FIBERS SITE GROUP

April 10, 2018

Via Email Electronic Copy

Adalberto Bosque, PhD, MBA, REM, CEA
Response and Remediation Branch
U.S Environmental Protection Agency
City View Plaza II - Suite 7000
48 RD, 165 Km. 1.2
Guaynabo, PR 00968-8069

Subject: RD/RA Monthly Report – March 2018
Fibers Public Supply Wells Site
Guayama, Puerto Rico

Dear Mr. Bosque:

On behalf of the Fibers Public Supply Wells Site Settling Defendants, we are submitting the attached RD/RA Monthly Report prepared pursuant to the Consent Decree (Civil Action No. 92-2486) in the matter of *Unites States v. Anaquest Caribe, Inc. et al*, Section IX, Paragraph 30, Reporting Requirements.

Please feel free to contact Mr. James Kirschner of ARCADIS at (602) 797-4519 or me at (724) 544-4874 if you have any questions or comments regarding this submittal.

Sincerely,

Joe Biss, CHMM
Fibers Site Group Project Coordinator
EHS Support LLC

Copies:

Chief, New York/Caribbean Superfund Branch, Attn. Teresita Rodriguez - via email only
Ms. Margo Ludmer, Assistant Regional Counsel – via email only
Chief, Environmental Enforcement Division, U.S. Department of Justice (DOJ #90-11-2-768)
Amarilis Rodriguez Mendez, State Remedial Project Manager, Puerto Rico Environmental Quality Board - via email only
Ms. Katherine Mishkin, Hydrogeologist, USEPA Superfund Technical Support Section – via email only
Ms. Enid Diaz, Departmento de Recursos Naturales y Ambientales
Mr. Jorge Morales, PRIDCO - via email only
Mr. Joel Melendez Rodriguez, PRIDCO - via email only
Ms. Ana Palou Balsa, PRIDCO – via email only
Mr. Dan Vineyard, Jackson Walker- via email only
James Kirschner, Arcadis - via email only

RD/RA Monthly Report – March 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

(a) Description of actions which have been taken toward achieving compliance with this Decree.

Fibers Air Stripping System

The Fibers groundwater extraction and treatment system (GWETS) was operational for approximately 93% of the time during March 2018. The GWETS had three automated shut downs due to communication loss, two shut downs due to GWETS maintenance, and one automated shut down due to power outage. The GWETS was restarted no later than the next business day in each instance.

A summary of the daily treatment system operating records is presented in Table 1. The GWETS average flow rates are depicted on Figure 1. The GWETS operated at an average flow rate of 265 gallons per minute (gpm) and treated approximately 11.81 million gallons of water. To date (since May 1999), approximately 3.19 billion gallons of water have been treated at the Fibers Site. The total volume of water treated to date correlates with the treatment system influent flow meter totalizer reading.

Groundwater extraction well RW-4 was repaired and restarted on March 5, 2018.

(b) Summary of all sampling results and tests, and all other data received or generated by Settling Defendants.

Arcadis U.S., Inc. (Arcadis) collected split groundwater influent and effluent samples on March 6, 2018. The samples were submitted and analyzed by Pace Analytical Services, Inc. (Pace) in St. Rose, Louisiana and Environmental Quality Laboratories, Inc. (EQLAB) in Bayamon, Puerto Rico. A summary of the March 6, 2018 GWETS Laboratory Analytical Results is provided in Table 2. A summary of GWETS influent groundwater concentrations of tetrachloroethene (PCE) and total haloethers, as reported by Pace, is depicted on Figures 2 and 3, respectively.

Arcadis performed a data quality assessment (validation) of the laboratory analytical results reported by Pace. Results are summarized in the Data Review Report #29510R and provided as Attachment 1. A copy of the chain of custody and annotated sample analysis data sheets are provided as an attachment to the Data Review Report. A copy of the complete Pace Laboratory Analytical Report #2072074 is provided as Attachment 2.

Arcadis performed a data quality assessment (validation) of the laboratory analytical results reported by EQLAB. Results are summarized in the Data Review Report #29511R and provided as Attachment 3. A copy of the chain of custody and annotated sample analysis data sheets are provided as an attachment to the Data Review Report. A copy of the complete EQLAB Laboratory Analytical Report #249258 (WO 655-04-26) is provided as Attachment 4.

A copy of the GWETS Sampling and Monitoring Field Form, documenting sample collection information, individual flow rates at the three groundwater extraction wells and treatment system parameters is provided as Attachment 5.

(c) List of all work plans, plans and other deliverables completed and submitted.

None for this reporting period.

(d) Description of all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next six weeks.

The Fibers Group anticipates the completion and submittal of an updated Quality Assurance Project Plan (QAPP) to the United States Environmental Protection Agency (USEPA) within the next six weeks.

The second semi-annual groundwater monitoring and sampling report of 2017 is anticipated to be submitted to the USEPA in the next six weeks.

The first semi-annual groundwater monitoring and sampling event of 2018 is expected to start in April 2018.

(e) Information regarding the percentage completion, unresolved delays encountered or anticipated.

Supplemental Subsurface Soil Investigations – In progress
Construction Activities – 100% complete.
System Start-Up – 100% complete.
Start-Up Performance Monitoring – 100% complete.
Long-Term Operation & Maintenance Period – In progress.

(f) List of any modification to work plans or other schedules the Settling Defendants have proposed.

None.

(g) Description of activities undertaken in support of the Community Relations Plan.

No support activities have been requested for the next planning period.

(h) Actions undertaken to address outside parties concerns.

No concerns from outside parties were encountered during this reporting period.

Tables

Table 1
Summary of Daily Treatment System Operating Records - March 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Recording Date	Influent Flow (gpm) [1]	Effluent Flow (gpm) [2]	RW-2 (gpm) [3]	RW-4 (gpm) [4]	RW-5 (gpm) [5]	pH [6]	Comments
3/1/2018	182	230	105	0	80	8.2	
3/2/2018	182	229	105	0	80	8.2	
3/3/2018	182	229	105	0	80	8.1	
3/4/2018	182	228	105	0	80	8.1	
3/5/2018	238	312	99	67	77	8.1	RW-4 repaired.
3/6/2018	305	384	100	130	80	8.1	
3/7/2018	305	385	100	130	80	8.1	
3/8/2018	305	385	100	130	80	8.1	
3/9/2018	291	361	101	125	70	8.1	Power outage; GWETS restarted.
3/10/2018	306	385	100	130	80	8.1	
3/11/2018	305	386	100	130	80	8.0	
3/12/2018	143	181	47	61	40	8.3	GWETS maintenance.
3/13/2018	205	248	71	93	57	8.3	GWETS maintenance.
3/14/2018	305	386	100	130	80	8.1	GWETS maintenance.
3/15/2018	304	370	100	130	80	8.0	
3/16/2018	305	386	100	130	80	8.0	
3/17/2018	305	386	100	130	80	8.0	
3/18/2018	305	387	100	130	80	8.0	
3/19/2018	308	390	100	133	80	8.0	
3/20/2018	310	394	100	135	80	8.0	
3/21/2018	310	393	100	135	80	8.0	
3/22/2018	208	274	63	113	67	8.0	GWETS maintenance.
3/23/2018	194	246	63	85	50	8.1	GWETS maintenance.
3/24/2018	310	394	100	135	80	7.9	
3/25/2018	310	394	100	135	80	7.9	
3/26/2018	163	207	59	68	40	8.0	GWETS maintenance.
3/27/2018	194	246	63	85	50	8.1	GWETS maintenance.
3/28/2018	313	398	100	138	80	8.0	GWETS maintenance.
3/29/2018	315	401	100	140	80	8.0	
3/30/2018	315	402	100	140	80	7.9	
3/31/2018	315	401	100	140	80	7.9	
Monthly Average	265	335	93	104	74	8.1	

Notes:

Flow rates are 24-hour daily average.

gpm = gallons per minute.

[1] = Recorded from instrument FIT-101.

[2] = Recorded from instrument FIT-301.

[3] = Recorded from instrument RW2 FIT.

[4] = Recorded from instrument RW4 FIT.

[5] = Recorded from instrument RW5 FIT.

[6] = Recorded from instrument pHIT-201A.

Table 2
Summary of Treatment System Laboratory Analytical Results – Split Samples
Collected at the Treatment System Compound March 6, 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Fibers Groundwater Extraction and Treatment System

Laboratory analytical results (split samples) for water samples collected at the influent and effluent sample tap locations from the Fibers Groundwater Extraction and Treatment System on March 6, 2018 are presented below. Split samples were submitted to Pace Analytical Services, Inc. (PACE) in St. Rose, Louisiana and to Environmental Quality Laboratories, Inc. (EQLAB) in Bayamon, Puerto Rico to investigate past acetone detections in the influent and effluent treatment system water samples. Analytical results from both laboratories are presented below. The treatment system average influent flow rate at the time the samples were collected was 304 gallons per minute (gpm). Laboratory analytical reports from PACE and EQLAB did not vary significantly. Acetone was not detected at or above the laboratory reporting limit in the treatment system water samples collected and analyzed. A copy of the PACE and EQLAB Analytical Reports are included in this report as Attachment 2 and Attachment 4, respectively.

	VOC (µg/L)							
	Sample ID							
Compound	EFF-20180306		EFFDUP-20180306		INF-20180306		TB-20180306	
	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB
Tetrachloroethene	ND	ND	ND	ND	5.1	4.90	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	NA	ND	NA	ND	NA	ND	NA	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	NA	ND	NA	ND	NA	ND	NA	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND
Epichlorohydrin	NA	ND	NA	ND	NA	ND	NA	ND
Hexachlorobutadiene	NA	ND	NA	ND	NA	ND	NA	ND
Iodomethane	NA	ND	NA	ND	NA	ND	NA	ND
Isopropylbenzene	NA	ND	NA	ND	NA	ND	NA	ND
n-Butylbenzene	NA	ND	NA	ND	NA	ND	NA	ND
n-Propylbenzene	NA	ND	NA	ND	NA	ND	NA	ND
o-Dichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
sec-Butylbenzene	NA	ND	NA	ND	NA	ND	NA	ND
tert-Butylbenzene	NA	ND	NA	ND	NA	ND	NA	ND

	VOC (µg/L)							
	Sample ID							
Compound	EFF-20180306		EFFDUP-20180306		INF-20180306		TB-20180306	
	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB
Trans-1,3-dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,4-Dichloro-2-butene	NA	ND	NA	ND	NA	ND	NA	ND
Styrene	ND	R	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	NA	ND	NA	ND	NA	ND	NA	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	ND	ND	ND	ND	ND	BDL	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	NA	R	NA	R	NA	R	NA	R
Naphthalene	NA	ND	NA	ND	NA	ND	NA	ND
1,1,1,2-Tetrachloroethane	NA	ND	NA	ND	NA	ND	NA	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	NA	ND	NA	ND	NA	ND	NA	ND
1,2,3-Trichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,2,3-Trichlororopane	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,2,4-Trimethylbenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,2-Dibromo-3-chloropropane	NA	ND	NA	ND	NA	ND	NA	ND
1,2-Dibromoethane	NA	ND	NA	ND	NA	ND	NA	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NA	R	NA	ND	NA	ND	NA	ND
1,3-Dichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,3-Dichloropropane	NA	ND	NA	ND	NA	ND	NA	ND
1,4-Dichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1-Chlorohexane	NA	ND	NA	ND	NA	ND	NA	ND
2-Chlorotoluene	NA	ND	NA	ND	NA	ND	NA	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	NA	ND	NA	ND	NA	ND	NA	ND
4-Isopropyltoluene	NA	ND	NA	ND	NA	ND	NA	ND
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND
Enflurane	ND	NA	ND	NA	1.1	NA	ND	NA
Haloether 229	ND	NA	ND	NA	8.3	NA	ND	NA
Haloether 406	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 421	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 427	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 428	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 508	ND	NA	ND	NA	33.2	NA	ND	NA
Haloether 528	ND	NA	ND	NA	1.1	NA	ND	NA
Halomar	ND	NA	ND	NA	ND	NA	ND	NA
Isoflurane	ND	NA	ND	NA	35.7	NA	ND	NA
Total Haloethers	ND	NA	ND	NA	79.6	NA	ND	NA
Other VOC	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
VOC = volatile organic compounds.
µg/L = micrograms per liter.
EFF = effluent sample.
EFFDUP = effluent duplicate sample.
INF = influent sample.
TB = trip blank.
ND = not detected at or above laboratory reporting limit.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
UJ = The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
R = rejected.
NA = not analyzed.
BDL = below detection limit

Figures

Figure 1
Fibers Public Supply Wells Superfund Site
Summary of Treatment System Flow Rates

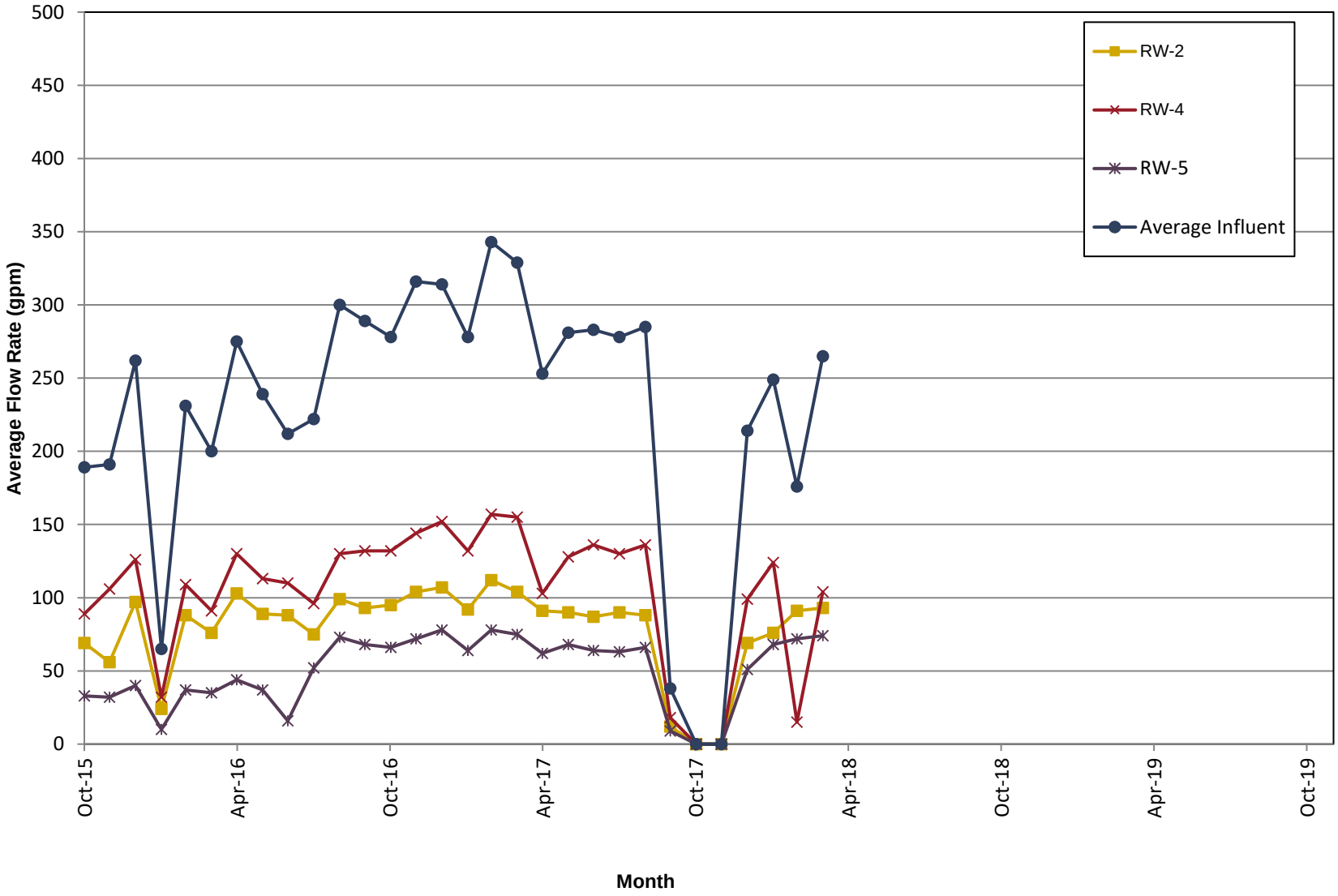


Figure 2
Fibers Public Supply Wells Superfund Site
Treatment System Influent -
Tetrachloroethene (PCE) Concentrations

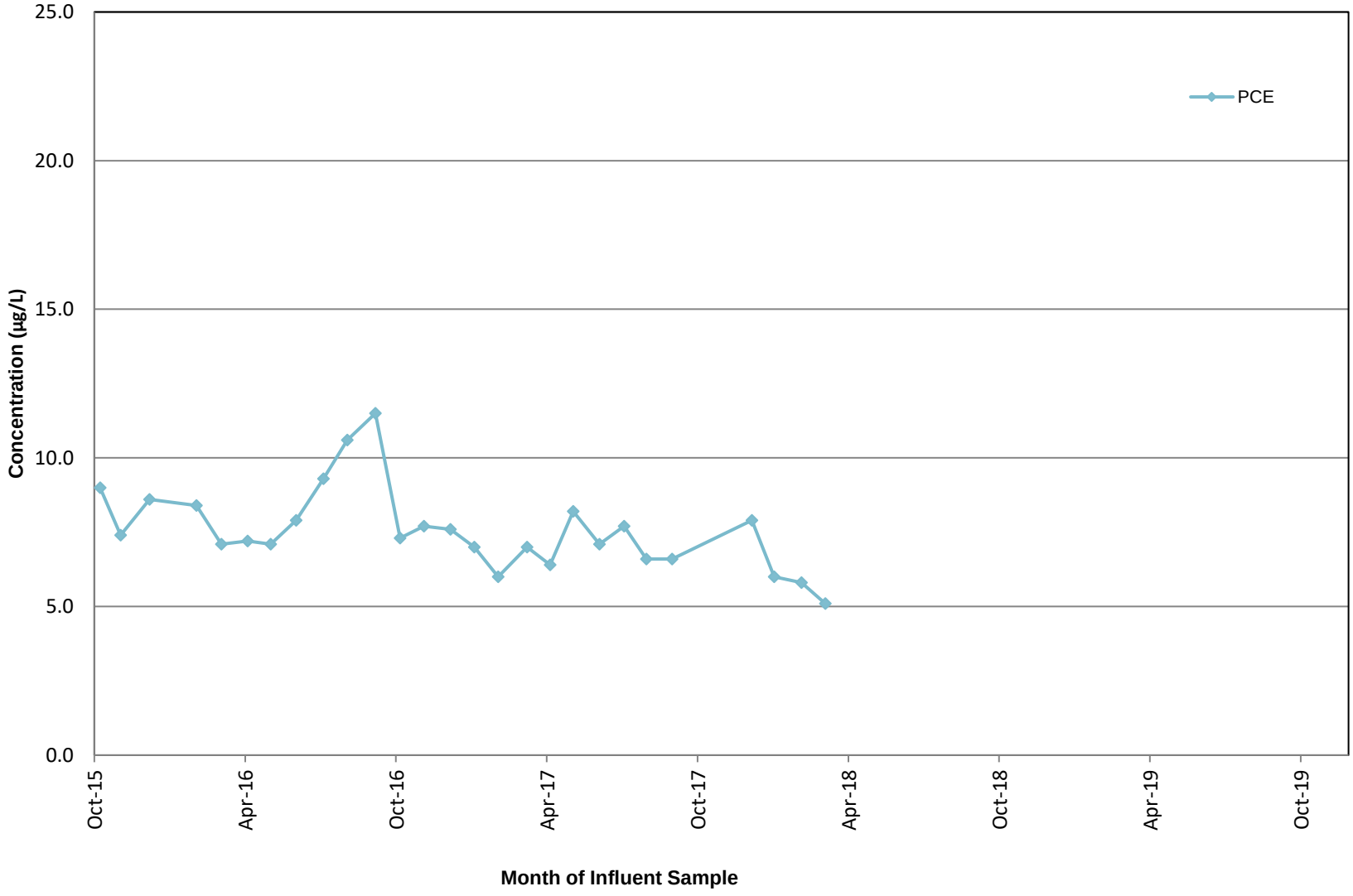
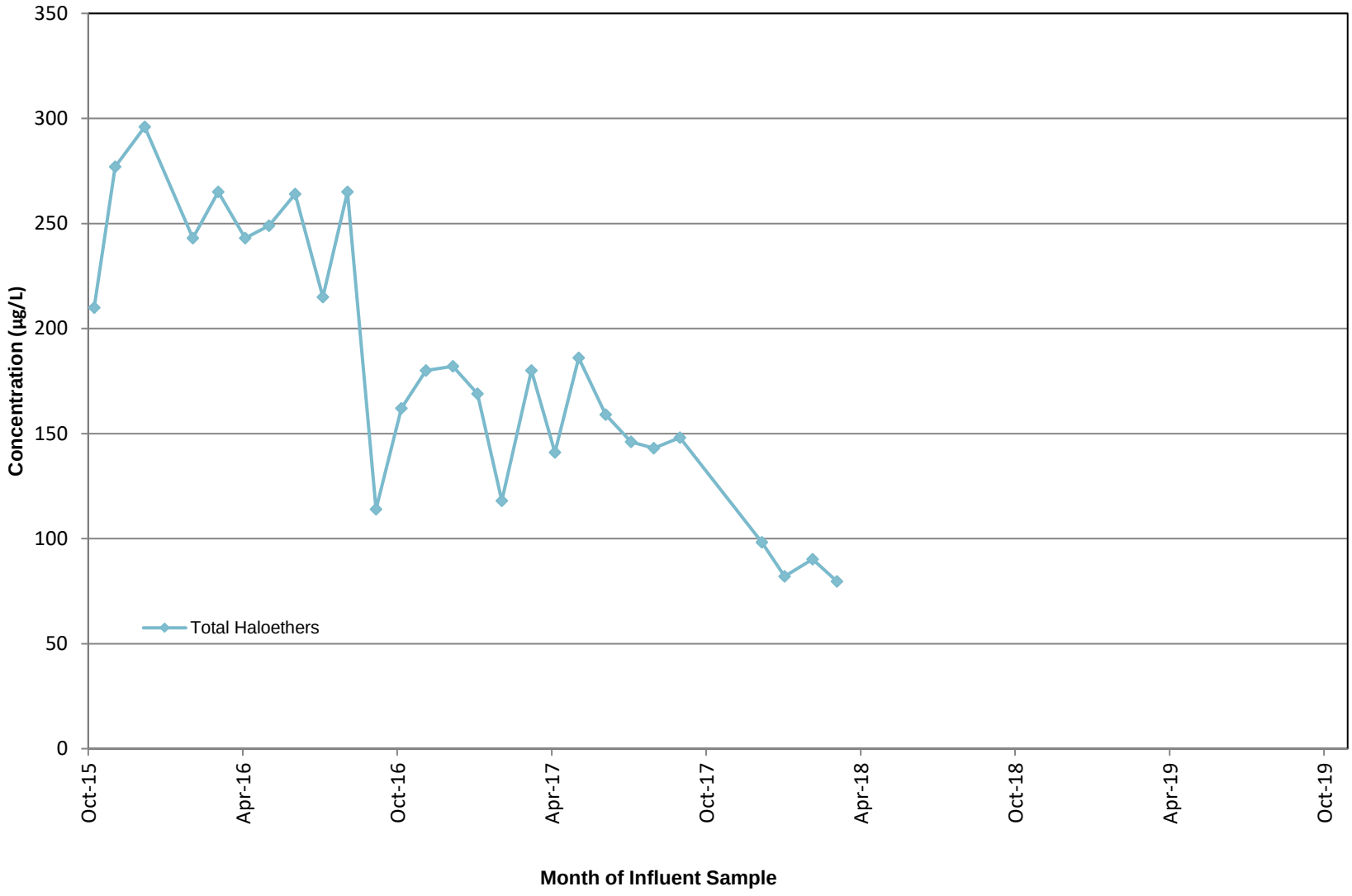


Figure 3
Fibers Public Supply Wells Superfund Site
Treatment System Influent -
Total Haloethers Concentrations



Attachment 1
Data Review Report #29510R

Fibers Group

Data Review

GUAYAMA, PUERTO RICO

Volatiles Analyses

SDG #2072074
Analyses Performed By:
Pace Analytical Services, Inc.
New Orleans, Louisiana

Report: #29510R
Review Level: Tier II
Project: CO001911.0007.1805A

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #2072074 for samples collected in association with the Fibers Group Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	TPH	MET	MISC
TB-20180306	2072074001	Water	03/06/2018		X				
INF-20180306	2072074002	Water	03/06/2018		X				
EFF-20180306	2072074003	Water	03/06/2018		X				
EFFDUP-20180306	2072074004	Water	03/06/2018	EFF-20180306	X				

Note:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location EFF-20180306.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to <6 °C.

s.u. Standard units

All samples were analyzed within acceptable holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the RL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
EFF-20180306/ EFFDUP-20180306	All compounds	U	U	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision RPD		X		X	
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X

%R Percent recovery
RPD Relative percent difference
%RSD Relative standard deviation
%D Percent difference

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE: _____

DATE: March 29, 2018

PEER REVIEW: Dennis Capria

DATE: April 3, 2018

CHAIN OF CUSTODY/
ANNOTATED SAMPLE ANALYSIS DATA SHEETS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: TB-20180306 **Lab ID: 2072074001** Collected: 03/06/18 00:00 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 20:41	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 20:41	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 20:41	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 20:41	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 20:41	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 20:41	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 20:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 20:41	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 20:41	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 20:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 20:41	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 20:41	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 20:41	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/12/18 20:41	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 20:41	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 20:41	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 20:41	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:41	10061-02-6	
Enflurane	ND	ug/L	1.0	1		03/12/18 20:41	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 20:41	100-41-4	
Haloether 229	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 406	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 421	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 427	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 428	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 508	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 528	ND	ug/L	1.0	1		03/12/18 20:41		
Halomar	ND	ug/L	1.0	1		03/12/18 20:41		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 20:41	591-78-6	
Isoflurane	ND	ug/L	1.0	1		03/12/18 20:41		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 20:41	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 20:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 20:41	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 20:41	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 20:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/12/18 20:41	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 20:41	108-88-3	
Total Haloether	ND	ug/L	1.0	1		03/12/18 20:41		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: TB-20180306 **Lab ID: 2072074001** Collected: 03/06/18 00:00 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 20:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 20:41	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 20:41	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 20:41	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 20:41	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 20:41	95-47-6	
Surrogates								
Toluene-d8 (S)	99	%.	79-119	1		03/12/18 20:41	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	68-124	1		03/12/18 20:41	460-00-4	
Dibromofluoromethane (S)	96	%.	72-126	1		03/12/18 20:41	1868-53-7	

Sample: INF-20180306 **Lab ID: 2072074002** Collected: 03/06/18 09:33 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 21:16	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 21:16	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 21:16	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 21:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 21:16	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 21:16	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 21:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 21:16	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 21:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 21:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 21:16	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 21:16	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 21:16	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/12/18 21:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 21:16	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 21:16	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 21:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 21:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 21:16	10061-02-6	
Enflurane	**1.1**	ug/L	1.0	1		03/12/18 21:16	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 21:16	100-41-4	
Haloether 229	**8.3**	ug/L	1.0	1		03/12/18 21:16		
Haloether 406	ND	ug/L	1.0	1		03/12/18 21:16		
Haloether 421	ND	ug/L	1.0	1		03/12/18 21:16		
Haloether 427	ND	ug/L	1.0	1		03/12/18 21:16		

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: INF-20180306 **Lab ID: 2072074002** Collected: 03/06/18 09:33 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Haloether 428	ND	ug/L	1.0	1		03/12/18 21:16		
Haloether 508	**33.2**	ug/L	1.0	1		03/12/18 21:16		
Haloether 528	**1.1**	ug/L	1.0	1		03/12/18 21:16		
Halomar	ND	ug/L	1.0	1		03/12/18 21:16		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 21:16	591-78-6	
Isoflurane	**35.7**	ug/L	1.0	1		03/12/18 21:16		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 21:16	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 21:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 21:16	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 21:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 21:16	79-34-5	
Tetrachloroethene	**5.1**	ug/L	1.0	1		03/12/18 21:16	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 21:16	108-88-3	
Total Haloether	**79.6**	ug/L	1.0	1		03/12/18 21:16		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 21:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 21:16	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 21:16	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 21:16	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 21:16	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 21:16	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%.	79-119	1		03/12/18 21:16	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	68-124	1		03/12/18 21:16	460-00-4	
Dibromofluoromethane (S)	95	%.	72-126	1		03/12/18 21:16	1868-53-7	

Sample: EFF-20180306 **Lab ID: 2072074003** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 20:23	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 20:23	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 20:23	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 20:23	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 20:23	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 20:23	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 20:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 20:23	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 20:23	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 20:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 20:23	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 20:23	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 20:23	67-66-3	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: EFF-20180306 **Lab ID: 2072074003** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Chloromethane	ND	ug/L	1.0	1		03/12/18 20:23	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 20:23	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 20:23	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 20:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:23	10061-02-6	
Enflurane	ND	ug/L	1.0	1		03/12/18 20:23	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 20:23	100-41-4	
Haloether 229	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 406	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 421	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 427	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 428	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 508	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 528	ND	ug/L	1.0	1		03/12/18 20:23		
Halomar	ND	ug/L	1.0	1		03/12/18 20:23		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 20:23	591-78-6	
Isoflurane	ND	ug/L	1.0	1		03/12/18 20:23		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 20:23	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 20:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 20:23	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 20:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 20:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/12/18 20:23	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 20:23	108-88-3	
Total Haloether	ND	ug/L	1.0	1		03/12/18 20:23		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 20:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 20:23	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 20:23	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 20:23	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 20:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 20:23	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	79-119	1		03/12/18 20:23	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	68-124	1		03/12/18 20:23	460-00-4	
Dibromofluoromethane (S)	97	%.	72-126	1		03/12/18 20:23	1868-53-7	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: EFFDUP-20180306 **Lab ID: 2072074004** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 20:59	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 20:59	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 20:59	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 20:59	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 20:59	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 20:59	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 20:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 20:59	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 20:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 20:59	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 20:59	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 20:59	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 20:59	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/12/18 20:59	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 20:59	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 20:59	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 20:59	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:59	10061-02-6	
Enflurane	ND	ug/L	1.0	1		03/12/18 20:59	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 20:59	100-41-4	
Haloether 229	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 406	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 421	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 427	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 428	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 508	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 528	ND	ug/L	1.0	1		03/12/18 20:59		
Halomar	ND	ug/L	1.0	1		03/12/18 20:59		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 20:59	591-78-6	
Isoflurane	ND	ug/L	1.0	1		03/12/18 20:59		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 20:59	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 20:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 20:59	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 20:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 20:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/12/18 20:59	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 20:59	108-88-3	
Total Haloether	ND	ug/L	1.0	1		03/12/18 20:59		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: EFFDUP-20180306 **Lab ID: 2072074004** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 20:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 20:59	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 20:59	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 20:59	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 20:59	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 20:59	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%.	79-119	1		03/12/18 20:59	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	68-124	1		03/12/18 20:59	460-00-4	
Dibromofluoromethane (S)	97	%.	72-126	1		03/12/18 20:59	1868-53-7	

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Pace Analytical

CHAIN-OF-CUSTODY / Analy

The Chain-of-Custody is a LEGAL DOCUME

WO# : 2072074

2072074

Page 1 Of 1

Section A
Required Client Information:

Company:	Arcadis
Address:	#48 City View Plaza 1 Suite 401
	Rd 165 KM 1.2, Guaynabo, PR 00968
Email:	
Phone:	Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Elvin Varela
Copy To:	
Purchase Order #:	
Project Name:	Fibers Public Supply Well (PO#CO001911.000
Project #:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	craig.mccollum@pacelabs.com,
Pace Profile #:	1037 L1

Regulatory Agency

State / Location: PR

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	VOC 8260-Trip Blank	Residual Chlorine (Y/N)
1	TB - 20180306	WT	G			03/06/18	LAB		3				3							3	
2	INF - 20180306	WT	G			03/06/18	0933		3				3						3		
3	EFF - 20180306	WT	G			03/06/18	0958		3				3						3		
4	EFF DUP - 20180306	WT	G			03/06/18	0958		3				3						3		
5	EFF MS - 20180306	WT	G			03/06/18	0958		3				3						3		
6	EFF MSD - 20180306	WT	G			03/06/18	0958		3				3						3		
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Andrés Colon / Arcadis	03/06/18	1358	[illegible]	3-6-18	13:58	3°	Y	N	Y
	FedEx 3/7/18 0850			FedEx [illegible] 3/7/18	0850		3.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Andrés Colon
SIGNATURE of SAMPLER:	[signature]
DATE Signed:	03/06/18

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Attachment 2
Pace Laboratory Analytical Report #2072074

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

March 13, 2018

David Howard
ARCADIS
410 North 44th St.
Suite 1000
Phoenix, AZ 85008

RE: Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Dear David Howard:

Enclosed are the analytical results for sample(s) received by the laboratory on March 07, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Craig McCollum
craig.mccollum@pacelabs.com
504-305-3618
Project Manager

Enclosures

cc: Janisse Diaz, Arcadis
Gisela Hernandez Rivera, Arcadis
Elvin Varela, ARCADIS

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CERTIFICATIONS

Project:	Fibers Public Supply Wells
Pace Project No.:	2072074

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylviania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

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SAMPLE SUMMARY

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2072074001	**TB-20180306**	Water	03/06/18 00:00	03/07/18 08:50
2072074002	**INF-20180306**	Water	03/06/18 09:33	03/07/18 08:50
2072074003	**EFF-20180306**	Water	03/06/18 09:58	03/07/18 08:50
2072074004	**EFFDUP-20180306**	Water	03/06/18 09:58	03/07/18 08:50

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SAMPLE ANALYTE COUNT

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2072074001	**TB-20180306**	EPA 5030B/8260	GEM	56	PASI-N
2072074002	**INF-20180306**	EPA 5030B/8260	GEM	56	PASI-N
2072074003	**EFF-20180306**	EPA 5030B/8260	GEM	56	PASI-N
2072074004	**EFFDUP-20180306**	EPA 5030B/8260	GEM	56	PASI-N

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PROJECT NARRATIVE

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Method: **EPA 5030B/8260**
Description: 8260 MSV HALOETHERS
Client: ARCADIS
Date: March 13, 2018

General Information:
4 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: TB-20180306 **Lab ID: 2072074001** Collected: 03/06/18 00:00 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 20:41	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 20:41	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 20:41	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 20:41	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 20:41	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 20:41	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 20:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 20:41	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 20:41	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 20:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 20:41	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 20:41	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 20:41	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/12/18 20:41	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 20:41	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 20:41	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 20:41	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:41	10061-02-6	
Enflurane	ND	ug/L	1.0	1		03/12/18 20:41	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 20:41	100-41-4	
Haloether 229	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 406	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 421	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 427	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 428	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 508	ND	ug/L	1.0	1		03/12/18 20:41		
Haloether 528	ND	ug/L	1.0	1		03/12/18 20:41		
Halomar	ND	ug/L	1.0	1		03/12/18 20:41		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 20:41	591-78-6	
Isoflurane	ND	ug/L	1.0	1		03/12/18 20:41		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 20:41	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 20:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 20:41	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 20:41	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 20:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/12/18 20:41	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 20:41	108-88-3	
Total Haloether	ND	ug/L	1.0	1		03/12/18 20:41		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 20:41	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: TB-20180306 **Lab ID: 2072074001** Collected: 03/06/18 00:00 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 20:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 20:41	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 20:41	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 20:41	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 20:41	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 20:41	95-47-6	
Surrogates								
Toluene-d8 (S)	99	%.	79-119	1		03/12/18 20:41	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	68-124	1		03/12/18 20:41	460-00-4	
Dibromofluoromethane (S)	96	%.	72-126	1		03/12/18 20:41	1868-53-7	

Sample: INF-20180306 **Lab ID: 2072074002** Collected: 03/06/18 09:33 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 21:16	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 21:16	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 21:16	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 21:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 21:16	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 21:16	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 21:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 21:16	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 21:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 21:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 21:16	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 21:16	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 21:16	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/12/18 21:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 21:16	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 21:16	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 21:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 21:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 21:16	10061-02-6	
Enflurane	**1.1**	ug/L	1.0	1		03/12/18 21:16	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 21:16	100-41-4	
Haloether 229	**8.3**	ug/L	1.0	1		03/12/18 21:16		
Haloether 406	ND	ug/L	1.0	1		03/12/18 21:16		
Haloether 421	ND	ug/L	1.0	1		03/12/18 21:16		
Haloether 427	ND	ug/L	1.0	1		03/12/18 21:16		

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: INF-20180306 **Lab ID: 2072074002** Collected: 03/06/18 09:33 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Haloether 428	ND	ug/L	1.0	1		03/12/18 21:16		
Haloether 508	**33.2**	ug/L	1.0	1		03/12/18 21:16		
Haloether 528	**1.1**	ug/L	1.0	1		03/12/18 21:16		
Halomar	ND	ug/L	1.0	1		03/12/18 21:16		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 21:16	591-78-6	
Isoflurane	**35.7**	ug/L	1.0	1		03/12/18 21:16		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 21:16	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 21:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 21:16	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 21:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 21:16	79-34-5	
Tetrachloroethene	**5.1**	ug/L	1.0	1		03/12/18 21:16	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 21:16	108-88-3	
Total Haloether	**79.6**	ug/L	1.0	1		03/12/18 21:16		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 21:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 21:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 21:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 21:16	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 21:16	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 21:16	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 21:16	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 21:16	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%.	79-119	1		03/12/18 21:16	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	68-124	1		03/12/18 21:16	460-00-4	
Dibromofluoromethane (S)	95	%.	72-126	1		03/12/18 21:16	1868-53-7	

Sample: EFF-20180306 **Lab ID: 2072074003** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 20:23	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 20:23	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 20:23	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 20:23	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 20:23	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 20:23	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 20:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 20:23	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 20:23	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 20:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 20:23	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 20:23	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 20:23	67-66-3	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: EFF-20180306 **Lab ID: 2072074003** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Chloromethane	ND	ug/L	1.0	1		03/12/18 20:23	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 20:23	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 20:23	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 20:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:23	10061-02-6	
Enflurane	ND	ug/L	1.0	1		03/12/18 20:23	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 20:23	100-41-4	
Haloether 229	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 406	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 421	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 427	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 428	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 508	ND	ug/L	1.0	1		03/12/18 20:23		
Haloether 528	ND	ug/L	1.0	1		03/12/18 20:23		
Halomar	ND	ug/L	1.0	1		03/12/18 20:23		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 20:23	591-78-6	
Isoflurane	ND	ug/L	1.0	1		03/12/18 20:23		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 20:23	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 20:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 20:23	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 20:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 20:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/12/18 20:23	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 20:23	108-88-3	
Total Haloether	ND	ug/L	1.0	1		03/12/18 20:23		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 20:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 20:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 20:23	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 20:23	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 20:23	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 20:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 20:23	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	79-119	1		03/12/18 20:23	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	68-124	1		03/12/18 20:23	460-00-4	
Dibromofluoromethane (S)	97	%.	72-126	1		03/12/18 20:23	1868-53-7	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: EFFDUP-20180306 **Lab ID: 2072074004** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		03/12/18 20:59	67-64-1	
Acrolein	ND	ug/L	8.0	1		03/12/18 20:59	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		03/12/18 20:59	107-13-1	
Benzene	ND	ug/L	1.0	1		03/12/18 20:59	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		03/12/18 20:59	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/12/18 20:59	75-25-2	
Bromomethane	ND	ug/L	1.0	1		03/12/18 20:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		03/12/18 20:59	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		03/12/18 20:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/12/18 20:59	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/12/18 20:59	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/12/18 20:59	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/12/18 20:59	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/12/18 20:59	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		03/12/18 20:59	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		03/12/18 20:59	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/12/18 20:59	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/12/18 20:59	10061-02-6	
Enflurane	ND	ug/L	1.0	1		03/12/18 20:59	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		03/12/18 20:59	100-41-4	
Haloether 229	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 406	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 421	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 427	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 428	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 508	ND	ug/L	1.0	1		03/12/18 20:59		
Haloether 528	ND	ug/L	1.0	1		03/12/18 20:59		
Halomar	ND	ug/L	1.0	1		03/12/18 20:59		
2-Hexanone	ND	ug/L	2.0	1		03/12/18 20:59	591-78-6	
Isoflurane	ND	ug/L	1.0	1		03/12/18 20:59		
Methoxyflurane	ND	ug/L	1.0	1		03/12/18 20:59	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		03/12/18 20:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		03/12/18 20:59	108-10-1	
Styrene	ND	ug/L	1.0	1		03/12/18 20:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/12/18 20:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/12/18 20:59	127-18-4	
Toluene	ND	ug/L	1.0	1		03/12/18 20:59	108-88-3	
Total Haloether	ND	ug/L	1.0	1		03/12/18 20:59		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/12/18 20:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/12/18 20:59	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Sample: EFFDUP-20180306 **Lab ID: 2072074004** Collected: 03/06/18 09:58 Received: 03/07/18 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		03/12/18 20:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/12/18 20:59	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		03/12/18 20:59	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		03/12/18 20:59	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/12/18 20:59	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		03/12/18 20:59	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%.	79-119	1		03/12/18 20:59	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	68-124	1		03/12/18 20:59	460-00-4	
Dibromofluoromethane (S)	97	%.	72-126	1		03/12/18 20:59	1868-53-7	

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

QC Batch: 103820 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV
Associated Lab Samples: 2072074001, 2072074002, 2072074003, 2072074004

METHOD BLANK: 447331 Matrix: Water
Associated Lab Samples: 2072074001, 2072074002, 2072074003, 2072074004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	03/12/18 18:55	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	03/12/18 18:55	
1,1,2-Trichloroethane	ug/L	ND	1.0	03/12/18 18:55	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	03/12/18 18:55	
1,1-Dichloroethane	ug/L	ND	1.0	03/12/18 18:55	
1,1-Dichloroethene	ug/L	ND	1.0	03/12/18 18:55	
1,2,3-Trichloropropane	ug/L	ND	1.0	03/12/18 18:55	
1,2-Dichloroethane	ug/L	ND	1.0	03/12/18 18:55	
1,2-Dichloropropane	ug/L	ND	1.0	03/12/18 18:55	
2-Butanone (MEK)	ug/L	ND	2.0	03/12/18 18:55	
2-Hexanone	ug/L	ND	2.0	03/12/18 18:55	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	2.0	03/12/18 18:55	
Acetone	ug/L	ND	4.0	03/12/18 18:55	
Acrolein	ug/L	ND	8.0	03/12/18 18:55	
Acrylonitrile	ug/L	ND	4.0	03/12/18 18:55	
Benzene	ug/L	ND	1.0	03/12/18 18:55	
Bromodichloromethane	ug/L	ND	1.0	03/12/18 18:55	
Bromoform	ug/L	ND	1.0	03/12/18 18:55	
Bromomethane	ug/L	ND	1.0	03/12/18 18:55	
Carbon disulfide	ug/L	ND	1.0	03/12/18 18:55	
Carbon tetrachloride	ug/L	ND	1.0	03/12/18 18:55	
Chlorobenzene	ug/L	ND	1.0	03/12/18 18:55	
Chloroethane	ug/L	ND	1.0	03/12/18 18:55	
Chloroform	ug/L	ND	1.0	03/12/18 18:55	
Chloromethane	ug/L	ND	1.0	03/12/18 18:55	
cis-1,2-Dichloroethene	ug/L	ND	1.0	03/12/18 18:55	
cis-1,3-Dichloropropene	ug/L	ND	1.0	03/12/18 18:55	
Dibromochloromethane	ug/L	ND	1.0	03/12/18 18:55	
Dibromomethane	ug/L	ND	1.0	03/12/18 18:55	
Enflurane	ug/L	ND	1.0	03/12/18 18:55	
Ethylbenzene	ug/L	ND	1.0	03/12/18 18:55	
Haloether 229	ug/L	ND	1.0	03/12/18 18:55	
Haloether 406	ug/L	ND	1.0	03/12/18 18:55	
Haloether 421	ug/L	ND	1.0	03/12/18 18:55	
Haloether 427	ug/L	ND	1.0	03/12/18 18:55	
Haloether 428	ug/L	ND	1.0	03/12/18 18:55	
Haloether 508	ug/L	ND	1.0	03/12/18 18:55	
Haloether 528	ug/L	ND	1.0	03/12/18 18:55	
Halomar	ug/L	ND	1.0	03/12/18 18:55	
Isoflurane	ug/L	ND	1.0	03/12/18 18:55	
m&p-Xylene	ug/L	ND	2.0	03/12/18 18:55	

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

METHOD BLANK: 447331 Matrix: Water
Associated Lab Samples: 2072074001, 2072074002, 2072074003, 2072074004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methoxyflurane	ug/L	ND	1.0	03/12/18 18:55	
Methylene Chloride	ug/L	ND	5.0	03/12/18 18:55	
o-Xylene	ug/L	ND	1.0	03/12/18 18:55	
Styrene	ug/L	ND	1.0	03/12/18 18:55	
Tetrachloroethene	ug/L	ND	1.0	03/12/18 18:55	
Toluene	ug/L	ND	1.0	03/12/18 18:55	
Total Haloether	ug/L	ND	1.0	03/12/18 18:55	
trans-1,2-Dichloroethene	ug/L	ND	1.0	03/12/18 18:55	
trans-1,3-Dichloropropene	ug/L	ND	1.0	03/12/18 18:55	
Trichloroethene	ug/L	ND	1.0	03/12/18 18:55	
Trichlorofluoromethane	ug/L	ND	1.0	03/12/18 18:55	
Vinyl chloride	ug/L	ND	1.0	03/12/18 18:55	
4-Bromofluorobenzene (S)	%.	102	68-124	03/12/18 18:55	
Dibromofluoromethane (S)	%.	94	72-126	03/12/18 18:55	
Toluene-d8 (S)	%.	100	79-119	03/12/18 18:55	

LABORATORY CONTROL SAMPLE: 447332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	47.2	94	62-131	
1,1,2,2-Tetrachloroethane	ug/L	50	47.9	96	15-179	
1,1,2-Trichloroethane	ug/L	50	45.5	91	58-144	
1,1,2-Trichlorotrifluoroethane	ug/L	50	47.5	95	38-121	
1,1-Dichloroethane	ug/L	50	47.1	94	63-129	
1,1-Dichloroethene	ug/L	50	46.2	92	51-139	
1,2,3-Trichloropropane	ug/L	50	48.5	97	13-187	
1,2-Dichloroethane	ug/L	50	45.2	90	57-148	
1,2-Dichloropropane	ug/L	50	45.6	91	66-128	
2-Butanone (MEK)	ug/L	50	41.7	83	32-183	
2-Hexanone	ug/L	50	45.7	91	36-170	
4-Methyl-2-pentanone (MIBK)	ug/L	50	48.4	97	26-171	
Acetone	ug/L	50	37.5	75	22-165	
Acrolein	ug/L	50	41.1	82	10-131	
Acrylonitrile	ug/L	50	44.2	88	18-149	
Benzene	ug/L	50	45.0	90	62-131	
Bromodichloromethane	ug/L	50	46.8	94	69-132	
Bromoform	ug/L	50	44.1	88	35-166	
Bromomethane	ug/L	50	50.5	101	34-158	
Carbon disulfide	ug/L	50	48.4	97	31-128	
Carbon tetrachloride	ug/L	50	51.6	103	54-144	
Chlorobenzene	ug/L	50	51.9	104	70-127	
Chloroethane	ug/L	50	46.5	93	17-195	
Chloroform	ug/L	50	44.8	90	73-134	
Chloromethane	ug/L	50	42.2	84	17-153	

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

LABORATORY CONTROL SAMPLE: 447332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	48.2	96	68-129	
cis-1,3-Dichloropropene	ug/L	50	46.6	93	72-138	
Dibromochloromethane	ug/L	50	50.2	100	49-146	
Dibromomethane	ug/L	50	49.1	98	56-145	
Enflurane	ug/L	50	48.8	98	56-135	
Ethylbenzene	ug/L	50	47.7	95	66-126	
Haloether 229	ug/L	50	47.5	95	62-123	
Haloether 406	ug/L	50	48.5	97	62-134	
Haloether 421	ug/L	50	46.1	92	70-128	
Haloether 427	ug/L	50	49.2	98	69-153	
Haloether 428	ug/L	50	48.5	97	70-134	
Haloether 508	ug/L	50	52.4	105	52-139	
Haloether 528	ug/L	50	48.6	97	48-157	
Halomar	ug/L	50	48.9	98	62-128	
Isoflurane	ug/L	50	46.9	94	61-132	
m&p-Xylene	ug/L	100	97.8	98	65-129	
Methoxyflurane	ug/L	50	47.4	95	72-124	
Methylene Chloride	ug/L	50	48.4	97	46-168	
o-Xylene	ug/L	50	48.3	97	65-124	
Styrene	ug/L	50	50.9	102	72-133	
Tetrachloroethene	ug/L	50	53.4	107	46-157	
Toluene	ug/L	50	47.2	94	69-126	
Total Haloether	ug/L		533			
trans-1,2-Dichloroethene	ug/L	50	47.2	94	60-129	
trans-1,3-Dichloropropene	ug/L	50	45.7	91	59-149	
Trichloroethene	ug/L	50	48.4	97	67-132	
Trichlorofluoromethane	ug/L	50	53.0	106	39-171	
Vinyl chloride	ug/L	50	43.7	87	27-149	
4-Bromofluorobenzene (S)	%.			103	68-124	
Dibromofluoromethane (S)	%.			99	72-126	
Toluene-d8 (S)	%.			97	79-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 447333 447334

Parameter	Units	2072074003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	50	50	53.7	48.6	107	97	54-137	10	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	51.8	48.4	104	97	15-187	7	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	50.0	46.5	100	93	59-148	7	20	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	50	50	53.4	50.1	107	100	40-117	6	20	
1,1-Dichloroethane	ug/L	ND	50	50	53.8	48.0	108	96	59-133	11	20	
1,1-Dichloroethene	ug/L	ND	50	50	50.9	46.0	102	92	44-146	10	20	
1,2,3-Trichloropropane	ug/L	ND	50	50	51.6	47.8	103	96	14-199	8	20	
1,2-Dichloroethane	ug/L	ND	50	50	50.0	45.9	100	92	56-154	9	20	
1,2-Dichloropropane	ug/L	ND	50	50	50.6	47.6	101	95	62-135	6	20	

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REPORT OF LABORATORY ANALYSIS

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(504)469-0333

QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 447333 447334

Parameter	Units	2072074003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Butanone (MEK)	ug/L	ND	50	50	45.3	39.4	91	79	20-205	14	20	
2-Hexanone	ug/L	ND	50	50	50.4	44.8	101	90	25-189	12	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	50	50	54.0	47.8	108	96	23-184	12	20	
Acetone	ug/L	ND	50	50	40.0	35.7	80	71	11-217	11	20	
Acrolein	ug/L	ND	50	50	45.2	42.2	90	84	10-142	7	20	
Acrylonitrile	ug/L	ND	50	50	48.7	44.5	97	89	20-164	9	20	
Benzene	ug/L	ND	50	50	51.7	47.6	103	95	52-141	8	20	
Bromodichloromethane	ug/L	ND	50	50	51.8	47.7	104	95	70-134	8	20	
Bromoform	ug/L	ND	50	50	50.0	44.7	100	89	37-171	11	20	
Bromomethane	ug/L	ND	50	50	57.6	52.9	115	106	34-155	8	20	
Carbon disulfide	ug/L	ND	50	50	55.4	48.7	111	97	28-130	13	20	
Carbon tetrachloride	ug/L	ND	50	50	59.3	53.4	119	107	48-146	10	20	
Chlorobenzene	ug/L	ND	50	50	59.7	54.0	119	108	67-129	10	20	
Chloroethane	ug/L	ND	50	50	55.1	48.9	110	98	12-192	12	20	
Chloroform	ug/L	ND	50	50	51.1	45.7	102	91	66-143	11	20	
Chloromethane	ug/L	ND	50	50	49.0	42.9	98	86	14-155	13	20	
cis-1,2-Dichloroethene	ug/L	ND	50	50	54.9	49.7	110	99	56-141	10	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	52.8	48.0	106	96	70-139	9	20	
Dibromochloromethane	ug/L	ND	50	50	54.3	50.5	109	101	50-150	7	20	
Dibromomethane	ug/L	ND	50	50	54.4	50.7	109	101	58-153	7	20	
Enflurane	ug/L	ND	50	50	56.8	50.9	114	102	63-126	11	20	
Ethylbenzene	ug/L	ND	50	50	54.8	50.8	110	102	57-135	8	20	
Haloether 229	ug/L	ND	50	50	56.7	50.3	113	101	56-127	12	20	
Haloether 406	ug/L	ND	50	50	57.4	52.9	115	106	68-128	8	20	
Haloether 421	ug/L	ND	50	50	53.8	49.4	108	99	74-120	9	20	
Haloether 427	ug/L	ND	50	50	58.5	54.5	117	109	78-120	7	20	
Haloether 428	ug/L	ND	50	50	57.0	54.0	114	108	74-125	5	20	
Haloether 508	ug/L	ND	50	50	62.7	54.2	125	108	28-156	14	20	
Haloether 528	ug/L	ND	50	50	54.0	48.0	108	96	45-142	12	20	
Halomar	ug/L	ND	50	50	56.4	51.9	113	104	67-123	8	20	
Isoflurane	ug/L	ND	50	50	57.8	51.3	116	103	45-140	12	20	
m&p-Xylene	ug/L	ND	100	100	113	104	113	104	56-136	9	20	
Methoxyflurane	ug/L	ND	50	50	54.5	49.6	109	99	75-119	9	20	
Methylene Chloride	ug/L	ND	50	50	53.4	48.8	107	98	45-166	9	20	
o-Xylene	ug/L	ND	50	50	56.1	51.1	112	102	57-133	9	20	
Styrene	ug/L	ND	50	50	57.5	52.5	115	105	58-144	9	20	
Tetrachloroethene	ug/L	ND	50	50	61.6	57.0	123	114	48-143	8	20	
Toluene	ug/L	ND	50	50	53.8	49.1	108	98	59-136	9	20	
Total Haloether	ug/L	ND			626	567				10		
trans-1,2-Dichloroethene	ug/L	ND	50	50	54.7	48.8	109	98	57-132	11	20	
trans-1,3-Dichloropropene	ug/L	ND	50	50	51.1	46.9	102	94	59-154	9	20	
Trichloroethene	ug/L	ND	50	50	55.4	50.6	111	101	58-140	9	20	
Trichlorofluoromethane	ug/L	ND	50	50	62.4	55.2	125	110	24-175	12	20	
Vinyl chloride	ug/L	ND	50	50	53.5	45.7	107	91	21-150	16	20	
4-Bromofluorobenzene (S)	%.						101	103	68-124			

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 447333 447334

Parameter	Units	2072074003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dibromofluoromethane (S)	%.						98	98	72-126			
Toluene-d8 (S)	%.						96	97	79-119			

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QUALIFIERS

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

LABORATORIES

PASI-N Pace Analytical Services - New Orleans

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Fibers Public Supply Wells
Pace Project No.: 2072074

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2072074001	**TB-20180306**	EPA 5030B/8260	103820		
2072074002	**INF-20180306**	EPA 5030B/8260	103820		
2072074003	**EFF-20180306**	EPA 5030B/8260	103820		
2072074004	**EFFDUP-20180306**	EPA 5030B/8260	103820		

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Pace Analytical

CHAIN-OF-CUSTODY / Analy

The Chain-of-Custody is a LEGAL DOCUME

WO# : 2072074

2072074

Page 1 Of 1

Section A
Required Client Information:

Company:	Arcadis
Address:	#48 City View Plaza 1 Suite 401
	Rd 165 KM 1.2, Guaynabo, PR 00968
Email:	
Phone:	Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Elvin Varela
Copy To:	
Purchase Order #:	
Project Name:	Fibers Public Supply Well (PO#CO001911.000
Project #:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	craig.mccollum@pacelabs.com,
Pace Profile #:	1037 L1

Regulatory Agency

State / Location: PR

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	VOC 8260-Trip Blank	Residual Chlorine (Y/N)
1	TB - 20180306	WT	G			03/06/18	LAB		3				3							3	
2	INF - 20180306	WT	G			03/06/18	0933		3				3						3		
3	EFF - 20180306	WT	G			03/06/18	0958		3				3						3		
4	EFF DUP - 20180306	WT	G			03/06/18	0958		3				3						3		
5	EFF MS - 20180306	WT	G			03/06/18	0958		3				3						3		
6	EFF MSD - 20180306	WT	G			03/06/18	0958		3				3						3		
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Andrés Colon / Arcadis	03/06/18	1358	[illegible]	3-6-18	13:58	3°	Y	N	Y
	FedEx 3/7/18 0850			FedEx [illegible] 3/7/18	0850		3.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Andrés Colon
SIGNATURE of SAMPLER:	[signature]
DATE Signed:	03/06/18

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Sample Condition Upon Re

Proje

WO#: 2072074

PM: CJM Due Date: 03/21/18
CLIENT: 20-CHEV-ARC

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC] **Custody Seals intact:** ☒Yes ☐No

Therometer Used: ☐ Therm Fisher IR 5 ☐ Therm Fisher IR 6 ☒ Therm Fisher IR 7

Type of Ice: (Wet) Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 03-07-18 AB

Temp must be measured from Temperature blank when present

					Comments:
Temperature Blank Present"?	☐Yes	☐No	☒N/A	1	
Chain of Custody Present:	☒Yes	☐No	☐N/A	2	
Chain of Custody Complete:	☒Yes	☐No	☐N/A	3	
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	4	
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	5	
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	6	
Sufficient Volume:	☒Yes	☐No	☐N/A	7	
Correct Containers Used:	☒Yes	☐No	☐N/A	8	
Filtered vol. Rec. for Diss. tests	☐Yes	☐No	☒N/A	9	
Sample Labels match COC:	☒Yes	☐No	☐N/A	10	
All containers received within manafacture's precautionary and/or expiration dates.	☒Yes	☐No	☐N/A	11	
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	☐Yes	☐No	☒N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	13	If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>6mm):	☐Yes	☒No	☐N/A	14	
Trip Blank Present:	☒Yes	☐No		15	2x Vials

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Attachment 3
Data Review Report #29511R

Fibers Group

Data Review

GUAYAMA, PUERTO RICO

Volatiles Analyses

SDG #249258 (WO 655-04-26)
Analyses Performed By:
eqlab - Environmental Quality Laboratories, Inc.
San Juan, Puerto Rico

Report: #29511R
Review Level: Tier II
Project: CO001911.0007.1805A

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #249258 (WO 655-04-26) for samples collected in association with the Fibers Group Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	TPH	MET	MISC
EFFLUENT	2819486	Water	03/06/2018		X				
EFFLUENT- DUPLICATE	2819487	Water	03/06/2018	EFFLUENT	X				
INFLUENT	2819490	Water	03/06/2018		X				
TRIP BLANK	2819491	Water	03/06/2018		X				

Note:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location EFFLUENT.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to <6 °C.

s.u. Standard units

All samples were analyzed within acceptable holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the RL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
EFFLUENT	1,1-Dichloropropene	AC	> UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
EFFLUENT/ EFFLUENT- DUPLICATE	All compounds	U	U	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Note: 2-Chloroethyl vinyl ether degrades in the presence of acid. Since the samples were preserved with acid to a pH of less than 2, the not detected results for 2-chloroethyl vinyl ether were rejected for all samples within this SDG.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision RPD		X		X	
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X

%R Percent recovery
RPD Relative percent difference
%RSD Relative standard deviation
%D Percent difference

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE: _____

DATE: March 28, 2018

PEER REVIEW: Dennis Capria

DATE: April 3, 2018

CHAIN OF CUSTODY/
ANNOTATED SAMPLE ANALYSIS DATA SHEETS

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018**	10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
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Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~03/13/2018~~	~~19:12~~	~~NIVA~~	~~03/12/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
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ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
	Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
	Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
+	Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
	m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018**	10:10	Date of Report:	03/19/2018	
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON	
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA	
Folder Number:	249258				Proposal Number:	20805 - 1	

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 638

Certified by Laboratory Director

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PRDOH Certified
EPA ID PR00014

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PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

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ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~03/13/2018~~	~~19:38~~	~~NIVA~~	~~03/12/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
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Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018**	10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

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Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018**	10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

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Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

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Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Colegio de Químicos Licenciado Asociado de Puerto Rico LICENCIA NUM. 4538

Certified by Laboratory Director

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Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018**	09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~		~~03/13/2018~~	~~16:08~~	~~NIVA~~	~~03/12/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018**	09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	4.90	µg/L	--	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	BDL	µg/L	U	1.8	6.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018**	09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Colegio de Químicos Colegiado Libre Asociado de Puerto Rico LICENCIA NUM. 4578

Certified by Laboratory Director

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PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018**	08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

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Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018**	08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~03/13/2018~~	~~13:02~~	~~NIVA~~	~~03/12/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

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ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
	Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
	Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
+	Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
	m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab
ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018**	08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018	14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	249258				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ
Químico Licenciado
Colegio de Químicos de Puerto Rico
Asociado de Puerto Rico
LICENCIA NUM. 538

Certified by Laboratory Director

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

ENVIRONMENTAL QUALITY LABORATORIES, INC.

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

2018-04429

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC | CLIENT ID: 655-04 | W.O. #: 26 | SITE: GUAYAMA, PR | CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 | PWSID #: | FOLDER #: 249258 | PROJECT: GUAYAMA PROJECT | EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2819486-1 MATRIX: GROUND WATER SOURCE: EFFLUENT, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819487-1 MATRIX: GROUND WATER DUP SOURCE: EFFLUENT-DUPLICATE, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819488-1 MATRIX: GROUND WATER MS SOURCE: EFFLUENT-MS, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819489-1 MATRIX: GROUND WATER MSD SOURCE: EFFLUENT-MSD, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	Andrés Colon	03/06/18	varias
Fixed in field by:	Andrés Colon	03/06/18	varias
Authorized by:	N/A	N/A	N/A
Received by EQLF:	[illegible]	03/06/18	1454
Released to EQLL by:	[illegible]	03/06/18	1454
Received by EQLL:	[illegible]		

SPECIAL INSTRUCTIONS / COMMENTS:

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature: [illegible]

Eqlab's general terms and conditions on reverse side of this document.

ENVIRONMENTAL QUALITY LABORATORIES, INC.

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

2018-04429

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC CLIENT ID: 655-04 W.O. #: 26 SITE: GUAYAMA, PR CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 PWSID #: FOLDER #: 249258 PROJECT: GUAYAMA PROJECT EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2819490-1 MATRIX: GROUND WATER SOURCE: INFLUENT, GUAYAMA, PR	DATE: 03/06/18 TIME: 0934 TYPE: Grab	TYPE VIAL TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819491-1 MATRIX: DI WATER TRIP SOURCE: TRIP BLANK, GUAYAMA, PR	DATE: 03/06/18 TIME: LAB 08:00 m TYPE: Grab	TYPE VIAL TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	Andrés Colom	03/06/18	varias
Fixed in field by:	Andrés Colom	03/06/18	
Authorized by:			
Received by EQLF:			
Released to EQLL by:		03/06/18	1454
Received by EQLL:		03/06/18	1454

SPECIAL INSTRUCTIONS / COMMENTS:

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature:

Eqlab's general terms and conditions on reverse side of this document.

Attachment 4
EQLAB Laboratory Analytical Report #249258 (WO 655-04-26)

Quality Assurance Report

Prepared for:
ARCADIS CARIBE, PSC

Facility:
GUAYAMA PROJECT

Project
INTERNO

Samples Received:
March 06, 2018

Folder Number:
2249258

W.O. #:
655-04-26

ENVIRONMENTAL QUALITY LABORATORIES, INC.

March 23, 2018

ARCADIS CARIBE, PSC.
#48 CITY VIEW PLAZA1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: Mr. ELVIN VARELA

Re: Quality Assurance Report for the samples received on March 06, 2018

Dear Mr. Varela

Enclosed you will find the Quality Assurance Report for the samples received on March 06, 2018 for the INTERNO Project. The QC data submitted reflects the precision and accuracy of the analyzed samples.

Please feel free to contact us if you require any further information.

Cordially,

Environmental Quality Laboratories, Inc.

Janet Gómez Rosario

Lic. Janet Gómez-Rosario
QA/QC Supervisor

TABLE OF CONTENTS

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1	Quality Assurance Narrative
2	Laboratory Test Report
3	Analytical Test Results Quality Assurance Report

List of Appendices

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A	Chain of Custody Documentation
B	Raw Data Worksheets

SECTION 1
QUALITY ASSURANCE NARRATIVE

QUALITY ASSURANCE NARRATIVE

OVERVIEW

On March 06, 2018 Environmental Quality Laboratories, Inc. received from ARCADIS CARIBE, PSC, five Ground Water and one DI Water samples. The samples were collected at the Guayama facility March 06, 2018, for the Interno Project. The samples were analyzed for EPA 8260B VOC. The samples were received in good condition (3° C) and stored at 4 °C ± 2 °C in the refrigerator until the time of analysis. The following table shows the sample sources and the EQLAB sample number assigned to your sample upon receipt:

SAMPLE #	SOURCE	MATRIX
2819486	EFFLUENT	GROUND WATER
2819487	EFFLUENT – DUPLICATE	GROUND WATER
2819488	EFFLUENT – MS	GROUND WATER
2819489	EFFLUENT – MSD	GROUND WATER
2819490	INFLUENT	GROUND WATER
2819491	TRIP BLANK	DI WATER

In the Appendices you will find copies of the supporting documentation of your samples. Appendix A contains the Chain of Custody Documentation and Appendix B contains the Raw Data Worksheets. Appendix C contains the Proficiency Test Result.

Quality Control Remarks

The QC data has been released after being subjected to a series of inspections. General deviations are summarized below. Specific QC issues associated with your samples are:

Sample Collection: All samples were collected by the client personnel. EQLab personnel did not find any deviations about of this item.

Sample Management: EQ Lab did not find any deviation about this item.

Sample Preparation: EQ Lab did not find any deviation about this item.

.

Laboratory Test Report: EQ Lab did not find any deviation about this item.

Sample Analysis: **VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/ MASS SPECTROMETRY (GC/MS) EPA 8260B VOC Rev. 2, December 1996**

Run # 197091

Analysis Date: March 13, 2018

Sample	Analyte	Deviation	Recovery	Range
2825921/ICV	Acetone	00S	121%	80-120%
	Iodomethane	00S	124%	80-120%

Explanation: For the above analytes of sample (2825921/ICV) 00S there it's a possible Matrix Spike Interference since the analytes have acceptable recoveries in the 2825927/LFB. See the following table.

Run # 197091

Analysis Date: March 13, 2018

Sample	Analyte	Recovery	Range
2825927/LFB	Acetone	85%	46-142%
	Iodomethane	115%	54-143%

Run # 197091

Analysis Date: March 13, 2018

Sample	Analyte	Deviation	Recovery	Range
2822707	Dibromofluoromethane-SURR	00S	136%	76-123%
2822710	Dibromofluoromethane-SURR	00S	132%	

Explanation: Dibromofluoromethane-SURR has possible matrix interference. Recoveries are over the upper limit and samples are ND in the run.

Run # 197091

Analysis Date: March 13, 2018

Sample	Analyte	Deviation	Recovery	Range
2829634/CCV	1,2-Dibromo-3-chloropropane	00S	76%	80-120%
	Bromoform	00S	76.5%	80-120%
	Iodomethane	00S	122%	80-120%

Explanation: For Iodomethane is over the upper limit and samples are ND in the run. 1,2-Dibromo-3-chloropropane and Bromoform meets the requirements of Method EPA 8260B 7.4.5.2. (If the percent difference or drift for each CCC is less than or equal to 20% the initial calibration is assumed to be valid.)

Run # 197091

Analysis Date: March 13, 2018

Sample	Analyte	Deviation	Recovery	Range
2819488/MS	2-Chloroethyl vinyl ether	00S	0	10-178%
2819489/MSD	1,1-Dichloropropene	00S	111%	83-110%

Explanation: For the above analytes of samples (2819488/MS and 2819489/MSD) 00S there it's a possible Matrix Spike Interference since the analytes have acceptable recoveries in the 2825927/LFB. See the following table.

Run # 197091

Analysis Date: March 13, 2018

Sample	Analyte	Recovery	Range
2825927/LFB	2-Chloroethyl vinyl ether	82.7%	47-143%
	1,1-Dichloropropene	101%	67-131%

General Comments

The analysis was performed in accordance with the latest Environmental Protection Agency and Standard Method for the Examination of Water and Wastewater Approved Methodology. All the results associated with quality control samples were found within acceptable criteria established for these parameters. After reviewing the documentation mentioned above we conclude that the data presented herein is valid and acceptable.

Formulas:

1. RPD = Relative Percent Difference

All Duplicates (DUP, MSD and LFBD) are calculated as follow:

$$RPD = \left\{ \frac{(\text{Final Result QC}) - (\text{Final Result Ref})}{\frac{(\text{Final Result QC}) + (\text{Final Result Ref})}{2}} \right\} \times 100$$

RPD is reported N.C. when the (value of Final Result) < 10X (value of MDL)

RPD General Acceptance criteria is (≤ 20%) for all matrices except Solid / Soil (≤ 40%)

$RPD_{Micro} = (\text{Log}_{10}\ \text{Final Result QC}) - (\text{Log}_{10}\ \text{Final Result Ref})$ which is expressed as Precision.

2. The % of Recovery is calculated as follow:

$$\% \text{ Rec} = \left\{ \frac{\text{(Final Result QC)}}{\text{Amount Added of QC}} \right\} \text{ X } 100$$

3. The % of Recovery for MS and MSD is calculated as follow:

$$\% \text{ Rec} = \left\{ \frac{\text{(Final Result QC)} - \text{(Final Result Ref)}}{\text{Amount Added of QC}} \right\} \text{ X } 100$$

Marcelino Benitez

Prepared By:
Lcdo. Marcelino Benítez
QA/QC Coordinador Licensed

March 23, 2018
Date

Janet Gómez Rosario

Checked by:
Lcda. Janet Gómez
QA/QC Supervisor

March 23, 2018
Date

SECTION 2
LABORATORY TEST REPORT

March 19, 2018

MR. ELVIN VARELA

ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1 SUITE 401
ROAD 165 KM 1.2
GUAYNABO PR 00968

I hereby certify that the results reported for EQ Lab Samples 2819486 to 2819491 have been reviewed by me and are correct as presented herein.

