

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Identification and Analytical Requirements Summary

Project Name : Villa project groundwater

SDG : G2261

Customer Sample ID	Laboratory Sample ID	Analytical Requirements				
		MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other
MW-8S	G2261-01	OLC3.2_VOA				SEE DATA
MW-9S	G2261-02	OLC3.2_VOA				SEE DATA
MW-7S	G2261-03	OLC3.2_VOA				SEE DATA
MW-5S	G2261-04	OLC3.2_VOA				SEE DATA
MW-4S	G2261-05	OLC3.2_VOA				SEE DATA
MW-6S	G2261-06	OLC3.2_VOA				SEE DATA
FB120408	G2261-07	OLC3.2_VOA				SEE DATA
TRIP BLANK	G2261-08	OLC3.2_VOA				

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSVOA

Project Name : Villa project groundwater

SDG : G2261

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
OLC3.2_VOA					
G2261-01D	AQ	12/3/2008	12/4/2008	NA	12/12/2008
G2261-02D	AQ	12/3/2008	12/4/2008	NA	12/11/2008
G2261-03D	AQ	12/3/2008	12/4/2008	NA	12/11/2008
G2261-04D	AQ	12/3/2008	12/4/2008	NA	12/11/2008
G2261-05D	AQ	12/3/2008	12/4/2008	NA	12/11/2008
G2261-06D	AQ	12/4/2008	12/4/2008	NA	12/11/2008
G2261-07A	AQ	12/4/2008	12/4/2008	NA	12/11/2008
G2261-08A	AQ	12/4/2008	12/4/2008	NA	12/11/2008

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSVOA

Project Name : Villa project groundwater

SDG : G2261

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
OLC3.2_VOA					
G2261-01D	AQ	OLC3.2_VOA	NA	LOW	1
G2261-02D	AQ	OLC3.2_VOA	NA	LOW	1
G2261-03D	AQ	OLC3.2_VOA	NA	LOW	1
G2261-04D	AQ	OLC3.2_VOA	NA	LOW	1
G2261-05D	AQ	OLC3.2_VOA	NA	LOW	1
G2261-06D	AQ	OLC3.2_VOA	NA	LOW	1
G2261-07A	AQ	OLC3.2_VOA	NA	LOW	1
G2261-08A	AQ	OLC3.2_VOA	NA	LOW	1

Analytical Data Package for CDM

Client Project No.: Villa

Mitkem Work Order ID: G2261

December 30, 2008

Prepared For: CDM
Raritan Plaza I
Raritan Center
Edison NJ 08818-3142
Attn: Ms. Cristina Ramacciotti

Prepared By: Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to CDM's Villa project. Under this deliverable, analysis results are presented for eight aqueous samples that were received on December 5, 2008. Analyses were performed per specification in project contract and discussion with client. Following the narrative is the Mitkem Work Order for cross-referencing client sample ID and laboratory sample ID.

The analyses were performed and reported per NYSDEC ASP (2000 update) requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. OLC 3.2 Volatile Analysis:

Trap used for instrument V5: OI Analytical #10 trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve.

GC column used: 30 m x 0.25 mm id (1.4 um film thickness) DB-624 capillary column.

Samples were preserved with hydrochloric acid with pH<2.

Surrogate recovery: recoveries were within the QC limits with the exception of 2-hexanone-d5 in sample MW-9S, MW-7S, MW-5S, MW-4S, MW-6S, FB120408, Trip Blank and MW-8S. No more than 1 DMC was outside the QC limits in any field sample. This method allows up to three DMC outside the limits.

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: no unusual observation was made for the analysis.

3. RSK 175 Analysis:

Lab control sample/ lab control sample duplicate: spike recoveries were within the QC limits.

Sample analysis: no unusual observation was made for the analysis.

4. Wet Chemistry analysis:

Lab control sample: spike recoveries were within the QC limits.

Duplicate analysis: duplicate was performed on sample MW-6S for total organic carbon analysis. Percent RPDs were within the QC limits.

Matrix spike analysis: matrix spike was performed on sample MW-6S. Spike recovery was outside the QC limits indicating possible matrix interference. Matrix spike duplicate could not be performed due to insufficient sample volume.


Sample analysis: no other unusual observation was made for the analysis.

Sulfate, Chloride, Nitrite and Nitrate by method EPA 300 was subcontracted to Spectrum Analytical, Inc. located in Agawam, MA. The entire Spectrum report is submitted after Mitkem's report.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, 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.


Shirley Ng
Project Manager
12/30/08

Sample Transmittal Documentation

Mitkem Laboratories

30/Dec/08 16:26

WorkOrder: G2261

Client ID: CDM_NJ

Project: Villa project groundwater

Location:

Case:

SDG:

PO: 0897-66742

HC Due: 12/26/08

Fax Due:

Report Level: ASP-B

EDD: MEDD4_2-3

Comments: Send a copy of the ASP-B to Nancy Patak: Data Validation Services, 1796 Craftsburg Road, Greensboro, VT 05841 (802) 533-9206

Sample ID	HS Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Lab Test Comments	Hold	MS	SEL	Storage
G2261-01A	MW-8S	12/03/2008 12:00	12/04/2008	Aqueous	SM2320_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F2
G2261-01B	MW-8S	12/03/2008 12:00	12/04/2008	Aqueous	SM5310B_TOC_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-01C	MW-8S	12/03/2008 12:00	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-01D	MW-8S	12/03/2008 12:00	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-01E	MW-8S	12/03/2008 12:00	12/04/2008	Aqueous	E300IC_W	SPECTRUM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
G2261-02A	MW-9S	12/03/2008 10:15	12/04/2008	Aqueous	SM2320_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F2
G2261-02B	MW-9S	12/03/2008 10:15	12/04/2008	Aqueous	SM5310B_TOC_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-02C	MW-9S	12/03/2008 10:15	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-02D	MW-9S	12/03/2008 10:15	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-02E	MW-9S	12/03/2008 10:15	12/04/2008	Aqueous	E300IC_W	SPECTRUM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
G2261-03A	MW-7S	12/03/2008 10:15	12/04/2008	Aqueous	SM2320_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F2

Client Rep: Shirley S Ng

Mitkem Laboratories

30/Dec/08 16:26

WorkOrder: G2261

Client ID: CDM_NJ

Project: Villa project groundwater

Location:

Comments: Send a copy of the ASP-B to Nancy Patak: Data Validation Services, 1796 Craftsburg Road, Greensboro, VT 05841 (802) 533-9206

Case:

SDG:

PO: 0897-66742

HC Due: 12/26/08

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Report Level: ASP-B

EDD: MEDD4_2-3

Sample ID	HS Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Lab Test Comments	Hold	MS	SEL	Storage
G2261-03B	MW-7S	12/03/2008 10:15	12/04/2008	Aqueous	SM5310B_TOC_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-03C	MW-7S	12/03/2008 10:15	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-03D	MW-7S	12/03/2008 10:15	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-03E	MW-7S	12/03/2008 10:15	12/04/2008	Aqueous	E300IC_W	SPECTRUM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
G2261-04A	MW-5S	12/03/2008 13:27	12/04/2008	Aqueous	SM2320_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F2
G2261-04B	MW-5S	12/03/2008 13:27	12/04/2008	Aqueous	SM5310B_TOC_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-04C	MW-5S	12/03/2008 13:27	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-04D	MW-5S	12/03/2008 13:27	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-04E	MW-5S	12/03/2008 13:27	12/04/2008	Aqueous	E300IC_W	SPECTRUM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
G2261-05A	MW-4S	12/03/2008 15:00	12/04/2008	Aqueous	SM2320_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F2

0007

Client Rep: Shirley S Ng

Mitkem Laboratories

30/Dec/08 16:26

WorkOrder: G2261

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PO: 0897-66742

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Report Level: ASP-B

EDD: MEDD4_2-3

Comments: Send a copy of the ASP-B to Nancy Patak: Data Validation Services, 1796 Craftsburg Road, Greensboro, VT 05841 (802) 533-9206

Sample ID	HS Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Lab Test Comments	Hold	MS	SEL	Storage
G2261-05B	MW-4S	12/03/2008 15:00	12/04/2008	Aqueous	SM5310B_TOC_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-05C	MW-4S	12/03/2008 15:00	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-05D	MW-4S	12/03/2008 15:00	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-05E	MW-4S	12/03/2008 15:00	12/04/2008	Aqueous	E300IC_W	SPECTRUM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
G2261-06A	MW-6S	12/04/2008 9:00	12/04/2008	Aqueous	SM2320_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F2
G2261-06B	MW-6S	12/04/2008 9:00	12/04/2008	Aqueous	SM5310B_TOC_W		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G2
G2261-06C	MW-6S	12/04/2008 9:00	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-06D	MW-6S	12/04/2008 9:00	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-06E	MW-6S	12/04/2008 9:00	12/04/2008	Aqueous	E300IC_W	SPECTRUM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
G2261-07A	FBI20408	12/04/2008 8:45	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA
G2261-07B	FBI20408	12/04/2008 8:45	12/04/2008	Aqueous	RSK175		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA

Client Rep: Shirley S Ng

Client ID: CDM_NJ Case: HC Due: 12/26/08 Report Level: ASP-B
 Project: Villa project groundwater SDG: Fax Due: EDD: MEDD4_2-3
 Location: PO: 0897-66742

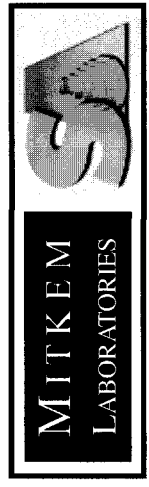
Comments: Send a copy of the ASP-B to Nancy Patak: Data Validation Services, 1796 Craftsburg Road, Greensboro, VT 05841 (802)
 533-9206

Sample ID	HS Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Lab Test Comments	Hold	MS	SEL	Storage
G2261-08A	TRIP BLANK	12/04/2008 0:00	12/04/2008	Aqueous	OLC3.2_VOA	NYC ADD LCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
 Standard TAT - 10 to 15 business days
 Rush TAT - Date Needed: _____
 • All TATs subject to laboratory approval.
 • Min. 24-hour notification needed for rushes.
 • Samples disposed of after 60 days unless otherwise instructed.



A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Report To: C. Ramaciotti Invoice To: _____
CDM
 Project Mgr.: S. Kelleog P.O. No.: _____ RQN: _____
 Project No.: Villa
 Site Name: _____
 Location: Babylon, NY State: _____
 Sampler(s): TH/SB

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
 7=CH₃OH 8=NaHSO₄ 9= H₂PO₄ 10= ICE
 DW=Drinking Water GW=Groundwater WW=Wastewater
 O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
 X1= D1 X2= _____ X3= _____
 G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers:				Analyses:				QA Reporting Notes: (check if needed)	
						# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Total Air	TOC	MFI	OLC O3d		NO ₂ , NO ₃ , SO ₄ by EPA 800
<u>62261</u>															
01	MW-8S	12/03/08	1200	G	GW	7		2		X	X	X	X		
02	MW-9S		1015							X	X	X	X		
03	MW-7S		1015							X	X	X	X		
04	MW-5S		1327							X	X	X	X		
05	MW-4S		1500							X	X	X	X		
06	MW-6S	12/04/08	0900							X	X	X	X		
07	FBI20408	"	0845		XI	5				X	X	X	X		
08	TRIP BLANK				"	2					X				

Relinquished by: [Signature] Date: 12/4/08 Time: 11:15
 Received by: [Signature] Date: 12/4/08 Time: 15:30
 Date: 12/5/08 Time: 19:00

Fax results when available to () _____
 E-mail to _____
 EDD Format _____
 Condition upon receipt: Iced Ambient °C

9109

MITKEM LABORATORIES

Sample Condition Form

Received By: <u>CAW</u>		Reviewed By: <u>SN</u>		Date: <u>12/5/08</u>		MITKEM Workorder #: <u>62261</u>			
Client Project: <u>Dilla</u>				Client: <u>CDM</u>				Soil Headspace or Air Bubbles $\geq 1/4"$	
		Lab Sample ID		Preservation (pH)			VOA Matrix		
1) Cooler Sealed Yes / <input checked="" type="radio"/> No		<u>05261 01</u>		HNO ₃	H ₂ SO ₄	HCl	NaOH	H ₃ PO ₄	<u><2</u>
		<u>02</u>							
2) Custody Seal(s) Present / <input checked="" type="radio"/> Absent		<u>03</u>							
Coolers / Bottles		<u>04</u>							
<input checked="" type="radio"/> Intact / Broken		<u>05</u>							
		<u>06</u>						<u><2</u>	
3) Custody Seal Number(s) <u>NA</u>		<u>07</u>				<u><2</u>			
		<u>08</u>							<u><2</u>
4) Chain-of-Custody <input checked="" type="radio"/> Present / Absent									
5) Cooler Temperature <u>5°</u>									
Coolant Condition <u>Ice</u>									
6) Airbill(s) Present / <input checked="" type="radio"/> Absent									
Airbill Number(s) <u>CMW</u>									
7) Sample Bottles <input checked="" type="radio"/> Intact / Broken / Leaking									
8) Date Received <u>12/5/08</u>									
9) Time Received <u>19:00</u>									
Preservative Name/Lot No:									

VOA Matrix Key:

US = Unpreserved Soil	A = Air
UA = Unpreserved Aqu.	H = HCl
M = MeOH	E = Encore
N = NaHSO ₄	F = Freeze

See Sample Condition Notification/Corrective Action Form yes / no

Rad OK yes / no



* Volatiles

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.:

Mod. Ref No.:

SDG No.: MG2261

Level: (TRACE or LOW) LOW

	CLIENT SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	MB-40712	95	99	71	166	93	95	108
02	LCS-40712	94	97	85	177	91	91	101
03	MW-9S	104	115	87	95	105	99	110
04	MW-7S	102	109	87	82	101	100	112
05	MW-5S	105	117	86	81	104	100	112
06	MW-4S	103	113	88	85	103	100	113
07	MW-6S	102	115	83	80	103	96	113
08	FB120408	101	113	88	83	99	94	112
09	TRIP BLANK	105	121	83	73	105	97	113
10	MW-8S	95	99	71	165	93	95	104

QC LIMITS

VDMC1	(VCL) = Vinyl chloride-d3	(49-138)
VDMC2	(CLA) = Chloroethane-d5	(60-126)
VDMC3	(DCE) = 1,1-Dichloroethene-d2	(65-130)
VDMC4	(BUT) = 2-Butanone-d5	(42-171)
VDMC5	(CLF) = Chloroform-d	(80-123)
VDMC6	(DCA) = 1,2-Dichloroethane-d4	(78-129)
VDMC7	(BEN) = Benzene-d6	(78-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract: _____

Lab Code: MITKEM

Case No.: _____

Mod. Ref No.: _____

SDG No.: MG2261

Level: (TRACE or LOW) LOW

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (BRF) #	VDMC13 (TCA) #	VDMC14 (DCZ) #	TOT OUT
01	VBLK5J	112	105	94	101	116	100	108	0
02	V5JLCS	109	102	101	53	106	95	112	1
03	MW-9S	111	106	90	16 *	106	97	109	1
04	MW-7S	112	107	92	32 *	102	98	107	1
05	MW-5S	111	107	88	12 *	109	101	107	1
06	MW-4S	107	105	91	17 *	114	93	118	1
07	MW-6S	107	107	90	20 *	105	101	111	1
08	FB120408	105	106	88	36 *	108	100	112	1
09	TRIP BLANK	106	105	91	13 *	117	93	113	1
10	MW-8S	107	105	98	15 *	111	102	115	1
11	VHBLK5J	109	104	99	94	121	101	114	0

VDMC8 (DPA) = 1,2-Dichloropropane-d6
VDMC9 (TOL) = Toluene-d8
VDMC10 (TDP) = trans-1,3-Dichloropropene-d4
VDMC11 (HEX) = 2-Hexanone-d5
VDMC12 (BRF) = Bromoform-d
VDMC13 (TCA) = 1,1,2,2-Tetrachloroethane-d2
VDMC14 (DCZ) = 1,2-Dichlorobenzene-d4

QC LIMITS

(84-123)

(77-120)

(80-128)

(37-169)

(76-135)

(75-131)

(50-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

V5JLCS

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
Lab Sample ID: LCS-40712 LCS Lot No.: _____
Date Extracted: 12/11/2008 Date Analyzed (1): 12/11/2008

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1-Dichloroethene	5.0000	0.0000	4.0783	82		61 - 145
Benzene	5.0000	0.0000	4.9437	99		76 - 127
Trichloroethene	5.0000	0.0000	4.6933	94		71 - 120
Toluene	5.0000	0.0000	4.8543	97		76 - 125
Chlorobenzene	5.0000	0.0000	5.1344	103		75 - 130

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

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
Lab File ID: V5K3947.D Lab Sample ID: MB-40712
Instrument ID: V5
Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 12/11/2008
Level: (TRACE or LOW/MED) LOW Time Analyzed: 15:22
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V5JLCS	LCS-40712	V5K3948.D	15:52
02	MW-9S	G2261-02D	V5K3949.D	16:17
03	MW-7S	G2261-03D	V5K3950.D	16:46
04	MW-5S	G2261-04D	V5K3951.D	17:15
05	MW-4S	G2261-05D	V5K3952.D	17:44
06	MW-6S	G2261-06D	V5K3953.D	18:13
07	FB120408	G2261-07A	V5K3954.D	18:42
08	TRIP BLANK	G2261-08A	V5K3955.D	19:11
09	MW-8S	G2261-01D	V5K3966.D	00:29
10	VHBLK5J	VHBLK5J	V5K3967.D	00:59

COMMENTS:

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB5I

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Lab File ID: V5K3940.D BFB Injection Date: 12/11/2008
 Instrument ID: V5 BFB Injection Time: 10:57
 GC Column: DB-624 ID: 0.25 (mm)

m/e ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50 8.0 - 40.0% of mass 95	27.9
75 30.0 - 66.0% of mass 95	57.8
95 Base peak, 100% relative abundance	100.0
96 5.0 - 9.0% of mass 95	7.5
173 Less than 2.0% of mass 174	0.0 (0.0)1
174 50.0 - 120.0% of mass 95	66.0
175 4.0 - 9.0 % of mass 174	4.6 (6.9)1
176 93.0 - 101.0% of mass 174	63.0 (95.4)1
177 5.0 - 9.0% of mass 176	3.7 (5.9)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0255I	VSTD0255I	V5K3941.D	12/11/2008	11:55
02	VSTD0105I	VSTD0105I	V5K3942.D	12/11/2008	12:24
03	VSTD0055I	VSTD0055I	V5K3943.D	12/11/2008	12:54
04	VSTD0015I	VSTD0015I	V5K3944.D	12/11/2008	13:23
05	VSTD0.55I	VSTD0.55I	V5K3945.D	12/11/2008	13:52

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Lab File ID: V5K3945A.D BFB Injection Date: 12/11/2008
 Instrument ID: V5 BFB Injection Time: 14:40
 GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	29.8
75	30.0 - 66.0% of mass 95	54.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0 % of mass 174	4.2 (6.4)1
176	93.0 - 101.0% of mass 174	64.6 (97.2)1
177	5.0 - 9.0% of mass 176	3.7 (5.7)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0055J	VSTD0055J	V5K3946.D	12/11/2008	14:55
02	VBLK5J	MB-40712	V5K3947.D	12/11/2008	15:22
03	V5JLCS	LCS-40712	V5K3948.D	12/11/2008	15:52
04	MW-9S	G2261-02D	V5K3949.D	12/11/2008	16:17
05	MW-7S	G2261-03D	V5K3950.D	12/11/2008	16:46
06	MW-5S	G2261-04D	V5K3951.D	12/11/2008	17:15
07	MW-4S	G2261-05D	V5K3952.D	12/11/2008	17:44
08	MW-6S	G2261-06D	V5K3953.D	12/11/2008	18:13
09	FB120408	G2261-07A	V5K3954.D	12/11/2008	18:42
10	TRIP BLANK	G2261-08A	V5K3955.D	12/11/2008	19:11
11	MW-8S	G2261-01D	V5K3966.D	12/12/2008	00:29
12	VHBLK5J	VHBLK5J	V5K3967.D	12/12/2008	00:59

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 12/11/2008 12/11/2008
 EPA Sample No. (VSTD####): VSTD0055J Date Analyzed: 12/11/2008
 Lab File ID (Standard): V5K3946.D Time Analyzed: 14:55
 Instrument ID: V5 Heated Purge: (Y/N) N

	IS1 (CBZ)		IS2 (DFB)		IS3 (DCB)							
	AREA	#	RT	#	AREA	#	RT	#				
12 HOUR STD	301026		8.808		475694		5.742		128071		11.537	
UPPER LIMIT	421436		9.138		665972		6.072		179299		11.867	
LOWER LIMIT	180616		8.478		285416		5.412		76843		11.207	
SAMPLE NO.												
01	VBLK5J	299295	8.812		536625		5.735		110169		11.541	
02	V5JLCS	308534	8.809		539346		5.743		109971		11.538	
03	MW-9S	355887	8.811		601357		5.745		127764		11.540	
04	MW-7S	351035	8.813		603724		5.736		125657		11.542	
05	MW-5S	341061	8.815		581173		5.737		121893		11.544	
06	MW-4S	345186	8.820		583039		5.743		113280		11.538	
07	MW-6S	334574	8.814		574234		5.748		122169		11.543	
08	FB120408	341238	8.820		594169		5.742		118562		11.537	
09	TRIP BLANK	331572	8.819		567266		5.742		113456		11.537	
10	MW-8S	310893	8.814		545204		5.736		111583		11.543	
11	VHBLK5J	305615	8.814		530711		5.736		109732		11.543	

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

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

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-8S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-01D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3966.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/12/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.39	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.96	
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.57	
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		1.1	
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-8S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-01D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3966.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/12/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
 MW-8S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-01D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3966.D
 Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/12/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\organic\voa\5.i\081211A.B\5K3966.D

Date : 12-DEC-2008 00:29

Client ID: MW-8S

Sample Info: 25ML, G2261-01D, , 40712

Purge Volume: 25.0

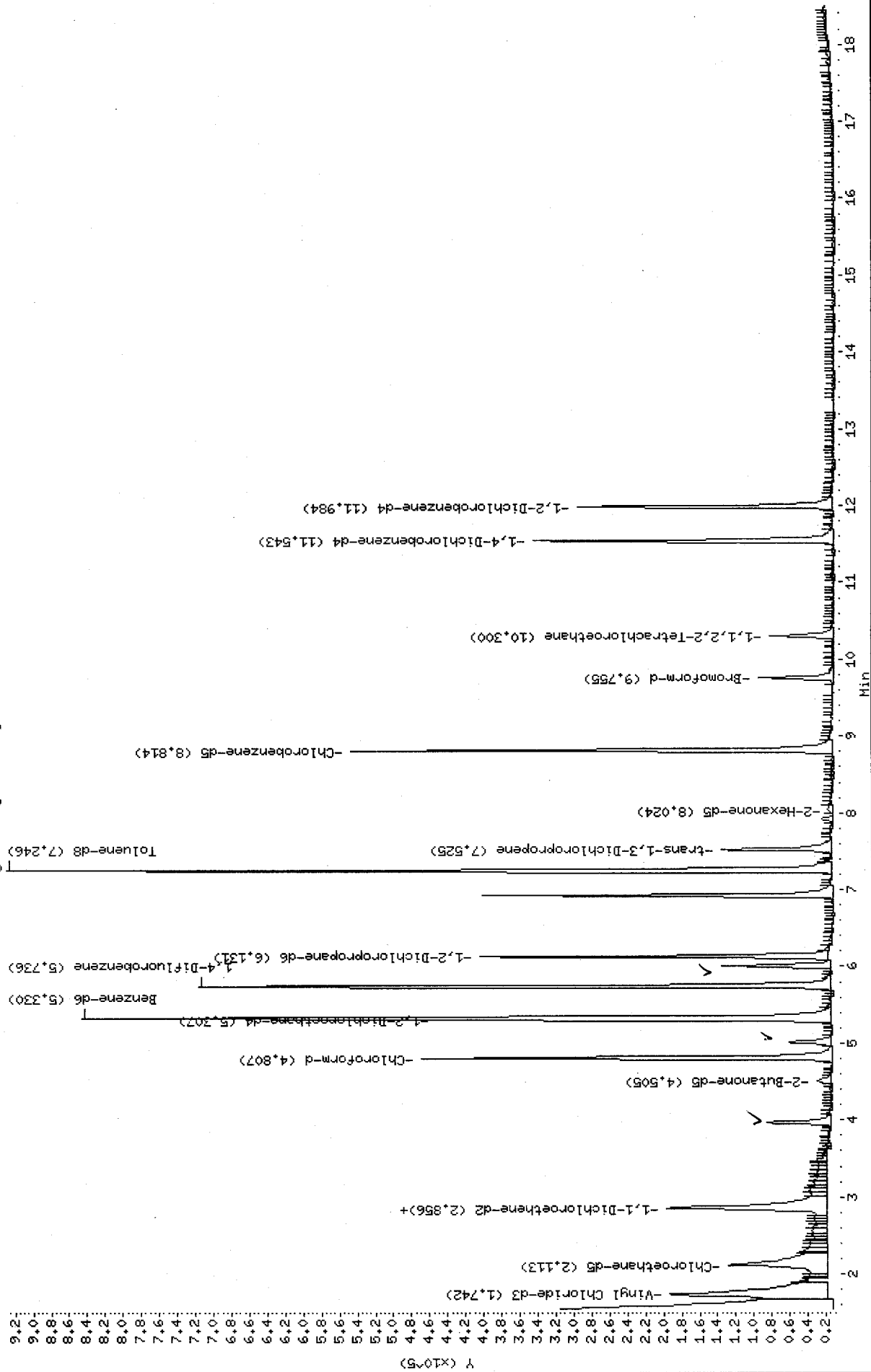
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIHS

Column diameter: 0.25

\\Avogadro\Organics\organic\voa\5.i\081211A.B\5K3966.D



Data File: V5K3966.D
 Report Date: 17-Dec-2008 16:55

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3966.D
 Lab Smp Id: G2261-01D Client Smp ID: MW-8S
 Inj Date : 12-DEC-2008 00:29
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-01D,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3		65	1.741	1.747 (0.304)		400013	4.75945	4.8
\$ 80 Chloroethane-d5		69	2.124	2.130 (0.370)		279591	4.94904	4.9
\$ 81 1,1-Dichloroethene-d2		100	2.856	2.862 (0.498)		74258	3.55180	3.6(Q)
7 1,1-Dichloroethene		96	2.867	2.873 (0.500)		19417	0.39463	0.39(aQ)
15 1,1-Dichloroethane		63	✓ 3.971	3.977 (0.692)		95040	0.96313	0.96
\$ 82 2-Butanone-d5		46	4.505	4.499 (0.785)		33955	8.25604	8.3
\$ 83 Chloroform-d		84	4.807	4.813 (0.838)		430486	4.63139	4.6(Q)
20 1,1,1-Trichloroethane		97	✓ 5.016	5.010 (0.569)		42204	0.57487	0.57
\$ 23 1,2-Dichloroethane-d4		65	5.306	5.301 (0.925)		130831	4.73714	4.7
\$ 84 Benzene-d6		84	5.329	5.324 (0.605)		883263	5.21024	5.2
* 26 1,4-Difluorobenzene		114	5.736	5.742 (1.000)		545204	5.00000	
27 Trichloroethene		95	✓ 6.003	6.009 (0.681)		50939	1.05028	1.1
\$ 85 1,2-Dichloropropane-d6		67	6.131	6.125 (0.696)		188853	5.37470	5.4
\$ 33 Toluene-d8		98	7.246	7.240 (0.822)		606466	5.23289	5.2
\$ 86 trans-1,3-Dichloropropene-d4		79	7.524	7.519 (0.854)		101467	4.87824	4.9
\$ 87 2-Hexanone-d5		63	8.024	7.983 (0.910)		1337	0.76295	0.76(aQR)
* 42 Chlorobenzene-d5		117	8.813	8.808 (1.000)		310893	5.00000	
\$ 88 Bromoform-d		174	9.754	9.748 (0.845)		46671	5.54481	5.5
\$ 89 1,1,2,2-Tetrachloroethane-d2		84	10.300	10.306 (1.169)		56587	5.09343	5.1
* 78 1,4-Dichlorobenzene-d4		152	11.542	11.537 (1.000)		111583	5.00000	
\$ 90 1,2-Dichlorobenzene-d4		152	11.984	11.990 (1.038)		88051	5.74450	5.7(Q)

Handwritten:
 12/18/08
 00212A

Data File: V5K3966.D
Report Date: 17-Dec-2008 16:55

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3966.D
Report Date: 17-Dec-2008 16:55

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3966.D
Lab Smp Id: G2261-01D Client Smp ID: MW-8S
Inj Date : 12-DEC-2008 00:29
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-01D,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Date : 12-DEC-2008 00:29

Client ID: MW-8S

Instrument: W5.i

Sample Info: 25HLG2261-01D,,40712

Purge Volume: 25.0

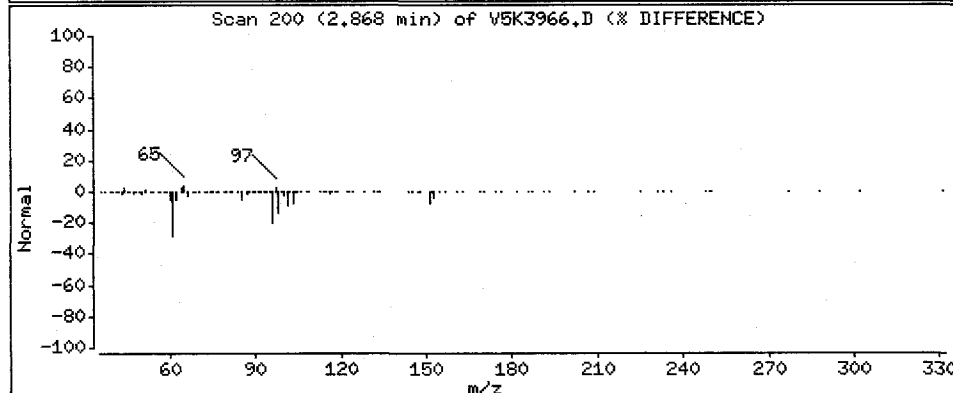
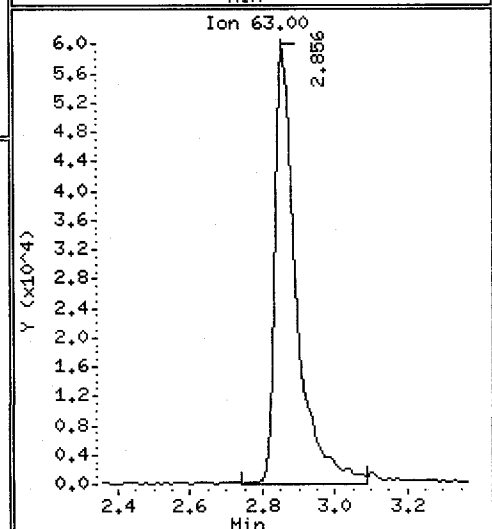
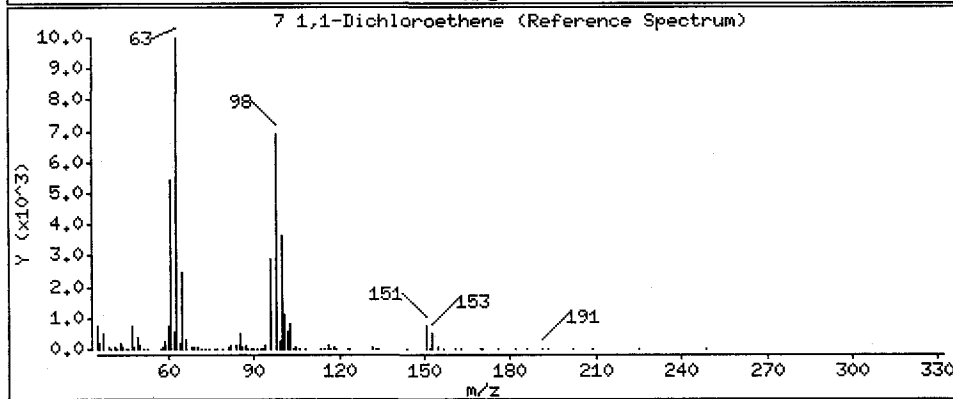
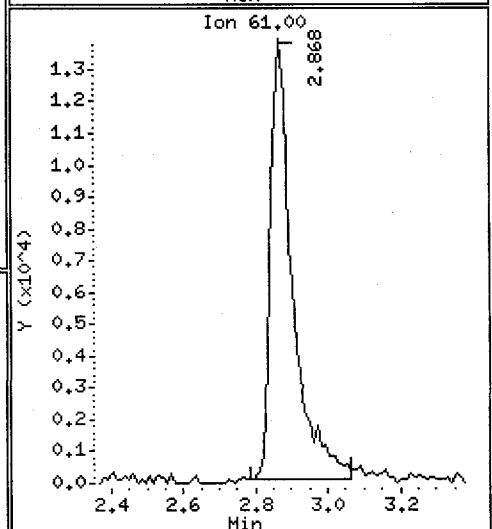
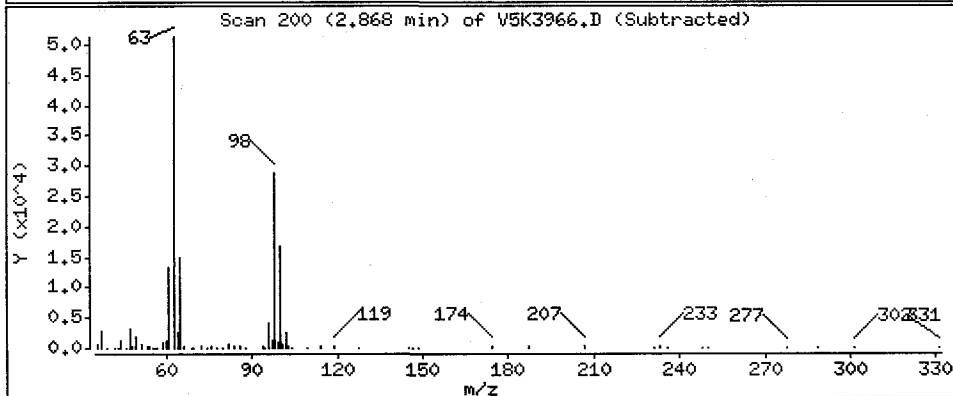
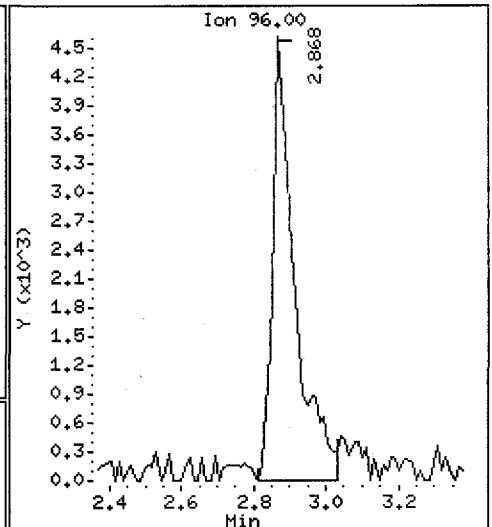
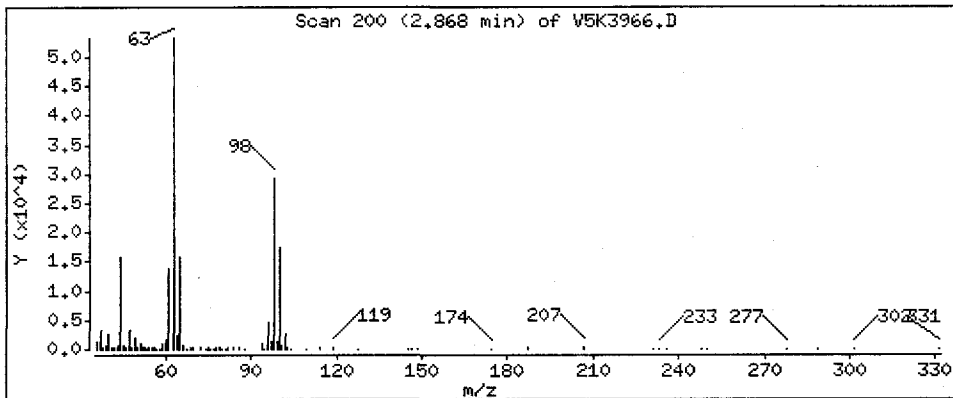
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

7 1,1-Dichloroethene

Concentration: 0.39 ug/L



Data File: \\Avogadro\Organics\organic\woa\W5.i\081211A.B\W5K3966.D

Date : 12-DEC-2008 00:29

Client ID: MW-8S

Instrument: W5.i

Sample Info: 25ML,G2261-01D,,40712

Purge Volume: 25.0

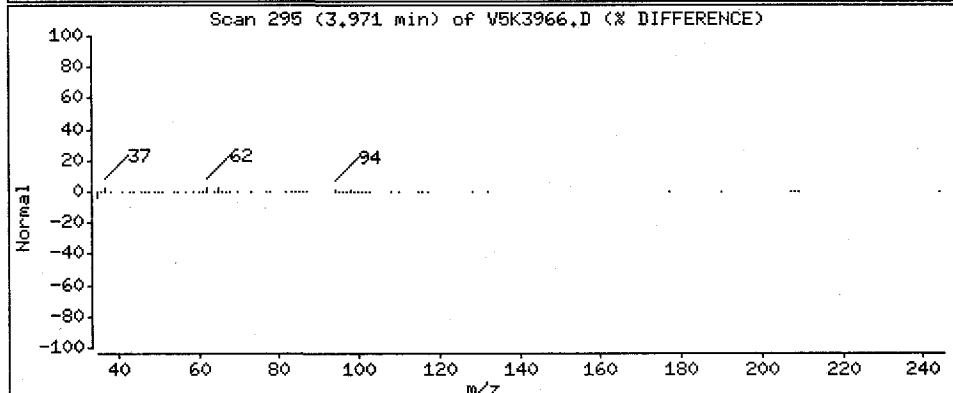
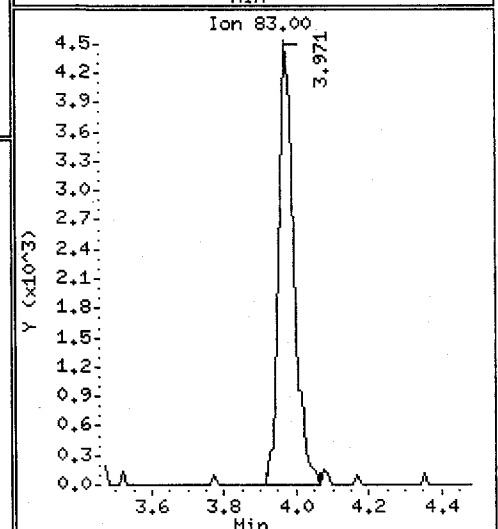
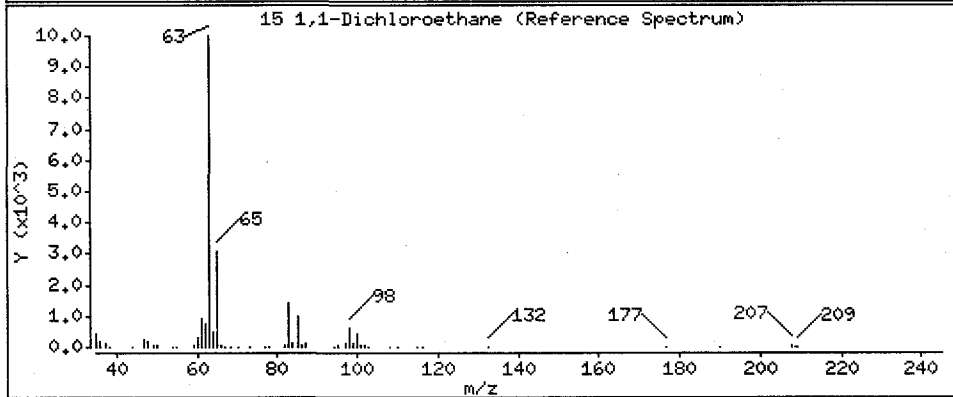
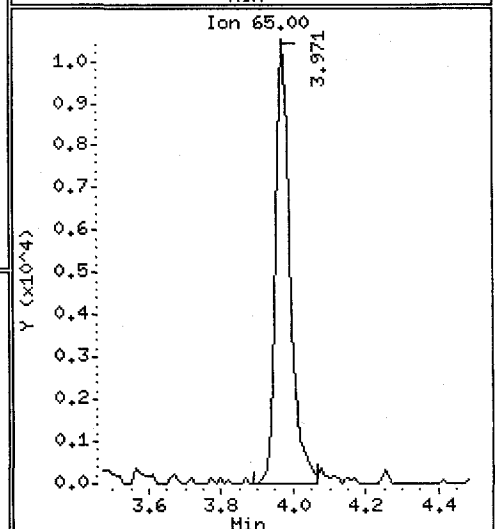
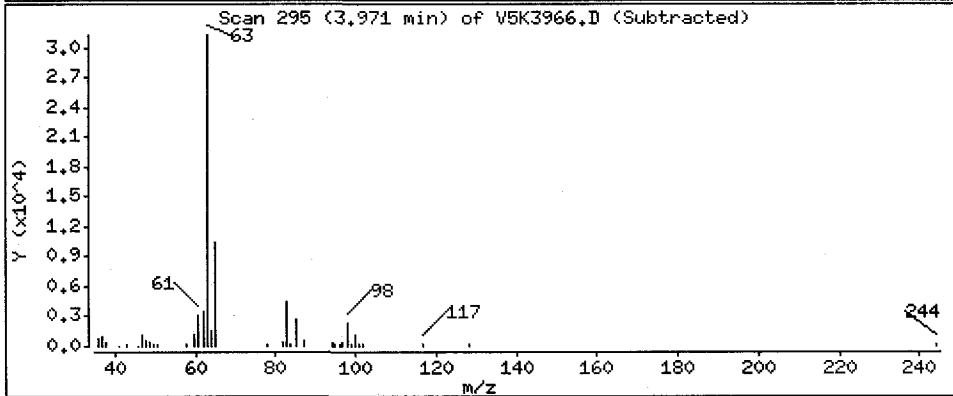
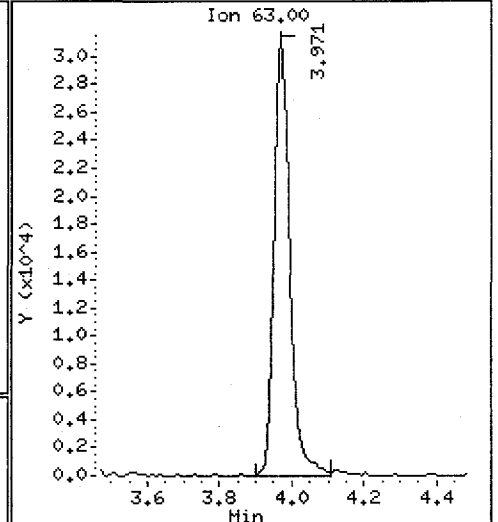
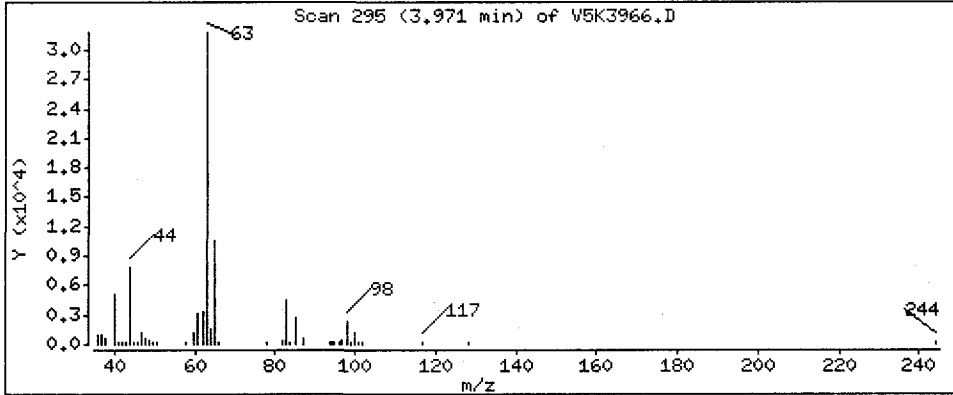
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

15 1,1-Dichloroethane

Concentration: 0.96 ug/L



Date : 12-DEC-2008 00:29

Client ID: MW-8S

Instrument: V5.i

Sample Info: 25ML.G2261-01D,,40712

Purge Volume: 25.0

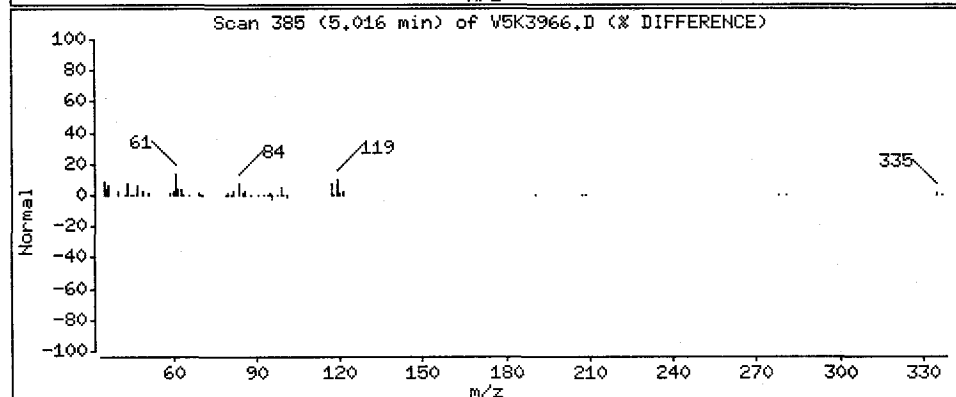
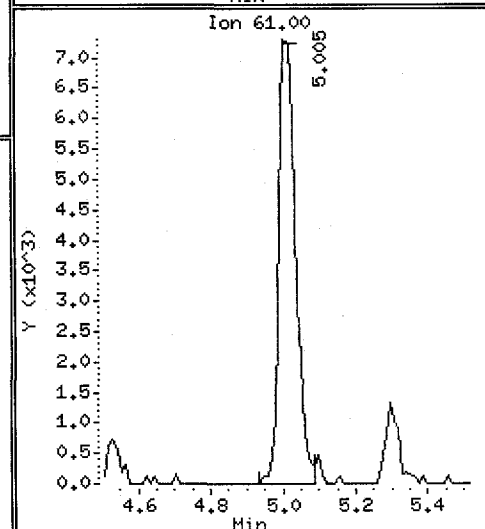
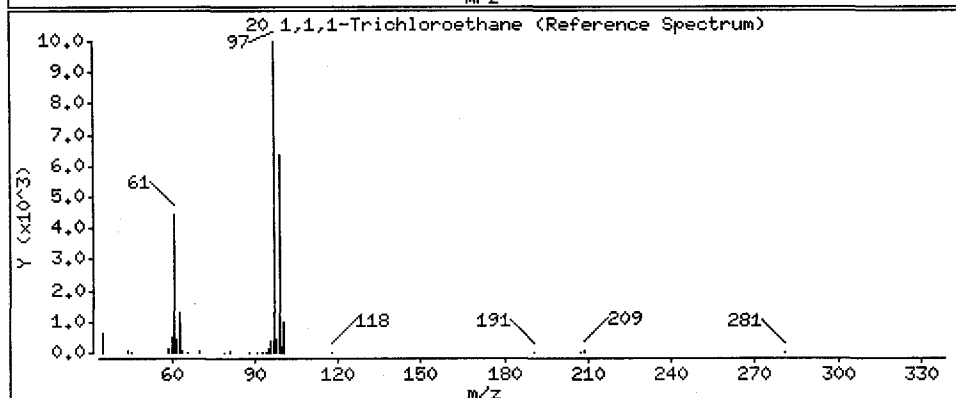
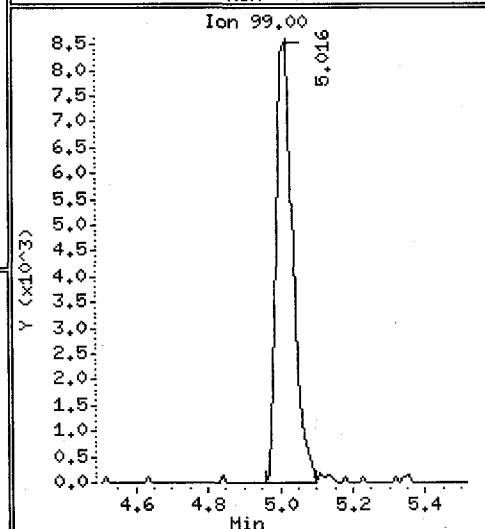
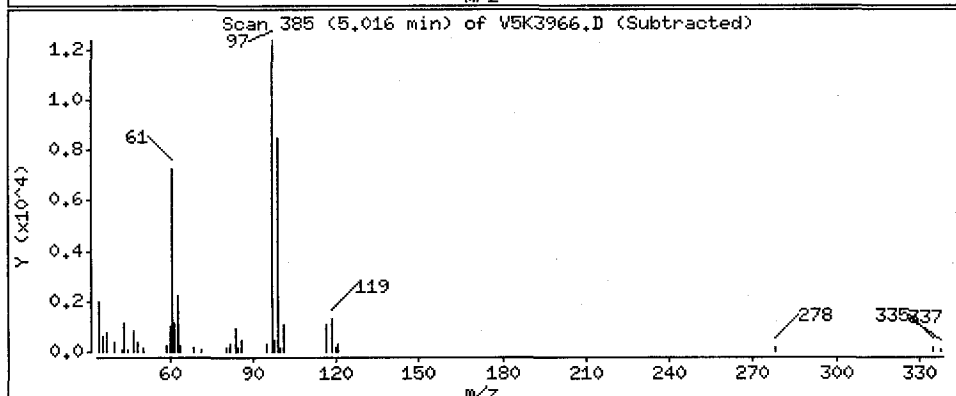
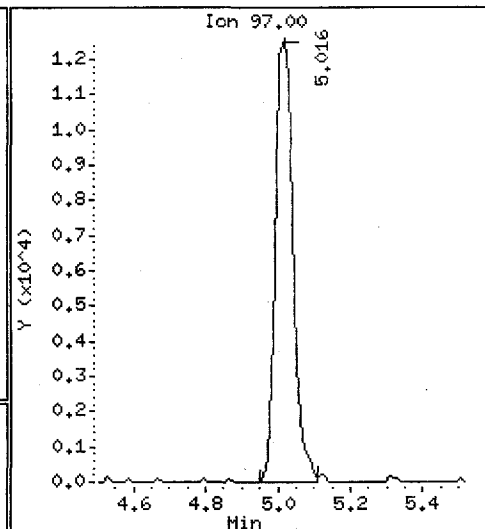
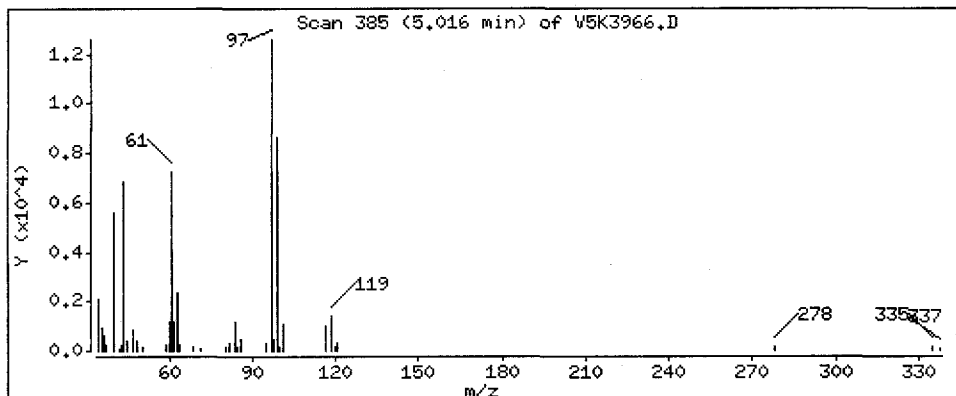
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

20 1,1,1-Trichloroethane

Concentration: 0.57 ug/L



Date : 12-DEC-2008 00:29

Client ID: MW-8S

Instrument: W5.i

Sample Info: 25ML.G2261-01D,,40712

Purge Volume: 25.0

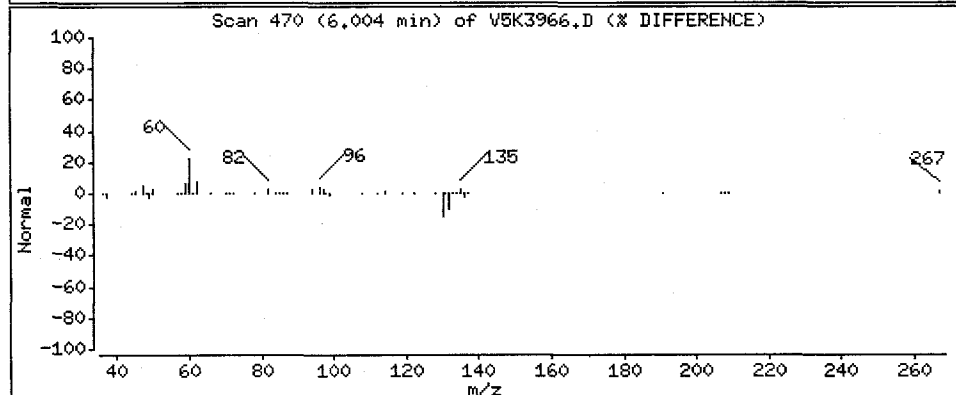
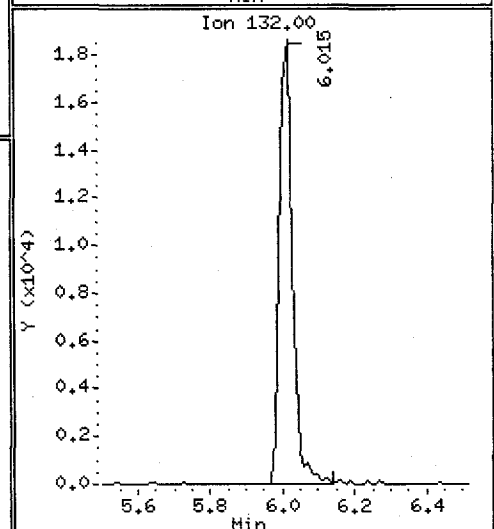
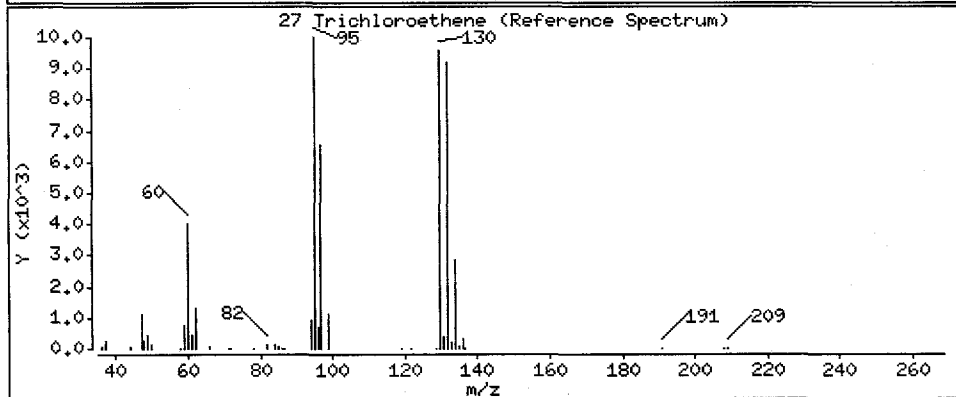
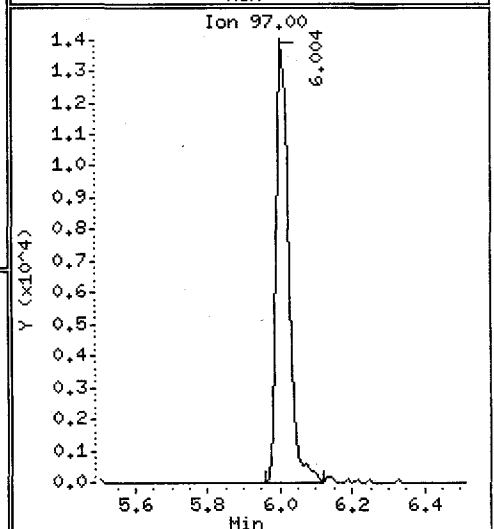
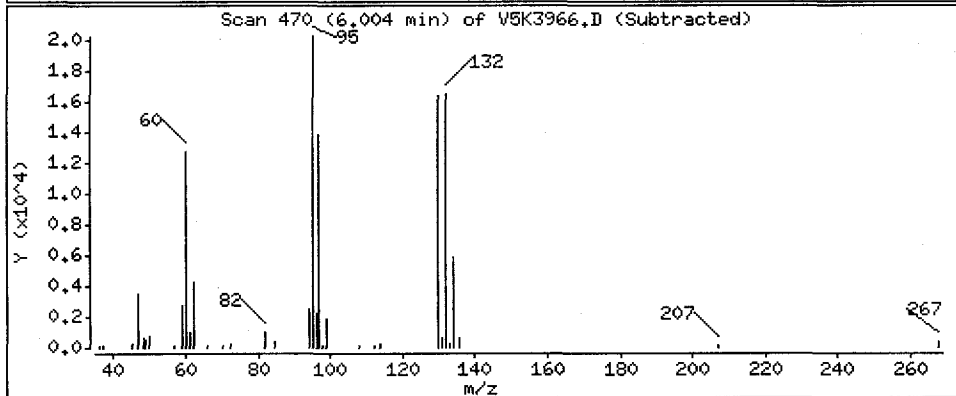
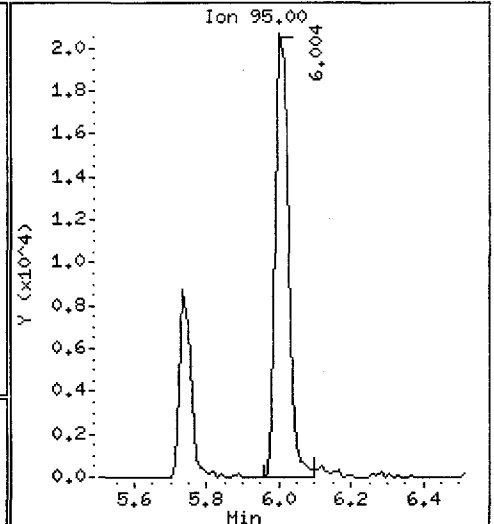
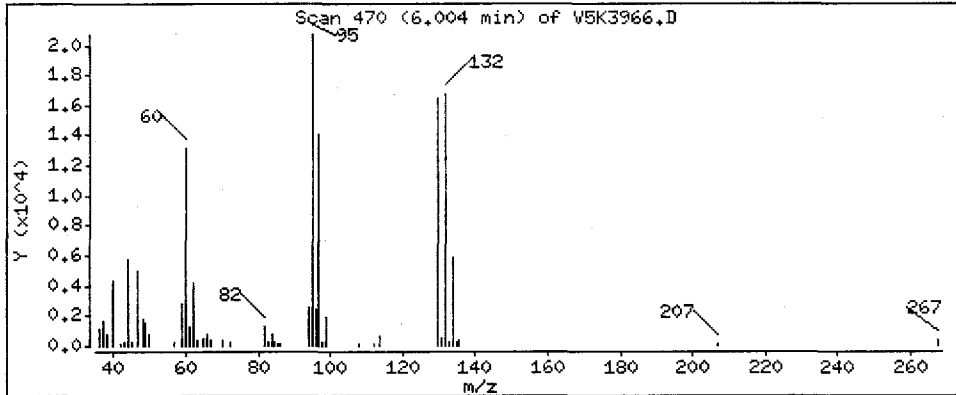
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

27 Trichloroethene

Concentration: 1.1 ug/L



1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-9S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-02D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3949.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.37	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		1.6	
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.35	J
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.93	
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
MW-9S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-02D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3949.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-9S

