



575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
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ANALYTICAL DATA PACKAGE

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HDR
APPLE VALLEY ROAD
SAMPLES RECEIVED: 5/20/15
SOIL SAMPLES
SDG NO.: HDR012

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**DATA PACKAGE FOR CLIENT INFORMATION
PURPOSES ONLY**



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I. NYS DEC SUMMARY FORMS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: HDR012

Analytical Requirements

Customer Sample Code	Laboratory Sample Code	MSVOA
AV2-2015-05-18	1505F17-001	X
MWRC1-2015-05-18	1505F17-002	X
MW1-2015-05-19	1505F17-003	X
MW3-2015-05-19	1505F17-004	X
MW4B-2015-05-18	1505F17-005	X
MW6-2015-05-19	1505F17-006	X
MW7-2015-05-19	1505F17-007	X
MW12-2015-05-19	1505F17-008	X
MW13-2015-05-19	1505F17-009	X
MW14-2015-05-19	1505F17-010	X
MW64-2015-05-19	1505F17-011	X
RW1-2015-05-18	1505F17-012	X
RW2-2015-05-18	1505F17-013	X
RW3-2015-05-18	1505F17-014	X
TB-1	1505F17-015	X
STORAGE BLANK	1505F17-016	X

CLP, Non-CLP (Please indicate year of protocol)
TCL/TAL, HSL, Priority Pollutant,

ASP B
2005
AD 6/24/15

HDR012 A3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

VOLATILE (VOA)

SDG: HDR012

ANALYSES

Laboratory Samp ID	Client Sample ID	Matrix	Analytical Protocol	Date Collected	Date Recd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
1505F17-001A	AV2	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-002A	MWRC1	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-002ADL	MWRC1DL	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		20	LOW	
1505F17-003A	MW1	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-004A	MW3	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-005A	MW4B	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-006A	MW6	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-007A	MW7	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-008A	MW12	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-009A	MW13	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-010A	MW14	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-010AMS	MW14-2015-05-19MS	Potable Water	E524.2	19-May-15	20-May-15		02-Jun-15		1	LOW	
1505F17-010AMSD	MW14-2015-05-19MSD	Potable Water	E524.2	19-May-15	20-May-15		02-Jun-15		1	LOW	
1505F17-011A	MW64	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-012A	RW1	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-012ADL	RW1DL	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		5	LOW	
1505F17-013A	RW2	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-013ADL	RW2-DL	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		50	LOW	
1505F17-013ADUP	RW2DUP	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-014A	RW3	Potable Water	E524.2	18-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-014ADL	RW3DL	Potable Water	E524.2	18-May-15	20-May-15		02-Jun-15		20	LOW	
1505F17-015A	TB-1	Potable Water	E524.2	19-May-15	20-May-15		01-Jun-15		1	LOW	
1505F17-016A	STORAGE BLANK	Potable Water	E524.2	20-May-15	20-May-15		01-Jun-15		1	LOW	



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II. SDG NARRATIVES



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SDG NARRATIVE FOR VOLATILE ORGANICS ANALYSIS
SAMPLE(S) RECEIVED: 5/20/15
SDG#: HDR012

Page 1 of 2

For Sample(s):

AV2-2015-05-18	MW7-2015-05-19	RW1-2015-05-18
MWRC1-2015-05-18	MW12-2015-05-19	RW2-2015-05-18
MW1-2015-05-19	MW13-2015-05-19	RW3-2015-05-18
MW3-2015-05-19	MW14-2015-05-19	TB-1
MW4B-2015-05-18	MW64-2015-05-19	STORAGE BLANK
MW6-2015-05-19		

The above water sample(s) and blank(s) was/were analyzed for a select list of volatile organics by EPA method 524 and reported in accordance with the NYSDEC ASP, Rev. 7/2005, Category B.

All Q. C. data and calibrations met the requirements of the protocol, unless discussed below. No problems were encountered with sample analysis. The following should be noted:

Sample MW14-2015-05-19 was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. Five recoveries in the MS and five in the MSD were outside the Q. C. limits. Two lab fortified blanks (LFB) were analyzed. The recoveries for two analytes in LFB060115 and nine analytes in LFB060115A did not meet the control limits. The samples were not reanalyzed, because no data are affected, since the analytes were not found in the samples analyzed in those batches.

Four samples were re-analyzed at dilutions due to concentrations of targeted analytes above the calibration ranges. Both sets of data are submitted.

The recoveries for the surrogate BFB in sample RW2 and its dilution exceeded the Q. C. limit. It was found that it was caused by a contamination that occurred, because the syringe used for surrogate spiking had been used for a BFB solution.

In two continuing calibration verifications on 6/1/15 and 6/2/15 the variability for 2 and respectively three compounds was above 30%. Results for these analytes are flagged with a "Z" qualifier in the spiked analyses analyzed on those days, indicating that they are regarded estimated. These analytes were not found in the sample(s).



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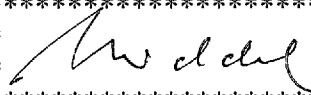
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SDG NARRATIVE FOR VOLATILE ORGANICS ANALYSIS
SAMPLE(S) RECEIVED: 5/20/15
SDG#: HDR012

Page 1 of 2

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: June 18, 2015

*  *
*

Ursula Middel
Quality Analyst



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III. CHAIN OF CUSTODY DOCUMENTATION



Pace Analytical®
www.pacelabs.com

HDR-Albany

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 7 of 2 1927106	
Company: HDR		Report To: Mike Lehtinen		Attention:		REGULATORY AGENCY	
Address: 16 Corporate Woods Blvd Suite 204 Albany, NY 12211		Copy To:		Company Name:			
Email To: Michael.Lehtinen@hdrinc.com		Purchase Order No.:		Address:		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____	
Phone: (518) 937-9500		Project Name:		Pace Quote Reference:		Site Location	
Fax:		Project Number:		Pace Project Manager:		STATE: NY HDR012	
Requested Due Date/TAT:				Pace Profile #:			

[illegible]

ORIGINAL

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Robert Cunningham					
SIGNATURE of SAMPLER: [Signature]	DATE Signed (MM/DD/YY): 5/19/15				

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C		Page: 2 of 2 1927107	
Required Client Information:		Required Project Information:		Invoice Information:			
Company: HDR		Report To: Mike Lehtinen		Attention:			
Address: 16 Corporate Woods Blvd		Copy To:		Company Name:		REGULATORY AGENCY	
Suite 204 Albany, NY 12211				Address:		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER	
Email To: Michael.Lehtinen@hdrinc.com		Purchase Order No.:		Pace Quote Reference:		☐ UST ☐ RCRA ☐ OTHER _____	
Phone: (518) 932-9500		Project Name:		Pace Project Manager:		Site Location: NY HDRO12	
Fax:		Project Number:		Pace Profile #:		STATE: _____	
Requested Due Date/TAT:							

[illegible]

ORIGINAL

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Robert Cunningham					
SIGNATURE of SAMPLER: 	DATE Signed (MM/DD/YY): 5/19/13				



PACE ANALYTICAL
575 Broad Hollow Road
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TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Sample Receipt Checklist

Client Name **HDR-ALBANY**

Date and Time Received: 5/20/2015 9:45:00 AM

Work Order Number: **1505F17**

RcptNo: 1

Received by: **Linda Siciliano**

Completed by:

Reviewed by:

Completed Date: 5/20/2015 9:54:26 PM

Reviewed Date: 6/2/2015 9:27:58 PM

Carrier name: FedEx

Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☐	No ☒		
Are matrices correctly identified on Chain of custody?	Yes ☒	No ☐		
Is it clear what analyses were requested?	Yes ☒	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☒
Samples in proper container/bottle?	Yes ☒	No ☐		
Were correct preservatives used and noted?	Yes ☒	No ☐	NA	☐
Preservative added to bottles:				
Sample Condition?	Intact ☒	Broken ☐	Leaking	☐
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
Were container labels complete (ID, Pres, Date)?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Was an attempt made to cool the samples?	Yes ☒	No ☐	NA	☐
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☒	No ☐	NA	☐
Response when temperature is outside of range:				
Sample Temp. taken and recorded upon receipt?	Yes ☒	No ☐	To 3.9°	
Water - Were bubbles absent in VOC vials?	Yes ☒	No ☐	No Vials	☐
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA	☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	No Water	☐
Are Samples considered acceptable?	Yes ☒	No ☐		
Custody Seals present?	Yes ☐	No ☒		
Airbill or Sticker?	Air Bill ☒	Sticker ☐	Not Present	☐
Airbill No:	806278123978			

Case Number:

SDG:
HDR012

SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☒ NA Person Contacted:
Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted:

Contacted By:

Regarding:

Comments:

The lab received 2 sets of samples labeled MWRC1. the first set has a collection time of 15:45, which corresponds to the external COC. The second set has a collection time of 14:45, which corresponds to sample MW4B. The caps are labeled MW4B for this sample. Sample MW14 was collected at 09:50. The MS and MSD set of vials for this sample were collected at 09:55.

CorrectiveAction:

The lab will use a collection time of 09:55 for MW14.

INTERNAL CHAIN OF CUSTODY

CLIENT: HDR-Albany DELIVERABLES: BOS-70 TURN AROUND TIME: 21 Days

SDG: HDR012 CASE#: _____ MATRIX: AQ pH CHECK Y or N (N)

REMARKS: _____

RECEIVED BY: LSO SIGNATURE: [Signature] DATE: 5/20/15 TIME: 0945

CLIENT SAMPLE ID	LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
AV2-2a5-05-18	1505 F17- 021A	5.18	DH	2	524-DW
MW1-2015-05-18	002A	↓		↓	
MW1- -19	003A	5.19			
MW3- -19	004A	↓			
~~MW4- -18~~	005A	5.18			
MW6- -19	006A	5.19			
MW7- -19	007A	↓			
MW12- -19	008A	↓			
MW13- -19	009A	↓		↓	
MW14- -19	010A	↓		6	
MW15- -19	011A	↓		2	
BW1- -18	012A	5.18		↓	
BW2- ↓	013A	↓		↓	
BW3- ↓	014A	↓		↓	
15. TB-1	015A	5.19	✓	↓	
16. Storage Blank	016A	5.20	DH	↓	↓
17.					
18.					
19.					
20.					

ms
msd

SDG: HDR-012

INTERNAL CHAIN OF CUSTODY

[illegible]



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IV. ANALYTICAL DATA PACKAGE

A. VOLATILES



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VOLATILE ORGANICS

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- III. STANDARDS DATA PACKAGE**
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- V. DOCUMENTATION**



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- I. QC SUMMARY FOR VOLATILE ORGANICS**
 - A. SYSTEM MONITORING COMPOUND RECOVERY SUMMARY**
 - B. MS/MSD SUMMARY***
 - C. MSB SUMMARY***
 - D. LFB SUMMARY***
 - E. DUPLICATE SUMMARY***
 - F. METHOD BLANK SUMMARY**
 - G. GC/MS TUNING SUMMARY**
 - H. INTERNAL STANDARD AREA AND RT SUMMARY**
 - I. INSTRUMENT DETECTION LIMITS OR MDL**

***IF REQUIRED**

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBANY SAS No.: _____SDG No.: HDR012

	EPA SAMPLE NO.	SMC1 DCB #	SMC2 BFB #		OTHER	TOT OUT
01	VBLK060115	89	102			0
02	LFB060115	94	111			0
03	AV2	86	97			0
04	MW1	88	98			0
05	MW3	89	101			0
06	MW4B	85	95			0
07	MW6	88	98			0
08	MW7	89	101			0
09	MWRC1	91	103			0
10	RW1	88	103			0
11	RW2	97	177 *			1
12	RW3	107	104			0
13	VBLK060115A	92	101			0
14	LFB060115A	97	116			0
15	TB-1	106	101			0
16	STORAGE BLANK	88	98			0
17	MW12	89	100			0
18	MW13	90	99			0
19	MW14	91	100			0
20	MW64	87	96			0
21	MWRC1DL	89	97			0
22	RW1DL	91	99			0
23	RW2DL	87	237 *			1
24	RW3DL	85	98			0
25	MW14MS	100	115			0
26	MW14MSD	96	108			0

QC Limit

SMC1 DCB = 1,2-Dichlorobenzene-d4 (70-130)

SMC2 BFB = 4-Bromofluorobenzene (70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____Lab Code: 10478 Case No.: HDR-A SAS No.: _____ SDG No.: HDR012Matrix Spike - EPA Sample No.: MW14-2015-05-19

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	10	0	6	63*	70-130
Chloromethane	10	0	7	69*	70-130
Vinyl chloride	10	0	7	70	70-130
Bromomethane	10	0	5	48*	70-130
Chloroethane	10	0	10	98	70-130
Trichlorofluoromethane	10	0	10	102	70-130
1,1-Dichloroethene	10	0	8	78	70-130
Methylene chloride	10	0	7	70	70-130
trans-1,2-Dichloroethene	10	0	9	90	70-130
1,1-Dichloroethane	10	0	9	93	70-130
2,2-Dichloropropane	10	0	10	98	70-130
cis-1,2-Dichloroethene	10	0	9	85	70-130
Bromochloromethane	10	0	9	92	70-130
Chloroform	10	0	10	97	70-130
1,1,1-Trichloroethane	10	0	11	105	70-130
Carbon tetrachloride	10	0	11	113	70-130
1,1-Dichloropropene	10	0	10	99	70-130
1,2-Dichloroethane	10	0	10	96	70-130
Benzene	10	0	8	83	70-130
Trichloroethene	10	0	9	94	70-130
1,2-Dichloropropane	10	0	9	88	70-130
Dibromomethane	10	0	8	80	70-130
Bromodichloromethane	10	0	9	93	70-130
cis-1,3-Dichloropropene	10	0	9	86	70-130
Toluene	10	0	9	89	70-130
trans-1,3-Dichloropropene	10	0	9	86	70-130
1,1,2-Trichloroethane	10	0	8	76	70-130
Tetrachloroethene	10	0	12	118	70-130
1,3-Dichloropropane	10	0	8	80	70-130
Dibromochloromethane	10	0	9	91	70-130
Chlorobenzene	10	0	10	98	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 57 outside limitsSpike Recovery: 10 out of 114 outside limitsCOMMENTS: _____

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____Lab Code: 10478 Case No.: HDR-A SAS No.: _____ SDG No.: HDR012Matrix Spike - EPA Sample No.: MW14-2015-05-19

1,1,1,2-Tetrachloroethane	10	0	10	98	70-130
Ethylbenzene	10	0	10	99	70-130
m,p-Xylene	20	0	20	102	70-130
o-Xylene	10	0	10	103	70-130
Styrene	10	0	10	98	70-130
Bromoform	10	0	9	94	70-130
Isopropylbenzene	10	0	11	106	70-130
Bromobenzene	10	0	10	101	70-130
1,1,2,2-Tetrachloroethane	10	0	7	68*	70-130
1,2,3-Trichloropropane	10	0	9	88	70-130
n-Propylbenzene	10	0	10	97	70-130
2/4-Chlorotoluene	20	0	19	95	70-130
1,3,5-Trimethylbenzene	10	0	10	104	70-130
tert-Butylbenzene	10	0	11	108	70-130
1,2,4-Trimethylbenzene	10	0	11	105	70-130
sec-Butylbenzene	10	0	10	103	70-130
n-Butylbenzene	10	0	10	99	70-130
1,3-Dichlorobenzene	10	0	10	100	70-130
1,4-Dichlorobenzene	10	0	10	101	70-130
4-Isopropyltoluene	10	0	11	108	70-130
1,2-Dichlorobenzene	10	0	10	96	70-130
1,2,4-Trichlorobenzene	10	0	12	121	70-130
Hexachlorobutadiene	10	0	16	158*	70-130
1,2,3-Trichlorobenzene	10	0	13	129	70-130
Methyl tert-butyl ether	10	0	9	90	70-130
Total Trihalomethanes	40	0	38	94	70-130

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Dichlorodifluoromethane	10	6.65	67*	6	30	70-130
Chloromethane	10	7.59	76	10	30	70-130
Vinyl chloride	10	7.62	76	8	30	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 57 outside limitsSpike Recovery: 10 out of 114 outside limits

COMMENTS: _____

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-A SAS No.: _____ SDG No.: HDR012

Matrix Spike - EPA Sample No.: MW14-2015-05-19

Bromomethane	10	6.27	63*	27	30	70-130
Chloroethane	10	7.64	76	25	30	70-130
Trichlorofluoromethane	10	11	110	8	30	70-130
1,1-Dichloroethene	10	8.64	86	10	30	70-130
Methylene chloride	10	7.86	79	12	30	70-130
trans-1,2-Dichloroethene	10	9.61	96	6	30	70-130
1,1-Dichloroethane	10	10.1	101	8	30	70-130
2,2-Dichloropropane	10	10.7	107	9	30	70-130
cis-1,2-Dichloroethene	10	9.33	93	9	30	70-130
Bromochloromethane	10	9.82	98	6	30	70-130
Chloroform	10	10.5	105	8	30	70-130
1,1,1-Trichloroethane	10	11.6	116	10	30	70-130
Carbon tetrachloride	10	12.2	122	8	30	70-130
1,1-Dichloropropene	10	11.2	112	12	30	70-130
1,2-Dichloroethane	10	10.5	105	9	30	70-130
Benzene	10	9.21	92	10	30	70-130
Trichloroethene	10	10.3	103	9	30	70-130
1,2-Dichloropropane	10	9.56	96	9	30	70-130
Dibromomethane	10	8.6	86	7	30	70-130
Bromodichloromethane	10	10.3	103	10	30	70-130
cis-1,3-Dichloropropene	10	9.65	97	12	30	70-130
Toluene	10	9.57	96	8	30	70-130
trans-1,3-Dichloropropene	10	9.64	96	11	30	70-130
1,1,2-Trichloroethane	10	8.2	82	8	30	70-130
Tetrachloroethene	10	12.4	124	5	30	70-130
1,3-Dichloropropane	10	8.52	85	6	30	70-130
Dibromochloromethane	10	10.3	103	12	30	70-130
Chlorobenzene	10	10.6	106	8	30	70-130
1,1,1,2-Tetrachloroethane	10	10.9	109	11	30	70-130
Ethylbenzene	10	11	110	11	30	70-130
m,p-Xylene	20	22.3	111	8	30	70-130
o-Xylene	10	11.1	111	7	30	70-130
Styrene	10	10.7	107	9	30	70-130
Bromoform	10	10.3	103	9	30	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 57 outside limits

Spike Recovery: 10 out of 114 outside limits

COMMENTS: _____

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____Lab Code: 10478 Case No.: HDR-A SAS No.: _____ SDG No.: HDR012Matrix Spike - EPA Sample No.: MW14-2015-05-19

Isopropylbenzene	10	11.8	118	11	30	70-130
Bromobenzene	10	11	110	9	30	70-130
1,1,2,2-Tetrachloroethane	10	7.61	76	11	30	70-130
1,2,3-Trichloropropane	10	9.48	95	8	30	70-130
n-Propylbenzene	10	10.8	108	11	30	70-130
2/4-Chlorotoluene	20	20.9	104	9	30	70-130
1,3,5-Trimethylbenzene	10	11.5	115	10	30	70-130
tert-Butylbenzene	10	12.1	121	11	30	70-130
1,2,4-Trimethylbenzene	10	11.6	116	10	30	70-130
sec-Butylbenzene	10	11.6	116	12	30	70-130
n-Butylbenzene	10	11.2	112	12	30	70-130
1,3-Dichlorobenzene	10	11.1	111	10	30	70-130
1,4-Dichlorobenzene	10	11.1	111	9	30	70-130
4-Isopropyltoluene	10	12.1	121	11	30	70-130
1,2-Dichlorobenzene	10	10.6	106	10	30	70-130
1,2,4-Trichlorobenzene	10	13.8	138*	13	30	70-130
Hexachlorobutadiene	10	15.6	156*	1	30	70-130
1,2,3-Trichlorobenzene	10	13.2	132*	2	30	70-130
Methyl tert-butyl ether	10	9.83	98	9	30	70-130
Total Trihalomethanes	40	41.4	103	9	30	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 57 outside limitsSpike Recovery: 10 out of 114 outside limits

COMMENTS: _____

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-AL SAS No.: _____ SDG No.: HDR012

Sample ID LFB060115A Level: (low/med) LOW

Column ID R-624 0.18 Column Diam .18

Inst. ID HP5975-1 Init. Calib. Date(s): 05/03/15 14:26

Analysis Date: 06/01/15 19:41 05/03/15 17:52

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	10	0	6.07	61*	70-130
Chloromethane	10	0	6.57	66*	70-130
Vinyl chloride	10	0	6.41	64*	70-130
Bromomethane	10	0	5.57	56*	70-130
Chloroethane	10	0	6.45	65*	70-130
Trichlorofluoromethane	10	0	8.53	85	70-130
1,1-Dichloroethene	10	0	6.92	69*	70-130
Methylene chloride	10	0	6.86	69*	70-130
trans-1,2-Dichloroethene	10	0	7.8	78	70-130
1,1-Dichloroethane	10	0	8.11	81	70-130
2,2-Dichloropropane	10	0	9.97	100	70-130
cis-1,2-Dichloroethene	10	0	7.97	80	70-130
Bromochloromethane	10	0	8.32	83	70-130
Chloroform	10	0	8.49	85	70-130
1,1,1-Trichloroethane	10	0	9.16	92	70-130
Carbon tetrachloride	10	0	9.56	96	70-130
1,1-Dichloropropene	10	0	8.76	88	70-130
1,2-Dichloroethane	10	0	8.68	87	70-130
Benzene	10	0	7.5	75	70-130
Trichloroethene	10	0	8.3	83	70-130
1,2-Dichloropropane	10	0	7.91	79	70-130
Dibromomethane	10	0	7.2	72	70-130
Bromodichloromethane	10	0	8.38	84	70-130
cis-1,3-Dichloropropene	10	0	8.38	84	70-130
Toluene	10	0	7.98	80	70-130
trans-1,3-Dichloropropene	10	0	8.51	85	70-130
1,1,2-Trichloroethane	10	0	7.01	70	70-130
Tetrachloroethene	10	0	10.1	101	70-130
1,3-Dichloropropane	10	0	7.38	74	70-130
Dibromochloromethane	10	0	8.55	86	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 9 out of 57 outside limits

COMMENTS: _____

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-AL SAS No.: _____ SDG No.: HDR012

Sample ID LFB060115A Level: (low/med) LOW

Column ID R-624 0.18 Column Diam .18

Inst. ID HP5975-1 Init. Calib. Date(s): 05/03/15 14:26

Analysis Date: 06/01/15 19:41 05/03/15 17:52

Chlorobenzene	10	0	8.9	89	70-130
1,1,1,2-Tetrachloroethane	10	0	8.99	90	70-130
Ethylbenzene	10	0	8.96	90	70-130
m,p-Xylene	20	0	18.6	93	70-130
o-Xylene	10	0	9.31	93	70-130
Styrene	10	0	9.14	91	70-130
Bromoform	10	0	9.14	91	70-130
Isopropylbenzene	10	0	9.54	95	70-130
Bromobenzene	10	0	9.23	92	70-130
1,1,2,2-Tetrachloroethane	10	0	6.77	68*	70-130
1,2,3-Trichloropropane	10	0	8.74	87	70-130
n-Propylbenzene	10	0	8.76	88	70-130
2/4-Chlorotoluene	20	0	17.1	85	70-130
1,3,5-Trimethylbenzene	10	0	9.3	93	70-130
tert-Butylbenzene	10	0	9.84	98	70-130
1,2,4-Trimethylbenzene	10	0	9.47	95	70-130
sec-Butylbenzene	10	0	9.3	93	70-130
n-Butylbenzene	10	0	9.34	93	70-130
1,3-Dichlorobenzene	10	0	9.27	93	70-130
1,4-Dichlorobenzene	10	0	9.37	94	70-130
4-Isopropyltoluene	10	0	9.82	98	70-130
1,2-Dichlorobenzene	10	0	8.99	90	70-130
1,2,4-Trichlorobenzene	10	0	11.9	119	70-130
Hexachlorobutadiene	10	0	13.1	131*	70-130
1,2,3-Trichlorobenzene	10	0	12	120	70-130
Methyl tert-butyl ether	10	0	7.97	80	70-130
Total Trihalomethanes	40	0	34.6	86	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 9 out of 57 outside limits

COMMENTS: _____

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-AL SAS No.: _____ SDG No.: HDR012

Sample ID LFB060115 Level: (low/med) LOW

Column ID R-624 0.18 Column Diam .18

Inst. ID HP5975-1 Init. Calib. Date(s): 05/03/15 14:26

Analysis Date: 06/01/15 10:35 05/03/15 17:52

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	10	0	10	100	70-130
Chloromethane	10	0	8.61	86	70-130
Vinyl chloride	10	0	9.03	90	70-130
Bromomethane	10	0	8.55	86	70-130
Chloroethane	10	0	13.2	132*	70-130
Trichlorofluoromethane	10	0	12.6	126	70-130
1,1-Dichloroethene	10	0	7.03	70	70-130
Methylene chloride	10	0	6.74	67*	70-130
trans-1,2-Dichloroethene	10	0	7.9	79	70-130
1,1-Dichloroethane	10	0	8.39	84	70-130
2,2-Dichloropropane	10	0	9.85	99	70-130
cis-1,2-Dichloroethene	10	0	8.16	82	70-130
Bromochloromethane	10	0	8.84	88	70-130
Chloroform	10	0	8.8	88	70-130
1,1,1-Trichloroethane	10	0	9.07	91	70-130
Carbon tetrachloride	10	0	9.93	99	70-130
1,1-Dichloropropene	10	0	8.88	89	70-130
1,2-Dichloroethane	10	0	8.87	89	70-130
Benzene	10	0	7.6	76	70-130
Trichloroethene	10	0	8.29	83	70-130
1,2-Dichloropropane	10	0	8.13	81	70-130
Dibromomethane	10	0	7.6	76	70-130
Bromodichloromethane	10	0	9.03	90	70-130
cis-1,3-Dichloropropene	10	0	8.48	85	70-130
Toluene	10	0	8.21	82	70-130
trans-1,3-Dichloropropene	10	0	8.92	89	70-130
1,1,2-Trichloroethane	10	0	7.32	73	70-130
Tetrachloroethene	10	0	9.61	96	70-130
1,3-Dichloropropane	10	0	7.47	75	70-130
Dibromochloromethane	10	0	9.34	93	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 2 out of 57 outside limits

COMMENTS: _____

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-AL SAS No.: _____ SDG No.: HDR012

Sample ID LFB060115 Level: (low/med) LOW

Column ID R-624 0.18 Column Diam .18

Inst. ID HP5975-1 Init. Calib. Date(s): 05/03/15 14:26

Analysis Date: 06/01/15 10:35 05/03/15 17:52

Chlorobenzene	10	0	9.16	92	70-130
1,1,1,2-Tetrachloroethane	10	0	9.7	97	70-130
Ethylbenzene	10	0	9.04	90	70-130
m,p-Xylene	20	0	18.6	93	70-130
o-Xylene	10	0	9.61	96	70-130
Styrene	10	0	9.35	94	70-130
Bromoform	10	0	10.3	103	70-130
Isopropylbenzene	10	0	9.45	95	70-130
Bromobenzene	10	0	9.22	92	70-130
1,1,2,2-Tetrachloroethane	10	0	7.18	72	70-130
1,2,3-Trichloropropane	10	0	9.12	91	70-130
n-Propylbenzene	10	0	8.66	87	70-130
2/4-Chlorotoluene	20	0	17.3	87	70-130
1,3,5-Trimethylbenzene	10	0	9.32	93	70-130
tert-Butylbenzene	10	0	9.64	96	70-130
1,2,4-Trimethylbenzene	10	0	9.65	97	70-130
sec-Butylbenzene	10	0	9.11	91	70-130
n-Butylbenzene	10	0	8.96	90	70-130
1,3-Dichlorobenzene	10	0	9.29	93	70-130
1,4-Dichlorobenzene	10	0	9.28	93	70-130
4-Isopropyltoluene	10	0	9.66	97	70-130
1,2-Dichlorobenzene	10	0	9.18	92	70-130
1,2,4-Trichlorobenzene	10	0	9.79	98	70-130
Hexachlorobutadiene	10	0	10.2	102	70-130
1,2,3-Trichlorobenzene	10	0	9.75	98	70-130
Methyl tert-butyl ether	10	0	9.63	96	70-130
Total Trihalomethanes	40	0	37.5	94	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 2 out of 57 outside limits

COMMENTS:

VOLATILE METHOD BLANK SUMMARY

VBLK060115

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012Lab File ID: P1047.DLab Sample ID: VBLK060115Date Analyzed: 06/01/15Time Analyzed: 9:46GC Column: R-624 0 ID: .18 (mm)Heated Purge: (Y/N) NInstrument ID: HP5975-1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFB060115	LFB060115	P1048.D	10:35
02	AV2	1505F17-001A	P1050.D	11:25
03	MW1	1505F17-003A	P1051.D	11:50
04	MW3	1505F17-004A	P1052.D	12:15
05	MW4B	1505F17-005A	P1053.D	12:40
06	MW6	1505F17-006A	P1054.D	13:04
07	MW7	1505F17-007A	P1055.D	13:29
08	MWRC1	1505F17-002A	P1056.D	13:55
09	RW1	1505F17-012A	P1057.D	14:19
10	RW2	1505F17-013A	P1058.D	14:44
11	RW3	1505F17-014A	P1059.D	15:09

COMMENTS:

page 1 of 1

VOLATILE METHOD BLANK SUMMARY

VBLK060115A

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012Lab File ID: P1066.DLab Sample ID: VBLK060115ADate Analyzed: 06/01/15Time Analyzed: 18:27GC Column: R-624 0 ID: .18 (mm)Heated Purge: (Y/N) NInstrument ID: HP5975-1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFB060115A	LFB060115A	P1068.D	19:41
02	TB-1	1505F17-015A	P1070.D	20:31
03	STORAGE BLANK	1505F17-016A	P1071.D	20:56
04	MW12	1505F17-008A	P1072.D	21:21
05	MW13	1505F17-009A	P1073.D	21:45
06	MW14	1505F17-010A	P1074.D	22:10
07	MW64	1505F17-011A	P1075.D	22:35
08	MWRC1DL	1505F17-002ADL	P1076.D	23:00
09	RW1DL	1505F17-012ADL	P1077.D	23:25
10	RW2DL	1505F17-013ADL	P1078.D	23:50
11	RW3DL	1505F17-014ADL	P1079.D	0:14
12	MW14MS	1505F17-010AMS	P1080.D	0:39
13	MW14MSD	1505F17-010AMSD	P1081.D	1:04

COMMENTS:

page 1 of 1

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: PACE ANALYTICAL Contract: _____
 Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012
 Lab File ID: P0522.D BFB Injection Date: 05/03/15
 Instrument ID: HP5975-1 BFB Injection Time: 10:48
 GC Column: R-624 0 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.4
75	30.0 - 80.0% of mass 95	51.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	Greater than 50.0% of mass 95	73.1
175	5.0 - 9.0% of mass 174	5.7 (7.7)1
176	95.0 - 101.0% of mass 174	70.3 (96.2)1
177	5.0 - 9.0% of mass 176	4.5 (6.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0.50	VSTD0.50	P0526.D	05/03/15	14:26
02	VSTD5.0	VSTD5.0	P0527.D	05/03/15	15:07
03	VSTD10.0	VSTD10.0	P0528.D	05/03/15	15:49
04	VSTD50	VSTD50	P0530.D	05/03/15	17:11
05	VSTD100	VSTD100	P0531.D	05/03/15	17:52

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: PACE ANALYTICAL Contract: _____
 Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012
 Lab File ID: P1044.D BFB Injection Date: 06/01/15
 Instrument ID: HP5975-1 BFB Injection Time: 8:00
 GC Column: R-624 0 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 80.0% of mass 95	51.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.1 (1.3)1
174	Greater than 50.0% of mass 95	86.2
175	5.0 - 9.0% of mass 174	6.7 (7.7)1
176	95.0 - 101.0% of mass 174	84.1 (97.5)1
177	5.0 - 9.0% of mass 176	5.9 (7.0)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	P1046.D	06/01/15	9:22
02	VLK060115	VLK060115	P1047.D	06/01/15	9:46
03	LFB060115	LFB060115	P1048.D	06/01/15	10:35
04	AV2	1505F17-001A	P1050.D	06/01/15	11:25
05	MW1	1505F17-003A	P1051.D	06/01/15	11:50
06	MW3	1505F17-004A	P1052.D	06/01/15	12:15
07	MW4B	1505F17-005A	P1053.D	06/01/15	12:40
08	MW6	1505F17-006A	P1054.D	06/01/15	13:04
09	MW7	1505F17-007A	P1055.D	06/01/15	13:29
10	MWRC1	1505F17-002A	P1056.D	06/01/15	13:55
11	RW1	1505F17-012A	P1057.D	06/01/15	14:19
12	RW2	1505F17-013A	P1058.D	06/01/15	14:44
13	RW3	1505F17-014A	P1059.D	06/01/15	15:09

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: PACE ANALYTICAL Contract: _____
 Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012
 Lab File ID: P1061.D BFB Injection Date: 06/01/15
 Instrument ID: HP5975-1 BFB Injection Time: 15:58
 GC Column: R-624 0 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 80.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.7 (0.9)1
174	Greater than 50.0% of mass 95	83.9
175	5.0 - 9.0% of mass 174	6.5 (7.8)1
176	95.0 - 101.0% of mass 174	81.8 (97.4)1
177	5.0 - 9.0% of mass 176	5.3 (6.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	P1062.D	06/01/15	16:23
02	VLK060115A	VLK060115A	P1066.D	06/01/15	18:27
03	LFB060115A	LFB060115A	P1068.D	06/01/15	19:41
04	TB-1	1505F17-015A	P1070.D	06/01/15	20:31
05	STORAGE BLANK	1505F17-016A	P1071.D	06/01/15	20:56
06	MW12	1505F17-008A	P1072.D	06/01/15	21:21
07	MW13	1505F17-009A	P1073.D	06/01/15	21:45
08	MW14	1505F17-010A	P1074.D	06/01/15	22:10
09	MW64	1505F17-011A	P1075.D	06/01/15	22:35
10	MWRC1DL	1505F17-002ADL	P1076.D	06/01/15	23:00
11	RW1DL	1505F17-012ADL	P1077.D	06/01/15	23:25
12	RW2DL	1505F17-013ADL	P1078.D	06/01/15	23:50
13	RW3DL	1505F17-014ADL	P1079.D	06/02/15	0:14
14	MW14MS	1505F17-010AMS	P1080.D	06/02/15	0:39
15	MW14MSD	1505F17-010AMSD	P1081.D	06/02/15	1:04

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA

SAS No.: _____

SDG No.: HDR012Lab File ID (Standard): P1046.DDate Analyzed: 06/01/15EPA Sample No. (VSTD050##): VSTD010Time Analyzed: 9:22Instrument ID: HP5975-1Heated Purge: (Y/N) NGC Column: R-624 0 ID: .18 (mm)

	IS1 AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	113825	4.196	0	0	0	0
UPPER LIMIT	227650	4.696	0	0.5	0	0.5
LOWER LIMIT	56913	3.696	0	-0.5	0	-0.5
EPA SAMPLE						
01 VBLK060115	115567	4.20				
02 LFB060115	114145	4.20				
03 AV2	111494	4.20				
04 MW1	107048	4.20				
05 MW3	107752	4.20				
06 MW4B	96069	4.20				
07 MW6	106287	4.20				
08 MW7	101863	4.20				
09 MWRC1	108322	4.20				
10 RW1	100046	4.20				
11 RW2	124149	4.20				
12 RW3	105534	4.20				

IS1 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012

Lab File ID (Standard): P1062.D Date Analyzed: 06/01/15

EPA Sample No. (VSTD050##): VSTD010 Time Analyzed: 16:23

Instrument ID: HP5975-1 Heated Purge: (Y/N) N

GC Column: R-624 0 ID: .18 (mm)

	IS1 AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	106822	4.196	0	0	0	0
UPPER LIMIT	213644	4.696	0	0.5	0	0.5
LOWER LIMIT	53411	3.696	0	-0.5	0	-0.5
EPA SAMPLE						
01 VBLK060115A	98918	4.20				
02 LFB060115A	105962	4.20				
03 TB-1	103504	4.20				
04 STORAGE BLANK	102562	4.20				
05 MW12	100687	4.20				
06 MW13	100528	4.20				
07 MW14	98183	4.20				
08 MW64	98946	4.20				
09 MWRC1DL	96379	4.20				
10 RW1DL	93273	4.20				
11 RW2DL	82273	4.20				
12 RW3DL	87718	4.20				
13 MW14MS	97337	4.20				
14 MW14MSD	91473	4.20				

IS1 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = -50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.



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II. SAMPLE DATA PACKAGE FOR VOLATILE ORGANICS

- A. REPORTS**
- B. RAW DATA**



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QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(300 \text{ U})}{D} \times \text{df where } D = \frac{100\% \text{ moisture}}{100}$$

and df - dilution factor

$$\text{For example, at 24\% moisture, } D = \frac{100 - 24}{100} = 0.76$$

$$\frac{(300 \text{ U})}{.76} \times 10 = 4300 \text{ U rounded to the appropriate number of significant figures}$$

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 µg/L and a concentration of 3 µg/L is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported of Form I with a "P".

C - This flag applies to pesticide results when the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory defined flag, discussed below.



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B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.

E - This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 µg/L or the peak representing the two coeluting isomers on that GC column exceed 400 µg/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 µg/L.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG narrative. Begin by using "X". If more than one flag is required use "Y" and "Z" as needed. If more than five qualifiers are required for a sample result, used the "X" flag to combine several flags as needed. For instance, the "X" flag might combine "A", "B", and "D" flags for some samples. The laboratory defined flags limited to the letters "X", "Y" and "Z".

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

Y Suspected secondary contamination.

X Analyte is suspected column bleed

Z Analyte had a %D greater then 20% in the daily CCV



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CODES FOR MANUAL CORRECTIONS

- T:** Transcription error
- CE:** Calculation error
- CC:** Changed per client request
- SC:** Sample cancelled
- LB:** Wrong spot in logbook
- MP:** Missed peak
- MIP:** Misintegrated peak
- WI:** Wrong isomer
- TI:** Total of isomers

VOLATILE ORGANICS ANALYSIS DATA SHEET

AV2

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-001ASample wt/vol: 5(g/mL) MLLab File ID: P1050.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	1	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	1	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	7	
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

AV2

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-001ASample wt/vol: 5 (g/mL) MLLab File ID: P1050.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

AV2

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-001ASample wt/vol: 5(g/mL) mLLab File ID: P1050.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1050.D
Acq On : 1 Jun 2015 11:25
Operator : MN
Sample : 1505F17-001A
Misc : HDR012,AV2,H2O,SAMP,,
ALS Vial : 55 Sample Multiplier: 1
InstName : HP5975

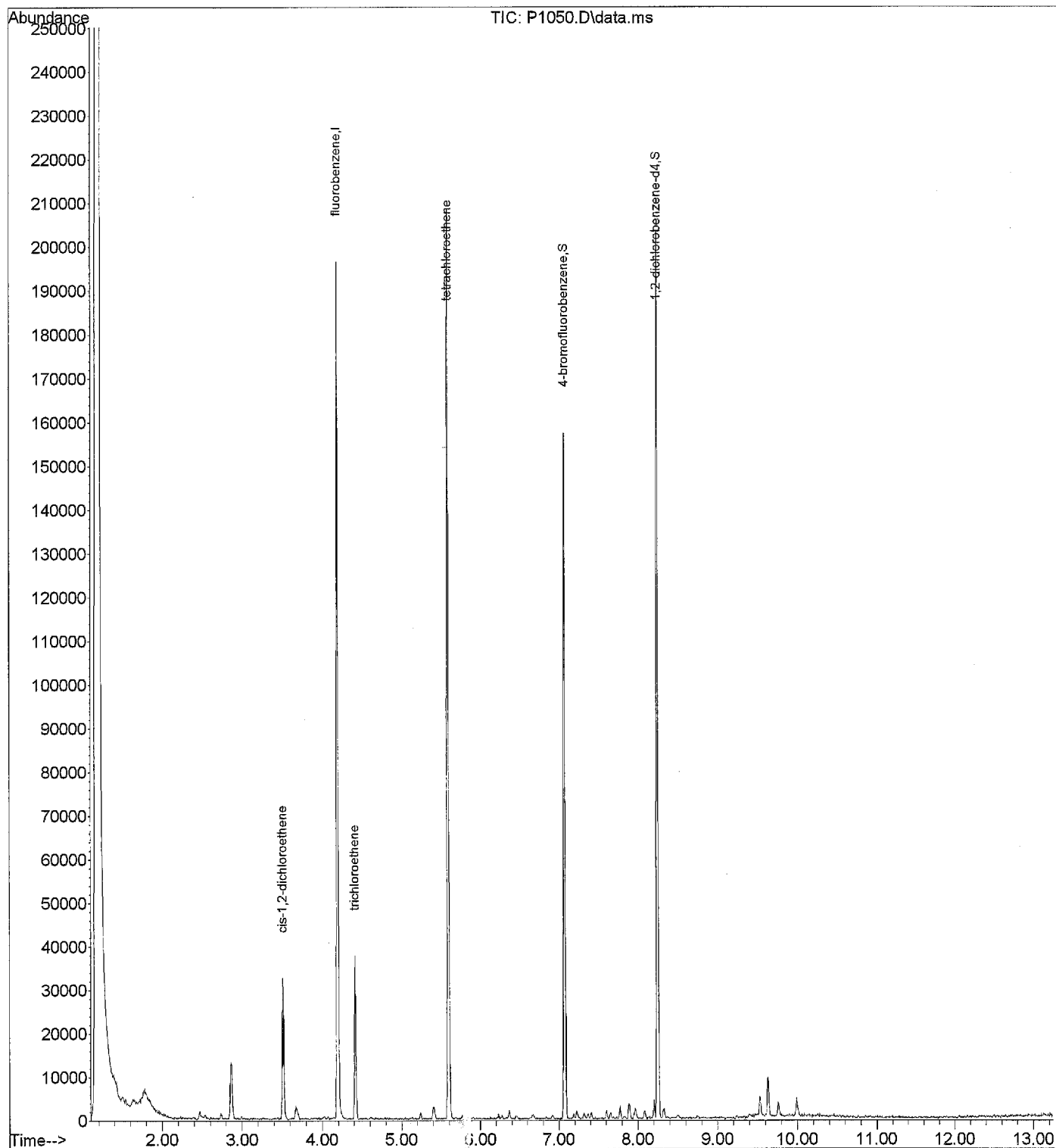
Quant Time: Jun 01 11:38:54 2015

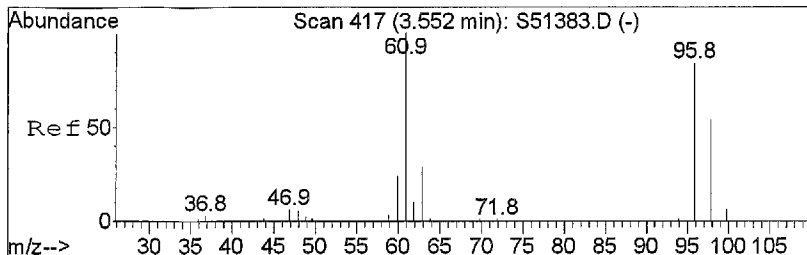
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

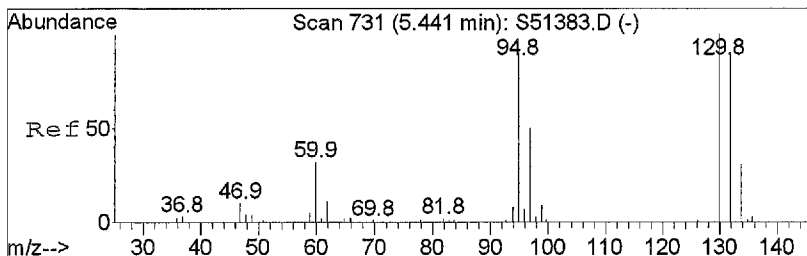
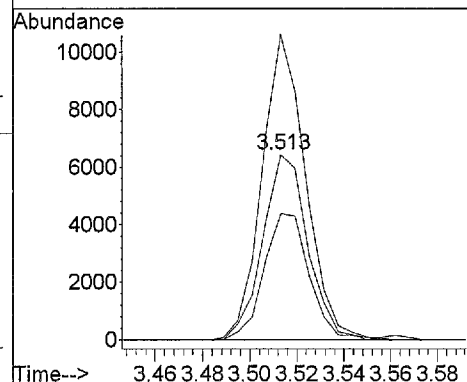
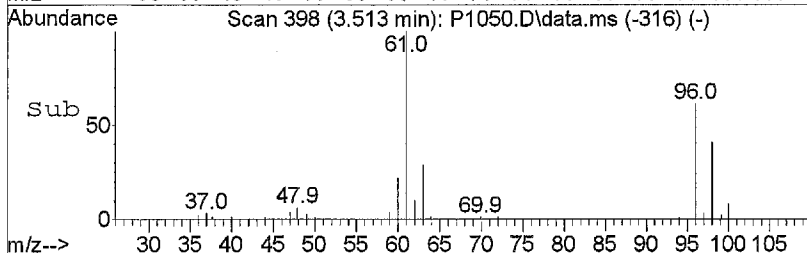
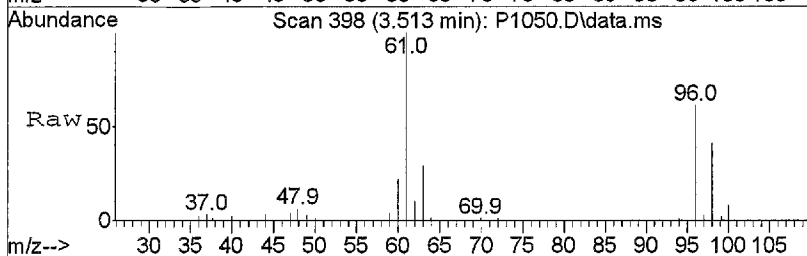
Response via : Initial Calibration





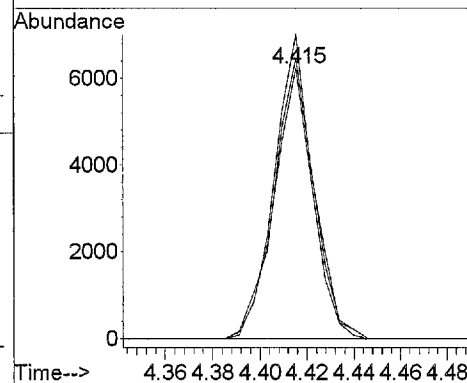
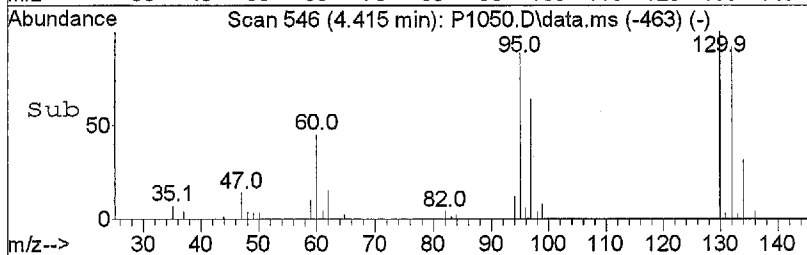
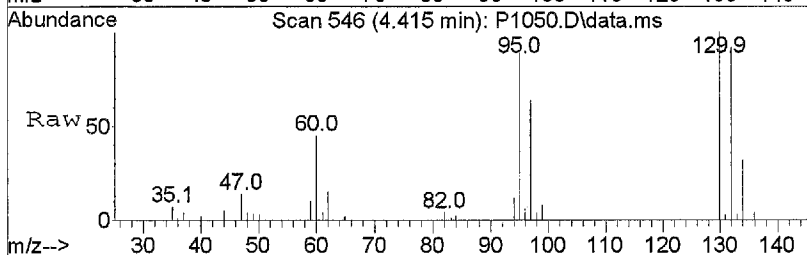
#24
 cis-1,2-dichloroethene
 Concen: 1.17 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1050.D
 Acq: 1 Jun 2015 11:25

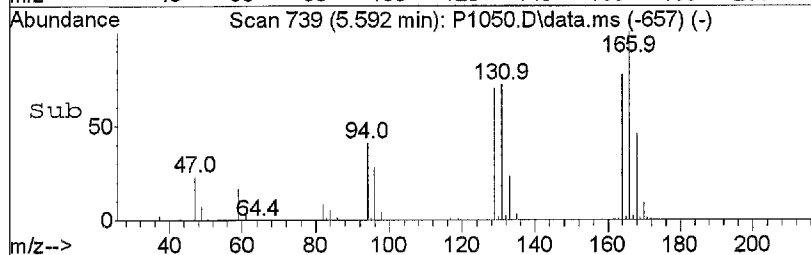
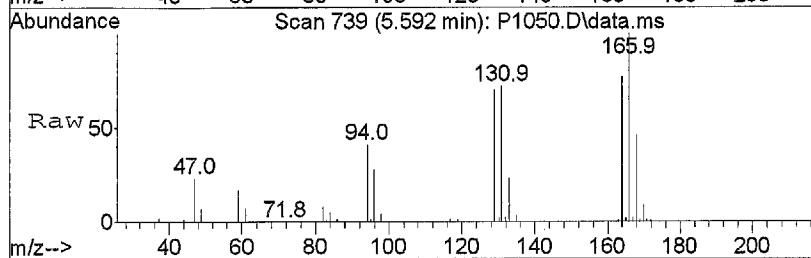
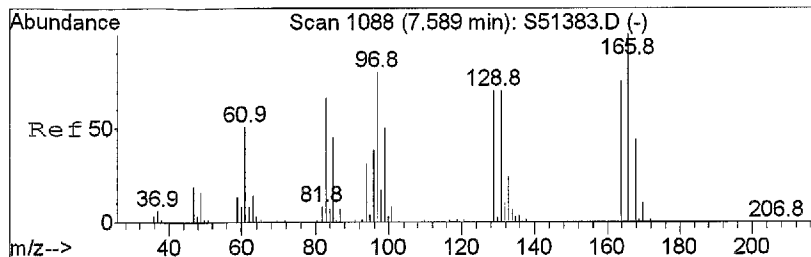
Tgt Ion: 96 Resp: 8520
 Ion Ratio Lower Upper
 96 100
 61 159.9 133.7 173.7
 98 68.7 41.8 81.8



#41
 trichloroethene
 Concen: 1.00 UG/L
 RT: 4.415 min Scan# 546
 Delta R.T. 0.006 min
 Lab File: P1050.D
 Acq: 1 Jun 2015 11:25

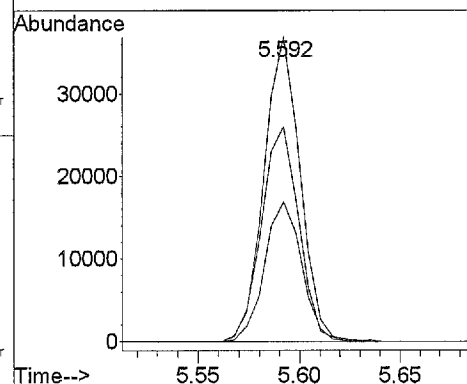
Tgt Ion: 95 Resp: 7115
 Ion Ratio Lower Upper
 95 100
 130 113.5 58.8 98.8#
 132 107.5 48.5 88.5#





#56
 tetrachloroethene
 Concen: 6.50 UG/L
 RT: 5.592 min Scan# 739
 Delta R.T. 0.000 min
 Lab File: P1050.D
 Acq: 1 Jun 2015 11:25

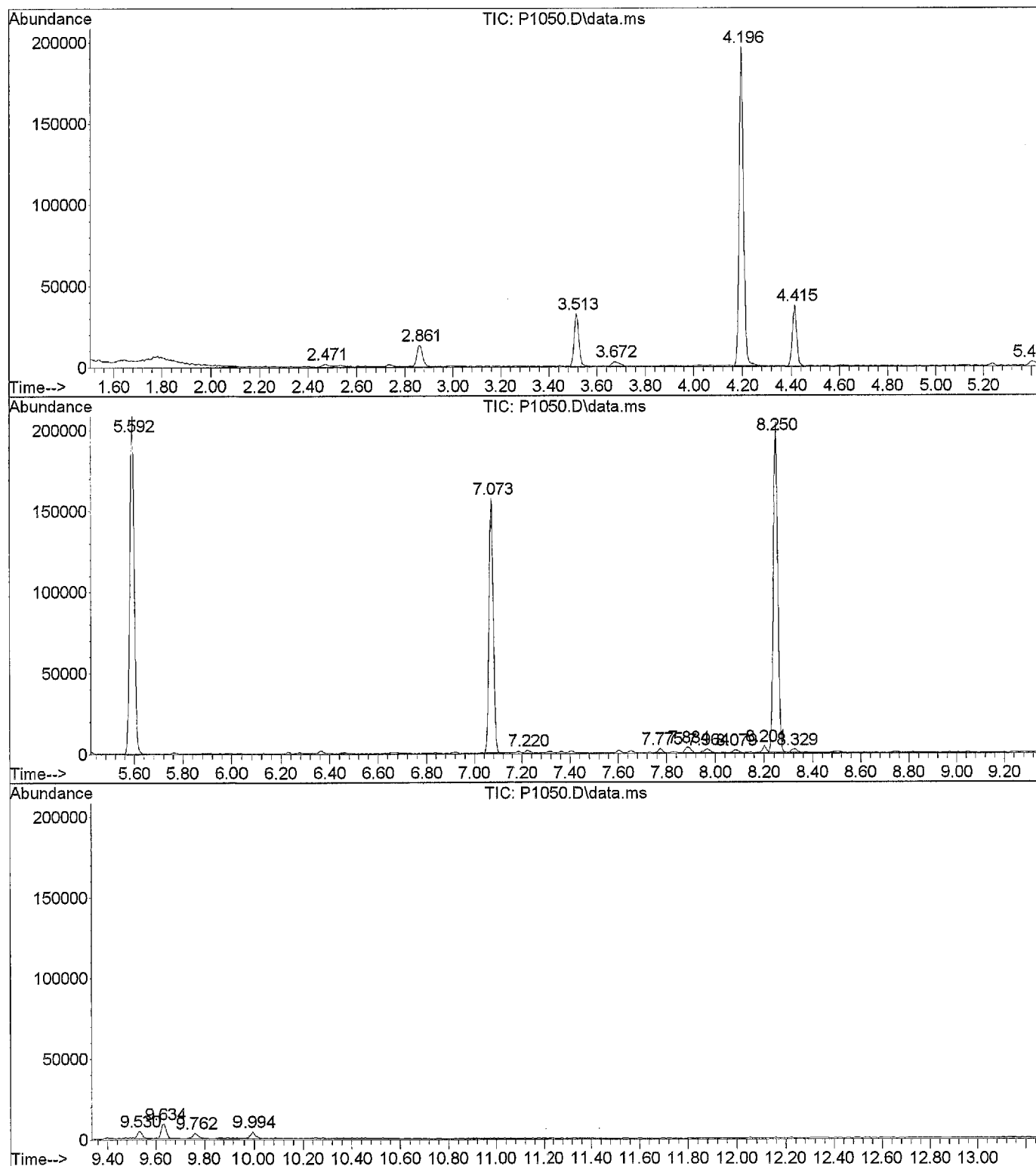
Tgt Ion:166 Resp: 45702
 Ion Ratio Lower Upper
 166 100
 168 47.0 28.3 68.3
 129 72.7 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1050.D
Acq On : 1 Jun 2015 11:25
Operator : MN
Sample : 1505F17-001A
Misc : HDR012,AV2,H2O,SAMP,,
ALS Vial : 55 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1050.D
 Acq On : 1 Jun 2015 11:25
 Operator : MN
 Sample : 1505F17-001A
 Misc : HDR012,AV2,H2O,SAMP,,
 ALS Vial : 55 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 11:38:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	111494	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	32543	4.87	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	97.40%	
87) 1,2-dichlorobenzene-d4	8.250	152	41215	4.29	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	85.80%	
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	8520	1.17	UG/L	94
41) trichloroethene	4.415	95	7115	1.00	UG/L	# 56
56) tetrachloroethene	5.592	166	45702	6.50	UG/L	97

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1050.D
Acq On : 1 Jun 2015 11:25
Operator : MN
Sample : 1505F17-001A
Misc : HDR012,AV2,H2O,SAMP,,
ALS Vial : 55 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MWRC1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-002ASample wt/vol: 5(g/mL) MLLab File ID: P1056.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	15	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	510	E
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	16	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	92	
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MWRC1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-002ASample wt/vol: 5 (g/mL) MLLab File ID: P1056.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(µg/L or µg/Kg) UG/L

Q

100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MWRC1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATER

Lab Sample ID:

1505F17-002ASample wt/vol: 5(g/mL) mL

Lab File ID:

P1056.DLevel: (low/med) LOW

Date Received:

05/20/15

% Moisture: not dec.

Date Analyzed:

06/01/15GC Column: R-624 0.18ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume:

0

(μL)

CONCENTRATION UNITS:

Number TICs found:

0

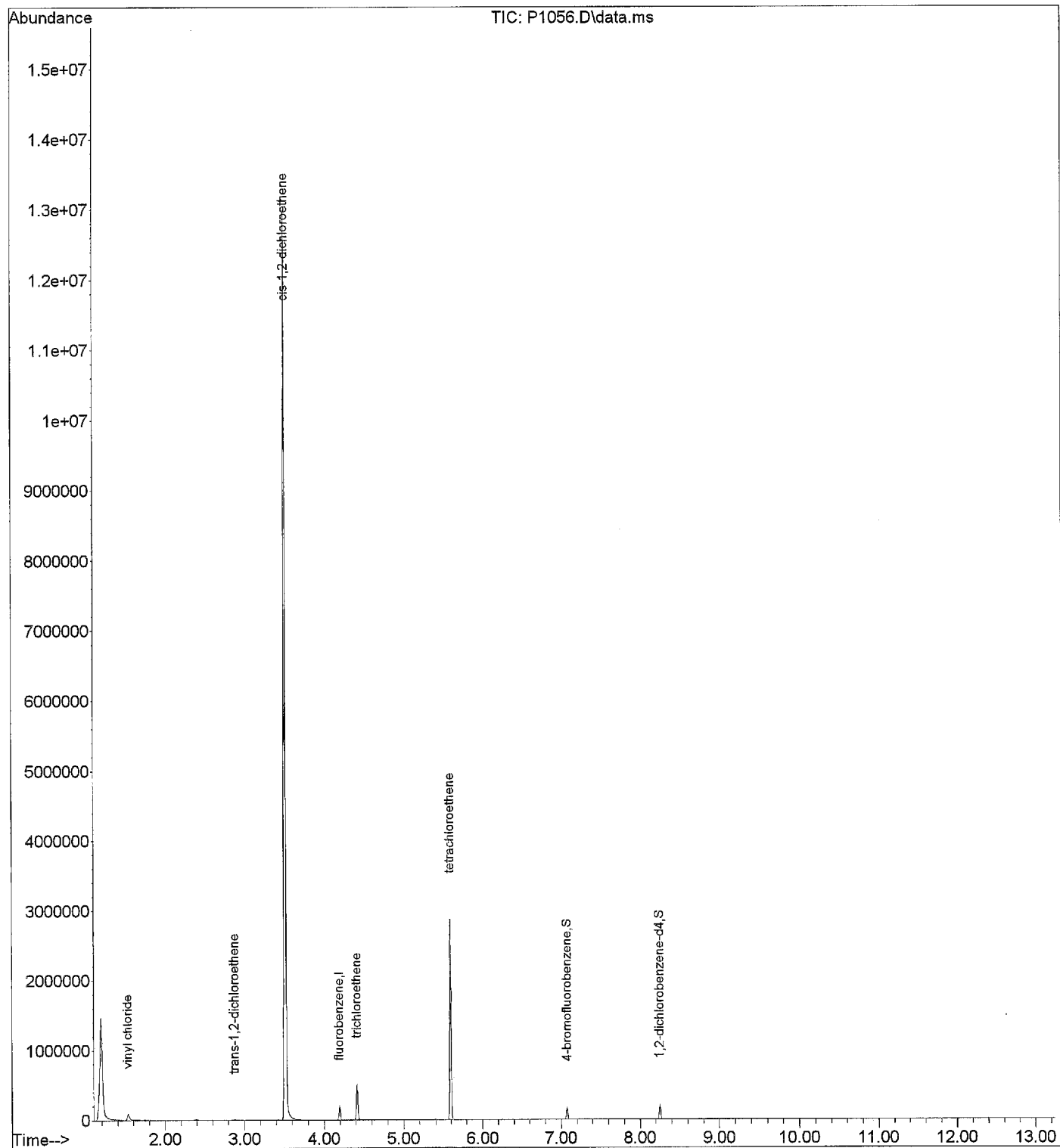
(μg/L or μg/Kg)

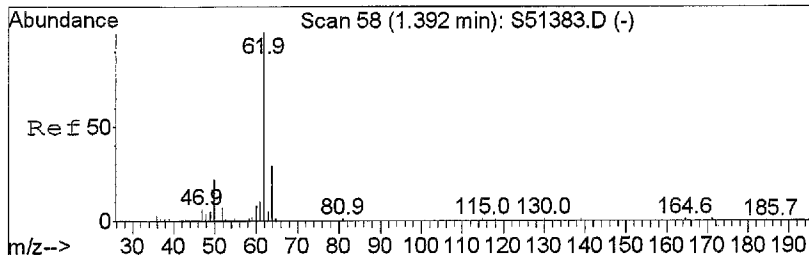
μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
------------	---------------	----	------------	---

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1056.D
Acq On : 1 Jun 2015 13:55
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,SAMP,,
ALS Vial : 61 Sample Multiplier: 1
InstName : HP5975

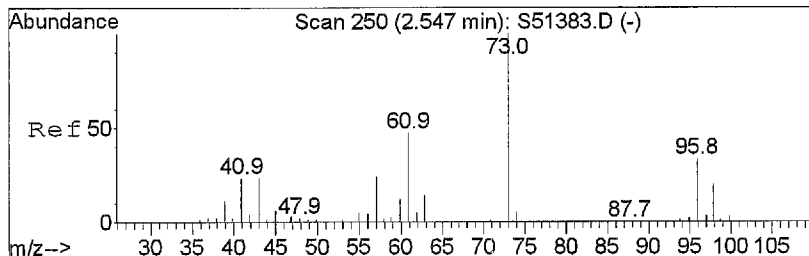
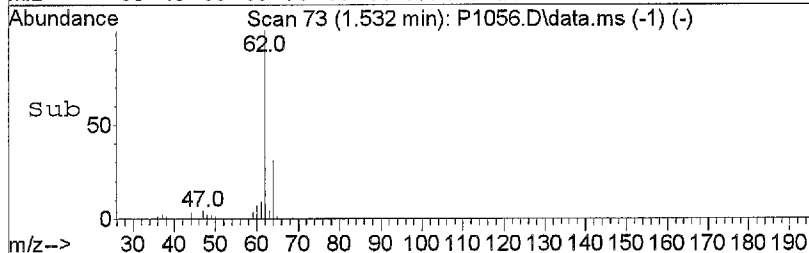
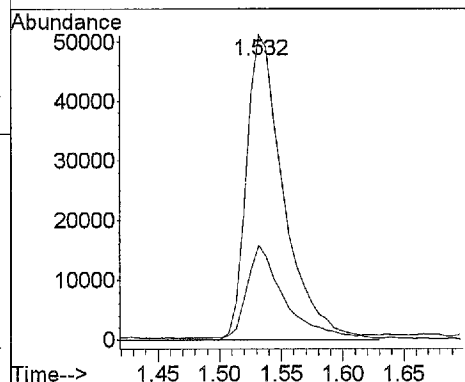
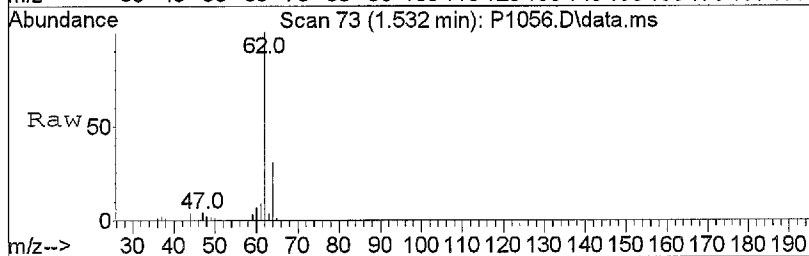
Quant Time: Jun 02 10:25:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





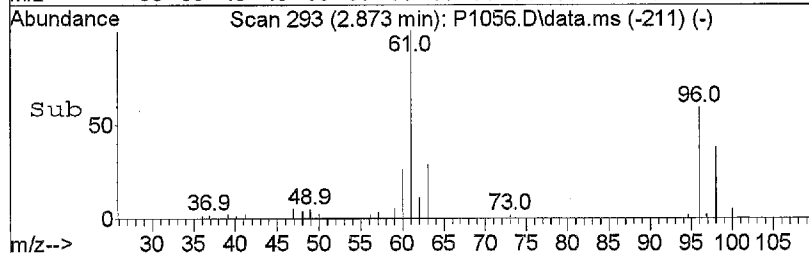
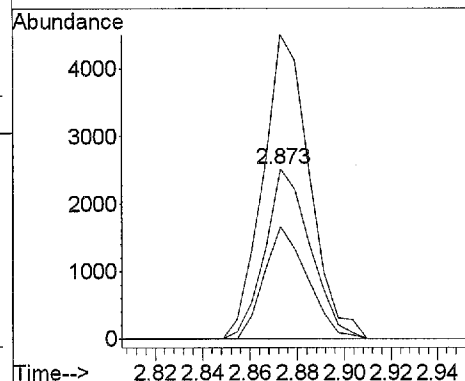
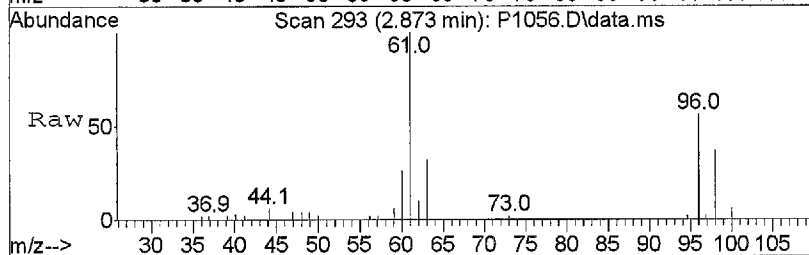
#5
vinyl chloride
Concen: 15.03 UG/L
RT: 1.532 min Scan# 73
Delta R.T. -0.000 min
Lab File: P1056.D
Acq: 1 Jun 2015 13:55

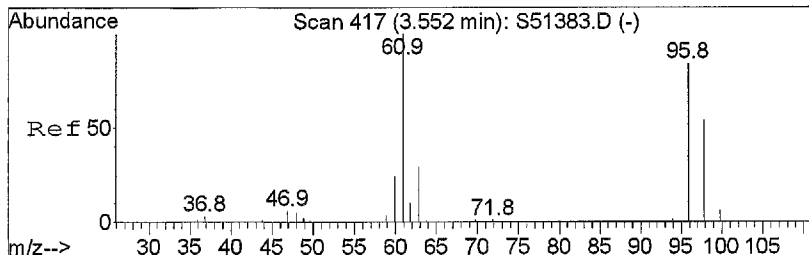
Tgt Ion: 62 Resp: 107168
Ion Ratio Lower Upper
62 100
64 29.6 10.3 50.3



#20
trans-1,2-dichloroethene
Concen: 0.51 UG/L
RT: 2.873 min Scan# 293
Delta R.T. 0.000 min
Lab File: P1056.D
Acq: 1 Jun 2015 13:55

Tgt Ion: 96 Resp: 3332
Ion Ratio Lower Upper
96 100
61 185.0 140.1 180.1#
98 62.8 43.2 83.2

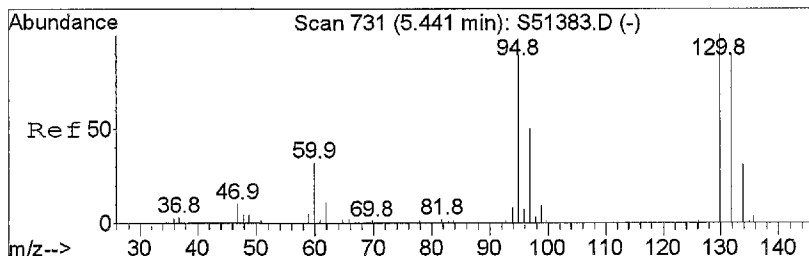
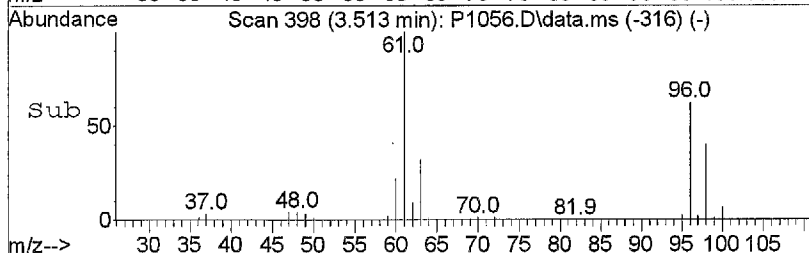
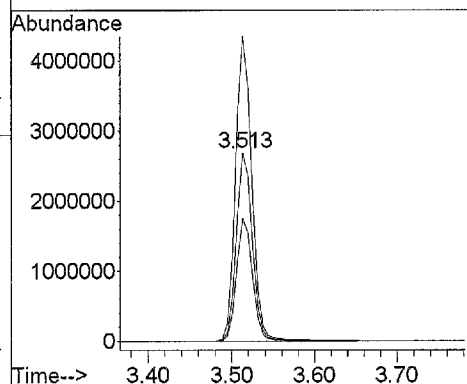
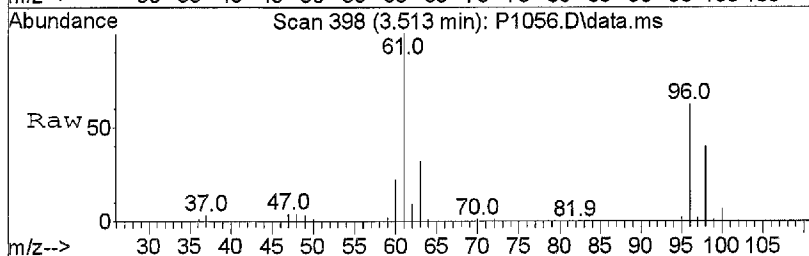




#24
 cis-1,2-dichloroethene
 Concen: 508.45 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1056.D
 Acq: 1 Jun 2015 13:55

Tgt Ion: 96 Resp: 3598102

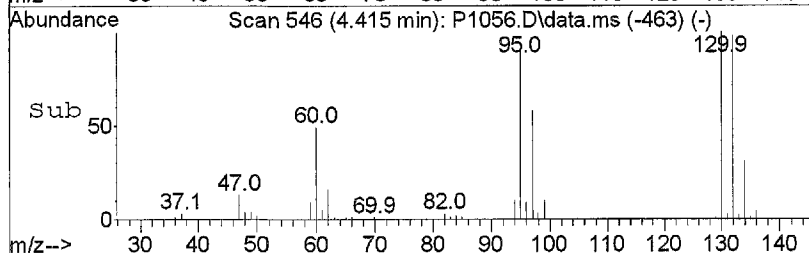
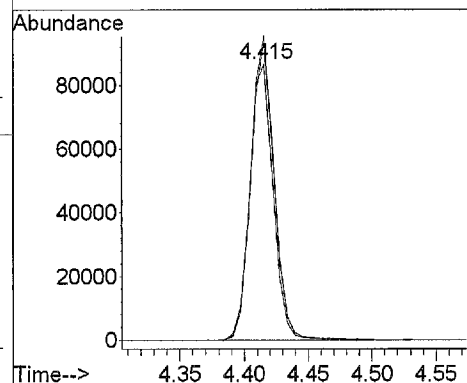
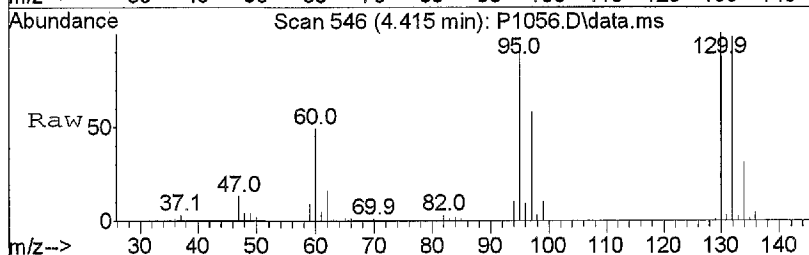
Ion	Ratio	Lower	Upper
96	100		
61	163.4	133.7	173.7
98	65.0	41.8	81.8

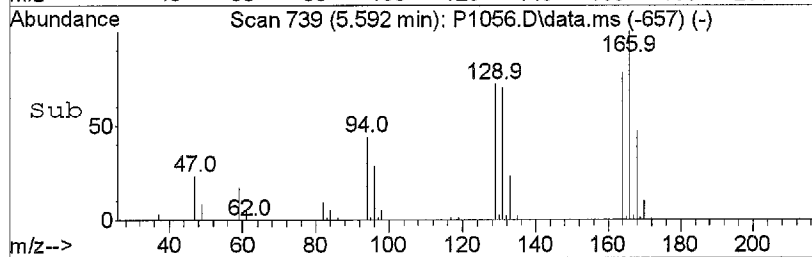
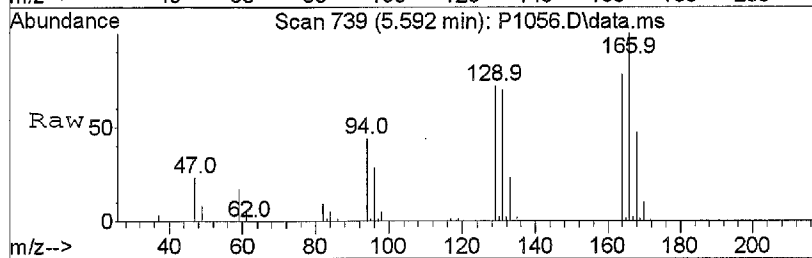
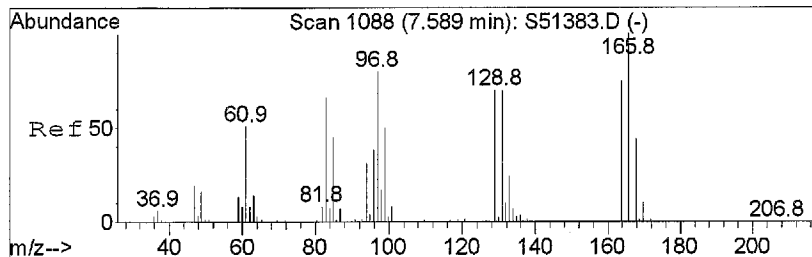


#41
 trichloroethene
 Concen: 16.12 UG/L
 RT: 4.415 min Scan# 546
 Delta R.T. 0.006 min
 Lab File: P1056.D
 Acq: 1 Jun 2015 13:55

Tgt Ion: 95 Resp: 111013

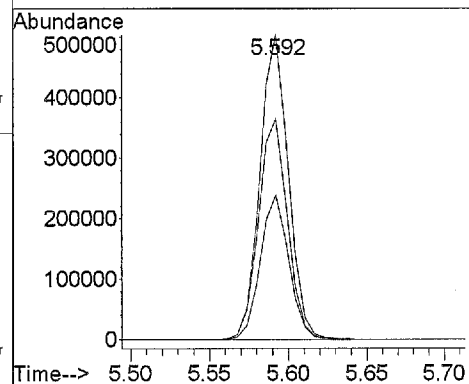
Ion	Ratio	Lower	Upper
95	100		
130	108.7	58.8	98.8#
132	105.7	48.5	88.5#





#56
 tetrachloroethene
 Concen: 91.87 UG/L
 RT: 5.592 min Scan# 739
 Delta R.T. 0.000 min
 Lab File: P1056.D
 Acq: 1 Jun 2015 13:55

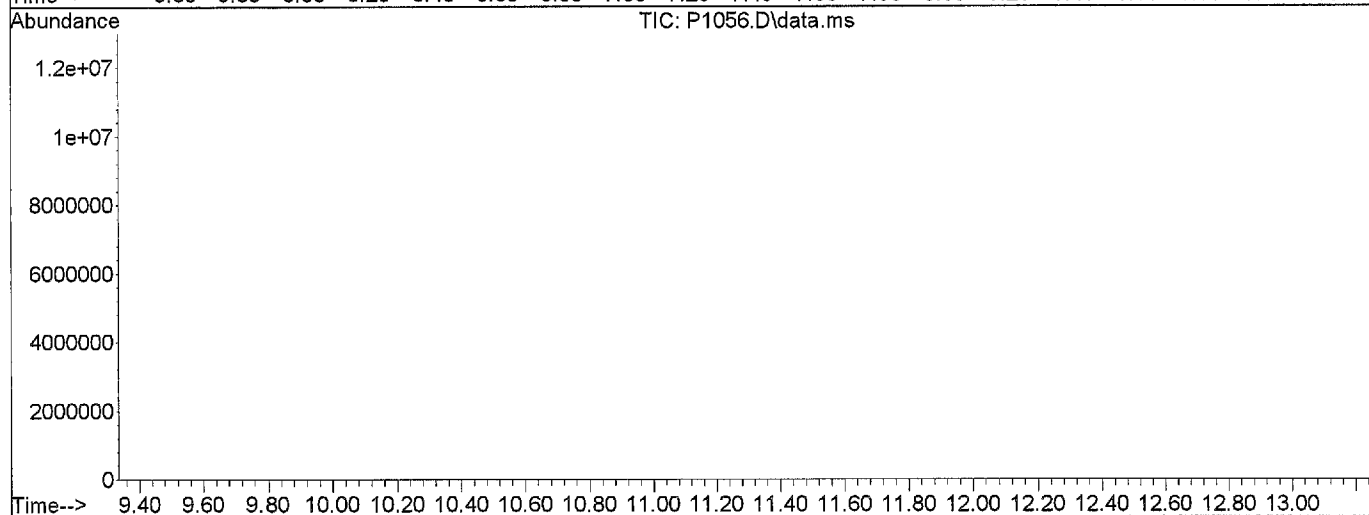
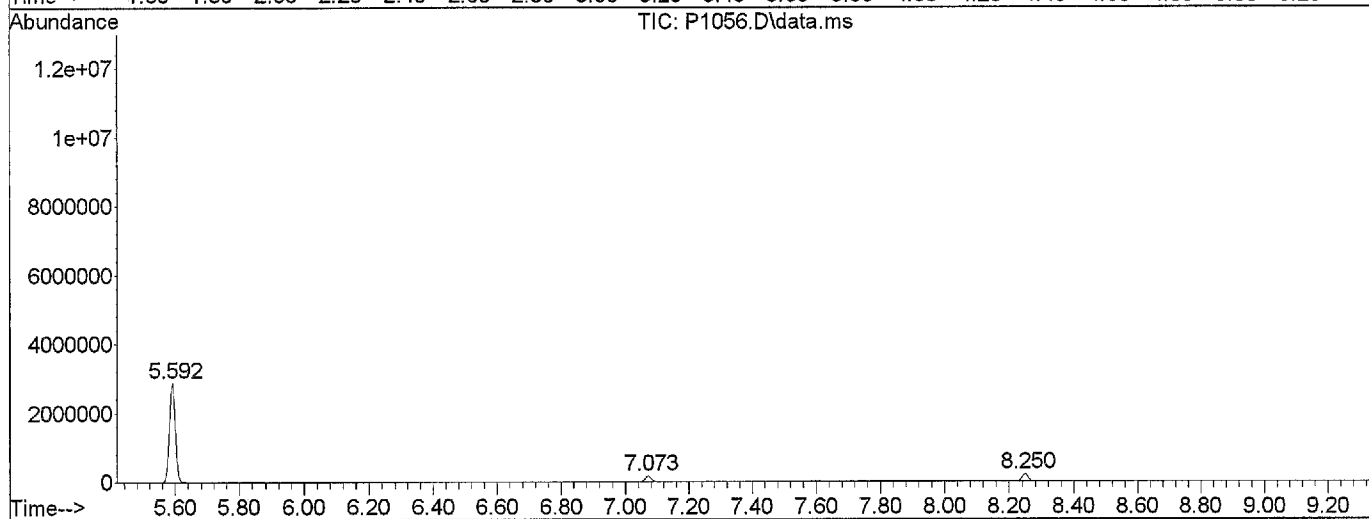
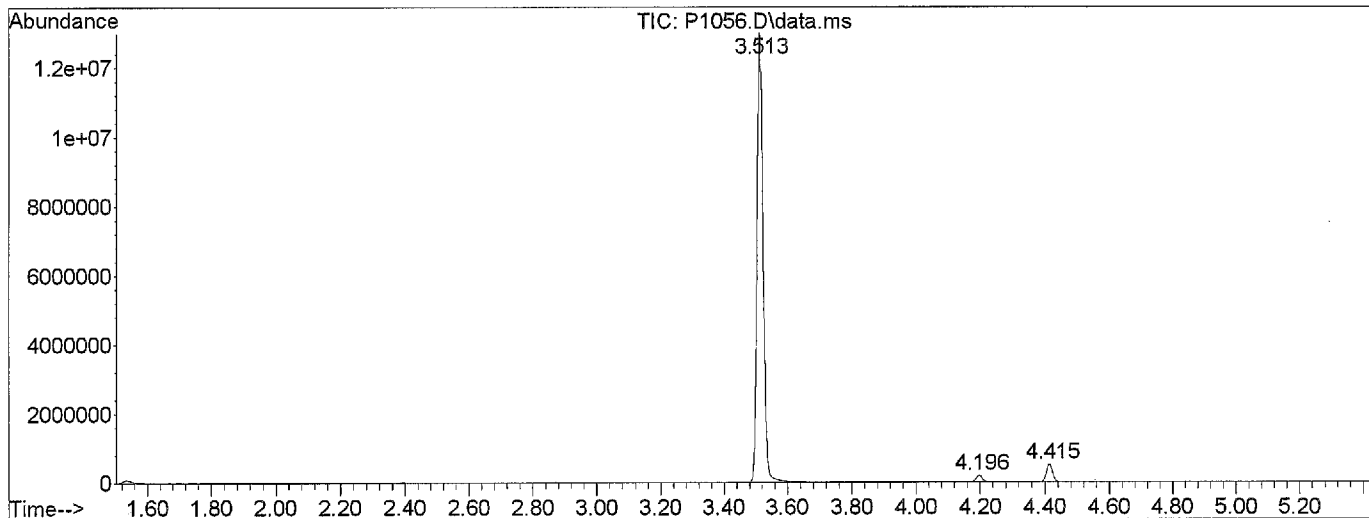
Tgt Ion:166 Resp: 627160
 Ion Ratio Lower Upper
 166 100
 168 47.6 28.3 68.3
 129 73.8 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1056.D
Acq On : 1 Jun 2015 13:55
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,SAMP,,
ALS Vial : 61 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1056.D
Acq On : 1 Jun 2015 13:55
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,SAMP,,
ALS Vial : 61 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 02 10:25:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	108322	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	33431	5.15	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	103.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	42557	4.56	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	91.20%	
Target Compounds						
5) vinyl chloride	1.532	62	107168	15.03	UG/L	99
20) trans-1,2-dichloroethene	2.873	96	3332	0.51	UG/L #	86
24) cis-1,2-dichloroethene	3.513	96	3598102	508.45	UG/L	93
41) trichloroethene	4.415	95	111013	16.12	UG/L #	60
56) tetrachloroethene	5.592	166	627160	91.87	UG/L	98

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1056.D
Acq On : 1 Jun 2015 13:55
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,SAMP,,
ALS Vial : 61 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MWRC1DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-002ADLSample wt/vol: 5 (g/mL) MLLab File ID: P1076.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 20.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	15	D
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	580	D
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	17	D
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	100	D
142-28-9	1,3-Dichloropropane	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
179601-23-1	m,p-Xylene	10	U
95-47-6	o-Xylene	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MWRC1DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-002ADLSample wt/vol: 5(g/mL) MLLab File ID: P1076.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 20.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U
103-65-1	n-Propylbenzene	10	U
	2/4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
104-51-8	n-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
	Total Trihalomethanes	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MWRC1DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATER

Lab Sample ID:

1505F17-002ADLSample wt/vol: 5(g/mL) mL

Lab File ID:

P1076.DLevel: (low/med) LOW

Date Received:

05/20/15

% Moisture: not dec.