Lcda Sonia Pichardo Rodrig
Certified by Laboratory Director

SONIA PICHARDO RODRIGUEZ
Químico Licenciado
Estado Libre Asociado de Puerto Rico
LICENCIA NUM. 4538

A 4658100

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819486**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:12	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 4538

Certified by Laboratory Director

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GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
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PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

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GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

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GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

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#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
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Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819487**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	19:38	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 4538

Certified by Laboratory Director

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Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819488**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,1,1,2-Tetrachloroethane	EPA 8260B	99.0	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	112	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	84.0	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	102	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	100	%	--	2.0	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	113	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	108	%	--	1.4	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	83.0	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	81.5	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	83.5	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	84.8	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	75.7	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	95.6	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	102	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	98.0	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	89.4	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B

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Source: **EFFLUENT-MS**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819488**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	79.8	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	96.4	%	--	2.0	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	93.0	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	98.4	%	--	1.5	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	106	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	88.5	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	1.01	%	Q	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	85.1	%	--	1.4	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	78.0	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	84.2	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	89.8	%	--	1.4	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	87.8	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	84.8	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	72.8	%	--	25.0	75.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	83.6	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	103	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819488**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Bromobenzene	EPA 8260B	87.1	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	108	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	112	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	77.8	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	116	%	--	2.0	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	109	%	--	7.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	118	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	92.1	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	119	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	116	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	113	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	94.7	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	98.1	%	--	1.5	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	114	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	118	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	76.1	%	--	30.0	75.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B

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EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819488**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	94.1	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	90.7	%	--	1.4	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	123	%	--	8.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	86.4	%	--	2.0	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	71.3	%	--	2.0	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	83.7	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	109	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	87.6	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	96.9	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	106	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	116	%	--	1.5	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	82.5	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	116	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	105	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	85.7	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	88.4	%	--	1.8	6.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819488**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	87.6	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	89.6	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	90.0	%	--	1.0	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	82.4	%	--	2.3	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	87.6	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	86.7	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	112	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	88.5	%	--	1.2	3.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	103	%	--	6.0	15.0	--	03/13/2018	20:04	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 5538

Certified by Laboratory Director

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PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819489**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	102	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	115	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	86.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	105	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	101	%	--	2.0	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	114	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	111	%	Q	1.4	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	88.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	83.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	88.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	87.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	80.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	97.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	104	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	101	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	91.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B

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#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819489**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
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Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,3-Dichlorobenzene	EPA 8260B	83.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	98.5	%	--	2.0	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	98.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	105	%	--	1.5	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	108	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	89.3	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	0	%	U	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	87.5	%	--	1.4	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	79.9	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	88.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	93.5	%	--	1.4	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	89.8	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	86.1	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	72.5	%	--	25.0	75.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	81.2	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	105	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B

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GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819489**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Bromobenzene	EPA 8260B	90.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	110	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	115	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	80.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	118	%	--	2.0	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	111	%	--	7.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	121	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	95.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	121	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	117	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	118	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	97.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	101	%	--	1.5	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	116	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	124	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	79.2	%	--	30.0	75.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819489**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	97.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	97.5	%	--	1.4	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	122	%	--	8.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	89.5	%	--	2.0	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	75.0	%	--	2.0	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	86.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	113	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	87.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	99.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	108	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	123	%	--	1.5	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	89.3	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	118	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	107	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	89.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	91.0	%	--	1.8	6.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819489**	Collected Date & Time:	**03/06/2018** 10:10	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
n-Butylbenzene	EPA 8260B	93.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	92.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	93.0	%	--	1.0	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	85.5	%	--	2.3	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	92.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	89.5	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	113	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	91.0	%	--	1.2	3.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	107	%	--	6.0	15.0	--	03/13/2018	20:30	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 4538

Certified by Laboratory Director

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
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Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
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Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	4.90	µg/L	--	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	BDL	µg/L	U	1.8	6.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819490**	Collected Date & Time:	**03/06/2018** 09:34	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	16:08	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 4520

Certified by Laboratory Director

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EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

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PRDOH Certified
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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

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#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

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Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2819491**	Collected Date & Time:	**03/06/2018** 08:00	Date of Report:	03/19/2018
Work Order:	655-04-26	Received Date & Time:	03/06/2018 14:54	Collected By:	ACOLON
Delivery Slip:	2018-04429	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	249258			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	03/13/2018	13:02	NIVA	03/12/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ
Químico Licenciado
Estado Libre Asociado de Puerto Rico
LICENCIA NUM. 6238

Certified by Laboratory Director

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

SECTION 3
ANALYTICAL TEST RESULTS
QUALITY ASSURANCE REPORT

Analytical Test Results Quality Assurance Report

W. O. # 655-04-26 Date: March 23, 2018

1.0 Samples Analyzed:

EQL SAMPLE #	DATE COLLECTED	DATE RECEIVED
2819486, 2819487, 2819488, 2819489, 2819490, 2819491	March 13, 2018	March 13, 2018

2.0 Instrumentation:

Parameter	Instrumentation Used
EPA 8260B VOC	V7 – AG7890MS Gas Chromatograph with a Mass Selective Detector

3.0 Methodology:

Parameter	Method	Date Analyzed	Analyst
EPA 8260B VOC	EPA 8260B VOC	March 13, 2018	N. Villanueva

Marcelino Benitez

Lcdo Marcelino Benítez
QA/QIC Coordinador Licensed

QUALITY CONTROL SUMMARY

EPA 8260B VOC - Run #197091

2825920 - LRB
Reference Sample Number is: 2819486

Analyte Name	Reference Result	QC Result	DQ	Units	MDL	MRL	Accuracy A/A	Accuracy Rec. %	Acceptance Criteria Low Limit	Acceptance Criteria High Limit	Precision RPD	Acceptance Criteria High Limit	Analysis Date	Analysis Time	Analysis By
1,1,1,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,1,1-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,1,2,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,1,2-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,1-Dichloroethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,1-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,1-Dichloropropene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2,3-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2,3-Trichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2,4-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2,4-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2-Dibromo-3-chloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2-Dibromoethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2-Dichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,3,5-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,3-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,3-Dichloropropane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1,4-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
1-Chlorohexane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
2,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
2-Butanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
2-Chloroethyl vinyl ether	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
2-Chlorotoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA

QUALITY CONTROL SUMMARY

2-Hexanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
4-Bromofluorobenzene-SURR	18.1	17.6	--	µg/L	N/A	N/A	20.0	88.1	79	121	N/A	N/A	03/13/18	11:43	NIVA
4-Chlorotoluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
4-Isopropyltoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
4-Methyl-2-pentanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Acetone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Acrolein	N.D	N.D	U	µg/L	25.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Acrylonitrile	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Benzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Bromobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Bromochloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Bromodichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Bromoform	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Bromomethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Carbon disulfide	N.D	N.D	U	µg/L	7.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Carbon tetrachloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Chlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Chloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Chloroform	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Chloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Dibromochloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Dibromofluoromethane-SURR	21.7	22.0	--	µg/L	N/A	N/A	20.0	110	83	120	N/A	N/A	03/13/18	11:43	NIVA
Dibromomethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Dichlorodifluoromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Dichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Epichlorohydrin	N.D	N.D	U	µg/L	30.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Ethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Hexachlorobutadiene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Iodomethane	N.D	N.D	U	µg/L	8.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Isopropylbenzene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Naphthalene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA

QUALITY CONTROL SUMMARY

Styrene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Tetrachloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Tetrahydrofuran	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Toluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Toluene-d8-SURR	20.7	20.6	--	µg/L	N/A	N/A	20.0	103	80	116	N/A	N/A	03/13/18	11:43	NIVA
Trichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Trichlorofluoromethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Vinyl Acetate	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
Vinyl chloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
cis-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
cis-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
m,p-Xylene	N.D	N.D	U	µg/L	1.8	6.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
n-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
n-Propylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
o-Dichlorobenzene	N.D	N.D	U	µg/L	1.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
o-Xylene	N.D	N.D	U	µg/L	2.3	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
sec-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
tert-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
trans-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
trans-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA
trans-1,4-Dichloro-2-butene	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	03/13/18	11:43	NIVA

2825921 - ICV
Reference Sample Number is: 2819486

							Accuracy				Precision		Analysis		
									Acceptance Criteria			Acceptance Criteria			
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	20.4	--	µg/L	1.2	3.0	20.0	102	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,1,1-Trichloroethane	N.D	21.1	--	µg/L	1.2	3.0	20.0	105	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,1,2,2-Tetrachloroethane	N.D	18.5	--	µg/L	1.2	3.0	20.0	92.4	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,1,2-Trichloroethane	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,1-Dichloroethane	N.D	23.2	--	µg/L	2.0	3.0	20.0	116	80	120	N/A	N/A	03/13/18	12:36	NIVA

QUALITY CONTROL SUMMARY

1,1-Dichloroethene	N.D	22.0	--	µg/L	1.2	3.0	20.0	110	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,1-Dichloropropene	N.D	22.3	--	µg/L	1.4	3.0	20.0	112	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2,3-Trichlorobenzene	N.D	16.0	--	µg/L	1.2	3.0	20.0	80.2	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2,3-Trichloropropane	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.7	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2,4-Trichlorobenzene	N.D	16.8	--	µg/L	1.2	3.0	20.0	83.9	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2,4-Trimethylbenzene	N.D	17.3	--	µg/L	1.2	3.0	20.0	86.5	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2-Dibromo-3-chloropropane	N.D	16.2	--	µg/L	1.2	3.0	20.0	80.8	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2-Dibromoethane	N.D	20.5	--	µg/L	1.2	3.0	20.0	102	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2-Dichloroethane	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,2-Dichloropropane	N.D	20.1	--	µg/L	1.2	3.0	20.0	101	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,3,5-Trimethylbenzene	N.D	18.2	--	µg/L	1.2	3.0	20.0	91.1	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,3-Dichlorobenzene	N.D	16.4	--	µg/L	1.2	3.0	20.0	82.1	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,3-Dichloropropane	N.D	21.2	--	µg/L	2.0	3.0	20.0	106	80	120	N/A	N/A	03/13/18	12:36	NIVA
1,4-Dichlorobenzene	N.D	18.6	--	µg/L	1.2	3.0	20.0	93.1	80	120	N/A	N/A	03/13/18	12:36	NIVA
1-Chlorohexane	N.D	21.6	--	µg/L	1.5	3.0	20.0	108	80	120	N/A	N/A	03/13/18	12:36	NIVA
2,2-Dichloropropane	N.D	20.6	--	µg/L	1.2	3.0	20.0	103	80	120	N/A	N/A	03/13/18	12:36	NIVA
2-Butanone	N.D	99.0	--	µg/L	6.0	15.0	100	99.0	80	120	N/A	N/A	03/13/18	12:36	NIVA
2-Chloroethyl vinyl ether	N.D	89.8	--	µg/L	6.0	15.0	100	89.8	80	120	N/A	N/A	03/13/18	12:36	NIVA
2-Chlorotoluene	N.D	17.1	--	µg/L	1.4	3.0	20.0	85.7	80	120	N/A	N/A	03/13/18	12:36	NIVA
2-Hexanone	N.D	101.1	--	µg/L	6.0	15.0	100	101	80	120	N/A	N/A	03/13/18	12:36	NIVA
4-Bromofluorobenzene-SURR	18.1	18.4	--	µg/L	N/A	N/A	20.0	91.9	79	121	N/A	N/A	03/13/18	12:36	NIVA
4-Chlorotoluene	N.D	17.2	--	µg/L	1.2	3.0	20.0	86.1	80	120	N/A	N/A	03/13/18	12:36	NIVA
4-Isopropyltoluene	N.D	17.4	--	µg/L	1.4	3.0	20.0	87.2	80	120	N/A	N/A	03/13/18	12:36	NIVA
4-Methyl-2-pentanone	N.D	113.7	--	µg/L	6.0	15.0	100	114	80	120	N/A	N/A	03/13/18	12:36	NIVA
Acetone	N.D	120.9	Q	µg/L	6.0	15.0	100	121	80	120	N/A	N/A	03/13/18	12:36	NIVA
Acrolein	N.D	444.8	--	µg/L	25.0	75.0	500	89.0	80	120	N/A	N/A	03/13/18	12:36	NIVA
Acrylonitrile	N.D	89.4	--	µg/L	6.0	15.0	100	89.4	80	120	N/A	N/A	03/13/18	12:36	NIVA
Benzene	N.D	21.8	--	µg/L	1.2	3.0	20.0	109	80	120	N/A	N/A	03/13/18	12:36	NIVA
Bromobenzene	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.3	80	120	N/A	N/A	03/13/18	12:36	NIVA
Bromochloromethane	N.D	22.2	--	µg/L	1.2	3.0	20.0	111	80	120	N/A	N/A	03/13/18	12:36	NIVA
Bromodichloromethane	N.D	23.5	--	µg/L	1.2	3.0	20.0	117	80	120	N/A	N/A	03/13/18	12:36	NIVA

QUALITY CONTROL SUMMARY

Bromoform	N.D	16.4	--	µg/L	1.2	3.0	20.0	82.1	80	120	N/A	N/A	03/13/18	12:36	NIVA
Bromomethane	N.D	22.8	--	µg/L	2.0	3.0	20.0	114	80	120	N/A	N/A	03/13/18	12:36	NIVA
Carbon disulfide	N.D	120.2	--	µg/L	7.0	15.0	100	120	80	120	N/A	N/A	03/13/18	12:36	NIVA
Carbon tetrachloride	N.D	22.2	--	µg/L	1.2	3.0	20.0	111	80	120	N/A	N/A	03/13/18	12:36	NIVA
Chlorobenzene	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.6	80	120	N/A	N/A	03/13/18	12:36	NIVA
Chloroethane	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	80	120	N/A	N/A	03/13/18	12:36	NIVA
Chloroform	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	80	120	N/A	N/A	03/13/18	12:36	NIVA
Chloromethane	N.D	21.3	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	03/13/18	12:36	NIVA
Dibromochloromethane	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	80	120	N/A	N/A	03/13/18	12:36	NIVA
Dibromofluoromethane-SURR	21.7	22.3	--	µg/L	N/A	N/A	20.0	111	83	120	N/A	N/A	03/13/18	12:36	NIVA
Dibromomethane	N.D	19.8	--	µg/L	1.5	3.0	20.0	98.9	80	120	N/A	N/A	03/13/18	12:36	NIVA
Dichlorodifluoromethane	N.D	23.2	--	µg/L	1.2	3.0	20.0	116	80	120	N/A	N/A	03/13/18	12:36	NIVA
Dichloromethane	N.D	22.0	--	µg/L	1.2	3.0	20.0	110	80	120	N/A	N/A	03/13/18	12:36	NIVA
Epichlorohydrin	N.D	574.9	--	µg/L	30.0	75.0	500	115	80	120	N/A	N/A	03/13/18	12:36	NIVA
Ethylbenzene	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.3	80	120	N/A	N/A	03/13/18	12:36	NIVA
Hexachlorobutadiene	N.D	18.7	--	µg/L	1.4	3.0	20.0	93.6	80	120	N/A	N/A	03/13/18	12:36	NIVA
Iodomethane	N.D	123.9	Q	µg/L	8.0	15.0	100	124	80	120	N/A	N/A	03/13/18	12:36	NIVA
Isopropylbenzene	N.D	16.4	--	µg/L	2.0	3.0	20.0	81.9	80	120	N/A	N/A	03/13/18	12:36	NIVA
Naphthalene	N.D	17.5	--	µg/L	2.0	3.0	20.0	87.3	80	120	N/A	N/A	03/13/18	12:36	NIVA
Styrene	N.D	16.6	--	µg/L	1.2	3.0	20.0	83.1	80	120	N/A	N/A	03/13/18	12:36	NIVA
Tetrachloroethene	N.D	23.2	--	µg/L	1.2	3.0	20.0	116	80	120	N/A	N/A	03/13/18	12:36	NIVA
Tetrahydrofuran	N.D	17.0	--	µg/L	1.2	3.0	20.0	84.9	80	120	N/A	N/A	03/13/18	12:36	NIVA
Toluene	N.D	20.7	--	µg/L	1.2	3.0	20.0	103	80	120	N/A	N/A	03/13/18	12:36	NIVA
Toluene-d8-SURR	20.7	23.0	--	µg/L	N/A	N/A	20.0	115	80	116	N/A	N/A	03/13/18	12:36	NIVA
Trichloroethene	N.D	21.3	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	03/13/18	12:36	NIVA
Trichlorofluoromethane	N.D	22.6	--	µg/L	1.5	3.0	20.0	113	80	120	N/A	N/A	03/13/18	12:36	NIVA
Vinyl Acetate	N.D	108.0	--	µg/L	6.0	15.0	100	108	80	120	N/A	N/A	03/13/18	12:36	NIVA
Vinyl chloride	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	80	120	N/A	N/A	03/13/18	12:36	NIVA
cis-1,2-Dichloroethene	N.D	17.4	--	µg/L	1.2	3.0	20.0	86.8	80	120	N/A	N/A	03/13/18	12:36	NIVA
cis-1,3-Dichloropropene	N.D	20.8	--	µg/L	1.2	3.0	20.0	104	80	120	N/A	N/A	03/13/18	12:36	NIVA
m,p-Xylene	N.D	35.1	--	µg/L	1.8	6.0	40.0	87.7	80	120	N/A	N/A	03/13/18	12:36	NIVA

QUALITY CONTROL SUMMARY

n-Butylbenzene	N.D	17.9	--	µg/L	1.2	3.0	20.0	89.7	80	120	N/A	N/A	03/13/18	12:36	NIVA
n-Propylbenzene	N.D	17.9	--	µg/L	1.2	3.0	20.0	89.4	80	120	N/A	N/A	03/13/18	12:36	NIVA
o-Dichlorobenzene	N.D	17.6	--	µg/L	1.0	3.0	20.0	88.0	80	120	N/A	N/A	03/13/18	12:36	NIVA
o-Xylene	N.D	17.0	--	µg/L	2.3	3.0	20.0	85.0	80	120	N/A	N/A	03/13/18	12:36	NIVA
sec-Butylbenzene	N.D	18.1	--	µg/L	1.2	3.0	20.0	90.4	80	120	N/A	N/A	03/13/18	12:36	NIVA
tert-Butylbenzene	N.D	17.3	--	µg/L	1.2	3.0	20.0	86.5	80	120	N/A	N/A	03/13/18	12:36	NIVA
trans-1,2-Dichloroethene	N.D	23.8	--	µg/L	1.2	3.0	20.0	119	80	120	N/A	N/A	03/13/18	12:36	NIVA
trans-1,3-Dichloropropene	N.D	21.7	--	µg/L	1.2	3.0	20.0	108	80	120	N/A	N/A	03/13/18	12:36	NIVA
trans-1,4-Dichloro-2-butene	N.D	114.3	--	µg/L	6.0	15.0	100	114	80	120	N/A	N/A	03/13/18	12:36	NIVA

2819487 - DUP
Reference Sample Number is: 2819486

							Accuracy				Precision				
									Acceptance Criteria			Acceptance Criteria	Analysis		
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,1,1-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,1,2,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,1,2-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,1-Dichloroethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,1-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,1-Dichloropropene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2,3-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2,3-Trichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2,4-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2,4-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2-Dibromo-3-chloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2-Dibromoethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2-Dichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,3,5-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,3-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA

QUALITY CONTROL SUMMARY

1,3-Dichloropropane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1,4-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
1-Chlorohexane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
2,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
2-Butanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
2-Chloroethyl vinyl ether	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
2-Chlorotoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
2-Hexanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
4-Bromofluorobenzene-SURR	18.1	18.1	--	µg/L	N/A	N/A	20.00	90.4	71	125	N/A	N/A	03/13/18	19:38	NIVA
4-Chlorotoluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
4-Isopropyltoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
4-Methyl-2-pentanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Acetone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Acrolein	N.D	N.D	U	µg/L	25.0	75.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Acrylonitrile	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Benzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Bromobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Bromochloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Bromodichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Bromoform	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Bromomethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Carbon disulfide	N.D	N.D	U	µg/L	7.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Carbon tetrachloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Chlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Chloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Chloroform	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Chloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Dibromochloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Dibromofluoromethane-SURR	21.7	21.9	--	µg/L	N/A	N/A	20.00	110	76	123	N/A	N/A	03/13/18	19:38	NIVA
Dibromomethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Dichlorodifluoromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA

QUALITY CONTROL SUMMARY

Dichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Epichlorohydrin	N.D	N.D	U	µg/L	30.0	75.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Ethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Hexachlorobutadiene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Iodomethane	N.D	N.D	U	µg/L	8.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Isopropylbenzene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Naphthalene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Styrene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Tetrachloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Tetrahydrofuran	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Toluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Toluene-d8-SURR	20.7	20.7	--	µg/L	N/A	N/A	20.00	104	77	122	N/A	N/A	03/13/18	19:38	NIVA
Trichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Trichlorofluoromethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Vinyl Acetate	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
Vinyl chloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
cis-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
cis-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
m,p-Xylene	N.D	N.D	U	µg/L	1.8	6.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
n-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
n-Propylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
o-Dichlorobenzene	N.D	N.D	U	µg/L	1.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
o-Xylene	N.D	N.D	U	µg/L	2.3	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
sec-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
tert-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
trans-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
trans-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA
trans-1,4-Dichloro-2-butene	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	03/13/18	19:38	NIVA

QUALITY CONTROL SUMMARY

2819488 - MS
Reference Sample Number is: 2819486

Analyte Name	Reference Result	QC Result	DQ	Units	MDL	MRL	Accuracy A/A	Accuracy Rec. %	Acceptance Criteria Low Limit	Acceptance Criteria High Limit	Precision RPD	Acceptance Criteria High Limit	Analysis Date	Analysis Time	Analysis By
1,1,1,2-Tetrachloroethane	N.D	19.8	--	µg/L	1.2	3.0	20.0	99.0	67	124	N/A	N/A	03/13/18	20:04	NIVA
1,1,1-Trichloroethane	N.D	22.3	--	µg/L	1.2	3.0	20.0	112	69	140	N/A	N/A	03/13/18	20:04	NIVA
1,1,2,2-Tetrachloroethane	N.D	16.8	--	µg/L	1.2	3.0	20.0	84.0	64	122	N/A	N/A	03/13/18	20:04	NIVA
1,1,2-Trichloroethane	N.D	20.3	--	µg/L	1.2	3.0	20.0	102	78	125	N/A	N/A	03/13/18	20:04	NIVA
1,1-Dichloroethane	N.D	20.0	--	µg/L	2.0	3.0	20.0	100	56	141	N/A	N/A	03/13/18	20:04	NIVA
1,1-Dichloroethene	N.D	22.5	--	µg/L	1.2	3.0	20.0	113	44	155	N/A	N/A	03/13/18	20:04	NIVA
1,1-Dichloropropene	N.D	21.5	--	µg/L	1.4	3.0	20.0	108	83	110	N/A	N/A	03/13/18	20:04	NIVA
1,2,3-Trichlorobenzene	N.D	16.6	--	µg/L	1.2	3.0	20.0	83.0	71	119	N/A	N/A	03/13/18	20:04	NIVA
1,2,3-Trichloropropane	N.D	16.3	--	µg/L	1.2	3.0	20.0	81.5	47	131	N/A	N/A	03/13/18	20:04	NIVA
1,2,4-Trichlorobenzene	N.D	16.7	--	µg/L	1.2	3.0	20.0	83.5	53	139	N/A	N/A	03/13/18	20:04	NIVA
1,2,4-Trimethylbenzene	N.D	17.0	--	µg/L	1.2	3.0	20.0	84.8	52	141	N/A	N/A	03/13/18	20:04	NIVA
1,2-Dibromo-3-chloropropane	N.D	15.1	--	µg/L	1.2	3.0	20.0	75.7	67	140	N/A	N/A	03/13/18	20:04	NIVA
1,2-Dibromoethane	N.D	19.1	--	µg/L	1.2	3.0	20.0	95.6	66	140	N/A	N/A	03/13/18	20:04	NIVA
1,2-Dichloroethane	N.D	20.4	--	µg/L	1.2	3.0	20.0	102	60	139	N/A	N/A	03/13/18	20:04	NIVA
1,2-Dichloropropane	N.D	19.6	--	µg/L	1.2	3.0	20.0	98.0	71	121	N/A	N/A	03/13/18	20:04	NIVA
1,3,5-Trimethylbenzene	N.D	17.9	--	µg/L	1.2	3.0	20.0	89.4	61	125	N/A	N/A	03/13/18	20:04	NIVA
1,3-Dichlorobenzene	N.D	16.0	--	µg/L	1.2	3.0	20.0	79.8	61	129	N/A	N/A	03/13/18	20:04	NIVA
1,3-Dichloropropane	N.D	19.3	--	µg/L	2.0	3.0	20.0	96.4	69	124	N/A	N/A	03/13/18	20:04	NIVA
1,4-Dichlorobenzene	N.D	18.6	--	µg/L	1.2	3.0	20.0	93.0	73	122	N/A	N/A	03/13/18	20:04	NIVA
1-Chlorohexane	N.D	19.7	--	µg/L	1.5	3.0	20.0	98.4	48	136	N/A	N/A	03/13/18	20:04	NIVA
2,2-Dichloropropane	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	13	157	N/A	N/A	03/13/18	20:04	NIVA
2-Butanone	N.D	88.5	--	µg/L	6.0	15.0	100	88.5	43	151	N/A	N/A	03/13/18	20:04	NIVA
2-Chloroethyl vinyl ether	N.D	BDL	Q	µg/L	6.0	15.0	100	0.00	10	178	N/A	N/A	03/13/18	20:04	NIVA
2-Chlorotoluene	N.D	17.0	--	µg/L	1.4	3.0	20.0	85.1	64	139	N/A	N/A	03/13/18	20:04	NIVA
2-Hexanone	N.D	78.0	--	µg/L	6.0	15.0	100	78.0	53	147	N/A	N/A	03/13/18	20:04	NIVA
4-Bromofluorobenzene-SURR	18.1	18.4	--	µg/L	N/A	N/A	20.00	91.8	71	125	N/A	N/A	03/13/18	20:04	NIVA
4-Chlorotoluene	N.D	16.8	--	µg/L	1.2	3.0	20.0	84.2	64	128	N/A	N/A	03/13/18	20:04	NIVA

QUALITY CONTROL SUMMARY

4-Isopropyltoluene	N.D	18.0	--	µg/L	1.4	3.0	20.0	89.8	66	129	N/A	N/A	03/13/18	20:04	NIVA
4-Methyl-2-pentanone	N.D	87.8	--	µg/L	6.0	15.0	100	87.8	57	143	N/A	N/A	03/13/18	20:04	NIVA
Acetone	N.D	84.8	--	µg/L	6.0	15.0	100	84.8	33	154	N/A	N/A	03/13/18	20:04	NIVA
Acrolein	N.D	364.0	--	µg/L	25.0	75.0	500	72.8	47	157	N/A	N/A	03/13/18	20:04	NIVA
Acrylonitrile	N.D	83.6	--	µg/L	6.0	15.0	100	83.6	34	160	N/A	N/A	03/13/18	20:04	NIVA
Benzene	N.D	20.6	--	µg/L	1.2	3.0	20.0	103	65	139	N/A	N/A	03/13/18	20:04	NIVA
Bromobenzene	N.D	17.4	--	µg/L	1.2	3.0	20.0	87.1	64	120	N/A	N/A	03/13/18	20:04	NIVA
Bromochloromethane	N.D	21.6	--	µg/L	1.2	3.0	20.0	108	49	150	N/A	N/A	03/13/18	20:04	NIVA
Bromodichloromethane	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	64	141	N/A	N/A	03/13/18	20:04	NIVA
Bromoform	N.D	15.6	--	µg/L	1.2	3.0	20.0	77.8	61	132	N/A	N/A	03/13/18	20:04	NIVA
Bromomethane	N.D	23.2	--	µg/L	2.0	3.0	20.0	116	35	163	N/A	N/A	03/13/18	20:04	NIVA
Carbon disulfide	N.D	109.2	--	µg/L	7.0	15.0	100	109	48	158	N/A	N/A	03/13/18	20:04	NIVA
Carbon tetrachloride	N.D	23.6	--	µg/L	1.2	3.0	20.0	118	73	137	N/A	N/A	03/13/18	20:04	NIVA
Chlorobenzene	N.D	18.4	--	µg/L	1.2	3.0	20.0	92.1	68	121	N/A	N/A	03/13/18	20:04	NIVA
Chloroethane	N.D	23.8	--	µg/L	1.2	3.0	20.0	119	50	142	N/A	N/A	03/13/18	20:04	NIVA
Chloroform	N.D	23.1	--	µg/L	1.2	3.0	20.0	116	59	140	N/A	N/A	03/13/18	20:04	NIVA
Chloromethane	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	42	139	N/A	N/A	03/13/18	20:04	NIVA
Dibromochloromethane	N.D	18.9	--	µg/L	1.2	3.0	20.0	94.7	67	137	N/A	N/A	03/13/18	20:04	NIVA
Dibromofluoromethane-SURR	21.7	22.8	--	µg/L	N/A	N/A	20.00	114	76	123	N/A	N/A	03/13/18	20:04	NIVA
Dibromomethane	N.D	19.6	--	µg/L	1.5	3.0	20.0	98.1	72	139	N/A	N/A	03/13/18	20:04	NIVA
Dichlorodifluoromethane	N.D	22.8	--	µg/L	1.2	3.0	20.0	114	42	157	N/A	N/A	03/13/18	20:04	NIVA
Dichloromethane	N.D	23.7	--	µg/L	1.2	3.0	20.0	118	56	135	N/A	N/A	03/13/18	20:04	NIVA
Epichlorohydrin	N.D	380.7	--	µg/L	30.0	75.0	500	76.1	37	129	N/A	N/A	03/13/18	20:04	NIVA
Ethylbenzene	N.D	18.8	--	µg/L	1.2	3.0	20.0	94.1	58	136	N/A	N/A	03/13/18	20:04	NIVA
Hexachlorobutadiene	N.D	18.1	--	µg/L	1.4	3.0	20.0	90.7	62	124	N/A	N/A	03/13/18	20:04	NIVA
Iodomethane	N.D	122.9	--	µg/L	8.0	15.0	100	123	45	148	N/A	N/A	03/13/18	20:04	NIVA
Isopropylbenzene	N.D	17.3	--	µg/L	2.0	3.0	20.0	86.4	64	122	N/A	N/A	03/13/18	20:04	NIVA
Naphthalene	N.D	14.3	--	µg/L	2.0	3.0	20.0	71.3	66	135	N/A	N/A	03/13/18	20:04	NIVA
Styrene	N.D	16.7	--	µg/L	1.2	3.0	20.0	83.7	65	123	N/A	N/A	03/13/18	20:04	NIVA
Tetrachloroethene	N.D	21.8	--	µg/L	1.2	3.0	20.0	109	64	138	N/A	N/A	03/13/18	20:04	NIVA
Tetrahydrofuran	N.D	17.5	--	µg/L	1.2	3.0	20.0	87.6	51	147	N/A	N/A	03/13/18	20:04	NIVA

QUALITY CONTROL SUMMARY

Toluene	N.D	19.4	--	µg/L	1.2	3.0	20.0	96.9	65	140	N/A	N/A	03/13/18	20:04	NIVA
Toluene-d8-SURR	20.7	21.1	--	µg/L	N/A	N/A	20.00	105	77	122	N/A	N/A	03/13/18	20:04	NIVA
Trichloroethene	N.D	21.1	--	µg/L	1.2	3.0	20.0	106	76	126	N/A	N/A	03/13/18	20:04	NIVA
Trichlorofluoromethane	N.D	23.2	--	µg/L	1.5	3.0	20.0	116	60	144	N/A	N/A	03/13/18	20:04	NIVA
Vinyl Acetate	N.D	82.5	--	µg/L	6.0	15.0	100	82.5	52	141	N/A	N/A	03/13/18	20:04	NIVA
Vinyl chloride	N.D	23.2	--	µg/L	1.2	3.0	20.0	116	39	151	N/A	N/A	03/13/18	20:04	NIVA
cis-1,2-Dichloroethene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	66	127	N/A	N/A	03/13/18	20:04	NIVA
cis-1,3-Dichloropropene	N.D	17.1	--	µg/L	1.2	3.0	20.0	85.7	57	131	N/A	N/A	03/13/18	20:04	NIVA
m,p-Xylene	N.D	35.4	--	µg/L	1.8	6.0	40.0	88.4	56	145	N/A	N/A	03/13/18	20:04	NIVA
n-Butylbenzene	N.D	17.5	--	µg/L	1.2	3.0	20.0	87.6	72	114	N/A	N/A	03/13/18	20:04	NIVA
n-Propylbenzene	N.D	17.9	--	µg/L	1.2	3.0	20.0	89.6	61	123	N/A	N/A	03/13/18	20:04	NIVA
o-Dichlorobenzene	N.D	18.0	--	µg/L	1.0	3.0	20.0	90.0	73	124	N/A	N/A	03/13/18	20:04	NIVA
o-Xylene	N.D	16.5	--	µg/L	2.3	3.0	20.0	82.4	54	143	N/A	N/A	03/13/18	20:04	NIVA
sec-Butylbenzene	N.D	17.5	--	µg/L	1.2	3.0	20.0	87.6	64	114	N/A	N/A	03/13/18	20:04	NIVA
tert-Butylbenzene	N.D	17.3	--	µg/L	1.2	3.0	20.0	86.7	68	113	N/A	N/A	03/13/18	20:04	NIVA
trans-1,2-Dichloroethene	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	56	146	N/A	N/A	03/13/18	20:04	NIVA
trans-1,3-Dichloropropene	N.D	17.7	--	µg/L	1.2	3.0	20.0	88.5	59	130	N/A	N/A	03/13/18	20:04	NIVA
trans-1,4-Dichloro-2-butene	N.D	103.3	--	µg/L	6.0	15.0	100	103	47	129	N/A	N/A	03/13/18	20:04	NIVA

2819489 - MSD
Reference Sample Number is: 2819486

							Accuracy				Precision				
									Acceptance Criteria			Acceptance Criteria	Analysis		
Analyte Name	Reference Result	QC Result	DQ	Units	MDL	MRL	A/A	Rec. %	Low Limit	High Limit	RPD	High Limit	Date	Time	By
1,1,1,2-Tetrachloroethane	N.D	20.3	--	µg/L	1.2	3.0	20.0	102	67	124	2.49	20	03/13/18	20:30	NIVA
1,1,1-Trichloroethane	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	69	140	3.09	20	03/13/18	20:30	NIVA
1,1,2,2-Tetrachloroethane	N.D	17.3	--	µg/L	1.2	3.0	20.0	86.5	64	122	2.93	20	03/13/18	20:30	NIVA
1,1,2-Trichloroethane	N.D	20.9	--	µg/L	1.2	3.0	20.0	105	78	125	2.91	20	03/13/18	20:30	NIVA
1,1-Dichloroethane	N.D	20.1	--	µg/L	2.0	3.0	20.0	101	56	141	0.499	20	03/13/18	20:30	NIVA
1,1-Dichloroethene	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	44	155	0.885	20	03/13/18	20:30	NIVA
1,1-Dichloropropene	N.D	22.1	Q	µg/L	1.4	3.0	20.0	111	83	110	2.75	20	03/13/18	20:30	NIVA
1,2,3-Trichlorobenzene	N.D	17.7	--	µg/L	1.2	3.0	20.0	88.5	71	119	6.41	20	03/13/18	20:30	NIVA

QUALITY CONTROL SUMMARY

1,2,3-Trichloropropane	N.D	16.6	--	µg/L	1.2	3.0	20.0	83.0	47	131	1.82	20	03/13/18	20:30	NIVA
1,2,4-Trichlorobenzene	N.D	17.6	--	µg/L	1.2	3.0	20.0	88.0	53	139	5.25	20	03/13/18	20:30	NIVA
1,2,4-Trimethylbenzene	N.D	17.4	--	µg/L	1.2	3.0	20.0	87.0	52	141	2.33	20	03/13/18	20:30	NIVA
1,2-Dibromo-3-chloropropane	N.D	16.0	--	µg/L	1.2	3.0	20.0	80.0	67	140	5.79	20	03/13/18	20:30	NIVA
1,2-Dibromoethane	N.D	19.5	--	µg/L	1.2	3.0	20.0	97.5	66	140	2.07	20	03/13/18	20:30	NIVA
1,2-Dichloroethane	N.D	20.8	--	µg/L	1.2	3.0	20.0	104	60	139	1.94	20	03/13/18	20:30	NIVA
1,2-Dichloropropane	N.D	20.2	--	µg/L	1.2	3.0	20.0	101	71	121	3.02	20	03/13/18	20:30	NIVA
1,3,5-Trimethylbenzene	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.5	61	125	2.21	20	03/13/18	20:30	NIVA
1,3-Dichlorobenzene	N.D	16.7	--	µg/L	1.2	3.0	20.0	83.5	61	129	4.28	20	03/13/18	20:30	NIVA
1,3-Dichloropropane	N.D	19.7	--	µg/L	2.0	3.0	20.0	98.5	69	124	N.C.	20	03/13/18	20:30	NIVA
1,4-Dichlorobenzene	N.D	19.6	--	µg/L	1.2	3.0	20.0	98.0	73	122	5.24	20	03/13/18	20:30	NIVA
1-Chlorohexane	N.D	20.9	--	µg/L	1.5	3.0	20.0	105	48	136	5.91	20	03/13/18	20:30	NIVA
2,2-Dichloropropane	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	13	157	1.41	20	03/13/18	20:30	NIVA
2-Butanone	N.D	89.3	--	µg/L	6.0	15.0	100	89.3	43	151	0.900	20	03/13/18	20:30	NIVA
2-Chloroethyl vinyl ether	N.D	N.D.	U	µg/L	6.0	15.0	100	N/A	10	178	N/A	20	03/13/18	20:30	NIVA
2-Chlorotoluene	N.D	17.5	--	µg/L	1.4	3.0	20.0	87.5	64	139	2.90	20	03/13/18	20:30	NIVA
2-Hexanone	N.D	79.9	--	µg/L	6.0	15.0	100	79.9	53	147	2.41	20	03/13/18	20:30	NIVA
4-Bromofluorobenzene-SURR	18.1	18.3	--	µg/L	N/A	N/A	20.00	91.4	71	125	N/A	N/A	03/13/18	20:30	NIVA
4-Chlorotoluene	N.D	17.6	--	µg/L	1.2	3.0	20.0	88.0	64	128	4.65	20	03/13/18	20:30	NIVA
4-Isopropyltoluene	N.D	18.7	--	µg/L	1.4	3.0	20.0	93.5	66	129	3.82	20	03/13/18	20:30	NIVA
4-Methyl-2-pentanone	N.D	89.8	--	µg/L	6.0	15.0	100	89.8	57	143	2.25	20	03/13/18	20:30	NIVA
Acetone	N.D	86.1	--	µg/L	6.0	15.0	100	86.1	33	154	1.52	20	03/13/18	20:30	NIVA
Acrolein	N.D	362.4	--	µg/L	25.0	75.0	500	72.5	47	157	0.441	20	03/13/18	20:30	NIVA
Acrylonitrile	N.D	81.2	--	µg/L	6.0	15.0	100	81.2	34	160	2.91	20	03/13/18	20:30	NIVA
Benzene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	65	139	1.92	20	03/13/18	20:30	NIVA
Bromobenzene	N.D	18.0	--	µg/L	1.2	3.0	20.0	90.0	64	120	3.39	20	03/13/18	20:30	NIVA
Bromochloromethane	N.D	22.0	--	µg/L	1.2	3.0	20.0	110	49	150	1.84	20	03/13/18	20:30	NIVA
Bromodichloromethane	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	64	141	2.64	20	03/13/18	20:30	NIVA
Bromoform	N.D	16.1	--	µg/L	1.2	3.0	20.0	80.5	61	132	3.16	20	03/13/18	20:30	NIVA
Bromomethane	N.D	23.6	--	µg/L	2.0	3.0	20.0	118	35	163	1.71	20	03/13/18	20:30	NIVA
Carbon disulfide	N.D	111.0	--	µg/L	7.0	15.0	100	111	48	158	1.64	20	03/13/18	20:30	NIVA

QUALITY CONTROL SUMMARY

Carbon tetrachloride	N.D	24.2	--	µg/L	1.2	3.0	20.0	121	73	137	2.51	20	03/13/18	20:30	NIVA
Chlorobenzene	N.D	19.0	--	µg/L	1.2	3.0	20.0	95.0	68	121	3.21	20	03/13/18	20:30	NIVA
Chloroethane	N.D	24.1	--	µg/L	1.2	3.0	20.0	121	50	142	1.25	20	03/13/18	20:30	NIVA
Chloroform	N.D	23.4	--	µg/L	1.2	3.0	20.0	117	59	140	1.29	20	03/13/18	20:30	NIVA
Chloromethane	N.D	23.5	--	µg/L	1.2	3.0	20.0	118	42	139	3.91	20	03/13/18	20:30	NIVA
Dibromochloromethane	N.D	19.5	--	µg/L	1.2	3.0	20.0	97.5	67	137	3.13	20	03/13/18	20:30	NIVA
Dibromofluoromethane-SURR	21.7	22.8	--	µg/L	N/A	N/A	20.00	114	76	123	N/A	N/A	03/13/18	20:30	NIVA
Dibromomethane	N.D	20.2	--	µg/L	1.5	3.0	20.0	101	72	139	3.02	20	03/13/18	20:30	NIVA
Dichlorodifluoromethane	N.D	23.2	--	µg/L	1.2	3.0	20.0	116	42	157	1.74	20	03/13/18	20:30	NIVA
Dichloromethane	N.D	24.8	--	µg/L	1.2	3.0	20.0	124	56	135	4.54	20	03/13/18	20:30	NIVA
Epichlorohydrin	N.D	396.0	--	µg/L	30.0	75.0	500	79.2	37	129	3.94	20	03/13/18	20:30	NIVA
Ethylbenzene	N.D	19.5	--	µg/L	1.2	3.0	20.0	97.5	58	136	3.66	20	03/13/18	20:30	NIVA
Hexachlorobutadiene	N.D	19.5	--	µg/L	1.4	3.0	20.0	97.5	62	124	7.45	20	03/13/18	20:30	NIVA
Iodomethane	N.D	122.3	--	µg/L	8.0	15.0	100	122	45	148	0.489	20	03/13/18	20:30	NIVA
Isopropylbenzene	N.D	17.9	--	µg/L	2.0	3.0	20.0	89.5	64	122	N.C.	20	03/13/18	20:30	NIVA
Naphthalene	N.D	15.0	--	µg/L	2.0	3.0	20.0	75.0	66	135	N.C.	20	03/13/18	20:30	NIVA
Styrene	N.D	17.2	--	µg/L	1.2	3.0	20.0	86.0	65	123	2.95	20	03/13/18	20:30	NIVA
Tetrachloroethene	N.D	22.5	--	µg/L	1.2	3.0	20.0	113	64	138	3.16	20	03/13/18	20:30	NIVA
Tetrahydrofuran	N.D	17.5	--	µg/L	1.2	3.0	20.0	87.5	51	147	0.00	20	03/13/18	20:30	NIVA
Toluene	N.D	19.9	--	µg/L	1.2	3.0	20.0	99.5	65	140	2.55	20	03/13/18	20:30	NIVA
Toluene-d8-SURR	20.7	21.1	--	µg/L	N/A	N/A	20.00	106	77	122	N/A	N/A	03/13/18	20:30	NIVA
Trichloroethene	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	76	126	1.88	20	03/13/18	20:30	NIVA
Trichlorofluoromethane	N.D	24.5	--	µg/L	1.5	3.0	20.0	123	60	144	5.45	20	03/13/18	20:30	NIVA
Vinyl Acetate	N.D	89.3	--	µg/L	6.0	15.0	100	89.3	52	141	7.92	20	03/13/18	20:30	NIVA
Vinyl chloride	N.D	23.6	--	µg/L	1.2	3.0	20.0	118	39	151	1.71	20	03/13/18	20:30	NIVA
cis-1,2-Dichloroethene	N.D	21.3	--	µg/L	1.2	3.0	20.0	107	66	127	1.42	20	03/13/18	20:30	NIVA
cis-1,3-Dichloropropene	N.D	17.8	--	µg/L	1.2	3.0	20.0	89.0	57	131	4.01	20	03/13/18	20:30	NIVA
m,p-Xylene	N.D	36.4	--	µg/L	1.8	6.0	40.0	91.0	56	145	2.79	20	03/13/18	20:30	NIVA
n-Butylbenzene	N.D	18.6	--	µg/L	1.2	3.0	20.0	93.0	72	114	6.09	20	03/13/18	20:30	NIVA
n-Propylbenzene	N.D	18.5	--	µg/L	1.2	3.0	20.0	92.5	61	123	3.30	20	03/13/18	20:30	NIVA
o-Dichlorobenzene	N.D	18.6	--	µg/L	1.0	3.0	20.0	93.0	73	124	3.28	20	03/13/18	20:30	NIVA

QUALITY CONTROL SUMMARY

o-Xylene	N.D	17.1	--	µg/L	2.3	3.0	20.0	85.5	54	143	N.C.	20	03/13/18	20:30	NIVA
sec-Butylbenzene	N.D	18.4	--	µg/L	1.2	3.0	20.0	92.0	64	114	5.01	20	03/13/18	20:30	NIVA
tert-Butylbenzene	N.D	17.9	--	µg/L	1.2	3.0	20.0	89.5	68	113	3.41	20	03/13/18	20:30	NIVA
trans-1,2-Dichloroethene	N.D	22.5	--	µg/L	1.2	3.0	20.0	113	56	146	0.445	20	03/13/18	20:30	NIVA
trans-1,3-Dichloropropene	N.D	18.2	--	µg/L	1.2	3.0	20.0	91.0	59	130	2.79	20	03/13/18	20:30	NIVA
trans-1,4-Dichloro-2-butene	N.D	107.2	--	µg/L	6.0	15.0	100	107	47	129	3.71	20	03/13/18	20:30	NIVA

2825927 - LFB
Reference Sample Number is: 2819486

							Accuracy				Precision		Analysis		
									Acceptance Criteria			Acceptance Criteria			
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	19.9	--	µg/L	1.2	3.0	20.0	99.5	67	126	N/A	N/A	03/13/18	20:56	NIVA
1,1,1-Trichloroethane	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	64	139	N/A	N/A	03/13/18	20:56	NIVA
1,1,2,2-Tetrachloroethane	N.D	17.3	--	µg/L	1.2	3.0	20.0	86.5	60	131	N/A	N/A	03/13/18	20:56	NIVA
1,1,2-Trichloroethane	N.D	20.7	--	µg/L	1.2	3.0	20.0	104	70	129	N/A	N/A	03/13/18	20:56	NIVA
1,1-Dichloroethane	N.D	18.9	--	µg/L	2.0	3.0	20.0	94.5	63	133	N/A	N/A	03/13/18	20:56	NIVA
1,1-Dichloroethene	N.D	20.8	--	µg/L	1.2	3.0	20.0	104	55	139	N/A	N/A	03/13/18	20:56	NIVA
1,1-Dichloropropene	N.D	20.1	--	µg/L	1.4	3.0	20.0	101	67	131	N/A	N/A	03/13/18	20:56	NIVA
1,2,3-Trichlorobenzene	N.D	16.9	--	µg/L	1.2	3.0	20.0	84.5	68	131	N/A	N/A	03/13/18	20:56	NIVA
1,2,3-Trichloropropane	N.D	16.9	--	µg/L	1.2	3.0	20.0	84.5	52	131	N/A	N/A	03/13/18	20:56	NIVA
1,2,4-Trichlorobenzene	N.D	17.1	--	µg/L	1.2	3.0	20.0	85.5	51	132	N/A	N/A	03/13/18	20:56	NIVA
1,2,4-Trimethylbenzene	N.D	16.4	--	µg/L	1.2	3.0	20.0	82.0	63	129	N/A	N/A	03/13/18	20:56	NIVA
1,2-Dibromo-3-chloropropane	N.D	15.9	--	µg/L	1.2	3.0	20.0	79.5	66	139	N/A	N/A	03/13/18	20:56	NIVA
1,2-Dibromoethane	N.D	19.6	--	µg/L	1.2	3.0	20.0	98.0	76	126	N/A	N/A	03/13/18	20:56	NIVA
1,2-Dichloroethane	N.D	20.6	--	µg/L	1.2	3.0	20.0	103	60	136	N/A	N/A	03/13/18	20:56	NIVA
1,2-Dichloropropane	N.D	19.3	--	µg/L	1.2	3.0	20.0	96.5	70	124	N/A	N/A	03/13/18	20:56	NIVA
1,3,5-Trimethylbenzene	N.D	17.2	--	µg/L	1.2	3.0	20.0	86.0	68	123	N/A	N/A	03/13/18	20:56	NIVA
1,3-Dichlorobenzene	N.D	16.0	--	µg/L	1.2	3.0	20.0	80.0	62	127	N/A	N/A	03/13/18	20:56	NIVA
1,3-Dichloropropane	N.D	19.7	--	µg/L	2.0	3.0	20.0	98.5	74	124	N/A	N/A	03/13/18	20:56	NIVA
1,4-Dichlorobenzene	N.D	18.7	--	µg/L	1.2	3.0	20.0	93.5	73	123	N/A	N/A	03/13/18	20:56	NIVA
1-Chlorohexane	N.D	18.9	--	µg/L	1.5	3.0	20.0	94.5	56	139	N/A	N/A	03/13/18	20:56	NIVA

QUALITY CONTROL SUMMARY

2,2-Dichloropropane	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.5	37	148	N/A	N/A	03/13/18	20:56	NIVA
2-Butanone	N.D	88.7	--	µg/L	6.0	15.0	100	88.7	57	136	N/A	N/A	03/13/18	20:56	NIVA
2-Chloroethyl vinyl ether	N.D	82.7	--	µg/L	6.0	15.0	100	82.7	47	143	N/A	N/A	03/13/18	20:56	NIVA
2-Chlorotoluene	N.D	16.5	--	µg/L	1.4	3.0	20.0	82.5	66	127	N/A	N/A	03/13/18	20:56	NIVA
2-Hexanone	N.D	81.2	--	µg/L	6.0	15.0	100	81.2	62	136	N/A	N/A	03/13/18	20:56	NIVA
4-Bromofluorobenzene-SURR	18.1	18.5	--	µg/L	N/A	N/A	20.0	92.6	79	121	N/A	N/A	03/13/18	20:56	NIVA
4-Chlorotoluene	N.D	16.6	--	µg/L	1.2	3.0	20.0	83.0	63	125	N/A	N/A	03/13/18	20:56	NIVA
4-Isopropyltoluene	N.D	17.2	--	µg/L	1.4	3.0	20.0	86.0	68	131	N/A	N/A	03/13/18	20:56	NIVA
4-Methyl-2-pentanone	N.D	90.9	--	µg/L	6.0	15.0	100	90.9	62	135	N/A	N/A	03/13/18	20:56	NIVA
Acetone	N.D	85.1	--	µg/L	6.0	15.0	100	85.1	46	142	N/A	N/A	03/13/18	20:56	NIVA
Acrolein	N.D	384.1	--	µg/L	25.0	75.0	500	76.8	40	153	N/A	N/A	03/13/18	20:56	NIVA
Acrylonitrile	N.D	71.7	--	µg/L	6.0	15.0	100	71.7	53	141	N/A	N/A	03/13/18	20:56	NIVA
Benzene	N.D	19.8	--	µg/L	1.2	3.0	20.0	99.0	66	131	N/A	N/A	03/13/18	20:56	NIVA
Bromobenzene	N.D	17.4	--	µg/L	1.2	3.0	20.0	87.0	61	126	N/A	N/A	03/13/18	20:56	NIVA
Bromochloromethane	N.D	21.3	--	µg/L	1.2	3.0	20.0	107	60	133	N/A	N/A	03/13/18	20:56	NIVA
Bromodichloromethane	N.D	22.1	--	µg/L	1.2	3.0	20.0	111	72	129	N/A	N/A	03/13/18	20:56	NIVA
Bromoform	N.D	15.8	--	µg/L	1.2	3.0	20.0	79.0	61	130	N/A	N/A	03/13/18	20:56	NIVA
Bromomethane	N.D	22.1	--	µg/L	2.0	3.0	20.0	111	47	151	N/A	N/A	03/13/18	20:56	NIVA
Carbon disulfide	N.D	123.8	--	µg/L	7.0	15.0	100	124	58	140	N/A	N/A	03/13/18	20:56	NIVA
Carbon tetrachloride	N.D	22.1	--	µg/L	1.2	3.0	20.0	111	69	134	N/A	N/A	03/13/18	20:56	NIVA
Chlorobenzene	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.5	67	122	N/A	N/A	03/13/18	20:56	NIVA
Chloroethane	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	47	144	N/A	N/A	03/13/18	20:56	NIVA
Chloroform	N.D	22.3	--	µg/L	1.2	3.0	20.0	112	61	134	N/A	N/A	03/13/18	20:56	NIVA
Chloromethane	N.D	21.9	--	µg/L	1.2	3.0	20.0	110	43	142	N/A	N/A	03/13/18	20:56	NIVA
Dibromochloromethane	N.D	19.1	--	µg/L	1.2	3.0	20.0	95.5	69	134	N/A	N/A	03/13/18	20:56	NIVA
Dibromofluoromethane-SURR	21.7	22.8	--	µg/L	N/A	N/A	20.0	114	83	120	N/A	N/A	03/13/18	20:56	NIVA
Dibromomethane	N.D	20.2	--	µg/L	1.5	3.0	20.0	101	76	131	N/A	N/A	03/13/18	20:56	NIVA
Dichlorodifluoromethane	N.D	21.9	--	µg/L	1.2	3.0	20.0	110	49	145	N/A	N/A	03/13/18	20:56	NIVA
Dichloromethane	N.D	25.8	--	µg/L	1.2	3.0	20.0	129	62	129	N/A	N/A	03/13/18	20:56	NIVA
Epichlorohydrin	N.D	430.7	--	µg/L	30.0	75.0	500	86.1	52	134	N/A	N/A	03/13/18	20:56	NIVA
Ethylbenzene	N.D	18.0	--	µg/L	1.2	3.0	20.0	90.0	69	131	N/A	N/A	03/13/18	20:56	NIVA

QUALITY CONTROL SUMMARY

Hexachlorobutadiene	N.D	18.1	--	µg/L	1.4	3.0	20.0	90.5	51	139	N/A	N/A	03/13/18	20:56	NIVA
Iodomethane	N.D	114.7	--	µg/L	8.0	15.0	100	115	54	143	N/A	N/A	03/13/18	20:56	NIVA
Isopropylbenzene	N.D	16.6	--	µg/L	2.0	3.0	20.0	83.0	69	121	N/A	N/A	03/13/18	20:56	NIVA
Naphthalene	N.D	17.1	--	µg/L	2.0	3.0	20.0	85.5	71	134	N/A	N/A	03/13/18	20:56	NIVA
Styrene	N.D	16.5	--	µg/L	1.2	3.0	20.0	82.5	65	127	N/A	N/A	03/13/18	20:56	NIVA
Tetrachloroethene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	62	135	N/A	N/A	03/13/18	20:56	NIVA
Tetrahydrofuran	N.D	15.8	--	µg/L	1.2	3.0	20.0	79.0	67	134	N/A	N/A	03/13/18	20:56	NIVA
Toluene	N.D	18.9	--	µg/L	1.2	3.0	20.0	94.5	59	143	N/A	N/A	03/13/18	20:56	NIVA
Toluene-d8-SURR	20.7	21.7	--	µg/L	N/A	N/A	20.0	108	80	116	N/A	N/A	03/13/18	20:56	NIVA
Trichloroethene	N.D	20.1	--	µg/L	1.2	3.0	20.0	101	67	138	N/A	N/A	03/13/18	20:56	NIVA
Trichlorofluoromethane	N.D	19.6	--	µg/L	1.5	3.0	20.0	98.0	45	157	N/A	N/A	03/13/18	20:56	NIVA
Vinyl Acetate	N.D	100.2	--	µg/L	6.0	15.0	100	100	53	144	N/A	N/A	03/13/18	20:56	NIVA
Vinyl chloride	N.D	21.6	--	µg/L	1.2	3.0	20.0	108	52	140	N/A	N/A	03/13/18	20:56	NIVA
cis-1,2-Dichloroethene	N.D	19.9	--	µg/L	1.2	3.0	20.0	99.5	71	128	N/A	N/A	03/13/18	20:56	NIVA
cis-1,3-Dichloropropene	N.D	19.5	--	µg/L	1.2	3.0	20.0	97.5	63	125	N/A	N/A	03/13/18	20:56	NIVA
m,p-Xylene	N.D	34.2	--	µg/L	1.8	6.0	40.0	85.5	63	130	N/A	N/A	03/13/18	20:56	NIVA
n-Butylbenzene	N.D	17.2	--	µg/L	1.2	3.0	20.0	86.0	67	127	N/A	N/A	03/13/18	20:56	NIVA
n-Propylbenzene	N.D	17.2	--	µg/L	1.2	3.0	20.0	86.0	64	124	N/A	N/A	03/13/18	20:56	NIVA
o-Dichlorobenzene	N.D	17.8	--	µg/L	1.0	3.0	20.0	89.0	75	121	N/A	N/A	03/13/18	20:56	NIVA
o-Xylene	N.D	16.2	--	µg/L	2.3	3.0	20.0	81.0	66	124	N/A	N/A	03/13/18	20:56	NIVA
sec-Butylbenzene	N.D	16.8	--	µg/L	1.2	3.0	20.0	84.0	66	122	N/A	N/A	03/13/18	20:56	NIVA
tert-Butylbenzene	N.D	16.8	--	µg/L	1.2	3.0	20.0	84.0	65	126	N/A	N/A	03/13/18	20:56	NIVA
trans-1,2-Dichloroethene	N.D	21.1	--	µg/L	1.2	3.0	20.0	106	66	129	N/A	N/A	03/13/18	20:56	NIVA
trans-1,3-Dichloropropene	N.D	18.1	--	µg/L	1.2	3.0	20.0	90.5	60	131	N/A	N/A	03/13/18	20:56	NIVA
trans-1,4-Dichloro-2-butene	N.D	106.4	--	µg/L	6.0	15.0	100	106	53	123	N/A	N/A	03/13/18	20:56	NIVA

Footnotes:

Data Qualifiers (DQ) to be used by EQLab are listed below:

B – Analyte was detected in the blank.

D – Diluted Sample.

J – The reported result is an estimated value (e.g., matrix interference was observed or the analyte was detected at a concentration outside the quantitation range and/or final result was found between MDL and MRL).

N – Non-target analyte.

P – Does not meet preservation criteria (e.g. does not meet arrival temperature criteria or acid/base preservation criteria or incorrect container, among others).

Q – One or more quality control criteria failed (e.g., fails in Holding Time, LFB/LCS recovery, surrogate (SURR) spike recovery, matrix spike recovery or CCV recovery, out of RPD acceptance criteria among other).

R – Recognition Level. ND Results are reported "<PTRL" – Pattern Recognition Level (applicable for EPA 508 (PCB) mixtures (Aroclors), Toxaphene, and Chlordane only).

T –Thomas Formula (applicable for Microbiology testing only). The combination of positives tubes did not appear in Table 9221.IV. SM 9221C "Estimation of Bacterial Density"

U – Analyte was not detected and is reported as less than the MDL or as defined by the client. The MDL has been adjusted for any dilution or concentration of the sample.

Definitions:

A / A – Amount Added
ASTM – American Society for Testing and Materials
BDL – Below Detection Limit
CCB – Continues Calibration Blank
CCV – Continues Calibration Verification
DNI – Does not Ignite
DQ – Data Qualifiers
DUP – Duplicate
LRB – Laboratory Reagent Blank
MB – Method Blank
MCL – Maximum Contaminant Level
MDL – Method Detection Limit
MO – Monitoring Only
MRL – Minimum Reporting Limit
MS – Matrix Spike

EB/ ERB – Equipment Blank / Equipment Reagent Blank
EPA – Environmental Protection Agency
EQLab – Environmental Quality Laboratories, Inc.
FB – Field Blank
FD – Field Duplicate
FRB – Field Reagent Blank
ICB – Initial Calibration Blank
ICV – Initial Calibration Verification
LCS – Laboratory Control Sample
LFB – Laboratory Fortified Blank
LFBD – Laboratory Fortified Blank Duplicate
MSD – Matrix Spike Duplicate
N/A – Not Applicable
N.D. – Not Detected
NELAC – National Environmental Laboratory Accreditation Conference
PRDOH – Puerto Rico Department of Health
PTRL – Pattern Recognition Level
TB – Trip Blank
Rec. – Recovery
RPD – Relative Percent Difference
SM – Standard Method
SURR – Surrogate

Formulas:

1. The Relative Percent Difference (RPD) is calculated as follows:

RPD = { [/QC Final Result – Reference Final Result /] / [(QC Final Result + Reference Final Result) / 2] } X 100

RPD Micro = (log_10 QC Final Result) - (log_10 Reference Final Result) (Expressed as Precision)

The RPD applies to the following Quality Controls: DUP, MSD, LFBD. The RPD is reported N.C. when the QC Final Result is less than ten times the value of MDL. The RPD general acceptance criteria is as close to zero as possible; no more than 20% for all matrices except Solid / Soil which is < or = 40%.

2. The Recovery Percentage (% Rec) is calculated as follows:

%Rec = [(QC Final Result) / (QC Fortified Concentration)] X 100

3. For the MS and MSD Quality Controls, the Recovery Percentage (% Rec) is calculated as follows:

%Rec = [(QC Final Result - Reference Final Result) / (QC Fortified Concentration)] X 100

APPENDIX A
CHAIN OF CUSTODY DOCUMENTATION

ENVIRONMENTAL QUALITY LABORATORIES, INC.

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

2018-04429

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC CLIENT ID: 655-04 W.O. #: 26 SITE: GUAYAMA, PR CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 PWSID #: FOLDER #: 249258 PROJECT: GUAYAMA PROJECT EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2819486-1 MATRIX: GROUND WATER SOURCE: EFFLUENT, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819487-1 MATRIX: GROUND WATER DUP SOURCE: EFFLUENT-DUPLICATE, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819488-1 MATRIX: GROUND WATER MS SOURCE: EFFLUENT-MS, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819489-1 MATRIX: GROUND WATER MSD SOURCE: EFFLUENT-MSD, GUAYAMA, PR	DATE: 03/06/18 TIME: 1010 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	Andrés Colom	03/06/18	varias
Fixed in field by:	Andrés Colom	03/06/18	varias
Authorized by:	N/A	N/A	N/A
Received by EQLF:	[illegible]	03/06/18	1454
Released to EQLL by:	[illegible]	03/06/18	1454
Received by EQLL:	[illegible]	03/06/18	1454

SPECIAL INSTRUCTIONS / COMMENTS:

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature: [illegible]

Eqlab's general terms and conditions on reverse side of this document.

ENVIRONMENTAL QUALITY LABORATORIES, INC.

2018-04429

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC | CLIENT ID: 655-04 | W.O. #: 26 | SITE: GUAYAMA, PR | CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 | PWSID #: | FOLDER #: 249258 | PROJECT: GUAYAMA PROJECT | EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2819490-1 MATRIX: GROUND WATER SOURCE: INFLUENT, GUAYAMA, PR	DATE: 03/06/18 TIME: 0934 TYPE: Grab	TYPE: VIAL/TC COLOR: CLEAR VOLUME: PRESERVATIVE: HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2819491-1 MATRIX: DI WATER SOURCE: TRIP BLANK, GUAYAMA, PR	DATE: 03/06/18 TIME: LAB 0800 pm TYPE: Grab	TYPE: VIAL/TC COLOR: CLEAR VOLUME: PRESERVATIVE: HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	Andrés Colom	03/06/18	varias
Fixed in field by:	Andrés Colom	03/06/18	
Authorized by:			
Received by EQLF:			
Released to EQLL by:		03/06/18	1454
Received by EQLL:		03/06/18	1454

SPECIAL INSTRUCTIONS / COMMENTS:

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 30°C Signature:

Eqlab's general terms and conditions on reverse side of this document.

APPENDIX B
RAW DATA WORKSHEETS

ORGANICS DEPARTMENT
RAW DATA PACKAGE CHECKLIST

RUN NUMBER: 197091
197096

☑ 1. Run Cover Sheet general information check.

☑ 2. Check if the reagents and / or support equipment information are on the Pre-Run Worksheet.

☑ 3. Check if the Pre-Run Worksheet and the Run Cover Sheet are signed.

☑ 4. Check for the presence of:

Present	Not Applicable	
☐	☑	a. Markers
☐	☑	b. Pesticides Degradation
☐	☑	c. Calculated LPC
☑	☐	d. BFB
☐	☑	e. Tailing Factor
☐	☑	f. Height of Valley
☐	☑	g. Bromoform Degradation
☑	☐	h. %RFD
☐	☑	i. DFTPP
☐	☑	j. Other: N/A

☑ 5. Check for the attachment of the LIMS Run Worksheet.

☑ 6. Check for the attachment of the Initial Calibration and its RSD or Lineal Correlation calculation, if applicable.

Prepared by: N/A (Analyst) Date: N/A

Checked by: [signature] (Laboratory Group Leader) Date: 03-16-18

Approved by: [signature] (Supervisor) Date: 03-20-2018

ORGANICS DEPARTMENT
RUN COVER SHEET

Method Number	Run Number	Sequence Number	Sample prep by	Sample Setup by	Sample Evaluated by	Run Approved by
EPA 8260B VOC	197091	197091-96	NVILLANUEVA	NVILLANUEVA	NVILLANUEVA	NVILLANUEVA
624 VOC	197096		PR61355/61404			

Calib. Curve Name	NBK Reference	Description / Identification Number
8260VOC-JAN2-LIQ-18	NBK 090 Pg. 002	V7-AG7890MS
		PM Expiration Date: 10/2018

[X] LRB [X] BFB / LPC [ ] DFTPP / Degradation [X] ICV / CCS [ ] QCS [X] CCV / CCS [ ] PT

Amount µL	Solution Name	NBK Reference	Expiration Date	Solution Concentration ppm	Dilution Volume mL	Analyte Concentration µg/L
N/A	Agua para VOC	NBK 090 Pg. 011	N/A	N/A	N/A	N/A
1	p-Bromofluorobenzene	NBK 062 Pg. 089	4/23/2022	250	50	5
10	Mix 8260 & 624 VOC	NBK 090 Pg. 007	8/12/2018	100	50	20
10	Mix 8260 & 624 VOC Gases	NBK 090 Pg. 007	3/13/2018	100	50	20
5	SIM VOC	NBK 079 Pg. 092	6/1/2018	20	5	20

[ ] MB [X] MDL [ ] MRL [X] MS / LFM [X] MSD / LFMD [X] LFB [ ] LFBD

Amount µL	Solution Name	NBK Reference	Expiration Date	Solution Concentration ppm	Dilution Volume mL	Analyte Concentration µg/L
N/A	Agua para VOC	NBK 090 Pg. 011	N/A	N/A	N/A	N/A
0.5	Mix 8260 & 624 VOC	NBK 090 Pg. 007	8/12/2018	100	50	1
0.5	Mix 8260 & 624 VOC Gases	NBK 090 Pg. 007	3/13/2018	100	50	1
10	Mix 8260 & 624 VOC	NBK 090 Pg. 007	8/12/2018	100	50	20
10	Mix 8260 & 624 VOC Gases	NBK 090 Pg. 007	3/13/2018	100	50	20

SOP-QC-004 Accepted Exemption: [ ] # 1 [ ] # 2 [ ] # 3 [ ] # 4 [ ] # 5 [✓] # 6 [✓] # 7 [ ] # 8 [ ] # 9 [ ] # 10 [ ] # 11 [ ] # 12 [ ] # 13 [ ] # 14

Analysis and Reviewed by / Date:
Run and Preparation Controls are within acceptance criteria for method. Manual integrations were preformed according to QC-014
Discarded levels in Calibration Curve exceeded acceptance criteria for Initial Calibration according to QC-002 / Rev. 17. RFD of dis
2ND SOURCE DATA FILE: DATA\195537CC\553704.D NBK REF: 099 Pg. 002 (exp. 07/23/2018).
Manual integration reasons legend:
1- Poor integration by the computer data System.
2- Over-integration of peak due to noisy baseline.
3- Abnormal peak shapes that were not integrated completely.
4- Due to (RT) retention time variation.
Supervisor Review and Approval / Date: 03-20-2018 03-16-18

QA/QC Review and Approval / Date:

ENVIRONMENTAL QUALITY LABORATORIES, INC
P.O. Box 11458 San Juan, P.R. 00910-1458

Run Worksheet

For: Tuesday, March 13, 2018

[redacted]

Analyst: VILLANUEVA

Cup#	TYPE	ORDER#	METHOD	QC LINK	MATRIX	TEST NAME	PRE RUN	VOLUME	FINALVOL	WEIGHT
1	LRB	LRB/2825920-1		2819486	GROUND WATER	EPA 8260B VOC	--	--	--	--
2	MDL	MDL/2825922-1		2819486	GROUND WATER	EPA 8260B VOC	--	--	--	--
3	ICV	ICV/2825921-1		2819486	GROUND WATER	EPA 8260B VOC	--	--	--	--
4	TRIP BL	TRIP BLK/2819491-1 A			DI WATER	EPA 8260B VOC	PR61355	5	5	N/A
5		2820186-1 A	EPA 8260B		WASTEWATER	EPA 8260B VOC	PR61355	5	5	N/A
6		2820188-1 A	EPA 8260B		WASTEWATER	EPA 8260B VOC	PR61355	5	5	N/A
7		2822707-1 A	EPA 8260B		WASTEWATER	EPA 8260B VOC	PR61355	5	5	N/A
8		2822710-4 A	EPA 8260B		WASTEWATER	EPA 8260B VOC	PR61355	5	5	N/A
9		2825383-6 A DF=100	EPA 8260B DF=1,000		PETROLEUM PROD.	TCL 8260B VOC	PR61404	5	5	N/A
10		2825384-1 A DF=20	EPA 8260B		LIQUID	TCL 8260B VOC	PR61404	5	5	N/A
11	CCV	CCV/2829634-1				EPA 8260B VOC	--	--	--	--
12		2819490-1 A	EPA 8260B		GROUND WATER	EPA 8260B VOC	PR61355	5	5	N/A
13		2819486-1 A	EPA 8260B		GROUND WATER	EPA 8260B VOC	PR61355	5	5	N/A
14	DUP	DUP/2819487-1 A		2819486	GROUND WATER	EPA 8260B VOC	PR61355	5	5	N/A
15	MS	MS/2819488-1 A		2819486	GROUND WATER	EPA 8260B VOC	PR61355	5	5	N/A
16	MSD	MSD/2819489-1 A		2819486	GROUND WATER	EPA 8260B VOC	PR61355	5	5	N/A
17	LFB	LFB/2825927-1		2819486	GROUND WATER	EPA 8260B VOC	--	--	--	--
17	CCV	CCV/2829634-1				EPA 8260B EXT	--	--	--	--

Printed Date: 3/16/2018
4:23 pm

Run Worksheet

For: Tuesday, March 13, 2018

[redacted]

Analyst: VILLANUEVA

Cup#	TYPE	ORDER#	METHOD	QC LINK	MATRIX	TEST NAME	PRE RU
1	LRB	LRB/2825977-1		2822275	WASTEWATER	EPA 624 VOC	--
2	MDL	MDL/2825979-1		2822275	WASTEWATER	EPA 624 VOC	--
3	ICV	ICV/2825978-1		2822275	WASTEWATER	EPA 624 VOC	--
4		2817424-6 A	EPA 624		STORMWATER	EPA 624 VOC	--
5		2822275-3 A	EPA 624		WASTEWATER	TTO 624 VOC	--
6	LFB	LFB/2825981-1		2822275	WASTEWATER	EPA 624 VOC	--

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 61355

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

ORDNO	CUP NO	STATUS	MATRIX	METHOD	TESTS	PREP DATE	PREP BY	PREP TIME	COLLEC DATE	VOL. (mL)	FINAL VOLUME (mL)	WEIGHT (g)	pH init / final
2819491-1	1	Done	DI WATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	
2820186-1	2	Done	WASTEWATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	2/28/2018	5	5	N/A	
2819490-1	3	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	
2820188-1	4	Done	WASTEWATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	2/28/2018	5	5	N/A	
2822707-1	5	Done	WASTEWATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	
2822710-4	6	Done	WASTEWATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	
2819486-1	7	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	
2819487-1/DUP Linked to 2819486	8	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 61355

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

2819488-1/ MS Linked to 2819486	9	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	
2819489-1/ MSD Linked to 2819486	10	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	3/12/2018	VILLANUEV	10:03	3/6/2018	5	5	N/A	

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 61355

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

Solution Name: Lot #: N/A Refer. Notebook: N/A Amount Added: N/A Exp. Date: N/A

Prepered Sample(s) Transfered by / Date: N/A / NA

Prepared Sample(s) Received by / Date: [illegible] / 03-12-18

Comments:

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 61404

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

ORDNO	CUP NO	STATUS	MATRIX	METHOD	TESTS	PREP DATE	PREP BY	PREP TIME	COLLEC DATE	VOL. (mL)	FINAL VOLUME (mL)	WEIGHT (g)	pH init / final
2825383-6	4	Done	PETROLEUM PROD. LIQ.	EPA 3585	TCL 8260B VOC	3/13/2018	VILLANUEV	09:28	3/10/2018	5	5	N/A	
2825384-1	5	Done	LIQUID	EPA 3585	TCL 8260B VOC	3/13/2018	VILLANUEV	09:28	3/10/2018	5	5	N/A	

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 61404

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

Solution Name: Lot #: N/A Refer. Notebook: N/A Amount Added: N/A Exp. Date: N/A

Prepered Sample(s) Transfered by / Date: N/A / N/A

Prepared Sample(s) Received by / Date: [illegible] / 03-13-18

Comments:

Calibration Status Report V7-AG7890MS

Method Path : C:\msdchem\1\METHODS\
Method File : 8260VOC-JAN2-LIQ-18.M
Title : Analysis of VOC'S by EPA 8260B
Last Update : Thu Jan 25 13:53:13 2018
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	1	20	C:\msdchem\1\DATA\195537CC\8260BL01.D
2	2	3	20	C:\msdchem\1\DATA\195537CC\8260BL02.D
3	3	5	20	C:\msdchem\1\DATA\195537CC\8260BL03.D
4	4	10	20	C:\msdchem\1\DATA\195537CC\8260BL04.D
5	5	20	20	C:\msdchem\1\DATA\195537CC\8260BL05.D
6	6	50	20	C:\msdchem\1\DATA\195537CC\8260BL06.D
7	7	100	20	C:\msdchem\1\DATA\195537CC\8260BL07.D
8	8	200	20	C:\msdchem\1\DATA\195537CC\8260BL08.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Jan 25 11:56 2018	Jan 25 08:33 2018	24 Jan 2018 10:12 am
2	2	Jan 25 11:57 2018	Jan 25 11:48 2018	24 Jan 2018 10:39 am
3	3	Jan 25 11:57 2018	Jan 25 11:49 2018	24 Jan 2018 11:05 am
4	4	Jan 25 11:57 2018	Jan 25 11:51 2018	24 Jan 2018 11:32 am
5	5	Jan 25 11:57 2018	Jan 25 11:53 2018	24 Jan 2018 11:58 am
6	6	Jan 25 11:57 2018	Jan 25 11:54 2018	24 Jan 2018 12:25 pm
7	7	Jan 25 11:57 2018	Jan 25 11:55 2018	24 Jan 2018 12:51 pm
8	8	Jan 25 11:57 2018	Jan 25 11:56 2018	24 Jan 2018 1:18 pm

8260VOC-JAN2-LIQ-18.M Fri Mar 16 15:21:03 2018

Response Factor Report V7-AG7890MS

Method Path : C:\msdchem\1\METHODS\
Method File : 8260VOC-JAN2-LIQ-18.M
Title : Analysis of VOC'S by EPA 8260B
Last Update : Thu Jan 25 13:53:13 2018
Response Via : Initial Calibration

Calibration Files
1 =8260BL01.D 2 =8260BL02.D 3 =8260BL03.D 4 =8260BL04.D 5 =8260BL05.D 6 =8260BL06.D 7 =8260BL07.D
8 =8260BL08.D

		Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1)	I	IPENTAFLUOROBENZENE	----------ISTD----------									
2)	M	DICLDIFLUOROME...	0.332	0.258	0.218	0.260	0.286	0.257	0.244	0.225	0.260	13.88
3)	P,T	CHLOROMETHANE	0.730	0.520	0.440	0.441	0.448	0.380	0.340	0.307	0.451	29.14
4)	C,T	VINYL CHLORIDE	0.335	0.264	0.219	0.269	0.299	0.276	0.258	0.250	0.271	12.61
5)	T	BROMOMETHANE	0.353	0.326	0.355		0.268	0.170		0.089	0.260	41.93
6)	T	CHLOROETHANE	0.173	0.168	0.135	0.146	0.146	0.124			0.148	12.83
7)	T	TRICLFLUOROMET...	0.570	0.453	0.381	0.467	0.507	0.458	0.423	0.372	0.454	14.27
8)	T	ACROLEIN		0.005	0.006	0.006	0.006	0.005	0.005		0.006#	12.00
9)	T	ACETONE	0.111	0.099	0.117	0.107	0.099	0.092	0.078		0.100	12.77
10)	C,T	11-DICHLOROETHENE		0.188	0.236	0.248	0.233	0.214	0.188		0.218	11.83
11)	T	IODOMETHANE	0.051	0.074	0.126	0.183	0.233	0.303	0.343	0.324	0.205	55.82
12)	T	CARBON DISULFIDE		0.445	0.612	0.667	0.645	0.623	0.540		0.589	13.98
13)	T	ACRYLONITRILE		0.128	0.168	0.167	0.156	0.154	0.142	0.127	0.149	11.38
14)	T	DICHLOROMETHANE	0.911	0.416	0.375	0.333	0.280	0.254	0.224	0.194	0.373	61.55
15)	T	TRANS12DICLETHENE		0.221	0.255	0.265	0.248	0.232	0.209	0.185	0.231	12.20
16)	P,T	11-DICHLOROETHANE		0.428	0.531	0.537	0.501	0.480	0.439	0.391	0.472	11.71
17)		VINYL ACETATE		0.621	0.821	0.831	0.777	0.758	0.665		0.746	11.42
18)		2-BUTANONE		0.185	0.239	0.238	0.225	0.218	0.199	0.178	0.212	11.70
19)	T	CIS12DICHLOROE...		0.239	0.304	0.308	0.287	0.280	0.262	0.248	0.275	9.71
20)	T	22-DICHLOROPRO...		0.303	0.385	0.392	0.366	0.353	0.322	0.291	0.345	11.57
21)	C,T	CHLOROFORM	0.454	0.526	0.648	0.650	0.603	0.574	0.525	0.476	0.557	13.29
22)	T	BROMOCHLOROMET...		0.296	0.373	0.362	0.331	0.298	0.254		0.319	14.07
23)	I	I14-DIFLUOROBENZENE	----------ISTD----------									
24)	S	SDIBRFLUOROMET...	0.395	0.398	0.403	0.409	0.410	0.408	0.402	0.391	0.402	1.76
25)	T	TETRAHYDROFURAN	0.188	0.222	0.286	0.278	0.265	0.261	0.235	0.215	0.244	14.09
26)	T	111-TRICHLOROE...		0.258	0.335	0.342	0.327	0.312	0.287	0.266	0.304	11.08
27)	T	11-DICHLOROPRO...		0.189	0.242	0.248	0.236	0.228	0.210	0.198	0.222	10.30
28)	T	12-DICHLOROETHANE		0.273	0.355	0.351	0.325	0.311	0.282	0.255	0.307	12.64
29)	T	CARBONTETRACHL...		0.191	0.251	0.270	0.271	0.273	0.258	0.245	0.251	11.49
30)	T	BENZENE		0.579	0.743	0.731	0.695	0.669	0.616	0.580	0.659	10.41
31)	T	TRICHLOROETHENE		0.146	0.187	0.187	0.178	0.173	0.163	0.158	0.170	9.06
32)	C,T	12-DICHLOROPRO...		0.170	0.220	0.216	0.204	0.200	0.186	0.175	0.196	9.93
33)	T	DIBROMOMETHANE		0.111	0.141	0.141	0.135	0.137	0.130	0.129	0.132	7.95
34)	T	BROMODICLMETHANE		0.196	0.264	0.282	0.278	0.286	0.271	0.256	0.262	11.82
35)	T	2-CLETHYLVINYL...		0.086	0.117	0.121	0.119	0.127	0.129	0.123	0.117	12.43
36)	T	EPICHLOROHYDRIN		0.017	0.024	0.024	0.024	0.025	0.023	0.022	0.023#	11.49
37)	T	4METHYL-2-PENT...		0.241	0.328	0.331	0.312	0.309	0.284	0.243	0.293	12.89
38)	T	CIS13DICLPROPENE		0.194	0.269	0.289	0.289	0.305	0.296	0.284	0.275	13.57
39)	S	STOLUENE-D8	1.205	1.200	1.203	1.200	1.189	1.177	1.139	1.109	1.178	3.01
40)	C,T	TOLUENE		0.638	0.886	0.813	0.807	0.768	0.718	0.697	0.761	10.94

Method Path : C:\msdchem\1\METHODS\
Method File : 8260VOC-JAN2-LIQ-18.M
Title : Analysis of VOC'S by EPA 8260B

41)	T	TRANS13DICLPRO...	0.099	0.158	0.232	0.248	0.253	0.278	0.279	0.272	0.227	28.59
42)	T	112-TRICHLOROE...		0.157	0.201	0.207	0.193	0.192	0.186	0.179	0.188	8.67
43)		2-HEXANONE		0.161	0.219	0.227	0.223	0.217	0.211	0.192	0.207	11.24
44)	T	13-DICHLOROPRO...		0.271	0.354	0.359	0.340	0.339	0.331	0.314	0.330	9.07
45)	T	DIBRCHLOROMETHANE	0.076	0.122	0.172	0.198	0.204	0.224	0.232	0.231	0.182	31.10
46)	T	TETRACHLOROETHENE		0.143	0.186	0.188	0.181	0.181	0.177	0.179	0.176	8.68
47)	T	12-DIBROMOETHANE		0.148	0.190	0.200	0.190	0.195	0.196	0.194	0.188	9.48
48)	I	CHLOROBENZEN-d5-IS		----------ISTD----------								
49)	P,T	CHLOROBENZENE		0.481	0.596	0.601	0.568	0.563	0.541	0.540	0.556	7.34
50)		1-CHLOROHEXANE		0.212	0.267	0.277	0.274	0.282	0.284	0.296	0.270	10.07
51)	T	1112-TETRACLET...		0.149	0.203	0.219	0.215	0.224	0.214	0.210	0.205	12.44
52)	C,T	ETHYLBENZENE	0.647	0.791	1.017	1.001	0.957	0.943	0.907	0.899	0.895	13.64
53)	T	MP-XYLENE		0.605	0.816	0.804	0.787	0.774	0.728	0.702	0.745	9.95
54)	T	STYRENE		0.403	0.557	0.572	0.567	0.583	0.554	0.549	0.541	11.45
55)	T	O-XYLENE		0.593	0.805	0.817	0.811	0.800	0.751	0.726	0.758	10.58
56)	P,T	BROMOFORM	0.055	0.087	0.125	0.147	0.162	0.194	0.196	0.200	0.146	36.78
57)	P,T	1122-TETRACLET...		0.287	0.383	0.390	0.377	0.384	0.360	0.345	0.361	10.03
58)	T	ISOPROPYL BENZENE		0.658	0.886	0.933	0.919	0.909	0.854	0.827	0.855	11.06
59)	S	S4BRFLUOROBENZENE	0.523	0.537	0.543	0.556	0.555	0.559	0.541	0.519	0.542	2.76
60)	T	123-TRICLPROPANE		0.082	0.112	0.116	0.110	0.110	0.102	0.100	0.105	11.02
61)	T	TRANS14DICL2BU...	0.022	0.037	0.047	0.050	0.048	0.049	0.049	0.048	0.044#	22.26
62)	T	BROMOBENZENE		0.374	0.492	0.497	0.476	0.480	0.455	0.436	0.458	9.35
63)	T	N-PROPYLBENZENE		0.805	1.072	1.125	1.101	1.107	1.050	1.021	1.040	10.55
64)	T	2-CHLOROTOLUENE		0.584	0.780	0.814	0.788	0.790	0.756	0.730	0.749	10.35
65)	T	4-CHLOROTOLUENE		0.530	0.700	0.734	0.680	0.688	0.652	0.647	0.662	9.82
66)	T	135TRIMETHYLBE...		0.585	0.806	0.843	0.834	0.842	0.811	0.797	0.788	11.60
67)	T	TERT-BUTYLBENZENE		0.467	0.627	0.664	0.651	0.657	0.623	0.629	0.617	11.00
68)	T	124TRIMETHYLBE...		0.568	0.795	0.831	0.821	0.825	0.788	0.762	0.770	12.01
69)	T	SEC-BUTYLBENZENE		0.664	0.890	0.949	0.938	0.922	0.866	0.855	0.869	11.18
70)	T	13-DICHLOROBEN...		0.308	0.419	0.433	0.424	0.431	0.420	0.435	0.410	11.11
71)	I	I14-DICLBENZENE-D4		----------ISTD----------								
72)	T	4-ISOPROPYLTOL...		1.032	1.378	1.419	1.417	1.385	1.344	1.319	1.328	10.18
73)	T	14-DICHLOROBEN...	0.543	0.674	0.870	0.833	0.797	0.793	0.778	0.790	0.760	13.64
74)	T	12-DICHLOROBEN...		0.625	0.816	0.813	0.792	0.795	0.779	0.789	0.773	8.57
75)	T	N-BUTYLBENZENE		0.964	1.257	1.305	1.312	1.259	1.211	1.180	1.212	9.85
76)	T	12-DIBR-3CLPRO...	0.042	0.072	0.102	0.110	0.115	0.124	0.122	0.123	0.101	29.17
77)		124-TRICLBENZENE		0.339	0.469	0.481	0.489	0.497	0.506	0.522	0.472	12.91
78)	T	NAPHTHALENE		0.994	1.393	1.445	1.469	1.519	1.514	1.512	1.407	13.34
79)	T	HEXACHLOROBUTA...	0.134	0.165	0.210	0.211	0.212	0.204	0.202	0.206	0.193	14.66
80)		123-TRICLBENZENE		0.344	0.472	0.479	0.484	0.491	0.492	0.504	0.466	11.76

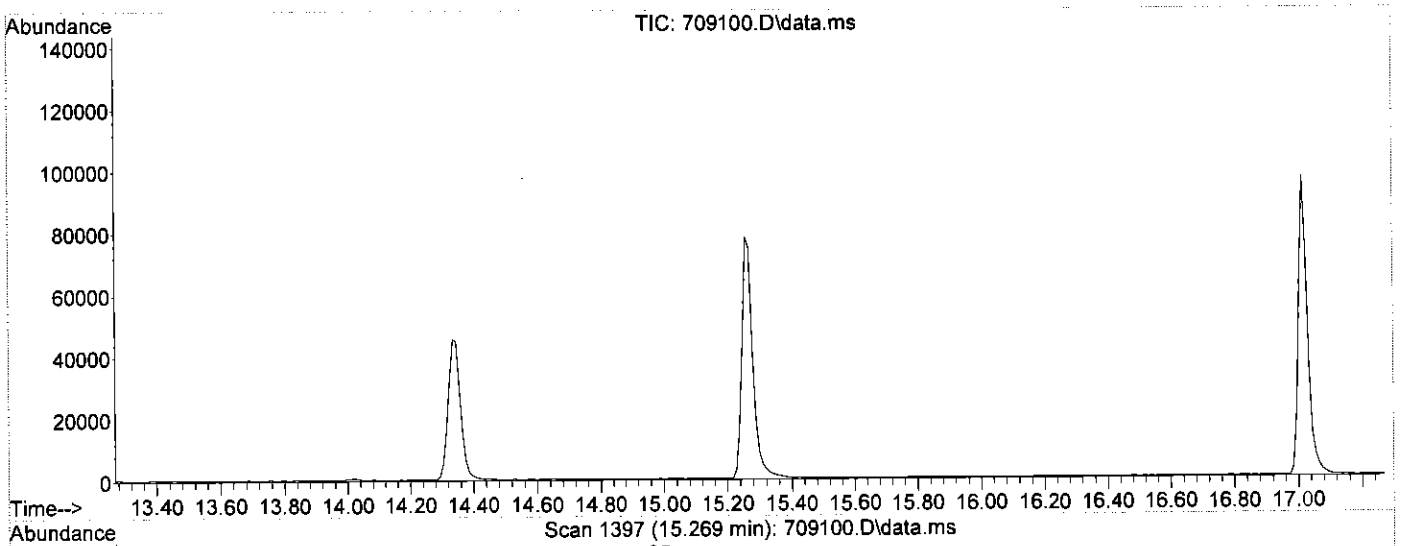
(#) = Out of Range

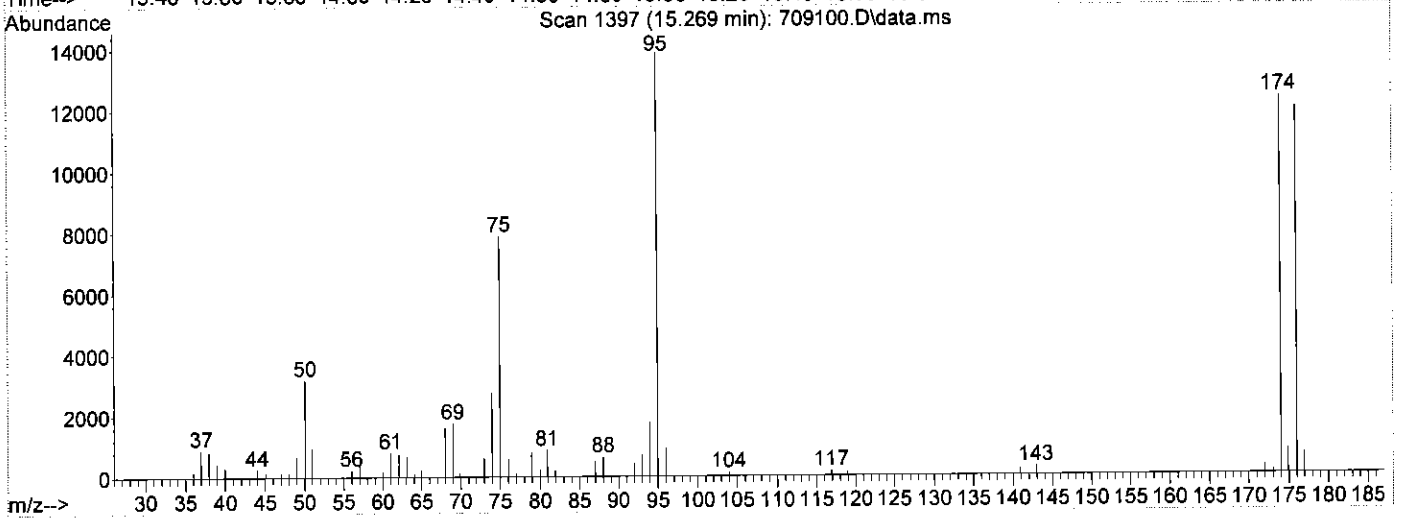
Method VOC

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709100.D
Acq On : 13 Mar 2018 11:17 am
Operator : NIVA
Sample : BFB/BROMOFORM
Misc : RUN197091
ALS Vial : 1 Sample Multiplier: 1

