0.402
			0.402
Chlorobenzene		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	0.500	0.304
1,2,3-Trichlorobenzene	ND	0.500	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):

Е

B --- Compound detected in Blank

C --- Common laboratory contamination

J --- Value Less than RL & greater than MDL E --- Exceeds upper level of Calibration curve

D --- Dilution Performed

439

VOLATILE ORGANICS Tentatively Identified Compounds

	Estimated	Retention
Date File: E1565.D	% Moisture: 100	
Date Analyzed: 09/19/2017	Dilution Factor: 1	
Date Received: 09/14/2017	Matrix-Units: Aqu	ieous-µg/L
Client ID: MW-9	Sample wt/vol: 5n	nL
Lab ID: E17-07838-014	GC/MS Column:	DB-624

CAS #CompoundEstimatedRetentionCAS #CompoundConcentrationQTime

No peaks detected

Total TICs =

D --- Dilution Performed

J --- Estimated concentration for TICs

0

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E17-07838-014DL Client ID: MW-9 Date Received: 09/13/2017 Date Analyzed: 09/19/2017 Data file: E1571.D GC/MS Column: DB-624 Sample wt/vol: 2.5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 2 % Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		2.00	1.32
Chloromethane	ND		1.00	0.926
Vinyl chloride	ND		2.00	1.18
Bromomethane	ND		2.00	1.09
Chloroethane	ND		1.00	0.990
Trichlorofluoromethane	ND		1.00	0.866
1,1-Dichloroethene	181	D	1.00	0.986
Acetone	ND		4.00	2.66
Carbon disulfide	ND		1.00	0.928
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.908
Methyl tert-butyl ether (MTBE)	ND		1.00	0.958
1,1-Dichloroethane	168	D	1.00	0.986
cis-1,2-Dichloroethene	ND		1.00	0.902
2-Butanone (MEK)	ND		4.00	3.32
Bromochloromethane	ND		2.00	1.19
Chloroform	ND		1.00	0.938
1,1,1-Trichloroethane	9.24	D	1.00	0.924
Carbon tetrachloride	ND		1.00	0.898
1,2-Dichloroethane (EDC)	4.37	D	1.00	0.916
Benzene	ND		1.00	0.928
Trichloroethene	ND		1.00	0.986
1,2-Dichloropropane	ND		1.00	0.894
1,4-Dioxane	ND		200	197
Bromodichloromethane	ND		1.00	0.706
cis-1,3-Dichloropropene	ND		1.00	0.662
4-Methyl-2-pentanone (MIBK)	ND		4.00	1.40

VOLATILE ORGANICS

Lab ID: E17-07838-014DL Client ID: MW-9 Date Received: 09/13/2017 Date Analyzed: 09/19/2017 Data file: E1571.D

GC/MS Column: DB-624 Sample wt/vol: 2.5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 2 % Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.758
trans-1,3-Dichloropropene	ND		1.00	0.642
1,1,2-Trichloroethane	ND		2.00	0.946
Tetrachloroethene	ND		1.00	0.902
2-Hexanone	ND		4.00	1.52
Dibromochloromethane	ND		2.00	0.884
1,2-Dibromoethane (EDB)	ND		1.00	0.804
Chlorobenzene	ND		1.00	0.752
Ethylbenzene	ND		1.00	0.688
Total Xylenes	ND		2.00	1.85
Styrene	ND		1.00	0.580
Bromoform	ND		1.00	0.890
Isopropylbenzene	ND		1.00	0.646
1,1,2,2-Tetrachloroethane	ND		1.00	0.916
1,3-Dichlorobenzene	ND		1.00	0.702
1,4-Dichlorobenzene	ND		1.00	0.682
1,2-Dichlorobenzene	ND		1.00	0.728
1,2-Dibromo-3-chloropropane	ND		2.00	1.07
1,2,4-Trichlorobenzene	ND		1.00	0.608
1,2,3-Trichlorobenzene	ND		1.00	0.678
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.00	1.13
Methyl acetate	ND		1.00	0.970
Cyclohexane	ND		2.00	0.822
Methylcyclohexane	ND		2.00	0.822
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.662
Total Target Compounds (52):	363	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

VOLATILE ORGANICS

Lab ID: E17-07838-015 Client ID: FIELD_BLANK_ Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1566.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

VOLATILE ORGANICS

Lab ID: E17-07838-015 Client ID: FIELD_BLANK_ Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1566.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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

VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: E17-07838-015	GC/MS Column:	DB-624	
Client ID: FIELD_BLANK_	Sample wt/vol: 5mL		
Date Received: 09/14/2017	Matrix-Units: Aq	ueous-µg/L	
Date Analyzed: 09/19/2017	Dilution Factor: 1		
Data file: E1566.D	% Moisture: 100		
	Estimated	Retention	

CAS #CompoundConcentrationQTime

No peaks detected

Total TICs =

0

VOLATILE ORGANICS

Lab ID: E17-07838-016 Client ID: MW-11D Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1567.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	1.51		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	1.00		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

VOLATILE ORGANICS

Lab ID: E17-07838-016 Client ID: MW-11D Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1567.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	2.51			

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

--- Common laboratory containination

VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: E17-07838-016	GC/MS Column: I	DB-624
Client ID: MW-11D	Sample wt/vol: 5m	ıL
Date Received: 09/14/2017	Matrix-Units: Aqu	eous-µg/L
Date Analyzed: 09/19/2017	Dilution Factor: 1	
Data file: E1567.D	% Moisture: 100	
	Estimated	Retention

Q

Time

CAS # Compound Concentration

No peaks detected

Total TICs = 0

VOLATILE ORGANICS

Lab ID: E17-07838-017 Client ID: MW-11 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1568.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	1.35		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	1.24		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	1.40		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

VOLATILE ORGANICS

Lab ID: E17-07838-017 Client ID: MW-11 Date Received: 09/14/2017 Date Analyzed: 09/19/2017 Data file: E1568.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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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):	3.99			

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 Tentatively Identified Compounds

Lab ID: E17-07838-017 Client ID: MW-11	GC/MS Column: DB-624 Sample wt/vol: 5mL
Date Received: 09/14/2017	Matrix-Units: Aqueous-µg/L
Date Analyzed: 09/19/2017	Dilution Factor: 1
Data file: E1568.D	% Moisture: 100
	Estimated Retention
CAS # Compound	Concentration Q Time

No peaks detected

Total TICs = 0

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/18/2017

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2	# SMC3 #
BLKA170918	AQUEOUS	E1529.D	101	99	94
E17-07838-001	AQUEOUS	E1530.D	96	97	93
E17-07838-002	AQUEOUS	E1531.D	94	98	95
E17-07838-003	AQUEOUS	E1532.D	98	98	96
E17-07838-004	AQUEOUS	E1533.D	98	98	93
E17-07838-005	AQUEOUS	E1534.D	96	97	93
E17-07838-006	AQUEOUS	E1535.D	97	96	95
E17-07838-007	AQUEOUS	E1536.D	99	96	96
E17-07836-002	AQUEOUS	E1537.D	96	98	92
E17-07836-003	AQUEOUS	E1538.D	95	98	95
LCSA170918	AQUEOUS	E1539.D	92	102	101
E17-07782-005MS	AQUEOUS	E1540.D	87	101	99
E17-07782-005MSD	AQUEOUS	E1541.D	83	101	97
E17-07838-006DL	AQUEOUS	E1542.D	84	99	92
E17-07782-005	AQUEOUS	E1543.D	85	95	91
E17-07782-006	AQUEOUS	E1544.D	88	96	95
E17-07782-007	AQUEOUS	E1545.D	90	98	93
E17-07782-008	AQUEOUS	E1546.D	92	97	92
E17-07782-009	AQUEOUS	E1547.D	89	98	95
E17-07782-010	AQUEOUS	E1548.D	89	96	93

	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

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Date Analyzed: 09/19/2017

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Lab Sample ID	Matrix	File ID	SMC1 #	SMC2	# SMC3_#
BLKA170918a	AQUEOUS	E1553.D	83	98	91
E17-07689-001	AQUEOUS	E1554.D	84	99	97
LCSA170918a	AQUEOUS	E1555.D	82	101	96
E17-07838-008MS	AQUEOUS	E1556.D	79	101	97
E17-07838-008MSD	AQUEOUS	E1557.D	78	100	96
E17-07838-008	AQUEOUS	E1559.D	82	93	95
E17-07838-009	AQUEOUS	E1560.D	81	96	92
E17-07838-010	AQUEOUS	E1561.D	82	98	90
E17-07838-011	AQUEOUS	E1562.D	102	97	94
E17-07838-012	AQUEOUS	E1563.D	87	96	92
E17-07838-013	AQUEOUS	E1564.D	89	97	93
E17-07838-014	AQUEOUS	E1565.D	89	96	94
E17-07838-015	AQUEOUS	E1566.D	91	96	93
E17-07838-016	AQUEOUS	E1567.D	88	97	92
E17-07838-017	AQUEOUS	E1568.D	87	97	91
E17-07794-001	AQUEOUS	E1569.D	86	98	95
E17-07736-001	AQUEOUS	E1570.D	80	99	94
E17-07838-014DL	AQUEOUS	E1571.D	99	95	94
E17-07838-007DL	AQUEOUS	E1572.D	99	96	93

	Concentration	Leachate htration DKQPs Aqueous/Mo		oh 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

LCS ACCURACY REPORT

Lab ID: LCSA170918 Date Received: NA Date Analyzed: 09/18/2017 LCS Data file: E1539.D GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L % Moisture: 100 Dilution Factor: 1

		Conc.	%Rec.		
Compound	Conc. Add	LCS	LCS	#	Limits
Dichlorodifluoromethane	50.0	46.3	93		52-137
Chloromethane	50.0	42.2	84		39-129
Vinyl chloride	50.0	51.5	103		48-133
Bromomethane	50.0	56.9	114		71-143
Chloroethane	50.0	48.1	96		63-134
Trichlorofluoromethane	50.0	60.9	122		56-133
1,1-Dichloroethene	50.0	49.7	99		69-115
Acetone	100	115.6	116		16-211
Carbon disulfide	50.0	55.0	110		68-122
Vinyl acetate	50.0	39.8	80		59-114
Methylene chloride	50.0	53.0	106		72-133
Acrylonitrile	150.0	112.8	75		63-150
tert-Butyl alcohol (TBA)	100.0	87.2	87		58-135
trans-1,2-Dichloroethene	50.0	50.8	102		68-135
Methyl tert-butyl ether (MTBE)	50.0	45.1	90		41-142
1,1-Dichloroethane	50.0	51.8	104		73-128
Diisopropyl ether (DIPE)	50.0	55.9	112		57-137
cis-1,2-Dichloroethene	50.0	52.4	105		77-134
2,2-Dichloropropane	50.0	63.7	127		53-138
2-Butanone (MEK)	100	72.6	73		16-158
Bromochloromethane	50.0	45.7	91		76-134
Chloroform	50.0	51.6	103		78-133
1,1,1-Trichloroethane	50.0	57.8	116		70-137
Carbon tetrachloride	50.0	55.8	112		71-141
1,1-Dichloropropene	50.0	50.8	102		66-139
1,2-Dichloroethane (EDC)	50.0	46.6	93		75-132
Benzene	50.0	49.9	100		72-130
Trichloroethene	50.0	48.7	97		71-138
1,2-Dichloropropane	50.0	49.7	99		78-131
Dibromomethane	50.0	43.7	87		76-137
1,4-Dioxane	1500	1527	102		48-153
Bromodichloromethane	50.0	50.5	101		79-140
cis-1,3-Dichloropropene	50.0	52.6	105		71-140
4-Methyl-2-pentanone (MIBK)	100	80.3	80		13-164
Toluene	50.0	50.0	100		69-140
trans-1,3-Dichloropropene	50.0	45.6	91		63-150
1,1,2-Trichloroethane	50.0	43.0	86		76-140
Tetrachloroethene	50.0	51.6	103		63-141
1,3-Dichloropropane	50.0	44.1	88		68-144

LCS ACCURACY REPORT

Lab ID: LCSA170918 Date Received: NA Date Analyzed: 09/18/2017 LCS Data file: E1539.D GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L % Moisture: 100 Dilution Factor: 1

	Conc.	Conc.	%Rec.		
Compound	Add	LCS	LCS	#	Limits
2-Hexanone	100	76.5	77		13-163
Dibromochloromethane	50.0	44.1	88		70-148
1,2-Dibromoethane (EDB)	50.0	44.6	89		72-150
Chlorobenzene	50.0	49.4	99		75-125
1,1,1,2-Tetrachloroethane	50.0	51.1	102		80-121
Ethylbenzene	50.0	51.3	103		69-130
m,p-Xylene	100.0	100.8	101		62-128
o-Xylene	50.0	54.3	109		58-129
Styrene	50.0	53.6	107		67-130
Bromoform	50.0	41.8	84		79-134
Isopropylbenzene	50.0	54.8	110		68-127
1,1,2,2-Tetrachloroethane	50.0	38.5	77		71-120
Bromobenzene	50.0	50.0	100		73-136
1,2,3-Trichloropropane	50.0	38.7	77		72-123
n-Propylbenzene	50.0	52.1	104		67-133
2-Chlorotoluene	50.0	50.8	102		69-129
1,3,5-Trimethylbenzene	50.0	53.6	107		68-127
4-Chlorotoluene	50.0	51.0	102		72-129
tert-Butylbenzene	50.0	56.6	113		68-130
1,2,4-Trimethylbenzene	50.0	51.2	102		69-128
sec-Butylbenzene	50.0	55.7	111		62-130
1,3-Dichlorobenzene	50.0	51.4	103		60-142
4-Isopropyltoluene	50.0	56.3	113		62-131
1,4-Dichlorobenzene	50.0	50.5	101		63-134
n-Butylbenzene	50.0	56.4	113		54-130
1,2-Dichlorobenzene	50.0	51.8	104		63-134
1,2-Dibromo-3-chloropropane	50.0	35.2	70		51-138
1,2,4-Trichlorobenzene	50.0	52.1	104		62-126
Hexachlorobutadiene	50.0	53.1	106		47-153
Naphthalene	50.0	43.6	87		53-134
1,2,3-Trichlorobenzene	50.0	48.4	97		58-144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.4	111		49-126
Methyl acetate	50.0	53.4	107		40-147
Cyclohexane	50.0	51.2	102		59-120
Methylcyclohexane	50.0	52.0	104		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

LCS ACCURACY REPORT

Lab ID: LCSA170918 Date Received: NA Date Analyzed: 09/18/2017 LCS Data file: E1539.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 70-130 70-130

LCS ACCURACY (%REC)

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

LCS ACCURACY REPORT

Lab ID: LCSA170918a Date Received: NA Date Analyzed: 09/19/2017 LCS Data file: E1555.D GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L % Moisture: 100 Dilution Factor: 1

		Conc.	%Rec.		
Compound	Conc. Add	LCS	LCS	#	Limits
Dichlorodifluoromethane	50.0	51.8	104		52-137
Chloromethane	50.0	45.5	91		39-129
Vinyl chloride	50.0	56.5	113		48-133
Bromomethane	50.0	58.5	117		71-143
Chloroethane	50.0	56.8	114		63-134
Trichlorofluoromethane	50.0	53.8	108		56-133
1,1-Dichloroethene	50.0	52.0	104		69-115
Acetone	100	107.1	107		16-211
Carbon disulfide	50.0	54.2	108		68-122
Vinyl acetate	50.0	44.9	90		59-114
Methylene chloride	50.0	53.2	106		72-133
Acrylonitrile	150.0	127.0	85		63-150
tert-Butyl alcohol (TBA)	100.0	81.8	82		58-135
trans-1,2-Dichloroethene	50.0	54.2	108		68-135
Methyl tert-butyl ether (MTBE)	50.0	38.8	78		41-142
1,1-Dichloroethane	50.0	56.2	112		73-128
Diisopropyl ether (DIPE)	50.0	53.4	107		57-137
cis-1,2-Dichloroethene	50.0	54.7	109		77-134
2,2-Dichloropropane	50.0	55.3	111		53-138
2-Butanone (MEK)	100	81.6	82		16-158
Bromochloromethane	50.0	42.7	85		76-134
Chloroform	50.0	54.2	108		78-133
1,1,1-Trichloroethane	50.0	63.8	128		70-137
Carbon tetrachloride	50.0	58.0	116		71-141
1,1-Dichloropropene	50.0	52.9	106		66-139
1,2-Dichloroethane (EDC)	50.0	41.4	83		75-132
Benzene	50.0	51.1	102		72-130
Trichloroethene	50.0	50.9	102		71-138
1,2-Dichloropropane	50.0	47.2	94		78-131
Dibromomethane	50.0	39.6	79		76-137
1,4-Dioxane	1500	1580	105		48-153
Bromodichloromethane	50.0	46.4	93		79-140
cis-1,3-Dichloropropene	50.0	44.8	90		71-140
4-Methyl-2-pentanone (MIBK)	100	87.8	88		13-164
Toluene	50.0	48.4	97		69-140
trans-1,3-Dichloropropene	50.0	37.5	75		63-150
1,1,2-Trichloroethane	50.0	38.0	76		76-140
Tetrachloroethene	50.0	49.0	98		63-141
1,3-Dichloropropane	50.0	35.7	71		68-144

LCS ACCURACY REPORT

Lab ID: LCSA170918a Date Received: NA Date Analyzed: 09/19/2017 LCS Data file: E1555.D GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L % Moisture: 100 Dilution Factor: 1

	Conc.	Conc.	%Rec.		
Compound	Add	LCS	LCS	#	Limits
2-Hexanone	100	86.3	86		13-163
Dibromochloromethane	50.0	36.9	74		70-148
1,2-Dibromoethane (EDB)	50.0	42.4	85		72-150
Chlorobenzene	50.0	47.3	95		75-125
1,1,1,2-Tetrachloroethane	50.0	50.4	101		80-121
Ethylbenzene	50.0	51.2	102		69-130
m,p-Xylene	100.0	100.8	101		62-128
o-Xylene	50.0	53.6	107		58-129
Styrene	50.0	50.7	101		67-130
Bromoform	50.0	47.6	95		79-134
Isopropylbenzene	50.0	55.0	110		68-127
1,1,2,2-Tetrachloroethane	50.0	56.3	113		71-120
Bromobenzene	50.0	44.7	89		73-136
1,2,3-Trichloropropane	50.0	44.4	89		72-123
n-Propylbenzene	50.0	51.3	103		67-133
2-Chlorotoluene	50.0	50.4	101		69-129
1,3,5-Trimethylbenzene	50.0	52.9	106		68-127
4-Chlorotoluene	50.0	49.9	100		72-129
tert-Butylbenzene	50.0	59.1	118		68-130
1,2,4-Trimethylbenzene	50.0	52.3	105		69-128
sec-Butylbenzene	50.0	54.5	109		62-130
1,3-Dichlorobenzene	50.0	47.8	96		60-142
4-Isopropyltoluene	50.0	55.8	112		62-131
1,4-Dichlorobenzene	50.0	47.0	94		63-134
n-Butylbenzene	50.0	54.5	109		54-130
1,2-Dichlorobenzene	50.0	45.4	91		63-134
1,2-Dibromo-3-chloropropane	50.0	40.0	80		51-138
1,2,4-Trichlorobenzene	50.0	45.4	91		62-126
Hexachlorobutadiene	50.0	52.3	105		47-153
1,2,3-Trichlorobenzene	50.0	37.2	74		58-144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	56.5	113		49-126
Methyl acetate	50.0	41.2	82		40-147
Cyclohexane	50.0	53.7	107		59-120
Methylcyclohexane	50.0	50.9	102		62-131

Leachate
Aqueous/MeohSoil/SedimentLCS Recovery Limits70-13070-13070-130

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

\$ Values outside of NJ DKQP limits

LCS ACCURACY REPORT

Lab ID: LCSA170918a Date Received: NA Date Analyzed: 09/19/2017 LCS Data file: E1555.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 70-130 70-130

LCS ACCURACY (%REC)

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: E17-07782-005 Client ID: SW-1-091117 Date Received: NA Date Analyzed: 09/18/2017 MS Data file: E1540.D MSD Data file: E1541.D	Conc.		Conc.	%Rec.	Sample v Matrix-U % Moistu Dilution Dilution	Factor: 1 Factor: 1 c. %Rec.	_ ous-μg/L %	, <u>.</u>	
Compound	Add	Sample	MS	MS	# MSI		# RPD #		IS
Dichlorodifluoromethane	50.0	0.0	53.0	106	49.1		8	61-164/17	
Chloromethane	50.0	0.0	44.1	88	43.5		1	29-149/20	
Vinyl chloride	50.0	0.0	55.8	112	53.8		4	30-167/23	
Bromomethane	50.0	0.0	53.1	106	56.6		6	53-158/18	
Chloroethane	50.0	0.0	56.7	113	58.0		2	57-144/14	
Trichlorofluoromethane	50.0	0.0	60.3	121	59.7		1	50-159/18	
1,1-Dichloroethene	50.0	0.0	52.9	106	49.9		6	55-135/13	
Acetone	100	0.0	87.9	88	93.9		7	37-160/21	
Carbon disulfide	50.0	0.0	57.5	115	58.0		1	46-143/16	
Vinyl acetate	50.0	0.0	54.1	108	56.6		5	24-151/21	
Methylene chloride	50.0	0.0	53.9	108	51.2		5	63-136/12	
Acrylonitrile	150	0.0	188	125	191	127	2	55-180/21	
tert-Butyl alcohol (TBA)	100	0.0	97.8	98	94.9		3	42-143/17	
trans-1,2-Dichloroethene	50.0	0.0	53.3	107	50.8		5	58-142/14	
Methyl tert-butyl ether (MTBE)	50.0	0.0	41.5	83	39.1		6	35-132/16	
1,1-Dichloroethane	50.0	0.0	55.0	110	52.7		4	63-140/13	
Diisopropyl ether (DIPE)	50.0	0.0	54.5	109	52.3		4	41-160/20	
cis-1,2-Dichloroethene	50.0	0.0	54.1	108	52.5		3	54-158/17	
2,2-Dichloropropane	50.0	0.0	50.1	100	57.9		14	29-152/21	
2-Butanone (MEK)	100	0.0	101.5	102	105.9		4	50-163/19	
Bromochloromethane	50.0	0.0	44.8	90	42.8		5	63-155/15	
Chloroform	50.0	0.0	53.3	107	51.1		4	66-159/16	
1,1,1-Trichloroethane	50.0	0.0	60.8	122	58.8		3	68-152/14	
Carbon tetrachloride	50.0	0.0	58.1	116	55.5		5	60-165/18	
1,1-Dichloropropene	50.0	0.0	52.5	105	50.1	100	5	52-141/15	
1,2-Dichloroethane (EDC)	50.0	0.0	43.3	87	41.0		5	63-159/16	
Benzene	50.0	0.0	51.1	102	49.5		3	53-143/15	
Trichloroethene	50.0	0.0	49.1	98	48.3		2	62-153/15	
1,2-Dichloropropane	50.0	0.0	48.4	97	47.4		2	55-147/15	
Dibromomethane	50.0	0.0	39.5	79	37.8	76	4	51-146/16	
1,4-Dioxane	1,500	0.0	1529	102	1245	5 83	20	40-173/22	
Bromodichloromethane	50.0	0.0	48 .1	96	47.3	95	2	63-150/14	
cis-1,3-Dichloropropene	50.0	0.0	48.3	97	47.6	95	1	66-143/13	
4-Methyl-2-pentanone (MIBK)	100	0.0	95.6	96	90.9		5	45-155/18	
Toluene	50.0	0.0	48.9	98	47.7		2	70-138/12	
trans-1,3-Dichloropropene	50.0	0.0	41.6	83	40.9		2	58-156/16	
1,1,2-Trichloroethane	50.0	0.0	37.7	75	36.7		3	58-156/16	
Tetrachloroethene	50.0	0.0	50.4	101	49.6		2	57-157/17	
1,3-Dichloropropane	50.0	0.0	39.1	78	37.6	75	4	56-158/17	
· • • •							E17	7-07838	Page

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MS/MSD ACCURACY REPORT

Lab ID: E17-07782-005 Client ID: SW-1-091117 Date Received: NA Date Analyzed: 09/18/2017 MS Data file: E1540.D MSD Data file: E1541.D	Conc.		Cone	%Rec.	San Ma % I Dil	nple wt/	ctor: 1	,	
Compound	Add	Sample	Conc. MS	MS	#	MSD	MSD	70 # RPD #	Limits
2-Hexanone	100	0.0	103.5	104		109.6	110	6	36-169/22
Dibromochloromethane	50.0	0.0	40.8	82		38.6	77	6	53-153/17
1,2-Dibromoethane (EDB)	50.0	0.0	37.7	75		36.3	73	4	55-140/14
Chlorobenzene	50.0	0.0	48.7	97		46.2	92	5	65-136/12
1,1,1,2-Tetrachloroethane	50.0	0.0	51.4	103		49.2	98	4	60-136/13
Ethylbenzene	50.0	0.0	50.4	101		48.6	97	4	63-144/14
m,p-Xylene	100	0.0	103.1	103		98.4	98	5	51-144/15
o-Xylene	50.0	0.0	55.2	110		51.9	104	6	47-141/16
Styrene	50.0	0.0	52.4	105		50.4	101	4	59-140/14
Bromoform	50.0	0.0	36.2	72		40.9	82	12	63-135/12
Isopropylbenzene	50.0	0.0	54.8	110		52.9	106	4	61-139/13
1,1,2,2-Tetrachloroethane	50.0	0.0	48.6	97		49.9	100	3	62-119/10
Bromobenzene	50.0	0.0	47.0	94		45.2	90	4	63-144/14
1,2,3-Trichloropropane	50.0	0.0	44.0	88		41.7	83	5	37-149/19
n-Propylbenzene	50.0	0.0	51.0	102		49.1	98	4	63-149/14
2-Chlorotoluene	50.0	0.0	52.0	104		49.6	99	5	68-144/13
1,3,5-Trimethylbenzene	50.0	0.0	55.4	111		51.9	104	7	64-140/13
4-Chlorotoluene	50.0	0.0	50.6	101		48.9	98	3	67-144/13
tert-Butylbenzene	50.0	0.0	57.8	116		56.0	112	3	68-142/12
1,2,4-Trimethylbenzene	50.0	0.0	52.7	105		51.1	102	3	63-139/13
sec-Butylbenzene	50.0	0.0	57.3	115		54.0	108	6	61-146/14
1,3-Dichlorobenzene	50.0	0.0	49.8	100		48.4	97	3	70-141/12
4-Isopropyltoluene	50.0	0.0	57.7	115		54.6	109	6	65-144/13
1,4-Dichlorobenzene	50.0	0.0	50.0	100		47.9	96	4	70-147/13
n-Butylbenzene	50.0	0.0	58.0	116		56.1	112	3	53-147/16
1,2-Dichlorobenzene	50.0	0.0	49.6	99		47.1	94	5	71-133/10
1,2-Dibromo-3-chloropropane	50.0	0.0	59.7	119		56.9	114	5	51-131/13
1,2,4-Trichlorobenzene	50.0	0.0	50.1	100		46.2	92	8	49-140/15
Hexachlorobutadiene	50.0	0.0	54.4	109		51.5	103	5	48-141/16
Naphthalene	50.0	0.0	35.7	71		37.8	76	6	57-138/14
1,2,3-Trichlorobenzene	50.0	0.0	43.6	87		39.8	80	9	55-142/15
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	57.3	115		54.1	108	6	46-134/15
Methyl acetate	50.0	0.0	53.2	106		55.9	112	5	44-132/15
Cyclohexane	50.0	0.0	54.6	109		50.6	101	8	52-130/13
Methylcyclohexane	50.0	0.0	52.7	105		49.8	100	6	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 valu	us that did not me	et criteria

Column used to flag recovery and RPD values that did not meet criteria

\$ Values outside of NJ DKQP limits

NC Not calculable

^{*} Values outside of QC limits

MS/MSD ACCURACY REPORT

Lab ID: E17-07782-005					GC/MS Column: DB-624			
Client ID: SW-1-091117	Sample wt/vol: 5mL							
Date Received: NA Matrix-Units: Aqueous-µg/L						ous-µg/L		
Date Analyzed: 09/18/2017	09/18/2017 % Moisture: 100							
MS Data file: E1540.D					Di	lution Fa	ctor: 1	
MSD Data file: E1541.D					Di	lution Fa	ctor: 1	
	Conc.		Conc.	%Rec.		Conc.	%Rec.	
Compound	Add	Sample	MS	MS	#	MSD	MSD	# 6RP #

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

8260

MS/MSD_ACCURACY REPORT

Lab ID: E17-07838-008 Client ID: MW-2D Date Received: NA Date Analyzed: 09/19/2017 MS Data file: E1556.D					San Ma % Dil	mple wt/v atrix-Unit Moisture lution Fa	: 100 ctor: 1		
MSD Data file: E1557.D	Conc.		Conc.	%Rec.	DI	lution Fa Conc.	% Rec.	%	
Compound	Add	Sample	MS	MS	#	MSD	MSD	# RPD #	Limits
Dichlorodifluoromethane	50.0	0.0	48.7	97		44.6	89	9	61-164/17
Chloromethane	50.0	0.0	43.3	87		41.1	82	5	29-149/20
Vinyl chloride	50.0	0.0	53.6	107		51.5	103	4	30-167/23
Bromomethane	50.0	0.0	53.1	106		56.6	113	6	53-158/18
Chloroethane	50.0	4.5	56.7	104		58.0	107	2	57-144/14
Trichlorofluoromethane	50.0	0.0	60.3	121		59.7	119	1	50-159/18
1,1-Dichloroethene	50.0	0.0	47.8	96		45.7	91	4	55-135/13
Acetone	100	0.0	87.9	88		93.9	94	7	37-160/21
Carbon disulfide	50.0	0.0	57.5	115		58.0	116	1	46-143/16
Vinyl acetate	50.0	0.0	54.1	108		56.6	113	5	24-151/21
Methylene chloride	50.0	0.0	49.1	98		47.7	95	3	63-136/12
Acrylonitrile	150	0.0	188	125		191	127	2	55-180/21
tert-Butyl alcohol (TBA)	100	0.0	97.8	98		94.9	95	3	42-143/17
trans-1,2-Dichloroethene	50.0	0.0	49.9	100		48.5	97	3	58-142/14
Methyl tert-butyl ether (MTBE)	50.0	0.0	38.9	78		40.9	82	5	35-132/16
1,1-Dichloroethane	50.0	0.5	51.1	101		49.0	97	4	63-140/13
Diisopropyl ether (DIPE)	50.0	0.0	48.2	96		47.0	94	3	41-160/20
cis-1,2-Dichloroethene	50.0	0.0	51.1	102		49.2	98	4	54-158/17
2,2-Dichloropropane	50.0	0.0	50.1	100		57.9	116	14	29-152/21
2-Butanone (MEK)	100	0.0	101.5	102		105.9	106	4	50-163/19
Bromochloromethane	50.0	0.0	38.6	77		37.9	76	2	63-155/15
Chloroform	50.0	0.0	50.3	101		49.2	98	2	66-159/16
1,1,1-Trichloroethane	50.0	0.0	57.6	115		56.1	112	3	68-152/14
Carbon tetrachloride	50.0	0.0	53.6	107		52.4	105	2	60-165/18
1,1-Dichloropropene	50.0	0.0	48.6	97		46.1	92	5	52-141/15
1,2-Dichloroethane (EDC)	50.0	0.0	38.2	76		36.4	73	5	63-159/16
Benzene	50.0	0.0	49.0	98		46.2	92	6	53-143/15
Trichloroethene	50.0	0.0	48.9	98		45.8	92	7	62-153/15
1,2-Dichloropropane	50.0	0.0	45.5	91		43.3	87	5	55-147/15
Dibromomethane	50.0	0.0	55.6	111		52.7	105	5	51-146/16
1,4-Dioxane	1,500	0.0	1785	119		1815	121	2	40-173/22
Bromodichloromethane	50.0	0.0	44.3	89		42.3	85	5	63-150/14
cis-1,3-Dichloropropene	50.0	0.0	43.3	87		40.5	81	7	66-143/13
4-Methyl-2-pentanone (MIBK)	100	0.0	95.6	96		90.9	91	5	45-155/18
Toluene	50.0	0.0	47.1	94		44.4	89	6	70-138/12
trans-1,3-Dichloropropene	50.0	0.0	36 .1	72		40.5	81	11	58-156/16
1,1,2-Trichloroethane	50.0	0.0	44.3	89		40.7	81	8	58-156/16
Tetrachloroethene	50.0	0.0	46.7	93		43.7	87	7	57-157/17
1,3-Dichloropropane	50.0	0.0	36.8	74		35.8	72	3	56-158/17
-								E17	-07838 Page

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MS/MSD ACCURACY REPORT

Lab ID: E17-07838-008 Client ID: MW-2D Date Received: NA Date Analyzed: 09/19/2017 MS Data file: E1556.D MSD Data file: E1557.D	Corre		Come	%Rec.	Sar Ma % I Dil Dil	nple wt/	ctor: 1		
Compound	Conc. Add	Sample	Conc. MS	MS	#	MSD	MSD	# RPD #	Limits
2-Hexanone	100	0.0	103.5	104		109.6	110	6	36-169/22
Dibromochloromethane	50.0	0.0	35.6	71		38.7	77	8	53-153/17
1,2-Dibromoethane (EDB)	50.0	0.0	54.1	108		50.4	101	7	55-140/14
Chlorobenzene	50.0	0.0	46.2	92		44.1	88	5	65-136/12
1,1,1,2-Tetrachloroethane	50.0	0.0	48.1	96		46.5	93	3	60-136/13
Ethylbenzene	50.0	0.0	48.0	96		47.0	94	2	63-144/14
m,p-Xylene	100	0.0	98.2	98		93.3	93	5	51-144/15
o-Xylene	50.0	0.0	52.1	104		49.9	100	4	47-141/16
Styrene	50.0	0.0	48.2	96		47.5	95	1	59-140/14
Bromoform	50.0	0.0	52.7	105		50.2	100	5	63-135/12
Isopropylbenzene	50.0	0.0	53.2	106		51.4	103	3	61-139/13
1,1,2,2-Tetrachloroethane	50.0	0.0	48.6	97		49.9	100	3	62-119/10
Bromobenzene	50.0	0.0	42.7	85		40.6	81	5	63-144/14
1,2,3-Trichloropropane	50.0	0.0	44.0	88		41.7	83	5	37-149/19
n-Propylbenzene	50.0	0.0	48.3	97		47.0	94	3	63-149/14
2-Chlorotoluene	50.0	0.0	48.6	97		47.2	94	3	68-144/13
1,3,5-Trimethylbenzene	50.0	0.0	51.3	103		50.2	100	2	64-140/13
4-Chlorotoluene	50.0	0.0	48.0	96		45.8	92	5	67-144/13
tert-Butylbenzene	50.0	0.0	55.3	111		53.3	107	4	68-142/12
1,2,4-Trimethylbenzene	50.0	0.0	48.8	98		47.2	94	3	63-139/13
sec-Butylbenzene	50.0	0.0	52.1	104		51.4	103	1	61-146/14
1,3-Dichlorobenzene	50.0	0.0	46.3	93		43.6	87	6	70-141/12
4-Isopropyltoluene	50.0	0.0	52.5	105		50.5	101	4	65-144/13
1,4-Dichlorobenzene	50.0	0.0	44.0	88		43.3	87	2	70-147/13
n-Butylbenzene	50.0	0.0	52.0	104		50.5	101	3	53-147/16
1,2-Dichlorobenzene	50.0	0.0	43.2	86		41.7	83	4	71-133/10
1,2-Dibromo-3-chloropropane	50.0	0.0	59.7	119		56.9	114	5	51-131/13
1,2,4-Trichlorobenzene	50.0	0.0	40.6	81		39.0	78	4	49-140/15
Hexachlorobutadiene	50.0	0.0	50.9	102		45.0	90	12	48-141/16
Naphthalene	50.0	0.0	51.3	103		47.8	96	7	57-138/14
1,2,3-Trichlorobenzene	50.0	0.0	44.2	88		40.2	80	9	55-142/15
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	53.8	108		48.9	98	10	46-134/15
Methyl acetate	50.0	0.0	53.2	106		55.9	112	5	44-132/15
Cyclohexane	50.0	0.0	49.8	100		46.4	93	7	52-130/13
Methylcyclohexane	50.0	0.0	47.8	96		44.2	88	8	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

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MS/MSD ACCURACY REPORT

Lab ID: E17-07838-008					GC/MS Column: DB-624			
Client ID: MW-2D Sample wt/vol: 5mL								
Date Received: NA Matrix-Units: Aqueous-µg/L						ous-µg/L		
Date Analyzed: 09/19/2017 % Moisture: 100								
MS Data file: E1556.D		Dilution Factor: 1						
MSD Data file: E1557.D				Dilution Factor: 1				
	Conc.		Conc.	%Rec.		Conc.	%Rec.	
Compound	Add	Sample	MS	MS	#	MSD	MSD	#6RP #

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: <u>E1529.D</u>

Instrument ID: <u>MSD E</u>

Date Analyzed: <u>09/18/2017</u>

Time Analyzed: 13:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

		Date	Time
Client ID	Lab Sample ID	Analyzed	Analyzed
MW-4	E17-07838-001	09/18/2017	14:14
MW-7	E17-07838-002	09/18/2017	14:44
FIELD_BLANK_	E17-07838-003	09/18/2017	15:14
MW-14	E17-07838-004	09/18/2017	15:44
MW-3	E17-07838-005	09/18/2017	16:13
MW-13	E17-07838-006	09/18/2017	16:43
MW-2	E17-07838-007	09/18/2017	17:13
PRB-16-09131	E17-07836-002	09/18/2017	17:42
MW/RW-11-091	E17-07836-003	09/18/2017	18:13
LCSA170918	LCSA170918	09/18/2017	18:42
E17-07782-005MS	E17-07782-005MS	09/18/2017	19:12
E17-07782-005MSD	E17-07782-005MSD	09/18/2017	19:42
MW-13	E17-07838-006DL	09/18/2017	20:11
SW-1-091117	E17-07782-005	09/18/2017	20:41
SW-2-091117	E17-07782-006	09/18/2017	21:11
SW-3-091117	E17-07782-007	09/18/2017	21:40
SW-X-091117	E17-07782-008	09/18/2017	22:10
EB-091117	E17-07782-009	09/18/2017	22:40
TB-091117	E17-07782-010	09/18/2017	23:09

VOLATILE METHOD BLANK SUMMARY

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Lab File ID:	<u>E1553.D</u>	Instrument ID:	<u>MSD_E</u>
Date Analyzed:	09/19/2017	Time Analyzed:	<u>01:39</u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

		Date	Time
Client ID	Lab Sample ID	Analyzed	Analyzed
WELL_PT	E17-07689-001	09/19/2017	2:09
LCSA170918a	LCSA170918a	09/19/2017	2:39
E17-07838-008MS	E17-07838-008MS	09/19/2017	3:09
E17-07838-008MSD	E17-07838-008MSD	09/19/2017	3:38
MW-2D	E17-07838-008	09/19/2017	4:38
TRIP_BLANK	E17-07838-009	09/19/2017	5:08
MW-I	E17-07838-010	09/19/2017	5:37
MW-5	E17-07838-011	09/19/2017	6:07
MW-8	E17-07838-012	09/19/2017	6:37
MW-10	E17-07838-013	09/19/2017	7:06
MW-9	E17-07838-014	09/19/2017	7:36
FIELD_BLANK_	E17-07838-015	09/19/2017	8:06
MW-11D	E17-07838-016	09/19/2017	8:36
MW-11	E17-07838-017	09/19/2017	9:05
CR-MW1R	E17-07794-001	09/19/2017	9:35
TW-2	E17-07736-001	09/19/2017	10:05
MW-9	E17-07838-014DL	09/19/2017	10:35
MW-2	E17-07838-007DL	09/19/2017	11:04

FORM 4

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID:	<u>E1454.D</u>	BFB Injection Date:	09/12/20	17
Inst ID:	MSD_E	BFB Injection Time:	13:48	
m/z	Ion Abudance Criteria	%Relative Abundance		
50	15 - 40.0% of mass 95	29.8		
75	30.0 - 60.0% of mass 95	55.8		
95	Base peak, 100% relative abundance	e 100.0		
96	5.0 - 9.0% of mass 95	6.5		
173	Less than 2.0% of mass 174	0.9 (1.4)1
174	Great than 50.0% of mass 95	61.9		
175	5.0 - 9.0% of mass 174	5.3 (8.6)1
176	95.0 - 101.0% of mass 174	62.3 (100.6)1
177	5.0 - 9.0% of mass 176	4.7 (7.5)2
	I-Value is % mass 174	2-Value is % mass 176		

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

			Date	Time
Client [D	Lab Sample ID	File [D	Analyzed	Analyzed
ICC100	ICC170912	E1459.D	09/12/2017	16:18
ICC00.5	ICC170912	E1455.D	09/12/2017	14:18
ICC001	ICC170912	E1456.D	09/12/2017	14:48
ICC005	ICC170912	E1457.D	09/12/2017	15:18
ICC020	ICC170912	E1458.D	09/12/2017	15:48
ICC150	ICC170912	E1460.D	09/12/2017	16:48
ICC200	ICC170912	E1461.D	09/12/2017	17:18
ICV100	ICV170912	E1463.D	09/12/2017	18:18
BLKA170912	BLKA170912	E1466.D	09/12/2017	19:47
ТВ	E17-07745-013	E1467.D	09/12/2017	20:17
FB-9	E17-07622-003	E1468.D	09/12/2017	20:48
FB-10	E17-07663-002	E1469.D	09/12/2017	21:17
TWP-1	E17-07702-001	E1470.D	09/12/2017	21:47
TWP-2	E17-07702-002	E1471.D	09/12/2017	22:17
TWP-3	E17-07702-003	E1472.D	09/12/2017	22:47
MW-5	E17-07691-001	E1473.D	09/12/2017	23:17
MW-1	E17-07720-001	E1474.D	09/12/2017	23:47
LCSA170912	LCSA170912	E1475.D	09/13/2017	0:17
E17-07691-001MS	E17-07691-001MS	E1476.D	09/13/2017	0:47
E17-07691-001MSI	E17-07691-001MS	E1477.D	09/13/2017	1:17

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

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Lab File ID:	<u>E1525.D</u>	BFB Injection Date: 09/18/2017	
Inst ID:	MSD_E	BFB Injection Time: <u>11:45</u>	
m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	23.5	
75	30.0 - 60.0% of mass 95	47.8	
95	Base peak, 100% relative abundance	ce 100.0	
96	5.0 - 9.0% of mass 95	5.4	
173	Less than 2.0% of mass 174	1.5 (1.9)1	
174	Great than 50.0% of mass 95	80.7	
175	5.0 - 9.0% of mass 174	5.9 (7.3)1	
176	95.0 - 101.0% of mass 174	81.5 (101.0)1	
177	5.0 - 9.0% of mass 176	4.2 (5.1)2	
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

			Date	Time
Client ID	Lab Sample ID	File ID	Analyzed	Analyzed
CCV100	CCV170918	E1526.D	09/18/2017	12:14
BLKA170918	BLKA170918	E1529.D	09/18/2017	13:44
MW-4	E17-07838-001	E1530.D	09/18/2017	14:14
MW-7	E17-07838-002	E1531.D	09/18/2017	14:44
FIELD_BLANK_	E17-07838-003	E1532.D	09/18/2017	15:14
MW-14	E17-07838-004	E1533.D	09/18/2017	15:44
MW-3	E17-07838-005	E1534.D	09/18/2017	16:13
MW-13	E17-07838-006	E1535.D	09/18/2017	16:43
MW-2	E17-07838-007	E1536.D	09/18/2017	17:13
PRB-16-09131	E17-07836-002	E1537.D	09/18/2017	17:42
MW/RW-11-091	E17-07836-003	E1538.D	09/18/2017	18:13
LCSA170918	LCSA170918	E1539.D	09/18/2017	18:42
E17-07782-005MS	E17-07782-005MS	E1540.D	09/18/2017	19:12
E17-07782-005MSI	E17-07782-005MS	E1541.D	09/18/2017	19:42
MW-13	E17-07838-006DL	E1542.D	09/18/2017	20:11
SW-1-091117	E17-07782-005	E1543.D	09/18/2017	20:41
SW-2-091117	E17-07782-006	E1544.D	09/18/2017	21:11
SW-3-091117	E17-07782-007	E1545.D	09/18/2017	21:40
SW-X-091117	E17-07782-008	E1546.D	09/18/2017	22:10
EB-091117	E17-07782-009	E1547.D	09/18/2017	22:40

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

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Lab File ID:	<u>E1525.D</u>	BFB Injection Date :	09/18/20	<u>)1</u>
Inst ID:	MSD_E	BFB Injection Time:	<u>11:45</u>	
m/z	Ion Abudance Criteria	%Relative Abundance		
50	15 - 40.0% of mass 95	23.5		
75	30.0 - 60.0% of mass 95	47.8		
95	Base peak, 100% relative abundance	ce 100.0		
96	5.0 - 9.0% of mass 95	5.4		
173	Less than 2.0% of mass 174	1.5 (1.9)1
174	Great than 50.0% of mass 95	80.7		
175	5.0 - 9.0% of mass 174	5.9 (7.3)1
176	95.0 - 101.0% of mass 174	81.5 (101.0)1
177	5.0 - 9.0% of mass 176	4.2 (5.1)2
	1-Value is % mass 174	2-Value is % mass 17	6	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

			Date	Time
Client ID	Lab Sample ID	File ID	Analyzed	Analyzed
TB-091117	E17-07782-010	E1548.D	09/18/2017	23:09

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

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Lab File ID:	<u>E1549.D</u>	BFB Injection Date:	09/19/20	017
Inst ID:	MSD_E	BFB Injection Time:	<u>23:40</u>	
m/z	Ion Abudance Criteria	%Relative Abundanc		
50	15 - 40.0% of mass 95	28.8		
75	30.0 - 60.0% of mass 95	55.2		
95	Base peak, 100% relative abundance	ce 100.0		
96	5.0 - 9.0% of mass 95	6.8		
173	Less than 2.0% of mass 174	1.0 (1.5)1
174	Great than 50.0% of mass 95	64.6		
175	5.0 - 9.0% of mass 174	4.9 (7.6)1
176	95.0 - 101.0% of mass 174	62.2 (96.3)1
177	5.0 - 9.0% of mass 176	4.2 (6.8)2
	1-Value is % mass 174	2-Value is % mass 17	6	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

			Date	Time
Client ID	Lab Sample ID	File ID	Analyzed	Analyzed
CCV100	CCV170918a	E1550.D	09/19/2017	0:09
BLKA170918a	BLKA170918a	E1553.D	09/19/2017	1:39
WELL_PT	E17-07689-001	E1554.D	09/19/2017	2:09
LCSA170918a	LCSA170918a	E1555.D	09/19/2017	2:39
E17-07838-008MS	E17-07838-008MS	E1556.D	09/19/2017	3:09
E17-07838-008MS	[E17-07838-008MS	E1557.D	09/19/2017	3:38
MW-2D	E17-07838-008	E1559.D	09/19/2017	4:38
TRIP_BLANK	E17-07838-009	E1560.D	09/19/2017	5:08
MW-1	E17-07838-010	E1561.D	09/19/2017	5:37
MW-5	E17-07838-011	E1562.D	09/19/2017	6:07
MW-8	E17-07838-012	E1563.D	09/19/2017	6:37
MW-10	E17-07838-013	E1564.D	09/19/2017	7:06
MW-9	E17-07838-014	E1565.D	09/19/2017	7:36
FIELD_BLANK_	E17-07838-015	E1566.D	09/19/2017	8:06
MW-11D	E17-07838-016	E1567.D	09/19/2017	8:36
MW-11	E17-07838-017	E1568.D	09/19/2017	9:05
CR-MW1R	E17-07794-001	E1569.D	09/19/2017	9:35
TW-2	E17-07736-001	E1570.D	09/19/2017	10:05
MW-9	E17-07838-014DL	E1571.D	09/19/2017	10:35
MW-2	E17-07838-007DL	E1572.D	09/19/2017	11:04

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FORM 5

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

45.1.1

Lab File ID (Standard): E1459.D Instrument ID:

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MSD E

Date Analyzed: 09/12/2017

- - - 23

Time Analyzed: 16:18

ſ	50UG/L	IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	749966	6.40	1343564	7.23	1101227	10.57
	UPPER LIMIT	1499932	6.90	2687128	7.73	2202454	11.07
	LOWER LIMIT	374983	5.90	671782	6.73	550613.5	10.07
	LAB SAMPLE						
	ID						
01	ICC170912	676483	6.40	1243496	7.23	970114	10.58
02	ICC170912	661560	6.40	1211441	7.23	949578	10.58
03	ICC170912	679851	6.40	1214244	7.23	967292	10.58
04	ICC170912	703764	6.40	1260145	7.23	1028392	10.57
05[ICC170912	796123	6.40	1409701	7.23	1165937	10.57
06	ICC170912	844835	6.40	1502491	7.22	1224236	10.57
07	ICV170912	814558	6.40	1437084	7.23	1192727	10.58
08	BLKA170912	711885	6.41	1305803	7.23	1037650	10.58
09	E17-07745-013	671336	6.41	1235941	7.23	979960	10.58
10	E17-07622-003	666182	6.41	1251886	7.23	984211	10.58
11	E17-07663-002	644190	6.41	1183970	7.23	958420	10.58
12	E17-07702-001	668855	6.40	1201446	7.23	962323	10.58
13	E17-07702-002	623842	6.40	1188456	7.23	920236	10.58
14	E17-07702-003	600131	6.41	1132369	7.23	896753	10.58
15	E17-07691-001	598141	6.41	1131640	7.23	887950	10.58
16	E17-07720-001	576469	6.41	1098627	7.23	850212	10.58
17	_CSA170912	663968	6.40	1222115	7.23	978907	10.58
18	E17-07691-001MS	665465	6.40	1223400	7.22	979992	10.57
19	E17-07691-001MSD	680279	6.40	1236651	7.23	975924	10.57
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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Instrument ID:

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MSD E

E1526.D

Date Analyzed: 09/18/2017

Time Analyzed: 12:14

	50UG/L	IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	720990	6.41	1281681	7.23	1055527	10.58
	UPPER LIMIT	1441980	6.91	2563362	7.73	2111054	11.08
	LOWER LIMIT	360495	5.91	640840.5	6.73	527763.5	10.08
	LAB SAMPLE						
	ID						
01	BLKA170918	616434	6.41	1129461	7.23	922480	10.58
02	E17-07838-001	607847	6.40	1125192	7.23	910581	10.58
03	E17-07838-002	600912	6.41	1110981	7.23	875258	10.58
04	E17-07838-003	614544	6.41	1150645	7.23	914676	10.58
05	E17-07838-004	602727	6.41	1094976	7.23	873623	10.58
06	E17-07838-005	600150	6.41	1077017	7.23	863458	10.58
07	E17-07838-006	589182	6.41	1072569	7.23	848153	10.58
08	E17-07838-007	591118	6.41	1111103	7.23	868656	10.58
09	E17-07836-002	614744	6.41	1099916	7.23	869381	10.57
10	E17-07836-003	618265	6.41	1095574	7.23	862210	10.58
	LCSA170918	613408	6.40	1111548	7.23	900208	10.58
12	E17-07782-005MS	609628	6.40	1117323	7.23	888791	10.58
13	E17-07782-005MSD	631743	6.40	1140076	7.23	929490	10.58
14	E17-07838-006DL	573315	6.40	1062412	7.23	852728	10.58
15	E17-07782-005	559871	6.40	1069027	7.23	828456	10.58
16	E17-07782-006	548853	6.40	1046937	7.23	803388	10.58
17	E17-07782-007	535132	6.40	1017546	7.23	808533	10.58
18	E17-07782-008	530944	6.40	1028646	7.22	811700	10.58
19	E17-07782-009	540647	6.40	1023457	7.23	802234	10.58
20	E17-07782-010	542463	6.40	1032198	7.23	789344	10.58
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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E1550.D Instrument ID: MSD_E Date Analyzed: 09/19/2017 Time Analyzed: 0:09

	50UG/L	IS1		1S2		IS3	
	3000/E	AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	620496	6.40	1085871	7.23	884587	10.58
	UPPER LIMIT	1240992	6.90	2171742	7.73	1769174	11.08
	LOWER LIMIT	310248	5.90	542935.5	6.73	442293.5	10.08
	LAB SAMPLE						
	ID						
01	BLKA170918a	544445	6.40	1013002	7.23	801723	10.58
02	E17-07689-001	550897	6.40	103819 <u>3</u>	7.23	824137	10.58
03	LCSA170918a	657905	6.40	1216181	7.23	966442	10.58
04	E17-07838-008MS	691103	6.40	1244142	7.22	993378	10.58
05	E17-07838-008MSD	698160	6.40	1272336	7.23	993585	10.58
06	E17-07838-008	620516	6.40	1195667	7.23	889265	10.57
07	E17-07838-009	589786	6.40	1105986	7.23	859864	10.58
08	E17-07838-010	578732	6.40	1076278	7.22	858118	10.58
09	E17-07838-011	612768	6.41	1164699	7.23	921674	10.58
10	E17-07838-012	566150	6.41	1080822	7.23	840149	10.58
11	E17-07838-013	541844	6.40	1027988	7.23	800916	10.58
12	E17-07838-014	553327	6.40	1026151	7.23	790568	10.58
13	E17-07838-015	533811	6.40	1025080	7.23	798922	10.58
14	E17-07838-016	528516	6.40	1015725	7.23	791503	10.58
15	E17-07838-017	529366	6.41	994003	7.23	783235	10.58
16	E17-07794-001	538477	6.40	1005288	7.23	771198	10.58
17	E17-07736-001	553486	6.40	1002822	7.23	781886	10.58
18	E17-07838-014DL	598655	6.40	1117073	7.23	862724	10.58
19	E17-07838-007DL	551046	6.40	1033805	7.23	817585	10.58
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

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Data Path : C:\MSDChem\1\DATA Data File : E1530.D	\09-18-17\		
Acq On : 18 Sep 2017 14:1	4		
Operator : BARBARA	1 7 5-1 100		
Sample : MW-4,E17-07838-00 Misc : BVERITAS/LEXINGTO	1,A,SML,100 N 09/12/17 09/14	/17 1	
ALS Vial : 4 Sample Multip		/ _ / , _	
Quant Time: Sep 18 17:14:03 2			
Quant Method : C:\MSDCHEM\1\M			
Quant Title : VOLATILE ORGAN QLast Update : Wed Sep 13 10:		D 8260C	
Response via : Initial Calibr			
-			
Internal Standards	R.T. QION	Response Conc	Jnits Dev(Min)
1) Dontofluowohongono			
 Pentafluorobenzene 1,4-Difluorobenzene 	6.40 ± 68 7 23 114	1125192 50.0	
50) Chlorobenzene-d5			
System Monitoring Compounds			
30) 1,2-Dichloroethane-d4			
Spiked Amount 50.000	Range 69 - 166 8.90 98	Recovery = 1400627 48.6	
41) Toluene-d8 Spiked Amount 50.000	8.90 98 Range 80 - 120		
59) Bromofluorobenzene	11.98 95	Recovery = 496448 46.4	3 UG 0.00
Spiked Amount 50.000	Range 66 - 120	Recovery =	92.86%
-	-	-	
Target Compounds			Qvalue

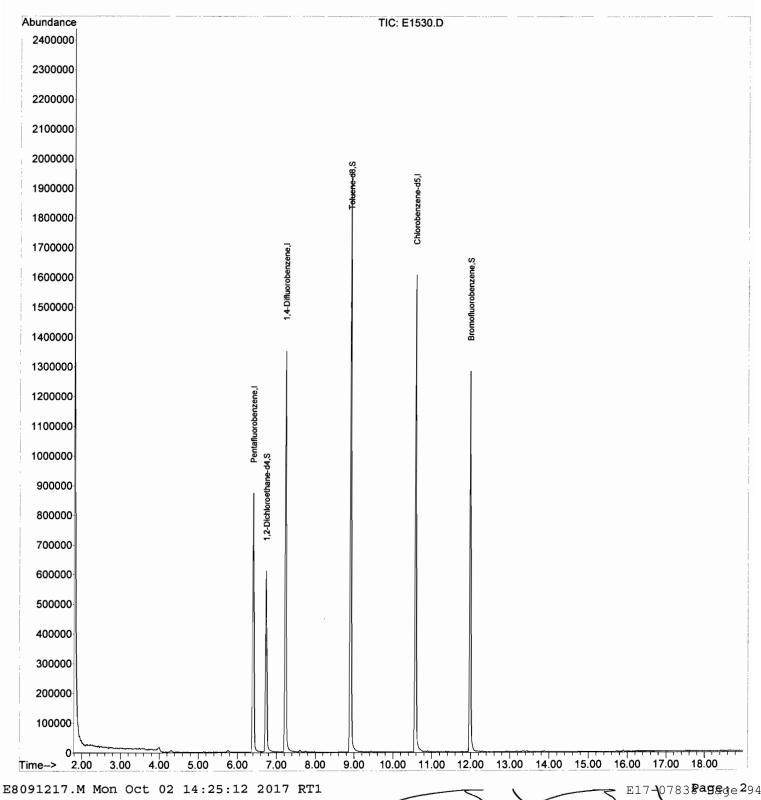
(#) = qualifier out of range (m) = manual integration (+) = signals summed

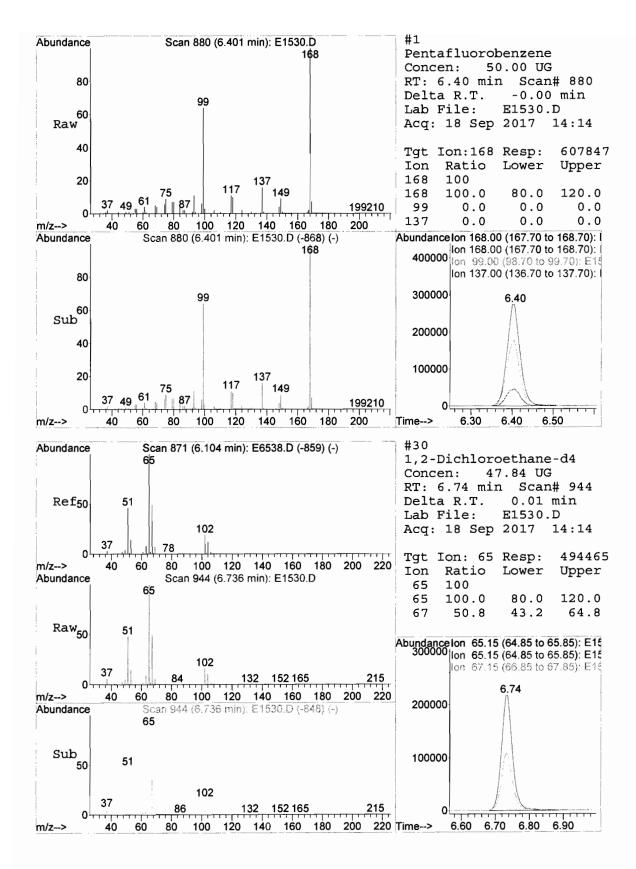
3

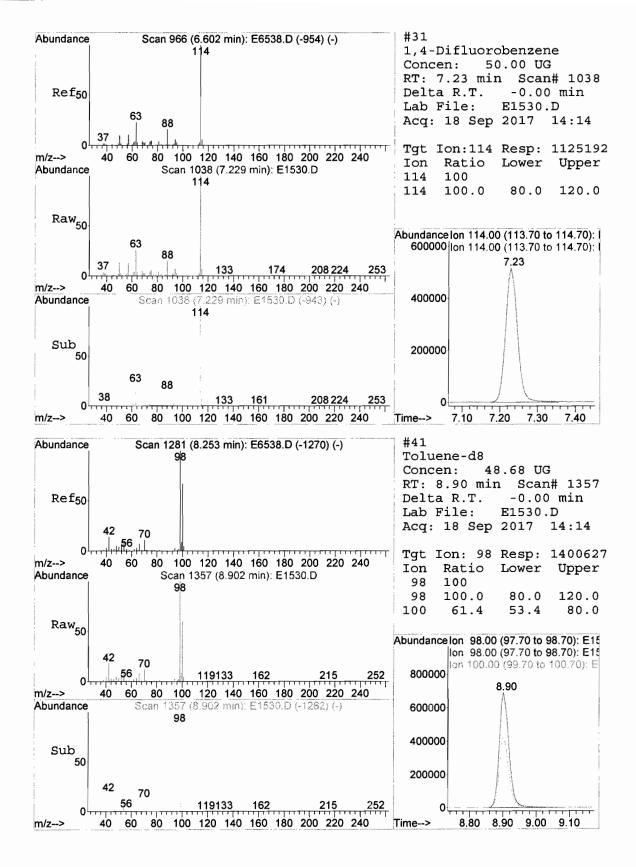
31

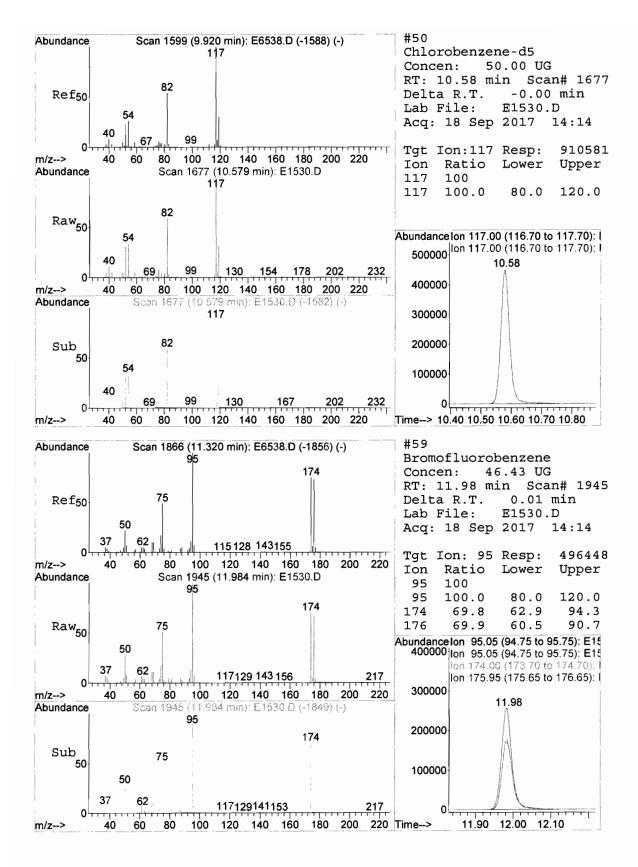
Data Path	:	C:\MSDChem\1\DATA\09-18-17\
Data File	:	E1530.D
Acq On	:	18 Sep 2017 14:14
Operator	:	BARBARA
Sample		MW-4,E17-07838-001,A,5mL,100
Misc	:	BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1
ALS Vial	:	4 Sample Multiplier: 1

Quant Time: Sep 18 17:14:03 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration









Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1530.D Acq On : 18 Sep 2017 14:14 Operator : BARBARA Sample : MW-4,E17-07838-001,A,5mL,100 Misc : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 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: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M : VOLATILE ORGANICS BY EPA METHOD 8260C Title Signal : TIC peak R.T. first max last PK % of peak corr. corr. # min scan scan scan TY height % max. area total ---- ---- ---- --------------_ _ _ _ _ _ _ -------128 139 174 rVB 1.96% 1 2.516 8427 79584 0.481% 439 rVB3 2 3.999 411 422 16632 69856 1.72% 0.422% 3 6.401 868 880 908 rBV 873452 2029392 49.88% 12.263% 1420493 34.92% 4 6.736 929 944 976 rBV 609250 8.584% 5 7.229 1022 1038 1075 rBV 1350911 2944948 72.39% 17.796% 6 8.902 1343 1357 1398 rBV 1952705 4068416 100.00% 24.584%