Date Analyzed:

06/01/15GC Column: R-624 0.18ID: .18 (mm)

Dilution Factor:

20.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume:

0

(μL)

CONCENTRATION UNITS:

Number TICs found:

0

(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
------------	---------------	----	------------	---

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1076.D
Acq On : 1 Jun 2015 23:00
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,DL,, 1:20
ALS Vial : 37 Sample Multiplier: 1
InstName : HP5975

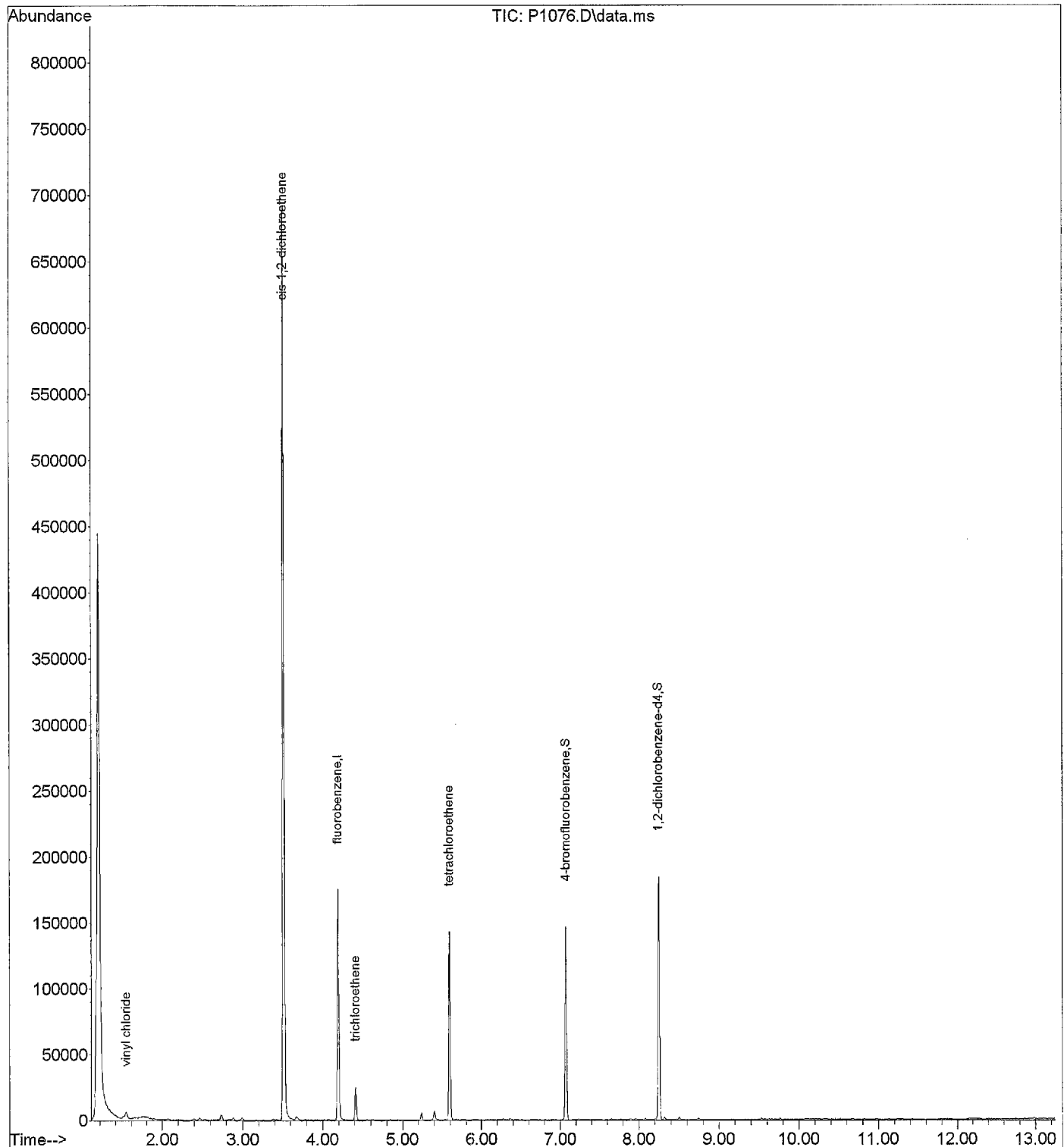
Quant Time: Jun 01 23:13:48 2015

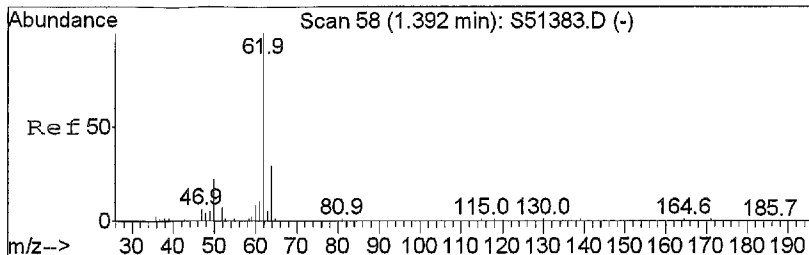
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

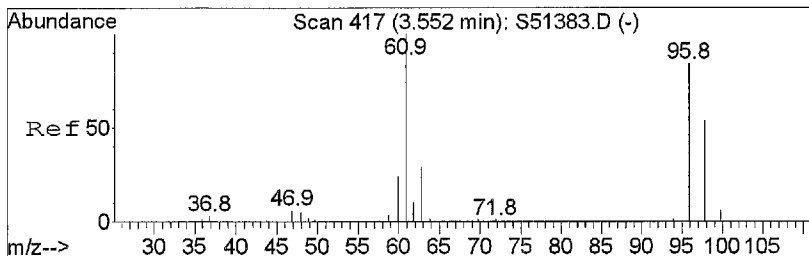
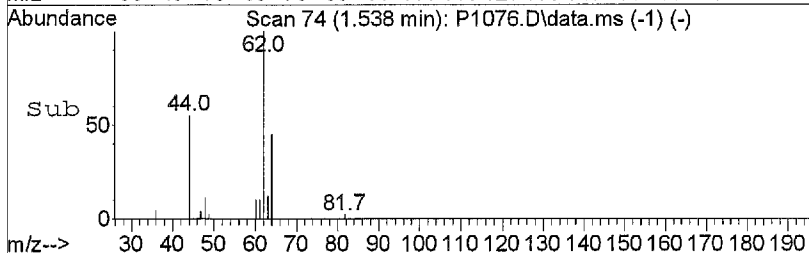
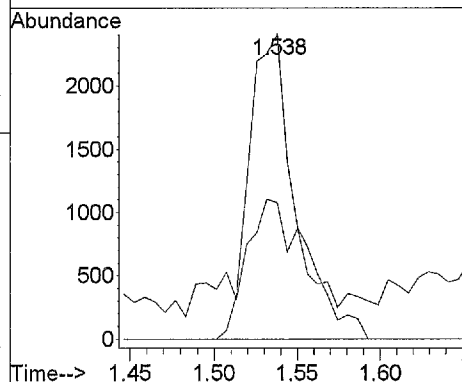
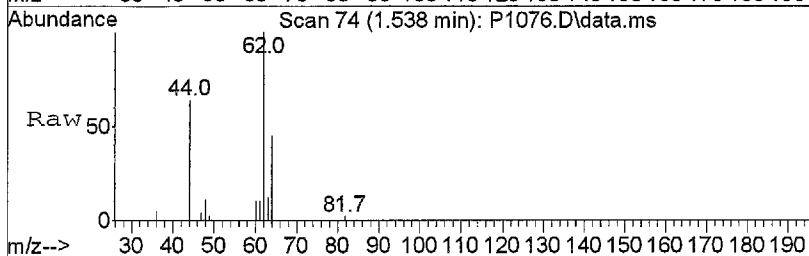
Response via : Initial Calibration





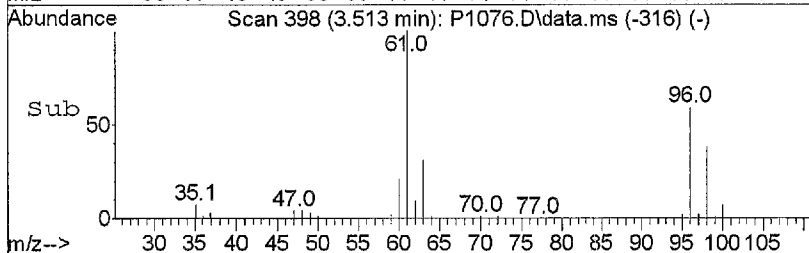
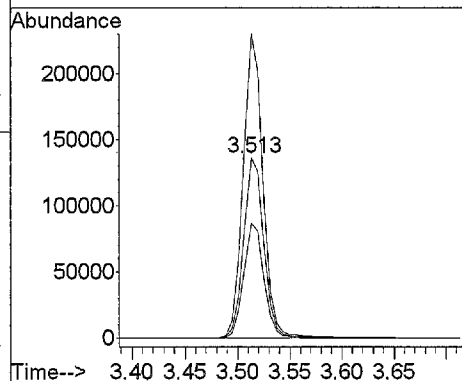
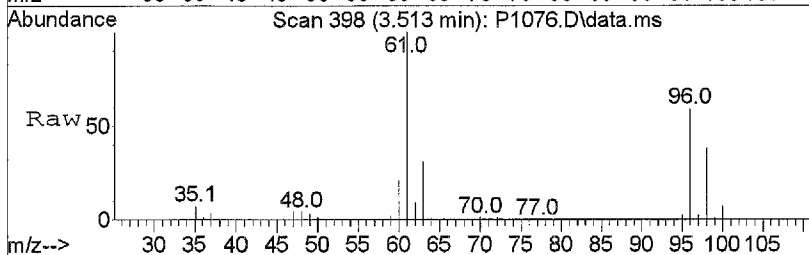
#5
vinyl chloride
Concen: 0.74 UG/L
RT: 1.538 min Scan# 74
Delta R.T. 0.006 min
Lab File: P1076.D
Acq: 1 Jun 2015 23:00

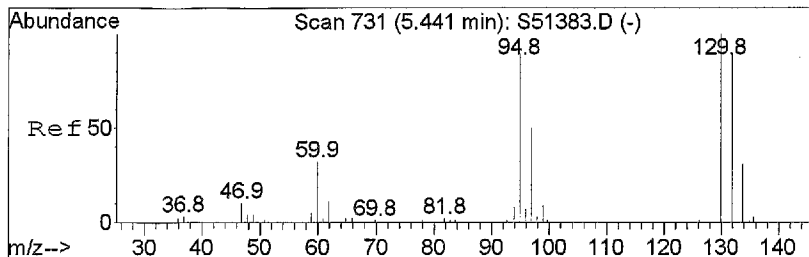
Tgt Ion: 62 Resp: 4708
Ion Ratio Lower Upper
62 100
64 35.0 10.3 50.3



#24
cis-1,2-dichloroethene
Concen: 29.07 UG/L
RT: 3.513 min Scan# 398
Delta R.T. 0.000 min
Lab File: P1076.D
Acq: 1 Jun 2015 23:00

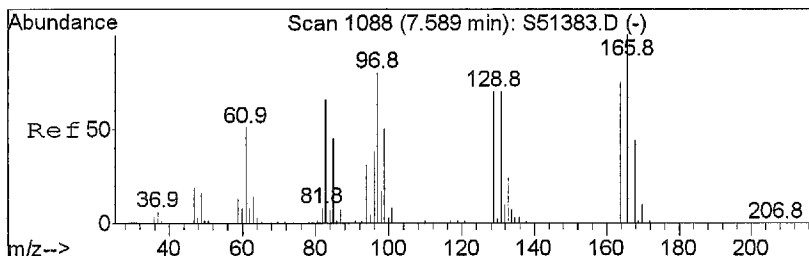
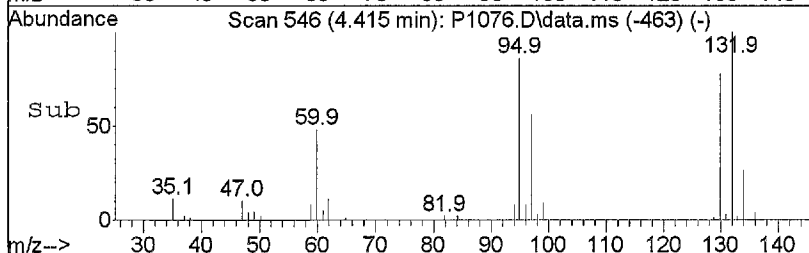
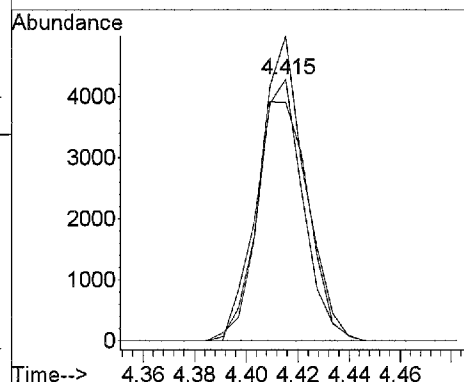
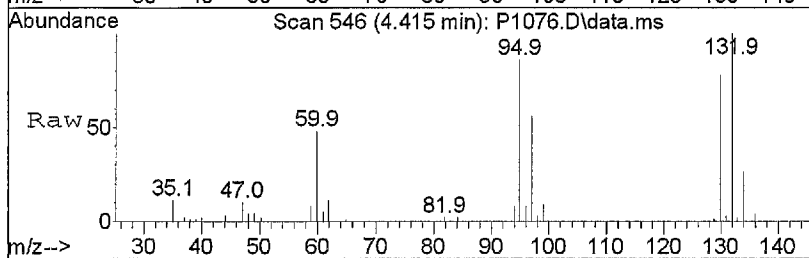
Tgt Ion: 96 Resp: 183017
Ion Ratio Lower Upper
96 100
61 164.9 133.7 173.7
98 63.9 41.8 81.8





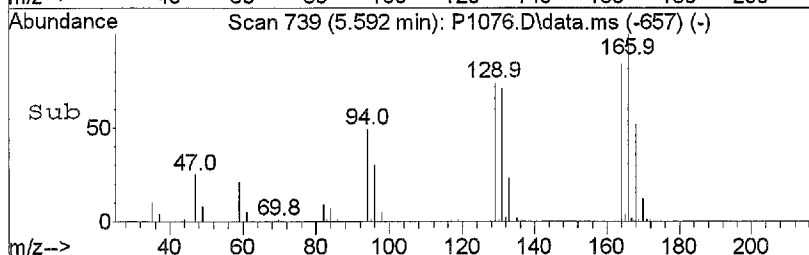
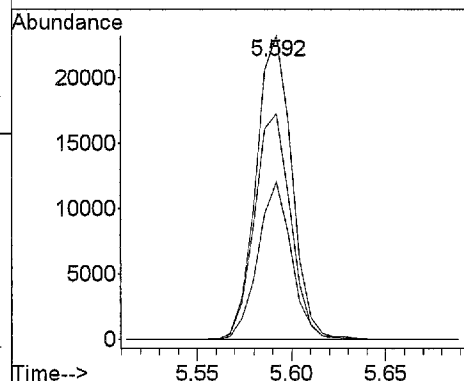
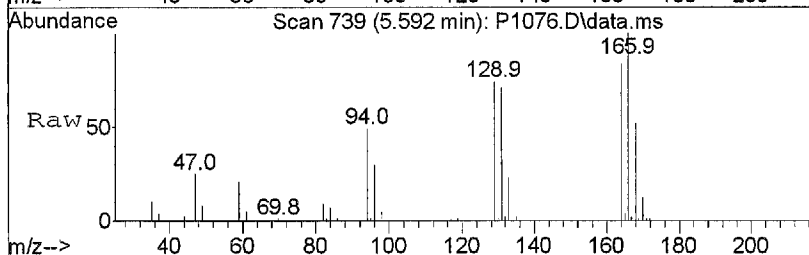
#41
trichloroethene
Concen: 0.87 UG/L
RT: 4.415 min Scan# 546
Delta R.T. 0.006 min
Lab File: P1076.D
Acq: 1 Jun 2015 23:00

Tgt Ion: 95 Resp: 5357
Ion Ratio Lower Upper
95 100
130 101.1 58.8 98.8#
132 112.2 48.5 88.5#



#56
tetrachloroethene
Concen: 4.98 UG/L
RT: 5.592 min Scan# 739
Delta R.T. -0.000 min
Lab File: P1076.D
Acq: 1 Jun 2015 23:00

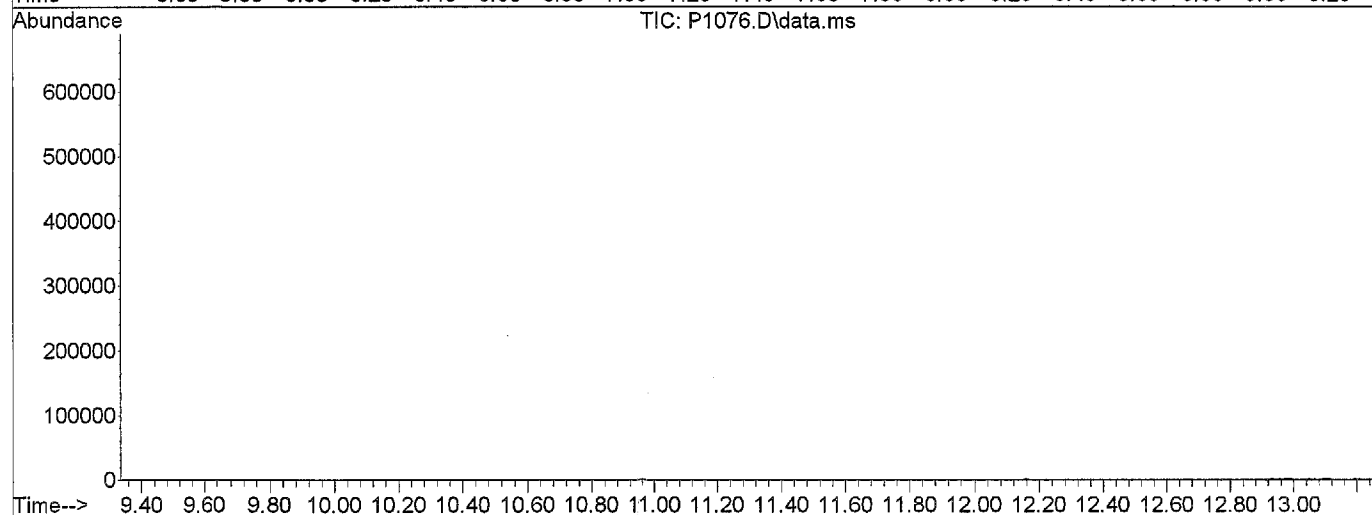
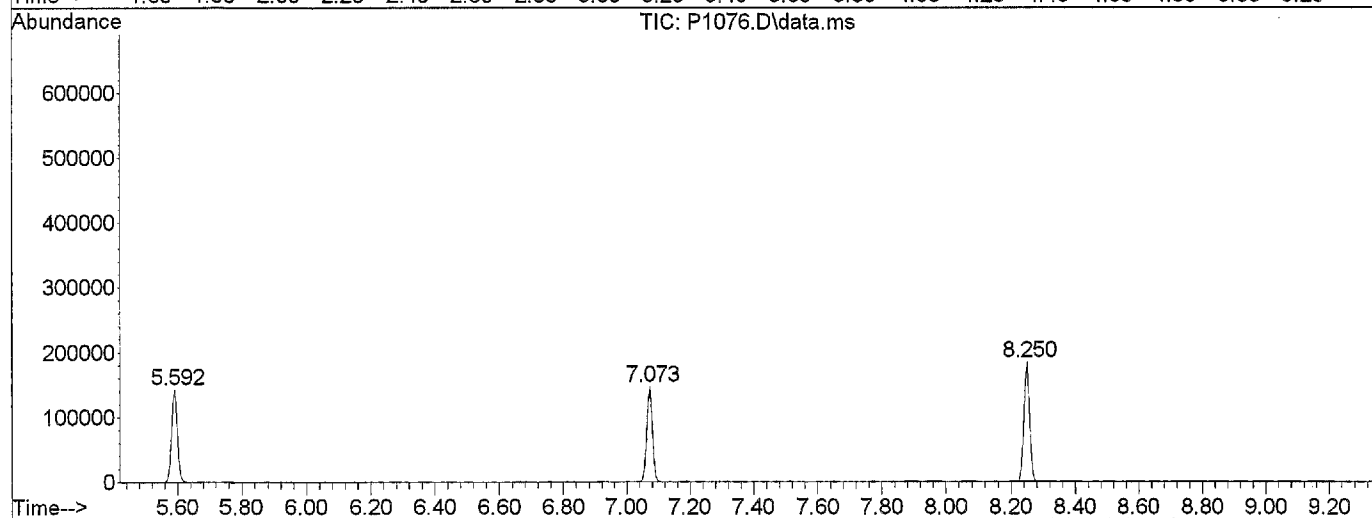
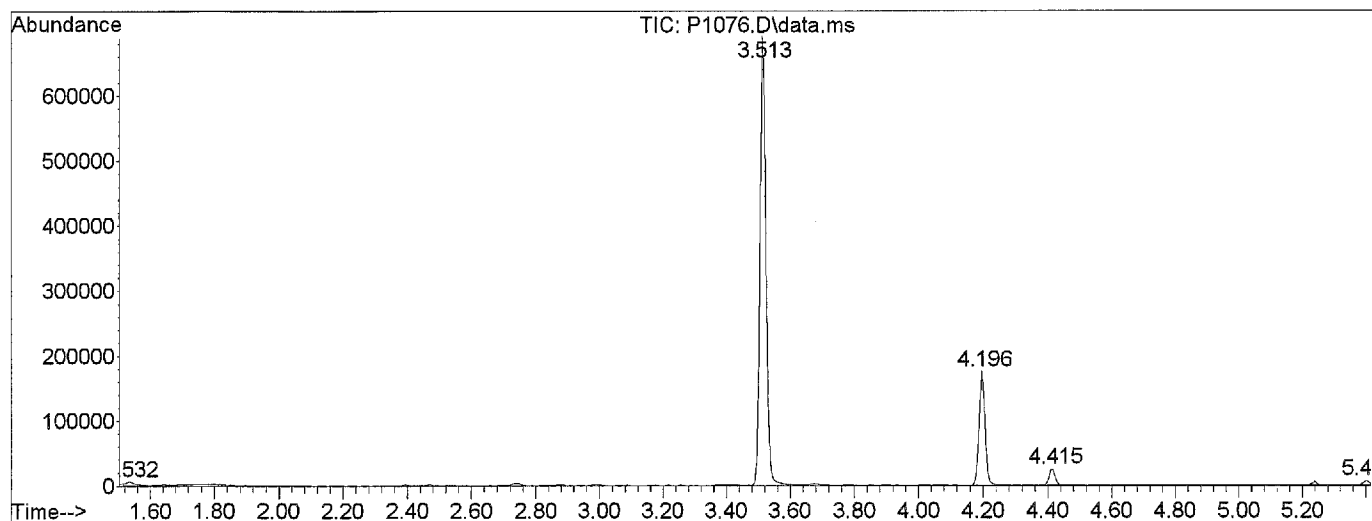
Tgt Ion: 166 Resp: 30270
Ion Ratio Lower Upper
166 100
168 49.0 28.3 68.3
129 75.1 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1076.D
Acq On : 1 Jun 2015 23:00
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,DL,, 1:20
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1076.D
 Acq On : 1 Jun 2015 23:00
 Operator : MN
 Sample : 1505F17-002A
 Misc : HDR012,MWRC1,H2O,DL,, 1:20
 ALS Vial : 37 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 23:13:48 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	96379	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	27885	4.83	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	96.60%	
87) 1,2-dichlorobenzene-d4	8.250	152	36851	4.44	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	88.80%	
Target Compounds						
5) vinyl chloride	1.538	62	4708	0.74	UG/L	Qvalue 91
24) cis-1,2-dichloroethene	3.513	96	183017	29.07	UG/L	93
41) trichloroethene	4.415	95	5357	0.87	UG/L	# 61
56) tetrachloroethene	5.592	166	30270	4.98	UG/L	99

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1076.D
Acq On : 1 Jun 2015 23:00
Operator : MN
Sample : 1505F17-002A
Misc : HDR012,MWRC1,H2O,DL,, 1:20
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-003ASample wt/vol: 5(g/mL) MLLab File ID: P1051.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-003ASample wt/vol: 5(g/mL) MLLab File ID: P1051.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATER

Lab Sample ID:

1505F17-003ASample wt/vol: 5(g/mL) mL

Lab File ID:

P1051.DLevel: (low/med) LOW

Date Received:

05/20/15

% Moisture: not dec.

Date Analyzed:

06/01/15GC Column: R-624 0.18ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume:

0

(μL)

CONCENTRATION UNITS:

Number TICs found:

0

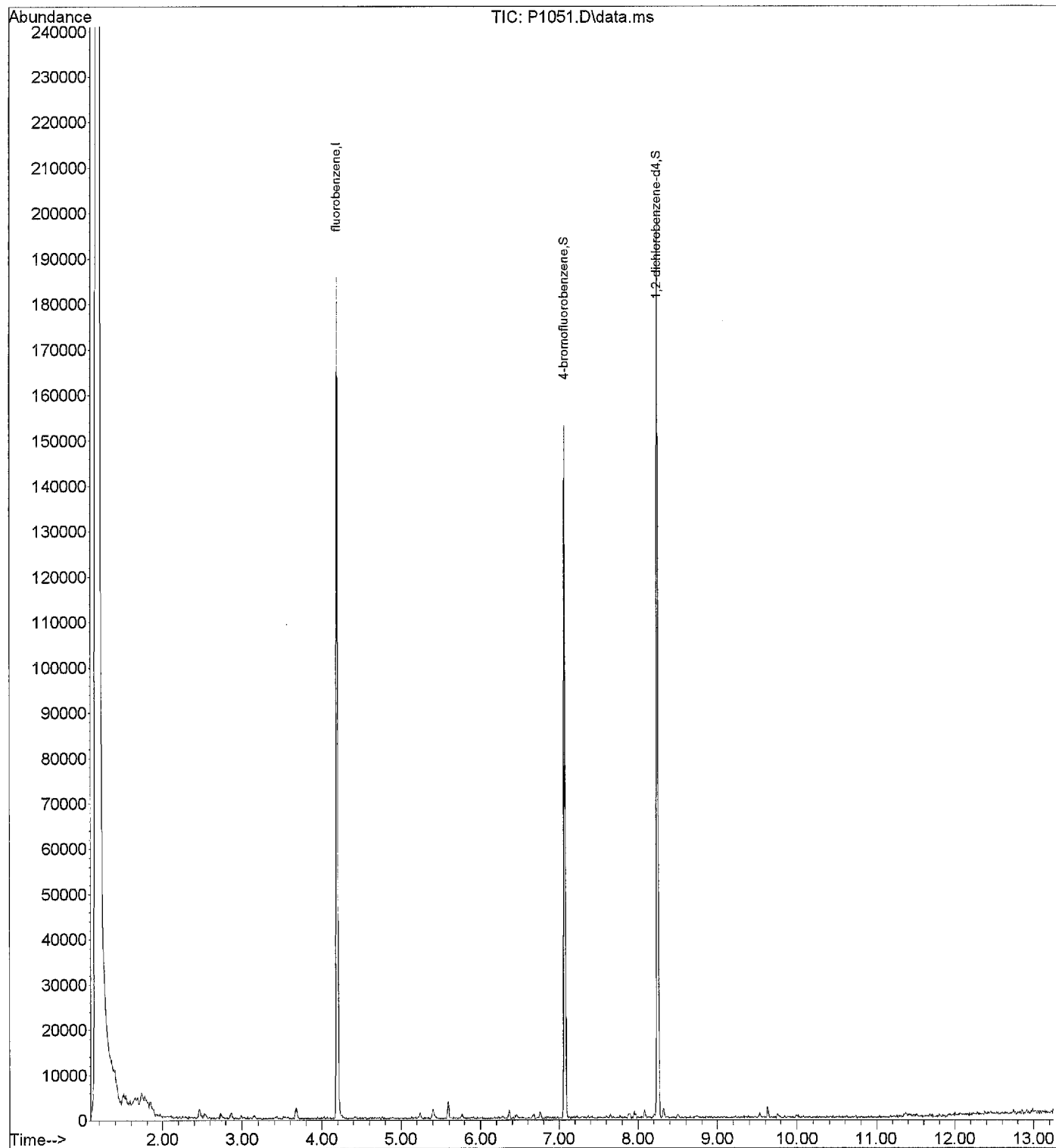
(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1051.D
Acq On : 1 Jun 2015 11:50
Operator : MN
Sample : 1505F17-003A
Misc : HDR012,MW1,H2O,SAMP,,
ALS Vial : 56 Sample Multiplier: 1
InstName : HP5975

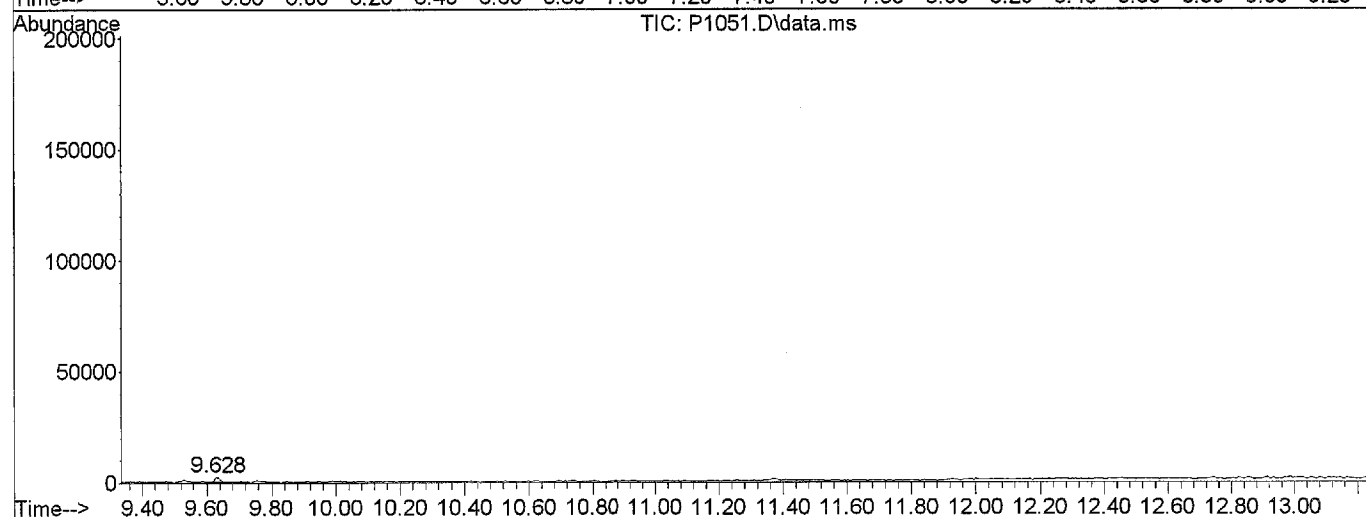
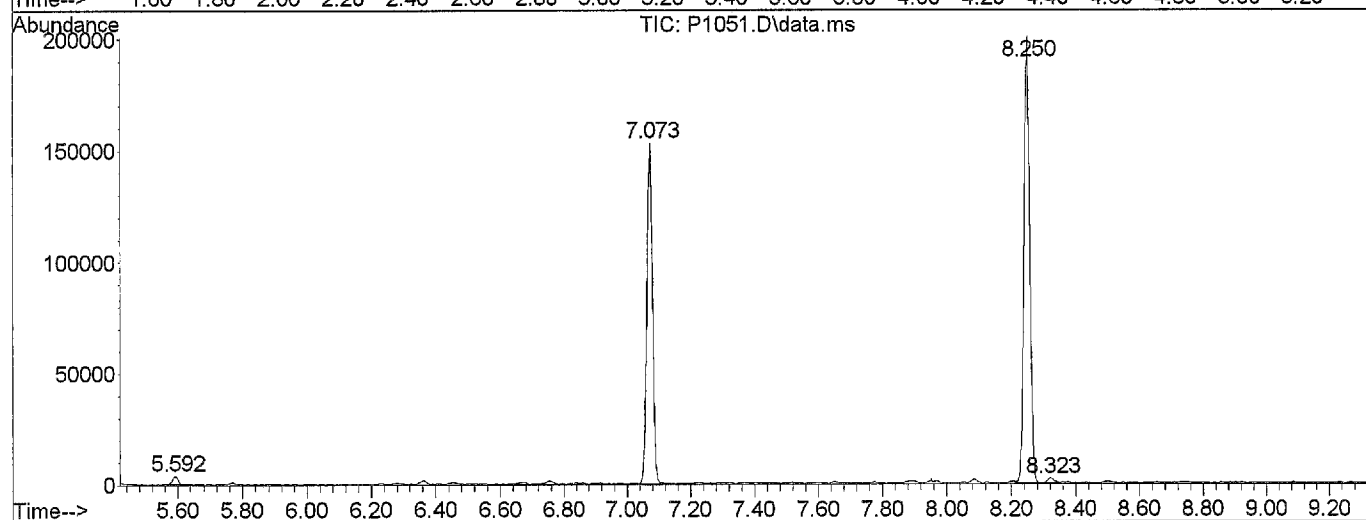
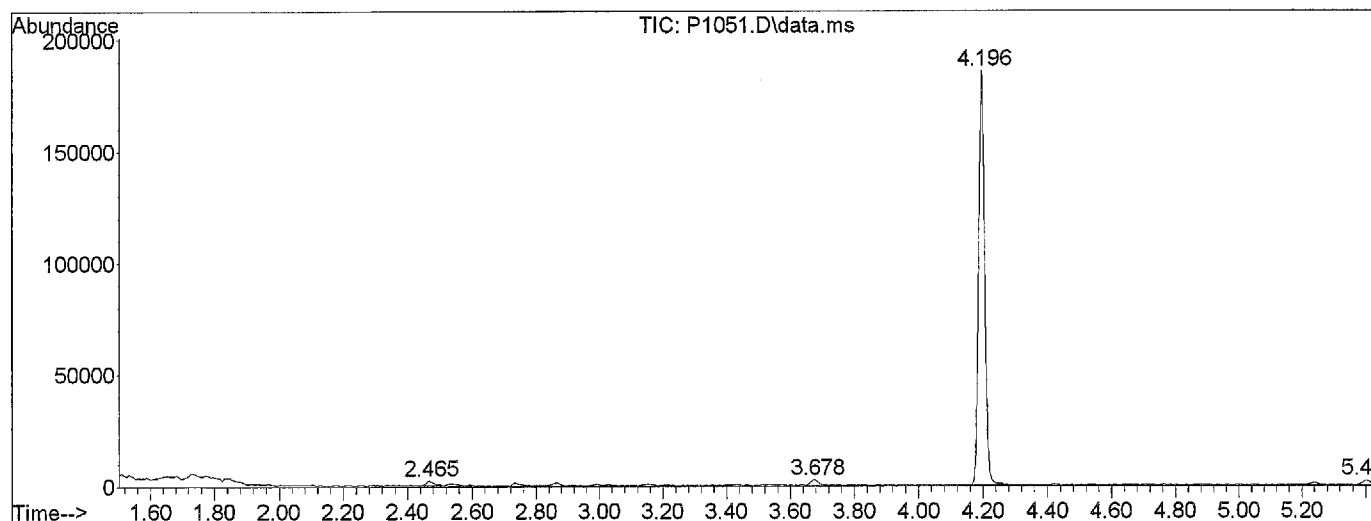
Quant Time: Jun 01 12:09:12 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1051.D
Acq On : 1 Jun 2015 11:50
Operator : MN
Sample : 1505F17-003A
Misc : HDR012,MW1,H2O,SAMP,,
ALS Vial : 56 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1051.D
Acq On : 1 Jun 2015 11:50
Operator : MN
Sample : 1505F17-003A
Misc : HDR012,MW1,H2O,SAMP,,
ALS Vial : 56 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 12:09:12 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	107048	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	31482	4.91	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	98.20%	
87) 1,2-dichlorobenzene-d4	8.250	152	40394	4.38	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	87.60%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1051.D
Acq On : 1 Jun 2015 11:50
Operator : MN
Sample : 1505F17-003A
Misc : HDR012,MW1,H2O,SAMP,,
ALS Vial : 56 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW3

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-004ASample wt/vol: 5(g/mL) MLLab File ID: P1052.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW3

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012

Matrix: (soil/water) WATER Lab Sample ID: 1505F17-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: P1052.D

Level: (low/med) LOW Date Received: 05/20/15

% Moisture: not dec. Date Analyzed: 06/01/15

GC Column: R-624 0.18 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW3

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-004ASample wt/vol: 5(g/mL) mLLab File ID: P1052.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

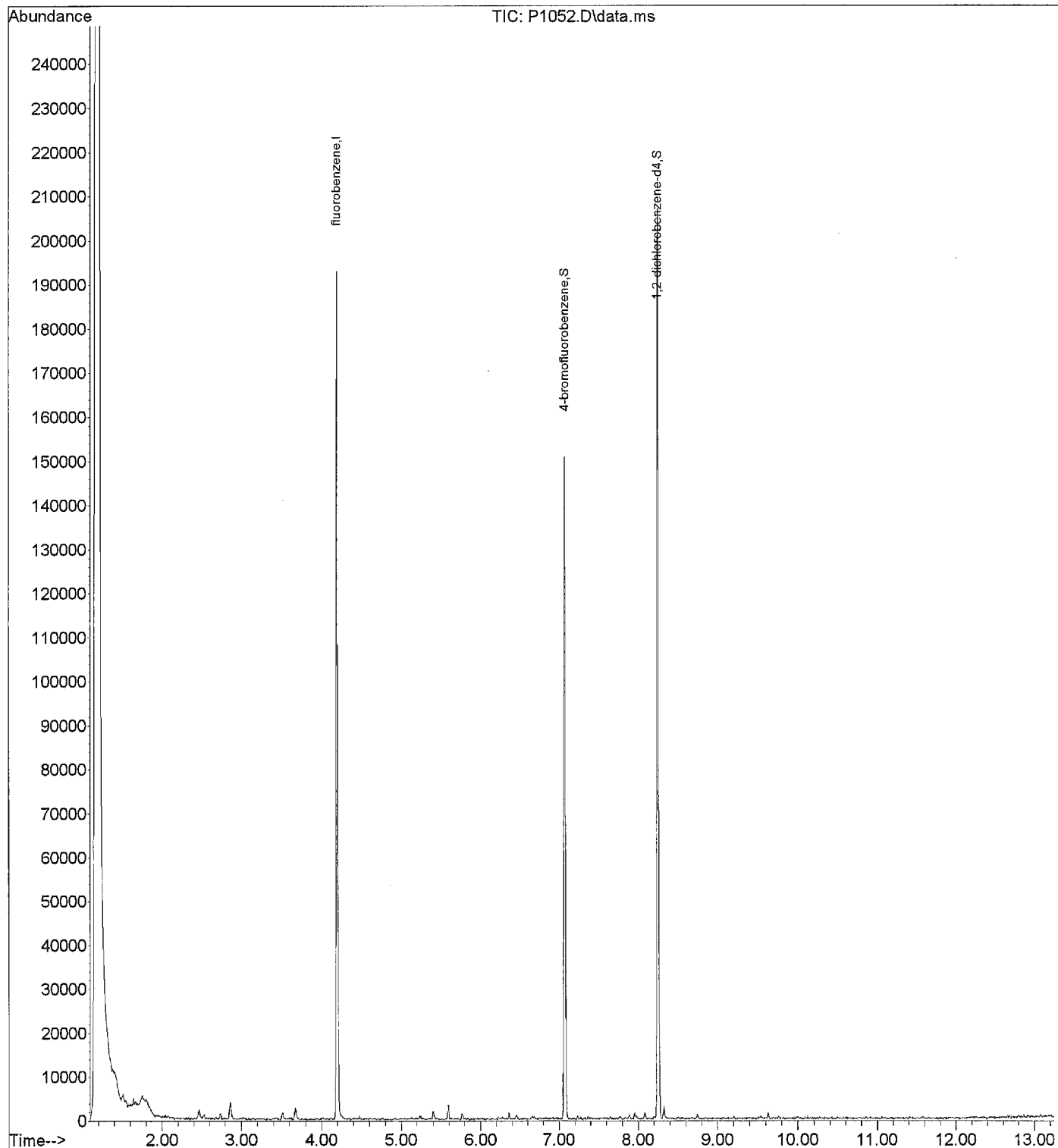
(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1052.D
Acq On : 1 Jun 2015 12:15
Operator : MN
Sample : 1505F17-004A
Misc : HDR012,MW3,H2O,SAMP,,
ALS Vial : 57 Sample Multiplier: 1
InstName : HP5975

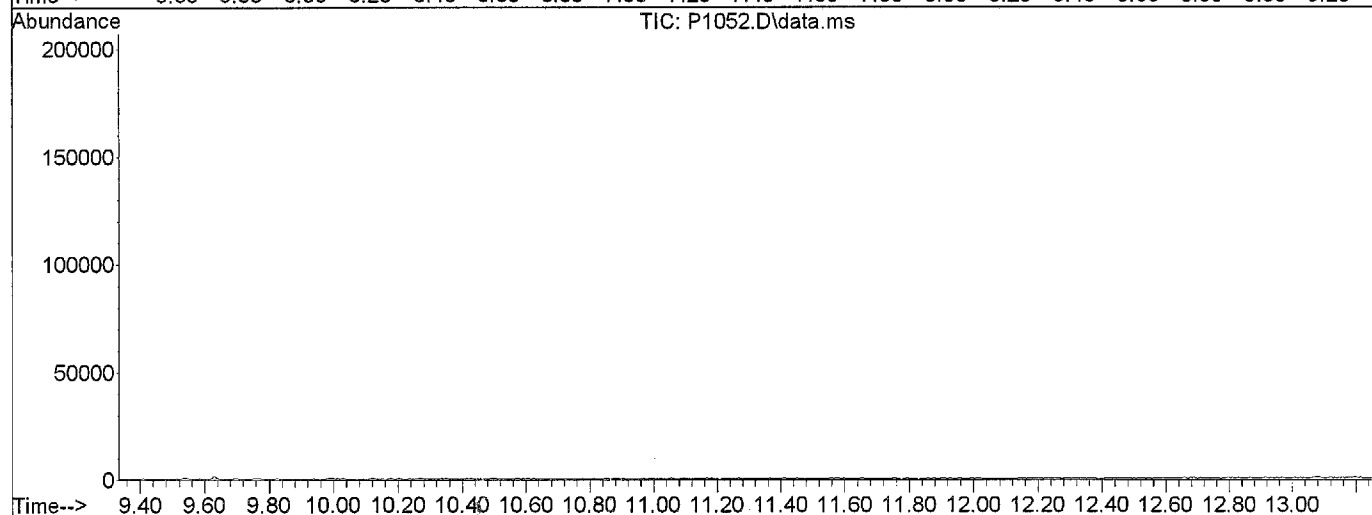
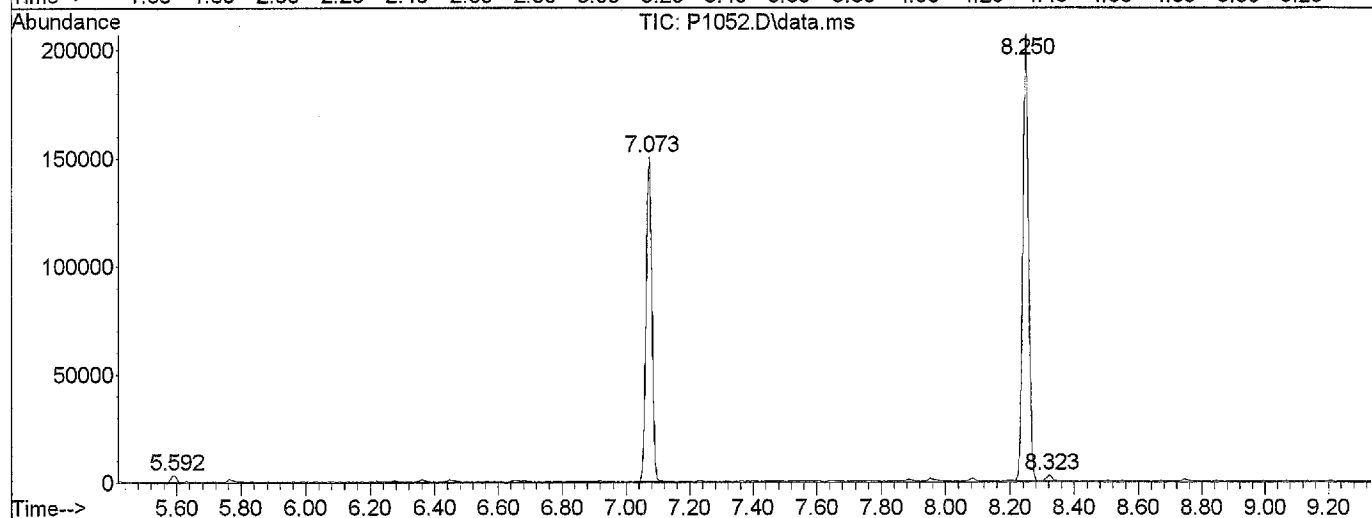
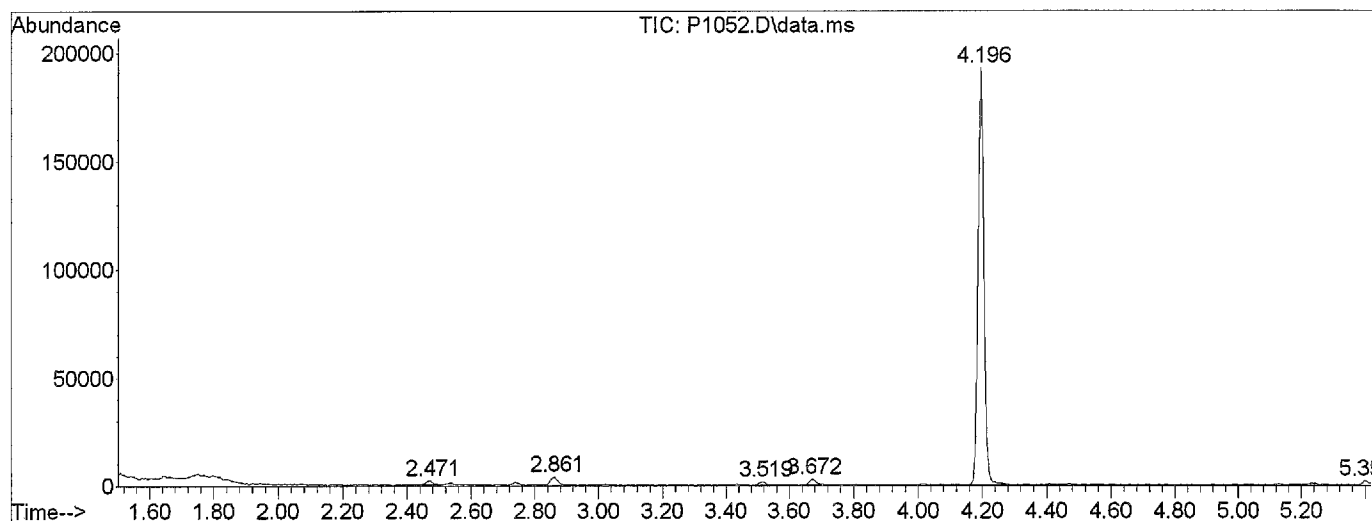
Quant Time: Jun 01 12:50:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1052.D
Acq On : 1 Jun 2015 12:15
Operator : MN
Sample : 1505F17-004A
Misc : HDR012,MW3,H2O,SAMP,,
ALS Vial : 57 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1052.D
Acq On : 1 Jun 2015 12:15
Operator : MN
Sample : 1505F17-004A
Misc : HDR012,MW3,H2O,SAMP,,
ALS Vial : 57 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 12:50:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	107752	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	32451	5.03	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	100.60%
87) 1,2-dichlorobenzene-d4	8.250	152	41076	4.43	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	88.60%

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1052.D
Acq On : 1 Jun 2015 12:15
Operator : MN
Sample : 1505F17-004A
Misc : HDR012,MW3,H2O,SAMP,,
ALS Vial : 57 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW4B

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-005ASample wt/vol: 5(g/mL) MLLab File ID: P1053.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	1	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	2	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	13	
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW4B

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012

Matrix: (soil/water) WATER Lab Sample ID: 1505F17-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: P1053.D

Level: (low/med) LOW Date Received: 05/20/15

% Moisture: not dec. Date Analyzed: 06/01/15

GC Column: R-624 0.18 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW4B

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-005ASample wt/vol: 5(g/mL) mLLab File ID: P1053.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

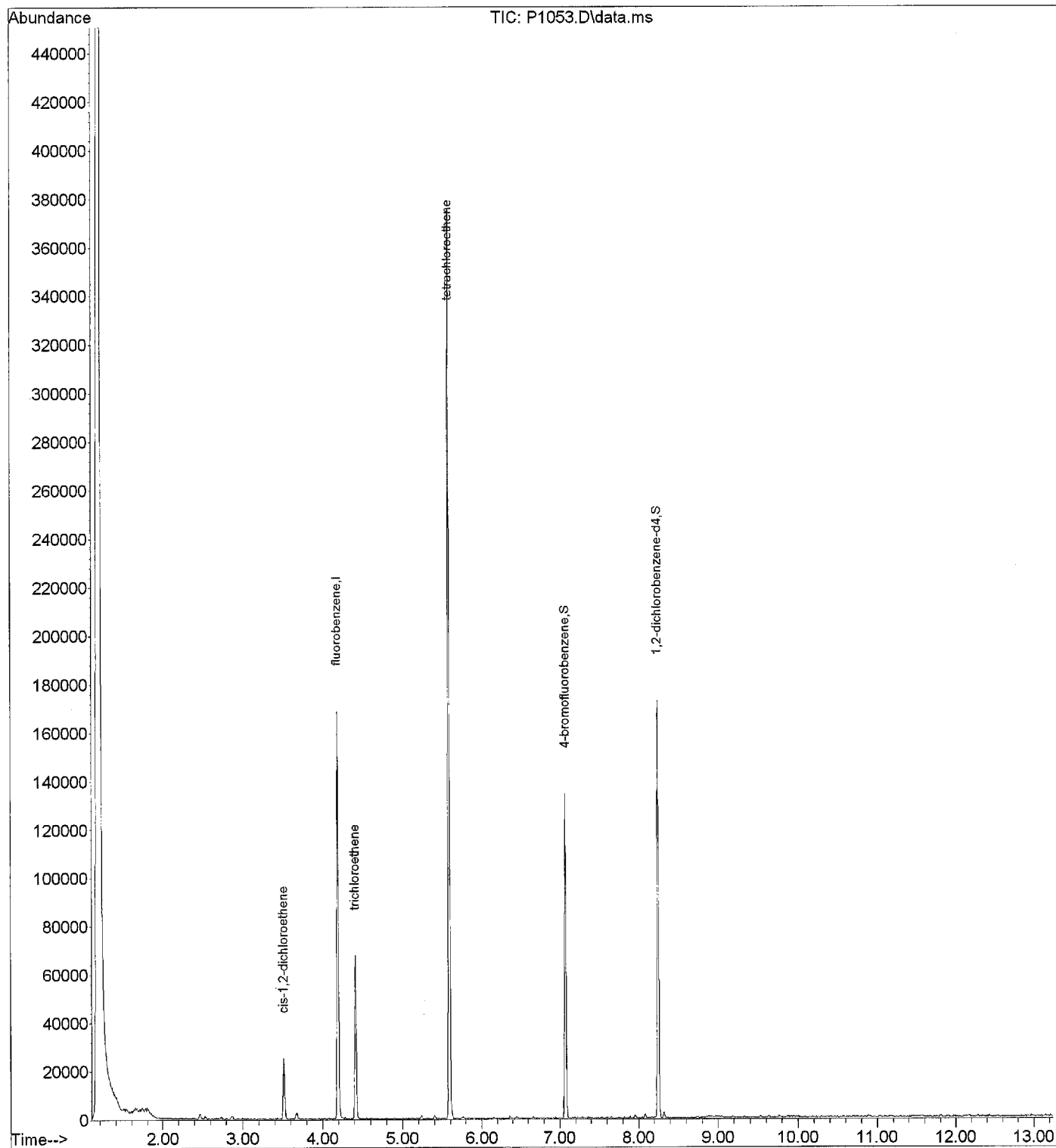
(μg/L or μg/Kg)

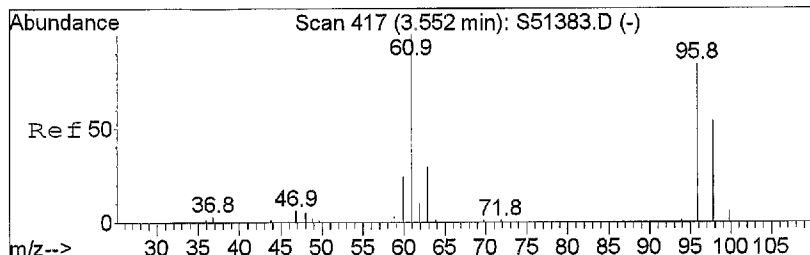
μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1053.D
Acq On : 1 Jun 2015 12:40
Operator : MN
Sample : 1505F17-005A
Misc : HDR012,MW4B,H2O,SAMP,,
ALS Vial : 58 Sample Multiplier: 1
InstName : HP5975

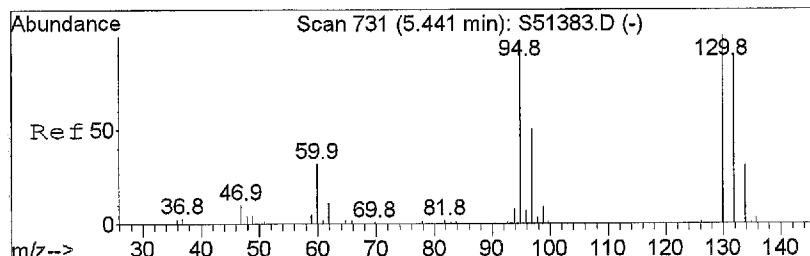
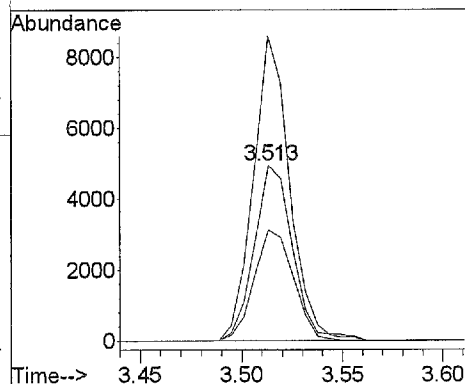
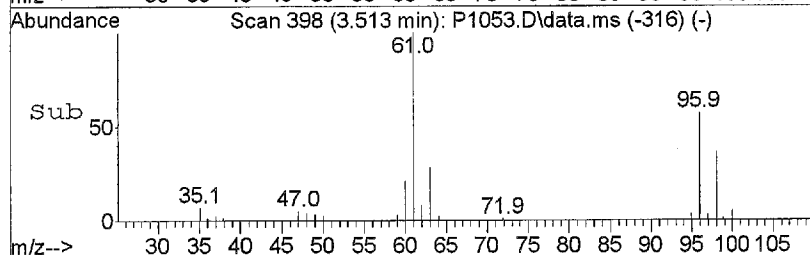
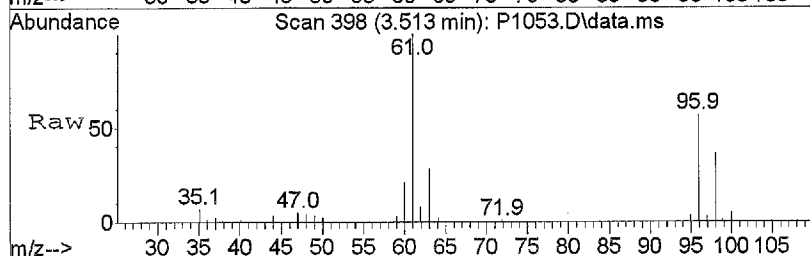
Quant Time: Jun 01 18:42:04 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





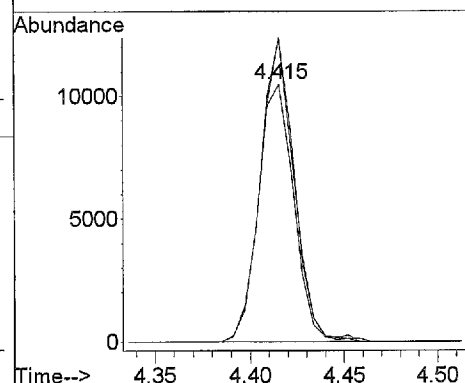
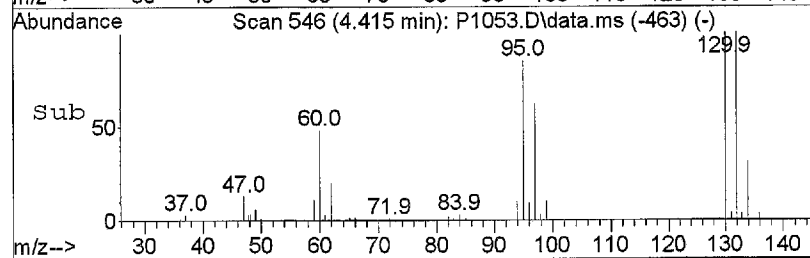
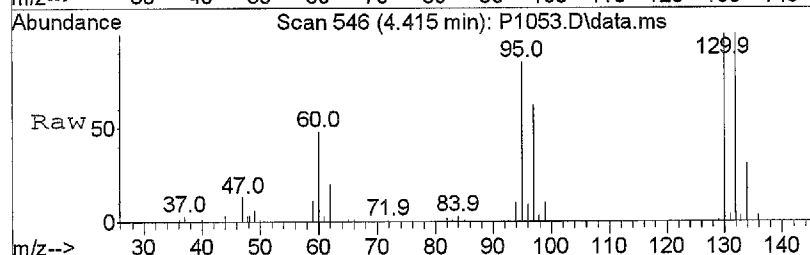
#24
 cis-1,2-dichloroethene
 Concen: 1.04 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1053.D
 Acq: 1 Jun 2015 12:40

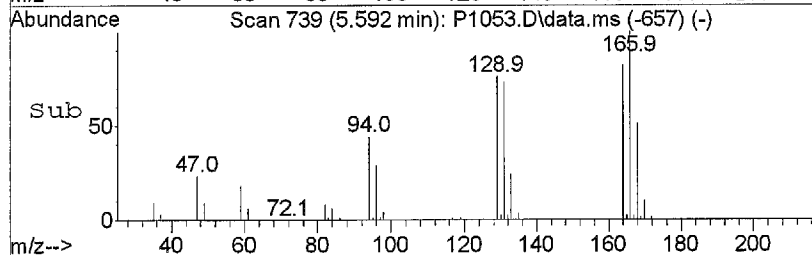
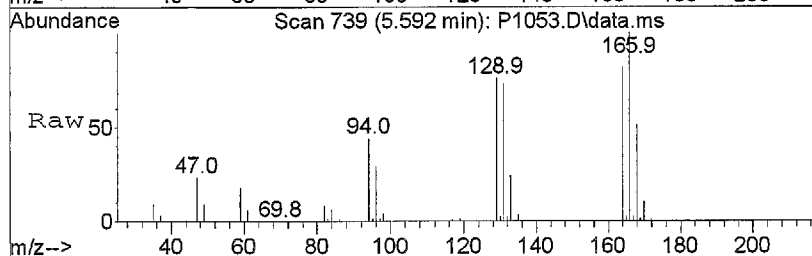
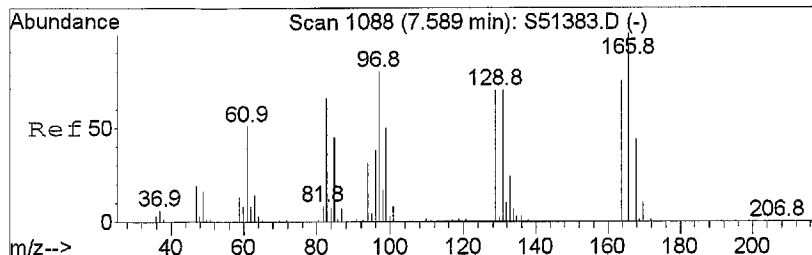
Tgt Ion: 96 Resp: 6532
 Ion Ratio Lower Upper
 96 100
 61 163.6 133.7 173.7
 98 64.7 41.8 81.8



#41
 trichloroethene
 Concen: 2.25 UG/L
 RT: 4.415 min Scan# 546
 Delta R.T. 0.006 min
 Lab File: P1053.D
 Acq: 1 Jun 2015 12:40

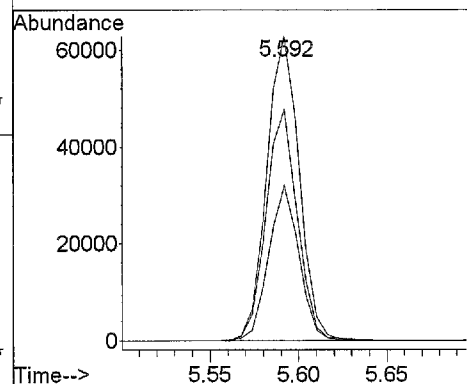
Tgt Ion: 95 Resp: 13762
 Ion Ratio Lower Upper
 95 100
 130 111.0 58.8 98.8#
 132 110.7 48.5 88.5#





#56
 tetrachloroethene
 Concen: 13.25 UG/L
 RT: 5.592 min Scan# 739
 Delta R.T. -0.000 min
 Lab File: P1053.D
 Acq: 1 Jun 2015 12:40

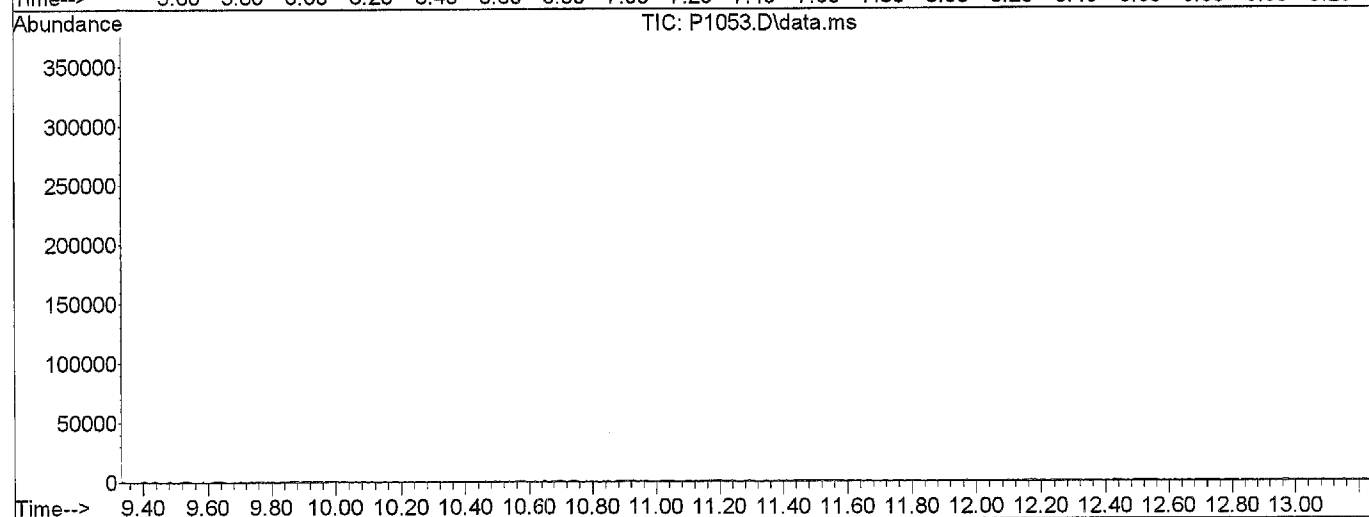
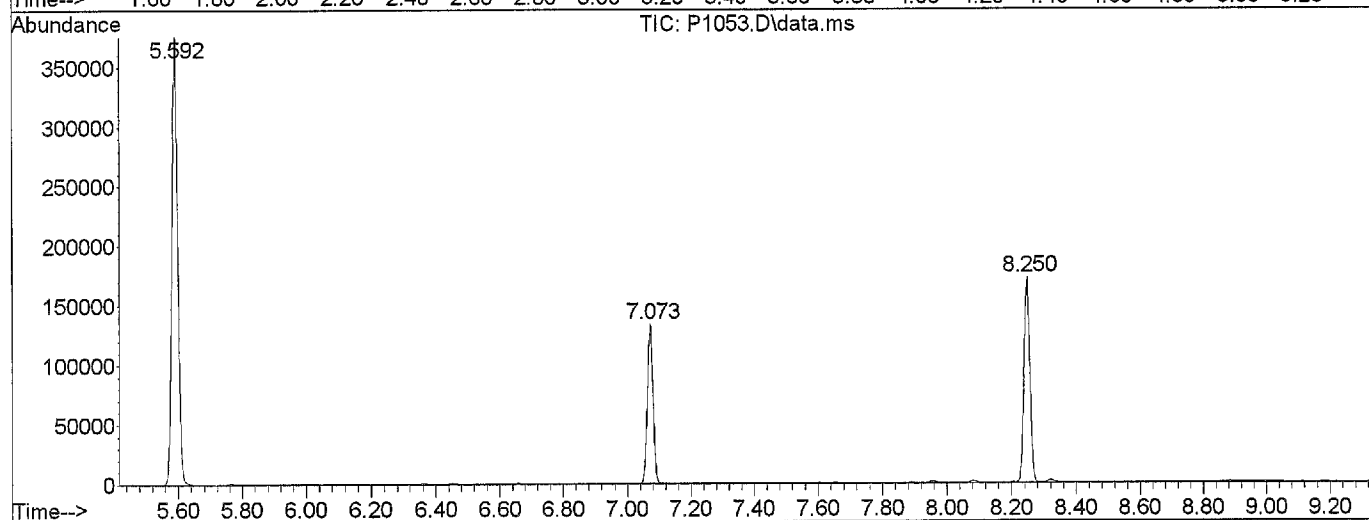
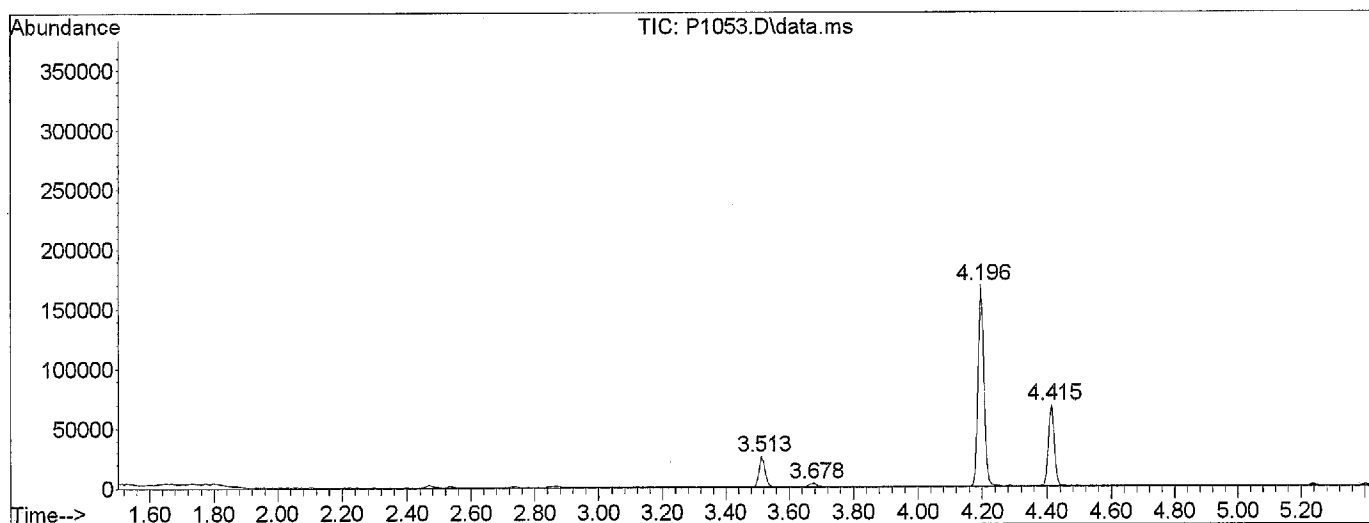
Tgt Ion	Ratio	Lower	Upper
166	100		
168	47.5	28.3	68.3
129	73.3	56.0	96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1053.D
Acq On : 1 Jun 2015 12:40
Operator : MN
Sample : 1505F17-005A
Misc : HDR012,MW4B,H2O,SAMP,,
ALS Vial : 58 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1053.D
Acq On : 1 Jun 2015 12:40
Operator : MN
Sample : 1505F17-005A
Misc : HDR012,MW4B,H2O,SAMP,,
ALS Vial : 58 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 18:42:04 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	96069	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	27300	4.75	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	95.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	35327	4.27	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	85.40%	
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	6532	1.04	UG/L	Qvalue 93
41) trichloroethene	4.415	95	13762	2.25	UG/L	# 56
56) tetrachloroethene	5.592	166	80242	13.25	UG/L	98

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1053.D
Acq On : 1 Jun 2015 12:40
Operator : MN
Sample : 1505F17-005A
Misc : HDR012,MW4B,H2O,SAMP,,
ALS Vial : 58 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW6

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-006ASample wt/vol: 5(g/mL) MLLab File ID: P1054.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW6

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-006ASample wt/vol: 5(g/mL) MLLab File ID: P1054.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW6

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-006ASample wt/vol: 5(g/mL) mLLab File ID: P1054.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1054.D
Acq On : 1 Jun 2015 13:04
Operator : MN
Sample : 1505F17-006A
Misc : HDR012,MW6,H2O,SAMP,,
ALS Vial : 59 Sample Multiplier: 1
InstName : HP5975