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-02D

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3949.D

Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008

% Moisture: not dec. Date Analyzed: 12/11/2008

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\5K3949.D

Date : 11-DEC-2008 16:17

Client ID: MN-9S

Sample Info: 25ML_G2261-02D,,40712

Purge Volume: 25.0

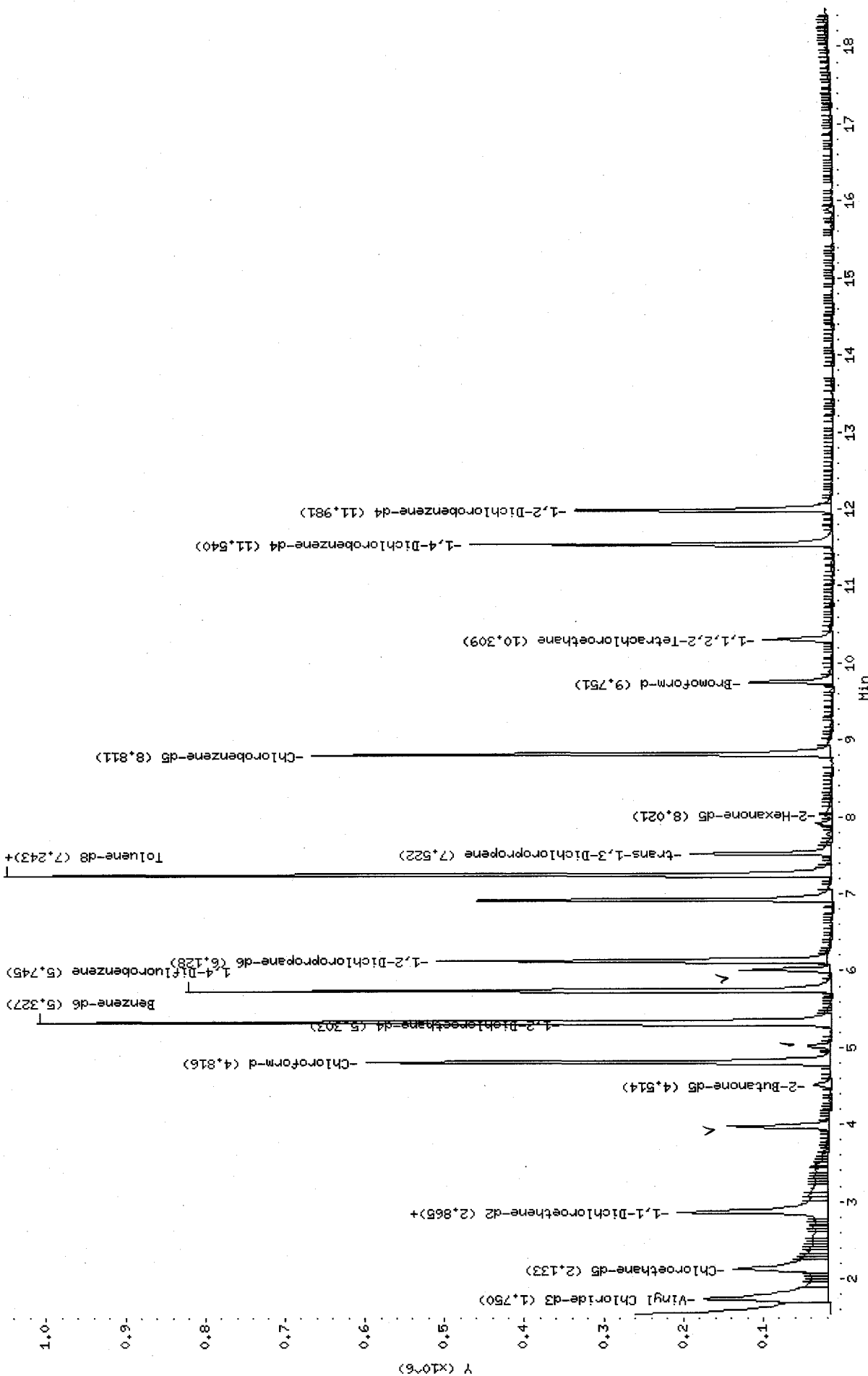
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25

\\Avogadro\Organics\voa\5.i\081211A.B\5K3949.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3949.D
 Lab Smp Id: G2261-02D Client Smp ID: MW-9S
 Inj Date : 11-DEC-2008 16:17
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-02D,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D ✓
 Als bottle: 80
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.749	1.747 (0.305)		385663	5.20057	5.2
\$ 80 Chloroethane-d5	69	2.133	2.130 (0.371)		283550	5.72773	5.7
\$ 81 1,1-Dichloroethene-d2	100	2.876	2.862 (0.501)		77079	4.36650	4.4(Q)
7 1,1-Dichloroethene	96	2.876	2.873 (0.501)		15112	0.36533	0.37(aQ)
15 1,1-Dichloroethane	63	3.979	3.977 (0.693)		161827	1.56748	1.6
\$ 82 2-Butanone-d5	46	4.513	4.499 (0.786)		39506	4.76676	4.8(a)
\$ 83 Chloroform-d	84	4.815	4.813 (0.838)		555405	5.23809	5.2(Q)
20 1,1,1-Trichloroethane	97	5.024	5.010 (0.570)		28325	0.35255	0.35(a)
\$ 23 1,2-Dichloroethane-d4	65	5.303	5.301 (0.923)		178145	4.96944	5.0
\$ 84 Benzene-d6	84	5.326	5.324 (0.605)		969081	5.51362	5.5
* 26 1,4-Difluorobenzene	114	5.744	5.742 (1.000)		601357	5.00000	
27 Trichloroethene	95	6.011	6.009 (0.682)		46360	0.93043	0.93
\$ 85 1,2-Dichloropropane-d6	67	6.127	6.125 (0.696)		222334	5.53299	5.5
\$ 33 Toluene-d8	98	7.242	7.240 (0.822)		686571	5.29841	5.3
\$ 86 trans-1,3-Dichloropropene-d4	79	7.521	7.519 (0.854)		123980	4.52001	4.5(Q)
\$ 87 2-Hexanone-d5	63	8.020	7.983 (0.910)		2799	0.77548	0.78(aQR)
* 42 Chlorobenzene-d5	117	8.810	8.808 (1.000)		355887	5.00000	
\$ 88 Bromoform-d	174	9.762	9.748 (0.846)		60616	5.28163	5.3
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.308	10.306 (1.170)		66172	4.85932	4.9
* 78 1,4-Dichlorobenzene-d4	152	11.539	11.537 (1.000)		127764	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.992	11.990 (1.039)		102410	5.46666	5.5

u
12/2/08

Data File: V5K3949.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3949.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3949.D
Lab Smp Id: G2261-02D Client Smp ID: MW-9S
Inj Date : 11-DEC-2008 16:17
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-02D,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 80
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3949.D

Date : 11-DEC-2008 16:17

Client ID: MW-9S

Instrument: V5.i

Sample Info: 25ML,C2261-02D,,40712

Purge Volume: 25.0

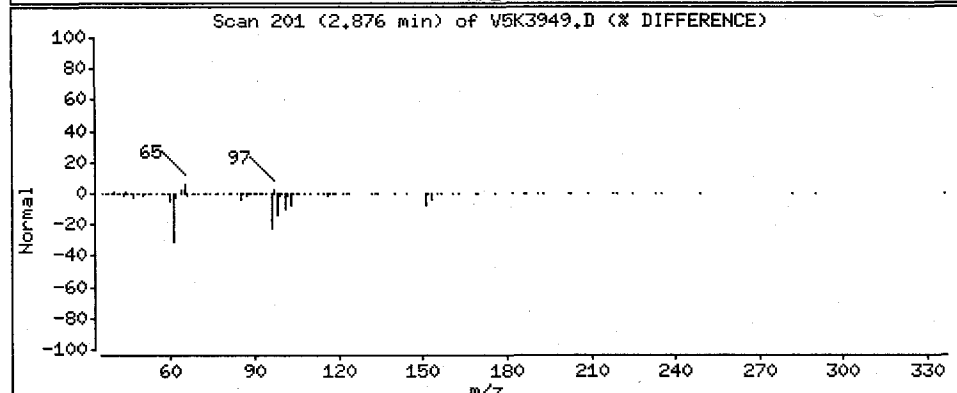
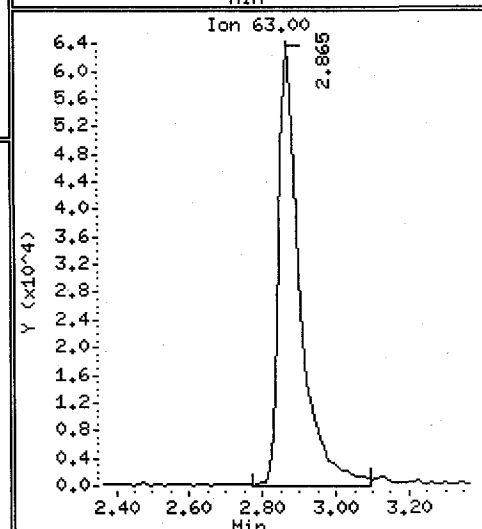
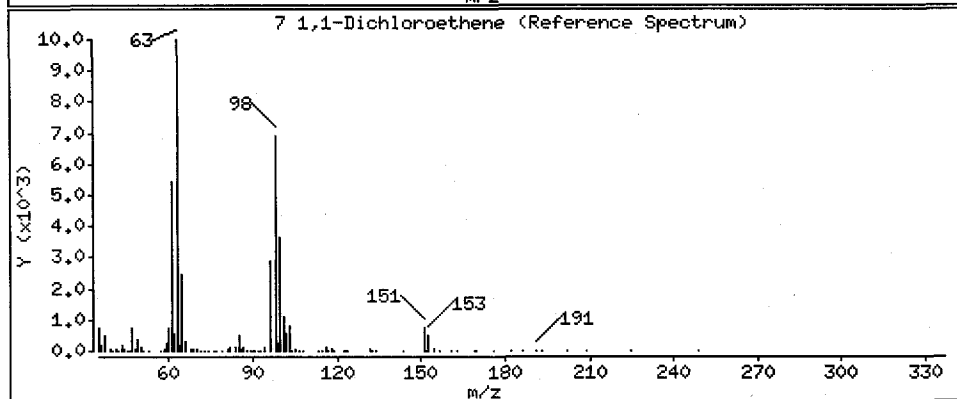
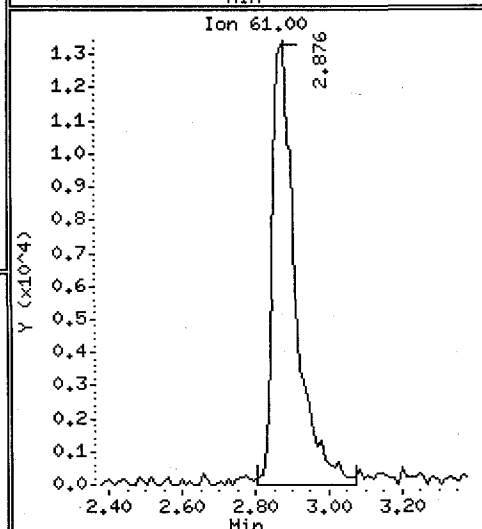
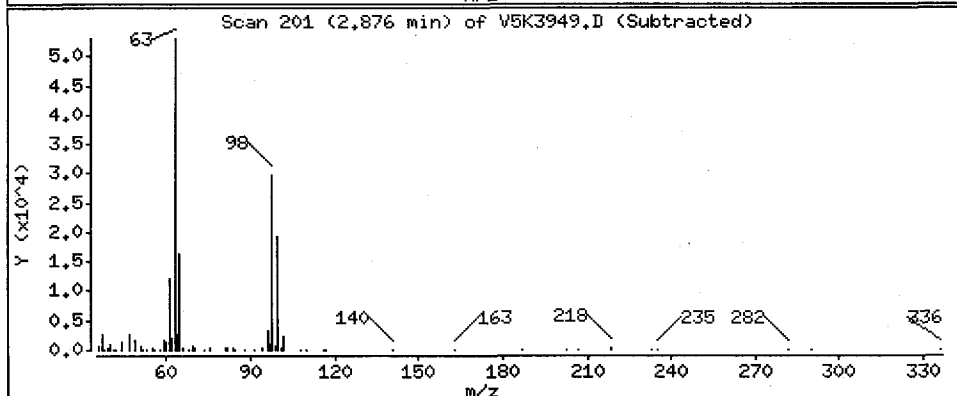
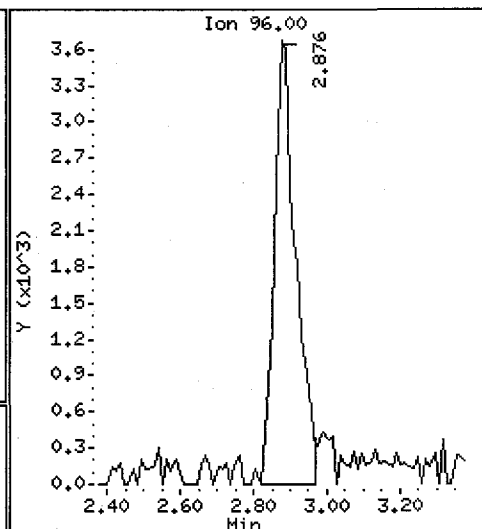
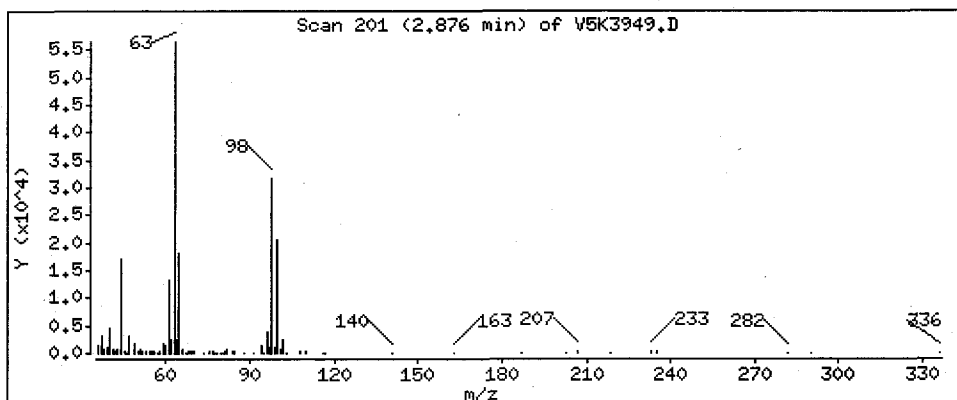
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

7 1,1-Dichloroethene

Concentration: 0.37 ug/L



Date : 11-DEC-2008 16:17

Client ID: MW-9S

Instrument: V5.i

Sample Info: 25ML,G2261-02D,,40712

Purge Volume: 25.0

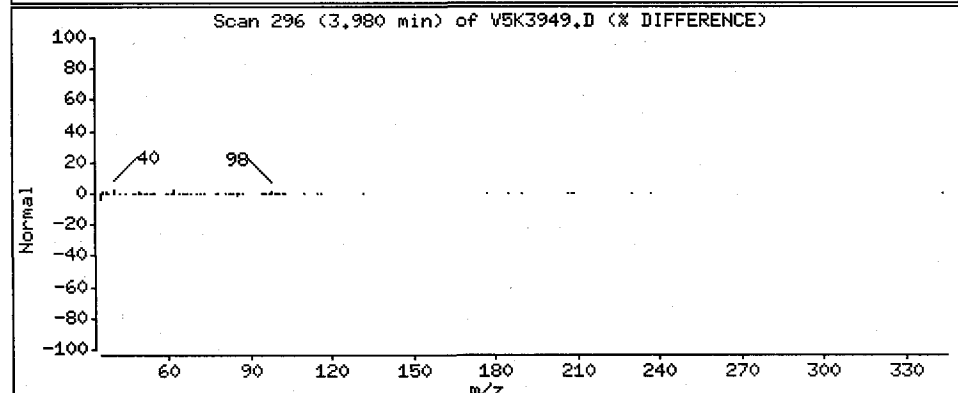
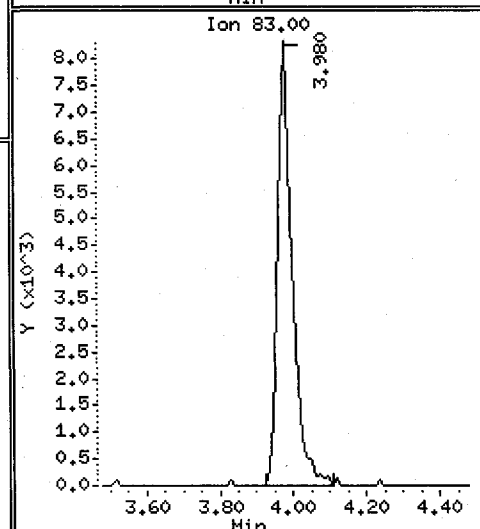
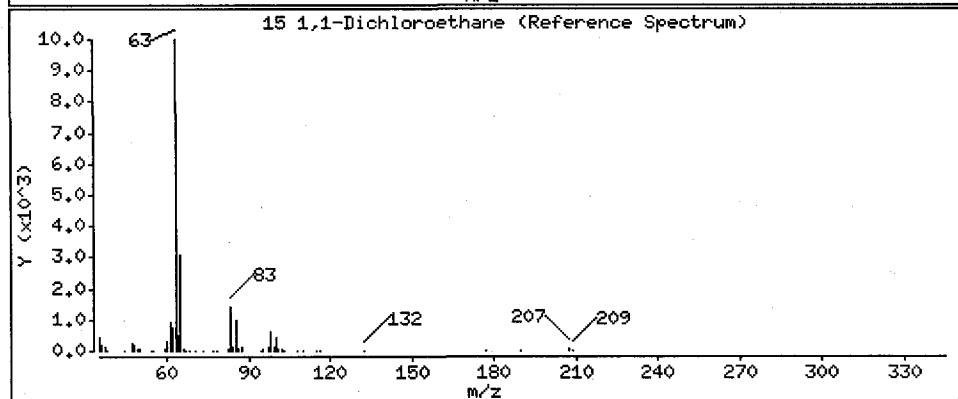
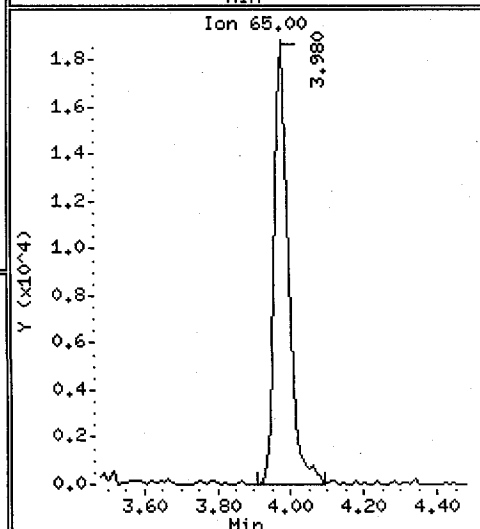
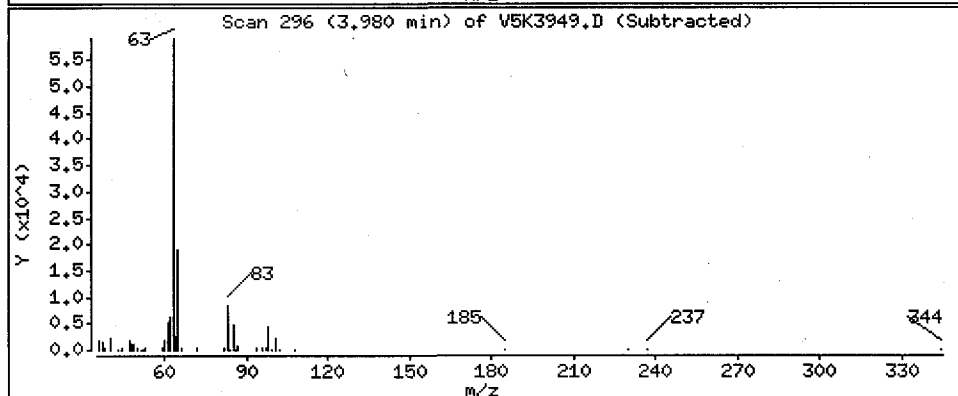
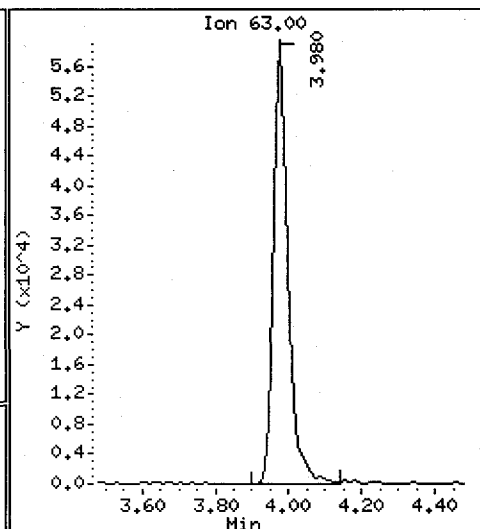
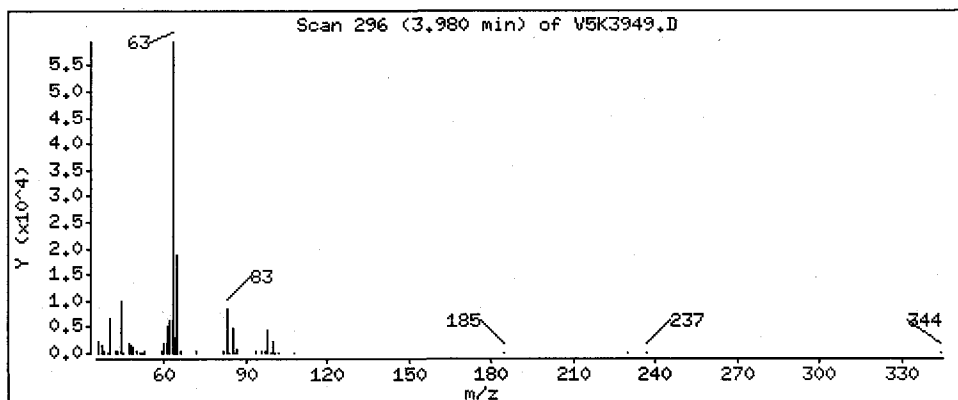
Operator: ALM SRC: LIMS

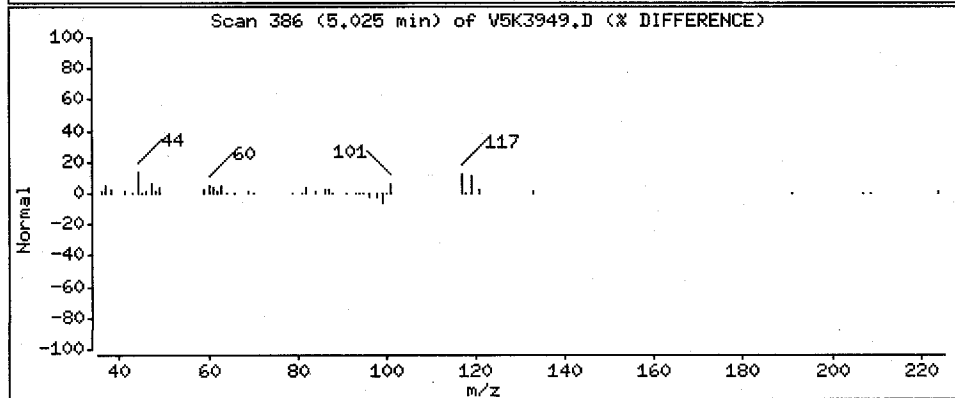
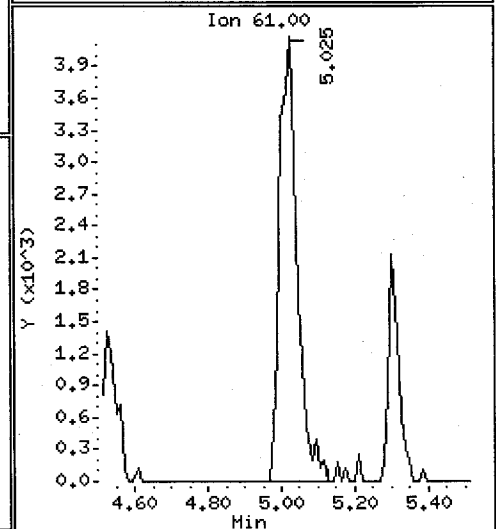
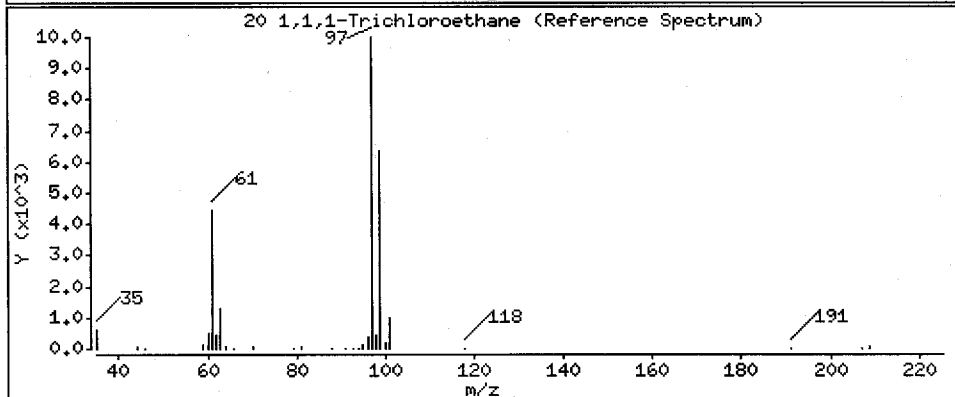
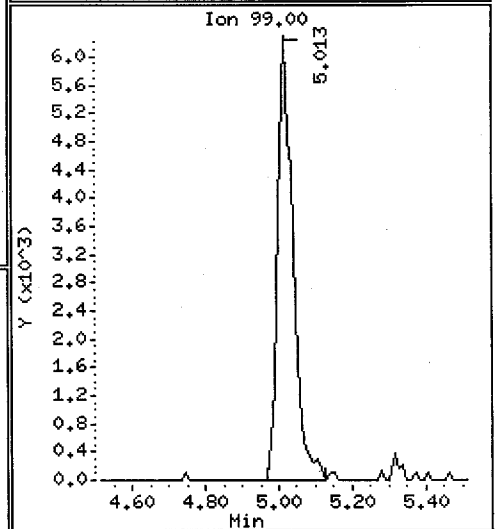
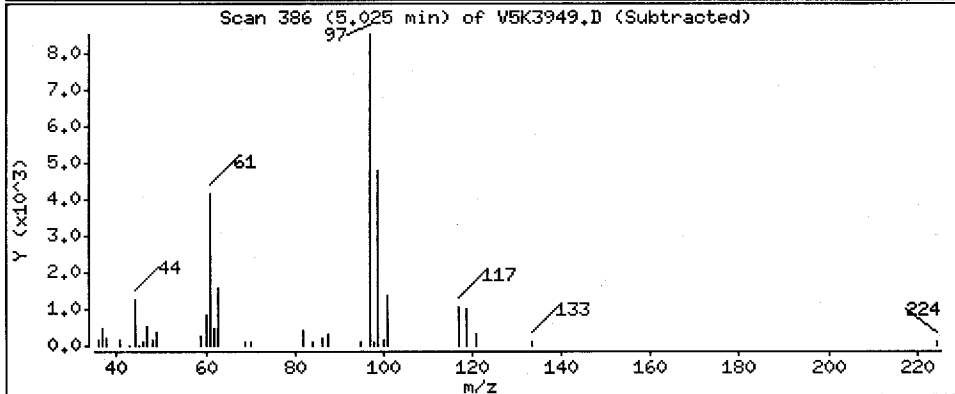
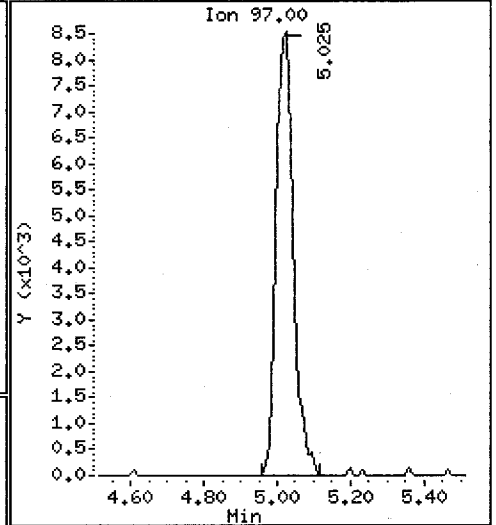
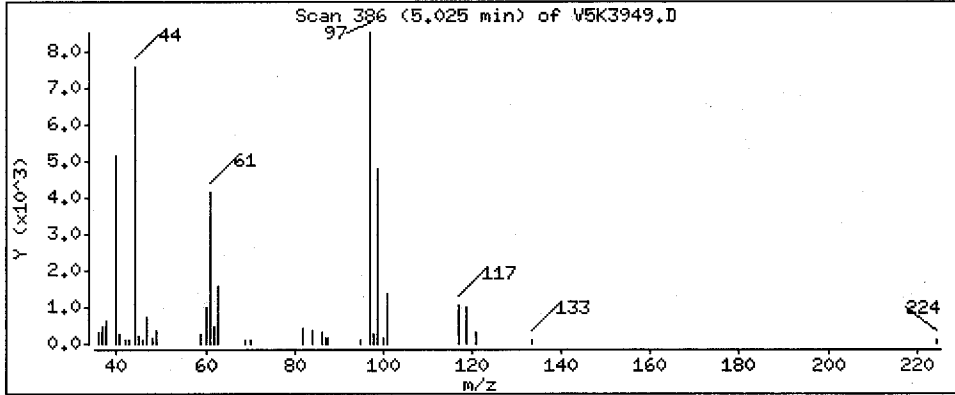
Column phase: DB-624

Column diameter: 0.25

15 1,1-Dichloroethane

Concentration: 1.6 ug/L





Date : 11-DEC-2008 16:17

Client ID: MW-9S

Instrument: W5.i

Sample Info: 25ML.G2261-02D,,40712

Purge Volume: 25.0

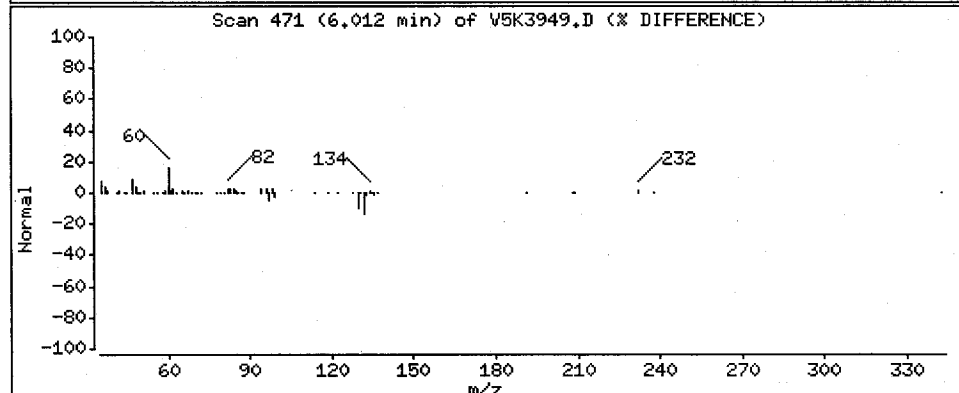
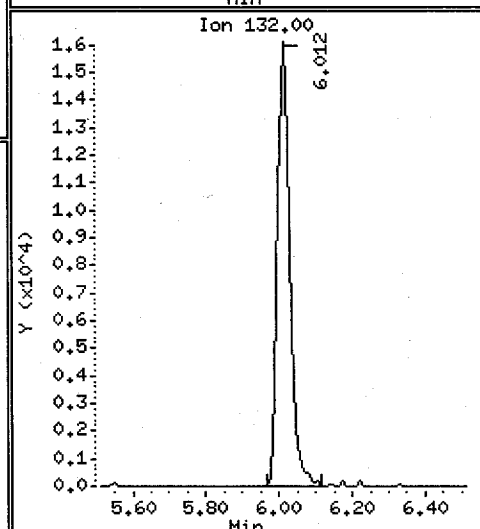
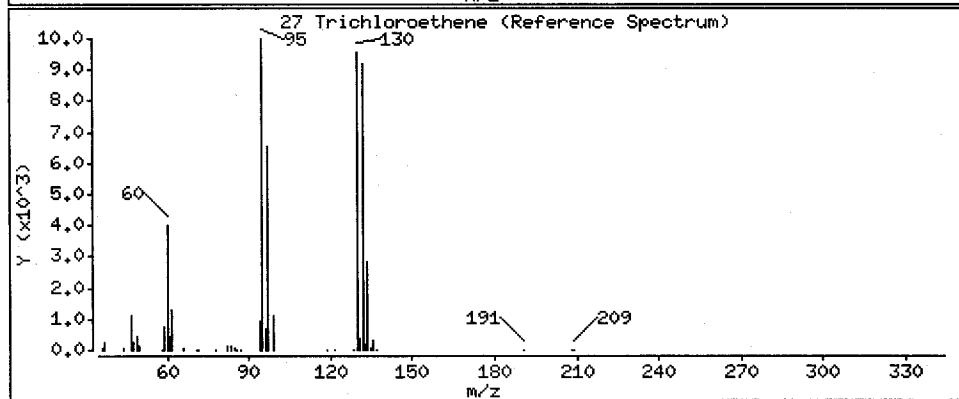
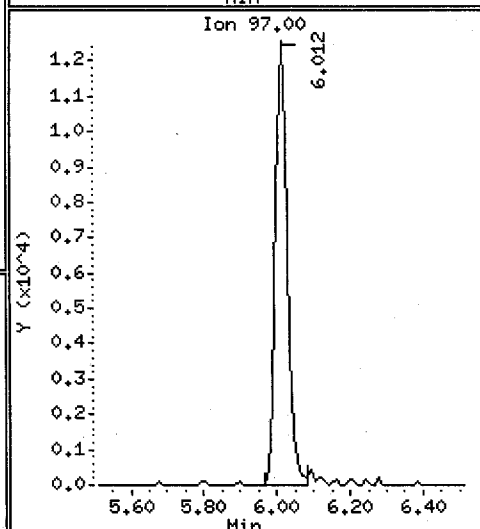
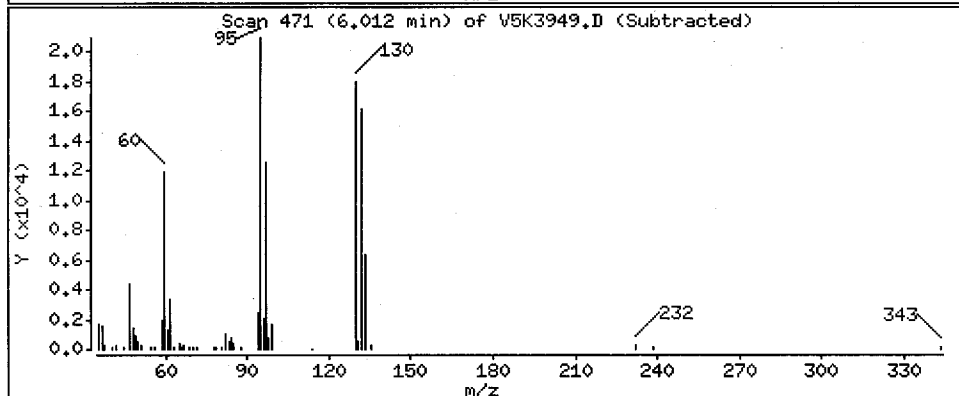
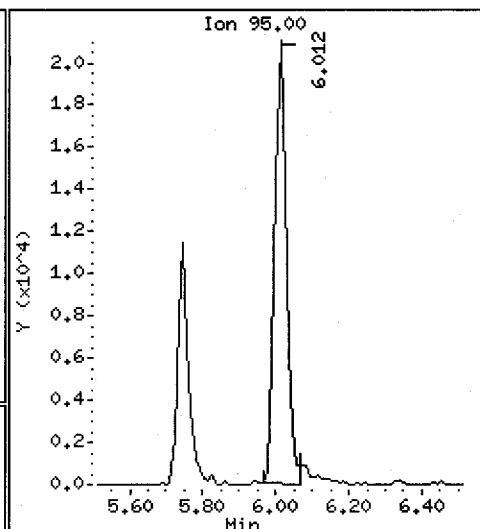
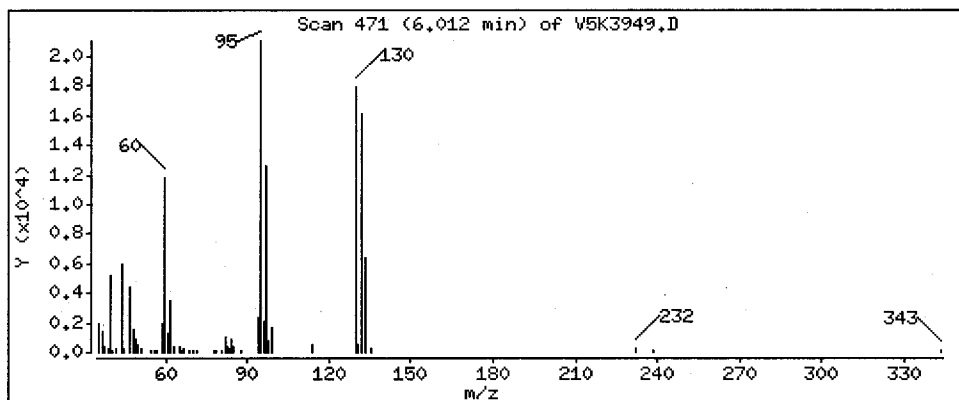
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

27 Trichloroethene

Concentration: 0.93 ug/L



1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-7S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-03D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3950.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.38	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		1.6	
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.36	J
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.93	
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-7S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-03D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3950.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-7S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-03D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3950.D
 Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\W5K3950.D

Date: 11-DEC-2008 16:46

Client ID: MN-75

Sample Info: 25ML_G2261-03D,,40712

Purge Volume: 25.0

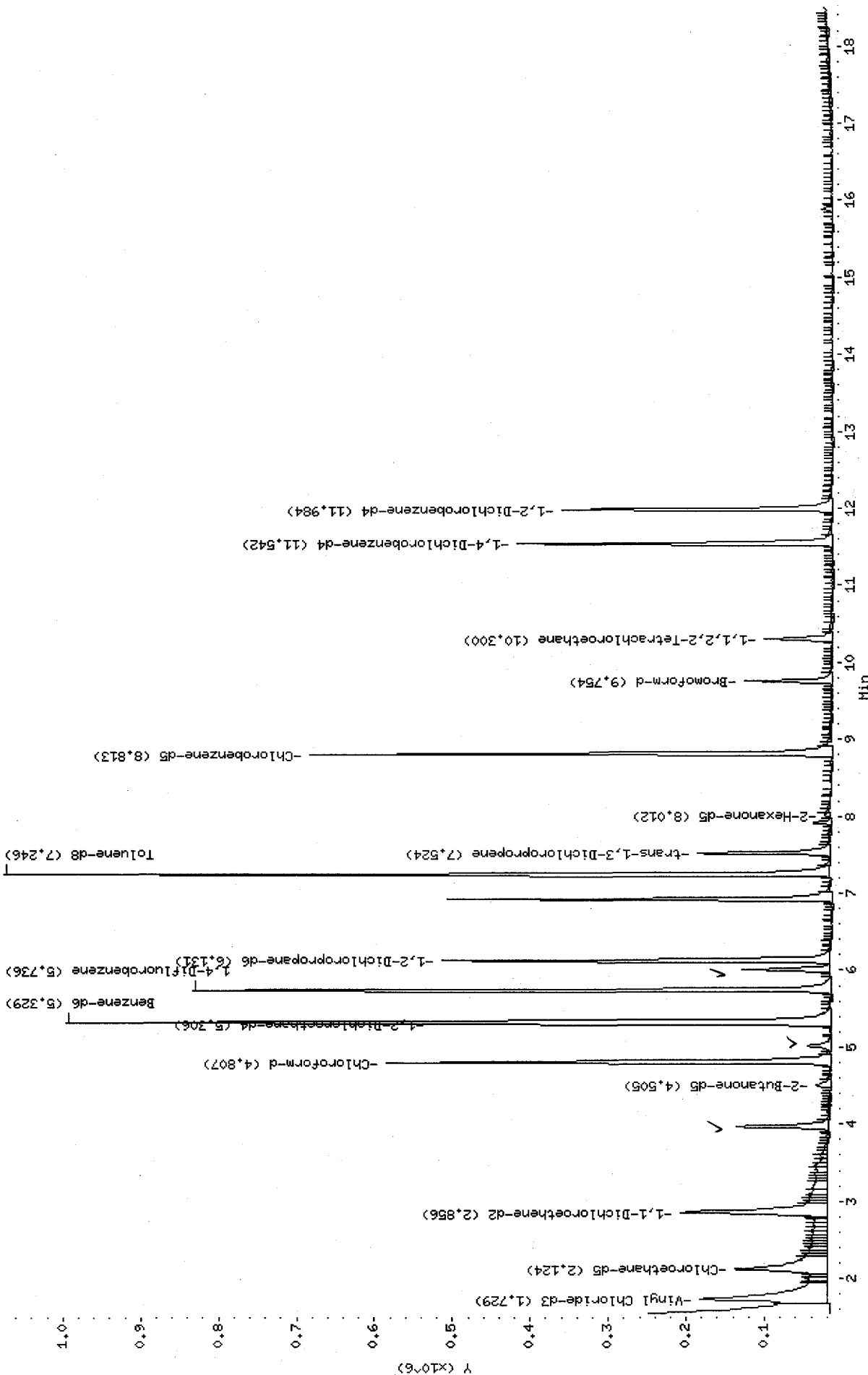
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25

\\Avogadro\Organics\organic\voa\5.i\081211A.B\W5K3950.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3950.D
 Lab Smp Id: G2261-03D Client Smp ID: MW-7S
 Inj Date : 11-DEC-2008 16:46
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-03D,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 81
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.740	1.747	(0.304)	378639	5.08583	5.1
\$ 80 Chloroethane-d5	69	2.124	2.130	(0.370)	270049	5.43363	5.4
\$ 81 1,1-Dichloroethene-d2	100	2.855	2.862	(0.498)	77423	4.36879	4.4(Q)
7 1,1-Dichloroethene	96	2.879	2.873	(0.502)	15576	0.37508	0.38(aQ)
15 1,1-Dichloroethane	63	3.970	3.977	(0.692)	162927	1.57195	1.6
\$ 82 2-Butanone-d5	46	4.504	4.499	(0.785)	34145	4.10375	4.1(a)
\$ 83 Chloroform-d	84	4.806	4.813	(0.838)	535554	5.03107	5.0(Q)
20 1,1,1-Trichloroethane	97	5.015	5.010	(0.569)	28334	0.35754	0.36(a)
\$ 23 1,2-Dichloroethane-d4	65	5.306	5.301	(0.925)	179349	4.98341	5.0
\$ 84 Benzene-d6	84	5.329	5.324	(0.605)	969623	5.59295	5.6
* 26 1,4-Difluorobenzene	114	5.735	5.742	(1.000)	603724	5.00000	
27 Trichloroethene	95	6.002	6.009	(0.681)	45579	0.92740	0.93
\$ 85 1,2-Dichloropropane-d6	67	6.130	6.125	(0.696)	222445	5.61226	5.6
\$ 33 Toluene-d8	98	7.245	7.240	(0.822)	684443	5.35500	5.4
\$ 86 trans-1,3-Dichloropropene-d4	79	7.524	7.519	(0.854)	123779	4.57506	4.6(Q)
\$ 87 2-Hexanone-d5	63	8.012	7.983	(0.909)	5661	1.59010	1.6(aR)
* 42 Chlorobenzene-d5	117	8.813	8.808	(1.000)	351035	5.00000	
\$ 88 Bromoform-d	174	9.753	9.748	(0.845)	57580	5.10123	5.1
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.299	10.306	(1.169)	65798	4.89864	4.9
* 78 1,4-Dichlorobenzene-d4	152	11.542	11.537	(1.000)	125657	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.983	11.990	(1.038)	98255	5.33281	5.3

Handwritten: 11/24/08
 0046

Data File: V5K3950.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3950.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3950.D
Lab Smp Id: G2261-03D Client Smp ID: MW-7S
Inj Date : 11-DEC-2008 16:46
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-03D,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 81
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Date : 11-DEC-2008 16:46

Client ID: MW-7S

Instrument: W5.i

Sample Info: 25ML.G2261-03D,,40712

Purge Volume: 25.0

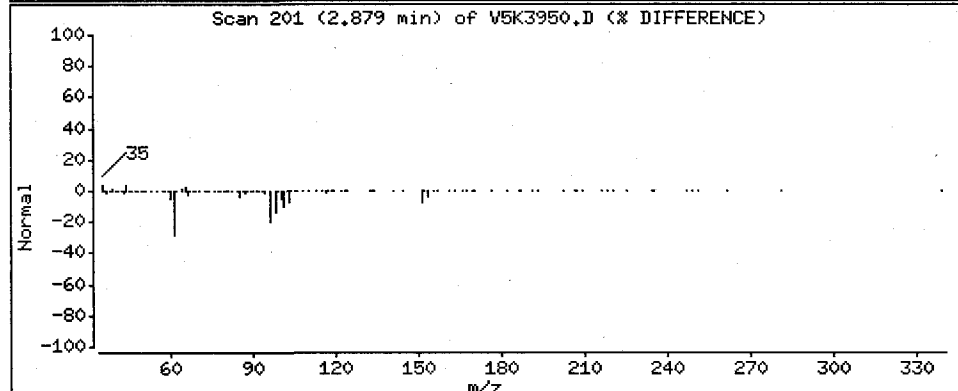
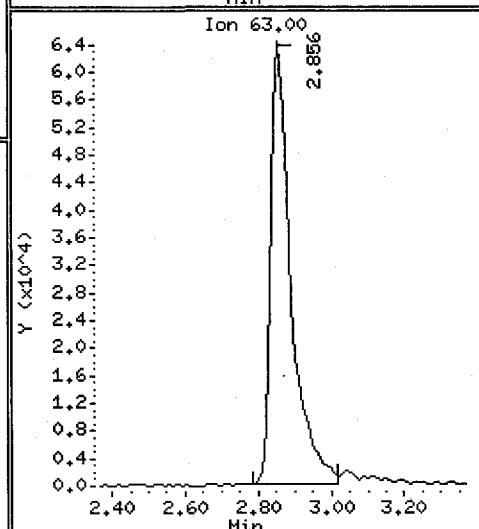
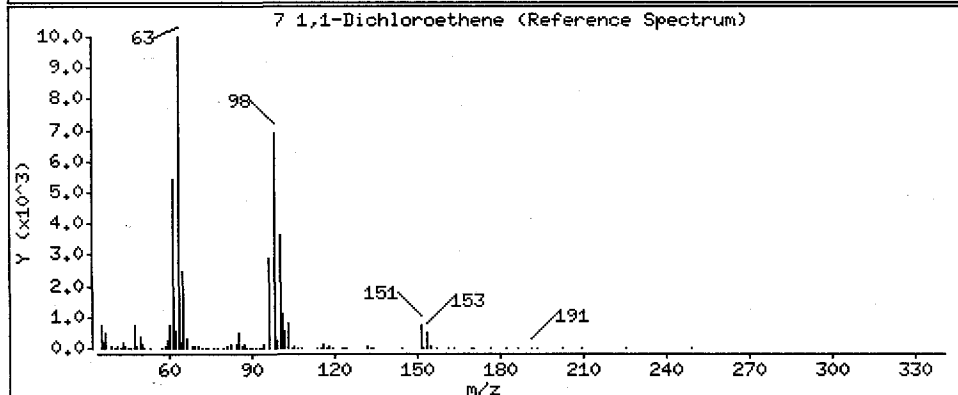
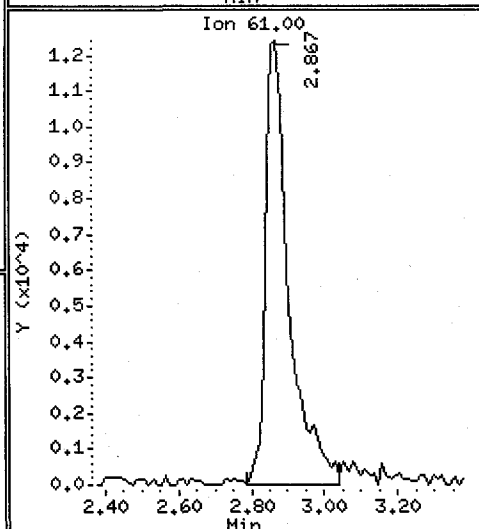
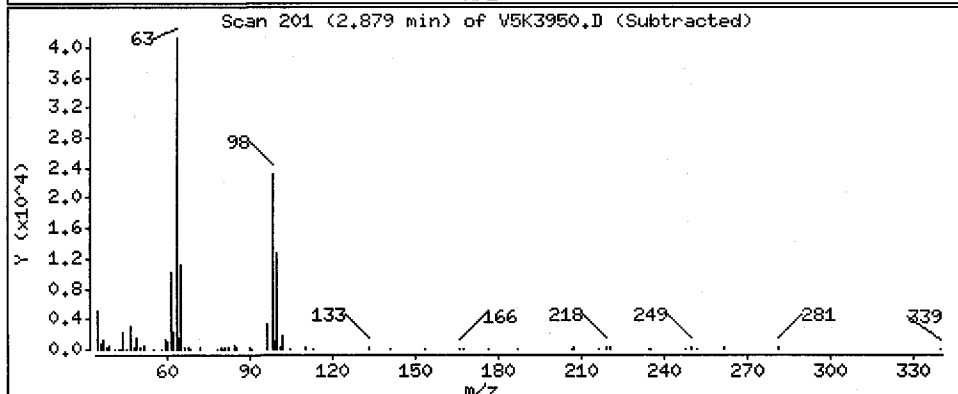
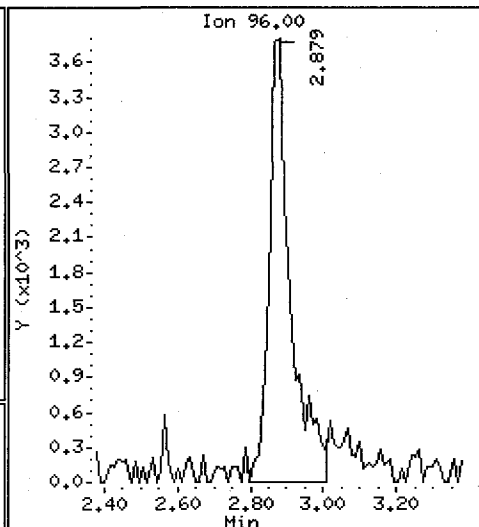
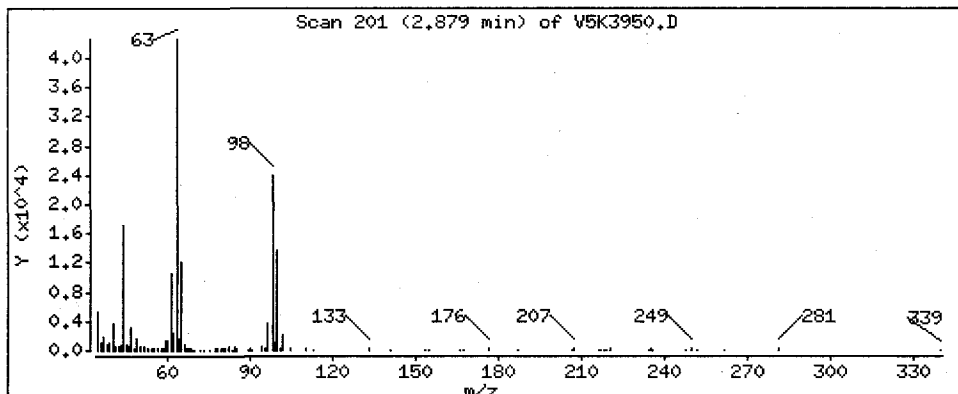
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

7 1,1-Dichloroethene

Concentration: 0.38 ug/L



Data File: \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3950.D

Date : 11-DEC-2008 16:46

Client ID: MW-75

Instrument: V5.i

Sample Info: 25ML,G2261-03D,,40712

Purge Volume: 25.0

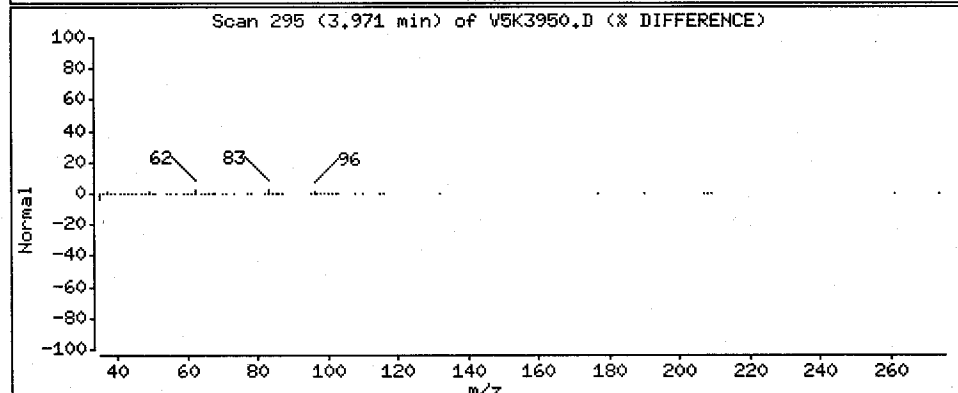
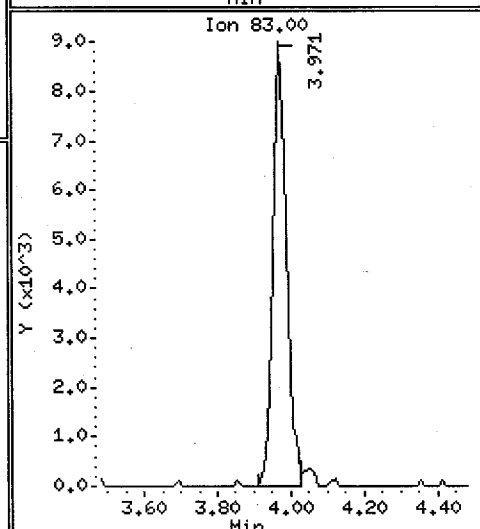
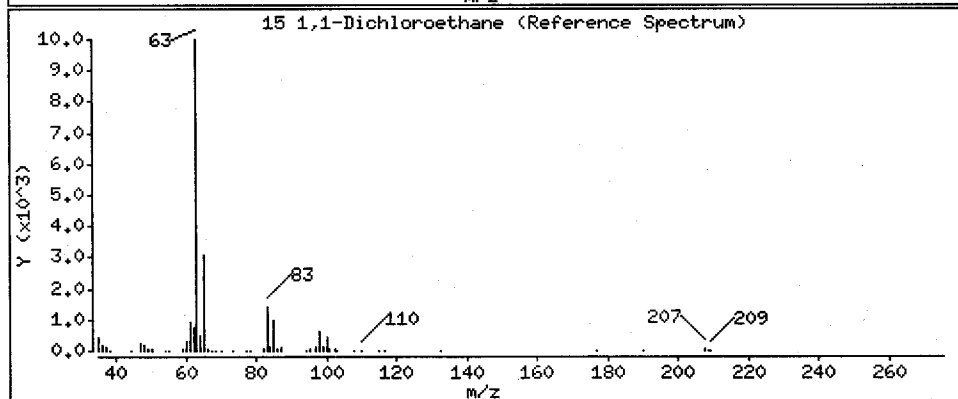
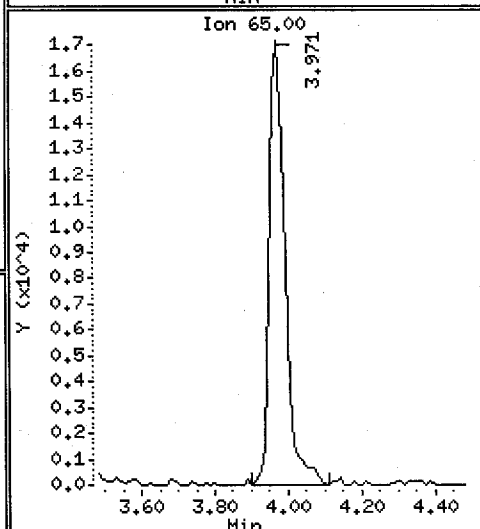
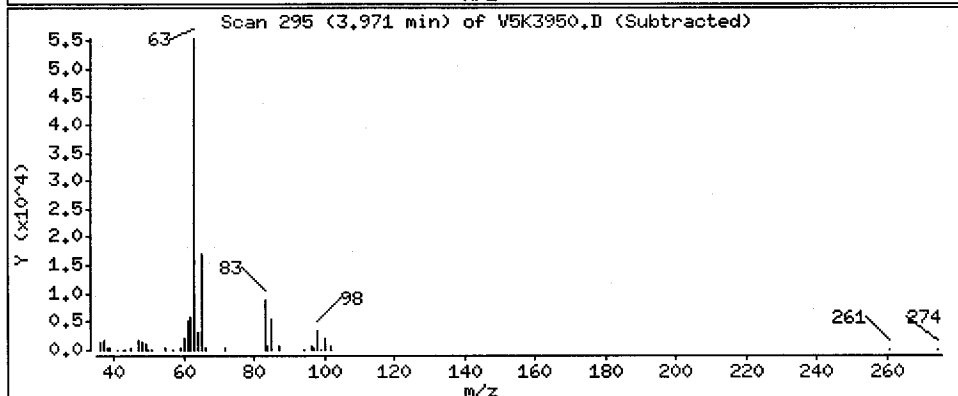
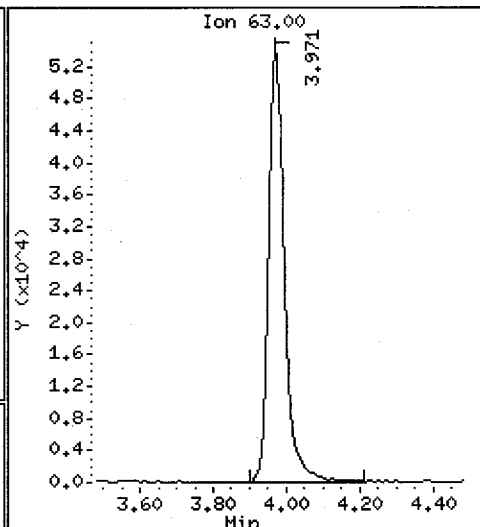
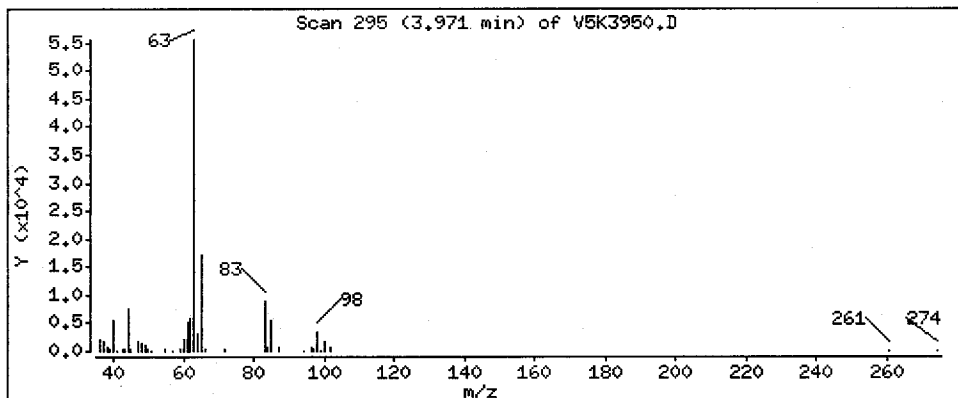
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