1608212

1284647

Sum of corrected areas: 16548826

3346974 82.27% 20.225%

2589163 63.64% 15.646%

E8091217.M Mon Oct 02 14:25:18 2017 RT1

1664 1677 1716 rBV

11.979 1932 1944 1975 rBV

7

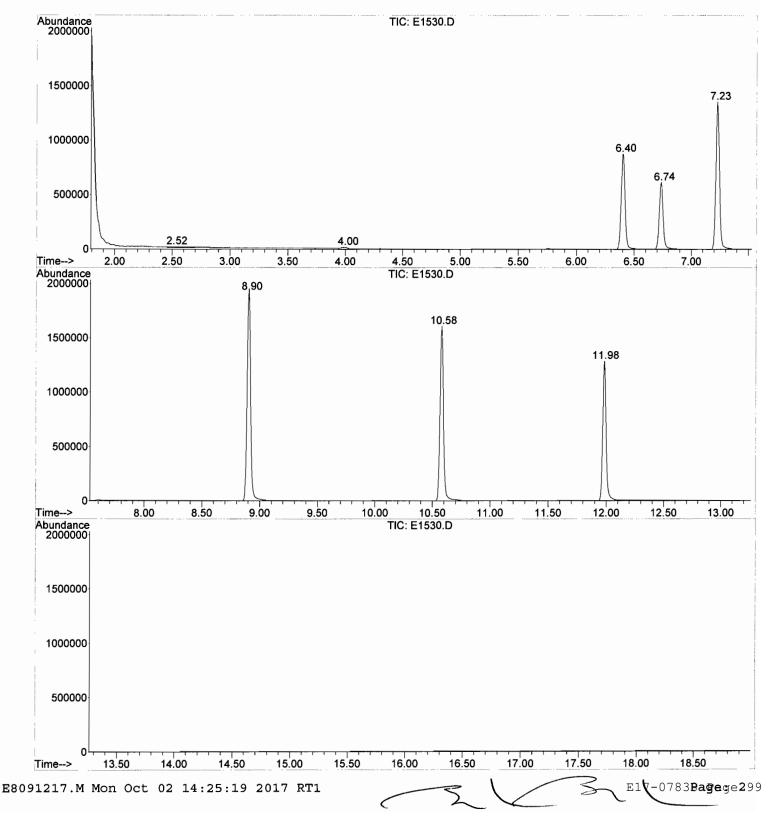
8

10.579

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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1530.D
Acq On : 18 Sep 2017 14:14
Operator : BARBARA
Sample : MW-4,E17-07838-001,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 4 Sample Multiplier: 1
```

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



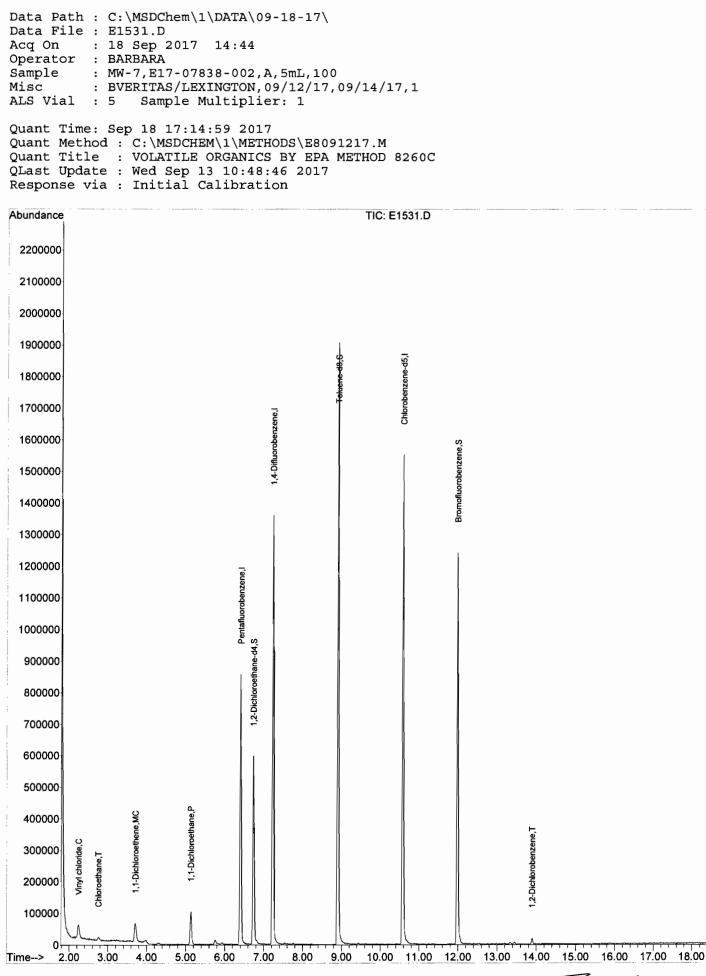
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1531.D Acq On : 18 Sep 2017 14:44 Operator : BARBARA Sample : MW-7,E17-07838-002,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 5 Sample Multiplier: 1								
Quant Time: Sep 18 17:14:59 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration								
Internal Standards	R.T.	QIon	Response	Conc Units	B Dev	(Min)		
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23	114	1110981			0.00 0.00 0.00		
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000	Range 69	- 166	Recove	46.83 UG ry = 93		0.00		
41) Toluene-d8 Spiked Amount 50.000		98 - 120		49.22 UG ry = 98	.44%	0.00		
59) Bromofluorobenzene Spiked Amount 50.000	11.98 Range 66	95	486870	47.37 UG	.74%	0.00		
Target Compounds					Qv	alue		
4) Vinyl chloride	2.24					99		
6) Chloroethane	2.75	64	14291	3.58 UG 5.18 UG				
9) 1,1-Dichloroethene 18) 1,1-Dichloroethane	5.14	90	34766 136219	9.15 UG	# #	84		
74) 1,2-Dichlorobenzene	13.90	146	6922	0.48 UG	#	81		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

54

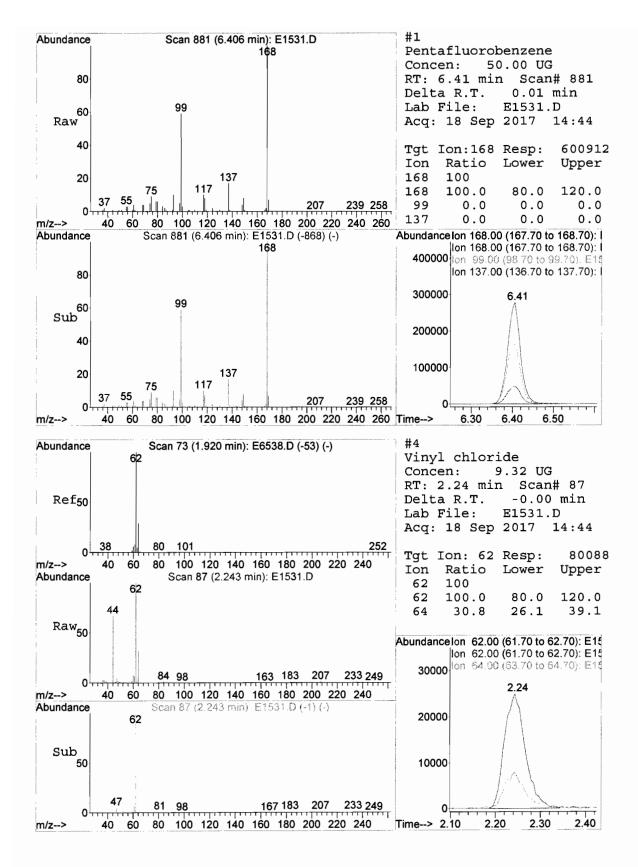
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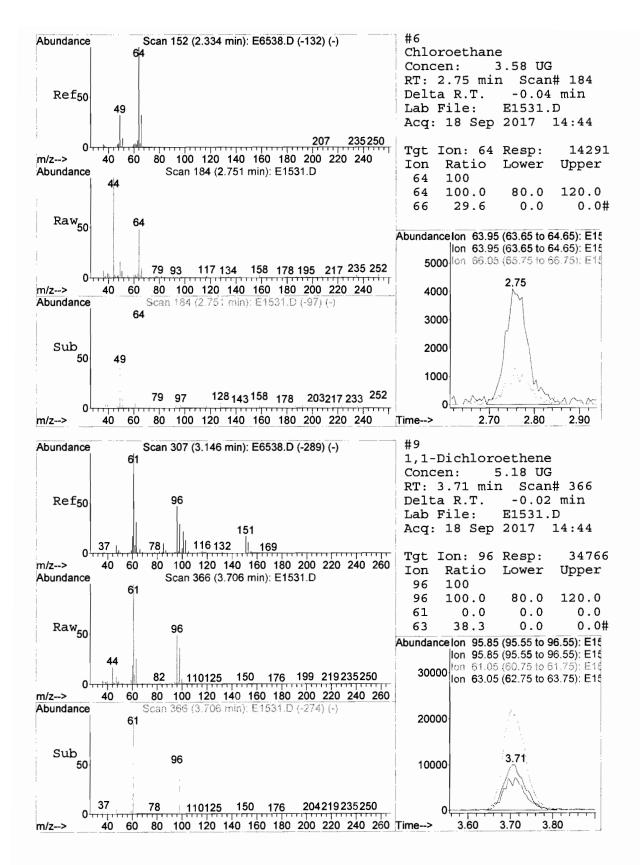
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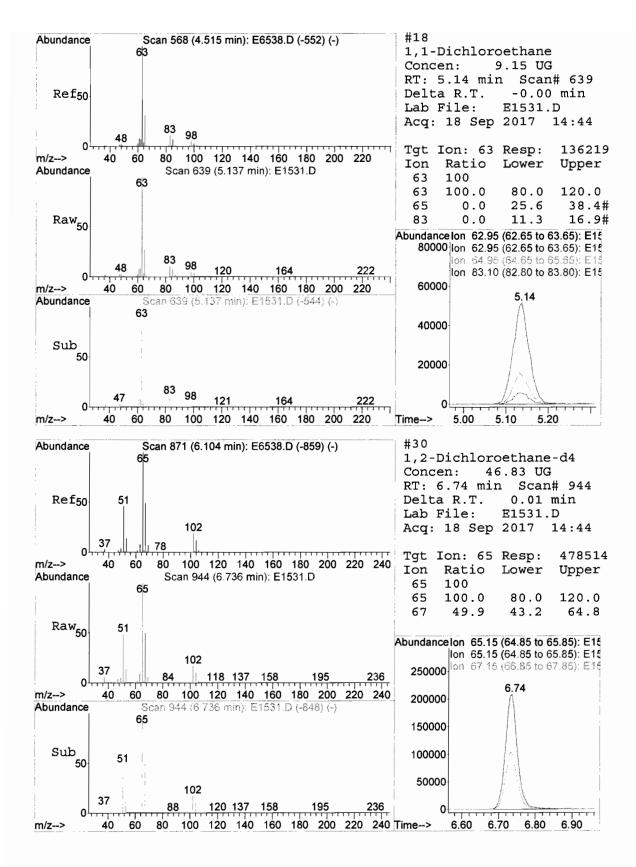


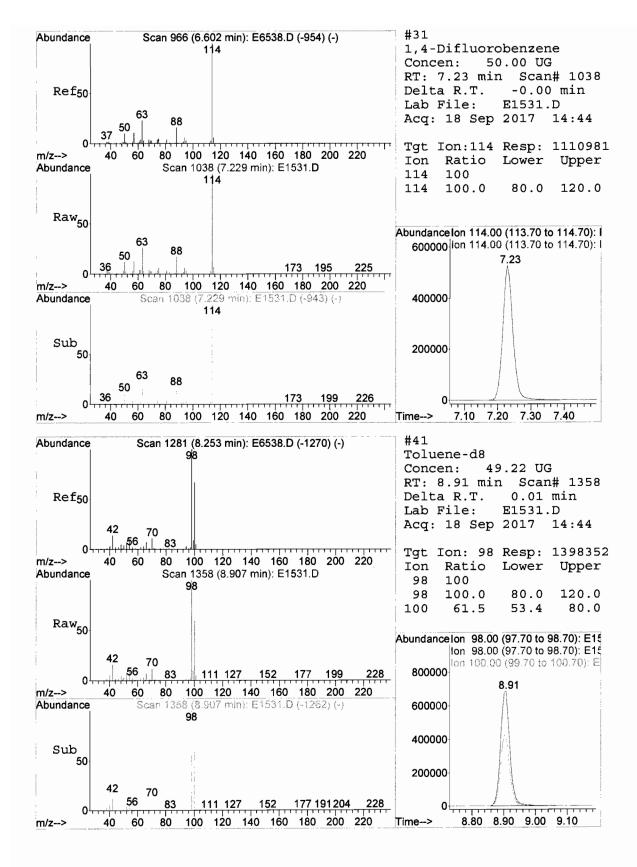
E8091217.M Mon Oct 02 14:25:25 2017 RT1

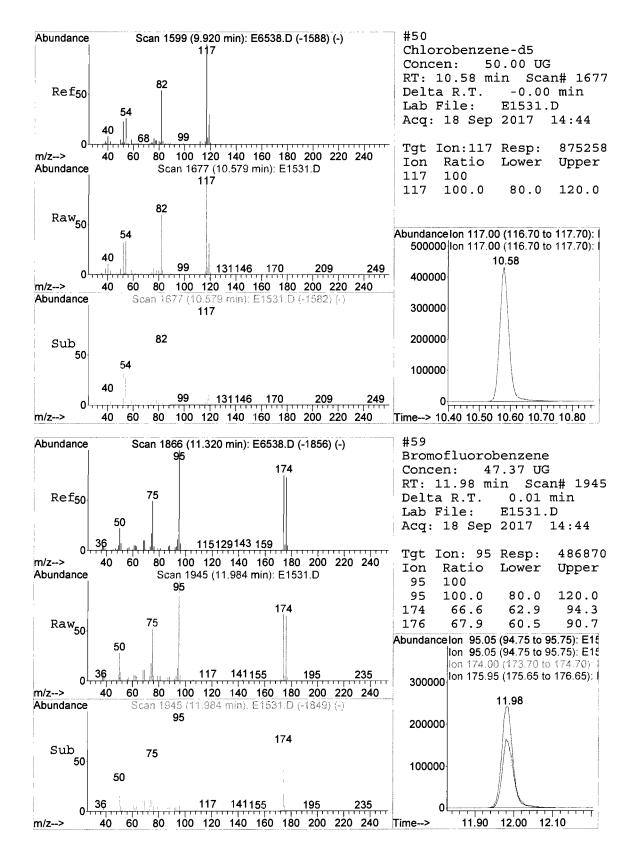
E17-07838 Page 1201

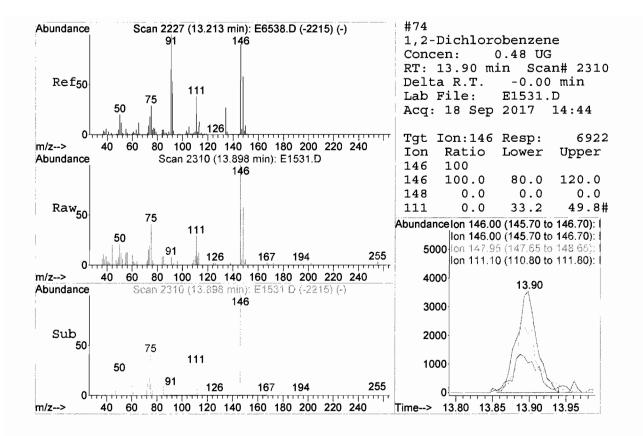












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1531.D : 18 Sep 2017 14:44 Acq On Operator : BARBARA Sample : MW-7,E17-07838-002,A,5mL,100 : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 Misc ALS Vial : 5 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Peak Location: TOP Stop Thrs : 0.1 If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK % of peak corr. corr. min scan scan scan TY height # area % max. total ---- ---- ---- ------------------- - -_ _ _ _ _ _ _ _ 2.243 78 87 114 rVB 1 43904 163600 4.06% 0.965% 175 185 202 rVB4 0.279% 2 2.757 11324 47291 1.17% 351 367 399 rVB3 3 3.711 5.86% 1.393% 58590 236202 3.978 408 418 434 rVB8 12227 1.47% 59267 4 0.349% 5 5.137 622 639 655 rBV2 102773 287836 7.15% 1.697% 6 758 773 rBV2 5.761 745 52155 1.29% 0.308% 13761 857750 7 6.406 866 881 902 rBV 2000655 49.67% 11.798% 595562 8 6.731 930 943 967 rBV 1379331 34.25% 8.134% 9 7.229 1027 1038 1068 rBV 1359232 2908436 72.21% 17.151% 10 8.902 1345 1357 1396 rBV 1906639 4027514 100.00% 23.750% 3247001 80.62% 19.147% 11 10.579 1663 1677 1719 rBV2 1551996 12 11.979 1933 1944 1979 rBV 1242392 2508380 62.28% 14.792% 13 13.893 2300 2309 2318 rVB5 17895 40542 0.239% 1.01%

Sum of corrected areas: 16958210

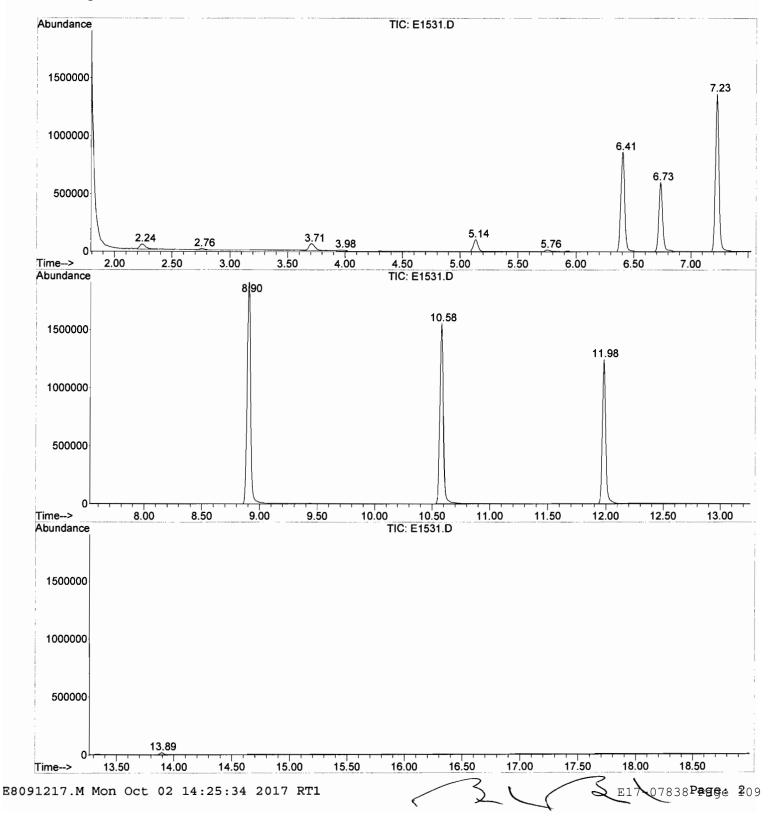
E8091217.M Mon Oct 02 14:25:33 2017 RT1



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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1531.D
Acq On : 18 Sep 2017 14:44
Operator : BARBARA
Sample : MW-7,E17-07838-002,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 5 Sample Multiplier: 1
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Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

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TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P
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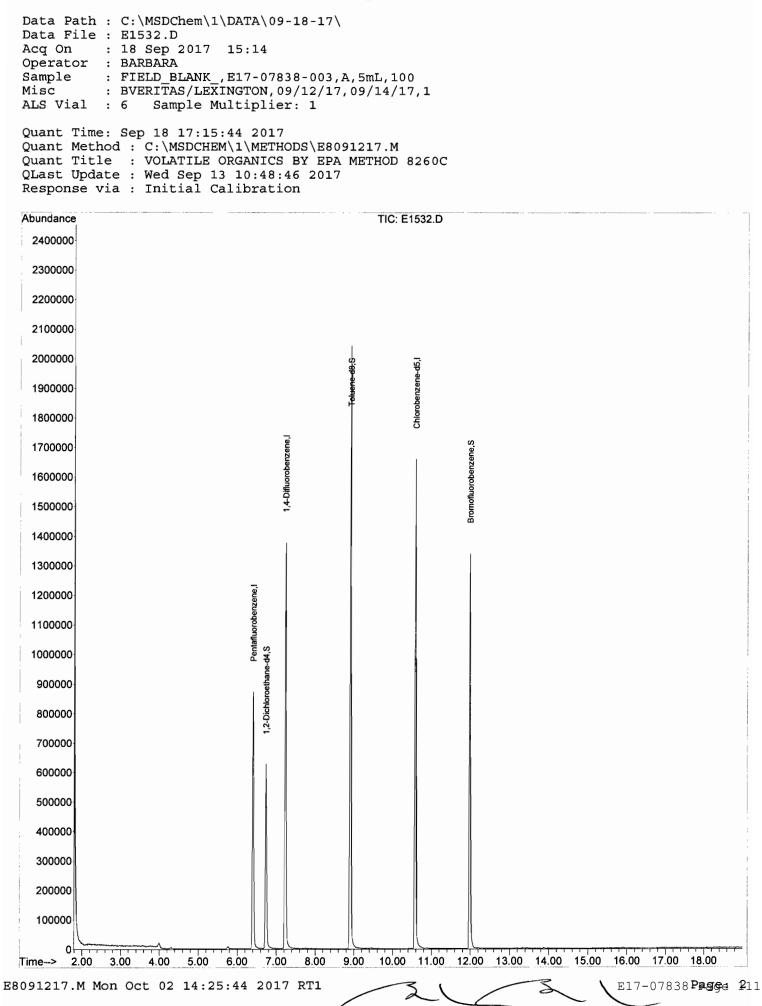


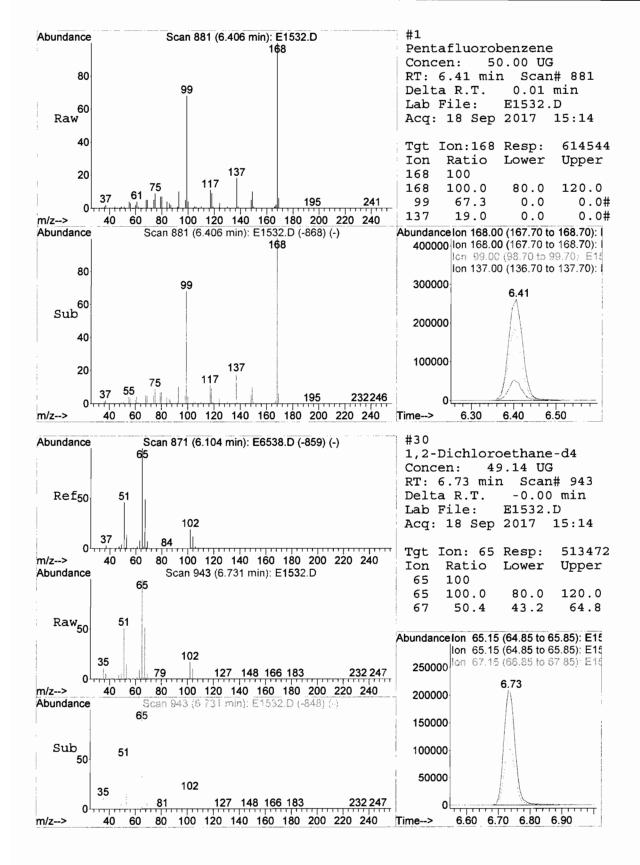
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1532.D Acq On : 18 Sep 2017 15:14 Operator : BARBARA
 Sample
 : FIELD_BLANK_, E17-07838-003, A, 5mL, 100

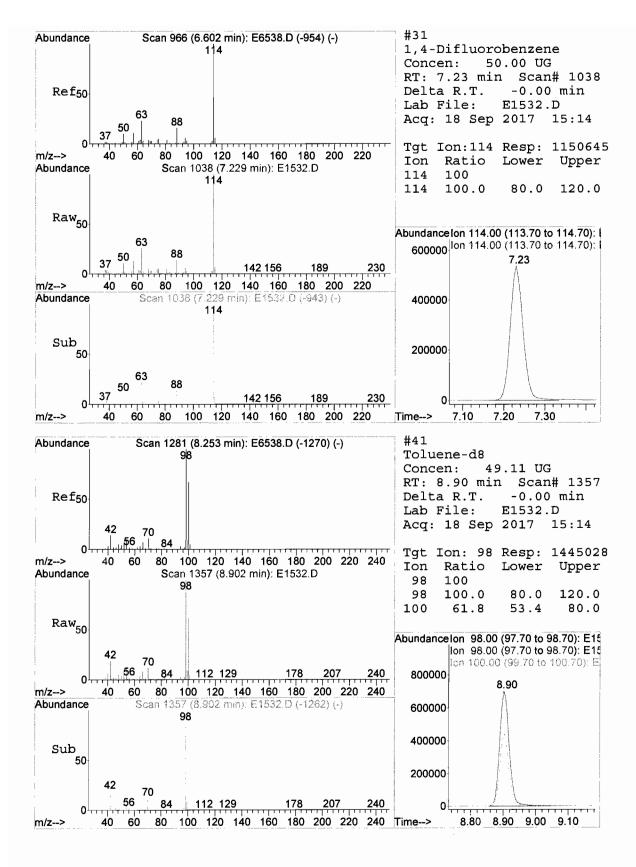
 Misc
 : BVERITAS/LEXINGTON, 09/12/17.09/14/17
 : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 ALS Vial : 6 Sample Multiplier: 1 Quant Time: Sep 18 17:15:44 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration R.T. QION Response Conc Units Dev(Min) Internal Standards 1) Pentafluorobenzene6.4116861454450.00UG0.0031) 1,4-Difluorobenzene7.23114115064550.00UG0.0050) Chlorobenzene-d510.5811791467650.00UG0.00 31) 1,4-Difluorobenzene 0.00 50) Chlorobenzene-d5 System Monitoring Compounds 30) 1,2-Dichloroethane-d4 6.73 65 513472 49.14 UG 0.00 Spiked Amount 50.000 Range 69 - 166 Recovery = 98.28% 8.90 98 1445028 49.11 UG 0.00 41) Toluene-d8 Range 80 - 120 Recovery = 98.22% 11.98 95 517168 48.15 UG Spiked Amount 50.000 59) Bromofluorobenzene 517168 48.15 UG 0.00 Range 66 - 120 Recovery = 96.30% Spiked Amount 50.000 Target Compounds Qvalue

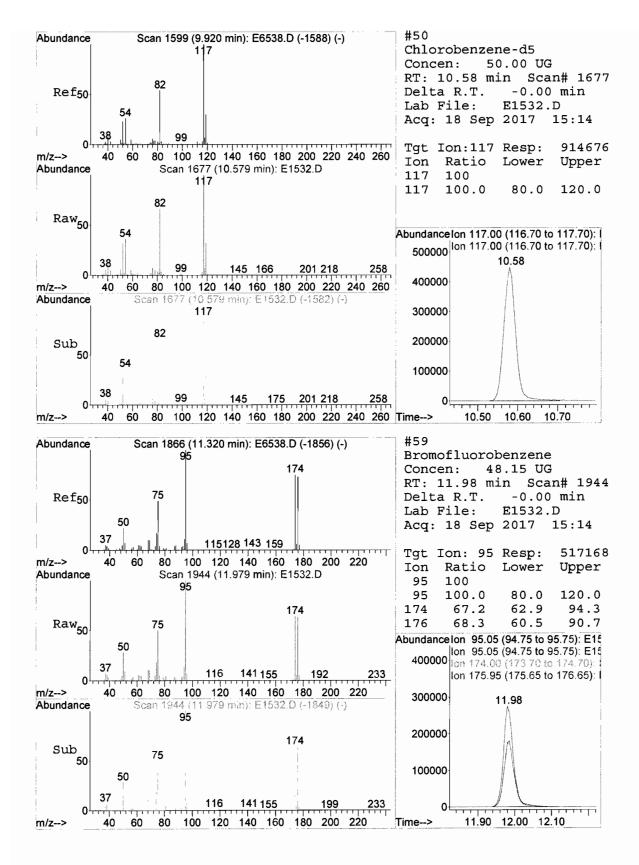
(#) = qualifier out of range (m) = manual integration (+) = signals summed

21/









Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1532.D Acq On : 18 Sep 2017 15:14 Operator : BARBARA : FIELD_BLANK_, E17-07838-003, A, 5mL, 100 Sample Misc : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 ALS Vial : 6 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. % of # min scan scan scan TY height area % max. total . - ----- ---- ---- ---------_____ ___ -----72662 1.73% 1 3.994 412 421 443 rVB3 19241 0.430% 868 880 905 rBV2 872576 2068303 49.29% 12.251% 2 6.401 8.796% 3 6.731 929 943 978 rBV 625532 1485044 35.39% 3038280 72.40% 17.996% 4 7.229 1025 1038 1084 rBV 1376900 8.902 1346 1357 1397 rBV 2042473 4196232 100.00% 24.855% 5 6 10.579 1666 1677 1723 rBV 1661015 3375944 80.45% 19.996%

Sum of corrected areas: 16883183

2646718 63.07% 15.677%

E8091217.M Mon Oct 02 14:25:50 2017 RT1

11.979 1934 1944 1972 rBV 1340128

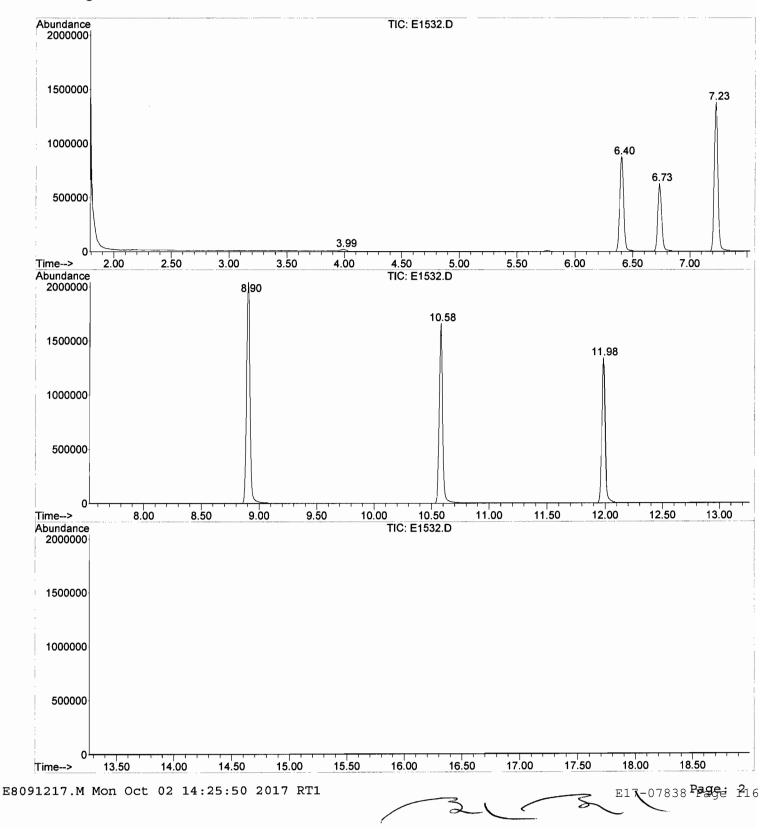
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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1532.D
Acq On : 18 Sep 2017 15:14
Operator : BARBARA
Sample : FIELD_BLANK_,E17-07838-003,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 6 Sample Multiplier: 1
```

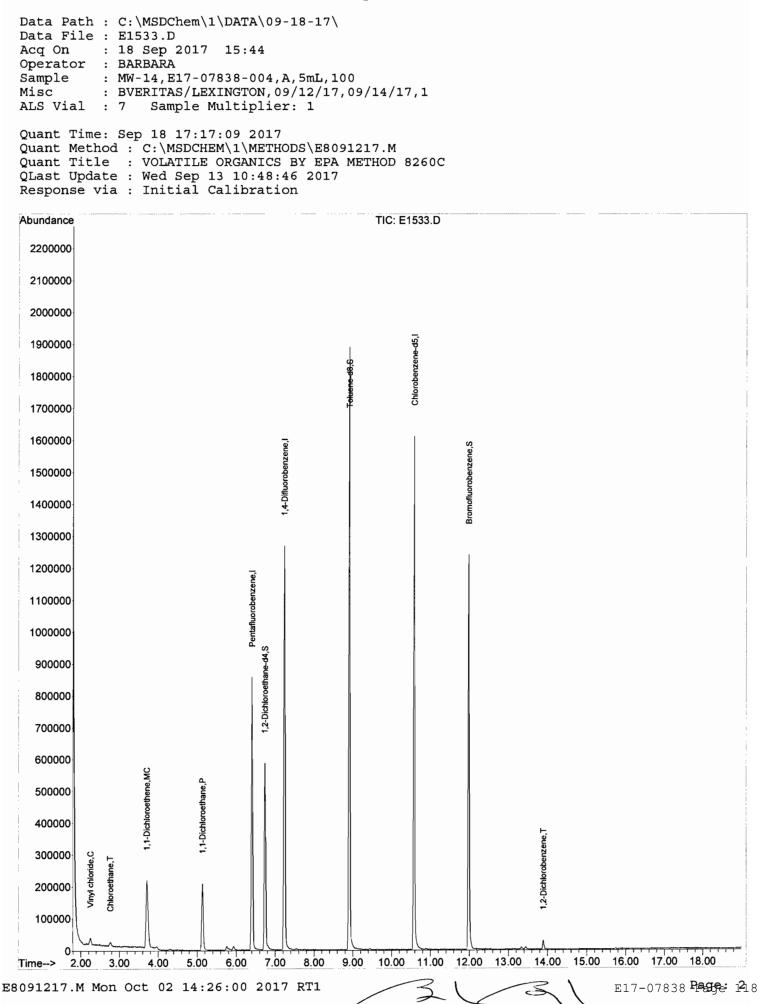
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

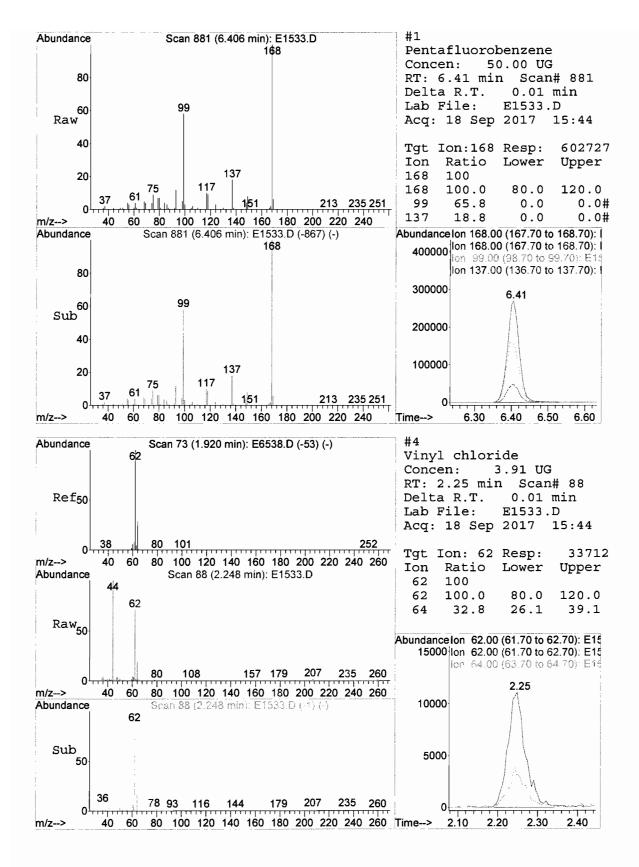
TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P

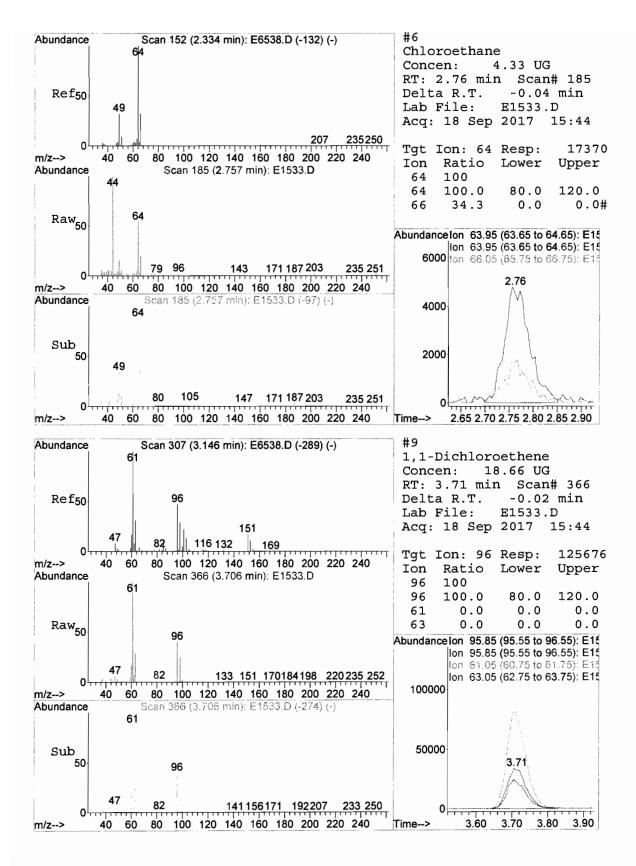


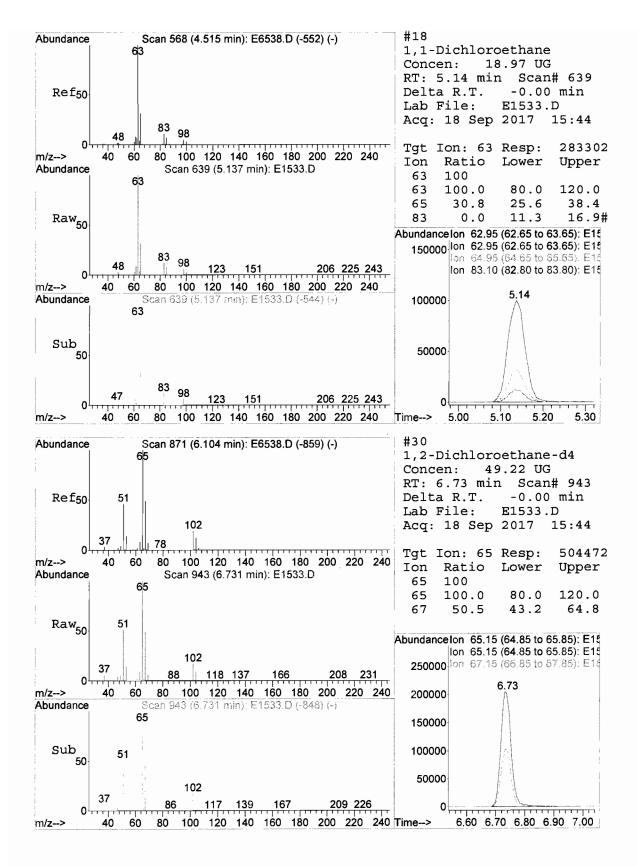
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1533.D Acq On : 18 Sep 2017 15:44 Operator : BARBARA Sample : MW-14,E17-07838-004,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 7 Sample Multiplier: 1 Quant Time: Sep 18 17:17:09 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Ouant Title : VOLATILE ORGANICS BY EPA METHOD 8260C								
QLast Update : Wed Sep 13 10: Response via : Initial Calibr								
_			_		• -	(!)		
Internal Standards	R.T.	QION	Response	Conc Un	nits Dev	7(Min)		
1) Pentafluorobenzene	6.41	168	602727	50.00	UG	0.00		
31) 1,4-Difluorobenzene	7.23	114	1094976	50.00	UG	0.00		
50) Chlorobenzene-d5	10.58	117	873623	50.00	UG	0.00		
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	6.73	65	504472	49.22	UG	0.00		
Spiked Amount 50.000					98.448			
41) Toluene-d8	8.90	98			UG	0.00		
Spiked Amount 50.000	Range 80	- 120				5		
59) Bromofluorobenzene		95				0.00		
Spiked Amount 50.000	Range 66	- 120	Recove	ery =	93.30%	5		
Target Compounds					01	value		
4) Vinyl chloride	2.25	62	33712	3.91		100		
6) Chloroethane	2.76	64	17370	4.33		100		
9) 1,1-Dichloroethene	3.71	96	125676	18.66	UG #	100		
18) 1,1-Dichloroethane	5.14	63	283302 12108	18.97	UG #	96		
74) 1,2-Dichlorobenzene	13.90	146	12108	0.85	UG #	81		

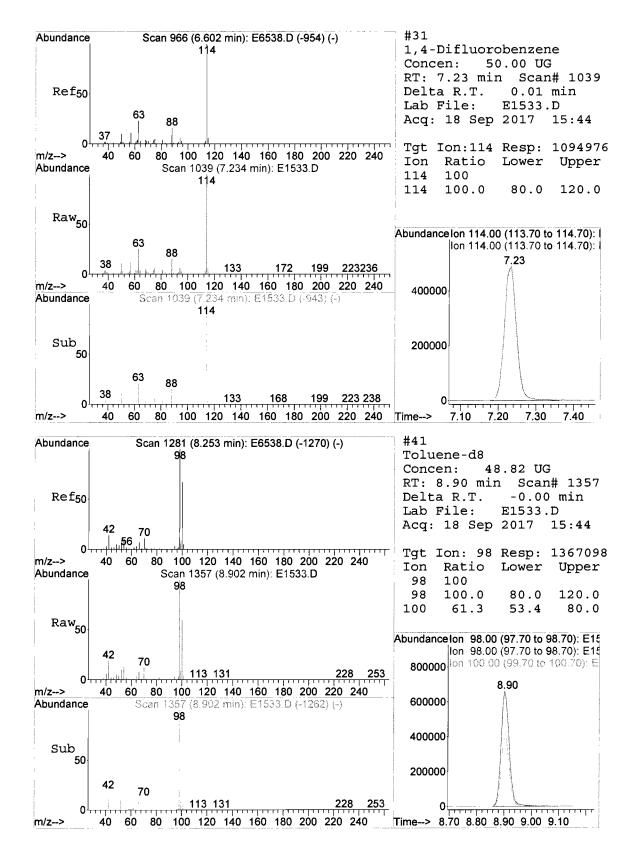
(#) = qualifier out of range (m) = manual integration (+) = signals summed

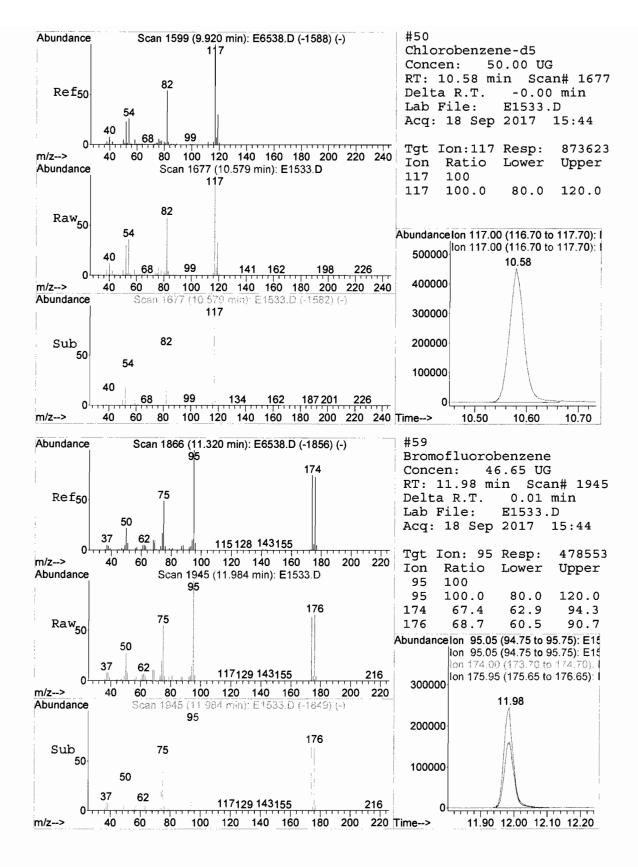


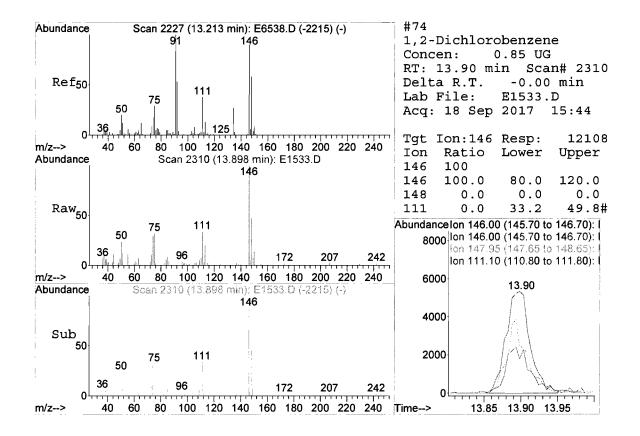












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1533.D : 18 Sep 2017 15:44 Acq On Operator : BARBARA : MW-14,E17-07838-004,A,5mL,100 Sample Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 7 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Peak Location: TOP Stop Thrs : 0.1 If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M : VOLATILE ORGANICS BY EPA METHOD 8260C Title Signal : TIC peak R.T. first max last PK % of peak corr. corr. min scan scan scan TY height # area % max. total ----- ---- ---- --------------_ _ _ _ _ _ - - -_ _ _ _ _ _ _ 2.248 79 88 111 rVB3 76854 1 22466 1.93% 0.4318 177 186 211 rVB3 1.55% 2 15033 2.762 61505 0.345% 3.706 353 366 402 rVV2 213032 3 830332 20.90% 4.660% 402 415 436 rVB2 4 3.963 11698 60851 1.53% 0.342% 5 5.137 623 639 659 rBV2 207821 591308 14.88% 3.319% 6 747 757 5.756 781 rBV3 47031 1.18% 0.264% 12470 868 880 917 rBV2 857102 2024039 50.94% 7 6.401 11.360% 6.731 8 928 943 974 rBV 585332 1477435 37.18% 8.292% 9 7.229 1026 1038 1070 rBV2 1266839 2878040 72.43% 16.153% 10 8.902 1346 1357 1391 rBV 1889160 3973650 100.00% 22.302% 11 10.579 1666 1677 1714 rBV 1612012 3243893 81.64% 18.206% 12 11.984 1931 1945 1971 rBV 1241244 2489669 62.65% 13.973% 13 13.893 2296 2309 2319 rBV4 27135 63054 1.59% 0.354%

Sum of corrected areas: 17817661

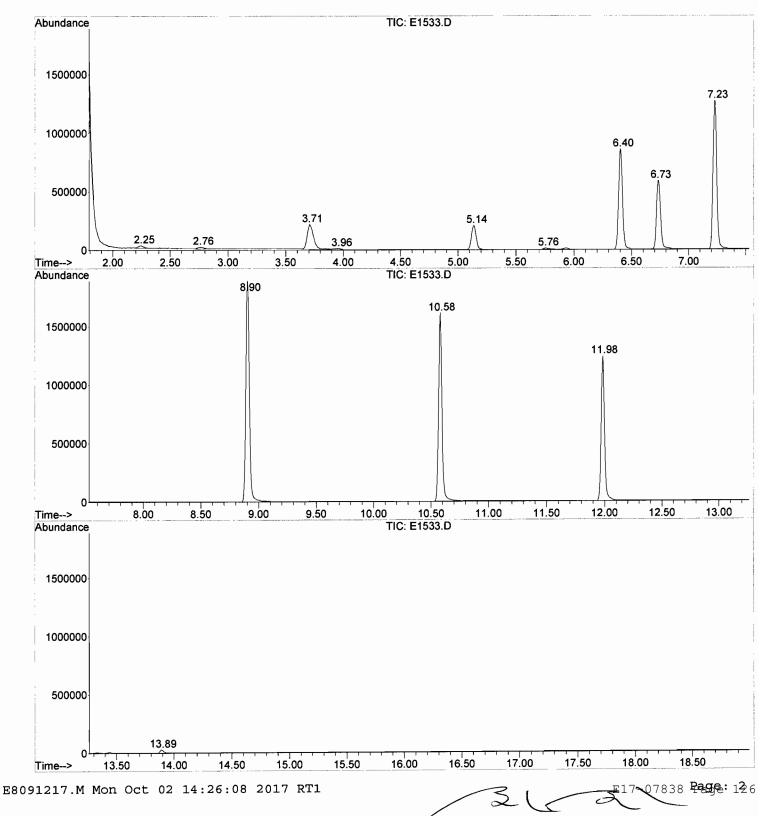
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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1533.D
Acq On : 18 Sep 2017 15:44
Operator : BARBARA
Sample : MW-14,E17-07838-004,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 7 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

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TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P
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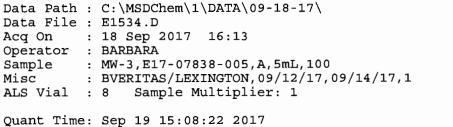


Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1534.D Acq On : 18 Sep 2017 16:13 Operator : BARBARA Sample : MW-3,E17-07838-005,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 8 Sample Multiplier: 1 Quant Time: Sep 19 15:08:22 2017							
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration							
Internal Standards	R.T.	QIon		Conc U	nits	Dev	(Min)
1) Pentafluorobenzene	6.41	168	600150	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.23	114	1077017	50.00	UG		0.00
<pre>31) 1,4-Difluorobenzene 50) Chlorobenzene-d5</pre>	10.58	117	863458	50.00	UG		0.00
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000		65	492029	48.21			0.00
41) Toluene-d8	8.90		Recove 1334235				0.00
Spiked Amount 50.000			Recove		96.		0.00
59) Bromofluorobenzene			471577				0.00
Spiked Amount 50.000			Recove				
-	2			1			-
Target Compounds	0.04	60	10504	1 00			alue
4) Vinyl chloride 6) Chloroethane	2.24 2.76		10524 166863			#	
9) 1,1-Dichloroethene			472047			# #	
18) 1,1-Dichloroethane	5.14	63				#	84
20) cis-1,2-Dichloroethene		96	3496m	0.46			01
26) 1,1,1-Trichloroethane	6.38	97	4695		-	#	82
29) 1,2-Dichloroethane (EDC) 6.83	62	12581			#	99
51) Chlorobenzene	10.62	112	8249	0.41	UG	#	96
70) 1,3-Dichlorobenzene	13.34	146	5239	0.35	UG	#	99
72) 1,4-Dichlorobenzene	13.44	146	5239 6212 27040	0.41	UG		99
74) 1,2-Dichlorobenzene	13.89	146	27040	1.91	ŬG	#	98

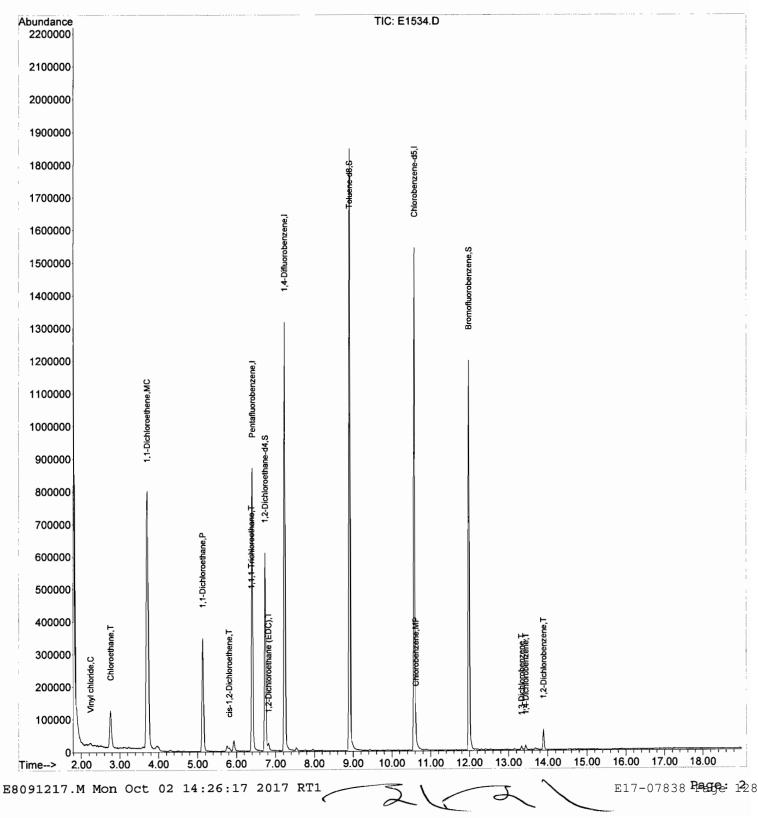
(#) = qualifier out of range (m) = manual integration (+) = signals summed

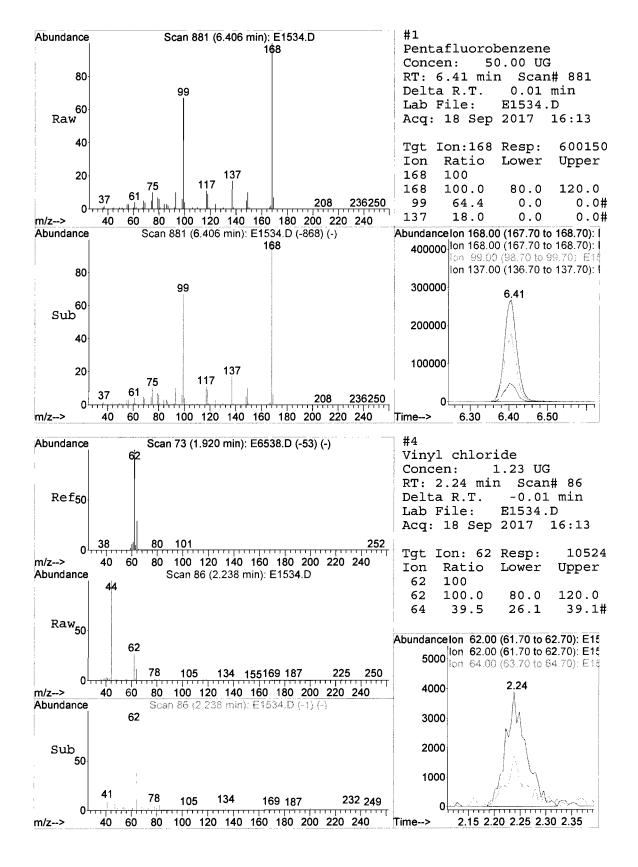
E8091217.M Mon Oct 02 14:26:16 2017 RT1

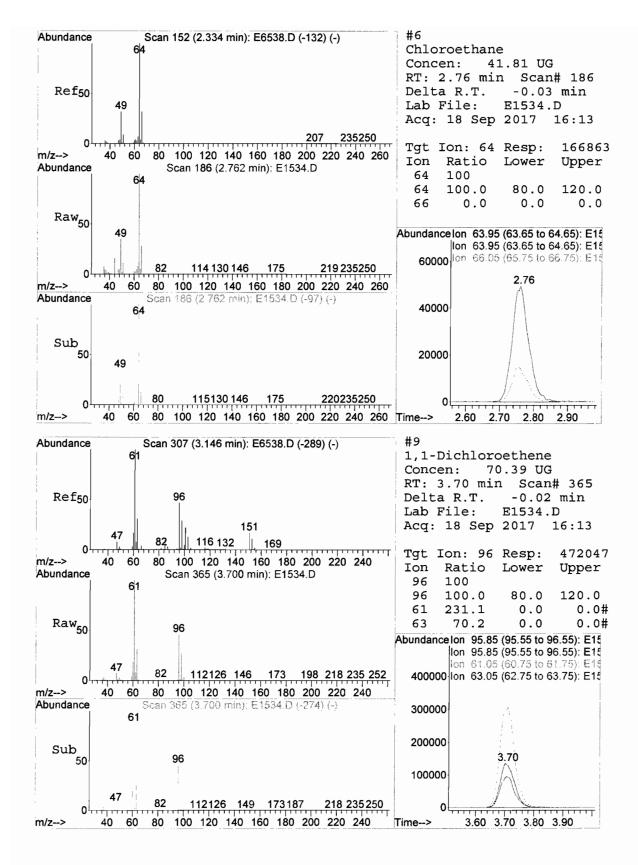
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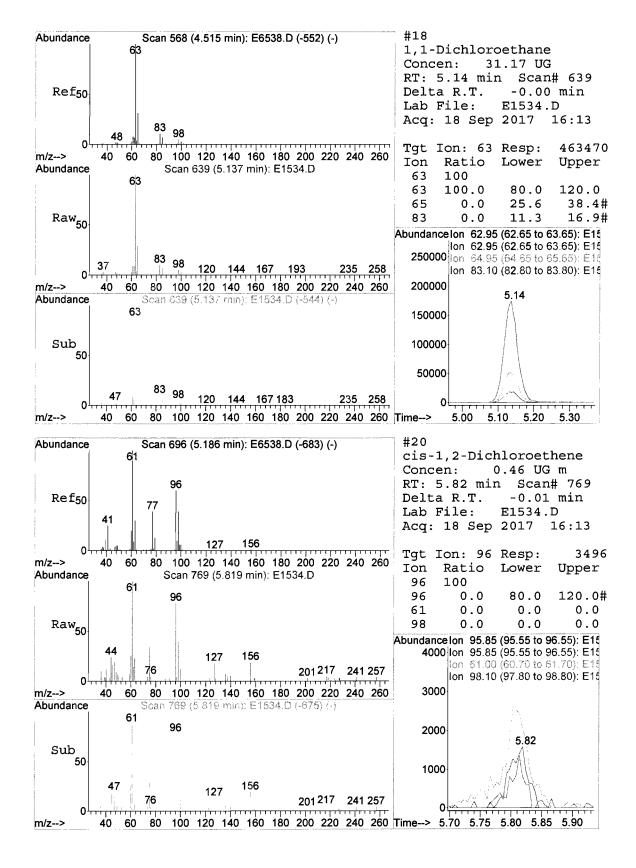


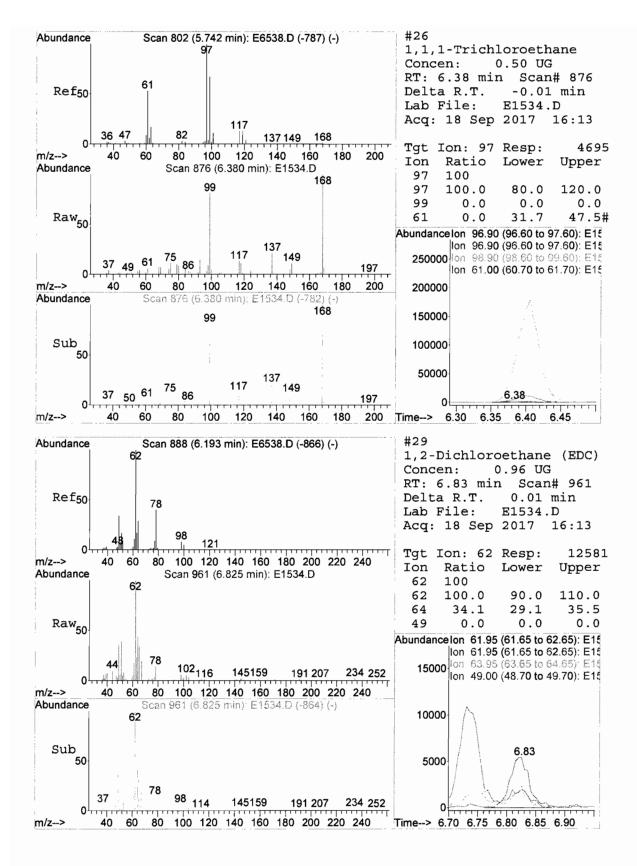
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

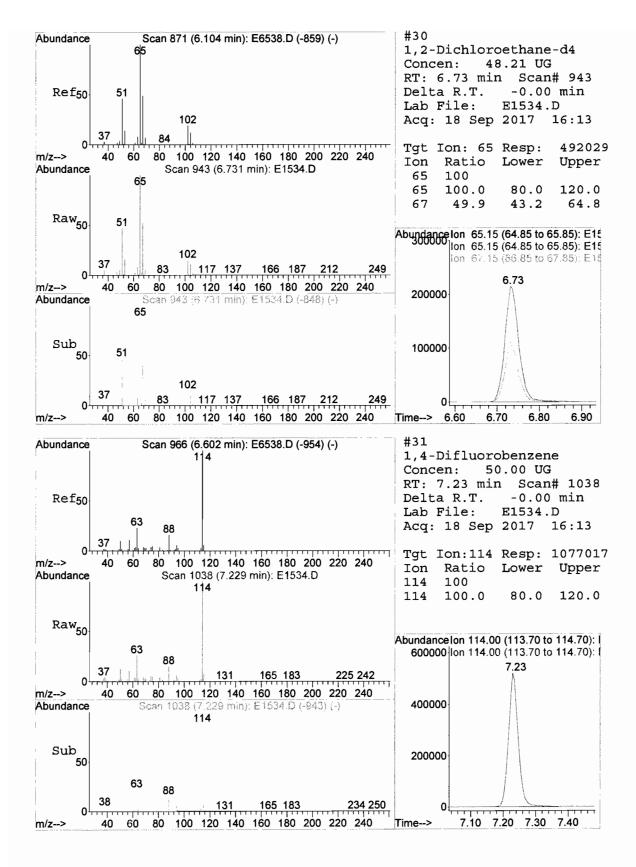


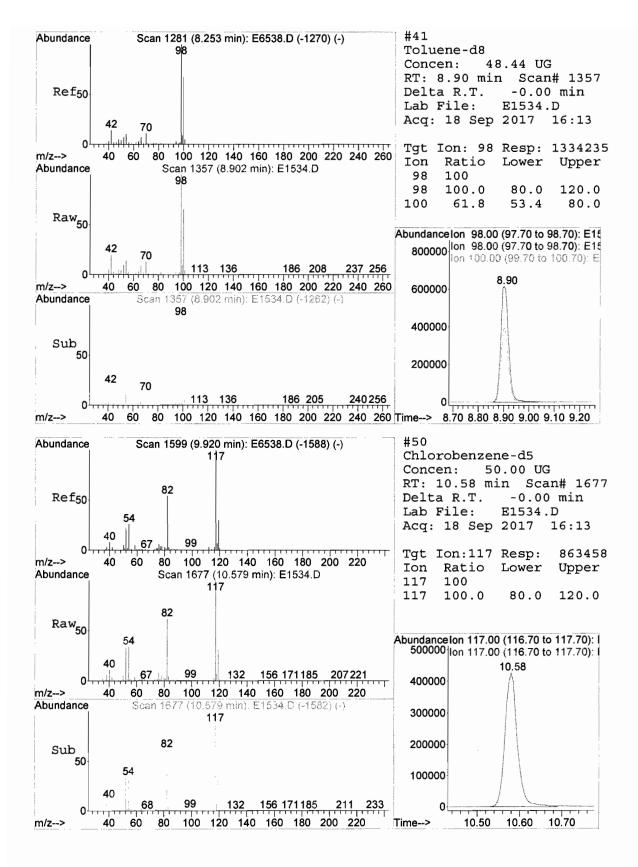


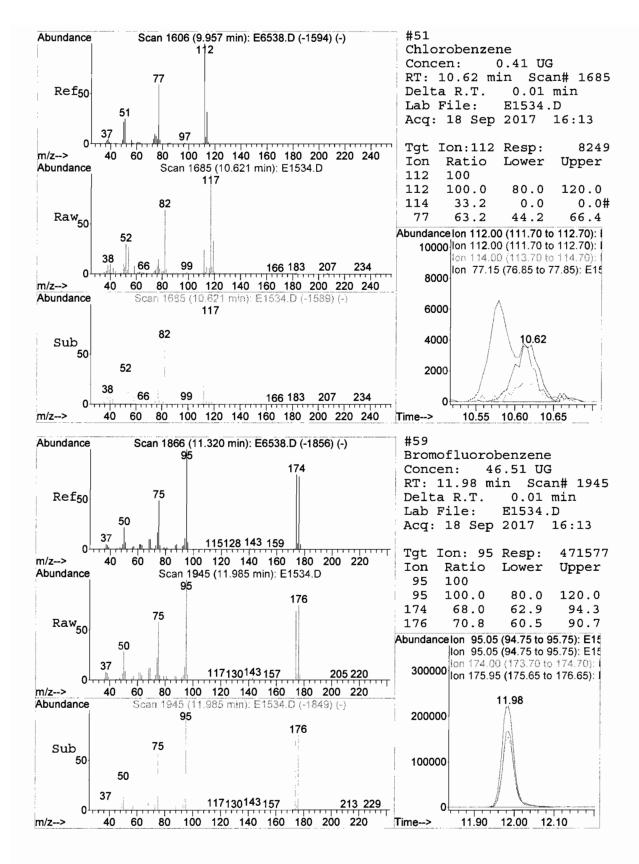


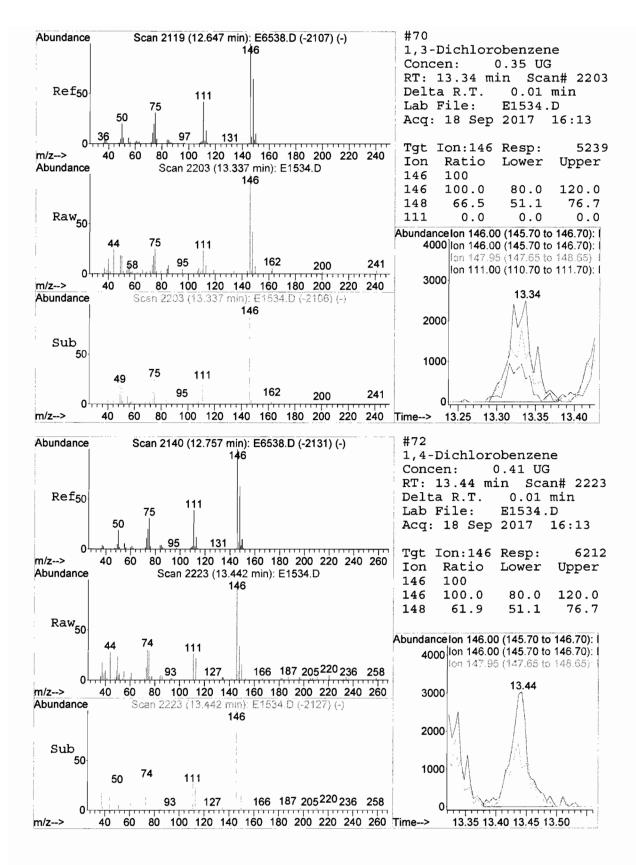


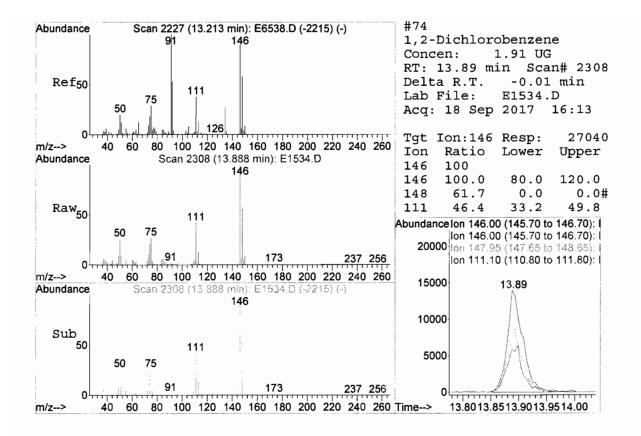












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1534.D Acq On : 18 Sep 2017 16:13 Operator : BARBARA : MW-3,E17-07838-005,A,5mL,100 Sample Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 8 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK % of peak corr. corr. min scan scan scan TY # heiqht area % max. total ---- ---- ---- ----- - -------------------2.243 78 87 117 rVB2 9887 1 49755 1.28% 0.242% 2 171 186 225 rVB3 114591 400664 10.28% 2.762 1.947% 3 3.711 352 367 401 rVV2 792067 2893321 74.25% 14.062% 4 401 416 437 rVB9 99018 2.54% 3.968 16007 0.481% 5 5.137 624 639 661 rBV 346826 949072 24.36% 4.613% 6 5.756 744 757 764 rBV3 17273 1.37% 0.260% 53574 805 rBV2 2.55% 7 5.934 779 791 32582 99409 0.483% 869265 8 6.406 869 881 904 rBV 1982302 50.87% 9.634% 9 6.731 930 943 956 rBV 607748 1398940 35.90% 6.799% 10 6.815 956 959 981 rVB3 22540 60531 1.55% 0.294% 11 7.229 1025 1038 1082 rBV 1315971 2835580 72.77% 13.781% 8.902 1345 1357 1392 rBV 1847408 12 3896726 100.00% 18.939% 13 10.579 1662 1677 1714 rBV 1544016 3233838 82.99% 15.717% 14 11.979 1930 1944 1973 rBV 1198678 2489054 63.88% 12.097%

Sum of corrected areas: 20575274

1

133490

3.43%

3K21

0.649%

E8091217.M Mon Oct 02 14:26:26 2017 RT1

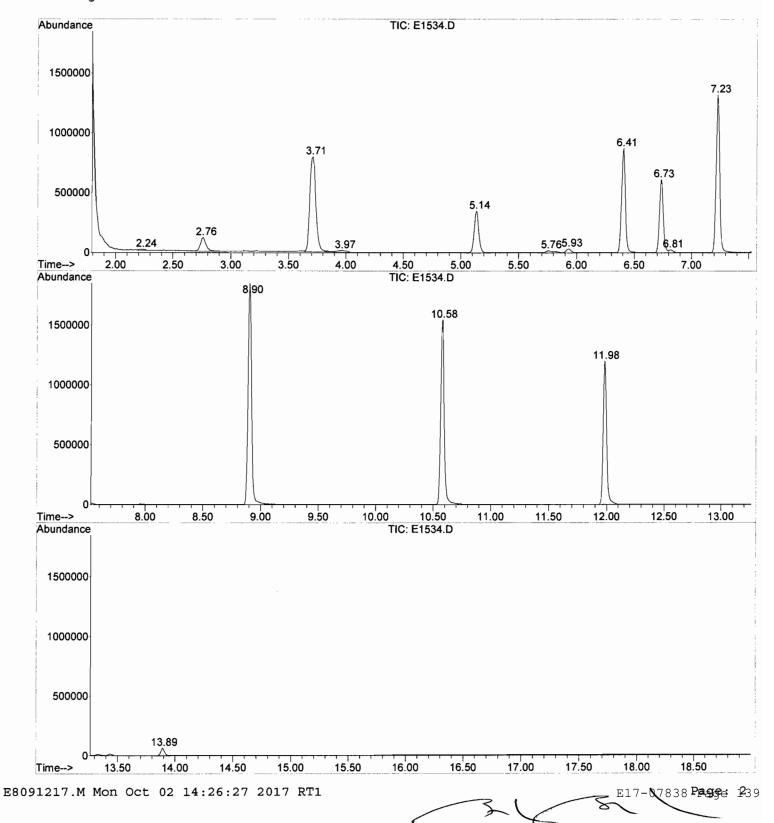
15 13.893 2298 2309 2322 rBV2 61752

E17-0783 **Page**ge **1**138

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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1534.D
Acq On : 18 Sep 2017 16:13
Operator : BARBARA
Sample : MW-3,E17-07838-005,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 8 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
```

Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\1\DATA\ Data File : E1535.D Acq On : 18 Sep 2017 16:43 Operator : BARBARA Sample : MW-13,E17-07838-00 Misc : BVERITAS/LEXINGTON ALS Vial : 9 Sample Multipl	06,A,5mL,10 1,09/12/17, ier: 1	00 ,09/14	/17,1				
Quant Time: Sep 18 17:19:52 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration							
Internal Standards	R.T.	QIon	Response	Conc Uni	ts Dev	(Min)	
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23	114	1072569	50.00 U 50.00 U 50.00 U	G	0.01 0.00 0.00	
	Range 69	- 166	Recove		97.14%		
41) Toluene-d8				48.23 U		0.00	
Spiked Amount 50.000 59) Bromofluorobenzene	Range 80	- 120	Recove	ery = 47.58 U	96.46% C	0.00	
	Range 66						
Target Compounds					0.	alue	
6) Chloroethane	2.76	64	2277527	581.26 U			
9) 1,1-Dichloroethene							
18) 1.1-Dichloroethane	5.14	63	192123	13.16 U	G #	99	
20) cis-1,2-Dichloroethene	5.81	96	7116	0.96 U	G #	100	
20) cis-1,2-Dichloroethene 29) 1,2-Dichloroethane (EDC)	6.83	62	12265	0.96 U	G #	86	

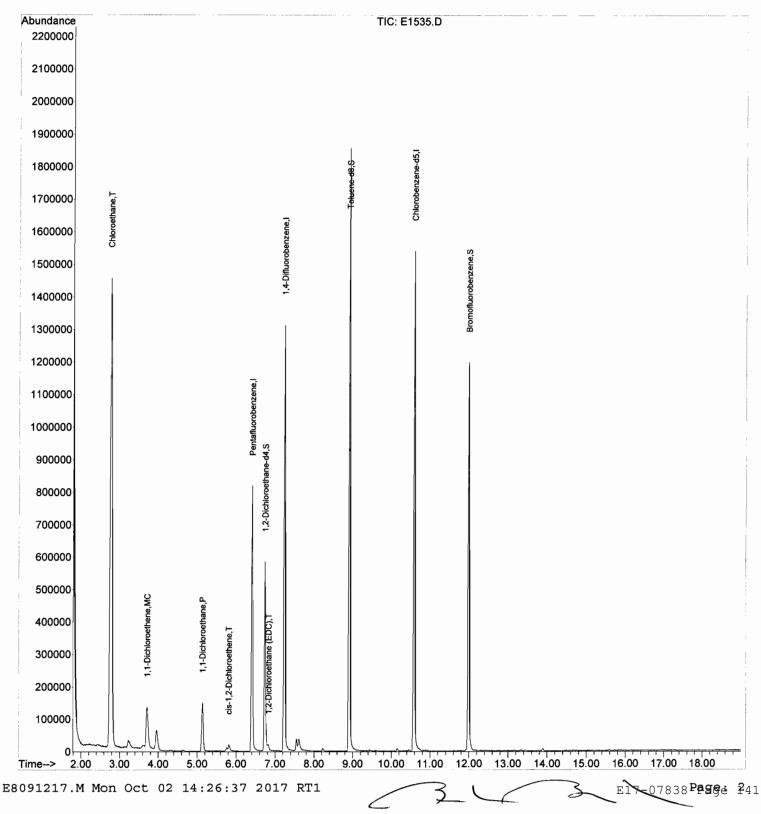
(#) = qualifier out of range (m) = manual integration (+) = signals summed

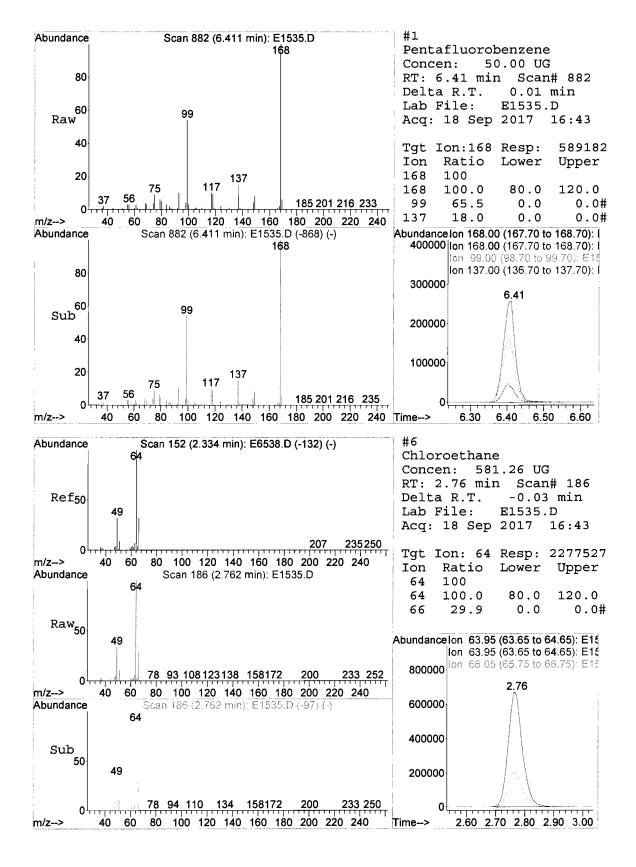
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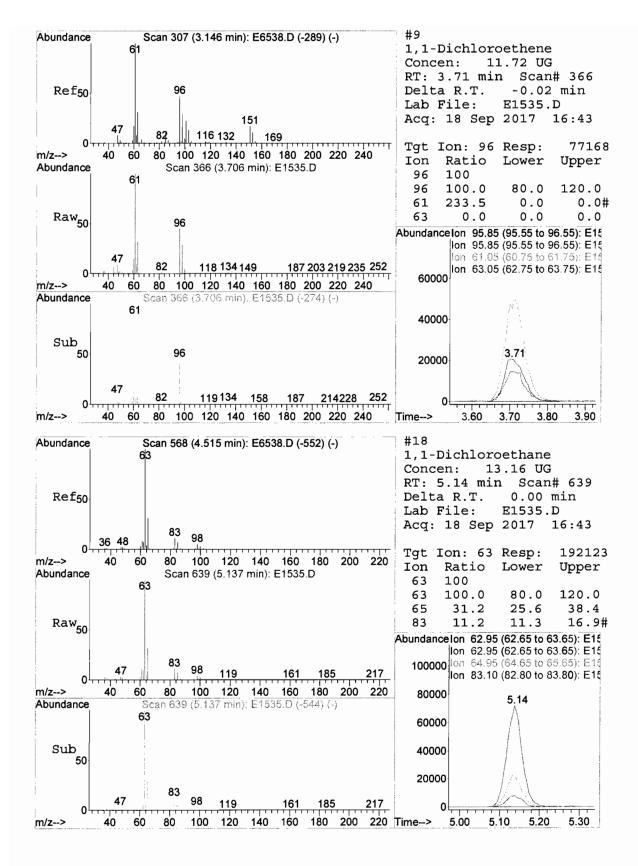
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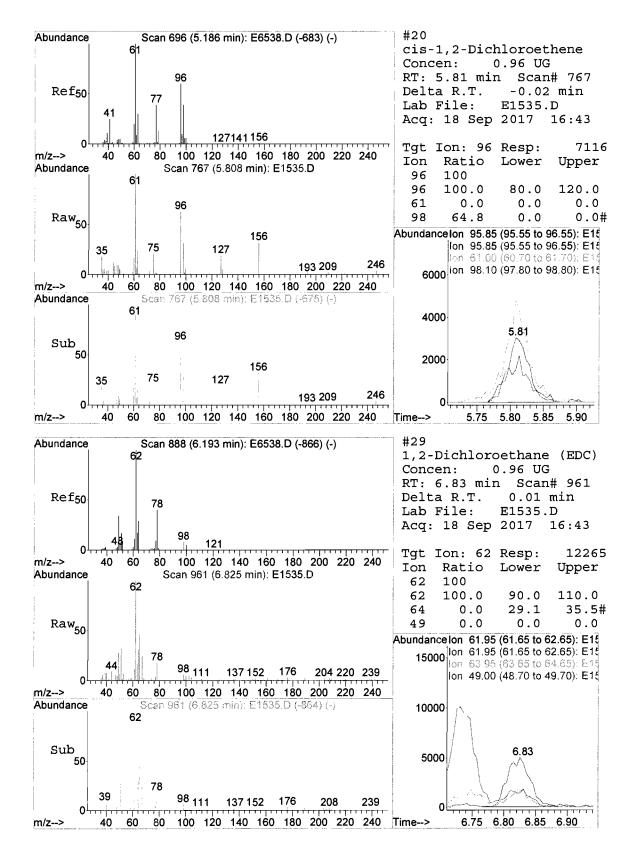
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1535.D Acq On : 18 Sep 2017 16:43 Operator : BARBARA Sample : MW-13,E17-07838-006,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 9 Sample Multiplier: 1 Quant Time: Sep 18 17:19:52 2017

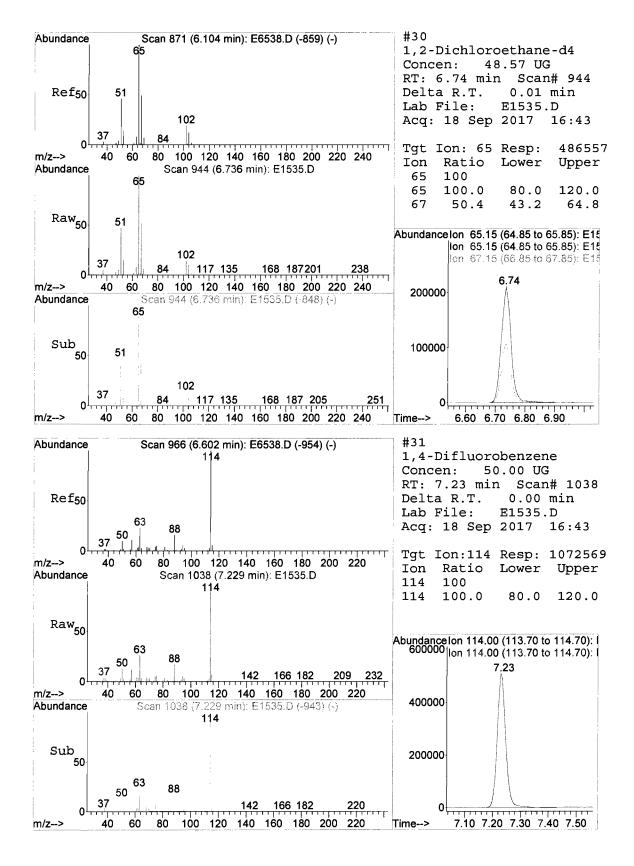
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

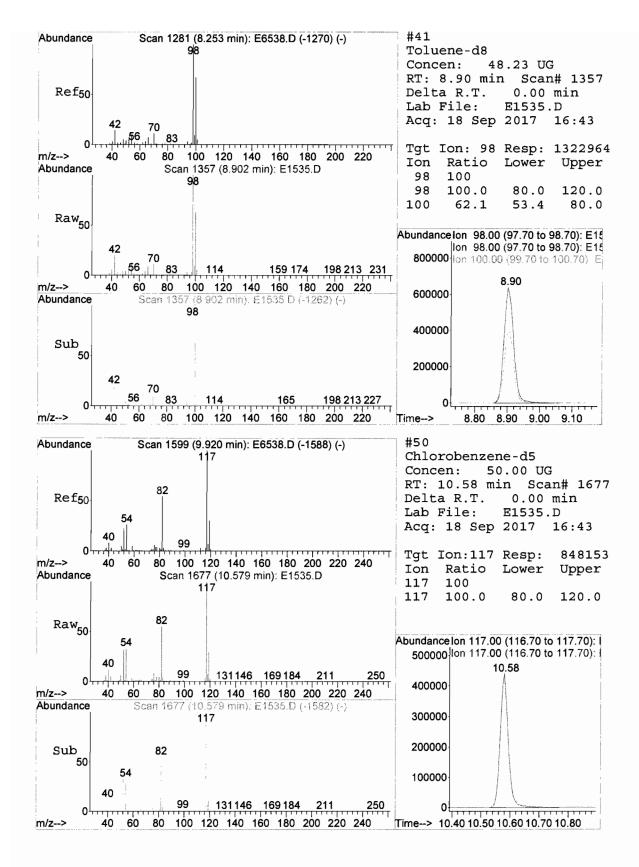


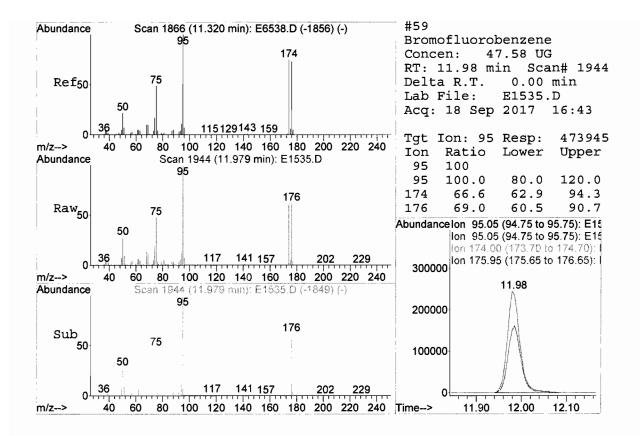












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1535.D : 18 Sep 2017 16:43 Acq On Operator : BARBARA Sample : MW-13, E17-07838-006, A, 5mL, 100 : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 Misc ALS Vial : 9 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Min Area: 1 % of largest Peak Sampling : 1 Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. ° of min scan scan scan TY # height % max. total area - - -- - - - ----- --- --------_ _ _ _ _ _ _ - - - - - ------1 2.217 115 rVB5 7284 64 82 58557 1.18% 0.263% 4958957 100.00% 2 2.762 170 186 229 rVB 1443144 22.309% 3 3.234 266 276 319 rVB3 24219 111992 2.26% 0.504% 367 4 3.711 355 400 rVV3 128594 526608 10.62% 2.369% 5 3.952 400 5.45% 413 441 rVB3 63051 270381 1.216% 6 666 rBV 8.14% 5.137 627 639 147818 403746 1.816% 7 5.808 763 767 781 rVB6 1.04% 0.232% 18339 51570 818028 8 6.406 920 rBV2 1964516 39.62% 869 881 8.838% 1428733 9 6.736 929 944 977 rBV 28.81% 6.427% 583401 1026 1038 1063 rBV 1311510 2803122 56.53% 12.610% 10 7.229 11 1085 1098 1104 rBV3 0.376% 7.544 35422 83489 1.68% 12 7.612 1104 1111 1131 rVB5 2.27% 34375 112789 0.507% 1347 1357 1401 rBV 13 8.902 3861299 77.87% 17.371% 1854754 10.579 1665 1677 1720 rBV 3135525 63.23% 14 1540398 14.106%

Sum of corrected areas: 22228988

2457704 49.56% 11.056%



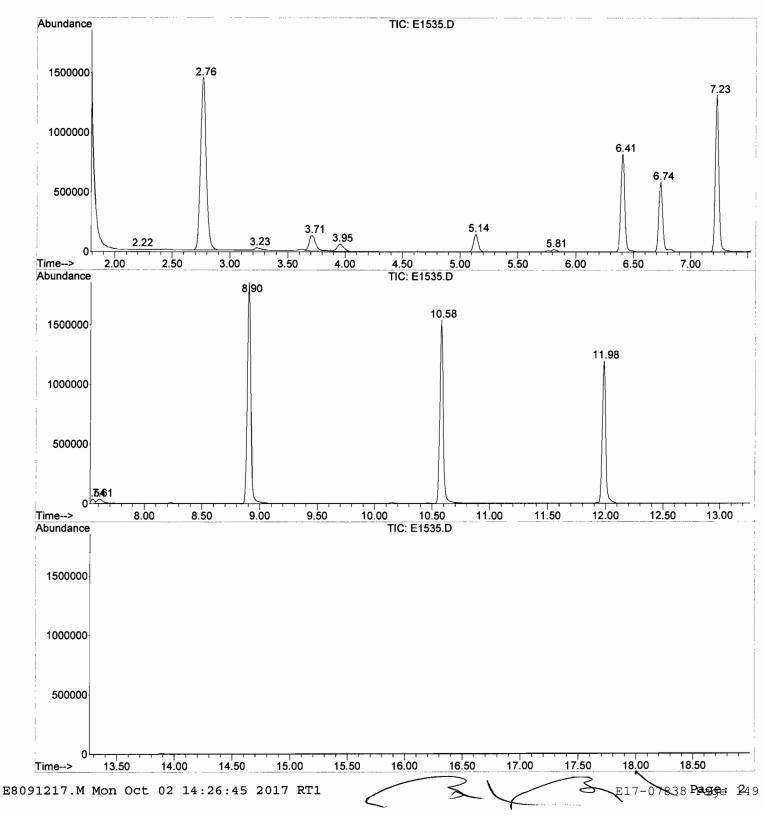
11.985 1926 1945 1971 rBV 1198300

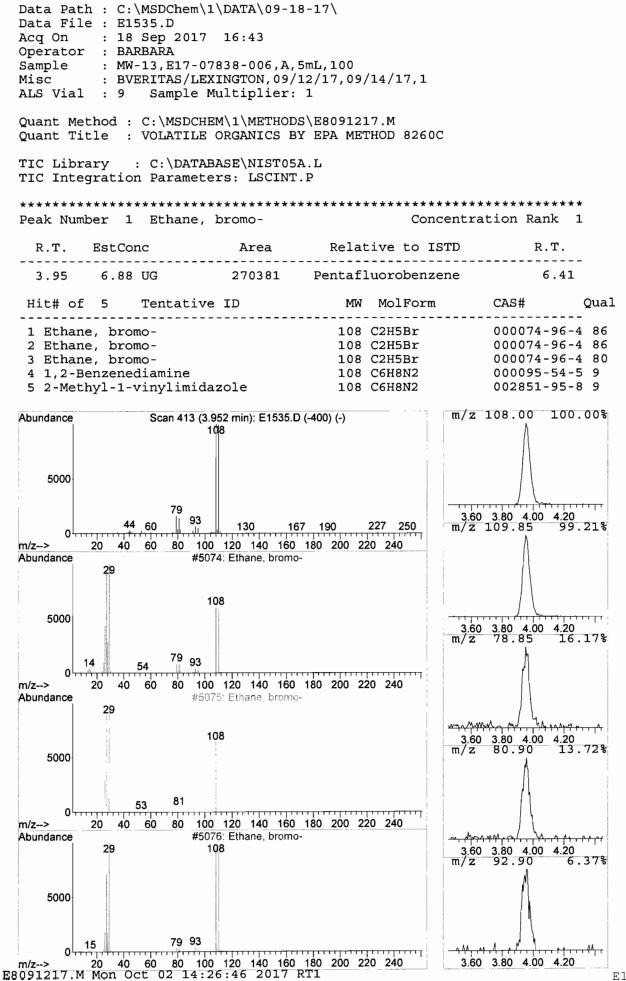
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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1535.D
Acq On : 18 Sep 2017 16:43
Operator : BARBARA
Sample : MW-13,E17-07838-006,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 9 Sample Multiplier: 1
```

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P





E17-07838 Page: 130

Data Path : C:\MSDChem\1\DATA Data File : E1542.D Acq On : 18 Sep 2017 20:1 Operator : BARBARA Sample : MW-13,E17-07838-0 Misc : BVERITAS/LEXINGTO ALS Vial : 16 Sample Multi	1 06DL,A,1mL N,09/12/17	,100	/17,1				
Quant Time: Sep 19 09:42:41 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration							
Internal Standards	R.T.	QIon	Response	Conc Ur	nits I	Dev(Min)	
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.40 7.23 10.58	114	1062412	50.00	UG	0.00	
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000	Range 69 8.90 Range 80 11.98	- 166 98 - 120 95	1339745 Recove 462802	ry = 49.31 ry = 46.22	84.2 UG 98.6 UG	14% 0.00 52% 0.00	
Target Compounds 6) Chloroethane 9) 1,1-Dichloroethene 18) 1,1-Dichloroethane	3.70	96	507135 17554 43165	2.74	UG UG UG	# 100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

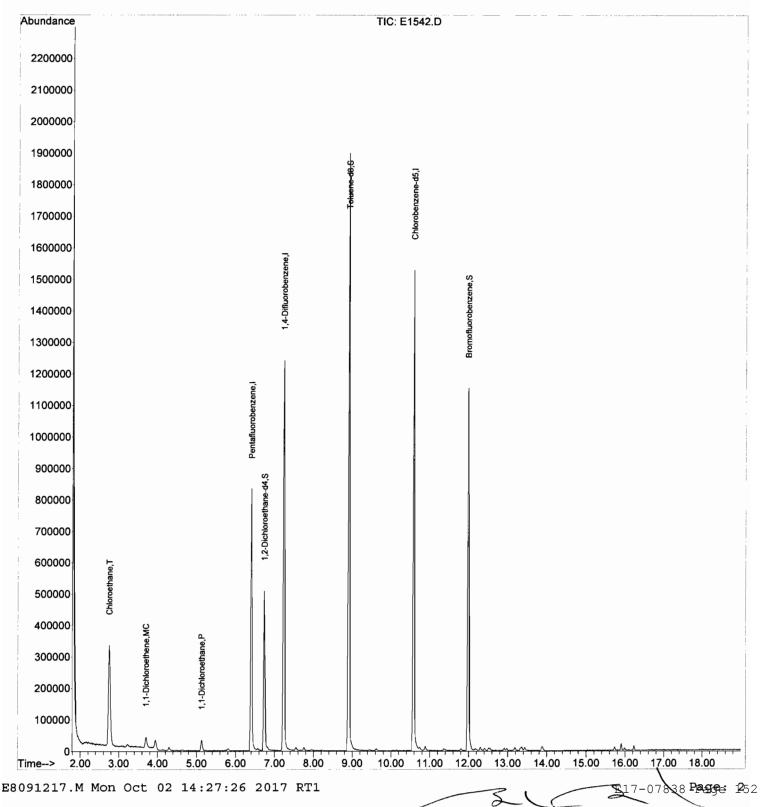
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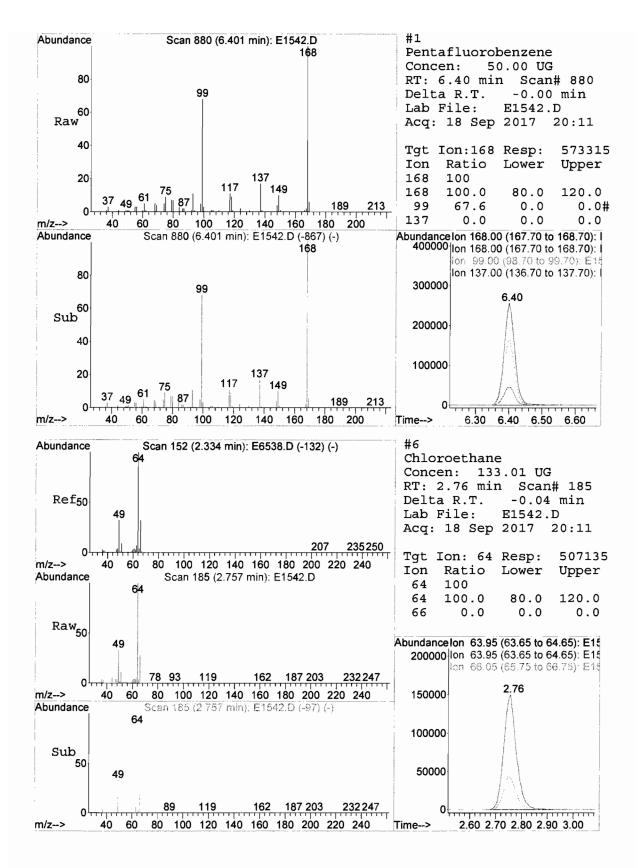
_E17-0783**₽age**ge **1**151

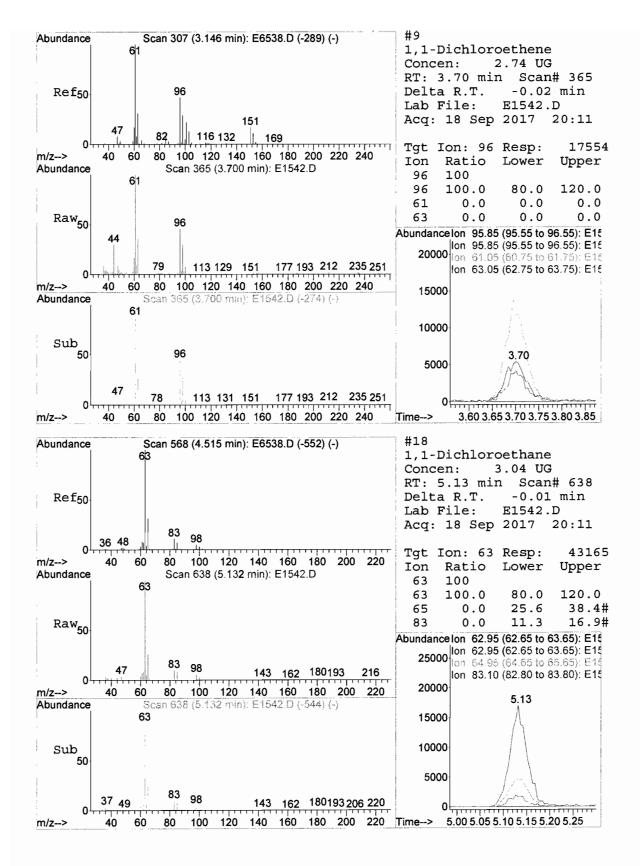
E8091217.M Mon Oct 02 14:27:26 2017 RT1

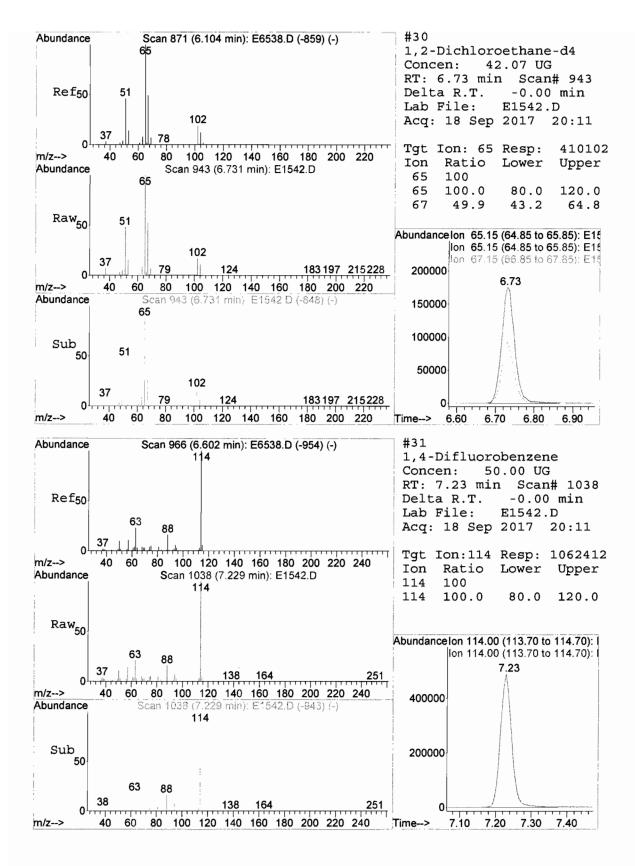
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1542.D Acq On : 18 Sep 2017 20:11 Operator : BARBARA Sample : MW-13,E17-07838-006DL,A,1mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 16 Sample Multiplier: 1 Quant Time: Sep 19 09:42:41 2017