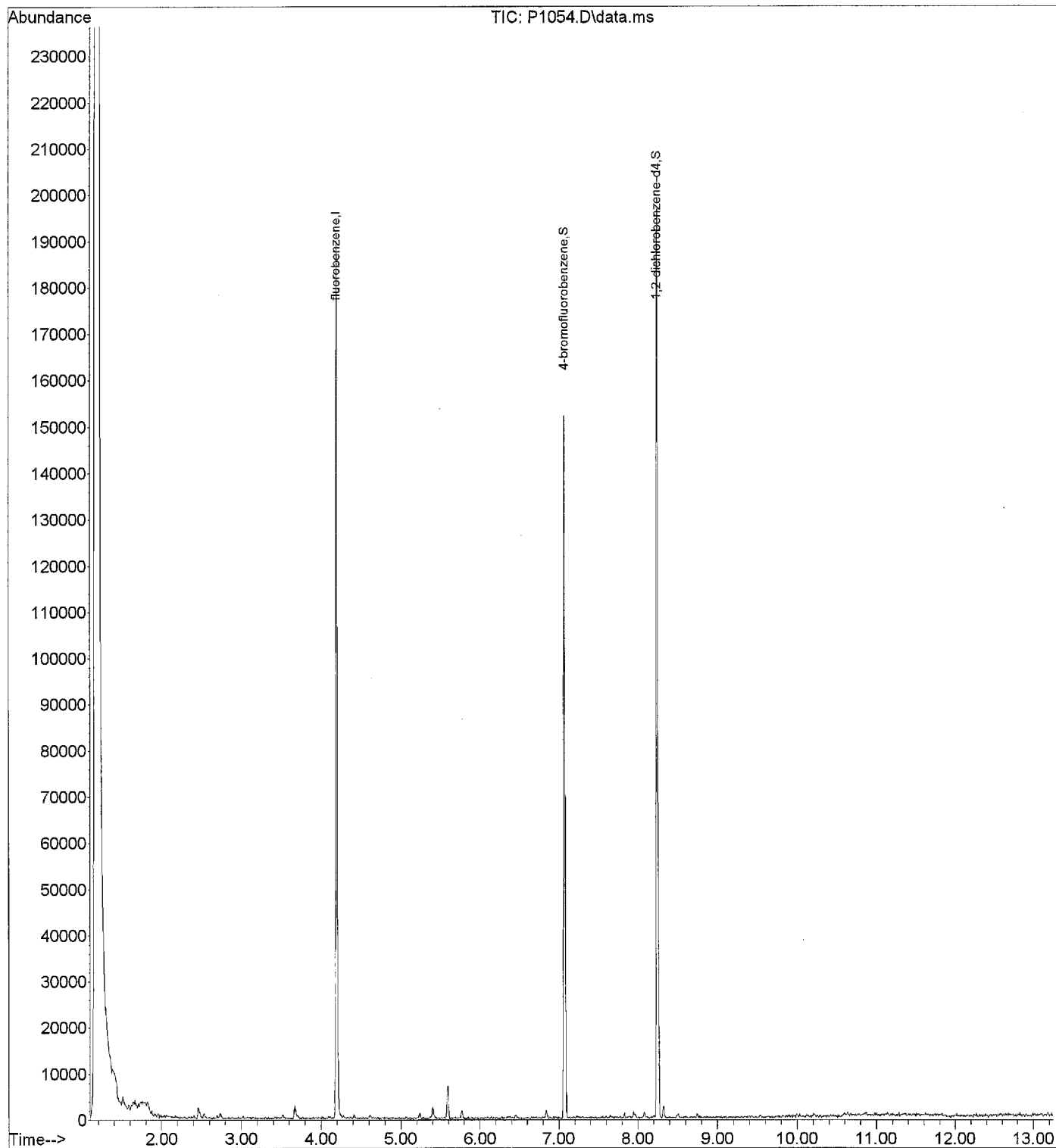
Quant Time: Jun 01 13:18:20 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

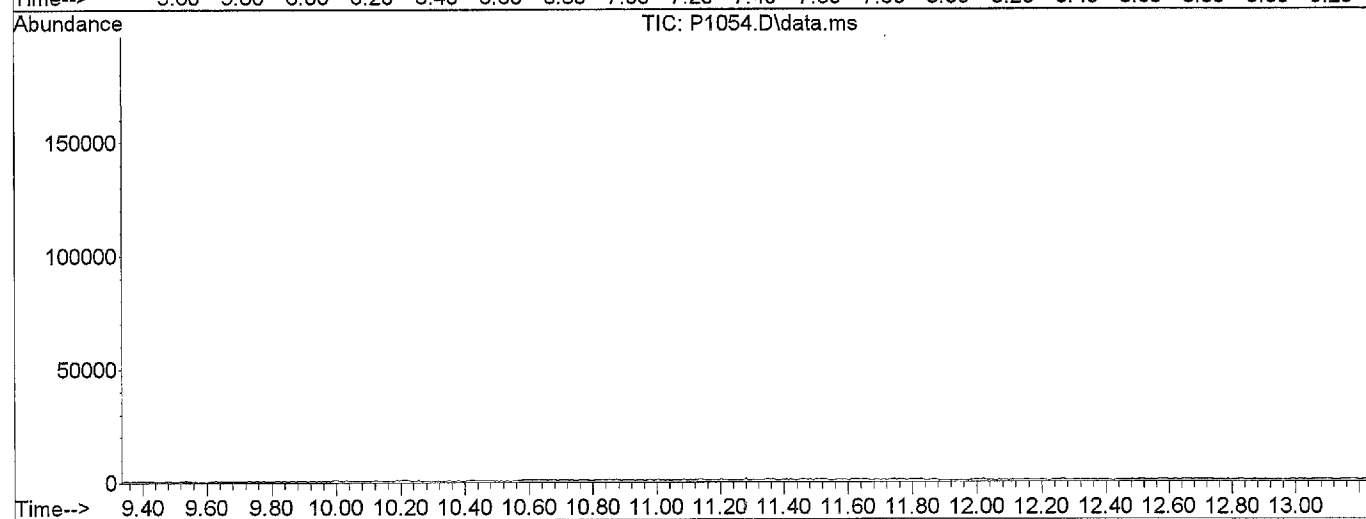
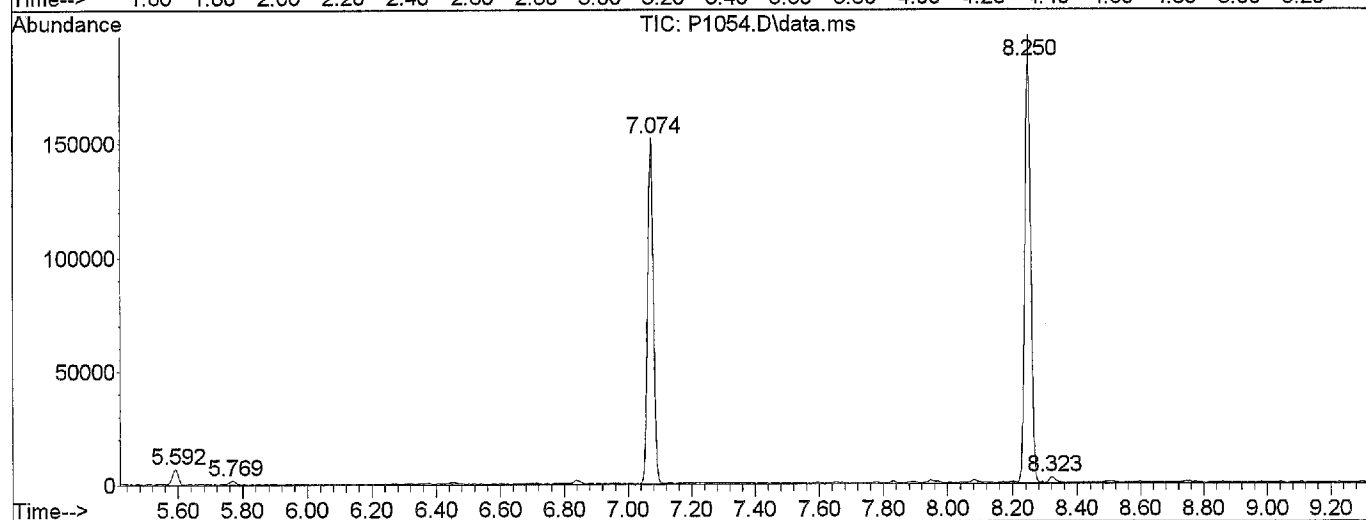
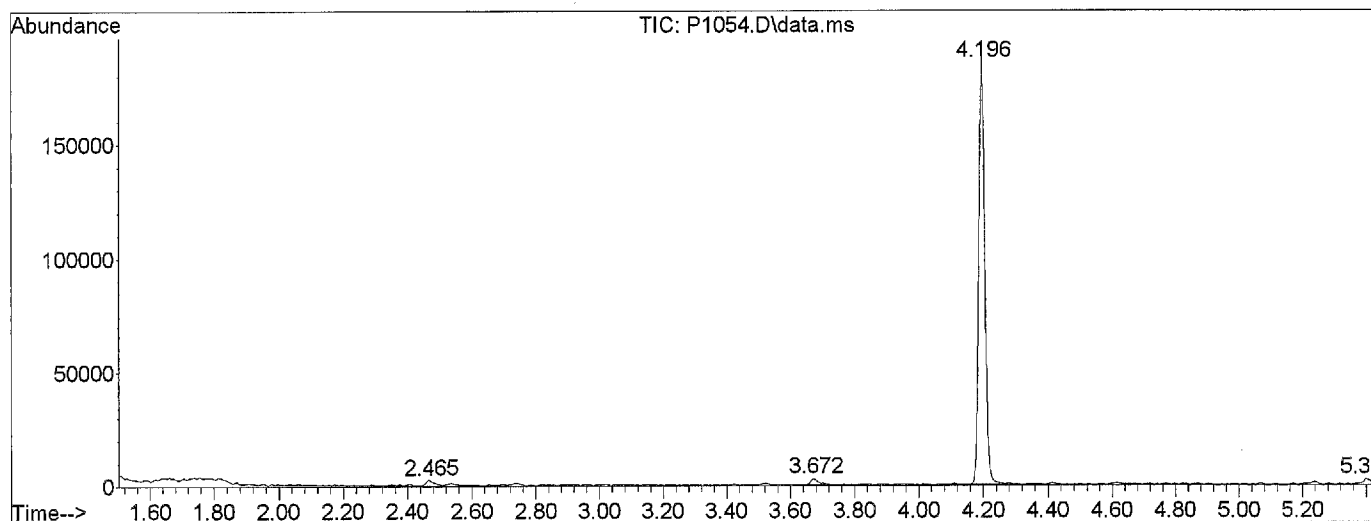
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1054.D
Acq On : 1 Jun 2015 13:04
Operator : MN
Sample : 1505F17-006A
Misc : HDR012,MW6,H2O,SAMP,,
ALS Vial : 59 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1054.D
Acq On : 1 Jun 2015 13:04
Operator : MN
Sample : 1505F17-006A
Misc : HDR012,MW6,H2O,SAMP,,
ALS Vial : 59 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 13:18:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	106287	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	31165	4.90	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	98.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	40242	4.40	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	88.00%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1054.D
Acq On : 1 Jun 2015 13:04
Operator : MN
Sample : 1505F17-006A
Misc : HDR012,MW6,H2O,SAMP,,
ALS Vial : 59 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW7

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-007ASample wt/vol: 5(g/mL) MLLab File ID: P1055.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.8	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.9	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	9	
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW7

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012

Matrix: (soil/water) WATER Lab Sample ID: 1505F17-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: P1055.D

Level: (low/med) LOW Date Received: 05/20/15

% Moisture: not dec. Date Analyzed: 06/01/15

GC Column: R-624 0.18 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW7

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-007ASample wt/vol: 5(g/mL) mLLab File ID: P1055.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µl)

Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found:

0

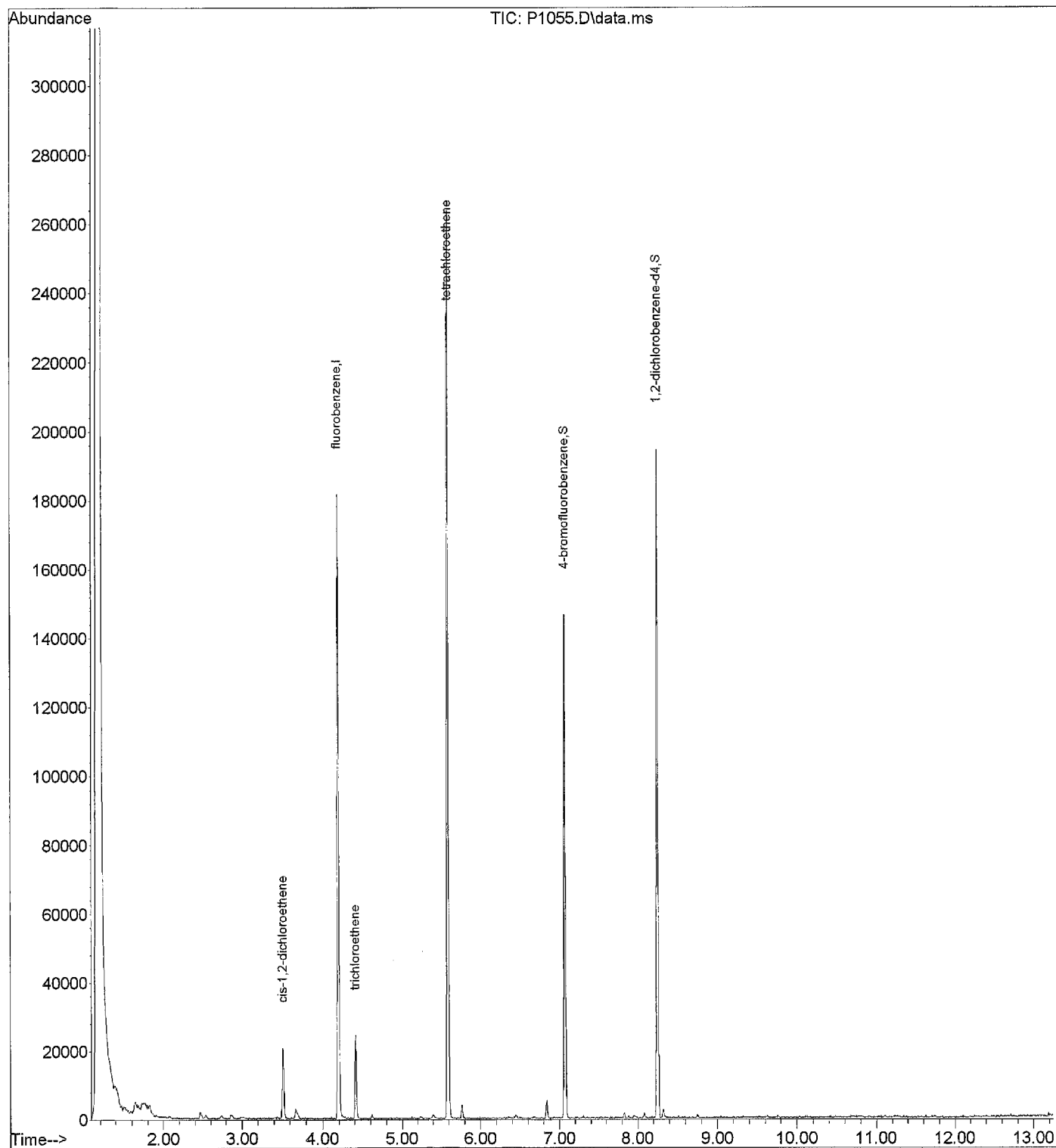
(µg/L or µg/Kg)

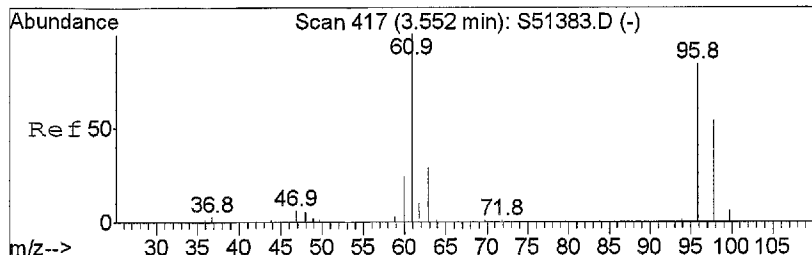
µg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data File : P1055.D
Acq On : 1 Jun 2015 13:29
Operator : MN
Sample : 1505F17-007A
Misc : HDR012,MW7,H2O,SAMP,,
ALS Vial : 60 Sample Multiplier: 1
InstName : HP5975

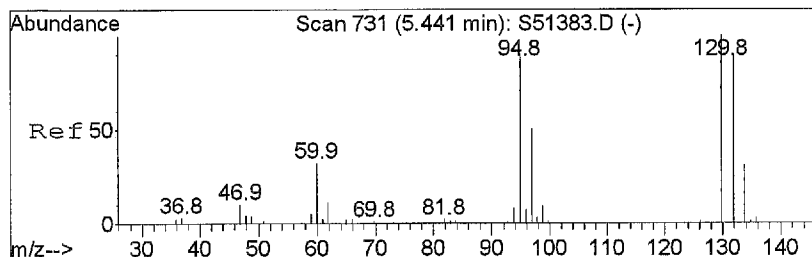
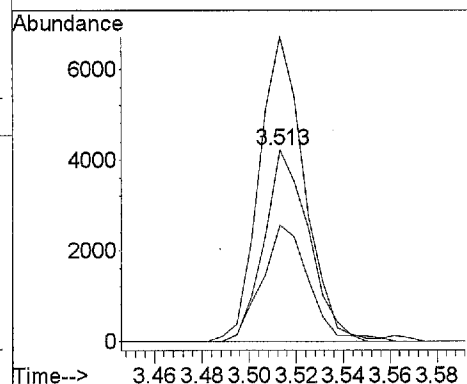
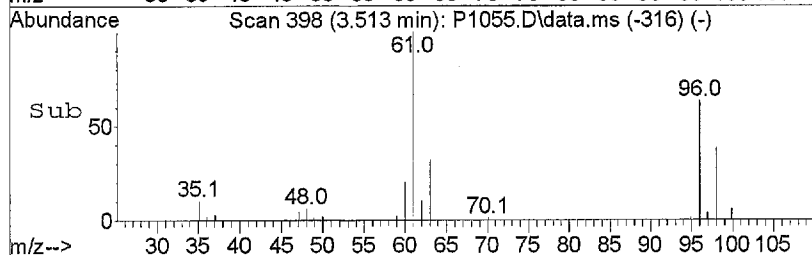
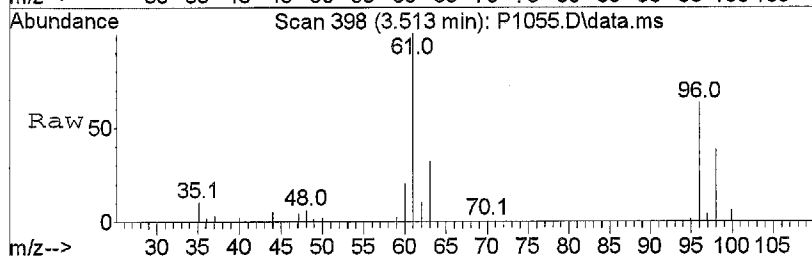
Quant Time: Jun 01 13:43:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





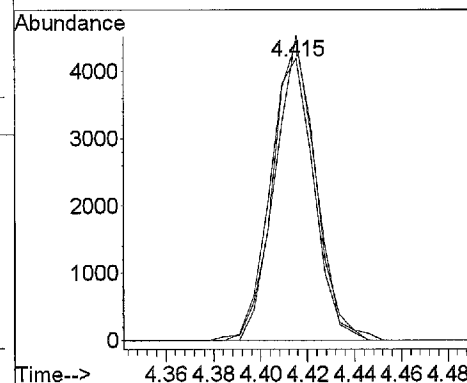
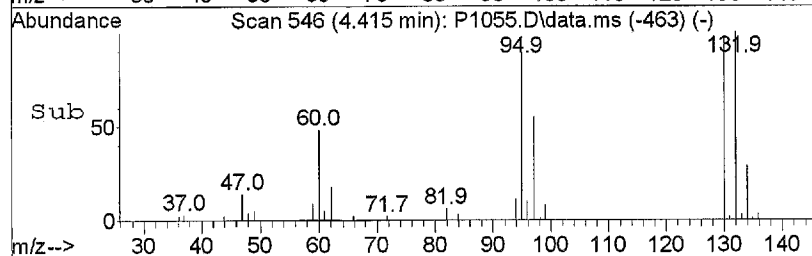
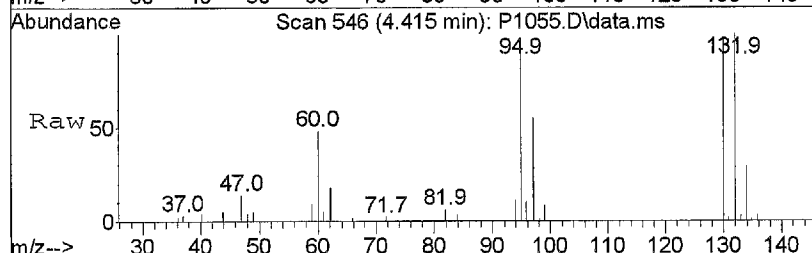
#24
 cis-1,2-dichloroethene
 Concen: 0.84 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1055.D
 Acq: 1 Jun 2015 13:29

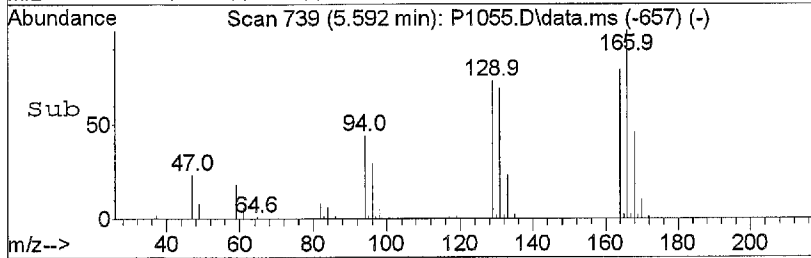
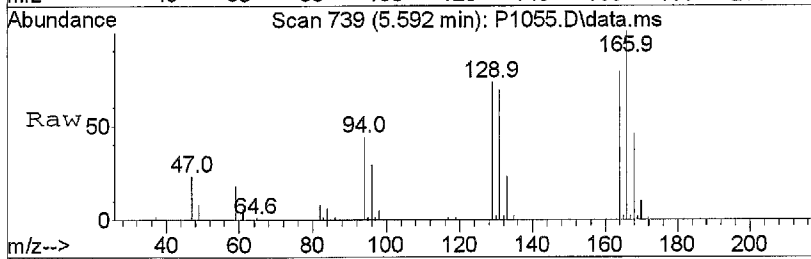
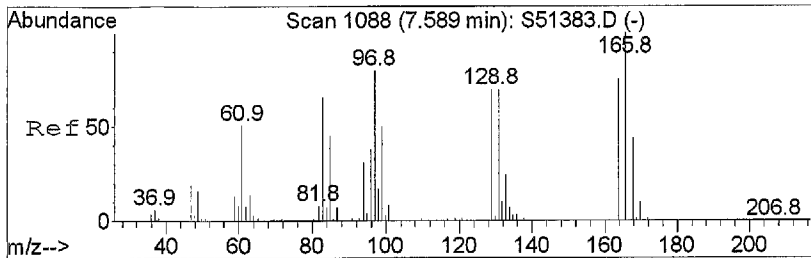
Tgt Ion: 96 Resp: 5561
 Ion Ratio Lower Upper
 96 100
 61 161.3 133.7 173.7
 98 63.3 41.8 81.8



#41
 trichloroethene
 Concen: 0.85 UG/L
 RT: 4.415 min Scan# 546
 Delta R.T. 0.006 min
 Lab File: P1055.D
 Acq: 1 Jun 2015 13:29

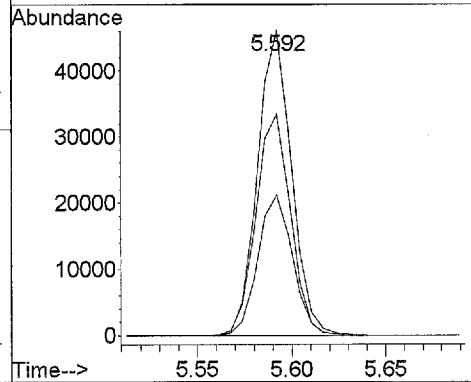
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 Ion Ratio Lower Upper
 95 100
 130 103.8 58.8 98.8#
 132 98.0 48.5 88.5#





#56
 tetrachloroethene
 Concen: 8.96 UG/L
 RT: 5.592 min Scan# 739
 Delta R.T. -0.000 min
 Lab File: P1055.D
 Acq: 1 Jun 2015 13:29

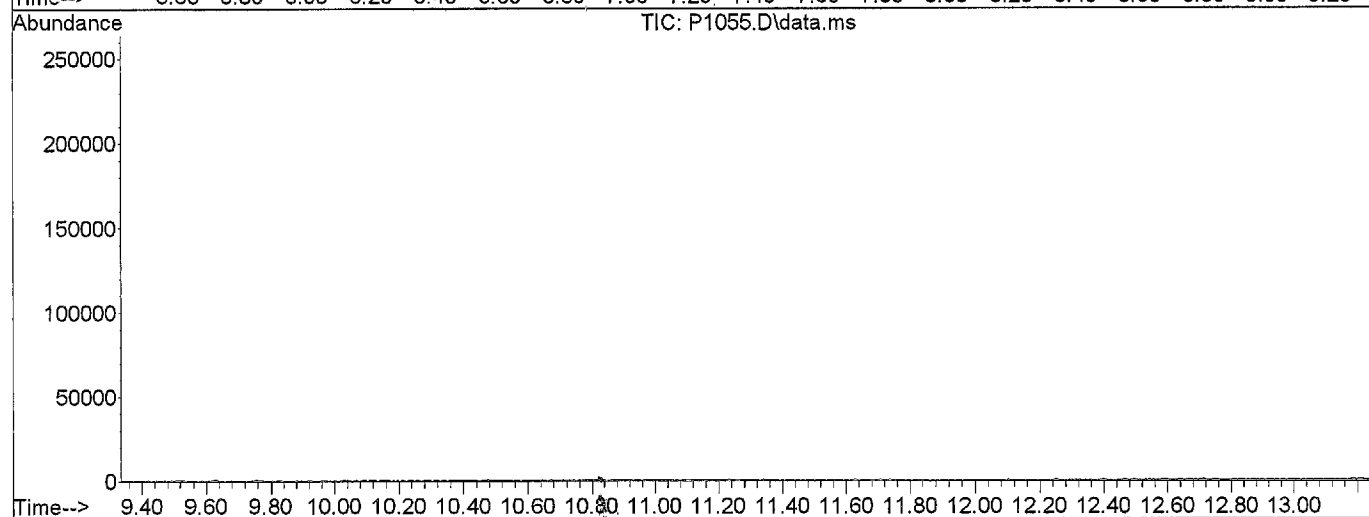
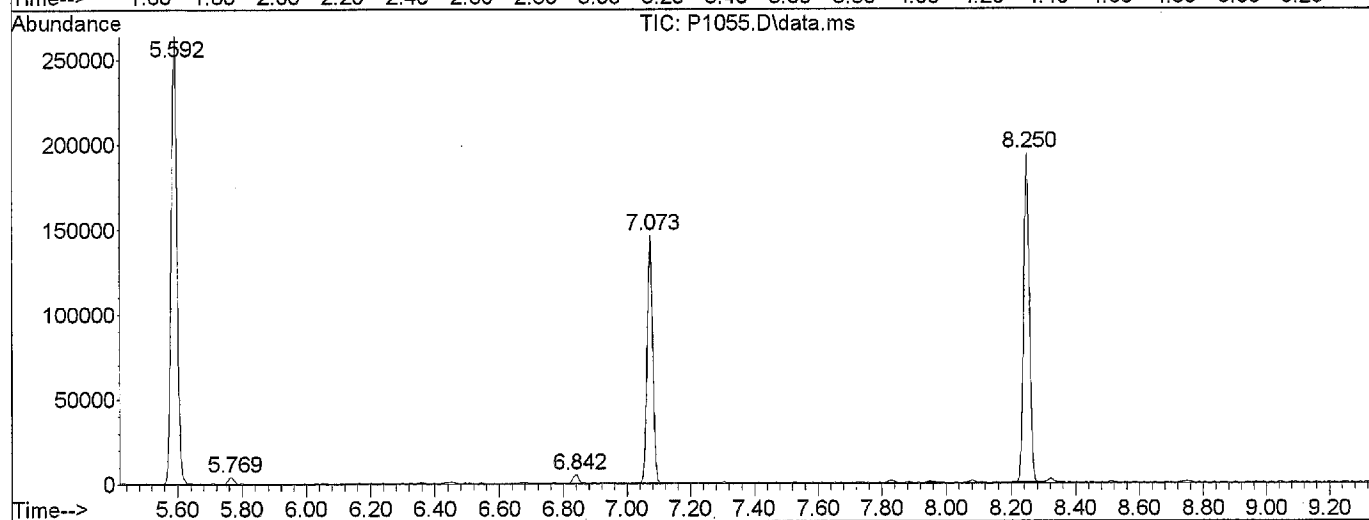
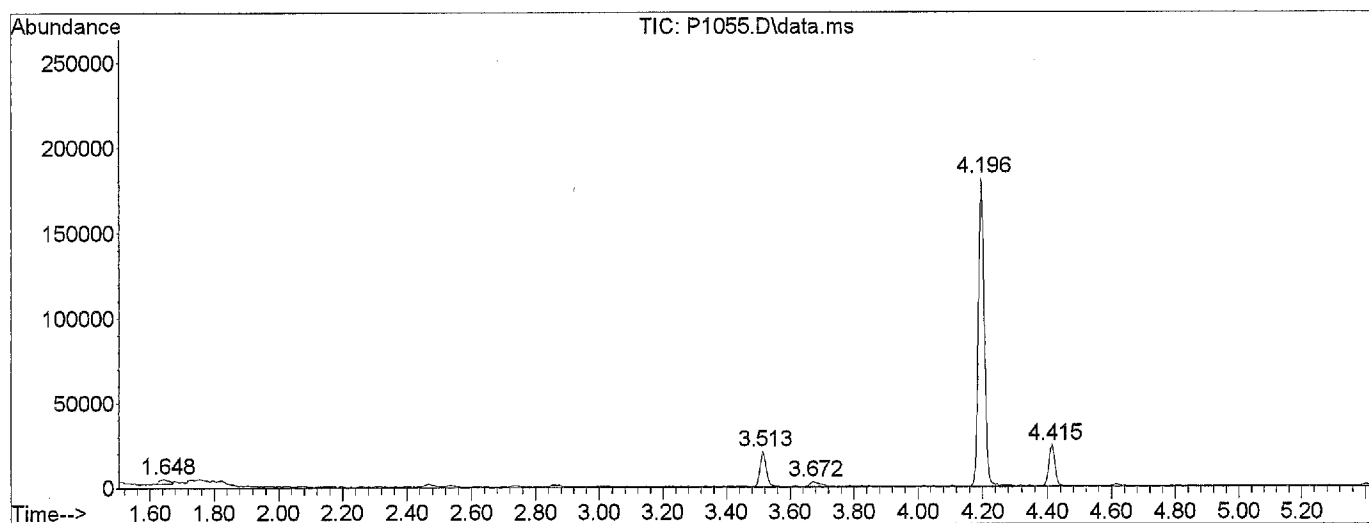
Tgt Ion:166 Resp: 57500
 Ion Ratio Lower Upper
 166 100
 168 47.1 28.3 68.3
 129 74.2 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1055.D
Acq On : 1 Jun 2015 13:29
Operator : MN
Sample : 1505F17-007A
Misc : HDR012,MW7,H2O,SAMP,,
ALS Vial : 60 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1055.D
Acq On : 1 Jun 2015 13:29
Operator : MN
Sample : 1505F17-007A
Misc : HDR012,MW7,H2O,SAMP,,
ALS Vial : 60 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 13:43:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	101863	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	30781	5.05	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	101.00%
87) 1,2-dichlorobenzene-d4	8.250	152	39177	4.47	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	89.40%
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	5561	0.84	UG/L	95
41) trichloroethene	4.415	95	5481	0.85	UG/L	# 68
56) tetrachloroethene	5.592	166	57500	8.96	UG/L	98

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1055.D
Acq On : 1 Jun 2015 13:29
Operator : MN
Sample : 1505F17-007A
Misc : HDR012,MW7,H2O,SAMP,,
ALS Vial : 60 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW12

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-008ASample wt/vol: 5(g/mL) MLLab File ID: P1072.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	2	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	1	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	4	
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW12

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: _____ SDG No.: HDR012

Matrix: (soil/water) WATER Lab Sample ID: 1505F17-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: P1072.D

Level: (low/med) LOW Date Received: 05/20/15

% Moisture: not dec. Date Analyzed: 06/01/15

GC Column: R-624 0.18 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW12

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-008ASample wt/vol: 5(g/mL) mLLab File ID: P1072.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

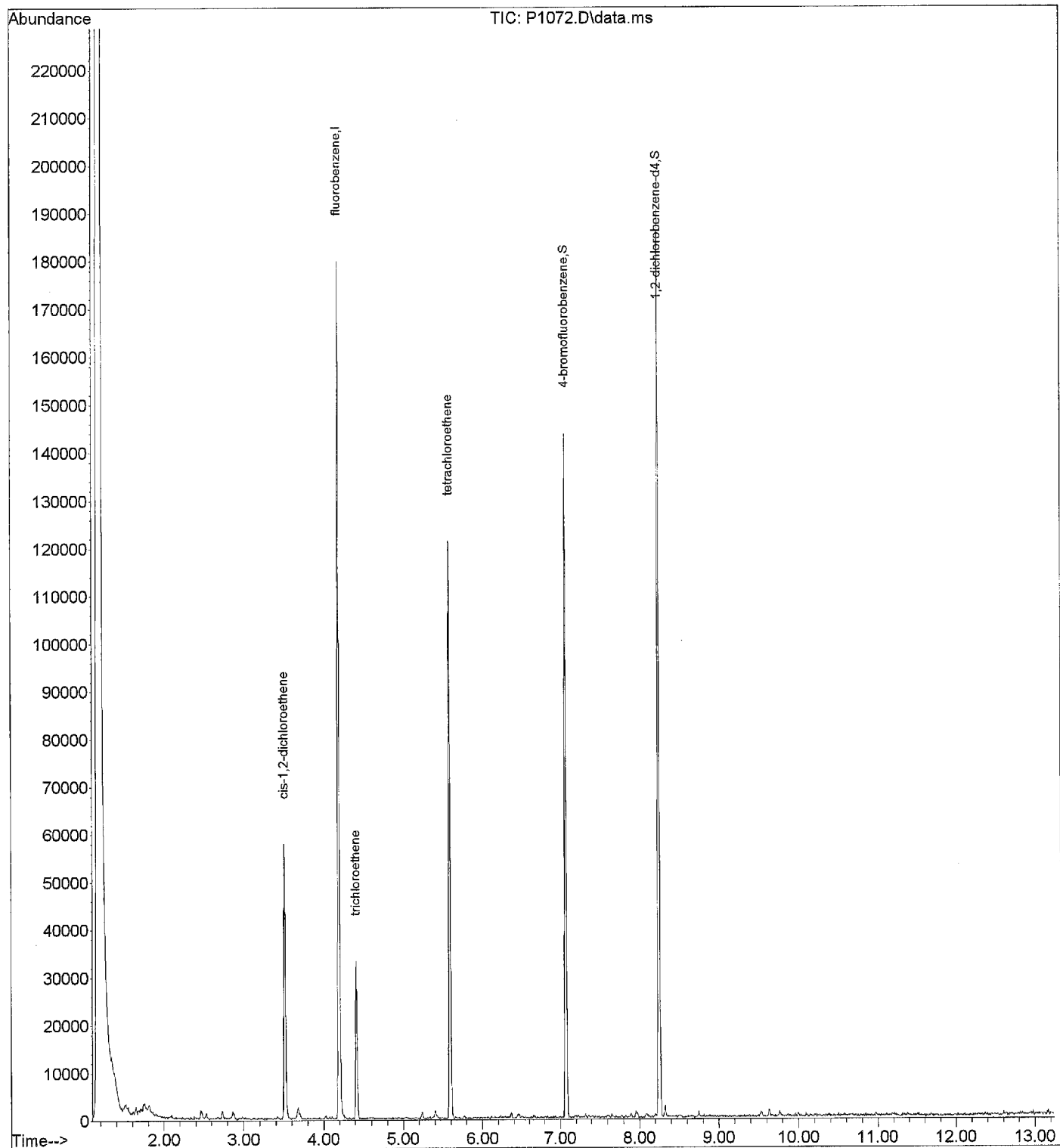
(μg/L or μg/Kg)

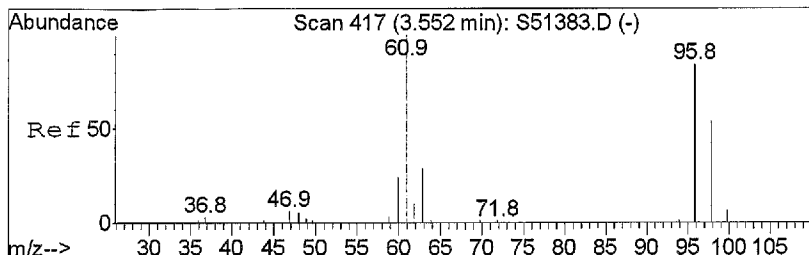
μg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1072.D
Acq On : 1 Jun 2015 21:21
Operator : MN
Sample : 1505F17-008A
Misc : HDR012,MW12,H2O,SAMP,,
ALS Vial : 33 Sample Multiplier: 1
InstName : HP5975

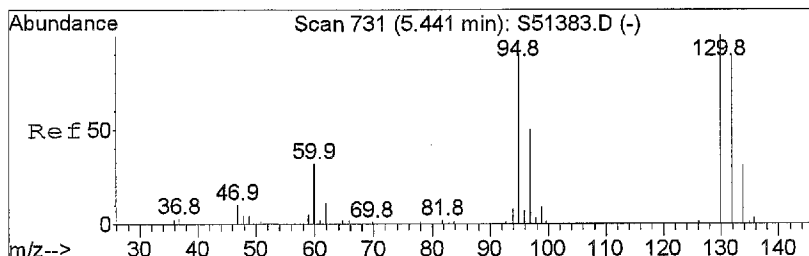
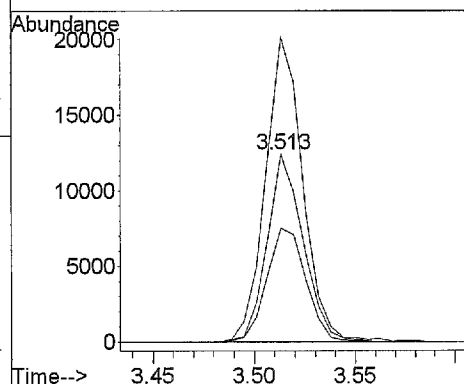
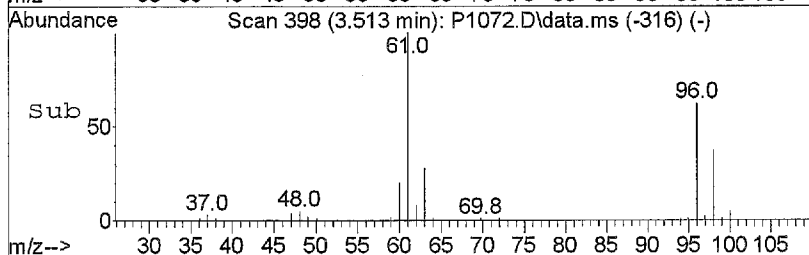
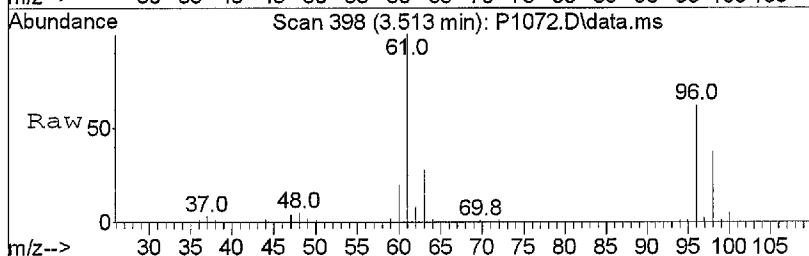
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Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





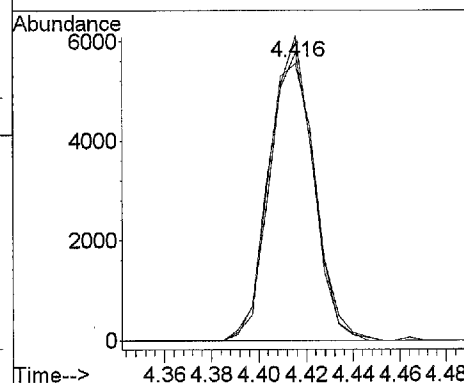
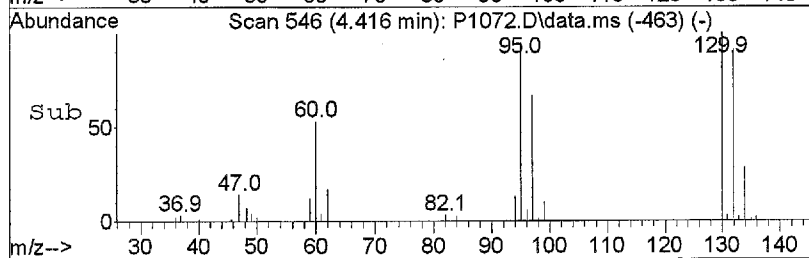
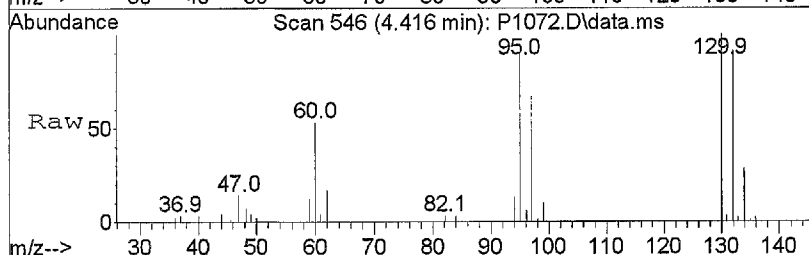
#24
 cis-1,2-dichloroethene
 Concen: 2.32 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1072.D
 Acq: 1 Jun 2015 21:21

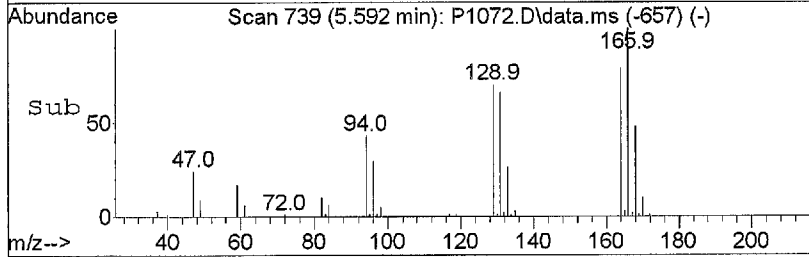
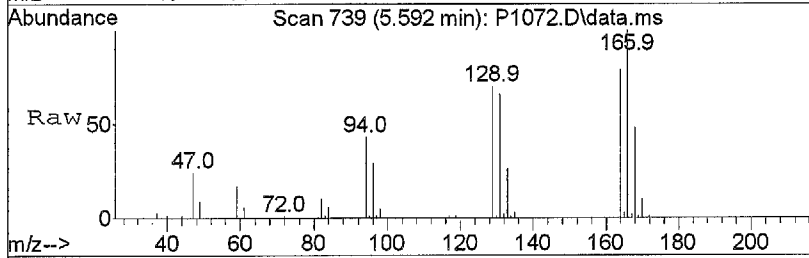
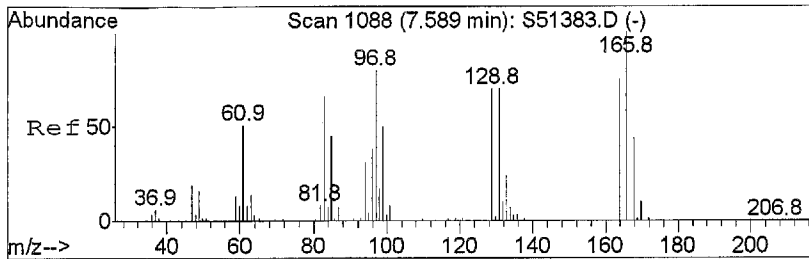
Tgt Ion: 96 Resp: 15265
 Ion Ratio Lower Upper
 96 100
 61 168.0 133.7 173.7
 98 65.7 41.8 81.8



#41
 trichloroethene
 Concen: 1.18 UG/L
 RT: 4.416 min Scan# 546
 Delta R.T. 0.007 min
 Lab File: P1072.D
 Acq: 1 Jun 2015 21:21

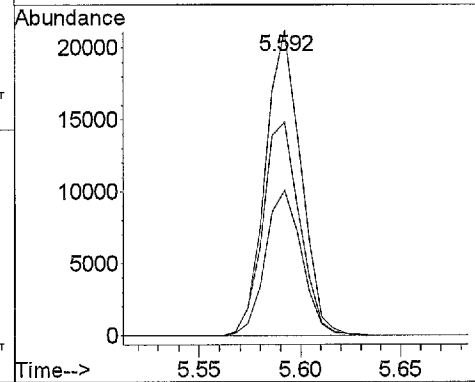
Tgt Ion: 95 Resp: 7561
 Ion Ratio Lower Upper
 95 100
 130 102.0 58.8 98.8#
 132 100.8 48.5 88.5#





#56
tetrachloroethene
Concen: 4.07 UG/L
RT: 5.592 min Scan# 739
Delta R.T. 0.000 min
Lab File: P1072.D
Acq: 1 Jun 2015 21:21

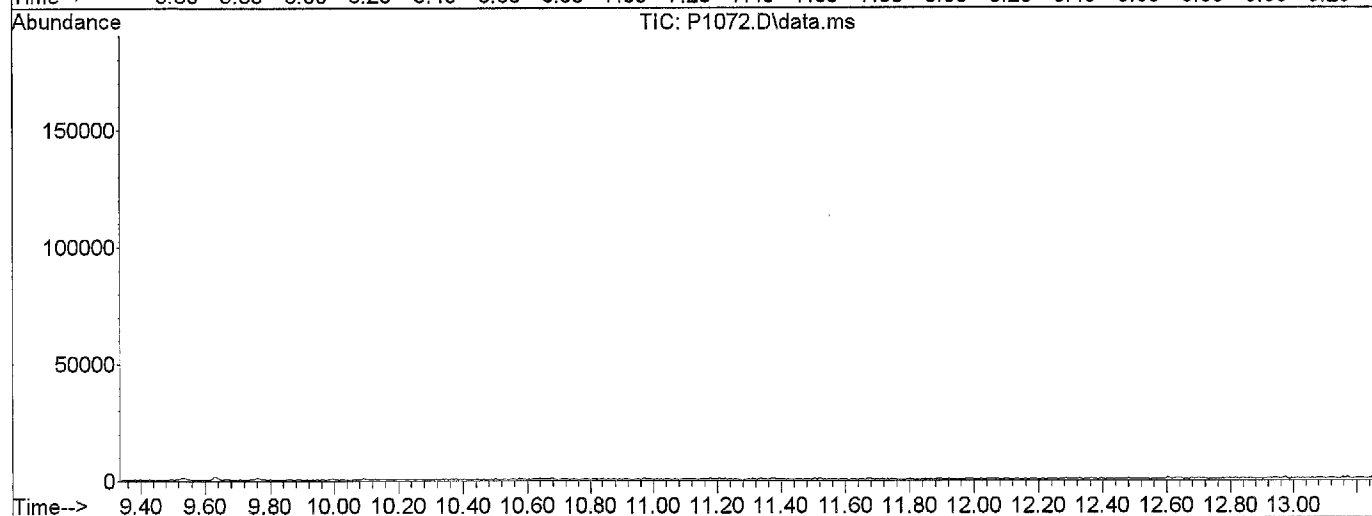
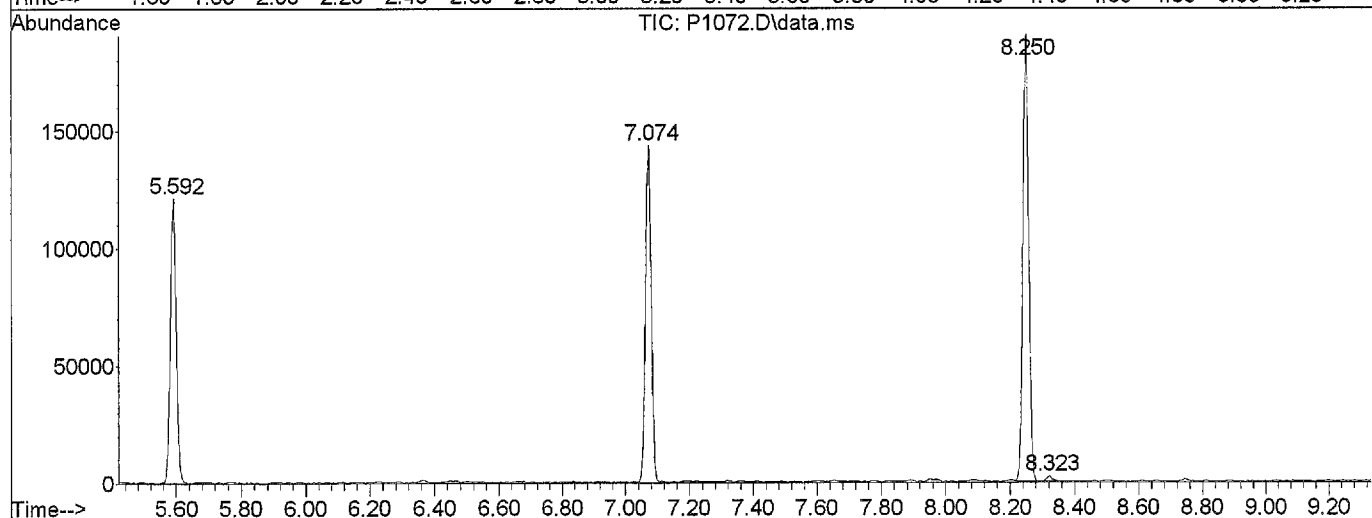
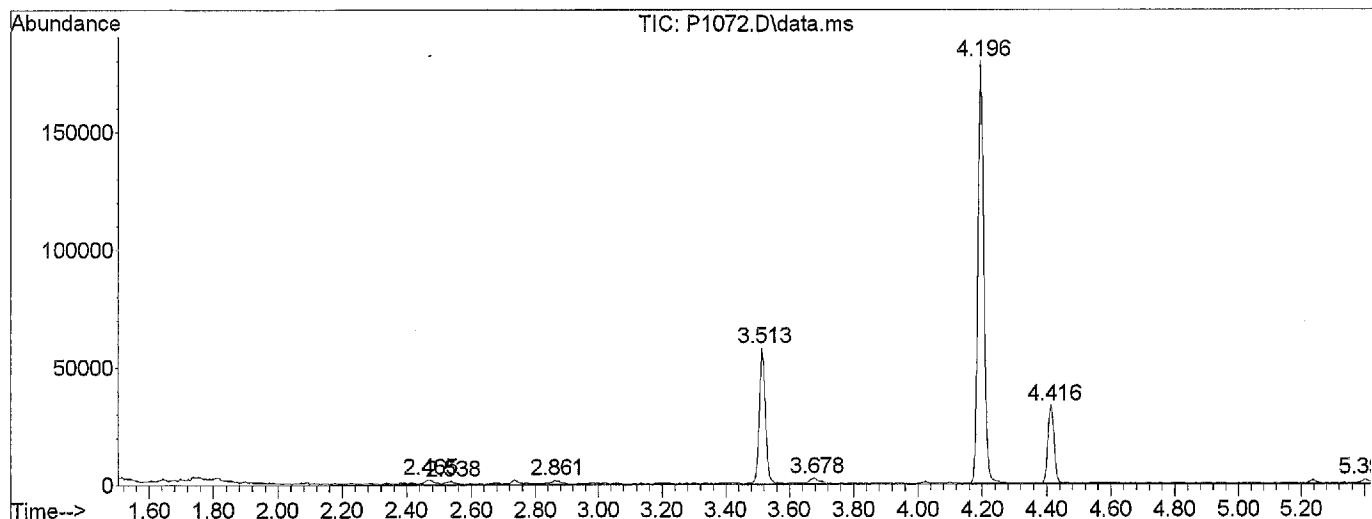
Tgt Ion:166 Resp: 25828
Ion Ratio Lower Upper
166 100
168 48.9 28.3 68.3
129 72.8 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1072.D
Acq On : 1 Jun 2015 21:21
Operator : MN
Sample : 1505F17-008A
Misc : HDR012,MW12,H2O,SAMP,,
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1072.D
Acq On : 1 Jun 2015 21:21
Operator : MN
Sample : 1505F17-008A
Misc : HDR012,MW12,H2O,SAMP,,
ALS Vial : 33 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 21:34:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	100687	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	30230	5.01	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	100.20%	
87) 1,2-dichlorobenzene-d4	8.250	152	38627	4.46	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	89.20%	
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	15265	2.32	UG/L	Qvalue 91
41) trichloroethene	4.416	95	7561	1.18	UG/L	# 67
56) tetrachloroethene	5.592	166	25828	4.07	UG/L	97

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1072.D
Acq On : 1 Jun 2015 21:21
Operator : MN
Sample : 1505F17-008A
Misc : HDR012,MW12,H2O,SAMP,,
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW13

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-009ASample wt/vol: 5(g/mL) MLLab File ID: P1073.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW13

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-009ASample wt/vol: 5(g/mL) MLLab File ID: P1073.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW13

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-009ASample wt/vol: 5(g/mL) mLLab File ID: P1073.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

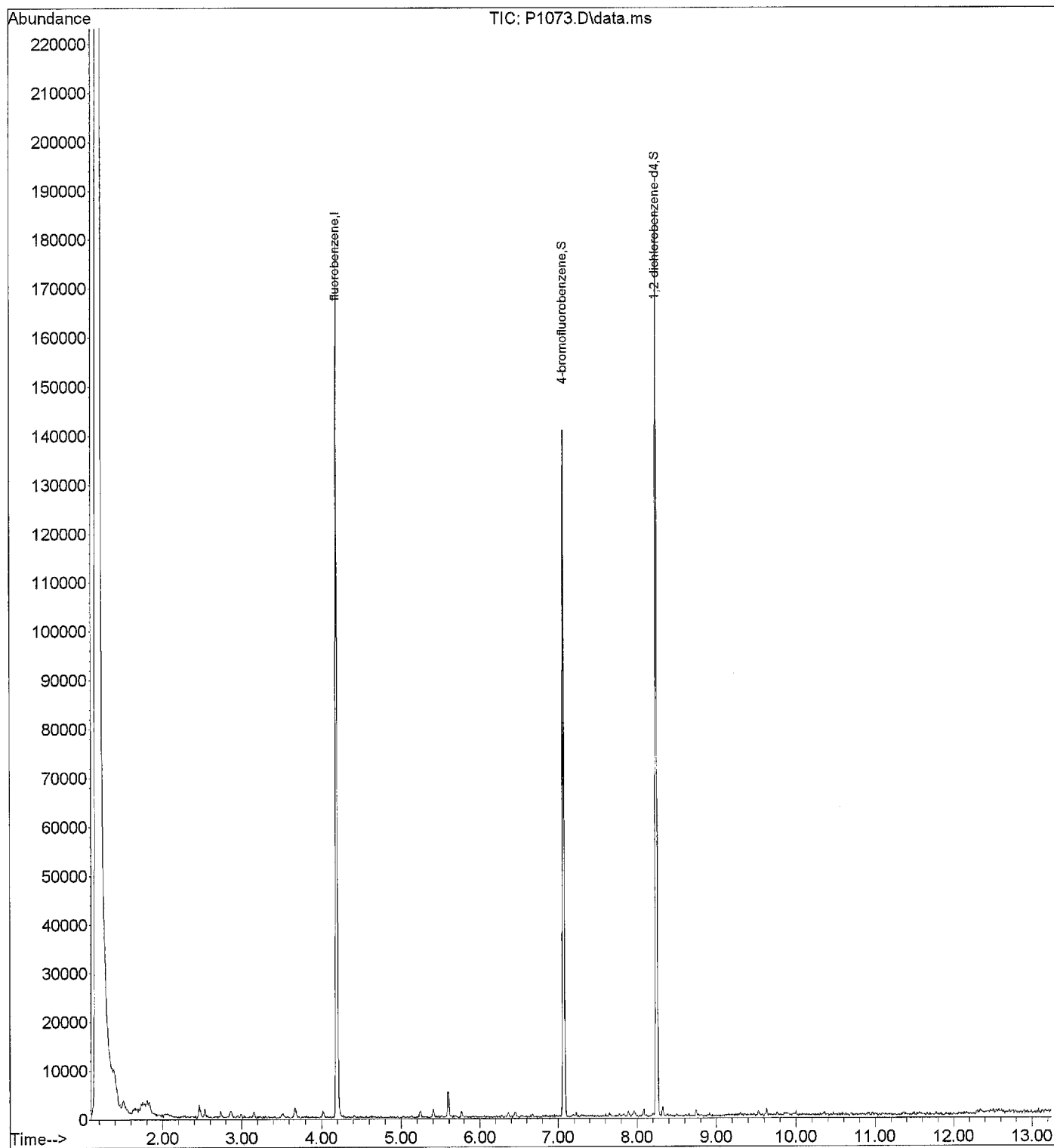
(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1073.D
Acq On : 1 Jun 2015 21:45
Operator : MN
Sample : 1505F17-009A
Misc : HDR012,MW13,H2O,SAMP,,
ALS Vial : 34 Sample Multiplier: 1
InstName : HP5975

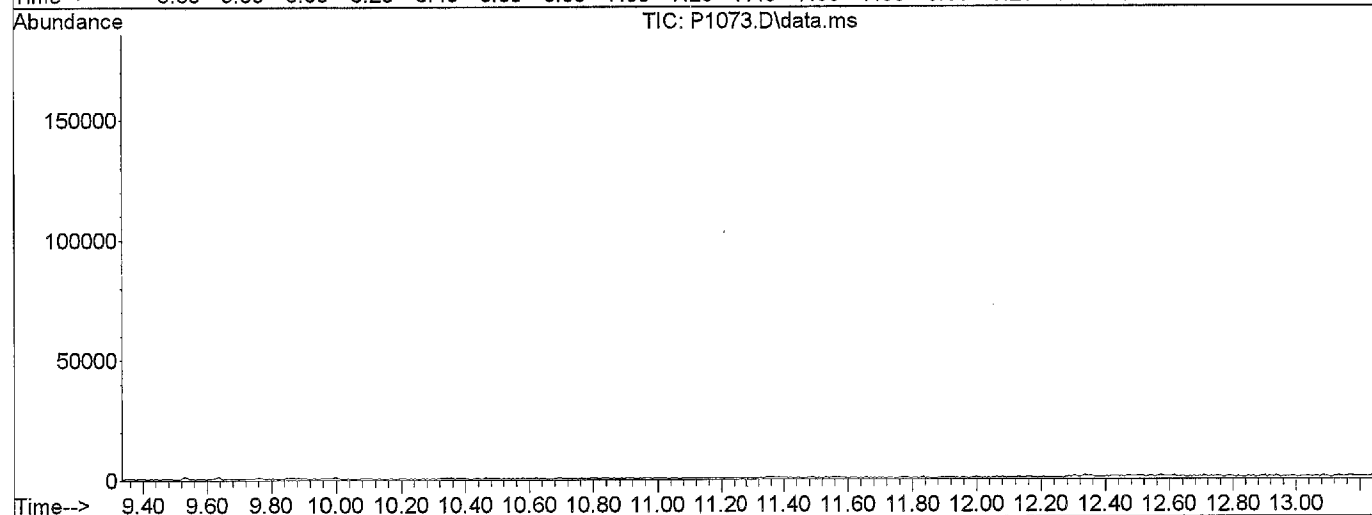
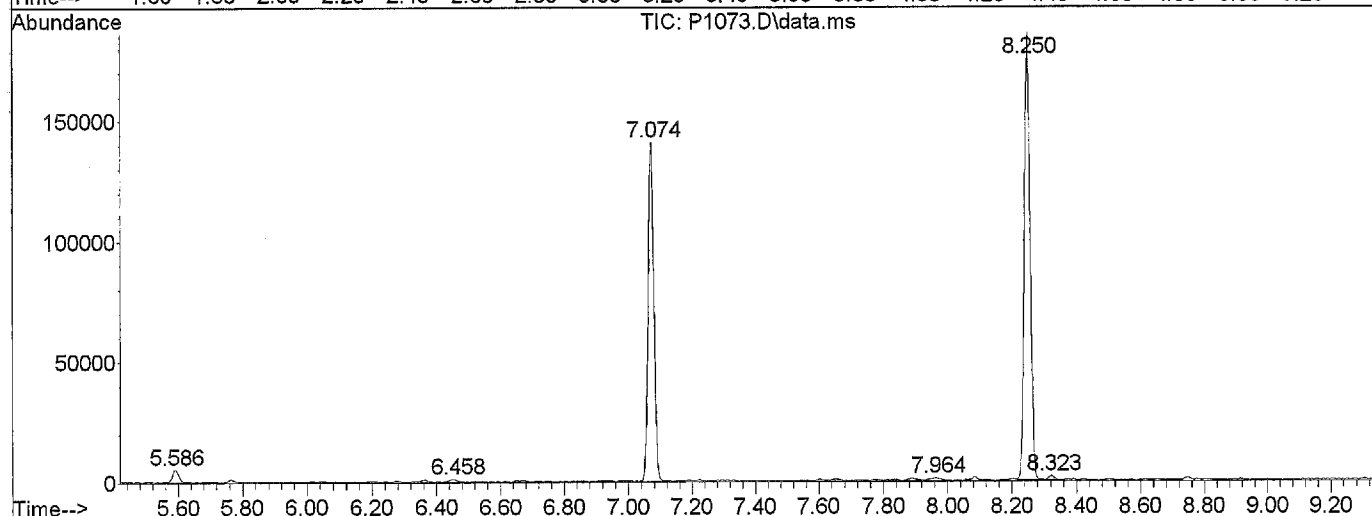
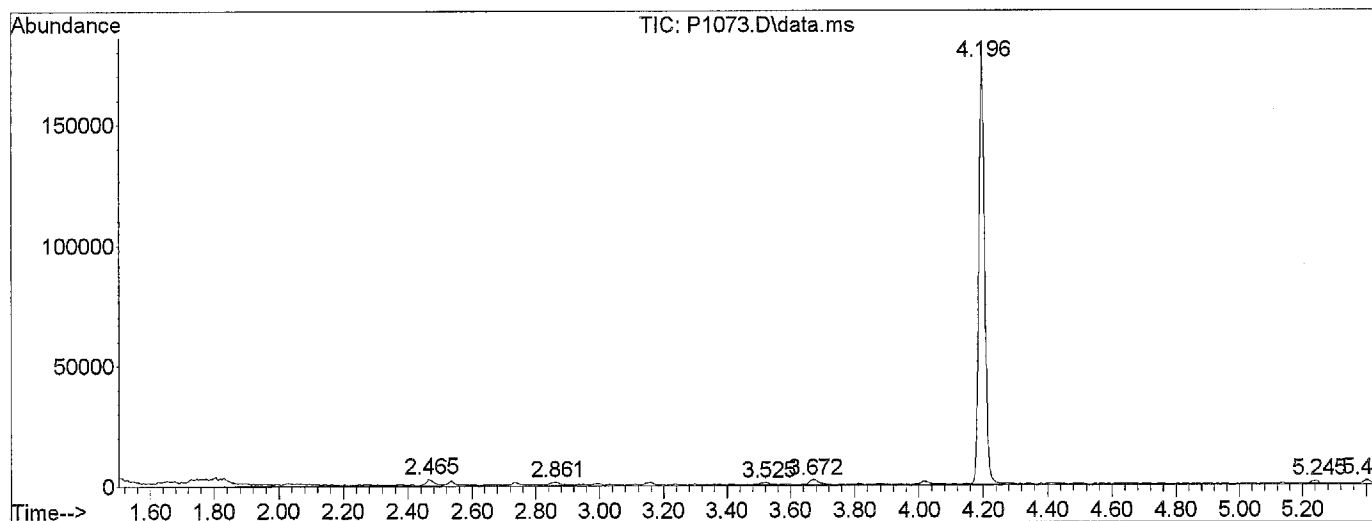
Quant Time: Jun 01 21:59:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1073.D
Acq On : 1 Jun 2015 21:45
Operator : MN
Sample : 1505F17-009A
Misc : HDR012,MW13,H2O,SAMP,,
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1073.D
Acq On : 1 Jun 2015 21:45
Operator : MN
Sample : 1505F17-009A
Misc : HDR012,MW13,H2O,SAMP,,
ALS Vial : 34 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 21:59:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	100528	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	29787	4.95	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	99.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	39066	4.51	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	90.20%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1073.D
Acq On : 1 Jun 2015 21:45
Operator : MN
Sample : 1505F17-009A
Misc : HDR012,MW13,H2O,SAMP,,
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW14

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-010ASample wt/vol: 5(g/mL) MLLab File ID: P1074.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW14

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-010ASample wt/vol: 5(g/mL) MLLab File ID: P1074.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW14

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATER

Lab Sample ID:

1505F17-010ASample wt/vol: 5(g/mL) mL

Lab File ID:

P1074.DLevel: (low/med) LOW

Date Received:

05/20/15

% Moisture: not dec.

Date Analyzed:

06/01/15GC Column: R-624 0.18ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume:

0

(μL)

CONCENTRATION UNITS:

Number TICs found:

0

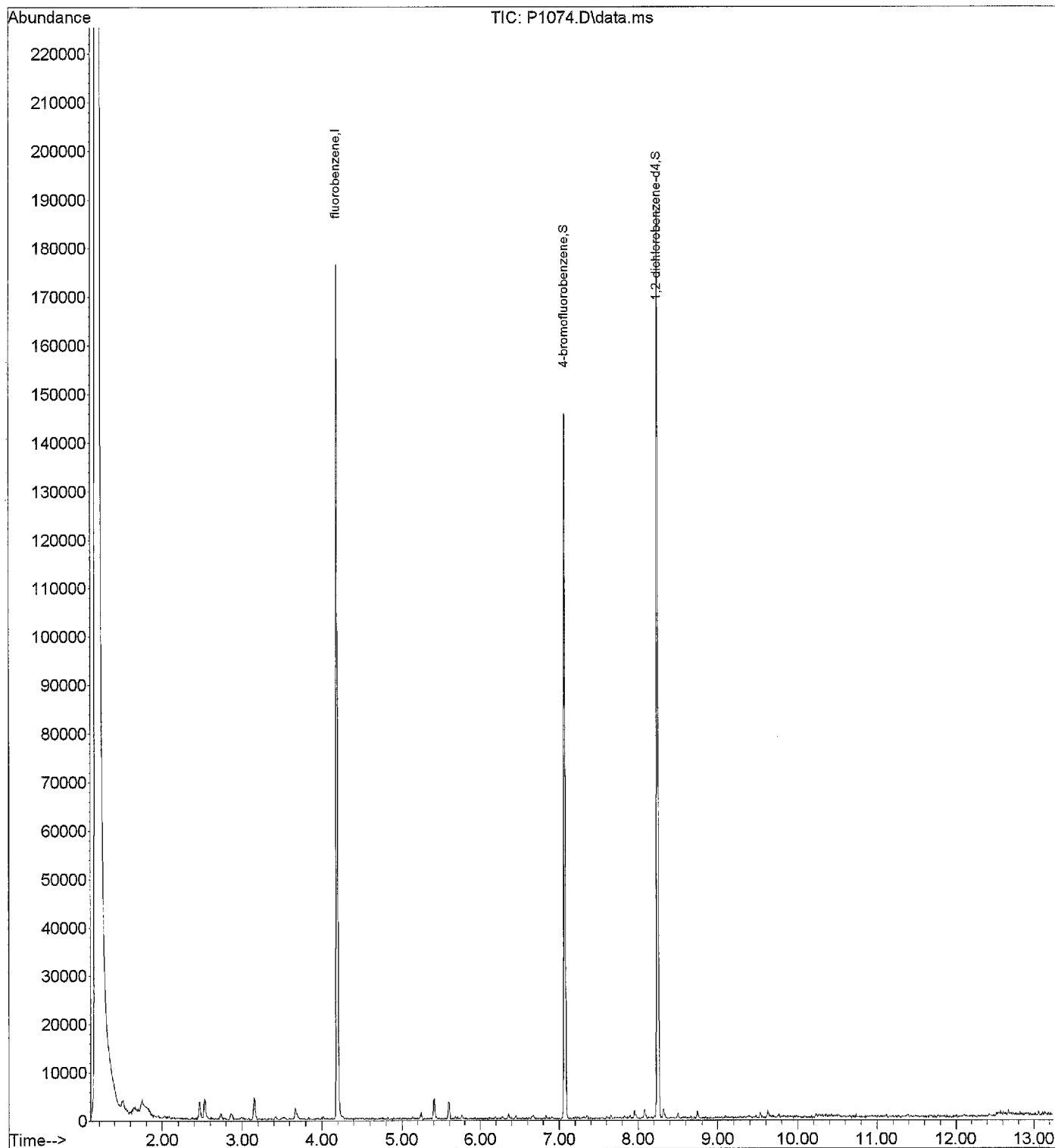
(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1074.D
Acq On : 1 Jun 2015 22:10
Operator : MN
Sample : 1505F17-010A
Misc : HDR012,MW14,H2O,SAMP,,
ALS Vial : 35 Sample Multiplier: 1
InstName : HP5975

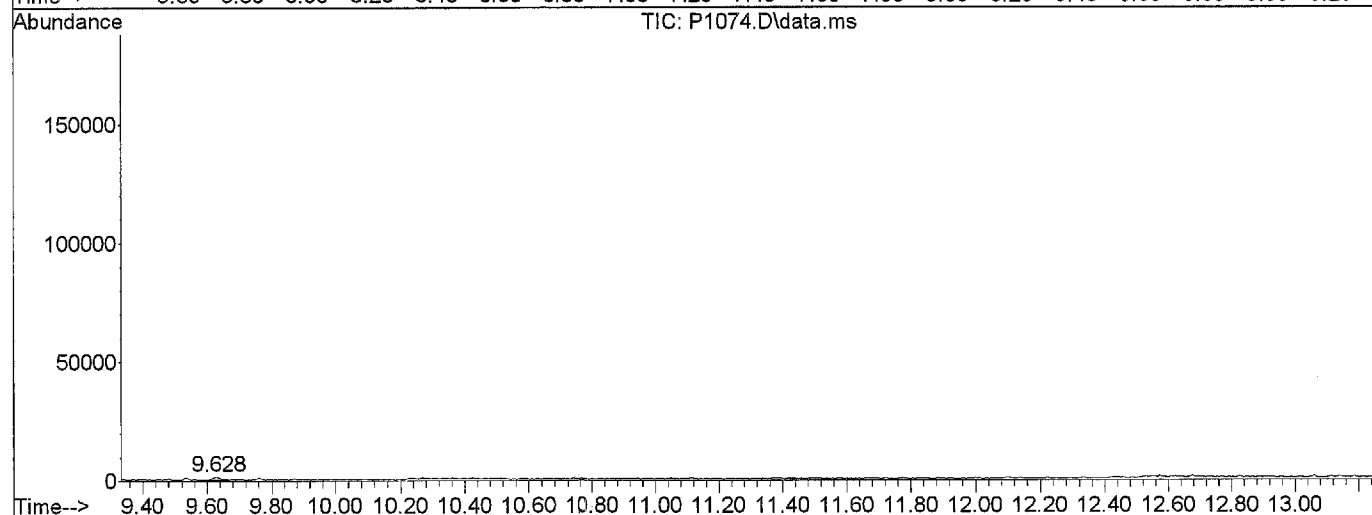
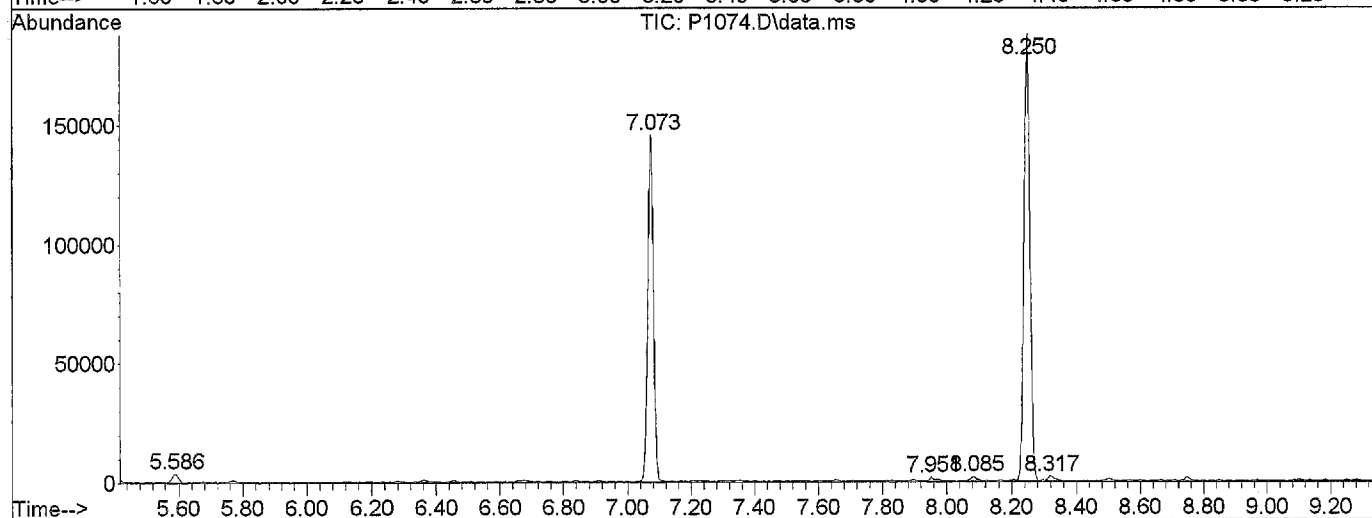
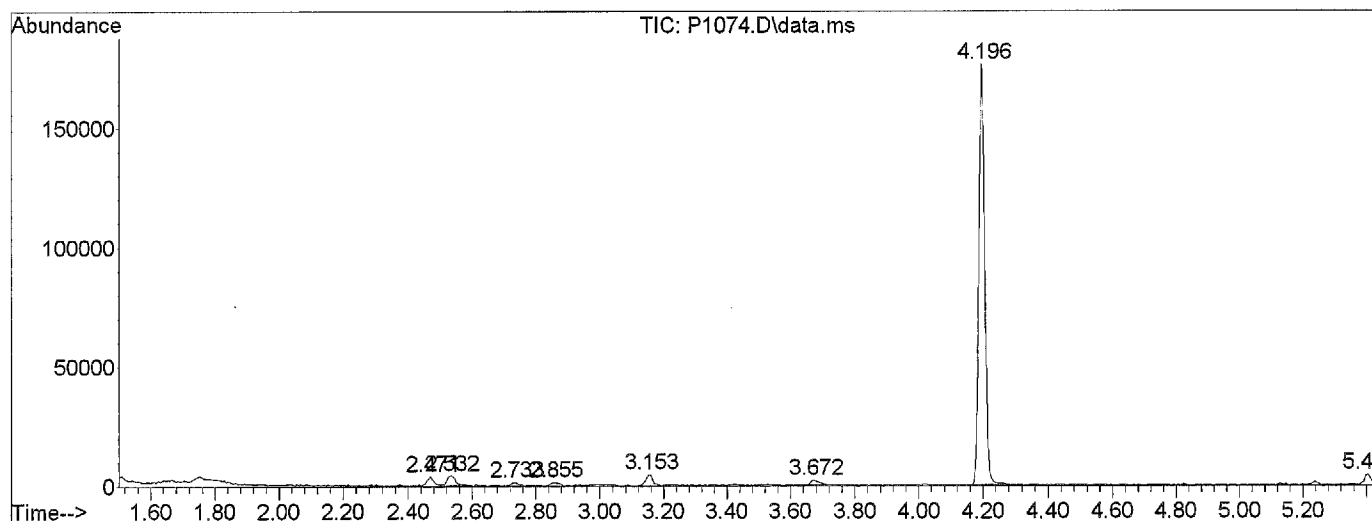
Quant Time: Jun 01 22:24:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1074.D
Acq On : 1 Jun 2015 22:10
Operator : MN
Sample : 1505F17-010A
Misc : HDR012,MW14,H2O,SAMP,,
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1074.D
Acq On : 1 Jun 2015 22:10
Operator : MN
Sample : 1505F17-010A
Misc : HDR012,MW14,H2O,SAMP,,
ALS Vial : 35 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 22:24:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	98183	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	29364	4.99	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	99.80%	
87) 1,2-dichlorobenzene-d4	8.250	152	38604	4.57	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	91.40%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1074.D
Acq On : 1 Jun 2015 22:10
Operator : MN
Sample : 1505F17-010A
Misc : HDR012,MW14,H2O,SAMP,,
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW64

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-011ASample wt/vol: 5 (g/mL) MLLab File ID: P1075.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW64

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-011ASample wt/vol: 5 (g/mL) MLLab File ID: P1075.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

MW64

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-011ASample wt/vol: 5(g/mL) mLLab File ID: P1075.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

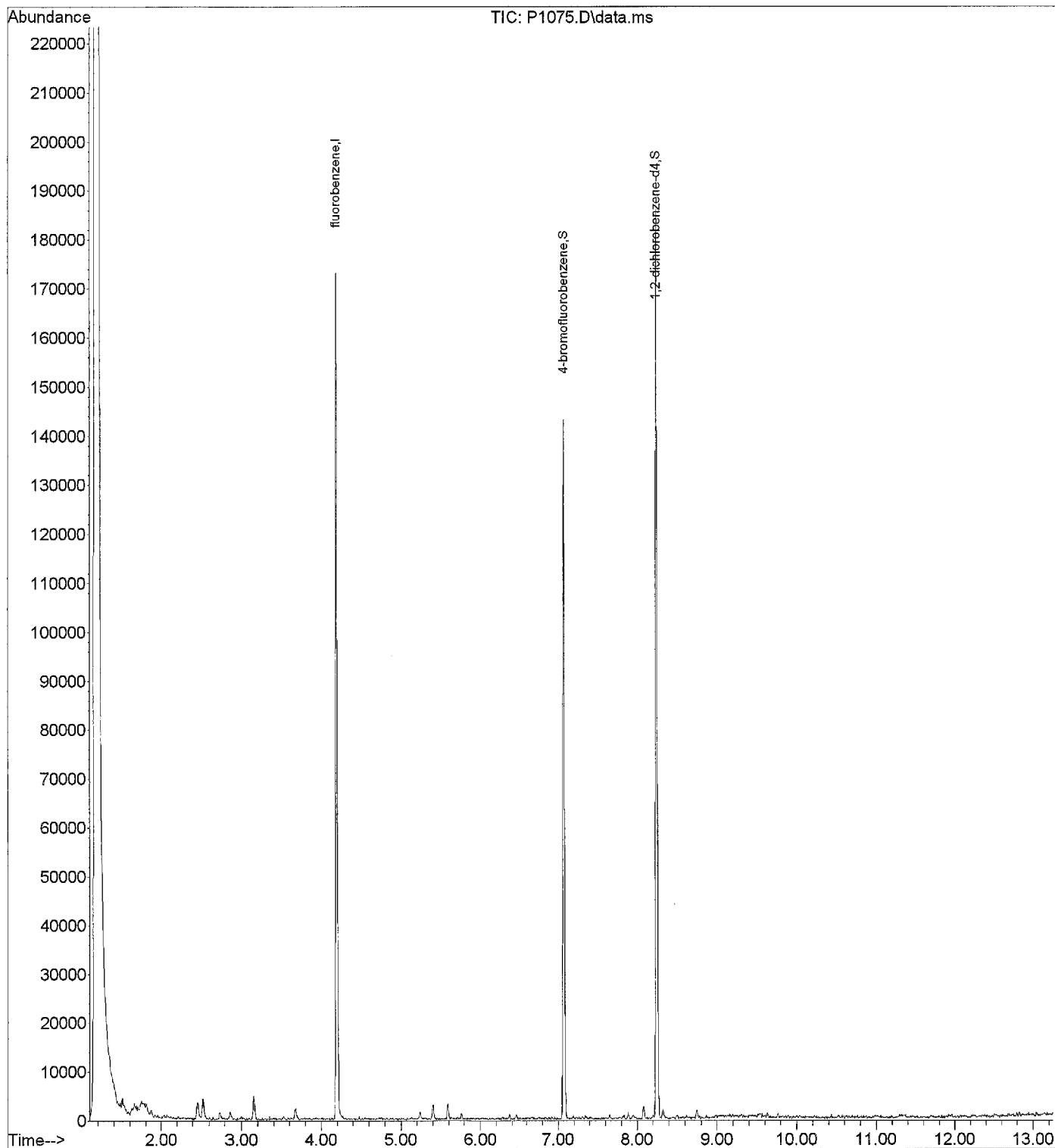
(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1075.D
Acq On : 1 Jun 2015 22:35
Operator : MN
Sample : 1505F17-011A
Misc : HDR012,MW64,H2O,SAMP,,
ALS Vial : 36 Sample Multiplier: 1
InstName : HP5975