Integration File: VOC.P

Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Title : Analysis of VOC'S by EPA 8260B
Last Update : Thu Jan 25 13:53:13 2018
InstName : V7-AG7890MS





Spectrum Information: Scan 1397

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.9	3178	PASS
75	95	30	60	56.7	7873	PASS
95	95	100	100	100.0	13883	PASS
96	95	5	9	6.6	914	PASS
173	174	0.00	2	0.9	116	PASS
174	95	50	150	88.9	12345	PASS
175	174	5	9	6.6	811	PASS
176	174	95	101	97.3	12010	PASS
177	176	5	9	5.4	654	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709100.D
Acq On : 13 Mar 2018 11:17 am
Operator : NIVA
Sample : BFB/BROMOFORM
Misc : RUN197091
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 15:32:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.564	168	69599	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.315	114	111562	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	13.005	117	84851	20.00 µg/L	-0.01
71) I14-DICLBENZENE-D4	17.015	152	29893	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	64528	28.79 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 143.95%#		
39) STOLUENE-D8	10.335	98	124725	18.98 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.90%		
59) S4BRFLUOROBENZENE	15.259	95	35045	15.25 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 76.25%#		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	~~N.D.~~	
3) CHLOROMETHANE	3.117	50	2973	2.68 µg/L #	94
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	0.000		0	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	0.000		0	N.D.	
12) CARBON DISULFIDE	4.569	76	619	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	5.198	96	102	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	0.000		0	N.D. d	
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.016	42	141	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	61	N.D.	
30) BENZENE	0.000		0	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D.	
37) 4METHYL-2-PENTANONE	10.924	43	66	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

PASS. <10% of 40ppb

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709100.D
Acq On : 13 Mar 2018 11:17 am
Operator : NIVA
Sample : BFB/BROMOFORM
Misc : RUN197091
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 15:32:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

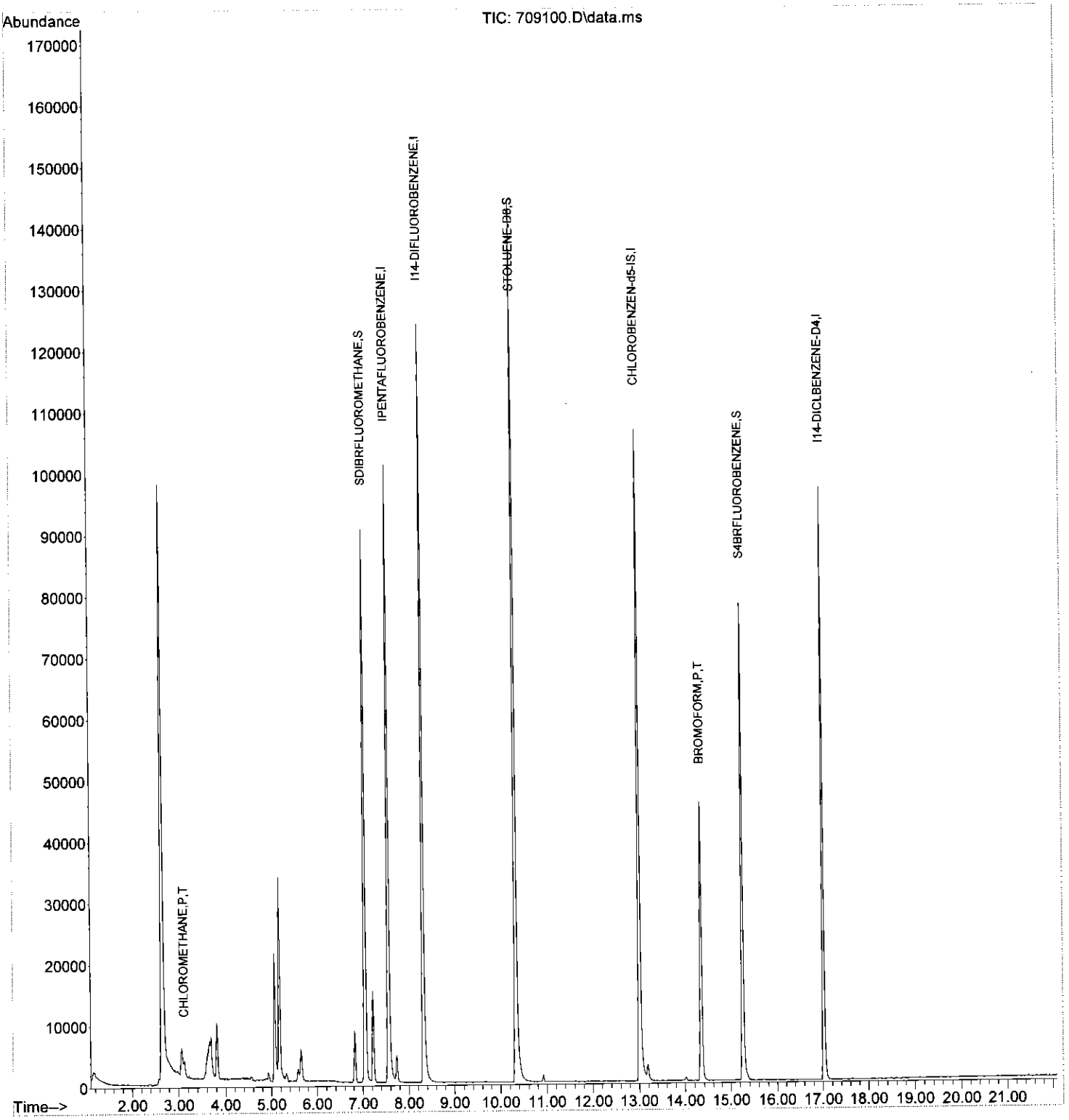
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	0.000		0	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	14.345	173	30999	36.78 µg/L	~~98~~ Spike [40 ppb]
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.259	77	142	N.D.	
63) N-PROPYLBENZENE	0.000		0	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	17.035	146	565	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709100.D
Acq On : 13 Mar 2018 11:17 am
Operator : NIVA
Sample : BFB/BROMOFORM
Misc : RUN197091
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 15:32:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709101.D
Acq On : 13 Mar 2018 11:43 am
Operator : NIVA
Sample : LRB/2825920
Misc : RUN197091
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 15:33:55 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) IPENTAFLUOROBENZENE	7.574	168	124007	20.00	µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	200856	20.00	µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	170650	20.00	µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	74650	20.00	µg/L	0.00
System Monitoring Compounds						
24) SDIBRFLUOROMETHANE	7.056	111	88785m	22.00	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 110.00%			
39) STOLUENE-D8	10.335	98	243050	20.55	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.75%			
59) S4BRFLUOROBENZENE	15.269	95	81386	17.61	µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.05%			
Target Compounds						Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.		
3) CHLOROMETHANE	0.000		0	N.D.	d	
4) VINYL CHLORIDE	0.000		0	N.D.		
5) BROMOMETHANE	0.000		0	N.D.		
6) CHLOROETHANE	0.000		0	N.D.	d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.		
8) ACROLEIN	0.000		0	N.D.		
9) ACETONE	0.000		0	N.D.	d	
10) 11-DICHLOROETHENE	0.000		0	N.D.		
11) IODOMETHANE	0.000		0	N.D.		
12) CARBON DISULFIDE	4.569	76	313	N.D.		
13) ACRYLONITRILE	0.000		0	N.D.		
14) DICHLOROMETHANE	0.000		0	N.D.	d	
15) TRANS12DICLETHENE	5.188	96	376	N.D.		
16) 11-DICHLOROETHANE	0.000		0	N.D.		
17) VINYL ACETATE	0.000		0	N.D.		
18) 2-BUTANONE	7.554	43	225	N.D.		
19) CIS12DICHLOROETHENE	0.000		0	N.D.		
20) 22-DICHLOROPROPANE	0.000		0	N.D.		
21) CHLOROFORM	6.833	83	1329	N.D.		
22) BROMOCHLOROMETHANE	0.000		0	N.D.	d	
25) TETRAHYDROFURAN	7.016	42	295	N.D.		
26) 111-TRICHLOROETHANE	0.000		0	N.D.		
27) 11-DICHLOROPROPENE	0.000		0	N.D.		
28) 12-DICHLOROETHANE	0.000		0	N.D.		
29) CARBONTETRACHLORIDE	6.975	117	250	N.D.		
30) BENZENE	0.000		0	N.D.		
31) TRICHLOROETHENE	0.000		0	N.D.		
32) 12-DICHLOROPROPANE	0.000		0	N.D.		
33) DIBROMOMETHANE	0.000		0	N.D.		
34) BROMODICLMETHANE	0.000		0	N.D.		
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.		
36) EPICHLOROHYDRIN	10.345	57	88	N.D.		
37) 4METHYL-2-PENTANONE	0.000		0	N.D.		
38) CIS13DICLPROPENE	0.000		0	N.D.		
40) TOLUENE	0.000		0	N.D.		
41) TRANS13DICLPROPENE	0.000		0	N.D.		
42) 112-TRICHLOROETHANE	0.000		0	N.D.		
43) 2-HEXANONE	0.000		0	N.D.		
44) 13-DICHLOROPROPANE	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709101.D
Acq On : 13 Mar 2018 11:43 am
Operator : NIVA
Sample : LRB/2825920
Misc : RUN197091
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 15:33:55 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

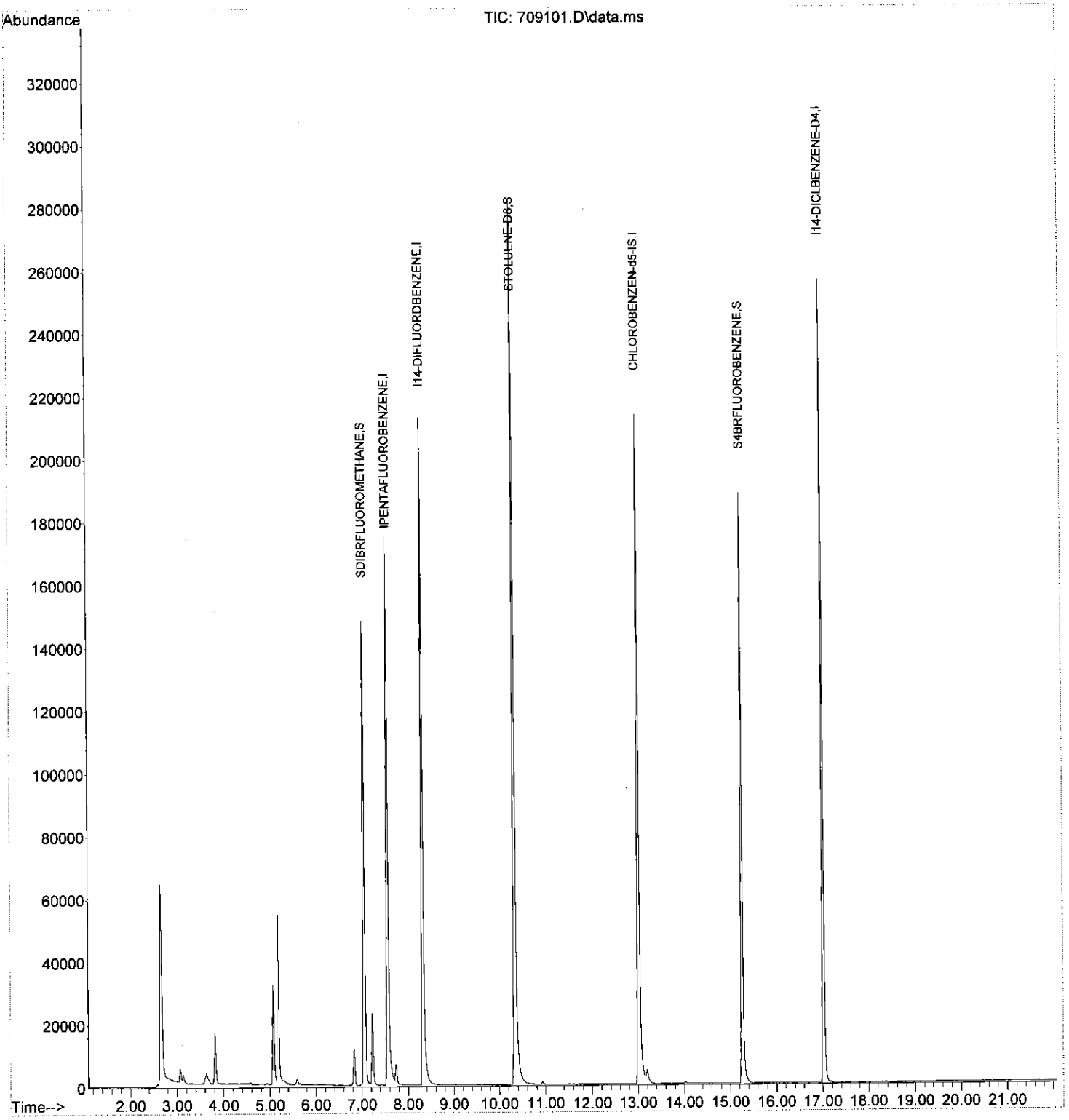
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	13.015	91	277	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.015	91	277	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.259	77	395	N.D.	
63) N-PROPYLBENZENE	15.259	91	244	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709101.D
Acq On : 13 Mar 2018 11:43 am
Operator : NIVA
Sample : LRB/2825920
Misc : RUN197091
ALS Vial : 2 Sample Multiplier: 1

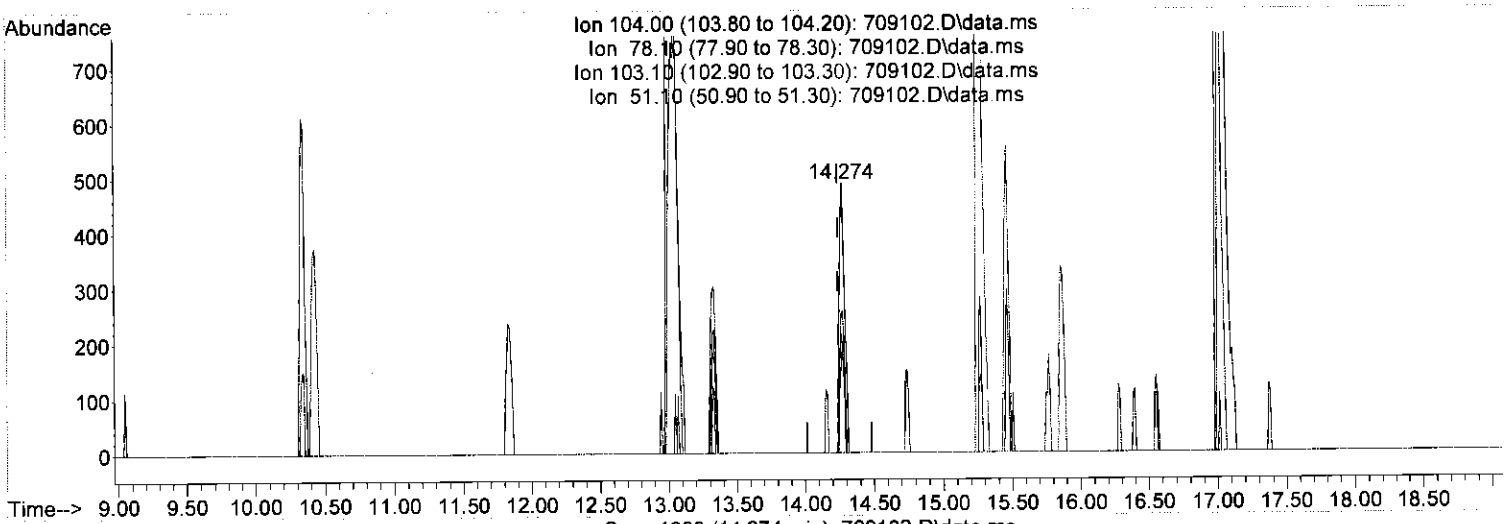
Quant Time: Mar 16 15:33:55 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

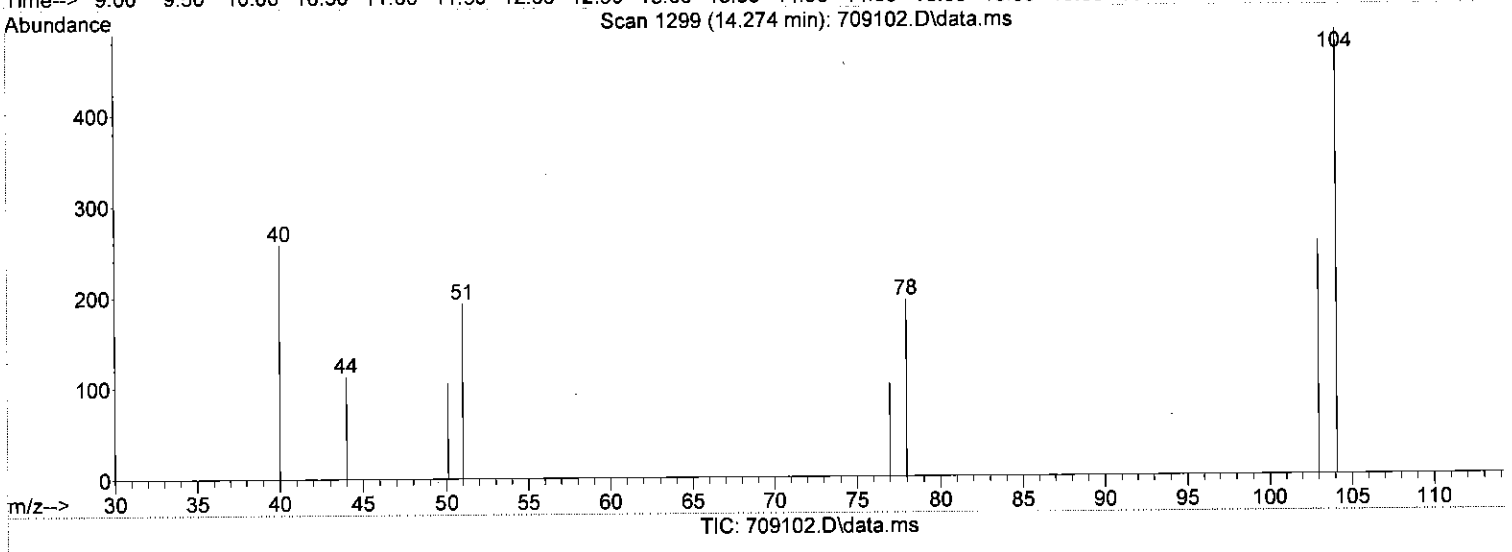


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:37:39 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(54) STYRENE (T)

14.274min (+0.032) 0.36 µg/L m

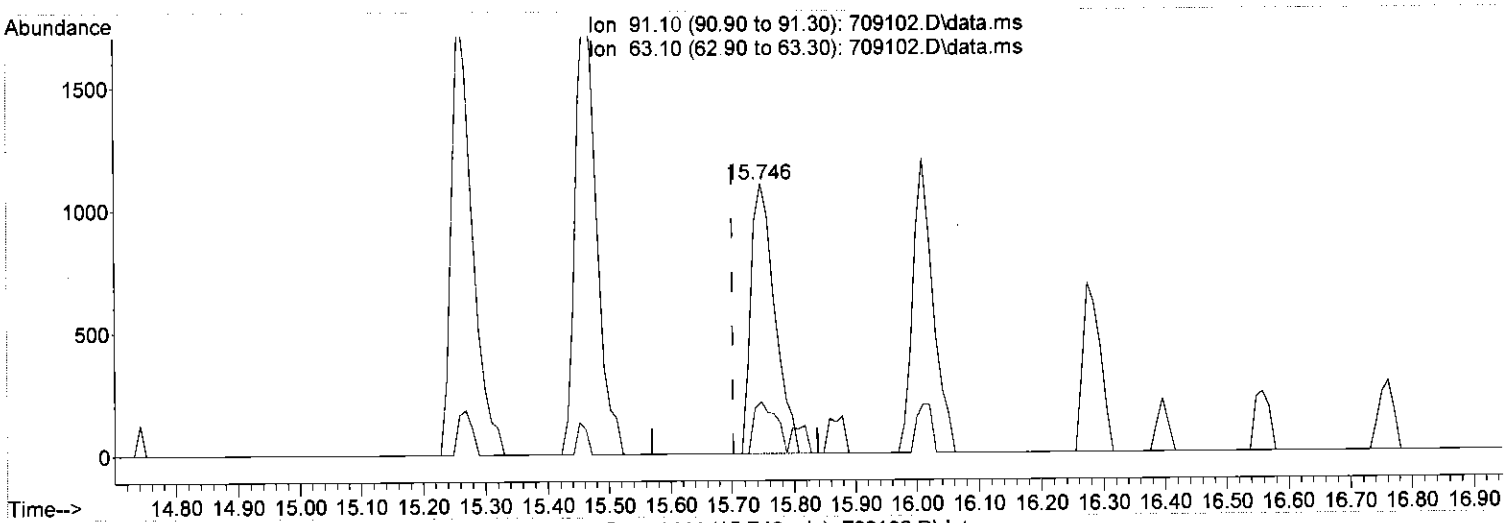
response 1822

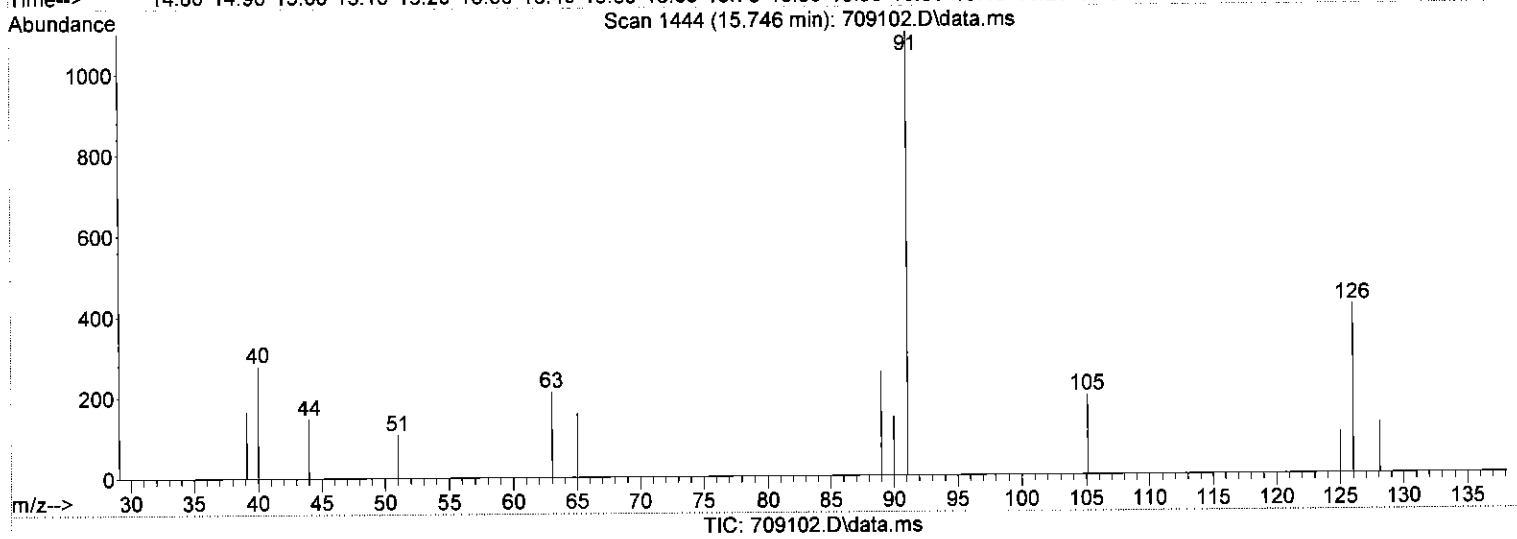
Ion	Exp%	Act%
104.00	100	100
78.10	43.10	28.81
103.10	46.90	29.42
51.10	24.70	19.43

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:37:39 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(64) 2-CHLOROTOLUENE (T)

15.746min (+0.044) 0.45 µg/L m

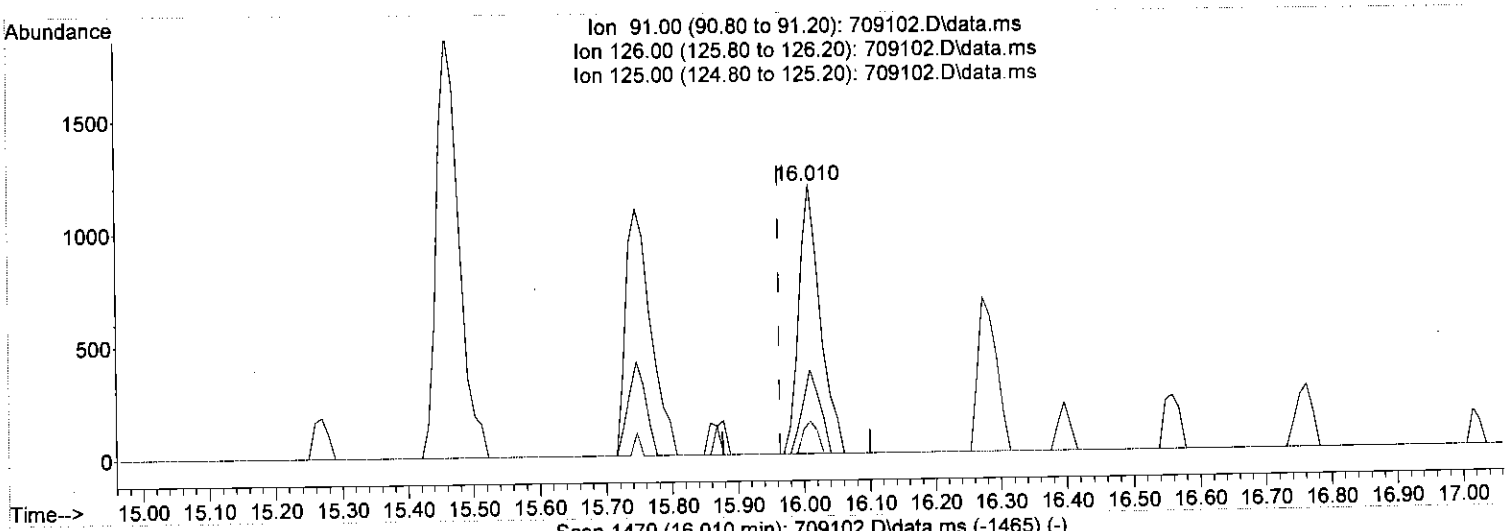
response 3169

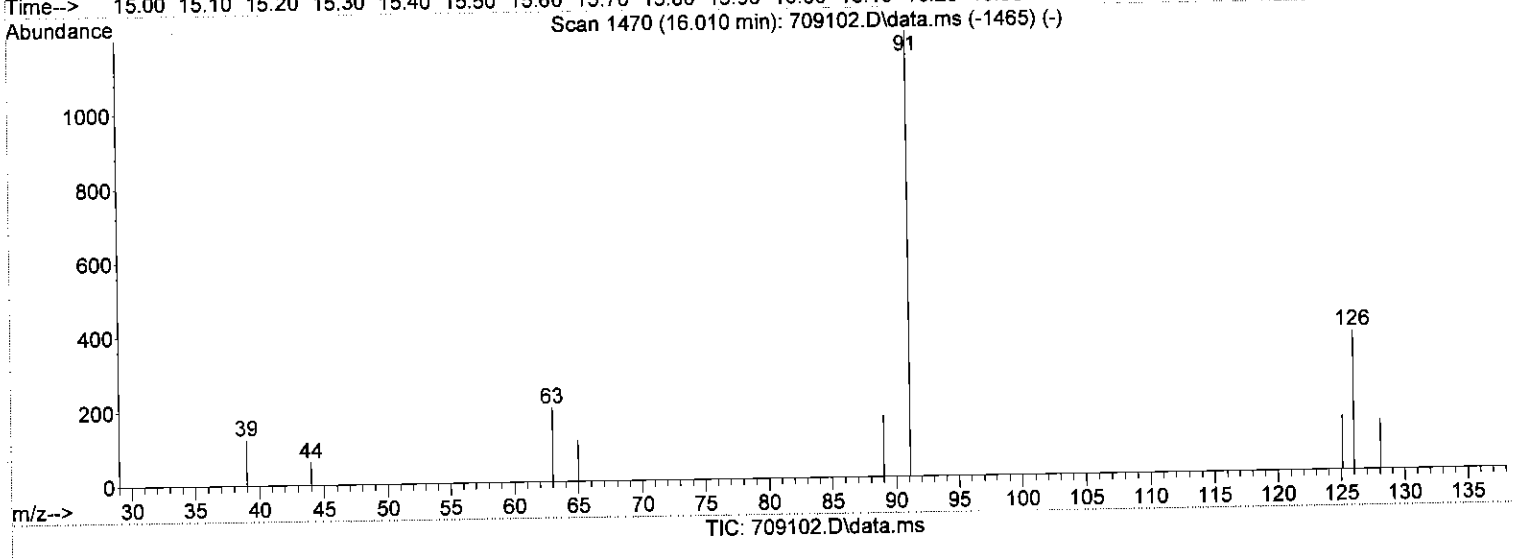
Ion	Exp%	Act%
91.10	100	100
63.10	14.40	16.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(65) 4-CHLOROTOLUENE (T)

16.010min (+0.046) 0.43 µg/L

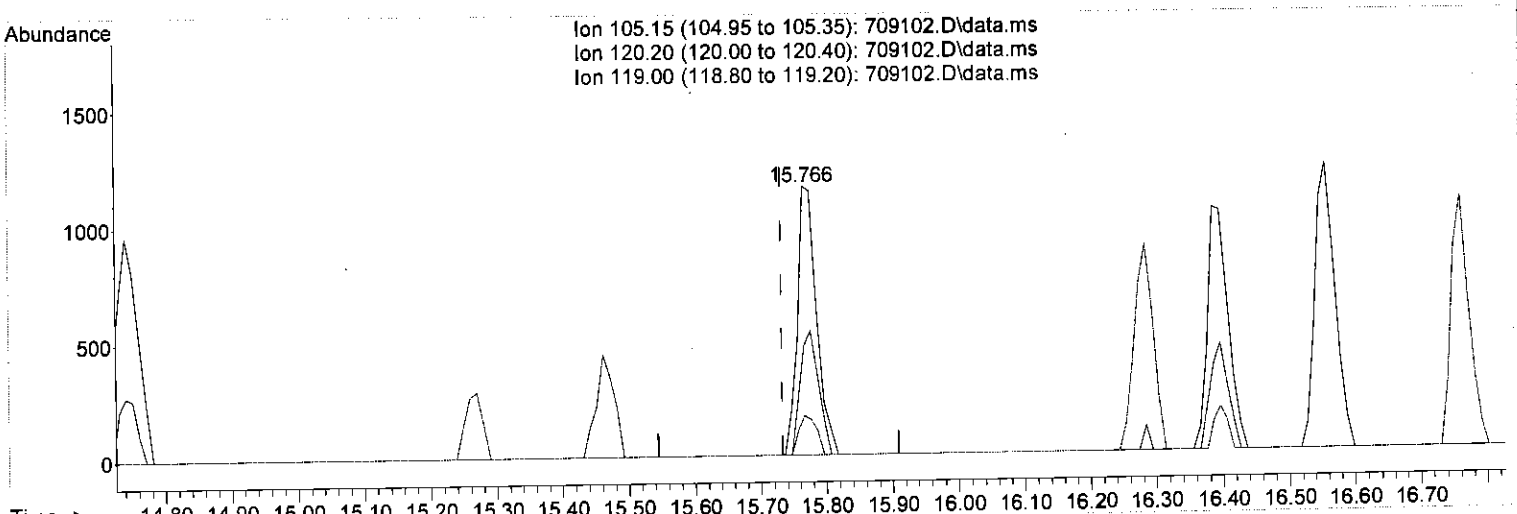
response 2700

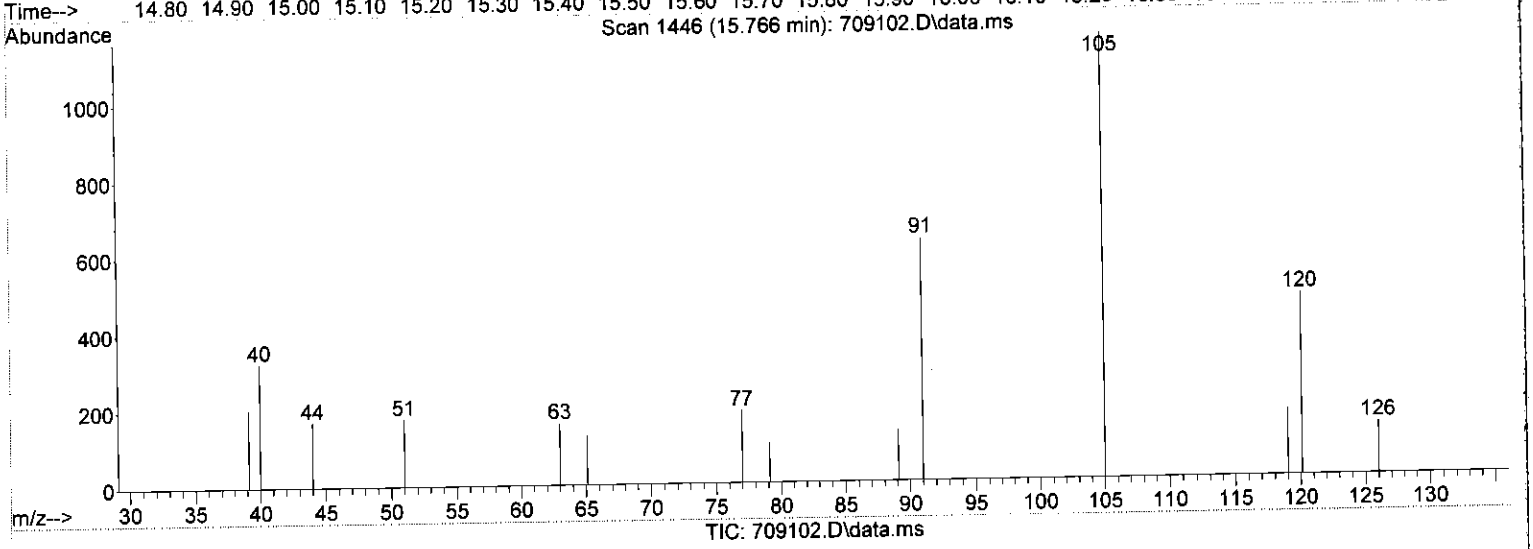
Ion	Exp%	Act%
91.00	100	100
126.00	38.20	31.11
125.00	14.60	12.09
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(66) 135TRIMETHYLBENZENE (T)

15.766min (+0.034) 0.33 µg/L

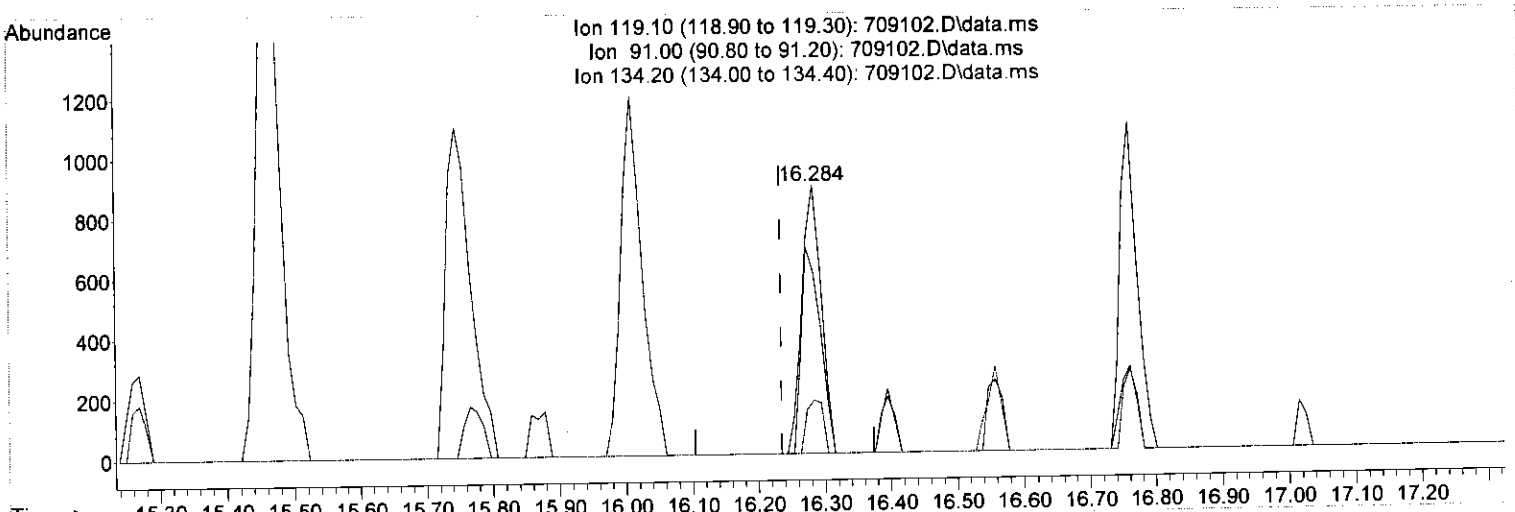
response 2410

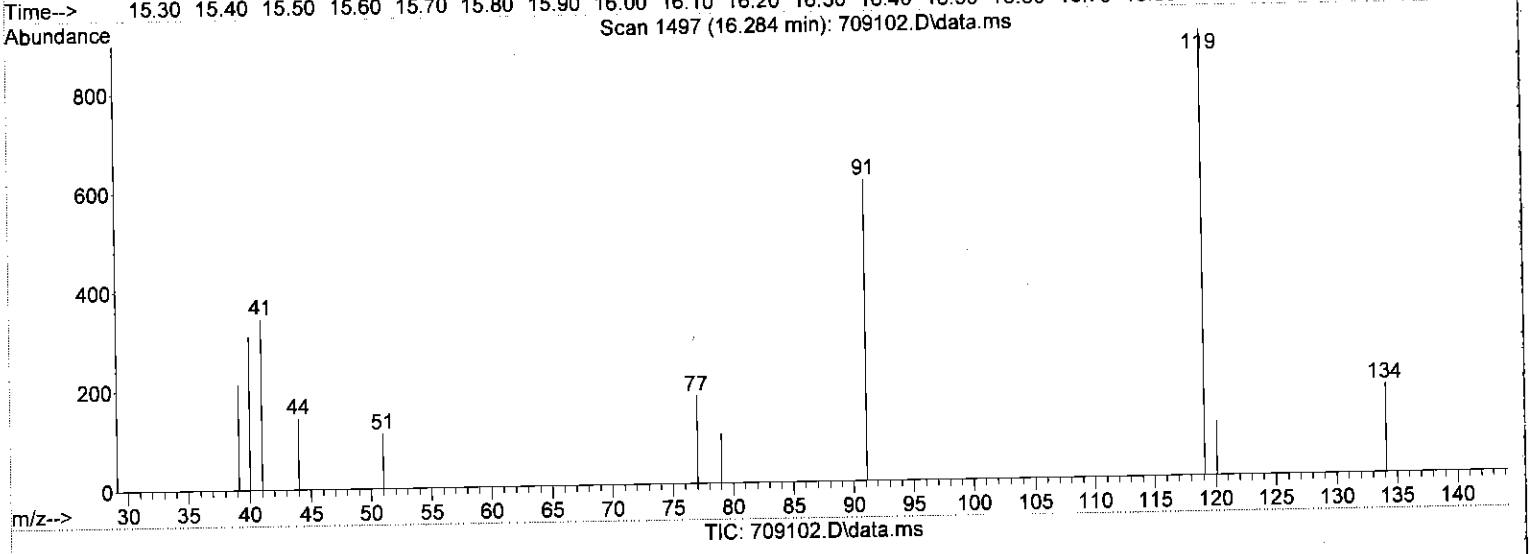
Ion	Exp%	Act%
105.15	100	100
120.20	52.10	44.27
119.00	12.60	13.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(67) TERT-BUTYLBENZENE (T)

16.284min (+0.049) 0.31 µg/L

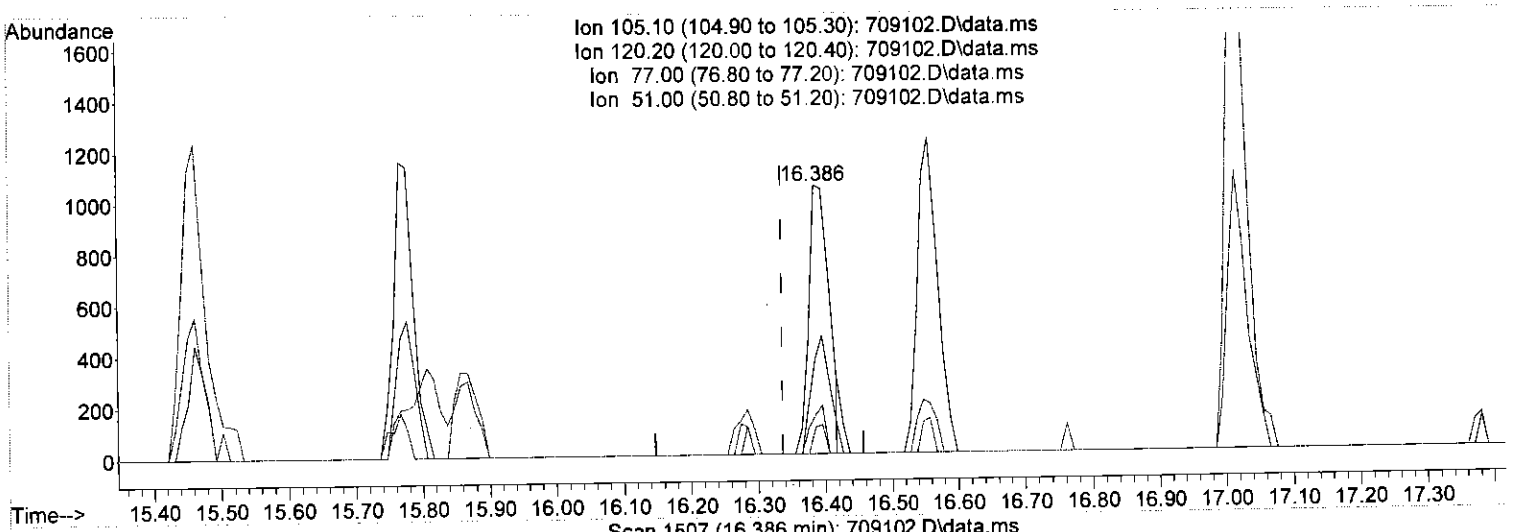
response 1810

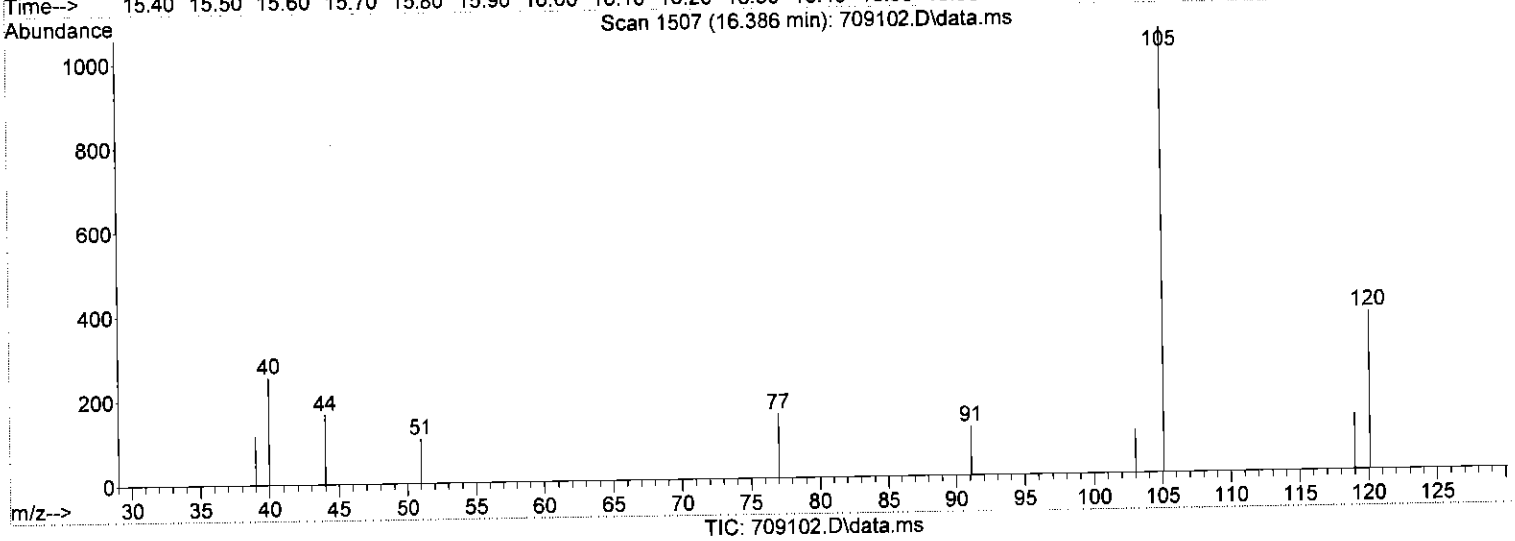
Ion	Exp%	Act%
119.10	100	100
91.00	64.70	74.75
134.20	26.00	16.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(68) 124TRIMETHYLBENZENE (T)

16.386min (+0.049) 0.31 µg/L

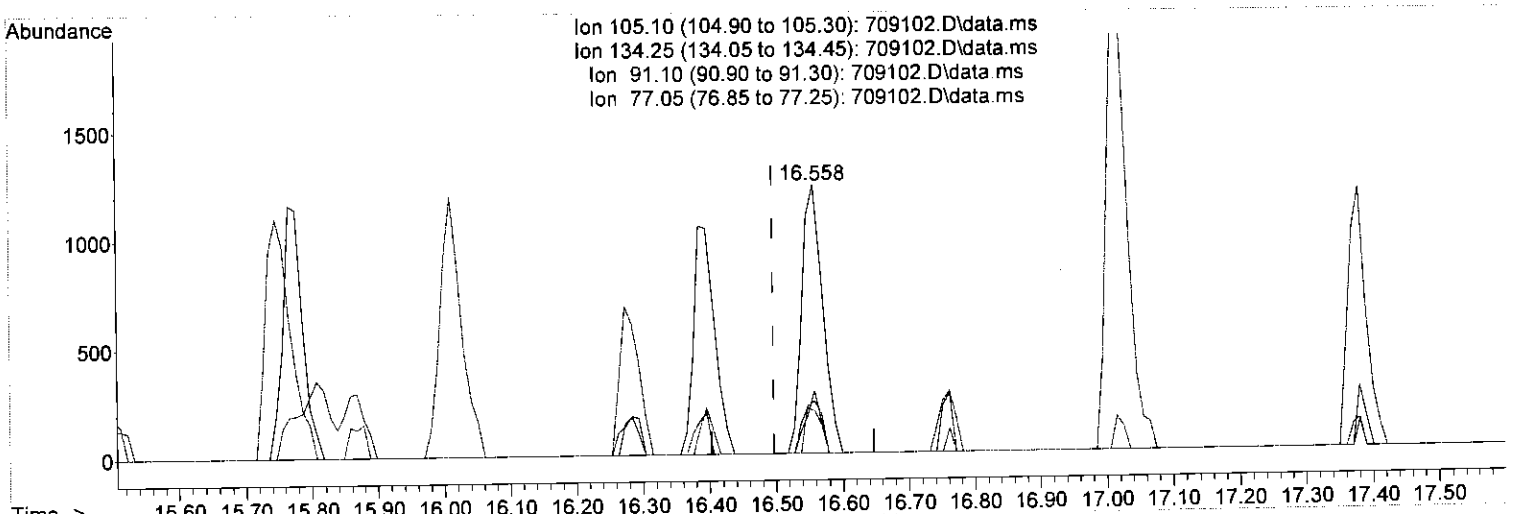
response 2226

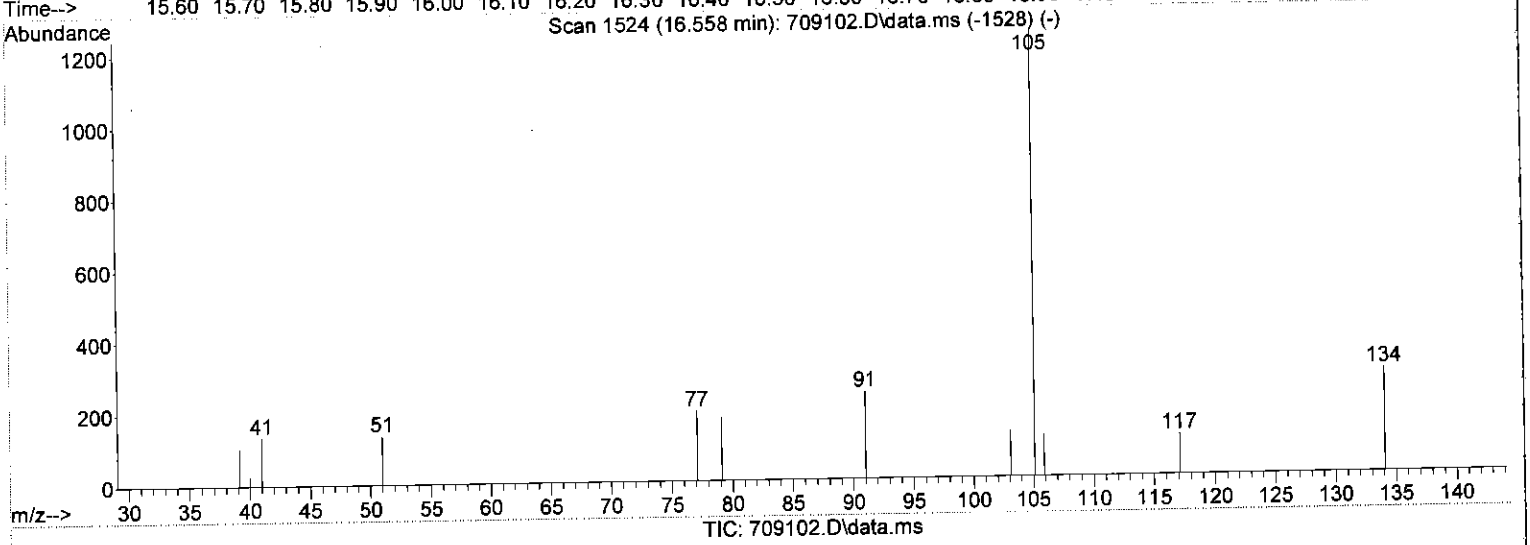
Ion	Exp%	Act%
105.10	100	100
120.20	48.50	39.62
77.00	12.40	12.22
51.00	5.80	6.02

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(69) SEC-BUTYLBENZENE (T)

16.558min (+0.061) 0.33 µg/L

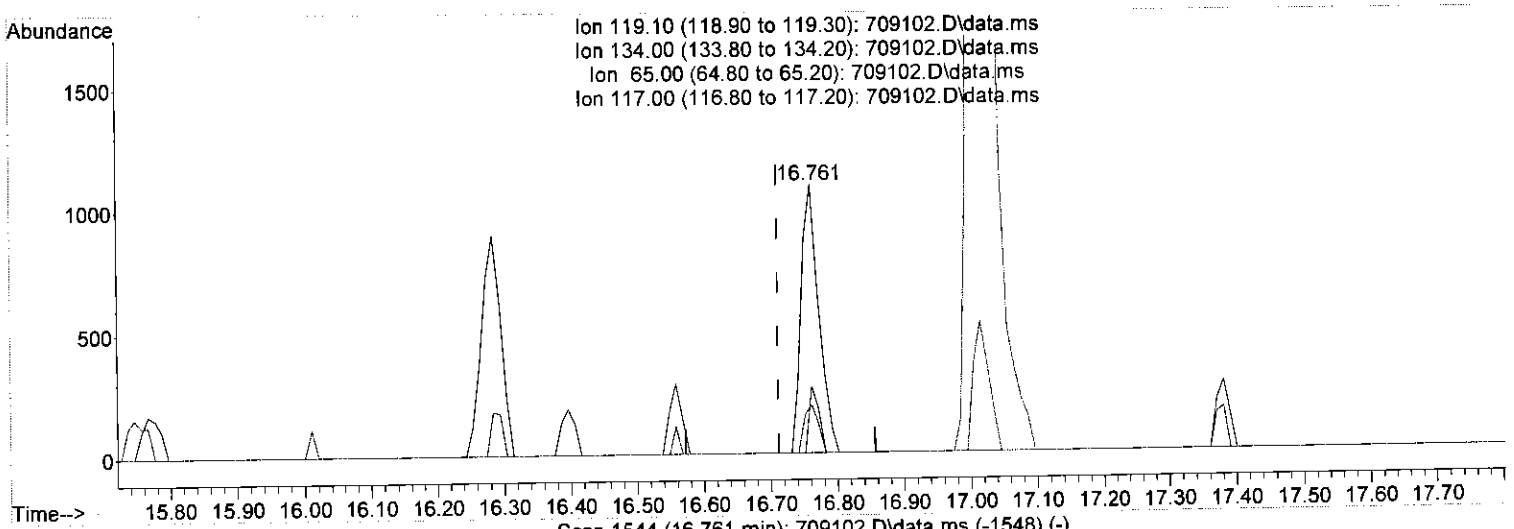
response 2661

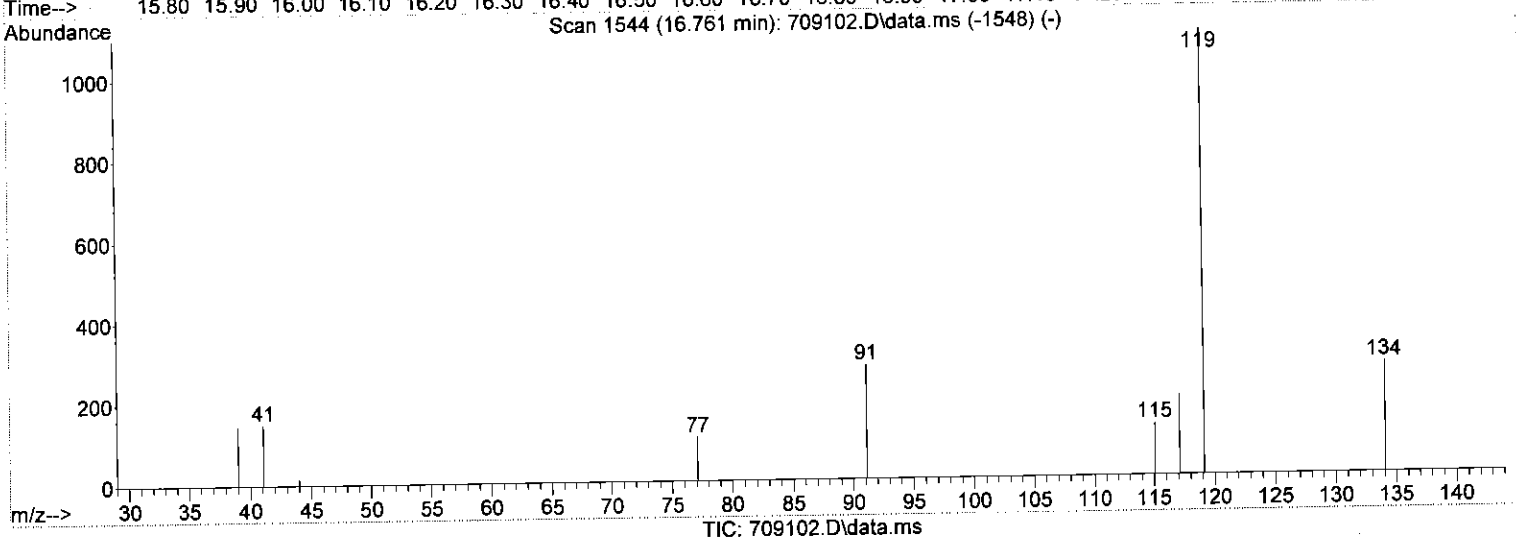
Ion	Exp%	Act%
105.10	100	100
134.25	20.00	23.09
91.10	16.50	19.47
77.05	13.00	15.77

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(72) 4-ISOPROPYLTOLUENE (T)

16.761min (+0.050) 0.38 µg/L

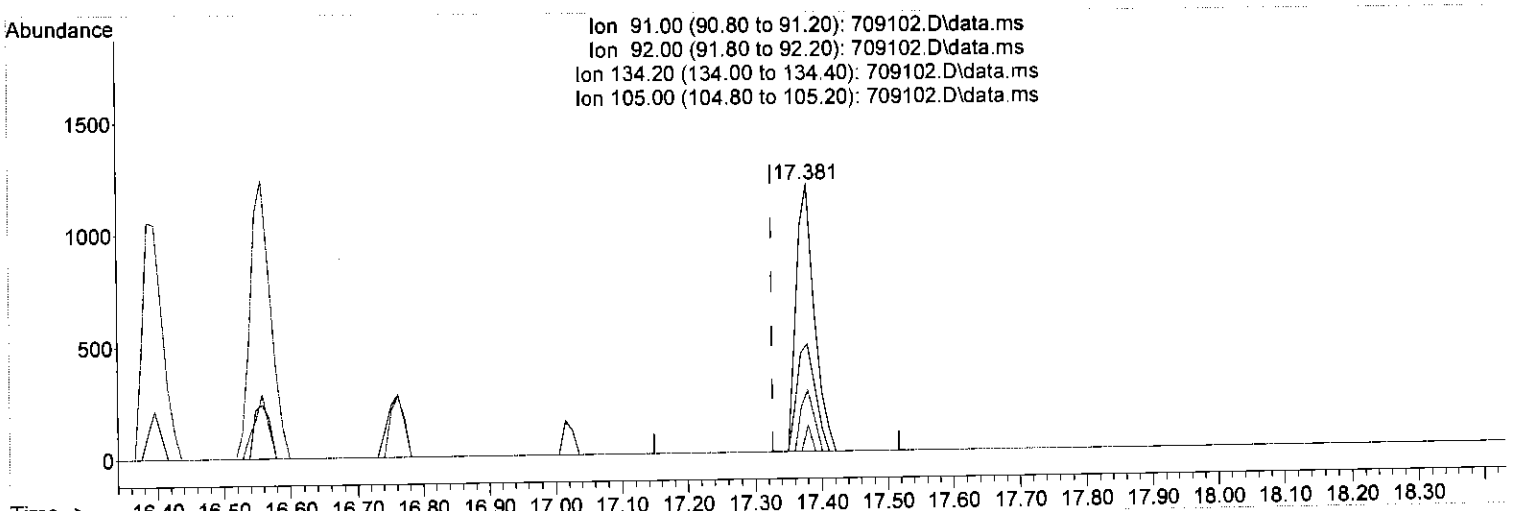
response 2028

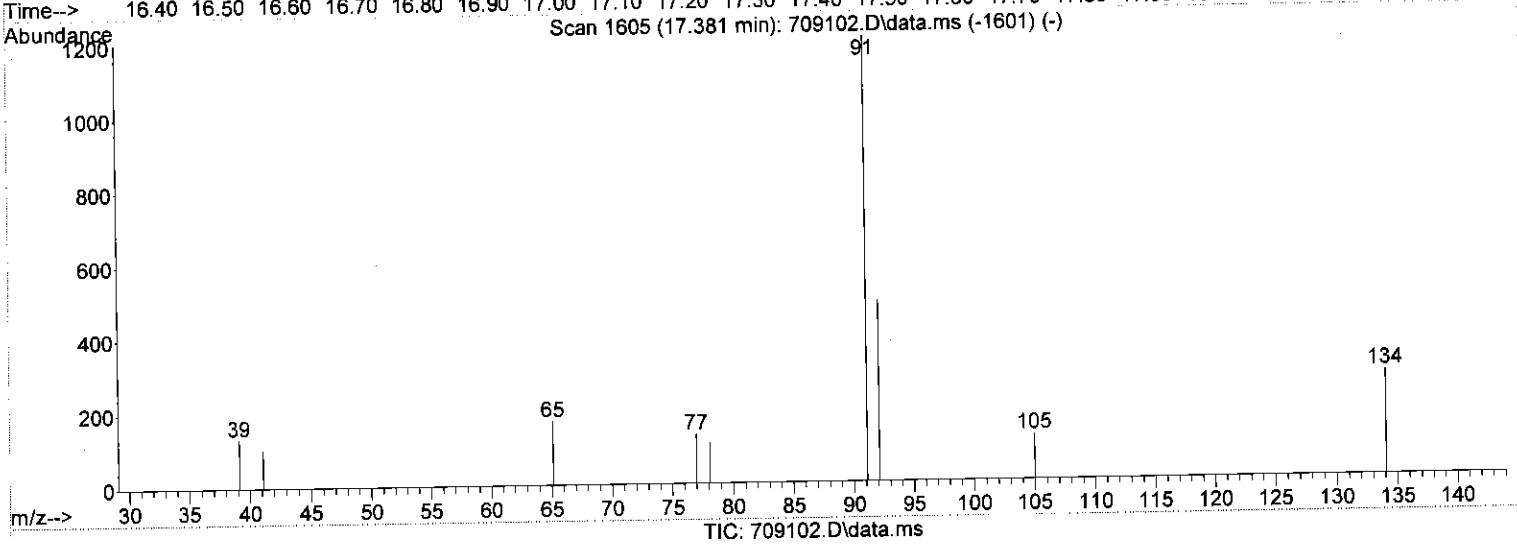
Ion	Exp%	Act%
119.10	100	100
134.00	27.00	24.77
65.00	6.80	0.00
117.00	14.50	17.94

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(75) N-BUTYLBENZENE (T)

17.381min (+0.054) 0.46 µg/L

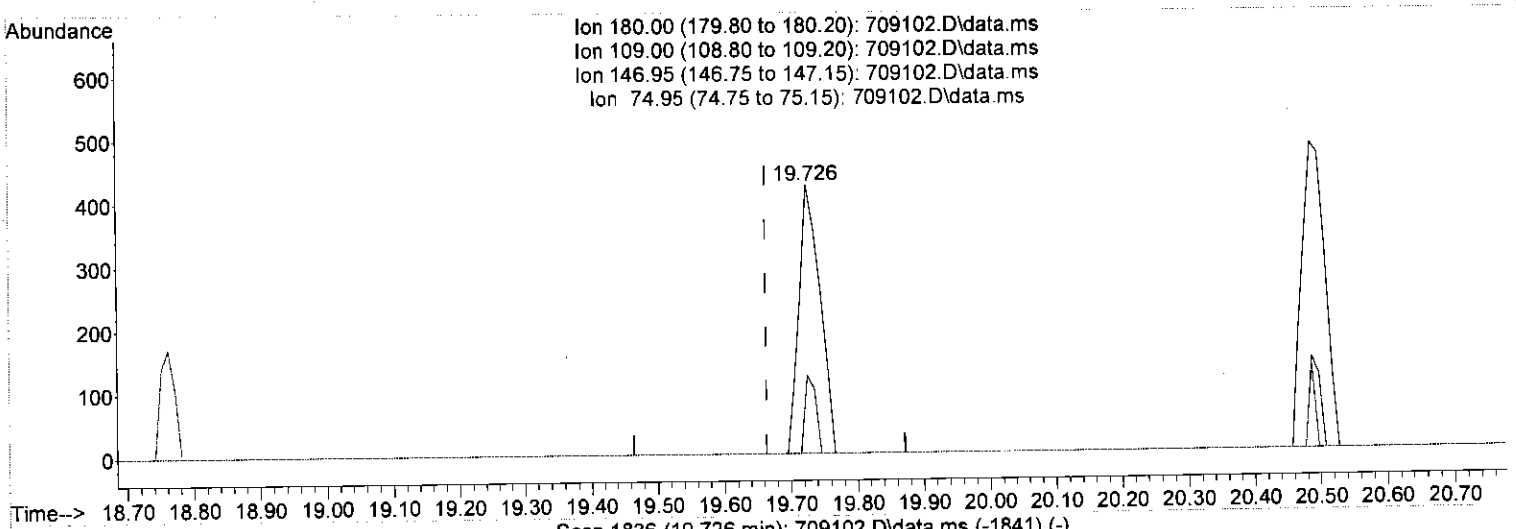
response 2276

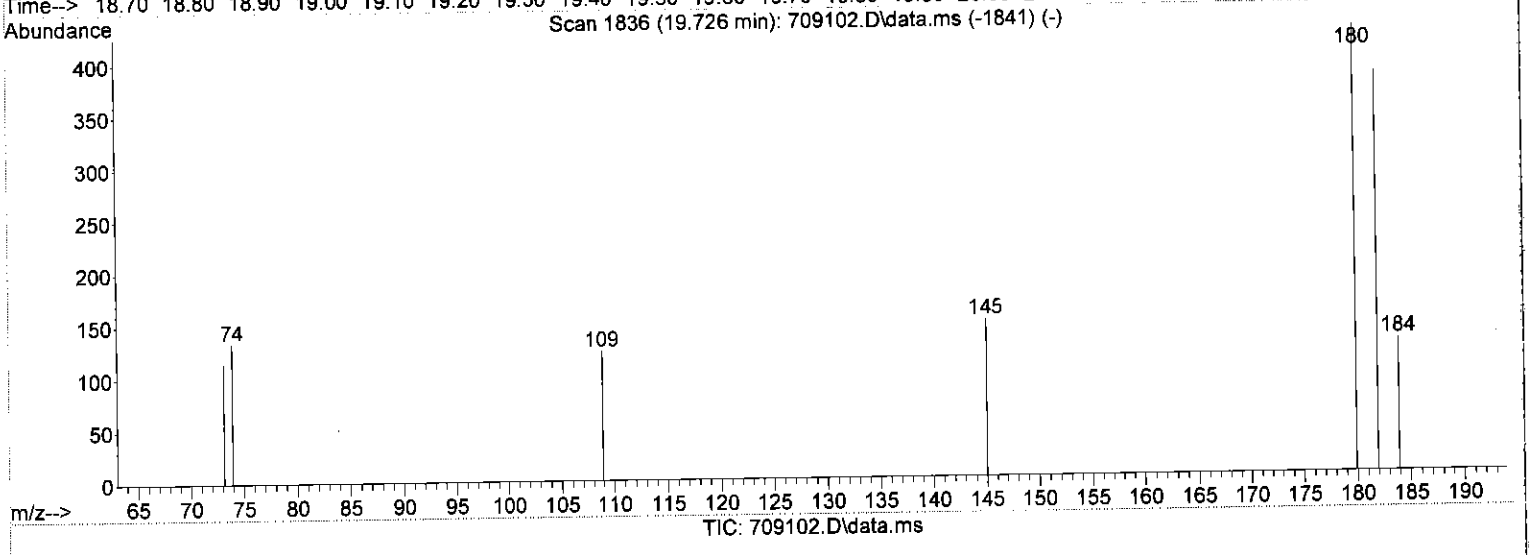
Ion	Exp%	Act%
91.00	100	100
92.00	55.10	40.51
134.20	27.70	23.28
105.00	8.80	10.02

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(77) 124-TRICLBENZENE

19.726min (+0.062) 0.49 µg/L

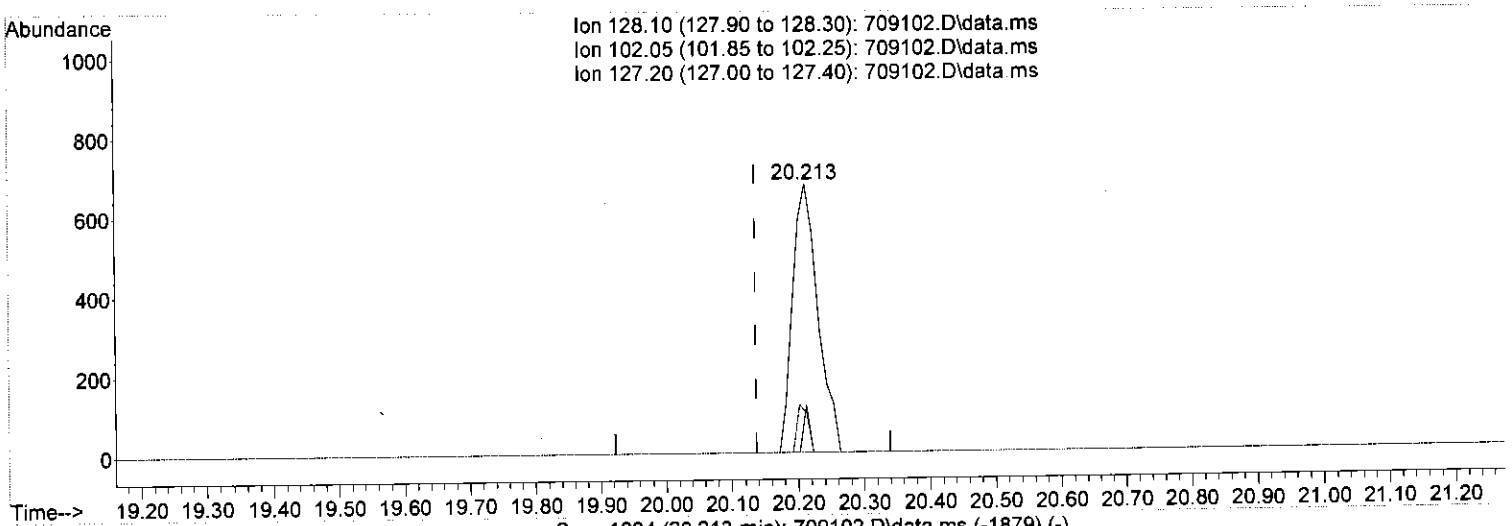
response 933

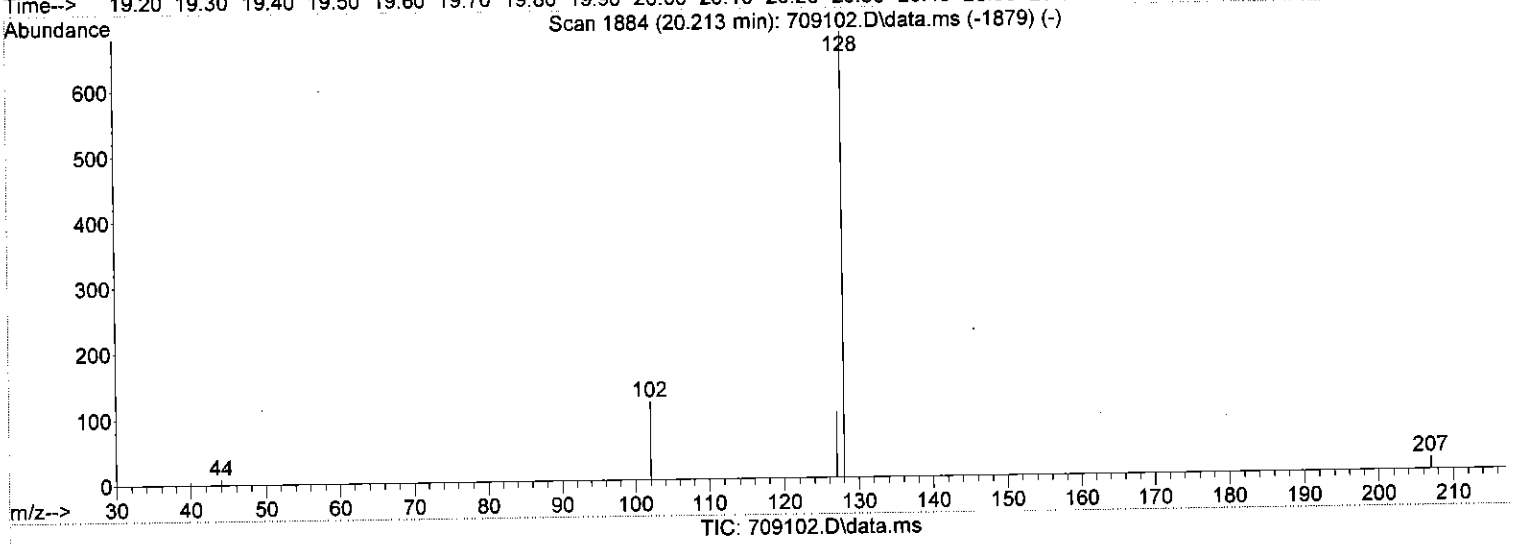
Ion	Exp%	Act%
180.00	100	100
109.00	21.00	28.94#
146.95	17.40	0.00#
74.95	11.90	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:34:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(78) NAPHTHALENE (T)

20.213min (+0.076) 0.31 µg/L

response 1775

Ion	Exp%	Act%
128.10	100	100
102.05	8.70	17.53
127.20	12.50	14.73
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:37:39 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) IPENTAFLUOROBENZENE	7.574	168	123358	20.00	µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	199357	20.00	µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	188066	20.00	µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	80871	20.00	µg/L	0.00
System Monitoring Compounds						
24) SDIBRFLUOROMETHANE	7.056	111	90773m	22.67	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 113.35%			
39) STOLUENE-D8	10.335	98	243186	20.71	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.55%			
59) S4BRFLUOROBENZENE	15.269	95	84444	16.58	µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 82.90%			
Target Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.863	85	2377	1.48	µg/L #	94
3) CHLOROMETHANE	3.138	50	1919m	0.98	µg/L	
4) VINYL CHLORIDE	3.237	62	2423	1.45	µg/L #	72
5) BROMOMETHANE	3.625	94	1530m	1.15	µg/L	
6) CHLOROETHANE	3.767	64	1697m	1.85	µg/L	
7) TRICLFLUOROMETHANE	3.919	101	6400	2.29	µg/L	97
8) ACROLEIN	4.833	56	998	28.87	µg/L #	93
9) ACETONE	5.127	43	8225	13.28	µg/L #	50
10) 11-DICHLOROETHENE	4.488	61	1932	1.44	µg/L	97
11) IODOMETHANE	4.670	142	12241	6.09	µg/L	95
12) CARBON DISULFIDE	4.569	76	28712	7.91	µg/L #	93
13) ACRYLONITRILE	5.990	53	5288	5.76	µg/L	96
14) DICHLOROMETHANE	5.097	84	2483m	1.98	µg/L	
15) TRANS12DICLETHENE	5.269	96	2032	1.43	µg/L	99
16) 11-DICHLOROETHANE	5.939	63	4267	1.46	µg/L	99
17) VINYL ACETATE	6.153	43	24863	5.41	µg/L #	92
18) 2-BUTANONE	7.198	43	6749	5.16	µg/L #	85
19) CIS12DICHLOROETHENE	6.549	96	1541	0.91	µg/L #	75
20) 22-DICHLOROPROPANE	6.681	77	2745	1.29	µg/L	96
21) CHLOROFORM	6.833	83	6528	1.90	µg/L #	97
22) BROMOCHLOROMETHANE	6.782	49	2520	1.28	µg/L #	71
25) TETRAHYDROFURAN	7.066	42	1254m	0.52	µg/L	
26) 111-TRICHLOROETHANE	7.127	97	3312	1.09	µg/L #	88
27) 11-DICHLOROPROPENE	7.269	75	1794	0.81	µg/L #	87
28) 12-DICHLOROETHANE	7.828	62	4231	1.38	µg/L #	96
29) CARBONTETRACHLORIDE	7.056	117	2879	1.15	µg/L #	78
30) BENZENE	7.584	78	7092	1.08	µg/L #	76
31) TRICHLOROETHENE	8.325	132	1554	0.92	µg/L #	53
32) 12-DICHLOROPROPANE	9.046	63	1593	0.82	µg/L	90
33) DIBROMOMETHANE	8.924	174	1316	1.00	µg/L #	76
34) BROMODICLMETHANE	9.107	83	2978	1.14	µg/L	92
35) 2-CLETHYLVINYLETHER	9.899	63	1057	0.90	µg/L #	57
36) EPICHLOROHYDRIN	10.427	57	5018	22.13	µg/L	90
37) 4METHYL-2-PENTANONE	10.975	43	9372	3.21	µg/L #	77
38) CIS13DICLPROPENE	10.051	75	1608	0.59	µg/L	78
40) TOLUENE	10.416	91	6111	0.81	µg/L	86
41) TRANS13DICLPROPENE	11.076	75	1599	0.59	µg/L #	58
42) 112-TRICHLOROETHANE	11.350	97	1771	0.95	µg/L #	83
43) 2-HEXANONE	12.416	43	4343	2.10	µg/L #	75
44) 13-DICHLOROPROPANE	11.828	76	2145	0.65	µg/L #	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:37:39 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

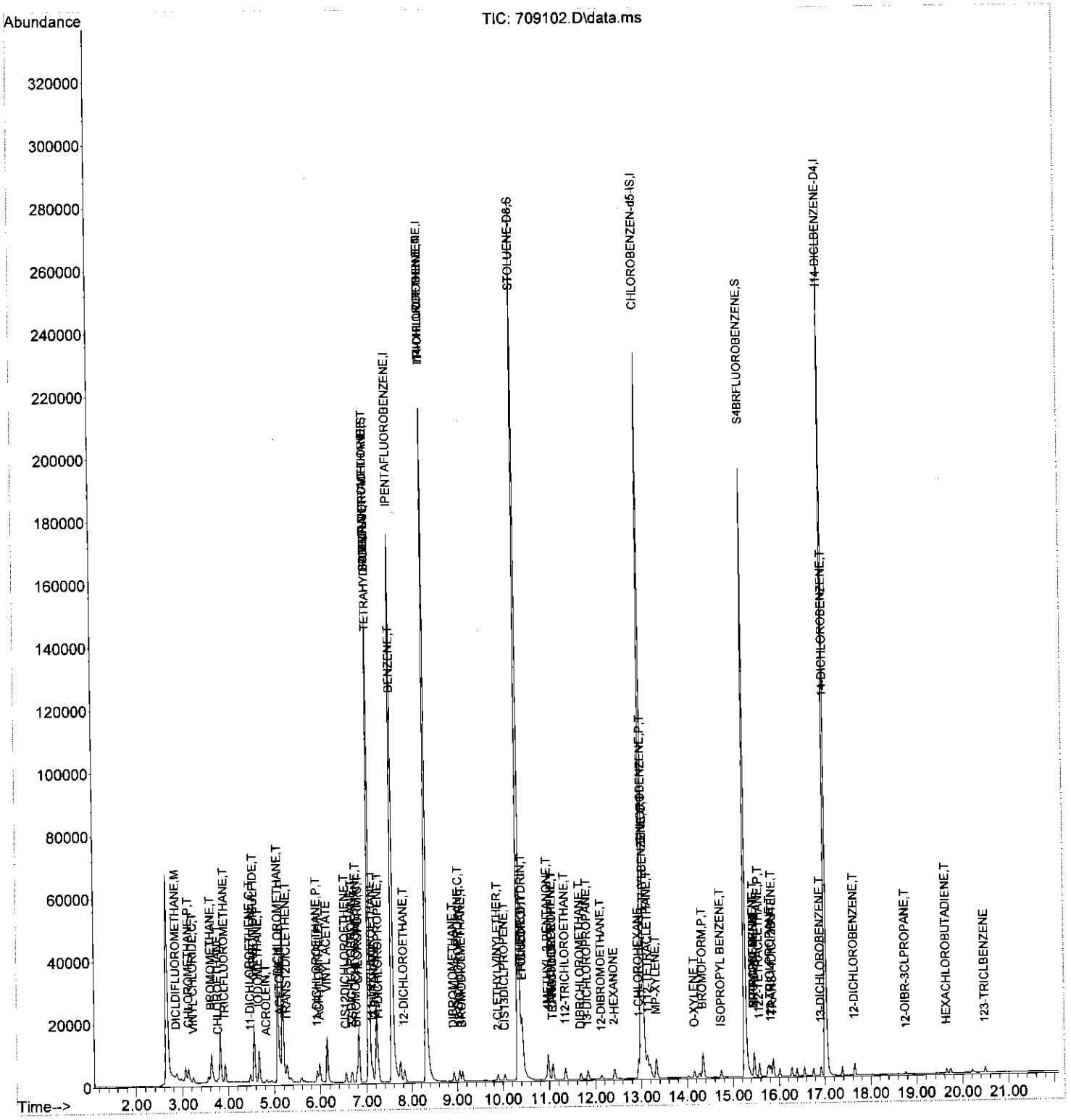
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	1751	0.76 µg/L	97
46) TETRACHLOROETHENE	11.076	166	1413	0.80 µg/L	82
47) 12-DIBROMOETHANE	12.132	107	1252	0.67 µg/L #	94
49) CHLOROBENZENE	13.046	112	4463	0.85 µg/L #	29
50) 1-CHLOROHEXANE	12.954	91	2249	0.89 µg/L #	34
51) 1112-TETRACLETHANE	13.147	131	1788	0.93 µg/L #	39
52) ETHYLBENZENE	13.056	91	7070	0.84 µg/L	83
53) MP-XYLENE	13.330	91	6236	0.89 µg/L	91
54) STYRENE	14.274	104	1822	N.D.	
55) O-XYLENE	14.162	91	3841m	0.54 µg/L	
56) BROMOFORM	14.345	173	5611	3.00 µg/L	97
57) 1122-TETRACLETHANE	15.574	83	3154	0.93 µg/L	96
58) ISOPROPYL BENZENE	14.741	105	4122m	0.51 µg/L	
60) 123-TRICLPROPANE	15.817	110	700	0.71 µg/L	86
61) TRANS14DICL2BUTENE	15.858	53	2074	4.57 µg/L #	63
62) BROMOBENZENE	15.462	77	3086	0.72 µg/L	74
63) N-PROPYLBENZENE	15.462	91	7387m	0.76 µg/L	
64) 2-CHLOROTOLUENE	15.746	91	3169	N.D.	
65) 4-CHLOROTOLUENE	16.010	91	2700	N.D.	
66) 135TRIMETHYLBENZENE	15.766	105	2410	N.D.	
67) TERT-BUTYLBENZENE	16.284	119	1810	N.D.	
68) 124TRIMETHYLBENZENE	16.386	105	2226	N.D.	
69) SEC-BUTYLBENZENE	16.558	105	2661	N.D.	
70) 13-DICHLOROBENZENE	16.924	146	2196m	0.57 µg/L	
72) 4-ISOPROPYLTOLUENE	16.761	119	2028	N.D.	
73) 14-DICHLOROBENZENE	17.035	146	3402	1.11 µg/L #	1
74) 12-DICHLOROBENZENE	17.645	146	2268	0.73 µg/L	95
75) N-BUTYLBENZENE	17.381	91	2276	N.D.	
76) 12-DIBR-3CLPROPANE	18.771	157	272	0.55 µg/L #	48
77) 124-TRICLBENZENE	19.726	180	933	N.D.	
78) NAPHTHALENE	20.213	128	1775	N.D.	
79) HEXACHLOROBUTADIENE	19.644	225	716	0.92 µg/L	89
80) 123-TRICLBENZENE	20.487	182	993	0.53 µg/L	81

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709102.D
Acq On : 13 Mar 2018 12:10 pm
Operator : NIVA
Sample : MDL/2825922
Misc : RUN197091
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 15:37:39 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Feb 06 15:43:25 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709103.D
Acq On : 13 Mar 2018 12:36 pm
Operator : NIVA
Sample : ICV/2825921
Misc : RUN197091
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 15:45:28 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	IPENTAFLUOROBENZENE	1.000	1.000	0.0	44#	0.01
2	M	DICLDIFLUOROMETHANE	0.260	0.302	-16.2	47#	0.04
3	P,T	CHLOROMETHANE	0.451	0.339	24.8#	33#	0.03
4	C,T	VINYL CHLORIDE	0.271	0.306	-12.9	45#	0.02
5	T	BROMOMETHANE	0.260	0.230	11.5	38#	0.03
6	T	CHLOROETHANE	0.148	0.169	-14.2	51	0.04
7	T	TRICLFLUOROMETHANE	0.454	0.512	-12.8	45#	0.07
8	T	ACROLEIN	0.006	0.005#	16.7	37#	0.01
9	T	ACETONE	0.100	0.121	-21.0#	54	0.00
10	C,T	11-DICHLOROETHENE	0.218	0.240	-10.1	45#	0.03
11	T	IODOMETHANE	0.205	0.404	-97.1#	76	0.02
12	T	CARBON DISULFIDE	0.589	0.707	-20.0#	48#	0.02
13	T	ACRYLONITRILE	0.149	0.133	10.7	38#	0.00
14	T	DICHLOROMETHANE	0.373	0.224	39.9#	35#	0.01
15	T	TRANS12DICLETHENE	0.231	0.275	-19.0	49#	0.02
16	P,T	11-DICHLOROETHANE	0.472	0.548	-16.1	48#	0.01
17		VINYL ACETATE	0.746	0.805	-7.9	46#	0.00
18		2-BUTANONE	0.212	0.210	0.9	41#	0.00
19	T	CIS12DICHLOROETHENE	0.275	0.239	13.1	37#	0.00
20	T	22-DICHLOROPROPANE	0.345	0.355	-2.9	43#	0.01
21	C,T	CHLOROFORM	0.557	0.640	-14.9	47#	0.01
22	T	BROMOCHLOROMETHANE	0.319	0.354	-11.0	47#	0.00
23	I	I14-DIFLUOROBENZENE	1.000	1.000	0.0	38#	0.01
24	S	SDIBRFLUOROMETHANE	0.402	0.447	-11.2	42#	0.00
25	T	TETRAHYDROFURAN	0.244	0.207	15.2	30#	0.00
26	T	111-TRICHLOROETHANE	0.304	0.320	-5.3	37#	0.00
27	T	11-DICHLOROPROPENE	0.222	0.247	-11.3	40#	0.00
28	T	12-DICHLOROETHANE	0.307	0.326	-6.2	38#	0.00
29	T	CARBONTETRACHLORIDE	0.251	0.280	-11.6	39#	0.00
30	T	BENZENE	0.659	0.720	-9.3	39#	0.00
31	T	TRICHLOROETHENE	0.170	0.181	-6.5	39#	0.00
32	C,T	12-DICHLOROPROPANE	0.196	0.197	-0.5	37#	0.00
33	T	DIBROMOMETHANE	0.132	0.130	1.5	37#	0.00
34	T	BROMODICLMETHANE	0.262	0.307	-17.2	42#	0.00
35	T	2-CLETHYLVINYLETHER	0.117	0.105	10.3	34#	0.00
36	T	EPICHLOROHYDRIN	0.023	0.026#	-13.0	42#	0.00
37	T	4METHYL-2-PENTANONE	0.293	0.333	-13.7	41#	0.00
38	T	CIS13DICLPROPENE	0.275	0.286	-4.0	38#	0.00
39	S	STOLUENE-D8	1.178	1.353	-14.9	43#	0.00
40	C,T	TOLUENE	0.761	0.787	-3.4	37#	0.00
41	T	TRANS13DICLPROPENE	0.227	0.296	-30.4#	44#	0.00
42	T	112-TRICHLOROETHANE	0.188	0.212	-12.8	42#	0.02
43		2-HEXANONE	0.207	0.209	-1.0	36#	0.00
44	T	13-DICHLOROPROPANE	0.330	0.350	-6.1	39#	0.01

45	T	DIBRCHLOROMETHANE	0.182	0.248	-36.3#	46#	0.01
46	T	TETRACHLOROETHENE	0.176	0.204	-15.9	43#	0.00
47	T	12-DIBROMOETHANE	0.188	0.192	-2.1	38#	0.02
48	I	CHLOROBENZEN-d5-IS	1.000	1.000	0.0	48#	0.00
49	P,T	CHLOROBENZENE	0.556	0.509	8.5	43#	0.00
50		1-CHLOROHEXANE	0.270	0.292	-8.1	52	-0.03
51	T	1112-TETRACLETHANE	0.205	0.209	-2.0	47#	0.00
52	C,T	ETHYLBENZENE	0.895	0.817	8.7	41#	0.00
53	T	MP-XYLENE	0.745	0.653	12.3	40#	0.00
54	T	STYRENE	0.541	0.449	17.0	38#	0.02
55	T	O-XYLENE	0.758	0.644	15.0	38#	0.00
56	P,T	BROMOFORM	0.146	0.163	-11.6	49#	0.01
57	P,T	1122-TETRACLETHANE	0.361	0.333	7.8	43#	0.04
58	T	ISOPROPYL BENZENE	0.855	0.700	18.1	37#	0.02
59	S	S4BRFLUOROBENZENE	0.542	0.497	8.3	43#	0.03
60	T	123-TRICLPROPANE	0.105	0.096#	8.6	42#	0.04
61	T	TRANS14DICL2BUTENE	0.044	0.055#	-25.0#	55	0.04
62	T	BROMOBENZENE	0.458	0.418	8.7	43#	0.04
63	T	N-PROPYLBENZENE	1.040	0.930	10.6	41#	0.04
64	T	2-CHLOROTOLUENE	0.749	0.642	14.3	39#	0.04
65	T	4-CHLOROTOLUENE	0.662	0.569	14.0	41#	0.05
66	T	135TRIMETHYLBENZENE	0.788	0.718	8.9	42#	0.03
67	T	TERT-BUTYLBENZENE	0.617	0.533	13.6	40#	0.05
68	T	124TRIMETHYLBENZENE	0.770	0.666	13.5	39#	0.05
69	T	SEC-BUTYLBENZENE	0.869	0.786	9.6	41#	0.06
70	T	13-DICHLOROBENZENE	0.410	0.337	17.8	38#	0.06
71	I	I14-DICLBENZENE-D4	1.000	1.000	0.0	48#	-0.01
72	T	4-ISOPROPYLTOLUENE	1.328	1.157	12.9	39#	0.05
73	T	14-DICHLOROBENZENE	0.760	0.707	7.0	43#	0.04
74	T	12-DICHLOROBENZENE	0.773	0.680	12.0	41#	0.06
75	T	N-BUTYLBENZENE	1.212	1.087	10.3	40#	0.05
76	T	12-DIBR-3CLPROPANE	0.101	0.099#	2.0	42#	0.05
77		124-TRICLBENZENE	0.472	0.396	16.1	39#	0.06
78	T	NAPHTHALENE	1.407	1.228	12.7	40#	0.07
79	T	HEXACHLOROBUTADIENE	0.193	0.181	6.2	41#	0.06
80		123-TRICLBENZENE	0.466	0.374	19.7	37#	0.06

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

8260VOC-JAN2-LIQ-18.M Fri Mar 16 15:45:45 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709103.D
Acq On : 13 Mar 2018 12:36 pm
Operator : NIVA
Sample : ICV/2825921
Misc : RUN197091
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 15:45:28 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) IPENTAFLUOROBENZENE	7.574	168	156807m	20.00	µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	206896	20.00	µg/L	0.00
48) CHLOROBENZEN-d5-IS	13.015	117	230375	20.00	µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	125139	20.00	µg/L	-0.01
System Monitoring Compounds						
24) SDIBRFLUOROMETHANE	7.056	111	92511m	22.26	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 111.30%			
39) STOLUENE-D8	10.335	98	279928	22.97	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 114.85%			
59) S4BRFLUOROBENZENE	15.259	95	114556	18.37	µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.85%			
Target Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.873	85	47318	23.22	µg/L	99
3) CHLOROMETHANE	3.127	50	53123	21.29	µg/L	98
4) VINYL CHLORIDE	3.229	62	48014m	22.58	µg/L	
5) BROMOMETHANE	3.625	94	36114m	22.84	µg/L	
6) CHLOROETHANE	3.767	64	26467m	22.74	µg/L	
7) TRICLFLUOROMETHANE	3.919	101	80207m	22.55	µg/L	
8) ACROLEIN	4.833	56	19543	444.82	µg/L	98
9) ACETONE	5.127	43	95111	120.85	µg/L #	98
10) 11-DICHLOROETHENE	4.488	61	37595m	22.01	µg/L	
11) IODOMETHANE	4.670	142	316421m	123.92	µg/L	
12) CARBON DISULFIDE	4.569	76	554694m	120.16	µg/L	
13) ACRYLONITRILE	5.980	53	104430	89.43	µg/L	97
14) DICHLOROMETHANE	5.097	84	35148m	22.00	µg/L	
15) TRANS12DICLETHENE	5.269	96	43090	23.83	µg/L	97
16) 11-DICHLOROETHANE	5.939	63	85903	23.19	µg/L	98
17) VINYL ACETATE	6.142	43	631040	107.96	µg/L #	93
18) 2-BUTANONE	7.188	43	164514	98.99	µg/L #	91
19) CIS12DICHLOROETHENE	6.548	96	37466	17.36	µg/L #	78
20) 22-DICHLOROPROPANE	6.680	77	55610m	20.58	µg/L	
21) CHLOROFORM	6.833	83	100295	22.97	µg/L #	99
22) BROMOCHLOROMETHANE	6.782	49	55525	22.20	µg/L #	70
25) TETRAHYDROFURAN	7.076	42	42788m	16.97	µg/L	
26) 111-TRICHLOROETHANE	7.127	97	66199m	21.05	µg/L	
27) 11-DICHLOROPROPENE	7.269	75	51202	22.33	µg/L	89
28) 12-DICHLOROETHANE	7.827	62	67349m	21.18	µg/L	
29) CARBONTETRACHLORIDE	7.056	117	57845m	22.24	µg/L	
30) BENZENE	7.584	78	148892	21.84	µg/L #	94
31) TRICHLOROETHENE	8.325	132	37452	21.25	µg/L #	87
32) 12-DICHLOROPROPANE	9.046	63	40781	20.12	µg/L #	93
33) DIBROMOMETHANE	8.924	174	26977	19.78	µg/L #	78
34) BROMODICLMETHANE	9.107	83	63580m	23.46	µg/L	
35) 2-CLETHYLVINYLETHER	9.888	63	108988m	89.76	µg/L	
36) EPICHLOROHYDRIN	10.416	57	135319	574.90	µg/L	95
37) 4METHYL-2-PENTANONE	10.975	43	343976	113.66	µg/L #	87
38) CIS13DICLPROPENE	10.041	75	59148	20.79	µg/L	88
40) TOLUENE	10.416	91	162754	20.68	µg/L	97
41) TRANS13DICLPROPENE	11.066	75	61212	21.66	µg/L	79
42) 112-TRICHLOROETHANE	11.350	97	43840	22.56	µg/L #	85
43) 2-HEXANONE	12.406	43	216578	101.08	µg/L #	88
44) 13-DICHLOROPROPANE	11.827	76	72351	21.21	µg/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709103.D
Acq On : 13 Mar 2018 12:36 pm
Operator : NIVA
Sample : ICV/2825921
Misc : RUN197091
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 15:45:28 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

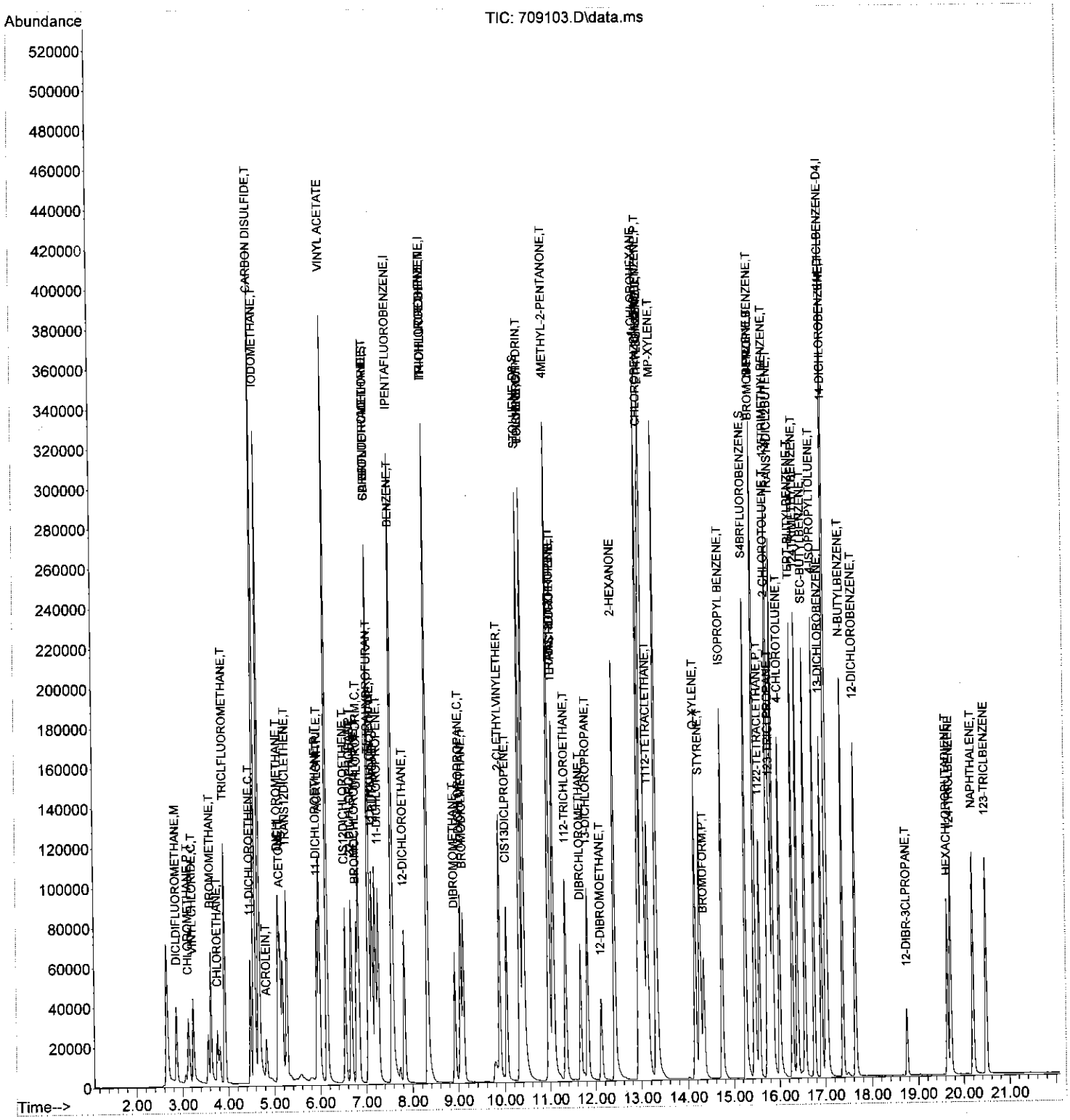
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	51320	21.51 µg/L	99
46) TETRACHLOROETHENE	11.076	166	42265	23.17 µg/L #	85
47) 12-DIBROMOETHANE	12.122	107	39781	20.49 µg/L	99
49) CHLOROBENZENE	13.046	112	117203	18.31 µg/L	82
50) 1-CHLOROHEXANE	12.944	91	67199m	21.59 µg/L	
51) 1112-TETRACLETHANE	13.147	131	48056	20.37 µg/L	92
52) ETHYLBENZENE	13.056	91	188288	18.26 µg/L	96
53) MP-XYLENE	13.320	91	300883	35.06 µg/L	92
54) STYRENE	14.264	104	103537m	16.62 µg/L	
55) O-XYLENE	14.162	91	148288m	16.99 µg/L	
56) BROMOFORM	14.345	173	37541	16.41 µg/L	100
57) 1122-TETRACLETHANE	15.573	83	76758	18.47 µg/L	99
58) ISOPROPYL BENZENE	14.741	105	161275	16.38 µg/L	93
60) 123-TRICLPROPANE	15.807	110	22088	18.33 µg/L	91
61) TRANS14DICL2BUTENE	15.858	53	63528m	114.30 µg/L	
62) BROMOBENZENE	15.452	77	96408	18.26 µg/L	78
63) N-PROPYLBENZENE	15.462	91	214264	17.88 µg/L	92
64) 2-CHLOROTOLUENE	15.746	91	147817	17.14 µg/L	86
65) 4-CHLOROTOLUENE	16.010	91	131185	17.21 µg/L	92
66) 135TRIMETHYLBENZENE	15.766	105	165344	18.21 µg/L	92
67) TERT-BUTYLBENZENE	16.284	119	122858	17.29 µg/L	89
68) 124TRIMETHYLBENZENE	16.385	105	153359	17.29 µg/L	94
69) SEC-BUTYLBENZENE	16.558	105	181074	18.08 µg/L	98
70) 13-DICHLOROBENZENE	16.913	146	77560	16.42 µg/L	96
72) 4-ISOPROPYLTOLUENE	16.761	119	144777	17.43 µg/L	97
73) 14-DICHLOROBENZENE	17.035	146	88515	18.62 µg/L	86
74) 12-DICHLOROBENZENE	17.644	146	85102	17.60 µg/L	94
75) N-BUTYLBENZENE	17.380	91	136076	17.94 µg/L	96
76) 12-DIBR-3CLPROPANE	18.761	157	12439m	16.16 µg/L	
77) 124-TRICLBENZENE	19.725	180	49566m	16.78 µg/L	
78) NAPHTHALENE	20.203	128	153658m	17.46 µg/L	
79) HEXACHLOROBUTADIENE	19.654	225	22599	18.72 µg/L	99
80) 123-TRICLBENZENE	20.487	182	46784	16.03 µg/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709103.D
Acq On : 13 Mar 2018 12:36 pm
Operator : NIVA
Sample : ICV/2825921
Misc : RUN197091
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 15:45:28 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709104.D
Acq On : 13 Mar 2018 1:02 pm
Operator : NIVA
Sample : 2819491
Misc : RUN197091
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 15:46:58 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) IPENTAFLUOROBENZENE	7.574	168	131259	20.00	µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	208125	20.00	µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	185152	20.00	µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	81012	20.00	µg/L	-0.01
System Monitoring Compounds						
24) SDIBRFLUOROMETHANE	7.056	111	91108m	21.79	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 108.95%			
39) STOLUENE-D8	10.335	98	259434	21.17	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.85%			
59) S4BRFLUOROBENZENE	15.269	95	86787	17.31	µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 86.55%			
Target Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.863	85	69	N.D.		
3) CHLOROMETHANE	0.000		0	N.D.	d	
4) VINYL CHLORIDE	0.000		0	N.D.		
5) BROMOMETHANE	3.625	94	184	N.D.		
6) CHLOROETHANE	0.000		0	N.D.	d	
7) TRICLFLUOROMETHANE	3.919	101	199	N.D.		
8) ACROLEIN	0.000		0	N.D.		
9) ACETONE	0.000		0	N.D.	d	
10) 11-DICHLOROETHENE	0.000		0	N.D.		
11) IODOMETHANE	4.681	142	423	N.D.		
12) CARBON DISULFIDE	0.000		0	N.D.	d	
13) ACRYLONITRILE	0.000		0	N.D.		
14) DICHLOROMETHANE	0.000		0	N.D.	d	
15) TRANS12DICLETHENE	5.259	96	138	N.D.		
16) 11-DICHLOROETHANE	0.000		0	N.D.		
17) VINYL ACETATE	6.153	43	68	N.D.		
18) 2-BUTANONE	7.208	43	75	N.D.		
19) CIS12DICHLOROETHENE	0.000		0	N.D.		
20) 22-DICHLOROPROPANE	0.000		0	N.D.		
21) CHLOROFORM	6.833	83	811	N.D.		
22) BROMOCHLOROMETHANE	0.000		0	N.D.	d	
25) TETRAHYDROFURAN	7.026	42	278	N.D.		
26) 111-TRICHLOROETHANE	0.000		0	N.D.		
27) 11-DICHLOROPROPENE	0.000		0	N.D.		
28) 12-DICHLOROETHANE	0.000		0	N.D.		
29) CARBONTETRACHLORIDE	6.975	117	371	N.D.		
30) BENZENE	7.584	78	178	N.D.		
31) TRICHLOROETHENE	0.000		0	N.D.		
32) 12-DICHLOROPROPANE	0.000		0	N.D.		
33) DIBROMOMETHANE	0.000		0	N.D.		
34) BROMODICLMETHANE	0.000		0	N.D.		
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.		
36) EPICHLOROHYDRIN	10.335	57	67	N.D.		
37) 4METHYL-2-PENTANONE	10.975	43	434	N.D.		
38) CIS13DICLPROPENE	0.000		0	N.D.		
40) TOLUENE	10.427	91	250	N.D.		
41) TRANS13DICLPROPENE	0.000		0	N.D.		
42) 112-TRICHLOROETHANE	0.000		0	N.D.		
43) 2-HEXANONE	12.437	43	592	N.D.		
44) 13-DICHLOROPROPANE	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709104.D
Acq On : 13 Mar 2018 1:02 pm
Operator : NIVA
Sample : 2819491
Misc : RUN197091
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 15:46:58 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

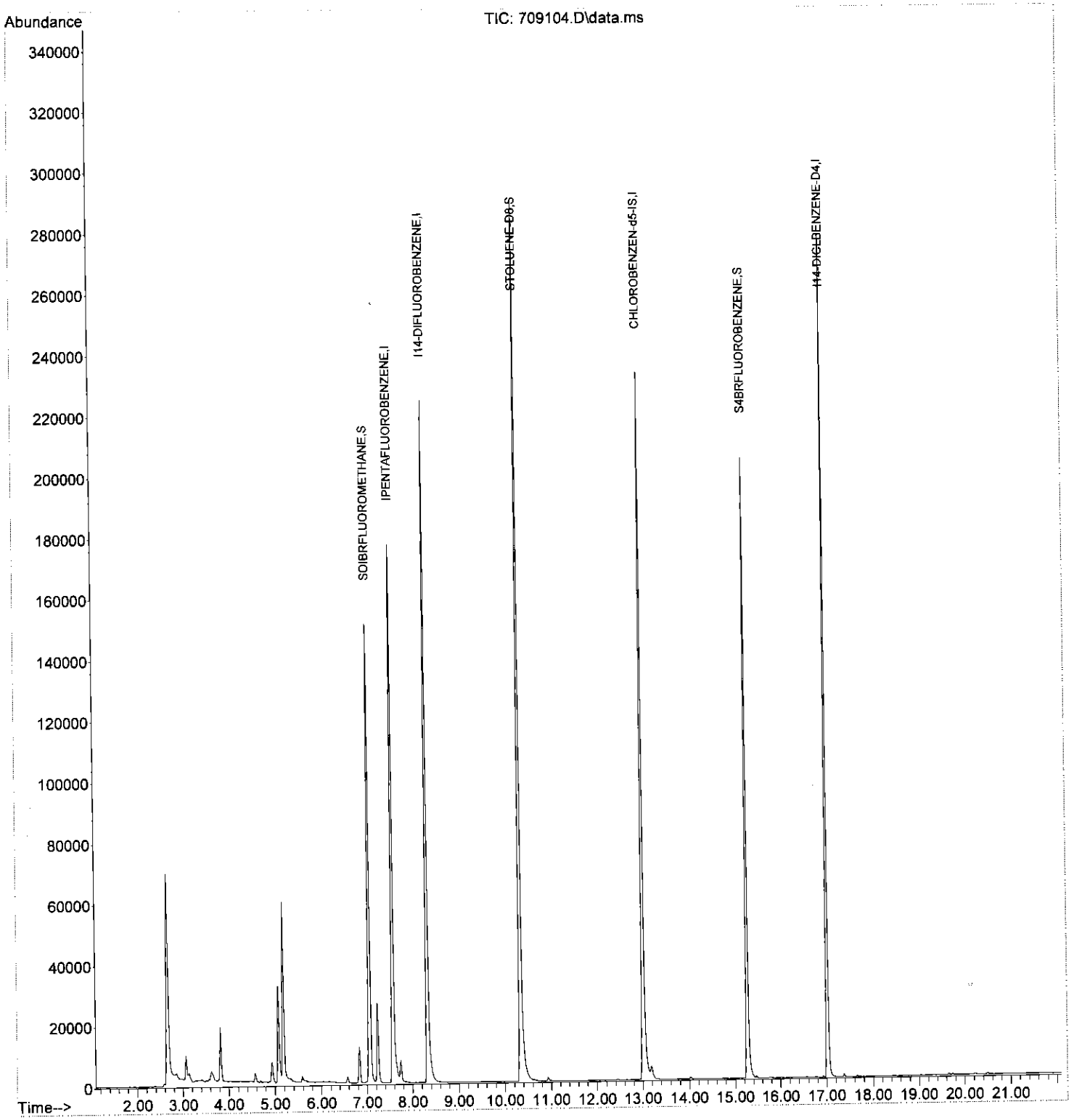
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	13.046	112	242	N.D.	
50) 1-CHLOROHEXANE	12.944	91	68	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	867	N.D.	
53) MP-XYLENE	13.330	91	538	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	14.741	105	65	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.472	77	319	N.D.	
63) N-PROPYLBENZENE	15.462	91	885	N.D.	
64) 2-CHLOROTOLUENE	15.746	91	243	N.D.	
65) 4-CHLOROTOLUENE	16.010	91	342	N.D.	
66) 135TRIMETHYLBENZENE	15.777	105	244	N.D.	
67) TERT-BUTYLBENZENE	16.274	119	125	N.D.	
68) 124TRIMETHYLBENZENE	16.396	105	210	N.D.	
69) SEC-BUTYLBENZENE	16.558	105	357	N.D.	
70) 13-DICHLOROBENZENE	16.924	146	285	N.D.	
72) 4-ISOPROPYLTOLUENE	16.761	119	336	N.D.	
73) 14-DICHLOROBENZENE	17.046	146	1110	N.D.	
74) 12-DICHLOROBENZENE	17.644	146	375	N.D.	
75) N-BUTYLBENZENE	17.381	91	1003	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	19.726	180	351	N.D.	
78) NAPHTHALENE	20.223	128	894	N.D.	
79) HEXACHLOROBUTADIENE	19.655	225	383	N.D.	
80) 123-TRICLBENZENE	20.497	182	375	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709104.D
Acq On : 13 Mar 2018 1:02 pm
Operator : NIVA
Sample : 2819491
Misc : RUN197091
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 15:46:58 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



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Library Searched : C:\Database\WILEY275.L
Quality          : 9
ID               : 2-Propanone (CAS) $$ Acetone $$ propan-2-one $$ Propanone $$ Methyl ketone $$
                   Dimethyl ketone $$ Pyroacetic ether $$ .beta.-Ketopropane $$ Dimethylformaldeh
                   yde $$ ACETONE (2-PROPANONE) $$ (CH3)2CO $$ Allylic alcohol $$ Dimethylketal $
                   $ Ketone propane $$ K
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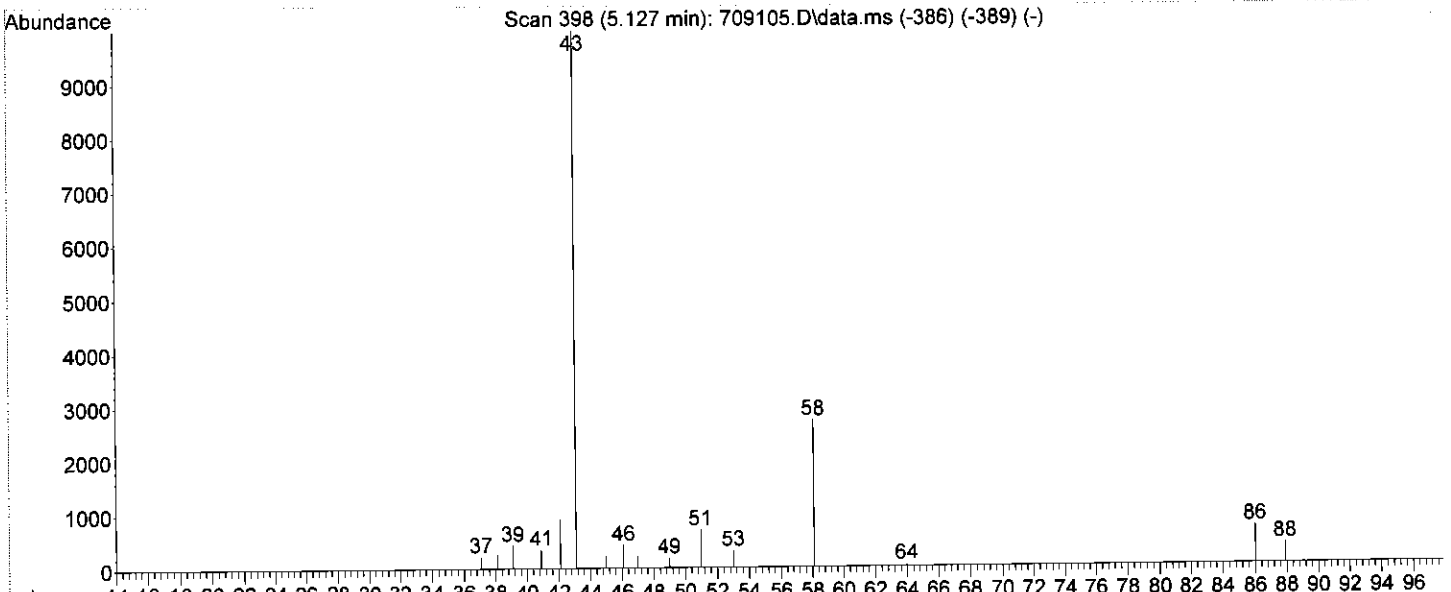
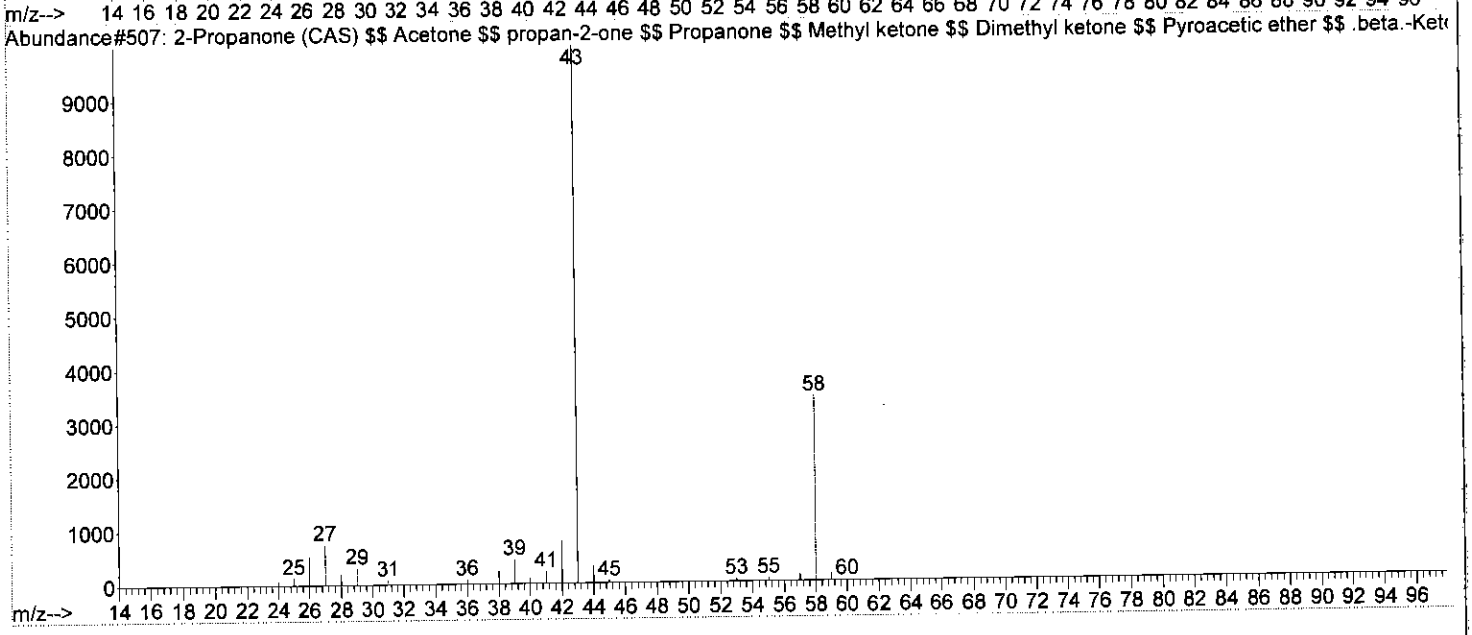




Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709105.D
Acq On : 13 Mar 2018 1:28 pm
Operator : NIVA
Sample : 2820186
Misc : RUN197091
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 15:48:55 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	116143	20.00 µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	193834	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	173117	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	76335	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	81996m	21.06 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery	= 105.30%	
39) STOLUENE-D8	10.335	98	249254	21.83 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery	= 109.15%	
59) S4BRFLUOROBENZENE	15.269	95	81674	17.42 µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery	= 87.10%	
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.635	94	244	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	5.127	43	14321	24.57 µg/L	98
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.670	142	166	N.D.	
12) CARBON DISULFIDE	0.000		0	N.D. d	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	0.000		0	N.D. d	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	6.173	43	157	N.D.	
18) 2-BUTANONE	7.219	43	562	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	0.000		0	N.D. d	
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.076	42	62	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	182	N.D.	
30) BENZENE	7.584	78	2466	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	9.107	83	465	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D. d	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.934	43	63	N.D.	
38) CIS13DICLPROPENE	9.980	75	62	N.D.	
40) TOLUENE	0.000		0	N.D. d	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709105.D
Acq On : 13 Mar 2018 1:28 pm
Operator : NIVA
Sample : 2820186
Misc : RUN197091
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 15:48:55 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

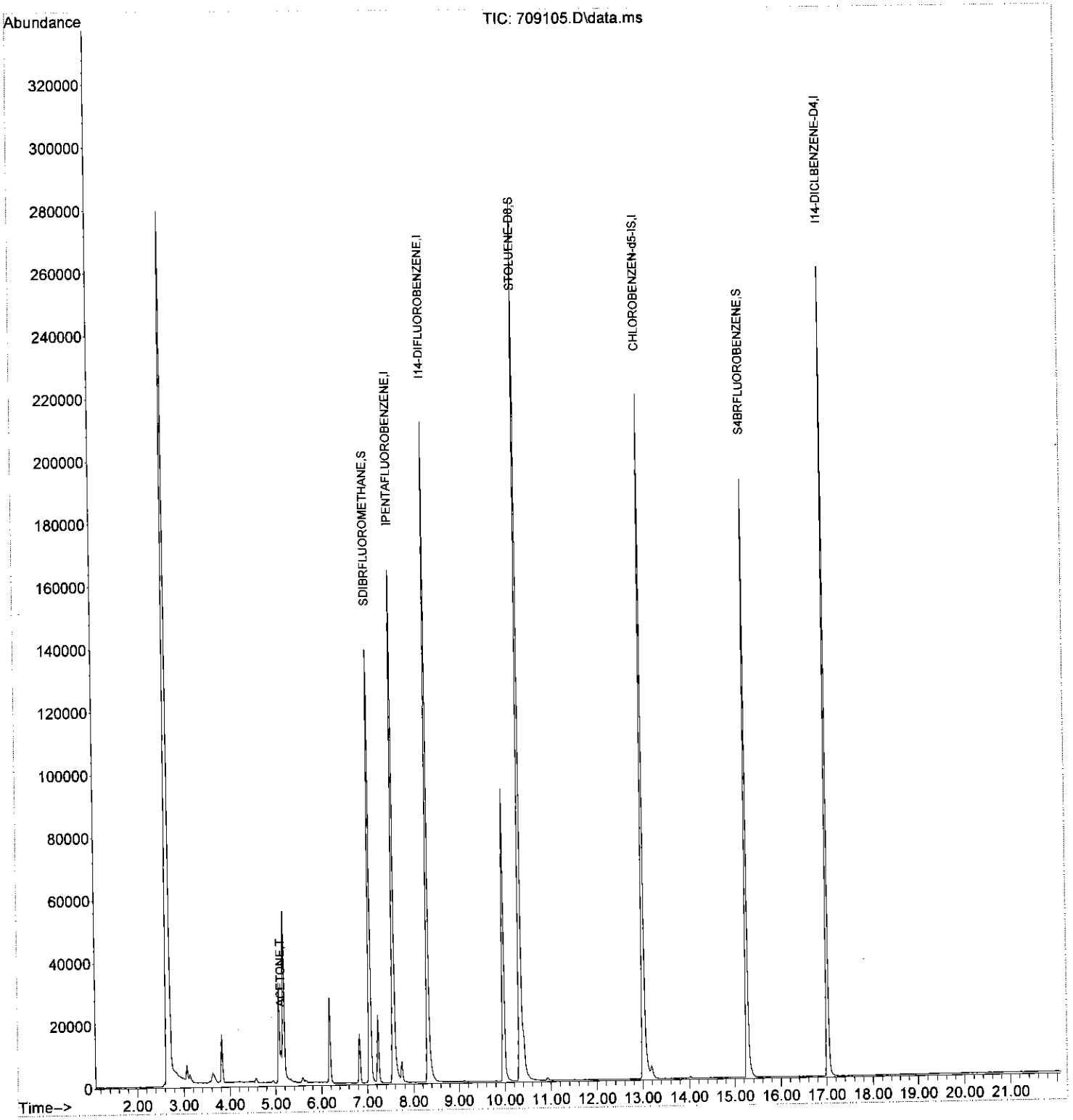
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	13.015	91	378	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.015	91	510	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.269	77	456	N.D.	
63) N-PROPYLBENZENE	15.462	91	65	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	17.046	146	496	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.370	91	127	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

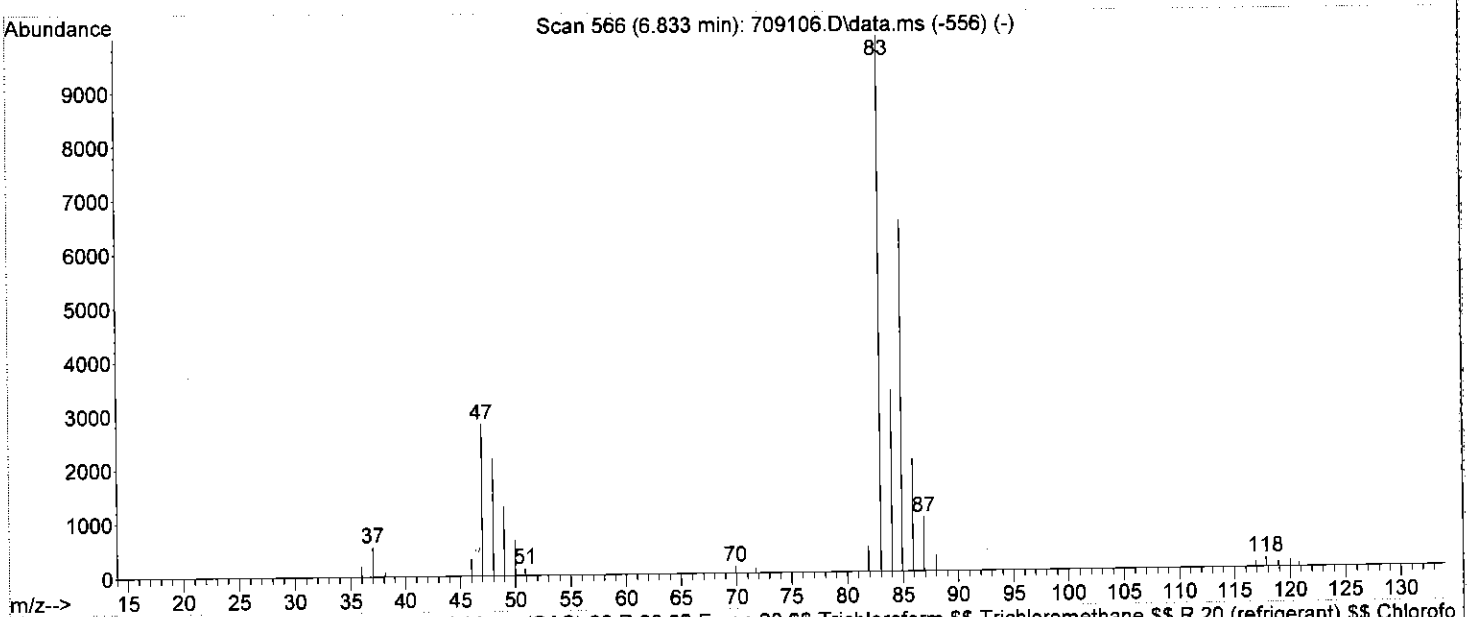
Quantitation Report (QT Reviewed)

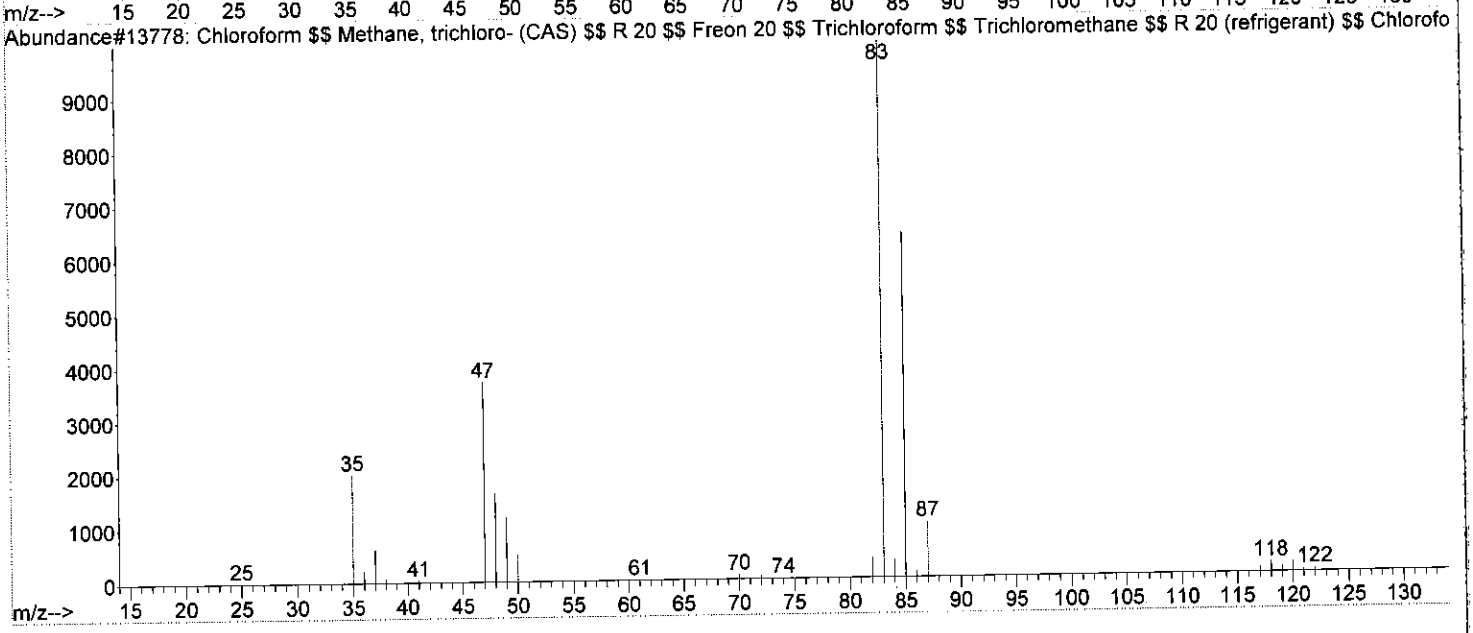
Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709105.D
Acq On : 13 Mar 2018 1:28 pm
Operator : NIVA
Sample : 2820186
Misc : RUN197091
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 15:48:55 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 76
ID : Chloroform $$ Methane, trichloro- (CAS) $$ R 20 $$ Freon 20 $$ Trichloroform $$ Trichloromethane $$ R 20 (refrigerant) $$ Chloroform (ACN)(DOT) $$ TRICHLOROMETHANE (CHLOROFORM) $$ CHCl3 $$ Formyl trichloride $$ Methane trichloride $$ Methenyl trichloride





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709106.D
Acq On : 13 Mar 2018 1:55 pm
Operator : NIVA
Sample : 2820188
Misc : RUN197091
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:51:26 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	112130	20.00 µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	184789	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	166187	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	72975	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	81796m	22.03 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery	= 110.15%	
39) STOLUENE-D8	10.335	98	237679	21.84 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery	= 109.20%	
59) S4BRFLUOROBENZENE	15.269	95	79466	17.66 µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery	= 88.30%	
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	0.000		0	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	4.711	61	579	N.D.	
11) IODOMETHANE	4.670	142	62	N.D.	
12) CARBON DISULFIDE	0.000		0	N.D. d	
13) ACRYLONITRILE	6.041	53	69	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	5.188	96	361	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	7.208	43	219	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.833	83	31942	10.23 µg/L	99
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.066	42	176	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	155	N.D.	
30) BENZENE	7.574	78	66	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D. d	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.416	91	159	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709106.D
Acq On : 13 Mar 2018 1:55 pm
Operator : NIVA
Sample : 2820188
Misc : RUN197091
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:51:26 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

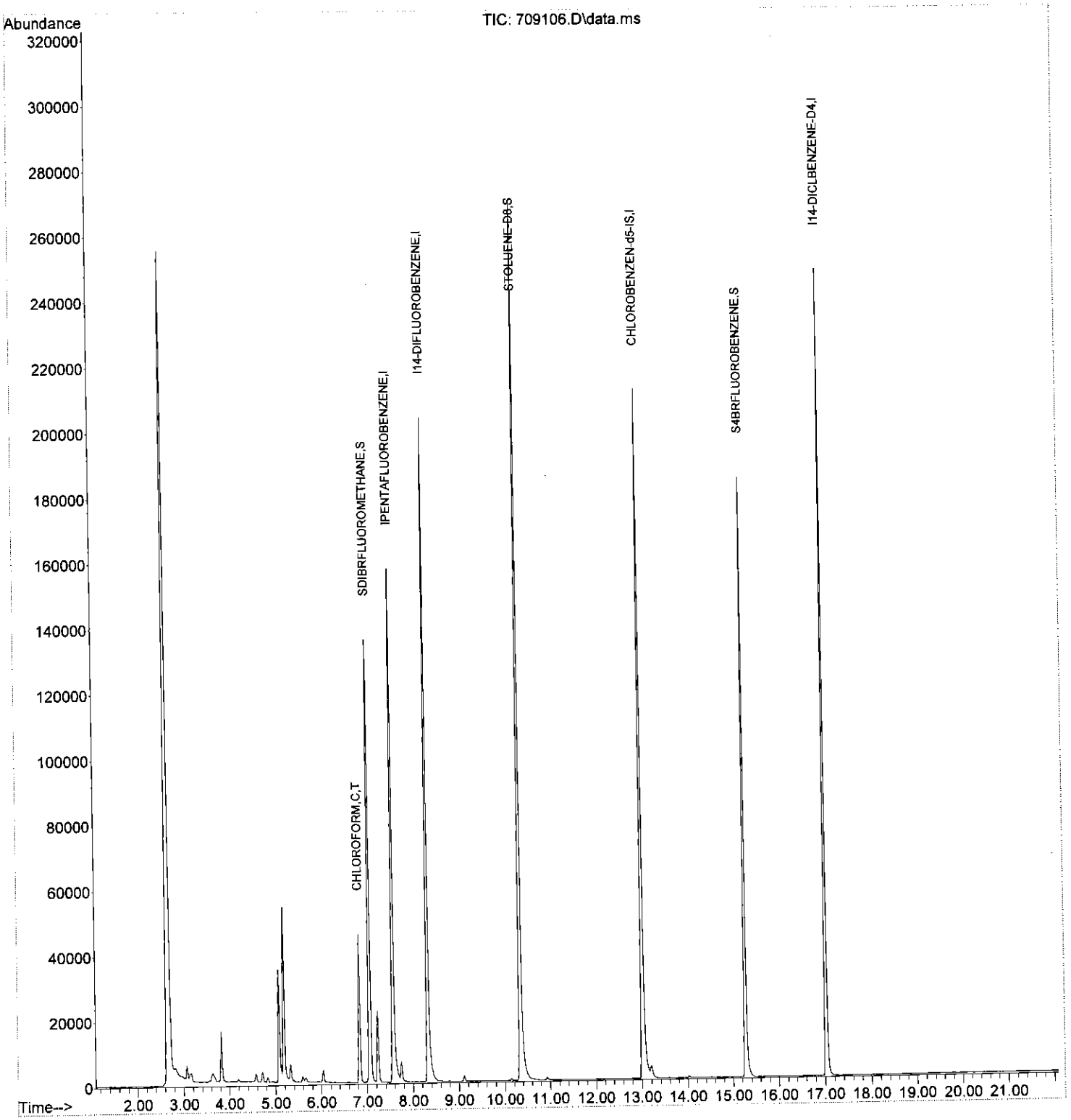
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	13.015	91	236	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.015	91	236	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.259	77	181	N.D.	
63) N-PROPYLBENZENE	15.269	91	203	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	17.046	146	1110	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709106.D
Acq On : 13 Mar 2018 1:55 pm
Operator : NIVA
Sample : 2820188
Misc : RUN197091
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:51:26 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709107.D
Acq On : 13 Mar 2018 2:21 pm
Operator : NIVA
Sample : 2822707
Misc : RUN197091
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 15:53:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	117685	20.00 µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	185770	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	165337	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	77362	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	101420	27.18 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 135.90%#		
39) STOLUENE-D8	10.335	98	242343	22.15 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 110.75%		
59) S4BRFLUOROBENZENE	15.259	95	86107	19.23 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.625	94	149	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.681	142	285	N.D.	
12) CARBON DISULFIDE	4.569	76	1609	N.D.	
13) ACRYLONITRILE	0.000		0	N.D. d	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	5.208	96	102	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	6.163	43	1011	N.D.	
18) 2-BUTANONE	7.198	43	619	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	0.000		0	N.D. d	
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.076	42	131	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	191	N.D.	
30) BENZENE	0.000		0	N.D. d	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D. d	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.944	43	130	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D. d	
40) TOLUENE	10.416	91	1266	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709107.D
Acq On : 13 Mar 2018 2:21 pm
Operator : NIVA
Sample : 2822707
Misc : RUN197091
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 15:53:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

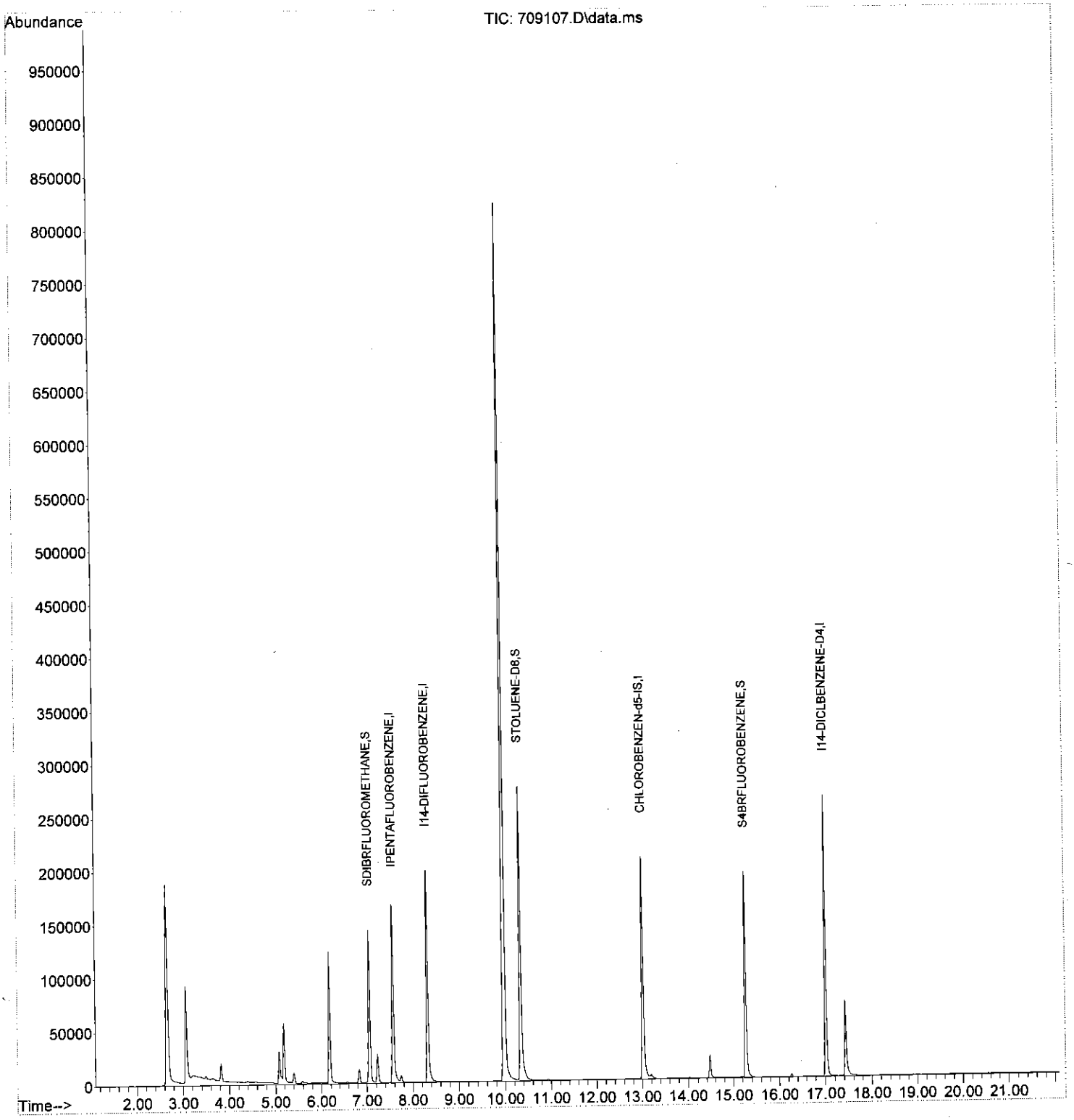
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	13.015	91	235	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.015	91	235	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.259	77	481	N.D.	
63) N-PROPYLBENZENE	15.269	91	316	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	17.046	146	192	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.431	91	214	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

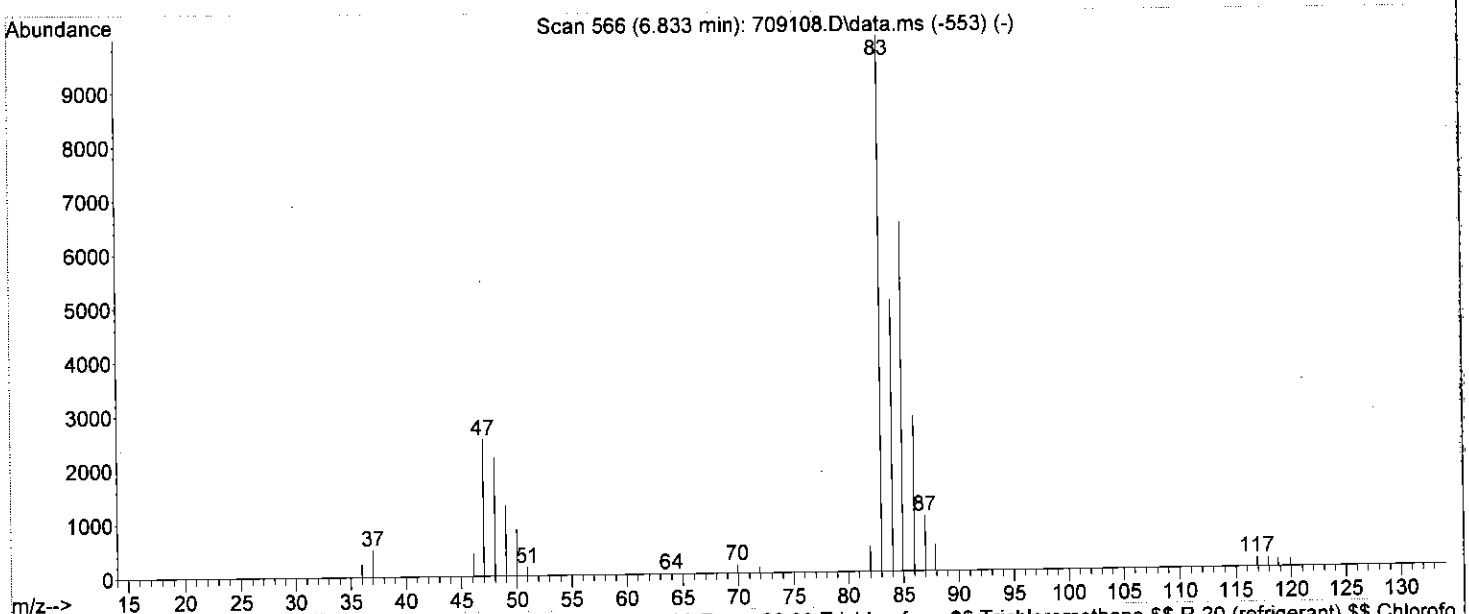
Quantitation Report (QT Reviewed)

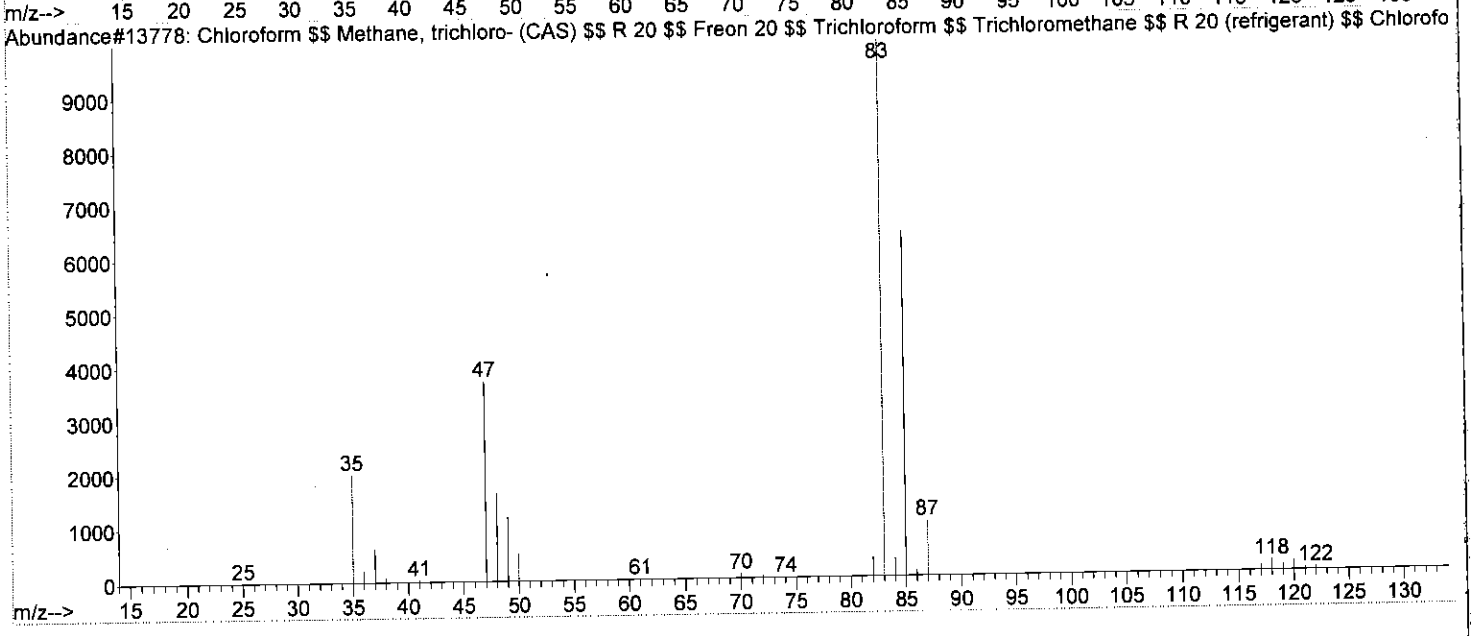
Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709107.D
Acq On : 13 Mar 2018 2:21 pm
Operator : NIVA
Sample : 2822707
Misc : RUN197091
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 15:53:27 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 64
ID : Chloroform $$ Methane, trichloro- (CAS) $$ R 20 $$ Freon 20 $$ Trichloroform $$ Trichloromethane $$ R 20 (refrigerant) $$ Chloroform (ACN)(DOT) $$ TRICHLORO METHANE (CHLOROFORM) $$ CHCl3 $$ Formyl trichloride $$ Methane trichloride $$ Methenyl trichloride





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709108.D
Acq On : 13 Mar 2018 2:47 pm
Operator : NIVA
Sample : 2822710
Misc : RUN197091
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 15:55:09 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	124283	20.00 µg/L	0.01
23) I14-DIFLUOROBENZENE	8.325	114	200261	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	157425	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	72494	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	106260	26.41 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 132.05%#		
39) STOLUENE-D8	10.335	98	247004	20.94 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.70%		
59) S4BRFLUOROBENZENE	15.269	95	77063	18.08 µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.40%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.635	94	228	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.681	142	756	N.D.	
12) CARBON DISULFIDE	0.000		0	N.D. d	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	5.219	96	79	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D. d	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.833	83	24755	7.15 µg/L	98
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.076	42	209	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	234	N.D.	
30) BENZENE	7.584	78	129	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D. d	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.924	43	146	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709108.D
Acq On : 13 Mar 2018 2:47 pm
Operator : NIVA
Sample : 2822710
Misc : RUN197091
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 15:55:09 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

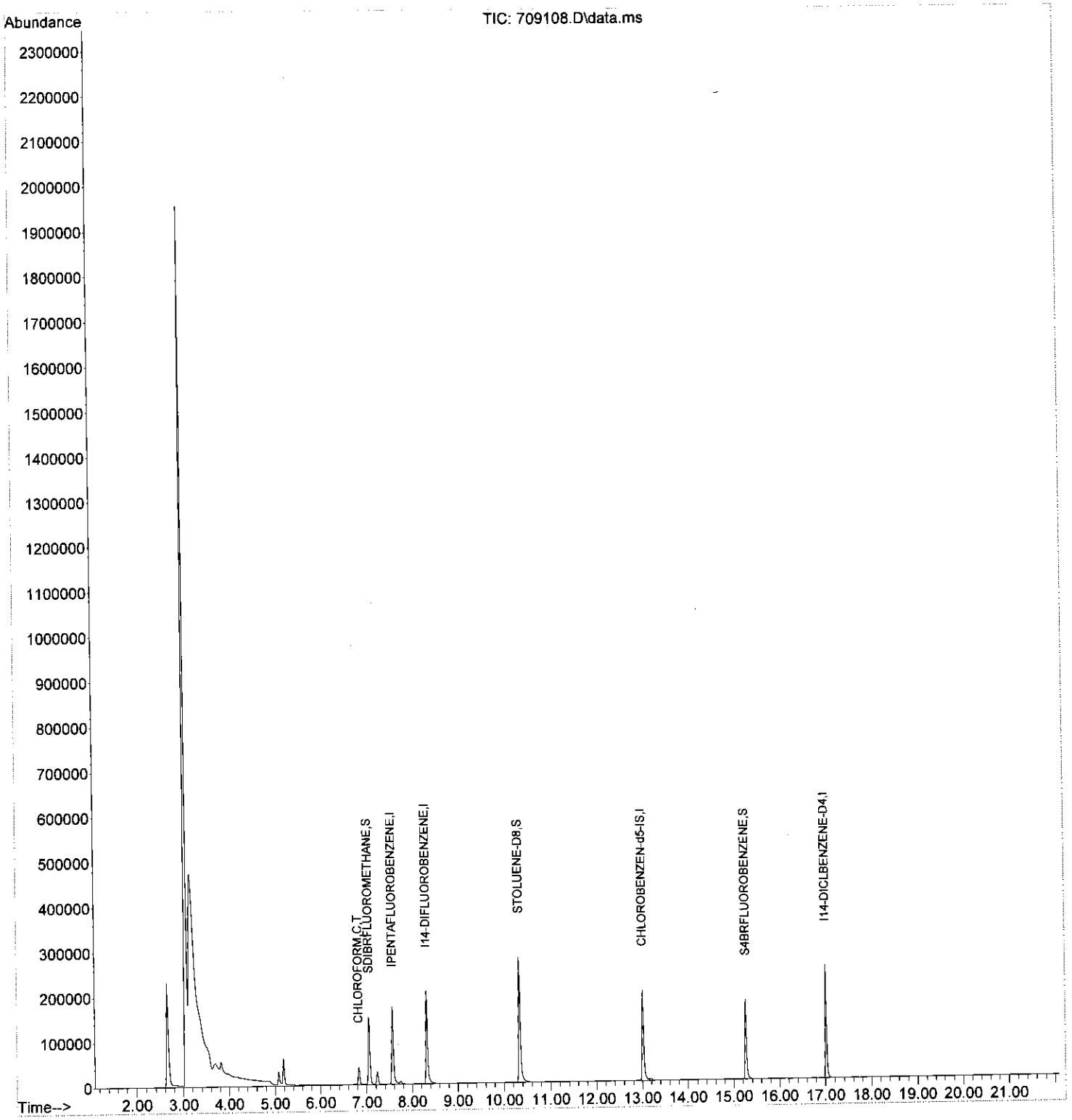
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	13.015	91	241	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.015	91	241	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.259	77	461	N.D.	
63) N-PROPYLBENZENE	15.259	91	280	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	17.035	146	1006	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

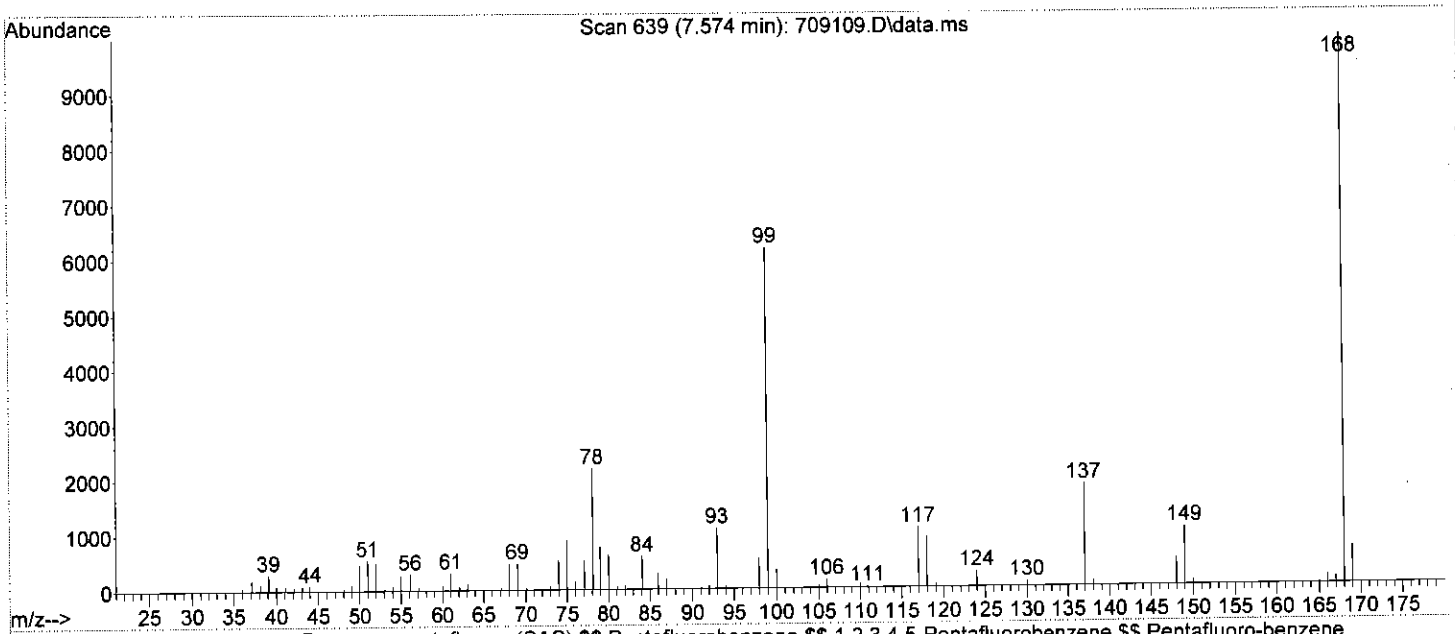
Quantitation Report (QT Reviewed)

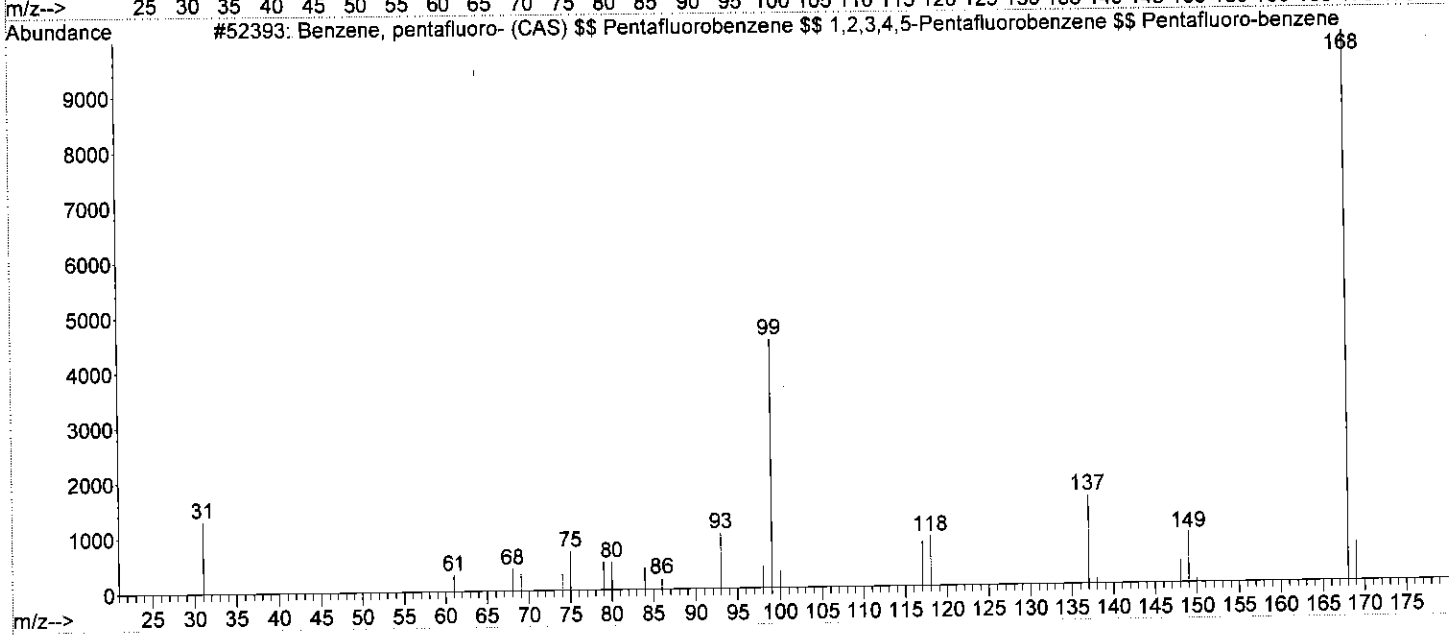
Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709108.D
Acq On : 13 Mar 2018 2:47 pm
Operator : NIVA
Sample : 2822710
Misc : RUN197091
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 15:55:09 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

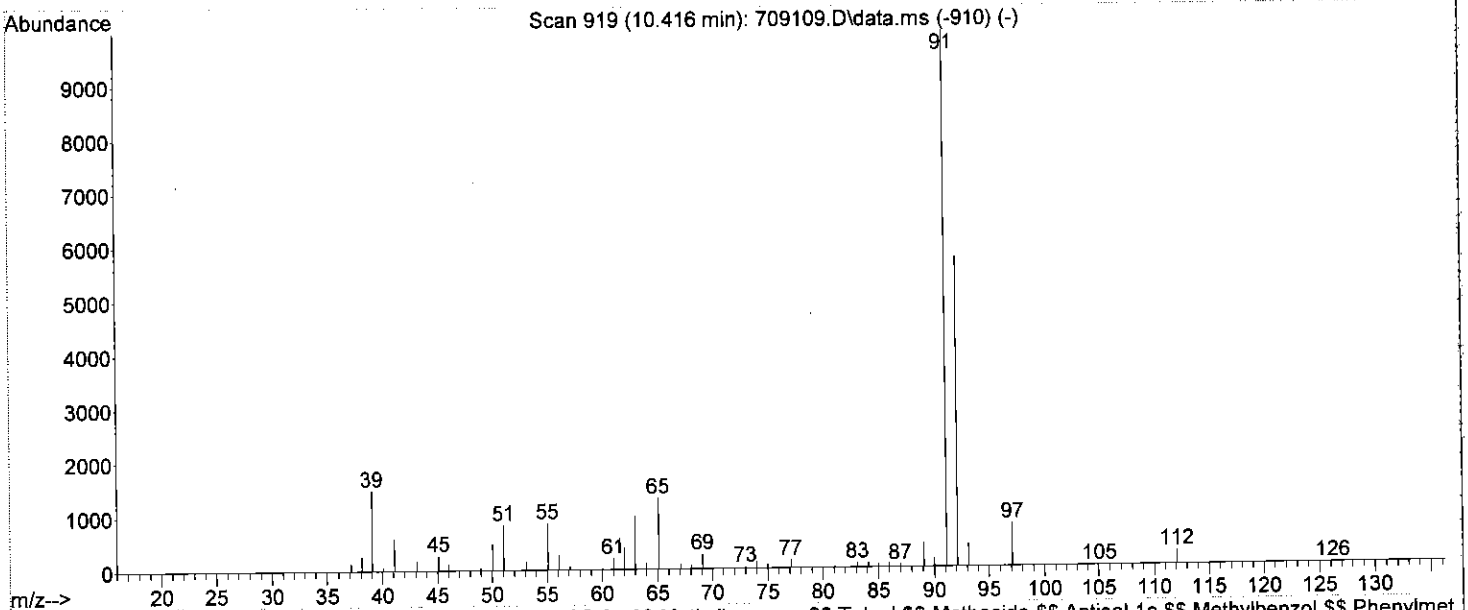


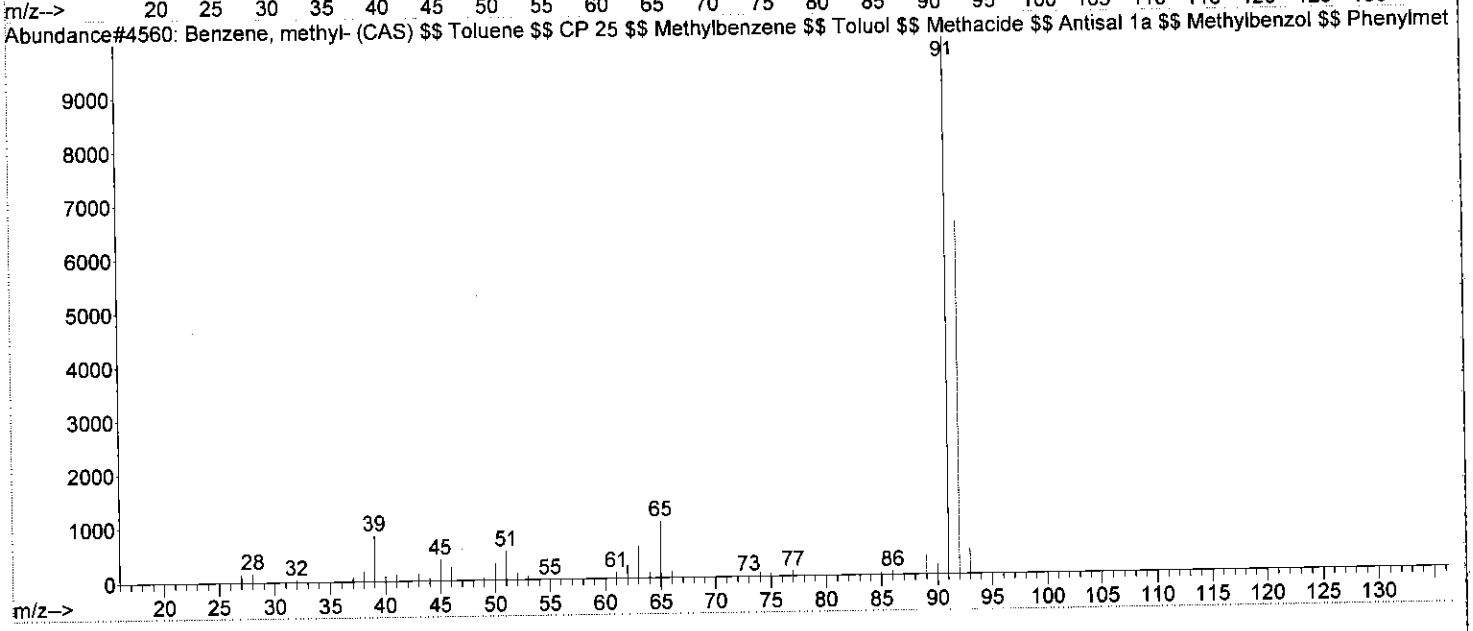
Library Searched : C:\Database\WILEY275.L
Quality : 96
ID : Benzene, pentafluoro- (CAS) $$ Pentafluorobenzene $$ 1,2,3,4,5-Pentafluorobenzene $$ Pentafluoro-benzene



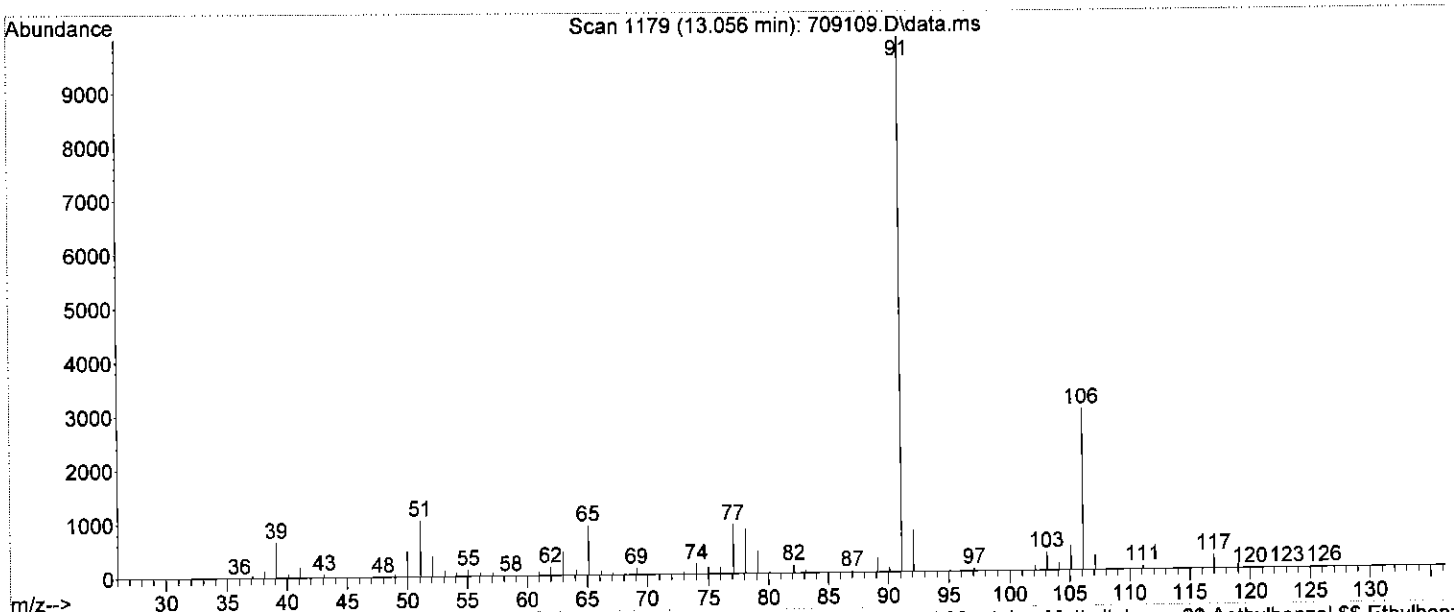


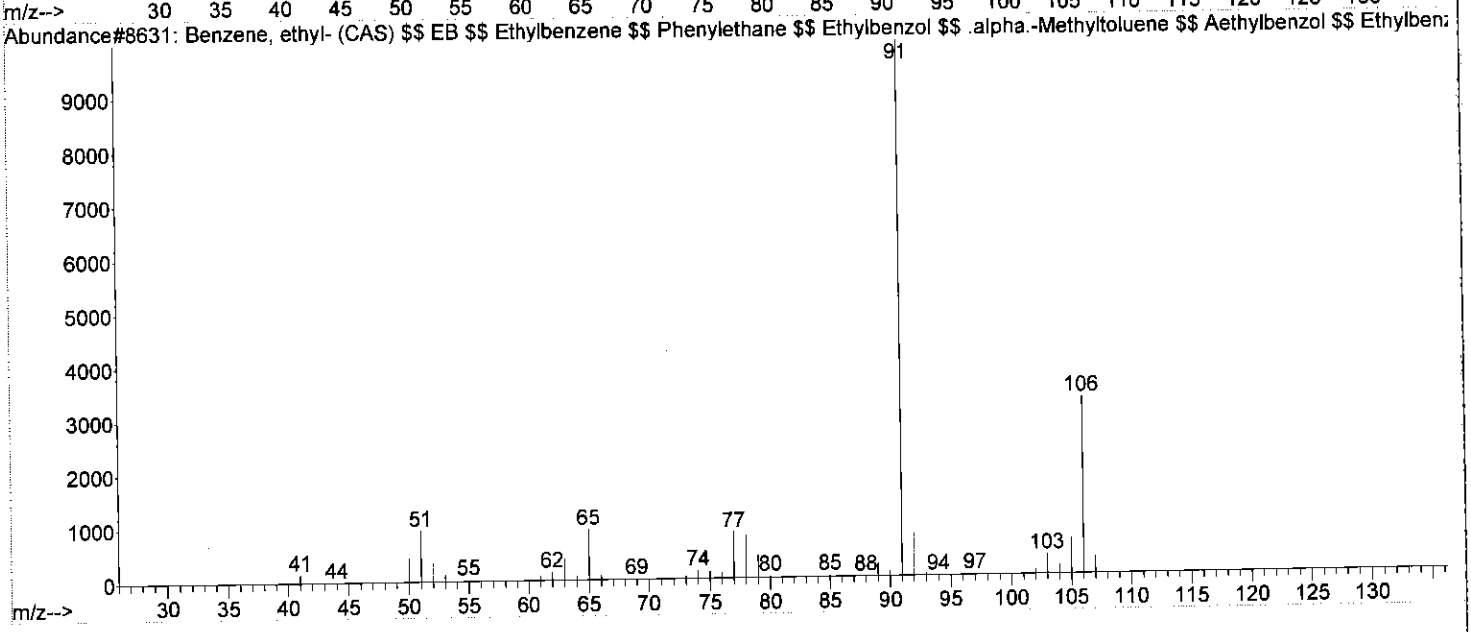
Library Searched : C:\Database\WILEY275.L
Quality : 90
ID : Benzene, methyl- (CAS) $$ Toluene $$ CP 25 $$ Methylbenzene $$ Toluol $$ Metha cide $$ Antisal 1a $$ Methylbenzol $$ Phenylmethane $$ METHYLBENZENE(TOLUENE) $$ Benzene, methyl $$ Methane, phenyl- $$ NCI-C07272 $$ Tolueen $$ Toluen $$ T oluolo $$ Rcra waste



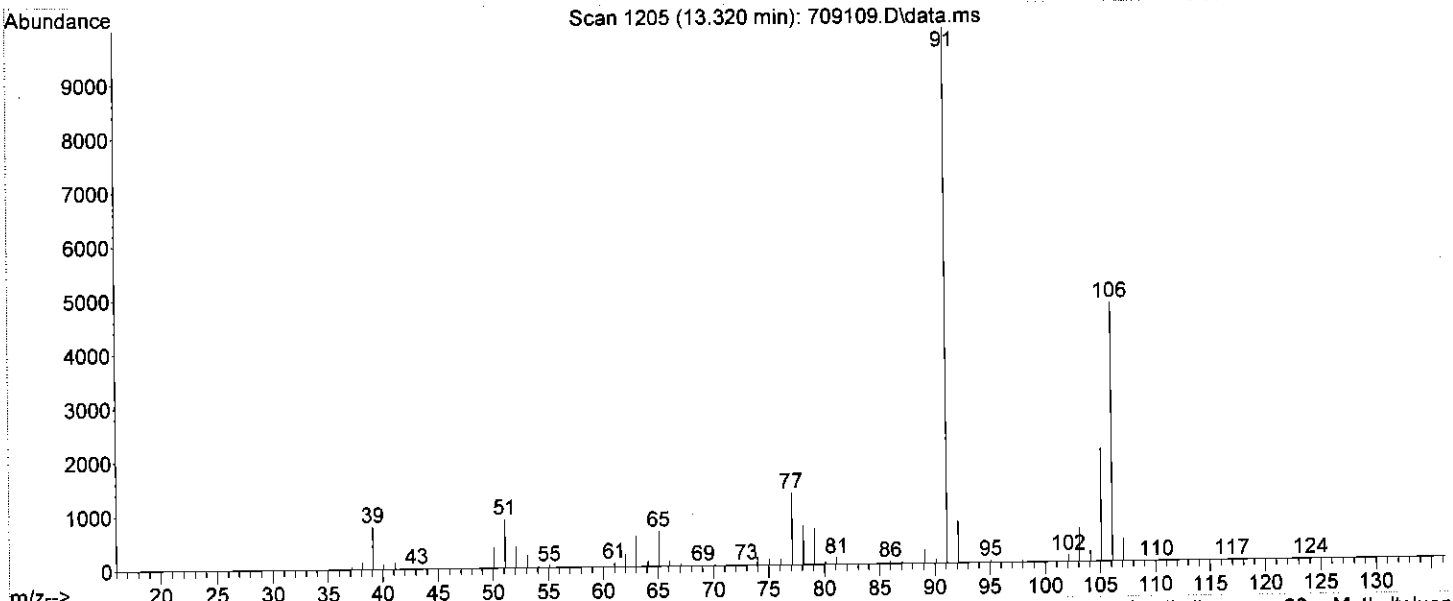


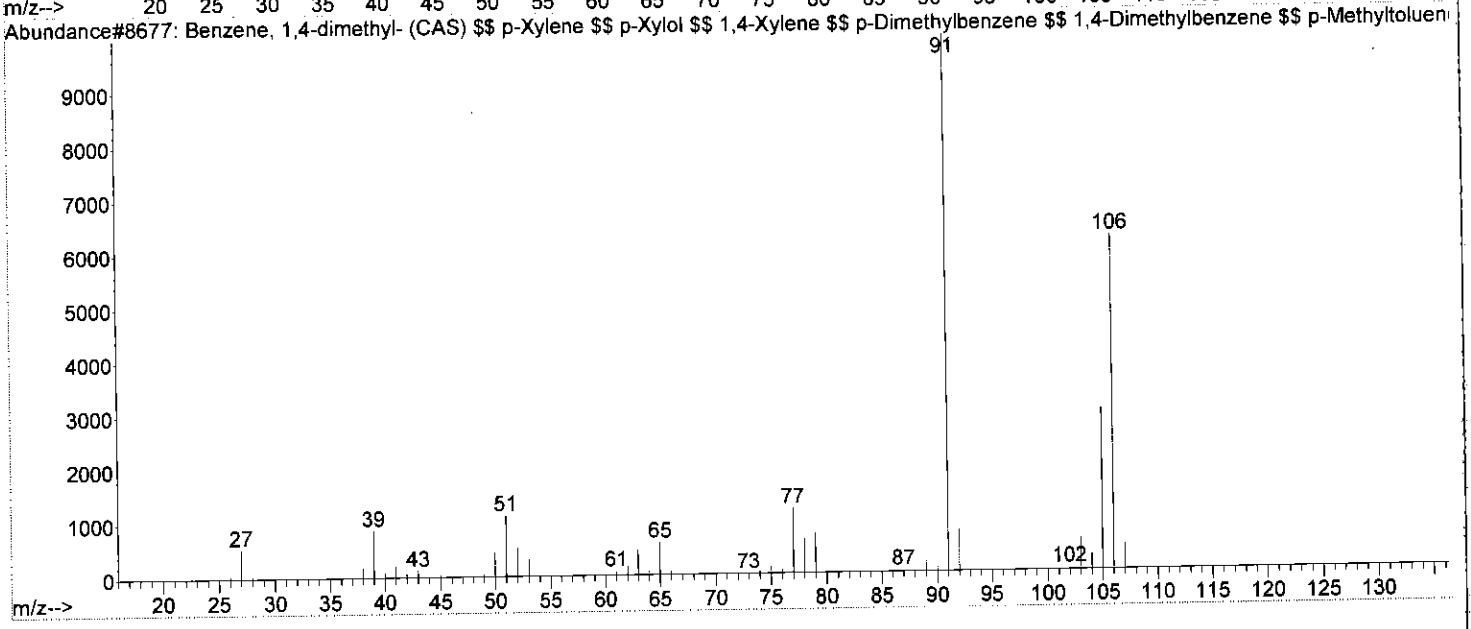
Library Searched : C:\Database\WILEY275.L
Quality : 95
ID : Benzene, ethyl- (CAS) $$ EB $$ Ethylbenzene $$ Phenylethane $$ Ethylbenzol $$ .alpha.-Methyltoluene $$ Aethylbenzol $$ Ethylbenzeen $$ Etilbenzene $$ Etylobenzen $$ NCI-C56393 $$ UN 1175



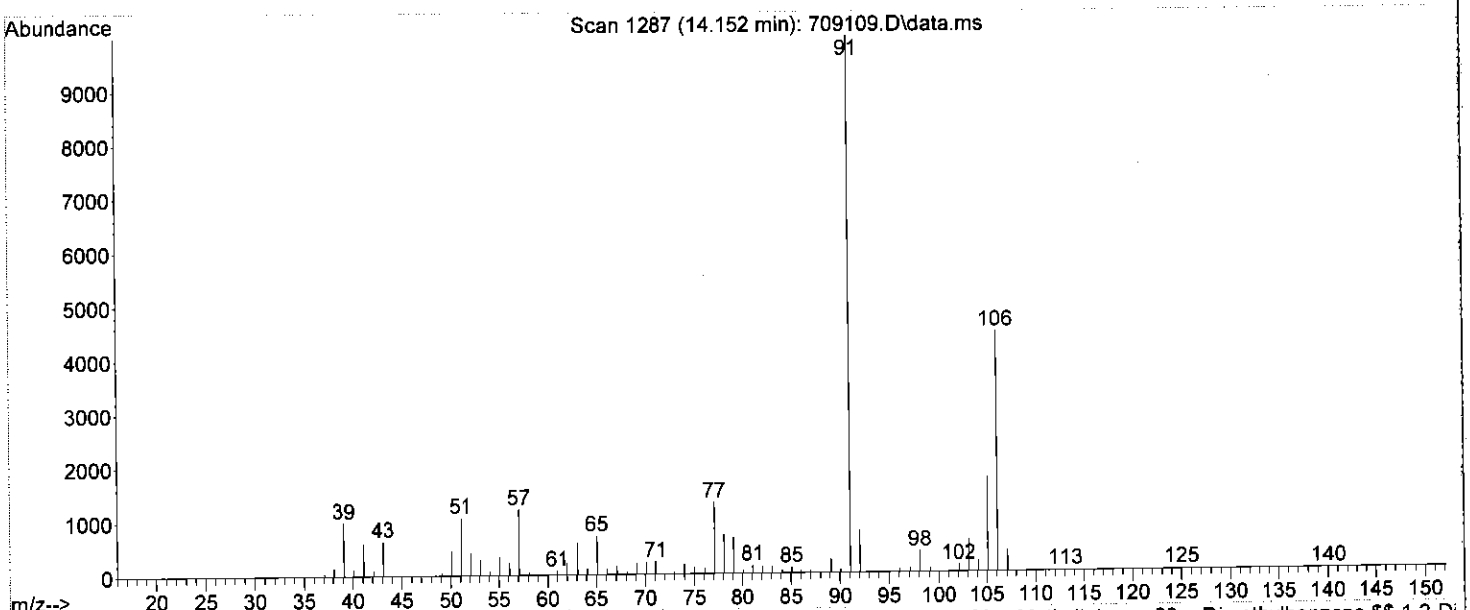


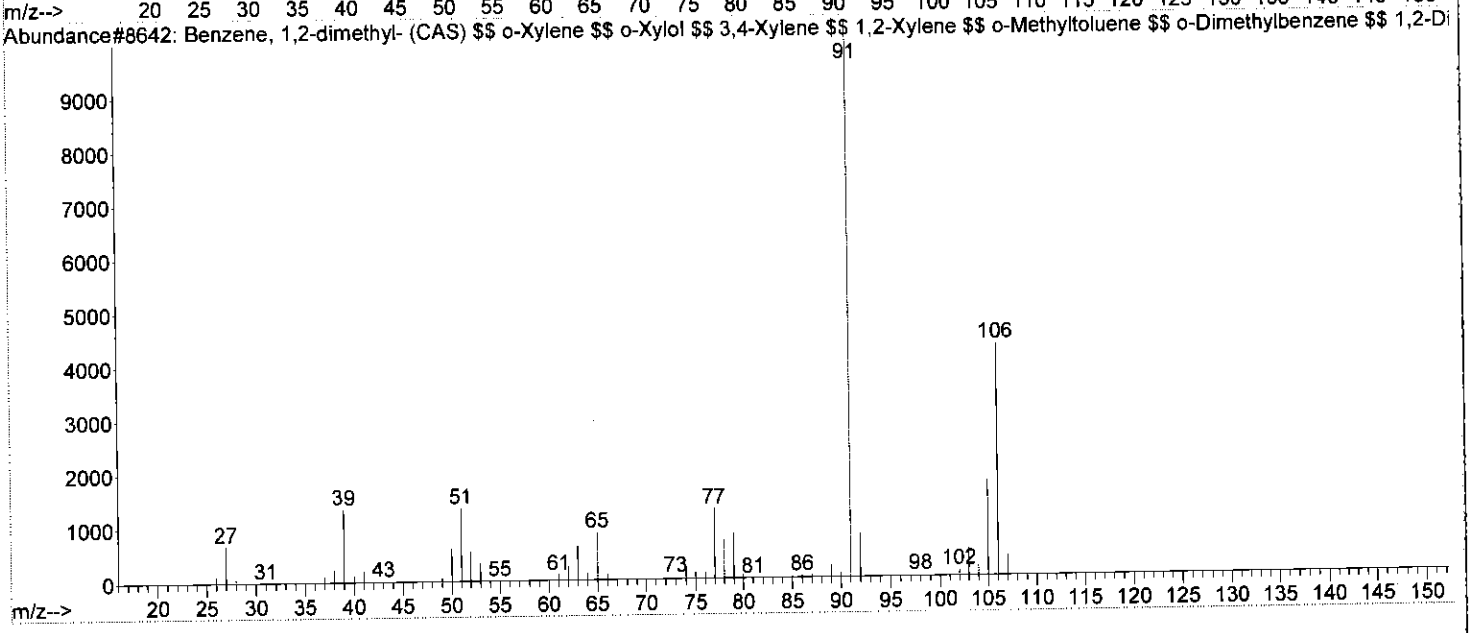
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,4-dimethyl- (CAS) $$ p-Xylene $$ p-Xylol $$ 1,4-Xylene $$ p-Dimethylbenzene $$ 1,4-Dimethylbenzene $$ p-Methyltoluene $$ 4-Methyltoluene $$ 1,4-Dimethyl-benzene $$ 1,4-DIMETHYLBENZENE(P-XYLENE) $$ 1,4-DIMETHYLBENZENE (P-XYLENE) $$ para-Xylene $



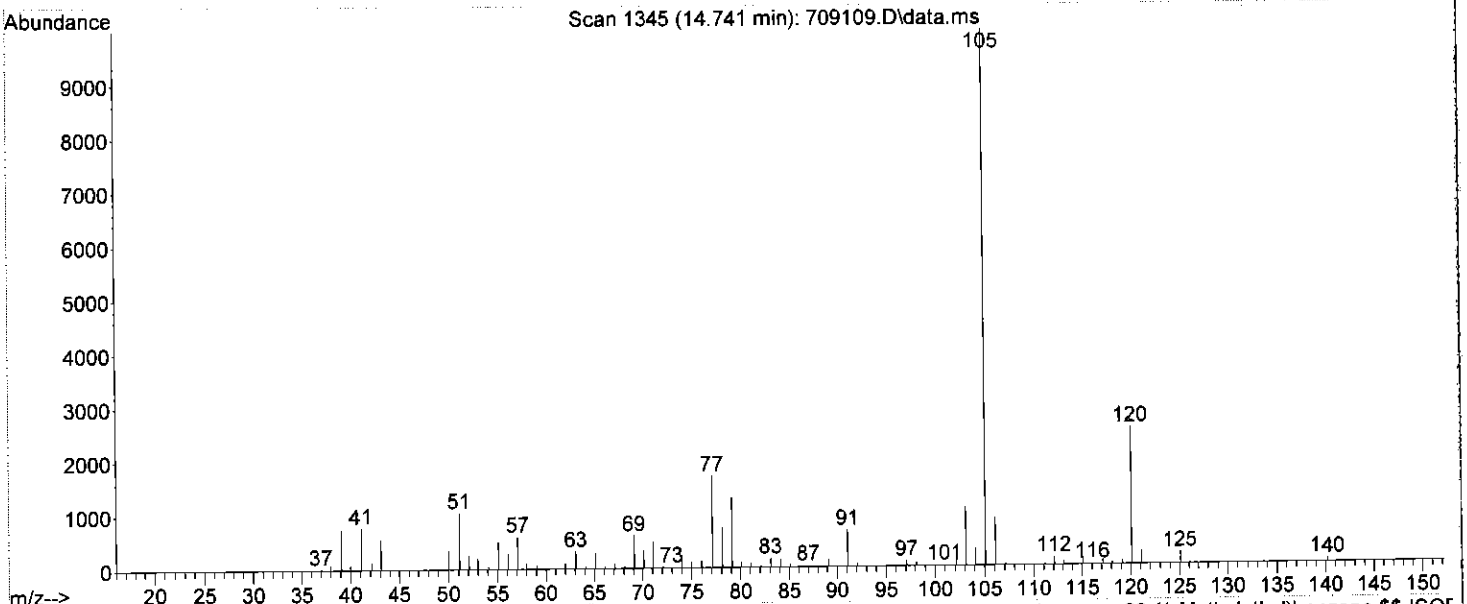


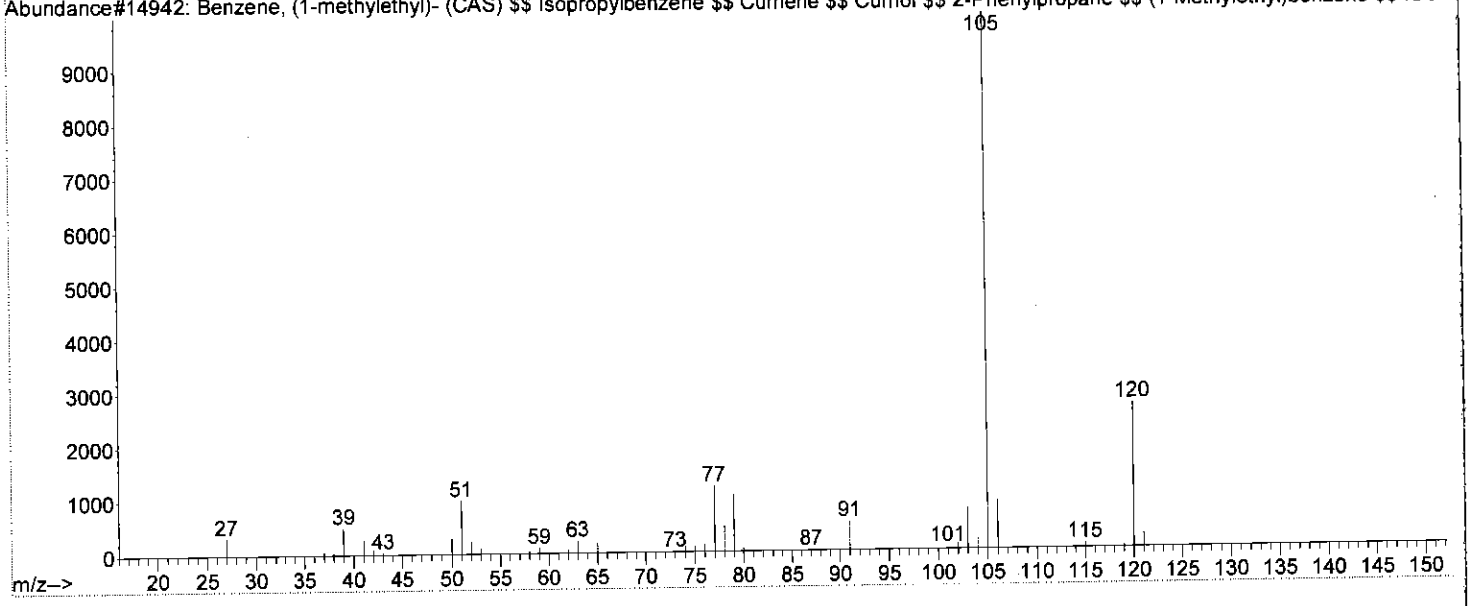
Library Searched : C:\Database\WILEY275.L
Quality : 95
ID : Benzene, 1,2-dimethyl- (CAS) $$ o-Xylene $$ o-Xylol $$ 3,4-Xylene $$ 1,2-Xylene $$ o-Methyltoluene $$ o-Dimethylbenzene $$ 1,2-Dimethylbenzene $$ ortho-Xylene $$ 1,2-Dimethyl-benzene $$ 0-Xylene $$ 1,2-DIMETHYLBENZENE (O-XYLENE) $$ 1,2-DIMETHYLBENZENE(O-X



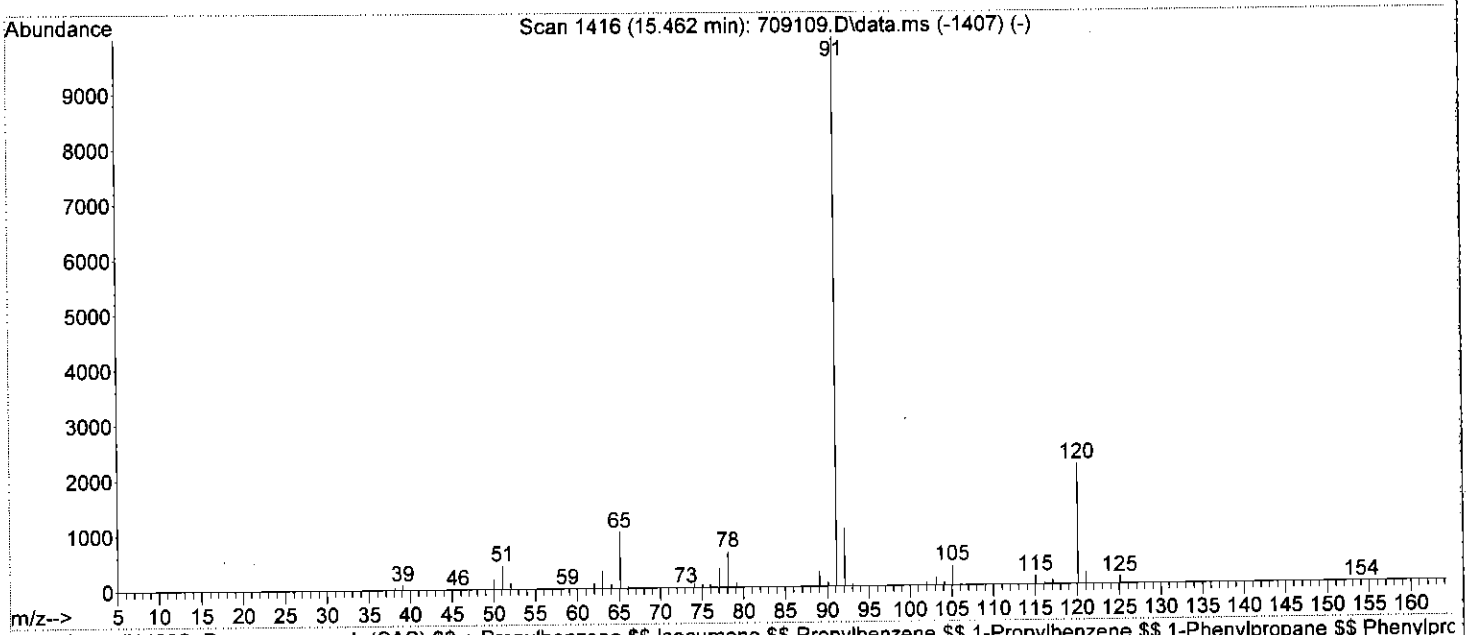


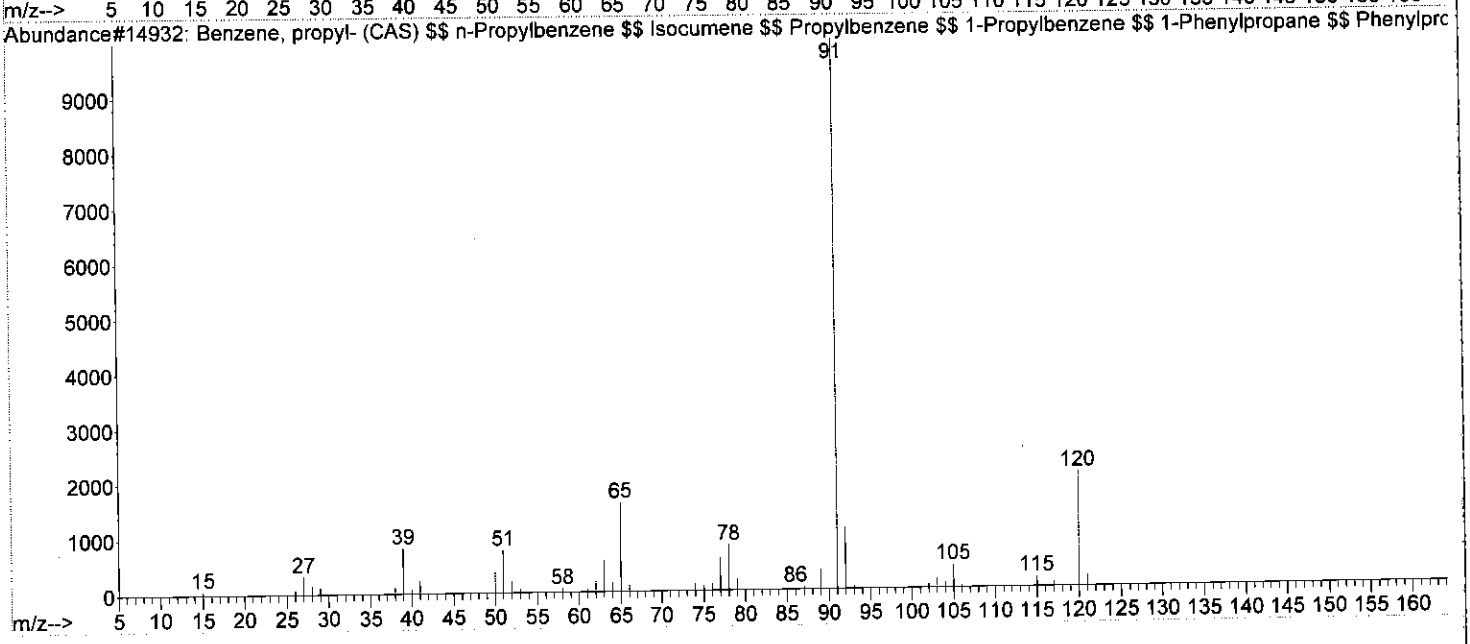
Library Searched : C:\Database\WILEY275.L
Quality : 95
ID : Benzene, (1-methylethyl)- (CAS) $$ Isopropylbenzene $$ Cumene $$ Cumol $$ 2-Phenylpropane $$ (1-Methylethyl)benzene $$ ISOPROPYLBENZENE (CUMENE) $$ Isopropylbenzol $$ Benzene, isopropyl- $$ Cumeen $$ Isopropilbenzene $$ Isopropylbenzeen $$ Isopropylbenzen



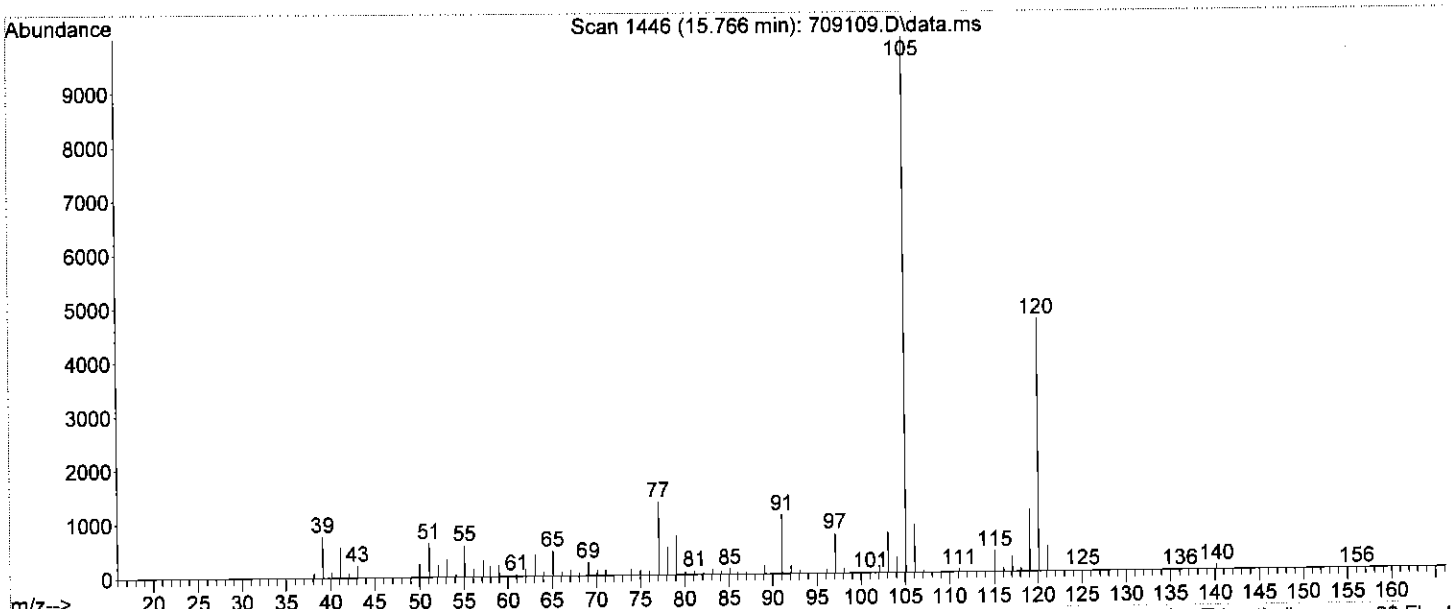


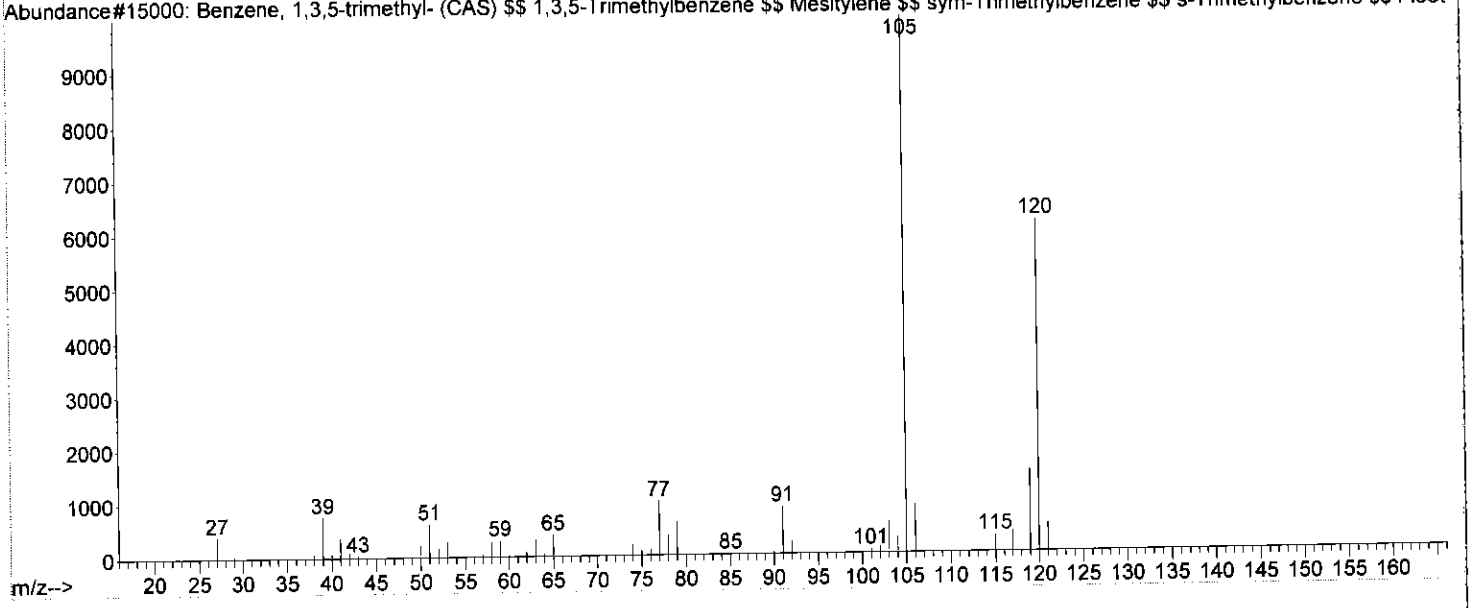
Library Searched : C:\Database\WILEY275.L
Quality : 91
ID : Benzene, propyl- (CAS) $$ n-Propylbenzene $$ Isocumene $$ Propylbenzene $$ 1-P
ropylbenzene $$ 1-Phenylpropane $$ Phenylpropane $$ UN 2364





Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,3,5-trimethyl- (CAS) $$ 1,3,5-Trimethylbenzene $$ Mesitylene $$ sym -Trimethylbenzene $$ s-Trimethylbenzene $$ Fleet-X $$ Trimethylbenzol $$ TMB $ $ Trimethyl benzene $$ UN 2325

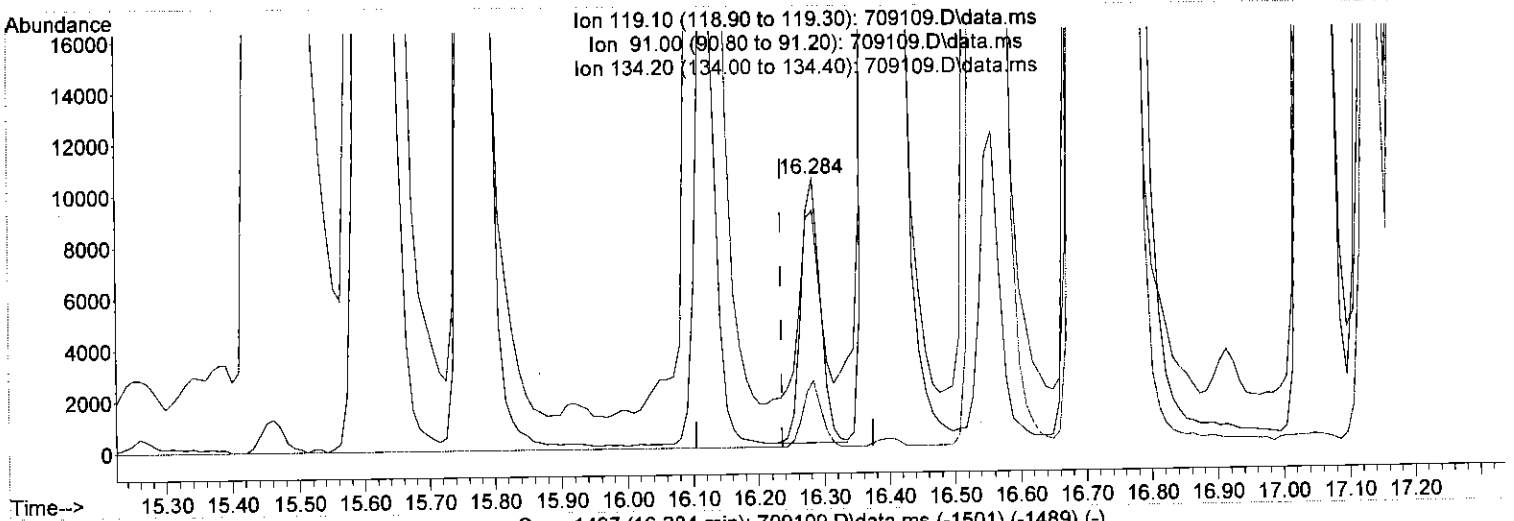


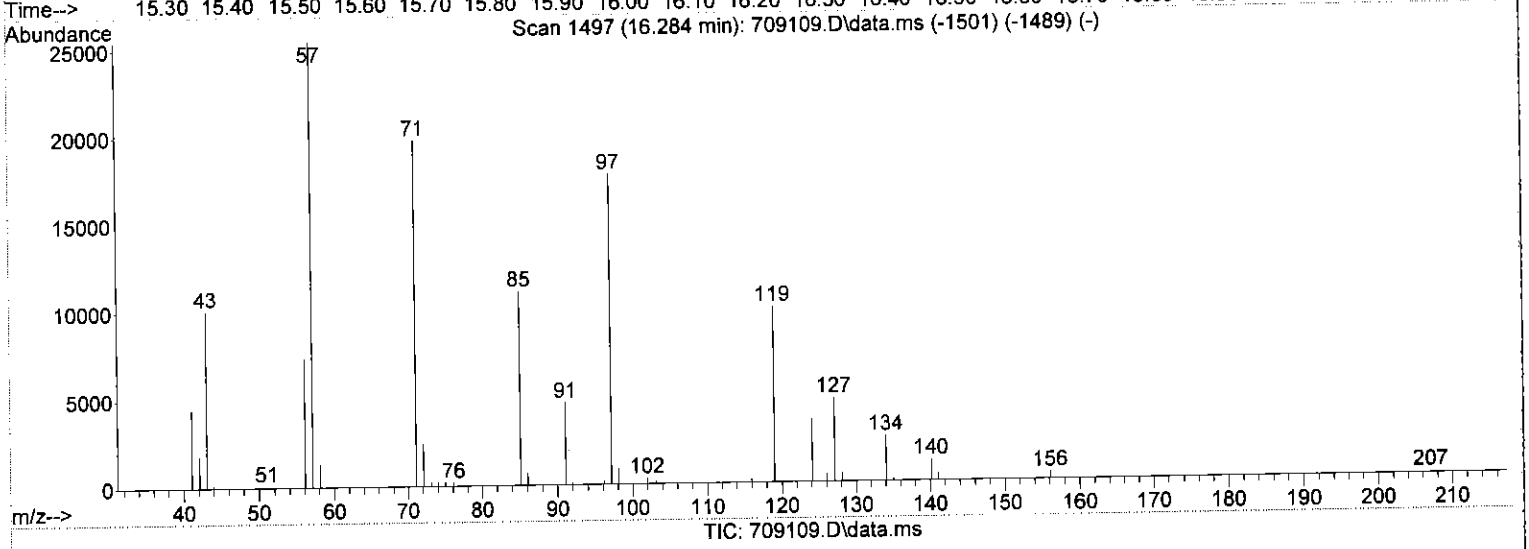


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709109.D
Acq On : 13 Mar 2018 3:16 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF100
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 15:59:52 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





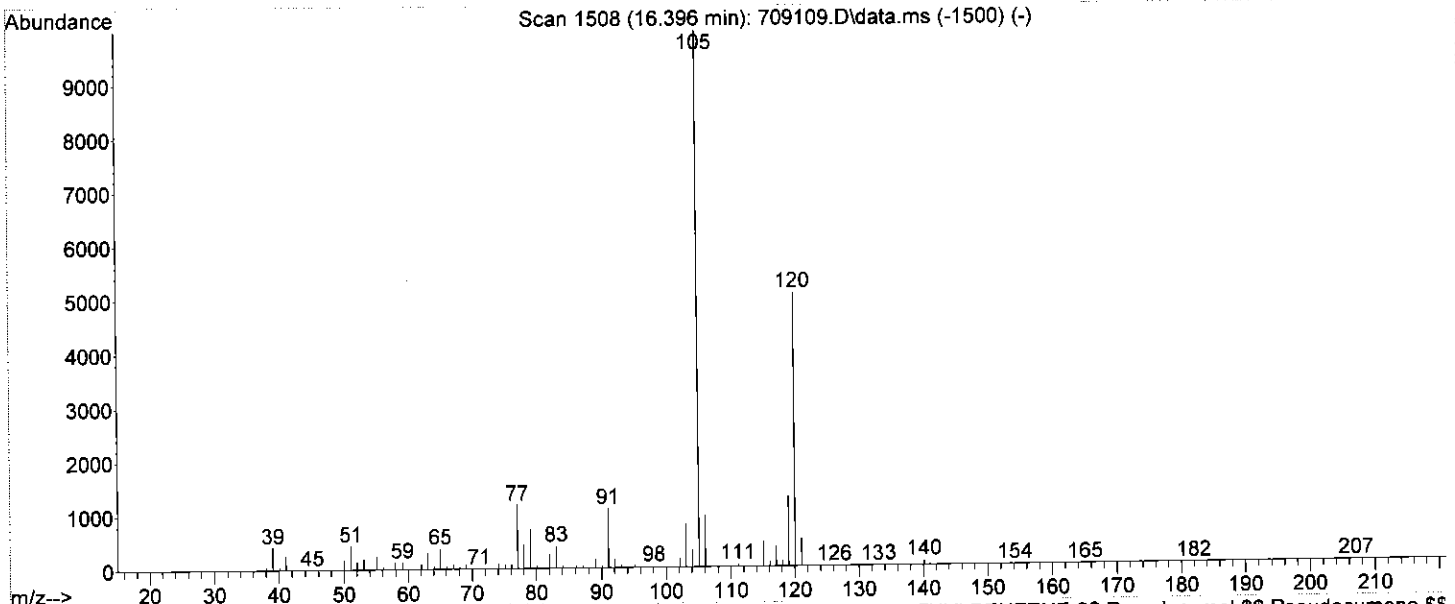
(67) TERT-BUTYLBENZENE (T)

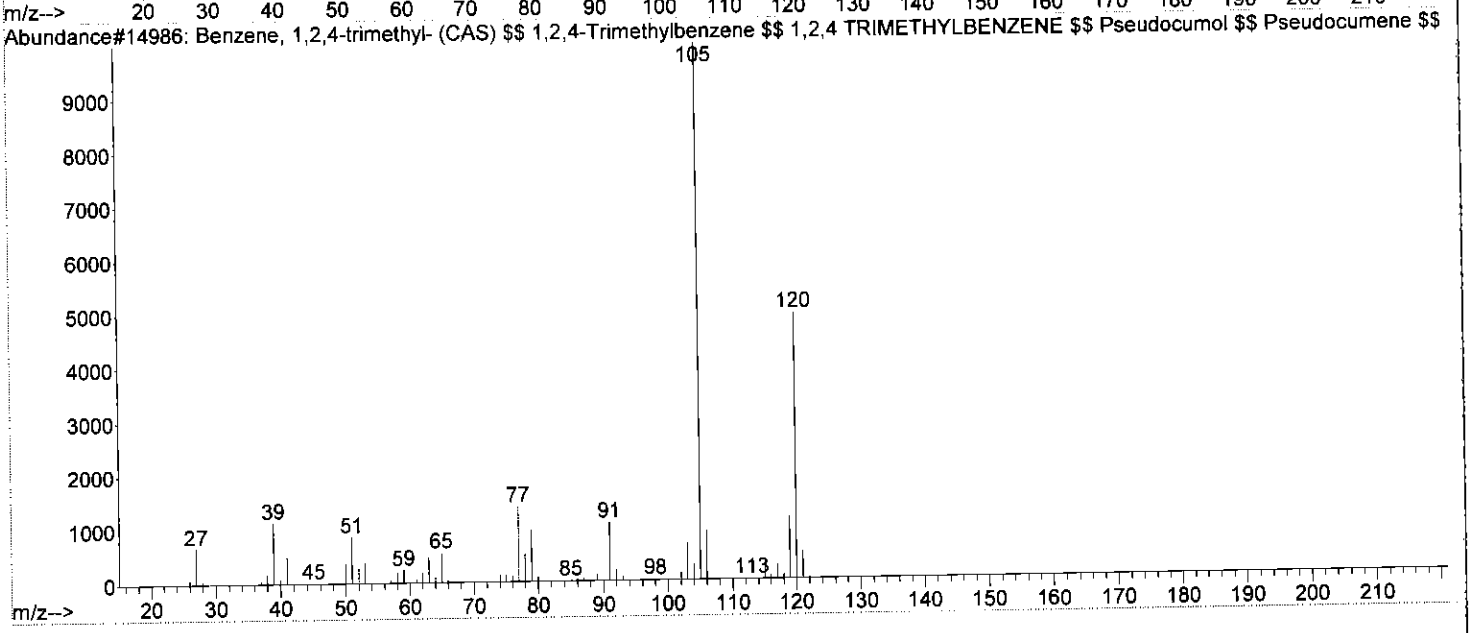
16.284min (+0.049) 2.25 µg/L

response 21118

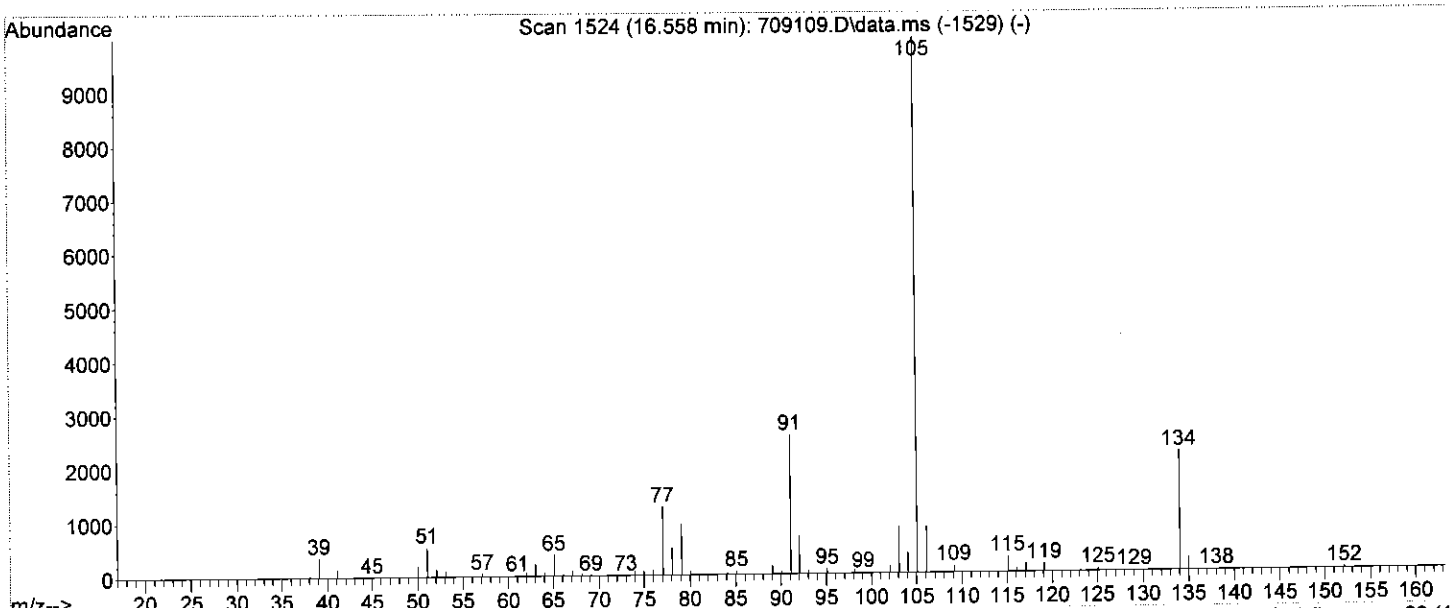
Ion	Exp%	Act%
119.10	100	100
91.00	64.70	80.25
134.20	26.00	23.85
0.00	0.00	0.00

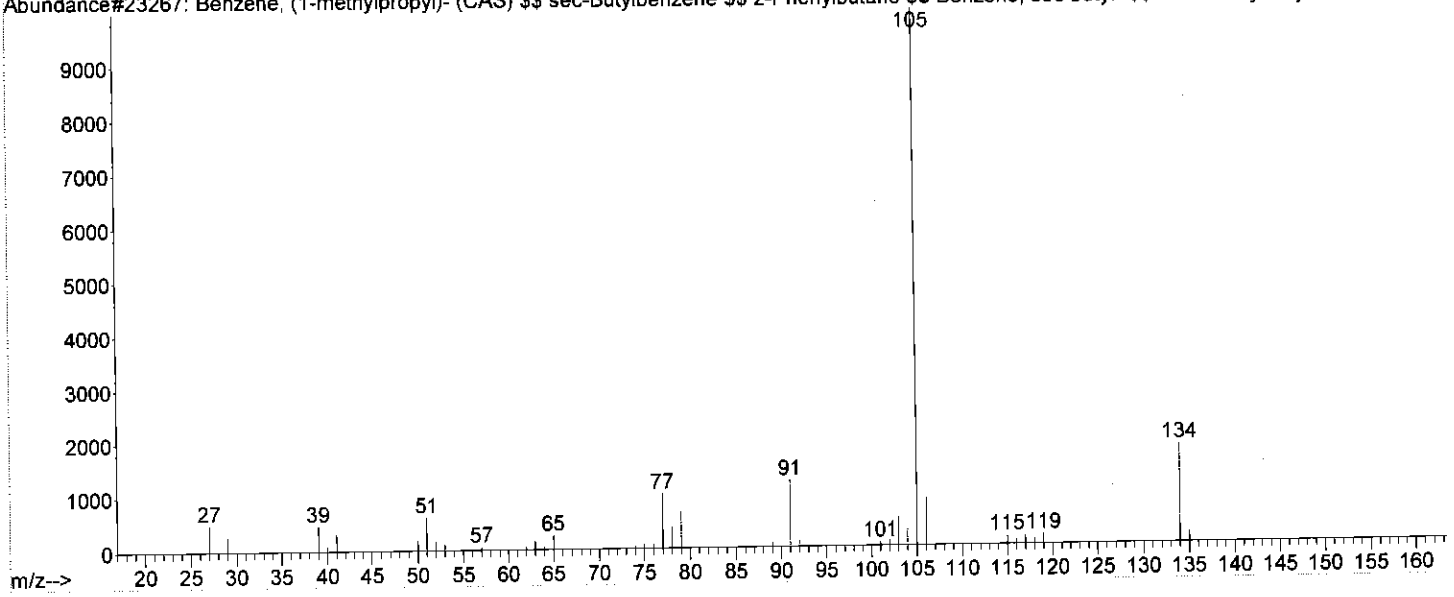
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,2,4-trimethyl- (CAS) $$ 1,2,4-Trimethylbenzene $$ 1,2,4 TRIMETHYLBENZENE $$ Pseudocumol $$ Pseudocumene $$ .psi.-Cumene $$ 1,3,4-Trimethylbenzene $$ 1,2,5-Trimethylbenzene $$ Asymmetrical trimethylbenzene $$ As-Trimethylbenzene $$ Psi-cumene $$



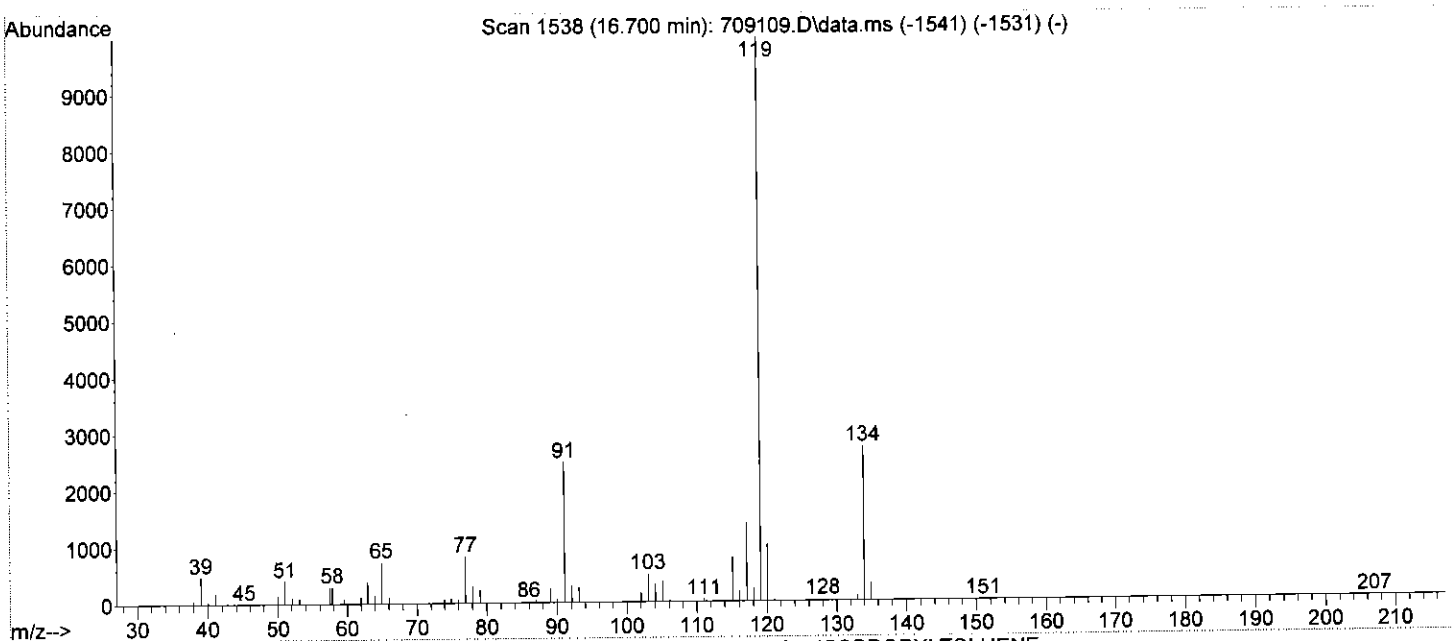


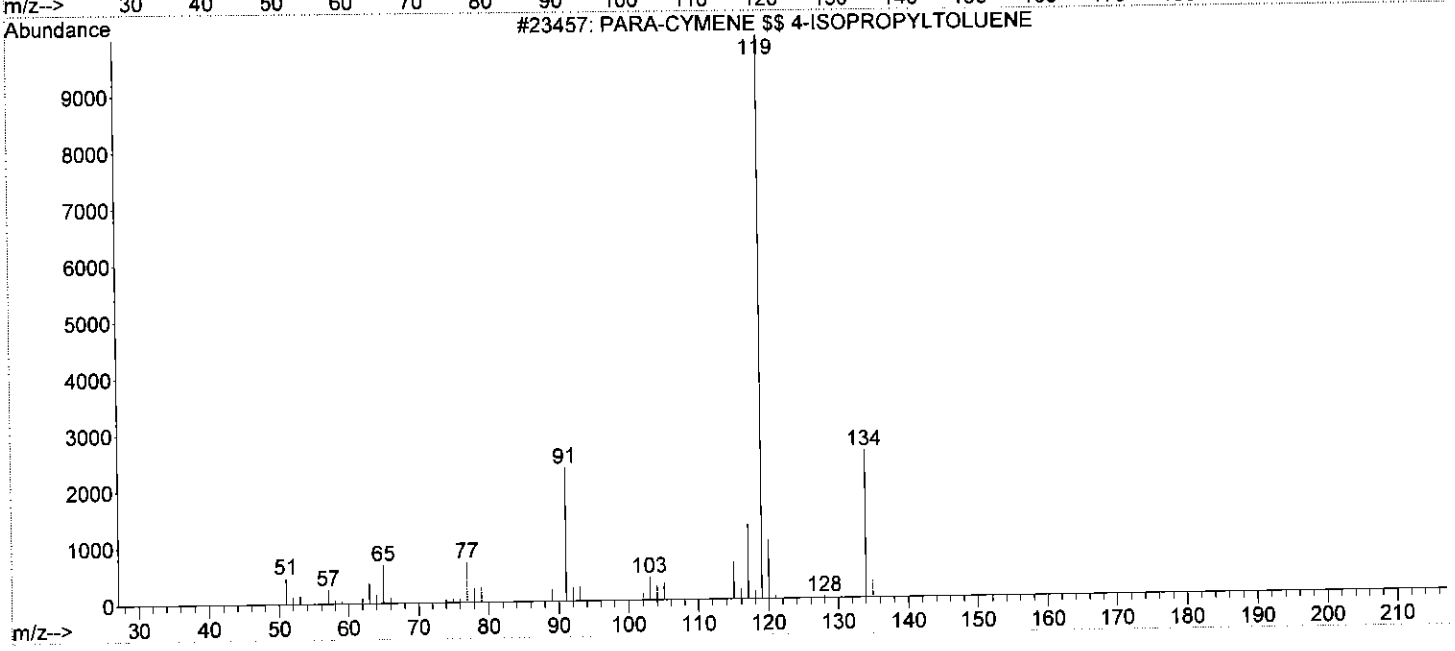
Library Searched : C:\Database\WILEY275.L
Quality : 91
ID : Benzene, (1-methylpropyl)- (CAS) $$ sec-Butylbenzene $$ 2-Phenylbutane $$ Benzene, sec-butyl- $$ Secondary butylbenzene $$ (1-Methylpropyl)benzene $$ UN 2709 $$ S-Butylbenzene



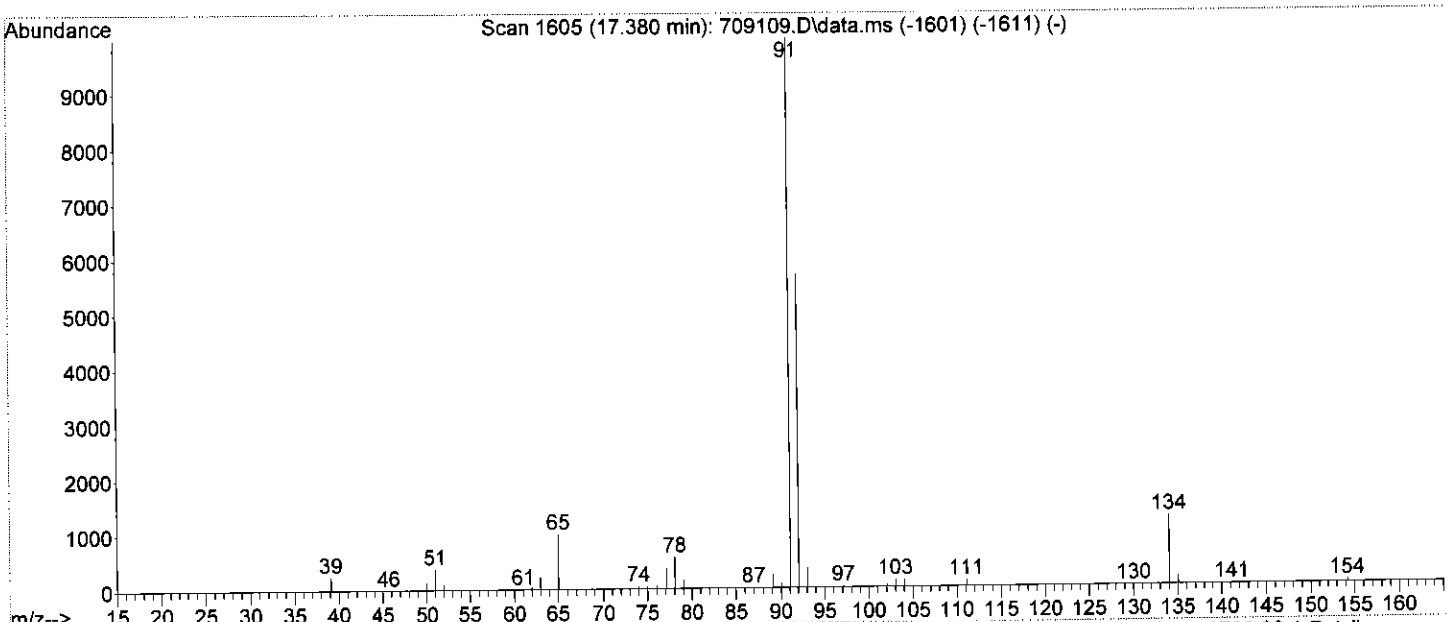


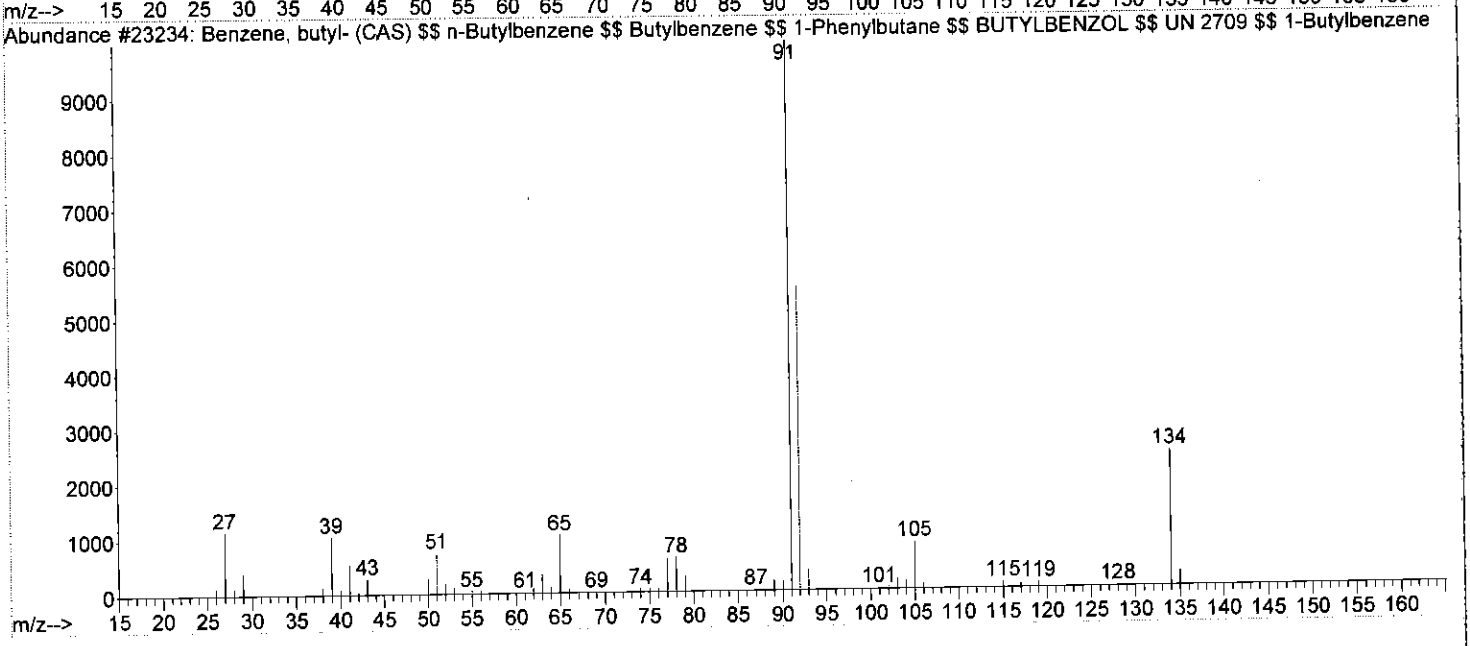
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : PARA-CYMENE $$ 4-ISOPROPYLTOLUENE



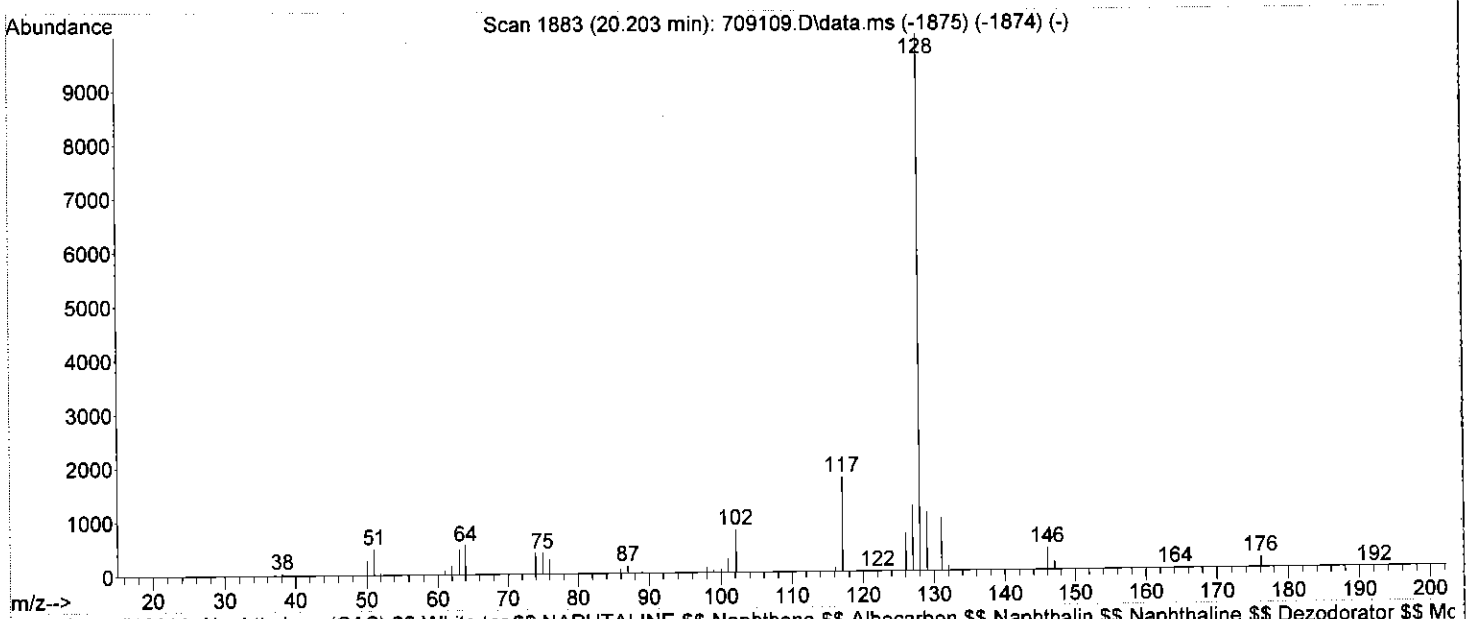


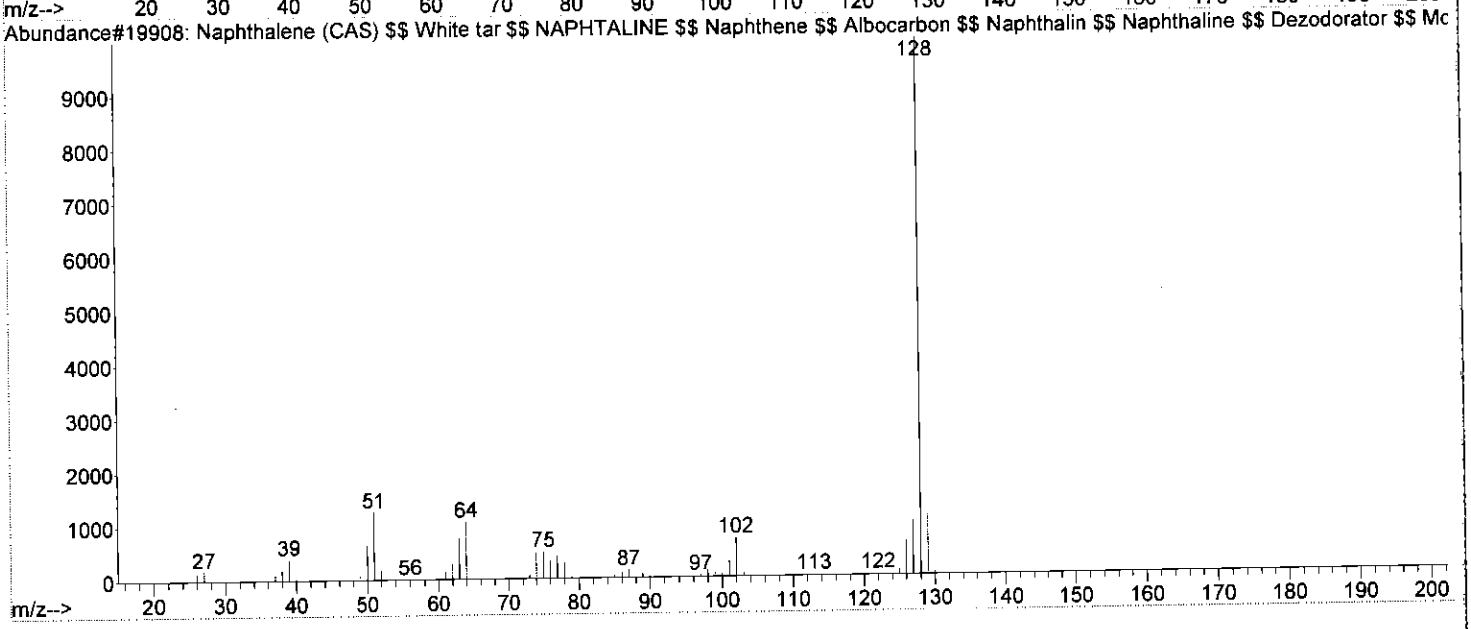
Library Searched : C:\Database\WILEY275.L
Quality : 83
ID : Benzene, butyl- (CAS) $$ n-Butylbenzene $$ Butylbenzene $$ 1-Phenylbutane $$ B
UTYLBENZOL $$ UN 2709 $$ 1-Butylbenzene





Library Searched : C:\Database\WILEY275.L
Quality : 81
ID : Naphthalene (CAS) $$ White tar $$ NAPHTALINE $$ Naphthene $$ Albocarbon $$ Naphthalin $$ Naphthaline $$ Dezodorator $$ Moth flakes $$ Tar camphor $$ Camphor tar $$ Moth balls $$ Naftalen $$ NCI-C52904 $$ Mighty 150 $$ Mighty rd1 $$ Napthalene, molten $$ R





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709109.D
Acq On : 13 Mar 2018 3:16 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF100
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 16:01:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.564	168	134917	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.315	114	235835	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	13.015	117	305036	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	201941	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	104290	22.01 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 110.05%		
39) STOLUENE-D8	10.335	98	323262	23.27 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 116.35%		
59) S4BRFLUOROBENZENE	15.259	95	184346m	22.32 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 111.60%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.615	94	131	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D. d	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.691	142	623	N.D.	
12) CARBON DISULFIDE	4.569	76	903	N.D.	
13) ACRYLONITRILE	0.000		0	N.D. d	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	0.000		0	N.D. d	
16) 11-DICHLOROETHANE	6.041	63	66	N.D.	
17) VINYL ACETATE	6.193	43	74	N.D.	
18) 2-BUTANONE	0.000		0	N.D. d	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	6.711	77	150	N.D.	
21) CHLOROFORM	0.000		0	N.D. d	
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.086	42	334	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	291	N.D.	
30) BENZENE	7.574	78	28847	3.71 µg/L #	89
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	9.157	63	964	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	9.147	83	1204	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D. d	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D. d	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.416	91	970633	108.17 µg/L	97
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D. d	
43) 2-HEXANONE	0.000		0	N.D. d	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709109.D
Acq On : 13 Mar 2018 3:16 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF100
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 16:01:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

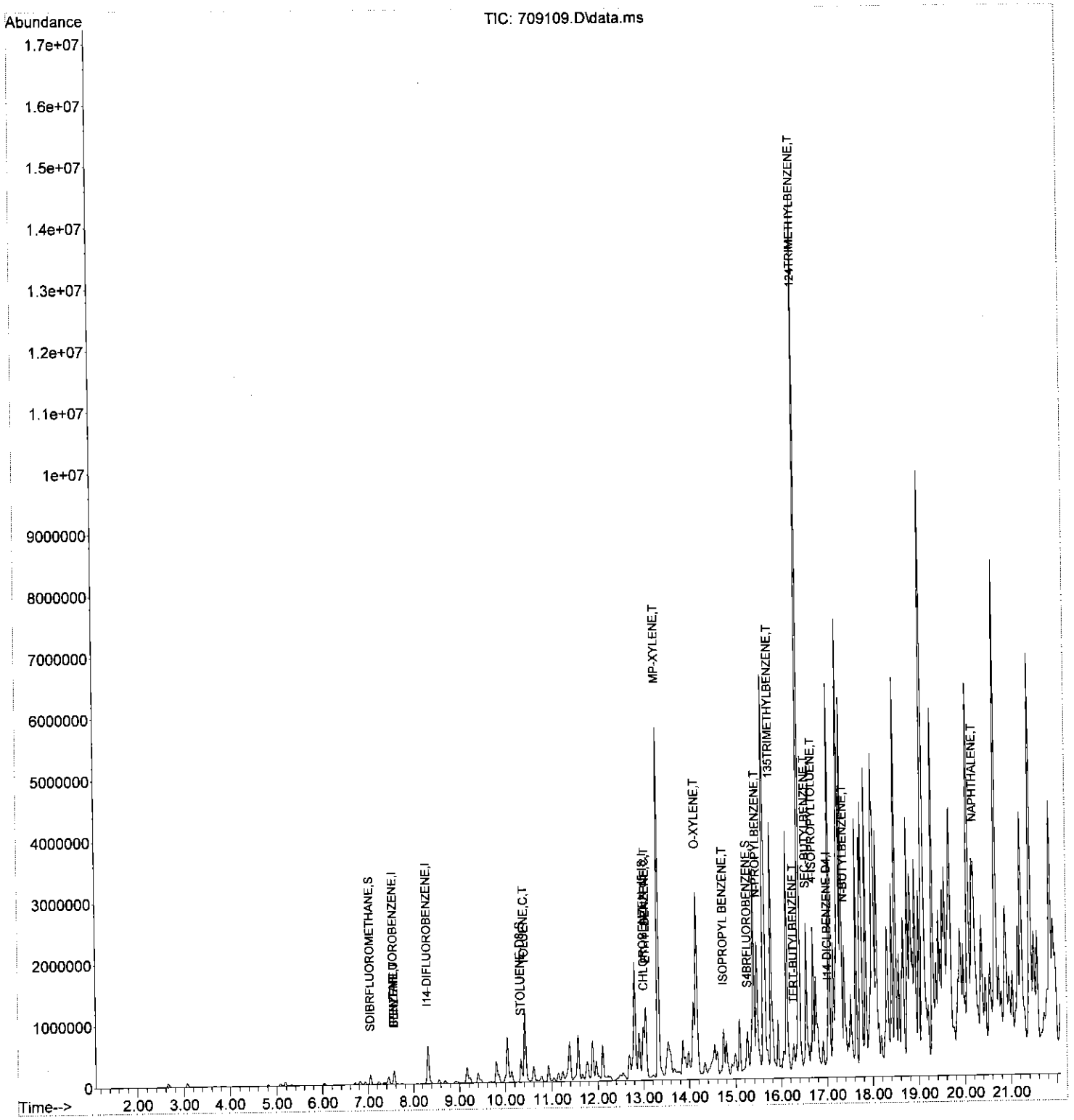
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D. d	
49) CHLOROBENZENE	0.000		0	N.D. d	
50) 1-CHLOROHEXANE	0.000		0	N.D. d	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	1264127	92.58 µg/L	96
53) MP-XYLENE	13.320	91	5075415	446.62 µg/L	95
54) STYRENE	0.000		0	N.D. d	
55) O-XYLENE	14.152	91	2417730	209.24 µg/L	95
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D. d	
58) ISOPROPYL BENZENE	14.741	105	638283	48.95 µg/L	93
60) 123-TRICLPROPANE	0.000		0	N.D. d	
61) TRANS14DICL2BUTENE	0.000		0	N.D. d	
62) BROMOBENZENE	0.000		0	N.D. d	
63) N-PROPYLBENZENE	15.462	91	1995288	125.75 µg/L	93
64) 2-CHLOROTOLUENE	0.000		0	N.D. d	
65) 4-CHLOROTOLUENE	15.919	91	1189	N.D.	
66) 135TRIMETHYLBENZENE	15.766	105	2558535	212.79 µg/L	95
67) TERT-BUTYLBENZENE	16.284	119	21118	2.25 µg/L	85
68) 124TRIMETHYLBENZENE	16.396	105	9778314	832.64 µg/L	99
69) SEC-BUTYLBENZENE	16.558	105	1534050	115.70 µg/L	90
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.700	119	1426967	106.46 µg/L	99
73) 14-DICHLOROBENZENE	17.045	146	273	N.D.	
74) 12-DICHLOROBENZENE	17.746	146	65	N.D.	
75) N-BUTYLBENZENE	17.380	91	1143270	93.39 µg/L	98
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	19.634	180	893	N.D.	
78) NAPHTHALENE	20.203	128	2091957	147.30 µg/L	99
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	20.284	182	459	N.D.	

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

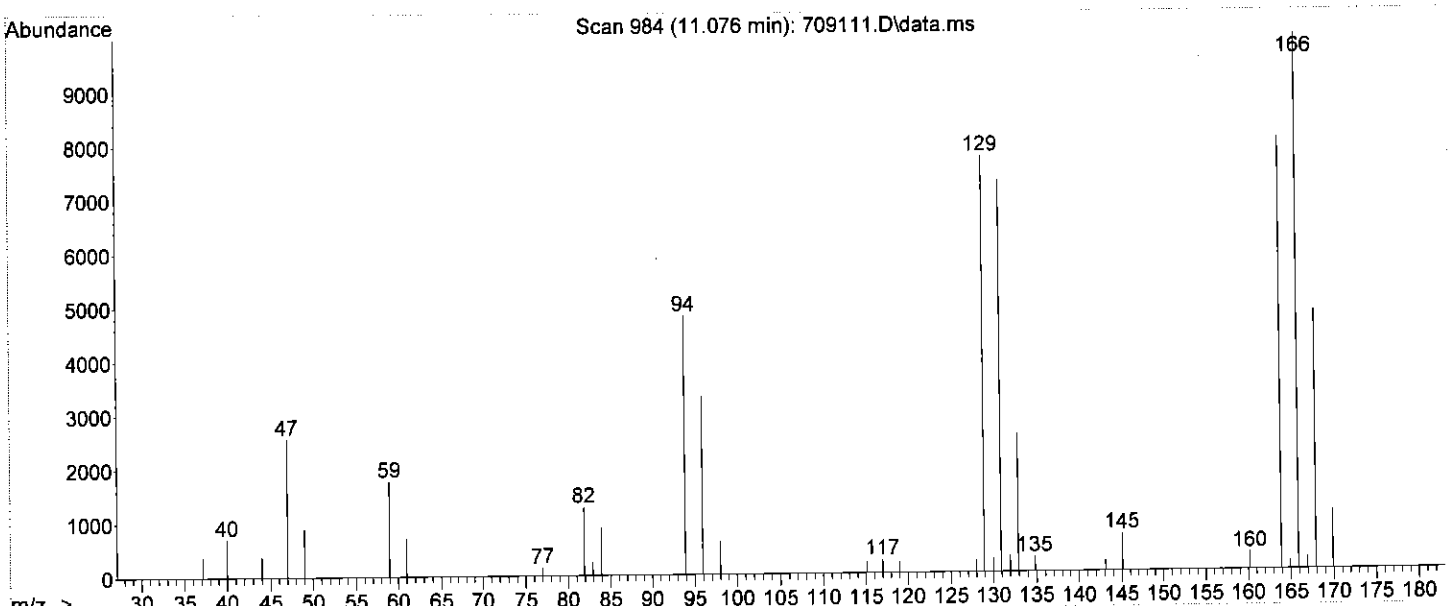
Quantitation Report (QT Reviewed)

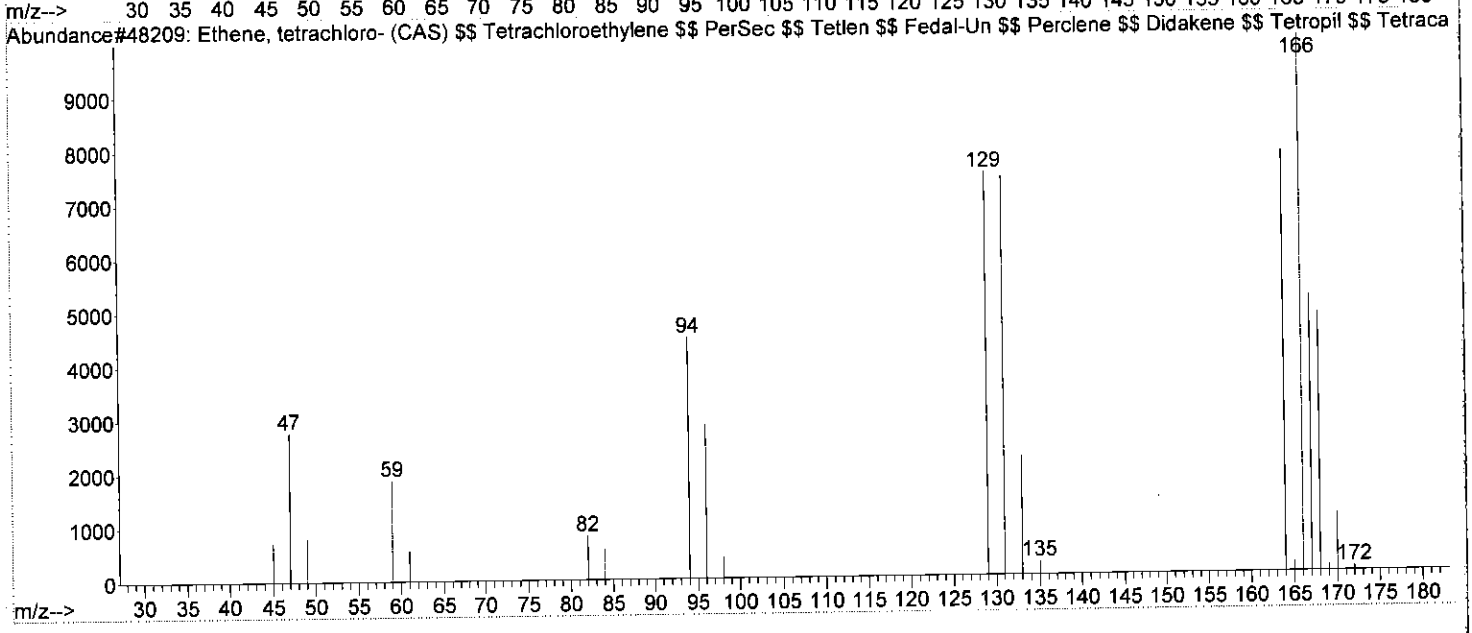
Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709109.D
Acq On : 13 Mar 2018 3:16 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF100
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 16:01:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

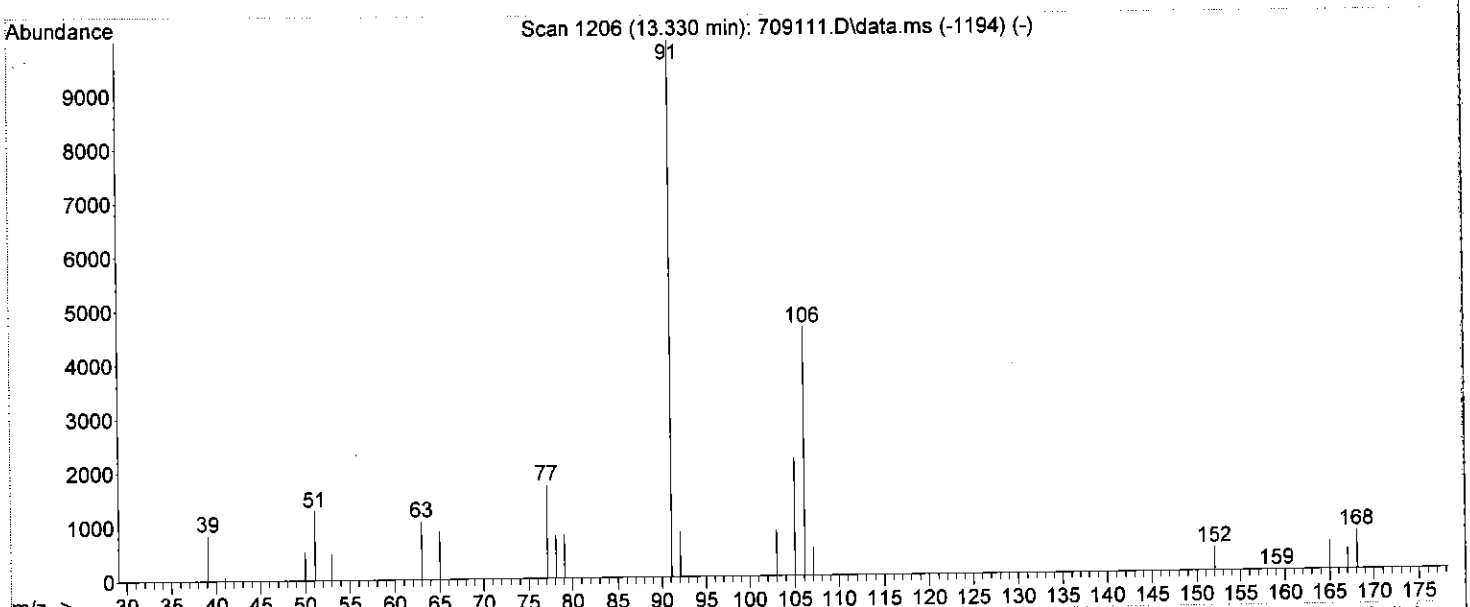


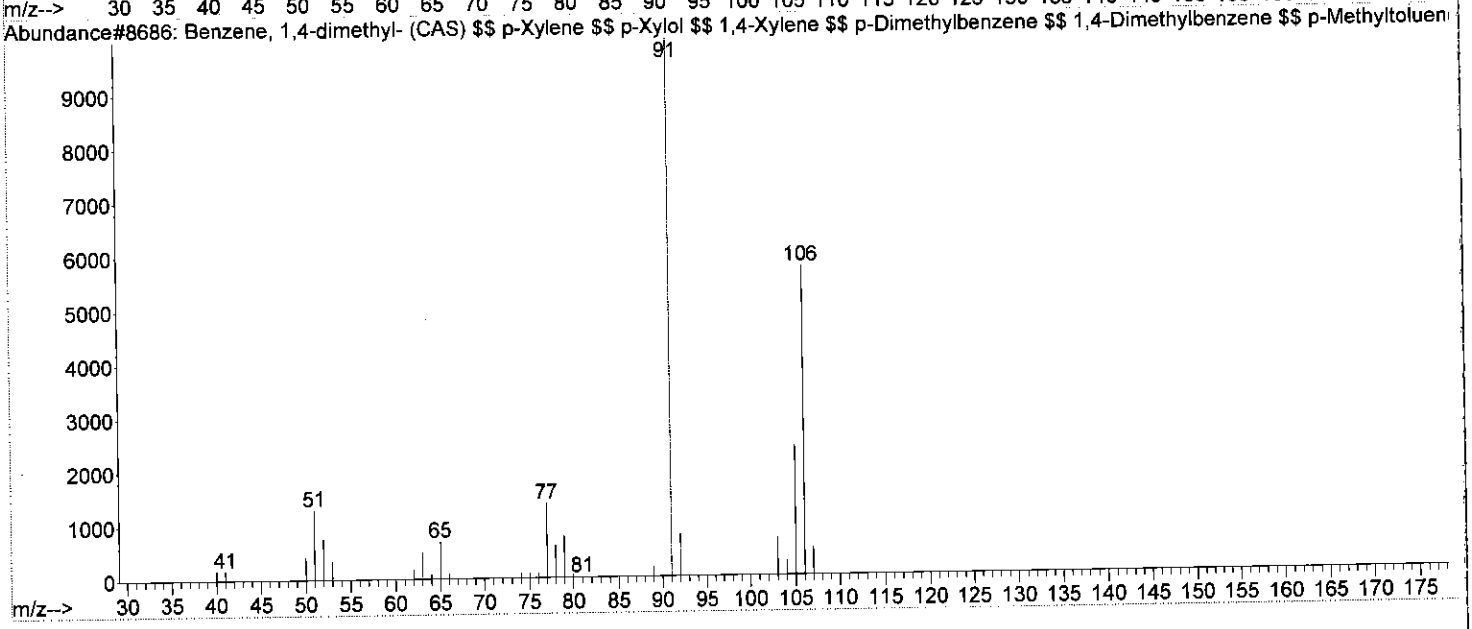
Library Searched : C:\Database\WILEY275.L
Quality : 99
ID : Ethene, tetrachloro- (CAS) $$ Tetrachloroethylene $$ PerSec $$ Tetlen $$ Fedal -Un $$ Perclene $$ Didakene $$ Tetropil $$ Tetracap $$ Antisal 1 $$ Tetraguer $$ Tetraleno $$ Ankilostin $$ Perchlorethylene $$ Perchloroethylene $$ Tetrach loroethene $$ Tetrach



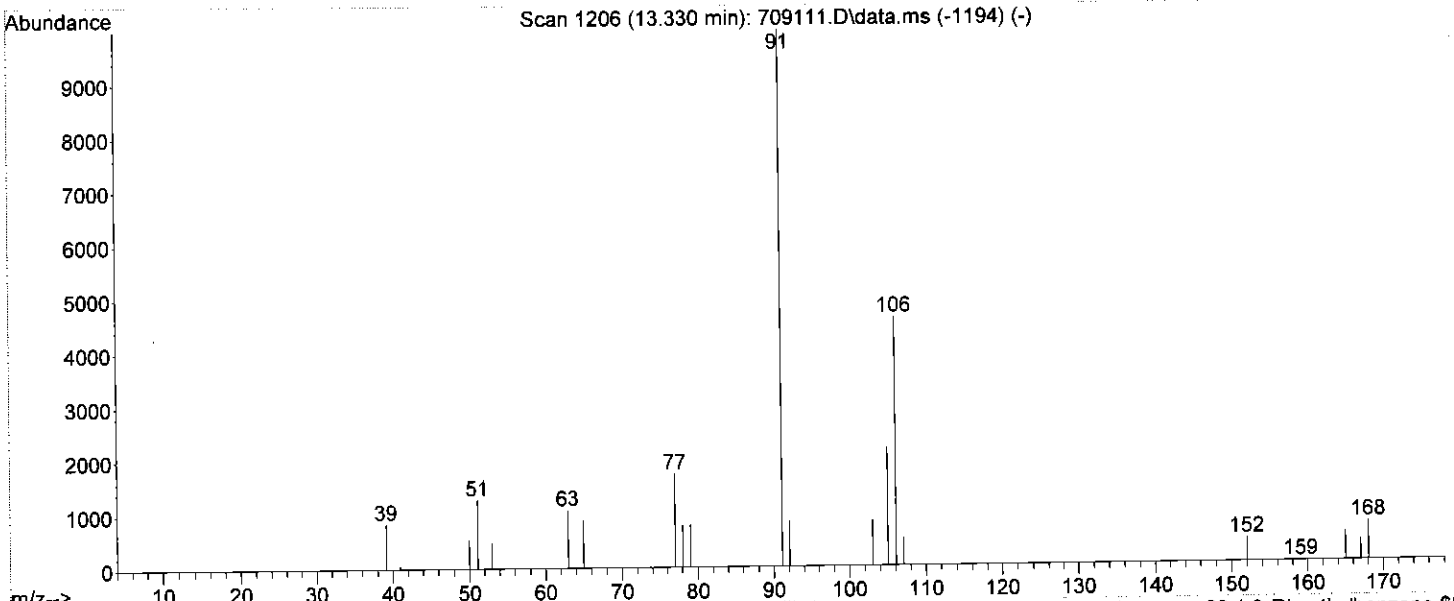


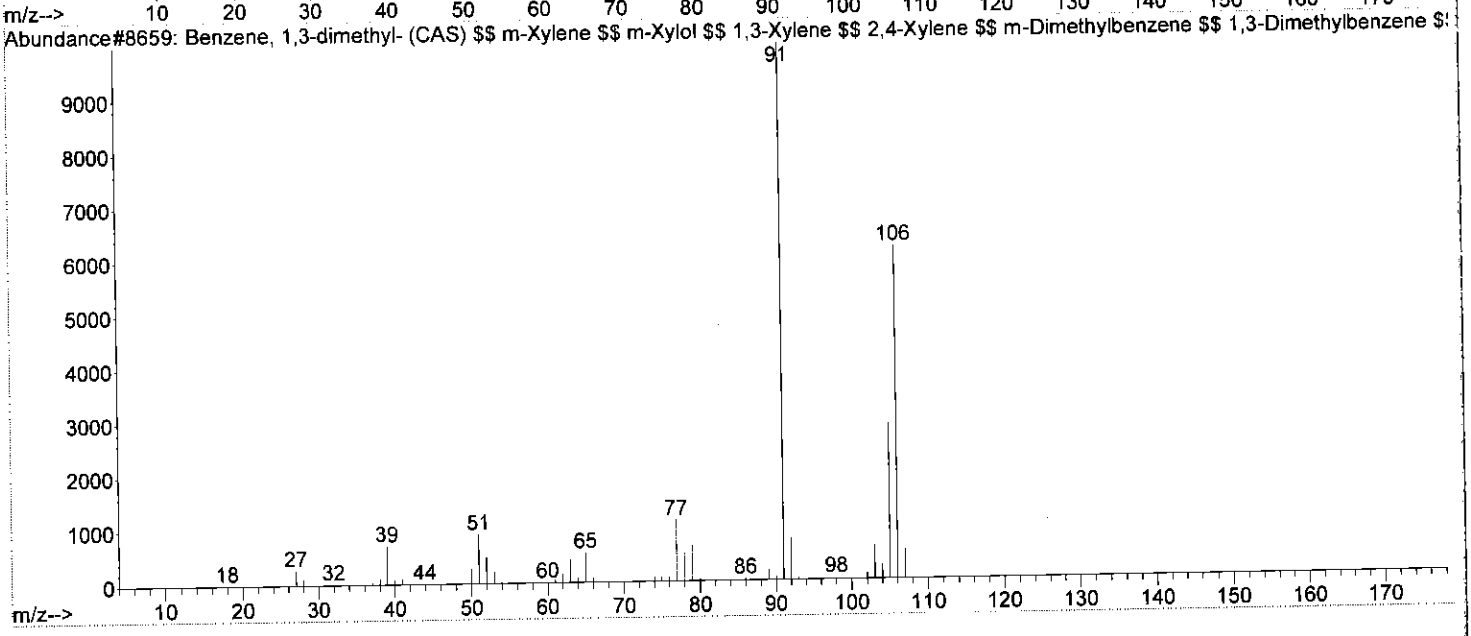
Library Searched : C:\Database\WILEY275.L
Quality : 81
ID : Benzene, 1,4-dimethyl- (CAS) $$ p-Xylene $$ p-Xylol $$ 1,4-Xylene $$ p-Dimethylbenzene $$ 1,4-Dimethylbenzene $$ p-Methyltoluene $$ 4-Methyltoluene $$ 1,4-Dimethyl-benzene $$ 1,4-DIMETHYLBENZENE(P-XYLENE) $$ 1,4-DIMETHYLBENZENE (P-XYLENE) $$ para-Xylene $





Library Searched : C:\Database\WILEY275.L
Quality : 81
ID : Benzene, 1,3-dimethyl- (CAS) $$ m-Xylene $$ m-Xylol $$ 1,3-Xylene $$ 2,4-Xylene $$ m-Dimethylbenzene $$ 1,3-Dimethylbenzene $$ m-Methyltoluene $$ 1,3-Dimethyl-benzene $$ 1,3-DIMETHYLBENZENE(M-XYLENE) $$ 1,3-DIMETHYLBENZENE (M-XYLENE) $$ meta-Xylene $$ UN





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709111.D
Acq On : 13 Mar 2018 4:08 pm
Operator : NIVA
Sample : 2819490
Misc : RUN197091
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 16:05:05 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	283182	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.315	114	440448	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	13.015	117	422788	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	231506	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	179802	20.32 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.60%		
39) STOLUENE-D8	10.335	98	528084	20.36 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.80%		
59) S4BRFLUOROBENZENE	15.259	95	222310	19.42 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.625	94	124	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D. d	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D. d	
11) IODOMETHANE	4.671	142	269	N.D.	
12) CARBON DISULFIDE	4.569	76	506	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	5.087	84	921	N.D.	
15) TRANS12DICLETHENE	5.188	96	231	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	6.173	43	124	N.D.	
18) 2-BUTANONE	7.219	43	288	N.D.	
19) CIS12DICHLOROETHENE	6.549	96	1918	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	0.000		0	N.D. d	
22) BROMOCHLOROMETHANE	6.833	49	1939	N.D.	
25) TETRAHYDROFURAN	7.005	42	411	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	7.056	117	760	N.D.	
30) BENZENE	7.554	78	562	N.D.	
31) TRICHLOROETHENE	8.325	132	1454	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D. d	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.914	43	847	N.D.	
38) CIS13DICLPROPENE	9.980	75	157	N.D.	
40) TOLUENE	10.427	91	2256	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709111.D
Acq On : 13 Mar 2018 4:08 pm
Operator : NIVA
Sample : 2819490
Misc : RUN197091
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 16:05:05 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

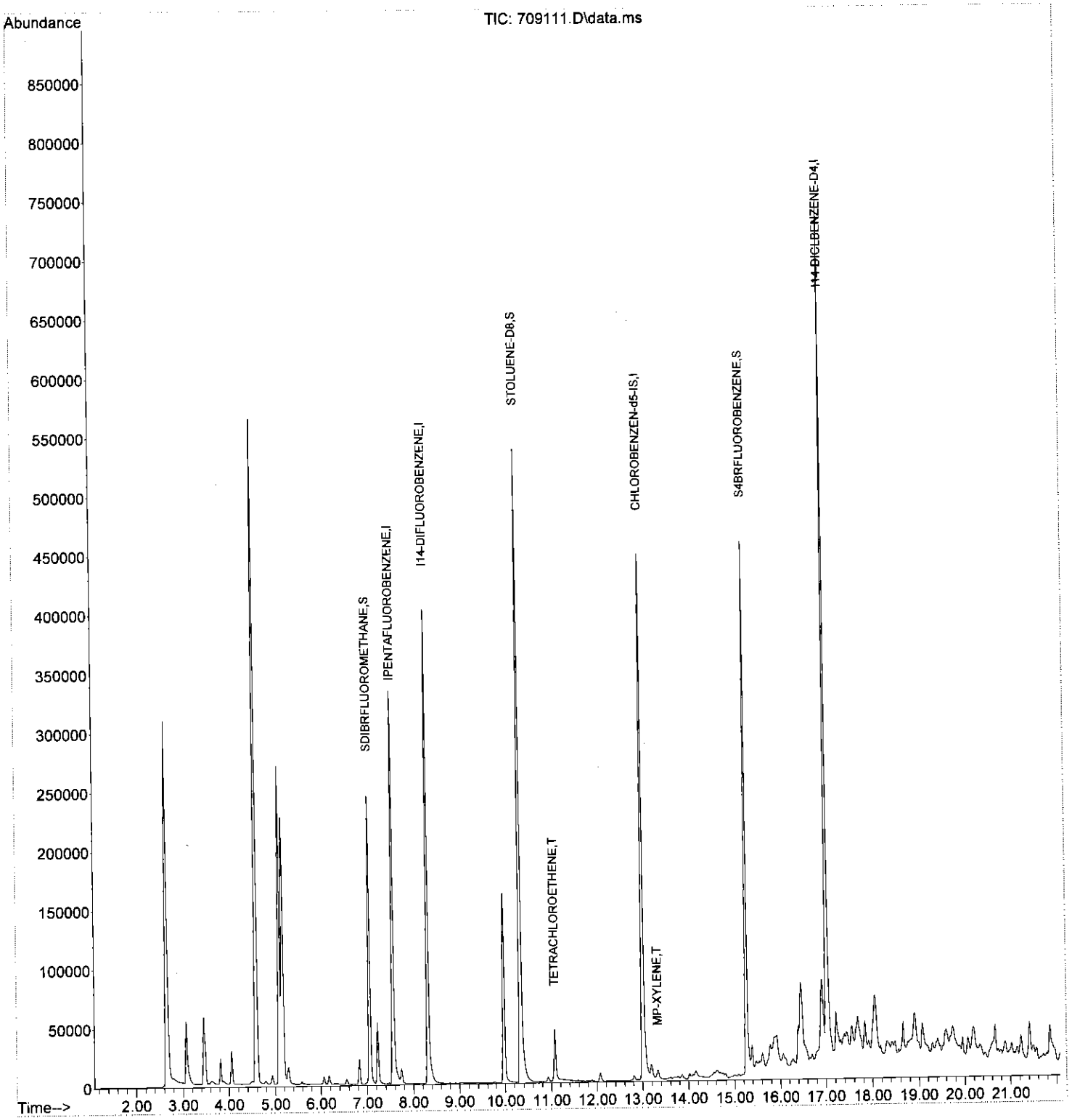
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	139	N.D.	
46) TETRACHLOROETHENE	11.076	166	18973	4.88 µg/L	88
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	12.944	91	91	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	3568	N.D.	
53) MP-XYLENE	13.330	91	9211	0.58 µg/L	85
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	14.163	91	4322	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	15.543	83	1039	N.D.	
58) ISOPROPYL BENZENE	14.741	105	1837	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	15.848	53	123	N.D.	
62) BROMOBENZENE	15.391	77	196	N.D.	
63) N-PROPYLBENZENE	15.462	91	5832	N.D.	
64) 2-CHLOROTOLUENE	15.777	91	2065	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D. d	
67) TERT-BUTYLBENZENE	16.244	119	96	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D. d	
69) SEC-BUTYLBENZENE	16.558	105	2600	N.D.	
70) 13-DICHLOROBENZENE	16.832	146	1010	N.D.	
72) 4-ISOPROPYLTOLUENE	16.700	119	2205	N.D.	
73) 14-DICHLOROBENZENE	16.985	146	1485	N.D.	
74) 12-DICHLOROBENZENE	17.553	146	125	N.D.	
75) N-BUTYLBENZENE	17.381	91	3418	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D. d	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D. d	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	20.304	182	1021	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709111.D
Acq On : 13 Mar 2018 4:08 pm
Operator : NIVA
Sample : 2819490
Misc : RUN197091
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 16:05:05 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709112.D
Acq On : 13 Mar 2018 4:37 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF1000
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 16 16:11:57 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.564	168	292800	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.315	114	459763	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	13.015	117	448610	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	242110	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	183723	19.89 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.45%		
39) STOLUENE-D8	10.335	98	554773	20.49 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.45%		
59) S4BRFLUOROBENZENE	15.259	95	246342	20.28 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.40%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	0.000		0	N.D.	
6) CHLOROETHANE	3.899	64	864	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D. d	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.681	142	75	N.D.	
12) CARBON DISULFIDE	4.569	76	445	N.D.	
13) ACRYLONITRILE	6.031	53	141	N.D.	
14) DICHLOROMETHANE	5.097	84	1157	N.D.	
15) TRANS12DICLETHENE	5.188	96	188	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	6.031	43	431	N.D.	
18) 2-BUTANONE	7.219	43	1304	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.823	83	1502	N.D.	
22) BROMOCHLOROMETHANE	6.833	49	1644	N.D.	
25) TETRAHYDROFURAN	7.016	42	808	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	632	N.D.	
30) BENZENE	7.574	78	5306	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	8.914	83	146	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D. d	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.416	91	129047	7.38 µg/L	96
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D. d	
43) 2-HEXANONE	12.325	43	138	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709112.D
Acq On : 13 Mar 2018 4:37 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF1000
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 16 16:11:57 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

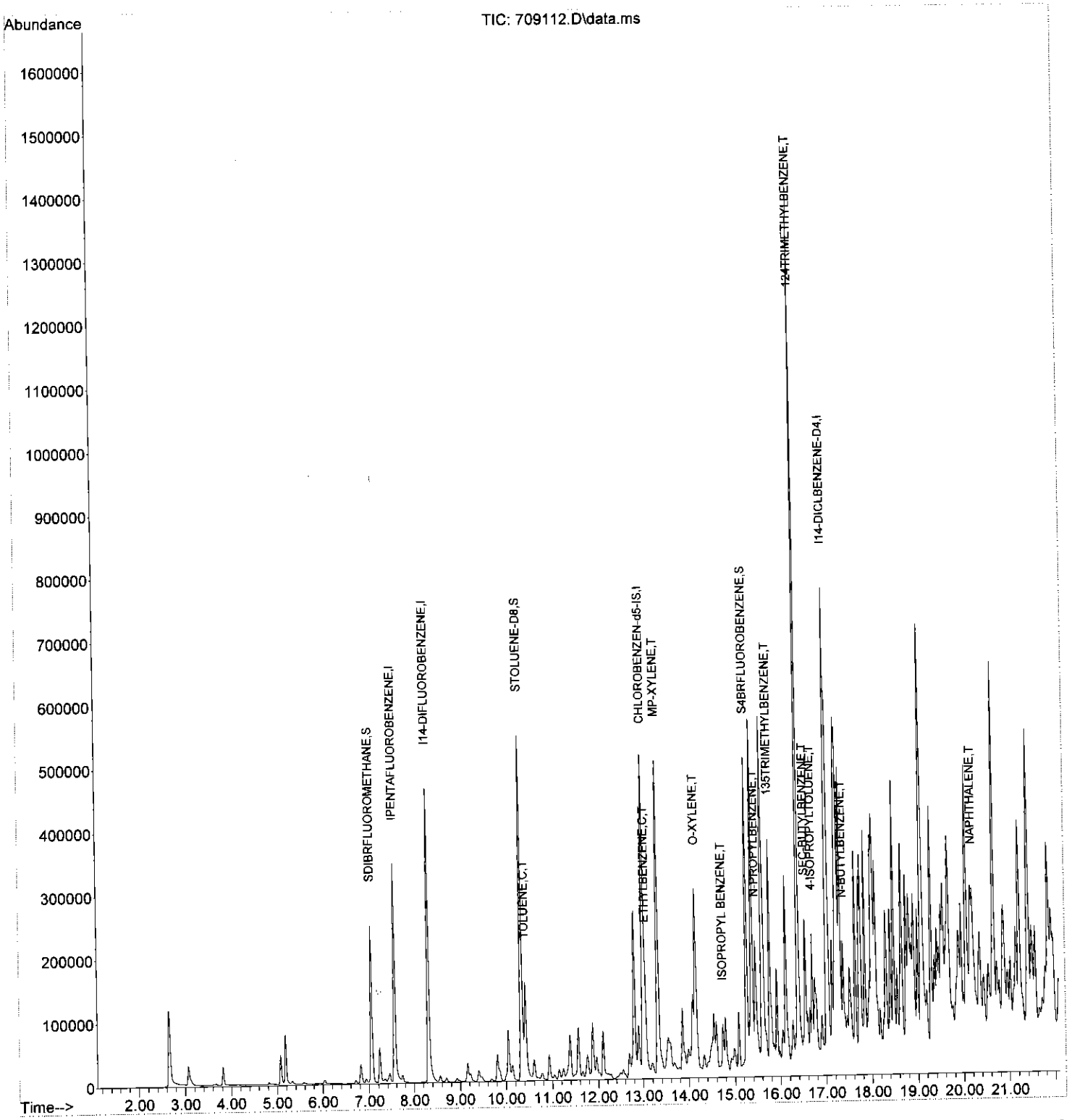
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	12.995	112	442	N.D.	
50) 1-CHLOROHEXANE	12.904	91	405	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	136371	6.79 µg/L	97
53) MP-XYLENE	13.320	91	482101	28.85 µg/L	95
54) STYRENE	14.274	104	376	N.D.	
55) O-XYLENE	14.152	91	220798	12.99 µg/L	97
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D. d	
58) ISOPROPYL BENZENE	14.741	105	60130	3.14 µg/L	93
60) 123-TRICLPROPANE	0.000		0	N.D. d	
61) TRANS14DICL2BUTENE	0.000		0	N.D. d	
62) BROMOBENZENE	15.371	77	2949	N.D.	
63) N-PROPYLBENZENE	15.462	91	183225	7.85 µg/L	94
64) 2-CHLOROTOLUENE	0.000		0	N.D. d	
65) 4-CHLOROTOLUENE	15.980	91	68	N.D.	
66) 135TRIMETHYLBENZENE	15.766	105	217211	12.28 µg/L	95
67) TERT-BUTYLBENZENE	16.284	119	2057	N.D.	
68) 124TRIMETHYLBENZENE	16.386	105	809849	46.89 µg/L	96
69) SEC-BUTYLBENZENE	16.548	105	128820	6.61 µg/L	83
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.700	119	118550	7.38 µg/L	99
73) 14-DICHLOROBENZENE	16.995	146	62	N.D.	
74) 12-DICHLOROBENZENE	17.645	146	155	N.D.	
75) N-BUTYLBENZENE	17.370	91	91275	6.22 µg/L	96
76) 12-DIBR-3CLPROPANE	18.670	157	649	N.D.	
77) 124-TRICLBENZENE	19.665	180	423	N.D.	
78) NAPHTHALENE	20.193	128	148550	8.72 µg/L	99
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	20.375	182	700	N.D.	

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

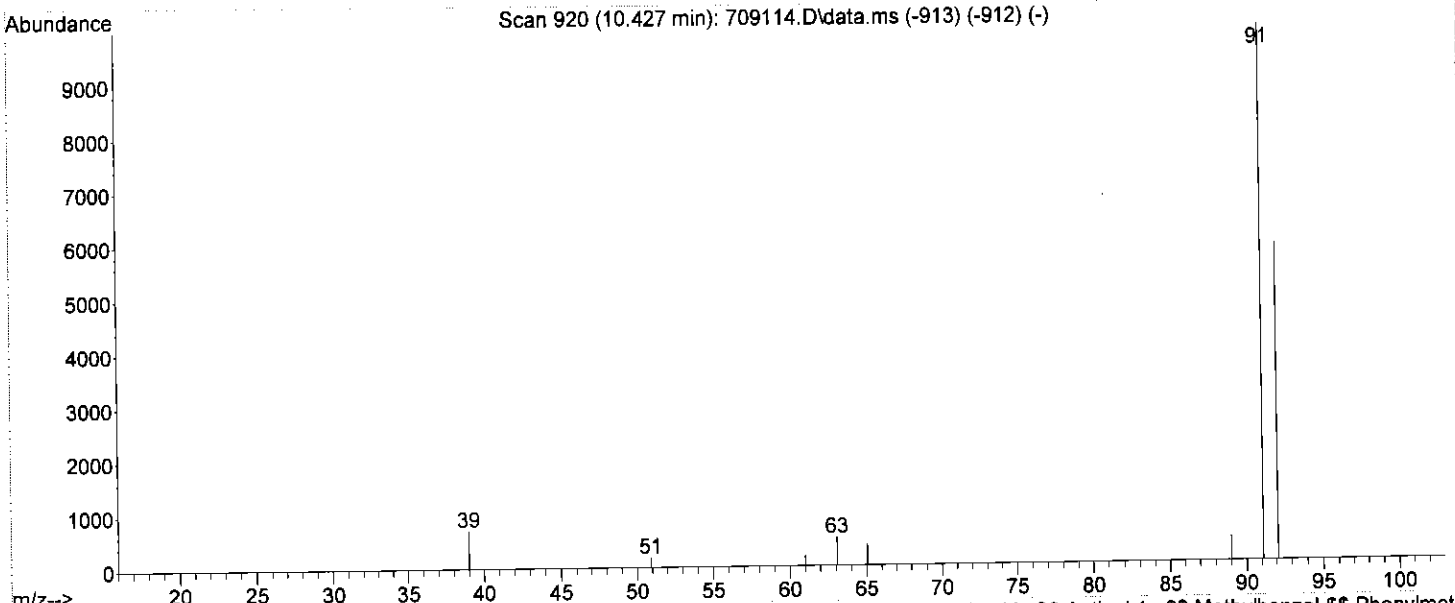
Quantitation Report (QT Reviewed)

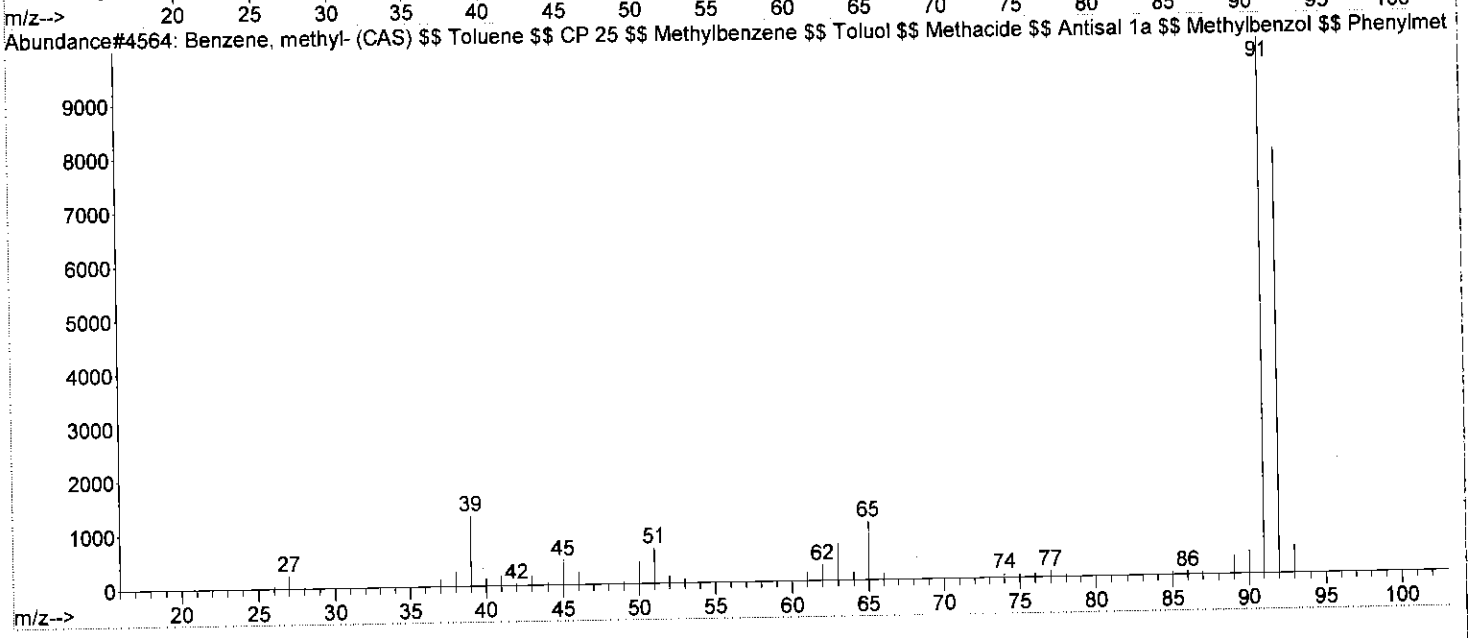
Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709112.D
Acq On : 13 Mar 2018 4:37 pm
Operator : NIVA
Sample : 2825383
Misc : RUN197091, DF1000
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 16 16:11:57 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 64
ID : Benzene, methyl- (CAS) $$ Toluene $$ CP 25 $$ Methylbenzene $$ Toluol $$ Metha cide $$ Antisal 1a $$ Methylbenzol $$ Phenylmethane $$ METHYLBENZENE(TOLUENE) $$ Benzene, methyl $$ Methane, phenyl- $$ NCI-C07272 $$ Tolueen $$ Toluen $$ T oluolo $$ Rcra waste

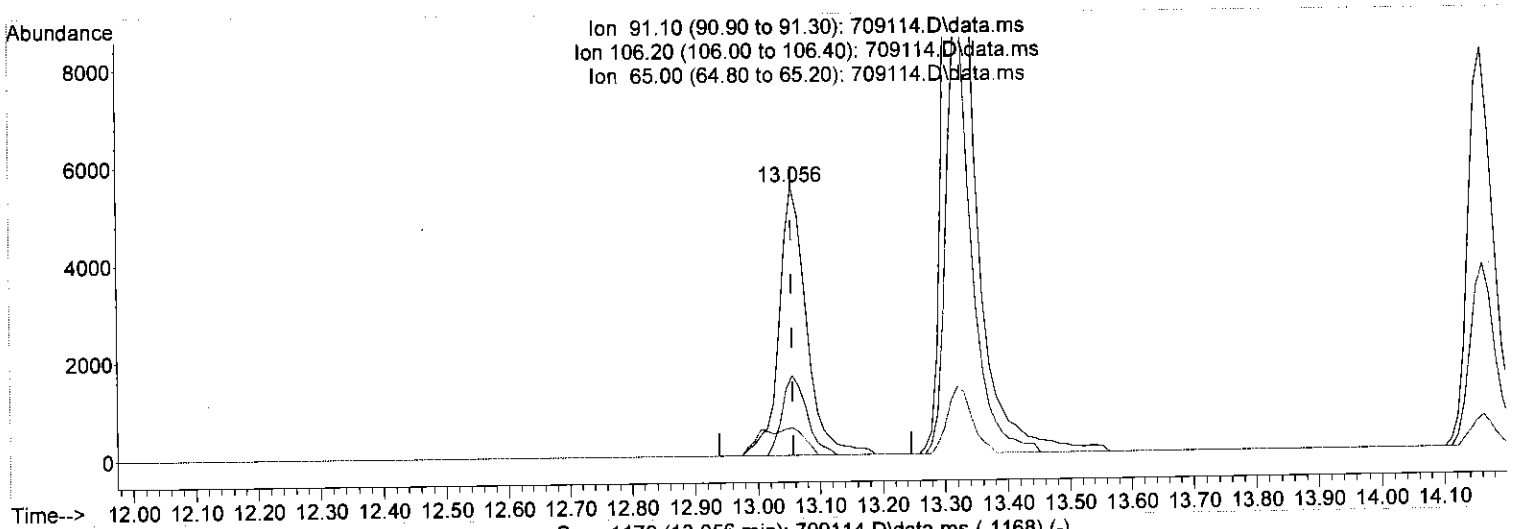


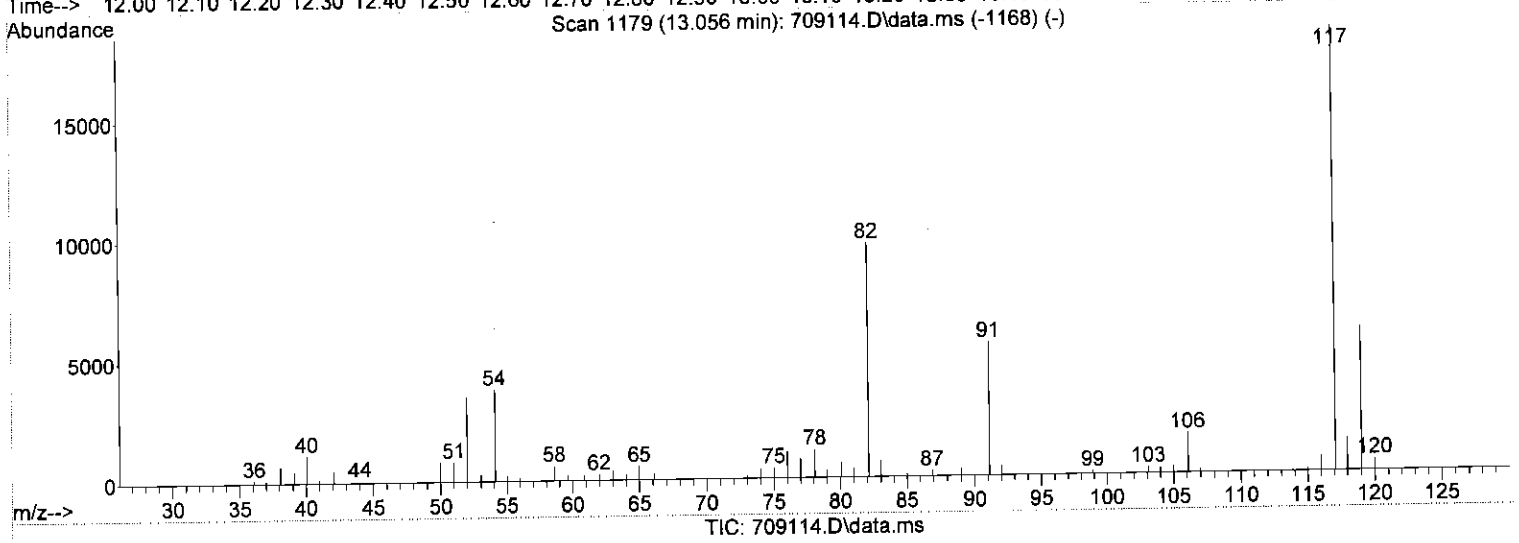


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709114.D
Acq On : 13 Mar 2018 5:28 pm
Operator : NIVA
Sample : 2825384
Misc : RUN197091, DF20
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 16:16:38 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





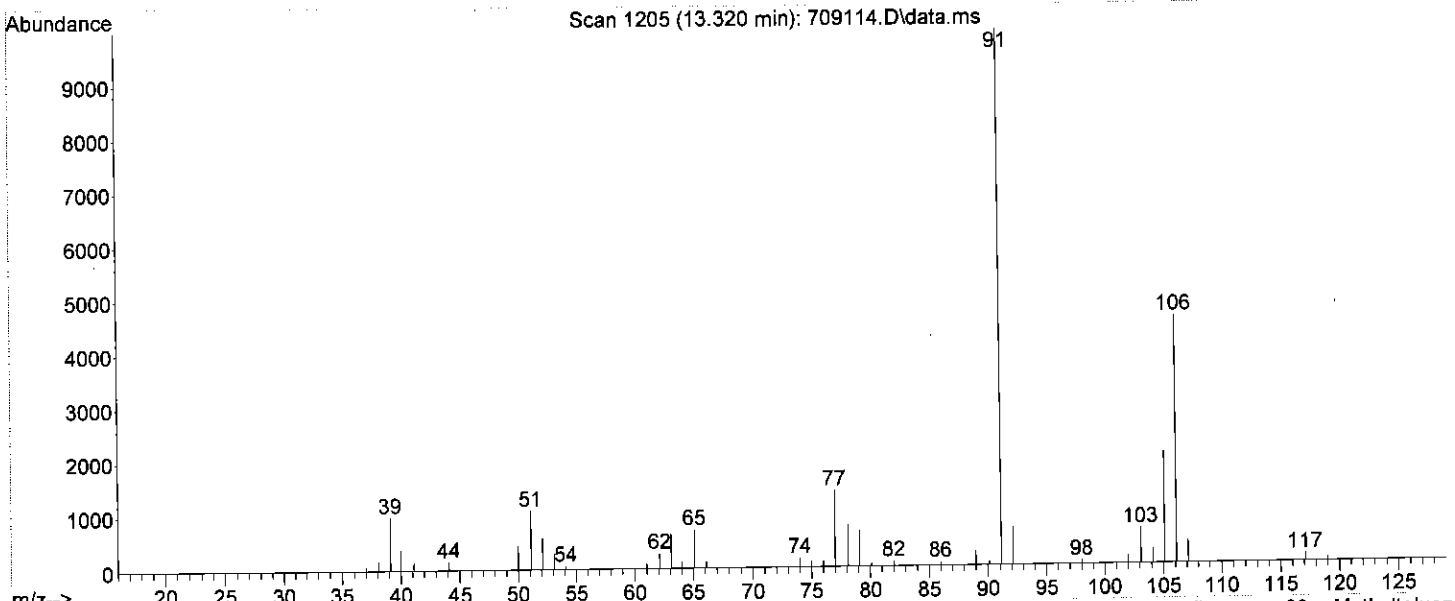
(52) ETHYLBENZENE (C,T)

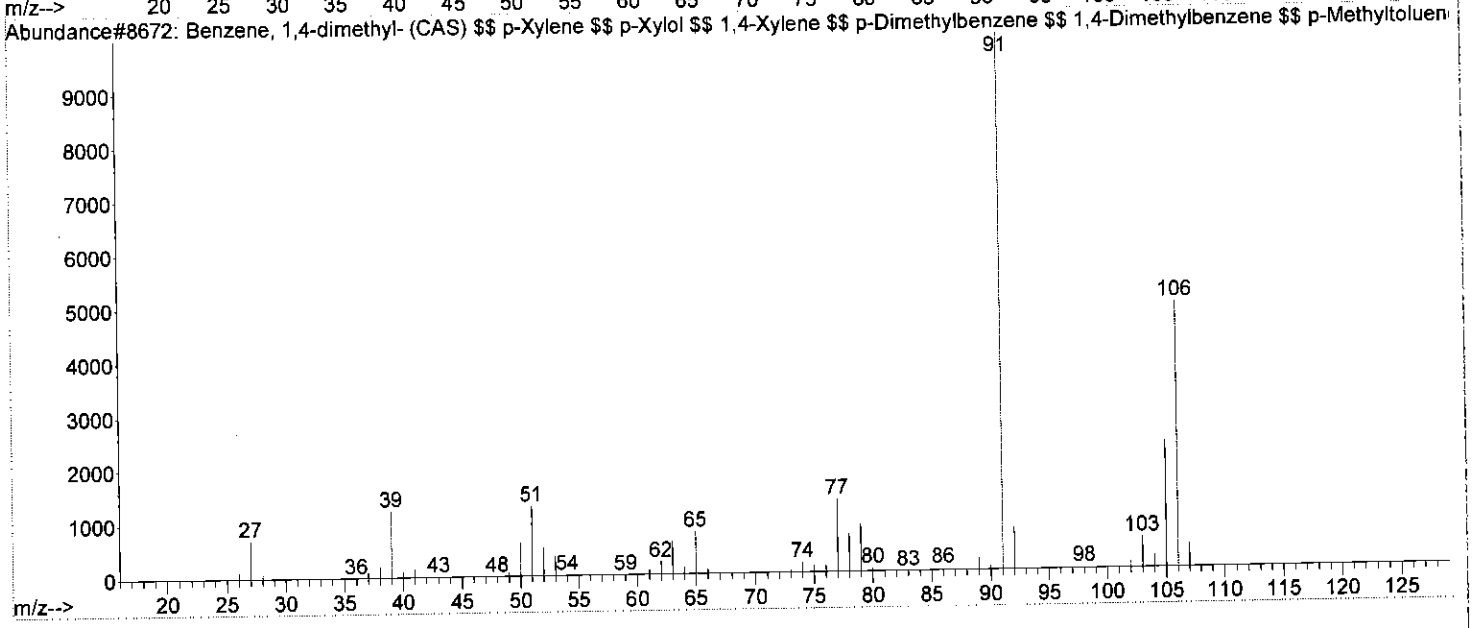
13.056min (-0.000) 0.94 µg/L

response 16981

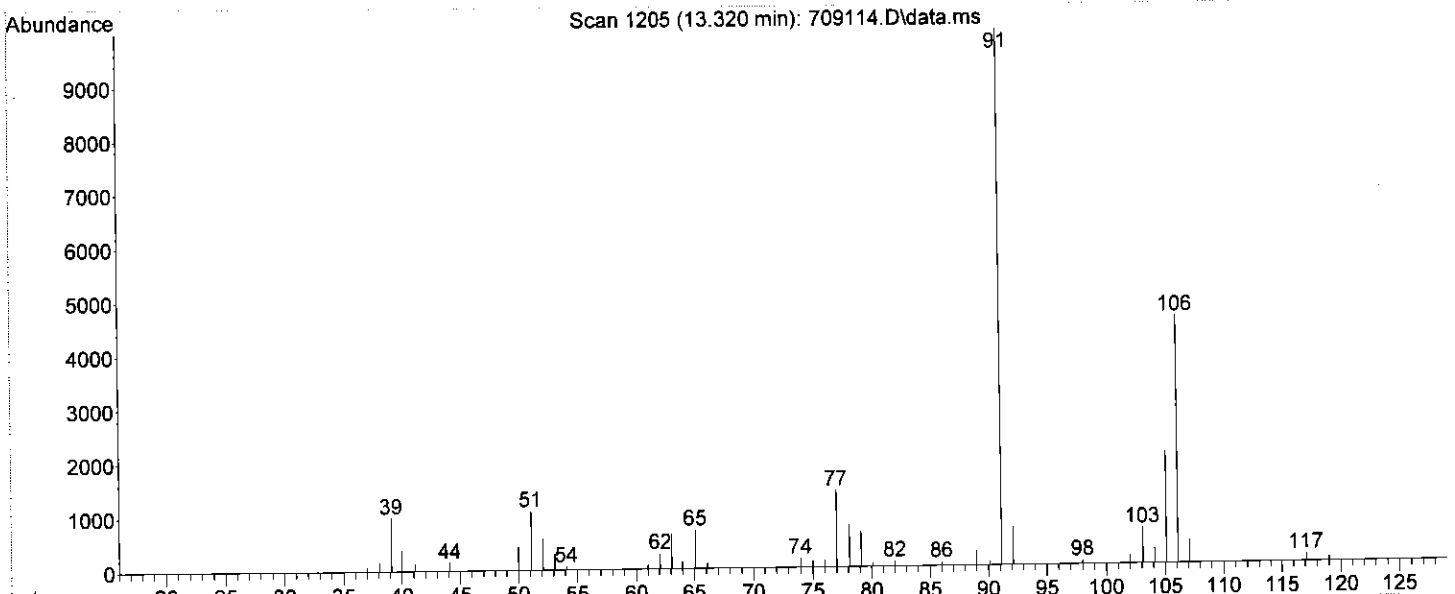
Ion	Exp%	Act%
91.10	100	100
106.20	31.80	26.48
65.00	8.60	9.31
0.00	0.00	0.00

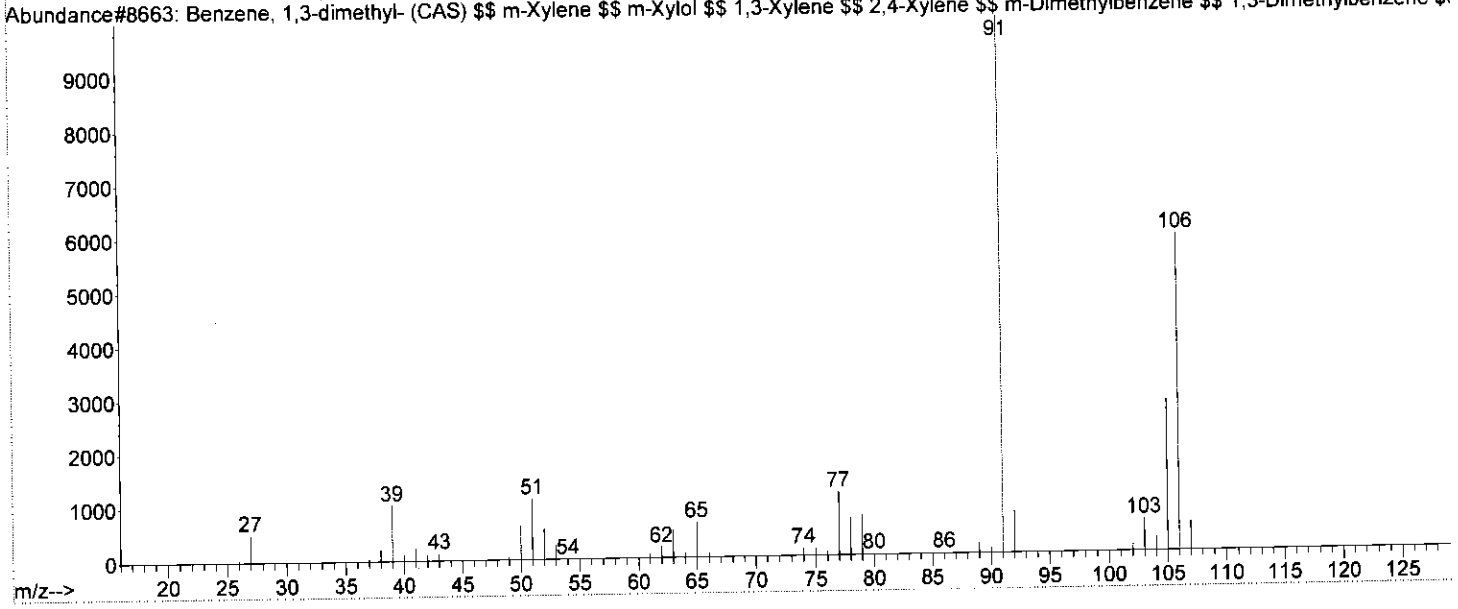
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,4-dimethyl- (CAS) $$ p-Xylene $$ p-Xylol $$ 1,4-Xylene $$ p-Dimethylbenzene $$ 1,4-Dimethylbenzene $$ p-Methyltoluene $$ 4-Methyltoluene $$ 1,4-Dimethyl-benzene $$ 1,4-DIMETHYLBENZENE(P-XYLENE) $$ 1,4-DIMETHYLBENZENE (P-XYLENE) $$ para-Xylene $



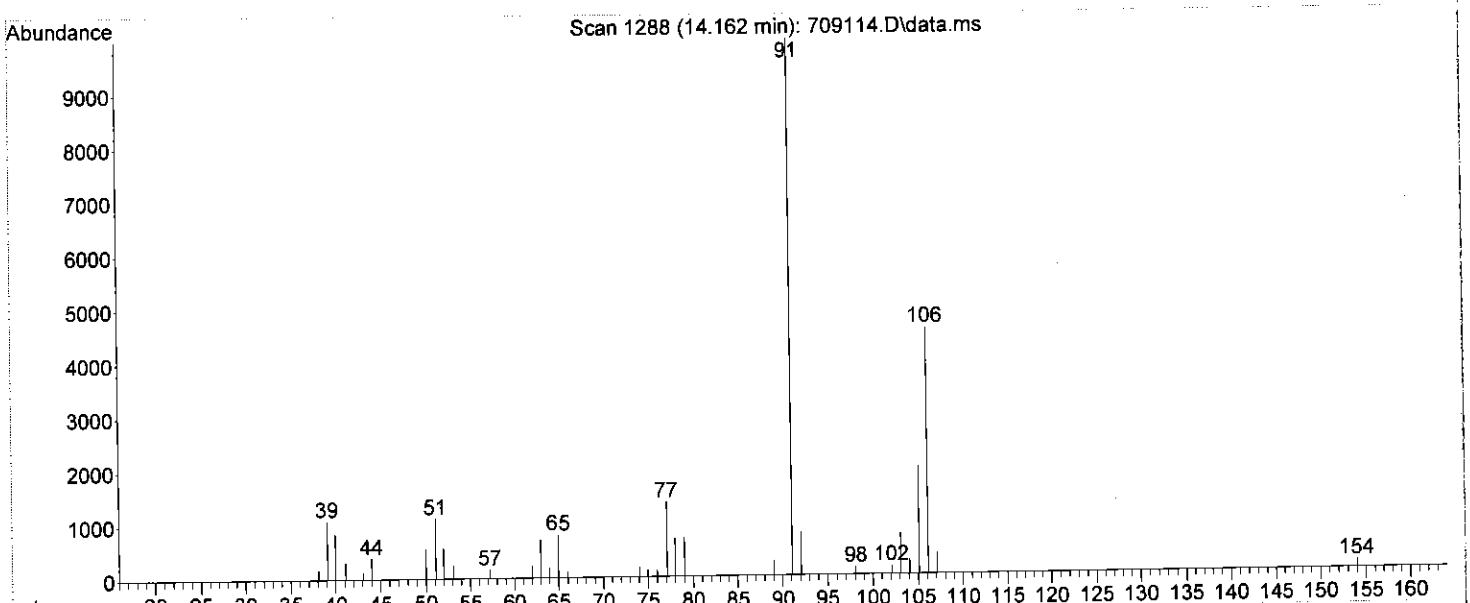


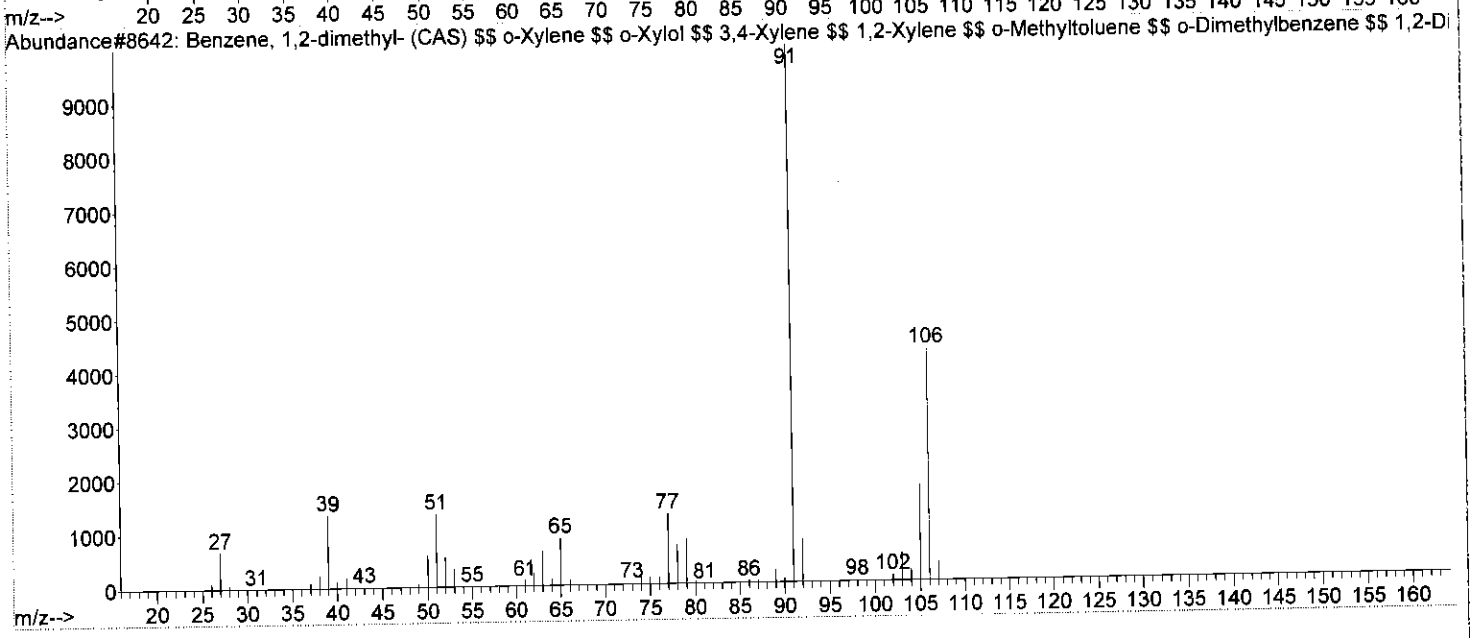
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,3-dimethyl- (CAS) $$ m-Xylene $$ m-Xylol $$ 1,3-Xylene $$ 2,4-Xylene $$ m-Dimethylbenzene $$ 1,3-Dimethylbenzene $$ m-Methyltoluene $$ 1,3-Dimethyl-benzene $$ 1,3-DIMETHYLBENZENE(M-XYLENE) $$ 1,3-DIMETHYLBENZENE (M-XYLENE) $$ meta-Xylene $$ UN



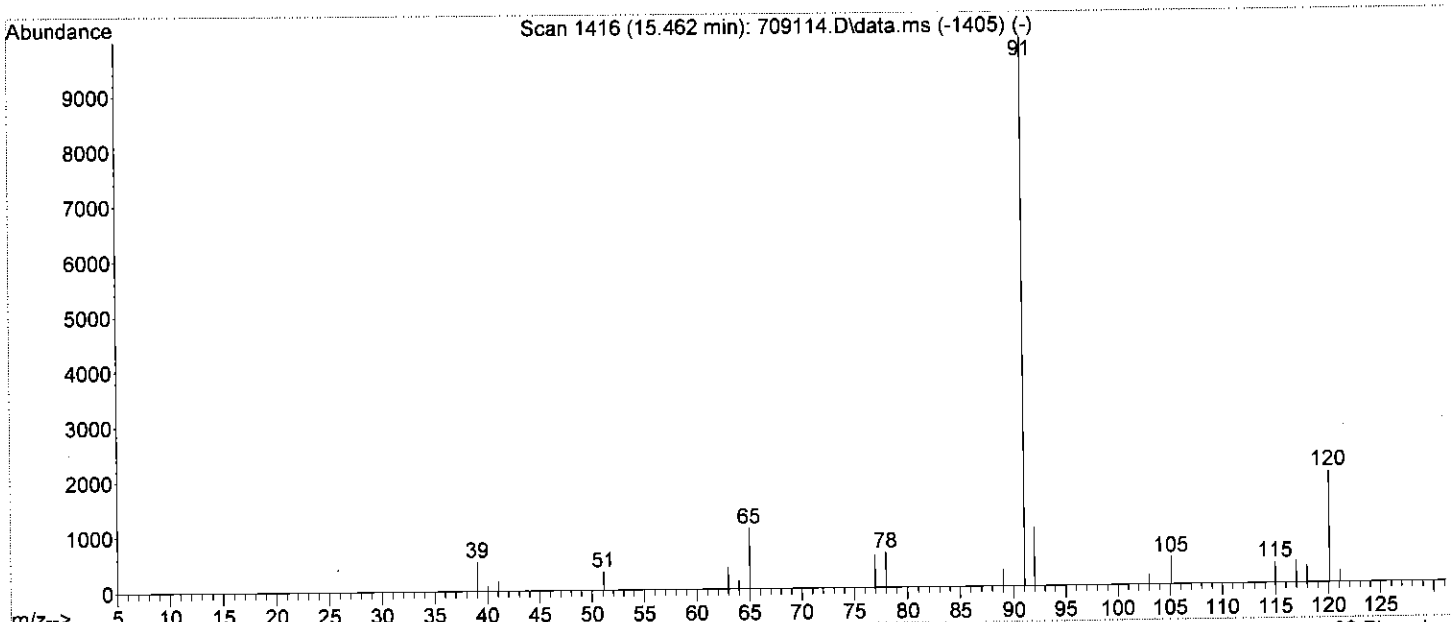


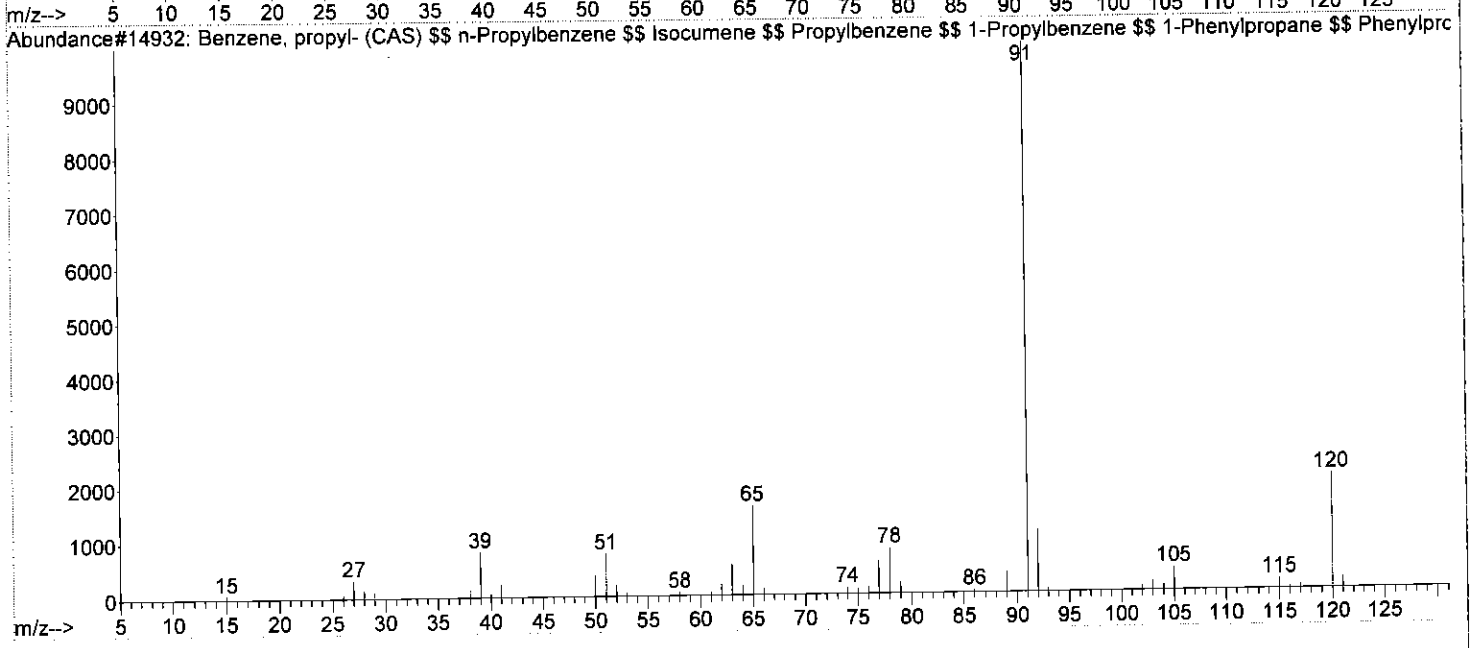
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,2-dimethyl- (CAS) $$ o-Xylene $$ o-Xylol $$ 3,4-Xylene $$ 1,2-Xylene $$ o-Methyltoluene $$ o-Dimethylbenzene $$ 1,2-Dimethylbenzene $$ ortho-Xylene $$ 1,2-Dimethyl-benzene $$ 0-Xylene $$ 1,2-DIMETHYLBENZENE (O-XYLENE) $$ 1,2-DIMETHYLBENZENE(O-X



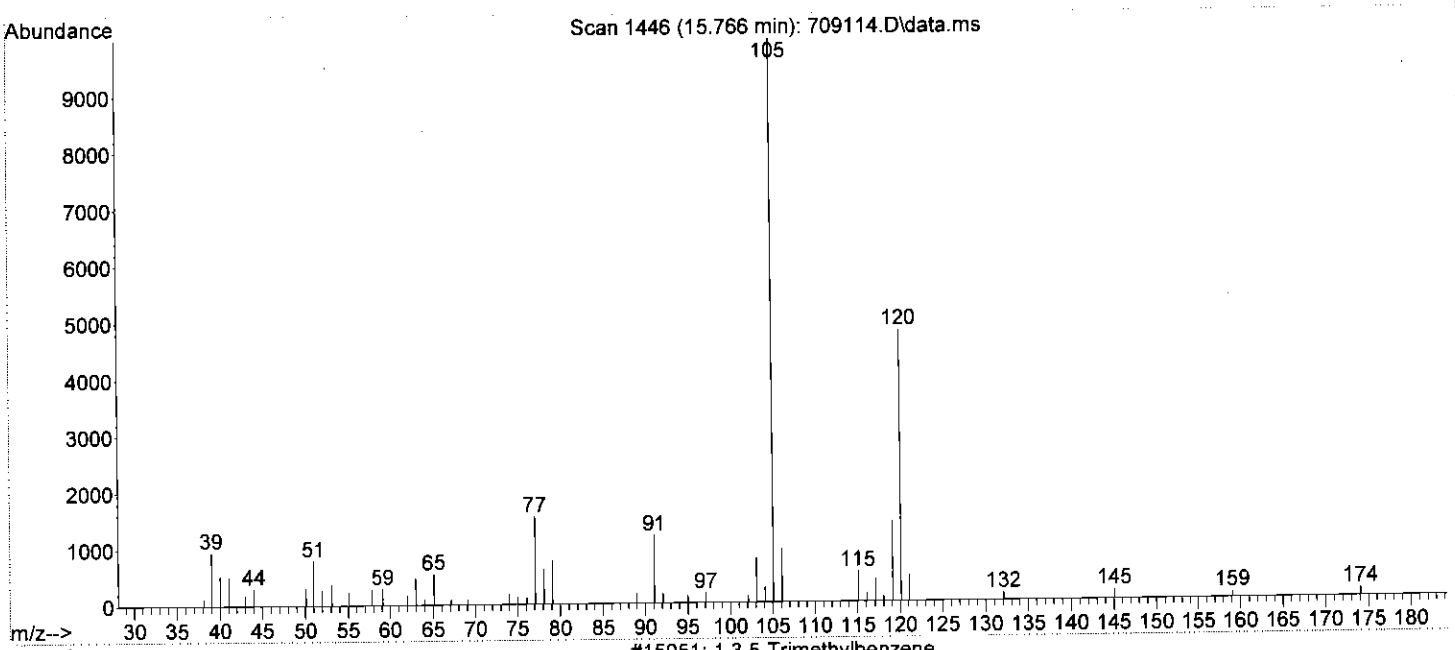


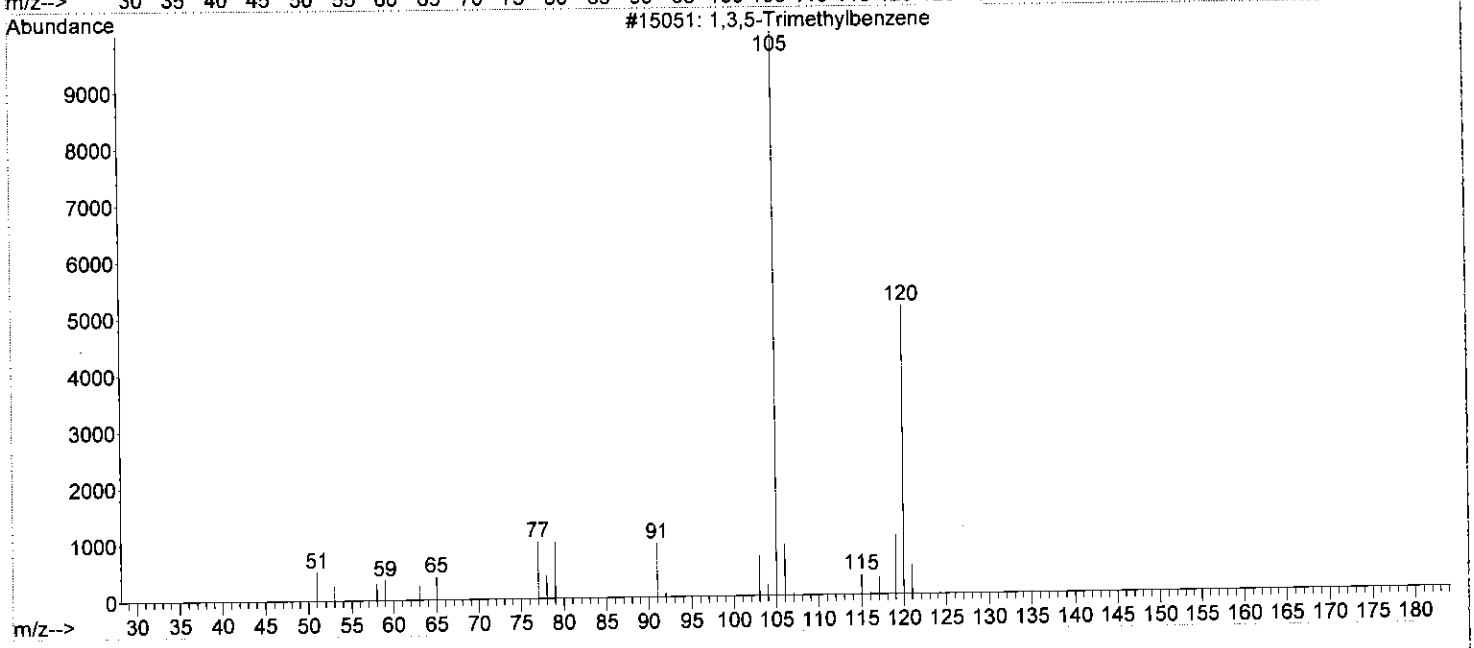
Library Searched : C:\Database\WILEY275.L
Quality : 87
ID : Benzene, propyl- (CAS) $$ n-Propylbenzene $$ Isocumene $$ Propylbenzene $$ 1-Propylbenzene $$ 1-Phenylpropane $$ Phenylpropane $$ UN 2364



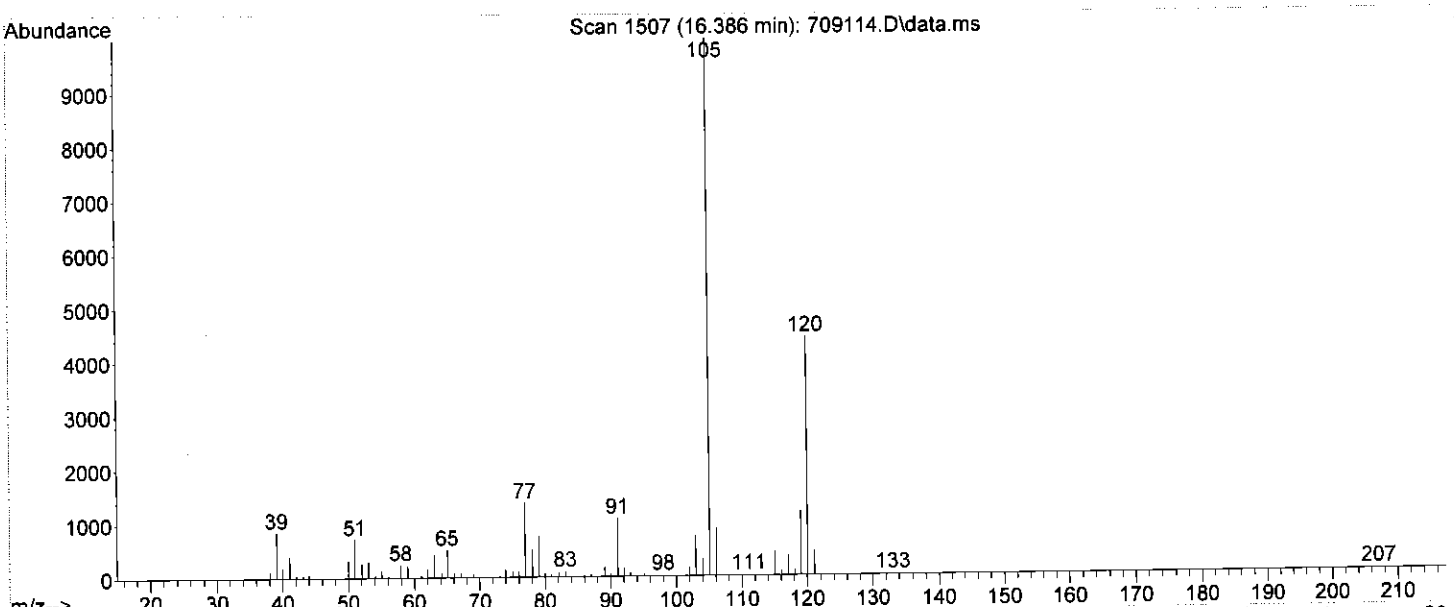


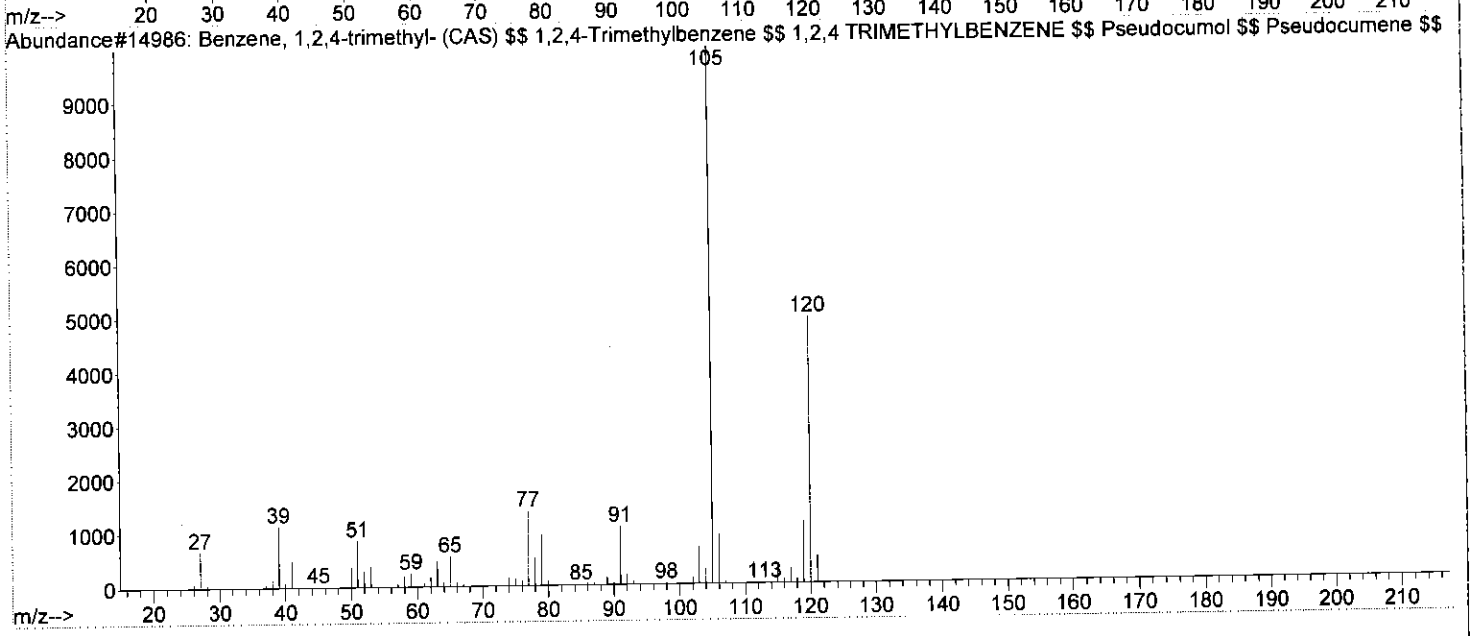
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : 1,3,5-Trimethylbenzene



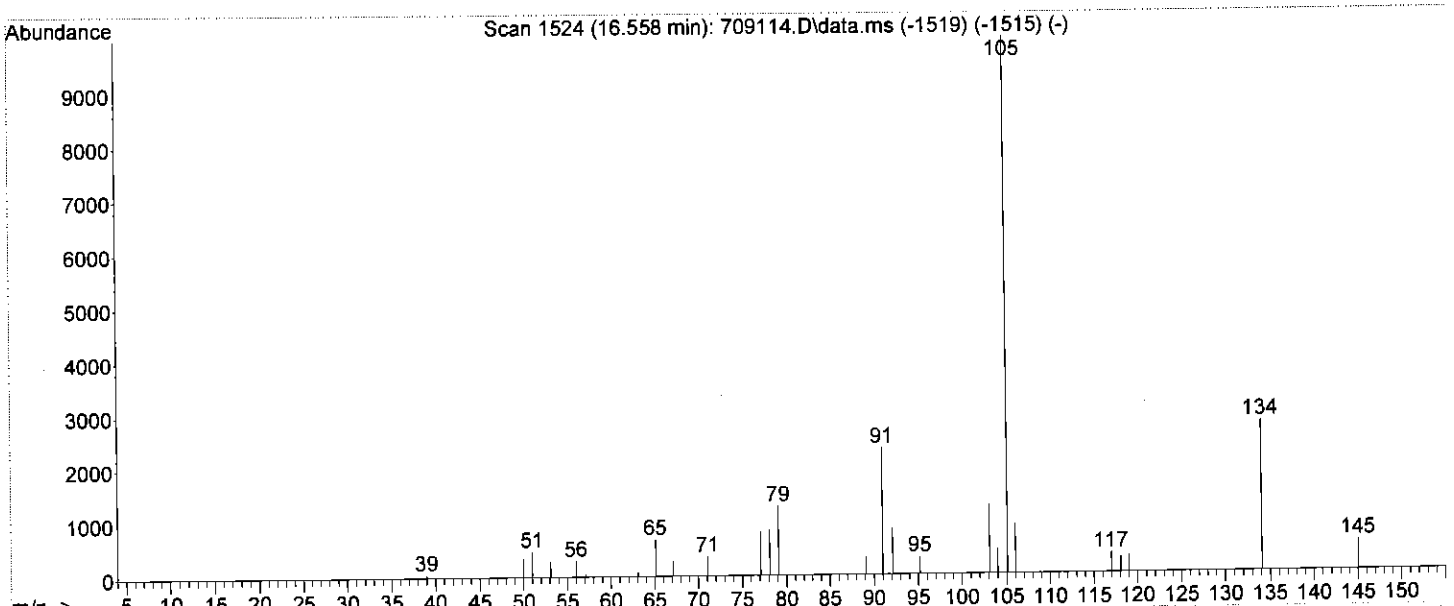


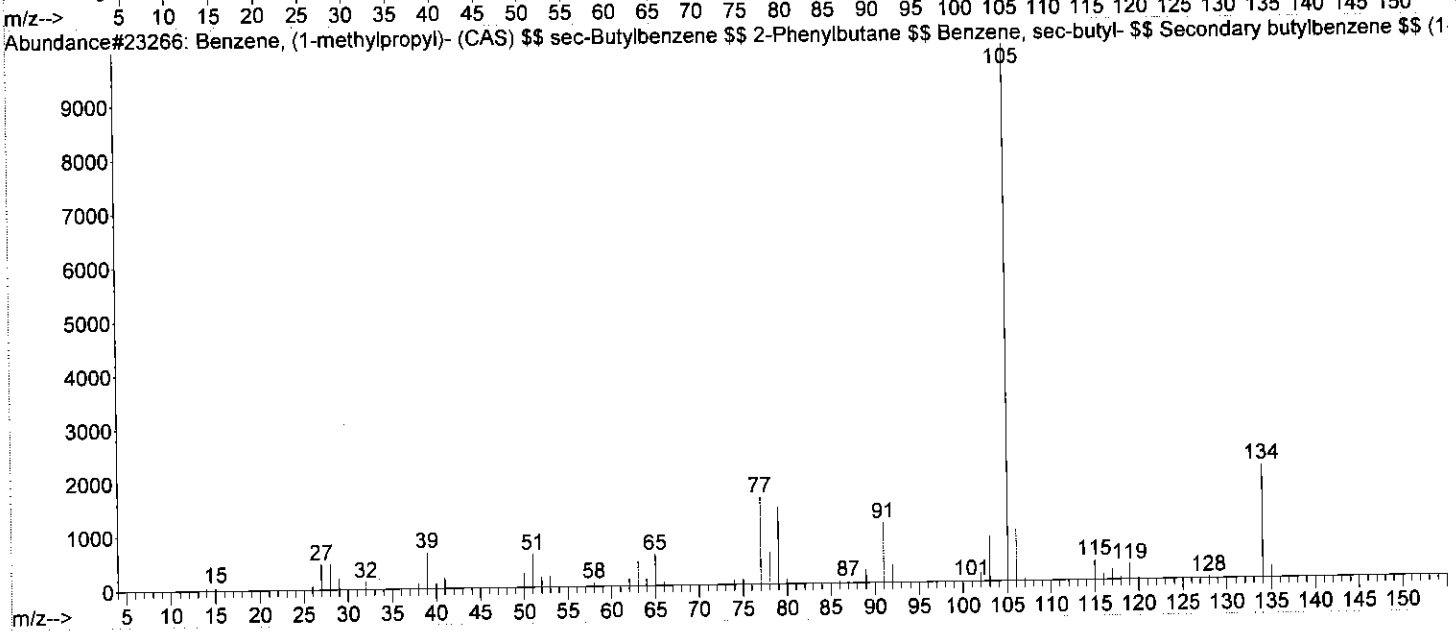
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Benzene, 1,2,4-trimethyl- (CAS) $$ 1,2,4-Trimethylbenzene $$ 1,2,4 TRIMETHYLBENZENE $$ Pseudocumol $$ Pseudocumene $$ .psi.-Cumene $$ 1,3,4-Trimethylbenzene $$ 1,2,5-Trimethylbenzene $$ Asymmetrical trimethylbenzene $$ As-Trimethylbenzene $$ Psi-cumene $$



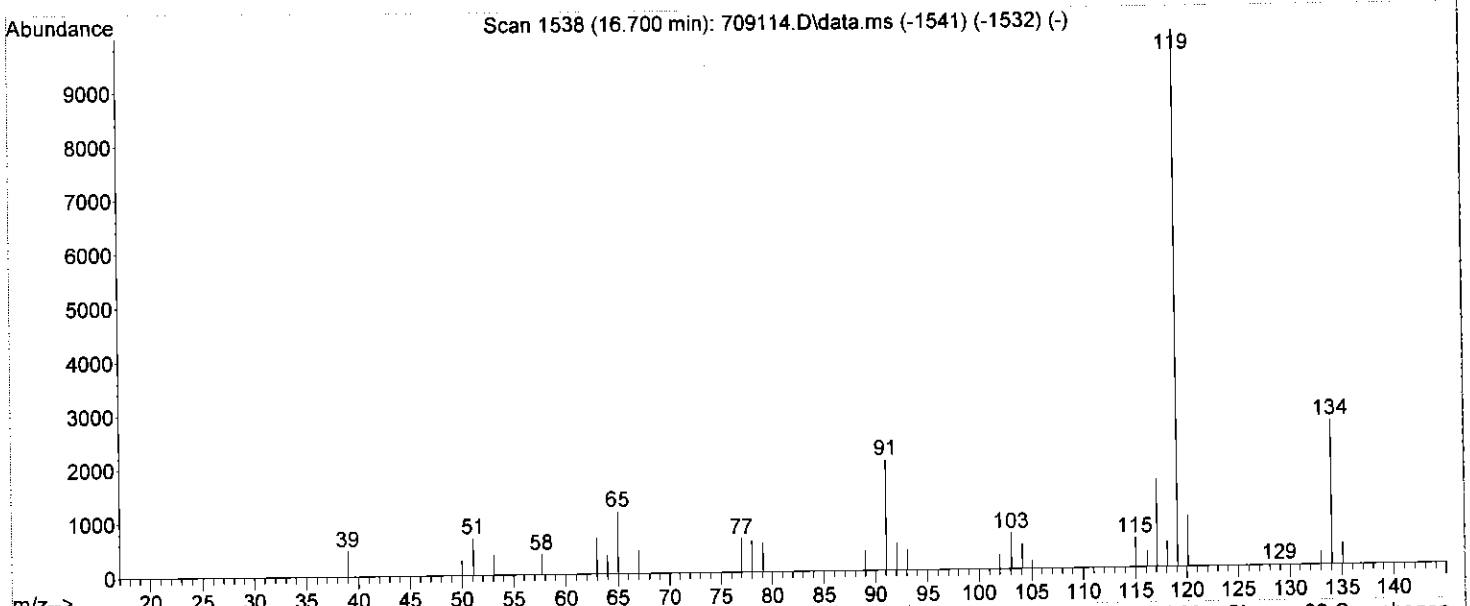


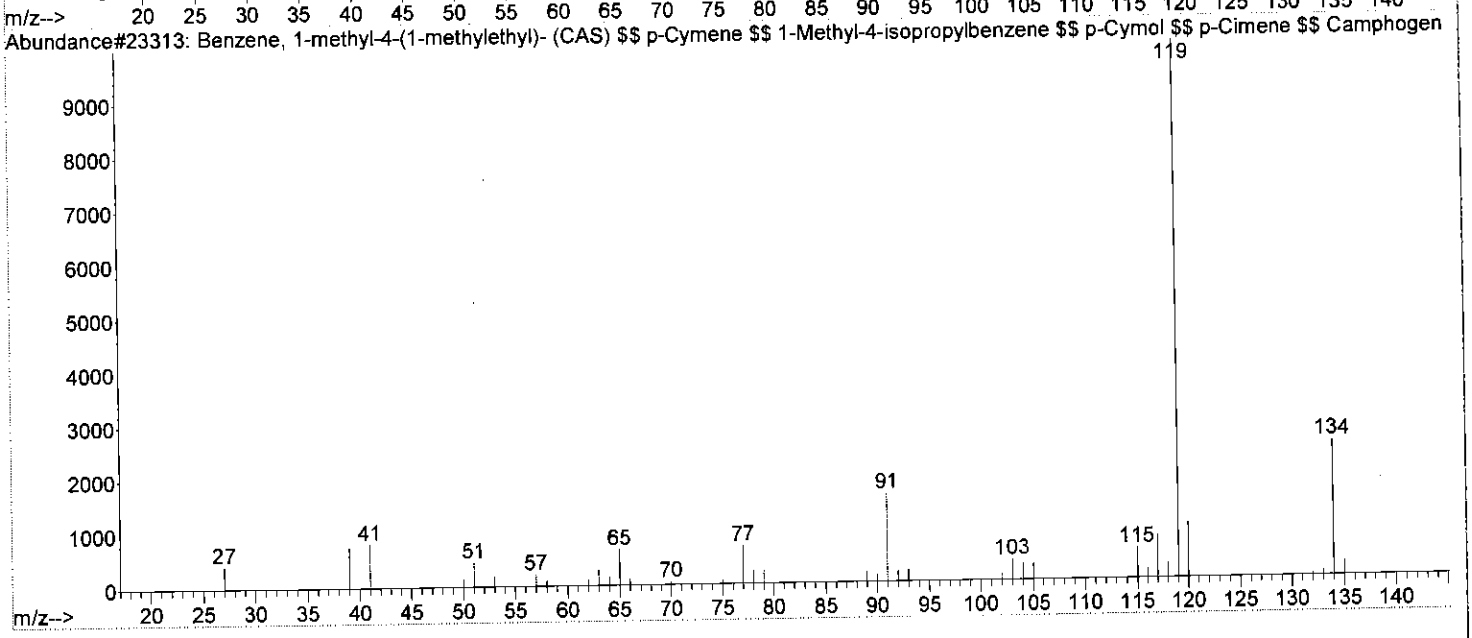
Library Searched : C:\Database\WILEY275.L
Quality : 80
ID : Benzene, (1-methylpropyl)- (CAS) $$ sec-Butylbenzene $$ 2-Phenylbutane $$ Benzene, sec-butyl- $$ Secondary butylbenzene $$ (1-Methylpropyl)benzene $$ UN 2709 $$ S-Butylbenzene



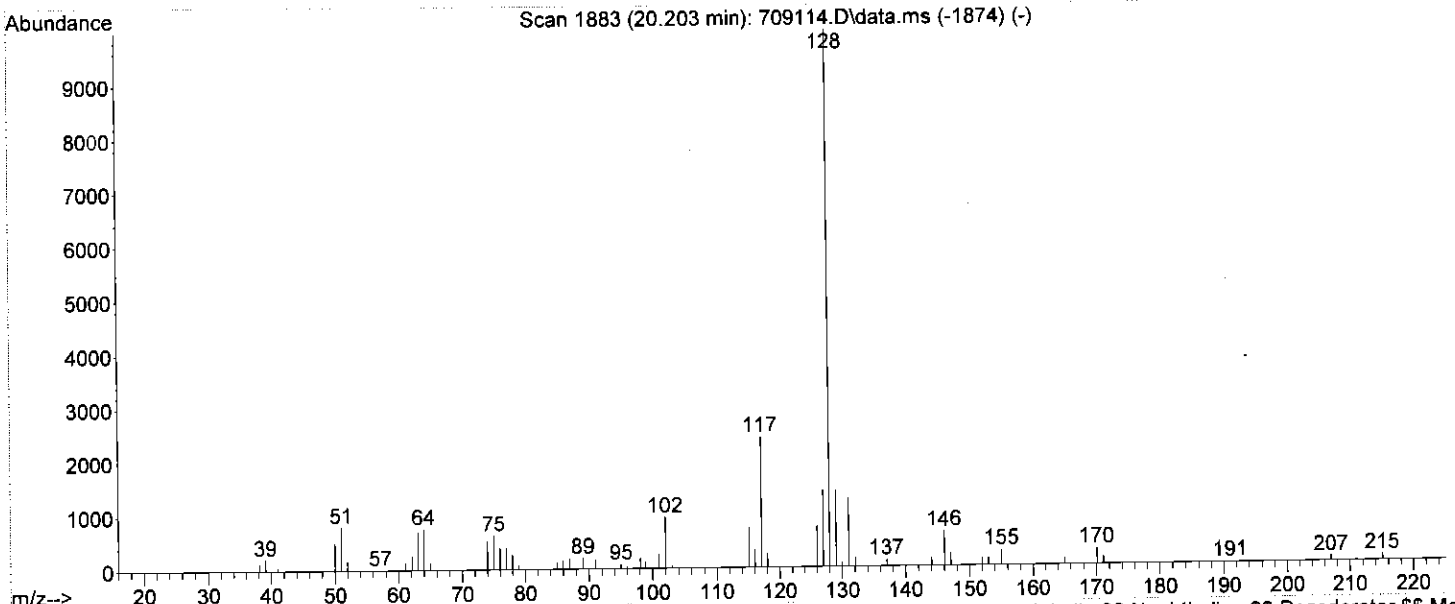


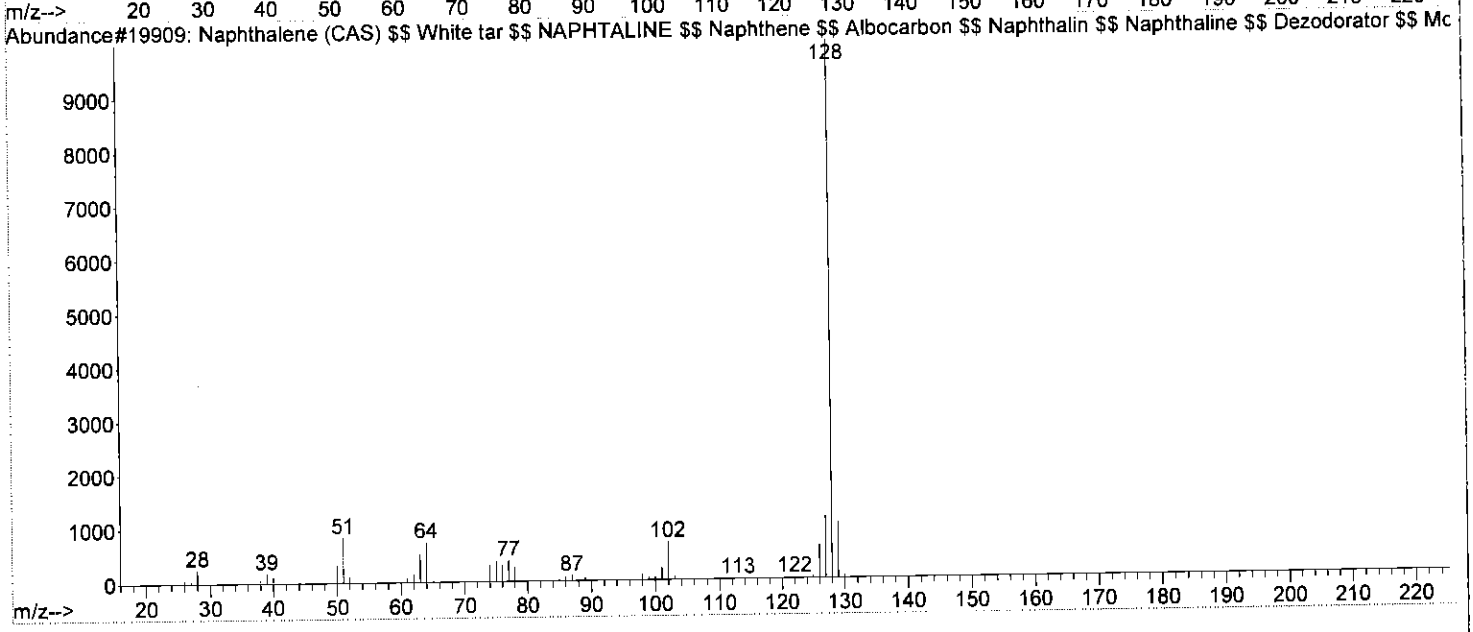
Library Searched : C:\Database\WILEY275.L
Quality : 94
ID : Benzene, 1-methyl-4-(1-methylethyl)- (CAS) $$ p-Cymene $$ 1-Methyl-4-isopropyl benzene $$ p-Cymol $$ p-Cimene $$ Camphogen $$ Dolcymene $$ 2-p-Tolylpropane $ $ p-Isopropyltoluene $$ p-Methylisopropylbenzene $$ 1-Isopropyl-4-methylbenzen e $$ 4-Isopropyl-1-me





Library Searched : C:\Database\WILEY275.L
Quality : 94
ID : Naphthalene (CAS) $$ White tar $$ NAPHTALINE $$ Naphthene $$ Albocarbon $$ Naphthalin $$ Naphthaline $$ Dezodorator $$ Moth flakes $$ Tar camphor $$ Camphor tar $$ Moth balls $$ Naftalen $$ NCI-C52904 $$ Mighty 150 $$ Mighty rdl $$ Napthalene, molten $$ R





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709114.D
Acq On : 13 Mar 2018 5:28 pm
Operator : NIVA
Sample : 2825384
Misc : RUN197091, DF20
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 16:18:54 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	286788	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	447146	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	405621	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	210106	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	179743	20.01 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.05%		
39) STOLUENE-D8	10.335	98	523160	19.87 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.35%		
59) S4BRFLUOROBENZENE	15.259	95	208419	18.98 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.90%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	0.000		0	N.D.	
6) CHLOROETHANE	3.797	64	1035	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	0.000		0	N.D.	
12) CARBON DISULFIDE	4.569	76	486	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	5.188	96	159	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	7.219	43	652	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.833	83	2785	N.D.	
22) BROMOCHLOROMETHANE	6.833	49	1783	N.D.	
25) TETRAHYDROFURAN	7.016	42	445	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.985	117	710	N.D.	
30) BENZENE	7.574	78	3716	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.975	43	729	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.427	91	20489	1.20 µg/L	99
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709114.D
Acq On : 13 Mar 2018 5:28 pm
Operator : NIVA
Sample : 2825384
Misc : RUN197091, DF20
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 16:18:54 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

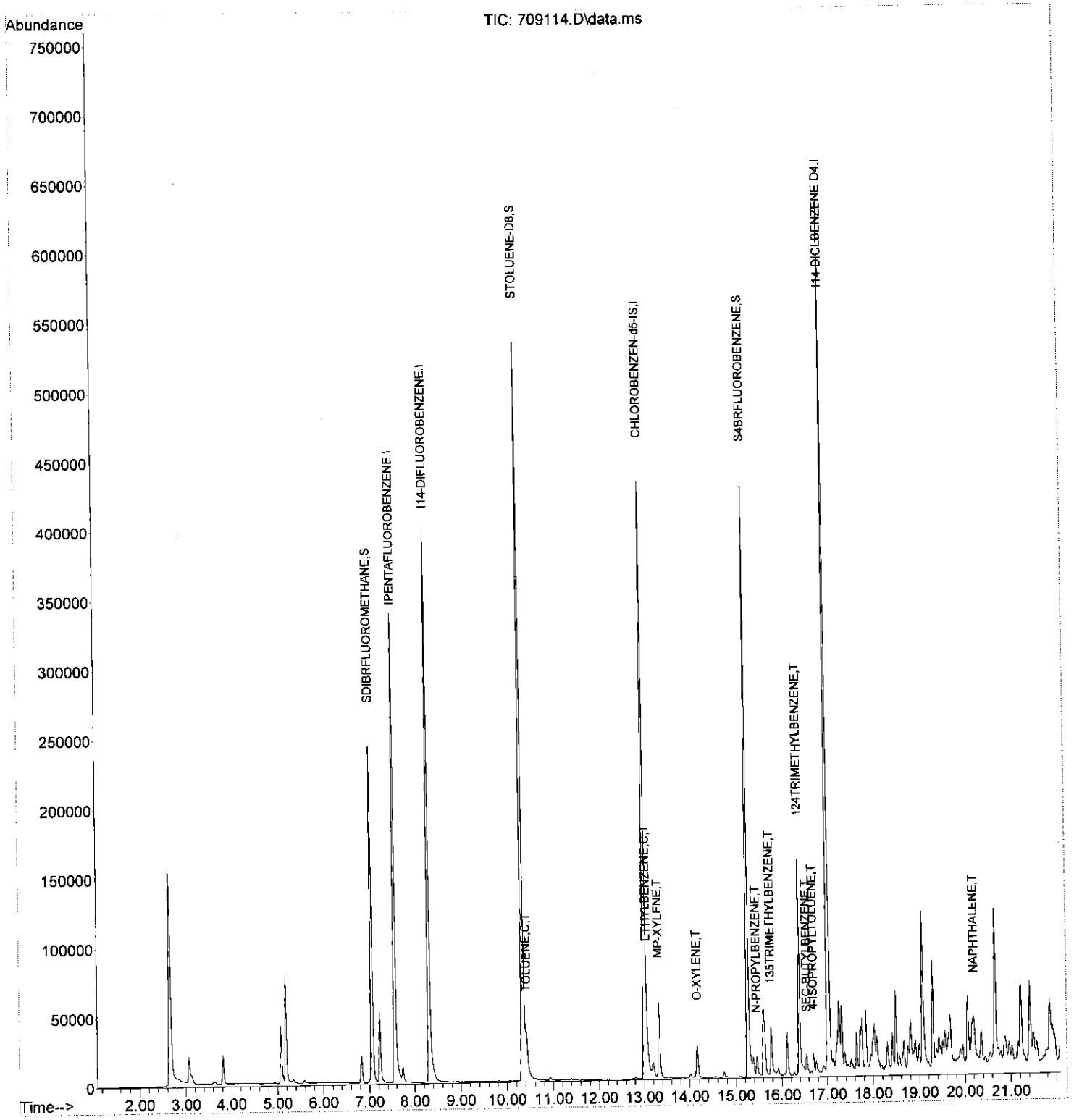
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	16981	0.94 µg/L	92
53) MP-XYLENE	13.320	91	53928	3.57 µg/L	93
54) STYRENE	14.162	104	459	N.D.	
55) O-XYLENE	14.162	91	24642	1.60 µg/L	95
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	15.513	83	62	N.D.	
58) ISOPROPYL BENZENE	14.741	105	3871	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D. d	
62) BROMOBENZENE	15.462	77	1052	N.D.	
63) N-PROPYLBENZENE	15.462	91	15971	0.76 µg/L	90
64) 2-CHLOROTOLUENE	15.604	91	6737	N.D.	
65) 4-CHLOROTOLUENE	16.000	91	266	N.D.	
66) 135TRIMETHYLBENZENE	15.766	105	24353	1.52 µg/L	95
67) TERT-BUTYLBENZENE	16.284	119	168	N.D.	
68) 124TRIMETHYLBENZENE	16.386	105	102437	6.56 µg/L	96
69) SEC-BUTYLBENZENE	16.558	105	9058	0.51 µg/L	88
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.700	119	9762	0.70 µg/L	96
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D. d	
76) 12-DIBR-3CLPROPANE	18.680	157	71	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	20.203	128	26025	1.76 µg/L	97
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709114.D
Acq On : 13 Mar 2018 5:28 pm
Operator : NIVA
Sample : 2825384
Misc : RUN197091, DF20
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 16:18:54 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709115.D
Acq On : 13 Mar 2018 5:54 pm
Operator : NIVA
Sample : CCV/2829634
Misc : RUN197091
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 16 16:21:32 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	270219	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	422313	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	13.015	117	413816	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	220419	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	177256	20.89 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.45%		
39) STOLUENE-D8	10.335	98	528651	21.26 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.30%		
59) S4BRFLUOROBENZENE	15.259	95	209848	18.73 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.65%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	2.873	85	70926	20.20 µg/L	99
3) CHLOROMETHANE	3.127	50	86676	20.15 µg/L	99
4) VINYL CHLORIDE	3.238	62	72132	19.69 µg/L	99
5) BROMOMETHANE	3.625	94	53124m	19.28 µg/L	
6) CHLOROETHANE	3.767	64	40545	20.21 µg/L	98
7) TRICLFLUOROMETHANE	3.929	101	143904	23.47 µg/L	99
8) ACROLEIN	4.833	56	34878m	460.67 µg/L	
9) ACETONE	5.127	43	136325m	100.52 µg/L	
10) 11-DICHLOROETHENE	4.488	61	52089	17.70 µg/L	96
11) IODOMETHANE	4.670	142	537359m	122.12 µg/L	
12) CARBON DISULFIDE	4.569	76	842758	105.94 µg/L	98
13) ACRYLONITRILE	5.980	53	197392m	98.09 µg/L	
14) DICHLOROMETHANE	5.097	84	61192	22.22 µg/L #	83
15) TRANS12DICLETHENE	5.269	96	58076	18.64 µg/L	90
16) 11-DICHLOROETHANE	5.939	63	103765	16.26 µg/L	98
17) VINYL ACETATE	6.142	43	916630m	91.00 µg/L	
18) 2-BUTANONE	7.188	43	241705m	84.40 µg/L	
19) CIS12DICHLOROETHENE	6.548	96	73311	19.71 µg/L	91
20) 22-DICHLOROPROPANE	6.680	77	102336	21.97 µg/L	99
21) CHLOROFORM	6.833	83	151436	20.12 µg/L	100
22) BROMOCHLOROMETHANE	6.782	49	82681	19.19 µg/L #	82
25) TETRAHYDROFURAN	7.066	42	87862m	17.07 µg/L	
26) 111-TRICHLOROETHANE	7.127	97	122620	19.11 µg/L	99
27) 11-DICHLOROPROPENE	7.269	75	90453	19.33 µg/L	94
28) 12-DICHLOROETHANE	7.828	62	116519	17.95 µg/L	100
29) CARBONTETRACHLORIDE	7.056	117	103880	19.57 µg/L	100
30) BENZENE	7.584	78	264560	19.01 µg/L	98
31) TRICHLOROETHENE	8.325	132	71592	19.91 µg/L #	95
32) 12-DICHLOROPROPANE	9.046	63	78169	18.90 µg/L	98
33) DIBROMOMETHANE	8.924	174	56286	20.22 µg/L	91
34) BROMODICLMETHANE	9.107	83	110810	20.03 µg/L	99
35) 2-CLETHYLVINYLETHER	9.888	63	201154m	81.17 µg/L	
36) EPICHLOROHYDRIN	10.416	57	194185	404.17 µg/L	98
37) 4METHYL-2-PENTANONE	10.975	43	506505	81.99 µg/L #	93
38) CIS13DICLPROPENE	10.041	75	114661	19.75 µg/L	97
40) TOLUENE	10.416	91	297349	18.51 µg/L	97
41) TRANS13DICLPROPENE	11.066	75	100683	17.46 µg/L	91
42) 112-TRICHLOROETHANE	11.340	97	78954	19.90 µg/L	96
43) 2-HEXANONE	12.406	43	487070m	111.37 µg/L	
44) 13-DICHLOROPROPANE	11.827	76	133737	19.21 µg/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709115.D
Acq On : 13 Mar 2018 5:54 pm
Operator : NIVA
Sample : CCV/2829634
Misc : RUN197091
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 16 16:21:32 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

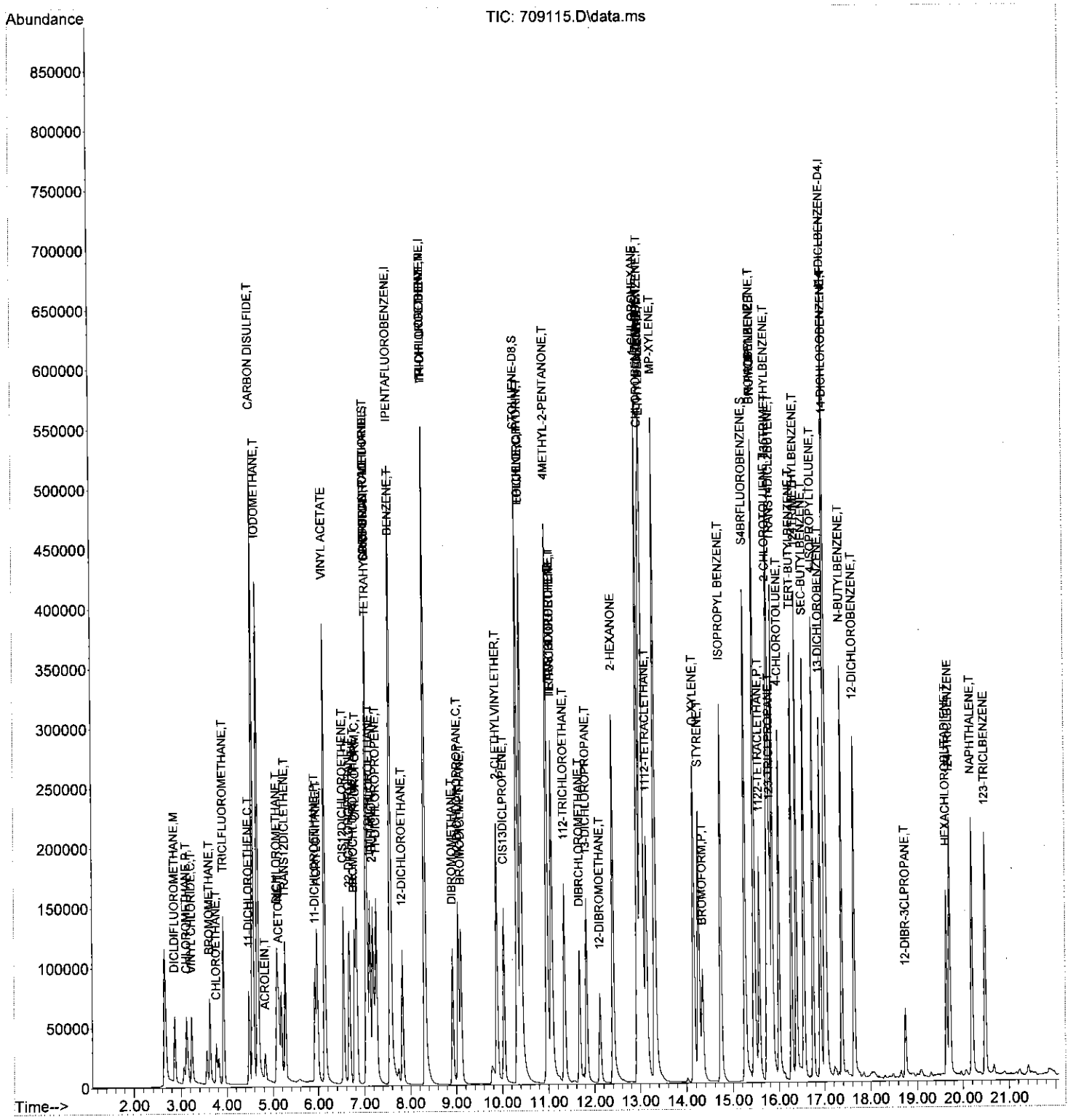
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	89829	18.45 µg/L	99
46) TETRACHLOROETHENE	11.076	166	78880	21.18 µg/L	92
47) 12-DIBROMOETHANE	12.122	107	78468	19.80 µg/L	100
49) CHLOROBENZENE	13.046	112	208137	18.10 µg/L	89
50) 1-CHLOROHEXANE	12.944	91	112044m	20.04 µg/L	
51) 1112-TETRACLETHANE	13.137	131	80200	18.92 µg/L	91
52) ETHYLBENZENE	13.056	91	336855	18.18 µg/L	99
53) MP-XYLENE	13.320	91	533123	34.58 µg/L	95
54) STYRENE	14.264	104	190298	17.01 µg/L	98
55) O-XYLENE	14.162	91	265569	16.94 µg/L	97
56) BROMOFORM	14.345	173	62725	15.26 µg/L	98
57) 1122-TETRACLETHANE	15.573	83	124657	16.70 µg/L	99
58) ISOPROPYL BENZENE	14.741	105	310642	17.56 µg/L	96
60) 123-TRICLPROPANE	15.807	110	35123	16.23 µg/L	98
61) TRANS14DICL2BUTENE	15.858	53	106174	106.35 µg/L	89
62) BROMOBENZENE	15.452	77	160686	16.94 µg/L	85
63) N-PROPYLBENZENE	15.462	91	381026	17.70 µg/L	94
64) 2-CHLOROTOLUENE	15.746	91	262977	16.97 µg/L	90
65) 4-CHLOROTOLUENE	16.000	91	230919	16.87 µg/L	91
66) 135TRIMETHYLBENZENE	15.766	105	287697	17.64 µg/L	95
67) TERT-BUTYLBENZENE	16.284	119	221349	17.35 µg/L	94
68) 124TRIMETHYLBENZENE	16.386	105	276954	17.38 µg/L	96
69) SEC-BUTYLBENZENE	16.558	105	320087	17.79 µg/L	99
70) 13-DICHLOROBENZENE	16.913	146	141559	16.68 µg/L	98
72) 4-ISOPROPYLTOLUENE	16.761	119	268312	18.34 µg/L	98
73) 14-DICHLOROBENZENE	17.035	146	155118	18.52 µg/L	89
74) 12-DICHLOROBENZENE	17.644	146	154209	18.11 µg/L	97
75) N-BUTYLBENZENE	17.370	91	241965	18.11 µg/L	95
76) 12-DIBR-3CLPROPANE	18.761	157	20599	15.19 µg/L	97
77) 124-TRICLBENZENE	19.715	180	95427	18.34 µg/L #	94
78) NAPHTHALENE	20.192	128	249250	16.08 µg/L	99
79) HEXACHLOROBUTADIENE	19.644	225	41381	19.47 µg/L	98
80) 123-TRICLBENZENE	20.487	182	91144	17.73 µg/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709115.D
Acq On : 13 Mar 2018 5:54 pm
Operator : NIVA
Sample : CCV/2829634
Misc : RUN197091
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 16 16:21:32 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709115.D
Acq On : 13 Mar 2018 5:54 pm
Operator : NIVA
Sample : CCV/2829634
Misc : RUN197091
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 16 16:21:32 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

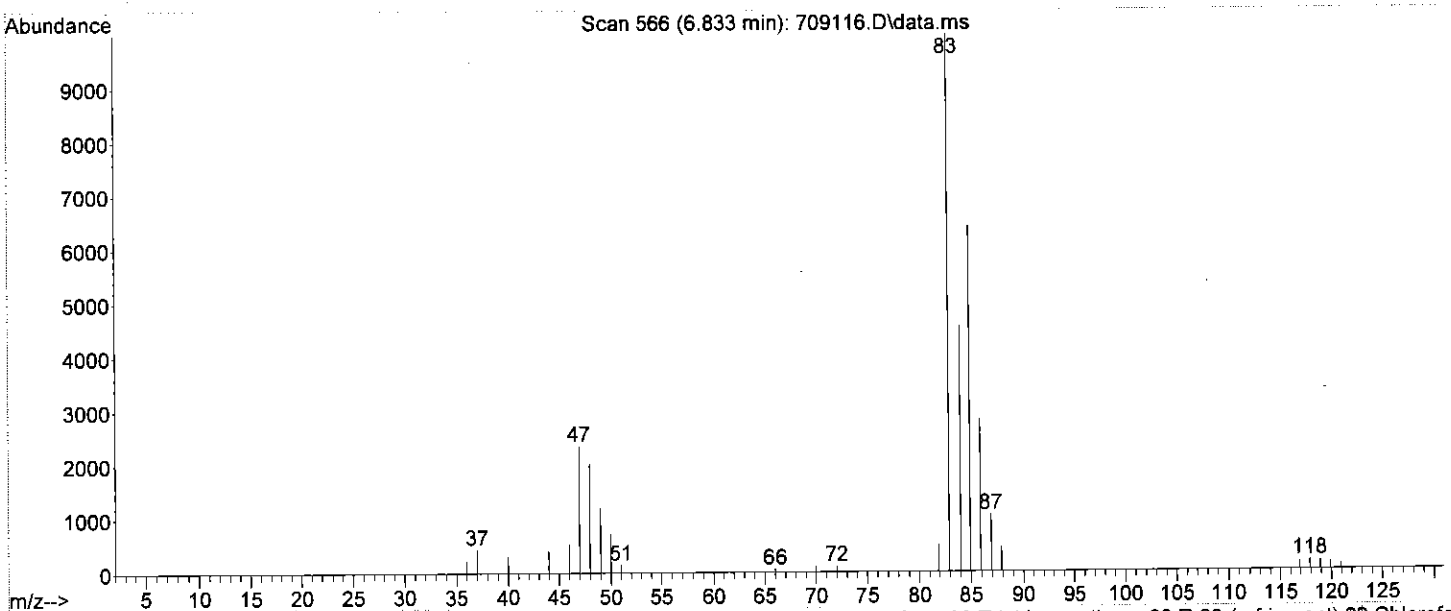
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	IPENTAFLUOROBENZENE	1.000	1.000	0.0	76	0.01
2	M	DICLDIFLUOROMETHANE	0.260	0.262	-0.8	70	0.04
3	P,T	CHLOROMETHANE	0.451	0.321	28.8#	54	0.03
4	C,T	VINYL CHLORIDE	0.271	0.267	1.5	68	0.03
5	T	BROMOMETHANE	0.260	0.197	24.2#	56	0.03
6	T	CHLOROETHANE	0.148	0.150	-1.4	78	0.04
7	T	TRICLFLUOROMETHANE	0.454	0.533	-17.4	80	0.08
8	T	ACROLEIN	0.006	0.005#	16.7	66	0.01
9	T	ACETONE	0.100	0.101	-1.0	77	0.00
10	C,T	11-DICHLOROETHENE	0.218	0.193	11.5	63	0.03
11	T	IODOMETHANE	0.205	0.398	-94.1#	130	0.02
12	T	CARBON DISULFIDE	0.589	0.624	-5.9	73	0.02
13	T	ACRYLONITRILE	0.149	0.146	2.0	71	0.00
14	T	DICHLOROMETHANE	0.373	0.226	39.4#	61	0.01
15	T	TRANS12DICLETHENE	0.231	0.215	6.9	66	0.02
16	P,T	11-DICHLOROETHANE	0.472	0.384	18.6	58	0.01
17		VINYL ACETATE	0.746	0.678	9.1	66	0.00
18		2-BUTANONE	0.212	0.179	15.6	60	0.00
19	T	CIS12DICHLOROETHENE	0.275	0.271	1.5	72	0.00
20	T	22-DICHLOROPROPANE	0.345	0.379	-9.9	79	0.01
21	C,T	CHLOROFORM	0.557	0.560	-0.5	71	0.01
22	T	BROMOCHLOROMETHANE	0.319	0.306	4.1	70	0.00
23	I	I14-DIFLUOROBENZENE	1.000	1.000	0.0	78	0.01
24	S	SDIBRFLUOROMETHANE	0.402	0.420	-4.5	80	0.00
25	T	TETRAHYDROFURAN	0.244	0.208	14.8	61	0.00
26	T	111-TRICHLOROETHANE	0.304	0.290	4.6	69	0.00
27	T	11-DICHLOROPROPENE	0.222	0.214	3.6	71	0.00
28	T	12-DICHLOROETHANE	0.307	0.276	10.1	66	0.00
29	T	CARBONTETRACHLORIDE	0.251	0.246	2.0	71	0.00
30	T	BENZENE	0.659	0.626	5.0	70	0.00
31	T	TRICHLOROETHENE	0.170	0.170	0.0	74	0.00
32	C,T	12-DICHLOROPROPANE	0.196	0.185	5.6	71	0.00
33	T	DIBROMOMETHANE	0.132	0.133	-0.8	77	0.00
34	T	BROMODICLMETHANE	0.262	0.262	0.0	73	0.00
35	T	2-CLETHYLVINYLETHER	0.117	0.095#	18.8	62	0.00
36	T	EPICHLOROHYDRIN	0.023	0.018#	21.7#	60	0.00
37	T	4METHYL-2-PENTANONE	0.293	0.240	18.1	60	0.00
38	T	CIS13DICLPROPENE	0.275	0.272	1.1	73	0.00
39	S	STOLUENE-D8	1.178	1.252	-6.3	82	0.00
40	C,T	TOLUENE	0.761	0.704	7.5	68	0.00
41	T	TRANS13DICLPROPENE	0.227	0.238	-4.8	73	0.00
42	T	112-TRICHLOROETHANE	0.188	0.187	0.5	75	0.00
43		2-HEXANONE	0.207	0.231	-11.6	80	0.00
44	T	13-DICHLOROPROPANE	0.330	0.317	3.9	72	0.01

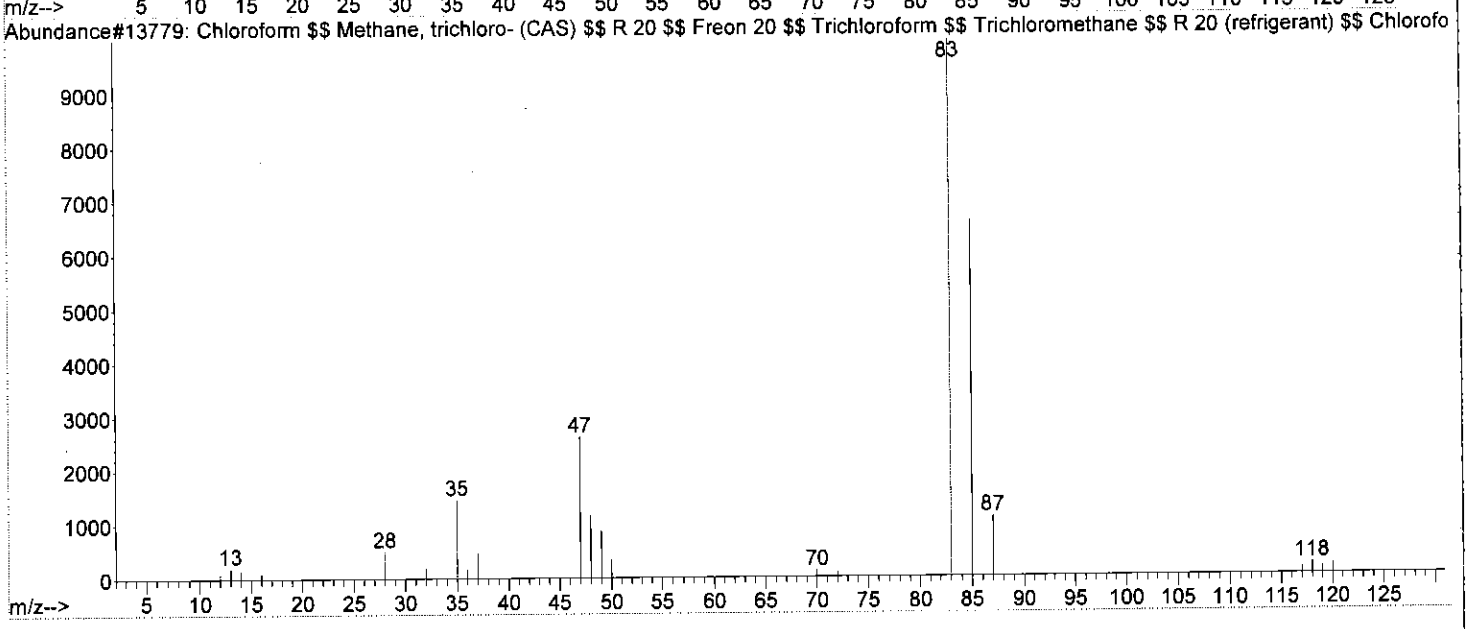
45	T	DIBRCHLOROMETHANE	0.182	0.213	-17.0	81	0.01
46	T	TETRACHLOROETHENE	0.176	0.187	-6.3	80	0.00
47	T	12-DIBROMOETHANE	0.188	0.186	1.1	76	0.02
48	I	CHLOROBENZEN-d5-IS	1.000	1.000	0.0	87	0.00
49	P,T	CHLOROBENZENE	0.556	0.503	9.5	77	0.00
50		1-CHLOROHEXANE	0.270	0.271	-0.4	86	-0.03
51	T	1112-TETRACLETHANE	0.205	0.194	5.4	78	0.00
52	C,T	ETHYLBENZENE	0.895	0.814	9.1	74	0.00
53	T	MP-XYLENE	0.745	0.644	13.6	71	0.00
54	T	STYRENE	0.541	0.460	15.0	71	0.02
55	T	O-XYLENE	0.758	0.642	15.3	69	0.00
56	P,T	BROMOFORM	0.146	0.152	-4.1	81	0.01
57	P,T	1122-TETRACLETHANE	0.361	0.301	16.6	70	0.04
58	T	ISOPROPYL BENZENE	0.855	0.751	12.2	71	0.02
59	S	S4BRFLUOROBENZENE	0.542	0.507	6.5	80	0.03
60	T	123-TRICLPROPANE	0.105	0.085#	19.0	67	0.04
61	T	TRANS14DICL2BUTENE	0.044	0.051#	-15.9	93	0.04
62	T	BROMOBENZENE	0.458	0.388	15.3	71	0.04
63	T	N-PROPYLBENZENE	1.040	0.921	11.4	73	0.04
64	T	2-CHLOROTOLUENE	0.749	0.635	15.2	70	0.04
65	T	4-CHLOROTOLUENE	0.662	0.558	15.7	72	0.04
66	T	135TRIMETHYLBENZENE	0.788	0.695	11.8	73	0.03
67	T	TERT-BUTYLBENZENE	0.617	0.535	13.3	72	0.05
68	T	124TRIMETHYLBENZENE	0.770	0.669	13.1	71	0.05
69	T	SEC-BUTYLBENZENE	0.869	0.774	10.9	72	0.06
70	T	13-DICHLOROBENZENE	0.410	0.342	16.6	70	0.06
71	I	I14-DICLBENZENE-D4	1.000	1.000	0.0	85	-0.01
72	T	4-ISOPROPYLTOLUENE	1.328	1.217	8.4	73	0.05
73	T	14-DICHLOROBENZENE	0.760	0.704	7.4	75	0.04
74	T	12-DICHLOROBENZENE	0.773	0.700	9.4	75	0.06
75	T	N-BUTYLBENZENE	1.212	1.098	9.4	71	0.04
76	T	12-DIBR-3CLPROPANE	0.101	0.093#	7.9	69	0.05
77		124-TRICLBENZENE	0.472	0.433	8.3	75	0.05
78	T	NAPHTHALENE	1.407	1.131	19.6	65	0.06
79	T	HEXACHLOROBUTADIENE	0.193	0.188	2.6	75	0.05
80		123-TRICLBENZENE	0.466	0.414	11.2	73	0.06

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

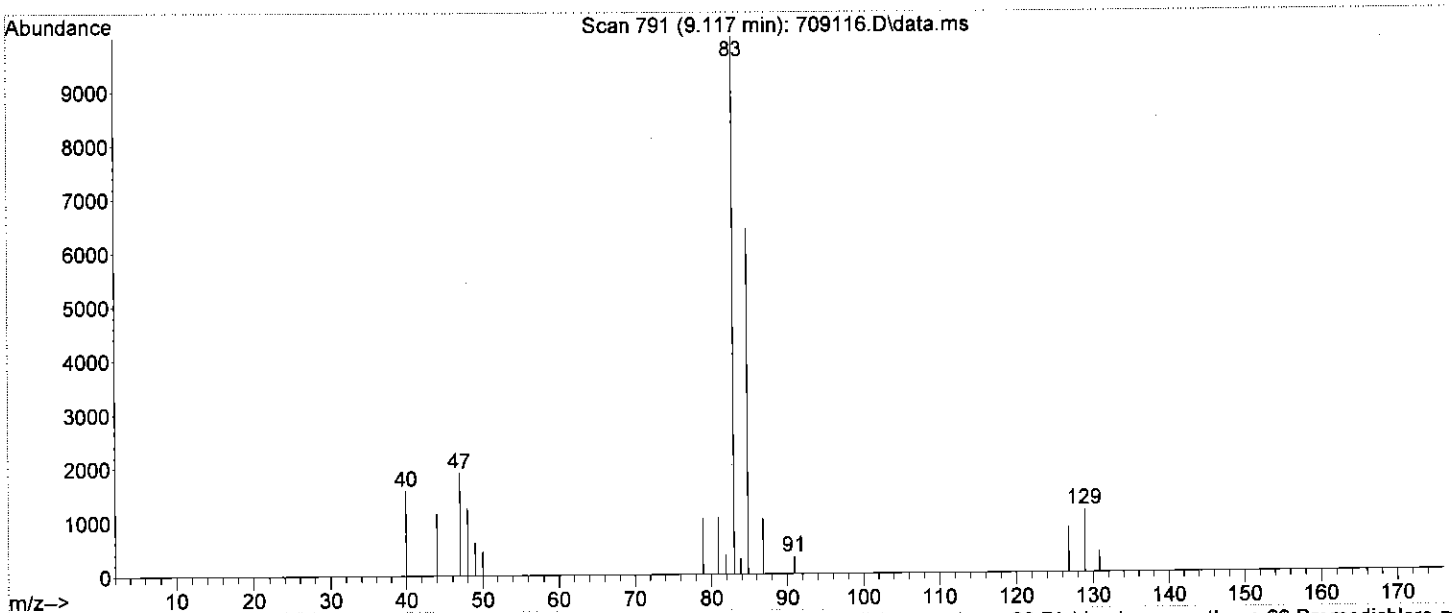
8260VOC-JAN2-LIQ-18.M Wed Mar 21 10:44:31 2018

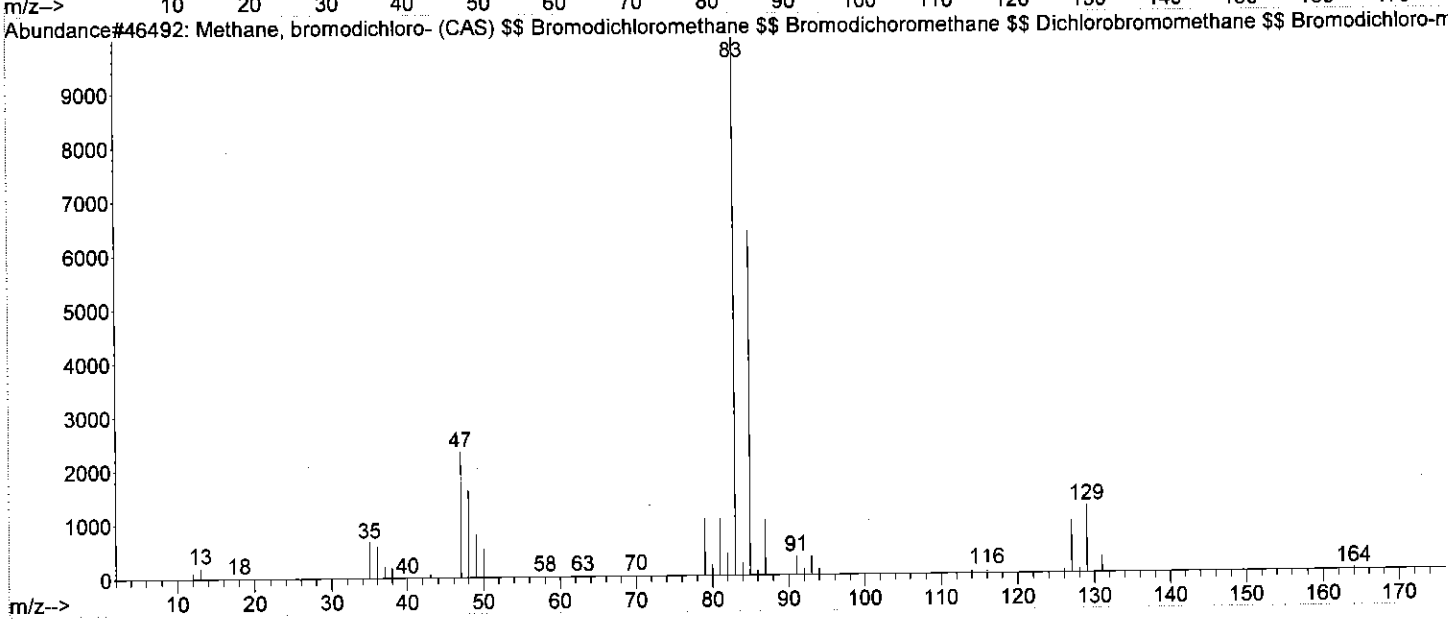
Library Searched : C:\Database\WILEY275.L
Quality : 64
ID : Chloroform $$ Methane, trichloro- (CAS) $$ R 20 $$ Freon 20 $$ Trichloroform $$ Trichloromethane $$ R 20 (refrigerant) $$ Chloroform (ACN)(DOT) $$ TRICHLORO METHANE (CHLOROFORM) $$ CHCl3 $$ Formyl trichloride $$ Methane trichloride $$ Methenyl trichloride



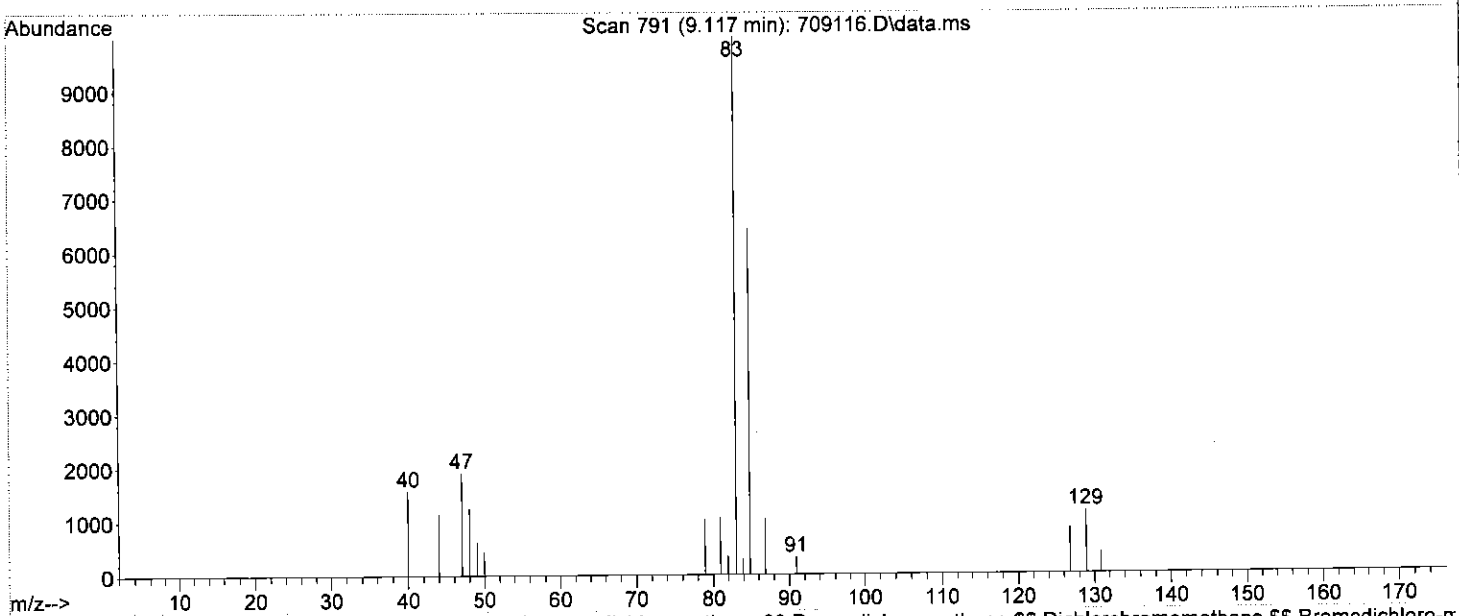


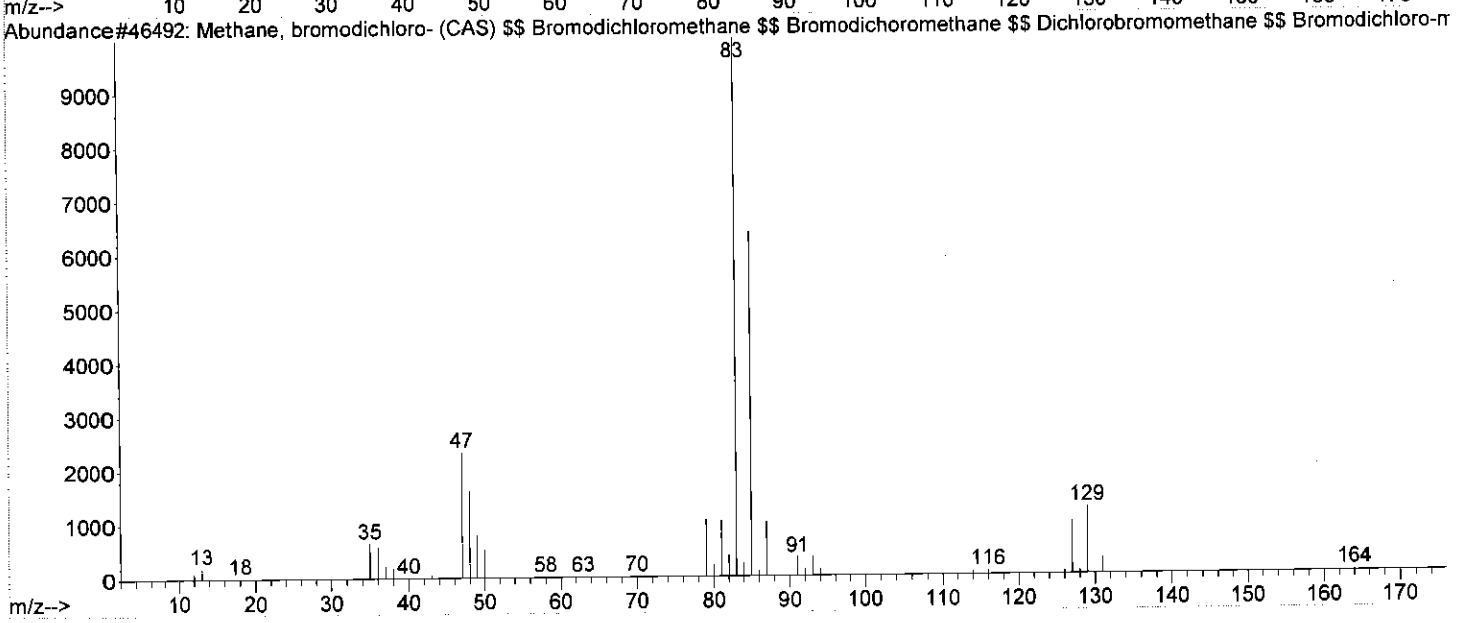
Library Searched : C:\Database\WILEY275.L
Quality : 90
ID : Methane, bromodichloro- (CAS) $$ Bromodichloromethane $$ Bromodichoromethane $$ Dichlorobromomethane $$ Bromodichloro-methane $$ CHBrCl2 $$ NCI-C55243 $$ Bdcm $$ Dichloromonobromomethane $$ Monobromodichloromethane



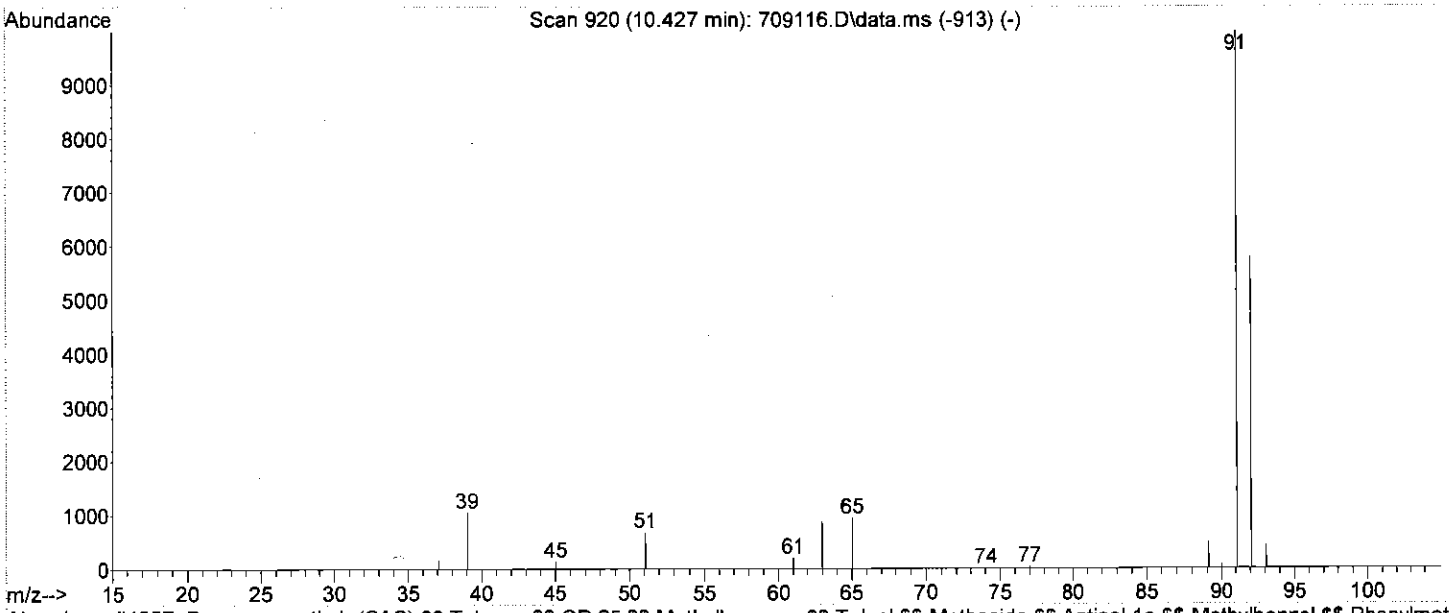


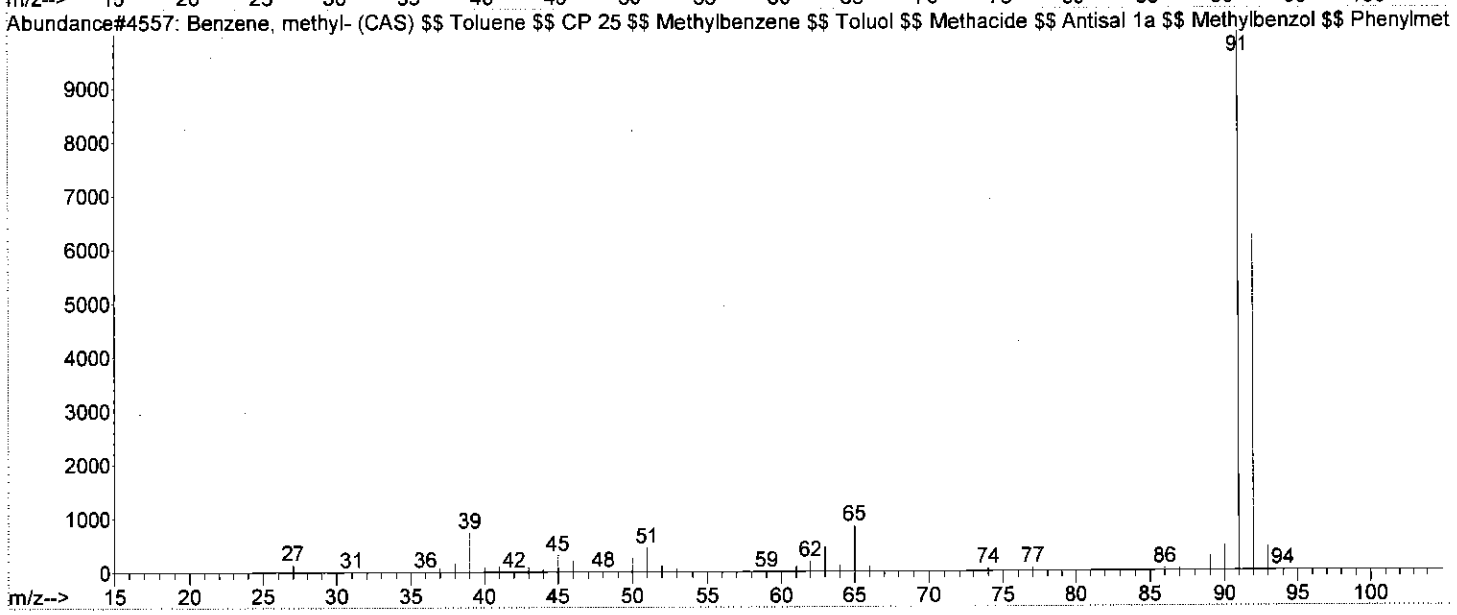
Library Searched : C:\Database\WILEY275.L
Quality : 90
ID : Methane, bromodichloro- (CAS) $$ Bromodichloromethane $$ Bromodichoromethane $$ Dichlorobromomethane $$ Bromodichloro-methane $$ CHBrCl2 $$ NCI-C55243 $$ Bdcm $$ Dichloromonobromomethane $$ Monobromodichloromethane



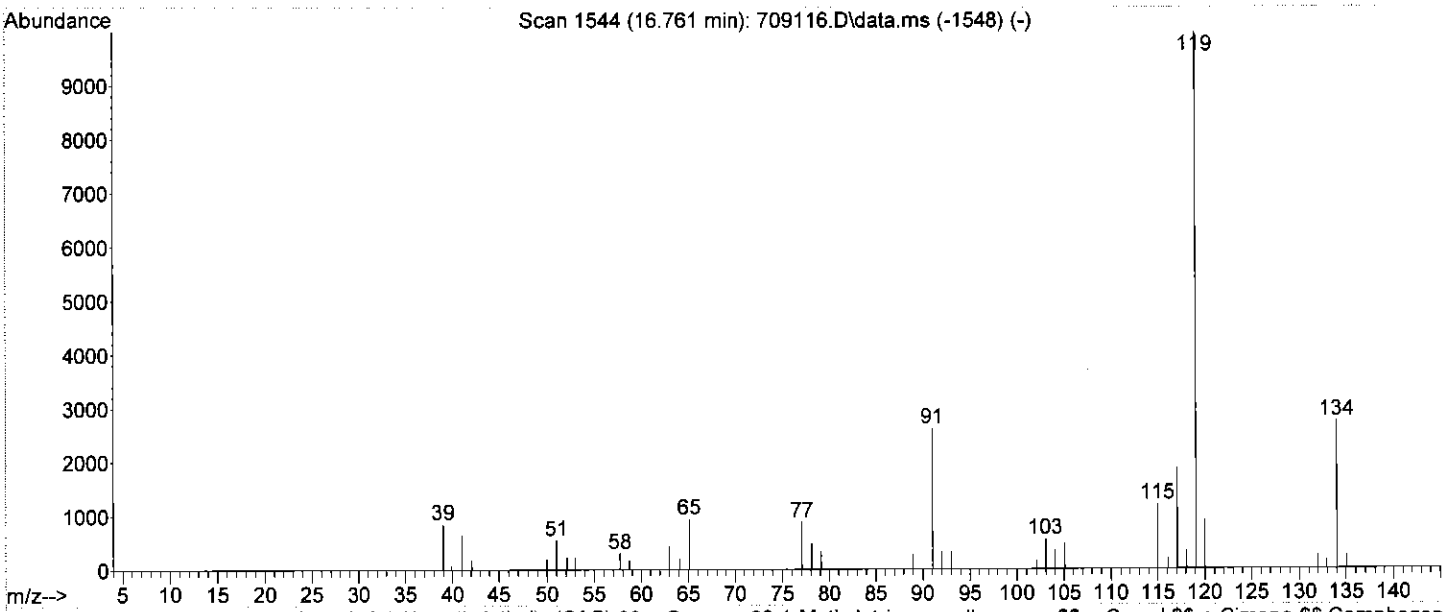


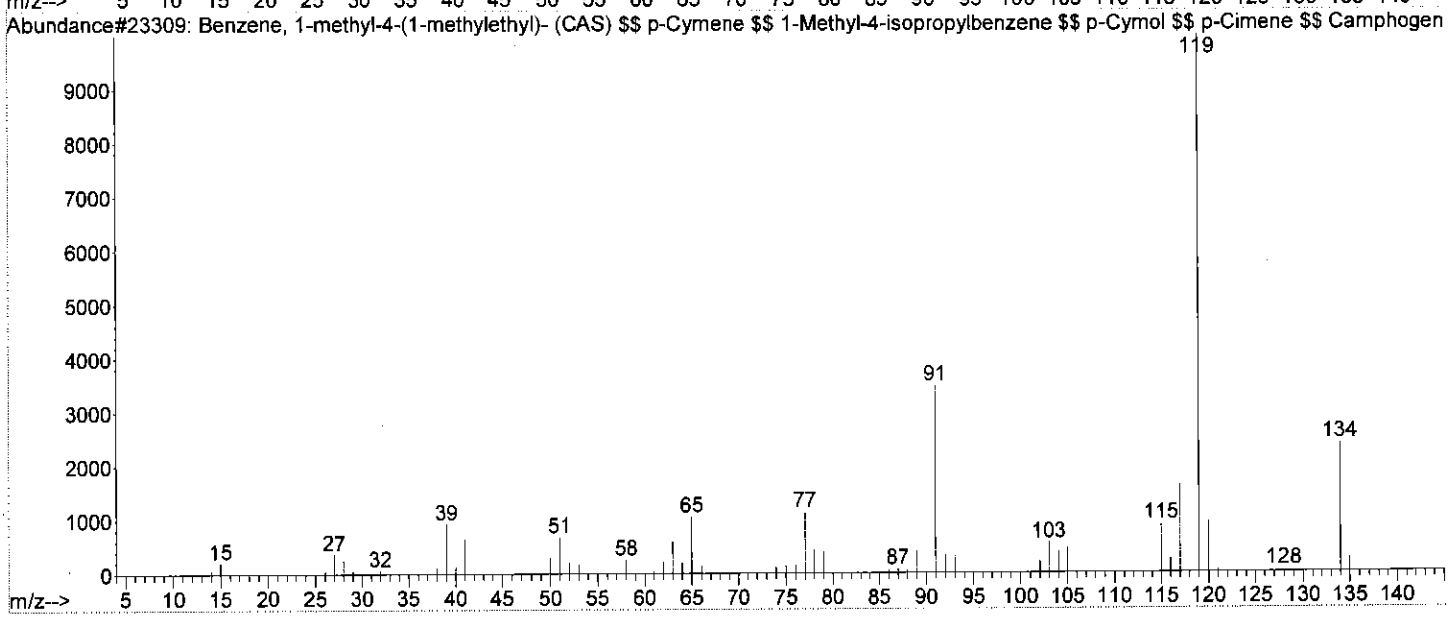
Library Searched : C:\Database\WILEY275.L
Quality : 90
ID : Benzene, methyl- (CAS) $$ Toluene $$ CP 25 $$ Methylbenzene $$ Toluol $$ Metha cide $$ Antisal 1a $$ Methylbenzol $$ Phenylmethane $$ METHYLBENZENE(TOLUENE) $$ Benzene, methyl $$ Methane, phenyl- $$ NCI-C07272 $$ Tolueen $$ Toluen $$ T oluolo $$ Rcra waste





Library Searched : C:\Database\WILEY275.L
Quality : 95
ID : Benzene, 1-methyl-4-(1-methylethyl)- (CAS) $$ p-Cymene $$ 1-Methyl-4-isopropyl benzene $$ p-Cymol $$ p-Cimene $$ Camphogen $$ Dolcymene $$ 2-p-Tolylpropane $$ p-Isopropyltoluene $$ p-Methylisopropylbenzene $$ 1-Isopropyl-4-methylbenzene $$ 4-Isopropyl-1-me

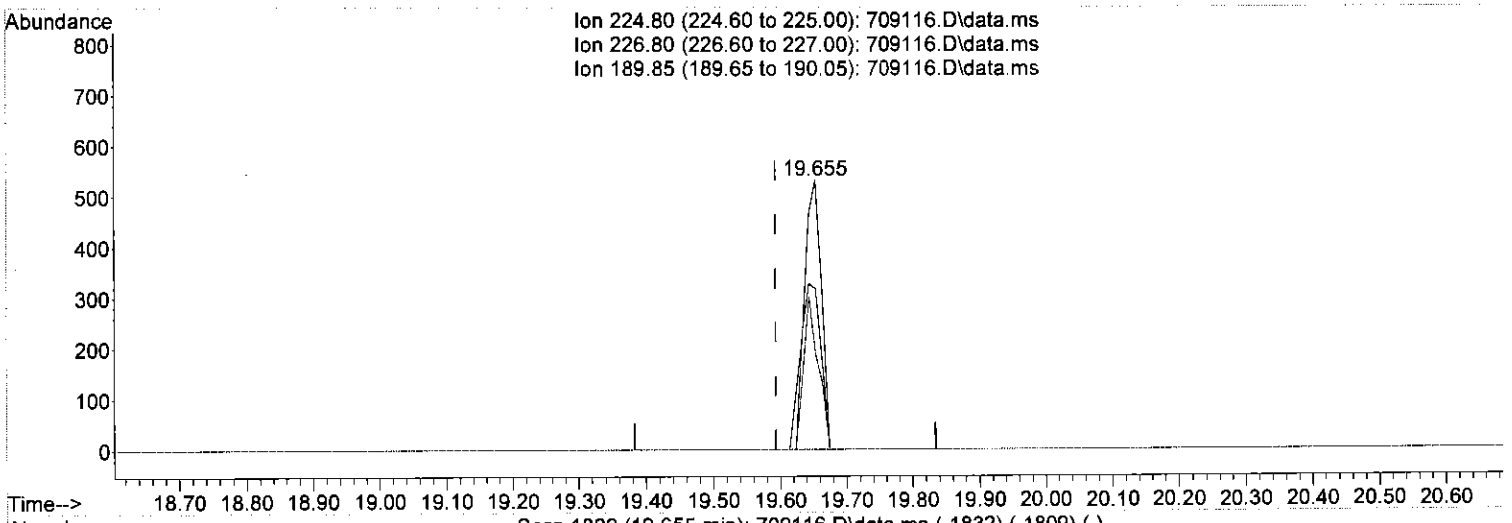


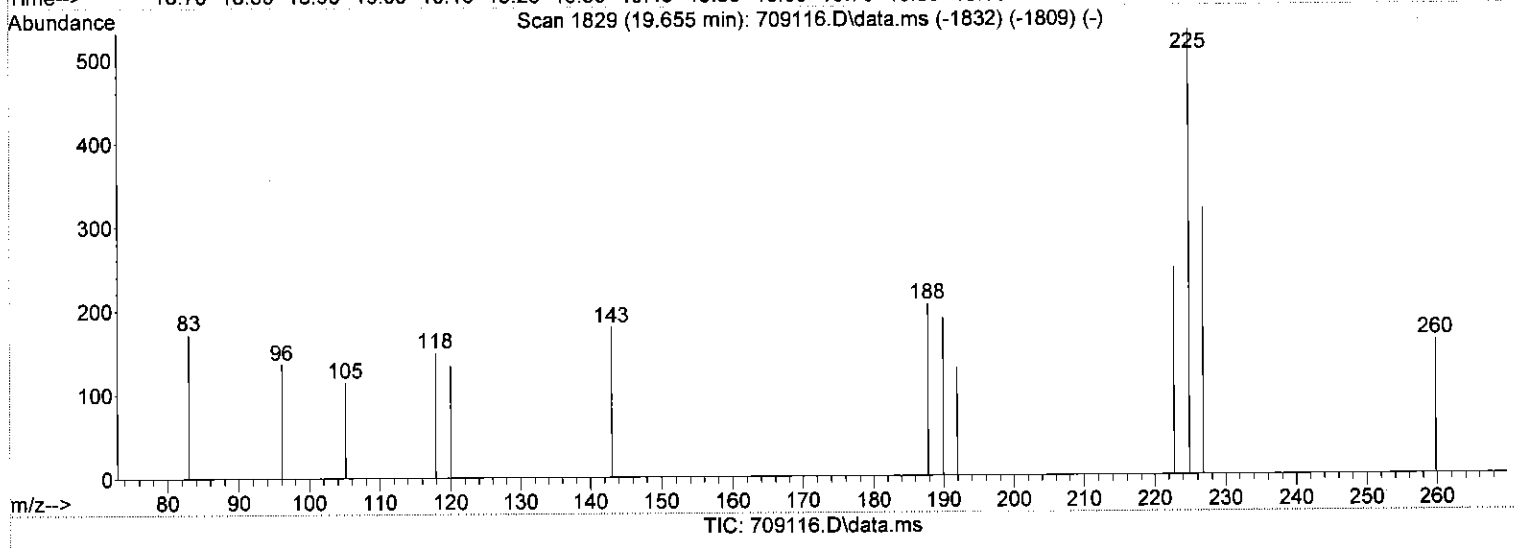


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709116.D
Acq On : 13 Mar 2018 6:20 pm
Operator : NIVA
Sample : 2817424
Misc : RUN197096
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 16:24:51 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS





(79) HEXACHLOROBUTADIENE (T)

19.655min (+0.061) 0.55 µg/L

response 995

Ion	Exp%	Act%
224.80	100	100
226.80	64.50	59.77
189.85	44.30	35.53
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709116.D
Acq On : 13 Mar 2018 6:20 pm
Operator : NIVA
Sample : 2817424
Misc : RUN197096
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 16:27:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	258415	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	407025	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	375700	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	188945	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	171163	20.93 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.65%		
39) STOLUENE-D8	10.335	98	492580	20.55 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.75%		
59) S4BRFLUOROBENZENE	15.259	95	188326	18.51 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.55%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	2.874	85	66	N.D.	
3) CHLOROMETHANE	0.000		0	N.D. d	
4) VINYL CHLORIDE	3.234	62	156	N.D.	
5) BROMOMETHANE	3.635	94	160	N.D.	
6) CHLOROETHANE	3.737	64	663	N.D.	
7) TRICLFLUOROMETHANE	3.919	101	284	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	4.711	61	1325	N.D.	
11) IODOMETHANE	4.681	142	872	N.D.	
12) CARBON DISULFIDE	0.000		0	N.D. d	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D. d	
15) TRANS12DICLETHENE	5.280	96	68	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	6.153	43	486	N.D.	
18) 2-BUTANONE	0.000		0	N.D. d	
19) CIS12DICHLOROETHENE	6.549	96	582	N.D.	
20) 22-DICHLOROPROPANE	6.569	77	402	N.D.	
21) CHLOROFORM	6.833	83	37584	5.22 µg/L	100
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	7.076	42	163	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	7.269	75	61	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	571	N.D.	
30) BENZENE	7.584	78	891	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	9.117	83	8792	1.65 µg/L	98
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.985	43	2282	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.427	91	37041	2.39 µg/L	97
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	12.437	43	1554	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709116.D
Acq On : 13 Mar 2018 6:20 pm
Operator : NIVA
Sample : 2817424
Misc : RUN197096
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 16:27:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

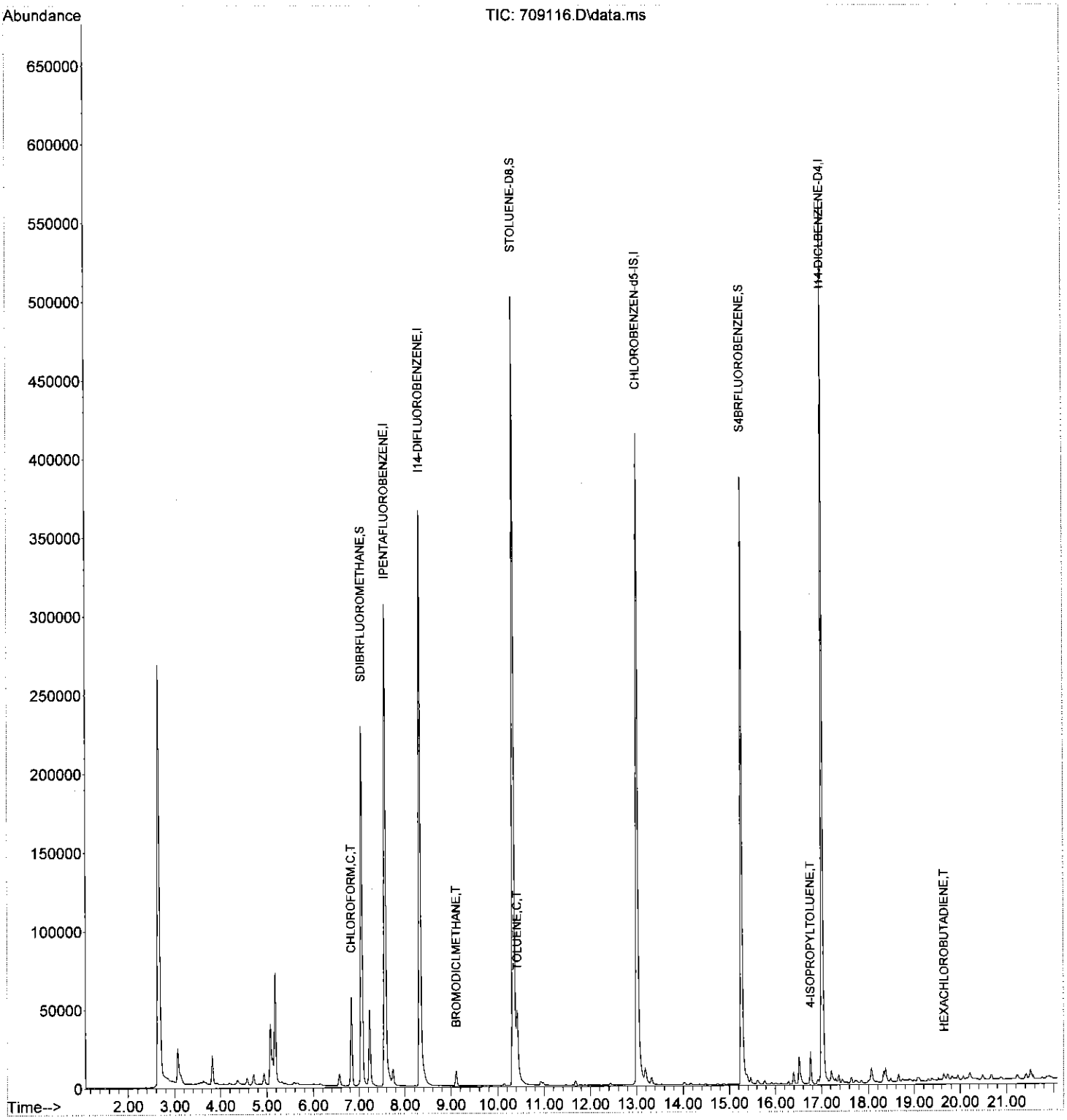
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D. d	
46) TETRACHLOROETHENE	11.076	166	144	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	13.046	112	1072	N.D.	
50) 1-CHLOROHEXANE	12.944	91	550	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	3189	N.D.	
53) MP-XYLENE	13.330	91	4727	N.D.	
54) STYRENE	14.284	104	133	N.D.	
55) O-XYLENE	14.152	91	1262	N.D.	
56) BROMOFORM	14.355	173	147	N.D.	
57) 1122-TETRACLETHANE	15.563	83	61	N.D.	
58) ISOPROPYL BENZENE	14.741	105	799	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.462	77	846	N.D.	
63) N-PROPYLBENZENE	15.462	91	3631	N.D.	
64) 2-CHLOROTOLUENE	15.756	91	1370	N.D.	
65) 4-CHLOROTOLUENE	16.010	91	1428	N.D.	
66) 135TRIMETHYLBENZENE	15.777	105	1932	N.D.	
67) TERT-BUTYLBENZENE	16.284	119	628	N.D.	
68) 124TRIMETHYLBENZENE	16.396	105	4605	N.D.	
69) SEC-BUTYLBENZENE	16.558	105	3538	N.D.	
70) 13-DICHLOROBENZENE	16.924	146	996	N.D.	
72) 4-ISOPROPYLTOLUENE	16.761	119	14336	1.14 µg/L	96
73) 14-DICHLOROBENZENE	16.924	146	880	N.D.	
74) 12-DICHLOROBENZENE	17.655	146	1182	N.D.	
75) N-BUTYLBENZENE	17.381	91	3285	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	19.726	180	1564	N.D.	
78) NAPHTHALENE	20.213	128	6025	N.D.	
79) HEXACHLOROBUTADIENE	19.655	225	995	0.55 µg/L	91
80) 123-TRICLBENZENE	20.487	182	1627	N.D.	

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

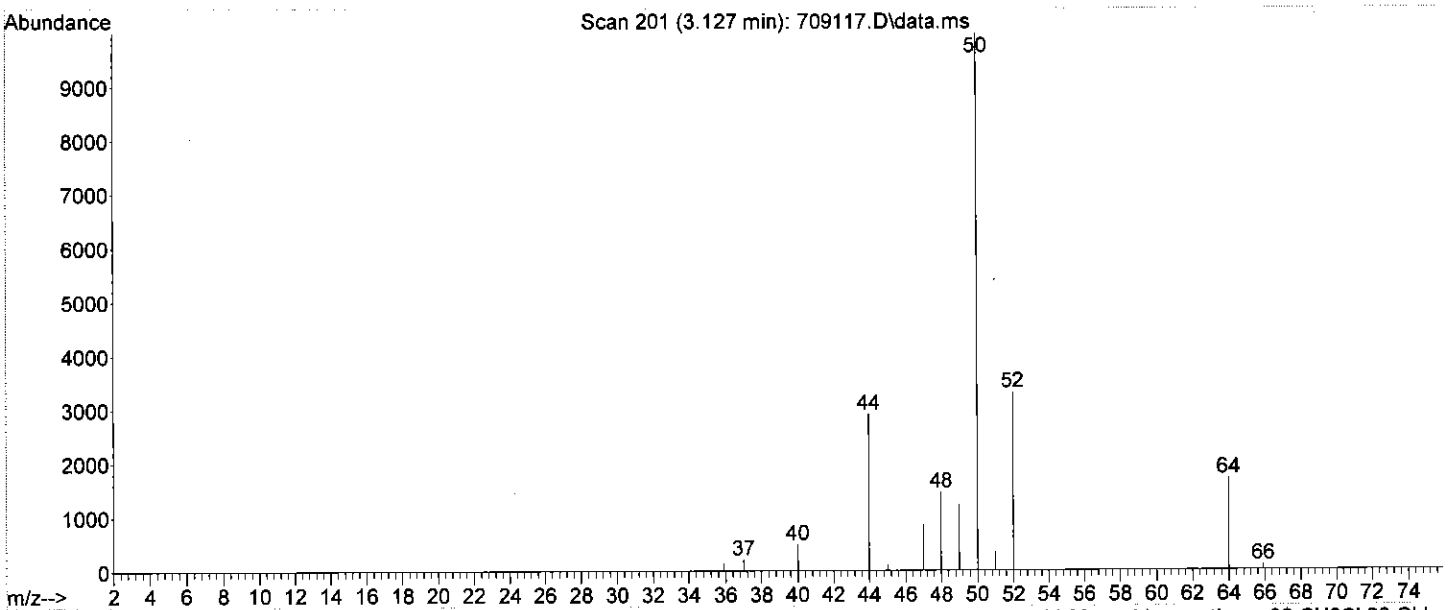
Quantitation Report (QT Reviewed)

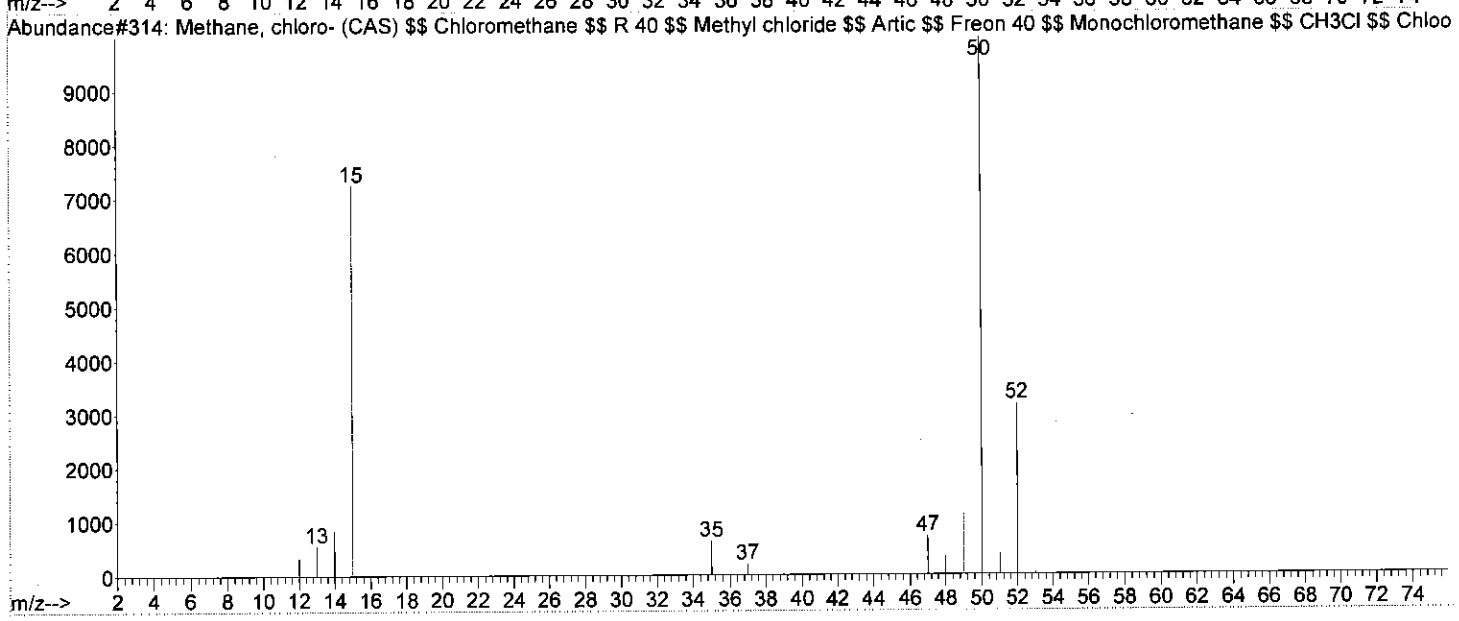
Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709116.D
Acq On : 13 Mar 2018 6:20 pm
Operator : NIVA
Sample : 2817424
Misc : RUN197096
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 16:27:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

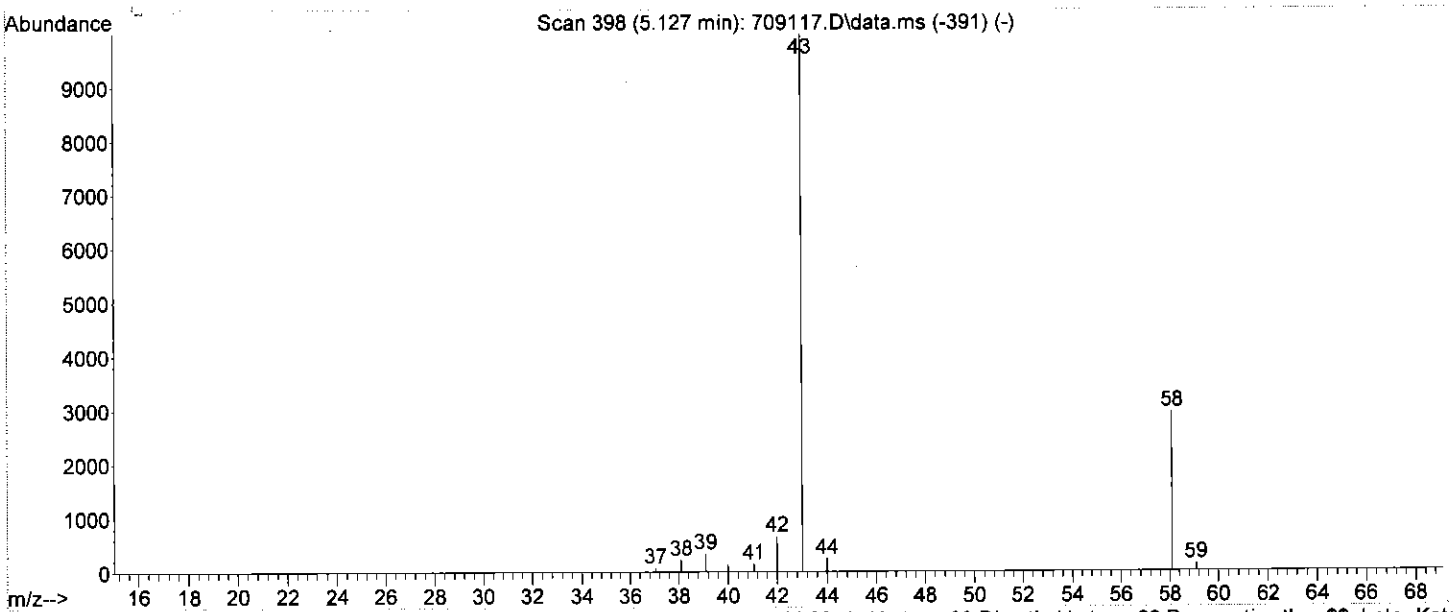


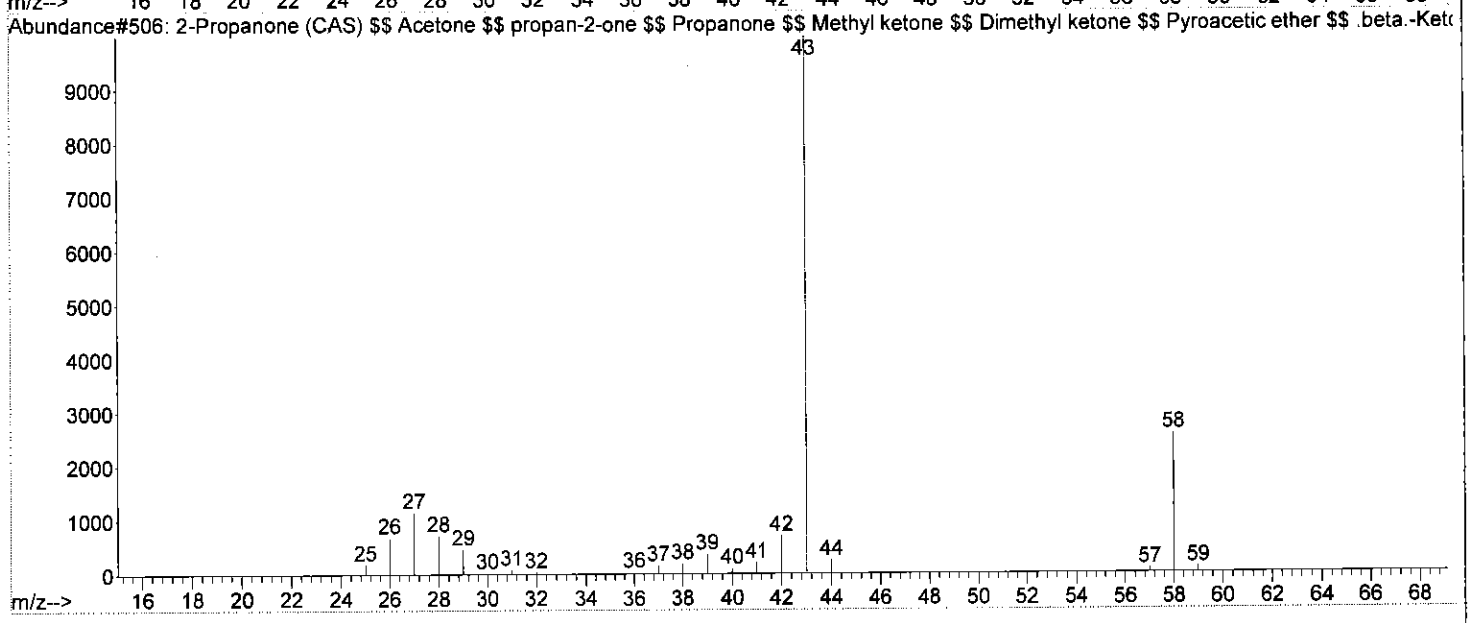
Library Searched : C:\Database\WILEY275.L
Quality : 86
ID : Methane, chloro- (CAS) $$ Chloromethane $$ R 40 $$ Methyl chloride $$ Artic $$ Freon 40 $$ Monochloromethane $$ CH3Cl $$ Chloor-methaan $$ Chlor-methan $$ Chlorure de methyle $$ Clorometano $$ Cloruro di metile $$ Methylchlorid $$ Methylu chlorek $$ Rcra w





Library Searched : C:\Database\WILEY275.L
Quality : 90
ID : 2-Propanone (CAS) $$ Acetone $$ propan-2-one $$ Propanone $$ Methyl ketone $$ Dimethyl ketone $$ Pyroacetic ether $$ .beta.-Ketopropane $$ Dimethylformaldehyde $$ ACETONE (2-PROPANONE) $$ (CH3)2CO $$ Allylic alcohol $$ Dimethylketal $$ Ketone propane $$ K





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709117.D
Acq On : 13 Mar 2018 6:46 pm
Operator : NIVA
Sample : 2822275
Misc : RUN197096
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 16:28:45 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	242782	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	384252	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	347799	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	171175	20.00 µg/L	0.00
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	162205	21.01 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.05%		
39) STOLUENE-D8	10.335	98	462364	20.43 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.15%		
59) S4BRFLUOROBENZENE	15.259	95	175153	18.60 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.00%		
Target Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.127	50	31660	8.19 µg/L	98
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.625	94	819	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	5.127	43	31986	26.25 µg/L #	83
10) 11-DICHLOROETHENE	0.000		0	N.D. d	
11) IODOMETHANE	0.000		0	N.D. d	
12) CARBON DISULFIDE	4.569	76	2251	N.D.	
13) ACRYLONITRILE	6.112	53	72	N.D.	
14) DICHLOROMETHANE	5.087	84	431	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	6.132	43	63	N.D.	
18) 2-BUTANONE	0.000		0	N.D. d	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.833	83	876	N.D.	
22) BROMOCHLOROMETHANE	6.833	49	1567	N.D.	
25) TETRAHYDROFURAN	7.076	42	542	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.975	117	556	N.D.	
30) BENZENE	7.554	78	521	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.924	43	434	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.427	91	1021	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709117.D
Acq On : 13 Mar 2018 6:46 pm
Operator : NIVA
Sample : 2822275
Misc : RUN197096
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 16:28:45 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

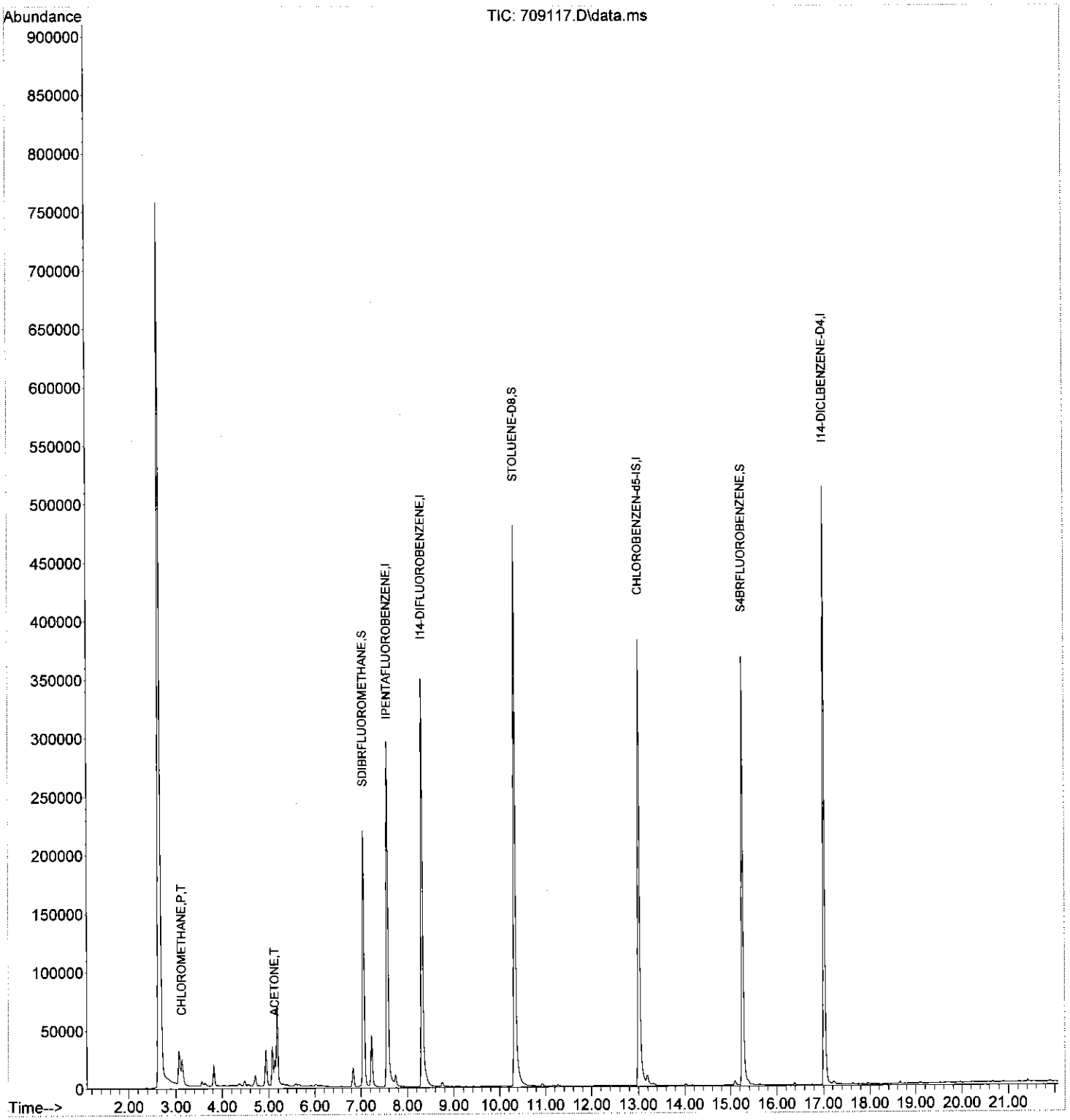
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.056	91	1588	N.D.	
53) MP-XYLENE	13.330	91	2017	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	14.162	91	408	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	14.741	105	129	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.462	77	62	N.D.	
63) N-PROPYLBENZENE	15.462	91	1131	N.D.	
64) 2-CHLOROTOLUENE	15.766	91	139	N.D.	
65) 4-CHLOROTOLUENE	16.020	91	80	N.D.	
66) 135TRIMETHYLBENZENE	15.777	105	607	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	16.396	105	1884	N.D.	
69) SEC-BUTYLBENZENE	16.558	105	574	N.D.	
70) 13-DICHLOROBENZENE	16.924	146	125	N.D.	
72) 4-ISOPROPYLTOLUENE	16.761	119	516	N.D.	
73) 14-DICHLOROBENZENE	17.035	146	1099	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.381	91	1043	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	19.726	180	156	N.D.	
78) NAPHTHALENE	20.223	128	1409	N.D.	
79) HEXACHLOROBUTADIENE	19.644	225	74	N.D.	
80) 123-TRICLBENZENE	20.507	182	68	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709117.D
Acq On : 13 Mar 2018 6:46 pm
Operator : NIVA
Sample : 2822275
Misc : RUN197096
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 16:28:45 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709118.D
Acq On : 13 Mar 2018 7:12 pm
Operator : NIVA
Sample : 2819486
Misc : RUN197091
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:29:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	235086	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	370277	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	330296	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	158871	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	161416	21.70 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 108.50%		
39) STOLUENE-D8	10.335	98	450581	20.66 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.30%		
59) S4BRFLUOROBENZENE	15.259	95	162106	18.13 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.65%		

Target Compounds				Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.
3) CHLOROMETHANE	0.000		0	N.D. d
4) VINYL CHLORIDE	0.000		0	N.D.
5) BROMOMETHANE	3.625	94	67	N.D.
6) CHLOROETHANE	3.716	64	671	N.D.
7) TRICLFLUOROMETHANE	0.000		0	N.D.
8) ACROLEIN	0.000		0	N.D.
9) ACETONE	0.000		0	N.D. d
10) 11-DICHLOROETHENE	0.000		0	N.D.
11) IODOMETHANE	4.680	142	281	N.D.
12) CARBON DISULFIDE	4.569	76	1271	N.D.
13) ACRYLONITRILE	0.000		0	N.D.
14) DICHLOROMETHANE	5.097	84	903	N.D.
15) TRANS12DICLETHENE	0.000		0	N.D.
16) 11-DICHLOROETHANE	0.000		0	N.D.
17) VINYL ACETATE	0.000		0	N.D.
18) 2-BUTANONE	7.208	43	277	N.D.
19) CIS12DICHLOROETHENE	0.000		0	N.D.
20) 22-DICHLOROPROPANE	6.569	77	175	N.D.
21) CHLOROFORM	6.833	83	822	N.D.
22) BROMOCHLOROMETHANE	6.833	49	1578	N.D.
25) TETRAHYDROFURAN	7.005	42	285	N.D.
26) 111-TRICHLOROETHANE	0.000		0	N.D.
27) 11-DICHLOROPROPENE	0.000		0	N.D.
28) 12-DICHLOROETHANE	0.000		0	N.D.
29) CARBONTETRACHLORIDE	6.985	117	644	N.D.
30) BENZENE	7.553	78	389	N.D.
31) TRICHLOROETHENE	0.000		0	N.D.
32) 12-DICHLOROPROPANE	0.000		0	N.D.
33) DIBROMOMETHANE	0.000		0	N.D.
34) BROMODICLMETHANE	0.000		0	N.D.
35) 2-CLETHYLVINYLETHER	0.000		0	N.D. d
36) EPICHLOROHYDRIN	0.000		0	N.D. d
37) 4METHYL-2-PENTANONE	10.924	43	344	N.D.
38) CIS13DICLPROPENE	9.980	75	83	N.D.
40) TOLUENE	10.426	91	657	N.D.
41) TRANS13DICLPROPENE	0.000		0	N.D.
42) 112-TRICHLOROETHANE	0.000		0	N.D.
43) 2-HEXANONE	0.000		0	N.D.
44) 13-DICHLOROPROPANE	0.000		0	N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709118.D
Acq On : 13 Mar 2018 7:12 pm
Operator : NIVA
Sample : 2819486
Misc : RUN197091
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:29:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

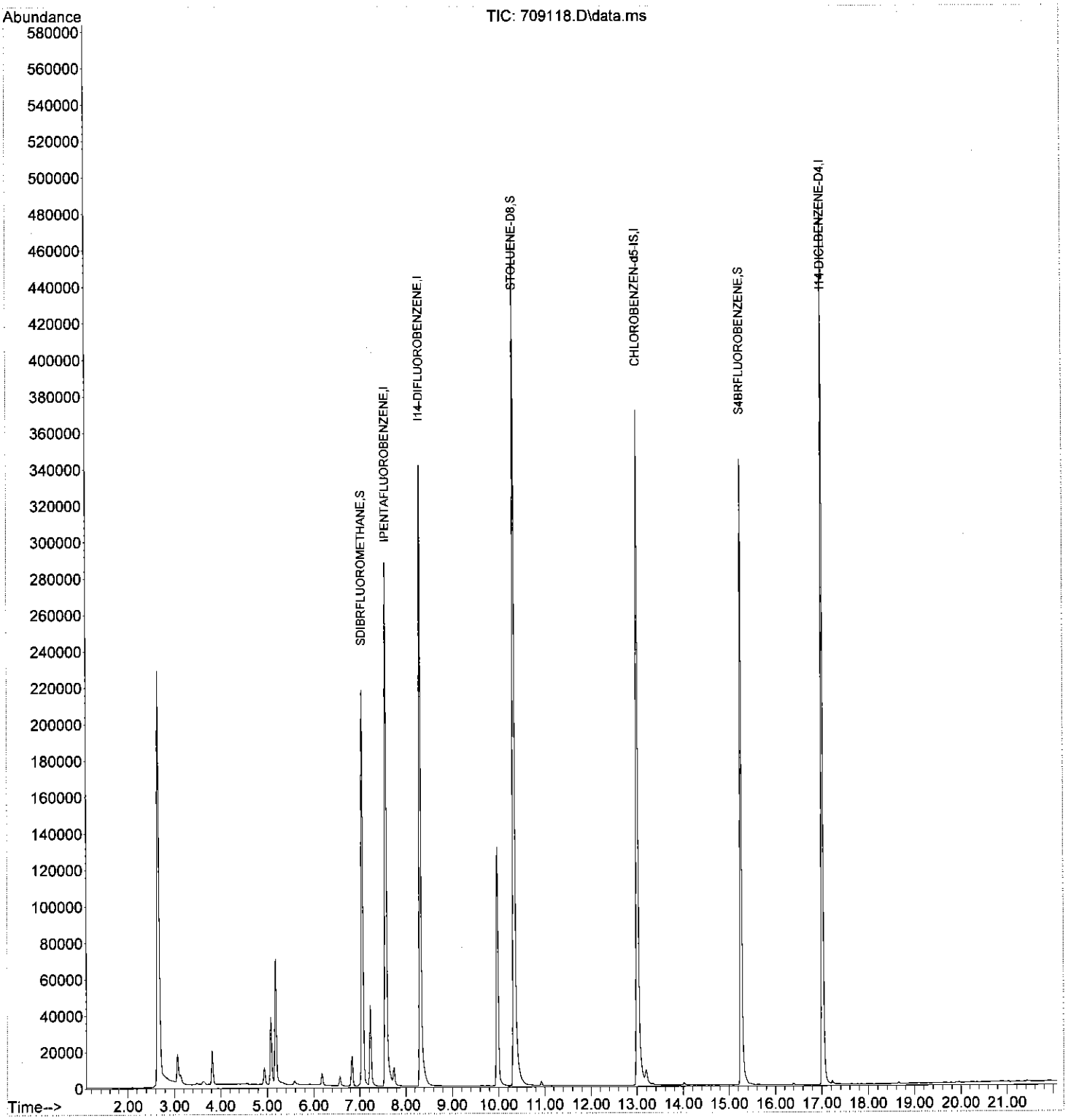
Compound	R.T.	QIon	Response	Conc Units Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.
46) TETRACHLOROETHENE	0.000		0	N.D.
47) 12-DIBROMOETHANE	0.000		0	N.D.
49) CHLOROBENZENE	0.000		0	N.D.
50) 1-CHLOROHEXANE	13.005	91	705	N.D.
51) 1112-TETRACLETHANE	0.000		0	N.D.
52) ETHYLBENZENE	13.005	91	1176	N.D.
53) MP-XYLENE	13.330	91	1140	N.D.
54) STYRENE	0.000		0	N.D.
55) O-XYLENE	14.162	91	73	N.D.
56) BROMOFORM	0.000		0	N.D.
57) 1122-TETRACLETHANE	0.000		0	N.D.
58) ISOPROPYL BENZENE	0.000		0	N.D.
60) 123-TRICLPROPANE	0.000		0	N.D.
61) TRANS14DICL2BUTENE	0.000		0	N.D.
62) BROMOBENZENE	15.259	77	980	N.D.
63) N-PROPYLBENZENE	15.462	91	569	N.D.
64) 2-CHLOROTOLUENE	0.000		0	N.D.
65) 4-CHLOROTOLUENE	0.000		0	N.D.
66) 135TRIMETHYLBENZENE	15.776	105	306	N.D.
67) TERT-BUTYLBENZENE	0.000		0	N.D.
68) 124TRIMETHYLBENZENE	16.396	105	1072	N.D.
69) SEC-BUTYLBENZENE	16.558	105	163	N.D.
70) 13-DICHLOROBENZENE	0.000		0	N.D.
72) 4-ISOPROPYLTOLUENE	16.761	119	143	N.D.
73) 14-DICHLOROBENZENE	17.035	146	166	N.D.
74) 12-DICHLOROBENZENE	0.000		0	N.D.
75) N-BUTYLBENZENE	17.370	91	461	N.D.
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.
77) 124-TRICLBENZENE	0.000		0	N.D.
78) NAPHTHALENE	20.213	128	430	N.D.
79) HEXACHLOROBUTADIENE	0.000		0	N.D.
80) 123-TRICLBENZENE	0.000		0	N.D.

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709118.D
Acq On : 13 Mar 2018 7:12 pm
Operator : NIVA
Sample : 2819486
Misc : RUN197091
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:29:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709119.D
Acq On : 13 Mar 2018 7:38 pm
Operator : NIVA
Sample : 2819486DUP/2819487
Misc : RUN197091
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 16:30:08 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) IPENTAFLUOROBENZENE	7.574	168	218317	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	346001	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	306340	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	145865	20.00 µg/L	-0.01
System Monitoring Compounds					
24) SDIBRFLUOROMETHANE	7.056	111	152435	21.93 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 109.65%		
39) STOLUENE-D8	10.335	98	422497	20.73 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.65%		
59) S4BRFLUOROBENZENE	15.259	95	149950	18.08 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.40%		

Target Compounds				Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.
3) CHLOROMETHANE	0.000		0	N.D. d
4) VINYL CHLORIDE	0.000		0	N.D.
5) BROMOMETHANE	0.000		0	N.D.
6) CHLOROETHANE	3.554	64	552	N.D.
7) TRICLFLUOROMETHANE	0.000		0	N.D.
8) ACROLEIN	0.000		0	N.D.
9) ACETONE	0.000		0	N.D. d
10) 11-DICHLOROETHENE	0.000		0	N.D.
11) IODOMETHANE	4.680	142	131	N.D.
12) CARBON DISULFIDE	4.569	76	953	N.D.
13) ACRYLONITRILE	0.000		0	N.D.
14) DICHLOROMETHANE	5.087	84	817	N.D.
15) TRANS12DICLETHENE	5.188	96	341	N.D.
16) 11-DICHLOROETHANE	0.000		0	N.D.
17) VINYL ACETATE	6.183	43	71	N.D.
18) 2-BUTANONE	7.218	43	213	N.D.
19) CIS12DICHLOROETHENE	0.000		0	N.D.
20) 22-DICHLOROPROPANE	0.000		0	N.D.
21) CHLOROFORM	6.833	83	944	N.D.
22) BROMOCHLOROMETHANE	6.823	49	1608	N.D.
25) TETRAHYDROFURAN	7.056	42	217	N.D.
26) 111-TRICHLOROETHANE	0.000		0	N.D.
27) 11-DICHLOROPROPENE	0.000		0	N.D.
28) 12-DICHLOROETHANE	0.000		0	N.D.
29) CARBONTETRACHLORIDE	6.985	117	538	N.D.
30) BENZENE	7.553	78	238	N.D.
31) TRICHLOROETHENE	0.000		0	N.D.
32) 12-DICHLOROPROPANE	0.000		0	N.D.
33) DIBROMOMETHANE	0.000		0	N.D.
34) BROMODICLMETHANE	0.000		0	N.D.
35) 2-CLETHYLVINYLETHER	0.000		0	N.D. d
36) EPICHLOROHYDRIN	0.000		0	N.D. d
37) 4METHYL-2-PENTANONE	10.924	43	312	N.D.
38) CIS13DICLPROPENE	9.980	75	160	N.D.
40) TOLUENE	10.416	91	274	N.D.
41) TRANS13DICLPROPENE	0.000		0	N.D.
42) 112-TRICHLOROETHANE	0.000		0	N.D.
43) 2-HEXANONE	0.000		0	N.D.
44) 13-DICHLOROPROPANE	0.000		0	N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709119.D
Acq On : 13 Mar 2018 7:38 pm
Operator : NIVA
Sample : 2819486DUP/2819487
Misc : RUN197091
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 16:30:08 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

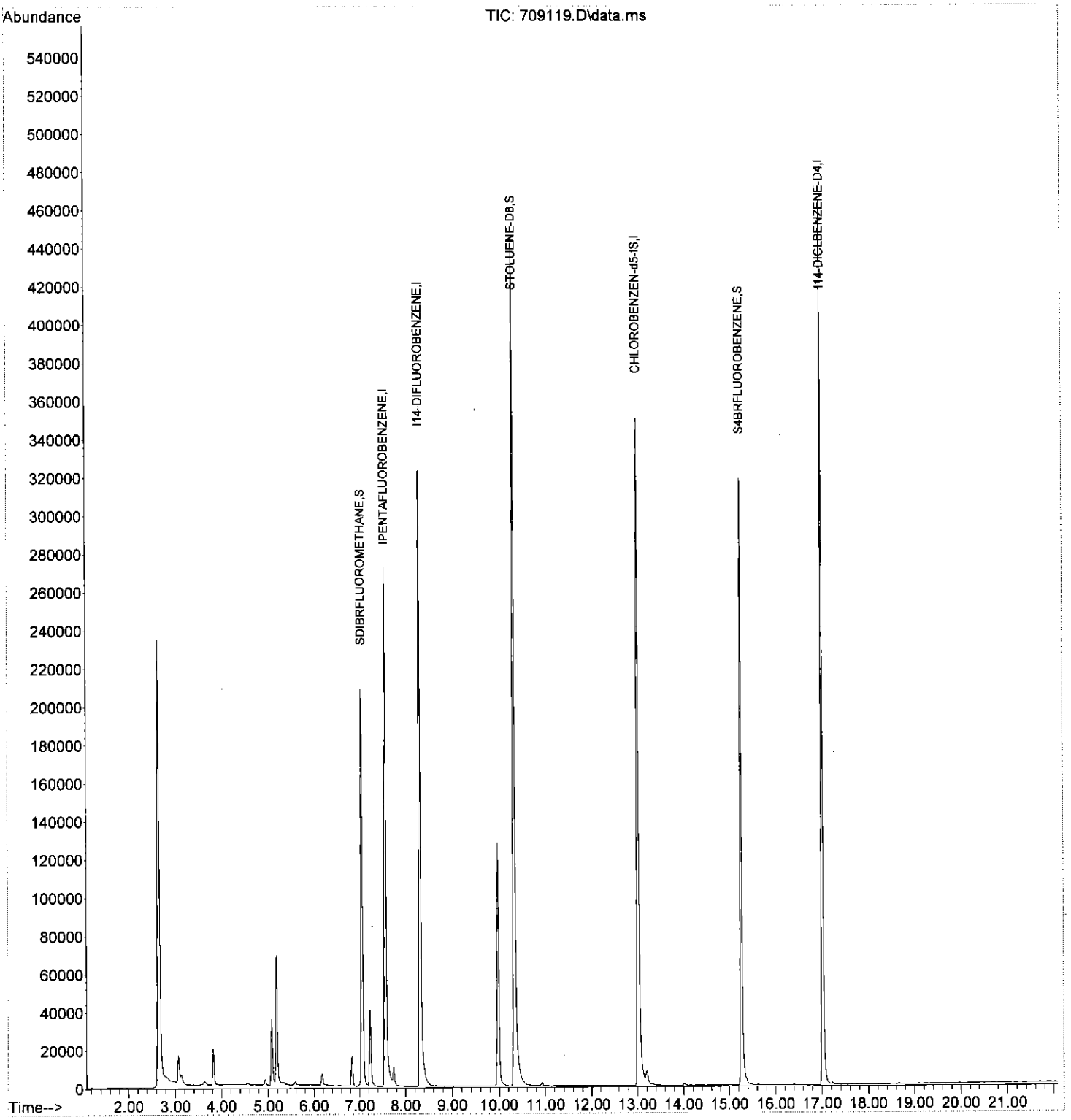
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	13.015	91	635	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	13.015	91	1020	N.D.	
53) MP-XYLENE	13.330	91	733	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.259	77	732	N.D.	
63) N-PROPYLBENZENE	15.462	91	408	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	15.766	105	133	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	16.396	105	697	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.761	119	61	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.380	91	177	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	20.223	128	64	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709119.D
Acq On : 13 Mar 2018 7:38 pm
Operator : NIVA
Sample : 2819486DUP/2819487
Misc : RUN197091
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 16:30:08 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709120.D
Acq On : 13 Mar 2018 8:04 pm
Operator : NIVA
Sample : 2819486MS/2819488
Misc : RUN197091
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 16:33:01 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) IPENTAFLUOROBENZENE	7.574	168	217430	20.00	µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	343425	20.00	µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	347185	20.00	µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	178659	20.00	µg/L	0.00
System Monitoring Compounds						
24) SDIBRFLUOROMETHANE	7.056	111	157057	22.77	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 113.85%			
39) STOLUENE-D8	10.335	98	426272	21.08	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.40%			
59) S4BRFLUOROBENZENE	15.259	95	172478	18.35	µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.75%			
Target Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.864	85	64379	22.79	µg/L	99
3) CHLOROMETHANE	3.127	50	78032	22.55	µg/L	99
4) VINYL CHLORIDE	3.237	62	68363	23.19	µg/L	98
5) BROMOMETHANE	3.625	94	50849	23.22	µg/L	99
6) CHLOROETHANE	3.767	64	38421	23.81	µg/L	98
7) TRICLFLUOROMETHANE	3.929	101	114652m	23.24	µg/L	
8) ACROLEIN	4.833	56	22174	363.98	µg/L	100
9) ACETONE	5.127	43	92589	84.84	µg/L #	97
10) 11-DICHLOROETHENE	4.488	61	53264	22.49	µg/L	99
11) IODOMETHANE	4.671	142	435196m	122.92	µg/L	
12) CARBON DISULFIDE	4.569	76	698697m	109.16	µg/L	
13) ACRYLONITRILE	5.980	53	135441m	83.64	µg/L	
14) DICHLOROMETHANE	5.097	84	52420m	23.66	µg/L	
15) TRANS12DICLETHENE	5.269	96	56198	22.41	µg/L	92
16) 11-DICHLOROETHANE	5.939	63	102620	19.98	µg/L	98
17) VINYL ACETATE	6.143	43	668655	82.50	µg/L	98
18) 2-BUTANONE	7.188	43	203929	88.50	µg/L	95
19) CIS12DICHLOROETHENE	6.549	96	62889	21.01	µg/L	87
20) 22-DICHLOROPROPANE	6.681	77	79370	21.18	µg/L	98
21) CHLOROFORM	6.833	83	139916	23.11	µg/L	100
22) BROMOCHLOROMETHANE	6.782	49	74916	21.61	µg/L #	77
25) TETRAHYDROFURAN	7.066	42	73305m	17.52	µg/L	
26) 111-TRICHLOROETHANE	7.127	97	116223	22.27	µg/L	98
27) 11-DICHLOROPROPENE	7.269	75	81815	21.50	µg/L	91
28) 12-DICHLOROETHANE	7.828	62	107506	20.36	µg/L #	99
29) CARBONTETRACHLORIDE	7.056	117	101841	23.59	µg/L	99
30) BENZENE	7.584	78	233295	20.62	µg/L	97
31) TRICHLOROETHENE	8.325	132	61820	21.14	µg/L #	92
32) 12-DICHLOROPROPANE	9.046	63	65883	19.59	µg/L	96
33) DIBROMOMETHANE	8.924	174	44392	19.61	µg/L #	86
34) BROMODICLMETHANE	9.107	83	100661	22.38	µg/L	99
35) 2-CLETHYLVINYLETHER	9.970	63	2028	1.01	µg/L #	41
36) EPICHLOROHYDRIN	10.416	57	148735	380.69	µg/L	95
37) 4METHYL-2-PENTANONE	10.975	43	440812	87.75	µg/L #	90
38) CIS13DICLPROPENE	10.041	75	80898	17.13	µg/L	95
40) TOLUENE	10.416	91	253078	19.37	µg/L	97
41) TRANS13DICLPROPENE	11.066	75	82950	17.69	µg/L	88
42) 112-TRICHLOROETHANE	11.340	97	65458	20.29	µg/L	92
43) 2-HEXANONE	12.406	43	277446	78.01	µg/L #	92
44) 13-DICHLOROPROPANE	11.828	76	109174	19.28	µg/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709120.D
Acq On : 13 Mar 2018 8:04 pm
Operator : NIVA
Sample : 2819486MS/2819488
Misc : RUN197091
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 16:33:01 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

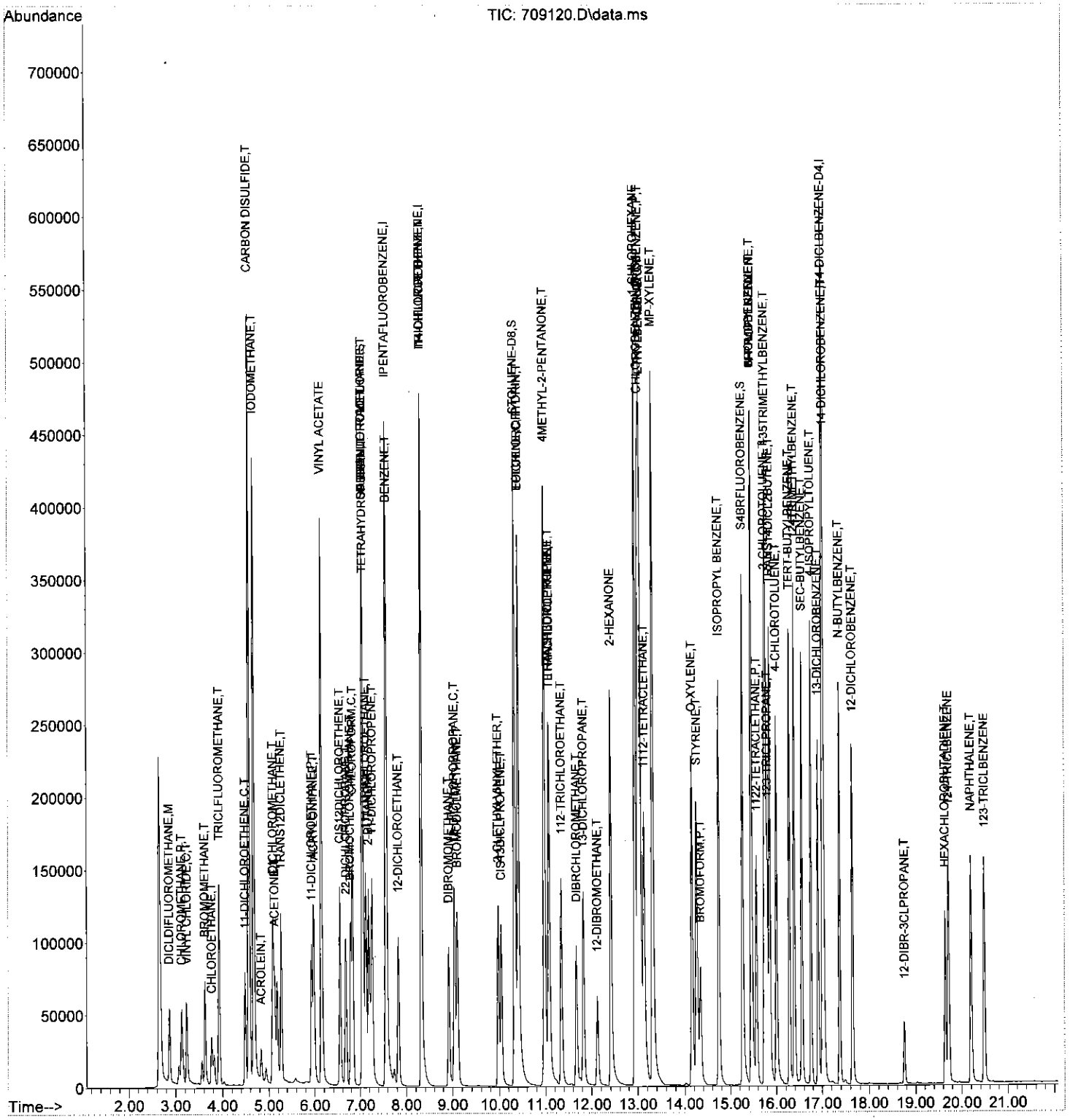
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	74963	18.93	µg/L		100
46) TETRACHLOROETHENE	11.076	166	66148	21.84	µg/L		89
47) 12-DIBROMOETHANE	12.122	107	61583	19.11	µg/L		100
49) CHLOROBENZENE	13.046	112	177567	18.41	µg/L		86
50) 1-CHLOROHEXANE	12.944	91	92282m	19.67	µg/L		
51) 1112-TETRACLETHANE	13.137	131	70279	19.76	µg/L		91
52) ETHYLBENZENE	13.056	91	292484	18.82	µg/L		97
53) MP-XYLENE	13.320	91	457317	35.36	µg/L		94
54) STYRENE	14.264	104	157079	16.73	µg/L		95
55) O-XYLENE	14.152	91	216700	16.48	µg/L		96
56) BROMOFORM	14.345	173	53645	15.56	µg/L		97
57) 1122-TETRACLETHANE	15.574	83	105239	16.80	µg/L		99
58) ISOPROPYL BENZENE	14.741	105	256288	17.27	µg/L		95
60) 123-TRICLPROPANE	15.807	110	29516	16.26	µg/L		96
61) TRANS14DICL2BUTENE	15.858	53	86483	103.25	µg/L		87
62) BROMOBENZENE	15.452	77	138653	17.42	µg/L		82
63) N-PROPYLBENZENE	15.462	91	323594	17.92	µg/L		93
64) 2-CHLOROTOLUENE	15.746	91	221207	17.02	µg/L		89
65) 4-CHLOROTOLUENE	16.000	91	193334	16.83	µg/L		90
66) 135TRIMETHYLBENZENE	15.766	105	244548	17.87	µg/L		94
67) TERT-BUTYLBENZENE	16.284	119	185606	17.34	µg/L		92
68) 124TRIMETHYLBENZENE	16.386	105	226699	16.96	µg/L		95
69) SEC-BUTYLBENZENE	16.558	105	264340	17.52	µg/L		99
70) 13-DICHLOROBENZENE	16.914	146	113601	15.96	µg/L		96
72) 4-ISOPROPYLTOLUENE	16.761	119	212950	17.96	µg/L		99
73) 14-DICHLOROBENZENE	17.035	146	126233	18.60	µg/L		87
74) 12-DICHLOROBENZENE	17.645	146	124276	18.00	µg/L		96
75) N-BUTYLBENZENE	17.370	91	189767	17.52	µg/L		95
76) 12-DIBR-3CLPROPANE	18.761	157	16635m	15.13	µg/L		
77) 124-TRICLBENZENE	19.716	180	70301	16.67	µg/L	#	93
78) NAPHTHALENE	20.193	128	179071	14.25	µg/L		100
79) HEXACHLOROBUTADIENE	19.644	225	31257	18.14	µg/L		99
80) 123-TRICLBENZENE	20.487	182	69117	16.59	µg/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709120.D
Acq On : 13 Mar 2018 8:04 pm
Operator : NIVA
Sample : 2819486MS/2819488
Misc : RUN197091
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 16:33:01 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709121.D
Acq On : 13 Mar 2018 8:30 pm
Operator : NIVA
Sample : 2819486MSD/2819489
Misc : RUN197091
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 16:41:12 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) IPENTAFLUOROBENZENE	7.574	168	215281	20.00	µg/L	0.00
23) I14-DIFLUOROBENZENE	8.325	114	336964	20.00	µg/L	0.01
48) CHLOROBENZEN-d5-IS	13.015	117	340570	20.00	µg/L	0.00
71) I14-DICLBENZENE-D4	17.015	152	175555	20.00	µg/L	-0.01
System Monitoring Compounds						
24) SDIBRFLUOROMETHANE	7.056	111	154335	22.80	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 114.00%			
39) STOLUENE-D8	10.335	98	418785	21.10	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.50%			
59) S4BRFLUOROBENZENE	15.259	95	168595	18.28	µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.40%			
Target Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.873	85	64915	23.21	µg/L	99
3) CHLOROMETHANE	3.127	50	80648	23.54	µg/L	99
4) VINYL CHLORIDE	3.239	62	68824	23.58	µg/L	100
5) BROMOMETHANE	3.625	94	51104	23.60	µg/L	98
6) CHLOROETHANE	3.767	64	38448	24.06	µg/L	98
7) TRICLFLUOROMETHANE	3.929	101	119642m	24.50	µg/L	
8) ACROLEIN	4.833	56	21860	362.41	µg/L	98
9) ACETONE	5.127	43	93007	86.08	µg/L #	97
10) 11-DICHLOROETHENE	4.488	61	53199	22.69	µg/L	99
11) IODOMETHANE	4.670	142	428875m	122.34	µg/L	
12) CARBON DISULFIDE	4.569	76	703312m	110.97	µg/L	
13) ACRYLONITRILE	5.980	53	130144m	81.18	µg/L	
14) DICHLOROMETHANE	5.097	84	54439m	24.82	µg/L	
15) TRANS12DICLETHENE	5.269	96	55720	22.45	µg/L	94
16) 11-DICHLOROETHANE	5.939	63	102062	20.07	µg/L	98
17) VINYL ACETATE	6.142	43	716426	89.28	µg/L	97
18) 2-BUTANONE	7.188	43	203631	89.25	µg/L	94
19) CIS12DICHLOROETHENE	6.548	96	63190	21.32	µg/L #	86
20) 22-DICHLOROPROPANE	6.680	77	79664	21.47	µg/L	98
21) CHLOROFORM	6.833	83	140207	23.39	µg/L	100
22) BROMOCHLOROMETHANE	6.782	49	75590	22.02	µg/L #	77
25) TETRAHYDROFURAN	7.066	42	72018m	17.54	µg/L	
26) 111-TRICHLOROETHANE	7.127	97	117940	23.03	µg/L	98
27) 11-DICHLOROPROPENE	7.269	75	82327	22.05	µg/L	92
28) 12-DICHLOROETHANE	7.828	62	107515	20.76	µg/L #	99
29) CARBONTETRACHLORIDE	7.056	117	102515	24.20	µg/L	99
30) BENZENE	7.584	78	233586	21.04	µg/L	97
31) TRICHLOROETHENE	8.325	132	61772	21.52	µg/L #	93
32) 12-DICHLOROPROPANE	9.046	63	66551	20.16	µg/L	97
33) DIBROMOMETHANE	8.924	174	44922	20.22	µg/L	87
34) BROMODICLMETHANE	9.107	83	101285	22.95	µg/L	99
35) 2-CLETHYLVINYLETHER	9.878	63	264	N.D.		
36) EPICHLOROHYDRIN	10.416	57	151790	395.95	µg/L	95
37) 4METHYL-2-PENTANONE	10.975	43	442648	89.80	µg/L #	90
38) CIS13DICLPROPENE	10.041	75	82484	17.80	µg/L	95
40) TOLUENE	10.416	91	255132	19.90	µg/L	98
41) TRANS13DICLPROPENE	11.066	75	83749	18.20	µg/L	87
42) 112-TRICHLOROETHANE	11.340	97	66113	20.89	µg/L	93
43) 2-HEXANONE	12.406	43	278969	79.94	µg/L #	93
44) 13-DICHLOROPROPANE	11.827	76	109553	19.72	µg/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709121.D
Acq On : 13 Mar 2018 8:30 pm
Operator : NIVA
Sample : 2819486MSD/2819489
Misc : RUN197091
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 16:41:12 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	75897	19.53	µg/L		99
46) TETRACHLOROETHENE	11.076	166	66722	22.45	µg/L		89
47) 12-DIBROMOETHANE	12.122	107	61690	19.51	µg/L		99
49) CHLOROBENZENE	13.046	112	179950	19.02	µg/L		87
50) 1-CHLOROHEXANE	12.944	91	95942m	20.85	µg/L		
51) 1112-TETRACLETHANE	13.137	131	70798	20.30	µg/L		92
52) ETHYLBENZENE	13.056	91	296559	19.45	µg/L		98
53) MP-XYLENE	13.320	91	462242	36.43	µg/L		94
54) STYRENE	14.264	104	158176	17.18	µg/L		95
55) O-XYLENE	14.162	91	220026	17.06	µg/L		96
56) BROMOFORM	14.345	173	54293	16.05	µg/L		99
57) 1122-TETRACLETHANE	15.573	83	106293	17.30	µg/L		99
58) ISOPROPYL BENZENE	14.741	105	260367	17.89	µg/L		95
60) 123-TRICLPROPANE	15.807	110	29578	16.61	µg/L		96
61) TRANS14DICL2BUTENE	15.858	53	88091	107.21	µg/L		87
62) BROMOBENZENE	15.452	77	140596	18.01	µg/L		82
63) N-PROPYLBENZENE	15.462	91	328165	18.52	µg/L		93
64) 2-CHLOROTOLUENE	15.746	91	223383	17.52	µg/L		88
65) 4-CHLOROTOLUENE	16.000	91	198036	17.58	µg/L		90
66) 135TRIMETHYLBENZENE	15.766	105	245707	18.30	µg/L		94
67) TERT-BUTYLBENZENE	16.284	119	188001	17.90	µg/L		92
68) 124TRIMETHYLBENZENE	16.386	105	228323	17.41	µg/L		95
69) SEC-BUTYLBENZENE	16.558	105	271686	18.35	µg/L		98
70) 13-DICHLOROBENZENE	16.913	146	116884	16.74	µg/L		97
72) 4-ISOPROPYLTOLUENE	16.761	119	217776	18.69	µg/L		99
73) 14-DICHLOROBENZENE	17.035	146	130361	19.55	µg/L		88
74) 12-DICHLOROBENZENE	17.644	146	125907	18.56	µg/L		96
75) N-BUTYLBENZENE	17.370	91	198411	18.64	µg/L		95
76) 12-DIBR-3CLPROPANE	18.761	157	17296m	16.01	µg/L		
77) 124-TRICLBENZENE	19.715	180	72762	17.56	µg/L	#	90
78) NAPHTHALENE	20.192	128	185706	15.04	µg/L		99
79) HEXACHLOROBUTADIENE	19.644	225	33084	19.54	µg/L		98
80) 123-TRICLBENZENE	20.487	182	72328	17.66	µg/L		99

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

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Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
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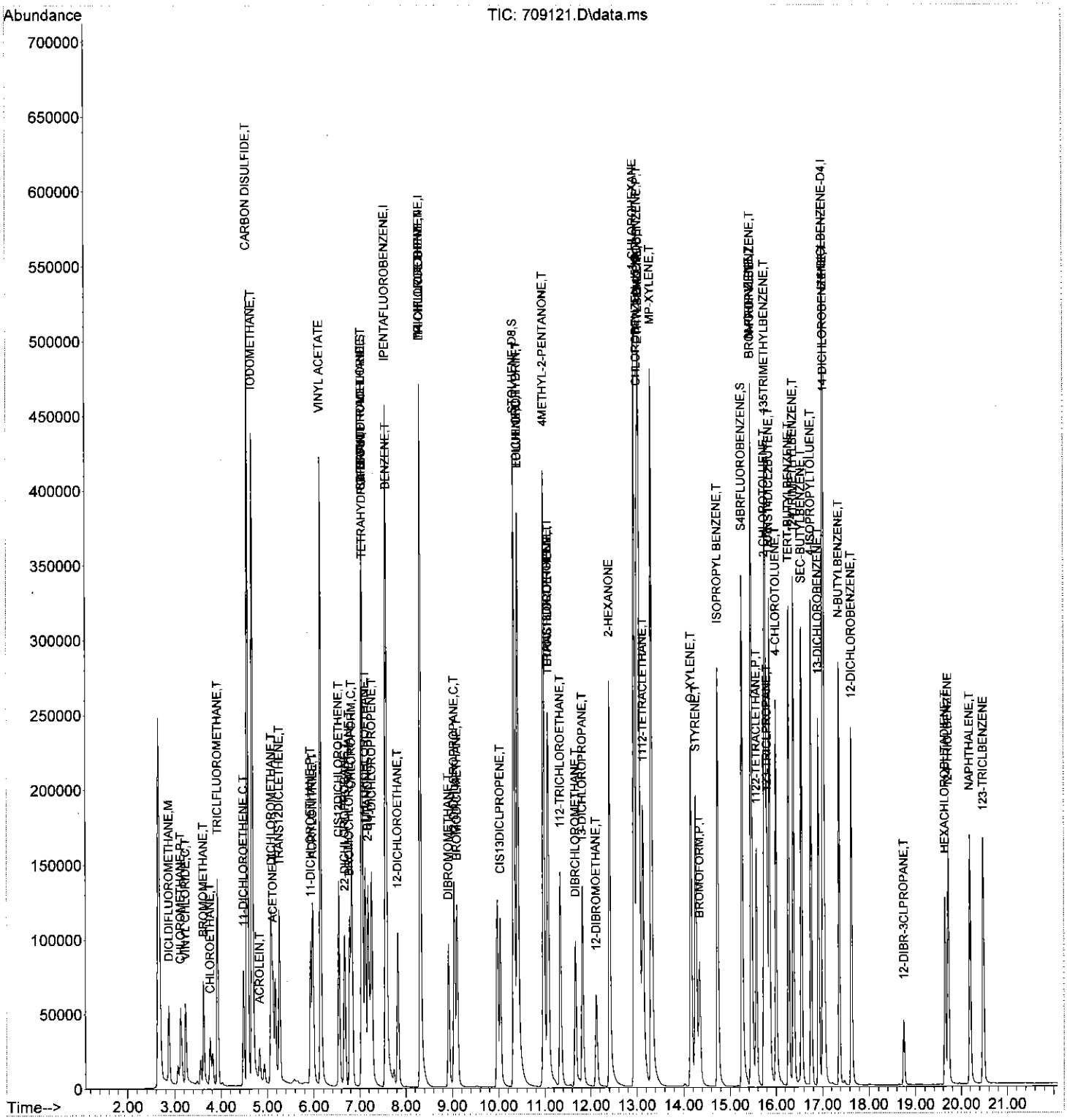
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\197091-96\
Data File : 709122.D
Acq On : 13 Mar 2018 8:56 pm
Operator : NIVA
Sample : LFB/2825927
Misc : RUN197091
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 16 16:51:14 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-JAN2-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Thu Jan 25 13:53:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) IPENTAFLUOROBENZENE	7.574	168	210352	20.00	µg/L		0.00
23) I14-DIFLUOROBENZENE	8.325	114	328619	20.00	µg/L		0.01
48) CHLOROBENZEN-d5-IS	13.015	117	331023	20.00	µg/L		0.00
71) I14-DICLBENZENE-D4	17.015	152	171478	20.00	µg/L		-0.01
System Monitoring Compounds							
24) SDIBRFLUOROMETHANE	7.056	111	150466	22.79	µg/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 113.95%				
39) STOLUENE-D8	10.335	98	419390	21.67	µg/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 108.35%				
59) S4BRFLUOROBENZENE	15.259	95	165860	18.51	µg/L		0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.55%				
Target Compounds							Qvalue
2) DICLDIFLUOROMETHANE	2.873	85	59937	21.93	µg/L		98
3) CHLOROMETHANE	3.127	50	73143	21.85	µg/L		98
4) VINYL CHLORIDE	3.239	62	61606	21.60	µg/L		100
5) BROMOMETHANE	3.625	94	47008	22.11	µg/L		97
6) CHLOROETHANE	3.767	64	35413	22.68	µg/L		98
7) TRICLFLUOROMETHANE	3.929	101	93583m	19.61	µg/L		
8) ACROLEIN	4.833	56	22640	384.14	µg/L		99
9) ACETONE	5.127	43	89891	85.14	µg/L	#	97
10) 11-DICHLOROETHENE	4.488	61	47614	20.78	µg/L		99
11) IODOMETHANE	4.670	142	393027m	114.74	µg/L		
12) CARBON DISULFIDE	4.569	76	766913	123.84	µg/L		99
13) ACRYLONITRILE	5.980	53	112292	71.68	µg/L		99
14) DICHLOROMETHANE	5.097	84	55304	25.80	µg/L	#	80
15) TRANS12DICLETHENE	5.269	96	51275	21.14	µg/L		93
16) 11-DICHLOROETHANE	5.939	63	93903	18.90	µg/L		98
17) VINYL ACETATE	6.142	43	785328	100.16	µg/L	#	95
18) 2-BUTANONE	7.188	43	197754	88.70	µg/L		94
19) CIS12DICHLOROETHENE	6.548	96	57470	19.85	µg/L	#	85
20) 22-DICHLOROPROPANE	6.680	77	66268	18.28	µg/L		98
21) CHLOROFORM	6.833	83	130532	22.28	µg/L		100
22) BROMOCHLOROMETHANE	6.782	49	71478	21.31	µg/L	#	77
25) TETRAHYDROFURAN	7.066	42	63071m	15.75	µg/L		
26) 111-TRICHLOROETHANE	7.127	97	105815	21.19	µg/L		98
27) 11-DICHLOROPROPENE	7.269	75	73054	20.06	µg/L		91
28) 12-DICHLOROETHANE	7.828	62	103839	20.56	µg/L	#	99
29) CARBONTETRACHLORIDE	7.056	117	91252	22.09	µg/L		99
30) BENZENE	7.584	78	214064	19.77	µg/L		97
31) TRICHLOROETHENE	8.325	132	56277	20.11	µg/L	#	91
32) 12-DICHLOROPROPANE	9.046	63	62150	19.31	µg/L		96
33) DIBROMOMETHANE	8.924	174	43671	20.16	µg/L		86
34) BROMODICLMETHANE	9.107	83	95175	22.11	µg/L		99
35) 2-CLETHYLVINYLETHER	9.888	63	159528m	82.72	µg/L		
36) EPICHLOROHYDRIN	10.416	57	161007	430.66	µg/L		97
37) 4METHYL-2-PENTANONE	10.975	43	436862	90.88	µg/L	#	90
38) CIS13DICLPROPENE	10.041	75	88080	19.49	µg/L		97
40) TOLUENE	10.416	91	236462	18.91	µg/L		97
41) TRANS13DICLPROPENE	11.066	75	81008	18.05	µg/L		87
42) 112-TRICHLOROETHANE	11.340	97	63982	20.73	µg/L		93
43) 2-HEXANONE	12.406	43	276438	81.23	µg/L	#	92
44) 13-DICHLOROPROPANE	11.827	76	106627	19.68	µg/L		96

Quantitation Report (QT Reviewed)

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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.675	129	72344	19.09	µg/L	99
46) TETRACHLOROETHENE	11.076	166	60954	21.03	µg/L	89
47) 12-DIBROMOETHANE	12.122	107	60420	19.60	µg/L	100
49) CHLOROBENZENE	13.046	112	168699	18.34	µg/L	87
50) 1-CHLOROHEXANE	12.944	91	84357m	18.86	µg/L	
51) 1112-TETRACLETHANE	13.147	131	67502	19.91	µg/L	92
52) ETHYLBENZENE	13.056	91	267189	18.03	µg/L	98
53) MP-XYLENE	13.320	91	422050	34.22	µg/L	93
54) STYRENE	14.254	104	147627	16.49	µg/L	95
55) O-XYLENE	14.152	91	202481	16.15	µg/L	95
56) BROMOFORM	14.345	173	52037	15.83	µg/L	99
57) 1122-TETRACLETHANE	15.573	83	103086	17.26	µg/L	99
58) ISOPROPYL BENZENE	14.741	105	234280	16.56	µg/L	95
60) 123-TRICLPROPANE	15.807	110	29247	16.89	µg/L	97
61) TRANS14DICL2BUTENE	15.858	53	84973	106.40	µg/L	86
62) BROMOBENZENE	15.452	77	132060	17.40	µg/L	82
63) N-PROPYLBENZENE	15.462	91	295555	17.16	µg/L	93
64) 2-CHLOROTOLUENE	15.746	91	204620	16.51	µg/L	89
65) 4-CHLOROTOLUENE	16.000	91	181965	16.62	µg/L	90
66) 135TRIMETHYLBENZENE	15.766	105	224743	17.22	µg/L	94
67) TERT-BUTYLBENZENE	16.284	119	171019	16.75	µg/L	92
68) 124TRIMETHYLBENZENE	16.386	105	208759	16.38	µg/L	95
69) SEC-BUTYLBENZENE	16.558	105	241199	16.76	µg/L	99
70) 13-DICHLOROBENZENE	16.913	146	108871	16.04	µg/L	97
72) 4-ISOPROPYLTOLUENE	16.761	119	196281	17.24	µg/L	99
73) 14-DICHLOROBENZENE	17.035	146	121598	18.67	µg/L	87
74) 12-DICHLOROBENZENE	17.644	146	117873	17.79	µg/L	96
75) N-BUTYLBENZENE	17.370	91	178422	17.16	µg/L	96
76) 12-DIBR-3CLPROPANE	18.761	157	16780m	15.90	µg/L	
77) 124-TRICLBENZENE	19.715	180	69301	17.12	µg/L #	92
78) NAPHTHALENE	20.192	128	206521m	17.13	µg/L	
79) HEXACHLOROBUTADIENE	19.644	225	29939	18.10	µg/L	97
80) 123-TRICLBENZENE	20.477	182	67658	16.92	µg/L	95

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

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Acq On : 13 Mar 2018 8:56 pm
Operator : NIVA
Sample : LFB/2825927
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Quant Title : Analysis of VOC'S by EPA 8260B
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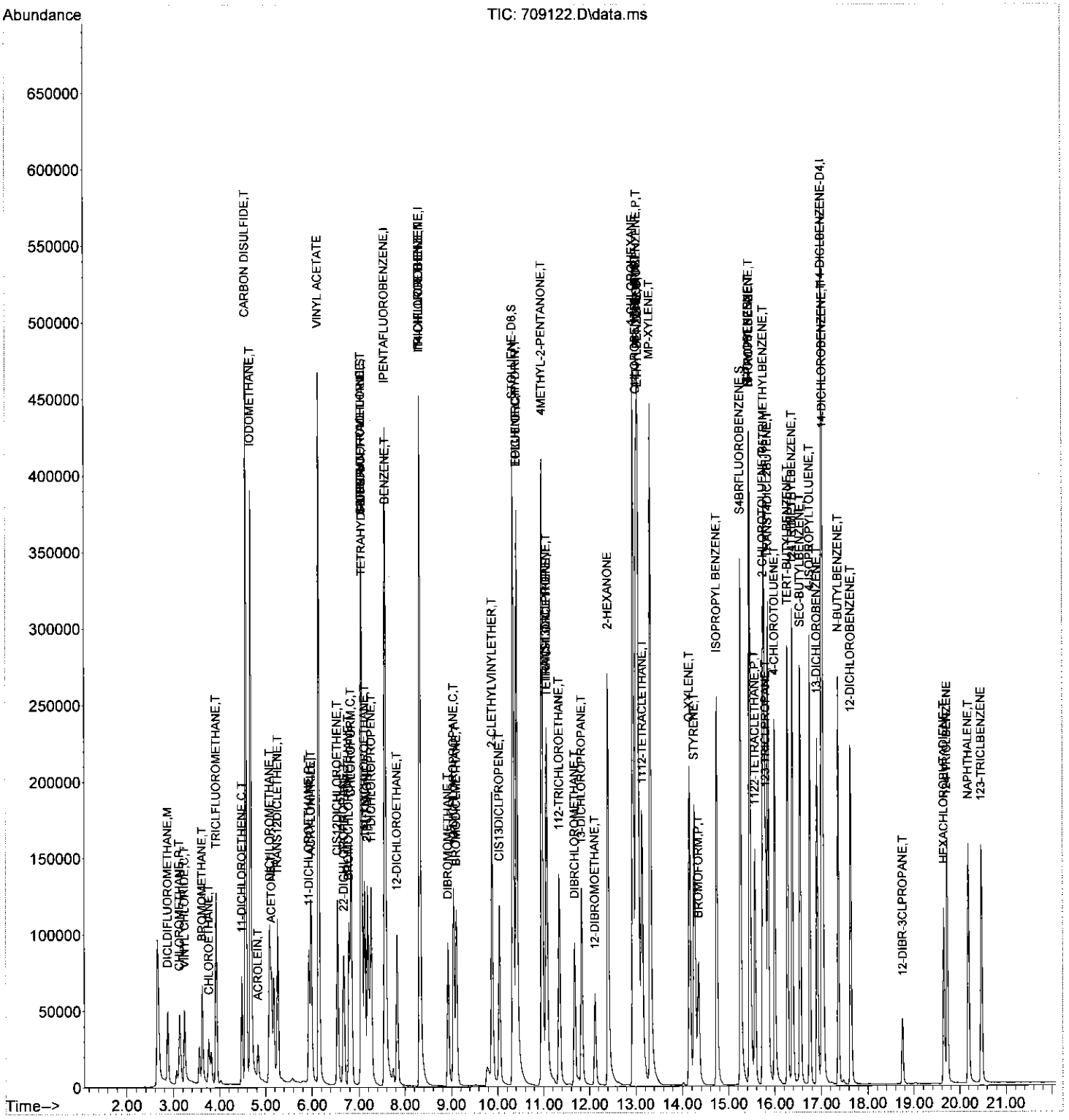

Attachment 5
Sampling and Monitoring Field Form

ARCADIS Design & Consultancy for natural and built assets

Groundwater Extraction and Treatment System (GWETS) Sampling and Monitoring Field Form
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Collection Date	Sample ID	Collection Time		Sampler's Initials
		Pace	Eqlab	
03/06/18	TB-20180306	LAB	LAB	AL
03/06/18	INF-20180306	0933	0934	AL
03/06/18	EFF-20180306	0958	1010	AL
03/06/18	EFFDUP-20180306	0958	1010	AL
03/06/18	EFFMS-20180306	0958	1010	AL
03/06/18	EFFMSD-20180306	0958	1010	AL

GWETS Operational Data at Sample Collection

Extraction Wells

RW-2	99.8	gpm
RW-4	129.4	gpm
RW-5	80.0	gpm

Compound Treatment System

Influent Flow Rate (FIT-101)	304.1	gpm
Effluent Flow Rate (FIT-301)	384.7	gpm
Blower (FIT-201A)	2270	scfm
Influent Flow Pressure (PIT-101)	2.4	psi
Effluent Flow Pressure (PIT-301)	29.2	psi
pH (pHIT-201A)	8.1	

Notes:
gpm = gallons per minute
scfm = standard cubic feet per minute
psi = pounds per square inch