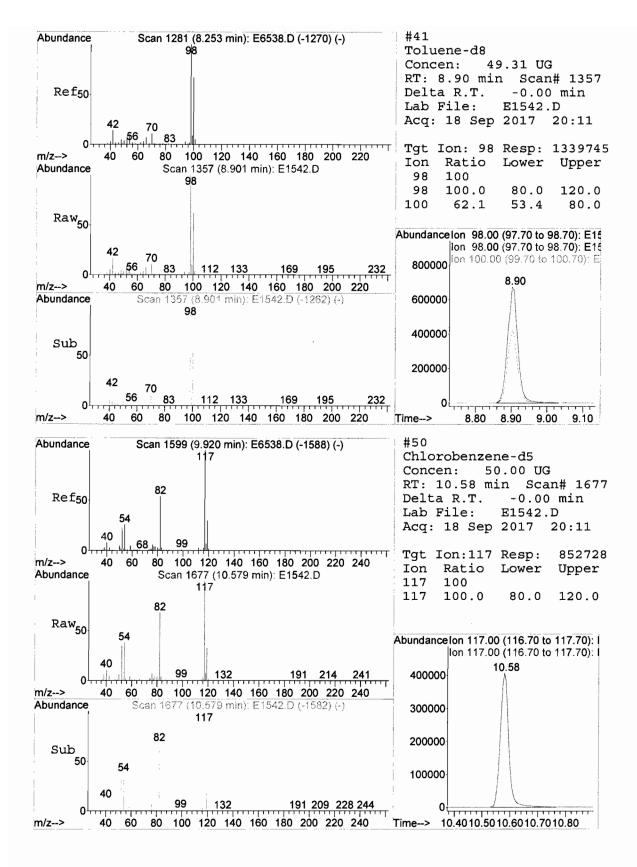
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

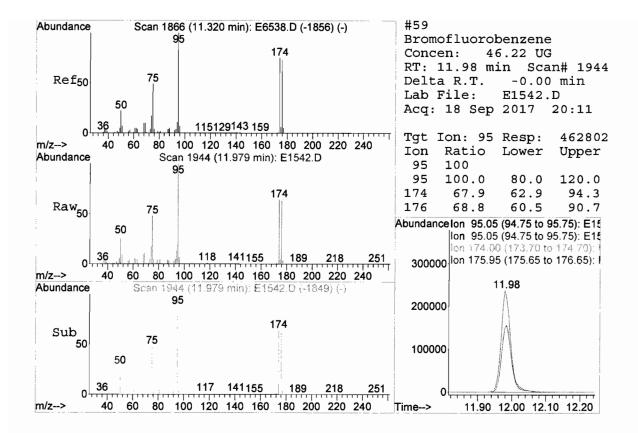












E17-07838 Parage1577

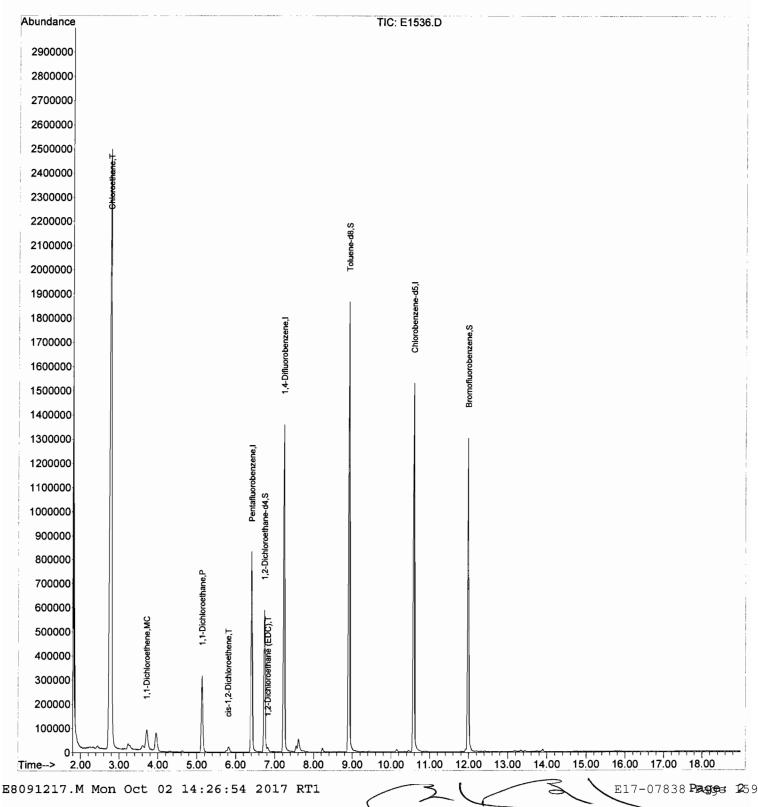
Data Path : C:\MSDChem\1\DATA\ Data File : E1536.D Acq On : 18 Sep 2017 17:13 Operator : BARBARA Sample : MW-2,E17-07838-007 Misc : BVERITAS/LEXINGTON ALS Vial : 10 Sample Multip	A,5mL,100,09/12/17,		/17,1				
Quant Time: Sep 19 15:12:12 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration							
Internal Standards	R.T.	QIon	Response	Conc Ur	nits Dev	(Min)	
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.41 7.23 10.58	168 114 117	591118 1111103 868656	50.00 50.00 50.00	UG UG UG	0.00 0.00 0.00	
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000	6.73 Range 69		500018 Recove		UG 99.50%	0.00	
41) Toluene-d8		98	1357736	47.79		0.00	
59) Bromofluorobenzene		95	489141	47.95	UG	0.00	
Target Compounds						alue	
6) Chloroethane9) 1,1-Dichloroethene	2.77 3.72				UG #	100	
18) 1,1-Dichloroethane	5.14	63	50518 411770	28.12	UG #	96	
20) cis-1,2-Dichloroethene	5.80	96	8015	1.08	UG #	100 96 100	
29) 1,2-Dichloroethane (EDC)	6.83	62	10966 	0.85	UG #	97 	

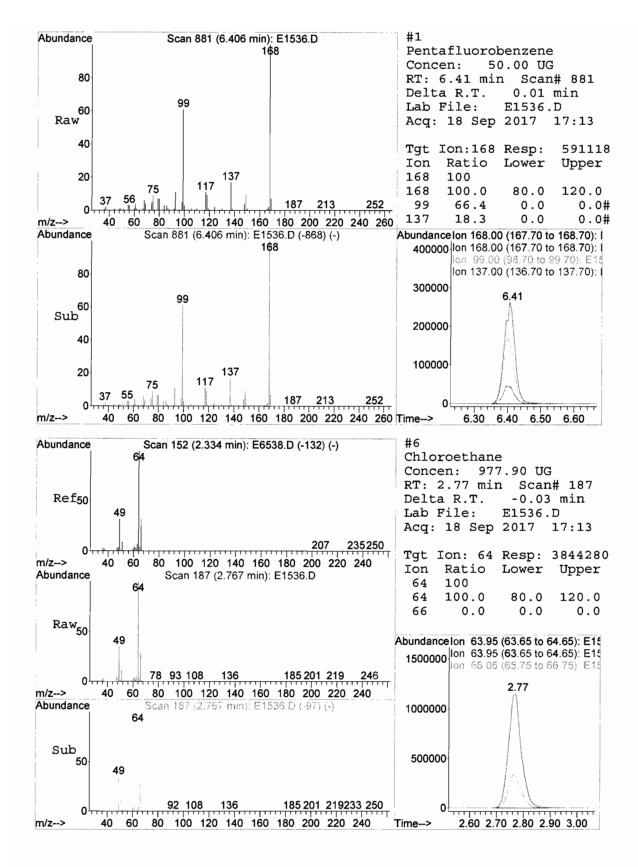
(#) = qualifier out of range (m) = manual integration (+) = signals summed

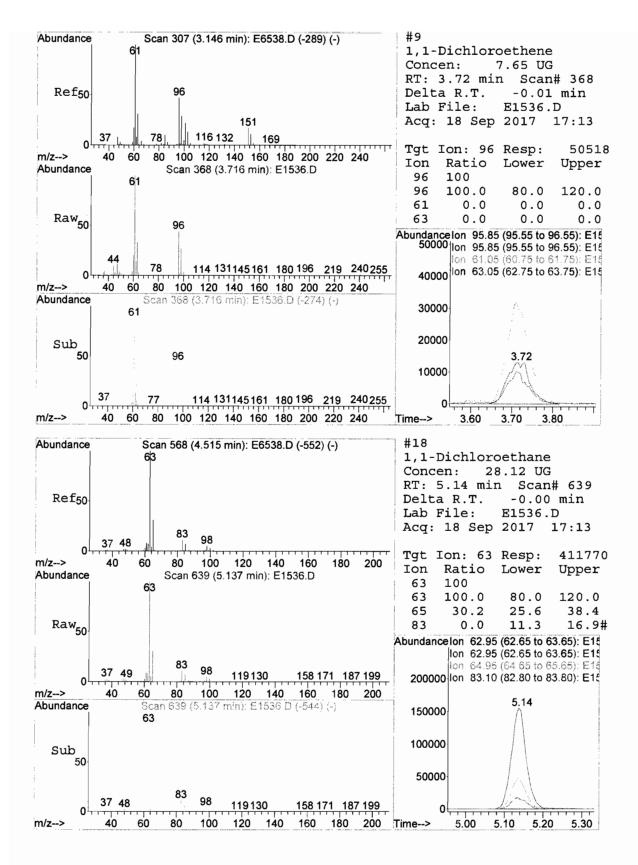
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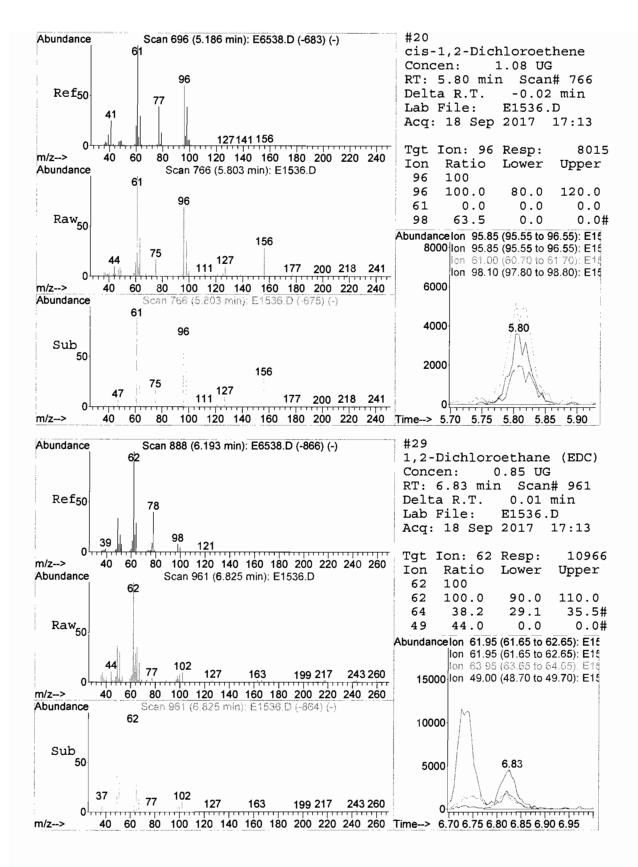
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1536.D Acq On : 18 Sep 2017 17:13 Operator : BARBARA Sample : MW-2,E17-07838-007,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 10 Sample Multiplier: 1 Quant Time: Sep 19 15:12:12 2017

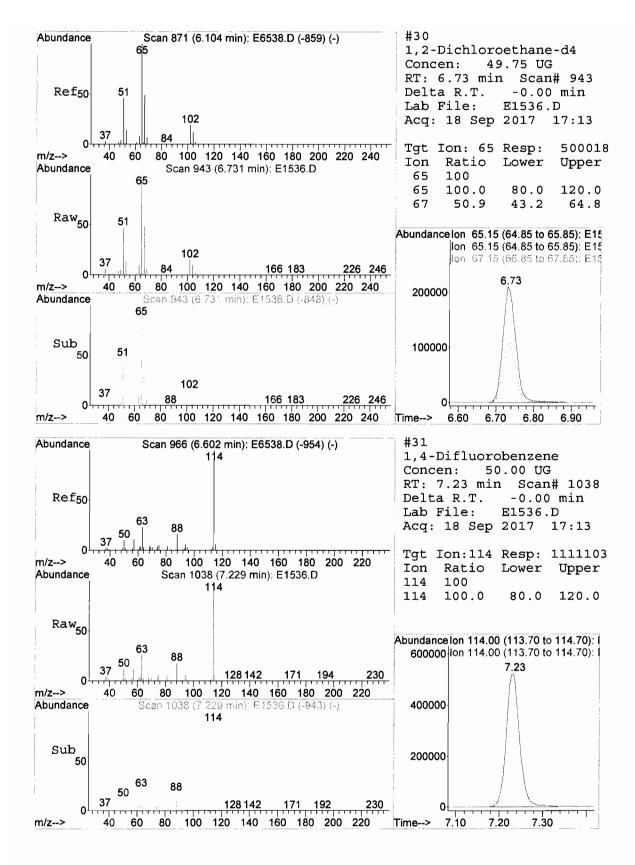
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

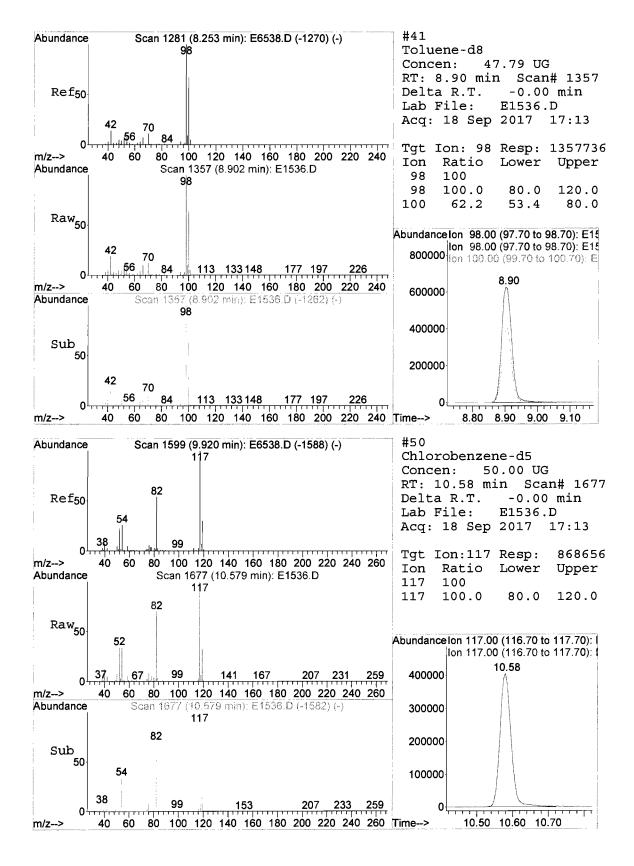


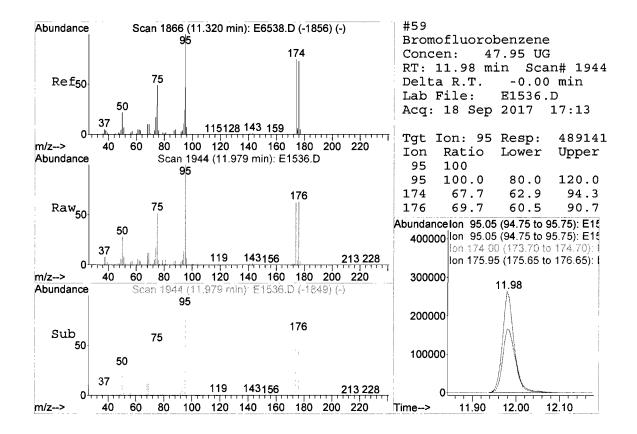












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1536.D Acq On : 18 Sep 2017 17:13 Operator : BARBARA Sample : MW-2,E17-07838-007,A,5mL,100 : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 Misc ALS Vial : 10 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC % of peak R.T. first max last PK peak corr. corr. min scan scan scan TY # height area % max. total ----- ------ -_ _ _ _ _ _ ---- ---- --------------246 rVB 2485060 8406027 100.00% 1 2.767 169 187 31.888% 2 3.234 276 319 rVB4 149240 1.78% 267 25958 0.566% 3 3.711 357 367 396 rVB2 83867 352569 4.19% 1.337% 413 4 3.952 399 439 rVB4 77603 319575 3.80% 1.212% 639 843861 10.04% 5 5.137 626 654 rBV 315011 3.201% 6 6.406 866 881 908 rBV3 832752 1995977 23.74% 7.572% 7 6.736 929 944 956 rBV 587241 1422936 16.93% 5.398% 1026 1038 1072 rBV 8 7.229 1358718 2904920 34.56% 11.020% 7.607 1103 1110 1135 rVB4 50404 9 161231 1.92% 0.612% 8.902 1346 1357 1402 rBV 1867408 10 3987465 47.44% 15.126% 10.579 1665 1677 1721 rBV2 1531356 11 3280176 39.02% 12.443%

Sum of corrected areas: 26360796

2536819 30.18%

 \mathbb{A}

9.623%

E8091217.M Mon Oct 02 14:27:01 2017 RT1

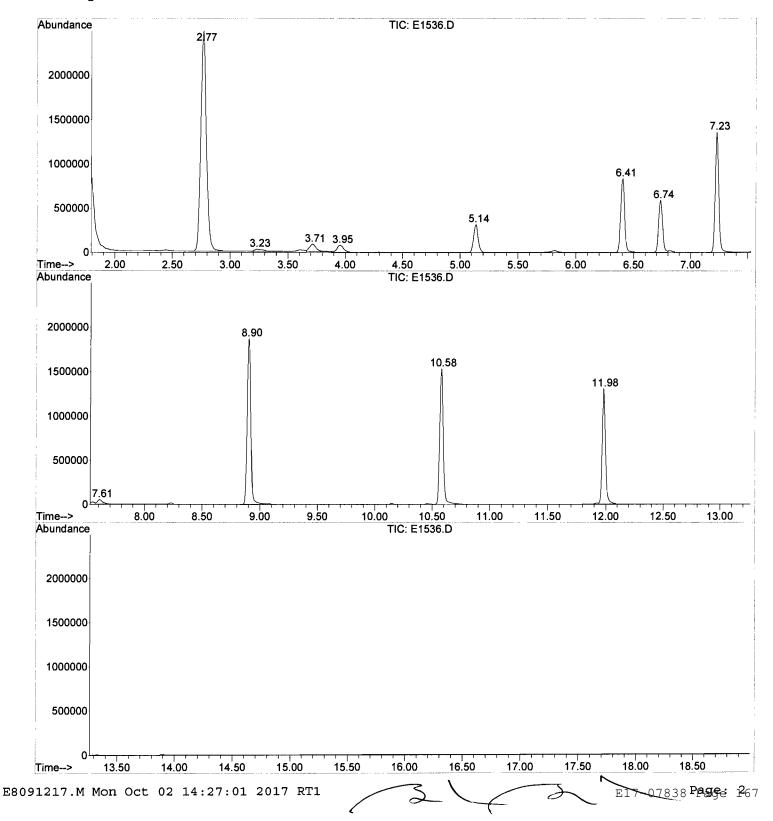
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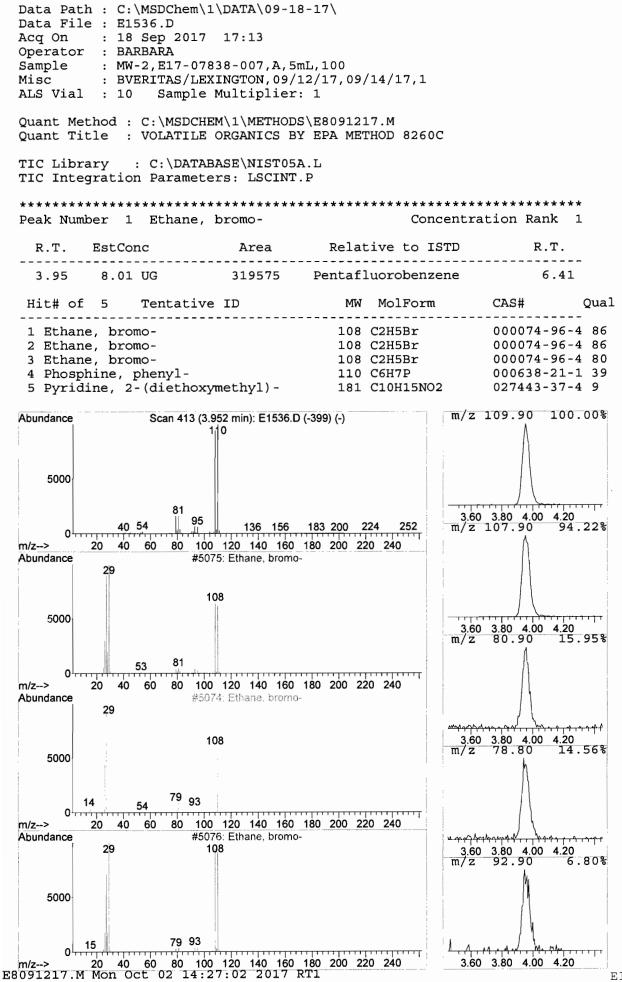
-E17-0783**Page**re **1**166

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1536.D
Acq On : 18 Sep 2017 17:13
Operator : BARBARA
Sample : MW-2,E17-07838-007,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 10 Sample Multiplier: 1
```

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

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TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P
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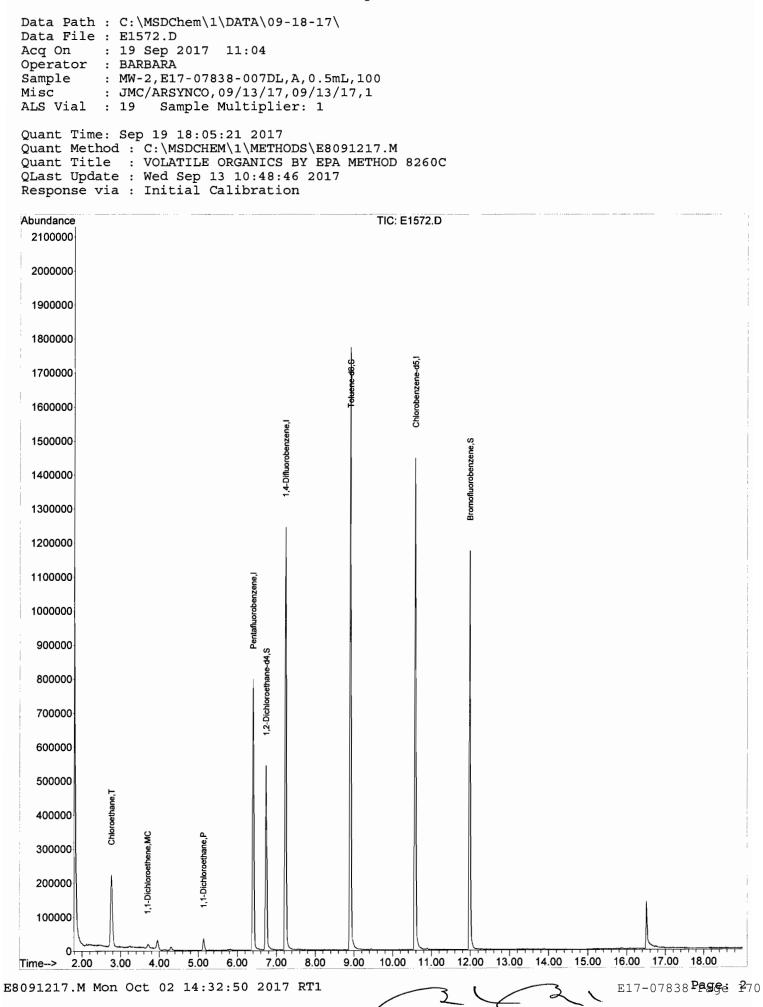


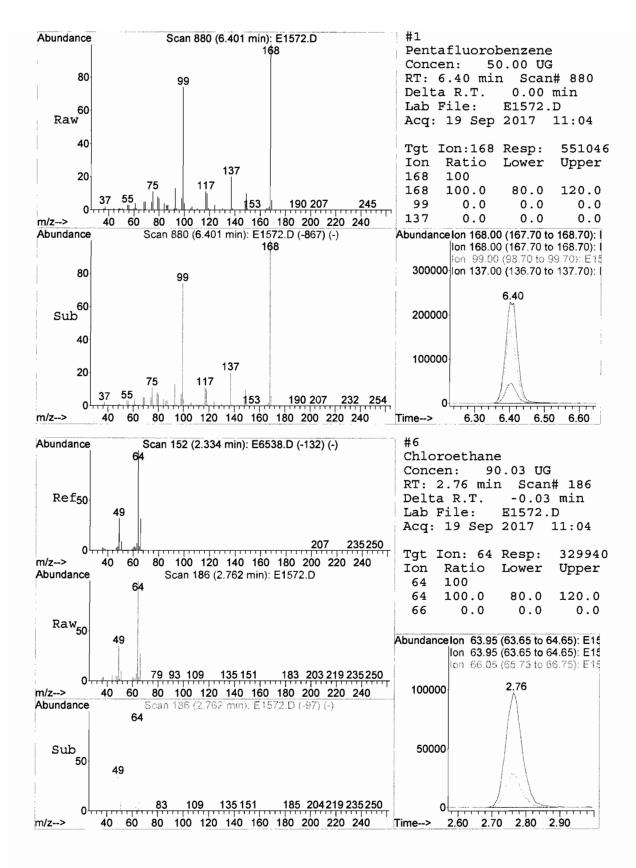


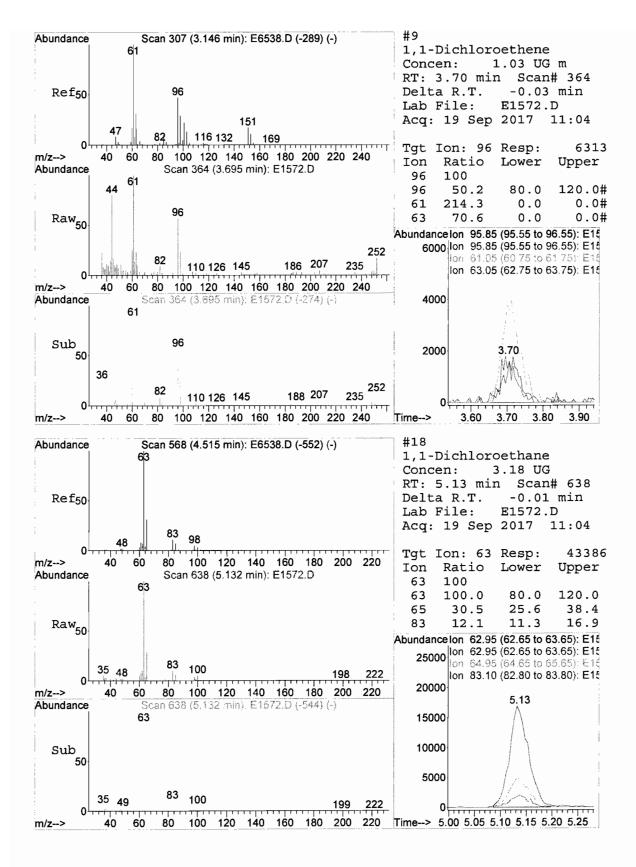
E17-07838 Page: 188

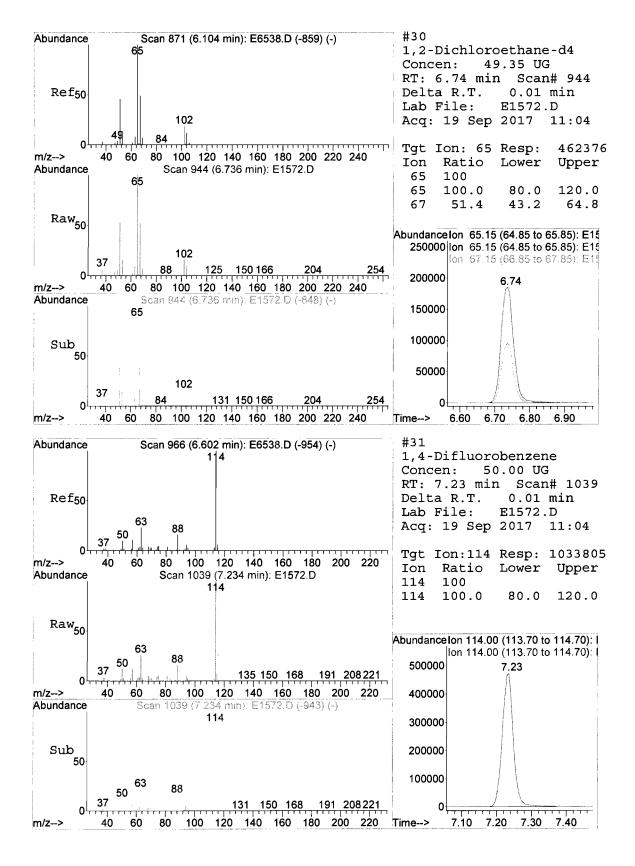
Data Path : C:\MSDChem\1\DATA Data File : E1572.D Acq On : 19 Sep 2017 11:0 Operator : BARBARA Sample : MW-2,E17-07838-00 Misc : JMC/ARSYNCO,09/13 ALS Vial : 19 Sample Multi	4 7DL,A,0.5mL, /17,09/13/17			
Quant Time: Sep 19 18:05:21 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration				
Internal Standards	R.T. Q)Ion Response	Conc Units D	ev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.40 7.23 10.58	168 551046 114 1033805 117 817585	50.00 UG 50.00 UG 50.00 UG	0.00 0.00 0.00
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000	Range 69 - 8.90 Range 80 - 11.98	166 Recove	ery = 98.7 48.24 UG ery = 96.4 46.54 UG	0% 0.00 8% 0.00
Target Compounds 6) Chloroethane 9) 1,1-Dichloroethene 18) 1,1-Dichloroethane	3.70	64 329940 96 6313m 63 43386	90.03 UG 1.03 UG	Qvalue # 100 99
, _,				

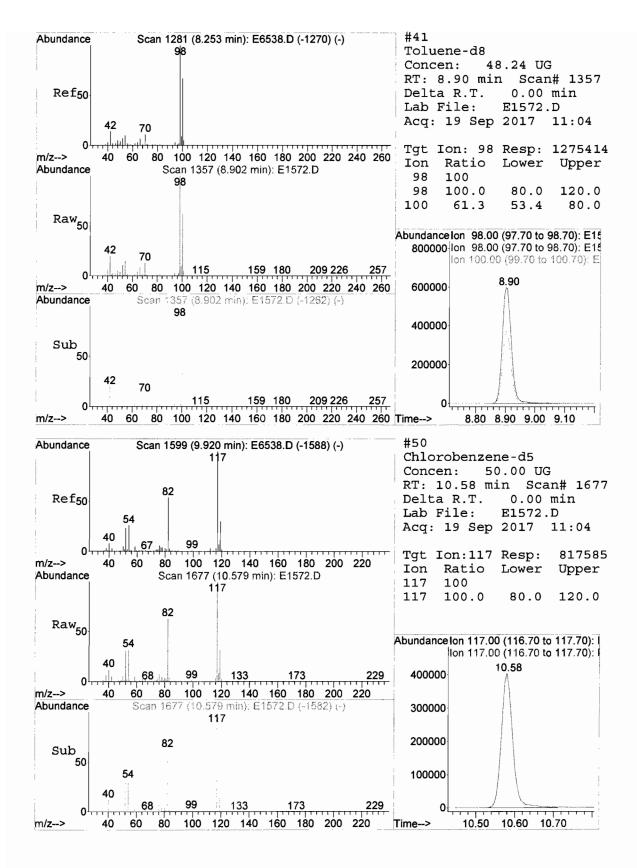
(#) = qualifier out of range (m) = manual integration (+) = signals summed

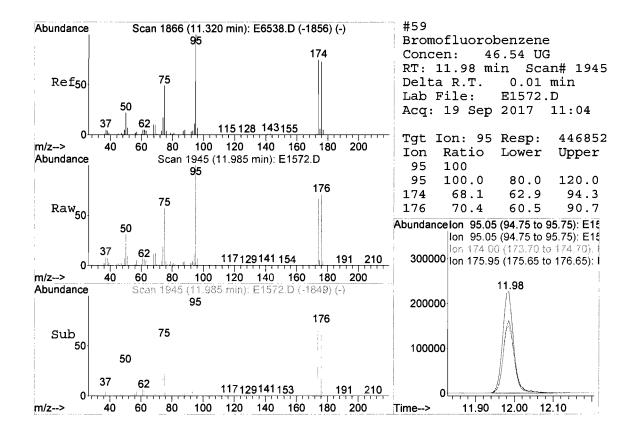








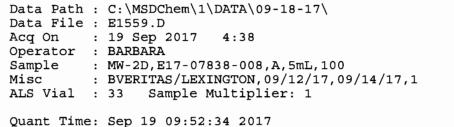




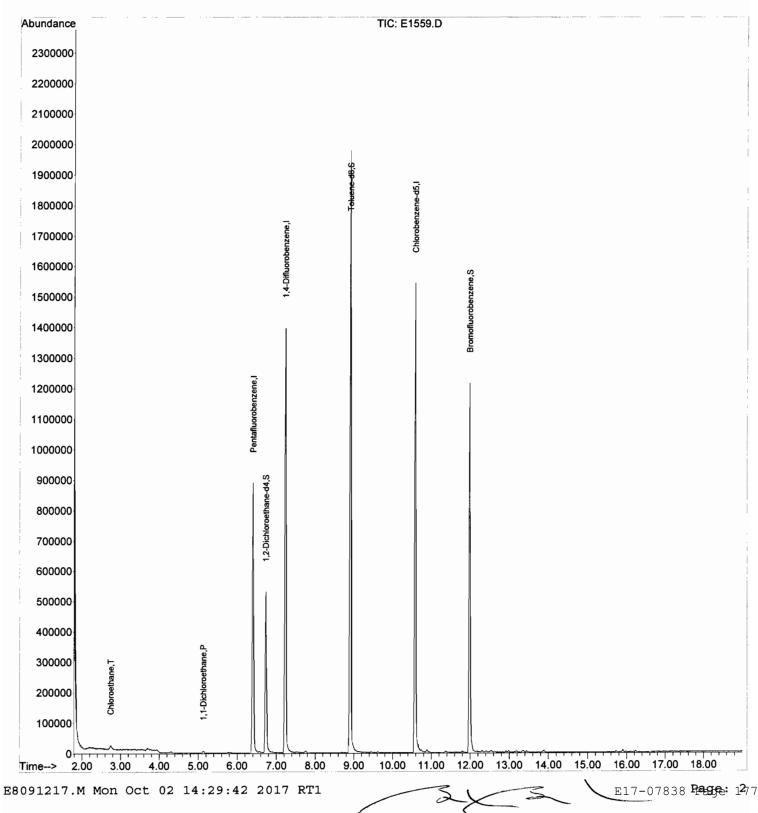
Data Path : C:\MSDChem\1\DATA Data File : E1559.D Acq On : 19 Sep 2017 4:33 Operator : BARBARA Sample : MW-2D,E17-07838-00 Misc : BVERITAS/LEXINGTON ALS Vial : 33 Sample Multip	8,A,5mL,100 ,09/12/17,09/14/17	,1			
Quant Time: Sep 19 09:52:34 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration					
Internal Standards	R.T. QIon Re	sponse Conc Units Dev(Min)			
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23 114 11				
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000	Range 69 - 166 8.90 98 14 Range 80 - 120 11.98 95 4	30198 40.77 UG 0.00 Recovery = 81.54% 24463 46.59 UG 0.00 Recovery = 93.18% 96455 47.54 UG 0.00 Recovery = 95.08%			
Target Compounds 6) Chloroethane 18) 1,1-Dichloroethane	-	- Qvalue 18360 4.45 UG # 100			

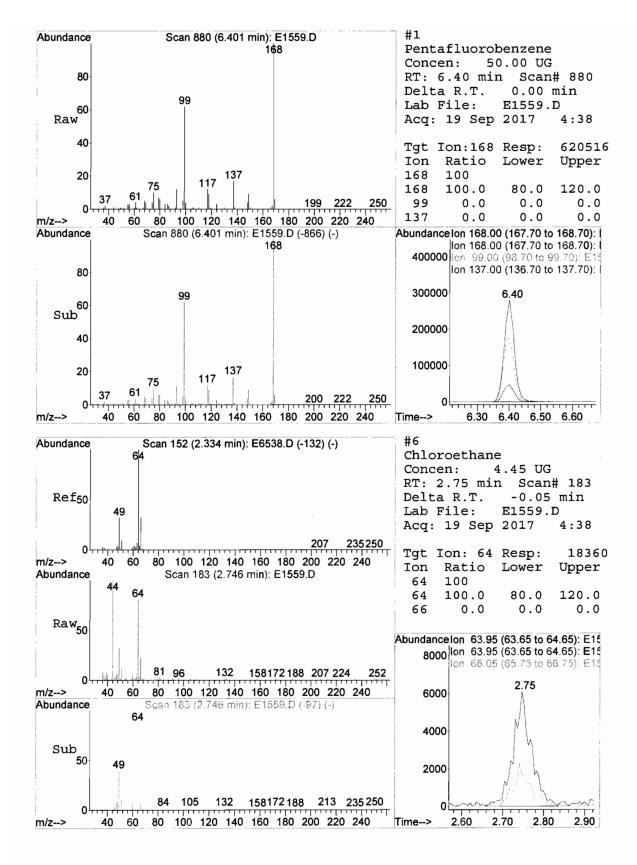
(#) = qualifier out of range (m) = manual integration (+) = signals summed

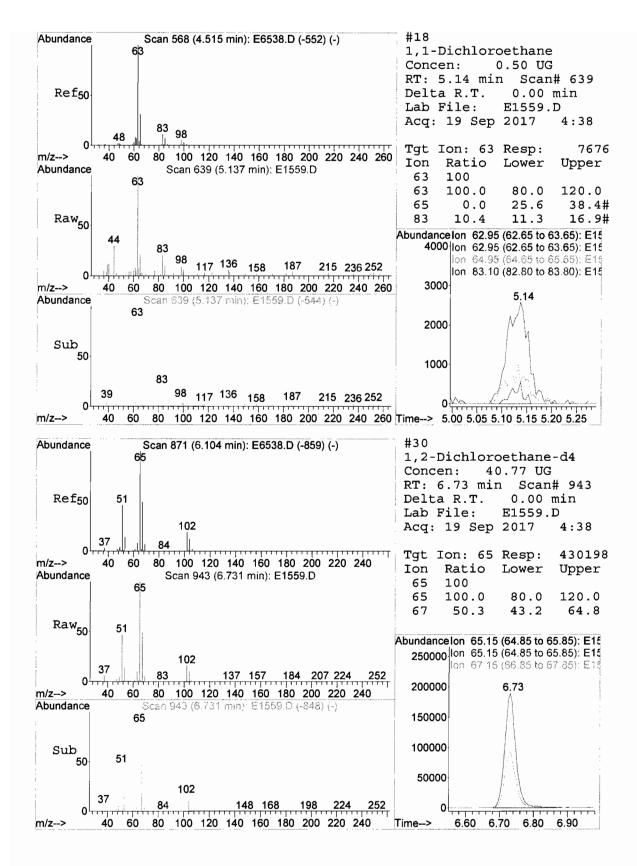


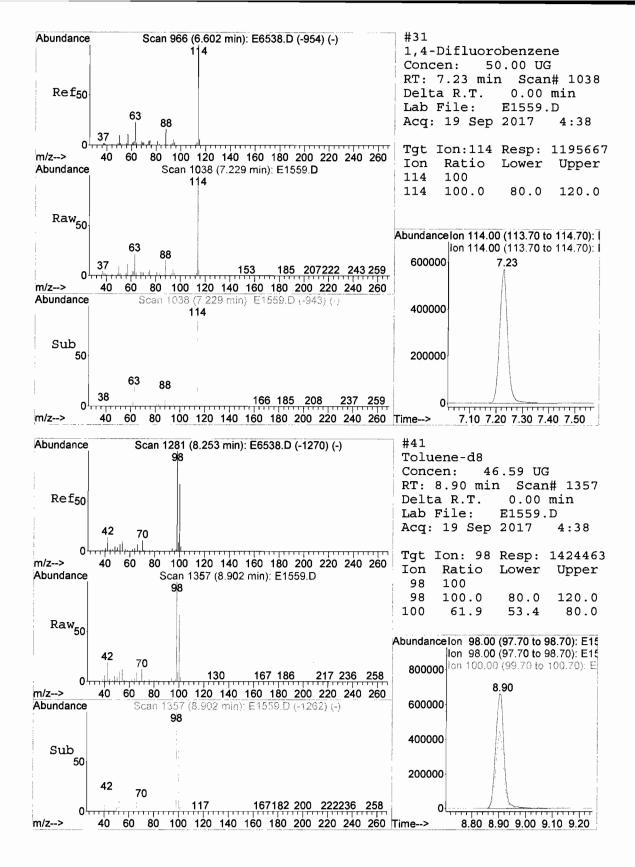


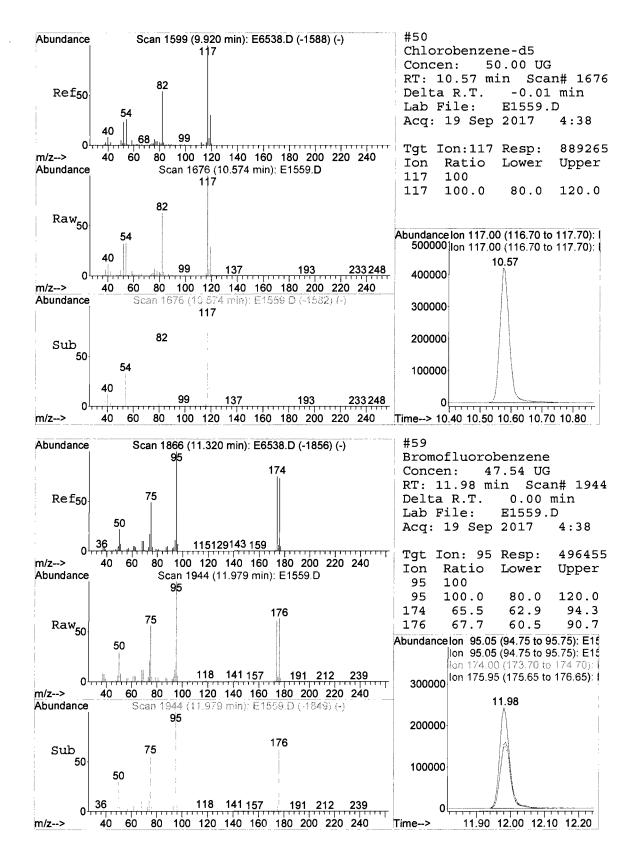
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration











Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1559.D : 19 Sep 2017 4:38 Acq On Operator : BARBARA Sample : MW-2D,E17-07838-008,A,5mL,100 Misc : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 ALS Vial : 33 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Max Peaks: 100 Start Thrs: 0.1 Peak Location: TOP Stop Thrs : 0.1 If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. % of min scan scan scan TY height # area % max. total - - ----- ---- --------------_ _ _ _ _ _ _ _ _ _ _ _ _ _ 2.746 173 183 210 rVB4 55301 1 14260 1.32% 0.335% 880 906 rBV 2 6.401 866 888961 2093795 50.11% 12.696% 929 943 973 rBV 1233474 29.52% 3086089 73.85% 3 6.731 528832 7.479%

 6.731
 929
 943
 973
 FBV
 528832
 1233474
 29.52%
 7.479%

 7.229
 1026
 1038
 1072
 rBV
 1396201
 3086089
 73.85%
 18.713%

 8.902
 1344
 1357
 1400
 rBV
 1978465
 4178697
 100.00%
 25.338%

 4 5

6 10.580 1664 1677 1705 rBV 1544682 3307886 79.16% 20.058% 7 11.979 1934 1944 1975 rBV 1216948 2536687 60.71% 15.381%

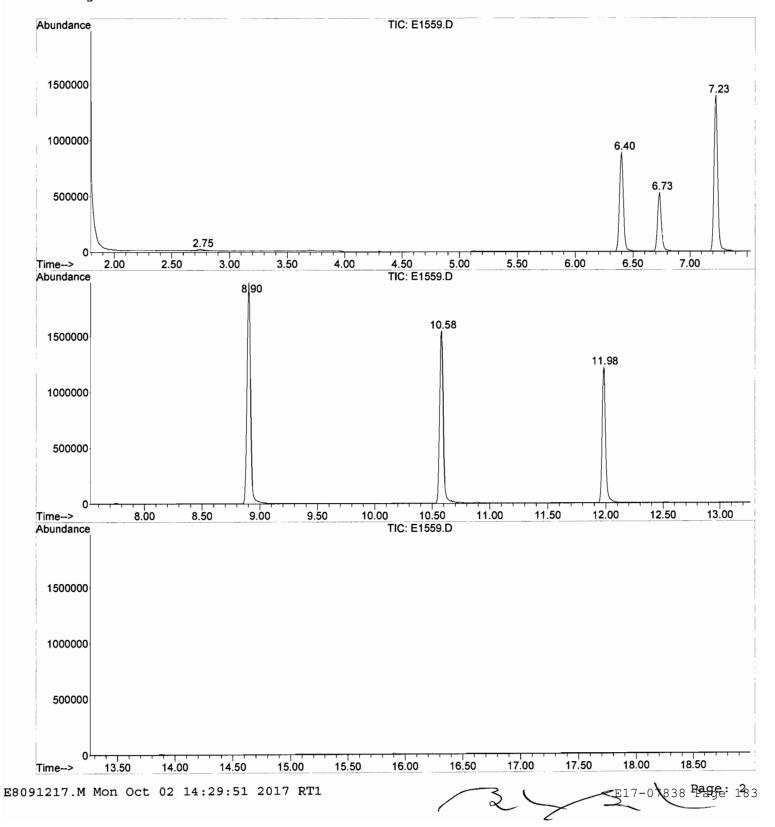
Sum of corrected areas: 16491929

242

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1559.D
Acq On : 19 Sep 2017 4:38
Operator : BARBARA
Sample : MW-2D,E17-07838-008,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 33 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



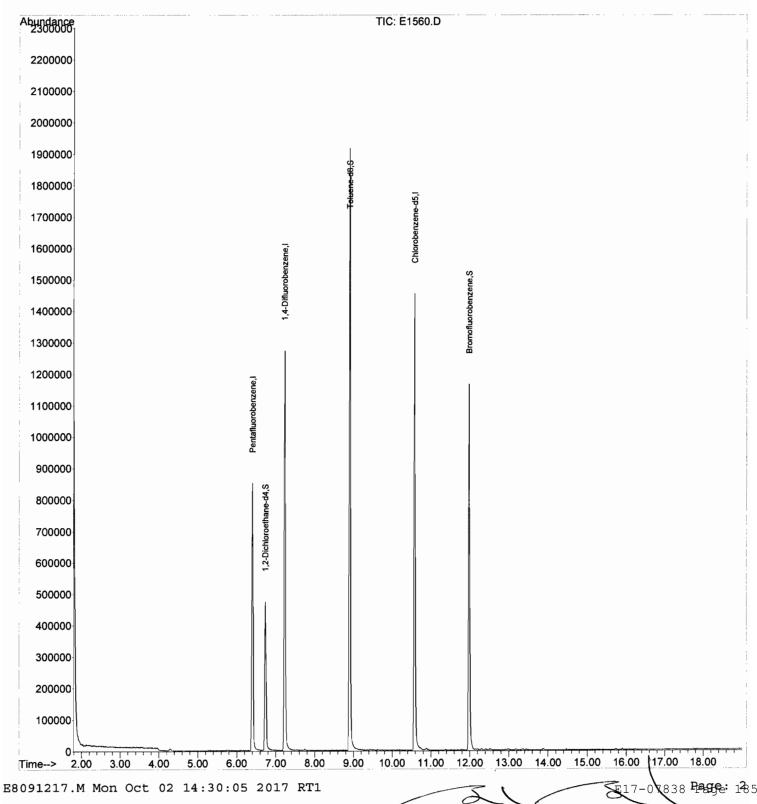
Data Path : C:\MSDChem\1\DATA Data File : E1560.D Acq On : 19 Sep 2017 5:08 Operator : BARBARA Sample : TRIP_BLANK,E17-078 Misc : BVERITAS/LEXINGTON ALS Vial : 34 Sample Multip	B B38-009,A,5mL,100 N,09/12/17,09/14,	0 /17,1	
Quant Time: Sep 19 09:52:07 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration			
Internal Standards	R.T. QION	Response Conc Ur	nits Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.40 168	589786 50.00 1105986 50.00 859864 50.00	UG 0.00 UG 0.00 UG 0.00
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000	6.73 65 Range 69 - 166	406928 40.58 Recovery =	UG 0.00 81.16%
41) Toluene-d8 Spiked Amount 50.000	8.90 98 Range 80 - 120	1363372 48.21 Recovery =	UG 0.00 96.42%
59) Bromofluorobenzene Spiked Amount 50.000	11.98 95 Range 66 - 120	465352 46.09 Recovery =	UG 0.00 92.18%
Target Compounds			Qvalue
(#) = qualifier out of range (m) = manual integration (+) = signals summed			

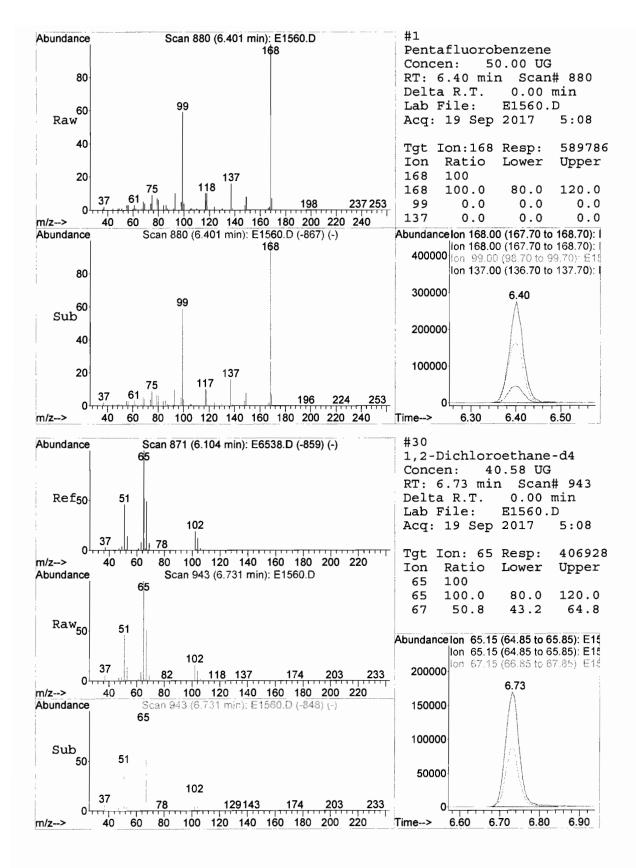
E8091217.M Mon Oct 02 14:30:05 2017 RT1

23

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1560.D Acq On : 19 Sep 2017 5:08 Operator : BARBARA Sample : TRIP_BLANK,E17-07838-009,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1 ALS Vial : 34 Sample Multiplier: 1 Quant Time: Sep 19 09:52:07 2017

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

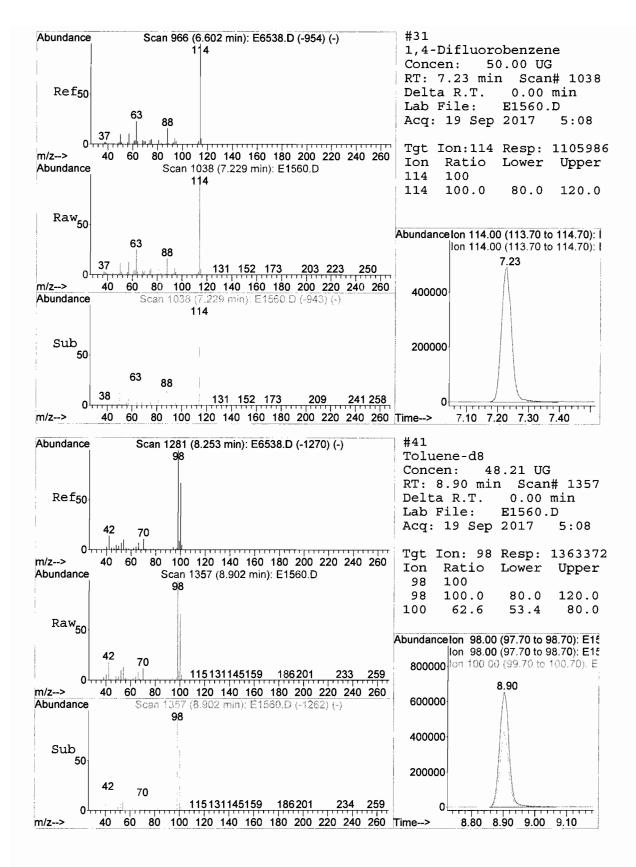


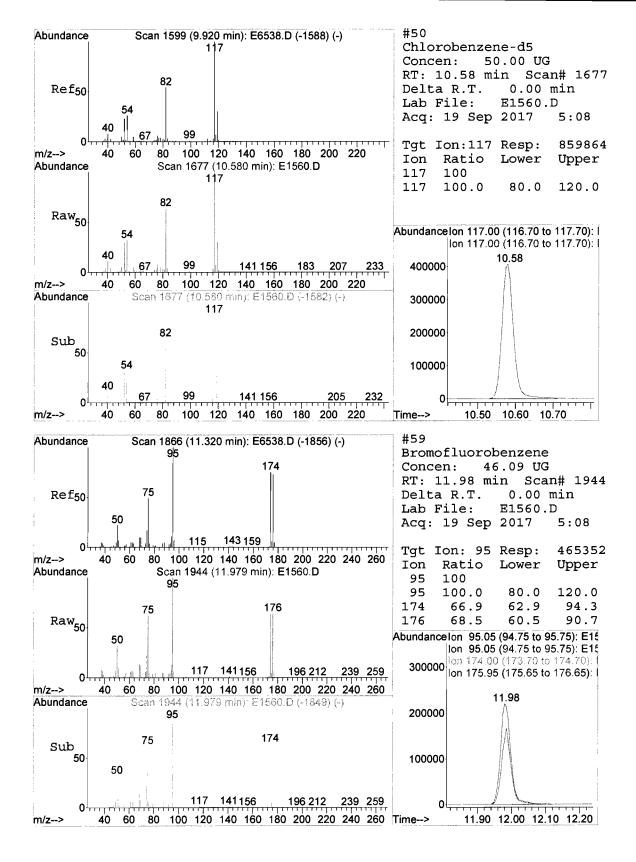


E1560.D E8091217.M

RT1

E17-07838 Page9986





E17-07838 Page 188

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1560.D Acq On : 19 Sep 2017 Operator : BARBARA 5:08 Sample : TRIP_BLANK, E17-07838-009, A, 5mL, 100 Misc : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 ALS Vial : 34 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK % of peak corr. corr. # min scan scan TY height area % max. total - - ----- ---- ---- ---------_ _ _ _ _ _ _ _ _ _ _ _ _ _ -----64 110 rVB 6526 1 2.123 61 46171 1.16% 0.294% 880 909 rBV 2 6.401 867 1986820 49.74% 851291 12.672% 930 943 974 rBV 1173495 29.38% 3 6.731 472501 7.485% 7.224 1027 1037 1069 rBV 2901751 72.64% 18.508% 4 1271993 8.902 1346 1357 1402 rBV 1917036 3994636 100.00% 25.479% 5

Sum of corrected areas:

3145129 78.73% 20.060%

2430284 60.84% 15.501%

15678286

E17-0783 Pagege 1189

10.580 1665 1677 1720 rBV 1455417

11.985 1931 1945 1973 rBV2 1167781

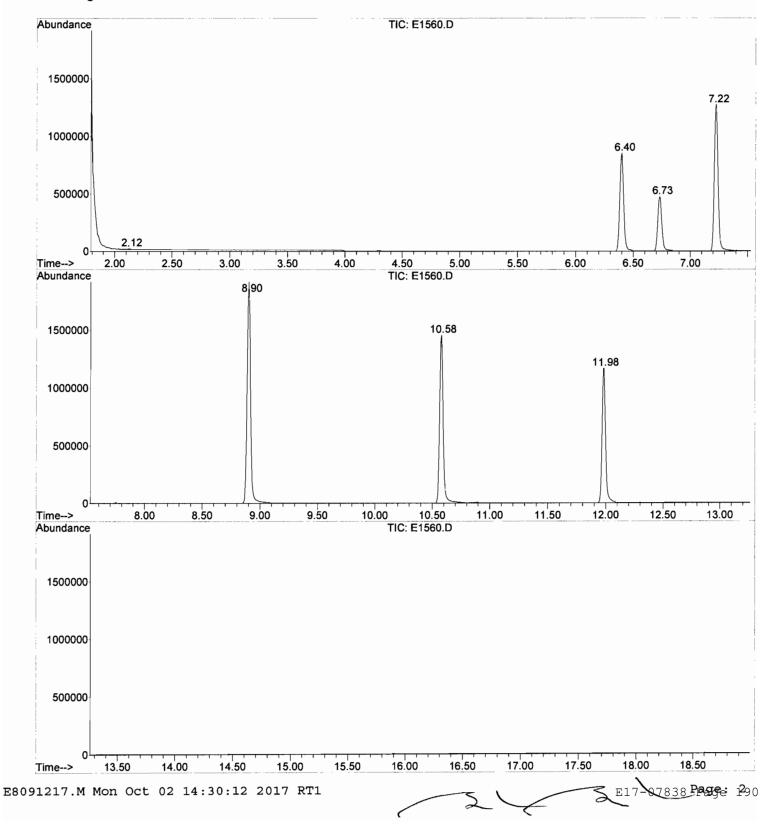
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7

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1560.D
Acq On : 19 Sep 2017 5:08
Operator : BARBARA
Sample : TRIP_BLANK,E17-07838-009,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 34 Sample Multiplier: 1
```

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P

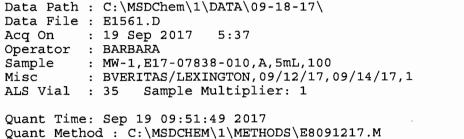


Data Path : C:\MSDChem\1\DATA Data File : E1561.D Acq On : 19 Sep 2017 5:3 Operator : BARBARA Sample : MW-1,E17-07838-01 Misc : BVERITAS/LEXINGTO ALS Vial : 35 Sample Multi	7 0,A,5mL,10	0 ,09/14,	/17,1				
Quant Time: Sep 19 09:51:49 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration							
Internal Standards	R.T.	QIon	Response	Conc Ui	nits 1	Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.22	114	1076278	50.00	UG		0.00 0.00 0.00
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000	Range 69	- 166	Recove	ry =	81.	64%	0.00
 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000 	Range 80 11.98	95	Recove 453822	ry = 45.04	97. UG	92%	0.00
Target Compounds 9) 1,1-Dichloroethene 18) 1,1-Dichloroethane 26) 1,1,1-Trichloroethane	3.69 5.13 6.39	96 63 97	73511 96182 6893	11.37 6.71 0.76	UG UG UG	Ŧ	lue 100 99 82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

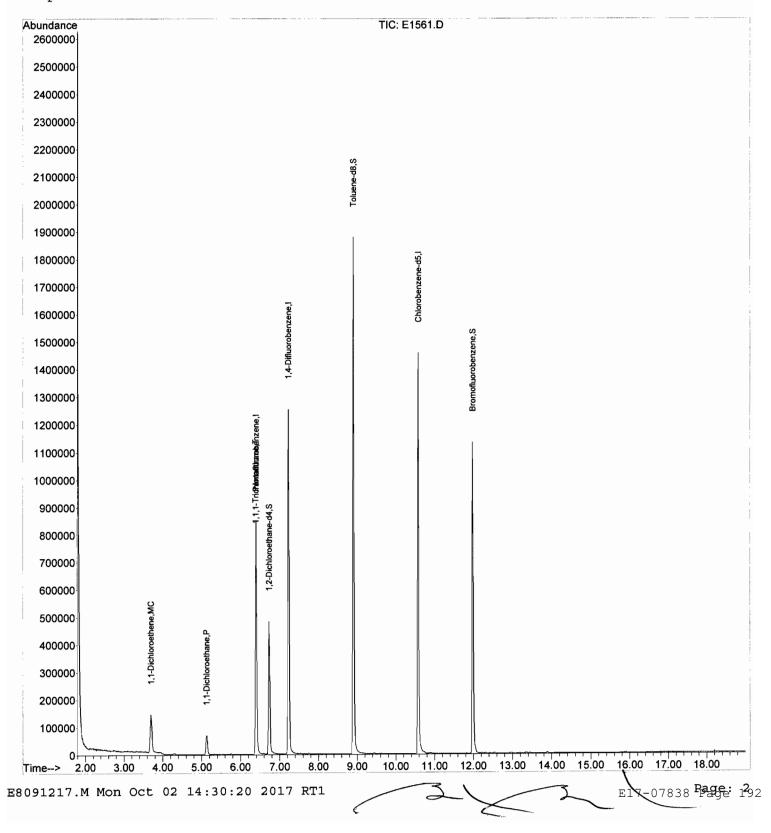
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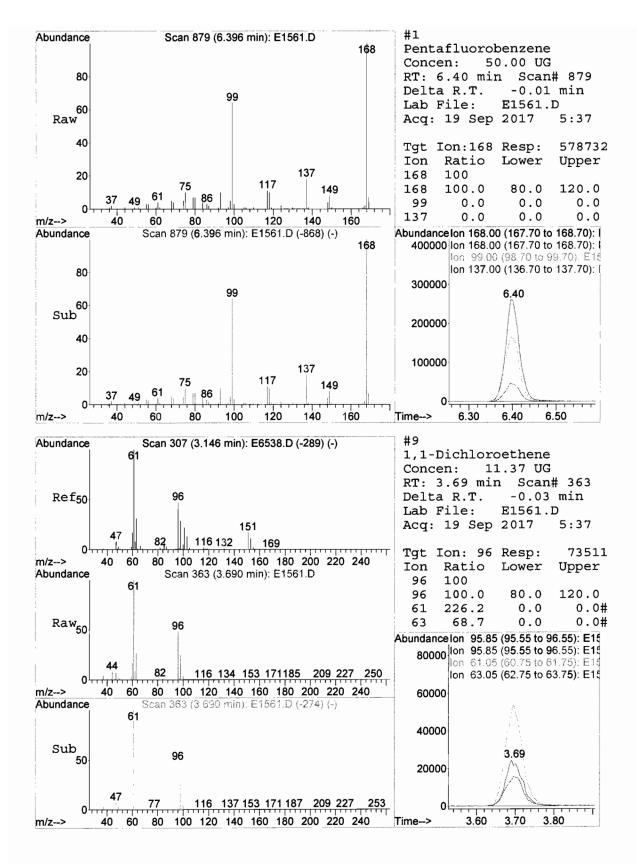
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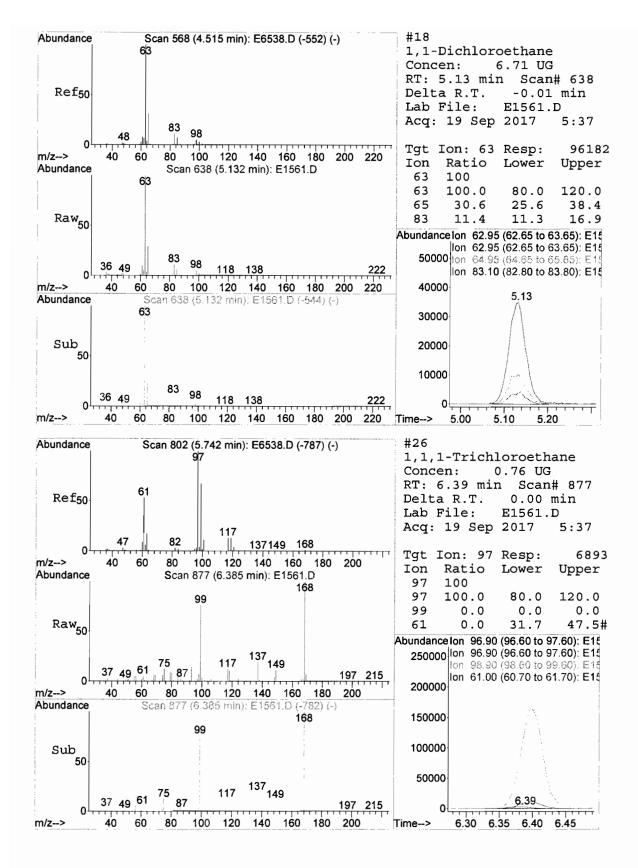


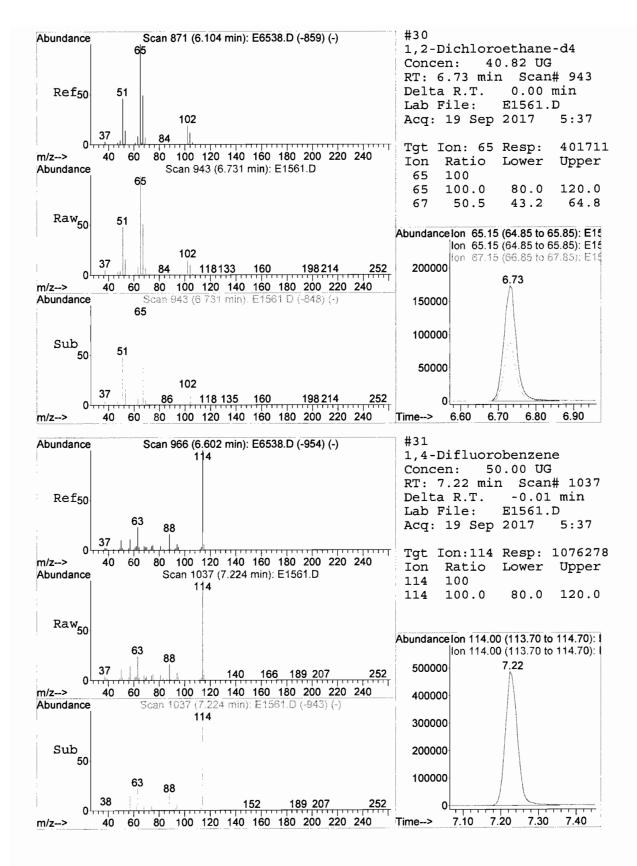
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017

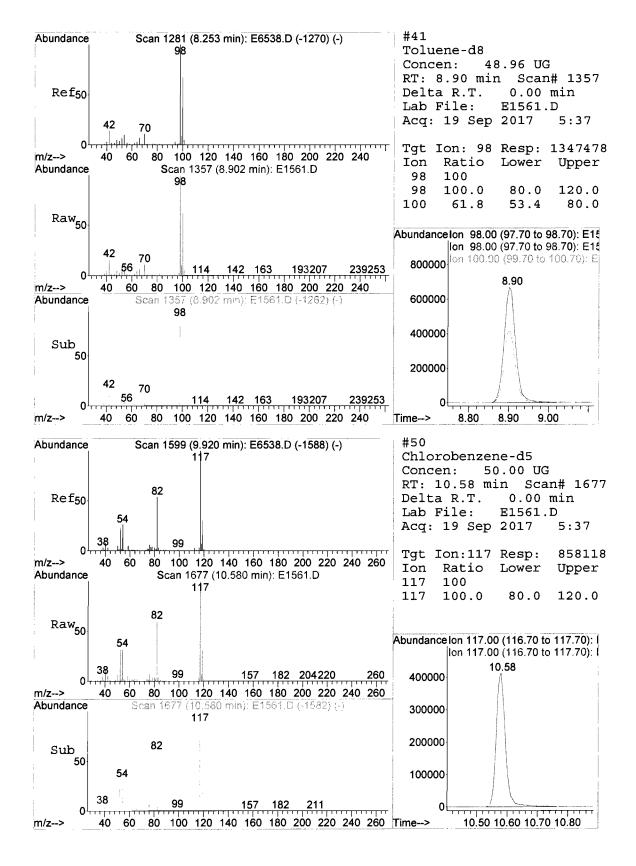
Response via : Initial Calibration

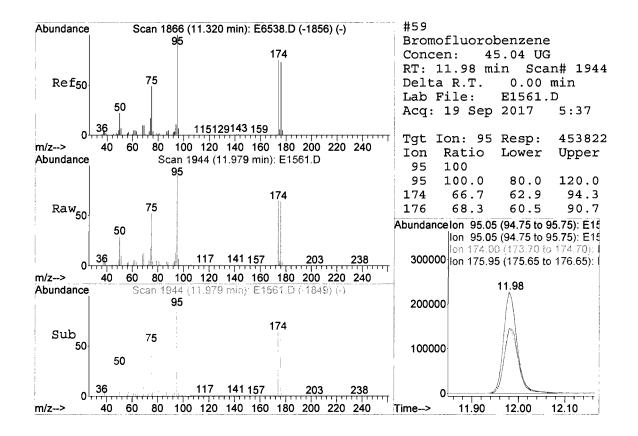












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1561.D Acq On : 19 Sep 2017 5:37 Operator : BARBARA : MW-1,E17-07838-010,A,5mL,100 Sample : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 Misc ALS Vial : 35 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Min Area: 1 % of largest Peak Sampling : 1 Max Peaks: 100 Start Thrs: 0.1 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak % of corr. corr. # min scan scan scan TY height area % max. total ----- ----- ----- ----- ------- - -----2.390 114 115 156 rVB3 6743 1 40537 1.03% 0.250% 2 3.695 352 364 403 rVV3 138724 493916 12.53% 3.044% 3 3.921 403 407 434 rVB3 9299 46284 1.17% 0.285% 68832 203442 5.16% 1.254% 4 5.127 626 637 654 rBV 6.396 866 879 905 rBV 846935 1978445 50.18% 12.194% 5 6 6.731 931 943 968 rBV2 482573 1159015 29.40% 7.143% 7 7.224 1023 1037 1077 rBV 1253809 2860339 72.54% 17.629% 8 8.902 1345 1357 1398 rBV 1879587 3942879 100.00% 24.301% 9 10.580 1663 1677 1717 rBV 1459158 3135468 79.52% 19.325%