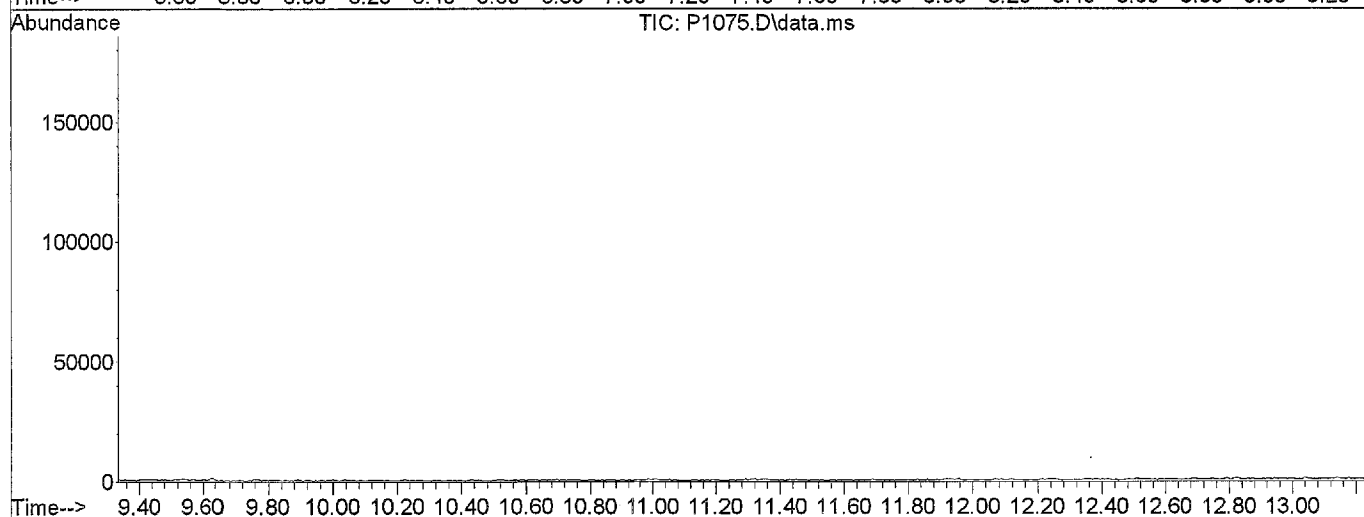
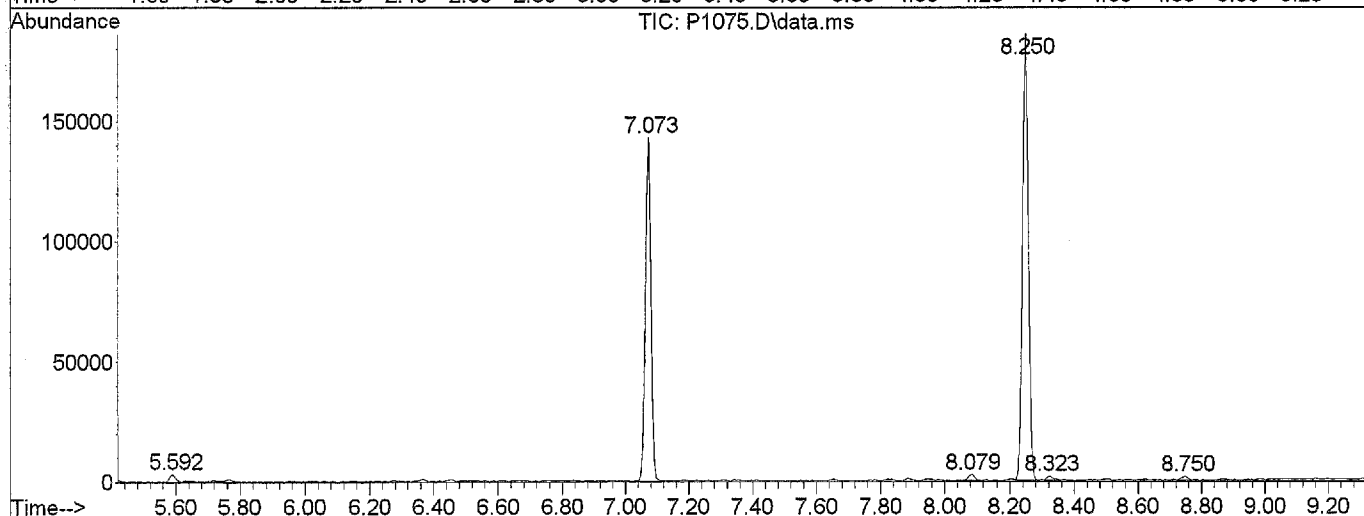
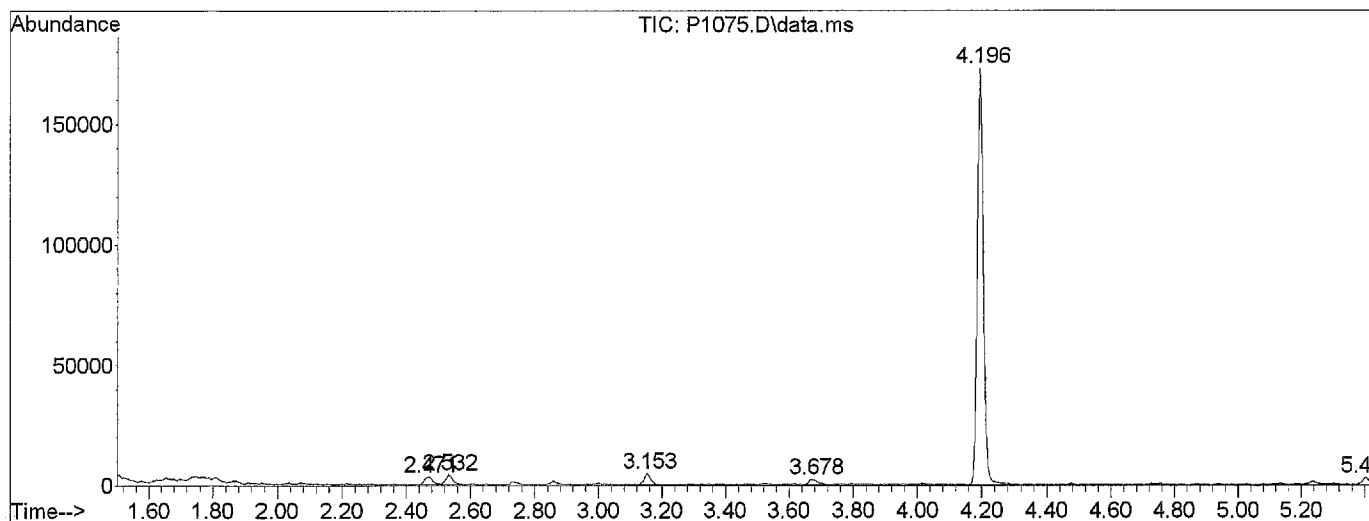
Quant Time: Jun 01 22:48:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1075.D
Acq On : 1 Jun 2015 22:35
Operator : MN
Sample : 1505F17-011A
Misc : HDR012,MW64,H2O,SAMP,,
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1075.D
Acq On : 1 Jun 2015 22:35
Operator : MN
Sample : 1505F17-011A
Misc : HDR012,MW64,H2O,SAMP,,
ALS Vial : 36 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 22:48:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	98946	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	28514	4.81	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	96.20%	
87) 1,2-dichlorobenzene-d4	8.250	152	37001	4.34	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	86.80%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1075.D
Acq On : 1 Jun 2015 22:35
Operator : MN
Sample : 1505F17-011A
Misc : HDR012,MW64,H2O,SAMP,,
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-012ASample wt/vol: 5 (g/mL) MLLab File ID: P1057.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	8	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	160	E
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-012ASample wt/vol: 5(g/mL) MLLab File ID: P1057.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

RW1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-012ASample wt/vol: 5 (g/mL) mLLab File ID: P1057.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18 ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: (µl)

Soil Aliquot Volume: 0 (µL)

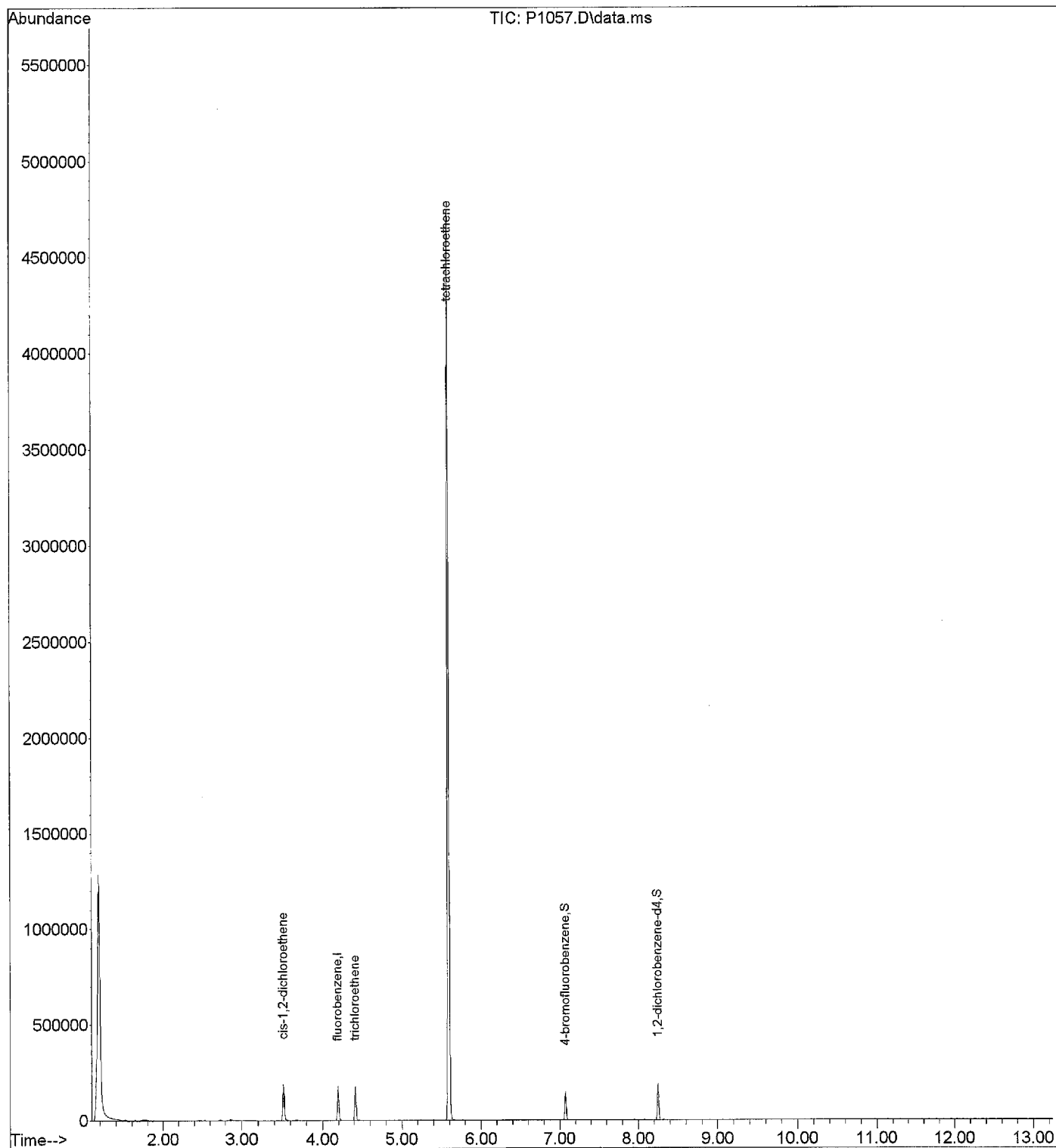
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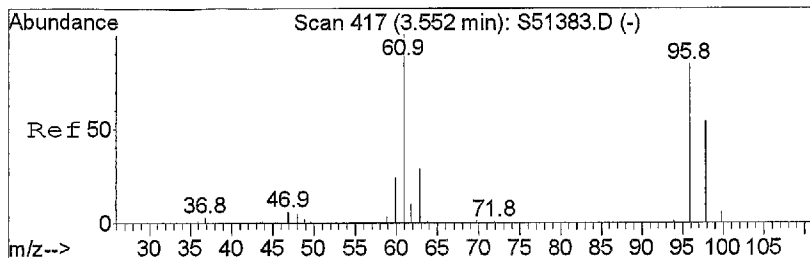
Number TICs found: 0 (µg/L or µg/Kg) µg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1057.D
Acq On : 1 Jun 2015 14:19
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,SAMP,,
ALS Vial : 62 Sample Multiplier: 1
InstName : HP5975

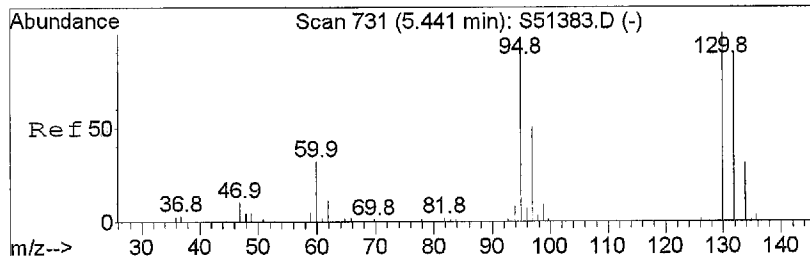
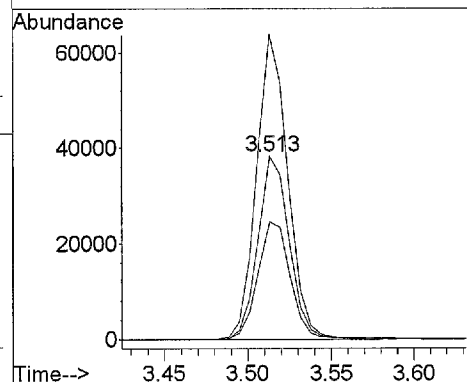
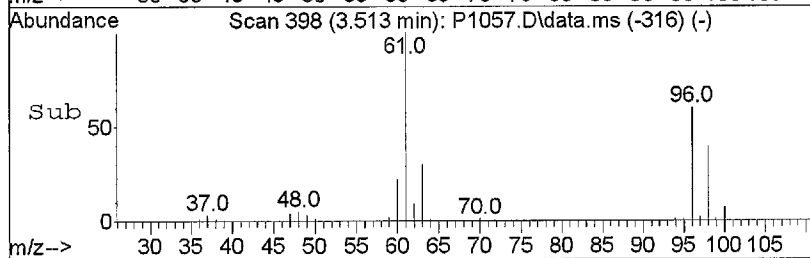
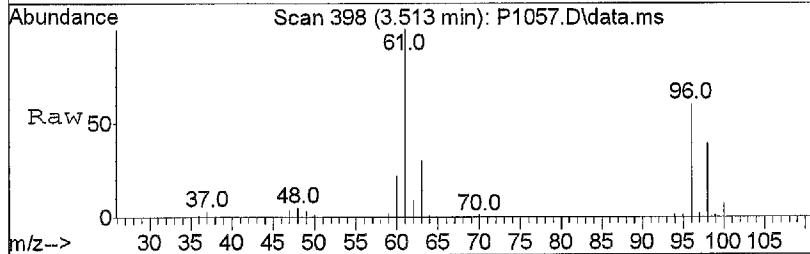
Quant Time: Jun 01 14:32:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





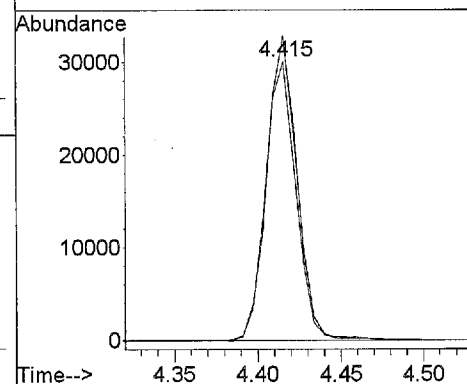
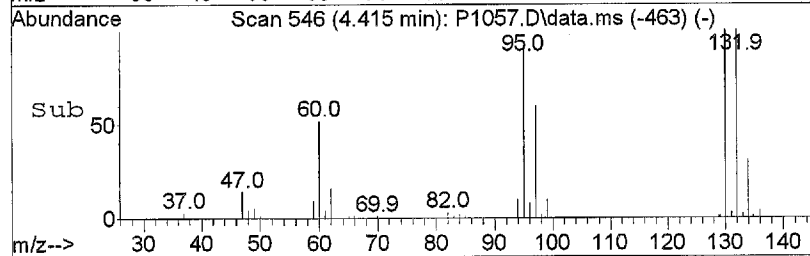
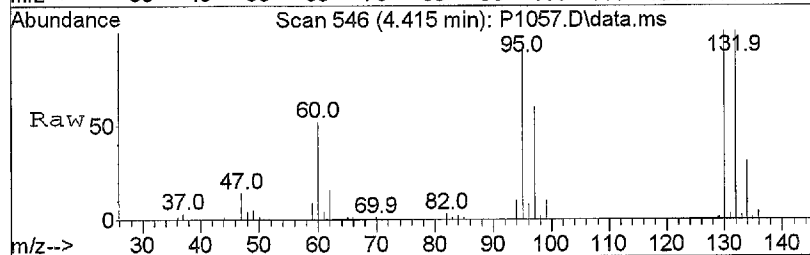
#24
 cis-1,2-dichloroethene
 Concen: 7.65 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1057.D
 Acq: 1 Jun 2015 14:19

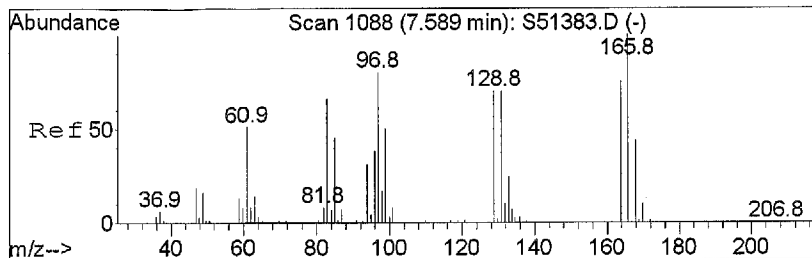
Tgt Ion: 96 Resp: 50021
 Ion Ratio Lower Upper
 96 100
 61 166.4 133.7 173.7
 98 66.7 41.8 81.8



#41
 trichloroethene
 Concen: 6.00 UG/L
 RT: 4.415 min Scan# 546
 Delta R.T. 0.006 min
 Lab File: P1057.D
 Acq: 1 Jun 2015 14:19

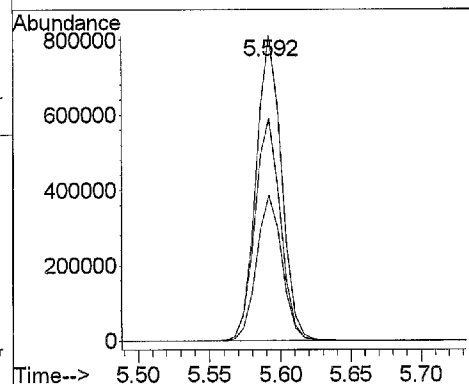
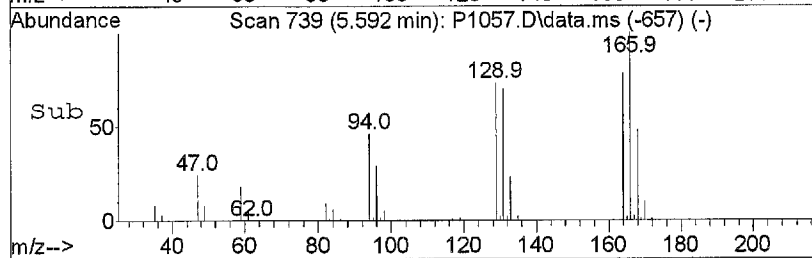
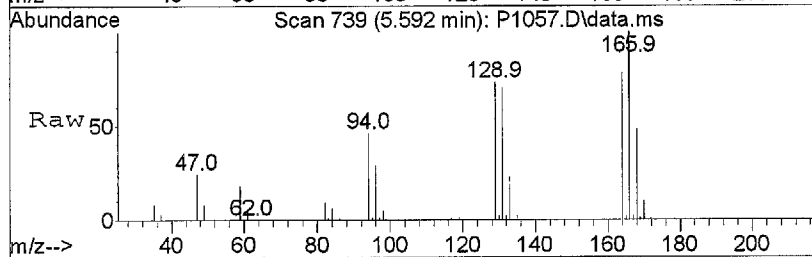
Tgt Ion: 95 Resp: 38169
 Ion Ratio Lower Upper
 95 100
 130 107.3 58.8 98.8#
 132 108.1 48.5 88.5#





#56
 tetrachloroethene
 Concen: 159.65 UG/L
 RT: 5.592 min Scan# 739
 Delta R.T. 0.000 min
 Lab File: P1057.D
 Acq: 1 Jun 2015 14:19

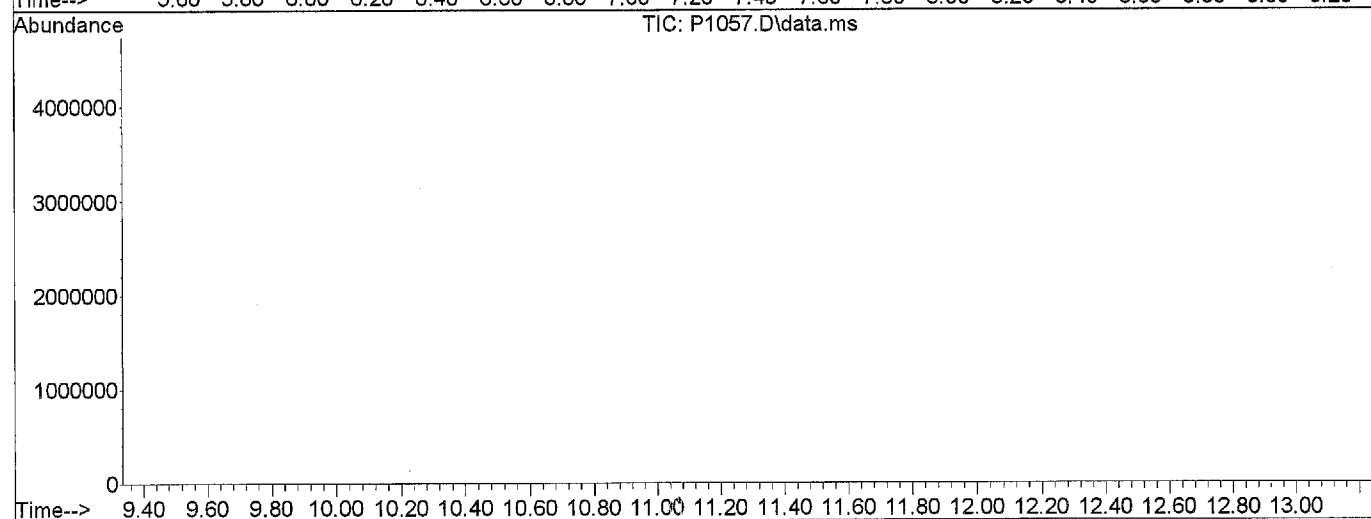
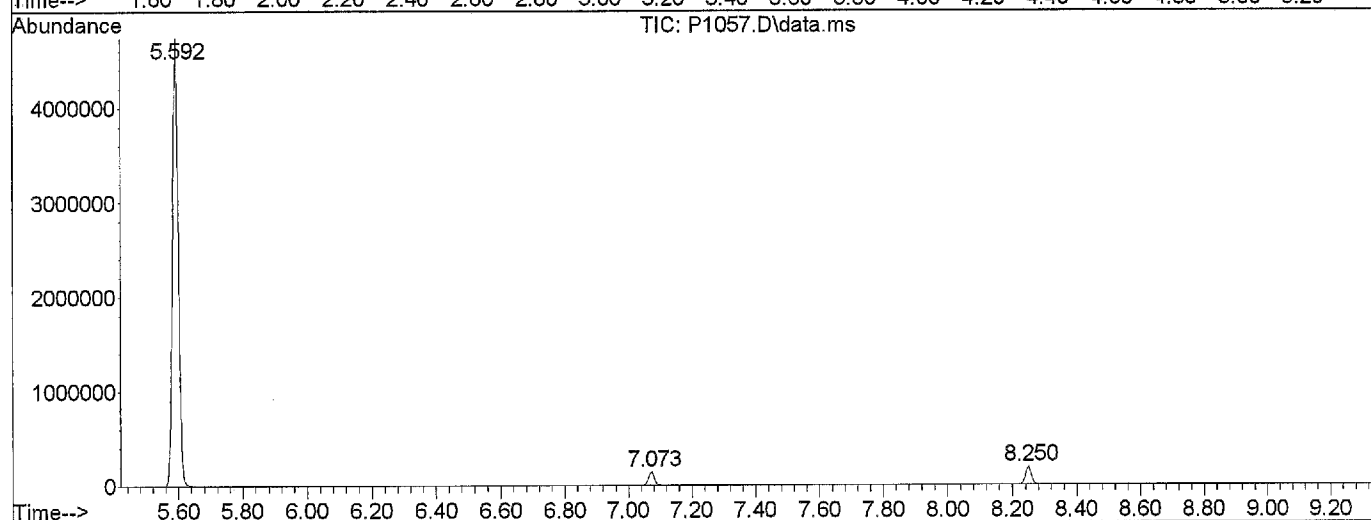
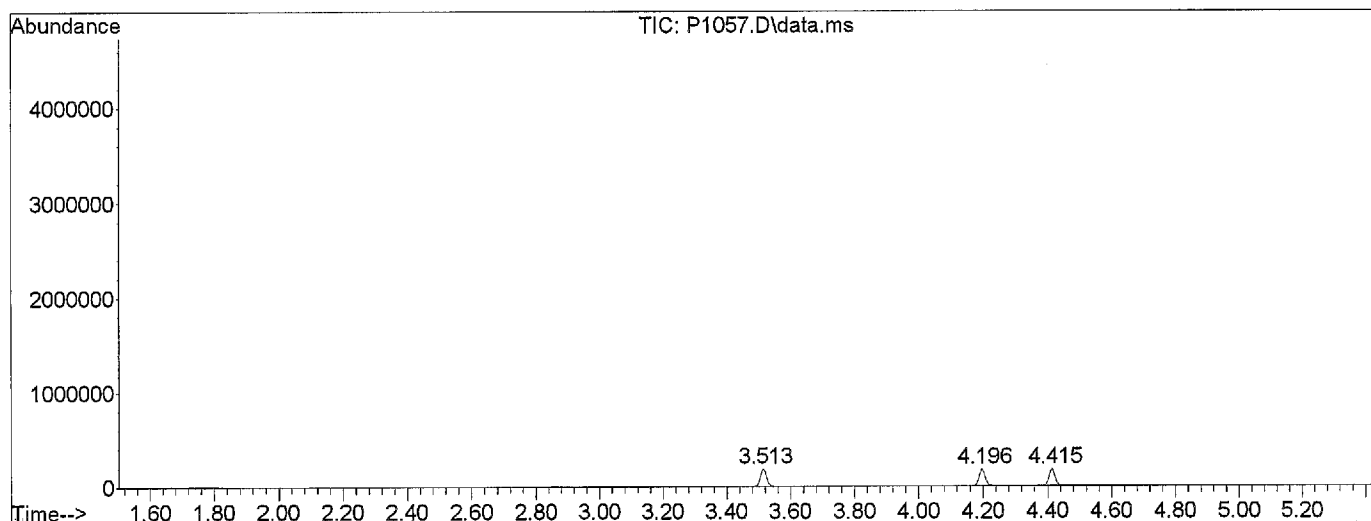
Tgt Ion:166 Resp: 1006585
 Ion Ratio Lower Upper
 166 100
 168 47.9 28.3 68.3
 129 73.4 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1057.D
Acq On : 1 Jun 2015 14:19
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,SAMP,,
ALS Vial : 62 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1057.D
Acq On : 1 Jun 2015 14:19
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,SAMP,,
ALS Vial : 62 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 14:32:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	100046	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	30735	5.13	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	102.60%	
87) 1,2-dichlorobenzene-d4	8.250	152	37804	4.39	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	87.80%	
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	50021	7.65	UG/L	Qvalue 91
41) trichloroethene	4.415	95	38169	6.00	UG/L	# 60
56) tetrachloroethene	5.592	166	1006585	159.65	UG/L	98

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1057.D
Acq On : 1 Jun 2015 14:19
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,SAMP,,
ALS Vial : 62 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

RWIDL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-012ADLSample wt/vol: 5 (g/mL) MLLab File ID: P1077.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	3	U
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-69-4	Trichlorofluoromethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-09-2	Methylene chloride	3	U
156-60-5	trans-1,2-Dichloroethene	3	U
75-34-3	1,1-Dichloroethane	3	U
594-20-7	2,2-Dichloropropane	3	U
156-59-2	cis-1,2-Dichloroethene	3	D
74-97-5	Bromochloromethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
563-58-6	1,1-Dichloropropene	3	U
107-06-2	1,2-Dichloroethane	3	U
71-43-2	Benzene	3	U
79-01-6	Trichloroethene	6	D
78-87-5	1,2-Dichloropropane	3	U
74-95-3	Dibromomethane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	170	D
142-28-9	1,3-Dichloropropane	3	U
124-48-1	Dibromochloromethane	3	U
108-90-7	Chlorobenzene	3	U
630-20-6	1,1,1,2-Tetrachloroethane	3	U
100-41-4	Ethylbenzene	3	U
179601-23-1	m,p-Xylene	3	U
95-47-6	o-Xylene	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

RWIDL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-012ADLSample wt/vol: 5 (g/mL) MLLab File ID: P1077.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	3	U
75-25-2	Bromoform	3	U
98-82-8	Isopropylbenzene	3	U
108-86-1	Bromobenzene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
96-18-4	1,2,3-Trichloropropane	3	U
103-65-1	n-Propylbenzene	3	U
	2/4-Chlorotoluene	3	U
108-67-8	1,3,5-Trimethylbenzene	3	U
98-06-6	tert-Butylbenzene	3	U
95-63-6	1,2,4-Trimethylbenzene	3	U
135-98-8	sec-Butylbenzene	3	U
104-51-8	n-Butylbenzene	3	U
541-73-1	1,3-Dichlorobenzene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
99-87-6	4-Isopropyltoluene	3	U
95-50-1	1,2-Dichlorobenzene	3	U
120-82-1	1,2,4-Trichlorobenzene	3	U
87-68-3	Hexachlorobutadiene	3	U
87-61-6	1,2,3-Trichlorobenzene	3	U
1634-04-4	Methyl tert-butyl ether	3	U
	Total Trihalomethanes	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

RW1DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-012ADLSample wt/vol: 5 (g/mL) mLLab File ID: P1077.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18 ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____ (µl)

Soil Aliquot Volume: 0 (µL)

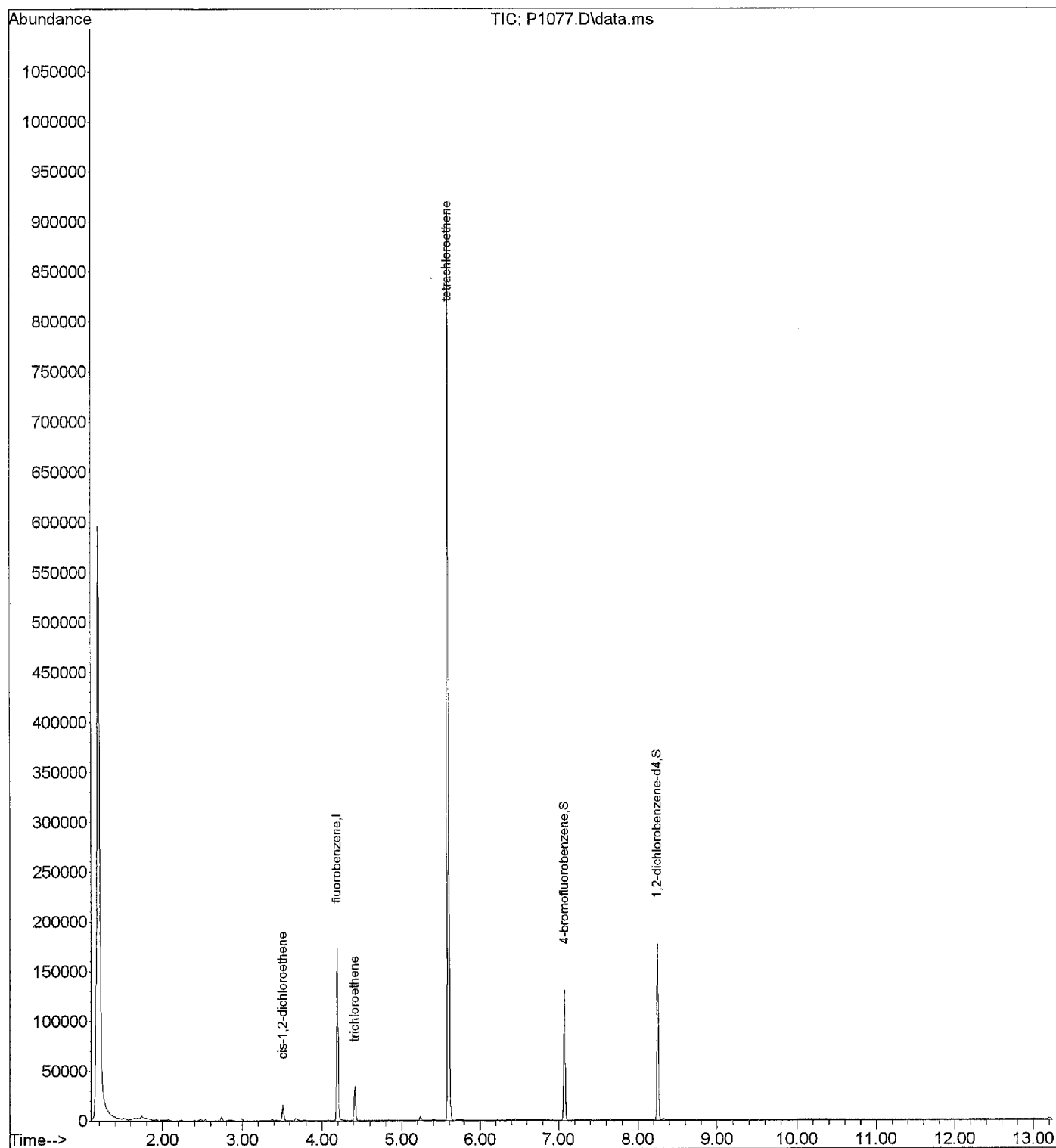
CONCENTRATION UNITS:

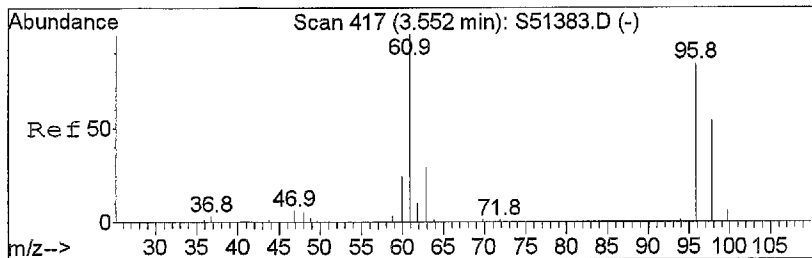
Number TICs found: 0 (µg/L or µg/Kg) µg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1077.D
Acq On : 1 Jun 2015 23:25
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,DL,, 1:5
ALS Vial : 38 Sample Multiplier: 1
InstName : HP5975

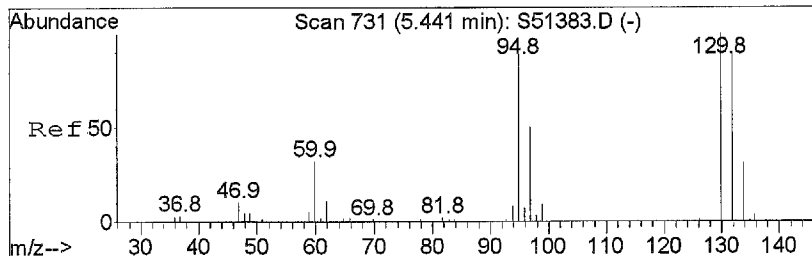
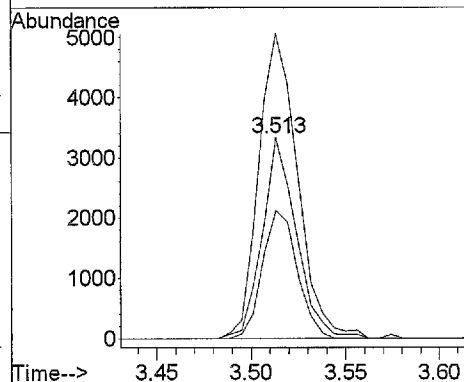
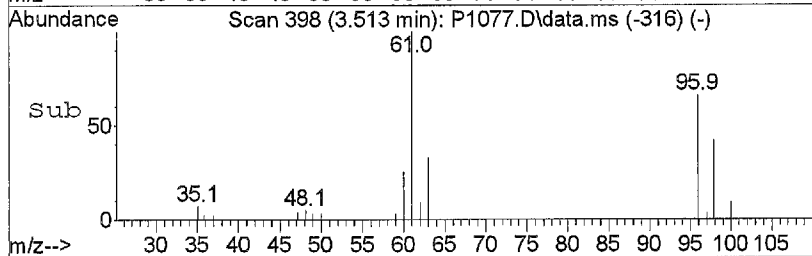
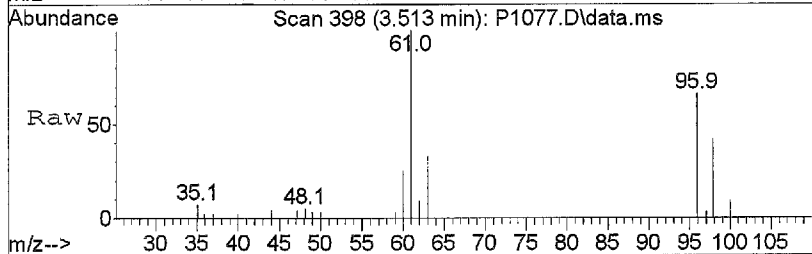
Quant Time: Jun 01 23:38:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





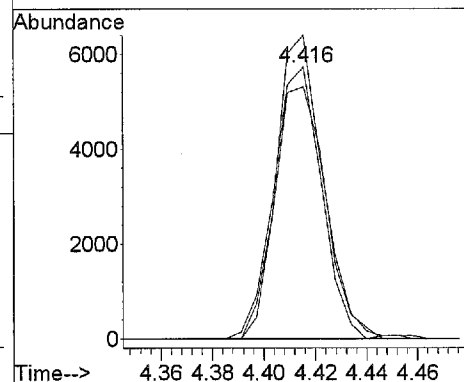
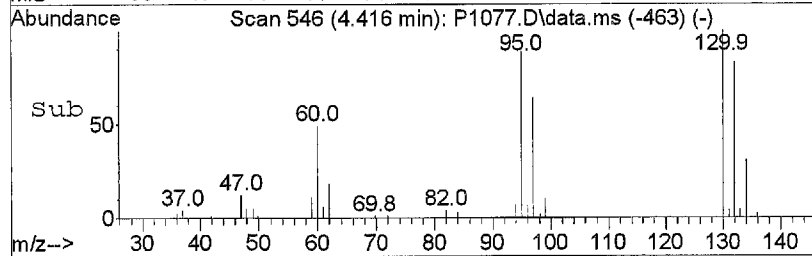
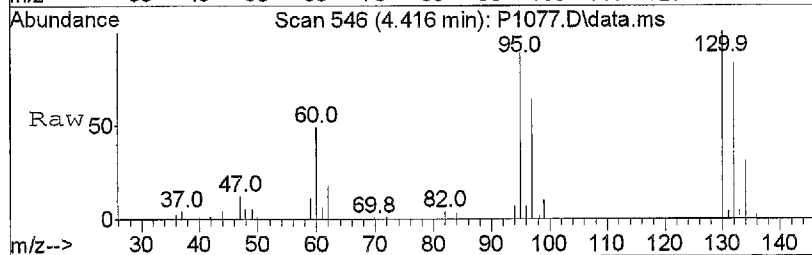
#24
 cis-1,2-dichloroethene
 Concen: 0.68 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1077.D
 Acq: 1 Jun 2015 23:25

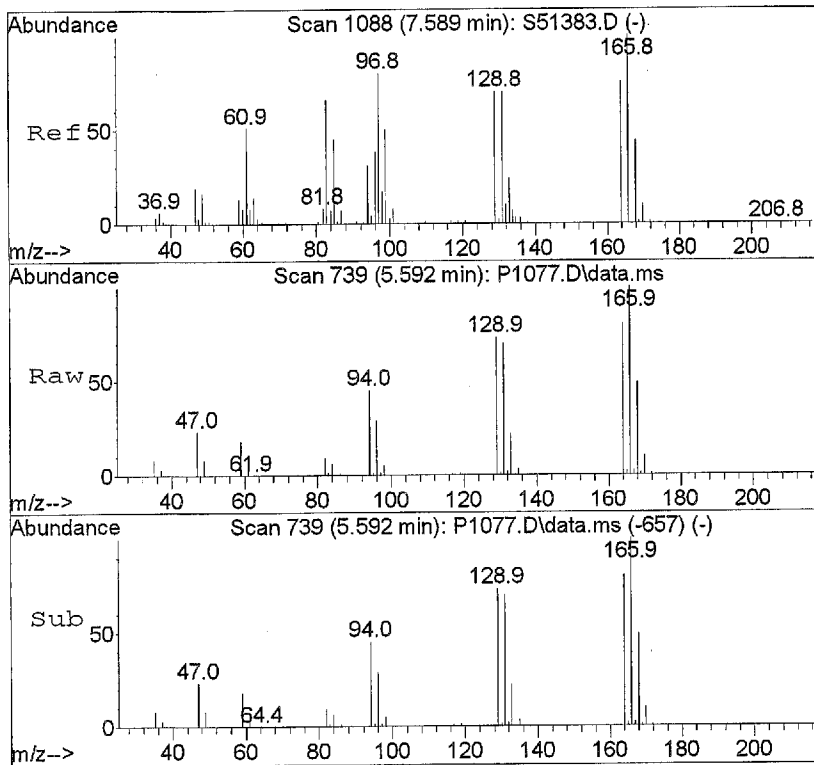
Tgt Ion: 96 Resp: 4159
 Ion Ratio Lower Upper
 96 100
 61 173.2 133.7 173.7
 98 65.0 41.8 81.8



#41
 trichloroethene
 Concen: 1.25 UG/L
 RT: 4.416 min Scan# 546
 Delta R.T. 0.007 min
 Lab File: P1077.D
 Acq: 1 Jun 2015 23:25

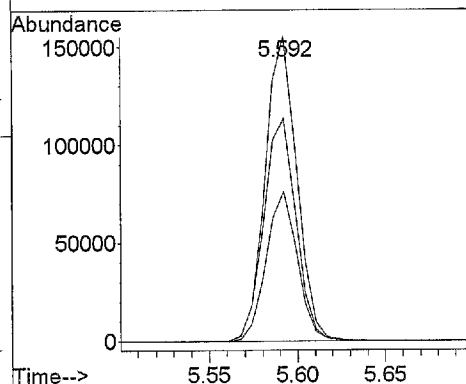
Tgt Ion: 95 Resp: 7393
 Ion Ratio Lower Upper
 95 100
 130 109.9 58.8 98.8#
 132 98.3 48.5 88.5#





#56
 tetrachloroethene
 Concen: 33.02 UG/L
 RT: 5.592 min Scan# 739
 Delta R.T. 0.000 min
 Lab File: P1077.D
 Acq: 1 Jun 2015 23:25

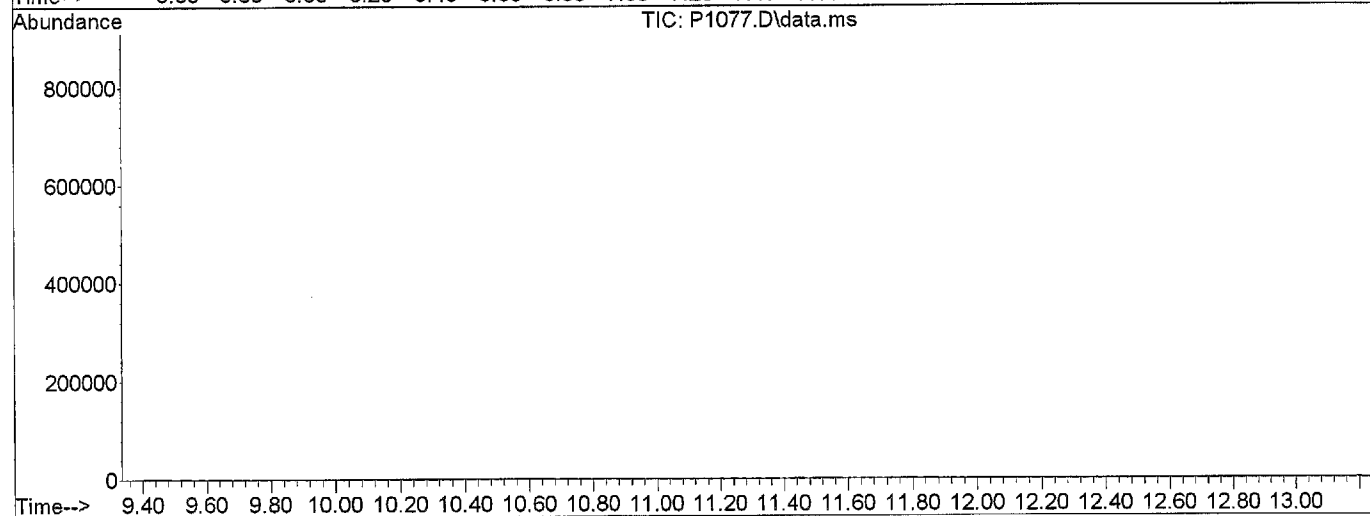
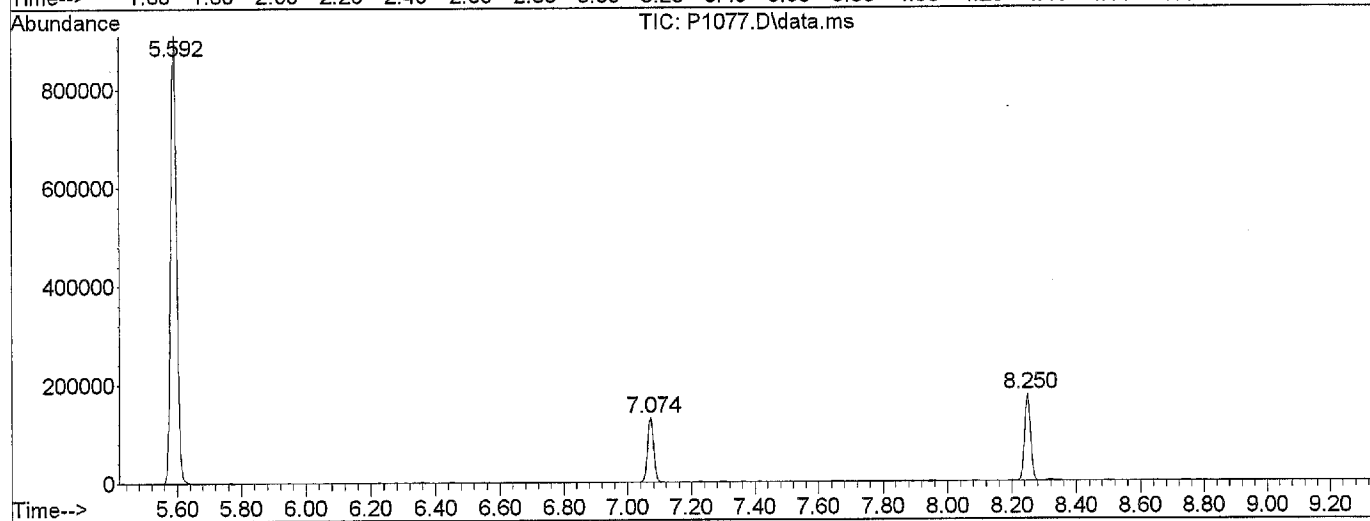
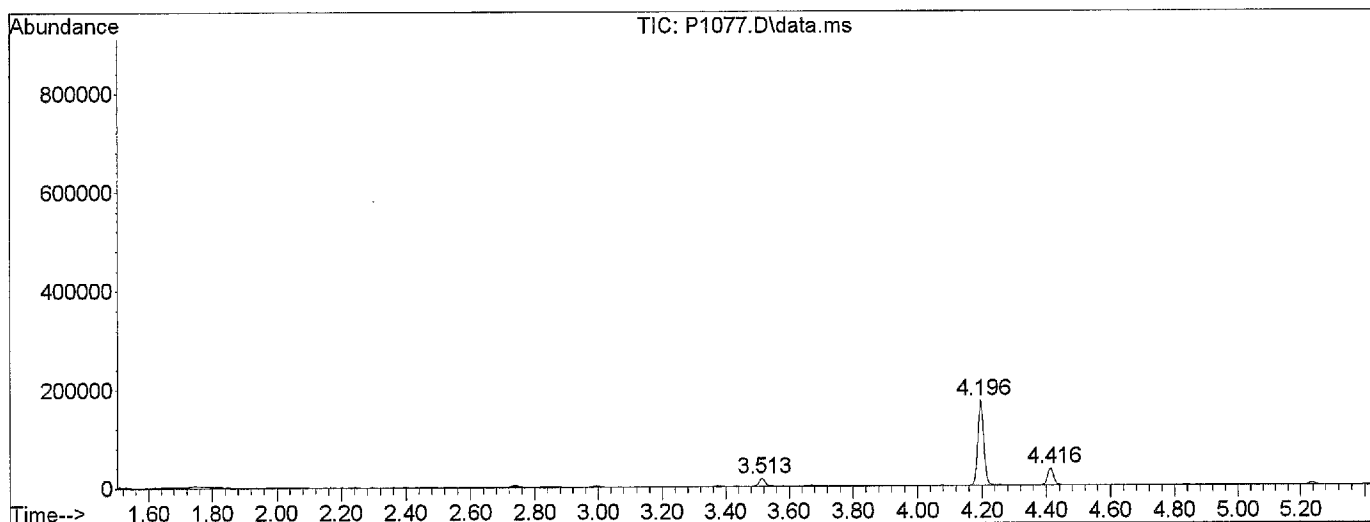
Tgt Ion	Ratio	Lower	Upper
166	100		
168	48.3	28.3	68.3
129	74.5	56.0	96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1077.D
Acq On : 1 Jun 2015 23:25
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,DL,, 1:5
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1077.D
 Acq On : 1 Jun 2015 23:25
 Operator : MN
 Sample : 1505F17-012A
 Misc : HDR012,RW1,H2O,DL,, 1:5
 ALS Vial : 38 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 23:38:42 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	93273	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	27614	4.94	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	98.80%	
87) 1,2-dichlorobenzene-d4	8.250	152	36417	4.54	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	90.80%	
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	4159	0.68	UG/L	88
41) trichloroethene	4.416	95	7393	1.25	UG/L	# 64
56) tetrachloroethene	5.592	166	194121	33.02	UG/L	99

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1077.D
Acq On : 1 Jun 2015 23:25
Operator : MN
Sample : 1505F17-012A
Misc : HDR012,RW1,H2O,DL,, 1:5
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW2

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-013ASample wt/vol: 5(g/mL) MLLab File ID: P1058.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	13	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	19	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	1100	E
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW2

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-013ASample wt/vol: 5(g/mL) MLLab File ID: P1058.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

RW2

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-013ASample wt/vol: 5(g/mL) mLLab File ID: P1058.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

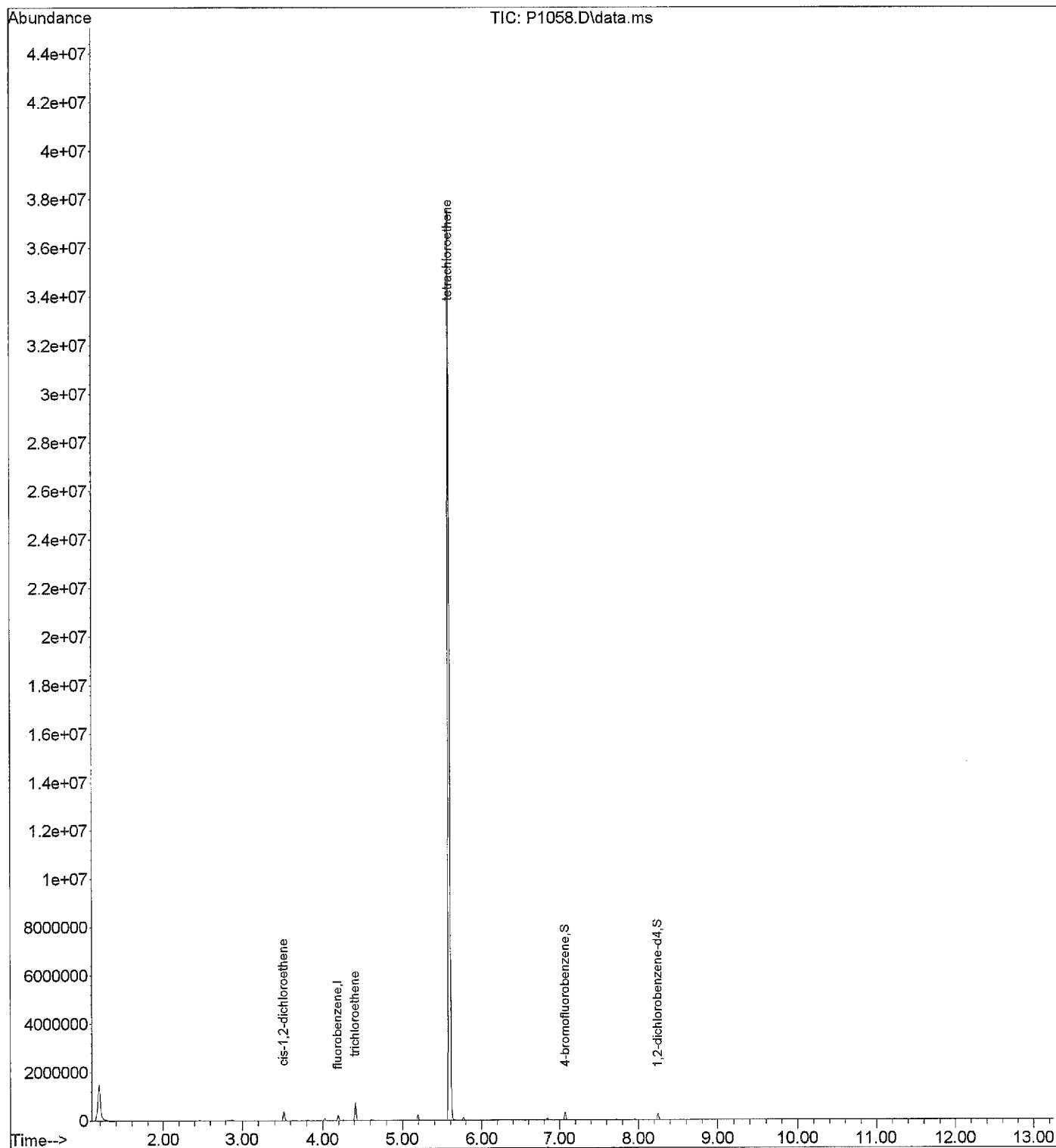
(μg/L or μg/Kg)

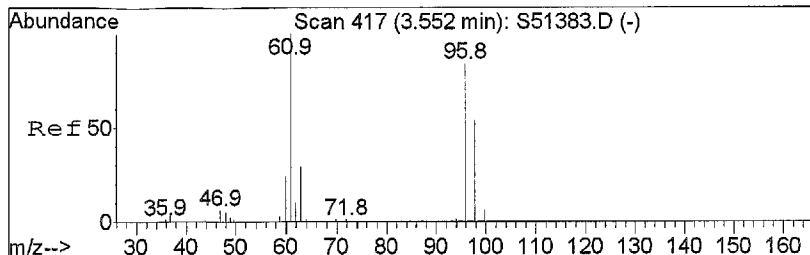
μg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1058.D
Acq On : 1 Jun 2015 14:44
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,SAMP,,
ALS Vial : 63 Sample Multiplier: 1
InstName : HP5975

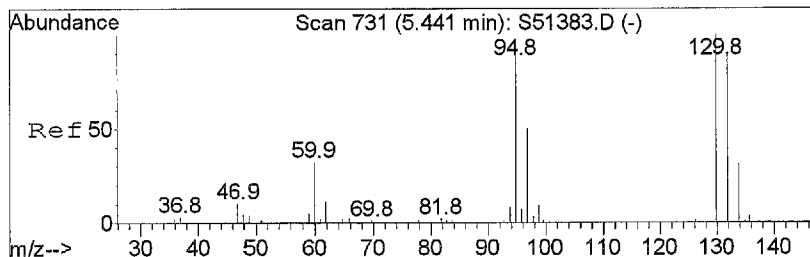
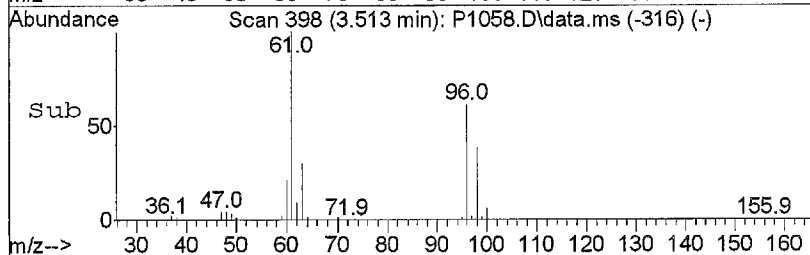
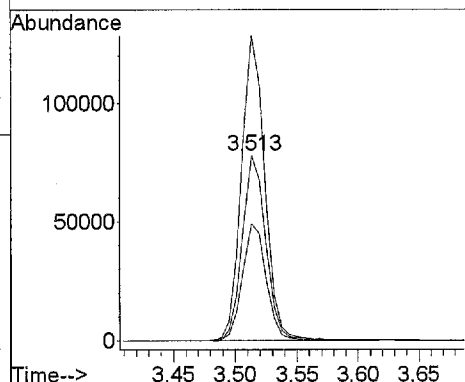
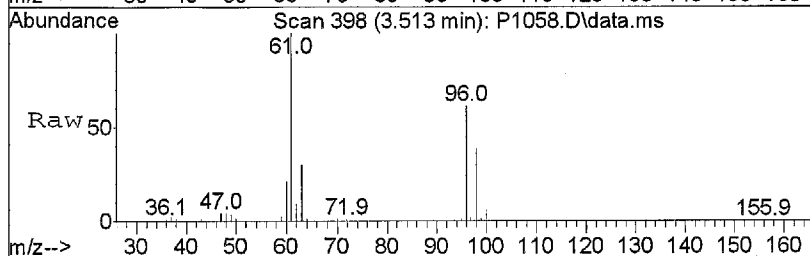
Quant Time: Jun 01 14:57:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





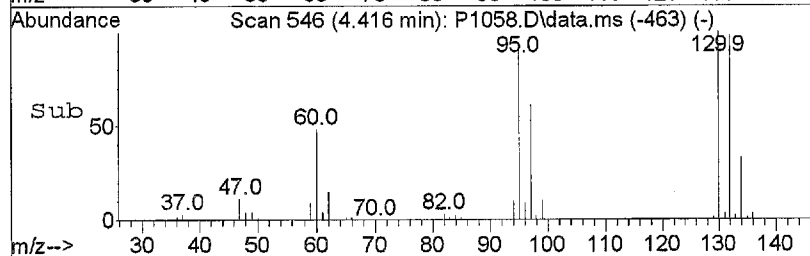
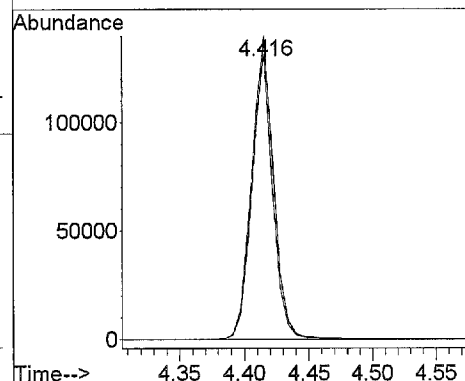
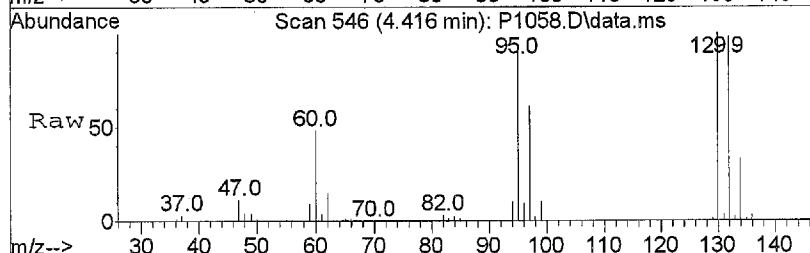
#24
 cis-1,2-dichloroethene
 Concen: 12.78 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1058.D
 Acq: 1 Jun 2015 14:44

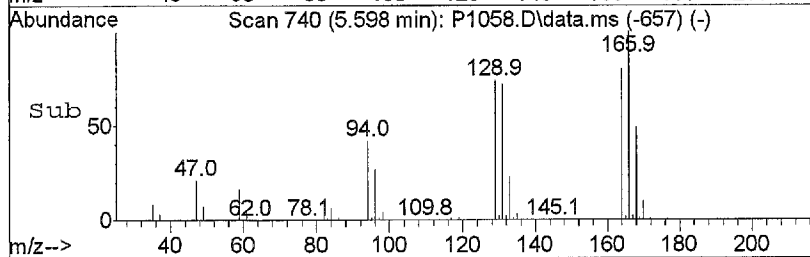
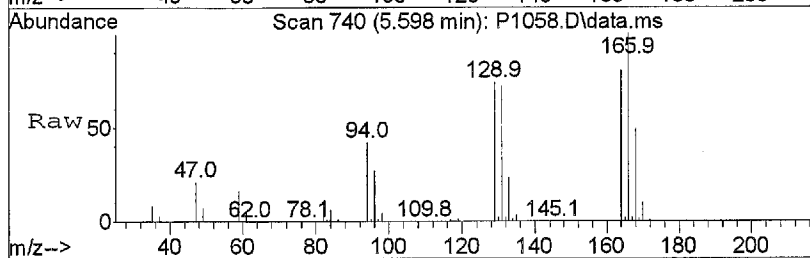
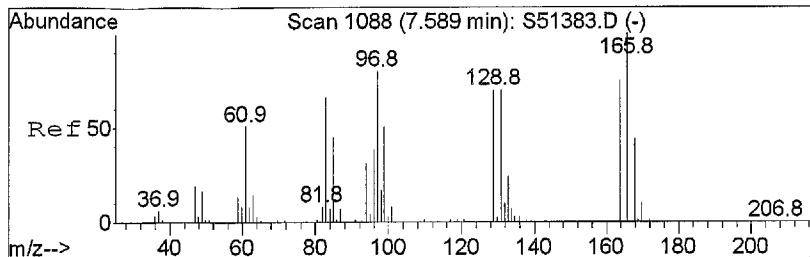
Tgt Ion: 96 Resp: 103629
 Ion Ratio Lower Upper
 96 100
 61 163.0 133.7 173.7
 98 63.6 41.8 81.8



#41
 trichloroethene
 Concen: 19.18 UG/L
 RT: 4.416 min Scan# 546
 Delta R.T. 0.007 min
 Lab File: P1058.D
 Acq: 1 Jun 2015 14:44

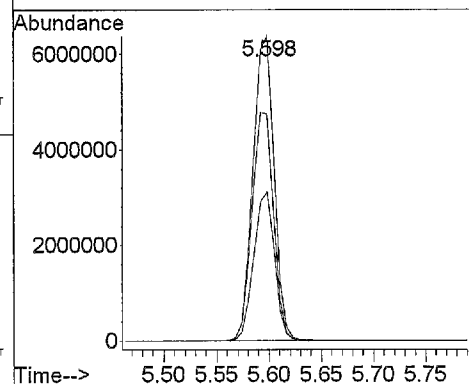
Tgt Ion: 95 Resp: 151344
 Ion Ratio Lower Upper
 95 100
 130 106.8 58.8 98.8#
 132 103.8 48.5 88.5#





#56
tetrachloroethene
Concen: 1138.31 UG/L
RT: 5.598 min Scan# 740
Delta R.T. 0.006 min
Lab File: P1058.D
Acq: 1 Jun 2015 14:44

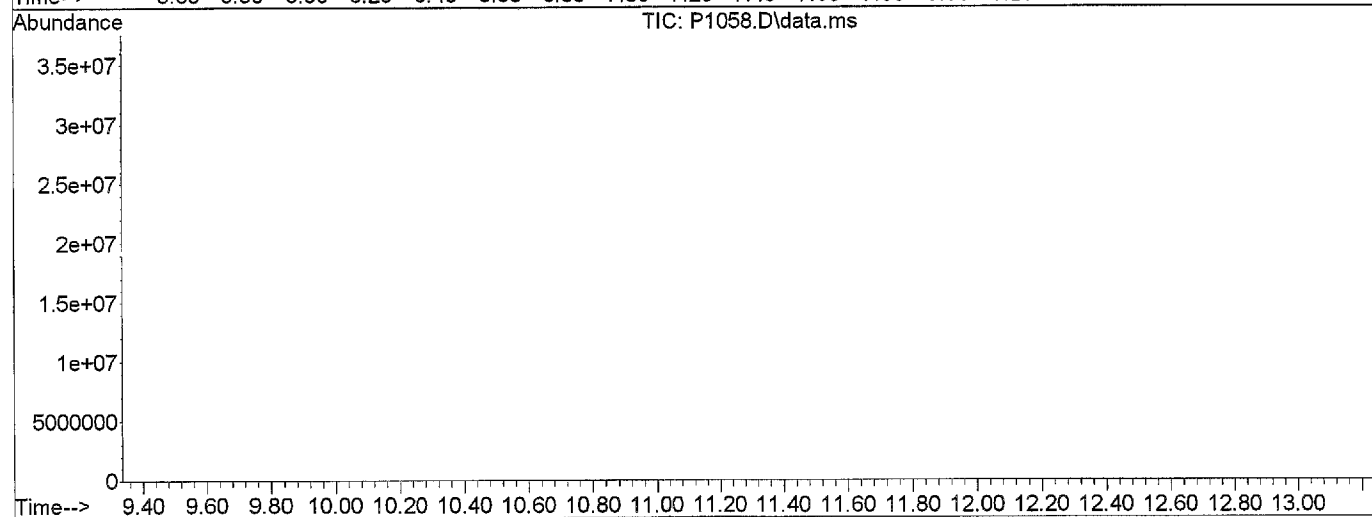
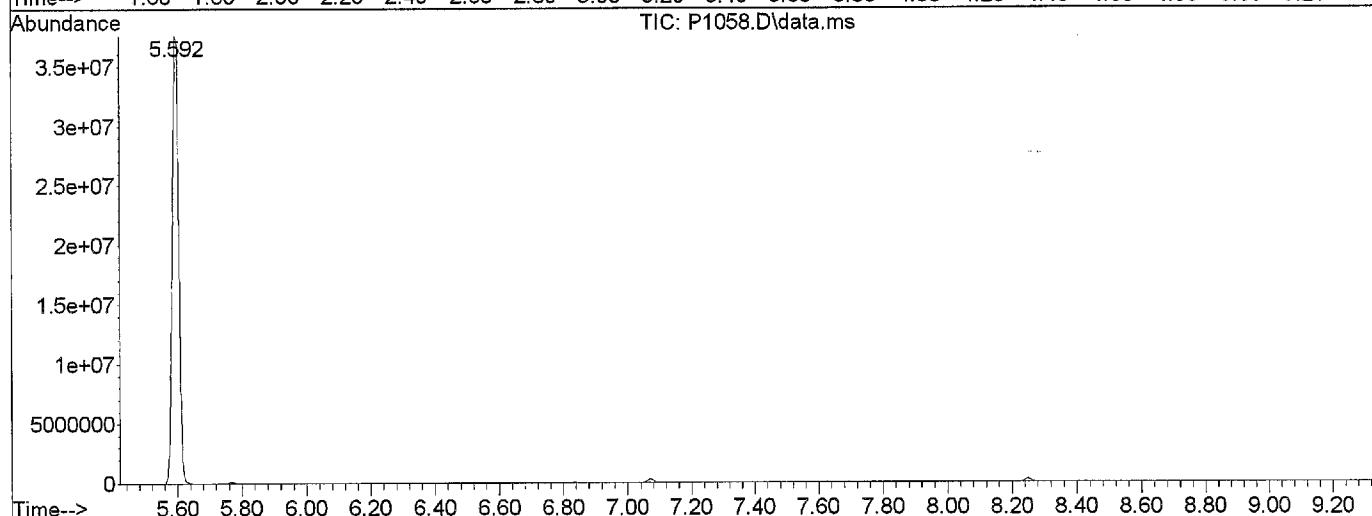
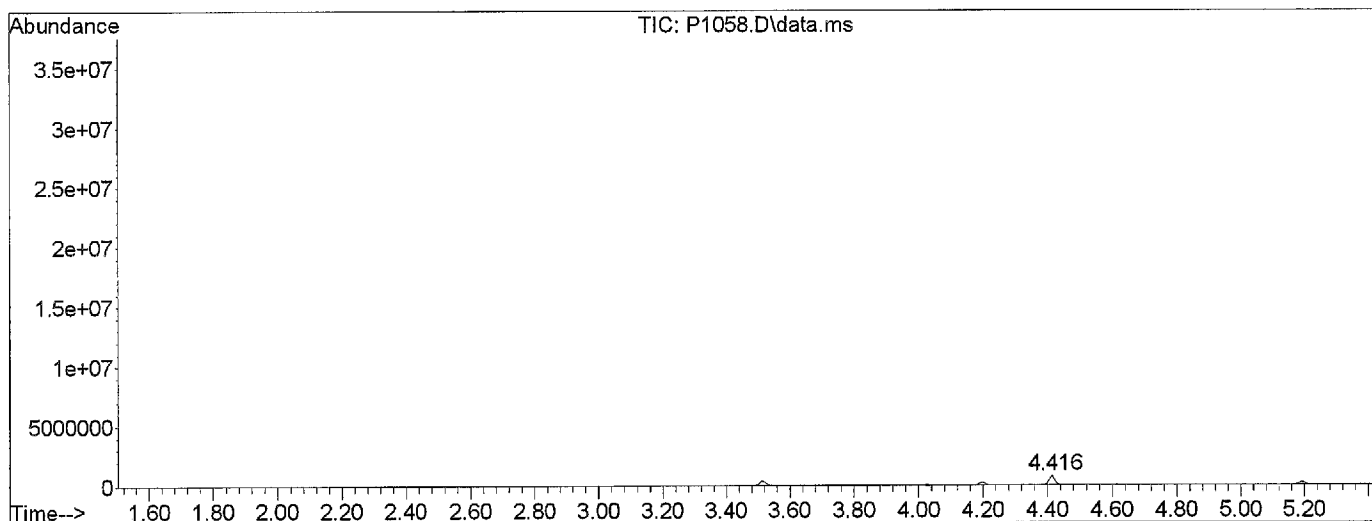
Tgt Ion:166 Resp: 8905902
Ion Ratio Lower Upper
166 100
168 48.2 28.3 68.3
129 76.3 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1058.D
Acq On : 1 Jun 2015 14:44
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,SAMP,,
ALS Vial : 63 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1058.D
Acq On : 1 Jun 2015 14:44
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,SAMP,,
ALS Vial : 63 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW2DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-013ADLSample wt/vol: 5 (g/mL) MLLab File ID: P1078.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 50.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	25	U
75-09-2	Methylene chloride	25	U
156-60-5	trans-1,2-Dichloroethene	25	U
75-34-3	1,1-Dichloroethane	25	U
594-20-7	2,2-Dichloropropane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
74-97-5	Bromochloromethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon tetrachloride	25	U
563-58-6	1,1-Dichloropropene	25	U
107-06-2	1,2-Dichloroethane	25	U
71-43-2	Benzene	25	U
79-01-6	Trichloroethene	26	D
78-87-5	1,2-Dichloropropane	25	U
74-95-3	Dibromomethane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	1700	D
142-28-9	1,3-Dichloropropane	25	U
124-48-1	Dibromochloromethane	25	U
108-90-7	Chlorobenzene	25	U
630-20-6	1,1,1,2-Tetrachloroethane	25	U
100-41-4	Ethylbenzene	25	U
179601-23-1	m,p-Xylene	25	U
95-47-6	o-Xylene	25	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW2DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-013ADLSample wt/vol: 5 (g/mL) MLLab File ID: P1078.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 50.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropylbenzene	25	U
108-86-1	Bromobenzene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
96-18-4	1,2,3-Trichloropropane	25	U
103-65-1	n-Propylbenzene	25	U
	2/4-Chlorotoluene	25	U
108-67-8	1,3,5-Trimethylbenzene	25	U
98-06-6	tert-Butylbenzene	25	U
95-63-6	1,2,4-Trimethylbenzene	25	U
135-98-8	sec-Butylbenzene	25	U
104-51-8	n-Butylbenzene	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
99-87-6	4-Isopropyltoluene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U
1634-04-4	Methyl tert-butyl ether	25	U
	Total Trihalomethanes	25	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

RW2-DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-013ADLSample wt/vol: 5(g/mL) mLLab File ID: P1078.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 50.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

1

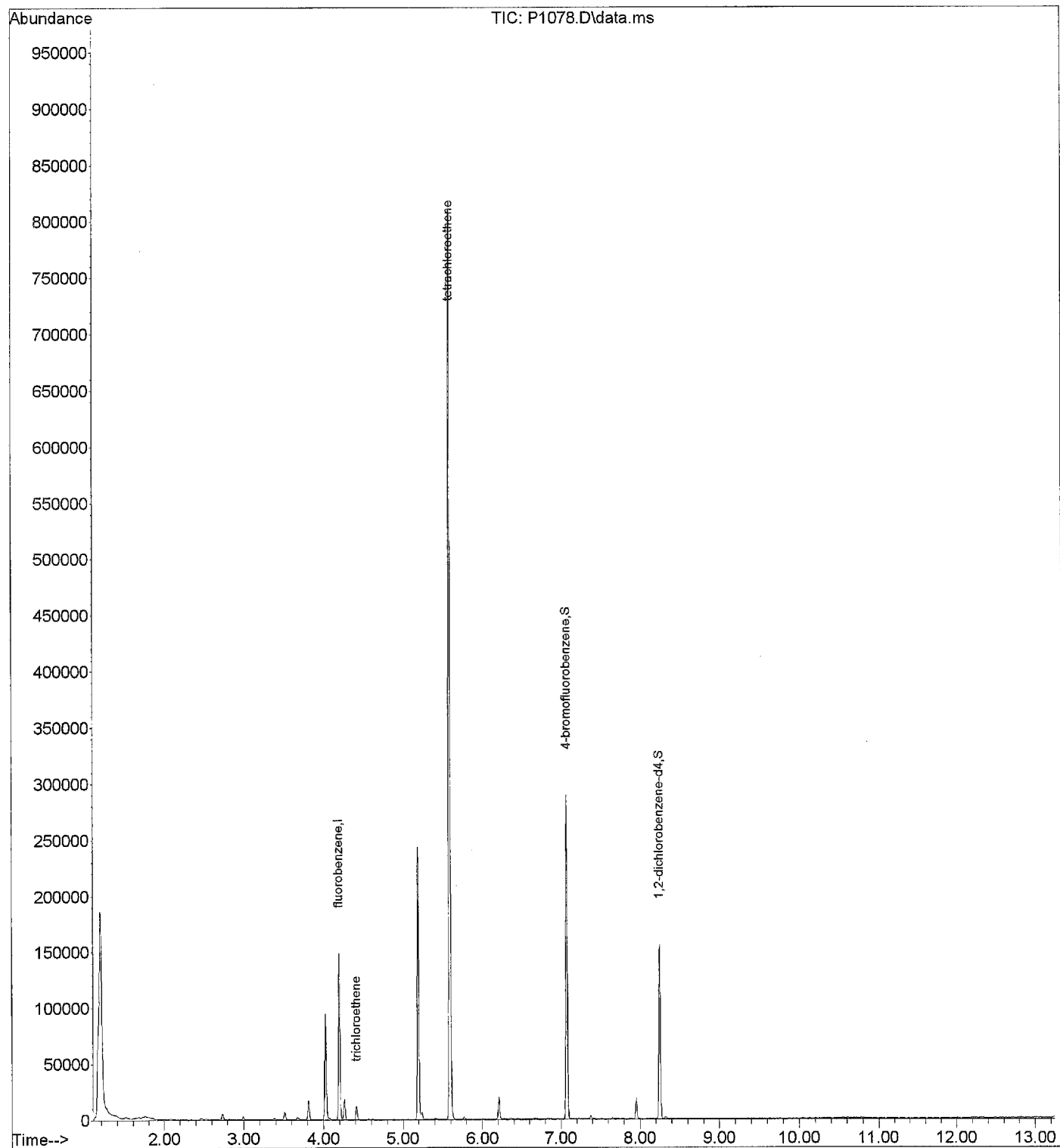
(μg/L or μg/Kg)