15 1,1-Dichloroethane

Concentration: 1.6 ug/L



Date : 11-DEC-2008 16:46

Client ID: MW-75

Instrument: V5.i

Sample Info: 25ML,G2261-03D,,40712

Purge Volume: 25.0

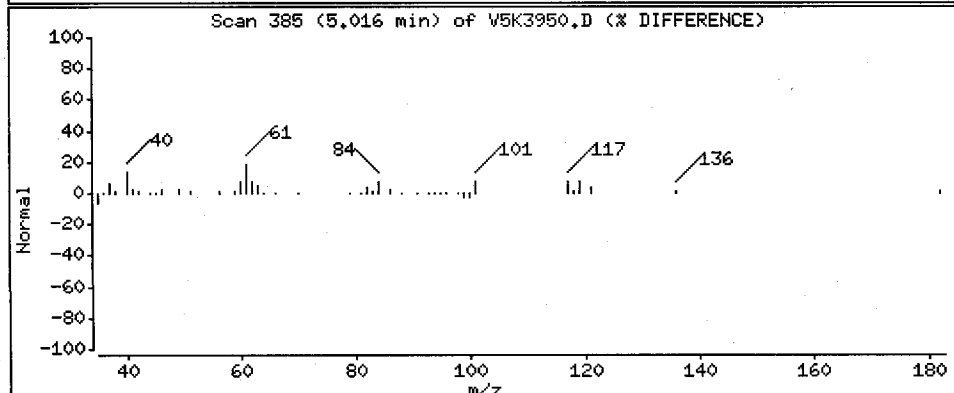
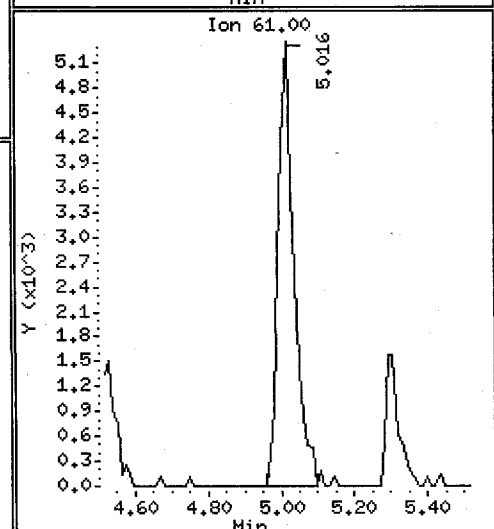
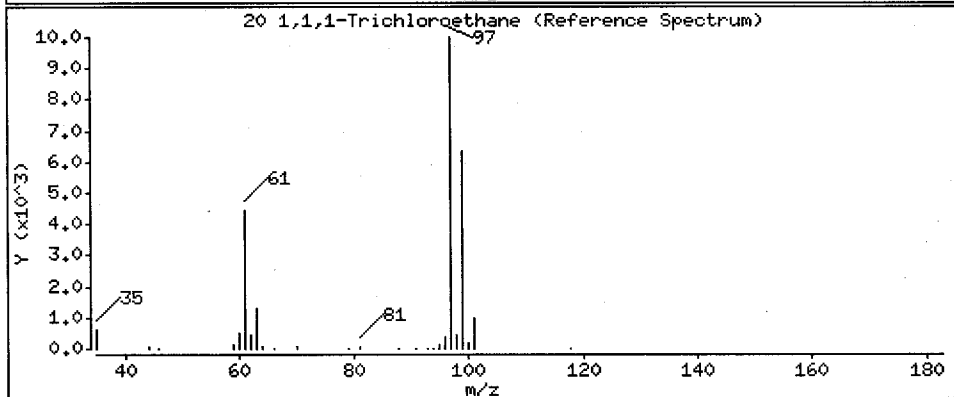
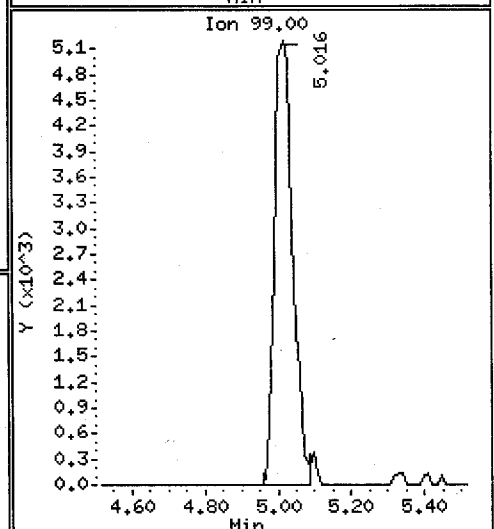
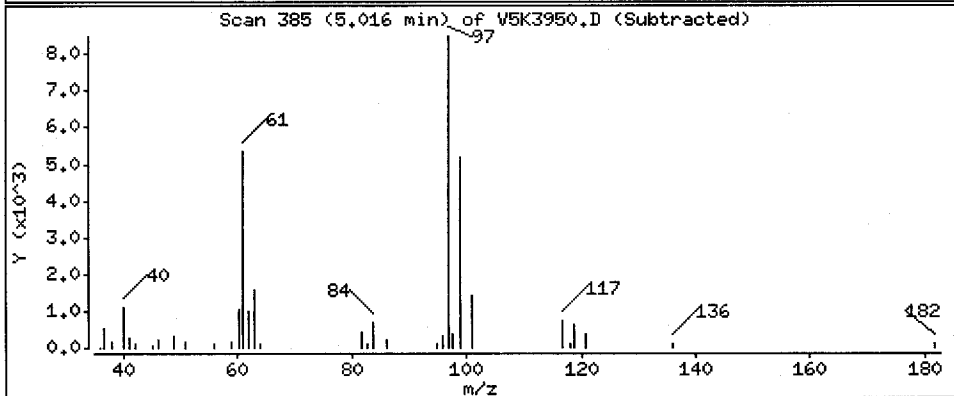
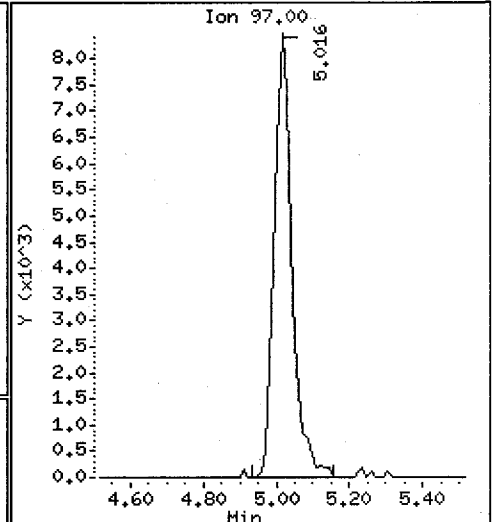
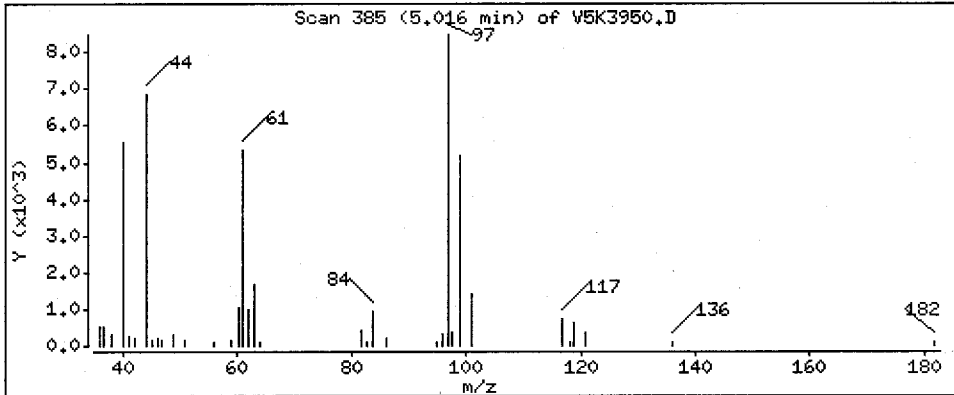
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

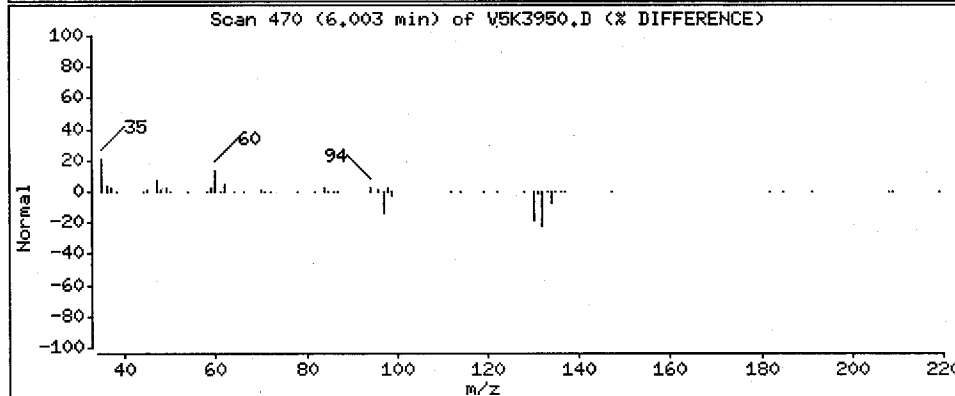
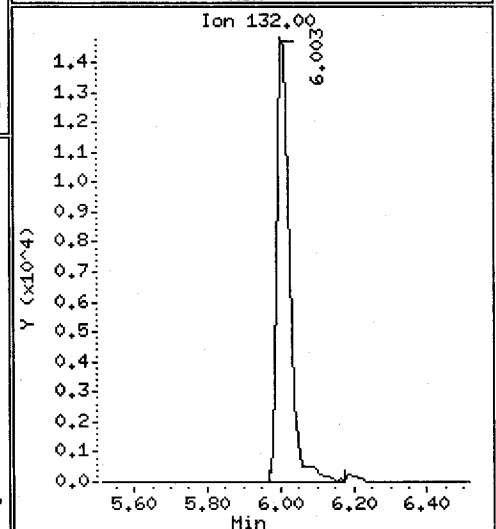
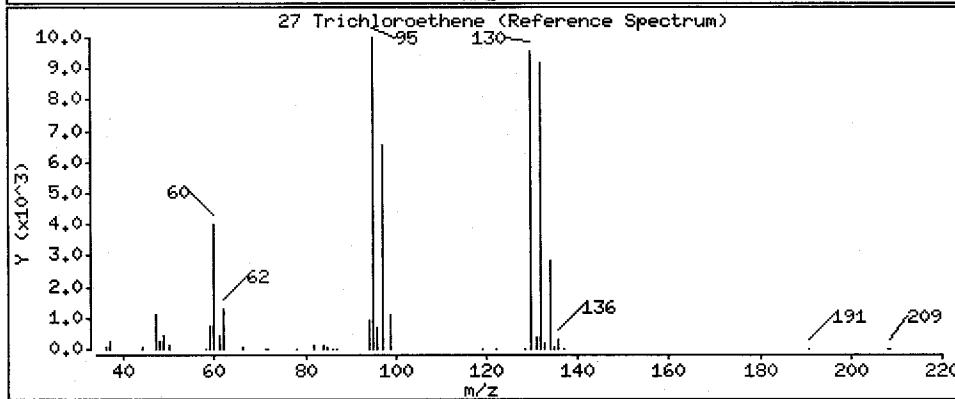
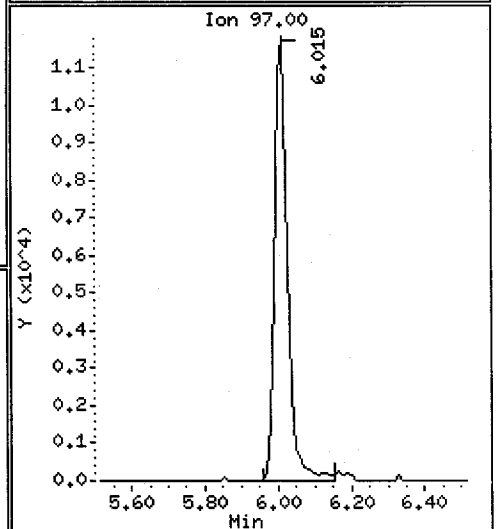
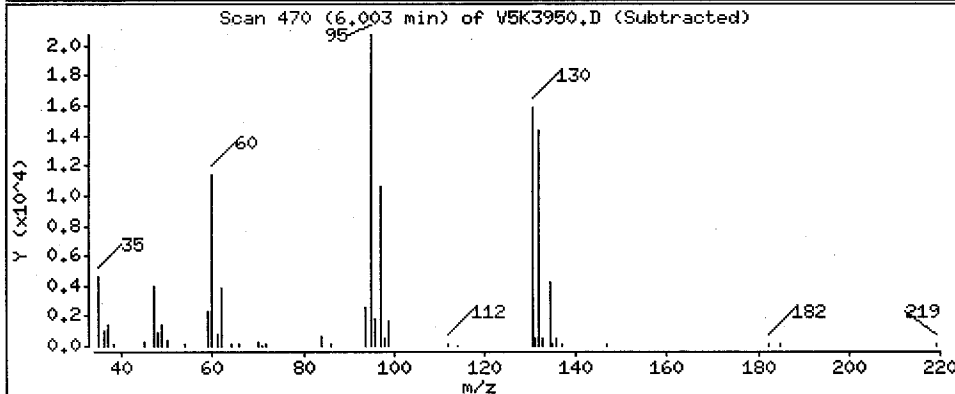
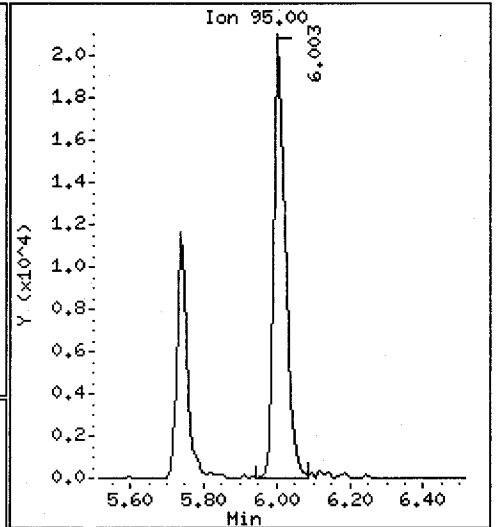
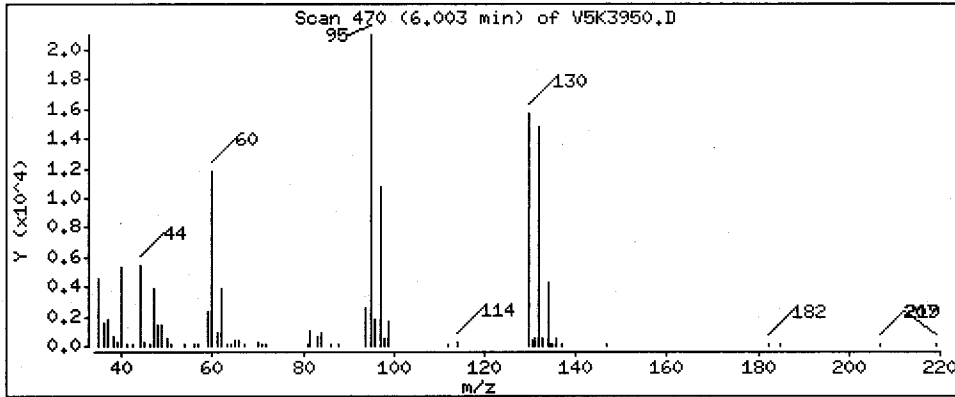
20 1,1,1-Trichloroethane

Concentration: 0.36 ug/L



27 Trichloroethene

Concentration: 0.93 ug/L



1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-5S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-04D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3951.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.35	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.79	
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.48	J
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.86	
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-5S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-04D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3951.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
MW-5S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-04D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3951.D
 Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\VK3951.D

Date: 11-DEC-2008 17:15

Client ID: MN-55

Sample Info: 25ML_G2261-04D,,40712

Purge Volume: 25.0

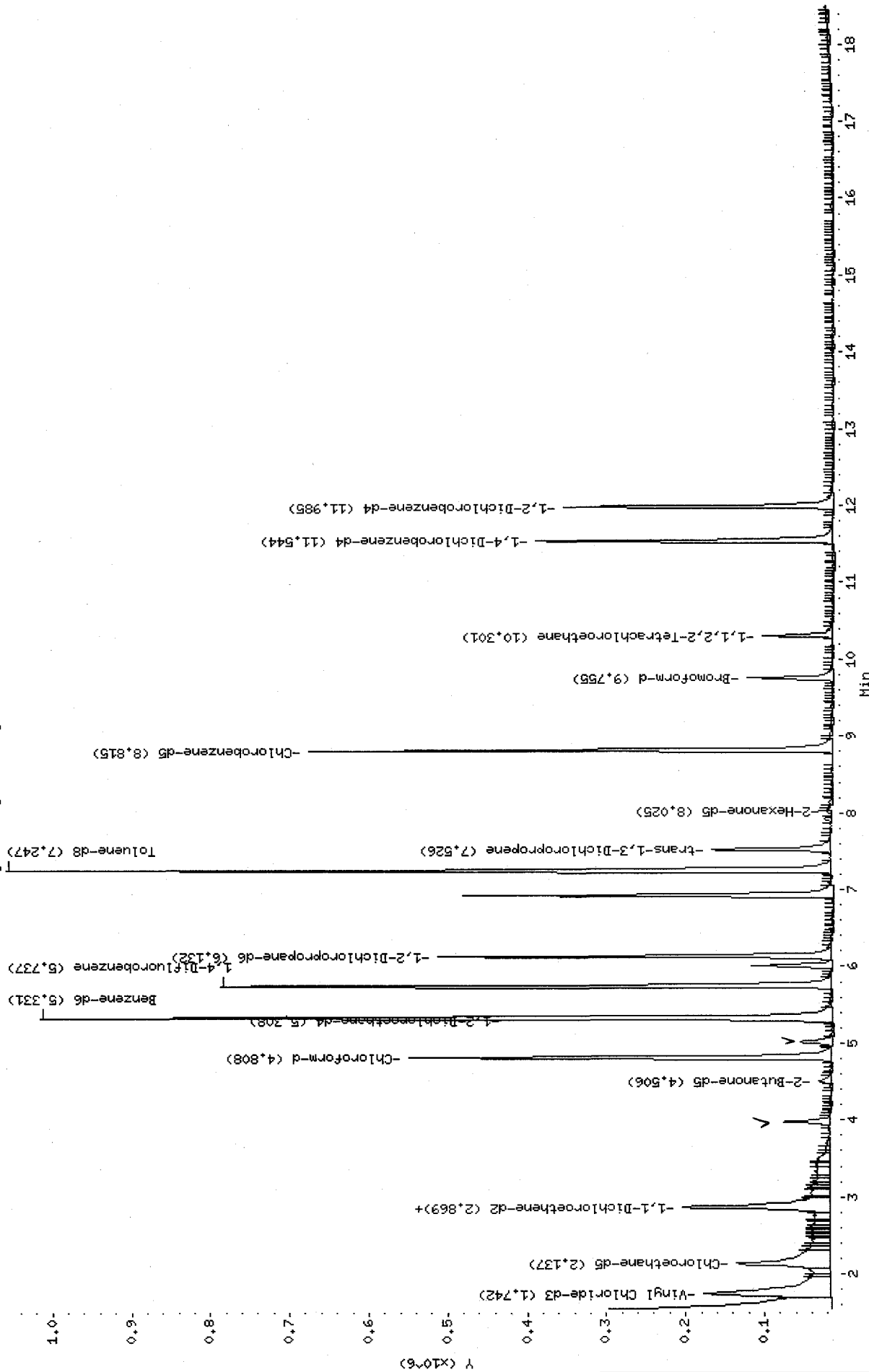
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25

\\Avogadro\Organics\voa\5.i\081211A.B\VK3951.D



Data File: V5K3951.D
 Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3951.D
 Lab Smp Id: G2261-04D Client Smp ID: MW-5S
 Inj Date : 11-DEC-2008 17:15
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-04D,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 82
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.742	1.747 (0.304)		376324	5.25088	5.3
\$ 80 Chloroethane-d5	69	2.125	2.130 (0.370)		278879	5.82903	5.8
\$ 81 1,1-Dichloroethene-d2	100	2.868	2.862 (0.500)		73165	4.28872	4.3 (Q)
7 1,1-Dichloroethene	96	2.880	2.873 (0.502)		14110	0.35296	0.35 (aQ)
15 1,1-Dichloroethane	63	3.972	3.977 (0.692)		78406	0.78583	0.79
\$ 82 2-Butanone-d5	46	4.506	4.499 (0.785)		32463	4.05299	4.1 (a)
\$ 83 Chloroform-d	84	4.808	4.813 (0.838)		532037	5.19196	5.2 (Q)
20 1,1,1-Trichloroethane	97	5.017	5.010 (0.569)		37143	0.48240	0.48 (a)
\$ 23 1,2-Dichloroethane-d4	65	5.307	5.301 (0.925)		173510	5.00824	5.0
\$ 84 Benzene-d6	84	5.330	5.324 (0.605)		944060	5.60475	5.6
* 26 1,4-Difluorobenzene	114	5.737	5.742 (1.000)		581173	5.00000	
27 Trichloroethene	95	6.016	6.009 (0.682)		40858	0.85566	0.86
\$ 85 1,2-Dichloropropane-d6	67	6.132	6.125 (0.696)		213942	5.55559	5.6
\$ 33 Toluene-d8	98	7.247	7.240 (0.822)		666407	5.36636	5.4
\$ 86 trans-1,3-Dichloropropene-d4	79	7.525	7.519 (0.854)		115702	4.40158	4.4 (Q)
\$ 87 2-Hexanone-d5	63	8.013	7.983 (0.909)		2046	0.59150	0.59 (aQR)
* 42 Chlorobenzene-d5	117	8.814	8.808 (1.000)		341061	5.00000	
\$ 88 Bromoform-d	174	9.755	9.748 (0.845)		59625	5.44552	5.4
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.301	10.306 (1.169)		65665	5.03170	5.0
* 78 1,4-Dichlorobenzene-d4	152	11.543	11.537 (1.000)		121893	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.985	11.990 (1.038)		95562	5.34681	5.3

12/22/08
 0057

Data File: V5K3951.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3951.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3951.D
Lab Smp Id: G2261-04D Client Smp ID: MW-5S
Inj Date : 11-DEC-2008 17:15
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-04D,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 82
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: \\Avogadro\Organics\organic\woa\W5.i\081211A,B\W5K3951.D

Date : 11-DEC-2008 17:15

Client ID: MW-5S

Instrument: V5.i

Sample Info: 25HL,G2261-04D,,40712

Purge Volume: 25.0

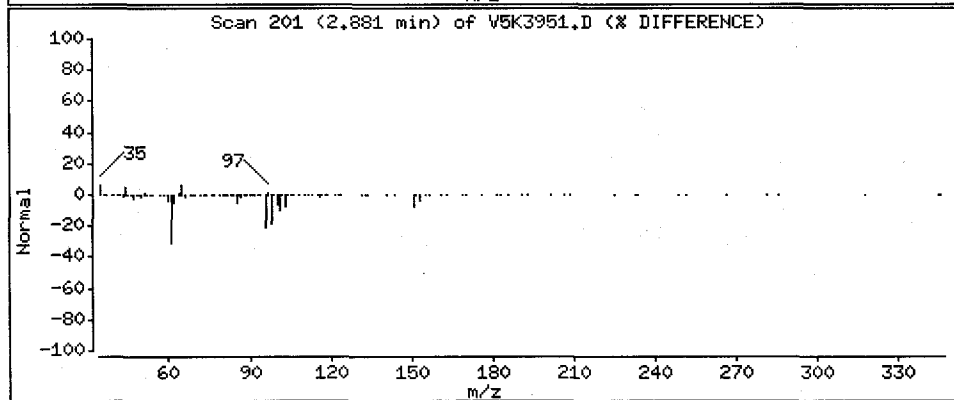
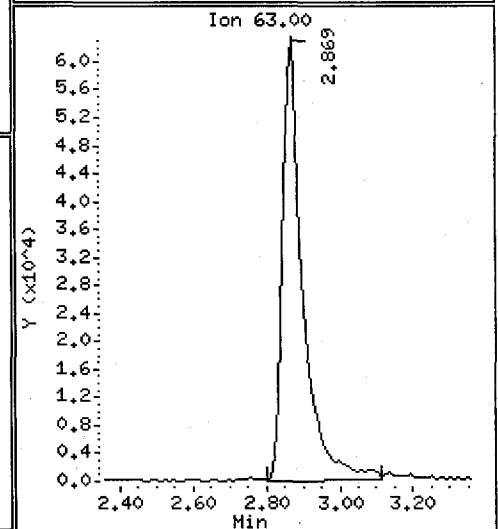
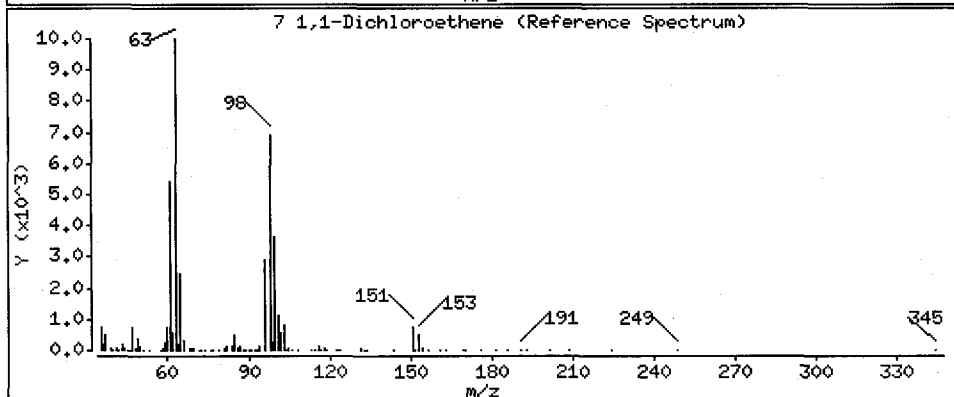
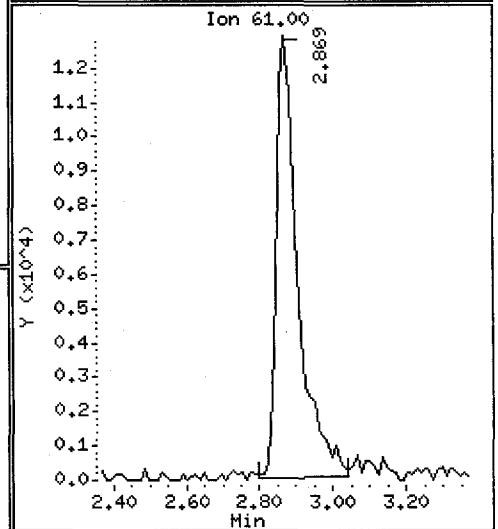
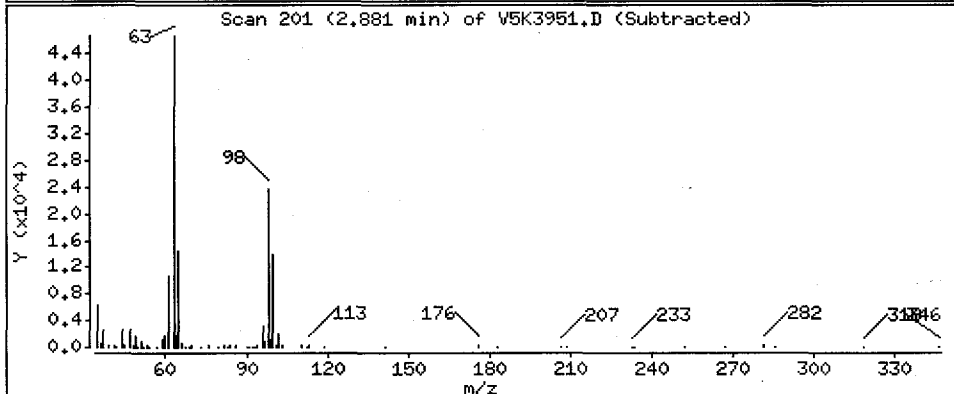
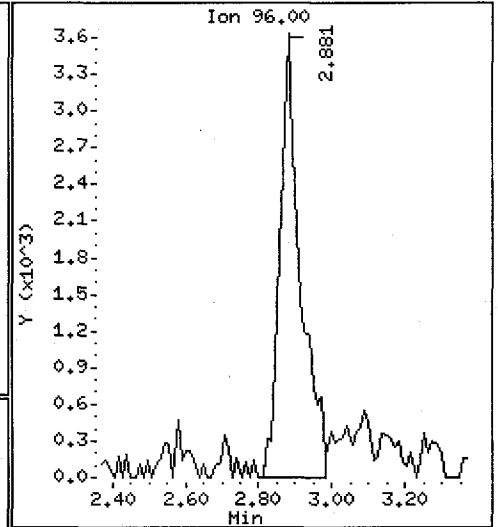
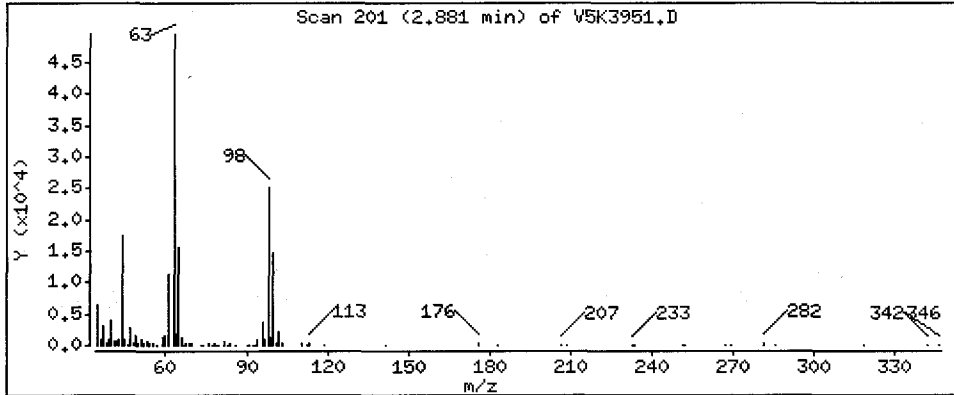
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

7 1,1-Dichloroethene

Concentration: 0.35 ug/L



Date : 11-DEC-2008 17:15

Client ID: MW-5S

Instrument: W5.i

Sample Info: 25HL,G2261-04D,,40712

Purge Volume: 25.0

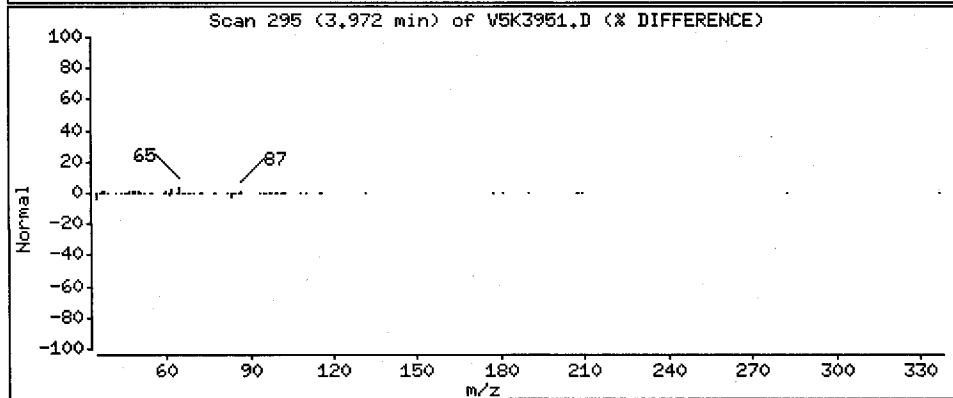
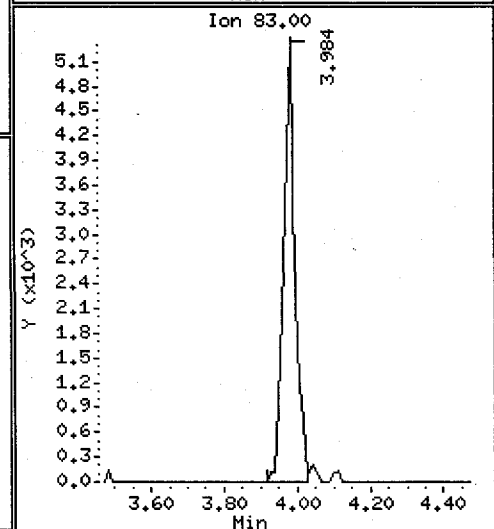
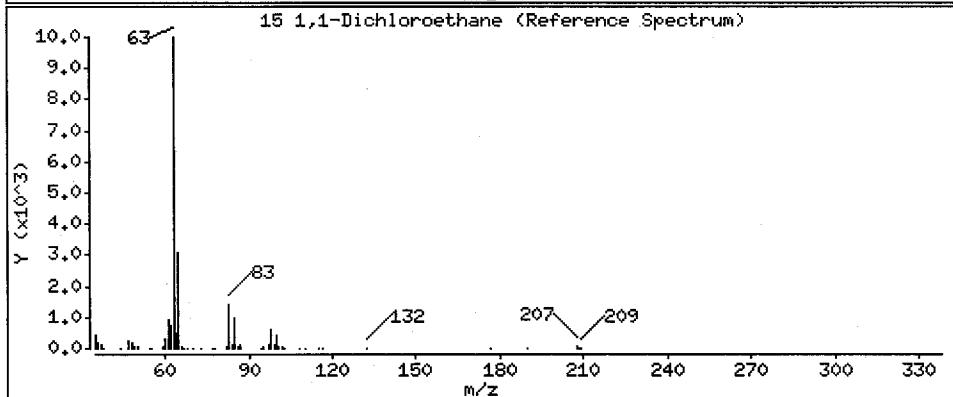
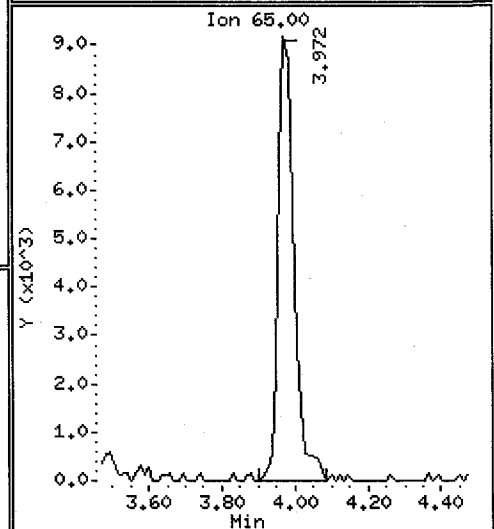
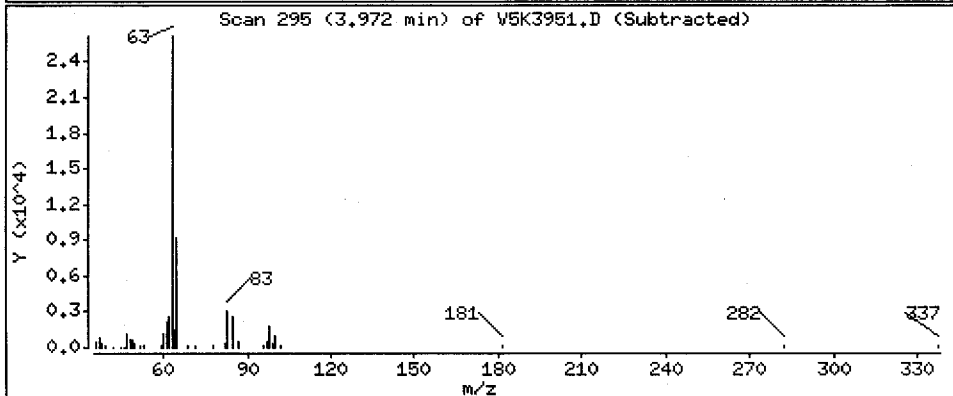
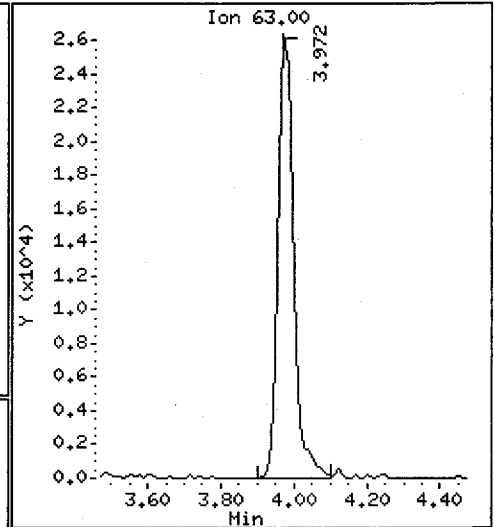
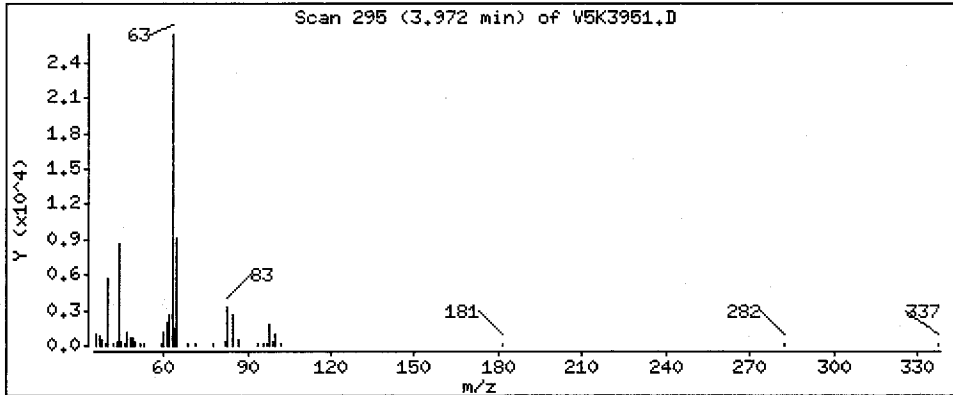
Operator: ALM SRC: LIMS

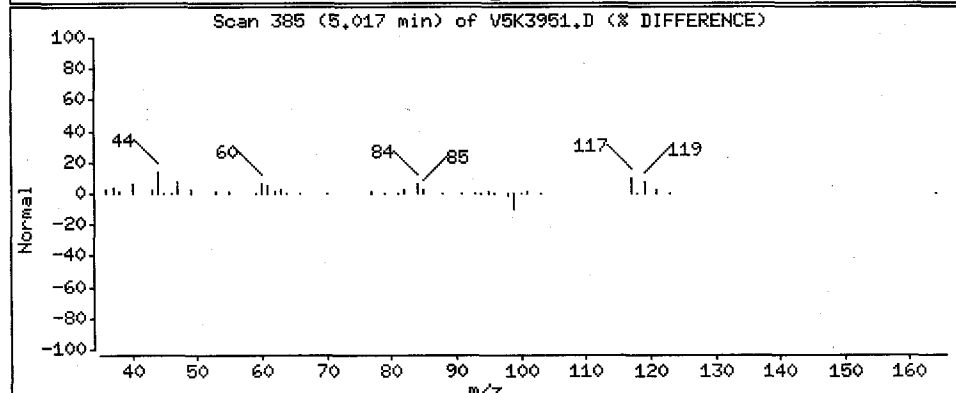
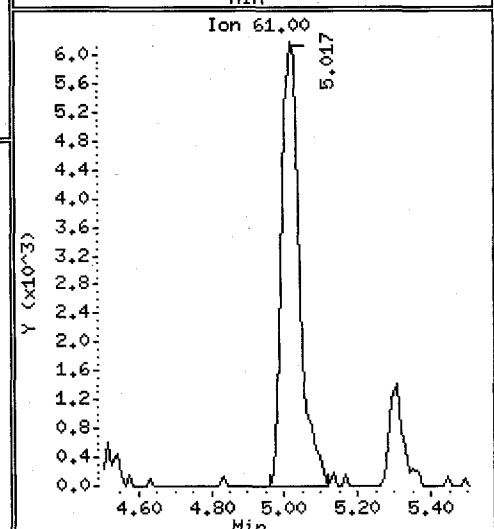
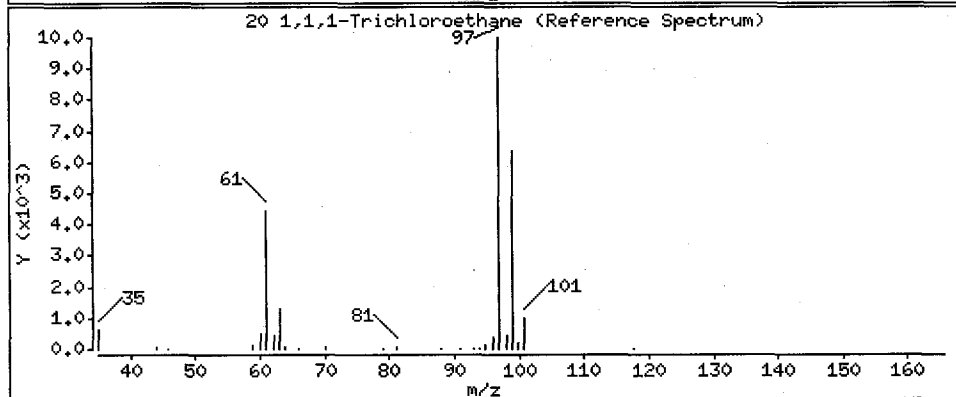
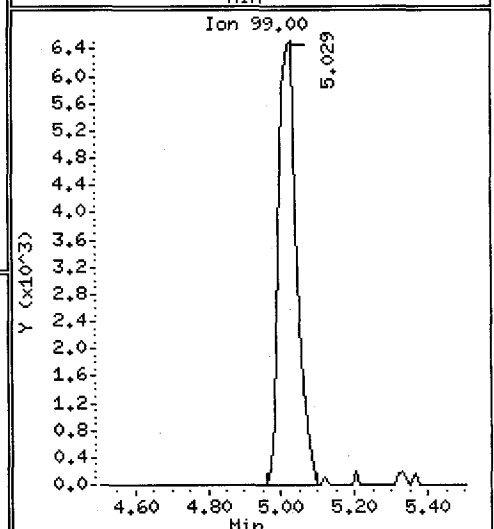
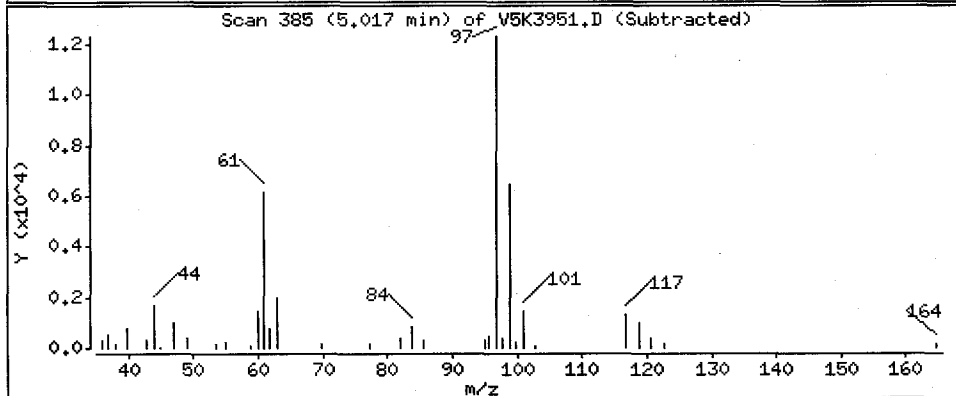
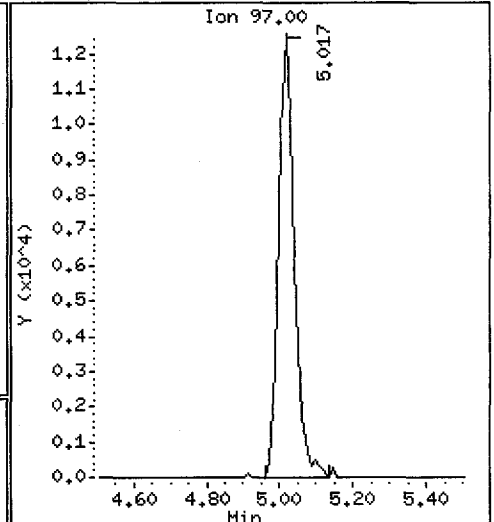
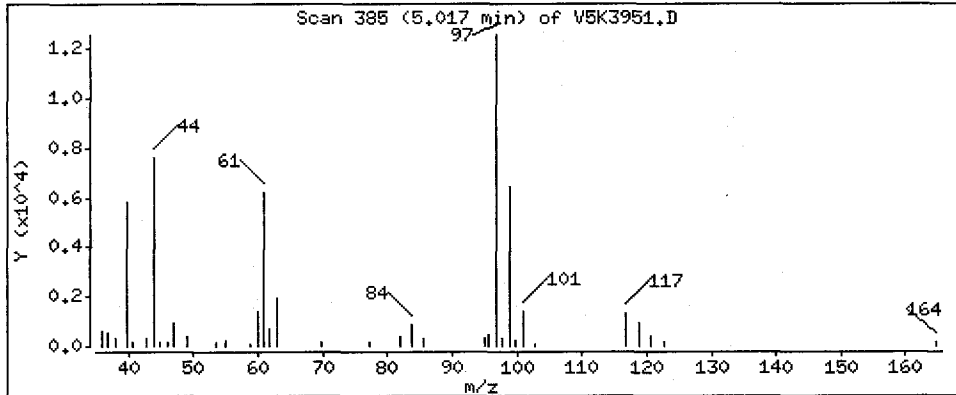
Column phase: DB-624

Column diameter: 0.25

15 1,1-Dichloroethane

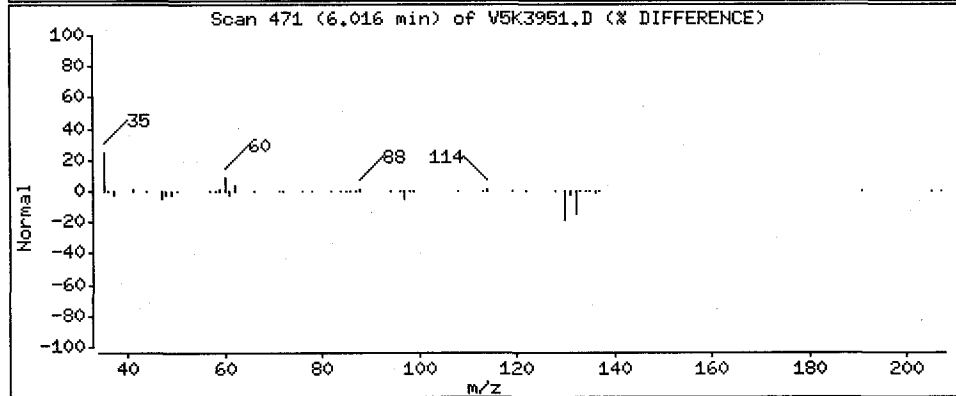
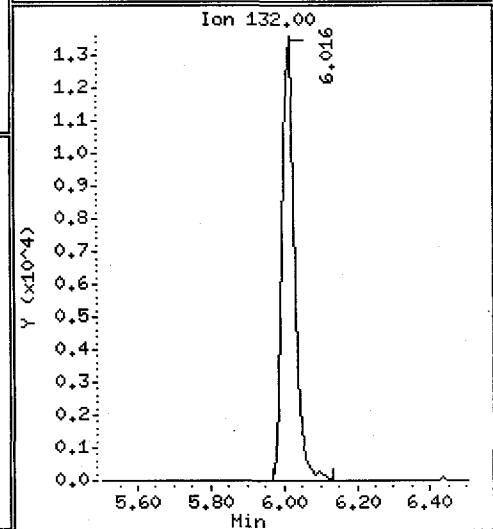
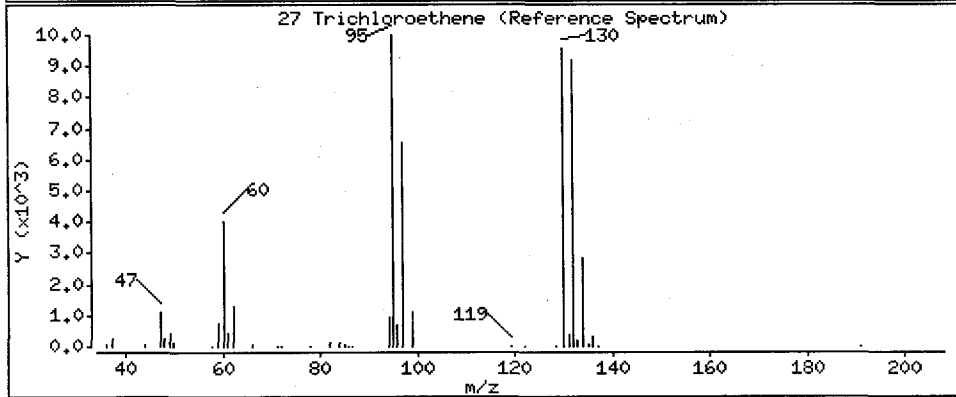
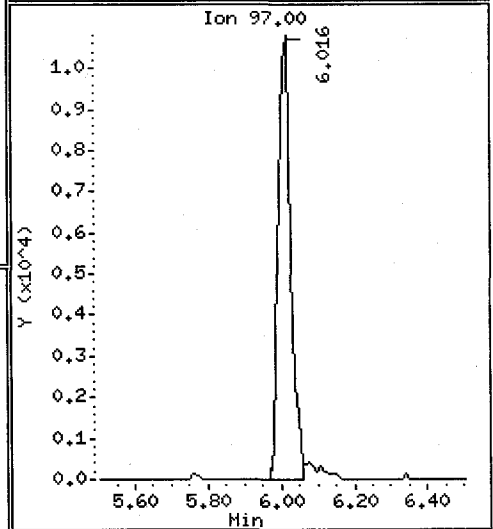
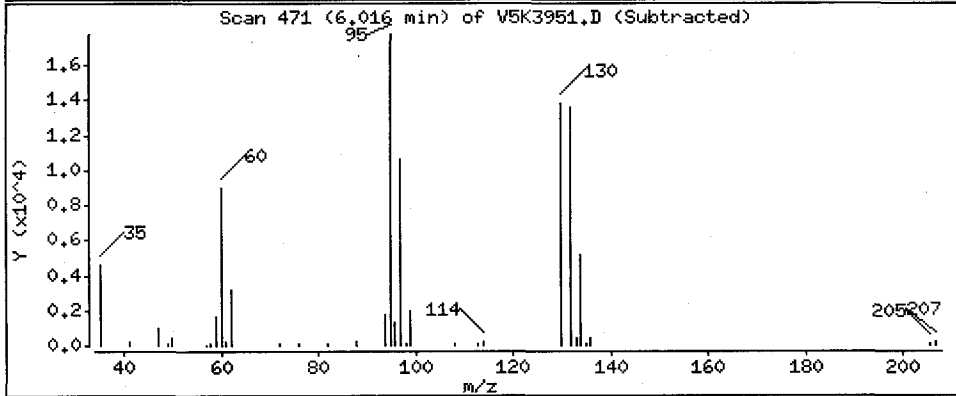
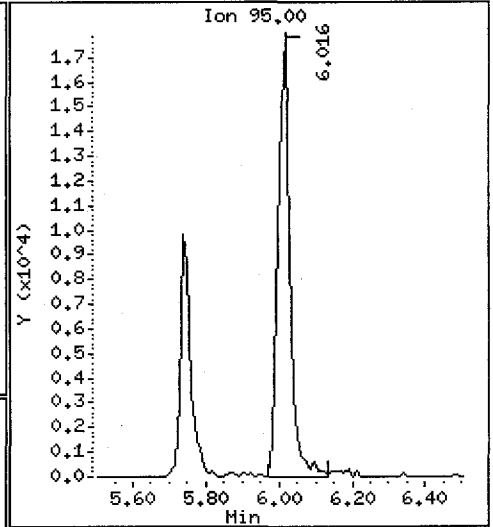
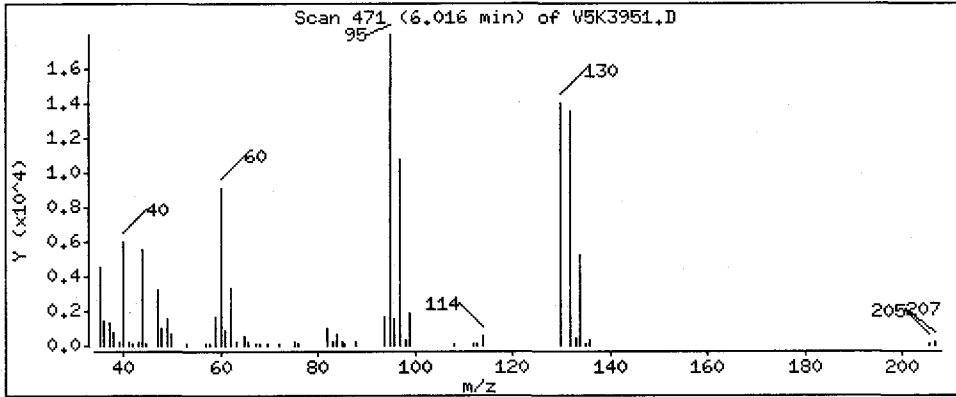
Concentration: 0.79 ug/L





27 Trichloroethene

Concentration: 0.86 ug/L



1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-4S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-05D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3952.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.76	
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.50	U
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-4S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-05D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3952.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-4S

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-05D

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3952.D

Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008

% Moisture: not dec. Date Analyzed: 12/11/2008

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5,i\081211A,B\5K3952.D

Date : 11-DEC-2008 17:44

Client ID: MM-4S

Sample Info: 25ML, G2261-05D, ,40712

Purge Volume: 25.0

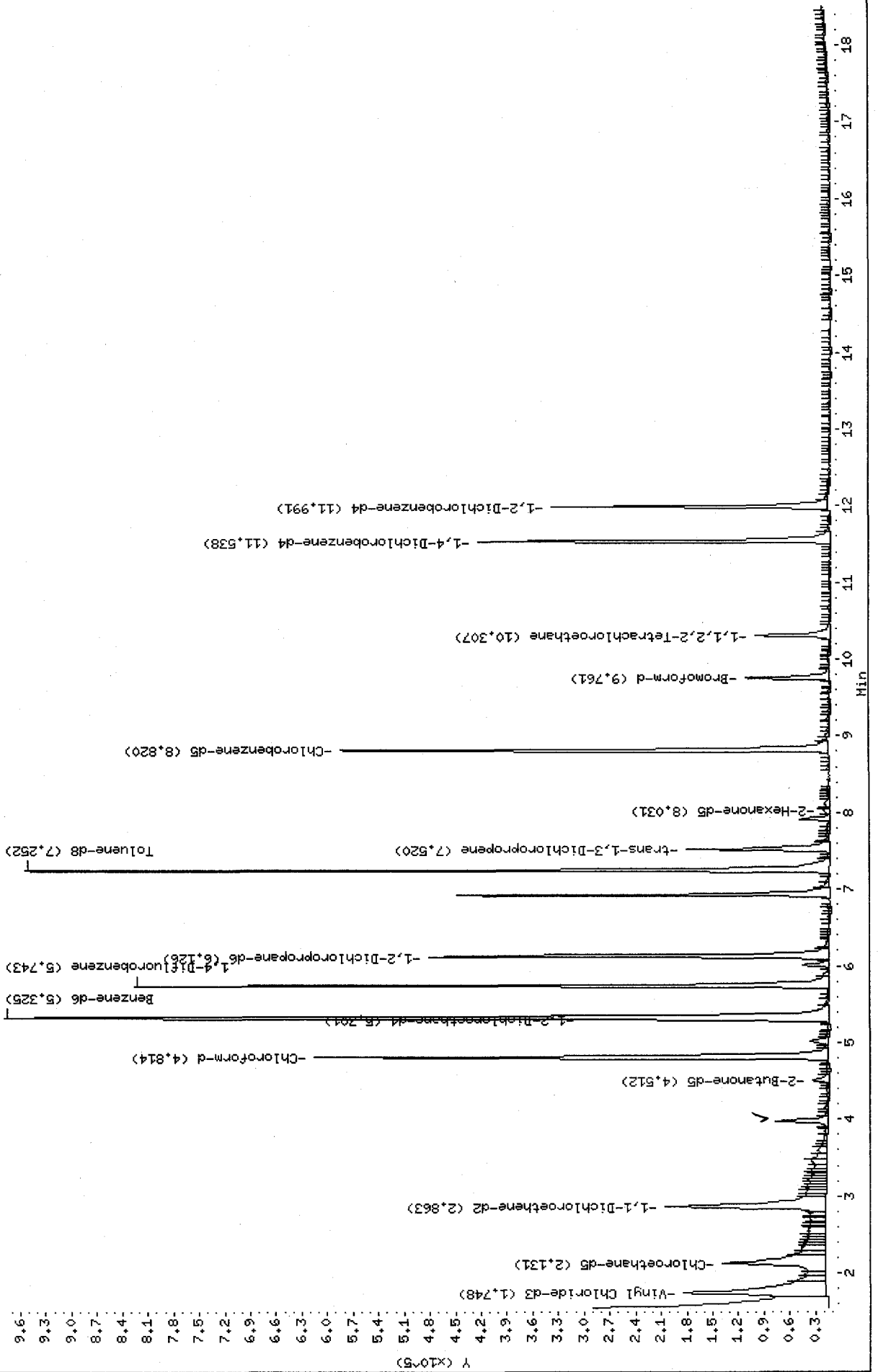
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIHS

Column diameter: 0.25

\\Avogadro\Organics\voa\5,i\081211A,B\5K3952.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3952.D
 Lab Smp Id: G2261-05D Client Smp ID: MW-4S
 Inj Date : 11-DEC-2008 17:44
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-05D,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 83
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.747	1.747	(0.304)	371948	5.17321	5.2
\$ 80 Chloroethane-d5	69	2.131	2.130	(0.371)	270990	5.64601	5.6
\$ 81 1,1-Dichloroethene-d2	100	2.862	2.862	(0.498)	75616	4.41820	4.4(Q)
15 1,1-Dichloroethane	63	3.977	3.977	(0.693)	75739	0.75667	0.76
\$ 82 2-Butanone-d5	46	4.511	4.499	(0.786)	34133	4.24785	4.2(a)
\$ 83 Chloroform-d	84	4.813	4.813	(0.838)	528843	5.14428	5.1(Q)
\$ 23 1,2-Dichloroethane-d4	65	5.301	5.301	(0.923)	173630	4.99566	5.0
\$ 84 Benzene-d6	84	5.324	5.324	(0.604)	961589	5.64060	5.6
* 26 1,4-Difluorobenzene	114	5.742	5.742	(1.000)	583039	5.00000	
\$ 85 1,2-Dichloropropane-d6	67	6.125	6.125	(0.695)	209168	5.36671	5.4
\$ 33 Toluene-d8	98	7.252	7.240	(0.822)	661001	5.25922	5.3
\$ 86 trans-1,3-Dichloropropene-d4	79	7.519	7.519	(0.853)	120515	4.52989	4.5(Q)
\$ 87 2-Hexanone-d5	63	8.018	7.983	(0.909)	2983	0.85208	0.85(aQR)
* 42 Chlorobenzene-d5	117	8.820	8.808	(1.000)	345186	5.00000	
\$ 88 Bromoform-d	174	9.760	9.748	(0.846)	57819	5.68207	5.7
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.306	10.306	(1.169)	61665	4.66873	4.7
* 78 1,4-Dichlorobenzene-d4	152	11.537	11.537	(1.000)	113280	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.990	11.990	(1.039)	98022	5.90145	5.9

Handwritten signature
 12/22/08

Data File: V5K3952.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

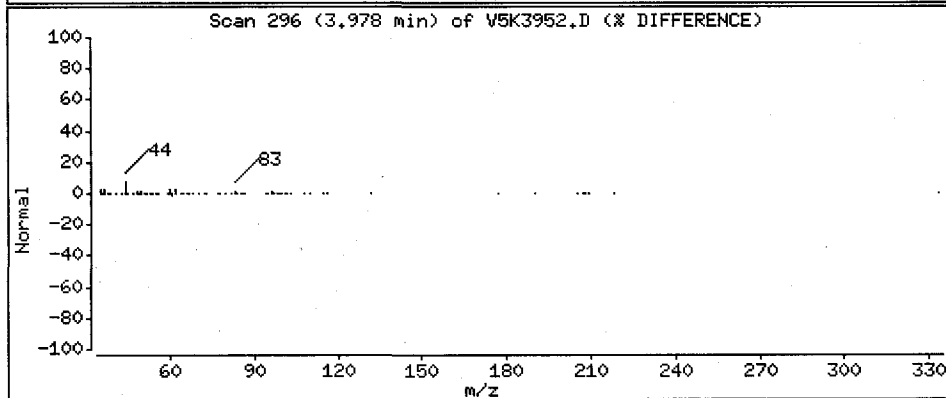
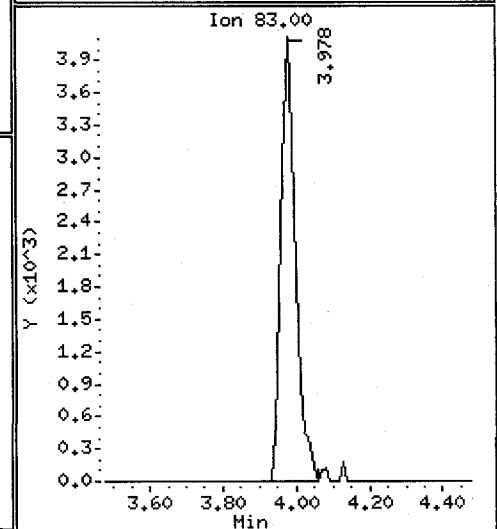
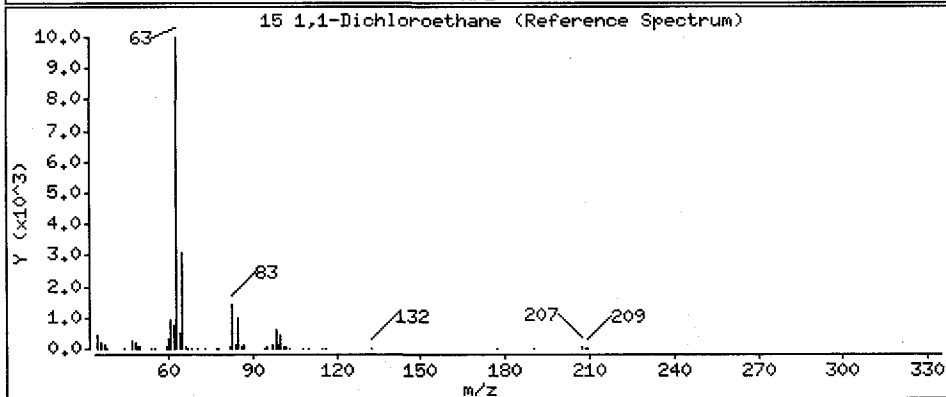
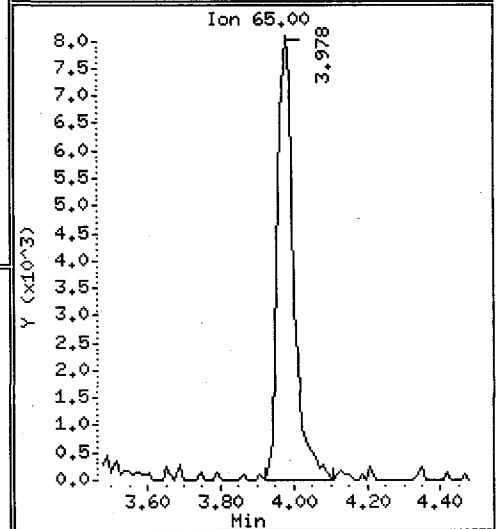
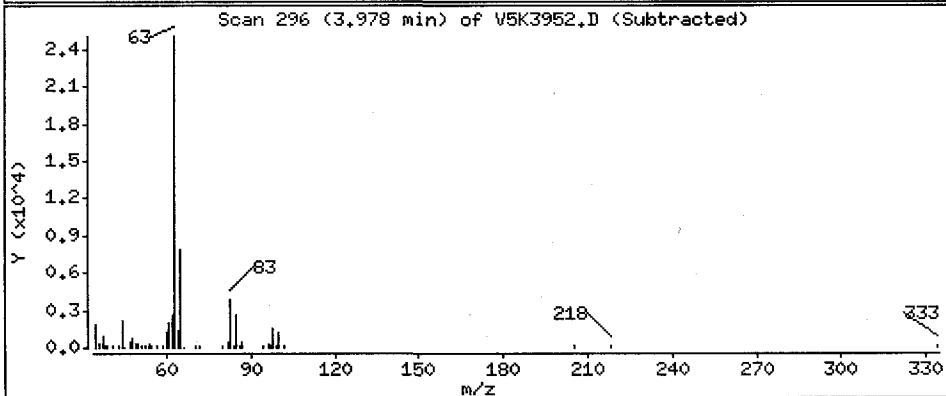
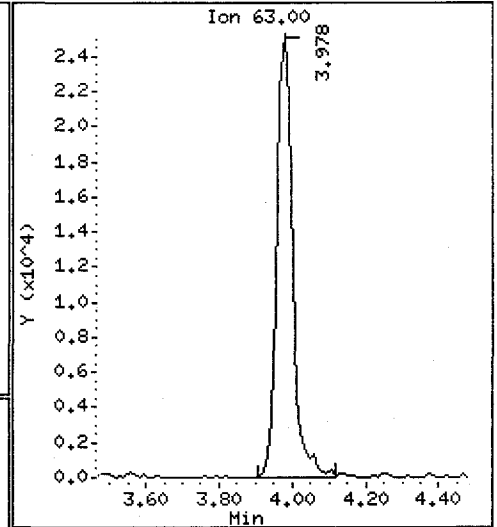
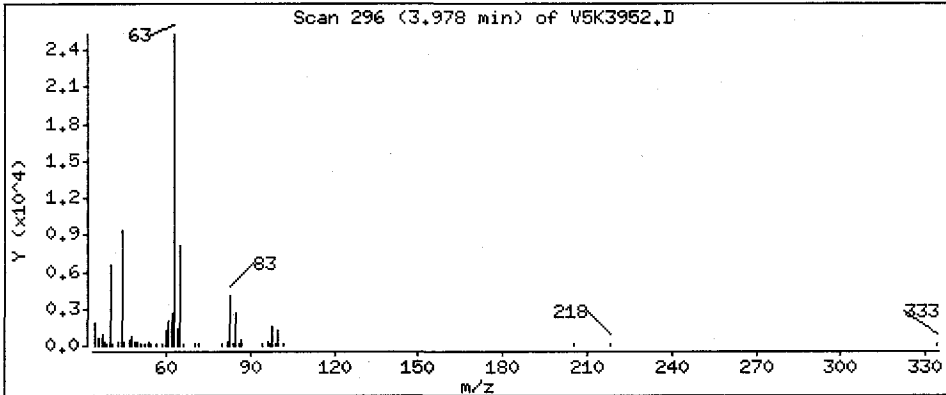
- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3952.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3952.D
Lab Smp Id: G2261-05D Client Smp ID: MW-4S
Inj Date : 11-DEC-2008 17:44
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-05D,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 83
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -



VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6S

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-06D

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3953.D

Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008

% Moisture: not dec. Date Analyzed: 12/11/2008

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.32	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		1.6	
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.36	J
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		1.1	
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-6S

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-06D
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3953.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-6S

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-06D

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3953.D

Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008

% Moisture: not dec. Date Analyzed: 12/11/2008

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\W5K3953.D

Date : 11-DEC-2008 18:13

Client ID: MM-6S

Sample Info: 25ML,G2261-06D,,40712

Purge Volume: 25.0

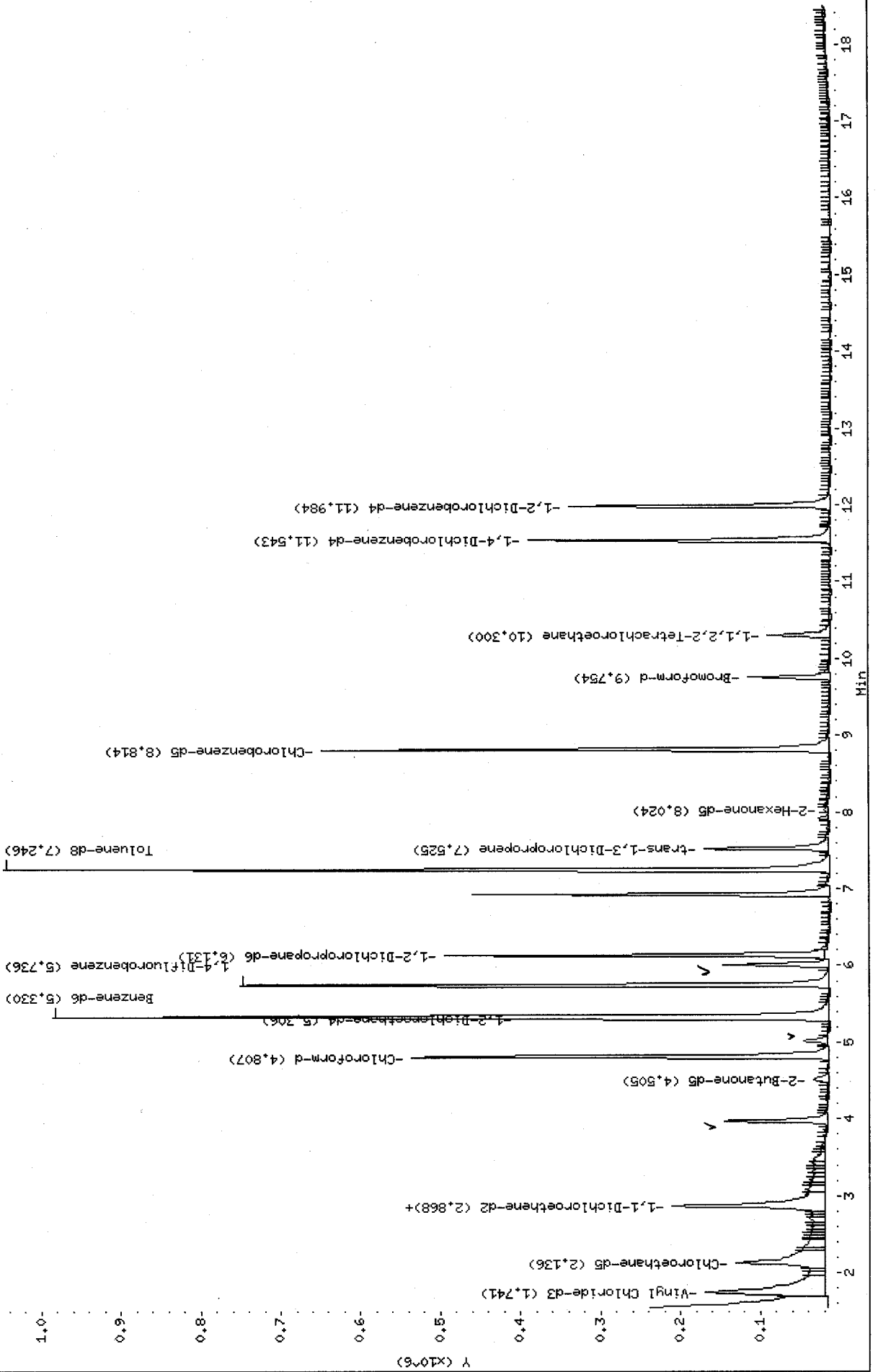
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25

\\Avogadro\Organics\voa\5.i\081211A.B\W5K3953.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3953.D
 Lab Smp Id: G2261-06D Client Smp ID: MW-6S
 Inj Date : 11-DEC-2008 18:13
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-06D,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 84
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.752	1.747 (0.305)		360911	5.09667	5.1
\$ 80 Chloroethane-d5	69	2.136	2.130 (0.372)		272384	5.76207	5.8
\$ 81 1,1-Dichloroethene-d2	100	2.867	2.862 (0.499)		70225	4.16612	4.2(Q)
7 1,1-Dichloroethene	96	2.867	2.873 (0.499)		12513	0.31679	0.32(aQ)
15 1,1-Dichloroethane	63	3.970	3.977 (0.691)		158918	1.61201	1.6
\$ 82 2-Butanone-d5	46	4.505	4.499 (0.784)		31741	4.01074	4.0(a)
\$ 83 Chloroform-d	84	4.807	4.813 (0.836)		522529	5.16080	5.2(Q)
20 1,1,1-Trichloroethane	97	5.016	5.010 (0.569)		27368	0.36234	0.36(a)
\$ 23 1,2-Dichloroethane-d4	65	5.306	5.301 (0.923)		164064	4.79281	4.8
\$ 84 Benzene-d6	84	5.329	5.324 (0.605)		936549	5.66796	5.7
* 26 1,4-Difluorobenzene	114	5.747	5.742 (1.000)		574234	5.00000	
27 Trichloroethene	95	6.014	6.009 (0.682)		53663	1.14561	1.1
\$ 85 1,2-Dichloropropane-d6	67	6.130	6.125 (0.696)		202839	5.36939	5.4
\$ 33 Toluene-d8	98	7.245	7.240 (0.822)		654535	5.37295	5.4
\$ 86 trans-1,3-Dichloropropene-d4	79	7.524	7.519 (0.854)		115765	4.48937	4.5(Q)
\$ 87 2-Hexanone-d5	63	8.023	7.983 (0.910)		3309	0.97518	0.98(aQR)
* 42 Chlorobenzene-d5	117	8.813	8.808 (1.000)		334574	5.00000	
\$ 88 Bromoform-d	174	9.754	9.748 (0.845)		57552	5.24432	5.2
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.311	10.306 (1.170)		64356	5.02701	5.0
* 78 1,4-Dichlorobenzene-d4	152	11.542	11.537 (1.000)		122169	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.983	11.990 (1.038)		99191	5.53732	5.5

we
 14/12/08
 0076

Data File: V5K3953.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3953.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3953.D
Lab Smp Id: G2261-06D Client Smp ID: MW-6S
Inj Date : 11-DEC-2008 18:13
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-06D,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 84
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: \\Avogadro\Organics\organic\voa\55.i\081211A.B\5K3953.D

Date : 11-DEC-2008 18:13

Client ID: MW-6S

Instrument: V5.i

Sample Info: 25ML,G2261-06D,,40712

Purge Volume: 25.0

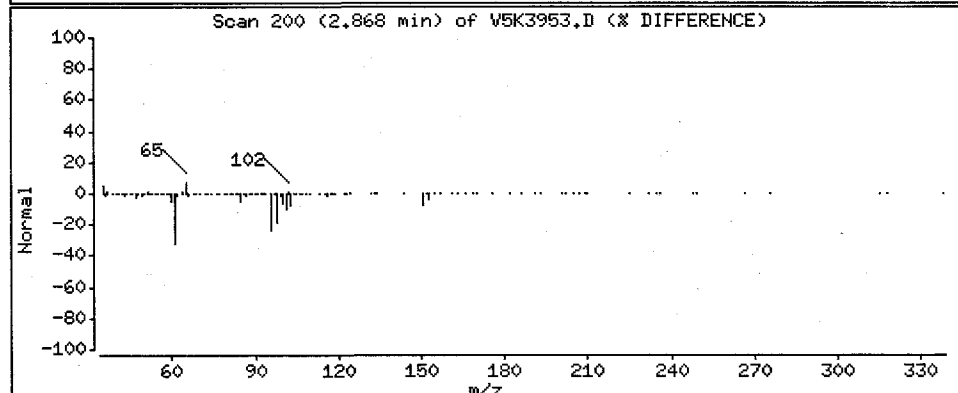
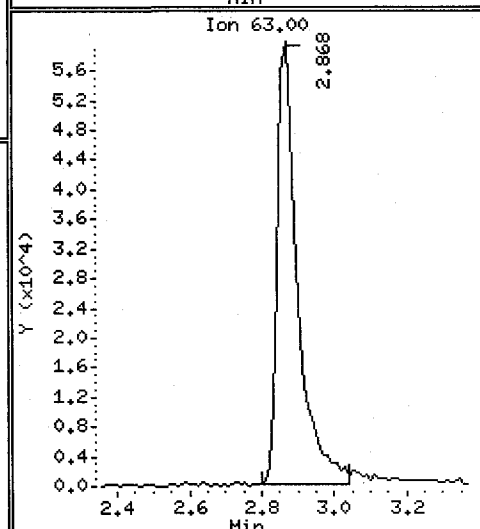
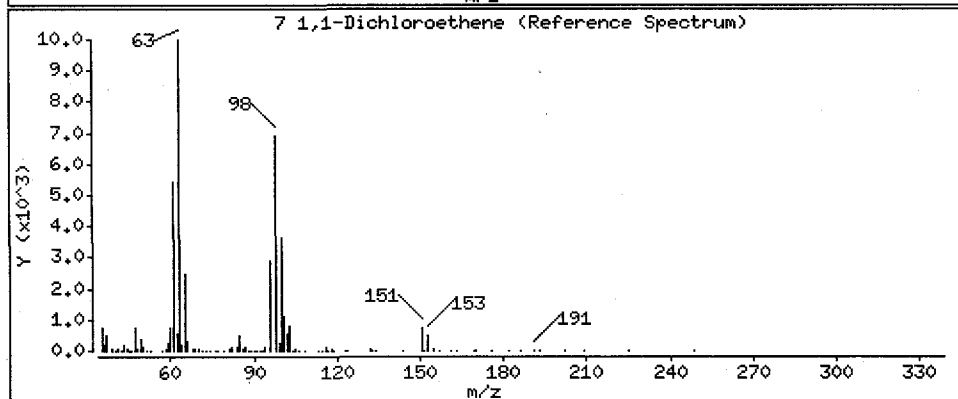
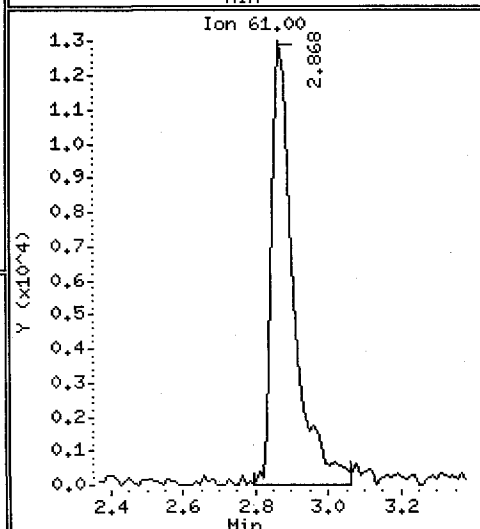
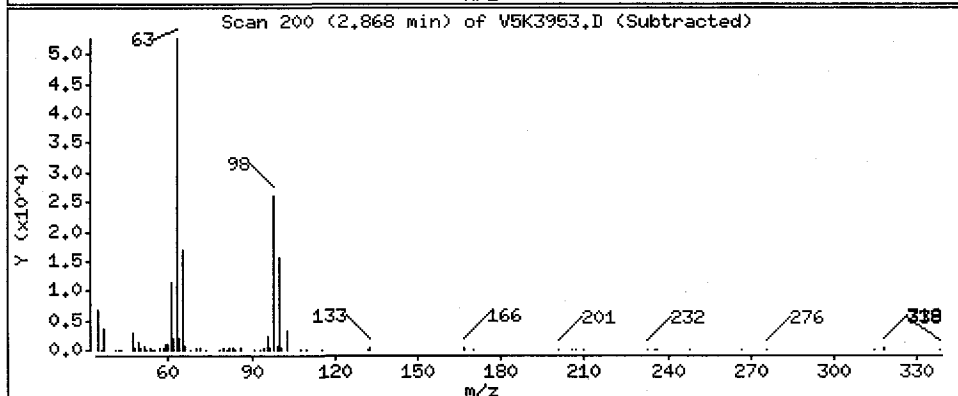
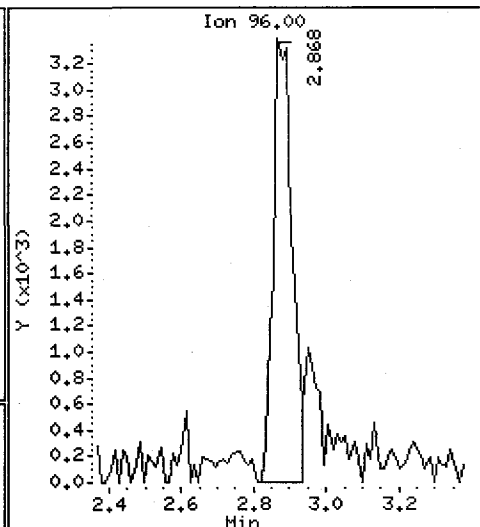
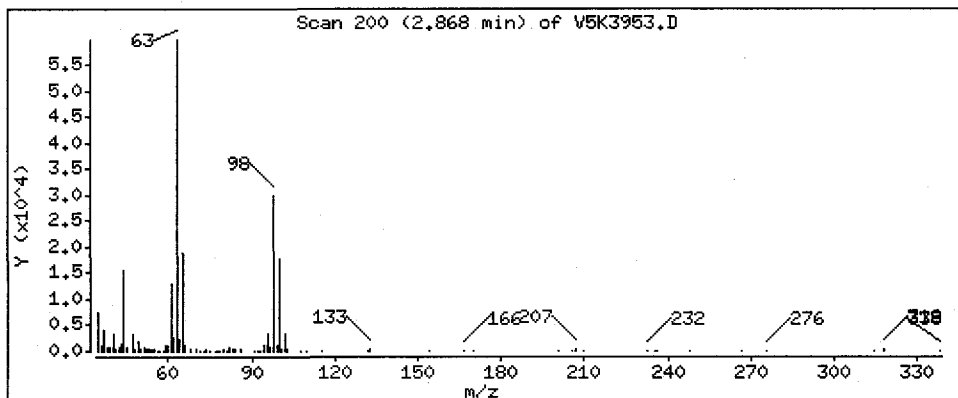
Operator: ALM SRC: LIHS

Column phase: DB-624

Column diameter: 0.25

7 1,1-Dichloroethene

Concentration: 0.32 ug/L



Data File: \\Avogadro\Organics\organic\voa\W5.i\081211A.B\5K3953.D

Date : 11-DEC-2008 18:13

Client ID: MW-6S

Instrument: W5.i

Sample Info: 25HL,G2261-06D,,40712

Purge Volume: 25.0

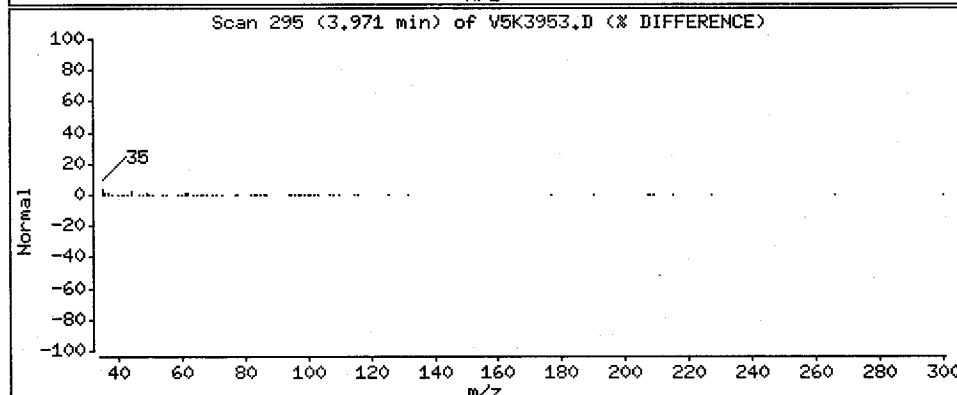
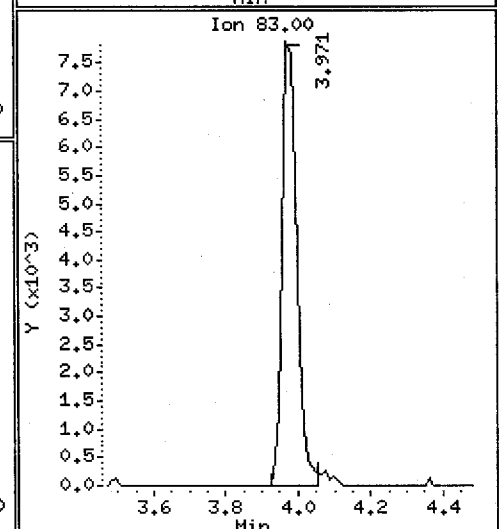
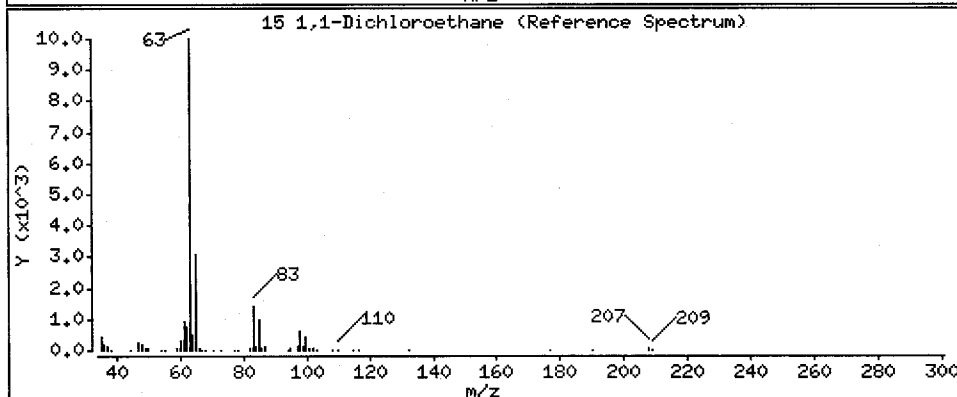
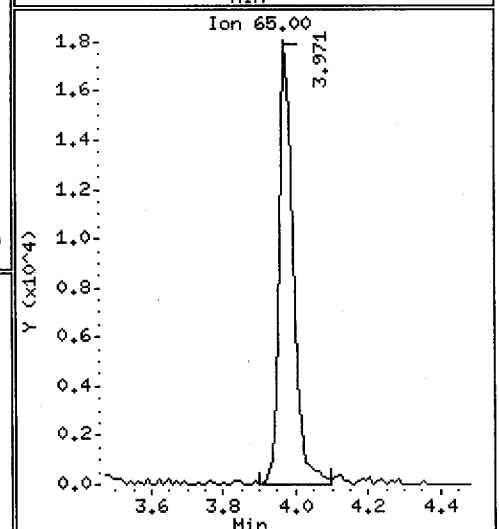
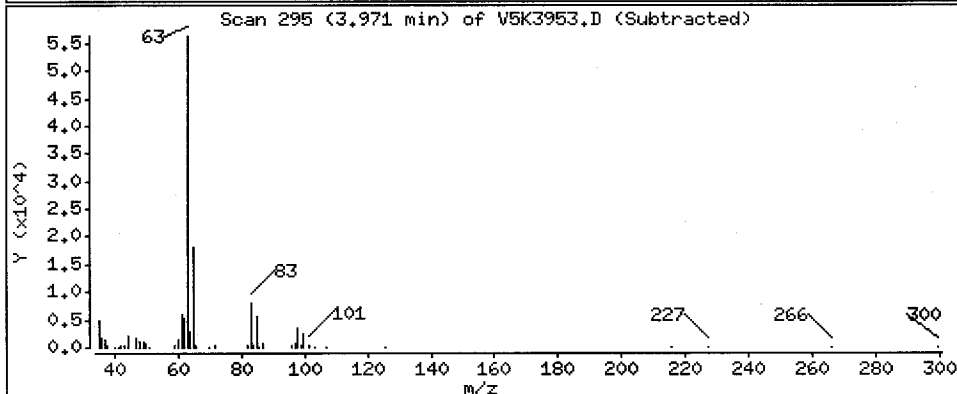
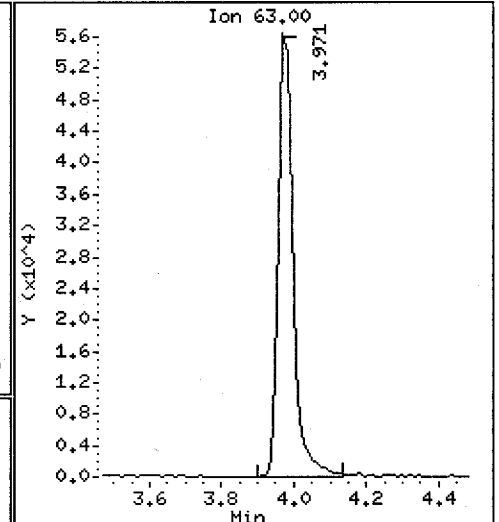
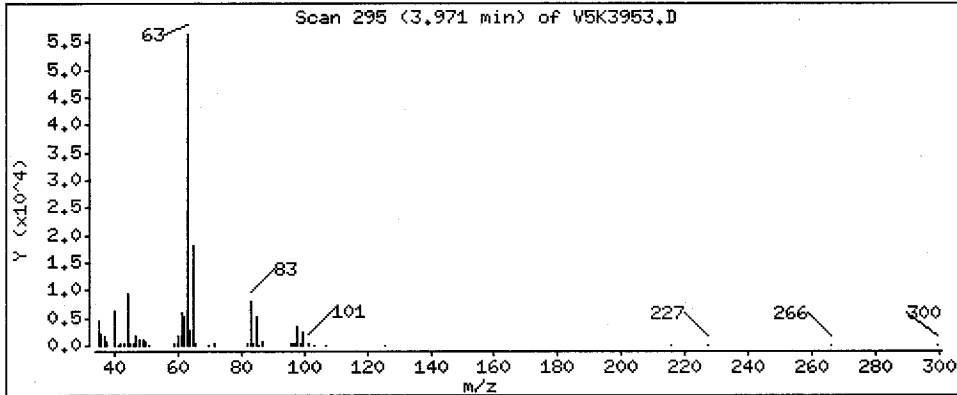
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

15 1,1-Dichloroethane

Concentration: 1.6 ug/L



Date : 11-DEC-2008 18:13

Client ID: MW-6S

Instrument: W5.i

Sample Info: 25ML,G2261-06D,,40712

Purge Volume: 25.0

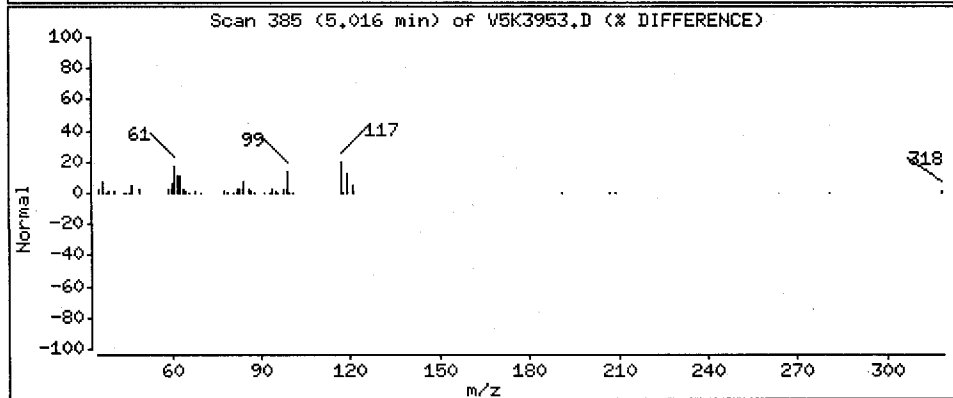
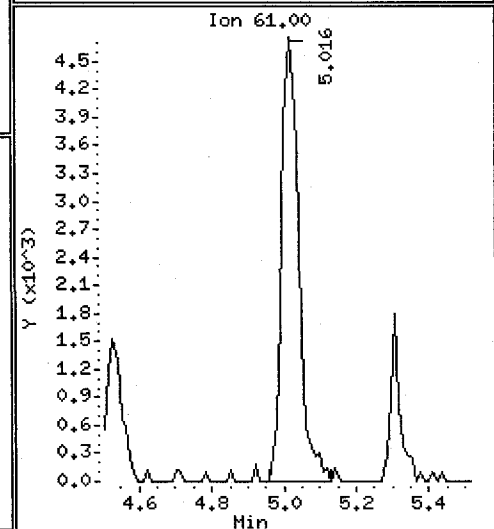
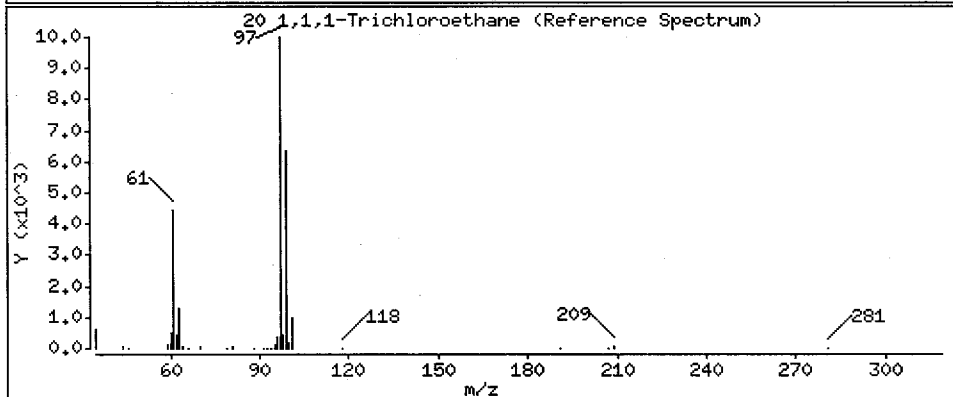
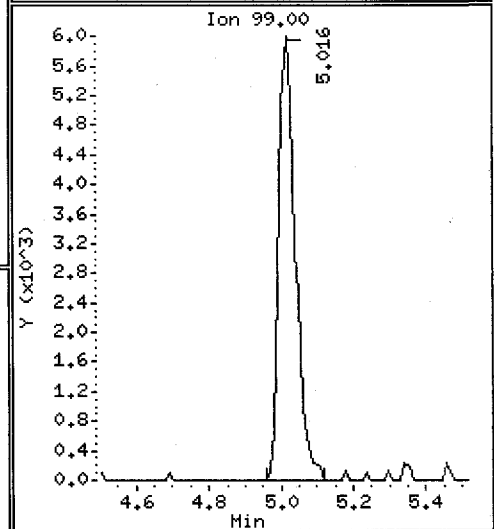
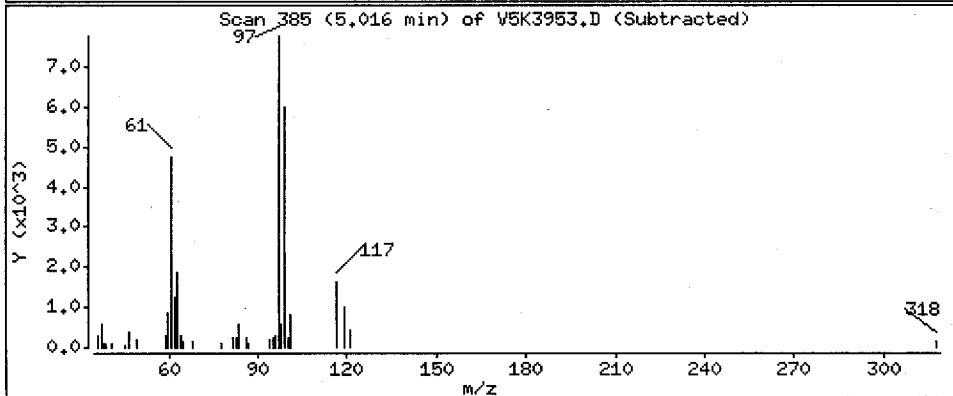
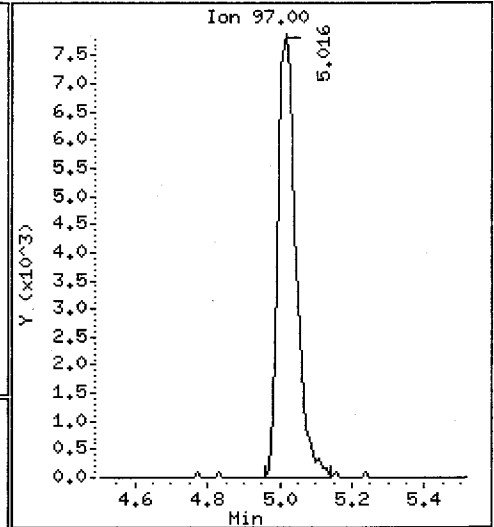
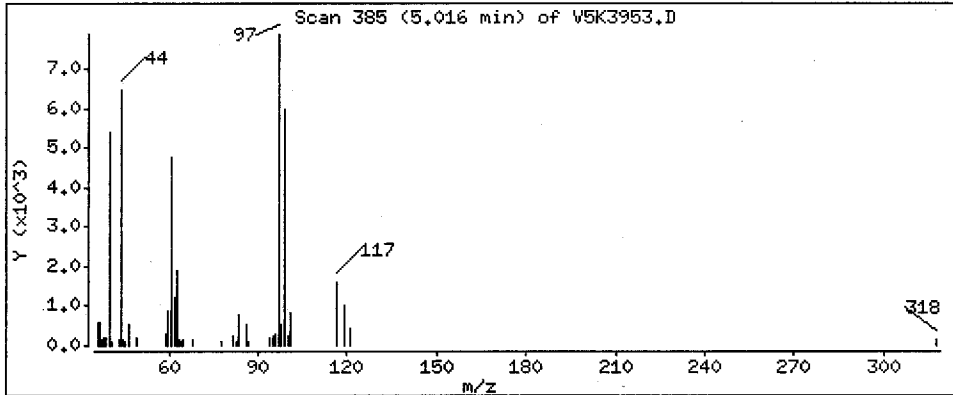
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

20 1,1,1-Trichloroethane

Concentration: 0.36 ug/L



Date : 11-DEC-2008 18:13

Client ID: MW-6S

Instrument: W5.i

Sample Info: 25ML_G2261-06D,,40712

Purge Volume: 25.0

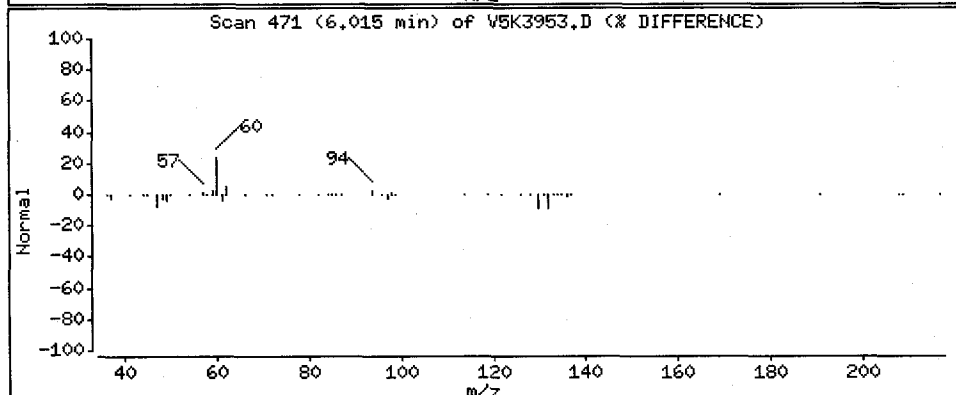
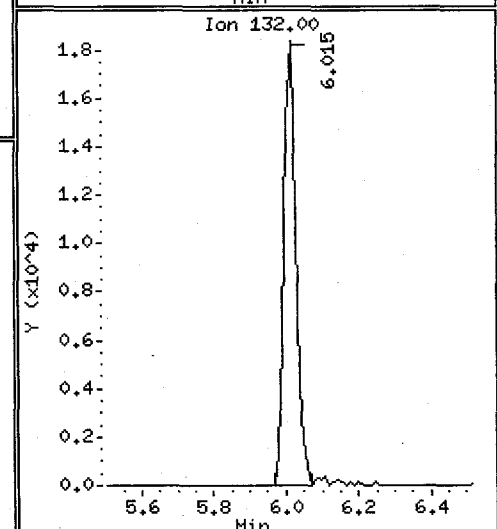
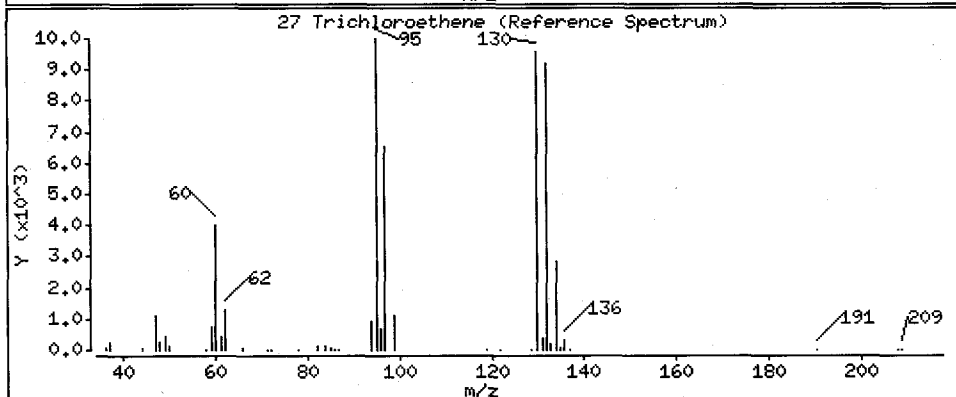
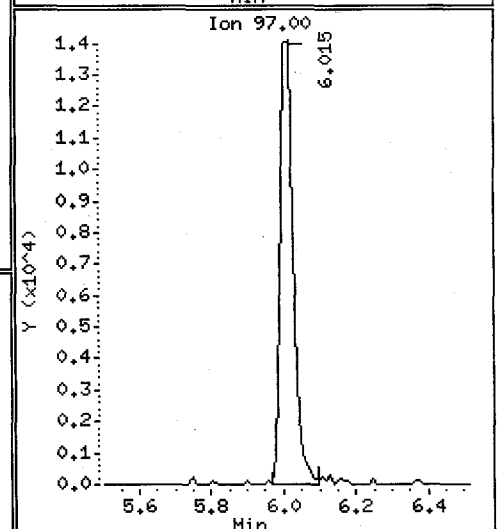
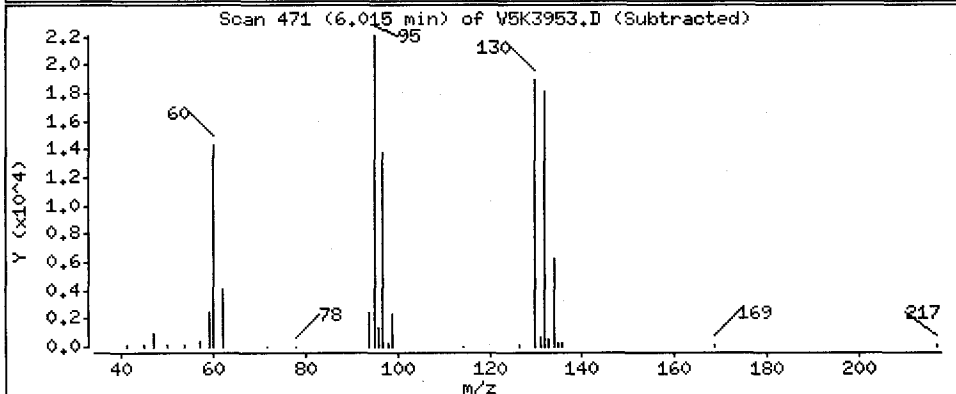
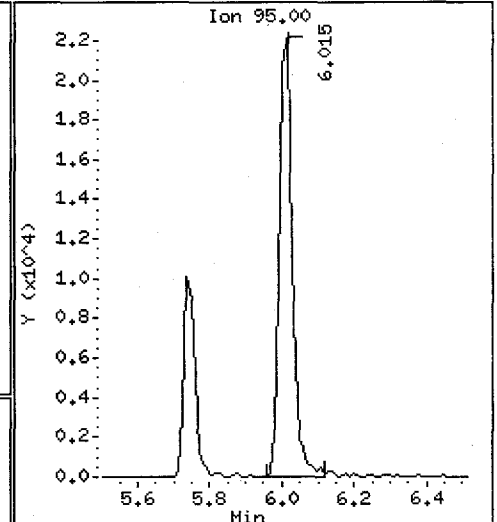
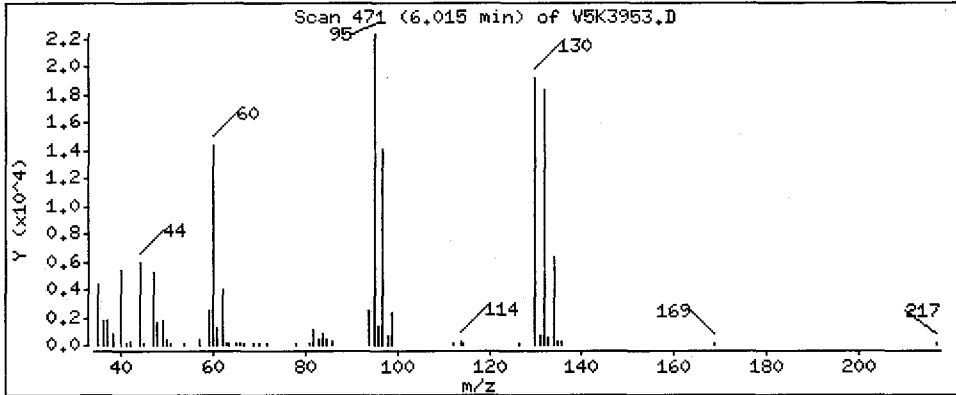
Operator: ALM SRC: LIMS

Column phase: DB-624

Column diameter: 0.25

27 Trichloroethene

Concentration: 1.1 ug/L



1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB120408

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-07A
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3954.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.50	U
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.50	U
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB120408

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-07A
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3954.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
FB120408

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-07A
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3954.D
Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008
% Moisture: not dec. Date Analyzed: 12/11/2008
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\5K3954.D

Date : 11-DEC-2008 18:42

Client ID: FB120408

Sample Info: 25ML, G2261-07A,, 40712

Purge Volume: 25.0

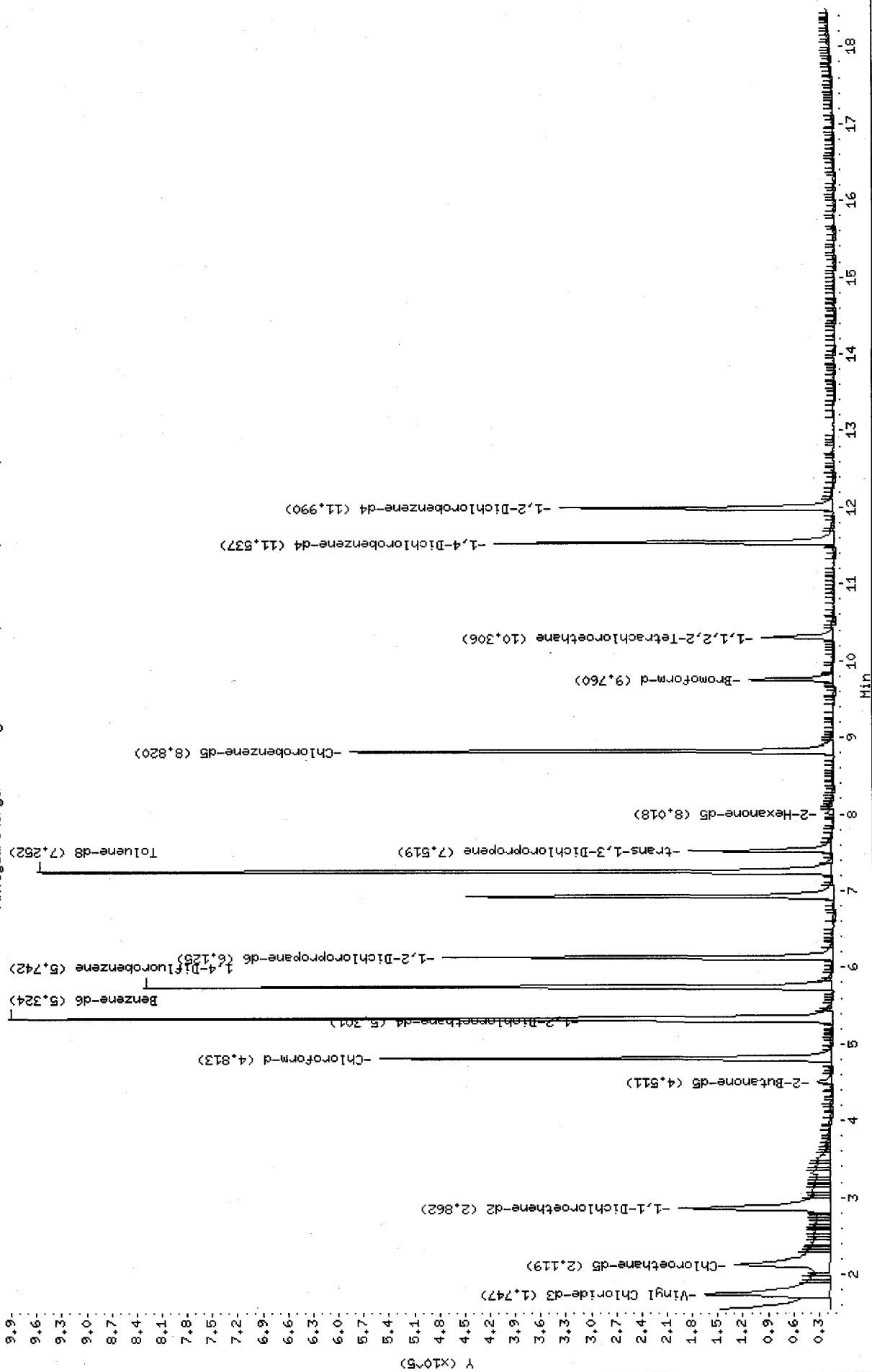
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25

\\Avogadro\Organics\voa\5.i\081211A.B\5K3954.D



Data File: V5K3954.D
 Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3954.D
 Lab Smp Id: G2261-07A Client Smp ID: FB120408
 Inj Date : 11-DEC-2008 18:42
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-07A,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 85
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.747	1.747	(0.304)	370619	5.05816	5.1
\$ 80 Chloroethane-d5	69	2.130	2.130	(0.371)	276788	5.65878	5.7
\$ 81 1,1-Dichloroethene-d2	100	2.862	2.862	(0.498)	76673	4.39604	4.4(Q)
\$ 82 2-Butanone-d5	46	4.511	4.499	(0.786)	34158	4.17133	4.2(a)
\$ 83 Chloroform-d	84	4.813	4.813	(0.838)	517202	4.93680	4.9(Q)
\$ 23 1,2-Dichloroethane-d4	65	5.300	5.301	(0.923)	166539	4.70188	4.7
\$ 84 Benzene-d6	84	5.324	5.324	(0.604)	942344	5.59166	5.6
* 26 1,4-Difluorobenzene	114	5.742	5.742	(1.000)	594169	5.00000	
\$ 85 1,2-Dichloropropane-d6	67	6.125	6.125	(0.695)	201582	5.23191	5.2
\$ 33 Toluene-d8	98	7.251	7.240	(0.822)	658364	5.29884	5.3
\$ 86 trans-1,3-Dichloropropene-d4	79	7.518	7.519	(0.853)	115548	4.39344	4.4(Q)
\$ 87 2-Hexanone-d5	63	8.018	7.983	(0.909)	6249	1.80566	1.8(aQR)
* 42 Chlorobenzene-d5	117	8.819	8.808	(1.000)	341238	5.00000	
\$ 88 Bromoform-d	174	9.760	9.748	(0.846)	57440	5.39335	5.4
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.306	10.306	(1.169)	65602	5.02427	5.0
* 78 1,4-Dichlorobenzene-d4	152	11.537	11.537	(1.000)	118562	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.989	11.990	(1.039)	97151	5.58843	5.6

W
12/24/08

Data File: V5K3954.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3954.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3954.D
Lab Smp Id: G2261-07A Client Smp ID: FB120408
Inj Date : 11-DEC-2008 18:42
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-07A,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 85
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-08A
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3955.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.50	U
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.50	U
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-08A
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3955.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
 TRIP BLANK

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: G2261-08A
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3955.D
 Level: (TRACE or LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\5K3955.D

Date: 11-DEC-2008 13:11

Client ID: TRIP BLANK

Sample Info: 25ML, G2261-08A,, 40712

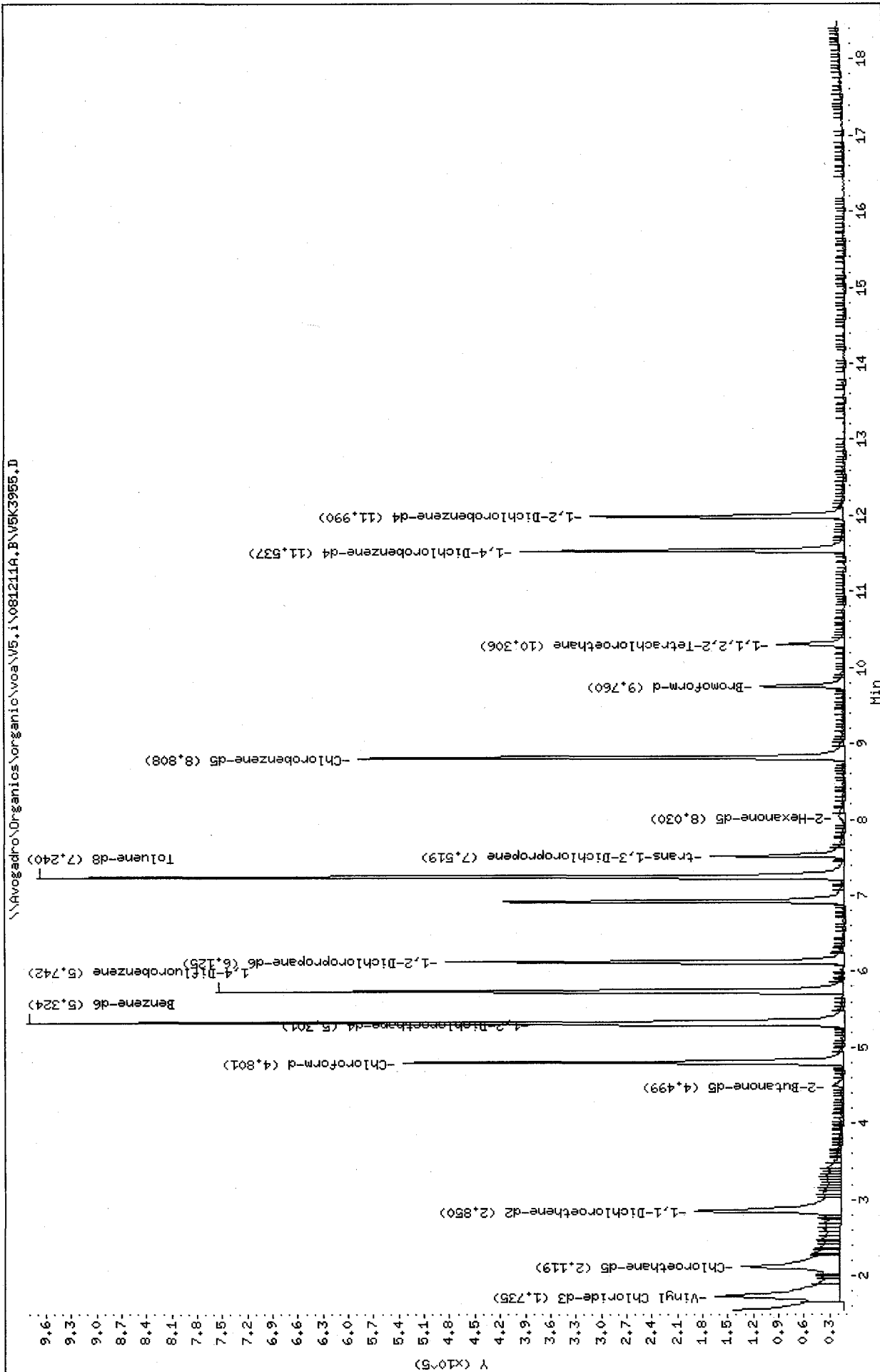
Purge Volume: 25.0

Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25



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Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3955.D
 Lab Smp Id: G2261-08A Client Smp ID: TRIP BLANK
 Inj Date : 11-DEC-2008 19:11
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,G2261-08A,,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 86
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14
 Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.735	1.747 (0.302)		365887	5.23041	5.2
\$ 80 Chloroethane-d5	69	2.118	2.130 (0.369)		282882	6.05765	6.1
\$ 81 1,1-Dichloroethene-d2	100	2.850	2.862 (0.496)		69051	4.14680	4.1(Q)
\$ 82 2-Butanone-d5	46	4.499	4.499 (0.784)		28518	3.64775	3.6(a)
\$ 83 Chloroform-d	84	4.801	4.813 (0.836)		527245	5.27134	5.3(Q)
\$ 23 1,2-Dichloroethane-d4	65	5.300	5.301 (0.923)		163548	4.83642	4.8
\$ 84 Benzene-d6	84	5.323	5.324 (0.604)		926511	5.65798	5.7
* 26 1,4-Difluorobenzene	114	5.741	5.742 (1.000)		567266	5.00000	
\$ 85 1,2-Dichloropropane-d6	67	6.125	6.125 (0.695)		199299	5.32345	5.3
\$ 33 Toluene-d8	98	7.240	7.240 (0.821)		632453	5.23869	5.2
\$ 86 trans-1,3-Dichloropropene-d4	79	7.518	7.519 (0.853)		116730	4.56778	4.6(Q)
\$ 87 2-Hexanone-d5	63	8.029	7.983 (0.910)		2214	0.65839	0.66(aQR)
* 42 Chlorobenzene-d5	117	8.819	8.808 (1.000)		331572	5.00000	
\$ 88 Bromoform-d	174	9.760	9.748 (0.846)		59449	5.83320	5.8
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.305	10.306 (1.169)		58967	4.64777	4.6
* 78 1,4-Dichlorobenzene-d4	152	11.536	11.537 (1.000)		113456	5.00000	
\$ 90 1,2-Dichlorobenzene-d4	152	11.989	11.990 (1.039)		94128	5.65822	5.7

W
 11/24/08

Data File: V5K3955.D
Report Date: 22-Dec-2008 08:54

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: V5K3955.D
Report Date: 22-Dec-2008 08:54

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3955.D
Lab Smp Id: G2261-08A Client Smp ID: TRIP BLANK
Inj Date : 11-DEC-2008 19:11
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,G2261-08A,,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 22-Dec-2008 08:54 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 86
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14
Processing Host: TARGET103

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Instrument ID: V5 Calibration Date(s): 12/11/2008 12/11/2008
 Heated Purge: (Y/N) N Calibration Time(s): 11:55 13:52
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____ RRF0.5 = V5K3945.D RRF001 = V5K3944.D
 RRF005 = V5K3943.D RRF010 = V5K3942.D RRF025 = V5K3941.D

COMPOUND	RRF0.5	RRF001	RRF005	RRF010	RRF025	RRF	%RSD
Dichlorodifluoromethane	0.172	0.170	0.270	0.258	0.246	0.223	21.8
Chloromethane	0.229	0.236	0.226	0.209	0.218	0.224	4.7
Vinyl chloride	0.201	0.220	0.217	0.209	0.222	0.214	4.0
Bromomethane	0.240	0.228	0.199	0.167	0.189	0.204	14.4
Chloroethane	0.137	0.214	0.176	0.153	0.159	0.168	17.6
Trichlorofluoromethane	0.578	0.684	0.677	0.635	0.652	0.645	6.6
1,1-Dichloroethene	0.372	0.357	0.344	0.348	0.343	0.353	3.4
1,1,2-Trichloro-1,2,2-trifluoroethane	0.465	0.602	0.514	0.482	0.440	0.501	12.6
Acetone	0.085	0.090	0.057	0.050	0.050	0.066	29.3
Carbon disulfide	1.401	1.413	1.611	1.489	1.484	1.480	5.7
Methyl acetate	0.294	0.296	0.169	0.160	0.145	0.213	35.3
Methylene chloride	0.426	0.351	0.305	0.279	0.279	0.328	19.0
trans-1,2-Dichloroethene	0.462	0.469	0.436	0.411	0.412	0.438	6.2
Methyl tert-butyl ether	0.637	0.744	0.774	0.757	0.750	0.732	7.5
1,1-Dichloroethane	0.834	0.890	0.858	0.800	0.796	0.836	4.8
cis-1,2-Dichloroethene	0.334	0.382	0.386	0.374	0.386	0.373	5.9
2-Butanone	0.061	0.131	0.089	0.081	0.089	0.090	28.2
Bromochloromethane	0.101	0.100	0.106	0.096	0.098	0.100	3.9
Chloroform	0.854	0.851	0.832	0.780	0.795	0.822	4.1
1,1,1-Trichloroethane	1.198	1.135	1.129	1.027	1.014	1.101	7.1
Cyclohexane	1.010	1.404	1.434	1.293	1.182	1.264	13.7
Carbon tetrachloride	0.960	0.920	0.900	0.806	0.822	0.882	7.5
Benzene	2.456	2.533	2.492	2.232	2.180	2.378	6.8
1,2-Dichloroethane	0.368	0.381	0.372	0.351	0.374	0.369	3.0
Trichloroethene	0.641	0.684	0.700	0.648	0.658	0.666	3.7
Methylcyclohexane	0.811	1.283	1.288	1.117	1.024	1.104	18.0

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Instrument ID: V5 Calibration Date(s): 12/11/2008 12/11/2008
 Heated Purge: (Y/N) N Calibration Time(s): 11:55 13:52
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____ RRF0.5 = V5K3945.D RRF001 = V5K3944.D
 RRF005 = V5K3943.D RRF010 = V5K3942.D RRF025 = V5K3941.D

COMPOUND	RRF0.5	RRF001	RRF005	RRF010	RRF025	RRF	%RSD
1,2-Dichloropropane	0.581	0.539	0.538	0.469	0.449	0.515	10.6
Bromodichloromethane	0.731	0.679	0.739	0.707	0.739	0.719	3.6
cis-1,3-Dichloropropene	0.502	0.582	0.728	0.701	0.711	0.645	15.3
4-Methyl-2-pentanone	0.154	0.371	0.268	0.263	0.258	0.263	29.2
Toluene	2.028	2.318	2.364	2.155	2.148	2.203	6.2
trans-1,3-Dichloropropene	0.303	0.371	0.517	0.506	0.518	0.443	22.5
1,1,2-Trichloroethane	0.196	0.202	0.215	0.194	0.201	0.202	4.1
Tetrachloroethene	0.425	0.472	0.504	0.459	0.470	0.466	6.1
2-Hexanone	0.085	0.214	0.167	0.173	0.191	0.166	29.4
Dibromochloromethane	0.260	0.240	0.280	0.254	0.271	0.261	5.9
1,2-Dibromoethane	0.155	0.176	0.190	0.185	0.191	0.179	8.2
Chlorobenzene	1.141	1.130	1.138	1.050	1.053	1.102	4.2
Ethylbenzene	2.030	2.521	2.832	2.586	2.619	2.518	11.8
Xylenes (Total)	0.416	0.584	0.758	0.725	0.712	0.639	22.0
Styrene	0.530	0.777	0.988	0.952	0.972	0.844	23.1
Bromoform	0.356	0.226	0.307	0.312	0.322	0.305	15.7
Isopropylbenzene	1.249	1.806	2.301	2.142	2.160	1.931	21.9
1,1,2,2-Tetrachloroethane	0.156	0.182	0.204	0.185	0.197	0.185	9.8
1,3-Dichlorobenzene	1.143	1.265	1.669	1.577	1.631	1.457	16.3
1,4-Dichlorobenzene	2.045	1.781	1.757	1.599	1.598	1.756	10.4
1,2-Dichlorobenzene	0.948	1.060	1.264	1.192	1.204	1.134	11.3
1,2-Dibromo-3-chloropropane	0.040	0.039	0.059	0.057	0.062	0.051	21.2
1,2,4-Trichlorobenzene	0.313	0.434	0.745	0.753	0.772	0.603	35.5
1,2,3-Trichlorobenzene	0.204	0.366	0.477	0.516	0.498	0.412	31.6

6C - FORM VI VOA-3
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Instrument ID: V5 Calibration Date(s): 12/11/2008 12/11/2008
 Heated Purge: (Y/N) N Calibration Time(s): 11:55 13:52
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID:	RRF0.5 = <u>V5K3945.D</u>	RRF001 = <u>V5K3944.D</u>
RRF005 = <u>V5K3943.D</u>	RRF010 = <u>V5K3942.D</u>	RRF025 = <u>V5K3941.D</u>

COMPOUND	RRF0.5	RRF001	RRF005	RRF010	RRF025	RRF	%RSD
Vinyl chloride-d3	0.632	0.579	0.617	0.538	0.548	0.583	7.1
Chloroethane-d5	0.316	0.448	0.412	0.366	0.378	0.384	12.9
1,1-Dichloroethene-d2	0.159	0.127	0.147	0.147	0.146	0.145	8.0
2-Butanone-d5	0.067	0.064	0.069	0.077	0.082	0.072	10.2
Chloroform-d	0.923	0.864	0.882	0.820	0.841	0.866	4.6
1,2-Dichloroethane-d4	0.323	0.264	0.298	0.285	0.299	0.294	7.4
Benzene-d6	2.440	2.338	2.469	2.262	2.182	2.338	5.1
1,2-Dichloropropane-d6	0.551	0.524	0.565	0.521	0.520	0.536	3.8
Toluene-d8	1.457	1.573	1.821	1.672	1.660	1.636	8.2
trans-1,3-Dichloropropene-d4	0.227	0.305	0.385	0.384	0.401	0.340	21.7
2-Hexanone-d5	0.020	0.039	0.051	0.065	0.073	0.049	42.7
Bromoform-d	0.358	0.364	0.449	0.446	0.454	0.414	11.8
1,1,2,2-Tetrachloroethane-d2	0.198	0.176	0.191	0.181	0.182	0.186	4.9
1,2-Dichlorobenzene-d4	0.578	0.636	0.733	0.714	0.712	0.675	9.7

Data File: \\Avogadro\Organics\voa\5,1\081211,B\5K3945.D

Date: 11-DEC-2008 13:52

Client ID: VSTD0.551

Sample Info: 25HL,VSTD0.551,VSTD0.551

Purge Volume: 25.0

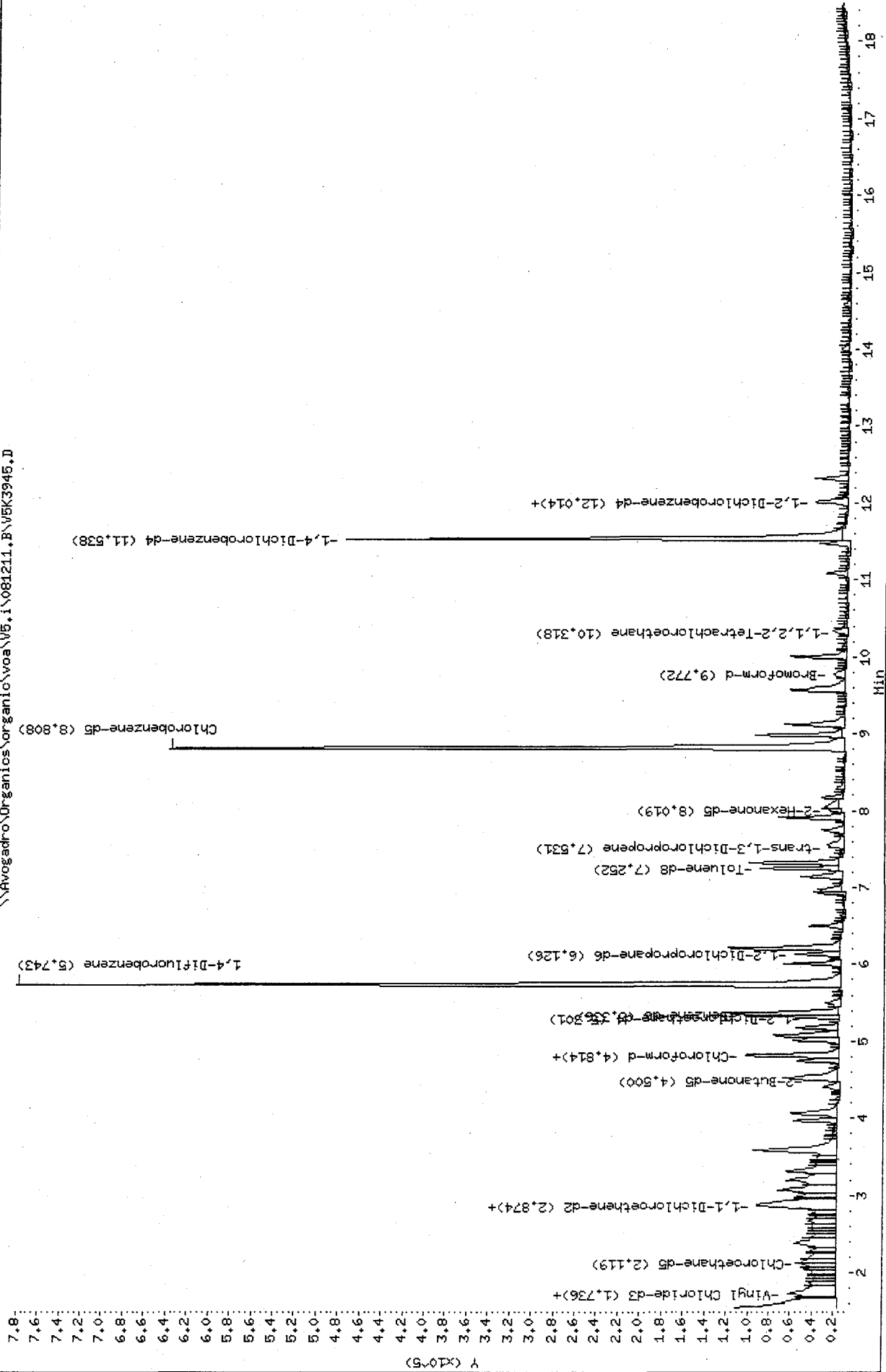
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: ALM

Column diameter: 0.25

\\Avogadro\Organics\voa\5,1\081211,B\5K3945.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211.B\V5K3945.D
 Lab Smp Id: VSTD0.55I Client Smp ID: VSTD0.55I
 Inj Date : 11-DEC-2008 13:52
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML, VSTD0.55I, VSTD0.55I
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211.B\v5OLC3.m
 Meth Date : 17-Dec-2008 15:58 wluo Quant Type: ISTD
 Cal Date : 11-DEC-2008 12:54 Cal File: V5K3943.D
 Als bottle: 78 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	AMOUNTS					
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.492	1.495 (0.260)		10056	0.50000	0.36 (a)
2 Chloromethane	50	1.666	1.669 (0.290)		13412	0.50000	0.52
\$ 79 Vinyl Chloride-d3	65	1.724	1.750 (0.300)		36996	0.50000	0.55
3 Vinyl Chloride	62	1.747	1.750 (0.304)		11795	0.50000	0.46 (a)
4 Bromomethane	94	2.049	2.064 (0.357)		14045	0.50000	0.61
\$ 80 Chloroethane-d5	69	2.119	2.133 (0.369)		18508	0.50000	0.39 (a)
5 Chloroethane	64	2.142	2.156 (0.373)		8015	0.50000	0.39 (a)
6 Trichlorofluoromethane	101	2.398	2.400 (0.418)		33845	0.50000	0.44 (a)
\$ 81 1,1-Dichloroethene-d2	100	2.862	2.865 (0.498)		9337	0.50000	0.56 (Q)
7 1,1-Dichloroethene	96	2.874	2.876 (0.501)		21757	0.50000	0.53 (Q)
8 Freon113	101	2.897	2.900 (0.505)		27225	0.50000	0.46 (a)
9 Acetone	43	2.909	2.923 (0.507)		49483	5.00000	6.9
10 Carbon Disulfide	76	3.071	3.086 (0.535)		82022	0.50000	0.47 (a)
11 Methyl Acetate	43	3.234	3.237 (0.563)		17207	0.50000	0.76
12 Methylene Chloride	84	3.315	3.318 (0.577)		24927	0.50000	0.70
13 trans-1,2-Dichloroethene	96	3.582	3.585 (0.624)		27077	0.50000	0.54
14 Methyl tert-Butyl Ether	73	3.594	3.608 (0.626)		37269	0.50000	0.42 (a)
15 1,1-Dichloroethane	63	3.965	3.968 (0.691)		48811	0.50000	0.50
\$ 82 2-Butanone-d5	46	4.500	4.491 (0.784)		39463	5.00000	4.6 (a)
17 cis-1,2-Dichloroethene	96	4.523	4.526 (0.788)		19577	0.50000	0.44 (a)
16 2-Butanone	43	4.558	4.549 (0.794)		35948	5.00000	3.1 (a)
18 Bromochloromethane	128	4.755	4.746 (0.828)		5905	0.50000	0.50

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
\$ 83 Chloroform-d	84	4.801	4.816	(0.836)	54057	0.50000	0.54
19 Chloroform	83	4.825	4.827	(0.840)	50007	0.50000	0.52
20 1,1,1-Trichloroethane	97	5.011	5.013	(0.568)	41734	0.50000	0.56
21 Cyclohexane	56	5.080	5.083	(0.576)	35164	0.50000	0.38(a)
22 Carbon Tetrachloride	117	5.173	5.188	(0.587)	33439	0.50000	0.56
\$ 23 1,2-Dichloroethane-d4	65	5.301	5.304	(0.923)	18939	0.50000	0.56
\$ 84 Benzene-d6	84	5.336	5.327	(0.605)	84974	0.50000	0.53
25 Benzene	78	5.371	5.373	(0.609)	85539	0.50000	0.52
24 1,2-Dichloroethane	62	5.382	5.373	(0.937)	21544	0.50000	0.50
* 26 1,4-Difluorobenzene	114	5.742	5.745	(1.000)	585457	5.00000	
27 Trichloroethene	95	6.009	6.000	(0.681)	22316	0.50000	0.48(a)
\$ 85 1,2-Dichloropropane-d6	67	6.125	6.128	(0.695)	19184	0.50000	0.52
28 Methylcyclohexane	83	6.207	6.209	(0.704)	28248	0.50000	0.34(a)
29 1,2-Dichloropropane	63	6.218	6.221	(0.705)	20234	0.50000	0.58
30 Bromodichloromethane	83	6.509	6.500	(0.738)	25471	0.50000	0.51
31 cis-1,3-Dichloropropene	75	6.973	6.964	(0.791)	17491	0.50000	0.37(a)
32 4-Methyl-2-Pentanone	43	7.136	7.127	(0.809)	53758	5.00000	2.7(a)
\$ 33 Toluene-d8	98	7.252	7.243	(0.822)	50749	0.50000	0.43(a)
34 Toluene	91	7.322	7.313	(0.830)	70647	0.50000	0.45(a)
\$ 86 trans-1,3-Dichloropropene-d4	79	7.531	7.510	(0.854)	7898	0.50000	0.31(aQ)
35 trans-1,3-Dichloropropene	75	7.565	7.545	(0.858)	10545	0.50000	0.32(a)
36 1,1,2-Trichloroethane	97	7.751	7.742	(0.879)	6833	0.50000	0.48(a)
37 Tetrachloroethene	164	7.914	7.905	(0.897)	14798	0.50000	0.45(a)
\$ 87 2-Hexanone-d5	63	8.018	7.975	(0.909)	6917	5.00000	1.8(aQ)
38 2-Hexanone	43	8.053	8.021	(0.913)	29671	5.00000	2.3(aQ)
39 Dibromochloromethane	129	8.169	8.160	(0.926)	9050	0.50000	0.50(T)
40 1,2-Dibromoethane	107	8.297	8.288	(0.941)	5408	0.50000	0.42(a)
* 42 Chlorobenzene-d5	117	8.820	8.811	(1.000)	348310	5.00000	
43 Chlorobenzene	112	8.843	8.846	(1.003)	39730	0.50000	0.52
44 Ethylbenzene	91	8.982	8.973	(1.018)	70723	0.50000	0.38(a)
45 m,p-Xylene	106	9.122	9.101	(1.034)	19950	1.00000	0.69(a)
\$ 88 Bromoform-d	174	9.772	9.751	(0.847)	4469	0.50000	0.42(a)
48 Bromoform	173	9.807	9.775	(0.850)	4442	0.50000	0.61
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.318	10.297	(1.170)	6901	0.50000	0.54
51 1,1,2,2-Tetrachloroethane	83	10.353	10.332	(1.174)	5446	0.50000	0.41(a)
52 1,3-Dichlorobenzene	146	11.467	11.459	(0.994)	14270	0.50000	0.37(a)
* 78 1,4-Dichlorobenzene-d4	152	11.537	11.528	(1.000)	124826	5.00000	
53 1,4-Dichlorobenzene	146	11.572	11.563	(1.003)	25528	0.50000	0.61
\$ 90 1,2-Dichlorobenzene-d4	152	12.002	11.981	(1.040)	7219	0.50000	0.41(a)
54 1,2-Dichlorobenzene	146	12.013	12.004	(1.041)	11839	0.50000	0.40(a)
55 1,2-Dibromo-3-chloropropane	75	13.024	12.968	(1.129)	501	0.50000	0.37(TQ)

QC Flag Legend

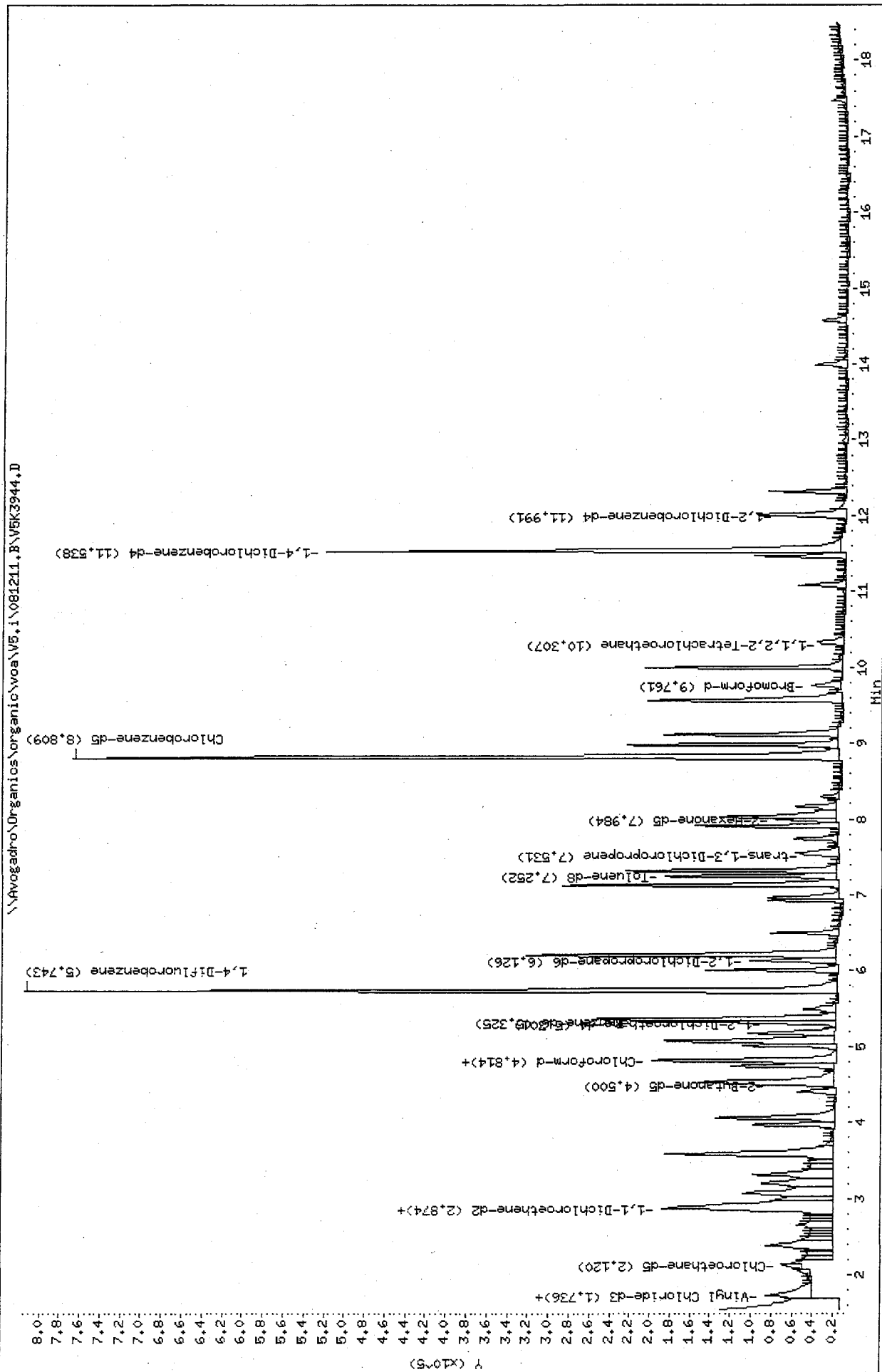
- T - Target compound detected outside RT window.
- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

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12/17/08

HZA

Data File: \\Avogadro\Organics\voa\5.i\081211.B\VK3944.D
 Date: 11-DEC-2008 13:23
 Client ID: VSTD00151
 Sample Info: 25HL-VSTD00151,VSTD00151
 Purge Volume: 25.0
 Column phase: DB-624

Instrument: V5.i
 Operator: ALM SRC: ALM
 Column diameter: 0.25



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211.B\V5K3944.D
 Lab Smp Id: VSTD0015I Client Smp ID: VSTD0015I
 Inj Date : 11-DEC-2008 13:23
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML,VSTD0015I,VSTD0015I
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211.B\v5OLC3.m
 Meth Date : 17-Dec-2008 15:58 wluo Quant Type: ISTD
 Cal Date : 11-DEC-2008 12:54 Cal File: V5K3943.D
 Als bottle: 74 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)
1 Dichlorodifluoromethane	85		1.480	1.495	(0.258)	20758	1.00000	0.66
2 Chloromethane	50		1.654	1.669	(0.288)	28894	1.00000	1.1
\$ 79 Vinyl Chloride-d3	65		1.736	1.750	(0.302)	70861	1.00000	1.0
3 Vinyl Chloride	62		1.747	1.750	(0.304)	26966	1.00000	1.0
4 Bromomethane	94		2.061	2.064	(0.359)	27864	1.00000	1.2
\$ 80 Chloroethane-d5	69		2.131	2.133	(0.371)	54849	1.00000	1.2
5 Chloroethane	64		2.154	2.156	(0.375)	26209	1.00000	1.3
6 Trichlorofluoromethane	101		2.386	2.400	(0.416)	83594	1.00000	1.0
\$ 81 1,1-Dichloroethene-d2	100		2.862	2.865	(0.498)	15558	1.00000	0.87(Q)
7 1,1-Dichloroethene	96		2.874	2.876	(0.501)	43623	1.00000	1.0
8 Freon113	101		2.885	2.900	(0.503)	73671	1.00000	1.3
9 Acetone	43		2.920	2.923	(0.509)	109684	10.0000	17
10 Carbon Disulfide	76		3.071	3.086	(0.535)	172774	1.00000	0.92
11 Methyl Acetate	43		3.234	3.237	(0.563)	36148	1.00000	1.9
12 Methylene Chloride	84		3.315	3.318	(0.577)	42954	1.00000	1.2
13 trans-1,2-Dichloroethene	96		3.582	3.585	(0.624)	57392	1.00000	1.1
14 Methyl tert-Butyl Ether	73		3.594	3.608	(0.626)	90936	1.00000	0.98
15 1,1-Dichloroethane	63		3.965	3.968	(0.691)	108888	1.00000	1.1
\$ 82 2-Butanone-d5	46		4.500	4.491	(0.784)	78337	10.0000	8.4
17 cis-1,2-Dichloroethene	96		4.523	4.526	(0.788)	46699	1.00000	1.00
16 2-Butanone	43		4.546	4.549	(0.792)	160700	10.0000	15
18 Bromochloromethane	128		4.744	4.746	(0.826)	12233	1.00000	1.00(Q)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
\$ 83 Chloroform-d	84	4.813	4.816	(0.838)	105703	1.00000	1.0
19 Chloroform	83	4.825	4.827	(0.840)	104097	1.00000	1.1
20 1,1,1-Trichloroethane	97	5.011	5.013	(0.569)	86492	1.00000	1.1
21 Cyclohexane	56	5.069	5.083	(0.575)	106920	1.00000	1.1
22 Carbon Tetrachloride	117	5.185	5.188	(0.589)	70118	1.00000	1.1
\$ 23 1,2-Dichloroethane-d4	65	5.301	5.304	(0.923)	32310	1.00000	0.90
\$ 84 Benzene-d6	84	5.324	5.327	(0.604)	178128	1.00000	1.0
25 Benzene	78	5.371	5.373	(0.610)	192934	1.00000	1.1
24 1,2-Dichloroethane	62	5.382	5.373	(0.937)	46577	1.00000	1.0
* 26 1,4-Difluorobenzene	114	5.742	5.745	(1.000)	611481	5.00000	
27 Trichloroethene	95	6.009	6.000	(0.682)	52073	1.00000	1.0
\$ 85 1,2-Dichloropropane-d6	67	6.137	6.128	(0.697)	39920	1.00000	0.98
28 Methylcyclohexane	83	6.207	6.209	(0.705)	97719	1.00000	1.1
29 1,2-Dichloropropane	63	6.218	6.221	(0.706)	41076	1.00000	1.1
30 Bromodichloromethane	83	6.497	6.500	(0.738)	51712	1.00000	0.93
31 cis-1,3-Dichloropropene	75	6.962	6.964	(0.790)	44310	1.00000	0.82
32 4-Methyl-2-Pentanone	43	7.124	7.127	(0.809)	282591	10.0000	14
\$ 33 Toluene-d8	98	7.252	7.243	(0.823)	119811	1.00000	0.92
34 Toluene	91	7.322	7.313	(0.831)	176605	1.00000	1.0
\$ 86 trans-1,3-Dichloropropene-d4	79	7.531	7.510	(0.855)	23204	1.00000	0.78
35 trans-1,3-Dichloropropene	75	7.554	7.545	(0.858)	28273	1.00000	0.72
36 1,1,2-Trichloroethane	97	7.740	7.742	(0.879)	15374	1.00000	0.99
37 Tetrachloroethene	164	7.914	7.905	(0.898)	35970	1.00000	0.99
\$ 87 2-Hexanone-d5	63	7.984	7.975	(0.906)	29366	10.0000	6.1
38 2-Hexanone	43	8.030	8.021	(0.912)	163273	10.0000	12
39 Dibromochloromethane	129	8.169	8.160	(0.927)	18319	1.00000	0.90(T)
40 1,2-Dibromoethane	107	8.297	8.288	(0.942)	13375	1.00000	0.93
* 42 Chlorobenzene-d5	117	8.808	8.811	(1.000)	380889	5.00000	
43 Chlorobenzene	112	8.843	8.846	(1.004)	86053	1.00000	1.0
44 Ethylbenzene	91	8.982	8.973	(1.020)	192046	1.00000	0.94
45 m,p-Xylene	106	9.110	9.101	(1.034)	57564	2.00000	1.8
46 o-Xylene	106	9.563	9.554	(1.086)	44524	1.00000	0.80(Q)
47 Styrene	104	9.586	9.577	(1.088)	59157	1.00000	0.80
\$ 88 Bromoform-d	174	9.760	9.751	(0.846)	11159	1.00000	0.81
48 Bromoform	173	9.784	9.775	(0.848)	6936	1.00000	0.72
49 Isopropylbenzene	105	9.993	9.984	(1.134)	137563	1.00000	0.82
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.306	10.297	(1.170)	13371	1.00000	0.95
51 1,1,2,2-Tetrachloroethane	83	10.341	10.332	(1.174)	13884	1.00000	0.93
52 1,3-Dichlorobenzene	146	11.468	11.459	(0.994)	38786	1.00000	0.78
* 78 1,4-Dichlorobenzene-d4	152	11.537	11.528	(1.000)	153301	5.00000	
53 1,4-Dichlorobenzene	146	11.560	11.563	(1.002)	54603	1.00000	1.1
\$ 90 1,2-Dichlorobenzene-d4	152	11.990	11.981	(1.039)	19486	1.00000	0.88(Q)
54 1,2-Dichlorobenzene	146	12.013	12.004	(1.041)	32492	1.00000	0.87
55 1,2-Dibromo-3-chloropropane	75	13.000	12.968	(1.127)	1202	1.00000	0.66(TQ)
56 1,2,4-Trichlorobenzene	180	13.988	13.979	(1.212)	13307	1.00000	0.57
77 1,2,3-Trichlorobenzene	180	14.580	14.571	(1.264)	11212	1.00000	0.74

QC Flag Legend

T - Target compound detected outside RT window.
 Q - Qualifier signal failed the ratio test.

wl
14/17/08

HZA

Data File: \\Avogadro\Organics\voa\081211.B\VEK3943.D

Date : 11-DEC-2008 12:54

Client ID: VSTD00551

Sample Info: 25ML,VSTD00551,VSTD00551

Purge Volume: 25.0

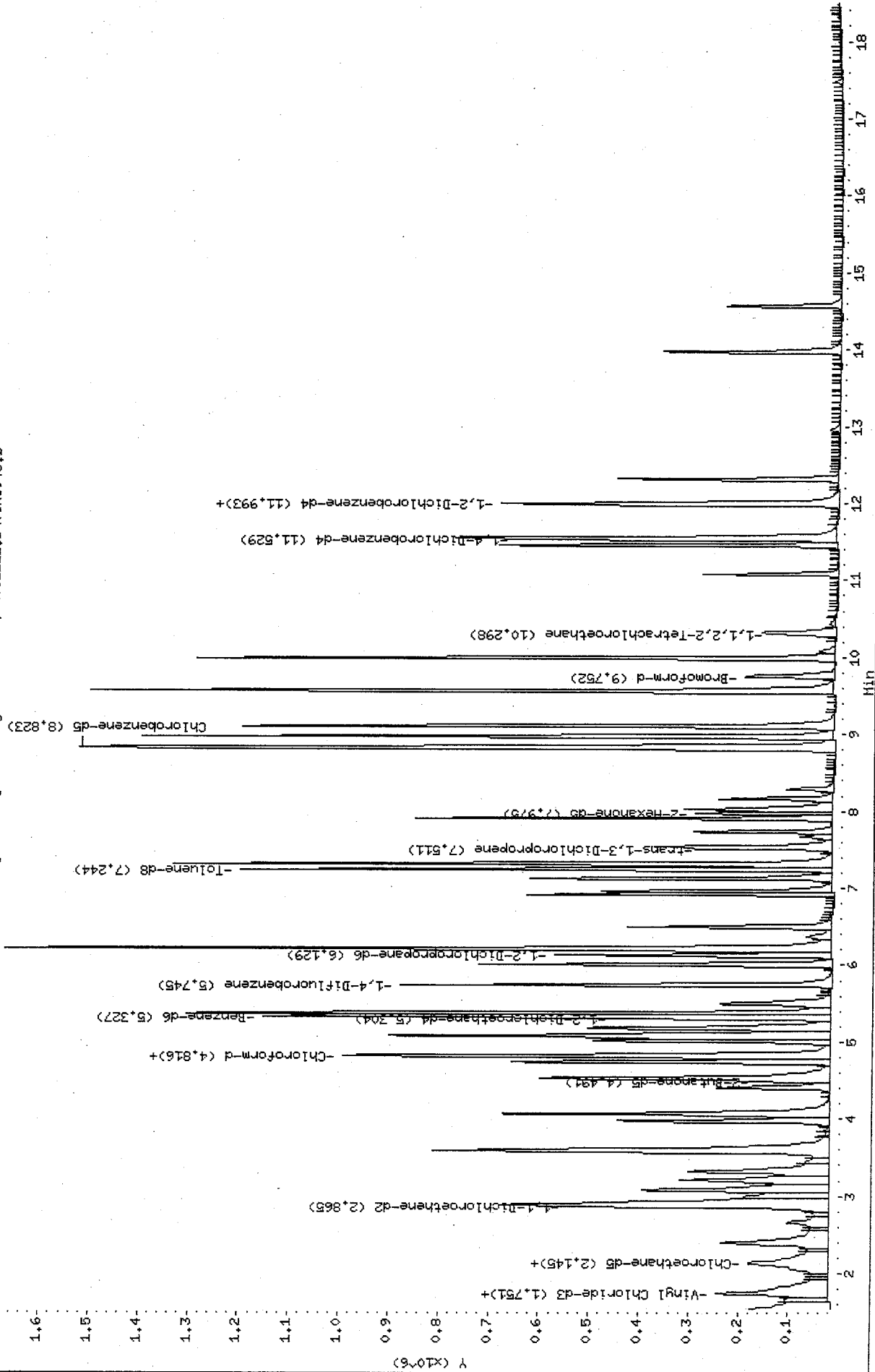
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: ALM

Column diameter: 0.25

\\Avogadro\Organics\voa\081211.B\VEK3943.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211.B\V5K3943.D
 Lab Smp Id: VSTD0055I Client Smp ID: VSTD0055I
 Inj Date : 11-DEC-2008 12:54
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML,VSTD0055I,VSTD0055I
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211.B\v5OLC3.m
 Meth Date : 17-Dec-2008 15:58 wluo Quant Type: ISTD
 Cal Date : 11-DEC-2008 12:54 Cal File: V5K3943.D
 Als bottle: 73 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85		1.495	1.495	(0.260)	179847	5.00000	5.4
2 Chloromethane	50		1.669	1.669	(0.291)	150691	5.00000	5.3
\$ 79 Vinyl Chloride-d3	65		1.750	1.750	(0.305)	410918	5.00000	5.7
3 Vinyl Chloride	62		1.750	1.750	(0.305)	144519	5.00000	5.0
4 Bromomethane	94		2.064	2.064	(0.359)	132466	5.00000	5.6
\$ 80 Chloroethane-d5	69		2.133	2.133	(0.371)	274312	5.00000	5.5
5 Chloroethane	64		2.156	2.156	(0.375)	117476	5.00000	5.7
6 Trichlorofluoromethane	101		2.400	2.400	(0.418)	451456	5.00000	5.3
\$ 81 1,1-Dichloroethene-d2	100		2.865	2.865	(0.499)	97814	5.00000	5.0
7 1,1-Dichloroethene	96		2.876	2.876	(0.501)	229208	5.00000	5.0
8 Freon113	101		2.900	2.900	(0.505)	342446	5.00000	5.6
9 Acetone	43		2.923	2.923	(0.509)	189460	25.0000	28
10 Carbon Disulfide	76		3.086	3.086	(0.537)	1073608	5.00000	5.4
11 Methyl Acetate	43		3.237	3.237	(0.563)	112954	5.00000	5.5
12 Methylene Chloride	84		3.318	3.318	(0.578)	203167	5.00000	5.5
13 trans-1,2-Dichloroethene	96		3.585	3.585	(0.624)	290642	5.00000	5.3
14 Methyl tert-Butyl Ether	73		3.608	3.608	(0.628)	515984	5.00000	5.1
15 1,1-Dichloroethane	63		3.968	3.968	(0.691)	572067	5.00000	5.4
\$ 82 2-Butanone-d5	46		4.491	4.491	(0.782)	229619	25.0000	22
17 cis-1,2-Dichloroethene	96		4.526	4.526	(0.788)	256951	5.00000	5.1
16 2-Butanone	43		4.549	4.549	(0.792)	295086	25.0000	26
18 Bromochloromethane	128		4.746	4.746	(0.826)	70886	5.00000	5.5

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
\$ 83 Chloroform-d	84	4.816	4.816	(0.838)	587537	5.00000	5.3
19 Chloroform	83	4.827	4.827	(0.840)	554729	5.00000	5.3
20 1,1,1-Trichloroethane	97	5.013	5.013	(0.569)	469970	5.00000	5.5
21 Cyclohexane	56	5.083	5.083	(0.577)	597105	5.00000	5.8
22 Carbon Tetrachloride	117	5.188	5.188	(0.589)	374850	5.00000	5.5
\$ 23 1,2-Dichloroethane-d4	65	5.304	5.304	(0.923)	198639	5.00000	5.1
\$ 84 Benzene-d6	84	5.327	5.327	(0.605)	1028118	5.00000	5.6
25 Benzene	78	5.373	5.373	(0.610)	1037416	5.00000	5.6
24 1,2-Dichloroethane	62	5.373	5.373	(0.935)	248006	5.00000	5.1
* 26 1,4-Difluorobenzene	114	5.745	5.745	(1.000)	666439	5.00000	
27 Trichloroethene	95	6.000	6.000	(0.681)	291459	5.00000	5.4
\$ 85 1,2-Dichloropropane-d6	67	6.128	6.128	(0.696)	235053	5.00000	5.4
28 Methylcyclohexane	83	6.209	6.209	(0.705)	536173	5.00000	6.0
29 1,2-Dichloropropane	63	6.221	6.221	(0.706)	223850	5.00000	5.9
30 Bromodichloromethane	83	6.500	6.500	(0.738)	307669	5.00000	5.1
31 cis-1,3-Dichloropropene	75	6.964	6.964	(0.790)	303002	5.00000	5.2
32 4-Methyl-2-Pentanone	43	7.127	7.127	(0.809)	558789	25.0000	26
\$ 33 Toluene-d8	98	7.243	7.243	(0.822)	757983	5.00000	5.5
34 Toluene	91	7.313	7.313	(0.830)	984439	5.00000	5.5
\$ 86 trans-1,3-Dichloropropene-d4	79	7.510	7.510	(0.852)	160447	5.00000	4.9
35 trans-1,3-Dichloropropene	75	7.545	7.545	(0.856)	215388	5.00000	5.1
36 1,1,2-Trichloroethane	97	7.742	7.742	(0.879)	89633	5.00000	5.4
37 Tetrachloroethene	164	7.905	7.905	(0.897)	209722	5.00000	5.4
\$ 87 2-Hexanone-d5	63	7.975	7.975	(0.905)	105565	25.0000	18
38 2-Hexanone	43	8.021	8.021	(0.910)	346896	25.0000	23
39 Dibromochloromethane	129	8.160	8.160	(0.926)	116673	5.00000	5.3
40 1,2-Dibromoethane	107	8.288	8.288	(0.941)	78920	5.00000	5.0
* 42 Chlorobenzene-d5	117	8.811	8.811	(1.000)	416353	5.00000	
43 Chlorobenzene	112	8.846	8.846	(1.004)	473723	5.00000	5.4
44 Ethylbenzene	91	8.973	8.973	(1.018)	1178972	5.00000	5.4
45 m,p-Xylene	106	9.101	9.101	(1.033)	369053	10.0000	11
46 o-Xylene	106	9.554	9.554	(1.084)	315441	5.00000	5.3
47 Styrene	104	9.577	9.577	(1.087)	411333	5.00000	5.1
\$ 88 Bromoform-d	174	9.751	9.751	(0.846)	78584	5.00000	5.0
48 Bromoform	173	9.775	9.775	(0.848)	53655	5.00000	4.8
49 Isopropylbenzene	105	9.984	9.984	(1.133)	957835	5.00000	5.3
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.297	10.297	(1.169)	79656	5.00000	5.3
51 1,1,2,2-Tetrachloroethane	83	10.332	10.332	(1.173)	84866	5.00000	5.3
52 1,3-Dichlorobenzene	146	11.459	11.459	(0.994)	291978	5.00000	5.2
* 78 1,4-Dichlorobenzene-d4	152	11.528	11.528	(1.000)	174966	5.00000	
53 1,4-Dichlorobenzene	146	11.563	11.563	(1.003)	307479	5.00000	5.5
\$ 90 1,2-Dichlorobenzene-d4	152	11.981	11.981	(1.039)	128273	5.00000	5.1
54 1,2-Dichlorobenzene	146	12.004	12.004	(1.041)	221238	5.00000	5.3
55 1,2-Dibromo-3-chloropropane	75	12.968	12.968	(1.125)	10238	5.00000	4.9
56 1,2,4-Trichlorobenzene	180	13.979	13.979	(1.213)	130265	5.00000	4.9
77 1,2,3-Trichlorobenzene	180	14.571	14.571	(1.264)	83426	5.00000	4.7

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12/17/08

HZA

Data File: \\Avogadro\Organics\voa\55.i\081211.B\5K3942.D

Date : 11-DEC-2008 12:24

Client ID: VSTD01051

Sample Info: 25ML-VSTD01051,VSTD01051

Purge Volume: 25.0

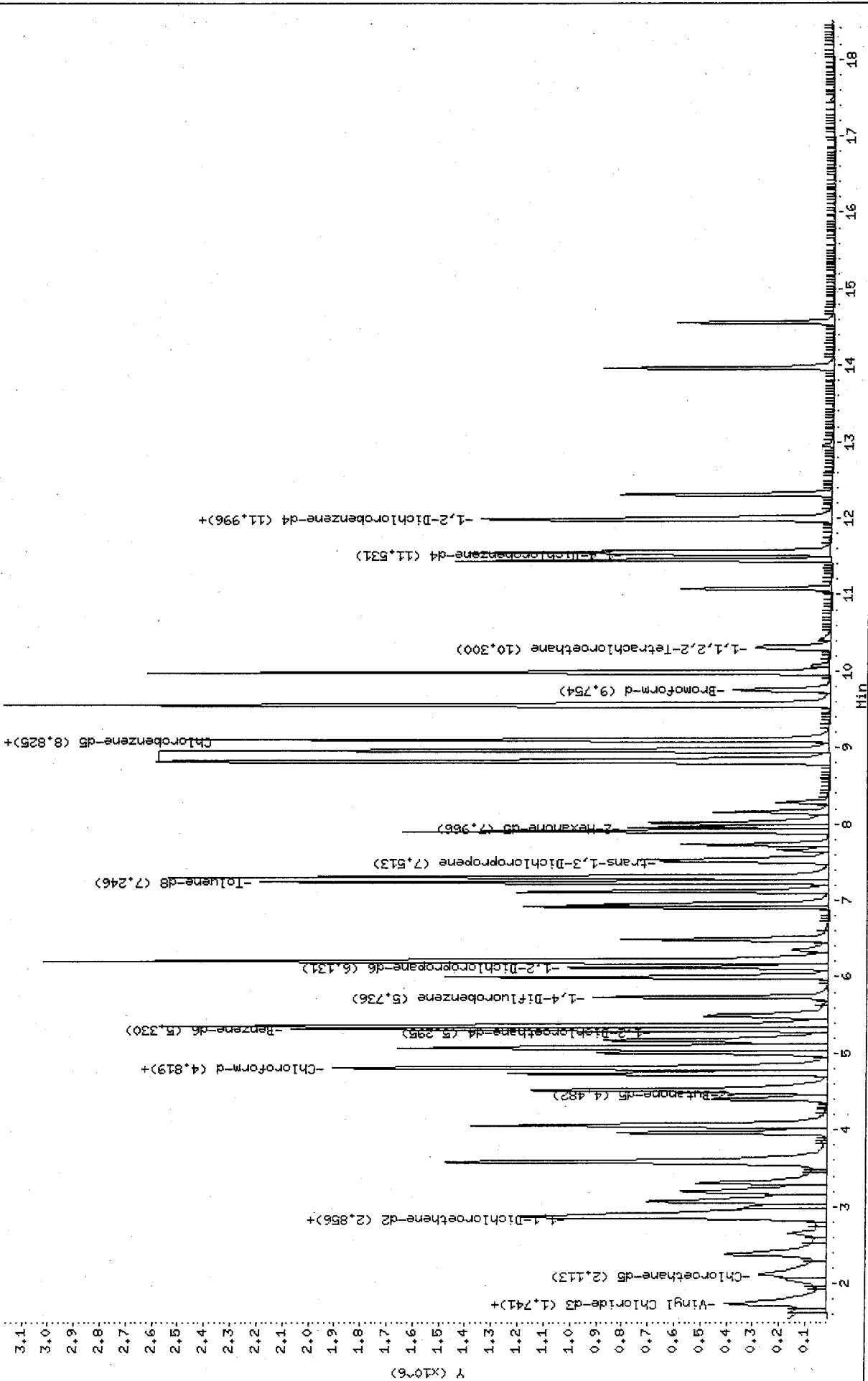
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: ALM

Column diameter: 0.25

\\Avogadro\Organics\voa\55.i\081211.B\5K3942.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211.B\V5K3942.D
 Lab Smp Id: VSTD0105I Client Smp ID: VSTD0105I
 Inj Date : 11-DEC-2008 12:24
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML,VSTD0105I,VSTD0105I
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211.B\v5OLC3.m
 Meth Date : 17-Dec-2008 15:58 wluo Quant Type: ISTD
 Cal Date : 11-DEC-2008 12:24 Cal File: V5K3942.D
 Als bottle: 72 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)
1 Dichlorodifluoromethane	85	1.474	1.495	(0.257)	348794	10.0000	10
2 Chloromethane	50	1.648	1.669	(0.287)	282731	10.0000	9.6
\$ 79 Vinyl Chloride-d3	65	1.741	1.750	(0.304)	726945	10.0000	9.8
3 Vinyl Chloride	62	1.741	1.750	(0.304)	282042	10.0000	9.4
4 Bromomethane	94	2.054	2.064	(0.358)	226059	10.0000	8.9
\$ 80 Chloroethane-d5	69	2.112	2.133	(0.368)	494631	10.0000	9.7
5 Chloroethane	64	2.136	2.156	(0.372)	206357	10.0000	9.6
6 Trichlorofluoromethane	101	2.380	2.400	(0.415)	858595	10.0000	9.8
\$ 81 1,1-Dichloroethene-d2	100	2.856	2.865	(0.498)	198870	10.0000	10
7 1,1-Dichloroethene	96	2.867	2.876	(0.500)	470440	10.0000	10
8 Freon113	101	2.891	2.900	(0.504)	651634	10.0000	11
9 Acetone	43	2.914	2.923	(0.508)	337063	50.0000	50
10 Carbon Disulfide	76	3.065	3.086	(0.534)	2013160	10.0000	10
11 Methyl Acetate	43	3.227	3.237	(0.563)	216773	10.0000	11
12 Methylene Chloride	84	3.309	3.318	(0.577)	377110	10.0000	10
13 trans-1,2-Dichloroethene	96	3.576	3.585	(0.623)	555844	10.0000	10
14 Methyl tert-Butyl Ether	73	3.599	3.608	(0.627)	1023040	10.0000	10
15 1,1-Dichloroethane	63	3.971	3.968	(0.692)	1080798	10.0000	10
\$ 82 2-Butanone-d5	46	4.482	4.491	(0.781)	518076	50.0000	47
17 cis-1,2-Dichloroethene	96	4.516	4.526	(0.787)	505982	10.0000	9.7
16 2-Butanone	43	4.540	4.549	(0.791)	549636	50.0000	46
18 Bromochloromethane	128	4.749	4.746	(0.828)	129375	10.0000	9.7

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
\$ 83 Chloroform-d	84	4.807	4.816	(0.838)	1107650	10.0000	9.7
19 Chloroform	83	4.830	4.827	(0.842)	1053646	10.0000	9.8
20 1,1,1-Trichloroethane	97	5.016	5.013	(0.569)	894670	10.0000	10
21 Cyclohexane	56	5.074	5.083	(0.576)	1126484	10.0000	11
22 Carbon Tetrachloride	117	5.178	5.188	(0.588)	701808	10.0000	9.8
\$ 23 1,2-Dichloroethane-d4	65	5.294	5.304	(0.923)	385573	10.0000	9.5
\$ 84 Benzene-d6	84	5.329	5.327	(0.605)	1970774	10.0000	10
25 Benzene	78	5.364	5.373	(0.609)	1944355	10.0000	10
24 1,2-Dichloroethane	62	5.376	5.373	(0.937)	475001	10.0000	9.4
* 26 1,4-Difluorobenzene	114	5.736	5.745	(1.000)	675788	5.00000	
27 Trichloroethene	95	6.003	6.000	(0.681)	564712	10.0000	9.9
\$ 85 1,2-Dichloropropane-d6	67	6.131	6.128	(0.696)	454145	10.0000	10
28 Methylcyclohexane	83	6.200	6.209	(0.704)	972681	10.0000	11
29 1,2-Dichloropropane	63	6.212	6.221	(0.705)	408825	10.0000	10
30 Bromodichloromethane	83	6.491	6.500	(0.736)	615987	10.0000	9.6
31 cis-1,3-Dichloropropene	75	6.955	6.964	(0.789)	610850	10.0000	9.9
32 4-Methyl-2-Pentanone	43	7.118	7.127	(0.808)	1146222	50.0000	51
\$ 33 Toluene-d8	98	7.245	7.243	(0.822)	1456326	10.0000	10
34 Toluene	91	7.315	7.313	(0.830)	1877547	10.0000	10
\$ 86 trans-1,3-Dichloropropene-d4	79	7.513	7.510	(0.852)	334791	10.0000	9.6
35 trans-1,3-Dichloropropene	75	7.536	7.545	(0.855)	440484	10.0000	9.8
36 1,1,2-Trichloroethane	97	7.733	7.742	(0.877)	169076	10.0000	9.6
37 Tetrachloroethene	164	7.907	7.905	(0.897)	400075	10.0000	9.8
\$ 87 2-Hexanone-d5	63	7.965	7.975	(0.904)	281769	50.0000	44
38 2-Hexanone	43	8.024	8.021	(0.910)	751625	50.0000	45
39 Dibromochloromethane	129	8.163	8.160	(0.926)	221192	10.0000	9.4
40 1,2-Dibromoethane	107	8.291	8.288	(0.941)	161170	10.0000	9.7
* 42 Chlorobenzene-d5	117	8.813	8.811	(1.000)	435557	5.00000	
43 Chlorobenzene	112	8.836	8.846	(1.003)	914928	10.0000	10
44 Ethylbenzene	91	8.976	8.973	(1.018)	2253039	10.0000	9.9
45 m,p-Xylene	106	9.104	9.101	(1.033)	710578	20.0000	19
46 o-Xylene	106	9.556	9.554	(1.084)	631318	10.0000	10
47 Styrene	104	9.568	9.577	(1.086)	829464	10.0000	9.8
\$ 88 Bromoform-d	174	9.754	9.751	(0.846)	162638	10.0000	9.8
48 Bromoform	173	9.777	9.775	(0.848)	113797	10.0000	9.7
49 Isopropylbenzene	105	9.986	9.984	(1.133)	1865530	10.0000	9.9
\$ 89 1,1,1,2,2-Tetrachloroethane-d2	84	10.300	10.297	(1.169)	157434	10.0000	9.9
51 1,1,1,2,2-Tetrachloroethane	83	10.323	10.332	(1.171)	160965	10.0000	9.4
52 1,3-Dichlorobenzene	146	11.449	11.459	(0.993)	574750	10.0000	9.7
* 78 1,4-Dichlorobenzene-d4	152	11.531	11.528	(1.000)	182239	5.00000	(Q)
53 1,4-Dichlorobenzene	146	11.565	11.563	(1.003)	582724	10.0000	10
\$ 90 1,2-Dichlorobenzene-d4	152	11.984	11.981	(1.039)	260353	10.0000	10
54 1,2-Dichlorobenzene	146	12.007	12.004	(1.041)	434536	10.0000	9.9
55 1,2-Dibromo-3-chloropropane	75	12.947	12.968	(1.123)	20708	10.0000	9.1
56 1,2,4-Trichlorobenzene	180	13.969	13.979	(1.211)	274614	10.0000	9.8
77 1,2,3-Trichlorobenzene	180	14.562	14.571	(1.263)	188249	10.0000	10

QC Flag Legend

Q - Qualifier signal failed the ratio test.

W
12/17/08

HZA

Data File: \\Avogadro\Organics\voa\5.i\081211.B\5K3941.D

Date: 11-DEC-2008 11:55

Client ID: VSTD02551

Sample Info: 25HL,VSTD02551,VSTD02551

Purge Volume: 25.0

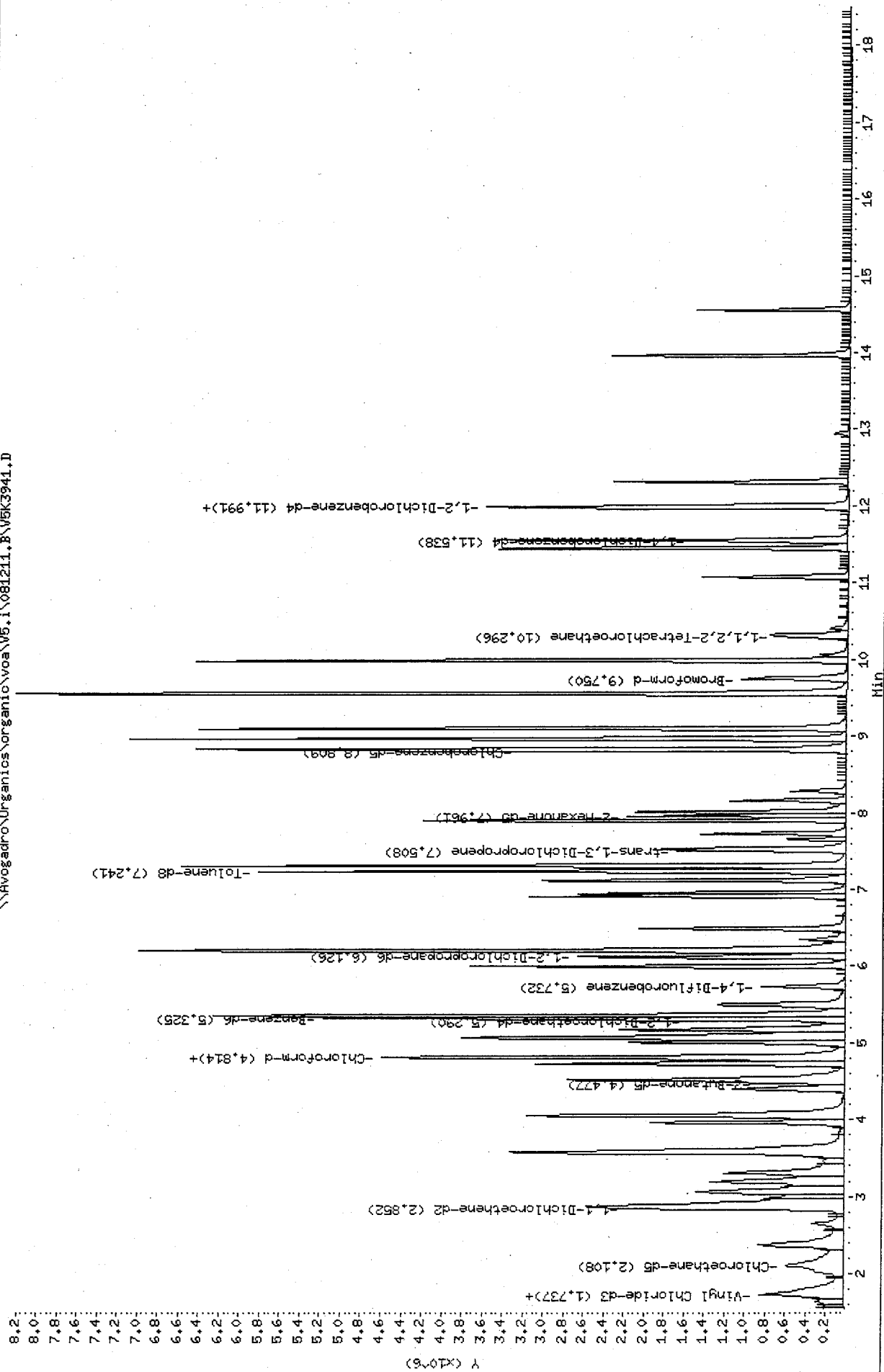
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: ALM

Column diameter: 0.25

\\Avogadro\Organics\voa\5.i\081211.B\5K3941.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211.B\V5K3941.D
 Lab Smp Id: VSTD0255I Client Smp ID: VSTD0255I
 Inj Date : 11-DEC-2008 11:55
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML,VSTD0255I,VSTD0255I
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211.B\v5OLC3.m
 Meth Date : 17-Dec-2008 15:58 wluo Quant Type: ISTD
 Cal Date : 11-DEC-2008 11:55 Cal File: V5K3941.D
 Als bottle: 71 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)
1 Dichlorodifluoromethane	85		1.481	1.495	(0.258)	803947	25.0000	28 (A)
2 Chloromethane	50		1.643	1.669	(0.286)	712104	25.0000	24
\$ 79 Vinyl Chloride-d3	65		1.736	1.750	(0.302)	1790441	25.0000	24
3 Vinyl Chloride	62		1.736	1.750	(0.302)	724717	25.0000	26 (A)
4 Bromomethane	94		2.038	2.064	(0.355)	616032	25.0000	23 (Q)
\$ 80 Chloroethane-d5	69		2.108	2.133	(0.367)	1235820	25.0000	25
5 Chloroethane	64		2.131	2.156	(0.371)	520166	25.0000	24
6 Trichlorofluoromethane	101		2.375	2.400	(0.414)	2129185	25.0000	25
\$ 81 1,1-Dichloroethene-d2	100		2.851	2.865	(0.497)	476105	25.0000	25
7 1,1-Dichloroethene	96		2.863	2.876	(0.499)	1121203	25.0000	24 (Q)
8 Freon113	101		2.886	2.900	(0.503)	1437222	25.0000	22
9 Acetone	43		2.909	2.923	(0.507)	817942	125.000	95
10 Carbon Disulfide	76		3.072	3.086	(0.535)	4849506	25.0000	25
11 Methyl Acetate	43		3.223	3.237	(0.561)	474450	25.0000	17
12 Methylene Chloride	84		3.304	3.318	(0.575)	911144	25.0000	21
13 trans-1,2-Dichloroethene	96		3.571	3.585	(0.622)	1346247	25.0000	24
14 Methyl tert-Butyl Ether	73		3.594	3.608	(0.626)	2450666	25.0000	26 (A)
15 1,1-Dichloroethane	63		3.966	3.968	(0.691)	2600343	25.0000	24
\$ 82 2-Butanone-d5	46		4.477	4.491	(0.780)	1339281	125.000	140 (A)
17 cis-1,2-Dichloroethene	96		4.512	4.526	(0.786)	1262868	25.0000	26 (A)
16 2-Butanone	43		4.535	4.549	(0.790)	1460078	125.000	120
18 Bromochloromethane	128		4.744	4.746	(0.826)	321139	25.0000	25 (Q)

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
\$ 83 Chloroform-d	84	4.802	4.816	(0.836)	2748001	25.0000	24
19 Chloroform	83	4.825	4.827	(0.840)	2596740	25.0000	24
20 1,1,1-Trichloroethane	97	5.011	5.013	(0.569)	2224572	25.0000	23
21 Cyclohexane	56	5.069	5.083	(0.576)	2593334	25.0000	23
22 Carbon Tetrachloride	117	5.174	5.188	(0.587)	1803835	25.0000	23
\$ 23 1,2-Dichloroethane-d4	65	5.290	5.304	(0.921)	976556	25.0000	25 (A)
\$ 84 Benzene-d6	84	5.325	5.327	(0.605)	4789141	25.0000	23
25 Benzene	78	5.359	5.373	(0.608)	4784564	25.0000	23
24 1,2-Dichloroethane	62	5.371	5.373	(0.935)	1221865	25.0000	25
* 26 1,4-Difluorobenzene	114	5.743	5.745	(1.000)	653586	5.00000	
27 Trichloroethene	95	5.998	6.000	(0.681)	1444060	25.0000	25
\$ 85 1,2-Dichloropropane-d6	67	6.126	6.128	(0.695)	1140937	25.0000	24
28 Methylcyclohexane	83	6.207	6.209	(0.705)	2246551	25.0000	23
29 1,2-Dichloropropane	63	6.207	6.221	(0.705)	984977	25.0000	22
30 Bromodichloromethane	83	6.486	6.500	(0.736)	1622811	25.0000	26 (A)
31 cis-1,3-Dichloropropene	75	6.950	6.964	(0.789)	1561121	25.0000	28 (A)
32 4-Methyl-2-Pentanone	43	7.125	7.127	(0.809)	2831366	125.000	120
\$ 33 Toluene-d8	98	7.241	7.243	(0.822)	3642711	25.0000	25
34 Toluene	91	7.310	7.313	(0.830)	4713888	25.0000	24
\$ 86 trans-1,3-Dichloropropene-d4	79	7.508	7.510	(0.852)	879152	25.0000	29 (AQ)
35 trans-1,3-Dichloropropene	75	7.543	7.545	(0.856)	1136530	25.0000	29 (A)
36 1,1,2-Trichloroethane	97	7.729	7.742	(0.877)	441629	25.0000	25
37 Tetrachloroethene	164	7.903	7.905	(0.897)	1031339	25.0000	25
\$ 87 2-Hexanone-d5	63	7.961	7.975	(0.904)	800211	125.000	180 (AQ)
38 2-Hexanone	43	8.007	8.021	(0.909)	2093217	125.000	140 (AQ)
39 Dibromochloromethane	129	8.158	8.160	(0.926)	595851	25.0000	26 (A)
40 1,2-Dibromoethane	107	8.286	8.288	(0.941)	419520	25.0000	27 (A)
* 42 Chlorobenzene-d5	117	8.809	8.811	(1.000)	438966	5.00000	
43 Chlorobenzene	112	8.843	8.846	(1.004)	2311070	25.0000	24
44 Ethylbenzene	91	8.971	8.973	(1.018)	5749351	25.0000	26 (A)
45 m,p-Xylene	106	9.099	9.101	(1.033)	1891544	50.0000	55 (A)
46 o-Xylene	106	9.552	9.554	(1.084)	1562461	25.0000	28 (AQ)
47 Styrene	104	9.575	9.577	(1.087)	2133262	25.0000	29 (A)
\$ 88 Bromoform-d	174	9.749	9.751	(0.845)	422717	25.0000	27 (A)
48 Bromoform	173	9.772	9.775	(0.847)	299231	25.0000	26 (A)
49 Isopropylbenzene	105	9.981	9.984	(1.133)	4740706	25.0000	28 (A)
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.295	10.297	(1.169)	400410	25.0000	25
51 1,1,2,2-Tetrachloroethane	83	10.318	10.332	(1.171)	431746	25.0000	27 (A)
52 1,3-Dichlorobenzene	146	11.456	11.459	(0.993)	1518050	25.0000	28 (A)
* 78 1,4-Dichlorobenzene-d4	152	11.538	11.528	(1.000)	186094	5.00000	(Q)
53 1,4-Dichlorobenzene	146	11.561	11.563	(1.002)	1487004	25.0000	23
\$ 90 1,2-Dichlorobenzene-d4	152	11.979	11.981	(1.038)	662399	25.0000	26 (AQ)
54 1,2-Dichlorobenzene	146	12.002	12.004	(1.040)	1120675	25.0000	27 (A)
55 1,2-Dibromo-3-chloropropane	75	12.943	12.968	(1.122)	57886	25.0000	30 (AQ)
56 1,2,4-Trichlorobenzene	180	13.965	13.979	(1.210)	718033	25.0000	32 (A)
77 1,2,3-Trichlorobenzene	180	14.557	14.571	(1.262)	462935	25.0000	30 (AQ)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.

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12/17/08

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7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Instrument ID: V5 Calibration Date: 12/11/2008 Time: 14:55
 Lab File ID: V5K3946.D Init. Calib. Date(s): 12/11/2008 12/11/2008
 EPA Sample No. (VSTD#####): VSTD0055J Init. Calib. Time(s): 11:55 13:52
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF005	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.223	0.262		17.4	
Chloromethane	0.224	0.291		29.9	
Vinyl chloride	0.214	0.298	0.100	39.5	30.0
Bromomethane	0.204	0.211	0.100	3.0	30.0
Chloroethane	0.168	0.231		37.7	
Trichlorofluoromethane	0.645	0.735		13.9	
1,1-Dichloroethene	0.353	0.451	0.100	27.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.501	0.573		14.4	
Acetone	0.066	0.053		-20.3	
Carbon disulfide	1.480	2.003		35.4	
Methyl acetate	0.213	0.173		-18.8	
Methylene chloride	0.328	0.333		1.5	
trans-1,2-Dichloroethene	0.438	0.499		13.8	
Methyl tert-butyl ether	0.732	0.651		-11.1	
1,1-Dichloroethane	0.836	0.905	0.200	8.3	30.0
cis-1,2-Dichloroethene	0.373	0.408		9.5	
2-Butanone	0.090	0.079		-12.8	
Bromochloromethane	0.100	0.103	0.050	3.1	30.0
Chloroform	0.822	0.836	0.200	1.6	30.0
1,1,1-Trichloroethane	1.101	1.181	0.100	7.3	30.0
Cyclohexane	1.264	1.646		30.2	
Carbon tetrachloride	0.882	0.923	0.100	4.7	30.0
Benzene	2.378	2.847	0.400	19.7	30.0
1,2-Dichloroethane	0.369	0.323	0.100	-12.6	30.0
Trichloroethene	0.666	0.780	0.300	17.1	30.0
Methylcyclohexane	1.104	1.315		19.1	

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Instrument ID: V5 Calibration Date: 12/11/2008 Time: 14:55
 Lab File ID: V5K3946.D Init. Calib. Date(s): 12/11/2008 12/11/2008
 EPA Sample No. (VSTD#####): VSTD0055J Init. Calib. Time(s): 11:55 13:52
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF005	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.515	0.560		8.8	
Bromodichloromethane	0.719	0.663	0.200	-7.8	30.0
cis-1,3-Dichloropropene	0.645	0.706	0.200	9.4	30.0
4-Methyl-2-pentanone	0.263	0.233		-11.2	
Toluene	2.203	2.638	0.400	19.7	30.0
trans-1,3-Dichloropropene	0.443	0.456	0.100	3.0	30.0
1,1,2-Trichloroethane	0.202	0.200	0.100	-0.9	30.0
Tetrachloroethene	0.466	0.554	0.100	18.9	30.0
2-Hexanone	0.166	0.143		-14.0	
Dibromochloromethane	0.261	0.263	0.100	0.7	30.0
1,2-Dibromoethane	0.179	0.177	0.100	-1.1	30.0
Chlorobenzene	1.102	1.169	0.500	6.1	30.0
Ethylbenzene	2.518	3.097	0.100	23.0	30.0
Xylenes (Total)	0.639	0.816	0.300	27.8	30.0
Styrene	0.844	1.036	0.300	22.7	30.0
Bromoform	0.305	0.258	0.050	-15.2	30.0
Isopropylbenzene	1.931	2.605		34.9	
1,1,2,2-Tetrachloroethane	0.185	0.201	0.100	9.0	30.0
1,3-Dichlorobenzene	1.457	1.757	0.400	20.6	30.0
1,4-Dichlorobenzene	1.756	1.797	0.400	2.3	30.0
1,2-Dichlorobenzene	1.134	1.302	0.400	14.8	30.0
1,2-Dibromo-3-chloropropane	0.051	0.047		-8.7	
1,2,4-Trichlorobenzene	0.603	0.636	0.200	5.5	30.0
1,2,3-Trichlorobenzene	0.412	0.453	0.200	9.9	30.0

7C - FORM VII VOA-3
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Instrument ID: V5 Calibration Date: 12/11/2008 Time: 14:55
 Lab File ID: V5K3946.D Init. Calib. Date(s): 12/11/2008 12/11/2008
 EPA Sample No. (VSTD#####): VSTD0055J Init. Calib. Time(s): 11:55 13:52
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF005	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.583	0.771		32.3	
Chloroethane-d5	0.384	0.518		34.9	
1,1-Dichloroethene-d2	0.145	0.192		32.0	
2-Butanone-d5	0.072	0.038		-47.5	
Chloroform-d	0.866	0.852		-1.6	
1,2-Dichloroethane-d4	0.294	0.253		-13.8	
Benzene-d6	2.338	2.726		16.6	
1,2-Dichloropropane-d6	0.536	0.565		5.4	
Toluene-d8	1.636	1.864		13.9	
trans-1,3-Dichloropropene-d4	0.340	0.335		-1.7	
2-Hexanone-d5	0.049	0.028		-42.9	
Bromoform-d	0.414	0.377		-9.0	
1,1,2,2-Tetrachloroethane-d2	0.186	0.179		-3.7	
1,2-Dichlorobenzene-d4	0.675	0.687		1.8	

Data File: \\Avogadro\Organics\voa\V5.i\081211A.B\5K3946.D

Date : 11-DEC-2008 14:55

Client ID: VSTD0055J

Sample Info: 25ML,VSTD0055J,VSTD0055J

Purge Volume: 25.0

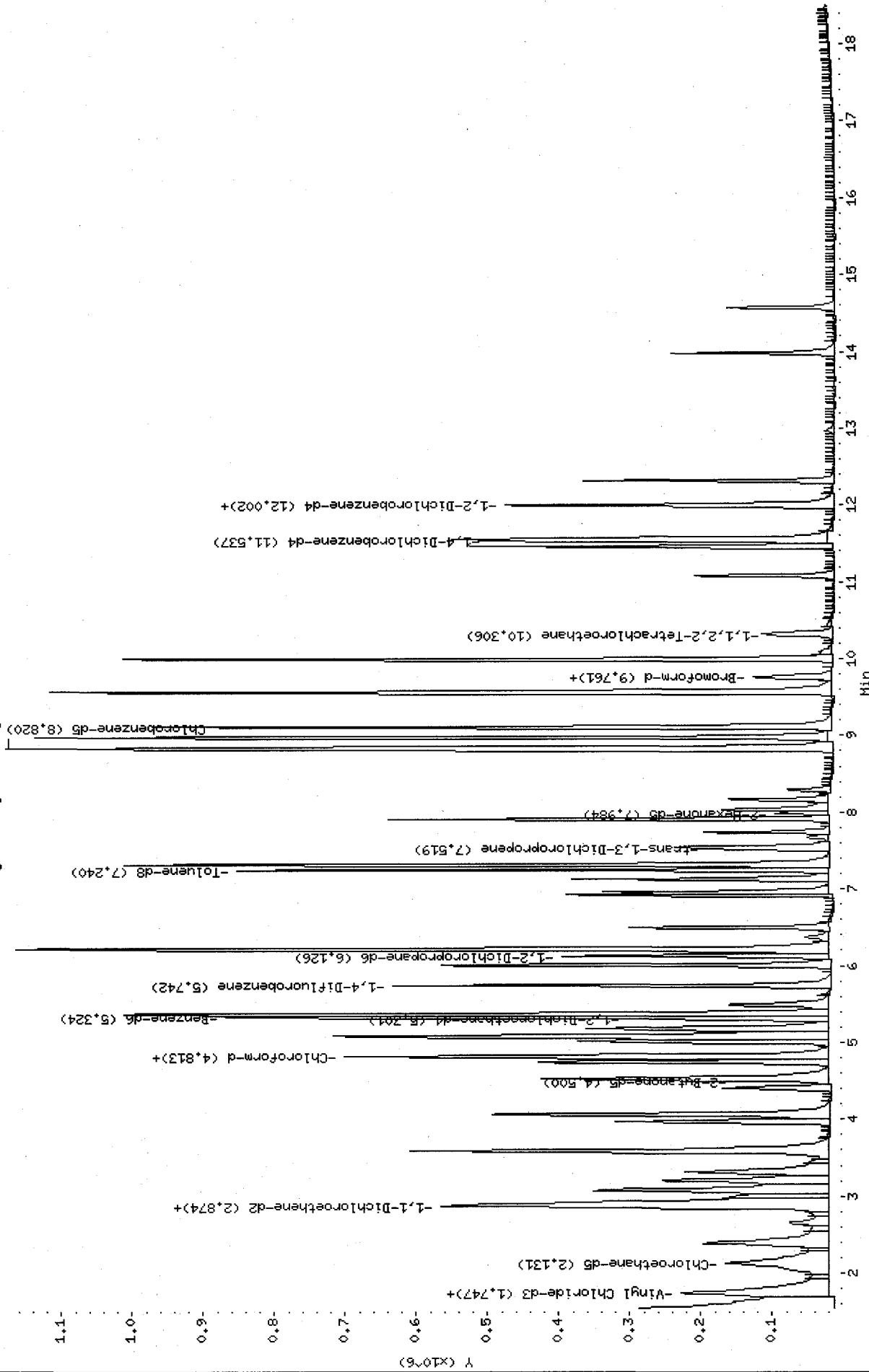
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: ALM

Column diameter: 0.25

\\Avogadro\Organics\voa\V5.i\081211A.B\5K3946.D



Data File: V5K3946.D
 Report Date: 17-Dec-2008 16:55

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles

Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3946.D
 Lab Smp Id: VSTD0055J Client Smp ID: VSTD0055J
 Inj Date : 11-DEC-2008 14:55
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML,VSTD0055J,VSTD0055J
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85		1.480	1.480	(0.258)	124577	5.00000	5.9
2 Chloromethane	50		1.654	1.654	(0.288)	138260	5.00000	6.5
\$ 79 Vinyl Chloride-d3	65		1.747	1.747	(0.304)	366654	5.00000	6.6
3 Vinyl Chloride	62		1.747	1.747	(0.304)	141960	5.00000	7.0
4 Bromomethane	94		2.072	2.072	(0.361)	100201	5.00000	5.2
\$ 80 Chloroethane-d5	69		2.130	2.130	(0.371)	246457	5.00000	6.7
5 Chloroethane	64		2.153	2.153	(0.375)	109954	5.00000	6.9
6 Trichlorofluoromethane	101		2.386	2.386	(0.416)	349652	5.00000	5.7
\$ 81 1,1-Dichloroethene-d2	100		2.862	2.862	(0.498)	91208	5.00000	6.6
7 1,1-Dichloroethene	96		2.873	2.873	(0.500)	214651	5.00000	6.4
8 Freon113	101		2.885	2.885	(0.503)	272530	5.00000	5.7
9 Acetone	43		2.920	2.920	(0.509)	125561	25.0000	20
10 Carbon Disulfide	76		3.071	3.071	(0.535)	952868	5.00000	6.8
11 Methyl Acetate	43		3.233	3.233	(0.563)	82222	5.00000	4.1
12 Methylene Chloride	84		3.315	3.315	(0.577)	158296	5.00000	5.1
13 trans-1,2-Dichloroethene	96		3.582	3.582	(0.624)	237169	5.00000	5.7
14 Methyl tert-Butyl Ether	73		3.593	3.593	(0.626)	309777	5.00000	4.4
15 1,1-Dichloroethane	63		3.977	3.977	(0.693)	430489	5.00000	5.4
\$ 82 2-Butanone-d5	46		4.499	4.499	(0.784)	89710	25.0000	13
17 cis-1,2-Dichloroethene	96		4.523	4.523	(0.788)	193993	5.00000	5.5
16 2-Butanone	43		4.546	4.546	(0.792)	187578	25.0000	22
18 Bromochloromethane	128		4.743	4.743	(0.826)	49177	5.00000	5.2

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
\$ 83 Chloroform-d	84	4.813	4.813	(0.838)	405496	5.00000	4.9
19 Chloroform	83	4.824	4.824	(0.840)	397621	5.00000	5.1
20 1,1,1-Trichloroethane	97	5.010	5.010	(0.569)	355423	5.00000	5.4
21 Cyclohexane	56	5.080	5.080	(0.577)	495497	5.00000	6.5
22 Carbon Tetrachloride	117	5.184	5.184	(0.589)	277987	5.00000	5.2
\$ 23 1,2-Dichloroethane-d4	65	5.301	5.301	(0.923)	120485	5.00000	4.3
\$ 84 Benzene-d6	84	5.324	5.324	(0.604)	820721	5.00000	5.8
25 Benzene	78	5.370	5.370	(0.610)	857118	5.00000	6.0
24 1,2-Dichloroethane	62	5.370	5.370	(0.935)	153597	5.00000	4.4
* 26 1,4-Difluorobenzene	114	5.742	5.742	(1.000)	475694	5.00000	
27 Trichloroethene	95	6.009	6.009	(0.682)	234805	5.00000	5.9
\$ 85 1,2-Dichloropropane-d6	67	6.125	6.125	(0.695)	170111	5.00000	5.3
28 Methylcyclohexane	83	6.206	6.206	(0.705)	395986	5.00000	6.0
29 1,2-Dichloropropane	63	6.218	6.218	(0.706)	168656	5.00000	5.4
30 Bromodichloromethane	83	6.497	6.497	(0.738)	199592	5.00000	4.6
31 cis-1,3-Dichloropropene	75	6.961	6.961	(0.790)	212392	5.00000	5.5
32 4-Methyl-2-Pentanone	43	7.124	7.124	(0.809)	351407	25.00000	22
\$ 33 Toluene-d8	98	7.240	7.240	(0.822)	561084	5.00000	5.7
34 Toluene	91	7.310	7.310	(0.830)	793983	5.00000	6.0
\$ 86 trans-1,3-Dichloropropene-d4	79	7.519	7.519	(0.854)	100699	5.00000	4.9
35 trans-1,3-Dichloropropene	75	7.542	7.542	(0.856)	137309	5.00000	5.1
36 1,1,2-Trichloroethane	97	7.739	7.739	(0.879)	60181	5.00000	5.0
37 Tetrachloroethene	164	7.914	7.914	(0.898)	166850	5.00000	5.9
\$ 87 2-Hexanone-d5	63	7.983	7.983	(0.906)	42420	25.00000	14
38 2-Hexanone	43	8.030	8.030	(0.912)	214718	25.00000	21
39 Dibromochloromethane	129	8.169	8.169	(0.927)	79180	5.00000	5.0
40 1,2-Dibromoethane	107	8.297	8.297	(0.942)	53360	5.00000	4.9
* 42 Chlorobenzene-d5	117	8.808	8.808	(1.000)	301026	5.00000	
43 Chlorobenzene	112	8.843	8.843	(1.004)	351965	5.00000	5.3
44 Ethylbenzene	91	8.970	8.970	(1.018)	932423	5.00000	6.2
45 m,p-Xylene	106	9.110	9.110	(1.034)	289249	10.00000	12
46 o-Xylene	106	9.551	9.551	(1.084)	245744	5.00000	6.4
47 Styrene	104	9.574	9.574	(1.087)	311735	5.00000	6.1
\$ 88 Bromoform-d	174	9.748	9.748	(0.845)	48304	5.00000	4.6
48 Bromoform	173	9.772	9.772	(0.847)	33068	5.00000	4.2
49 Isopropylbenzene	105	9.992	9.992	(1.134)	784322	5.00000	6.7
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.306	10.306	(1.170)	53786	5.00000	4.8
51 1,1,2,2-Tetrachloroethane	83	10.329	10.329	(1.173)	60612	5.00000	5.4
52 1,3-Dichlorobenzene	146	11.456	11.456	(0.993)	224963	5.00000	6.0
* 78 1,4-Dichlorobenzene-d4	152	11.537	11.537	(1.000)	128071	5.00000	
53 1,4-Dichlorobenzene	146	11.560	11.560	(1.002)	230094	5.00000	5.1
\$ 90 1,2-Dichlorobenzene-d4	152	11.990	11.990	(1.039)	87964	5.00000	5.1
54 1,2-Dichlorobenzene	146	12.001	12.001	(1.040)	166708	5.00000	5.7
55 1,2-Dibromo-3-chloropropane	75	12.977	12.977	(1.125)	6010	5.00000	4.6
56 1,2,4-Trichlorobenzene	180	13.976	13.976	(1.211)	81516	5.00000	5.3
77 1,2,3-Trichlorobenzene	180	14.568	14.568	(1.263)	57993	5.00000	5.5

we
12/18/08

HZA

Date : 11-DEC-2008 10:57

Client ID: BFB5I

Instrument: v5.i

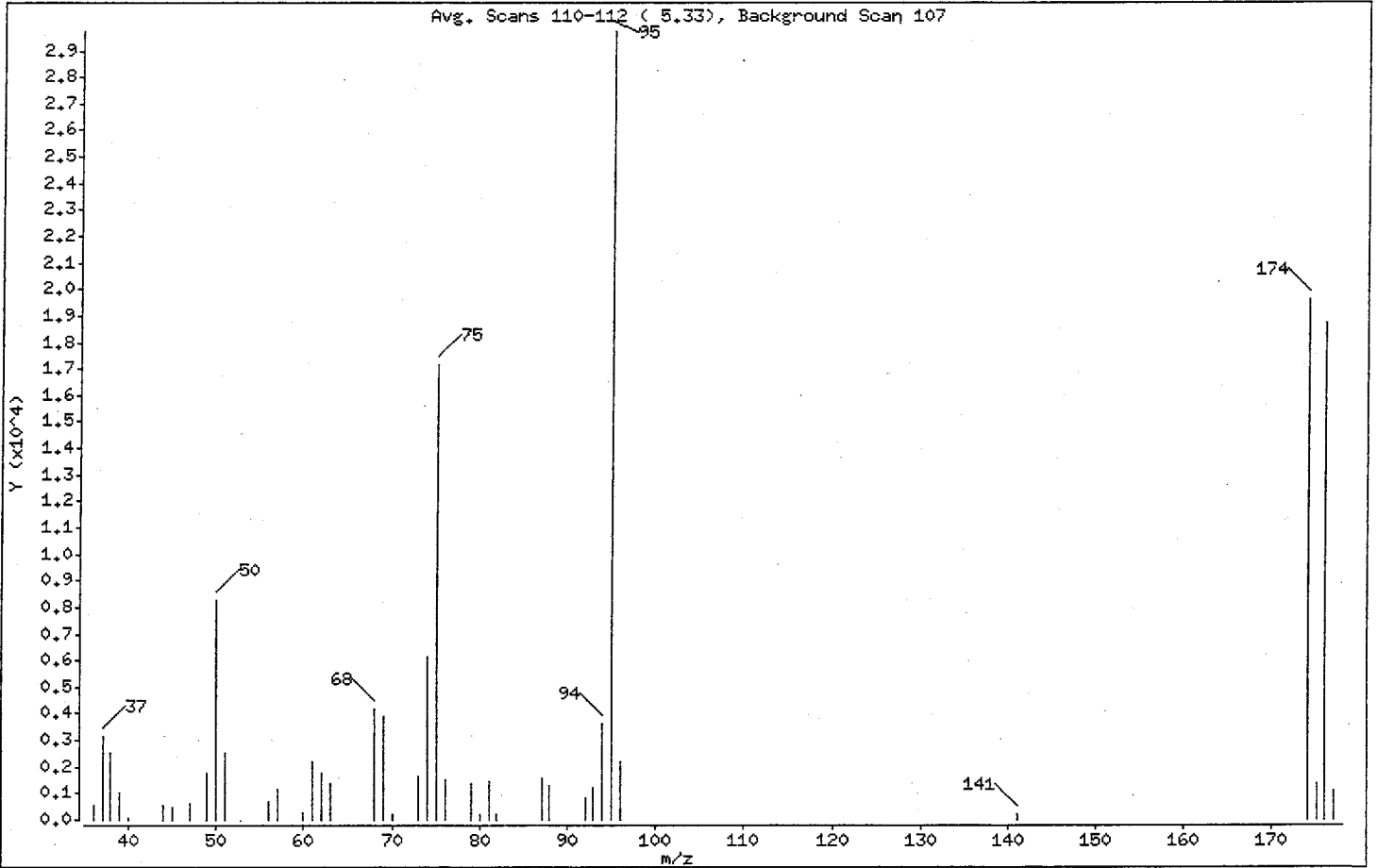
Sample Info: 2UL,BFB5I,BFB5I

Operator: ALM SRC: ALM

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	27.93
75	30.00 - 66.00% of mass 95	57.77
96	5.00 - 9.00% of mass 95	7.46
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	66.03
175	4.00 - 9.00% of mass 174	4.59 (6.95)
176	93.00 - 101.00% of mass 174	63.01 (95.43)
177	5.00 - 9.00% of mass 176	3.73 (5.93)

ALM
12/17/08

Date : 11-DEC-2008 10:57

Client ID: BFB5I

Instrument: v5.i

Sample Info: 2UL,BFB5I,BFB5I

Operator: ALM SRC: ALM

Column phase: DB-624

Column diameter: 0.25

Data File: V5K3940.D
 Spectrum: Avg. Scans 110-112 (5.33), Background Scan 107
 Location of Maximum: 95.00
 Number of points: 40

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	527	56.00	686	75.00	17168	95.00	29720
37.00	3116	57.00	1145	76.00	1502	96.00	2218
38.00	2533	60.00	240	79.00	1373	141.00	196
39.00	1001	61.00	2168	80.00	200	174.00	19624
40.00	54	62.00	1805	81.00	1460	175.00	1363
44.00	515	63.00	1372	82.00	226	176.00	18728
45.00	484	68.00	4146	87.00	1581	177.00	1110
47.00	586	69.00	3876	88.00	1269		
49.00	1765	70.00	204	92.00	844		
50.00	8301	73.00	1640	93.00	1203		
51.00	2559	74.00	6137	94.00	3622		

Date : 11-DEC-2008 10:57

Client ID: BFB5I

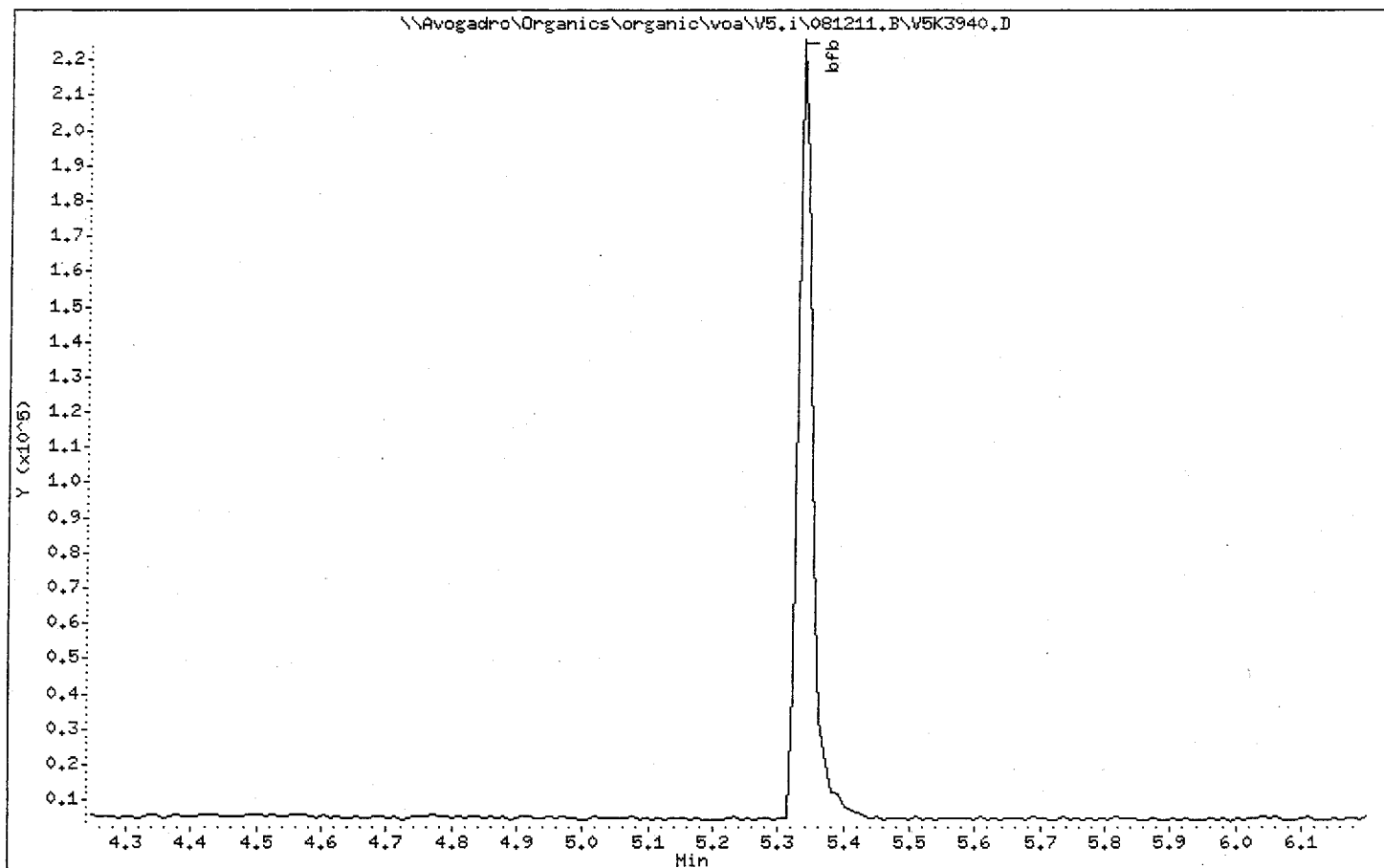
Instrument: v5.i

Sample Info: 2UL,BFB5I,BFB5I

Operator: ALM SRC: ALM

Column phase: DB-624

Column diameter: 0.25



Date : 11-DEC-2008 14:40

Client ID: BFB5J

Instrument: v5.i

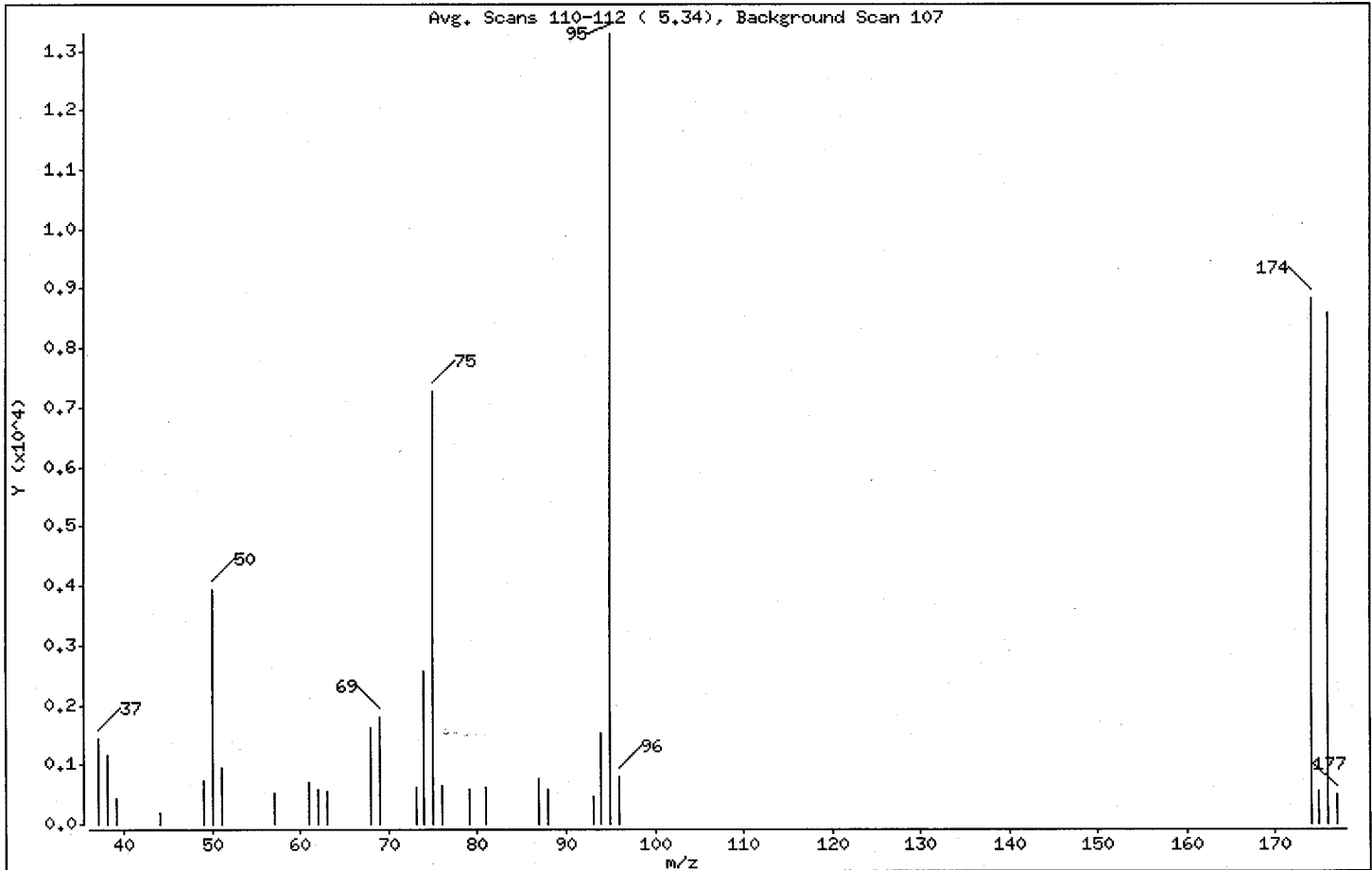
Sample Info: 2UL,BFB5J,BFB5J

Operator: ALM SRC: ALM

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	29.75
75	30.00 - 66.00% of mass 95	54.62
96	5.00 - 9.00% of mass 95	6.07
173	Less than 2.00% of mass 174	0.00 (< 0.00)
174	50.00 - 120.00% of mass 95	66.49
175	4.00 - 9.00% of mass 174	4.23 (< 6.36)
176	93.00 - 101.00% of mass 174	64.64 (< 97.22)
177	5.00 - 9.00% of mass 176	3.70 (< 5.73)

ml
12/17/08

Date : 11-DEC-2008 14:40

Client ID: BFB5J

Instrument: v5.i

Sample Info: 2UL,BFB5J,BFB5J

Operator: ALM SRC: ALM

Column phase: DB-624

Column diameter: 0.25

Data File: V5K3945A.D

Spectrum: Avg. Scans 110-112 (5.34), Background Scan 107

Location of Maximum: 95.00

Number of points: 29

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1449	61.00	696	76.00	627	96.00	807
38.00	1158	62.00	584	79.00	567	174.00	8839
39.00	420	63.00	549	81.00	600	175.00	562
44.00	179	68.00	1617	87.00	770	176.00	8593
49.00	726	69.00	1805	88.00	585	177.00	492
50.00	3955	73.00	604	93.00	468		
51.00	944	74.00	2569	94.00	1513		
57.00	525	75.00	7261	95.00	13293		

Date : 11-DEC-2008 14:40

Client ID: BFB5J

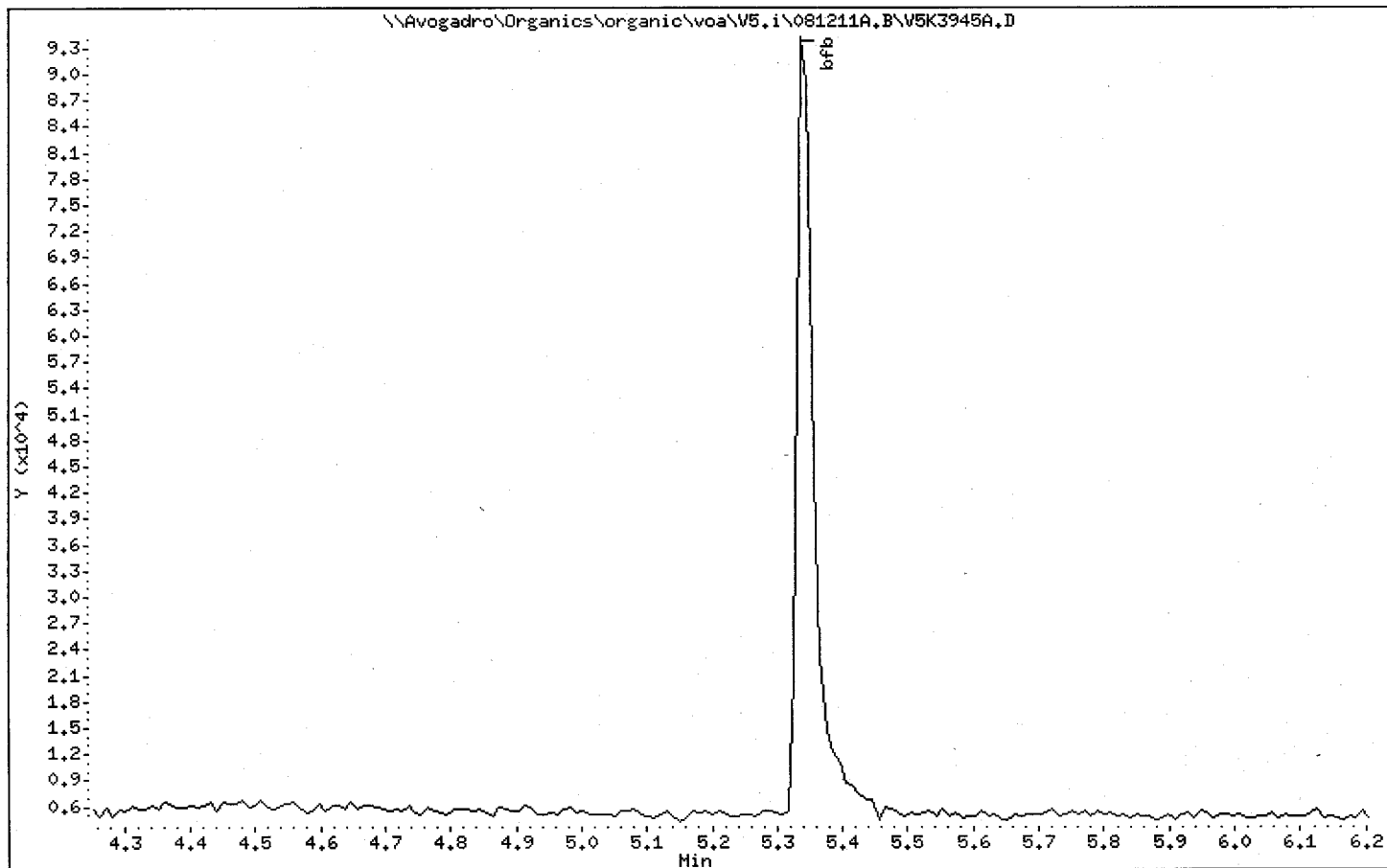
Instrument: v5.i

Sample Info: 2UL,BFB5J,BFB5J

Operator: ALM SRC: ALM

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-40712
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3947.D
 Level: (TRACE/LOW/MED) LOW Date Received: _____
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.50	U
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.50	U
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

EPA OLC

0127

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-40712
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3947.D
 Level: (TRACE/LOW/MED) LOW Date Received: _____
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-40712
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3947.D
 Level: (TRACE or LOW/MED) LOW Date Received: _____
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\organic\voa\5.i\081211A.B\W5K3947.D

Date : 11-DEC-2008 15:22

Client ID: VBLK5J

Sample Info: 25HL, HB-40712, VBLK5J, 40712

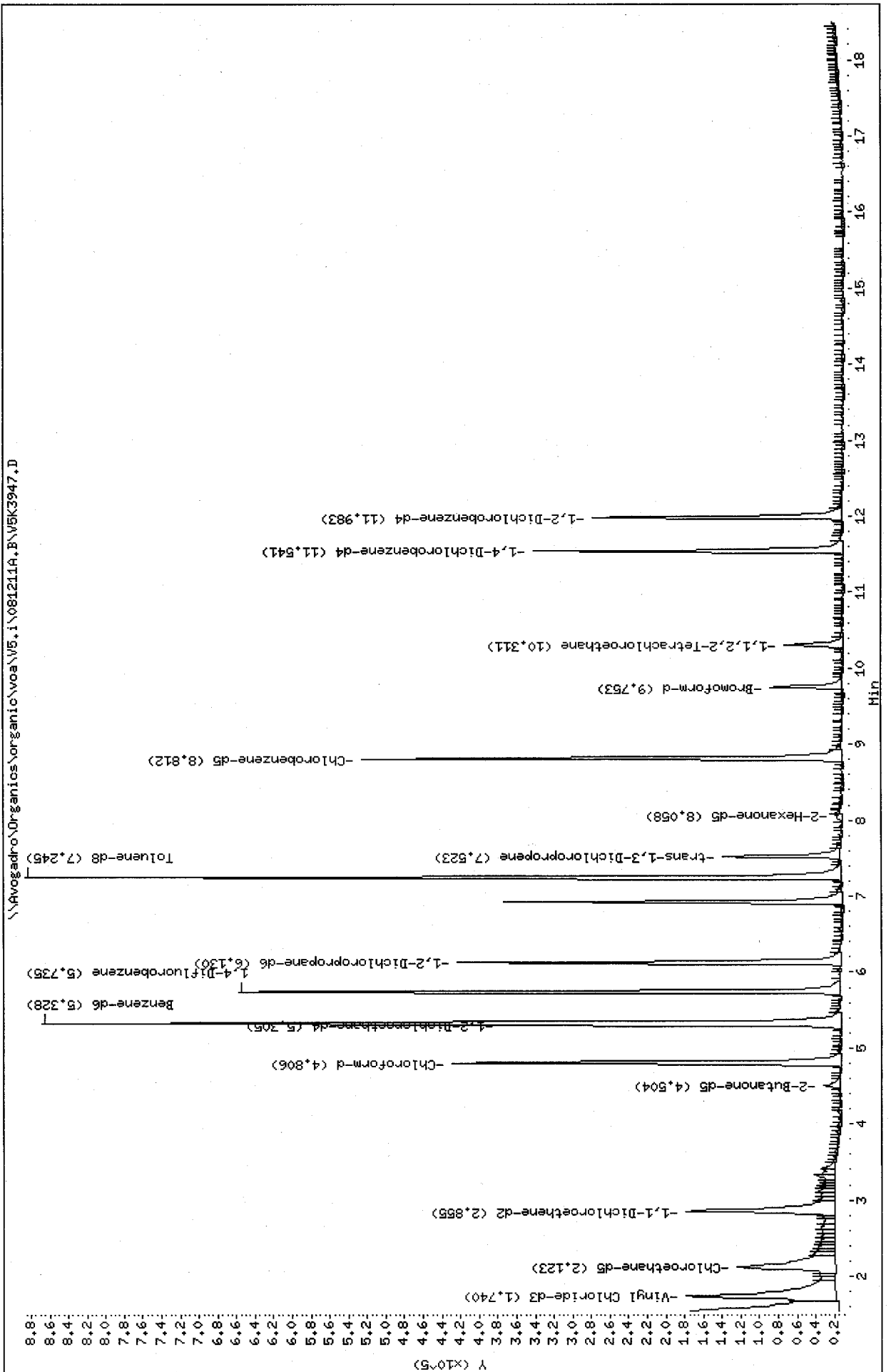
Purge Volume: 25.0

Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25



Data File: V5K3947.D
 Report Date: 17-Dec-2008 16:55

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3947.D
 Lab Smp Id: MB-40712 Client Smp ID: VBLK5J
 Inj Date : 11-DEC-2008 15:22
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,MB-40712,VBLK5J,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 2 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.740	1.747	(0.303)	391437	4.73186	4.7
\$ 80 Chloroethane-d5	69	2.123	2.130	(0.370)	275719	4.95852	5.0
\$ 81 1,1-Dichloroethene-d2	100	2.854	2.862	(0.498)	72931	3.54410	3.5(Q)
\$ 82 2-Butanone-d5	46	4.503	4.499	(0.785)	33622	8.30576	8.3
\$ 83 Chloroform-d	84	4.805	4.813	(0.838)	423800	4.63235	4.6(Q)
\$ 23 1,2-Dichloroethane-d4	65	5.305	5.301	(0.925)	128592	4.73051	4.7
\$ 84 Benzene-d6	84	5.328	5.324	(0.605)	878187	5.38104	5.4
* 26 1,4-Difluorobenzene	114	5.734	5.742	(1.000)	536625	5.00000	
\$ 85 1,2-Dichloropropane-d6	67	6.129	6.125	(0.696)	190089	5.61952	5.6
\$ 33 Toluene-d8	98	7.244	7.240	(0.822)	586050	5.25268	5.3
\$ 86 trans-1,3-Dichloropropene-d4	79	7.523	7.519	(0.854)	94018	4.69527	4.7
\$ 87 2-Hexanone-d5	63	8.057	7.983	(0.914)	8554	5.07041	5.1(Q)
* 42 Chlorobenzene-d5	117	8.812	8.808	(1.000)	299295	5.00000	
\$ 88 Bromoform-d	174	9.753	9.748	(0.845)	48279	5.80947	5.8
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.310	10.306	(1.170)	53571	5.00882	5.0
* 78 1,4-Dichlorobenzene-d4	152	11.541	11.537	(1.000)	110169	5.00000	(Q)
\$ 90 1,2-Dichlorobenzene-d4	152	11.982	11.990	(1.038)	82013	5.41925	5.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Handwritten: 12/18/08

Handwritten: HZA

Data File: V5K3947.D
Report Date: 17-Dec-2008 16:55

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3947.D
Lab Smp Id: MB-40712 Client Smp ID: VBLK5J
Inj Date : 11-DEC-2008 15:22
Operator : ALM SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,MB-40712,VBLK5J,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VHBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK5J
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3967.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/12/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.50	U
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		0.50	U
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		0.50	U
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		0.50	U
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VHBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK5J
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3967.D
 Level: (TRACE/LOW/MED) LOW Date Received: 12/04/2008
 % Moisture: not dec. Date Analyzed: 12/12/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		0.50	U
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VHBLK5J

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK5J
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3967.D
 Level: (TRACE or LOW/MED) LOW Date Received: _____
 % Moisture: not dec. Date Analyzed: 12/12/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 ¹	Total Alkanes	N/A		

¹EPA-designated Registry Number.

Data File: \\Avogadro\Organics\voa\5.i\081211A.B\WK3967.D

Date : 12-DEC-2008 00:59

Client ID: VHBLK5J

Sample Info: 25ML,VHBLK5J,VHBLK5J,40712

Purge Volume: 25.0

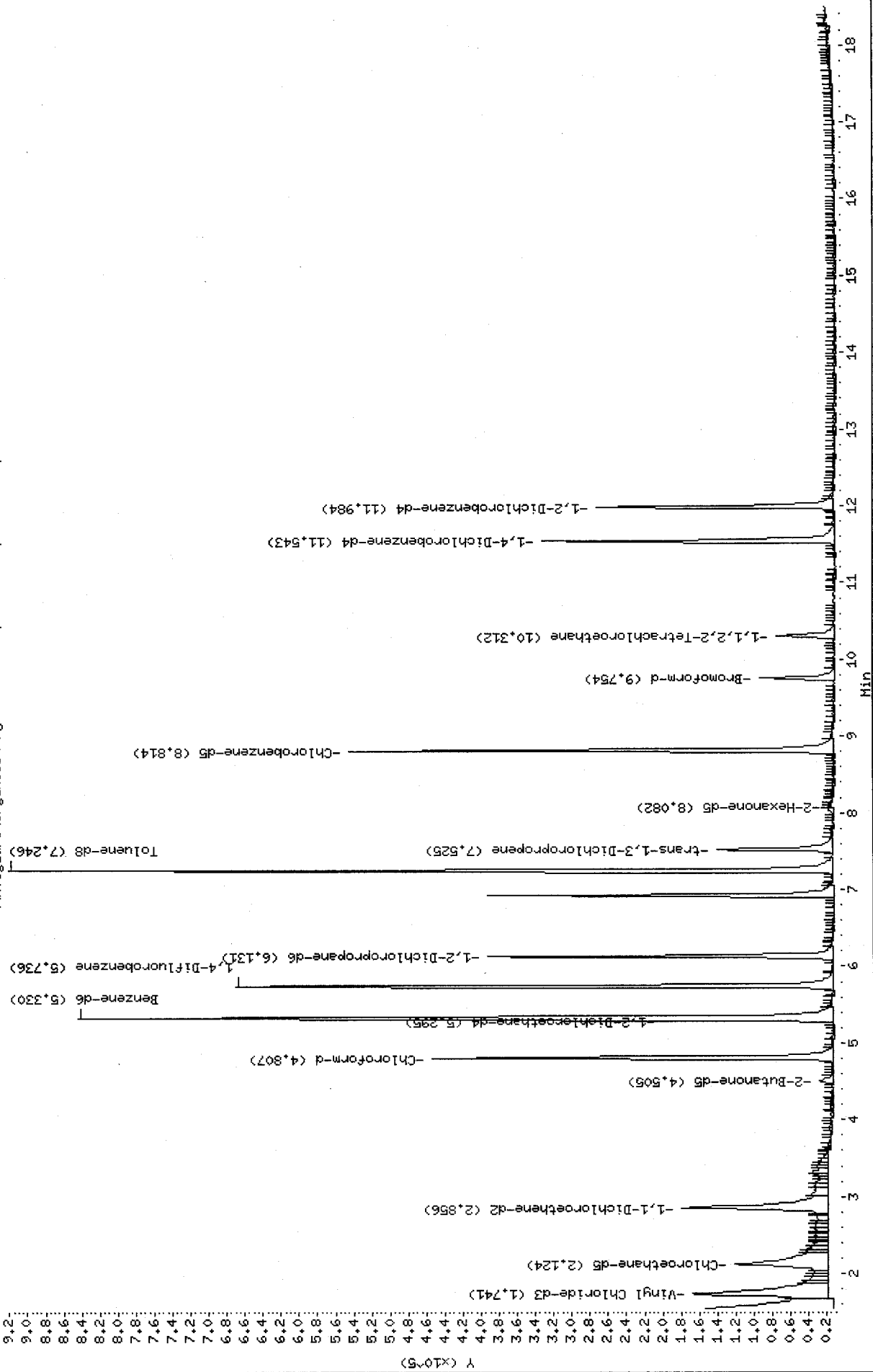
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: ALM

Column diameter: 0.25

\\Avogadro\Organics\voa\5.i\081211A.B\WK3967.D



Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3967.D
 Lab Smp Id: VHBLK5J Client Smp ID: VHBLK5J
 Inj Date : 12-DEC-2008 00:59
 Operator : ALM SRC: ALM Inst ID: V5.i
 Smp Info : 25ML,VHBLK5J,VHBLK5J,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 9 QC Sample: STORAGEBLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65		1.741	1.747	(0.304)	387115	4.73176	4.7	
\$ 80 Chloroethane-d5	69		2.124	2.130	(0.370)	271139	4.93049	4.9	
\$ 81 1,1-Dichloroethene-d2	100		2.856	2.862	(0.498)	71338	3.50532	3.5(Q)	
\$ 82 2-Butanone-d5	46		4.505	4.499	(0.785)	32594	8.14154	8.1	
\$ 83 Chloroform-d	84		4.807	4.813	(0.838)	444235	4.90982	4.9(Q)	
\$ 23 1,2-Dichloroethane-d4	65		5.294	5.301	(0.923)	130217	4.84367	4.8	
\$ 84 Benzene-d6	84		5.329	5.324	(0.605)	860160	5.16158	5.2	
* 26 1,4-Difluorobenzene	114		5.736	5.742	(1.000)	530711	5.00000		
\$ 85 1,2-Dichloropropane-d6	67		6.130	6.125	(0.696)	187706	5.43432	5.4	
\$ 33 Toluene-d8	98		7.245	7.240	(0.822)	592478	5.20048	5.2	
\$ 86 trans-1,3-Dichloropropene-d4	79		7.524	7.519	(0.854)	100835	4.93157	4.9	
\$ 87 2-Hexanone-d5	63		8.093	7.983	(0.918)	8119	4.71304	4.7(aQ)	
* 42 Chlorobenzene-d5	117		8.813	8.808	(1.000)	305615	5.00000		
\$ 88 Bromoform-d	174		9.754	9.748	(0.845)	50103	6.05296	6.1	
\$ 89 1,1,2,2-Tetrachloroethane-d2	84		10.311	10.306	(1.170)	55087	5.04405	5.0	
* 78 1,4-Dichlorobenzene-d4	152		11.542	11.537	(1.000)	109732	5.00000		
\$ 90 1,2-Dichlorobenzene-d4	152		11.983	11.990	(1.038)	86278	5.72378	5.7(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).

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12/18/08

HZA

Data File: V5K3967.D
Report Date: 17-Dec-2008 16:55

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: V5K3967.D
Report Date: 17-Dec-2008 16:55

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3967.D
Lab Smp Id: VHBLK5J Client Smp ID: VHBLK5J
Inj Date : 12-DEC-2008 00:59
Operator : ALM SRC: ALM Inst ID: V5.i
Smp Info : 25ML,VHBLK5J,VHBLK5J,40712
Misc Info :
Comment :
Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
Als bottle: 9 QC Sample: STORAGEBLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLC3.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V5JLCS

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: LCS-40712
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3948.D
 Level: (TRACE/LOW/MED) LOW Date Received: _____
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
75-71-8	Dichlorodifluoromethane		0.50	U
74-87-3	Chloromethane		0.50	U
75-01-4	Vinyl chloride		0.50	U
74-83-9	Bromomethane		0.50	U
75-00-3	Chloroethane		0.50	U
75-69-4	Trichlorofluoromethane		0.50	U
75-35-4	1,1-Dichloroethene		4.1	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		0.50	U
79-20-9	Methyl acetate		0.50	U
75-09-2	Methylene chloride		0.50	U
156-60-5	trans-1,2-Dichloroethene		0.50	U
1634-04-4	Methyl tert-butyl ether		0.50	U
75-34-3	1,1-Dichloroethane		0.50	U
156-59-2	cis-1,2-Dichloroethene		0.50	U
78-93-3	2-Butanone		5.0	U
74-97-5	Bromochloromethane		0.50	U
67-66-3	Chloroform		0.50	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		0.50	U
71-43-2	Benzene		4.9	
107-06-2	1,2-Dichloroethane		0.50	U
79-01-6	Trichloroethene		4.7	
108-87-2	Methylcyclohexane		0.50	U
78-87-5	1,2-Dichloropropane		0.50	U
75-27-4	Bromodichloromethane		0.50	U
10061-01-5	cis-1,3-Dichloropropene		0.50	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		4.9	
10061-02-6	trans-1,3-Dichloropropene		0.50	U
79-00-5	1,1,2-Trichloroethane		0.50	U
127-18-4	Tetrachloroethene		0.50	U
591-78-6	2-Hexanone		5.0	U

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1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V5JLCS

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: _____ Mod. Ref No.: _____ SDG No.: MG2261
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: LCS-40712
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5K3948.D
 Level: (TRACE/LOW/MED) LOW Date Received: _____
 % Moisture: not dec. Date Analyzed: 12/11/2008
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
124-48-1	Dibromochloromethane		0.50	U
106-93-4	1,2-Dibromoethane		0.50	U
108-90-7	Chlorobenzene		5.1	
100-41-4	Ethylbenzene		0.50	U
1330-20-7	Xylenes (Total)		0.50	U
100-42-5	Styrene		0.50	U
75-25-2	Bromoform		0.50	U
98-82-8	Isopropylbenzene		0.50	U
79-34-5	1,1,2,2-Tetrachloroethane		0.50	U
541-73-1	1,3-Dichlorobenzene		0.50	U
106-46-7	1,4-Dichlorobenzene		0.50	U
95-50-1	1,2-Dichlorobenzene		0.50	U
96-12-8	1,2-Dibromo-3-chloropropane		0.50	U
120-82-1	1,2,4-Trichlorobenzene		0.50	U
87-61-6	1,2,3-Trichlorobenzene		0.50	U

Data File: \\Avogadro\Organics\organic\voa\W5.i\081211A.BAV5K3948.D

Date : 11-DEC-2008 15:52

Client ID: V5JLCS

Sample Info: 25ML_LCS-40712,V5JLCS,40712

Purge Volume: 25.0

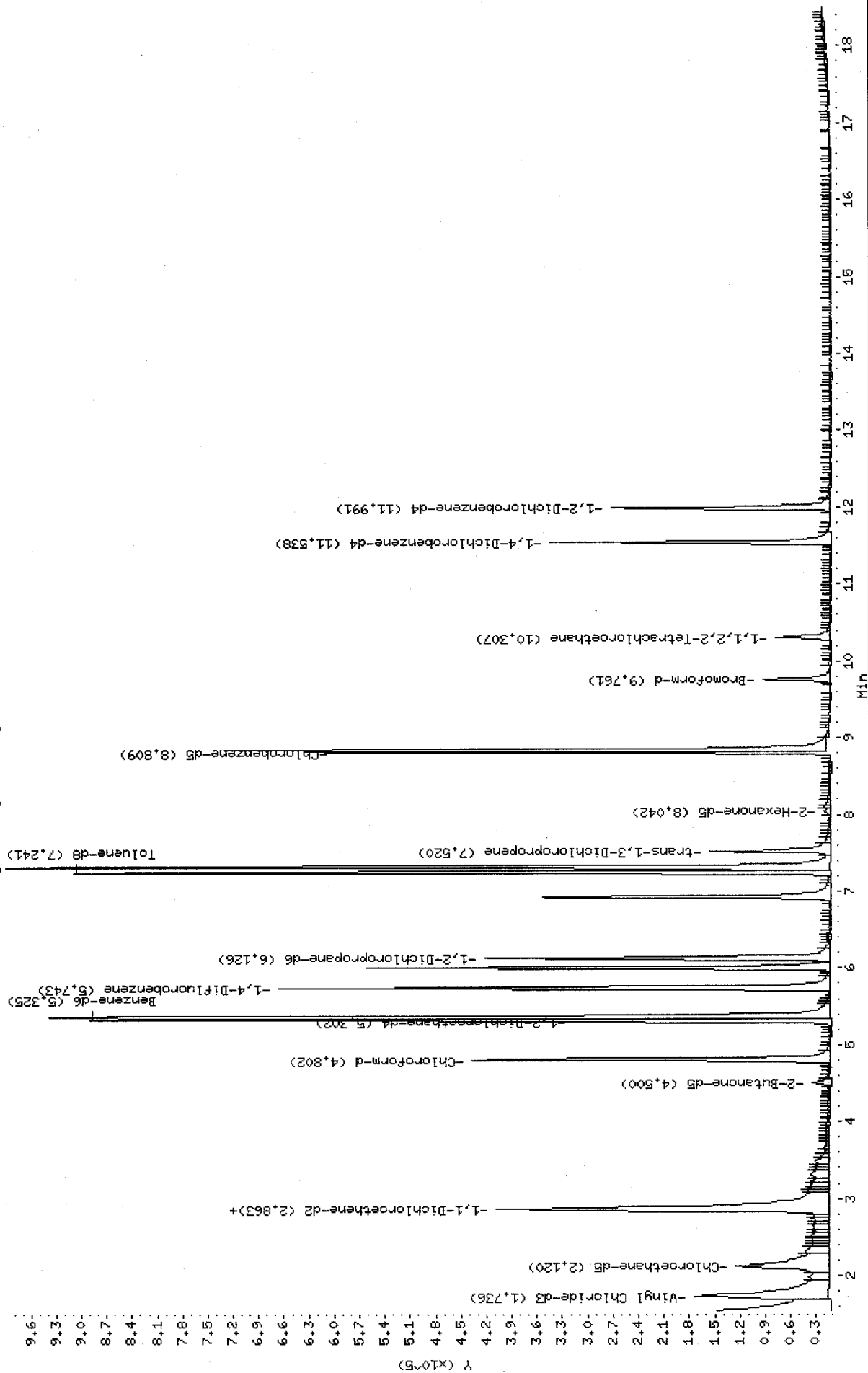
Column phase: DB-624

Instrument: V5.i

Operator: ALM SRC: LIMS

Column diameter: 0.25

\\Avogadro\Organics\organic\voa\W5.i\081211A.BAV5K3948.D



Data File: V5K3948.D
 Report Date: 17-Dec-2008 16:33

Mitkem Laboratories

OLC03.X - Low Concentration Water Volatiles
 Data file : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\V5K3948.D
 Lab Smp Id: LCS-40712 Client Smp ID: V5JLCS
 Inj Date : 11-DEC-2008 15:52
 Operator : ALM SRC: LIMS Inst ID: V5.i
 Smp Info : 25ML,LCS-40712,V5JLCS,40712
 Misc Info :
 Comment :
 Method : \\Avogadro\Organics\organic\voa\V5.i\081211A.B\v5OLC3.m
 Meth Date : 17-Dec-2008 16:14 V5.i Quant Type: ISTD
 Cal Date : 11-DEC-2008 14:55 Cal File: V5K3946.D
 Als bottle: 11 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: OLC3.sub
 Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/L)	FINAL (ug/L)
\$ 79 Vinyl Chloride-d3	65	1.736	1.747 (0.302)		392172	4.71683	4.7
\$ 80 Chloroethane-d5	69	2.131	2.130 (0.371)		270979	4.84869	4.8
\$ 81 1,1-Dichloroethene-d2	100	2.862	2.862 (0.499)		87556	4.23334	4.2
7 1,1-Dichloroethene	96	2.862	2.873 (0.499)		198509	4.07828	4.1
\$ 82 2-Butanone-d5	46	4.500	4.499 (0.784)		35958	8.83802	8.8(R)
\$ 83 Chloroform-d	84	4.802	4.813 (0.836)		417388	4.53924	4.5(Q)
\$ 23 1,2-Dichloroethane-d4	65	5.301	5.301 (0.923)		124514	4.55738	4.6
\$ 84 Benzene-d6	84	5.324	5.324 (0.604)		847431	5.03709	5.0
25 Benzene	78	5.359	5.370 (0.608)		868597	4.94366	4.9
* 26 1,4-Difluorobenzene	114	5.742	5.742 (1.000)		539346	5.00000	
27 Trichloroethene	95	5.998	6.009 (0.681)		225901	4.69334	4.7
\$ 85 1,2-Dichloropropane-d6	67	6.126	6.125 (0.695)		190519	5.46357	5.5
\$ 33 Toluene-d8	98	7.241	7.240 (0.822)		586771	5.10166	5.1
34 Toluene	91	7.310	7.310 (0.830)		790073	4.85430	4.9
\$ 86 trans-1,3-Dichloropropene-d4	79	7.519	7.519 (0.854)		104260	5.05084	5.1
\$ 87 2-Hexanone-d5	63	8.042	7.983 (0.913)		4602	2.64617	2.6(aQ)
* 42 Chlorobenzene-d5	117	8.808	8.808 (1.000)		308534	5.00000	
43 Chlorobenzene	112	8.843	8.843 (1.004)		370441	5.13441	5.1
\$ 88 Bromoform-d	174	9.761	9.748 (0.846)		43897	5.29169	5.3
\$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.306	10.306 (1.170)		52464	4.75842	4.8
* 78 1,4-Dichlorobenzene-d4	152	11.537	11.537 (1.000)		109971	5.00000	(Q)
\$ 90 1,2-Dichlorobenzene-d4	152	11.990	11.990 (1.039)		84400	5.58702	5.6

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Data File: V5K3948.D
Report Date: 17-Dec-2008 16:33

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

MITKEM LABORATORIES: VOLATILE SAMPLES RECEIVING LOGBOOK

VOA Log-In Date	Workorder	Client ID	Sample Numbers	Relinquished by:	Received by:	Pres. Used	F/R	Returned to R1
12/1/08	62258	EA	01-24	CAN	NZA	UA	R9	
12/5/08	62262	Spectron	01-09			UA	R9	
	62263	Watermark	01-03			H	R9	
	62266	DHS	01-02			H	R9	
	62267	EPA	CALL 12-5-08 01-13 01-02			T	R4	
	62244	EPA	30			H	R9	
	62253	EPA	06-10			E	F4	
	62268	EPA	01-12			H	R9	
	62269	EPA	01-17			T	R4	
	62270	EPA	01-12			H	R9	
12/5/08	62271	NO	01-11			H	R9	
12/9/08	62274	Collins	01-10			H	R10	
↓	62261	CDM	01-08			H	R10	
12/7/08	62277	Spectrum	01-03	CAN	NZA	UA	R10	

Reviewed By: NZA 12/08/08

"Preservative Used" Key

UA = Unpreserved Aqueous

M = MeOH

A = Air

H = HCL

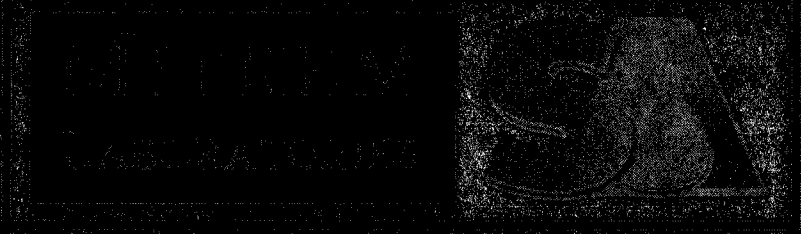
US = Unpreserved Soil

N = NaHSO₄

F = Freeze

E = Encore

T = Trace, HCL



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Mitkem Laboratories

Date: 10-Dec-08

Client: CDM
Client Sample ID: MW-8S
Lab ID: G2261-01

Project: Villa project groundwater
Collection Date: 12/03/08 12:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	ND		0.60	µg/L	1	12/09/2008 10:52	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 10:52	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 10:52	40636

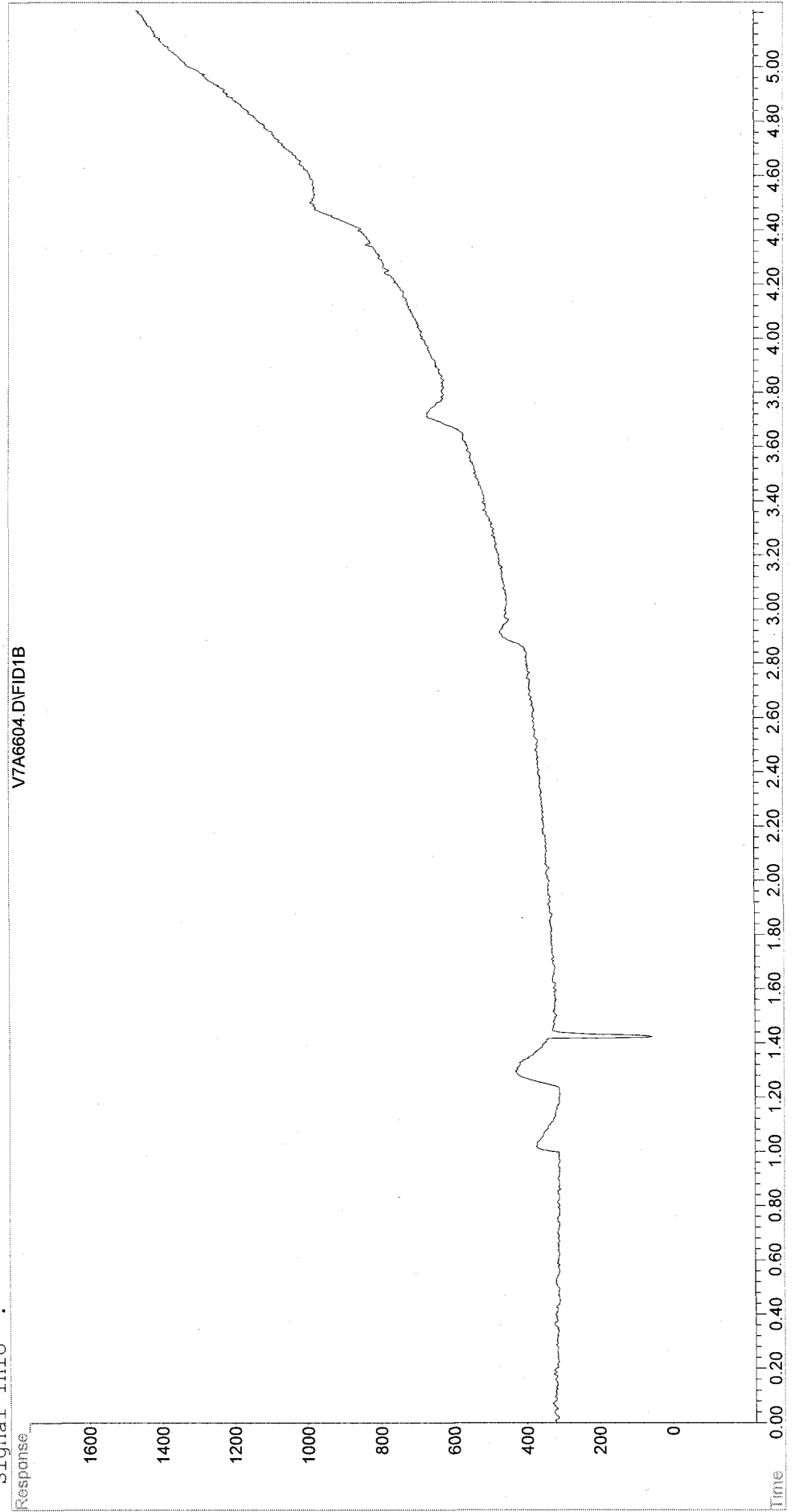
Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6604.D Vial: 100
Acq On : 9 Dec 2008 10:52 am Operator: ALM
Sample : 250UL,G2261-01C,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 11:47 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0150

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6604.D Vial: 100
 Acq On : 9 Dec 2008 10:52 am Operator: ALM
 Sample : 250UL,G2261-01C,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 11:47 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) P Methane	0.00	0	N.D.	PPM d
2) P Ethene	0.00	0	N.D.	PPM d
3) P Ethane	0.00	0	N.D.	PPM d

ALM
12/10/08

SC
12/10/08

Mitkem Laboratories

Date: 10-Dec-08

Client: CDM

Client Sample ID: MW-9S

Lab ID: G2261-02

Project: Villa project groundwater

Collection Date: 12/03/08 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	ND		0.60	µg/L	1	12/09/2008 11:02	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 11:02	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 11:02	40636

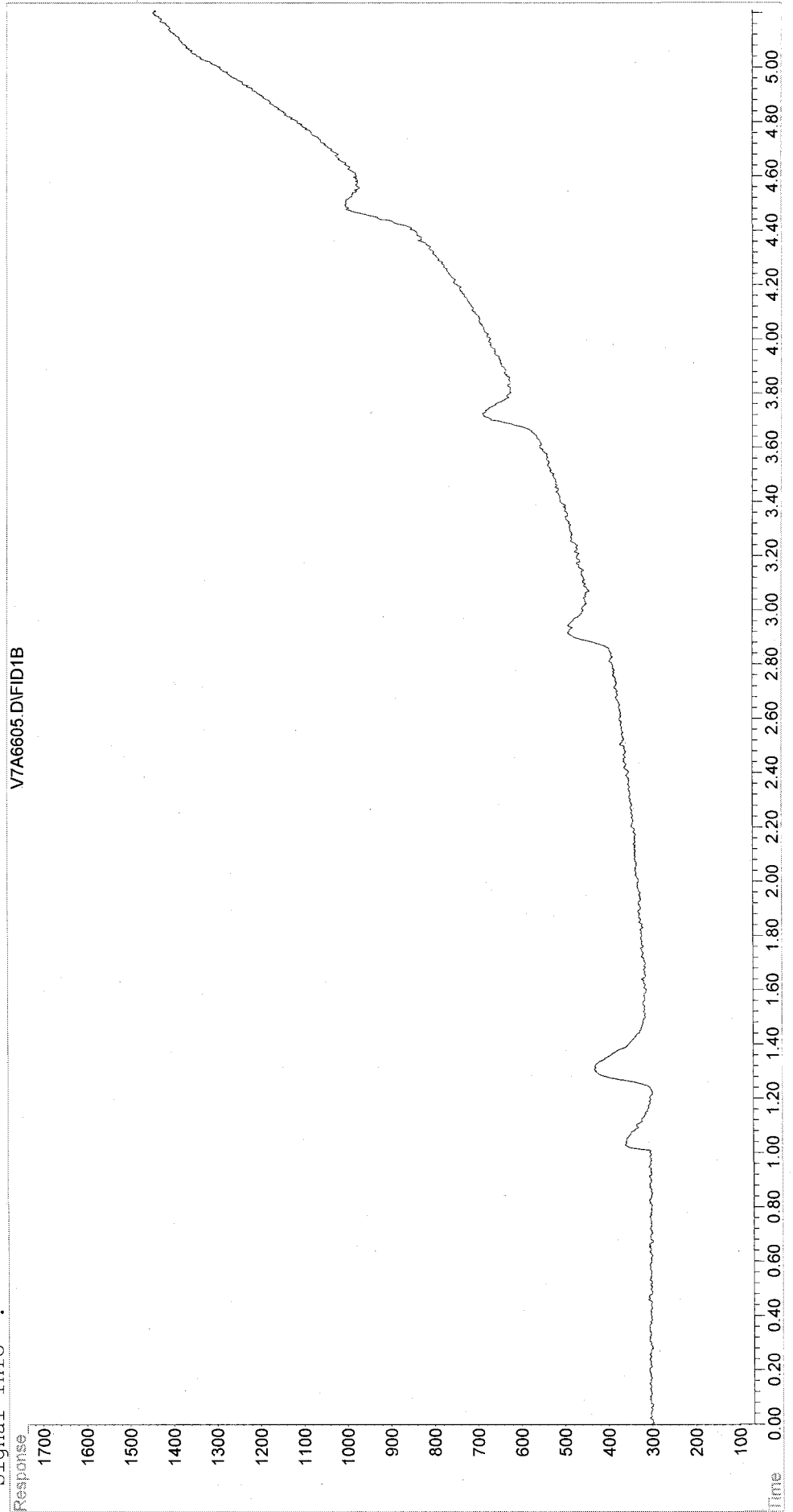
Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6605.D Vial: 100
Acq On : 9 Dec 2008 11:02 am Operator: ALM
Sample : 250UL,G2261-02C,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 11:47 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0150

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6605.D Vial: 100
 Acq On : 9 Dec 2008 11:02 am Operator: ALM
 Sample : 250UL,G2261-02C,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 11:47 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) P Methane	0.00	0	N.D.	PPM d
2) P Ethene	0.00	0	N.D.	PPM d
3) P Ethane	0.00	0	N.D.	PPM d

ALM
 12/10/08

SC
 12/10/08

Mitkem Laboratories

Date: 10-Dec-08

Client: CDM

Client Sample ID: MW-7S

Lab ID: G2261-03

Project: Villa project groundwater

Collection Date: 12/03/08 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	ND		0.58	µg/L	1	12/09/2008 11:16	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 11:16	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 11:16	40636

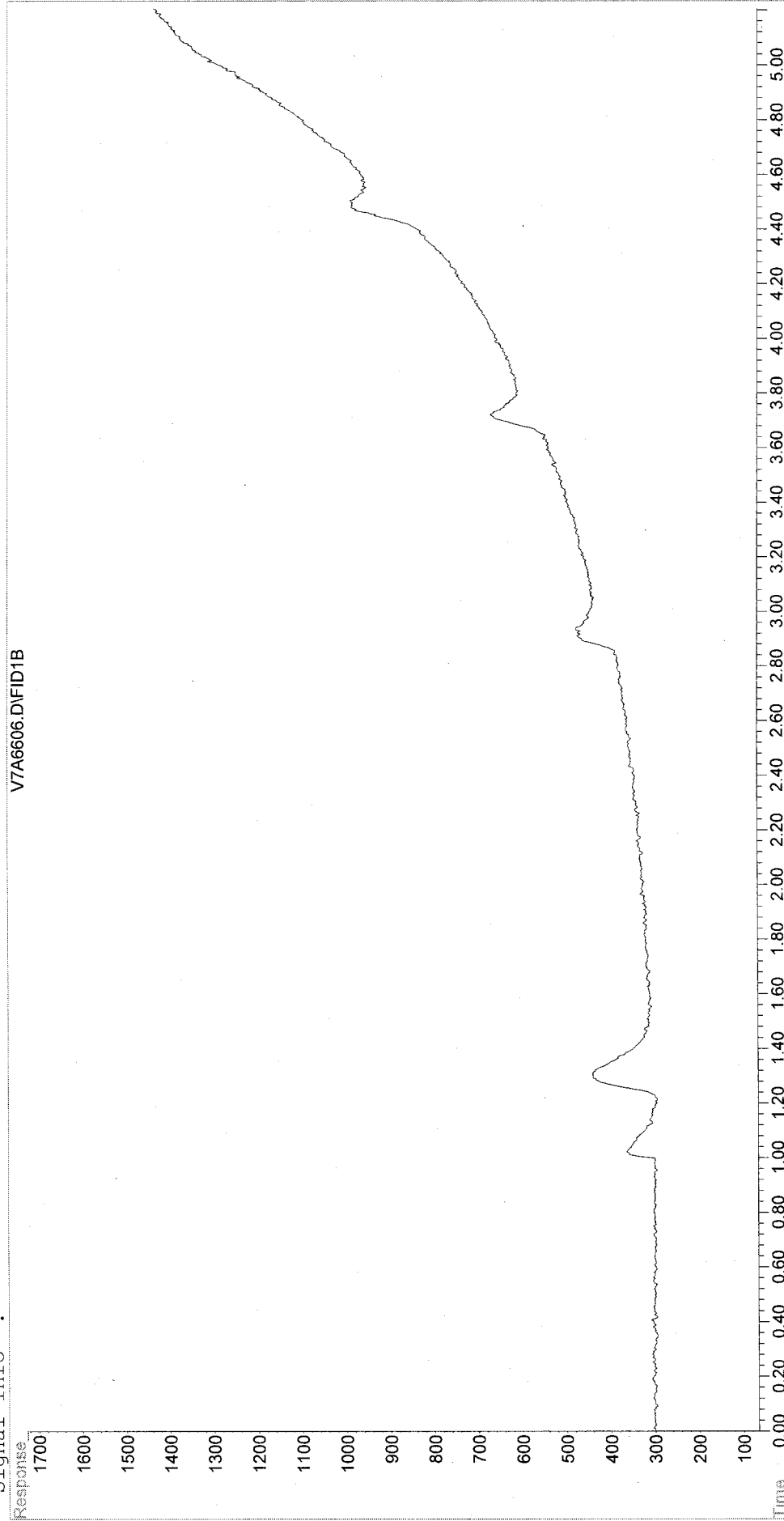
Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6606.D Vial: 100
Acq On : 9 Dec 2008 11:17 am Operator: ALM
Sample : 250UL,G2261-03C,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 11:48 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0100

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6606.D Vial: 100
 Acq On : 9 Dec 2008 11:17 am Operator: ALM
 Sample : 250UL,G2261-03C,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 11:48 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) P Methane	0.00	0	N.D.	PPM d
2) P Ethene	0.00	0	N.D.	PPM d
3) P Ethane	0.00	0	N.D.	PPM d

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Mitkem Laboratories

Date: 10-Dec-08

Client: CDM
Client Sample ID: MW-5S
Lab ID: G2261-04

Project: Villa project groundwater
Collection Date: 12/03/08 13:27

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	0.76		0.58	µg/L	1	12/09/2008 11:22	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 11:22	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 11:22	40636

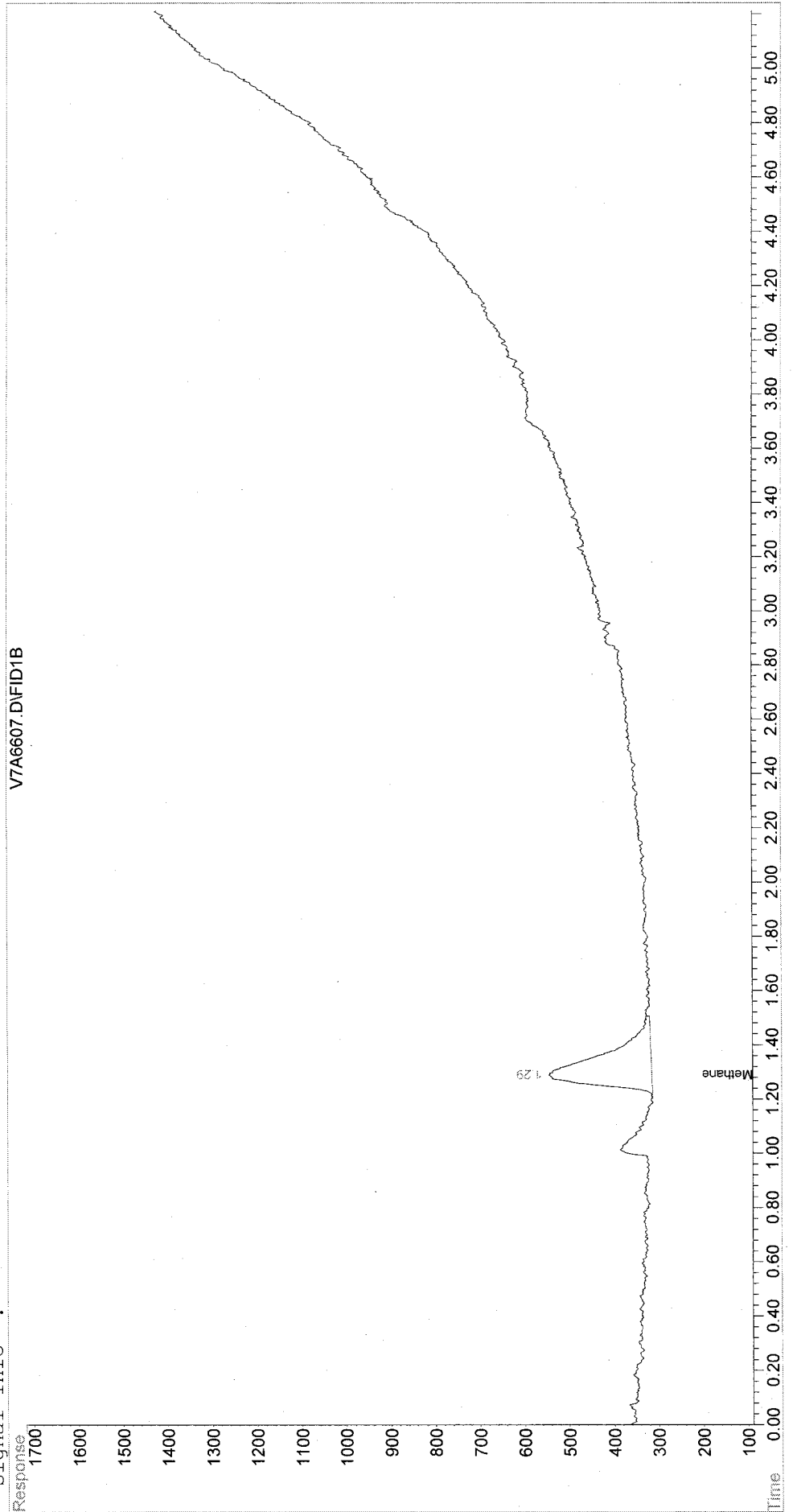
Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6607.D Vial: 100
Acq On : 9 Dec 2008 11:23 am Operator: AIM
Sample : 250UL,G2261-04C,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 11:48 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0150

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6607.D Vial: 100
 Acq On : 9 Dec 2008 11:23 am Operator: ALM
 Sample : 250UL,G2261-04C,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 11:48 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.29	16545	6.599 PPM
2) P Ethene	0.00	0	N.D. PPM d
3) P Ethane	0.00	0	N.D. PPM d

Handwritten:
 ALM
 12/10/08
 SL
 12/10/08

Mitekem Laboratories

Date: 10-Dec-08

Client: CDM
Client Sample ID: MW-4S
Lab ID: G2261-05

Project: Villa project groundwater
Collection Date: 12/03/08 15:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	ND		0.60	µg/L	1	12/09/2008 11:42	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 11:42	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 11:42	40636

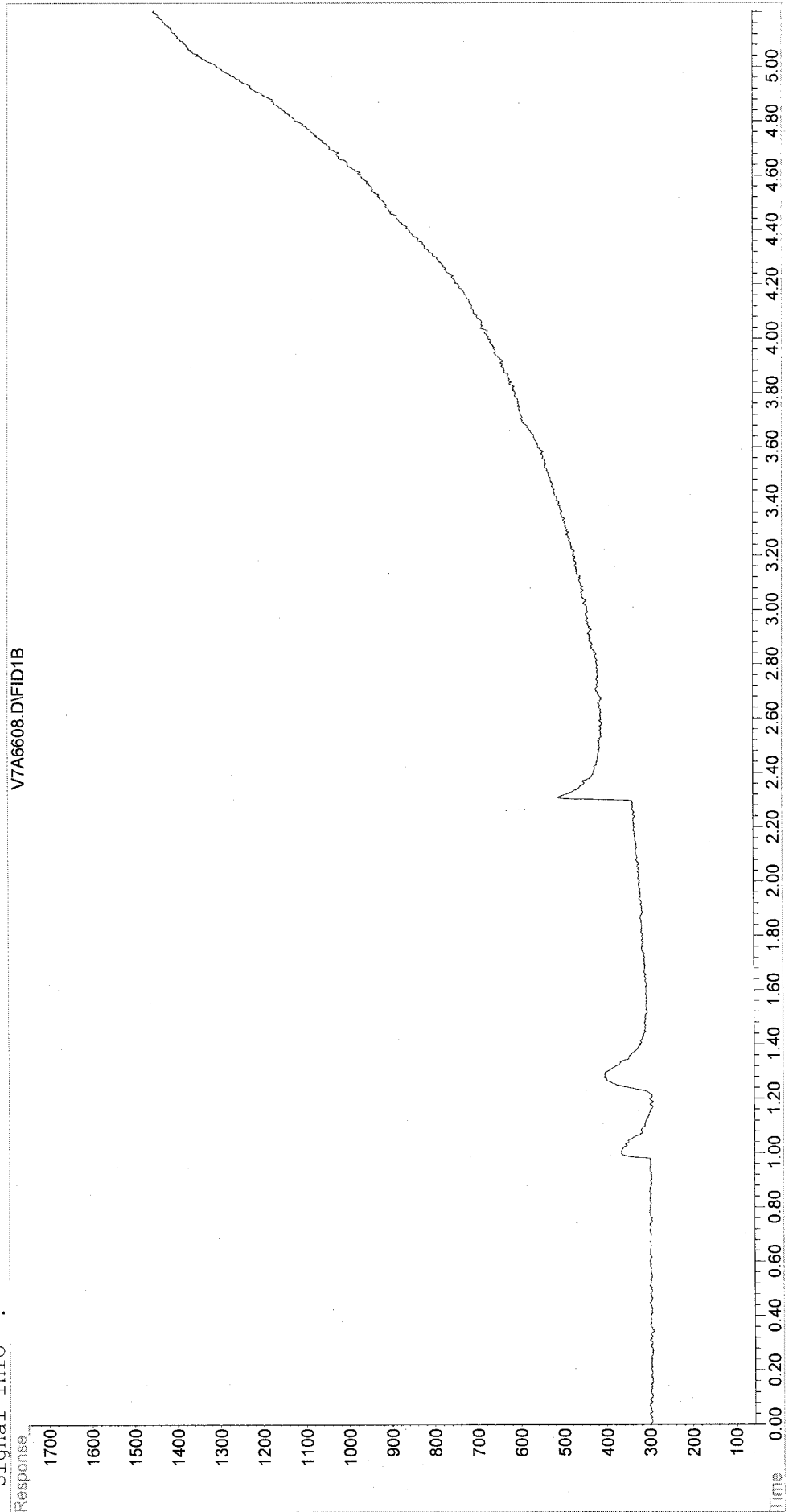
Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6608.D Vial: 100
Acq On : 9 Dec 2008 11:43 am Operator: ALM
Sample : 250UL,G2261-05C,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 11:49 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0162

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6608.D Vial: 100
 Acq On : 9 Dec 2008 11:43 am Operator: ALM
 Sample : 250UL,G2261-05C,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 11:49 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	0.00	0	N.D. PPM d
2) P Ethene	0.00	0	N.D. PPM
3) P Ethane	0.00	0	N.D. PPM

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SC
12/10/08

Mitkem Laboratories

Date: 10-Dec-08

Client: CDM
Client Sample ID: MW-6S
Lab ID: G2261-06

Project: Villa project groundwater
Collection Date: 12/04/08 09:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	ND		0.60	µg/L	1	12/09/2008 11:48	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 11:48	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 11:48	40636

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

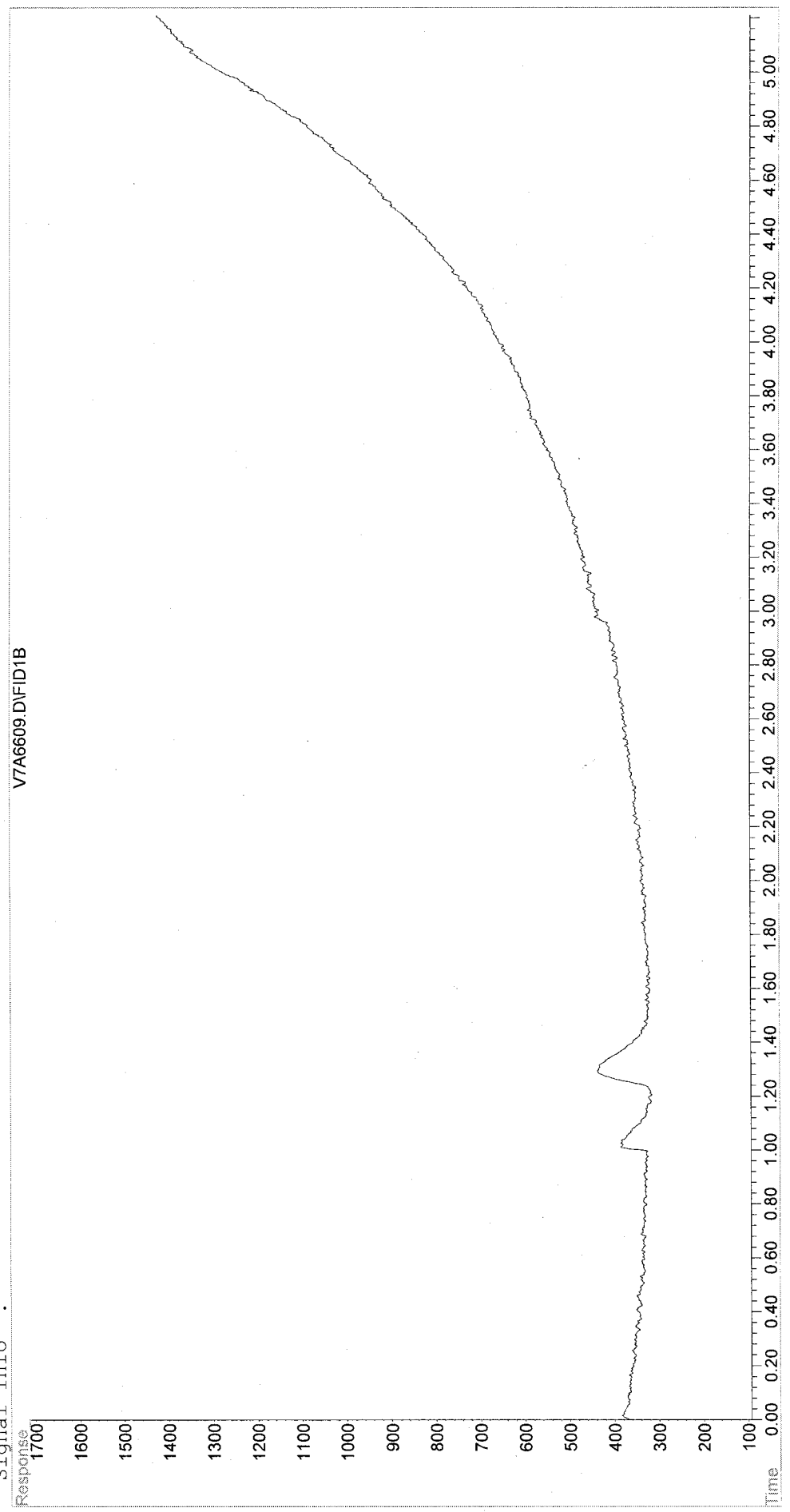
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6609.D Vial: 100
Acq On : 9 Dec 2008 11:49 am Operator: ALM
Sample : 250UL,G2261-06C,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e

Quant Time: Dec 9 11:57 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0105

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6609.D Vial: 100
 Acq On : 9 Dec 2008 11:49 am Operator: ALM
 Sample : 250UL,G2261-06C,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 11:57 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) P Methane	0.00	0	N.D.	PPM d
2) P Ethene	0.00	0	N.D.	PPM
3) P Ethane	0.00	0	N.D.	PPM

ALM
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Mitkem Laboratories

Date: 10-Dec-08

Client: CDM
Client Sample ID: FB120408
Lab ID: G2261-07

Project: Villa project groundwater
Collection Date: 12/04/08 08:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							RSK175
Methane	ND		0.60	µg/L	1	12/09/2008 11:57	40636
Ethane	ND		1.2	µg/L	1	12/09/2008 11:57	40636
Ethene	ND		1.5	µg/L	1	12/09/2008 11:57	40636

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

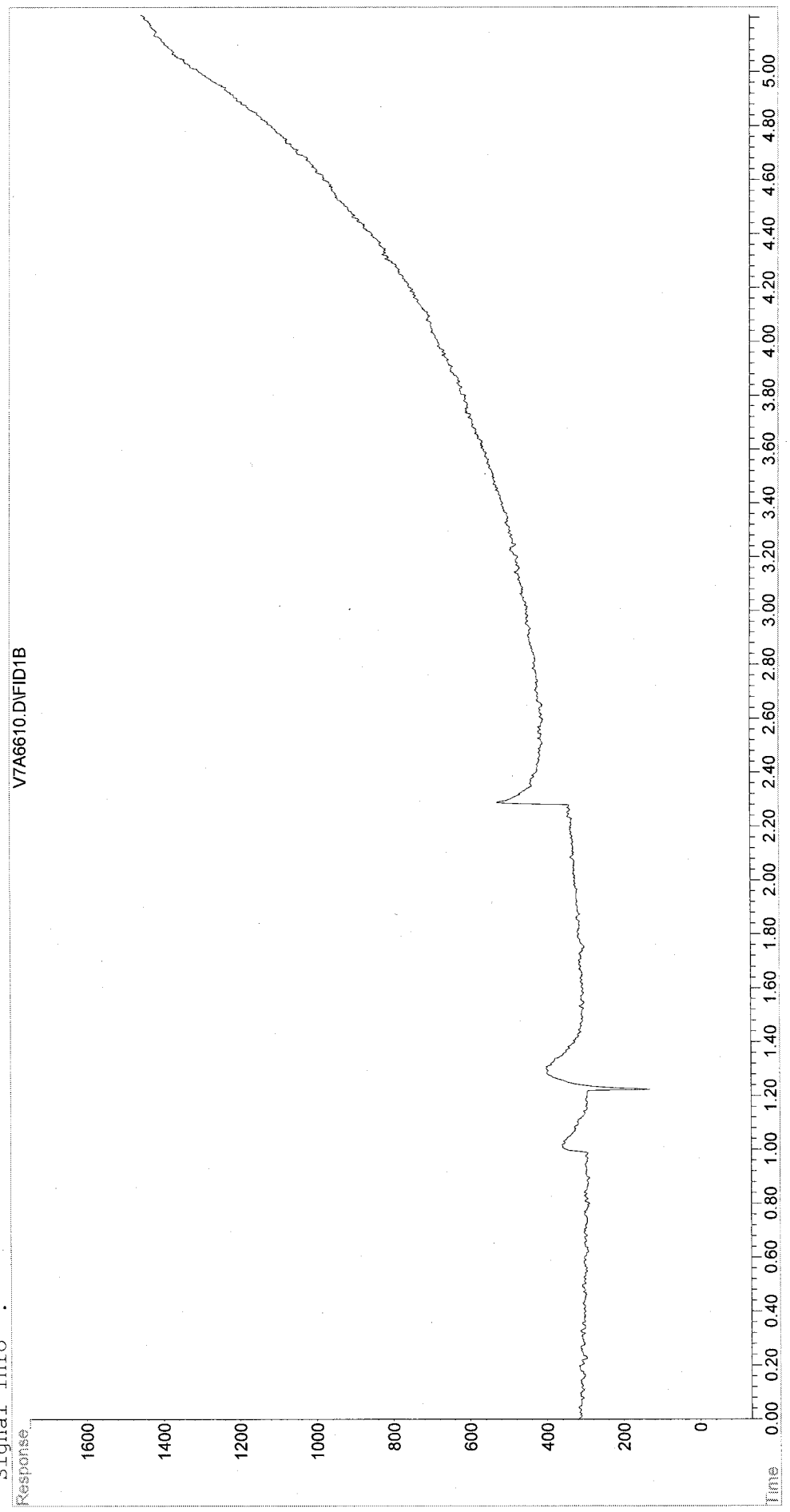
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6610.D Vial: 100
Acq On : 9 Dec 2008 11:57 am Operator: ALM
Sample : 250UL,G2261-07B,,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e

Quant Time: Dec 9 12:06 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0168

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6610.D Vial: 100
 Acq On : 9 Dec 2008 11:57 am Operator: ALM
 Sample : 250UL,G2261-07B,,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 12:06 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) P Methane	0.00	0	N.D.	PPM d
2) P Ethene	0.00	0	N.D.	PPM d
3) P Ethane	0.00	0	N.D.	PPM

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 SC
 12/10/08

Method : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008

Calibration Files

1 =V7A5096.D 2 =V7A5095.D 3 =V7A5094.D
4 =V7A5093.D 5 =V7A5092.D

	Compound	1	2	3	4	5	Avg	%RSD	MAX
1) P	Methane	2.759	2.527	2.349	2.448	2.453	2.507 E3	6.15	15
2) P	Ethene	4.840	4.738	4.507	4.706	4.702	4.699 E3	2.57	15
3) P	Ethane	3.675	4.517	4.491	4.696	4.712	4.418 E3	9.68	15

(#) = Out of Range

GAS.M

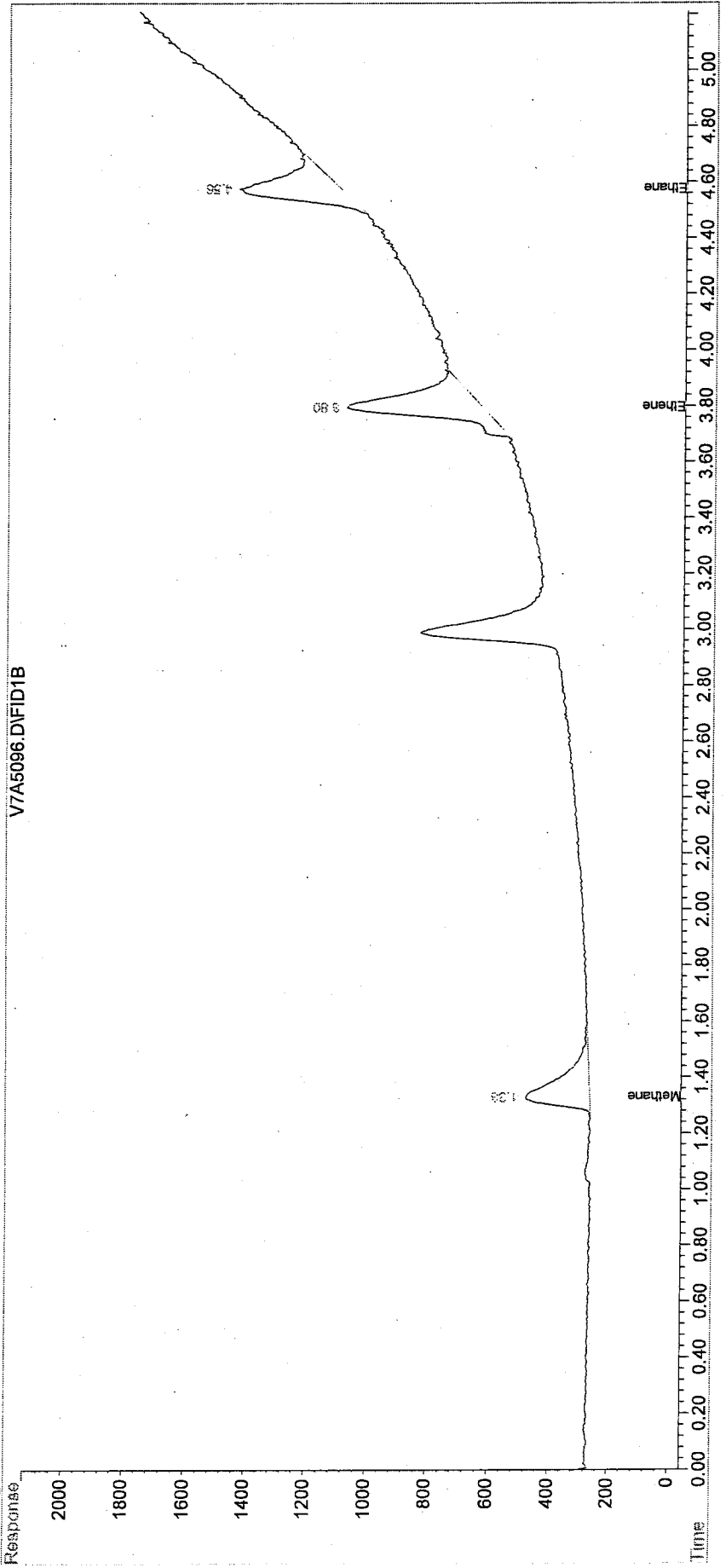
Thu Apr 17 11:37:24 2008

Quantitation Report

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5096.D Vial: 100
Acq On : 15 Apr 2010 10:11 am Operator: HZA
Sample : 0.125UL,V7U5A,V7U5A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 10:18 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5096.D Vial: 100
 Acq On : 15 Apr 20108 10:11 am Operator: HZA
 Sample : 0.125UL,V7U5A,V7U5A Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Apr 15 10:18 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrat
 Title :
 Last Update : Fri Mar 21 15:53:22 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) P Methane	1.33	13793	5.150	PPM m HZA 04/28
2) P Ethene	3.80f	24214	5.184	PPM m HZA 04/28
3) P Ethane	4.58f	18386	4.052	PPM m HZA 04/28

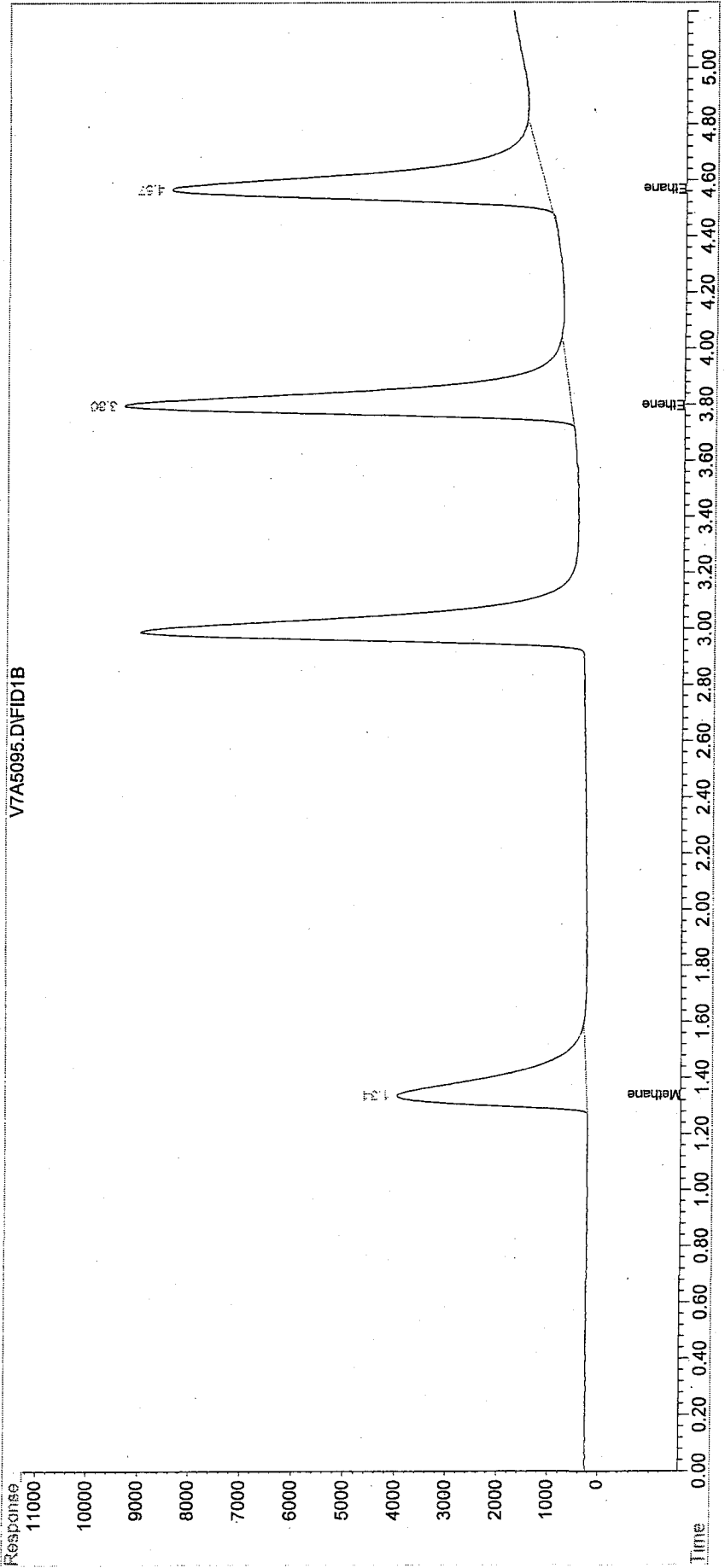
HZA 04/28/08

Quantitation Report

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5095.D Vial: 100
Acq On : 15 Apr 2010 10:03 am Operator: HZA
Sample : 2.5UL,V7U100A,V7U100A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 10:10 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0173

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5095.D Vial: 100
Acq On : 15 Apr 20108 10:03 am Operator: HZA
Sample : 2.5UL,V7U100A,V7U100A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 10:10 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrat
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Initial Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.34	252727	94.354 PPM
2) P Ethene	3.80f	473837	101.446 PPM
3) P Ethane	4.57f	451663	99.553 PPM

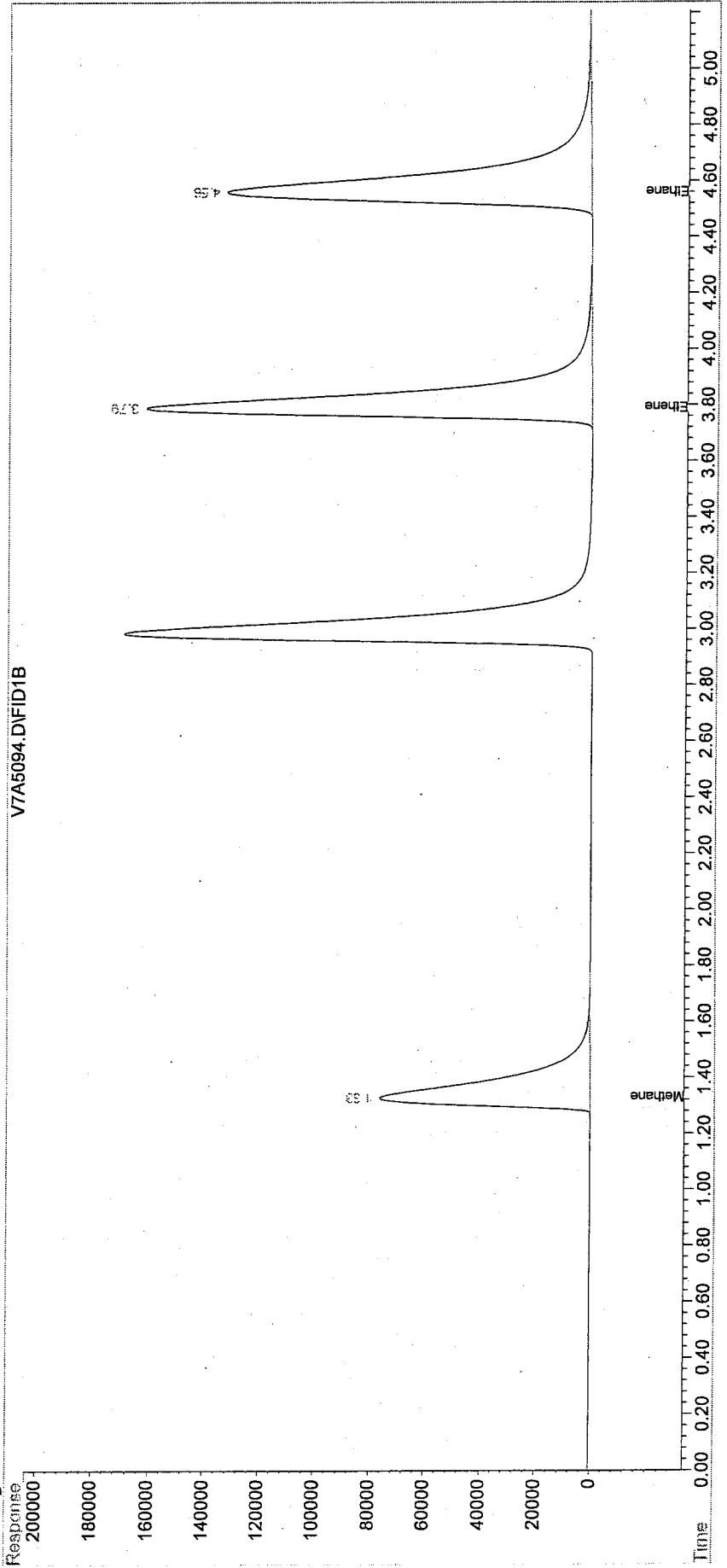
HZA 04/28/08

Quantitation Report

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5094.D Vial: 100
Acq On : 15 Apr 2010 9:42 am Operator: HZA
Sample : 50UL,V7U2000A,V7U2000A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 9:48 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0175

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5094.D Vial: 100
Acq On : 15 Apr 2010 9:42 am Operator: HZA
Sample : 50UL,V7U2000A,V7U2000A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 9:48 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrat
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Initial Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.33	4697334	1753.726 PPM
2) P Ethene	3.79f	9014509	1929.960 PPM
3) P Ethane	4.56f	8982028	1979.759 PPM

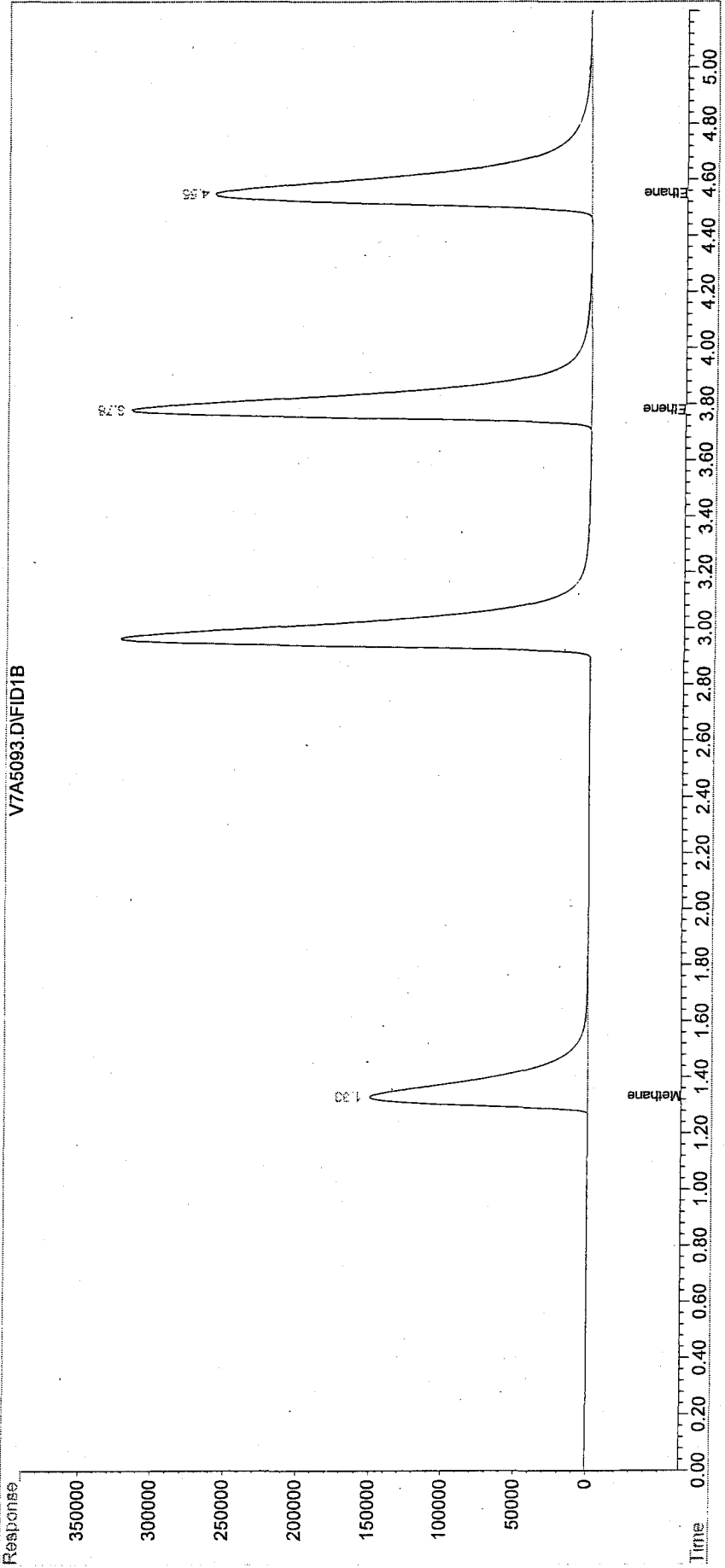
HZA 04/28/08

Quantitation Report

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5093.D Vial: 100
Acq On : 15 Apr 2010 9:35 am Operator: HZA
Sample : 100UL,V7U4000A,V7U4000A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 9:40 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0177

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5093.D Vial: 100
Acq On : 15 Apr 20108 9:35 am Operator: HZA
Sample : 100UL,V7U4000A,V7U4000A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 9:40 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrat
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Initial Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.33	9792761	3656.078 PPM
2) P Ethene	3.78f	18822227	4029.742 PPM
3) P Ethane	4.55f	18785025	4140.470 PPM

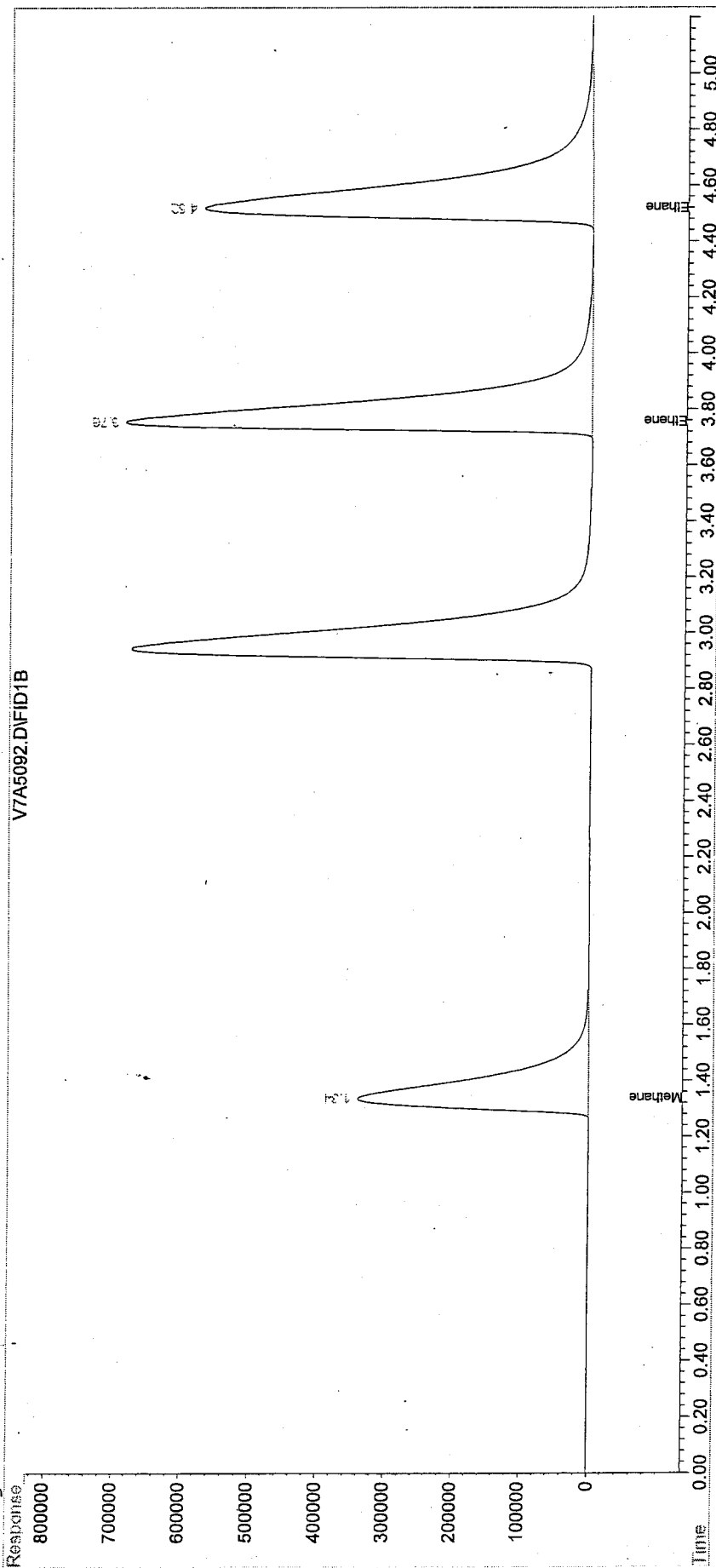
HZA 04/28/08

Quantitation Report

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5092.D Vial: 100
Acq On : 15 Apr 2010 9:26 am Operator: HZA
Sample : 250UL,V7U10000A,V7U10000A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 9:39 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0179

Data File : O:\ORGANIC\VOA\V7.I\ICAL08~2.B\V7A5092.D Vial: 100
Acq On : 15 Apr 20108 9:26 am Operator: HZA
Sample : 250UL,V7U10000A,V7U10000A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 15 9:39 19108 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\VOA\V7.I\ICAL08~1.B\GAS.M (Chemstation Integrat
Title :
Last Update : Fri Mar 21 15:53:22 2008
Response via : Initial Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.34	24529952	9158.133 PPM
2) P Ethene	3.76f	47018579	10066.435 PPM
3) P Ethane	4.52f	47119402	10385.745 PPM

HZA 04/28/08

Evaluate Continuing Calibration Report

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6600.D Vial: 100
 Acq On : 9 Dec 2008 10:14 am Operator: ALM
 Sample : 50UL,V7U081209A,V7U081209A Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e

Method : O:\ORGANIC\VOA\V7.I\ICAL080415.B\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 P Methane	2.507	2.322 E3	7.4	99	-0.04
2 P Ethene	4.699	4.462 E3	5.0	99	-0.09
3 P Ethane	4.418	4.399 E3	0.4	98	-0.10

Evaluate Continuing Calibration Report

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6618.D Vial: 100
Acq On : 9 Dec 2008 1:20 pm Operator: ALM
Sample : 50UL,V7U081209B,V7U081209B Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : O:\ORGANIC\VOA\V7.I\ICAL080415.B\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

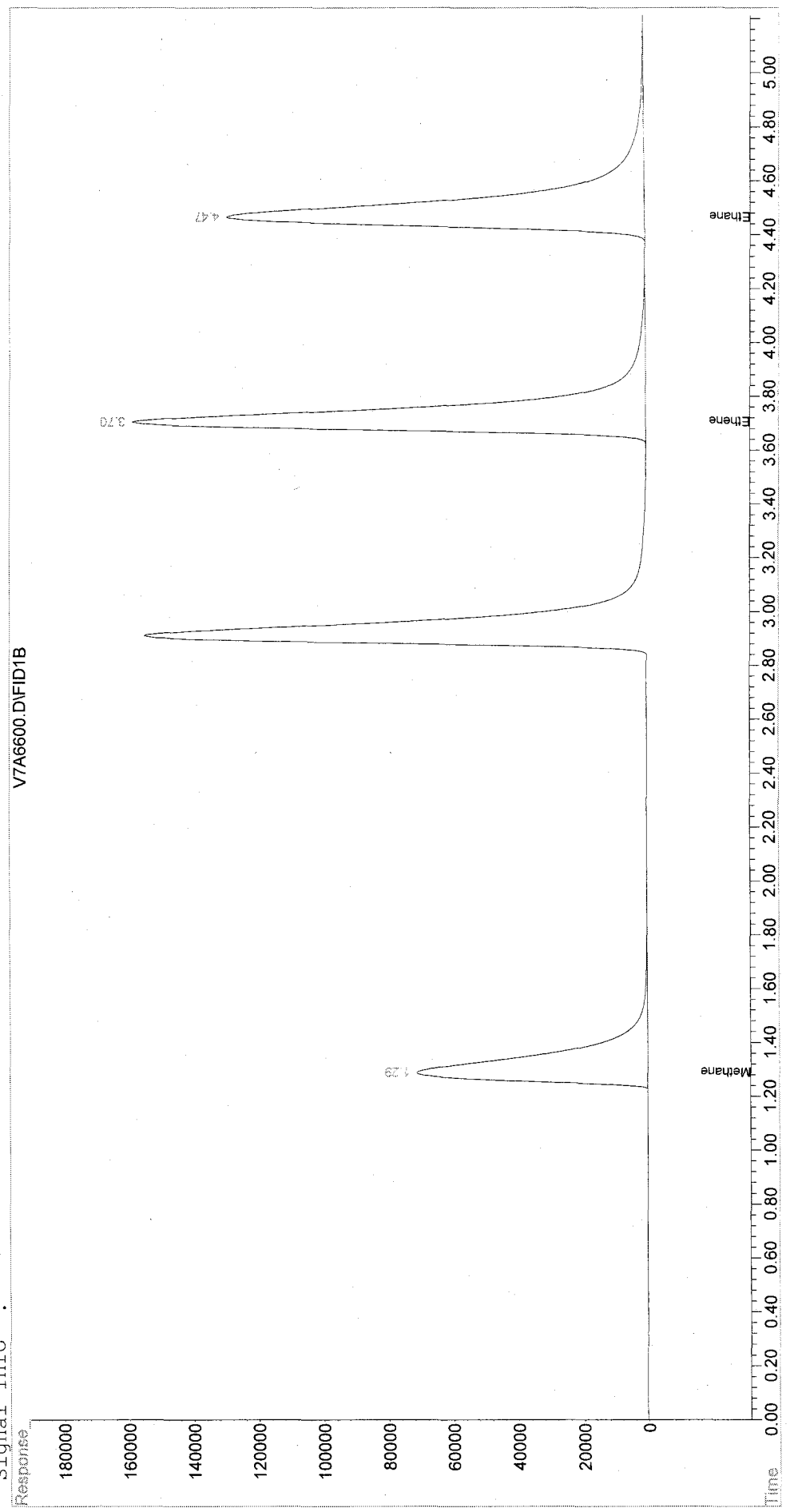
Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 P Methane	2.507	2.689 E3	-7.3	114	-0.05
2 P Ethene	4.699	5.159 E3	-9.8	114	-0.10
3 P Ethane	4.418	5.078 E3	-14.9	113	-0.11

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6600.D Vial: 100
Acq On : 9 Dec 2008 10:14 am Operator: ALM
Sample : 50UL,V7U081209A,V7U081209A Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e

Quant Time: Dec 9 10:19 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0183

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6600.D Vial: 100
 Acq On : 9 Dec 2008 10:14 am Operator: ALM
 Sample : 50UL,V7U081209A,V7U081209A Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 10:19 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.29	4643045	1851.925 PPM
2) P Ethene	3.71	8924040	1899.281 PPM
3) P Ethane	4.47	8797286	1991.179 PPM

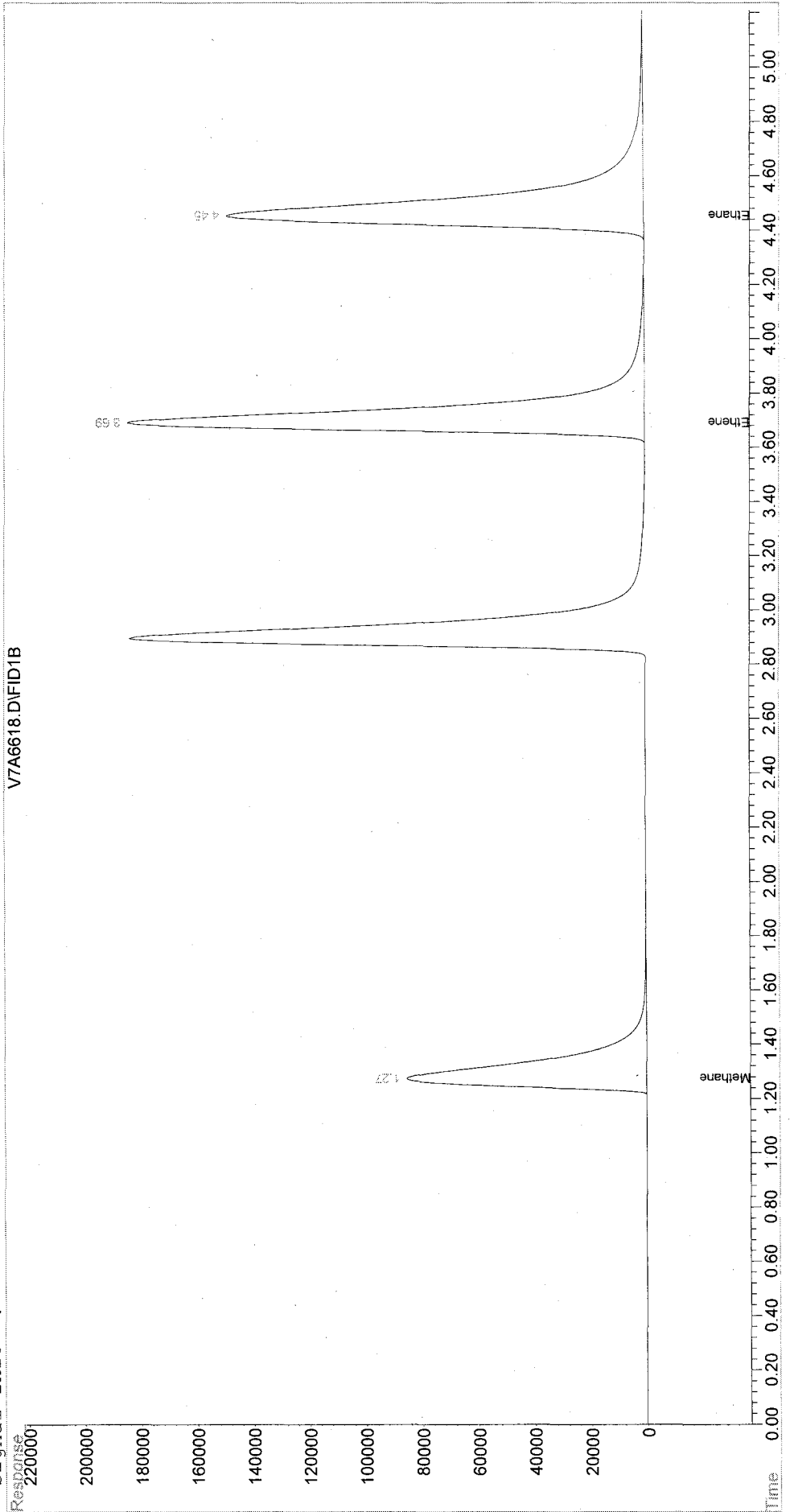
Jan
12/10/08

SL
12/10/08

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6618.D Vial: 100
Acq On : 9 Dec 2008 1:20 pm Operator: AIM
Sample : 50UL,V7U081209B,V7U081209B Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 13:27 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0105

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6618.D Vial: 100
 Acq On : 9 Dec 2008 1:20 pm Operator: ALM
 Sample : 50UL,V7U081209B,V7U081209B Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 13:27 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.27	5378228	2145.160 PPM
2) P Ethene	3.69	10317184	2195.781 PPM
3) P Ethane	4.45	10155351	2298.564 PPM

ALM
 12/10/08

SL
 12/10/08

ANALYTICAL QC SUMMARY REPORT

RSK175

RSK175 -- Dissolved Gases by GC-FID

CLIENT: CDM
Work Order: G2261
Project: Villa project groundwater

Sample ID: MB-40636 **SampType:** MBLK **TestCode:** RSK175 **Prep Date:** 12/09/2008 **Run ID:** V7_081209A
Client ID: MB-40636 **Batch ID:** 40636 **Units:** µg/L **Analysis Date:** 12/09/2008 **SeqNo:** 946573

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.60									
Ethane	ND	1.2									
Ethene	ND	1.5									

Sample ID: LCS-40636 **SampType:** LCS **TestCode:** RSK175 **Prep Date:** 12/09/2008 **Run ID:** V7_081209A
Client ID: LCS-40636 **Batch ID:** 40636 **Units:** µg/L **Analysis Date:** 12/09/2008 **SeqNo:** 946574

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	42.02	0.60	45.00	0	93.4	75	125	0		0	
Ethane	86.90	1.2	85.00	0	102	75	125	0		0	
Ethene	81.89	1.5	79.00	0	104	75	125	0		0	

Sample ID: LCSD-40636 **SampType:** LCSD **TestCode:** RSK175 **Prep Date:** 12/09/2008 **Run ID:** V7_081209A
Client ID: LCSD-40636 **Batch ID:** 40636 **Units:** µg/L **Analysis Date:** 12/09/2008 **SeqNo:** 946575

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	50.40	0.60	45.00	0	112	75	125	42.02	18.1	25	
Ethane	100.1	1.2	85.00	0	118	75	125	86.90	14.1	25	
Ethene	95.72	1.5	79.00	0	121	75	125	81.89	15.6	25	

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

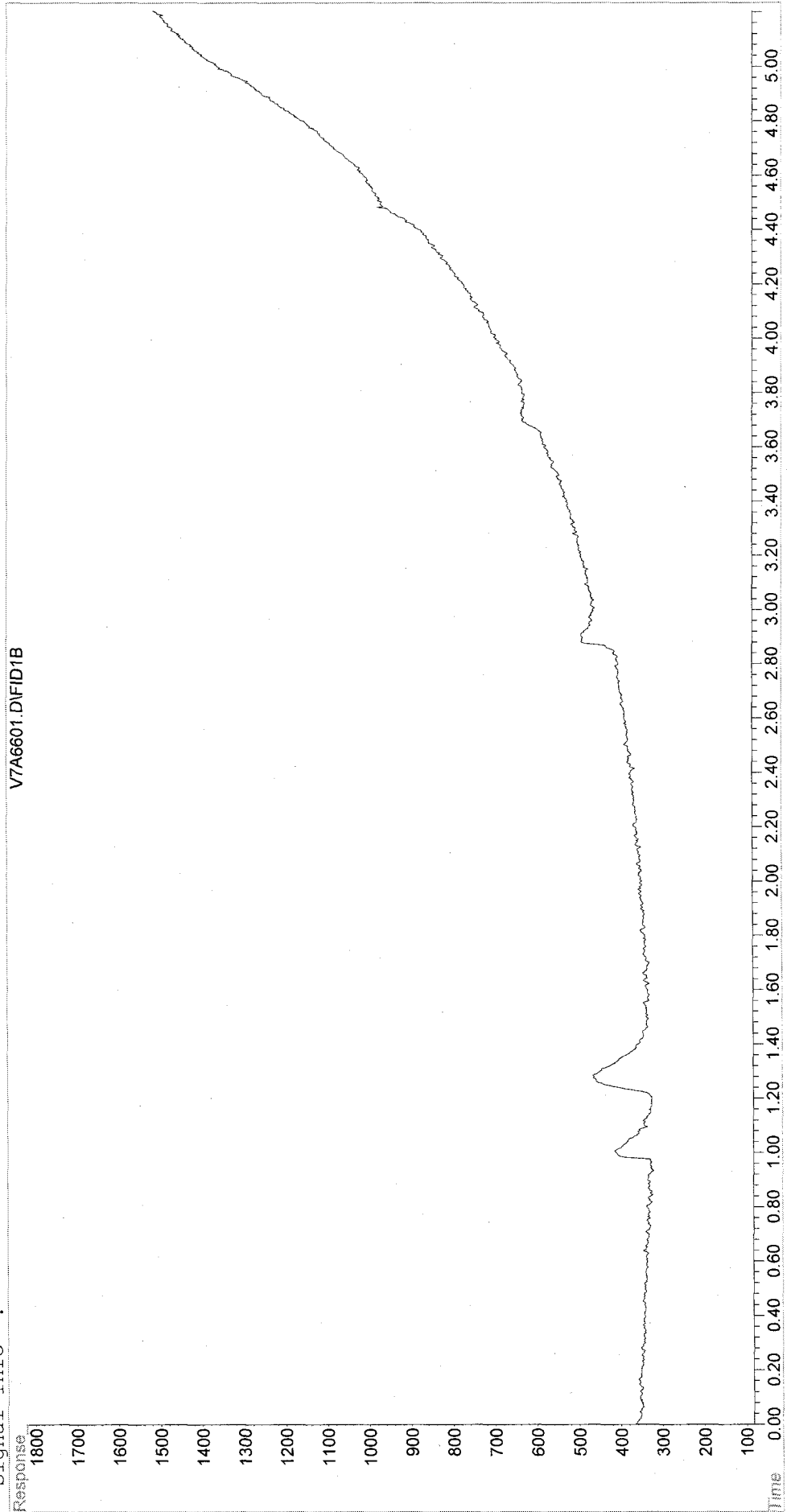
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6601.D Vial: 100
Acq On : 9 Dec 2008 10:21 am Operator: ALM
Sample : 250UL,MB-40636,VBLK7A,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 10:29 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0100

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6601.D Vial: 100
Acq On : 9 Dec 2008 10:21 am Operator: ALM
Sample : 250UL,MB-40636,VBLK7A,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 10:29 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Initial Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) P Methane	0.00	0	N.D.	PPM d
2) P Ethene	0.00	0	N.D.	PPM d
3) P Ethane	0.00	0	N.D.	PPM

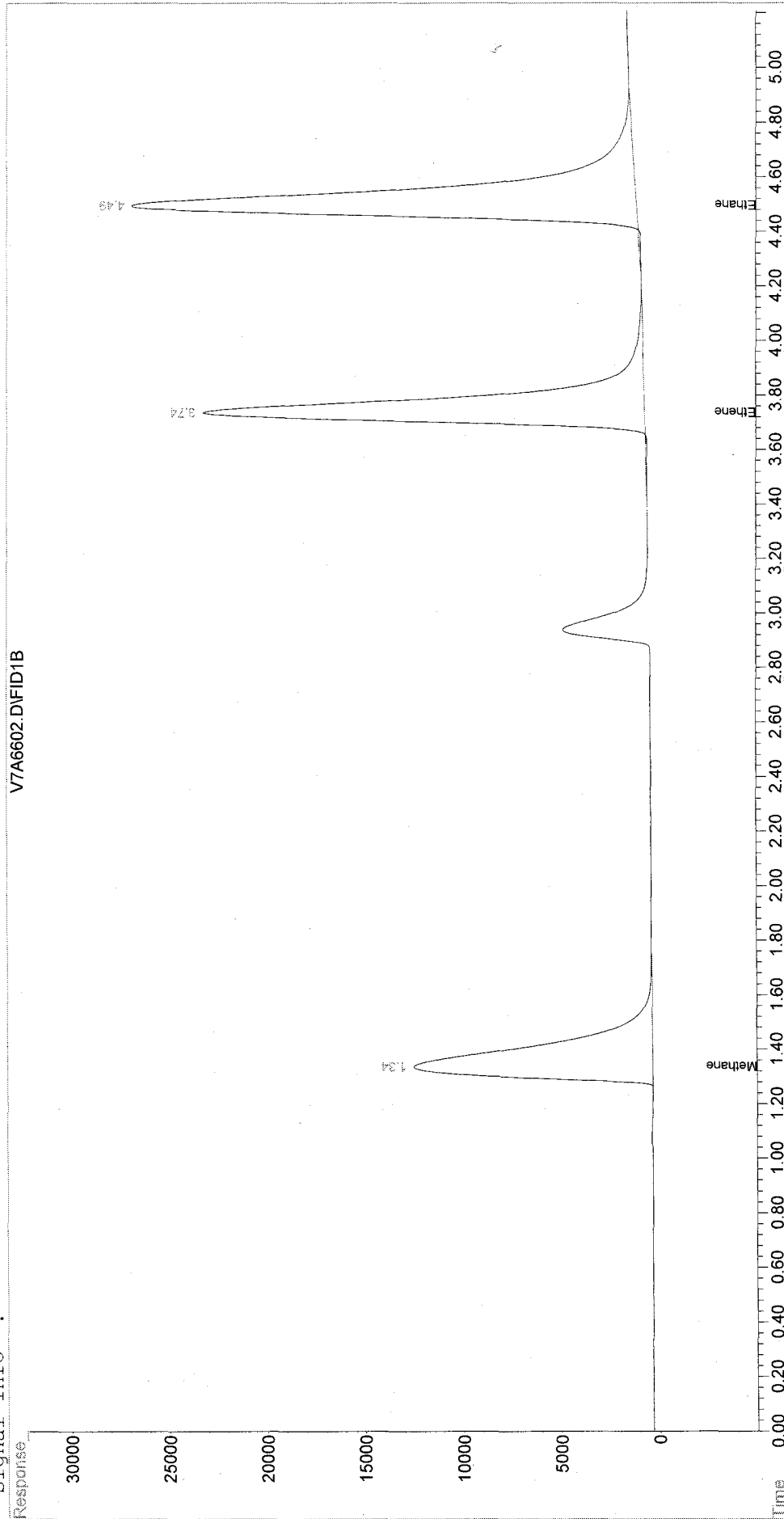
Jan 12/10/08

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12/10/08*

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6602.D Vial: 100
Acq On : 9 Dec 2008 10:29 am Operator: AJM
Sample : 250UL,LCS-40636,V7ALCS,40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 10:44 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0100

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6602.D Vial: 100
 Acq On : 9 Dec 2008 10:29 am Operator: ALM
 Sample : 250UL,LCS-40636,V7ALCS,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 10:44 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

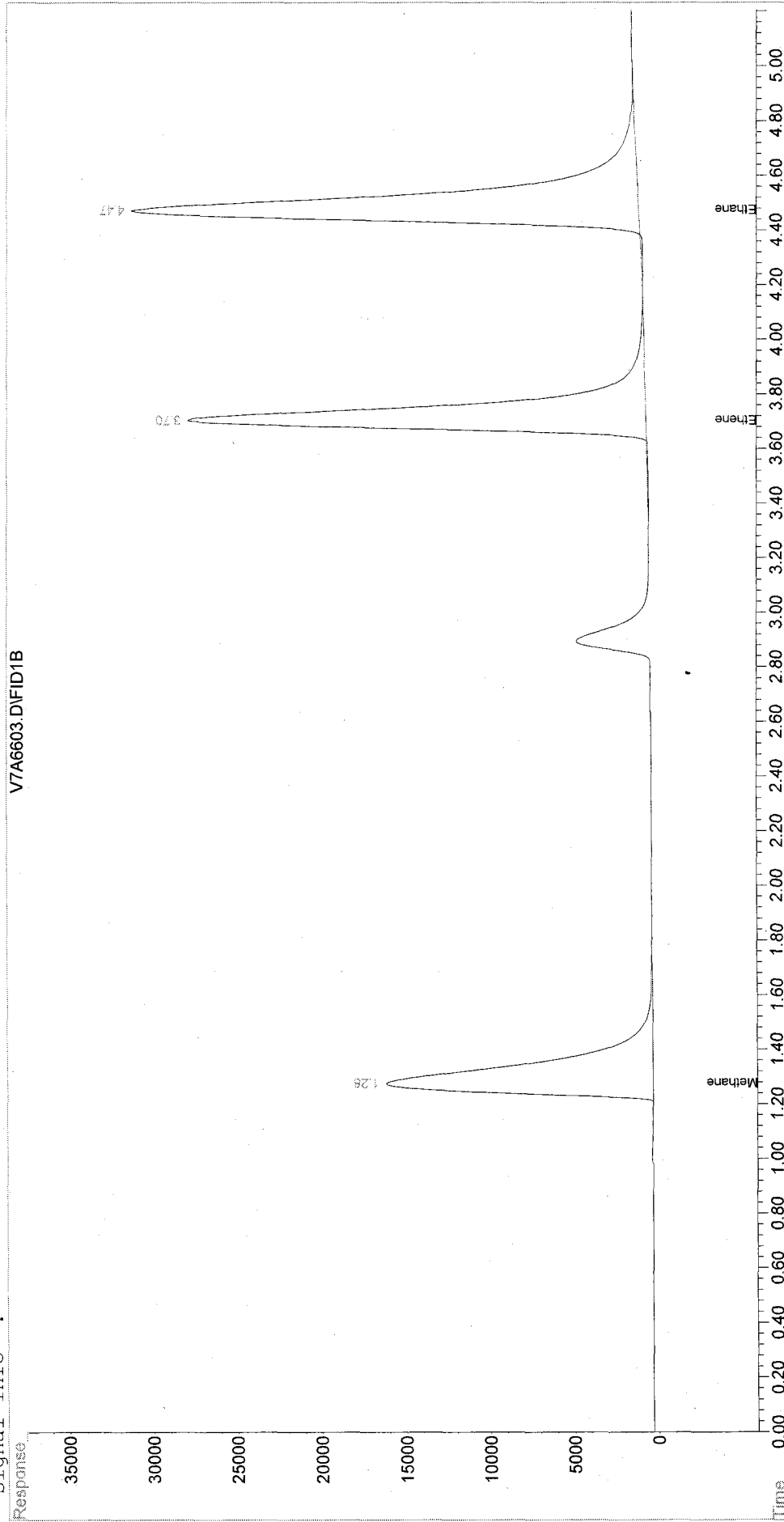
Target Compounds			
1) P Methane	1.34	936164	373.398 PPM
2) P Ethene	3.74	1301170	276.925 PPM
3) P Ethane	4.50	1698509	384.441 PPM

for 12/10/08
SC
12/10/08

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6603.D Vial: 100
Acq On : 9 Dec 2008 10:45 am Operator: ALM
Sample : 250UL, LCSD-40636, V7ALCSD, 40636, Inst : V7
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 9 10:52 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 15 10:20:03 2008
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. :
Signal Phase :
Signal Info :



0102

Data File : O:\ORGANIC\VOA\V7.I\081209.B\V7A6603.D Vial: 100
 Acq On : 9 Dec 2008 10:45 am Operator: ALM
 Sample : 250UL,LCSD-40636,V7ALCSD,40636, Inst : V7
 Misc : Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Dec 9 10:52 2008 Quant Results File: GAS.RES

Quant Method : O:\ORGANIC\V...\GAS.M (Chemstation Integrator)
 Title :
 Last Update : Tue Apr 15 10:20:03 2008
 Response via : Initial Calibration
 DataAcq Meth : GAS.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) P Methane	1.28	1122879	447.871 PPM
2) P Ethene	3.71	1520987	323.708 PPM
3) P Ethane	4.47	1956179	442.762 PPM

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METHOD: RSK175 CAL ID: VP070417A ANALYST: HZA
 INITIAL CAL: 4/15/08 IS/SS ID: _____ DATE: 04/15/08
 COMMENTS: _____ DATE PRINTED: 04/15/08
 DATE LOADED: 04/15/08

AS #	FILE	MITKEM ID	CLIENT ID	SAMPLE SIZE	DIL	COMMENTS	IS	SS	pH
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Injection Log

Directory: O:\ORGANIC\VOA\I7.I\080415.B

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
100	V7a5092.d	1.	250UL,V7U10000A,V7U10000A	L5	15 Apr 2008 09:26
100	V7a5093.d	1.	100UL,V7U4000A,V7U4000A	L4	15 Apr 2008 09:35
100	V7a5094.d	1.	50UL,V7U2000A,V7U2000A	L3	15 Apr 2008 09:42
100	V7a5095.d	1.	2.5UL,V7U100A,V7U100A	L2	15 Apr 2008 10:03
100	V7a5096.d	1.	0.125UL,V7U5A,V7U5A	L1	15 Apr 2008 10:11
100	V7a5097.d	1.	250UL,MB-35774,VBLK7F,35774, OK	} RSK175 Ical OK	15 Apr 2008 10:24
100	V7a5098.d	1.	250UL,LCS-35774,V7FLCS,35774, OK		15 Apr 2008 10:32
100	V7a5099.d	1.	250UL,G0473-01A,,35774, OK		15 Apr 2008 10:38
100	V7a5100.d	1.	250UL,G0473-02A,,35774, CH4=260 OK		15 Apr 2008 10:45
100	V7a5101.d	1.	250UL,G0473-03A,,35774, CH4=241 OK		15 Apr 2008 10:52
100	V7a5102.d	1.	250UL,G0473-04A,,35774, CH4=75 OK		15 Apr 2008 11:02
100	V7a5103.d	1.	250UL,G0473-04AMS,,35774, OK		15 Apr 2008 11:08
100	V7a5104.d	1.	250UL,G0473-04AMSD,,35774, OK		15 Apr 2008 11:15
100	V7a5105.d	1.	250UL,G0473-05A,,35774, OK		15 Apr 2008 11:22
100	V7a5106.d	1.	250UL,G0473-06A,,35774, CH4=143 OK		15 Apr 2008 11:29
100	V7a5107.d	1.	250UL,G0473-07A,,35774, CH4=133 OK		15 Apr 2008 11:36
100	V7a5108.d	1.	250UL,G0473-08A,,35774, OK		15 Apr 2008 11:42
100	V7a5109.d	1.	250UL,G0473-09A,,35774, CH4=37 OK		15 Apr 2008 11:51
100	V7a5110.d	1.	250UL,G0473-10A,,35774, CH4=54 OK		15 Apr 2008 11:58
100	V7a5111.d	1.	250UL,G0473-11A,,35774, OK		15 Apr 2008 12:05
100	V7a5112.d	1.	250UL,G0473-12A,,35774, CH4=27 OK		15 Apr 2008 12:12
100	V7a5113.d	1.	250UL,G0473-13A,,35774, CH4=247 OK	15 Apr 2008 12:19	
100	V7a5114.d	1.	250UL,G0473-14A,,35774, CH4=1764 OK	15 Apr 2008 12:26	
100	V7a5115.d	1.	250UL,G0473-15A,,35774, CH4=4324 OK	15 Apr 2008 12:32	
100	V7a5116.d	1.	250UL,G0473-16A,,35774, CH4=329 OK	15 Apr 2008 12:39	
100	V7a5117.d	1.	250UL,G0473-17A,,35774, OK	15 Apr 2008 12:48	
100	V7a5118.d	1.	250UL,G0473-18A,,35774, CH4=3241 OK	15 Apr 2008 13:18	
100	V7a5119.d	1.	250UL,G0473-19A,,35774, OK	15 Apr 2008 13:26	
100	V7a5120.d	1.	250UL,G0473-20A,,35774, OK	15 Apr 2008 13:32	
100	V7a5121.d	1.	50UL,V7U080415A,V7U080415A OK	15 Apr 2008 13:40	

HZA 04/15/08

Mitkem Corporation

Example Calculation

RSK-175 Method for Dissolved Hydrocarbon Gasses

Data File:	V7A0563.D	Inj Date:	04/15/2003
Lab Smp ID:	V7L0415A	Client Smp ID:	V7PLCS
Operator:	YD	Inst ID:	V7
Temperature:	25 C	Dilution Factor:	1
Head Space Vol:	5 mL	Sample Vol:	37 mL

Concentration Formula:

$\text{Conc Sample} = \text{Partial Pressure} * 55.504 * \text{Molecular Weight} / H$
 $\text{Conc Head Space} = \text{Partial Pressure} * \text{Molar Density} * \text{Head Space(vol)} / \text{Sample(vol)}$
 $\text{Total Conc} = (\text{Conc Sample} + \text{Conc Head Space}) * \text{Dilution Factor}$

Compounds:	Methane	Ethene	Ethane	
Molecular Weight:	16.0426	28.0536	30.0694	
H:	41300	11400	30200	Henry's Law constant at temp. above
Molar Density:	0.6561	1.1473	1.2298	
Partial Pressure:	379.7690	247.6400	351.7030	This the "on-column" result in PPM from the raw data quantification report. this value is entered into the LIMS.
Conc Sample(ug/L):	8.1878	33.8243	19.4365	
Conc Head Space(ug/L):	33.6714	38.3951	58.4477	
Total Conc(ug/L):	41.8592	72.2194	77.8842	This is the reportable value, after rounding.

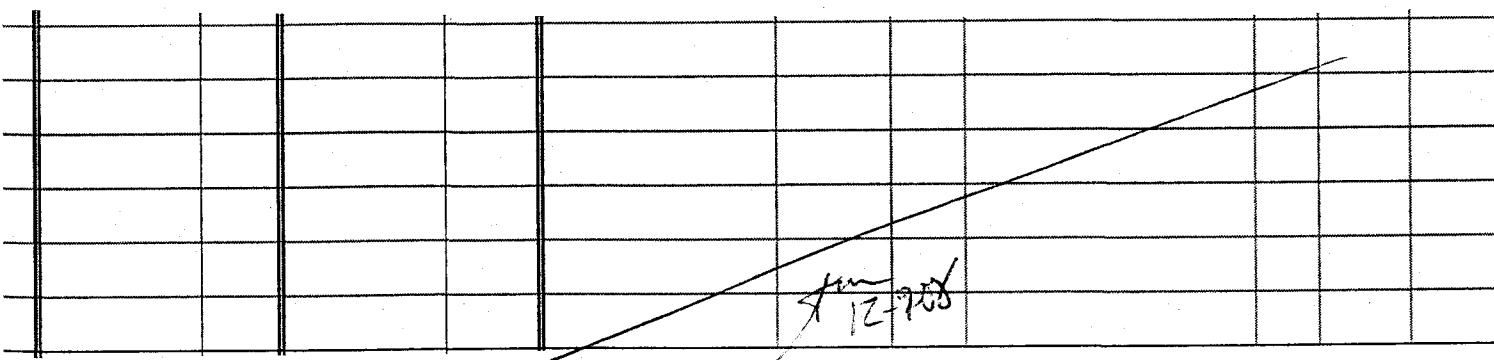
METHOD: RSK-175 CAL ID: VPO808Z1A ANALYST: Am
 INITIAL CAL: 4-1508 IS/SS ID: _____ DATE: 12-9-08
 COMMENTS: _____ DATE PRINTED: _____
 DATE LOADED: _____

IS #	FILE	MITKEM ID	CLIENT ID	SAMPLE SIZE	DIL	COMMENTS	IS	SS	pH
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Injection Log

Directory: O:\ORGANIC\VOA\W7\1081209.B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	V7a6600.d	1.	50UL,V7U081209A,V7U081209A	OK	9 Dec 2008 10:14
2	100	V7a6601.d	1.	250UL,MB-40636,VBLK7A,40636	OK	9 Dec 2008 10:21
3	100	V7a6602.d	1.	250UL,LCS-40636,V7ALCS,40636	OK	9 Dec 2008 10:29
4	100	V7a6603.d	1.	250UL,LCSD-40636,V7ALCSD,40...	OK	9 Dec 2008 10:45
5	100	V7a6604.d	1.	250UL,G2261-01C,,40636	OK	9 Dec 2008 10:52
6	100	V7a6605.d	1.	250UL,G2261-02C,,40636	OK	9 Dec 2008 11:02
7	100	V7a6606.d	1.	250UL,G2261-03C,,40636	OK	9 Dec 2008 11:17
8	100	V7a6607.d	1.	250UL,G2261-04C,,40636	OK	9 Dec 2008 11:23
9	100	V7a6608.d	1.	250UL,G2261-05C,,40636	OK	9 Dec 2008 11:43
10	100	V7a6609.d	1.	250UL,G2261-06C,,40636	OK	9 Dec 2008 11:49
11	100	V7a6610.d	1.	250UL,G2261-07B,,40636	OK	9 Dec 2008 11:57
12	100	V7a6611.d	1.	250UL,G2262-01A,,40636	OK	9 Dec 2008 12:03
13	100	V7a6612.d	1.	250UL,G2262-02A,,40636	OK	9 Dec 2008 12:11
14	100	V7a6613.d	1.	250UL,G2262-03A,,40636	OK	9 Dec 2008 12:17
15	100	V7a6614.d	1.	250UL,G2262-04A,,40636	OK	9 Dec 2008 12:23
16	100	V7a6615.d	1.	250UL,G2277-01A,,40636	OK	9 Dec 2008 12:30
17	100	V7a6616.d	1.	250UL,G2277-02A,,40636	OK	9 Dec 2008 13:04
18	100	V7a6617.d	1.	250UL,G2277-03A,,40636	OK	9 Dec 2008 13:13
19	100	V7a6618.d	1.	50UL,V7U081209B,V7U081209B	OK	9 Dec 2008 13:20



Mitkem ID	Date	Temp °C	Vial and Sample mass, g	Empty Vial mass, g	Sample mass, g	Sample Vol, mLs
G-2192-12A	12208	26	63.8	27.0	37	37
-13A			63.8	26.5	37	37
-14A			63.4	26.3	37	37
-15A			63.5	26.7	37	37
-16A			63.7	26.9	37	37
∇ -16AMS			63.7	26.9	37	37
G-2192-16AMS			63.7	27.1	37	37
MBS-40456			65.2	28.6	37	37
LCS-40456			64.5	28.7	36	36
LCSO-40456			64.5	28.1	36	36
G-2192-17A			64.5	27.4	37	37
-18A			63.6	26.7	37	37
-19A			64.1	27.0	37	37
-20A			63.9	26.7	37	37
∇ -21A			63.7	26.8	37	37
G-2192-22A	12208	26	63.3	26.2	37	37
MBS-40636	12908	24	64.2	28.2	36	36
LCS-40636			64.1	28.2	36	36
LCSO-40636			64.8	28.5	36	36
G-2261-01C			65.4	29.1	36	36
-02C			64.6	29.1	36	36
-03C			64.7	29.3	35	35
-04C			64.2	28.9	35	35
-05C			64.7	29.2	36	36
∇ -06C			65.7	29.3	36	36
G-2261-01B			64.9	29.0	36	36
G-2262-01A			65.8	29.3	37	37
-02A			65.1	28.8	36	36
∇ -03A			65.2	29.0	36	36
G-2262-04A			65.7	28.8	37	37
G-2277-01A			64.9	28.8	36	36
∇ -02A			65.1	29.1	36	36
G-2277-03A	12908	24	65.4	29.2	36	36

SL
12/10/08

MITKEM LABORATORIES: VOLATILE SAMPLES RECEIVING LOGBOOK

VOA Log-In Date	Workorder	Client ID	Sample Numbers	Relinquished by:	Received by:	Pres. Used	F/R	Returned to R1
12/1/08	62258	EPA	01-24	CAN	HZA	UA	R9	
12/5/08	62262	Spectrum	01-07			UA	R9	
	62263	Watermark	01-03			H	R9	
	62266	DHS	01-02			H	R9	
	62267	EPA	CAN 12-5-08 01-12 01-02			T	R4	
	62244	EPA	20			H	R9	
	62253	EPA	06-10			E	F4	
	62268	EPA	01-12			H	R9	
	62269	EPA	01-17			T	R4	
	62270	EPA	01-12			H	R9	
	62271	NO	01-11			H	R9	
12/5/08	62274	Collins	01-10			H	R10	
↓	62261	CDM	01-08		↓	H	R10	
12/7/08	62277	Spectrum	01-03	CAN	HZA	UA	R10	

Reviewed By: HZA 12/08/08

"Preservative Used" Key

- UA = Unpreserved Aqueous
- US = Unpreserved Soil
- H = HCL
- A = Air
- M = MeOH
- E = Encore
- N = NaHSO₄
- F = Freeze
- T = Trace, HCL

Logbook ID 90.0191-06/08



* Wet Chemistry *

Mitkem Laboratories

Date: 15-Dec-08

Client: CDM
Client Sample ID: MW-8S
Lab ID: G2261-01

Project: Villa project groundwater
Collection Date: 12/03/08 12:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2320 -- ALKALINITY (Total)							SM2320_W
Alkalinity, Total (As CaCO3)	34		20	mg/L CaCO3		11/2/2008 11:36	40692
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion							SM5310B_TOC_W
Organic Carbon, Total	ND		10	mg/L		11/2/2008 8:22	40735

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 15-Dec-08

Client: CDM
Client Sample ID: MW-9S
Lab ID: G2261-02**Project:** Villa project groundwater
Collection Date: 12/03/08 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2320 -- ALKALINITY (Total)							SM2320_W
Alkalinity, Total (As CaCO3)	20		20	mg/L CaCO3	1	12/10/2008 11:40	40692
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion							SM5310B_TOC_W
Organic Carbon, Total	ND		10	mg/L	1	12/11/2008 8:43	40735

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitekem Laboratories

Date: 15-Dec-08

Client: CDM
Client Sample ID: MW-7S
Lab ID: G2261-03

Project: Villa project groundwater
Collection Date: 12/03/08 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2320 -- ALKALINITY (Total)							SM2320_W
Alkalinity, Total (As CaCO ₃)	21		20	mg/L		12/10/2008 11:43	40692
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion							SM5310B_TOC_W
Organic Carbon, Total	ND		10	mg/L		12/11/2008 9:03	40735

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 15-Dec-08

Client: CDM
Client Sample ID: MW-5S
Lab ID: G2261-04

Project: Villa project groundwater
Collection Date: 12/03/08 13:27

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2320 -- ALKALINITY (Total)							SM2320_W
Alkalinity, Total (As CaCO ₃)	21		20	mg/L CaCO ₃	1	12/10/2008 11:46	40692
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion							SM5310B_TOC_W
Organic Carbon, Total	ND		10	mg/L		12/11/2008 10:11	40735

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 15-Dec-08

Client: CDM
Client Sample ID: MW-4S
Lab ID: G2261-05

Project: Villa project groundwater
Collection Date: 12/03/08 15:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2320 -- ALKALINITY (Total)							SM2320_W
Alkalinity, Total (As CaCO ₃)	ND		20	mg/L CaCO ₃		1 12/10/2008 11:50	40692
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion							SM5310B_TOC_W
Organic Carbon, Total	ND		10	mg/L		1 12/11/2008 10:32	40735

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 15-Dec-08

Client: CDM
Client Sample ID: MW-6S
Lab ID: G2261-06

Project: Villa project groundwater
Collection Date: 12/04/08 9:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2320 -- ALKALINITY (Total)							SM2320_W
Alkalinity, Total (As CaCO3)	23		20	mg/L CaCO3	1	12/10/2008 11:53	40692
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion							SM5310B_TOC_W
Organic Carbon, Total	ND		10	mg/L	1	12/11/2008 10:53	40735

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

ANALYTICAL QC SUMMARY REPORT

CLIENT: CDM
 Work Order: G2261

Project: Villa project groundwater

SM2320_W
 SM 2320 -- ALKALINITY (Total)

Sample ID: MB-40692	SampType: MBLK	TestCode: SM2320_W	Prep Date: 12/10/2008	Run ID: SPEC2_081210B
Client ID: MB-40692	Batch ID: 40692	Units: mg/L CaCO3	Analysis Date: 12/10/2008	SeqNo: 947585
Analyte	Result	PQL	SPK Ref Val	RPD Ref Val
Alkalinity, Total (As CaCO3)	ND	20	0	%RPD RPDLimit

Sample ID: LCS-40692	SampType: LCS	TestCode: SM2320_W	Prep Date: 12/10/2008	Run ID: SPEC2_081210B
Client ID: LCS-40692	Batch ID: 40692	Units: mg/L CaCO3	Analysis Date: 12/10/2008	SeqNo: 947586
Analyte	Result	PQL	SPK Ref Val	RPD Ref Val
Alkalinity, Total (As CaCO3)	84.00	20	0	%RPD RPDLimit
			101	0
			80	120
			82.90	

0206

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

ANALYTICAL QC SUMMARY REPORT

CLIENT: CDM
Work Order: G2261
Project: Villa project groundwater

SM5310B_TOC_W
SM 5310B TOC -- TOTAL ORGANIC CARBON by Combustion

Sample ID: MB-40735	SampType: MBLK	TestCode: SM5310B_TOC_W	Prep Date: 12/11/2008	Run ID: TOC1_081211A	
Client ID: MB-40735	Batch ID: 40735	Units: mg/L	Analysis Date: 12/11/2008	SeqNo: 948856	
Analyte	Result	PQL	SPK Ref Val	%REC	LowLimit HighLimit
Organic Carbon, Total	ND	10			RPD Ref Val %RPD RPDLimit Qual

Sample ID: LCS-40735	SampType: LCS	TestCode: SM5310B_TOC_W	Prep Date: 12/11/2008	Run ID: TOC1_081211A	
Client ID: LCS-40735	Batch ID: 40735	Units: mg/L	Analysis Date: 12/11/2008	SeqNo: 948857	
Analyte	Result	PQL	SPK Ref Val	%REC	LowLimit HighLimit
Organic Carbon, Total	67.48	10	0	85.3	80 120 0

Sample ID: G2261-06BDUP	SampType: DUP	TestCode: SM5310B_TOC_W	Prep Date: 12/11/2008	Run ID: TOC1_081211A	
Client ID: MW-6S	Batch ID: 40735	Units: mg/L	Analysis Date: 12/11/2008	SeqNo: 948866	
Analyte	Result	PQL	SPK Ref Val	%REC	LowLimit HighLimit
Organic Carbon, Total	ND	10	0	0	0 0 20

Sample ID: G2261-06BMS	SampType: MS	TestCode: SM5310B_TOC_W	Prep Date: 12/11/2008	Run ID: TOC1_081211A	
Client ID: MW-6S	Batch ID: 40735	Units: mg/L	Analysis Date: 12/11/2008	SeqNo: 948867	
Analyte	Result	PQL	SPK Ref Val	%REC	LowLimit HighLimit
Organic Carbon, Total	34.24	10	0	68.5	75 125 0

Qualifiers: ND - Not Detected at the Reporting Limit
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

MITKEM CORPORATION

Titration Analysis Logbook

Analysis: 11:30-12:10 AIK

Date	Sample ID	Sample volume (ml)	TITRANT: H ₂ SO ₄ Molarity:	Vol. Titrant Blank (mL)	Vol. Titrant Sample (mL)	Vol. Diff. Sample Blank (mL)	Dilution factor	Result (mg/L)	% Recovery	Analyst
12/10/08	S0.0	100	0.02	0.5	0.5	∅	-	ND		CA
	S530 ⁺ mg/L	100	0.02	0.5	8.7	5.3		53	98%	
	M040692	100	0.02	0.5	0.3	-0.2		NO		
	10540692	100	0.02	0.5	8.9	8.4		81	101%	
	G2261-0	100	0.02	0.5	3.4	3.4		34		
		100	0.02	0.5	0.0	2.0		20		
		100	0.02	0.5	2.1	2.1		21		
		100	0.02	0.5	2.1	2.1		21		
		100	0.02	0.5	1.9	1.9		19		
		100	0.02	0.5	2.3	2.3		23		
		100	0.02	0.5	1.4	1.4		14	90%	
		100	0.02	0.5	1.4	1.4		14	96%	
	S530 ⁺ mg/L	100	0.02	0.5	5.6	5.1		51	96%	
	G2230 2300	100	0.02	0.5	7.0	7.0		70	106%	
	G2230 2300	100	0.02	0.5	2.6	2.6		26		
12/10/08	M040693	100	0.2	0.1	0.1	∅	-	ND		CA

Level 1 QA Review + 100050125A
 Data Entry to LIMS: 10/20/08 11:07E
 TY: 82.9

Level 2 QA Review
 11/13/08
 Narrative Notes on Reverse Side

Yes No

0200

MITKEM LABORATORIES

Aqueous TOC ANALYSIS LOGBOOK

Calibration Standard ID: 081205A9 Tekmar/Dohmann
 LCS Standard ID: 141208120105 Model: Apollo 9000

Date: 12/14/08
 Analyst: CM

Initial Calibration Date: 12/5/08 Method: Sm 5310 TOC1-081211A

Sequence #	Lab ID	pH	Concentration	Dilution	Final Conc.	% Recovery	Comments
#1	S 0.0	-	-	-	0.4147		
#2	1CV	-	-	-	53.7901	90%	TV=60mg/l
#3	M8-40735	-	-	-	0.1463		
#4	LCS-40735	-	-	-	67.4767	85%	TV=79.1mg/L
#5	G2261	7.2	-	-	1.1775		
#6	G2261	7.2	-	-	0.7059		
#7	G2261	7.2	-	-	0.1884		
#8	CCV 1	-	-	-	100.7059	84%	TV=140mg/L
#9	CCV 2	-	-	-	112.2352	94%	
#10	G2261	7.2	-	-	1.1483		
#11	G2261	7.2	-	-	0.7314		
#12	G2261	7.2	-	-	0.5720		
#13	G2261	7.2	-	-	0.4445		
#14	G2261	7.2	-	-	34.2420	68%	TV=50mg/l
#15	CCV 3	-	-	-	52.5289	88%	TV=60mg/L
#16							
#17							
#18							
#19							
#20							
#21							

MS failed low
 Reanalysis not possible
 insufficient sample
 volume

Standard Check Sample +/- 15%
 Method Blank <PQL
 LCS - 80% - 120%
 Spike Sample - 75% - 125%

CCV Standard ID 141208120401
 CCV Standard ID 141208120402
 CCV Standard ID _____

Logbook ID: 100.0155-10/08

Reviewed by: MS 12/14/08

Sample ID: S0.0 Mode: TOC
 Method: TOC 1 - 400 ppmC Filename: 12110643
 Cal. Curve: 081205AQ Timestamp: 2008/12/11 07:03
 Operator ID: CASSANDRA M Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.5750	0.1150	58283	7.181	8.167	80
2	0.5246	0.1049	55794	7.119	8.110	79
3	0.3626	0.0725	47799	7.111	8.110	78
4	0.1964	0.0393	39593	7.140	8.134	77

<<<Statistics>>> Mean: 0.4147 Std Dev: 0.1714 RSD: 41.34

Sample ID: ICV Mode: TOC
 Method: TOC 1 - 400 ppmC Filename: 12110643
 Cal. Curve: 081205AQ Timestamp: 2008/12/11 07:26
 Operator ID: CASSANDRA M Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	56.1867	11.2373	2804331	7.551	8.548	136
2	51.1235	10.2247	2554316	8.161	9.153	114
3	52.9300	10.5860	2643518	8.295	9.295	126
4	54.9204	10.9841	2741799	8.530	9.525	125

<<<Statistics>>> Mean: 53.7901 Std Dev: 2.2265 RSD: 4.14

Sample ID: MB- 40735 Mode: TOC
 Method: TOC 1 - 400 ppmC Filename: 12110643
 Cal. Curve: 081205AQ Timestamp: 2008/12/11 07:47
 Operator ID: CASSANDRA M Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.1690	0.0338	38239	6.997	7.991	77
2	0.2398	0.0480	41733	6.982	7.973	77
3	0.0841	0.0168	34044	7.016	8.006	77
4	0.0923	0.0185	34453	7.010	8.009	76

<<<Statistics>>> Mean: 0.1463 Std Dev: 0.0731 RSD: 49.98

Sample ID: LCS- 40735 Mode: TOC
 Method: TOC 1 - 400 ppmC Filename: 12110643
 Cal. Curve: 081205AQ Timestamp: 2008/12/11 08:09
 Operator ID: CASSANDRA M Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	66.5585	13.3117	3316480	8.918	9.908	110
2	66.5271	13.3054	3314928	9.511	10.497	106
3	67.7030	13.5406	3372992	9.582	10.577	106
4	69.1183	13.8237	3442876	10.023	11.021	106

<<<Statistics>>> Mean: 67.4767 Std Dev: 1.2235 RSD: 1.81

Sample ID: G2261-01B
Method: TOC 1 - 400 ppmC
Cal. Curve: 081205AQ
Operator ID: CASSANDRA M

Mode: TOC
Filename: 12110643
Timestamp: 2008/12/11 08:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.8285	0.3657	120180	7.420	8.409	83
2	1.1180	0.2236	85100	7.459	8.449	82
3	0.7992	0.1598	69357	7.379	8.368	80
4	0.9644	0.1929	77512	7.259	8.251	81

<<<Statistics>>> Mean: 1.1775 Std Dev: 0.4531 RSD: 38.48

Sample ID: G2261-02B
Method: TOC 1 - 400 ppmC
Cal. Curve: 081205AQ
Operator ID: CASSANDRA M

Mode: TOC
Filename: 12110643
Timestamp: 2008/12/11 08:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.8876	0.1775	73720	7.027	8.027	81
2	0.7067	0.1413	64790	7.050	8.039	80
3	0.5662	0.1132	57851	7.010	7.998	80
4	0.6631	0.1326	62635	6.994	7.984	79

<<<Statistics>>> Mean: 0.7059 Std Dev: 0.1346 RSD: 19.07

Sample ID: G2261-03B
Method: TOC 1 - 400 ppmC
Cal. Curve: 081205AQ
Operator ID: CASSANDRA M

Mode: TOC
Filename: 12110643
Timestamp: 2008/12/11 09:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.3638	0.0728	47856	6.939	7.937	77
2	0.2284	0.0457	41173	6.870	7.859	77
3	0.1553	0.0311	37563	6.897	7.896	77
4	0.0062	0.0012	30199	6.954	7.954	75

<<<Statistics>>> Mean: 0.1884 Std Dev: 0.1491 RSD: 79.11

Sample ID: CCV1
Method: TOC 1 - 400 ppmC
Cal. Curve: 081205AQ
Operator ID: CASSANDRA M

Mode: TOC
Filename: 12110643
Timestamp: 2008/12/11 09:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	97.8351	19.5670	4860878	8.589	9.584	132
2	100.9053	20.1811	5012484	9.070	10.064	133
3	102.5010	20.5002	5091279	9.267	10.250	120
4	101.5942	20.3188	5046499	9.123	10.113	121

<<<Statistics>>> Mean: 100.7089 Std Dev: 2.0242 RSD: 2.01

Sample ID: CCV2
Method: TOC 1 - 400 ppmC
Cal. Curve: 081205AQ

Mode: TOC
Filename: 12110643
Timestamp: 2008/12/11 09:58

Operator ID: CASSANDRA M

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	108.0155	21.6031	5363575	8.661	9.652	127
2	111.4594	22.2919	5533635	9.595	10.583	123
3	116.1412	23.2282	5764814	9.733	10.729	126
4	113.3247	22.6649	5625741	9.396	10.387	130

=====
 <<<Statistics>>> Mean: 112.2352 Std Dev: 3.4084 RSD: 3.04
 =====

Sample ID: G2261-04B

Mode: TOC

Method: TOC 1 - 400 ppmC

Filename: 12110643

Cal. Curve: 081205AQ

Timestamp: 2008/12/11 10:19

Operator ID: CASSANDRA M

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.1929	0.4386	138175	7.523	8.519	86
2	1.3384	0.2677	95980	7.651	8.638	82
3	1.0878	0.2176	83605	7.626	8.614	81
4	1.0539	0.2108	81932	7.607	8.604	82

=====
 <<<Statistics>>> Mean: 1.4183 Std Dev: 0.5318 RSD: 37.50
 =====

Sample ID: G2261-05B

Mode: TOC

Method: TOC 1 - 400 ppmC

Filename: 12110643

Cal. Curve: 081205AQ

Timestamp: 2008/12/11 10:40

Operator ID: CASSANDRA M

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.9880	0.1976	78677	7.544	8.539	81
2	0.7134	0.1427	65119	7.586	8.585	80
3	0.5825	0.1165	58654	7.711	8.701	79
4	0.6418	0.1284	61583	7.670	8.663	81

=====
 <<<Statistics>>> Mean: 0.7314 Std Dev: 0.1792 RSD: 24.50
 =====

Sample ID: G2261-06B

Mode: TOC

Method: TOC 1 - 400 ppmC

Filename: 12110643

Cal. Curve: 081205AQ

Timestamp: 2008/12/11 11:00

Operator ID: CASSANDRA M

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.7992	0.1598	69354	7.763	8.754	80
2	0.5817	0.1163	58617	7.899	8.898	79
3	0.5120	0.1024	55175	7.991	8.981	79
4	0.3950	0.0790	49397	8.071	9.058	79

=====
 <<<Statistics>>> Mean: 0.5720 Std Dev: 0.1699 RSD: 29.71
 =====

Sample ID: G2261-06BDUP

Mode: TOC

Method: TOC 1 - 400 ppmC

Filename: 12110643

Cal. Curve: 081205AQ

Timestamp: 2008/12/11 11:21

Operator ID: CASSANDRA M

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.6256	0.1251	60786	7.919	8.919	79
2	0.4628	0.0926	52748	7.946	8.943	78
3	0.3333	0.0667	46348	7.948	8.934	78
4	0.3562	0.0712	47480	7.950	8.938	77

=====
 <<<Statistics>>> Mean: 0.4445 Std Dev: 0.1333 RSD: 29.99
 =====

Sample ID: G2261-06BMS Mode: TOC
 Method: TOC 1 - 400 ppmC Filename: 12110643
 Cal. Curve: 081205AQ Timestamp: 2008/12/11 11:44
 Operator ID: CASSANDRA M Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30.6027	6.1205	1541020	8.397	9.390	113
2	35.4928	7.0986	1782487	8.733	9.728	112
3	33.4111	6.6822	1679696	8.766	9.755	112
4	37.4614	7.4923	1879694	8.655	9.648	117

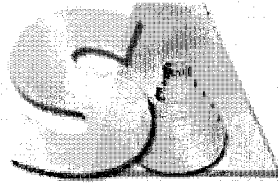
=====
 <<<Statistics>>> Mean: 34.2420 Std Dev: 2.9362 RSD: 8.57
 =====

Sample ID: CCV3 Mode: TOC
 Method: TOC 1 - 400 ppmC Filename: 12110643
 Cal. Curve: 081205AQ Timestamp: 2008/12/11 12:07
 Operator ID: CASSANDRA M Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	54.7616	10.9523	2733960	8.924	9.923	125
2	51.4261	10.2852	2569254	9.115	10.114	116
3	52.1120	10.4224	2603127	9.243	10.238	126
4	51.8161	10.3632	2588516	9.353	10.349	117

=====
 <<<Statistics>>> Mean: 52.5289 Std Dev: 1.5147 RSD: 2.88
 =====

Report Date:
18-Dec-08 17:13



- Final Report
 Re-Issued Report
 Revised Report

SPECTRUM ANALYTICAL, INC.

Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886-1755
Attn: Shirley Ng

Project: See Chain of Custody
Project G2261

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SA88359-01	MW-8S/G2261-01E	Ground Water	03-Dec-08 12:00	04-Dec-08 15:30
SA88359-02	MW-9S/G2661-02E	Ground Water	03-Dec-08 10:15	04-Dec-08 15:30
SA88359-03	MW-7S/G2261-03E	Ground Water	03-Dec-08 10:15	04-Dec-08 15:30
SA88359-04	MW-5S/G2261-04E	Ground Water	03-Dec-08 13:27	04-Dec-08 15:30
SA88359-05	MW-4S/G2261-05E	Ground Water	03-Dec-08 15:00	04-Dec-08 15:30
SA88359-06	MW-6S/G2261-06E	Ground Water	04-Dec-08 09:00	04-Dec-08 15:30

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received. All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393



Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Technical Reviewer's Initial:

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please note that this report contains 11 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supercedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report is available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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CASE NARRATIVE:

The samples were received 4.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA 300.0

Laboratory Control Samples:

8120438-SRM2

Batch accepted based on acceptable CCV results

Nitrite as N

EPA 300.0

Spikes:

8120438-MS1 *Source: SA88267-01*

The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.

Chloride

8120438-MS2 *Source: SA88285-03*

The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.

Nitrate as N
Nitrite as N
Sulfate as SO4

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Chloride

8120438-MS3 *Source: SA88359-01*

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Nitrate as N

8120438-MS4 *Source: SA88359-06*

The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.

Nitrite as N

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Nitrate as N
Sulfate as SO4

8120438-MSD1 *Source: SA88267-01*

The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.

Chloride

8120438-MSD2 *Source: SA88285-03*

The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.

Nitrite as N
Sulfate as SO4

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Chloride

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

Page 3 of 11

0217

EPA 300.0

Spikes:

8120438-MSD3 *Source: SA88359-01*

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Nitrate as N

8120438-MSD4 *Source: SA88359-06*

The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.

Nitrite as N

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Nitrate as N

Sulfate as SO4

8120585-MS2 *Source: SA88346-01*

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Nitrate as N

8120585-MSD1 *Source: SA88444-16*

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Nitrate as N

Samples:

SA88359-01 *MW-8S/G2261-01E*

The sample was originally analyzed within the EPA recommended hold time. In order to be within the calibration range, a dilution was required. The reported value was reanalyzed beyond the recommended hold time.

Nitrate as N

SA88359-04 *MW-5S/G2261-04E*

The sample was originally analyzed within the EPA recommended hold time. In order to be within the calibration range, a dilution was required. The reported value was reanalyzed beyond the recommended hold time.

Nitrate as N

SA88359-05 *MW-4S/G2261-05E*

The sample was originally analyzed within the EPA recommended hold time. In order to be within the calibration range, a dilution was required. The reported value was reanalyzed beyond the recommended hold time.

Nitrate as N

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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Sample Identification
 MW-8S/G2261-01E
 SA88359-01

Client Project #
 G2261

Matrix
 Ground Water

Collection Date/Time
 03-Dec-08 12:00

Received
 04-Dec-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
General Chemistry Parameters												
16887-00-6	Chloride	29.8		mg/l	1.00	0.249	1	EPA 300.0	04-Dec-08	05-Dec-08	8120438	X
14797-55-8	Nitrate as N	11.8	HT7	mg/l	0.500	0.178	5	"	05-Dec-08	06-Dec-08	8120585	X
14797-65-0	Nitrite as N	0.0900	J	mg/l	0.200	0.0246	1	"	04-Dec-08	05-Dec-08	8120438	
14808-79-8	Sulfate as SO4	28.7		mg/l	1.00	0.248	1	"	16:00	03:15	"	X

Sample Identification
 MW-9S/G2261-02E
 SA88359-02

Client Project #
 G2261

Matrix
 Ground Water

Collection Date/Time
 03-Dec-08 10:15

Received
 04-Dec-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
General Chemistry Parameters												
16887-00-6	Chloride	23.3		mg/l	1.00	0.249	1	EPA 300.0	04-Dec-08	05-Dec-08	8120438	X
14797-55-8	Nitrate as N	7.49		mg/l	0.100	0.0355	1	"	04-Dec-08	05-Dec-08	"	X
14797-65-0	Nitrite as N	0.120	J	mg/l	0.200	0.0246	1	"	16:00	05:17	"	
14808-79-8	Sulfate as SO4	39.6		mg/l	1.00	0.248	1	"	04-Dec-08	05-Dec-08	"	X

Sample Identification
 MW-7S/G2261-03E
 SA88359-03

Client Project #
 G2261

Matrix
 Ground Water

Collection Date/Time
 03-Dec-08 10:15

Received
 04-Dec-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
General Chemistry Parameters												
16887-00-6	Chloride	23.2		mg/l	1.00	0.249	1	EPA 300.0	04-Dec-08	05-Dec-08	8120438	X
14797-55-8	Nitrate as N	7.47		mg/l	0.100	0.0355	1	"	04-Dec-08	05-Dec-08	"	X
14797-65-0	Nitrite as N	0.110	J	mg/l	0.200	0.0246	1	"	16:00	05:35	"	
14808-79-8	Sulfate as SO4	39.7		mg/l	1.00	0.248	1	"	04-Dec-08	05-Dec-08	"	X

Sample Identification
 MW-5S/G2261-04E
 SA88359-04

Client Project #
 G2261

Matrix
 Ground Water

Collection Date/Time
 03-Dec-08 13:27

Received
 04-Dec-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
General Chemistry Parameters												
16887-00-6	Chloride	27.7		mg/l	1.00	0.249	1	EPA 300.0	04-Dec-08	05-Dec-08	8120438	X
14797-55-8	Nitrate as N	10.2	HT7	mg/l	0.500	0.178	5	"	05-Dec-08	06-Dec-08	8120585	X
14797-65-0	Nitrite as N	0.100	J	mg/l	0.200	0.0246	1	"	19:00	18:25	"	
14808-79-8	Sulfate as SO4	29.9		mg/l	1.00	0.248	1	"	04-Dec-08	05-Dec-08	8120438	X
									16:00	05:52	"	

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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Sample Identification
 MW-4S/G2261-05E
 SA88359-05

Client Project #
 G2261

Matrix
 Ground Water

Collection Date/Time
 03-Dec-08 15:00

Received
 04-Dec-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
General Chemistry Parameters												
16887-00-6	Chloride	20.7		mg/l	1.00	0.249	1	EPA 300.0	04-Dec-08	05-Dec-08	8120438	X
14797-55-8	Nitrate as N	12.0	HT7	mg/l	0.500	0.178	5	"	05-Dec-08 19:00	06-Dec-08 18:42	8120585	X
14797-65-0	Nitrite as N	0.100	J	mg/l	0.200	0.0246	1	"	04-Dec-08 16:00	05-Dec-08 06:09	8120438	
14808-79-8	Sulfate as SO4	41.2		mg/l	1.00	0.248	1	"	"	"	"	X

Sample Identification
 MW-6S/G2261-06E
 SA88359-06

Client Project #
 G2261

Matrix
 Ground Water

Collection Date/Time
 04-Dec-08 09:00

Received
 04-Dec-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
General Chemistry Parameters												
16887-00-6	Chloride	23.2		mg/l	1.00	0.249	1	EPA 300.0	04-Dec-08	05-Dec-08	8120438	X
14797-55-8	Nitrate as N	7.59		mg/l	0.100	0.0355	1	"	04-Dec-08 16:00	05-Dec-08 06:27	"	X
14797-65-0	Nitrite as N	BDL	U	mg/l	0.200	0.0246	1	"	04-Dec-08 16:00	05-Dec-08 06:27	"	
14808-79-8	Sulfate as SO4	38.1		mg/l	1.00	0.248	1	"	"	"	"	X

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0220

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8120438 - General Preparation										
<u>Blank (8120438-BLK1)</u>										
Prepared & Analyzed: 04-Dec-08										
Sulfate as SO4	BRL	U	mg/l	1.00						
Chloride	BRL	U	mg/l	1.00						
Nitrite as N	BRL	U	mg/l	0.200						
Nitrate as N	BRL	U	mg/l	0.100						
<u>Calibration Blank (8120438-CCB1)</u>										
Prepared & Analyzed: 04-Dec-08										
Sulfate as SO4	0.100		mg/l							
Chloride	0.120		mg/l							
Nitrite as N	-0.0100	U	mg/l							
Nitrate as N	0.00	U	mg/l							
<u>Calibration Blank (8120438-CCB2)</u>										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Chloride	0.230		mg/l							
Sulfate as SO4	0.0700		mg/l							
Nitrite as N	0.0100		mg/l							
Nitrate as N	0.0300		mg/l							
<u>Calibration Check (8120438-CCV1)</u>										
Prepared & Analyzed: 04-Dec-08										
Chloride	20.6		mg/l		20.0		103	90-110		
Nitrite as N	2.11		mg/l		2.00		106	90-110		
Sulfate as SO4	20.5		mg/l		20.0		102	90-110		
Nitrate as N	2.06		mg/l		2.00		103	90-110		
<u>Calibration Check (8120438-CCV2)</u>										
Prepared & Analyzed: 04-Dec-08										
Sulfate as SO4	4.09		mg/l		4.00		102	90-110		
Chloride	4.40		mg/l		4.00		110	90-110		
Nitrite as N	0.360		mg/l		0.400		90	90-110		
Nitrate as N	0.430		mg/l		0.400		108	90-110		
<u>Calibration Check (8120438-CCV3)</u>										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Sulfate as SO4	20.5		mg/l		20.0		102	90-110		
Chloride	20.9		mg/l		20.0		104	90-110		
Nitrite as N	2.11		mg/l		2.00		106	90-110		
Nitrate as N	2.06		mg/l		2.00		103	90-110		
<u>Calibration Check (8120438-CCV4)</u>										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Sulfate as SO4	4.06		mg/l		4.00		102	90-110		
Chloride	4.31		mg/l		4.00		108	90-110		
Nitrate as N	0.410		mg/l		0.400		102	90-110		
<u>Duplicate (8120438-DUP1)</u> Source: SA88267-01										
Prepared & Analyzed: 04-Dec-08										
Sulfate as SO4	10.5		mg/l	1.00		10.4		0.3	20	
Nitrite as N	0.0800	J	mg/l	0.200		0.0800		0	20	
Chloride	12.4		mg/l	1.00		12.3		0.4	20	
Nitrate as N	1.33		mg/l	0.100		1.33		0	20	

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0221

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8120438 - General Preparation										
Duplicate (8120438-DUP2) Source: SA88285-03										
Prepared & Analyzed: 04-Dec-08										
Sulfate as SO4	13.7		mg/l	1.00		13.8			0.1	20
Chloride	189		mg/l	1.00		199			5	20
Nitrite as N	BRL	U	mg/l	0.200		BRL				20
Nitrate as N	1.27		mg/l	0.100		1.27			0	20
Duplicate (8120438-DUP3) Source: SA88359-01										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Chloride	29.9		mg/l	1.00		29.8			0.3	20
Nitrite as N	0.110	J	mg/l	0.200		0.0900			20	20
Sulfate as SO4	28.6		mg/l	1.00		28.7			0.1	20
Nitrate as N	11.8		mg/l	0.100		11.7			0.5	20
Duplicate (8120438-DUP4) Source: SA88359-06										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Nitrite as N	0.0900	J	mg/l	0.200		BRL				20
Sulfate as SO4	37.9		mg/l	1.00		38.1			0.6	20
Chloride	23.3		mg/l	1.00		23.2			0.3	20
Nitrate as N	7.56		mg/l	0.100		7.59			0.4	20
Matrix Spike (8120438-MS1) Source: SA88267-01										
Prepared & Analyzed: 04-Dec-08										
Sulfate as SO4	14.4		mg/l	1.00	4.00	10.4	99	90-110		
Nitrite as N	0.460		mg/l	0.200	0.400	0.0800	95	90-110		
Chloride	16.9	QM9	mg/l	1.00	4.00	12.3	115	90-110		
Nitrate as N	1.73		mg/l	0.100	0.400	1.33	100	90-110		
Matrix Spike (8120438-MS2) Source: SA88285-03										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Nitrite as N	0.540	QM9	mg/l	0.200	0.400	BRL	135	90-110		
Chloride	193	QM4X	mg/l	1.00	4.00	199	-133	90-110		
Sulfate as SO4	18.7	QM9	mg/l	1.00	4.00	13.8	123	90-110		
Nitrate as N	1.75	QM9	mg/l	0.100	0.400	1.27	120	90-110		
Matrix Spike (8120438-MS3) Source: SA88359-01										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Sulfate as SO4	32.6		mg/l	1.00	4.00	28.7	99	90-110		
Nitrite as N	0.490		mg/l	0.200	0.400	0.0900	100	90-110		
Chloride	34.0		mg/l	1.00	4.00	29.8	104	90-110		
Nitrate as N	12.0	QM4X	mg/l	0.100	0.400	11.7	82	90-110		
Matrix Spike (8120438-MS4) Source: SA88359-06										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Sulfate as SO4	41.5	QM4X	mg/l	1.00	4.00	38.1	83	90-110		
Nitrite as N	0.500	QM9	mg/l	0.200	0.400	BRL	125	90-110		
Chloride	27.2		mg/l	1.00	4.00	23.2	102	90-110		
Nitrate as N	7.91	QM4X	mg/l	0.100	0.400	7.59	80	90-110		
Matrix Spike Dup (8120438-MSD1) Source: SA88267-01										
Prepared & Analyzed: 04-Dec-08										
Chloride	17.0	QM9	mg/l	1.00	4.00	12.3	118	90-110	0.6	20
Sulfate as SO4	14.4		mg/l	1.00	4.00	10.4	100	90-110	0.3	20
Nitrite as N	0.460		mg/l	0.200	0.400	0.0800	95	90-110	0	20
Nitrate as N	1.73		mg/l	0.100	0.400	1.33	100	90-110	0	20

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0222

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8120438 - General Preparation										
Matrix Spike Dup (8120438-MSD2) Source: SA88285-03										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Chloride	193	QM4X	mg/l	1.00	4.00	199	-138	90-110	0.1	20
Sulfate as SO4	18.6	QM9	mg/l	1.00	4.00	13.8	121	90-110	0.5	20
Nitrite as N	0.540	QM9	mg/l	0.200	0.400	BRL	135	90-110	0	20
Nitrate as N	1.69		mg/l	0.100	0.400	1.27	105	90-110	3	20
Matrix Spike Dup (8120438-MSD3) Source: SA88359-01										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Sulfate as SO4	32.6		mg/l	1.00	4.00	28.7	98	90-110	0.03	20
Chloride	34.2		mg/l	1.00	4.00	29.8	108	90-110	0.4	20
Nitrite as N	0.480		mg/l	0.200	0.400	0.0900	97	90-110	2	20
Nitrate as N	12.0	QM4X	mg/l	0.100	0.400	11.7	80	90-110	0.08	20
Matrix Spike Dup (8120438-MSD4) Source: SA88359-06										
Prepared: 04-Dec-08 Analyzed: 05-Dec-08										
Nitrite as N	0.500	QM9	mg/l	0.200	0.400	BRL	125	90-110	0	20
Sulfate as SO4	41.6	QM4X	mg/l	1.00	4.00	38.1	88	90-110	0.4	20
Chloride	27.1		mg/l	1.00	4.00	23.2	98	90-110	0.6	20
Nitrate as N	7.92	QM4X	mg/l	0.100	0.400	7.59	82	90-110	0.1	20
Reference (8120438-SRM1)										
Prepared & Analyzed: 04-Dec-08										
Chloride	26.2		mg/l	1.00	25.0		105	90-110		
Sulfate as SO4	25.5		mg/l	1.00	25.0		102	90-110		
Nitrite as N	2.49		mg/l	0.200	2.50		100	90-110		
Nitrate as N	2.53		mg/l	0.100	2.50		101	90-110		
Reference (8120438-SRM2)										
Prepared & Analyzed: 04-Dec-08										
Nitrite as N	0.440	Z-2	mg/l	0.200	0.500		88	90-110		
Sulfate as SO4	5.14		mg/l	1.00	5.00		103	90-110		
Chloride	5.36		mg/l	1.00	5.00		107	90-110		
Nitrate as N	0.500		mg/l	0.100	0.500		100	90-110		
Batch 8120585 - General Preparation										
Blank (8120585-BLK1)										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	BRL	U	mg/l	0.100						
Calibration Blank (8120585-CCB1)										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	0.00	U	mg/l							
Calibration Blank (8120585-CCB2)										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	0.00	U	mg/l							
Calibration Check (8120585-CCV1)										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	2.07		mg/l		2.00		104	90-110		
Calibration Check (8120585-CCV2)										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	0.390		mg/l		0.400		97	90-110		

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8120585 - General Preparation										
<u>Calibration Check (8120585-CCV3)</u>										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	2.05		mg/l		2.00		102	90-110		
<u>Calibration Check (8120585-CCV4)</u>										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	0.380		mg/l		0.400		95	90-110		
<u>Duplicate (8120585-DUP1)</u> Source: SA88444-16										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	2.67		mg/l	0.100		2.61			2	20
<u>Duplicate (8120585-DUP2)</u> Source: SA88346-01										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	66.9		mg/l	1.00		66.7			0.3	20
<u>Matrix Spike (8120585-MS1)</u> Source: SA88444-16										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	3.01		mg/l	0.100	0.400	2.61	100	90-110		
<u>Matrix Spike (8120585-MS2)</u> Source: SA88346-01										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	71.2	QM4X	mg/l	1.00	4.00	66.7	112	90-110		
<u>Matrix Spike Dup (8120585-MSD1)</u> Source: SA88444-16										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	3.10	QM4X	mg/l	0.100	0.400	2.61	122	90-110	3	20
<u>Matrix Spike Dup (8120585-MSD2)</u> Source: SA88346-01										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	70.4		mg/l	1.00	4.00	66.7	93	90-110	1	20
<u>Reference (8120585-SRM1)</u>										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	2.56		mg/l	0.100	2.50		102	90-110		
<u>Reference (8120585-SRM2)</u>										
Prepared: 05-Dec-08 Analyzed: 06-Dec-08										
Nitrate as N	0.520		mg/l	0.100	0.500		104	90-110		

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0224

Notes and Definitions

HT7	The sample was originally analyzed within the EPA recommended hold time. In order to be within the calibration range, a dilution was required. The reported value was reanalyzed beyond the recommended hold time.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QM4X	The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS or SRM recoveries within the control limits.
U	Analyte included in the analysis, but not detected
Z-2	Batch accepted based on acceptable CCV results
BDL	Below Detection Limit - Analyte NOT DETECTED at or above the minimum detection limit
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.
Rebecca Merz

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* Reportable Detection Limit BDL = Below Detection Limit BRL = Below Reporting Limit

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