Sum of corrected areas: 16224869

2364544 59.97% 14.574%

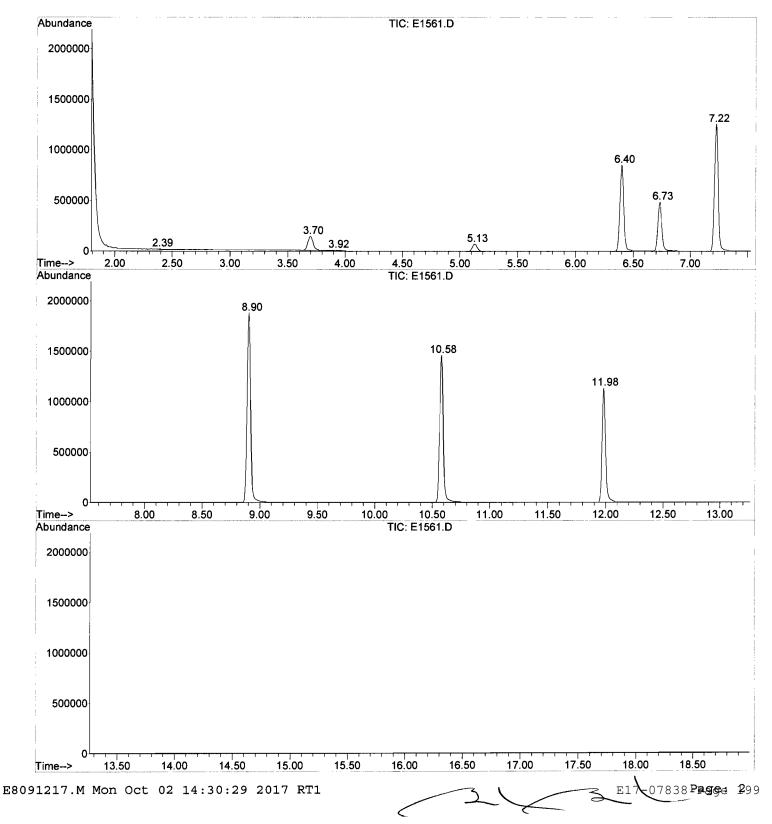


10 11.979 1930 1944 1973 rBV2 1135249

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1561.D
Acq On : 19 Sep 2017 5:37
Operator : BARBARA
Sample : MW-1,E17-07838-010,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 35 Sample Multiplier: 1
```

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P

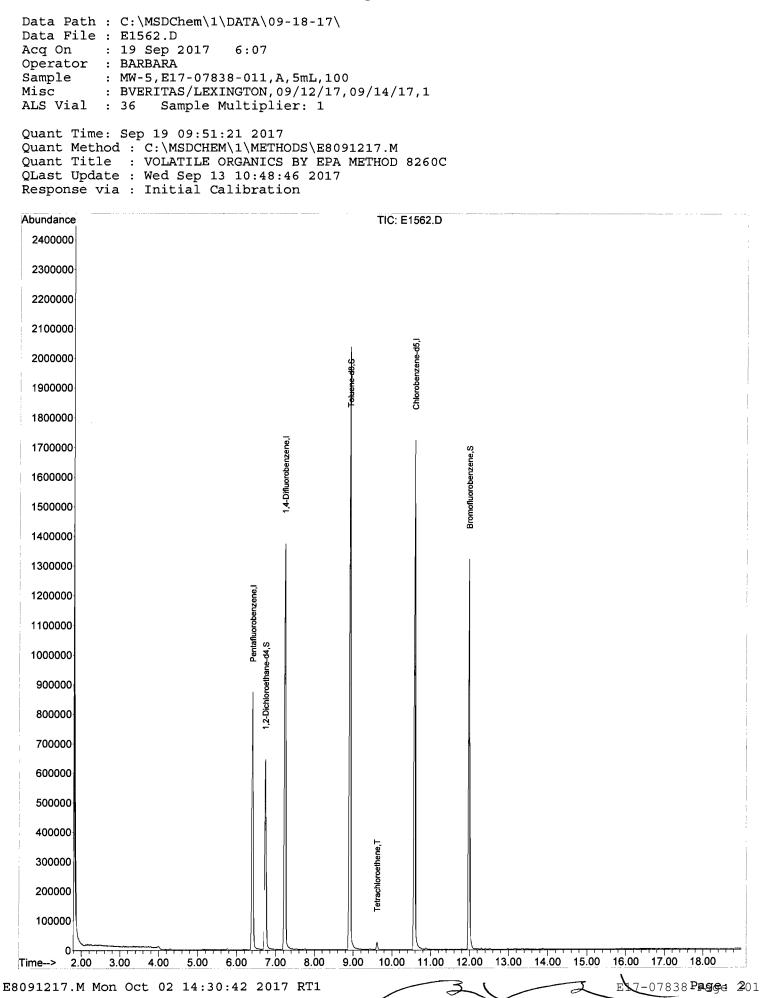


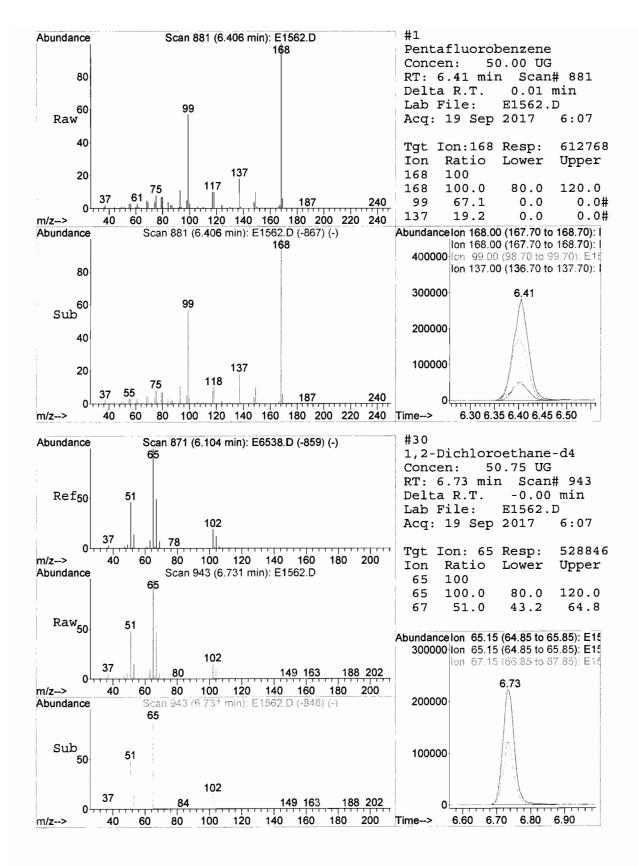
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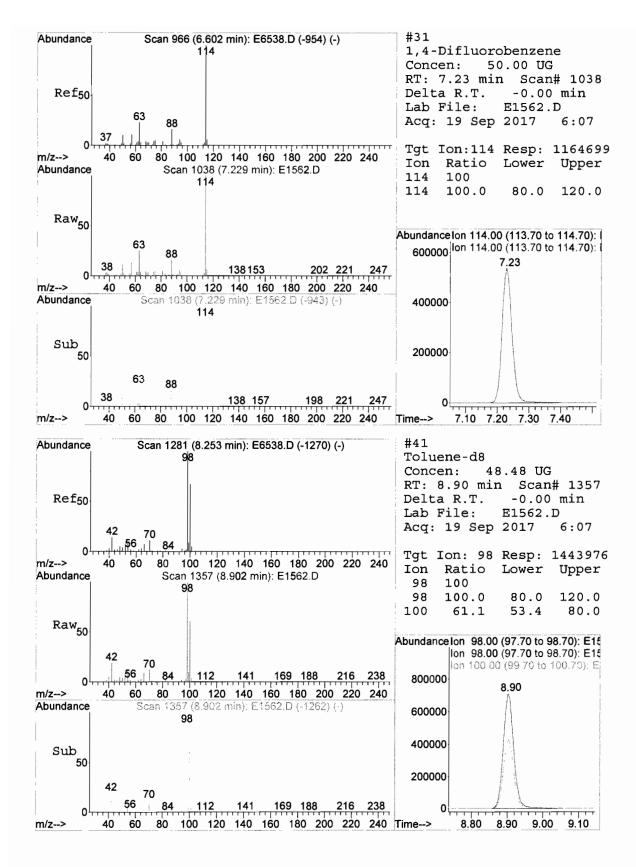
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8

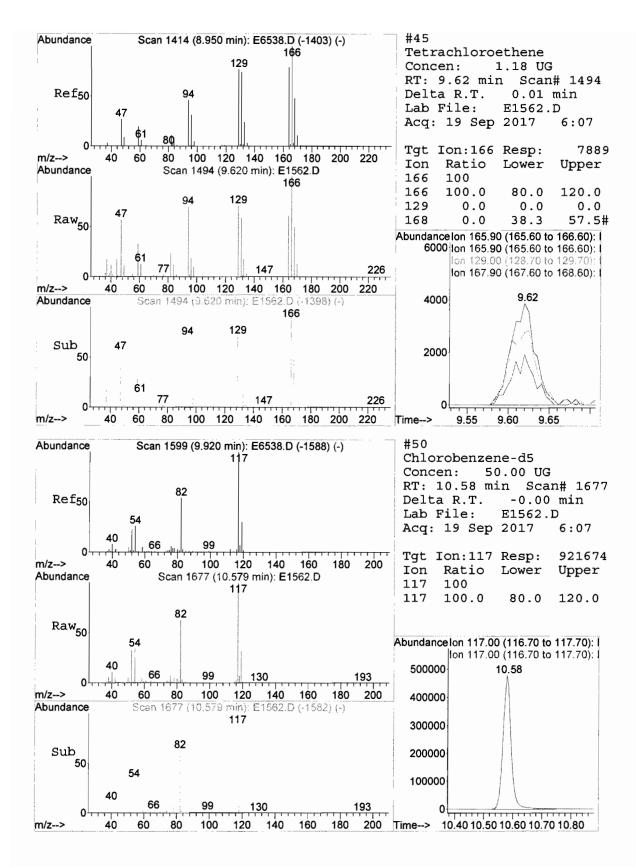
Data Path : C:\MSDChem\1\DATA Data File : E1562.D Acq On : 19 Sep 2017 6:0 Operator : BARBARA Sample : MW-5,E17-07838-01 Misc : BVERITAS/LEXINGTO ALS Vial : 36 Sample Multi	7 1. A. 5mJ. 100	/17,1		
Quant Time: Sep 19 09:51:21 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration				
Internal Standards	R.T. QION	Response Conc U	Jnits Dev(Min)	
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23 114	1164699 50.00) UG 0.00	
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000	Range 69 - 166 8.90 98 Range 80 - 120 11.98 95 Range 66 - 120	Recovery =	101.50% UG 0.00 96.96% UG 0.00 93.80%	
Target Compounds 45) Tetrachloroethene	9.62 166	7889 1.18	Qvalue UG # 77	
(#) = qualifier out of range (m) = manual integration (+) = signals summed				

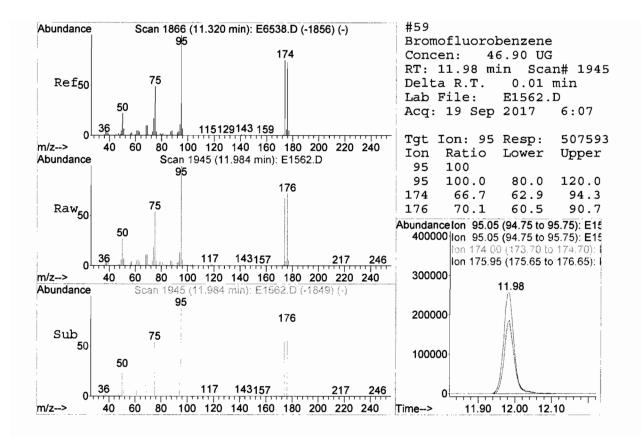






E1562.D E8091217.M





Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1562.D Acq On : 19 Sep 2017 Operator : BARBARA 6:07 : MW-5,E17-07838-011,A,5mL,100 Sample Misc : BVERITAS/LEXINGTON, 09/12/17, 09/14/17, 1 ALS Vial : 36 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Min Area: 1 % of largest Peak Sampling : 1 Max Peaks: 100 Start Thrs: 0.1 Peak Location: TOP Stop Thrs : 0.1 If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak % of corr. corr. # min scan scan scan TY height area % max. total -----_ _ _ ----- ----- ---- ---- -----_ _ _ _ _ _ _ 6.406 868 881 912 rBV2 872653 2075799 49.39% 12.227% 1 6.736 926 944 965 rBV 642158 1522223 36.22% 8.967% 2 7.229 1021 1038 1073 rBV 1373833 3053948 72.67% 17.989% 3 4 8.902 1344 1357 1397 rBV 2038132 4202502 100.00% 24.755% 9.620 1484 1494 1515 rVB4 25360 5 65714 1.56% 0.387% 6 10.579 1664 1677 1715 rBV 1724904 3419009 81.36% 20.140%

Sum of corrected areas: 16976611

2637416 62.76% 15.536%

E8091217.M Mon Oct 02 14:30:50 2017 RT1

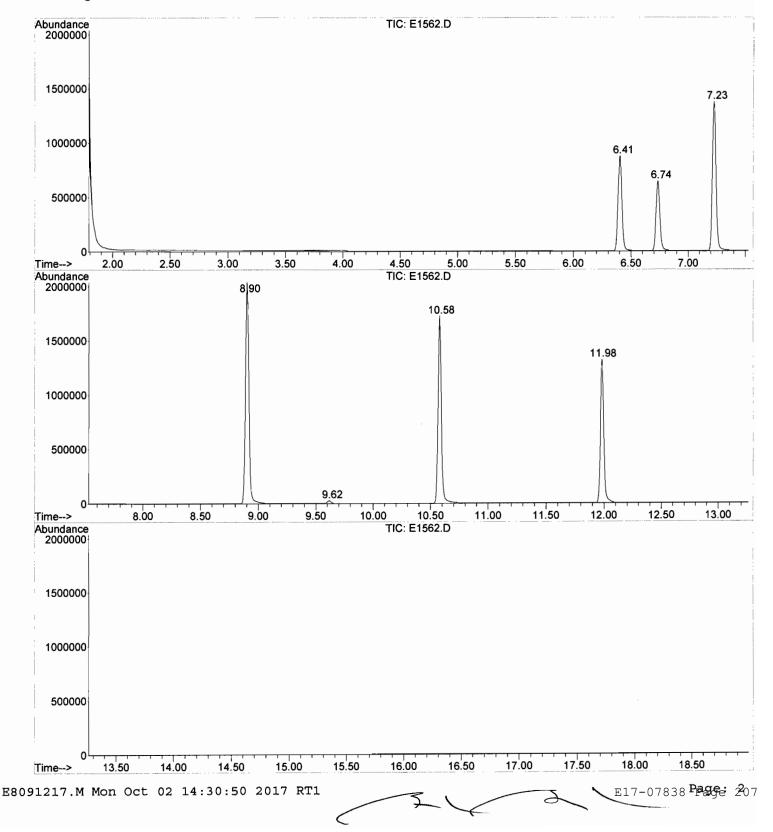
11.979 1933 1944 1971 rBV 1322887

7

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1562.D
Acq On : 19 Sep 2017 6:07
Operator : BARBARA
Sample : MW-5,E17-07838-011,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/12/17,09/14/17,1
ALS Vial : 36 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\1\DATA Data File : E1563.D Acq On : 19 Sep 2017 6:3 Operator : BARBARA Sample : MW-8,E17-07838-01 Misc : BVERITAS/LEXINGTO ALS Vial : 37 Sample Multi	7 2. A. 5mI. 100	4/17,1			
Quant Time: Sep 19 09:50:54 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration					
Internal Standards	R.T. QIon	Response	Conc Units D	ev(Min)	
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23 114	1080822	50.00 UG	0.00	
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene	Range 69 - 16 8.90 98 Range 80 - 12	6 Recove 1328762	ry = 87.3 48.08 UG	4% 0.00	
Spiked Amount 50.000	Range 66 - 12				
Target Compounds 9) 1,1-Dichloroethene 18) 1,1-Dichloroethane	3.70 96 5.13 63	101864 90140		Qvalue # 100 99	

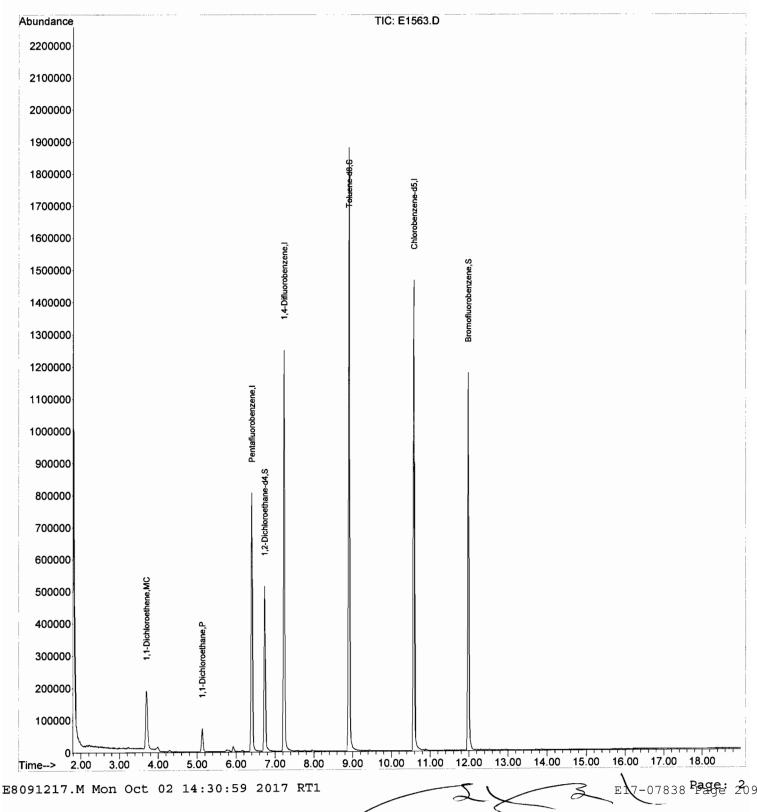
(#) = qualifier out of range (m) = manual integration (+) = signals summed

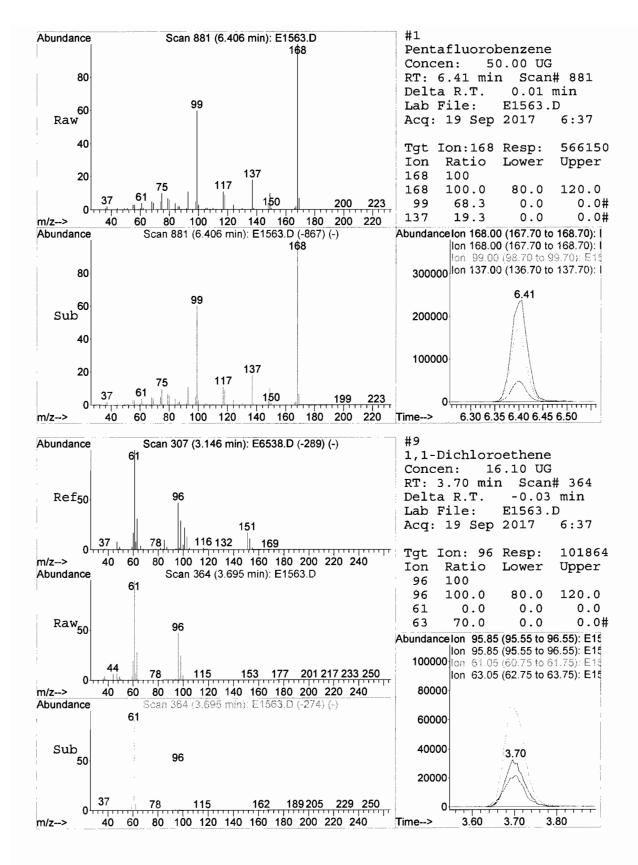
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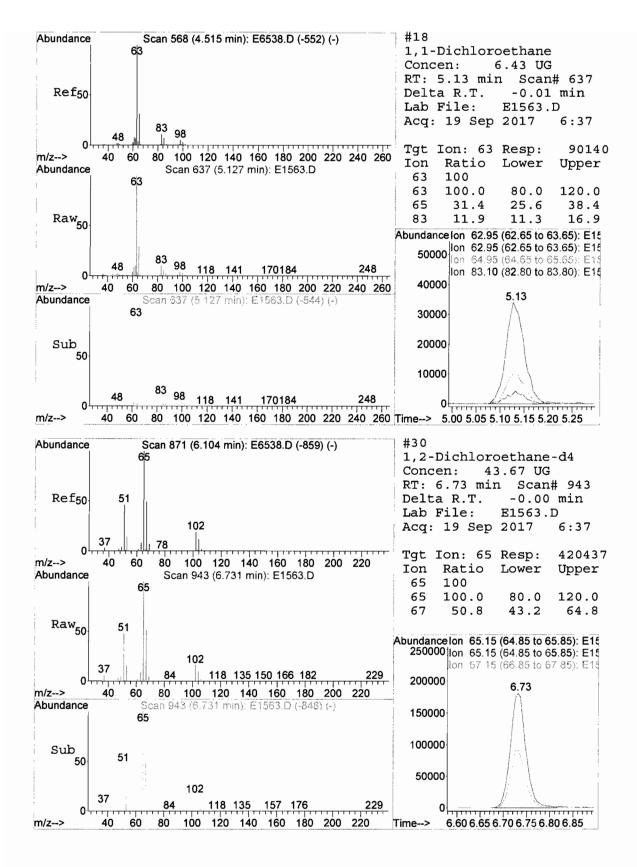
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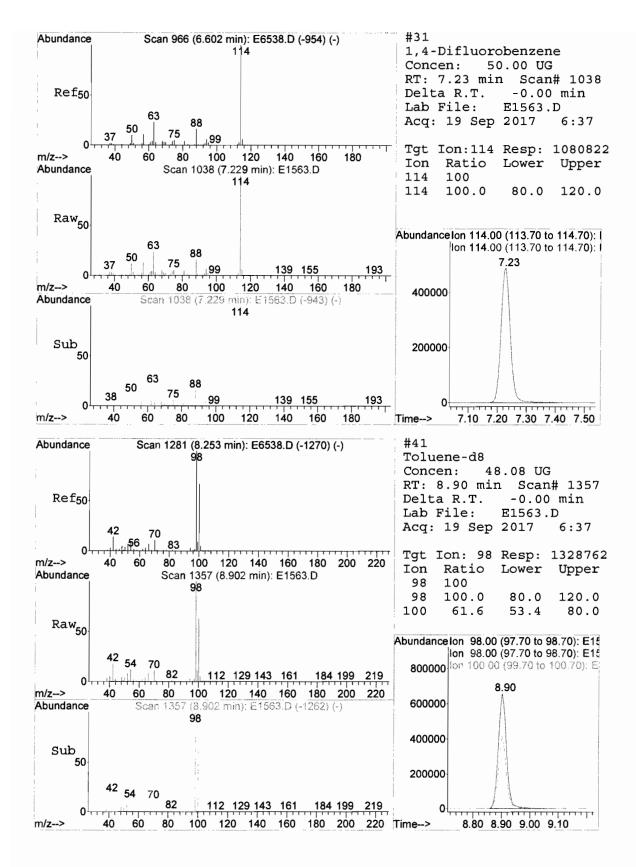
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1563.D
Acq On : 19 Sep 2017 6:37
Operator : BARBARA
Sample : MW-8,E17-07838-012,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 37 Sample Multiplier: 1
Quant Time: Sep 19 09:50:54 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M

Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

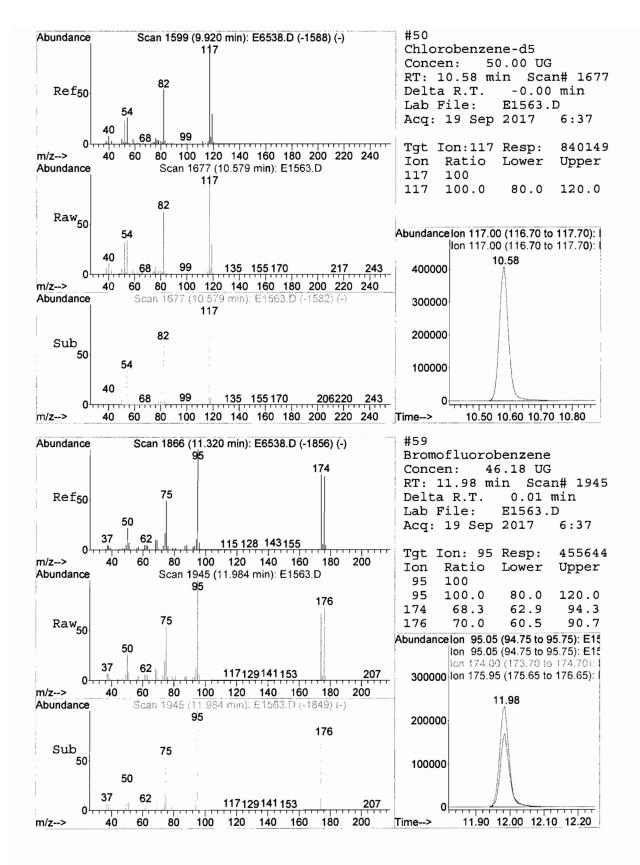








E1563.D E8091217.M



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1563.D Acq On : 19 Sep 2017 Operator : BARBARA 6:37 Sample : MW-8,E17-07838-012,A,5mL,100 Misc : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 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: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. % of corr. min scan scan scan TY # height % max. total area ---- ---- ---- ----- - ------_ _ _ _ _ _ _ ---------3.695 351 364 407 rVV2 182670 1 677384 17.58% 4.163% 407 419 437 rVB2 2 3.984 15382 67841 1.76% 0.417% 625 638 657 rBV2 5.05% 3 5.132 71483 194744 1.197% 781 5.923 799 rBV2 1.05% 4 789 0.249% 15996 40558 5 867 880 906 rBV2 806442 1923985 49.93% 11.824% 6.401 6 6.731 930 943 976 rBV2 513103 1237554 32.11% 7.606% 7 7.229 1025 1038 1060 rBV 1248883 2789280 72.38% 17.142%

Sum of corrected areas: 16271614

3853639 100.00% 23.683%

3099565 80.43% 19.049%

2387064 61.94% 14.670%

3/

8.902 1346 1357 1390 rBV 1879700

10.579 1666 1677 1716 rBV 1467989

10 11.979 1934 1944 1975 rBV 1178727

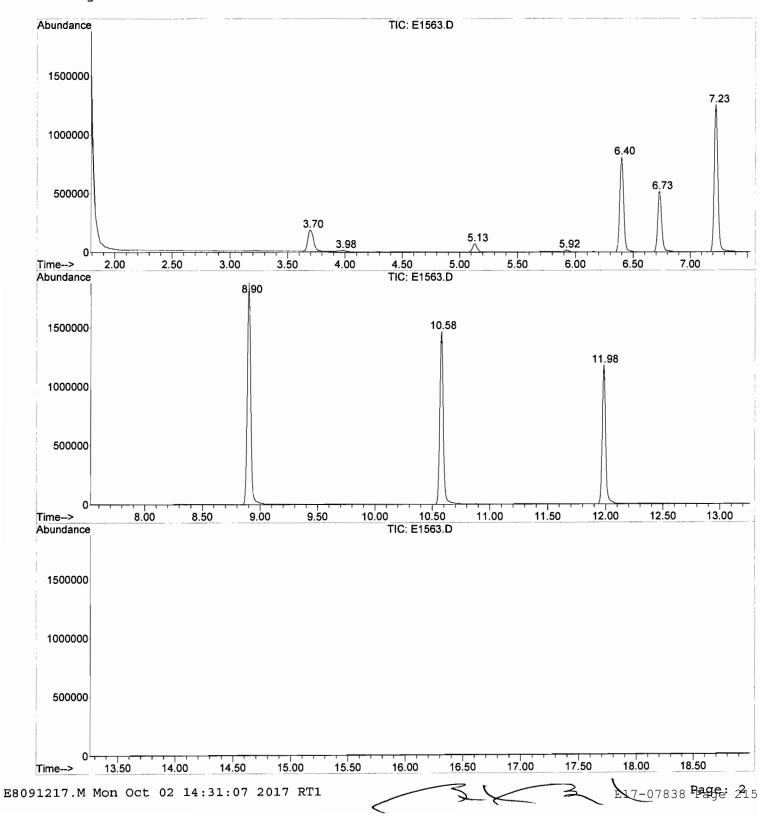
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9

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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1563.D
Acq On : 19 Sep 2017 6:37
Operator : BARBARA
Sample : MW-8,E17-07838-012,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 37 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

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TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P
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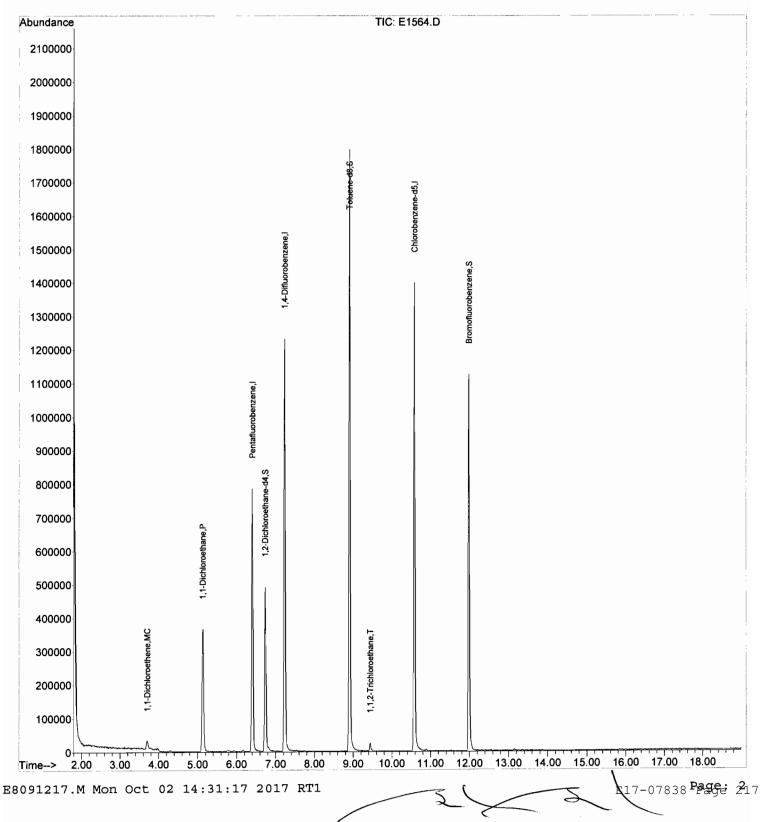
Data Path : C:\MSDChem\1\DATA Data File : E1564.D Acq On : 19 Sep 2017 7:0 Operator : BARBARA Sample : MW-10,E17-07838-0 Misc : BVERITAS/LEXINGTOR ALS Vial : 38 Sample Multi	6 13,A,5mL,10 N,09/13/17,		/17,1			
Quant Time: Sep 19 18:17:23 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration						
Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23	114	1027988	50.00	UG	0.00
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000	Range 69 8.90 Range 80 11.98	- 166 98 - 120 95	1272566 Recove 437768	ry = 48.41 ry = 46.54	89. UG 96. UG	38% 0.00 82% 0.00
Target Compounds 9) 1,1-Dichloroethene 18) 1,1-Dichloroethane 44) 1,1,2-Trichloroethane	3.71	96 63		2.32	UG UG	Qvalue # 100 # 96

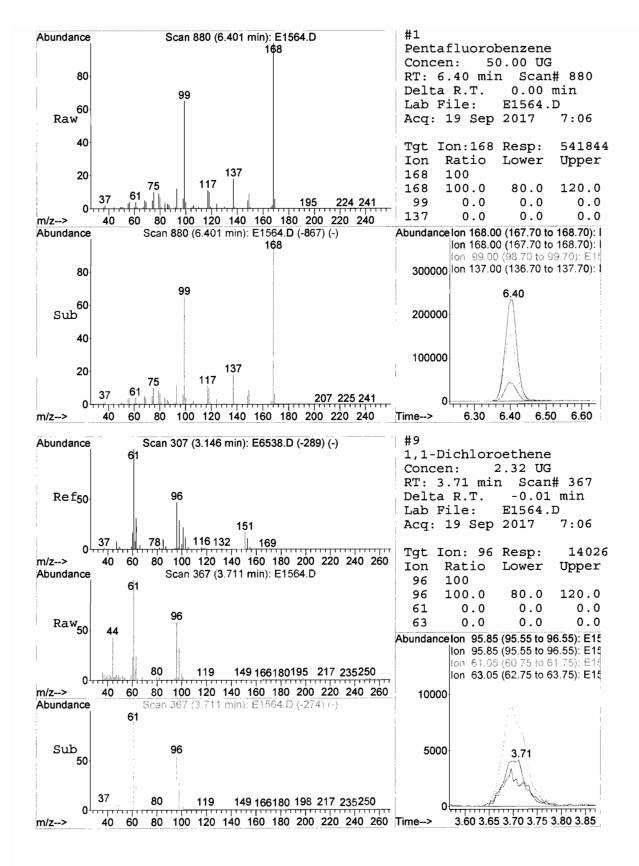
(#) = qualifier out of range (m) = manual integration (+) = signals summed

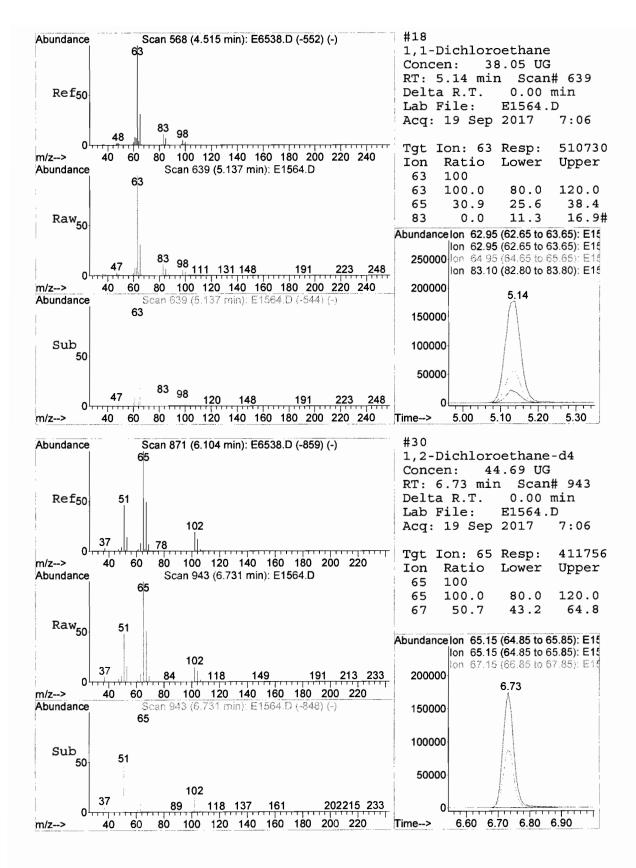
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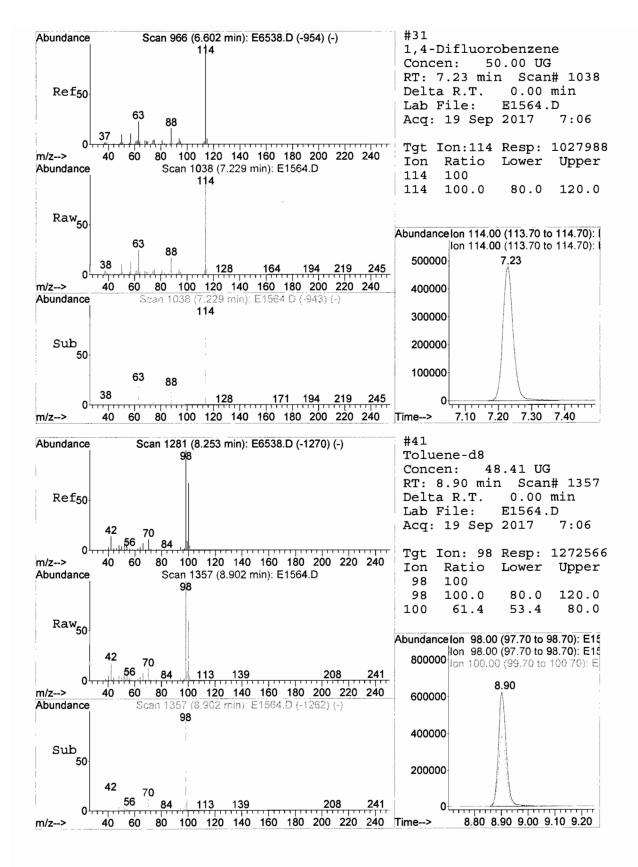
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1564.D Acq On : 19 Sep 2017 7:06 Operator : BARBARA Sample : MW-10,E17-07838-013,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1 ALS Vial : 38 Sample Multiplier: 1 Quant Time: Sep 19 18:17:23 2017

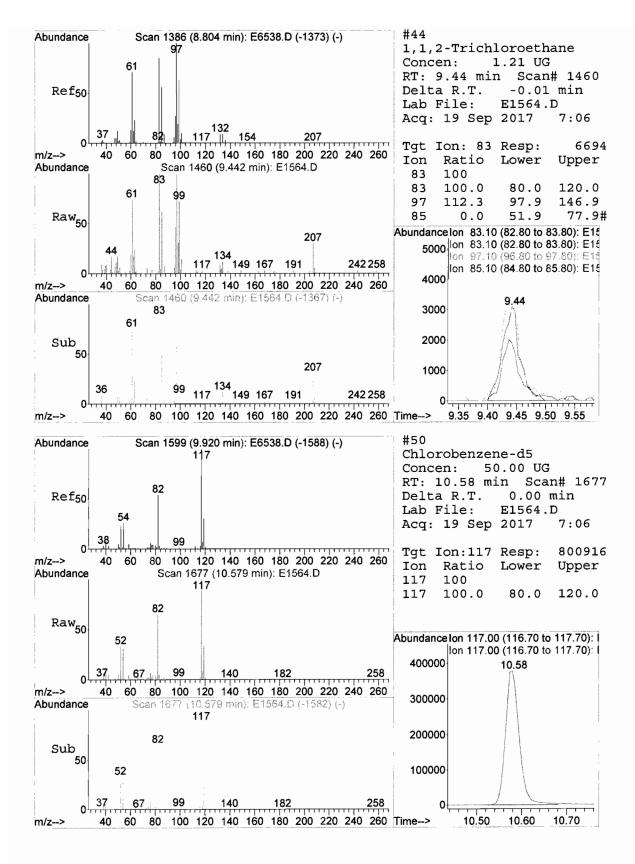
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

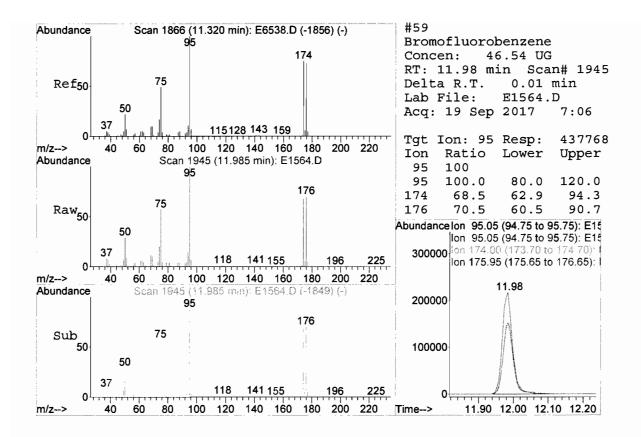












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1564.D : 19 Sep 2017 Acq On 7:06 Operator : BARBARA Sample : MW-10, E17-07838-013, A, 5mL, 100 : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 1 Misc ALS Vial : 38 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Peak Location: TOP Stop Thrs : 0.1 If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. % of min scan scan scan TY # height area % max. total ----- ---- ---- ----_ _ _ _ _ _ _ - - ------------------2.332 90 104 154 rVB 8391 1 92889 2.50% 0.578% 364 395 rVB4 2 2.86% 3.695 354 26634 106463 0.663% 1054129 28.35% 3 624 638 660 rBV2 5.132 365160 6.560% 866 880 901 rBV2 1830801 49.25% 11.394% 6.401 785516 4 1205049 32.41% 5 6.731 928 943 978 rBV 490376 7.499% 6 7.229 1024 1038 1073 rBV 1230973 2701376 72.66% 16.812% 8.902 1346 1357 1405 rBV 1798225 7 3717709 100.00% 23.137% 8 0.358%

22479 1.55% 9.431 1449 1458 1484 rBV5 57576 10.579 1664 1677 1706 rBV 1400379 2981895 80.21% 18.557% 10 11.985 1931 1945 1982 rBV 1125689 2320632 62.42% 14.442%

> Sum of corrected areas: 16068519

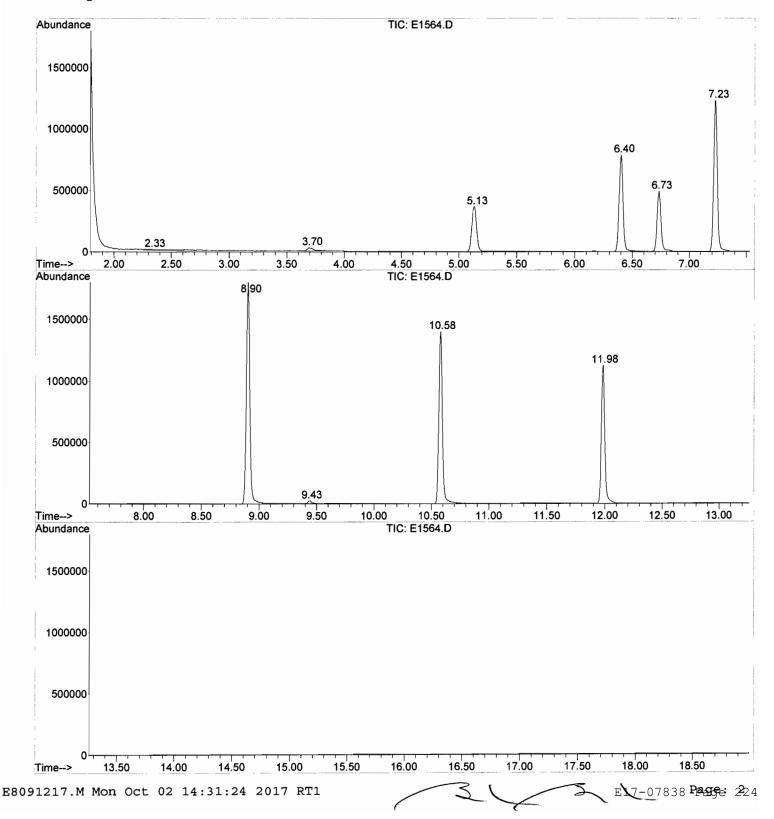
E8091217.M Mon Oct 02 14:31:24 2017 RT1

9

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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1564.D
Acq On : 19 Sep 2017 7:06
Operator : BARBARA
Sample : MW-10,E17-07838-013,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 38 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\l\DATA Data File : E1565.D Acq On : 19 Sep 2017 7:36 Operator : BARBARA Sample : MW-9,E17-07838-014 Misc : BVERITAS/LEXINGTON ALS Vial : 39 Sample Multip	5 1, A, 5mL, 10 1, 09/13/17		/17,1			
Quant Time: Sep 19 09:49:50 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration						
Internal Standards	R.T.	QIon	Response	Conc Ui	nits D	ev(Min)
31) 1,4-Difluorobenzene	6.40 7.23 10.58	114	1026151	50.00	UG	0.00
41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene	Range 69 8.90 Range 80	- 166 98 - 120 95	1255120 Recove 437714	ery = 47.83 ery = 47.15	89.0 UG 95.6 UG	0% 0.00 6% 0.00
	3.70 5.13 6.38 6.82	63 97	2688101 96834	196.11 11.18	UG UG UG	Qvalue # 100 # 99 # 82 # 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

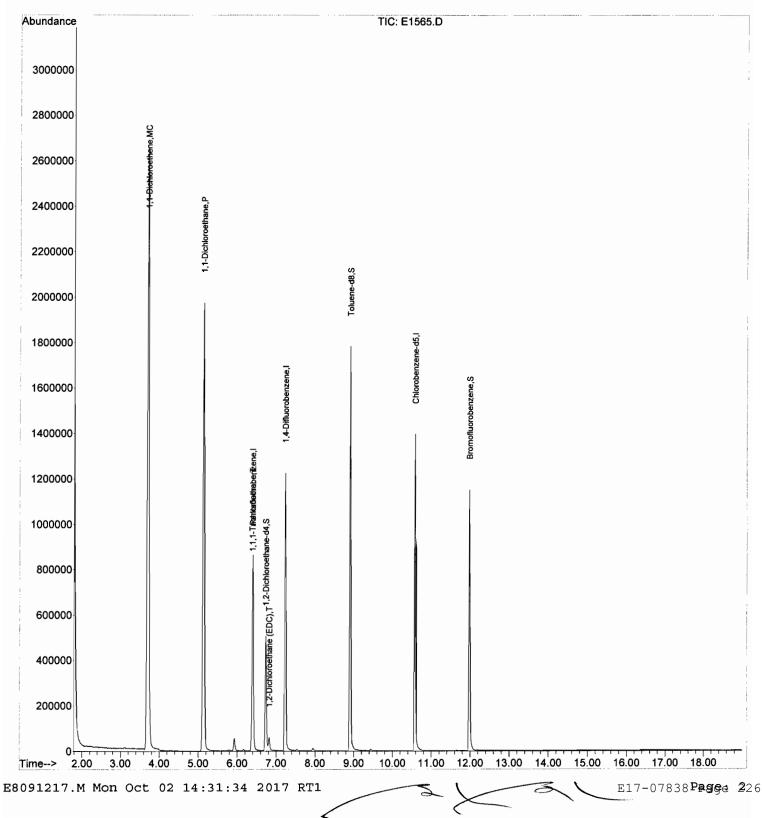
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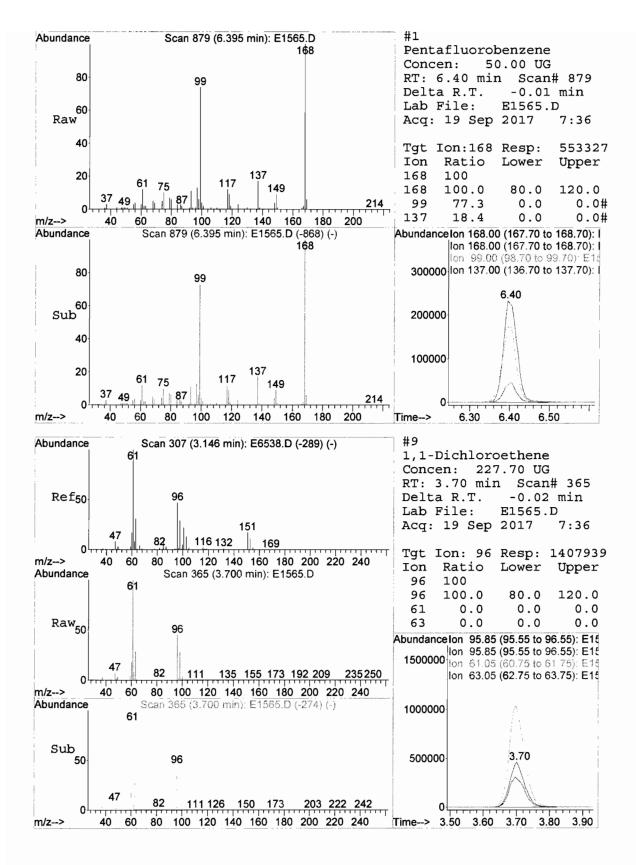
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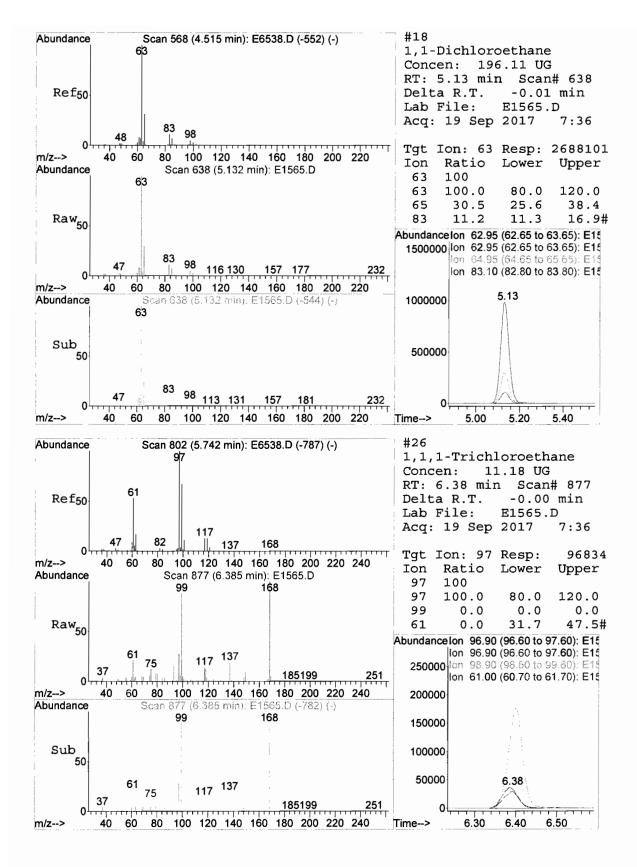
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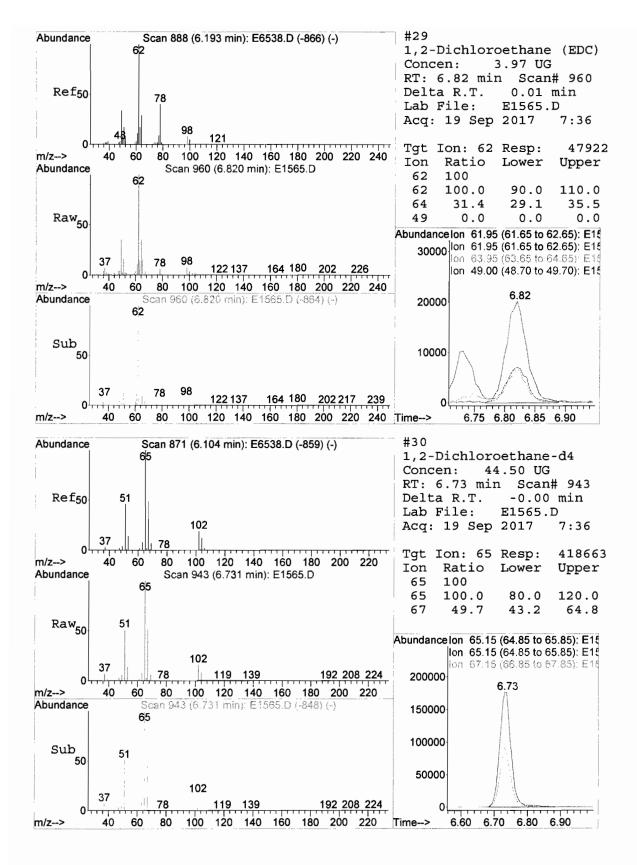
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1565.D Acq On : 19 Sep 2017 7:36 Operator : BARBARA Sample : MW-9,E17-07838-014,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1 ALS Vial : 39 Sample Multiplier: 1

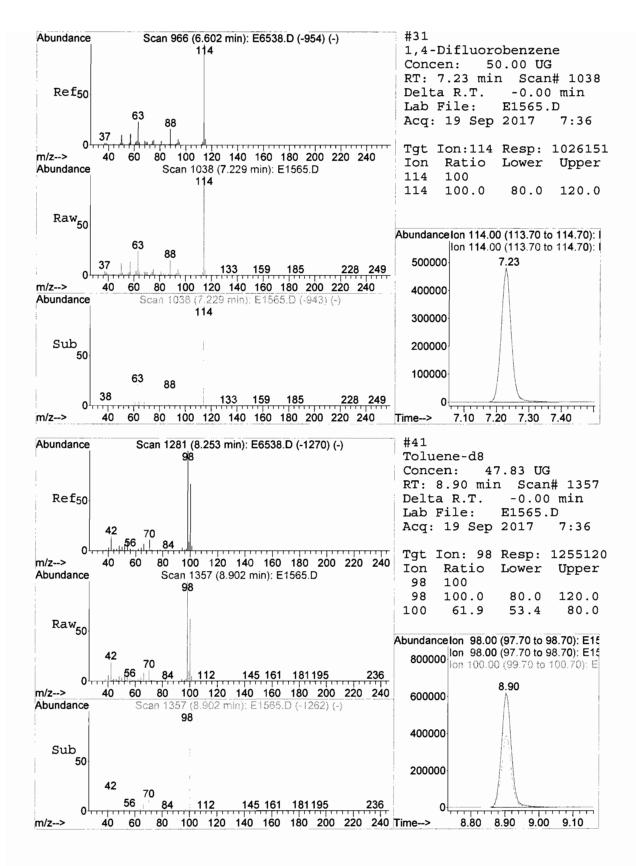
Quant Time: Sep 19 09:49:50 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration







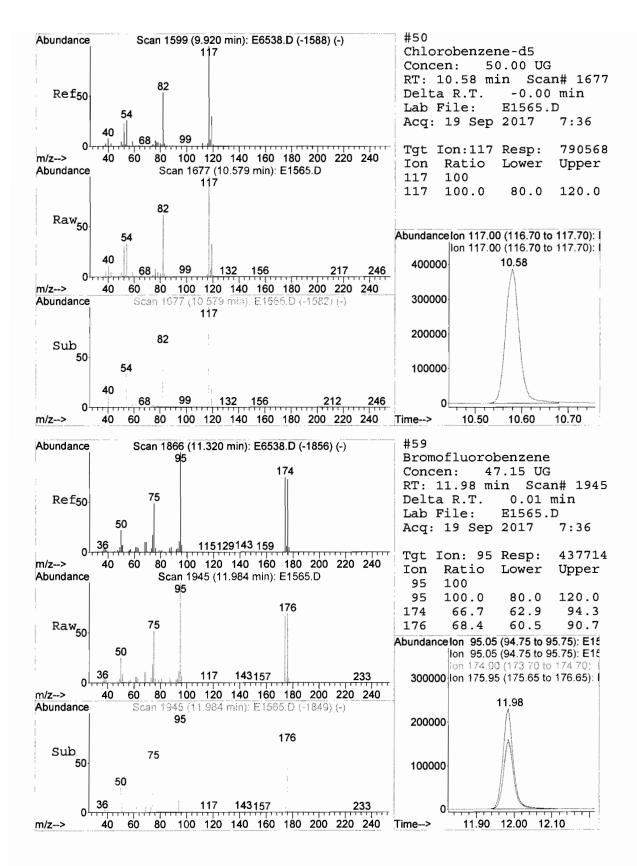




E1565.D E8091217.M

RT1

E17-07838 PR 290 290



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1565.D : 19 Sep 2017 Acq On 7:36 Operator : BARBARA Sample : MW-9,E17-07838-014,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1 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: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak % of corr. corr. min scan scan scan TY # % max. height area total ------ - ----- ---- ---- -------------350 365 402 rBV 8578836 100.00% 1 3.700 2647920 29.3778 670 rBV 2 5.132 621 638 1972847 5405468 63.01% 18.510% 0.493% 3 5.929 776 790 809 rBV2 54895 144076 1.68% 865 879 862237 903 rBV4 2183045 25.45% 4 6.395 7.476% 933 943 1165527 13.59% 5 6.731 954 rBV 503425 3.991% 6 6.820 954 960 979 rVB2 56927 143286 1.67% 0.491% 1025 1038 1069 rBV 7 9.156%

7.229102510381069rBV1223708267373631.17%9.156%8.902134613571389rBV1782931366955242.77%12.566%10.579166416771714rBV1397407295464234.44%10.118%11.984193519451976rBV1152414228434726.63%7.822%

Sum of corrected areas: 29202515

2/5

E8091217.M Mon Oct 02 14:31:41 2017 RT1

8

9

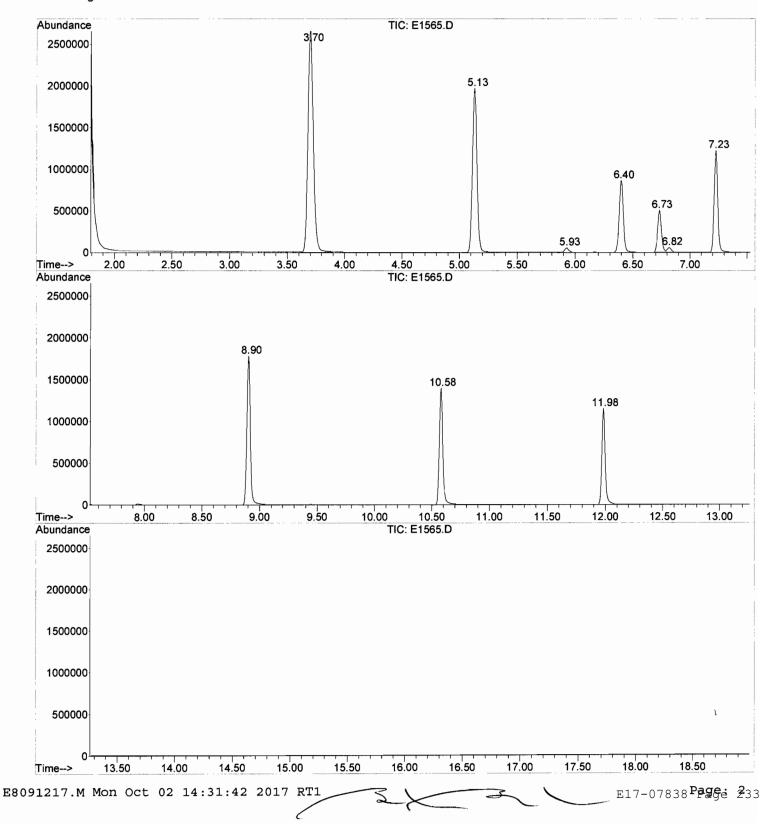
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E17-0783 **Page**ge **1**232

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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1565.D
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Operator : BARBARA
Sample : MW-9,E17-07838-014,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 39 Sample Multiplier: 1
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Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P

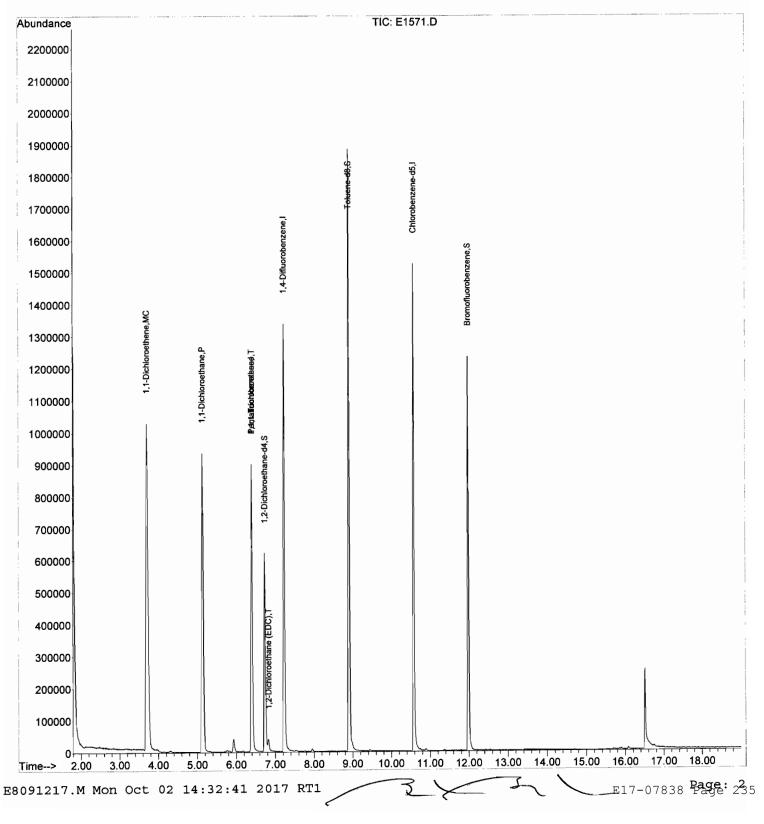


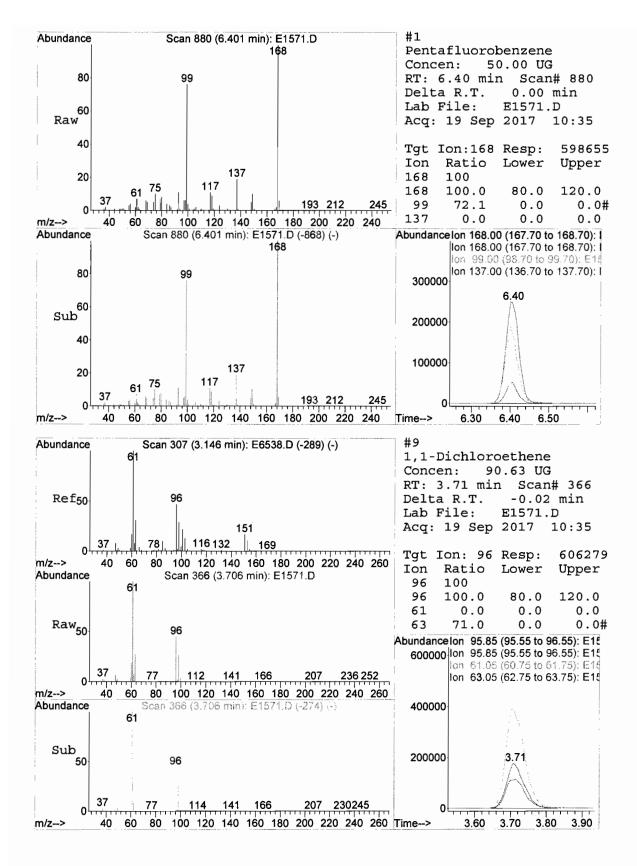
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1571.D Acq On : 19 Sep 2017 10:35 Operator : BARBARA Sample : MW-9,E17-07838-014DL,A,2.5mL,100 Misc : JMC/ARSYNCO,09/13/17,09/13/17.1 ALS Vial : 45 Sample Multiplier: 1 Quant Time: Sep 19 18:04:38 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration Internal Standards R.T. QIon Response Conc Units Dev(Min) _____ 1) Pentafluorobenzene6.4016859865550.00UG0.0031) 1,4-Difluorobenzene7.2311411707350.00UG0.0050) Chlorobenzene-d510.5811786272450.00UG0.00 31) 1,4-Difluorobenzene 50) Chlorobenzene-d5 System Monitoring Compounds 30) 1,2-Dichloroethane-d46.746550603349.71UGSpiked Amount50.000Range69-166Recovery=99.42% 0.00 8.90 98 1353613 47.39 UG 0.00 41) Toluene-d8 Spiked Amount 50.000 Range 80 - 120 Recovery = 94.78%59) Bromofluorobenzene 11.98 95 476118 47.00 UG 0.00 Spiked Amount 50.000 Range 66 - 120 Recovery = 94.00% Target Compounds Qvalue 9)1,1-Dichloroethene3.719660627990.63UG#18)1,1-Dichloroethane5.1463124346783.85UG26)1,1,1-Trichloroethane6.4097432894.62UG#29)1,2-Dichloroethane(EDC)6.8362284782.18UG# # 100 99 65 # 100

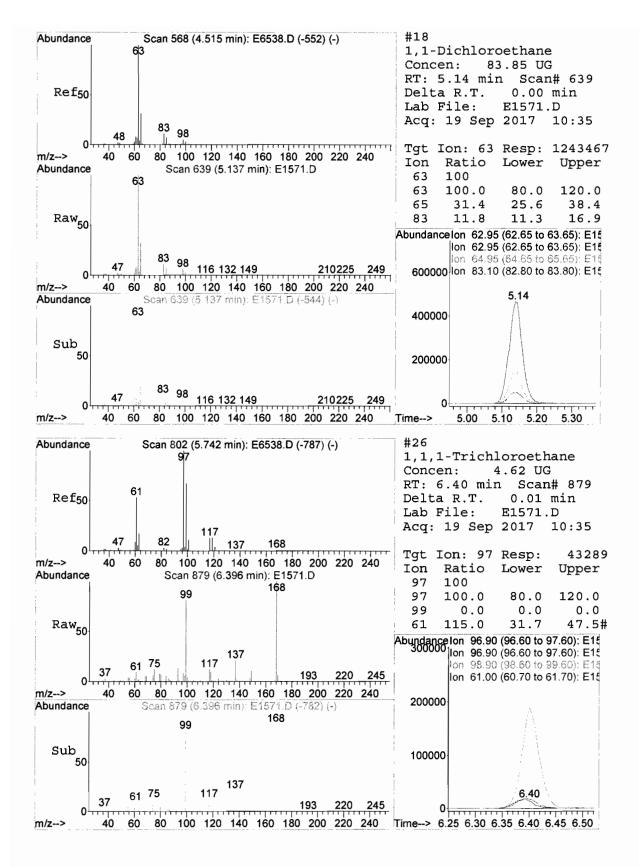
(#) = qualifier out of range (m) = manual integration (+) = signals summed

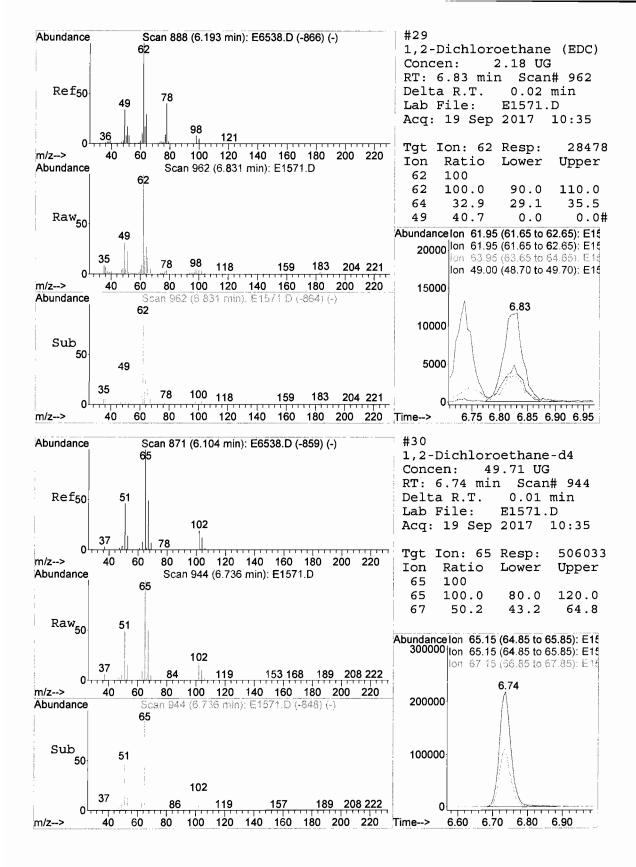
Data Path :	C:\MSDChem\1\DATA\09-18-17\						
Data File :	E1571.D						
Acq On :	19 Sep 2017 10:35						
Operator :	BARBARA						
	MW-9,E17-07838-014DL,A,2.5mL,100						
	JMC/ARSYNCO,09/13/17,09/13/17,1						
ALS Vial :	45 Sample Multiplier: 1						
Quant Time:	Sep 19 18:04:38 2017						

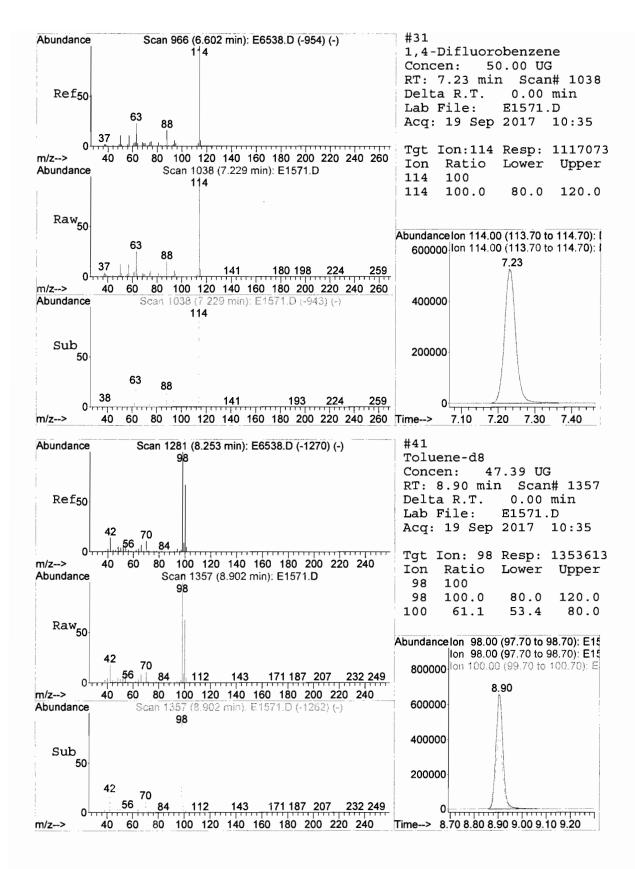
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

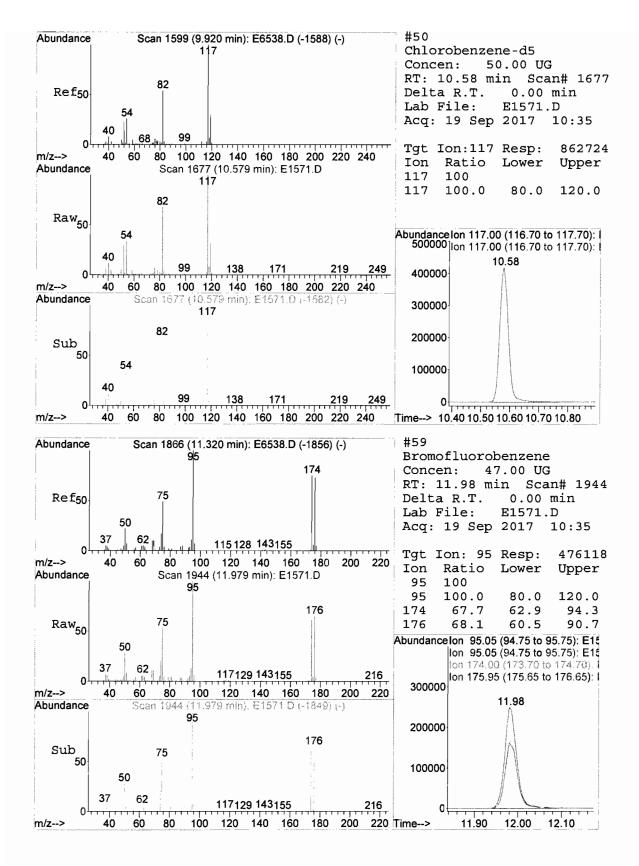










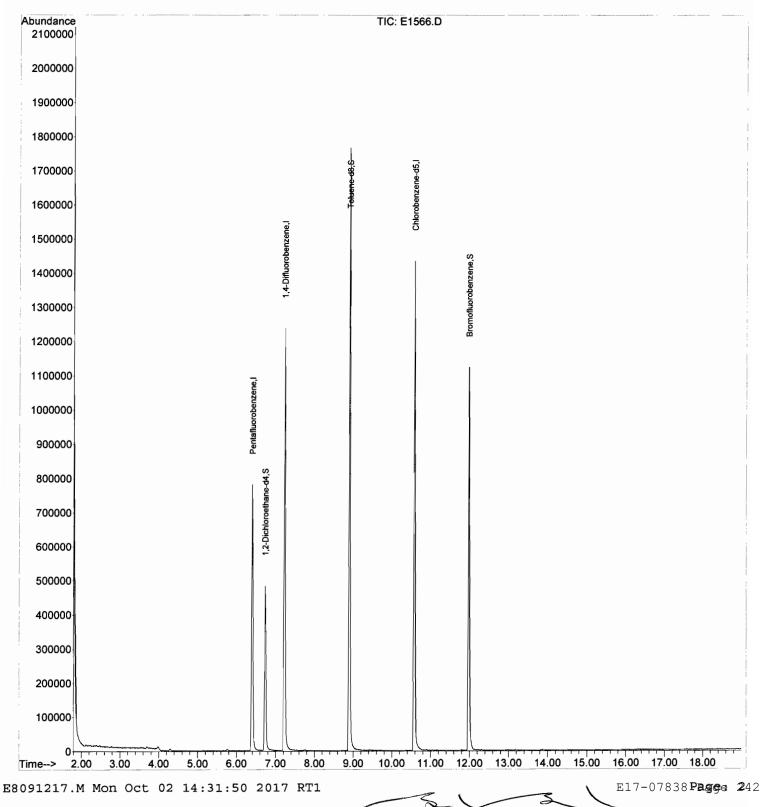


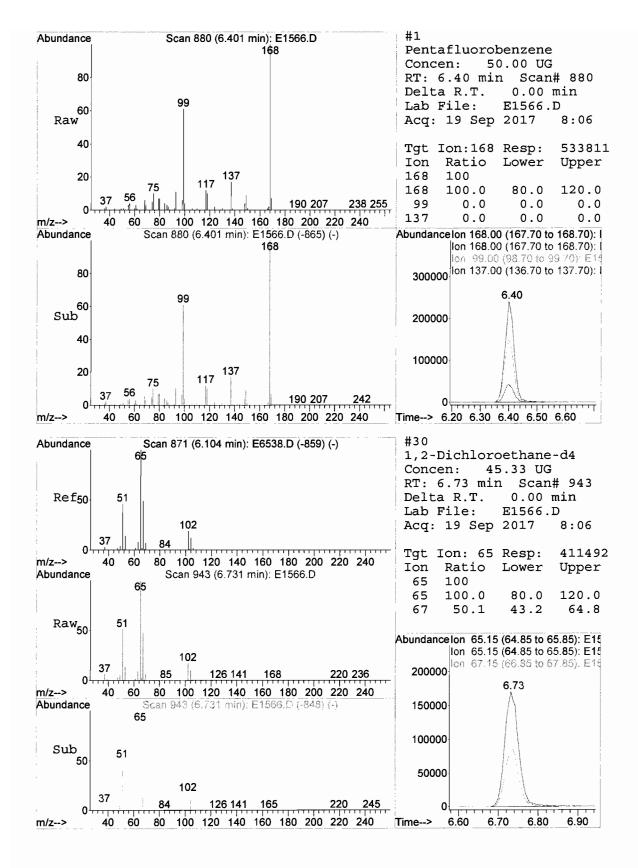
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1566.D Acq On : 19 Sep 2017 8:06 Operator : BARBARA Sample : FIELD_BLANK_,E17-07838-015,A,5mL,100 : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 1 Misc ALS Vial : 40 Sample Multiplier: 1 Quant Time: Sep 19 09:49:07 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration Internal Standards R.T. QION Response Conc Units Dev(Min) 1) Pentafluorobenzene6.4016853381150.00UG0.0031) 1,4-Difluorobenzene7.23114102508050.00UG0.0050) Chlorobenzene-d510.5811779892250.00UG0.00 31) 1,4-Difluorobenzene 50) Chlorobenzene-d5 System Monitoring Compounds 30) 1,2-Dichloroethane-d46.736541149245.33UG0.00Spiked Amount50.000Range69 - 166Recovery=90.66% 8.90 98 1252759 47.79 UG 0.00 41) Toluene-d8 Spiked Amount 50.000 Range 80 - 120 Recovery = 95.58% 11.98 95 437185 46.60 UG 0.00 59) Bromofluorobenzene Range 66 - 120 Recovery = 93.20% Spiked Amount 50.000 Target Compounds Qvalue ~ (#) = qualifier out of range (m) = manual integration (+) = signals summed

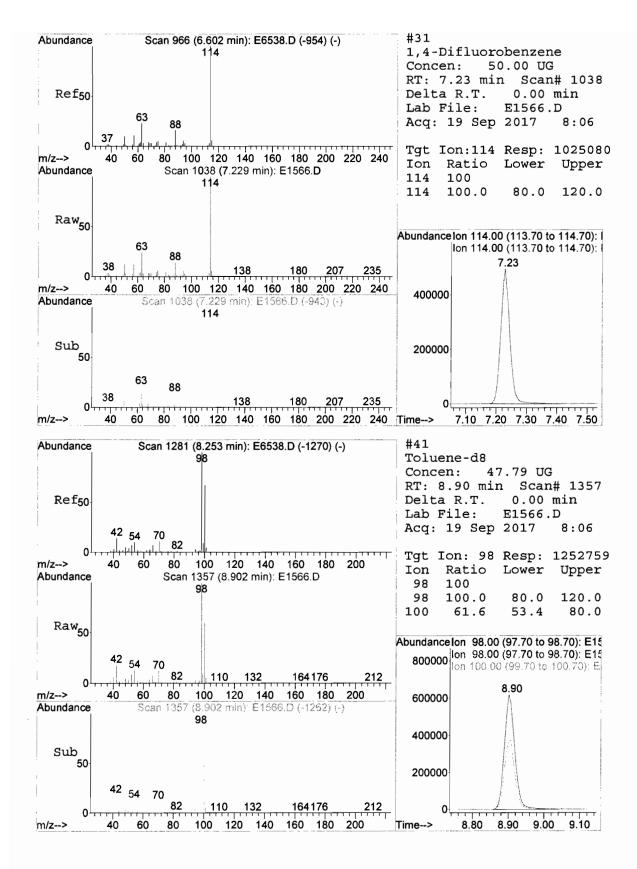
E8091217.M Mon Oct 02 14:31:50 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1566.D Acq On : 19 Sep 2017 8:06 Operator : BARBARA Sample : FIELD_BLANK_,E17-07838-015,A,5mL,100 Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1 ALS Vial : 40 Sample Multiplier: 1

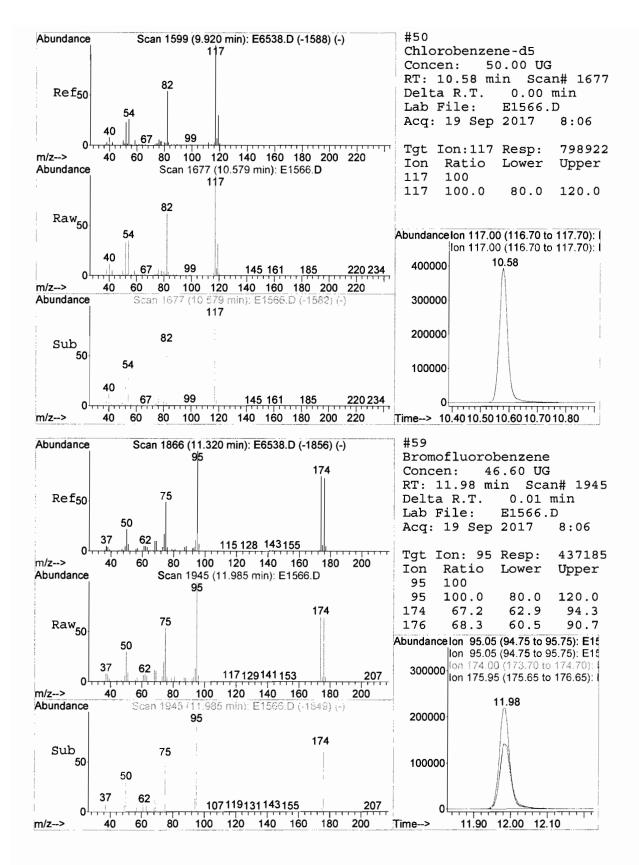
Quant Time: Sep 19 09:49:07 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration







E1566.D E8091217.M Mon Oct 02 14:31:51 2017



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1566.D Acq On : 19 Sep 2017 Operator : BARBARA 8:06 : FIELD_BLANK_,E17-07838-015,A,5mL,100 Sample Misc : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 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: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak peak R.T. first max last PK corr. corr. % of # min scan scan scan TY height area % max. total -----. _ _ ----- ---- ---- ---- ----------1 3.978 411 418 435 rVB4 47192 1.29% 0.324% 11706 6.401 863 880 913 rBV 781492 1794688 49.17% 12.328% 2 3 6.731 930 943 967 rBV2 482206 1181914 32.38% 8.119% 4 7.229 1024 1038 1067 rBV 1237087 2656287 72.78% 18.246% 5 8.902 1340 1357 1384 rBV 1765766 3649910 100.00% 25.071% 6 10.579 1665 1677 1718 rBV 1435759 2958164 81.05% 20.320%

Sum of corrected areas: 14558046

2269891 62.19% 15.592%

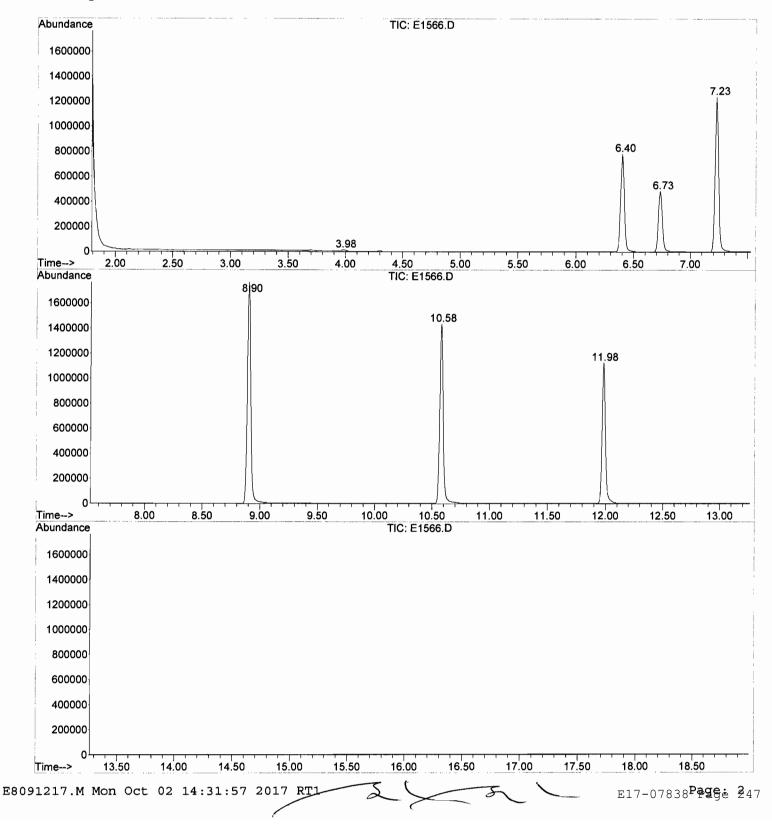
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7 11.979 1934 1944 1970 rBV 1124009

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Data Path : C:\MSDChem\l\DATA\09-18-17\
Data File : E1566.D
Acq On : 19 Sep 2017 8:06
Operator : BARBARA
Sample : FIELD_BLANK_,E17-07838-015,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 40 Sample Multiplier: 1
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Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

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TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P
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Data Path : C:\MSDChem\1\DATA	\09-18-17\						
Data File : E1567.D Acq On : 19 Sep 2017 8:36	5						
Operator : BARBARA							
Sample : MW-11D,E17-07838-016,A,5mL,100							
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1 ALS Vial : 41 Sample Multiplier: 1							
ALS Vial : 41 Sample Multiplier: 1							
Quant Time: Sep 19 17:59:59 20	117						
Quant Method : C:\MSDCHEM\1\M		91217.1	M				
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C							
QLast Update : Wed Sep 13 10:4							
Response via : Initial Calibra	ition						
Internal Standards	R.T.	QIon	Response	Conc Ui	nits Dev	(Min)	
1) Pentafluorobenzene							
31) 1,4-Difluorobenzene 50) Chlorobenzene-d5	10 59	117	791503	50.00	UG	0.00	
50) Childiobenzene-us	10.58	TT /	/91505	50.00	09	0.00	
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4			394430			0.00	
Spiked Amount 50.000	Range 69	- 166					
41) Toluene-d8 Spiked Amount 50.000		98					
59) Bromofluorobenzene	Range 80	- 120	Recove 426791	ry =	97.18%	0.00	
Spiked Amount 50.000	Range 66						
	nange oo	120	Receive	- / -	21.010		
Target Compounds						alue	
9) 1,1-Dichloroethene	3.69	96	8903			100	
18) 1,1-Dichloroethane	5.13	63	13115	1.00	UG #	96	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

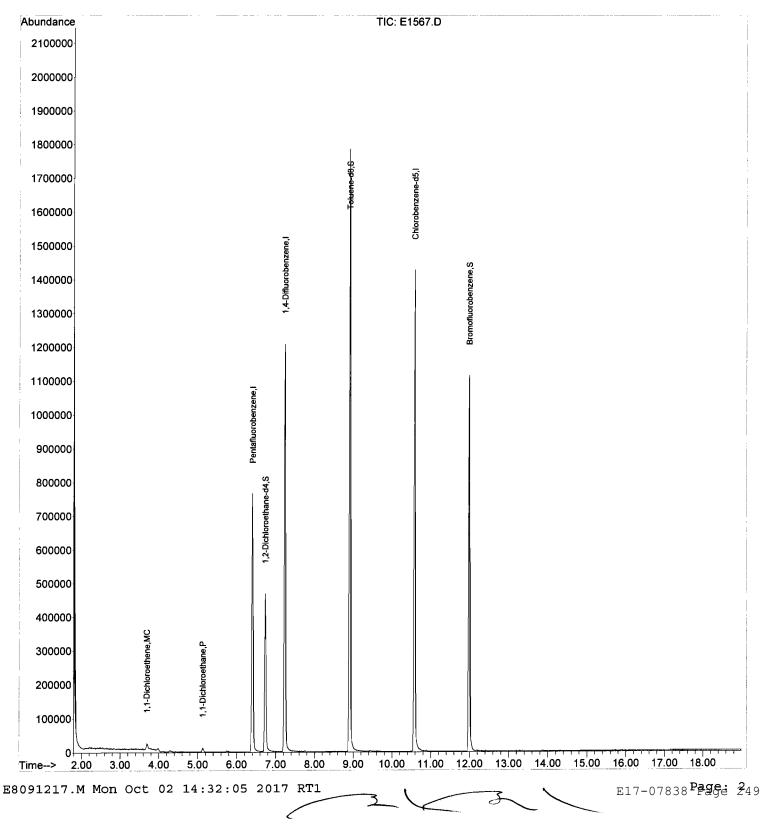
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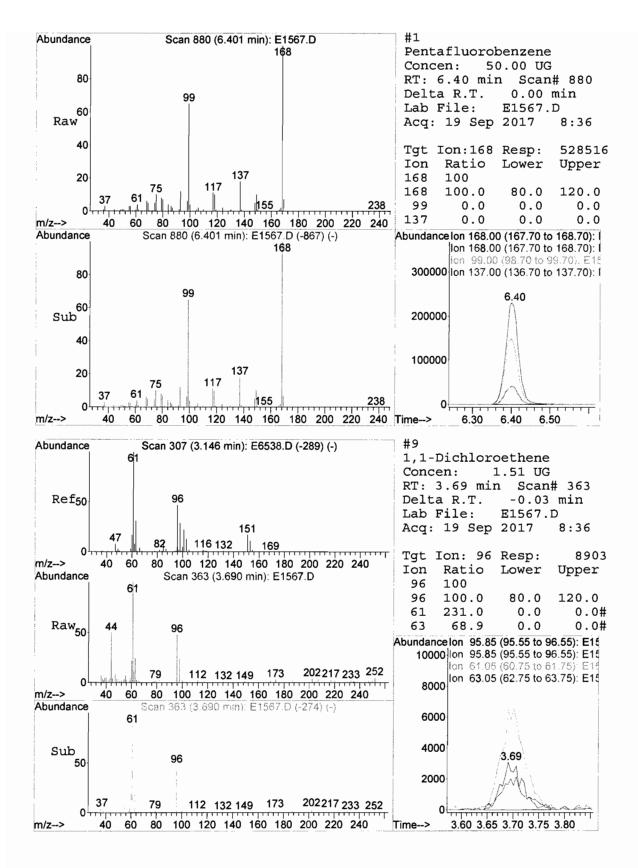
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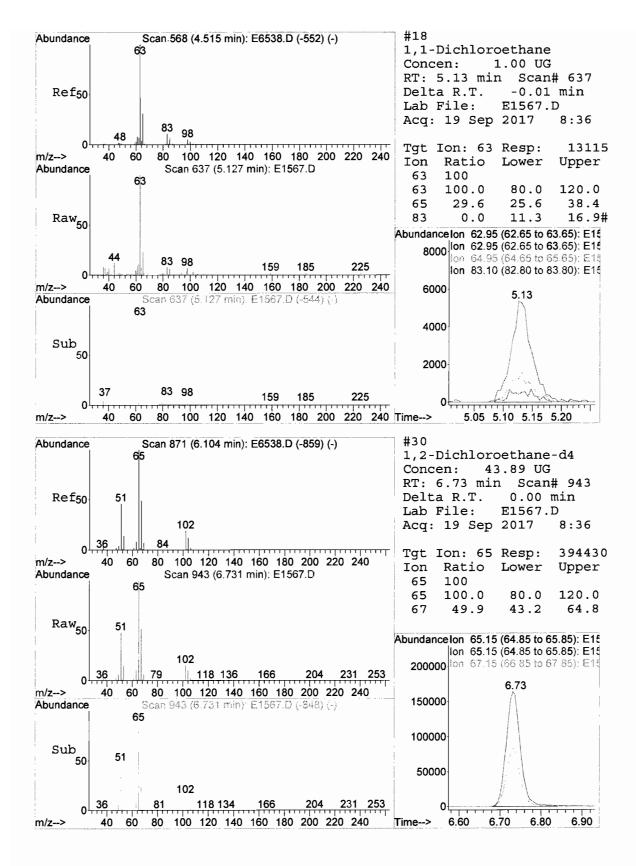
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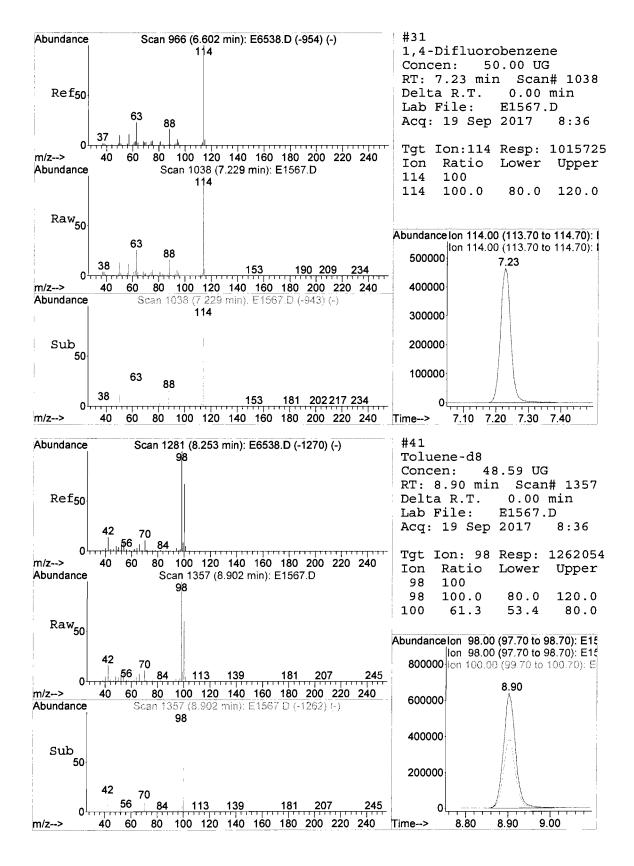
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Data File : E1567.D
Acq On : 19 Sep 2017 8:36
Operator : BARBARA
Sample : MW-11D,E17-07838-016,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 41 Sample Multiplier: 1
Quant Time: Sep 19 17:59:59 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M

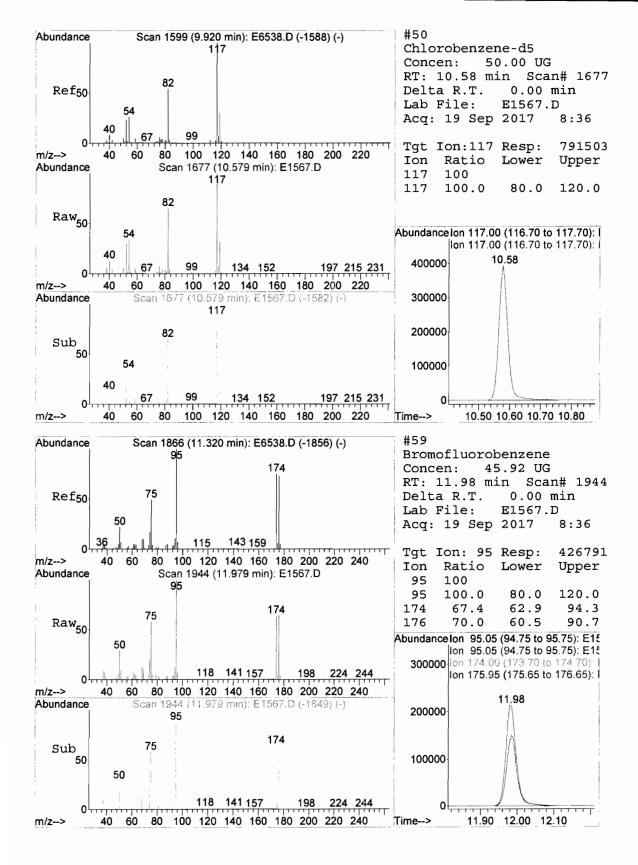
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration











Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1567.D : 19 Sep 2017 8:36 Acq On Operator : BARBARA Sample : MW-11D, E17-07838-016, A, 5mL, 100 Misc : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 1 ALS Vial : 41 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. % of # min scan scan scan TY height area % max. total - - ----------------_ _ _ _ _ _ _ _ 3.690 354 363 394 rBV4 1 18279 68713 40560 1.87% 0.472% 3.968 409 416 432 rVB8 1.10% 10030 0.279% 2 6.401 868 880 908 rBV 766276 1798092 48.91% 3 12.358% 467992 1141400 31.05% 7.845% 6.731 930 943 979 rBV 4 7.229 1026 1038 1067 rBV 1207474 2650781 72.11% 18.219% 5 6

68.902134213571396rBV17858763676259100.00%25.267%710.579166616771717rBV1428445292767179.64%20.122%811.985193219451976rBV1115897224645061.11%15.440%

Sum of corrected areas: 14549926

E8091217.M Mon Oct 02 14:32:12 2017 RT1

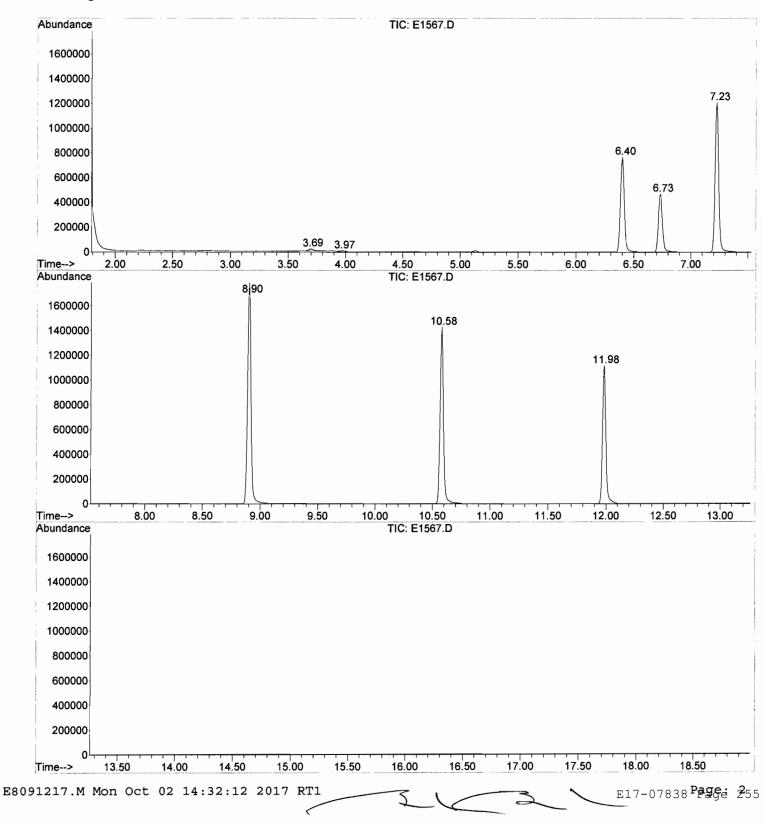
E17-0783 **Page**re **1**254

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Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1567.D
Acq On : 19 Sep 2017 8:36
Operator : BARBARA
Sample : MW-11D,E17-07838-016,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 41 Sample Multiplier: 1
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Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

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TIC Library : C:\DATABASE\NISTO5A.L
TIC Integration Parameters: LSCINT.P
```