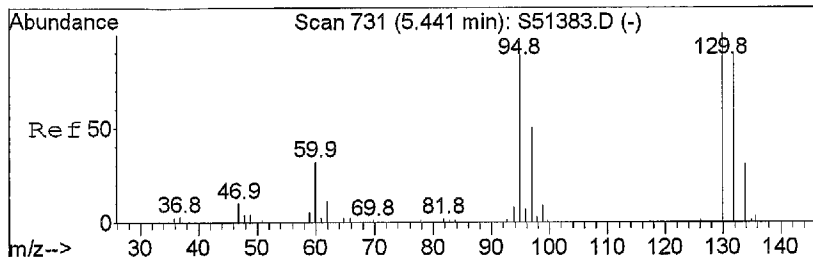
μg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	unknown	4.03	170	JD

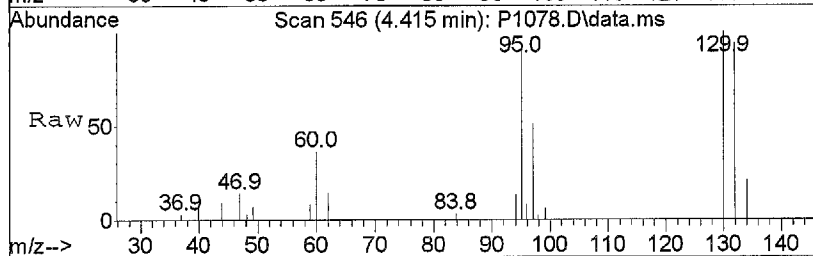
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Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,DL,, 1:50
ALS Vial : 39 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 02 00:03:29 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

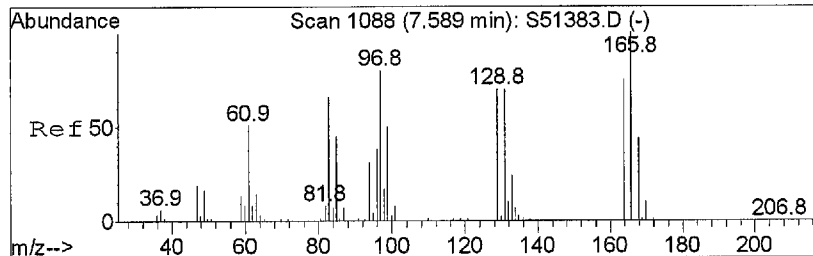
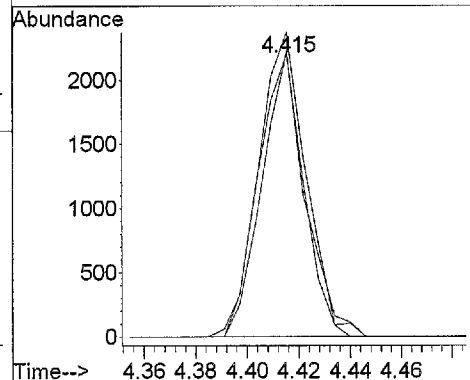
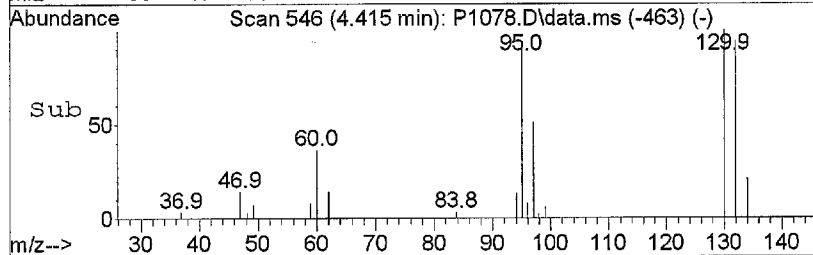




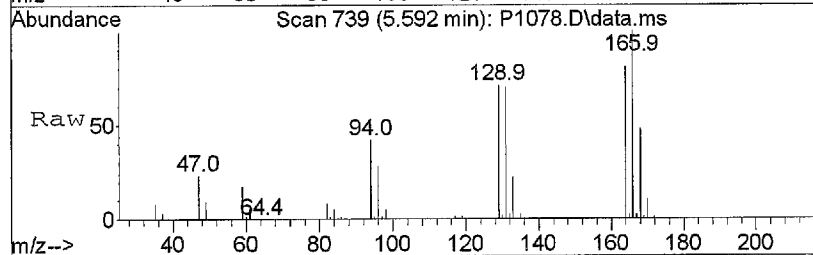
#41
trichloroethene
Concen: 0.52 UG/L
RT: 4.415 min Scan# 546
Delta R.T. 0.006 min
Lab File: P1078.D
Acq: 1 Jun 2015 23:50



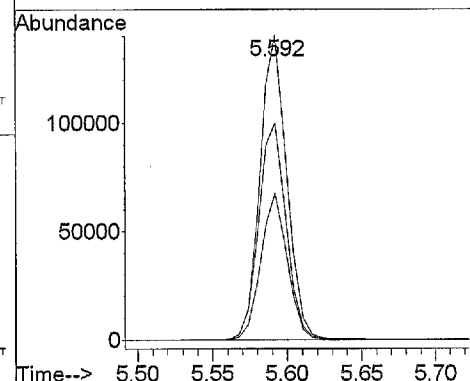
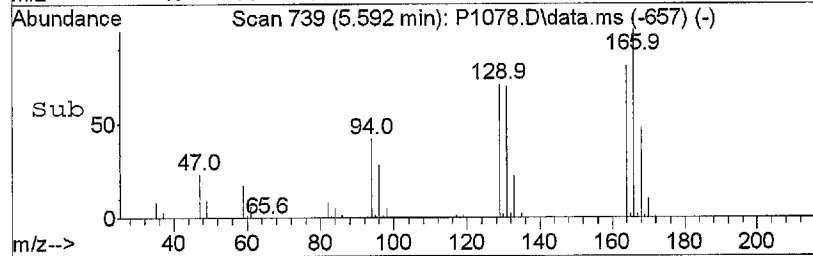
Tgt Ion: 95 Resp: 2711
Ion Ratio Lower Upper
95 100
130 110.1 58.8 98.8#
132 95.1 48.5 88.5#



#56
tetrachloroethene
Concen: 33.68 UG/L
RT: 5.592 min Scan# 739
Delta R.T. 0.000 min
Lab File: P1078.D
Acq: 1 Jun 2015 23:50



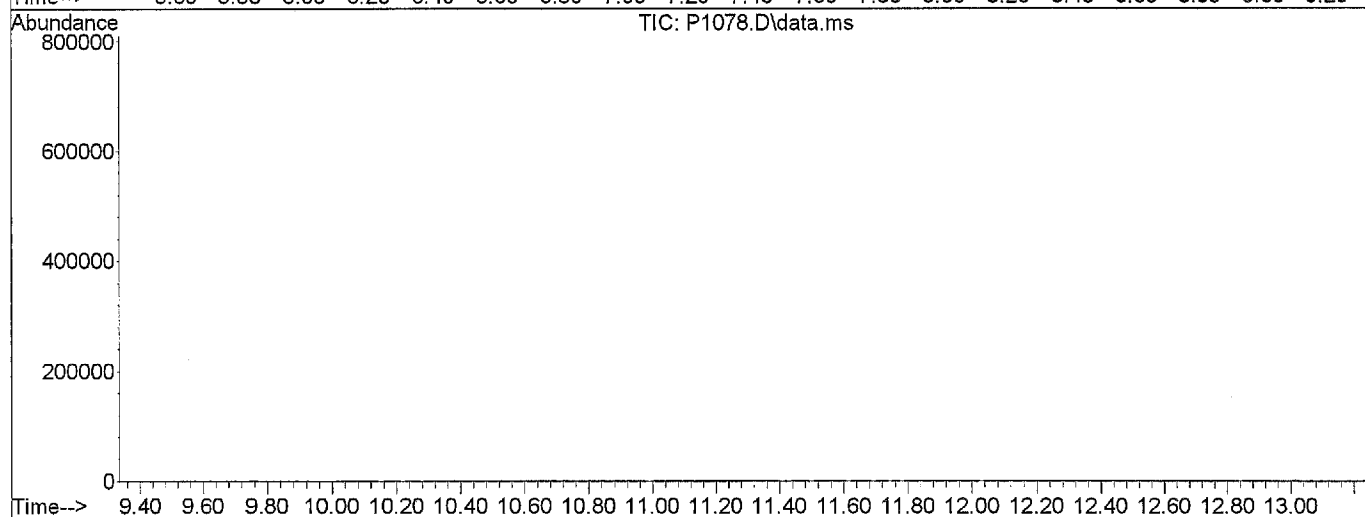
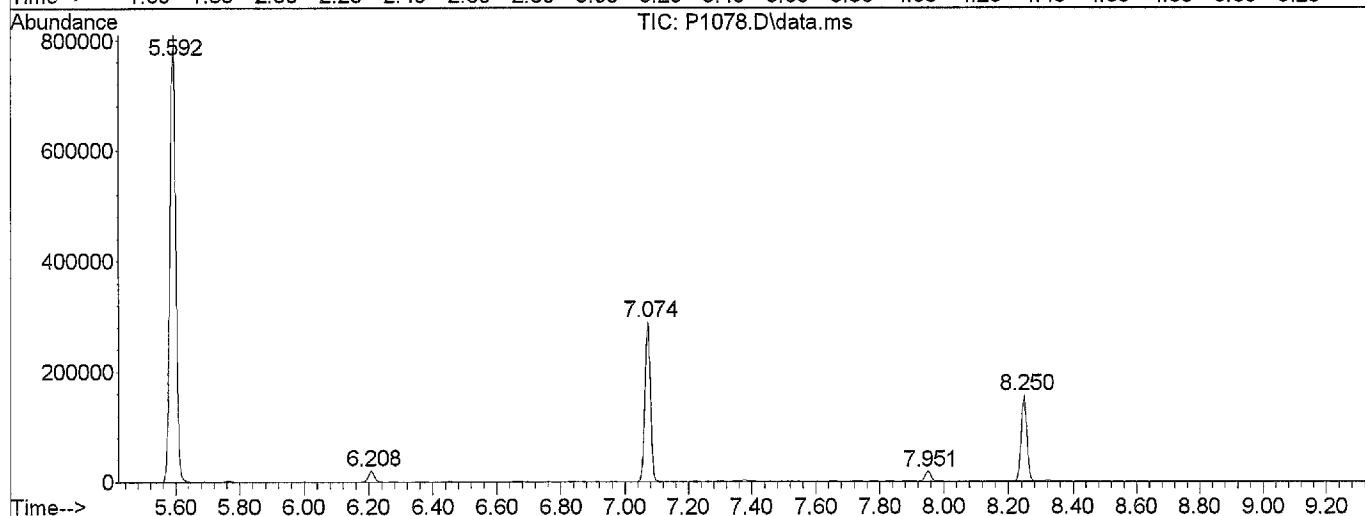
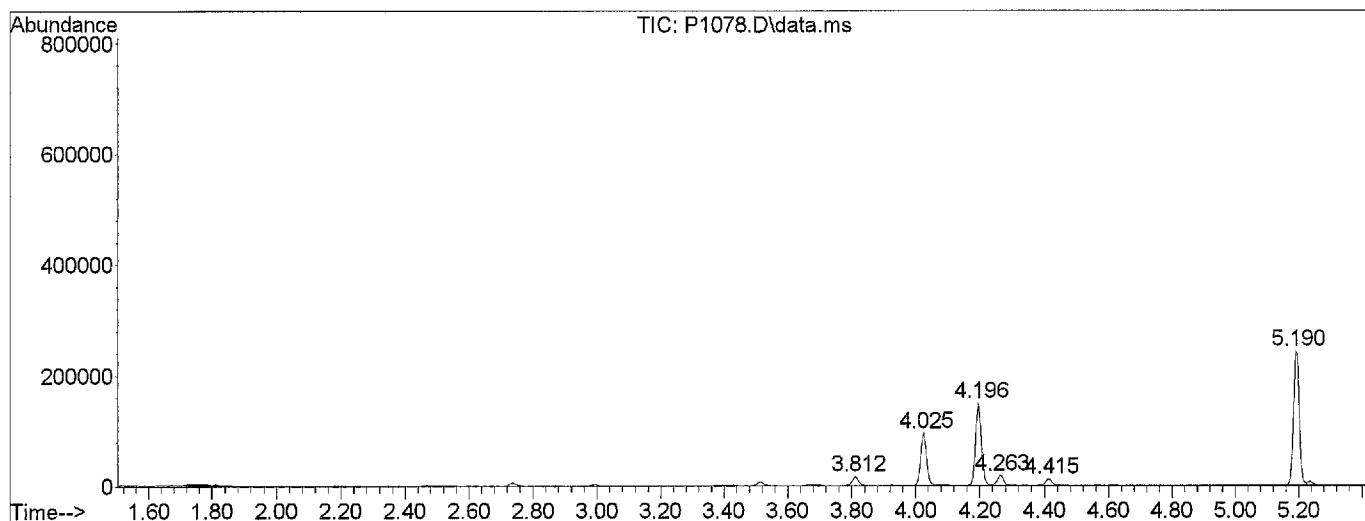
Tgt Ion: 166 Resp: 174619
Ion Ratio Lower Upper
166 100
168 47.6 28.3 68.3
129 73.0 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1078.D
Acq On : 1 Jun 2015 23:50
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,DL,, 1:50
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1078.D
Acq On : 1 Jun 2015 23:50
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,DL,, 1:50
ALS Vial : 39 Sample Multiplier: 1

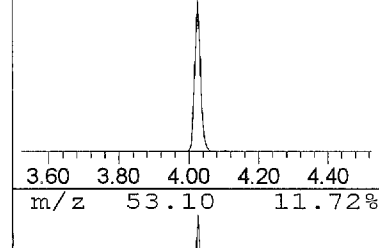
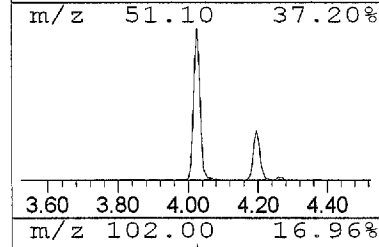
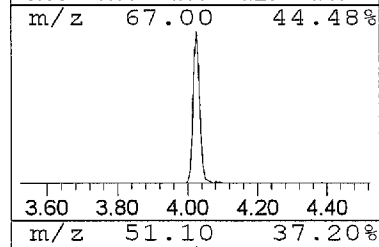
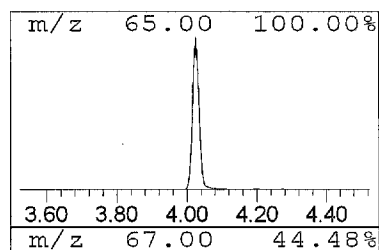
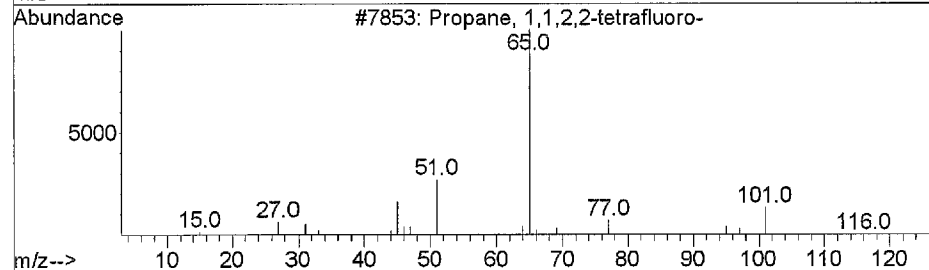
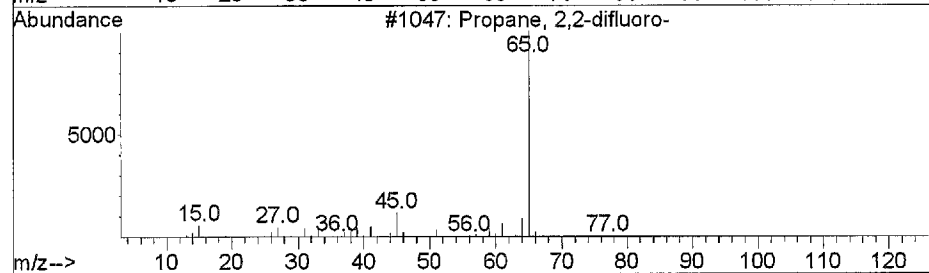
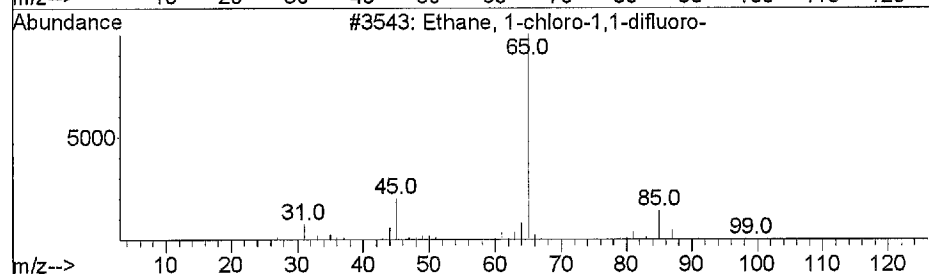
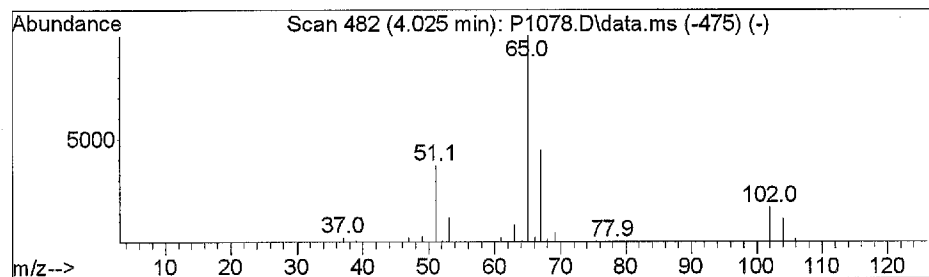
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.025	3.26 UG/L	120978	fluorobenzene	4.196

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	2
2			Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	2
3			Propane, 1,1,2,2-tetrafluoro-	116	C3H4F4	040723-63-5	2
4			Carbonochloridic acid, ethyl ester	108	C3H5ClO2	000541-41-3	1
5			Benzene, 1-nitro-2-(p-methylphen...	247	C13H10FNO3	028987-57-7	1



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1078.D
Acq On : 1 Jun 2015 23:50
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,DL,, 1:50
ALS Vial : 39 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 02 00:03:29 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	82273	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	58380	11.85	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	237.00%#
87) 1,2-dichlorobenzene-d4	8.250	152	30805	4.35	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	87.00%
Target Compounds						
41) trichloroethene	4.415	95	2711	0.52	UG/L	Qvalue # 66
56) tetrachloroethene	5.592	166	174619	33.68	UG/L	97

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

Tentatively Identified Compound (LSC) summary

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1078.D
Acq On : 1 Jun 2015 23:50
Operator : MN
Sample : 1505F17-013A
Misc : HDR012,RW2,H2O,DL,, 1:50
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown	4.025	3.3	UG/L	120978	1	4.196	185565	5.0

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW3

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-014ASample wt/vol: 5(g/mL) MLLab File ID: P1059.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.7	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.8	
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	54	
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	53	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	690	E
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW3

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-014ASample wt/vol: 5 (g/mL) MLLab File ID: P1059.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

RW3

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN

SAS No.: _____

SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-014ASample wt/vol: 5(g/mL) mLLab File ID: P1059.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

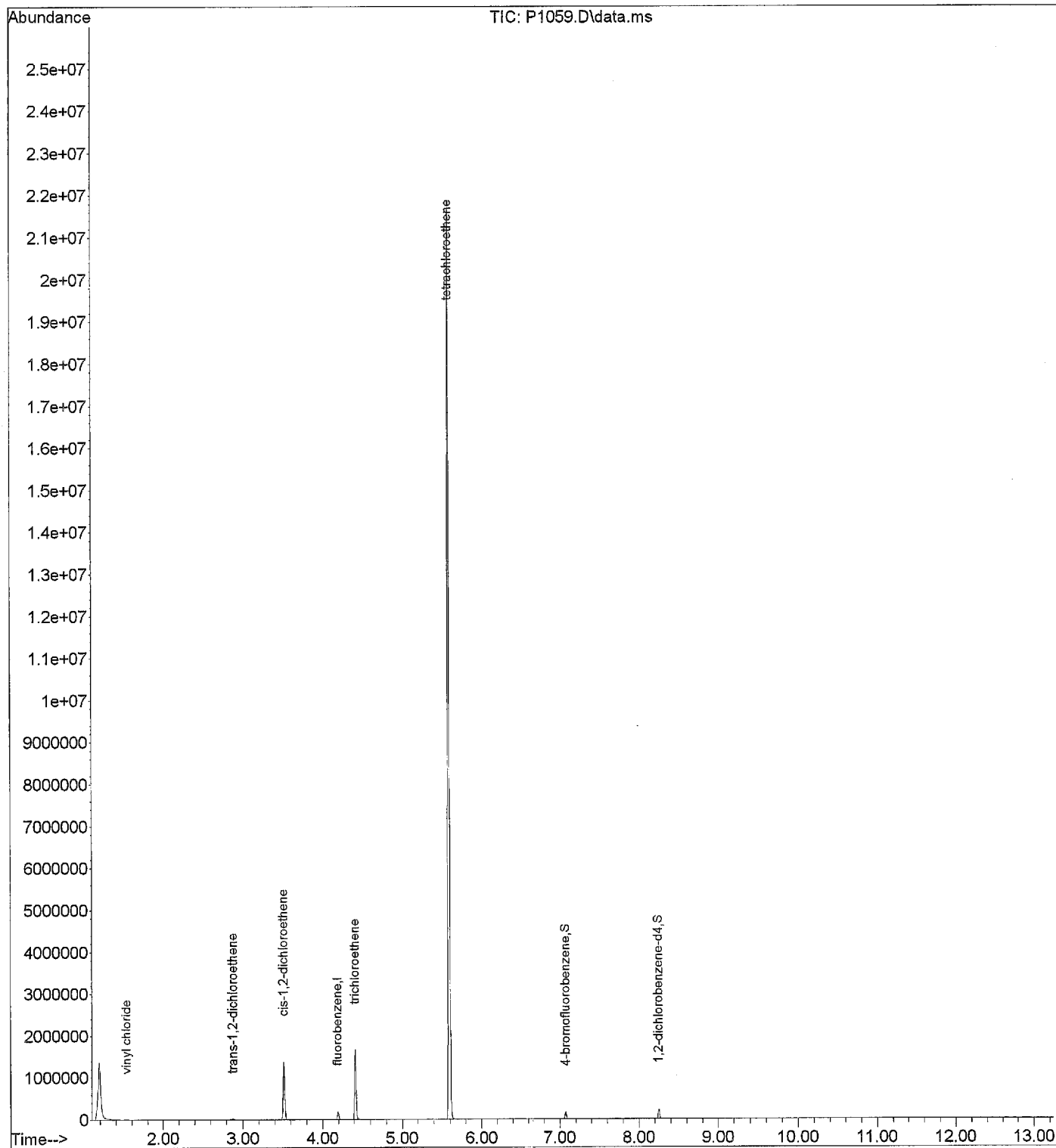
(μg/L or μg/Kg)

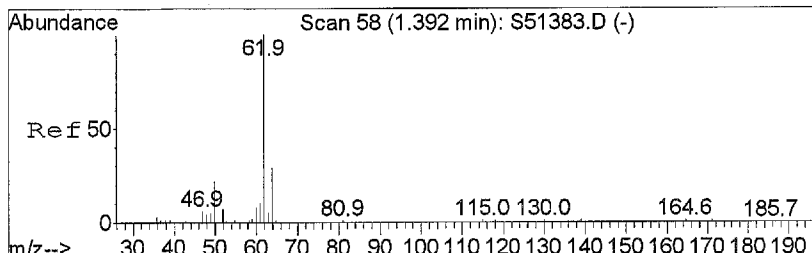
μg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Acq On : 1 Jun 2015 15:09
Operator : MN
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Misc : HDR012,RW3,H2O,SAMP,,
ALS Vial : 64 Sample Multiplier: 1
InstName : HP5975

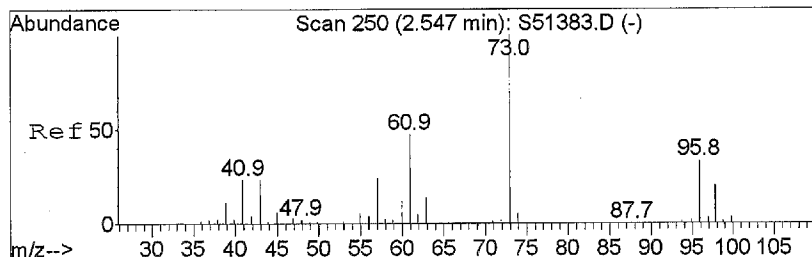
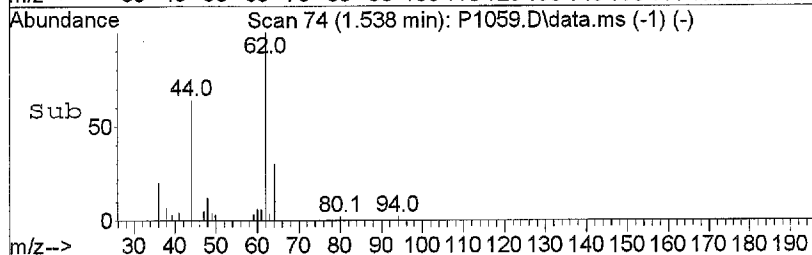
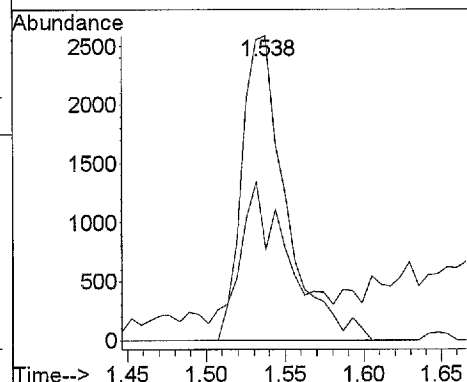
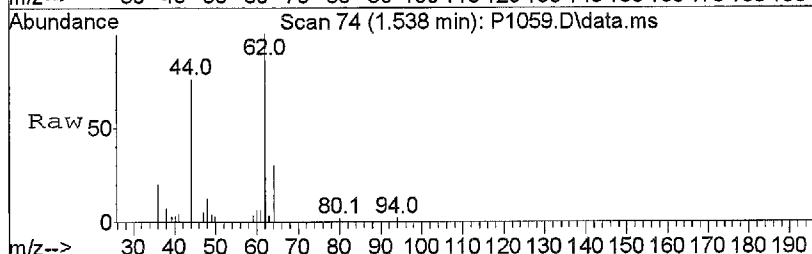
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Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration





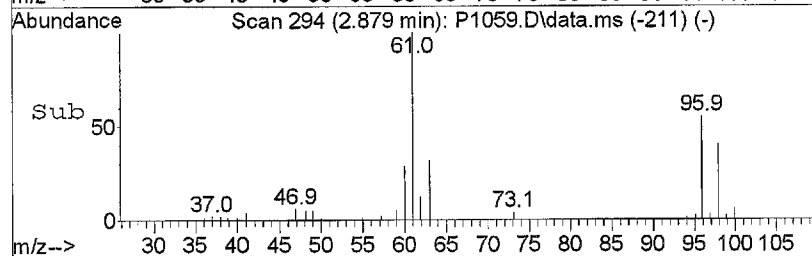
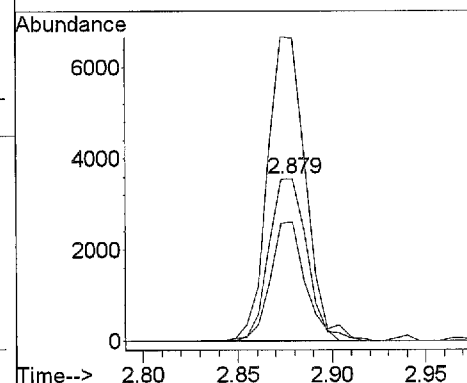
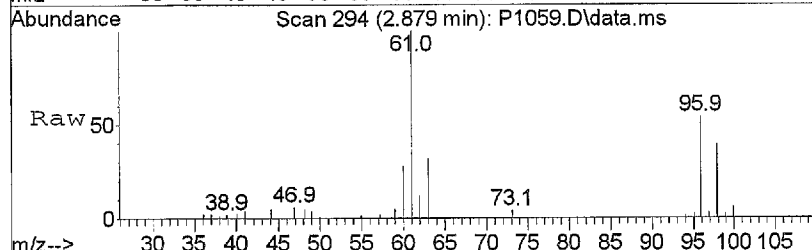
#5
vinyl chloride
Concen: 0.72 UG/L
RT: 1.538 min Scan# 74
Delta R.T. 0.006 min
Lab File: P1059.D
Acq: 1 Jun 2015 15:09

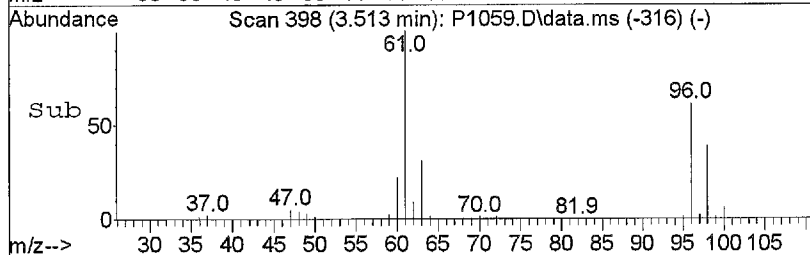
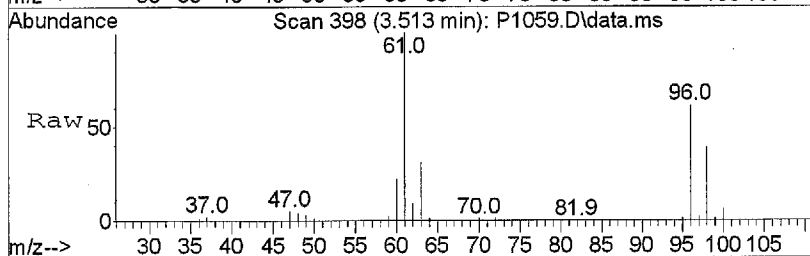
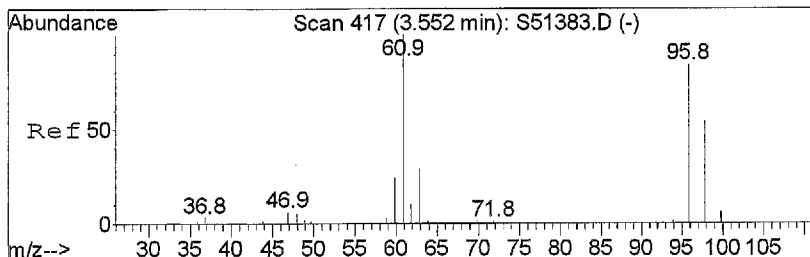
Tgt Ion: 62 Resp: 4982
Ion Ratio Lower Upper
62 100
64 46.5 10.3 50.3



#20
trans-1,2-dichloroethene
Concen: 0.79 UG/L
RT: 2.879 min Scan# 294
Delta R.T. 0.006 min
Lab File: P1059.D
Acq: 1 Jun 2015 15:09

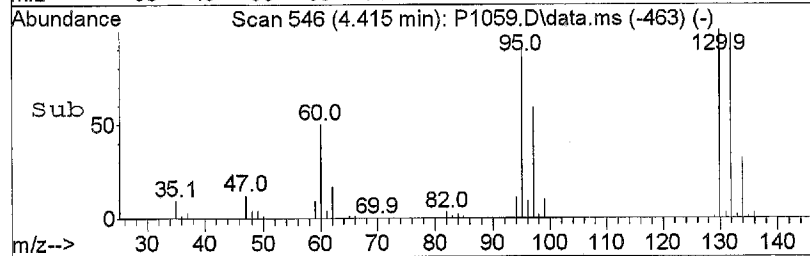
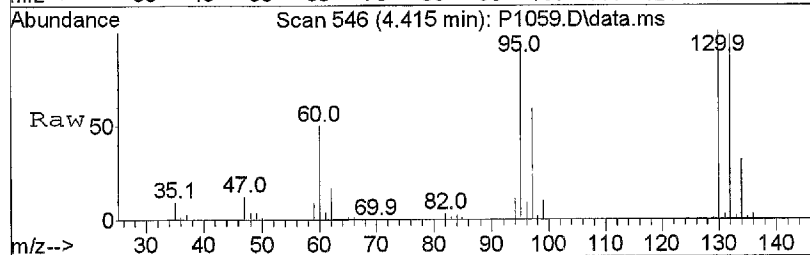
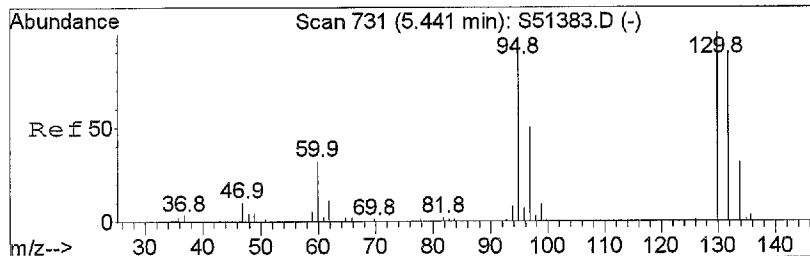
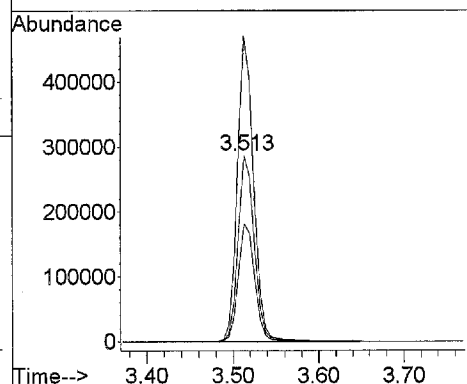
Tgt Ion: 96 Resp: 5009
Ion Ratio Lower Upper
96 100
61 185.6 140.1 180.1#
98 66.0 43.2 83.2





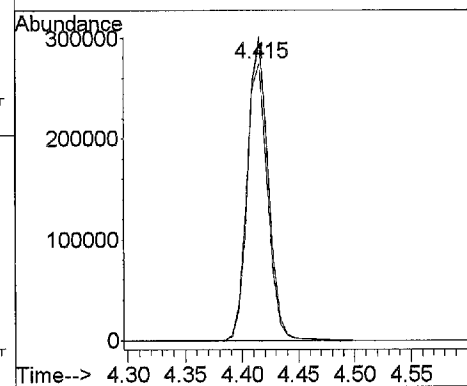
#24
 cis-1,2-dichloroethene
 Concen: 54.36 UG/L
 RT: 3.513 min Scan# 398
 Delta R.T. 0.000 min
 Lab File: P1059.D
 Acq: 1 Jun 2015 15:09

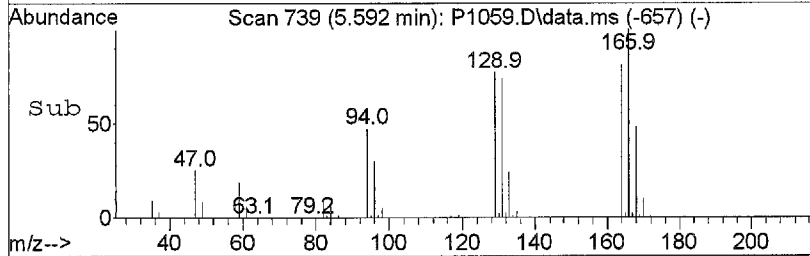
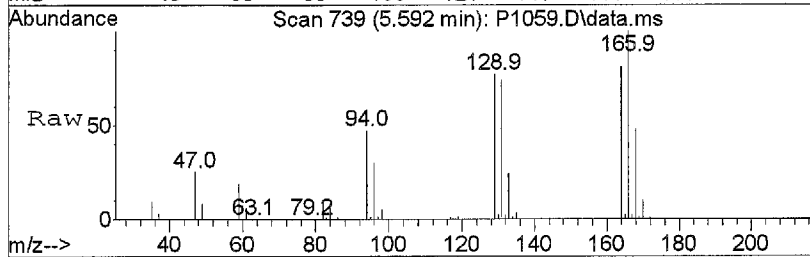
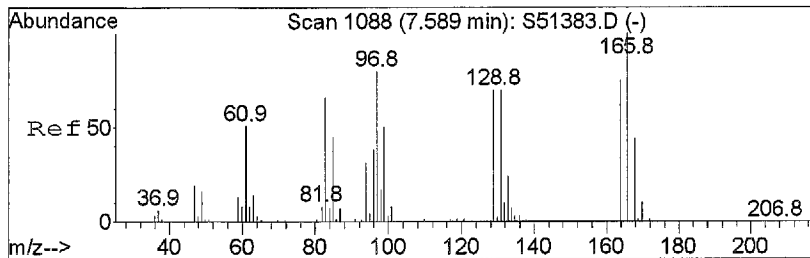
Tgt Ion: 96 Resp: 374776
 Ion Ratio Lower Upper
 96 100
 61 163.8 133.7 173.7
 98 64.3 41.8 81.8



#41
 trichloroethene
 Concen: 52.88 UG/L
 RT: 4.415 min Scan# 546
 Delta R.T. 0.006 min
 Lab File: P1059.D
 Acq: 1 Jun 2015 15:09

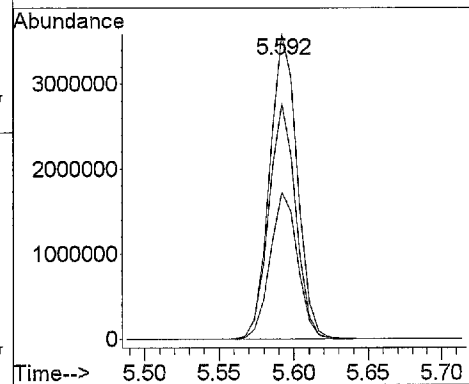
Tgt Ion: 95 Resp: 354731
 Ion Ratio Lower Upper
 95 100
 130 108.7 58.8 98.8#
 132 105.4 48.5 88.5#





#56
tetrachloroethene
Concen: 685.23 UG/L
RT: 5.592 min Scan# 739
Delta R.T. -0.000 min
Lab File: P1059.D
Acq: 1 Jun 2015 15:09

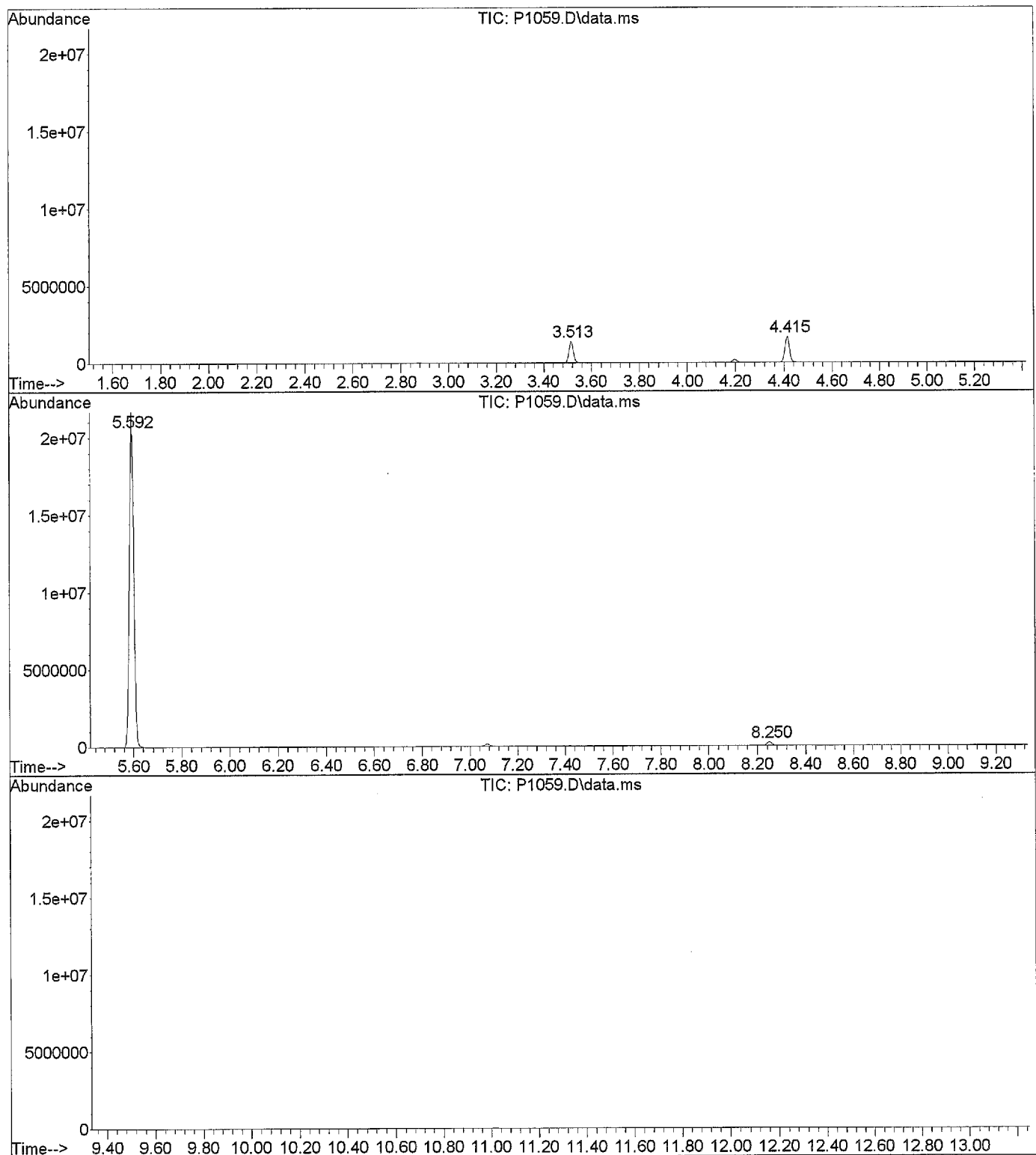
Tgt Ion:166 Resp: 4557256
Ion Ratio Lower Upper
166 100
168 47.9 28.3 68.3
129 75.3 56.0 96.0



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1059.D
Acq On : 1 Jun 2015 15:09
Operator : MN
Sample : 1505F17-014A
Misc : HDR012,RW3,H2O,SAMP,,
ALS Vial : 64 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1059.D
Acq On : 1 Jun 2015 15:09
Operator : MN
Sample : 1505F17-014A
Misc : HDR012,RW3,H2O,SAMP,,
ALS Vial : 64 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 15:22:33 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	105534	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	32856	5.20	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	104.00%
87) 1,2-dichlorobenzene-d4	8.250	152	48477	5.34	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	106.80%
Target Compounds						
5) vinyl chloride	1.538	62	4982	0.72	UG/L	Qvalue 70
20) trans-1,2-dichloroethene	2.879	96	5009	0.79	UG/L	# 85
24) cis-1,2-dichloroethene	3.513	96	374776	54.36	UG/L	93
41) trichloroethene	4.415	95	354731	52.88	UG/L	# 61
56) tetrachloroethene	5.592	166	4557256	685.23	UG/L	99

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1059.D
Acq On : 1 Jun 2015 15:09
Operator : MN
Sample : 1505F17-014A
Misc : HDR012,RW3,H2O,SAMP,,
ALS Vial : 64 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW3DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-014ADLSample wt/vol: 5 (g/mL) MLLab File ID: P1079.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/02/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 20.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	59	D
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	63	D
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	810	D
142-28-9	1,3-Dichloropropane	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
179601-23-1	m,p-Xylene	10	U
95-47-6	o-Xylene	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

RW3DL

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-014ADLSample wt/vol: 5(g/mL) MLLab File ID: P1079.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/02/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 20.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U
103-65-1	n-Propylbenzene	10	U
	2/4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
104-51-8	n-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
	Total Trihalomethanes	10	U

1F

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

RW3DL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBAN SAS No.: _____ SDG No.: HDR012
v

Matrix: (soil/water) WATER Lab Sample ID: 1505F17-014ADL

Sample wt/vol: 5 (g/mL) mL Lab File ID: P1079.D

Level: (low/med) LOW Date Received: 05/20/15

% Moisture: not dec. Date Analyzed: 06/02/15

GC Column: R-624 0.18 ID: .18 (mm) Dilution Factor: 20.00

Soil Extract Volume: _____ (µl) Soil Aliquot Volume: 0 (µL)

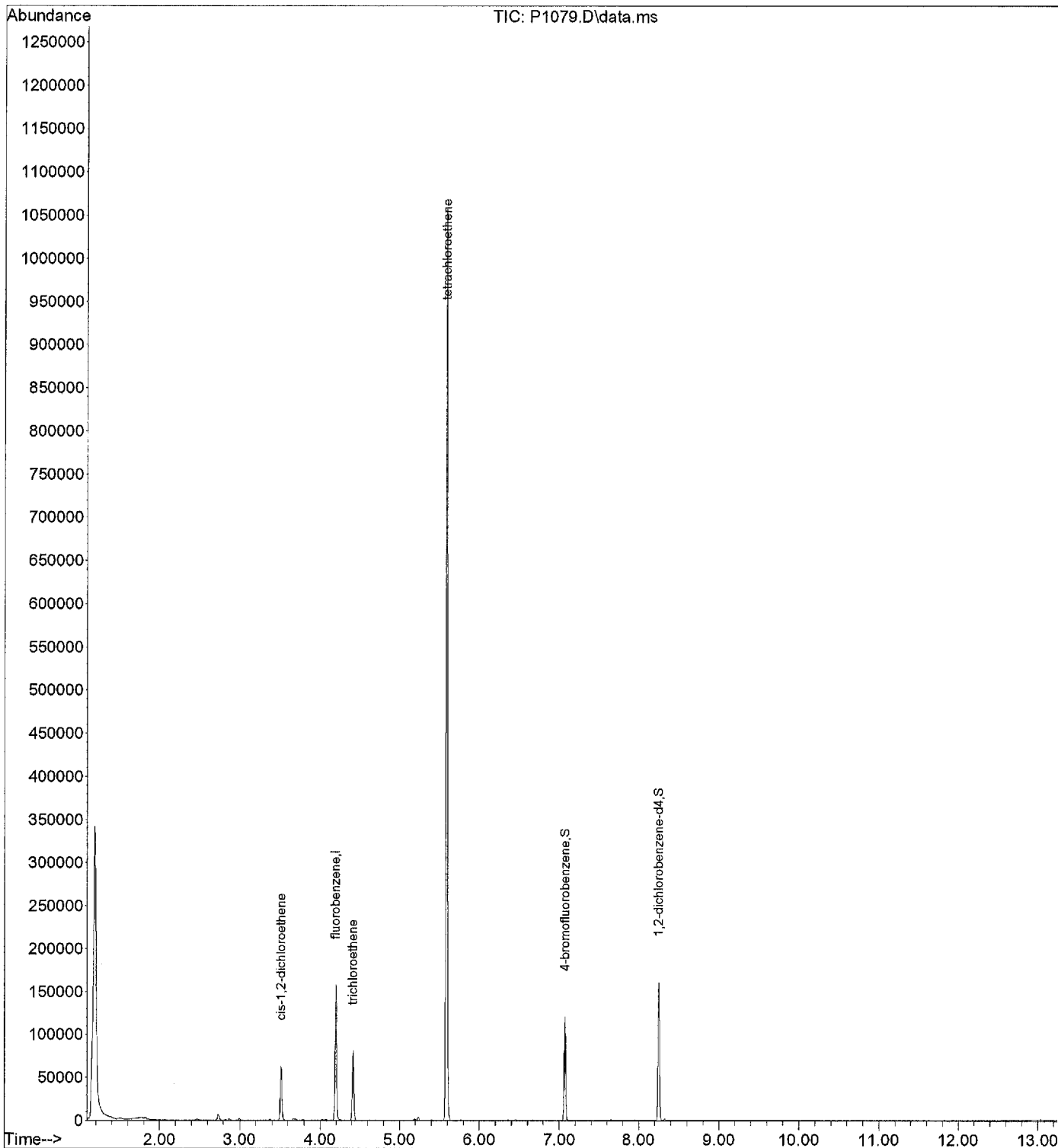
CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) µg/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1079.D
Acq On : 2 Jun 2015 00:14
Operator : MN
Sample : 1505F17-014A
Misc : HDR012,RW3,H2O,DL,, 1:20
ALS Vial : 40 Sample Multiplier: 1
InstName : HP5975

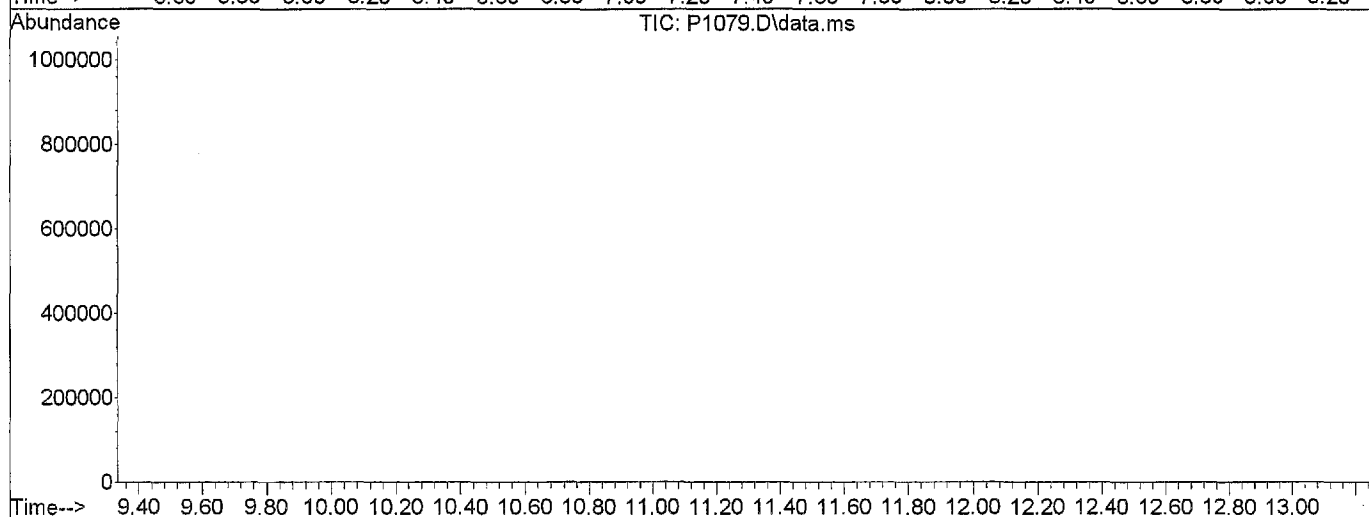
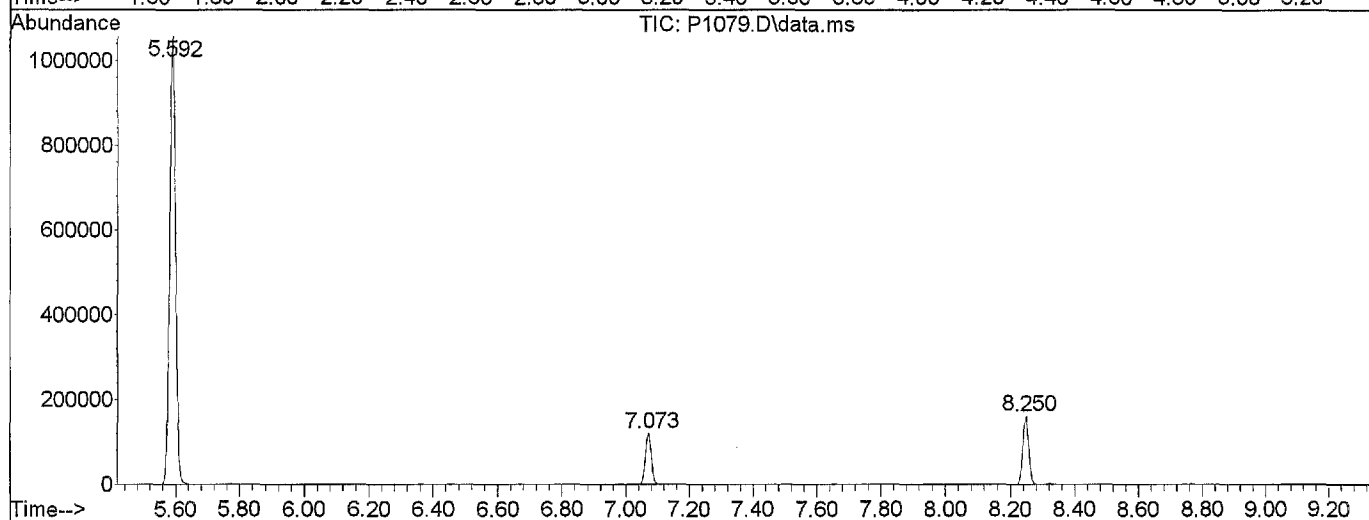
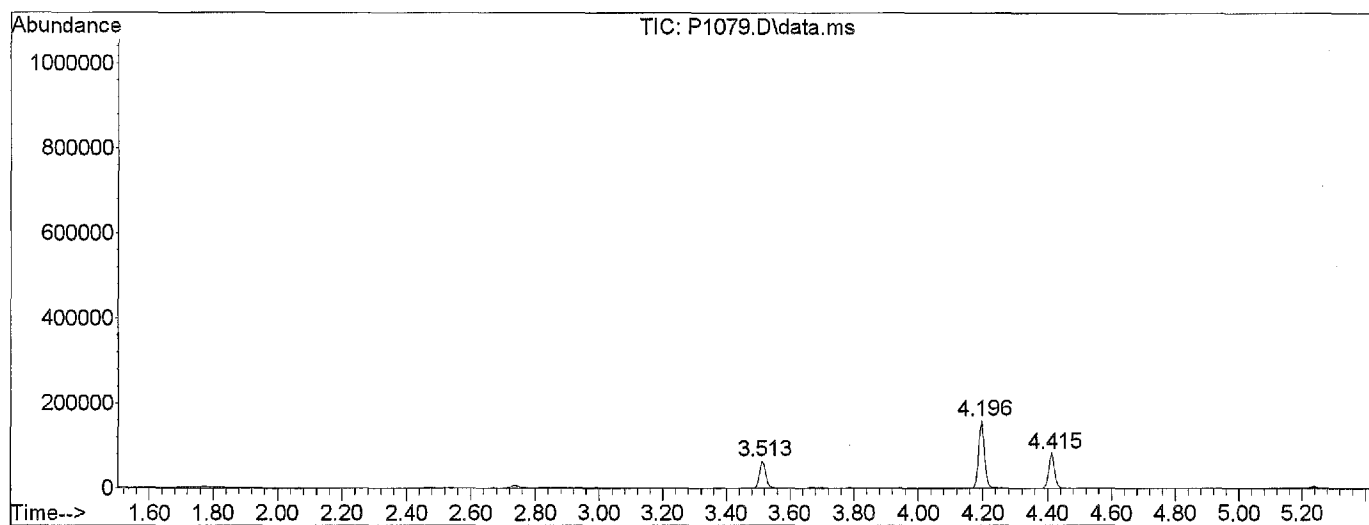
Quant Time: Jun 02 00:28:17 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1079.D
Acq On : 2 Jun 2015 00:14
Operator : MN
Sample : 1505F17-014A
Misc : HDR012,RW3,H2O,DL,, 1:20
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



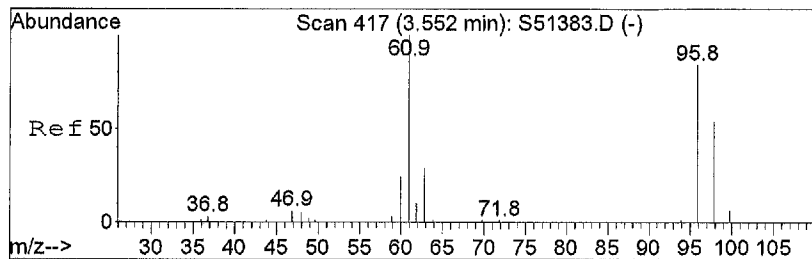
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 Data File : P1079.D
 Acq On : 2 Jun 2015 00:14
 Operator : MN
 Sample : 1505F17-014A
 Misc : HDR012,RW3,H2O,DL,, 1:20
 ALS Vial : 40 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 02 00:28:17 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	87718	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	25631	4.88	UG/L	0.00
Spiked Amount 5.000	Range 70 - 130		Recovery	=	97.60%	
87) 1,2-dichlorobenzene-d4	8.250	152	32252	4.27	UG/L	0.00
Spiked Amount 5.000	Range 70 - 130		Recovery	=	85.40%	
Target Compounds						
24) cis-1,2-dichloroethene	3.513	96	16775	2.93	UG/L	Qvalue 89
41) trichloroethene	4.415	95	17572	3.15	UG/L	# 70
56) tetrachloroethene	5.592	166	224075	40.53	UG/L	98

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



#24

cis-1,2-dichloroethene

Concen: 2.93 UG/L

RT: 3.513 min Scan# 398

Delta R.T. 0.000 min

Lab File: P1079.D

Acq: 2 Jun 2015 00:14

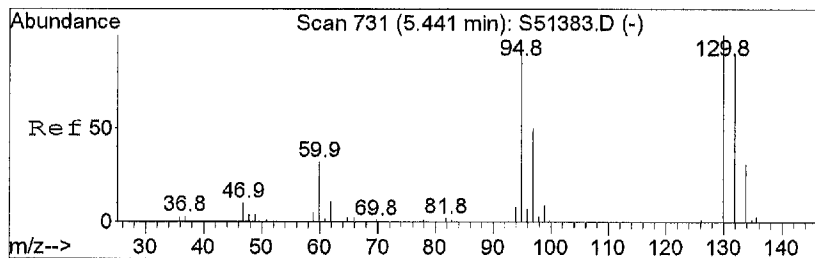
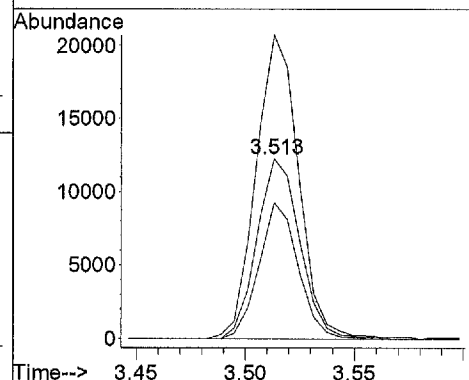
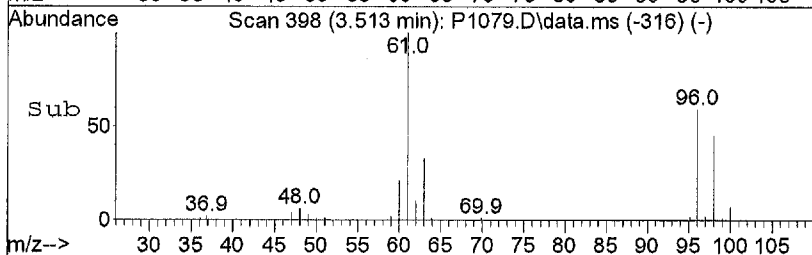
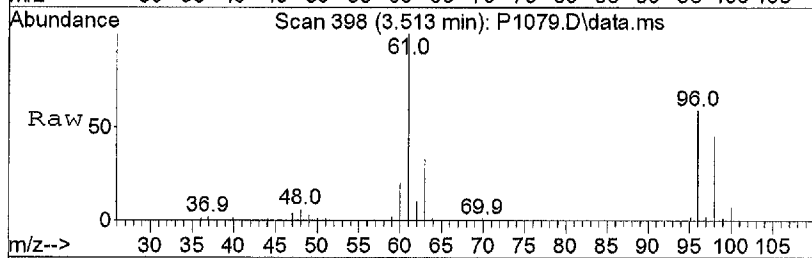
Tgt Ion: 96 Resp: 16775

Ion Ratio Lower Upper

96 100

61 168.5 133.7 173.7

98 69.4 41.8 81.8



#41

trichloroethene

Concen: 3.15 UG/L

RT: 4.415 min Scan# 546

Delta R.T. 0.006 min

Lab File: P1079.D

Acq: 2 Jun 2015 00:14

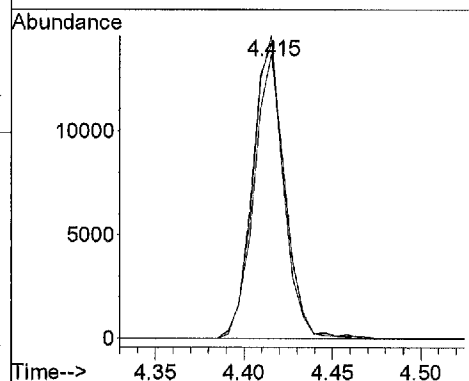
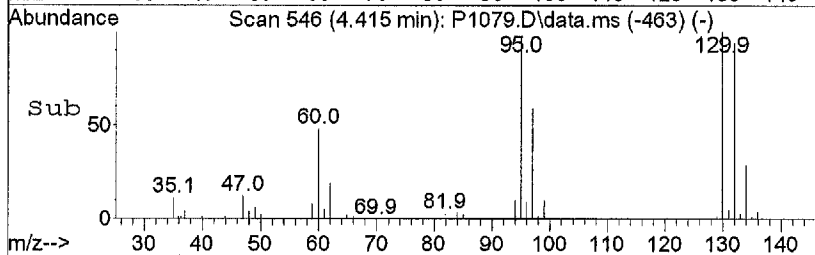
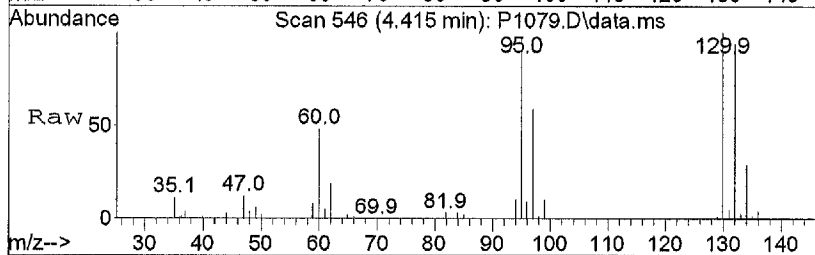
Tgt Ion: 95 Resp: 17572

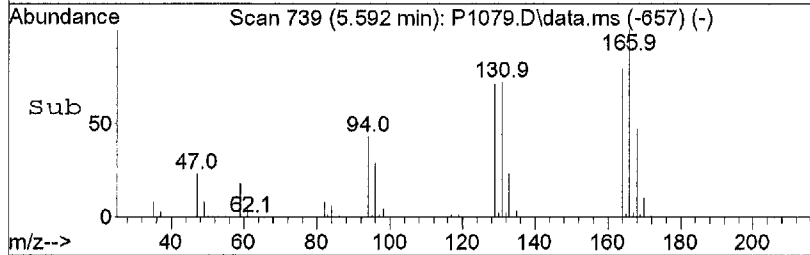
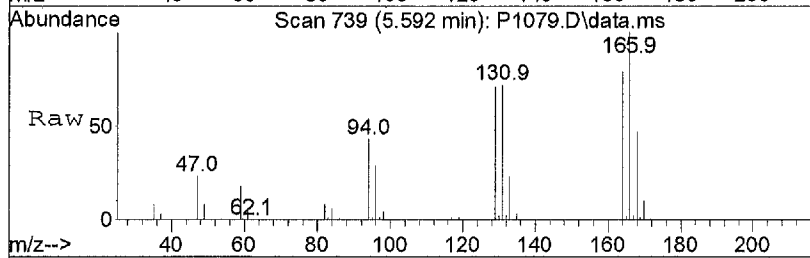
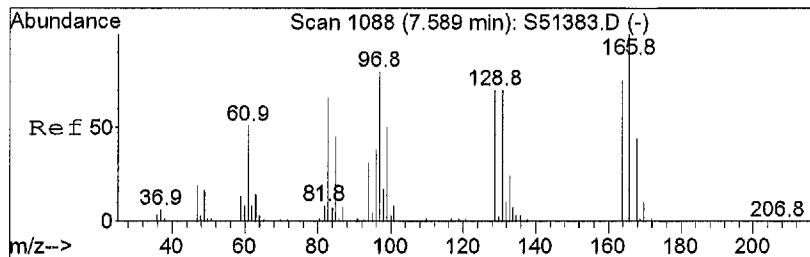
Ion Ratio Lower Upper

95 100

130 100.7 58.8 98.8#

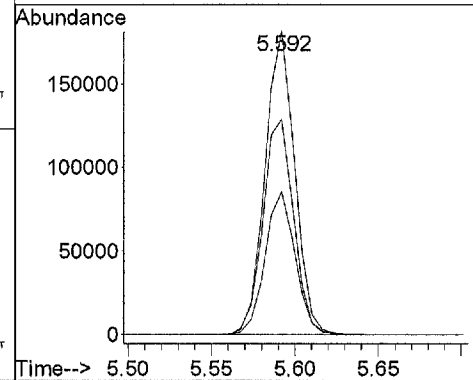
132 96.8 48.5 88.5#





#56
tetrachloroethene
Concen: 40.53 UG/L
RT: 5.592 min Scan# 739
Delta R.T. -0.000 min
Lab File: P1079.D
Acq: 2 Jun 2015 00:14

Tgt Ion	Ratio	Lower	Upper
166	100		
168	47.7	28.3	68.3
129	73.5	56.0	96.0



Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1079.D
Acq On : 2 Jun 2015 00:14
Operator : MN
Sample : 1505F17-014A
Misc : HDR012,RW3,H2O,DL,, 1:20
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-015ASample wt/vol: 5(g/mL) MLLab File ID: P1070.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-1

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-015ASample wt/vol: 5(g/mL) MLLab File ID: P1070.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TB-1

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBAN SAS No.: _____ SDG No.: HDR012

Matrix: (soil/water) WATER Lab Sample ID: 1505F17-015A

Sample wt/vol: 5 (g/mL) mL Lab File ID: P1070.D

Level: (low/med) LOW Date Received: 05/20/15

% Moisture: not dec. Date Analyzed: 06/01/15

GC Column: R-624 0.18 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µl) Soil Aliquot Volume: 0 (µL)

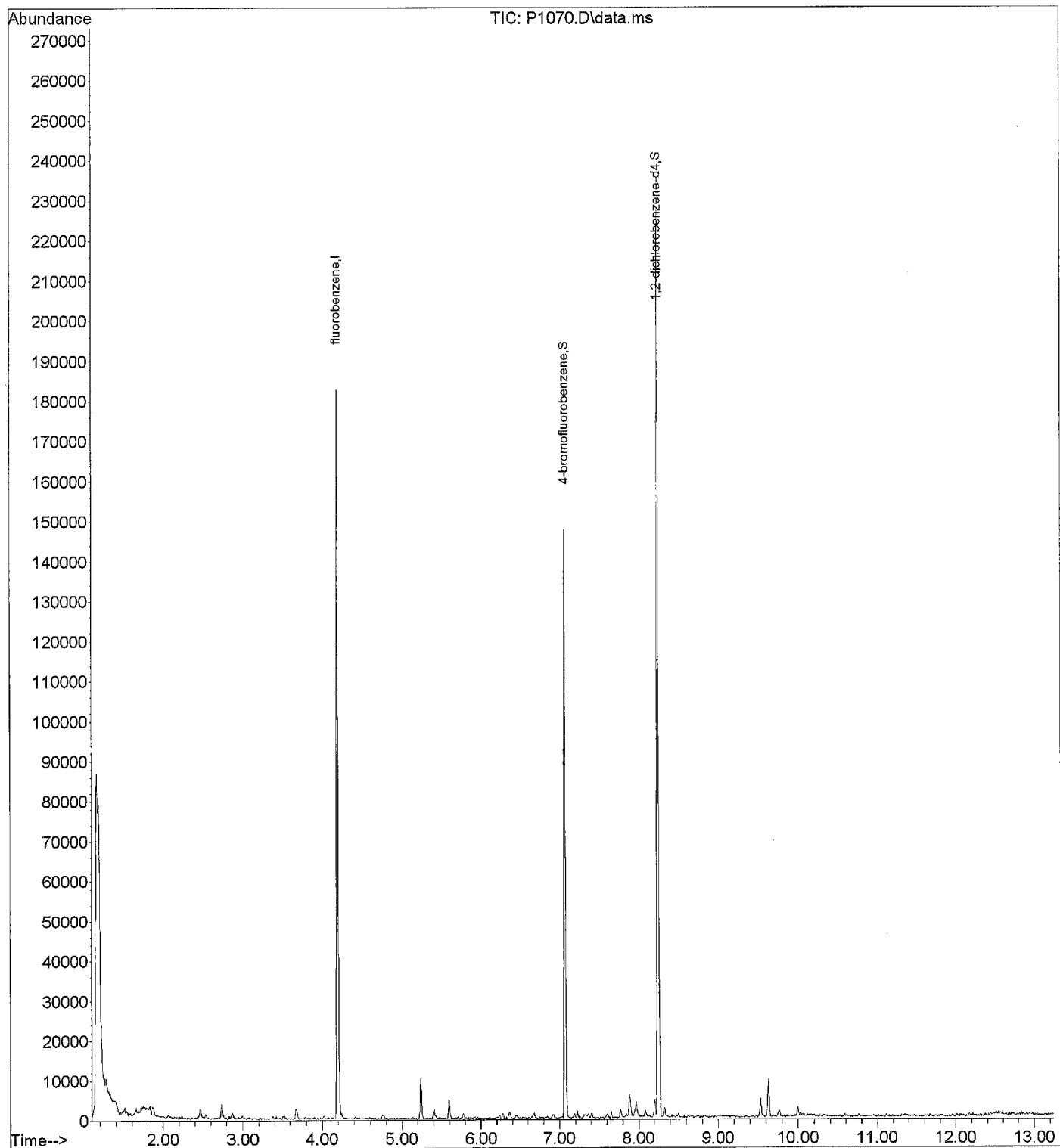
CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) µg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1070.D
Acq On : 1 Jun 2015 20:31
Operator : MN
Sample : 1505F17-015A
Misc : HDR012,TB1,H2O,SAMP,,
ALS Vial : 31 Sample Multiplier: 1
InstName : HP5975

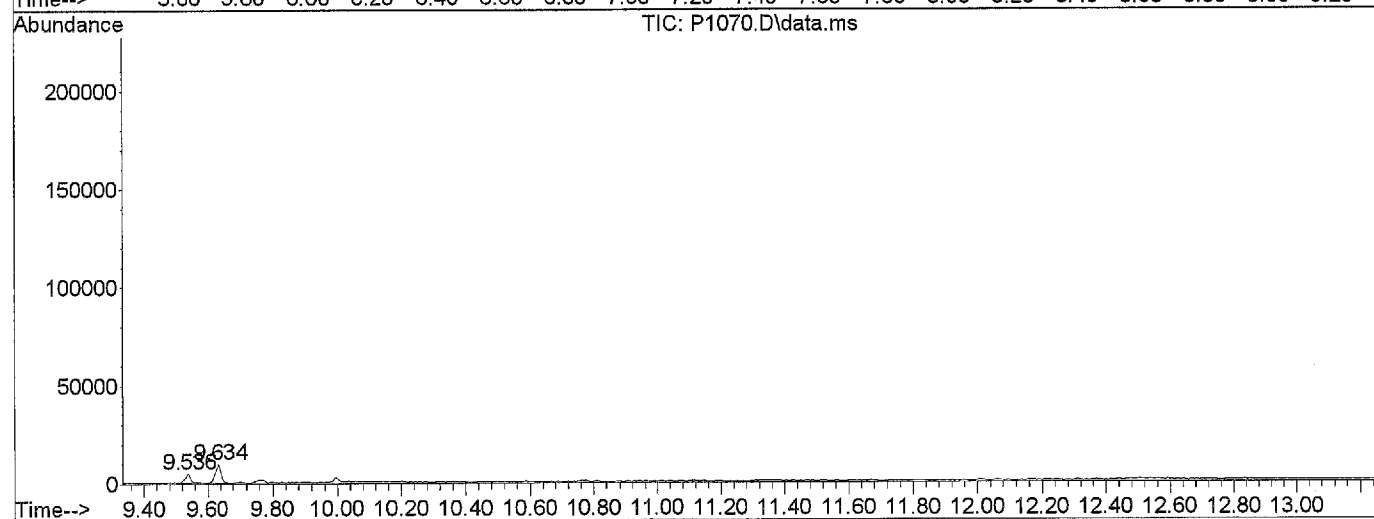
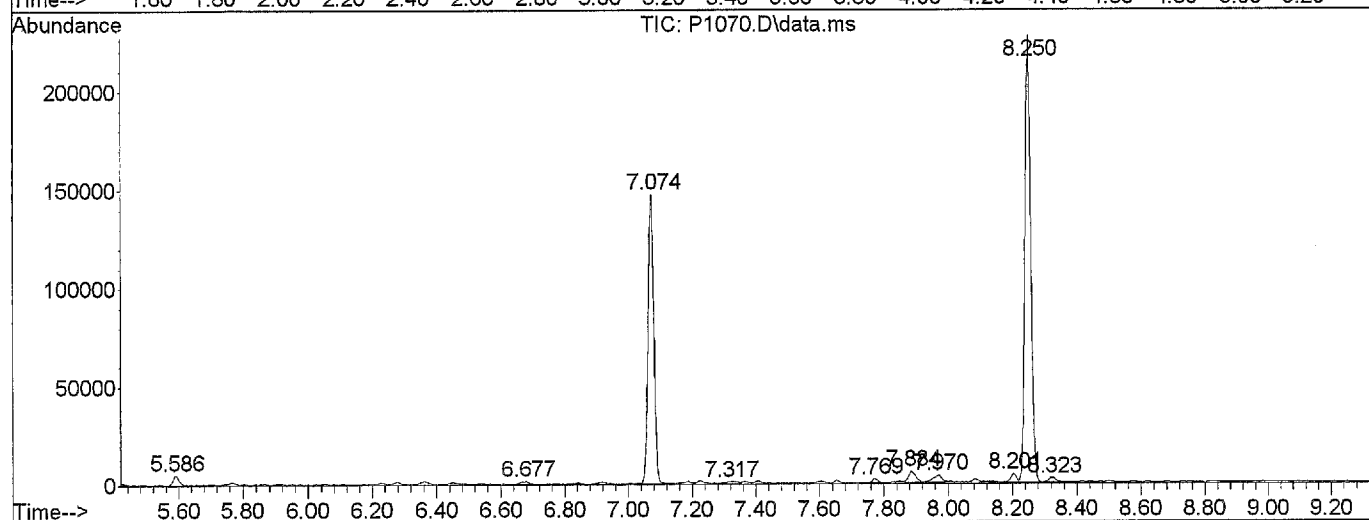
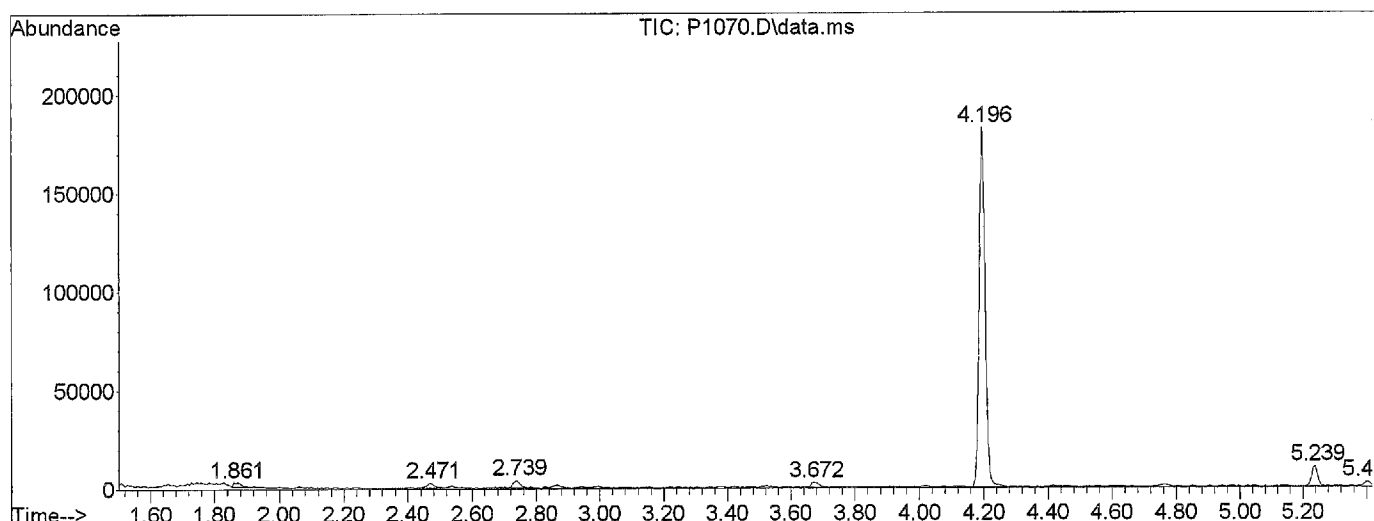
Quant Time: Jun 01 20:44:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1070.D
Acq On : 1 Jun 2015 20:31
Operator : MN
Sample : 1505F17-015A
Misc : HDR012,TB1,H2O,SAMP,,
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1070.D
Acq On : 1 Jun 2015 20:31
Operator : MN
Sample : 1505F17-015A
Misc : HDR012,TB1,H2O,SAMP,,
ALS Vial : 31 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 20:44:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	103504	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	31249	5.04	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	100.80%	
87) 1,2-dichlorobenzene-d4	8.250	152	47207	5.30	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	106.00%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1070.D
Acq On : 1 Jun 2015 20:31
Operator : MN
Sample : 1505F17-015A
Misc : HDR012,TB1,H2O,SAMP,,
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