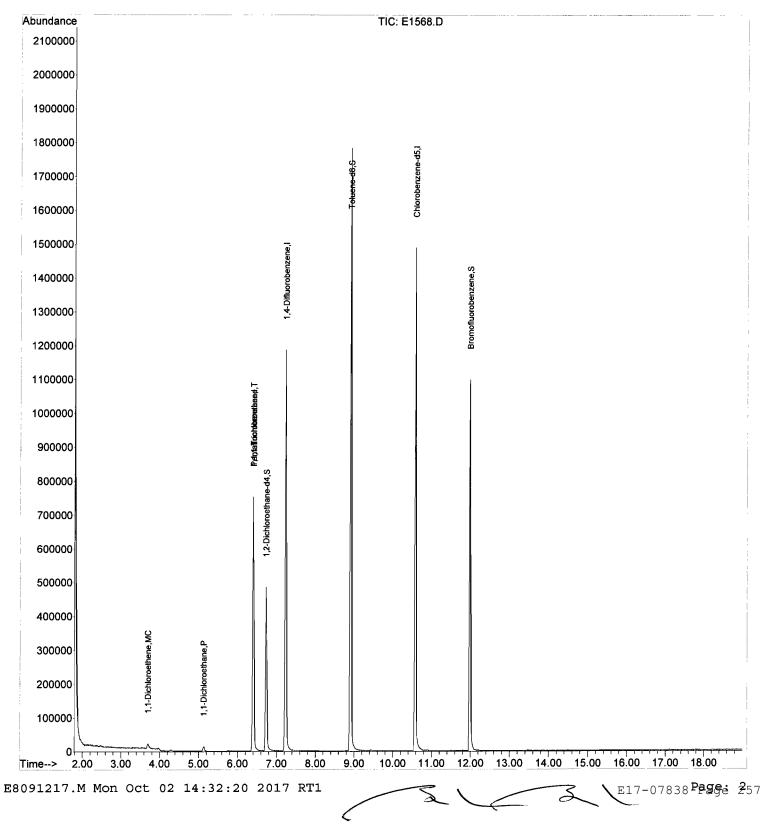
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1568.D Acq On : 19 Sep 2017 Operator : BARBARA 9:05 Sample : MW-11,E17-07838-017,A,5mL,100 : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 1 Misc ALS Vial : 42 Sample Multiplier: 1 Quant Time: Sep 19 18:00:32 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration R.T. QIon Response Conc Units Dev(Min) Internal Standards _____ 6.41 7.23 114 117 6.41 168 529366 50.00 UG 1) Pentafluorobenzene 0.00 50.00 UG 50.00 UG 0.00 31) 1,4-Difluorobenzene 994003 10.58 117 50) Chlorobenzene-d5 0.00 783235 System Monitoring Compounds 30) 1,2-Dichloroethane-d4 6.73 65 391765 43.52 UG 0.00 Range 69 - 166 Recovery = 87.04% Spiked Amount 50.000 8.90 98 1238480 48.72 UG 41) Toluene-d8 0.00 Range 80 - 120 Recovery = 97.44% Spiked Amount 50.000 59) Bromofluorobenzene 420306 45.70 UG 0.00 Range 66 - 120 Recovery = 91.40% Spiked Amount 50.000 Target Compounds Ovalue 3.70 96 7961 1.35 UG 100 9) 1,1-Dichloroethene # 18) 1,1-Dichloroethane 5.13 63 16314 1.24 UG 99 6.40 97 11604 1.40 UG 82 26) 1,1,1-Trichloroethane # - - - -- - - - -

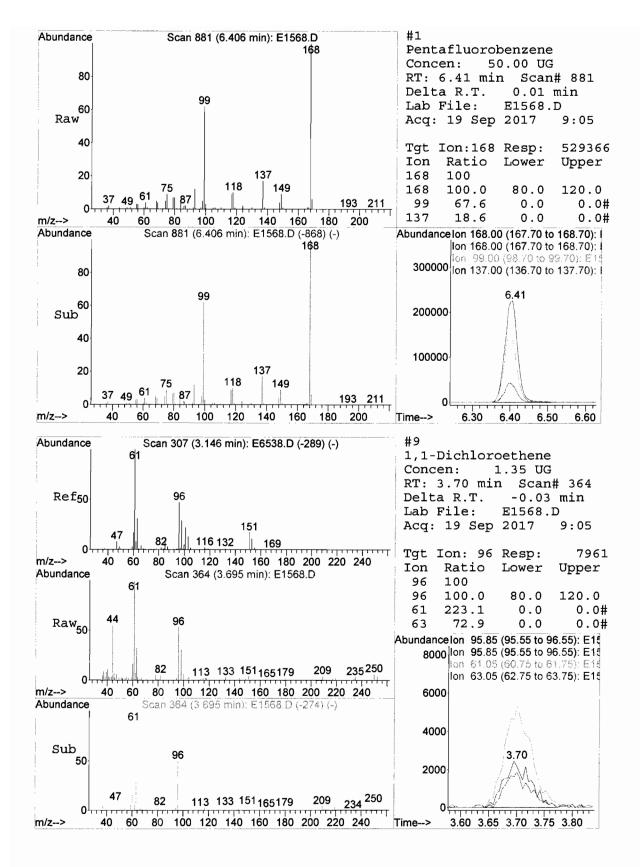
(#) = qualifier out of range (m) = manual integration (+) = signals summed

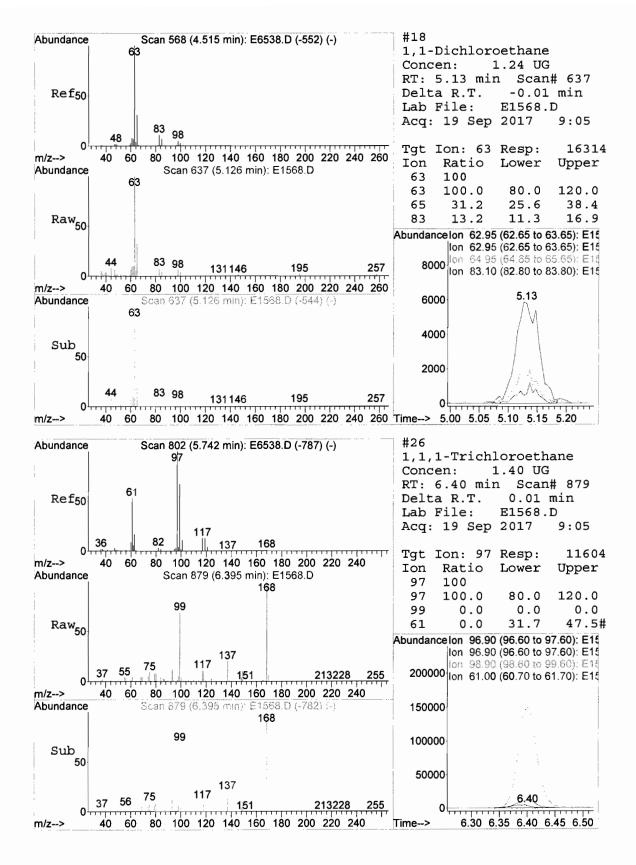
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1568.D : 19 Sep 2017 Acq On 9:05 : BARBARA Operator Sample : MW-11,E17-07838-017,A,5mL,100 Misc : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 1 ALS Vial : 42 Sample Multiplier: 1 Quant Time: Sep 19 18:00:32 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M

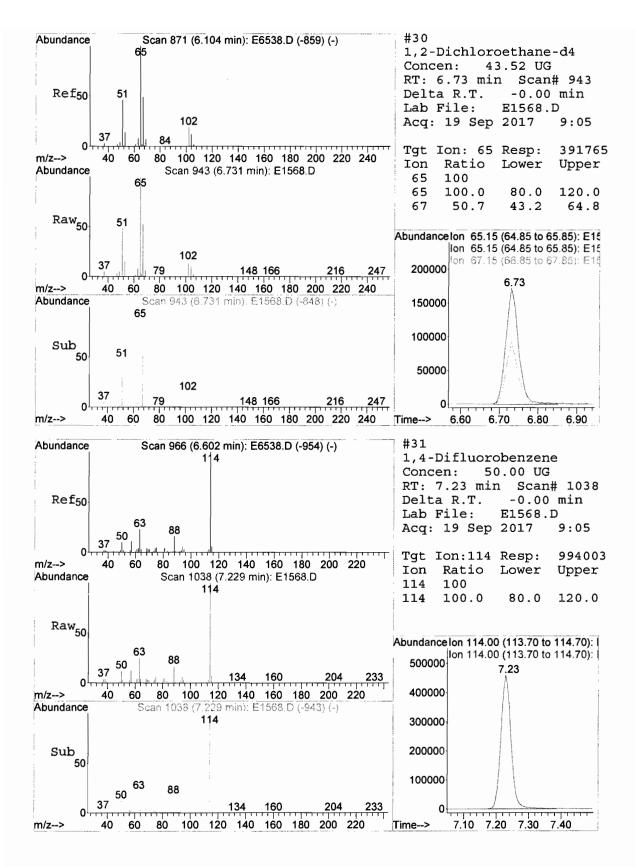
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017

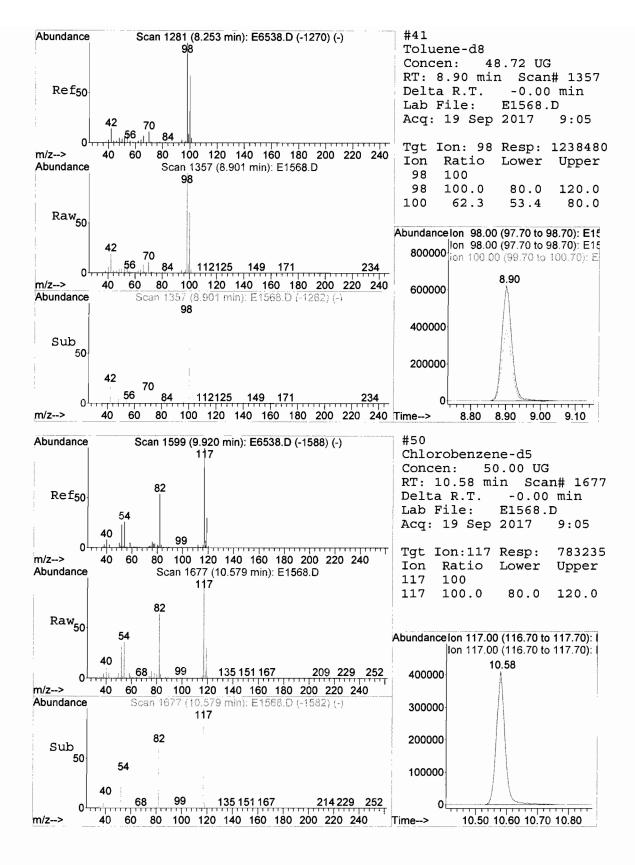
Response via : Initial Calibration

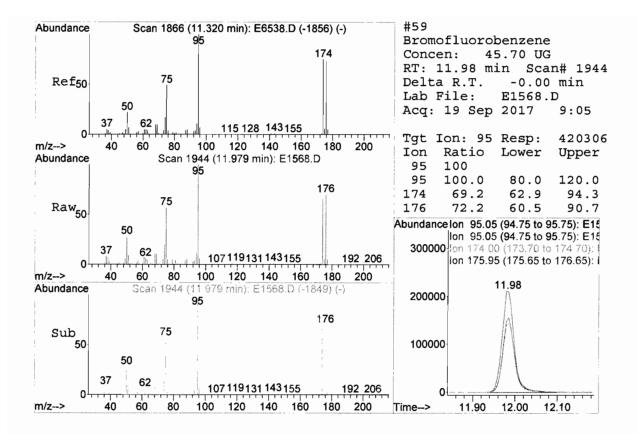












Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1568.D : 19 Sep 2017 Acq On 9:05 Operator : BARBARA Sample : MW-11,E17-07838-017,A,5mL,100 : BVERITAS/LEXINGTON, 09/13/17, 09/14/17, 1 Misc Sample Multiplier: 1 ALS Vial : 42 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. % of # min scan scan scan TY height area % max. total _ _ _ ----- ----- ---- ---- -----------------------6896 1 2.222 80 83 124 rVB2 40185 1.10% 0.277% 2 3.700 355 365 372 rBV4 15400 46367 1.27% 0.320% 3 5.137 627 639 654 rBV3 13913 1.24% 45244 0.312% 4 6.401 864 880 903 rBV2 752545 1809986 49.55% 12.473% 6.731 930 943 974 rBV2 483782 1132955 31.01% 5 7.808% 6 7.229 1023 1038 1068 rBV 1186464 2617571 71.65% 18.039%

7 8.901 1344 1357 1405 rBV 1782613 3653038 100.00% 25.175% 10.579 1665 1677 1718 rBV 1490046 2929777 80.20% 20.190% 9 11.984 1933 1945 1971 rBV 1100035 2235686 61.20% 15.407%

> Sum of corrected areas: 14510809

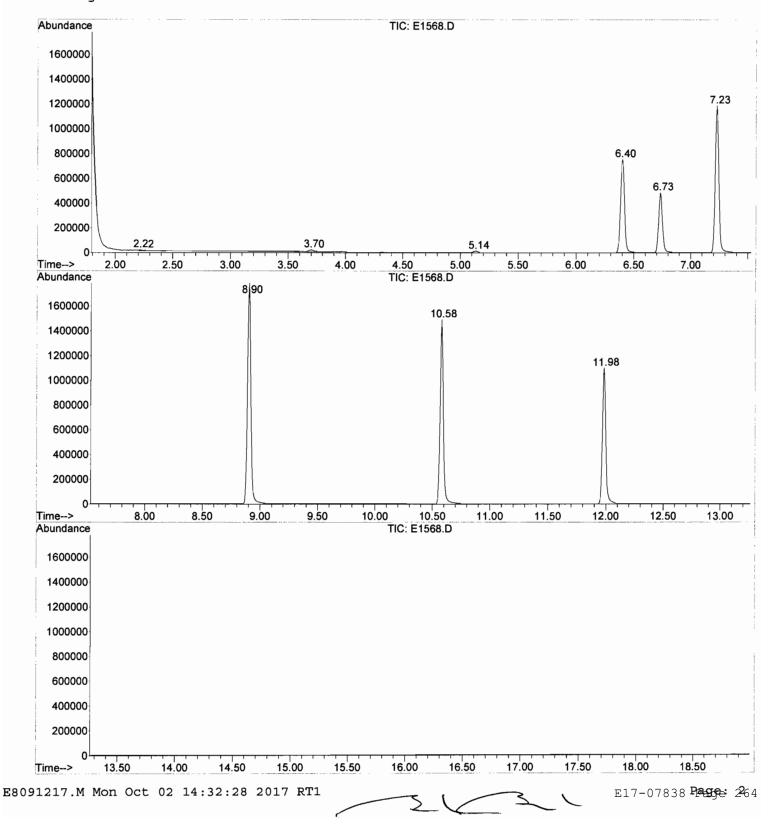
E8091217.M Mon Oct 02 14:32:27 2017 RT1

8

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1568.D
Acq On : 19 Sep 2017 9:05
Operator : BARBARA
Sample : MW-11,E17-07838-017,A,5mL,100
Misc : BVERITAS/LEXINGTON,09/13/17,09/14/17,1
ALS Vial : 42 Sample Multiplier: 1
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



VOLATILE ORGANICS STANDARDS

Response Factor Report MSD E Method Path : C:\MSDCHEM\1\METHODS\ Method File : E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Last Update : Wed Sep 13 10:48:46 2017 Response Via : Initial Calibration Calibration Files 0.5 =E1455.D 1.0 =E1456.D 5.0 =E1457.D 20. =E1458.D 100 =E1459.D 150 =E1460.D 200 =E1461.D Compound 0.5 1.0 5.0 20. 100 150 200 Avg %RSD
 Pentafluorobenzene
 -----ISTD----

 Dichlorodifluorom
 0.352 0.341 0.359 0.380 0.378 0.385 0.366 4.80
 1) I 2) T 3) P Chloromethane 1.098 1.164 0.897 0.892 0.872 0.864 0.893 0.954 12.88 4) C Vinyl chloride 0.898 0.681 0.687 0.678 0.676 0.669 0.715 12.56
 5) T
 Bromomethane
 0.233
 0.261
 0.218
 0.246
 0.231
 0.175
 0.227
 12.88

 6) T
 Chloroethane
 0.367
 0.366
 0.312
 0.242
 0.339
 0.348
 0.354
 0.333
 13.28
 7) T Trichlorofluorome 0.534 0.519 0.446 0.421 0.597 0.635 0.526 15.82 8) T Acrolein 0.127 0.115 0.113 0.104 0.121 0.110 0.121 0.116 6.53 9) MC 1,1-Dichloroethen 0.484 0.609 0.522 0.547 0.576 0.568 0.606 0.559 8.05 10) T Acetone 0.449 0.325 0.290 0.318 0.291 0.312 0.331 18.03 11) T Carbon disulfide 1.143 1.521 1.467 1.205 1.426 1.368 1.348 1.354 10.13 12) TVinyl acetate1.156 1.075 1.033 1.172 1.047 1.129 1.1025.3113) TMethylene chlorid0.682 0.630 0.558 0.596 0.566 0.572 0.6017.93 14) T Acrylonitrile 0.339 0.305 0.313 0.293 0.339 0.312 0.340 0.320 5.90 15) T tert-Butyl alcoho 0.091 0.060 0.059 0.070 0.061 0.071 0.069 17.70 trans-1,2-Dichlor 0.488 0.664 0.543 0.547 0.574 0.564 0.577 0.565 9.35 16) T 17) T Methyl tert-butyl 1.463 1.574 1.580 1.543 1.816 1.726 1.854 1.651 8.99 18) P 1,1-Dichloroethan 1.076 1.284 1.237 1.193 1.304 1.269 1.307 1.239 6.62 19) T Diisopropyl ether 2.224 2.391 2.573 2.661 3.010 2.927 3.037 2.689 11.76 20) T cis-1,2-Dichloroe 0.580 0.673 0.578 0.596 0.665 0.644 0.665 0.629 6.77 21) T2,2-Dichloropropa0.6030.5600.5020.5680.5080.5000.5407.9622) T2-Butanone (MEK)0.3520.3480.3310.3910.3550.3790.3596.1123) TBromochloromethan0.3220.2810.2760.3000.2840.2990.2945.70 25) C Chloroform 0.971 1.163 1.078 1.052 1.140 1.101 1.153 1.094 6.20 26) T 1,1,1-Trichloroet 0.731 0.923 0.761 0.738 0.808 0.760 0.758 0.783 8.51 27) T Carbon tetrachlor 0.555 0.804 0.647 0.647 0.741 0.727 0.733 0.693 11.87 28) T 1,1-Dichloroprope 0.657 1.063 0.785 0.801 0.885 0.870 0.909 0.853 14.70 29) T 1,2-Dichloroethan 0.978 1.113 1.066 1.036 1.147 1.112 1.177 1.090 6.25 30) S 1,2-Dichloroethan 0.877 0.877 0.847 0.848 0.843 0.831 0.829 0.850 2.33 31) I 1,4-Difluorobenzene -----ISTD-----ISTD-----32) M Benzene 1.258 1.470 1.371 1.331 1.470 1.462 1.530 1.413 6.78 33) M Trichloroethene 0.308 0.410 0.337 0.327 0.352 0.351 0.358 0.349 9.19 34) C 1,2-Dichloropropa 0.418 0.423 0.398 0.397 0.450 0.434 0.460 0.426 5.65

 35) T
 Dibromomethane
 0.227
 0.207
 0.204
 0.233
 0.221
 0.232
 0.221

 36) T
 1,4-Dioxane
 0.003
 0.003
 0.003
 0.003
 0.003
 0.003
 0.003

 5.69 9.43 37) T Bromodichlorometh 0.465 0.452 0.442 0.451 0.511 0.507 0.532 0.480 7.44 39) T cis-1,3-Dichlorop 0.397 0.433 0.495 0.529 0.640 0.619 0.650 0.538 18.98 40) T 4-Methyl-2-pentan 0.293 0.369 0.404 0.498 0.451 0.474 0.415 18.32 Toluene-d8 1.251 1.270 1.286 1.295 1.284 1.290 1.274 1.279 41) S 1.17 42) MC Toluene 0.742 0.952 0.840 0.805 0.903 0.882 0.931 0.865 8.58 43) T trans-1,3-Dichlor 0.398 0.453 0.437 0.480 0.578 0.572 0.608 0.504 16.19 44) T 1,1,2-Trichloroet 0.281 0.252 0.248 0.282 0.272 0.283 0.270 5.83 45) T Tetrachloroethene 0.202 0.340 0.310 0.274 0.299 0.290 0.303 0.288 14.85 1,3-Dichloropropa 0.468 0.542 0.524 0.527 0.599 0.587 0.615 0.552 9.34 46) T 47) T 2-Hexanone0.2800.2640.2770.3480.3120.3400.303Dibromochlorometh0.3070.2800.2850.3400.3320.3480.315 0.280 0.264 0.277 0.348 0.312 0.340 0.303 11.60 48) T 9.11 49) T 1,2-Dibromoethane 0.225 0.249 0.268 0.269 0.308 0.298 0.317 0.276 12.08 50) I Chlorobenzene-d5 -----ISTD-----51) MPChlorobenzene1.0721.3671.1471.0631.1591.1431.2101.1668.7652) T1,1,1,2-Tetrachlo0.3320.3840.3570.3570.4080.3950.4210.379E17-07838Page266 Ethylbenzene 1.649 2.282 1.891 1.908 2.148 2.115 2.277 2.039 11.42 53) C

54)		m,p-Xylene		0.849							15.86
55)	Т	o-Xylene		0.677							16.82
56)	Т	Styrene	0.981	0.950	1.110	1.161	1.390	1.383	1.518	1.213	18.10
57)	Р	Bromoform	0.191	0.198	0.192	0.201	0.250	0.237	0.251	0.217	12.68
58)	Т	Isopropylbenzene	1.191	1.786	1.698	1.773	2.045	2.044	2.138	1.811	17.68
59)	S	Bromofluorobenzen	0.564	0.582	0.595	0.585	0.593	0.593	0.599	0.587	2.03
60)	Ρ	1,1,2,2-Tetrachlo	0.613	0.589	0.528	0.491	0.564	0.518	0.563	0.552	7.68
61)	Т	Bromobenzene	0.415	0.478	0.417	0.413	0.444	0.426	0.458	0.436	5.72
62)	Т	1,2,3-Trichloropr	0.551	0.535	0.469	0.445	0.506	0.473	0.509	0.498	7.66
63)	Т	n-Propylbenzene	1.741	2.909	2.341	2.280	2.526	2.510	2.661	2.424	15.10
64)	Т	2-Chlorotoluene	1.095	1.642	1.365	1.360	1.535	1.487	1.572	1.437	12.71
65)	Т	1,3,5-Trimethylbe	1.048	1.706	1.547	1.530	1.779	1.778	1.863	1.607	17.16
66)	Т	-	1.229								14.73
68)	Т	1,2,4-Trimethylbe		1.634	1.579	1.585	1.824	1.797	1.923	1.724	8.34
69)	Т	sec-Butylbenzene		2.091	1.844	1.845	2.149	2.091	2.260	1.917	19.55
70)	Т	1,3-Dichlorobenze	0.635	1.052	0.861	0.797	0.902	0.864	0.924	0.862	14.75
72)	Т	1,4-Dichlorobenze	0.634	1.071	0.851	0.822	0.917	0.896	0.955	0.878	15.31
74)	Т	1,2-Dichlorobenze									15.04
75)	Т	1,2-Dibromo-3-chl				0.079					12.23
76)	Т	1,2,4-Trichlorobe	0.339								18.24
77)	т	Hexachlorobutadie									14.56
79)	т	1,2,3-Trichlorobe									17.41
80)		1,1,2-Trichloro-1				0.356					4.54
81)	Т	Methyl acetate	0.852	0.805							6,68
82)		_									15.98
83)		Methylcyclohexane									16.75
											-
(#) = Out of Range ### Number of calibration levels exceeded format ###											

E8091217.M Thu Sep 14 11:00:05 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1455.D Acq On : 12 Sep 2017 14:18 Operator : BARBARA Sample : ICC00.5, ICC170912, A, 5mL, 100 Misc : NA, NA, NA, 1 ALS Vial : 2 Sample Multiplier: 1 Quant Time: Sep 13 10:46:58 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:19:37 2017 Response via : Initial Calibration
 Internal Standards
 R.T. QION
 Response
 Conc Units Dev(Min)

 46)
 1,3-Dichloropropane
 9.63
 76
 5823
 0.42 UG
 # 93

 47)
 2-Hexanone
 9.76
 43
 3804
 0.52 UG
 # 70

 48)
 Dibromochloromethane
 9.91
 129
 3149m
 0.41 UG
 91

 49)
 1,2-Dibromochlaromethane
 10.62
 112
 10402
 0.46 UG
 # 73

 51)
 Chlorobenzene
 10.62
 112
 10402
 0.46 UG
 # 73

 52)
 1,1,1,2-Tetrachloroethane
 10.71
 131
 3216
 0.44 UG
 # 53

 53)
 Ethylbenzene
 11.36
 106
 4728m
 0.34 UG
 53

 54)
 m.p-Xylene
 11.37
 14
 9518m
 0.41 UG
 53

 550
 o-Xylene
 11.37
 14
 9518m
 0.41 UG
 53

 561
 Bromobenzene
 12.17
 156
 4027
 0.48 UG
 98

 61)
 1,2,2 R.T. QIon Response Conc Units Dev(Min) Internal Standards

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\l\DATA\09-12-17\ Data File : E1455.D Acq On : 12 Sep 2017 14:18 Operator : BARBARA Sample : ICC00.5,ICC170912,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 2 Sample Multiplier: 1 Quant Time: Sep 13 10:46:58 2017 Quant Method : C:\MSDCHEM\l\METHODS\E8091217.M

Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:19:37 2017 Response via : Initial Calibration

bundance								TIC: E	1455	.D						
3400000																
3200000																
3000000																
2800000																
2600000								_								
2400000							Toluene d8 C	o'on-alianio								
2200000							F	-	le-d5,1							
2000000					- ana	r'auaz			Chlorobenzene-d5,1		le,S					
1800000					1 A Diffusionation	uedo lobelli			Ċ		Bromofluorobenzene,S					
1600000						-					Bromofi					
1400000				-	openzene,											
1200000				e e	ethane-d4,S											
1000000				4 Trichloro	1,2-Dichloroethane-d4,S											
800000		thane,T		;	:		F							F.		
600000	iethane,T iane,T	a2MGfluoroe T BBA)TBE)	ป е),т	(ten)ē,T ine,T	de,T ie (EDC),T	seTC hane,T	pene,T one (MIBK),	ropene,T me,T nE,T i(EBB),T	Sethane, T	F	<mark>getteane.P</mark> nzene,T	aZene,⊺ T R8,∓	ane,T	oropropane,	zene,T sne,T zene,T	
600000 400000 200000	Chlorofluoromethar Chlorofluare, P Vinyl Chloroflare, P Bromomethane, T Trichlorofluoromethane, ¹	Actolicity threethet read throno enhane. T Carbon disuitide. T Betty Merter Better Acter Vatery Merter Bottone. T	bås8j64bpyPetHaPfefee).T	2.៥.៩៥នា៦តែសាសាសាសុ ធារិត, ឱ្យជាអ្នកស្នាស្រ្តស្រាមជាane, T	ୟୁମ୍ସାପ୍ତମାହଙ୍କୁଆହିନ୍ୟୁନ୍ ଅନ୍ଧାସିକ୍ଷମାହିନାଦିତାମିବାନ (EDC), 1	Trichloroethene, M Methytorichopeopere Metholegner Faire Bromodichloromethane, T	cis-1,3-Dichloropropene,T 4-Methyl-2-pentanone (MIBK),1	Toturene.MC trans.1.3-Dichloropropene,T 11.2-Tichloroethane,T 14:2-Dipromoethane,T Dipromoethane(EDBJ,T	Ethylice Read And Reader and mini- m.p. Xylene, 1	Stytebene,TT Bromoform, P Isopropvibenzene, T	BLAR BUT AN	₩д-вч%/невкивел∡еле,⊺ sec-Butylbenzene.T 1;≭EBI6AI080888726∩8;Ŧ	1,2-Dichlorobenzene,1	1,2-Dibromo-3-chloropropane,T	1,2,4-Trichlorobenzene.T Hexachlorobutadiene,T 1,2,3-Trichlorobenzene,T	
200000	Chichic Chigres Efformer Trichlon	Accele Carbon Methyle Iett-Byly	bås8j64	Engrand	C.affilio Bionzy	Trichlor Method Bronoc	cis-1,3- 4-Methy	Tolue trans-1, 1,1,2-T 1,1,2-T CFRENE CFRENE	Ethyle	Stitute Bromofe Isoprof	5-600 2-2000		1,2-Dic	1,2-Dib	1,2,4-T Hexacl 1,2,3-T	
11			- 0	A	WL	Lan		Lanner	4		hur	<u>-\^</u> ^^- 13.00				

Data Path : C:\MSDChem\1\DATA\ Data File : E1456.D Acq On : 12 Sep 2017 14:48 Operator : BARBARA Sample : ICC001,ICC170912,A Misc : NA,NA,NA,1 ALS Vial : 3 Sample Multipl	3,5mL,100 .ier: 1						
Quant Time: Sep 13 10:46:05 20 Quant Method : C:\MSDCHEM\1\ME Quant Title : VOLATILE ORGANI QLast Update : Wed Sep 13 10:1 Response via : Initial Calibra	THODS\E809 CS BY EPA 4:27 2017						
Internal Standards							
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.40	168	661560	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.23	114	1211441	50.00	UG		0.00
50) Chlorobenzene-d5	10.58	117	949578	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.74	65	580513	52.10	UG		0.00
Spiked Amount 50.000	Range 69	- 166	Recove	ry =	104.	20%	
41) Toluene-d8	8.90	98	1538612	49.27	UG		0.00
Spiked Amount 50.000	Range 80	- 120	Recove	ry =	98.	54*	0 00
41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000	Range 66	- 120	Becove	49.25	98	50%	0.00
Spiked Amount 50.000	Range 00	120	Recove	- y -	50.	500	
Target Compounds						Qva	alue
2) Dichlorodifluoromethane	1.93	85	4662m 15399	0.97	UG		
3) Chloromethane	2.11						98
4) Vinyl chloride	2.24	62				#	94
5) Bromomethane	2.63	94 64	3089m 4849m	1.00	UG		
7) Trichlorofluoromethane	2.77	101	4849m 6872	1.10 1 02	UG	#	77
 5) Bromomethane 6) Chloroethane 7) Trichlorofluoromethane 8) Acrolein 	3.59	56	30552	20.63	UG	#	100
9) 1,1-Dichloroethene	3.73	96	8052m	1.10	UG		
10) Acetone	3.78 3.97	43	8052m 11884m 20130m	2.93	UG		
11) Carbon disulfide		76	20130m	1.11	UG		
12) Vinyl acetate	4.20		15294			#	100
13) Methylene chloride		84	9026m 80835	1.16	UG	щ	100
14) Acrylonitrile	4.62 4.49	53 59	80835 2417m	2.92		#	100
15) tert-Butyl alcohol (TBA) 16) trans-1,2-Dichloroethene		96	8784	1.19		#	99
17) Methyl tert-butyl ether		73	20825	0.94			100
18) 1,1-Dichloroethane	5.14	63	16985	1.03	UG		99
19) Diisopropyl ether (DIPE)		45	31641	0.86		#	79
20) cis-1,2-Dichloroethene	5.81	96	8904	1.08		#	100
21) 2,2-Dichloropropane	5.81 5.84	77 43	7982 9306m	1.13 1.98			98
22) 2-Butanone (MEK) 23) Bromochloromethane	5.84	128	4254	1.13		#	96
25) Chloroform	6.16	83	15393	1.06		"	97
26) 1,1,1-Trichloroethane	6.39	97	12214	1.20	UG	#	82
27) Carbon tetrachloride	6.56	117	10635	1.16		#	51
28) 1,1-Dichloropropene	6.57	75	14070	1.27		#	81
29) 1,2-Dichloroethane (EDC)		62 78	14727	1.02 1.04		#	86 99
32) Benzene 33) Trichloroethene	6.81 7.53	78 95	35620 9938	1.20			88
34) 1,2-Dichloropropane	7.79	63	10246	1.01			100
35) Dibromomethane	7.92	93	5488	1.05		#	61
36) 1,4-Dioxane	7.94	88	12797	170.45	UG	#	100
37) Bromodichloromethane	8.09	83	10949	0.95		#	98
38) 2-Chloroethyl vinyl ethe		63	8291	1.40		#	86
39) cis-1,3-Dichloropropene	8.60	75	10496	0.76		#	99 95
40) 4-Methyl-2-pentanone (MI	BK 8.78 8.97	43 92	14182 23068	1.36 1.11		#	95
42) Toluene 43) trans-1,3-Dichloropropen		92 75	10981m	0.88			20
43) trans-1,3-Dichioropropen 44) 1,1,2-Trichloroethane	9.43	83	6799	1.06			91
	2						

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1456.D Acq On : 12 Sep 2017 14:48 Operator : BARBARA Sample : ICC001, ICC170912, A, 5mL, 100 Misc : NA, NA, 1 ALS Vial : 3 Sample Multiplier: 1 Quant Time: Sep 13 10:46:05 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:14:27 2017 Response via : Initial Calibration

 Internal Standards
 R.T. Qion
 Response
 Conc Units Dev(Min)

 45)
 Tetrachloroethene
 9.62
 166
 8231m
 1.16
 UG

 46)
 1,3-Dichloropropane
 9.63
 76
 13131
 0.97
 UG
 100

 47)
 2-Hexanone
 9.75
 43
 13570m
 1.87
 UG

 48)
 Dibromochloromethane
 9.90
 1.27
 7449
 0.99
 UG
 99

 51)
 Chlorobenzene
 10.61
 112
 25961
 1.21
 UG
 # 73

 52)
 1.1,1,2-Tetrachloroethane
 10.71
 13
 7284
 1.01
 UG
 # 53

 53)
 Ethylbenzene
 10.68
 106
 32248
 2.23
 UG
 92

 56)
 Styrene
 11.37
 104
 18049
 0.75
 UG
 # 63

 58)
 Isopropylbenzene
 12.17
 156
 9077
 1.12
 UG
 # 63

 51)
 1.2,2-Tetrachloroethane
 12.19
 75
 10169
 1.33
 UG
 # 63

 52)
 1,2,3-Trichloropropan R.T. QIon Response Conc Units Dev(Min) Internal Standards

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1456.D Acq On : 12 Sep 2017 14:48 Operator : BARBARA Sample : ICC001, ICC170912, A, 5mL, 100 Misc : NA,NA,NA,1 ALS Vial : 3 Sample Multiplier: 1 Quant Time: Sep 13 10:46:05 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:14:27 2017 Response via : Initial Calibration

Abundance	TIC: E1456.D	
3000000		
2800000		
2600000		
2400000	Tollene-d8. S	
2200000		
2000000	chlorobenzene-d5,1	
1800000	1,4-Diffuorobenzene, l Chlor Bromofluorobenzene, S	
1600000	Bromof	
1400000	₽1Žene, –	
1200000	1,1,1-TRichtenzitene,	
1000000	1,1,1-THerharter	
800000		
600000	ane,T fruoroethane,T fruoroethane,T fr fr fr fr fr fr fr fr fr fr	ropane. T
400000 200000	Dichonocontinuoromethane., T Bright Anterebraic, P Bright Anterebraic State Activity Exploring and currents. T Activity Exploring and currents. T Activity Exploring Activity and currents. Activity Exploring Activity and Color State Carl Bight Bight Rep of Piep., T Bight Bight Rep of Activity and Color State Activity Exploring Activity	1,2-Dibromo-3-chloropropane.T 1,2,4-Trichlorobenzene,T NspanJagmydradiene,T 1,2,3-Trichlorobenzene,T
200000	Chickholocellarging: Pipichonodicaline Ringroughellarging: Trichholocellucine Ringroughellarging: Ringroughellarging Polisbiphygrethel Polisbiphygrethel Ringroughellarging Ringr	1,2-Dibro 1,2,4-Ti Nathand 1,2,3-Ti 1,2,3-Ti
0	han have been and have a stranger and have a stranger of the second seco	<u>, , , , , , , , , , , , , , , , , , , </u>
Time>	00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00	15.00 16.00 17.00 18.00
8091217.	M Wed Oct 04 16:52:16 2017 RT1	E17-07838 Page 2372

Data I Acq Or Operat Sample Misc	Path : C:\MSDChem\1\DATA\ File : E1457.D n : 12 Sep 2017 15:18 tor : BARBARA e : ICC005,ICC170912,A : NA,NA,NA,1 ial : 4 Sample Multipl	,5mL,100	-					
Quant Quant QLast	Time: Sep 13 10:31:08 20 Method : C:\MSDCHEM\1\ME Title : VOLATILE ORGANI Update : Wed Sep 13 10:1 nse via : Initial Calibra	THODS\E80 CS BY EPA 1:51 2017						
Inte	rnal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev	(Min)
1)	Pentafluorobenzene	6.40	168	679851	50.00	UG		0.00
31)	1,4-Difluorobenzene Chlorobenzene-d5	7.23	114	1214244	50.00	UG		0.00
50)	Chlorobenzene-d5	10.58	117	967292	50.00	UG		0.00
Syste	em Monitoring Compounds							
	1,2-Dichloroethane-d4			575855				0.00
	iked Amount 50.000 Toluene-d8	Range 69 8.90		1561143	ry = 49.84			0.00
	iked Amount 50.000	Range 80	- 120	Recove	ry =	99.	68%	
		11.98						0.00
sp:	iked Amount 50.000	Range 66	- 120	Recove	ry =	100.	888	
Targe	et Compounds						Qva	alue
	Dichlorodifluoromethane	1.93		23196	4.58	UG		99
	Chloromethane Vinyl chloride	2.11	50 62	60965 46308	5.12	UG		99 99
	Bromomethane	2.24 2.64	94	17724	5.85	UG		97
6)	Chloroethane	2.77	64	21213	5.04	UG	#	100
	Trichlorofluoromethane	3.06	101	30338m 153414	4.05	UG		100
	Acrolein 1,1-Dichloroethene	3.59 3.71	56 96	153414 35493m	4.63		#	100
	Acetone	3.79	43	44207	10.85	UG		98
	Carbon disulfide	3.98	76	99736	5.50	UG		100
	Vinyl acetate	4.19	43	99736 73081 42850	4.96	UG	#	100
	Methylene chloride	4.30	84 53	42850 426143			# #	68 100
	Acrylonitrile tert-Butyl alcohol (TBA)		59	8183	9.49		#	100
	trans-1,2-Dichloroethene		96	36929	4.84		#	98
	Methyl tert-butyl ether		73	107404	4.66			100
	1,1-Dichloroethane	5.14	63	84105 174944	4.93 4.49		#	99 48
	Diisopropyl ether (DIPE) cis-1,2-Dichloroethene	5.24 5.81	45 96	39299	4.49		#	100
	2,2-Dichloropropane	5.81	77	38046	5.32			98
	2-Butanone (MEK)	5.84	43	47283	9.70		#	94
	Bromochloromethane	6.08 5.24	128 42	19101 12000	4.90 5.90		# #	98 100
	Tetrahydrofuran Chloroform	6.17	83	73313	4.91		π	99
26)	1,1,1-Trichloroethane	6.38	97	51734	4.95		#	82
	Carbon tetrachloride	6.57	117	43974	4.59		ш	99
	1,1-Dichloropropene 1,2-Dichloroethane (EDC)	6.57 6.81	75 62	53361 72473	4.61 4.85		# #	81 86
	Benzene	6.81	78	166470	4.82		"	100
33)	Trichloroethene	7.53	95	40911	4.90			90
	1,2-Dichloropropane	7.78	63	48324	4.66 4.72		# #	99 91
	Dibromomethane 1,4-Dioxane	7.91 7.94	93 88	25191 71259	930.46		#	100
	Bromodichloromethane	8.08	83	53684	4.51		#	97
38)	2-Chloroethyl vinyl ethe		63	48151	7.64		#	96
	cis-1,3-Dichloropropene	8.60 877	75 43	60124 89537	4.15 8.18		#	99 94
40) 42)	4-Methyl-2-pentanone (MI Toluene	BK 8.77 8.97	43 92	101988	4.86		17	99
	trans-1,3-Dichloropropen		75	53036	4.02		#	79

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1457.D Acq On : 12 Sep 2017 15:18 Operator : BARBARA Sample : ICC005,ICC170912,A,5mL,100 Misc : NA,NA,1 ALS Vial : 4 Sample Multiplier: 1 Quant Time: Sep 13 10:31:08 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:11:51 2017 Response via : Initial Calibration
 Internal Standards
 R.T. QION
 Response
 Conc Units Dev(Min)

 44)
 1,1,2-Trichloroethane
 9.43
 83
 30640
 4.72 UG
 98

 45)
 Tetrachloroethene
 9.61
 166
 37613
 5.39 UG
 98

 46)
 1,3-Dichloropropane
 9.63
 76
 63583
 4.58 UG
 100

 712
 +Rexanone
 9.72
 43
 64133m
 8.46 UG
 48
 Dibromochloromethane
 9.89
 129
 34046
 4.40 UG
 98

 49)
 1,2-Dibromochhane (EDB)
 10.04
 107
 32499
 4.59 UG
 100

 51)
 Chlorobenzene
 10.61
 112
 110923
 5.11 UG
 #
 73

 52)
 1,1,2.2-Tetrachloroethane
 10.74
 91
 18290
 4.60 UG
 98

 53)
 Espropylbenzene
 11.37
 104
 107373
 4.23 UG
 #
 100

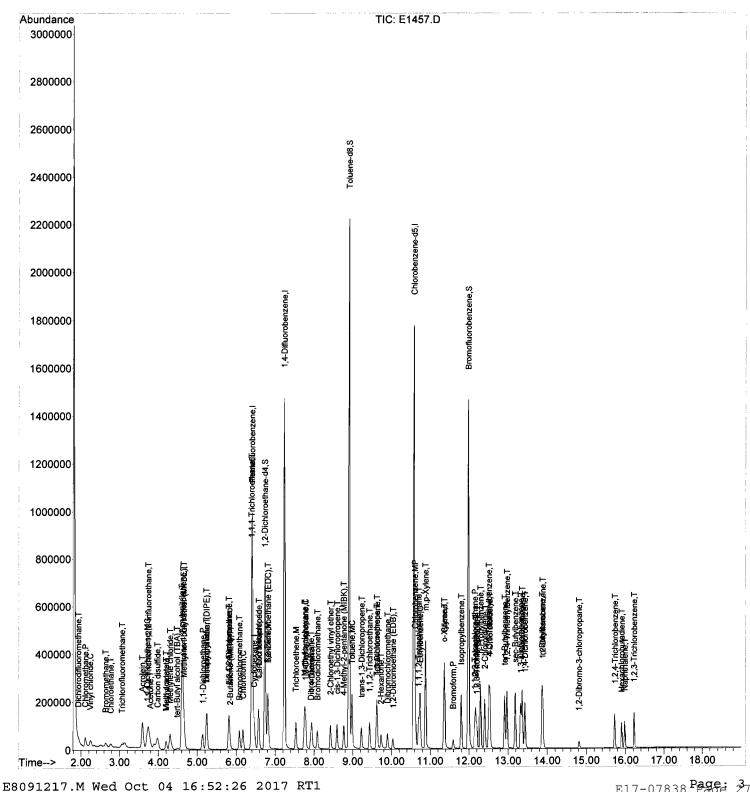
 54)
 spropylbenzene
 12.79
 15
 1640294
 4.87 UG
 #
 100

 <tr R.T. QION Response Conc Units Dev(Min) Internal Standards _____

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1457.D : 12 Sep 2017 15:18 Acq On : BARBARA Operator : ICC005, ICC170912, A, 5mL, 100 Sample : NA, NA, NA, 1 Misc ALS Vial Sample Multiplier: 1 : 4 Quant Time: Sep 13 10:31:08 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:11:51 2017

Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1458.D Acq On : 12 Sep 2017 15:48 Operator : BARBARA Sample : ICC020, ICC170912, A, 5mL, 100 Misc : NA, NA, NA, 1 ALS Vial : 5 Sample Multiplier: 1 Quant Time: Sep 13 10:43:12 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:07:18 2017 Response via : Initial Calibration Internal Standards R.T. QIon Response Conc Units Dev(Min) 1) Pentafluorobenzene6.4016870376450.00UG0.0031) 1,4-Difluorobenzene7.23114126014550.00UG0.0050) Chlorobenzene-d510.57117102839250.00UG0.00

 System Monitoring Compounds

 30) 1,2-Dichloroethane-d4
 6.74
 65
 596709
 50.30
 UG
 0.00

 Spiked Amount
 50.000
 Range
 69
 166
 Recovery
 =
 100.60%

 41) Toluene-d8
 8.90
 98
 1632273
 50.43
 UG
 0.00

 Spiked Amount
 50.000
 Range
 80
 120
 Recovery
 =
 100.86%

 59) Bromofluorobenzene
 11.98
 95
 601239
 49.33
 UG
 0.00

 Spiked Amount 50.000 Range 66 - 120 Recovery = 98.66%

 Spiked Amount
 50.000
 Range
 66 - 120
 Recovery
 =
 98.66%

 21
 Dichlorodifluoromethane
 1.93
 85
 101032
 18.89
 UG
 100

 3)
 Chloromethane
 2.11
 50
 251078
 20.46
 UG
 100

 4)
 Vinyl chloride
 2.24
 62
 193479
 20.27
 UG
 99

 5)
 Bromomethane
 2.64
 94
 61464m
 17.73
 UG
 #
 100

 7)
 Trichlorofluoromethane
 3.07
 101
 118442
 14.09
 UG
 99

 8
 Acrolein
 3.59
 56
 294103
 173.37
 UG
 #
 100

 10)
 Acetone
 3.78
 43
 163346
 36.43
 UG
 98

 11)
 Carbon disulfide
 3.99
 76
 393193
 16.90
 UG
 100

 12)
 Vinyl acetate
 4.20
 43
 150165
 18.73
 UG
 #
 100

 13)
 Methylene chloride
 4.64
 96
 154112
 19.08 Target Compounds Qvalue

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1458.D Acq On : 12 Sep 2017 15:48 Operator : BARBARA Sample : ICC020,ICC170912,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 5 Sample Multiplier: 1 Quant Time: Sep 13 10:43:12 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:07:18 2017 Response via : Initial Calibration

 Internal Standards
 R.T. Qion
 Response
 Conc Units Dev(Min)

 44)
 1,1,2-Trichloroethane
 9.43
 83
 124825
 17.57
 UG
 97

 45)
 Tetrachloroethane
 9.61
 166
 138068
 18.35
 UG
 97

 46)
 1,3-Dichloropropane
 9.63
 76
 265855
 17.60
 UG
 100

 70
 2-Hexanone
 9.72
 43
 278863
 31.84
 UG
 93

 48)
 Dibromochloromethane
 9.89
 129
 143746
 16.77
 UG
 99

 51)
 Chlorobenzene
 10.61
 112
 437428
 17.49
 UG
 #100

 51)
 Ethylbenzene
 10.81
 106
 285711
 17.42
 UG
 93

 55)
 o-Xylene
 11.35
 106
 285711
 17.41
 UG
 99

 50)
 1,1,2,2-Tetrachloroethane
 12.17
 156
 17063
 16.71
 UG
 99

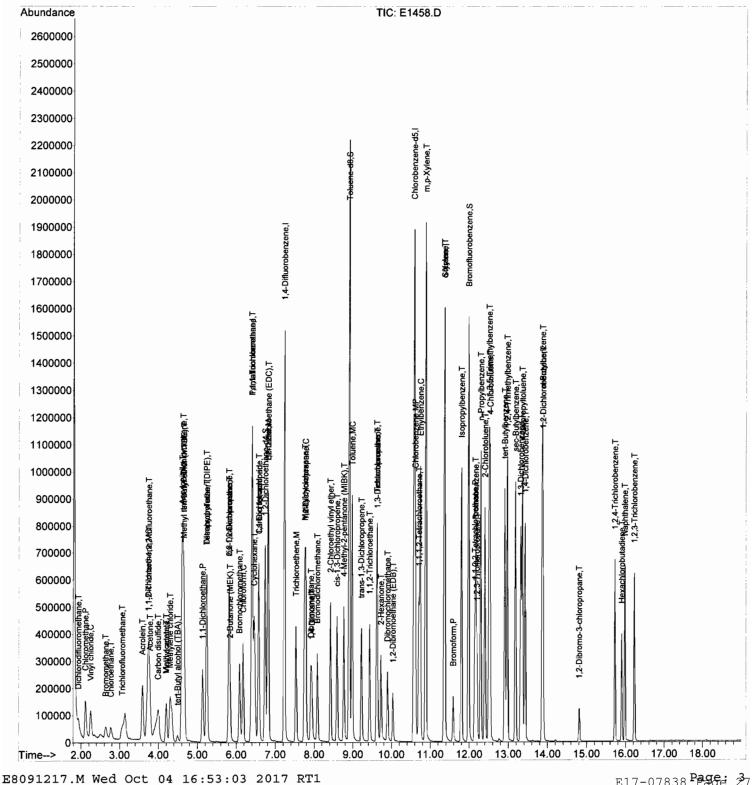
 61)
 J.c.y-Trichloropropane
 12.20
 75
 182891
 17.41
 UG
 98

 R.T. QION Response Conc Units Dev(Min) Internal Standards _____

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1458.D : 12 Sep 2017 Acq On 15:48 : BARBARA Operator Sample : ICC020, ICC170912, A, 5mL, 100 Misc : NA, NA, NA, 1 Sample Multiplier: 1 ALS Vial : 5 Quant Time: Sep 13 10:43:12 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:07:18 2017

Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\ Data File : E1459.D Acq On : 12 Sep 2017 16:18 Operator : BARBARA Sample : ICC100,ICC170912,A Misc : NA,NA,NA,1 ALS Vial : 6 Sample Multipl	,5mL,100 ier: 1						
Quant Time: Sep 13 10:06:32 20 Quant Method : C:\MSDCHEM\1\ME Quant Title : VOLATILE ORGANI QLast Update : Wed Sep 13 10:0 Response via : Initial Calibra	THODS\E80 CS BY EPA 5:51 2017						
Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev	(Min)
1) Pentafluorobenzene	6 40	168	749966	50 00	UG		0.00
31) 1,4-Difluorobenzene 50) Chlorobenzene-d5	7.23	114	1343564	50.00	UG		0.00
50 Chlorobenzene-d5	10.57	117	1101227	50.00	UG		0.00
50, chiclobeniene do	2010/	/			• -		••••
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.74	65	632105	50.00	UG		0.00
Spiked Amount 50.000	Range 69	- 166	Recove	erv =	100.	008	
41) Toluene-d8		98		50.00	UG		0.00
	Range 80						
59) Bromofluorobenzene	11.98	95	652601	50.00	UG		0.00
Spiked Amount 50.000	Range 66	- 120	Recove	erv =	100.	008	
	inairige ee						
Target Compounds						Ova	alue
	1.93	85	570015	100.00	UG	-	99
3) Chloromethane	1.93 2.11	50	570015 1307808	100.00	UG		100
4) Vinvl chloride	2.25	62	1017163	100.00	UG		99
5) Bromomethane	2.63	94	369349	100.00	UG		100
6) Chloroethane	2.77	64	508707	100.00	UG	#	100
 Vinyl chloride Bromomethane Chloroethane Trichlorofluoromethane Agroloin 	3.10	101	895493	100.00	UG		100
8) Acrolein	3.59	56	1017163 369349 508707 895493 542318	300.00	UG	#	100
9) 1.1-Dichloroethene	2.12	30	003/41	T00.00			
10) Acetone	3.79 3.98 4.19	43	955366	200.00			98
11) Carbon disulfide	3.98	76	2138267	200.00 100.00	UG		100
12) Vinyl acetate	4.19	43	1757504	100.00			100
13) Methylene chloride	4.30	84	894132	100.00		#	68
14) Acrylonitrile	4.60	53	1525195	300.00	UG	#	100
15) tert-Butyl alcohol (TBA)		59	209948	200.00		#	100
16) trans-1,2-Dichloroethene		96	860769	100.00		#	68
17) Methyl tert-butyl ether		73	2723673	100.00			100
18) 1,1-Dichloroethane	5.13	63	1955534	100.00		.,	99
19) Diisopropyl ether (DIPE)		45	4515233	100.00		#	48
20) cis-1,2-Dichloroethene	5.80	96	997459	100.00 100.00		#	100 98
21) 2,2-Dichloropropane	5.81 5.83	77 43	851803 1171514	200.00		#	94
22) 2-Butanone (MEK) 23) Bromochloromethane	6.08	128	449578	100.00		#	100
25) Chloroform	6.17	83	1709429	100.00			98
26) 1,1,1-Trichloroethane	6.39	97	1211967	100.00		#	82
27) Carbon tetrachloride	6.57	117	1111642	100.00			100
28) 1,1-Dichloropropene	6.57	75	1327564	100.00		#	81
29) 1,2-Dichloroethane (EDC)		62	1720486	100.00		#	86
32) Benzene	6.80	78	3950703	100.00	UG		100
33) Trichloroethene	7.53	95	945090	100.00	UG		91
34) 1,2-Dichloropropane	7.78	63	1208888	100.00	UG	#	100
35) Dibromomethane	7.91	93	627411	100.00		#	37
36) 1,4-Dioxane	7.94	88	272318	3000.00	UG	#	100
37) Bromodichloromethane	8.08	83	1372114	100.00			98
38) 2-Chloroethyl vinyl ethe	er 8.42	63	1521647	200.00		#	95
39) cis-1,3-Dichloropropene	8.59	75	1720338	100.00			98
40) 4-Methyl-2-pentanone (MI		43	2676501	200.00		#	79
42) Toluene	8.98	92	2425530	100.00			98
43) trans-1,3-Dichloroproper		75	1552130	100.00		#	78
44) 1,1,2-Trichloroethane	9.43	83	757561	100.00	UG	#	53

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1459.D Acq On : 12 Sep 2017 16:18 Operator : BARBARA Sample : ICC100,ICC170912,A,5mL,100 Misc : NA,NA,NA,1 : NA,NA,NA,1 ALS Vial : 6 Sample Multiplier: 1 Quant Time: Sep 13 10:06:32 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:05:51 2017 Response via : Initial Calibration Internal StandardsR.T. QIonResponseConc Units Dev(Min)45)Tetrachloroethene9.61166802256100.00UG#46)1,3-Dichloropropane9.63761610138100.00UG10047)2-Hexanone9.72431867799200.00UG9548)Dibromochloromethane9.89129914071100.00UG10049)1,2-Dibromoethane (EDB)10.03107826823100.00UG10051)Chlorobenzene10.611122552662100.00UG#7352)1,1,1,2-Tetrachloroethane10.74914731772100.00UG#8553)Ethylbenzene10.811063518610200.00UG#10054)m,p-Xylene11.35106175598100.00UG#10056)Styrene11.371043061217100.00UG#10061)Bromobenzene12.14831241425100.00UG#10062)1,2,2-Tetrachloroethane12.20751114450100.00UG#10061)Bromobenzene12.2115697649100.00UG#10062)1,2,3-Trichloropropane12.20751114450100.00UG#10062)1,2,4-Trimethylbenzene12.511053917640100.00< R.T. QIon Response Conc Units Dev(Min) Internal Standards 75) 1,2-Dibromo-3-chloropropan 14.81 75 222489 100.00 UG # 80 75)1,2-Dibromo-3-chloropropan14.8175222489100.00 UG#8076)1,2,4-Trichlorobenzene15.721801251831100.00 UG9977)Hexachlorobutadiene15.90225376625100.00 UG10078)Naphthalene15.981283421745100.00 UG10079)1,2,3-Trichlorobenzene16.231801149776100.00 UG10080)1,1,2-Trichloro-1,2,2-trif3.75101810216100.00 UG9381)Methyl acetate4.19431757504100.00 UG#8282)Cyclohexane6.46562062450100.00 UG#7483)Methylcyclohexane7.75831500807100.00 UG#46 -----

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1459.D Acq On : 12 Sep 2017 16:18 Operator : BARBARA : ICC100, ICC170912, A, 5mL, 100 Sample Misc : NA, NA, NA, 1 ALS Vial : 6 Sample Multiplier: 1 Quant Time: Sep 13 10:06:32 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:05:51 2017 Response via : Initial Calibration Abundance TIC: E1459.D 1.4e+07 1.35e+07 1.3e+07 1.25e+07 1.2e+07 BHYNdenerT 1.15e+07 1.1e+07 1.05e+07 1e+07 .2-Dichlorobenzene, Tn-Butylbenzene, T 9500000 ChlorotolUePEopylbenzene,T -ChlorotolUePE 4-Chlorotol06EFiel7Tethylbenzene,T 9000000 8500000 8000000 Isopropylbenzene,T Ethylbenzene,C Bonthichten Methane (EDC), T 7500000 RBBRSPBE sepropy 7000000 oluene, MC 1,2,4-Trichlorobenzene,T - Naphthalene,T 1,2,3-Trichlorobenzene,T Chlerobenzene,MP 6500000 .2Mathydropic/constrance. tertrsy1tu2+Ebiotybeatathere(AeTBE),T 6000000 Diisopropyl ether (DIPE),T adoede. MIBK),T Arbetsgeint Broathathenzene. 5500000 erte2/&Grifluoroethane,7 5000000 -Butamone (MEK% PDB/0000) 4500000 trans-1,3-Dichlor Trichloroethene, M Hexachlorobutadiene.J nethane, I 4000000 Rented Wendtheys I,4-Difluorobenzene,I 1,2-Dibromo-3-chloropropane,T 3500000 e (EDB). .1-Dichloroethane,P Broenchlorome ethane-d4.S 3000000 Bromoform.P 2500000 ,2-Dibrom Trichlorofluoron 2000000 momethane 1500000 1000000 500000 0 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00 3.00 6.00 7.00 8.00 9.00 10.00 2.00 4.00 5.00 Time-->

E8091217.M Wed Oct 04 16:53:09 2017 RT1

Data Path : C:\MSDChem\1\DATA Data File : E1460.D Acq On : 12 Sep 2017 16:48 Operator : BARBARA Sample : ICC150,ICC170912,A Misc : NA,NA,NA,1 ALS Vial : 7 Sample Multipl	3 A,5mL,100						
Quant Time: Sep 13 10:11:12 20 Quant Method : C:\MSDCHEM\1\MB Quant Title : VOLATILE ORGANI QLast Update : Wed Sep 13 10:0 Response via : Initial Calibra	ETHODS\E80: ICS BY EPA 08:38 2017						
Internal Standards	R.T.	QIon	Response	Conc Ui	nits	Dev	(Min)
1) Pentafluorobenzene							
31) 1,4-Difluorobenzene	7.23	114	1409701	50.00	UG		0.00
31) 1,4-Difluorobenzene 50) Chlorobenzene-d5	10.57	117	1165937	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.73	65	661334	49.13	UG		0.00
Spiked Amount 50.000	Range 69	- 166	Recove	ery =	98.	26%	
41) Toluene-d8	8.90						0.00
Spiked Amount 50.000 59) Bromofluorobenzene	Range 80 11.98	- 120	Recove	ery = 50.35	100. UC	04%	0.00
Spiked Amount 50.000	Range 66						0.00
	je			1			
Target Compounds						Qva	alue
2) Dichlorodifluoromethane	1.92	85	902514	153.42			99
3) Chloromethane	2.11 2.25	50 62	2063381 1614879	146.94 148.55			100 99
5) Bromomethane	2.25	94	551179	158.15			
 4) Vinyl chloride 5) Bromomethane 6) Chloroethane 7) Trichlorofluoromethane 8) Agroloin 	2.75	64	829978	179.45			
7) Trichlorofluoromethane	3.09 3.58	101	829978 1517610 699435	187.30	UG		100
a) ACIDIEIN	3.50	20	699435	390.47			100
9) 1,1-Dichloroethene	3.73	96	1356365	151.80	UG	#	100
10) Acetone 11) Carbon disulfide	3.78	43 76	1388657 3266555 2499492	286.63 155.98			98 100
12) Vinyl acetate	3.99 4.19	43	2499492	142.43	UG	#	
	4.30	84	1352985	147.21	ŪG	#	99
14) Acrylonitrile	4.61	53	1988295	394.97	UG	#	100
15) tert-Butyl alcohol (TBA)		59	290570	282.18		#	100
16) trans-1,2-Dichloroethene		96	1346275	150.81		#	100
17) Methyl tert-butyl ether 18) 1,1-Dichloroethane	(M 4.66 5.13	73 63	4121470 3030547	$154.14 \\ 152.45$			100 99
19) Diisopropyl ether (DIPE)		45	6991038	154.83		#	48
20) cis-1,2-Dichloroethene	5.80	96	1539156	153.37		#	100
21) 2,2-Dichloropropane	5.81	77	1213323	142.47			99
22) 2-Butanone (MEK)	5.83	43	1693865	295.03		#	94
23) Bromochloromethane 25) Chloroform	6.08 6.16	128 83	679226 2628923	148.17 150.66		#	100 98
26) 1,1,1-Trichloroethane	6.38	97	1814293	147.41		#	82
27) Carbon tetrachloride	6.57	117	1737329	157.25			100
28) 1,1-Dichloropropene	6.57	75	2077572	154.75		#	96
29) 1,2-Dichloroethane (EDC)		62	2654829	152.75		#	99
32) Benzene 33) Trichloroethene	6.80 7.52	78 95	6184189 1485971	156.61 155.23			100 91
34) 1,2-Dichloropropane	7.78	63	1834853	153.63		#	100
35) Dibromomethane	7.91	93	936194	151.84		#	92
36) 1,4-Dioxane	7.93	88	359384	4063.34		#	100
37) Bromodichloromethane	8.08	83	2146161	158.34		#	68
38) 2-Chloroethyl vinyl ethe	er 8.41 8.59	63 75	2264905 2619788	314.71 158.94		#	95 98
39) cis-1,3-Dichloropropene 40) 4-Methyl-2-pentanone (MI		43	3811034	299.76		#	98 79
40) 4-Mechyl-2-pencanone (Mi 42) Toluene	8.98	92	3728724	154.85			97
43) trans-1,3-Dichloroproper		75	2417428	162.17	UG	#	78
44) 1,1,2-Trichloroethane	9.43	83	1151563	154.26	UG		95

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1460.D Acq On : 12 Sep 2017 16:48 Operator : BARBARA Sample : ICC150, ICC170912, A, 5mL, 100 Misc : NA, NA, 1 ALS Vial : 7 Sample Multiplier: 1 Quant Time: Sep 13 10:11:12 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:08:38 2017 Response via : Initial Calibration Internal StandardsR.T. QIONResponseConc Units Dev(Min)45)Tetrachloroethene9.611661227991152.17UG#10046)1,3-Dichloropropane9.63762481353156.24UG10047)2-Hexanone9.72432641935300.26UG9548)Dibromochloromethane9.891291401981159.04UG10049)1,2-Dibromoethane (EDB)10.031071261633155.19UG10051)Chlorobenzene10.611123997467154.27UG#7352)1,1,1,2-Tetrachloroethane10.711311382763154.94UG#10053)Ethylbenzene10.74917397943156.43UG#9854)m,p-Xylene10.881065592588316.73UG9055)o-Xylene11.371044839161162.69UG#10057)Bromoborm11.59173828215157.44UG#6358)Isopropylbenzene12.14831812252147.43UG#0661)1,2,3-Trichloropropane12.20751654590149.28UG#10062)1,2,3-Trichloropropane12.20751654590149.28UG#1063)n-Propylbenzene12.511056219807161.22 Internal Standards R.T. QIon Response Conc Units Dev(Min) _____ 1,2-D1CD10r0Denzene13.891463026857154.16UG#8175)1,2-Dibromo-3-chloropropan14.8175320492152.98UG#8076)1,2,4-Trichlorobenzene15.721801902403161.83UG10077)Hexachlorobutadiene15.90225588734150.54UG10078)Naphthalene15.981285009355159.71UG10079)1,2,3-Trichlorobenzene16.231801702192155.42UG10080)1,1,2-Trichloro-1,2,2-trif3.741011289403152.69UG9381)Methyl acetate4.19432499492142.48UG#8282)Cyclohexane6.45563203072149.40UG#7383)Methylcyclohexane7.75832373488156.71UG#66 ______

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1460.D Acq On : 12 Sep 2017 16:48 Operator : BARBARA Sample : ICC150,ICC170912,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 7 Sample Multiplier: 1 Quant Time: Sep 13 10:11:12 2017

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:08:38 2017 Response via : Initial Calibration

Abundance	TIC: E1460.D
2.2e+07	
2.1e+07	
2e+07	
1.9e+07	
1.8e+07	styteteefi T
1.7e+07	
1.6e+07	
1.5e+07	Senzene
1.4e+07	rimethyll izene. T
1.3e+07	e,T Hylbenze Batk/ther
1.2e+07	lane (EDC), T ane (EDC), T E.T ithylbenzene, T is opropylbenzene, T
1.1e+07	
1e+07	0,T DIPE),T eide,T 1,2-BatriteormeMane 1,2-BatriteormeMane 1,2-BatriteormeMane T Tatelauthoruntimem.ñ.T Tatelauthoruntimem.ñ.T Sopr Ethylb Ethylb Ethylb Bibliolofolofolofolofolofolofolofolofolofol
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8000000	2. Cichiduroetheane, T examinite Metry strest 5. Supplicities catholic equities (DIPE), T than P Discopropyl ether (DIPE), T one (MEK), 248-10-80 futble requires 6, T 0.00 from Methylic T C.at Biot rescent of Biot Trichloroethene, M 1, 2-DMethylic optices (De, T 1, 2-DMethylic optices (De, T 1, 2-DMethylic optices (De, T Trichloroethene, M Trichloroethene, M trans. 1, 3-Dickloropropene, T 1, 1, 2-Trichloroethane, T 1, 2-Dickloroethane, T
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6000000	2.1. Childronekite/R. M.B.u. M. M. M
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Time> 2.0	0 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00

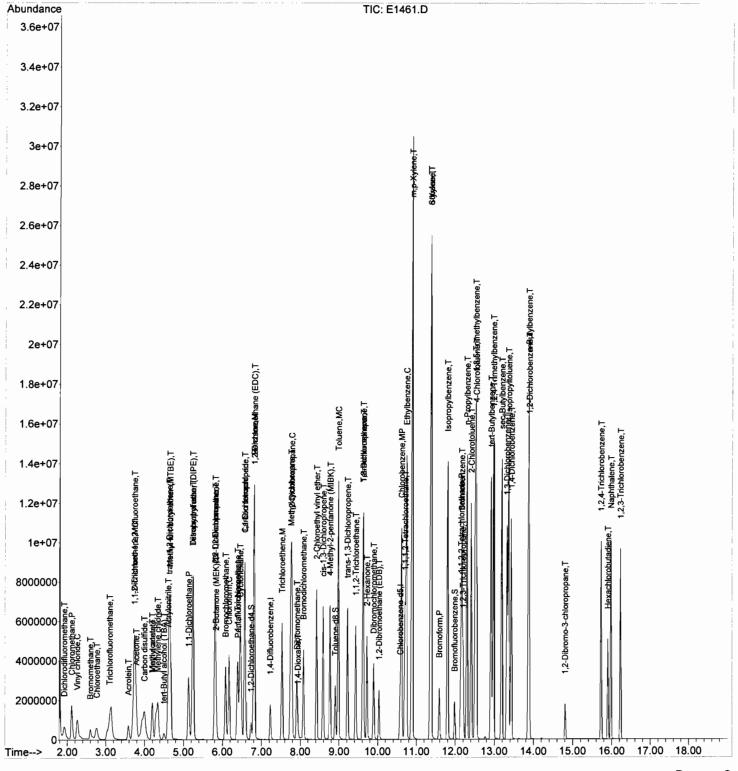
Data Acq On Operat Sample Misc	Path : C:\MSDChem\1\DATA\ File : E1461.D n : 12 Sep 2017 17:18 tor : BARBARA e : ICC200,ICC170912,A : NA,NA,NA,1 ial : 8 Sample Multipl	,5mL,100						
Quant Quant QLast	Time: Sep 13 10:26:46 20 Method : C:\MSDCHEM\1\ME Title : VOLATILE ORGANI Update : Wed Sep 13 10:2 nse via : Initial Calibra	THODS\E809 CS BY EPA 4:18 2017						
	rnal Standards							
1)	Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5	6.40	168	844835	50.00	UG		0.00
31)	1,4-Difluorobenzene	7.22	114	1502491	50.00	UG		0.00
50)	Chlorobenzene-d5	10.57	117	1224236	50.00	UG		0.00
	em Monitoring Compounds							
	1,2-Dichloroethane-d4	6.73	65	700281	48.54	UG		0.00
	iked Amount 50.000			700281 Recove	ery =	97.	.08%	
	Toluene-d8	8.90						0.00
Sp	iked Amount 50.000	Range 80	- 120	Recove	ry =	99.	.54%	0.00
59) Sn	Bromofluorobenzene iked Amount 50.000	Range 66	- 120	733280 Recove	rv =	102	36%	0.00
sp	iked Allount 50.000	Range 00	120	Recove		102		
Targ	et Compounds						Qva	lue
		1.92		1300046	212.50	UG		99
	Chloromethane	2.11			185.15	UG		100
4)	Vinyl chloride	2.26	62	2260123	184.73	UG		99
5)	Bromomethane	2.60	94	592940	140,42	UG	#	99 100
6) 7)	Chloroethane Trichlorofluoromothane	2.//	64 101		212.27	UG TIC	#	100
/) 8)	Bromomethane Chloroethane Trichlorofluoromethane Acrolein	3.58	56	1018074	523.86	UG	#	100
	1,1-Dichloroethene		96	2047767	220.01	UG	#	100
10)	Acetone	3.79		2047767 2108218 4555443	372.79	UG		98
	Carbon disulfide	3.79 3.99	76	4555443	198.98	UG		100
	Vinyl acetate	4.20		3816893	206.04	UG	#	100
13)	Methylene chloride	4.34		1931832m	188.45			100
	Acrylonitrile	4.60	53				#	100 100
	tert-Butyl alcohol (TBA) trans-1,2-Dichloroethene		59 96	477737 1951469	413.73 205.03		# #	100
	Methyl tert-butyl ether		73	6266550	229.38			100
	1,1-Dichloroethane	5.13	63	4417463	213.04			99
	Diisopropyl ether (DIPE)			10262402	230.83		#	48
	cis-1,2-Dichloroethene	5.81	96	2247473	213.61		#	100
	2,2-Dichloropropane	5.80	77	1689725	182.45		ш	99
	2-Butanone (MEK)	5.83	43	2562885	427.22		# #	94 100
	Bromochloromethane Tetrahydrofuran	6.08 5.24	128 42	1011956 472125	204.73 176.31		#	100
	Chloroform	6.16	83	3895868	212.67		n	98
	1,1,1-Trichloroethane	6.38	97	2562387	192.74		#	82
	Carbon tetrachloride	6.57	117	2476778	213.43			100
	1,1-Dichloropropene	6.57	75	3072081	215.52		#	96
	1,2-Dichloroethane (EDC)		62	3976529	218.87		#	99
	Benzene	6.80	78	9195812 2152206	219.56 206.09			100 91
	Trichloroethene 1,2-Dichloropropane	7.52 7.77	95 63	2764853	219.07		#	100
	Dibromomethane	7.91	93	1395830	212.55		#	91
	1,4-Dioxane	7.94	88	517829	5751.91		#	100
37)	Bromodichloromethane	8.08	83	3195265	225.60	UG	#	98
38)	2-Chloroethyl vinyl ethe		63	3490095	505.99		#	95
	cis-1,3-Dichloropropene	8.59	75	3906565	250.51		#	98
	4-Methyl-2-pentanone (MI		43	5694170	470.48			96 96
42)		8.98 e 9.22	92 75	5597479 3656553	218.14 250.31		#	98 78
43)	trans-1,3-Dichloropropen	9.22	, ,	5050555	200.01			

66)4-Chlorotoluene12.54919502448230.68UG9867)tert-Butylbenzene12.911196961781247.54UG#168)1,2,4-Trimethylbenzene12.971059416904228.40UG9769)sec-Butylbenzene13.1910511068055242.99UG9970)1,3-Dichlorobenzene13.321464523873216.85UG#9971)4-Isopropyltoluene13.361199013784241.96UG#10072)1,4-Dichlorobenzene13.431464677814220.85UG9973)n-Butylbenzene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.891464367754220.78UG#8175)1,2-Dibromo-3-chloropropan14.8175494132232.09UG#8176)1,2,4-Trichlorobenzene15.721802820969243.02UG10077)Hexachlorobutadiene15.90225869166205.12UG10078)Naphthalene15.981287459948265.11UG10079)1,2,3-Trichlorobenzene16.231802576302239.77UG99	Data Path : C:\MSDChem\1\DATA\09- Data File : E1461.D Acq On : 12 Sep 2017 17:18 Operator : BARBARA Sample : ICC200,ICC170912,A,5m Misc : NA,NA,NA,1 ALS Vial : 8 Sample Multiplier	nL,100					
44) 1,1,2-Trichloroethane 9.43 83 1699887 211.90 UG 95 45) Tetrachloroethene 9.61 166 1818993 201.48 UG #100 46) 1,3-Dichloropropane 9.63 76 3696087 227.27 UG 100 47) 2-Hexanone 9.72 43 4089567 459.57 UG 94 48) Dibromochloromethane 9.89 129 2090575 225.19 UG 99 49) 1,2-Dibromoethane (EDB) 10.01 107 1903820 235.25 UG 100 51) Chlorobenzene 10.61 112 5924236 208.85 UG #73 52) 1,1,1,2-Tetrachloroethane 10.71 131 2060055 226.08 UG #53 54) m,P-Xylene 11.36 106 4074055 243.18 UG #66 55 styrene 11.37 104 743345 267.13 UG # 100 56 Styrene 11.37 104 7438	Quant Method : C:\MSDCHEM\1\METHO Quant Title : VOLATILE ORGANICS QLast Update : Wed Sep 13 10:24:1	BY EPA 8 2017					
45)Tetrachloroethene9.611661818993201.48UG#10046)1,3-Dichloropropane9.63763696087227.27UG10047)2-Hexanone9.72434089567459.57UG9448)Dibromochloromethane9.891292090575225.19UG9949)1,2-Dibromoethane10.611125924236208.85UG#7352)1,1,2-Tetrachloroethane10.711312060055226.08UG#5353)Ethylbenzene10.749111150654227.85UG9854)m,p-Xylene10.881068521958473.32UG9455o-Xylene11.371047433845267.13UG#10057)Bromoform11.591731229467237.25UG#6058)Isopropylbenzene12.14832759126204.74UG9861)Bromobenzene12.299113028742223.17UG9862)1,2,3-Trichloropropane12.207524.90176242.90UG9963)n.Fropylbenzene12.6491769055222.40UG9964)2-Chlorotoluene12.54919502448230.68UG9765)1,2,4-Trimethylbenzene12.91119651781247.54UG# <td< td=""><td>Internal Standards</td><td>R.T.</td><td>QIon</td><td>Response</td><td>Conc Units</td><td>Dev</td><td>(Min)</td></td<>	Internal Standards	R.T.	QIon	Response	Conc Units	Dev	(Min)
49)1,2-Dibromoethane (EDB)10.031071903820235.25UG10051)Chlorobenzene10.611125924236208.85UG#7352)1,1,1,2-Tetrachloroethane10.711312060055226.08UG#5353)Ethylbenzene10.749111150654227.85UG9854)m,p-Xylene10.881068521958473.32UG9455)o-Xylene11.361064074055243.18UG8656)Styrene11.371047433845267.13UG#10057)Bromoform11.591731229467237.25UG#6358)Isopropylbenzene12.14832759126204.74UG9861)Bromobenzene12.171562242873211.99UG#9962)1,2,3-Trichloropropane12.20752490176204.82UG#163)n-Propylbenzene12.209113028742223.17UG9864)2-Chlorotoluene12.40917699655222.40UG9965)1,3,5-Trimethylbenzene12.511059120959238.09UG9766)4-Chlorotoluene12.54919502448230.68UG9769)sec-Butylbenzene13.1910511068055242.99UG99<	45) Tetrachloroethene46) 1,3-Dichloropropane	9.61 9.63	166 76	1818993 3696087	201.48 UG 227.27 UG	#	100 100
55)o-Xylene11.361064074055243.18UG8656)Styrene11.371047433845267.13UG#10057)Bromoform11.591731229467237.25UG#6358)Isopropylbenzene11.8010510469804243.46UG9960)1,1,2,2-Tetrachloroethane12.14832759126204.74UG9861)Bromobenzene12.171562242873211.99UG#9962)1,2,3-Trichloropropane12.20752490176204.82UG#163)n-Propylbenzene12.14917699655222.40UG9964)2-Chlorotoluene12.40917699655222.40UG9965)1,3,5-Trimethylbenzene12.511059120959238.09UG9766)4-Chlorotoluene12.54919502448230.68UG9867)tert-Butylbenzene13.1910511068055242.99UG9768)1,2,4-Trimethylbenzene13.321464523873216.85UG#70)1,3-Dichlorobenzene13.321464523873216.85UG#9971)4-Isopropyltoluene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.87919226962253.76UG9	48) Dibromochloromethane 49) 1,2-Dibromoethane (EDB) 51) Chlorobenzene	9.89 10.03 10.61	129 107 112	1903820 5924236	235.25 UG 208.85 UG		100 73
58)Isopropylbenzene11.8010510469804243.46UG9960)1,1,2,2-Tetrachloroethane12.14832759126204.74UG9861)Bromobenzene12.171562242873211.99UG#9962)1,2,3-Trichloropropane12.20752490176204.82UG#163)n-Propylbenzene12.299113028742223.17UG9864)2-Chlorotoluene12.40917699655222.40UG9965)1,3,5-Trimethylbenzene12.511059120959238.09UG9766)4-Chlorotoluene12.54919502448230.68UG9867)tert-Butylbenzene12.911196961781247.54UG#168)1,2,4-Trimethylbenzene13.1910511068055242.99UG9970)1,3-Dichlorobenzene13.321464523873216.85UG#9971)4-Isopropyltoluene13.361199013784241.96UG#10072)1,4-Dichlorobenzene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.891464367754220.78UG#8175)1,2-Dibromo-3-chloropropan14.8175494132232.09UG#8176)1,2,4-Trichlorobenzene15.72<	53) Ethylbenzene 54) m,p-Xylene 55) o-Xylene	11.36	106	4074055	243.18 UG		98 94 86
63)n-Propylbenzene12.299113028742223.17UG9864)2-Chlorotoluene12.40917699655222.40UG9965)1,3,5-Trimethylbenzene12.511059120959238.09UG9766)4-Chlorotoluene12.54919502448230.68UG9867)tert-Butylbenzene12.911196961781247.54UG#168)1,2,4-Trimethylbenzene12.971059416904228.40UG9769)sec-Butylbenzene13.1910511068055242.99UG9970)1,3-Dichlorobenzene13.321464523873216.85UG#71)4-Isopropyltoluene13.361199013784241.96UG#10072)1,4-Dichlorobenzene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.891464367754220.78UG#8175)1,2,4-Trichlorobenzene15.721802820969243.02UG10077)Hexachlorobutadiene15.981287459948265.11UG10079)1,2,3-Trichlorobenzene16.231802576302239.77UG99	57) Bromoform 58) Isopropylbenzene	11.80 12. 1 4	105 83	10469804 2759126	243.46 UG 204.74 UG	#	63 99 98
65)1,3,5-Trimethylbenzene12.511059120959238.09UG9766)4-Chlorotoluene12.54919502448230.68UG9867)tert-Butylbenzene12.911196961781247.54UG#168)1,2,4-Trimethylbenzene12.971059416904228.40UG9769)sec-Butylbenzene13.1910511068055242.99UG9970)1,3-Dichlorobenzene13.321464523873216.85UG#71)4-Isopropyltoluene13.361199013784241.96UG#10072)1,4-Dichlorobenzene13.431464677814220.85UG9873)n-Butylbenzene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.891464367754220.78UG#8175)1,2-Dibromo-3-chloropropan14.8175494132232.09UG#8176)1,2,4-Trichlorobenzene15.721802820969243.02UG10077)Hexachlorobutadiene15.981287459948265.11UG10079)1,2,3-Trichlorobenzene16.231802576302239.77UG99	62) 1,2,3-Trichloropropane 63) n-Propylbenzene	12.20 12.29	75 91	13028742	223.17 UG		1 98
69)sec-Butylbenzene13.1910511068055242.99UG9970)1,3-Dichlorobenzene13.321464523873216.85UG#9971)4-Isopropyltoluene13.361199013784241.96UG#10072)1,4-Dichlorobenzene13.431464677814220.85UG9973)n-Butylbenzene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.891464367754220.78UG#8175)1,2-Dibromo-3-chloropropan14.8175494132232.09UG#8176)1,2,4-Trichlorobenzene15.721802820969243.02UG10077)Hexachlorobutadiene15.90225869166205.12UG10078)Naphthalene15.981287459948265.11UG10079)1,2,3-Trichlorobenzene16.231802576302239.77UG99	 65) 1,3,5-Trimethylbenzene 66) 4-Chlorotoluene 67) tert-Butylbenzene 	12.54 12.91	91 119	9120959 9502448 6961781	238.09 UG 230.68 UG 247.54 UG	#	1
73)n-Butylbenzene13.87919226962253.76UG9874)1,2-Dichlorobenzene13.891464367754220.78UG#8175)1,2-Dibromo-3-chloropropan14.8175494132232.09UG#8176)1,2,4-Trichlorobenzene15.721802820969243.02UG10077)Hexachlorobutadiene15.90225869166205.12UG10078)Naphthalene15.981287459948265.11UG10079)1,2,3-Trichlorobenzene16.231802576302239.77UG99	69) sec-Butylbenzene70) 1,3-Dichlorobenzene71) 4-Isopropyltoluene	13.19 13.32 13.36	105 146 119	11068055 4523873 9013784	242.99 UG 216.85 UG 241.96 UG		99 99 100
76)1,2,4-Trichlorobenzene15.721802820969243.02UG10077)Hexachlorobutadiene15.90225869166205.12UG10078)Naphthalene15.981287459948265.11UG10079)1,2,3-Trichlorobenzene16.231802576302239.77UG99	73) n-Butylbenzene 74) 1,2-Dichlorobenzene	13.87 13.89	91 146	9226962 4367754	253.76 UG 220.78 UG		98 81
	76) 1,2,4-Trichlorobenzene77) Hexachlorobutadiene78) Naphthalene	15.72 15.90 15.98	180 225 128	2820969 869166 7459948	243.02 UG 205.12 UG 265.11 UG		100 100 100
81) Methyl acetate 4.20 43 3816893 201.95 UG # 82	80) 1,1,2-Trichloro-1,2,2-trif81) Methyl acetate82) Cyclohexane	3.74 4.20 6.45	101 43 56	1890541 3816893 4683543	214.64 UG 201.95 UG 196.84 UG	#	82 74

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1461.D Acq On : 12 Sep 2017 17:18 Operator : BARBARA Sample : ICC200,ICC170912,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 8 Sample Multiplier: 1 Quant Time: Sep 13 10:26:46 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M

Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:24:18 2017 Response via : Initial Calibration



Data H Acq Or Operat Sample Misc ALS Vi Quant Quant Quant QLast Respon	cor : BARBARA : ICV100,ICV170912,A,5mL,	100 1 \E809121 EPA MET 2017 rea : 5	HOD 8260C 0% Max.		0.50	Dmin	
	Compound	AvgRF		%Dev A	rea%	Dev(min)	
 1 I	Pentafluorobenzene	1.000	1.000		109	0.00	
1 1 2 T	Dichlorodifluoromethane		0.361	1.4	103	0.00	
2 I 3 P	Chloromethane	0.954	0.870		103	0.00	
4 C	Vinyl chloride	0.715	0.680			0.01	
5 T	Bromomethane	0.227			98	-0.01	
6 T	Chloroethane	0.333			103	-0.03	
7 T	Trichlorofluoromethane	0.526	0.588		107	0.05	
8 T	Acrolein	0.116		6.9	97	0.00	
9 MC	1,1-Dichloroethene	0.559		-0.4	106	0.01	
10 T	Acetone	0.331	0.288	13.0	98	-0.01	
11 T	Carbon disulfide	1.354	1.284	5.2		0.01	
12 T	Vinyl acetate	1.102	1.010		94	0.00	
13 T	Methylene chloride	0.601	0.573	4.7		-0.02	
14 T 15 T	Acrylonitrile	0.320		1.9 11.6	101 94	0.00 0.00	
15 T 16 T	tert-Butyl alcohol (TBA) trans-1,2-Dichloroethene	0.069 0.565		0.9		-0.01	
10 I 17 T	Methyl tert-butyl ether (MT			-2.2		-0.01	
18 P	1,1-Dichloroethane	1.239		-2.8		0.00	
10 T	Diisopropyl ether (DIPE)	2.689	2.897	-7.7		0.00	
20 T	cis-1,2-Dichloroethene		0.652			-0.02	
21 T	2,2-Dichloropropane	0.540	0.490	9.3	94	0.00	
22 T	2-Butanone (MEK)	0.359	0.340	5.3	95	-0.01	
23 T	Bromochloromethane	0.294	0.292	0.7	106	-0.02	
25 C	Chloroform	1.094	1.113	-1.7	106	0.00	
26 T	1,1,1-Trichloroethane	0.783	0.767	2.0	103	0.00	
27 T	Carbon tetrachloride	0.693	0.708	-2.2	104	-0.01	
28 T	1,1-Dichloropropene	0.853	0.846	0.8	104	-0.01	
29 T	1,2-Dichloroethane (EDC)	1.090	1.086	0.4	103	0.00	
30 S	1,2-Dichloroethane-d4	0.850	0.838	1.4	108	0.00	
31 Т	1,4-Difluorobenzene	1.000	1.000	0.0	107	0.00	
31 I 32 M	Benzene	1.413	1.460	-3.3	106	0.00	
32 M 33 M	Trichloroethene	0.349	0.352	-0.9	107	0.00	
33 M 34 C	1,2-Dichloropropane	0.349	0.332	-1.9	103	-0.01	
34 C 35 T	Dibromomethane	0.221	0.224	-1.4	103	-0.02	
36 T	1,4-Dioxane	0.003	0.003	0.0	100	-0.01	
37 T	Bromodichloromethane	0.480	0.498	-3.8	104	0.00	
38 T	2-Chloroethyl vinyl ether	0.240	0.267	-11.3	101	-0.13	
39 T	cis-1,3-Dichloropropene	0.538	0.621	-15.4	104	-0.02	
40 T	4-Methyl-2-pentanone (MIBK)	0.415	0.429	-3.4	92	0.00	
41 S	Toluene-d8	1.279	1.311	-2.5	109	0.00	
42 MC	Toluene	0.865	0.878	-1.5	104	0.00	
43 T	trans-1,3-Dichloropropene	0.504	0.558	-10.7	103	-0.01	
44 T	1,1,2-Trichloroethane	0.270	0.267	1.1	101	-0.02 0.00 ^{E17}	-07838
45 T	Tetrachloroethene	0.288	0.287	0.3	103		
46 T	1,3-Dichloropropane	0.552	0.570	-3.3	102	0.00	

47 T	2-Hexanone	0.303	0.303	0.0	93	-0.04
48 T	Dibromochloromethane	0.315	0.322	-2.2	101	-0.02
49 T	1,2-Dibromoethane (EDB)	0.276	0.293	-6.2	102	0.00
50 I	Chlorobenzene-d5	1.000	1.000	0.0	108	0.00
51 MP	Chlorobenzene	1.166	1.115	4.4	104	0.00
52 T	1,1,1,2-Tetrachloroethane	0.379	0.389	-2.6	103	-0.01
53 C	Ethylbenzene	2.039	2.069	-1.5	104	0.00
54 T	m,p-Xylene	0.755	0.776	-2.8	105	0.00
55 T	o-Xylene	0.705	0.759	-7.7	103	0.00
56 T	Styrene	1.213	1.341	-10.6	105	0.00
57 P	Bromoform	0.217	0.225	-3.7	97	0.00
58 T	Isopropylbenzene	1.811	1.947	-7.5	103	0.00
59 S	Bromofluorobenzene	0.587	0.594	-1.2	109	0.00
60 P	1,1,2,2-Tetrachloroethane	0.552	0.501	9.2	96	0.00
61 T	Bromobenzene	0.436	0.419	3.9	102	0.00
62 T	1,2,3-Trichloropropane	0.498	0.462	7.2	99	-0.02
63 T	n-Propylbenzene	2.424	2.423	0.0	104	0.00
64 T	2-Chlorotoluene	1.437	1.445	-0.6	102	0.00
65 T	1,3,5-Trimethylbenzene	1.607	1.690	-5.2	103	0.00
66 T	4-Chlorotoluene	1.719	1.715	0.2	102	0.00
67 T	tert-Butylbenzene	1.188	1.287	~8.3	103	-0.01
68 T	1,2,4-Trimethylbenzene	1.724	1.708	0.9	101	0.00
69 T	sec-Butylbenzene	1.917	2.005	-4.6	101	0.00
70 T	1,3-Dichlorobenzene	0.862	0.841	2.4	101	-0.01
71 T	4-Isopropyltoluene	1.567	1.647	-5.1	101	0.00
72 T	1,4-Dichlorobenzene	0.878	0.863	1.7	102	-0.01
73 T	n-Butylbenzene	1.542	1.656	-7.4	99	-0.01
74 T	1,2-Dichlorobenzene	0.820	0.839	-2.3	101	-0.01
75 T	1,2-Dibromo-3-chloropropane	0.089	0.086	3.4	93	-0.01
76 T	1,2,4-Trichlorobenzene	0.489	0.517	-5.7	99	0.00
77 T	Hexachlorobutadiene	0.174	0.161	7.5	102	0.00
78 T	Naphthalene	1.212	1.333	-10.0	93	0.00
79 T	1,2,3-Trichlorobenzene	0.451	0.465	-3.1	97	0.00
80 T	1,1,2-Trichloro-1,2,2-trifl	0.364	0.353	3.0	104	0.01
81 T	Methyl acetate	0.773	0.690	10.7	94	0.00
82 T	Cyclohexane	0.969	0.881	9.1	102	0.01
83 T	Methylcyclohexane	0.703	0.651	7.4	104	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

E8091217.M Thu Sep 14 11:01:25 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1463.D Acq On : 12 Sep 2017 18:18 Operator : BARBARA Sample : ICV100,ICV170912,A,5mL,100 Misc : NA,NA,NA,1 : NA,NA,NA,1 ALS Vial : 10 Sample Multiplier: 1 Quant Time: Sep 13 10:49:07 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration Internal Standards R.T. QIon Response Conc Units Dev(Min) 1) Pentafluorobenzene6.4016881455850.00UG0.0031) 1,4-Difluorobenzene7.23114143708450.00UG0.0050) Chlorobenzene-d510.58117119272750.00UG0.00

 System Monitoring Compounds
 6.74
 65
 682463
 49.27
 UG
 0.00

 Spiked Amount
 50.000
 Range
 69
 166
 Recovery
 =
 98.54%

 41) Toluene-d8
 8.91
 98
 1884378
 51.28
 UG
 0.00

 Spiked Amount
 50.000
 Range
 80
 120
 Recovery
 =
 102.56%

 59) Bromofluorobenzene
 11.98
 95
 708648
 50.59
 UG
 0.00

 Spiked Amount
 50.000
 Range
 66
 120
 Recovery
 =
 101.18%

 Spiked Amount
 50.000
 Range
 66 - 120
 Recovery
 =
 101.18%

 Target Compounds
 Qvalue

 2) Dichlorodifluoromethane
 1.93
 85
 587837
 98.63
 09

 3) Chloromethane
 2.25
 62
 1107570
 95.10
 0G
 99

 6) Chloroethane
 2.63
 94
 363415
 98.06
 0G
 99

 6) Chloroethane
 2.77
 64
 524995
 96.91
 UG
 #
 100

 9) Trichlorofluoromethane
 3.10
 101
 957851
 111.88
 UG
 #
 88

 8 Acrolein
 3.58
 56
 528439
 280.11
 UG
 #
 100

 9) 1.1-Dichloroethene
 3.78
 43
 337331
 173.88
 UG
 98

 101) Vinyl acetate
 4.20
 43
 1645888
 91.69
 UG
 #
 100

 110
 Methylene chloride
 4.30
 84
 933528
 95.37
 UG
 #
 100

 12) Vinyl acetate
 4.61
 53
 1534796
 294.10
 100
 Target Compounds Qvalue

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1463.D Acq On : 12 Sep 2017 18:18 Operator : BARBARA Sample : ICV100,ICV170912,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 10 Sample Multiplier: 1 Quant Time: Sep 13 10:49:07 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration Internal StandardsR.T. QIonResponseConc Units Dev(Min)45)Tetrachloroethene9.6116682590699.70UG#46)1,3-Dichloropropane9.63761637924103.29UG10047)2-Hexanone9.72431743429199.88UG9548)Dibromochloromethane9.89129926641102.21UG10049)1,2-Dibromoethane (EDB)10.03107841480106.04UG10051)Chlorobenzene10.61112265971195.64UG#7352)1,1,1,2-Tetrachloroethane10.70131928624102.69UG#10053)Ethylbenzene10.881063702057205.66UG919155)o-Xylene11.351061810739107.62UG#10056)Styrene11.371043199180110.52UG#10061)J.2,2-Tetrachloroethane12.1483119522290.73UG#8861)Bromobenzene12.1975110092992.63UG#10062)1,2,3-Trichloropropane12.1975110092992.63UG#10063)n-Propylbenzene12.511054031422105.15UG9766410061)1,2,4-Trimethylbenzene12.511054031422 R.T. QIon Response Conc Units Dev(Min) Internal Standards 74)1,2-Dichlorobenzene13.891462002525102.38UG#8175)1,2-Dibromo-3-chloropropan14.817520618696.81UG#8076)1,2,4-Trichlorobenzene15.721801234241105.88UG9977)Hexachlorobutadiene15.9022538452292.80UG10078)Naphthalene15.981283179639110.01UG10079)1,2,3-Trichlorobenzene16.231801110109103.11UG9980)1,1,2-Trichloro-1,2,2-trif3.7510184232396.98UG9281)Methyl acetate4.2043164588889.26UG#8382)Cyclohexane6.4656210058390.85UG#7583)Methylcyclohexane7.7583155406792.72UG#66 - -

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-12-17\
Data File : E1463.D
Acq On : 12 Sep 2017 18:18
Operator : BARBARA
Sample : ICV100,ICV170912,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1
Quant Time: Sep 13 10:49:07 2017
Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Sep 13 10:48:46 2017
Response via : Initial Calibration

Abundance 1.4e+07	TIC: E1463.D	
1.35e+07		
1.3e+07		
1.25e+07		
1.2e+07		
1. 15e+07		
1.1e+07	n.p.Xyfene.T o.XyfraeigT	
1.05e+07	E ,	
1e+07		
9500000	ene	
9000000	3C),T))C),T))))))))))))))))))	
8500000	itene.T กัสตักย์ คารene Moenz	
8000000	strerr(MTBE), T her (DIPE), T moR. T moR. T 1.2.DicktoccerthaMe (EDC), T repert, T ther, T ther, T ther, T TetrButhtorceptingene, A TetrButhtorceptingene, T TetrButhtorceptingene, T TetrButhtorceptingene, T ther, T tetrButhtorceptingene, T tetrBu	
7500000	hamle (EDC),T ane,MC ane,MC public,T public,T public,T sopropythenzene,C Ethylbenzene,C ene,T - Propythenzene,C ene,T - Propythenzene,T effel;sopropythenzene,T effel;sopropythenzene,T	
7000000	oethane,T ootnopyl ether (DIPE),T opropyl ether (DIPE),T Muthjonopoine.T 2.4.6biod feloaptidode.T 2.4.6biod feloaptido feloaptido.T 1.2.1Methylioproblass;20e.T 1.2.2.1Methylioproblass;20e	F.
6500000	rifer(TBE),T (DIPE),T	1,2,4-Trichlorobenzene,T phihalene,T -Trichlorobenzene,T
6000000	MTBE: MTBE: 128:06 0 128:06 0 128:06 0	ichlorot ne.T obenze
5500000	Nuoroethane,T byl.&Rhibblyreether(ATBE),T Diisopropyl ether (DIPE),T Disopropyl ether (DIPE),T 2.6.Diuthjarquathasj6,T 2.2.Diddas 	1,2,4-Trichlorobenze Naphthalene,T 1,2,3-Trichlorobenzene,T
5000000	sthane, thought in the strate, thought in the strate in	1,2,3-1 1,2,3-1
4500000	T T T T T Monitorie , T Monitorie , T Unscription of the r(DIPE), T Determine / Discopropyl ether (DIPE), T Determine / Discopropyl ether (DIPE), T Dottom (NEK), Sta-Disclottom of the rest (DIPE), T Disclottom of the res	L.
4000000	T T Aylonitraie, T twantine, T transme, MEK), \$18-1026 Dissource (MEK), \$18-1026 00600m6(t)ane, T Hetst 5, \$18-1026 00600m6(t)ane, T Hetst 5, \$13, 201chl Trichloroethene, M hane, T notichloroethene, T hane, T notichloroethene, T hetst 5, 201chl Toluente and 2, 201chl Trans-1, 3, 201chl Hexanone, T hetst 5, 201chl Hexanone, T here and 2, 201chl Toluente and 2, 201chl Hexanone, T here and 2, 201chl Here an	ropane, T Lexachlorobutadiene, T
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2000000		1,2-Dibromo-3-chloropropane,T Hexachlo
2000000 1500000 1000000	Chanconstating. Trichloronfluoromethane, Acroletin, T. Accolotin, T. Accolotin, T. Carbon disufficient MMMMMMMMMM alcohol (TBA), T. P. Dichthane 1.1-Dichthane Bronrog Bronrog Bronrog Bronrog Bronrog Bronrog Bronrogen Bronrogen Bronrogen Bronrogen Provident Provid	1,2-Di
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A 11122000000 10000000000000000000000000	Ned Oct 04 16:53:37 2017 RT1	E17-07838 Page: 292

Data E Acq Or Operat Sample Misc ALS Vi Quant Quant Quant QLast Respor	<pre>Path : C:\MSDChem\l\DATA\09-18- Tile : E1526.D 1 : 18 Sep 2017 12:14 For : BARBARA 2 : CCV100,CCV170918,A,5mL,1 2 : NA,NA,NA,1 Fall : 2 Sample Multiplier: 1 Time: Sep 18 12:42:08 2017 Method : C:\MSDCHEM\l\METHODS\ Title : VOLATILE ORGANICS BY Update : Wed Sep 13 10:48:46 2 Here via : Initial Calibration CRF : 0.000 Min. Rel. And CALL CRF : 0.000 Min. Rel. And CALL CALL AND CALL AND</pre>	L00 L \E809121 ⁷ EPA METH 2017	HOD 8260C		0.50	min	
	RF Dev : 20% Max. Rel. A	rea : 200) %	%Dev A			
	Compound	AvgRF		*Dev A		Dev (min)	
1 I	Pentafluorobenzene	1.000	1.000	0.0	96	0.00	
2 T	Dichlorodifluoromethane	0.366	0.382	-4.4	97	-0.01	
3 P	Chloromethane	0.954	0.881	7.7 -6.0	97	0.00	
4 C	Vinyl chloride	0.715	0.881 0.758 0.263	-6.0 -15.9	107	0.01	
5 T	Bromomethane	0.227	0.263	-15.9			
6 T 7 T	Chloroethane Trichlorofluoromethane	0.333	0.593				
9 MC	1,1-Dichloroethene	0.559	0.587				
10 T	Acetone	0.331	0.318		96		
11 T	Carbon disulfide	1.354	1.514	-11.8			
	Vinyl acetate	1.354 1.102 0.601 0.320	0.980	11 1	80	0 00	
13 T	Vinyl acetate Methylene chloride	0.601	0.616	-2.5	99	-0.02	
14 T	Acrylonitrile	0.320	0.314	1.9	89	0.00	
15 T	tert-Butyl alcohol (TBA)	0.069	0.063	8.7			
16 T		0.565					
17 T	Methyl tert-butyl ether (MT	1.651	1.801				
18 P	1,1-Dichloroethane	1.239	1.321	-6.6	97	0.00	
19 T	Diisopropyl ether (DIPE)	2.689	3.116	-15.9 -5.6	100	0.00	
20 T	cis-1,2-Dichloroethene		0.664 0.610				
21 T	· <u>-</u> -	0.359	0.810	-13.0	93	0.00	
22 T	2-Butanone (MEK) Bromochloromethane	0.359	0.304	-3.4	98	-0.02	
23 T 25 C	Chloroform	1.094	1.151	-5.2	97	0.00	
25 C 26 T	1,1,1-Trichloroethane	0.783	0.823	-5.1	98	0.00	
26 I 27 T	Carbon tetrachloride	0.693	0.762	-10.0	99	-0.01	
28 T	1,1-Dichloropropene	0.853	0.881	-3.3	96	0.00	
29 T	1,2-Dichloroethane (EDC)	1.090	1.121	-2.8	94	0.00	
30 S	1,2-Dichloroethane-d4	0.850	0.804	5.4	92	0.00	
-							
31 I	1,4-Difluorobenzene	1.000	1.000	0.0	95	0.00	
32 M	Benzene	1.413	1.494	-5.7	97	0.00	
33 M	Trichloroethene	0.349	0.344	1.4	93	0.00	
34 C	1,2-Dichloropropane	0.426	0.438	-2.8 -2.3	93 92	-0.01 -0.01	
35 T	Dibromomethane	0.221	0.226 0.003	-2.3	88	0.00	
36 T	1,4-Dioxane Bromodichloromethane	0.003 0.480	0.003	-7.5	96	0.00	
37 T 39 T	cis-1,3-Dichloropropene	0.480	0.629	-16.9	94	-0.02	
39 I 40 T	4-Methyl-2-pentanone (MIBK)	0.415	0.469	-13.0	90	0.00	
41 S	Toluene-d8	1.279	1.277	0.2	95	0.00	
41 S 42 MC	Toluene	0.865	0.897	-3.7	95	0.00	
43 T	trans-1,3-Dichloropropene	0.504	0.567	-12.5	94	0.00	
44 T	1,1,2-Trichloroethane	0.270	0.271	-0.4	92	-0.02	
45 T	Tetrachloroethene	0.288	0.295	-2.4	94	0.00	
46 T	1,3-Dichloropropane	0.552	0.585	-6.0	93	0.00 0.02 ^{E1}	7-07838 Page
47 T	2-Hexanone	0.303	0.337	-11.2	93		U,UUU IUYE
48 T	Dibromochloromethane	0.315	0.335	-6.3	94	-0.01	

293

49	т	1,2-Dibromoethane (EDB)	0.276	0.298	-8.0	92	0.00
50	Ι	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
51		Chlorobenzene	1.166	1.149	1.5	95	0.00
52		1,1,1,2-Tetrachloroethane	0.379	0.400	-5.5	94	0.00
53		Ethylbenzene	2.039	2.206	-8.2	98	0.00
54		m,p-Xylene	0.755	0.817	-8.2	98	0.00
55		o-Xylene	0.705	0.789	-11.9	95	0.00
56		Styrene	1.213	1.402	-15.6	97	0.00
57	Р	Bromoform	0.217	0.240	-10.6	92	0.00
58	т	Isopropylbenzene	1.811	2.069	-14.2	97	0.00
59	S	Bromofluorobenzene	0.587	0.605	-3.1	98	0.00
60	P	1,1,2,2-Tetrachloroethane	0.552	0.539	2.4	92	0.00
61	т	Bromobenzene	0.436	0.440	-0.9	95	0.00
62	т	1,2,3-Trichloropropane	0.498	0.483	3.0	91	-0.01
63	т	n-Propylbenzene	2.424	2.565	-5.8	97	0.00
64	т	2-Chlorotoluene	1.437	1.511	-5.1	94	0.00
65	т	1,3,5-Trimethylbenzene	1.607	1.726	-7.4	93	0.00
66	т	4-Chlorotoluene	1.719	1.831	-6.5	96	0.00
67	т	tert-Butylbenzene	1.188	1.368	-15.2	97	0.00
68	т	1,2,4-Trimethylbenzene	1.724	1.821	-5.6	96	0.00
69	т	sec-Butylbenzene	1.917	2.150	-12.2	96	0.00
70	т	1,3-Dichlorobenzene	0.862	0.899	-4.3	96	0.00
71	т	4-Isopropyltoluene	1.567	1.793	-14.4	98	0.00
72	т	1,4-Dichlorobenzene	0.878	0.889	-1.3	93	-0.01
73	т	n-Butylbenzene	1.542	1.804	-17.0	96	0.00
74	т	1,2-Dichlorobenzene	0.820	0.882	-7.6	94	-0.01
75	т	1,2-Dibromo-3-chloropropane	0.089	0.094	-5.6	89	0.00
76	т	1,2,4-Trichlorobenzene	0.489	0.582	-19.0	98	0.00
77	т	Hexachlorobutadiene	0.174	0.185	-6.3	104	0.00
78	т	Naphthalene	1.212	1.449	-19.6	89	0.00
79	т	1,2,3-Trichlorobenzene	0.451	0.519	-15.1	95	0.00
80	т	1,1,2-Trichloro-1,2,2-trifl	0.364	0.407	-11.8	106	0.00
81	т	Methyl acetate	0.773	0.669	13.5	80	0.00
82	т	Cyclohexane	0.969	0.976	-0.7	100	0.02
83	т	Methylcyclohexane	0.703	0.719	-2.3	101	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

E8091217.M Tue Sep 19 13:55:14 2017 RT1

Data F Acq On Operat Sample Misc	ath : C:\MSDChem\1\DATA ile : E1526.D : 18 Sep 2017 12:14 or : BARBARA : CCV100,CCV170918,A : NA,NA,NA,1 al : 2 Sample Multip]	4,5mL,100						
Quant Quant QLast	Time: Oct 02 15:01:01 20 Method : C:\MSDCHEM\1\ME Title : VOLATILE ORGANJ Update : Wed Sep 13 10:4 se via : Initial Calibra	THODS\E809 CS BY EPA 8:46 2017						
Inter	nal Standards	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
- 1	Dentefluenchenzene	C 41	1 6 0	720000		TTC .		0 00
31)	1,4-Difluorobenzene	7.23	114	1281681	50.00	UG		0.00
50)	1,4-Difluorobenzene Chlorobenzene-d5	10.58	117	1055527	50.00	UG		0.00
0	. Newitzening Gemmennele							
	<pre>m Monitoring Compounds 1,2-Dichloroethane-d4</pre>	6.73	65	579401	47.26	UG		0.00
		Range 69						
	Toluene-d8			1636846				0.00
	ked Amount 50.000	Range 80						
				638584				0.00
	ked Amount 50.000	Range 66	- 120	Recove	ery =	103.	04%	
	t Compounds						Qva	lue
	Dichlorodifluoromethane		85	550152	104.29	UG		99
	Chloromethane	2.11	50	1270175	92.31	UG		100
	Vinyl chloride	2.25 2.64	62	1270175 1093336 379697	106.06	UG		99
-	Bromomethane	2.64	94	379697	115.74	UG	#	100
	Chloroethane Trichlorofluoromethane	2.04	64	505551	110 77	UG	Ħ	
-	Acrolein			854583 386933				
	1,1-Dichloroethene							
	Acetone	3 79	43	916559	192.09	UG	п	98
	Carbon disulfide	3.99		2182949				99
12)	Vinyl acetate	4.20		1412966			#	100
	Methylene chloride	4.30	84	888169	102.51		#	99
	Acrylonitrile	4.60	53	1358912	294.19	UG	#	100
	tert-Butyl alcohol (TBA)	4.49	59	180344	181.97	UG	#	100
	trans-1,2-Dichloroethene		96	849767	104.24	UG	#	100
	Methyl tert-butyl ether	(M 4.66	73	2597650	109.13			100
	1,1-Dichloroethane	5.14	63	1904731	106.65		#	96
	Diisopropyl ether (DIPE)		45	4493825	115.89		#	83
	cis-1,2-Dichloroethene	5.80	96	957253	105.58		#	100
	2,2-Dichloropropane	5.81	77	880205	113.02 209.98		#	98 86
	2-Butanone (MEK) Bromochloromethane	5.84 6.08	43 128	1087185 438824	103.62		#	99
	Chloroform	6.17	83	1660013	105.02		п	99
	1,1,1-Trichloroethane	6.38	97	1186516	105.12		#	91
	Carbon tetrachloride	6.57	117	1098749	109.89			100
	1,1-Dichloropropene	6.57	75	1270522	103.30		#	96
	1,2-Dichloroethane (EDC)		62	1616027	102.84		#	99
	Benzene	6.80	78	3830300	105.73	UG		100
	Trichloroethene	7.53	95	880901	98.46	UG	#	63
	1,2-Dichloropropane	7.78	63	1123686	102.97		#	100
35)	Dibromomethane	7.91	93	579364	102.35		#	92
	1,4-Dioxane	7.94	88	240446	3065.10			99
	Bromodichloromethane	8.08	83	1321580	107.42		#	68
	cis-1,3-Dichloropropene	8.59	75	1611981	116.96		#	98
	4-Methyl-2-pentanone (MI		43	2402730	226.09		#	96 97
	Toluene	8.97	92 75	2300229 1454665	103.74 112.69		#	E ^{97} -07838
43)	trans-1,3-Dichloroproper	ne 9.22	C 1	C00+CFT	112.09	00	π	, 0

-07838 Page 295

44)	1,1,2-Trichloroethane	9.43	83	695559	100.64 UG		96
45)	Tetrachloroethene	9.61	166	755854	102.31 UG	#	100
46)	1,3-Dichloropropane	9.63	76	1499299	106.01 UG		100
47)	2-Hexanone	9.72	43	1728708	222.22 UG		95
48)		9.90	129	857902	106.10 UG		100
49)	1,2-Dibromoethane (EDB)	10.03	107	763893	107.94 UG		100
51)	Chlorobenzene	10.61	112	2425427	98.55 UG	#	95
52)	1,1,1,2-Tetrachloroethane	10.71	131	843684	105.42 UG	#	100
53)	Ethylbenzene	10.74	91	4656737	108.21 UG		98
54)	m,p-Xylene	10.88	106	3451068	216.64 UG		92
55)	o-Xylene	11.36	106	1666481	111.92 UG		90
56)	Styrene	11.37	104	2959152	115.52 UG	#	100
57)	Bromoform	11.59	173	506462	110.41 UG	#	63
58)	Isopropylbenzene	11.80	105	4367944	114.26 UG		99
60)	1,1,2,2-Tetrachloroethane	12.14	83	1138270	97.64 UG		98
	Bromobenzene	12.17	156	928635	100.94 UG	#	100
62)	1,2,3-Trichloropropane	12.20	75	1019463	96.92 UG	#	1
63)	n-Propylbenzene	12.30	91	5414502	105.82 UG		98
64)	2-Chlorotoluene	12.40	91	3189241	105.16 UG		100
65)	1,3,5-Trimethylbenzene	12.51	105	3643961	107.40 UG		98
66)	4-Chlorotoluene	12.54	91	3865025	106.49 UG		98
67)	tert-Butylbenzene	12.91	119	2888242	115.20 UG	#	1
68)	1,2,4-Trimethylbenzene	12.97	105	3844372	105.65 UG		98
69)	sec-Butylbenzene	13.19	105	4538456	112.12 UG		99
70)	1,3-Dichlorobenzene	13.32	146	1898170	104.28 UG	#	100
71)	4-Isopropyltoluene	13.36	119	3786137	114.44 UG	#	90
72)	1,4-Dichlorobenzene	13.43	146	1875847	101.21 UG		100
73)	n-Butylbenzene	13.87	91	3809063	117.01 UG		98
74)	1,2-Dichlorobenzene	13.89	146	1861102	107.52 UG	#	81
75)	1,2-Dibromo-3-chloropropan	14.81	75	198659	105.40 UG	#	79
76)	1,2,4-Trichlorobenzene	15.72	180	1227681	119.01 UG		99
77)	Hexachlorobutadiene	15.91	225	390316	106.45 UG		100
78)	Naphthalene	15.98	128	3059643	119.62 UG		100
79)	1,2,3-Trichlorobenzene	16.23	180	1095390	114.97 UG		99
80)	1,1,2-Trichloro-1,2,2-trif	3.75	101	859961	111.88 UG		92
81)	Methyl acetate	4.20	43	1412966	86.59 UG	#	81
82)	Cyclohexane	6.46	56	2061214	100.74 UG	#	74
83)	Methylcyclohexane	7.75	83	1517248	102.29 UG	#	48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

E8091217.M Mon Oct 02 15:01:10 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1526.D Acq On : 18 Sep 2017 12:14 Operator : BARBARA Sample : CCV100, CCV170918, A, 5mL, 100 Misc : NA, NA, NA, 1 ALS Vial : 2 Sample Multiplier: 1 Quant Time: Oct 02 15:01:01 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration TIC: E1526.D Abundance 1.3e+07 1.25e+07 1.2e+07 1.15e+07 1.1e+07 Styremet/Flene,T -Xylene,T 1.05e+07 1e+07 9500000 9000000 adihylbenzene.T H.2-Dichlorobenzenus/Ibenzene, T 8500000 8000000 Chlorototuene, Tn-Propylbenzene, T 4-Chlorototuene, Tsopropylbenzene, T Ethylbenzene,C t-Butybenzenenent 7500000 38 BitateocoMhane (EDC), T 7000000 Cetebictive continuous) 6, Toluene, MC 6500000 1,2,4-Trichlorobenzene,T ,2,3-Trichlorobenzene,T 1,2-DidMethopcoptantesCane,7 h.Chlorobenzene,MP 6000000 Diisopropyl ether (DIPE),T tratolecting-Gitchtoropethoose(INTBE), T Carlibio de para androside Naphthalene, T 5500000 cis-1, 3-Dichloropropene, T 4-Methyl-2-pentanone (MIBK), T G2-D36Dfindproptmene. .3-Dichloropropene.1 5000000 ond.19/2-trifluoroethane,7 iagal groet beam 4500000 Hevachlornbutadiene **Frichloroethene, M** 4000000 -Dioxarbitromomethane, I -Butanone (MEK), T 3500000 1,4-Difluorobenzene, 1,2-Dibromo-3-chloropropane,T 1.11D/childright 1,1-Dichloroethane,F Bromofluorober ie chloride, T 3000000 ethane-d4.S 2500000 richlorofluoromethane, Bromoform, P 2-Dihro 2000000 omomethane. 1500000 ert-Butyl 1000000 5 500000 0 16.00 17.00 18.00 8.00 10.00 11.00 12.00 13.00 14.00 15.00 5.00 6.00 7.00 9.00 4.00 Time--> 2.00 3.00

E8091217.M Mon Oct 02 15:02:01 2017 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-18-17\								
Data File	:	E1550.D						
Acq On	:	19 Sep 2017 00:09						
Operator	:	BARBARA						
Sample	:	CCV100,CCV170918a,A,5mL,100						
Misc	:	NA, NA, NA, 1						
ALS Vial	:	24 Sample Multiplier: 1						

Quant Time: Sep 19 10:03:21 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 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	3 0.00	
2 Т	Dichlorodifluoromethane	0.366	0.373		1 -0.01	
3 P	Chloromethane	0.954	0.876		3 -0.02	
4 C	Vinyl chloride	0.715	0.784	-9.7 9	6 0.00	
5 T	Bromomethane	0.227	0.234	-3.1 7	8 -0.03	
6 T	Chloroethane	0.333	0.386	-15.9 9	4 -0.05	
7 T	Trichlorofluoromethane	0.526	0.585		1 0.01	
9 MC	1,1-Dichloroethene	0.559	0.567		1 -0.03	
10 T	Acetone	0.331	0.352		1 0.40	
11 T	Carbon disulfide	1.354	1.570		1 -0.03	
12 T	Vinyl acetate	1.102	1.016		2 -0.02	
13 T	Methylene chloride	0.601	0.615	-2.3 8	5 -0.03	
14 T	Acrylonitrile	0.320	0.295		2 0.00	
15 T	tert-Butyl alcohol (TBA)	0.069	0.058		9 0.00	
16 T	trans-1,2-Dichloroethene	0.565	0.596		6 -0.01	
17 T	Methyl tert-butyl ether (MT	1.651	1.456		6 -0.02	
18 P	1,1-Dichloroethane	1.239	1.347		5 0.00	
19 T	Diisopropyl ether (DIPE)	2.689	2.977		2 0.00	
20 T	cis-1,2-Dichloroethene	0.629	0.674		4 -0.02	
21 T	2,2-Dichloropropane	0.540	0.609		9 0.00	
22 T	2-Butanone (MEK)	0.359	0.362		7 0.00	
23 T	Bromochloromethane	0.294	0.247		8 -0.02	
25 C	Chloroform	1.094	1.153		4 0.00	
26 T	1,1,1-Trichloroethane	0.783	0.936		6 0.00	
20 I 27 T	Carbon tetrachloride	0.693	0.793		9 -0.01	
28 T	1,1-Dichloropropene	0.853	0.873		2 -0.01	
29 T	1,2-Dichloroethane (EDC)	1.090	0.912		6 0.00	
30 S	1,2-Dichloroethane-d4	0.850	0.682		7 0.00	
50 5	I/E Diemoroconane ar					
31 I	1,4-Difluorobenzene	1.000	1.000	0.0 8	1 0.00	
32 M	Benzene	1.413	1.488	-5.3 8	2 -0.01	
33 M	Trichloroethene	0.349	0.359		2 0.00	
34 C	1,2-Dichloropropane	0.426	0.416		5 -0.02	
35 T	Dibromomethane	0.221	0.189		5 -0.02	
36 T	1,4-Dioxane	0.003	0.003		0 0.00	
37 T	Bromodichloromethane	0.480	0.479		6 0.00	
39 T	cis-1,3-Dichloropropene	0.538	0.534	0.7 6		
40 T	4-Methyl-2-pentanone (MIBK)	0.415	0.421		8 0.00	
41 S	Toluene-d8	1.279	1.326	-3.7 8	3 0.00	
42 MC	Toluene	0.865	0.892		0 0.00	
43 T	trans-1,3-Dichloropropene	0.504	0.426		0 -0.01	
44 T	1,1,2-Trichloroethane	0.270	0.220		3 -0.02	
45 T	Tetrachloroethene	0.288	0.294	-2.1 8		
46 T	1,3-Dichloropropane	0.552	0.451		1 0.00 _{E17-07838} Pag	
40 I 47 T	2-Hexanone	0.303	0.283		6 0.00	je 25
48 T	Dibromochloromethane	0.315	0.260		2 -0.02	
10 1	Dibiomothiolomethane	2.013	,			

50 I Chlorobenzene-d5 1.000 1.000 0.0 80 0.00 51 MP Chlorobenzene 1.166 1.155 0.9 80 0.00 52 T 1,1,1,2-Tetrachloroethane 0.379 0.395 -4.2 78 0.00 53 C Ethylbenzene 2.039 2.177 -6.8 81 0.00 54 T m,p-Xylene 0.705 0.812 -7.5 82 0.00 55 T o-Xylene 0.705 0.812 -15.2 82 0.00 55 T o-Xylene 1.213 1.354 -11.6 78 0.00 56 T Styrene 1.811 2.135 -17.9 84 0.00 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 61 T Bromofluorobenzene 0.587 0.579 1.4 78 0.00 62 T 1,2,3-Trichloropropane 0.436 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 1.437 1.520 -5.8 80 0.00				.9			
51 MP Chlorobenzene 1.166 1.155 0.9 80 0.00 52 T 1,1,1,2-Tetrachloroethane 0.379 0.395 -4.2 78 0.00 53 C Ethylbenzene 2.039 2.177 -6.8 81 0.00 54 T m,p-Xylene 0.705 0.812 -7.5 82 0.00 55 T o-Xylene 0.217 0.1812 -15.2 82 0.00 56 T Styrene 1.213 1.354 -11.6 78 0.00 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 60 P 1,1,2,2-Tetrachloroethane 0.552 0.639 -15.8 91 0.00 61 T Bromobenzene 0.436 0.414 5.0 75 0.00 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.00 63 T n-Propylbenzene 1.607 1.810 -12.6 82 0.00 64 T 2-Chlorotoluene 1.719 1.812 -5.4 80 0.00 <td>49 T</td> <td>1,2-Dibromoethane (EDB)</td> <td>0.276</td> <td>0.250</td> <td>9.4</td> <td>66</td> <td>0.00</td>	49 T	1,2-Dibromoethane (EDB)	0.276	0.250	9.4	66	0.00
52T1,1,2-Tetrachloroethane0.3790.395 -4.2 780.0053CEthylbenzene2.0392.177 -6.8 810.0054Tm,p-Xylene0.7550.812 -7.5 820.0055To-Xylene0.7050.812 -15.2 820.0056TStyrene1.2131.354 -11.6 780.0057PBromoform0.2170.17519.4560.0058TIsopropylbenzene1.8112.135 -17.9 840.0059SBromofluorobenzene0.5870.5791.4780.0060P1,1,2,2-Tetrachloroethane0.5520.639 -15.8 910.0061TBromobenzene0.4360.4145.0750.0062T1,2,3-Trichloropropane0.4980.572 -14.9 91 -0.01 63Tn-Propylbenzene1.6071.810 -12.6 820.0064T2-Chlorotoluene1.7191.812 -5.4 800.0065T1,3,5-Trimethylbenzene1.6071.810 -12.6 820.0066T4-Chlorotoluene1.7191.812 -5.4 800.0067Ttert-Butylbenzene1.6671.810 -12.6 820.0068T1,2,4-Trimethylbenzene1.6771.810 -12	50 I	Chlorobenzene-d5	1.000	1.000		80	0.00
53 C Ethylbenzene 2.039 2.177 -6.8 81 0.00 54 T m,p-Xylene 0.755 0.812 -7.5 82 0.00 55 T o-Xylene 0.705 0.812 -15.2 82 0.00 56 T Styrene 1.213 1.354 -11.6 78 0.00 57 P Bromoform 0.217 0.175 19.4 56 0.00 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.00 61 T Bromobenzene 0.436 0.414 5.0 75 0.00 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 1.437 1.520 -5.8 80 0.00 64 T 2-Chlorotoluene 1.719 1.810 -12.6 82 0.00 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00	51 MP	Chlorobenzene	1.166	1.155	0.9	80	0.00
54 T m,p-Xylene 0.755 0.812 -7.5 82 0.00 55 T o-Xylene 0.705 0.812 -15.2 82 0.00 56 T Styrene 1.213 1.354 -11.6 78 0.00 57 P Bromoform 0.217 0.175 19.4 56 0.00 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.00 61 T Bromobenzene 0.436 0.414 5.0 75 0.00 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 1.437 1.520 -5.8 80 0.00 64 T 2-Chlorotoluene 1.719 1.812 -5.4 81 0.00 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00	52 T	1,1,1,2-Tetrachloroethane	0.379	0.395	-4.2	78	0.00
55 T o-Xylene 0.705 0.812 -15.2 82 0.00 56 T Styrene 1.213 1.354 -11.6 78 0.00 57 P Bromoform 0.217 0.175 19.4 56 0.00 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.00 60 P 1,1,2,2-Tetrachloroethane 0.552 0.639 -15.8 91 0.00 61 T Bromobenzene 0.436 0.414 5.0 75 0.00 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 1.437 1.520 -5.8 80 0.00 64 T 2-Chlorotoluene 1.719 1.810 -12.6 82 0.00 65 T 1,3,5-Trimethylbenzene 1.719 1.812 -5.4 80 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00<	53 C	Ethylbenzene	2.039	2.177	-6.8	81	0.00
56 T Styrene 1.213 1.354 -11.6 78 0.000 57 P Bromoform 0.217 0.175 19.4 56 0.000 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.000 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.000 60 P 1,1,2,2-Tetrachloroethane 0.552 0.639 -15.8 91 0.000 61 T Bromobenzene 0.436 0.414 5.0 75 0.000 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 1.437 1.520 -5.8 80 0.000 64 T 2-Chlorotoluene 1.719 1.812 -5.4 80 0.000 65 T 1,3,5-Trimethylbenzene 1.88 1.396 -17.5 83 0.000 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.000 67 T tert-Butylbenzene 1.88 1.396 -17.5 83 <td>54 T</td> <td>m,p-Xylene</td> <td>0.755</td> <td>0.812</td> <td>-7.5</td> <td>82</td> <td>0.00</td>	54 T	m,p-Xylene	0.755	0.812	-7.5	82	0.00
57 P Bromoform 0.217 0.175 19.4 56 0.000 58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.000 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.000 60 P 1,1,2,2-Tetrachloroethane 0.552 0.639 -15.8 91 0.000 61 T Bromobenzene 0.436 0.414 5.0 75 0.000 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 2.424 2.555 -5.4 81 0.000 64 T 2-Chlorotoluene 1.437 1.520 -5.8 80 0.000 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.000 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.000 67 T tert-Butylbenzene 1.724 1.878 -8.9 83 0.000 68 T 1,2,4-Trimethylbenzene 1.724 1.876 -17.5	55 T	o-Xylene	0.705	0.812	-15.2	82	0.00
58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.00 60 P 1,1,2,2-Tetrachloroethane 0.587 0.579 1.4 78 0.00 61 T Bromobenzene 0.436 0.414 5.0 75 0.00 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 2.424 2.555 -5.4 81 0.00 64 T 2-Chlorotoluene 1.437 1.520 -5.8 80 0.00 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.877 2.4	56 T	Styrene	1.213			78	0.00
58 T Isopropylbenzene 1.811 2.135 -17.9 84 0.00 59 S Bromofluorobenzene 0.587 0.579 1.4 78 0.00 60 P 1,1,2,2-Tetrachloroethane 0.587 0.579 1.4 78 0.00 61 T Bromobenzene 0.436 0.414 5.0 75 0.00 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 2.424 2.555 -5.4 81 0.00 64 T 2-Chlorotoluene 1.437 1.520 -5.8 80 0.00 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.877 2.4	57 P	Bromoform	0.217	0.175	19.4		0.00
60 P 1,1,2,2-Tetrachloroethane 0.552 0.639 -15.8 91 0.000 61 T Bromobenzene 0.436 0.414 5.0 75 0.000 62 T 1,2,3-Trichloropropane 0.498 0.572 -14.9 91 -0.01 63 T n-Propylbenzene 2.424 2.555 -5.4 81 0.000 64 T 2-Chlorotoluene 1.437 1.520 -5.8 80 0.000 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.000 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.719 1.812 -5.4 80 0.00 69 T sec-Butylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.804 -17	58 T	Isopropylbenzene	1.811	2.135			0.00
61 TBromobenzene0.4360.4145.0750.0062 T1,2,3-Trichloropropane0.4980.572-14.991-0.0163 Tn-Propylbenzene2.4242.555-5.4810.0064 T2-Chlorotoluene1.4371.520-5.8800.0065 T1,3,5-Trimethylbenzene1.6071.810-12.6820.0066 T4-Chlorotoluene1.7191.812-5.4800.0067 Ttert-Butylbenzene1.1881.396-17.5830.0068 T1,2,4-Trimethylbenzene1.9172.235-16.6840.0069 Tsec-Butylbenzene0.8620.872-1.278-0.0170 T1,3-Dichlorobenzene0.8620.872-1.278-0.0171 T4-Isopropyltoluene1.5671.850-18.1840.0072 T1,4-Dichlorobenzene0.8780.8572.475-0.0173 Tn-Butylbenzene1.5421.804-17.080-0.0174 T1,2-Dichlorobenzene0.88200.821-0.173-0.0175 T1,2,4-Trichlorobenzene0.4890.4821.4680.0074 T1,2,2-Tichlorobenzene0.4890.4821.4680.0075 T1,2,3-Trichlorobenzene0.4510.37018.0570.0076 T1,2,3-Trichlorobenzene0.4890.4821.4 <td>59 S</td> <td>Bromofluorobenzene</td> <td>0.587</td> <td>0.579</td> <td></td> <td>78</td> <td>0.00</td>	59 S	Bromofluorobenzene	0.587	0.579		78	0.00
62 T1,2,3-Trichloropropane0.4980.572-14.991-0.01 63 Tn-Propylbenzene2.4242.555-5.4810.00 64 T2-Chlorotoluene1.4371.520-5.8800.00 65 T1,3,5-Trimethylbenzene1.6071.810-12.6820.00 66 T4-Chlorotoluene1.7191.812-5.4800.00 67 Ttert-Butylbenzene1.1881.396-17.5830.00 68 T1,2,4-Trimethylbenzene1.9172.235-16.6840.00 69 Tsec-Butylbenzene0.8620.872-1.278-0.01 70 T1,3-Dichlorobenzene0.8620.872-1.278-0.01 71 T4-Isopropyltoluene1.5671.850-18.1840.00 72 T1,4-Dichlorobenzene0.8780.8572.475-0.01 73 Tn-Butylbenzene1.5421.804-17.080-0.01 74 T1,2-Dichlorobenzene0.8200.821-0.173-0.01 75 T1,2-Dichlorobenzene0.4890.4821.4680.00 77 THexachlorobutadiene0.1740.180-3.4850.00 79 T1,2,3-Trichlorobenzene0.4510.37018.0570.00 80 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.02 81 TMethyl acetate <td>60 P</td> <td>1,1,2,2-Tetrachloroethane</td> <td>0.552</td> <td>0.639</td> <td></td> <td>91</td> <td>0.00</td>	60 P	1,1,2,2-Tetrachloroethane	0.552	0.639		91	0.00
63 T n-Propylbenzene 2.424 2.555 -5.4 81 0.00 64 T 2-Chlorotoluene 1.437 1.520 -5.8 80 0.00 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.724 1.878 -8.9 83 0.00 69 T sec-Butylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1	61 T	Bromobenzene	0.436	0.414		75	0.00
63 T n-Propylbenzene 2.424 2.555 -5.4 81 0.00 64 T 2-Chlorotoluene 1.437 1.520 -5.8 80 0.00 65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.724 1.878 -8.9 83 0.00 69 T sec-Butylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.872 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1	62 T	1,2,3-Trichloropropane	0.498	0.572	-14.9	91	-0.01
65 T 1,3,5-Trimethylbenzene 1.607 1.810 -12.6 82 0.00 66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.188 1.396 -17.5 83 0.00 69 T sec-Butylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 76 T 1,2,3-Trichlorobenzene 0.489 0.482 <td< td=""><td>63 T</td><td>n-Propylbenzene</td><td>2.424</td><td>2.555</td><td>-5.4</td><td>81</td><td>0.00</td></td<>	63 T	n-Propylbenzene	2.424	2.555	-5.4	81	0.00
66 T 4-Chlorotoluene 1.719 1.812 -5.4 80 0.00 67 T tert-Butylbenzene 1.188 1.396 -17.5 83 0.00 68 T 1,2,4-Trimethylbenzene 1.724 1.878 -8.9 83 0.00 69 T sec-Butylbenzene 1.917 2.235 -16.6 84 0.00 70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 76 T 1,2,3-Trichlorobenzene 0.489 0.482 1.4 68 0.00 79 T 1,2,3-Trichlorobenzene 0.451 0.370 18	64 T			1.520	-5.8	80	0.00
67 Ttert-Butylbenzene1.1881.396-17.5830.0068 T1,2,4-Trimethylbenzene1.7241.878-8.9830.0069 Tsec-Butylbenzene1.9172.235-16.6840.0070 T1,3-Dichlorobenzene0.8620.872-1.278-0.0171 T4-Isopropyltoluene1.5671.850-18.1840.0072 T1,4-Dichlorobenzene0.8780.8572.475-0.0173 Tn-Butylbenzene1.5421.804-17.080-0.0174 T1,2-Dichlorobenzene0.8200.821-0.173-0.0175 T1,2,4-Trichlorobenzene0.4890.4821.4680.0076 T1,2,3-Trichlorobenzene0.4510.37018.0570.0079 T1,2,3-Trichloro-1,2,2-trifl0.3640.412-13.2900.0281 TMethyl acetate0.7730.876-13.388-0.02	65 T	1,3,5-Trimethylbenzene	1.607	1.810	-12.6	82	0.00
67 Ttert-Butylbenzene1.1881.396-17.5830.0068 T1,2,4-Trimethylbenzene1.7241.878-8.9830.0069 Tsec-Butylbenzene1.9172.235-16.6840.0070 T1,3-Dichlorobenzene0.8620.872-1.278-0.0171 T4-Isopropyltoluene1.5671.850-18.1840.0072 T1,4-Dichlorobenzene0.8780.8572.475-0.0173 Tn-Butylbenzene1.5421.804-17.080-0.0174 T1,2-Dichlorobenzene0.8200.821-0.173-0.0175 T1,2,4-Trichlorobenzene0.4890.4821.4680.0076 T1,2,3-Trichlorobenzene0.4510.37018.0570.0079 T1,2,3-Trichloro-1,2,2-trifl0.3640.412-13.2900.0281 TMethyl acetate0.7730.876-13.388-0.02	66 T	4-Chlorotoluene	1.719	1.812	-5.4		0.00
70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2-Dibromo-3-chloropropane 0.089 0.077 13.5 61 0.00 76 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 77 T Hexachlorobutadiene 0.174 0.180 -3.4 85 0.00 79 T 1,2,3-Trichlorobenzene 0.451 0.370 18.0 57 0.00 80 T 1,1,2-Trichloro-1,2,2-trifl 0.364 0.412 -13.2 90 0.00 81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02	67 T	tert-Butvlbenzene	1.188	1.396	-17.5	83	0.00
70 T 1,3-Dichlorobenzene 0.862 0.872 -1.2 78 -0.01 71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2-Dibromo-3-chloropropane 0.089 0.077 13.5 61 0.00 76 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 77 T Hexachlorobutadiene 0.174 0.180 -3.4 85 0.00 79 T 1,2,3-Trichlorobenzene 0.451 0.370 18.0 57 0.00 80 T 1,1,2-Trichloro-1,2,2-trifl 0.364 0.412 -13.2 90 0.00 81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02	68 T	1,2,4-Trimethylbenzene	1.724	1.878	-8.9	83	0.00
71 T 4-Isopropyltoluene 1.567 1.850 -18.1 84 0.00 72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2-Dibromo-3-chloropropane 0.089 0.077 13.5 61 0.00 76 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 77 T Hexachlorobutadiene 0.174 0.180 -3.4 85 0.00 79 T 1,2,3-Trichlorobenzene 0.451 0.370 18.0 57 0.00 80 T 1,1,2-Trichloro-1,2,2-trifl 0.364 0.412 -13.2 90 0.00 81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02	69 T	sec-Butylbenzene	1.917	2.235	-16.6	84	0.00
72 T 1,4-Dichlorobenzene 0.878 0.857 2.4 75 -0.01 73 T n-Butylbenzene 1.542 1.804 -17.0 80 -0.01 74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2-Dibromo-3-chloropropane 0.089 0.077 13.5 61 0.00 76 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 77 T Hexachlorobutadiene 0.174 0.180 -3.4 85 0.00 79 T 1,2,3-Trichlorobenzene 0.451 0.370 18.0 57 0.00 80 T 1,1,2-Trichloro-1,2,2-trifl 0.364 0.412 -13.2 90 0.00 81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02	70 T	1,3-Dichlorobenzene	0.862	0.872	-1.2	78	-0.01
73 Tn-Butylbenzene1.5421.804-17.080-0.0174 T1,2-Dichlorobenzene0.8200.821-0.173-0.0175 T1,2-Dibromo-3-chloropropane0.0890.07713.5610.0076 T1,2,4-Trichlorobenzene0.4890.4821.4680.0077 THexachlorobutadiene0.1740.180-3.4850.0079 T1,2,3-Trichlorobenzene0.4510.37018.0570.0080 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.0081 TMethyl acetate0.7730.876-13.388-0.02	71 T	4-Isopropyltoluene	1.567	1.850	-18.1	84	0.00
74 T 1,2-Dichlorobenzene 0.820 0.821 -0.1 73 -0.01 75 T 1,2-Dibromo-3-chloropropane 0.089 0.077 13.5 61 0.00 76 T 1,2,4-Trichlorobenzene 0.489 0.482 1.4 68 0.00 77 T Hexachlorobutadiene 0.174 0.180 -3.4 85 0.00 79 T 1,2,3-Trichlorobenzene 0.451 0.370 18.0 57 0.00 80 T 1,1,2-Trichloro-1,2,2-trifl 0.364 0.412 -13.2 90 0.00 81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02	72 T	1,4-Dichlorobenzene	0.878	0.857	2.4	75	-0.01
75 T1,2-Dibromo-3-chloropropane0.0890.07713.5610.0076 T1,2,4-Trichlorobenzene0.4890.4821.4680.0077 THexachlorobutadiene0.1740.180-3.4850.0079 T1,2,3-Trichlorobenzene0.4510.37018.0570.0080 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.0081 TMethyl acetate0.7730.876-13.388-0.02	73 T	n-Butylbenzene	1.542	1.804	-17.0	80	-0.01
76 T1,2,4-Trichlorobenzene0.4890.4821.4680.0077 THexachlorobutadiene0.1740.180-3.4850.0079 T1,2,3-Trichlorobenzene0.4510.37018.0570.0080 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.0081 TMethyl acetate0.7730.876-13.388-0.02	74 T	1,2-Dichlorobenzene	0.820	0.821	~0.1	73	-0.01
76 T1,2,4-Trichlorobenzene0.4890.4821.4680.0077 THexachlorobutadiene0.1740.180-3.4850.0079 T1,2,3-Trichlorobenzene0.4510.37018.0570.0080 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.0081 TMethyl acetate0.7730.876-13.388-0.02	75 T		0.089	0.077	13.5	61	0.00
77 THexachlorobutadiene0.1740.180-3.4850.0079 T1,2,3-Trichlorobenzene0.4510.37018.0570.0080 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.0081 TMethyl acetate0.7730.876-13.388-0.02				0.482	1.4	68	0.00
80 T 1,1,2-Trichloro-1,2,2-trifl 0.364 0.412 -13.2 90 0.00 81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02				0.180	-3.4	85	0.00
80 T1,1,2-Trichloro-1,2,2-trifl0.3640.412-13.2900.0081 TMethyl acetate0.7730.876-13.388-0.02	79 T	1,2,3-Trichlorobenzene	0.451	0.370	18.0	57	0.00
81 T Methyl acetate 0.773 0.876 -13.3 88 -0.02	80 T			0.412	-13.2	90	0.00
				0.876			-0.02
		Cyclohexane	0.969	1.007			0.00
					-3.1	85	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

E8091217.M Tue Sep 19 16:28:19 2017 RT1

Data Path : C:\MSDChem\1\DATA\ Data File : E1550.D Acq On : 19 Sep 2017 00:09 Operator : BARBARA Sample : CCV100,CCV170918a, Misc : NA,NA,NA,1 ALS Vial : 24 Sample Multip	A,5mL,100					
Quant Time: Sep 19 10:03:21 20 Quant Method : C:\MSDCHEM\1\ME Quant Title : VOLATILE ORGANI QLast Update : Wed Sep 13 10:4 Response via : Initial Calibra	THODS\E80 CS BY EPA 8:46 2017					
Internal Standards	R.T.	QIon	Response	Conc U	nits Dev	(Min)
	6.40					
31) 1,4-Difluorobenzene	7.23	114	1085871	50.00	UG	0.00
31) 1,4-Difluorobenzene 50) Chlorobenzene-d5	10.58	117	884587	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4						
Spiked Amount 50.000						
41) Toluene-d8 Spiked Amount 50.000			1439647			
59) Bromofluorobenzene	Range 80 11.98	- 120	512022	21Y =	103.70%	0.00
Spiked Amount 50.000	Range 66	- 120	Recov		98 58%	0.00
Spined Amount Street	Range 00	110	Recov	<i></i>	50.500	
Target Compounds					Ov	alue
2) Dichlorodifluoromethane	1.92	85	463499	102.09		100
3) Chloromethane	2.10	50	1087633	91.85	UG	100
4) Vinyl chloride	2.24	62	973149			99
5) Bromomethane	2.62	94	289882		UG	100
5) Bromomethane 6) Chloroethane 7) Trichlorofluoromethane	2.74	64	479395			100
	3.06	101	725766			99
8) Acrolein	3.57		177927			
9) 1,1-Dichloroethene						
10) Acetone	4.19		874090			99
11) Carbon disulfide	3.96					99 99
12) Vinyl acetate 13) Methylene chloride	4.19	43 84	762748	102.29		98
14) Acrylonitrile	4.29	53	1096920	275.93		99
15) tert-Butyl alcohol (TBA)		59	144765	169.73		99
16) trans-1,2-Dichloroethene		96	740239	105.51		100
17) Methyl tert-butyl ether		73	1806763	88.19		99
18) 1,1-Dichloroethane	5.13	63	1671177	108.72	UG	99
19) Diisopropyl ether (DIPE)	5.23	45	3694332	110.70		48
20) cis-1,2-Dichloroethene	5.80	96	837030	107.27		100
21) 2,2-Dichloropropane	5.80	77	755406	112.70		99
22) 2-Butanone (MEK)	5.26	43	897633	201.44		99
23) Bromochloromethane	6.08	128	306022	83.97		99 98
25) Chloroform 26) 1,1,1-Trichloroethane	6.16 6.39	83 97	1430696 1162054	105.38 119.63		82
27) Carbon tetrachloride	6.57	117	983817	114.33		99
28) 1,1-Dichloropropene	6.57	75	1083243	102.33		96
29) 1,2-Dichloroethane (EDC)	6.82	62	1131510	83.67		86
32) Benzene	6.80	78	3232540	105.32		100
33) Trichloroethene	7.52	95	779455	102.83	UG	91
34) 1,2-Dichloropropane	7.77	63	903692	97.74		100
35) Dibromomethane	7.91	93	410862	85.67		99
36) 1,4-Dioxane	7.23	88	190813	2871.02		99
37) Bromodichloromethane	8.08	83	1041281	99.90		98
38) 2-Chloroethyl vinyl ethe		63	9488	1.82		86
39) cis-1,3-Dichloropropene	8.59	75	1158909	99.25		98
40) 4-Methyl-2-pentanone (MI		43	1830540	203.31		E 17 -0783
42) Toluene	8.98	92	1937171	103.12	00	97

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	trans-1,3-Dichloropropene	9.22	75	924580	84.54		#	78
44)		9.43	83	476876	81.44			99
45)		9.61	166	638269	101.97		#	100
46)	· · ·	9.63	76	979316	81.73			99
47)	2-Hexanone	8.77	43	1228170	186.35			99
	Dibromochloromethane	9.89	129	565112	82.50			100
-	1,2-Dibromoethane (EDB)	10.03	107	543702m	90.68			
	Chlorobenzene	10.61	112	2042912	99.05	UG	#	73
52)		10.71	131	698578	104.16		#	99
53)	-	10.74	91	3852106	106.81			98
54)		10.88	106	2874069	215.29			93
55)	o-Xylene	11.36	106	1437277	115.18	UG		93
	Styrene	11.37	104	2395755	111.60	UG	#	100
57)	Bromoform	11.59	173	309836	80.60	UG		100
58)	Isopropylbenzene	11.80	105	3776477	117.87	UG		99
60)	1,1,2,2-Tetrachloroethane	12.14	83	1129844	115.64	UG		100
61)	Bromobenzene	12.17	156	733287	95.11	UG	#	51
62)	1,2,3-Trichloropropane	12.20	75	1012447	114.86	UG		99
63)	n-Propylbenzene	12.29	91	4520976	105.43	UG		98
64)	2-Chlorotoluene	12.40	91	2688532	105.78	UG		100
65)	1,3,5-Trimethylbenzene	12.51	105	3202077	112.62	UG		98
66)	4-Chlorotoluene	12.54	91	3205610	105.39	UG		98
67)	tert-Butylbenzene	12.91	119	2469786	117.55	UG		99
68)	1,2,4-Trimethylbenzene	12.97	105	3323166	108.97	UG		98
69)	sec-Butylbenzene	13.19	105	3953989	116.56	UG		100
70)	1,3-Dichlorobenzene	13.32	146	1543549	101.18	UG	#	100
71)		13.36	119	3272611	118.04	UG	#	100
72)		13.43	146	1516462	97.63	UG		100
	n-Butylbenzene	13.86	91	3191051	116.97	UG		98
74)	-	13.89	146	1452025	100.09	UG	#	81
75)	-	13.91	75	136405	86.36	UG		100
76)		15.72	180	852957	98.66	UG		100
	Hexachlorobutadiene	15.90	225	318844	103.76			100
-	Naphthalene	15.98	128	1469086	68.53			100
	1,2,3-Trichlorobenzene	16.23	180	654004	81.91			99
	1,1,2-Trichloro-1,2,2-trif	3.74	101	728434	113.08			93
81)	Methyl acetate	4.19	43	1550383	113.37			100
82)		6.45	56	1781541	103.90		#	73
	Methylcyclohexane	7.74	83	1282174	103.14		#	48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

E8091217.M Mon Oct 02 15:02:17 2017 RT1

Quantitation Report (QT Reviewed) Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1550.D : 19 Sep 2017 00:09 Acq On Operator : BARBARA : CCV100,CCV170918a,A,5mL,100 Sample Misc : NA, NA, NA, 1 ALS Vial : 24 Sample Multiplier: 1 Quant Time: Sep 19 10:03:21 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration TIC: E1550.D Abundance 1.05e+07 1e+07 9500000 Stillideme 9000000 8500000 8000000 <u>2-Chtorotoluene</u>, P-Propylbenzene, T 2-Chtorotolu&た, Thimethylbenzene, T 7500000 .2-Dichlorobenzeßutytbenzene,T ent-Butylbenzene,Timethylbenzene,T 7000000 sec-Butylbenzene,T + 4-Isopropyltoluene,T Isopropylbenzene,T 6500000 Ethylbenzene,C 6000000 5500000 Toluene, MC **FERE** wethan Chlorobenzene, MP 1,2-DMhibbdoyojohox@ne, 5000000 Hewaphonaleriagiene.T Diisopropyl ether (DIPE),T Methayracht2b0kphichnaet(hdinGE),T 4500000 **948**98857 0.3467ichtete -2-Dichlor aman openzene. 1,2,3-Trichlorobenzene,T 4000000 219-DB-Dimble 1.1.21.71-iBinbloroetherentizenentiblefoethane.T trans-1,3-Dichloropropene, 1,1,2-Trichloroethane,T obenzen<u>e d6 l</u>ac 3500000 Trichloroethene, M 2-Dibromo-3-chioroprop ethane,T Bromodichloromethane,T 1.1-Dichlorgethanenek, T 3000000 Methylene chloride,T 1.4-Didwantebenzene.l 2-Dibromochloromethane,T Bromochingmethare, 2500000 bodonitrile.T Carbon disulfide, ne-d4. richlorofluoromethane. 2000000 alcohol (TBA) Bromoform.P 1500000 Incompetitione 1000000 crolein. tert-Butyl 500000 0 15.00 16.00 17.00 18.00 12.00 13.00 14.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 2.00 3.00 Time-->

E8091217.M Mon Oct 02 15:05:17 2017 RT1

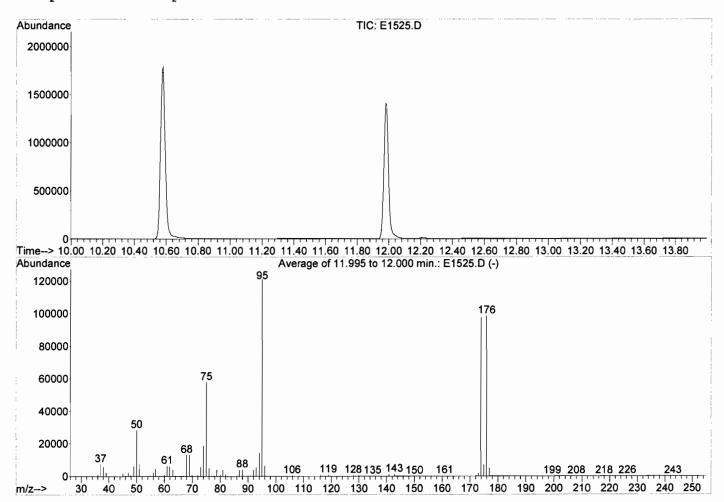
VOLATILE ORGANICS RAW QC DATA

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Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1525.D Acq On : 18 Sep 2017 11:45 Operator : BARBARA Sample : BFBA170918,BFBA170918,A,5mL,100 Misc : NA,NA,1 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Last Update : Wed Sep 13 10:48:46 2017



Spectrum Information: Average of 11.995 to 12.000 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail	
50	95	15	40	23.5	28434	PASS	
75	95	30	60	47.8	57920	PASS	
95	95	100	100	100.0	121232	PASS	
96	95	5	9	5.4	6529	PASS	
173	174	0.00	2	1.9	1814	PASS	
174	95	50	100	80.7	97806	PASS	
175	174	5	9	7.3	7109	PASS	
176	174	95	101	101.0	98738	PASS	
177	176	5	9	5.1	5074	PASS	

Average of	11.995	to 12.000	min.:	E1525.D
BFBA170918	BFBA170	0918,A,5mL	,100	
Modifieden	tht magt of	- 4		

Modified:su	btracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1037	50.00	28434	63.00	4146	76.00	5006
37.00	7471	51.00	7725	63.90	411	76.90	432
38.00	5758	52.00	164	67.00	376	77.80	509
39.00	2140	55.00	385	68.00	13077	78.80	4034
42.95	185	56.00	2380	69.00	13278	80.00	981
43.95	223	56.90	4758	69.95	956	80.90	3899
45.05	1661	58.05	253	70.70	43	81.95	1216
46.00	243	59.90	762	72.00	855	82.90	152
47.00	2258	60.10	509	73.00	5737	83.10	140
47.85	551	61.00	6417	74.00	18604	85.30	97
49.00	6248	61.90	6130	75.00	57920	85.90	296
Average of				.D			
BFBA170918,	BFBA17091	B,A,5mL,10	00				
Modified:su	btracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.90	3945	102.85	103	112.80	147	127.95	614
87.95	4081	103.80	294	114.80	64	128.80	187
90.80	537	104.75	220	115.00	40	129.80	610
92.00	3883	105.85	468	116.05	621	130.70	138
92.90	5533	106.80	98	117.00	456	131.50	47
94.00	14335	107.10	74	117.80	173	134.90	254
95.00	121232	108.20	44	118.95	914	135.40	27
96.00	6529	109.90	16	123.80	108	136.00	38
97.00	85	110.85	203	125.35	88	136.85	389
100.80	33	111.55	79	125.90	95	138.70	131
101.40	25	112.05	128	126.40	41	139.65	80
Average of	11.995 to	12.000 mi	n.: E1525.	D			
BFBA170918,	BFBA170918	B,A,5mL,10	00				
Modified:su	btracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.90	1281	151.85	174	172.30	494	226.40	57
141.70	41	153.85	65	173.00	1814	239.80	52
142.10	83	154.90	253	173.90	97806	242.95	53
142.80	1284	157.10	33	174.95	7109	245.00	31
143.80	97	158.95	152	175.90	98738		
144.80	26	160.90	307	176.85	5074		
145.75	324	163.30	62	177.85	197		
147.90	309	165.20	40	199.40	25		
148.60	60	170.20	130	203.50	26		
148.80	43	170.85	144	208.00	27		
150.05	177	172.00	266	217.95	68		

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1454.D Acq On : 12 Sep 2017 13:48 Operator : BARBARA : BFBA170912, BFBA170912, A, 5mL, 100 Sample : NA, NA, NA, 1 Misc ALS Vial : 1 Sample Multiplier: 1 Integration File: LSCINT.P : C:\MSDCHEM\1\METHODS\E8091217.M Method Title : VOLATILE ORGANICS BY EPA METHOD 8260C Last Update : Wed Sep 13 10:48:46 2017 Abundance TIC: E1454.D 2000000 1500000 1000000 500000 Λ Time--> 10.00 10.20 10.40 10.60 10.80 11.00 11.20 11.40 11.60 11.80 12.00 12.20 12.40 12.60 12.80 13.00 13.20 13.40 13.60 13.80 Abundance Average of 11.964 to 11.979 min.: E1454.D (-) 95 200000 150000 176 75 100000 50 50000 68 37 61 88 141 148 155 162 169 104 117 128 194 214 224 232 249ф 1 Щ., 0 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 60 70 m/z--> 30 40 50 Spectrum Information: Average of 11.964 to 11.979 min. Result Target Rel. to Lower Upper Rel. Raw Limit% Limit% Abn% Abn Pass/Fail Mass Mass 50 95 15 40 29.8 62970 PASS 75 95 30 60 55.8 117815 PASS 100 211038 PASS 95 95 100 100.0 PASS 96 95 5 9 6.5 13763 2 PASS 0.00 1860 173 174 1.4130640 PASS 50 100 61.9 174 95 PASS 11250 175 174 5 9 8.6 100.6 PASS 101 131369 95 176 174 9844 PASS 5 9 7.5 177 176

BFB

Average of 11.964 to 11.979 min.: E1454.D BFBA170912.BFBA170912.A.5ml.100

BFBA170912,	BFBA170912	,A,5mL,10	0	
Modified:sul	otracted			
m/z	abund.	m/z	abund.	m/z
36.05	2950	44.00	2367	54.15
37.05	15465	45.05	2834	55.00
38.10	14101	46.00	426	56.00
39.00	6009	47.05	4184	57.00
40.00	3	48.00	1693	58.10
40.10	44	49.00	14026	58.60
40.25	158	50.00	62970	59.20
41.40	15	51.00	20776	59.90
41.90	25	52.05	939	60.05
42.90	84	52.90	109	60.95

109 60.95 76 62.00 42.90 84 53.05 43.05 77 Average of 11.964 to 11.979 min.: E1454.D BFBA170912, BFBA170912, A, 5mL, 100

Modified:subtracted

MOULTICA. Subci	acceu						
m/z a	und.	m/z	abund.	m/z	abund.	m/z	abund.
74.00	40811	83.05	61	93.00	10072	103.90	1447
75.00 1	.17815	84.80	61	94.00	27344	104.90	323
76.00	10442	85.70	71	95.00	211038	105.85	1044
77.00	1266	86.10	235	96.05	13763	106.90	290
77.50	90	87.00	8508	96.90	202	109.40	18
78.00	746	87.95	8650	97.00	135	109.85	196
78.90	9329	88.70	51	97.15	202	110.90	316
79.95	2670	89.35	29	98.00	79	111.95	239
80.90	9562	89.80	62	99.30	37	112.95	250
81.90	1874	90.95	792	102.60	29	113.70	51
82.75	105	92.05	7140	102.90	203	114.70	102
Average of 11	964 to	11 979 min	• E1454	ם			

abund.