STORAGE BLANK

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-016ASample wt/vol: 5(g/mL) MLLab File ID: P1071.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

STORAGE BLANK

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: 1505F17-016ASample wt/vol: 5(g/mL) MLLab File ID: P1071.D

Level: (low/med)

LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

STORAGE BLANK

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-016ASample wt/vol: 5 (g/mL) mLLab File ID: P1071.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18 ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µl)

Soil Aliquot Volume: 0 (µL)

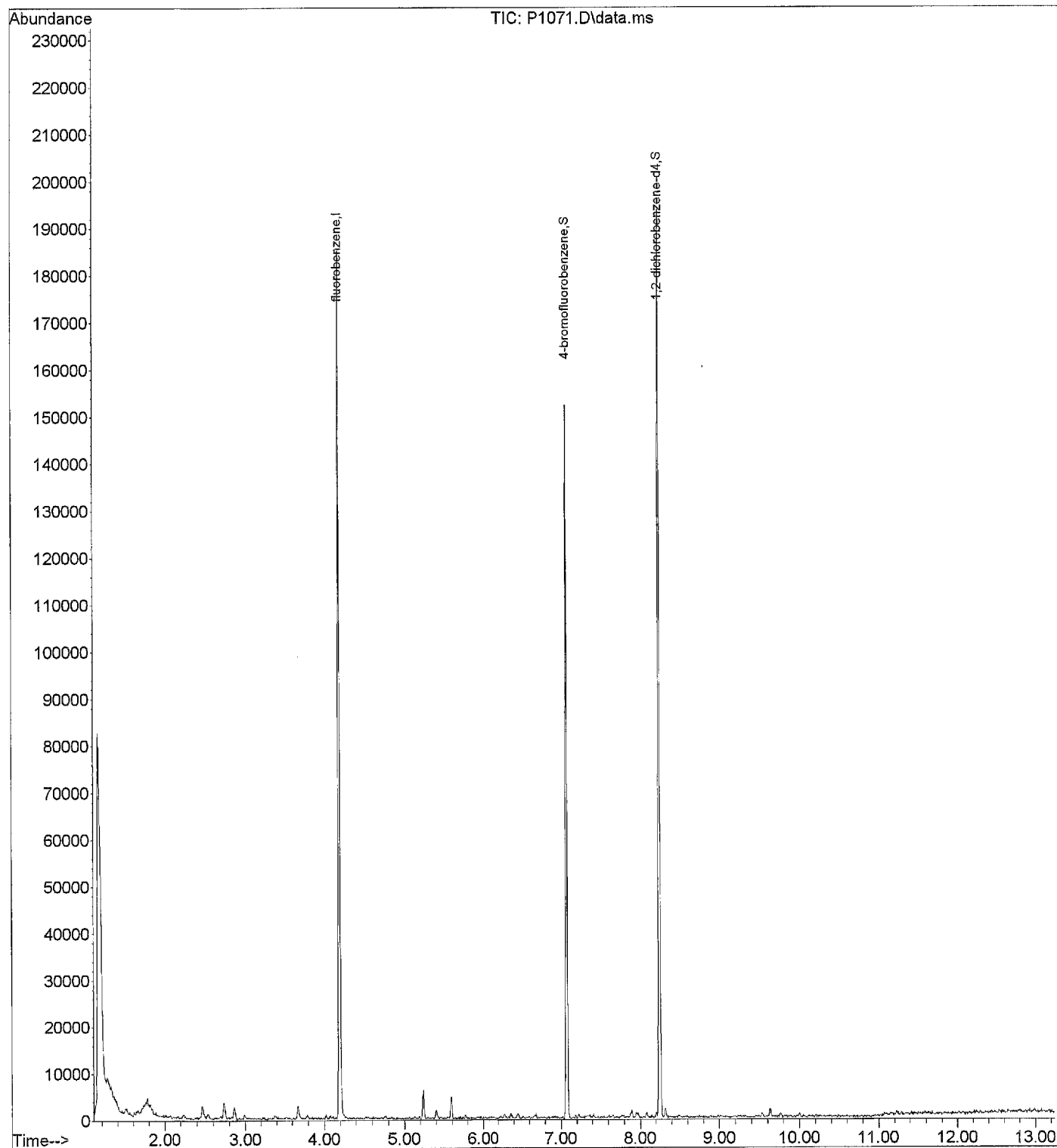
CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) µg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1071.D
Acq On : 1 Jun 2015 20:56
Operator : MN
Sample : 1505F17-016A
Misc : HDR012, STORAGE BLANK, H2O, SAMP,,
ALS Vial : 32 Sample Multiplier: 1
InstName : HP5975

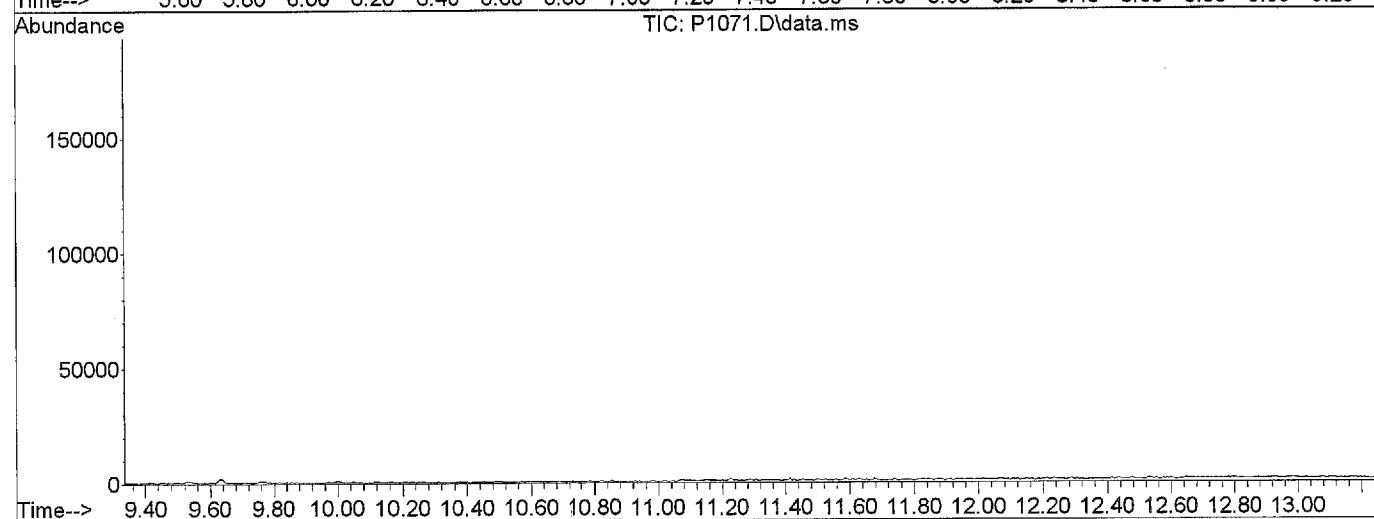
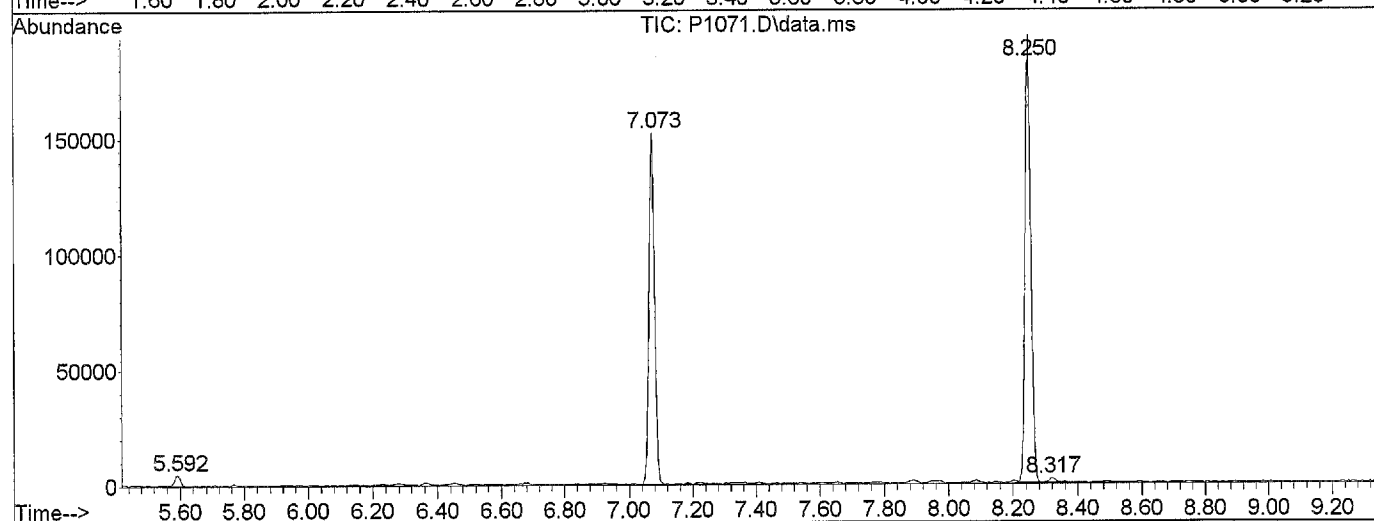
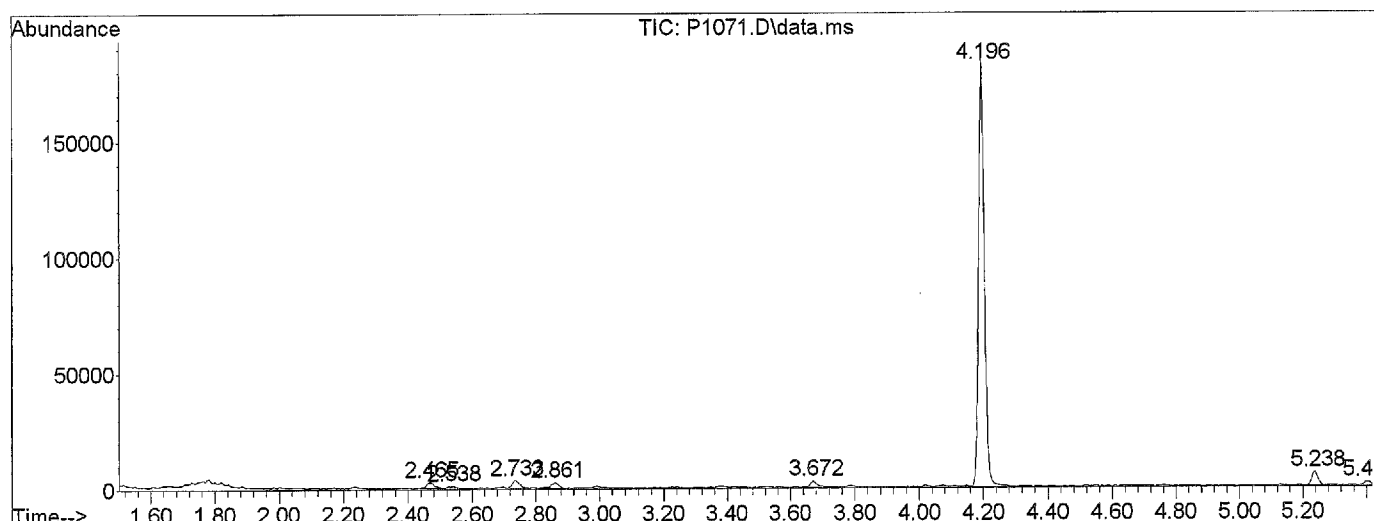
Quant Time: Jun 01 21:09:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1071.D
Acq On : 1 Jun 2015 20:56
Operator : MN
Sample : 1505F17-016A
Misc : HDR012, STORAGE BLANK, H2O, SAMP,,
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1071.D
Acq On : 1 Jun 2015 20:56
Operator : MN
Sample : 1505F17-016A
Misc : HDR012, STORAGE BLANK, H2O, SAMP,,
ALS Vial : 32 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 21:09:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	102562	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	30219	4.92	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	98.40%	
87) 1,2-dichlorobenzene-d4	8.250	152	38951	4.41	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	88.20%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1071.D
Acq On : 1 Jun 2015 20:56
Operator : MN
Sample : 1505F17-016A
Misc : HDR012, STORAGE BLANK, H2O, SAMP,,
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected



575 Broad Hollow Road
Melville, NY 11747

tel. 631.694.3040
fax. 631.420.8436

III. STANDARD DATA PACKAGE FOR VOLATILE ORGANICS

- A. INITIAL CALIBRATION FORM**
- B. STANDARD GC/MS CHROMATOGRAMS**
- C. DATA SYSTEM REPORT**
- D. CONTINUING CALIBRATION FORM**
- E. STANDARD GC/MS CHROMATOGRAMS**
- F. DATA SYSTEM REPORT**

Form 6
VOCS POTABLE INITIAL CALIBRATION DATA

Lab Name: PACE ANALYTICAL Contract: PACE ANALYTICAL
 Lab Code: 10478 Case No.: HDR-ALBA SAS No.: SDG No.: HDR012
 Instrument ID: HP5975-1 Calibration Dates: 5/3/2015 5/3/2015
 Heated Purge: (Y/N) N Calibration Times: 14:26 17:52
 GC Column: R-624 0.18 ID: .18 (mm)

LAB FILE ID: TD0.50= P0526.D STD5.0= P0527.D TD10.0= P0528.D VSTD50= P0530.D STD100= P0531.D														
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5							RRF	% RSD	R ²
1,1-Dichloro-2-propanone	*	0	0	0	0							0.000	0.0	*
1-Chlorobutane	*	0	0	0	0							0.000	0.0	*
2-Butanone	*	0.2144082	0.1874537	0.1969603	0.1949377	0.1945678						0.198	5.1	*
2-Hexanone	*	0.1912747	0.2295869	0.2706321	0.3055870	0.3147680						0.262	19.8	*
2-Nitropropane	*	0	0	0	0	0						0.000	0.0	*
4-Methyl-2-pentanone	*	0.2765866	0.3288201	0.3802499	0.4287838	0.4462377						0.372	18.9	*
Acetone	*	0.5047621	0.1350813	0.1209261	0.1058015	0.1078774						0.195	89.1	* Not
Acrylonitrile	*	0	0	0	0	0						0.000	0.0	* (in G)
Allyl chloride	*	0	0	0	0	0						0.000	0.0	*
Carbon disulfide	*	0	0	0	0	0						0.000	0.0	*
Chloroacetonitrile	*	0	0	0	0	0						0.000	0.0	*
Dichlorofluoromethane		0	0	0	0	0						0.000	0.0	
Diethyl ether	*	0	0	0	0	0						0.000	0.0	*
Epichlorohydrin		0	0	0	0	0						0.000	0.0	
Ethyl methacrylate	*	0	0	0	0	0						0.000	0.0	*
Hexachloroethane	*	0	0	0	0	0						0.000	0.0	*
Iodomethane	*	0	0	0	0	0						0.000	0.0	*
Methacrylonitrile	*	0	0	0	0	0						0.000	0.0	*
Methyl acrylate	*	0	0	0	0	0						0.000	0.0	*
Methyl methacrylate	*	0	0	0	0	0						0.000	0.0	*
Methylacrylonitrile		0	0	0	0	0						0.000	0.0	
Nitrobenzene	*	0	0	0	0	0						0.000	0.0	*

*Not Targeted
6/17/15*

Form 6
VOCS POTABLE INITIAL CALIBRATION DATA

Lab Name: PACE ANALYTICAL Contract: PACE ANALYTICAL

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: SDG No.: HDR012

Instrument ID: HP5975-1 Calibration Dates: 5/3/2015 5/3/2015

Heated Purge: (Y/N) N Calibration Times: 14:26 17:52

GC Column: R-624 0.18 ID: .18 (mm)

LAB FILE ID: TD0.50= P0526.D STD5.0= P0527.D TD10.0= P0528.D VSTD50= P0530.D STD100= P0531.D														
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5							RRF	% RSD	R ²
Pentachloroethane *	0	0	0	0	0							0.000	0.0	*
Propionitrile *	0	0	0	0	0							0.000	0.0	*
Tetrahydrofuran *	0	0	0	0	0							0.000	0.0	*
trans-1,4-Dichloro-2-butene *	0	0	0	0	0							0.000	0.0	*
Chlorodifluoromethane	0.5237203	0.4597185	0.4743123	0.4668812	0.4649600							0.478	5.5	
Dichlorodifluoromethane *	0.4215943	0.3519563	0.3593658	0.3645954	0.3542375							0.370	7.8	*
Chloromethane *	0.4634603	0.3727833	0.3810951	0.3630976	0.3534181							0.387	11.4	*
Vinyl chloride *	0.3438431	0.3077317	0.3241758	0.3364569	0.3339201							0.329	4.2	*
Bromomethane *	0.1560666	0.0889722	0.0947659	0.1030131	0.1111022							0.111	24.1	*
Chloroethane *	0.2975761	0.2245545	0.2204273	0.2151960	0.2048843							0.233	16.0	*
1,1,2-Trichloro-1,2,2-trifluoroethane	0	0	0	0	0							0.000	0.0	
Trichlorofluoromethane *	0.5784508	0.4978977	0.5126522	0.5040064	0.5019514							0.519	6.5	*
1,1-Dichloroethene *	0	0.2398370	0.262941	0.2812699	0.2892377							0.268	8.2	*
Methylene chloride *	0.5104044	0.3228726	0.326743	0.3084795	0.3127237							0.356	24.3	*
trans-1,2-Dichloroethene *	0.3086350	0.2802710	0.3000577	0.2991531	0.3091949							0.299	3.9	*
1,1-Dichloroethane *	0.6310373	0.5770664	0.6173824	0.623369	0.6352173							0.617	3.8	*
2,2-Dichloropropane *	0.3392164	0.3174480	0.3533074	0.3864868	0.3989117							0.359	9.3	*
cis-1,2-Dichloroethene *	0.3124718	0.3104985	0.3296462	0.336653	0.3439711							0.327	4.5	*
Bromochloromethane *	0.1639659	0.1487735	0.1661802	0.1570447	0.159447							0.159	4.3	*
Chloroform *	0.6072267	0.5352926	0.5714406	0.5477966	0.5516850							0.563	5.0	*
1,1,1-Trichloroethane *	0.4836598	0.4466363	0.4813839	0.5053817	0.5161949							0.487	5.5	*
Carbon tetrachloride *	0.3612214	0.3553876	0.3812369	0.4211669	0.4371367							0.391	9.3	*

Form 6
VOCS POTABLE INITIAL CALIBRATION DATA

Lab Name: PACE ANALYTICAL Contract: PACE ANALYTICAL

Lab Code: 10478 Case No.: HDR-ALBA SAS No.: SDG No.: HDR012

Instrument ID: HP5975-1 Calibration Dates: 5/3/2015 5/3/2015

Heated Purge: (Y/N) N Calibration Times: 14:26 17:52

GC Column: R-624 0.18 ID: .18 (mm)

LAB FILE ID: TD0.50= P0526.D STD5.0= P0527.D TD10.0= P0528.D VSTD50= P0530.D STD100= P0531.D														
COMPOUND		Level 1	Level 2	Level 3	Level 4	Level 5						RRF	% RSD	R ²
1,1-Dichloropropene	*	0.3559177	0.3698205	0.4035804	0.4466367	0.4540887						0.406	10.9	*
1,2-Dichloroethane	*	0.5672790	0.5439088	0.5648415	0.5138778	0.5123613						0.540	4.9	*
Benzene	*	1.2163718	1.1750033	1.2459471	1.2439044	1.2725126						1.231	3.0	*
Trichloroethene	*	0.3253363	0.2977430	0.3128832	0.3232622	0.3297972						0.318	4.0	*
1,2-Dichloropropane	*	0.3203710	0.2995294	0.3304441	0.3404448	0.3486280						0.328	5.8	*
Dibromomethane	*	0.2121513	0.1926496	0.2104263	0.2006996	0.2027405						0.204	3.9	*
Bromodichloromethane	*	0.3525323	0.3545924	0.3837831	0.4068353	0.4261184						0.385	8.4	*
cis-1,3-Dichloropropene	*	0.3261262	0.3474685	0.4141747	0.4784492	0.507592						0.415	19.1	*
Toluene	*	0.6622957	0.7376040	0.8153717	0.828689	0.8403887						0.777	9.7	*
trans-1,3-Dichloropropene	*	0.3101020	0.3354974	0.3940624	0.4593968	0.4865197						0.397	19.2	*
1,1,2-Trichloroethane	*	0.2155367	0.2415363	0.2537537	0.2483986	0.2498781						0.242	6.3	*
Tetrachloroethene	*	0.3034441	0.302928	0.3232990	0.3212866	0.3245293						0.315	3.5	*
1,3-Dichloropropane	*	0.5264286	0.5046294	0.5389542	0.5269022	0.5331284						0.526	2.5	*
1,2-Dibromoethane	*	0.2654148	0.2756743	0.3048352	0.3061246	0.3123959						0.293	7.1	*
Dibromochloromethane	*	0.2379931	0.2430286	0.2790739	0.3097600	0.3293332						0.280	14.4	*
Chlorobenzene	*	0.7340661	0.7722975	0.8623478	0.8789141	0.8935993						0.828	8.5	*
1,1,1,2-Tetrachloroethane	*	0.2548073	0.2542155	0.2801029	0.2952820	0.3016500						0.277	8.0	*
Ethylbenzene	*	1.0490205	1.340007	1.5385342	1.5867482	1.6009258						1.423	16.4	*
m,p-Xylene	*	0.3840164	0.5482985	0.6127467	0.5965630	0.5919287						0.547	17.2	*
o-Xylene	*	0.3896588	0.4922335	0.5562841	0.5769698	0.5846275						0.520	15.7	*
Styrene	*	0.6036156	0.8738617	0.9659544	0.9992948	1.0148727						0.892	19.1	*
Bromoform	*	0.108784	0.1358329	0.1535752	0.1809136	0.1984702						0.156	22.9	*

Form 6
VOCS POTABLE INITIAL CALIBRATION DATA

Lab Name: PACE ANALYTICAL Contract: PACE ANALYTICAL
 Lab Code: 10478 Case No.: HDR-ALBA SAS No.: SDG No.: HDR012
 Instrument ID: HP5975-1 Calibration Dates: 5/3/2015 5/3/2015
 Heated Purge: (Y/N) N Calibration Times: 14:26 17:52
 GC Column: R-624 0.18 ID: .18 (mm)

LAB FILE ID: TD0.50= P0526.D STD5.0= P0527.D TD10.0= P0528.D VSTD50= P0530.D STD100= P0531.D														
COMPOUND		Level 1	Level 2	Level 3	Level 4	Level 5						RRF	% RSD	R ²
Isopropylbenzene	*	0.9589690	1.3437323	1.5108515	1.5971471	1.6157279						1.405	19.3	*
Bromobenzene	*	0.3383136	0.3398545	0.3708736	0.3634787	0.3641410						0.355	4.3	*
1,1,2,2-Tetrachloroethane	*	0.4009434	0.4107664	0.4247060	0.4135298	0.4111467						0.412	2.1	*
1,2,3-Trichloropropane	*	0.1332716	0.1424883	0.1524727	0.1480175	0.1459286						0.144	5.0	*
n-Propylbenzene	*	1.3355376	1.6618012	1.8327961	1.8951347	1.9023228						1.726	13.8	*
2/4-Chlorotoluene	*	0.9727363	1.1527275	1.2567067	1.2412839	1.2691034						1.179	10.5	*
2-Chlorotoluene	*	0.9222939	1.0513485	1.1476690	1.1465704	1.1672547						1.087	9.4	*
4-Chlorotoluene	*	0.9120249	1.1165853	1.2085941	1.1807313	1.2044874						1.124	11.1	*
1,3,5-Trimethylbenzene	*	0.8474768	1.2303168	1.3621535	1.384607	1.4134985						1.248	18.8	*
tert-Butylbenzene	*	0.7471563	1.0028430	1.1323289	1.1932466	1.2086358						1.057	18.1	*
1,2,4-Trimethylbenzene	*	0.8338223	1.2370267	1.3703381	1.3822503	1.4020102						1.245	19.2	*
sec-Butylbenzene	*	1.1000271	1.5188118	1.6698289	1.7476318	1.7575228						1.559	17.6	*
1,2-Dibromo-3-chloropropane	*	0	0	0	0	0						0.000	0.0	*
n-Butylbenzene	*	0.8085447	1.1057143	1.2749370	1.3806033	1.4015566						1.194	20.5	*
1,3-Dichlorobenzene	*	0.6440146	0.7070498	0.7608043	0.7094268	0.7045203						0.705	5.9	*
1,4-Dichlorobenzene	*	0.5968448	0.7030630	0.7552604	0.7212930	0.7301025						0.701	8.7	*
4-Isopropyltoluene	*	0.8646294	1.3238966	1.5097596	1.5562300	1.5521330						1.361	21.6	*
1,2-Dichlorobenzene	*	0.6731290	0.6715394	0.7086046	0.68201	0.6900558						0.685	2.2	*
1,2,4-Trichlorobenzene	*	0.2949806	0.3289617	0.375399	0.4384914	0.4574151						0.379	18.3	*
Hexachlorobutadiene	*	0.1504243	0.1517799	0.1660437	0.1957478	0.2060613						0.174	14.7	*
Naphthalene	*	0.6566534	0.9847283	1.2660962	1.4695214	1.5167346						1.179	30.5	*
1,2,3-Trichlorobenzene	*	0.2525503	0.3322622	0.3762547	0.4172379	0.4311337						0.362	20.0	*

Form 6
VOCS POTABLE INITIAL CALIBRATION DATA

Lab Name: PACE ANALYTICAL Contract: PACE ANALYTICAL
 Lab Code: 10478 Case No.: HDR-ALBA SAS No.: SDG No.: HDR012
 Instrument ID: HP5975-1 Calibration Dates: 5/3/2015 5/3/2015
 Heated Purge: (Y/N) N Calibration Times: 14:26 17:52
 GC Column: R-624 0.18 ID: .18 (mm)

LAB FILE ID: TD0.50= P0526.D STD5.0= P0527.D TD10.0= P0528.D VSTD50= P0530.D STD100= P0531.D														
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5							RRF	% RSD	R ²
tert-Butyl Alcohol	0	0	0	0	0							0.000	0.0	
Methyl tert-butyl ether *	0.78338	0.7511111	0.8502782	0.9251816	0.9778674							0.858	11.1	*
Total Trihalomethanes	0	0	0	0	0							0.000	0.0	
Xylene (total)	0.3896588	0.4922335	0.5562841	0.5769698	0.5846275							0.520	15.7	
1,2-Dichlorobenzene-d4 *	0.4349892	0.442203	0.4429441	0.4274076	0.4046093							0.430	3.7	*
4-Bromofluorobenzene *	0.2723774	0.2866106	0.3029294	0.3153728	0.3197388							0.299	6.6	*

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBANY SAS No.: _____ SDG No.: HDR012Instrument ID: HP5975-1Calibration Date: 06/01/15Time: 9:22Lab File ID: P1046.DInit. Calib. Date(s): 05/03/15 05/03/15EPA Sample No. (VSTD050##): VSTD010Init. Calib. Times: 14:26 17:52Heated Purge: (Y/N) NGC Column: R-624 0.18ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.370	0.349		-5.8	30.0
Chloromethane	0.387	0.323		-16.5	30.0
Vinyl chloride	0.329	0.300		-8.9	30.0
Bromomethane	0.111	0.074		-33.2	30.0
Chloroethane	0.233	0.242		4.1	30.0
Trichlorofluoromethane	0.519	0.505		-2.7	30.0
1,1-Dichloroethene	0.268	0.230		-14.3	30.0
Methylene chloride	0.356	0.239		-32.9	30.0
trans-1,2-Dichloroethene	0.299	0.247		-17.5	30.0
1,1-Dichloroethane	0.617	0.535		-13.3	30.0
2,2-Dichloropropane	0.359	0.379		5.5	30.0
cis-1,2-Dichloroethene	0.327	0.286		-12.4	30.0
Bromochloromethane	0.159	0.144		-9.5	30.0
Chloroform	0.563	0.501		-11.0	30.0
1,1,1-Trichloroethane	0.487	0.493		1.3	30.0
Carbon tetrachloride	0.391	0.431		10.2	30.0
1,1-Dichloropropene	0.406	0.371		-8.6	30.0
1,2-Dichloroethane	0.540	0.495		-8.4	30.0
Benzene	1.231	0.970		-21.2	30.0
Trichloroethene	0.318	0.273		-14.1	30.0
1,2-Dichloropropane	0.328	0.278		-15.2	30.0
Dibromomethane	0.204	0.164		-19.5	30.0
Bromodichloromethane	0.385	0.364		-5.4	30.0
cis-1,3-Dichloropropene	0.415	0.371		-10.6	30.0
Toluene	0.777	0.669		-13.9	30.0
trans-1,3-Dichloropropene	0.397	0.364		-8.3	30.0
1,1,2-Trichloroethane	0.242	0.183		-24.3	30.0
Tetrachloroethene	0.315	0.332		5.4	30.0
1,3-Dichloropropane	0.526	0.405		-23.0	30.0
Dibromochloromethane	0.280	0.278		-0.7	30.0
Chlorobenzene	0.828	0.784		-5.3	30.0
1,1,1,2-Tetrachloroethane	0.277	0.284		2.4	30.0
Ethylbenzene	1.423	1.363		-4.2	30.0
m,p-Xylene	0.547	0.543		-0.7	30.0
o-Xylene	0.520	0.508		-2.3	30.0

All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBANY SAS No.: _____ SDG No.: HDR012Instrument ID: HP5975-1Calibration Date: 06/01/15Time: 16:23Lab File ID: P1062.DInit. Calib. Date(s): 05/03/15 05/03/15EPA Sample No. (VSTD050##): VSTD010Init. Calib. Times: 14:26 17:52Heated Purge: (Y/N) NGC Column: R-624 0.18ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.370	0.326		-12.0	30.0
Chloromethane	0.387	0.302		-21.9	30.0
Vinyl chloride	0.329	0.231		-29.8	30.0
Bromomethane	0.111	0.053		-52.2	30.0
Chloroethane	0.233	0.161		-30.8	30.0
Trichlorofluoromethane	0.519	0.481		-7.3	30.0
1,1-Dichloroethene	0.268	0.207		-22.9	30.0
Methylene chloride	0.356	0.237		-33.5	30.0
trans-1,2-Dichloroethene	0.299	0.237		-20.9	30.0
1,1-Dichloroethane	0.617	0.513		-16.8	30.0
2,2-Dichloropropane	0.359	0.337		-6.1	30.0
cis-1,2-Dichloroethene	0.327	0.262		-19.8	30.0
Bromochloromethane	0.159	0.142		-10.7	30.0
Chloroform	0.563	0.490		-12.9	30.0
1,1,1-Trichloroethane	0.487	0.452		-7.1	30.0
Carbon tetrachloride	0.391	0.398		1.7	30.0
1,1-Dichloropropene	0.406	0.338		-16.8	30.0
1,2-Dichloroethane	0.540	0.500		-7.5	30.0
Benzene	1.231	0.910		-26.1	30.0
Trichloroethene	0.318	0.260		-18.2	30.0
1,2-Dichloropropane	0.328	0.256		-21.9	30.0
Dibromomethane	0.204	0.157		-22.9	30.0
Bromodichloromethane	0.385	0.347		-9.8	30.0
cis-1,3-Dichloropropene	0.415	0.337		-18.7	30.0
Toluene	0.777	0.626		-19.4	30.0
trans-1,3-Dichloropropene	0.397	0.339		-14.6	30.0
1,1,2-Trichloroethane	0.242	0.178		-26.4	30.0
Tetrachloroethene	0.315	0.339		7.6	30.0
1,3-Dichloropropane	0.526	0.398		-24.3	30.0
Dibromochloromethane	0.280	0.263		-6.0	30.0
Chlorobenzene	0.828	0.734		-11.4	30.0
1,1,1,2-Tetrachloroethane	0.277	0.267		-3.7	30.0
Ethylbenzene	1.423	1.249		-12.2	30.0
m,p-Xylene	0.547	0.496		-9.3	30.0
o-Xylene	0.520	0.471		-9.4	30.0

All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: HDR-ALBANY SAS No.: _____ SDG No.: HDR012

Instrument ID: HP5975-1 Calibration Date: 06/01/15 Time: 16:23

Lab File ID: P1062.D Init. Calib. Date(s): 05/03/15 05/03/15

EPA Sample No. (VSTD050##): VSTD010 Init. Calib. Times: 14:26 17:52

Heated Purge: (Y/N) N

GC Column: R-624 0.18 ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Styrene	0.892	0.805		-9.7	30.0
Bromoform	0.156	0.158		1.6	30.0
Isopropylbenzene	1.405	1.315		-6.4	30.0
Bromobenzene	0.355	0.329		-7.4	30.0
1,1,2,2-Tetrachloroethane	0.412	0.301		-27.0	30.0
1,2,3-Trichloropropane	0.144	0.133		-7.9	30.0
n-Propylbenzene	1.726	1.472		-14.7	30.0
2/4-Chlorotoluene	1.179	1.023		-13.2	30.0
1,3,5-Trimethylbenzene	1.248	1.169		-6.3	30.0
tert-Butylbenzene	1.057	1.016		-3.9	30.0
1,2,4-Trimethylbenzene	1.245	1.183		-5.0	30.0
sec-Butylbenzene	1.559	1.414		-9.3	30.0
n-Butylbenzene	1.194	1.011		-15.3	30.0
1,3-Dichlorobenzene	0.705	0.650		-7.8	30.0
1,4-Dichlorobenzene	0.701	0.661		-5.7	30.0
4-Isopropyltoluene	1.361	1.309		-3.8	30.0
1,2-Dichlorobenzene	0.685	0.616		-10.1	30.0
1,2,4-Trichlorobenzene	0.379	0.361		-4.8	30.0
Hexachlorobutadiene	0.174	0.168		-3.5	30.0
1,2,3-Trichlorobenzene	0.362	0.343		-5.2	30.0
Methyl tert-butyl ether	0.858	0.778		-9.3	30.0

All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

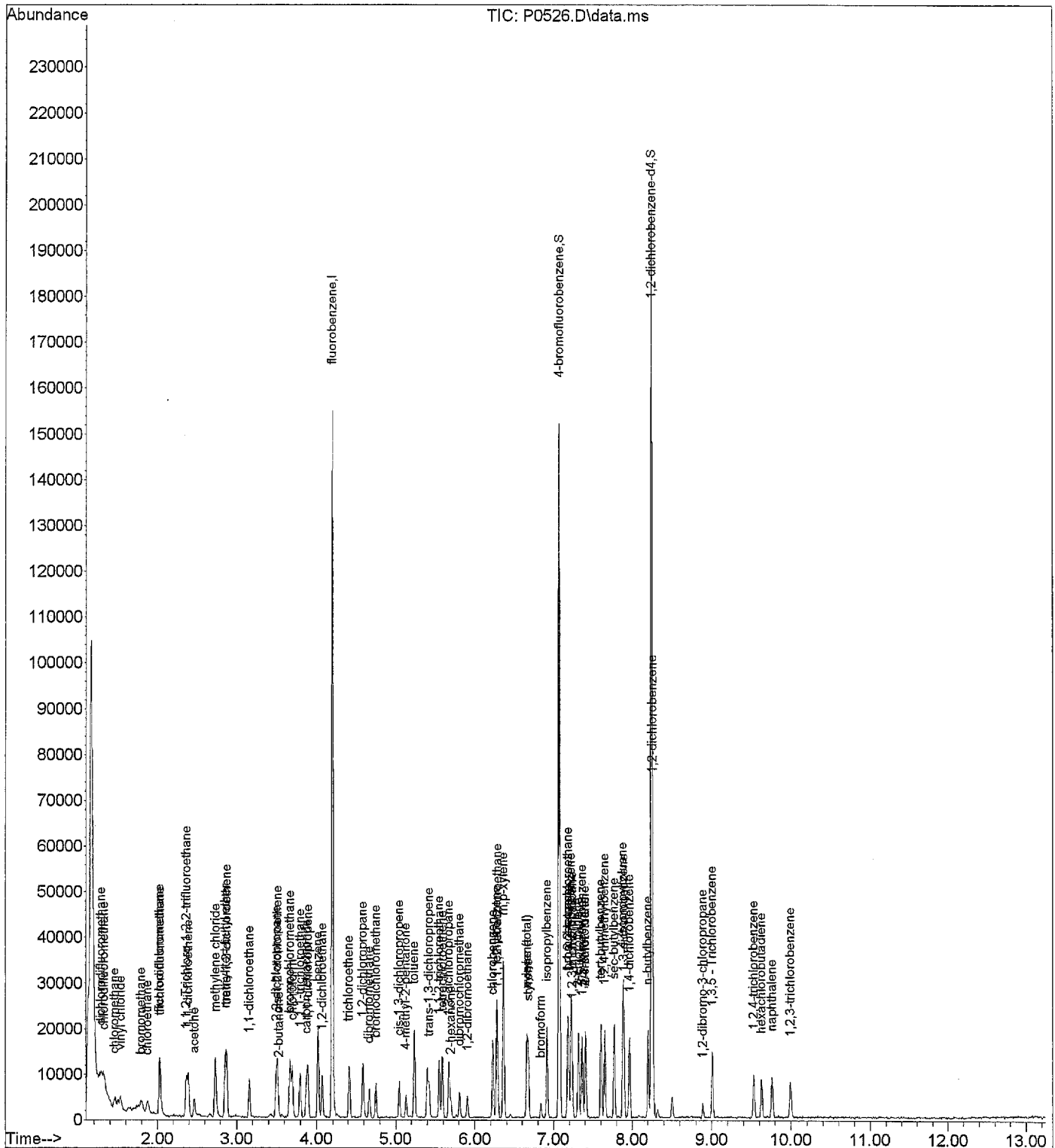
Lab Name: PACE ANALYTICAL Contract: _____
Lab Code: 10478 Case No.: HDR-ALBANY SAS No.: _____ SDG No.: HDR012
Instrument ID: HP5975-1 Calibration Date: 06/01/15 Time: 16:23
Lab File ID: P1062.D Init. Calib. Date(s): 05/03/15 05/03/15
EPA Sample No. (VSTD050##): VSTD010 Init. Calib. Times: 14:26 17:52
Heated Purge: (Y/N) N
GC Column: R-624 0.18 ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
1,2-Dichlorobenzene-d4	0.430	0.396		-8.0	30.0
4-Bromofluorobenzene	0.299	0.358		19.6	30.0

All other compounds must meet a minimum RRF of 0.010.

```
Data Path   : C:\DATA\2015\MAY15\050315\  
Data File   : P0526.D  
Acq On      : 3 May 2015 14:26  
Operator    : KGG  
Sample      : VSTD0.50  
Misc        : ,,,ICAL_0.5,,  
ALS Vial    : 10 Sample Multiplier: 1  
InstName    : HP5975
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Quant Time: May 03 15:04:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176\CK-0094/A0103959/A09938
QLast Update : Sun May 03 15:04:42 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0526.D
 Acq On : 3 May 2015 14:26
 Operator : KGG
 Sample : VSTD0.50
 Misc : ,,,ICAL_0.5,,
 ALS Vial : 10 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 15:04:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-21767/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	88616	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	24137	4.36	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	87.20%	
87) 1,2-dichlorobenzene-d4	8.250	152	38547	5.07	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	101.40%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.324	51	4641	0.53	ug/l	# 82
3) dichlorodifluoromethane	1.288	85	3736	0.72	UG/L	94
4) chloromethane	1.459	50	4107	0.43	UG/L	95
5) vinyl chloride	1.538	62	3047	0.41	UG/L	# 20
6) bromomethane	1.794	94	1383	0.81	UG/L	# 75
7) chloroethane	1.873	64	2637	0.60	UG/L	96
8) fluorodichloromethane	2.026	67	5529	2.83	ug/l	92
9) trichlorofluoromethane	2.032	101	5126	0.68	UG/L	95
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	2991	0.55	UG/L	93
12) methyl tert-butyl ether	2.861	73	6942	0.43	UG/L	93
16) 1,1-dichloroethene	2.391	96	2301m	0.45	UG/L	
17) methylene chloride	2.739	84	4523	0.71	UG/L	94
19) acetone	2.471	43	4473	1.20	ug/l	95
20) trans-1,2-dichloroethene	2.873	96	2735	0.48	UG/L	99
22) 1,1-dichloroethane	3.159	63	5592	0.49	UG/L	98
23) 2,2-dichloropropane	3.501	77	3006	0.61	UG/L	97
24) cis-1,2-dichloroethene	3.513	96	2769	0.44	UG/L	92
29) bromochloromethane	3.665	128	1453	0.48	UG/L	# 89
32) chloroform	3.696	83	5381	0.56	UG/L	99
33) 2-butanone	3.531	43	1900	0.42	ug/l	# 53
34) 1,1,1-trichloroethane	3.793	97	4286	0.57	UG/L	98
35) carbon tetrachloride	3.873	117	3201	0.50	UG/L	92
37) 1,1-dichloropropene	3.891	75	3154	0.39	UG/L	98
38) benzene	4.019	78	10779	0.44	UG/L	97
40) 1,2-dichloroethane	4.074	62	5027	0.56	UG/L	99
41) trichloroethene	4.409	95	2883	0.51	UG/L	79
42) 1,2-dichloropropane	4.586	63	2839	0.42	UG/L	95
43) dibromomethane	4.665	93	1880	0.50	UG/L	97
46) bromodichloromethane	4.751	83	3124	0.43	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	2890	0.35	UG/L	95
51) toluene	5.232	92	5869	0.34	UG/L	95
52) trans-1,3-dichloropropene	5.421	75	2748	0.40	UG/L	95
54) 1,1,2-trichloroethane	5.549	83	1910	0.40	UG/L	85
55) 4-methyl-2-pentanone	5.129	43	2451	0.29	ug/l	98
56) tetrachloroethene	5.592	166	2689	0.47	UG/L	94
57) 1,3-dichloropropane	5.671	76	4665	0.45	UG/L	98
58) dibromochloromethane	5.805	129	2109	0.39	UG/L	95
59) 1,2-dibromoethane	5.909	107	2352	0.42	UG/L	92
60) 2-hexanone	5.696	43	1695	0.28	ug/l	# 95
61) chlorobenzene	6.226	112	6505	0.40	UG/L	94
62) 1,1,1,2-tetrachloroethane	6.287	131	2258	0.45	UG/L	91
63) ethylbenzene	6.275	91	9296	0.32	UG/L	98
64) m,p-xylene	6.360	106	6806	0.61	UG/L	95
65) o-xylene	6.659	106	3453	0.32	UG/L	99

Data Path : C:\DATA\2015\MAY15\050315\
Data File : P0526.D
Acq On : 3 May 2015 14:26
Operator : KGG
Sample : VSTD0.50
Misc : ,,,ICAL_0.5,,
ALS Vial : 10 Sample Multiplier: 1
InstName : HP5975

Quant Time: May 03 15:04:54 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Sun May 03 15:04:42 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) xylene (total)	6.659	106	3453	0.32	UG/L	99
67) styrene	6.677	104	5349	0.29	UG/L	86
68) bromoform	6.836	173	964	0.29	UG/L	98
69) isopropylbenzene	6.915	105	8498	0.30	UG/L	97
71) bromobenzene	7.183	156	2998	0.45	UG/L #	82
72) 1,1,2,2-tetrachloroethane	7.189	83	3553	0.44	UG/L	96
73) 1,2,3-trichloropropane	7.238	110	1181	0.46	UG/L #	87
74) n-propylbenzene	7.226	91	11835	0.34	UG/L	99
76) 2-chlorotoluene	7.317	91	8173	0.39	UG/L	98
77) 4-chlorotoluene	7.403	91	8082 <i>MF</i>	0.38	UG/L	98
78) 2/4-chlorotoluene	7.403	91	17240m	0.78	UG/L	
79) 1,3,5-trimethylbenzene	7.366	105	7510 <i>MF</i>	0.31	UG/L	80
80) tert-butylbenzene	7.604	119	6621 <i>06/06/15</i>	0.32	UG/L	96
82) 1,2,4-trimethylbenzene	7.652	105	7389	0.31	UG/L	98
83) sec-butylbenzene	7.774	105	9748	0.32	UG/L	97
84) 1,3-dichlorobenzene	7.896	146	5707	0.44	UG/L	94
85) 4-isopropyltoluene	7.884	119	7662	0.29	UG/L	97
86) 1,4-dichlorobenzene	7.970	146	5289	0.40	UG/L	97
88) 1,2-dichlorobenzene	8.262	146	5965	0.48	UG/L	95
89) n-butylbenzene	8.201	91	7165	0.30	UG/L	98
91) 1,2-dibromo-3-chloropr...	8.890	75	518	0.39	UG/L	82
92) 1,3,5 - Trichlorobenzene	9.006	180	3304	0.40	ug/l	96
93) 1,2,4-trichlorobenzene	9.530	180	2614	0.37	UG/L	95
94) hexachlorobutadiene	9.628	225	1333	0.50	UG/L	93
95) naphthalene	9.762	128	5819	0.23	UG/L	100
96) 1,2,3-trichlorobenzene	9.994	180	2238	0.33	UG/L	99

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

Data Path : C:\DATA\2015\MAY15\050315\
Data File : P0527.D
Acq On : 3 May 2015 15:07
Operator : KGG
Sample : VSTD5.0
Misc : 'ICAL_5.0',
ALS Vial : 12 Sample Multiplier: 1
InstName : HP5975

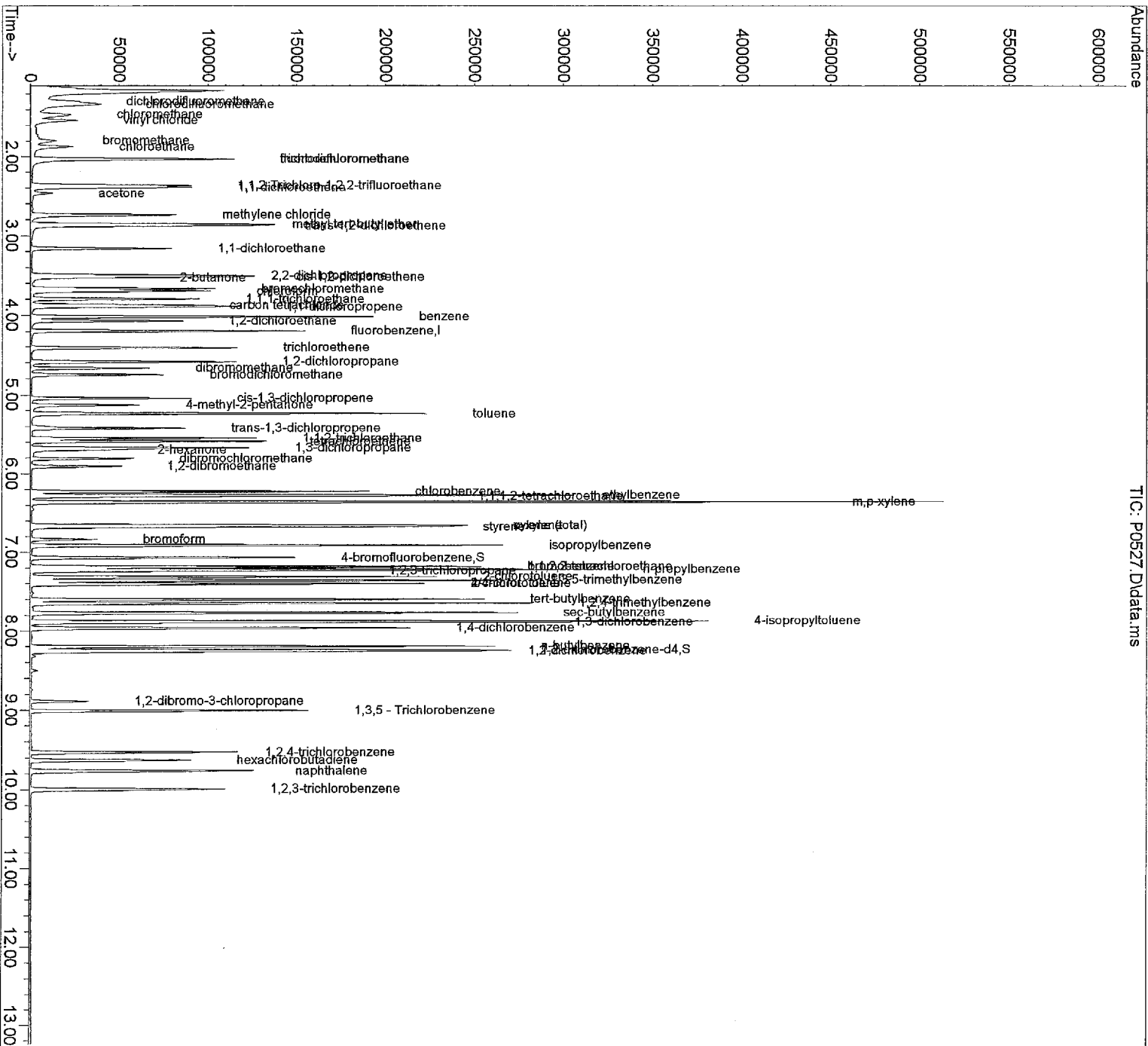
Quant Time: May 03 15:21:06 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

Quant Update : Sun May 03 15:04:42 2015

Response via : Initial Calibration



Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0527.D
 Acq On : 3 May 2015 15:07
 Operator : KGG
 Sample : VSTD5.0
 Misc : ,,,ICAL_5.0,,
 ALS Vial : 12 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 15:21:06 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938

QLast Update : Sun May 03 15:04:42 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	91804	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	26312	4.59	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	91.80%	
87) 1,2-dichlorobenzene-d4	8.250	152	40596	5.15	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	103.00%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.331	51	42204	4.64	ug/l	# 92
3) dichlorodifluoromethane	1.294	85	32311	5.98	UG/L	97
4) chloromethane	1.459	50	34223	3.48	UG/L	97
5) vinyl chloride	1.532	62	28251	3.67	UG/L	96
6) bromomethane	1.794	94	8168	4.63	UG/L	98
7) chloroethane	1.873	64	20615	4.55	UG/L	100
8) fluorodichloromethane	2.026	67	49994	24.71	ug/l	100
9) trichlorofluoromethane	2.026	101	45709	5.87	UG/L	98
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	27074	4.76	UG/L	95
12) methyl tert-butyl ether	2.855	73	68955	4.14	UG/L	97
16) 1,1-dichloroethene	2.392	96	22018	4.20	UG/L	# 80
17) methylene chloride	2.733	84	29641	4.51	UG/L	96
19) acetone	2.471	43	12401	3.22	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	25730	4.40	UG/L	99
22) 1,1-dichloroethane	3.160	63	52977	4.45	UG/L	99
23) 2,2-dichloropropane	3.501	77	29143	5.71	UG/L	96
24) cis-1,2-dichloroethene	3.513	96	28505	4.36	UG/L	94
29) bromochloromethane	3.666	128	13658	4.35	UG/L	# 84
32) chloroform	3.696	83	49142	4.97	UG/L	97
33) 2-butanone	3.525	43	17209	3.68	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	41003	5.23	UG/L	99
35) carbon tetrachloride	3.873	117	32626	4.91	UG/L	100
37) 1,1-dichloropropene	3.891	75	33951	4.05	UG/L	98
38) benzene	4.019	78	107870	4.23	UG/L	99
40) 1,2-dichloroethane	4.074	62	49933	5.38	UG/L	97
41) trichloroethene	4.409	95	27334	4.71	UG/L	# 73
42) 1,2-dichloropropane	4.586	63	27498	3.89	UG/L	100
43) dibromomethane	4.665	93	17686	4.57	UG/L	96
46) bromodichloromethane	4.751	83	32553	4.31	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	31899	3.76	UG/L	98
51) toluene	5.239	92	67715	3.78	UG/L	99
52) trans-1,3-dichloropropene	5.421	75	30800	4.33	UG/L	98
54) 1,1,2-trichloroethane	5.549	83	22174	4.49	UG/L	98
55) 4-methyl-2-pentanone	5.129	43	30187	3.40	ug/l	# 98
56) tetrachloroethene	5.592	166	27810	4.73	UG/L	98
57) 1,3-dichloropropane	5.671	76	46327	4.34	UG/L	99
58) dibromochloromethane	5.806	129	22311	4.03	UG/L	98
59) 1,2-dibromoethane	5.903	107	25308	4.39	UG/L	99
60) 2-hexanone	5.696	43	21077	3.34	ug/l	97
61) chlorobenzene	6.226	112	70900	4.16	UG/L	94
62) 1,1,1,2-tetrachloroethane	6.287	131	23338	4.54	UG/L	97
63) ethylbenzene	6.275	91	123018	4.07	UG/L	99
64) m,p-xylene	6.360	106	100672	8.72	UG/L	96
65) o-xylene	6.659	106	45189	4.04	UG/L	97

Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0527.D
 Acq On : 3 May 2015 15:07
 Operator : KGG
 Sample : VSTD5.0
 Misc : ,,,ICAL_5.0,,
 ALS Vial : 12 Sample Multiplier: 1
 InstName : HP5975

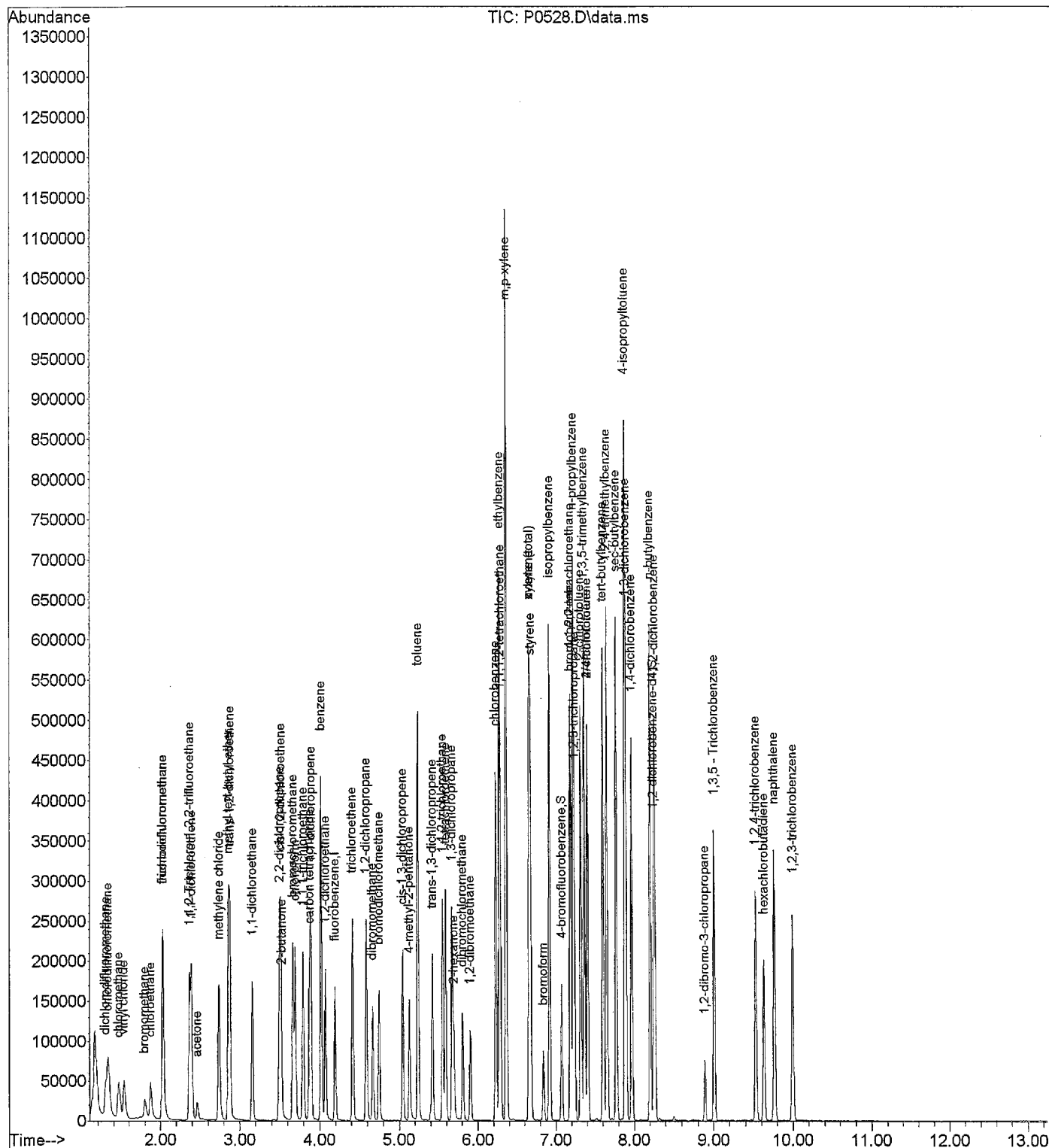
Quant Time: May 03 15:21:06 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) xylene (total)	6.659	106	45189	4.04	UG/L	97
67) styrene	6.677	104	80224	4.23	UG/L	89
68) bromoform	6.836	173	12470	3.66	UG/L	99
69) isopropylbenzene	6.915	105	123360	4.23	UG/L	100
71) bromobenzene	7.189	156	31200	4.50	UG/L #	82
72) 1,1,2,2-tetrachloroethane	7.189	83	37710	4.46	UG/L	98
73) 1,2,3-trichloropropane	7.238	110	13081	4.88	UG/L #	85
74) n-propylbenzene	7.226	91	152560	4.29	UG/L	96
76) 2-chlorotoluene	7.317	91	96518	4.50	UG/L	100
77) 4-chlorotoluene	7.403	91	102507	4.67	UG/L	96
78) 2/4-chlorotoluene	7.403	91	211650m	9.19	UG/L	
79) 1,3,5-trimethylbenzene	7.360	105	112948	4.56	UG/L #	79
80) tert-butylbenzene	7.604	119	92065	4.30	UG/L	100
82) 1,2,4-trimethylbenzene	7.653	105	113564	4.61	UG/L	96
83) sec-butylbenzene	7.775	105	139433	4.38	UG/L	98
84) 1,3-dichlorobenzene	7.897	146	64910	4.81	UG/L	98
85) 4-isopropyltoluene	7.884	119	121539	4.51	UG/L	98
86) 1,4-dichlorobenzene	7.970	146	64544	4.74	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	61650	4.74	UG/L	99
89) n-butylbenzene	8.201	91	101509	4.14	UG/L	100
91) 1,2-dibromo-3-chloropr...	8.890	75	5953	4.33	UG/L	88
92) 1,3,5 - Trichlorobenzene	9.012	180	39205	4.58	ug/l	99
93) 1,2,4-trichlorobenzene	9.537	180	30200	4.11	UG/L	99
94) hexachlorobutadiene	9.634	225	13934	5.08	UG/L	96
95) naphthalene	9.768	128	90402	3.52	UG/L	100
96) 1,2,3-trichlorobenzene	9.994	180	30503	4.36	UG/L	98

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

Data Path : C:\DATA\2015\MAY15\050315\
Data File : P0528.D
Acq On : 3 May 2015 15:49
Operator : KGG
Sample : VSTD10.0
Misc : ,,,ICAL_10.0,,
ALS Vial : 14 Sample Multiplier: 1
InstName : HP5975

Quant Time: May 03 16:02:29 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Sun May 03 15:04:42 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0528.D
 Acq On : 3 May 2015 15:49
 Operator : KGG
 Sample : VSTD10.0
 Misc : ,,,ICAL_10.0,,
 ALS Vial : 14 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 16:02:29 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	95240	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	28851	4.85	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	97.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	42186	5.16	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	103.20%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.325	51	90347	9.57	ug/l	# 94
3) dichlorodifluoromethane	1.294	85	68452	12.22	UG/L	97
4) chloromethane	1.465	50	72591	7.12	UG/L	100
5) vinyl chloride	1.532	62	61749	7.73	UG/L	98
6) bromomethane	1.794	94	18051	9.87	UG/L	97
7) chloroethane	1.873	64	41987	8.94	UG/L	97
8) fluorodichloromethane	2.026	67	106554	50.76	ug/l	98
9) trichlorofluoromethane	2.026	101	97650	12.08	UG/L	99
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	58194	9.87	UG/L	97
12) methyl tert-butyl ether	2.855	73	161961	9.38	UG/L	97
16) 1,1-dichloroethene	2.391	96	50085	9.20	UG/L	# 85
17) methylene chloride	2.739	84	62238	9.12	UG/L	98
19) acetone	2.465	43	23034	5.76	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	57155	9.41	UG/L	99
22) 1,1-dichloroethane	3.160	63	117599	9.52	UG/L	98
23) 2,2-dichloropropane	3.501	77	67298	12.70	UG/L	97
24) cis-1,2-dichloroethene	3.513	96	62791	9.27	UG/L	91
29) bromochloromethane	3.666	128	31654	9.71	UG/L	93
32) chloroform	3.696	83	108848	10.62	UG/L	99
33) 2-butanone	3.525	43	37517	7.74	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	91694	11.28	UG/L	99
35) carbon tetrachloride	3.873	117	72618	10.54	UG/L	100
37) 1,1-dichloropropene	3.891	75	76874	8.84	UG/L	100
38) benzene	4.019	78	237328	8.96	UG/L	99
40) 1,2-dichloroethane	4.074	62	107591	11.18	UG/L	97
41) trichloroethene	4.409	95	59598	9.89	UG/L	# 71
42) 1,2-dichloropropane	4.586	63	62943	8.58	UG/L	100
43) dibromomethane	4.665	93	40082	9.99	UG/L	97
46) bromodichloromethane	4.751	83	73103	9.33	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	78892	8.96	UG/L	99
51) toluene	5.238	92	155312	8.36	UG/L	99
52) trans-1,3-dichloropropene	5.421	75	75061	10.18	UG/L	100
54) 1,1,2-trichloroethane	5.549	83	48335	9.44	UG/L	99
55) 4-methyl-2-pentanone	5.129	43	72430	7.86	ug/l	# 97
56) tetrachloroethene	5.592	166	61582	10.09	UG/L	98
57) 1,3-dichloropropane	5.671	76	102660	9.27	UG/L	99
58) dibromochloromethane	5.805	129	53158	9.24	UG/L	99
59) 1,2-dibromoethane	5.903	107	58065	9.70	UG/L	99
60) 2-hexanone	5.696	43	51550	7.86	ug/l	97
61) chlorobenzene	6.226	112	164260	9.29	UG/L	95
62) 1,1,1,2-tetrachloroethane	6.287	131	53354	10.00	UG/L	96
63) ethylbenzene	6.275	91	293060	9.34	UG/L	99
64) m,p-xylene	6.360	106	233432	19.50	UG/L	97
65) o-xylene	6.659	106	105961	9.13	UG/L	97

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL Contract: _____
Lab Code: 10478 Case No.: HDR-ALBANY SAS No.: _____ SDG No.: HDR012
Instrument ID: HP5975-1 Calibration Date: 06/01/15 Time: 9:22
Lab File ID: P1046.D Init. Calib. Date(s): 05/03/15 05/03/15
EPA Sample No. (VSTD050##): VSTD010 Init. Calib. Times: 14:26 17:52
Heated Purge: (Y/N) N
GC Column: R-624 0.18 ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
1,2-Dichlorobenzene-d4	0.430	0.404		-6.1	30.0
4-Bromofluorobenzene	0.299	0.334		11.6	30.0

All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBANY

SAS No.: _____

SDG No.: HDR012Instrument ID: HP5975-1Calibration Date: 06/01/15Time: 9:22Lab File ID: P1046.DInit. Calib. Date(s): 05/03/15 05/03/15EPA Sample No. (VSTD050##): VSTD010Init. Calib. Times: 14:2617:52Heated Purge: (Y/N) NGC Column: R-624 0.18ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Styrene	0.892	0.851		-4.5	30.0
Bromoform	0.156	0.165		6.1	30.0
Isopropylbenzene	1.405	1.459		3.8	30.0
Bromobenzene	0.355	0.355		-0.1	30.0
1,1,2,2-Tetrachloroethane	0.412	0.290		-29.6	30.0
1,2,3-Trichloropropane	0.144	0.132		-8.6	30.0
n-Propylbenzene	1.726	1.605		-7.0	30.0
2/4-Chlorotoluene	1.179	1.092		-7.3	30.0
1,3,5-Trimethylbenzene	1.248	1.275		2.2	30.0
tert-Butylbenzene	1.057	1.115		5.5	30.0
1,2,4-Trimethylbenzene	1.245	1.252		0.6	30.0
sec-Butylbenzene	1.559	1.561		0.1	30.0
n-Butylbenzene	1.194	1.166		-2.4	30.0
1,3-Dichlorobenzene	0.705	0.696		-1.3	30.0
1,4-Dichlorobenzene	0.701	0.692		-1.3	30.0
4-Isopropyltoluene	1.361	1.439		5.7	30.0
1,2-Dichlorobenzene	0.685	0.646		-5.7	30.0
1,2,4-Trichlorobenzene	0.379	0.396		4.5	30.0
Hexachlorobutadiene	0.174	0.200		14.9	30.0
1,2,3-Trichlorobenzene	0.362	0.380		5.0	30.0
Methyl tert-butyl ether	0.858	0.822		-4.1	30.0

All other compounds must meet a minimum RRF of 0.010.

Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0528.D
 Acq On : 3 May 2015 15:49
 Operator : KGG
 Sample : VSTD10.0
 Misc : ,,,ICAL_10.0,,
 ALS Vial : 14 Sample Multiplier: 1
 InstName : HP5975

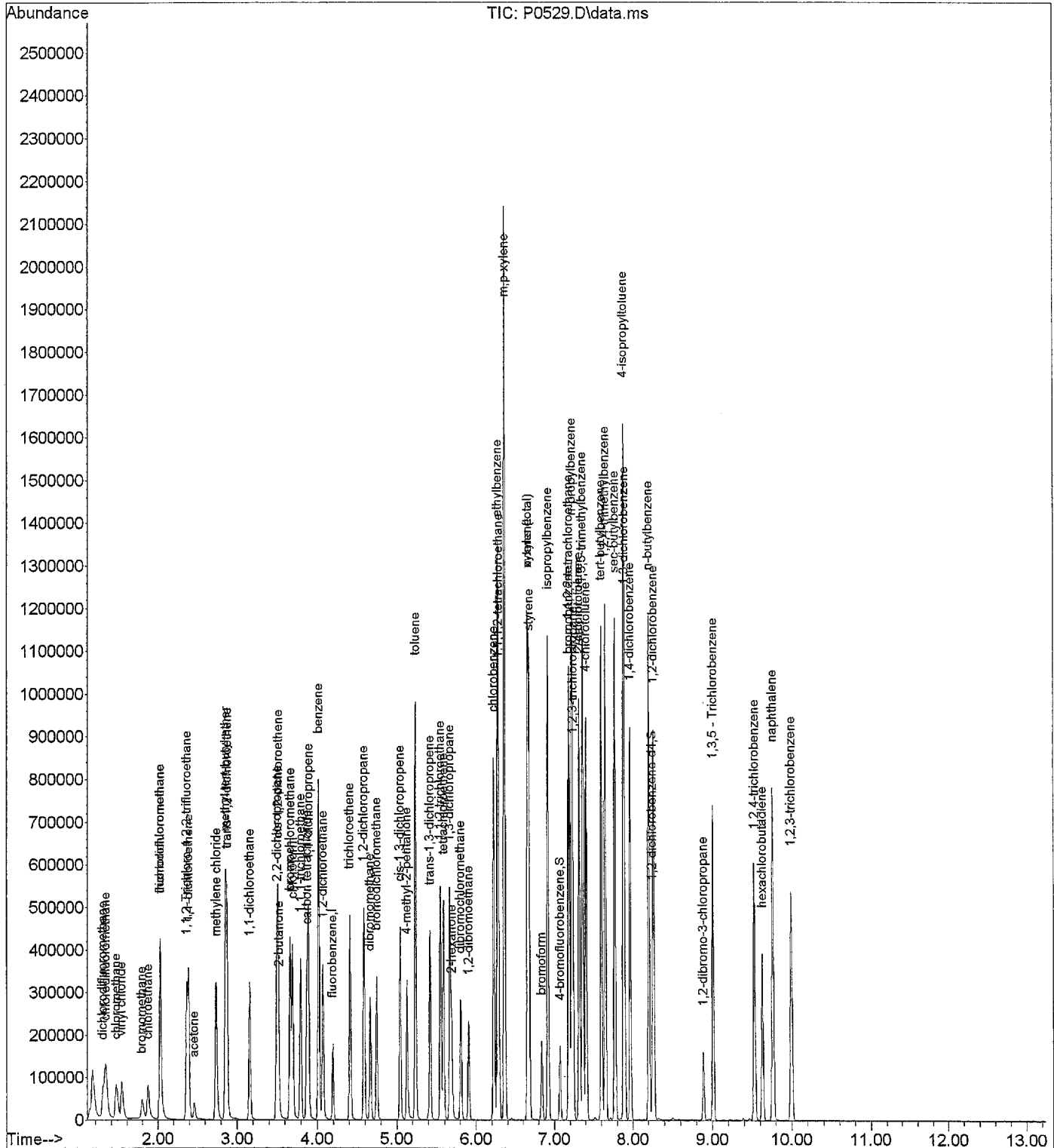
Quant Time: May 03 16:02:29 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) xylene (total)	6.659	106	105961	9.13	UG/L	97
67) styrene	6.677	104	183995	9.34	UG/L	88
68) bromoform	6.836	173	29253	8.27	UG/L	100
69) isopropylbenzene	6.915	105	287787	9.51	UG/L	99
71) bromobenzene	7.183	156	70644	9.83	UG/L #	82
72) 1,1,2,2-tetrachloroethane	7.189	83	80898	9.22	UG/L	98
73) 1,2,3-trichloropropane	7.238	110	29043	10.44	UG/L #	81
74) n-propylbenzene	7.226	91	349111	9.46	UG/L	96
76) 2-chlorotoluene	7.317	91	218608	9.82	UG/L	99
77) 4-chlorotoluene	7.409	91	230213	10.10	UG/L	97
78) 2/4-chlorotoluene	7.409	91	478755m	20.03	UG/L	
79) 1,3,5-trimethylbenzene	7.360	105	259463	10.11	UG/L #	79
80) tert-butylbenzene	7.604	119	215686	9.71	UG/L	99
82) 1,2,4-trimethylbenzene	7.653	105	261022	10.21	UG/L	97
83) sec-butylbenzene	7.775	105	318069	9.64	UG/L	97
84) 1,3-dichlorobenzene	7.896	146	144918	10.35	UG/L	98
85) 4-isopropyltoluene	7.884	119	287579	10.28	UG/L	99
86) 1,4-dichlorobenzene	7.970	146	143862	10.18	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	134975	10.01	UG/L	98
89) n-butylbenzene	8.201	91	242850	9.54	UG/L	99
91) 1,2-dibromo-3-chloropr...	8.890	75	14179	9.95	UG/L	87
92) 1,3,5 - Trichlorobenzene	9.012	180	87753	9.87	ug/l	100
93) 1,2,4-trichlorobenzene	9.530	180	71506	9.38	UG/L	97
94) hexachlorobutadiene	9.634	225	31628	11.11	UG/L	95
95) naphthalene	9.762	128	241166	9.05	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	71669	9.88	UG/L	98

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

Data Path : C:\DATA\2015\MAY15\050315\
Data File : P0529.D
Acq On : 3 May 2015 16:30
Operator : KGG
Sample : VSTD20.0
Misc : ,,,ICAL_20.0,,
ALS Vial : 16 Sample Multiplier: 1
InstName : HP5975

Quant Time: May 03 16:43:39 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Sun May 03 15:04:42 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0529.D
 Acq On : 3 May 2015 16:30
 Operator : KGG
 Sample : VSTD20.0
 Misc : ,,,ICAL_20.0,,
 ALS Vial : 16 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 16:43:39 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	102276	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	31974	5.01	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	100.20%	
87) 1,2-dichlorobenzene-d4	8.250	152	44136	5.03	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	100.60%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.331	51	155899	15.38	ug/l	# 94
3) dichlorodifluoromethane	1.294	85	117901	19.60	UG/L	96
4) chloromethane	1.465	50	131112	11.97	UG/L	100
5) vinyl chloride	1.532	62	110104	12.84	UG/L	100
6) bromomethane	1.794	94	34169	17.39	UG/L	94
7) chloroethane	1.873	64	76516	15.17	UG/L	98
8) fluorodichloromethane	2.026	67	194166	86.13	ug/l	99
9) trichlorofluoromethane	2.026	101	168981	19.46	UG/L	99
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	103827	16.40	UG/L	98
12) methyl tert-butyl ether	2.855	73	343999	18.54	UG/L	96
16) 1,1-dichloroethene	2.392	96	89730	15.35	UG/L	# 81
17) methylene chloride	2.739	84	120456	16.44	UG/L	99
19) acetone	2.465	43	41159	9.58	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	106052	16.26	UG/L	100
22) 1,1-dichloroethane	3.160	63	221324	16.68	UG/L	99
23) 2,2-dichloropropane	3.501	77	126686	22.26	UG/L	95
24) cis-1,2-dichloroethene	3.513	96	123061	16.91	UG/L	92
29) bromochloromethane	3.666	128	61731	17.64	UG/L	93
32) chloroform	3.696	83	204593	18.59	UG/L	98
33) 2-butanone	3.525	43	73328	14.08	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	168324	19.27	UG/L	99
35) carbon tetrachloride	3.873	117	135713	18.35	UG/L	100
37) 1,1-dichloropropene	3.891	75	146725	15.72	UG/L	99
38) benzene	4.019	78	450480	15.84	UG/L	99
40) 1,2-dichloroethane	4.074	62	207764	20.11	UG/L	98
41) trichloroethene	4.409	95	111314	17.20	UG/L	# 70
42) 1,2-dichloropropane	4.586	63	125072	15.88	UG/L	99
43) dibromomethane	4.665	93	79411	18.43	UG/L	96
46) bromodichloromethane	4.751	83	148541	17.66	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	170122	17.99	UG/L	99
51) toluene	5.239	92	299810	15.02	UG/L	100
52) trans-1,3-dichloropropene	5.421	75	162941	20.57	UG/L	100
54) 1,1,2-trichloroethane	5.549	83	98281	17.88	UG/L	98
55) 4-methyl-2-pentanone	5.129	43	157371	15.89	ug/l	# 95
56) tetrachloroethene	5.592	166	111806	17.07	UG/L	98
57) 1,3-dichloropropane	5.671	76	211803	17.81	UG/L	100
58) dibromochloromethane	5.806	129	112584	18.23	UG/L	98
59) 1,2-dibromoethane	5.909	107	119469	18.58	UG/L	99
60) 2-hexanone	5.696	43	110417	15.68	ug/l	98
61) chlorobenzene	6.226	112	326532	17.19	UG/L	94
62) 1,1,1,2-tetrachloroethane	6.287	131	108214	18.88	UG/L	97
63) ethylbenzene	6.275	91	568165	16.86	UG/L	99
64) m,p-xylene	6.360	106	438223	34.09	UG/L	96
65) o-xylene	6.659	106	210207	16.87	UG/L	96

Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0529.D
 Acq On : 3 May 2015 16:30
 Operator : KGG
 Sample : VSTD20.0
 Misc : ,,,ICAL_20.0,,
 ALS Vial : 16 Sample Multiplier: 1
 InstName : HP5975

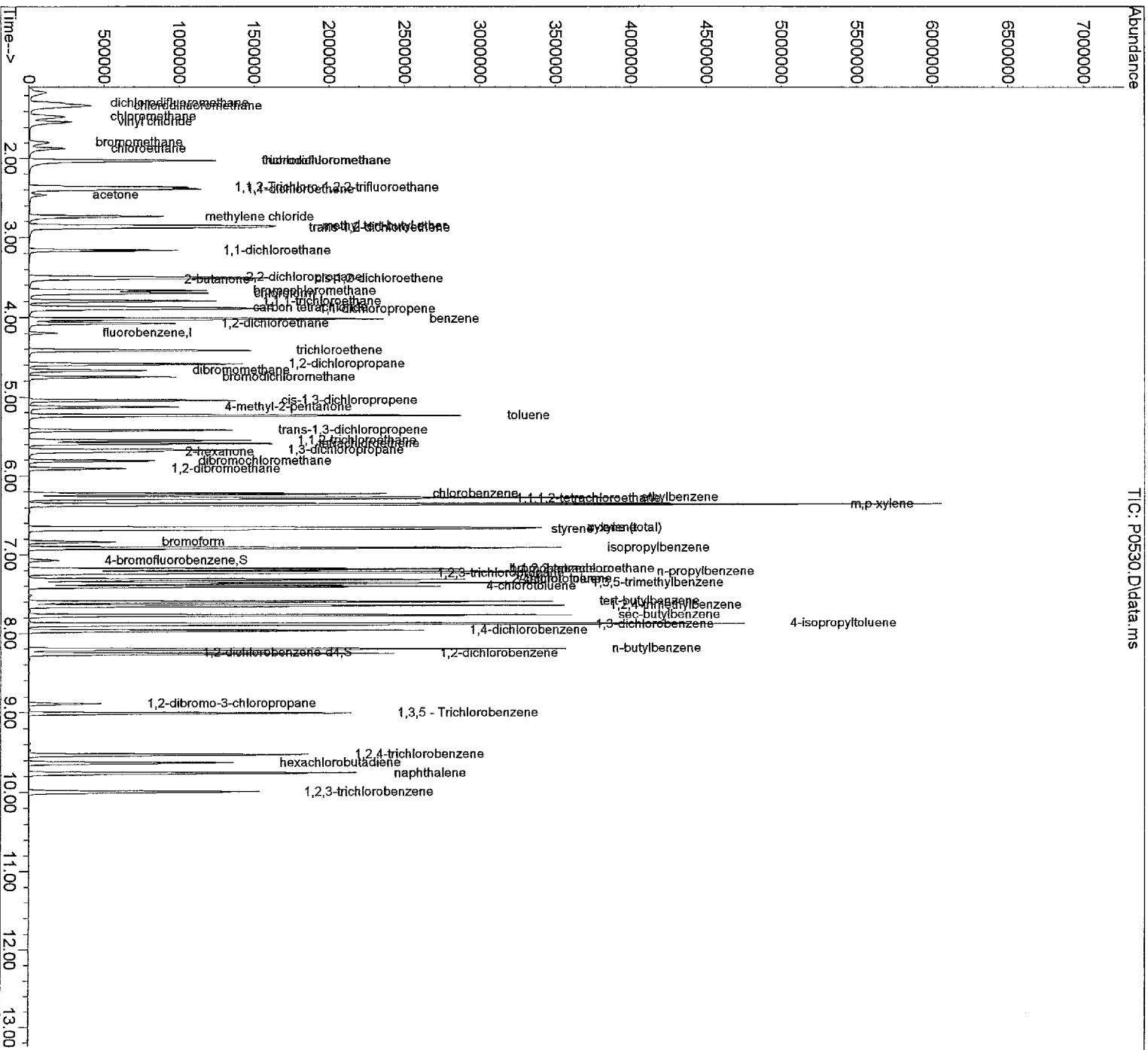
Quant Time: May 03 16:43:39 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) xylene (total)	6.659	106	210207	16.87	UG/L	96
67) styrene	6.677	104	370294	17.51	UG/L	88
68) bromoform	6.836	173	63962	16.84	UG/L	100
69) isopropylbenzene	6.915	105	560109	17.23	UG/L	100
71) bromobenzene	7.183	156	139808	18.11	UG/L #	82
72) 1,1,2,2-tetrachloroethane	7.189	83	168803	17.92	UG/L	99
73) 1,2,3-trichloropropane	7.238	110	60417	20.22	UG/L #	79
74) n-propylbenzene	7.226	91	666150	16.81	UG/L	97
76) 2-chlorotoluene	7.317	91	423789	17.72	UG/L	99
77) 4-chlorotoluene	7.409	91	445524	18.21	UG/L	98
78) 2/4-chlorotoluene	7.317	91	926787 ^m	36.11	UG/L	
79) 1,3,5-trimethylbenzene	7.360	105	497189 ^m	18.03	UG/L #	78
80) tert-butylbenzene	7.604	119	414752 ^m	17.40	UG/L	99
82) 1,2,4-trimethylbenzene	7.653	105	506694	18.46	UG/L	96
83) sec-butylbenzene	7.775	105	607407	17.14	UG/L	98
84) 1,3-dichlorobenzene	7.897	146	274810	18.27	UG/L	98
85) 4-isopropyltoluene	7.884	119	548538	18.27	UG/L	99
86) 1,4-dichlorobenzene	7.970	146	279258	18.40	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	269779	18.62	UG/L	99
89) n-butylbenzene	8.201	91	470245	17.21	UG/L	99
91) 1,2-dibromo-3-chloropr...	8.890	75	30719	20.07	UG/L	86
92) 1,3,5 - Trichlorobenzene	9.012	180	178701	18.72	ug/l	98
93) 1,2,4-trichlorobenzene	9.537	180	156549	19.12	UG/L	100
94) hexachlorobutadiene	9.634	225	60364	19.75	UG/L	93
95) naphthalene	9.762	128	541162	18.91	UG/L	100
96) 1,2,3-trichlorobenzene	9.994	180	152385	19.57	UG/L	99

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

Data Path : C:\DATA\2015\MAY15\050315\
Data File : P0530.D
Acq On : 3 May 2015 17:11
Operator : KGG
Sample : VSTD50
Misc : 'ICAL_50',
ALS Vial : 18 Sample Multiplier: 1
InstName : HP5975

Quant Time: May 03 17:24:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2+A0100875/CL-2176/CK-0094/A0103959/A09938
Quant Update : Sun May 03 15:04:42 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0530.D
 Acq On : 3 May 2015 17:11
 Operator : KGG
 Sample : VSTD50
 Misc : ,,,ICAL_50,,
 ALS Vial : 18 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 17:24:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	108627	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	34258	5.05	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	101.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	46428	4.98	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	99.60%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.331	51	507159	47.11	ug/l	# 94
3) dichlorodifluoromethane	1.294	85	396049	61.99	UG/L	96
4) chloromethane	1.465	50	394422	33.91	UG/L	100
5) vinyl chloride	1.532	62	365483	40.14	UG/L	99
6) bromomethane	1.794	94	111900	53.64	UG/L	98
7) chloroethane	1.873	64	233761	43.63	UG/L	98
8) fluorodichloromethane	2.026	67	585678	244.62	ug/l	98
9) trichlorofluoromethane	2.026	101	547487	59.37	UG/L	100
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	338751	50.38	UG/L	98
12) methyl tert-butyl ether	2.855	73	1004997	51.01	UG/L	96
16) 1,1-dichloroethene	2.391	96	305535	49.21	UG/L	86
17) methylene chloride	2.739	84	335092	43.06	UG/L	98
19) acetone	2.465	43	114929	25.18	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	324961	46.91	UG/L	98
22) 1,1-dichloroethane	3.160	63	677147	48.04	UG/L	99
23) 2,2-dichloropropane	3.495	77	419829	69.46	UG/L	97
24) cis-1,2-dichloroethene	3.513	96	365696	47.33	UG/L	93
29) bromochloromethane	3.666	128	170593	45.90	UG/L	93
32) chloroform	3.696	83	595055	50.90	UG/L	98
33) 2-butanone	3.525	43	211755	38.29	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	548981	59.19	UG/L	97
35) carbon tetrachloride	3.873	117	457501	58.24	UG/L	100
37) 1,1-dichloropropene	3.891	75	485168	48.93	UG/L	99
38) benzene	4.019	78	1351216	44.74	UG/L	99
40) 1,2-dichloroethane	4.074	62	558210	50.88	UG/L	98
41) trichloroethene	4.415	95	351150	51.09	UG/L	# 71
42) 1,2-dichloropropane	4.586	63	369815	44.20	UG/L	99
43) dibromomethane	4.665	93	218014	47.64	UG/L	96
46) bromodichloromethane	4.751	83	441933	49.47	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	519725	51.74	UG/L	99
51) toluene	5.238	92	900180	42.46	UG/L	98
52) trans-1,3-dichloropropene	5.421	75	499029	59.32	UG/L	100
54) 1,1,2-trichloroethane	5.549	83	269828	46.22	UG/L	99
55) 4-methyl-2-pentanone	5.129	43	465775	44.29	ug/l	# 95
56) tetrachloroethene	5.592	166	349004	50.16	UG/L	97
57) 1,3-dichloropropane	5.671	76	572358	45.30	UG/L	100
58) dibromochloromethane	5.811	129	336483	51.31	UG/L	100
59) 1,2-dibromoethane	5.909	107	332534	48.70	UG/L	99
60) 2-hexanone	5.696	43	331950	44.40	ug/l	98
61) chlorobenzene	6.226	112	954738	47.33	UG/L	94
62) 1,1,1,2-tetrachloroethane	6.287	131	320756	52.69	UG/L	96
63) ethylbenzene	6.275	91	1723637	48.16	UG/L	99
64) m,p-xylene	6.360	106	1296057	94.93	UG/L	95
65) o-xylene	6.659	106	626745	47.36	UG/L	96

Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0530.D
 Acq On : 3 May 2015 17:11
 Operator : KGG
 Sample : VSTD50
 Misc : ,,,ICAL_50,,
 ALS Vial : 18 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 17:24:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 15:04:42 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) xylene (total)	6.659	106	626745	47.36	UG/L	96
67) styrene	6.677	104	1085504	48.32	UG/L	88
68) bromoform	6.836	173	196521	48.71	UG/L	99
69) isopropylbenzene	6.915	105	1734933	50.26	UG/L	100
71) bromobenzene	7.189	156	394836	48.16	UG/L #	82
72) 1,1,2,2-tetrachloroethane	7.189	83	449205	44.90	UG/L	98
73) 1,2,3-trichloropropane	7.238	110	160787	50.66	UG/L #	80
74) n-propylbenzene	7.226	91	2058628	48.90	UG/L	97
76) 2-chlorotoluene	7.317	91	1245485	49.04	UG/L	99
77) 4-chlorotoluene	7.409	91	1282593	49.35	UG/L	97
78) 2/4-chlorotoluene	7.317	91	2696739m	98.94	UG/L	
79) 1,3,5-trimethylbenzene	7.366	105	1504057m	51.37	UG/L #	78
80) tert-butylbenzene	7.604	119	1296188	51.19	UG/L	100
82) 1,2,4-trimethylbenzene	7.653	105	1501497	51.49	UG/L	96
83) sec-butylbenzene	7.774	105	1898400	50.43	UG/L	97
84) 1,3-dichlorobenzene	7.896	146	770629	48.23	UG/L	99
85) 4-isopropyltoluene	7.884	119	1690486	53.00	UG/L	99
86) 1,4-dichlorobenzene	7.970	146	783519	48.62	UG/L	100
88) 1,2-dichlorobenzene	8.262	146	740847	48.16	UG/L	99
89) n-butylbenzene	8.201	91	1499708	51.67	UG/L	100
91) 1,2-dibromo-3-chloropr...	8.890	75	93013	57.23	UG/L	91
92) 1,3,5 - Trichlorobenzene	9.012	180	517185	51.02	ug/l	99
93) 1,2,4-trichlorobenzene	9.530	180	476320	54.76	UG/L	98
94) hexachlorobutadiene	9.634	225	212635	65.49	UG/L	95
95) naphthalene	9.768	128	1596297	52.52	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	453233	54.80	UG/L	99

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

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Data Path : C:\DATA\2015\MAY15\050315\  
Data File : P0531.D  
Acq On : 3 May 2015 17:52  
Operator : KGG  
Sample : VSTD100  
Misc : ''ICAL_100''  
ALS Vial : 20 Sample Multiplier: 1  
InstName : HP5975
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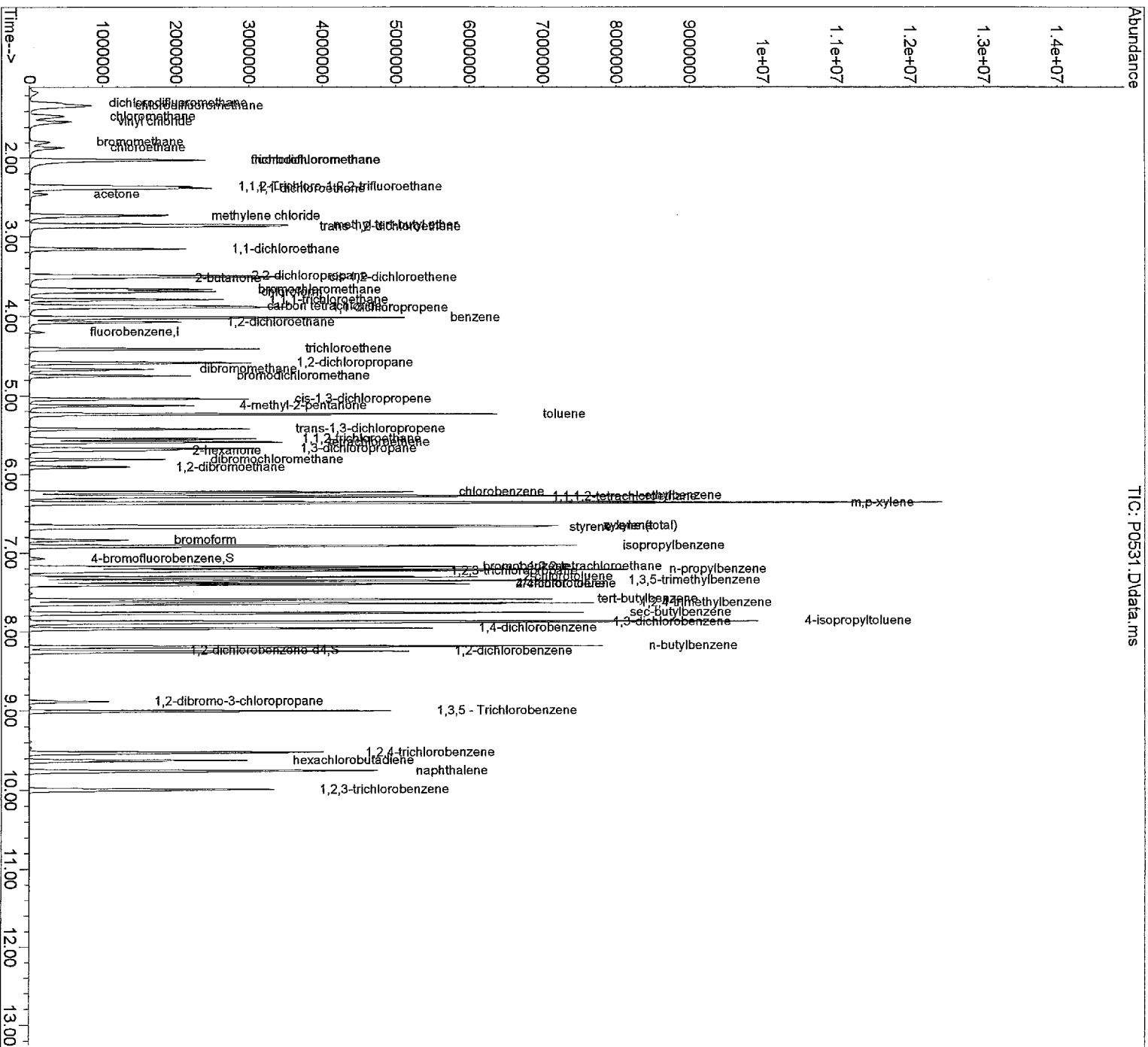
Quant Time: May 03 18:06:12 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

Last Update : Sun May 03 17:42:21 2015

Response via : Initial calibration



Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0531.D
 Acq On : 3 May 2015 17:52
 Operator : KGG
 Sample : VSTD100
 Misc : ,,,ICAL_100,,
 ALS Vial : 20 Sample Multiplier: 1
 InstName : HP5975

Quant Time: May 03 18:06:12 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Sun May 03 17:42:21 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	115635	5.00	UG/L	# 0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	36973	5.12	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	102.40%
87) 1,2-dichlorobenzene-d4	8.250	152	46787	4.71	UG/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	94.20%
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.331	51	1075313	93.84	ug/l	# 94
3) dichlorodifluoromethane	1.294	85	819245	120.45	UG/L	97
4) chloromethane	1.471	50	817350	66.02	UG/L	100
5) vinyl chloride	1.532	62	772257	79.67	UG/L	98
6) bromomethane	1.794	94	256946	115.69	UG/L	99
7) chloroethane	1.867	64	473836	83.09	UG/L	98
8) fluorodichloromethane	2.026	67	1285806	504.50	ug/l	98
9) trichlorofluoromethane	2.026	101	1160863	118.27	UG/L	100
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	713035	99.61	UG/L	98
12) methyl tert-butyl ether	2.855	73	2261514	107.82	UG/L	95
16) 1,1-dichloroethene	2.391	96	668920	101.21	UG/L	87
17) methylene chloride	2.739	84	723236	87.30	UG/L	97
19) acetone	2.465	43	249488	51.36	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	715075	96.98	UG/L	100
22) 1,1-dichloroethane	3.160	63	1469067	97.91	UG/L	99
23) 2,2-dichloropropane	3.495	77	922563	143.38	UG/L	97
24) cis-1,2-dichloroethene	3.513	96	795502	96.71	UG/L	93
29) bromochloromethane	3.666	128	368753	93.20	UG/L	94
32) chloroform	3.696	83	1275882	102.51	UG/L	97
33) 2-butanone	3.525	43	449977	76.44	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	1193804	120.91	UG/L	97
35) carbon tetrachloride	3.873	117	1010966	120.90	UG/L	100
37) 1,1-dichloropropene	3.891	75	1050171	99.49	UG/L	99
38) benzene	4.019	78	2942940	91.53	UG/L	100
40) 1,2-dichloroethane	4.074	62	1184938	101.45	UG/L	99
41) trichloroethene	4.409	95	762722	104.25	UG/L	# 71
42) 1,2-dichloropropane	4.586	63	806272	90.52	UG/L	100
43) dibromomethane	4.665	93	468878	96.24	UG/L	97
46) bromodichloromethane	4.751	83	985484	103.63	UG/L	99
48) cis-1,3-dichloropropene	5.043	75	1173908	109.78	UG/L	100
51) toluene	5.238	92	1943567	86.12	UG/L	100
52) trans-1,3-dichloropropene	5.421	75	1125174	125.64	UG/L	100
54) 1,1,2-trichloroethane	5.549	83	577893	93.00	UG/L	99
55) 4-methyl-2-pentanone	5.129	43	1032014	92.19	ug/l	# 94
56) tetrachloroethene	5.592	166	750539	101.33	UG/L	97
57) 1,3-dichloropropane	5.671	76	1232966	91.68	UG/L	100
58) dibromochloromethane	5.812	129	761649	109.10	UG/L	100
59) 1,2-dibromoethane	5.909	107	722478	99.39	UG/L	100
60) 2-hexanone	5.696	43	727964	91.46	ug/l	97
61) chlorobenzene	6.226	112	2066627	96.24	UG/L	94
62) 1,1,1,2-tetrachloroethane	6.287	131	697626	107.66	UG/L	97
63) ethylbenzene	6.275	91	3702461	97.18	UG/L	99
64) m,p-xylene	6.366	106	2737907	188.38	UG/L	95
65) o-xylene	6.659	106	1352068	95.97	UG/L	98

Data Path : C:\DATA\2015\MAY15\050315\
 Data File : P0531.D
 Acq On : 3 May 2015 17:52
 Operator : KGG
 Sample : VSTD100
 Misc : ,,,ICAL_100,,
 ALS Vial : 20 Sample Multiplier: 1
 InstName : HP5975

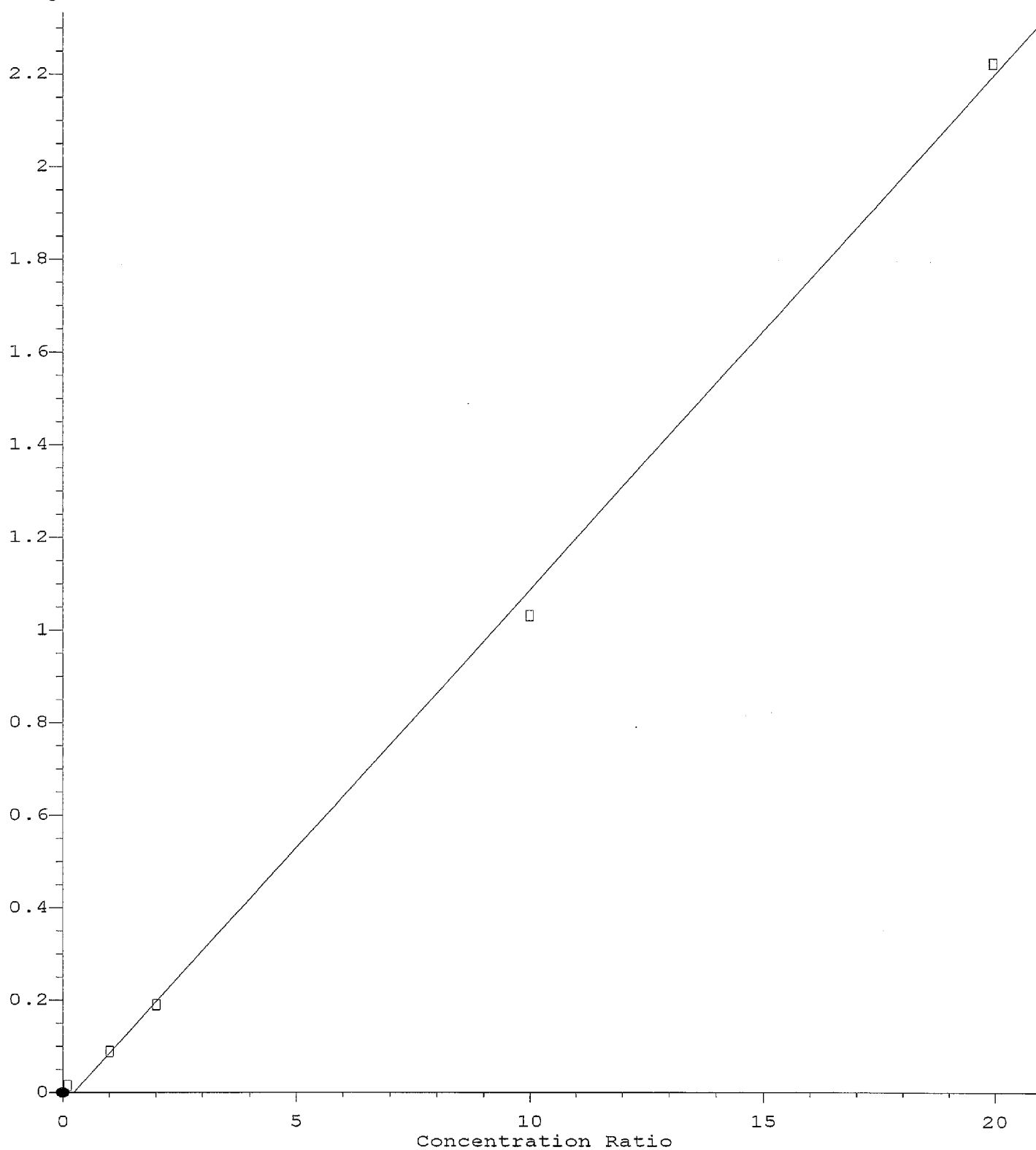
Quant Time: May 03 18:06:12 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Sun May 03 17:42:21 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) xylene (total)	6.659	106	1352068	95.97	UG/L	98
67) styrene	6.677	104	2347096	98.15	UG/L	89
68) bromoform	6.836	173	459002	106.87	UG/L	99
69) isopropylbenzene	6.915	105	3736694	101.68	UG/L	100
71) bromobenzene	7.183	156	842149	96.49	UG/L #	81
72) 1,1,2,2-tetrachloroethane	7.189	83	950859	89.27	UG/L	99
73) 1,2,3-trichloropropane	7.238	110	337489	99.88	UG/L #	79
74) n-propylbenzene	7.226	91	4399502	98.17	UG/L	97
76) 2-chlorotoluene	7.317	91	2699510	99.85	UG/L	99
77) 4-chlorotoluene	7.409	91	2785618	100.68	UG/L	97
78) 2/4-chlorotoluene	7.409	91	5870111m	202.31	UG/L	
79) 1,3,5-trimethylbenzene	7.366	105	3268998	104.87	UG/L #	78
80) tert-butylbenzene	7.604	119	2795212	103.69	UG/L	100
82) 1,2,4-trimethylbenzene	7.653	105	3242429	104.46	UG/L	96
83) sec-butylbenzene	7.775	105	4064623	101.42	UG/L	98
84) 1,3-dichlorobenzene	7.896	146	1629344	95.80	UG/L	99
85) 4-isopropyltoluene	7.884	119	3589618	105.73	UG/L	99
86) 1,4-dichlorobenzene	7.970	146	1688508	98.42	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	1595892	97.45	UG/L	100
89) n-butylbenzene	8.201	91	3241380	104.91	UG/L	99
91) 1,2-dibromo-3-chloropr...	8.890	75	212207	122.65	UG/L	92
92) 1,3,5 - Trichlorobenzene	9.012	180	1184869	109.79	ug/l	100
93) 1,2,4-trichlorobenzene	9.536	180	1057864	114.25	UG/L	98
94) hexachlorobutadiene	9.634	225	476558	137.89	UG/L	95
95) naphthalene	9.768	128	3507752	108.42	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	997083	113.25	UG/L	99

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

bromomethane

Response Ratio

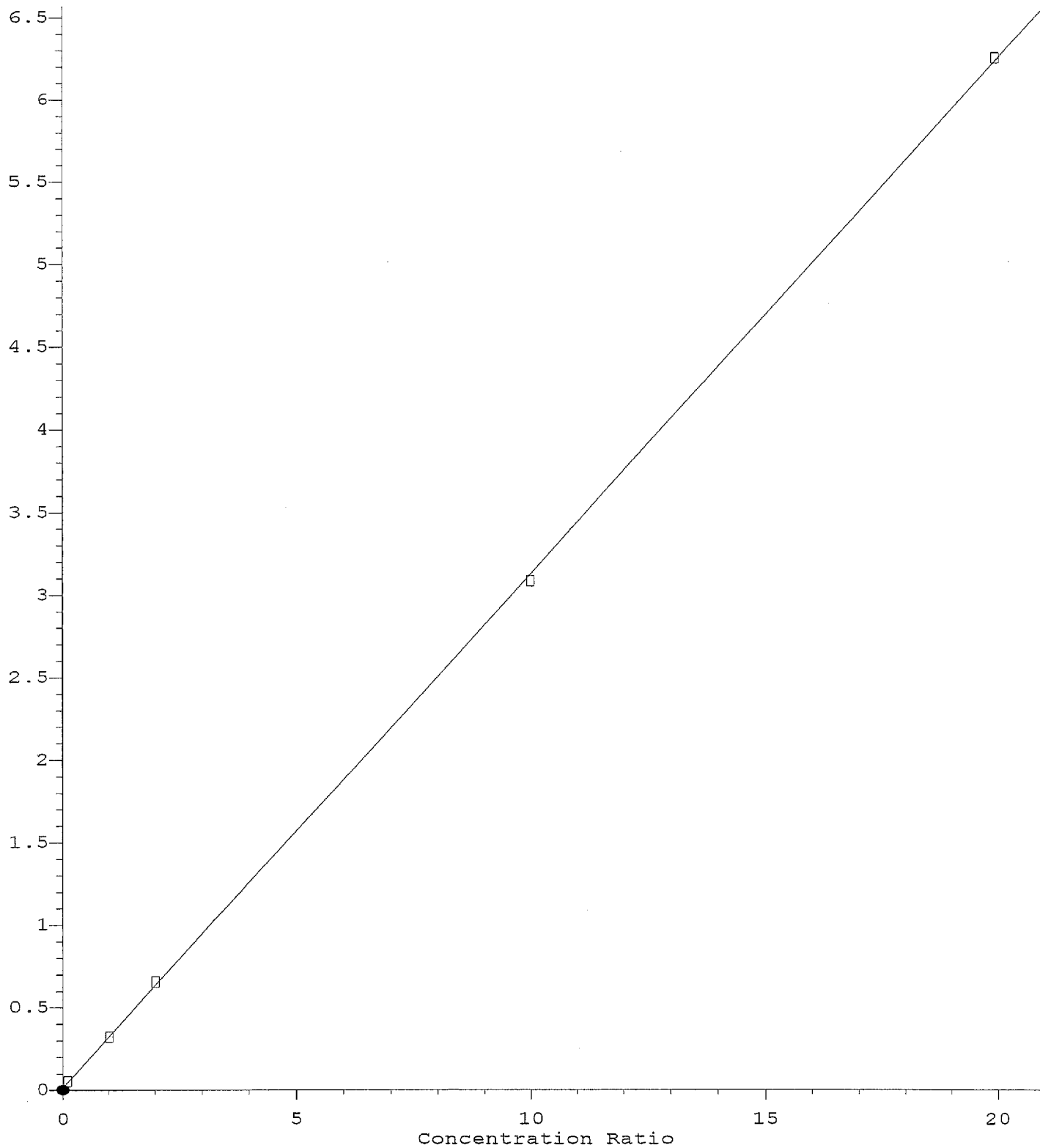


Response = 1.110e-001 * Amt - 2.560e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\524P_0503.M
Calibration Table Last Updated: Mon May 04 07:36:48 2015

HDR012 V218

methylene chloride

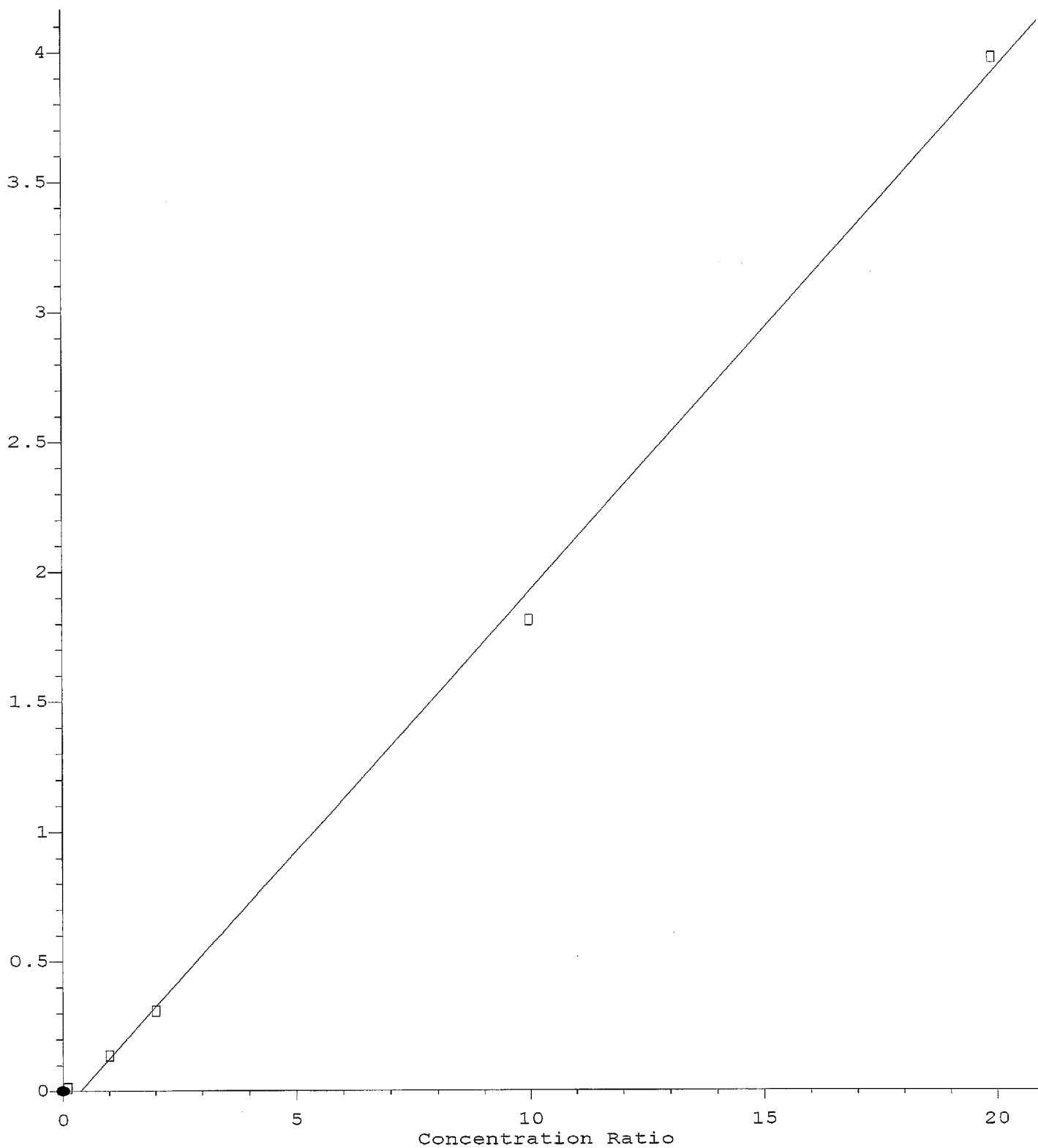
Response Ratio



$\text{Response} = 3.111\text{e-}001 * \text{Amt} + 1.373\text{e-}002$
 Coef of Det (r^2) = 1.000 Curve Fit: Linear
 Method Name: C:\msdchem\1\methods\524P_0503.M
 Calibration Table Last Updated: Sat Jun 06 13:24:15 2015

HDR012 V219

Response Ratio

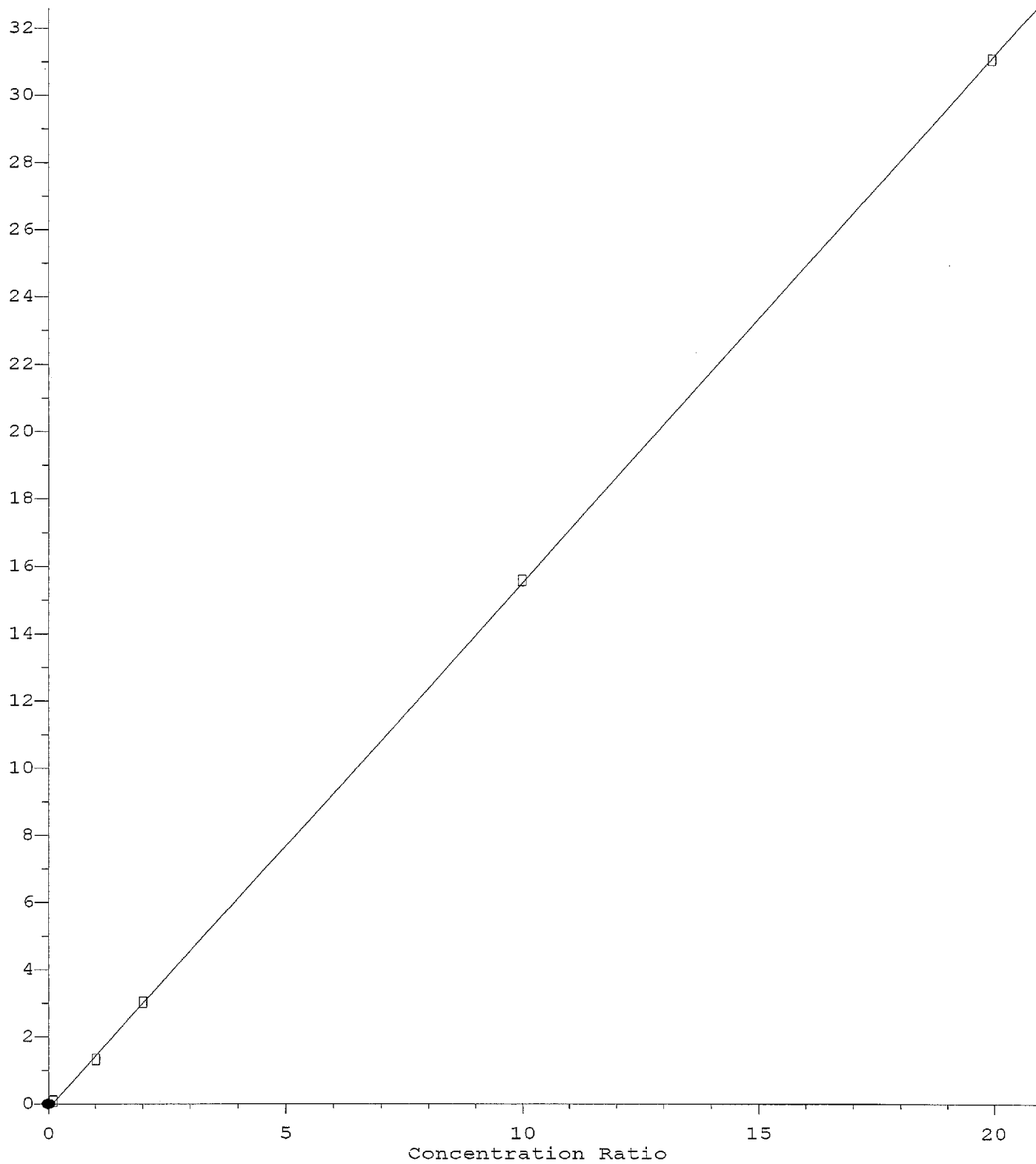


Response = 1.993e-001 * Amt - 7.276e-002
Coef of Det (r^2) = 0.998 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\524P_0503.M
Calibration Table Last Updated: Sat Jun 06 13:24:15 2015

HDR012 V220

4-isopropyltoluene

Response Ratio

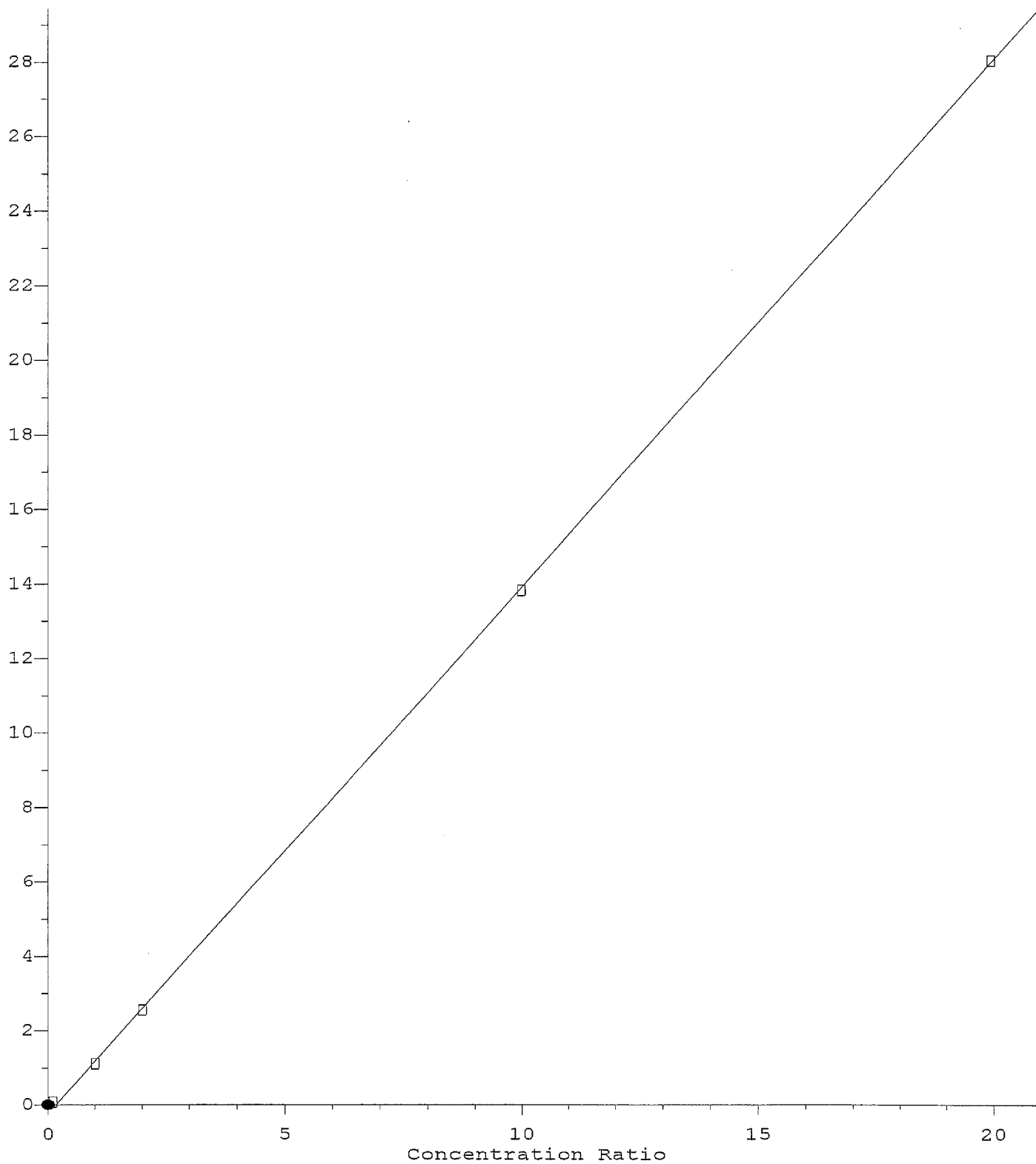


Response = 1.560e+000 * Amt - 1.205e-001
Coef of Det (r^2) = 1.000 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\524P_0503.M
Calibration Table Last Updated: Sat Jun 06 13:24:15 2015

HDR012 V221

n-butylbenzene

Response Ratio

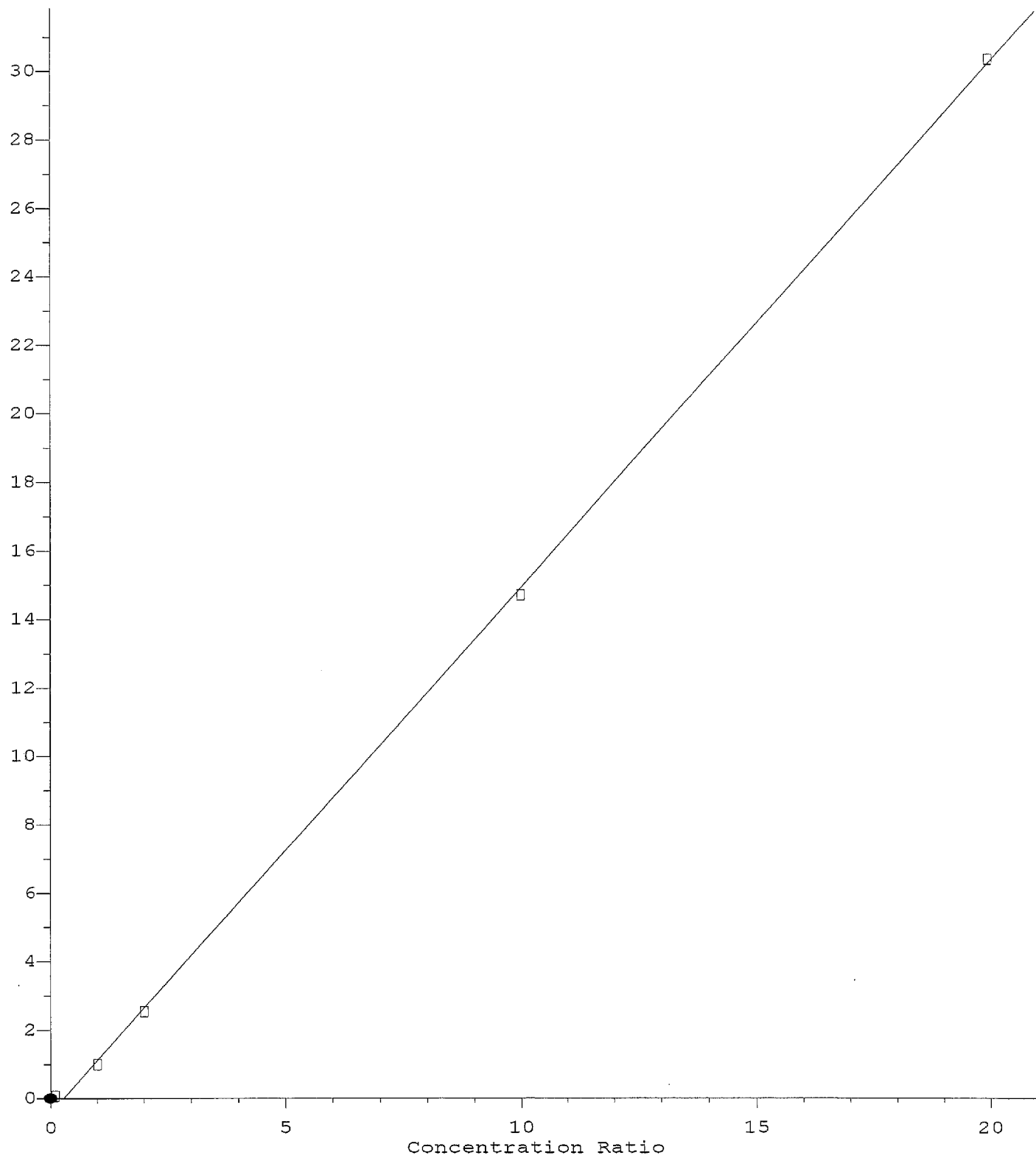


Response = 1.410e+000 * Amt - 2.217e-001
 Coef of Det (r^2) = 1.000 Curve Fit: Linear
 Method Name: C:\msdchem\1\methods\524P_0503.M
 Calibration Table Last Updated: Sat Jun 06 13:24:15 2015

HDR012 V222

naphthalene

Response Ratio

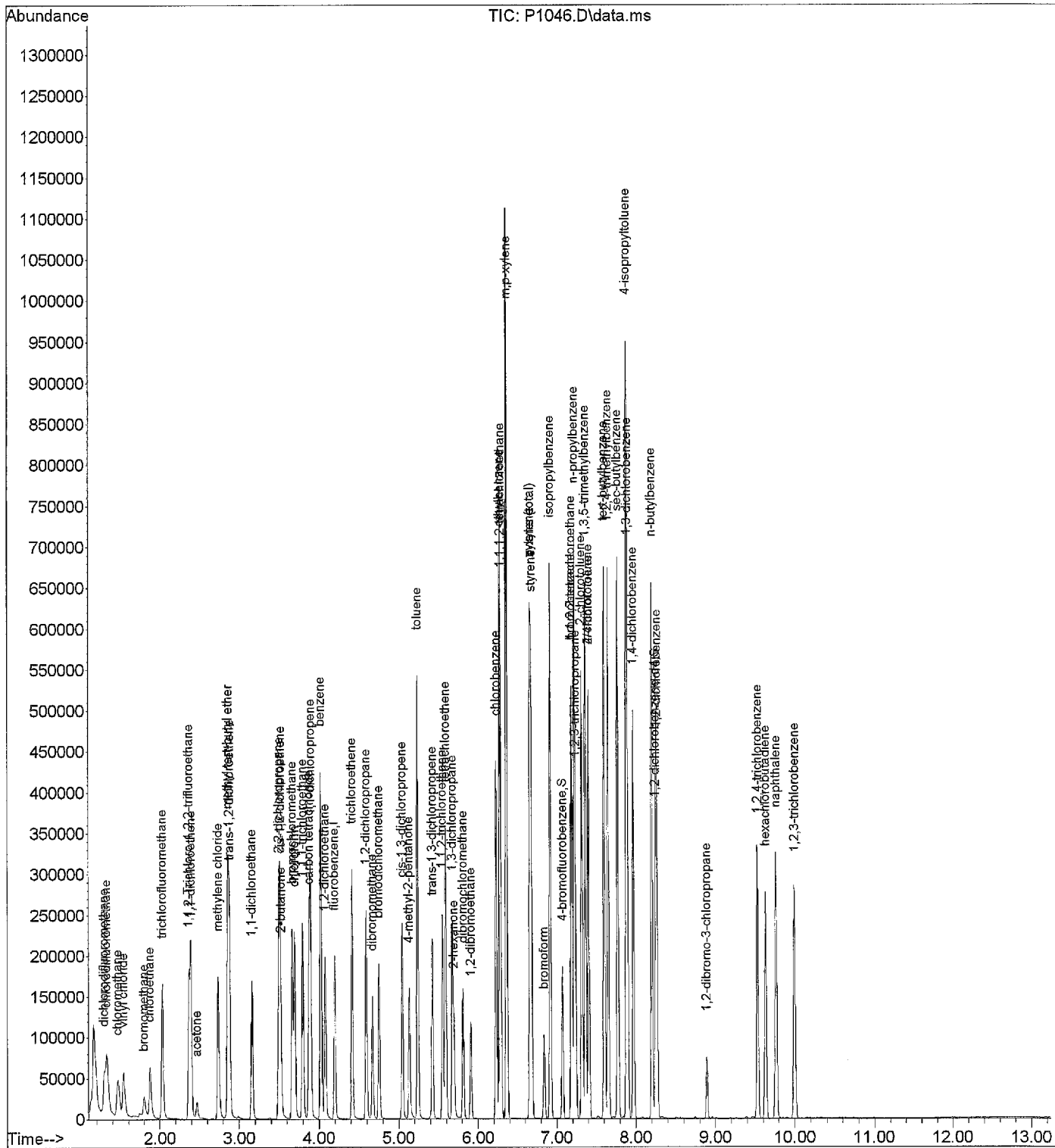


$\text{Response} = 1.532\text{e}+000 * \text{Amu} - 4.172\text{e}-001$
 Coef of Det (r^2) = 1.000 Curve Fit: Linear
 Method Name: C:\msdchem\1\methods\524P_0503.M
 Calibration Table Last Updated: Sat Jun 06 13:24:15 2015

HDR012 V223

```
Data Path   : C:\DATA\2015\JUNE15\060115\  
Data File   : P1046.D  
Acq On      : 1 Jun 2015    9:22  
Operator    : MN  
Sample      : VSTD010  
Misc        : ,,,CCV,,  
ALS Vial    : 51 Sample Multiplier: 1  
InstName    : HP5975
```

Quant Time: Jun 01 09:35:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1046.D
 Acq On : 1 Jun 2015 9:22
 Operator : MN
 Sample : VSTD010
 Misc : ,,,CCV,,
 ALS Vial : 51 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 09:35:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	113825	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	37996	5.57	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	111.40%	
87) 1,2-dichlorobenzene-d4	8.250	152	45932	4.69	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	93.80%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.325	51	82550	7.59	ug/l	# 97
3) dichlorodifluoromethane	1.294	85	79400	9.42	UG/L	97
4) chloromethane	1.465	50	73582	8.36	UG/L	99
5) vinyl chloride	1.538	62	68393	9.13	UG/L	93
6) bromomethane	1.800	94	16837	6.68	UG/L	98
7) chloroethane	1.873	64	55009	10.39	UG/L	99
9) trichlorofluoromethane	2.032	101	114915	9.73	UG/L	99
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	57085	8.05	UG/L	90
12) methyl tert-butyl ether	2.861	73	187052	9.58	UG/L	100
16) 1,1-dichloroethene	2.398	96	52420	7.97	UG/L	# 72
17) methylene chloride	2.739	84	54412	6.71	UG/L	# 80
19) acetone	2.471	43	22305	8.34	ug/l	# 43
20) trans-1,2-dichloroethene	2.879	96	56235	8.25	UG/L	# 87
22) 1,1-dichloroethane	3.160	63	121684	8.67	UG/L	97
23) 2,2-dichloropropane	3.501	77	86353	10.56	UG/L	99
24) cis-1,2-dichloroethene	3.519	96	65102	8.75	UG/L	# 83
29) bromochloromethane	3.666	128	32814	9.06	UG/L	# 88
32) chloroform	3.696	83	114137	8.91	UG/L	97
33) 2-butanone	3.525	43	40078	8.91	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	112157	10.12	UG/L	97
35) carbon tetrachloride	3.873	117	98080	11.01	UG/L	100
37) 1,1-dichloropropene	3.891	75	84494	9.14	UG/L	97
38) benzene	4.019	78	220923	7.89	UG/L	98
40) 1,2-dichloroethane	4.074	62	112705	9.16	UG/L	93
41) trichloroethene	4.416	95	62121	8.59	UG/L	# 57
42) 1,2-dichloropropane	4.592	63	63278	8.48	UG/L	99
43) dibromomethane	4.672	93	37379	8.06	UG/L	# 84
46) bromodichloromethane	4.751	83	82864	9.46	UG/L	99
48) cis-1,3-dichloropropene	5.043	75	84477	8.95	UG/L	95
51) toluene	5.239	92	152363	8.62	UG/L	96
52) trans-1,3-dichloropropene	5.428	75	82867	9.17	UG/L	99
54) 1,1,2-trichloroethane	5.549	83	41657	7.57	UG/L	95
55) 4-methyl-2-pentanone	5.129	43	86102	10.16	ug/l	99
56) tetrachloroethene	5.592	166	75660	10.55	UG/L	99
57) 1,3-dichloropropane	5.677	76	92126	7.69	UG/L	100
58) dibromochloromethane	5.812	129	63387	9.95	UG/L	98
59) 1,2-dibromoethane	5.909	107	59829	8.97	UG/L	99
60) 2-hexanone	5.696	43	59329	9.30	ug/l	100
61) chlorobenzene	6.232	112	178586	9.47	UG/L	90
62) 1,1,1,2-tetrachloroethane	6.287	131	64725	10.26	UG/L	93
63) ethylbenzene	6.275	91	310364	9.58	UG/L	98
64) m,p-xylene	6.366	106	247312	19.87	UG/L	100
65) o-xylene	6.659	106	115712	9.78	UG/L	100
66) xylene (total)	6.659	106	115712	9.78	UG/L	100

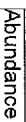
Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1046.D
 Acq On : 1 Jun 2015 9:22
 Operator : MN
 Sample : VSTD010
 Misc : ,,,CCV,,
 ALS Vial : 51 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 09:35:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) styrene	6.677	104	193773	9.55	UG/L	89
68) bromoform	6.836	173	37525	10.60	UG/L	98
69) isopropylbenzene	6.915	105	332109	10.38	UG/L	99
71) bromobenzene	7.189	156	80767	9.98	UG/L	95
72) 1,1,2,2-tetrachloroethane	7.189	83	65994	7.03	UG/L	96
73) 1,2,3-trichloropropane	7.238	110	29956	9.11	UG/L #	83
74) n-propylbenzene	7.226	91	365371	9.30	UG/L	92
76) 2-chlorotoluene	7.317	91	227803	9.21	UG/L	95
77) 4-chlorotoluene	7.409	91	235311	9.19	UG/L	95
78) 2/4-chlorotoluene	7.409	91	497170m	18.53	UG/L	
79) 1,3,5-trimethylbenzene	7.366	105	290180	10.22	UG/L #	76
80) tert-butylbenzene	7.604	119	253894	10.55	UG/L	96
82) 1,2,4-trimethylbenzene	7.653	105	285076	10.06	UG/L	95
83) sec-butylbenzene	7.775	105	355430	10.02	UG/L	93
84) 1,3-dichlorobenzene	7.897	146	158379	9.87	UG/L	96
85) 4-isopropyltoluene	7.884	119	327532	10.57	UG/L	98
86) 1,4-dichlorobenzene	7.970	146	157523	9.87	UG/L	99
88) 1,2-dichlorobenzene	8.268	146	147092	9.43	UG/L	98
89) n-butylbenzene	8.201	91	265397	9.76	UG/L	91
91) 1,2-dibromo-3-chloropr...	8.890	75	14316	8.38	UG/L	94
93) 1,2,4-trichlorobenzene	9.536	180	90059	10.44	UG/L	98
94) hexachlorobutadiene	9.634	225	45574	11.50	UG/L	96
95) naphthalene	9.768	128	245866	9.16	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	86445	10.49	UG/L	98

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

```
Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1062.D
Acq On : 1 Jun 2015 16:23
Operator : MN
Sample : VSTD010
Misc : ''',CCV'',
ALS Vial : 23 Sample Multiplier: 1
InstName : HP5975
```



TIC: P1062.D\data.ms

Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1062.D
 Acq On : 1 Jun 2015 16:23
 Operator : MN
 Sample : VSTD010
 Misc : ,,,CCV,,
 ALS Vial : 23 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 16:36:48 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	106822	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	38222	5.98	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	119.60%	
87) 1,2-dichlorobenzene-d4	8.250	152	42290	4.60	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	92.00%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.325	51	72131	7.06	ug/l	# 94
3) dichlorodifluoromethane	1.294	85	69592	8.80	UG/L	97
4) chloromethane	1.471	50	64621	7.82	UG/L	100
5) vinyl chloride	1.532	62	49437	7.03	UG/L	97
6) bromomethane	1.800	94	11376	4.81	UG/L	96
7) chloroethane	1.873	64	34412	6.93	UG/L	99
9) trichlorofluoromethane	2.032	101	102799	9.27	UG/L	100
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	47998	7.21	UG/L	# 90
12) methyl tert-butyl ether	2.855	73	166307	9.08	UG/L	98
16) 1,1-dichloroethene	2.391	96	44139	7.15	UG/L	# 69
17) methylene chloride	2.739	84	50564	6.64	UG/L	# 82
19) acetone	2.465	43	25864	10.31	ug/l	# 43
20) trans-1,2-dichloroethene	2.879	96	50603	7.91	UG/L	90
22) 1,1-dichloroethane	3.160	63	109617	8.32	UG/L	97
23) 2,2-dichloropropane	3.501	77	72012	9.39	UG/L	99
24) cis-1,2-dichloroethene	3.513	96	55997	8.02	UG/L	# 79
29) bromochloromethane	3.666	128	30260	8.90	UG/L	# 89
32) chloroform	3.696	83	104636	8.70	UG/L	99
33) 2-butanone	3.525	43	44715	10.59	ug/l	# 53
34) 1,1,1-trichloroethane	3.794	97	96581	9.29	UG/L	97
35) carbon tetrachloride	3.873	117	85009	10.17	UG/L	98
37) 1,1-dichloropropene	3.891	75	72110	8.31	UG/L	97
38) benzene	4.019	78	194476	7.40	UG/L	99
40) 1,2-dichloroethane	4.074	62	106816	9.25	UG/L	93
41) trichloroethene	4.415	95	55563	8.18	UG/L	# 61
42) 1,2-dichloropropane	4.592	63	54736	7.81	UG/L	100
43) dibromomethane	4.665	93	33482	7.69	UG/L	# 86
46) bromodichloromethane	4.751	83	74101	9.01	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	72020	8.13	UG/L	96
51) toluene	5.239	92	133739	8.06	UG/L	98
52) trans-1,3-dichloropropene	5.421	75	72528	8.55	UG/L	99
54) 1,1,2-trichloroethane	5.549	83	38010	7.36	UG/L	93
55) 4-methyl-2-pentanone	5.129	43	87453	11.00	ug/l	97
56) tetrachloroethene	5.592	166	72525	10.77	UG/L	98
57) 1,3-dichloropropane	5.677	76	85126	7.57	UG/L	100
58) dibromochloromethane	5.812	129	56278	9.41	UG/L	98
59) 1,2-dibromoethane	5.909	107	53936	8.62	UG/L	100
60) 2-hexanone	5.696	43	63713	10.65	ug/l	95
61) chlorobenzene	6.232	112	156839	8.86	UG/L	91
62) 1,1,1,2-tetrachloroethane	6.287	131	57050	9.63	UG/L	91
63) ethylbenzene	6.275	91	266921	8.78	UG/L	97
64) m,p-xylene	6.360	106	211940	18.15	UG/L	97
65) o-xylene	6.659	106	100546	9.05	UG/L	100
66) xylene (total)	6.659	106	100546	9.05	UG/L	100

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1062.D
Acq On : 1 Jun 2015 16:23
Operator : MN
Sample : VSTD010
Misc : ,,,CCV,,
ALS Vial : 23 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 16:36:48 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) styrene	6.677	104	172083	9.03	UG/L	89
68) bromoform	6.836	173	33652	10.13	UG/L	97
69) isopropylbenzene	6.915	105	280847	9.35	UG/L	100
71) bromobenzene	7.183	156	70356	9.27	UG/L	92
72) 1,1,2,2-tetrachloroethane	7.189	83	64290	7.30	UG/L	96
73) 1,2,3-trichloropropane	7.238	110	28398	9.20	UG/L #	83
74) n-propylbenzene	7.226	91	314415	8.53	UG/L	94
76) 2-chlorotoluene	7.317	91	198417	8.54	UG/L	96
77) 4-chlorotoluene	7.403	91	209689	8.73	UG/L	96
78) 2/4-chlorotoluene	7.317	91	436903m	17.35	UG/L	
79) 1,3,5-trimethylbenzene	7.360	105	249795	9.37	UG/L #	76
80) tert-butylbenzene	7.604	119	217010	9.61	UG/L	96
82) 1,2,4-trimethylbenzene	7.653	105	252831	9.50	UG/L	94
83) sec-butylbenzene	7.775	105	301996	9.07	UG/L	94
84) 1,3-dichlorobenzene	7.897	146	138924	9.22	UG/L	96
85) 4-isopropyltoluene	7.884	119	279618	9.61	UG/L	98
86) 1,4-dichlorobenzene	7.970	146	141191	9.42	UG/L	98
88) 1,2-dichlorobenzene	8.262	146	131668	9.00	UG/L	98
89) n-butylbenzene	8.201	91	216090	8.47	UG/L	92
91) 1,2-dibromo-3-chloropr...	8.890	75	14092	8.79	UG/L	97
93) 1,2,4-trichlorobenzene	9.536	180	77072	9.52	UG/L	98
94) hexachlorobutadiene	9.634	225	35856	9.64	UG/L	97
95) naphthalene	9.768	128	224770	8.93	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	73262	9.48	UG/L	99

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



575 Broad Hollow Road
Melville, NY 11747

tel. 631.694.3040
fax. 631.420.8436

IV. RAW QC DATA PACKAGE FOR VOLATILE ORGANICS

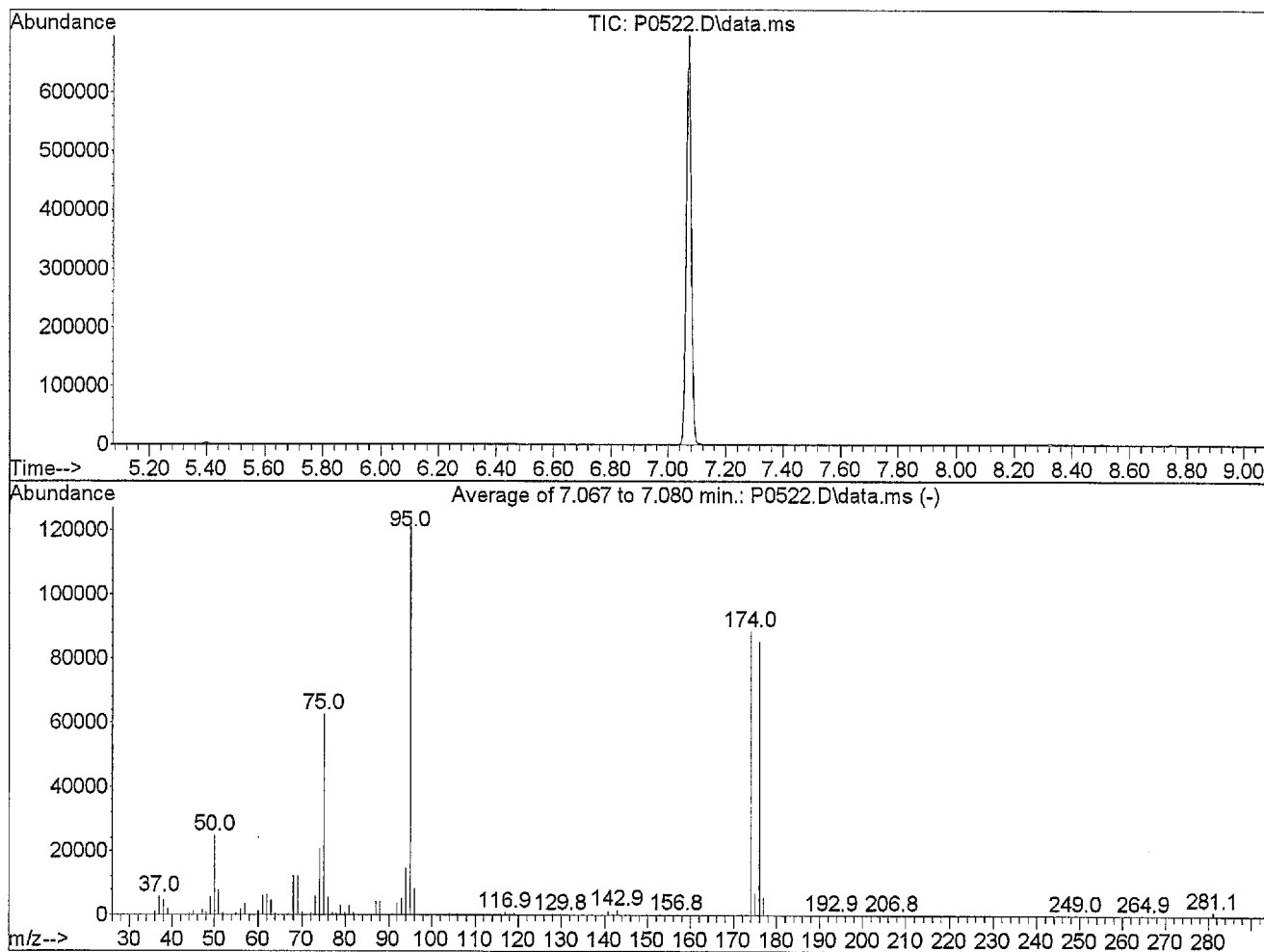
- A. TUNING**
- B. BLANK**
- C. SPIKE AND SPIKE DUPLICATE***
- D. MATRIX SPIKE BLANK***
- F. LFB***
- G. DUPLICATE***
- H. COPY OF CALCULATIONS**

***IF REQUIRED**

Data Path : C:\DATA\2015\MAY15\050315\
Data File : P0522.D
Acq On : 3 May 2015 10:48
Operator : KGG
Sample : BFB 25ng
Misc : ,,,TUNE,,
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P
InstName : HP5975

Method : C:\msdchem\1\methods\524P_0503.M
Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
Last Update : Mon May 04 07:36:48 2015



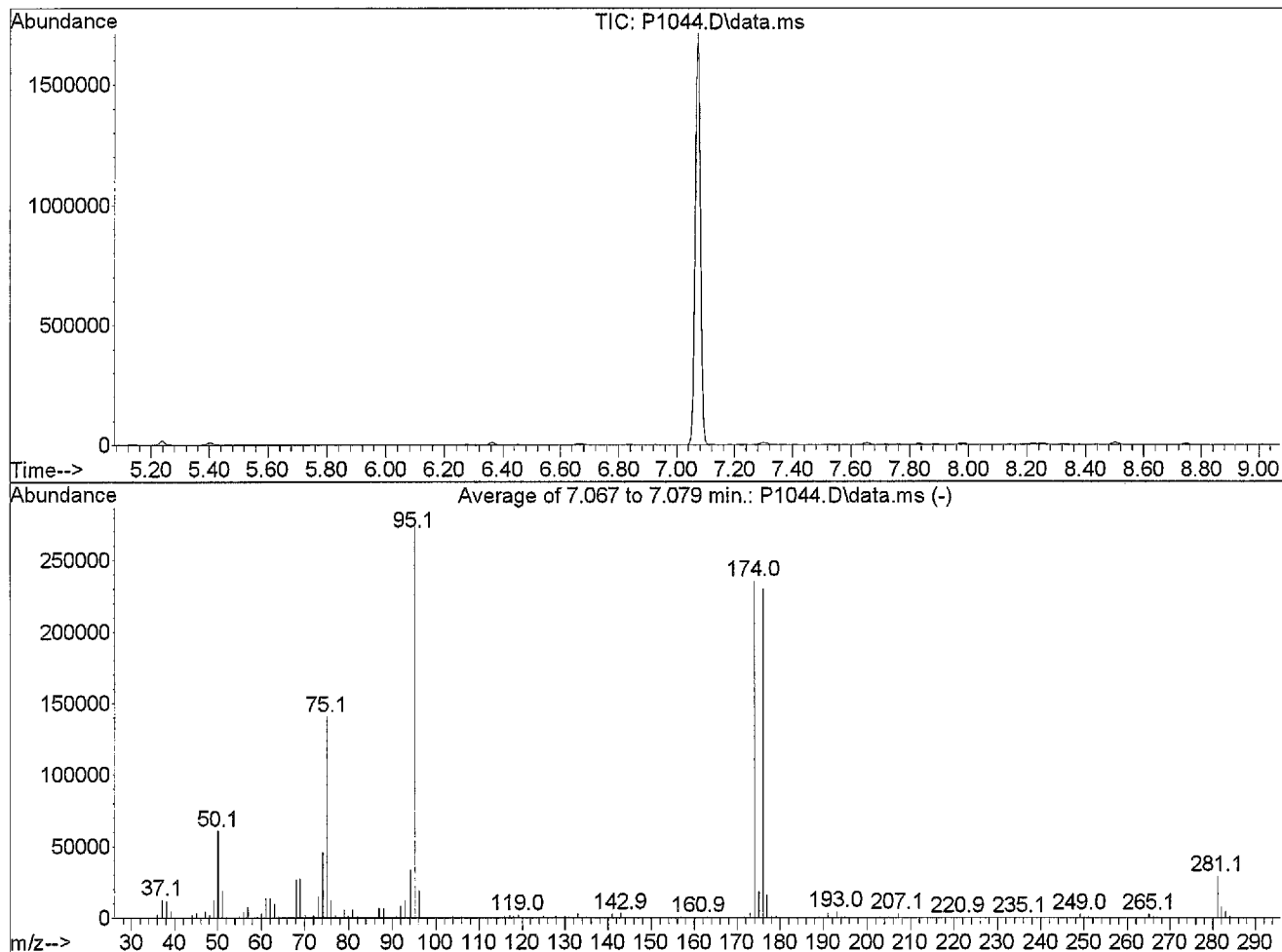
AutoFind: Scans 981, 982, 983; Background Corrected with Scan 974

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	24662	PASS
75	95	30	80	51.6	62539	PASS
95	95	100	100	100.0	121101	PASS
96	95	5	9	6.8	8213	PASS
173	174	0.00	2	0.3	282	PASS
174	95	50	120	73.1	88467	PASS
175	174	5	9	7.7	6843	PASS
176	174	95	101	96.2	85099	PASS
177	176	5	9	6.5	5504	PASS

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1044.D
Acq On : 1 Jun 2015 8:00
Operator : MN
Sample : BFB 25ng
Misc : ,,,TUNE,,
ALS Vial : 52 Sample Multiplier: 1

Integration File: RTEINT.P
InstName : HP5975

Method : C:\msdchem\1\methods\524P_0503.M
Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
Last Update : Sat Jun 06 13:26:03 2015



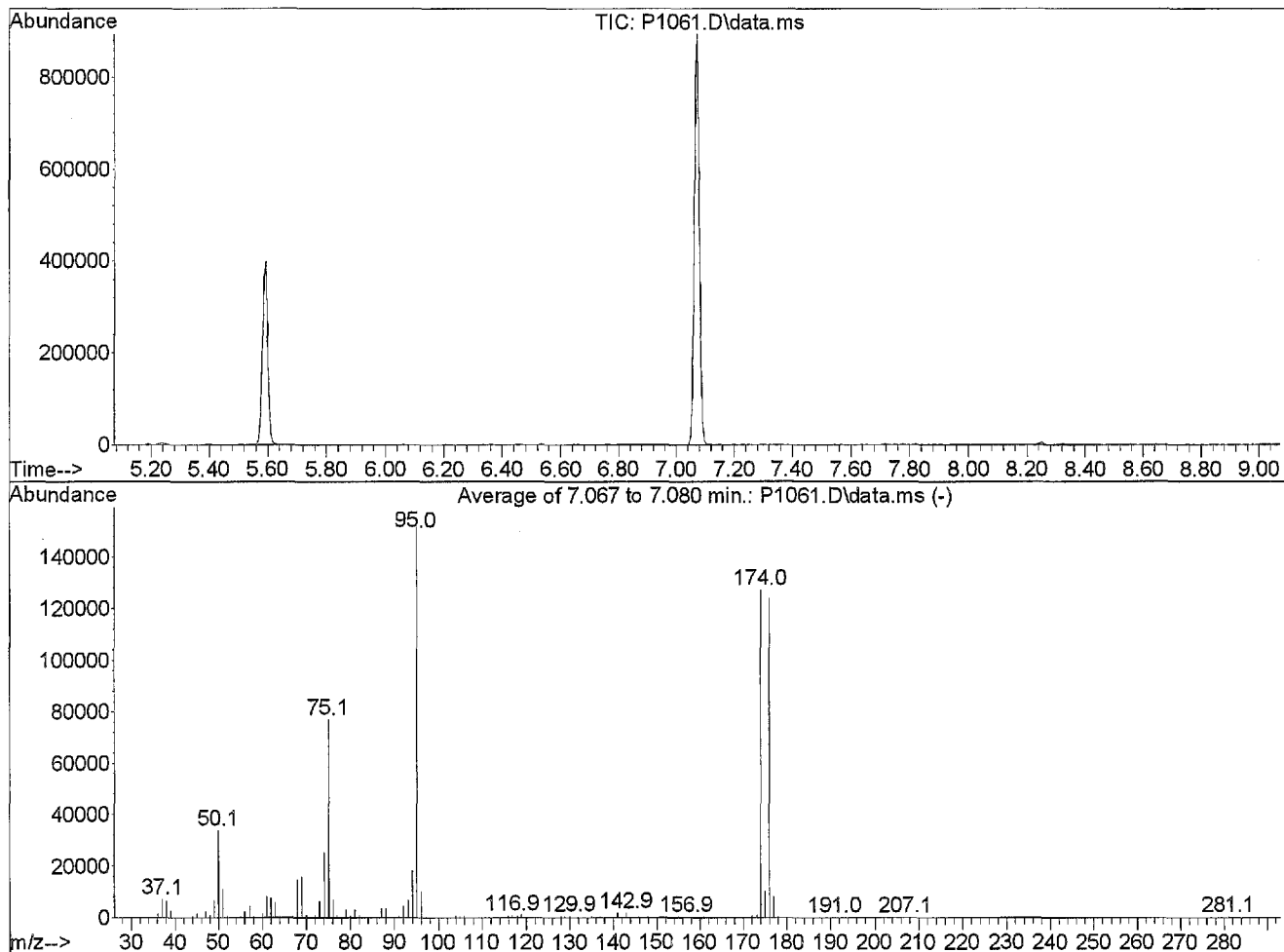
AutoFind: Scans 981, 982, 983; Background Corrected with Scan 974

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	60731	PASS
75	95	30	80	51.5	140597	PASS
95	95	100	100	100.0	273173	PASS
96	95	5	9	6.9	18887	PASS
173	174	0.00	2	1.3	2978	PASS
174	95	50	120	86.2	235477	PASS
175	174	5	9	7.7	18189	PASS
176	174	95	101	97.5	229696	PASS
177	176	5	9	7.0	16056	PASS

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1061.D
Acq On : 1 Jun 2015 15:58
Operator : MN
Sample : BFB 25ng
Misc : ,,,TUNE,,
ALS Vial : 22 Sample Multiplier: 1

Integration File: RTEINT.P
InstName : HP5975

Method : C:\msdchem\1\methods\524P_0503.M
Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
Last Update : Sat Jun 06 13:26:03 2015



AutoFind: Scans 981, 982, 983; Background Corrected with Scan 974

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	33853	PASS
75	95	30	80	50.9	77067	PASS
95	95	100	100	100.0	151491	PASS
96	95	5	9	6.6	9924	PASS
173	174	0.00	2	0.9	1085	PASS
174	95	50	120	83.9	127147	PASS
175	174	5	9	7.8	9915	PASS
176	174	95	101	97.4	123904	PASS
177	176	5	9	6.5	8001	PASS

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK060115

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: VBLK060115Sample wt/vol: 5(g/mL) MLLab File ID: P1047.D

Level: (low/med)

LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK060115

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: VBLK060115Sample wt/vol: 5 (g/mL) MLLab File ID: P1047.DLevel: (low/med) LOW

Date Received: _____

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

VBLK060115

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBAN SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: VBLK060115Sample wt/vol: 5(g/mL) mLLab File ID: P1047.DLevel: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(μl)

Soil Aliquot Volume: 0 (μL)

CONCENTRATION UNITS:

Number TICs found:

0

(μg/L or μg/Kg)

μg/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1047.D
Acq On : 1 Jun 2015 9:46
Operator : MN
Sample : VBLK060115
Misc : ,,,MBLK,,
ALS Vial : 52 Sample Multiplier: 1
InstName : HP5975

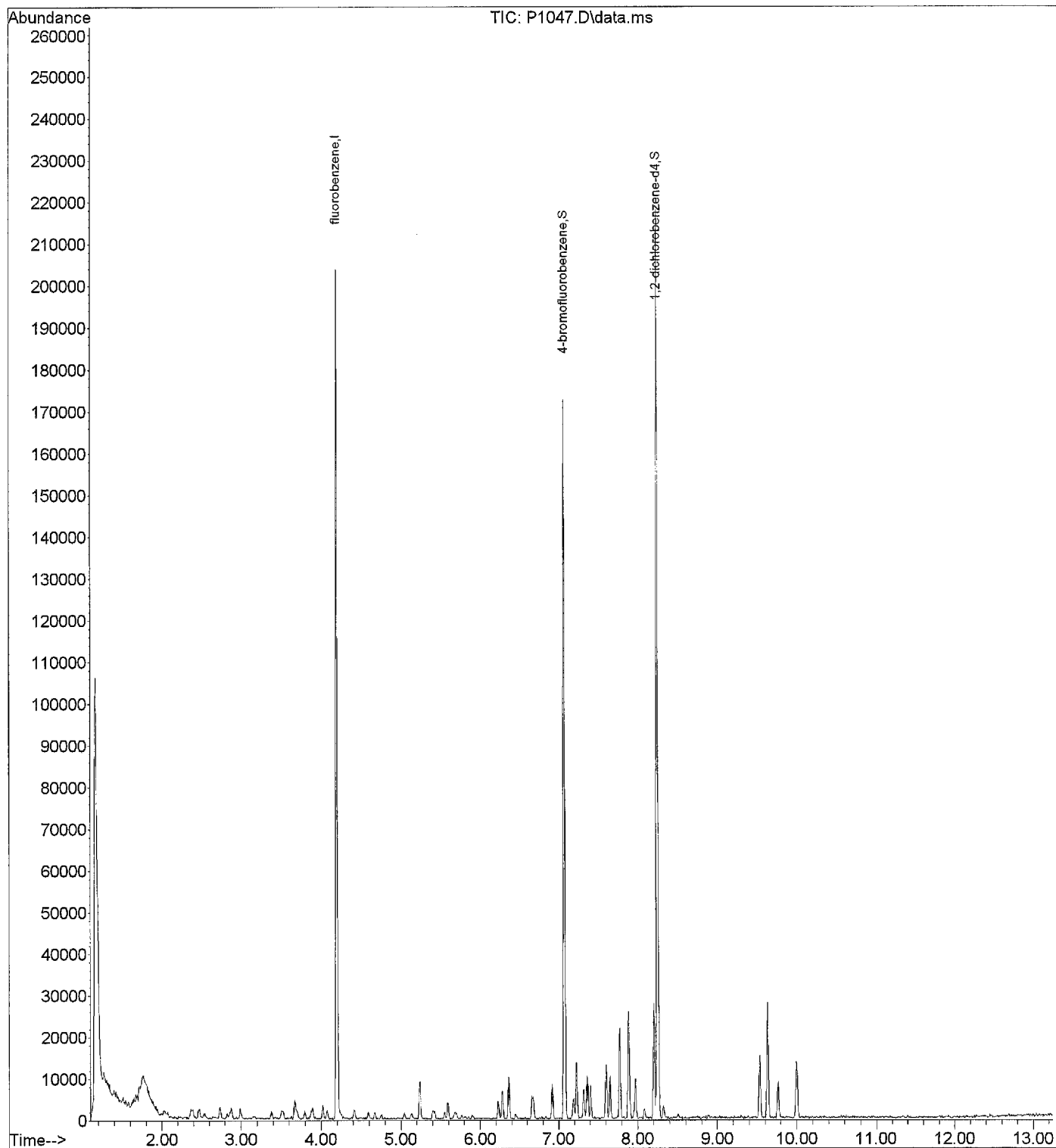
Quant Time: Jun 01 09:59:38 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

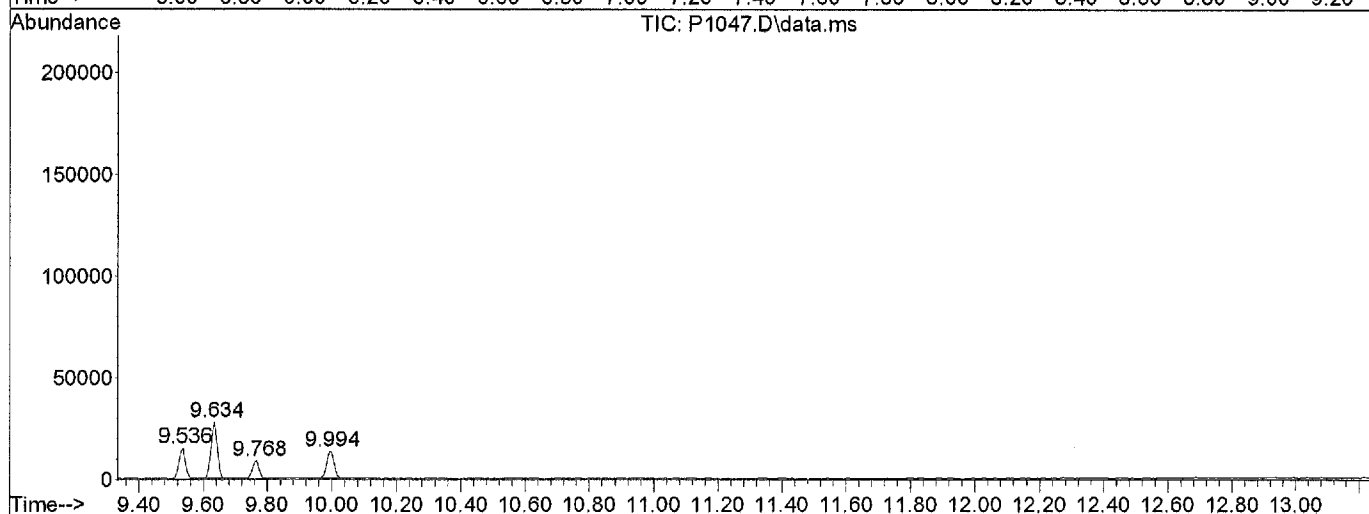
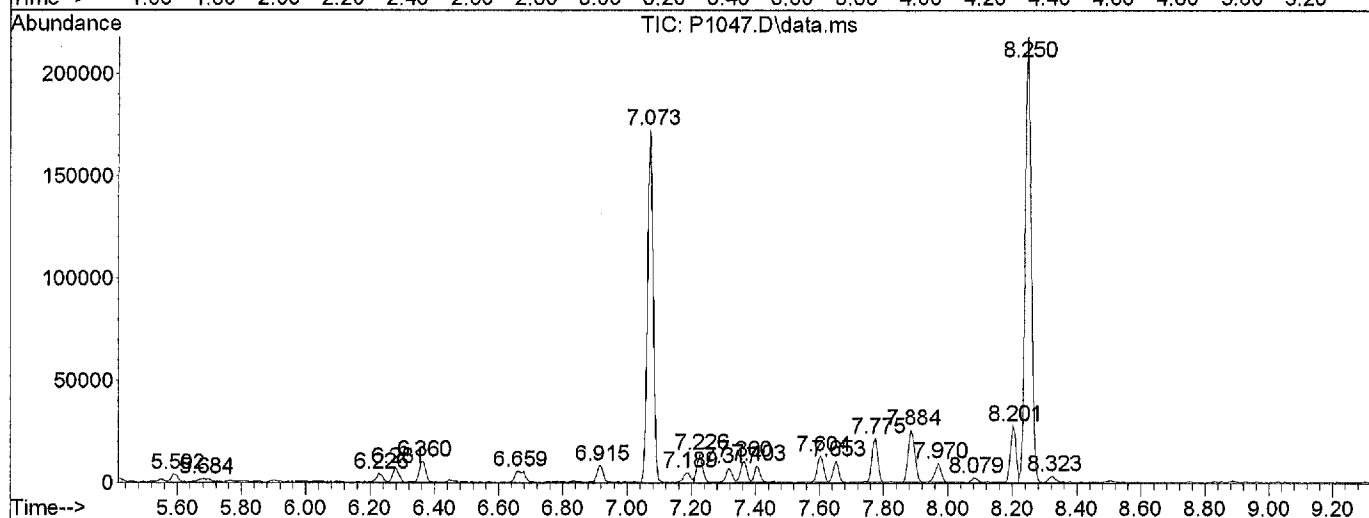
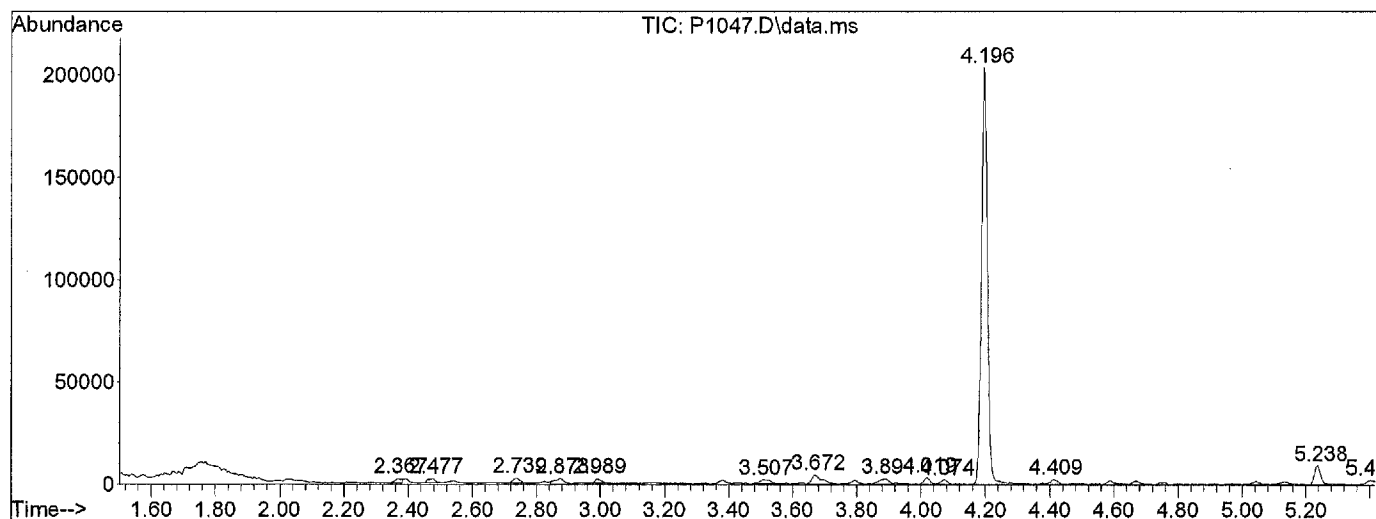
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1047.D
Acq On : 1 Jun 2015 9:46
Operator : MN
Sample : VBLK060115
Misc : ,,,MBLK,,
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1047.D
Acq On : 1 Jun 2015 9:46
Operator : MN
Sample : VBLK060115
Misc : ,,,MBLK,,
ALS Vial : 52 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 09:59:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	115567	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	35456	5.12	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	102.40%	
87) 1,2-dichlorobenzene-d4	8.250	152	44132	4.44	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	88.80%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1047.D
Acq On : 1 Jun 2015 9:46
Operator : MN
Sample : VBLK060115
Misc : ,,,MBLK,,
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK060115A

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: VBLK060115ASample wt/vol: 5 (g/mL) MLLab File ID: P1066.DLevel: (low/med) LOW

Date Received: _____

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
179601-23-1	m,p-Xylene	0.5	U
95-47-6	o-Xylene	0.5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK060115A

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: VBLK060115ASample wt/vol: 5 (g/mL) MLLab File ID: P1066.DLevel: (low/med) LOW

Date Received: _____

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
108-86-1	Bromobenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
103-65-1	n-Propylbenzene	0.5	U
	2/4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	4-Isopropyltoluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
1634-04-4	Methyl tert-butyl ether	0.5	U
	Total Trihalomethanes	0.5	U

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1066.D
Acq On : 1 Jun 2015 18:27
Operator : MN
Sample : VBLK060115A
Misc : ,,,MBLK,,
ALS Vial : 27 Sample Multiplier: 1
InstName : HP5975

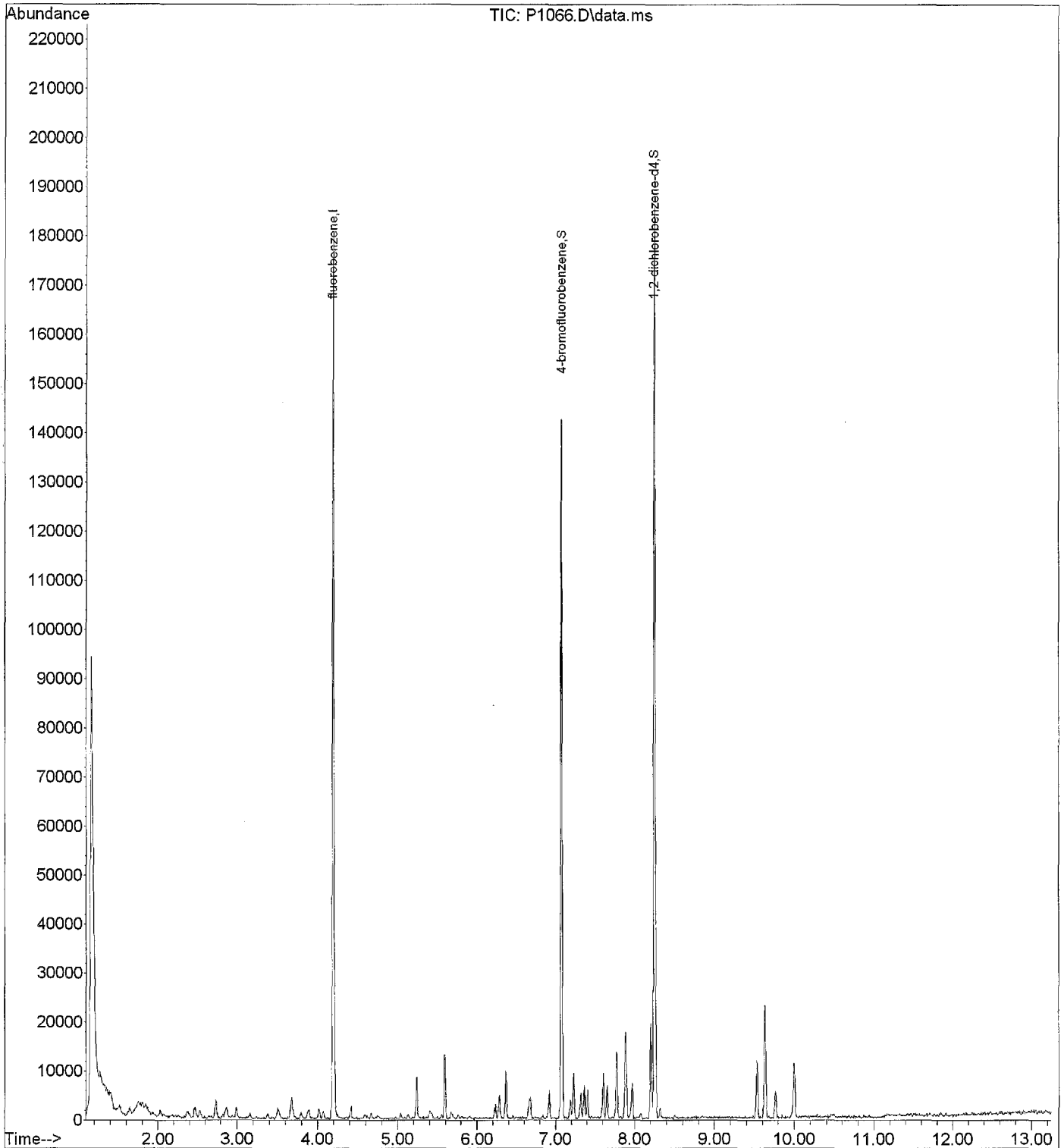
Quant Time: Jun 01 18:40:48 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

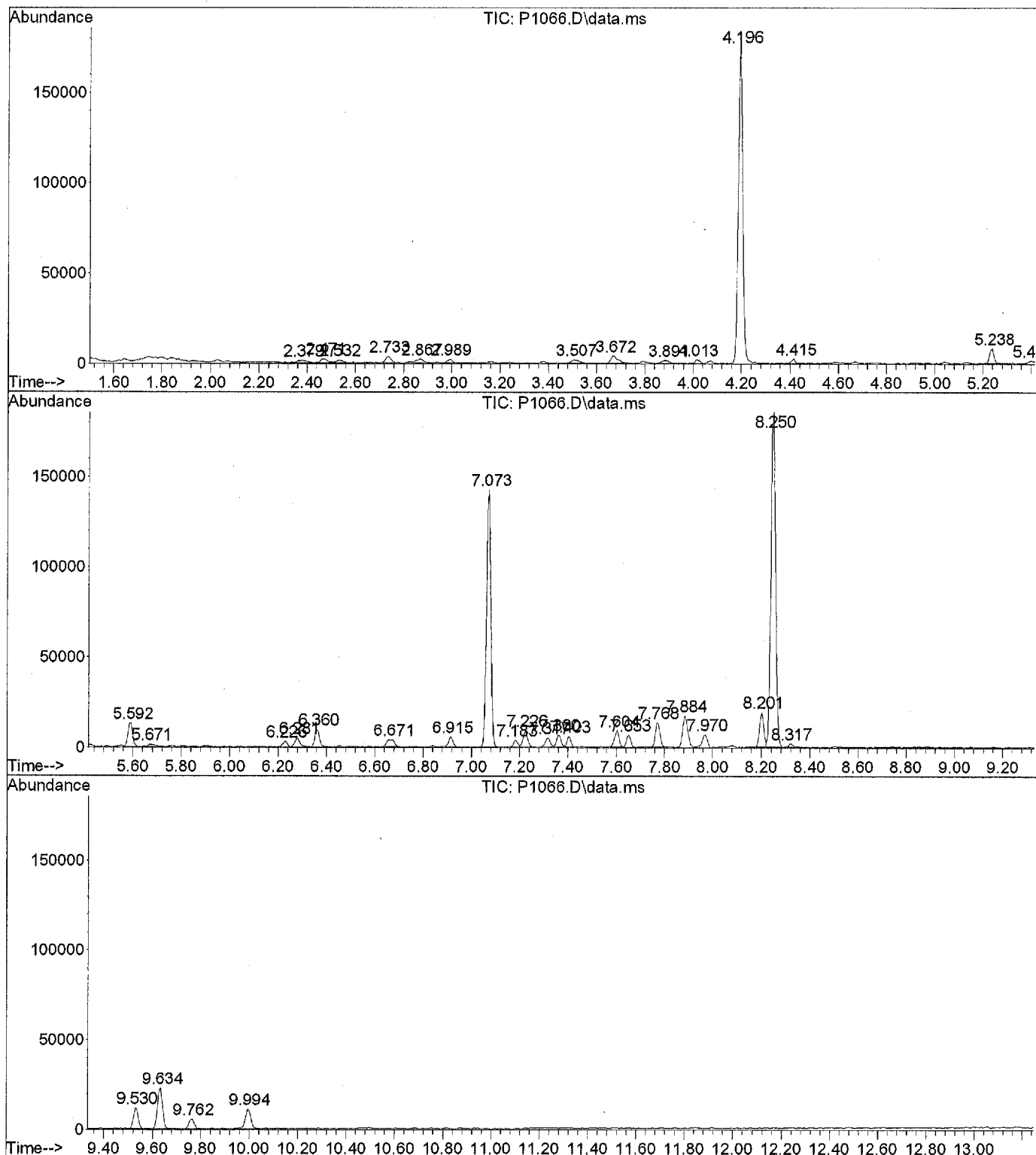
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1066.D
Acq On : 1 Jun 2015 18:27
Operator : MN
Sample : VBLK060115A
Misc : ,,,MBLK,,
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1066.D
Acq On : 1 Jun 2015 18:27
Operator : MN
Sample : VBLK060115A
Misc : ,,,MBLK,,
ALS Vial : 27 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 01 18:40:48 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-21767CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	98918	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	29791	5.03	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	100.60%	
87) 1,2-dichlorobenzene-d4	8.250	152	39084	4.59	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	91.80%	

Target Compounds	Qvalue

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

Library Search Compound Report

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1066.D
Acq On : 1 Jun 2015 18:27
Operator : MN
Sample : VBLK060115A
Misc : ,,,MBLK,,
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW14MS

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-010AMSSample wt/vol: 5 (g/mL) MLLab File ID: P1080.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/02/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(µg/L or µg/Kg) UG/L

Q

75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	7	
75-01-4	Vinyl chloride	7	
74-83-9	Bromomethane	5	Z MW 06/08/15
75-00-3	Chloroethane	10	Z MW 06/08/15
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	8	
75-09-2	Methylene chloride	7	Z MW 06/08/15
156-60-5	trans-1,2-Dichloroethene	9	
75-34-3	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	9	
74-97-5	Bromochloromethane	9	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	11	
56-23-5	Carbon tetrachloride	11	
563-58-6	1,1-Dichloropropene	10	
107-06-2	1,2-Dichloroethane	10	
71-43-2	Benzene	8	
79-01-6	Trichloroethene	9	
78-87-5	1,2-Dichloropropane	9	
74-95-3	Dibromomethane	8	
75-27-4	Bromodichloromethane	9	
10061-01-5	cis-1,3-Dichloropropene	9	
108-88-3	Toluene	9	
10061-02-6	trans-1,3-Dichloropropene	9	
79-00-5	1,1,2-Trichloroethane	8	
127-18-4	Tetrachloroethene	12	
142-28-9	1,3-Dichloropropane	8	
124-48-1	Dibromochloromethane	9	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
179601-23-1	m,p-Xylene	20	
95-47-6	o-Xylene	10	

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW14MS

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-010AMSSample wt/vol: 5 (g/mL) MLLab File ID: P1080.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/02/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

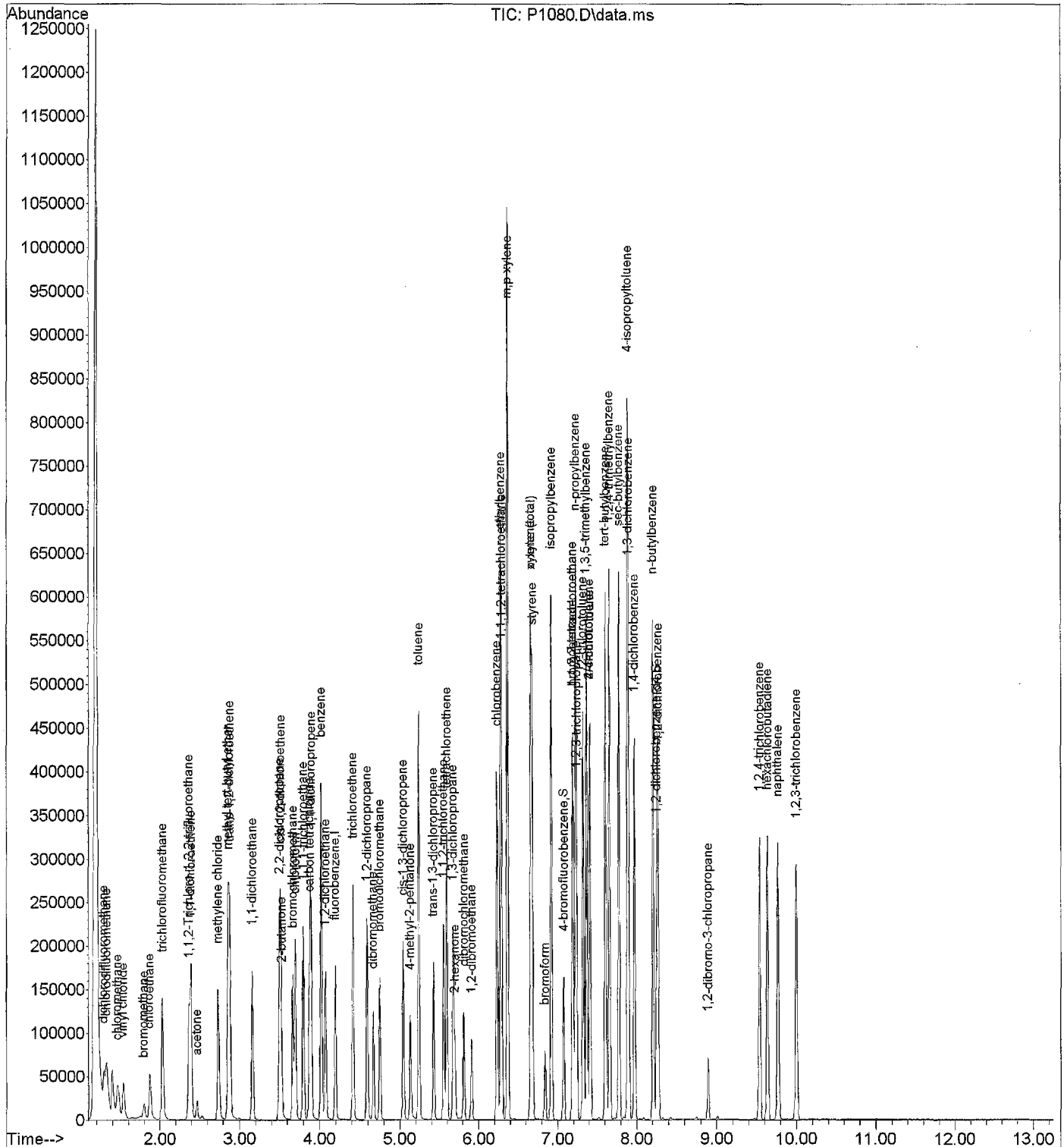
(µg/L or µg/Kg) UG/L

Q

100-42-5	Styrene	10	
75-25-2	Bromoform	9	
98-82-8	Isopropylbenzene	11	
108-86-1	Bromobenzene	10	
79-34-5	1,1,2,2-Tetrachloroethane	7	
96-18-4	1,2,3-Trichloropropane	9	
103-65-1	n-Propylbenzene	10	
	2/4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	11	
95-63-6	1,2,4-Trimethylbenzene	11	
135-98-8	sec-Butylbenzene	10	
104-51-8	n-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
106-46-7	1,4-Dichlorobenzene	10	
99-87-6	4-Isopropyltoluene	11	
95-50-1	1,2-Dichlorobenzene	10	
120-82-1	1,2,4-Trichlorobenzene	12	
87-68-3	Hexachlorobutadiene	16	
87-61-6	1,2,3-Trichlorobenzene	13	
1634-04-4	Methyl tert-butyl ether	9	
	Total Trihalomethanes	38	

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1080.D
Acq On : 2 Jun 2015 00:39
Operator : MN
Sample : 1505F17-010AMS
Misc : HDR012,MW14,H2O,MS,,
ALS Vial : 41 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 02 00:53:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1080.D
 Acq On : 2 Jun 2015 00:39
 Operator : MN
 Sample : 1505F17-010AMS
 Misc : HDR012,MW14,H2O,MS,,
 ALS Vial : 41 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 02 00:53:05 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	97337	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.074	174	33612	5.77	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	115.40%	
87) 1,2-dichlorobenzene-d4	8.250	152	41958	5.01	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	100.20%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.325	51	65122	7.00	ug/l	# 94
3) dichlorodifluoromethane	1.288	85	45184	6.27	UG/L	99
4) chloromethane	1.459	50	52056	6.91	UG/L	98
5) vinyl chloride	1.532	62	44692	6.97	UG/L	99
6) bromomethane	1.794	94	10409	4.83	UG/L	97
7) chloroethane	1.867	64	44164	9.76	UG/L	97
9) trichlorofluoromethane	2.032	101	102966	10.19	UG/L	99
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	41505	6.84	UG/L	# 89
12) methyl tert-butyl ether	2.855	73	150240	9.00	UG/L	99
16) 1,1-dichloroethene	2.392	96	43803	7.79	UG/L	# 68
17) methylene chloride	2.733	84	48327	6.97	UG/L	# 82
19) acetone	2.471	43	22135	9.68	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	52191	8.95	UG/L	92
22) 1,1-dichloroethane	3.160	63	111641	9.30	UG/L	97
23) 2,2-dichloropropane	3.501	77	68163	9.75	UG/L	99
24) cis-1,2-dichloroethene	3.513	96	54052	8.50	UG/L	# 78
29) bromochloromethane	3.666	128	28573	9.23	UG/L	# 87
32) chloroform	3.696	83	106627	9.73	UG/L	97
33) 2-butanone	3.525	43	32546	8.46	ug/l	# 90
34) 1,1,1-trichloroethane	3.794	97	99537	10.51	UG/L	98
35) carbon tetrachloride	3.873	117	85655	11.25	UG/L	99
37) 1,1-dichloropropene	3.891	75	77944	9.86	UG/L	99
38) benzene	4.019	78	197836	8.26	UG/L	99
40) 1,2-dichloroethane	4.074	62	100551	9.56	UG/L	92
41) trichloroethene	4.416	95	58113	9.39	UG/L	# 64
42) 1,2-dichloropropane	4.592	63	56341	8.83	UG/L	99
43) dibromomethane	4.665	93	31608	7.97	UG/L	# 86
46) bromodichloromethane	4.751	83	69822	9.32	UG/L	98
48) cis-1,3-dichloropropene	5.043	75	69642	8.63	UG/L	98
51) toluene	5.239	92	133952	8.86	UG/L	99
52) trans-1,3-dichloropropene	5.421	75	66099	8.55	UG/L	100
54) 1,1,2-trichloroethane	5.549	83	35736	7.59	UG/L	97
55) 4-methyl-2-pentanone	5.129	43	63251	8.73	ug/l	98
56) tetrachloroethene	5.592	166	72594	11.83	UG/L	96
57) 1,3-dichloropropane	5.671	76	81401	7.95	UG/L	98
58) dibromochloromethane	5.812	129	49736	9.13	UG/L	96
59) 1,2-dibromoethane	5.909	107	47277	8.29	UG/L	98
60) 2-hexanone	5.696	43	44653	8.19	ug/l	95
61) chlorobenzene	6.226	112	157855	9.79	UG/L	91
62) 1,1,1,2-tetrachloroethane	6.287	131	52933	9.81	UG/L	93
63) ethylbenzene	6.275	91	274829	9.92	UG/L	98
64) m,p-xylene	6.360	106	217056	20.39	UG/L	97
65) o-xylene	6.659	106	104546	10.33	UG/L	99
66) xylene (total)	6.659	106	104546	10.33	UG/L	99

Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1080.D
 Acq On : 2 Jun 2015 00:39
 Operator : MN
 Sample : 1505F17-010AMS
 Misc : HDR012,MW14,H2O,MS,,
 ALS Vial : 41 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 02 00:53:05 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) styrene	6.677	104	170477	9.82	UG/L	86
68) bromoform	6.836	173	28376	9.37	UG/L	99
69) isopropylbenzene	6.915	105	290214	10.61	UG/L	100
71) bromobenzene	7.189	156	69777	10.09	UG/L	94
72) 1,1,2,2-tetrachloroethane	7.189	83	54443	6.78	UG/L	98
73) 1,2,3-trichloropropane	7.238	110	24793	8.82	UG/L #	86
74) n-propylbenzene	7.226	91	326949	9.73	UG/L	93
76) 2-chlorotoluene	7.317	91	196949	9.31	UG/L	96
77) 4-chlorotoluene	7.403	91	211354	9.65	UG/L	95
78) 2/4-chlorotoluene	7.403	91	436040m	19.01	UG/L	
79) 1,3,5-trimethylbenzene	7.360	105	251790	10.37	UG/L #	77
80) tert-butylbenzene	7.604	119	222680	10.82	UG/L	99
82) 1,2,4-trimethylbenzene	7.653	105	254664	10.51	UG/L	95
83) sec-butylbenzene	7.775	105	310942	10.25	UG/L	93
84) 1,3-dichlorobenzene	7.897	146	137406	10.01	UG/L	96
85) 4-isopropyltoluene	7.884	119	286165	10.80	UG/L	99
86) 1,4-dichlorobenzene	7.970	146	138329	10.13	UG/L	98
88) 1,2-dichlorobenzene	8.268	146	128338	9.62	UG/L	98
89) n-butylbenzene	8.201	91	230656	9.92	UG/L	93
91) 1,2-dibromo-3-chloropr...	8.890	75	12917	8.84	UG/L	97
93) 1,2,4-trichlorobenzene	9.536	180	88993	12.06	UG/L	97
94) hexachlorobutadiene	9.634	225	53619	15.83	UG/L	95
95) naphthalene	9.762	128	233347	10.17	UG/L	100
96) 1,2,3-trichlorobenzene	9.994	180	90935	12.91	UG/L	100

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW14MSD

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-010AMSDSample wt/vol: 5 (g/mL) MLLab File ID: P1081.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/02/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L

Q

75-71-8	Dichlorodifluoromethane	7	
74-87-3	Chloromethane	8	
75-01-4	Vinyl chloride	8	
74-83-9	Bromomethane	6	Z MN 06/08/15
75-00-3	Chloroethane	8	Z MN 06/08/15
75-69-4	Trichlorofluoromethane	11	
75-35-4	1,1-Dichloroethene	9	
75-09-2	Methylene chloride	8	Z MN 06/08/15
156-60-5	trans-1,2-Dichloroethene	10	
75-34-3	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	11	
156-59-2	cis-1,2-Dichloroethene	9	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	12	
56-23-5	Carbon tetrachloride	12	
563-58-6	1,1-Dichloropropene	11	
107-06-2	1,2-Dichloroethane	10	
71-43-2	Benzene	9	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	9	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	8	
127-18-4	Tetrachloroethene	12	
142-28-9	1,3-Dichloropropane	9	
124-48-1	Dibromochloromethane	10	
108-90-7	Chlorobenzene	11	
630-20-6	1,1,1,2-Tetrachloroethane	11	
100-41-4	Ethylbenzene	11	
179601-23-1	m,p-Xylene	22	
95-47-6	o-Xylene	11	

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW14MSD

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: 1505F17-010AMSDSample wt/vol: 5 (g/mL) MLLab File ID: P1081.DLevel: (low/med) LOWDate Received: 05/20/15

% Moisture: not dec.

Date Analyzed: 06/02/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(µg/L or µg/Kg) UG/L

Q

100-42-5	Styrene	11	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	12	
108-86-1	Bromobenzene	11	
79-34-5	1,1,2,2-Tetrachloroethane	8	
96-18-4	1,2,3-Trichloropropane	9	
103-65-1	n-Propylbenzene	11	
	2/4-Chlorotoluene	21	
108-67-8	1,3,5-Trimethylbenzene	11	
98-06-6	tert-Butylbenzene	12	
95-63-6	1,2,4-Trimethylbenzene	12	
135-98-8	sec-Butylbenzene	12	
104-51-8	n-Butylbenzene	11	
541-73-1	1,3-Dichlorobenzene	11	
106-46-7	1,4-Dichlorobenzene	11	
99-87-6	4-Isopropyltoluene	12	
95-50-1	1,2-Dichlorobenzene	11	
120-82-1	1,2,4-Trichlorobenzene	14	
87-68-3	Hexachlorobutadiene	16	
87-61-6	1,2,3-Trichlorobenzene	13	
1634-04-4	Methyl tert-butyl ether	10	
	Total Trihalomethanes	41	

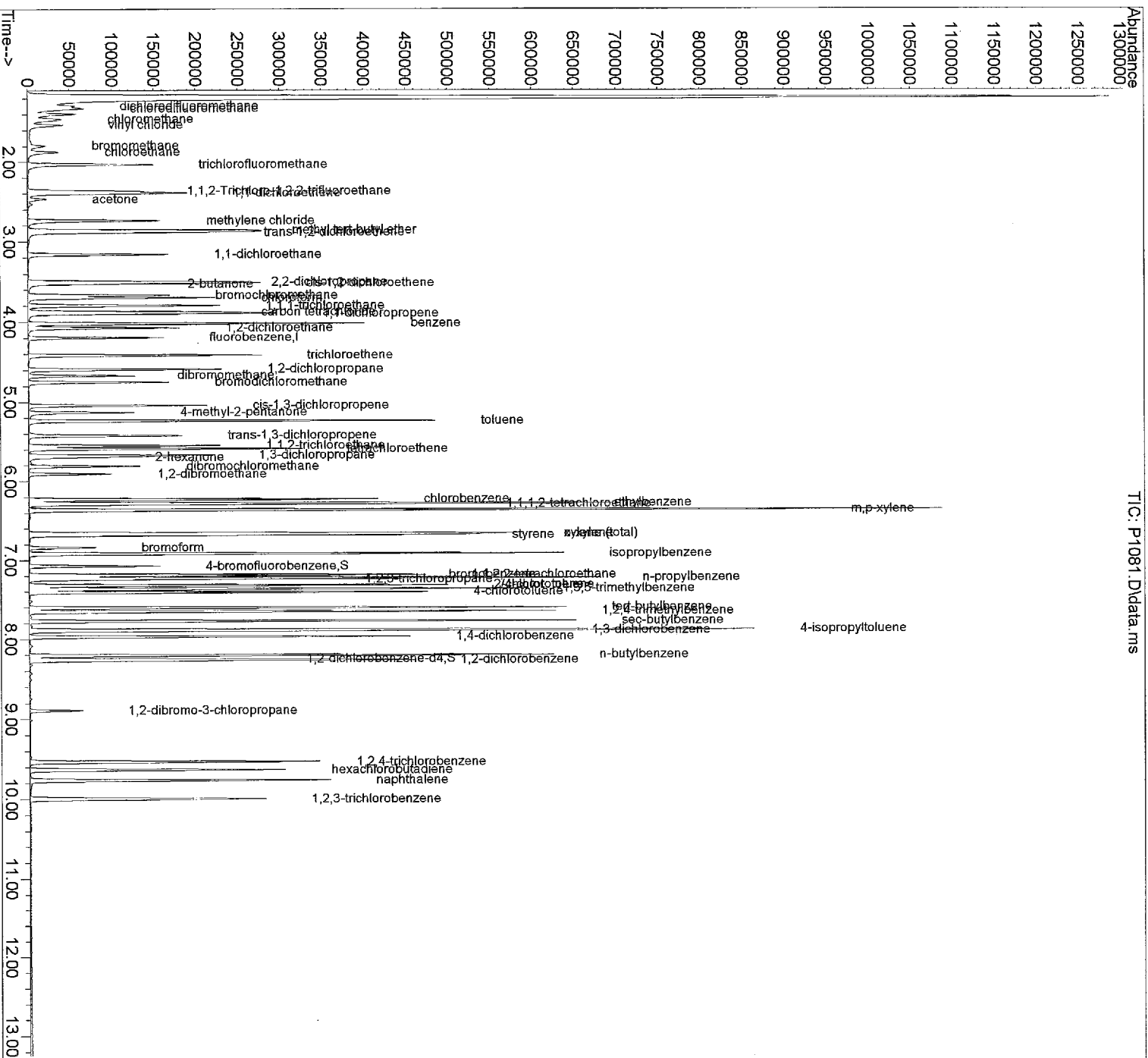
Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1081.D
Acq On : 2 Jun 2015 1:04
Operator : MN
Sample : 1505F17-010AMSD
Misc : HDR012,MW14,H2O,MSD,
ALS Vial : 42 Sample Multiplier: 1
InstName : HP5975

Quant Time: Jun 02 01:17:52 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2+A0100875/CL-2176/CK-0094/A0103959/A09938

Quant Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1081.D
 Acq On : 2 Jun 2015 1:04
 Operator : MN
 Sample : 1505F17-010AMSD
 Misc : HDR012,MW14,H2O,MSD,,
 ALS Vial : 42 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 02 01:17:52 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	91473	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	29547	5.39	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	107.80%	
87) 1,2-dichlorobenzene-d4	8.250	152	37658	4.78	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	95.60%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.325	51	65400	7.48	ug/l	# 95
3) dichlorodifluoromethane	1.294	85	45044	6.65	UG/L	94
4) chloromethane	1.459	50	53714	7.59	UG/L	100
5) vinyl chloride	1.532	62	45880	7.62	UG/L	97
6) bromomethane	1.794	94	12698	6.27	UG/L	95
7) chloroethane	1.873	64	32480	7.64	UG/L	98
9) trichlorofluoromethane	2.032	101	104368	10.99	UG/L	98
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	42833	7.51	UG/L	90
12) methyl tert-butyl ether	2.855	73	154163	9.83	UG/L	99
16) 1,1-dichloroethene	2.391	96	45693	8.64	UG/L	# 67
17) methylene chloride	2.739	84	51198	7.86	UG/L	# 84
19) acetone	2.471	43	21476	10.00	ug/l	# 43
20) trans-1,2-dichloroethene	2.879	96	52624	9.61	UG/L	89
22) 1,1-dichloroethane	3.160	63	113927	10.10	UG/L	97
23) 2,2-dichloropropane	3.501	77	70536	10.74	UG/L	99
24) cis-1,2-dichloroethene	3.513	96	55779	9.33	UG/L	# 77
29) bromochloromethane	3.666	128	28588	9.82	UG/L	# 85
32) chloroform	3.696	83	107987	10.49	UG/L	96
33) 2-butanone	3.525	43	32711	9.05	ug/l	91
34) 1,1,1-trichloroethane	3.794	97	102955	11.56	UG/L	97
35) carbon tetrachloride	3.873	117	87460	12.22	UG/L	100
37) 1,1-dichloropropene	3.891	75	82844	11.15	UG/L	99
38) benzene	4.019	78	207324	9.21	UG/L	99
40) 1,2-dichloroethane	4.074	62	103385	10.46	UG/L	93
41) trichloroethene	4.415	95	59812	10.29	UG/L	# 64
42) 1,2-dichloropropane	4.586	63	57319	9.56	UG/L	98
43) dibromomethane	4.665	93	32069	8.60	UG/L	# 86
46) bromodichloromethane	4.751	83	72677	10.32	UG/L	96
48) cis-1,3-dichloropropene	5.043	75	73217	9.65	UG/L	96
51) toluene	5.238	92	136064	9.57	UG/L	97
52) trans-1,3-dichloropropene	5.421	75	70058	9.64	UG/L	98
54) 1,1,2-trichloroethane	5.549	83	36280	8.20	UG/L	95
55) 4-methyl-2-pentanone	5.129	43	64718	9.51	ug/l	99
56) tetrachloroethene	5.592	166	71568	12.42	UG/L	95
57) 1,3-dichloropropane	5.671	76	82028	8.52	UG/L	98
58) dibromochloromethane	5.812	129	52466	10.25	UG/L	100
59) 1,2-dibromoethane	5.909	107	49730	9.28	UG/L	100
60) 2-hexanone	5.696	43	44748	8.73	ug/l	96
61) chlorobenzene	6.226	112	160787	10.61	UG/L	91
62) 1,1,1,2-tetrachloroethane	6.287	131	55105	10.87	UG/L	92
63) ethylbenzene	6.275	91	286229	10.99	UG/L	100
64) m,p-xylene	6.360	106	222776	22.27	UG/L	95
65) o-xylene	6.659	106	105899	11.13	UG/L	97
66) xylene (total)	6.659	106	105899	11.13	UG/L	97

Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1081.D
 Acq On : 2 Jun 2015 1:04
 Operator : MN
 Sample : 1505F17-010AMSD
 Misc : HDR012,MW14,H2O,MSD,,
 ALS Vial : 42 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 02 01:17:52 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

QLast Update : Mon May 04 07:36:48 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) styrene	6.677	104	174266	10.68	UG/L	86
68) bromoform	6.836	173	29274	10.29	UG/L	97
69) isopropylbenzene	6.915	105	302398	11.76	UG/L	100
71) bromobenzene	7.183	156	71397	10.98	UG/L	95
72) 1,1,2,2-tetrachloroethane	7.189	83	57401	7.61	UG/L	99
73) 1,2,3-trichloropropane	7.238	110	25056	9.48	UG/L #	85
74) n-propylbenzene	7.226	91	341961	10.83	UG/L	93
76) 2-chlorotoluene	7.317	91	203513	10.23	UG/L	96
77) 4-chlorotoluene	7.403	91	217308	10.56	UG/L	95
78) 2/4-chlorotoluene	7.317	91	450148m	20.88	UG/L	
79) 1,3,5-trimethylbenzene	7.366	105	262368	11.49	UG/L #	76
80) tert-butylbenzene	7.604	119	233206	12.06	UG/L	99
82) 1,2,4-trimethylbenzene	7.653	105	263853	11.58	UG/L	95
83) sec-butylbenzene	7.775	105	330114	11.58	UG/L	94
84) 1,3-dichlorobenzene	7.896	146	142815	11.07	UG/L	97
85) 4-isopropyltoluene	7.884	119	300344	12.06	UG/L	98
86) 1,4-dichlorobenzene	7.970	146	141923	11.06	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	132307	10.56	UG/L	98
89) n-butylbenzene	8.201	91	245302	11.23	UG/L	92
91) 1,2-dibromo-3-chloropr...	8.890	75	12362	9.01	UG/L	89
93) 1,2,4-trichlorobenzene	9.536	180	95450	13.76	UG/L	99
94) hexachlorobutadiene	9.634	225	49509	15.55	UG/L	95
95) naphthalene	9.762	128	247731	11.49	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	87650	13.24	UG/L	100

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

LFB060115

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012

Matrix: (soil/water)

WATERLab Sample ID: LFB060115Sample wt/vol: 5(g/mL) MLLab File ID: P1048.D

Level: (low/med)

LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(µg/L or µg/Kg) UG/L

Q

75-71-8	Dichlorodifluoromethane	10	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	9	Z MN 06/08/15
75-00-3	Chloroethane	13	
75-69-4	Trichlorofluoromethane	13	
75-35-4	1,1-Dichloroethene	7	
75-09-2	Methylene chloride	7	Z MN 06/08/15
156-60-5	trans-1,2-Dichloroethene	8	
75-34-3	1,1-Dichloroethane	8	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	8	
74-97-5	Bromochloromethane	9	
67-66-3	Chloroform	9	
71-55-6	1,1,1-Trichloroethane	9	
56-23-5	Carbon tetrachloride	10	
563-58-6	1,1-Dichloropropene	9	
107-06-2	1,2-Dichloroethane	9	
71-43-2	Benzene	8	
79-01-6	Trichloroethene	8	
78-87-5	1,2-Dichloropropane	8	
74-95-3	Dibromomethane	8	
75-27-4	Bromodichloromethane	9	
10061-01-5	cis-1,3-Dichloropropene	8	
108-88-3	Toluene	8	
10061-02-6	trans-1,3-Dichloropropene	9	
79-00-5	1,1,2-Trichloroethane	7	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	7	
124-48-1	Dibromochloromethane	9	
108-90-7	Chlorobenzene	9	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	9	
179601-23-1	m,p-Xylene	19	
95-47-6	o-Xylene	10	

VOLATILE ORGANICS ANALYSIS DATA SHEET

LFB060115

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: LFB060115Sample wt/vol: 5 (g/mL) MLLab File ID: P1048.DLevel: (low/med) LOW

Date Received: _____

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(µg/L or µg/Kg) UG/L

Q

100-42-5	Styrene	9	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	9	
108-86-1	Bromobenzene	9	
79-34-5	1,1,2,2-Tetrachloroethane	7	
96-18-4	1,2,3-Trichloropropane	9	
103-65-1	n-Propylbenzene	9	
	2/4-Chlorotoluene	17	
108-67-8	1,3,5-Trimethylbenzene	9	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	9	
104-51-8	n-Butylbenzene	9	
541-73-1	1,3-Dichlorobenzene	9	
106-46-7	1,4-Dichlorobenzene	9	
99-87-6	4-Isopropyltoluene	10	
95-50-1	1,2-Dichlorobenzene	9	
120-82-1	1,2,4-Trichlorobenzene	10	
87-68-3	Hexachlorobutadiene	10	
87-61-6	1,2,3-Trichlorobenzene	10	
1634-04-4	Methyl tert-butyl ether	10	
	Total Trihalomethanes	37	

Data Path : C:\DATA\2015\JUNE15\060115\
Data File : P1048.D
Acq On : 1 Jun 2015 10:35
Operator : MN
Sample : LFB060115
Misc : '','LFB','
ALS Vial : 53 Sample Multiplier: 1
InstName : HP5975

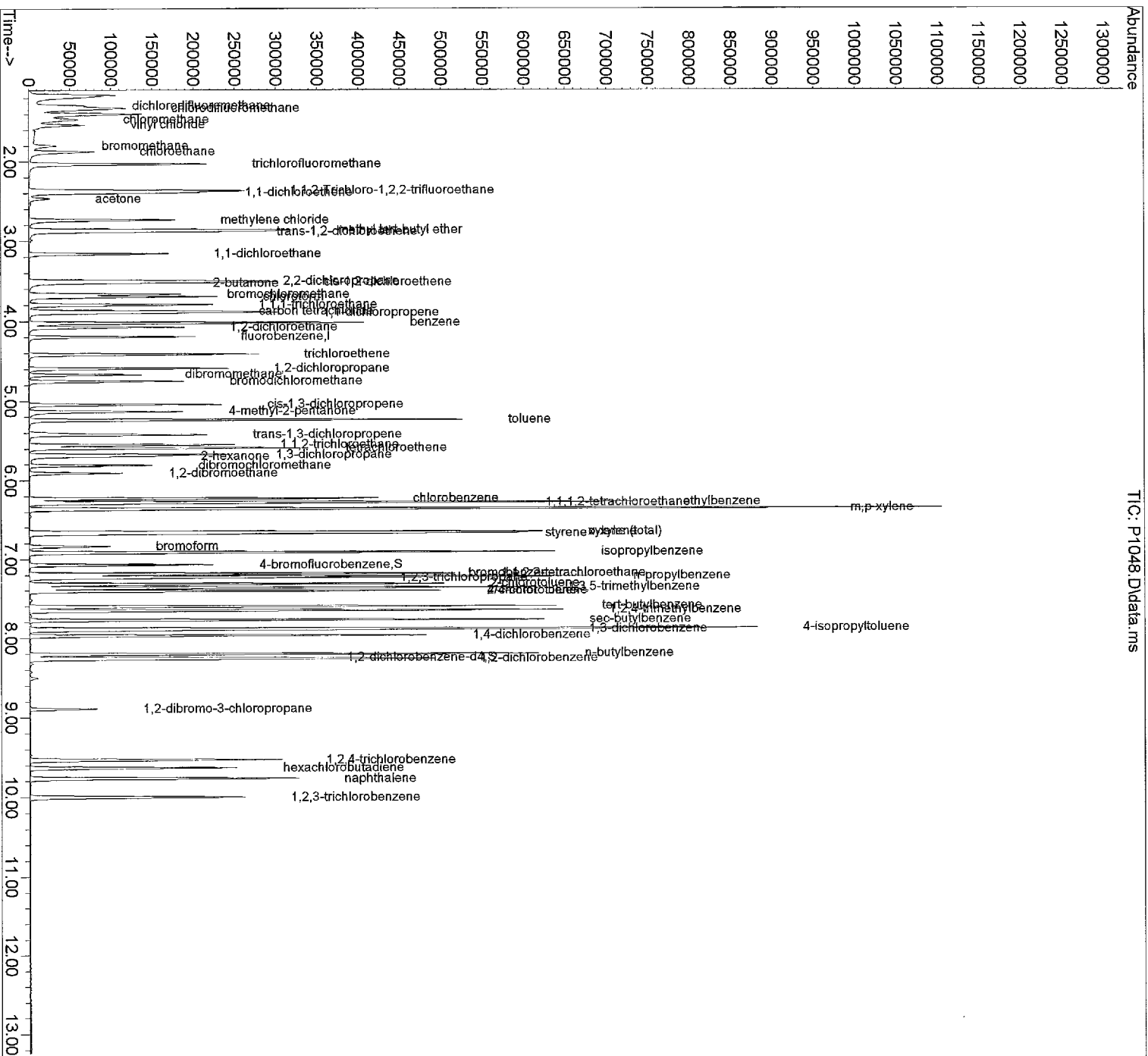
Quant Time: Jun 01 10:49:16 2015

Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M

Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938

Quant Update : Mon May 04 07:36:48 2015

Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1048.D
 Acq On : 1 Jun 2015 10:35
 Operator : MN
 Sample : LFB060115
 Misc : ,,,LFB,,
 ALS Vial : 53 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 10:49:16 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) fluorobenzene	4.196	96	114145	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	37924	5.55	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	111.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	46220	4.70	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	94.00%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.325	51	145840	13.37	ug/l	# 95
3) dichlorodifluoromethane	1.294	85	84920	10.04	UG/L	95
4) chloromethane	1.465	50	75993	8.61	UG/L	100
5) vinyl chloride	1.532	62	67892	9.03	UG/L	99
6) bromomethane	1.800	94	21623	8.55	UG/L	97
7) chloroethane	1.873	64	69911	13.17	UG/L	99
9) trichlorofluoromethane	2.032	101	149660	12.63	UG/L	100
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	83423	11.73	UG/L	# 89
12) methyl tert-butyl ether	2.861	73	188618	9.63	UG/L	98
16) 1,1-dichloroethene	2.391	96	46397	7.03	UG/L	# 68
17) methylene chloride	2.739	84	54810	6.74	UG/L	# 80
19) acetone	2.471	43	26303	9.81	ug/l	# 43
20) trans-1,2-dichloroethene	2.879	96	54017	7.90	UG/L	91
22) 1,1-dichloroethane	3.160	63	118092	8.39	UG/L	97
23) 2,2-dichloropropane	3.501	77	80719	9.85	UG/L	99
24) cis-1,2-dichloroethene	3.513	96	60864	8.16	UG/L	# 83
29) bromochloromethane	3.666	128	32103	8.84	UG/L	# 89
32) chloroform	3.696	83	113027	8.80	UG/L	99
33) 2-butanone	3.525	43	48663	10.78	ug/l	91
34) 1,1,1-trichloroethane	3.794	97	100748	9.07	UG/L	96
35) carbon tetrachloride	3.873	117	88679	9.93	UG/L	99
37) 1,1-dichloropropene	3.891	75	82316	8.88	UG/L	97
38) benzene	4.019	78	213605	7.60	UG/L	99
40) 1,2-dichloroethane	4.074	62	109470	8.87	UG/L	94
41) trichloroethene	4.415	95	60151	8.29	UG/L	# 62
42) 1,2-dichloropropane	4.592	63	60846	8.13	UG/L	97
43) dibromomethane	4.665	93	35330	7.60	UG/L	# 86
46) bromodichloromethane	4.751	83	79325	9.03	UG/L	99
48) cis-1,3-dichloropropene	5.043	75	80270	8.48	UG/L	97
51) toluene	5.238	92	145603	8.21	UG/L	97
52) trans-1,3-dichloropropene	5.421	75	80896	8.92	UG/L	99
54) 1,1,2-trichloroethane	5.549	83	40388	7.32	UG/L	96
55) 4-methyl-2-pentanone	5.129	43	99414	11.70	ug/l	98
56) tetrachloroethene	5.592	166	69164	9.61	UG/L	100
57) 1,3-dichloropropane	5.677	76	89657	7.47	UG/L	99
58) dibromochloromethane	5.811	129	59652	9.34	UG/L	100
59) 1,2-dibromoethane	5.909	107	56028	8.38	UG/L	97
60) 2-hexanone	5.696	43	73881	11.55	ug/l	97
61) chlorobenzene	6.232	112	173202	9.16	UG/L	91
62) 1,1,1,2-tetrachloroethane	6.287	131	61358	9.70	UG/L	94
63) ethylbenzene	6.281	91	293596	9.04	UG/L	99
64) m,p-xylene	6.360	106	232442	18.62	UG/L	99
65) o-xylene	6.659	106	114116	9.61	UG/L	98
66) xylene (total)	6.659	106	114116	9.61	UG/L	98

Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1048.D
 Acq On : 1 Jun 2015 10:35
 Operator : MN
 Sample : LFB060115
 Misc : ,,,LFB,,
 ALS Vial : 53 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 10:49:16 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) styrene	6.677	104	190386	9.35	UG/L	90
68) bromoform	6.836	173	36575	10.30	UG/L	99
69) isopropylbenzene	6.915	105	303033	9.45	UG/L	98
71) bromobenzene	7.183	156	74793	9.22	UG/L	92
72) 1,1,2,2-tetrachloroethane	7.189	83	67541	7.18	UG/L	98
73) 1,2,3-trichloropropane	7.238	110	30068	9.12	UG/L #	83
74) n-propylbenzene	7.226	91	341154	8.66	UG/L	91
76) 2-chlorotoluene	7.317	91	211809	8.54	UG/L	95
77) 4-chlorotoluene	7.409	91	224747	8.75	UG/L	95
78) 2/4-chlorotoluene	7.409	91	465397m	17.30	UG/L	
79) 1,3,5-trimethylbenzene	7.366	105	265381	9.32	UG/L #	77
80) tert-butylbenzene	7.604	119	232505	9.64	UG/L	97
82) 1,2,4-trimethylbenzene	7.653	105	274415	9.65	UG/L	95
83) sec-butylbenzene	7.775	105	324229	9.11	UG/L	93
84) 1,3-dichlorobenzene	7.896	146	149569	9.29	UG/L	97
85) 4-isopropyltoluene	7.884	119	300290	9.66	UG/L	97
86) 1,4-dichlorobenzene	7.970	146	148550	9.28	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	143538	9.18	UG/L	97
89) n-butylbenzene	8.201	91	244413	8.96	UG/L	92
91) 1,2-dibromo-3-chloropr...	8.890	75	15075	8.80	UG/L	98
93) 1,2,4-trichlorobenzene	9.536	180	84693	9.79	UG/L	99
94) hexachlorobutadiene	9.634	225	40450	10.18	UG/L	96
95) naphthalene	9.768	128	241030	8.96	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	80589	9.75	UG/L	100

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

LFB060115A

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: LFB060115ASample wt/vol: 5 (g/mL) MLLab File ID: P1068.DLevel: (low/med) LOW

Date Received: _____

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	7	
75-01-4	Vinyl chloride	6	
74-83-9	Bromomethane	6	Z MN 06/08/15
75-00-3	Chloroethane	6	Z MN 06/08/15
75-69-4	Trichlorofluoromethane	9	
75-35-4	1,1-Dichloroethene	7	
75-09-2	Methylene chloride	7	Z MN 06/08/15
156-60-5	trans-1,2-Dichloroethene	8	
75-34-3	1,1-Dichloroethane	8	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	8	
74-97-5	Bromochloromethane	8	
67-66-3	Chloroform	8	
71-55-6	1,1,1-Trichloroethane	9	
56-23-5	Carbon tetrachloride	10	
563-58-6	1,1-Dichloropropene	9	
107-06-2	1,2-Dichloroethane	9	
71-43-2	Benzene	8	
79-01-6	Trichloroethene	8	
78-87-5	1,2-Dichloropropane	8	
74-95-3	Dibromomethane	7	
75-27-4	Bromodichloromethane	8	
10061-01-5	cis-1,3-Dichloropropene	8	
108-88-3	Toluene	8	
10061-02-6	trans-1,3-Dichloropropene	9	
79-00-5	1,1,2-Trichloroethane	7	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	7	
124-48-1	Dibromochloromethane	9	
108-90-7	Chlorobenzene	9	
630-20-6	1,1,1,2-Tetrachloroethane	9	
100-41-4	Ethylbenzene	9	
179601-23-1	m,p-Xylene	19	
95-47-6	o-Xylene	9	

VOLATILE ORGANICS ANALYSIS DATA SHEET

LFB060115A

Lab Name: PACE ANALYTICAL

Contract: _____

Lab Code: 10478Case No.: HDR-ALBA SAS No.: _____SDG No.: HDR012Matrix: (soil/water) WATERLab Sample ID: LFB060115ASample wt/vol: 5 (g/mL) MLLab File ID: P1068.DLevel: (low/med) LOW

Date Received: _____

% Moisture: not dec.

Date Analyzed: 06/01/15GC Column: R-624 0.18ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

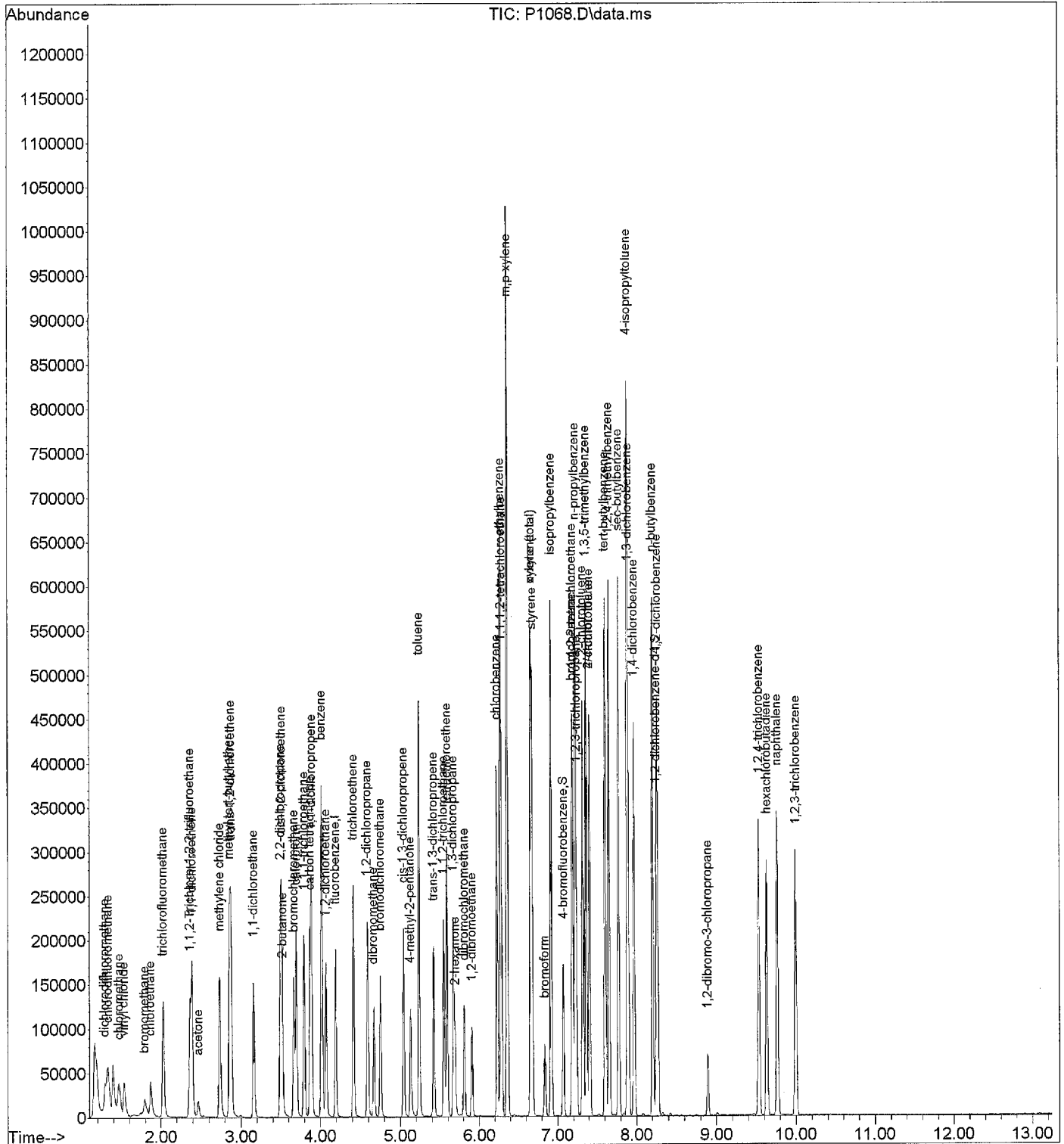
(µg/L or µg/Kg) UG/L

Q

100-42-5	Styrene	9	
75-25-2	Bromoform	9	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	9	
79-34-5	1,1,2,2-Tetrachloroethane	7	
96-18-4	1,2,3-Trichloropropane	9	
103-65-1	n-Propylbenzene	9	
	2/4-Chlorotoluene	17	
108-67-8	1,3,5-Trimethylbenzene	9	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	9	
135-98-8	sec-Butylbenzene	9	
104-51-8	n-Butylbenzene	9	
541-73-1	1,3-Dichlorobenzene	9	
106-46-7	1,4-Dichlorobenzene	9	
99-87-6	4-Isopropyltoluene	10	
95-50-1	1,2-Dichlorobenzene	9	
120-82-1	1,2,4-Trichlorobenzene	12	
87-68-3	Hexachlorobutadiene	13	
87-61-6	1,2,3-Trichlorobenzene	12	
1634-04-4	Methyl tert-butyl ether	8	
	Total Trihalomethanes	35	

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Data Path : C:\DATA\2015\JUNE15\060115\  
Data File : P1068.D  
Acq On    : 1 Jun 2015 19:41  
Operator  : MN  
Sample    : LFB060115A  
Misc      : ,,,LFB,,  
ALS Vial  : 29 Sample Multiplier: 1  
InstName  : HP5975
```

Quant Time: Jun 01 19:55:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
Quant Title : EPA524.2*A0100875/CL-2176\CK-0094/A0103959/A09938
QLast Update : Mon May 04 07:36:48 2015
Response via : Initial Calibration



Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1068.D
 Acq On : 1 Jun 2015 19:41
 Operator : MN
 Sample : LFB060115A
 Misc : ,,,LFB,,
 ALS Vial : 29 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 19:55:20 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) fluorobenzene	4.196	96	105962	5.00	UG/L	0.00
System Monitoring Compounds						
70) 4-bromofluorobenzene	7.073	174	36803	5.80	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	116.00%	
87) 1,2-dichlorobenzene-d4	8.250	152	44296	4.86	UG/L	0.00
Spiked Amount	5.000	Range 70 - 130	Recovery	=	97.20%	
Target Compounds						
						Qvalue
2) chlorodifluoromethane	1.331	51	66521	6.57	ug/l	# 96
3) dichlorodifluoromethane	1.288	85	47678	6.07	UG/L	95
4) chloromethane	1.471	50	53866	6.57	UG/L	100
5) vinyl chloride	1.532	62	44725	6.41	UG/L	100
6) bromomethane	1.794	94	13085	5.57	UG/L	99
7) chloroethane	1.867	64	31789	6.45	UG/L	99
9) trichlorofluoromethane	2.026	101	93768	8.53	UG/L	99
11) 1,1,2-Trichloro-1,2,2-...	2.367	101	42270	6.40	UG/L	# 88
12) methyl tert-butyl ether	2.855	73	144915	7.97	UG/L	99
16) 1,1-dichloroethene	2.391	96	42375	6.92	UG/L	# 74
17) methylene chloride	2.739	84	51792	6.86	UG/L	# 81
19) acetone	2.471	43	19763	7.94	ug/l	# 43
20) trans-1,2-dichloroethene	2.873	96	49494	7.80	UG/L	90
22) 1,1-dichloroethane	3.160	63	105984	8.11	UG/L	97
23) 2,2-dichloropropane	3.501	77	75839	9.97	UG/L	100
24) cis-1,2-dichloroethene	3.513	96	55168	7.97	UG/L	# 84
29) bromochloromethane	3.666	128	28043	8.32	UG/L	# 86
32) chloroform	3.696	83	101257	8.49	UG/L	97
33) 2-butanone	3.525	43	32368	7.73	ug/l	93
34) 1,1,1-trichloroethane	3.794	97	94438	9.16	UG/L	97
35) carbon tetrachloride	3.873	117	79236	9.56	UG/L	98
37) 1,1-dichloropropene	3.891	75	75332	8.76	UG/L	99
38) benzene	4.019	78	195651	7.50	UG/L	100
40) 1,2-dichloroethane	4.074	62	99376	8.68	UG/L	93
41) trichloroethene	4.415	95	55878	8.30	UG/L	# 62
42) 1,2-dichloropropane	4.586	63	54970	7.91	UG/L	99
43) dibromomethane	4.665	93	31100	7.20	UG/L	# 84
46) bromodichloromethane	4.751	83	68313	8.38	UG/L	97
48) cis-1,3-dichloropropene	5.043	75	73666	8.38	UG/L	98
51) toluene	5.238	92	131423	7.98	UG/L	97
52) trans-1,3-dichloropropene	5.421	75	71595	8.51	UG/L	100
54) 1,1,2-trichloroethane	5.549	83	35923	7.01	UG/L	92
55) 4-methyl-2-pentanone	5.129	43	62600	7.94	ug/l	99
56) tetrachloroethene	5.592	166	67158	10.06	UG/L	97
57) 1,3-dichloropropane	5.671	76	82250	7.38	UG/L	99
58) dibromochloromethane	5.811	129	50722	8.55	UG/L	100
59) 1,2-dibromoethane	5.909	107	49268	7.94	UG/L	97
60) 2-hexanone	5.696	43	45791	7.71	ug/l	95
61) chlorobenzene	6.226	112	156293	8.90	UG/L	91
62) 1,1,1,2-tetrachloroethane	6.287	131	52789	8.99	UG/L	93
63) ethylbenzene	6.275	91	270325	8.96	UG/L	98
64) m,p-xylene	6.360	106	215194	18.57	UG/L	99
65) o-xylene	6.659	106	102616	9.31	UG/L	99
66) xylene (total)	6.659	106	102616	9.31	UG/L	99

Data Path : C:\DATA\2015\JUNE15\060115\
 Data File : P1068.D
 Acq On : 1 Jun 2015 19:41
 Operator : MN
 Sample : LFB060115A
 Misc : ,,,LFB,,
 ALS Vial : 29 Sample Multiplier: 1
 InstName : HP5975

Quant Time: Jun 01 19:55:20 2015
 Quant Method : C:\MSDCHEM\1\METHODS\524P_0503.M
 Quant Title : EPA524.2*A0100875/CL-2176/CK-0094/A0103959/A09938
 QLast Update : Mon May 04 07:36:48 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) styrene	6.677	104	172672	9.14	UG/L	88
68) bromoform	6.836	173	30123	9.14	UG/L	99
69) isopropylbenzene	6.915	105	284071	9.54	UG/L	100
71) bromobenzene	7.183	156	69507	9.23	UG/L	92
72) 1,1,2,2-tetrachloroethane	7.189	83	59103	6.77	UG/L	97
73) 1,2,3-trichloropropane	7.238	110	26741	8.74	UG/L #	86
74) n-propylbenzene	7.226	91	320181	8.76	UG/L	93
76) 2-chlorotoluene	7.317	91	194653	8.45	UG/L	96
77) 4-chlorotoluene	7.403	91	205192	8.61	UG/L	95
78) 2/4-chlorotoluene	7.403	91	426749m	17.09	UG/L	
79) 1,3,5-trimethylbenzene	7.360	105	245864	9.30	UG/L #	76
80) tert-butylbenzene	7.604	119	220374	9.84	UG/L	98
82) 1,2,4-trimethylbenzene	7.653	105	249996	9.47	UG/L	95
83) sec-butylbenzene	7.775	105	307358	9.30	UG/L	94
84) 1,3-dichlorobenzene	7.896	146	138479	9.27	UG/L	95
85) 4-isopropyltoluene	7.884	119	283428	9.82	UG/L	98
86) 1,4-dichlorobenzene	7.970	146	139236	9.37	UG/L	99
88) 1,2-dichlorobenzene	8.262	146	130549	8.99	UG/L	98
89) n-butylbenzene	8.201	91	236503	9.34	UG/L	94
91) 1,2-dibromo-3-chloropr...	8.890	75	12563	7.90	UG/L	97
93) 1,2,4-trichlorobenzene	9.536	180	95644	11.91	UG/L	98
94) hexachlorobutadiene	9.634	225	48185	13.07	UG/L	96
95) naphthalene	9.762	128	247254	9.90	UG/L	100
96) 1,2,3-trichlorobenzene	10.000	180	91665	11.95	UG/L	100

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



575 Broad Hollow Road
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fax. 631.420.8436

**COMPUTATIONS FOR VOLATILE ORGANICS
PERFORMED BY RTE DATA SYSTEM OF HP**

$$\text{CONC} = \frac{A_x}{A_{is} \times \text{RRF}} \frac{I_s}{W}$$

WHERE:

CONC = Concentration in sample ($\mu\text{g/L}$ or $\mu\text{g/kg}$)

A_x = Area of characteristic ion of compound

A_{is} = Area of characteristic ion of internal standard

RRF = Relative response factor as area per (ng) of compound, divided
by area per ng of respective internal standard

I_s = Amount of internal standard injected (ng)

W = Volume of sample in (mL) or dry weight (g)

Generally the amount of each internal standard injected is 250 ng.



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- V. DOCUMENTATION FOR VOLATILE ORGANICS**
 - A. LOG BOOK PAGES**
 - B. DILUTION LOG***
 - C. REPORTING ANALYST SIGNATURE PAGE**

***IF REQUIRED**



GC/MS VOLATILE ANALYSIS

INSTRUMENT: HP5975-1

SCAN: VOA

COLUMN: RTX-624

Std. Log Pg.	Prep Date	Sol'n ID	Lot #
CAL	10	5/3/15	OWIM 580
ICV	10	↓	VOANix
MS	10	↓	
QC CHECK			
SURR.	10	5/3/15	524IS/Sur
I.S.	↓	↓	↓
BFB	1 Int.	3/4/15	BFB

Balance ID: NA
pH paper lot #: 224014
CI strip lot #: 2125740

ANALYST'S SIGNATURE	DATE	RUN #	LAB SAMPLE ID	CLIENT SAMPLE ID	CONTAINER #	INJ TIME	VOL WT	HEAT. PURG. Y/N	METHOD	pH	CI	QDEL	IMPORT	TEST CODE	SDG	COMMENTS
✓	05/11/15	18	1504M70-02D	NA	2	1907	5ml	N	524P0325	42	0	✓	✓	524DW	NA	
		19	1804M64-001A			1932						✓	✓			
✓	5/3/15	20	1504K24-004A Dup		✓	1957						✓	✓			
KG		21	VBLK		NA	1006						✓	✓			
		22	BFB 250g			1048						✓	✓			
		23	VBLK			1153						✓	✓			
		24	VBLK			—						✓	✓			
		25	VBLK			1319						✓	✓			
		26	VSTD 0.50			1426						✓	✓			
		27	VSTD 5.0			1507						✓	✓			
		28	VSTD 10			1549						✓	✓			
		29	VSTD 20			1630						✓	✓			
		30	VSTD 50			1711						✓	✓			
		31	VSTD 100			1752						✓	✓			
		32	BFB 250g			1834						✓	✓			
		33	ICV 010			1912						✓	✓			
		34	VSTD 010			1955						✓	✓			
		35	VBLK 05030			2019						✓	✓			
✓	5/3/15	36	QC 372		✓	2044	✓	✓	✓	✓	✓	✓	✓	✓	✓	



GC/MS VOLATILE ANALYSIS

INSTRUMENT: HP5975-1

SCAN: VOA

COLUMN: RTX-624

	Std. Log Pg.	Prep Date	Sol'n ID	Lot #
CAL	10/12	5/22/15	DWMSO	CM10210/CE 5034/21405096/A0107061/2R160129/310
ICV	10	5/13/15	VOA MIX	A0105270/A0107437/CM0423/21410161:
MS	10	↓	↓	↓
QC CHECK	10	↓	↓	↓
SURR.	10	5/13/15	524 Int/Sur	A0104747
I.S.	↓	↓	↓	↓
BFB	Int	3/4/15	BFB	DFB 50 ng
				Balance ID: NA
				pH paper lot #: 224014
				Cl strip lot #: 1125740

ANALYST'S SIGNATURE	DATE	RUN #	LAB SAMPLE ID	CLIENT SAMPLE ID	CONTAINER #	INJ TIME	VOL WT	HEAT. PURG. Y/N	METHOD	pH	CI	QDEL	IMPORT	TEST CODE	SDG	COMMENTS
KGK	05/31/15	P1034							524.2							
		35														
		36														
		37														
		38														
		39														
		40														
		41														
		42														
		43														
Wor	06/01/15	44	BFB 25ng	NA	NA	0800	5ml	N	524P0503	NA	0	✓	✓	524DW		
		45	VSTD 010			0823				52		✓	✓			#041315-3B2A
		46	VSTD 010			0922						✓	✓			
		47	VBLK 060115			0946						✓	✓			
		48	LF0060115			1035						✓	✓			
		49	VSTD 0.50	↓	↓	1100						✓	✓			
		50	1505F17-001A	AV 2	2	1125						✓	✓		HDR012	
		51	-003A MW1		2	1150						✓	✓			
		52	-004A MW3		2	1215	↓	↓	↓	↓	↓	✓	✓	↓	↓	



GC/MS VOLATILE ANALYSIS

INSTRUMENT: HP5975-1

SCAN: VOA

COLUMN: RTX-624

Std. Log Pg.	Prep Date	Sol'n ID	Lot #
CAL 10/12	5/3-5/22	DWM580	CN1640/CN6734/214105/10107061/21215012
ICV 10	5/3	VOA Mix	AD105270/AD167437/CN05023/2141061
MS			
QC CHECK			
SURR.		524 Int/Av	AD104747
I.S.			
BFB	3/4/15	BFB	BFB 50 ng

Balance ID: NA
pH paper lot #: 224014
CI strip lot #: 112540

ANALYST'S SIGNATURE	DATE	RUN #	LAB SAMPLE ID	CLIENT SAMPLE ID	CONTAINER #	INJ TIME	VOL WT	HEAT. PURG. Y/N	METHOD	pH	CI	QDEL	IMPORT	TEST CODE	SDG	COMMENTS
J. Lee	06/01/2015	P1053	1505F17-005A	MW4B	2	1240	5ml	N	524 POS 03	42	0	✓	✓	524 DVI	TI PRD12	
		54	1505F19-006A	MW6		1304						✓	✓			
		55	-007A	MW7		1329						✓	✓			
		56	-002A	MWRC1		1355						✓	✓			
		57	-012A	RW1		1419						✓	✓			
		58	-013A	RW2		1444						✓	✓			
		59	-014A	RW3	↓	1509						✓	✓			
		60	-013A	p RW2	2	1533				↓		✓	✓		↓	
		61	DVB 25 ng	NA	NA	1558				NA		✓	✓			
		62	✓STD010			1623				42		✓	✓			Δ#04305-3B2A
		63	✓BLU06015A			1648						✓	✓			
		64	✓LFS060115A			1712						✓	✓			
		65	✓BLU060115A			1737						✓	✓			
		66	✓BLU060115A			1827						✓	✓			
		67	No data			1941						✓	✓			
		68	✓LFS060115A			2006						✓	✓			
		69	✓STD050		↓	2006						✓	✓			
		70	1505F17-015A	TB1	2	2031						✓	✓		TI PRD12	
↓	↓	71	-016A		2	2056	↓	↓	↓	↓	↓	✓	✓	↓	↓	

① MW06/02/2015

GC/MS VOLATILE ANALYSIS

INSTRUMENT: HP5975-1

SCAN: VOA

COLUMN: RTX-624

Std. Log Pg	Prep Date	Sol'n ID	Lot #
CAL 10/12	5/3-5/22	DM 580	CM 10613 / CM 8034 / 24057896 / A7107061212 / 50129/31
ICV 10	5/3/15	VOA Mix	A0105270 / A0107437 / CN0423 / 214016
MS			
QC CHECK			
SURR.		524 Std / 5	A0104747
IS.			
BFB	1 Pot	3/4/15	BFB SDng
			Balance ID: NA
			pH paper lot #: 224014
			Cl strip lot #: 1125740

ANALYST'S SIGNATURE	DATE	RUN #	LAB SAMPLE ID	CLIENT SAMPLE ID	CONTAINER #	INJ TIME	VOL WT	HEAT PURG. Y/N	METHOD	pH	CI	QDEL	IMPORT	TEST CODE	SDG	COMMENTS
	06/01/15	P1072	ISDSF17-008A	MW12	2	2121	5ml	N	524 POS03	2	6	✓	✓	524 DXX	HDR012	
		73	-009A	MW113	1	2145						✓	✓			
		74	-010A	MW114		2210						✓	✓			
		75	-011A	MW164		2235						✓	✓			
		76	-02A	MWRC1		2300						✓	✓			
		77	-02A	RW1		2325						✓	✓			
		78	-013A	RW2		2350						✓	✓			
		79	-014A	RW3		0014						✓	✓			
		80	ISDSF17-010A	MW14		0039						✓	✓			
		81	-010A	MW14	✓	0104						✓	✓			
		82	ISDSF59-001A	NA	2	0129				✓		✓	✓			
	06/02/15	83	BFB 25ng	NA	NA	0619				NA		✓	✓		NA	
		84	VSTD010			0649				2		✓	✓			Δ#041315 - 3B 2A
		85	VBLK060215			0718						✓	✓			
		86	VBLK060215			0908						✓	✓			
		87	LEB060215			1022						✓	✓			
		88	VSTD0.50			1111				✓		✓	✓			
		89	ISDSF13-01A		2	1136				7		✓	✓		NA HDR012	
		90	-002A		2	1201	✓	✓	✓	7	✓	✓	✓			

① MW06/02/2015



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SDG: HDR012
SCAN: VOA

This data package was reported by the undersigned. This reporting includes data calculations, manual edits, if necessary, and compilation of raw data. The information presented is true and correct to the best of my knowledge.

Signature: _____

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, written over a horizontal line.

Date: 06/08/2015