43

1023

4697

8931

390

334

14220 72.00

12523 73.00

2362

48 80

abund.

10110

1363

1021

118

772

24287

24937

2193

1479

9611

121

m/z 63.05

64.05

65.00

65.95

66.95 68.00

69.00 70.05 71.15

Average of 11.964 to 11.979 min.: E1454.D BFBA170912, BFBA170912, A, 5mL, 100

Modified:subtracted

	00200000						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
114.95	196	127.85	862	136.70	74	144.95	376
115.80	267	128.80	127	136.80	154	145.85	348
115.95	594	129.05	240	136.95	190	146.70	115
116.95	1592	129.90	677	137.30	13	146.90	40
117.85	1035	130.75	147	138.20	38	147.90	366
118.95	1255	131.00	174	140.00	123	148.85	154
119.95	82	131.85	58	140.95	2620	149.70	110
121.80	14	133.85	32	141.90	251	149.95	167
122.95	118	134.10	45	142.90	2279	152.10	41
123.85	142	134.85	447	143.75	151	152.95	40
124.95	30	135.85	54	144.10	23	153.90	143
Average of 1	L1.964 to	11.979 mir	ı.: E1454	. D			

BFBA170912, BFBA170912, A, 5mL, 100

Modified:subtracted

abund.	m/z	abund.	m/z	abund.	m/z	abund.
13	167.20	52	172.95	1860	219.05	32
477	168.50	22	173.90	130640	224.60	36
68	168.65	105	174.95	11250	228.60	19
277	169.15	141	175.90	131369	232.10	14
52	169.85	196	176.95	9844	244.40	13
243	170.20	26	177.85	153	248.90	58
19	170.55	151	178.10	53	250.45	42
181	171.00	77	181.90	15	253.50	19
63	171.20	106	194.10	35	253.80	25
18	171.90	1290	214.50	70		
20	172.50	185	215.10	24		
	13 477 68 277 52 243 19 181 63 18	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Data Path : C:\MSDChem\1\DATA\09-12-17\ Data File : E1455.D Acq On : 12 Sep 2017 14:18 Operator : BARBARA Sample : ICC00.5, ICC170912, A, 5mL, 100 Misc : NA, NA, 1 ALS Vial : 2 Sample Multiplier: 1 Quant Time: Sep 13 10:46:58 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:19:37 2017 Response via : Initial Calibration Internal Standards R.T. QIon Response Conc Units Dev(Min) _____ 1) Pentafluorobenzene6.4016867648350.00UG0.0031) 1,4-Difluorobenzene7.23114124349650.00UG0.0050) Chlorobenzene-d510.5811797011450.00UG0.00

 System Monitoring Compounds
 6.73
 65
 593060
 51.62
 UG
 0.00

 Spiked Amount
 50.000
 Range
 69
 166
 Recovery
 =
 103.24%

 41) Toluene-d8
 8.90
 98
 1555877
 48.68
 UG
 0.00

 Spiked Amount
 50.000
 Range
 80
 120
 Recovery
 =
 97.36%

 59) Bromofluorobenzene
 11.98
 95
 546726
 47.80
 UG
 0.00

 Spiked Amount
 50.000
 Range
 66
 120
 Recovery
 =
 95.60%

 Spiked Amount
 50.000
 Range
 66 - 120
 Recovery
 =
 95.60%

 Target Compounds
 Qvalue

 2) Dichlorodifluoromethane
 1.93
 85
 2061m
 0.42
 0G

 3) Chloromethane
 2.11
 50
 7430
 0.59
 UG
 #
 96

 4) Vinyl chloride
 2.24
 62
 4265
 0.44
 UG
 #
 96

 5) Bromomethane
 2.64
 94
 1947m
 0.58
 UG
 #
 96

 6) Chloroethane
 2.79
 64
 2480m
 0.57
 UG
 #
 100

 9) 1,1-Dichloroethene
 3.72
 96
 3276m
 0.43
 UG
 100

 10) Acetone
 3.79
 43
 7911m
 1.75
 UG
 100

 11) Carbon disulfide
 3.98
 76
 7733
 0.41
 UG
 100

 12) Vinyl acetate
 4.20
 43
 8261
 0.56
 UG
 #
 100

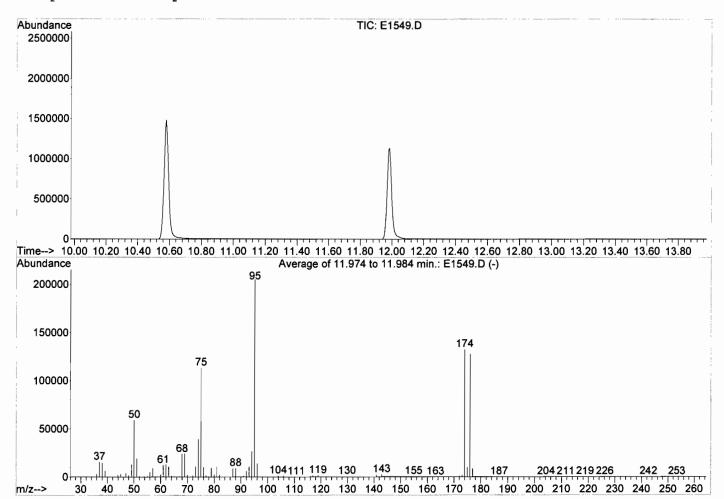
 13) Methylene chloride
 4.64
 96
 3299
 0.42
 UG
 #
 97

 Qvalue Target Compounds

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1549.D Acq On : 18 Sep 2017 23:40 Operator : BARBARA Sample : BFBA170918,BFB170918a,A,5mL,100 Misc : NA,NA,1 ALS Vial : 23 Sample Multiplier: 1

Integration File: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Last Update : Wed Sep 13 10:48:46 2017



Spectrum Information: Average of 11.974 to 11.984 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	28.8	59160	PASS
75	95	30	60	55.2	113320	PASS
95	95	100	100	100.0	205205	PASS
96	95	5	9	6.8	13995	PASS
173	174	0.00	2	1.5	2053	PASS
174	95	50	100	64.6	132648	PASS
175	174	5	9	7.6	10111	PASS
176	174	95	101	96.3	127690	PASS
177	176	5	9	6.8	8719	PASS
. 						

Average of 11.974 to 11.984 min.: E1549.D BFBA170918,BFB170918a,A,5mL,100 Modified:subtracted

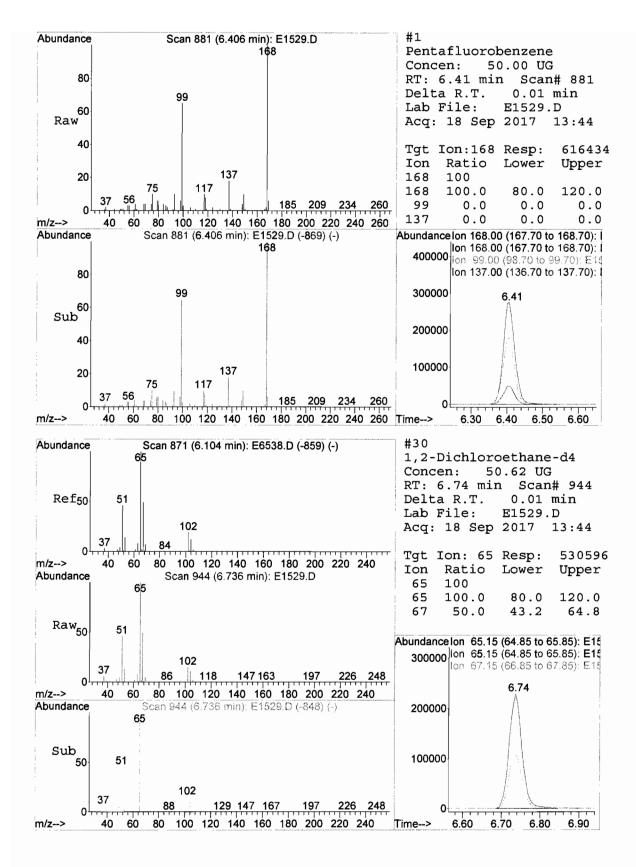
	btracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	3080	47.00	4054	57.05	9014	68.00	23685
37.00	15472	47.95	1680	58.05	374	69.00	24117
38.10	14552	49.05	12844	58.80	163	69.95	2092
39.10	6237	50.00	59160	60.00	2721	70.60	40
40.20	276	51.05	19102	61.00	12367	71.00	131
42.60	52	52.00	682	62.00	12860	71.30	42
43.05	193	52.95	169	63.05	10867	71.95	1439
43.95	1986	53.30	29	64.05	1399	73.00	10876
45.05	3062	54.20	127	65.05	795	74.00	39288
			888	65.90	252	75.00	113320
45.95	275	55.00					
46.20	233	56.00	5168	67.00	742	76.00	10085
Average of				. D			
BFBA170918,		a,A,5mL,10	0				
Modified:su				,		,	
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
76.95	1453	86.95	8862	103.90	1187	112.90	432
77.80	302	88.00	8996	104.85	364	114.85	320
78.00	526	90.95	1216	105.85	1061	115.85	823
78.90	9303	92.00	6091	106.85	137	116.90	1522
79.95	2351	93.00	10454	107.60	91	117.95	847
80.95	10421	94.00	26386	108.80	39	118.90	1599
81.90	2139	95.00	205205	109.90	266	119.85	73
82.70	147	96.00	13995	110.75	246	122.25	43
83.00	248	97.05	384	111.80	70	123.00	196
85.40	29	97.90	31	112.00	113	123.95	92
85.95	271	102.90	159	112.40	48	124.95	98
Average of					40	121.75	20
				. D			
BFBA170918,	BFB170918a			. D			
BFBA170918, Modified:su	BFB170918a btracted	a,A,5mL,10	0		abund	m / 7	abund
BFBA170918, Modified:su m/z	BFB170918a btracted abund.	a,A,5mL,10 m/z	0 abund.	m/z	abund.	m/z	abund.
BFBA170918, Modified:su m/z 125.75	BFB170918a btracted abund. 112	m/z 136.85	0 abund. 347	m/z 145.90	396	155.90	39
BFBA170918, Modified:su m/z 125.75 127.80	BFB170918a btracted abund. 112 661	m/z m/z 136.85 137.40	0 abund. 347 21	m/z 145.90 146.85	396 253	155.90 156.70	39 146
BFBA170918, Modified:su m/z 125.75 127.80 128.90	BFB170918a btracted abund. 112 661 314	m/z m/z 136.85 137.40 137.90	0 abund. 347 21 48	m/z 145.90 146.85 147.10	396 253 26	155.90 156.70 157.00	39 146 170
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85	BFB170918a btracted abund. 112 661 314 704	m/z m/z 136.85 137.40 137.90 138.85	0 abund. 347 21 48 85	m/z 145.90 146.85 147.10 147.95	396 253 26 453	155.90 156.70 157.00 158.95	39 146 170 418
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00	BFB170918a btracted abund. 112 661 314 704 345	m/z m/z 136.85 137.40 137.90 138.85 139.75	0 abund. 347 21 48 85 189	m/z 145.90 146.85 147.10 147.95 148.75	396 253 26 453 149	155.90 156.70 157.00 158.95 160.75	39 146 170 418 241
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70	BFB170918a btracted abund. 112 661 314 704 345 28	m/z 136.85 137.40 137.90 138.85 139.75 140.85	0 abund. 347 21 48 85 189 2166	m/z 145.90 146.85 147.10 147.95 148.75 149.85	396 253 26 453 149 216	155.90 156.70 157.00 158.95 160.75 163.05	39 146 170 418 241 71
BFBA170918, Modified:su 125.75 127.80 128.90 129.85 131.00 131.70 133.60	BFB170918a btracted abund. 112 661 314 704 345 28 18	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80	0 abund. 347 21 48 85 189 2166 186	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10	396 253 26 453 149 216 49	155.90 156.70 157.00 158.95 160.75 163.05 163.40	39 146 170 418 241 71 55
BFBA170918, Modified:su 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00	BFB170918a btracted abund. 112 661 314 704 345 28 18 129	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00	0 abund. 347 21 48 85 189 2166 186 44	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75	396 253 26 453 149 216 49 54	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85	39 146 170 418 241 71 55 39
BFBA170918, Modified:su 125.75 127.80 128.90 129.85 131.00 131.70 133.60	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90	0 abund. 347 21 48 85 189 2166 186 44 2471	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70	396 253 26 453 149 216 49 54 58	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55	39 146 170 418 241 71 55 39 127
BFBA170918, Modified:su 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00	BFB170918a btracted abund. 112 661 314 704 345 28 18 129	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00	0 abund. 347 21 48 85 189 2166 186 44 2471 149	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75	396 253 26 453 149 216 49 54 58 205	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50	39 146 170 418 241 71 55 39 127 184
BFBA170918, Modified:su 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90	0 abund. 347 21 48 85 189 2166 186 44 2471	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70	396 253 26 453 149 216 49 54 58	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55	39 146 170 418 241 71 55 39 127
BFBA170918, Modified:su 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478	<pre>m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95</pre>	396 253 26 453 149 216 49 54 58 205	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50	39 146 170 418 241 71 55 39 127 184
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549	<pre>m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95</pre>	396 253 26 453 149 216 49 54 58 205	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50	39 146 170 418 241 71 55 39 127 184
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918,	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549	<pre>m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95</pre>	396 253 26 453 149 216 49 54 58 205	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50	39 146 170 418 241 71 55 39 127 184
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50	39 146 170 418 241 71 55 39 127 184
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund.	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.90 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund.	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505 abund.	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D m/z 253.40	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 173.90	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648	<pre>m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70</pre>	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D m/z 253.40	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 173.90 174.95	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648 10111	m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70 216.20	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18 19	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D m/z 253.40	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 173.90 174.95 175.90	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648 10111 127690	<pre>m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70 216.20 218.80</pre>	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18 19 30	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D m/z 253.40	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 131.70 133.60 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 174.95 175.90 176.90	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648 10111 127690 8719	<pre>m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70 216.20 218.80 224.40</pre>	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18 19 30 18	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 134.00 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 174.95 175.90 176.90 177.90	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648 10111 127690 8719 121	<pre>m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70 216.20 218.80 224.40 226.20</pre>	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18 19 30 18 22	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 134.00 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 174.95 175.90 176.90 177.90 178.20	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648 10111 127690 8719 121 46	<pre>m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70 216.20 218.80 224.40 226.20 241.70</pre>	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18 19 30 18 22 17	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236
BFBA170918, Modified:su m/z 125.75 127.80 128.90 129.85 131.00 134.00 134.00 134.80 134.95 135.80 Average of BFBA170918, Modified:su m/z 171.10 171.95 173.00 174.95 175.90 176.90 177.90	BFB170918a btracted abund. 112 661 314 704 345 28 18 129 164 259 175 11.974 to BFB170918a btracted abund. 118 1169 2053 132648 10111 127690 8719 121	<pre>m/z 136.85 137.40 137.90 138.85 139.75 140.85 141.80 142.00 142.90 144.05 145.00 11.984 mi a, A, 5mL, 10 m/z 203.10 204.30 211.60 214.70 216.20 218.80 224.40 226.20</pre>	0 abund. 347 21 48 85 189 2166 186 44 2471 149 478 n.: E1549 0 abund. 38 63 20 18 19 30 18 22	m/z 145.90 146.85 147.10 147.95 148.75 149.85 151.10 151.75 152.70 154.15 154.95 .D	396 253 26 453 149 216 49 54 58 205 505 abund. 61	155.90 156.70 157.00 158.95 160.75 163.05 163.40 167.85 169.55 170.50 170.85	39 146 170 418 241 71 55 39 127 184 236

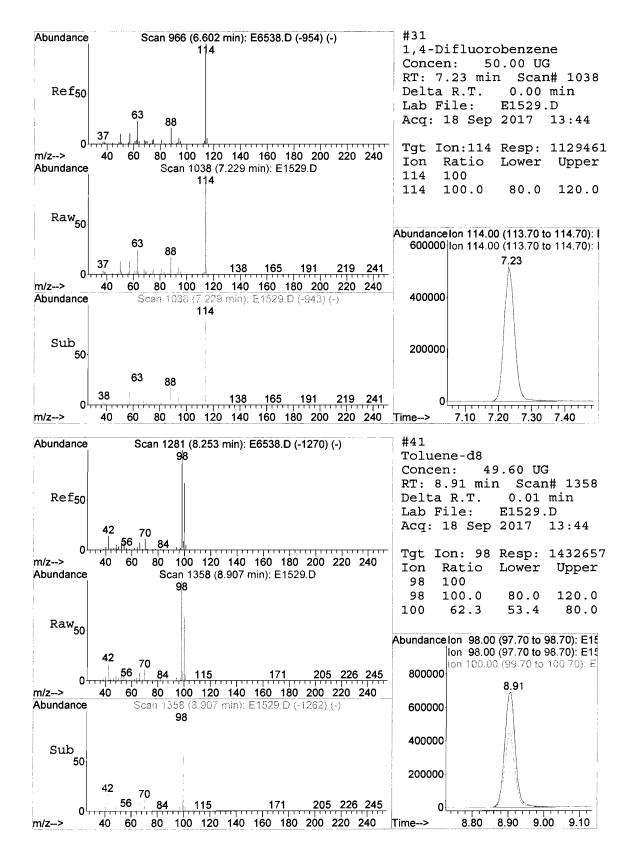
Data Path : C:\MSDChem\1\DATA Data File : E1529.D Acq On : 18 Sep 2017 13:4 Operator : BARBARA Sample : BLKA170918,BLKA17 Misc : NA,NA,NA,1 ALS Vial : 3 Sample Multip	4 0918,A,5mL,100		
Quant Time: Sep 18 17:13:24 2 Quant Method : C:\MSDCHEM\1\M Quant Title : VOLATILE ORGAN QLast Update : Wed Sep 13 10: Response via : Initial Calibr	ETHODS\E8091217.N ICS BY EPA METHON 48:46 2017		
Internal Standards	R.T. QIon		
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.41 168	616434 50.00 1129461 50.00 922480 50.00	UG 0.00
System Monitoring Compounds			
30) 1,2-Dichloroethane-d4	6.74 65	530596 50.62	UG 0.00
Spiked Amount 50.000	8 91 98	1432657 49.60	UG 0.00
41) Toluene-d8 Spiked Amount 50.000	Range 80 - 120	Recovery =	99.20%
Spiked Amount 50.000 59) Bromofluorobenzene	11.98 95	507952 46.89	UG 0.00
Spiked Amount 50.000	Range 66 - 120	Recovery =	93.78%
Target Compounds			Qvalue
(#) = qualifier out of range	(m) = manual int	cegration (+) = si	gnals summed

Data Path	:	C: MSDChem 1 DATA 09-18-17
Data File		
		18 Sep 2017 13:44
Operator	:	BARBARA
Sample	:	BLKA170918,BLKA170918,A,5mL,100
Misc	:	NA, NA, NA, 1
ALS Vial	:	3 Sample Multiplier: 1

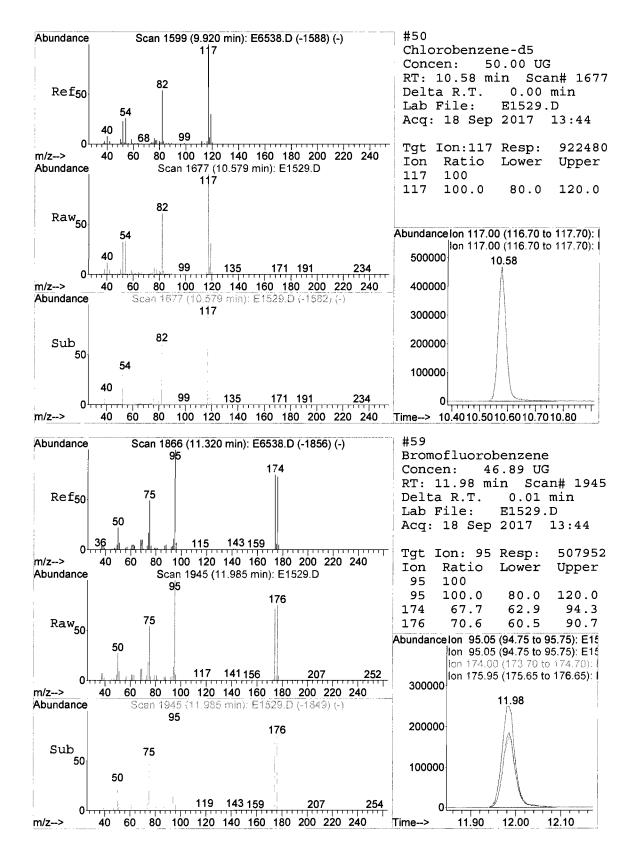
Quant Time: Sep 18 17:13:24 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration

Abundance			TIC	C: E1529.D				
5200000								
5000000								
4800000								
4600000								
4400000								
4200000								
4000000								
3800000								
3600000								
3400000								
3200000								
3000000								
2800000								
2600000								
2400000			Toluene-d8,S	15,1				
2200000		_	Toluer	Chlorobenzene-d5,I				
2000000		inzene,		hlorobe	zene,S			
1800000		ne, l 1,4-Difluorobenzene, l		0	Joroben			
1600000		ene,l 1,4-Dř			Bromofluorobenzene,S			
1400000		e-d4,S			ш			
1200000		Pentafluorobenzene,I oroethane-d4,S 1,4-						
1000000		1,2-Dichlor						
800000		1,2						
600000								
400000								
200000								
0	<u></u>					·····		
ime> 2.00 3.0	4.00 5.00 6.00	7.00 8.00	9.00 10	.00 11.00	12.00 13.0	0 14.00	15.00 16.00	17.00 18.00





RT1



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1529.D Acq On : 18 Sep 2017 13:44 Operator : BARBARA Sample : BLKA170918, BLKA170918, A, 5mL, 100 Misc : NA, NA, NA, 1 ALS Vial : 3 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Start Thrs: 0.1 Max Peaks: 100 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak corr. corr. % of # min scan scan scan TY height % max. total area - - --------- ---- -------------------------1 67 72 122 rVB 7081 51976 1.25% 0.309% 2.164 2 6.401 867 880 910 rBV 885180 2068468 49.67% 12.300% 932 944 966 rBV 36.08% з 6.736 628435 1502446 8.934% 1027 1038 1073 rBV 2990780 71.82% 7.229 17.7848 4 1349221 8.902 1344 1357 1397 rBV 1955188 4164185 100.00% 24.761% 5

6 10.579 1666 1677 1719 rBV 1673371 3397662 81.59% 20.203% 7 11.985 1933 1945 1971 rBV 1290070 2641840 63.44% 15.709%

Sum of corrected areas: 16817357

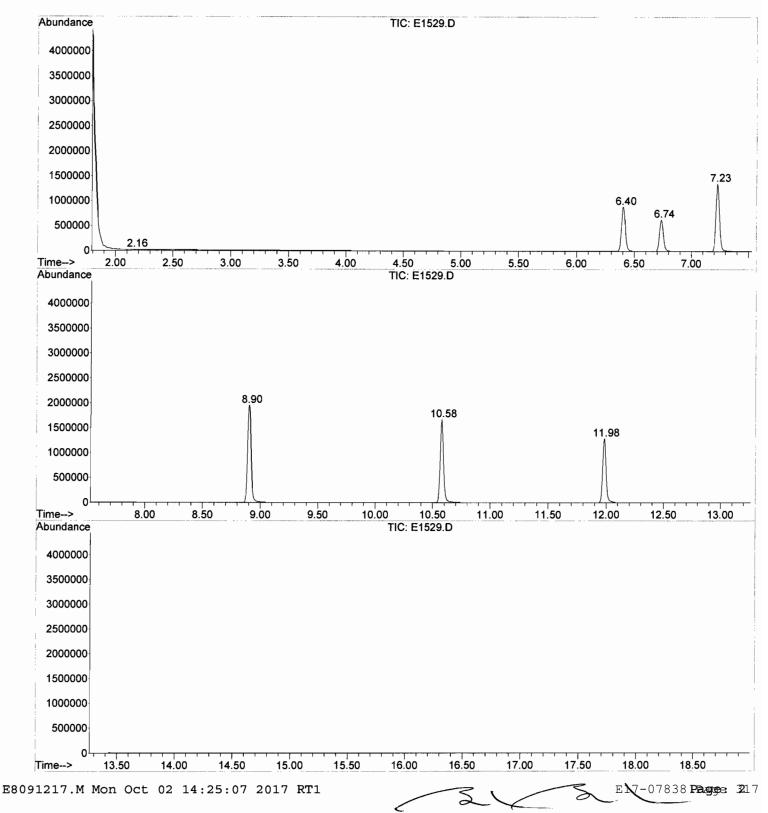
36

E8091217.M Mon Oct 02 14:25:06 2017 RT1

```
Data Path : C:\MSDChem\1\DATA\09-18-17\
Data File : E1529.D
Acq On : 18 Sep 2017 13:44
Operator : BARBARA
Sample : BLKA170918,BLKA170918,A,5mL,100
Misc : NA,NA,1
ALS Vial : 3 Sample Multiplier: 1
```

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

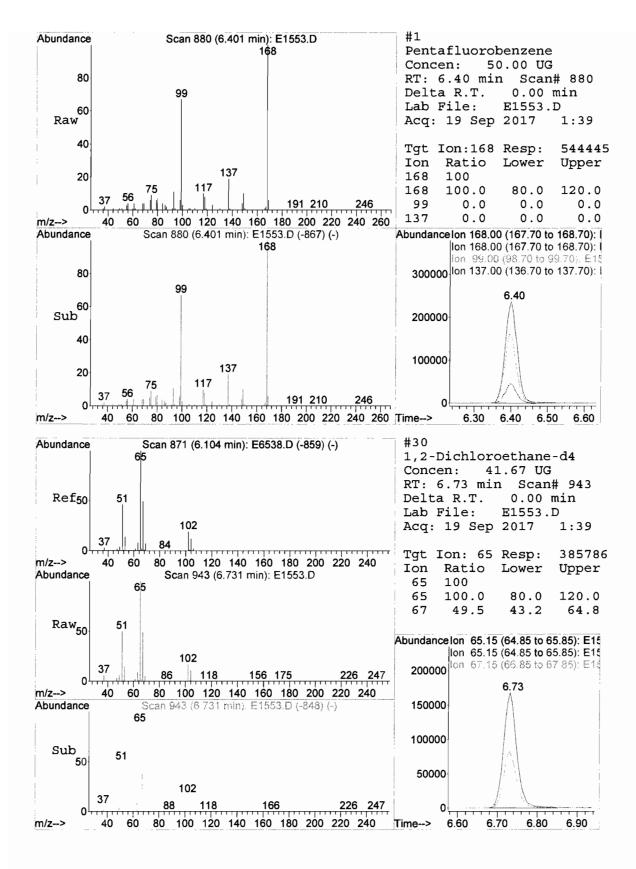
TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



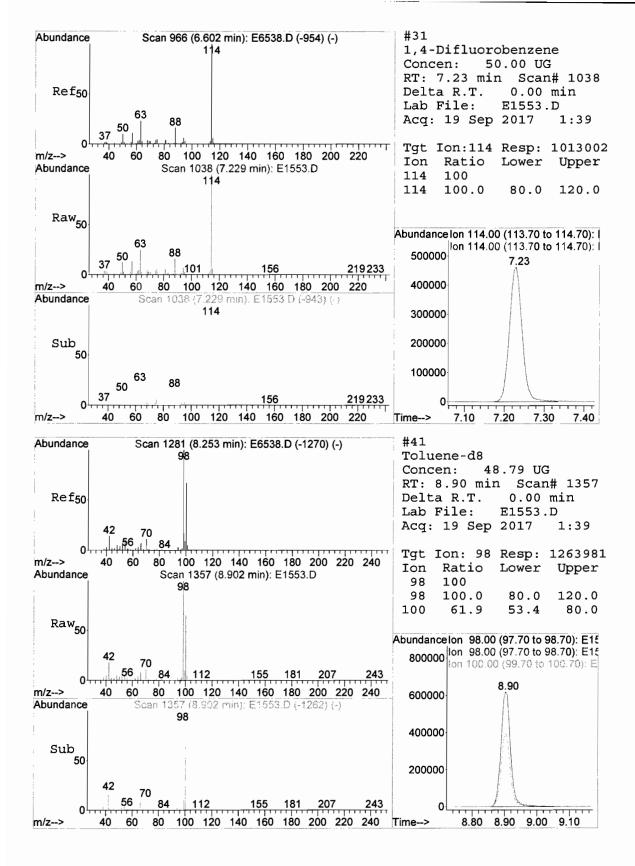
Data Path : C:\MSDChem\l\DATA Data File : E1553.D Acq On : 19 Sep 2017 1:3 Operator : BARBARA Sample : BLKA170918a,BLKA1 Misc : NA,NA,NA,1 ALS Vial : 27 Sample Multi	9 70918a,A,5mL,100										
Quant Time: Sep 19 09:48:14 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration											
Internal Standards	R.T. QION	Response Conc U	Mnits Dev(Min)								
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	7.23 114	1013002 50.00	UG 0.00								
System Monitoring Compounds 30) 1,2-Dichloroethane-d4 Spiked Amount 50.000 41) Toluene-d8 Spiked Amount 50.000 59) Bromofluorobenzene Spiked Amount 50.000 Target Compounds	Range 69 - 166 8.90 98 Range 80 - 120 11.98 95	Recovery = 1263981 48.79 Recovery = 429368 45.61	83.34% UG 0.00 97.58% UG 0.00								
			Qvalue								
(#) - gualifier out of range	(m) - manual int	-	ignals summed								

(#) = qualifier out of range (m) = manual integration (+) = signals summed

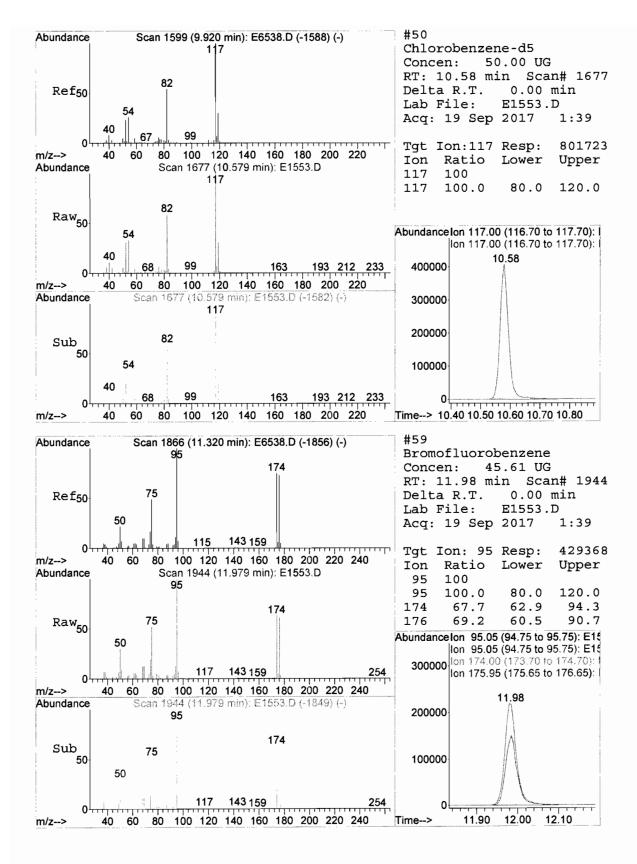
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1553.D Acq On : 19 Sep 2017 1:39 Operator : BARBARA Sample : BLKA170918a, BLKA170918a, A, 5mL, 100 Misc : NA, NA, NA, 1 ALS Vial : 27 Sample Multiplier: 1 Quant Time: Sep 19 09:48:14 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration TIC: E1553.D Abundance 3400000 3200000 3000000 2800000 2600000 2400000 2200000 Toluene-d8,S 2000000 Chlorobenzene-d5,I 1800000 1,4-Difluorobenzene,1 Bromofluorobenzene,S 1600000 1400000 Pentafluorobenzene, I 1200000 1,2-Dichloroethane-d4,S 1000000 800000 600000 400000 200000 10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00 5.00 6.00 7.00 8.00 9.00 3.00 4.00 2.00 Time---> E8091217.M Mon Oct 02 14:28:36 2017 RT1 £17-0**√**838 **Page**: **3**19



RT1



RT1



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1553.D Acq On : 19 Sep 2017 Operator : BARBARA 1:39 Sample : BLKA170918a, BLKA170918a, A, 5mL, 100 : NA,NA,NA,1 Misc ALS Vial : 27 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Min Area: 1 % of largest Peak Sampling : 1 Max Peaks: 100 Start Thrs: 0.1 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak R.T. first max last PK peak % of corr. corr. # min scan scan scan TY height area % max. total ---------- ---- ---- ---- ------ - -1 2.474 128 131 170 rVB3 6245 37161 1.01% 0.256% 6.401 866 880 902 rBV 773068 1834829 49.90% 12.621% 2 3 6.731 929 943 970 rBV 479899 1107491 30.12% 7.618% 4 7.229 1024 1038 1068 rBV 1205853 2674125 72.73% 18.394% 5 8.902 1346 1357 1392 rBV2 1775770 3677033 100.00% 25.293% 6 10.579 1665 1677 1722 rBV 1425944 2968322 80.73% 20.418%

Sum of corrected areas: 14537776

7 11.985 1933 1945 1972 rBV2 1094612 2238815 60.89% 15.400%

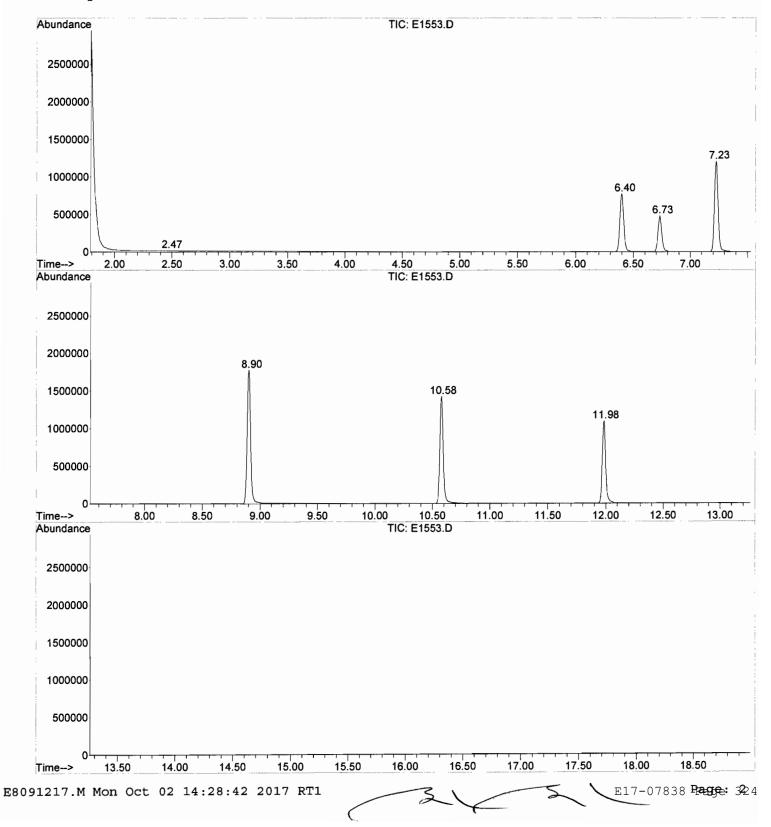
E8091217.M Mon Oct 02 14:28:42 2017 RT1



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1553.D Acq On : 19 Sep 2017 1:39 Operator : BARBARA Sample : BLKA170918a,BLKA170918a,A,5mL,100 Misc : NA,NA,1 ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



DATE:	9/12/2017 12:46	STANDARD	Lot #	Exp. Date	CONC.	
INSTRUMENT:	MSD-K	BFB	L2728	09/16/17	25 ug/ml	
		ISTD/SURR (4100)	L2746	12/11/17	50 ug/ml	
TUNE FILE:	BFB_VOK	ISTD/SURR (4560)	L2747	12/11/17	250 ug/ml	
SEQUENCE FILE:		Primary Mix	L2745	12/07/17	40 ug/ml	
METHOD/CAL FILE:	8260C	Primary Ac/Ac	L2738	09/23/17	1000 ug/ml	
		1,4-Dioxane	L2748	11/14/17	10000 ug/ml	
ANALYST:	Barbara Berberian	Secondary Mix	L2732	09/27/17	40 ug/ml	
		Secondary Ac/Ac	L2744	11/28/17	1000 ug/ml	
FRACTION:	624 524.2	Secondary 1,4-Dioxane	L2729	09/16/17	10000 ug/ml	
ВАТСН:	2(2)	MeOH	L21082	10/01/17		

Vial	Data			Vol				VIAL	pH<2	
#	File	Case #	Samp #	(ml)	% Moist	Test	Method	#	2	Status
1	E1454	BFBA170912	BFBA170912	5	100		8260C			1:48
2	E1455	ICC00.5	ICC170912	5	100		8260C			OK
3	E1456	ICC001	ICC170912	5	100		8260C			OK
4	E1457	ICC005	ICC170912	5	100		8260C			OK
5	E1458	ICC020	ICC170912	5	100		8260C			OK
6	E1459	ICC100	ICC170912	5	100		8260C			OK
7	E1460	ICC150	ICC170912	5	100		8260C			OK
8	E1461	ICC200	ICC170912	5	100		8260C			OK
9	E1462	RB	RB	5	100		8260C			
10	E1463	ICV100	ICV170912	5	100		8260C	1		OK
11	E1464	RB		5	100		8260C			
12	E1465	RB		5	100		8260C			
13	E1466	BLKA170912	BLKA170912	5	100		8260C	1		OK
14	E1467	7745	13	5	100	01 List Volatiles + Cis 1,2-DC	8260C	2	YES	OK
15	E1468	7622	3	5	100	TCL VO + 15	8260C	2	YES	OK
16	E1469	7663	2	5	100	TCL VO + 15	8260C	2	YES	OK
17	E1470	7702	1	5	100	TCL VO + 15	8260C	2	YES	OK
18	E1471	7702	2	5	100	TCL VO + 15	8260C	2	YES	OK
19	E1472	7702	3	5	100	TCL VO + 15	8260C	2	YES	OK
20	E1473	7691	1	5	100	TCL VO + 15	8260C	2	YES	OK
21	E1474	7720	1	5	100	TCL VO + 15	8260C	2	YES	OK
22	E1475	LCSA170912	LCSA170912	5	100		8260C		1	OK
23	E1476	7691	1MS	5	100		8260C	1	YES	OK
24	E1477	7691	1MSD	5	100		8260C		YES	OK

DATE:	9/18/2017 12:46	STANDARD	Lot #	Exp. Date	CONC.	
INSTRUMENT:	MSD-K	BFB	L2751	12/18/17	25 ug/ml	
		ISTD/SURR (4100)	L2746	12/11/17	50 ug/ml	
TUNE FILE:	BFB_VOK	ISTD/SURR (4560)	L2747	12/11/17	250 ug/ml	
SEQUENCE FILE:		Primary Mix	L2745	12/07/17	40 ug/ml	
METHOD/CAL FILE:	8260C	Primary Ac/Ac	L2738	09/23/17	1000 ug/ml	
		1,4-Dioxane	L2748	11/14/17	10000 ug/ml	
ANALYST:	Barbara Berberian	Secondary Mix	L2732	09/27/17	40 ug/ml	
		Secondary Ac/Ac	L2744	11/28/17	1000 ug/ml	
FRACTION:	624 524.2	Secondary 1,4-Dioxane	L2750	12/15/17	10000 ug/ml	
	3121	МеОН	L21082	10/01/17		
BATCH:						

Vial	Data			Vol				VIAL	pH<2	
#	File	Case #	Samp #		% Moist	Test	Method	#	2	Status
1	E1525	BFBA170918	BFBA170918	5	100		8260C		0.7%PUK440M22652112	11:45
2	E1526	CCV100	CCV170918	5	100	an 1999 (1999) (1999) (1999) (1999) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997)	8260C			OK
1	E1527	RB	na kana na mana kana mana kana kana kana	5	100	***************************************	8260C			80000001 (31 Mol and a province and a second statements)
2	E1528	RB		5	100	C1 14 60* 27 (16:37 - 57) Advances Annotes Conservation (16:30) Advances (16:30) Advances (16:30) Advanc	8260C			
3	E1529	BLKA170918	BLKA170918	5	100		8260C			OK
A ALEYANY BURN	E1530	7838	1	5	100	TCL VO + 15	8260C	2	YES	OK
*********	E1531	7838	2	5	100	TCL VO + 15	8260C	2	YES	OK
6	E1532	7838	3	5	100	TCL VO + 15	8260C	2	YES	OK
7	E1533	7838	4	5	100	TCL VO + 15	8260C	2	YES	OK
8	E1534	7838	5	5	100	TCL VO + 15	8260C	2	YES	OK
9	E1535	7838	6	5	100	TCL VO + 15	8260C	2	YES	OK
10	E1536	7838	7	5	100	TCL VO + 15	8260C	2	YES	OK
11	E1537	7836	2	1	100	TCL VO + 15	8260C	2	YES	OK
12	E1538	7836	3	0.1	100	TCL VO + 15	8260C	2	YES	OK
13	E1539	LCSA170918		5	100		8260C			OK
14	E1540	7782	5MS	5	100		8260C		YES	OK OK
15	E1541	7782	5MSD	5	100		8260C		YES	OK
16	E1542	7838	6DL	1	100		8260C	1	YES	OK
17	E1543	7782	5	5	100	TCL VO + 15	8260C	2	YES	OK
18	E1544	7782	6	5	100	TCL VO + 15	8260C	2	YES	<u>ОК</u>
19	E1545	7782	7	5	100	TCL VO + 15	8260C	2	YES	OK
20	E1546	7782	8	5	100	TCL VO + 15	8260C	2	YES	<u>ОК</u>
21	E1547	7782	9	5	100	TCL VO + 15	8260C	2	YES	OK
22	E1548	7782	10	5	100	TCL VO + 15	8260C	2	YES	OK OK
23	E1549	BFBA170918	BFB170918a	5			8260C			11:40
24	E1550	CCV100	CCV170918a	5			8260C			OK
25	E1551	RB		5			8260C			
26	E1552	RB		5		аланын талаат талар ултар байлаган талар тарастар байлаган тараат тараат тараат тараат тараат тараат тараат тар	8260C			*****
27	E1553	BLKA170918a	BLKA170918a	5	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1997 Y	8260C			OK
28	E1554	7689	1	5	100	TCL VO + 15	8260C	2	YES	OK
29	E1555	LCSA170918a	LCSA170918a	5			8260C			OK
30	E1556	7838	8MS	5			8260C		YES	OK
31	E1557	7838	8MSD	5			8260C		YES	OK
32	E1558	RB	SILLOP	5			8260C			
33	E1559	7838	8	5	100	TCL VO + 15	8260C	2	YES	OK
34	E1560	7838	9	5	100	TCL VO + 15	8260C	2	YES	OK
35	E1561	7838	10	5	100	TCL VO + 15	8260C	2	YES	OK OK
36	E1562	7838	11	5	100	TCL VO + 15	8260C	2	YES	OK

DATE:	9/18/2017 12:46	STANDARD	Lot #	Exp. Date	CONC.
INSTRUMENT:	MSD-K	BFB	L2751	12/18/17	25 ug/ml
		ISTD/SURR (4100)	L2746	12/11/17	50 ug/ml
TUNE FILE:	BFB_VOK	ISTD/SURR (4560)	L2747	12/11/17	250 ug/ml
SEQUENCE FILE:		Primary Mix	L2745	12/07/17	40 ug/ml
METHOD/CAL FILE:	8260C	Primary Ac/Ac	L2738	09/23/17	1000 ug/ml
		1,4-Dioxane	L2748	11/14/17	10000 ug/ml
ANALYST:	Barbara Berberian	Secondary Mix	L2732	09/27/17	40 ug/ml
		Secondary Ac/Ac	L2744	11/28/17	1000 ug/ml
FRACTION:	624 524.2	Secondary 1,4-Dioxane	L2750	12/15/17	10000 ug/ml
BATCH:	343	МеОН	L21082	10/01/17	

Vial	Data			Vol				VIAL	pH<2	
#	File	Case #	Samp #	(ml)	% Moist	Test	Method	#	7	Status
37	E1563	7838	12	5	100	TCL VO + 15	8260C	2	YES	OK
38	E1564	7838	13	5	100	TCL VO + 15	8260C	2	YES	OK
39	E1565	7838	14	5	100	TCL VO + 15	8260C	2	YES	OK
40	E1566	7838	15	5	100	TCL VO + 15	8260C	2	YES	OK
41	E1567	7838	16	5	100	TCL VO + 15	8260C	2	YES	OK
42	E1568	7838	17	5	100	TCL VO + 15	8260C	2	YES	OK
43	E1569	7794	1	5	100	L VO + 15; TCL VO + 15 + T	8260C	2	YES	OK
44	E1570	7736	1	0.01	100	TCL VO + 15	8260C	2	YES	OK
45	E1571	7838	14DL	2.5	100	TCL VO + 15	8260C	2	YES	OK
46	E1572	7838	7DL	1	100	TCL VO + 15	8260C	2	YES	OK

Data Path : C:\MSDChem\1\DATA Data File : E1539.D Acq On : 18 Sep 2017 18:42 Operator : BARBARA Sample : LCSA170918,LCSA170 Misc : NA,NA,NA,1 ALS Vial : 13 Sample Multip	2							
Quant Time: Oct 02 17:27:13 20 Quant Method : C:\MSDCHEM\1\M Quant Title : VOLATILE ORGAN QLast Update : Wed Sep 13 10:4 Response via : Initial Calibra	ETHODS\E80 ICS BY EPA 48:46 2017	METHO						
Internal Standards	R.T.	QIon	Response	Conc	: U	nits	Dev	(Min)
	6.40							
31) 1,4-Difluorobenzene	7.23	114	1111548	50.	00	UG		0.00
50) Chlorobenzene-d5	10.58	117	900208	50.	00	UG		0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	6.73	65	480820	46.	10	UG		0.00
	Range 69							
41) Toluene-d8	8.90	98	1445545	⁻ 50.	86	UG		0.00
Spiked Amount 50.000		- 120	Recove	ery	=	101	.72%	
59) Bromofluorobenzene Spiked Amount 50.000	11.98	95	534971	50.	61	UG		0.00
Spiked Amount 50.000	Range 66	- 120	Recove	ery	=	101	.22%	
							0	1
Target Compounds 2) Dichlorodifluoromethane	1 00	85	207748	16	29	uс	Qva	alue 99
3) Chloromethane	2.10		493865					
() Winel chlowide	2 24	60	451585			UG		99
5) Bromomethane	2.63	94	158696	56.				99
6) Chloroethane	2.05	64	196015	48.	05	UG		100
7) Trichlorofluoromethane	2.24 2.63 2.76 3.07	101	392316	60.	85	UG		100
 5) Bromomethane 6) Chloroethane 7) Trichlorofluoromethane 9) 1,1-Dichloroethene 	3.70	96	340589	49.	69	UG	#	100
10) Acetone	4.19	43	469423	115.	63	UG		99
11) Carbon disulfide	3.96	76	914053	55.	03	UG		99
12) Vinyl acetate	4.19	43	538459		-			99
13) Methylene chloride	4.30	84	390662	53.	00	UG	#	68
14) Acrylonitrile	4.60		443351	112.			#	100
15) tert-Butyl alcohol (TBA)			73549	87.				99
16) trans-1,2-Dichloroethene			352293			UG	#	68
17) Methyl tert-butyl ether			913000	45.				100
18) 1,1-Dichloroethane	5.13		787519	51.			щ	99
19) Diisopropyl ether (DIPE) 20) cis-1,2-Dichloroethene	5.24 5.81		1843958 403953			UG UG	# #	48 100
21) 2,2-Dichloropropane	5.81		403955	63.			π	98
22) 2-Butanone (MEK)	5.83		319805			UG	#	94
23) Bromochloromethane	6.08		164797	45.			#	99
25) Chloroform	6.17		692868	51.				98
26) 1,1,1-Trichloroethane	6.38	97	554887	57.	79	UG	#	82
27) Carbon tetrachloride	6.57	117	474515	55.	78	UG		99
28) 1,1-Dichloropropene	6.57		532025			UG	#	96
29) 1,2-Dichloroethane (EDC)			622824	46.			#	99
32) Benzene	6.81		1566923	49.				100
33) Trichloroethene	7.52		377477	48.			щ	91 100
34) 1,2-Dichloropropane	7.78		470309	49. 43.		UG	# #	100 37
35) Dibromomethane	7.91 7.24		214444 103918	43. 1527.			#	100
36) 1,4-Dioxane 37) Bromodichloromethane	7.24 8.08		539082	50.			#	68
37) Bromodichioromethane39) cis-1,3-Dichloropropene	8.08		628939	50.			#	98
40) 4-Methyl-2-pentanone (MI			739955	80.			#	95
40) 4-Methyl-2-pentanone (M 42) Toluene	8.98		960868	49.				97
43) trans-1,3-Dichloroproper			510879	45.			#	E17-0783
44) 1,1,2-Trichloroethane	9.43		257858	43.				95
· · ·								

E**17**-07838 Page 328 **95**

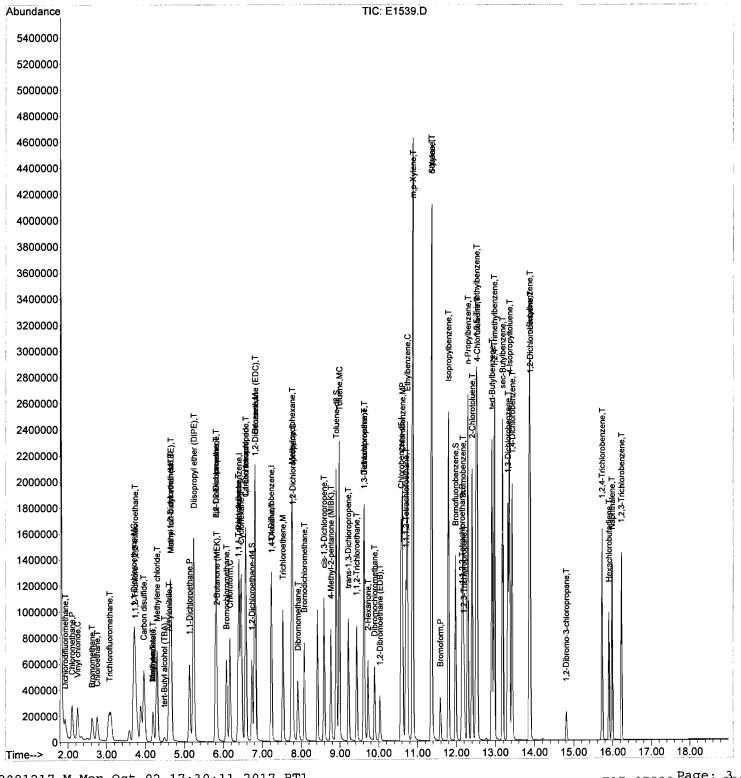
45)	Tetrachloroethene	9.62	166	330274	51.55		#	100
46)	1,3-Dichloropropane	9.63	76	540545	44.07			100
47)	2-Hexanone	9.72	43	515989	76.48	UG		94
48)	Dibromochloromethane	9.89	129	308962	44.06			99
49)	1,2-Dibromoethane (EDB)	10.03	107	273871		UG		99
- /	Chlorobenzene	10.61	112	1037445	49.43		#	73
52)		10.71	131	348647	51.08		#	99
53)	Ethylbenzene	10.74	91	1884169	51.34	UG		98
54)		10.88	106	1369433		UG		90
55)	o-Xylene	11.36	106	689920	54.33			90
56)	Styrene	11.37	104	1171615	53.63	UG	#	100
57)	Bromoform	11.59	173	163599	41.82	UG	#	63
58)	Isopropylbenzene	11.80	105	1785201	54.75	UG		99
60)	1,1,2,2-Tetrachloroethane	12.14	83	382374	38.46	UG	#	98
61)	Bromobenzene	12.17	156	392631	50.04	UG	#	100
62)	1,2,3-Trichloropropane	12.20	75	346731	38.65	UG	#	1
63)	n-Propylbenzene	12.29	91	2272160	52.07	UG		98
64)	2-Chlorotoluene	12.40	91	1314151	50.81	UG		100
65)	1,3,5-Trimethylbenzene	12.51	105	1551556	53.62	UG		98
66)	4-Chlorotoluene	12.53	91	1577734	50.97	UG		98
67)	tert-Butylbenzene	12,91	119	1210162	56.60	UG	#	1
68)	1,2,4-Trimethylbenzene	12.97	105	1589582	51.22	UG		98
69)	sec-Butylbenzene	13.18	105	1923027	55.70	UG		99
70)	1,3-Dichlorobenzene	13.32	146	798562	51.44	UG	#	100
71)	4-Isopropyltoluene	13.36	119	1589147	56.32	UG	#	100
72)	1,4-Dichlorobenzene	13.43	146	798467	50.51	UG		100
73)	n-Butylbenzene	13.86	91	1566984	56.44	UG		98
74)	1,2-Dichlorobenzene	13.89	146	763936	51.75	UG	#	81
75)	1,2-Dibromo-3-chloropropan	14.81	75	56625	35.23	UG	#	80
76)	1,2,4-Trichlorobenzene	15.73	180	458736	52.14	UG		100
77)	Hexachlorobutadiene	15.90	225	166070	53.11	UG		100
78)	Naphthalene	15.98	128	951425	43.61	UG		100
79)	1,2,3-Trichlorobenzene	16.23	180	393597	48.44	UG		99
80)	1,1,2-Trichloro-1,2,2-trif	3.74	101	363034	55.38	UG		93
81)	Methyl acetate	4.19	43	742706	53.37	UG		100
82)	Cyclohexane	6.46	56	893943	51.23	UG	#	75
83)	Methylcyclohexane	7.75	83	657674	51.99	UG	#	49

(#) = qualifier out of range (m) = manual integration (+) = signals summed

E8091217.M Mon Oct 02 17:29:03 2017 RT1

Data Path	:	C:\MSDChem\1\DATA\09-18-17\
Data File	:	E1539.D
Acq On	:	18 Sep 2017 18:42
Operator		BARBARA
Sample	:	LCSA170918,LCSA170918,A,5mL,100
Misc		NA, NA, NA, 1
ALS Vial	:	13 Sample Multiplier: 1

Quant Time: Oct 02 17:27:13 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M VOLATILE ORGANICS BY EPA METHOD 8260C Quant Title : QLast Update : Wed Sep 13 10:48:46 2017 Initial Calibration Response via :



E8091217.M Mon Oct 02 17:30:11 2017 RT1

Data Path : C:\MSDChem\1\DATA\09	-18-17\	-					
Data File : E1555.D							
Acq On : 19 Sep 2017 2:39 Operator : BARBARA							
Sample : LCSA170918a,LCSA1709	18a,A,5m	L,100					
Misc : NA,NA,NA,1 ALS Vial : 29 Sample Multipli	er, 1						
Alb Viai . 25 Sample Multipli	CI. I						
Quant Time: Oct 02 17:43:09 2017		1017					
Quant Method : C:\MSDCHEM\1\METH Quant Title : VOLATILE ORGANICS							
QLast Update : Wed Sep 13 10:48:	46 2017						
Response via : Initial Calibratio	on						
Internal Standards	R.T.	QIon	Response	Conc Ui	nits Dev	(Min)	
 Pentafluorobenzene 							
31) 1.4-Difluorobenzene	6.40 7.23	114	1216181	50.00	UG UG	0.00 0.00	
 31) 1,4-Difluorobenzene 50) Chlorobenzene-d5 	10.58	117	966442	50.00	UG	0.00	
Grater Maritzaine Gammande							
System Monitoring Compounds 30) 1,2-Dichloroethane-d4	6.73	65	458840	41.01	UG	0.00	
Spiked Amount 50.000 Rai	nge 69	- 166	Recove	ery =	82.02%		
41) Toluene-d8 Spiked Amount 50.000 Rai			1575862			0.00	
Spiked Amount 50.000 Ra: 59) Bromofluorobenzene			545210			0.00	
			Recove				
Terrach Compounds					017	alue	
Target Compounds 2) Dichlorodifluoromethane	1.92	85	249180	51.76		99	
3) Chloromethane	2.10	50	571723 531312	45.54		100	
4) Vinyl chloride	2.24 2.63	62	531312 175008	56.48	UG	99 99	
5) Bromomethane 6) Chloroethane	2.63	94 64	248312	58.40	UG UG	100	
7) Trichlorofluoromethane		101		53.82		99	
8) Acrolein	3.57		80921				
 9) 1,1-Dichloroethene 10) Acetone 	3.70 4.19		382474 466245			100 99	
11) Carbon disulfide	3.96	76	965234	54.18		99	
12) Vinyl acetate	4.19	43	650956	44.90		100	
13) Methylene chloride 14) Acrylonitrile	4.30 4.60	84 53	420903 535163	53.24 126.97		68 100	
15) tert-Butyl alcohol (TBA)	4.49	59	73997	81.82		100	
16) trans-1,2-Dichloroethene	4.63	96	403189	54.20		100	
17) Methyl tert-butyl ether (M 18) 1,1-Dichloroethane	4.65 5.13	73 63	842694 916088	38.80 56.21		100 99	
19) Diisopropyl ether (DIPE)	5.24	45	1890330	53.42		48	
20) cis-1,2-Dichloroethene	5.80	96	452815	54.73		100	
21) 2,2-Dichloropropane 22) 2-Butanone (MEK)	5.81 5.83	77 43	392803 385314	55.27 81.55		99 99	
23) Bromochloromethane	6.08	128	165117	42.73		99	
25) Chloroform	6.17	83	779950	54.18		98	
26) 1,1,1-Trichloroethane	6.39 6.57	97 117	656766 529175	63.77 58.00		90 99	
27) Carbon tetrachloride 28) 1,1-Dichloropropene	6.56	75	529175	52.89		96	
29) 1,2-Dichloroethane (EDC)	6.81	62	593947	41.42		86	
32) Benzene	6.80	78 95	1756057 431887	51.08 50.87		100 90	
33) Trichloroethene 34) 1,2-Dichloropropane	7.52 7.77	63	488925	47.22		100	
35) Dibromomethane	7.91	93	212923	39.64		100	
36) 1,4-Dioxane	7.23	88	117629	1580.24 46.42		99 98	
37) Bromodichloromethane39) cis-1,3-Dichloropropene	8.08 8.59	83 75	541939 586327	46.42 44.83		98	
40) 4-Methyl-2-pentanone (MIBK	8.77	43	885815	87.84	UG	99	
42) Toluene	8.98	92 75	1018138	48.39		E 17 -07838 78	Page 331
43) trans-1,3-Dichloropropene	9.22	75	459682	37.53	UG #	78	

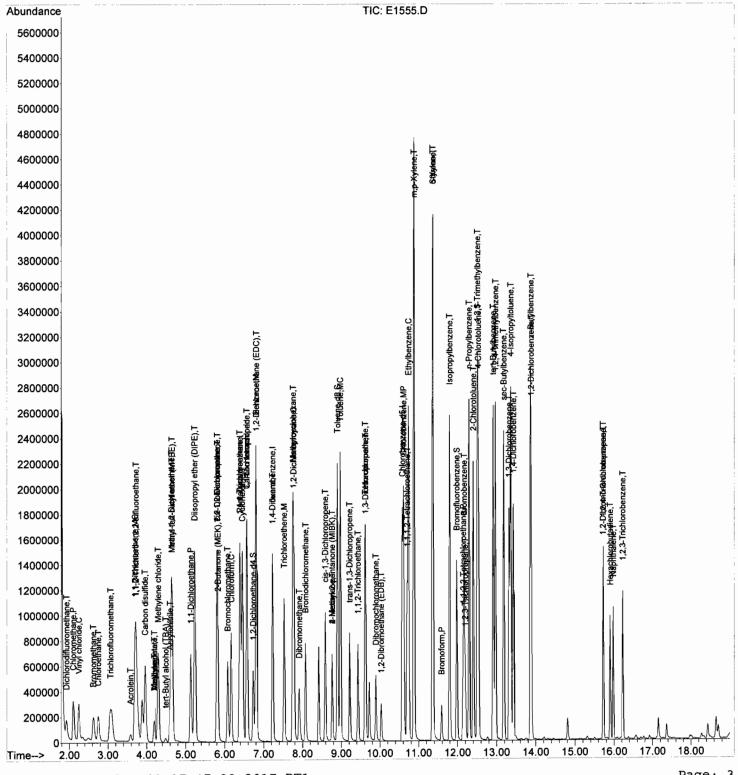
44)	1,1,2-Trichloroethane	9.43	83	249278	38.01	IIG		99
44)	Tetrachloroethene	9.61	166	343354	48.98		#	99
46)		9.63	76	479074	35.70			100
47)		8.77	43	637241	86.33			99
	Dibromochloromethane	9.89	129	282879	36.87			100
49)		10.03	107	284699	42.39	_		99
51)	Chlorobenzene	10.61	112	1065249	47.27		#	73
52)	1,1,1,2-Tetrachloroethane	10.71	131	369157	50.38	UG	#	100
53)	Ethylbenzene	10.74	91	2016705	51.18	UG		99
54)	m,p-Xylene	10.88	106	1470339	100.81			90
	o-Xylene	11.36	106	730252	53.56			90
56)	-	11.37	104	1188788	50.68		#	100
	Bromoform	11.59	173	158095	47.64			100
58)		11.80	105	1924307	54.98			99
60)		12.14	83	601418	56.34			100
61)	Bromobenzene	12.17	156	376733	44.72	UG	#	100
62)	1,2,3-Trichloropropane	12.20	75	427928	44.43	UG		100
63)	n-Propylbenzene	12.29	91	2401867	51.27	UG		98
64)		12.40	91	1397983	50.35	UG		100
65)	1,3,5-Trimethylbenzene	12.51	105	1643044	52.89	UG		98
66)	4-Chlorotoluene	12.54	91	1658654	49.91	UG		98
67)	tert-Butylbenzene	12.91	119	1355700	59.06	UG	#	1
68)	1,2,4-Trimethylbenzene	12.97	105	1742464	52.30	UG		97
69)	sec-Butylbenzene	13.18	105	2018881	54.47	UG		99
70)	1,3-Dichlorobenzene	13.32	146	796529	47.79	UG		99
71)	4-Isopropyltoluene	13.36	119	1690653	55.81	UG		100
72)	1,4-Dichlorobenzene	13.43	146	797549	47.00	UG		100
73)	n-Butylbenzene	13.87	91	1624721	54.51			98
74)	1,2-Dichlorobenzene	13.89	146	719309	45.38	UG	#	81
75)	1,2-Dibromo-3-chloropropan	15.71	75	69026	40.00	UG		99
76)	1,2,4-Trichlorobenzene	15.72	180	428765	45.39			100
77)	Hexachlorobutadiene	15.91	225	175554	52.29	UG		100
78)	Naphthalene	15.98	128	737595	31.50	UG		100
79)	1,2,3-Trichlorobenzene	16.23	180	324064	37.15	UG		100
80)	1,1,2-Trichloro-1,2,2-trif	3.73	101	397740	56.51			91
81)	Methyl acetate	4.19	43	615682	41.21			100
82)	Cyclohexane	6.45	56	1006521	53.73		#	74
83)	Methylcyclohexane	7.75	83	691793	50.94	UG	#	48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

E8091217.M Mon Oct 02 17:44:31 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1555.D Acq On : 19 Sep 2017 2:39 Operator : BARBARA Sample : LCSA170918a,LCSA170918a,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 02 17:43:09 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration



E8091217.M Mon Oct 02 17:47:22 2017 RT1

Data Path : C:\MSDChem\1\DATA\09 Data File : E1540.D Acq On : 18 Sep 2017 19:12 Operator : BARBARA Sample : E17-07782-005MS,E17- Misc : NA,NA,NA,1 ALS Vial : 14 Sample Multiplic Quant Time: Sep 19 09:33:44 2017 Quant Method : C:\MSDCHEM\1\METHO Quant Title : VOLATILE ORGANICS QLast Update : Wed Sep 13 10:48:4 Response via : Initial Calibratic	07782-00 er: 1 DDS\E809 BY EPA 46 2017 on	91217.1 METHOI	M D 8260C			
Internal Standards	R.T.	QION	Response	Conc Ui	nits Dev	(Min)
1) Pentafluorobenzene	6.40	168	609628	50.00	UG	0.00
31) 1,4-Difluorobenzene						
50) Chlorobenzene-d5	10.58	117	888791	50.00	UG	0.00
,						
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	452885	43.69	UG	0.00
Spiked Amount 50.000 Ran	nge 69					
41) Toluene-d8	8.90	98	1445154	50.58	UG	0.00
41) Toluene-d8 Spiked Amount 50.000 Rai	nge 80	- 120	Recove	ery =	101.16%	
59) Bromofluorobenzene	11.98	95	516103	49.45	UG	0.00
59) Bromofluorobenzene Spiked Amount 50.000 Ram	nge 66	- 120	Recove	ery =	98.90%	
	J			- 1		
Target Compounds					Ov	alue
2) Dichlorodifluoromethane	1.92	85	236182	52.95		99
3) Chloromethane	2.10			44.12		100
4) Vinyl chloride			486019			
5) Bromomethane				53.11		
6) Chloroethane			285523			
7) Trichlorofluoromethane	3 07	101	422956	60.31	UG "	99
7) Trichlorofluoromethane9) 1,1-Dichloroethene	3 71	96	422956 360264	52.88	UG #	100
10) Acetone	3.71 3.77	43	225985	87.91	UG #	86
11) Carbon disulfide	3.96	76	1170228	57.49	UG "	100
12) Vinyl acetate	4.19		394311			
13) Methylene chloride	4.30	84	394636	53.87		98
14) Acrylonitrile	4.61	53	383443	188.00		100
15) tert-Butyl alcohol (TBA)	4.48	59	40248	97.83		100
16) trans-1,2-Dichloroethene	4.63	96	367527	53.32		100
17) Methyl tert-butyl ether (M	4.65	73	835223	41.50		100
18) 1,1-Dichloroethane	5.13	63	830751	55.01		98
19) Diisopropyl ether (DIPE)	5.24	45	1787108	54.51		48
20) cis-1,2-Dichloroethene	5.80	96	414709			100
21) 2,2-Dichloropropane	5.81	77	461591	50.09		98
22) 2-Butanone (MEK)	5.83	43	269361	101.53		94
23) Bromochloromethane	6.08	128	160574	44.84		99
25) Chloroform	6.16	83	710269	53.25	UG	99
26) 1,1,1-Trichloroethane	6.38	97	580443	60.82	UG #	82
27) Carbon tetrachloride	6.57	117	491166	58.10	UG	100
28) 1,1-Dichloropropene	6.57	75	546061	52.51	UG #	96
29) 1,2-Dichloroethane (EDC)	6.82	62	574954	43.27	UG #	100
32) Benzene	6.80	78	1612755	51.07	UG	100
33) Trichloroethene	7.52	95	382612	49.06		92
34) 1,2-Dichloropropane	7.78	63	460505	48.41		100
35) Dibromomethane	7.91	93	194910	39.50	UG #	37
36) 1,4-Dioxane	7.23	88	104564m	1529.01	UG	
37) Bromodichloromethane	8.08	83	515500	48.06	UG #	68
39) cis-1,3-Dichloropropene	8.59	75	580849	48.34	UG	98
40) 4-Methyl-2-pentanone (MIBK	8.76	43	610606	95.61	UG #	96
42) Toluene	8.97	92	944761	48.88	UG	97
43) trans-1,3-Dichloropropene	9.22	75	467601	41.55	UG #	E 18 7-07838 Page 334
44) 1,1,2-Trichloroethane	9.43	83	226823	37.65	UG	95

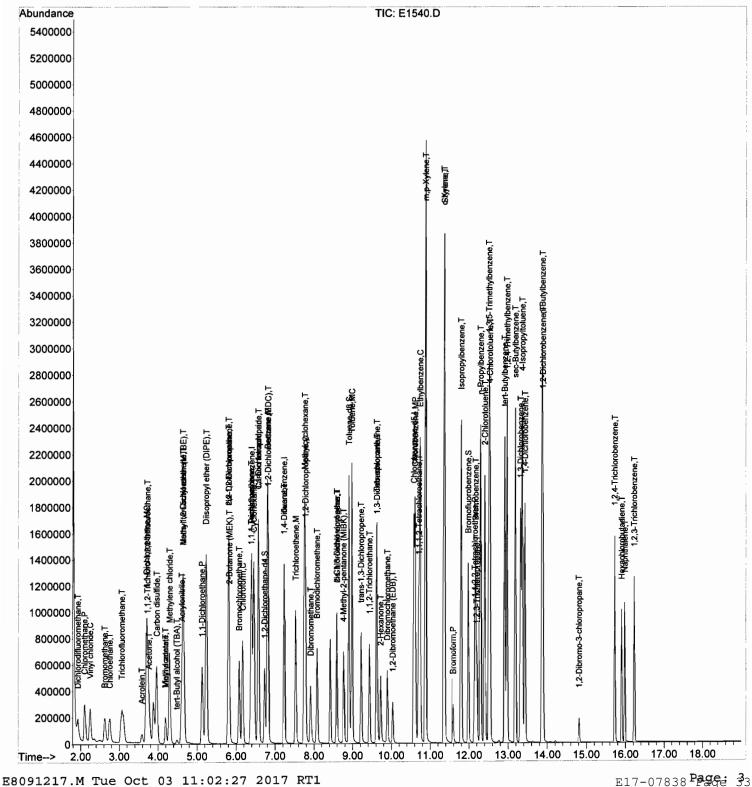
45)		9.61	166	324781	50.43	UG	#	99
46)	1,3-Dichloropropane	9.63	76	482586	37.60	UG		100
47)		9.72	43	429875	103.50	UG	#	93
48)	Dibromochloromethane	9.89	129	287795	40.83	UG		100
49)	1,2-Dibromoethane (EDB)	10.03	107	232729	37.72	UG		99
51)	Chlorobenzene	10.61	112	1009836	48.73	UG	#	73
52)	1,1,1,2-Tetrachloroethane	10.71	131	346630	51.44	UG	#	99
53)	Ethylbenzene	10.74	91	1826272	50.40	UG		99
54)	m,p-Xylene	10.88	106	1382561	103.07	UG		91
55)	o-Xylene	11.35	106	691815	55.18	UG		90
56)	Styrene	11.37	104	1130937	52.43	UG	#	100
57)	Bromoform	11.59	173	139884	36.22	UG	#	63
58)	Isopropylbenzene	11.80	105	1764038	54.80	UG		99
60)	1,1,2,2-Tetrachloroethane	12.14	83	324140	48.60	UG	#	97
61)	Bromobenzene	12.17	156	363976	46.98	UG	#	100
62)	1,2,3-Trichloropropane	12.20	75	301299	44.02	UG	#	1
63)	n-Propylbenzene	12.29	91	2198477	51.03	UG		98
64)	2-Chlorotoluene	12.40	91	1326513	51.95	UG		100
65)	1,3,5-Trimethylbenzene	12.51	105	1582583	55.40	UG		97
66)	4-Chlorotoluene	12.53	91	1546253	50.59	UG		98
67)	tert-Butylbenzene	12.91	119	1219645	57.77	UG	#	1
68)	1,2,4-Trimethylbenzene	12.97	105	1614376	52.69	UG		98
69)	sec-Butylbenzene	13.18	105	1953489	57.31	UG		99
70)	1,3-Dichlorobenzene	13.32	146	763461	49.81	UG	#	99
71)	4-Isopropyltoluene	13.36	119	1608331	57.74	UG	#	100
72)	1,4-Dichlorobenzene	13.43	146	780566	50.02	UG		100
73)	n-Butylbenzene	13.87	91	1589183	57.98	UG		98
74)	1,2-Dichlorobenzene	13.89	146	722429	49.56	UG	#	81
75)	1,2-Dibromo-3-chloropropan	14.82	75	47119	59.69	UG	#	49
76)	1,2,4-Trichlorobenzene	15.72	180	435359	50.12	UG		100
77)	Hexachlorobutadiene	15.90	225	167916	54.39	UG		100
78)	Naphthalene	15.98	128	768301	35.67	UG		100
79)	1,2,3-Trichlorobenzene	16.23	180	349675	43.59	UG		100
80)	1,1,2-Trichloro-1,2,2-trif	3.73	101	370841	57.29	UG		93
81)	Methyl acetate	4.19	43	394311	53.20	UG	#	81
82)	Cyclohexane	6.45	56	939801	54.55	UG	#	75
83)	Methylcyclohexane	7.75	83	658597	52.73	UG	#	48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

E8091217.M Tue Oct 03 10:54:17 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1540.D Acq On : 18 Sep 2017 19:12 Operator : BARBARA : E17-07782-005MS, E17-07782-005MS, A, 5mL, 100 Sample Misc : NA, NA, NA, 1 ALS Vial Sample Multiplier: 1 : 14

Quant Time: Sep 19 09:33:44 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1541.D : 18 Sep 2017 19:42 Acq On Operator : BARBARA Sample : E17-07782-005MSD,E17-07782-005MSD,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 15 Sample Multiplier: 1 Quant Time: Sep 19 09:34:13 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Ouant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration R.T. QIon Response Conc Units Dev(Min) Internal Standards _____ 1) Pentafluorobenzene6.4016863174350.00UG31) 1,4-Difluorobenzene7.23114114007650.00UG50) Chlorobenzene-d510.5811792949050.00UG 0.00 0.00 0.00 System Monitoring Compounds

 30) 1,2-Dichloroethane-d4
 6.73
 65
 445282
 41.45
 UG
 0.00

 Spiked Amount
 50.000
 Range
 69 - 166
 Recovery
 =
 82.90%

 41) Toluene-d8
 8.90
 98
 1477390
 50.68
 UG
 0.00

 Spiked Amount
 50.000
 Range
 80 - 120
 Recovery
 =
 101.36%

 59) Bromofluorobenzene
 11.98
 95
 528301
 48.40
 UG
 0.00

 Spiked Amount 50.000 Range 66 - 120 Recovery = 96.80% Qvalue Target Compounds 2) Dichlorodifluoromethane 1.92 85 227040 49.12 UG 100

 2) Dichlorodifluoromethane
 1.92
 85
 227040
 49.12
 03
 100

 3) Chloromethane
 2.10
 50
 524624
 43.51
 UG
 100

 4) Vinyl chloride
 2.24
 62
 486105
 53.82
 UG
 99

 5) Bromomethane
 2.62
 94
 220094
 56.57
 UG
 99

 6) Chloroethane
 2.76
 64
 285506
 57.96
 UG
 #
 100

 7) Trichlorofluoromethane
 3.06
 101
 441747
 59.73
 UG
 100

 8) Acrolein
 3.58
 56
 94219
 149.90
 UG
 #
 100

 3.585694219149.90UG#1009)1,1-Dichloroethene3.719635207349.87UG#10010)Acetone3.784322550393.94UG9711)Carbon disulfide3.9776116361658.02UG10012)Vinyl acetate4.204337090356.64UG#10013)Methylene chloride4.298438896051.24UG#9914)Acrylonitrile4.605336652219006UG#100 4.60 53 366522 190.06 UG # 100 14) Acrylonitrile 15) tert-Butyl alcohol (TBA)4.48593896894.87UG#10016) trans-1,2-Dichloroethene4.639636271750.78UG#100 16)trans-1,2-Dichloroethene4.639636271750.780G#10017)Methyl tert-butyl ether (M4.657381591039.12UG10018)1,1-Dichloroethane5.136382505852.72UG9919)Diisopropyl ether (DIPE)5.2345177673152.29UG#4820)cis-1,2-Dichloroethene5.809641700652.49UG#10021)2,2-Dichloropropane5.817745710657.88UG9822)2-Butanone (MEK)5.8343253757105.93UG#9523)Bromochloromethane6.0812815875542.78UG#10025)Chloroform6.168370643051.11UG9926)11Trickloroethane6.38975815545880UG# 25)Chloroform6.168370643051.11067226)1,1,1-Trichloroethane6.389758155458.80UG#8227)Carbon tetrachloride6.5711748654855.54UG10028)1,1-Dichloropropene6.567554036250.14UG#9629)1,2-Dichloroethane (EDC)6.816256472241.01UG#8632)Benzene6.8078159474549.49UG10033)Trichloroethene7.529538455548.32UG9134)1,2-Dichloropropane7.776345975547.36UG#10035)Dibromomethane7.919319011537.76UG#9134)1,2-Dichloropropane7.2488868911245.22UG100 7.24 88 86891 1245.22 UG 100 36) 1,4-Dioxane

 36)
 1,4-Dioxalle
 7.24
 00
 00001
 1213.22
 00

 37)
 Bromodichloromethane
 8.08
 83
 517545
 47.29
 UG
 #

 39)
 cis-1,3-Dichloropropene
 8.59
 75
 583753
 47.62
 UG

 40)
 4-Methyl-2-pentanone
 (MIBK
 8.77
 43
 583953
 90.87
 UG

 42)
 Toluene
 8.98
 92
 941029
 47.71
 UG

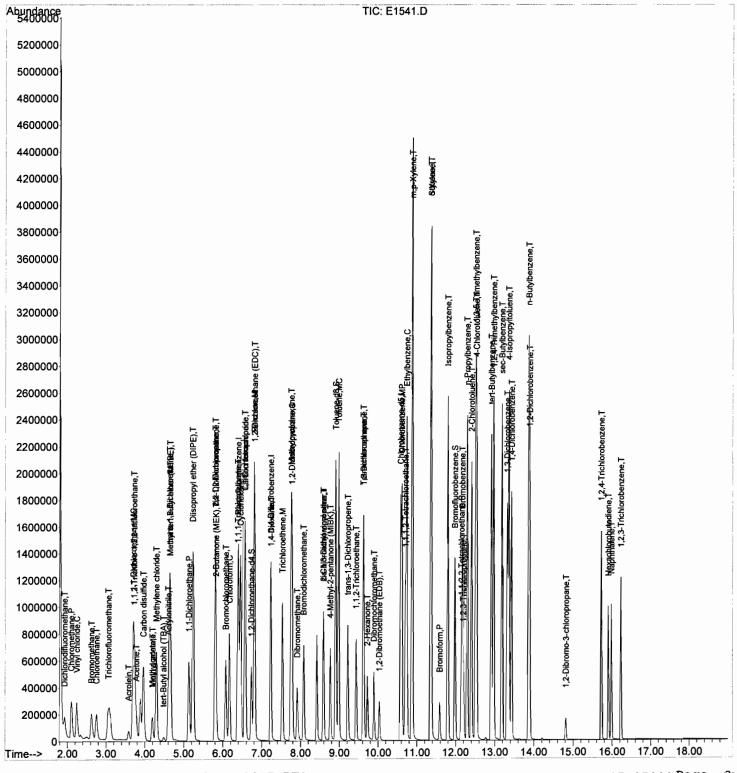
 69 98 96 43) trans-1,3-Dichloropropene 9.22 75 469203 40.86 UG # 78

	1,1,2-Trichloroethane	9.44	83	225321	36.65 U		9
	Tetrachloroethene	9.61	166	326149	49.63 U		10
	1,3-Dichloropropane	9.63	76	473221	37.61 U		10
47)		9.72	43	408907	109.59 U		9
-	Dibromochloromethane	9.89	129	277830	38.63 U		10
	1,2-Dibromoethane (EDB)	10.03	107	228557	36.31 U		9
-	Chlorobenzene	10.61	112	1000173	46.15 U		7
52)		10.71	131	346518	49.17 U		1(
53)		10.74	91	1843418	48.64 U		9
	m,p-Xylene	10.88	106	1379614	98.35 U		-
	o-Xylene	11.36	106	680617	51.91 U		8
56)		11.37	104	1136512	50.38 U		1(
-	Bromoform	11.59	173	136941	40.90 U		e
	Isopropylbenzene	11.80	105	1781988	52.93 U		9
	1,1,2,2-Tetrachloroethane	12.14	83	306841	49.89 U		9
-	Bromobenzene	12.17	156	366349	45.22 U		10
	1,2,3-Trichloropropane	12.20	75	294004	41.74 U	3 #	
63)	n-Propylbenzene	12.29	91	2213231	49.12 U	3	9
•	2-Chlorotoluene	12.40	91	1324516	49.60 U		10
	1,3,5-Trimethylbenzene	12.51	105	1551044	51.91 U		
66)	4-Chlorotoluene	12.53	91	1562856	48.90 U	3	
67)	tert-Butylbenzene	12.91	119	1235680	55.97 U	3 #	
68)	1,2,4-Trimethylbenzene	12.96	105	1636597	51.07 U	3	1
69)	sec-Butylbenzene	13.18	105	1924983	54.00 U	3	
70)	1,3-Dichlorobenzene	13.32	146	775790	48.40 U	3 #	!
71)	4-Isopropyltoluene	13.36	119	1590449	54.59 U	3 #	10
72)	1,4-Dichlorobenzene	13.43	146	781954	47.91 U	3	10
73)	n-Butylbenzene	13.87	91	1607714	56.08 U	3	1
74)	1,2-Dichlorobenzene	13.89	146	718140	47.11 U	3 #	1
75)	1,2-Dibromo-3-chloropropan	14.81	75	44218	56.94 U	3 #	
76)	1,2,4-Trichlorobenzene	15.72	180	419396	46.17 U	3	1
77)	Hexachlorobutadiene	15.91	225	166113	51.45 U	3	10
78)	Naphthalene	15.98	128	728060	37.82 U	3	1
	1,2,3-Trichlorobenzene	16.23	180	333592	39.76 U	3	10
	1,1,2-Trichloro-1,2,2-trif	3.73	101	365934	54.06 UG	3	9
	Methyl acetate	4.20	43	370903	55.91 U	3 #	1
	Cyclohexane	6.45	56	911266	50.58 U	3 #	
	Methylcyclohexane	7.75	83	649785	49.75 U		4

E8091217.M Tue Oct 03 11:02:38 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1541.D Acq On : 18 Sep 2017 19:42 Operator : BARBARA Sample : E17-07782-005MSD,E17-07782-005MSD,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 19 09:34:13 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration



E8091217.M Tue Oct 03 11:10:21 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1556.D Acq On : 19 Sep 2017 3:09 Operator : BARBARA Sample : E17-07838-008MS,E17-07838-008MS,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 30 Sample Multiplier: 1							
Quant Time: Sep 19 09:15:01 20 Quant Method : C:\MSDCHEM\1\ME Quant Title : VOLATILE ORGANI QLast Update : Wed Sep 13 10:4 Response via : Initial Calibra	THODS\E80 CS BY EPA 8:46 2017						
Internal Standards	R.T.	QIon	Response	Conc U	nits D	ev(Min)	
1) Pentafluorobenzene							
31) 1.4-Difluorobenzene	7.22	114	1244142	50.00	UG	0.00	
31) 1,4-Difluorobenzene50) Chlorobenzene-d5	10.58	117	993378	50.00	UG	0.00	
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4							
	Range 69			ery =			
41) Toluene-d8			1607535			0.00	
Spiked Amount 50.000	Range 80	- 120	Recove	ery =	101.0		
59) Bromofluorobenzene	11.98	95	563602 Bogow	48.31	UG	0.00	
Spiked Amount 50.000	Range 66	- 120	RECOV	ery =	90.0	23	
Target Compounds						Qvalue	
2) Dichlorodifluoromethane	1.92	85	246029	48.65		99	
	2.10			43.34		100	
4) Vinyl chloride	2.23	62		53.64			
5) Bromomethane	2.62	94	228525	53.07	UG	98	
6) Chloroethane	2.74	64	295250 463838 80519	56.74	UG :	# 100	
7) Trichlorofluoromethane	3.07	101	463838	60.25	UG	100	
8) Acrolein	3.57	56	80519	50.30	UG :		
9) 1,1-Dichloroethene	3.70	96	369315	47.82	UG :	# 100	
10) Acetone			219824			98	
11) Carbon disulfide						100	
12) Vinyl acetate	4.19	43	342076	54.06		# 100 # 98	
13) Methylene chloride 14) Acrylonitrile	4.29 4.60	84 53	407991 342532	49.13 188.01		# 98 # 100	
15) tert-Butyl alcohol (TBA)		59	40131	97.80		# 100 # 100	
16) trans-1,2-Dichloroethene		96	389887	49.90		# 100	
17) Methyl tert-butyl ether		73	796706	38.92		100	
18) 1,1-Dichloroethane	5.13	63	874293	51.07	UG	99	
19) Diisopropyl ether (DIPE)	5.23	45	1792166	48.22		4 8	
20) cis-1,2-Dichloroethene	5.80	96	444186	51.11		# 100	
21) 2,2-Dichloropropane	5.80	77	379039	50.77		99	
22) 2-Butanone (MEK)	5.83	43	233836	101.51		# 95 # 98	
23) Bromochloromethane 25) Chloroform	6.08 6.16	128 83	156525 760767	38.56 50.31		98	
26) 1,1,1-Trichloroethane	6.38	97	623072	57.59		¥ 82	
27) Carbon tetrachloride	6.57	117	513196	53.55		99	
28) 1,1-Dichloropropene	6.57	75	572420	48.55		# 96	
29) 1,2-Dichloroethane (EDC)	6.81	62	575730	38.22	UG 🕴	\$ 99	
32) Benzene	6.80	78	1722780	48.99	UG	100	
33) Trichloroethene	7.53	95	424521	48.88		90	
34) 1,2-Dichloropropane	7.78	63	481579	45.46		\$ 99	
35) Dibromomethane	7.91	93	188243	55.56		\$ 91	
36) 1,4-Dioxane	7.94	88	65228	1785.01		# 100	
37) Bromodichloromethane	8.08	83	529023	44.30		‡ 68 ‡ 86	
38) 2-Chloroethyl vinyl ethe	r 8.59 8.59	63 75	5364 579691	0.90 43.33		+ 86 98	
39) cis-1,3-Dichloropropene 40) 4-Methyl-2-pentanone (MI		43	548402	43.33 95.60		₽16 7−0783	Q
40) 4-Methyr-2-pentanone (Mr 42) Toluene	8.97	92	1013628	47.10		97	0

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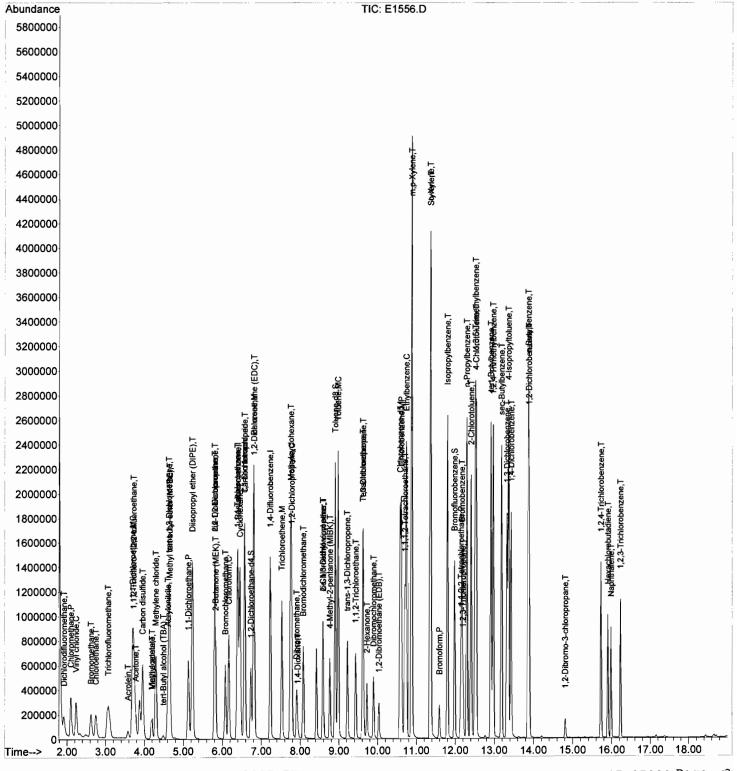
12)	trans-1,3-Dichloropropene	9.22	75	452508	36.11 0	JG #	ŧ 70
44)		9.43	83	218309	44.30 T		
45)		9.61	166	334527	46.65 0		
46)		9.63	76	467200	36.80 0		100
40)	· · ·	9.03	43	374987	103.46 0		94
48)		9.89	129	279352	35.59 0		100
49)		10.03	107	225264	54.09 0		100
49) 51)	,	10.03	112	1070027	46.20 0		
52)		10.01	131	362589	48.14 0		
52)		10.71	91	1944853	48.02 0	"	99
54)	-	10.88	106	1471565	98.16 0		91
55)		11.35	106	730239	52.11 0		90
56)	Styrene	11.35	104	1161255	48.17 0		
57)		11.59	173	132199	52.69 t		
58)		11.80	105	1913709	53.19 t		99
60)		11.80 12.14	83	287330	48.59 T		98
61)		12.14 12.17	156	369295	42.65 0		
62)		12.20	75	279713	44.00 0		
	n-Propylbenzene	12.20	91	2327418	48.33 0		98
64)		12.20	91	1385868	48.56 0		100
65)		12.51	105	1636275	51.24 t		97
66)	•	12.54	91	1638561	47.97 0		98
67)		12.91	119	1304001	55.27 0		
68)	-	12.96	105	1669711	48.76 0		98
69)	· · · ·	13.19	105	1984666	52.10 0		100
70)	-	13.32	146	792577	46.26 0		
71)	•	13.36	119	1633141	52.45 t		
72)		13.43	146	766753	43.96 0		100
	n-Butylbenzene	13.86	91	1592957	51.99 t		98
74)	-	13.89	146	704217	43.23 U		81
-	1,2-Dibromo-3-chloropropan	14.82	75	40105	59.71 t		
76)		15.72	180	394557	40.64 U	JG	100
	Hexachlorobutadiene	15.90	225	175757	50.93 t		100
78)		15.98	128	645970	51.33 t		100
79)	-	16.23	180	306083	44.19 U	JG	100
80)		3.73	101	389290	53.81 U	JG	92
	Methyl acetate	4.19	43	342076	53.17 U		84
82)	-	6.45	56	959370	49.82 t		
83)	Methylcyclohexane	7.75	83	666647	47.75 t	JG #	48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

E8091217.M Mon Oct 02 17:50:58 2017 RT1

Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1556.D Acq On : 19 Sep 2017 3:09 Operator : BARBARA Sample : E17-07838-008MS,E17-07838-008MS,A,5mL,100 Misc : NA,NA,NA,1 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:15:01 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration



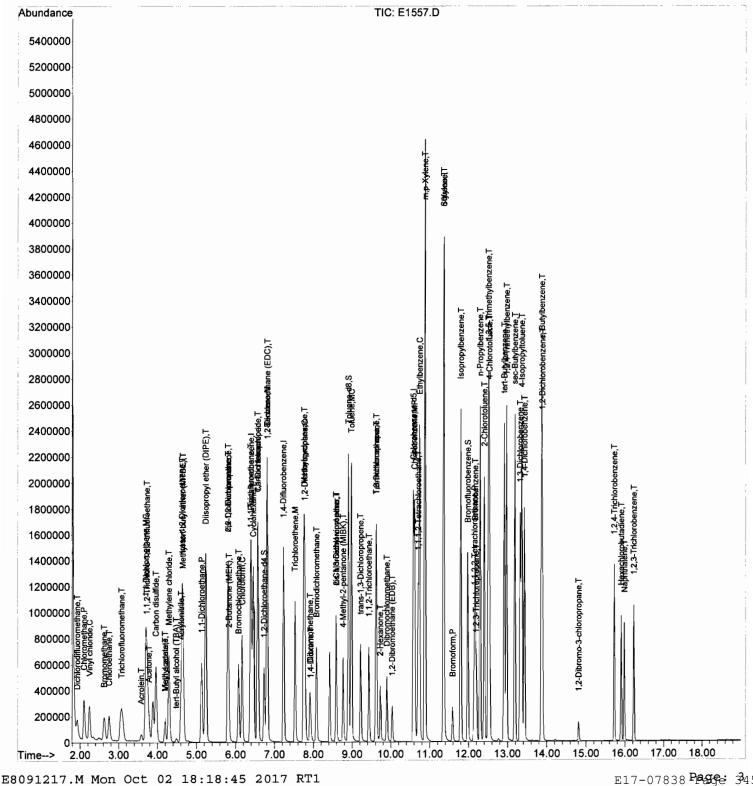
Acq On : 19 Sep 2017 3:38 Operator : BARBARA Sample : E17-07838-008MSD,E17-07838-008MSD,A, Misc : NA,NA,NA,1 ALS Vial : 31 Sample Multiplier: 1	5mL,100
Quant Time: Sep 19 09:15:08 2017 Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8 QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration	260C
Internal Standards R.T. QIon Re	sponse Conc Units Dev(Min)
1) P_{0} to figure here r_{0} (1) r_{0} (1)	
31) 1,4-Difluorobenzene 7.23 114 12 50) Chlorobenzene-d5 10.58 117 9	72336 50.00 UG 0.00
50) Chlorobenzene-d5 10.58 117 9	93585 50.00 UG 0.00
System Monitoring Compounds	
	64280 39.11 UG 0.00
Spiked Amount 50.000 Range 69 - 166	
	24564 49.93 UG 0.00
Spiked Amount 50.000 Range 80 - 120	
59) Bromofluorobenzene 11.98 95 5 Spiked Amount 50.000 Range 66 - 120	60623 48.05 UG 0.00
Spiked Amount 50.000 Range 66 - 120	Recovery = 90.10%
Target Compounds	Qvalue
2) Dichlorodifluoromethane 1.92 85 2	27552 44.55 UG 99
3) Chloromethane 2.10 50 5	47771 41.11 UG 100
4) Vinyl chloride 2.24 62 5 5) Bromomethane 2.62 94 2	14044 51.50 UG 99
5) Bromomethane 2.62 94 2	47771 41.11 UG 100 14044 51.50 UG 99 16837 56.56 UG 100 87210 58.00 UG #
6) Chloroethane 2.75 64 2	87210 58.00 UG # 100
7) Trichlorofluoromethane 3.07 101 4	
8) Acrolein 3.58 56 9) 1,1-Dichloroethene 3.70 96 3	72225 145.67 UG # 100 56442 45.69 UG # 100
9) 1,1-Dichioroethene 3.70 96 3 10) Acetone 3.78 43 2	08967 93.90 UG 98
10) Acecone 3.76 43 2 11) Carbon disulfide 3.96 76 11	08967 93.90 UG 98 80995 58.00 UG 100
	30562 56.59 UG # 100
-	99899 47.67 UG # 68
· •	28159 191.07 UG # 100
	39182 94.89 UG # 100
16) trans-1,2-Dichloroethene 4.63 96 3	82614 48.47 UG # 100
	91596 40.90 UG 100
	47557 49.01 UG # 96
,,,	63784 46.97 UG # 48 32067 49.21 UG # 100
	3206749.21UG#1006204057.91UG98
	22033 105.89 UG # 86
	55489 37.92 UG # 100
	51869 49.22 UG 98
26) 1,1,1-Trichloroethane 6.38 97 6	13285 56.11 UG # 82
	06976 52.36 UG 99
	48820 46.08 UG # 96
	54227 36.42 UG # 86
	61158 46.19 UG 100 06589 45.78 UG 92
	69524 43.34 UG # 100
	83891 52.72 UG # 37
	63449 1814.76 UG # 100
	16518 42.29 UG 98
38) 2-Chloroethyl vinyl ether 8.59 63	5001 0.82 UG # 86
39) cis-1,3-Dichloropropene 8.59 75 5	54306 40.51 UG # 98
, <u>-</u> <u>-</u> -	31145 90.85 UG 96 E17-0783
42) Toluene 8.98 92 9	76758 44.38 UG 98

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				_				
43)	trans-1,3-Dichloropropene	9.22	75	429284	40.50	uс	#	78
44)	1,1,2-Trichloroethane	9.22	83	210833		UG	#	95
45)	Tetrachloroethene	9.61	166	320812	43.74		#	77
46)	1,3-Dichloropropane	9.63	76	447256		UG	π	100
47)	2-Hexanone	9.72	43	359333		UG	#	70
	Dibromochloromethane	9.89	129	273933		UG	π	99
49)	1,2-Dibromoethane (EDB)	10.03	107	214596	50.39			100
	Chlorobenzene	10.61	112	1021041	44.07		#	73
52)	1,1,1,2-Tetrachloroethane	10.71	131	349960	46.46		#	99
53)	Ethylbenzene	10.74	91	1904697	47.02		"	99
54)	m,p-Xylene	10.87	106	1398365	93.26			89
	o-Xylene	11.36	106	698645		UG		92
56)	Styrene	11.37	104	1144580		UG	#	100
57)	Bromoform	11.59	173	123464	50.19	UG	#	63
58)	Isopropylbenzene	11.80	105	1850721	51.43	UG		99
60)	1,1,2,2-Tetrachloroethane	12.15	83	276207		UG		98
	Bromobenzene	12.17	156	351532	40.59	UG	#	99
62)	1,2,3-Trichloropropane	12.20	75	265664	41.69	UG	#	1
63)	n-Propylbenzene	12.29	91	2264685	47.02	UG		98
64)	2-Chlorotoluene	12.40	91	1347862	47.21	UG		100
65)	1,3,5-Trimethylbenzene	12.51	105	1602488	50.18	UG		98
66)	4-Chlorotoluene	12.53	91	1565073	45.81	UG		98
67)	tert-Butylbenzene	12.91	119	1258406	53.32	UG	#	1
68)	1,2,4-Trimethylbenzene	12.97	105	1617542	47.22	UG		98
69)	sec-Butylbenzene	13.18	105	1959537	51.43	UG		99
70)	1,3-Dichlorobenzene	13.32	146	746628	43.57	UG	#	100
71)	4-Isopropyltoluene	13.36	119	1572025		UG	#	100
72)	1,4-Dichlorobenzene	13.43	146	754528	43.25			100
73)	n-Butylbenzene	13.87	91	1548492	50.53	UG		98
74)	-	13.89	146	679505	41.70	UG	#	81
75)	1,2-Dibromo-3-chloropropan	14.81	75	39070	56.92	UG	#	80
76)	1,2,4-Trichlorobenzene	15.72	180	378175	38.94	UG		99
	Hexachlorobutadiene	15.90	225	155285	44.99			100
	Naphthalene	15.98	128	633480	47.83			99
79)	1,2,3-Trichlorobenzene	16.23	181	353683	40.18			92
81)	1,1,2-Trichloro-1,2,2-trif	3.73	101	299683	48.88			92
81)	Methyl acetate	4.19	43	330562	55.92		#	83
82)	Cyclohexane	6.45	56	894446	46.44		#	76
83)	Methylcyclohexane	7.75	83	617223	44.20	UG	#	50

(#) = qualifier out of range (m) = manual integration (+) = signals summed E8091217.M Mon Oct 02 18:01:37 2017 RT1 Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1557.D Acq On : 19 Sep 2017 3:38 Operator : BARBARA : E17-07838-008MSD, E17-07838-008MSD, A, 5mL, 100 Sample Misc : NA, NA, NA, 1 ALS Vial : 31 Sample Multiplier: 1 Quant Time: Sep 19 09:15:08 2017

Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C QLast Update : Wed Sep 13 10:48:46 2017 Response via : Initial Calibration



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VOLATILE ORGANICS

Lab ID: BLKA170918 Client ID: BLKA170918 Date Received: NA Date Analyzed: 09/18/2017 Data file: E1529.D

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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

VOLATILE ORGANICS

Lab ID: BLKA170918 Client ID: BLKA170918 Date Received: NA Date Analyzed: 09/18/2017 Data file: E1529.D

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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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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

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D --- Dilution Performed

J --- Value Less than RL & greater than MDL

Total Target Compounds (52):

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank C --- Common laboratory contamination

VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: BLKA170918 Client ID: BLKA170918 Date Received: NA Date Analyzed: 09/18/2017 Data file: E1529.D

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GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 1 % Moisture: 100

	,	Estimated	Retention	
CAS #	Compound	Concentration	Q	Time

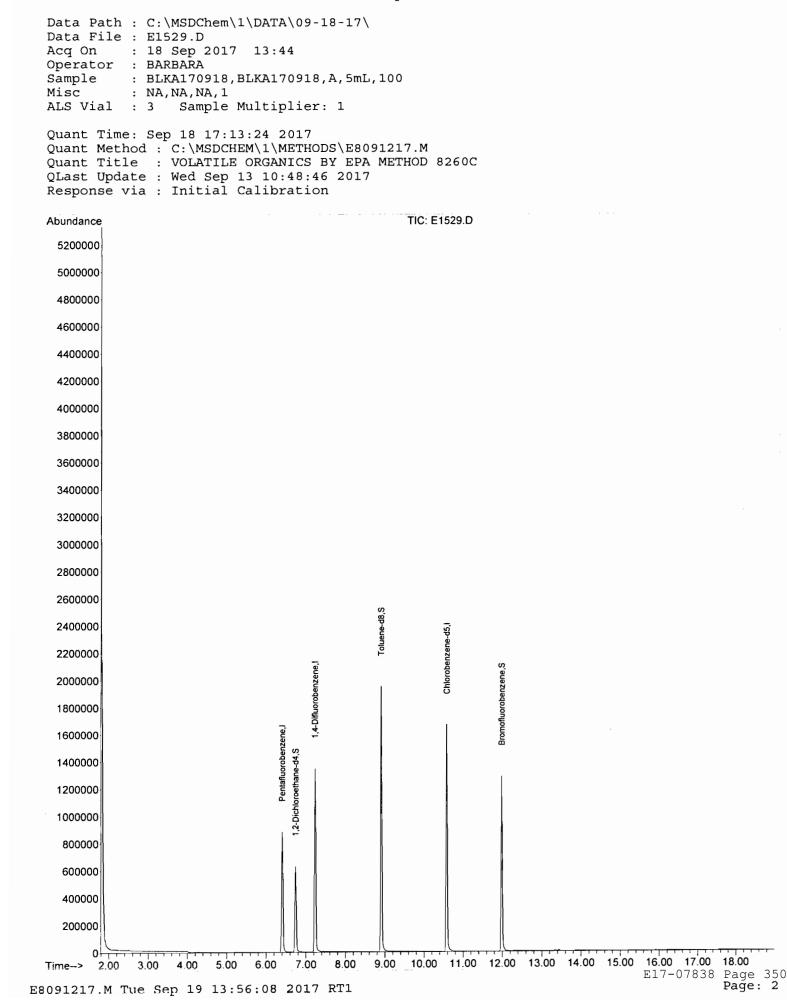
No peaks detected

Quantitation Report (QT Reviewed)

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Data Path : C:\MSDChem\l\DATA Data File : E1529.D Acq On : 18 Sep 2017 13:4 Operator : BARBARA Sample : BLKA170918,BLKA17 Misc : NA,NA,NA,1 ALS Vial : 3 Sample Multip	4 0918,A,5mL,100		
Quant Time: Sep 18 17:13:24 2 Quant Method : C:\MSDCHEM\1\M Quant Title : VOLATILE ORGAN QLast Update : Wed Sep 13 10: Response via : Initial Calibr	ETHODS\E8091217.1 ICS BY EPA METHO 48:46 2017		
Internal Standards			nits Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.41 168	616434 50.00 1129461 50.00 922480 50.00	UG 0.00 UG 0.00 UG 0.00
System Monitoring Compounds	6 74 65	530596 50 62	UG 0.00
30) 1,2-Dichloroethane-d4 Spiked Amount 50.000	Range $69 - 166$	Becovery =	101 24%
41) Toluene-d8	8.91 98	1432657 49.60	
Spiked Amount 50.000		Recovery =	
59) Bromofluorobenzene	11.98 95	507952 46.89	UG 0.00
Spiked Amount 50.000	Range 66 - 120	Recovery =	93.78%
Target Compounds			Qvalue
(#) = qualifier out of range	(m) = manual int	cegration (+) = s	ignals summed

(QT Reviewed)



LSC Area Percent Report

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Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1529.D Acq On : 18 Sep 2017 13:44 Operator : BARBARA Sample : BLKA170918, BLKA170918, A, 5mL, 100 Misc : NA, NA, NA, 1 ALS Vial : 3 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Sampling : 1 Min Area: 1 % of largest Peak Max Peaks: 100 Start Thrs: 0.1 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 Method : C:\MSDCHEM\1\METHODS\E8091217.M Title : VOLATILE ORGANICS BY EPA METHOD 8260C Signal : TIC peak peak R.T. first max last PK % of corr. corr. # min scan scan scan TY height % max. area total - --------- ---- -------------------------67 7081 1 2.164 72 122 rVB 51976 1.25% 0.309% 910 rBV 2 6.401 867 880 885180 2068468 49.67% 12.300% 932 944 966 rBV 1502446 3 6.736 628435 36.08% 8.934% 4 7.229 1027 1038 1073 rBV 1349221 2990780 71.82% 17.784% 4164185 100.00% 5 8.902 1344 1357 1397 rBV 1955188 24.761%

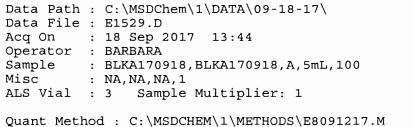
10.579 1666 1677 1719 rBV 1673371 3397662 81.59% 20.203% 11.985 1933 1945 1971 rBV 1290070 2641840 63.44% 15.709%

Sum of corrected areas: 16817357

E17-07838 Page 351 Page: 1

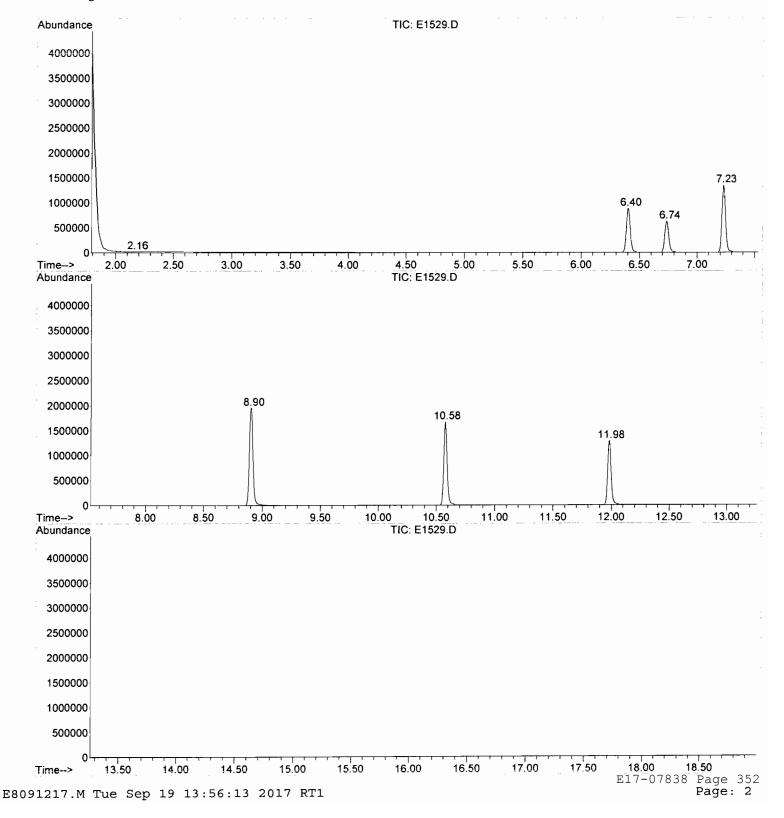
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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



VOLATILE ORGANICS

Lab ID: BLKA170918a Client ID: BLKA170918a Date Received: NA Date Analyzed: 09/19/2017 Data file: E1553.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

VOLATILE ORGANICS

Lab ID: BLKA170918a Client ID: BLKA170918a Date Received: NA Date Analyzed: 09/19/2017 Data file: E1553.D

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GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 1 % Moisture: 100

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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		0.500	0.304
1,2,3-Trichlorobenzene	ND		0.500	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

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D --- Dilution Performed

J --- Value Less than RL & greater than MDL

Total Target Compounds (52):

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank C --- Common laboratory contamination

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VOLATILE ORGANICS Tentatively Identified Compounds

Lab ID: BLKA170918a Client ID: BLKA170918a Date Received: NA Date Analyzed: 09/19/2017 Data file: E1553.D

GC/MS Column: DB-624 Sample wt/vol: 5mL Matrix-Units: Aqueous-µg/L Dilution Factor: 1 % Moisture: 100

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		Estimated	Retention		
CAS #	Compound	Concentration Q	2 Time		

No peaks detected

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Data Path : C:\MSDChem\1\DATA Data File : E1553.D Acq On : 19 Sep 2017 1:39 Operator : BARBARA Sample : BLKA170918a,BLKA17 Misc : NA,NA,1 ALS Vial : 27 Sample Multip	9 70918a,A,5mL,100		
Quant Time: Sep 19 09:48:14 20 Quant Method : C:\MSDCHEM\1\ME Quant Title : VOLATILE ORGANI QLast Update : Wed Sep 13 10:4 Response via : Initial Calibra	ETHODS\E8091217.N ICS BY EPA METHOI 18:46 2017		
Internal Standards			Jnits Dev(Min)
 Pentafluorobenzene 1,4-Difluorobenzene Chlorobenzene-d5 	6.40 168	544445 50.00 1013002 50.00 801723 50.00) UG 0.00) UG 0.00) UG 0.00
System Monitoring Compounds			
30) 1,2-Dichloroethane-d4	6.73 65	385786 41.67	7 UG 0.00
Spiked Amount 50.000	Range 69 - 166	Recovery =	83.34%
41) Toluene-d8	8.90 98		
Spiked Amount 50.000	Range 80 - 120	Recovery =	97.58%
59) Bromofluorobenzene	11.98 95 Domes 66 120	429368 45.61	LUG 0.00
Spiked Amount 50.000	Range 66 - 120	Recovery =	91.226
Target Compounds	· - -		Qvalue
(#) = qualifier out of range	(m) = manual int	cegration (+) = s	ignals summed

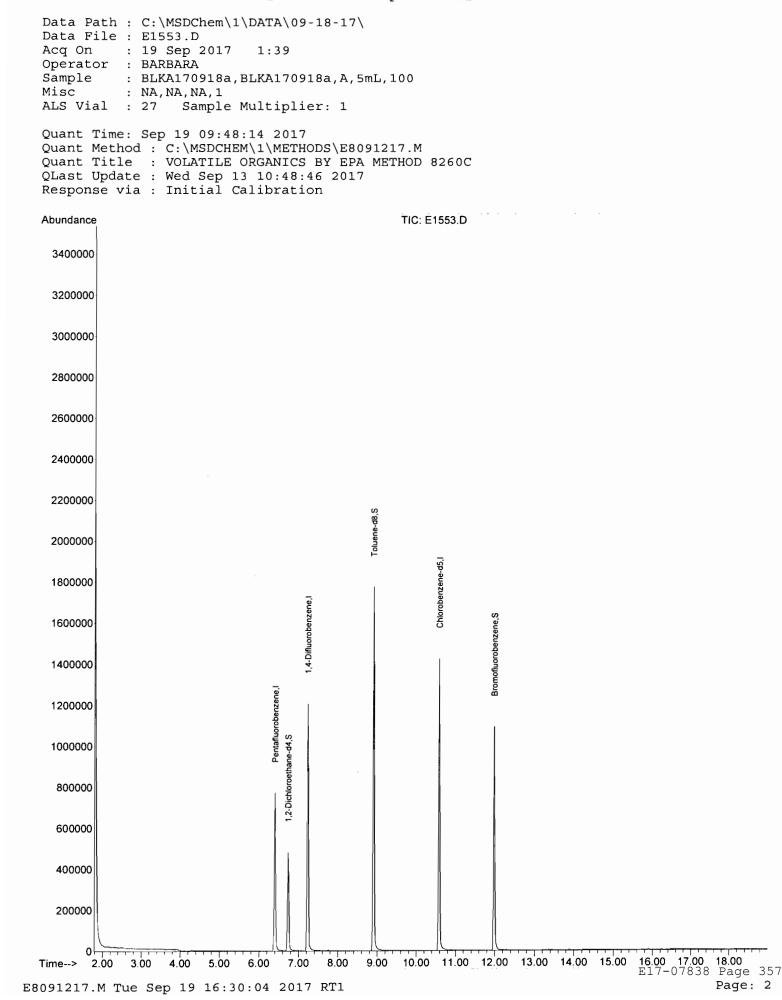
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(QT Reviewed)

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LSC Area Percent Report

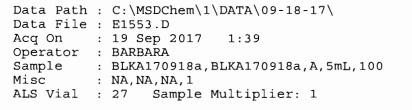
Data Path : C:\MSDChem\1\DATA\09-18-17\ Data File : E1553.D Acq On : 19 Sep 2017 1:39 Operator : BARBARA : BLKA170918a, BLKA170918a, A, 5mL, 100 Sample : NA, NA, NA, 1 Misc ALS Vial : 27 Sample Multiplier: 1 Integration Parameters: LSCINT.P Integrator: RTE Smoothing : ON Filtering: 5 Min Area: 1 % of largest Peak Sampling : 1 Max Peaks: 100 Start Thrs: 0.1 Stop Thrs : 0.1 Peak Location: TOP If leading or trailing edge < 100 prefer < Baseline drop else tangent > Peak separation: 1 : C:\MSDCHEM\1\METHODS\E8091217.M Method : VOLATILE ORGANICS BY EPA METHOD 8260C Title Signal : TIC % of peak R.T. first max last PK peak corr. corr. total # min scan scan scan TY height area % max. _ _ _ _ _ _ _ _ _ _ _ ~ ~ ----- ----- ---- ----_ _ _ _ _ _ _ _ - - -1.01% 6245 37161 0.256% 2:474 128 131 170 rVB3 1 6.401 866 880 902 rBV 1834829 49.90% 12.621% 2 773068 3 6.731 929 943 970 rBV 479899 1107491 30.12% 7.618% 4 7.229 1024 1038 1068 rBV 1205853 2674125 72.73% 18.394% 8.902 1346 1357 1392 rBV2 1775770 3677033 100.00% 25.293% 5

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10.579 1665 1677 1722 rBV 1425944 2968322 80.73% 20.418% 7 11.985 1933 1945 1972 rBV2 1094612 2238815 60.89% 15.400%

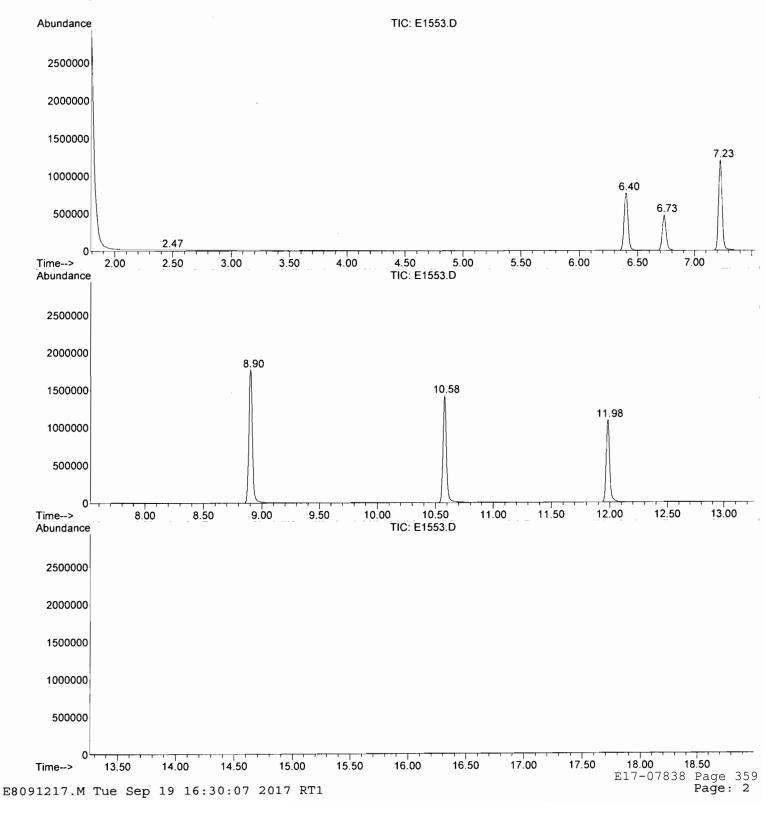
> Sum of corrected areas: 14537776

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Quant Method : C:\MSDCHEM\1\METHODS\E8091217.M Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L TIC Integration Parameters: LSCINT.P



VOLATILE ORGANICS RUN LOGS STANDARD PREP LOGS

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DATE:	9/12/2017 12:46	STANDARD	Lot #	Exp. Date	CONC.
INSTRUMENT:	MSD-K	BFB	L2728	09/16/17	25 ug/ml
		ISTD/SURR (4100)	L2746	12/11/17	50 ug/ml
TUNE FILE:	BFB_VOK	ISTD/SURR (4560)	L2747	12/11/17	250 ug/ml
SEQUENCE FILE:		Primary Mix	L2745	12/07/17	40 ug/ml
METHOD/CAL FILE:	8260C	Primary Ac/Ac	L2738	09/23/17	1000 ug/ml
		1,4-Dioxane	L2748	11/14/17	10000 ug/ml
ANALYST:	Barbara Berberian	Secondary Mix	L2732	09/27/17	40 ug/ml
		Secondary Ac/Ac	L2744	11/28/17	1000 ug/ml
FRACTION:	624 524.2	Secondary 1,4-Dioxane	L2729	09/16/17	10000 ug/ml
المعدم الداري	21 ~ \	MeOH	L21082	10/01/17	
ВАТСН:	$\frac{1}{2} \times \frac{1}{2}$				

Vial	Data			Vol				VIAL	pH<2	
#	File	Case #	Samp #	(ml)	% Moist	Test	Method	#	2	Status
1	E1454	BFBA170912	BFBA170912	5	100		8260C			1:48
2	E1455	ICC00.5	ICC170912	5	100		8260C			OK
3	E1456	1CC001	ICC170912	5	100		8260C			OK
4	E1457	ICC005	ICC170912	5	100		8260C			OK
5	E1458	ICC020	ICC170912	5	100		8260C			OK
6	E1459	ICC100	ICC170912	5	100		8260C			OK
7	E1460	ICC150	ICC170912	5	100		8260C			OK
8	E1461	ICC200	ICC170912	5	100		8260C			OK
9	E1462	RB	RB	5	100		8260C			
10	E1463	ICV100	ICV170912	5	100		8260C			OK
11	E1464	RB		5	100		8260C			
12	E1465	RB		5	100		8260C			
13	E1466	BLKA170912	BLKA170912	5	100		8260C			OK

DATE:	9/18/2017 12:46	STANDARD	Lot #	.Exp. Date	CONC.
INSTRUMENT:	MSD-K	BFB	L2751	12/18/17	25 ug/ml
		ISTD/SURR (4100)	L2746	12/11/17	50 ug/ml
TUNE FILE:	BFB_VOK	ISTD/SURR (4560)	L2747	12/11/17	250 ug/ml
SEQUENCE FILE:		Primary Mix	L2745	12/07/17	40 ug/ml
METHOD/CAL FILE:	8260C	Primary Ac/Ac	L2738	09/23/17	1000 ug/ml
		1,4-Dioxane	L2748	11/14/17	10000 ug/ml
ANALYST:	Barbara Berberian	Secondary Mix	L2732	09/27/17	40 ug/ml
		Secondary Ac/Ac	L2744	11/28/17	1000 ug/ml
FRACTION:	624 524.2	Secondary 1,4-Dioxane	L2750	12/15/17	10000 ug/ml
	3/5	MeOH	L21082	10/01/17	
BATCH: <	\sim				

Vial	Data			Vol				VIAL	pH<2	
#	File	Case #	Samp #	(ml)	% Moist	Test	Method	#	2	Status
1	E1525	BFBA170918	BFBA170918	5	100		8260C	ang		11:45
2	E1526	CCV100	CCV170918	5	100		8260C			OK
1	E1527	RB		5	100		8260C			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
2	E1528	RB		5	100		8260C			
3	E1529	BLKA170918	BLKA170918	5	100		8260C			OK
	E1530	7838	1	5	100	TCL VO + 15	8260C	2	YES	OK
	E1531	7838	2	5	100	TCL VO + 15	8260C	2	YES	OK
6	E1532	7838	3	5	100	TCL VO + 15	8260C	2	YES	OK
7	E1533	7838	4	5	100	TCL VO + 15	8260C	2	YES	OK
8	E1534	7838	5	5	100	TCL VO + 15	8260C	2	YES	OK
9	E1535	7838	6	5	100	TCL VO + 15	8260C	2	YES	OK
10	E1536	7838	7	5	100	TCL VO + 15	8260C	2	YES	OK
11	E1537	7836	2	1	100	TCL VO + 15	8260C	2	YES	OK
12	E1538	7836	3	0.1	100	TCL VO + 15	8260C	2	YES	OK
13	E1539	LCSA170918	**************************************	5	100		8260C			OK
14	E1540	7782	5MS	5	100		8260C		YES	OK
15	E1541	7782	5MSD	5	100		8260C		YES	OK
16	E1542	7838	6DL	1	100		8260C	1	YES	OK
17	E1543	7782	5	5	100	TCL VO + 15	8260C	2	YES	OK
18	E1544	7782	6	5	100	TCL VO + 15	8260C	2	YES	OK
19	E1545	7782	7	5	100	TCL VO + 15	8260C	2	YES	OK
20	E1546	7782	8	5	100	TCL VO + 15	8260C	2	YES	OK
21	E1547	7782	9	5	100	TCL VO + 15	8260C	2	YES	OK
22	E1548	7782	10	5	100	TCL VO + 15	8260C	2	YES	OK
23	E1549	BFBA170918	BFB170918a	5			8260C			11:40
24	E1550	CCV100	CCV170918a	5			8260C	1		OK
25	E1551	RB		5			8260C			
26	E1552	RB		5			8260C			
27	E1553	BLKA170918a	BLKA170918a	5			8260C	1		OK
28	E1554	7689	1	5	100	TCL VO + 15	8260C	2	YES	OK
29	E1555	LCSA170918a	LCSA170918a	5			8260C	1		OK
30	E1556	7838	8MS	5		na na 2000 na harran an tao ann ann ann ann ann ann an ann an ann ann an a	8260C		YES	OK
31	E1557	7838	8MSD	5			8260C	1	YES	OK
32	E1558	RB		5			8260C	1		
33	E1559	7838	8	5	100	TCL VO + 15	8260C	2	YES	OK
34	E1560	7838	9	5	100	TCL VO + 15	8260C	2	YES	OK
35	E1561	7838	10	5	100	TCL VO + 15	8260C	2	YES	OK
36	E1562	7838	11	5	100	TCL VO + 15	8260C	2	YES	OK

E17-07838 Page 362 1 of 2

DATE:	9/18/2017 12:46	STANDARD	Lot #	Exp. Date	CONC.
INSTRUMENT:	MSD-K	BFB	L2751	12/18/17	25 ug/ml
		ISTD/SURR (4100)	L2746	12/11/17	50 ug/ml
TUNE FILE:	BFB_VOK	ISTD/SURR (4560)	L2747	12/11/17	250 ug/ml
SEQUENCE FILE:		Primary Mix	L2745	12/07/17	40 ug/ml
METHOD/CAL FILE:	8260C	Primary Ac/Ac	L2738	09/23/17	1000 ug/ml
		1,4-Dioxane	L2748	11/14/17	10000 ug/ml
ANALYST:	Barbara Berberian	Secondary Mix	L2732	09/27/17	40 ug/ml
		Secondary Ac/Ac	L2744	11/28/17	1000 ug/ml
FRACTION:	624 524.2	Secondary 1,4-Dioxane	L2750	12/15/17	10000 ug/ml
		MeOH	L21082	10/01/17	
BATCH:					

Vial #	Data File	Case #	Samp #	Vol (ml)	% Moist	Test	Method	VIAL #	рН<2 ?	Status
37	E1563	7838	12	5	100	TCL VO + 15	8260C	2	YES	OK
38	E1564	7838	13	5	100	TCL VO + 15	8260C	2	YES	OK
39	E1565	7838	14	5	100	TCL VO + 15	8260C	2	YES	OK
40	E1566	7838	15	5	100	TCL VO + 15	8260C	2	YES	OK
41	E1567	7838	16	5	100	TCL VO + 15	8260C	2	YES	OK
42	E1568	7838	17	5	100	TCL VO + 15	8260C	2	YES	OK
43	E1569	7794	1	5	100	L VO + 15; TCL VO + 15 + T	8260C	2	YES	OK
44	E1570	7736	1	0.01	100	TCL VO + 15	8260C	2	YES	OK
45	E1571	7838	14DL	2.5	100	TCL VO + 15	8260C	2	YES	OK
46	E1572	7838	7DL	1	100	TCL VO + 15	8260C	2	YES	OK

Part # VO-IALNJ-1 SPEX CertiPrep Lot # BW160428030 Part # VO-IALNJ-1 Date Opened SPEX CertiPrep' Calibrate with Confidence™ Lot # : BW160428030 Date Opened Calibrate with Confidence™ Custom ppm Contains the following in Methanol (Purge & Trap Grade) Custom Compound Concentration A REPORT OF A CONTRACT OF A A REPUBLICATION OF A REPUBLICATION Contains the following in Methanol (Purge & Trap Grade) B\V160428030 VO-IALNJ-1 Melhvicvcinhexani Methvi acetate 2000 µg/mL Concentration 2000 µg/m Compound Cvclohexane 1.1.2-Trichlorotrifluo ten ten eine eine sie eine sie sie seine sie seine s 2000 μα/m AT TO ANY ME AN ANY ANY ANY ANY ANY ANY ANY BW160428030 Methylcyclohexan Methyl acetate 2000 µg/mL VO-IALNJ-2000 µg/mit 2000 µg/mL 2000 µg/mL 2000 µg/mL 2000 µg/mL Cvclohexane 1.1.2-Trichlorotrifluo 8,60 '02 4/00'1 Z.S/surr To ughel 1-7 (1 619117 int Ls "1137" at so usilul 3 pop 6/8/2018 and. Int Ls "1138" at roughd 3 pop 6/8/2018 and. orpa191.7. yz dilute in to some meat. 277512776 8700 Z15/Surr XV.ugful 6/9/:7 SML 15 "1137" at XO ug/ml 7 exp 6/8/2018 and: xp919/17 Sml Ls" 1138" at 150 usful - 42 131/19 dilute in to TVM meet. 2.5/SUM W ugful L2727 674 3 ml 15 1137" at 10 mg/ml y exp & (8/2018 and 6/9/17 AP 9/9/17 4 3ml 15"1138" at 150 mg/m, dilute in to form meo H NO 4723 NFB MIMIN 25 Ppm 06/13/1 OD my AOD Cot. EN/150411005 09/16/12 and of Sul of Mean 04/10/13 Cel: 1712 find volume Imp 115 80/10/17 Readary 1,4 - Pioxone unking aduhon @ 1009 127.0524 0M trouster 1,4-morane @ 1000 ppm 96 FEG-A-DICK) lot: # 154 170131070 ap! 01/31/20 09/16/17 1m/ A. E17-07838 Page 364

Soverful BF13 from stock for screen, 8 all to BAB from L2730 F641117 neet into sml (1-Bromo-4 Haurohenzone) omp 6/21/18/20 1731 I OU MM at BIB at into for screen in (of "2730" x00 pm pre 6/2/117 BHB STOCK) in to I'm nest. erp 9/11/1742. (2731 1,4-Dioxone (Rnmay) (ECS-A-DIOX) 8.6/22/17 1ml of ECS-A-DIOX / Vot: BUITOI 3TOIO 8/22/17 CXP. 1/31/2020 secondary mit of 40 al for / mil 12732 98 m/ of 12695 MTBE/TBA /DIPE (0 500/1000/5000 ppm 2m/ of ECS-049 Add/-ons mix #3 P. 6/27/1/ ppm wi.TIJOU08001, received 2005 2/14/17 exp. 4/7/2018 2ml of ECS 524/8260 Main Mix 2000ppm EG-17-033 601: TS160701009, menaired 2/14/17 exp. 7/1/2019 $2m'_{1} = 000 pm$ $F_{7} = 0.053 \quad cot \le 1016 122 : 1012 , received$ $<math>2/14/17 \quad exp. 12/21/2019$ 4 ml of M-8260 -Add -10x, lot i

10/02/2017 1100 100 ml 04 MeOH. 217061012 AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-785-5290 • wvw.accustandard.com FOR LABORATORY USE ONLY H336 H225 H370 H320 Ş., M-8260-ADD-10X H315 H311 H332 H301 1 mL H360, H350 H351 P338 P360 P331 P233 P262 Method 8260 Additions 2.0 mg/mL in MeOH Lot: 217061012 8 comp(s) Exp: Oct 02, 2017 Storage: Freeze (<-10 °C) Word Danger Date Opened: Storage: Freeze (<-10 °C) M-8260-ADD-10X Lot: 217061012 Method 8260 Additions Exp: Oct 02, 2017 2.0 mg/mL in MeOH 125 Market Street • New Haven, CT 06513 • USA AccuStandard[®] FOR LABORATORY USE ONLY Tel. 203-786-5290 • www.accustandard.com H336 H225 H370 H320 M-8260-ADD-10X H315 H311 H332 H301 1 mL Method 8260 Additions H360, H350 H351 P338 P360 P331 P233 P262 2.0 mg/mL in MeOH Lot: 217061012 8 comp(s) Exp: Oct 02, 2017 Storage: Freeze (<-10 °C) Dangen lone M-8260-ADD-10X Date Opened: Storage: Freeze (<-10 °C Lot: 217061012 Method 8260 Additions Exp: Oct 02, 2017 2.0 mg/mL in MeOH , Dpm 301 m iast and the second street streets of

Samadard Standard for 524. Le Loppon L2733 0/~/ 0/-AccuStandard[®] 1 mL M-502-10X Method 502 2 - Volatile Organic Compounds 2 0 mg/mL in MeOH Lot: 217011304 Exp. Feb 01, 2020 Storage Refrig (0-5 °C) M.Sod. lox 15 R. A. . L.it 1/1/1 opened 715/it into 10mls meath apples istalit LdBA to Styl alcohol @ 400 pm Secondard VISIN I al of Loop (3A @ 2000 ppm expiles iclsilit LARSS Secondard REVA for Stat. 2 @ doopp AccuStandard® Inlet Mistar.B
 Additions to Method 524.2

 2.0 mg/mL in MeOH

 Lot: 217041036
 24 comp(s)

 Exp: Oct 11, 2017
 Storage: Freeze (<-10 °C)</td>
 Additions to Method 524.2 dold hans to SLA.L 215/1.4 R = 11.11craned +15/.+ into 10 mls Medit exp-1=s rols lit E17-07838 Page 367

Sdad IS/Sur for Stad @ Spm m Ldt34 AS 125,1 of ELS.524.2 ISTS/S-11 @ 2003pm FISILIT ELS. A.034 101 RIIOSSLODS of BIDS/18 opened XIS/LT R. 18.5.16 Into Sounds Medit expiles istilit 250 ppm sream sio working subtim 1-737 Me -1/19/17 TOLAL (COUT - W- ZALNI-2) (Lot # TS 170×1103) 800 10/08/1342 at son usful diluted in Ind Meath. Pinsel Acolen Martan Mile L138 135 SIGLI AccuStandard® 125 Market Street • New Ha Tel. 203-786-5290 • WW Acrolein & Acrylonitrile $\mathcal{R} \rightarrow \mathcal{L} \cdot \mathcal{L} \cdot \mathcal{L}^{-1} \text{ mL}$ 5.0 mg/mL in McOlline $\mathcal{R} \rightarrow \mathcal{L} \cdot \mathcal{L} \cdot \mathcal{L}^{-1}$ smils Medil
 5.0 mg/mL in MeOH:Water 90:10

 Lot: 217051281
 2 comp(s)

 Exp: Sep 23, 2017
 Storage: Freeze (<-10 °C)</td>
 atp. 125 91231.7

E17-07838 Page 368

출영 수준 소통 관람이 문

2.13

L2747 SLAL Rimort REVACe Loopp \sim Int at 12 m. 588.1 DWM-588-1 51.25 ULTRA Lot CR-0231 Exp 02/28/2020 R. (cueses ilde 1.1 VOC Mixture opened 2/9/14, into 8/2/.4 60 analyte(s) at 2000 µg/mL m methanol 250 Smith St, No Kingstown, RI 02852 USA 10 mls Maolt exp. les SdAL RENA Primary @ 200 ppm -21-43 DWM-592-1 ULTRA 1 ml & Nwm. 592-1 Lot CP-1620 Exp 05/31/2019 VOC Mixture remeded italit ERIIT 24 analyte(s) at 2000 µg/mL in opened 2191.1 Is healt 81217 exp.105 1. 91.1 12744 Acadon Acrolain / Amplonitaile @ 1000 1ml of ECS-A-038 Cot: BU 10830011 op 11/28/17 into 10 ml of MCOJ of: 171415 11/28/17 (800) LAB-SPEX Acrolent/Acrylonitole Mp Part # ECS-A-038 BW170830011 E17-07838 Page 369

Pormany working roudonal Quapping 2 m/s lof DMU-1588-1 received 1/11/11/exp. 10/31/15 9/ Unis of FOS - A OUD 2- dulon Oding Ving/ Scher @ 2 200 ppm, wt: BHIGOGIJO21, Nec. 6/24/16 exp. 6/15/18 0,8 ml of TBA @ 10000 ppm #LS 1116 NODOR 12/9/16 00 200, 08ml of DIPE @ 10000 ppm #LS 1118 NODOR 1/3/17 04. 1/3/18 Liml of ECS-A-043 8260 kerones Mix @ 2000 ppm WA: BU 170200016, MC. 5/18/17, exp. 2/6/18 Aml of ECS-A-044 add # ons 1 @ 200 ppm 601:13416 1117002 nee. 5/18/17, exp. 11/17/17 2ml of VOA-IAN) @200 ppm id: BHIGUL28030 ap. 2/14/2020 Nec. 2/14/17 10Darl 14D of MeON Part # : VO-IALNJ-1 SPEX CertiPrep' Lot #: BW160428030 Date Opened: Calibrate with Confidence™ TITRA DWM-588-1 Lot CR-2100 Exp 06/30/2020 Custom Contains the following in Methanol (Purge & Trap Grade) VOC Mixture 60 analyte(s) at 2000 µg/mL in Concentration Compound AU FINAS ASAU AN AN AN AN AN AN AN AN BW16042803i 201 ±ug/mł. 2000 µg/mL ò Methylcyclohexane methanol 250 Smith St, No Kingstown, RI 02852 US/ Methyl acetate -IALNJ-1 2000 ;:g/ml_ Cyclohexane 2000 µg/mi 1.1.2-Trichlorotrifiuoroetha DWM-588-1 ULTRA Lot CR-2100 Exp 06/30/2020 1 mL **VOC Mixture** 60 analyte(s) at 2000 µg/mL in methanol 8260 "02 4100". 15/ sumporte 50 Imlox 15,1137" of 50 up/m/ Imlox 15 1138 of 50 up/m/ Jop into 50 ml of Meost E17-07838 Page 370

12747 3260 Interned Acudand / sumoplife 250 cep/ml 5 mi of LS1137 of 250 up/mt 1 pg. 6/3/13 5 ml of LS1138 of 250 up/ml 1 pg. 6/3/13 9/11/11/ D 12/11/11 5 rul of nut 50 ul of MOOH - |1,8 Op R , /18 Primary Aciden Acrilan 17-48) 1000 416 AccuStandard[®] M-603-M-5X 81301.4 1 mL Lasts a Acrolein & Acrylonitrile \sim 4. 16.18 5.0 mg/mL in MeOH:Water 90:10 Lot: 217071091 2 comp(s) M1603. M.SX Exp: Nov 14, 2017 Storage: Freeze (<-10 °C) AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com into / M-603-M-5X 8301.1 1 mL 10 mls Acrolein & Acrylonitrile 5.0 mg/mL in MeOH:Water 90:10 Meat Lot: 217071091 2 comp(s) Storage: Freeze (<-10 °C) Exp: Nov 14, 2017 **ÚLTRA** apples ilight ture 00 µg/mL in wn, RI 02852 USA 150 up/m/ 624 Internal soudoral / sumpore Bind of LS/137 of 150 up/mal) exp. Bind of LS/138 of 150 up/mal) exp. ULTRA 1 mL ture 4/14/ 10 µg/mL in indo 50 rul of HEOM wn, R1 02852 USA 1 ml Reauching 1,4 - Dioxone working such on @1000 transfer 1,4- ploxan-e @ 1000 ppm (ECS-A-, 101 #BU 170131010 exp. 01/31/20 12 juto Im/

DEM ruminy 25 ppm i2751 8.9/18/17 0,5ml of ECG-A-OH LOT. EN150411005 12/18/17 ap. 04/10/18 and 0,5 nd 04 11001 Rind udume Im/ 1/4- DIOXON- (Phimany) ECS-A-DIOX 12752 Imi of ECS-A-DIDX, LOA: BUITOISIOIO Rp. 1/31/2020 P/22/1) 1/22/17 62713 Juoppin BFB at into for screen in (of "2) 2. 11 x Juppin p9/m/17 BAB STOCK) in to I'm Mert. 24 film/rildhe 62754 Reardoy Mix of hour /m/ 8/27/12 08ml 0/ 12695 MTBE/TBA/DIPE 12/27/18 6 800/1000/5000 p/m 3mi of ECS-049 Add-ons mix #3 2000ppm lot: +115040 8001, received 2/14/17 exp. 4/7/2018 2ml of ECS - 524/8260 Moin Mix 2000 pm ECS-A-033 LOT: TS 16070/003 , received 2/14/17 exp. 7/1/2013 2ml of 155 - volatiles poses mix 2009pm ECS-A-053 6A: 104/16/122/012, received 2/14/ 1 Byp. 2/21/19 Umi of M-9260 -Add-10 x WA:217071278-01 Nec. 9/20/17 exp. 01/06/13 140 100 ml of Meon

SAMPLE TRACKING

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Integrated Analytical Labs 273 Franklin Road Randolph, NJ 07869

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ntegrated Analytical Laboratories (LC													
Customer Information	uc		Reporting Info	Information	ion		Charge	Deli	Deliverables		EDDs	Concentrations Expected:	xpected:
company: RUNA		REPORT TO:					24 hr - 100%	NJ, CT, PA	Ŵ		NJ SRP	Low Med	High
Address: 110 Fullerest	Are	Address:					48 hr - 75% 72 hr - 50%	Results Only	y 🛛 ASP Category		NYSDEC EQUIS	These samples have been	ave been
42 Flour Ed. Sun	5						96 hr - 35% 5 day - 25%	C Reduced			lab approved custom EDD	previously analyzed by IAL	ed by IAL
Telephone #:		Attn:					6-9 day - 10%	□ Regulatory/ Full*	B* Category		NO EDD REQ'D		No No
Fax #:		FAX #						Turn-Around Time (TAT)	Time (TAT)		Regul	Regulatory Requirement	t
Project Manager: Kull Course		INVOICE TO:				S	tandard (10 b	Standard (10 business days) Verbal	bal		Vew Jersey	New York	
EMAIL Address: Kyle . Corra & UK.	C. BUTTOLI	Address:				<u> </u>	Rush/date needed (<u>oniy</u> if pre-approved)**	**(bev			🔲 GWQS	AWQS (TOGS Table 1)	ible 1)
A datan	1 1	Citus, Com	ч				Hard Copy: Std 3 week	itd 3 week	Other - call for price	l for price		GWEL (TOGS Table 5)	ble 5)
$\sum_{i=1}^{N}$		Attn:					Petroleum	Petroleum Hydrocarbons - Selection is REQUIRED	Selection is REQ	UIRED	□ sks	Part 375-6.8(a) - Unrestricted	nrestricted
Bottle Order #:		Po# 0 20		21000-11	0.0			NJ EPH-DRO - Category 1	TAT for PHC (if other than 2 weeks):	oks):	Ecological	Part 375-6.8(b) - Restricted	estricted
Report to"/"Invoice To" same as above	s above	Quote #	•		3		O NJ EPH-C	NJ EPH-C40 - Category 2			Ma	CP-51 Table 2 or 3 (selection required)	(selection
Sampled hv: K L. C			Samp	Sample Matrix				NJ EPH-Fractionated - Cat 2	DRO-8015		SPLP	OTHER Reg. Req. (specify)	(specify)
anning the Tours		DW - Drinking Water	ъ.	O - Oi			-	ANALYTICAL PARAMETERS (please note if contingent)	METERS (please no	ote if conti	ngent)		
	C Equipment Rental	GW - Groundwater SW - Surface Water		s - Juli SOL - Solid SL - Sludge)ر برج						
SAMPLE INFORMATION	ION	LIQ - Liquid (Specify)	5	W - Wipe B - Biphasic			<u>09</u>						
		Sampling			*		29						
Client ID	Depth (It only)	Date	Time	XLUS	containers	# 	5 2 2					Sample Specific Notes:	Notes:
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F.eld Black +1			1038			M							
MW-14			10.45			۲							
Mw-3	. N. 12		/130			.							
Mw-13			1220			و							
Mw-2			1255			3		New A					
MW - 2D		>	1320	1	~	Q	\rightarrow		1				
Known Hazard: YES / NO		Container		Pres	Preservative (use code)	e code)						FOR LAB USE ONLY	
Describe:		Code:		Contair	Container Type (use code)	e code)							() ()
Please print legibly and fill out completely. Samples cannot be		A = Amber Glass B = Plastic C = Viol	Special Instructions/QC Requirements & Comments:	tructions/Q	C Require	nents & C	omments:					spe # 18	7838
Processed and the turnaround time		C - Vidi D = Glass F = FnCorre										Cooler Temp:	
ambiguities have been resolved.	6 = H2SO4 7 = Other	T = Terracore	Relin	Relinquished by (S	d by (Signature and Company)	Company)		ate Time	Receive	d by (Signat	(Signature and Company)		Time
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8 BY EXECUTING THIS COC, 8 THE CITENT HAS BEAD AND	D IAL Courier	ier	_	2					à			````	
A GREES TO BE BOUND BY	Client Counier	ourier											
e IAL'S TERMS & CONDITIONS found on rear of pink copy).	EedEx/UPS***	PS***											
(1) [AL Rev 2/2014	4 function			9 1 1	and the second second								
LAB COPIES - WHITE & YELLOW; CLIENI UL	PY - PINK		J	ertification lux		284); C1 (Pn	-0699); NJ (1470	Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (58-00773)	00773).			PAGE: 0f	Ň

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Integrated Analytical Laboratories LLC							**Ruch TAT					0			
Customer Information	on		Reporting Infor		nation		Charge		Deliverables	bles		EDDs	Concentra	Concentrations Expected:	cted:
company: $BVNA$		REPORT TO:		. . .			24 hr - 100%	NJ, CT, PA	PA	NY CALIFY		NJ SRP	Low	Med F	High
Address: 110 Field Crest A	W.C.	Address:					48 hr - 75% 72 hr - 50%	C Result	Results Only	Category ASP Category	z	NYSDEC EQuIS	These san	These samples have been	uəəc
44 Fler Ed 200	<u>r</u> r						96 hr - 35% 5 day - 25%	🔲 Reduced			🗖 lab ar	lab approved custom EDD		previously analyzed by IAL	/ IAL
Telephone #:	1	Attn:					6-9 day - 10%	E Regulatory/		B* Category		NO EDD REQ'D	D YES	X)	N
Fax #:		FAX #						Turn-Around Time (TAT)	und Time	; (TAT)		Regul	Regulatory Requirement	irement	
Project Manager: Kuk Ku		INVOICE TO:				S	Standard (10 business days) Verbal	usiness days) Verbal			New Jersey		New York	E. S
EMAIL Address:		Address:					Rush/date needed (<u>only</u> if pre-approved)**	/ed)**	I			CWQS		AWQS (TOGS Table 1)	
Project Name: Lakinston	Necharia					<u> </u>	Hard Copy: Std 3 week	td 3 week		Other - call for price	r price	IGW		GWEL (TOGS Table 5)	~
		Attn:					Petroleum	Hydrocarbo	ons - Sele	Petroleum Hydrocarbons - Selection is REQUIRED	RED	SRS	□ Part 375-6	Part 375-6.8(a) - Unrestricted	icted
Bottle Order #:		Po# 03	- 610,	3	0138.07)	9637-44		NJ EPH-DRO - Category 1	TAT	or PHC { if other than 2 weeks):	ä	Ecological	□ Part 375-6	Part 375-6.8(b) - Restricted	ted
Report to"/"Invoice To" same as above	as above	Quote #					D NJ EPH-CA	NJ EPH-C40 - Category 2	LANN			Ma	CP-51 Tal required)	CP-51 Table 2 or 3 (selection required)	ction
Sampled by: K I C			Sam	Sample Matrix				NJ EPH-Fractionated - Cat 2		DRO-8015		🛛 SPLP	OTHER R	OTHER Reg. Req. (specify)	city)
THILL ION	4	DW - Drinking Water WW - Waste Water	5.	OI - Oil S - Soil SOI Soil					ARAMETE	ANALYTICAL PARAMETERS (please note if contingent)	if conting	jent)			
Field Sampling Equipment Re CAMDI E INEODIALTION	Equipment Rental	SW - Surface Water LIQ - Liquid (Specify)	~	30L - Solid SL - Sludge W - Wipe		////	<u></u>								
		Sampling		B - Biphasic	*		?2S								
Client ID	Depth (It only)	Date	Time	Matrix	containers	# I							Sample	Sample Specific Notes:	;;
Tria Black				Å٩	2	6	X	, , , , , , , , , , , , , , , , , , ,			A CONTRACTOR				
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MW-5			1605			11					224 224 2				
MW-S		9/13/17	820			12									
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Fill Blurk-2			1030												
_	n "Allerier")), in 1.d)	1055	\geq	>	بر	>	에 국립하는 104 Value	S STOR Baddings						
Known Hazard: YES / NO	Preservative Code:	Container	De L'ann	l Pres	Preservative (use code)	e code)							FOR LAB USE ONLY	SE ONLY	<u>ן</u>
Describe:		in the late		Contair	Container Type (use code)	e code)									
Please print legibly and fill out completely. Samples cannot be	1 = None 2 = HCI 3 = HNO3	S	Special Ins	Special Instructions/QC Requirements & Comments.	C Require	nents & C	omments:				(I SDG #:	285	6
Processed and the turnaround time	4 = MeOH 5 = NaOH	D = Glass E = EnCore								Ś	$\left(\right)$		Cooler Temp:	P	ုပ္
ambiguities have been resolved.	6 = H2SO4 7 = Other	T = Terracore	Relin		by (Signature and Company)	Company)	-7/10		Time	Beconvert	r (Signature	ire and Company)	11		Time
8 if samples rec'd at lab > 5PM.	Carrier (check one	ie:	Kny	2 / 11 1			-		2		\mathbb{Z}				3
	םנ	urier	e						,						
b IAL'S TERMS & CONDITIONS		***S4													
() (iodiid dii real di pilik copy).	** Facting #														
2	NNIA - YQO			certification IDs	: TNI (TNI012	284); CT (PH	Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).	1); NY (11402); F	PA (68-00773	·			PAGE: 7	Z, of 3	

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integrated Analytical Laboratories LLC							**DA TAT								
Customer Information	u		Reporting Infor	l Information	ion		Charge		Deliverables	ables		EDDs	Concen	Concentrations Expected:	ected:
Company: BUNA		REPORT TO:	4				24 hr - 100%	Contraction of the second	NJ, CT, PA	Ŋ		NJ SRP	Low	Med	High
Address: 110 F.L. OCAS+ AVY	AVR	Address:					48 hr - 75% 72 hr - 50%	C Results Only		Category	2	NYSDEC EQUIS		These samples have been	been
4th Floor Edison	R						96 hr - 35% 5 dav - 25%	C Reduced	lced			lab approved custom EDD		previously analyzed by IAL	by IAL
Telephone #:		Attn:					6-9 day - 10%		Regulatory/ Full*	B* Category	<u>م</u>	NO EDD REQ'D	D YES	s Ar	NO
Fax #:		FAX#						Turn-Ard	Turn-Around Time (TAT)	e (TAT)		Reg	Regulatory Requirement	quirement	
Project Manager: Ky L Yung	5	INVOICE TO:				S	tandard (10	Standard (10 business days) Verbal	s) Verbal			New Jersey		New York	
EMAIL Address:	-	Address:				<u> </u>	Rush/date needed (only if pre-approved)**	d oved)**				CWQS	D AWQ	AWQS (TOGS Table 1)	1)
Project Name: LAXINCTUN M	Machinith					I	ard Copy:	Hard Copy: Std 3 week		Other - call for price	I for price		CWEI	GWEL (TOGS Table 5)	5)
	þ	Attn:					Petroleui	n Hydrocart	ions - Sel	Petroleum Hydrocarbons - Selection is REQUIRED	QUIRED	□ srs	D Part 3	Part 375-6.8(a) - Unrestricted	tricted
Bottle Order #:		Po# 03<	1-6101	-000/3	138.02)		NJ NJ EPHI	U EPH-DRO - Category 1	TAT f	TAT for PHC (if other than 2 weeks):	eeks):	Ecological	_	Part 375-6.8(b) - Restricted	cted
"Report to"/"Invoice To" same as above	s above	Quote #						NJ EPH-C40 - Category 2					CP-51 Tat required)	CP-51 Table 2 or 3 (selection required)	lection
Sampled by:			Samp	Sample Matrix				NJ EPH-Fractionated - Cat 2		DRO-8015		SPLP	OTHER	OTHER Reg. Req. (specify)	ecify)
COMPLETED BY IAL:		DW - Drinking Water WW - Waste Water	5	OI - Oil S - Soil			ء چ	NALYTICAL	PARAMET	ANALYTICAL PARAMETERS (please note if contingent)	ote if cont	ingent)			
Field Sampling Equipm	Equipment Rental	GW - Groundwater SW - Surface Water	L	SOL - Solid SL - Sludge		<u> </u>	\mathcal{I}								
SAMPLE INFORMATION	NOI	LIQ - Liquid (Specify)		W - Wipe B - Biphasic		//	<u>)の</u> ハ								
Cliant ID	Danth (# antu)	Sampling			*	*	<u>28</u> 70								
		Date	Time		containers		, , ,						Samp	Sample Specific Notes:	(es:
Mw-1		9/13/17	1130	A4	2	11									
				_											
			t.		9¢ 2										
		ж Х													
															14.15.11.11.11.11.11.11.11.11.11.11.11.11.
Known Hazard: YES / NO				Pres	Preservative (use code)	e code)							I FOR LAB	FOR LAB USE ONLY	
Describe:	Preservative Code:	Code:		Contain	Container Type (use code)	e code)]]
Please print legibly and fill out completely. Samples cannot be	1 = None 2 = HCI 3 = HNO3	A = Amber Glass B = Plastic C = Vial	Special Inst	Special Instructions/QC Requirements & Comments:	C Requiren	nents & C	omments:						I spg #:	SESL	S.
ð		D = Glass E = EnCore								Y			Cooler Temp:	'!	ပ့
	6 = H2SO4 7 = Other Corrier (chool: on	T = Terracore	Refin	Relinquished by (S	by (Signature and Company)	Company)	16 17	Pate 11 11	(23): //		signal for the second	ature and Company)	16		Time T
	Carrier (cneck one	ier .	A C	D				+ +					<i>.</i> /,		2
a THE CLIENT HAS HEAD AND AGREES TO BE BOUND BY		ourier													
b IAL'S TERMS & CONDITIONS (found on rear of pink copy).	Tracking #	PS***													
IAL Rev 2/2014	PY - PINK			Certification IDs	: TNI (TNI012	84); CT (PH	1-0699); NJ (147	on IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773)	PA (68-0077	3).			PAGE:	3 e 2	
6)	



PROJECT INFORMATION

E17-07838: LEXINGTON MACHINING

To: Kyle Young

Bureau Veritas Fax: 1(732) 225-4577 EMail: kyle.young@us.bureauveritas.com

<u>Report To</u>	<u>Bill To</u>
Bureau Veritas	Bureau Veritas
110 Fieldcrest Ave.	16800 Greens Point Drive
4th Floor	Suite 300S
Edison, NJ 08837	Houston, TX 77060
Attn: Kyle Young	Attn: Cathy Fink
, ,	-

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due	
Category B	08017-000138.00	Sep 14, 2017 @ 11:00	NA	Sep 28, 2017	Oct 05, 2017 *	
* Any Conditional or Hold status will delay final hardcopy report sent date.						

Diskette Req. Not Required

** QC Requirement (must meet): NY TOGS Tb15 (GWEL)

<u>Lab ID</u>	Client Sample ID	Depth	Sampling Time	<u>Matrix</u>	<u>Unit</u>	<u>Field pH/Temp</u>
07838-001	MW-4	NA	09/12/17@09:30	Aqueous	ug/L (ppb)	
07838-002	MW-7	NA	09/12/17@10:00	Aqueous	ug/L (ppb)	
07838-003	FIELD BLANK -1	NA	09/12/17@10:38	Aqueous	ug/L (ppb)	studienter a constraine d'BALC concester a se
07838-004	MW-14	NA	09/12/17@10:45	Aqueous	ug/L (ppb)	除标准经常
07838-005	MW-3	NA	09/12/17@11:30	Aqueous	ug/L (ppb)	an dual filmen on a second
07838-006	MW-13	NA	09/12/17@12:20	Aqueous	ug/L (ppb)	
07838-007	MW-2	NA	09/12/17@12:55	Aqueous	ug/L (ppb)	adallarda i hadka i mananan muranda addi khilikila dhadhaa addismii dhimmii dhimmii dhimmii dhimmii dhimmii dhi
07838-008	MW-2D	NA	09/12/17@13:20	Aqueous	ug/L (ppb)	在一家 在这个组织的
07838-009	TRIP BLANK	NA	09/12/17	Aqueous	ug/L (ppb)	
07838-010	MW-1	NA	09/12/17@15:20	Aqueous	ug/L (ppb)	
07838-011	MW-5	NA	09/12/17@16:05	Aqueous	ug/L (ppb)	
07838-012	MW-8	NA	09/13/17@08:20	Aqueous	ug/L (ppb)	
07838-013	MW-10	NA	09/13/17@08:50	Aqueous	ug/L (ppb)	A Lot 1 more and 1 to - 1 do 1 mm. Available of the out
07838-014	MW-9	NA	09/13/17@09:35	Aqueous	ug/L (ppb)	
07838-015	FIELD BLANK -2	NA	09/13/17@10:30	Aqueous	ug/L (ppb)	manual of advances of the second of the seco
07838-016	MW-11D	NA	09/13/17@10:55	Aqueous	ug/L (ppb)	的复数形式
07838-017	MW-11	NA	09/13/17@11:30	Aqueous	ug/L (ppb)	di camponecca chilipicatilitati p. di

Sample #	Test	<u>Status</u>	QA Method	<u>TAT</u>	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	STD/2 WKS	9/26/2017
002	TCL VO + 15	Analyże	8260C	STD/2 WKS	9/26/2017
003	TCL VO + 15	Analyze	8260C	STD/2 WKS	9/26/2017
004	TCL VO + 15	Analyze	8260C	STD/2 WKS	9/26/2017
005	TCL VO + 15	Analyze	8260C	STD/2 WKS	9/26/2017
006	TCL VO + 15	Analyze	8260C	STD/2 WKS	9/26/2017





PROJECT INFORMATION

E17-07838: LEXINGTON MACHINING

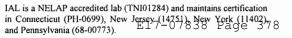
Sample #			Status	QA Method	TAT	Holding Time Expires
007	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/26/2017
008	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/26/2017
009	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/26/2017
010	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/26/2017
011	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/26/2017
012	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/27/2017
013	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/27/2017
014	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/27/2017
015	TCL VO +	12 January docustified of a and the on an analytic mittage of the second source of	Analyze	8260C	STD/2 WKS	9/27/2017
016	TCL VO +	15	Analyze	8260C	STD/2 WKS	9/27/2017
017	TCL VO +	аник, материкалериетика жанков технология, карабията с такжили и такана. 15	Analyze	8260C	STD/2 WKS	9/27/2017

Project Notes:

NOTE 1 taken by Mark on 09/18/2017 12:30 PER JOHN STANGLINE, CATEGORY B DELIVERABLES REQUIRED.

REPORT TOGS TABLE 5 MDL's





SAMPLE RECEIPT VERIFICATION

CASE NO: E 17 07838	CLIENT: BYNA
COOLER TEMPERATURE: 2° - 6°C: COC: COMPLETE / INCOMPLETE KEY Server	✓ (See Chain of Custody) Comments
 ✓ = NO ✓ 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 Time¹ Multiphasic Sample Sample to be Subcontracted ✓ Chain of Custody is Clear ¹ All samples with "Analyze Immediately" holding times will the following tests: pH, Temperature, Free Residual Chlor 	(check one) Terra Core No Preservative
SAMPLE(S) VERIFIED BY: INITIAL	
If COC is NOT clear, <u>STOP</u> until you ge CLIENT NOTIFIED: YES PROJECT CONTACT: SUBCONTRACTED LAB: DATE SHIPPED: ADDITIONAL COMMENTS:	et client to authorize/clarify work. Date/ Time: NO
VERIFIED/TAKEN BY: INITIAL	DATE 9.18.17 E17-07838 Page 379 REV 03/2013

Laboratory Custody Chronicle

IAL Case No.

Client Bureau Veritas

E17-07838

Project LEXINGTON MACHINING

Received On <u>9/14/2017@11:00</u>

Department: Volatiles			<u>Prep. Date</u>	<u>Analyst</u>	<u>Analysis Date</u>	<u>Analyst</u>
TCL VO + 15	07838-001	Aqueous	n/a	n/a	9/19/17	Barbara
"	-002	"	n/a	n/a	9/18/17	Barbara
"	-003	"	n/a	n/a	9/18/17	Barbara
"	-004	"	n/a	n/a	9/18/17	Barbara
"	-005	"	n/a	n/a	9/18/17	Barbara
"	-006	"	n/a	n/a	9/18/17	Barbara
"	-007	"	n/a	n/a	9/18/17	Barbara
"	-008	"	n/a	n/a	9/19/17	Barbara
"	-009	"	n/a	n/a	9/19/17	Barbara
"	-010	"	n/a	n/a	9/19/17	Barbara
"	-011	"	n/a	n/a	9/19/17	Barbara
	-012	"	n/a	n/a	9/19/17	Barbara
"	-013	11	n/a	n/a	9/19/17	Barbara
"	-014	"	n/a	n/a	9/19/17	Barbara
"	-015	"	n/a	n/a	9/19/17	Barbara
11	-016	"	n/a	n/a	9/19/17	Barbara
"	-017	"	n/a	n/a	9/19/17	Barbara

Page 1 of 1

Sep 28, 2017 @ 09:16

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

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Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT