Appendix B
Laboratory Reports

1. 15D128
2. 15D142
3. 15D143
4. 15D156
5. 15D157

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **B & B, CITY WELL SAMPLING**

SDG: **15D128**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B METHOD 5030B/8260B SIM	2000 – 2120 2121 – 2192
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5103
HPLC	**	6000 –
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 05-04-2015
EMAX Batch No.: 15D128

Attn: Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: B & B, City Well Sampling

Enclosed is the Laboratory report for samples received on 04/20/15.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
04-20-15-CW-1	D128-01	04/20/15	WATER	CHLORINATED HERBICIDES VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-CW-5	D128-02	04/20/15	WATER	CHLORINATED HERBICIDES VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-CW-6	D128-03	04/20/15	WATER	CHLORINATED HERBICIDES VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-CW-9	D128-04	04/20/15	WATER	CHLORINATED HERBICIDES VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-CW-10	D128-05	04/20/15	WATER	CHLORINATED HERBICIDES VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-CW-11	D128-06	04/20/15	WATER	CHLORINATED HERBICIDES VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-FDUP-1	D128-07	04/20/15	WATER	CHLORINATED HERBICIDES

Sample ID	Control #	Col Date	Matrix	Analysis
				VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-TB-1	D128-08	04/20/15	WATER	VOLATILE ORGANICS BY GC/MS
04-20-15-CW-6MS	D128-03M	04/20/15	WATER	CHLORINATED HERBICIDES
				VOLATILE ORGANICS BY GC/MS VOC SIM
04-20-15-CW-6MSD	D128-03S	04/20/15	WATER	CHLORINATED HERBICIDES
				VOLATILE ORGANICS BY GC/MS VOC SIM

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-13-569
SAMPLE STORAGE
EMAX CONTROL NO. * 15D25
PROJECT CODE: Eco-13-569

CLIENT Eco & Associates, Inc.
PROJECT B & B Monthly City Wells Groundwater Sampling
COORDINATOR Carlos Hernandez
TEL (714) 289-0995 FAX EMAIL chernandez@ecoinc.info
SEND REPORT TO Carlos Hernandez
COMPANY Eco & Associates, Inc.
ADDRESS 1855 W. Katella Ave. Suite 340
Orange CA 92867
EMAX PM

MATRIX CODE: DW=Drinking Water; GW=Ground Water ✓; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O=

PRESERVATIVE CODE: IC = Ice ✓; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: 8260B; 826c SIM; 8151-Dinoseb

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☒ 5 days standard
- ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	8260B	826c SIM	8151-Dinoseb	COMMENTS
1	04-20-15-CW-1	B&B	04-20-15	1140	8	various		GW			X	X	X	
2	04-20-15-CW-5			0948	8	various		GW			X	X	X	
3	04-20-15-CW-6			1115	24	various		GW			X	X	X	MS/MSD
4	04-20-15-CW-9			1050	8	various		GW			X	X	X	
5	04-20-15-CW-10			1033	8	various		GW			X	X	X	
6	04-20-15-CW-11			1045	8	various		GW			X	X	X	
7	04-20-15-FDUP-1			1045	8	various		GW			X	X	X	
8	04-20-15-TB-1	↓	↓	1200	3	40mL	VOA	W			X			
9														
10														

Instructions

Cooler #	Temp. (°C)	Sample #s
1	5.6	
2	6.8	
3	2.1	

SAMPLER Quin Kinnebrew
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
Quin Kinnebrew	04-20-15	12:20	Kamal M.	4/20/15	1220
Kamal M.	4/20/15	1510		4/20/15	1510

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Rev 2 2/2013

SAMPLE RECEIPT FORM 1

Reference Number: SM02.7.3

Type of Delivery	Airbill / Tracking Number	
☐ Fedex ☐ UPS ☐ GSO ☑ Others Direct Delivery		ECN 15028
☐ EMAX Courier ☐ Client Delivery		Recipient Cecilia Chavez
		Date 04-20-15 Time 1510

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☑ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☑ From Superfund Site	☑ Rad screening required		

Note: Changes made to the COC (times for Lot 7) are not initialed & dated

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☑ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 5.6 °C	☑ Cooler 2 6.8 °C	☑ Cooler 3 2.1 °C	☐ Cooler 4_____ °C	☐ Cooler 5_____ °C
	☐ Cooler 6_____ °C	☐ Cooler 7_____ °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C
Thermometer:	*A - S/N* _____	*B - S/N* 140252070 FM 1/20/15	*C - S/N* 140252067	*D - S/N*_____	

Comments: ☑ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note: Samples were collected today.

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1-8		D16	All vials have HCL Sticker on them	R8

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:

LEGEND:

Code	Description- Sample Management
D1	Analysis is not indicated in _____
D2	Analysis mismatch COC vs label
D3	Sample ID mismatch COC vs label
D4	Sample ID is not indicated in _____
D5	Container -[improper] [leaking] [broken]
D6	Date/Time is not indicated in _____
D7	Date/Time mismatch COC vs label
D8	Sample listed in COC is not received
D9	Sample received is not listed in COC
D10	No initial/date on corrections in COC/label
D11	Container count mismatch COC vs received
D12	Container size mismatch COC vs received

Code	Description-Sample Management
D13	Out of Holding Time
D14	Bubble is >6mm
D15	No trip blank in cooler
D16	Preservation not indicated in Label
D17	Preservation mismatch COC vs label
D18	Insufficient chemical preservative
D19	Insufficient Sample
D20	No filtration info for dissolved analysis
D21	No sample for moisture determination
D22	_____
D23	_____
D24	_____

☐ **Continue to next page.**

Code	Description-Sample Management
R1	Proceed as indicated in ☐ COC ☐ Label
R2	Refer to attached instruction
R3	Cancel the analysis
R4	Use vial with smallest bubble first
R5	Log-in with latest sampling date and time+1 min
R6	Adjust pH as necessary
R7	Filter and preserved as necessary
R8	Informed Client
R9	_____
R10	_____
R11	_____
R12	_____

REVIEWS:

Sample Labeling: D16 Date 04-20-15 / 4/20/15

SRF _____ Date 4/20/15

PM _____ Date 4/21/15

Richard Beauvil

From: Mitra Fiuzat [mfiuzat@ecoinc.info]
Sent: Wednesday, April 22, 2015 10:40 AM
To: Richard Beauvil
Cc: Mohammad Estiri; 'Quin Kinnebrew'; Carlos Hernandez
Subject: FW: 15D128 sample receipt forms for your review.
Attachments: 15D128.pdf

Hi Richard,

Would you please designate the Sample ID number 04-20-15-CW-10 for the Level IV. If you need me to write it on the COC please let me know.

Thanks,
Mitra Fiuzat
Eco & Associates, Inc.
1855 W. Katella Ave., Suite 340
Orange, CA 92867
Tel: (714) 289-0995
Fax: (714) 289-0965

From: Richard Beauvil [mailto:RBeauvil@emaxlabs.com]
Sent: Tuesday, April 21, 2015 5:46 PM
To: 'Mitra Fiuzat'
Cc: 'Carlos Hernandez'; 'Orabbani@ecoinc.info'; 'Quin Kinnebrew'
Subject: 15D128 sample receipt forms for your review.

Hi Mitra,

See attached the login for SDG 15D128 for your review.

Thank you.

Richard M. Beauvil
Project Manager/Safety Officer
1835 W. 205th Street
Torrance, CA 90501
Tel: 310-618-8889 X118
rbeauvil@emaxlabs.com

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than LOQ/RL but greater than LOD/MDL/DL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B&B, CITY WELL SAMPLING

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 15D128

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B, CITY WELL SAMPLING

SDG : 15D128

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

A total of eight (8) water samples were received on 04/20/15 to be analyzed for Volatile Organics by GC/MS in accordance with Method 5030B/8260B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. There was one (1) CCV associated with this SDG. Target analytes in CCV(Datafile ID:RDC348) were within calibration acceptance criteria. All calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. VO67D15B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. VO67D15L/VO67D15C - all analytes were within LCS QC limits. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. D128-03M/D128-03S - all analytes were within MS QC limits. Refer to Matrix QC summary form for details.

Surrogate
Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : B & B, CITY WELL SAMPLING

SDG NO. : 15D128
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067D15B	1	NA	04/23/1511:17	04/23/1511:17	RDC352	RLC381	V067D15	Method Blank
LCS1W	V067D15L	1	NA	04/23/1509:31	04/23/1509:31	RDC349	RLC381	V067D15	Lab Control Sample (LCS)
LCD1W	V067D15C	1	NA	04/23/1510:07	04/23/1510:07	RDC350	RLC381	V067D15	LCS Duplicate
04-20-15-CW-1	D128-01	1	NA	04/23/1513:01	04/23/1513:01	RDC355	RLC381	V067D15	Field Sample
04-20-15-CW-5	D128-02	1	NA	04/23/1513:34	04/23/1513:34	RDC356	RLC381	V067D15	Field Sample
04-20-15-CW-9	D128-04	1	NA	04/23/1514:09	04/23/1514:09	RDC357	RLC381	V067D15	Field Sample
04-20-15-CW-10	D128-05	1	NA	04/23/1514:43	04/23/1514:43	RDC358	RLC381	V067D15	Field Sample
04-20-15-CW-11	D128-06	1	NA	04/23/1515:18	04/23/1515:18	RDC359	RLC381	V067D15	Field Sample
04-20-15-FDUP-1	D128-07	1	NA	04/23/1515:51	04/23/1515:51	RDC360	RLC381	V067D15	Field Sample
04-20-15-TB-1	D128-08	1	NA	04/23/1516:25	04/23/1516:25	RDC361	RLC381	V067D15	Field Sample
04-20-15-CW-6	D128-03	1	NA	04/23/1516:58	04/23/1516:58	RDC362	RLC381	V067D15	Field Sample
04-20-15-CW-6MS	D128-03M	1	NA	04/23/1517:33	04/23/1517:33	RDC363	RLC381	V067D15	Matrix Spike Sample (MS)
04-20-15-CW-6MSD	D128-03S	1	NA	04/23/1518:12	04/23/1518:12	RDC364	RLC381	V067D15	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

2502

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 13:01
Sample ID: 04-20-15-CW-1	Date Analyzed: 04/23/15 13:01
Lab Samp ID: D128-01	Dilution Factor: 1
Lab File ID: RDC355	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	2.4	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.84	10.00	88.4	70-120
4-BROMOFLUOROBENZENE	9.24	10.00	92.4	75-120
TOLUENE-D8	9.03	10.00	90.3	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 13:34
Sample ID: 04-20-15-CW-5	Date Analyzed: 04/23/15 13:34
Lab Samp ID: D128-02	Dilution Factor: 1
Lab File ID: RDC356	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.04	10.00	90.4	70-120
4-BROMOFLUOROBENZENE	9.04	10.00	90.4	75-120
TOLUENE-D8	8.92	10.00	89.2	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 16:58
Sample ID: 04-20-15-CW-6	Date Analyzed: 04/23/15 16:58
Lab Samp ID: D128-03	Dilution Factor: 1
Lab File ID: RDC362	Matrix : WATER
Ext.Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.23J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.50
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.56J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.19	10.00	91.9	70-120
4-BROMOFLUOROBENZENE	9.03	10.00	90.3	75-120
TOLUENE-D8	8.92	10.00	89.2	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 14:09
Sample ID: 04-20-15-CW-9	Date Analyzed: 04/23/15 14:09
Lab Samp ID: D128-04	Dilution Factor: 1
Lab File ID: RDC357	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.23J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	1.2	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.98	10.00	89.8	70-120
4-BROMOFLUOROBENZENE	9.14	10.00	91.4	75-120
TOLUENE-D8	9.00	10.00	90.0	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 14:43
Sample ID: 04-20-15-CW-10	Date Analyzed: 04/23/15 14:43
Lab Samp ID: D128-05	Dilution Factor: 1
Lab File ID: RDC358	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.16	10.00	91.6	70-120
4-BROMOFLUOROBENZENE	9.05	10.00	90.5	75-120
TOLUENE-D8	8.83	10.00	88.3	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC358.D
Acq On : 23 Apr 2015 2:43 pm
Sample : 15D128-05 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:14 2015

Vial: 12
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1694173	10.00	ug/l	0.03
55) CHLOROBENZENE-D5	13.17	117	1278963	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	426090	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	492352	10.59	ug/l	0.03
Spiked Amount 10.000			Recovery = 105.90%			
43) 1,2-Dichloroethane-d4	7.50	65	246194	9.16	ug/l	0.03
Spiked Amount 10.000			Recovery = 91.60%			
56) Toluene-d8	10.51	98	1669679	8.83	ug/l	0.03
Spiked Amount 10.000			Recovery = 88.30%			
77) 4-Bromofluorobenzene	15.44	95	480675	9.05	ug/l	0.06
Spiked Amount 10.000			Recovery = 90.50%			
Target Compounds						Qvalue
19) Methylene chloride	4.47	49	21603	0.39	ug/l	98

(#) = qualifier out of range (m) = manual integration

2009

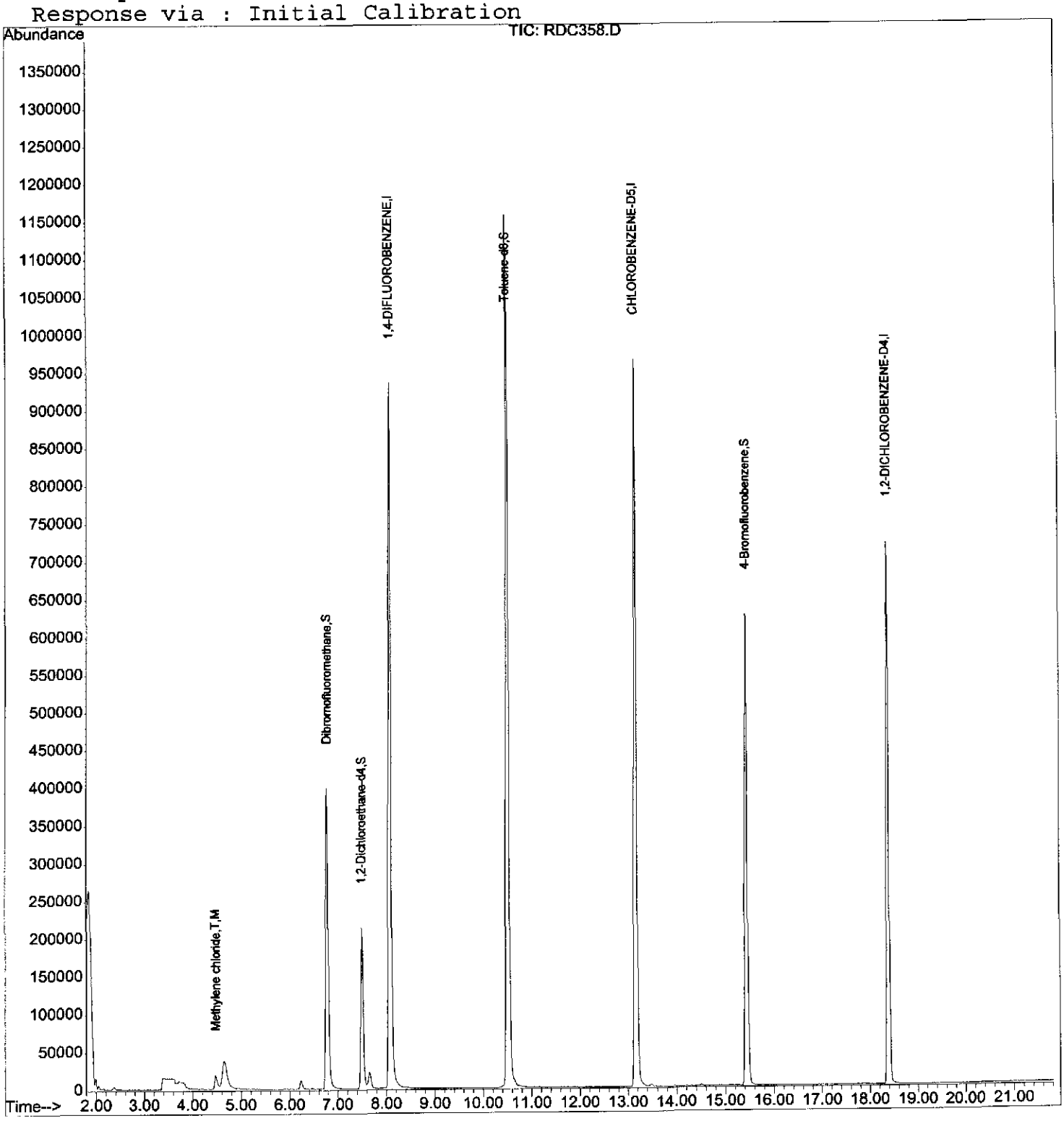
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC358.D
Acq On : 23 Apr 2015 2:43 pm
Sample : 15D128-05 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:14 2015

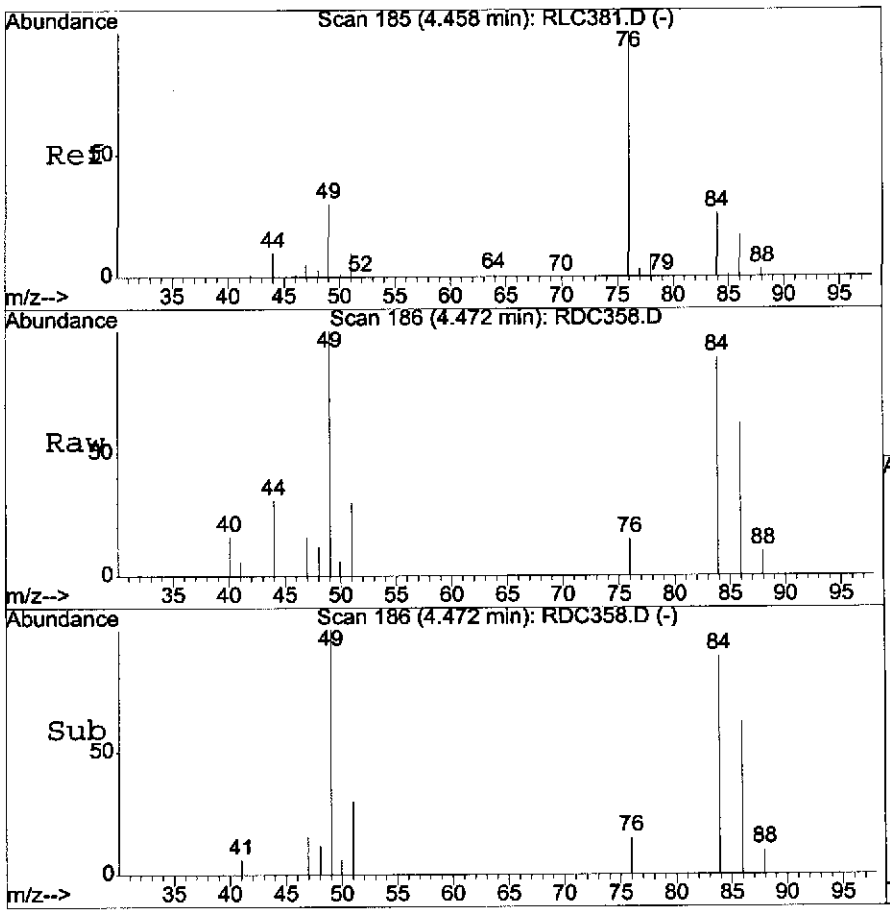
Vial: 12
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



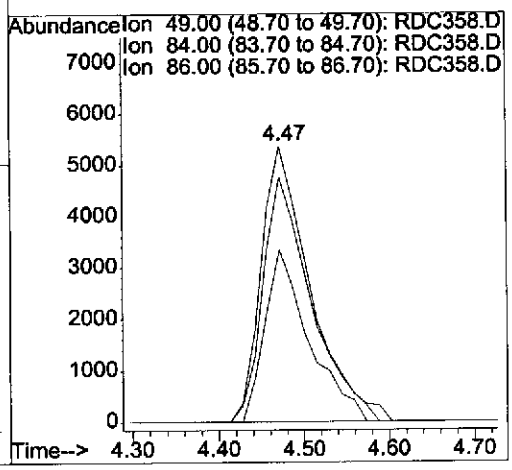
2010



#19
Methylene chloride
Concen: 0.39 ug/l
RT: 4.47 min Scan# 186
Delta R.T. 0.01 min
Lab File: RDC358.D
Acq: 23 Apr 2015 2:43 pm

Tgt Ion: 49 Resp: 21603

Ion	Ratio	Lower	Upper
49	100		
84	87.2	55.6	115.6
86	56.1	24.5	84.5



METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 15:18
Sample ID: 04-20-15-CW-11	Date Analyzed: 04/23/15 15:18
Lab Samp ID: D128-06	Dilution Factor: 1
Lab File ID: RDC359	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.08	10.00	90.8	70-120
4-BROMOFLUOROBENZENE	9.11	10.00	91.1	75-120
TOLUENE-D8	8.81	10.00	88.1	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 15:51
Sample ID: 04-20-15-FDUP-1	Date Analyzed: 04/23/15 15:51
Lab Samp ID: D128-07	Dilution Factor: 1
Lab File ID: RDC360	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	2.5	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.06	10.00	90.6	70-120
4-BROMOFLUOROBENZENE	9.12	10.00	91.2	75-120
TOLUENE-D8	8.93	10.00	89.3	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/23/15 16:25
Sample ID: 04-20-15-TB-1	Date Analyzed: 04/23/15 16:25
Lab Samp ID: D128-08	Dilution Factor: 1
Lab File ID: RDC361	Matrix : WATER
Ext Btch ID: VO67D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
M1BK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.15	10.00	91.5	70-120
4-BROMOFLUOROBENZENE	8.96	10.00	89.6	75-120
TOLUENE-D8	8.92	10.00	89.2	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B, CITY WELL SAMPLING	Date Received: 04/23/15
Batch No. : 15D128	Date Extracted: 04/23/15 11:17
Sample ID: MBLK1W	Date Analyzed: 04/23/15 11:17
Lab Samp ID: V067D15B	Dilution Factor: 1
Lab File ID: RDC352	Matrix : WATER
Ext Btch ID: V067D15	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.60	10.00	86.0	70-120
4-BROMOFLUOROBENZENE	8.96	10.00	89.6	75-120
TOLUENE-D8	8.96	10.00	89.6	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B CITY WELL SAMPLING
BATCH NO.: 15D128
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V067D15B V067D15L V067D15C
LAB FILE ID: RDC352 RDC349 RDC350
DATE EXTRACTED: 04/23/1511:17 04/23/1509:31 04/23/1510:07 DATE COLLECTED: NA
DATE ANALYZED: 04/23/1511:17 04/23/1509:31 04/23/1510:07 DATE RECEIVED: 04/23/15
PREP. BATCH: V067D15 V067D15 V067D15
CALIB. REF: RLC381 RLC381 RLC381

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	11.0	110	10.0	11.0	110	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	11.2	112	10.0	11.1	111	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.53	95	10.0	9.62	96	1	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.8	108	10.0	11.0	110	2	75-125	30
1,1-Dichloroethane	ND	10.0	10.5	105	10.0	10.5	105	0	70-135	30
1,1-Dichloroethene	ND	10.0	10.2	102	10.0	10.2	102	0	70-130	30
1,1-Dichloropropene	ND	10.0	11.1	111	10.0	11.1	111	0	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	9.99	100	10.0	10.1	101	1	55-140	30
1,2,3-Trichloropropane	ND	10.0	9.86	99	10.0	9.93	99	1	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.99	100	10.0	10.2	102	2	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.98	100	10.0	10.1	101	1	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	10.5	105	10.0	10.5	105	0	50-130	30
1,2-Dibromoethane	ND	10.0	10.9	109	10.0	11.0	110	1	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.6	106	10.0	10.7	107	0	70-120	30
1,2-Dichloroethane	ND	10.0	10.4	104	10.0	10.5	105	1	70-130	30
1,2-Dichloropropane	ND	10.0	10.6	106	10.0	10.7	107	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.82	98	10.0	9.86	99	0	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.7	107	10.0	10.7	107	0	75-125	30
1,3-Dichloropropane	ND	10.0	10.3	103	10.0	10.5	105	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.5	105	10.0	10.5	105	1	75-125	30
2,2-Dichloropropane	ND	10.0	12.1	121	10.0	12.2	122	0	70-135	30
2-Butanone	ND	50.0	47.7	95	50.0	47.8	96	0	30-150	30
2-Chlorotoluene	ND	10.0	9.57	96	10.0	9.57	96	0	75-125	30
2-Hexanone	ND	50.0	45.3	91	50.0	45.8	92	1	55-130	30
4-Chlorotoluene	ND	10.0	9.93	99	10.0	9.95	99	0	75-130	30
Acetone	ND	50.0	53.7	107	50.0	53.3	107	1	40-140	30
Benzene	ND	10.0	11.2	112	10.0	11.3	113	1	80-120	30
Bromobenzene	ND	10.0	10.6	106	10.0	10.6	106	0	75-125	30
Bromochloromethane	ND	10.0	10.1	101	10.0	10.4	104	3	65-130	30
Bromodichloromethane	ND	10.0	11.1	111	10.0	11.2	112	1	75-120	30
Bromoform	ND	10.0	9.88	99	10.0	9.79	98	1	70-130	30
Bromomethane	ND	10.0	8.87	89	10.0	8.85	89	0	30-145	30
Carbon Disulfide	ND	10.0	7.71	77	10.0	7.62	76	1	35-160	30
Carbon Tetrachloride	ND	10.0	10.9	109	10.0	10.9	109	0	65-140	30
Chlorobenzene	ND	10.0	11.4	114	10.0	11.5	115	1	80-120	30
Chloroethane	ND	10.0	8.52	85	10.0	8.36	84	2	60-135	30
Chloroform	ND	10.0	10.6	106	10.0	10.8	108	1	65-135	30
Chloromethane	ND	10.0	8.36	84	10.0	8.36	84	0	40-125	30
cis-1,2-Dichloroethene	ND	10.0	11.0	110	10.0	10.9	109	0	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.6	106	10.0	10.6	106	0	70-130	30
Dibromochloromethane	ND	10.0	11.2	112	10.0	11.4	114	2	60-135	30
Dibromomethane	ND	10.0	11.0	110	10.0	11.4	114	3	75-125	30
Dichlorodifluoromethane	ND	10.0	10.7	107	10.0	10.6	106	0	30-155	30
Ethylbenzene	ND	10.0	10.3	103	10.0	10.4	104	1	75-125	30
Hexachlorobutadiene	ND	10.0	10.3	103	10.0	10.4	104	1	50-140	30
Isopropyl Benzene	ND	10.0	11.6	116	10.0	11.6	116	0	75-125	30
m,p-Xylenes	ND	20.0	21.0	105	20.0	21.3	106	1	75-130	30
MIBK	ND	50.0	43.6	87	50.0	44.0	88	1	60-135	30
Methylene Chloride	ND	10.0	9.67	97	10.0	9.88	99	2	55-140	30
MTBE	ND	10.0	9.03	90	10.0	9.20	92	2	65-125	30
Naphthalene	ND	10.0	9.68	97	10.0	9.91	99	2	55-140	30
n-Butylbenzene	ND	10.0	9.54	95	10.0	9.68	97	1	70-135	30
n-Propylbenzene	ND	10.0	9.91	99	10.0	9.92	99	0	70-130	30
o-Xylene	ND	10.0	10.9	109	10.0	10.9	109	1	80-120	30
p-Isopropyltoluene	ND	10.0	10.1	101	10.0	10.2	102	1	75-130	30
Sec-Butylbenzene	ND	10.0	10.1	101	10.0	10.1	101	0	70-125	30
Styrene	ND	10.0	9.87	99	10.0	10.1	101	2	65-135	30
Tert-Butylbenzene	ND	10.0	10.7	107	10.0	10.7	107	0	70-130	30
Tetrachloroethene	ND	10.0	11.9	119	10.0	11.8	118	1	45-150	30
Toluene	ND	10.0	10.8	108	10.0	10.8	108	0	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.3	103	10.0	10.3	103	0	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.75	97	10.0	9.73	97	0	55-140	30
Trichloroethene	ND	10.0	11.2	112	10.0	11.1	111	0	70-125	30
Trichlorofluoromethane	ND	10.0	10.4	104	10.0	10.2	102	3	60-145	30
Vinyl Chloride	ND	10.0	8.32	83	10.0	8.24	82	1	50-145	30
Freon113	ND	10.0	11.3	113	10.0	11.2	112	0	65-135	30
Vinyl Acetate	ND	10.0	9.04	90	10.0	9.33	93	3	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.86	89	10.0	8.85	89	70-120
4-Bromofluorobenzene	10.0	8.72	87	10.0	8.67	87	75-120
Toluene-d8	10.0	9.00	90	10.0	8.91	89	85-120
Dibromofluoromethane	10.0	10.6	106	10.0	10.6	106	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B, CITY WELL SAMPLING
BATCH NO.: 15D128
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-20-15-CW-6
LAB SAMP ID: D128-03 D128-03M D128-03S
LAB FILE ID: RDC362 RDC363 RDC364
DATE EXTRACTED: 04/23/1516:58 04/23/1517:33 04/23/1518:12 DATE COLLECTED: 04/20/15
DATE ANALYZED: 04/23/1516:58 04/23/1517:33 04/23/1518:12 DATE RECEIVED: 04/20/15
PREP. BATCH: V067D15 V067D15 V067D15
CALIB. REF: RLC381 RLC381 RLC381

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	11.1	111	10.0	11.1	111	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	11.0	110	10.0	10.9	109	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.57	96	10.0	10.1	101	5	65-130	30
1,1,2-Trichloroethane	ND	10.0	11.1	111	10.0	11.1	111	0	75-125	30
1,1-Dichloroethane	ND	10.0	10.7	107	10.0	10.6	106	0	70-135	30
1,1-Dichloroethene	ND	10.0	10.3	103	10.0	10.2	102	1	70-130	30
1,1-Dichloropropene	ND	10.0	11.1	111	10.0	11.1	111	0	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	9.16	92	10.0	10.1	101	9	55-140	30
1,2,3-Trichloropropane	ND	10.0	9.87	99	10.0	10.4	104	5	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.49	95	10.0	10.1	101	6	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.56	96	10.0	9.73	97	2	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	10.4	104	10.0	11.0	110	6	50-130	30
1,2-Dibromoethane	ND	10.0	11.1	111	10.0	11.5	115	4	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.6	106	10.0	10.7	107	1	70-120	30
1,2-Dichloroethane	ND	10.0	10.8	108	10.0	11.1	111	3	70-130	30
1,2-Dichloropropane	0.226J	10.0	11.1	109	10.0	11.1	109	0	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.45	95	10.0	9.59	96	1	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.3	103	10.0	10.6	106	3	75-125	30
1,3-Dichloropropane	ND	10.0	10.6	106	10.0	10.8	108	2	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.2	102	10.0	10.4	104	2	75-125	30
2,2-Dichloropropane	ND	10.0	10.7	107	10.0	10.7	107	0	70-135	30
2-Butanone	ND	50.0	45.2	90	50.0	47.3	95	4	30-150	30
2-Chlorotoluene	ND	10.0	9.73	97	10.0	9.94	99	2	75-125	30
2-Hexanone	ND	50.0	43.4	87	50.0	44.5	89	2	55-130	30
4-Chlorotoluene	ND	10.0	8.93	89	10.0	9.11	91	2	75-130	30
Acetone	ND	50.0	45.6	91	50.0	48.8	98	7	40-140	30
Benzene	ND	10.0	11.2	112	10.0	11.4	114	1	80-120	30
Bromobenzene	ND	10.0	10.4	104	10.0	10.6	106	3	75-125	30
Bromochloromethane	ND	10.0	10.5	105	10.0	10.8	108	3	65-130	30
Bromodichloromethane	ND	10.0	11.3	113	10.0	11.5	115	2	75-120	30
Bromoform	ND	10.0	9.72	97	10.0	10.1	101	4	70-130	30
Bromomethane	ND	10.0	8.70	87	10.0	8.77	88	1	30-145	30
Carbon Disulfide	ND	10.0	7.51	75	10.0	7.59	76	1	35-160	30
Carbon Tetrachloride	ND	10.0	10.9	109	10.0	11.0	110	1	65-140	30
Chlorobenzene	ND	10.0	11.5	115	10.0	11.5	115	1	80-120	30
Chloroethane	ND	10.0	8.31	83	10.0	8.54	85	3	60-135	30
Chloroform	ND	10.0	10.9	109	10.0	11.1	111	1	65-135	30
Chloromethane	ND	10.0	8.16	82	10.0	8.29	83	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	11.2	112	10.0	11.3	113	1	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.6	106	10.0	10.6	106	0	70-130	30
Dibromochloromethane	ND	10.0	11.5	115	10.0	11.7	117	1	60-135	30
Dibromomethane	ND	10.0	11.5	115	10.0	11.7	117	2	75-125	30
Dichlorodifluoromethane	ND	10.0	10.7	107	10.0	10.7	107	0	30-155	30
Ethylbenzene	ND	10.0	10.2	102	10.0	10.1	101	1	75-125	30
Hexachlorobutadiene	ND	10.0	9.84	98	10.0	10.2	102	3	50-140	30
Isopropyl Benzene	ND	10.0	11.5	115	10.0	11.4	114	1	75-125	30
m,p-Xylenes	ND	20.0	20.9	105	20.0	20.6	103	1	75-130	30
MIBK	ND	50.0	45.0	90	50.0	46.6	93	4	60-135	30
Methylene Chloride	ND	10.0	9.98	100	10.0	9.98	100	0	55-140	30
MTBE	ND	10.0	9.47	95	10.0	9.77	98	3	65-125	30
Naphthalene	ND	10.0	8.60	86	10.0	9.98	100	15	55-140	30
n-Butylbenzene	ND	10.0	9.14	91	10.0	9.29	93	2	70-135	30
n-Propylbenzene	ND	10.0	9.58	96	10.0	9.78	98	2	70-130	30
o-Xylene	ND	10.0	10.9	109	10.0	10.8	108	1	80-120	30
p-Isopropyltoluene	ND	10.0	9.84	98	10.0	9.98	100	1	75-130	30
Sec-Butylbenzene	ND	10.0	9.76	98	10.0	9.93	99	2	70-125	30
Styrene	ND	10.0	10.3	103	10.0	10.1	101	2	65-135	30
Tert-Butylbenzene	ND	10.0	10.4	104	10.0	10.5	105	1	70-130	30
Tetrachloroethene	0.564J	10.0	12.2	116	10.0	12.0	115	1	45-150	30
Toluene	ND	10.0	10.7	107	10.0	10.6	106	1	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.3	103	10.0	10.4	104	1	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.75	98	10.0	9.77	98	0	55-140	30
Trichloroethene	ND	10.0	11.2	112	10.0	11.3	113	0	70-125	30
Trichlorofluoromethane	ND	10.0	10.1	101	10.0	10.1	101	0	60-145	30
Vinyl Chloride	ND	10.0	8.09	81	10.0	8.20	82	1	50-145	30
Freon113	ND	10.0	11.2	112	10.0	11.5	115	2	65-135	30
Vinyl Acetate	ND	10.0	8.15	81	10.0	8.31	83	2	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.06	91	10.0	9.21	92	70-120
4-Bromofluorobenzene	10.0	8.52	85	10.0	8.70	87	75-120
Toluene-d8	10.0	8.89	89	10.0	8.78	88	85-120
Dibromofluoromethane	10.0	10.7	107	10.0	10.8	108	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC352.D
Acq On : 23 Apr 2015 11:17 am
Sample : VO67D15B
Misc : BLANK
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:12 2015

Vial: 6
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1766327	10.00	ug/l	0.01
55) CHLOROBENZENE-D5	13.16	117	1305741	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	439525	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.76	111	501324	10.34	ug/l	0.01
Spiked Amount 10.000			Recovery = 103.40%			
43) 1,2-Dichloroethane-d4	7.48	65	240998	8.60	ug/l	0.01
Spiked Amount 10.000			Recovery = 86.00%			
56) Toluene-d8	10.51	98	1728707	8.96	ug/l	0.03
Spiked Amount 10.000			Recovery = 89.60%			
77) 4-Bromofluorobenzene	15.43	95	490890	8.96	ug/l	0.04
Spiked Amount 10.000			Recovery = 89.60%			
Target Compounds						Qvalue
19) Methylene chloride	4.46	49	20451	0.35	ug/l	99

(#) = qualifier out of range (m) = manual integration

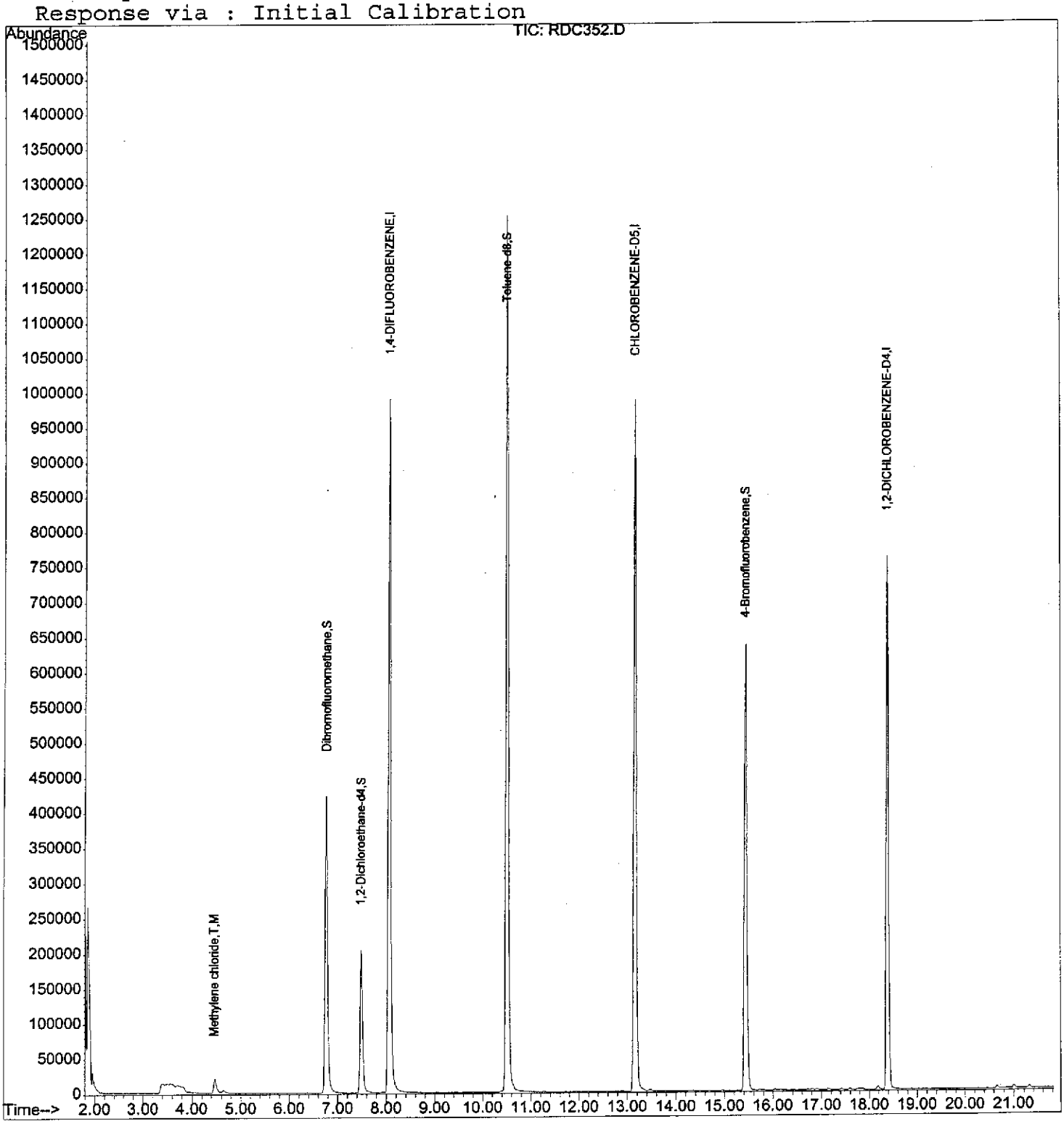
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC352.D
Acq On : 23 Apr 2015 11:17 am
Sample : VO67D15B
Misc : BLANK
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:12 2015

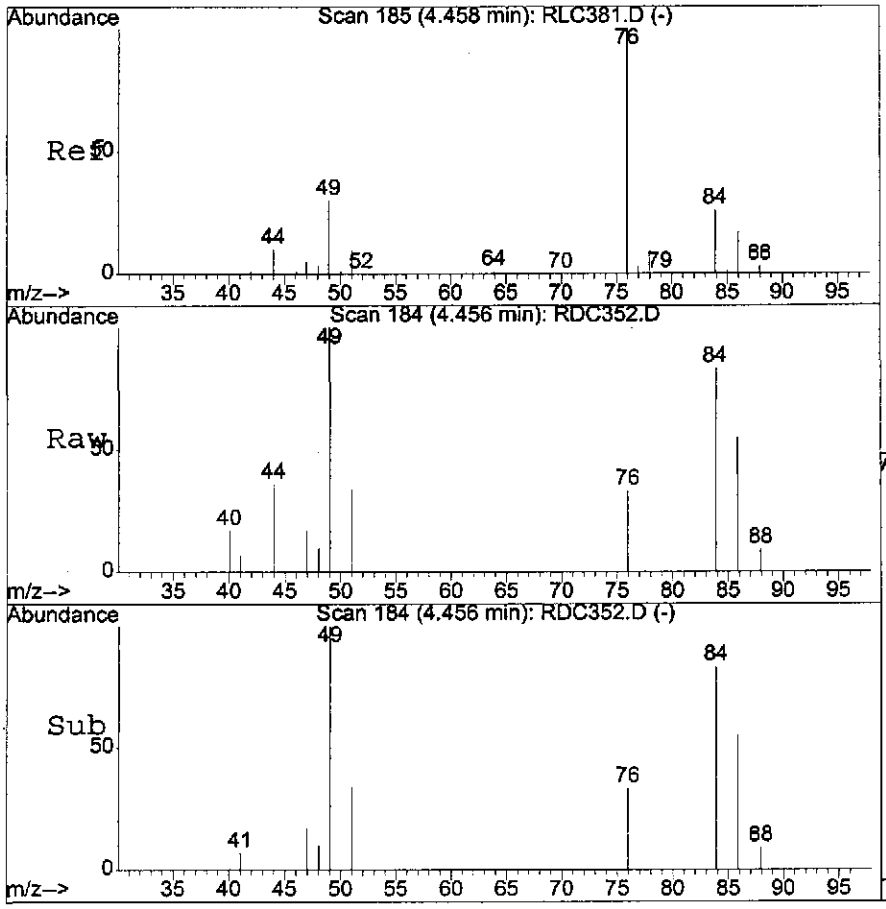
Vial: 6
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



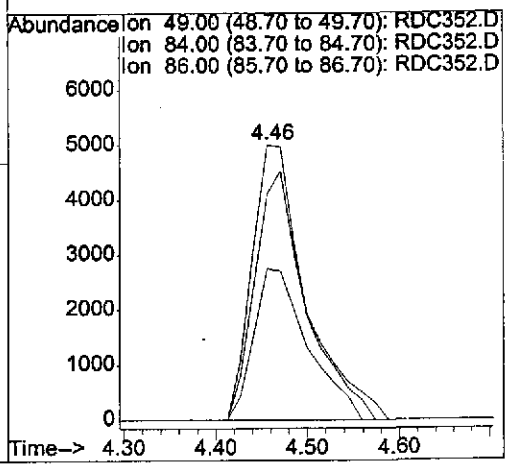
2021



#19
Methylene chloride
Concen: 0.35 ug/l
RT: 4.46 min Scan# 184
Delta R.T. -0.00 min
Lab File: RDC352.D
Acq: 23 Apr 2015 11:17 am

Tgt Ion: 49 Resp: 20451

Ion	Ratio	Lower	Upper
49	100		
84	85.9	55.6	115.6
86	55.0	24.5	84.5



2022

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC349.D
Acq On : 23 Apr 2015 9:31 am
Sample : VO67D15L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1657582	10.00	ug/l	0.01
55) CHLOROBENZENE-D5	13.17	117	1247172	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	448631	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.77	111	482203	10.60	ug/l	0.01
Spiked Amount 10.000			Recovery =	106.00%		
43) 1,2-Dichloroethane-d4	7.48	65	232971	8.86	ug/l	0.01
Spiked Amount 10.000			Recovery =	88.60%		
56) Toluene-d8	10.51	98	1657963	9.00	ug/l	0.03
Spiked Amount 10.000			Recovery =	90.00%		
77) 4-Bromofluorobenzene	15.43	95	487568	8.72	ug/l	0.04
Spiked Amount 10.000			Recovery =	87.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.96	85	596119	10.66	ug/l	100
4) Chloromethane	2.16	50	689845	8.36	ug/l	100
5) Vinyl chloride	2.33	62	750189	8.32	ug/l	100
6) Bromomethane	2.78	94	537696	8.87	ug/l	99
7) Chloroethane	2.88	64	478726	8.52	ug/l	95
8) Dichlorofluoromethane	2.93	67	1176367	10.33	ug/l	99
9) Trichlorofluoromethane	3.15	101	819216	10.45	ug/l	99
11) Acrolein	3.64	56	69220	30.20	ug/l	93
12) 1,1,2-Trichloro-1,2,2-trif	3.70	151	502646	11.25	ug/l	100
13) Acetone	3.71	43	212352	53.73	ug/l	92
14) 1,1-Dichloroethene	3.86	61	881064	10.18	ug/l	96
15) tert-Butyl alcohol	3.99	59	71794	54.45	ug/l	94
17) Iodomethane	4.25	142	1048946	11.80	ug/l	96
19) Methylene chloride	4.47	49	527799	9.67	ug/l	96
20) Carbon disulfide	4.49	76	1791319	7.71	ug/l	100
21) Acrylonitrile	4.63	53	254808	43.73	ug/l	100
22) tert-Butyl methyl ether (M	4.66	73	603949	9.03	ug/l	100
23) trans-1,2-Dichloroethene	4.85	61	766056	10.26	ug/l	94
24) Isopropyl ether (DIPE)	5.25	45	1414783	9.51	ug/l	98
25) 1,1-Dichloroethane	5.41	63	976388	10.52	ug/l	100
26) Vinyl acetate	5.41	43	417763	9.04	ug/l	100
28) tert-Butyl ethyl ether (ET	5.80	59	880705	8.17	ug/l	96
29) 2-Butanone	5.98	43	315773	47.70	ug/l	100
30) 2,2-Dichloropropane	6.17	77	649899	12.12	ug/l	98
31) cis-1,2-Dichloroethene	6.24	96	604825	10.96	ug/l	95
32) Chloroform	6.46	83	866972	10.63	ug/l	99
33) Bromochloromethane	6.69	49	287456	10.10	ug/l	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC349.D
Acq On : 23 Apr 2015 9:31 am
Sample : VO67D15L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Tetrahydrofuran	6.74	42	35259	9.94	ug/l		97
37)	1,1,1-Trichloroethane	7.03	97	804810	11.15	ug/l		99
40)	1,1-Dichloropropene	7.25	110	312153	11.10	ug/l		100
41)	Carbon tetrachloride	7.39	119	711452	10.88	ug/l		100
42)	tert-Amyl methyl ether (TA	7.42	87	149586	8.44	ug/l		97
44)	1,2-Dichloroethane	7.63	62	323507	10.44	ug/l		100
45)	Benzene	7.64	78	2204067	11.17	ug/l		99
46)	Trichloroethene	8.58	130	694859	11.18	ug/l		94
48)	1,2-Dichloropropane	8.86	63	456019	10.55	ug/l		99
49)	Bromodichloromethane	9.22	83	552991	11.05	ug/l		100
50)	1,4-Dioxane	9.26	88	26090	207.30	ug/l		90
51)	Dibromomethane	9.31	93	191527	11.03	ug/l		97
52)	2-Chloroethyl vinyl ether	9.72	63	4879	0.51	ug/l	#	38
53)	4-Methyl-2-pentanone	9.76	43	710580	43.60	ug/l		95
54)	cis-1,3-Dichloropropene	10.11	75	653227	10.62	ug/l		97
57)	Toluene	10.64	91	2311388	10.75	ug/l		100
58)	Ethyl methacrylate	10.94	69	220832	8.43	ug/l		98
59)	trans-1,3-Dichloropropene	10.96	75	426617	9.75	ug/l		96
60)	1,1,2-Trichloroethane	11.22	97	229810	10.82	ug/l		98
61)	2-Hexanone	11.24	43	471356	45.32	ug/l		98
62)	1,3-Dichloropropane	11.66	76	424681	10.35	ug/l		99
63)	Tetrachloroethene	11.76	164	548980	11.86	ug/l		99
64)	Dibromochloromethane	12.11	129	331222	11.23	ug/l		98
65)	1,2-Dibromoethane	12.48	107	225961	10.94	ug/l		100
66)	1-Chlorohexane	12.77	91	1015261	9.39	ug/l		97
67)	Chlorobenzene	13.22	112	1374098	11.44	ug/l		95
68)	1,1,1,2-Tetrachloroethane	13.31	131	437443	11.00	ug/l		99
69)	Ethylbenzene	13.33	91	2532378	10.29	ug/l		98
70)	m-Xylene & p-Xylene	13.47	91	3706467	21.04	ug/l		97
71)	o-Xylene	14.28	91	1792699	10.86	ug/l		97
72)	Styrene	14.35	104	1239725	9.87	ug/l		98
73)	Isopropylbenzene	14.96	105	2644361	11.57	ug/l		98
75)	Bromoform	14.98	173	159269	9.88	ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.30	83	225566	9.53	ug/l		99
78)	1,2,3-Trichloropropane	15.58	110	59806	9.86	ug/l		95
79)	trans-1,4-Dichloro-2-buten	15.72	53	41835	6.67	ug/l		99
80)	n-Propylbenzene	15.72	91	3122974	9.91	ug/l		97
81)	Bromobenzene	15.80	156	472635	10.59	ug/l		89
82)	1,3,5-Trimethylbenzene	16.03	105	1896282	9.82	ug/l		97
83)	2-Chlorotoluene	16.06	91	1714194	9.57	ug/l		95
84)	4-Chlorotoluene	16.15	91	1509420	9.93	ug/l		95

(#) = qualifier out of range (m) = manual integration

2024

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC349.D
Acq On : 23 Apr 2015 9:31 am
Sample : VO67D15L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85)	tert-Butylbenzene	16.72	134	492585	10.71	ug/l	92
86)	1,2,4-Trimethylbenzene	16.79	105	1810371	9.98	ug/l	96
87)	sec-Butylbenzene	17.14	105	2811642	10.08	ug/l	98
88)	p-Isopropyltoluene	17.42	119	2281715	10.13	ug/l	98
89)	1,3-Dichlorobenzene	17.58	146	962335	10.67	ug/l	98
90)	1,4-Dichlorobenzene	17.80	146	903527	10.45	ug/l	99
91)	n-Butylbenzene	18.18	91	2044985	9.54	ug/l	98
92)	1,2-Dichlorobenzene	18.43	146	732590	10.62	ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.57	157	32803	10.52	ug/l	94
94)	1,2,4-Trichlorobenzene	20.66	180	423199	9.99	ug/l	99
95)	Hexachlorobutadiene	20.84	225	390369	10.35	ug/l	99
96)	Naphthalene	21.00	128	460335	9.68	ug/l	100
97)	1,2,3-Trichlorobenzene	21.30	180	299469	9.99	ug/l	99

(#) = qualifier out of range (m) = manual integration

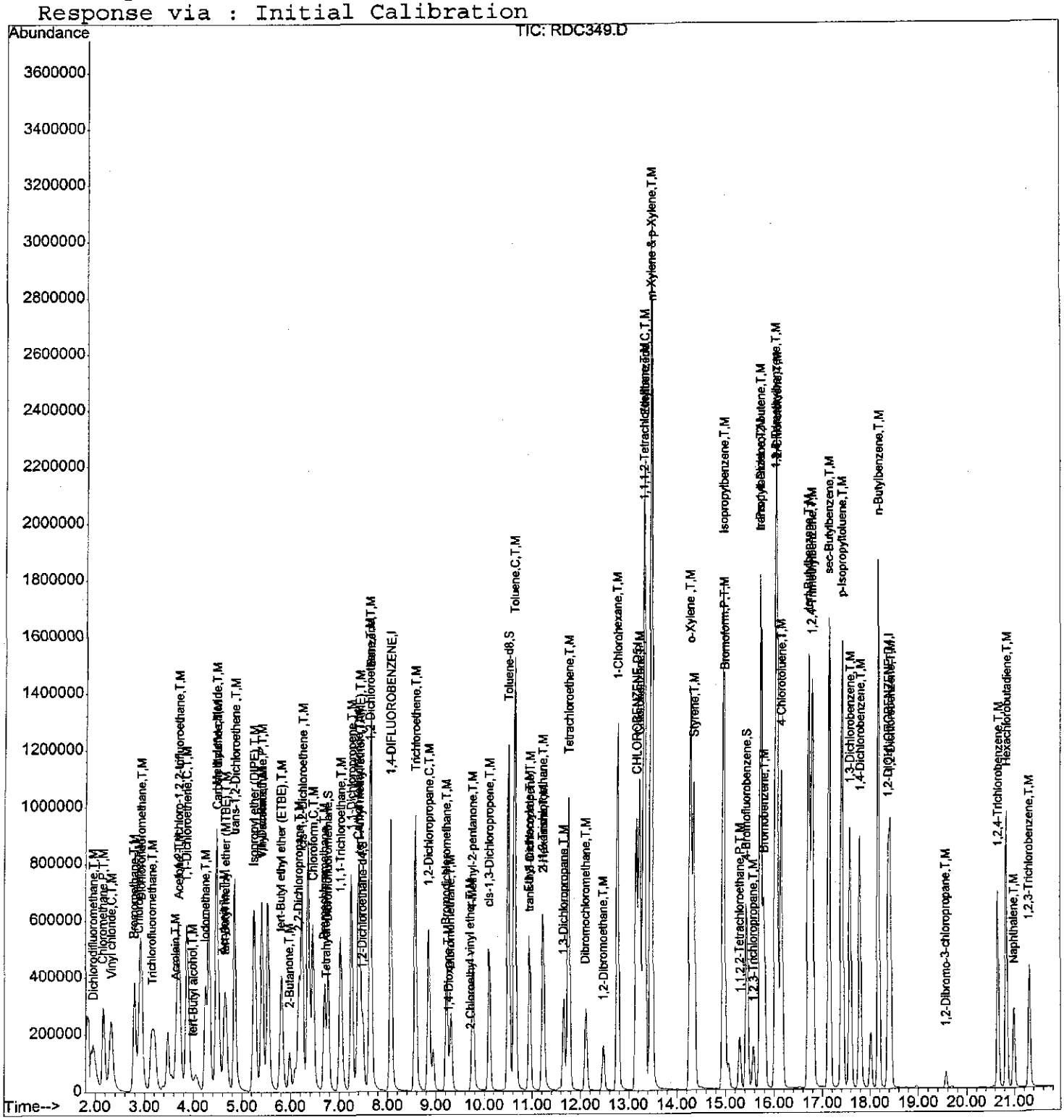
2025

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC349.D
Acq On : 23 Apr 2015 9:31 am
Sample : VO67D15L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



2026

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC350.D
Acq On : 23 Apr 2015 10:07 am
Sample : VO67D15C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:12 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1638293	10.00	ug/l	0.01
55) CHLOROBENZENE-D5	13.17	117	1246313	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	455320	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.75	111	476048	10.58	ug/l	0.00
Spiked Amount 10.000			Recovery = 105.80%			
43) 1,2-Dichloroethane-d4	7.48	65	230081	8.85	ug/l	0.01
Spiked Amount 10.000			Recovery = 88.50%			
56) Toluene-d8	10.51	98	1640962	8.91	ug/l	0.03
Spiked Amount 10.000			Recovery = 89.10%			
77) 4-Bromofluorobenzene	15.43	95	492269	8.67	ug/l	0.04
Spiked Amount 10.000			Recovery = 86.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	588509	10.65	ug/l	100
4) Chloromethane	2.17	50	681476	8.36	ug/l	100
5) Vinyl chloride	2.32	62	734088	8.24	ug/l	100
6) Bromomethane	2.78	94	530661	8.85	ug/l	99
7) Chloroethane	2.88	64	464488	8.36	ug/l	97
8) Dichlorofluoromethane	2.91	67	1142058	10.15	ug/l	100
9) Trichlorofluoromethane	3.15	101	787923	10.17	ug/l	99
11) Acrolein	3.62	56	65733	29.02	ug/l	94
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	496147	11.24	ug/l	100
13) Acetone	3.70	43	208111	53.28	ug/l	94
14) 1,1-Dichloroethene	3.86	61	868359	10.15	ug/l	97
15) tert-Butyl alcohol	3.98	59	71902	55.18	ug/l	99
17) Iodomethane	4.24	142	1040769	11.85	ug/l	96
19) Methylene chloride	4.46	49	532640	9.88	ug/l	96
20) Carbon disulfide	4.47	76	1749350	7.62	ug/l	99
21) Acrylonitrile	4.62	53	249949	43.40	ug/l	100
22) tert-Butyl methyl ether (M	4.65	73	608555	9.20	ug/l	99
23) trans-1,2-Dichloroethene	4.84	61	758522	10.28	ug/l	95
24) Isopropyl ether (DIPE)	5.25	45	1422070	9.67	ug/l	98
25) 1,1-Dichloroethane	5.39	63	960267	10.46	ug/l	100
26) Vinyl acetate	5.39	43	426321	9.33	ug/l	100
28) tert-Butyl ethyl ether (ET	5.80	59	942782	8.85	ug/l	96
29) 2-Butanone	5.96	43	312927	47.83	ug/l	100
30) 2,2-Dichloropropane	6.17	77	645142	12.17	ug/l	98
31) cis-1,2-Dichloroethene	6.23	96	597113	10.95	ug/l	96
32) Chloroform	6.44	83	869349	10.79	ug/l	99
33) Bromochloromethane	6.68	49	291794	10.38	ug/l	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC350.D
Acq On : 23 Apr 2015 10:07 am
Sample : VO67D15C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:12 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Tetrahydrofuran	6.72	42	36183	10.32 ug/l		96
37)	1,1,1-Trichloroethane	7.01	97	791464	11.09 ug/l		99
40)	1,1-Dichloropropene	7.25	110	308013	11.09 ug/l		100
41)	Carbon tetrachloride	7.39	119	704559	10.90 ug/l		99
42)	tert-Amyl methyl ether (TA	7.41	87	167884	9.58 ug/l		98
44)	1,2-Dichloroethane	7.61	62	322211	10.52 ug/l		100
45)	Benzene	7.64	78	2208017	11.32 ug/l		99
46)	Trichloroèthene	8.56	130	684777	11.15 ug/l		94
48)	1,2-Dichloropropane	8.84	63	457113	10.70 ug/l		98
49)	Bromodichloromethane	9.22	83	554162	11.21 ug/l		100
50)	1,4-Dioxane	9.25	88	26486	212.92 ug/l		91
51)	Dibromomethane	9.31	93	195842	11.41 ug/l		98
52)	2-Chloroethyl vinyl ether	9.72	63	7602	0.81 ug/l	#	63
53)	4-Methyl-2-pentanone	9.76	43	708871	44.00 ug/l		95
54)	cis-1,3-Dichloropropene	10.10	75	646269	10.63 ug/l		98
57)	Toluene	10.64	91	2310955	10.76 ug/l		100
58)	Ethyl methacrylate	10.93	69	224427	8.58 ug/l		98
59)	trans-1,3-Dichloropropene	10.94	75	425470	9.73 ug/l		96
60)	1,1,2-Trichloroethane	11.22	97	233823	11.02 ug/l		98
61)	2-Hexanone	11.24	43	476075	45.81 ug/l		97
62)	1,3-Dichloropropane	11.66	76	429188	10.47 ug/l		99
63)	Tetrachloroethene	11.76	164	544018	11.76 ug/l		99
64)	Dibromochloromethane	12.11	129	336541	11.41 ug/l		98
65)	1,2-Dibromoethane	12.48	107	227716	11.03 ug/l		99
66)	1-Chlorohexane	12.77	91	1030058	9.53 ug/l		97
67)	Chlorobenzene	13.22	112	1385973	11.55 ug/l		95
68)	1,1,1,2-Tetrachloroethane	13.31	131	438083	11.02 ug/l		98
69)	Ethylbenzene	13.33	91	2556981	10.39 ug/l		98
70)	m-Xylene & p-Xylene	13.47	91	3745834	21.28 ug/l		97
71)	o-Xylene	14.28	91	1805956	10.95 ug/l		97
72)	Styrene	14.35	104	1268056	10.10 ug/l		98
73)	Isopropylbenzene	14.96	105	2650987	11.60 ug/l		98
75)	Bromoform	14.98	173	160137	9.79 ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.28	83	231242	9.62 ug/l		99
78)	1,2,3-Trichloropropane	15.58	110	61110	9.93 ug/l		93
79)	trans-1,4-Dichloro-2-buten	15.72	53	41490	6.51 ug/l		99
80)	n-Propylbenzene	15.72	91	3172005	9.92 ug/l		97
81)	Bromobenzene	15.80	156	477842	10.55 ug/l		90
82)	1,3,5-Trimethylbenzene	16.03	105	1930954	9.86 ug/l		97
83)	2-Chlorotoluene	16.06	91	1738102	9.57 ug/l		95
84)	4-Chlorotoluene	16.15	91	1534082	9.95 ug/l		95

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\15D23\RDC350.D
Acq On : 23 Apr 2015 10:07 am
Sample : VO67D15C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:12 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85)	tert-Butylbenzene	16.73	134	500488	10.73	ug/l	93
86)	1,2,4-Trimethylbenzene	16.79	105	1861407	10.11	ug/l	97
87)	sec-Butylbenzene	17.14	105	2858369	10.10	ug/l	98
88)	p-Isopropyltoluene	17.42	119	2335775	10.22	ug/l	98
89)	1,3-Dichlorobenzene	17.58	146	979818	10.71	ug/l	99
90)	1,4-Dichlorobenzene	17.80	146	924316	10.54	ug/l	98
91)	n-Butylbenzene	18.18	91	2106217	9.68	ug/l	99
92)	1,2-Dichlorobenzene	18.43	146	746281	10.66	ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.57	157	33334	10.54	ug/l	95
94)	1,2,4-Trichlorobenzene	20.66	180	436611	10.15	ug/l	99
95)	Hexachlorobutadiene	20.84	225	399508	10.43	ug/l	100
96)	Naphthalene	21.00	128	478488	9.91	ug/l	100
97)	1,2,3-Trichlorobenzene	21.32	180	306649	10.07	ug/l	99

(#) = qualifier out of range (m) = manual integration

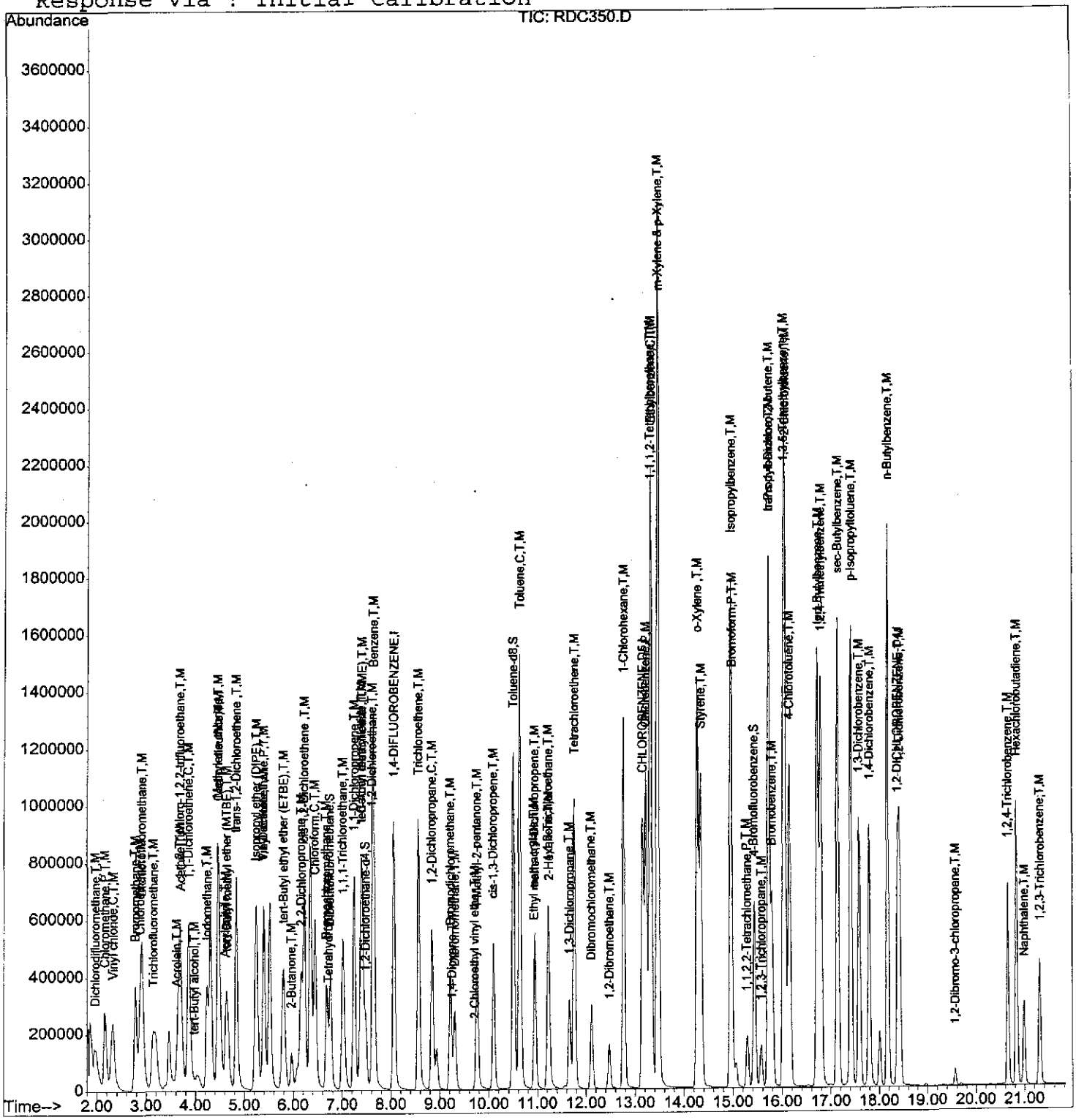
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC350.D
Acq On : 23 Apr 2015 10:07 am
Sample : VO67D15C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:12 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC362.D
Acq On : 23 Apr 2015 4:58 pm
Sample : 15D128-03 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:15 2015

Vial: 16
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1639613	10.00	ug/l	0.03
55) CHLOROBENZENE-D5	13.17	117	1230873	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	409704	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	479868	10.66	ug/l	0.03
Spiked Amount 10.000			Recovery =	106.60%		
43) 1,2-Dichloroethane-d4	7.50	65	239045	9.19	ug/l	0.03
Spiked Amount 10.000			Recovery =	91.90%		
56) Toluene-d8	10.51	98	1623081	8.92	ug/l	0.03
Spiked Amount 10.000			Recovery =	89.20%		
77) 4-Bromofluorobenzene	15.45	95	460986	9.03	ug/l	0.06
Spiked Amount 10.000			Recovery =	90.30%		
Target Compounds						Qvalue
48) 1,2-Dichloropropane	8.86	63	9642	0.23	ug/l	94
63) Tetrachloroethene	11.76	164	25757	0.56	ug/l	99

(#) = qualifier out of range (m) = manual integration

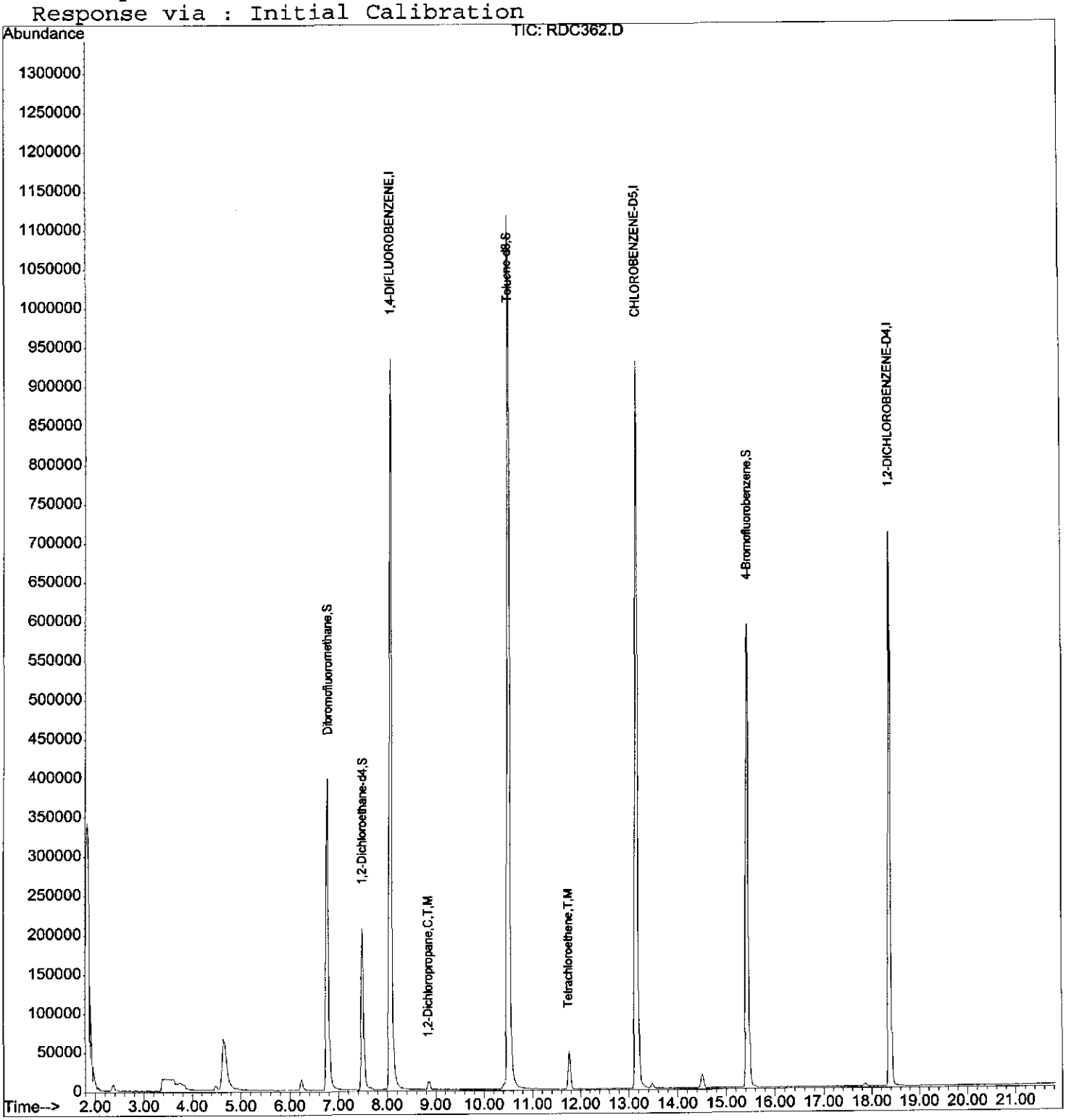
Quantitation Report

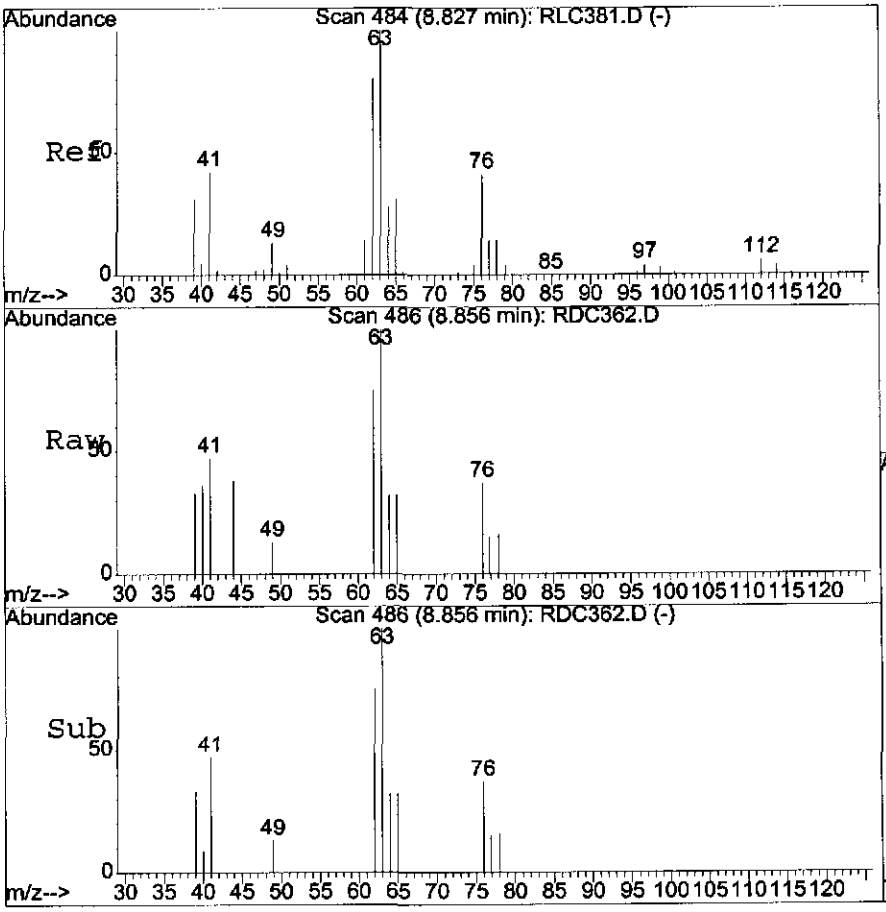
Data File : D:\HPCHEM\1\DATA\15D23\RDC362.D
Acq On : 23 Apr 2015 4:58 pm
Sample : 15D128-03 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:15 2015

Vial: 16
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration

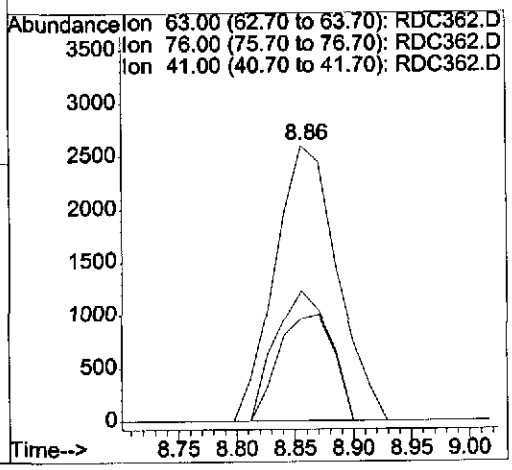


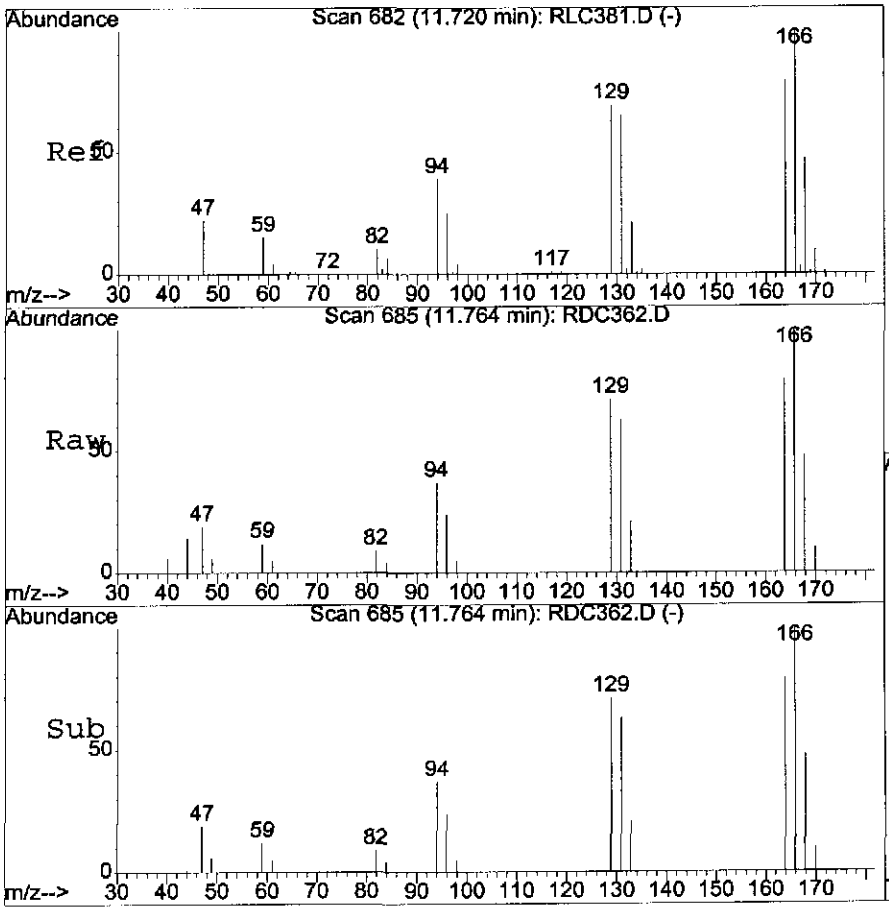


#48
1,2-Dichloropropane
Concen: 0.23 ug/l
RT: 8.86 min Scan# 486
Delta R.T. 0.03 min
Lab File: RDC362.D
Acq: 23 Apr 2015 4:58 pm

Tgt Ion: 63 Resp: 9642

Ion	Ratio	Lower	Upper
63	100		
76	33.9	10.3	70.3
41	41.0	12.5	72.5

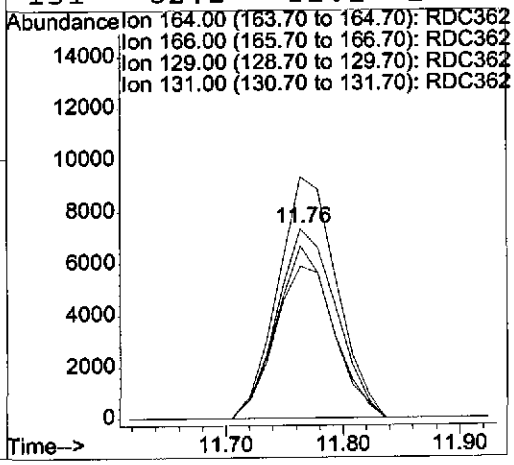




#63
Tetrachloroethene
Concen: 0.56 ug/l
RT: 11.76 min Scan# 685
Delta R.T. 0.04 min
Lab File: RDC362.D
Acq: 23 Apr 2015 4:58 pm

Tgt Ion:164 Resp: 25757

Ion	Ratio	Lower	Upper
164	100		
166	126.1	98.9	158.9
129	85.8	55.8	115.8
131	82.2	52.1	112.1



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC363.D Vial: 17
Acq On : 23 Apr 2015 5:33 pm Operator: SDuong
Sample : 15D128-03M 25mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1629698	10.00	ug/l	0.01
55) CHLOROBENZENE-D5	13.17	117	1243746	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	462265	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.77	111	479176	10.71	ug/l	0.01
Spiked Amount 10.000			Recovery =	107.10%		
43) 1,2-Dichloroethane-d4	7.48	65	234327	9.06	ug/l	0.01
Spiked Amount 10.000			Recovery =	90.60%		
56) Toluene-d8	10.51	98	1633096	8.89	ug/l	0.03
Spiked Amount 10.000			Recovery =	88.90%		
77) 4-Bromofluorobenzene	15.43	95	490797	8.52	ug/l	0.04
Spiked Amount 10.000			Recovery =	85.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.96	85	587609	10.69	ug/l	100
4) Chloromethane	2.17	50	661710	8.16	ug/l	100
5) Vinyl chloride	2.33	62	717393	8.09	ug/l	100
6) Bromomethane	2.78	94	518407	8.70	ug/l	99
7) Chloroethane	2.88	64	459039	8.31	ug/l	97
8) Dichlorofluoromethane	2.93	67	1124590	10.04	ug/l	99
9) Trichlorofluoromethane	3.17	101	779321	10.11	ug/l	100
11) Acrolein	3.64	56	65413	29.03	ug/l	96
12) 1,1,2-Trichloro-1,2,2-trif	3.70	151	493424	11.24	ug/l	100
13) Acetone	3.71	43	177052	45.57	ug/l	91
14) 1,1-Dichloroethene	3.86	61	873194	10.26	ug/l	96
15) tert-Butyl alcohol	3.97	59	71428	55.10	ug/l	89
17) Iodomethane	4.24	142	1025385	11.74	ug/l	96
19) Methylene chloride	4.46	49	535476	9.98	ug/l	96
20) Carbon disulfide	4.49	76	1715111	7.51	ug/l	99
21) Acrylonitrile	4.63	53	257539	44.95	ug/l	99
22) tert-Butyl methyl ether (M	4.66	73	623063	9.47	ug/l	100
23) trans-1,2-Dichloroethene	4.84	61	756865	10.31	ug/l	94
24) Isopropyl ether (DIPE)	5.25	45	1428609	9.77	ug/l	98
25) 1,1-Dichloroethane	5.41	63	972312	10.65	ug/l	100
26) Vinyl acetate	5.41	43	370467	8.15	ug/l	99
28) tert-Butyl ethyl ether (ET	5.80	59	965699	9.12	ug/l	96
29) 2-Butanone	5.98	43	294345	45.22	ug/l	100
30) 2,2-Dichloropropane	6.17	77	563051	10.68	ug/l	98
31) cis-1,2-Dichloroethene	6.24	96	606230	11.17	ug/l	95
32) Chloroform	6.46	83	875170	10.92	ug/l	99
33) Bromochloromethane	6.69	49	293664	10.50	ug/l	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC363.D
Acq On : 23 Apr 2015 5:33 pm
Sample : 15D128-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 17
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36)	Tetrahydrofuran	6.74	42	37325	10.71	ug/l	99
37)	1,1,1-Trichloroethane	7.03	97	781506	11.01	ug/l	99
40)	1,1-Dichloropropene	7.25	110	307449	11.12	ug/l	100
41)	Carbon tetrachloride	7.39	119	701098	10.90	ug/l	100
42)	tert-Amyl methyl ether (TA	7.42	87	169407	9.72	ug/l	96
44)	1,2-Dichloroethane	7.63	62	328045	10.77	ug/l	99
45)	Benzene	7.64	78	2179269	11.23	ug/l	99
46)	Trichloroethene	8.58	130	687346	11.25	ug/l	95
48)	1,2-Dichloropropane	8.85	63	471148	11.09	ug/l	98
49)	Bromodichloromethane	9.22	83	556498	11.31	ug/l	99
50)	1,4-Dioxane	9.26	88	26889	217.30	ug/l	88
51)	Dibromomethane	9.31	93	196238	11.49	ug/l	97
53)	4-Methyl-2-pentanone	9.76	43	721536	45.03	ug/l	95
54)	cis-1,3-Dichloropropene	10.11	75	641187	10.60	ug/l	98
57)	Toluene	10.64	91	2296316	10.71	ug/l	100
58)	Ethyl methacrylate	10.94	69	234473	8.98	ug/l	97
59)	trans-1,3-Dichloropropene	10.96	75	425562	9.75	ug/l	97
60)	1,1,2-Trichloroethane	11.22	97	235235	11.11	ug/l	97
61)	2-Hexanone	11.24	43	450004	43.39	ug/l	97
62)	1,3-Dichloropropane	11.66	76	433818	10.60	ug/l	99
63)	Tetrachloroethene	11.76	164	560821	12.15	ug/l	99
64)	Dibromochloromethane	12.13	129	339350	11.53	ug/l	98
65)	1,2-Dibromoethane	12.48	107	229306	11.13	ug/l	100
66)	1-Chlorohexane	12.77	91	1007386	9.34	ug/l	97
67)	Chlorobenzene	13.24	112	1381736	11.54	ug/l	95
68)	1,1,1,2-Tetrachloroethane	13.31	131	441015	11.12	ug/l	99
69)	Ethylbenzene	13.33	91	2511592	10.23	ug/l	98
70)	m-Xylene & p-Xylene	13.47	91	3677561	20.94	ug/l	98
71)	o-Xylene	14.28	91	1793136	10.89	ug/l	97
72)	Styrene	14.35	104	1290162	10.30	ug/l	98
73)	Isopropylbenzene	14.96	105	2624633	11.51	ug/l	98
75)	Bromoform	14.98	173	161471	9.72	ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.30	83	233555	9.57	ug/l	98
78)	1,2,3-Trichloropropane	15.58	110	61696	9.87	ug/l	94
79)	trans-1,4-Dichloro-2-buten	15.72	53	40945	6.33	ug/l	99
80)	n-Propylbenzene	15.72	91	3109368	9.58	ug/l	97
81)	Bromobenzene	15.80	156	476267	10.36	ug/l	90
82)	1,3,5-Trimethylbenzene	16.04	105	1880206	9.45	ug/l	96
83)	2-Chlorotoluene	16.06	91	1795755	9.73	ug/l	95
84)	4-Chlorotoluene	16.16	91	1398662	8.93	ug/l	95
85)	tert-Butylbenzene	16.73	134	491885	10.38	ug/l	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC363.D
Acq On : 23 Apr 2015 5:33 pm
Sample : 15D128-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 17
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	1,2,4-Trimethylbenzene	16.80	105	1786486	9.56	ug/l	96
87)	sec-Butylbenzene	17.14	105	2804199	9.76	ug/l	98
88)	p-Isopropyltoluene	17.42	119	2282427	9.84	ug/l	98
89)	1,3-Dichlorobenzene	17.59	146	954447	10.27	ug/l	99
90)	1,4-Dichlorobenzene	17.80	146	906665	10.18	ug/l	99
91)	n-Butylbenzene	18.18	91	2018438	9.14	ug/l	99
92)	1,2-Dichlorobenzene	18.43	146	751120	10.57	ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.56	157	33398	10.40	ug/l	93
94)	1,2,4-Trichlorobenzene	20.66	180	414277	9.49	ug/l	99
95)	Hexachlorobutadiene	20.84	225	382414	9.84	ug/l	100
96)	Naphthalene	21.00	128	421554	8.60	ug/l	100
97)	1,2,3-Trichlorobenzene	21.32	180	283106	9.16	ug/l	99

(#) = qualifier out of range (m) = manual integration

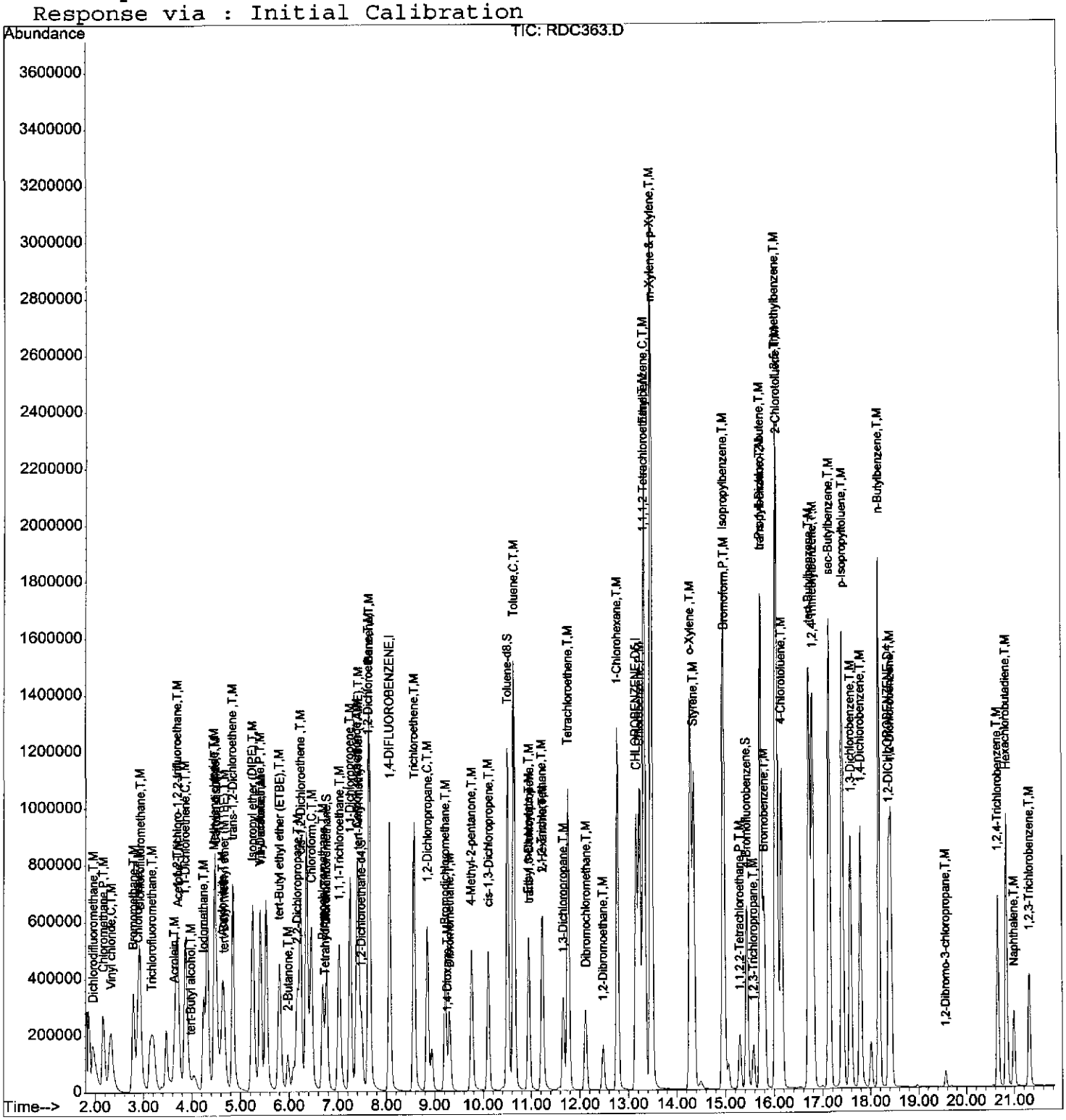
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC363.D
Acq On : 23 Apr 2015 5:33 pm
Sample : 15D128-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 17
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC364.D
Acq On : 23 Apr 2015 6:12 pm
Sample : 15D128-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1613430	10.00	ug/l	0.03
55) CHLOROBENZENE-D5	13.17	117	1249630	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	452849	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	477546	10.78	ug/l	0.03
Spiked Amount 10.000			Recovery =	107.80%		
43) 1,2-Dichloroethane-d4	7.50	65	235641	9.21	ug/l	0.03
Spiked Amount 10.000			Recovery =	92.10%		
56) Toluene-d8	10.51	98	1621264	8.78	ug/l	0.03
Spiked Amount 10.000			Recovery =	87.80%		
77) 4-Bromofluorobenzene	15.45	95	491007	8.70	ug/l	0.06
Spiked Amount 10.000			Recovery =	87.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	583805	10.73	ug/l	100
4) Chloromethane	2.17	50	665845	8.29	ug/l	100
5) Vinyl chloride	2.33	62	719840	8.20	ug/l	100
6) Bromomethane	2.79	94	517467	8.77	ug/l	99
7) Chloroethane	2.89	64	467371	8.54	ug/l	95
8) Dichlorofluoromethane	2.92	67	1133988	10.23	ug/l	100
9) Trichlorofluoromethane	3.18	101	769425	10.08	ug/l	100
11) Acrolein	3.64	56	64509	28.91	ug/l	94
12) 1,1,2-Trichloro-1,2,2-trif	3.70	151	498690	11.47	ug/l	99
13) Acetone	3.71	43	187695	48.79	ug/l	91
14) 1,1-Dichloroethene	3.87	61	856308	10.17	ug/l	95
15) tert-Butyl alcohol	3.99	59	71456	55.68	ug/l	86
17) Iodomethane	4.25	142	1027951	11.88	ug/l	96
19) Methylene chloride	4.47	49	530021	9.98	ug/l	95
20) Carbon disulfide	4.49	76	1717167	7.59	ug/l	99
21) Acrylonitrile	4.63	53	267343	47.13	ug/l	100
22) tert-Butyl methyl ether (M	4.66	73	636363	9.77	ug/l	99
23) trans-1,2-Dichloroethene	4.85	61	755523	10.39	ug/l	94
24) Isopropyl ether (DIPE)	5.26	45	1425514	9.84	ug/l	97
25) 1,1-Dichloroethane	5.41	63	959471	10.62	ug/l	100
26) Vinyl acetate	5.41	43	373921	8.31	ug/l	99
28) tert-Butyl ethyl ether (ET	5.82	59	961464	9.17	ug/l	96
29) 2-Butanone	5.99	43	304631	47.27	ug/l	99
30) 2,2-Dichloropropane	6.18	77	556863	10.67	ug/l	98
31) cis-1,2-Dichloroethene	6.24	96	605569	11.27	ug/l	94
32) Chloroform	6.46	83	878056	11.06	ug/l	99
33) Bromochloromethane	6.69	49	298940	10.80	ug/l	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC364.D
Acq On : 23 Apr 2015 6:12 pm
Sample : 15D128-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36)	Tetrahydrofuran	6.75	42	38826	11.25	ug/l	98
37)	1,1,1-Trichloroethane	7.03	97	766432	10.91	ug/l	99
40)	1,1-Dichloropropene	7.26	110	304832	11.14	ug/l	100
41)	Carbon tetrachloride	7.41	119	698256	10.97	ug/l	100
42)	tert-Amyl methyl ether (TA	7.42	87	173209	10.04	ug/l	96
44)	1,2-Dichloroethane	7.63	62	333472	11.06	ug/l	100
45)	Benzene	7.66	78	2182829	11.37	ug/l	99
46)	Trichloroethene	8.58	130	682197	11.27	ug/l	95
48)	1,2-Dichloropropane	8.86	63	467739	11.12	ug/l	99
49)	Bromodichloromethane	9.22	83	561866	11.54	ug/l	99
50)	1,4-Dioxane	9.26	88	26927	219.80	ug/l	92
51)	Dibromomethane	9.31	93	198593	11.75	ug/l	96
53)	4-Methyl-2-pentanone	9.78	43	740060	46.65	ug/l	95
54)	cis-1,3-Dichloropropene	10.11	75	637739	10.65	ug/l	98
57)	Toluene	10.65	91	2279527	10.58	ug/l	100
58)	Ethyl methacrylate	10.94	69	240353	9.16	ug/l	98
59)	trans-1,3-Dichloropropene	10.96	75	428570	9.77	ug/l	97
60)	1,1,2-Trichloroethane	11.22	97	236018	11.09	ug/l	98
61)	2-Hexanone	11.24	43	463345	44.47	ug/l	98
62)	1,3-Dichloropropane	11.66	76	445834	10.84	ug/l	99
63)	Tetrachloroethene	11.76	164	557666	12.03	ug/l	99
64)	Dibromochloromethane	12.13	129	344633	11.66	ug/l	98
65)	1,2-Dibromoethane	12.48	107	238930	11.54	ug/l	98
66)	1-Chlorohexane	12.77	91	999815	9.23	ug/l	97
67)	Chlorobenzene	13.24	112	1380257	11.47	ug/l	96
68)	1,1,1,2-Tetrachloroethane	13.31	131	443990	11.14	ug/l	99
69)	Ethylbenzene	13.34	91	2494344	10.11	ug/l	98
70)	m-Xylene & p-Xylene	13.47	91	3643675	20.65	ug/l	97
71)	o-Xylene	14.28	91	1784293	10.79	ug/l	98
72)	Styrene	14.35	104	1264726	10.05	ug/l	98
73)	Isopropylbenzene	14.96	105	2616349	11.42	ug/l	98
75)	Bromoform	14.98	173	164012	10.08	ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.30	83	240371	10.06	ug/l	99
78)	1,2,3-Trichloropropane	15.58	110	63592	10.39	ug/l	95
79)	trans-1,4-Dichloro-2-buten	15.72	53	40993	6.47	ug/l	99
80)	n-Propylbenzene	15.72	91	3112133	9.78	ug/l	97
81)	Bromobenzene	15.80	156	478657	10.63	ug/l	90
82)	1,3,5-Trimethylbenzene	16.04	105	1869243	9.59	ug/l	96
83)	2-Chlorotoluene	16.06	91	1796306	9.94	ug/l	95
84)	4-Chlorotoluene	16.16	91	1397343	9.11	ug/l	94
85)	tert-Butylbenzene	16.73	134	485988	10.47	ug/l	92

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\15D23\RDC364.D
Acq On : 23 Apr 2015 6:12 pm
Sample : 15D128-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	1,2,4-Trimethylbenzene	16.80	105	1782831	9.73	ug/l	96
87)	sec-Butylbenzene	17.14	105	2796943	9.93	ug/l	98
88)	p-Isopropyltoluene	17.42	119	2268387	9.98	ug/l	98
89)	1,3-Dichlorobenzene	17.59	146	962373	10.57	ug/l	98
90)	1,4-Dichlorobenzene	17.80	146	905624	10.38	ug/l	99
91)	n-Butylbenzene	18.18	91	2008861	9.29	ug/l	99
92)	1,2-Dichlorobenzene	18.43	146	745696	10.71	ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.57	157	34616	11.00	ug/l	94
94)	1,2,4-Trichlorobenzene	20.66	180	431243	10.08	ug/l	99
95)	Hexachlorobutadiene	20.84	225	387020	10.16	ug/l	99
96)	Naphthalene	21.00	128	479229	9.98	ug/l	100
97)	1,2,3-Trichlorobenzene	21.32	180	304312	10.05	ug/l	99

(#) = qualifier out of range (m) = manual integration

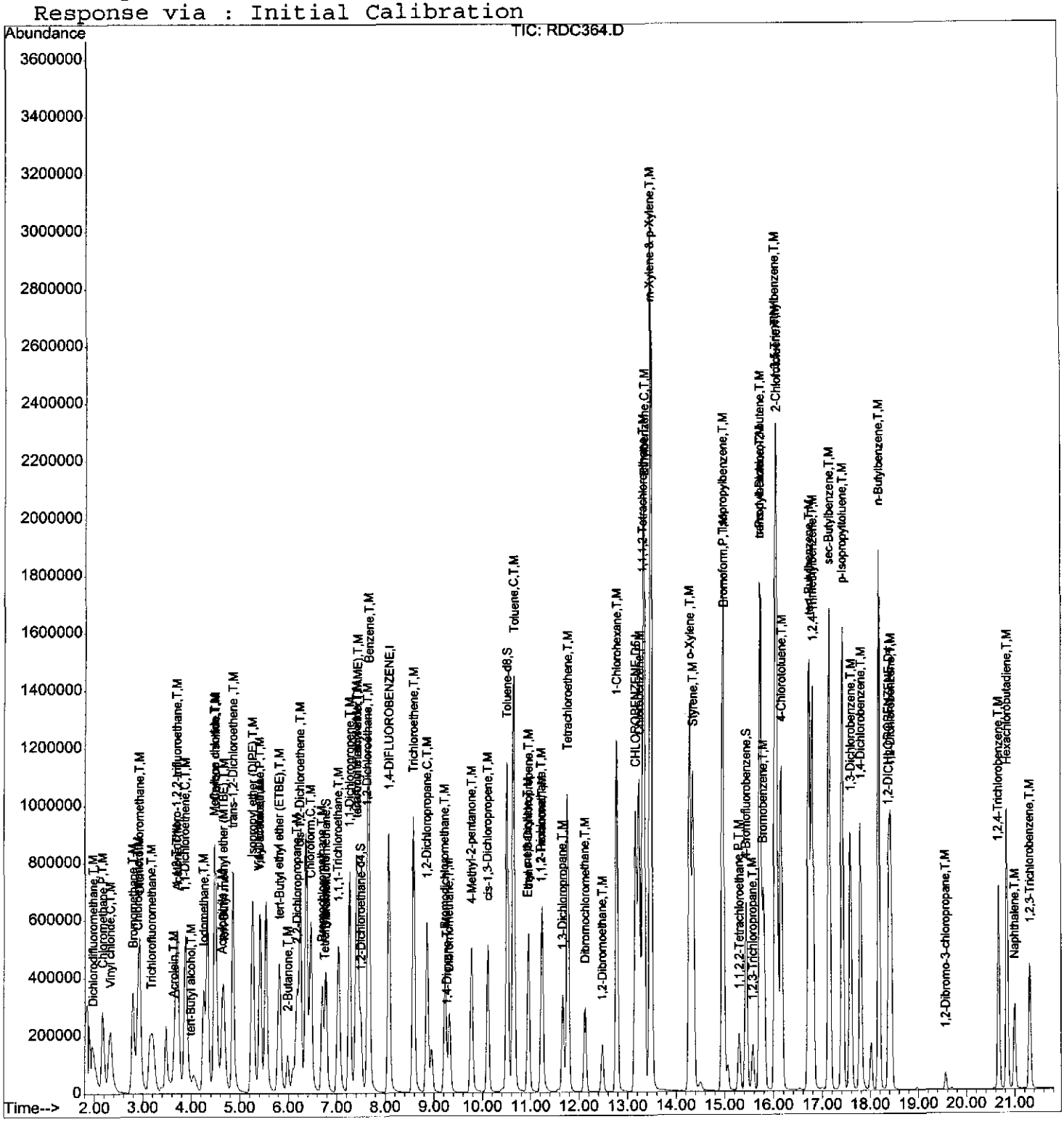
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC364.D
Acq On : 23 Apr 2015 6:12 pm
Sample : 15D128-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: Apr 30 17:16 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RLC377
Instrument ID: 67
GC Column:RTX502.2(D:0.25mm (mm)

Contract: B & B, CITY WELL SAMPLING
SAS No.: SDG No.: 15D128
BFB Injection Date : 12/18/14
BFB Injection Time : 19:59
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.39
75	30.0 - 60.0% of mass 95	45.67
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.78
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	88.43
175	5.0 - 9.0% of mass 174	6.93(7.8)1
176	95.0 - 101.0% of mass 174	86.24(97.5)1
177	5.0 - 9.0% of mass 176	5.51(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD01	V067L1801	RLC378	12/18/14	20:33
2	VSTD02	V067L1802	RLC379	12/18/14	21:07
3	VSTD05	V067L1803	RLC380	12/18/14	21:37
4	VSTD010	V067L1804	RLC381	12/18/14	22:11
5	VSTD020	V067L1805	RLC382	12/18/14	22:44
6	VSTD030	V067L1806	RLC383	12/18/14	23:19
7	VSTD050	V067L1807	RLC384	12/18/14	23:52
8	VSTD100	V067L1808	RLC385	12/19/14	00:26
9	VSTD0.3	V067L1809	RLC389	12/19/14	02:39
10	VSTD0.5	V067L1810	RLC390	12/19/14	03:13

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :12/18/14 20:33
Spike Units :PPB
IC File :RLC381

Column Spec :RTX502.2 ID :0.25MM
Ending DateTime :12/19/14 03:13
HPChem Method :V067L18

M	IDX	Parameters	.3 02:39 RLC389	.5 03:13 RLC390	1 20:33 RLC378	2 21:07 RLC379	5 21:37 RLC380	10 22:11 RLC381	20 22:44 RLC382	30 23:19 RLC383	50 23:52 RLC384	100 00:26 RLC385	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	8.0389
	2	Dichlorodifluoromethane	0.274	0.249	0.356	0.380	0.378	0.362	0.361	0.364	0.309	0.340	0.337	13.31	1.9628
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	------	0.357	0.505	0.533	0.528	0.521	0.528	0.536	0.452	0.521	0.498	11.81	2.1395
	5	Vinyl chloride	------	0.361	0.541	0.566	0.578	0.576	0.593	0.603	0.519	0.559	0.544	13.43	2.2756
	6	Bromomethane	0.223	0.231	0.332	0.370	0.370	0.373	0.384	0.398	0.344	------	0.336	19.31	2.7690
	7	Chloroethane	0.308	0.259	0.356	0.374	0.363	0.351	0.350	0.358	0.309	0.362	0.339	10.52	2.8638
	8	Dichlorofluoromethane	0.604	0.651	0.683	0.643	0.710	0.687	0.730	0.733	0.687	0.744	0.687	6.49	2.8980
	9	Trichlorofluoromethane	------	0.313	0.459	0.496	0.513	0.495	0.514	0.520	0.446	0.501	0.473	13.72	3.1597
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
5	11	Acrolein	------	0.014	0.015	0.014	0.013	0.013	0.014	0.014	------	------	0.014	4.63	3.6228
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.282	0.259	0.268	0.256	0.278	0.263	0.276	0.280	0.257	0.274	0.269	3.67	3.6687
5	13	Acetone	------	------	0.031	0.026	0.024	0.022	0.023	0.023	0.021	0.022	0.024	13.42	3.6925
	14	1,1-Dichloroethene	0.496	0.502	0.534	0.510	0.549	0.519	0.544	0.537	0.498	0.530	0.522	3.74	3.8542
5	15	tert-Butyl alcohol	------	------	0.007	0.007	0.008	0.008	0.008	0.009	0.008	0.009	0.008	7.93	3.9537
	16	Methyl acetate	------	------	0.111	0.094	0.076	0.076	0.074	0.080	0.075	0.079	0.083	15.31	4.2550
	17	Iodomethane	0.467	0.509	0.528	0.513	0.554	0.538	0.565	0.569	0.534	0.585	0.536	6.48	4.2312
10	18	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	19	Methylene chloride	0.414	0.350	0.316	0.314	0.320	0.311	0.325	0.322	0.301	0.318	0.329	9.85	4.4445
	20	Carbon disulfide	------	1.062	1.299	1.488	1.480	1.390	1.425	1.468	1.508	1.499	1.402	10.25	4.4675
5	21	Acrylonitrile	0.036	0.036	0.031	0.032	0.035	0.034	0.037	0.037	0.035	0.037	0.035	5.91	4.6067
	22	tert-Butyl methyl ether (MTBE)	0.379	0.420	0.361	0.373	0.406	0.407	0.431	0.425	0.406	0.429	0.404	6.11	4.6432
	23	trans-1,2-Dichloroethene	0.438	0.447	0.446	0.432	0.473	0.446	0.466	0.466	0.433	0.459	0.451	3.22	4.8244
	24	Isopropyl ether (DIPE)	0.892	0.909	0.853	0.832	0.888	0.893	0.940	0.939	0.888	0.940	0.898	4.05	5.2321
	25	1,1-Dichloroethane	0.504	0.560	0.564	0.542	0.577	0.554	0.584	0.582	0.549	0.584	0.560	4.45	5.3826
	26	Vinyl acetate	0.199	0.234	0.255	0.298	0.290	0.302	0.306	0.312	0.277	0.317	0.279	13.77	5.3826
5	27	2-Butanol	------	------	0.007	0.006	0.006	0.006	0.006	0.007	0.006	0.007	0.007	6.35	5.6851
	28	tert-Butyl ethyl ether (ETBE)	0.598	0.639	0.588	0.609	0.657	0.656	0.694	0.693	0.662	0.704	0.650	6.36	5.7859
5	29	2-Butanone	------	0.048	0.036	0.036	0.038	0.038	0.042	0.041	0.039	0.041	0.040	9.24	5.9530
	30	2,2-Dichloropropane	0.298	0.298	0.364	0.345	0.353	0.338	0.338	0.328	0.292	0.283	0.324	8.85	6.1511
	31	cis-1,2-Dichloroethene	0.314	0.331	0.314	0.312	0.336	0.332	0.348	0.348	0.331	0.365	0.333	5.15	6.2125
	32	Chloroform	0.465	0.482	0.477	0.468	0.508	0.488	0.512	0.516	0.480	0.523	0.492	4.26	6.4317
	33	Bromochloromethane	0.151	0.179	0.160	0.160	0.179	0.177	0.180	0.180	0.170	0.181	0.172	6.34	6.6625
5	34	tert-Amyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	35	Dibromofluoromethane	0.209	0.209	0.254	0.275	0.264	0.302	0.301	0.300	0.299	0.332	0.275	14.92	6.7385
	36	Tetrahydrofuran	------	------	0.022	0.022	0.022	0.023	0.022	0.021	0.020	0.021	0.021	4.19	6.7097
	37	1,1,1-Trichloroethane	0.379	0.418	0.444	0.427	0.459	0.440	0.458	0.457	0.426	0.447	0.435	5.62	7.0001
	38	Cyclohexane	------	------	0.698	0.726	0.747	0.646	0.683	0.727	0.682	0.744	0.707	5.02	7.0166
	39	2,2,4-Trimethylpentane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	40	1,1-Dichloropropene	0.167	0.163	0.168	0.153	0.175	0.168	0.174	0.178	0.167	0.183	0.170	4.92	7.2251
	41	Carbon tetrachloride	0.362	0.380	0.399	0.377	0.413	0.396	0.412	0.415	0.385	0.407	0.395	4.53	7.3683
	42	tert-Amyl methyl ether (TAME)	0.092	0.108	0.095	0.098	0.106	0.110	0.116	0.115	0.110	0.118	0.107	8.35	7.3960
	43	1,2-Dichloroethane-d4	0.138	0.132	0.149	0.160	0.151	0.174	0.171	0.168	0.167	0.178	0.159	9.82	7.4588
	44	1,2-Dichloroethane	0.176	0.186	0.173	0.179	0.189	0.191	0.200	0.196	0.185	0.194	0.187	4.67	7.5991
	45	Benzene	1.122	1.178	1.168	1.122	1.195	1.170	1.223	1.239	1.181	1.306	1.190	4.61	7.6167
	46	Trichloroethene	------	0.458	0.420	0.364	0.357	0.342	0.357	0.358	0.340	0.377	0.375	10.45	8.5473
	47	Methylcyclohexane	------	------	0.680	0.724	0.772	0.666	0.711	0.763	0.711	0.794	0.727	6.20	8.6348
	48	1,2-Dichloropropane	0.258	0.261	0.246	0.244	0.265	0.258	0.271	0.270	0.257	0.277	0.261	4.08	8.8177
	49	Bromodichloromethane	0.289	0.294	0.283	0.279	0.306	0.305	0.318	0.317	0.304	0.323	0.302	4.99	9.1903
20	50	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	13.06	9.2247
	51	Dibromomethane	0.090	0.101	0.097	0.098	0.106	0.107	0.113	0.113	0.108	0.115	0.105	7.78	9.2765
	52	2-Chloroethyl vinyl ether	------	------	0.048	0.051	0.059	0.063	0.068	------	------	------	0.057	14.24	9.6857
5	53	4-Methyl-2-pentanone	0.105	0.101	0.089	0.089	0.095	0.097	0.103	0.103	0.099	0.104	0.098	6.18	9.7324
	54	cis-1,3-Dichloropropene	0.343	0.361	0.346	0.345	0.376	0.375	0.397	0.391	0.375	0.403	0.371	5.97	10.0685
	55	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	13.1222
	56	Toluene-d8	1.351	1.154	1.414	1.458	1.380	1.547	1.536	1.569	1.577	1.791	1.478	11.50	10.4761
	57	Toluene	1.653	1.789	1.760	1.626	1.744	1.669	1.712	1.775	1.680	1.829	1.724	3.83	10.6076
	58	Ethyl methacrylate	0.199	0.198	0.183	0.190	0.209	0.213	0.225	0.228	0.217	0.237	0.210	8.33	10.9028

SC
12/24/14

59	trans-1,3-Dichloropropene	0.344	0.343	0.324	0.325	0.355	0.354	0.366	0.370	0.349	0.380	0.351	5.18	10.9159
60	1,1,2-Trichloroethane	0.164	0.165	0.162	0.154	0.171	0.169	0.177	0.180	0.171	0.189	0.170	5.72	11.1833
5 61	2-Hexanone	0.098	0.089	0.079	0.075	0.080	0.079	0.084	0.085	0.081	0.084	0.083	7.80	11.2008
62	1,3-Dichloropropane	0.326	0.335	0.312	0.304	0.330	0.328	0.337	0.346	0.323	0.349	0.329	4.21	11.6187
63	Tetrachloroethene	0.387	0.361	0.375	0.349	0.377	0.359	0.370	0.383	0.357	0.392	0.371	3.87	11.7225
64	Dibromochloromethane	0.225	0.229	0.224	0.216	0.235	0.238	0.250	0.252	0.238	0.258	0.237	5.72	12.0848
65	1,2-Dibromoethane	0.165	0.168	0.154	0.151	0.166	0.164	0.172	0.174	0.165	0.177	0.166	4.99	12.4355
66	1-Chlorohexane	0.886	0.827	0.871	0.806	0.887	0.841	0.875	0.909	0.845	0.925	0.867	4.29	12.7394
67	Chlorobenzene	1.003	0.940	0.930	0.879	0.962	0.934	0.973	1.006	0.942	1.060	0.963	5.23	13.1953
68	1,1,1,2-Tetrachloroethane	0.291	0.312	0.303	0.289	0.317	0.313	0.331	0.338	0.326	0.369	0.319	7.44	13.2757
69	Ethylbenzene	1.944	1.922	1.947	1.842	1.995	1.928	2.026	2.080	1.975	2.081	1.974	3.76	13.2917
2 70	m-Xylene & p-Xylene	1.468	1.398	1.393	1.311	1.434	1.369	1.436	1.487	1.414	------	1.412	3.74	13.4290
71	o-Xylene	1.321	1.301	1.309	1.244	1.348	1.289	1.343	1.386	1.294	1.404	1.324	3.59	14.2356
72	Styrene	0.967	0.998	0.947	0.921	1.001	0.992	1.044	1.065	1.011	1.124	1.007	5.87	14.3087
73	Isopropylbenzene	1.803	1.766	1.836	1.702	1.881	1.807	1.874	1.932	1.797	1.935	1.833	4.02	14.9194
74	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.3531
75	Bromoform	0.333	0.330	0.329	0.320	0.352	0.349	0.373	0.389	0.375	0.443	0.359	10.37	14.9341
76	1,1,2,2-Tetrachloroethane	0.495	0.543	0.493	0.487	0.522	0.524	0.544	0.558	0.531	0.581	0.528	5.75	15.2555
77	4-Bromofluorobenzene	1.485	1.111	1.189	1.218	1.101	1.235	1.220	1.241	1.239	1.425	1.246	9.77	15.3928
78	1,2,3-Trichloropropane	0.096	0.143	0.121	0.135	0.141	0.136	0.143	0.146	0.140	0.151	0.135	11.66	15.5346
79	trans-1,4-Dichloro-2-butene	------	0.134	0.129	0.131	0.141	0.139	0.147	0.150	0.140	0.147	0.140	5.37	15.6761
80	n-Propylbenzene	7.246	6.793	7.268	6.582	7.201	6.743	7.061	7.342	6.939	7.061	7.024	3.61	15.6836
81	Bromobenzene	1.051	0.992	0.952	0.918	0.990	0.948	0.991	1.030	0.969	1.104	0.994	5.51	15.7552
82	1,3,5-Trimethylbenzene	4.249	4.080	4.317	3.985	4.382	4.116	4.288	4.559	4.209	4.838	4.302	5.78	15.9963
83	2-Chlorotoluene	4.288	3.840	3.958	3.894	3.938	3.711	3.831	4.041	3.972	4.431	3.991	5.45	16.0153
84	4-Chlorotoluene	3.679	3.525	3.473	3.043	3.402	3.221	3.393	3.515	3.065	3.559	3.388	6.28	16.1132
85	tert-Butylbenzene	0.998	0.953	1.042	0.934	1.064	0.977	1.033	1.085	1.009	1.153	1.025	6.40	16.6830
86	1,2,4-Trimethylbenzene	4.129	3.887	4.067	3.793	4.132	3.872	4.075	4.216	3.886	4.387	4.044	4.56	16.7561
87	sec-Butylbenzene	6.403	5.898	6.462	5.857	6.373	5.973	6.238	6.531	5.994	6.449	6.218	4.19	17.0965
88	p-Isopropyltoluene	5.152	4.706	5.112	4.661	5.205	4.862	5.076	5.274	4.824	5.320	5.019	4.73	17.3741
89	1,3-Dichlorobenzene	2.333	2.046	1.934	1.830	1.977	1.902	1.978	2.066	1.907	2.123	2.010	7.12	17.5392
90	1,4-Dichlorobenzene	2.294	1.999	1.845	1.743	1.918	1.803	1.894	1.946	1.811	2.013	1.927	8.07	17.7540
91	n-Butylbenzene	5.104	4.525	4.930	4.480	4.924	4.632	4.795	4.999	4.507	4.877	4.777	4.72	18.1354
92	1,2-Dichlorobenzene	1.709	1.612	1.462	1.416	1.530	1.478	1.529	1.567	1.462	1.612	1.538	5.79	18.3969
93	1,2-Dibromo-3-chloropropane	------	0.066	0.053	0.066	0.070	0.071	0.076	0.076	0.072	0.077	0.069	10.82	19.5367
94	1,2,4-Trichlorobenzene	1.239	1.000	0.829	0.812	0.904	0.907	0.947	0.963	0.878	0.968	0.945	12.69	20.6325
95	Hexachlorobutadiene	0.975	0.854	0.866	0.787	0.868	0.815	0.825	0.851	0.754	0.813	0.841	7.07	20.8078
96	Naphthalene	------	1.235	0.861	0.909	1.029	1.046	1.125	1.134	1.057	1.146	1.060	11.13	20.9540
97	1,2,3-Trichlorobenzene	0.874	0.745	0.553	0.565	0.641	0.646	0.678	0.677	0.625	0.679	0.668	13.72	21.2754

Spike Amount = Nominal Amount * M
Ave_%RSD : 7.4 Max_%RSD : 19.3

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
6	Bromomethane	-0.00429	0.37065	0.9978
16	Methyl acetate	0.00256	0.07707	0.9993

Sq
12/24/14

CTS02

Compound List Report TO67

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	8.05	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.97	0.244	A	1	A	B
3	T	Dichlorotetrafluoroethane	85	0.00	0.000	A	2	A	B
4	T	Chloromethane	50	2.14	0.265	A	1	A	B
5	T	Vinyl chloride	62	2.28	0.283	A	1	A	B
6	T	Bromomethane	94	2.78	0.345	L	1	A	B
7	T	Chloroethane	64	2.86	0.356	A	2	A	B
8	T	Dichlorofluoromethane	67	2.91	0.361	A	1	A	B
9	T	Trichlorofluoromethane	101	3.16	0.393	A	1	A	B
10	T	sec-Propyl alcohol	45	0.00	0.000	A	1	A	B
11	T	Acrolein	56	3.63	0.450	A	1	A	B
12	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.67	0.456	A	1	A	B
13	T	Acetone	43	3.70	0.459	A	2	A	B
14	T	1,1-Dichloroethene	61	3.86	0.479	A	2	A	B
15	T	tert-Butyl alcohol	59	3.96	0.492	A	1	A	B
16	T	Methyl acetate	43	4.27	0.530	L	1	A	B
17	T	Iodomethane	142	4.24	0.526	A	1	A	B
18	T	Acetonitrile	41	4.31	0.535	A	2	A	B
19	T	Methylene chloride	49	4.46	0.554	A	2	A	B
20	T	Carbon disulfide	76	4.47	0.555	A	1	A	B
21	T	Acrylonitrile	53	4.62	0.574	A	2	A	B
22	T	tert-Butyl methyl ether (MTBE)	73	4.65	0.577	A	1	A	B
23	T	trans-1,2-Dichloroethene	61	4.84	0.601	A	2	A	B
24	T	Isopropyl ether (DIPE)	45	5.23	0.650	A	1	A	B
25	T	1,1-Dichloroethane	63	5.39	0.670	A	2	A	B
26	T	Vinyl acetate	43	5.39	0.670	A	1	A	B
27	T	2-Butanol	45	5.68	0.706	A	1	A	B
28	T	tert-Butyl ethyl ether (ETBE)	59	5.79	0.719	A	1	A	B
29	T	2-Butanone	43	5.96	0.741	A	1	A	B
30	T	2,2-Dichloropropane	77	6.15	0.764	A	2	A	B
31	T	cis-1,2-Dichloroethene	96	6.23	0.773	A	2	A	B
32	T	Chloroform	83	6.45	0.800	A	2	A	B
33	T	Bromochloromethane	49	6.66	0.828	A	2	A	B
34	T	tert-Amyl alcohol	59	0.00	0.000	A	2	A	B
35	S	Dibromofluoromethane	111	6.75	0.838	A	2	A	B
36	T	Tetrahydrofuran	42	6.71	0.833	A	2	A	B
37	T	1,1,1-Trichloroethane	97	7.00	0.869	A	2	A	B
38	T	Cyclohexane	56	7.03	0.873	A	2	A	B
39	T	2,2,4-Trimethylpentane	57	0.00	0.000	A	3	A	B
40	T	1,1-Dichloropropene	110	7.23	0.898	A	1	A	B
41	T	Carbon tetrachloride	119	7.38	0.917	A	1	A	B
42	T	tert-Amyl methyl ether (TAME)	87	7.39	0.918	A	2	A	B
43	S	1,2-Dichloroethane-d4	65	7.47	0.927	A	1	A	B
44	T	1,2-Dichloroethane	62	7.60	0.944	A	1	A	B
45	T	Benzene	78	7.63	0.947	A	2	A	B
46	T	Trichloroethene	130	8.55	1.062	A	3	A	B
47	T	Methylcyclohexane	83	8.64	1.072	A	2	A	B
48	T	1,2-Dichloropropane	63	8.83	1.096	A	2	A	B
49	T	Bromodichloromethane	83	9.19	1.142	A	1	A	B
50	T	1,4-Dioxane	88	9.24	1.147	A	1	A	B
51	T	Dibromomethane	93	9.28	1.152	A	2	A	B
52	T	2-Chloroethyl vinyl ether	63	9.69	1.203	A	2	A	B
53	T	4-Methyl-2-pentanone	43	9.73	1.209	A	3	A	B

12/24/14

54		T	cis-1,3-Dichloropropene	75	10.07	1.250	A	3	A	B
55	I		CHLOROBENZENE-D5	117	13.12	1.000	A	2	A	B
56		S	Toluene-d8	98	10.48	0.798	A	1	A	B
57		T	Toluene	91	10.61	0.808	A	1	A	B
58		T	Ethyl methacrylate	69	10.90	0.831	A	2	A	B
59		T	trans-1,3-Dichloropropene	75	10.92	0.832	A	2	A	B
60		T	1,1,2-Trichloroethane	97	11.18	0.852	A	3	A	B
61		T	2-Hexanone	43	11.19	0.853	A	2	A	B
62		T	1,3-Dichloropropane	76	11.62	0.885	A	1	A	B
63		T	Tetrachloroethene	164	11.72	0.893	A	3	A	B
64		T	Dibromochloromethane	129	12.09	0.921	A	1	A	B
65		T	1,2-Dibromoethane	107	12.44	0.948	A	1	A	B
66		T	1-Chlorohexane	91	12.74	0.971	A	3	A	B
67	P,M		Chlorobenzene	112	13.20	1.006	A	3	A	B
68		T	1,1,1,2-Tetrachloroethane	131	13.27	1.011	A	3	A	B
69		T	Ethylbenzene	91	13.28	1.012	A	1	A	B
70		T	m-Xylene & p-Xylene	91	13.43	1.023	A	1	A	B
71		T	o-Xylene	91	14.23	1.085	A	1	A	B
72		T	Styrene	104	14.31	1.090	A	2	A	B
73		T	Isopropylbenzene	105	14.92	1.137	A	3	A	B
74	I		1,2-DICHLOROBENZENE-D4	152	18.35	1.000	A	1	A	B
75		T	Bromoform	173	14.93	0.814	A	2	A	B
76		T	1,1,2,2-Tetrachloroethane	83	15.26	0.831	A	1	A	B
77		S	4-Bromofluorobenzene	95	15.39	0.838	A	2	A	B
78		T	1,2,3-Trichloropropane	110	15.53	0.846	A	1	A	B
79		T	trans-1,4-Dichloro-2-butene	53	15.68	0.854	A	1	A	B
80		T	n-Propylbenzene	91	15.68	0.854	A	2	A	B
81		T	Bromobenzene	156	15.75	0.858	A	2	A	B
82		T	1,3,5-Trimethylbenzene	105	15.99	0.871	A	2	A	B
83		T	2-Chlorotoluene	91	16.02	0.873	A	1	A	B
84		T	4-Chlorotoluene	91	16.10	0.877	A	1	A	B
85		T	tert-Butylbenzene	134	16.67	0.908	A	2	A	B
86		T	1,2,4-Trimethylbenzene	105	16.75	0.912	A	1	A	B
87		T	sec-Butylbenzene	105	17.10	0.932	A	1	A	B
88		T	p-Isopropyltoluene	119	17.37	0.947	A	2	A	B
89		T	1,3-Dichlorobenzene	146	17.54	0.955	A	2	A	B
90		T	1,4-Dichlorobenzene	146	17.75	0.967	A	2	A	B
91		T	n-Butylbenzene	91	18.13	0.988	A	2	A	B
92		T	1,2-Dichlorobenzene	146	18.40	1.002	A	2	A	B
93		T	1,2-Dibromo-3-chloropropane	157	19.54	1.064	A	2	A	B
94		T	1,2,4-Trichlorobenzene	180	20.63	1.124	A	2	A	B
95		T	Hexachlorobutadiene	225	20.81	1.134	A	2	A	B
96		T	Naphthalene	128	20.95	1.142	A	1	A	B
97		T	1,2,3-Trichlorobenzene	180	21.28	1.159	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

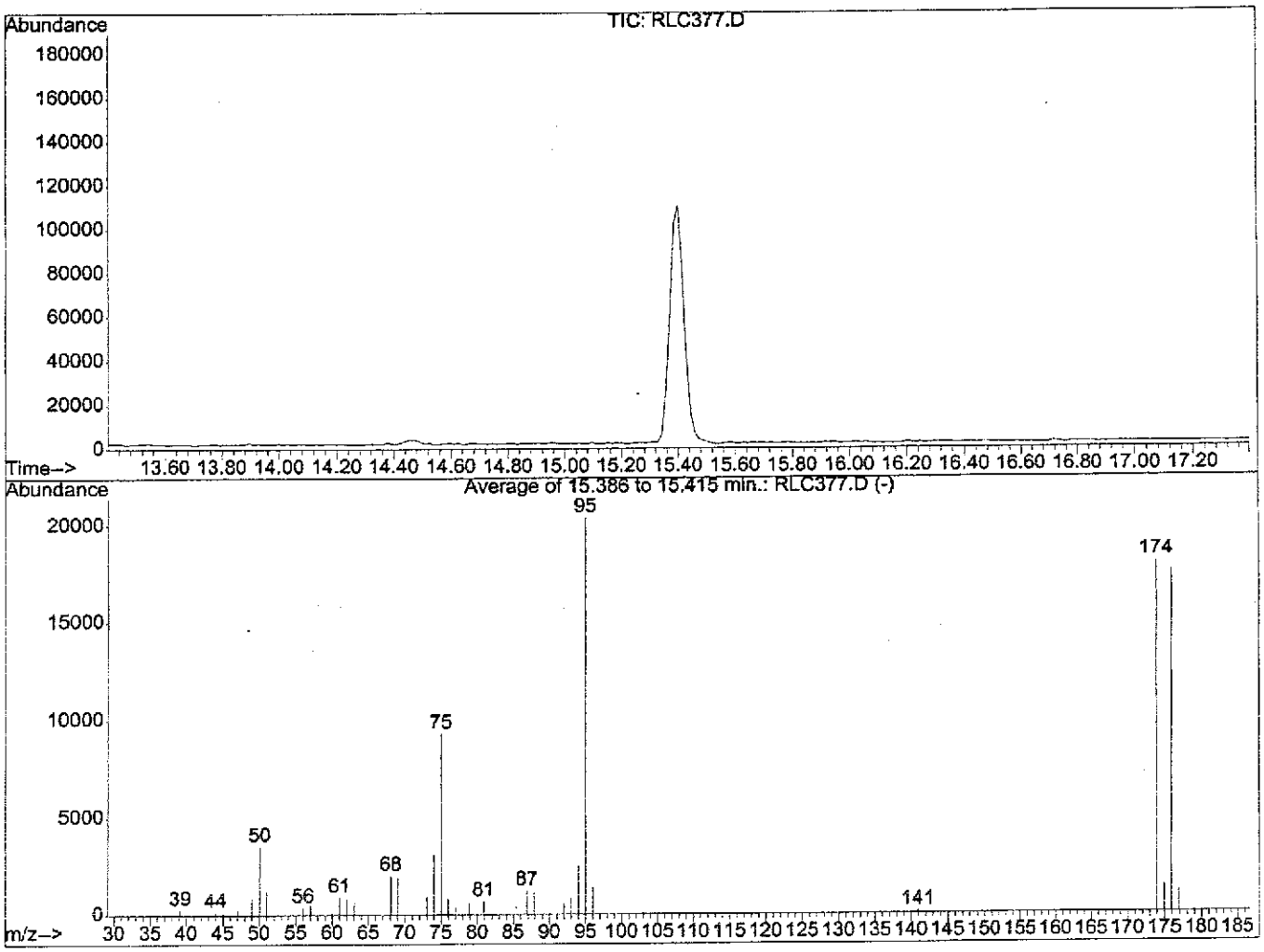
V067L18.M Mon Dec 22 19:48:17 2014

SC 12/24/14

BFB

Data File : D:\HPCHEM\1\DATA\14L18\RLC377.D
Acq On : 18 Dec 2014 7:59 pm
Sample : BFB67L14
Misc : T/CHECK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B

Vial: 1
Operator: ASmith
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 933, 934, 935; Background Corrected with Scan 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	3544	PASS
75	95	30	60	45.7	9307	PASS
95	95	100	100	100.0	20380	PASS
96	95	5	9	6.8	1382	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.4	18023	PASS
175	174	5	9	7.8	1413	PASS
176	174	95	101	97.5	17576	PASS
177	176	5	9	6.4	1123	PASS

RLC377.D VO67L18.M Fri Dec 19 10:22:11 2014

Su 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1545315	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1122586	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	374846	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	9695	0.23	ug/l	-0.02
Spiked Amount 10.000			Recovery =	2.30%		
43) 1,2-Dichloroethane-d4	7.47	65	6381	0.26	ug/l	0.00
Spiked Amount 10.000			Recovery =	2.60%		
56) Toluene-d8	10.48	98	45497	0.27	ug/l	0.00
Spiked Amount 10.000			Recovery =	2.70%		
77) 4-Bromofluorobenzene	15.40	95	16703	0.36	ug/l	0.01
Spiked Amount 10.000			Recovery =	3.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	12714	0.24	ug/l	78
4) Chloromethane	2.14	50	15067	0.20	ug/l	89
5) Vinyl chloride	2.28	62	16223	0.19	ug/l	81
6) Bromomethane	2.78	94	10361	0.30	ug/l	98
7) Chloroethane	2.88	64	14264	0.27	ug/l	90
8) Dichlorofluoromethane	2.91	67	27996	0.26	ug/l	97
9) Trichlorofluoromethane	3.13	101	14050	0.19	ug/l	90
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	13064	0.31	ug/l	96
13) Acetone	3.70	43	14947	4.06	ug/l	93
14) 1,1-Dichloroethene	3.86	61	23014	0.29	ug/l	99
17) Iodomethane	4.24	142	21634	0.26	ug/l	98
19) Methylene chloride	4.44	49	19197	0.38	ug/l	97
20) Carbon disulfide	4.47	76	28437	0.13	ug/l	100
21) Acrylonitrile	4.62	53	8382	1.54	ug/l	96
22) tert-Butyl methyl ether (M	4.65	73	17565	0.28	ug/l	93
23) trans-1,2-Dichloroethene	4.82	61	20283	0.29	ug/l	98
24) Isopropyl ether (DIPE)	5.25	45	41362	0.30	ug/l	95
25) 1,1-Dichloroethane	5.39	63	23353	0.27	ug/l	99
26) Vinyl acetate	5.39	43	9209	0.21	ug/l #	72
28) tert-Butyl ethyl ether (ET	5.79	59	27718	0.28	ug/l	96
29) 2-Butanone	5.96	43	13270	2.15	ug/l	78
30) 2,2-Dichloropropane	6.15	77	13804	0.28	ug/l	90
31) cis-1,2-Dichloroethene	6.21	96	14539	0.28	ug/l	95
32) Chloroform	6.43	83	21558	0.28	ug/l	98
33) Bromochloromethane	6.66	49	7011	0.26	ug/l	96
37) 1,1,1-Trichloroethane	7.00	97	17576	0.26	ug/l	96
38) Cyclohexane	7.01	56	19354	0.18	ug/l	94

(#) = qualifier out of range (m) = manual integration

S a 12/24/14

2049

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40)	1,1-Dichloropropene	7.23	110	7726	0.29 ug/l		99
41)	Carbon tetrachloride	7.36	119	16789	0.28 ug/l		100
42)	tert-Amyl methyl ether (TA	7.39	87	4278	0.26 ug/l	#	76
44)	1,2-Dichloroethane	7.60	62	8175	0.28 ug/l		99
45)	Benzene	7.61	78	52021	0.28 ug/l		96
46)	Trichloroethene	8.55	130	25054	0.43 ug/l		97
47)	Methylcyclohexane	8.64	83	18449	0.16 ug/l		96
48)	1,2-Dichloropropane	8.83	63	11947	0.30 ug/l		93
49)	Bromodichloromethane	9.19	83	13413	0.29 ug/l		99
51)	Dibromomethane	9.28	93	4184	0.26 ug/l		91
53)	4-Methyl-2-pentanone	9.75	43	24414	1.61 ug/l		93
54)	cis-1,3-Dichloropropene	10.07	75	15881	0.28 ug/l		94
57)	Toluene	10.61	91	55678	0.29 ug/l		100
58)	Ethyl methacrylate	10.92	69	6713	0.28 ug/l	#	79
59)	trans-1,3-Dichloropropene	10.92	75	11569	0.29 ug/l		94
60)	1,1,2-Trichloroethane	11.19	97	5523	0.29 ug/l		95
61)	2-Hexanone	11.21	43	16510	1.76 ug/l		87
62)	1,3-Dichloropropane	11.62	76	10987	0.30 ug/l		95
63)	Tetrachloroethene	11.73	164	13049	0.31 ug/l		97
64)	Dibromochloromethane	12.08	129	7590	0.29 ug/l		95
65)	1,2-Dibromoethane	12.43	107	5562	0.30 ug/l		96
66)	1-Chlorohexane	12.74	91	29842	0.31 ug/l		98
67)	Chlorobenzene	13.19	112	33772	0.31 ug/l		88
68)	1,1,1,2-Tetrachloroethane	13.27	131	9786	0.27 ug/l	#	78
69)	Ethylbenzene	13.30	91	65469	0.30 ug/l		98
70)	m-Xylene & p-Xylene	13.43	91	98902	0.62 ug/l		98
71)	o-Xylene	14.23	91	44490	0.30 ug/l		99
72)	Styrene	14.32	104	32564	0.29 ug/l		98
73)	Isopropylbenzene	14.92	105	60729	0.30 ug/l		99
75)	Bromoform	14.93	173	3750	0.28 ug/l		88
76)	1,1,2,2-Tetrachloroethane	15.25	83	5565	0.28 ug/l		94
78)	1,2,3-Trichloropropane	15.53	110	1084	0.21 ug/l	#	18
80)	n-Propylbenzene	15.69	91	81484	0.31 ug/l		99
81)	Bromobenzene	15.77	156	11814	0.32 ug/l		92
82)	1,3,5-Trimethylbenzene	16.00	105	47783	0.30 ug/l		99
83)	2-Chlorotoluene	16.01	91	48220	0.32 ug/l		99
84)	4-Chlorotoluene	16.12	91	41369	0.33 ug/l		100
85)	tert-Butylbenzene	16.69	134	11226	0.29 ug/l		98
86)	1,2,4-Trimethylbenzene	16.76	105	46432	0.31 ug/l		100
87)	sec-Butylbenzene	17.10	105	72006	0.31 ug/l		98
88)	p-Isopropyltoluene	17.37	119	57934	0.31 ug/l		98

(#) = qualifier out of range (m) = manual integration

12/24/14

2050

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
89)	1,3-Dichlorobenzene	17.55	146	26234	0.35	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	25792	0.36	ug/l	99
91)	n-Butylbenzene	18.13	91	57401	0.32	ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	19216	0.33	ug/l	76
94)	1,2,4-Trichlorobenzene	20.63	180	13935	0.39	ug/l	98
95)	Hexachlorobutadiene	20.81	225	10966	0.35	ug/l	96
96)	Naphthalene	20.97	128	16834	0.42	ug/l	96
97)	1,2,3-Trichlorobenzene	21.27	180	9834	0.39	ug/l	96

SA 12/24/14

(#) = qualifier out of range (m) = manual integration

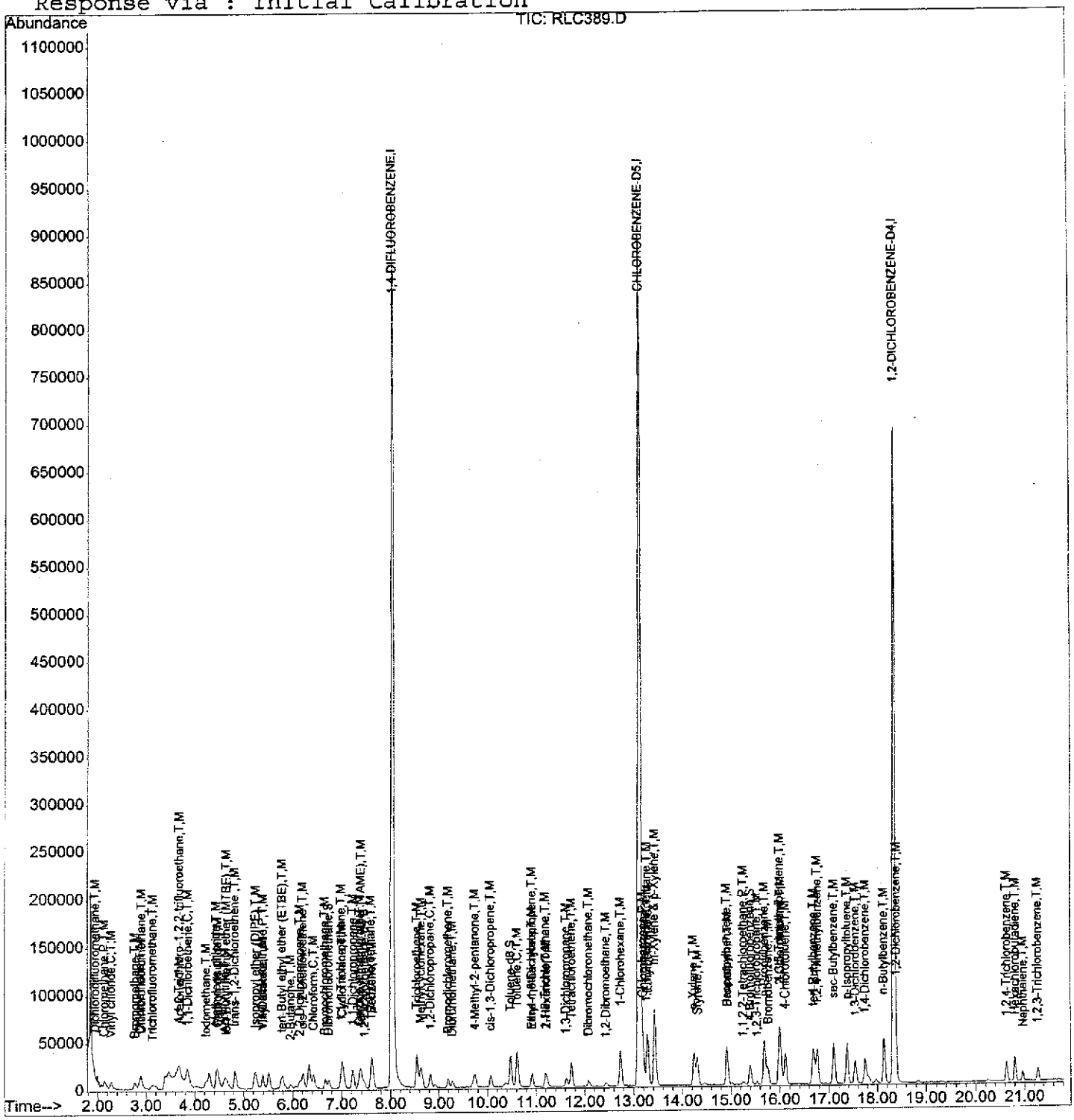
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SC 12/24/14

2052

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1479688	10.00	ug/l		-0.02
55) CHLOROBENZENE-D5	13.12	117	1083403	10.00	ug/l		0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	356630	10.00	ug/l		0.00
System Monitoring Compounds							
35) Dibromofluoromethane	6.74	111	15452	0.38	ug/l		-0.01
Spiked Amount 10.000			Recovery =	3.80%			
43) 1,2-Dichloroethane-d4	7.47	65	9781	0.42	ug/l		0.00
Spiked Amount 10.000			Recovery =	4.20%			
56) Toluene-d8	10.48	98	62490	0.39	ug/l		0.00
Spiked Amount 10.000			Recovery =	3.90%			
77) 4-Bromofluorobenzene	15.40	95	19808	0.45	ug/l		0.01
Spiked Amount 10.000			Recovery =	4.50%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.97	85	18459	0.37	ug/l		91
4) Chloromethane	2.14	50	26379	0.36	ug/l		96
5) Vinyl chloride	2.27	62	26740	0.33	ug/l		77
6) Bromomethane	2.78	94	17067	0.43	ug/l		96
7) Chloroethane	2.88	64	19197	0.38	ug/l		90
8) Dichlorofluoromethane	2.91	67	48183	0.47	ug/l		94
9) Trichlorofluoromethane	3.15	101	23179	0.33	ug/l		92
11) Acrolein	3.62	56	5281	2.58	ug/l	#	1
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	19142	0.48	ug/l		98
13) Acetone	3.70	43	14353	4.07	ug/l	#	54
14) 1,1-Dichloroethene	3.86	61	37162	0.48	ug/l		98
15) tert-Butyl alcohol	3.98	59	3380	2.87	ug/l	#	12
17) Iodomethane	4.24	142	37663	0.47	ug/l		99
19) Methylene chloride	4.44	49	25892	0.53	ug/l		97
20) Carbon disulfide	4.47	76	78596	0.38	ug/l		98
21) Acrylonitrile	4.60	53	13453	2.59	ug/l		94
22) tert-Butyl methyl ether (M	4.65	73	31046	0.52	ug/l		95
23) trans-1,2-Dichloroethene	4.82	61	33077	0.50	ug/l		97
24) Isopropyl ether (DIPE)	5.23	45	67216	0.51	ug/l		98
25) 1,1-Dichloroethane	5.39	63	41410	0.50	ug/l		98
26) Vinyl acetate	5.39	43	17292	0.42	ug/l		91
28) tert-Butyl ethyl ether (ET	5.79	59	47275	0.49	ug/l		99
29) 2-Butanone	5.96	43	17810	3.01	ug/l		86
30) 2,2-Dichloropropane	6.15	77	22072	0.46	ug/l		97
31) cis-1,2-Dichloroethene	6.21	96	24478	0.50	ug/l		96
32) Chloroform	6.43	83	35646	0.49	ug/l		99
33) Bromochloromethane	6.66	49	13255	0.52	ug/l		95

(#) = qualifier out of range (m) = manual integration

SW 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	1,1,1-Trichloroethane	7.00	97	30913	0.48	ug/l		99
38)	Cyclohexane	7.01	56	20060	0.19	ug/l		98
40)	1,1-Dichloropropene	7.23	110	12023	0.48	ug/l		99
41)	Carbon tetrachloride	7.38	119	28110	0.48	ug/l		99
42)	tert-Amyl methyl ether (TA	7.41	87	8026	0.51	ug/l	#	82
44)	1,2-Dichloroethane	7.60	62	13746	0.50	ug/l		96
45)	Benzene	7.63	78	87187	0.49	ug/l		98
46)	Trichloroethene	8.55	130	33903	0.61	ug/l		97
47)	Methylcyclohexane	8.64	83	18765	0.17	ug/l		95
48)	1,2-Dichloropropane	8.83	63	19311	0.50	ug/l		93
49)	Bromodichloromethane	9.19	83	21745	0.49	ug/l		99
51)	Dibromomethane	9.28	93	7471	0.48	ug/l		96
52)	2-Chloroethyl vinyl ether	9.69	63	3640	0.43	ug/l	#	70
53)	4-Methyl-2-pentanone	9.73	43	37283	2.56	ug/l		95
54)	cis-1,3-Dichloropropene	10.07	75	26702	0.49	ug/l		96
57)	Toluene	10.61	91	96923	0.52	ug/l		100
58)	Ethyl methacrylate	10.90	69	10734	0.47	ug/l		85
59)	trans-1,3-Dichloropropene	10.92	75	18594	0.49	ug/l		93
60)	1,1,2-Trichloroethane	11.18	97	8962	0.49	ug/l		98
61)	2-Hexanone	11.21	43	24228	2.68	ug/l		89
62)	1,3-Dichloropropane	11.62	76	18155	0.51	ug/l		100
63)	Tetrachloroethene	11.72	164	19555	0.49	ug/l		99
64)	Dibromochloromethane	12.08	129	12418	0.48	ug/l		100
65)	1,2-Dibromoethane	12.44	107	9078	0.51	ug/l		100
66)	1-Chlorohexane	12.74	91	44786	0.48	ug/l		97
67)	Chlorobenzene	13.20	112	50900	0.49	ug/l		82
68)	1,1,1,2-Tetrachloroethane	13.28	131	16896	0.49	ug/l	#	83
69)	Ethylbenzene	13.30	91	104124	0.49	ug/l		98
70)	m-Xylene & p-Xylene	13.43	91	151424	0.99	ug/l		98
71)	o-Xylene	14.23	91	70459	0.49	ug/l		98
72)	Styrene	14.31	104	54075	0.50	ug/l		99
73)	Isopropylbenzene	14.92	105	95651	0.48	ug/l		99
75)	Bromoform	14.93	173	5879	0.46	ug/l		98
76)	1,1,2,2-Tetrachloroethane	15.26	83	9678	0.51	ug/l		98
78)	1,2,3-Trichloropropane	15.53	110	2543	0.53	ug/l		74
79)	trans-1,4-Dichloro-2-buten	15.68	53	2388	0.48	ug/l	#	29
80)	n-Propylbenzene	15.68	91	121132	0.48	ug/l		99
81)	Bromobenzene	15.75	156	17682	0.50	ug/l		93
82)	1,3,5-Trimethylbenzene	16.00	105	72755	0.47	ug/l		99
83)	2-Chlorotoluene	16.02	91	68473	0.48	ug/l		98
84)	4-Chlorotoluene	16.12	91	62854	0.52	ug/l		95

(#) = qualifier out of range (m) = manual integration

SM 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
85)	tert-Butylbenzene	16.69	134	16994	0.46 ug/l		92
86)	1,2,4-Trimethylbenzene	16.76	105	69316	0.48 ug/l		98
87)	sec-Butylbenzene	17.10	105	105169	0.47 ug/l		98
88)	p-Isopropyltoluene	17.37	119	83913	0.47 ug/l		99
89)	1,3-Dichlorobenzene	17.55	146	36487	0.51 ug/l		99
90)	1,4-Dichlorobenzene	17.75	146	35644	0.52 ug/l		100
91)	n-Butylbenzene	18.13	91	80685	0.47 ug/l		99
92)	1,2-Dichlorobenzene	18.40	146	28752	0.52 ug/l		87
93)	1,2-Dibromo-3-chloropropan	19.54	157	1170	0.47 ug/l	#	56
94)	1,2,4-Trichlorobenzene	20.63	180	17838	0.53 ug/l		100
95)	Hexachlorobutadiene	20.81	225	15221	0.51 ug/l		97
96)	Naphthalene	20.95	128	22029	0.58 ug/l		95
97)	1,2,3-Trichlorobenzene	21.28	180	13289	0.56 ug/l		98

SM 12/24/14

(#) = qualifier out of range (m) = manual integration

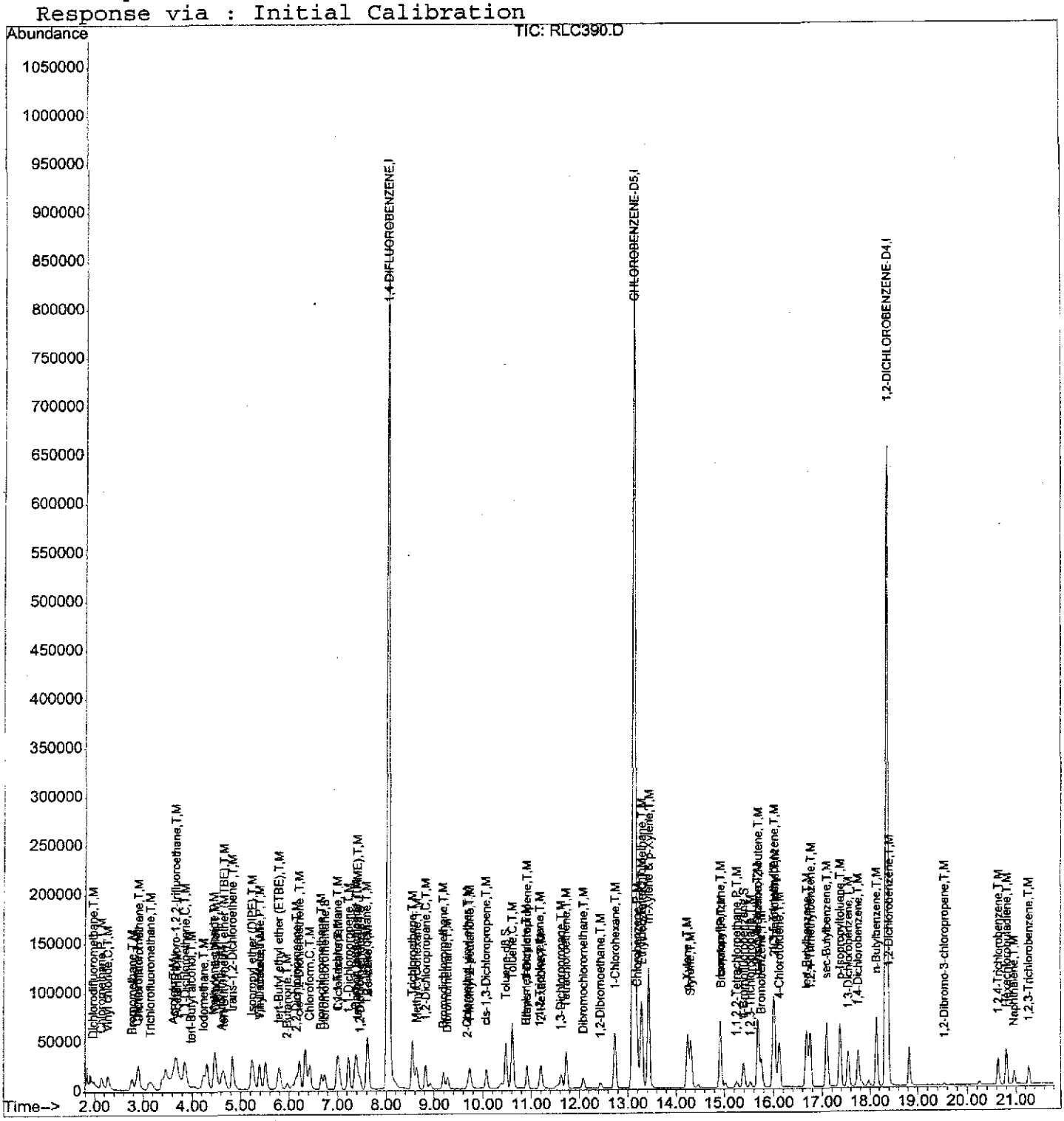
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SA 1/24/14

2056

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D Vial: 2
Acq On : 18 Dec 2014 8:33 pm Operator: ASmith
Sample : VO67L1801 1ppb Inst : TO67
Misc : 1ppb8260/5ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1371318	10.00	ug/l	-0.01
55) CHLOROBENZENE-D5	13.12	117	955775	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	303996	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	34858	0.93	ug/l	-0.01
Spiked Amount 10.000			Recovery =	9.30%		
43) 1,2-Dichloroethane-d4	7.45	65	20483	0.94	ug/l	-0.01
Spiked Amount 10.000			Recovery =	9.40%		
56) Toluene-d8	10.48	98	135168	0.96	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.60%		
77) 4-Bromofluorobenzene	15.39	95	36155	0.95	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	48848	1.06	ug/l	94
4) Chloromethane	2.14	50	69189	1.01	ug/l	97
5) Vinyl chloride	2.27	62	74243	1.00	ug/l	90
6) Bromomethane	2.76	94	45507	1.01	ug/l	95
7) Chloroethane	2.86	64	48841	1.05	ug/l	96
8) Dichlorofluoromethane	2.89	67	93623	0.99	ug/l	97
9) Trichlorofluoromethane	3.13	101	62941	0.97	ug/l	93
11) Acrolein	3.63	56	10215	5.39	ug/l #	8
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	36742	0.99	ug/l	99
13) Acetone	3.70	43	21204	6.49	ug/l	73
14) 1,1-Dichloroethene	3.84	61	73272	1.02	ug/l	100
15) tert-Butyl alcohol	3.98	59	4810	4.41	ug/l	98
16) Methyl acetate	4.25	43	15180	1.10	ug/l	79
17) Iodomethane	4.24	142	72415	0.98	ug/l	99
19) Methylene chloride	4.44	49	43336	0.96	ug/l	99
20) Carbon disulfide	4.47	76	178188	0.93	ug/l	99
21) Acrylonitrile	4.60	53	21590	4.48	ug/l	96
22) tert-Butyl methyl ether (M	4.65	73	49538	0.89	ug/l	97
23) trans-1,2-Dichloroethene	4.82	61	61183	0.99	ug/l	99
24) Isopropyl ether (DIPE)	5.23	45	116999	0.95	ug/l	98
25) 1,1-Dichloroethane	5.38	63	77398	1.01	ug/l	98
26) Vinyl acetate	5.38	43	35027	0.92	ug/l	98
27) 2-Butanol	5.70	45	4828	5.37	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	80581	0.90	ug/l	98
29) 2-Butanone	5.96	43	24747	4.52	ug/l	96
30) 2,2-Dichloropropane	6.15	77	49944	1.13	ug/l	96
31) cis-1,2-Dichloroethene	6.21	96	42993	0.94	ug/l	98

(#) = qualifier out of range (m) = manual integration SA 12/24/14
RLC378.D VO67L18.M Mon Dec 22 19:45:25 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D
Acq On : 18 Dec 2014 8:33 pm
Sample : VO67L1801 1ppb
Misc : 1ppb8260/5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 2
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	Chloroform	6.43	83	65364	0.97	ug/l		99
33)	Bromochloromethane	6.66	49	21918	0.93	ug/l		99
36)	Tetrahydrofuran	6.72	42	3029	1.03	ug/l	#	34
37)	1,1,1-Trichloroethane	7.00	97	60911	1.02	ug/l		100
38)	Cyclohexane	7.02	56	95678	0.99	ug/l		98
40)	1,1-Dichloropropene	7.22	110	22996	0.99	ug/l		99
41)	Carbon tetrachloride	7.37	119	54743	1.01	ug/l		99
42)	tert-Amyl methyl ether (TA	7.40	87	13037	0.89	ug/l	#	85
44)	1,2-Dichloroethane	7.60	62	23762	0.93	ug/l		96
45)	Benzene	7.61	78	160175	0.98	ug/l		99
46)	Trichloroethene	8.55	130	57655	1.12	ug/l		99
47)	Methylcyclohexane	8.64	83	93220	0.93	ug/l		97
48)	1,2-Dichloropropane	8.81	63	33681	0.94	ug/l		98
49)	Bromodichloromethane	9.19	83	38873	0.94	ug/l		100
50)	1,4-Dioxane	9.22	88	1514	14.54	ug/l		81
51)	Dibromomethane	9.27	93	13300	0.93	ug/l		97
52)	2-Chloroethyl vinyl ether	9.69	63	6557	0.83	ug/l		90
53)	4-Methyl-2-pentanone	9.73	43	60718	4.50	ug/l		98
54)	cis-1,3-Dichloropropene	10.07	75	47494	0.93	ug/l		98
57)	Toluene	10.61	91	168196	1.02	ug/l		99
58)	Ethyl methacrylate	10.90	69	17500	0.87	ug/l		85
59)	trans-1,3-Dichloropropene	10.92	75	30945	0.92	ug/l		95
60)	1,1,2-Trichloroethane	11.18	97	15486	0.95	ug/l		96
61)	2-Hexanone	11.21	43	37561	4.71	ug/l		91
62)	1,3-Dichloropropane	11.62	76	29847	0.95	ug/l		98
63)	Tetrachloroethene	11.72	164	35853	1.01	ug/l		100
64)	Dibromochloromethane	12.09	129	21451	0.95	ug/l		97
65)	1,2-Dibromoethane	12.44	107	14743	0.93	ug/l		99
66)	1-Chlorohexane	12.73	91	83283	1.00	ug/l		97
67)	Chlorobenzene	13.20	112	88869	0.97	ug/l		91
68)	1,1,1,2-Tetrachloroethane	13.27	131	28941	0.95	ug/l		93
69)	Ethylbenzene	13.28	91	186096	0.99	ug/l		99
70)	m-Xylene & p-Xylene	13.43	91	266218	1.97	ug/l		100
71)	o-Xylene	14.23	91	125064	0.99	ug/l		98
72)	Styrene	14.31	104	90553	0.94	ug/l		98
73)	Isopropylbenzene	14.92	105	175496	1.00	ug/l		99
75)	Bromoform	14.93	173	10001	0.92	ug/l		92
76)	1,1,2,2-Tetrachloroethane	15.26	83	14986	0.93	ug/l		98
78)	1,2,3-Trichloropropane	15.55	110	3684	0.90	ug/l		99
79)	trans-1,4-Dichloro-2-buten	15.67	53	3909	0.92	ug/l		80
80)	n-Propylbenzene	15.68	91	220938	1.03	ug/l		99

(#) = qualifier out of range (m) = manual integration SC 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D
Acq On : 18 Dec 2014 8:33 pm
Sample : VO67L1801 1ppb
Misc : 1ppb8260/5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 2
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.75	156	28949	0.96 ug/l	94
82)	1,3,5-Trimethylbenzene	15.99	105	131247	1.00 ug/l	99
83)	2-Chlorotoluene	16.02	91	120322	0.99 ug/l	99
84)	4-Chlorotoluene	16.10	91	105590	1.03 ug/l	99
85)	tert-Butylbenzene	16.67	134	31663	1.02 ug/l	97
86)	1,2,4-Trimethylbenzene	16.75	105	123628	1.01 ug/l	98
87)	sec-Butylbenzene	17.10	105	196436	1.04 ug/l	100
88)	p-Isopropyltoluene	17.37	119	155405	1.02 ug/l	99
89)	1,3-Dichlorobenzene	17.54	146	58803	0.96 ug/l	99
90)	1,4-Dichlorobenzene	17.75	146	56087	0.96 ug/l	99
91)	n-Butylbenzene	18.13	91	149869	1.03 ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	44433	0.95 ug/l	91
93)	1,2-Dibromo-3-chloropropan	19.54	157	1605	0.76 ug/l	95
94)	1,2,4-Trichlorobenzene	20.63	180	25196	0.88 ug/l	99
95)	Hexachlorobutadiene	20.81	225	26314	1.03 ug/l	98
96)	Naphthalene	20.95	128	26182	0.81 ug/l	94
97)	1,2,3-Trichlorobenzene	21.28	180	16825	0.83 ug/l	98

SC 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC378.D VO67L18.M Mon Dec 22 19:45:26 2014

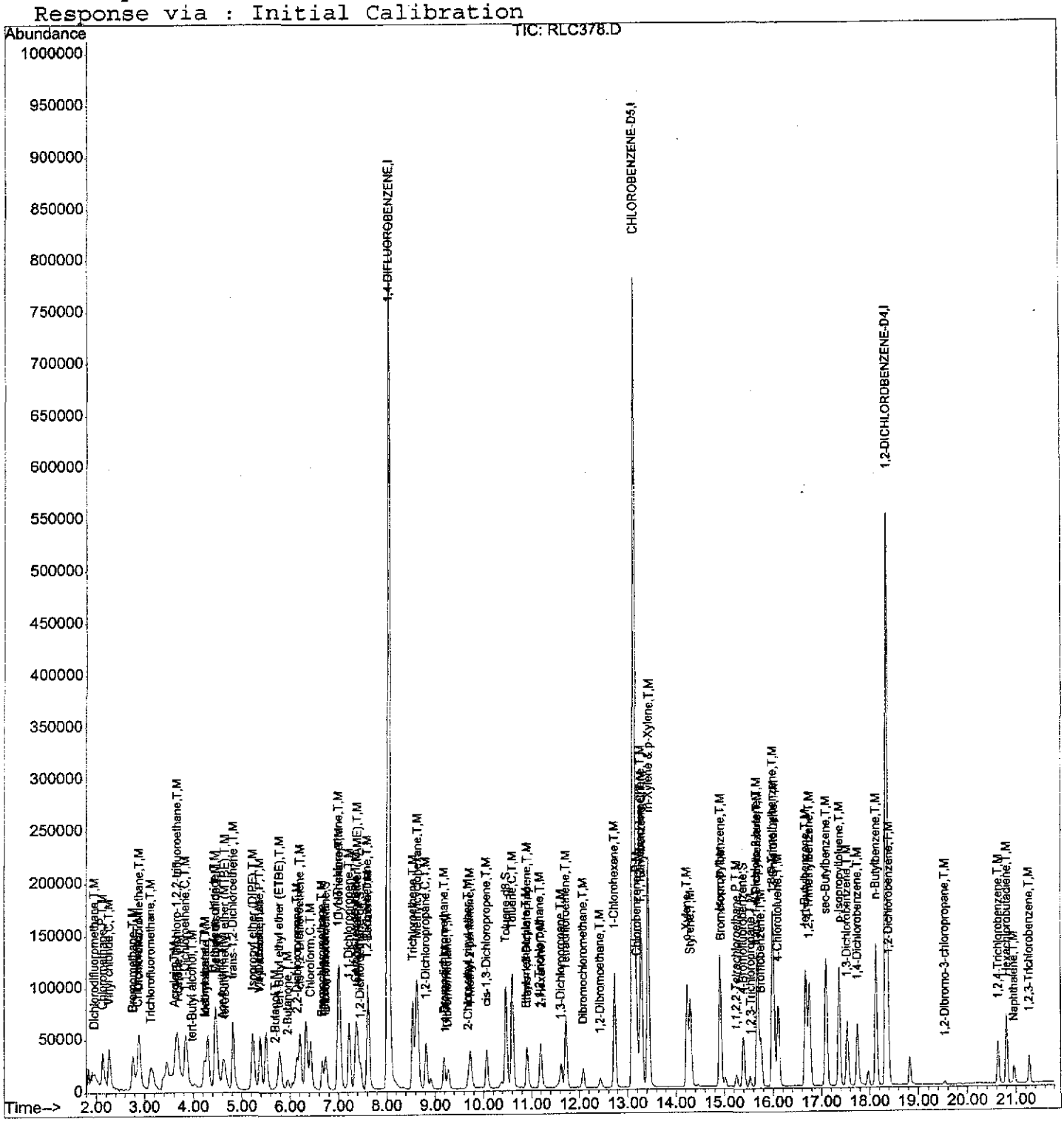
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D
Acq On : 18 Dec 2014 8:33 pm
Sample : VO67L1801 1ppb
Misc : 1ppb8260/5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 2
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SM 12/24/14

2060

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D
Acq On : 18 Dec 2014 9:07 pm
Sample : VO67L1802 2ppb
Misc : 2ppb8260/10ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1341252	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	955393	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	314718	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	73750	2.00	ug/l	-0.02
Spiked Amount 10.000			Recovery =	20.00%		
43) 1,2-Dichloroethane-d4	7.45	65	42796	2.01	ug/l	-0.02
Spiked Amount 10.000			Recovery =	20.10%		
56) Toluene-d8	10.48	98	278627	1.97	ug/l	0.00
Spiked Amount 10.000			Recovery =	19.70%		
77) 4-Bromofluorobenzene	15.40	95	76669	1.95	ug/l	0.01
Spiked Amount 10.000			Recovery =	19.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	101936	2.25	ug/l	98
4) Chloromethane	2.14	50	143111	2.14	ug/l	98
5) Vinyl chloride	2.27	62	151926	2.08	ug/l	94
6) Bromomethane	2.76	94	99349	2.11	ug/l	98
7) Chloroethane	2.86	64	100305	2.21	ug/l	98
8) Dichlorofluoromethane	2.89	67	172468	1.87	ug/l	98
9) Trichlorofluoromethane	3.15	101	132998	2.10	ug/l	94
11) Acrolein	3.62	56	18896	10.19	ug/l	91
12) 1,1,2-Trichloro-1,2,2-trif	3.65	151	68791	1.90	ug/l	100
13) Acetone	3.68	43	34461	10.78	ug/l	88
14) 1,1-Dichloroethene	3.84	61	136679	1.95	ug/l	100
15) tert-Butyl alcohol	3.95	59	9396	8.81	ug/l	93
16) Methyl acetate	4.25	43	25138	2.10	ug/l	91
17) Iodomethane	4.22	142	137512	1.91	ug/l	99
19) Methylene chloride	4.44	49	84153	1.91	ug/l	97
20) Carbon disulfide	4.47	76	399270	2.12	ug/l	100
21) Acrylonitrile	4.60	53	42541	9.02	ug/l	98
22) tert-Butyl methyl ether (M	4.63	73	99966	1.85	ug/l	98
23) trans-1,2-Dichloroethene	4.82	61	116003	1.92	ug/l	99
24) Isopropyl ether (DIPE)	5.23	45	223316	1.86	ug/l	99
25) 1,1-Dichloroethane	5.38	63	145507	1.94	ug/l	99
26) Vinyl acetate	5.38	43	79850	2.13	ug/l	98
27) 2-Butanol	5.68	45	8345	9.50	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	163372	1.87	ug/l	98
29) 2-Butanone	5.95	43	48704	9.09	ug/l	98
30) 2,2-Dichloropropane	6.15	77	92436	2.13	ug/l	97
31) cis-1,2-Dichloroethene	6.21	96	83706	1.87	ug/l	99

(#) = qualifier out of range (m) = manual integration

SC 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D
Acq On : 18 Dec 2014 9:07 pm
Sample : VO67L1802 2ppb
Misc : 2ppb8260/10ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32)	Chloroform	6.43	83	125643	1.90	ug/l	99
33)	Bromochloromethane	6.66	49	42850	1.86	ug/l	99
36)	Tetrahydrofuran	6.71	42	5778	2.01	ug/l	86
37)	1,1,1-Trichloroethane	7.00	97	114567	1.96	ug/l	99
38)	Cyclohexane	7.01	56	194854	2.06	ug/l	99
40)	1,1-Dichloropropene	7.22	110	41137	1.81	ug/l	100
41)	Carbon tetrachloride	7.37	119	101070	1.91	ug/l	98
42)	tert-Amyl methyl ether (TA	7.39	87	26408	1.84	ug/l	96
44)	1,2-Dichloroethane	7.60	62	48072	1.92	ug/l	99
45)	Benzene	7.61	78	300993	1.89	ug/l	99
46)	Trichloroethene	8.55	130	97753	1.94	ug/l	99
47)	Methylcyclohexane	8.64	83	194330	1.99	ug/l	98
48)	1,2-Dichloropropane	8.81	63	65492	1.87	ug/l	99
49)	Bromodichloromethane	9.19	83	74799	1.85	ug/l	100
50)	1,4-Dioxane	9.24	88	3734	36.67	ug/l	96
51)	Dibromomethane	9.28	93	26220	1.87	ug/l	98
52)	2-Chloroethyl vinyl ether	9.69	63	13612	1.77	ug/l	98
53)	4-Methyl-2-pentanone	9.73	43	118916	9.02	ug/l	98
54)	cis-1,3-Dichloropropene	10.07	75	92448	1.86	ug/l	98
57)	Toluene	10.61	91	310778	1.89	ug/l	100
58)	Ethyl methacrylate	10.90	69	36241	1.81	ug/l	94
59)	trans-1,3-Dichloropropene	10.92	75	62141	1.85	ug/l	97
60)	1,1,2-Trichloroethane	11.19	97	29505	1.81	ug/l	99
61)	2-Hexanone	11.21	43	72081	9.05	ug/l	96
62)	1,3-Dichloropropane	11.62	76	58101	1.85	ug/l	99
63)	Tetrachloroethene	11.72	164	66633	1.88	ug/l	99
64)	Dibromochloromethane	12.08	129	41246	1.82	ug/l	100
65)	1,2-Dibromoethane	12.44	107	28760	1.82	ug/l	100
66)	1-Chlorohexane	12.74	91	154056	1.86	ug/l	99
67)	Chlorobenzene	13.20	112	168040	1.83	ug/l	95
68)	1,1,1,2-Tetrachloroethane	13.28	131	55312	1.82	ug/l	93
69)	Ethylbenzene	13.30	91	352048	1.87	ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	501141	3.71	ug/l	99
71)	o-Xylene	14.25	91	237784	1.88	ug/l	98
72)	Styrene	14.31	104	175939	1.83	ug/l	99
73)	Isopropylbenzene	14.92	105	325172	1.86	ug/l	99
75)	Bromoform	14.93	173	20172	1.78	ug/l	98
76)	1,1,2,2-Tetrachloroethane	15.26	83	30631	1.84	ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	8506	2.00	ug/l	90
79)	trans-1,4-Dichloro-2-buten	15.68	53	8259	1.88	ug/l	93
80)	n-Propylbenzene	15.69	91	414326	1.87	ug/l	99

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D
Acq On : 18 Dec 2014 9:07 pm
Sample : VO67L1802 2ppb
Misc : 2ppb8260/10ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.75	156	57769	1.85 ug/l	97
82)	1,3,5-Trimethylbenzene	16.00	105	250854	1.85 ug/l	99
83)	2-Chlorotoluene	16.02	91	245099	1.95 ug/l	100
84)	4-Chlorotoluene	16.12	91	191554	1.80 ug/l	100
85)	tert-Butylbenzene	16.69	134	58766	1.82 ug/l	96
86)	1,2,4-Trimethylbenzene	16.76	105	238736	1.88 ug/l	99
87)	sec-Butylbenzene	17.10	105	368651	1.88 ug/l	99
88)	p-Isopropyltoluene	17.37	119	293391	1.86 ug/l	99
89)	1,3-Dichlorobenzene	17.53	146	115193	1.82 ug/l	99
90)	1,4-Dichlorobenzene	17.75	146	109741	1.81 ug/l	100
91)	n-Butylbenzene	18.13	91	281969	1.88 ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	89119	1.84 ug/l	97
93)	1,2-Dibromo-3-chloropropan	19.54	157	4132	1.89 ug/l	99
94)	1,2,4-Trichlorobenzene	20.63	180	51111	1.72 ug/l	99
95)	Hexachlorobutadiene	20.81	225	49554	1.87 ug/l	99
96)	Naphthalene	20.95	128	57222	1.71 ug/l	99
97)	1,2,3-Trichlorobenzene	21.28	180	35565	1.69 ug/l	97

SA 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC379.D VO67L18.M Mon Dec 22 19:45:39 2014

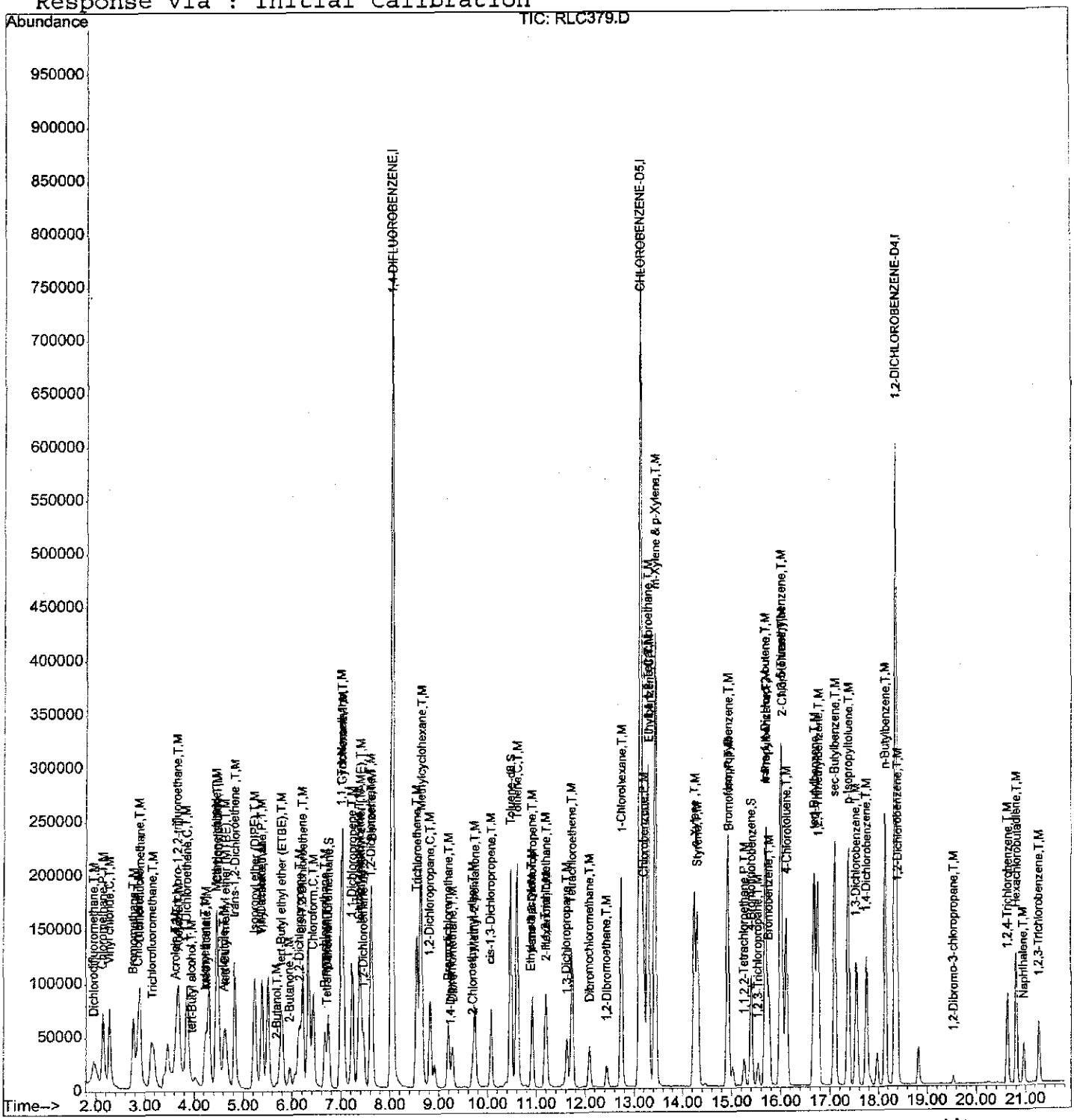
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D
Acq On : 18 Dec 2014 9:07 pm
Sample : VO67L1802 2ppb
Misc : 2ppb8260/10ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D
Acq On : 18 Dec 2014 9:37 pm
Sample : VO67L1803 5ppb
Misc : 5ppb8260/25ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 4
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1414580	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1013353	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	333944	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	186947	4.81	ug/l	-0.02
Spiked Amount 10.000			Recovery =	48.10%		
43) 1,2-Dichloroethane-d4	7.45	65	106529	4.75	ug/l	-0.02
Spiked Amount 10.000			Recovery =	47.50%		
56) Toluene-d8	10.46	98	699043	4.67	ug/l	-0.02
Spiked Amount 10.000			Recovery =	46.70%		
77) 4-Bromofluorobenzene	15.39	95	183826	4.42	ug/l	0.00
Spiked Amount 10.000			Recovery =	44.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.96	85	267134	5.60	ug/l	99
4) Chloromethane	2.14	50	373731	5.31	ug/l	100
5) Vinyl chloride	2.27	62	408793	5.31	ug/l	99
6) Bromomethane	2.77	94	261970	5.11	ug/l	99
7) Chloroethane	2.85	64	256509	5.35	ug/l	100
8) Dichlorofluoromethane	2.89	67	502282	5.17	ug/l	100
9) Trichlorofluoromethane	3.15	101	363145	5.43	ug/l	98
11) Acrolein	3.61	56	47556	24.31	ug/l	81
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	196907	5.17	ug/l	99
13) Acetone	3.68	43	83410	24.73	ug/l	92
14) 1,1-Dichloroethene	3.84	61	388284	5.26	ug/l	100
15) tert-Butyl alcohol	3.95	59	28337	25.18	ug/l	96
16) Methyl acetate	4.25	43	54075	4.63	ug/l	97
17) Iodomethane	4.22	142	391789	5.17	ug/l	100
19) Methylene chloride	4.44	49	226678	4.87	ug/l	100
20) Carbon disulfide	4.46	76	1046870	5.28	ug/l	99
21) Acrylonitrile	4.60	53	124274	24.99	ug/l	97
22) tert-Butyl methyl ether (M	4.63	73	287296	5.03	ug/l	96
23) trans-1,2-Dichloroethene	4.82	61	334395	5.25	ug/l	98
24) Isopropyl ether (DIPE)	5.22	45	628320	4.95	ug/l	100
25) 1,1-Dichloroethane	5.38	63	407976	5.15	ug/l	100
26) Vinyl acetate	5.38	43	205157	5.20	ug/l	99
27) 2-Butanol	5.67	45	22355	24.12	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.77	59	464681	5.05	ug/l	100
29) 2-Butanone	5.95	43	134035	23.72	ug/l	100
30) 2,2-Dichloropropane	6.14	77	249877	5.46	ug/l	100
31) cis-1,2-Dichloroethene	6.21	96	237803	5.05	ug/l	98

(#) = qualifier out of range (m) = manual integration
RLC380.D VO67L18.M Mon Dec 22 19:45:52 2014

SCW 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D Vial: 4
Acq On : 18 Dec 2014 9:37 pm Operator: ASmith
Sample : VO67L1803 5ppb Inst : TO67
Misc : 5ppb8260/25ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	359011	5.16 ug/l	99
33)	Bromochloromethane	6.65	49	126894	5.23 ug/l	99
36)	Tetrahydrofuran	6.71	42	15584	5.15 ug/l	98
37)	1,1,1-Trichloroethane	7.00	97	324668	5.27 ug/l	100
38)	Cyclohexane	7.01	56	528483	5.29 ug/l	99
40)	1,1-Dichloropropene	7.22	110	123457	5.15 ug/l	99
41)	Carbon tetrachloride	7.37	119	291819	5.23 ug/l	99
42)	tert-Amyl methyl ether (TA	7.39	87	75215	4.97 ug/l	97
44)	1,2-Dichloroethane	7.60	62	134016	5.07 ug/l	100
45)	Benzene	7.61	78	845112	5.02 ug/l	99
46)	Trichloroethene	8.53	130	252744	4.76 ug/l	99
47)	Methylcyclohexane	8.62	83	545707	5.30 ug/l	99
48)	1,2-Dichloropropane	8.81	63	187445	5.08 ug/l	99
49)	Bromodichloromethane	9.18	83	216776	5.08 ug/l	100
50)	1,4-Dioxane	9.22	88	10527	98.01 ug/l	97
51)	Dibromomethane	9.26	93	74636	5.04 ug/l	100
52)	2-Chloroethyl vinyl ether	9.67	63	41500	5.10 ug/l	99
53)	4-Methyl-2-pentanone	9.72	43	335537	24.12 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	265887	5.06 ug/l	100
57)	Toluene	10.59	91	883681	5.06 ug/l	100
58)	Ethyl methacrylate	10.90	69	105736	4.97 ug/l	96
59)	trans-1,3-Dichloropropene	10.92	75	179667	5.05 ug/l	99
60)	1,1,2-Trichloroethane	11.18	97	86568	5.02 ug/l	99
61)	2-Hexanone	11.19	43	203033	24.03 ug/l	99
62)	1,3-Dichloropropane	11.62	76	167132	5.01 ug/l	100
63)	Tetrachloroethene	11.72	164	191027	5.08 ug/l	99
64)	Dibromochloromethane	12.08	129	119282	4.98 ug/l	99
65)	1,2-Dibromoethane	12.44	107	83869	5.00 ug/l	99
66)	1-Chlorohexane	12.73	91	449452	5.11 ug/l	99
67)	Chlorobenzene	13.20	112	487676	5.00 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.27	131	160685	4.97 ug/l	99
69)	Ethylbenzene	13.28	91	1010964	5.05 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	1453355	10.16 ug/l	100
71)	o-Xylene	14.23	91	682970	5.09 ug/l	100
72)	Styrene	14.31	104	507047	4.97 ug/l	99
73)	Isopropylbenzene	14.92	105	953000	5.13 ug/l	100
75)	Bromoform	14.93	173	58763	4.90 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	87188	4.95 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	23533	5.21 ug/l	98
79)	trans-1,4-Dichloro-2-buten	15.66	53	23603	5.05 ug/l	99
80)	n-Propylbenzene	15.68	91	1202290	5.13 ug/l	100

(#) = qualifier out of range (m) = manual integration SA 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D Vial: 4
Acq On : 18 Dec 2014 9:37 pm Operator: ASmith
Sample : VO67L1803 5ppb Inst : TO67
Misc : 5ppb8260/25ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.75	156	165362	4.98 ug/l	99
82)	1,3,5-Trimethylbenzene	15.99	105	731599	5.09 ug/l	99
83)	2-Chlorotoluene	16.02	91	657618	4.93 ug/l	100
84)	4-Chlorotoluene	16.10	91	568097	5.02 ug/l	100
85)	tert-Butylbenzene	16.67	134	177617	5.19 ug/l	98
86)	1,2,4-Trimethylbenzene	16.75	105	689853	5.11 ug/l	99
87)	sec-Butylbenzene	17.10	105	1064044	5.12 ug/l	100
88)	p-Isopropyltoluene	17.37	119	869094	5.19 ug/l	99
89)	1,3-Dichlorobenzene	17.53	146	330047	4.92 ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	320329	4.98 ug/l	99
91)	n-Butylbenzene	18.13	91	822201	5.15 ug/l	100
92)	1,2-Dichlorobenzene	18.40	146	255452	4.97 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.54	157	11656	5.02 ug/l	96
94)	1,2,4-Trichlorobenzene	20.63	180	150945	4.78 ug/l	99
95)	Hexachlorobutadiene	20.81	225	145001	5.16 ug/l	99
96)	Naphthalene	20.95	128	171806	4.85 ug/l	100
97)	1,2,3-Trichlorobenzene	21.28	180	107108	4.80 ug/l	100

SM 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC380.D VO67L18.M Mon Dec 22 19:45:53 2014 Page 3

2067

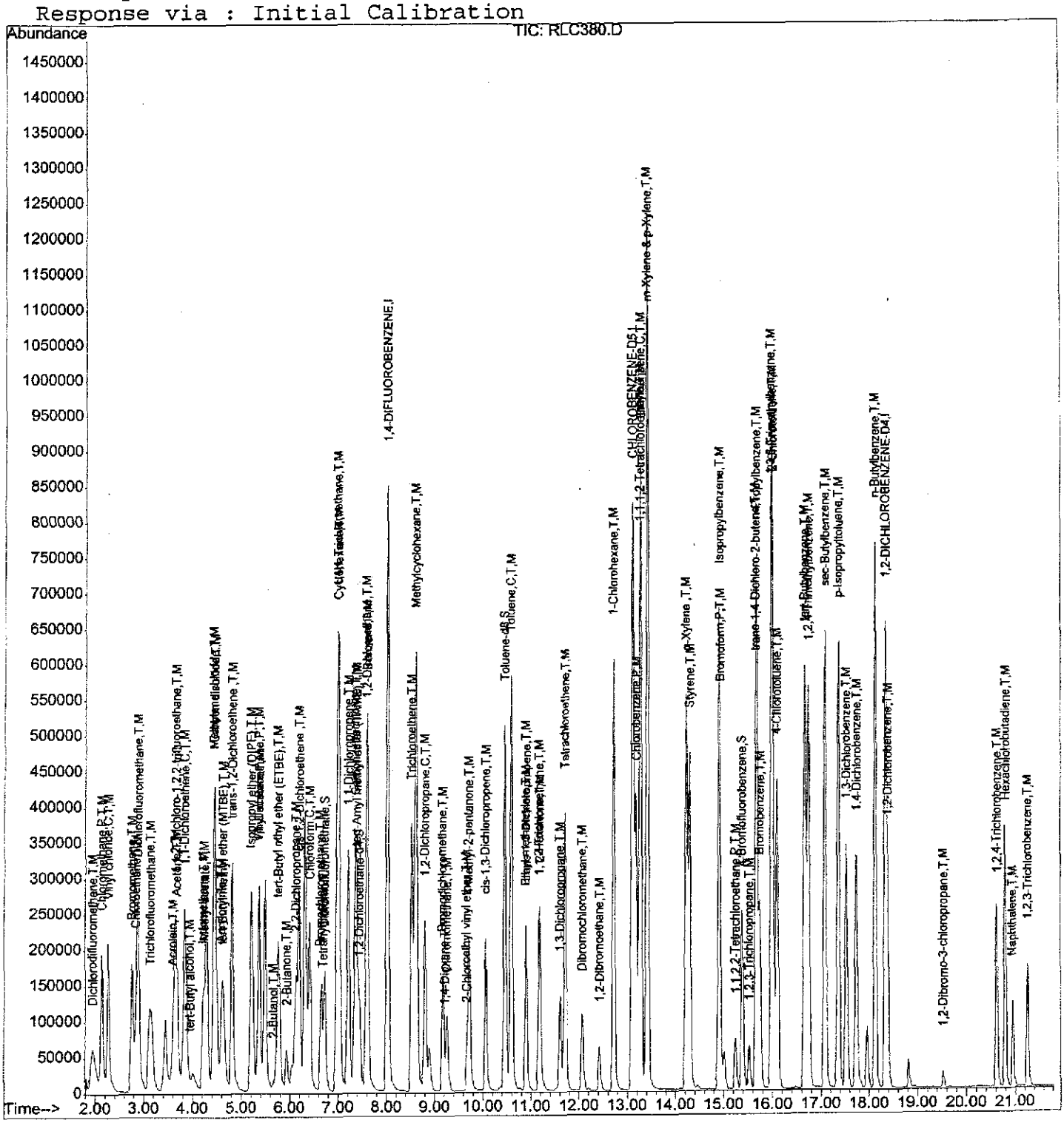
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D
Acq On : 18 Dec 2014 9:37 pm
Sample : VO67L1803 5ppb
Misc : 5ppb8260/25ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 4
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D
Acq On : 18 Dec 2014 10:11 pm
Sample : VO67L1804 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 5
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.05	114	1579429	10.00	ug/l		0.00
55) CHLOROBENZENE-D5	13.12	117	1147311	10.00	ug/l		0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	386538	10.00	ug/l		0.00
System Monitoring Compounds							
35) Dibromofluoromethane	6.75	111	476411	10.99	ug/l		0.00
Spiked Amount 10.000			Recovery = 109.90%				
43) 1,2-Dichloroethane-d4	7.47	65	274478	10.95	ug/l		0.00
Spiked Amount 10.000			Recovery = 109.50%				
56) Toluene-d8	10.48	98	1774501	10.47	ug/l		0.00
Spiked Amount 10.000			Recovery = 104.70%				
77) 4-Bromofluorobenzene	15.39	95	477462	9.91	ug/l		0.00
Spiked Amount 10.000			Recovery = 99.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.97	85	572005	10.74	ug/l		100
4) Chloromethane	2.14	50	822651	10.46	ug/l		100
5) Vinyl chloride	2.28	62	909169	10.58	ug/l		100
6) Bromomethane	2.78	94	589348	10.18	ug/l		100
7) Chloroethane	2.86	64	554937	10.36	ug/l		100
8) Dichlorofluoromethane	2.91	67	1084666	9.99	ug/l		100
9) Trichlorofluoromethane	3.16	101	781433	10.46	ug/l		100
11) Acrolein	3.63	56	102329	46.85	ug/l		100
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	416043	9.78	ug/l		100
13) Acetone	3.70	43	176066	46.75	ug/l		100
14) 1,1-Dichloroethene	3.86	61	819891	9.95	ug/l		100
15) tert-Butyl alcohol	3.96	59	64173	51.08	ug/l		100
16) Methyl acetate	4.27	43	120088	9.53	ug/l		100
17) Iodomethane	4.24	142	849138	10.03	ug/l		100
19) Methylene chloride	4.46	49	491614	9.46	ug/l		100
20) Carbon disulfide	4.47	76	2194777	9.91	ug/l		100
21) Acrylonitrile	4.62	53	271534	48.90	ug/l		100
22) tert-Butyl methyl ether (M	4.65	73	643416	10.09	ug/l		100
23) trans-1,2-Dichloroethene	4.84	61	704386	9.90	ug/l		100
24) Isopropyl ether (DIPE)	5.23	45	1410662	9.95	ug/l		100
25) 1,1-Dichloroethane	5.39	63	875706	9.90	ug/l		100
26) Vinyl acetate	5.39	43	477129	10.83	ug/l		100
27) 2-Butanol	5.69	45	47134	45.55	ug/l	#	100
28) tert-Butyl ethyl ether (ET	5.79	59	1036119	10.09	ug/l		100
29) 2-Butanone	5.96	43	300905	47.70	ug/l		100
30) 2,2-Dichloropropane	6.15	77	533609	10.44	ug/l		100
31) cis-1,2-Dichloroethene	6.23	96	523908	9.96	ug/l		100

(#) = qualifier out of range (m) = manual integration

SM 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D
Acq On : 18 Dec 2014 10:11 pm
Sample : VO67L1804 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 5
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32)	Chloroform	6.45	83	771451	9.93	ug/l	100
33)	Bromochloromethane	6.66	49	279100	10.30	ug/l	100
36)	Tetrahydrofuran	6.71	42	35557	10.52	ug/l	100
37)	1,1,1-Trichloroethane	7.00	97	694778	10.10	ug/l	100
38)	Cyclohexane	7.03	56	1019575	9.14	ug/l	100
40)	1,1-Dichloropropene	7.23	110	265843	9.92	ug/l	100
41)	Carbon tetrachloride	7.38	119	624955	10.03	ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	173653	10.28	ug/l	100
44)	1,2-Dichloroethane	7.60	62	300961	10.19	ug/l	100
45)	Benzene	7.63	78	1848254	9.83	ug/l	100
46)	Trichloroethene	8.55	130	540003	9.12	ug/l	100
47)	Methylcyclohexane	8.64	83	1051180	9.15	ug/l	100
48)	1,2-Dichloropropane	8.83	63	408189	9.91	ug/l	100
49)	Bromodichloromethane	9.19	83	482297	10.12	ug/l	100
50)	1,4-Dioxane	9.24	88	24118	201.11	ug/l	100
51)	Dibromomethane	9.28	93	168787	10.20	ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	98891	10.89	ug/l	100
53)	4-Methyl-2-pentanone	9.73	43	762658	49.11	ug/l	100
54)	cis-1,3-Dichloropropene	10.07	75	592124	10.10	ug/l	100
57)	Toluene	10.61	91	1914638	9.68	ug/l	100
58)	Ethyl methacrylate	10.90	69	244699	10.16	ug/l	100
59)	trans-1,3-Dichloropropene	10.92	75	405945	10.08	ug/l	100
60)	1,1,2-Trichloroethane	11.18	97	193923	9.93	ug/l	100
61)	2-Hexanone	11.19	43	451852	47.23	ug/l	100
62)	1,3-Dichloropropane	11.62	76	376451	9.97	ug/l	100
63)	Tetrachloroethene	11.72	164	412145	9.68	ug/l	100
64)	Dibromochloromethane	12.09	129	272668	10.05	ug/l	100
65)	1,2-Dibromoethane	12.44	107	188703	9.93	ug/l	100
66)	1-Chlorohexane	12.74	91	964447	9.69	ug/l	100
67)	Chlorobenzene	13.20	112	1071286	9.70	ug/l	100
68)	1,1,1,2-Tetrachloroethane	13.27	131	359402	9.82	ug/l	100
69)	Ethylbenzene	13.28	91	2212563	9.77	ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	3142149	19.39	ug/l	100
71)	o-Xylene	14.23	91	1478350	9.73	ug/l	100
72)	Styrene	14.31	104	1137820	9.85	ug/l	100
73)	Isopropylbenzene	14.92	105	2073070	9.86	ug/l	100
75)	Bromoform	14.93	173	134768	9.70	ug/l	100
76)	1,1,2,2-Tetrachloroethane	15.26	83	202629	9.93	ug/l	100
78)	1,2,3-Trichloropropane	15.53	110	52663	10.08	ug/l	100
79)	trans-1,4-Dichloro-2-buten	15.68	53	53807	9.95	ug/l	100
80)	n-Propylbenzene	15.68	91	2606244	9.60	ug/l	100

(#) = qualifier out of range (m) = manual integration

SA 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D Vial: 5
Acq On : 18 Dec 2014 10:11 pm Operator: ASmith
Sample : VO67L1804 10ppb Inst : TO67
Misc : 10ppb8260/50ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromobenzene	15.75	156	366247	9.53	ug/l	100
82)	1,3,5-Trimethylbenzene	15.99	105	1591025	9.57	ug/l	100
83)	2-Chlorotoluene	16.02	91	1434600	9.30	ug/l	100
84)	4-Chlorotoluene	16.10	91	1244883	9.51	ug/l	100
85)	tert-Butylbenzene	16.67	134	377644	9.53	ug/l	100
86)	1,2,4-Trimethylbenzene	16.75	105	1496533	9.57	ug/l	100
87)	sec-Butylbenzene	17.10	105	2308824	9.61	ug/l	100
88)	p-Isopropyltoluene	17.37	119	1879535	9.69	ug/l	100
89)	1,3-Dichlorobenzene	17.54	146	735329	9.47	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	696784	9.36	ug/l	100
91)	n-Butylbenzene	18.13	91	1790365	9.70	ug/l	100
92)	1,2-Dichlorobenzene	18.40	146	571302	9.61	ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.54	157	27378	10.19	ug/l	100
94)	1,2,4-Trichlorobenzene	20.63	180	350427	9.60	ug/l	100
95)	Hexachlorobutadiene	20.81	225	314962	9.69	ug/l	100
96)	Naphthalene	20.95	128	404152	9.86	ug/l	100
97)	1,2,3-Trichlorobenzene	21.28	180	249540	9.66	ug/l	100

Su 12/24/14

(#) = qualifier out of range (m) = manual integration

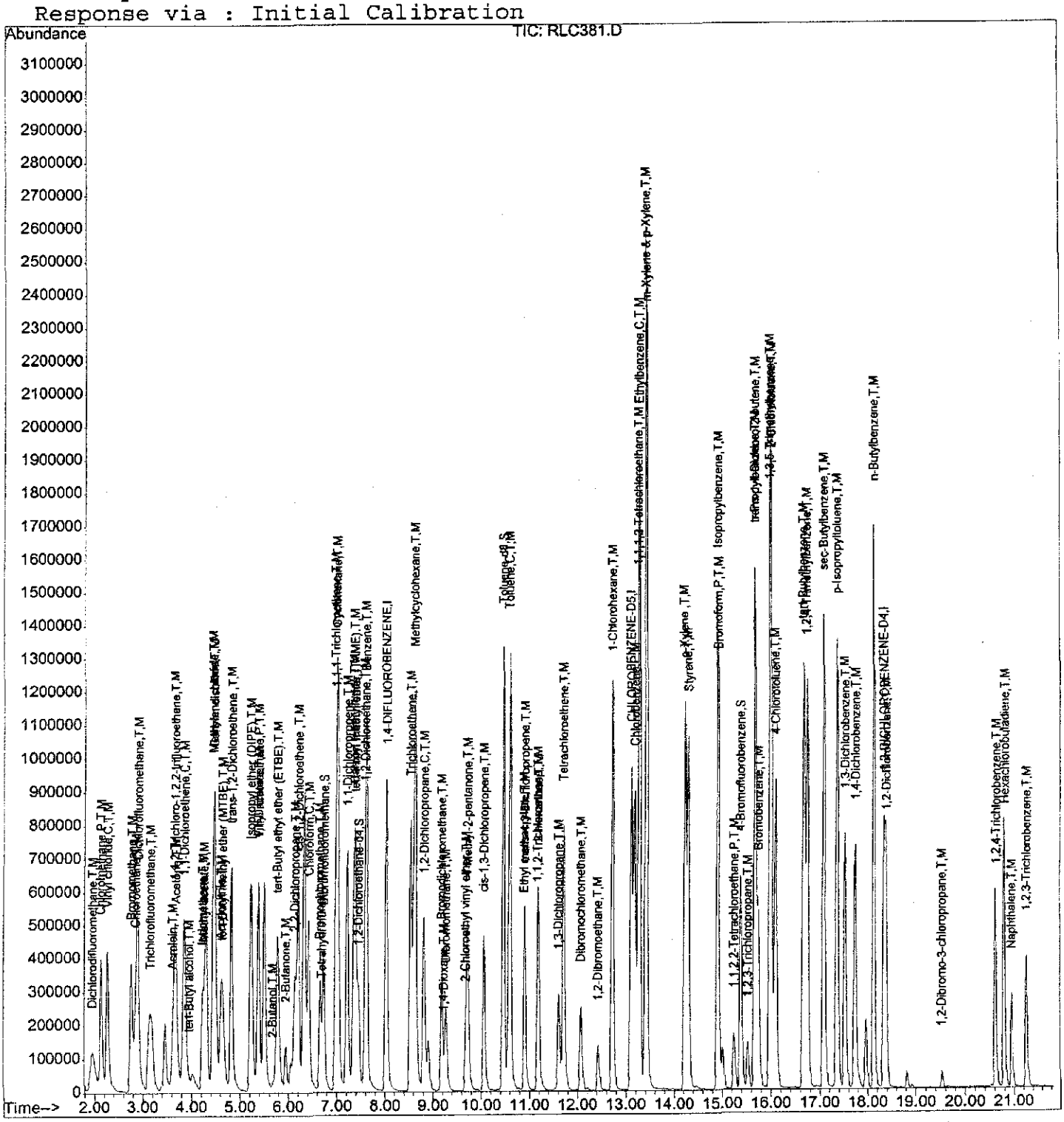
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D
Acq On : 18 Dec 2014 10:11 pm
Sample : VO67L1804 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 5
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SV 12/29/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D
Acq On : 18 Dec 2014 10:44 pm
Sample : VO67L1805 20ppb
Misc : 20ppb8260/100ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 6
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1512279	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1121897	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	376346	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	910973	21.94	ug/l	-0.02
Spiked Amount 10.000			Recovery = 219.40%			
43) 1,2-Dichloroethane-d4	7.45	65	516723	21.54	ug/l	-0.02
Spiked Amount 10.000			Recovery = 215.40%			
56) Toluene-d8	10.48	98	3446849	20.79	ug/l	0.00
Spiked Amount 10.000			Recovery = 207.90%			
77) 4-Bromofluorobenzene	15.39	95	918153	19.57	ug/l	0.00
Spiked Amount 10.000			Recovery = 195.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	1090662	21.38	ug/l	100
4) Chloromethane	2.14	50	1596296	21.20	ug/l	100
5) Vinyl chloride	2.28	62	1793603	21.80	ug/l	100
6) Bromomethane	2.76	94	1161187	20.83	ug/l	99
7) Chloroethane	2.86	64	1059474	20.66	ug/l	99
8) Dichlorofluoromethane	2.89	67	2206473	21.23	ug/l	99
9) Trichlorofluoromethane	3.16	101	1554901	21.74	ug/l	100
11) Acrolein	3.62	56	205314	98.18	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	836179	20.52	ug/l	99
13) Acetone	3.70	43	349184	96.84	ug/l	98
14) 1,1-Dichloroethene	3.86	61	1644858	20.84	ug/l	99
15) tert-Butyl alcohol	3.95	59	128076	106.48	ug/l	97
16) Methyl acetate	4.25	43	224471	18.93	ug/l	93
17) Iodomethane	4.22	142	1710072	21.09	ug/l	99
19) Methylene chloride	4.44	49	981900	19.73	ug/l	100
20) Carbon disulfide	4.47	76	4309440	20.32	ug/l	100
21) Acrylonitrile	4.60	53	562285	105.76	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	1302111	21.33	ug/l	99
23) trans-1,2-Dichloroethene	4.82	61	1408398	20.67	ug/l	100
24) Isopropyl ether (DIPE)	5.23	45	2844501	20.96	ug/l	99
25) 1,1-Dichloroethane	5.38	63	1766373	20.85	ug/l	100
26) Vinyl acetate	5.38	43	925851	21.95	ug/l	99
27) 2-Butanol	5.68	45	97902	98.81	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	2099926	21.36	ug/l	100
29) 2-Butanone	5.95	43	629796	104.27	ug/l	100
30) 2,2-Dichloropropane	6.15	77	1021762	20.88	ug/l	99
31) cis-1,2-Dichloroethene	6.21	96	1051423	20.88	ug/l	99

(#) = qualifier out of range (m) = manual integration

SA 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D
Acq On : 18 Dec 2014 10:44 pm
Sample : VO67L1805 20ppb
Misc : 20ppb8260/100ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 6
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	1549074	20.82 ug/l	100
33)	Bromochloromethane	6.66	49	545428	21.01 ug/l	97
36)	Tetrahydrofuran	6.71	42	65415	20.22 ug/l	92
37)	1,1,1-Trichloroethane	7.00	97	1384815	21.03 ug/l	100
38)	Cyclohexane	7.01	56	2066485	19.34 ug/l	100
40)	1,1-Dichloropropene	7.22	110	527720	20.58 ug/l	100
41)	Carbon tetrachloride	7.36	119	1246789	20.90 ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	349962	21.64 ug/l	98
44)	1,2-Dichloroethane	7.60	62	605235	21.41 ug/l	99
45)	Benzene	7.61	78	3699528	20.55 ug/l	100
46)	Trichloroethene	8.55	130	1081267	19.07 ug/l	100
47)	Methylcyclohexane	8.64	83	2149998	19.54 ug/l	99
48)	1,2-Dichloropropane	8.81	63	820174	20.80 ug/l	99
49)	Bromodichloromethane	9.19	83	961537	21.06 ug/l	99
50)	1,4-Dioxane	9.22	88	51084	444.88 ug/l	98
51)	Dibromomethane	9.28	93	342222	21.60 ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	204343	23.51 ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	1557338	104.73 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	1201901	21.41 ug/l	99
57)	Toluene	10.61	91	3841739	19.87 ug/l	100
58)	Ethyl methacrylate	10.90	69	504765	21.43 ug/l	100
59)	trans-1,3-Dichloropropene	10.92	75	821952	20.88 ug/l	100
60)	1,1,2-Trichloroethane	11.18	97	397145	20.79 ug/l	100
61)	2-Hexanone	11.19	43	937866	100.25 ug/l	99
62)	1,3-Dichloropropane	11.62	76	755481	20.47 ug/l	100
63)	Tetrachloroethene	11.72	164	830518	19.95 ug/l	100
64)	Dibromochloromethane	12.08	129	560560	21.12 ug/l	98
65)	1,2-Dibromoethane	12.44	107	386993	20.82 ug/l	100
66)	1-Chlorohexane	12.74	91	1964073	20.19 ug/l	99
67)	Chlorobenzene	13.19	112	2184196	20.22 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.28	131	743125	20.77 ug/l	99
69)	Ethylbenzene	13.30	91	4546972	20.53 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	6442277	40.66 ug/l	100
71)	o-Xylene	14.23	91	3012821	20.29 ug/l	100
72)	Styrene	14.31	104	2343060	20.74 ug/l	100
73)	Isopropylbenzene	14.92	105	4204535	20.44 ug/l	100
75)	Bromoform	14.93	173	280613	20.75 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	409672	20.62 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	107439	21.12 ug/l	99
79)	trans-1,4-Dichloro-2-buten	15.68	53	110948	21.07 ug/l	99
80)	n-Propylbenzene	15.68	91	5314799	20.11 ug/l	100

(#) = qualifier out of range (m) = manual integration SW 12-24-14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D Vial: 6
Acq On : 18 Dec 2014 10:44 pm Operator: ASmith
Sample : VO67L1805 20ppb Inst : TO67
Misc : 20ppb8260/100ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81) Bromobenzene	15.75	156	745847	19.93 ug/l	100
82) 1,3,5-Trimethylbenzene	16.00	105	3227908	19.94 ug/l	100
83) 2-Chlorotoluene	16.01	91	2883278	19.20 ug/l	96
84) 4-Chlorotoluene	16.12	91	2553597	20.03 ug/l	96
85) tert-Butylbenzene	16.69	134	777539	20.16 ug/l	98
86) 1,2,4-Trimethylbenzene	16.76	105	3066876	20.15 ug/l	100
87) sec-Butylbenzene	17.10	105	4695005	20.06 ug/l	100
88) p-Isopropyltoluene	17.37	119	3820407	20.23 ug/l	99
89) 1,3-Dichlorobenzene	17.53	146	1488500	19.68 ug/l	100
90) 1,4-Dichlorobenzene	17.75	146	1425921	19.67 ug/l	99
91) n-Butylbenzene	18.13	91	3609032	20.07 ug/l	100
92) 1,2-Dichlorobenzene	18.40	146	1150735	19.88 ug/l	100
93) 1,2-Dibromo-3-chloropropan	19.54	157	56911	21.77 ug/l	98
94) 1,2,4-Trichlorobenzene	20.63	180	713053	20.06 ug/l	100
95) Hexachlorobutadiene	20.81	225	621172	19.63 ug/l	99
96) Naphthalene	20.95	128	846627	21.22 ug/l	100
97) 1,2,3-Trichlorobenzene	21.27	180	510685	20.30 ug/l	100

SA 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC382.D VO67L18.M Mon Dec 22 19:46:23 2014 Page 3

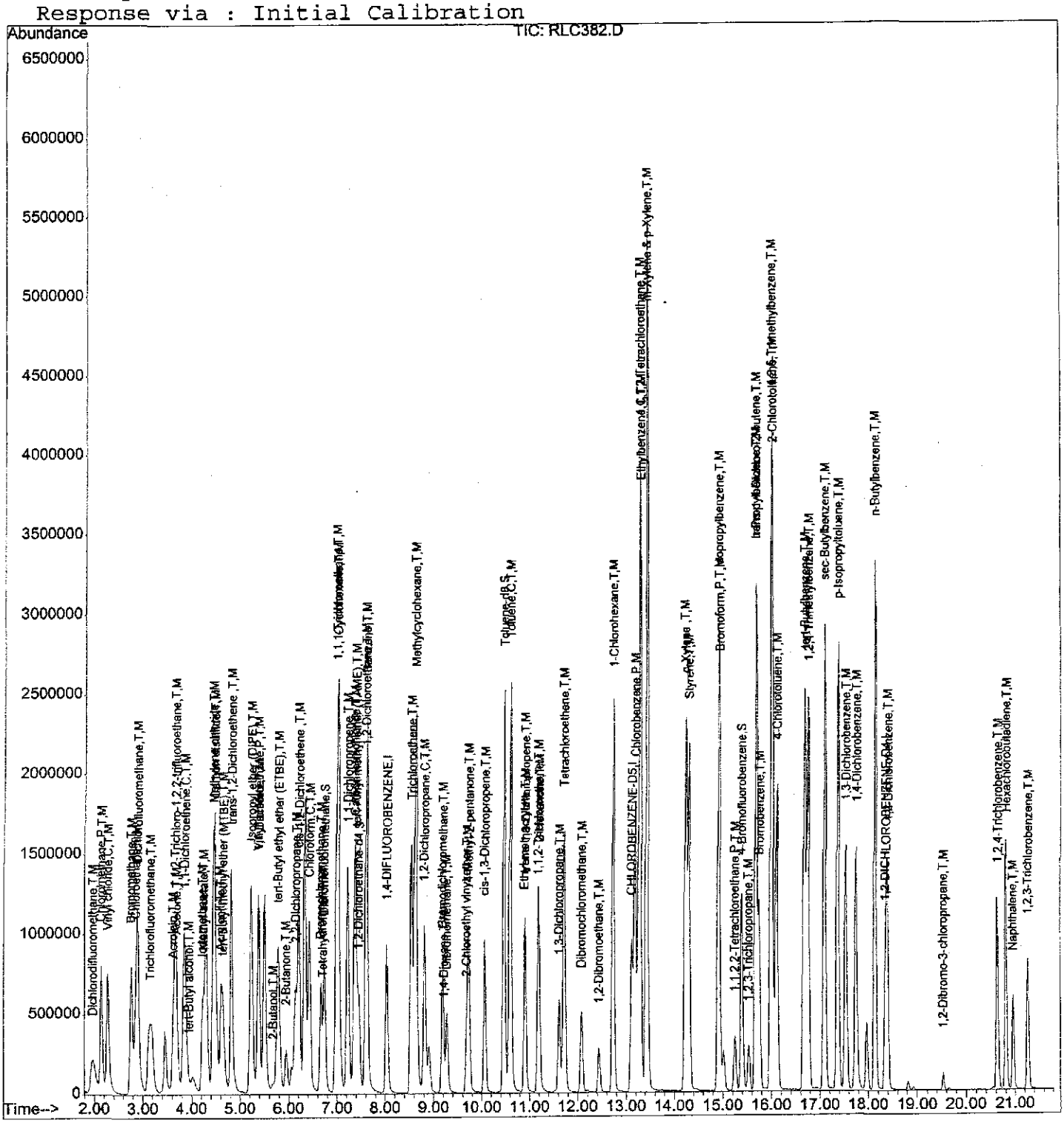
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D
Acq On : 18 Dec 2014 10:44 pm
Sample : VO67L1805 20ppb
Misc : 20ppb8260/100ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 6
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

2076

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D Vial: 7
Acq On : 18 Dec 2014 11:19 pm Operator: ASmith
Sample : VO67L1806 30ppb Inst : TO67
Misc : 30ppb8260/150ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1544741	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1127667	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	371019	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	1388934	32.75	ug/l	-0.01
Spiked Amount 10.000			Recovery =	327.50%		
43) 1,2-Dichloroethane-d4	7.45	65	778052	31.75	ug/l	-0.02
Spiked Amount 10.000			Recovery =	317.50%		
56) Toluene-d8	10.48	98	5307644	31.85	ug/l	0.00
Spiked Amount 10.000			Recovery =	318.50%		
77) 4-Bromofluorobenzene	15.39	95	1381197	29.87	ug/l	0.00
Spiked Amount 10.000			Recovery =	298.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	1684757	32.33	ug/l	99
4) Chloromethane	2.14	50	2482419	32.28	ug/l	100
5) Vinyl chloride	2.28	62	2793920	33.24	ug/l	100
6) Bromomethane	2.76	94	1843874	32.32	ug/l	100
7) Chloroethane	2.86	64	1661054	31.72	ug/l	100
8) Dichlorofluoromethane	2.91	67	3398350	32.02	ug/l	99
9) Trichlorofluoromethane	3.18	101	2407566	32.95	ug/l	99
11) Acrolein	3.62	56	314043	147.02	ug/l	97
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	1297160	31.17	ug/l	100
13) Acetone	3.70	43	525014	142.55	ug/l	97
14) 1,1-Dichloroethene	3.86	61	2490520	30.89	ug/l	99
15) tert-Butyl alcohol	3.95	59	197890	161.06	ug/l	96
16) Methyl acetate	4.25	43	371388	30.86	ug/l	96
17) Iodomethane	4.22	142	2638644	31.86	ug/l	99
19) Methylene chloride	4.44	49	1493128	29.37	ug/l	99
20) Carbon disulfide	4.47	76	6803439	31.41	ug/l	100
21) Acrylonitrile	4.60	53	849275	156.39	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	1967695	31.56	ug/l	99
23) trans-1,2-Dichloroethene	4.82	61	2159543	31.03	ug/l	99
24) Isopropyl ether (DIPE)	5.23	45	4350328	31.38	ug/l	99
25) 1,1-Dichloroethane	5.38	63	2697154	31.17	ug/l	100
26) Vinyl acetate	5.38	43	1444115	33.52	ug/l	99
27) 2-Butanol	5.69	45	156413	154.55	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	3211926	31.99	ug/l	100
29) 2-Butanone	5.95	43	943207	152.88	ug/l	99
30) 2,2-Dichloropropane	6.15	77	1517956	30.37	ug/l	99
31) cis-1,2-Dichloroethene	6.21	96	1610585	31.32	ug/l	99

(#) = qualifier out of range (m) = manual integration SM 12/24/14
RLC383.D VO67L18.M Mon Dec 22 19:46:39 2014 Page 1

2077

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D
Acq On : 18 Dec 2014 11:19 pm
Sample : VO67L1806 30ppb
Misc : 30ppb8260/150ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 7
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	2392690	31.49 ug/l	99
33)	Bromochloromethane	6.66	49	832805	31.41 ug/l	96
36)	Tetrahydrofuran	6.71	42	95993	29.05 ug/l	89
37)	1,1,1-Trichloroethane	7.00	97	2117142	31.48 ug/l	100
38)	Cyclohexane	7.01	56	3366883	30.85 ug/l	99
40)	1,1-Dichloropropene	7.22	110	826870	31.56 ug/l	100
41)	Carbon tetrachloride	7.37	119	1921222	31.53 ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	530905	32.14 ug/l	97
44)	1,2-Dichloroethane	7.60	62	908327	31.45 ug/l	99
45)	Benzene	7.61	78	5740455	31.22 ug/l	100
46)	Trichloroethene	8.55	130	1660281	28.66 ug/l	100
47)	Methylcyclohexane	8.64	83	3536107	31.47 ug/l	99
48)	1,2-Dichloropropane	8.81	63	1249285	31.02 ug/l	99
49)	Bromodichloromethane	9.19	83	1467538	31.47 ug/l	99
50)	1,4-Dioxane	9.22	88	76899	655.63 ug/l	97
51)	Dibromomethane	9.28	93	523230	32.33 ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	319752	36.01 ug/l	100
53)	4-Methyl-2-pentanone	9.73	43	2385802	157.07 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	1813893	31.63 ug/l	99
57)	Toluene	10.61	91	6003231	30.88 ug/l	100
58)	Ethyl methacrylate	10.90	69	772401	32.62 ug/l	99
59)	trans-1,3-Dichloropropene	10.92	75	1253040	31.67 ug/l	98
60)	1,1,2-Trichloroethane	11.18	97	607409	31.64 ug/l	100
61)	2-Hexanone	11.19	43	1433480	152.45 ug/l	99
62)	1,3-Dichloropropane	11.62	76	1169853	31.53 ug/l	100
63)	Tetrachloroethene	11.72	164	1294678	30.94 ug/l	100
64)	Dibromochloromethane	12.08	129	852872	31.97 ug/l	99
65)	1,2-Dibromoethane	12.44	107	587369	31.45 ug/l	100
66)	1-Chlorohexane	12.74	91	3073614	31.43 ug/l	99
67)	Chlorobenzene	13.20	112	3403472	31.34 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.27	131	1144700	31.83 ug/l	99
69)	Ethylbenzene	13.28	91	7035879	31.61 ug/l	99
70)	m-Xylene & p-Xylene	13.43	91	10058952	63.17 ug/l	99
71)	o-Xylene	14.23	91	4688152	31.41 ug/l	100
72)	Styrene	14.31	104	3603195	31.73 ug/l	99
73)	Isopropylbenzene	14.92	105	6535849	31.62 ug/l	99
75)	Bromoform	14.93	173	433449	32.51 ug/l	100
76)	1,1,2,2-Tetrachloroethane	15.26	83	621263	31.73 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	162524	32.40 ug/l	96
79)	trans-1,4-Dichloro-2-buten	15.68	53	166644	32.11 ug/l	99
80)	n-Propylbenzene	15.68	91	8171852	31.36 ug/l	99

(#) = qualifier out of range (m) = manual integration

SC 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D
Acq On : 18 Dec 2014 11:19 pm
Sample : VO67L1806 30ppb
Misc : 30ppb8260/150ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 7
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81) Bromobenzene	15.75	156	1145989	31.06 ug/l	99
82) 1,3,5-Trimethylbenzene	16.00	105	5074847	31.79 ug/l	99
83) 2-Chlorotoluene	16.02	91	4498264	30.38 ug/l	95
84) 4-Chlorotoluene	16.12	91	3912624	31.13 ug/l	97
85) tert-Butylbenzene	16.69	134	1207803	31.77 ug/l	93
86) 1,2,4-Trimethylbenzene	16.76	105	4692986	31.28 ug/l	99
87) sec-Butylbenzene	17.10	105	7269599	31.51 ug/l	100
88) p-Isopropyltoluene	17.37	119	5869956	31.52 ug/l	99
89) 1,3-Dichlorobenzene	17.53	146	2299553	30.84 ug/l	100
90) 1,4-Dichlorobenzene	17.75	146	2165936	30.30 ug/l	99
91) n-Butylbenzene	18.13	91	5564670	31.40 ug/l	100
92) 1,2-Dichlorobenzene	18.40	146	1744113	30.57 ug/l	100
93) 1,2-Dibromo-3-chloropropan	19.54	157	84855	32.92 ug/l	99
94) 1,2,4-Trichlorobenzene	20.63	180	1071680	30.58 ug/l	99
95) Hexachlorobutadiene	20.81	225	947672	30.38 ug/l	100
96) Naphthalene	20.95	128	1262384	32.09 ug/l	100
97) 1,2,3-Trichlorobenzene	21.28	180	753634	30.39 ug/l	99

SU 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC383.D VO67L18.M Mon Dec 22 19:46:39 2014

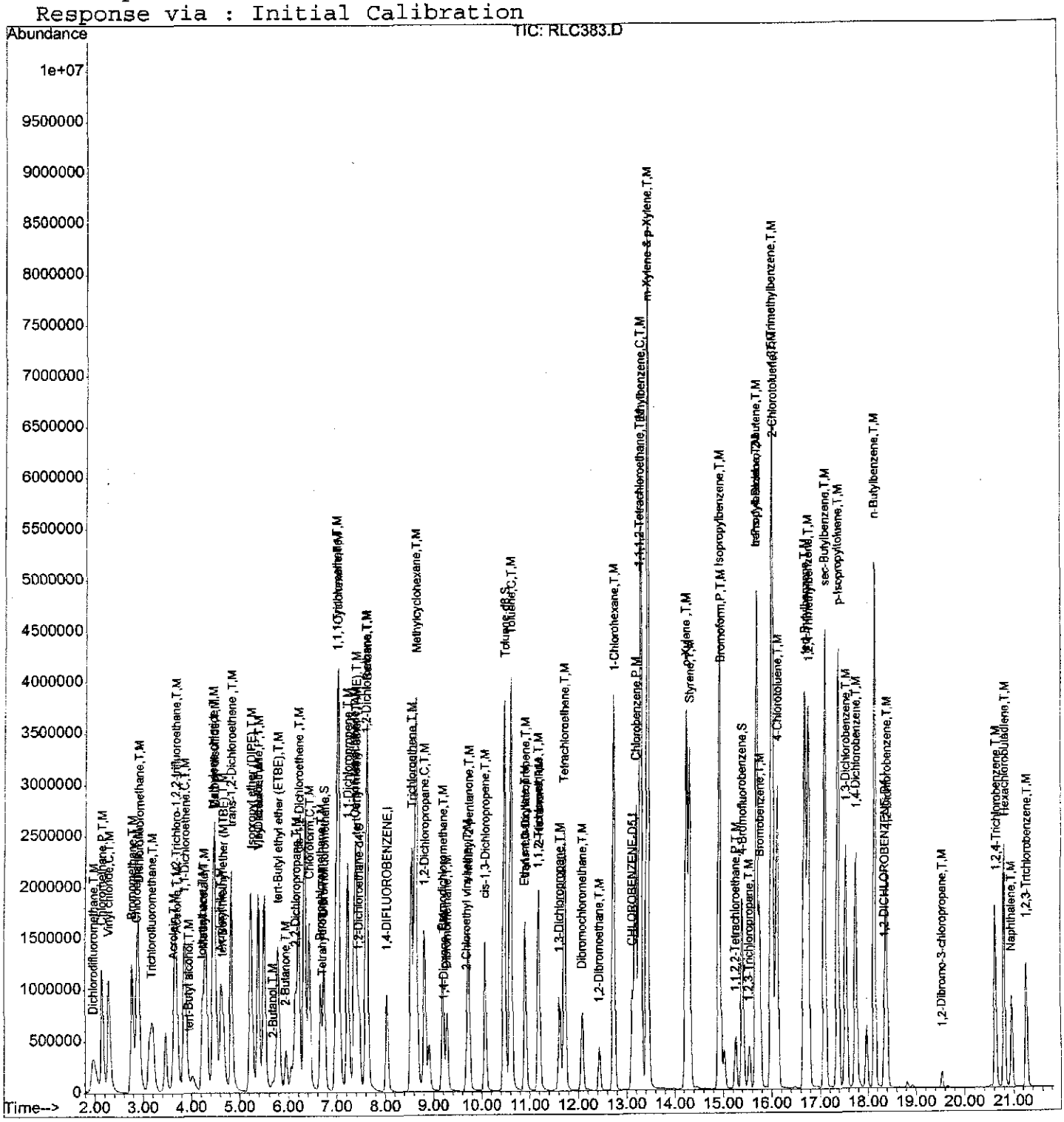
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D
Acq On : 18 Dec 2014 11:19 pm
Sample : VO67L1806 30ppb
Misc : 30ppb8260/150ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 7
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SM 12/24/14

2080

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D Vial: 8
Acq On : 18 Dec 2014 11:52 pm Operator: ASmith
Sample : VO67L1807 50ppb Inst : TO67
Misc : 50ppb8260/250ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1658864	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1221170	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	398158	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	2481437	54.49	ug/l	-0.02
Spiked Amount 10.000			Recovery =	544.90%		
43) 1,2-Dichloroethane-d4	7.45	65	1385807	52.65	ug/l	-0.02
Spiked Amount 10.000			Recovery =	526.50%		
56) Toluene-d8	10.48	98	9629649	53.36	ug/l	0.00
Spiked Amount 10.000			Recovery =	533.60%		
77) 4-Bromofluorobenzene	15.39	95	2467030	49.71	ug/l	0.00
Spiked Amount 10.000			Recovery =	497.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	2564554	45.83	ug/l	100
4) Chloromethane	2.14	50	3752948	45.44	ug/l	100
5) Vinyl chloride	2.28	62	4308052	47.73	ug/l	99
6) Bromomethane	2.76	94	2852226	46.50	ug/l	100
7) Chloroethane	2.86	64	2562713	45.56	ug/l	99
8) Dichlorofluoromethane	2.89	67	5695148	49.96	ug/l	99
9) Trichlorofluoromethane	3.18	101	3700449	47.17	ug/l	99
11) Acrolein	3.62	56	518072	225.85	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	2135141	47.77	ug/l	100
13) Acetone	3.68	43	868307	219.54	ug/l	96
14) 1,1-Dichloroethene	3.86	61	4131788	47.72	ug/l	98
15) tert-Butyl alcohol	3.95	59	327989	248.58	ug/l	98
16) Methyl acetate	4.25	43	622221	48.34	ug/l	95
17) Iodomethane	4.22	142	4427193	49.78	ug/l	98
19) Methylene chloride	4.44	49	2493503	45.67	ug/l	97
20) Carbon disulfide	4.46	76	12503701	53.76	ug/l	100
21) Acrylonitrile	4.60	53	1462642	250.81	ug/l	99
22) tert-Butyl methyl ether (M	4.63	73	3367706	50.29	ug/l	99
23) trans-1,2-Dichloroethene	4.82	61	3591578	48.05	ug/l	98
24) Isopropyl ether (DIPE)	5.23	45	7365785	49.47	ug/l	99
25) 1,1-Dichloroethane	5.38	63	4554266	49.02	ug/l	100
26) Vinyl acetate	5.38	43	2300370	49.72	ug/l	99
27) 2-Butanol	5.68	45	267250	245.89	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	5490819	50.92	ug/l	100
29) 2-Butanone	5.95	43	1624230	245.16	ug/l	98
30) 2,2-Dichloropropane	6.15	77	2422153	45.12	ug/l	98
31) cis-1,2-Dichloroethene	6.21	96	2747426	49.75	ug/l	97

(#) = qualifier out of range (m) = manual integration
RLC384.D VO67L18.M Mon Dec 22 19:46:54 2014 Su 12/24/14 Page 1

2081

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D Vial: 8
Acq On : 18 Dec 2014 11:52 pm Operator: ASmith
Sample : VO67L1807 50ppb Inst : TO67
Misc : 50ppb8260/250ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	3983068	48.81 ug/l	99
33)	Bromochloromethane	6.66	49	1406735	49.41 ug/l	96
36)	Tetrahydrofuran	6.71	42	163920	46.19 ug/l	88
37)	1,1,1-Trichloroethane	7.00	97	3531420	48.89 ug/l	99
38)	Cyclohexane	7.01	56	5653355	48.24 ug/l	98
40)	1,1-Dichloropropene	7.22	110	1388554	49.36 ug/l	100
41)	Carbon tetrachloride	7.37	119	3196591	48.84 ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	912599	51.45 ug/l	97
44)	1,2-Dichloroethane	7.60	62	1534174	49.47 ug/l	100
45)	Benzene	7.61	78	9795061	49.60 ug/l	99
46)	Trichloroethene	8.55	130	2823675	45.39 ug/l	99
47)	Methylcyclohexane	8.64	83	5893479	48.84 ug/l	98
48)	1,2-Dichloropropane	8.81	63	2131961	49.29 ug/l	99
49)	Bromodichloromethane	9.19	83	2520430	50.33 ug/l	99
50)	1,4-Dioxane	9.22	88	131902	1047.21 ug/l	96
51)	Dibromomethane	9.28	93	896560	51.58 ug/l	99
52)	2-Chloroethyl vinyl ether	9.69	63	564535	59.20 ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	4094508	251.01 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	3110991	50.52 ug/l	98
57)	Toluene	10.61	91	10258648	48.73 ug/l	100
58)	Ethyl methacrylate	10.90	69	1326717	51.74 ug/l	98
59)	trans-1,3-Dichloropropene	10.92	75	2128647	49.68 ug/l	97
60)	1,1,2-Trichloroethane	11.18	97	1046968	50.36 ug/l	100
61)	2-Hexanone	11.19	43	2460056	241.59 ug/l	98
62)	1,3-Dichloropropane	11.62	76	1972518	49.09 ug/l	100
63)	Tetrachloroethene	11.72	164	2177652	48.06 ug/l	100
64)	Dibromochloromethane	12.08	129	1450260	50.20 ug/l	100
65)	1,2-Dibromoethane	12.44	107	1009673	49.91 ug/l	100
66)	1-Chlorohexane	12.74	91	5161031	48.73 ug/l	98
67)	Chlorobenzene	13.20	112	5751695	48.91 ug/l	98
68)	1,1,1,2-Tetrachloroethane	13.28	131	1991375	51.13 ug/l	99
69)	Ethylbenzene	13.30	91	12056019	50.01 ug/l	99
70)	m-Xylene & p-Xylene	13.43	91	17264219	100.11 ug/l	97
71)	o-Xylene	14.23	91	7903490	48.89 ug/l	99
72)	Styrene	14.31	104	6171625	50.19 ug/l	98
73)	Isopropylbenzene	14.92	105	10972813	49.01 ug/l	99
75)	Bromoform	14.93	173	747074	52.21 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	1057162	50.31 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	278007	51.65 ug/l	95
79)	trans-1,4-Dichloro-2-buten	15.68	53	279001	50.09 ug/l	98
80)	n-Propylbenzene	15.68	91	13814247	49.40 ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D Vial: 8
Acq On : 18 Dec 2014 11:52 pm Operator: ASmith
Sample : VO67L1807 50ppb Inst : TO67
Misc : 50ppb8260/250ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromobenzene	15.75	156	1929457	48.73	ug/l		98
82)	1,3,5-Trimethylbenzene	16.00	105	8379231	48.91	ug/l		98
83)	2-Chlorotoluene	16.02	91	7908055	49.77	ug/l		97
84)	4-Chlorotoluene	16.12	91	6102175	45.24	ug/l		98
85)	tert-Butylbenzene	16.69	134	2009200	49.24	ug/l	#	91
86)	1,2,4-Trimethylbenzene	16.76	105	7736265	48.04	ug/l		99
87)	sec-Butylbenzene	17.10	105	11933626	48.20	ug/l		100
88)	p-Isopropyltoluene	17.37	119	9603049	48.05	ug/l		99
89)	1,3-Dichlorobenzene	17.53	146	3795946	47.44	ug/l		100
90)	1,4-Dichlorobenzene	17.75	146	3605586	47.00	ug/l		99
91)	n-Butylbenzene	18.13	91	8971807	47.17	ug/l		99
92)	1,2-Dichlorobenzene	18.40	146	2910726	47.54	ug/l		99
93)	1,2-Dibromo-3-chloropropan	19.54	157	143392	51.84	ug/l		98
94)	1,2,4-Trichlorobenzene	20.63	180	1747362	46.46	ug/l		99
95)	Hexachlorobutadiene	20.81	225	1500451	44.82	ug/l		100
96)	Naphthalene	20.95	128	2103302	49.82	ug/l		100
97)	1,2,3-Trichlorobenzene	21.28	180	1244120	46.74	ug/l		99

SA 12/29/14

(#) = qualifier out of range (m) = manual integration
RLC384.D VO67L18.M Mon Dec 22 19:46:55 2014 Page 3

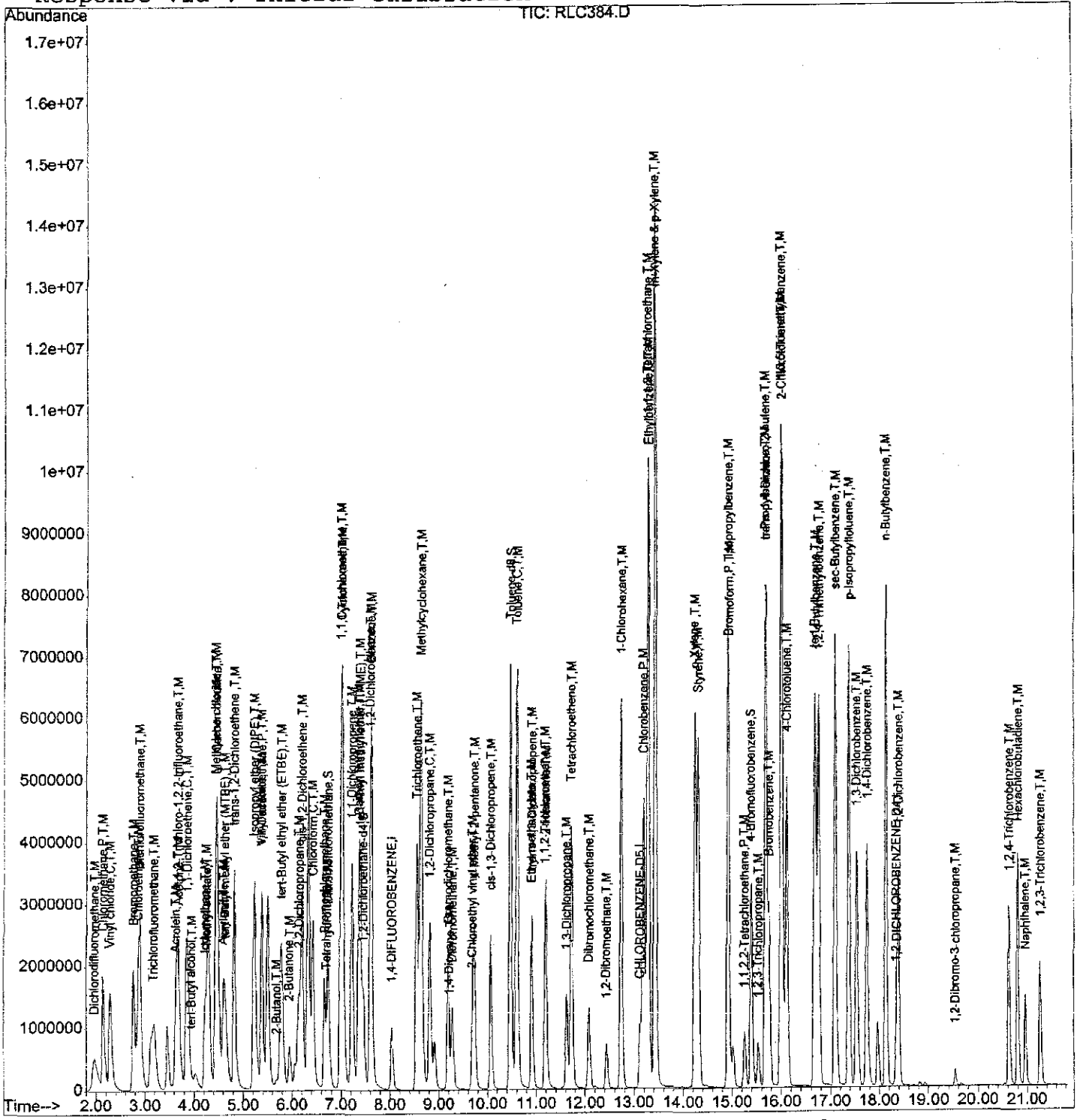
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D
Acq On : 18 Dec 2014 11:52 pm
Sample : VO67L1807 50ppb
Misc : 50ppb8260/250ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 8
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SU 12/24/14

2084

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D
Acq On : 19 Dec 2014 12:26 am
Sample : VO67L1808 100ppb
Misc : 100ppb8260/500ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 9
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1587237	10.00	ug/l	-0.01
55) CHLOROBENZENE-D5	13.12	117	1158304	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	357730	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	5270832	120.97	ug/l	-0.01
Spiked Amount 10.000			Recovery	= 1209.70%		
43) 1,2-Dichloroethane-d4	7.47	65	2819162	111.95	ug/l	0.00
Spiked Amount 10.000			Recovery	= 1119.50%		
56) Toluene-d8	10.48	98	20749708	121.23	ug/l	0.00
Spiked Amount 10.000			Recovery	= 1212.30%		
77) 4-Bromofluorobenzene	15.40	95	5096645	114.30	ug/l	0.01
Spiked Amount 10.000			Recovery	= 1143.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	5399589	100.85	ug/l	100
4) Chloromethane	2.15	50	8267071	104.62	ug/l	100
5) Vinyl chloride	2.29	62	8867048	102.68	ug/l	99
6) Bromomethane	2.76	94	6627947	112.78	ug/l	99
7) Chloroethane	2.85	64	5738183	106.63	ug/l	99
8) Dichlorofluoromethane	2.89	67	11810576	108.29	ug/l	99
9) Trichlorofluoromethane	3.18	101	7944639	105.83	ug/l	99
11) Acrolein	3.61	56	1060910	483.36	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	4346270	101.63	ug/l	100
13) Acetone	3.70	43	1710943	452.10	ug/l	97
14) 1,1-Dichloroethene	3.86	61	8407080	101.47	ug/l	97
15) tert-Butyl alcohol	3.96	59	678896	537.74	ug/l	96
16) Methyl acetate	4.25	43	1257953	102.51	ug/l	94
17) Iodomethane	4.24	142	9286330	109.12	ug/l	97
19) Methylene chloride	4.44	49	5050158	96.67	ug/l	95
20) Carbon disulfide	4.46	76	23795270	106.92	ug/l	100
21) Acrylonitrile	4.60	53	2951250	528.91	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	6816529	106.39	ug/l	98
23) trans-1,2-Dichloroethene	4.82	61	7291752	101.95	ug/l	96
24) Isopropyl ether (DIPE)	5.23	45	14921687	104.74	ug/l	98
25) 1,1-Dichloroethane	5.38	63	9274951	104.33	ug/l	100
26) Vinyl acetate	5.38	43	5024775	113.50	ug/l	98
27) 2-Butanol	5.69	45	570830	548.92	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	11175639	108.32	ug/l	99
29) 2-Butanone	5.95	43	3283828	518.02	ug/l	99
30) 2,2-Dichloropropane	6.15	77	4484899	87.32	ug/l	98
31) cis-1,2-Dichloroethene	6.21	96	5788564	109.55	ug/l	95

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D
Acq On : 19 Dec 2014 12:26 am
Sample : VO67L1808 100ppb
Misc : 100ppb8260/500ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 9
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32)	Chloroform	6.43	83	8293745	106.22	ug/l	99
33)	Bromochloromethane	6.66	49	2866797	105.23	ug/l	94
36)	Tetrahydrofuran	6.71	42	331021	97.49	ug/l	87
37)	1,1,1-Trichloroethane	7.00	97	7089506	102.58	ug/l	98
38)	Cyclohexane	7.01	56	11810001	105.31	ug/l	96
40)	1,1-Dichloropropene	7.23	110	2897054	107.62	ug/l	100
41)	Carbon tetrachloride	7.37	119	6453999	103.07	ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	1880647	110.80	ug/l	97
44)	1,2-Dichloroethane	7.60	62	3075929	103.66	ug/l	100
45)	Benzene	7.61	78	20721819	109.67	ug/l	99
46)	Trichloroethene	8.55	130	5978981	100.44	ug/l	98
47)	Methylcyclohexane	8.64	83	12594920	109.09	ug/l	96
48)	1,2-Dichloropropane	8.83	63	4403807	106.42	ug/l	97
49)	Bromodichloromethane	9.19	83	5122962	106.92	ug/l	99
50)	1,4-Dioxane	9.22	88	269606	2237.08	ug/l	95
51)	Dibromomethane	9.28	93	1829301	110.00	ug/l	99
52)	2-Chloroethyl vinyl ether	9.69	63	1167993	128.02	ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	8242487	528.11	ug/l	98
54)	cis-1,3-Dichloropropene	10.07	75	6401472	108.64	ug/l	97
57)	Toluene	10.61	91	21186498	106.11	ug/l	98
58)	Ethyl methacrylate	10.90	69	2747207	112.94	ug/l	97
59)	trans-1,3-Dichloropropene	10.92	75	4395851	108.15	ug/l	96
60)	1,1,2-Trichloroethane	11.19	97	2184851	110.80	ug/l	99
61)	2-Hexanone	11.21	43	4892349	506.53	ug/l	97
62)	1,3-Dichloropropane	11.63	76	4042135	106.06	ug/l	100
63)	Tetrachloroethene	11.73	164	4542407	105.70	ug/l	100
64)	Dibromochloromethane	12.09	129	2991914	109.18	ug/l	99
65)	1,2-Dibromoethane	12.44	107	2055727	107.14	ug/l	100
66)	1-Chlorohexane	12.74	91	10719202	106.70	ug/l	96
67)	Chlorobenzene	13.20	112	12273380	110.04	ug/l	96
68)	1,1,1,2-Tetrachloroethane	13.28	131	4270614	115.59	ug/l	99
69)	Ethylbenzene	13.30	91	24107931	105.43	ug/l	94
70)	m-Xylene & p-Xylene	13.44	91	27886339	170.48	ug/l	70
71)	o-Xylene	14.25	91	16259061	106.04	ug/l	97
72)	Styrene	14.32	104	13019807	111.62	ug/l	97
73)	Isopropylbenzene	14.92	105	22414329	105.55	ug/l	98
75)	Bromoform	14.93	173	1585185	123.30	ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	2078011	110.06	ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	540176	111.69	ug/l	94
79)	trans-1,4-Dichloro-2-buten	15.68	53	527353	105.38	ug/l	96
80)	n-Propylbenzene	15.69	91	25259249	100.53	ug/l	95

(#) = qualifier out of range (m) = manual integration

12/24/14

2086

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D
Acq On : 19 Dec 2014 12:26 am
Sample : VO67L1808 100ppb
Misc : 100ppb8260/500ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 9
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81) Bromobenzene	15.77	156	3950260	111.05 ug/l	97
82) 1,3,5-Trimethylbenzene	16.00	105	17307018	112.45 ug/l	96
83) 2-Chlorotoluene	16.02	91	15852288	111.05 ug/l	95
84) 4-Chlorotoluene	16.12	91	12732201	105.07 ug/l	98
85) tert-Butylbenzene	16.69	134	4124949	112.52 ug/l	92
86) 1,2,4-Trimethylbenzene	16.76	105	15694000	108.48 ug/l	98
87) sec-Butylbenzene	17.10	105	23068960	103.71 ug/l	98
88) p-Isopropyltoluene	17.37	119	19031034	105.99 ug/l	98
89) 1,3-Dichlorobenzene	17.55	146	7595304	105.65 ug/l	99
90) 1,4-Dichlorobenzene	17.75	146	7199802	104.46 ug/l	99
91) n-Butylbenzene	18.15	91	17446127	102.09 ug/l	98
92) 1,2-Dichlorobenzene	18.40	146	5768257	104.86 ug/l	99
93) 1,2-Dibromo-3-chloropropan	19.54	157	274393	110.41 ug/l	97
94) 1,2,4-Trichlorobenzene	20.63	180	3461308	102.43 ug/l	99
95) Hexachlorobutadiene	20.81	225	2909501	96.73 ug/l	100
96) Naphthalene	20.95	128	4101324	108.13 ug/l	100
97) 1,2,3-Trichlorobenzene	21.28	180	2428973	101.57 ug/l	99

Sa 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC385.D VO67L18.M Mon Dec 22 19:47:10 2014

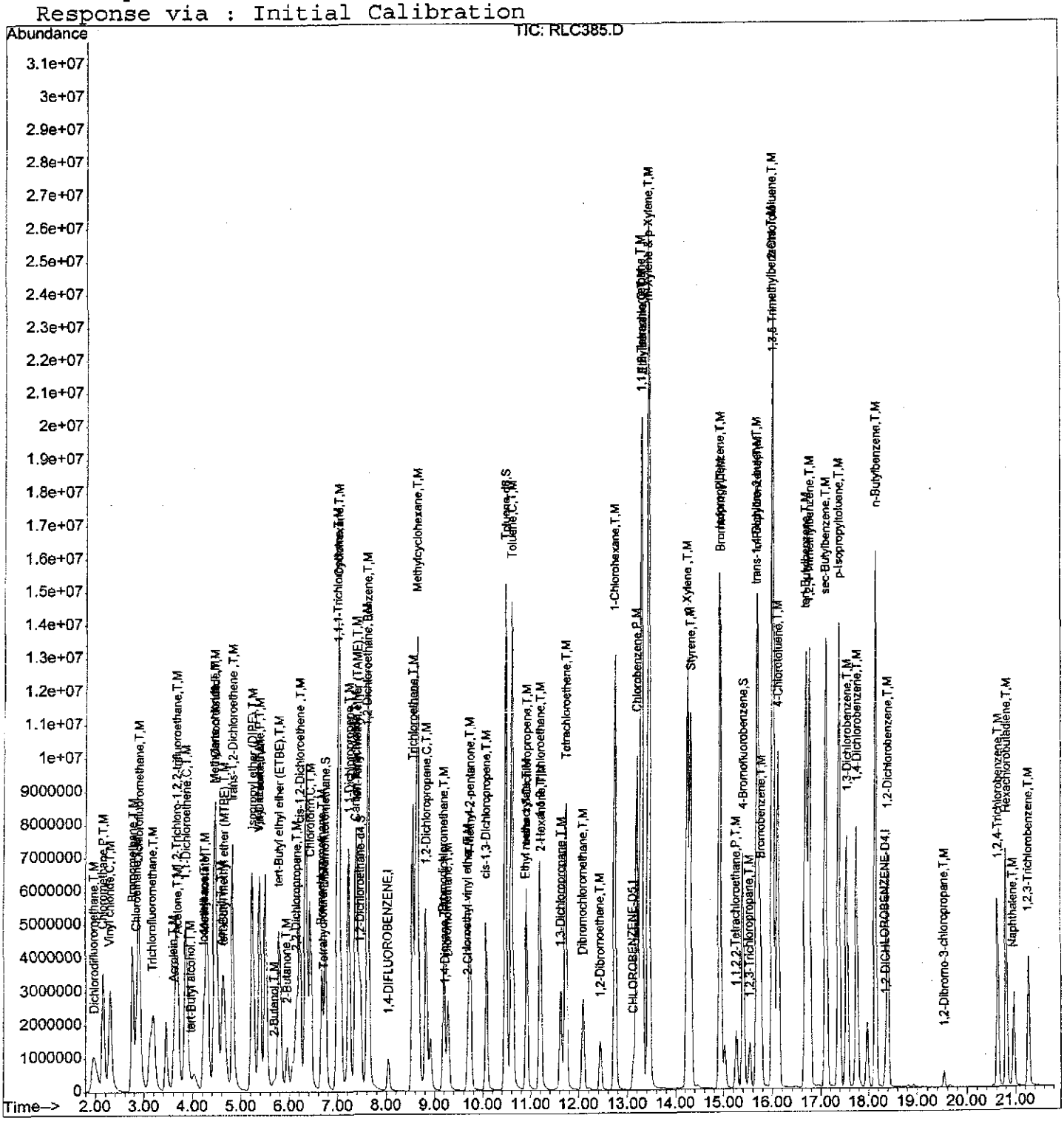
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D
Acq On : 19 Dec 2014 12:26 am
Sample : VO67L1808 100ppb
Misc : 100ppb8260/500ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 9
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SU 2/24/14

2088

SECOND SOURCE VERIFICATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RLC394
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: B & B, CITY WELL SAMPLING
SAS No.: SDG No.: 15D128
BFB Injection Date : 12/19/14
BFB Injection Time : 11:33
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.09
75	30.0 - 60.0% of mass 95	45.63
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.90
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	83.68
175	5.0 - 9.0% of mass 174	7.05(8.4)1
176	95.0 - 101.0% of mass 174	80.11(95.7)1
177	5.0 - 9.0% of mass 176	5.81(7.2)2

1-Value is % mass 174 2-Value is % mass 176

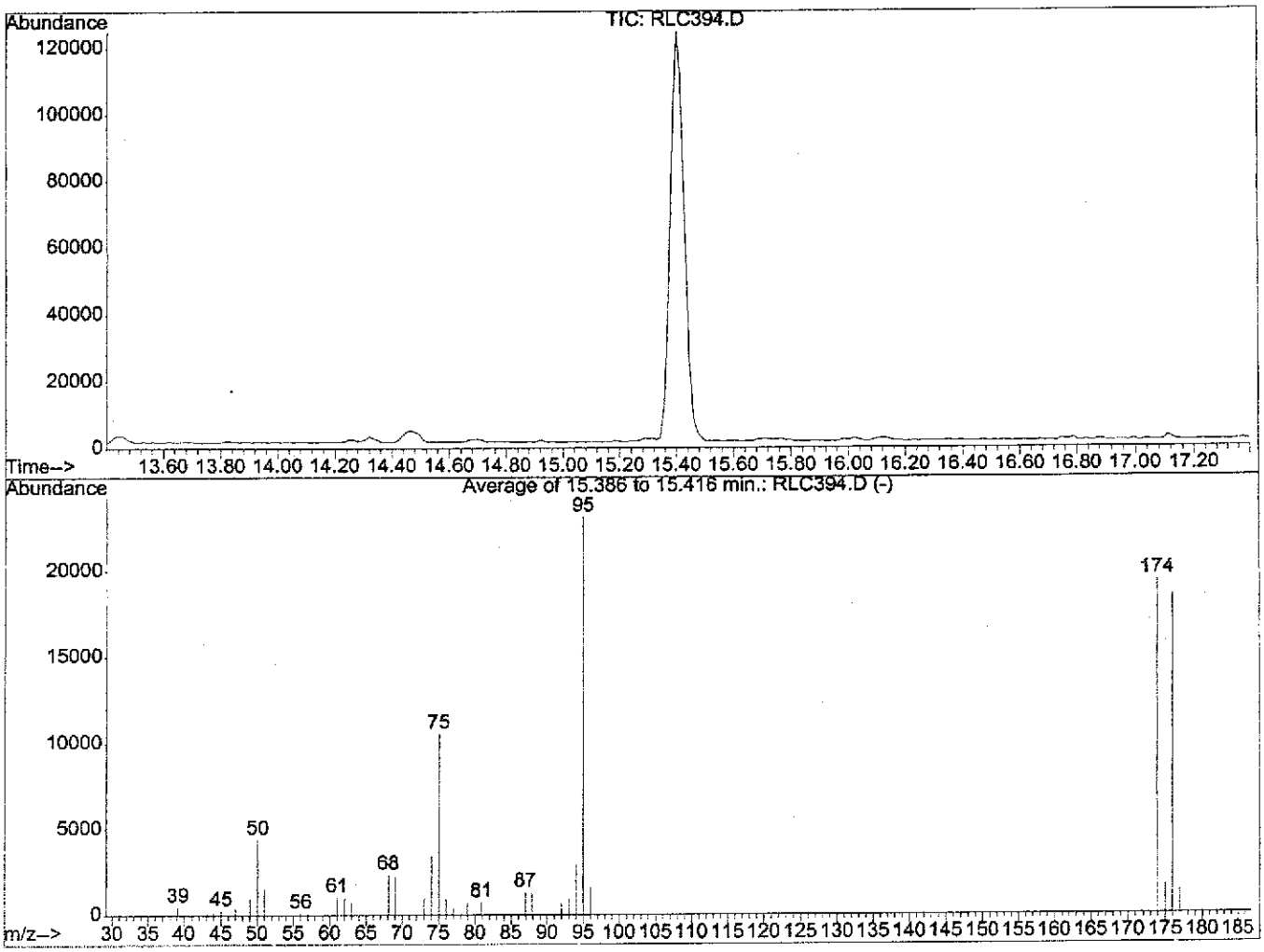
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	IV067L1802	RLC396	12/19/14	12:39

BFB

Data File : D:\HPCHEM\1\DATA\14L19\RLC394.D
Acq On : 19 Dec 2014 11:33 am
Sample : BFB67L15
Misc : T/CHECK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B

Vial: 1
Operator: ASmith
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 933, 934, 935; Background Corrected with Scan 927

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	4419	PASS
75	95	30	60	45.6	10561	PASS
95	95	100	100	100.0	23144	PASS
96	95	5	9	6.9	1597	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.7	19368	PASS
175	174	5	9	8.4	1631	PASS
176	174	95	101	95.7	18541	PASS
177	176	5	9	7.2	1344	PASS

RLC394.D VO67L18.M Fri Dec 19 14:41:27 2014

SM 12/24/14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	95	-0.02	
2	T,M	Dichlorodifluoromethane	10.000	8.534	14.7	75	-0.01	
3	T,M	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00	
4	P,T,M	Chloromethane	10.000	9.175	8.2	83	0.00	
5	C,T,M	Vinyl chloride	10.000	9.449	5.5	85	0.00	
6	T,M	Bromomethane	10.000	8.161	18.4	76	-0.01	
7	T,M	Chloroethane	10.000	8.810	11.9	81	0.00	
8	T,M	Dichlorofluoromethane	10.000	10.510	-5.1	100	-0.01	
9	T,M	Trichlorofluoromethane	10.000	9.684	3.2	88	-0.03	
10	T,M	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00	
11	T,M	Acrolein	50.000	62.003	-24.0#	126	0.00	Not av.
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.458	-4.6	102	0.00	
13	T,M	Acetone	50.000	49.841	0.3	101	0.00	
14	C,T,M	1,1-Dichloroethene	10.000	10.582	-5.8	101	0.00	
15	T,M	tert-Butyl alcohol	50.000	53.927	-7.9	100	-0.02	
16	T,M	Methyl acetate	10.000	9.648	3.5	96	-0.02	
17	T,M	Iodomethane	10.000	11.853	-18.5	112	-0.02	
18	T,M	Acetonitrile	-1.000	0.000	0.0	106	-0.02	
19	T,M	Methylene chloride	10.000	10.446	-4.5	105	-0.02	
20	T,M	Carbon disulfide	10.000	10.318	-3.2	99	0.00	
21	T,M	Acrylonitrile	50.000	50.653	-1.3	98	-0.02	
22	T,M	tert-Butyl methyl ether (MT	10.000	10.114	-1.1	95	0.00	
23	T,M	trans-1,2-Dichloroethene	10.000	11.055	-10.5	106	-0.02	
24	T,M	Isopropyl ether (DIPE)	10.000	9.855	1.4	94	0.00	
25	P,T,M	1,1-Dichloroethane	10.000	10.989	-9.9	105	-0.02	
26	T,M	Vinyl acetate	10.000	8.834	11.7	77	-0.02	
27	T,M	2-Butanol	50.000	50.260	-0.5	105	0.00	
28	T,M	tert-Butyl ethyl ether (ETB	10.000	10.163	-1.6	96	0.00	
29	T,M	2-Butanone	50.000	51.099	-2.2	102	-0.02	
30	T,M	2,2-Dichloropropane	10.000	11.531	-15.3	105	0.00	
31	T,M	cis-1,2-Dichloroethene	10.000	10.871	-8.7	104	-0.02	
32	C,T,M	Chloroform	10.000	10.851	-8.5	104	-0.02	
33	T,M	Bromochloromethane	10.000	11.167	-11.7	103	0.00	
34	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00	
35	S	Dibromofluoromethane	10.000	10.715	-7.1	93	-0.02	
36	T,M	Tetrahydrofuran	10.000	11.728	-17.3	106	0.00	
37	T,M	1,1,1-Trichloroethane	10.000	10.805	-8.0	102	0.00	
38	T,M	Cyclohexane	10.000	9.568	4.3	99	-0.02	
39	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00	
40	T,M	1,1-Dichloropropene	10.000	10.402	-4.0	99	-0.02	
41	T,M	Carbon tetrachloride	10.000	10.695	-7.0	101	-0.02	

(#) = Out of Range

SM 12/24/14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	10.000	10.269	-2.7	95	0.00
43	S	1,2-Dichloroethane-d4	10.000	10.269	-2.7	89	-0.02
44	T,M	1,2-Dichloroethane	10.000	11.294	-12.9	105	0.00
45	T,M	Benzene	10.000	11.351	-13.5	110	-0.02
46	T,M	Trichloroethene	10.000	10.256	-2.6	107	0.00
47	T,M	Methylcyclohexane	10.000	9.296	7.0	96	0.00
48	C,T,M	1,2-Dichloropropane	10.000	10.881	-8.8	104	-0.02
49	T,M	Bromodichloromethane	10.000	11.390	-13.9	107	0.00
50	T,M	1,4-Dioxane	200.000	223.263	-11.6	105	-0.02
51	T,M	Dibromomethane	10.000	11.360	-13.6	106	0.00
52	T,M	2-Chloroethyl vinyl ether	10.000	8.060	19.4	70	0.00
53	T,M	4-Methyl-2-pentanone	50.000	50.465	-0.9	98	0.00
54	T,M	cis-1,3-Dichloropropene	10.000	11.045	-10.4	104	0.00
55	I	CHLOROBENZENE-D5	10.000	10.000	0.0	97	0.00
56	S	Toluene-d8	10.000	9.827	1.7	91	0.00
57	C,T,M	Toluene	10.000	10.538	-5.4	105	0.00
58	T,M	Ethyl methacrylate	10.000	10.690	-6.9	102	0.00
59	T,M	trans-1,3-Dichloropropene	10.000	10.777	-7.8	103	0.00
60	T,M	1,1,2-Trichloroethane	10.000	10.857	-8.6	106	0.00
61	T,M	2-Hexanone	50.000	49.230	1.5	101	0.00
62	T,M	1,3-Dichloropropane	10.000	10.891	-8.9	105	0.00
63	T,M	Tetrachloroethene	10.000	10.603	-6.0	106	0.00
64	T,M	Dibromochloromethane	10.000	10.990	-9.9	106	0.00
65	T,M	1,2-Dibromoethane	10.000	10.924	-9.2	106	0.00
66	T,M	1-Chlorohexane	10.000	9.172	8.3	91	-0.02
67	P,M	Chlorobenzene	10.000	10.736	-7.4	107	0.00
68	T,M	1,1,1,2-Tetrachloroethane	10.000	10.398	-4.0	102	0.00
69	C,T,M	Ethylbenzene	10.000	10.278	-2.8	102	0.00
70	T,M	m-Xylene & p-Xylene	20.000	21.090	-5.4	105	0.00
71	T,M	o-Xylene	10.000	10.558	-5.6	105	0.00
72	T,M	Styrene	10.000	10.889	-8.9	107	0.00
73	T,M	Isopropylbenzene	10.000	10.782	-7.8	106	0.00
74	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	98	0.00
75	P,T,M	Bromoform	10.000	10.394	-3.9	105	0.00
76	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.421	-4.2	102	0.00
77	S	4-Bromofluorobenzene	10.000	9.452	5.5	93	0.00
78	T,M	1,2,3-Trichloropropane	10.000	10.693	-6.9	103	0.00
79	T,M	trans-1,4-Dichloro-2-butene	10.000	10.722	-7.2	105	0.00
80	T,M	n-Propylbenzene	10.000	10.248	-2.5	104	0.00

(#) = Out of Range

SCL 12/24/14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	10.000	10.239	-2.4	105	0.00
82	T,M	1,3,5-Trimethylbenzene	10.000	10.084	-0.8	103	0.01
83	T,M	2-Chlorotoluene	10.000	9.917	0.8	104	0.00
84	T,M	4-Chlorotoluene	10.000	10.429	-4.3	107	0.01
85	T,M	tert-Butylbenzene	10.000	10.129	-1.3	104	0.01
86	T,M	1,2,4-Trimethylbenzene	10.000	10.207	-2.1	104	0.01
87	T,M	sec-Butylbenzene	10.000	10.032	-0.3	102	0.00
88	T,M	p-Isopropyltoluene	10.000	10.062	-0.6	101	0.00
89	T,M	1,3-Dichlorobenzene	10.000	10.374	-3.7	107	0.00
90	T,M	1,4-Dichlorobenzene	10.000	10.283	-2.8	107	0.00
91	T,M	n-Butylbenzene	10.000	10.203	-2.0	103	0.00
92	T,M	1,2-Dichlorobenzene	10.000	10.609	-6.1	108	0.00
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.836	-8.4	104	0.00
94	T,M	1,2,4-Trichlorobenzene	10.000	10.468	-4.7	106	0.00
95	T,M	Hexachlorobutadiene	10.000	10.240	-2.4	103	0.00
96	T,M	Naphthalene	10.000	10.631	-6.3	105	0.00
97	T,M	1,2,3-Trichlorobenzene	10.000	10.557	-5.6	107	0.00

Sa 12/24/14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
RLC396.D VO67L18.M Mon Dec 22 19:47:33 2014 Page 3

2094

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	95	-0.02	
2	T,M	Dichlorodifluoromethane	0.337	0.288	14.5	75	-0.01	
3	T,M	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00	
4	P,T,M	Chloromethane	0.498	0.457	8.2	83	0.00	
5	C,T,M	Vinyl chloride	0.544	0.514	5.5	85	0.00	
6	T,M	Bromomethane	0.336	0.298	11.3	76	-0.01	
7	T,M	Chloroethane	0.339	0.299	11.8	81	0.00	
8	T,M	Dichlorofluoromethane	0.687	0.722	-5.1	100	-0.01	
9	T,M	Trichlorofluoromethane	0.473	0.458	3.2	88	-0.03	
10	T,M	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00	
11	T,M	Acrolein	0.014	0.017	-21.4#	126	0.00	Not eva
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.269	0.282	-4.8	102	0.00	
13	T,M	Acetone	0.024	0.024	0.0	101	0.00	
14	C,T,M	1,1-Dichloroethene	0.522	0.552	-5.7	101	0.00	
15	T,M	tert-Butyl alcohol	0.008	0.009	-12.5	100	-0.02	
16	T,M	Methyl acetate	0.083	0.077	7.2	96	-0.02	
17	T,M	Iodomethane	0.536	0.636	-18.7	112	-0.02	
18	T,M	Acetonitrile	0.000	0.000	0.0	106	-0.02	
19	T,M	Methylene chloride	0.329	0.344	-4.6	105	-0.02	
20	T,M	Carbon disulfide	1.402	1.447	-3.2	99	0.00	
21	T,M	Acrylonitrile	0.035	0.036	-2.9	98	-0.02	
22	T,M	tert-Butyl methyl ether (MT	0.404	0.408	-1.0	95	0.00	
23	T,M	trans-1,2-Dichloroethene	0.451	0.498	-10.4	106	-0.02	
24	T,M	Isopropyl ether (DIPE)	0.898	0.885	1.4	94	0.00	
25	P,T,M	1,1-Dichloroethane	0.560	0.615	-9.8	105	-0.02	
26	T,M	Vinyl acetate	0.279	0.246	11.8	77	-0.02	
27	T,M	2-Butanol	0.007	0.007	0.0	105	0.00	
28	T,M	tert-Butyl ethyl ether (ETB	0.650	0.661	-1.7	96	0.00	
29	T,M	2-Butanone	0.040	0.041	-2.5	102	-0.02	
30	T,M	2,2-Dichloropropane	0.324	0.373	-15.1	105	0.00	
31	T,M	cis-1,2-Dichloroethene	0.333	0.362	-8.7	104	-0.02	
32	C,T,M	Chloroform	0.492	0.534	-8.5	104	-0.02	
33	T,M	Bromochloromethane	0.172	0.192	-11.6	103	0.00	
34	T,M	tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00	
35	S	Dibromofluoromethane	0.275	0.294	-6.9	93	-0.02	
36	T,M	Tetrahydrofuran	0.021	0.025	-19.0	106	0.00	
37	T,M	1,1,1-Trichloroethane	0.435	0.470	-8.0	102	0.00	
38	T,M	Cyclohexane	0.707	0.676	4.4	99	-0.02	
39	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00	
40	T,M	1,1-Dichloropropene	0.170	0.176	-3.5	99	-0.02	
41	T,M	Carbon tetrachloride	0.395	0.422	-6.8	101	-0.02	

(#) = Out of Range

SA 12/24/14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	0.107	0.110	-2.8	95	0.00
43	S	1,2-Dichloroethane-d4	0.159	0.163	-2.5	89	-0.02
44	T,M	1,2-Dichloroethane	0.187	0.211	-12.8	105	0.00
45	T,M	Benzene	1.190	1.351	-13.5	110	-0.02
46	T,M	Trichloroethene	0.375	0.385	-2.7	107	0.00
47	T,M	Methylcyclohexane	0.727	0.676	7.0	96	0.00
48	C,T,M	1,2-Dichloropropane	0.261	0.284	-8.8	104	-0.02
49	T,M	Bromodichloromethane	0.302	0.344	-13.9	107	0.00
50	T,M	1,4-Dioxane	0.001	0.001	0.0	105	-0.02
51	T,M	Dibromomethane	0.105	0.119	-13.3	106	0.00
52	T,M	2-Chloroethyl vinyl ether	0.057	0.046	19.3	70	0.00
53	T,M	4-Methyl-2-pentanone	0.098	0.099	-1.0	98	0.00
54	T,M	cis-1,3-Dichloropropene	0.371	0.410	-10.5	104	0.00
55	I	CHLOROBENZENE-D5	1.000	1.000	0.0	97	0.00
56	S	Toluene-d8	1.478	1.452	1.8	91	0.00
57	C,T,M	Toluene	1.724	1.816	-5.3	105	0.00
58	T,M	Ethyl methacrylate	0.210	0.224	-6.7	102	0.00
59	T,M	trans-1,3-Dichloropropene	0.351	0.378	-7.7	103	0.00
60	T,M	1,1,2-Trichloroethane	0.170	0.185	-8.8	106	0.00
61	T,M	2-Hexanone	0.083	0.082	1.2	101	0.00
62	T,M	1,3-Dichloropropane	0.329	0.358	-8.8	105	0.00
63	T,M	Tetrachloroethene	0.371	0.393	-5.9	106	0.00
64	T,M	Dibromochloromethane	0.237	0.260	-9.7	106	0.00
65	T,M	1,2-Dibromoethane	0.166	0.181	-9.0	106	0.00
66	T,M	1-Chlorohexane	0.867	0.795	8.3	91	-0.02
67	P,M	Chlorobenzene	0.963	1.034	-7.4	107	0.00
68	T,M	1,1,1,2-Tetrachloroethane	0.319	0.332	-4.1	102	0.00
69	C,T,M	Ethylbenzene	1.974	2.029	-2.8	102	0.00
70	T,M	m-Xylene & p-Xylene	1.412	1.489	-5.5	105	0.00
71	T,M	o-Xylene	1.324	1.398	-5.6	105	0.00
72	T,M	Styrene	1.007	1.097	-8.9	107	0.00
73	T,M	Isopropylbenzene	1.833	1.977	-7.9	106	0.00
74	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	98	0.00
75	P,T,M	Bromoform	0.359	0.374	-4.2	105	0.00
76	P,T,M	1,1,2,2-Tetrachloroethane	0.528	0.550	-4.2	102	0.00
77	S	4-Bromofluorobenzene	1.246	1.178	5.5	93	0.00
78	T,M	1,2,3-Trichloropropane	0.135	0.145	-7.4	103	0.00
79	T,M	trans-1,4-Dichloro-2-butene	0.140	0.150	-7.1	105	0.00
80	T,M	n-Propylbenzene	7.024	7.198	-2.5	104	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	0.994	1.018	-2.4	105	0.00
82	T,M	1,3,5-Trimethylbenzene	4.302	4.339	-0.9	103	0.01
83	T,M	2-Chlorotoluene	3.991	3.957	0.9	104	0.00
84	T,M	4-Chlorotoluene	3.388	3.533	-4.3	107	0.01
85	T,M	tert-Butylbenzene	1.025	1.038	-1.3	104	0.01
86	T,M	1,2,4-Trimethylbenzene	4.044	4.128	-2.1	104	0.01
87	T,M	sec-Butylbenzene	6.218	6.238	-0.3	102	0.00
88	T,M	p-Isopropyltoluene	5.019	5.050	-0.6	101	0.00
89	T,M	1,3-Dichlorobenzene	2.010	2.085	-3.7	107	0.00
90	T,M	1,4-Dichlorobenzene	1.927	1.981	-2.8	107	0.00
91	T,M	n-Butylbenzene	4.777	4.874	-2.0	103	0.00
92	T,M	1,2-Dichlorobenzene	1.538	1.631	-6.0	108	0.00
93	T,M	1,2-Dibromo-3-chloropropane	0.069	0.075	-8.7	104	0.00
94	T,M	1,2,4-Trichlorobenzene	0.945	0.989	-4.7	106	0.00
95	T,M	Hexachlorobutadiene	0.841	0.861	-2.4	103	0.00
96	T,M	Naphthalene	1.060	1.127	-6.3	105	0.00
97	T,M	1,2,3-Trichlorobenzene	0.668	0.706	-5.7	107	0.00

SA
12/24/14

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1498992	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1107672	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	377033	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	440926	10.71	ug/l	-0.02
Spiked Amount 10.000			Recovery =	107.10%		
43) 1,2-Dichloroethane-d4	7.45	65	244221	10.27	ug/l	-0.02
Spiked Amount 10.000			Recovery =	102.70%		
56) Toluene-d8	10.48	98	1608447	9.83	ug/l	0.00
Spiked Amount 10.000			Recovery =	98.30%		
77) 4-Bromofluorobenzene	15.39	95	444211	9.45	ug/l	0.00
Spiked Amount 10.000			Recovery =	94.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	431539	8.53	ug/l	100
4) Chloromethane	2.14	50	684683	9.17	ug/l	99
5) Vinyl chloride	2.28	62	770676	9.45	ug/l	99
6) Bromomethane	2.76	94	447018	8.16	ug/l	99
7) Chloroethane	2.86	64	447751	8.81	ug/l	98
8) Dichlorofluoromethane	2.89	67	1082505	10.51	ug/l	100
9) Trichlorofluoromethane	3.13	101	686544	9.68	ug/l	99
11) Acrolein	3.62	56	128522	62.00	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	422365	10.46	ug/l	100
13) Acetone	3.70	43	178133	49.84	ug/l	99
14) 1,1-Dichloroethene	3.86	61	828002	10.58	ug/l	99
15) tert-Butyl alcohol	3.94	59	64297	53.93	ug/l	99
16) Methyl acetate	4.25	43	115292	9.65	ug/l	99
17) Iodomethane	4.22	142	952655	11.85	ug/l	99
19) Methylene chloride	4.44	49	515326	10.45	ug/l	99
20) Carbon disulfide	4.47	76	2168558	10.32	ug/l	99
21) Acrylonitrile	4.60	53	266922	50.65	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	611970	10.11	ug/l	98
23) trans-1,2-Dichloroethene	4.82	61	746699	11.05	ug/l	100
24) Isopropyl ether (DIPE)	5.23	45	1325896	9.86	ug/l	99
25) 1,1-Dichloroethane	5.38	63	922627	10.99	ug/l	100
26) Vinyl acetate	5.38	43	369350	8.83	ug/l	100
27) 2-Butanol	5.68	45	49361	50.26	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	990247	10.16	ug/l	99
29) 2-Butanone	5.95	43	305916	51.10	ug/l	100
30) 2,2-Dichloropropane	6.15	77	559324	11.53	ug/l	100
31) cis-1,2-Dichloroethene	6.21	96	542494	10.87	ug/l	100

(#) = qualifier out of range (m) = manual integration

SA 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	800150	10.85 ug/l	100
33)	Bromochloromethane	6.66	49	287295	11.17 ug/l	99
36)	Tetrahydrofuran	6.71	42	37607	11.73 ug/l	97
37)	1,1,1-Trichloroethane	7.00	97	705243	10.80 ug/l	100
38)	Cyclohexane	7.01	56	1013377	9.57 ug/l	99
40)	1,1-Dichloropropene	7.22	110	264445	10.40 ug/l	100
41)	Carbon tetrachloride	7.36	119	632501	10.70 ug/l	99
42)	tert-Amyl methyl ether (TA	7.39	87	164607	10.27 ug/l	100
44)	1,2-Dichloroethane	7.60	62	316497	11.29 ug/l	100
45)	Benzene	7.61	78	2025451	11.35 ug/l	100
46)	Trichloroethene	8.55	130	576545	10.26 ug/l	99
47)	Methylcyclohexane	8.64	83	1013580	9.30 ug/l	99
48)	1,2-Dichloropropane	8.81	63	425246	10.88 ug/l	99
49)	Bromodichloromethane	9.19	83	515373	11.39 ug/l	100
50)	1,4-Dioxane	9.22	88	25411	223.26 ug/l	100
51)	Dibromomethane	9.28	93	178418	11.36 ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	69449	8.06 ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	743843	50.46 ug/l	98
54)	cis-1,3-Dichloropropene	10.07	75	614642	11.04 ug/l	99
57)	Toluene	10.61	91	2012061	10.54 ug/l	100
58)	Ethyl methacrylate	10.90	69	248645	10.69 ug/l	98
59)	trans-1,3-Dichloropropene	10.91	75	418867	10.78 ug/l	99
60)	1,1,2-Trichloroethane	11.18	97	204738	10.86 ug/l	99
61)	2-Hexanone	11.19	43	454709	49.23 ug/l	100
62)	1,3-Dichloropropane	11.62	76	396927	10.89 ug/l	100
63)	Tetrachloroethene	11.72	164	435770	10.60 ug/l	100
64)	Dibromochloromethane	12.08	129	287976	10.99 ug/l	98
65)	1,2-Dibromoethane	12.43	107	200425	10.92 ug/l	100
66)	1-Chlorohexane	12.73	91	881112	9.17 ug/l	99
67)	Chlorobenzene	13.19	112	1145073	10.74 ug/l	100
68)	1,1,1,2-Tetrachloroethane	13.27	131	367376	10.40 ug/l	100
69)	Ethylbenzene	13.28	91	2247585	10.28 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	3298966	21.09 ug/l	100
71)	o-Xylene	14.23	91	1548167	10.56 ug/l	99
72)	Styrene	14.30	104	1214613	10.89 ug/l	100
73)	Isopropylbenzene	14.92	105	2189538	10.78 ug/l	100
75)	Bromoform	14.93	173	140842	10.39 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.25	83	207366	10.42 ug/l	100
78)	1,2,3-Trichloropropane	15.53	110	54506	10.69 ug/l	97
79)	trans-1,4-Dichloro-2-buten	15.68	53	56551	10.72 ug/l	99
80)	n-Propylbenzene	15.68	91	2713796	10.25 ug/l	100

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromobenzene	15.75	156	383867	10.24	ug/l	100
82)	1,3,5-Trimethylbenzene	16.00	105	1635804	10.08	ug/l	100
83)	2-Chlorotoluene	16.01	91	1492025	9.92	ug/l	96
84)	4-Chlorotoluene	16.12	91	1331952	10.43	ug/l	96
85)	tert-Butylbenzene	16.69	134	391349	10.13	ug/l	99
86)	1,2,4-Trimethylbenzene	16.76	105	1556334	10.21	ug/l	100
87)	sec-Butylbenzene	17.10	105	2351906	10.03	ug/l	100
88)	p-Isopropyltoluene	17.37	119	1904058	10.06	ug/l	100
89)	1,3-Dichlorobenzene	17.53	146	785997	10.37	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	746948	10.28	ug/l	99
91)	n-Butylbenzene	18.13	91	1837665	10.20	ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	615068	10.61	ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.54	157	28385	10.84	ug/l	100
94)	1,2,4-Trichlorobenzene	20.63	180	372846	10.47	ug/l	100
95)	Hexachlorobutadiene	20.81	225	324635	10.24	ug/l	100
96)	Naphthalene	20.95	128	424989	10.63	ug/l	100
97)	1,2,3-Trichlorobenzene	21.27	180	266070	10.56	ug/l	99

Sa 12/24/14

(#) = qualifier out of range (m) = manual integration

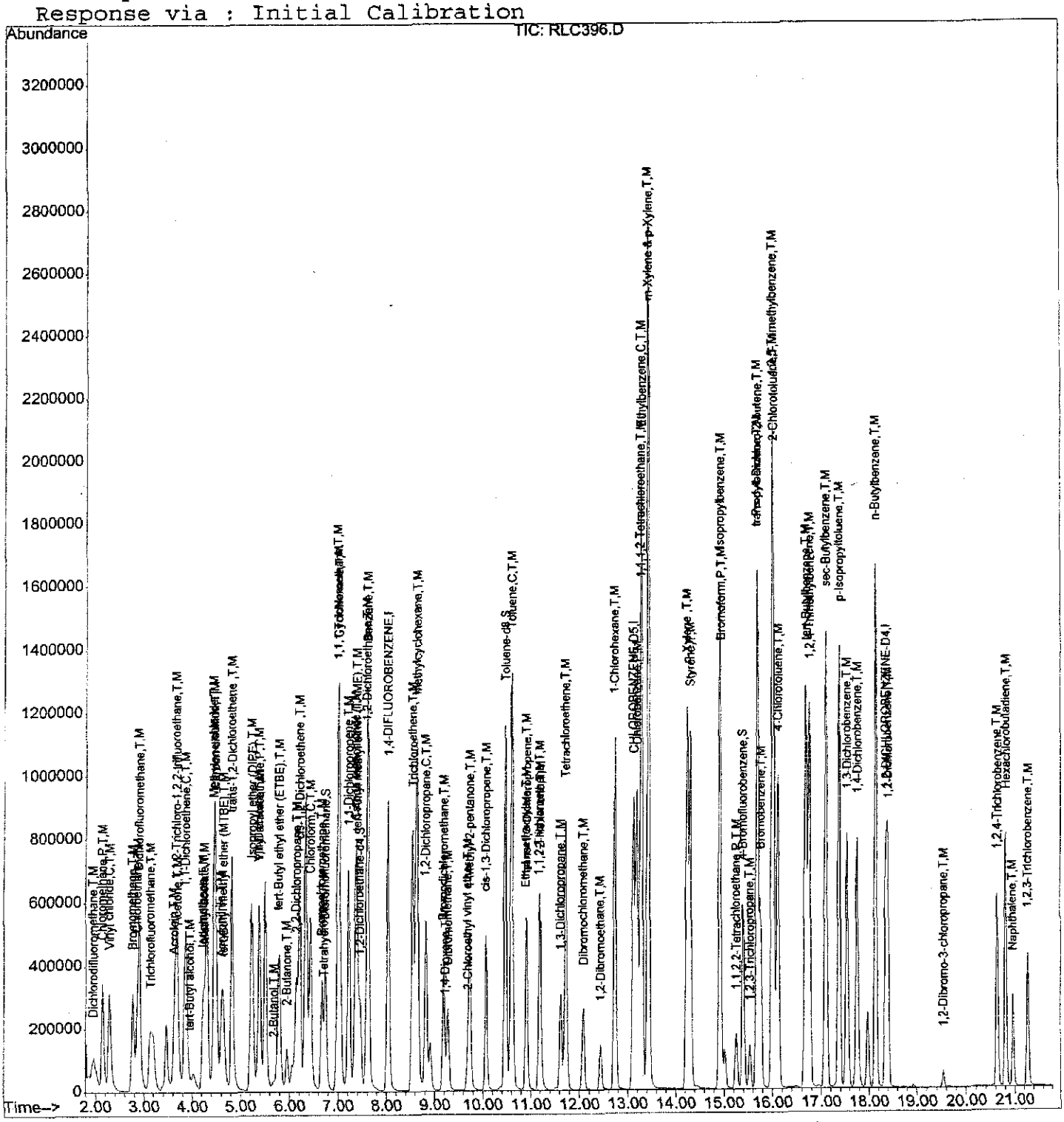
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SM 12/24/14

2101

DAILY CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RDC347
Instrument ID: 67
GC Column:RTX5D2.2ID:0.25mm (mm)

Contract: B & B, CITY WELL SAMPLING
SAS No.: SDG No.: 15D128
BFB Injection Date : 04/23/15
BFB Injection Time : 08:10
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.09
75	30.0 - 60.0% of mass 95	42.84
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.61
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	88.64
175	5.0 - 9.0% of mass 174	6.97(7.9)1
176	95.0 - 101.0% of mass 174	87.31(98.5)1
177	5.0 - 9.0% of mass 176	5.88(6.7)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV067L1890	RDC348	04/23/15	08:44
2	MBLK1W	V067D15B	RDC352	04/23/15	11:17
3	LCS1W	V067D15L	RDC349	04/23/15	09:31
4	LCD1W	V067D15C	RDC350	04/23/15	10:07
5	04-20-15-CW-1	D128-01	RDC355	04/23/15	13:01
6	04-20-15-CW-5	D128-02	RDC356	04/23/15	13:34
7	04-20-15-CW-9	D128-04	RDC357	04/23/15	14:09
8	04-20-15-CW-10	D128-05	RDC358	04/23/15	14:43
9	04-20-15-CW-11	D128-06	RDC359	04/23/15	15:18
10	04-20-15-FDUP-1	D128-07	RDC360	04/23/15	15:51
11	04-20-15-TB-1	D128-08	RDC361	04/23/15	16:25
12	04-20-15-CW-6	D128-03	RDC362	04/23/15	16:58
13	04-20-15-CW-6MS	D128-03M	RDC363	04/23/15	17:33
14	04-20-15-CW-6MSD	D128-03S	RDC364	04/23/15	18:12

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
Lab Code : EMXT
Lab File ID : RLC381
Instrument ID: 67
GC Column : RTX502.2ID:0.25mm (mm)

Project : B & B, CITY WELL SAMPLING
SDG No. : 15D128
Date Analyzed : 12/18/14
Time Analyzed : 22:11
Heated Purge : No

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1579429	8.05	1147311	13.12	386538	18.35
	UPPER LIMIT	3158858	8.55	2294622	13.62	773076	18.85
	LOWER LIMIT	789715	7.55	573656	12.62	193269	17.85
	SAMPLE ID						
1	VSTD010	1593253	8.07	1213356	13.17	427127	18.38
2	MBLK1W	1766327	8.07	1305741	13.16	439525	18.38
3	LCS1W	1657582	8.07	1247172	13.17	448631	18.38
4	LCD1W	1638293	8.07	1246313	13.17	455320	18.38
5	04-20-15-CW-1	1704683	8.07	1265417	13.17	413549	18.38
6	04-20-15-CW-5	1678569	8.08	1247757	13.16	423353	18.38
7	04-20-15-CW-9	1684102	8.08	1256627	13.17	418846	18.38
8	04-20-15-CW-10	1694173	8.08	1278963	13.17	426090	18.38
9	04-20-15-CW-11	1676443	8.08	1263860	13.17	412508	18.38
10	04-20-15-FDUP-1	1657505	8.07	1219283	13.17	405986	18.38
11	04-20-15-TB-1	1659388	8.07	1245225	13.17	417200	18.38
12	04-20-15-CW-6	1639613	8.08	1230873	13.17	409704	18.38
13	04-20-15-CW-6MS	1629698	8.07	1243746	13.17	462265	18.38
14	04-20-15-CW-6MSD	1613430	8.08	1249630	13.17	452849	18.38

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

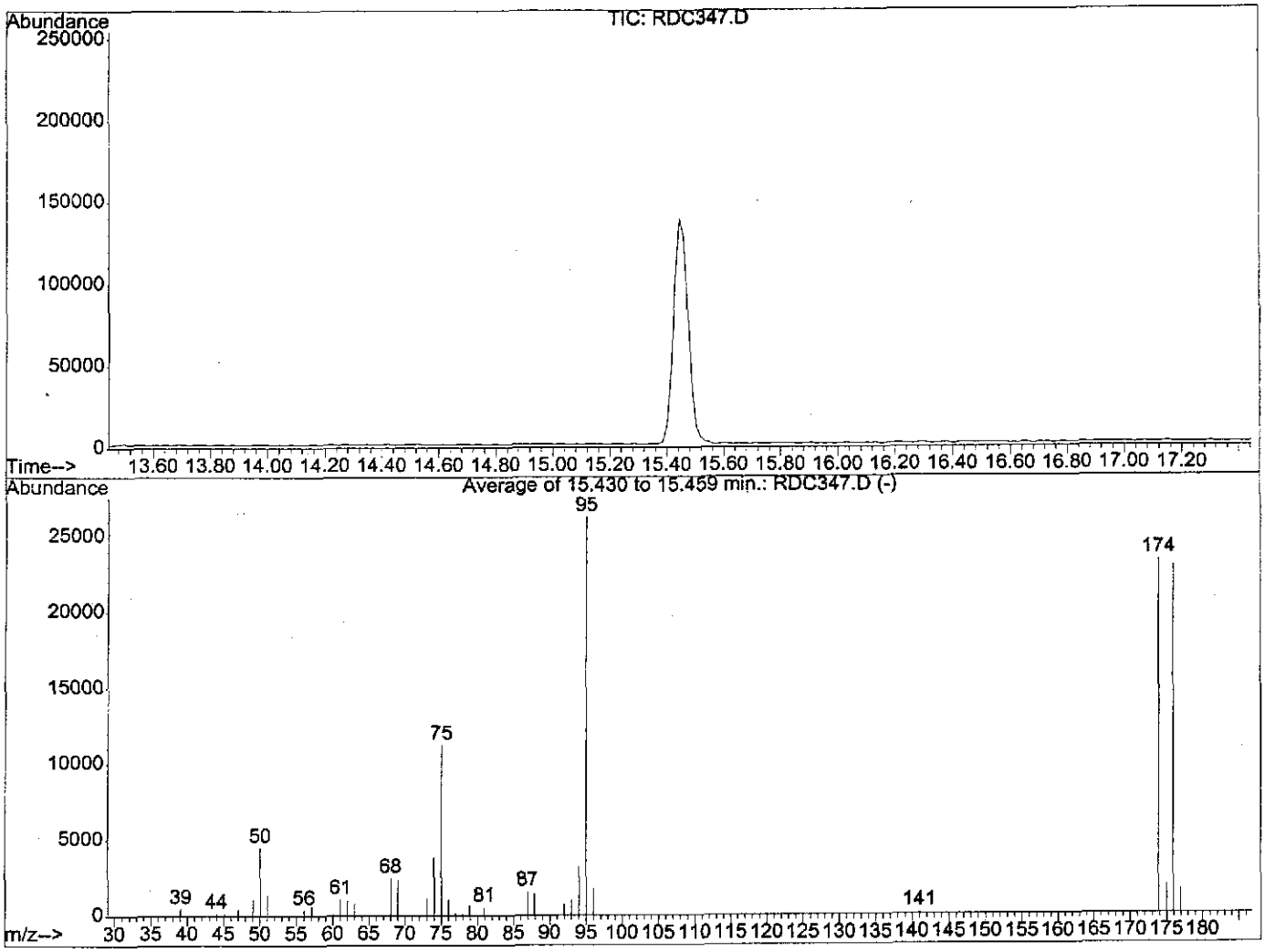
AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.5 minutes (30 sec) of internal standard RT
RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

BFB

Data File : D:\HPCHEM\1\DATA\15D23\RDC347.D
Acq On : 23 Apr 2015 8:10 am
Sample : BFB67D15
Misc : T/CHECK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B

Vial: 1
Operator: SDuong
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 935, 936, 937; Background Corrected with Scan 929

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	4493	PASS
75	95	30	60	42.8	11264	PASS
95	95	100	100	100.0	26291	PASS
96	95	5	9	6.6	1738	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.6	23304	PASS
175	174	5	9	7.9	1832	PASS
176	174	95	101	98.5	22955	PASS
177	176	5	9	6.7	1545	PASS

RDC347.D VO67L18.M Fri Apr 24 11:14:00 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	101	0.01
2	T,M	Dichlorodifluoromethane	10.000	11.398	-14.0	107	-0.01
3	T,M	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T,M	Chloromethane	10.000	8.828	11.7	85	0.03
5	C,T,M	Vinyl chloride	10.000	8.738	12.6	83	0.04
6	T,M	Bromomethane	10.000	9.418	5.8	93	0.00
7	T,M	Chloroethane	10.000	8.965	10.4	87	0.02
8	T,M	Dichlorofluoromethane	10.000	10.723	-7.2	108	0.02
9	T,M	Trichlorofluoromethane	10.000	10.968	-9.7	106	0.00
10	T,M	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T,M	Acrolein	50.000	35.164	29.7#	76	0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.777	-7.8	111	0.01
13	T,M	Acetone	50.000	58.186	-16.4	126	0.01
14	C,T,M	1,1-Dichloroethene	10.000	10.069	-0.7	102	0.00
15	T,M	tert-Butyl alcohol	50.000	56.260	-12.5	111	0.01
16	T,M	Methyl acetate	10.000	-0.332	103.3#	0	-4.27#
17	T,M	Iodomethane	10.000	11.089	-10.9	112	0.00
18	T,M	Acetonitrile	-1.000	0.000	0.0	103	0.00
19	T,M	Methylene chloride	10.000	9.788	2.1	104	0.00
20	T,M	Carbon disulfide	10.000	9.036	9.6	92	0.00
21	T,M	Acrylonitrile	50.000	46.838	6.3	97	0.01
22	T,M	tert-Butyl methyl ether (MT	10.000	8.792	12.1	88	0.00
23	T,M	trans-1,2-Dichloroethene	10.000	9.987	0.1	102	0.00
24	T,M	Isopropyl ether (DIPE)	10.000	9.242	7.6	94	0.01
25	P,T,M	1,1-Dichloroethane	10.000	10.159	-1.6	104	0.01
26	T,M	Vinyl acetate	10.000	9.592	4.1	89	0.01
27	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.68#
28	T,M	tert-Butyl ethyl ether (ETB	10.000	7.958	20.4#	80	0.01
29	T,M	2-Butanone	50.000	51.909	-3.8	110	0.01
30	T,M	2,2-Dichloropropane	10.000	11.952	-19.5	115	0.01
31	T,M	cis-1,2-Dichloroethene	10.000	10.903	-9.0	110	0.01
32	C,T,M	Chloroform	10.000	10.602	-6.0	108	0.01
33	T,M	Bromochloromethane	10.000	10.082	-0.8	99	0.01
34	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00
35	S	Dibromofluoromethane	10.000	10.664	-6.6	98	0.01
36	T,M	Tetrahydrofuran	10.000	9.481	5.2	91	0.03
37	T,M	1,1,1-Trichloroethane	10.000	10.853	-8.5	108	0.03
38	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.03#
39	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
40	T,M	1,1-Dichloropropene	10.000	11.245	-12.4	114	0.01
41	T,M	Carbon tetrachloride	10.000	10.659	-6.6	107	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	10.000	8.229	17.7	81	0.03
43	S	1,2-Dichloroethane-d4	10.000	8.823	11.8	81	0.01
44	T,M	1,2-Dichloroethane	10.000	10.167	-1.7	101	0.03
45	T,M	Benzene	10.000	10.314	-3.1	106	0.01
46	T,M	Trichloroethene	10.000	10.661	-6.6	118	0.03
47	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-8.64#
48	C,T,M	1,2-Dichloropropane	10.000	10.630	-6.3	108	0.01
49	T,M	Bromodichloromethane	10.000	10.762	-7.6	107	0.03
50	T,M	1,4-Dioxane	200.000	208.186	-4.1	104	0.03
51	T,M	Dibromomethane	10.000	10.931	-9.3	108	0.03
52	T,M	2-Chloroethyl vinyl ether	10.000	0.686	93.1#	6	0.03
53	T,M	4-Methyl-2-pentanone	50.000	47.071	5.9	97	0.03
54	T,M	cis-1,3-Dichloropropene	10.000	10.666	-6.7	107	0.03
55	I	CHLOROBENZENE-D5	10.000	10.000	0.0	106	0.04
56	S	Toluene-d8	10.000	8.797	12.0	89	0.03
57	C,T,M	Toluene	10.000	10.302	-3.0	113	0.03
58	T,M	Ethyl methacrylate	10.000	8.475	15.3	88	0.03
59	T,M	trans-1,3-Dichloropropene	10.000	9.645	3.6	101	0.03
60	T,M	1,1,2-Trichloroethane	10.000	10.712	-7.1	114	0.04
61	T,M	2-Hexanone	50.000	47.381	5.2	106	0.04
62	T,M	1,3-Dichloropropane	10.000	9.951	0.5	106	0.04
63	T,M	Tetrachloroethene	10.000	10.968	-9.7	120	0.04
64	T,M	Dibromochloromethane	10.000	11.059	-10.6	116	0.03
65	T,M	1,2-Dibromoethane	10.000	10.625	-6.3	113	0.04
66	T,M	1-Chlorohexane	10.000	9.448	5.5	103	0.03
67	P,M	Chlorobenzene	10.000	11.047	-10.5	120	0.03
68	T,M	1,1,1,2-Tetrachloroethane	10.000	11.200	-12.0	121	0.04
69	C,T,M	Ethylbenzene	10.000	10.281	-2.8	111	0.04
70	T,M	m-Xylene & p-Xylene	20.000	20.258	-1.3	110	0.04
71	T,M	o-Xylene	10.000	10.656	-6.6	116	0.04
72	T,M	Styrene	10.000	9.537	4.6	102	0.04
73	T,M	Isopropylbenzene	10.000	10.829	-8.3	116	0.04
74	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	111	0.03
75	P,T,M	Bromoform	10.000	9.994	0.1	114	0.04
76	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.820	1.8	109	0.03
77	S	4-Bromofluorobenzene	10.000	8.808	11.9	98	0.04
78	T,M	1,2,3-Trichloropropane	10.000	10.145	-1.4	111	0.04
79	T,M	trans-1,4-Dichloro-2-butene	10.000	6.841	31.6#	76	0.04
80	T,M	n-Propylbenzene	10.000	9.712	2.9	112	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	10.000	10.483	-4.8	122	0.04
82	T,M	1,3,5-Trimethylbenzene	10.000	9.864	1.4	114	0.04
83	T,M	2-Chlorotoluene	10.000	9.517	4.8	113	0.04
84	T,M	4-Chlorotoluene	10.000	9.824	1.8	114	0.04
85	T,M	tert-Butylbenzene	10.000	10.586	-5.9	123	0.04
86	T,M	1,2,4-Trimethylbenzene	10.000	9.965	0.4	115	0.04
87	T,M	sec-Butylbenzene	10.000	10.017	-0.2	115	0.04
88	T,M	p-Isopropyltoluene	10.000	10.143	-1.4	116	0.04
89	T,M	1,3-Dichlorobenzene	10.000	10.433	-4.3	122	0.04
90	T,M	1,4-Dichlorobenzene	10.000	10.346	-3.5	122	0.04
91	T,M	n-Butylbenzene	10.000	9.410	5.9	107	0.04
92	T,M	1,2-Dichlorobenzene	10.000	10.412	-4.1	120	0.03
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.576	-5.8	115	0.03
94	T,M	1,2,4-Trichlorobenzene	10.000	9.716	2.8	112	0.03
95	T,M	Hexachlorobutadiene	10.000	9.994	0.1	114	0.03
96	T,M	Naphthalene	10.000	9.095	9.0	102	0.04
97	T,M	1,2,3-Trichlorobenzene	10.000	9.450	5.5	108	0.04

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	101	0.01
2	T,M	Dichlorodifluoromethane	0.337	0.384	-13.9	107	-0.01
3	T,M	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T,M	Chloromethane	0.498	0.439	11.8	85	0.03
5	C,T,M	Vinyl chloride	0.544	0.475	12.7	83	0.04
6	T,M	Bromomethane	0.336	0.345	-2.7	93	0.00
7	T,M	Chloroethane	0.339	0.304	10.3	87	0.02
8	T,M	Dichlorofluoromethane	0.687	0.737	-7.3	108	0.02
9	T,M	Trichlorofluoromethane	0.473	0.519	-9.7	106	0.00
10	T,M	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T,M	Acrolein	0.014	0.010	28.6#	76	0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.269	0.290	-7.8	111	0.01
13	T,M	Acetone	0.024	0.028	-16.7	126	0.01
14	C,T,M	1,1-Dichloroethene	0.522	0.526	-0.8	102	0.00
15	T,M	tert-Butyl alcohol	0.008	0.009	-12.5	111	0.01
16	T,M	Methyl acetate	0.083	0.000	100.0#	0#	-4.27#
17	T,M	Iodomethane	0.536	0.595	-11.0	112	0.00
18	T,M	Acetonitrile	0.000	0.000	0.0	103	0.00
19	T,M	Methylene chloride	0.329	0.322	2.1	104	0.00
20	T,M	Carbon disulfide	1.402	1.267	9.6	92	0.00
21	T,M	Acrylonitrile	0.035	0.033	5.7	97	0.01
22	T,M	tert-Butyl methyl ether (MT	0.404	0.355	12.1	88	0.00
23	T,M	trans-1,2-Dichloroethene	0.451	0.450	0.2	102	0.00
24	T,M	Isopropyl ether (DIPE)	0.898	0.830	7.6	94	0.01
25	P,T,M	1,1-Dichloroethane	0.560	0.569	-1.6	104	0.01
26	T,M	Vinyl acetate	0.279	0.268	3.9	89	0.01
27	T,M	2-Butanol	0.007	0.000	100.0#	0#	-5.68#
28	T,M	tert-Butyl ethyl ether (ETB	0.650	0.517	20.5#	80	0.01
29	T,M	2-Butanone	0.040	0.041	-2.5	110	0.01
30	T,M	2,2-Dichloropropane	0.324	0.387	-19.4	115	0.01
31	T,M	cis-1,2-Dichloroethene	0.333	0.363	-9.0	110	0.01
32	C,T,M	Chloroform	0.492	0.522	-6.1	108	0.01
33	T,M	Bromochloromethane	0.172	0.173	-0.6	99	0.01
34	T,M	tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00
35	S	Dibromofluoromethane	0.275	0.293	-6.5	98	0.01
36	T,M	Tetrahydrofuran	0.021	0.020	4.8	91	0.03
37	T,M	1,1,1-Trichloroethane	0.435	0.473	-8.7	108	0.03
38	T,M	Cyclohexane	0.707	0.000	100.0#	0#	-7.03#
39	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
40	T,M	1,1-Dichloropropene	0.170	0.191	-12.4	114	0.01
41	T,M	Carbon tetrachloride	0.395	0.421	-6.6	107	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	0.107	0.088	17.8	81	0.03
43	S	1,2-Dichloroethane-d4	0.159	0.140	11.9	81	0.01
44	T,M	1,2-Dichloroethane	0.187	0.190	-1.6	101	0.03
45	T,M	Benzene	1.190	1.228	-3.2	106	0.01
46	T,M	Trichloroethene	0.375	0.400	-6.7	118	0.03
47	T,M	Methylcyclohexane	0.727	0.000	100.0#	0#	-8.64#
48	C,T,M	1,2-Dichloropropane	0.261	0.277	-6.1	108	0.01
49	T,M	Bromodichloromethane	0.302	0.325	-7.6	107	0.03
50	T,M	1,4-Dioxane	0.001	0.001	0.0	104	0.03
51	T,M	Dibromomethane	0.105	0.115	-9.5	108	0.03
52	T,M	2-Chloroethyl vinyl ether	0.057	0.004	93.0#	6#	0.03
53	T,M	4-Methyl-2-pentanone	0.098	0.093	5.1	97	0.03
54	T,M	cis-1,3-Dichloropropene	0.371	0.396	-6.7	107	0.03
55	I	CHLOROBENZENE-D5	1.000	1.000	0.0	106	0.04
56	S	Toluene-d8	1.478	1.300	12.0	89	0.03
57	C,T,M	Toluene	1.724	1.776	-3.0	113	0.03
58	T,M	Ethyl methacrylate	0.210	0.178	15.2	88	0.03
59	T,M	trans-1,3-Dichloropropene	0.351	0.338	3.7	101	0.03
60	T,M	1,1,2-Trichloroethane	0.170	0.182	-7.1	114	0.04
61	T,M	2-Hexanone	0.083	0.079	4.8	106	0.04
62	T,M	1,3-Dichloropropane	0.329	0.327	0.6	106	0.04
63	T,M	Tetrachloroethene	0.371	0.407	-9.7	120	0.04
64	T,M	Dibromochloromethane	0.237	0.262	-10.5	116	0.03
65	T,M	1,2-Dibromoethane	0.166	0.176	-6.0	113	0.04
66	T,M	1-Chlorohexane	0.867	0.819	5.5	103	0.03
67	P,M	Chlorobenzene	0.963	1.064	-10.5	120	0.03
68	T,M	1,1,1,2-Tetrachloroethane	0.319	0.357	-11.9	121	0.04
69	C,T,M	Ethylbenzene	1.974	2.030	-2.8	111	0.04
70	T,M	m-Xylene & p-Xylene	1.412	1.430	-1.3	110	0.04
71	T,M	o-Xylene	1.324	1.411	-6.6	116	0.04
72	T,M	Styrene	1.007	0.960	4.7	102	0.04
73	T,M	Isopropylbenzene	1.833	1.985	-8.3	116	0.04
74	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	111	0.03
75	P,T,M	Bromoform	0.359	0.359	0.0	114	0.04
76	P,T,M	1,1,2,2-Tetrachloroethane	0.528	0.518	1.9	109	0.03
77	S	4-Bromofluorobenzene	1.246	1.098	11.9	98	0.04
78	T,M	1,2,3-Trichloropropane	0.135	0.137	-1.5	111	0.04
79	T,M	trans-1,4-Dichloro-2-butene	0.140	0.096	31.4#	76	0.04
80	T,M	n-Propylbenzene	7.024	6.822	2.9	112	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	0.994	1.042	-4.8	122	0.04
82	T,M	1,3,5-Trimethylbenzene	4.302	4.244	1.3	114	0.04
83	T,M	2-Chlorotoluene	3.991	3.798	4.8	113	0.04
84	T,M	4-Chlorotoluene	3.388	3.328	1.8	114	0.04
85	T,M	tert-Butylbenzene	1.025	1.085	-5.9	123	0.04
86	T,M	1,2,4-Trimethylbenzene	4.044	4.030	0.3	115	0.04
87	T,M	sec-Butylbenzene	6.218	6.229	-0.2	115	0.04
88	T,M	p-Isopropyltoluene	5.019	5.091	-1.4	116	0.04
89	T,M	1,3-Dichlorobenzene	2.010	2.097	-4.3	122	0.04
90	T,M	1,4-Dichlorobenzene	1.927	1.993	-3.4	122	0.04
91	T,M	n-Butylbenzene	4.777	4.495	5.9	107	0.04
92	T,M	1,2-Dichlorobenzene	1.538	1.601	-4.1	120	0.03
93	T,M	1,2-Dibromo-3-chloropropane	0.069	0.073	-5.8	115	0.03
94	T,M	1,2,4-Trichlorobenzene	0.945	0.918	2.9	112	0.03
95	T,M	Hexachlorobutadiene	0.841	0.840	0.1	114	0.03
96	T,M	Naphthalene	1.060	0.964	9.1	102	0.04
97	T,M	1,2,3-Trichlorobenzene	0.668	0.632	5.4	108	0.04

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D Vial: 2
Acq On : 23 Apr 2015 8:44 am Operator: SDuong
Sample : CVO67L1890 Inst : TO67
Misc : 10ppb8260/50ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1593253	10.00	ug/l	0.01
55) CHLOROBENZENE-D5	13.17	117	1213356	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	427127	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.77	111	466442	10.66	ug/l	0.01
Spiked Amount 10.000			Recovery =	106.60%		
43) 1,2-Dichloroethane-d4	7.48	65	223042	8.82	ug/l	0.01
Spiked Amount 10.000			Recovery =	88.20%		
56) Toluene-d8	10.51	98	1577305	8.80	ug/l	0.03
Spiked Amount 10.000			Recovery =	88.00%		
77) 4-Bromofluorobenzene	15.43	95	468917	8.81	ug/l	0.04
Spiked Amount 10.000			Recovery =	88.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	612596	11.40	ug/l	100
4) Chloromethane	2.17	50	700231	8.83	ug/l	99
5) Vinyl chloride	2.32	62	757449	8.74	ug/l	100
6) Bromomethane	2.78	94	549334	9.42	ug/l	99
7) Chloroethane	2.88	64	484275	8.96	ug/l	97
8) Dichlorofluoromethane	2.92	67	1173943	10.72	ug/l	99
9) Trichlorofluoromethane	3.16	101	826472	10.97	ug/l	100
11) Acrolein	3.64	56	77473	35.16	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	462646	10.78	ug/l	100
13) Acetone	3.71	43	221034	58.19	ug/l	93
14) 1,1-Dichloroethene	3.86	61	837377	10.07	ug/l	97
15) tert-Butyl alcohol	3.97	59	71297	56.26	ug/l	96
17) Iodomethane	4.24	142	947220	11.09	ug/l	96
19) Methylene chloride	4.46	49	513232	9.79	ug/l	96
20) Carbon disulfide	4.47	76	2018640	9.04	ug/l	99
21) Acrylonitrile	4.63	53	262340	46.84	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	565463	8.79	ug/l	100
23) trans-1,2-Dichloroethene	4.84	61	717005	9.99	ug/l	95
24) Isopropyl ether (DIPE)	5.25	45	1321624	9.24	ug/l	98
25) 1,1-Dichloroethane	5.41	63	906542	10.16	ug/l	100
26) Vinyl acetate	5.41	43	426275	9.59	ug/l	100
28) tert-Butyl ethyl ether (ET	5.80	59	824186	7.96	ug/l	96
29) 2-Butanone	5.98	43	330312	51.91	ug/l	100
30) 2,2-Dichloropropane	6.17	77	616233	11.95	ug/l	98
31) cis-1,2-Dichloroethene	6.24	96	578297	10.90	ug/l	96
32) Chloroform	6.46	83	830954	10.60	ug/l	99
33) Bromochloromethane	6.68	49	275702	10.08	ug/l	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36)	Tetrahydrofuran	6.74	42	32313	9.48	ug/l	98
37)	1,1,1-Trichloroethane	7.03	97	752910	10.85	ug/l	99
40)	1,1-Dichloropropene	7.25	110	303852	11.25	ug/l	100
41)	Carbon tetrachloride	7.39	119	669996	10.66	ug/l	100
42)	tert-Amyl methyl ether (TA	7.42	87	140195	8.23	ug/l	99
44)	1,2-Dichloroethane	7.63	62	302824	10.17	ug/l	100
45)	Benzene	7.64	78	1956104	10.31	ug/l	99
46)	Trichloroethene	8.58	130	637000	10.66	ug/l	94
48)	1,2-Dichloropropane	8.84	63	441558	10.63	ug/l	98
49)	Bromodichloromethane	9.22	83	517578	10.76	ug/l	99
50)	1,4-Dioxane	9.26	88	25185	208.19	ug/l	91
51)	Dibromomethane	9.31	93	182474	10.93	ug/l	96
52)	2-Chloroethyl vinyl ether	9.72	63	6285	0.69	ug/l	63
53)	4-Methyl-2-pentanone	9.76	43	737442	47.07	ug/l	95
54)	cis-1,3-Dichloropropene	10.10	75	630854	10.67	ug/l	98
57)	Toluene	10.64	91	2154762	10.30	ug/l	100
58)	Ethyl methacrylate	10.93	69	215941	8.47	ug/l	98
59)	trans-1,3-Dichloropropene	10.94	75	410645	9.64	ug/l	96
60)	1,1,2-Trichloroethane	11.22	97	221265	10.71	ug/l	98
61)	2-Hexanone	11.24	43	479376	47.38	ug/l	99
62)	1,3-Dichloropropane	11.66	76	397266	9.95	ug/l	99
63)	Tetrachloroethene	11.76	164	493777	10.97	ug/l	100
64)	Dibromochloromethane	12.11	129	317448	11.06	ug/l	99
65)	1,2-Dibromoethane	12.48	107	213554	10.63	ug/l	99
66)	1-Chlorohexane	12.77	91	994247	9.45	ug/l	97
67)	Chlorobenzene	13.22	112	1290645	11.05	ug/l	95
68)	1,1,1,2-Tetrachloroethane	13.31	131	433464	11.20	ug/l	99
69)	Ethylbenzene	13.33	91	2462589	10.28	ug/l	98
70)	m-Xylene & p-Xylene	13.47	91	3471112	20.26	ug/l	97
71)	o-Xylene	14.28	91	1711600	10.66	ug/l	97
72)	Styrene	14.35	104	1165304	9.54	ug/l	98
73)	Isopropylbenzene	14.96	105	2408846	10.83	ug/l	98
75)	Bromoform	14.98	173	153413	9.99	ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.28	83	221380	9.82	ug/l	100
78)	1,2,3-Trichloropropane	15.58	110	58584	10.15	ug/l	94
79)	trans-1,4-Dichloro-2-buten	15.72	53	40875	6.84	ug/l	100
80)	n-Propylbenzene	15.72	91	2913657	9.71	ug/l	97
81)	Bromobenzene	15.80	156	445245	10.48	ug/l	90
82)	1,3,5-Trimethylbenzene	16.03	105	1812639	9.86	ug/l	97
83)	2-Chlorotoluene	16.06	91	1622062	9.52	ug/l	95
84)	4-Chlorotoluene	16.15	91	1421429	9.82	ug/l	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D
Acq On : 23 Apr 2015 8:44 am
Sample : CVO67L1890
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

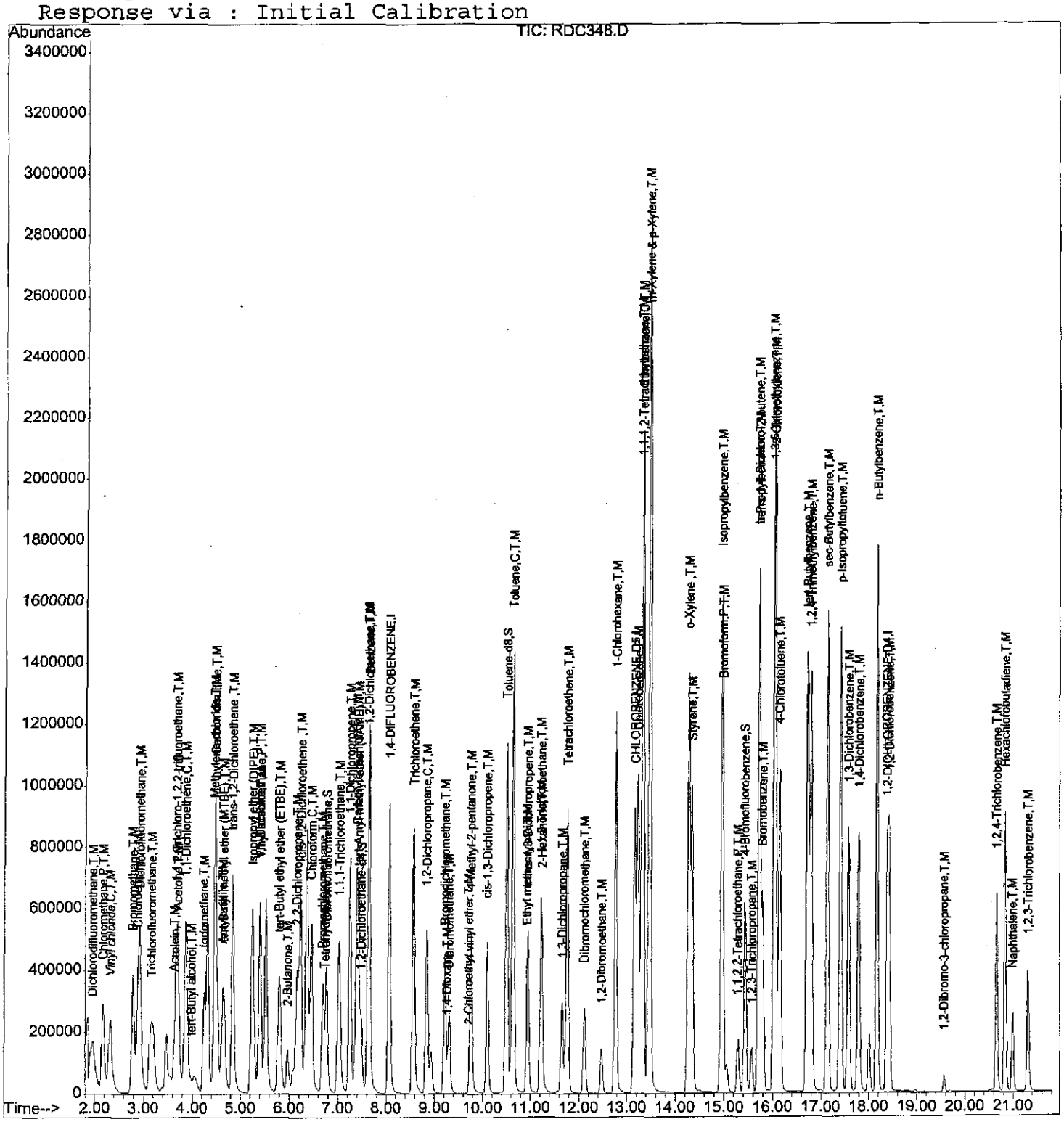
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85)	tert-Butylbenzene	16.72	134	463372	10.59	ug/l	92
86)	1,2,4-Trimethylbenzene	16.79	105	1721415	9.97	ug/l	97
87)	sec-Butylbenzene	17.14	105	2660401	10.02	ug/l	98
88)	p-Isopropyltoluene	17.42	119	2174520	10.14	ug/l	98
89)	1,3-Dichlorobenzene	17.58	146	895511	10.43	ug/l	99
90)	1,4-Dichlorobenzene	17.80	146	851390	10.35	ug/l	99
91)	n-Butylbenzene	18.18	91	1920104	9.41	ug/l	99
92)	1,2-Dichlorobenzene	18.43	146	683861	10.41	ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.57	157	31384	10.58	ug/l	96
94)	1,2,4-Trichlorobenzene	20.66	180	392029	9.72	ug/l	100
95)	Hexachlorobutadiene	20.84	225	358953	9.99	ug/l	100
96)	Naphthalene	21.00	128	411870	9.09	ug/l	100
97)	1,2,3-Trichlorobenzene	21.32	180	269811	9.45	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D23\RDC348.D Vial: 2
Acq On : 23 Apr 2015 8:44 am Operator: SDuong
Sample : CVO67L1890 Inst : TO67
Misc : 10ppb8260/50ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Apr 24 11:11 2015 Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-MB260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 12-18-14 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge

Book #: A67-056

BATCH V067L1804

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01	RLC377	BFB67L14	1 µL					T/CHECK 19:59
02	378	V067L1801	.5/.5/.5/.5/.5 µL					1.0 ppb 8260/5 ppb Ket-A-AN-TBA
03	379	02	.1/.1/.2/.2/.2 µL					1 / 10
04	380	03	2.5/2.5/.5/.5/.5 µL					5 / 25
05	381	04	5/5/1/1/1 µL					10 / 50
06	382	05	10/10/2/2/2 µL					20 / 100
07	383	06	15/15/3/3/3 µL					30 / 150
08	384	07	25/25/5/5/5 µL					50 / 250
09	385	08	50/50/10/10/10 µL					100 / 500
10	386	rinse	25mls	1.0				
11	387							
12	388	V067L14B						MB
13	389	V067L1809	1.5/1.5/.03/.03/.03 µL					0.3 / 1.5
14	390	10	2.5/2.5/.05/.05/.05 µL					0.5 / 2.5
15	391	IV067L1801*	5/5/1/1/5/1.25 µL					
16	392	rinse	25mls	1.0				
17	393	LOD	.1/.1/.02/.02/.02 µL					0.2 ppb / 1.0 ppb
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								AS 12-19-14

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12-18-14
ICAL ID	V067L18

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC 8260	SV1-23-34-3	Varies	50/250
DCC Ket-A-AN	-24-02-2		250
DCC Gases	-01-2		250
DCC CS2 4 Add'l	-03-3 / -23-38-1		250 / 250
BFB	-02-3	1	50
IS/SURR. IS / SS	-24-04-2 / -04-3	1 / Varies	250 / 250
ICV/LCS 8260	-23-41-2	5	50/250
ICV/LCS Ket-A-AN	-43-1	5	250
ICV/LCS Gases / CS2	-24-01-1 / -23-40-3	1 / 1	250 / 250
ICV/LCS 3 Add'l / 2 Butanol	-22-49-1 / SV1-12-45-2	5 / 1.25	50 / 1K
Data File Folder	14L18		

	LOT #	Syringe Lot #	
pH strip	—	MSV-01-0404-1	497283.02
Chlorine strip	—	-05-1	-03 -04
Methanol	—	M04-A3652	M06-[illegible]-02
$NaHSO_4$	—		-03 -04
Reagent Water	RW3-14-001		-05 -06
Sand	—		-07

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments: * ESTD Spike low ... high (inversely)

Analyzed By: AS

Date Disposed: 12-19-14 Disposed By: AS

2117

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 12-19-14 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge

Book #: A67-056

BATCH CV067L1801

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01	RLC394	BFB67L15	1 µl					T/CHECK 11:33
02	395	STD TEST	5/5/1/1/5/1.25 µl					3 add'l cryo Needle plugged.
03	396	IV067L1802	5/5/1/1/5/1.25 µl					
04	397	CV067L1801	5/5/1/1 µl					
05	398	V067L15L	5/5/1/1 µl					
06	399	↓ C	5/5/1/1 µl					
07	400	rinse ~~V067L15B~~	25 mls	1.0				
08	401	V067L15X	5/5/1/1 µl					
09	402	rinse	25 mls	1.0				
10	403	V067L15B	↓					MB use Q'7 Below
11	404	14L097-12I	5 mls	5K	<2	<5		Too Dilute
12	405	↓ -07I	↓	↓	✓	✓		↓
13	406	rinse	25 mls	1.0				
14	407	↓	↓	↓				
15	408	V067L15Q	↓	↓				MB
16	409	14L097-06I	5 mls	5K	<2	<5		
17	410	-05I	↓	↓	✓	✓		
18	411	-16	25 mls	1.0	✓	✓		
19	412	-15	↓	↓	✓	✓		
20	413	-14	↓	↓	✓	✓		
21	414	-11	↓	↓	✓	✓		22:59
22	415	-10	↓	↓	✓	✓		out of 12 hrs 23:35 (2 hrs out)
23								
24								
25								
26								
27								
28								
29								
30								AS 12-22-14

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12-18-14
ICAL ID	V067L18

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC 8260	SV1-23-34-3	5	50/250
DCC Ketone	-24-02-2	5	250
DCC gases	-01-2	1	250
DCC CS_2	-03-3	1	250
BFB	23-02-3	1	50
IS/SURR.	-40-2	1	250
ICV/LCS 8260	-41-2	5	50/250
ICV/LCS Ketone	-43-1	5	250
ICV/LCS gases CS_2	-24-01-1 -23-40-3	1 1	250 250
ICV/LCS 3 Ketone 2-Butanone	SV1-22-49-1 SV1-12-45-2	5 1.25	50 1K
Data File Folder	14L19		

	LOT #	Syringe Lot #	
pH strip	HC412469	MSV01-001-04-1	497283-08
Chlorine strip	42423	↓ -05-1	MUG-E24187-02
Methanol	—		↓ -03
$NaHSO_4$	—		497283-04
Reagent Water	PW3-14-001		-05
Sand	—		↓ -06 -07

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: AS

Date Disposed: 12-22-14 Disposed By: AS

2118

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 4/23/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A67-057

BATCH CV067L1890

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 ≤5ppm	Matrix S	Notes
01	RDC347	BFB67D15	0.2ml					8:10am
02	348	CV067L1890	5/5/1/1ml					
03	349	V067D15L						
04	350	↓ C	↓					
05	351	RINSE						
06	352	V067D15B	25ml					
07	353	15D125-03		1.0	✓	✓		
08	354	↓ -02N			✓	✓		
09	355	15D128-01			✓	✓		
10	356	-02			✓	✓		
11	357	-04			✓	✓		
12	358	-05			✓	✓		
13	359	-06			✓	✓		
14	360	-07			✓	✓		
15	361	-08			✓	✓		
16	362	-03			✓	✓		
17	363	-03M			✓	✓		
18	364	↓ -03S			✓	✓		
19	365	15D144-01			✓	✓		c/o; RR + 10X
20	366	-03			✓	✓		10X
21	367	↓ -04	↓	↓	✓	✓		10X 8:01pm
22	368-370	RINSE						
23								
24								
25								
26								
27								
28								
29								
30								sd 4/24/15

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12/18/14
ICAL ID	V067L18

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	GV1-24-21-832 *sd 4/24/15	5	250
DCC	-24-02	5	50/250
DCC	-36-01	1	250
DCC	-22-03	1	250
BFB	-16-03	0.2	250
IS/SURR.	-27-03	1	250
ICV/LCS	-35-01	5	250
ICV/LCS	-25-03	5	50/250
ICV/LCS	-36-02	1	250
ICV/LCS	-23-03	1	250
Data File Folder	15D23		

	LOT #	Syringe Lot #
pH strip	HC413032	MSV-01-01-06-01
Chlorine strip	42422	MSV-01-02-22-1
Methanol		497283-11
$NaHSO_4$		
Reagent Water	RW4-14-001	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments: * acrolein/acrylonitrile not target analytes for analysis

Analyzed By: Sd

Date Disposed: 4/24/15 Disposed By: Sd

2119

Injection Log

Directory: D:\HPCHEM\1\DATA\15D23

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDC347.D	1.	BFB67D15	T/CHECK	23 Apr 2015 08:10
2	2	RDC348.D	1.	CVO67L1890	10ppb8260/50ppbKET-A-AN-TBA	23 Apr 2015 08:44
3	3	RDC349.D	1.	VO67D15L	10ppb8260/50ppbKET-A-AN-TBA	23 Apr 2015 09:31
4	4	RDC350.D	1.	VO67D15C	10ppb8260/50ppbKET-A-AN-TBA	23 Apr 2015 10:07
5	5	RDC351.D	1.	RINSE	BLANK	23 Apr 2015 10:39
6	6	RDC352.D	1.	VO67D15B	BLANK	23 Apr 2015 11:17
7	7	RDC353.D	1.	15D125-03 25mL	DF=1.0	23 Apr 2015 11:51
8	8	RDC354.D	1.	15D125-02N 25mL	DF=1.0	23 Apr 2015 12:26
9	9	RDC355.D	1.	15D128-01 25mL	DF=1.0	23 Apr 2015 13:01
10	10	RDC356.D	1.	15D128-02 25mL	DF=1.0	23 Apr 2015 13:34
11	11	RDC357.D	1.	15D128-04 25mL	DF=1.0	23 Apr 2015 14:09
12	12	RDC358.D	1.	15D128-05 25mL	DF=1.0	23 Apr 2015 14:43
13	13	RDC359.D	1.	15D128-06 25mL	DF=1.0	23 Apr 2015 15:18
14	14	RDC360.D	1.	15D128-07 25mL	DF=1.0	23 Apr 2015 15:51
15	15	RDC361.D	1.	15D128-08 25mL	DF=1.0	23 Apr 2015 16:25
16	16	RDC362.D	1.	15D128-03 25mL	DF=1.0	23 Apr 2015 16:58
17	17	RDC363.D	1.	15D128-03M 25mL	DF=1.0	23 Apr 2015 17:33
18	18	RDC364.D	1.	15D128-03S 25mL	DF=1.0	23 Apr 2015 18:12
19	19	RDC365.D	1.	15D144-01 25mL	DF=1.0	23 Apr 2015 18:49
20	20	RDC366.D	1.	15D144-03 25mL	DF=1.0	23 Apr 2015 19:24
21	21	RDC367.D	1.	15D144-04 25mL	DF=1.0	23 Apr 2015 20:01
22	22	RDC368.D	1.	RINSE	DF=1.0	23 Apr 2015 20:36
23	23	RDC369.D	1.	RINSE	DF=1.0	23 Apr 2015 21:12
24	24	RDC370.D	1.	RINSE	DF=1.0	23 Apr 2015 21:47

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B&B, CITY WELL SAMPLING

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

SDG#: 15D128

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B, CITY WELL SAMPLING

SDG : 15D128

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

A total of seven (7) water samples were received on 04/20/15 to be analyzed for Volatile Organics by GC/MS SIM in accordance with Method 5030B/8260B SIM and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. VO01D20B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. VO01D20L/VO01D20C - all analytes were within LCS QC limits. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. D128-03M/D128-03S - all analytes were within MS QC limits. Refer to Matrix QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC. SDG NO. : 15D128
Project : B & B, CITY WELL SAMPLING Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001D20B	1	NA	04/22/1512:59	04/22/1512:59	RDV421	RAV178	V001D20	Method Blank
LCS1W	V001D20L	1	NA	04/22/1512:06	04/22/1512:06	RDV419	RAV178	V001D20	Lab Control Sample (LCS)
LCD1W	V001D20C	1	NA	04/22/1512:32	04/22/1512:32	RDV420	RAV178	V001D20	LCS Duplicate
04-20-15-CW-1	D128-01	1	NA	04/22/1513:23	04/22/1513:23	RDV422	RAV178	V001D20	Field Sample
04-20-15-CW-5	D128-02	1	NA	04/22/1513:48	04/22/1513:48	RDV423	RAV178	V001D20	Field Sample
04-20-15-CW-6	D128-03	1	NA	04/22/1514:13	04/22/1514:13	RDV424	RAV178	V001D20	Field Sample
04-20-15-CW-6MS	D128-03M	1	NA	04/22/1514:37	04/22/1514:37	RDV425	RAV178	V001D20	Matrix Spike Sample (MS)
04-20-15-CW-6MSD	D128-03S	1	NA	04/22/1515:02	04/22/1515:02	RDV426	RAV178	V001D20	MS Duplicate (MSD)
04-20-15-CW-9	D128-04	1	NA	04/22/1515:27	04/22/1515:27	RDV427	RAV178	V001D20	Field Sample
04-20-15-CW-10	D128-05	1	NA	04/22/1515:51	04/22/1515:51	RDV428	RAV178	V001D20	Field Sample
04-20-15-CW-11	D128-06	1	NA	04/22/1516:16	04/22/1516:16	RDV429	RAV178	V001D20	Field Sample
04-20-15-FDUP-1	D128-07	1	NA	04/22/1516:40	04/22/1516:40	RDV430	RAV178	V001D20	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 13:23
Sample ID: 04-20-15-CW-1	Date Analyzed: 04/22/15 13:23
Lab Samp ID: D128-01	Dilution Factor: 1
Lab File ID: RDV422	Matrix : WATER
Ext Btch ID: VOO1D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.12	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.118	0.1000	118	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 13:48
Sample ID: 04-20-15-CW-5	Date Analyzed: 04/22/15 13:48
Lab Samp ID: D128-02	Dilution Factor: 1
Lab File ID: RDV423	Matrix : WATER
Ext Btch ID: V001D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.13	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.105	0.1000	105	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 14:13
Sample ID: 04-20-15-CW-6	Date Analyzed: 04/22/15 14:13
Lab Samp ID: D128-03	Dilution Factor: 1
Lab File ID: RDV424	Matrix : WATER
Ext Btch ID: VOO1D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.065	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.110	0.1000	110	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 15:27
Sample ID: 04-20-15-CW-9	Date Analyzed: 04/22/15 15:27
Lab Samp ID: D128-04	Dilution Factor: 1
Lab File ID: RDV427	Matrix : WATER
Ext Btch ID: V001D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.15	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.103	0.1000	103	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 15:51
Sample ID: 04-20-15-CW-10	Date Analyzed: 04/22/15 15:51
Lab Samp ID: D128-05	Dilution Factor: 1
Lab File ID: RDV428	Matrix : WATER
Ext Btch ID: VOO1D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.117	0.1000	117	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV428.D
Acq On : 22 Apr 2015 3:51 pm
Sample : 15D128-05 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 24 13:36 2015

Vial: 12
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4096	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.33	98	43411	117.26	ng/l	0.02
Spiked Amount 100.000			Recovery = 117.26%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

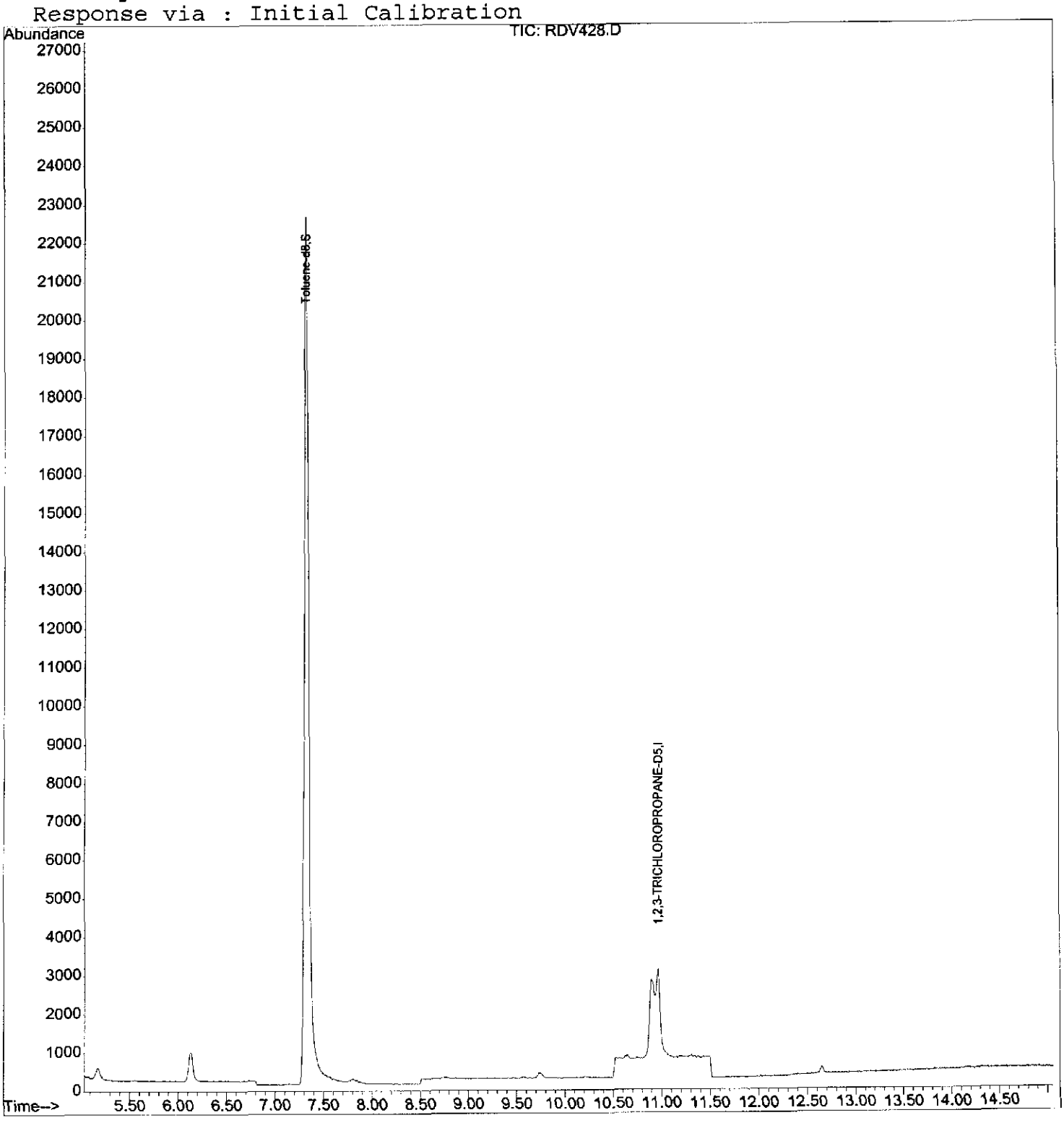
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV428.D
Acq On : 22 Apr 2015 3:51 pm
Sample : 15D128-05 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 24 13:36 2015

Vial: 12
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 16:16
Sample ID: 04-20-15-CW-11	Date Analyzed: 04/22/15 16:16
Lab Samp ID: D128-06	Dilution Factor: 1
Lab File ID: RDV429	Matrix : WATER
Ext Btch ID: VOO1D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.116	0.1000	116	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECD & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/22/15 16:40
Sample ID: 04-20-15-FDUP-1	Date Analyzed: 04/22/15 16:40
Lab Samp ID: D128-07	Dilution Factor: 1
Lab File ID: RDV430	Matrix : WATER
Ext Btch ID: VO01D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.12	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.109	0.1000	109	80-120

QC SUMMARIES

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B, CITY WELL SAMPLING	Date Received: 04/22/15
Batch No. : 15D128	Date Extracted: 04/22/15 12:59
Sample ID: MBLK1W	Date Analyzed: 04/22/15 12:59
Lab Samp ID: V001D20B	Dilution Factor: 1
Lab File ID: RDV421	Matrix : WATER
Ext Btch ID: V001D20	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0980	0.1000	98.0	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B, CITY WELL SAMPLING
BATCH NO.: 15D128
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001D20B	V001D20L	V001D20C		
LAB FILE ID:	RDV421	RDV419	RDV420		
DATE EXTRACTED:	04/22/1512:59	04/22/1512:06	04/22/1512:32	DATE COLLECTED:	NA
DATE ANALYZED:	04/22/1512:59	04/22/1512:06	04/22/1512:32	DATE RECEIVED:	04/22/15
PREP. BATCH:	V001D20	V001D20	V001D20		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	ND	0.100	0.106	106	0.100	0.111	111	5	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.101	101	0.100	0.106	106	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.112	112	0.100	0.116	116	3	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.0971	97	0.100	0.105	105	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B, CITY WELL SAMPLING
BATCH NO.: 15D128
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-20-15-CW-6				
LAB SAMP ID:	D128-03	D128-03M	D128-03S		
LAB FILE ID:	RDV424	RDV425	RDV426		
DATE EXTRACTED:	04/22/1514:13	04/22/1514:37	04/22/1515:02	DATE COLLECTED:	04/20/15
DATE ANALYZED:	04/22/1514:13	04/22/1514:37	04/22/1515:02	DATE RECEIVED:	04/20/15
PREP. BATCH:	V001D20	V001D20	V001D20		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	0.0647	0.100	0.152	88	0.100	0.165	100	8	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0761	76	0.100	0.0804	80	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.101	101	0.100	0.108	108	7	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.103	103	0.100	0.105	105	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV421.D
Acq On : 22 Apr 2015 12:59 pm
Sample : VO01D20B 25mL
Misc : BLANK
MS Integration Params: 524C.P
Quant Time: Apr 24 11:17 2015

Vial: 5
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4647	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	41153	97.98	ng/l	0.02
Spiked Amount 100.000			Recovery = 97.98%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

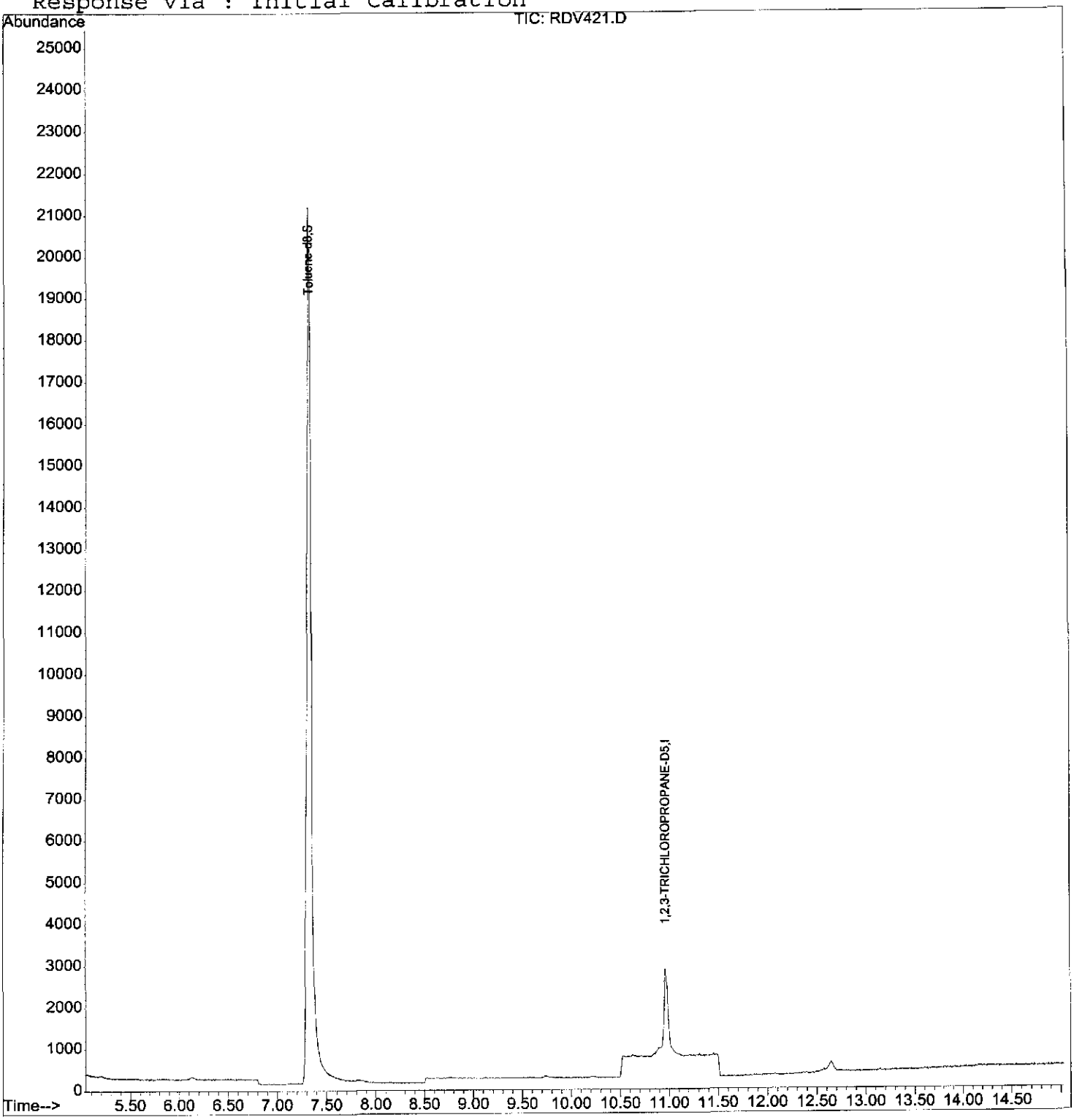
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV421.D
Acq On : 22 Apr 2015 12:59 pm
Sample : VO01D20B 25mL
Misc : BLANK
MS Integration Params: 524C.P
Quant Time: Apr 24 11:17 2015

Vial: 5
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV419.D
Acq On : 22 Apr 2015 12:06 pm
Sample : VO01D20L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 22 12:21 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4458	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	39132	97.12	ng/l	0.01
Spiked Amount 100.000			Recovery = 97.12%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	9671	100.64	ng/l	91
4) 1,2-Dibromoethane	8.76	107	6810	112.25	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.96	83	7684	110.87	ng/l	99
6) 1,2,3-Trichloropropane	11.03	75	5029	105.62	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.09	157	847	100.79	ng/l	87

(#) = qualifier out of range (m) = manual integration

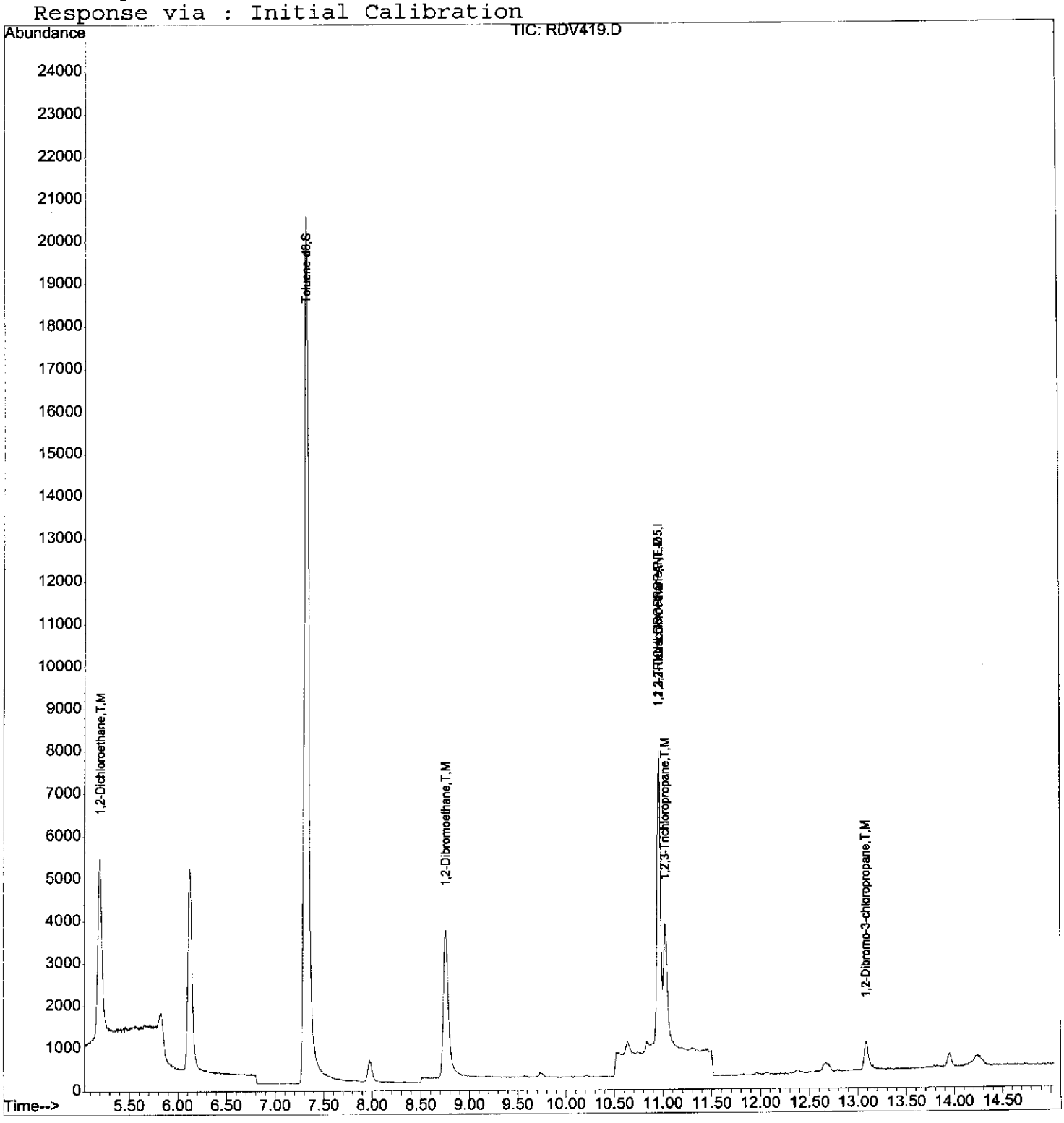
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV419.D
Acq On : 22 Apr 2015 12:06 pm
Sample : VO01D20L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 22 12:21 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV420.D
Acq On : 22 Apr 2015 12:32 pm
Sample : VO01D20C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 22 12:48 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4492	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	42587	104.90	ng/l	0.01
Spiked Amount 100.000			Recovery =	104.90%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	10676	110.25	ng/l	100
4) 1,2-Dibromoethane	8.76	107	7098	116.11	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.96	83	8052	115.30	ng/l	98
6) 1,2,3-Trichloropropane	11.03	75	5310	110.68	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.09	157	899	106.17	ng/l	99

(#) = qualifier out of range (m) = manual integration

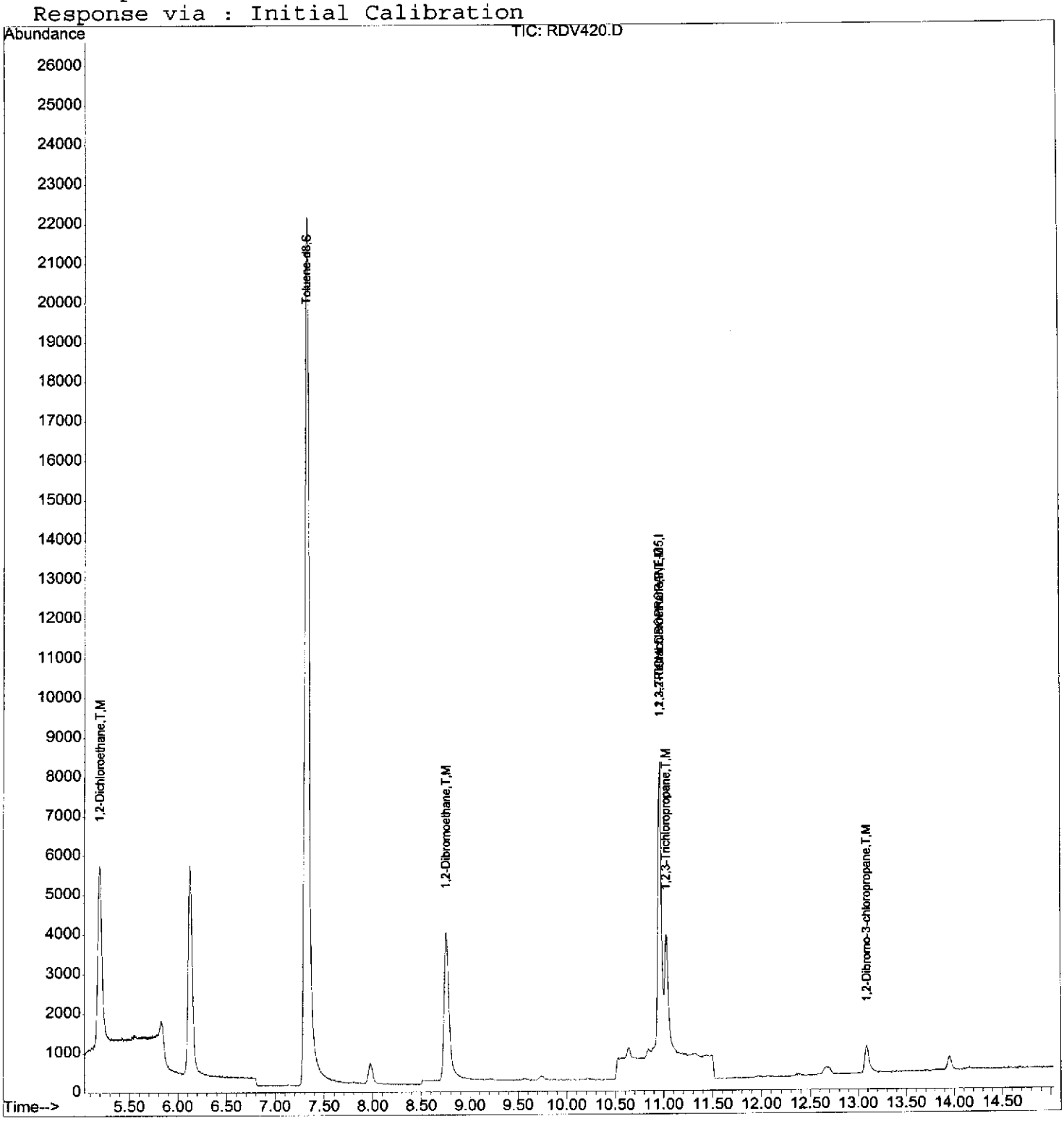
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV420.D
Acq On : 22 Apr 2015 12:32 pm
Sample : VO01D20C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 22 12:48 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV424.D
Acq On : 22 Apr 2015 2:13 pm
Sample : 15D128-03 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 24 13:33 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4377	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	43588	110.18	ng/l	0.02
Spiked Amount 100.000			Recovery =	110.18%		
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	11.03	75	3024	64.69	ng/l	94

(#) = qualifier out of range (m) = manual integration

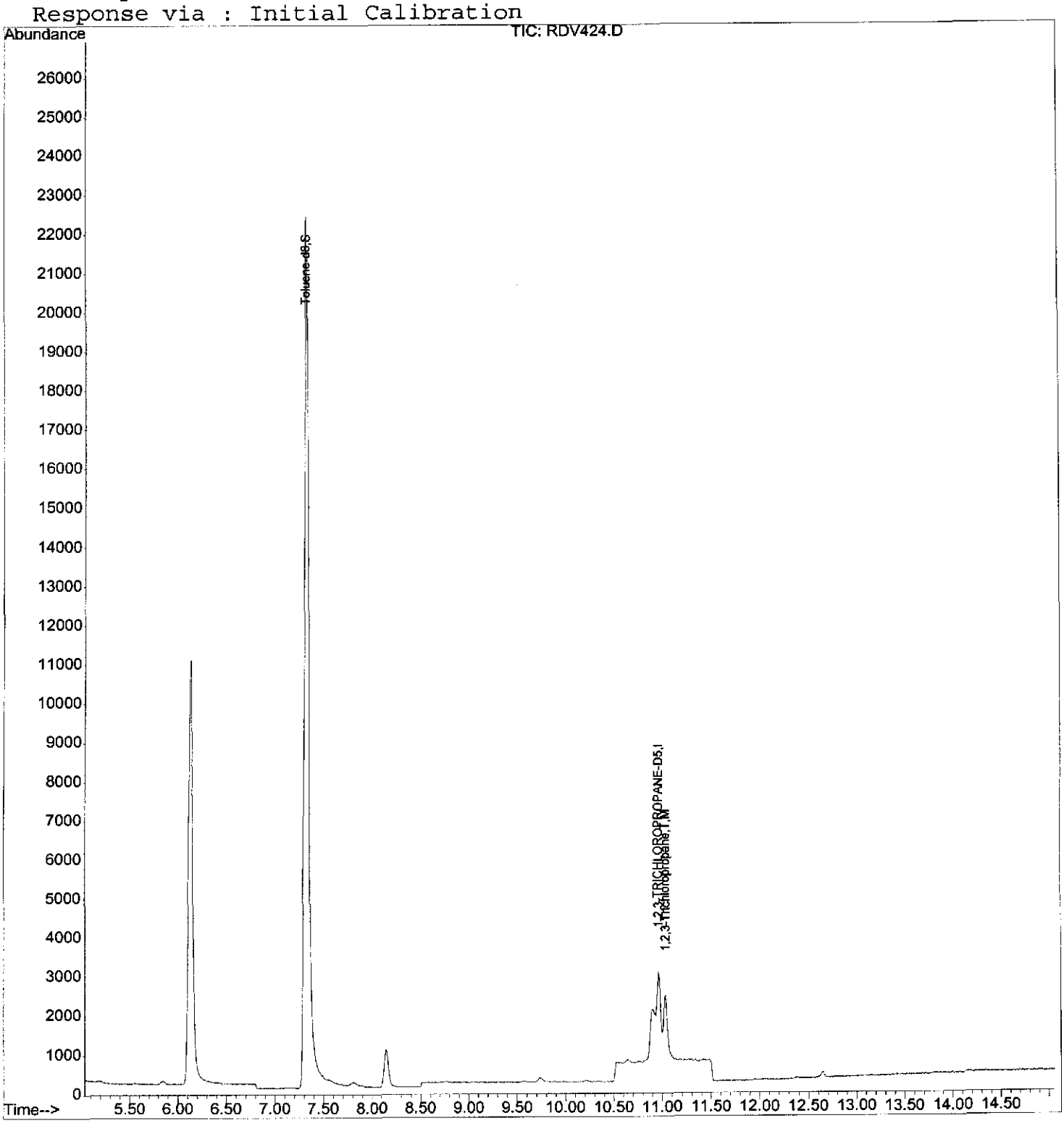
Quantitation Report

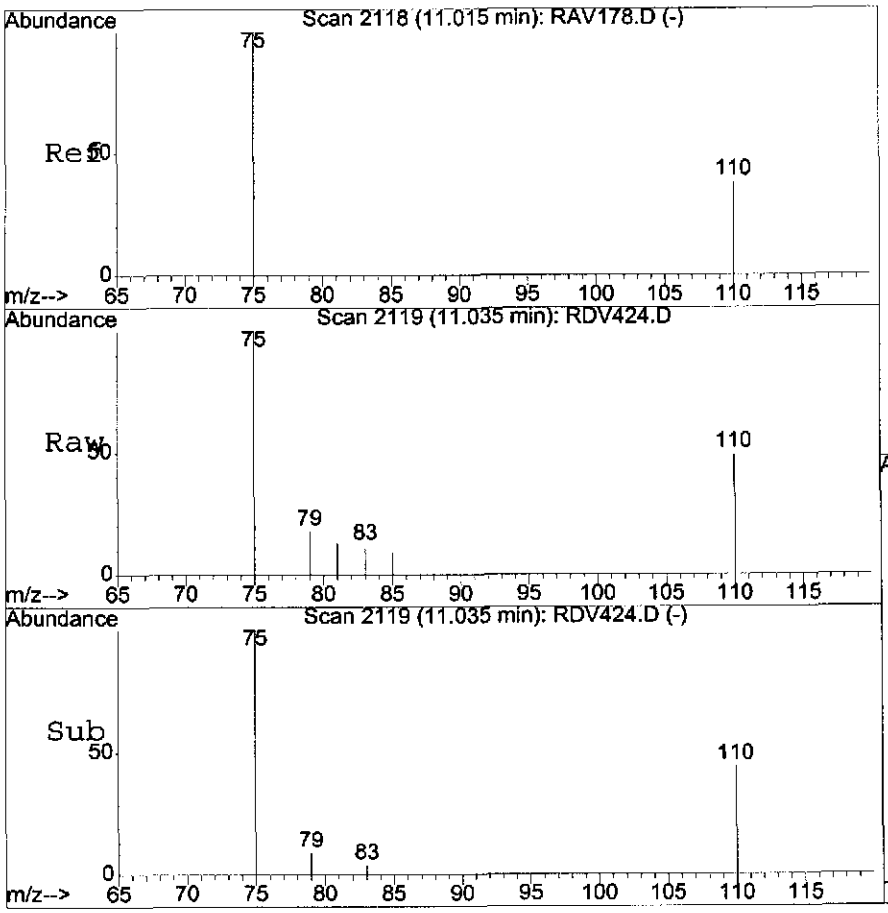
Data File : D:\HPCHEM\1\DATA\15D22\RDV424.D
Acq On : 22 Apr 2015 2:13 pm
Sample : 15D128-03 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 24 13:33 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

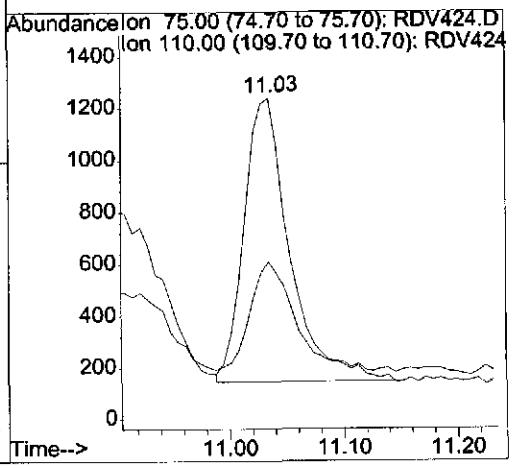




#6
1,2,3-Trichloropropane
Concen: 64.69 ng/l
RT: 11.03 min Scan# 2119
Delta R.T. 0.02 min
Lab File: RDV424.D
Acq: 22 Apr 2015 2:13 pm

Tgt Ion: 75 Resp: 3024

Ion	Ratio	Lower	Upper
75	100		
110	38.1	11.6	71.6



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV425.D
Acq On : 22 Apr 2015 2:37 pm
Sample : 15D128-03M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 22 17:31 2015

Vial: 9
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4677	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	43692	103.36	ng/l	0.01
Spiked Amount 100.000			Recovery =	103.36%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	10669	105.82	ng/l	98
4) 1,2-Dibromoethane	8.76	107	6421	100.88	ng/l	97
5) 1,1,2,2-Tetrachloroethane	10.96	83	7207	99.12	ng/l	92
6) 1,2,3-Trichloropropane	11.03	75	7608	152.31	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.09	157	671	76.11	ng/l	89

(#) = qualifier out of range (m) = manual integration

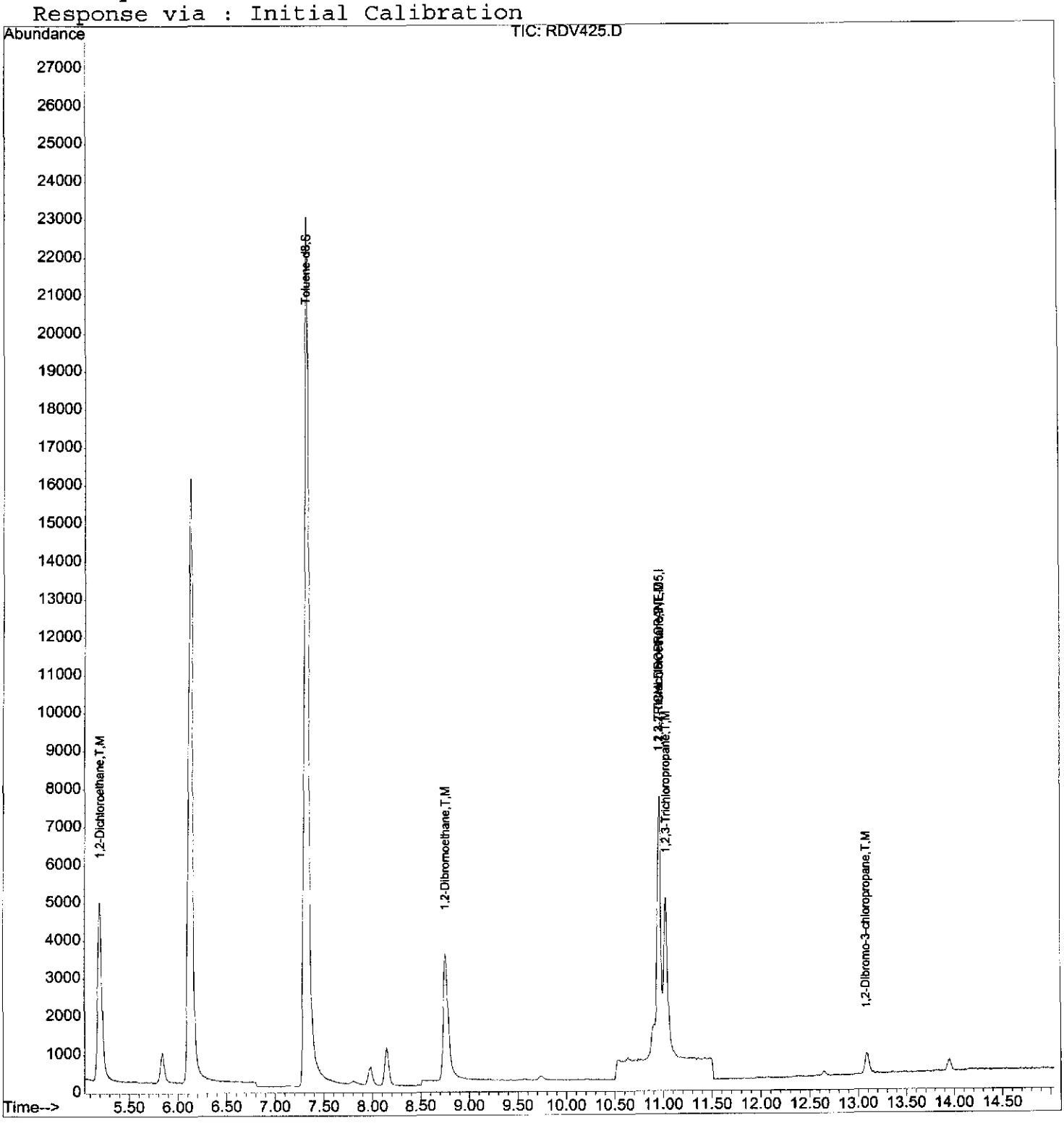
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV425.D
Acq On : 22 Apr 2015 2:37 pm
Sample : 15D128-03M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 22 17:31 2015

Vial: 9
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV426.D
Acq On : 22 Apr 2015 3:02 pm
Sample : 15D128-03S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 22 17:31 2015

Vial: 10
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4679	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	44512	105.25	ng/l	0.01
Spiked Amount 100.000			Recovery = 105.25%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	11462	113.64	ng/l	99
4) 1,2-Dibromoethane	8.76	107	6905	108.44	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.96	83	7624	104.81	ng/l	97
6) 1,2,3-Trichloropropane	11.03	75	8237	164.83	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.09	157	709	80.39	ng/l	97

(#) = qualifier out of range (m) = manual integration

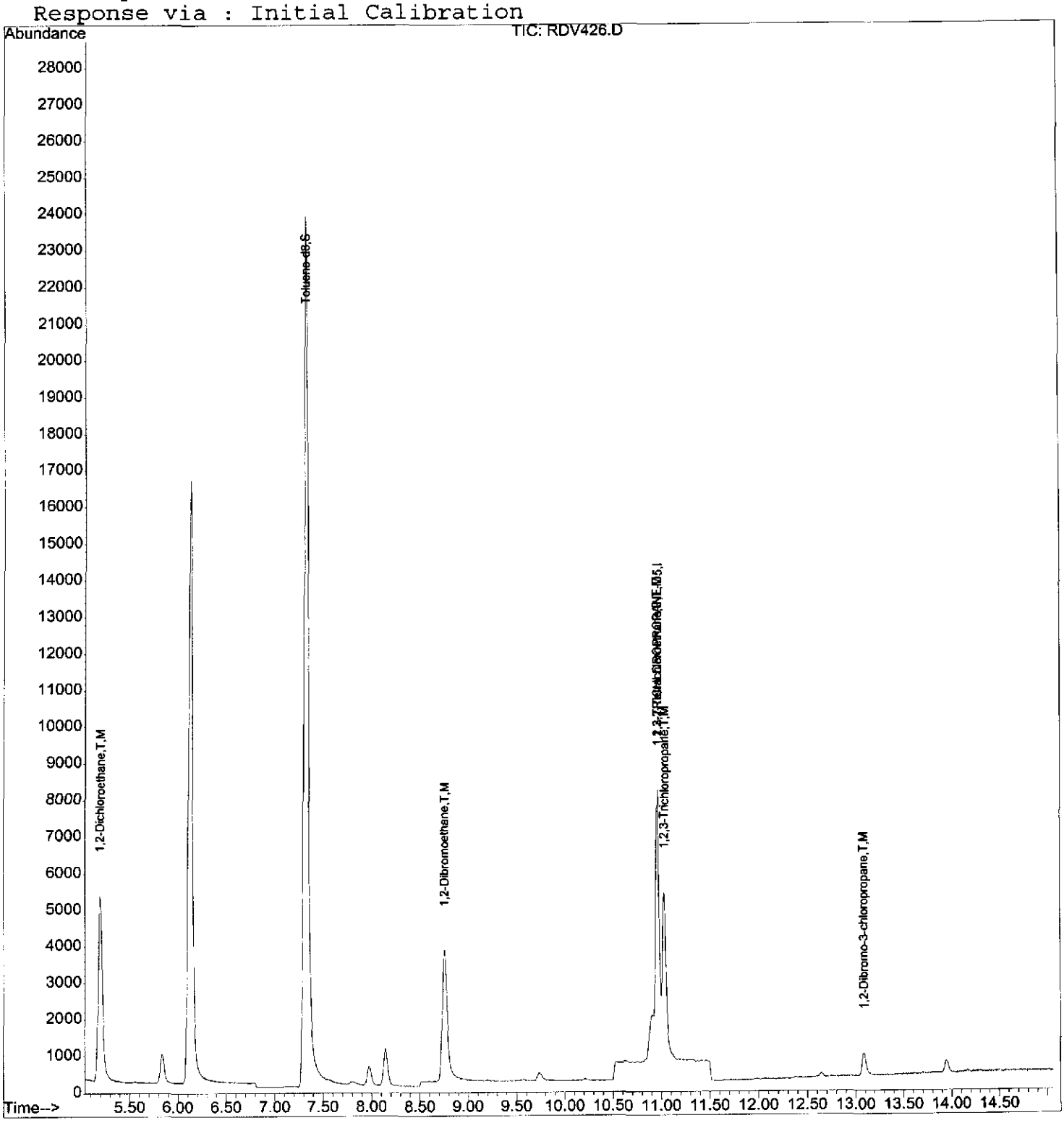
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV426.D
Acq On : 22 Apr 2015 3:02 pm
Sample : 15D128-03S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 22 17:31 2015

Vial: 10
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B, CITY WELL SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D128
Lab File ID: RAV173 BFB Injection Date : 01/13/15
Instrument ID: TQ01 BFB Injection Time : 09:57
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.28
75	30.0 - 60.0% of mass 95	42.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.05
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.80
175	5.0 - 9.0% of mass 174	6.26(7.0)1
176	95.0 - 101.0% of mass 174	86.06(95.8)1
177	5.0 - 9.0% of mass 176	5.52(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD05	VO01A131	RAV174	01/13/15	10:27
2	VSTD010	VO01A132	RAV175	01/13/15	10:51
3	VSTD020	VO01A133	RAV176	01/13/15	11:15
4	VSTD050	VO01A134	RAV177	01/13/15	11:39
5	VSTD100	VO01A135	RAV178	01/13/15	12:03
6	VSTD200	VO01A136	RAV179	01/13/15	12:27
7	VSTD400	VO01A137	RAV180	01/13/15	12:51
8	VSTD1000	VO01A138	RAV181	01/13/15	13:15
9	VSTD2000	VO01A139	RAV182	01/13/15	13:39
10	VSTD100	IVO01A1301	RAV184	01/13/15	14:26

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T001
Beginning DateTime :01/13/15 10:27
Spike Units :PPT
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
Ending DateTime :01/13/15 13:39
HPChem Method :V001A13

M IDX	Parameters	5 10:27 RAV174	10 10:51 RAV175	20 11:15 RAV176	50 11:39 RAV177	100 12:03 RAV178	200 12:27 RAV179	400 12:51 RAV180	1000 13:15 RAV181	2000 13:39 RAV182	Av_RRF	%_RSD	Av_Rt_M
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	1	0	10.9505
2	1,2-Dichloroethane	1.837	2.098	2.023	2.328	2.184	2.528	2.100	2.202	2.100	2.156	8.99	5.1880
3	Toluene-d8	------	11.392	9.024	9.095	8.109	9.522	7.988	8.730	8.446	9.038	11.97	7.3057
4	1,2-Dibromoethane	1.213	1.332	1.266	1.377	1.349	1.570	1.324	1.425	1.391	1.361	7.45	8.7375
5	1,1,2,2-Tetrachloroethane	1.429	1.390	1.384	1.571	1.543	1.804	1.530	1.680	1.660	1.555	9.16	10.9461
6	1,2,3-Trichloropropane	1.186	1.045	0.954	0.987	1.004	1.204	1.010	1.117	1.105	1.068	8.35	11.0147
7	1,2-Dibromo-3-chloropropane	------	0.214	0.175	0.174	0.171	0.200	0.172	0.197	0.205	0.188	9.17	13.0710

Ave_%RSD : 9.2 Max_%RSD : 12

SM
1/14/15

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	10.95	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	5.19	0.474	A	1	A	B
3	S	Toluene-d8	98	7.31	0.667	A	1	A	B
4	T	1,2-Dibromoethane	107	8.74	0.798	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	10.94	0.999	A	1	A	B
6	T	1,2,3-Trichloropropane	75	11.02	1.006	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	13.07	1.194	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

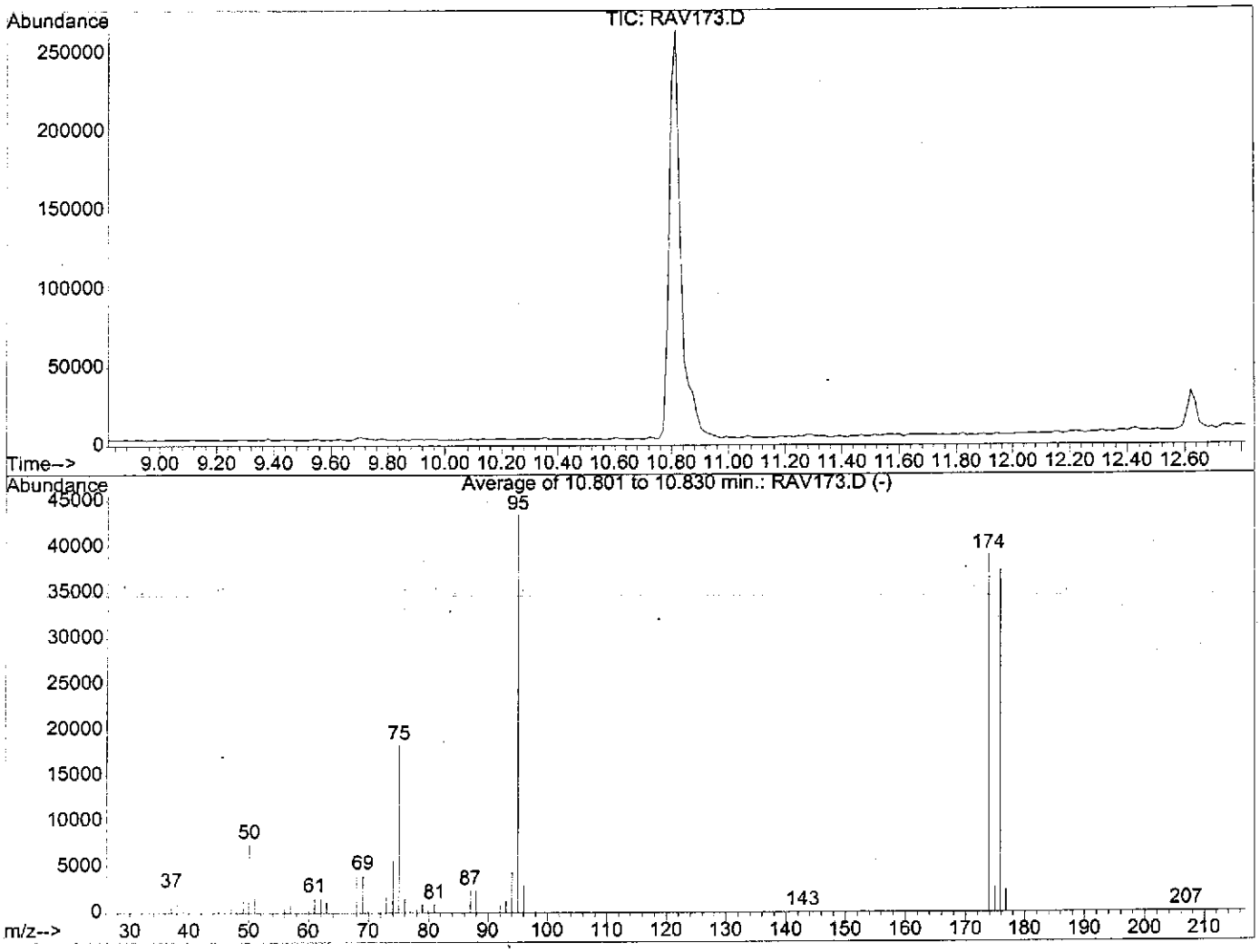
VO01A13.M Wed Jan 14 15:08:24 2015

SM 1/14/15

BFB

Data File : D:\HPCHEM\1\DATA\15A13\RAV173.D
Acq On : 13 Jan 2015 9:57 am
Sample : BFB01A11
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: DNguye
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	7513	PASS
75	95	30	60	42.2	18354	PASS
95	95	100	100	100.0	43472	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.8	39037	PASS
175	174	5	9	7.0	2721	PASS
176	174	95	101	95.8	37411	PASS
177	176	5	9	6.4	2399	PASS

RAV173.D VO01A13A.M Wed Jan 14 11:20:32 2015

SA 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5194	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	2994	6.38	ng/l	0.00
Spiked Amount 100.000			Recovery =	6.38%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	477	4.26	ng/l #	41
4) 1,2-Dibromoethane	8.74	107	315	4.46	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.94	83	371	4.59	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	308	5.55	ng/l	88

SV 1/14/15

(#) = qualifier out of range (m) = manual integration

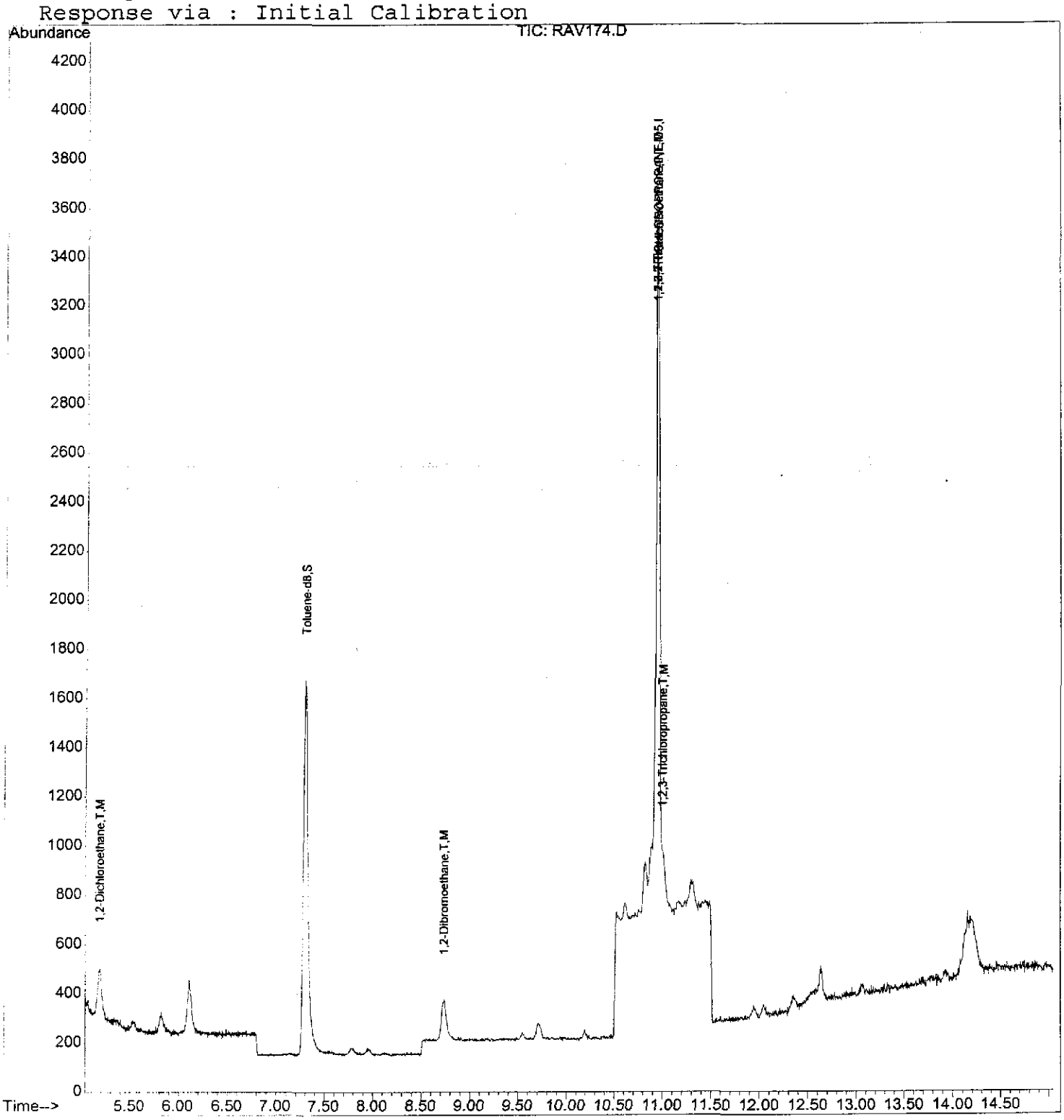
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SG 1/14/15

2158

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5044	100.00	ng/l		0.00
System Monitoring Compounds							
3) Toluene-d8	7.31	98	5746	12.60	ng/l		0.00
Spiked Amount 100.000			Recovery = 12.60%				
Target Compounds							Qvalue
2) 1,2-Dichloroethane	5.19	62	1058	9.73	ng/l		97
4) 1,2-Dibromoethane	8.73	107	672	9.79	ng/l		92
5) 1,1,2,2-Tetrachloroethane	10.94	83	701	8.94	ng/l		97
6) 1,2,3-Trichloropropane	11.01	75	527	9.78	ng/l		96
7) 1,2-Dibromo-3-chloropropan	13.08	157	108	11.36	ng/l	#	44

Sa 1/14/15

(#) = qualifier out of range (m) = manual integration

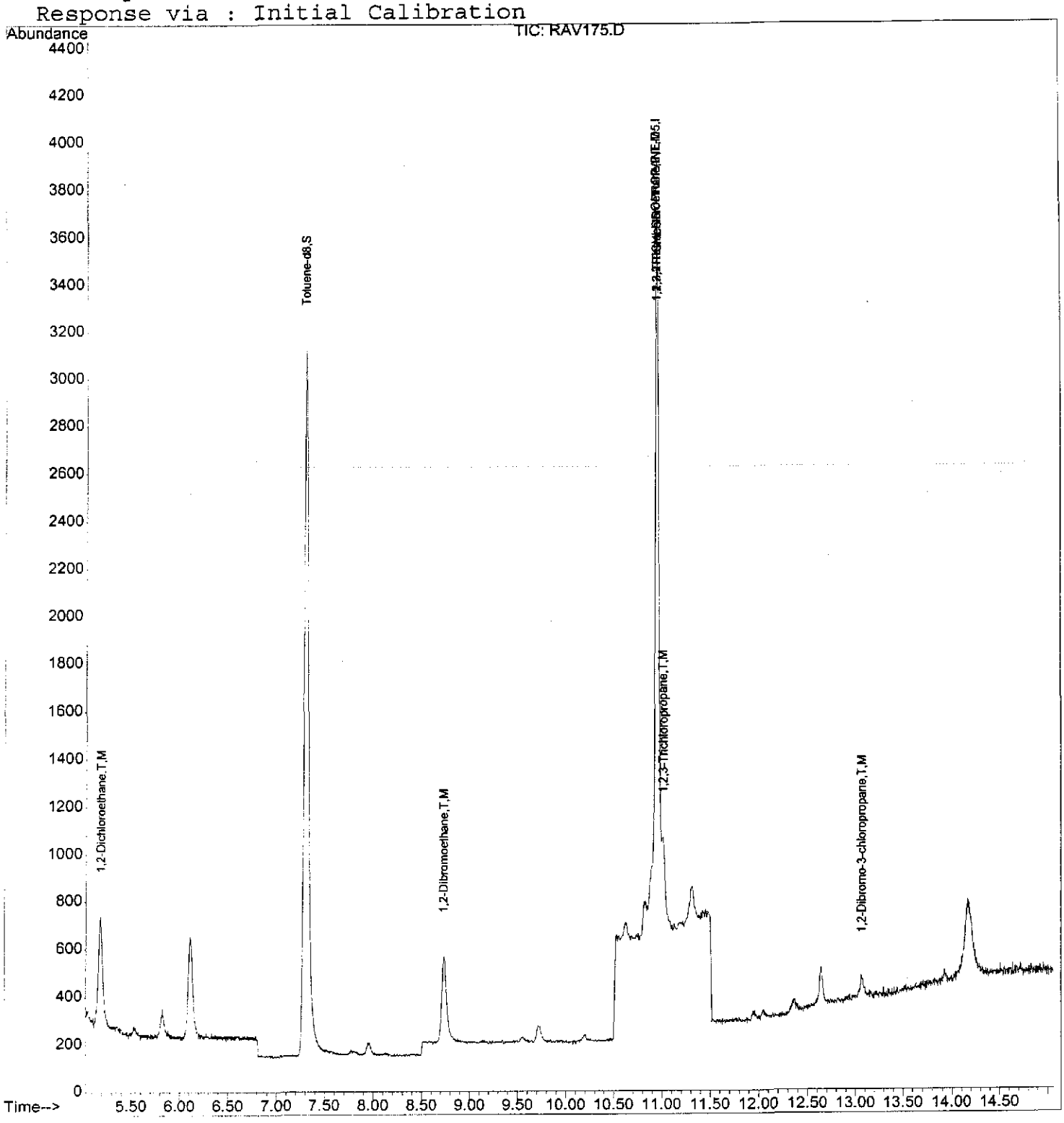
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SM 1/14/15

2160

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4945	100.00	ng/l		0.00
System Monitoring Compounds							
3) Toluene-d8	7.30	98	8925	19.97	ng/l		0.00
Spiked Amount 100.000			Recovery = 19.97%				
Target Compounds							Qvalue
2) 1,2-Dichloroethane	5.18	62	2001	18.77	ng/l		98
4) 1,2-Dibromoethane	8.73	107	1252	18.60	ng/l		99
5) 1,1,2,2-Tetrachloroethane	10.94	83	1369	17.81	ng/l		99
6) 1,2,3-Trichloropropane	11.01	75	944	17.87	ng/l		96
7) 1,2-Dibromo-3-chloropropan	13.07	157	173	18.56	ng/l	#	66

Su 1/14/15

(#) = qualifier out of range (m) = manual integration

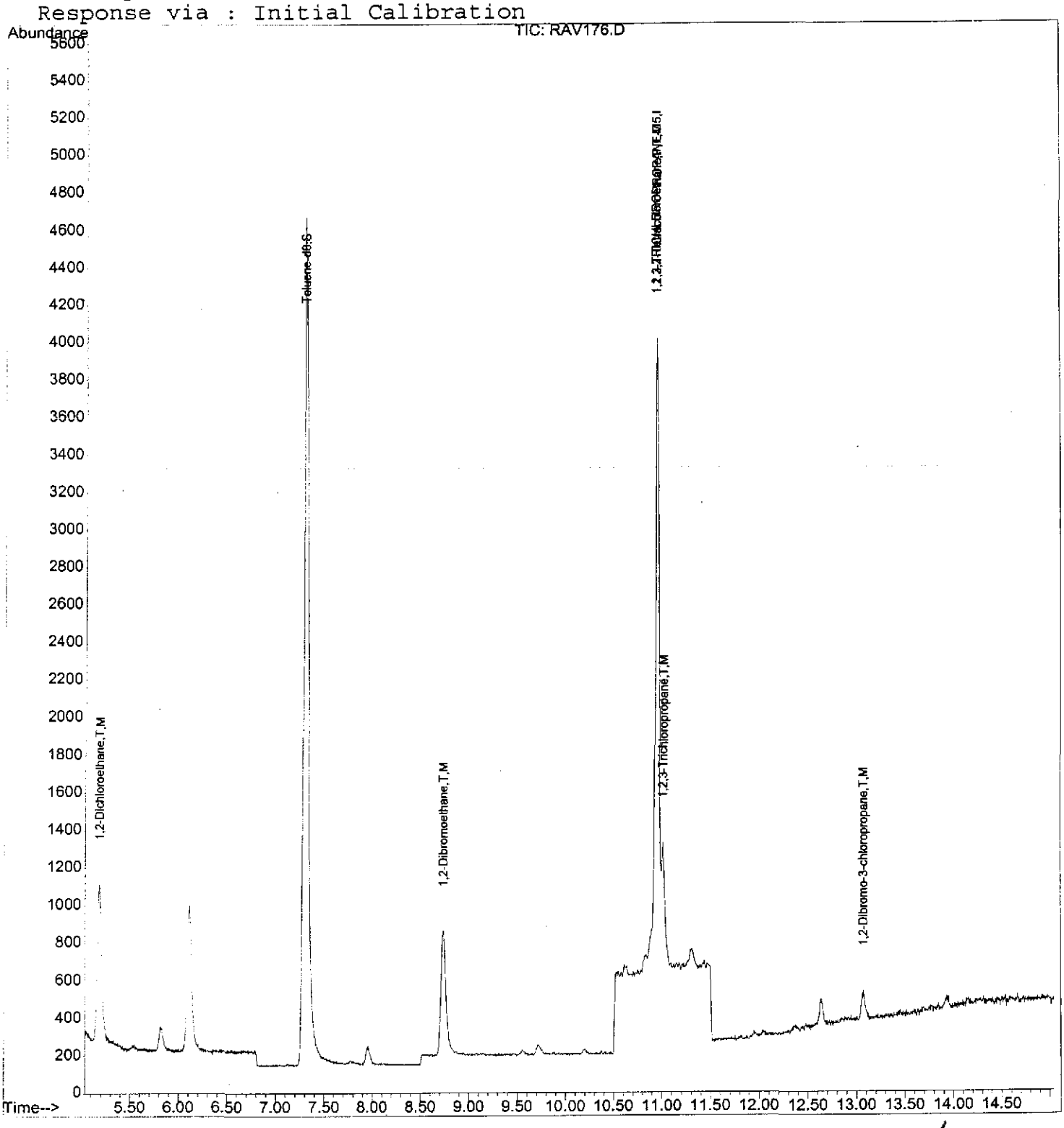
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SW 1/14/15

2162

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4947	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	22497	50.32	ng/l	0.00
Spiked Amount 100.000			Recovery = 50.32%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	5759	54.01	ng/l	96
4) 1,2-Dibromoethane	8.74	107	3407	50.61	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	3885	50.52	ng/l	96
6) 1,2,3-Trichloropropane	11.01	75	2442	46.22	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.07	157	431	46.22	ng/l	89

SG 1/14/15

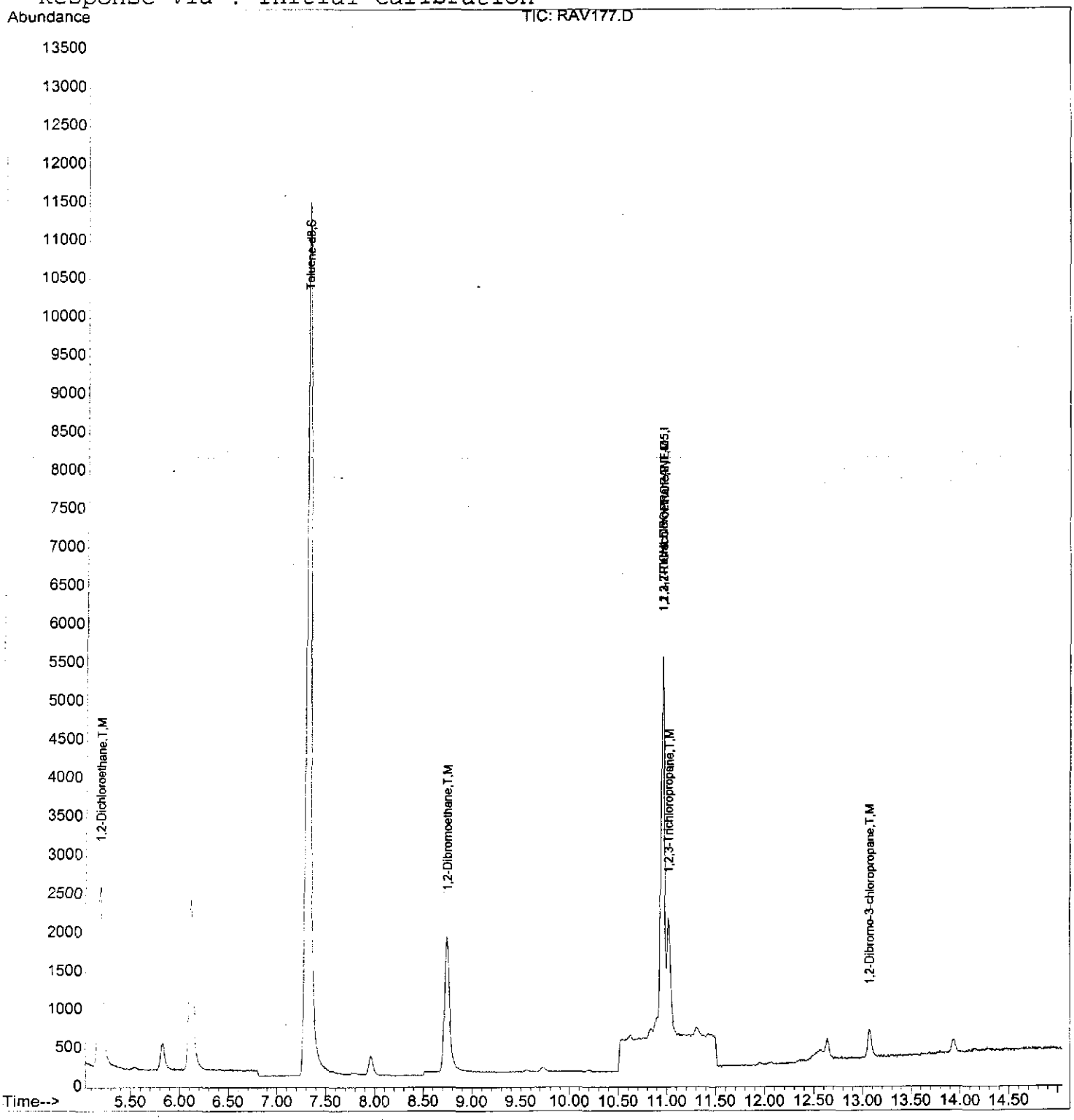
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2164

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D Vial: 6
Acq On : 13 Jan 2015 12:03 pm Operator: DNguye
Sample : VO01A135 Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5060	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	41033	89.72	ng/l	0.00
Spiked Amount 100.000			Recovery =	89.72%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	11051	101.32	ng/l	100
4) 1,2-Dibromoethane	8.74	107	6828	99.15	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.94	83	7809	99.27	ng/l	100
6) 1,2,3-Trichloropropane	11.02	75	5081	94.02	ng/l	100
7) 1,2-Dibromo-3-chloropropan	13.07	157	867	90.90	ng/l	100

Sa 1/14/15

(#) = qualifier out of range (m) = manual integration

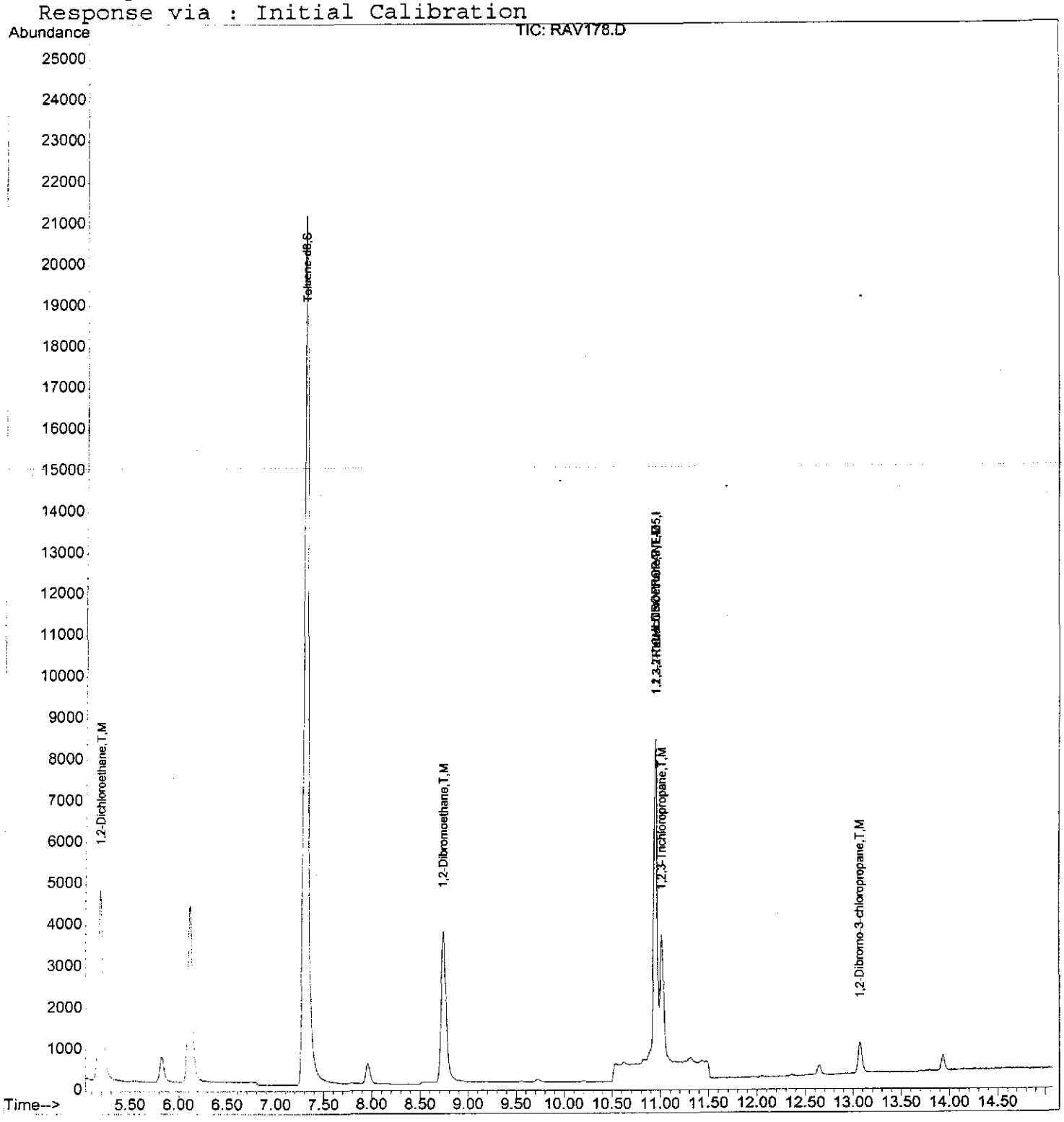
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SM 1/14/15

2166

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4682	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	89160	210.70	ng/l	0.00
Spiked Amount 100.000			Recovery = 210.70%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	23674	234.57	ng/l	98
4) 1,2-Dibromoethane	8.74	107	14703	230.75	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	16894	232.10	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	11277	225.52	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.07	157	1876	212.57	ng/l	94

SA 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV179.D VO01A13.M Wed Jan 14 11:22:27 2015

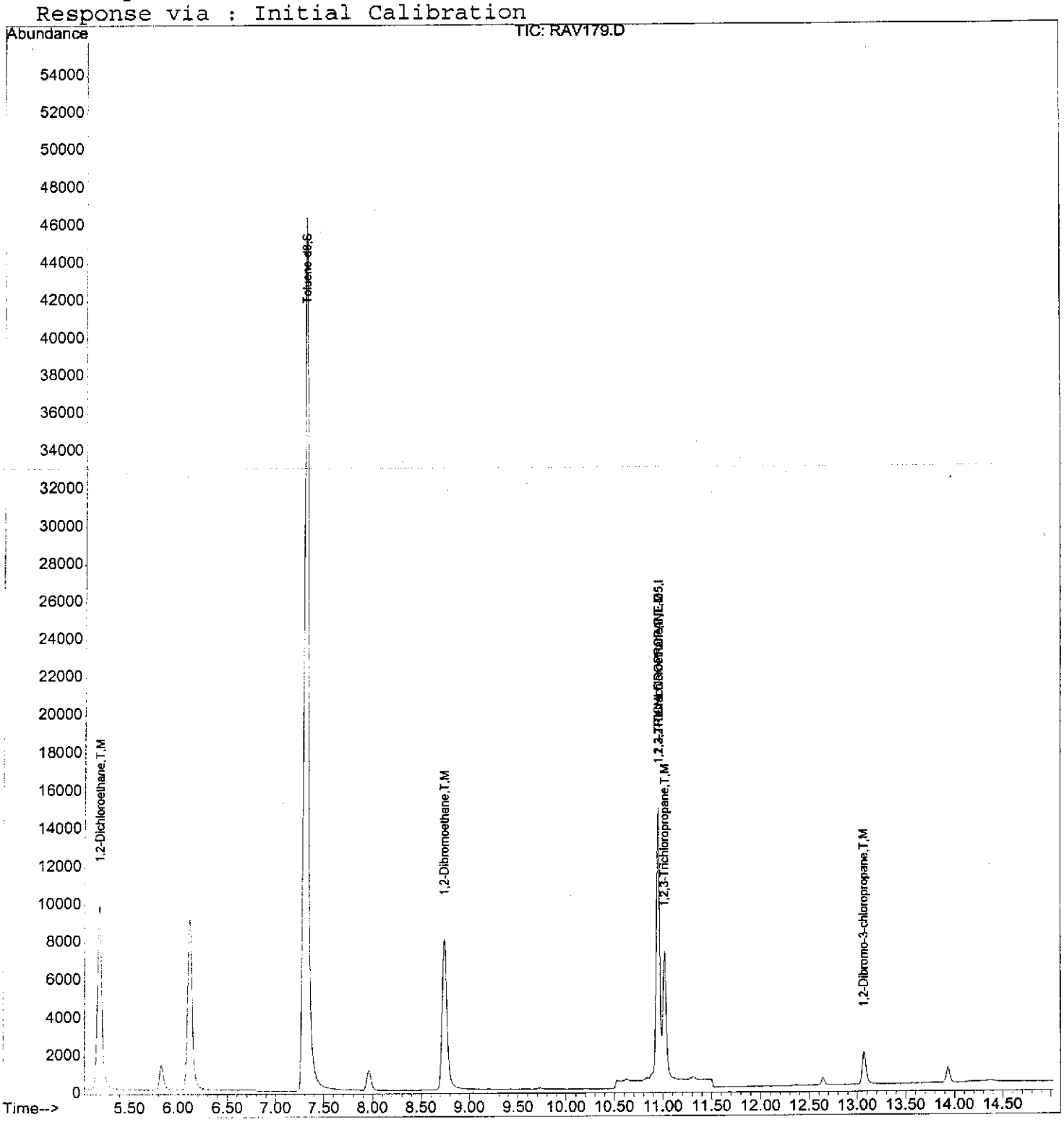
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2168

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5436	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	173683	353.51	ng/l	0.00
Spiked Amount 100.000			Recovery =	353.51%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	45662	389.68	ng/l	98
4) 1,2-Dibromoethane	8.74	107	28798	389.27	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	33274	393.74	ng/l	100
6) 1,2,3-Trichloropropane	11.01	75	21958	378.21	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	3732	364.21	ng/l	91

SA 1/14/15

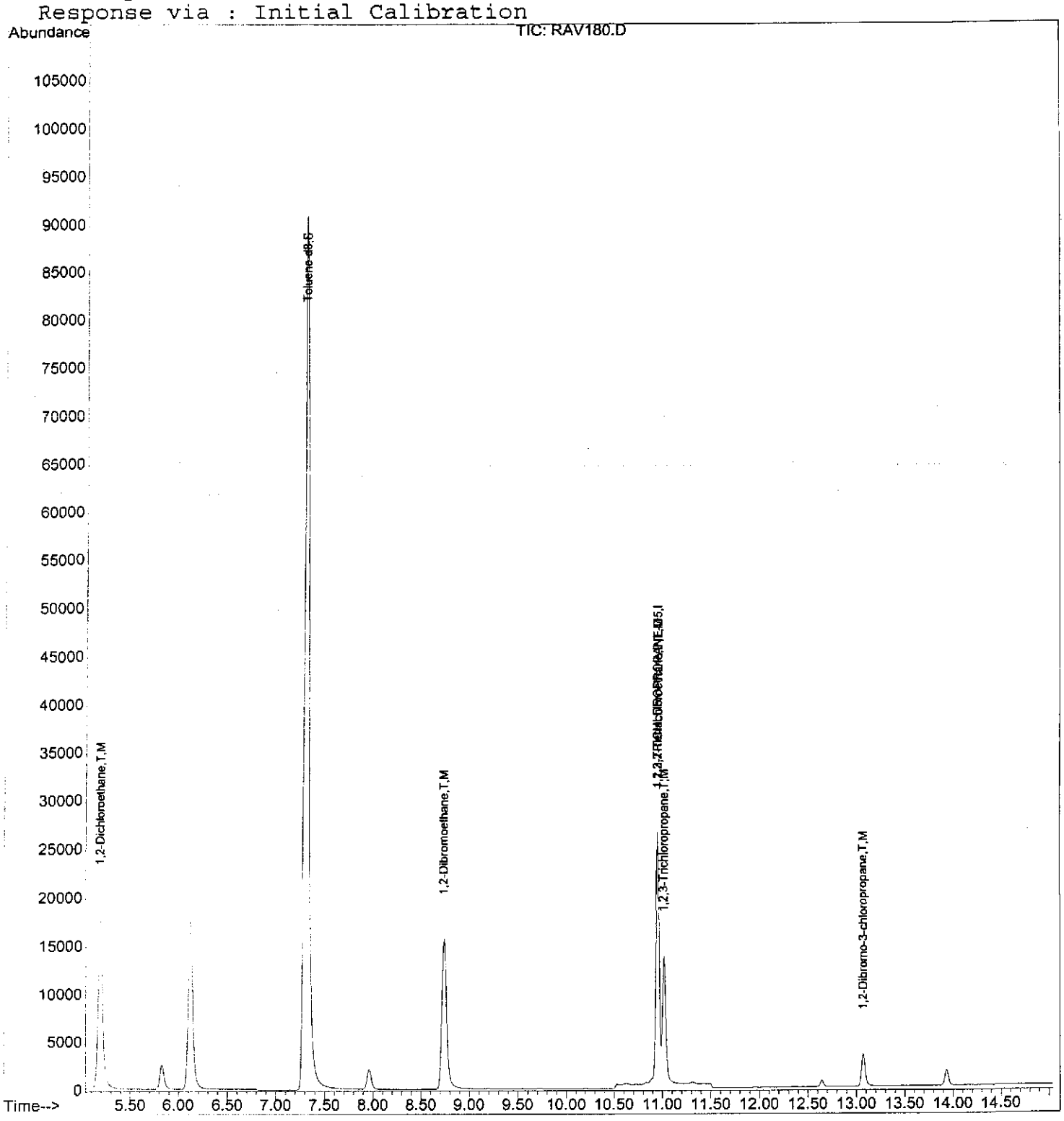
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SV 1/14/15

2170

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5252	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	458513	965.93	ng/l	0.00
Spiked Amount 100.000			Recovery =	965.93%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	115670	1021.70	ng/l	99
4) 1,2-Dibromoethane	8.74	107	74830	1046.93	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	88254	1080.91	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	58654	1045.67	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	10326	1043.03	ng/l	91

Su 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV181.D VO01A13.M Wed Jan 14 11:22:56 2015

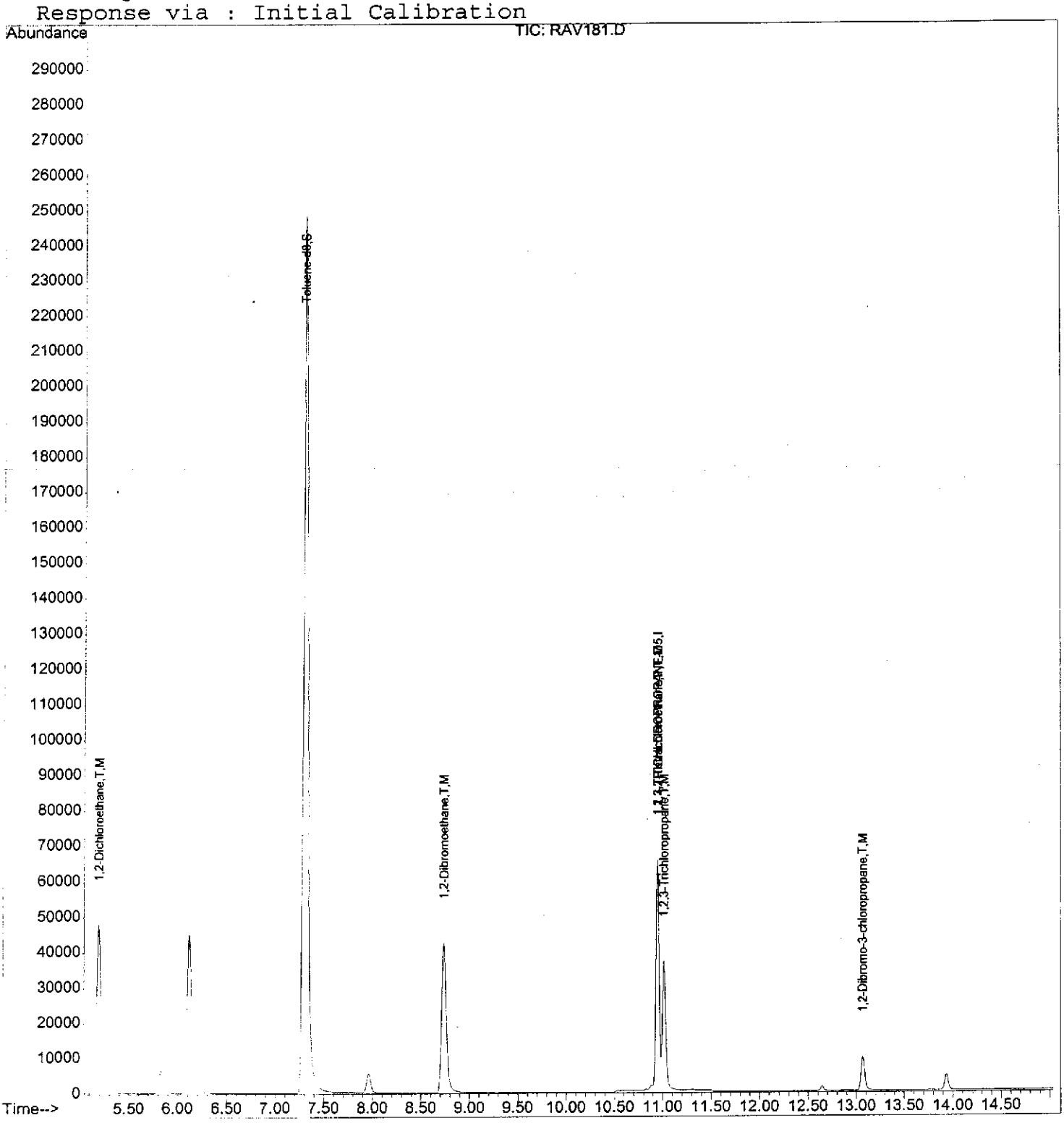
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2172

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5393	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	910939	1868.86	ng/l	0.00
Spiked Amount 100.000			Recovery = 1868.86%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	226521	1948.53	ng/l	99
4) 1,2-Dibromoethane	8.73	107	150027	2044.12	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	179068	2135.83	ng/l	98
6) 1,2,3-Trichloropropane	11.01	75	119133	2068.35	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	22087	2172.69	ng/l	90

SV 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV182.D VO01A13.M Wed Jan 14 11:23:09 2015

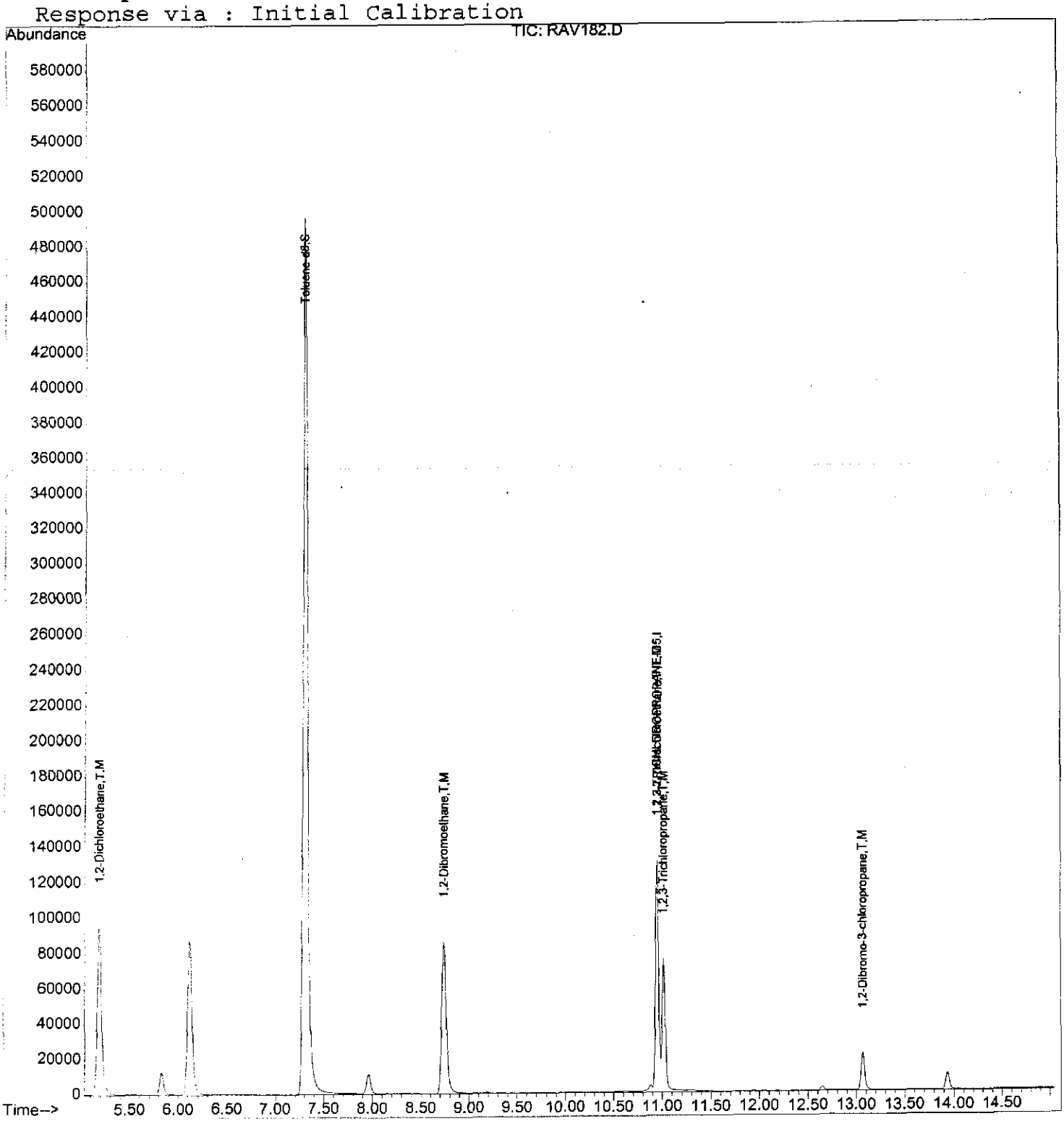
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2174

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T001
IC_Beginning DateTime :01/13/15 10:27
Spike Amount :100 PPT
CC/CV File :RAV184
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
IC_Ending DateTime :01/13/15 13:39
HPChem Method :V001A13
Date_Time :01/13/15 14:26

M IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
1	1,2,3-TRICHLOROPROPANE-D5	100.000	0	5387	1	1	10.956	10.950	0				
2	1,2-Dichloroethane	109.281	9.3	12690	2.356	2.156	5.194	5.188	8.99				
3	Toluene-d8	94.453	-5.5	45988	8.537	9.038	7.311	7.306	11.97				
4	1,2-Dibromoethane	108.576	8.6	7960	1.478	1.361	8.743	8.738	7.45				
5	1,1,2,2-Tetrachloroethane	111.897	11.9	9371	1.740	1.555	10.949	10.946	9.16				
6	1,2,3-Trichloropropane	108.840	8.8	6262	1.162	1.068	11.022	11.015	8.35				
7	1,2-Dibromo-3-chloropropane	104.191	4.2	1058	0.196	0.188	13.074	13.071	9.17				

SA
1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	106	0.00
2	T,M	1,2-Dichloroethane	100.000	109.281	-9.3	115	0.00
3	S	Toluene-d8	100.000	94.453	5.5	112	0.00
4	T,M	1,2-Dibromoethane	100.000	108.576	-8.6	117	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	111.897	-11.9	120	0.00
6	T,M	1,2,3-Trichloropropane	100.000	108.840	-8.8	123	0.00
7	T,M	1,2-Dibromo-3-chloropropane	100.000	104.191	-4.2	122	0.00

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

1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	106	0.00
2	T,M	1,2-Dichloroethane	2.156	2.356	-9.3	115	0.00
3	S	Toluene-d8	9.038	8.537	5.5	112	0.00
4	T,M	1,2-Dibromoethane	1.361	1.478	-8.6	117	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.740	-11.9	120	0.00
6	T,M	1,2,3-Trichloropropane	1.068	1.162	-8.8	123	0.00
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.196	-4.3	122	0.00

3a
1/14/15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
RAV184.D VO01A13.M Wed Jan 14 15:03:16 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5387	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45988	94.45	ng/l	0.00
Spiked Amount 100.000			Recovery = 94.45%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12690	109.28	ng/l	98
4) 1,2-Dibromoethane	8.74	107	7960	108.58	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	9371	111.90	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	6262	108.84	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	1058	104.19	ng/l	97

Sx 1/14/15

(#) = qualifier out of range (m) = manual integration

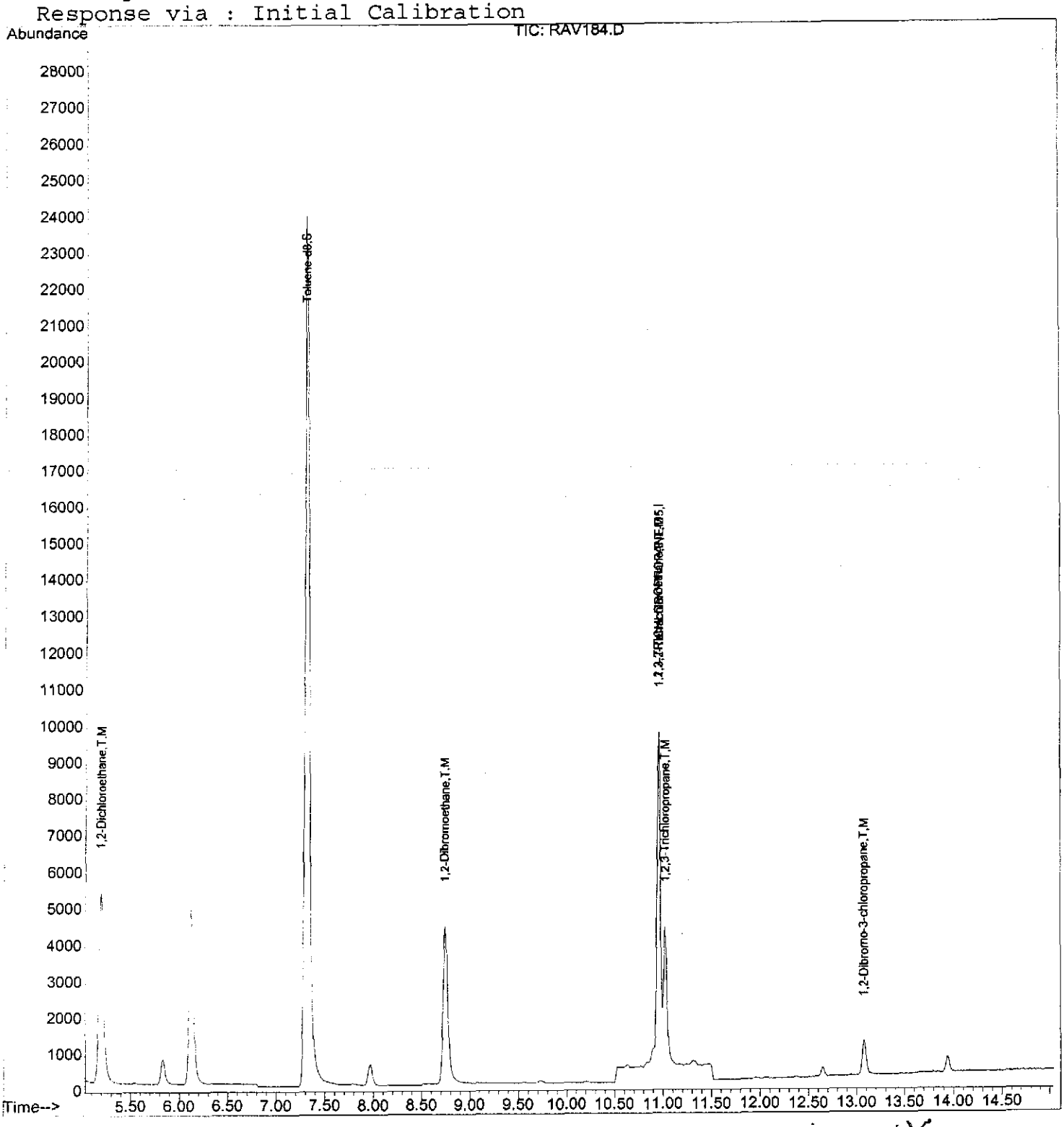
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2180

DAILY CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B, CITY WELL SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D128
Lab File ID: RDV417 BFB Injection Date : 04/22/15
Instrument ID: TOO1 BFB Injection Time : 11:13
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.21
75	30.0 - 60.0% of mass 95	42.32
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.75
173	Less than 2.0% of mass 174	0.23(0.3)1
174	Greater than 50% of mass 95	85.07
175	5.0 - 9.0% of mass 174	6.28(7.4)1
176	95.0 - 101.0% of mass 174	81.79(96.1)1
177	5.0 - 9.0% of mass 176	5.37(6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD100	CV001A1307	RDV418	04/22/15	11:39
2	MBLK1W	VO01D20B	RDV421	04/22/15	12:59
3	LCS1W	VO01D20L	RDV419	04/22/15	12:06
4	LCD1W	VO01D20C	RDV420	04/22/15	12:32
5	04-20-15-CW-1	D128-01	RDV422	04/22/15	13:23
6	04-20-15-CW-5	D128-02	RDV423	04/22/15	13:48
7	04-20-15-CW-6	D128-03	RDV424	04/22/15	14:13
8	04-20-15-CW-6MS	D128-03M	RDV425	04/22/15	14:37
9	04-20-15-CW-6MSD	D128-03S	RDV426	04/22/15	15:02
10	04-20-15-CW-9	D128-04	RDV427	04/22/15	15:27
11	04-20-15-CW-10	D128-05	RDV428	04/22/15	15:51
12	04-20-15-CW-11	D128-06	RDV429	04/22/15	16:16
13	04-20-15-FDUP-1	D128-07	RDV430	04/22/15	16:40

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RAV178
Instrument ID: TO01

Project: B & B, CITY WELL SAMPLING
SDG No.: 15D128
Date Analyzed: 01/13/15
Time Analyzed: 12:03

		IS1(TCP) AREA #	RT #
	12 HOUR STD	5060	10.95
	UPPER LIMIT	10120	11.45
	LOWER LIMIT	2530	10.45
	SAMPLE ID		
1	VSTD100	4550	10.97
2	MBLK1W	4647	10.97
3	LCS1W	4458	10.97
4	LCD1W	4492	10.97
5	04-20-15-CW-1	3870	10.97
6	04-20-15-CW-5	4491	10.97
7	04-20-15-CW-6	4377	10.97
8	04-20-15-CW-6MS	4677	10.97
9	04-20-15-CW-6MSD	4679	10.97
10	04-20-15-CW-9	4583	10.97
11	04-20-15-CW-10	4096	10.97
12	04-20-15-CW-11	4221	10.97
13	04-20-15-FDUP-1	4335	10.97

IS1 (TCP) = 1,2,3-Trichloropropane-d5

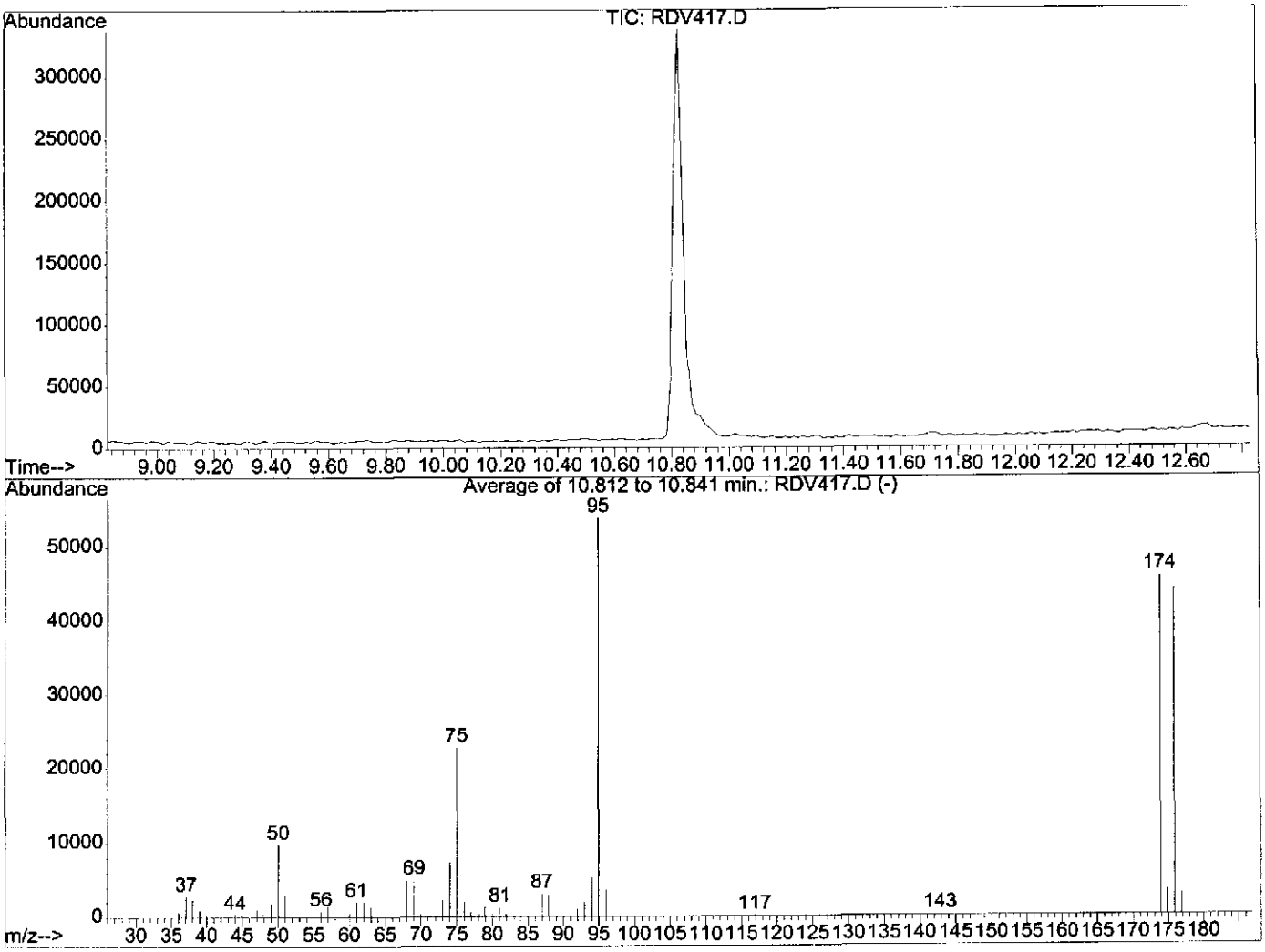
AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

BFB

Data File : D:\HPCHEM\1\DATA\15D22\RDV417.D
Acq On : 22 Apr 2015 11:13 am
Sample : BFB01D20
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 391, 392, 393; Background Corrected with Scan 386

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.2	9798	PASS
75	95	30	60	42.3	22773	PASS
95	95	100	100	100.0	53813	PASS
96	95	5	9	6.7	3631	PASS
173	174	0.00	2	0.3	125	PASS
174	95	50	100	85.1	45779	PASS
175	174	5	9	7.4	3378	PASS
176	174	95	101	96.1	44016	PASS
177	176	5	9	6.6	2891	PASS

RDV417.D VO01A13A.M Fri Apr 24 11:17:06 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV418.D
Acq On : 22 Apr 2015 11:39 am
Sample : CVO01A1307
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	90	0.02
2	T,M	1,2-Dichloroethane	100.000	104.496	-4.5	93	0.01
3	S	Toluene-d8	100.000	113.331	-13.3	114	0.02
4	T,M	1,2-Dibromoethane	100.000	112.029	-12.0	102	0.02
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	110.794	-10.8	100	0.03
6	T,M	1,2,3-Trichloropropane	100.000	118.758	-18.8	114	0.02
7	T,M	1,2-Dibromo-3-chloropropane	100.000	108.666	-8.7	107	0.02

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV418.D
Acq On : 22 Apr 2015 11:39 am
Sample : CVO01A1307
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	90	0.02
2	T,M	1,2-Dichloroethane	2.156	2.253	-4.5	93	0.01
3	S	Toluene-d8	9.038	10.243	-13.3	114	0.02
4	T,M	1,2-Dibromoethane	1.361	1.525	-12.0	102	0.02
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.722	-10.7	100	0.03
6	T,M	1,2,3-Trichloropropane	1.068	1.268	-18.7	114	0.02
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.205	-9.0	107	0.02

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D22\RDV418.D
Acq On : 22 Apr 2015 11:39 am
Sample : CVO01A1307
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 22 11:54 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	4550	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.33	98	46606	113.33	ng/l	0.02
Spiked Amount 100.000			Recovery =	113.33%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	10249	104.50	ng/l	89
4) 1,2-Dibromoethane	8.76	107	6937	112.03	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.97	83	7837	110.79	ng/l	99
6) 1,2,3-Trichloropropane	11.03	75	5771	118.76	ng/l	92
7) 1,2-Dibromo-3-chloropropan	13.09	157	932	108.67	ng/l	85

(#) = qualifier out of range (m) = manual integration

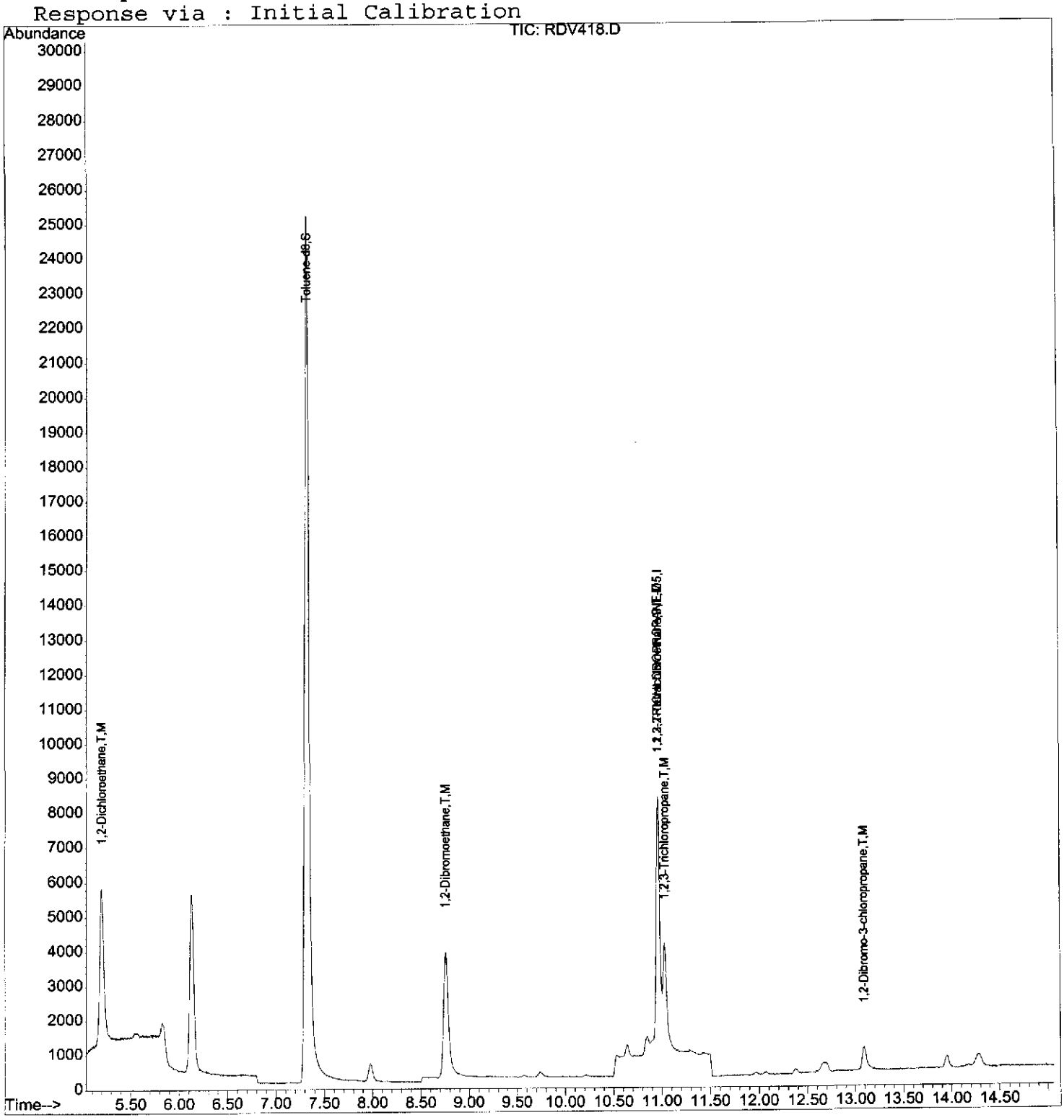
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D22\RDV418.D
Acq On : 22 Apr 2015 11:39 am
Sample : CVO01A1307
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 22 11:54 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



ANALYTICAL LOG(S)

ANALYSIS LOG FOR VOLATILES

EMAX LABORATORIES, INC.

SOP ☐ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 1/13/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH VOO1A135

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		AV173	BFB01A11	1 uL	N/A	N/A	N/A		V001A13A 9.37ppm
02		174	V001A131	0.05 uL					5 ppt
03		175	2	0.1					10
04		176	3	0.2					20
05		177	4	0.5					50
06		178	5	1					100
07		179	6	2					200
08		180	7	4					400
09		181	8	10					1000
10		182	9	20					2000
11		183	Rinse ~~10~~ uc 1/14/15						
12		184	V001A1301	1					100 ppt ~~12~~ 2.26ppm uc 1/14/15
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									uc 1/14/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE uc 1/14/15	
DATE	~~9~~ 1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	*	2.5
BFB	SV1-23-02-02	1	50
IS/SURR.	SV1-24-09-03	1	
	-10-01	*	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15A13		

	LOT #	Syringe Lot #
pH strip	—	MD6-2487-04
Chlorine strip	—	1 -05
Methanol		MW01-09-08-01
$NaHSO_4$		M04-A3657
Reagent Water	RW4-14-001	NB3-06327
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/T001	

Comments:

* varied amount

Analyzed By: uc

Date Disposed: 1/14/15 Disposed By: uc

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 4/22/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH CV001A1307

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01	RDV 417	BFB01D20						11:13am
02	418	CV001A1307						
03	419	V001D20L						
04	420	C						
05	421	B	25mL					
06	422	15D128-01	25mL	1.0	✓	✓		
07	423	-02			✓	✓		
08	424	-03			✓	✓		
09	425	-03M			✓	✓		
10	426	-03S			✓	✓		
11	427	-04			✓	✓		
12	428	-05			✓	✓		
13	429	-06			✓	✓		
14	430	-07			✓	✓		
15	431	15D067-01I	5.0uL	5000	✓	✓		
16	432	-02I	10uL	2500	✓	✓		
17	433	-05I	5.0uL	5000	✓	✓		
18	434	-03	0.1mL	250	✓	✓		
19	435	-01J	50uL	500	✓	✓		
20	436	-02J	0.1mL	250	✓	✓		
21	437	-05J	50uL	500	✓	✓		
22	438	-02	5.0mL	5.0	✓	✓		
23	439	-05	2.5mL	10	✓	✓		
24	440	-01			✓	✓		
25	441	-01M			✓	✓		
26	442	-01S			✓	✓		9:33pm
27	443+452	Rinse						
28								
29								
30								ML 4/23/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	1	2.5
BFB	-17-01	1	50
IS/SURR.	-09-03 -10-01	1	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15D22		

	LOT #	Syringe Lot #	
pH strip	HC413032	MSV01-01-08-01	J08-B4164
Chlorine strip	40719	MSV01-01-03-01	
Methanol		MSV01-01-07-01	
$NaHSO_4$		M06-F2487-04	
Reagent Water	RW4-14-001	J -05	
Sand		NU3-C6327	

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: ML

Date Disposed: 4/23/15 Disposed By: ML

2191

Injection Log

Directory: D:\HPCHEM\1\DATA\15D22

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV417.D	1.	BFB01D20	T/CHK	22 Apr 2015 11:13
2	2	RDV418.D	1.	CVO01A1307	100ppt	22 Apr 2015 11:39
3	3	RDV419.D	1.	VO01D20L	100ppt	22 Apr 2015 12:06
4	4	RDV420.D	1.	VO01D20C	100ppt	22 Apr 2015 12:32
5	5	RDV421.D	1.	VO01D20B 25mL	BLANK	22 Apr 2015 12:59
6	6	RDV422.D	1.	15D128-01 25mL	DF=1.0	22 Apr 2015 13:23
7	7	RDV423.D	1.	15D128-02 25mL	DF=1.0	22 Apr 2015 13:48
8	8	RDV424.D	1.	15D128-03 25mL	DF=1.0	22 Apr 2015 14:13
9	9	RDV425.D	1.	15D128-03M 25mL	DF=1.0	22 Apr 2015 14:37
10	10	RDV426.D	1.	15D128-03S 25mL	DF=1.0	22 Apr 2015 15:02
11	11	RDV427.D	1.	15D128-04 25mL	DF=1.0	22 Apr 2015 15:27
12	12	RDV428.D	1.	15D128-05 25mL	DF=1.0	22 Apr 2015 15:51
13	13	RDV429.D	1.	15D128-06 25mL	DF=1.0	22 Apr 2015 16:16
14	14	RDV430.D	1.	15D128-07 25mL	DF=1.0	22 Apr 2015 16:40
15	15	RDV431.D	1.	15D067-01I 5.0uL	DF=5000	22 Apr 2015 17:04
16	16	RDV432.D	1.	15D067-02I 10uL	DF=2500	22 Apr 2015 17:29
17	17	RDV433.D	1.	15D067-05I 5.0uL	DF=5000	22 Apr 2015 17:53
18	18	RDV434.D	1.	15D067-03 0.1mL	DF=250	22 Apr 2015 18:17
19	19	RDV435.D	1.	15D067-01J 50uL	DF=500	22 Apr 2015 18:42
20	20	RDV436.D	1.	15D067-02J 0.1uL	DF=250	22 Apr 2015 19:06
21	21	RDV437.D	1.	15D067-05J 50uL	DF=500	22 Apr 2015 19:31
22	22	RDV438.D	1.	15D067-02 5.0mL	DF=5.0	22 Apr 2015 19:55
23	23	RDV439.D	1.	15D067-05 2.5mL	DF=10	22 Apr 2015 20:19
24	24	RDV440.D	1.	15D067-01 2.5mL	DF=10	22 Apr 2015 20:44
25	25	RDV441.D	1.	15D067-01M 2.5mL	DF=10	22 Apr 2015 21:08
26	26	RDV442.D	1.	15D067-01S 2.5mL	DF=10	22 Apr 2015 21:33
27	1	RDV443.D	1.	RINSE	DF=10	22 Apr 2015 21:57
28	2	RDV444.D	1.	RINSE	DF=10	22 Apr 2015 22:22
29	3	RDV445.D	1.	RINSE	DF=10	22 Apr 2015 22:46
30	4	RDV446.D	1.	RINSE	DF=10	22 Apr 2015 23:11
31	5	RDV447.D	1.	RINSE	DF=10	22 Apr 2015 23:35
32	6	RDV448.D	1.	RINSE	DF=10	23 Apr 2015 00:00
33	7	RDV449.D	1.	RINSE	DF=10	23 Apr 2015 00:25
34	8	RDV450.D	1.	RINSE	DF=10	23 Apr 2015 00:50
35	9	RDV451.D	1.	RINSE	DF=10	23 Apr 2015 01:14
36	10	RDV452.D	1.	RINSE	DF=10	23 Apr 2015 01:39

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B&B, CITY WELL SAMPLING

METHOD 8151A
HERBICIDES

SDG#: 15D128

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B, CITY WELL SAMPLING

SDG : 15D128

METHOD 8151A
HERBICIDES

A total of seven (7) water samples were received on 04/20/15 to be analyzed for Herbicides in accordance with Method 8151A and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. HED007WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Dinoseb was within LCS QC limits in HED007WL/HED007WC. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Dinoseb was within MS QC limits in D128-03M/S. Refer to Matrix QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : B & B, CITY WELL SAMPLING

SDG NO. : 15D128
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HED007WB	1	NA	04/21/1515:51	04/21/1511:20	QD21003A	QD21002A	HED007W	Method Blank
LCS1W	HED007WL	1	NA	04/21/1516:19	04/21/1511:20	QD21004A	QD21002A	HED007W	Lab Control Sample (LCS)
LCD1W	HED007WC	1	NA	04/21/1516:47	04/21/1511:20	QD21005A	QD21002A	HED007W	LCS Duplicate
04-20-15-CW-1	D128-01	1	NA	04/22/1511:04	04/21/1511:20	QD21022A	QD21021A	HED007W	Field Sample
04-20-15-CW-5	D128-02	1	NA	04/22/1511:32	04/21/1511:20	QD21023A	QD21021A	HED007W	Field Sample
04-20-15-CW-6	D128-03	1	NA	04/22/1512:01	04/21/1511:20	QD21024A	QD21021A	HED007W	Field Sample
04-20-15-CW-9	D128-04	1	NA	04/22/1513:25	04/21/1511:20	QD21027A	QD21021A	HED007W	Field Sample
04-20-15-CW-10	D128-05	1	NA	04/22/1513:53	04/21/1511:20	QD21028A	QD21021A	HED007W	Field Sample
04-20-15-CW-11	D128-06	1	NA	04/22/1514:22	04/21/1511:20	QD21029A	QD21021A	HED007W	Field Sample
04-20-15-FDUP-1	D128-07	1	NA	04/22/1514:50	04/21/1511:20	QD21030A	QD21021A	HED007W	Field Sample
04-20-15-CW-6MS	D128-03M	1	NA	04/22/1512:29	04/21/1511:20	QD21025A	QD21021A	HED007W	Matrix Spike Sample (MS)
04-20-15-CW-6MSD	D128-03S	1	NA	04/22/1512:57	04/21/1511:20	QD21026A	QD21021A	HED007W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-CW-1	Date Analyzed: 04/22/15 11:04
Lab Samp ID: D128-01	Dilution Factor: 1
Lab File ID: QD21022A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21021A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND) | ND	0.40	0.20 | 0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.933 | (10.12)	10.00	99.3 | (101)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-CW-5	Date Analyzed: 04/22/15 11:32
Lab Samp ID: D128-02	Dilution Factor: 1
Lab File ID: QD21023A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21021A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	11.99|(12.33)	10.00	120|(123)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-CW-6	Date Analyzed: 04/22/15 12:01
Lab Samp ID: D128-03	Dilution Factor: 1
Lab File ID: QD21024A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21021A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	10.42|(10.76)	10.00	104|(108)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-CW-9	Date Analyzed: 04/22/15 13:25
Lab Samp ID: D128-04	Dilution Factor: 1
Lab File ID: QDZ1027A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QDZ1021A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.419|(9.668)	10.00	94.2|(96.7)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-CW-10	Date Analyzed: 04/22/15 13:53
Lab Samp ID: D128-05	Dilution Factor: 1
Lab File ID: QD21028A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21021A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.730|(9.872)	10.00	97.3|(98.7)	40-140

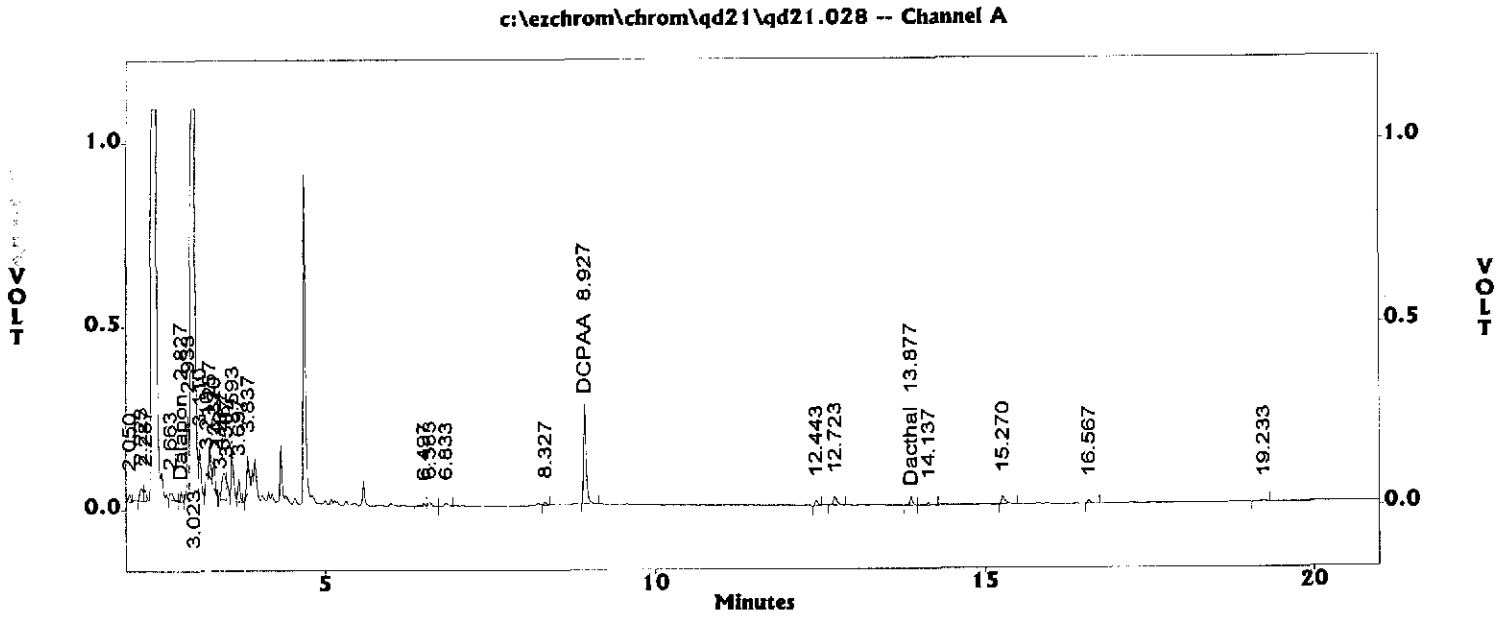
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.028
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-05
Acquired : Apr 22, 2015 13:53:57
Printed : Apr 22, 2015 18:13:23
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	51805.0	1656.60	31.272	xV
3,5 Dichlorobenzo	7.693	0.0	0.00	0.000	--
4-Nitrophenol	8.587	0.0	0.00	0.000	--
DCPAA	8.927	729866.0	750.10	973.025	vv
Dicamba	9.167	0.0	0.00	0.000	--
MCPP	9.477	0.0	0.00	0.000	--
MCPA	9.680	0.0	0.00	0.000	--
DCP	10.160	0.0	0.00	0.000	--
2,4-D	10.437	0.0	0.00	0.000	--
Pentachlorophenol	10.700	0.0	0.00	0.000	--
Silvex	11.453	0.0	0.00	0.000	--
Chloramben	11.623	0.0	0.00	0.000	--
2,4,5-T	11.797	0.0	0.00	0.000	--
2,4-DB	12.420	0.0	0.00	0.000	--
Bentazon/Picloram	13.413	0.0	0.00	0.000	--
Dinoseb	13.580	0.0	0.00	0.000	--
Dacthal	13.877	77479.0	6873.97	11.271	BV
Acifluorfen	16.543	0.0	0.00	0.000	--

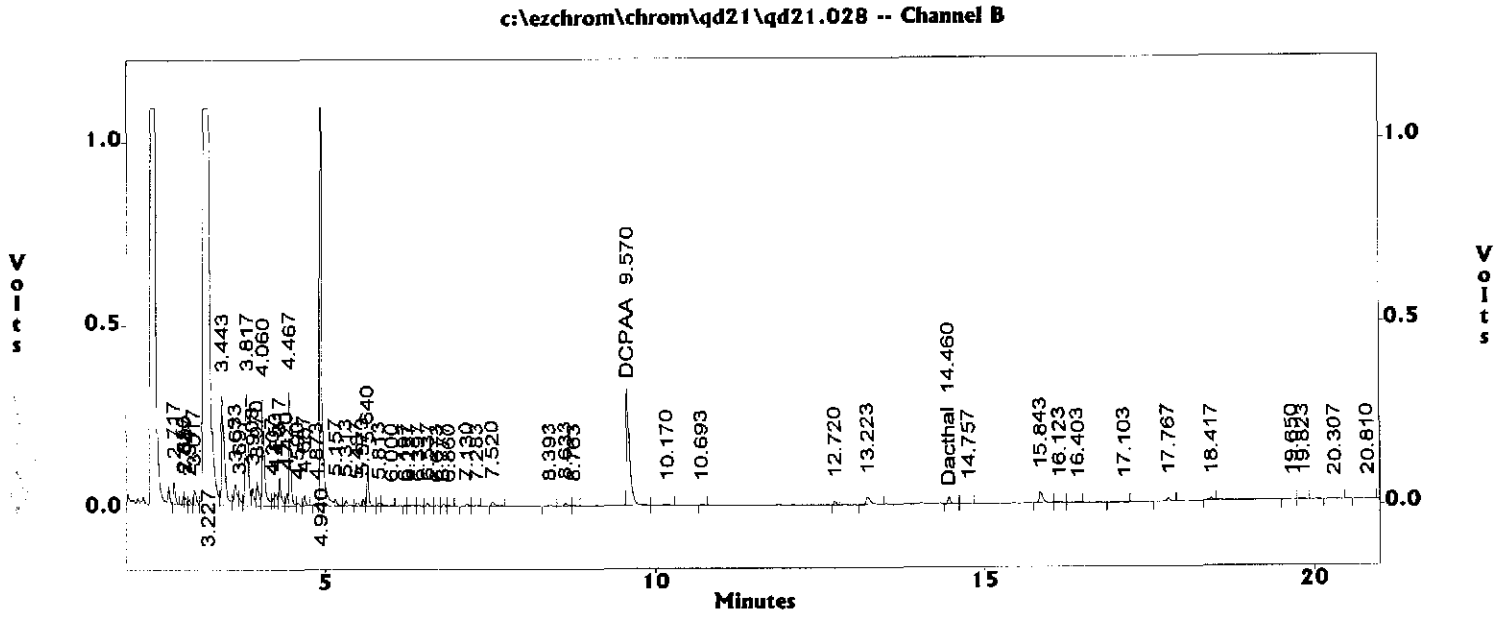


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.028
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-05
Acquired : Apr 22, 2015 13:53:57
Printed : Apr 22, 2015 18:13:23
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.073	0.0	0.00	0.000	--
4-Nitrophenol	8.900	0.0	0.00	0.000	--
DCPAA	9.570	1068170.0	1082.03	987.194	VV
Dicamba	9.827	0.0	0.00	0.000	--
MCPP	10.003	0.0	0.00	0.000	--
MCPA	10.320	0.0	0.00	0.000	--
DCP	10.750	0.0	0.00	0.000	--
2,4-D	11.147	0.0	0.00	0.000	--
Pentachlorophenol	11.607	0.0	0.00	0.000	--
Silvex	12.110	0.0	0.00	0.000	--
2,4,5-T	12.543	0.0	0.00	0.000	--
Chloramben	12.610	0.0	0.00	0.000	--
2,4-DB	13.133	0.0	0.00	0.000	--
Dinoseb	13.470	0.0	0.00	0.000	--
Bentazon	14.057	0.0	0.00	0.000	--
Dacthal	14.460	57521.0	6624.78	8.683	VV
Picloram	14.553	0.0	0.00	0.000	--
Acifluorfen	16.760	0.0	0.00	0.000	--



METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-CW-11	Date Analyzed: 04/22/15 14:22
Lab Samp ID: D128-06	Dilution Factor: 1
Lab File ID: QD21029A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21021A	Instrument ID : GCTD09

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.984|(10.14)	10.00	99.8|(101)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/20/15
Project : B & B, CITY WELL SAMPLING	Date Received: 04/20/15
Batch No. : 150128	Date Extracted: 04/21/15 11:20
Sample ID: 04-20-15-FDUP-1	Date Analyzed: 04/22/15 14:50
Lab Samp ID: D128-07	Dilution Factor: 1
Lab File ID: QD21030A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21021A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.778|(9.911)	10.00	97.8|(99.1)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B, CITY WELL SAMPLING	Date Received: 04/21/15
Batch No. : 15D128	Date Extracted: 04/21/15 11:20
Sample ID: MBLK1W	Date Analyzed: 04/21/15 15:51
Lab Samp ID: HED007WB	Dilution Factor: 1
Lab File ID: QD21003A	Matrix : WATER
Ext Btch ID: HED007W	% Moisture : NA
Calib. Ref.: QD21002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.118|(9.892)	10.00	91.2|(98.9)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B, CITY WELL SAMPLING
BATCH NO.: 15D128
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HED007WB	HED007WL	HED007WC		
LAB FILE ID:	QD21003A	QD21004A	QD21005A		
DATE EXTRACTED:	04/21/1511:20	04/21/1511:20	04/21/1511:20	DATE COLLECTED:	NA
DATE ANALYZED:	04/21/1515:51	04/21/1516:19	04/21/1516:47	DATE RECEIVED:	04/21/15
PREP. BATCH:	HED007W	HED007W	HED007W		
CALIB. REF:	QD21002A	QD21002A	QD21002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Dinoseb	(ND)|ND	1.00	0.601|(0.663)	60|(66)	1.00	0.652|(0.743)	65|(74)	8|(11)	20-100	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4-DCPAA	10.00	8.474|(8.956)	84.7|(89.6)	10.00	8.739|(9.197)	87.4|(92.0)	40-140

5015

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B, CITY WELL SAMPLING
BATCH NO.: 15D128
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-20-15-CW-6				
LAB SAMP ID:	D128-03	D128-03M	D128-03S		
LAB FILE ID:	QD21024A	QD21025A	QD21026A		
DATE EXTRACTED:	04/21/1511:20	04/21/1511:20	04/21/1511:20	DATE COLLECTED:	04/20/15
DATE ANALYZED:	04/22/1512:01	04/22/1512:29	04/22/1512:57	DATE RECEIVED:	04/20/15
PREP. BATCH:	HED007W	HED007W	HED007W		
CALIB. REF:	QD21021A	QD21021A	QD21021A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Dinoseb	(ND)|ND	1.00	0.755|(0.770)	76|(77)	1.00	0.754|(0.762)	75|(76)	0|(1)	20-100	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
2,4-DCPAA	10.00	10.05|(10.23)	100|(102)	10.00	9.727|(9.886)	97.3|(98.9)	40-140

9165

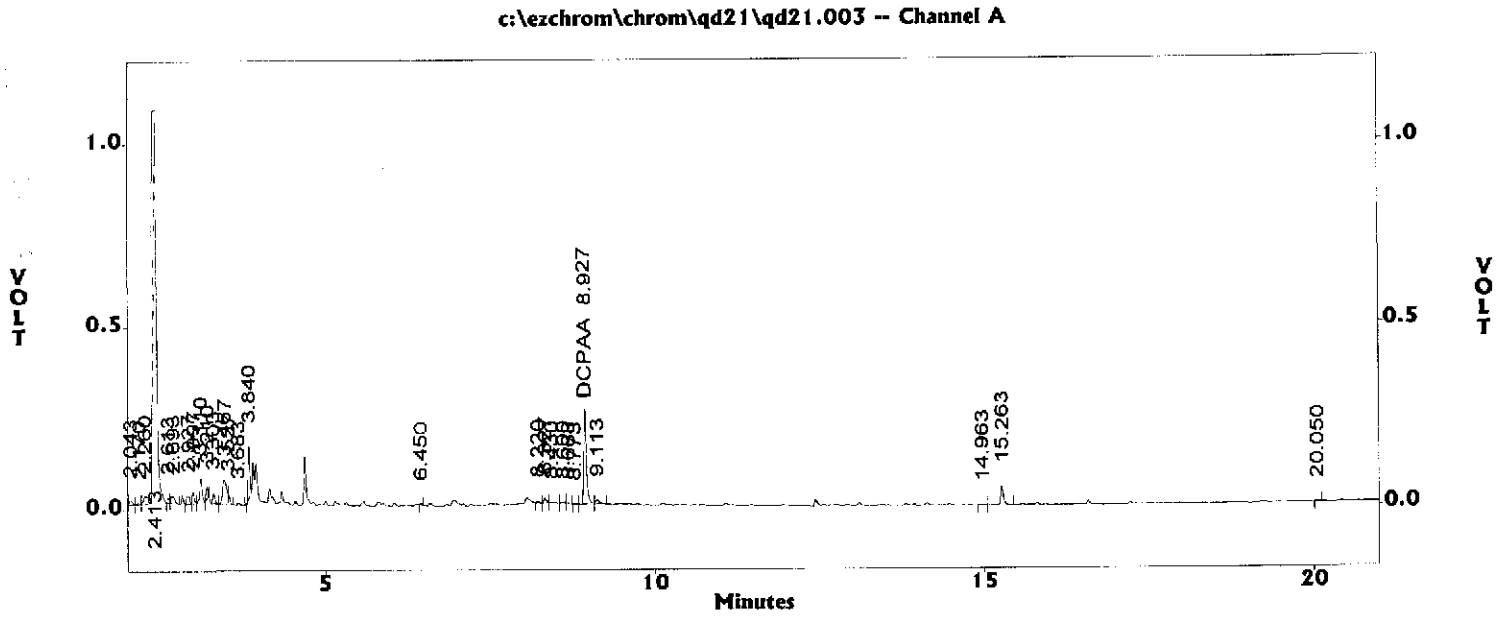
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED007WB
Acquired : Apr 21, 2015 15:51:10
Printed : Apr 21, 2015 17:03:52
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.680	0.0	0.00	0.000	--
4-Nitrophenol	8.570	0.0	0.00	0.000	--
DCPAA	8.927	683965.0	750.10	911.832	vv
Dicamba	9.167	0.0	0.00	0.000	--
MCPP	9.463	0.0	0.00	0.000	--
MCPA	9.667	0.0	0.00	0.000	--
DCP	10.147	0.0	0.00	0.000	--
2,4-D	10.440	0.0	0.00	0.000	--
Pentachlorophenol	10.687	0.0	0.00	0.000	--
Silvex	11.457	0.0	0.00	0.000	--
Chloramben	11.623	0.0	0.00	0.000	--
2,4,5-T	11.783	0.0	0.00	0.000	--
2,4-DB	12.407	0.0	0.00	0.000	--
Bentazon/Picloram	13.400	0.0	0.00	0.000	--
Dinoseb	13.583	0.0	0.00	0.000	--
Dacthal	13.880	0.0	0.00	0.000	--
Acifluorfen	16.547	0.0	0.00	0.000	--

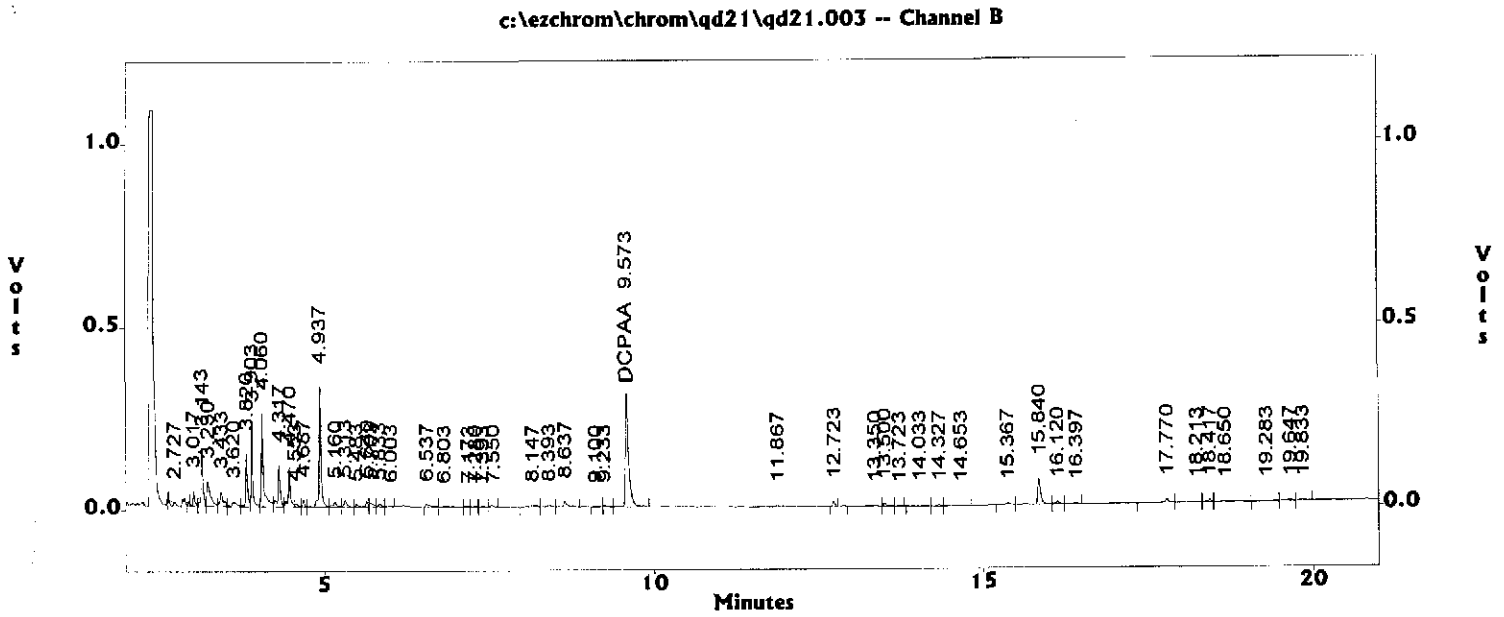


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED007WB
Acquired : Apr 21, 2015 15:51:10
Printed : Apr 21, 2015 17:03:53
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.833	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.060	0.0	0.00	0.000	--
4-Nitrophenol	8.887	0.0	0.00	0.000	--
DCPAA	9.573	1051780.0	1082.03	972.046	VB
Dicamba	9.813	0.0	0.00	0.000	--
MCPP	9.990	0.0	0.00	0.000	--
MCPA	10.307	0.0	0.00	0.000	--
DCP	10.737	0.0	0.00	0.000	--
2,4-D	11.133	0.0	0.00	0.000	--
Pentachlorophenol	11.593	0.0	0.00	0.000	--
Silvex	12.097	0.0	0.00	0.000	--
2,4,5-T	12.547	0.0	0.00	0.000	--
Chloramben	12.597	0.0	0.00	0.000	--
2,4-DB	13.123	0.0	0.00	0.000	--
Dinoseb	13.457	0.0	0.00	0.000	--
Bentazon	14.060	0.0	0.00	0.000	--
Dacthal	14.463	0.0	0.00	0.000	--
Picloram	14.540	0.0	0.00	0.000	--
Acifluorfen	16.747	0.0	0.00	0.000	--

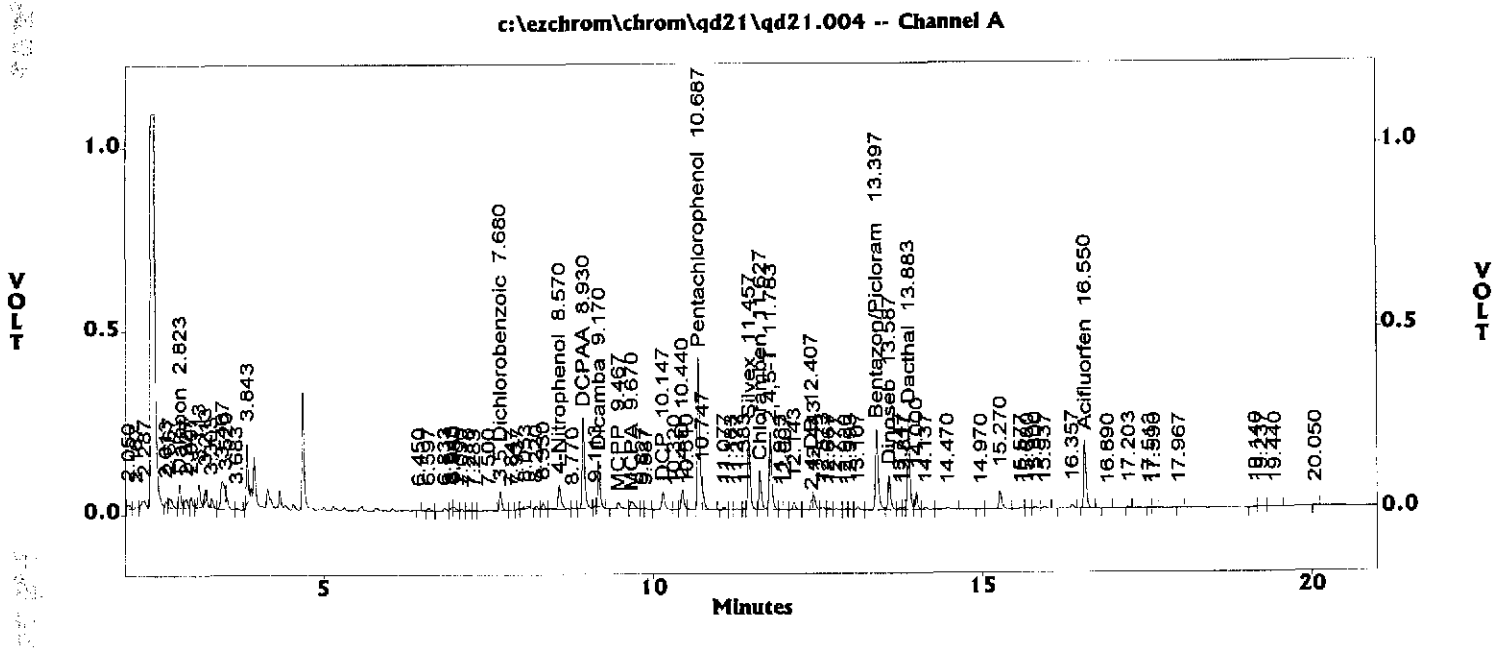


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED007WL
Acquired : Apr 21, 2015 16:19:23
Printed : Apr 22, 2015 17:59:37
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.823	143717.0	1656.60	86.754	xV
3,5 Dichlorobenzo	7.680	134458.0	1722.43	78.063	VV
4-Nitrophenol	8.570	234107.0	1289.87	181.496	VV
DCPAA	8.930	635667.0	750.10	847.443	vv
Dicamba	9.170	294423.0	3238.35	90.918	vv
MCPP	9.467	57877.0	8.42	6876.194	VV
MCPA	9.670	77438.0	15.83	4891.656	VV
DCP	10.147	145586.0	1193.88	121.943	VV
2,4-D	10.440	151948.0	1510.05	100.624	Vx
Pentachlorophenol	10.687	1054990.0	12495.55	84.429	VS
Silvex	11.457	534717.0	5002.75	106.885	SV
Chloramben	11.627	281169.0	4132.75	68.034	VV
2,4,5-T	11.783	549729.0	5396.66	101.865	VV
2,4-DB	12.407	50999.0	801.45	63.634	VS
Bentazon/Picloram	13.397	652651.0	3540.81	184.322	VV
Dinoseb	13.587	245792.0	4088.80	60.114	VV
Dacthal	13.883	643545.0	6873.97	93.621	SV
Acifluorfen	16.550	466876.0	4699.56	99.345	vv

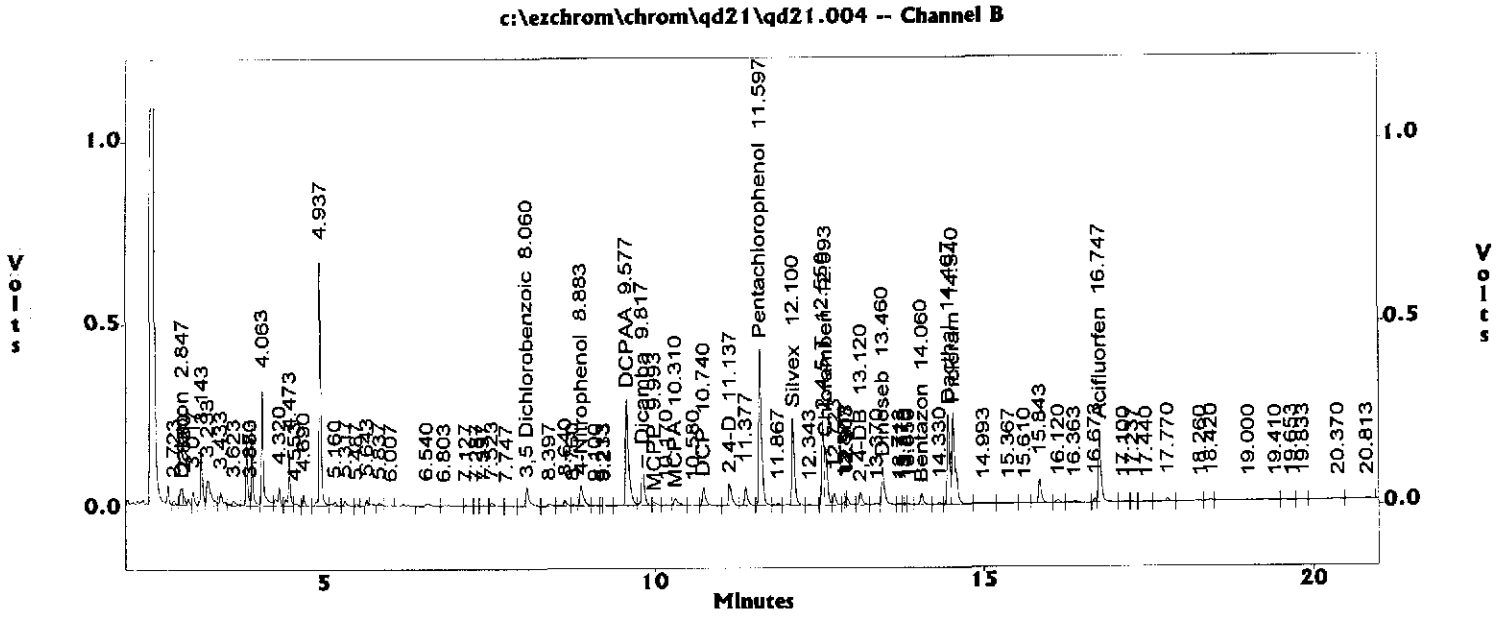


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED007WL
Acquired : Apr 21, 2015 16:19:23
Printed : Apr 22, 2015 17:59:38
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	120550.0	1730.88	69.647	xx
3,5 Dichlorobenzoic	8.060	181230.0	1937.97	93.515	VV
4-Nitrophenol	8.883	202937.0	1457.43	139.243	SV
DCPAA	9.577	969013.0	1082.03	895.554	VV
Dicamba	9.817	396434.0	3890.32	101.903	VV
MCPP	9.993	38947.0	8.21	4740.973	VV
MCPA	10.310	90456.0	17.76	5094.550	VV
DCP	10.740	164350.0	1485.51	110.636	VV
2,4-D	11.137	199348.0	1894.33	105.234	VV
Pentachlorophenol	11.597	1260518.0	14739.16	85.522	VV
Silvex	12.100	674378.0	5953.99	113.265	VV
2,4,5-T	12.550	503316.0	4983.71	100.992	Vx
Chloramben	12.593	472955.0	6012.12	78.667	xV
2,4-DB	13.120	116579.0	1025.98	113.627	VV
Dinoseb	13.460	322877.0	4871.89	66.273	SV
Bentazon	14.060	98025.0	803.13	122.054	VV
Dacthal	14.467	626232.0	6624.78	94.529	VS
Picloram	14.540	906708.0	8580.05	105.676	SV
Acifluorfen	16.747	548780.0	6000.10	91.462	SV

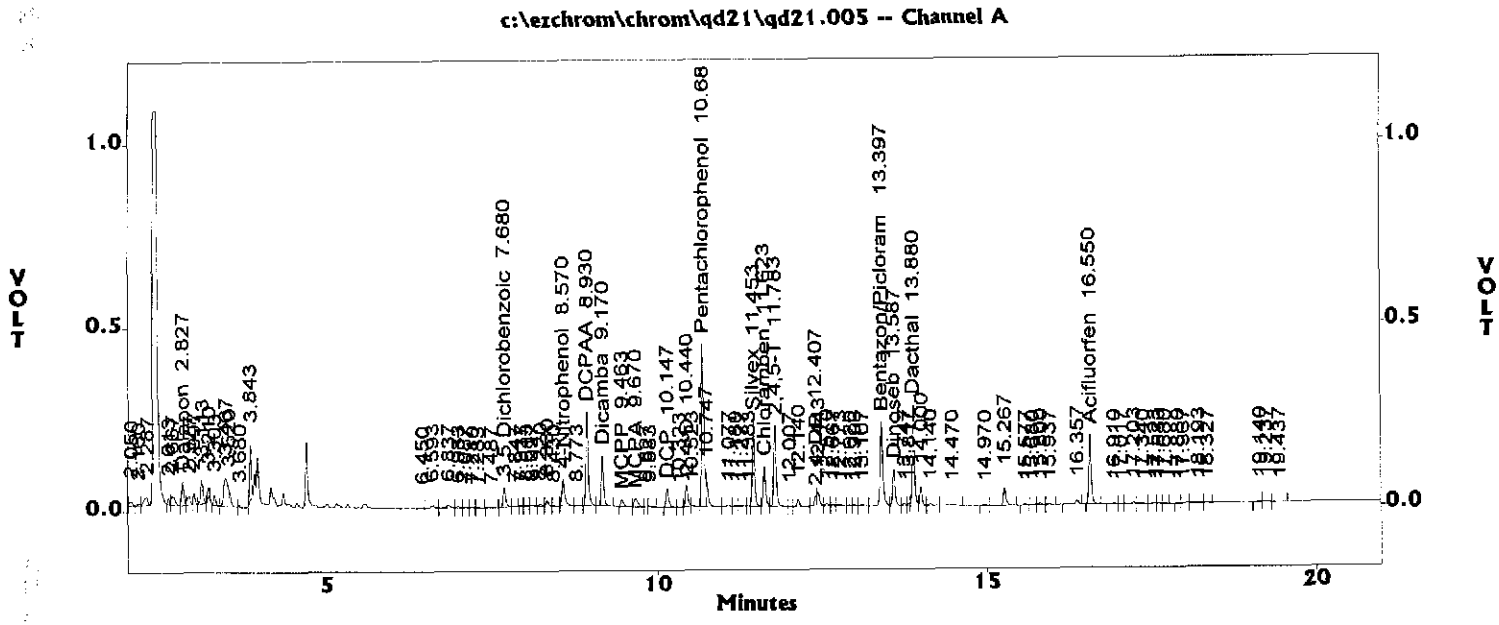


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED007WC
Acquired : Apr 21, 2015 16:47:27
Printed : Apr 22, 2015 17:57:31
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	148146.0	1656.60	89.428	xV
3,5 Dichlorobenzo	7.680	146404.0	1722.43	84.999	VV
4-Nitrophenol	8.570	220449.0	1289.87	170.907	VV
DCPAA	8.930	655514.0	750.10	873.902	vv
Dicamba	9.170	334536.0	3238.35	103.305	vv
MCPP	9.463	57354.0	8.42	6814.059	VV
MCPA	9.670	84812.0	15.83	5357.462	VV
DCP	10.147	135218.0	1193.88	113.259	VV
2,4-D	10.440	157167.0	1510.05	104.081	Vx
Pentachlorophenol	10.687	1133567.0	12495.55	90.718	VS
Silvex	11.453	569304.0	5002.75	113.798	SV
Chloramben	11.623	287465.0	4132.75	69.558	VV
2,4,5-T	11.783	601208.0	5396.66	111.404	VV
2,4-DB	12.407	53160.0	801.45	66.330	VS
Bentazon/Picloram	13.397	688159.0	3540.81	194.350	VV
Dinoseb	13.587	266661.0	4088.80	65.217	VV
Dacthal	13.880	682242.0	6873.97	99.250	SV
Acifluorfen	16.550	483788.0	4699.56	102.943	vv

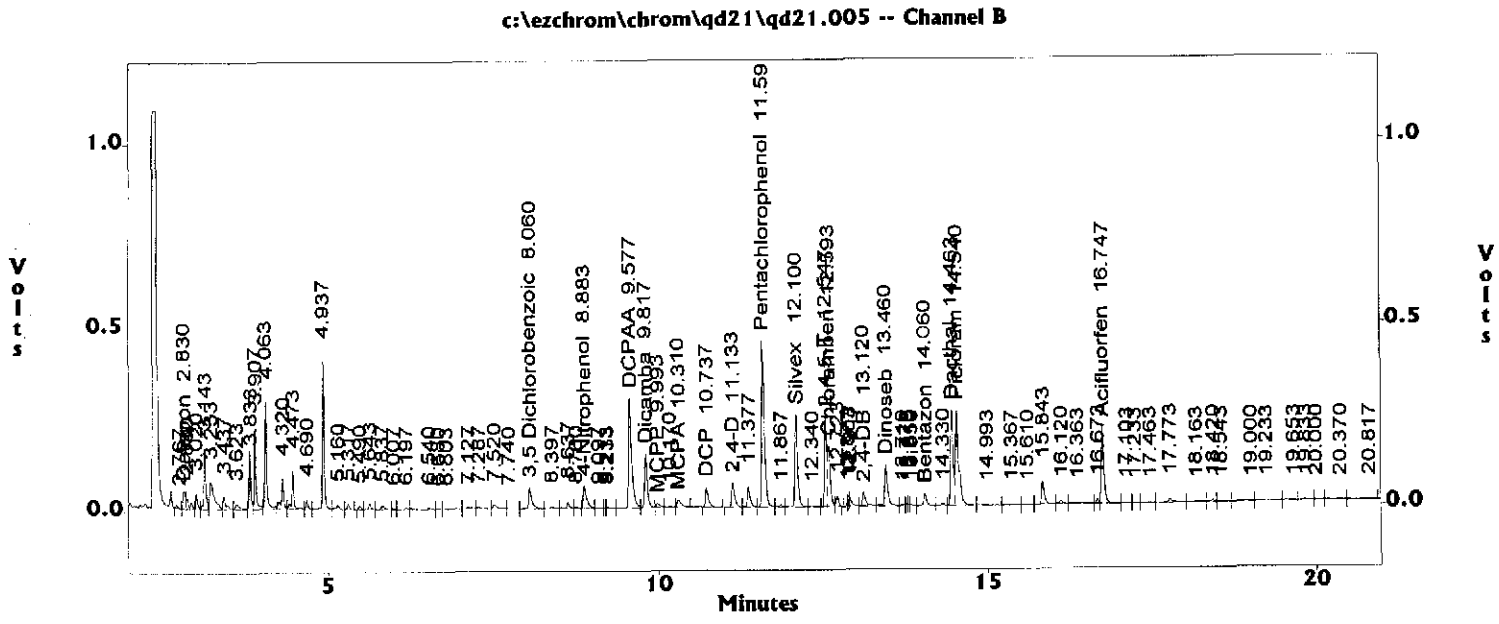


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED007WC
Acquired : Apr 21, 2015 16:47:27
Printed : Apr 22, 2015 17:57:31
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.830	127218.0	1730.88	73.499	xx
3,5 Dichlorobenzoic	8.060	193092.0	1937.97	99.636	VV
4-Nitrophenol	8.883	220625.0	1457.43	151.380	SV
DCPAA	9.577	995148.0	1082.03	919.708	VV
Dicamba	9.817	417384.0	3890.32	107.288	VV
MCPP	9.993	36939.0	8.21	4496.541	VV
MCPA	10.310	83017.0	17.76	4675.580	VV
DCP	10.737	169480.0	1485.51	114.089	BV
2,4-D	11.133	212497.0	1894.33	112.175	VV
Pentachlorophenol	11.593	1358887.0	14739.16	92.196	VV
Silvex	12.100	727078.0	5953.99	122.116	VV
2,4,5-T	12.547	537137.0	4983.71	107.779	MM
Chloramben	12.593	491071.0	6012.12	81.680	MM
2,4-DB	13.120	135491.0	1025.98	132.061	VV
Dinoseb	13.460	362084.0	4871.89	74.321	VV
Bentazon	14.060	107354.0	803.13	133.669	VV
Dacthal	14.463	671614.0	6624.78	101.379	VS
Picloram	14.540	960057.0	8580.05	111.894	SV
Acifluorfen	16.747	571661.0	6000.10	95.275	SV

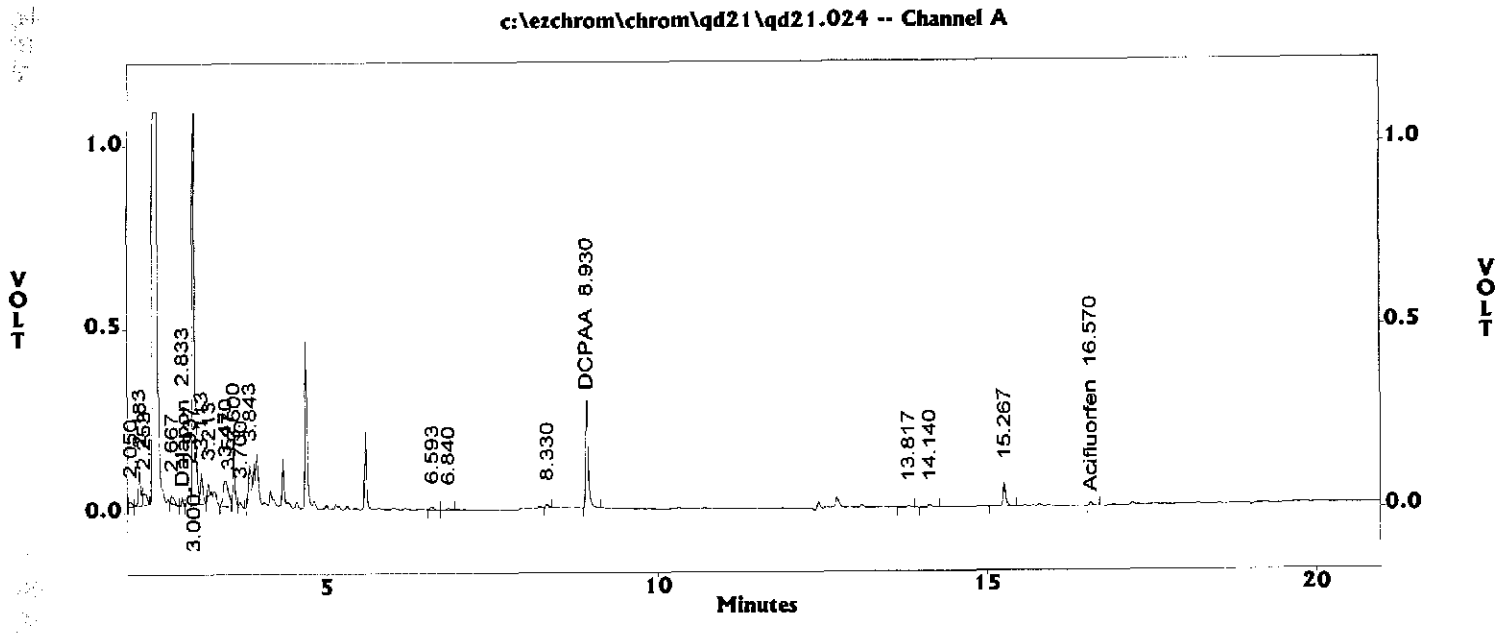


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.024
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-03
Acquired : Apr 22, 2015 12:01:07
Printed : Apr 22, 2015 18:03:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.833	43834.0	1656.60	26.460	xV
3,5 Dichlorobenzo	7.693	0.0	0.00	0.000	--
4-Nitrophenol	8.587	0.0	0.00	0.000	--
DCPAA	8.930	781849.0	750.10	1042.326	vv
Dicamba	9.183	0.0	0.00	0.000	--
MCPP	9.477	0.0	0.00	0.000	--
MCPA	9.680	0.0	0.00	0.000	--
DCP	10.160	0.0	0.00	0.000	--
2,4-D	10.457	0.0	0.00	0.000	--
Pentachlorophenol	10.700	0.0	0.00	0.000	--
Silvex	11.470	0.0	0.00	0.000	--
Chloramben	11.640	0.0	0.00	0.000	--
2,4,5-T	11.797	0.0	0.00	0.000	--
2,4-DB	12.420	0.0	0.00	0.000	--
Bentazon/Picloram	13.413	0.0	0.00	0.000	--
Dinoseb	13.600	0.0	0.00	0.000	--
Dacthal	13.893	0.0	0.00	0.000	--
Acifluorfen	16.570	25971.0	4699.56	5.526	vv

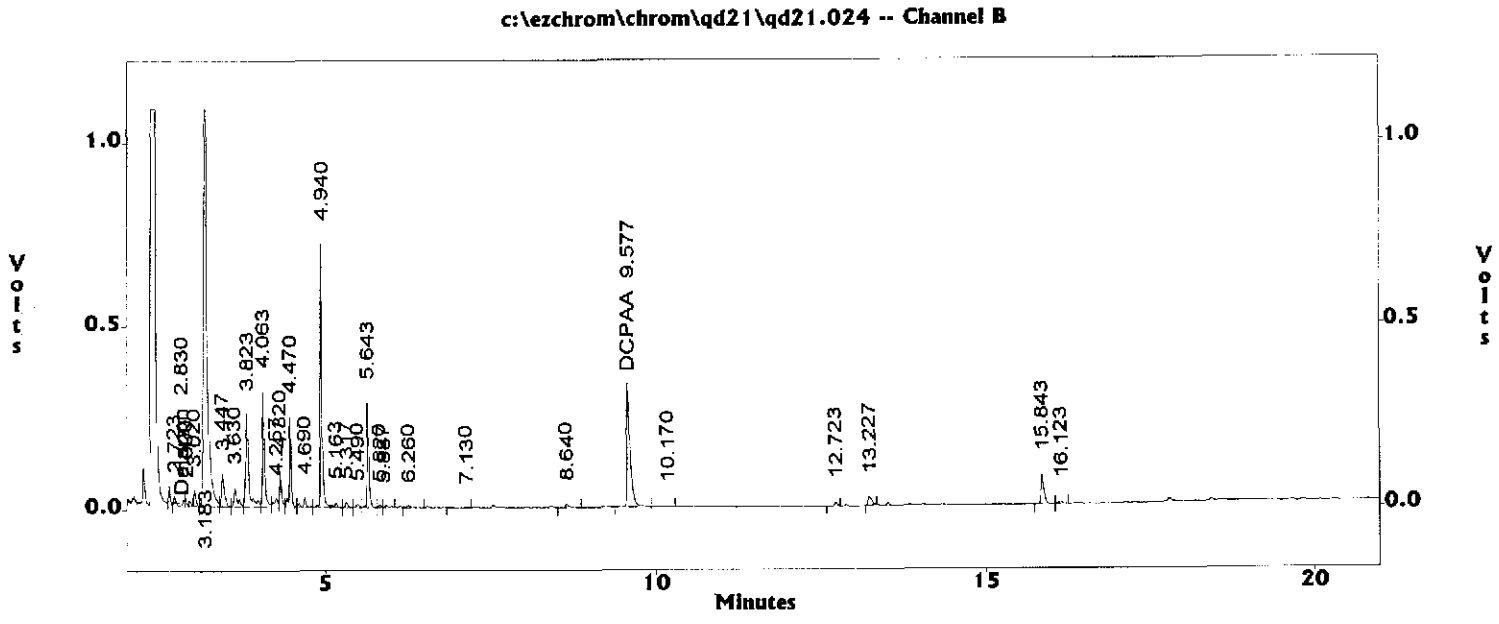


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.024
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-03
Acquired : Apr 22, 2015 12:01:07
Printed : Apr 22, 2015 18:03:40
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.830	56117.0	1730.88	32.421	MM
3,5 Dichlorobenzoic	8.073	0.0	0.00	0.000	--
4-Nitrophenol	8.900	0.0	0.00	0.000	--
DCPAA	9.577	1163923.0	1082.03	1075.688	VV
Dicamba	9.827	0.0	0.00	0.000	--
MCPP	10.003	0.0	0.00	0.000	--
MCPA	10.320	0.0	0.00	0.000	--
DCP	10.750	0.0	0.00	0.000	--
2,4-D	11.147	0.0	0.00	0.000	--
Pentachlorophenol	11.607	0.0	0.00	0.000	--
Silvex	12.110	0.0	0.00	0.000	--
2,4,5-T	12.560	0.0	0.00	0.000	--
Chloramben	12.610	0.0	0.00	0.000	--
2,4-DB	13.133	0.0	0.00	0.000	--
Dinoseb	13.470	0.0	0.00	0.000	--
Bentazon	14.073	0.0	0.00	0.000	--
Dacthal	14.477	0.0	0.00	0.000	--
Picloram	14.553	0.0	0.00	0.000	--
Acifluorfen	16.760	0.0	0.00	0.000	--

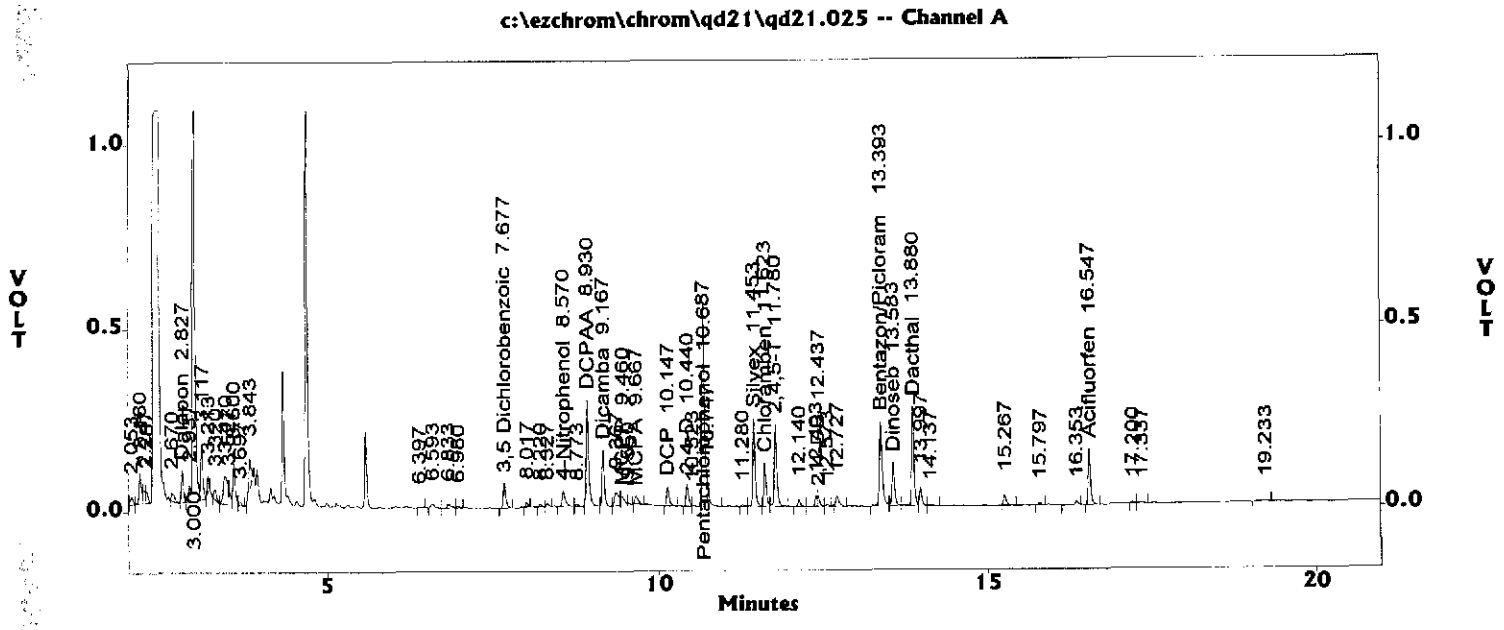


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.025
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-03M
Acquired : Apr 22, 2015 12:29:15
Printed : Apr 22, 2015 18:05:57
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	194596.0	1656.60	117.467	xx
3,5 Dichlorobenzo	7.677	184660.0	1722.43	107.209	VV
4-Nitrophenol	8.570	143899.0	1289.87	111.560	VV
DCPAA	8.930	753596.0	750.10	1004.661	vv
Dicamba	9.167	367063.0	3238.35	113.349	vv
MCPP	9.460	99223.0	8.42	11788.390	MM
MCPA	9.667	76352.0	15.83	4823.055	BV
DCP	10.147	140669.0	1193.88	117.825	VV
2,4-D	10.440	158923.0	1510.05	105.244	Vx
Pentachlorophenol	10.687	1411666.0	12495.55	112.973	VS
Silvex	11.453	594954.0	5002.75	118.925	VV
Chloramben	11.623	305905.0	4132.75	74.020	VV
2,4,5-T	11.780	611241.0	5396.66	113.263	VV
2,4-DB	12.437	73288.0	801.45	91.445	xV
Bentazon/Picloram	13.393	696465.0	3540.81	196.696	BV
Dinoseb	13.583	308509.0	4088.80	75.452	VV
Dacthal	13.880	677042.0	6873.97	98.494	VV
Acifluorfen	16.547	393901.0	4699.56	83.817	vv

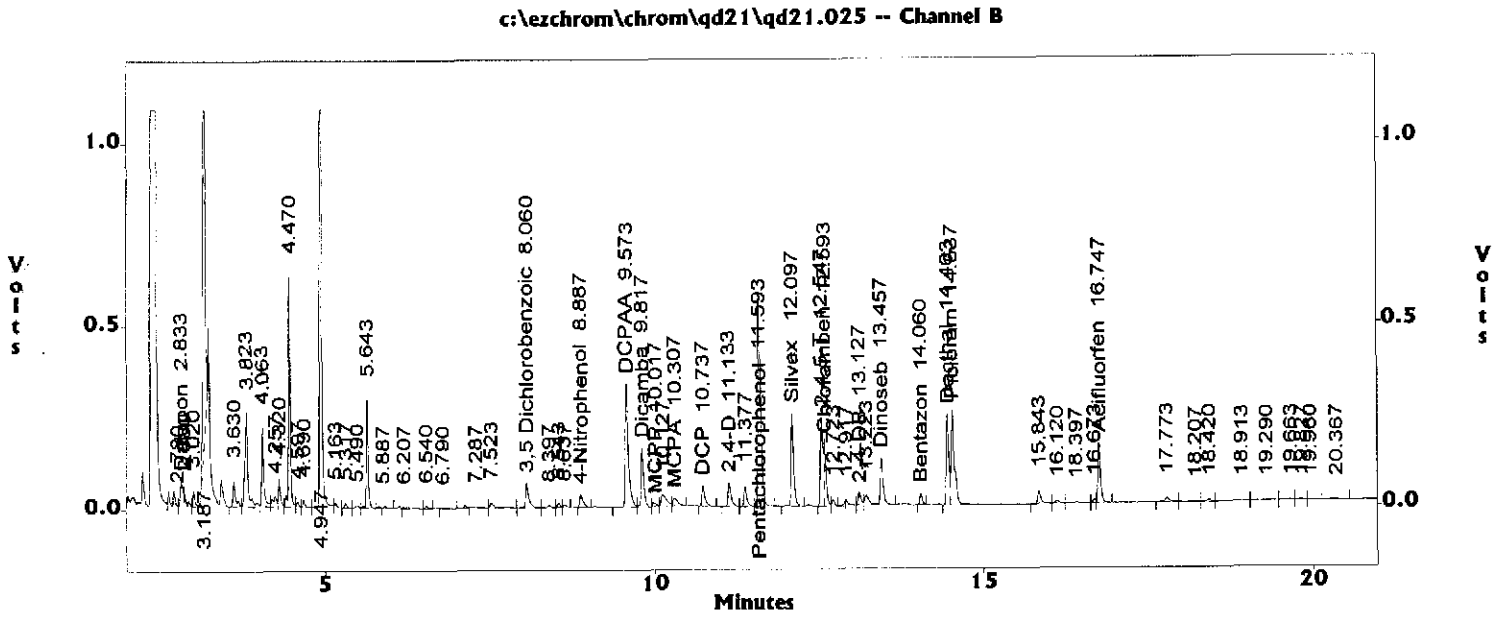


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.025
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-03M
Acquired : Apr 22, 2015 12:29:15
Printed : Apr 22, 2015 18:05:57
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.833	168081.0	1730.88	97.107	MM
3,5 Dichlorobenzoic	8.060	222460.0	1937.97	114.790	VV
4-Nitrophenol	8.887	124746.0	1457.43	85.593	SV
DCPAA	9.573	1106606.0	1082.03	1022.716	VV
Dicamba	9.817	462124.0	3890.32	118.788	VV
MCPP	10.017	36941.0	8.21	4496.785	VS
MCPA	10.307	101729.0	17.76	5729.454	VV
DCP	10.737	172688.0	1485.51	116.249	vv
2,4-D	11.133	212027.0	1894.33	111.927	VV
Pentachlorophenol	11.593	1724515.0	14739.16	117.002	VV
Silvex	12.097	724101.0	5953.99	121.616	VV
2,4,5-T	12.547	666397.0	4983.71	133.715	Vx
Chloramben	12.593	377160.0	6012.12	62.733	xS
2,4-DB	13.127	102254.0	1025.98	99.665	VS
Dinoseb	13.457	375075.0	4871.89	76.988	VV
Bentazon	14.060	76954.0	803.13	95.817	BI
Dacthal	14.463	639129.0	6624.78	96.476	VS
Picloram	14.537	950375.0	8580.05	110.766	SV
Acifluorfen	16.747	445225.0	6000.10	74.203	SV

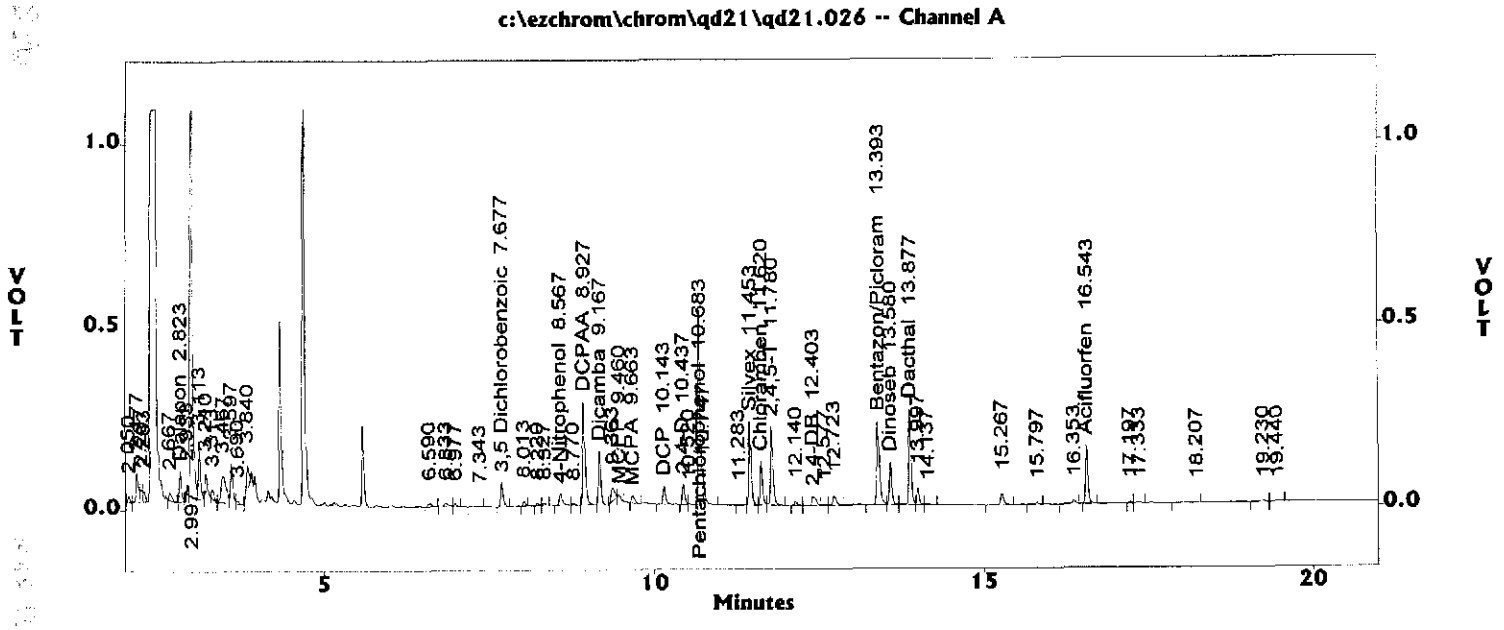


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.026
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-03S
Acquired : Apr 22, 2015 12:57:34
Printed : Apr 22, 2015 18:10:26
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.823	187275.0	1656.60	113.048	xV
3,5 Dichlorobenzo	7.677	177122.0	1722.43	102.833	VV
4-Nitrophenol	8.567	111124.0	1289.87	86.151	VV
DCPAA	8.927	729645.0	750.10	972.730	vv
Dicamba	9.167	351723.0	3238.35	108.612	vv
MCPP	9.460	23479.0	8.42	2789.470	VV
MCPA	9.663	71439.0	15.83	4512.708	VV
DCP	10.143	135111.0	1193.88	113.169	VV
2,4-D	10.437	151686.0	1510.05	100.451	Vx
Pentachlorophenol	10.683	1359146.0	12495.55	108.770	VS
Silvex	11.453	559457.0	5002.75	111.830	VV
Chloramben	11.620	309412.0	4132.75	74.868	VV
2,4,5-T	11.780	577230.0	5396.66	106.961	VB
2,4-DB	12.403	103019.0	801.45	128.542	VV
Bentazon/Picloram	13.393	695492.0	3540.81	196.421	VV
Dinoseb	13.580	308137.0	4088.80	75.361	VV
Dacthal	13.877	655069.0	6873.97	95.297	VV
Acifluorfen	16.543	409609.0	4699.56	87.159	vv

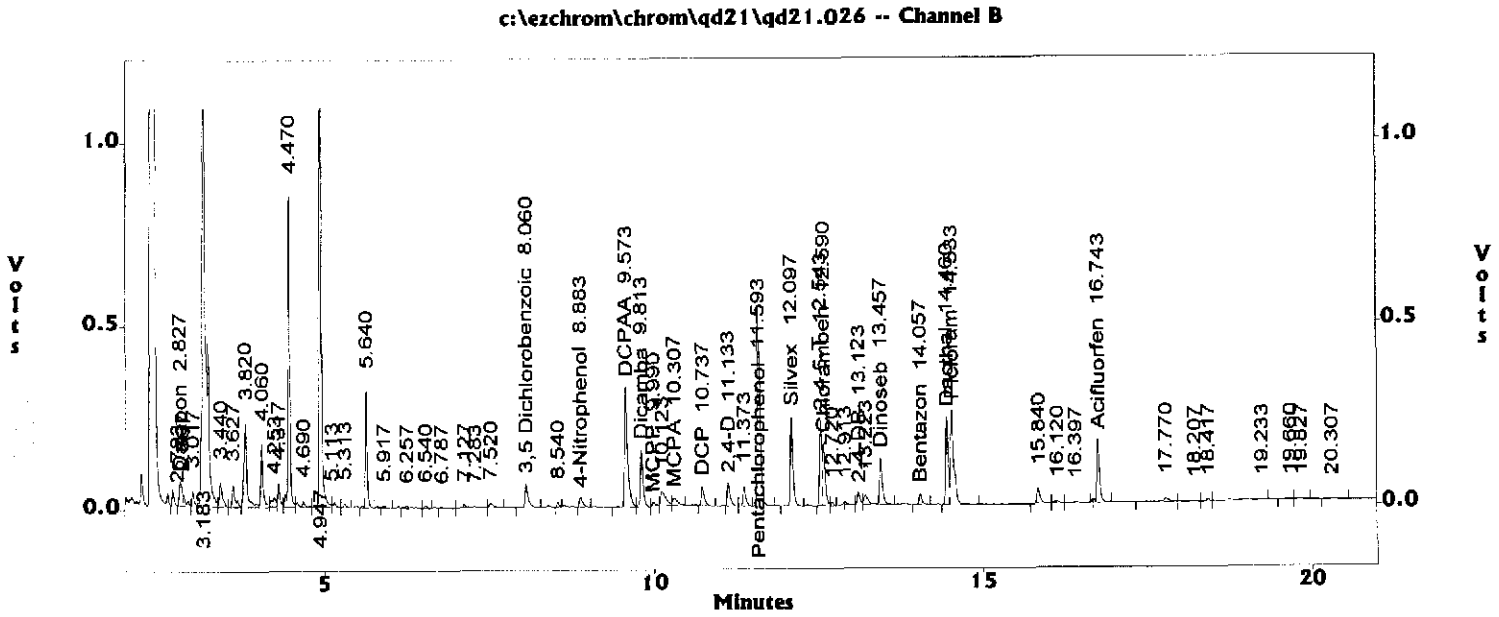


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.026
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D128-03S
Acquired : Apr 22, 2015 12:57:34
Printed : Apr 22, 2015 18:10:27
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	166454.0	1730.88	96.167	xx
3,5 Dichlorobenzoic	8.060	209378.0	1937.97	108.040	VV
4-Nitrophenol	8.883	92360.0	1457.43	63.372	SV
DCPAA	9.573	1069662.0	1082.03	988.573	VV
Dicamba	9.813	442009.0	3890.32	113.618	VV
MCPP	9.990	35243.0	8.21	4290.089	VV
MCPA	10.307	101062.0	17.76	5691.888	VI
DCP	10.737	165986.0	1485.51	111.737	BV
2,4-D	11.133	192415.0	1894.33	101.574	BV
Pentachlorophenol	11.593	1640299.0	14739.16	111.289	VV
Silvex	12.097	681591.0	5953.99	114.476	VV
2,4,5-T	12.543	506270.0	4983.71	101.585	MM
Chloramben	12.590	466749.0	6012.12	77.635	MM
2,4-DB	13.123	98993.0	1025.98	96.487	VS
Dinoseb	13.457	371071.0	4871.89	76.166	VV
Bentazon	14.057	88545.0	803.13	110.250	vv
Dacthal	14.460	608353.0	6624.78	91.830	VS
Picloram	14.533	941325.0	8580.05	109.711	SV
Acifluorfen	16.743	486133.0	6000.10	81.021	SV



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08008A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31
CONC UNIT: ppb

	CONC	CALIBRATION FACTORS (AREA)/UNIT								
COMPOUND	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	1809	1805	1712	1656	1563	1556	1495	1656.6	7.5
3,5-Dichlorobenzo	9.31	0	2078	1910	1765	1677	1577	1572	1479	1722.4	12.3
4-Nitrophenol	9.09	0	1534	1436	1334	1258	1188	1167	1112	1289.9	11.9
Dicamba	9.40	0	3647	3441	3288	3204	3073	3058	2958	3238.3	7.5
MCPP	469.30	0	0	11	9	8	8	8	7	8.4	16.6
MCPA	467.30	0	0	21	17	15	14	13	0	15.8	19.9
Dichloroprop	9.44	0	1405	1283	1226	1177	1114	1098	1053	1193.9	10.2
2,4-D	9.40	0	1874	1730	1530	1567	1321	1302	1246	1510.1	15.6
Pentachlorophenol	9.50	13925	13848	13159	12518	12163	11620	11552	11179	12495.6	8.5
2,4,5-TP(Silvex)	9.50	0	5286	5192	5108	5054	4855	4838	4686	5002.7	4.3
Chloramben	9.36	0	4116	4122	4174	4244	4105	4138	4030	4132.7	1.6
2,4,5-T	9.48	0	6036	5721	5485	5420	5147	5071	4896	5396.7	7.3
2,4-DB	9.47	0	881	822	795	793	761	778	780	801.4	5.0
Bentazon/Picloram	18.90	3392	3597	3537	3608	3645	3523	3561	3463	3540.8	2.3
Dinoseb	9.45	0	5054	4461	4163	3937	3747	3695	3564	4088.8	12.8
Dacthal	9.15	0	7742	7239	7013	6826	6535	6498	6264	6874.0	7.4
Acifluorfen	9.63	0	5063	4885	4841	4621	4525	4529	4432	4699.6	4.9
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	984	847	755	712	668	657	628	750.1	16.8

JM 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	1753	1769	1717	1706	1630	1723	1817	1730.9	3.4
3,5-Dichlorobenzo	9.31	0	2181	2065	1959	1911	1840	1834	1776	1938.0	7.4
4-Nitrophenol	9.09	0	1792	1637	1508	1414	1325	1294	1231	1457.4	13.8
Dicamba	9.40	0	4050	3934	3873	3897	3810	3866	3803	3890.3	2.2
MCPP	469.30	0	0	8	8	8	8	8	8	8.2	2.7
MCPA	467.30	0	0	22	19	18	17	16	15	17.8	13.3
Dichloroprop	9.44	0	1697	1580	1484	1454	1410	1409	1364	1485.5	7.8
2,4-D	9.40	0	2126	1995	1919	1879	1799	1799	1743	1894.3	7.0
Pentachlorophenol	9.50	13837	14569	14883	15072	15167	14776	14949	14660	14739.2	2.8
2,4,5-TP(Silvex)	9.50	0	5590	5718	5943	6118	6045	6172	6092	5954.0	3.7
Chloramben	9.36	0	5223	5359	5888	6423	6199	6421	6573	6012.1	9.0
2,4,5-T	9.48	0	5054	5193	5118	4935	4957	4984	4645	4983.7	3.5
2,4-DB	9.47	0	1135	1050	1033	1031	981	991	961	1026.0	5.6
Dinoseb	9.45	0	5336	5095	4957	4817	4655	4681	4562	4871.9	5.7
Bentazon	9.45	0	800	747	780	824	807	834	829	803.1	3.8
Dacthal	9.15	0	6383	6458	6737	6779	6657	6724	6635	6624.8	2.3
Picloram	9.45	0	7449	7767	8358	8929	8929	9333	9295	8580.1	8.7
Acifluorfen	9.63	0	5984	5948	6055	5972	5946	6064	6031	6000.1	0.8
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	1299	1179	1091	1050	1000	994	960	1082.0	11.1

RE 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08D08A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31

	RT OF STANDARDS (MIN)								MEAN	RT WINDOW		RTWINDOW
COMPOUND	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
Dalapon	2.887	2.883	2.883	2.880	2.877	2.877	2.877	2.877	2.879	2.865	2.893	0.014
3,5-Dichlorobenzo	7.810	7.800	7.793	7.793	7.790	7.790	7.787	7.787	7.791	7.769	7.813	0.022
4-Nitrophenol	8.717	8.703	8.697	8.693	8.690	8.690	8.683	8.683	8.691	8.670	8.712	0.021
Dicamba	0.000	9.297	9.290	9.290	9.287	9.287	9.283	9.283	9.288	9.273	9.303	0.015
MCPP	9.603	9.593	9.587	9.587	9.583	9.583	9.580	9.580	9.583	9.562	9.604	0.021
MCPA	9.810	9.800	9.793	9.793	9.787	9.790	9.783	9.787	9.789	9.767	9.811	0.022
Dichloroprop	10.290	10.283	10.277	10.273	10.270	10.273	10.267	10.270	10.273	10.255	10.291	0.018
2,4-D	10.590	10.583	10.573	10.573	10.567	10.570	10.563	10.563	10.570	10.550	10.590	0.020
Pentachlorophenol	10.833	10.827	10.820	10.820	10.817	10.817	10.813	10.813	10.820	10.802	10.838	0.018
2,4,5-TP(Silvex)	11.607	11.600	11.593	11.593	11.587	11.590	11.583	11.587	11.590	11.574	11.606	0.016
Chloramben	0.000	11.773	11.767	11.763	11.760	11.760	11.753	11.757	11.762	11.746	11.778	0.016
2,4,5-T	11.940	11.933	11.927	11.923	11.917	11.917	11.913	11.917	11.921	11.900	11.942	0.021
2,4-DB	12.570	12.560	12.550	12.550	12.543	12.543	12.540	12.540	12.547	12.525	12.569	0.022
Bentazon/Picloram	13.573	13.563	13.553	13.550	13.543	13.543	13.540	13.543	13.551	13.530	13.572	0.021
Dinoseb	13.747	13.743	13.737	13.737	13.730	13.733	13.727	13.730	13.734	13.716	13.752	0.018
Dacthal	14.047	14.040	14.033	14.033	14.027	14.030	14.023	14.030	14.031	14.010	14.052	0.021
Acifluorfen	16.730	16.723	16.720	16.717	16.713	16.713	16.707	16.710	16.715	16.697	16.733	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	0.000	9.057	9.050	9.050	9.047	9.047	9.043	9.043	9.048	9.032	9.064	0.016

4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.883	2.880	2.877	2.877	2.873	2.873	2.873	2.873	2.875	2.859	2.891	0.016
3,5-Dichlorobenzo	8.143	8.133	8.130	8.127	8.123	8.127	8.123	8.123	8.127	8.111	8.143	0.016
4-Nitrophenol	8.973	8.967	8.960	8.957	8.953	8.953	8.950	8.950	8.956	8.938	8.974	0.018
Dicamba	9.897	9.890	9.887	9.883	9.880	9.883	9.880	9.880	9.883	9.867	9.899	0.016
MCPP	0.000	10.067	10.060	10.060	10.053	10.057	10.053	10.053	10.056	10.040	10.072	0.016
MCPA	0.000	10.387	10.377	10.377	10.370	10.373	10.370	10.370	10.373	10.357	10.389	0.016
Dichloroprop	10.817	10.813	10.807	10.807	10.800	10.803	10.800	10.800	10.804	10.790	10.818	0.014
2,4-D	11.217	11.213	11.207	11.203	11.200	11.200	11.197	11.197	11.202	11.186	11.218	0.016
Pentachlorophenol	11.677	11.673	11.667	11.667	11.663	11.663	11.660	11.663	11.667	11.649	11.685	0.018
2,4,5-TP(Silvex)	12.177	12.173	12.167	12.167	12.163	12.163	12.160	12.163	12.165	12.151	12.179	0.014
Chloramben	12.680	12.673	12.667	12.667	12.660	12.663	12.660	12.663	12.665	12.635	12.695	0.030
2,4,5-T	12.627	12.623	12.617	12.617	12.610	12.613	12.610	12.610	12.614	12.598	12.630	0.016
2,4-DB	13.203	13.197	13.193	13.190	13.183	13.187	13.183	13.183	13.188	13.164	13.212	0.024
Dinoseb	13.537	13.533	13.527	13.527	13.523	13.523	13.520	13.523	13.525	13.507	13.543	0.018
Bentazon	14.140	14.133	14.130	14.130	14.127	14.127	14.123	14.127	14.128	14.112	14.144	0.016
Dacthal	14.540	14.537	14.533	14.530	14.527	14.527	14.523	14.527	14.529	14.513	14.545	0.016
Picloram	14.623	14.617	14.610	14.610	14.603	14.603	14.600	14.603	14.607	14.583	14.631	0.024
Acifluorfen	16.820	16.813	16.810	16.810	16.807	16.803	16.803	16.803	16.807	16.789	16.825	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	9.657	9.650	9.643	9.643	9.640	9.640	9.637	9.637	9.641	9.625	9.657	0.016

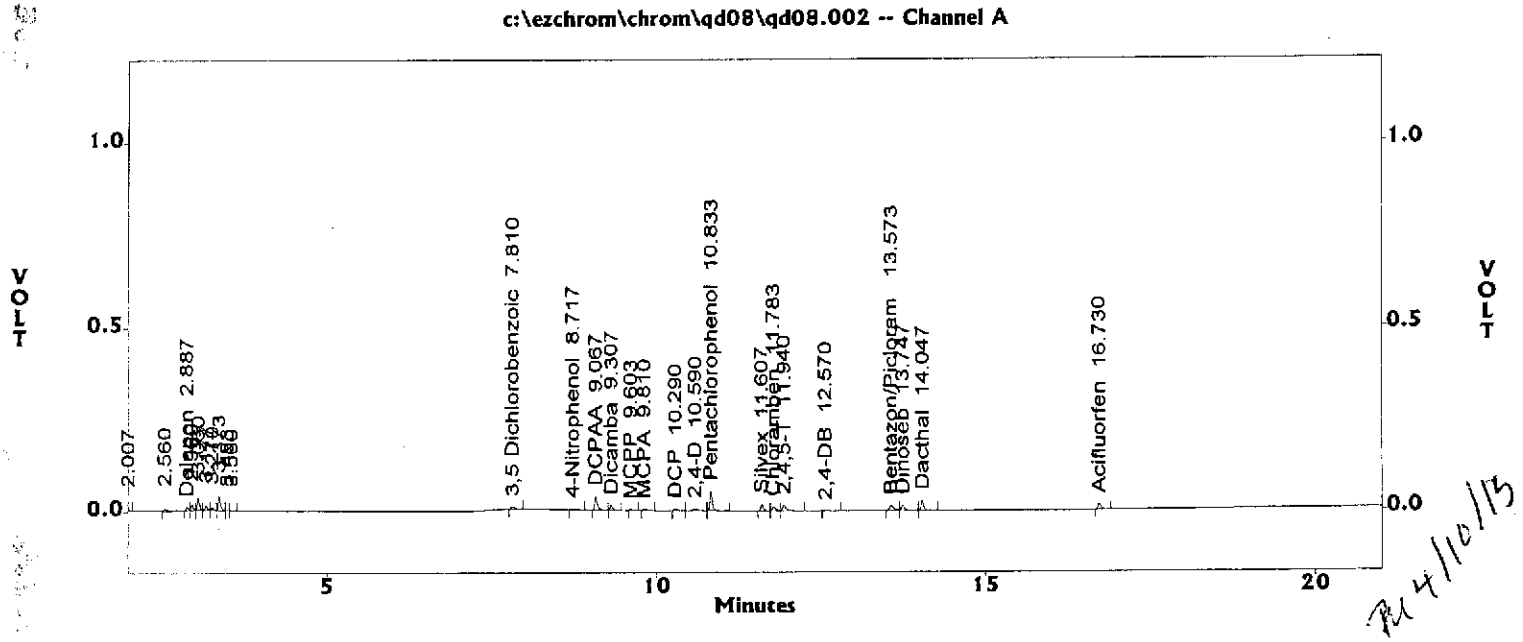
JM 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	10.866	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	12.034	vv
4-Nitrophenol	8.717	13948.0	1289.87	10.813	BV
DCPAA	9.067	104261.0	750.10	138.996	vv
Dicamba	9.307	35254.0	3238.35	10.886	vv
MCPP	9.603	7291.0	8.42	866.222	BB
MCPA	9.810	17622.0	15.83	1113.159	BV
DCP	10.290	14098.0	1193.88	11.809	BV
2,4-D	10.590	18783.0	1510.05	12.439	VV
Pentachlorophenol	10.833	132233.0	12495.55	10.582	VB
Silvex	11.607	49337.0	5002.75	9.862	BV
Chloramben	11.783	37175.0	4132.75	8.995	VV
2,4,5-T	11.940	57327.0	5396.66	10.623	VB
2,4-DB	12.570	8202.0	801.45	10.234	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.106	BV
Dinoseb	13.747	48219.0	4088.80	11.793	VV
Dacthal	14.047	71024.0	6873.97	10.332	VB
Acifluorfen	16.730	46390.0	4699.56	9.871	vv



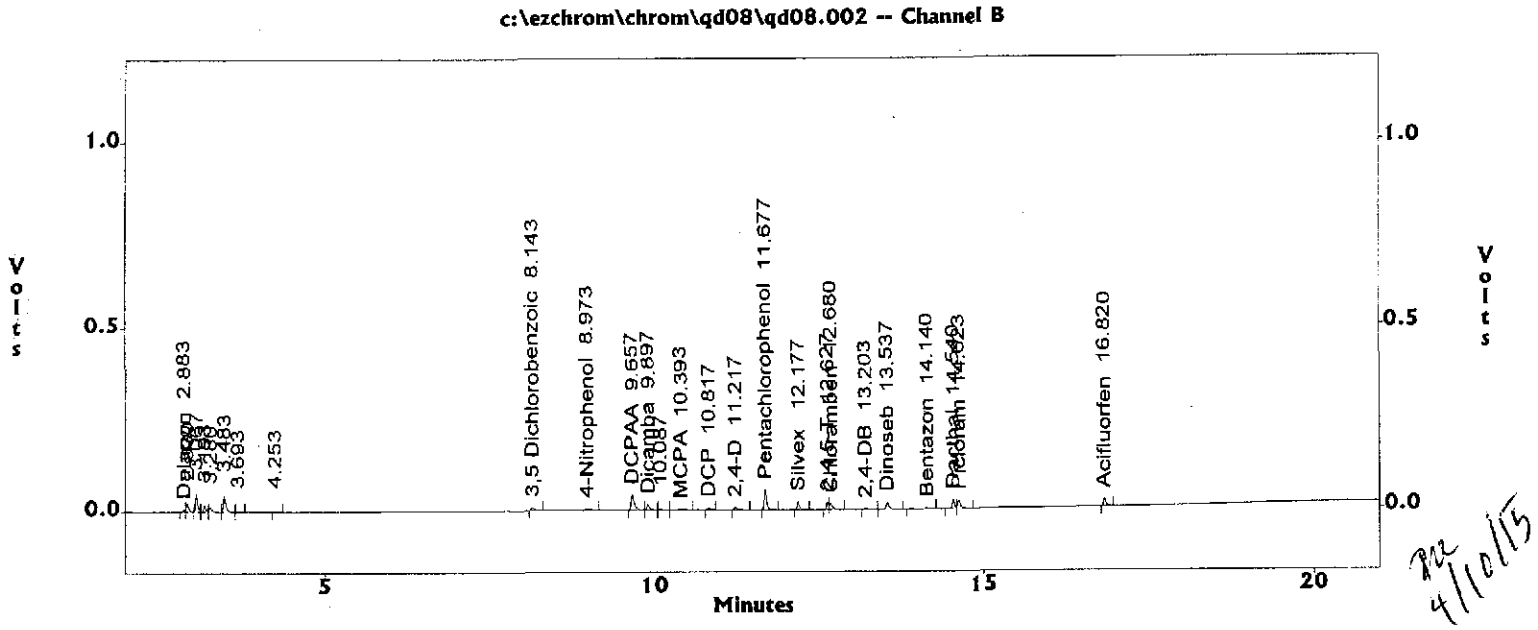
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	9.179	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	11.058	BV
4-Nitrophenol	8.973	17332.0	1457.43	11.892	BV
DCPAA	9.657	133013.0	1082.03	122.930	BV
Dicamba	9.897	39981.0	3890.32	10.277	VV
MCPP	10.067	0.0	0.00	0.000	--
MCPA	10.393	14654.0	17.76	825.324	VB
DCP	10.817	15209.0	1485.51	10.238	BB
2,4-D	11.217	20704.0	1894.33	10.929	BV
Pentachlorophenol	11.677	131400.0	14739.16	8.915	BB
Silvex	12.177	51685.0	5953.99	8.681	BV
2,4,5-T	12.627	47190.0	4983.71	9.469	VS
Chloramben	12.680	47598.0	6012.12	7.917	Sx
2,4-DB	13.203	10709.0	1025.98	10.438	BV
Dinoseb	13.537	51661.0	4871.89	10.604	VV
Bentazon	14.140	6769.0	803.13	8.428	xV
Dacthal	14.540	58416.0	6624.78	8.818	VV
Picloram	14.623	66443.0	8580.05	7.744	VV
Acifluorfen	16.820	54971.0	6000.10	9.162	BV



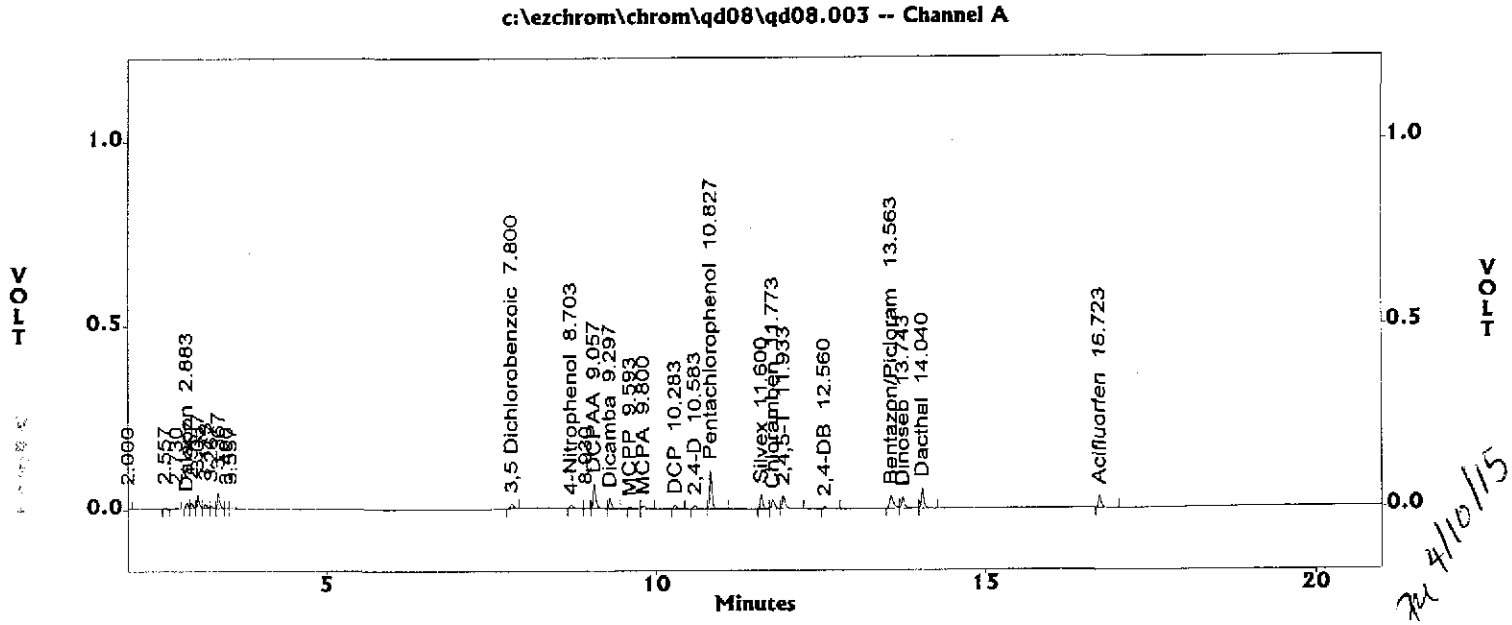
RZ 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:31
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	19.876	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	22.469	vv
4-Nitrophenol	8.703	27870.0	1289.87	21.607	BV
DCPAA	9.057	184122.0	750.10	245.463	vv
Dicamba	9.297	68576.0	3238.35	21.176	vv
MCPP	9.593	14588.0	8.42	1733.157	BV
MCPA	9.800	29185.0	15.83	1843.578	VV
DCP	10.283	26509.0	1193.88	22.204	BV
2,4-D	10.583	35240.0	1510.05	23.337	VV
Pentachlorophenol	10.827	263001.0	12495.55	21.048	VB
Silvex	11.600	100470.0	5002.75	20.083	BV
Chloramben	11.773	77061.0	4132.75	18.646	VV
2,4,5-T	11.933	114414.0	5396.66	21.201	VB
2,4-DB	12.560	16675.0	801.45	20.806	BB
Bentazon/Picloram	13.563	135936.0	3540.81	38.391	BV
Dinoseb	13.743	95519.0	4088.80	23.361	VV
Dacthal	14.040	141696.0	6873.97	20.613	VV
Acifluorfen	16.723	97486.0	4699.56	20.744	vv



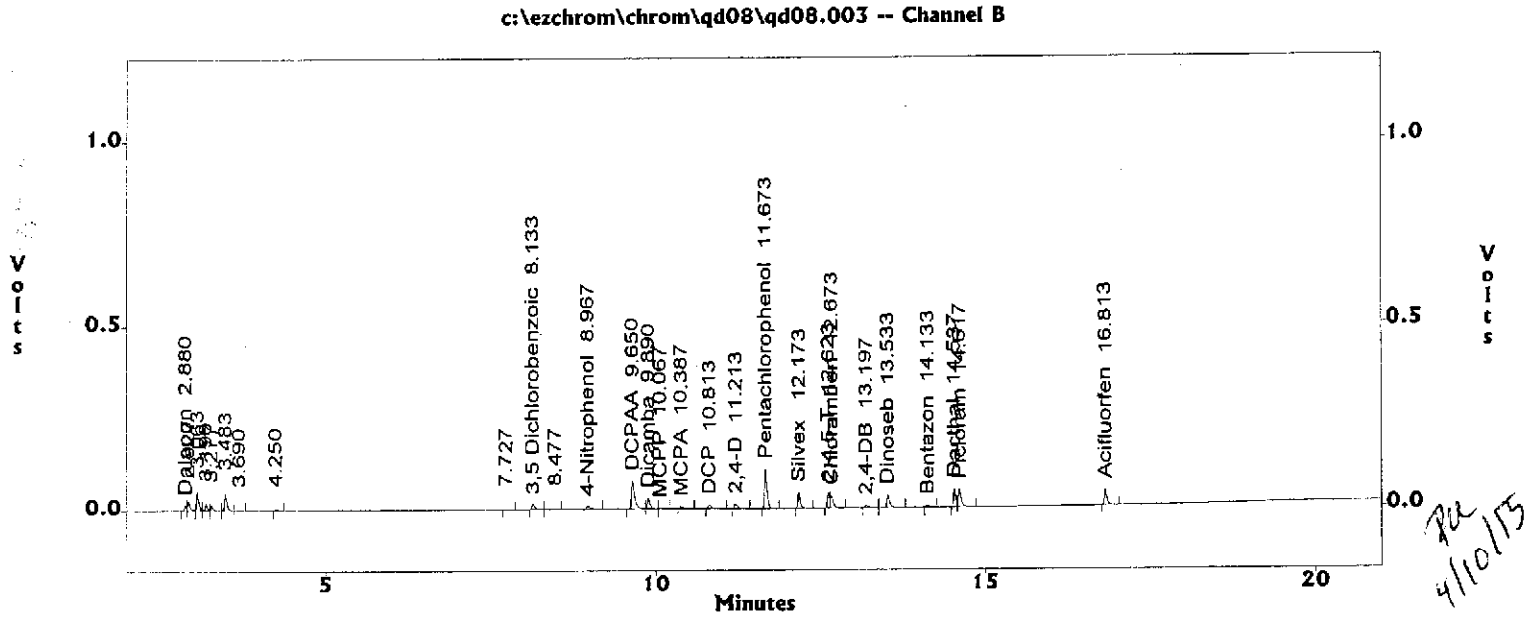
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:32
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.443	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	20.960	BV
4-Nitrophenol	8.967	32561.0	1457.43	22.341	BB
DCPAA	9.650	243181.0	1082.03	224.746	VV
Dicamba	9.890	76149.0	3890.32	19.574	VV
MCPP	10.067	7747.0	8.21	943.033	VV
MCPA	10.387	23831.0	17.76	1342.180	VB
DCP	10.813	32025.0	1485.51	21.558	BB
2,4-D	11.213	39982.0	1894.33	21.106	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.773	BB
Silvex	12.173	106249.0	5953.99	17.845	BB
2,4,5-T	12.623	94613.0	4983.71	18.984	BV
Chloramben	12.673	98990.0	6012.12	16.465	VB
2,4-DB	13.197	21479.0	1025.98	20.935	BV
Dinoseb	13.533	100845.0	4871.89	20.699	Vx
Bentazon	14.133	15125.0	803.13	18.833	BV
Dacthal	14.537	116826.0	6624.78	17.635	VV
Picloram	14.617	140775.0	8580.05	16.407	VB
Acifluorfen	16.813	115218.0	6000.10	19.203	BV



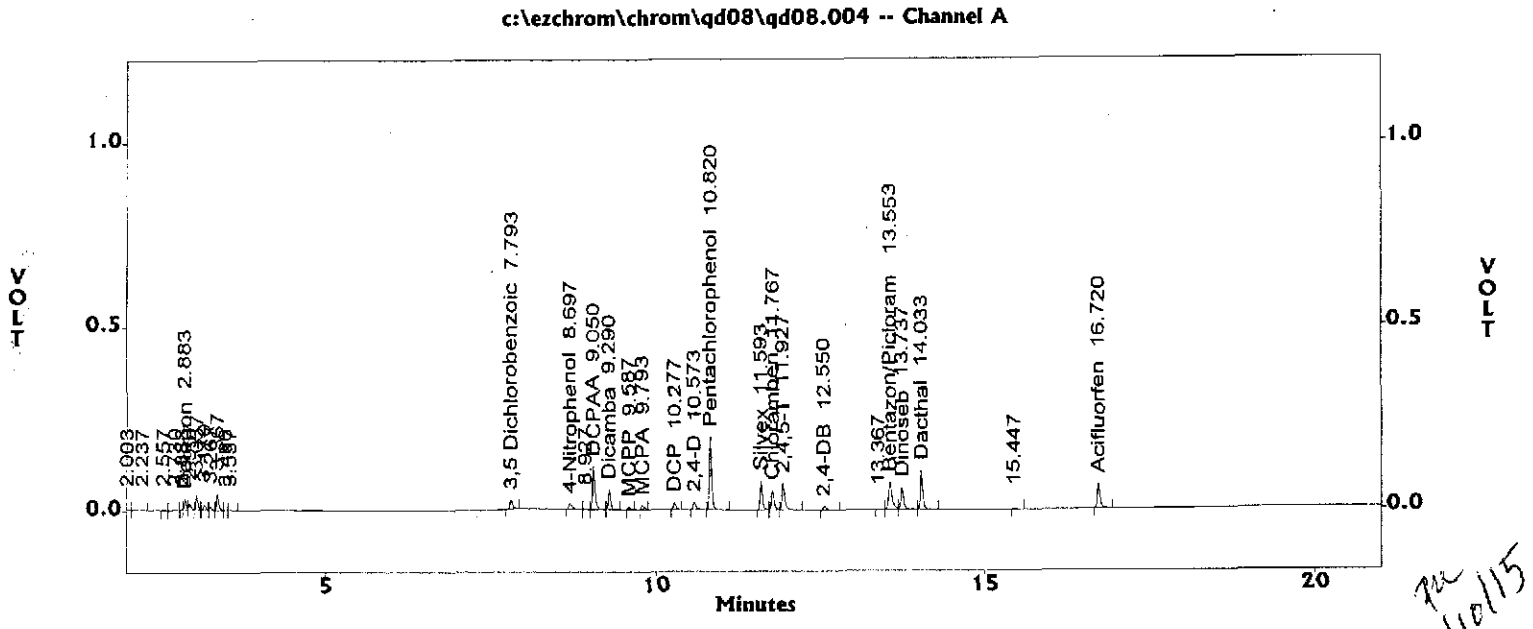
RZ 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:47:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	39.681	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	41.307	vv
4-Nitrophenol	8.697	52186.0	1289.87	40.458	BV
DCPAA	9.050	317147.0	750.10	422.806	vv
Dicamba	9.290	129398.0	3238.35	39.958	vv
MCPP	9.587	20397.0	8.42	2423.307	BI
MCPA	9.793	38401.0	15.83	2425.740	BI
DCP	10.277	48433.0	1193.88	40.568	BI
2,4-D	10.573	65069.0	1510.05	43.091	BV
Pentachlorophenol	10.820	499826.0	12495.55	40.000	VB
Silvex	11.593	197359.0	5002.75	39.450	BV
Chloramben	11.767	154338.0	4132.75	37.345	VV
2,4,5-T	11.927	216887.0	5396.66	40.189	VB
2,4-DB	12.550	31116.0	801.45	38.825	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.506	VV
Dinoseb	13.737	168625.0	4088.80	41.241	VV
Dacthal	14.033	264994.0	6873.97	38.550	VB
Acifluorfen	16.720	188126.0	4699.56	40.031	vv



4/10/15

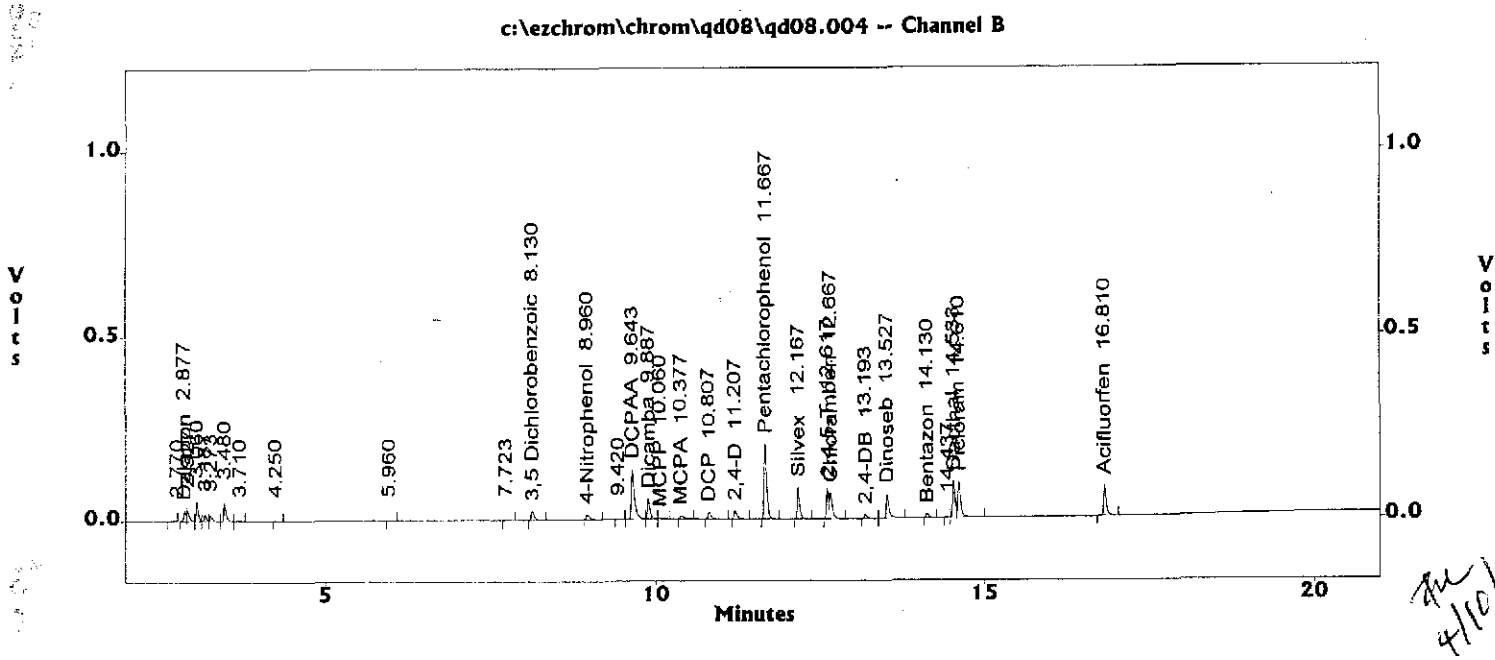
5039

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:47:41
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	37.216	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	39.707	BV
4-Nitrophenol	8.960	59478.0	1457.43	40.810	BB
DCPAA	9.643	441194.0	1082.03	407.748	VV
Dicamba	9.887	147963.0	3890.32	38.034	VV
MCPP	10.060	15953.0	8.21	1941.940	VV
MCPA	10.377	40808.0	17.76	2298.337	VB
DCP	10.807	59641.0	1485.51	40.149	BV
2,4-D	11.207	75010.0	1894.33	39.597	VV
Pentachlorophenol	11.667	565297.0	14739.16	38.353	BB
Silvex	12.167	217350.0	5953.99	36.505	BB
2,4,5-T	12.617	194435.0	4983.71	39.014	BV
Chloramben	12.667	203136.0	6012.12	33.788	Vx
2,4-DB	13.193	39769.0	1025.98	38.762	BV
Dinoseb	13.527	192562.0	4871.89	39.525	Vx
Bentazon	14.130	28250.0	803.13	35.175	BV
Dacthal	14.533	236390.0	6624.78	35.683	VV
Picloram	14.610	293562.0	8580.05	34.214	VV
Acifluorfen	16.810	229055.0	6000.10	38.175	VV



4/10/15

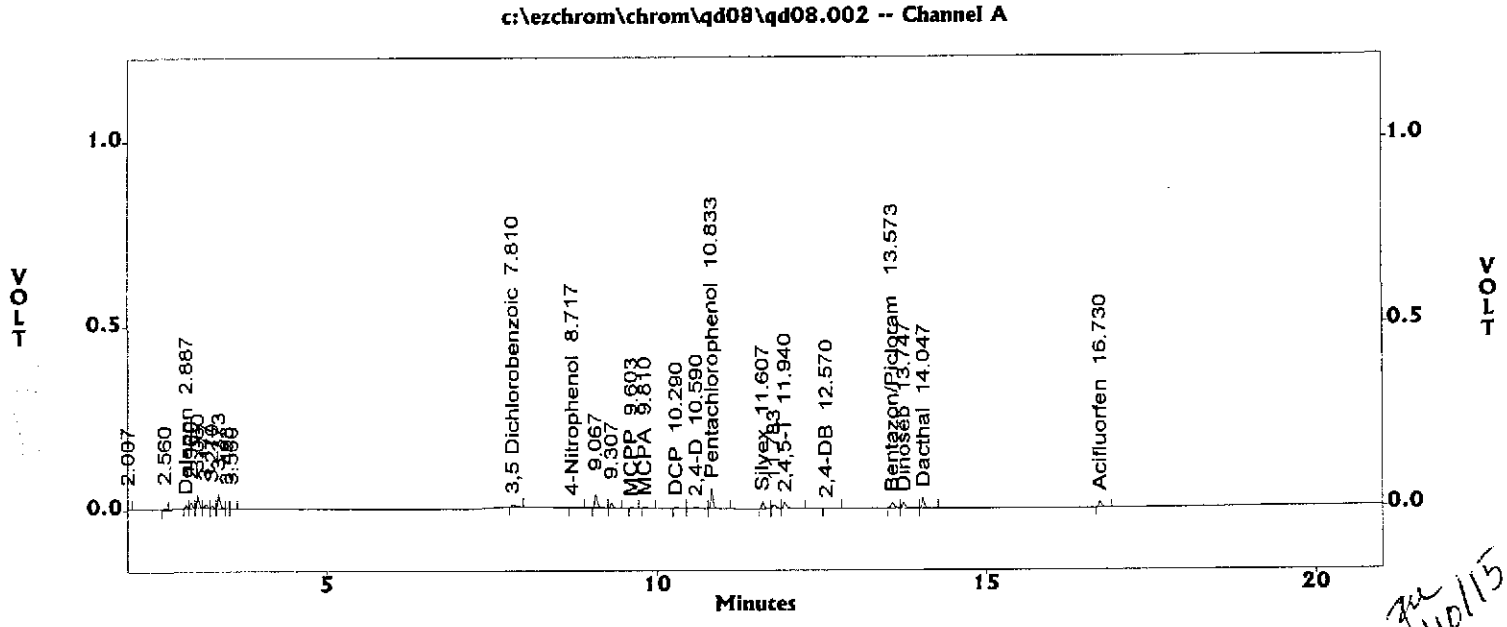
5040

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	-1.000	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	-1.000	vv
4-Nitrophenol	8.717	13948.0	1289.87	-1.000	BV
DCPAA	9.050	0.0	0.00	0.000	--
Dicamba	9.290	0.0	0.00	0.000	--
MCPP	9.603	7291.0	8.42	-1.000	BB
MCPA	9.810	17622.0	15.83	-1.000	BV
DCP	10.290	14098.0	1193.88	-1.000	BV
2,4-D	10.590	18783.0	1510.05	-1.000	VV
Pentachlorophenol	10.833	132233.0	12495.55	9.496	VB
Silvex	11.607	49337.0	5002.75	-1.000	BV
Chloramben	11.767	0.0	0.00	0.000	--
2,4,5-T	11.940	57327.0	5396.66	-1.000	VB
2,4-DB	12.570	8202.0	801.45	-1.000	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.898	BV
Dinoseb	13.747	48219.0	4088.80	-1.000	VV
Dacthal	14.047	71024.0	6873.97	-1.000	VB
Acifluorfen	16.730	46390.0	4699.56	-1.000	vv



4/10/15

5041

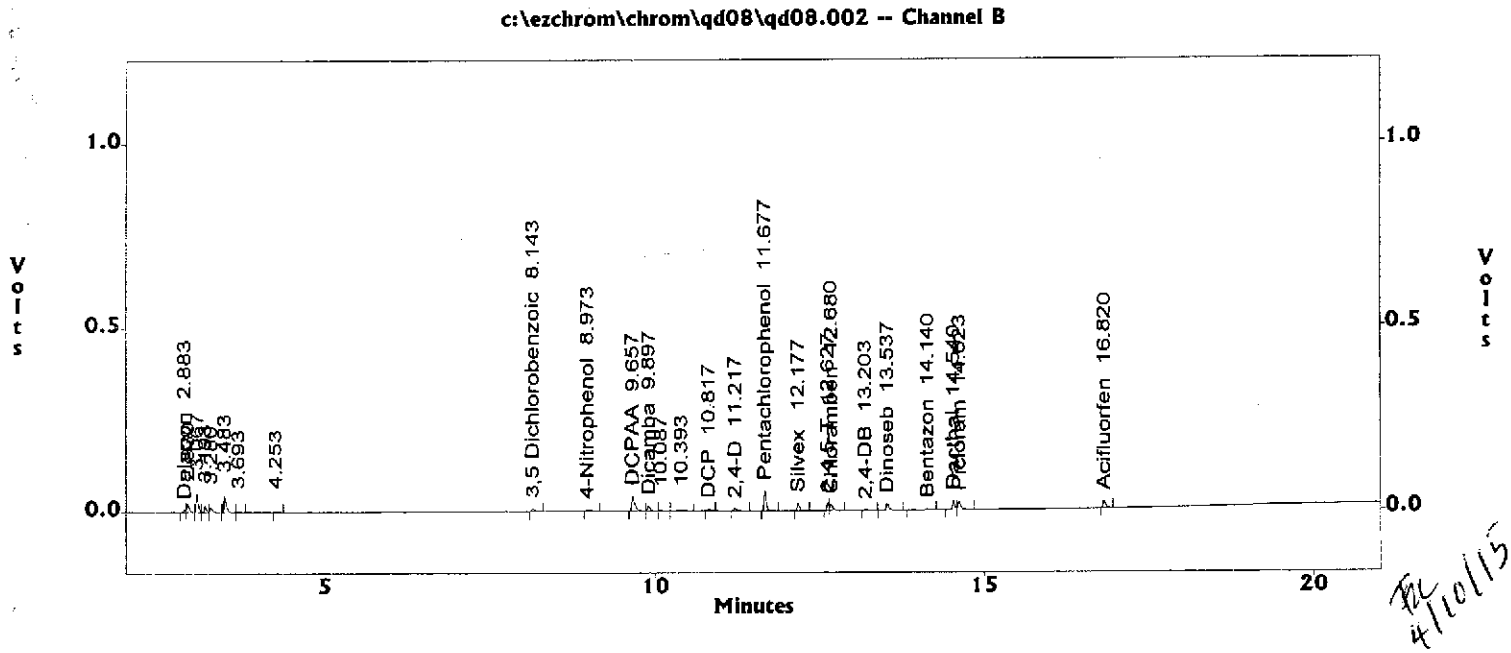
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	-1.000	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	-1.000	BV
4-Nitrophenol	8.973	17332.0	1457.43	-1.000	BV
DCPAA	9.657	133013.0	1082.03	-1.000	BV
Dicamba	9.897	39981.0	3890.32	-1.000	VV
MCPP	10.060	0.0	0.00	0.000	--
MCPA	10.377	0.0	0.00	0.000	--
DCP	10.817	15209.0	1485.51	-1.000	BB
2,4-D	11.217	20704.0	1894.33	-1.000	BV
Pentachlorophenol	11.677	131400.0	14739.16	9.496	BB
Silvex	12.177	51685.0	5953.99	-1.000	BV
2,4,5-T	12.627	47190.0	4983.71	-1.000	VS
Chloramben	12.680	47598.0	6012.12	-1.000	Sx
2,4-DB	13.203	10709.0	1025.98	-1.000	BV
Dinoseb	13.537	51661.0	4871.89	-1.000	VV
Bentazon	14.140	6769.0	803.13	-1.000	xV
Dacthal	14.540	58416.0	6624.78	-1.000	VV
Picloram	14.623	66443.0	8580.05	-1.000	VV
Acifluorfen	16.820	54971.0	6000.10	-1.000	BV

c:\ezchrom\chrom\qd08\qd08.002 -- Channel B



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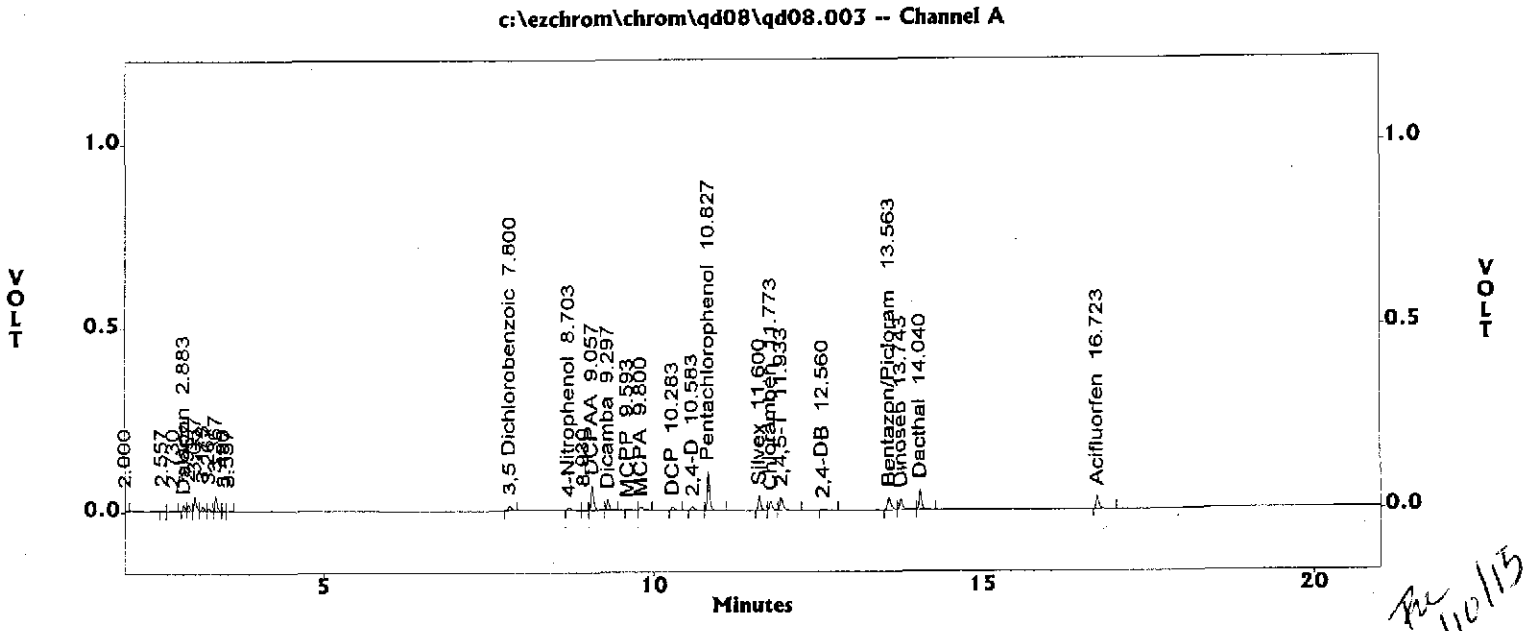
5042

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	18.206	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	18.628	vv
4-Nitrophenol	8.703	27870.0	1289.87	18.170	BV
DCPAA	9.057	184122.0	750.10	187.160	vv
Dicamba	9.297	68576.0	3238.35	18.804	vv
MCPP	9.593	14588.0	8.42	-1.000	BV
MCPA	9.800	29185.0	15.83	-1.000	VV
DCP	10.283	26509.0	1193.88	18.870	BV
2,4-D	10.583	35240.0	1510.05	18.804	VV
Pentachlorophenol	10.827	263001.0	12495.55	18.992	VB
Silvex	11.600	100470.0	5002.75	19.006	BV
Chloramben	11.773	77061.0	4132.75	18.722	VV
2,4,5-T	11.933	114414.0	5396.66	18.954	VB
2,4-DB	12.560	16675.0	801.45	18.932	BB
Bentazon/Picloram	13.563	135936.0	3540.81	37.796	BV
Dinoseb	13.743	95519.0	4088.80	18.898	VV
Dacthal	14.040	141696.0	6873.97	18.302	VV
Acifluorfen	16.723	97486.0	4699.56	19.254	vv



4/10/15

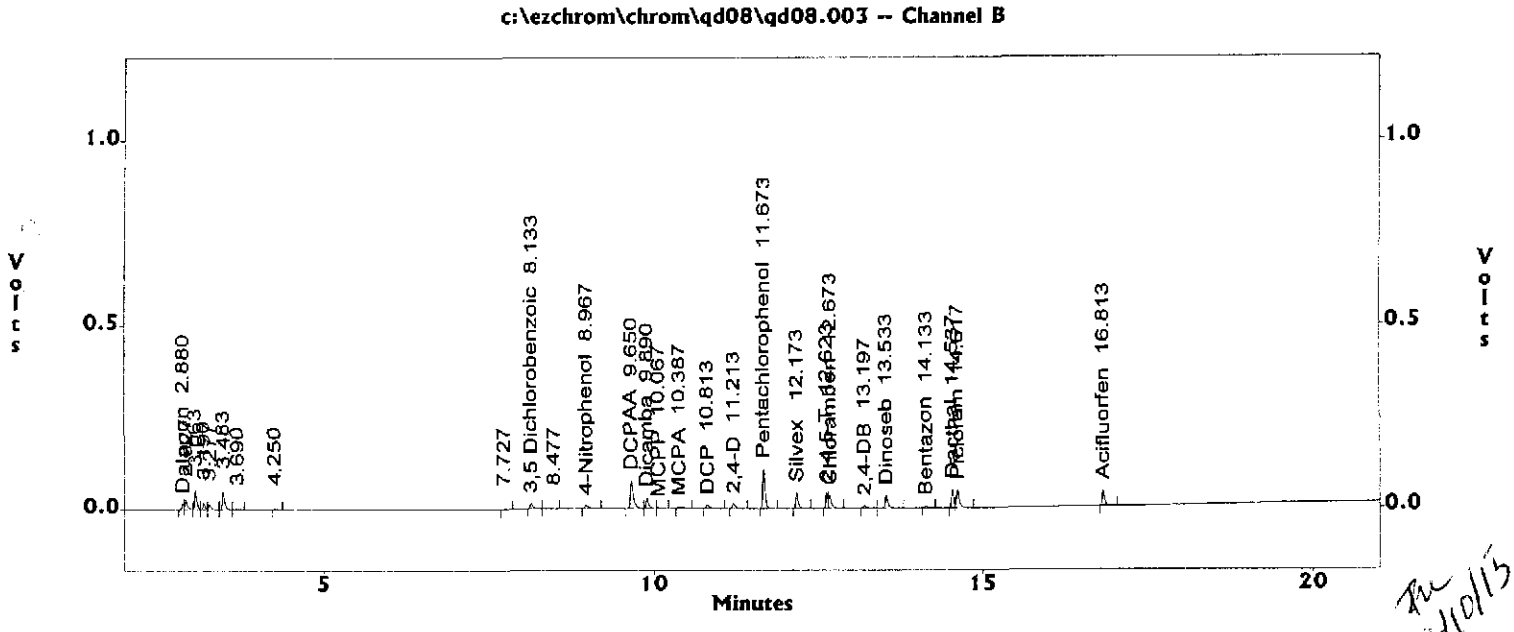
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.206	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	18.628	BV
4-Nitrophenol	8.967	32561.0	1457.43	18.170	BB
DCPAA	9.650	243181.0	1082.03	187.160	VV
Dicamba	9.890	76149.0	3890.32	18.804	VV
MCPP	10.067	7747.0	8.21	-1.000	VV
MCPA	10.387	23831.0	17.76	-1.000	VB
DCP	10.813	32025.0	1485.51	18.870	BB
2,4-D	11.213	39982.0	1894.33	18.804	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.992	BB
Silvex	12.173	106249.0	5953.99	19.006	BB
2,4,5-T	12.623	94613.0	4983.71	18.722	BV
Chloramben	12.673	98990.0	6012.12	18.954	VB
2,4-DB	13.197	21479.0	1025.98	18.932	BV
Dinoseb	13.533	100845.0	4871.89	18.898	Vx
Bentazon	14.133	15125.0	803.13	18.898	BV
Dacthal	14.537	116826.0	6624.78	18.302	VV
Picloram	14.617	140775.0	8580.05	18.898	VB
Acifluorfen	16.813	115218.0	6000.10	19.254	BV

c:\ezchrom\chrom\qd08\qd08.003 -- Channel B



4/10/15

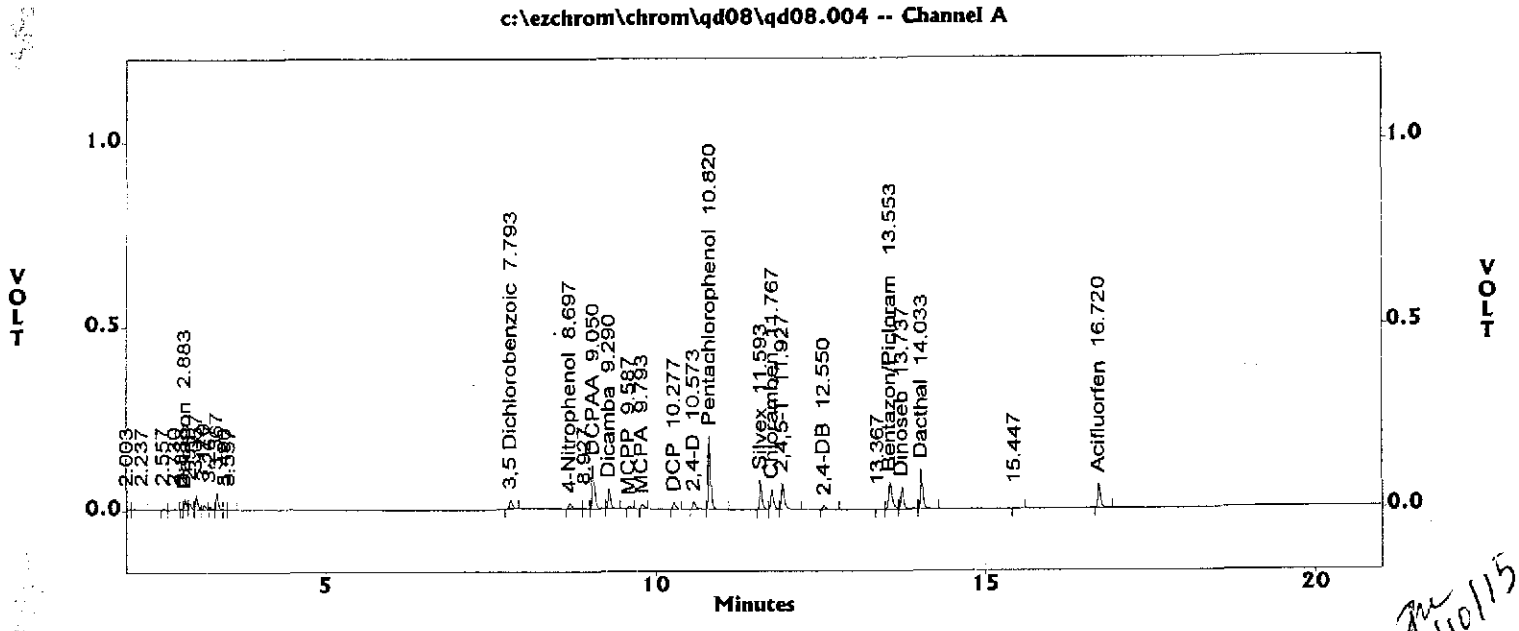
5044

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:48:27
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	36.412	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	37.256	vv
4-Nitrophenol	8.697	52186.0	1289.87	36.340	BV
DCPAA	9.050	317147.0	750.10	374.320	vv
Dicamba	9.290	129398.0	3238.35	37.608	vv
MCPP	9.587	20397.0	8.42	1877.200	BI
MCPA	9.793	38401.0	15.83	1869.200	BI
DCP	10.277	48433.0	1193.88	37.740	BI
2,4-D	10.573	65069.0	1510.05	37.608	BV
Pentachlorophenol	10.820	499826.0	12495.55	37.984	VB
Silvex	11.593	197359.0	5002.75	38.012	BV
Chloramben	11.767	154338.0	4132.75	37.444	VV
2,4,5-T	11.927	216887.0	5396.66	37.908	VB
2,4-DB	12.550	31116.0	801.45	37.864	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.592	VV
Dinoseb	13.737	168625.0	4088.80	37.796	VV
Dacthal	14.033	264994.0	6873.97	36.604	VB
Acifluorfen	16.720	188126.0	4699.56	38.508	vv



4/10/15

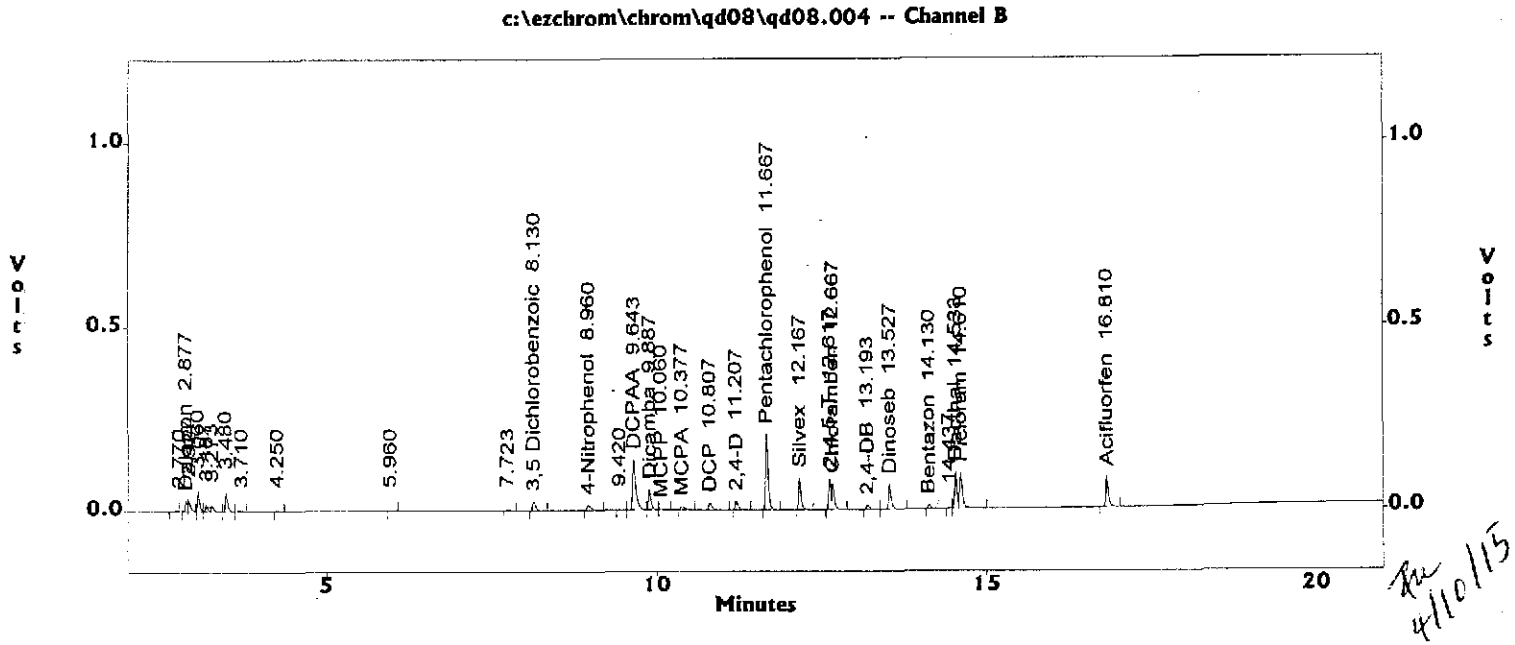
5045

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:48:27
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	36.412	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	37.256	BV
4-Nitrophenol	8.960	59478.0	1457.43	36.340	BB
DCPAA	9.643	441194.0	1082.03	374.320	VV
Dicamba	9.887	147963.0	3890.32	37.608	VV
MCPP	10.060	15953.0	8.21	1877.200	VV
MCPA	10.377	40808.0	17.76	1869.200	VB
DCP	10.807	59641.0	1485.51	37.740	BV
2,4-D	11.207	75010.0	1894.33	37.608	VV
Pentachlorophenol	11.667	565297.0	14739.16	37.984	BB
Silvex	12.167	217350.0	5953.99	38.012	BB
2,4,5-T	12.617	194435.0	4983.71	37.444	BV
Chloramben	12.667	203136.0	6012.12	37.908	Vx
2,4-DB	13.193	39769.0	1025.98	37.864	BV
Dinoseb	13.527	192562.0	4871.89	37.796	Vx
Bentazon	14.130	28250.0	803.13	37.796	BV
Dacthal	14.533	236390.0	6624.78	36.604	VV
Picloram	14.610	293562.0	8580.05	37.796	VV
Acifluorfen	16.810	229055.0	6000.10	38.508	VV



4/10/15

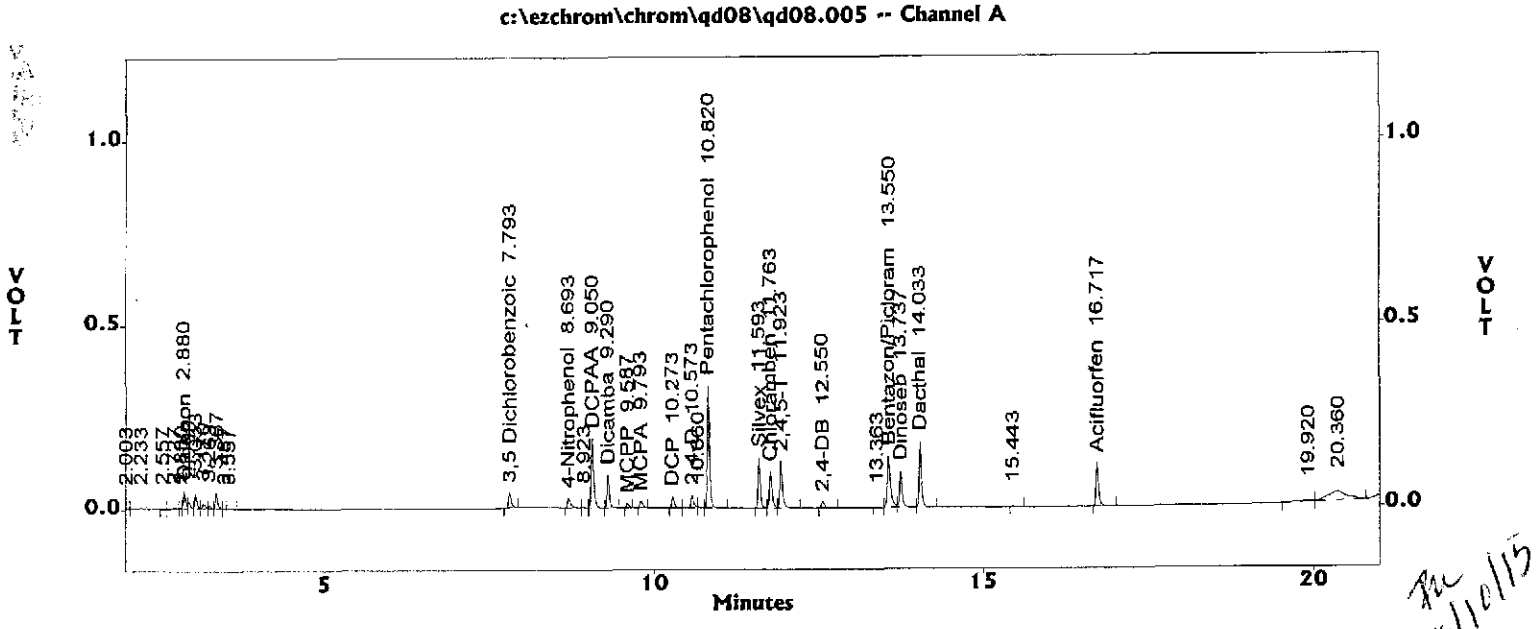
5046

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	109079.0	1656.60	63.721	xV
3,5 Dichlorobenzo	7.793	115094.0	1722.43	65.198	vv
4-Nitrophenol	8.693	84857.0	1289.87	63.595	BV
DCPAA	9.050	494353.0	750.10	655.060	vv
Dicamba	9.290	216364.0	3238.35	65.814	vv
MCPP	9.587	29818.0	8.42	3285.100	BI
MCPA	9.793	56310.0	15.83	3271.100	BI
DCP	10.273	80985.0	1193.88	66.045	BV
2,4-D	10.573	100684.0	1510.05	65.814	Vx
Pentachlorophenol	10.820	832103.0	12495.55	66.472	VB
Silvex	11.593	339802.0	5002.75	66.521	BV
Chloramben	11.763	273515.0	4132.75	65.527	VV
2,4,5-T	11.923	363884.0	5396.66	66.339	VV
2,4-DB	12.550	52693.0	801.45	66.262	BV
Bentazon/Picloram	13.550	477351.0	3540.81	132.286	VV
Dinoseb	13.737	275342.0	4088.80	66.143	VV
Dacthal	14.033	449214.0	6873.97	64.057	VB
Acifluorfen	16.717	326255.0	4699.56	67.389	vv



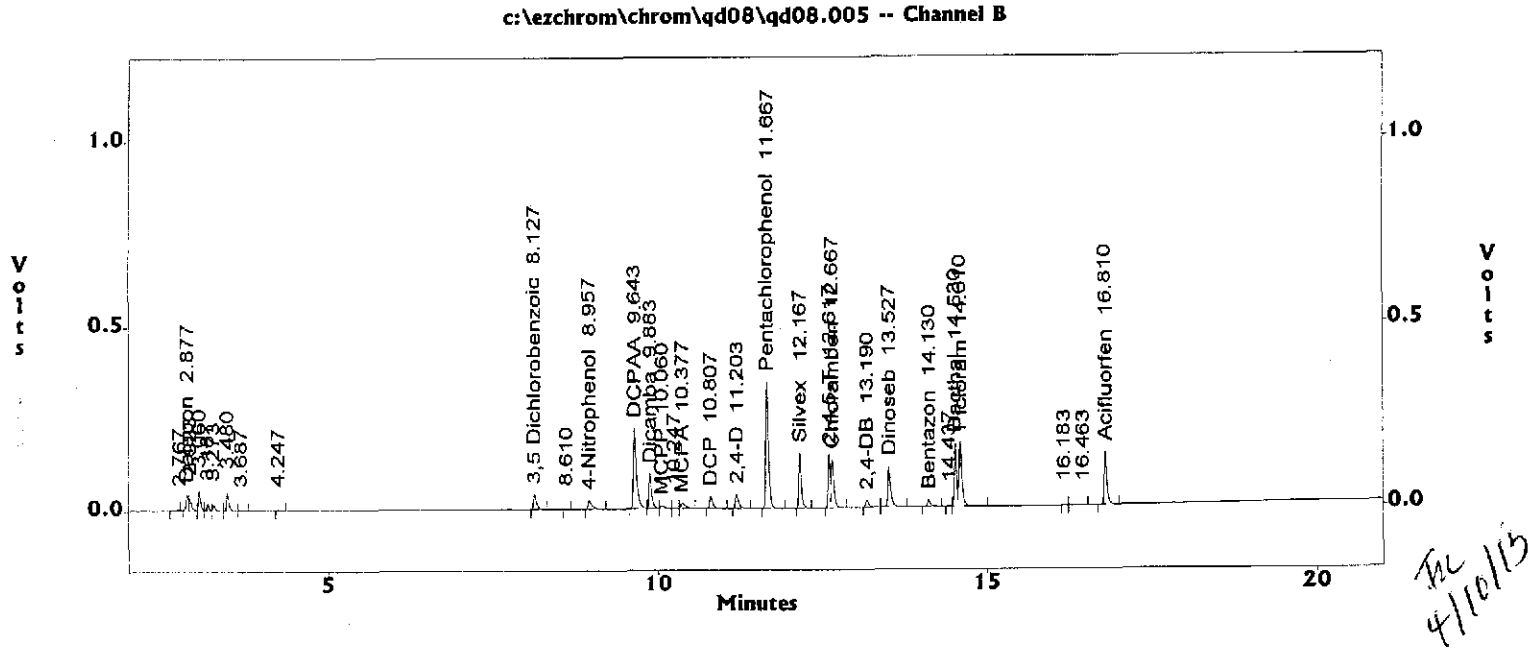
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	109402.0	1730.88	63.721	xS
3,5 Dichlorobenzoic	8.127	127742.0	1937.97	65.198	BV
4-Nitrophenol	8.957	95925.0	1457.43	63.595	BV
DCPAA	9.643	714961.0	1082.03	655.060	BV
Dicamba	9.883	254892.0	3890.32	65.814	VV
MCPP	10.060	27558.0	8.21	3285.100	VV
MCPA	10.377	61491.0	17.76	3271.100	VB
DCP	10.807	98014.0	1485.51	66.045	BB
2,4-D	11.203	126298.0	1894.33	65.814	BV
Pentachlorophenol	11.667	1001886.0	14739.16	66.472	VB
Silvex	12.167	395357.0	5953.99	66.521	BB
2,4,5-T	12.617	335369.0	4983.71	65.527	BS
Chloramben	12.667	390587.0	6012.12	66.339	Sx
2,4-DB	13.190	68438.0	1025.98	66.262	BV
Dinoseb	13.527	327888.0	4871.89	66.143	Vx
Bentazon	14.130	51611.0	803.13	66.143	BB
Dacthal	14.530	431578.0	6624.78	64.057	VV
Picloram	14.610	552804.0	8580.05	66.143	VV
Acifluorfen	16.810	408059.0	6000.10	67.389	VV



RZ 4/10/15

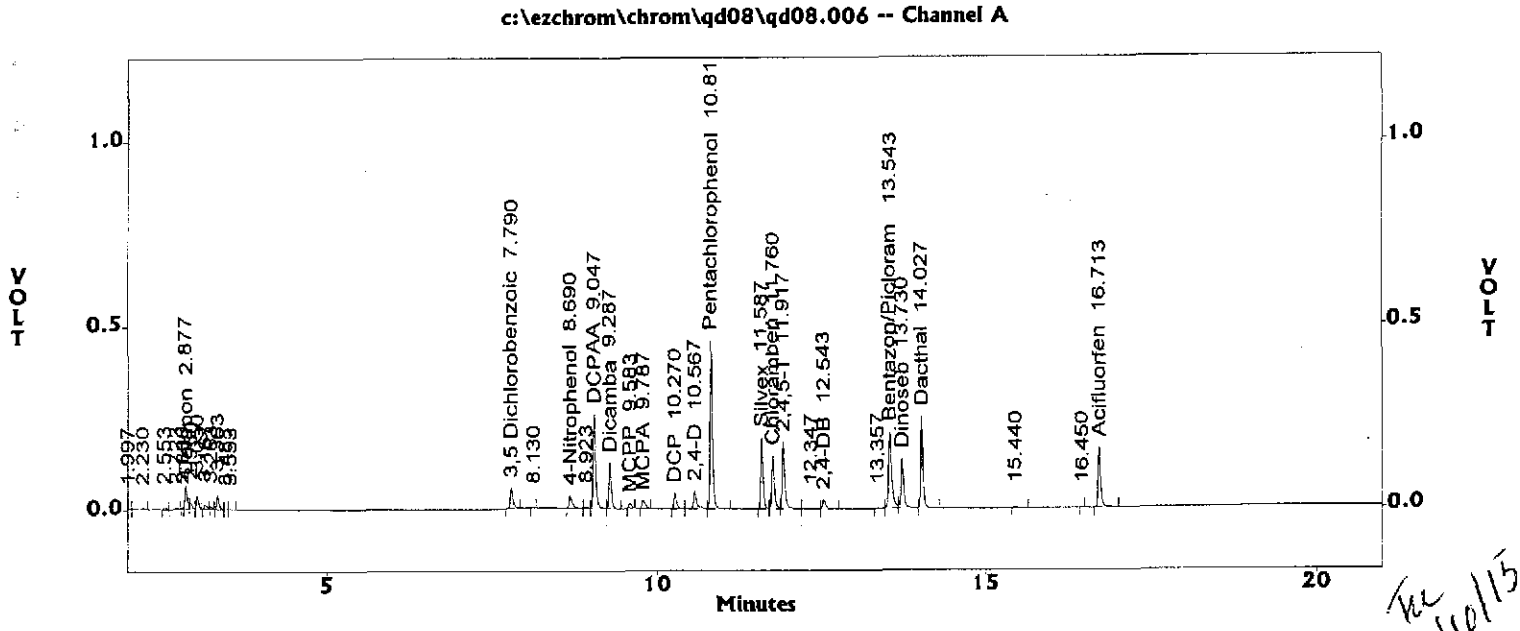
5048

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	150769.0	1656.60	91.030	xS
3,5 Dichlorobenzo	7.790	156164.0	1722.43	93.140	vv
4-Nitrophenol	8.690	114268.0	1289.87	90.850	BV
DCPAA	9.047	665980.0	750.10	935.800	vv
Dicamba	9.287	301254.0	3238.35	94.020	vv
MCPP	9.583	38372.0	8.42	4693.000	BI
MCPA	9.787	70480.0	15.83	4673.000	BI
DCP	10.270	111080.0	1193.88	94.350	BV
2,4-D	10.567	147315.0	1510.05	94.020	VV
Pentachlorophenol	10.817	1154990.0	12495.55	94.960	VB
Silvex	11.587	480286.0	5002.75	95.030	BV
Chloramben	11.760	397306.0	4132.75	93.610	VV
2,4,5-T	11.917	513643.0	5396.66	94.770	VV
2,4-DB	12.543	75070.0	801.45	94.660	VV
Bentazon/Picloram	13.543	688754.0	3540.81	188.980	VV
Dinoseb	13.730	372007.0	4088.80	94.490	VV
Dacthal	14.027	624679.0	6873.97	91.510	VB
Acifluorfen	16.713	444901.0	4699.56	96.270	vv



RZ 4/10/15

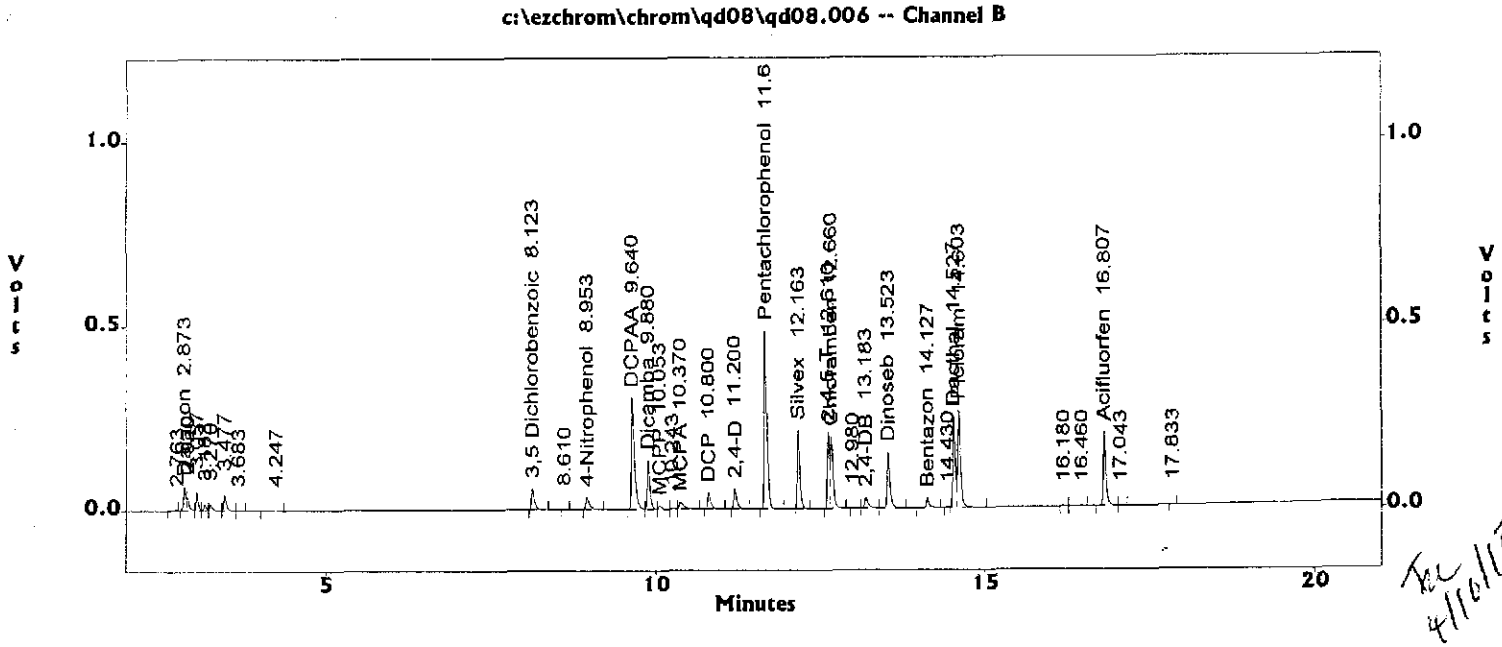
5049

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	155275.0	1730.88	91.030	xS
3,5 Dichlorobenzoic	8.123	177949.0	1937.97	93.140	BB
4-Nitrophenol	8.953	128503.0	1457.43	90.850	BV
DCPAA	9.640	982800.0	1082.03	935.800	BV
Dicamba	9.880	366379.0	3890.32	94.020	VV
MCPP	10.053	38647.0	8.21	4693.000	VV
MCPA	10.370	82280.0	17.76	4673.000	VB
DCP	10.800	137177.0	1485.51	94.350	BB
2,4-D	11.200	176618.0	1894.33	94.020	BV
Pentachlorophenol	11.663	1440250.0	14739.16	94.960	VB
Silvex	12.163	581388.0	5953.99	95.030	BB
2,4,5-T	12.610	462002.0	4983.71	93.610	BS
Chloramben	12.660	608728.0	6012.12	94.770	Sx
2,4-DB	13.183	97565.0	1025.98	94.660	VV
Dinoseb	13.523	455117.0	4871.89	94.490	Vx
Bentazon	14.127	77839.0	803.13	94.490	VB
Dacthal	14.527	620323.0	6624.78	91.510	VV
Picloram	14.603	843681.0	8580.05	94.490	VV
Acifluorfen	16.807	574884.0	6000.10	96.270	VV



4/10/15

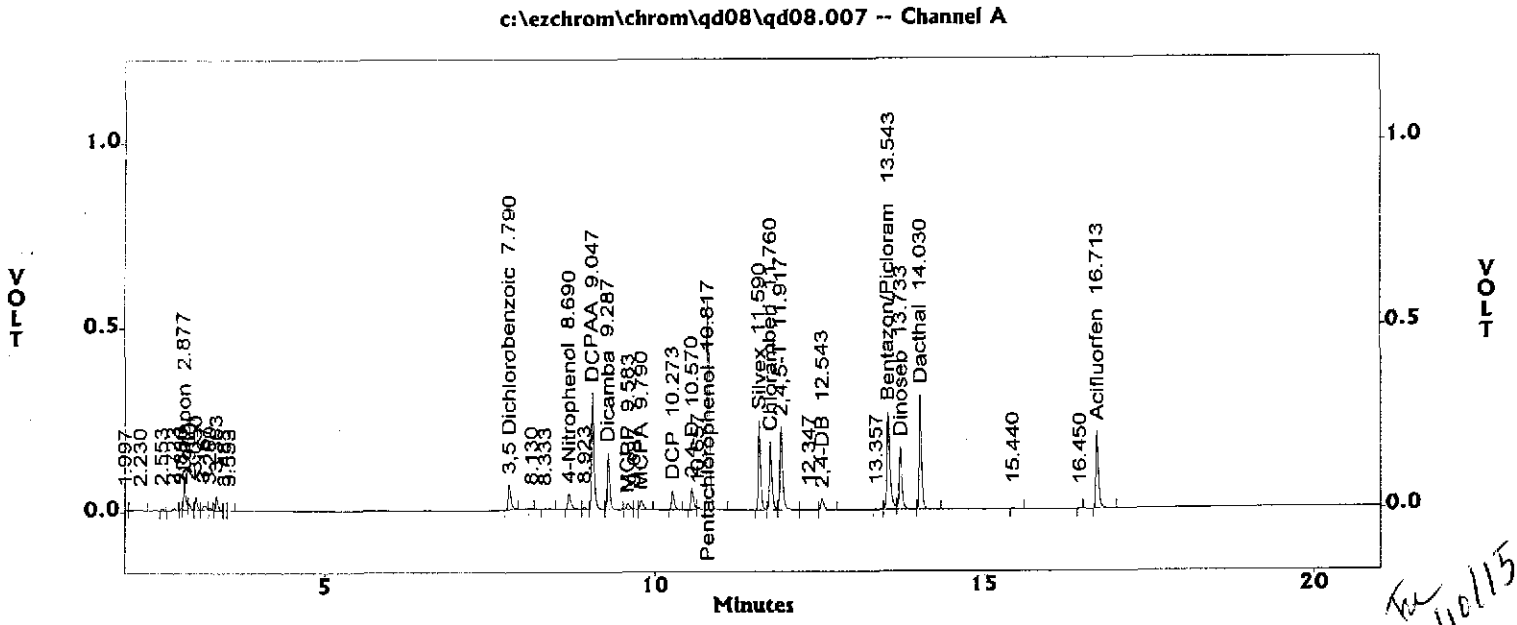
5050

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0806
Acquired : Apr 08, 2015 17:34:21
Printed : Apr 09, 2015 09:48:47
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	184922.0	1656.60	118.339	SS
3,5 Dichlorobenzo	7.790	190910.0	1722.43	121.082	vv
4-Nitrophenol	8.690	140286.0	1289.87	118.105	BV
DCPAA	9.047	813136.0	750.10	1216.540	vv
Dicamba	9.287	375613.0	3238.35	122.226	vv
MCPP	9.583	48414.0	8.42	6100.900	VV
MCPA	9.790	83207.0	15.83	6074.900	VV
DCP	10.273	136641.0	1193.88	122.655	BV
2,4-D	10.570	161457.0	1510.05	122.226	VS
Pentachlorophenol	10.817	1434487.0	12495.55	123.448	VB
Silvex	11.590	599722.0	5002.75	123.539	BV
Chloramben	11.760	499502.0	4132.75	121.693	VV
2,4,5-T	11.917	634158.0	5396.66	123.201	VV
2,4-DB	12.543	93671.0	801.45	123.058	VV
Bentazon/Picloram	13.543	865529.0	3540.81	245.674	VV
Dinoseb	13.733	460225.0	4088.80	122.837	VV
Dacthal	14.030	777428.0	6873.97	118.963	VB
Acifluorfen	16.713	566335.0	4699.56	125.151	vv



5051

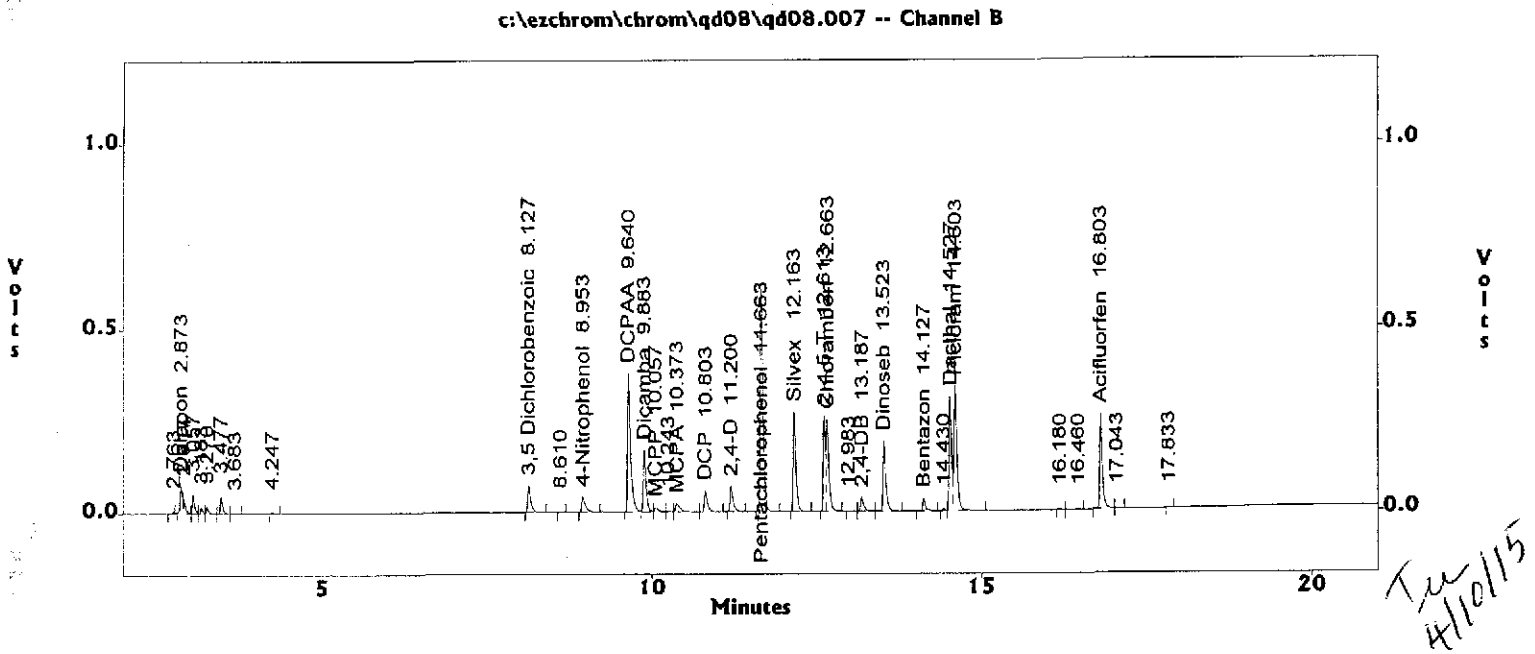
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0806
Acquired : Apr 08, 2015 17:34:21
Printed : Apr 09, 2015 09:48:47
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	192924.0	1730.88	118.339	MM
3,5 Dichlorobenzoic	8.127	222768.0	1937.97	121.082	BV
4-Nitrophenol	8.953	156547.0	1457.43	118.105	BV
DCPAA	9.640	1216560.0	1082.03	1216.540	BV
Dicamba	9.883	465644.0	3890.32	122.226	VV
MCPP	10.057	49861.0	8.21	6100.900	VV
MCPA	10.373	103228.0	17.76	6074.900	VV
DCP	10.803	172928.0	1485.51	122.655	VB
2,4-D	11.200	219939.0	1894.33	122.226	BV
Pentachlorophenol	11.663	1824080.0	14739.16	123.448	VB
Silvex	12.163	746772.0	5953.99	123.539	BV
2,4,5-T	12.613	603197.0	4983.71	121.693	VS
Chloramben	12.663	763704.0	6012.12	123.201	Sx
2,4-DB	13.187	120728.0	1025.98	123.058	VV
Dinoseb	13.523	571856.0	4871.89	122.837	Vx
Bentazon	14.127	99125.0	803.13	122.837	BB
Dacthal	14.527	791905.0	6624.78	118.963	VV
Picloram	14.603	1096835.0	8580.05	122.837	VV
Acifluorfen	16.803	744166.0	6000.10	125.151	VV

c:\ezchrom\chrom\qd08\qd08.007 -- Channel B



Tu 4/10/15

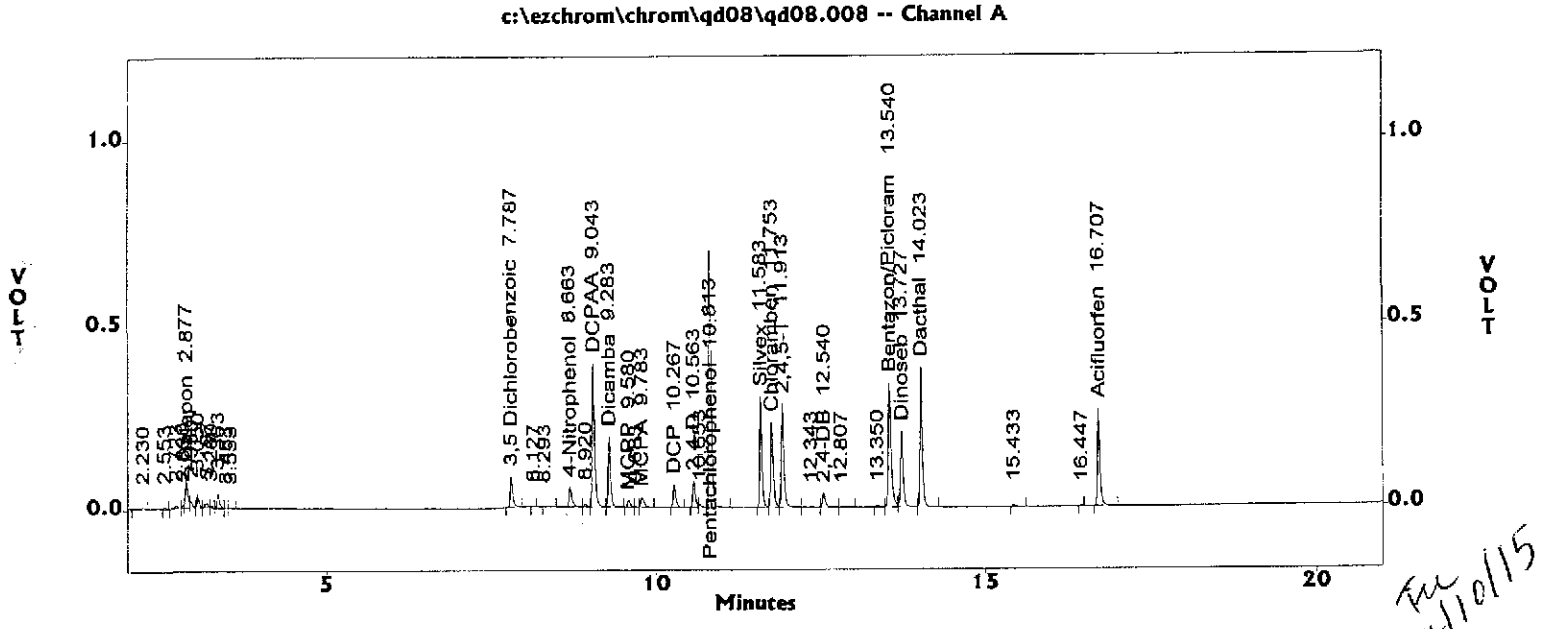
5052

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0807
Acquired : Apr 08, 2015 18:02:53
Printed : Apr 09, 2015 09:48:53
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	226682.0	1656.60	145.648	SS
3,5 Dichlorobenzo	7.787	234280.0	1722.43	149.024	vv
4-Nitrophenol	8.683	169638.0	1289.87	145.360	BV
DCPAA	9.043	983920.0	750.10	1497.280	vv
Dicamba	9.283	460022.0	3238.35	150.432	vv
MCPP	9.580	56636.0	8.42	7508.800	VV
MCPA	9.783	94323.0	15.83	7476.800	VV
DCP	10.267	165810.0	1193.88	150.960	BV
2,4-D	10.563	195903.0	1510.05	150.432	VS
Pentachlorophenol	10.813	1755239.0	12495.55	151.936	VB
Silvex	11.583	735580.0	5002.75	152.048	BV
Chloramben	11.753	619813.0	4132.75	149.776	VV
2,4,5-T	11.913	768898.0	5396.66	151.632	VV
2,4-DB	12.540	117830.0	801.45	151.456	VV
Bentazon/Picloram	13.540	1076789.0	3540.81	302.368	VV
Dinoseb	13.727	558697.0	4088.80	151.184	VV
Dacthal	14.023	951399.0	6873.97	146.416	VB
Acifluorfen	16.707	697596.0	4699.56	154.032	vv



4/10/15

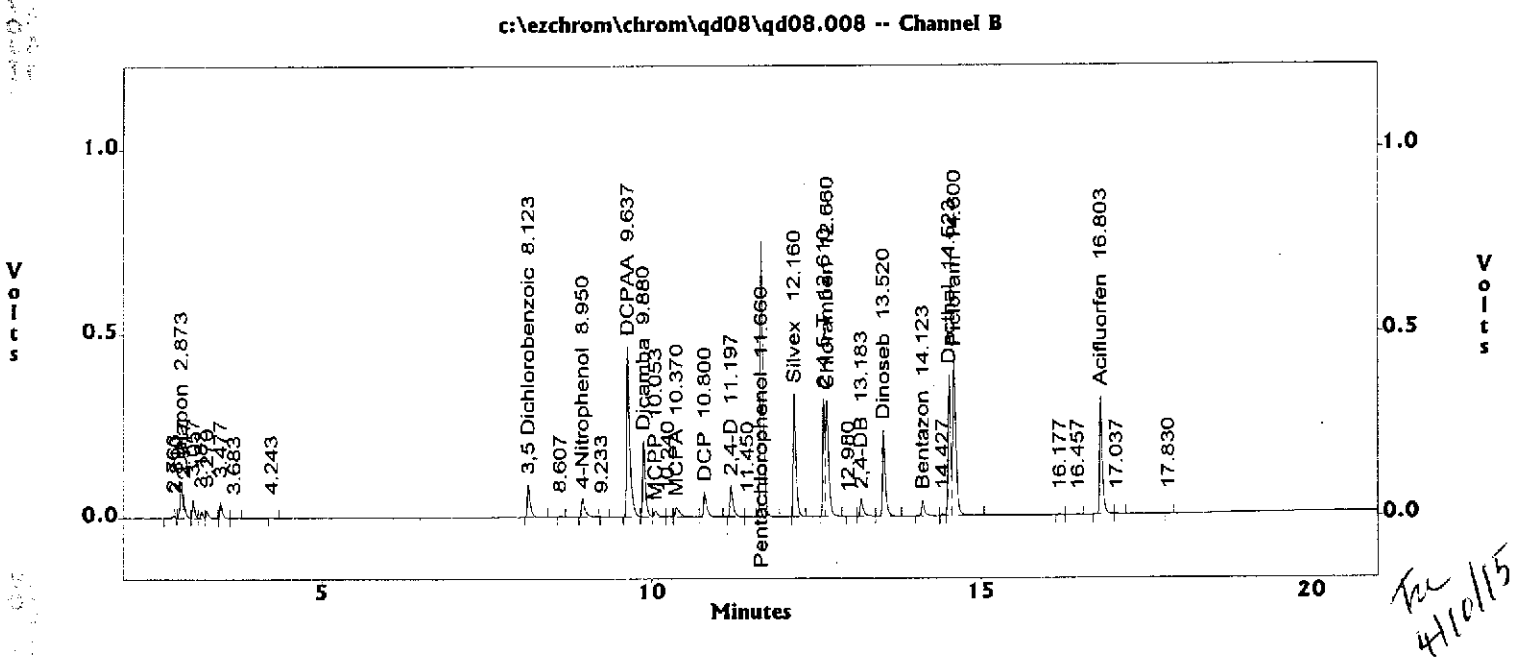
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0807
Acquired : Apr 08, 2015 18:02:53
Printed : Apr 09, 2015 09:48:54
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	250996.0	1730.88	145.648	xS
3,5 Dichlorobenzoic	8.123	273300.0	1937.97	149.024	BV
4-Nitrophenol	8.950	188082.0	1457.43	145.360	BV
DCPAA	9.637	1489031.0	1082.03	1497.280	BV
Dicamba	9.880	581571.0	3890.32	150.432	VV
MCPP	10.053	61142.0	8.21	7508.800	VV
MCPA	10.370	121086.0	17.76	7476.800	VV
DCP	10.800	212688.0	1485.51	150.960	VB
2,4-D	11.197	270646.0	1894.33	150.432	BV
Pentachlorophenol	11.660	2271329.0	14739.16	151.936	VB
Silvex	12.160	938413.0	5953.99	152.048	BB
2,4,5-T	12.610	746512.0	4983.71	149.776	BS
Chloramben	12.660	973632.0	6012.12	151.632	Sx
2,4-DB	13.183	150151.0	1025.98	151.456	VV
Dinoseb	13.520	707712.0	4871.89	151.184	Vx
Bentazon	14.123	126048.0	803.13	151.184	BV
Dacthal	14.523	984509.0	6624.78	146.416	VV
Picloram	14.600	1411045.0	8580.05	151.184	VV
Acifluorfen	16.803	934036.0	6000.10	154.032	VV

c:\ezchrom\chrom\qd08\qd08.008 -- Channel B



Tec 4/10/15

5054

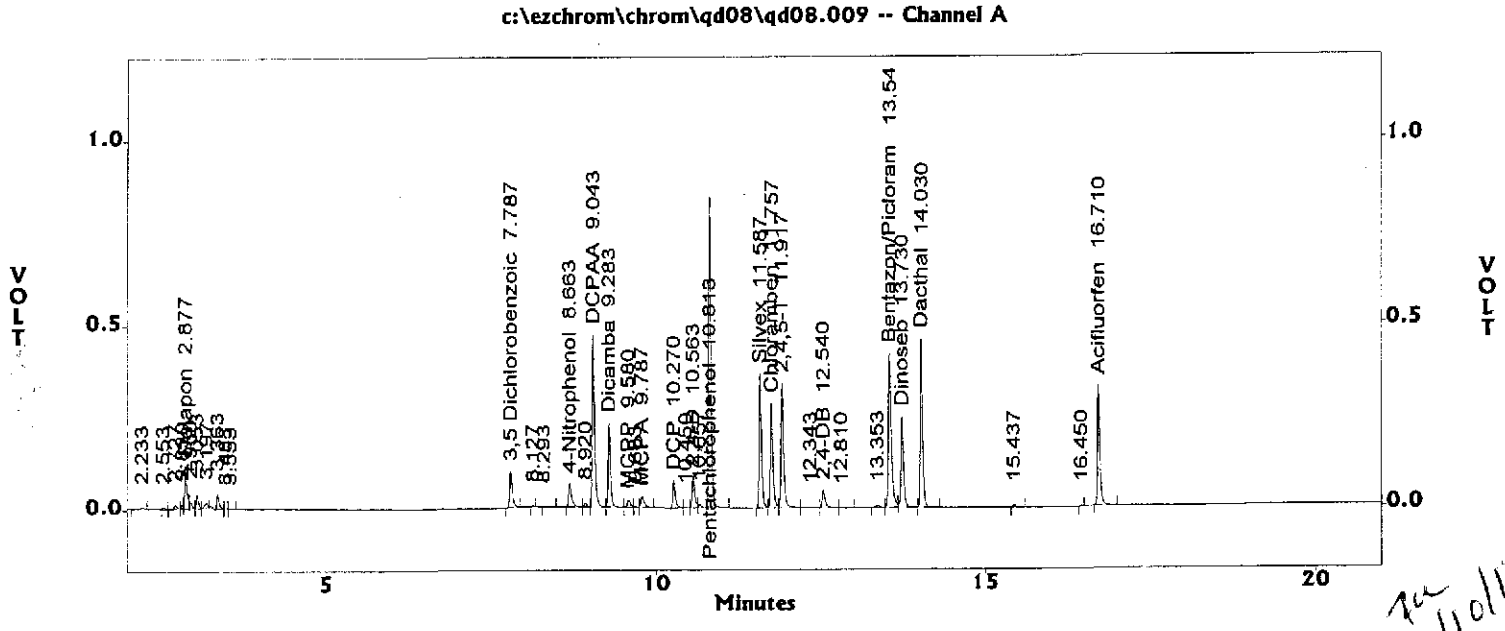
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0808
Acquired : Apr 08, 2015 18:31:36
Printed : Apr 09, 2015 09:49:01
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	272222.0	1656.60	182.060	SS
3,5 Dichlorobenzo	7.787	275487.0	1722.43	186.280	vv
4-Nitrophenol	8.683	202105.0	1289.87	181.700	BV
DCPAA	9.043	1174981.0	750.10	1871.600	vv
Dicamba	9.283	556237.0	3238.35	188.040	vv
MCPP	9.580	64811.0	8.42	9386.000	VV
MCPA	9.787	106124.0	15.83	-1.000	VV
DCP	10.270	198719.0	1193.88	188.700	BV
2,4-D	10.563	234331.0	1510.05	188.040	VS
Pentachlorophenol	10.813	2123075.0	12495.55	189.920	VB
Silvex	11.587	890701.0	5002.75	190.060	BV
Chloramben	11.757	754518.0	4132.75	187.220	VV
2,4,5-T	11.917	927897.0	5396.66	189.540	VV
2,4-DB	12.540	147689.0	801.45	189.320	VV
Bentazon/Picloram	13.543	1309029.0	3540.81	377.960	VV
Dinoseb	13.730	673476.0	4088.80	188.980	VV
Dacthal	14.030	1146474.0	6873.97	183.020	VB
Acifluorfen	16.710	853242.0	4699.56	192.540	vv

c:\ezchrom\chrom\qd08\qd08.009 -- Channel A



Tu 4/10/15

5055

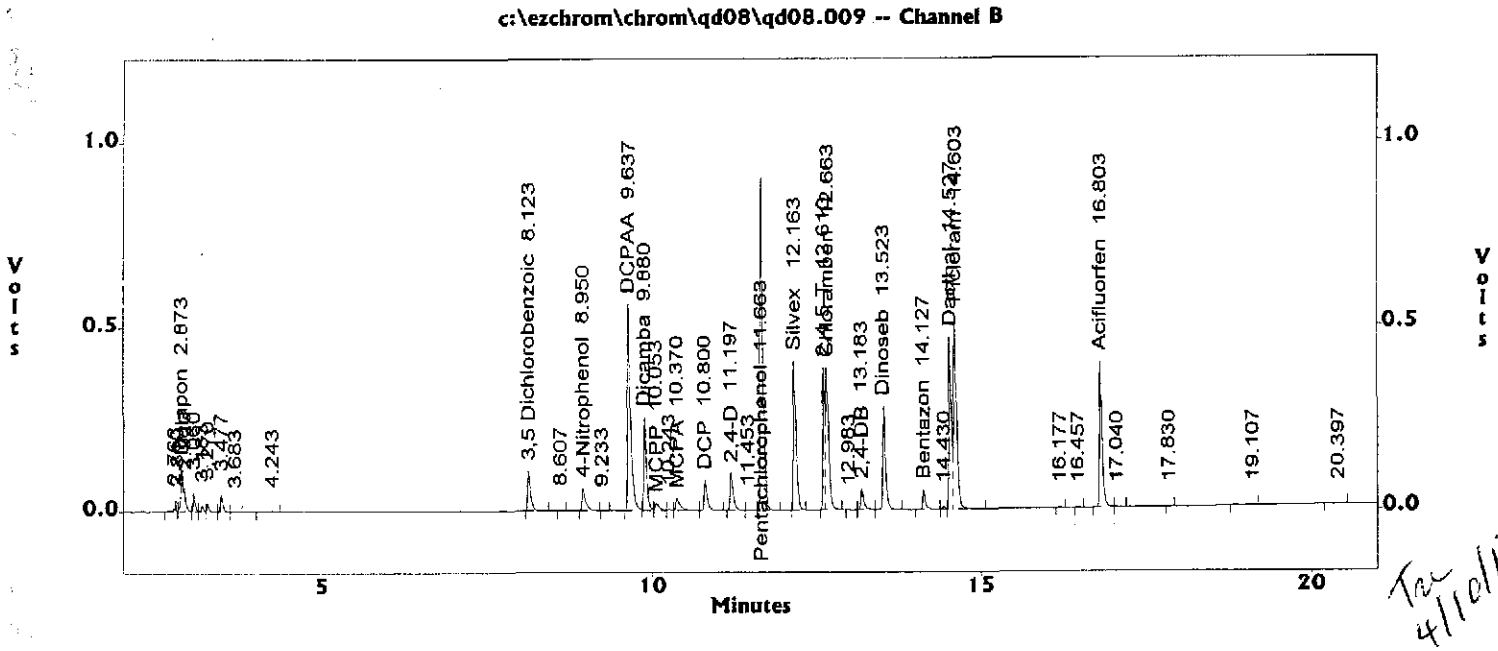
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0808
Acquired : Apr 08, 2015 18:31:36
Printed : Apr 09, 2015 09:49:01
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	330884.0	1730.88	182.060	xS
3,5 Dichlorobenzoic	8.123	330857.0	1937.97	186.280	BV
4-Nitrophenol	8.950	223682.0	1457.43	181.700	BV
DCPAA	9.637	1796801.0	1082.03	1871.600	BV
Dicamba	9.880	715082.0	3890.32	188.040	VV
MCPP	10.053	73702.0	8.21	9386.000	VV
MCPA	10.370	141196.0	17.76	9346.000	VV
DCP	10.800	257454.0	1485.51	188.700	VB
2,4-D	11.197	327840.0	1894.33	188.040	BV
Pentachlorophenol	11.663	2784160.0	14739.16	189.920	VB
Silvex	12.163	1157805.0	5953.99	190.060	BB
2,4,5-T	12.610	869713.0	4983.71	187.220	BS
Chloramben	12.663	1245791.0	6012.12	189.540	Sx
2,4-DB	13.183	181938.0	1025.98	189.320	VV
Dinoseb	13.523	862098.0	4871.89	188.980	Vx
Bentazon	14.127	156732.0	803.13	188.980	BV
Dacthal	14.527	1214382.0	6624.78	183.020	VV
Picloram	14.603	1756604.0	8580.05	188.980	VV
Acifluorfen	16.803	1161291.0	6000.10	192.540	VV

c:\ezchrom\chrom\qd08\qd08.009 -- Channel B



Tr 4/10/15

5056

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08010A 04/08/2015 19:00
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.877	2.863	2.891	91.0	1656.6	155836	94.07	3		20
3,5-Dichlorobenzo	7.787	7.765	7.809	93.1	1722.4	144264	83.76	-10		20
4-Nitrophenol	8.687	8.666	8.708	90.8	1289.9	119778	92.86	2		20
Dicamba	9.283	9.268	9.298	94.0	3238.3	314105	97.00	3		20
Dichloroprop	10.270	10.252	10.288	94.3	1193.9	119536	100.12	6		20
2,4-D	10.567	10.547	10.587	94.0	1510.1	140414	92.99	-1		20
Pentachlorophenol	10.813	10.795	10.831	95.0	12495.6	1173716	93.93	-1		20
2,4,5-TP(Silvex)	11.587	11.571	11.603	95.0	5002.7	494677	98.88	4		20
Chloramben	11.757	11.741	11.773	93.6	4132.7	414904	100.39	7		20
2,4,5-T	11.917	11.896	11.938	94.8	5396.7	544211	100.84	6		20
2,4-DB	12.540	12.518	12.562	94.7	801.400	74774	93.30	-1		20
Bentazon/Picloram	13.543	13.522	13.564	189.0	3540.8	720655	203.53	8		20
Dinoseb	13.730	13.712	13.748	94.5	4088.8	386970	94.64	0		20
Dacthal	14.027	14.006	14.048	91.5	6874.0	650430	94.62	3		20
Acifluorfen	16.710	16.692	16.728	96.3	4699.6	463640	98.66	2		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.043	9.027	9.059	935.8	750.100	686706	915.49	-2		20

TW 4/10/15

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPEST11
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08010B 04/08/2015 19:00
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.873	2.857	2.889	91.0	1730.9	151015	87.25	-4		20
3,5-Dichlorobenzo	8.123	8.107	8.139	93.1	1938.0	170121	87.78	-6		20
4-Nitrophenol	8.950	8.932	8.968	90.8	1457.4	131837	90.46	-0		20
Dicamba	9.877	9.861	9.893	94.0	3890.3	381414	98.04	4		20
Dichloroprop	10.800	10.786	10.814	94.3	1485.5	149707	100.78	7		20
2,4-D	11.197	11.181	11.213	94.0	1894.3	172102	90.85	-3		20
Pentachlorophenol	11.660	11.642	11.678	95.0	14739.2	1473344	99.96	5		20
2,4,5-TP(Silvex)	12.160	12.146	12.174	95.0	5954.0	605701	101.73	7		20
Chloramben	12.660	12.630	12.690	93.6	6012.1	627649	104.40	12		20
2,4,5-T	12.610	12.594	12.626	94.8	4983.7	509009	102.14	8		20
2,4-DB	13.183	13.159	13.207	94.7	1026.0	95673	93.25	-1		20
Dinoseb	13.520	13.502	13.538	94.5	4871.9	471782	96.84	2		20
Bentazon	14.123	14.107	14.139	94.5	803.100	78704	98.00	4		20
Dacthal	14.523	14.507	14.539	91.5	6624.8	642595	97.00	6		20
Picloram	14.600	14.576	14.624	94.5	8580.1	882118	102.81	9		20
Acifluorfen	16.803	16.785	16.821	96.3	6000.1	610451	101.74	6		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.637	9.621	9.653	935.8	1082.0	999048	923.31	-1		20

Tw 4/10/15

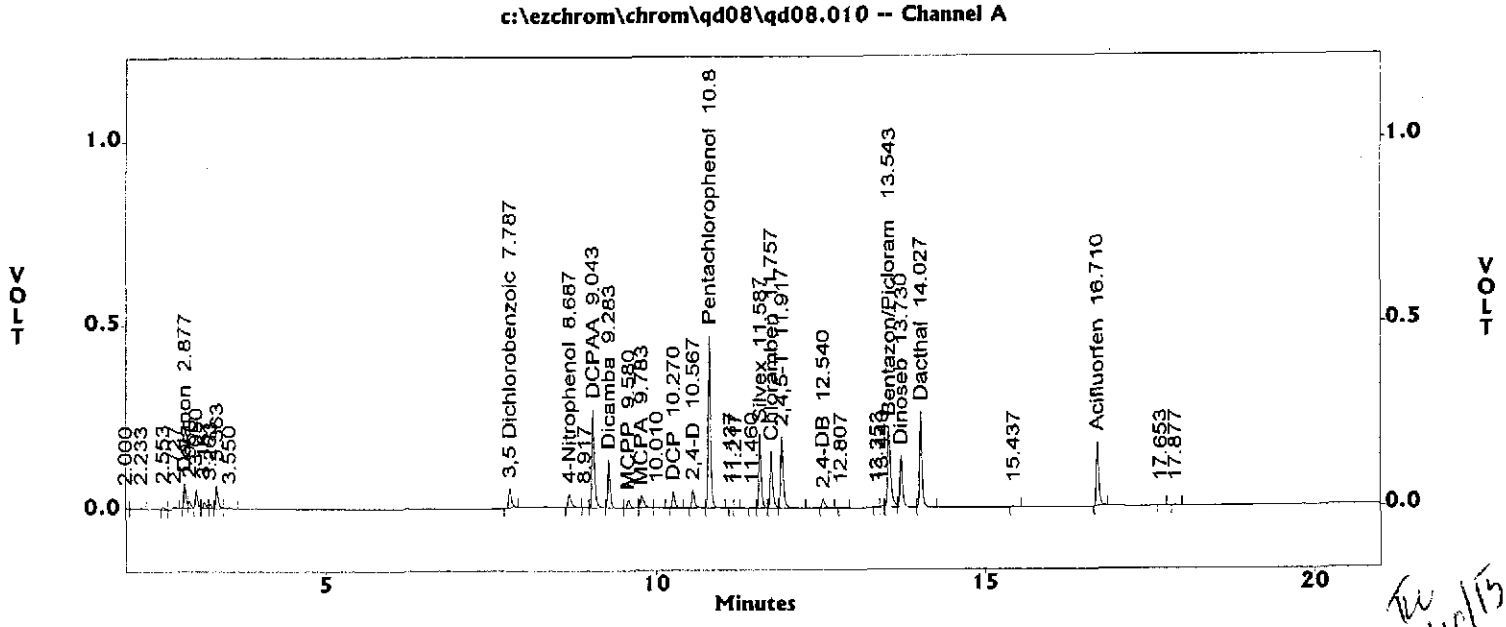
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08001
Acquired : Apr 08, 2015 19:00:21
Printed : Apr 09, 2015 09:49:08
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	155836.0	1656.60	94.070	xV
3,5 Dichlorobenzo	7.787	144264.0	1722.43	83.756	vv
4-Nitrophenol	8.687	119778.0	1289.87	92.860	BV
DCPAA	9.043	686706.0	750.10	915.486	vv
Dicamba	9.283	314105.0	3238.35	96.995	vv
MCPP	9.580	69714.0	8.42	8282.514	VV
MCPA	9.783	109447.0	15.83	6913.623	VV
DCP	10.270	119536.0	1193.88	100.124	BV
2,4-D	10.567	140414.0	1510.05	92.986	VV
Pentachlorophenol	10.813	1173716.0	12495.55	93.931	VB
Silvex	11.587	494677.0	5002.75	98.881	VV
Chloramben	11.757	414904.0	4132.75	100.394	VV
2,4,5-T	11.917	544211.0	5396.66	100.842	VB
2,4-DB	12.540	74774.0	801.45	93.299	BB
Bentazon/Picloram	13.543	720655.0	3540.81	203.528	VV
Dinoseb	13.730	386970.0	4088.80	94.642	VV
Dacthal	14.027	650430.0	6873.97	94.622	VB
Acifluorfen	16.710	463640.0	4699.56	98.656	vv

c:\ezchrom\chrom\qd08\qd08.010 -- Channel A



TW 4/10/15

5059

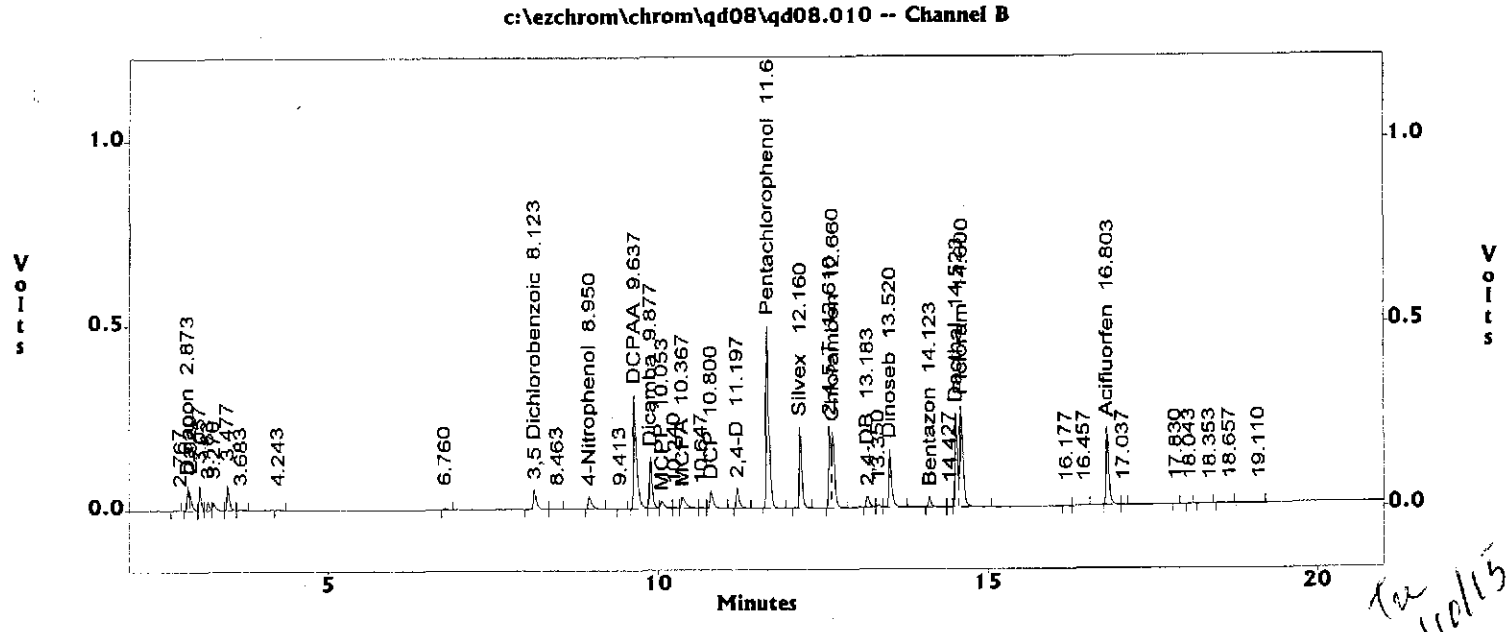
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08001
Acquired : Apr 08, 2015 19:00:21
Printed : Apr 09, 2015 09:49:08
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	151015.0	1730.88	87.247	xS
3,5 Dichlorobenzoic	8.123	170121.0	1937.97	87.783	BV
4-Nitrophenol	8.950	131837.0	1457.43	90.459	BB
DCPAA	9.637	999048.0	1082.03	923.312	VV
Dicamba	9.877	381414.0	3890.32	98.042	VV
MCPP	10.053	72184.0	8.21	8786.874	VV
MCPA	10.367	141662.0	17.76	7978.510	VV
DCP	10.800	149707.0	1485.51	100.778	VB
2,4-D	11.197	172102.0	1894.33	90.851	BV
Pentachlorophenol	11.660	1473344.0	14739.16	99.961	BB
Silvex	12.160	605701.0	5953.99	101.730	BV
2,4,5-T	12.610	509009.0	4983.71	102.135	VS
Chloramben	12.660	627649.0	6012.12	104.397	Sx
2,4-DB	13.183	95673.0	1025.98	93.251	BV
Dinoseb	13.520	471782.0	4871.89	96.837	VB
Bentazon	14.123	78704.0	803.13	97.996	BV
Dacthal	14.523	642595.0	6624.78	96.999	VV
Picloram	14.600	882118.0	8580.05	102.810	VB
Acifluorfen	16.803	610451.0	6000.10	101.740	VV

c:\ezchrom\chrom\qd08\qd08.010 -- Channel B



Tu 4/10/15

5060

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08011A 04/08/2015 19:29
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	9.580	9.559	9.601	4693.0	8.400	44223	5254.00	12		20
MCPA	9.783	9.761	9.805	4673.0	15.800	75851	4791.41	3		20

4/10/15

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08011B 04/08/2015 19:29
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	10.050	10.034	10.066	4693.0	8.200	39988	4867.69	4		20
MCPA	10.367	10.351	10.383	4673.0	17.800	88531	4986.13	7		20

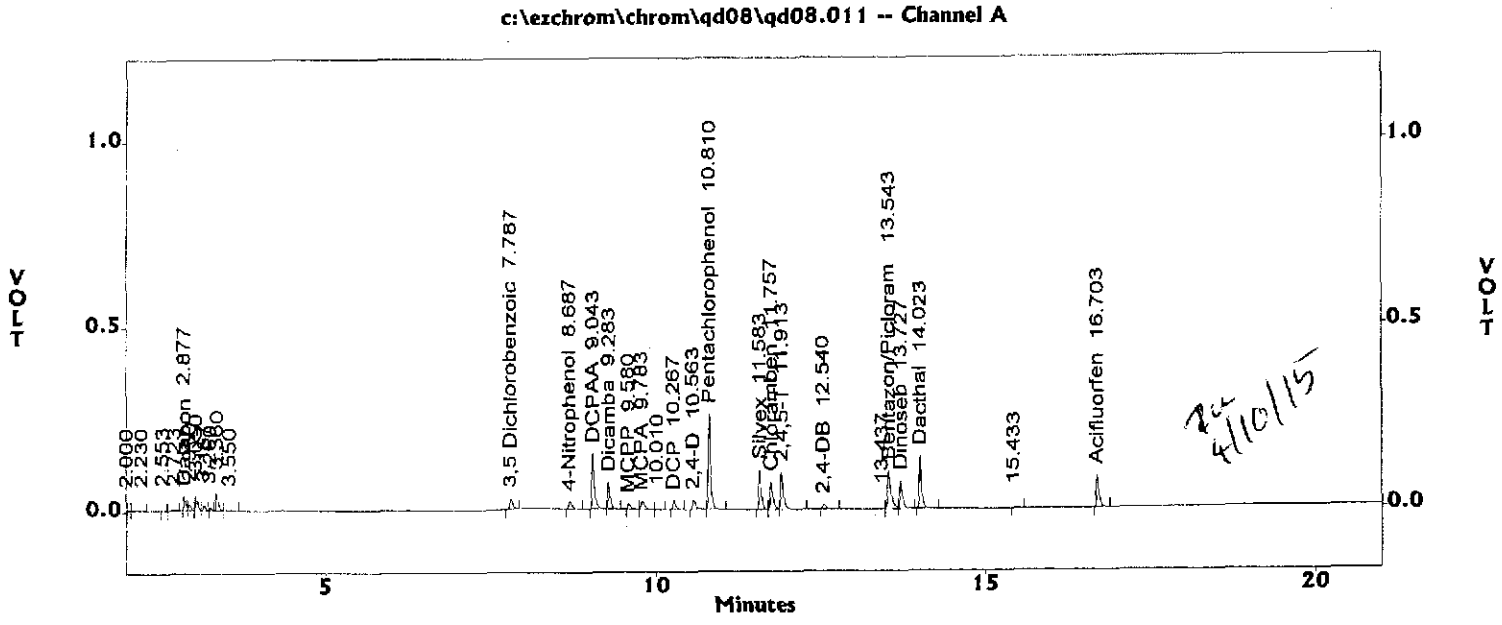
TC 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.011
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08002
Acquired : Apr 08, 2015 19:29:04
Printed : Apr 09, 2015 09:49:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	86396.0	1656.60	52.153	xV
3,5 Dichlorobenzo	7.787	81807.0	1722.43	47.495	vv
4-Nitrophenol	8.687	67100.0	1289.87	52.021	BV
DCPAA	9.043	400076.0	750.10	533.363	vv
Dicamba	9.283	171185.0	3238.35	52.862	vv
MCPP	9.580	44223.0	8.42	5254.003	BV
MCPA	9.783	75851.0	15.83	4791.408	VV
DCP	10.267	67148.0	1193.88	56.243	BV
2,4-D	10.563	79968.0	1510.05	52.957	VV
Pentachlorophenol	10.810	649397.0	12495.55	51.970	VB
Silvex	11.583	265394.0	5002.75	53.050	BV
Chloramben	11.757	216172.0	4132.75	52.307	VV
2,4,5-T	11.913	303445.0	5396.66	56.228	VB
2,4-DB	12.540	41289.0	801.45	51.518	BV
Bentazon/Picloram	13.543	371003.0	3540.81	104.779	VV
Dinoseb	13.727	212768.0	4088.80	52.037	VB
Dacthal	14.023	355829.0	6873.97	51.765	BB
Acifluorfen	16.703	245823.0	4699.56	52.308	vv

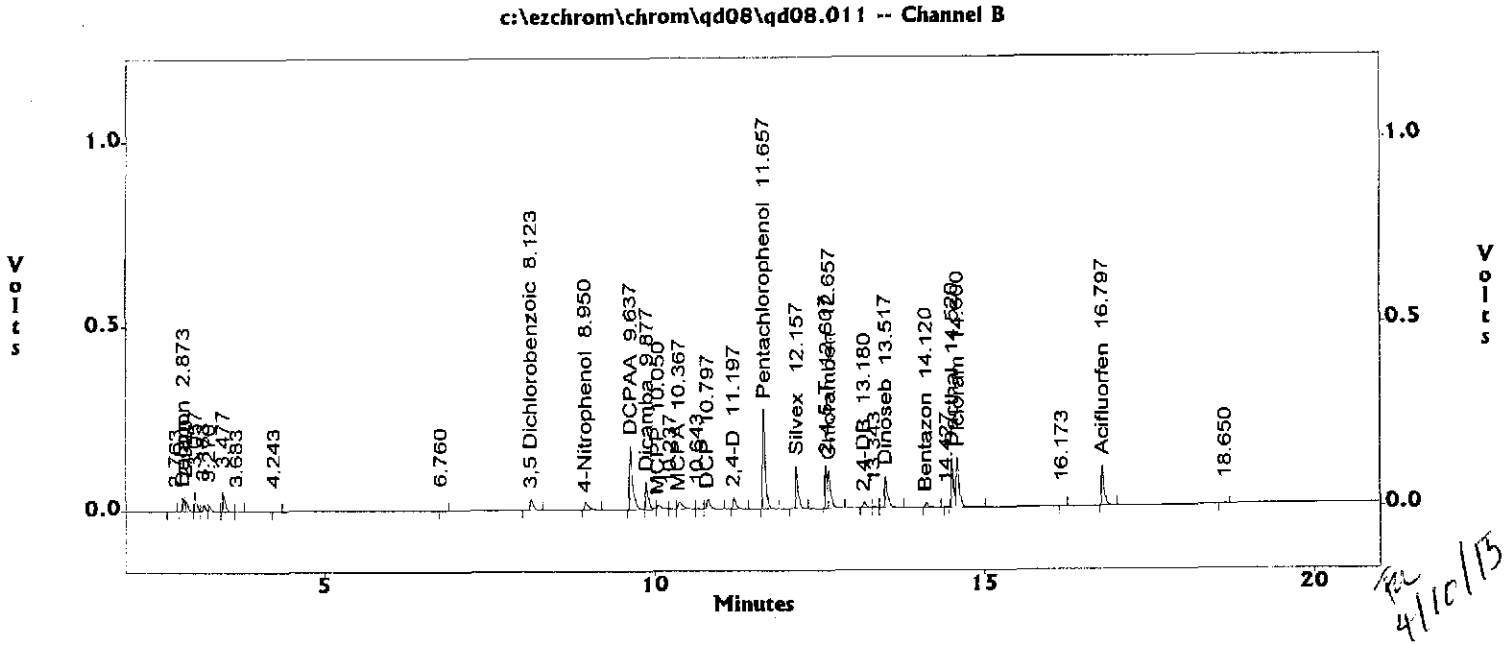


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.011
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08002
Acquired : Apr 08, 2015 19:29:04
Printed : Apr 09, 2015 09:49:14
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	78591.0	1730.88	45.405	MM
3,5 Dichlorobenzoic	8.123	89851.0	1937.97	46.364	BV
4-Nitrophenol	8.950	75945.0	1457.43	52.109	BB
DCPAA	9.637	560044.0	1082.03	517.588	BV
Dicamba	9.877	199269.0	3890.32	51.222	VV
MCPP	10.050	39988.0	8.21	4867.692	VV
MCPA	10.367	88531.0	17.76	4986.132	VV
DCP	10.797	81779.0	1485.51	55.051	VB
2,4-D	11.197	93968.0	1894.33	49.605	BV
Pentachlorophenol	11.657	760616.0	14739.16	51.605	BB
Silvex	12.157	301724.0	5953.99	50.676	BV
2,4,5-T	12.607	263226.0	4983.71	52.817	VS
Chloramben	12.657	306323.0	6012.12	50.951	Sx
2,4-DB	13.180	51203.0	1025.98	49.907	BV
Dinoseb	13.517	250653.0	4871.89	51.449	VB
Bentazon	14.120	40033.0	803.13	49.846	BB
Dacthal	14.520	331467.0	6624.78	50.034	VV
Picloram	14.600	417842.0	8580.05	48.699	VV
Acifluorfen	16.797	306552.0	6000.10	51.091	VV



4/10/15

SECOND SOURCE VERIFICATION

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA_GC09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08012A 04/08/2015 19:57
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.870	2.856	2.884	91.0	1656.6	149437	90.21	-1		20
3,5-Dichlorobenzo	7.780	7.758	7.802	93.1	1722.4	158922	92.27	-1		20
4-Nitrophenol	8.680	8.659	8.701	90.8	1289.9	116123	90.03	-1		20
Dicamba	9.277	9.262	9.292	94.0	3238.3	310454	95.87	2		20
MCPP	9.573	9.552	9.594	4693.0	8.400	44742	5315.66	13		20
MCPA	9.777	9.755	9.799	4673.0	15.800	74487	4705.25	1		20
Dichloroprop	10.260	10.242	10.278	94.3	1193.9	114816	96.17	2		20
2,4-D	10.557	10.537	10.577	94.0	1510.1	150898	99.93	6		20
Pentachlorophenol	10.803	10.785	10.821	95.0	12495.6	1195504	95.67	1		20
2,4,5-TP(Silvex)	11.577	11.561	11.593	95.0	5002.7	500627	100.07	5		20
Chloramben	11.747	11.731	11.763	93.6	4132.7	415929	100.64	8		20
2,4,5-T	11.907	11.886	11.928	94.8	5396.7	535250	99.18	5		20
2,4-DB	12.530	12.508	12.552	94.7	801.400	76954	96.02	1		20
Bentazon/Picloram	13.533	13.512	13.554	189.0	3540.8	719378	203.17	8		20
Dinoseb	13.720	13.702	13.738	94.5	4088.8	389647	95.30	1		20
Dacthal	14.017	13.996	14.038	91.5	6874.0	649465	94.48	3		20
Acifluorfen	16.700	16.682	16.718	96.3	4699.6	467977	99.58	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.037	9.021	9.053	935.8	750.100	673768	898.24	-4		20

TW 4/10/15

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08012B 04/08/2015 19:57
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.867	2.851	2.883	91.0	1730.9	153927	88.93	-2		20
3,5-Dichlorobenzo	8.113	8.097	8.129	93.1	1938.0	179857	92.81	-0		20
4-Nitrophenol	8.943	8.925	8.961	90.8	1457.4	131165	90.00	-1		20
Dicamba	9.870	9.854	9.886	94.0	3890.3	377124	96.94	3		20
MCPP	10.047	10.031	10.063	4693.0	8.200	39736	4837.02	3		20
MCPA	10.363	10.347	10.379	4673.0	17.800	81509	4590.65	-2		20
Dichloroprop	10.793	10.779	10.807	94.3	1485.5	142224	95.74	1		20
2,4-D	11.190	11.174	11.206	94.0	1894.3	182605	96.39	3		20
Pentachlorophenol	11.650	11.632	11.668	95.0	14739.2	1489497	101.06	6		20
2,4,5-TP(Silvex)	12.153	12.139	12.167	95.0	5954.0	605669	101.72	7		20
Chloramben	12.650	12.620	12.680	93.6	6012.1	634107	105.47	13		20
2,4,5-T	12.600	12.584	12.616	94.8	4983.7	484467	97.21	3		20
2,4-DB	13.173	13.149	13.197	94.7	1026.0	101714	99.14	5		20
Dinoseb	13.510	13.492	13.528	94.5	4871.9	472995	97.09	3		20
Bentazon	14.113	14.097	14.129	94.5	803.100	81323	101.26	7		20
Dacthal	14.517	14.501	14.533	91.5	6624.8	655256	98.91	8		20
Picloram	14.593	14.569	14.617	94.5	8580.1	877483	102.27	8		20
Acifluorfen	16.793	16.775	16.811	96.3	6000.1	606515	101.08	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.630	9.614	9.646	935.8	1082.0	989227	914.23	-2		20

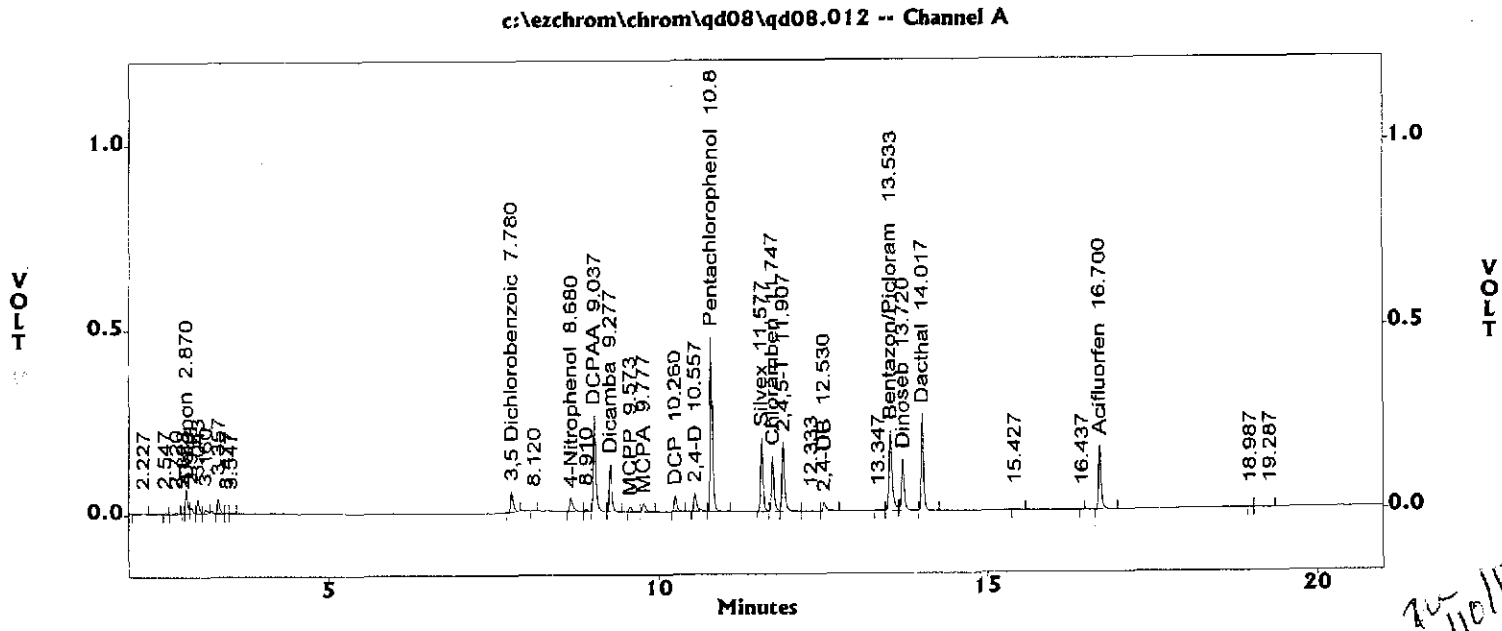
BW 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.012
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08001
Acquired : Apr 08, 2015 19:57:53
Printed : Apr 09, 2015 09:49:53
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	149437.0	1656.60	90.207	xS
3,5 Dichlorobenzo	7.780	158922.0	1722.43	92.266	vv
4-Nitrophenol	8.680	116123.0	1289.87	90.027	BV
DCPAA	9.037	673768.0	750.10	898.237	vv
Dicamba	9.277	310454.0	3238.35	95.868	vv
MCPP	9.573	44742.0	8.42	5315.664	BV
MCPA	9.777	74487.0	15.83	4705.246	VV
DCP	10.260	114816.0	1193.88	96.170	BV
2,4-D	10.557	150898.0	1510.05	99.929	VV
Pentachlorophenol	10.803	1195504.0	12495.55	95.674	VB
Silvex	11.577	500627.0	5002.75	100.070	BV
Chloramben	11.747	415929.0	4132.75	100.642	VV
2,4,5-T	11.907	535250.0	5396.66	99.182	VV
2,4-DB	12.530	76954.0	801.45	96.019	VV
Bentazon/Picloram	13.533	719378.0	3540.81	203.167	VV
Dinoseb	13.720	389647.0	4088.80	95.296	VV
Dacthal	14.017	649465.0	6873.97	94.482	VB
Acifluorfen	16.700	467977.0	4699.56	99.579	vv



4/10/15

5068

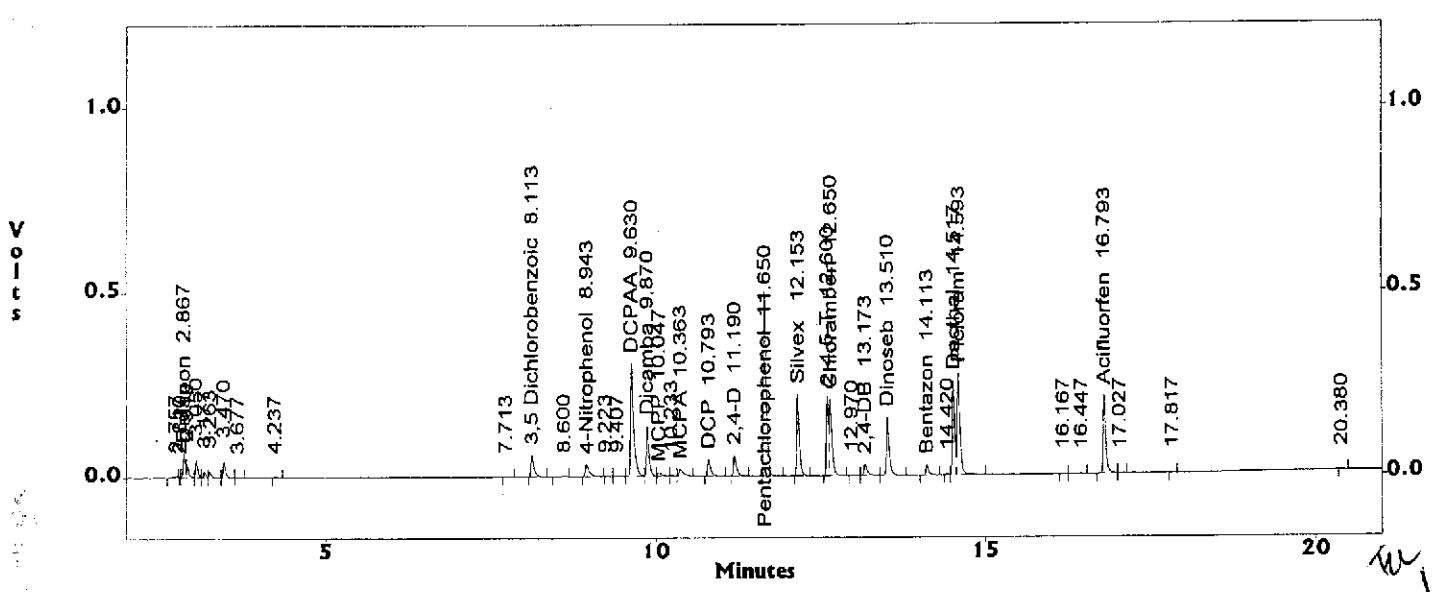
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.012
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08001
Acquired : Apr 08, 2015 19:57:53
Printed : Apr 09, 2015 09:49:53
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.867	153927.0	1730.88	88.930	xS
3,5 Dichlorobenzoic	8.113	179857.0	1937.97	92.807	BB
4-Nitrophenol	8.943	131165.0	1457.43	89.998	BV
DCPAA	9.630	989227.0	1082.03	914.235	VV
Dicamba	9.870	377124.0	3890.32	96.939	VV
MCPP	10.047	39736.0	8.21	4837.017	VV
MCPA	10.363	81509.0	17.76	4590.648	VB
DCP	10.793	142224.0	1485.51	95.741	BB
2,4-D	11.190	182605.0	1894.33	96.395	BV
Pentachlorophenol	11.650	1489497.0	14739.16	101.057	VB
Silvex	12.153	605669.0	5953.99	101.725	BB
2,4,5-T	12.600	484467.0	4983.71	97.210	BS
Chloramben	12.650	634107.0	6012.12	105.471	Sx
2,4-DB	13.173	101714.0	1025.98	99.139	VV
Dinoseb	13.510	472995.0	4871.89	97.086	Vx
Bentazon	14.113	81323.0	803.13	101.257	BB
Dacthal	14.517	655256.0	6624.78	98.910	VV
Picloram	14.593	877483.0	8580.05	102.270	VV
Acifluorfen	16.793	606515.0	6000.10	101.084	VV

c:\ezchrom\chrom\qd08\qd08.012 -- Channel B



TL 4/10/15

5069

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21002A 04/21/2015 15:23
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.583	13.565	13.601	94.5	4088.8	421702	103.14	9		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	8.930	8.914	8.946	935.8	750.100	721512	961.89	3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21002B 04/21/2015 15:23
CONC UNIT : ppb

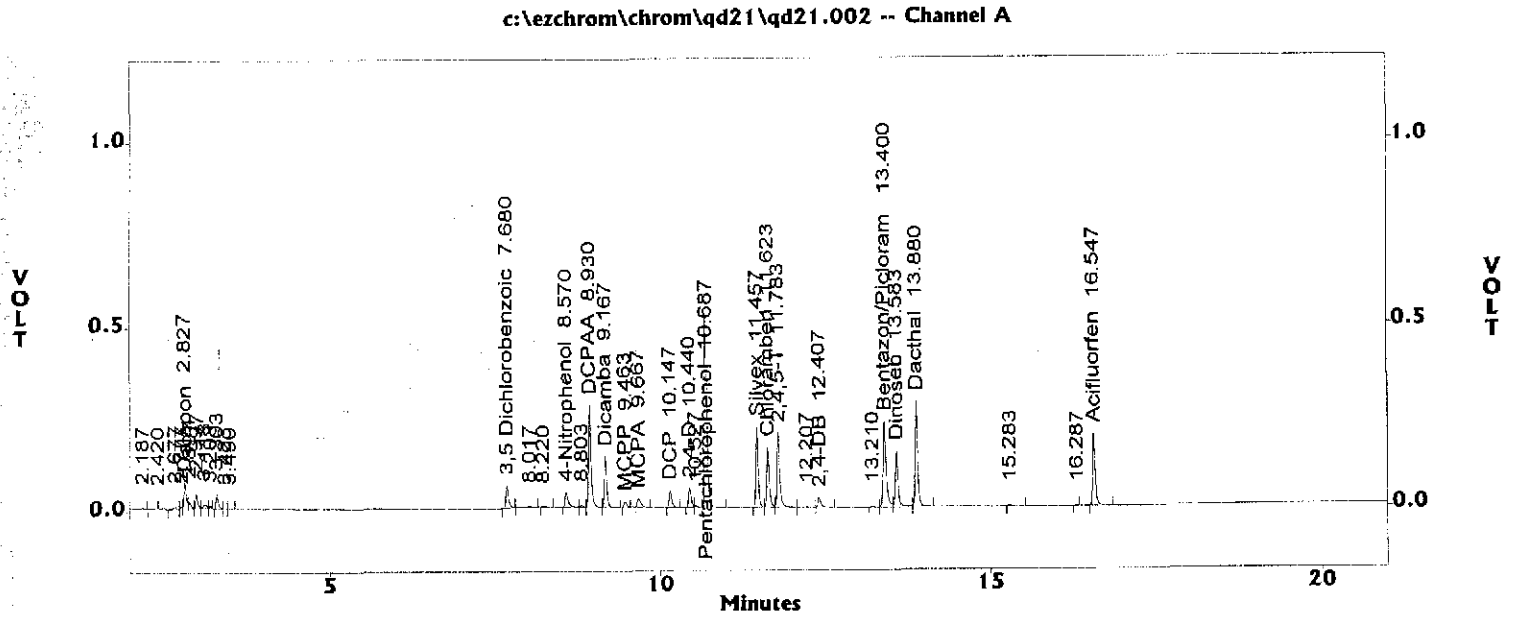
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.457	13.439	13.475	94.5	4871.9	507680	104.21	10		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.573	9.557	9.589	935.8	1082.0	1096444	1013.33	8		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08007
Acquired : Apr 21, 2015 15:23:04
Printed : Apr 21, 2015 15:50:12
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	170403.0	1656.60	102.863	SS
3,5 Dichlorobenzo	7.680	173542.0	1722.43	100.754	BV
4-Nitrophenol	8.570	140721.0	1289.87	109.097	BV
DCPAA	8.930	721512.0	750.10	961.888	vv
Dicamba	9.167	337428.0	3238.35	104.198	vv
MCPP	9.463	46051.0	8.42	5471.183	VI
MCPA	9.667	84043.0	15.83	5308.886	BV
DCP	10.147	122225.0	1193.88	102.376	BV
2,4-D	10.440	145576.0	1510.05	96.405	VS
Pentachlorophenol	10.687	1298574.0	12495.55	103.923	VB
Silvex	11.457	540713.0	5002.75	108.083	BV
Chloramben	11.623	452564.0	4132.75	109.507	VV
2,4,5-T	11.783	578098.0	5396.66	107.121	VV
2,4-DB	12.407	83061.0	801.45	103.639	VV
Bentazon/Picloram	13.400	772755.0	3540.81	218.242	VV
Dinoseb	13.583	421702.0	4088.80	103.136	VV
Dacthal	13.880	717647.0	6873.97	104.401	VB
Acifluorfen	16.547	520883.0	4699.56	110.837	vv

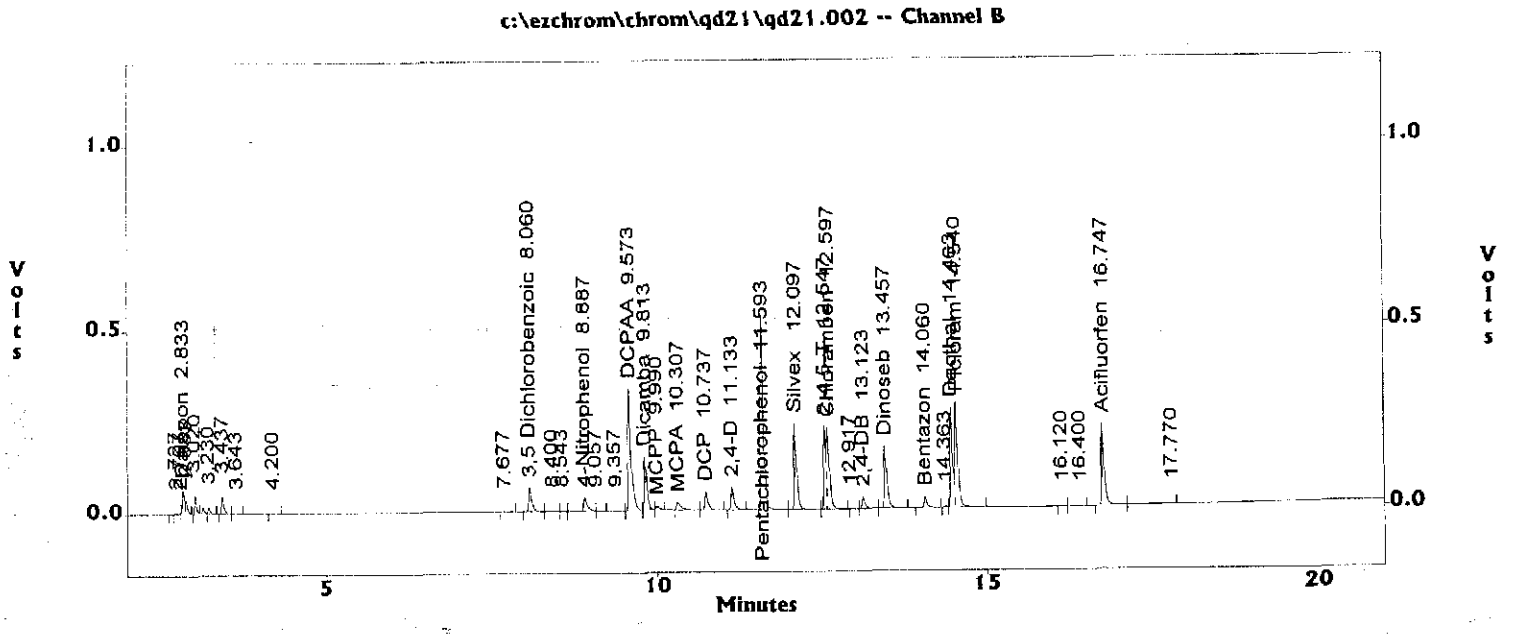


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08007
Acquired : Apr 21, 2015 15:23:04
Printed : Apr 21, 2015 15:50:13
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.833	152408.0	1730.88	88.052	MM
3,5 Dichlorobenzoic	8.060	199853.0	1937.97	103.125	BV
4-Nitrophenol	8.887	147599.0	1457.43	101.274	VS
DCPAA	9.573	1096444.0	1082.03	1013.325	VV
Dicamba	9.813	404212.0	3890.32	103.902	VV
MCPP	9.990	35943.0	8.21	4375.299	VI
MCPA	10.307	91383.0	17.76	5146.759	BV
DCP	10.737	152908.0	1485.51	102.933	VV
2,4-D	11.133	196836.0	1894.33	103.908	VV
Pentachlorophenol	11.593	1604567.0	14739.16	108.864	VV
Silvex	12.097	654972.0	5953.99	110.006	VV
2,4,5-T	12.547	513778.0	4983.71	103.091	Vx
Chloramben	12.597	680926.0	6012.12	113.259	xx
2,4-DB	13.123	109671.0	1025.98	106.894	VV
Dinoseb	13.457	507680.0	4871.89	104.206	Vx
Bentazon	14.060	84413.0	803.13	105.105	VV
Dacthal	14.463	691203.0	6624.78	104.336	SS
Picloram	14.540	921785.0	8580.05	107.433	SV
Acifluorfen	16.747	634563.0	6000.10	105.759	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21007A 04/21/2015 17:54
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.587	13.569	13.605	94.5	4088.8	423586	103.60	10		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	8.930	8.914	8.946	935.8	750.100	733350	977.67	4		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21007B 04/21/2015 17:54
CONC UNIT : ppb

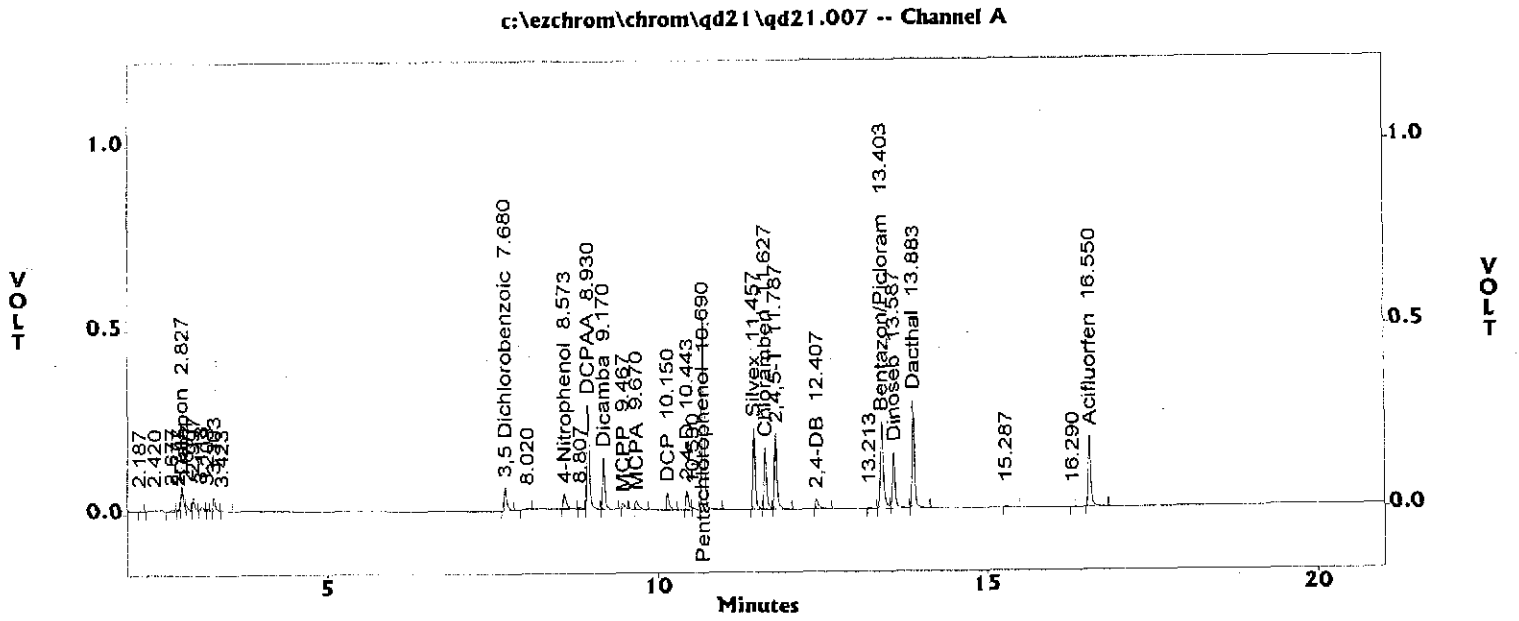
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.460	13.442	13.478	94.5	4871.9	507539	104.18	10		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.577	9.561	9.593	935.8	1082.0	1115827	1031.24	10		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08008
Acquired : Apr 21, 2015 17:54:18
Printed : Apr 30, 2015 18:52:13
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	174978.0	1656.60	105.625	xS
3,5 Dichlorobenzo	7.680	176435.0	1722.43	102.434	BV
4-Nitrophenol	8.573	141365.0	1289.87	109.596	BV
DCPAA	8.930	733350.0	750.10	977.669	vv
Dicamba	9.170	344280.0	3238.35	106.313	vv
MCPP	9.467	45360.0	8.42	5389.087	VI
MCPA	9.670	83221.0	15.83	5256.961	BV
DCP	10.150	123582.0	1193.88	103.513	BV
2,4-D	10.443	146512.0	1510.05	97.025	Vx
Pentachlorophenol	10.690	1322240.0	12495.55	105.817	VB
Silvex	11.457	546100.0	5002.75	109.160	vv
Chloramben	11.627	452007.0	4132.75	109.372	VV
2,4,5-T	11.787	569978.0	5396.66	105.617	VI
2,4-DB	12.407	82439.0	801.45	102.863	BV
Bentazon/Picloram	13.403	784146.0	3540.81	221.459	VV
Dinoseb	13.587	423586.0	4088.80	103.597	VV
Dacthal	13.883	732056.0	6873.97	106.497	VB
Acifluorfen	16.550	509196.0	4699.56	108.350	vv

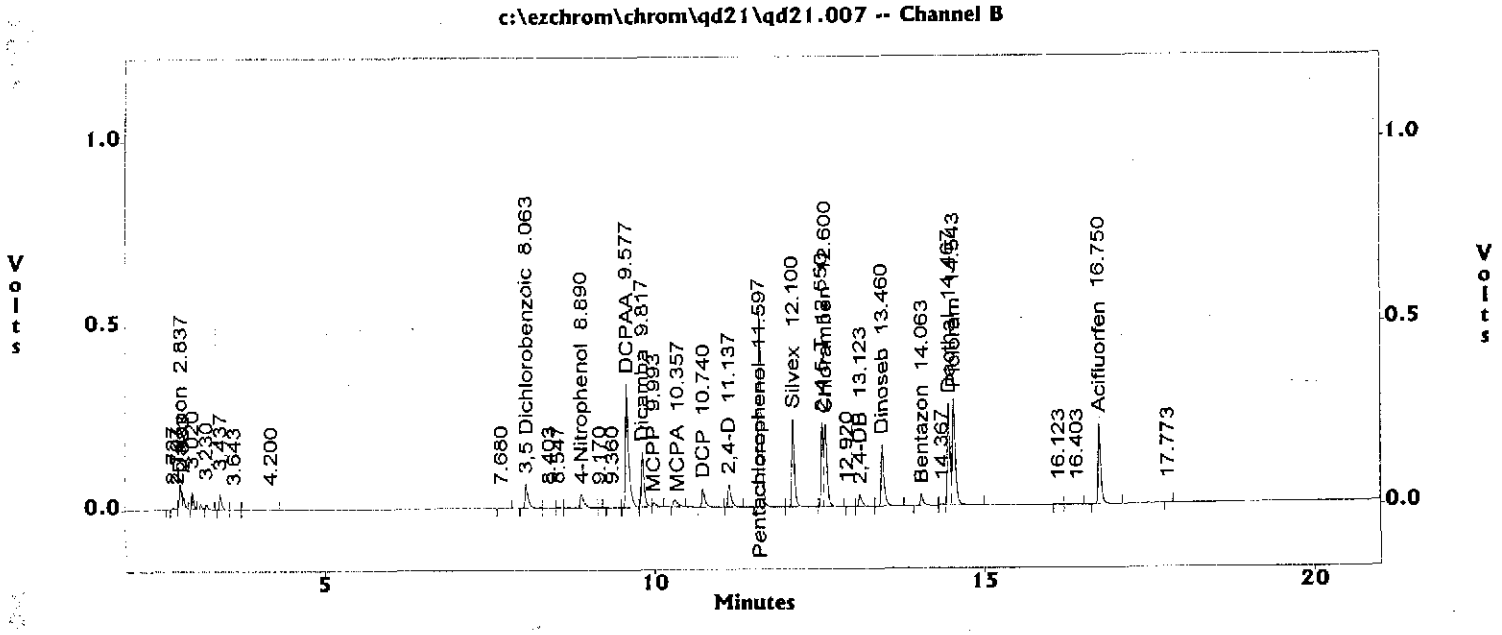


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08008
Acquired : Apr 21, 2015 17:54:18
Printed : Apr 30, 2015 18:52:13
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.837	152284.0	1730.88	87.981	MM
3,5 Dichlorobenzoic	8.063	203022.0	1937.97	104.760	BV
4-Nitrophenol	8.890	151780.0	1457.43	104.142	VV
DCPAA	9.577	1115827.0	1082.03	1031.238	VV
Dicamba	9.817	413791.0	3890.32	106.364	VV
MCPP	9.993	39398.0	8.21	4795.872	VV
MCPA	10.357	85266.0	17.76	4802.245	BS
DCP	10.740	155128.0	1485.51	104.428	BV
2,4-D	11.137	199161.0	1894.33	105.135	VV
Pentachlorophenol	11.597	1639441.0	14739.16	111.230	VV
Silvex	12.100	665821.0	5953.99	111.828	VV
2,4,5-T	12.550	489441.0	4983.71	98.208	Vx
Chloramben	12.600	725942.0	6012.12	120.746	xx
2,4-DB	13.123	111332.0	1025.98	108.513	VV
Dinoseb	13.460	507539.0	4871.89	104.177	Vx
Bentazon	14.063	88578.0	803.13	110.291	VV
Dacthal	14.467	700489.0	6624.78	105.738	SS
Picloram	14.543	936561.0	8580.05	109.156	SV
Acifluorfen	16.750	625855.0	6000.10	104.307	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21019A 04/22/2015 00:49
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.570	13.552	13.588	94.5	4088.8	404750	98.99	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.917	8.901	8.933	935.8	750.100	694771	926.24	-1		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21019B 04/22/2015 00:49
CONC UNIT : ppb

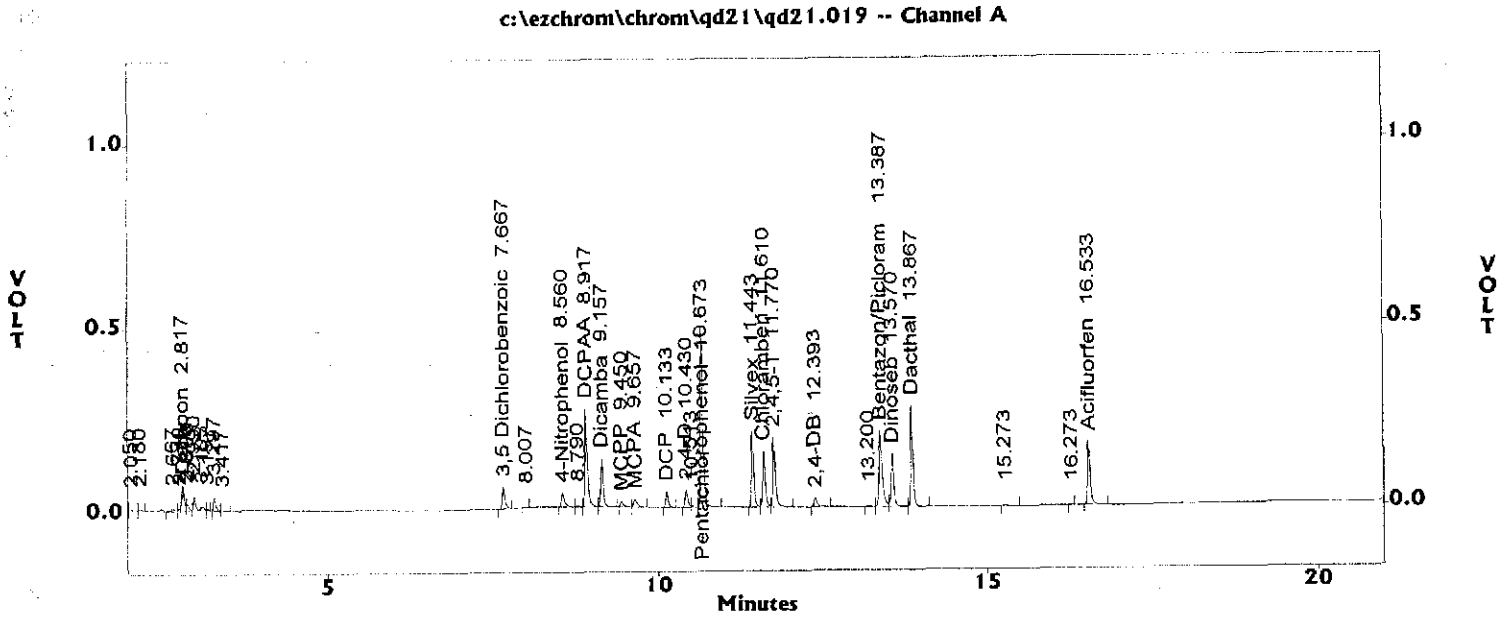
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.447	13.429	13.465	94.5	4871.9	475072	97.51	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.563	9.547	9.579	935.8	1082.0	1059568	979.24	5		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.019
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08009
Acquired : Apr 22, 2015 00:49:33
Printed : Apr 30, 2015 18:50:45
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.817	168775.0	1656.60	101.880	xS
3,5 Dichlorobenzo	7.667	166421.0	1722.43	96.620	BV
4-Nitrophenol	8.560	126369.0	1289.87	97.970	BV
DCPAA	8.917	694771.0	750.10	926.238	vv
Dicamba	9.157	322430.0	3238.35	99.566	vv
MCPP	9.450	47705.0	8.42	5667.689	VV
MCPA	9.657	76071.0	15.83	4805.305	VV
DCP	10.133	114305.0	1193.88	95.742	BV
2,4-D	10.430	138429.0	1510.05	91.672	Vx
Pentachlorophenol	10.673	1248076.0	12495.55	99.882	VB
Silvex	11.443	518278.0	5002.75	103.599	BV
Chloramben	11.610	428331.0	4132.75	103.643	VV
2,4,5-T	11.770	544697.0	5396.66	100.932	VB
2,4-DB	12.393	74435.0	801.45	92.876	BV
Bentazon/Picloram	13.387	725090.0	3540.81	204.781	VV
Dinoseb	13.570	404750.0	4088.80	98.990	VV
Dacthal	13.867	696619.0	6873.97	101.342	VB
Acifluorfen	16.533	482887.0	4699.56	102.752	vv

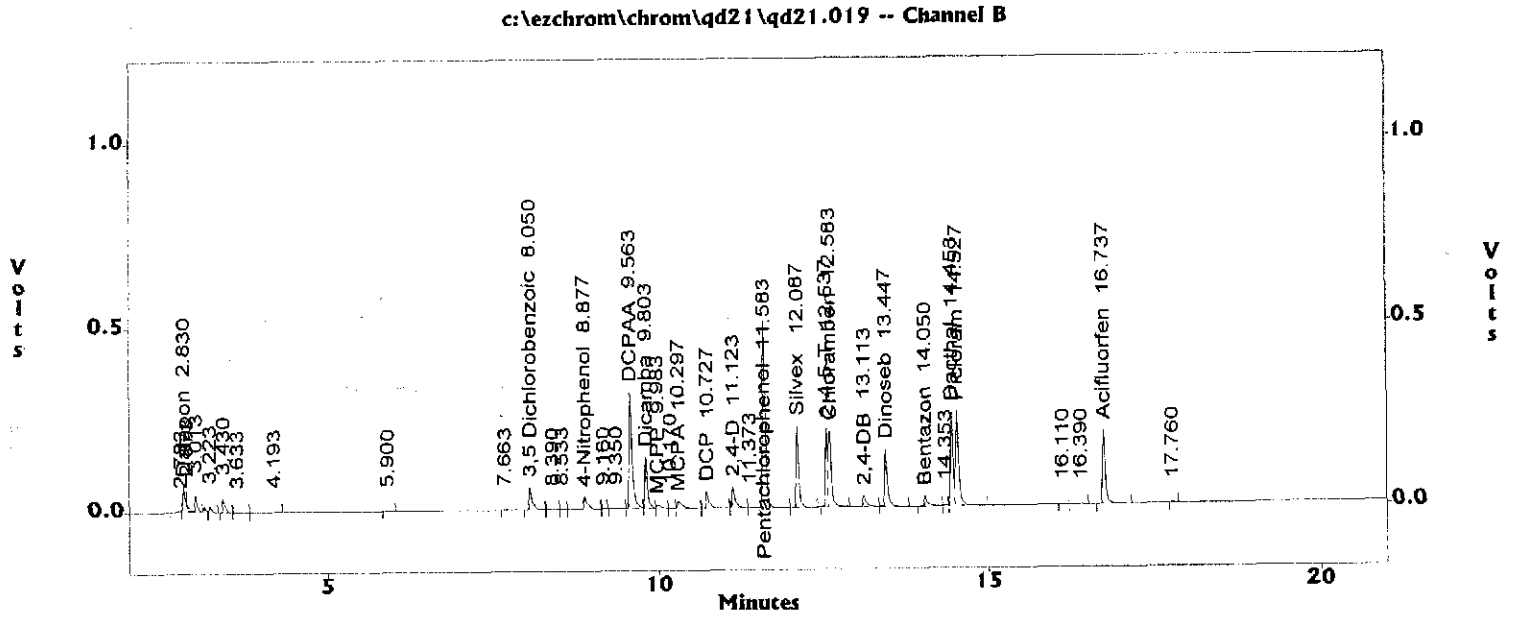


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.019
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08009
Acquired : Apr 22, 2015 00:49:33
Printed : Apr 30, 2015 18:50:45
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.830	165661.0	1730.88	95.709	MM
3,5 Dichlorobenzoic	8.050	191308.0	1937.97	98.716	BV
4-Nitrophenol	8.877	153255.0	1457.43	105.154	VV
DCPAA	9.563	1059568.0	1082.03	979.244	VV
Dicamba	9.803	396081.0	3890.32	101.812	VV
MCPP	9.983	47817.0	8.21	5820.707	VV
MCPA	10.297	97708.0	17.76	5502.988	VV
DCP	10.727	151075.0	1485.51	101.699	VV
2,4-D	11.123	186727.0	1894.33	98.571	VV
Pentachlorophenol	11.583	1534750.0	14739.16	104.127	VV
Silvex	12.087	615561.0	5953.99	103.386	VB
2,4,5-T	12.537	456382.0	4983.71	91.575	Bx
Chloramben	12.583	662096.0	6012.12	110.127	xx
2,4-DB	13.113	101653.0	1025.98	99.079	BV
Dinoseb	13.447	475072.0	4871.89	97.513	Vx
Bentazon	14.050	82372.0	803.13	102.564	BV
Dacthal	14.453	656406.0	6624.78	99.083	SS
Picloram	14.527	850811.0	8580.05	99.161	SV
Acifluorfen	16.737	592232.0	6000.10	98.704	VB



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21021A 04/22/2015 10:36
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.600	13.582	13.618	94.5	4088.8	396084	96.87	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.943	8.927	8.959	935.8	750.100	667787	890.26	-5		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21021B 04/22/2015 10:36
CONC UNIT : ppb

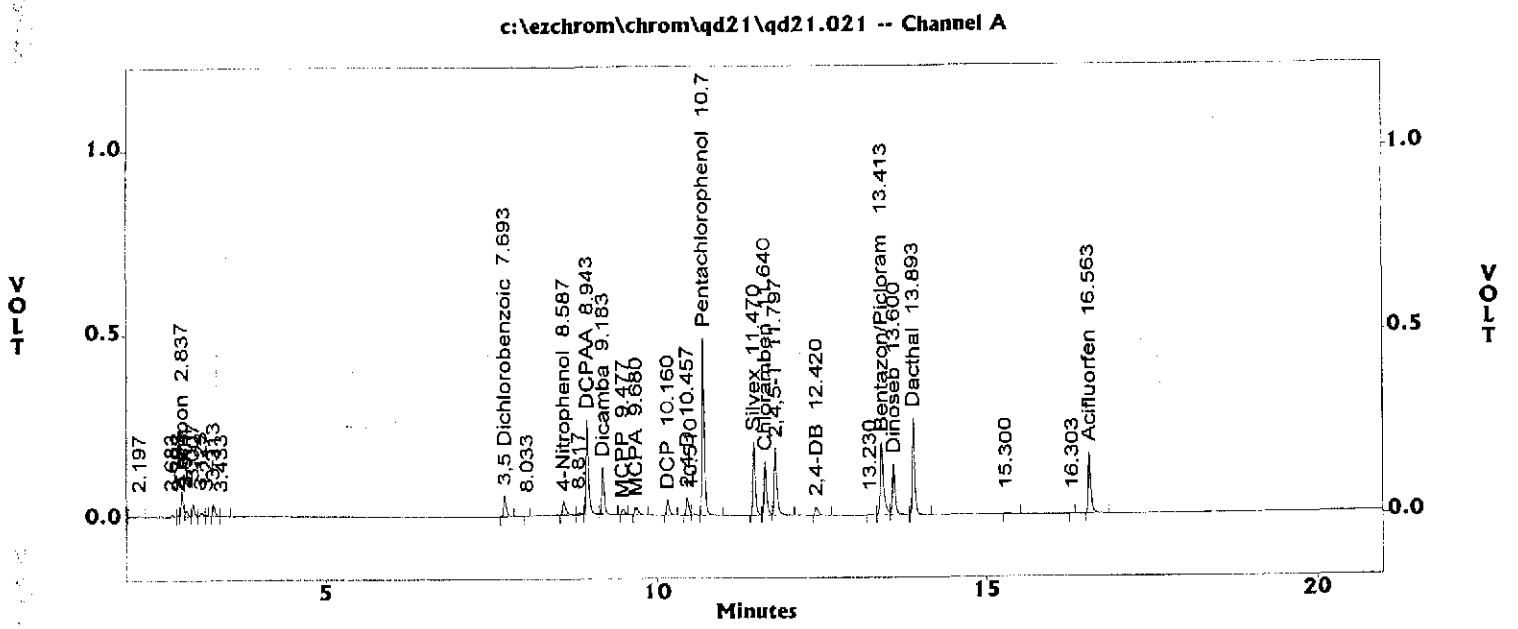
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.470	13.452	13.488	94.5	4871.9	453235	93.03	-2		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.587	9.571	9.603	935.8	1082.0	992162	916.95	-2		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.021
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08010
Acquired : Apr 22, 2015 10:36:33
Printed : Apr 22, 2015 18:02:15
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.837	153909.0	1656.60	92.907	Sx
3,5 Dichlorobenzo	7.693	164562.0	1722.43	95.541	BV
4-Nitrophenol	8.587	125053.0	1289.87	96.950	BV
DCPAA	8.943	667787.0	750.10	890.264	vv
Dicamba	9.183	310930.0	3238.35	96.015	vv
MCPP	9.477	41001.0	8.42	4871.207	VI
MCPA	9.680	76361.0	15.83	4823.624	BV
DCP	10.160	112234.0	1193.88	94.008	BV
2,4-D	10.457	128729.0	1510.05	85.248	Vx
Pentachlorophenol	10.700	1206821.0	12495.55	96.580	VB
Silvex	11.470	498903.0	5002.75	99.726	BV
Chloramben	11.640	412447.0	4132.75	99.800	VV
2,4,5-T	11.797	526476.0	5396.66	97.556	VB
2,4-DB	12.420	74374.0	801.45	92.800	BV
Bentazon/Picloram	13.413	701836.0	3540.81	198.213	VV
Dinoseb	13.600	396084.0	4088.80	96.871	VV
Dacthal	13.893	673095.0	6873.97	97.919	VB
Acifluorfen	16.563	461994.0	4699.56	98.306	vv

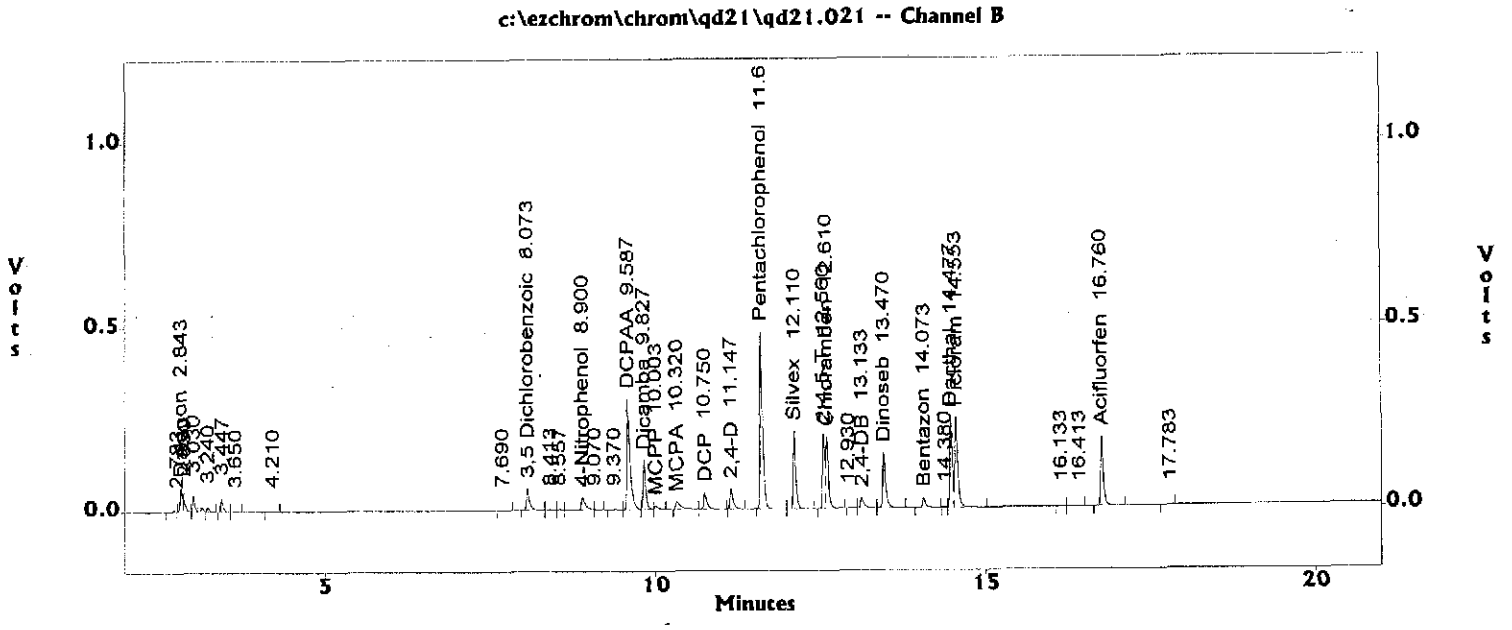


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.021
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08010
Acquired : Apr 22, 2015 10:36:33
Printed : Apr 22, 2015 18:02:15
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.843	154733.0	1730.88	89.395	MM
3,5 Dichlorobenzoic	8.073	180856.0	1937.97	93.323	BV
4-Nitrophenol	8.900	131607.0	1457.43	90.301	VS
DCPAA	9.587	992162.0	1082.03	916.948	VV
Dicamba	9.827	363404.0	3890.32	93.412	VV
MCPP	10.003	35951.0	8.21	4376.273	VV
MCPA	10.320	85541.0	17.76	4817.733	BV
DCP	10.750	137760.0	1485.51	92.736	VV
2,4-D	11.147	176023.0	1894.33	92.921	VV
Pentachlorophenol	11.607	1447620.0	14739.16	98.216	VV
Silvex	12.110	581178.0	5953.99	97.611	VB
2,4,5-T	12.560	462926.0	4983.71	92.888	Bx
Chloramben	12.610	596831.0	6012.12	99.271	xx
2,4-DB	13.133	97630.0	1025.98	95.158	VV
Dinoseb	13.470	453235.0	4871.89	93.031	Vx
Bentazon	14.073	77699.0	803.13	96.745	VV
Dacthal	14.477	622610.0	6624.78	93.982	SS
Picloram	14.553	805316.0	8580.05	93.859	SV
Acifluorfen	16.760	548332.0	6000.10	91.387	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21032A 04/22/2015 15:46
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.587	13.569	13.605	94.5	4088.8	397276	97.16	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.930	8.914	8.946	935.8	750.100	681549	908.61	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21032B 04/22/2015 15:46
CONC UNIT : ppb

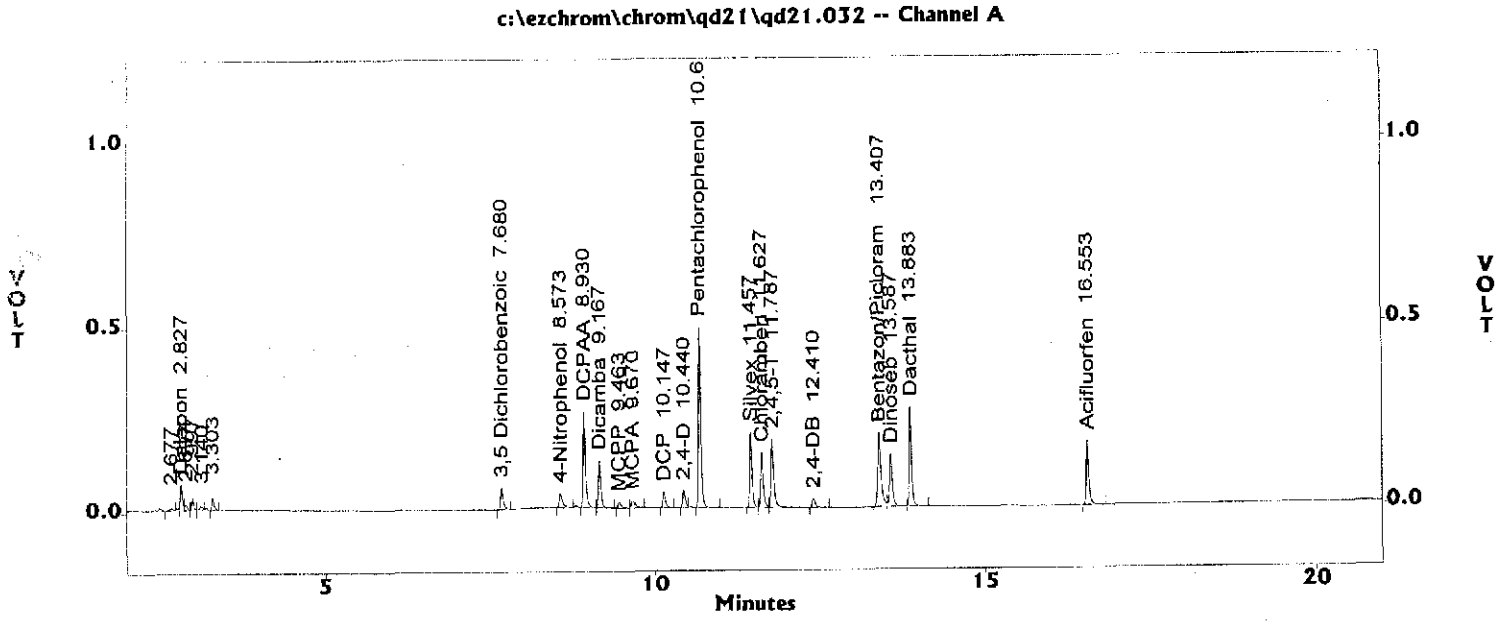
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.460	13.442	13.478	94.5	4871.9	456199	93.64	-1		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.577	9.561	9.593	935.8	1082.0	1011949	935.23	-0		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.032
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08011
Acquired : Apr 22, 2015 15:46:27
Printed : Apr 22, 2015 18:20:04
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	165566.0	1656.60	99.943	Sx
3,5 Dichlorobenzo	7.680	166664.0	1722.43	96.761	BV
4-Nitrophenol	8.573	130579.0	1289.87	101.234	BV
DCPAA	8.930	681549.0	750.10	908.611	vv
Dicamba	9.167	316039.0	3238.35	97.593	vv
MCPP	9.463	48562.0	8.42	5769.507	VV
MCPA	9.670	77717.0	15.83	4909.280	VV
DCP	10.147	114667.0	1193.88	96.045	BV
2,4-D	10.440	136776.0	1510.05	90.577	Vx
Pentachlorophenol	10.687	1236423.0	12495.55	98.949	VB
Silvex	11.457	513458.0	5002.75	102.635	BV
Chloramben	11.627	425763.0	4132.75	103.022	VV
2,4,5-T	11.787	543372.0	5396.66	100.687	VB
2,4-DB	12.410	77363.0	801.45	96.529	BV
Bentazon/Picloram	13.407	728283.0	3540.81	205.682	VV
Dinoseb	13.587	397276.0	4088.80	97.162	VV
Dacthal	13.883	687083.0	6873.97	99.954	VB
Acifluorfen	16.553	479059.0	4699.56	101.937	vv

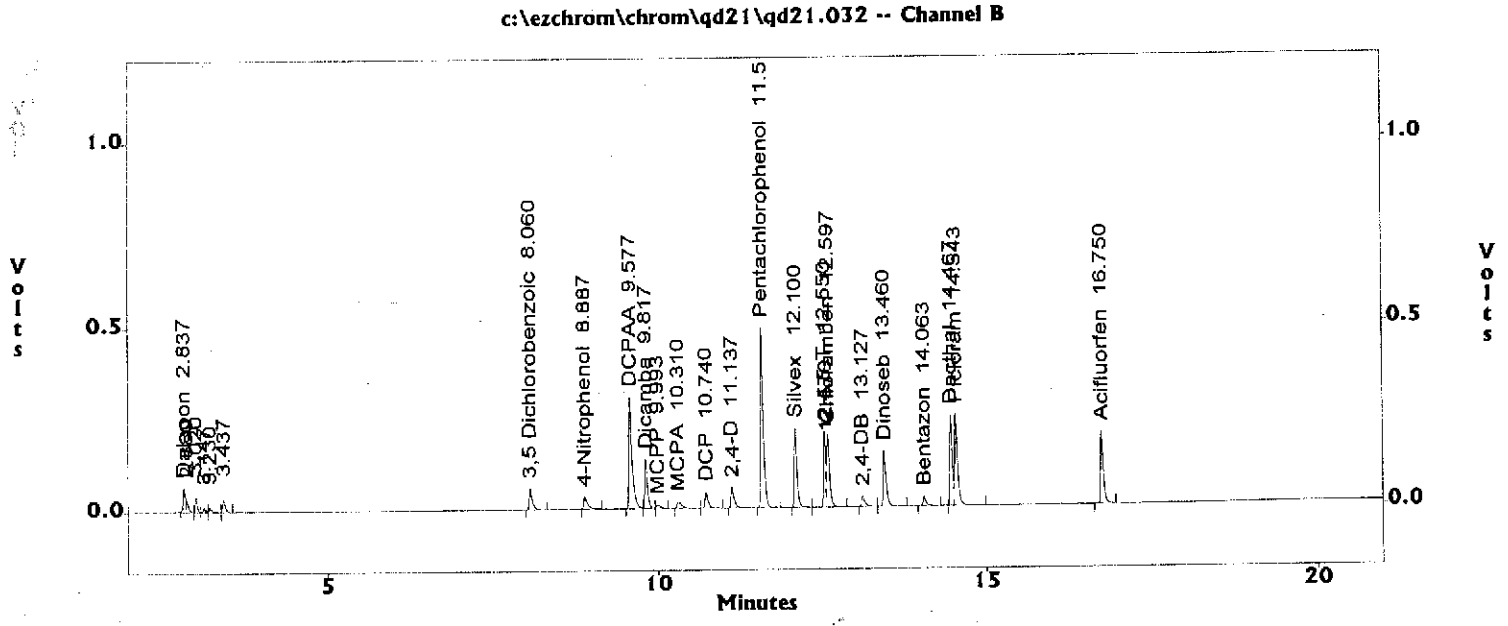


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.032
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08011
Acquired : Apr 22, 2015 15:46:27
Printed : Apr 22, 2015 18:20:04
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.837	146305.0	1730.88	84.526	xx
3,5 Dichlorobenzoic	8.060	183286.0	1937.97	94.576	BV
4-Nitrophenol	8.887	132351.0	1457.43	90.811	BV
DCPAA	9.577	1011949.0	1082.03	935.235	BV
Dicamba	9.817	370543.0	3890.32	95.247	VV
MCPP	9.993	35952.0	8.21	4376.395	VV
MCPA	10.310	86275.0	17.76	4859.073	BV
DCP	10.740	140371.0	1485.51	94.494	VB
2,4-D	11.137	180427.0	1894.33	95.246	BV
Pentachlorophenol	11.593	1477527.0	14739.16	100.245	VB
Silvex	12.100	594590.0	5953.99	99.864	BV
2,4,5-T	12.550	424810.0	4983.71	85.240	Vx
Chloramben	12.597	608091.0	6012.12	101.144	Sx
2,4-DB	13.127	98459.0	1025.98	95.966	VV
Dinoseb	13.460	456199.0	4871.89	93.639	Vx
Bentazon	14.063	78586.0	803.13	97.850	BV
Dacthal	14.467	635904.0	6624.78	95.989	VV
Picloram	14.543	832500.0	8580.05	97.027	VV
Acifluorfen	16.750	570125.0	6000.10	95.019	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21037A 04/22/2015 18:07
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.587	13.569	13.605	94.5	4088.8	393274	96.18	2		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.930	8.914	8.946	935.8	750.100	686631	915.39	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD21037B 04/22/2015 18:07
CONC UNIT : ppb

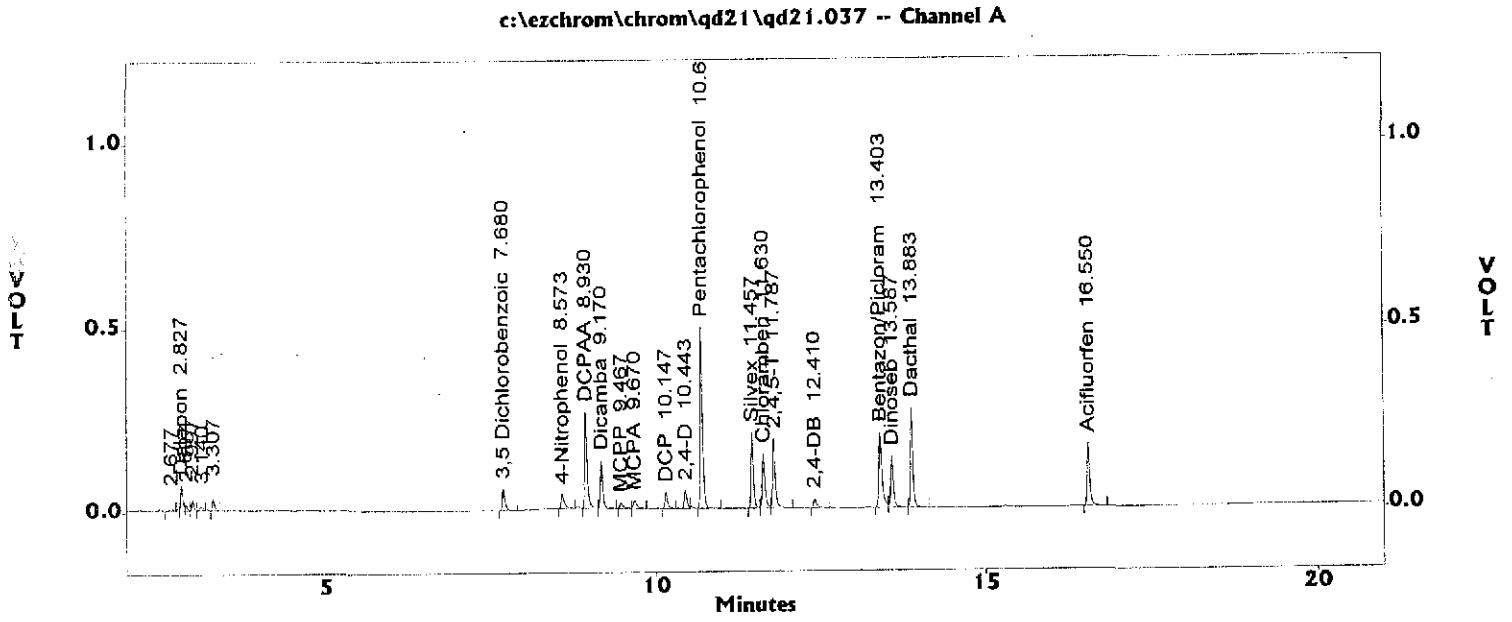
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.837	2.821	2.853	91.0	1730.9	150119	86.73	-5		20
3,5-Dichlorobenzo	8.063	8.047	8.079	93.1	1938.0	183896	94.89	2		20
4-Nitrophenol	8.890	8.872	8.908	90.8	1457.4	134227	92.10	1		20
Dicamba	9.817	9.801	9.833	94.0	3890.3	379028	97.43	4		20
MCPP	9.993	9.977	10.009	4693.0	8.200	44869	5461.85	16		20
MCPA	10.310	10.294	10.326	4673.0	17.800	95238	5363.88	15		20
Dichloroprop	10.740	10.726	10.754	94.3	1485.5	146065	98.33	4		20
2,4-D	11.137	11.121	11.153	94.0	1894.3	182287	96.23	2		20
Pentachlorophenol	11.597	11.579	11.615	95.0	14739.2	1484741	100.73	6		20
2,4,5-TP(Silvex)	12.100	12.086	12.114	95.0	5954.0	598388	100.50	6		20
Chloramben	12.600	12.570	12.630	93.6	6012.1	615869	102.44	9		20
2,4,5-T	12.550	12.534	12.566	94.8	4983.7	480140	96.34	2		20
2,4-DB	13.127	13.103	13.151	94.7	1026.0	99337	96.82	2		20
Bentazon/Picloram	0.000	-0.016	0.016	189.0	0.000	0	205.65	9		20
Dinoseb	13.460	13.442	13.478	94.5	4871.9	453799	93.15	-1		20
Bentazon	14.063	14.047	14.079	94.5	803.100	80921	100.76	7		20
Dacthal	14.467	14.451	14.483	91.5	6624.8	640443	96.67	6		20
Picloram	14.543	14.519	14.567	94.5	8580.1	836741	97.52	3		20
Acifluorfen	16.750	16.732	16.768	96.3	6000.1	557554	92.92	-3		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.577	9.561	9.593	935.8	1082.0	1024705	947.02	1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.037
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08012
Acquired : Apr 22, 2015 18:07:02
Printed : Apr 22, 2015 18:34:04
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.827	165939.0	1656.60	100.169	Sx
3,5 Dichlorobenzo	7.680	172110.0	1722.43	99.923	BV
4-Nitrophenol	8.573	132881.0	1289.87	103.019	BV
DCPAA	8.930	686631.0	750.10	915.386	vv
Dicamba	9.170	317384.0	3238.35	98.008	vv
MCPP	9.467	48202.0	8.42	5726.736	VV
MCPA	9.670	77051.0	15.83	4867.210	VV
DCP	10.147	114569.0	1193.88	95.963	BV
2,4-D	10.443	136281.0	1510.05	90.249	Vx
Pentachlorophenol	10.687	1236443.0	12495.55	98.951	VB
Silvex	11.457	514234.0	5002.75	102.790	BV
Chloramben	11.630	426349.0	4132.75	103.164	VV
2,4,5-T	11.787	543048.0	5396.66	100.627	VB
2,4-DB	12.410	77049.0	801.45	96.138	BV
Bentazon/Picloram	13.403	728184.0	3540.81	205.654	VV
Dinoseb	13.587	393274.0	4088.80	96.183	VV
Dacthal	13.883	687238.0	6873.97	99.977	VB
Acifluorfen	16.550	466475.0	4699.56	99.259	vv

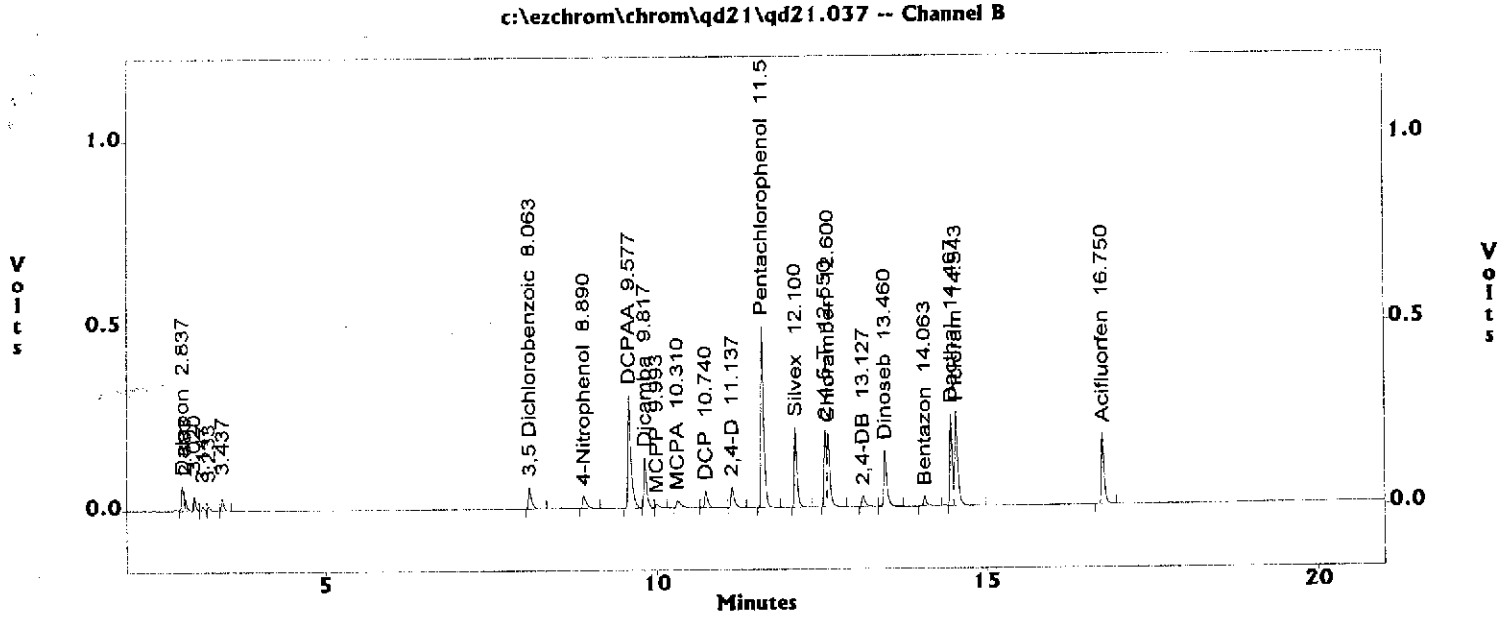


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd21\qd21.037
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08012
Acquired : Apr 22, 2015 18:07:02
Printed : Apr 22, 2015 18:34:05
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.837	150119.0	1730.88	86.730	xx
3,5 Dichlorobenzoic	8.063	183896.0	1937.97	94.891	BV
4-Nitrophenol	8.890	134227.0	1457.43	92.099	BV
DCPAA	9.577	1024705.0	1082.03	947.024	VV
Dicamba	9.817	379028.0	3890.32	97.429	VV
MCPP	9.993	44869.0	8.21	5461.851	VV
MCPA	10.310	95238.0	17.76	5363.875	VV
DCP	10.740	146065.0	1485.51	98.327	VV
2,4-D	11.137	182287.0	1894.33	96.228	VV
Pentachlorophenol	11.597	1484741.0	14739.16	100.734	VB
Silvex	12.100	598388.0	5953.99	100.502	BV
2,4,5-T	12.550	480140.0	4983.71	96.342	VS
Chloramben	12.600	615869.0	6012.12	102.438	Sx
2,4-DB	13.127	99337.0	1025.98	96.822	VV
Dinoseb	13.460	453799.0	4871.89	93.146	VB
Bentazon	14.063	80921.0	803.13	100.757	BV
Dacthal	14.467	640443.0	6624.78	96.674	VV
Picloram	14.543	836741.0	8580.05	97.522	VV
Acifluorfen	16.750	557554.0	6000.10	92.924	VV



ANALYTICAL LOGS

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	A09-018
Instrument No.:	09
Analytical Sequence:	QD08
Method File:	HE09D08
Analytical Batch:	QD08006

SOP #	Rev. #
☑ EMAX-8151	4
☐ EMAX-8082CON	1
☐ EMAX-504.1	4
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09D08	QD08	4/8/15

STANDARDS ID		Conc (µg/L)
DCC	554B-03-75-01	100 - 5000
ICAL	75-02	10/500 - 200/10,000
ICV	75-03	100 - 10,000 (20 - 5000)

Hexane Lot # 54297

Column: ☑ A. RTX CLPEST I ☐ B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Syringe Lot #: ☑ 430353 ☑ 454251 ☐ 475284 ☐ 354311

Analyzed By: RZ Date: 4/8/15

Disposed By: RZ Date Disposed: 4/9/15

This page is checked during data review.

5096

Row	Sample ID	Method	Filename	Mult.	Description
1	IB09D08001	he09d08.met	QD08.001	1	
2	HE09D0801	he09d08.met	QD08.002	1	
3	HE09D0802	he09d08.met	QD08.003	1	
4	HE09D0803	he09d08.met	QD08.004	1	
5	HE09D0804	he09d08.met	QD08.005	1	
6	HE09D0805	he09d08.met	QD08.006	1	
7	HE09D0806	he09d08.met	QD08.007	1	
8	HE09D0807	he09d08.met	QD08.008	1	
9	HE09D0808	he09d08.met	QD08.009	1	
10	IHE09D08001	he09d08.met	QD08.010	1	
11	IHE09D08002	he09d08.met	QD08.011	1	
12	CHE09D08001	he09d08.met	QD08.012	1	
13	B	he09d08.met	QD08.013	1	

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A09-018
Instrument No.: 09
Analytical Sequence: QD21
Method File: HE09D08
Analytical Batch: QD21002

SOP #	Rev. #
☑ EMAX-8151	4
☐ EMAX-8082CON	1
☐ EMAX-504.1	4
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09D08	QD08	4/18/15

STANDARDS ID		Conc (µg/L)
DCC	554B-03-25-01	100 - 5000

Hexane Lot # 54297

Column	☑ A. RTX CLPEST I B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [signature] Date: 4/21/15

Disposed By: [signature] Date Disposed: 4/22/15

This page is checked during data review.

Syringe Lot #: ☑ 430353 ☐ 454251 ☐ 475284 ☐ 354311

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09D08007	he09d08.met	QD21.001	1	
2	CHE09D08007	he09d08.met	QD21.002	1	
3	HED007WB	he09d08.met	QD21.003	1	
4	HED007WL	he09d08.met	QD21.004	1	
5	HED007WC	he09d08.met	QD21.005	1	
6	IB09D08008	he09d08.met	QD21.006	1	
7	CHE09D08008	he09d08.met	QD21.007	1	
8	D128-01I DF=10	he09d08.met	QD21.008	10	not needed
9	D128-02I DF=10	he09d08.met	QD21.009	10	
10	D128-03I DF=10	he09d08.met	QD21.010	10	
11	D128-03M DF=10	he09d08.met	QD21.011	10	
12	D128-03S DF=10	he09d08.met	QD21.012	10	
13	D128-04I DF=10	he09d08.met	QD21.013	10	
14	D128-05I DF=10	he09d08.met	QD21.014	10	
15	D128-06I DF=10	he09d08.met	QD21.015	10	
16	D128-07I DF=10	he09d08.met	QD21.016	10	
17	BLANK	he09d08.met	QD21.017	1	
18	IB09D08009	he09d08.met	QD21.018	1	
19	CHE09D08009	he09d08.met	QD21.019	1	
20	IB09D08010	he09d08.met	QD21.020	1	
21	CHE09D08010	he09d08.met	QD21.021	1	
22	D128-01	he09d08.met	QD21.022	1	
23	D128-02	he09d08.met	QD21.023	1	
24	D128-03	he09d08.met	QD21.024	1	
25	D128-03M	he09d08.met	QD21.025	1	
26	D128-03S	he09d08.met	QD21.026	1	
27	D128-04	he09d08.met	QD21.027	1	
28	D128-05	he09d08.met	QD21.028	1	
29	D128-06	he09d08.met	QD21.029	1	
30	D128-07	he09d08.met	QD21.030	1	
31	IB09D08011	he09d08.met	QD21.031	1	
32	CHE09D08011	he09d08.met	QD21.032	1	
33	LOQ-15	he09d08.met	QD21.033	1	
34	LOD-15	he09d08.met	QD21.034	1	

Run	Sample ID	Method	Filename	Mult.	Description
85	HED808SB	he09d08.met	QD21.035	1	
86	I809D08012	he09d08.met	QD21.036	1	
87	CHE09D08012	he09d08.met	QD21.037	1	

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☑ EMAX-8151	4
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Book #.: EHE-019
Preparation Batch: HED007 W
Matrix Water
Micropipette ID: PE00-04
Micropipette ID: PE97C-03

Lab Sample ID	Sonicator #	Concentrator #
HED007 -WB	N/A	4
-WL		4
-WC		4
D128 -01	✓	4
-02	✓	4
-03	✓	4
-03M	✓	5
-03S	✓	5
-04	✓	5
-05	✓	5
-06	✓	5
-07	✓ ↓	5

Standards	ID	Amount Added (ml)
Surrogate	SS4B-03-09-03	1.0
LCS/MS	SS4A-02-155	0.1

Reagent	Lot # / ID
CH_2Cl_2	–
Hexane	54297
Ethyl Ether	DM034
Acified Na_2SO_4	SP1B-08-02-02
H_2SO_4	3113040
Diazo-methane	SP1B-08-07-03
Silica Sand	–
Silicic Acid	4/21/15 my ~~SW1A-005-11-22~~ SP1A-05-2-06
Reagent Water	SW1A-005-11-22
Residual Chlorine Strip	4406
pH Strip	HC413032

TUNING

Sonicator #	Reading

Concentrator	Water Bath Temperature Setting(°C)	Thermometer Reading (°C)
1		
2		
3		
4	35	35
5	35	35
6		

Test Thermometer = SVOC-T1

Prepared By: my — Standard Added By: my
Witnessed By: AGA — Checked By: JM
Extract Received By: JZ — Extract Location: SE04-02
Disposal Date: — Disposed By:

FileID: HED007W

EMAX LABORATORIES, INC.

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
15HED007W01	HED007WB	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W02	HED007WL	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W03	HED007WC	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W04	D128-01	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W05	D128-02	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W06	D128-03	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W07	D128-03M	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W08	D128-03S	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W09	D128-04	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W10	D128-05	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W11	D128-06	500	ml	4/21/15 11:13	5	500	5	1	
15HED007W12	D128-07	500	ml	4/21/15 11:13	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/ExpV

☑ Extraction Started @ 4/21/15 11:20

☑ Extraction Ended @ 4/21/15 14:30

Prepared By: MYokoo

Checked By: JM

Date 4/21/15

Comments:

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **B & B GROUNDWATER SAMPLING**

SDG: **15D142**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2124
	METHOD 5030B/8260B SIM	2125 – 2198
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5082
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8070
	METHOD 415.1	8071 – 8121
	METHOD SM3500	8122 – 8129
	METHOD SM4500S2D	8130 – 8137
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 05-19-2015
EMAX Batch No.: 15D142

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: B & B Groundwater Sampling

Enclosed is the Laboratory report for samples received on 04/22/15.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
04-21-15-BBW-3	D142-01	04/21/15	WATER	ANIONS BY IC CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN
04-21-15-FDUP-3	D142-02	04/21/15	WATER	ANIONS BY IC CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN
04-21-15-AMW-3R	D142-03	04/21/15	WATER	ANIONS BY IC CHLORINATED HERBICIDES TOTAL ORGANIC CARBON

Sample ID	Control #	Col Date	Matrix	Analysis
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-21-15-TB-7	D142-04	04/21/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-AR-1	D142-05	04/22/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-21-15-TB-6	D142-06	04/21/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-PWB-1	D142-07	04/22/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-22-15-TB-8	D142-08	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-PWB-13A	D142-09	04/22/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-21-15-AMW-3RMS	D142-03M	04/21/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-21-15-AMW-3RMSD	D142-03S	04/21/15	WATER	ANIONS BY IC

Sample ID	Control #	Col Date	Matrix	Analysis
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				METHANE AND DISSOLVED HYDROGEN
04-21-15-AMW-3RDUP	D142-03D	04/21/15	WATER	FERROUS IRON
				TOTAL SULFIDE BY STD METHOD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

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EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: ECO 13-601
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 15D142
PROJECT CODE: ECO 13-601

CLIENT: Eco & Associates, Inc
PROJECT: Spring 2015 B&B Ground Water Sampling
COORDINATOR: Carlos Hernandez
TEL: 714-289-0995 FAX: chernandez@ecoinc.info EMAIL:
SEND REPORT TO: Carlos Hernandez
COMPANY: Eco & Associates, Inc.
ADDRESS: 1855 W Katella Ave Suite 340
Orange CA 92867
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice ✓
GW=Ground Water ✓	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: 8260B; 8260 SIM; 8151 Dinoseb; 300-Nitrate, Nitrite & Sulfates; SM4500S2D Sulfides; SM3500 Ferrous Iron; TOC - 415.1; RSK175 Methane & H_2

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ Standard

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151 Dinoseb	300-Nitrate, Nitrite & Sulfates	SM4500S2D Sulfides	SM3500 Ferrous Iron	TOC - 415.1	RSK175 Methane & H_2	COMMENTS
1	04-21-15-BBW-3	B-Zone	4/21/15	1455	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
2	04-21-15-FDUP-3	B-Zone	"	1500	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
3	04-21-15-AMW-3R	B-Zone	"	1445	42	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	MS/MSD
4	04-21-15-TB-7	—	4/21/15	1630	3	40mL	VOA	W		✓								
5	04-22-15-AR-1	B-Zone	4/22/15	0310	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
6	04-21-15-TB-6	—	4/21/15	1600	3	40mL	VOA	W		✓								
7	04-22-15-PWB-1	B-Zone	4/22/15	0355	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	Level IV
8	04-22-15-TB-3	—	4/22/15	0300	3	40mL	VOA	W		✓								
9	04-22-15-PWB-13A	B-Zone	4/22/15	0910	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
0																		

Instructions
Please note that nitrate-N Has only 48 hours holding time. Method 300 is for Nitrate-N, Nitrite-N & Sulfates.

Cooler #	Temp. (°C)	Sample #s
5	2.5	
6	5.3	
7	3.7	

SAMPLER
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY		
C. Hernandez [signature]	4/22/15	1000	[signature]	4/22/15	1000
[signature]	4/22/15		1300 [signature]	4/22/15	13:00

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1003

Reference Number: SM02.7.3

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	
☐ Fedex ☐ UPS ☐ GSO ☑ Others Direct Delivery		ECN 150142
☐ EMAX Courier ☐ Client Delivery		Recipient Cecilia Chan Date 04-22-15 Time 1300

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☐ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☐ From Superfund Site	☐ Rad screening required		

Note: _____

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ Plastic bag
Temperatures (Cool, ≤6 °C but not frozen)	☐ Cooler 1_____ °C	☐ Cooler 2_____ °C	☐ Cooler 3_____ °C	☐ Cooler 4_____ °C	☑ Cooler 5 2.5 °C
	☑ Cooler 6 5.3 °C	☑ Cooler 7 3.7 °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C
Thermometer:	*A - S/N* _____	FM 1/20 (B) *S/N* 140252070	*C - S/N* 140252067	*D - S/N* _____	

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1-9		D16	All containers preserved accordingly	R8
3	30-31, 34-35, 48-47	D1		
↓	53, 56, 59, 63	D1		
3, 7, 9	30, 31, 34, 35, 39	D10		
↓	47, 48, 53, 56, 59	D10		
1-3, 5, 7, 9	63, 101, 111	D10		
↓		D2	Ferrous Iron not requested on label/Received two bottles for Anions (NO_3/SO_4)	R1, R8 ↓

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

4/22/15

4/22/15

NOTES/OBSERVATIONS:

LEGEND:

Code	Description- Sample Management
D1	Analysis is not indicated in label
D2	Analysis mismatch COC vs label
D3	Sample ID mismatch COC vs label
D4	Sample ID is not indicated in _____
D5	Container -[improper] [leaking] [broken]
D6	Date/Time is not indicated in _____
D7	Date/Time mismatch COC vs label
D8	Sample listed in COC is not received
D9	Sample received is not listed in COC
D10	No initial/date on corrections in COC/label
D11	Container count mismatch COC vs received
D12	Container size mismatch COC vs received

Code	Description-Sample Management
D13	Out of Holding Time
D14	Bubble is >6mm
D15	No trip blank in cooler
D16	Preservation not indicated in label
D17	Preservation mismatch COC vs label
D18	Insufficient chemical preservative
D19	Insufficient Sample
D20	No filtration info for dissolved analysis
D21	No sample for moisture determination
D22	_____
D23	_____
D24	_____

☐ **Continue to next page.**

Code	Description-Sample Management
R1	Proceed as indicated in ☒ COC ☐ Label
R2	Refer to attached instruction
R3	Cancel the analysis
R4	Use vial with smallest bubble first
R5	Log-in with latest sampling date and time+1 min
R6	Adjust pH as necessary
R7	Filter and preserved as necessary
R8	Informed Client.
R9	_____
R10	_____
R11	_____
R12	_____

REVIEWS:

Sample Labeling _____
Date 04-22-15 4/22/15

SRF _____
Date 4/22/15

PM _____
Date 4/22/15

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than LOQ/RL but greater than LOD/MDL/DL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 15D142

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

A total of nine (9) water samples were received on 04/22/15 to be analyzed for Volatile Organics by GC/MS in accordance with Method 5030B/8260B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. There was one (1) CCV associated with this SDG. Target analytes in CCV(Datafile ID:REC002) were within calibration acceptance criteria. All calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. VO67E01B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. VO67E01L/VO67E01C - all analytes were within LCS QC limits. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed and the following was noted: D142-03M/S - Percent recovery for Vinyl Acetate(unstable in acidic matrix) was not within MSD QC limits. The enclosed value(#X) is the ratio of parent sample result and spike amount. Presence of matrix interference was suspected. The rest of the analytes were in control. Refer to Matrix QC summary form for details.

Surrogate
Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met with the exception of those that were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D142
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067E01B	1	NA	05/01/1510:19	05/01/1510:19	REC006	RLC381	V067E01	Method Blank
LCS1W	V067E01L	1	NA	05/01/1508:38	05/01/1508:38	REC003	RLC381	V067E01	Lab Control Sample (LCS)
LCD1W	V067E01C	1	NA	05/01/1509:12	05/01/1509:12	REC004	RLC381	V067E01	LCS Duplicate
04-21-15-BBW-3	D142-01	1	NA	05/01/1511:24	05/01/1511:24	REC008	RLC381	V067E01	Field Sample
04-21-15-FDUP-3	D142-02	1	NA	05/01/1512:00	05/01/1512:00	REC009	RLC381	V067E01	Field Sample
04-21-15-TB-7	D142-04	1	NA	05/01/1512:34	05/01/1512:34	REC010	RLC381	V067E01	Field Sample
04-22-15-AR-1	D142-05	1	NA	05/01/1513:13	05/01/1513:13	REC011	RLC381	V067E01	Field Sample
04-21-15-TB-6	D142-06	1	NA	05/01/1513:48	05/01/1513:48	REC012	RLC381	V067E01	Field Sample
04-22-15-PWB-1	D142-07	1	NA	05/01/1514:22	05/01/1514:22	REC013	RLC381	V067E01	Field Sample
04-22-15-TB-8	D142-08	1	NA	05/01/1514:56	05/01/1514:56	REC014	RLC381	V067E01	Field Sample
04-22-15-PWB-13A	D142-09	1	NA	05/01/1515:30	05/01/1515:30	REC015	RLC381	V067E01	Field Sample
04-21-15-AMW-3R	D142-03	1	NA	05/01/1516:40	05/01/1516:40	REC017	RLC381	V067E01	Field Sample
04-21-15-AMW-3RMS	D142-03M	1	NA	05/01/1517:17	05/01/1517:17	REC018	RLC381	V067E01	Matrix Spike Sample (MS)
04-21-15-AMW-3RMSD	D142-03S	1	NA	05/01/1517:50	05/01/1517:50	REC019	RLC381	V067E01	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 11:24
Sample ID: 04-21-15-BBW-3	Date Analyzed: 05/01/15 11:24
Lab Samp ID: D142-01	Dilution Factor: 1
Lab File ID: REC008	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	4.8	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.39J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.94J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.41J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.47	10.00	94.7	70-120
4-BROMOFLUOROBENZENE	9.63	10.00	96.3	75-120
TOLUENE-D8	10.2	10.00	102	85-120
DIBROMOFLUOROMETHANE	11.0	10.00	110	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 12:00
Sample ID: 04-21-15-FDUP-3	Date Analyzed: 05/01/15 12:00
Lab Samp ID: D142-02	Dilution Factor: 1
Lab File ID: REC009	Matrix : WATER
Ext Btch ID: VO67E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	6.1J	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	4.7	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.37J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	1.8	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.41J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.55	10.00	95.5	70-120
4-BROMOFLUOROBENZENE	9.61	10.00	96.1	75-120
TOLUENE-D8	10.2	10.00	102	85-120
DIBROMOFLUOROMETHANE	11.0	10.00	110	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 16:40
Sample ID: 04-21-15-AMW-3R	Date Analyzed: 05/01/15 16:40
Lab Samp ID: D142-03	Dilution Factor: 1
Lab File ID: REC017	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.51J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	1.4	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	2.4	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.70	10.00	97.0	70-120
4-BROMOFLUOROBENZENE	9.56	10.00	95.6	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	10.9	10.00	109	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 12:34
Sample ID: 04-21-15-TB-7	Date Analyzed: 05/01/15 12:34
Lab Samp ID: D142-04	Dilution Factor: 1
Lab File ID: REC010	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.92	10.00	99.2	70-120
4-BROMOFLUOROBENZENE	9.41	10.00	94.1	75-120
TOLUENE-D8	10.1	10.00	101	85-120
DIBROMOFLUOROMETHANE	11.2	10.00	112	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 13:13
Sample ID: 04-22-15-AR-1	Date Analyzed: 05/01/15 13:13
Lab Samp ID: D142-05	Dilution Factor: 1
Lab File ID: REC011	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	1.1	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.62	10.00	96.2	70-120
4-BROMOFLUOROBENZENE	9.54	10.00	95.4	75-120
TOLUENE-D8	10.1	10.00	101	85-120
DIBROMOFLUOROMETHANE	10.9	10.00	109	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 13:48
Sample ID: 04-21-15-TB-6	Date Analyzed: 05/01/15 13:48
Lab Samp ID: D142-06	Dilution Factor: 1
Lab File ID: REC012	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.44	10.00	94.4	70-120
4-BROMOFLUOROBENZENE	9.53	10.00	95.3	75-120
TOLUENE-D8	10.1	10.00	101	85-120
DIBROMOFLUOROMETHANE	10.8	10.00	108	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 14:22
Sample ID: 04-22-15-PWB-1	Date Analyzed: 05/01/15 14:22
Lab Samp ID: D142-07	Dilution Factor: 1
Lab File ID: REC013	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.51	10.00	95.1	70-120
4-BROMOFLUOROBENZENE	9.44	10.00	94.4	75-120
TOLUENE-D8	10.1	10.00	101	85-120
DIBROMOFLUOROMETHANE	10.9	10.00	109	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC013.D Vial: 13
Acq On : 1 May 2015 2:22 pm Operator: SDuong
Sample : 15D142-07 25mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: May 4 9:29 2015 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1534593	10.00	ug/l	0.03
55) CHLOROBENZENE-D5	13.16	117	1141417	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.40	152	372667	10.00	ug/l	0.04
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	460237	10.92	ug/l	0.03
Spiked Amount 10.000			Recovery =	109.20%		
43) 1,2-Dichloroethane-d4	7.50	65	231621	9.51	ug/l	0.03
Spiked Amount 10.000			Recovery =	95.10%		
56) Toluene-d8	10.52	98	1705795	10.11	ug/l	0.04
Spiked Amount 10.000			Recovery =	101.10%		
77) 4-Bromofluorobenzene	15.44	95	438374	9.44	ug/l	0.06
Spiked Amount 10.000			Recovery =	94.40%		
Target Compounds						Qvalue
19) Methylene chloride	4.47	49	14549	0.29	ug/l	96

(#) = qualifier out of range (m) = manual integration

2011

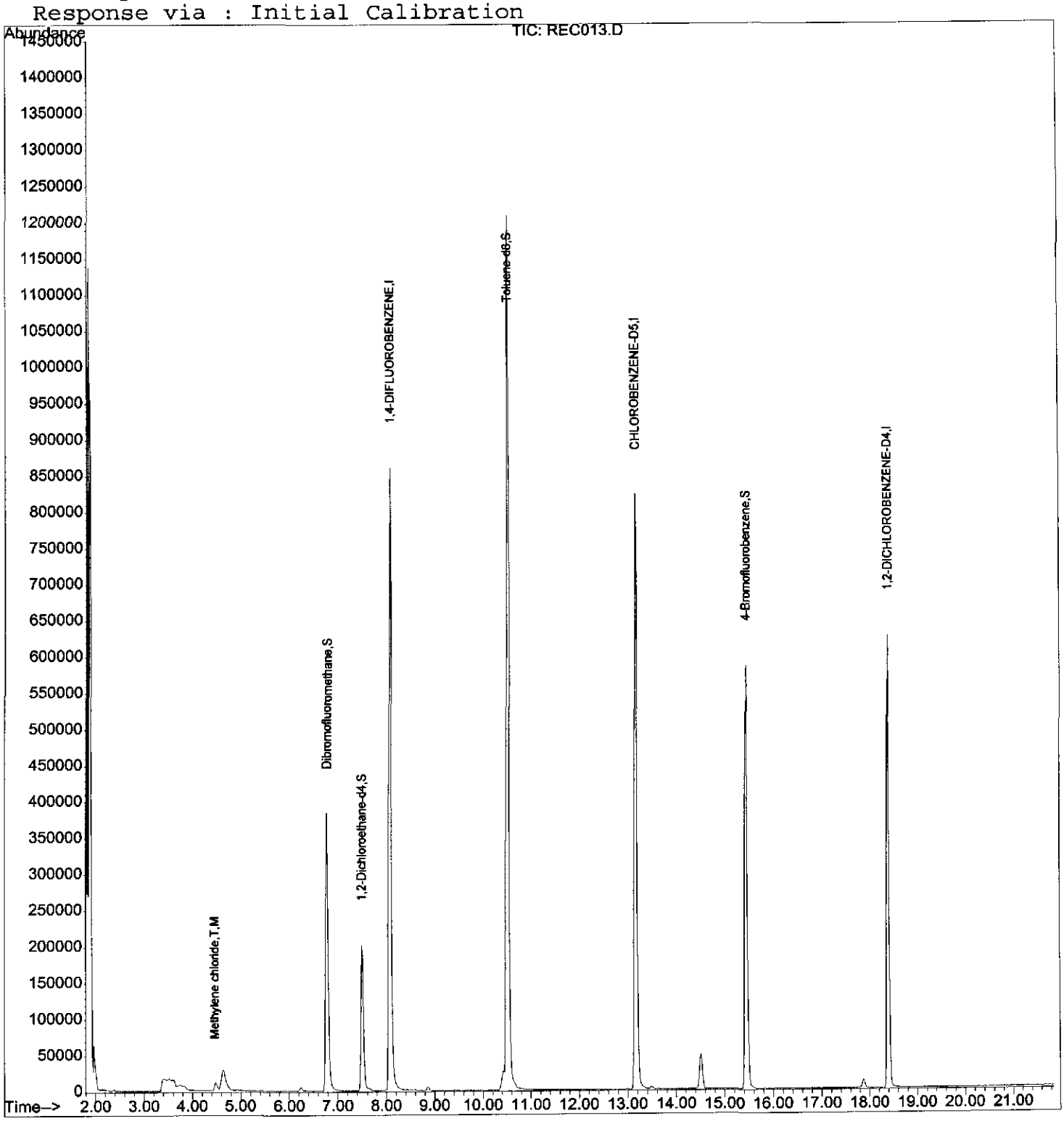
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC013.D
Acq On : 1 May 2015 2:22 pm
Sample : 15D142-07 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 9:29 2015

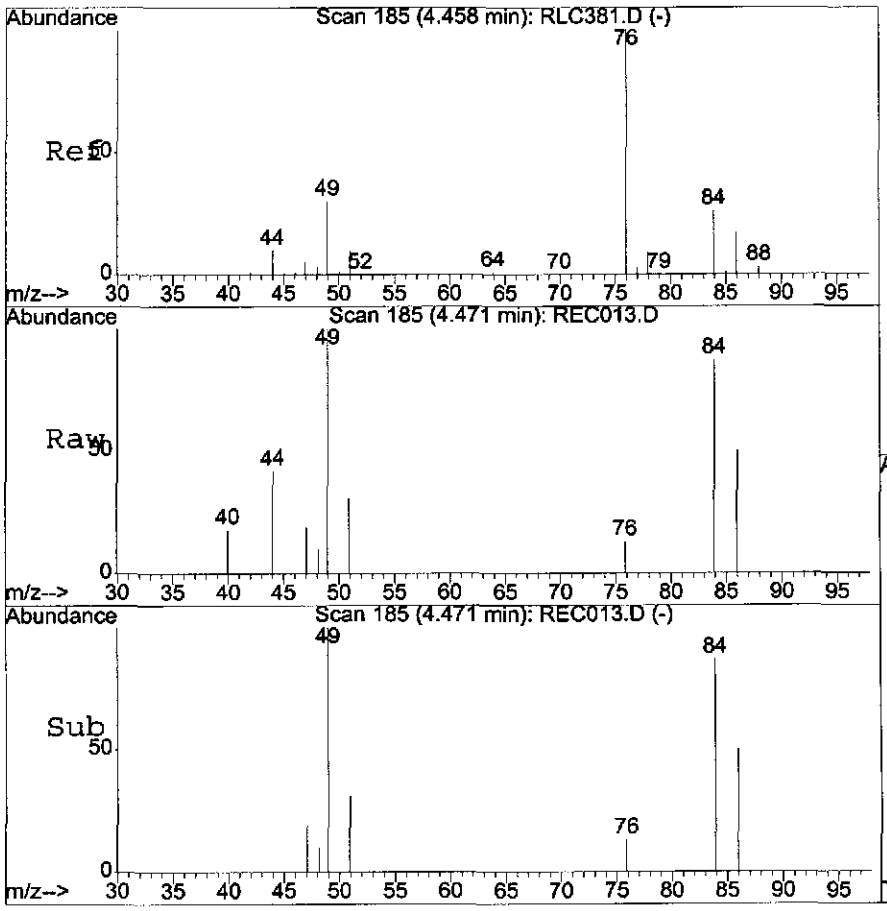
Vial: 13
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



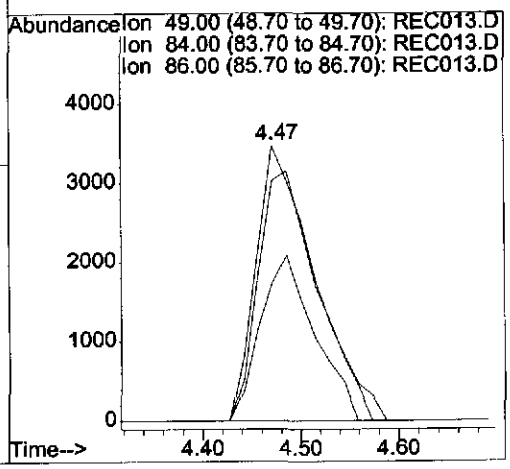
2012



#19
Methylene chloride
Concen: 0.29 ug/l
RT: 4.47 min Scan# 185
Delta R.T. 0.01 min
Lab File: REC013.D
Acq: 1 May 2015 2:22 pm

Tgt Ion: 49 Resp: 14549

Ion	Ratio	Lower	Upper
49	100		
84	91.4	55.6	115.6
86	55.2	24.5	84.5



METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 14:56
Sample ID: 04-22-15-TB-8	Date Analyzed: 05/01/15 14:56
Lab Samp ID: D142-08	Dilution Factor: 1
Lab File ID: REC014	Matrix : WATER
Ext Btch ID: VO67E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.54	10.00	95.4	70-120
4-BROMOFLUOROBENZENE	9.57	10.00	95.7	75-120
TOLUENE-D8	10.1	10.00	101	85-120
DIBROMOFLUOROMETHANE	11.0	10.00	110	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 05/01/15 15:30
Sample ID: 04-22-15-PWB-13A	Date Analyzed: 05/01/15 15:30
Lab Samp ID: D142-09	Dilution Factor: 1
Lab File ID: REC015	Matrix : WATER
Ext Btch ID: VO67E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	10	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	0.76J	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	9.9	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	16	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	2.1	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.80	10.00	98.0	70-120
4-BROMOFLUOROBENZENE	9.33	10.00	93.3	75-120
TOLUENE-D8	10.2	10.00	102	85-120
DIBROMOFLUOROMETHANE	11.2	10.00	112	85-115

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 05/01/15
Batch No. : 15D142	Date Extracted: 05/01/15 10:19
Sample ID: MBLK1W	Date Analyzed: 05/01/15 10:19
Lab Samp ID: V067E01B	Dilution Factor: 1
Lab File ID: REC006	Matrix : WATER
Ext Btch ID: V067E01	% Moisture : NA
Calib. Ref.: RLC381	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.04	10.00	90.4	70-120
4-BROMOFLUOROBENZENE	9.55	10.00	95.5	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V067E01B	V067E01L	V067E01C		
LAB FILE ID:	REC006	REC003	REC004		
DATE EXTRACTED:	05/01/1510:19	05/01/1508:38	05/01/1509:12	DATE COLLECTED:	NA
DATE ANALYZED:	05/01/1510:19	05/01/1508:38	05/01/1509:12	DATE RECEIVED:	05/01/15
PREP. BATCH:	V067E01	V067E01	V067E01		
CALIB. REF:	RLC381	RLC381	RLC381		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	11.6	116	10.0	11.1	111	4	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.2	102	10.0	9.90	99	3	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.1	101	10.0	9.76	98	3	65-130	30
1,1,2-Trichloroethane	ND	10.0	11.3	113	10.0	10.8	108	4	75-125	30
1,1-Dichloroethane	ND	10.0	10.2	102	10.0	9.89	99	3	70-135	30
1,1-Dichloroethene	ND	10.0	10.4	104	10.0	9.90	99	5	70-130	30
1,1-Dichloropropene	ND	10.0	11.6	116	10.0	11.4	114	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	11.0	110	10.0	10.9	109	1	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.6	106	10.0	10.2	102	4	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	11.0	110	10.0	11.1	111	1	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	10.5	105	10.0	9.99	100	5	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	11.7	117	10.0	11.9	119	2	50-130	30
1,2-Dibromoethane	ND	10.0	11.4	114	10.0	11.2	112	2	80-120	30
1,2-Dichlorobenzene	ND	10.0	11.8	118	10.0	11.3	113	4	70-120	30
1,2-Dichloroethane	NO	10.0	10.4	104	10.0	10.3	103	1	70-130	30
1,2-Dichloropropane	NO	10.0	10.2	102	10.0	10.1	101	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.4	104	10.0	9.89	99	5	75-130	30
1,3-Dichlorobenzene	ND	10.0	11.7	117	10.0	11.4	114	3	75-125	30
1,3-Dichloropropane	ND	10.0	10.5	105	10.0	10.1	101	4	75-125	30
1,4-Dichlorobenzene	ND	10.0	11.5	115	10.0	11.2	112	2	75-125	30
2,2-Dichloropropane	ND	10.0	9.81	98	10.0	9.47	95	3	70-135	30
2-Butanone	NO	50.0	45.8	92	50.0	46.6	93	2	30-150	30
2-Chlorotoluene	ND	10.0	9.96	100	10.0	9.93	99	0	75-125	30
2-Hexanone	ND	50.0	44.2	88	50.0	43.3	87	2	55-130	30
4-Chlorotoluene	ND	10.0	10.2	102	10.0	9.21	92	10	75-130	30
Acetone	ND	50.0	54.6	109	50.0	52.0	104	5	40-140	30
Benzene	ND	10.0	11.2	112	10.0	11.0	110	2	80-120	30
Bromobenzene	ND	10.0	11.8	118	10.0	11.4	114	3	75-125	30
Bromochloromethane	ND	10.0	10.0	100	10.0	9.88	99	1	65-130	30
Bromodichloromethane	ND	10.0	10.9	109	10.0	10.8	108	0	75-120	30
Bromoform	ND	10.0	11.1	111	10.0	10.7	107	4	70-130	30
Bromomethane	ND	10.0	8.85	88	10.0	8.65	86	2	30-145	30
Carbon Disulfide	ND	10.0	8.18	82	10.0	7.97	80	3	35-160	30
Carbon Tetrachloride	ND	10.0	11.1	111	10.0	10.6	106	5	65-140	30
Chlorobenzene	ND	10.0	12.0	120	10.0	11.5	115	4	80-120	30
Chloroethane	ND	10.0	8.81	88	10.0	8.45	85	4	60-135	30
Chloroform	ND	10.0	10.5	105	10.0	10.4	104	1	65-135	30
Chloromethane	ND	10.0	9.34	93	10.0	9.12	91	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	11.1	111	10.0	10.9	109	1	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.6	106	10.0	10.5	105	1	70-130	30
Dibromochloromethane	ND	10.0	11.9	119	10.0	11.5	115	4	60-135	30
Dibromomethane	ND	10.0	11.3	113	10.0	11.2	112	0	75-125	30
Dichlorodifluoromethane	ND	10.0	9.93	99	10.0	9.55	95	4	30-155	30
Ethylbenzene	ND	10.0	10.5	105	10.0	9.89	99	6	75-125	30
Hexachlorobutadiene	ND	10.0	10.9	109	10.0	10.7	107	2	50-140	30
Isopropyl Benzene	ND	10.0	11.6	116	10.0	11.2	112	3	75-125	30
m,p-Xylenes	ND	20.0	21.3	106	20.0	20.5	103	4	75-130	30
MIBK	ND	50.0	43.3	87	50.0	43.9	88	1	60-135	30
Methylene Chloride	ND	10.0	9.58	96	10.0	9.20	92	4	55-140	30
MTBE	ND	10.0	9.12	91	10.0	9.22	92	1	65-125	30
Naphthalene	ND	10.0	10.6	106	10.0	10.5	105	1	55-140	30
n-Butylbenzene	ND	10.0	9.96	100	10.0	9.48	95	5	70-135	30
n-Propylbenzene	ND	10.0	10.4	104	10.0	9.69	97	7	70-130	30
o-Xylene	NO	10.0	10.9	109	10.0	10.5	105	3	80-120	30
p-Isopropyltoluene	ND	10.0	10.9	109	10.0	10.4	104	5	75-130	30
Sec-Butylbenzene	ND	10.0	10.8	108	10.0	10.1	101	6	70-125	30
Styrene	ND	10.0	11.6	116	10.0	11.2	112	3	65-135	30
Tert-Butylbenzene	ND	10.0	11.8	118	10.0	10.9	109	8	70-130	30
Tetrachloroethene	ND	10.0	12.9	129	10.0	12.3	123	5	45-150	30
Toluene	ND	10.0	10.9	109	10.0	10.4	104	5	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.3	103	10.0	9.92	99	4	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.98	100	10.0	9.79	98	2	55-140	30
Trichloroethene	ND	10.0	11.9	119	10.0	11.6	116	2	70-125	30
Trichlorofluoromethane	ND	10.0	10.5	105	10.0	9.84	98	6	60-145	30
Vinyl Chloride	ND	10.0	9.38	94	10.0	8.94	89	5	50-145	30
Freon113	ND	10.0	11.5	115	10.0	11.0	110	4	65-135	30
Vinyl Acetate	ND	10.0	8.30	83	10.0	7.85	79	6	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.39	94	10.0	9.57	96	70-120
4-Bromofluorobenzene	10.0	9.19	92	10.0	9.09	91	75-120
Toluene-d8	10.0	10.1	101	10.0	10.0	100	85-120
Dibromofluoromethane	10.0	10.8	108	10.0	11.1	111	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-21-15-AMW-3R
LAB SAMP ID: D142-03 D142-03M D142-03S
LAB FILE ID: REC017 REC018 REC019
DATE EXTRACTED: 05/01/1516:40 05/01/1517:17 05/01/1517:50 DATE COLLECTED: 04/21/15
DATE ANALYZED: 05/01/1516:40 05/01/1517:17 05/01/1517:50 DATE RECEIVED: 04/22/15
PREP. BATCH: V067E01 V067E01 V067E01
CALIB. REF: RLC381 RLC381 RLC381

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	11.0	110	10.0	11.1	111	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.92	99	10.0	9.99	100	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.51	95	10.0	9.72	97	2	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.7	107	10.0	10.7	107	0	75-125	30
1,1-Dichloroethane	ND	10.0	9.93	99	10.0	9.88	99	1	70-135	30
1,1-Dichloroethene	ND	10.0	9.93	99	10.0	9.95	99	0	70-130	30
1,1-Dichloropropene	ND	10.0	11.2	112	10.0	11.4	114	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	9.81	98	10.0	10.8	108	10	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.0	100	10.0	10.3	103	3	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	10.3	103	10.0	10.8	108	5	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.81	98	10.0	9.87	99	1	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	11.4	114	10.0	11.7	117	3	50-130	30
1,2-Dibromoethane	ND	10.0	10.9	109	10.0	11.1	111	1	80-120	30
1,2-Dichlorobenzene	ND	10.0	11.2	112	10.0	11.4	114	2	70-120	30
1,2-Dichloroethane	ND	10.0	9.97	100	10.0	10.3	103	3	70-130	30
1,2-Dichloropropane	0.514J	10.0	10.6	101	10.0	10.6	100	0	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.89	99	10.0	9.85	98	0	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.9	109	10.0	11.2	112	2	75-125	30
1,3-Dichloropropane	ND	10.0	9.98	100	10.0	10.1	101	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.8	108	10.0	11.0	110	2	75-125	30
2,2-Dichloropropane	ND	10.0	8.14	81	10.0	8.04	80	1	70-135	30
2-Butanone	ND	50.0	39.7	79	50.0	40.9	82	3	30-150	30
2-Chlorotoluene	ND	10.0	9.43	94	10.0	9.44	94	0	75-125	30
2-Hexanone	ND	50.0	39.6	79	50.0	41.2	82	4	55-130	30
4-Chlorotoluene	ND	10.0	9.51	95	10.0	9.79	98	3	75-130	30
Acetone	ND	50.0	41.5	83	50.0	42.3	85	2	40-140	30
Benzene	ND	10.0	10.8	108	10.0	11.0	110	2	80-120	30
Bromobenzene	ND	10.0	11.0	110	10.0	11.2	112	2	75-125	30
Bromochloromethane	ND	10.0	9.76	98	10.0	9.81	98	0	65-130	30
Bromodichloromethane	ND	10.0	10.7	107	10.0	10.8	108	1	75-120	30
Bromoform	ND	10.0	10.3	103	10.0	10.7	107	3	70-130	30
Bromomethane	ND	10.0	8.42	84	10.0	8.29	83	2	30-145	30
Carbon Disulfide	ND	10.0	7.84	78	10.0	7.85	78	0	35-160	30
Carbon Tetrachloride	1.44	10.0	12.0	106	10.0	12.1	106	1	65-140	30
Chlorobenzene	ND	10.0	11.5	115	10.0	11.4	114	0	80-120	30
Chloroethane	ND	10.0	8.64	86	10.0	8.31	83	4	60-135	30
Chloroform	ND	10.0	10.4	104	10.0	10.4	104	0	65-135	30
Chloromethane	ND	10.0	8.83	88	10.0	8.63	86	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.7	107	10.0	10.9	109	2	70-125	30
cis-1,3-Dichloropropene	ND	10.0	9.96	100	10.0	10.1	101	2	70-130	30
Dibromochloromethane	ND	10.0	11.3	113	10.0	11.6	116	3	60-135	30
Dibromomethane	ND	10.0	10.9	109	10.0	11.2	112	3	75-125	30
Dichlorodifluoromethane	ND	10.0	9.77	98	10.0	9.53	95	2	30-155	30
Ethylbenzene	ND	10.0	9.64	96	10.0	9.53	95	1	75-125	30
Hexachlorobutadiene	ND	10.0	10.6	106	10.0	10.6	106	0	50-140	30
Isopropyl Benzene	ND	10.0	11.3	113	10.0	11.2	112	1	75-125	30
m,p-Xylenes	ND	20.0	20.4	102	20.0	20.4	102	0	75-130	30
MIBK	ND	50.0	41.2	82	50.0	42.8	86	4	60-135	30
Methylene Chloride	2.37	10.0	11.1	88	10.0	11.2	88	0	55-140	30
MTBE	ND	10.0	8.99	90	10.0	9.05	91	1	65-125	30
Naphthalene	ND	10.0	9.31	93	10.0	10.5	105	12	55-140	30
n-Butylbenzene	ND	10.0	9.47	95	10.0	9.50	95	0	70-135	30
n-Propylbenzene	ND	10.0	9.66	97	10.0	9.85	98	2	70-130	30
o-Xylene	ND	10.0	10.6	106	10.0	10.6	106	0	80-120	30
p-Isopropyltoluene	ND	10.0	10.3	103	10.0	10.4	104	1	75-130	30
Sec-Butylbenzene	ND	10.0	10.2	102	10.0	10.3	103	2	70-125	30
Styrene	ND	10.0	10.5	105	10.0	9.66	97	9	65-135	30
Tert-Butylbenzene	ND	10.0	11.1	111	10.0	11.2	112	1	70-130	30
Tetrachloroethene	ND	10.0	12.1	121	10.0	12.3	123	1	45-150	30
Toluene	ND	10.0	10.4	104	10.0	10.5	105	1	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.98	100	10.0	10.1	101	1	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.24	92	10.0	9.39	94	2	55-140	30
Trichloroethene	ND	10.0	11.5	115	10.0	11.4	114	1	70-125	30
Trichlorofluoromethane	ND	10.0	9.62	96	10.0	9.42	94	2	60-145	30
Vinyl Chloride	ND	10.0	8.78	88	10.0	8.59	86	2	50-145	30
Freon113	ND	10.0	11.0	110	10.0	11.1	111	0	65-135	30
Vinyl Acetate	ND	10.0	6.65	67	10.0	6.16	62*	8	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.50	95	10.0	9.61	96	70-120
4-Bromofluorobenzene	10.0	9.14	91	10.0	9.17	92	75-120
Toluene-d8	10.0	10.2	102	10.0	10.1	101	85-120
Dibromofluoromethane	10.0	11.0	110	10.0	10.9	109	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC006.D
Acq On : 1 May 2015 10:19 am
Sample : VO67E01B
Misc : BLANK
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 6
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1638136	10.00	ug/l	0.03
55) CHLOROBENZENE-D5	13.17	117	1211333	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.40	152	390810	10.00	ug/l	0.04
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	474333	10.55	ug/l	0.03
Spiked Amount 10.000			Recovery =	105.50%		
43) 1,2-Dichloroethane-d4	7.50	65	234899	9.04	ug/l	0.03
Spiked Amount 10.000			Recovery =	90.40%		
56) Toluene-d8	10.52	98	1840305	10.28	ug/l	0.04
Spiked Amount 10.000			Recovery =	102.80%		
77) 4-Bromofluorobenzene	15.44	95	464981	9.55	ug/l	0.06
Spiked Amount 10.000			Recovery =	95.50%		
Target Compounds						Qvalue
19) Methylene chloride	4.49	49	19371	0.36	ug/l	94

(#) = qualifier out of range (m) = manual integration

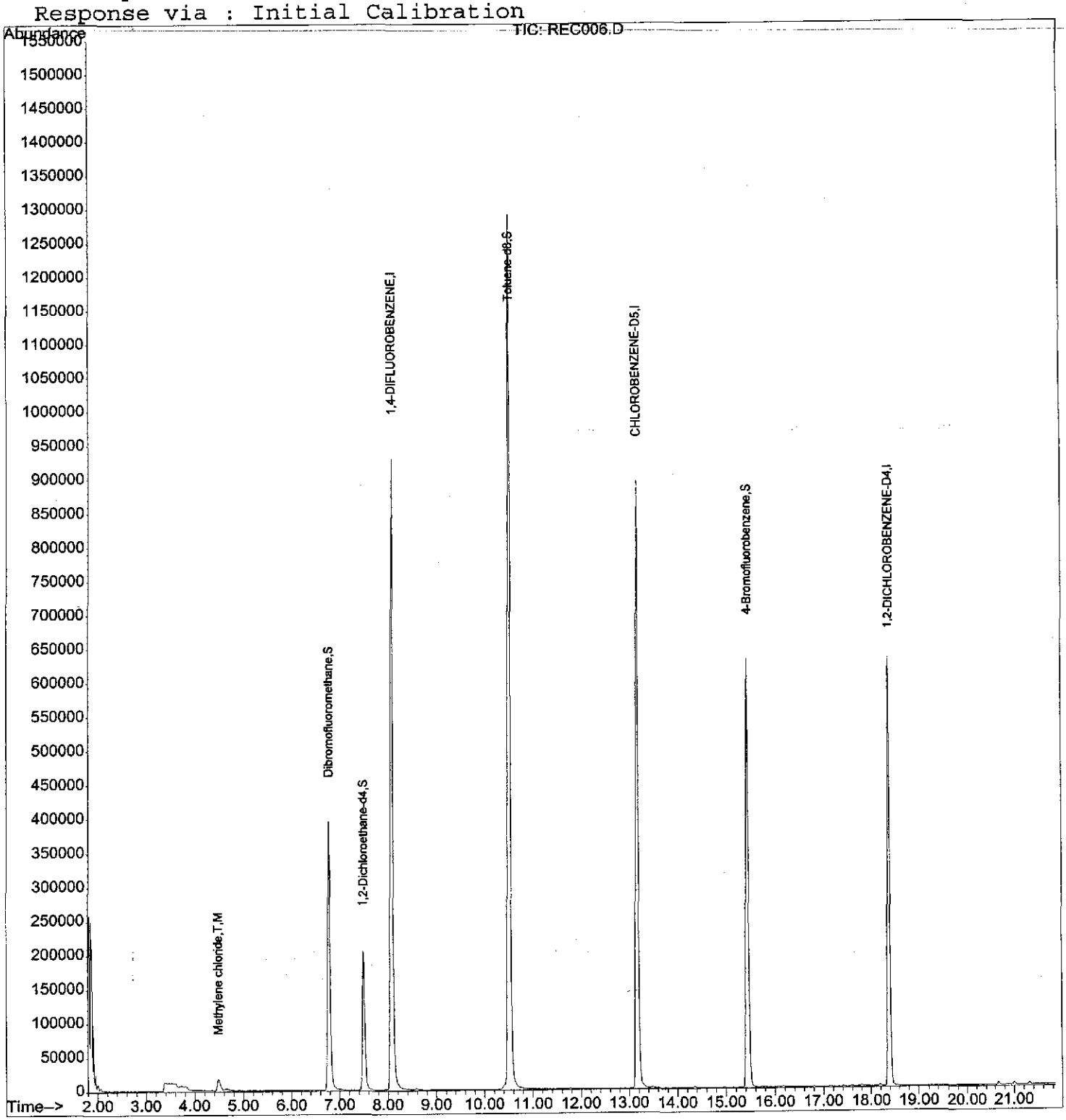
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC006.D
Acq On : 1 May 2015 10:19 am
Sample : VO67E01B
Misc : BLANK
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

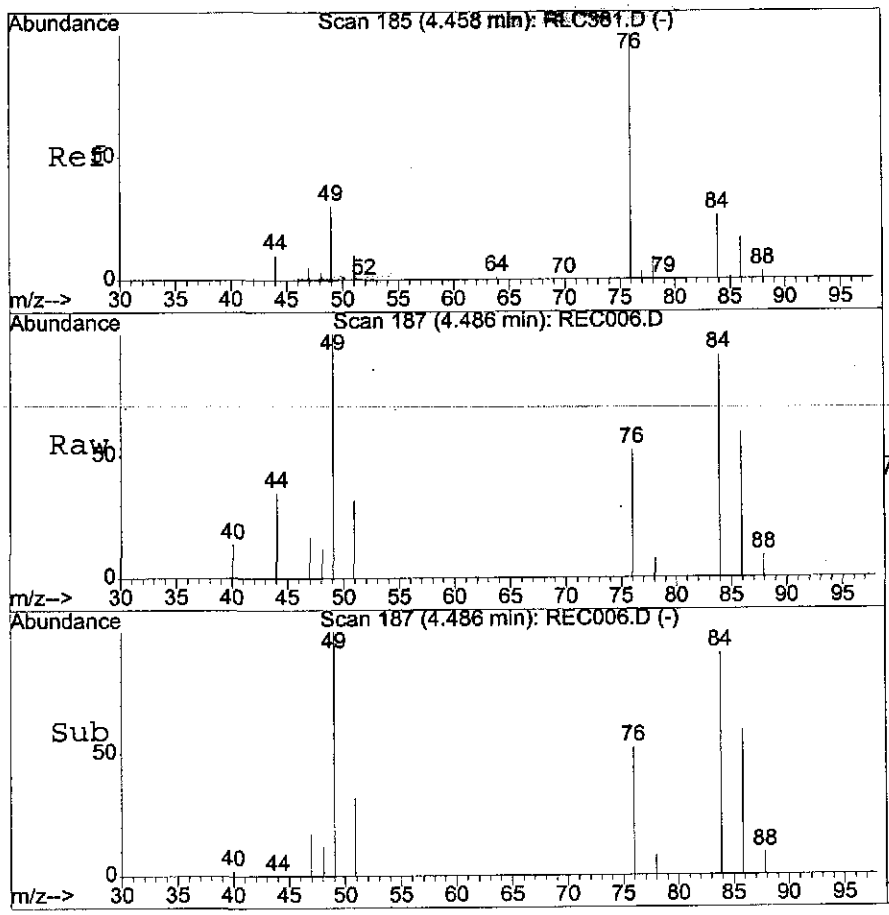
Vial: 6
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



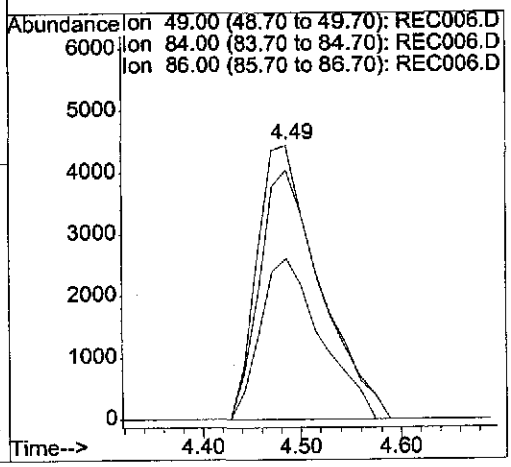
2022



#19
Methylene chloride
Concen: 0.36 ug/l
RT: 4.49 min Scan# 187
Delta R.T. 0.03 min
Lab File: REC006.D
Acq: 1 May 2015 10:19 am

Tgt Ion: 49 Resp: 19371

Ion	Ratio	Lower	Upper
49	100		
84	91.5	55.6	115.6
86	57.5	24.5	84.5



2023

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC003.D
Acq On : 1 May 2015 8:38 am
Sample : VO67E01L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1537500	10.00	ug/l		0.01
55) CHLOROBENZENE-D5	13.15	117	1147222	10.00	ug/l		0.03
74) 1,2-DICHLOROBENZENE-D4	18.38	152	395771	10.00	ug/l		0.03
System Monitoring Compounds							
35) Dibromofluoromethane	6.77	111	454364	10.76	ug/l		0.01
Spiked Amount 10.000			Recovery =	107.60%			
43) 1,2-Dichloroethane-d4	7.48	65	229055	9.39	ug/l		0.01
Spiked Amount 10.000			Recovery =	93.90%			
56) Toluene-d8	10.51	98	1715060	10.12	ug/l		0.03
Spiked Amount 10.000			Recovery =	101.20%			
77) 4-Bromofluorobenzene	15.43	95	453317	9.19	ug/l		0.04
Spiked Amount 10.000			Recovery =	91.90%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.96	85	514928	9.93	ug/l		100
4) Chloromethane	2.16	50	715016	9.34	ug/l		100
5) Vinyl chloride	2.30	62	784862	9.38	ug/l		100
6) Bromomethane	2.77	94	497717	8.85	ug/l		98
7) Chloroethane	2.87	64	459075	8.81	ug/l		94
8) Dichlorofluoromethane	2.91	67	995327	9.42	ug/l		99
9) Trichlorofluoromethane	3.17	101	761014	10.47	ug/l		99
11) Acrolein	3.64	56	79085	37.20	ug/l		92
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	477301	11.52	ug/l		99
13) Acetone	3.71	43	200015	54.56	ug/l		89
14) 1,1-Dichloroethene	3.87	61	833697	10.39	ug/l		94
15) tert-Butyl alcohol	3.98	59	53624	43.85	ug/l	#	75
17) Iodomethane	4.25	142	1066364	12.94	ug/l		92
19) Methylene chloride	4.46	49	484786	9.58	ug/l		93
20) Carbon disulfide	4.49	76	1763586	8.18	ug/l		99
21) Acrylonitrile	4.62	53	219779	40.66	ug/l		99
22) tert-Butyl methyl ether (M	4.66	73	565925	9.12	ug/l		99
23) trans-1,2-Dichloroethene	4.84	61	713120	10.29	ug/l		91
24) Isopropyl ether (DIPE)	5.25	45	1243139	9.01	ug/l		96
25) 1,1-Dichloroethane	5.41	63	875684	10.17	ug/l		99
26) Vinyl acetate	5.41	43	356093	8.30	ug/l		98
28) tert-Butyl ethyl ether (ET	5.80	59	895436	8.96	ug/l		95
29) 2-Butanone	5.98	43	280972	45.76	ug/l		98
30) 2,2-Dichloropropane	6.17	77	487934	9.81	ug/l		98
31) cis-1,2-Dichloroethene	6.24	96	568071	11.10	ug/l		92
32) Chloroform	6.46	83	793212	10.49	ug/l		99
33) Bromochloromethane	6.68	49	264127	10.01	ug/l		79

(#) = qualifier out of range (m) = manual integration

2024

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC003.D
Acq On : 1 May 2015 8:38 am
Sample : VO67E01L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Tetrahydrofuran	6.74	42	33008	10.04	ug/l		98
37)	1,1,1-Trichloroethane	7.03	97	683417	10.21	ug/l		98
40)	1,1-Dichloropropene	7.25	110	303161	11.63	ug/l		99
41)	Carbon tetrachloride	7.39	119	673820	11.11	ug/l		100
42)	tert-Amyl methyl ether (TA	7.42	87	160959	9.79	ug/l		95
44)	1,2-Dichloroethane	7.63	62	298188	10.37	ug/l		99
45)	Benzene	7.64	78	2047397	11.19	ug/l		98
46)	Trichloroethene	8.58	130	684042	11.86	ug/l		92
48)	1,2-Dichloropropane	8.84	63	410172	10.23	ug/l		98
49)	Bromodichloromethane	9.22	83	505854	10.90	ug/l		100
50)	1,4-Dioxane	9.25	88	24670	211.32	ug/l		90
51)	Dibromomethane	9.31	93	181577	11.27	ug/l		93
52)	2-Chloroethyl vinyl ether	9.72	63	26027	2.94	ug/l		90
53)	4-Methyl-2-pentanone	9.76	43	655237	43.34	ug/l		95
54)	cis-1,3-Dichloropropene	10.10	75	604695	10.59	ug/l		97
57)	Toluene	10.64	91	2160738	10.93	ug/l		99
58)	Ethyl methacrylate	10.93	69	230532	9.57	ug/l		98
59)	trans-1,3-Dichloropropene	10.94	75	401850	9.98	ug/l		96
60)	1,1,2-Trichloroethane	11.22	97	219757	11.25	ug/l		96
61)	2-Hexanone	11.24	43	423203	44.24	ug/l		98
62)	1,3-Dichloropropane	11.66	76	397397	10.53	ug/l		100
63)	Tetrachloroethene	11.76	164	548119	12.88	ug/l		98
64)	Dibromochloromethane	12.11	129	321997	11.86	ug/l		98
65)	1,2-Dibromoethane	12.48	107	216853	11.41	ug/l		100
66)	1-Chlorohexane	12.77	91	951252	9.56	ug/l		95
67)	Chlorobenzene	13.22	112	1320286	11.95	ug/l		93
68)	1,1,1,2-Tetrachloroethane	13.31	131	423268	11.57	ug/l		99
69)	Ethylbenzene	13.33	91	2388123	10.54	ug/l		97
70)	m-Xylene & p-Xylene	13.47	91	3444112	21.26	ug/l		96
71)	o-Xylene	14.28	91	1648786	10.86	ug/l		96
72)	Styrene	14.35	104	1335734	11.56	ug/l		96
73)	Isopropylbenzene	14.96	105	2438893	11.60	ug/l		97
75)	Bromoform	14.98	173	158224	11.12	ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.28	83	211015	10.10	ug/l		99
78)	1,2,3-Trichloropropane	15.58	110	56554	10.57	ug/l		90
79)	trans-1,4-Dichloro-2-buten	15.71	53	47537	8.59	ug/l		95
80)	n-Propylbenzene	15.72	91	2884597	10.38	ug/l		96
81)	Bromobenzene	15.80	156	463309	11.77	ug/l	#	85
82)	1,3,5-Trimethylbenzene	16.03	105	1765227	10.37	ug/l		94
83)	2-Chlorotoluene	16.06	91	1573086	9.96	ug/l		92
84)	4-Chlorotoluene	16.15	91	1364649	10.18	ug/l		92

(#) = qualifier out of range (m) = manual integration

2025

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC003.D
Acq On : 1 May 2015 8:38 am
Sample : VO67E01L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
85)	tert-Butylbenzene	16.72	134	477062	11.76	ug/l	#	87
86)	1,2,4-Trimethylbenzene	16.79	105	1680546	10.50	ug/l		94
87)	sec-Butylbenzene	17.14	105	2646941	10.76	ug/l		97
88)	p-Isopropyltoluene	17.42	119	2169532	10.92	ug/l		97
89)	1,3-Dichlorobenzene	17.58	146	932225	11.72	ug/l		98
90)	1,4-Dichlorobenzene	17.80	146	873710	11.46	ug/l		98
91)	n-Butylbenzene	18.18	91	1884058	9.96	ug/l		97
92)	1,2-Dichlorobenzene	18.43	146	718206	11.80	ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.57	157	32172	11.70	ug/l		92
94)	1,2,4-Trichlorobenzene	20.66	180	411616	11.01	ug/l		99
95)	Hexachlorobutadiene	20.84	225	363084	10.91	ug/l		100
96)	Naphthalene	21.00	128	445937	10.63	ug/l		99
97)	1,2,3-Trichlorobenzene	21.30	180	291248	11.01	ug/l		99

(#) = qualifier out of range (m) = manual integration

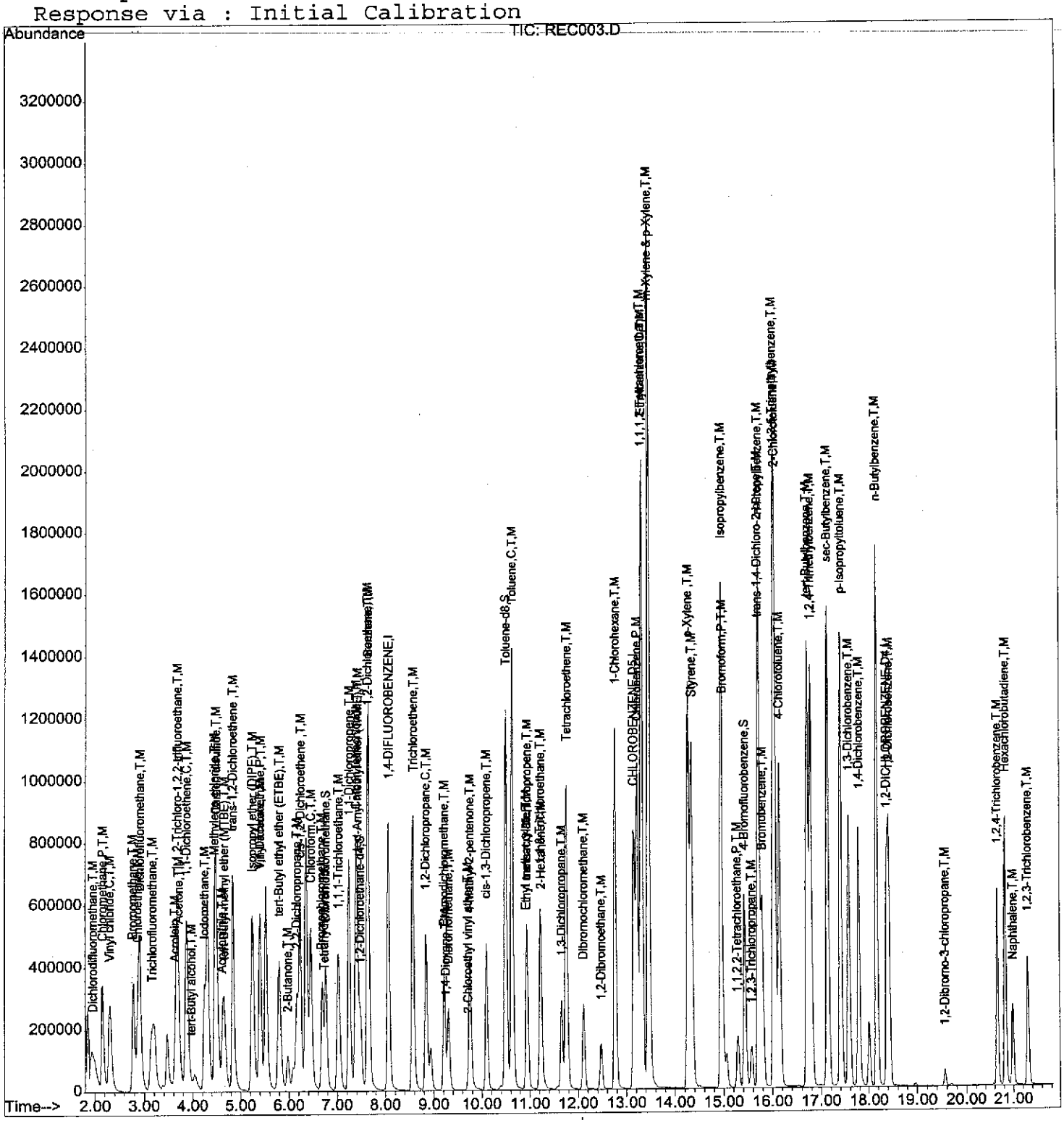
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC003.D
Acq On : 1 May 2015 8:38 am
Sample : VO67E01L
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 3
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC004.D
Acq On : 1 May 2015 9:12 am
Sample : VO67E01C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1599238	10.00	ug/l		0.03
55) CHLOROBENZENE-D5	13.17	117	1235227	10.00	ug/l		0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	435292	10.00	ug/l		0.03
System Monitoring Compounds							
35) Dibromofluoromethane	6.78	111	485172	11.05	ug/l		0.03
Spiked Amount 10.000			Recovery =	110.50%			
43) 1,2-Dichloroethane-d4	7.50	65	242713	9.57	ug/l		0.03
Spiked Amount 10.000			Recovery =	95.70%			
56) Toluene-d8	10.52	98	1827704	10.01	ug/l		0.04
Spiked Amount 10.000			Recovery =	100.10%			
77) 4-Bromofluorobenzene	15.43	95	493385	9.09	ug/l		0.04
Spiked Amount 10.000			Recovery =	90.90%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.97	85	514996	9.55	ug/l		100
4) Chloromethane	2.15	50	726308	9.12	ug/l		100
5) Vinyl chloride	2.31	62	777782	8.94	ug/l		100
6) Bromomethane	2.78	94	505685	8.65	ug/l		99
7) Chloroethane	2.88	64	458437	8.45	ug/l		98
8) Dichlorofluoromethane	2.92	67	986988	8.98	ug/l		99
9) Trichlorofluoromethane	3.18	101	744584	9.84	ug/l		99
11) Acrolein	3.65	56	79436	35.92	ug/l		93
12) 1,1,2-Trichloro-1,2,2-trif	3.70	151	474626	11.02	ug/l		99
13) Acetone	3.73	43	198089	51.95	ug/l		92
14) 1,1-Dichloroethene	3.89	61	826131	9.90	ug/l		94
15) tert-Butyl alcohol	3.99	59	57317	45.06	ug/l	#	74
17) Iodomethane	4.27	142	1077516	12.57	ug/l		93
19) Methylene chloride	4.47	49	484090	9.20	ug/l		92
20) Carbon disulfide	4.50	76	1786536	7.97	ug/l		99
21) Acrylonitrile	4.65	53	232811	41.41	ug/l		99
22) tert-Butyl methyl ether (M	4.68	73	594898	9.22	ug/l		99
23) trans-1,2-Dichloroethene	4.85	61	715104	9.92	ug/l		91
24) Isopropyl ether (DIPE)	5.26	45	1292500	9.00	ug/l		96
25) 1,1-Dichloroethane	5.42	63	886259	9.89	ug/l		99
26) Vinyl acetate	5.42	43	350353	7.85	ug/l		98
28) tert-Butyl ethyl ether (ET	5.82	59	940211	9.04	ug/l		95
29) 2-Butanone	5.99	43	297722	46.61	ug/l		98
30) 2,2-Dichloropropane	6.18	77	490220	9.47	ug/l		97
31) cis-1,2-Dichloroethene	6.25	96	582560	10.94	ug/l		91
32) Chloroform	6.47	83	816335	10.38	ug/l		99
33) Bromochloromethane	6.71	49	271206	9.88	ug/l		78

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC004.D
Acq On : 1 May 2015 9:12 am
Sample : VO67E01C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Tetrahydrofuran	6.75	42	35511	10.38 ug/l		97
37)	1,1,1-Trichloroethane	7.04	97	689072	9.90 ug/l		98
40)	1,1-Dichloropropene	7.26	110	308820	11.39 ug/l		99
41)	Carbon tetrachloride	7.41	119	668773	10.60 ug/l		100
42)	tert-Amyl methyl ether (TA	7.44	87	167178	9.78 ug/l		96
44)	1,2-Dichloroethane	7.64	62	308356	10.31 ug/l		99
45)	Benzene	7.66	78	2094858	11.00 ug/l		98
46)	Trichloroethene	8.58	130	696711	11.62 ug/l		92
48)	1,2-Dichloropropane	8.86	63	422389	10.13 ug/l		98
49)	Bromodichloromethane	9.24	83	523711	10.85 ug/l		99
50)	1,4-Dioxane	9.26	88	25863	212.99 ug/l		88
51)	Dibromomethane	9.32	93	188439	11.25 ug/l		93
52)	2-Chloroethyl vinyl ether	9.73	63	28344	3.08 ug/l		91
53)	4-Methyl-2-pentanone	9.78	43	689673	43.86 ug/l		96
54)	cis-1,3-Dichloropropene	10.11	75	623226	10.50 ug/l		97
57)	Toluene	10.65	91	2223475	10.44 ug/l		100
58)	Ethyl methacrylate	10.94	69	245054	9.45 ug/l		99
59)	trans-1,3-Dichloropropene	10.96	75	424327	9.79 ug/l		96
60)	1,1,2-Trichloroethane	11.22	97	226335	10.76 ug/l		97
61)	2-Hexanone	11.24	43	446402	43.34 ug/l		98
62)	1,3-Dichloropropane	11.66	76	410342	10.10 ug/l		99
63)	Tetrachloroethene	11.76	164	561735	12.26 ug/l		98
64)	Dibromochloromethane	12.13	129	334711	11.45 ug/l		98
65)	1,2-Dibromoethane	12.48	107	229183	11.20 ug/l		99
66)	1-Chlorohexane	12.79	91	978227	9.13 ug/l		95
67)	Chlorobenzene	13.24	112	1363638	11.46 ug/l		94
68)	1,1,1,2-Tetrachloroethane	13.31	131	438413	11.13 ug/l		99
69)	Ethylbenzene	13.34	91	2412343	9.89 ug/l		97
70)	m-Xylene & p-Xylene	13.47	91	3580523	20.53 ug/l		96
71)	o-Xylene	14.28	91	1722001	10.53 ug/l		95
72)	Styrene	14.35	104	1392237	11.19 ug/l		97
73)	Isopropylbenzene	14.96	105	2539137	11.21 ug/l		97
75)	Bromoform	14.98	173	166942	10.67 ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.30	83	224177	9.76 ug/l		98
78)	1,2,3-Trichloropropane	15.58	110	59891	10.18 ug/l		90
79)	trans-1,4-Dichloro-2-buten	15.72	53	50078	8.22 ug/l		95
80)	n-Propylbenzene	15.72	91	2963898	9.69 ug/l		95
81)	Bromobenzene	15.80	156	493064	11.39 ug/l	#	84
82)	1,3,5-Trimethylbenzene	16.04	105	1851524	9.89 ug/l		95
83)	2-Chlorotoluene	16.06	91	1724707	9.93 ug/l		92
84)	4-Chlorotoluene	16.16	91	1357958	9.21 ug/l		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC004.D
Acq On : 1 May 2015 9:12 am
Sample : VO67E01C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
85)	tert-Butylbenzene	16.73	134	486128	10.90	ug/l	#	89
86)	1,2,4-Trimethylbenzene	16.80	105	1757885	9.99	ug/l		94
87)	sec-Butylbenzene	17.14	105	2738360	10.12	ug/l		97
88)	p-Isopropyltoluene	17.42	119	2277298	10.42	ug/l		97
89)	1,3-Dichlorobenzene	17.59	146	993583	11.36	ug/l		98
90)	1,4-Dichlorobenzene	17.80	146	942251	11.24	ug/l		98
91)	n-Butylbenzene	18.18	91	1971444	9.48	ug/l		98
92)	1,2-Dichlorobenzene	18.43	146	759310	11.34	ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.57	157	35982	11.90	ug/l		91
94)	1,2,4-Trichlorobenzene	20.66	180	456807	11.11	ug/l		99
95)	Hexachlorobutadiene	20.84	225	393235	10.74	ug/l		99
96)	Naphthalene	21.00	128	486826	10.55	ug/l		100
97)	1,2,3-Trichlorobenzene	21.32	180	316213	10.87	ug/l		100

(#) = qualifier out of range (m) = manual integration

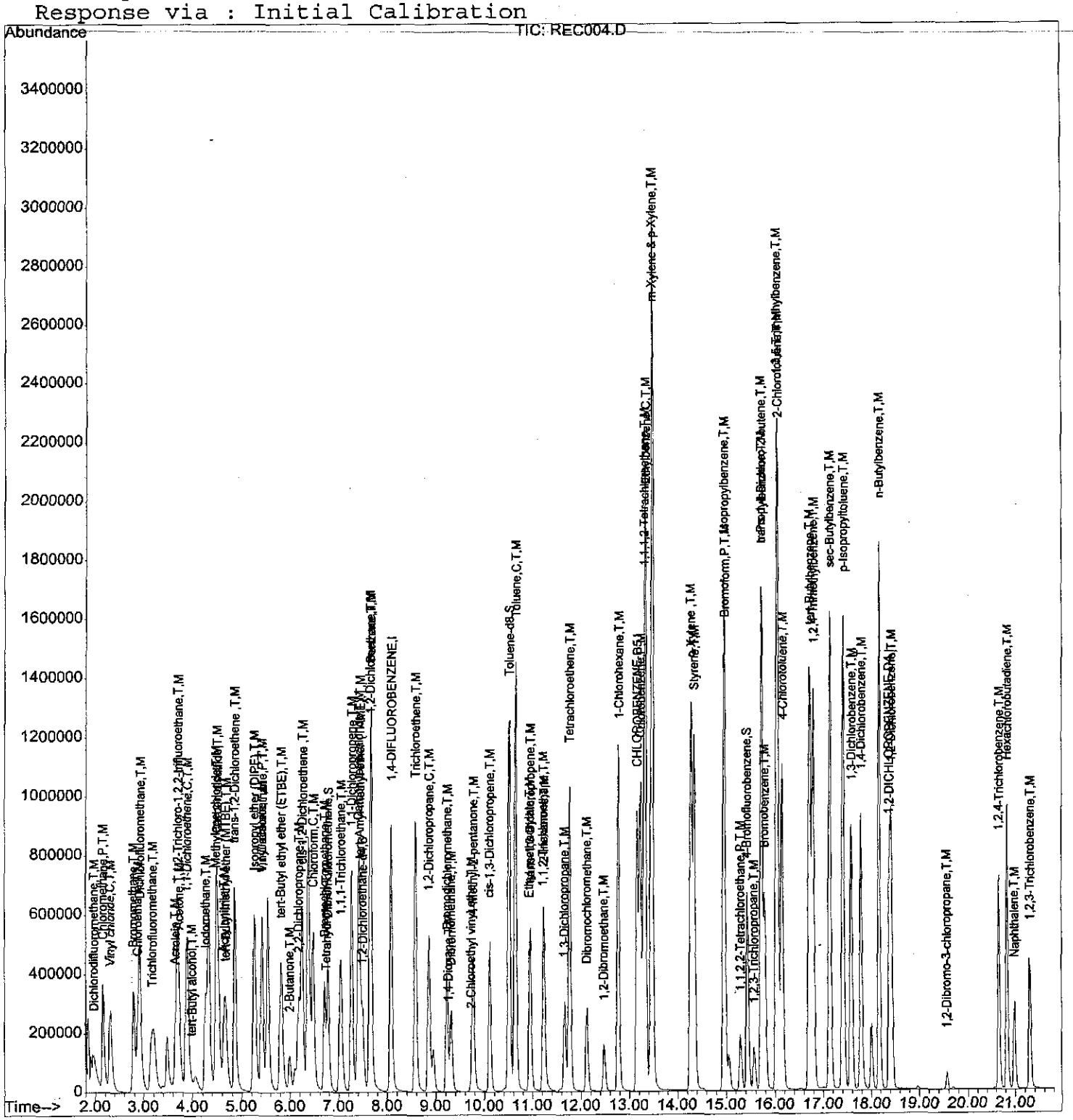
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC004.D
Acq On : 1 May 2015 9:12 am
Sample : VO67E01C
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 4
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC017.D
Acq On : 1 May 2015 4:40 pm
Sample : 15D142-03 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:58 2015

Vial: 17
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1542965	10.00	ug/l	0.03
55) CHLOROBENZENE-D5	13.18	117	1147882	10.00	ug/l	0.06
74) 1,2-DICHLOROBENZENE-D4	18.40	152	376219	10.00	ug/l	0.04
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	462839	10.93	ug/l	0.03
Spiked Amount 10.000			Recovery =	109.30%		
43) 1,2-Dichloroethane-d4	7.50	65	237361	9.70	ug/l	0.03
Spiked Amount 10.000			Recovery =	97.00%		
56) Toluene-d8	10.52	98	1740211	10.26	ug/l	0.04
Spiked Amount 10.000			Recovery =	102.60%		
77) 4-Bromofluorobenzene	15.45	95	448412	9.56	ug/l	0.06
Spiked Amount 10.000			Recovery =	95.60%		
Target Compounds						Qvalue
19) Methylene chloride	4.47	49	120453	2.37	ug/l	96
41) Carbon tetrachloride	7.41	119	87882	1.44	ug/l	100
48) 1,2-Dichloropropane	8.87	63	20658	0.51	ug/l	96

(#) = qualifier out of range (m) = manual integration

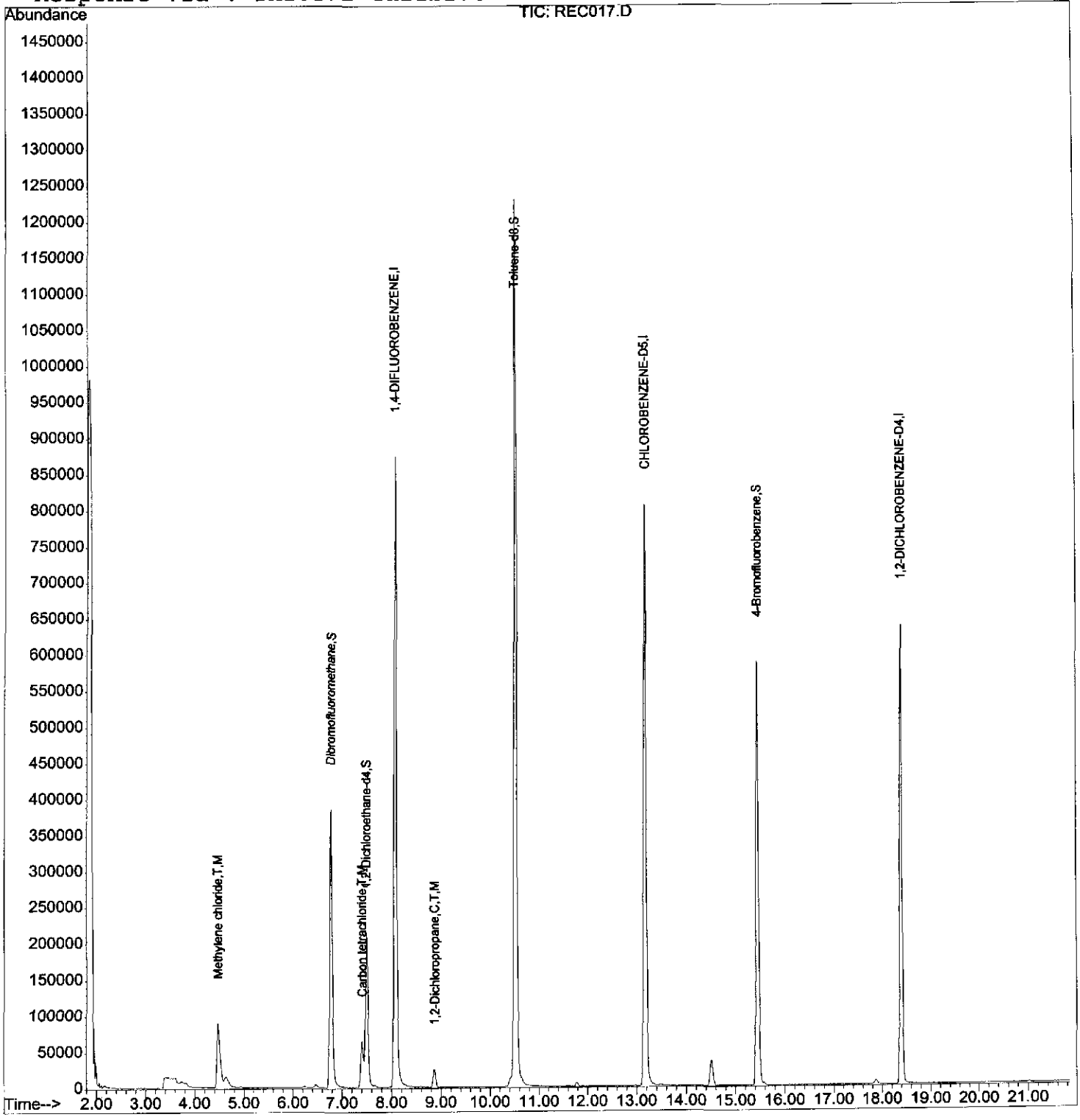
Quantitation Report

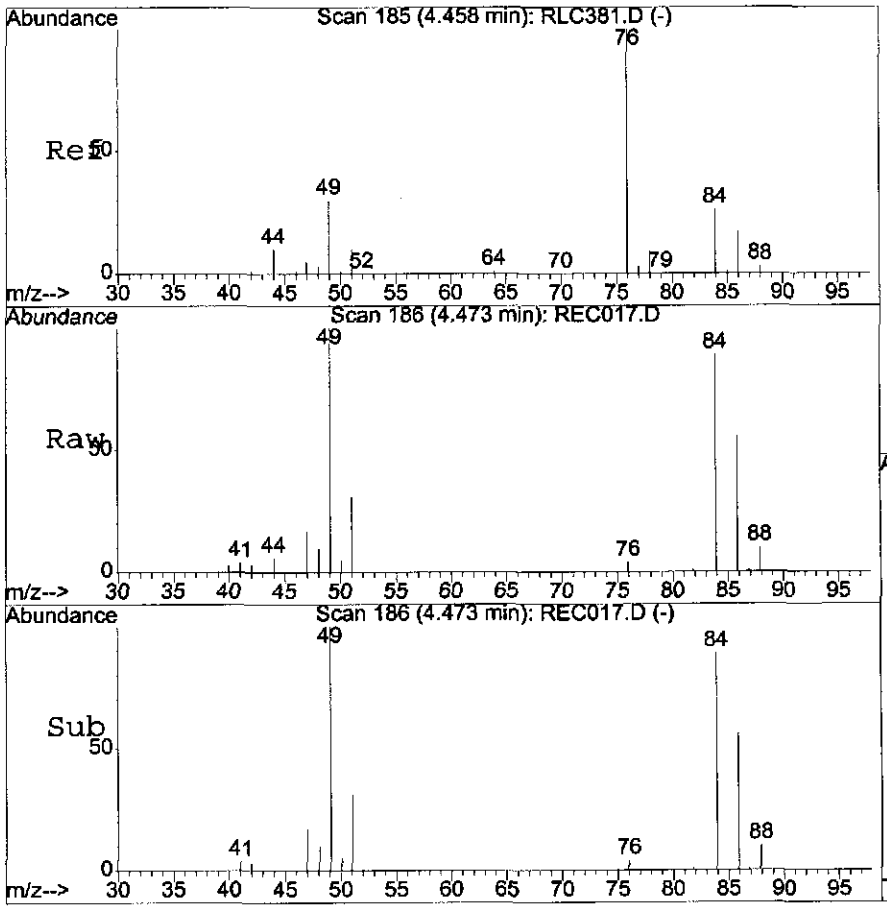
Data File : D:\HPCHEM\1\DATA\15E01\REC017.D
Acq On : 1 May 2015 4:40 pm
Sample : 15D142-03 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:58 2015

Vial: 17
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration

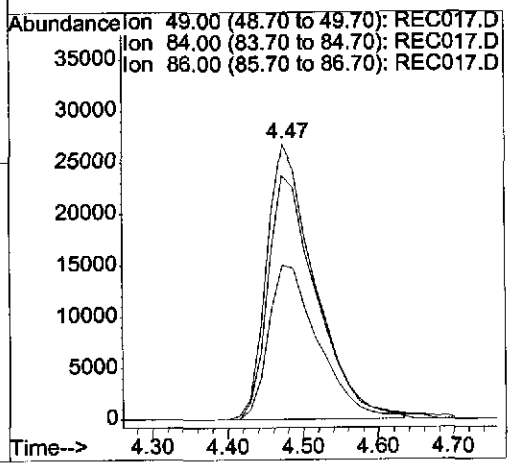


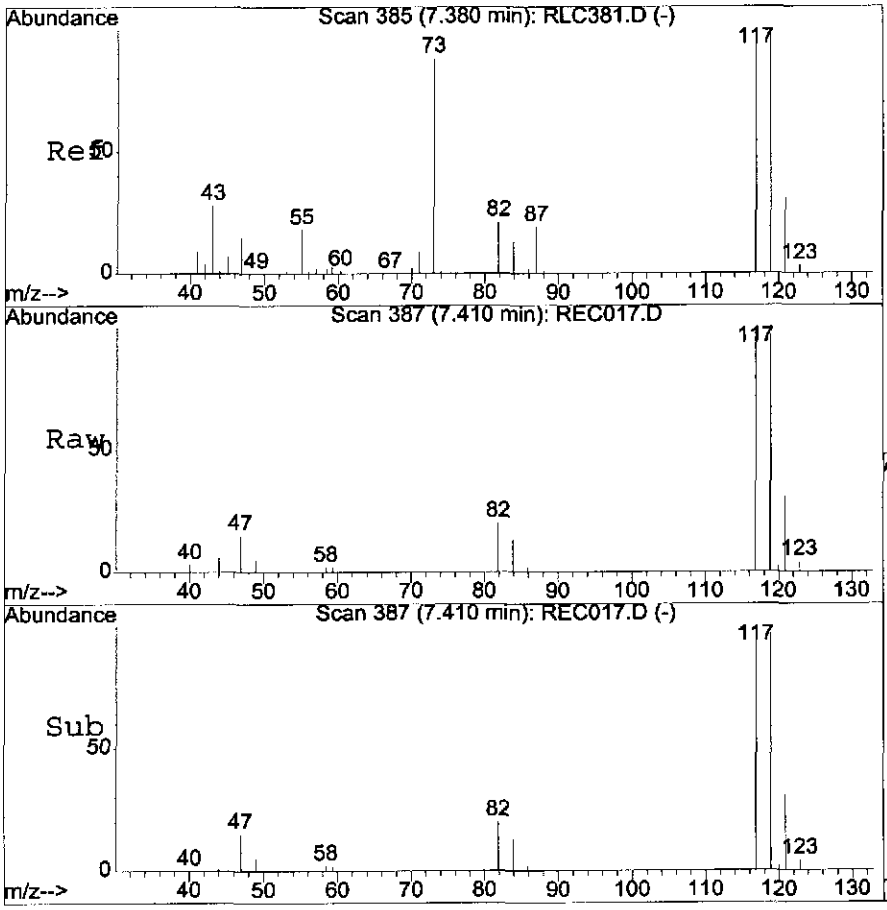


#19
Methylene chloride
Concen: 2.37 ug/l
RT: 4.47 min Scan# 186
Delta R.T. 0.01 min
Lab File: REC017.D
Acq: 1 May 2015 4:40 pm

Tgt Ion: 49 Resp: 120453

Ion	Ratio	Lower	Upper
49	100		
84	89.4	55.6	115.6
86	58.0	24.5	84.5

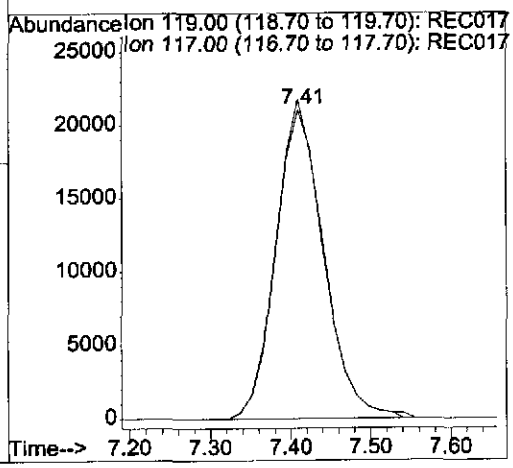


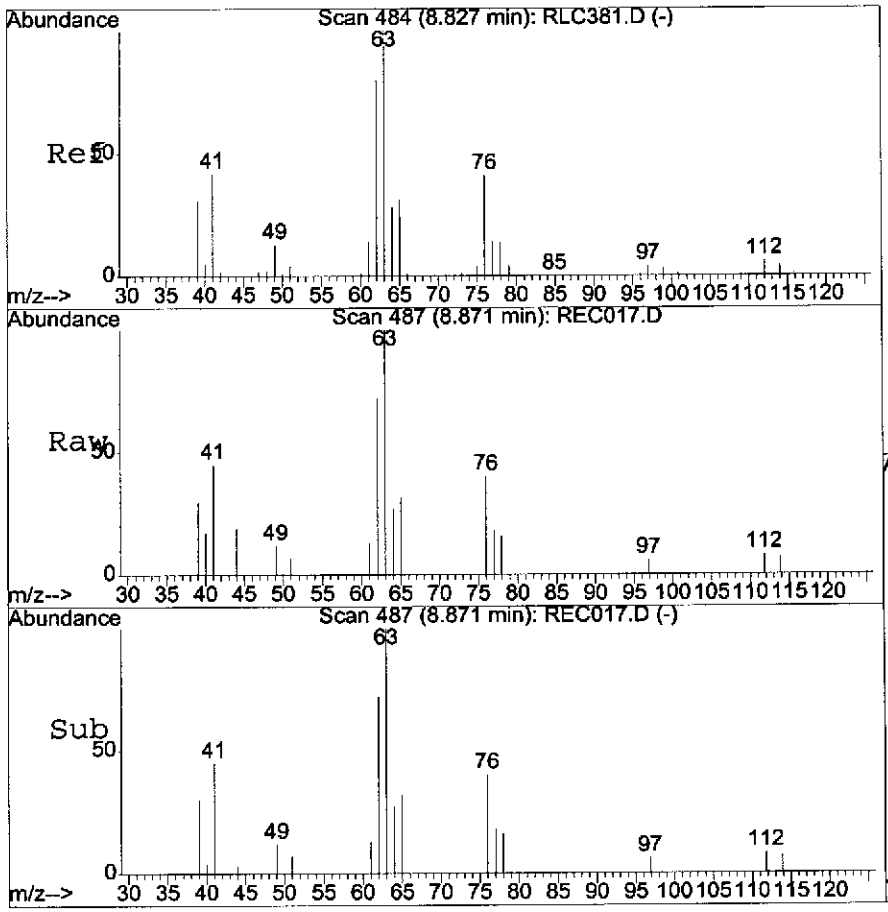


#41
Carbon tetrachloride
Concen: 1.44 ug/l
RT: 7.41 min Scan# 387
Delta R.T. 0.03 min
Lab File: REC017.D
Acq: 1 May 2015 4:40 pm

Tgt Ion:119 Resp: 87882

Ion	Ratio	Lower	Upper
119	100		
117	102.7	73.0	133.0

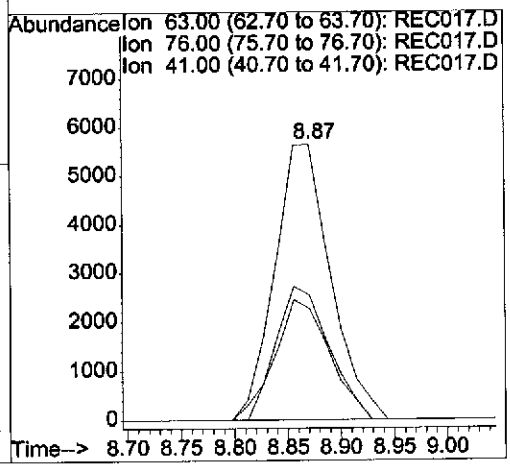




#48
1,2-Dichloropropane
Concen: 0.51 ug/l
RT: 8.87 min Scan# 487
Delta R.T. 0.04 min
Lab File: REC017.D
Acq: 1 May 2015 4:40 pm

Tgt Ion: 63 Resp: 20658

Ion	Ratio	Lower	Upper
63	100		
76	41.3	10.3	70.3
41	47.0	12.5	72.5



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC018.D
Acq On : 1 May 2015 5:17 pm
Sample : 15D142-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1547646	10.00	ug/l		0.03
55) CHLOROBENZENE-D5	13.17	117	1178556	10.00	ug/l		0.04
74) 1,2-DICHLOROBENZENE-D4	18.40	152	419715	10.00	ug/l		0.04
System Monitoring Compounds							
35) Dibromofluoromethane	6.77	111	465532	10.96	ug/l		0.01
Spiked Amount 10.000			Recovery = 109.60%				
43) 1,2-Dichloroethane-d4	7.50	65	233160	9.50	ug/l		0.03
Spiked Amount 10.000			Recovery = 95.00%				
56) Toluene-d8	10.52	98	1768251	10.15	ug/l		0.04
Spiked Amount 10.000			Recovery = 101.50%				
77) 4-Bromofluorobenzene	15.44	95	478288	9.14	ug/l		0.06
Spiked Amount 10.000			Recovery = 91.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.96	85	509833	9.77	ug/l		100
4) Chloromethane	2.17	50	680102	8.83	ug/l		100
5) Vinyl chloride	2.33	62	739455	8.78	ug/l		100
6) Bromomethane	2.78	94	476139	8.42	ug/l		99
7) Chloroethane	2.87	64	453585	8.64	ug/l		95
8) Dichlorofluoromethane	2.91	67	927048	8.72	ug/l		99
9) Trichlorofluoromethane	3.17	101	704482	9.62	ug/l		100
11) Acrolein	3.64	56	67263	31.43	ug/l		93
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	460003	11.03	ug/l		99
13) Acetone	3.71	43	152971	41.46	ug/l		88
14) 1,1-Dichloroethene	3.87	61	802014	9.93	ug/l		94
15) tert-Butyl alcohol	3.97	59	53483	43.45	ug/l	#	76
17) Iodomethane	4.25	142	1032556	12.44	ug/l		93
19) Methylene chloride	4.47	49	567677	11.14	ug/l		93
20) Carbon disulfide	4.49	76	1701561	7.84	ug/l		100
21) Acrylonitrile	4.63	53	217740	40.02	ug/l		99
22) tert-Butyl methyl ether (M	4.66	73	561907	8.99	ug/l		99
23) trans-1,2-Dichloroethene	4.85	61	695783	9.98	ug/l		92
24) Isopropyl ether (DIPE)	5.25	45	1223206	8.81	ug/l		96
25) 1,1-Dichloroethane	5.41	63	861111	9.93	ug/l		100
26) Vinyl acetate	5.41	43	287080	6.65	ug/l		98
28) tert-Butyl ethyl ether (ET	5.80	59	873829	8.69	ug/l		95
29) 2-Butanone	5.98	43	245698	39.75	ug/l		99
30) 2,2-Dichloropropane	6.17	77	407687	8.14	ug/l		97
31) cis-1,2-Dichloroethene	6.24	96	549722	10.67	ug/l		91
32) Chloroform	6.46	83	790825	10.39	ug/l		99
33) Bromochloromethane	6.69	49	259312	9.76	ug/l		80

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC018.D
Acq On : 1 May 2015 5:17 pm
Sample : 15D142-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Tetrahydrofuran	6.74	42	32153	9.71	ug/l		97
37)	1,1,1-Trichloroethane	7.03	97	668638	9.92	ug/l		98
40)	1,1-Dichloropropene	7.26	110	292917	11.16	ug/l		98
41)	Carbon tetrachloride	7.41	119	733486	12.01	ug/l		100
42)	tert-Amyl methyl ether (TA	7.42	87	156330	9.45	ug/l		95
44)	1,2-Dichloroethane	7.63	62	288483	9.97	ug/l		99
45)	Benzene	7.66	78	1980516	10.75	ug/l		99
46)	Trichloroethene	8.58	130	665254	11.46	ug/l		93
48)	1,2-Dichloropropane	8.85	63	427794	10.60	ug/l		100
49)	Bromodichloromethane	9.23	83	498315	10.67	ug/l		100
50)	1,4-Dioxane	9.26	88	22681	193.01	ug/l		92
51)	Dibromomethane	9.31	93	177211	10.93	ug/l		94
53)	4-Methyl-2-pentanone	9.78	43	627314	41.22	ug/l		95
54)	cis-1,3-Dichloropropene	10.11	75	572530	9.96	ug/l		97
57)	Toluene	10.65	91	2120055	10.44	ug/l		100
58)	Ethyl methacrylate	10.94	69	224923	9.09	ug/l		98
59)	trans-1,3-Dichloropropene	10.96	75	382070	9.24	ug/l		96
60)	1,1,2-Trichloroethane	11.24	97	214670	10.70	ug/l		96
61)	2-Hexanone	11.25	43	388948	39.58	ug/l		98
62)	1,3-Dichloropropane	11.67	76	386932	9.98	ug/l		99
63)	Tetrachloroethene	11.78	164	529169	12.10	ug/l		98
64)	Dibromochloromethane	12.13	129	315434	11.31	ug/l		99
65)	1,2-Dibromoethane	12.49	107	213250	10.92	ug/l		100
66)	1-Chlorohexane	12.79	91	932753	9.13	ug/l		96
67)	Chlorobenzene	13.24	112	1299695	11.45	ug/l		93
68)	1,1,1,2-Tetrachloroethane	13.33	131	414797	11.03	ug/l		99
69)	Ethylbenzene	13.34	91	2242349	9.64	ug/l		97
70)	m-Xylene & p-Xylene	13.49	91	3394295	20.39	ug/l		96
71)	o-Xylene	14.29	91	1650722	10.58	ug/l		96
72)	Styrene	14.36	104	1251097	10.54	ug/l		97
73)	Isopropylbenzene	14.98	105	2447531	11.33	ug/l		97
75)	Bromoform	14.99	173	156021	10.34	ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.30	83	210687	9.51	ug/l		98
78)	1,2,3-Trichloropropane	15.59	110	57015	10.05	ug/l		91
79)	trans-1,4-Dichloro-2-buten	15.72	53	45173	7.69	ug/l		94
80)	n-Propylbenzene	15.74	91	2849020	9.66	ug/l		95
81)	Bromobenzene	15.81	156	460773	11.04	ug/l	#	85
82)	1,3,5-Trimethylbenzene	16.04	105	1786764	9.89	ug/l		95
83)	2-Chlorotoluene	16.07	91	1579066	9.43	ug/l		92
84)	4-Chlorotoluene	16.16	91	1351503	9.51	ug/l		91
85)	tert-Butylbenzene	16.73	134	476619	11.08	ug/l	#	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC018.D
Acq On : 1 May 2015 5:17 pm
Sample : 15D142-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	1,2,4-Trimethylbenzene	16.80	105	1665404	9.81	ug/l	94
87)	sec-Butylbenzene	17.15	105	2649136	10.15	ug/l	96
88)	p-Isopropyltoluene	17.43	119	2178739	10.34	ug/l	97
89)	1,3-Dichlorobenzene	17.59	146	923449	10.95	ug/l	98
90)	1,4-Dichlorobenzene	17.81	146	872909	10.79	ug/l	98
91)	n-Butylbenzene	18.19	91	1898232	9.47	ug/l	98
92)	1,2-Dichlorobenzene	18.44	146	721024	11.17	ug/l	97
93)	1,2-Dibromo-3-chloropropan	19.58	157	33151	11.37	ug/l	90
94)	1,2,4-Trichlorobenzene	20.68	180	406566	10.25	ug/l	99
95)	Hexachlorobutadiene	20.85	225	373553	10.58	ug/l	100
96)	Naphthalene	21.00	128	414499	9.31	ug/l	100
97)	1,2,3-Trichlorobenzene	21.32	180	275184	9.81	ug/l	99

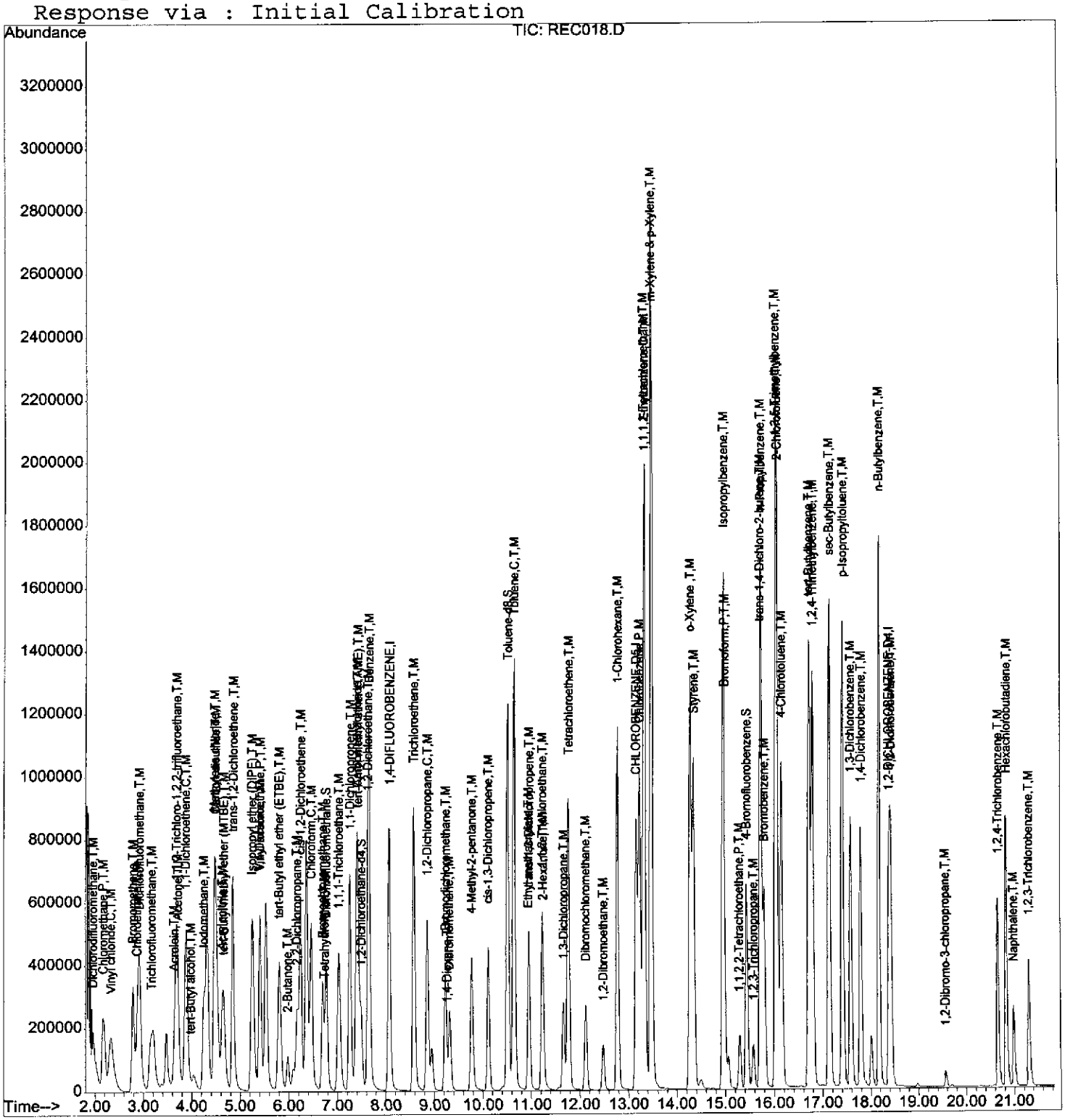
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC018.D
Acq On : 1 May 2015 5:17 pm
Sample : 15D142-03M 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 18
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC019.D
Acq On : 1 May 2015 5:50 pm
Sample : 15D142-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 19
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1544282	10.00	ug/l		0.03
55) CHLOROBENZENE-D5	13.18	117	1180062	10.00	ug/l		0.06
74) 1,2-DICHLOROBENZENE-D4	18.40	152	413984	10.00	ug/l		0.04
System Monitoring Compounds							
35) Dibromofluoromethane	6.78	111	463317	10.93	ug/l		0.03
Spiked Amount 10.000			Recovery = 109.30%				
43) 1,2-Dichloroethane-d4	7.51	65	235397	9.61	ug/l		0.04
Spiked Amount 10.000			Recovery = 96.10%				
56) Toluene-d8	10.52	98	1761426	10.10	ug/l		0.04
Spiked Amount 10.000			Recovery = 101.00%				
77) 4-Bromofluorobenzene	15.44	95	473020	9.17	ug/l		0.06
Spiked Amount 10.000			Recovery = 91.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.97	85	496563	9.53	ug/l		100
4) Chloromethane	2.17	50	663320	8.63	ug/l		100
5) Vinyl chloride	2.34	62	721554	8.59	ug/l		100
6) Bromomethane	2.80	94	467905	8.29	ug/l		99
7) Chloroethane	2.88	64	435067	8.31	ug/l		93
8) Dichlorofluoromethane	2.92	67	928039	8.75	ug/l		100
9) Trichlorofluoromethane	3.19	101	688150	9.42	ug/l		100
11) Acrolein	3.65	56	66745	31.26	ug/l		93
12) 1,1,2-Trichloro-1,2,2-trif	3.70	151	460879	11.08	ug/l		99
13) Acetone	3.73	43	155735	42.30	ug/l		88
14) 1,1-Dichloroethene	3.89	61	802004	9.95	ug/l		94
15) tert-Butyl alcohol	3.99	59	53447	43.51	ug/l	#	74
17) Iodomethane	4.27	142	1033414	12.48	ug/l		93
19) Methylene chloride	4.49	49	569008	11.20	ug/l		92
20) Carbon disulfide	4.50	76	1699468	7.85	ug/l		99
21) Acrylonitrile	4.65	53	222738	41.03	ug/l		100
22) tert-Butyl methyl ether (M	4.68	73	564328	9.05	ug/l		99
23) trans-1,2-Dichloroethene	4.87	61	699412	10.05	ug/l		92
24) Isopropyl ether (DIPE)	5.26	45	1229362	8.87	ug/l		95
25) 1,1-Dichloroethane	5.42	63	854718	9.88	ug/l		100
26) Vinyl acetate	5.42	43	265146	6.16	ug/l		98
28) tert-Butyl ethyl ether (ET	5.82	59	886458	8.83	ug/l		94
29) 2-Butanone	5.99	43	252559	40.95	ug/l		98
30) 2,2-Dichloropropane	6.20	77	401754	8.04	ug/l		96
31) cis-1,2-Dichloroethene	6.25	96	558302	10.86	ug/l		91
32) Chloroform	6.47	83	789230	10.39	ug/l		99
33) Bromochloromethane	6.71	49	259986	9.81	ug/l		79

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC019.D
Acq On : 1 May 2015 5:50 pm
Sample : 15D142-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 19
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Tetrahydrofuran	6.75	42	32938	9.97	ug/l		97
37)	1,1,1-Trichloroethane	7.04	97	672052	9.99	ug/l		98
40)	1,1-Dichloropropene	7.28	110	297468	11.36	ug/l		100
41)	Carbon tetrachloride	7.41	119	736573	12.09	ug/l		100
42)	tert-Amyl methyl ether (TA	7.44	87	157128	9.51	ug/l		97
44)	1,2-Dichloroethane	7.64	62	296953	10.29	ug/l		100
45)	Benzene	7.67	78	2013597	10.95	ug/l		98
46)	Trichloroethene	8.59	130	660452	11.40	ug/l		92
48)	1,2-Dichloropropane	8.87	63	424968	10.56	ug/l		99
49)	Bromodichloromethane	9.23	83	504305	10.82	ug/l		99
50)	1,4-Dioxane	9.28	88	23603	201.30	ug/l		88
51)	Dibromomethane	9.32	93	181593	11.22	ug/l		94
53)	4-Methyl-2-pentanone	9.78	43	649313	42.76	ug/l		95
54)	cis-1,3-Dichloropropene	10.13	75	580911	10.13	ug/l		97
57)	Toluene	10.65	91	2144932	10.54	ug/l		100
58)	Ethyl methacrylate	10.96	69	230445	9.30	ug/l		99
59)	trans-1,3-Dichloropropene	10.97	75	388708	9.39	ug/l		96
60)	1,1,2-Trichloroethane	11.24	97	215381	10.72	ug/l		96
61)	2-Hexanone	11.25	43	405253	41.18	ug/l		98
62)	1,3-Dichloropropane	11.67	76	392218	10.10	ug/l		100
63)	Tetrachloroethene	11.78	164	536615	12.26	ug/l		98
64)	Dibromochloromethane	12.13	129	324346	11.62	ug/l		98
65)	1,2-Dibromoethane	12.49	107	216745	11.09	ug/l		99
66)	1-Chlorohexane	12.79	91	925632	9.04	ug/l		96
67)	Chlorobenzene	13.24	112	1296242	11.41	ug/l		93
68)	1,1,1,2-Tetrachloroethane	13.33	131	416357	11.06	ug/l		98
69)	Ethylbenzene	13.34	91	2219468	9.53	ug/l		97
70)	m-Xylene & p-Xylene	13.49	91	3395283	20.37	ug/l		96
71)	o-Xylene	14.29	91	1650666	10.57	ug/l		96
72)	Styrene	14.36	104	1147878	9.66	ug/l		97
73)	Isopropylbenzene	14.98	105	2422411	11.20	ug/l		97
75)	Bromoform	14.99	173	158666	10.66	ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.31	83	212390	9.72	ug/l		99
78)	1,2,3-Trichloropropane	15.59	110	57821	10.33	ug/l		90
79)	trans-1,4-Dichloro-2-buten	15.74	53	45782	7.91	ug/l		97
80)	n-Propylbenzene	15.74	91	2863581	9.85	ug/l		95
81)	Bromobenzene	15.81	156	462762	11.24	ug/l	#	85
82)	1,3,5-Trimethylbenzene	16.04	105	1753953	9.85	ug/l		94
83)	2-Chlorotoluene	16.07	91	1559876	9.44	ug/l		93
84)	4-Chlorotoluene	16.16	91	1372857	9.79	ug/l		92
85)	tert-Butylbenzene	16.73	134	475092	11.20	ug/l	#	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC019.D
Acq On : 1 May 2015 5:50 pm
Sample : 15D142-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 19
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	1,2,4-Trimethylbenzene	16.80	105	1652782	9.87	ug/l	93
87)	sec-Butylbenzene	17.15	105	2658703	10.33	ug/l	97
88)	p-Isopropyltoluene	17.43	119	2163399	10.41	ug/l	97
89)	1,3-Dichlorobenzene	17.59	146	932362	11.21	ug/l	98
90)	1,4-Dichlorobenzene	17.81	146	880651	11.04	ug/l	98
91)	n-Butylbenzene	18.19	91	1879753	9.50	ug/l	98
92)	1,2-Dichlorobenzene	18.44	146	724082	11.37	ug/l	98
93)	1,2-Dibromo-3-chloropropan	19.58	157	33605	11.68	ug/l	91
94)	1,2,4-Trichlorobenzene	20.68	180	420464	10.75	ug/l	99
95)	Hexachlorobutadiene	20.85	225	367462	10.56	ug/l	100
96)	Naphthalene	21.00	128	459363	10.47	ug/l	100
97)	1,2,3-Trichlorobenzene	21.32	180	299379	10.82	ug/l	99

(#) = qualifier out of range (m) = manual integration

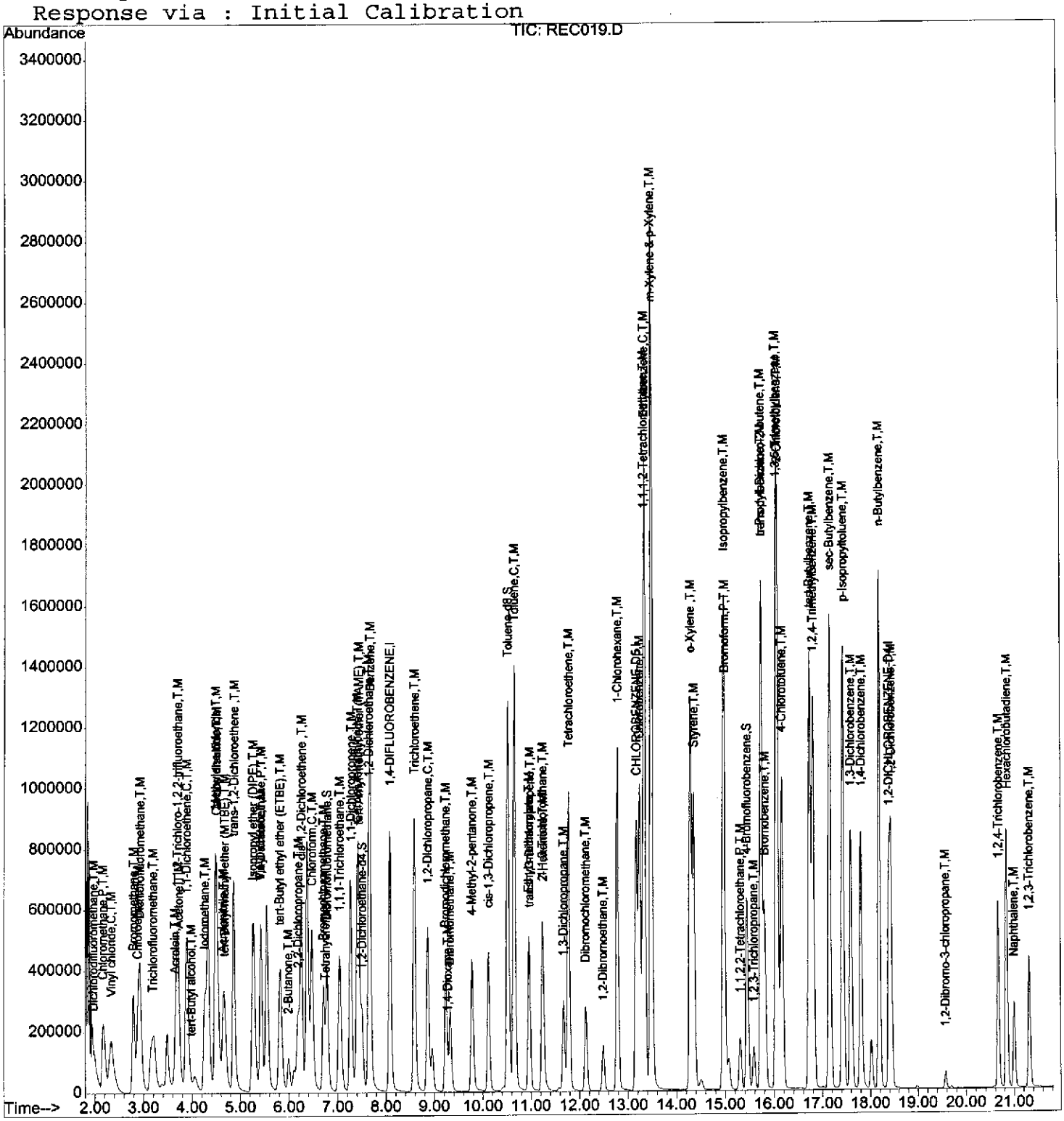
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC019.D
Acq On : 1 May 2015 5:50 pm
Sample : 15D142-03S 25mL
Misc : DF=1.0
MS Integration Params: LSCINT1.P
Quant Time: May 4 7:59 2015

Vial: 19
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RLC377
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D142
BFB Injection Date : 12/18/14
BFB Injection Time : 19:59
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.39
75	30.0 - 60.0% of mass 95	45.67
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.78
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	88.43
175	5.0 - 9.0% of mass 174	6.93(7.8)1
176	95.0 - 101.0% of mass 174	86.24(97.5)1
177	5.0 - 9.0% of mass 176	5.51(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD01	V067L1801	RLC378	12/18/14	20:33
2	VSTD02	V067L1802	RLC379	12/18/14	21:07
3	VSTD05	V067L1803	RLC380	12/18/14	21:37
4	VSTD010	V067L1804	RLC381	12/18/14	22:11
5	VSTD020	V067L1805	RLC382	12/18/14	22:44
6	VSTD030	V067L1806	RLC383	12/18/14	23:19
7	VSTD050	V067L1807	RLC384	12/18/14	23:52
8	VSTD100	V067L1808	RLC385	12/19/14	00:26
9	VSTD0.3	V067L1809	RLC389	12/19/14	02:39
10	VSTD0.5	V067L1810	RLC390	12/19/14	03:13

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :12/18/14 20:33
Spike Units :PPB
IC File :RLC381

Column Spec :RTX502.2 ID :0.25MM
Ending DateTime :12/19/14 03:13
HPChem Method :VO67L18

M	IDX	Parameters	.3 02:39 RLC389	.5 03:13 RLC390	1 20:33 RLC378	2 21:07 RLC379	5 21:37 RLC380	10 22:11 RLC381	20 22:44 RLC382	30 23:19 RLC383	50 23:52 RLC384	100 00:26 RLC385	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	8.0389
	2	Dichlorodifluoromethane	0.274	0.249	0.356	0.380	0.378	0.362	0.361	0.364	0.309	0.340	0.337	13.31	1.9628
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	------	0.357	0.505	0.533	0.528	0.521	0.528	0.536	0.452	0.521	0.498	11.81	2.1395
	5	Vinyl chloride	------	0.361	0.541	0.566	0.578	0.576	0.593	0.603	0.519	0.559	0.544	13.43	2.2756
	6	Bromomethane	0.223	0.231	0.332	0.370	0.370	0.373	0.384	0.398	0.344	------	0.336	19.31	2.7690
	7	Chloroethane	0.308	0.259	0.356	0.374	0.363	0.351	0.350	0.358	0.309	0.362	0.339	10.52	2.8638
	8	Dichlorofluoromethane	0.604	0.651	0.683	0.643	0.710	0.687	0.730	0.733	0.687	0.744	0.687	6.49	2.8980
	9	Trichlorofluoromethane	------	0.313	0.459	0.496	0.513	0.495	0.514	0.520	0.446	0.501	0.473	13.72	3.1597
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
5	11	Acrolein	------	0.014	0.015	0.014	0.013	0.013	0.014	0.014	------	------	0.014	4.63	3.6228
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.282	0.259	0.268	0.256	0.278	0.263	0.276	0.280	0.257	0.274	0.269	3.67	3.6687
5	13	Acetone	------	------	0.031	0.026	0.024	0.022	0.023	0.023	0.021	0.022	0.024	13.42	3.6925
	14	1,1-Dichloroethene	0.496	0.502	0.534	0.510	0.549	0.519	0.544	0.537	0.498	0.530	0.522	3.74	3.8542
5	15	tert-Butyl alcohol	------	------	0.007	0.007	0.008	0.008	0.008	0.009	0.008	0.009	0.008	7.93	3.9537
	16	Methyl acetate	------	------	0.111	0.094	0.076	0.076	0.074	0.080	0.075	0.079	0.083	15.31	4.2550
	17	Iodomethane	0.467	0.509	0.528	0.513	0.554	0.538	0.565	0.569	0.534	0.585	0.536	6.48	4.2312
10	18	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	19	Methylene chloride	0.414	0.350	0.316	0.314	0.320	0.311	0.325	0.322	0.301	0.318	0.329	9.85	4.4445
	20	Carbon disulfide	------	1.062	1.299	1.488	1.480	1.390	1.425	1.468	1.508	1.499	1.402	10.25	4.4675
5	21	Acrylonitrile	0.036	0.036	0.031	0.032	0.035	0.034	0.037	0.037	0.035	0.037	0.035	5.91	4.6067
	22	tert-Butyl methyl ether (MTBE)	0.379	0.420	0.361	0.373	0.406	0.407	0.431	0.425	0.406	0.429	0.404	6.11	4.6432
	23	trans-1,2-Dichloroethene	0.438	0.447	0.446	0.432	0.473	0.446	0.466	0.466	0.433	0.459	0.451	3.22	4.8244
	24	Isopropyl ether (DIPE)	0.892	0.909	0.853	0.832	0.888	0.893	0.940	0.939	0.888	0.940	0.898	4.05	5.2321
	25	1,1-Dichloroethane	0.504	0.560	0.564	0.542	0.577	0.554	0.584	0.582	0.549	0.584	0.560	4.45	5.3826
	26	Vinyl acetate	0.199	0.234	0.255	0.298	0.290	0.302	0.306	0.312	0.277	0.317	0.279	13.77	5.3826
5	27	2-Butanol	------	------	0.007	0.006	0.006	0.006	0.006	0.007	0.006	0.007	0.007	6.35	5.6851
	28	tert-Butyl ethyl ether (ETBE)	0.598	0.639	0.588	0.609	0.657	0.656	0.694	0.693	0.662	0.704	0.650	6.36	5.7859
5	29	2-Butanone	------	0.048	0.036	0.036	0.038	0.038	0.042	0.041	0.039	0.041	0.040	9.24	5.9530
	30	2,2-Dichloropropane	0.298	0.298	0.364	0.345	0.353	0.338	0.338	0.328	0.292	0.283	0.324	8.85	6.1511
	31	cis-1,2-Dichloroethene	0.314	0.331	0.314	0.312	0.336	0.332	0.348	0.348	0.331	0.365	0.333	5.15	6.2125
	32	Chloroform	0.465	0.482	0.477	0.468	0.508	0.488	0.512	0.516	0.480	0.523	0.492	4.26	6.4317
	33	Bromochloromethane	0.151	0.179	0.160	0.160	0.179	0.177	0.180	0.180	0.170	0.181	0.172	6.34	6.6625
5	34	tert-Amyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	35	Dibromofluoromethane	0.209	0.209	0.254	0.275	0.264	0.302	0.301	0.300	0.299	0.332	0.275	14.92	6.7385
	36	Tetrahydrofuran	------	------	0.022	0.022	0.022	0.023	0.022	0.021	0.020	0.021	0.021	4.19	6.7097
	37	1,1,1-Trichloroethane	0.379	0.418	0.444	0.427	0.459	0.440	0.458	0.457	0.426	0.447	0.435	5.62	7.0001
	38	Cyclohexane	------	------	0.698	0.726	0.747	0.646	0.683	0.727	0.682	0.744	0.707	5.02	7.0166
	39	2,2,4-Trimethylpentane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	40	1,1-Dichloropropene	0.167	0.163	0.168	0.153	0.175	0.168	0.174	0.178	0.167	0.183	0.170	4.92	7.2251
	41	Carbon tetrachloride	0.362	0.380	0.399	0.377	0.413	0.396	0.412	0.415	0.385	0.407	0.395	4.53	7.3683
	42	tert-Amyl methyl ether (TAME)	0.092	0.108	0.095	0.098	0.106	0.110	0.116	0.115	0.110	0.118	0.107	8.35	7.3960
	43	1,2-Dichloroethane-d4	0.138	0.132	0.149	0.160	0.151	0.174	0.171	0.168	0.167	0.178	0.159	9.82	7.4588
	44	1,2-Dichloroethane	0.176	0.186	0.173	0.179	0.189	0.191	0.200	0.196	0.185	0.194	0.187	4.67	7.5991
	45	Benzene	1.122	1.178	1.168	1.122	1.195	1.170	1.223	1.239	1.181	1.306	1.190	4.61	7.6167
	46	Trichloroethene	------	0.458	0.420	0.364	0.357	0.342	0.357	0.358	0.340	0.377	0.375	10.45	8.5473
	47	Methylcyclohexane	------	------	0.680	0.724	0.772	0.666	0.711	0.763	0.711	0.794	0.727	6.20	8.6348
	48	1,2-Dichloropropane	0.258	0.261	0.246	0.244	0.265	0.258	0.271	0.270	0.257	0.277	0.261	4.08	8.8177
	49	Bromodichloromethane	0.289	0.294	0.283	0.279	0.306	0.305	0.318	0.317	0.304	0.323	0.302	4.99	9.1903
20	50	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	13.06	9.2247
	51	Dibromomethane	0.090	0.101	0.097	0.098	0.106	0.107	0.113	0.113	0.108	0.115	0.105	7.78	9.2765
	52	2-Chloroethyl vinyl ether	------	------	0.048	0.051	0.059	0.063	0.068	------	------	------	0.057	14.24	9.6857
5	53	4-Methyl-2-pentanone	0.105	0.101	0.089	0.089	0.095	0.097	0.103	0.103	0.099	0.104	0.098	6.18	9.7324
	54	cis-1,3-Dichloropropene	0.343	0.361	0.346	0.345	0.376	0.375	0.397	0.391	0.375	0.403	0.371	5.97	10.0685
	55	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	13.1222
	56	Toluene-d8	1.351	1.154	1.414	1.458	1.380	1.547	1.536	1.569	1.577	1.791	1.478	11.50	10.4761
	57	Toluene	1.653	1.789	1.760	1.626	1.744	1.669	1.712	1.775	1.680	1.829	1.724	3.83	10.6076
	58	Ethyl methacrylate	0.199	0.198	0.183	0.190	0.209	0.213	0.225	0.228	0.217	0.237	0.210	8.33	10.9028

SLL
12/24/14

9 of 92

	59	trans-1,3-Dichloropropene	0.344	0.343	0.324	0.325	0.355	0.354	0.366	0.370	0.349	0.380	0.351	5.18	10.9159
	60	1,1,2-Trichloroethane	0.164	0.165	0.162	0.154	0.171	0.169	0.177	0.180	0.171	0.189	0.170	5.72	11.1833
5	61	2-Hexanone	0.098	0.089	0.079	0.075	0.080	0.079	0.084	0.085	0.081	0.084	0.083	7.80	11.2008
	62	1,3-Dichloropropane	0.326	0.335	0.312	0.304	0.330	0.328	0.337	0.346	0.323	0.349	0.329	4.21	11.6187
	63	Tetrachloroethene	0.387	0.361	0.375	0.349	0.377	0.359	0.370	0.383	0.357	0.392	0.371	3.87	11.7225
	64	Dibromochloromethane	0.225	0.229	0.224	0.216	0.235	0.238	0.250	0.252	0.238	0.258	0.237	5.72	12.0848
	65	1,2-Dibromoethane	0.165	0.168	0.154	0.151	0.166	0.164	0.172	0.174	0.165	0.177	0.166	4.99	12.4355
	66	1-Chlorohexane	0.886	0.827	0.871	0.806	0.887	0.841	0.875	0.909	0.845	0.925	0.867	4.29	12.7394
	67	Chlorobenzene	1.003	0.940	0.930	0.879	0.962	0.934	0.973	1.006	0.942	1.060	0.963	5.23	13.1953
	68	1,1,1,2-Tetrachloroethane	0.291	0.312	0.303	0.289	0.317	0.313	0.331	0.338	0.326	0.369	0.319	7.44	13.2757
	69	Ethylbenzene	1.944	1.922	1.947	1.842	1.995	1.928	2.026	2.080	1.975	2.081	1.974	3.76	13.2917
2	70	m-Xylene & p-Xylene	1.468	1.398	1.393	1.311	1.434	1.369	1.436	1.487	1.414	------	1.412	3.74	13.4290
	71	o-Xylene	1.321	1.301	1.309	1.244	1.348	1.289	1.343	1.386	1.294	1.404	1.324	3.59	14.2356
	72	Styrene	0.967	0.998	0.947	0.921	1.001	0.992	1.044	1.065	1.011	1.124	1.007	5.87	14.3087
	73	Isopropylbenzene	1.803	1.766	1.836	1.702	1.881	1.807	1.874	1.932	1.797	1.935	1.833	4.02	14.9194
	74	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.3531
	75	Bromoform	0.333	0.330	0.329	0.320	0.352	0.349	0.373	0.389	0.375	0.443	0.359	10.37	14.9341
	76	1,1,2,2-Tetrachloroethane	0.495	0.543	0.493	0.487	0.522	0.524	0.544	0.558	0.531	0.581	0.528	5.75	15.2555
	77	4-Bromofluorobenzene	1.485	1.111	1.189	1.218	1.101	1.235	1.220	1.241	1.239	1.425	1.246	9.77	15.3928
	78	1,2,3-Trichloropropane	0.096	0.143	0.121	0.135	0.141	0.136	0.143	0.146	0.140	0.151	0.135	11.66	15.5346
	79	trans-1,4-Dichloro-2-butene	------	0.134	0.129	0.131	0.141	0.139	0.147	0.150	0.140	0.147	0.140	5.37	15.6761
	80	n-Propylbenzene	7.246	6.793	7.268	6.582	7.201	6.743	7.061	7.342	6.939	7.061	7.024	3.61	15.6836
	81	Bromobenzene	1.051	0.992	0.952	0.918	0.990	0.948	0.991	1.030	0.969	1.104	0.994	5.51	15.7552
	82	1,3,5-Trimethylbenzene	4.249	4.080	4.317	3.985	4.382	4.116	4.288	4.559	4.209	4.838	4.302	5.78	15.9963
	83	2-Chlorotoluene	4.288	3.840	3.958	3.894	3.938	3.711	3.831	4.041	3.972	4.431	3.991	5.45	16.0153
	84	4-Chlorotoluene	3.679	3.525	3.473	3.043	3.402	3.221	3.393	3.515	3.065	3.559	3.388	6.28	16.1132
	85	tert-Butylbenzene	0.998	0.953	1.042	0.934	1.064	0.977	1.033	1.085	1.009	1.153	1.025	6.40	16.6830
	86	1,2,4-Trimethylbenzene	4.129	3.887	4.067	3.793	4.132	3.872	4.075	4.216	3.886	4.387	4.044	4.56	16.7561
	87	sec-Butylbenzene	6.403	5.898	6.462	5.857	6.373	5.973	6.238	6.531	5.994	6.449	6.218	4.19	17.0965
	88	p-Isopropyltoluene	5.152	4.706	5.112	4.661	5.205	4.862	5.076	5.274	4.824	5.320	5.019	4.73	17.3741
	89	1,3-Dichlorobenzene	2.333	2.046	1.934	1.830	1.977	1.902	1.978	2.066	1.907	2.123	2.010	7.12	17.5392
	90	1,4-Dichlorobenzene	2.294	1.999	1.845	1.743	1.918	1.803	1.894	1.946	1.811	2.013	1.927	8.07	17.7540
	91	n-Butylbenzene	5.104	4.525	4.930	4.480	4.924	4.632	4.795	4.999	4.507	4.877	4.777	4.72	18.1354
	92	1,2-Dichlorobenzene	1.709	1.612	1.462	1.416	1.530	1.478	1.529	1.567	1.462	1.612	1.538	5.79	18.3969
	93	1,2-Dibromo-3-chloropropane	------	0.066	0.053	0.066	0.070	0.071	0.076	0.076	0.072	0.077	0.069	10.82	19.5367
	94	1,2,4-Trichlorobenzene	1.239	1.000	0.829	0.812	0.904	0.907	0.947	0.963	0.878	0.968	0.945	12.69	20.6325
	95	Hexachlorobutadiene	0.975	0.854	0.866	0.787	0.868	0.815	0.825	0.851	0.754	0.813	0.841	7.07	20.8078
	96	Naphthalene	------	1.235	0.861	0.909	1.029	1.046	1.125	1.134	1.057	1.146	1.060	11.13	20.9540
	97	1,2,3-Trichlorobenzene	0.874	0.745	0.553	0.565	0.641	0.646	0.678	0.677	0.625	0.679	0.668	13.72	21.2754

Spike Amount = Nominal Amount * M
Ave_%RSD : 7.4 Max_%RSD : 19.3

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
6	Bromomethane	-0.00429	0.37065	0.9978
16	Methyl acetate	0.00256	0.07707	0.9993

Sq
12/24/14

1502

Compound List Report TO67

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	8.05	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.97	0.244	A	1	A	B
3	T	Dichlorotetrafluoroethane	85	0.00	0.000	A	2	A	B
4	T	Chloromethane	50	2.14	0.265	A	1	A	B
5	T	Vinyl chloride	62	2.28	0.283	A	1	A	B
6	T	Bromomethane	94	2.78	0.345	L	1	A	B
7	T	Chloroethane	64	2.86	0.356	A	2	A	B
8	T	Dichlorofluoromethane	67	2.91	0.361	A	1	A	B
9	T	Trichlorofluoromethane	101	3.16	0.393	A	1	A	B
10	T	sec-Propyl alcohol	45	0.00	0.000	A	1	A	B
11	T	Acrolein	56	3.63	0.450	A	1	A	B
12	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.67	0.456	A	1	A	B
13	T	Acetone	43	3.70	0.459	A	2	A	B
14	T	1,1-Dichloroethene	61	3.86	0.479	A	2	A	B
15	T	tert-Butyl alcohol	59	3.96	0.492	A	1	A	B
16	T	Methyl acetate	43	4.27	0.530	L	1	A	B
17	T	Iodomethane	142	4.24	0.526	A	1	A	B
18	T	Acetonitrile	41	4.31	0.535	A	2	A	B
19	T	Methylene chloride	49	4.46	0.554	A	2	A	B
20	T	Carbon disulfide	76	4.47	0.555	A	1	A	B
21	T	Acrylonitrile	53	4.62	0.574	A	2	A	B
22	T	tert-Butyl methyl ether (MTBE)	73	4.65	0.577	A	1	A	B
23	T	trans-1,2-Dichloroethene	61	4.84	0.601	A	2	A	B
24	T	Isopropyl ether (DIPE)	45	5.23	0.650	A	1	A	B
25	T	1,1-Dichloroethane	63	5.39	0.670	A	2	A	B
26	T	Vinyl acetate	43	5.39	0.670	A	1	A	B
27	T	2-Butanol	45	5.68	0.706	A	1	A	B
28	T	tert-Butyl ethyl ether (ETBE)	59	5.79	0.719	A	1	A	B
29	T	2-Butanone	43	5.96	0.741	A	1	A	B
30	T	2,2-Dichloropropane	77	6.15	0.764	A	2	A	B
31	T	cis-1,2-Dichloroethene	96	6.23	0.773	A	2	A	B
32	T	Chloroform	83	6.45	0.800	A	2	A	B
33	T	Bromochloromethane	49	6.66	0.828	A	2	A	B
34	T	tert-Amyl alcohol	59	0.00	0.000	A	2	A	B
35	S	Dibromofluoromethane	111	6.75	0.838	A	2	A	B
36	T	Tetrahydrofuran	42	6.71	0.833	A	2	A	B
37	T	1,1,1-Trichloroethane	97	7.00	0.869	A	2	A	B
38	T	Cyclohexane	56	7.03	0.873	A	2	A	B
39	T	2,2,4-Trimethylpentane	57	0.00	0.000	A	3	A	B
40	T	1,1-Dichloropropene	110	7.23	0.898	A	1	A	B
41	T	Carbon tetrachloride	119	7.38	0.917	A	1	A	B
42	T	tert-Amyl methyl ether (TAME)	87	7.39	0.918	A	2	A	B
43	S	1,2-Dichloroethane-d4	65	7.47	0.927	A	1	A	B
44	T	1,2-Dichloroethane	62	7.60	0.944	A	1	A	B
45	T	Benzene	78	7.63	0.947	A	2	A	B
46	T	Trichloroethene	130	8.55	1.062	A	3	A	B
47	T	Methylcyclohexane	83	8.64	1.072	A	2	A	B
48	T	1,2-Dichloropropane	63	8.83	1.096	A	2	A	B
49	T	Bromodichloromethane	83	9.19	1.142	A	1	A	B
50	T	1,4-Dioxane	88	9.24	1.147	A	1	A	B
51	T	Dibromomethane	93	9.28	1.152	A	2	A	B
52	T	2-Chloroethyl vinyl ether	63	9.69	1.203	A	2	A	B
53	T	4-Methyl-2-pentanone	43	9.73	1.209	A	3	A	B

12/24/14

54	T	cis-1,3-Dichloropropene	75	10.07	1.250	A	3	A	B
55	I	CHLOROBENZENE-D5	117	13.12	1.000	A	2	A	B
56	S	Toluene-d8	98	10.48	0.798	A	1	A	B
57	T	Toluene	91	10.61	0.808	A	1	A	B
58	T	Ethyl methacrylate	69	10.90	0.831	A	2	A	B
59	T	trans-1,3-Dichloropropene	75	10.92	0.832	A	2	A	B
60	T	1,1,2-Trichloroethane	97	11.18	0.852	A	3	A	B
61	T	2-Hexanone	43	11.19	0.853	A	2	A	B
62	T	1,3-Dichloropropane	76	11.62	0.885	A	1	A	B
63	T	Tetrachloroethene	164	11.72	0.893	A	3	A	B
64	T	Dibromochloromethane	129	12.09	0.921	A	1	A	B
65	T	1,2-Dibromoethane	107	12.44	0.948	A	1	A	B
66	T	1-Chlorohexane	91	12.74	0.971	A	3	A	B
67	P,M	Chlorobenzene	112	13.20	1.006	A	3	A	B
68	T	1,1,1,2-Tetrachloroethane	131	13.27	1.011	A	3	A	B
69	T	Ethylbenzene	91	13.28	1.012	A	1	A	B
70	T	m-Xylene & p-Xylene	91	13.43	1.023	A	1	A	B
71	T	o-Xylene	91	14.23	1.085	A	1	A	B
72	T	Styrene	104	14.31	1.090	A	2	A	B
73	T	Isopropylbenzene	105	14.92	1.137	A	3	A	B
74	I	1,2-DICHLOROBENZENE-D4	152	18.35	1.000	A	1	A	B
75	T	Bromoform	173	14.93	0.814	A	2	A	B
76	T	1,1,2,2-Tetrachloroethane	83	15.26	0.831	A	1	A	B
77	S	4-Bromofluorobenzene	95	15.39	0.838	A	2	A	B
78	T	1,2,3-Trichloropropane	110	15.53	0.846	A	1	A	B
79	T	trans-1,4-Dichloro-2-butene	53	15.68	0.854	A	1	A	B
80	T	n-Propylbenzene	91	15.68	0.854	A	2	A	B
81	T	Bromobenzene	156	15.75	0.858	A	2	A	B
82	T	1,3,5-Trimethylbenzene	105	15.99	0.871	A	2	A	B
83	T	2-Chlorotoluene	91	16.02	0.873	A	1	A	B
84	T	4-Chlorotoluene	91	16.10	0.877	A	1	A	B
85	T	tert-Butylbenzene	134	16.67	0.908	A	2	A	B
86	T	1,2,4-Trimethylbenzene	105	16.75	0.912	A	1	A	B
87	T	sec-Butylbenzene	105	17.10	0.932	A	1	A	B
88	T	p-Isopropyltoluene	119	17.37	0.947	A	2	A	B
89	T	1,3-Dichlorobenzene	146	17.54	0.955	A	2	A	B
90	T	1,4-Dichlorobenzene	146	17.75	0.967	A	2	A	B
91	T	n-Butylbenzene	91	18.13	0.988	A	2	A	B
92	T	1,2-Dichlorobenzene	146	18.40	1.002	A	2	A	B
93	T	1,2-Dibromo-3-chloropropane	157	19.54	1.064	A	2	A	B
94	T	1,2,4-Trichlorobenzene	180	20.63	1.124	A	2	A	B
95	T	Hexachlorobutadiene	225	20.81	1.134	A	2	A	B
96	T	Naphthalene	128	20.95	1.142	A	1	A	B
97	T	1,2,3-Trichlorobenzene	180	21.28	1.159	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

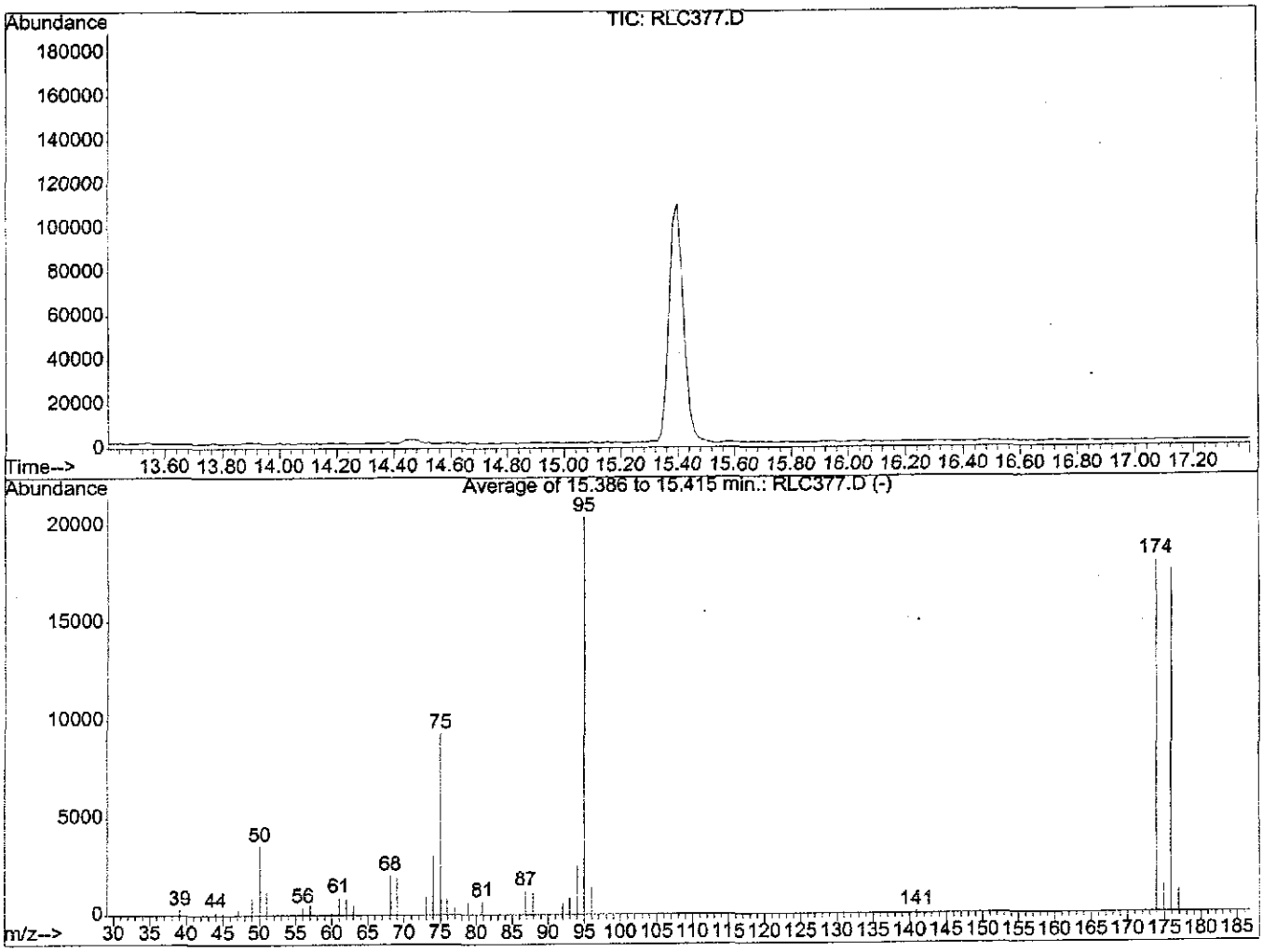
VO67L18.M Mon Dec 22 19:48:17 2014

SG 12/24/14

BFB

Data File : D:\HPCHEM\1\DATA\14L18\RLC377.D
Acq On : 18 Dec 2014 7:59 pm
Sample : BFB67L14
Misc : T/CHECK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B

Vial: 1
Operator: ASmith
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 933, 934, 935; Background Corrected with Scan 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	3544	PASS
75	95	30	60	45.7	9307	PASS
95	95	100	100	100.0	20380	PASS
96	95	5	9	6.8	1382	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.4	18023	PASS
175	174	5	9	7.8	1413	PASS
176	174	95	101	97.5	17576	PASS
177	176	5	9	6.4	1123	PASS

RLC377.D VO67L18.M Fri Dec 19 10:22:11 2014

Su 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1545315	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1122586	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	374846	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	9695	0.23	ug/l	-0.02
Spiked Amount 10.000			Recovery =	2.30%		
43) 1,2-Dichloroethane-d4	7.47	65	6381	0.26	ug/l	0.00
Spiked Amount 10.000			Recovery =	2.60%		
56) Toluene-d8	10.48	98	45497	0.27	ug/l	0.00
Spiked Amount 10.000			Recovery =	2.70%		
77) 4-Bromofluorobenzene	15.40	95	16703	0.36	ug/l	0.01
Spiked Amount 10.000			Recovery =	3.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	12714	0.24	ug/l	78
4) Chloromethane	2.14	50	15067	0.20	ug/l	89
5) Vinyl chloride	2.28	62	16223	0.19	ug/l	81
6) Bromomethane	2.78	94	10361	0.30	ug/l	98
7) Chloroethane	2.88	64	14264	0.27	ug/l	90
8) Dichlorofluoromethane	2.91	67	27996	0.26	ug/l	97
9) Trichlorofluoromethane	3.13	101	14050	0.19	ug/l	90
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	13064	0.31	ug/l	96
13) Acetone	3.70	43	14947	4.06	ug/l	93
14) 1,1-Dichloroethene	3.86	61	23014	0.29	ug/l	99
17) Iodomethane	4.24	142	21634	0.26	ug/l	98
19) Methylene chloride	4.44	49	19197	0.38	ug/l	97
20) Carbon disulfide	4.47	76	28437	0.13	ug/l	100
21) Acrylonitrile	4.62	53	8382	1.54	ug/l	96
22) tert-Butyl methyl ether (M	4.65	73	17565	0.28	ug/l	93
23) trans-1,2-Dichloroethene	4.82	61	20283	0.29	ug/l	98
24) Isopropyl ether (DIPE)	5.25	45	41362	0.30	ug/l	95
25) 1,1-Dichloroethane	5.39	63	23353	0.27	ug/l	99
26) Vinyl acetate	5.39	43	9209	0.21	ug/l #	72
28) tert-Butyl ethyl ether (ET	5.79	59	27718	0.28	ug/l	96
29) 2-Butanone	5.96	43	13270	2.15	ug/l	78
30) 2,2-Dichloropropane	6.15	77	13804	0.28	ug/l	90
31) cis-1,2-Dichloroethene	6.21	96	14539	0.28	ug/l	95
32) Chloroform	6.43	83	21558	0.28	ug/l	98
33) Bromochloromethane	6.66	49	7011	0.26	ug/l	96
37) 1,1,1-Trichloroethane	7.00	97	17576	0.26	ug/l	96
38) Cyclohexane	7.01	56	19354	0.18	ug/l	94

(#) = qualifier out of range (m) = manual integration

S a 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40)	1,1-Dichloropropene	7.23	110	7726	0.29 ug/l		99
41)	Carbon tetrachloride	7.36	119	16789	0.28 ug/l		100
42)	tert-Amyl methyl ether (TA	7.39	87	4278	0.26 ug/l	#	76
44)	1,2-Dichloroethane	7.60	62	8175	0.28 ug/l		99
45)	Benzene	7.61	78	52021	0.28 ug/l		96
46)	Trichloroethene	8.55	130	25054	0.43 ug/l		97
47)	Methylcyclohexane	8.64	83	18449	0.16 ug/l		96
48)	1,2-Dichloropropane	8.83	63	11947	0.30 ug/l		93
49)	Bromodichloromethane	9.19	83	13413	0.29 ug/l		99
51)	Dibromomethane	9.28	93	4184	0.26 ug/l		91
53)	4-Methyl-2-pentanone	9.75	43	24414	1.61 ug/l		93
54)	cis-1,3-Dichloropropene	10.07	75	15881	0.28 ug/l		94
57)	Toluene	10.61	91	55678	0.29 ug/l		100
58)	Ethyl methacrylate	10.92	69	6713	0.28 ug/l	#	79
59)	trans-1,3-Dichloropropene	10.92	75	11569	0.29 ug/l		94
60)	1,1,2-Trichloroethane	11.19	97	5523	0.29 ug/l		95
61)	2-Hexanone	11.21	43	16510	1.76 ug/l		87
62)	1,3-Dichloropropane	11.62	76	10987	0.30 ug/l		95
63)	Tetrachloroethene	11.73	164	13049	0.31 ug/l		97
64)	Dibromochloromethane	12.08	129	7590	0.29 ug/l		95
65)	1,2-Dibromoethane	12.43	107	5562	0.30 ug/l		96
66)	1-Chlorohexane	12.74	91	29842	0.31 ug/l		98
67)	Chlorobenzene	13.19	112	33772	0.31 ug/l		88
68)	1,1,1,2-Tetrachloroethane	13.27	131	9786	0.27 ug/l	#	78
69)	Ethylbenzene	13.30	91	65469	0.30 ug/l		98
70)	m-Xylene & p-Xylene	13.43	91	98902	0.62 ug/l		98
71)	o-Xylene	14.23	91	44490	0.30 ug/l		99
72)	Styrene	14.32	104	32564	0.29 ug/l		98
73)	Isopropylbenzene	14.92	105	60729	0.30 ug/l		99
75)	Bromoform	14.93	173	3750	0.28 ug/l		88
76)	1,1,2,2-Tetrachloroethane	15.25	83	5565	0.28 ug/l		94
78)	1,2,3-Trichloropropane	15.53	110	1084	0.21 ug/l	#	18
80)	n-Propylbenzene	15.69	91	81484	0.31 ug/l		99
81)	Bromobenzene	15.77	156	11814	0.32 ug/l		92
82)	1,3,5-Trimethylbenzene	16.00	105	47783	0.30 ug/l		99
83)	2-Chlorotoluene	16.01	91	48220	0.32 ug/l		99
84)	4-Chlorotoluene	16.12	91	41369	0.33 ug/l		100
85)	tert-Butylbenzene	16.69	134	11226	0.29 ug/l		98
86)	1,2,4-Trimethylbenzene	16.76	105	46432	0.31 ug/l		100
87)	sec-Butylbenzene	17.10	105	72006	0.31 ug/l		98
88)	p-Isopropyltoluene	17.37	119	57934	0.31 ug/l		98

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
89)	1,3-Dichlorobenzene	17.55	146	26234	0.35	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	25792	0.36	ug/l	99
91)	n-Butylbenzene	18.13	91	57401	0.32	ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	19216	0.33	ug/l	76
94)	1,2,4-Trichlorobenzene	20.63	180	13935	0.39	ug/l	98
95)	Hexachlorobutadiene	20.81	225	10966	0.35	ug/l	96
96)	Naphthalene	20.97	128	16834	0.42	ug/l	96
97)	1,2,3-Trichlorobenzene	21.27	180	9834	0.39	ug/l	96

SA 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC389.D VO67L18.M Mon Dec 22 19:45:00 2014

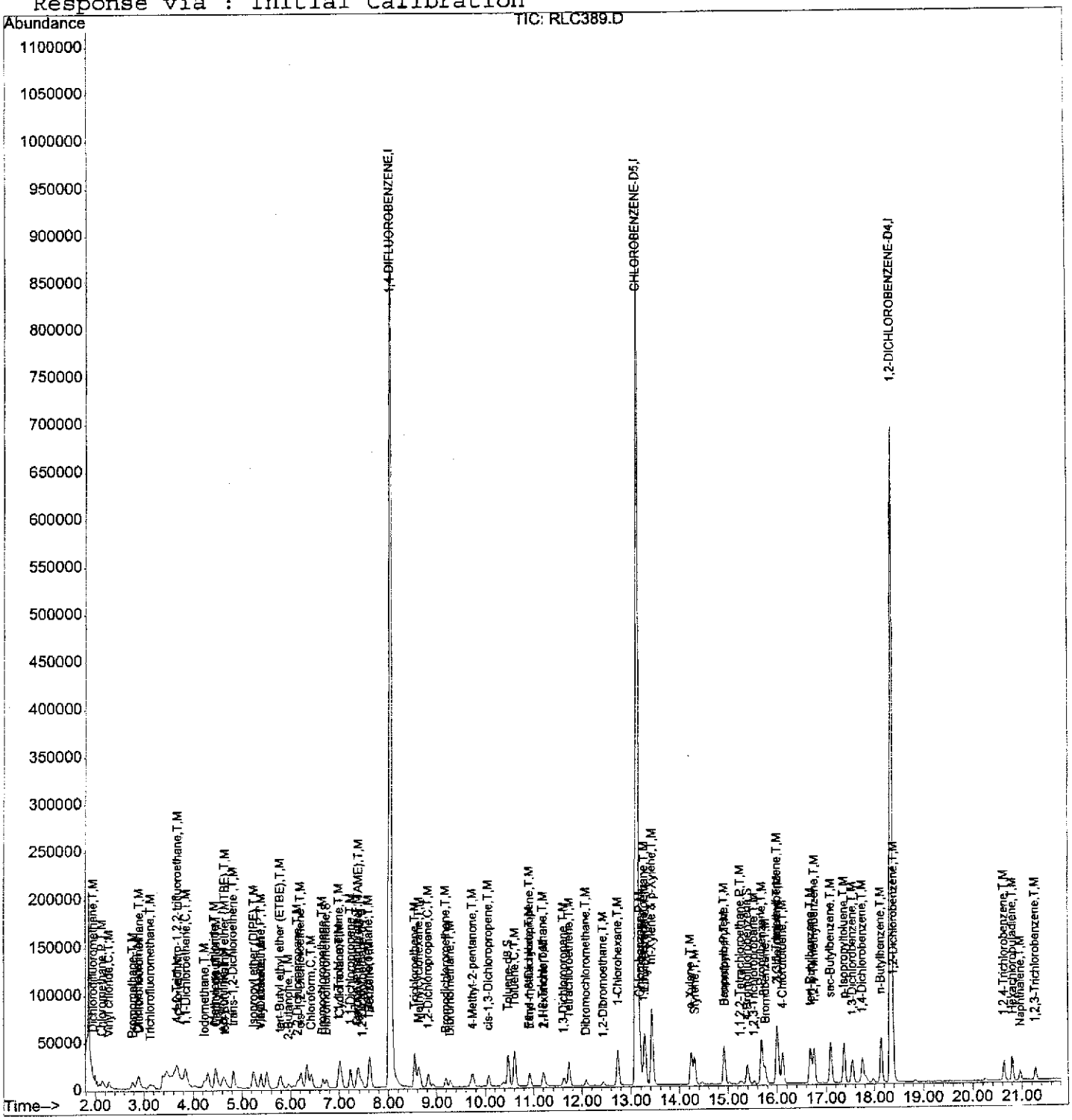
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC389.D
Acq On : 19 Dec 2014 2:39 am
Sample : VO67L1809 0.3ppb
Misc : 0.3ppb8260/1.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:26 2014

Vial: 13
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SC 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1479688	10.00	ug/l		-0.02
55) CHLOROBENZENE-D5	13.12	117	1083403	10.00	ug/l		0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	356630	10.00	ug/l		0.00
System Monitoring Compounds							
35) Dibromofluoromethane	6.74	111	15452	0.38	ug/l		-0.01
Spiked Amount 10.000			Recovery =	3.80%			
43) 1,2-Dichloroethane-d4	7.47	65	9781	0.42	ug/l		0.00
Spiked Amount 10.000			Recovery =	4.20%			
56) Toluene-d8	10.48	98	62490	0.39	ug/l		0.00
Spiked Amount 10.000			Recovery =	3.90%			
77) 4-Bromofluorobenzene	15.40	95	19808	0.45	ug/l		0.01
Spiked Amount 10.000			Recovery =	4.50%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.97	85	18459	0.37	ug/l		91
4) Chloromethane	2.14	50	26379	0.36	ug/l		96
5) Vinyl chloride	2.27	62	26740	0.33	ug/l		77
6) Bromomethane	2.78	94	17067	0.43	ug/l		96
7) Chloroethane	2.88	64	19197	0.38	ug/l		90
8) Dichlorofluoromethane	2.91	67	48183	0.47	ug/l		94
9) Trichlorofluoromethane	3.15	101	23179	0.33	ug/l		92
11) Acrolein	3.62	56	5281	2.58	ug/l	#	1
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	19142	0.48	ug/l		98
13) Acetone	3.70	43	14353	4.07	ug/l	#	54
14) 1,1-Dichloroethene	3.86	61	37162	0.48	ug/l		98
15) tert-Butyl alcohol	3.98	59	3380	2.87	ug/l	#	12
17) Iodomethane	4.24	142	37663	0.47	ug/l		99
19) Methylene chloride	4.44	49	25892	0.53	ug/l		97
20) Carbon disulfide	4.47	76	78596	0.38	ug/l		98
21) Acrylonitrile	4.60	53	13453	2.59	ug/l		94
22) tert-Butyl methyl ether (M	4.65	73	31046	0.52	ug/l		95
23) trans-1,2-Dichloroethene	4.82	61	33077	0.50	ug/l		97
24) Isopropyl ether (DIPE)	5.23	45	67216	0.51	ug/l		98
25) 1,1-Dichloroethane	5.39	63	41410	0.50	ug/l		98
26) Vinyl acetate	5.39	43	17292	0.42	ug/l		91
28) tert-Butyl ethyl ether (ET	5.79	59	47275	0.49	ug/l		99
29) 2-Butanone	5.96	43	17810	3.01	ug/l		86
30) 2,2-Dichloropropane	6.15	77	22072	0.46	ug/l		97
31) cis-1,2-Dichloroethene	6.21	96	24478	0.50	ug/l		96
32) Chloroform	6.43	83	35646	0.49	ug/l		99
33) Bromochloromethane	6.66	49	13255	0.52	ug/l		95

(#) = qualifier out of range (m) = manual integration

SW 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D Vial: 14
Acq On : 19 Dec 2014 3:13 am Operator: ASmith
Sample : VO67L1810 0.5ppb Inst : TO67
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	1,1,1-Trichloroethane	7.00	97	30913	0.48	ug/l		99
38)	Cyclohexane	7.01	56	20060	0.19	ug/l		98
40)	1,1-Dichloropropene	7.23	110	12023	0.48	ug/l		99
41)	Carbon tetrachloride	7.38	119	28110	0.48	ug/l		99
42)	tert-Amyl methyl ether (TA	7.41	87	8026	0.51	ug/l	#	82
44)	1,2-Dichloroethane	7.60	62	13746	0.50	ug/l		96
45)	Benzene	7.63	78	87187	0.49	ug/l		98
46)	Trichloroethene	8.55	130	33903	0.61	ug/l		97
47)	Methylcyclohexane	8.64	83	18765	0.17	ug/l		95
48)	1,2-Dichloropropane	8.83	63	19311	0.50	ug/l		93
49)	Bromodichloromethane	9.19	83	21745	0.49	ug/l		99
51)	Dibromomethane	9.28	93	7471	0.48	ug/l		96
52)	2-Chloroethyl vinyl ether	9.69	63	3640	0.43	ug/l	#	70
53)	4-Methyl-2-pentanone	9.73	43	37283	2.56	ug/l		95
54)	cis-1,3-Dichloropropene	10.07	75	26702	0.49	ug/l		96
57)	Toluene	10.61	91	96923	0.52	ug/l		100
58)	Ethyl methacrylate	10.90	69	10734	0.47	ug/l		85
59)	trans-1,3-Dichloropropene	10.92	75	18594	0.49	ug/l		93
60)	1,1,2-Trichloroethane	11.18	97	8962	0.49	ug/l		98
61)	2-Hexanone	11.21	43	24228	2.68	ug/l		89
62)	1,3-Dichloropropane	11.62	76	18155	0.51	ug/l		100
63)	Tetrachloroethene	11.72	164	19555	0.49	ug/l		99
64)	Dibromochloromethane	12.08	129	12418	0.48	ug/l		100
65)	1,2-Dibromoethane	12.44	107	9078	0.51	ug/l		100
66)	1-Chlorohexane	12.74	91	44786	0.48	ug/l		97
67)	Chlorobenzene	13.20	112	50900	0.49	ug/l		82
68)	1,1,1,2-Tetrachloroethane	13.28	131	16896	0.49	ug/l	#	83
69)	Ethylbenzene	13.30	91	104124	0.49	ug/l		98
70)	m-Xylene & p-Xylene	13.43	91	151424	0.99	ug/l		98
71)	o-Xylene	14.23	91	70459	0.49	ug/l		98
72)	Styrene	14.31	104	54075	0.50	ug/l		99
73)	Isopropylbenzene	14.92	105	95651	0.48	ug/l		99
75)	Bromoform	14.93	173	5879	0.46	ug/l		98
76)	1,1,2,2-Tetrachloroethane	15.26	83	9678	0.51	ug/l		98
78)	1,2,3-Trichloropropane	15.53	110	2543	0.53	ug/l		74
79)	trans-1,4-Dichloro-2-buten	15.68	53	2388	0.48	ug/l	#	29
80)	n-Propylbenzene	15.68	91	121132	0.48	ug/l		99
81)	Bromobenzene	15.75	156	17682	0.50	ug/l		93
82)	1,3,5-Trimethylbenzene	16.00	105	72755	0.47	ug/l		99
83)	2-Chlorotoluene	16.02	91	68473	0.48	ug/l		98
84)	4-Chlorotoluene	16.12	91	62854	0.52	ug/l		95

(#) = qualifier out of range (m) = manual integration
RLC390.D VO67L18.M Mon Dec 22 19:45:09 2014 Page 2

SU 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
85)	tert-Butylbenzene	16.69	134	16994	0.46 ug/l		92
86)	1,2,4-Trimethylbenzene	16.76	105	69316	0.48 ug/l		98
87)	sec-Butylbenzene	17.10	105	105169	0.47 ug/l		98
88)	p-Isopropyltoluene	17.37	119	83913	0.47 ug/l		99
89)	1,3-Dichlorobenzene	17.55	146	36487	0.51 ug/l		99
90)	1,4-Dichlorobenzene	17.75	146	35644	0.52 ug/l		100
91)	n-Butylbenzene	18.13	91	80685	0.47 ug/l		99
92)	1,2-Dichlorobenzene	18.40	146	28752	0.52 ug/l		87
93)	1,2-Dibromo-3-chloropropan	19.54	157	1170	0.47 ug/l	#	56
94)	1,2,4-Trichlorobenzene	20.63	180	17838	0.53 ug/l		100
95)	Hexachlorobutadiene	20.81	225	15221	0.51 ug/l		97
96)	Naphthalene	20.95	128	22029	0.58 ug/l		95
97)	1,2,3-Trichlorobenzene	21.28	180	13289	0.56 ug/l		98

SA 12/24/14

(#) = qualifier out of range (m) = manual integration

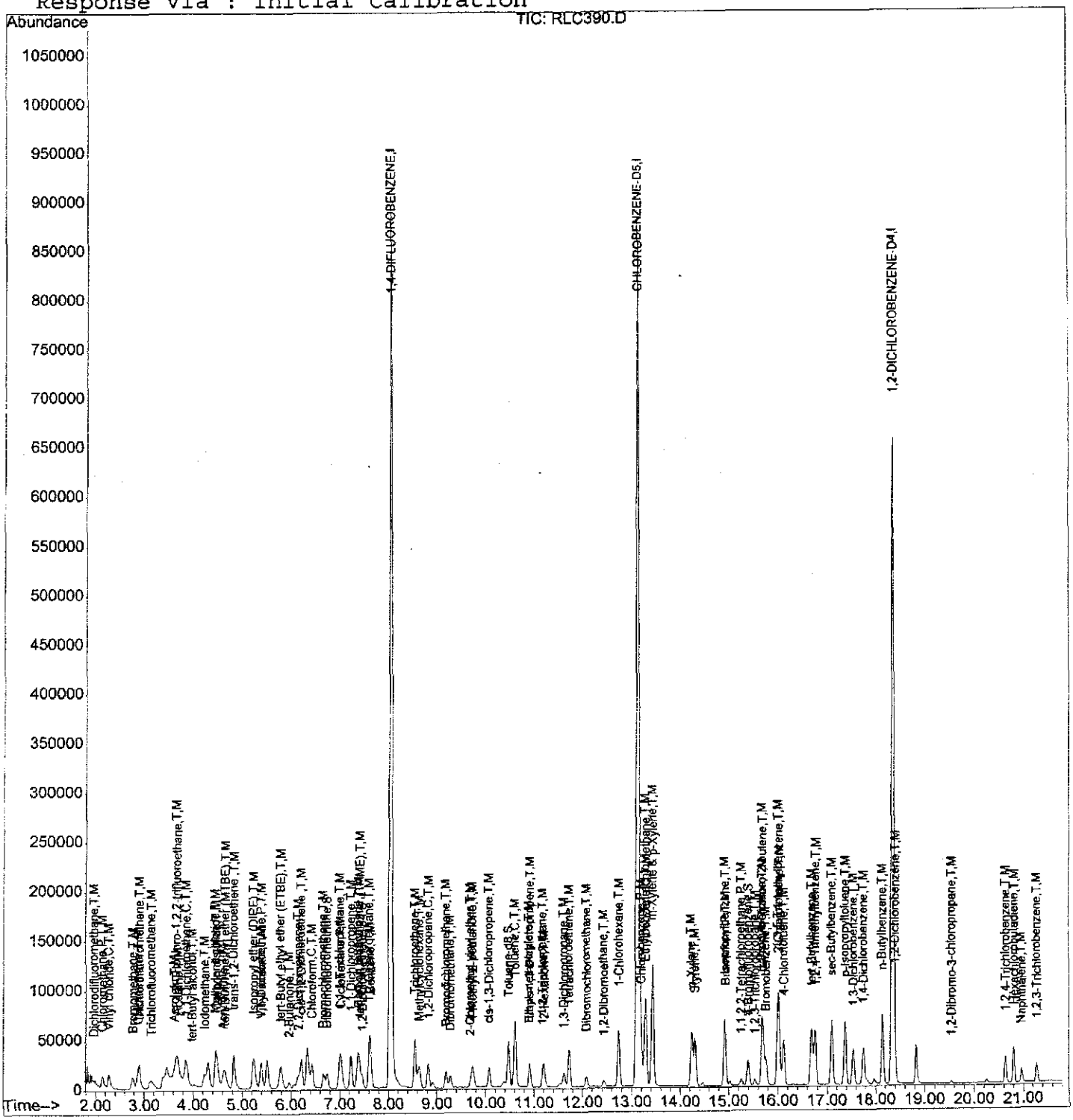
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC390.D
Acq On : 19 Dec 2014 3:13 am
Sample : VO67L1810 0.5ppb
Misc : 0.5ppb8260/2.5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:27 2014

Vial: 14
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

2058

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D
Acq On : 18 Dec 2014 8:33 pm
Sample : VO67L1801 1ppb
Misc : 1ppb8260/5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 2
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1371318	10.00	ug/l	-0.01
55) CHLOROBENZENE-D5	13.12	117	955775	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	303996	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	34858	0.93	ug/l	-0.01
Spiked Amount 10.000			Recovery =	9.30%		
43) 1,2-Dichloroethane-d4	7.45	65	20483	0.94	ug/l	-0.01
Spiked Amount 10.000			Recovery =	9.40%		
56) Toluene-d8	10.48	98	135168	0.96	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.60%		
77) 4-Bromofluorobenzene	15.39	95	36155	0.95	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	48848	1.06	ug/l	94
4) Chloromethane	2.14	50	69189	1.01	ug/l	97
5) Vinyl chloride	2.27	62	74243	1.00	ug/l	90
6) Bromomethane	2.76	94	45507	1.01	ug/l	95
7) Chloroethane	2.86	64	48841	1.05	ug/l	96
8) Dichlorofluoromethane	2.89	67	93623	0.99	ug/l	97
9) Trichlorofluoromethane	3.13	101	62941	0.97	ug/l	93
11) Acrolein	3.63	56	10215	5.39	ug/l #	8
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	36742	0.99	ug/l	99
13) Acetone	3.70	43	21204	6.49	ug/l	73
14) 1,1-Dichloroethene	3.84	61	73272	1.02	ug/l	100
15) tert-Butyl alcohol	3.98	59	4810	4.41	ug/l	98
16) Methyl acetate	4.25	43	15180	1.10	ug/l	79
17) Iodomethane	4.24	142	72415	0.98	ug/l	99
19) Methylene chloride	4.44	49	43336	0.96	ug/l	99
20) Carbon disulfide	4.47	76	178188	0.93	ug/l	99
21) Acrylonitrile	4.60	53	21590	4.48	ug/l	96
22) tert-Butyl methyl ether (M	4.65	73	49538	0.89	ug/l	97
23) trans-1,2-Dichloroethene	4.82	61	61183	0.99	ug/l	99
24) Isopropyl ether (DIPE)	5.23	45	116999	0.95	ug/l	98
25) 1,1-Dichloroethane	5.38	63	77398	1.01	ug/l	98
26) Vinyl acetate	5.38	43	35027	0.92	ug/l	98
27) 2-Butanol	5.70	45	4828	5.37	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	80581	0.90	ug/l	98
29) 2-Butanone	5.96	43	24747	4.52	ug/l	96
30) 2,2-Dichloropropane	6.15	77	49944	1.13	ug/l	96
31) cis-1,2-Dichloroethene	6.21	96	42993	0.94	ug/l	98

(#) = qualifier out of range (m) = manual integration SA 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D Vial: 2
Acq On : 18 Dec 2014 8:33 pm Operator: ASmith
Sample : VO67L1801 1ppb Inst : TO67
Misc : 1ppb8260/5ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	Chloroform	6.43	83	65364	0.97 ug/l		99
33)	Bromochloromethane	6.66	49	21918	0.93 ug/l		99
36)	Tetrahydrofuran	6.72	42	3029	1.03 ug/l	#	34
37)	1,1,1-Trichloroethane	7.00	97	60911	1.02 ug/l		100
38)	Cyclohexane	7.02	56	95678	0.99 ug/l		98
40)	1,1-Dichloropropene	7.22	110	22996	0.99 ug/l		99
41)	Carbon tetrachloride	7.37	119	54743	1.01 ug/l		99
42)	tert-Amyl methyl ether (TA	7.40	87	13037	0.89 ug/l	#	85
44)	1,2-Dichloroethane	7.60	62	23762	0.93 ug/l		96
45)	Benzene	7.61	78	160175	0.98 ug/l		99
46)	Trichloroethene	8.55	130	57655	1.12 ug/l		99
47)	Methylcyclohexane	8.64	83	93220	0.93 ug/l		97
48)	1,2-Dichloropropane	8.81	63	33681	0.94 ug/l		98
49)	Bromodichloromethane	9.19	83	38873	0.94 ug/l		100
50)	1,4-Dioxane	9.22	88	1514	14.54 ug/l		81
51)	Dibromomethane	9.27	93	13300	0.93 ug/l		97
52)	2-Chloroethyl vinyl ether	9.69	63	6557	0.83 ug/l		90
53)	4-Methyl-2-pentanone	9.73	43	60718	4.50 ug/l		98
54)	cis-1,3-Dichloropropene	10.07	75	47494	0.93 ug/l		98
57)	Toluene	10.61	91	168196	1.02 ug/l		99
58)	Ethyl methacrylate	10.90	69	17500	0.87 ug/l		85
59)	trans-1,3-Dichloropropene	10.92	75	30945	0.92 ug/l		95
60)	1,1,2-Trichloroethane	11.18	97	15486	0.95 ug/l		96
61)	2-Hexanone	11.21	43	37561	4.71 ug/l		91
62)	1,3-Dichloropropane	11.62	76	29847	0.95 ug/l		98
63)	Tetrachloroethene	11.72	164	35853	1.01 ug/l		100
64)	Dibromochloromethane	12.09	129	21451	0.95 ug/l		97
65)	1,2-Dibromoethane	12.44	107	14743	0.93 ug/l		99
66)	1-Chlorohexane	12.73	91	83283	1.00 ug/l		97
67)	Chlorobenzene	13.20	112	88869	0.97 ug/l		91
68)	1,1,1,2-Tetrachloroethane	13.27	131	28941	0.95 ug/l		93
69)	Ethylbenzene	13.28	91	186096	0.99 ug/l		99
70)	m-Xylene & p-Xylene	13.43	91	266218	1.97 ug/l		100
71)	o-Xylene	14.23	91	125064	0.99 ug/l		98
72)	Styrene	14.31	104	90553	0.94 ug/l		98
73)	Isopropylbenzene	14.92	105	175496	1.00 ug/l		99
75)	Bromoform	14.93	173	10001	0.92 ug/l		92
76)	1,1,2,2-Tetrachloroethane	15.26	83	14986	0.93 ug/l		98
78)	1,2,3-Trichloropropane	15.55	110	3684	0.90 ug/l		99
79)	trans-1,4-Dichloro-2-buten	15.67	53	3909	0.92 ug/l		80
80)	n-Propylbenzene	15.68	91	220938	1.03 ug/l		99

(#) = qualifier out of range (m) = manual integration SC 12/24/14

2060

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D
Acq On : 18 Dec 2014 8:33 pm
Sample : VO67L1801 1ppb
Misc : 1ppb8260/5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 2
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.75	156	28949	0.96 ug/l	94
82)	1,3,5-Trimethylbenzene	15.99	105	131247	1.00 ug/l	99
83)	2-Chlorotoluene	16.02	91	120322	0.99 ug/l	99
84)	4-Chlorotoluene	16.10	91	105590	1.03 ug/l	99
85)	tert-Butylbenzene	16.67	134	31663	1.02 ug/l	97
86)	1,2,4-Trimethylbenzene	16.75	105	123628	1.01 ug/l	98
87)	sec-Butylbenzene	17.10	105	196436	1.04 ug/l	100
88)	p-Isopropyltoluene	17.37	119	155405	1.02 ug/l	99
89)	1,3-Dichlorobenzene	17.54	146	58803	0.96 ug/l	99
90)	1,4-Dichlorobenzene	17.75	146	56087	0.96 ug/l	99
91)	n-Butylbenzene	18.13	91	149869	1.03 ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	44433	0.95 ug/l	91
93)	1,2-Dibromo-3-chloropropan	19.54	157	1605	0.76 ug/l	95
94)	1,2,4-Trichlorobenzene	20.63	180	25196	0.88 ug/l	99
95)	Hexachlorobutadiene	20.81	225	26314	1.03 ug/l	98
96)	Naphthalene	20.95	128	26182	0.81 ug/l	94
97)	1,2,3-Trichlorobenzene	21.28	180	16825	0.83 ug/l	98

SC 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC378.D VO67L18.M Mon Dec 22 19:45:26 2014

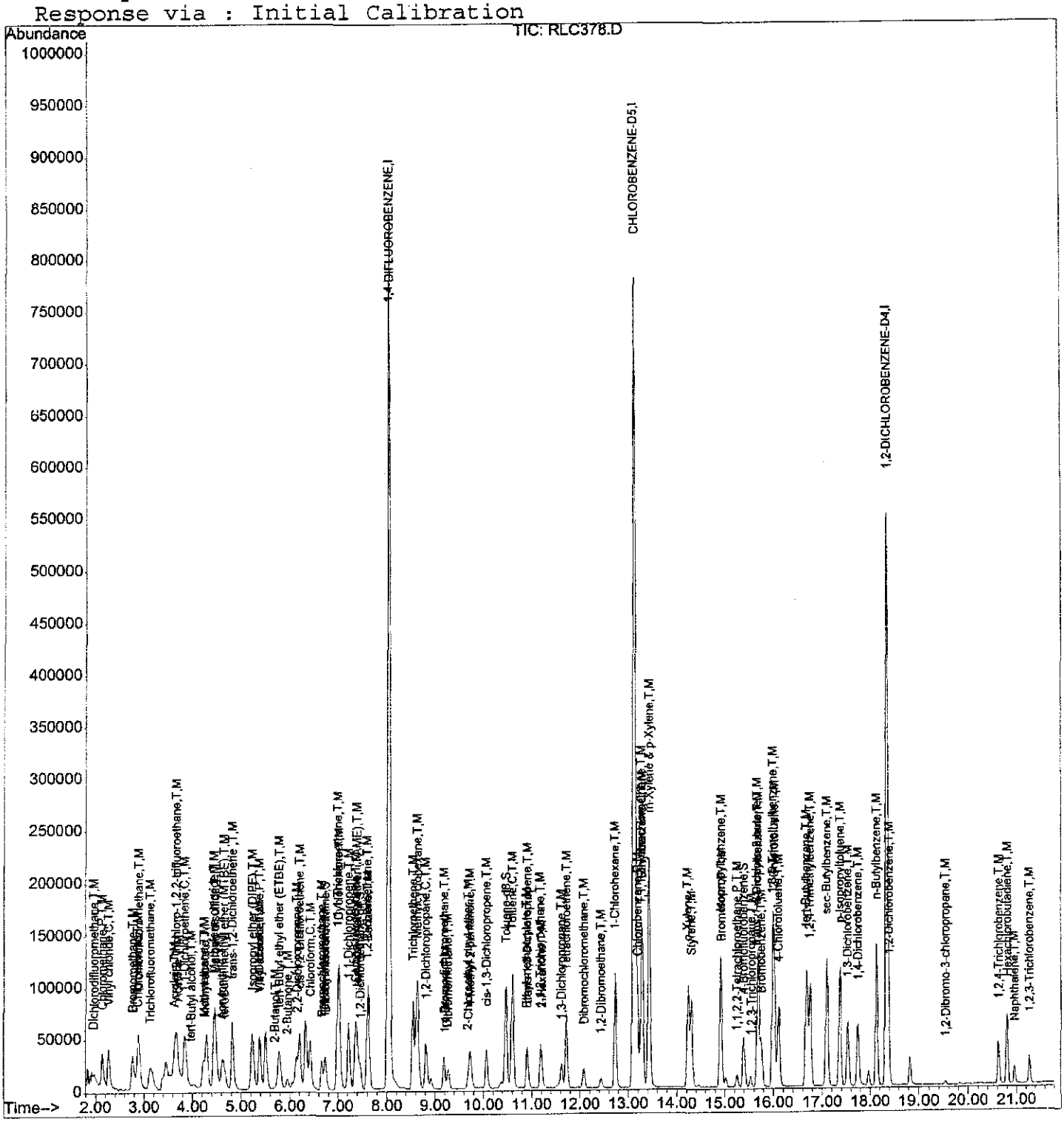
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC378.D
Acq On : 18 Dec 2014 8:33 pm
Sample : VO67L1801 1ppb
Misc : 1ppb8260/5ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 2
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SW 12/24/14

2062

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D Vial: 3
Acq On : 18 Dec 2014 9:07 pm Operator: ASmith
Sample : VO67L1802 2ppb Inst : TO67
Misc : 2ppb8260/10ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1341252	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	955393	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	314718	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	73750	2.00	ug/l	-0.02
Spiked Amount 10.000			Recovery =	20.00%		
43) 1,2-Dichloroethane-d4	7.45	65	42796	2.01	ug/l	-0.02
Spiked Amount 10.000			Recovery =	20.10%		
56) Toluene-d8	10.48	98	278627	1.97	ug/l	0.00
Spiked Amount 10.000			Recovery =	19.70%		
77) 4-Bromofluorobenzene	15.40	95	76669	1.95	ug/l	0.01
Spiked Amount 10.000			Recovery =	19.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	101936	2.25	ug/l	98
4) Chloromethane	2.14	50	143111	2.14	ug/l	98
5) Vinyl chloride	2.27	62	151926	2.08	ug/l	94
6) Bromomethane	2.76	94	99349	2.11	ug/l	98
7) Chloroethane	2.86	64	100305	2.21	ug/l	98
8) Dichlorofluoromethane	2.89	67	172468	1.87	ug/l	98
9) Trichlorofluoromethane	3.15	101	132998	2.10	ug/l	94
11) Acrolein	3.62	56	18896	10.19	ug/l	91
12) 1,1,2-Trichloro-1,2,2-trif	3.65	151	68791	1.90	ug/l	100
13) Acetone	3.68	43	34461	10.78	ug/l	88
14) 1,1-Dichloroethene	3.84	61	136679	1.95	ug/l	100
15) tert-Butyl alcohol	3.95	59	9396	8.81	ug/l	93
16) Methyl acetate	4.25	43	25138	2.10	ug/l	91
17) Iodomethane	4.22	142	137512	1.91	ug/l	99
19) Methylene chloride	4.44	49	84153	1.91	ug/l	97
20) Carbon disulfide	4.47	76	399270	2.12	ug/l	100
21) Acrylonitrile	4.60	53	42541	9.02	ug/l	98
22) tert-Butyl methyl ether (M	4.63	73	99966	1.85	ug/l	98
23) trans-1,2-Dichloroethene	4.82	61	116003	1.92	ug/l	99
24) Isopropyl ether (DIPE)	5.23	45	223316	1.86	ug/l	99
25) 1,1-Dichloroethane	5.38	63	145507	1.94	ug/l	99
26) Vinyl acetate	5.38	43	79850	2.13	ug/l	98
27) 2-Butanol	5.68	45	8345	9.50	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	163372	1.87	ug/l	98
29) 2-Butanone	5.95	43	48704	9.09	ug/l	98
30) 2,2-Dichloropropane	6.15	77	92436	2.13	ug/l	97
31) cis-1,2-Dichloroethene	6.21	96	83706	1.87	ug/l	99

(#) = qualifier out of range (m) = manual integration
RLC379.D VO67L18.M Mon Dec 22 19:45:39 2014 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D
Acq On : 18 Dec 2014 9:07 pm
Sample : VO67L1802 2ppb
Misc : 2ppb8260/10ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	125643	1.90 ug/l	99
33)	Bromochloromethane	6.66	49	42850	1.86 ug/l	99
36)	Tetrahydrofuran	6.71	42	5778	2.01 ug/l	86
37)	1,1,1-Trichloroethane	7.00	97	114567	1.96 ug/l	99
38)	Cyclohexane	7.01	56	194854	2.06 ug/l	99
40)	1,1-Dichloropropene	7.22	110	41137	1.81 ug/l	100
41)	Carbon tetrachloride	7.37	119	101070	1.91 ug/l	98
42)	tert-Amyl methyl ether (TA	7.39	87	26408	1.84 ug/l	96
44)	1,2-Dichloroethane	7.60	62	48072	1.92 ug/l	99
45)	Benzene	7.61	78	300993	1.89 ug/l	99
46)	Trichloroethene	8.55	130	97753	1.94 ug/l	99
47)	Methylcyclohexane	8.64	83	194330	1.99 ug/l	98
48)	1,2-Dichloropropane	8.81	63	65492	1.87 ug/l	99
49)	Bromodichloromethane	9.19	83	74799	1.85 ug/l	100
50)	1,4-Dioxane	9.24	88	3734	36.67 ug/l	96
51)	Dibromomethane	9.28	93	26220	1.87 ug/l	98
52)	2-Chloroethyl vinyl ether	9.69	63	13612	1.77 ug/l	98
53)	4-Methyl-2-pentanone	9.73	43	118916	9.02 ug/l	98
54)	cis-1,3-Dichloropropene	10.07	75	92448	1.86 ug/l	98
57)	Toluene	10.61	91	310778	1.89 ug/l	100
58)	Ethyl methacrylate	10.90	69	36241	1.81 ug/l	94
59)	trans-1,3-Dichloropropene	10.92	75	62141	1.85 ug/l	97
60)	1,1,2-Trichloroethane	11.19	97	29505	1.81 ug/l	99
61)	2-Hexanone	11.21	43	72081	9.05 ug/l	96
62)	1,3-Dichloropropane	11.62	76	58101	1.85 ug/l	99
63)	Tetrachloroethene	11.72	164	66633	1.88 ug/l	99
64)	Dibromochloromethane	12.08	129	41246	1.82 ug/l	100
65)	1,2-Dibromoethane	12.44	107	28760	1.82 ug/l	100
66)	1-Chlorohexane	12.74	91	154056	1.86 ug/l	99
67)	Chlorobenzene	13.20	112	168040	1.83 ug/l	95
68)	1,1,1,2-Tetrachloroethane	13.28	131	55312	1.82 ug/l	93
69)	Ethylbenzene	13.30	91	352048	1.87 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	501141	3.71 ug/l	99
71)	o-Xylene	14.25	91	237784	1.88 ug/l	98
72)	Styrene	14.31	104	175939	1.83 ug/l	99
73)	Isopropylbenzene	14.92	105	325172	1.86 ug/l	99
75)	Bromoform	14.93	173	20172	1.78 ug/l	98
76)	1,1,2,2-Tetrachloroethane	15.26	83	30631	1.84 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	8506	2.00 ug/l	90
79)	trans-1,4-Dichloro-2-buten	15.68	53	8259	1.88 ug/l	93
80)	n-Propylbenzene	15.69	91	414326	1.87 ug/l	99

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D Vial: 3
Acq On : 18 Dec 2014 9:07 pm Operator: ASmith
Sample : VO67L1802 2ppb Inst : TO67
Misc : 2ppb8260/10ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.75	156	57769	1.85 ug/l	97
82)	1,3,5-Trimethylbenzene	16.00	105	250854	1.85 ug/l	99
83)	2-Chlorotoluene	16.02	91	245099	1.95 ug/l	100
84)	4-Chlorotoluene	16.12	91	191554	1.80 ug/l	100
85)	tert-Butylbenzene	16.69	134	58766	1.82 ug/l	96
86)	1,2,4-Trimethylbenzene	16.76	105	238736	1.88 ug/l	99
87)	sec-Butylbenzene	17.10	105	368651	1.88 ug/l	99
88)	p-Isopropyltoluene	17.37	119	293391	1.86 ug/l	99
89)	1,3-Dichlorobenzene	17.53	146	115193	1.82 ug/l	99
90)	1,4-Dichlorobenzene	17.75	146	109741	1.81 ug/l	100
91)	n-Butylbenzene	18.13	91	281969	1.88 ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	89119	1.84 ug/l	97
93)	1,2-Dibromo-3-chloropropan	19.54	157	4132	1.89 ug/l	99
94)	1,2,4-Trichlorobenzene	20.63	180	51111	1.72 ug/l	99
95)	Hexachlorobutadiene	20.81	225	49554	1.87 ug/l	99
96)	Naphthalene	20.95	128	57222	1.71 ug/l	99
97)	1,2,3-Trichlorobenzene	21.28	180	35565	1.69 ug/l	97

SA 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC379.D VO67L18.M Mon Dec 22 19:45:39 2014 Page 3

2065

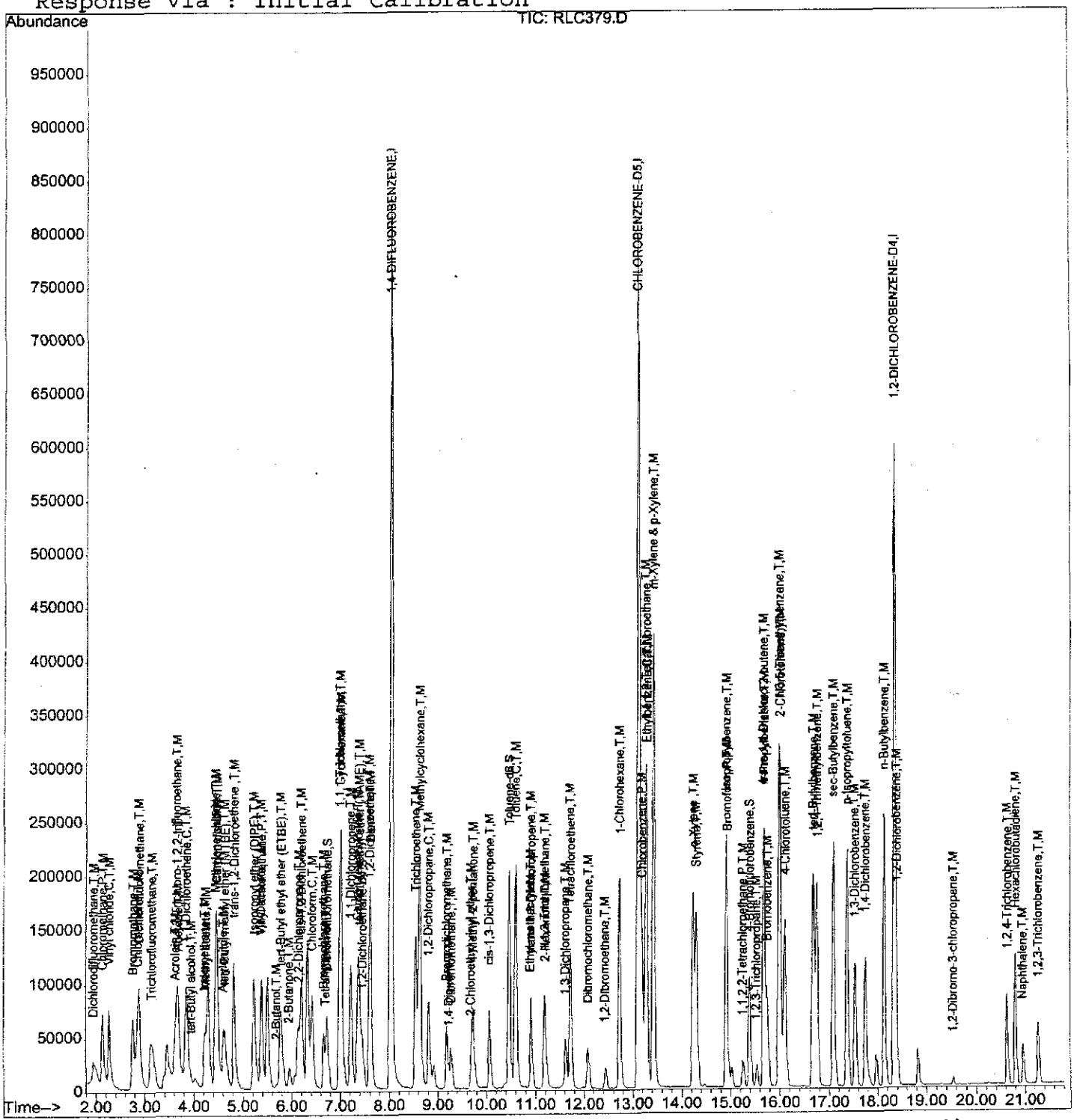
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC379.D
Acq On : 18 Dec 2014 9:07 pm
Sample : VO67L1802 2ppb
Misc : 2ppb8260/10ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:28 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

2066

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D
Acq On : 18 Dec 2014 9:37 pm
Sample : VO67L1803 5ppb
Misc : 5ppb8260/25ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 4
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1414580	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1013353	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	333944	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	186947	4.81	ug/l	-0.02
Spiked Amount 10.000			Recovery =	48.10%		
43) 1,2-Dichloroethane-d4	7.45	65	106529	4.75	ug/l	-0.02
Spiked Amount 10.000			Recovery =	47.50%		
56) Toluene-d8	10.46	98	699043	4.67	ug/l	-0.02
Spiked Amount 10.000			Recovery =	46.70%		
77) 4-Bromofluorobenzene	15.39	95	183826	4.42	ug/l	0.00
Spiked Amount 10.000			Recovery =	44.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.96	85	267134	5.60	ug/l	99
4) Chloromethane	2.14	50	373731	5.31	ug/l	100
5) Vinyl chloride	2.27	62	408793	5.31	ug/l	99
6) Bromomethane	2.77	94	261970	5.11	ug/l	99
7) Chloroethane	2.85	64	256509	5.35	ug/l	100
8) Dichlorofluoromethane	2.89	67	502282	5.17	ug/l	100
9) Trichlorofluoromethane	3.15	101	363145	5.43	ug/l	98
11) Acrolein	3.61	56	47556	24.31	ug/l	81
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	196907	5.17	ug/l	99
13) Acetone	3.68	43	83410	24.73	ug/l	92
14) 1,1-Dichloroethene	3.84	61	388284	5.26	ug/l	100
15) tert-Butyl alcohol	3.95	59	28337	25.18	ug/l	96
16) Methyl acetate	4.25	43	54075	4.63	ug/l	97
17) Iodomethane	4.22	142	391789	5.17	ug/l	100
19) Methylene chloride	4.44	49	226678	4.87	ug/l	100
20) Carbon disulfide	4.46	76	1046870	5.28	ug/l	99
21) Acrylonitrile	4.60	53	124274	24.99	ug/l	97
22) tert-Butyl methyl ether (M	4.63	73	287296	5.03	ug/l	96
23) trans-1,2-Dichloroethene	4.82	61	334395	5.25	ug/l	98
24) Isopropyl ether (DIPE)	5.22	45	628320	4.95	ug/l	100
25) 1,1-Dichloroethane	5.38	63	407976	5.15	ug/l	100
26) Vinyl acetate	5.38	43	205157	5.20	ug/l	99
27) 2-Butanol	5.67	45	22355	24.12	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.77	59	464681	5.05	ug/l	100
29) 2-Butanone	5.95	43	134035	23.72	ug/l	100
30) 2,2-Dichloropropane	6.14	77	249877	5.46	ug/l	100
31) cis-1,2-Dichloroethene	6.21	96	237803	5.05	ug/l	98

(#) = qualifier out of range (m) = manual integration

SM 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D Vial: 4
Acq On : 18 Dec 2014 9:37 pm Operator: ASmith
Sample : VO67L1803 5ppb Inst : TO67
Misc : 5ppb8260/25ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	359011	5.16 ug/l	99
33)	Bromochloromethane	6.65	49	126894	5.23 ug/l	99
36)	Tetrahydrofuran	6.71	42	15584	5.15 ug/l	98
37)	1,1,1-Trichloroethane	7.00	97	324668	5.27 ug/l	100
38)	Cyclohexane	7.01	56	528483	5.29 ug/l	99
40)	1,1-Dichloropropene	7.22	110	123457	5.15 ug/l	99
41)	Carbon tetrachloride	7.37	119	291819	5:23 ug/l	99
42)	tert-Amyl methyl ether (TA	7.39	87	75215	4.97 ug/l	97
44)	1,2-Dichloroethane	7.60	62	134016	5.07 ug/l	100
45)	Benzene	7.61	78	845112	5.02 ug/l	99
46)	Trichloroethene	8.53	130	252744	4.76 ug/l	99
47)	Methylcyclohexane	8.62	83	545707	5.30 ug/l	99
48)	1,2-Dichloropropane	8.81	63	187445	5.08 ug/l	99
49)	Bromodichloromethane	9.18	83	216776	5.08 ug/l	100
50)	1,4-Dioxane	9.22	88	10527	98.01 ug/l	97
51)	Dibromomethane	9.26	93	74636	5.04 ug/l	100
52)	2-Chloroethyl vinyl ether	9.67	63	41500	5.10 ug/l	99
53)	4-Methyl-2-pentanone	9.72	43	335537	24.12 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	265887	5.06 ug/l	100
57)	Toluene	10.59	91	883681	5.06 ug/l	100
58)	Ethyl methacrylate	10.90	69	105736	4.97 ug/l	96
59)	trans-1,3-Dichloropropene	10.92	75	179667	5.05 ug/l	99
60)	1,1,2-Trichloroethane	11.18	97	86568	5.02 ug/l	99
61)	2-Hexanone	11.19	43	203033	24.03 ug/l	99
62)	1,3-Dichloropropane	11.62	76	167132	5.01 ug/l	100
63)	Tetrachloroethene	11.72	164	191027	5.08 ug/l	99
64)	Dibromochloromethane	12.08	129	119282	4.98 ug/l	99
65)	1,2-Dibromoethane	12.44	107	83869	5.00 ug/l	99
66)	1-Chlorohexane	12.73	91	449452	5.11 ug/l	99
67)	Chlorobenzene	13.20	112	487676	5.00 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.27	131	160685	4.97 ug/l	99
69)	Ethylbenzene	13.28	91	1010964	5.05 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	1453355	10.16 ug/l	100
71)	o-Xylene	14.23	91	682970	5.09 ug/l	100
72)	Styrene	14.31	104	507047	4.97 ug/l	99
73)	Isopropylbenzene	14.92	105	953000	5.13 ug/l	100
75)	Bromoform	14.93	173	58763	4.90 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	87188	4.95 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	23533	5.21 ug/l	98
79)	trans-1,4-Dichloro-2-buten	15.66	53	23603	5.05 ug/l	99
80)	n-Propylbenzene	15.68	91	1202290	5.13 ug/l	100

(#) = qualifier out of range (m) = manual integration SA 12/24/14
RLC380.D VO67L18.M Mon Dec 22 19:45:53 2014 Page 2

2068

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D Vial: 4
Acq On : 18 Dec 2014 9:37 pm Operator: ASmith
Sample : VO67L1803 5ppb Inst : TO67
Misc : 5ppb8260/25ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.75	156	165362	4.98 ug/l	99
82)	1,3,5-Trimethylbenzene	15.99	105	731599	5.09 ug/l	99
83)	2-Chlorotoluene	16.02	91	657618	4.93 ug/l	100
84)	4-Chlorotoluene	16.10	91	568097	5.02 ug/l	100
85)	tert-Butylbenzene	16.67	134	177617	5.19 ug/l	98
86)	1,2,4-Trimethylbenzene	16.75	105	689853	5.11 ug/l	99
87)	sec-Butylbenzene	17.10	105	1064044	5.12 ug/l	100
88)	p-Isopropyltoluene	17.37	119	869094	5.19 ug/l	99
89)	1,3-Dichlorobenzene	17.53	146	330047	4.92 ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	320329	4.98 ug/l	99
91)	n-Butylbenzene	18.13	91	822201	5.15 ug/l	100
92)	1,2-Dichlorobenzene	18.40	146	255452	4.97 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.54	157	11656	5.02 ug/l	96
94)	1,2,4-Trichlorobenzene	20.63	180	150945	4.78 ug/l	99
95)	Hexachlorobutadiene	20.81	225	145001	5.16 ug/l	99
96)	Naphthalene	20.95	128	171806	4.85 ug/l	100
97)	1,2,3-Trichlorobenzene	21.28	180	107108	4.80 ug/l	100

SM 12/24/14

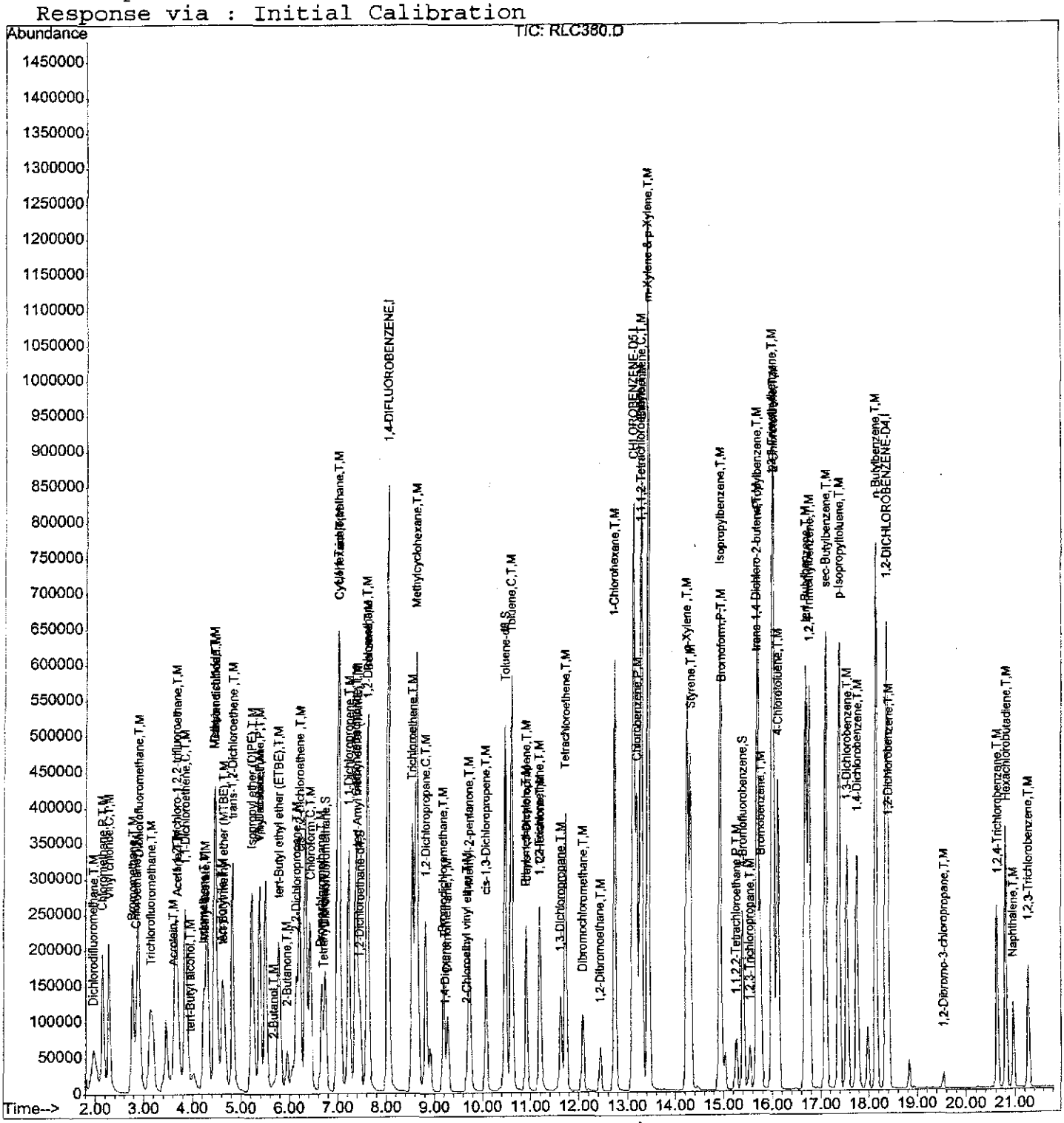
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC380.D
Acq On : 18 Dec 2014 9:37 pm
Sample : VO67L1803 5ppb
Misc : 5ppb8260/25ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 4
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

2070

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D
Acq On : 18 Dec 2014 10:11 pm
Sample : VO67L1804 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 5
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.05	114	1579429	10.00	ug/l	0.00
55) CHLOROBENZENE-D5	13.12	117	1147311	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	386538	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.75	111	476411	10.99	ug/l	0.00
Spiked Amount 10.000			Recovery =	109.90%		
43) 1,2-Dichloroethane-d4	7.47	65	274478	10.95	ug/l	0.00
Spiked Amount 10.000			Recovery =	109.50%		
56) Toluene-d8	10.48	98	1774501	10.47	ug/l	0.00
Spiked Amount 10.000			Recovery =	104.70%		
77) 4-Bromofluorobenzene	15.39	95	477462	9.91	ug/l	0.00
Spiked Amount 10.000			Recovery =	99.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	572005	10.74	ug/l	100
4) Chloromethane	2.14	50	822651	10.46	ug/l	100
5) Vinyl chloride	2.28	62	909169	10.58	ug/l	100
6) Bromomethane	2.78	94	589348	10.18	ug/l	100
7) Chloroethane	2.86	64	554937	10.36	ug/l	100
8) Dichlorofluoromethane	2.91	67	1084666	9.99	ug/l	100
9) Trichlorofluoromethane	3.16	101	781433	10.46	ug/l	100
11) Acrolein	3.63	56	102329	46.85	ug/l	100
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	416043	9.78	ug/l	100
13) Acetone	3.70	43	176066	46.75	ug/l	100
14) 1,1-Dichloroethene	3.86	61	819891	9.95	ug/l	100
15) tert-Butyl alcohol	3.96	59	64173	51.08	ug/l	100
16) Methyl acetate	4.27	43	120088	9.53	ug/l	100
17) Iodomethane	4.24	142	849138	10.03	ug/l	100
19) Methylene chloride	4.46	49	491614	9.46	ug/l	100
20) Carbon disulfide	4.47	76	2194777	9.91	ug/l	100
21) Acrylonitrile	4.62	53	271534	48.90	ug/l	100
22) tert-Butyl methyl ether (M	4.65	73	643416	10.09	ug/l	100
23) trans-1,2-Dichloroethene	4.84	61	704386	9.90	ug/l	100
24) Isopropyl ether (DIPE)	5.23	45	1410662	9.95	ug/l	100
25) 1,1-Dichloroethane	5.39	63	875706	9.90	ug/l	100
26) Vinyl acetate	5.39	43	477129	10.83	ug/l	100
27) 2-Butanol	5.69	45	47134	45.55	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	1036119	10.09	ug/l	100
29) 2-Butanone	5.96	43	300905	47.70	ug/l	100
30) 2,2-Dichloropropane	6.15	77	533609	10.44	ug/l	100
31) cis-1,2-Dichloroethene	6.23	96	523908	9.96	ug/l	100

(#) = qualifier out of range (m) = manual integration

SM 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D Vial: 5
Acq On : 18 Dec 2014 10:11 pm Operator: ASmith
Sample : VO67L1804 10ppb Inst : TO67
Misc : 10ppb8260/50ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32)	Chloroform	6.45	83	771451	9.93	ug/l	100
33)	Bromochloromethane	6.66	49	279100	10.30	ug/l	100
36)	Tetrahydrofuran	6.71	42	35557	10.52	ug/l	100
37)	1,1,1-Trichloroethane	7.00	97	694778	10.10	ug/l	100
38)	Cyclohexane	7.03	56	1019575	9.14	ug/l	100
40)	1,1-Dichloropropene	7.23	110	265843	9.92	ug/l	100
41)	Carbon tetrachloride	7.38	119	624955	10.03	ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	173653	10.28	ug/l	100
44)	1,2-Dichloroethane	7.60	62	300961	10.19	ug/l	100
45)	Benzene	7.63	78	1848254	9.83	ug/l	100
46)	Trichloroethene	8.55	130	540003	9.12	ug/l	100
47)	Methylcyclohexane	8.64	83	1051180	9.15	ug/l	100
48)	1,2-Dichloropropane	8.83	63	408189	9.91	ug/l	100
49)	Bromodichloromethane	9.19	83	482297	10.12	ug/l	100
50)	1,4-Dioxane	9.24	88	24118	201.11	ug/l	100
51)	Dibromomethane	9.28	93	168787	10.20	ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	98891	10.89	ug/l	100
53)	4-Methyl-2-pentanone	9.73	43	762658	49.11	ug/l	100
54)	cis-1,3-Dichloropropene	10.07	75	592124	10.10	ug/l	100
57)	Toluene	10.61	91	1914638	9.68	ug/l	100
58)	Ethyl methacrylate	10.90	69	244699	10.16	ug/l	100
59)	trans-1,3-Dichloropropene	10.92	75	405945	10.08	ug/l	100
60)	1,1,2-Trichloroethane	11.18	97	193923	9.93	ug/l	100
61)	2-Hexanone	11.19	43	451852	47.23	ug/l	100
62)	1,3-Dichloropropane	11.62	76	376451	9.97	ug/l	100
63)	Tetrachloroethene	11.72	164	412145	9.68	ug/l	100
64)	Dibromochloromethane	12.09	129	272668	10.05	ug/l	100
65)	1,2-Dibromoethane	12.44	107	188703	9.93	ug/l	100
66)	1-Chlorohexane	12.74	91	964447	9.69	ug/l	100
67)	Chlorobenzene	13.20	112	1071286	9.70	ug/l	100
68)	1,1,1,2-Tetrachloroethane	13.27	131	359402	9.82	ug/l	100
69)	Ethylbenzene	13.28	91	2212563	9.77	ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	3142149	19.39	ug/l	100
71)	o-Xylene	14.23	91	1478350	9.73	ug/l	100
72)	Styrene	14.31	104	1137820	9.85	ug/l	100
73)	Isopropylbenzene	14.92	105	2073070	9.86	ug/l	100
75)	Bromoform	14.93	173	134768	9.70	ug/l	100
76)	1,1,2,2-Tetrachloroethane	15.26	83	202629	9.93	ug/l	100
78)	1,2,3-Trichloropropane	15.53	110	52663	10.08	ug/l	100
79)	trans-1,4-Dichloro-2-buten	15.68	53	53807	9.95	ug/l	100
80)	n-Propylbenzene	15.68	91	2606244	9.60	ug/l	100

(#) = qualifier out of range (m) = manual integration Su 12/24/14
RLC381.D VO67L18.M Mon Dec 22 19:46:08 2014 Page 2

2072

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D
Acq On : 18 Dec 2014 10:11 pm
Sample : VO67L1804 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 5
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromobenzene	15.75	156	366247	9.53	ug/l	100
82)	1,3,5-Trimethylbenzene	15.99	105	1591025	9.57	ug/l	100
83)	2-Chlorotoluene	16.02	91	1434600	9.30	ug/l	100
84)	4-Chlorotoluene	16.10	91	1244883	9.51	ug/l	100
85)	tert-Butylbenzene	16.67	134	377644	9.53	ug/l	100
86)	1,2,4-Trimethylbenzene	16.75	105	1496533	9.57	ug/l	100
87)	sec-Butylbenzene	17.10	105	2308824	9.61	ug/l	100
88)	p-Isopropyltoluene	17.37	119	1879535	9.69	ug/l	100
89)	1,3-Dichlorobenzene	17.54	146	735329	9.47	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	696784	9.36	ug/l	100
91)	n-Butylbenzene	18.13	91	1790365	9.70	ug/l	100
92)	1,2-Dichlorobenzene	18.40	146	571302	9.61	ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.54	157	27378	10.19	ug/l	100
94)	1,2,4-Trichlorobenzene	20.63	180	350427	9.60	ug/l	100
95)	Hexachlorobutadiene	20.81	225	314962	9.69	ug/l	100
96)	Naphthalene	20.95	128	404152	9.86	ug/l	100
97)	1,2,3-Trichlorobenzene	21.28	180	249540	9.66	ug/l	100

Su 12/24/14

(#) = qualifier out of range (m) = manual integration

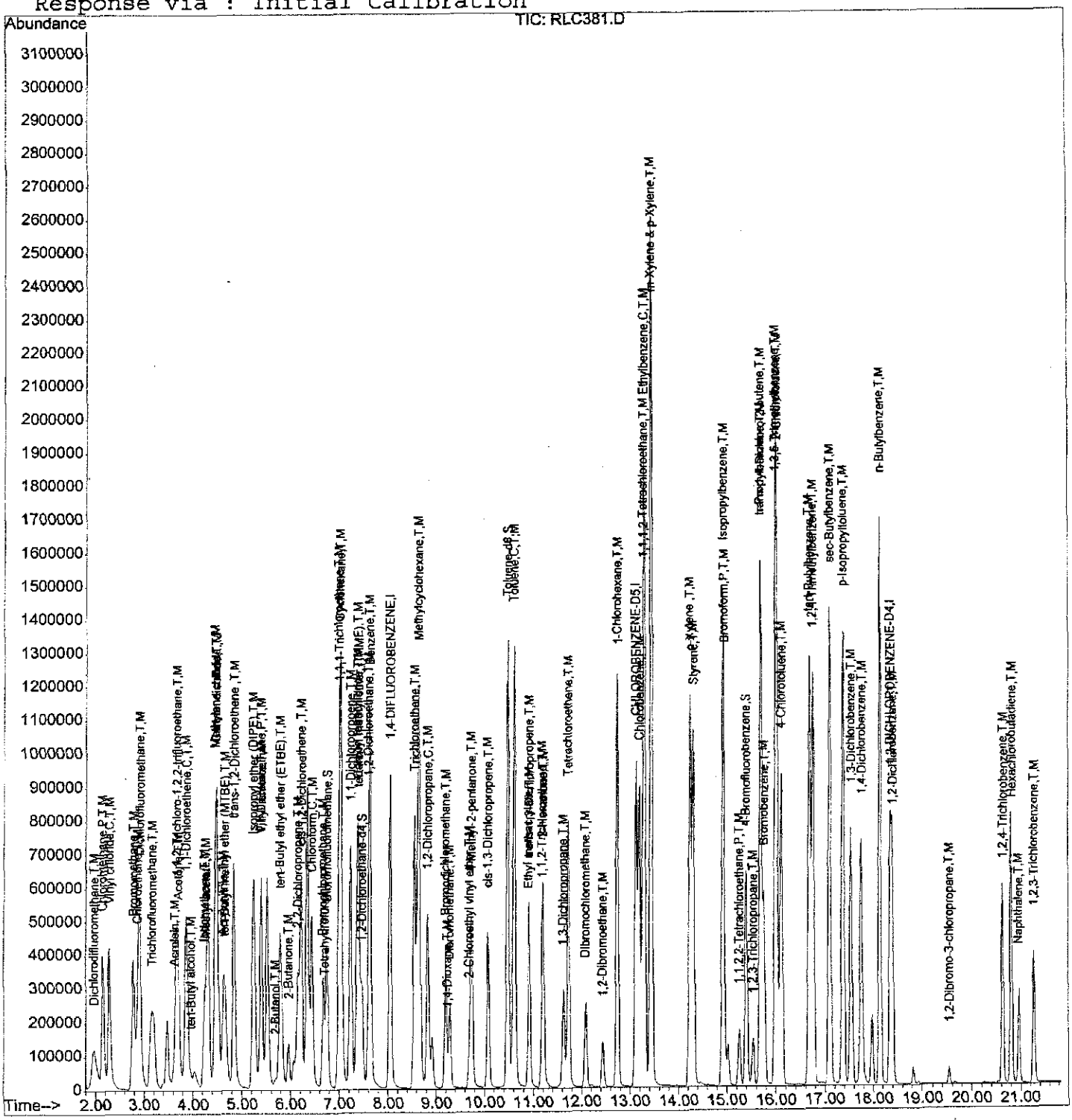
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC381.D
Acq On : 18 Dec 2014 10:11 pm
Sample : VO67L1804 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 5
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SV 12/24/14

2074

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D
Acq On : 18 Dec 2014 10:44 pm
Sample : VO67L1805 20ppb
Misc : 20ppb8260/100ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 6
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1512279	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1121897	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	376346	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	910973	21.94	ug/l	-0.02
Spiked Amount 10.000			Recovery =	219.40%		
43) 1,2-Dichloroethane-d4	7.45	65	516723	21.54	ug/l	-0.02
Spiked Amount 10.000			Recovery =	215.40%		
56) Toluene-d8	10.48	98	3446849	20.79	ug/l	0.00
Spiked Amount 10.000			Recovery =	207.90%		
77) 4-Bromofluorobenzene	15.39	95	918153	19.57	ug/l	0.00
Spiked Amount 10.000			Recovery =	195.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	1090662	21.38	ug/l	100
4) Chloromethane	2.14	50	1596296	21.20	ug/l	100
5) Vinyl chloride	2.28	62	1793603	21.80	ug/l	100
6) Bromomethane	2.76	94	1161187	20.83	ug/l	99
7) Chloroethane	2.86	64	1059474	20.66	ug/l	99
8) Dichlorofluoromethane	2.89	67	2206473	21.23	ug/l	99
9) Trichlorofluoromethane	3.16	101	1554901	21.74	ug/l	100
11) Acrolein	3.62	56	205314	98.18	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	836179	20.52	ug/l	99
13) Acetone	3.70	43	349184	96.84	ug/l	98
14) 1,1-Dichloroethene	3.86	61	1644858	20.84	ug/l	99
15) tert-Butyl alcohol	3.95	59	128076	106.48	ug/l	97
16) Methyl acetate	4.25	43	224471	18.93	ug/l	93
17) Iodomethane	4.22	142	1710072	21.09	ug/l	99
19) Methylene chloride	4.44	49	981900	19.73	ug/l	100
20) Carbon disulfide	4.47	76	4309440	20.32	ug/l	100
21) Acrylonitrile	4.60	53	562285	105.76	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	1302111	21.33	ug/l	99
23) trans-1,2-Dichloroethene	4.82	61	1408398	20.67	ug/l	100
24) Isopropyl ether (DIPE)	5.23	45	2844501	20.96	ug/l	99
25) 1,1-Dichloroethane	5.38	63	1766373	20.85	ug/l	100
26) Vinyl acetate	5.38	43	925851	21.95	ug/l	99
27) 2-Butanol	5.68	45	97902	98.81	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	2099926	21.36	ug/l	100
29) 2-Butanone	5.95	43	629796	104.27	ug/l	100
30) 2,2-Dichloropropane	6.15	77	1021762	20.88	ug/l	99
31) cis-1,2-Dichloroethene	6.21	96	1051423	20.88	ug/l	99

(#) = qualifier out of range (m) = manual integration

SA 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D
Acq On : 18 Dec 2014 10:44 pm
Sample : VO67L1805 20ppb
Misc : 20ppb8260/100ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 6
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	1549074	20.82 ug/l	100
33)	Bromochloromethane	6.66	49	545428	21.01 ug/l	97
36)	Tetrahydrofuran	6.71	42	65415	20.22 ug/l	92
37)	1,1,1-Trichloroethane	7.00	97	1384815	21.03 ug/l	100
38)	Cyclohexane	7.01	56	2066485	19.34 ug/l	100
40)	1,1-Dichloropropene	7.22	110	527720	20.58 ug/l	100
41)	Carbon tetrachloride	7.36	119	1246789	20.90 ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	349962	21.64 ug/l	98
44)	1,2-Dichloroethane	7.60	62	605235	21.41 ug/l	99
45)	Benzene	7.61	78	3699528	20.55 ug/l	100
46)	Trichloroethene	8.55	130	1081267	19.07 ug/l	100
47)	Methylcyclohexane	8.64	83	2149998	19.54 ug/l	99
48)	1,2-Dichloropropane	8.81	63	820174	20.80 ug/l	99
49)	Bromodichloromethane	9.19	83	961537	21.06 ug/l	99
50)	1,4-Dioxane	9.22	88	51084	444.88 ug/l	98
51)	Dibromomethane	9.28	93	342222	21.60 ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	204343	23.51 ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	1557338	104.73 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	1201901	21.41 ug/l	99
57)	Toluene	10.61	91	3841739	19.87 ug/l	100
58)	Ethyl methacrylate	10.90	69	504765	21.43 ug/l	100
59)	trans-1,3-Dichloropropene	10.92	75	821952	20.88 ug/l	100
60)	1,1,2-Trichloroethane	11.18	97	397145	20.79 ug/l	100
61)	2-Hexanone	11.19	43	937866	100.25 ug/l	99
62)	1,3-Dichloropropane	11.62	76	755481	20.47 ug/l	100
63)	Tetrachloroethene	11.72	164	830518	19.95 ug/l	100
64)	Dibromochloromethane	12.08	129	560560	21.12 ug/l	98
65)	1,2-Dibromoethane	12.44	107	386993	20.82 ug/l	100
66)	1-Chlorohexane	12.74	91	1964073	20.19 ug/l	99
67)	Chlorobenzene	13.19	112	2184196	20.22 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.28	131	743125	20.77 ug/l	99
69)	Ethylbenzene	13.30	91	4546972	20.53 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	6442277	40.66 ug/l	100
71)	o-Xylene	14.23	91	3012821	20.29 ug/l	100
72)	Styrene	14.31	104	2343060	20.74 ug/l	100
73)	Isopropylbenzene	14.92	105	4204535	20.44 ug/l	100
75)	Bromoform	14.93	173	280613	20.75 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	409672	20.62 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	107439	21.12 ug/l	99
79)	trans-1,4-Dichloro-2-buten	15.68	53	110948	21.07 ug/l	99
80)	n-Propylbenzene	15.68	91	5314799	20.11 ug/l	100

(#) = qualifier out of range (m) = manual integration SW 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D Vial: 6
Acq On : 18 Dec 2014 10:44 pm Operator: ASmith
Sample : VO67L1805 20ppb Inst : TO67
Misc : 20ppb8260/100ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromobenzene	15.75	156	745847	19.93	ug/l	100
82)	1,3,5-Trimethylbenzene	16.00	105	3227908	19.94	ug/l	100
83)	2-Chlorotoluene	16.01	91	2883278	19.20	ug/l	96
84)	4-Chlorotoluene	16.12	91	2553597	20.03	ug/l	96
85)	tert-Butylbenzene	16.69	134	777539	20.16	ug/l	98
86)	1,2,4-Trimethylbenzene	16.76	105	3066876	20.15	ug/l	100
87)	sec-Butylbenzene	17.10	105	4695005	20.06	ug/l	100
88)	p-Isopropyltoluene	17.37	119	3820407	20.23	ug/l	99
89)	1,3-Dichlorobenzene	17.53	146	1488500	19.68	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	1425921	19.67	ug/l	99
91)	n-Butylbenzene	18.13	91	3609032	20.07	ug/l	100
92)	1,2-Dichlorobenzene	18.40	146	1150735	19.88	ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.54	157	56911	21.77	ug/l	98
94)	1,2,4-Trichlorobenzene	20.63	180	713053	20.06	ug/l	100
95)	Hexachlorobutadiene	20.81	225	621172	19.63	ug/l	99
96)	Naphthalene	20.95	128	846627	21.22	ug/l	100
97)	1,2,3-Trichlorobenzene	21.27	180	510685	20.30	ug/l	100

SA 12/24/14

(#) = qualifier out of range (m) = manual integration

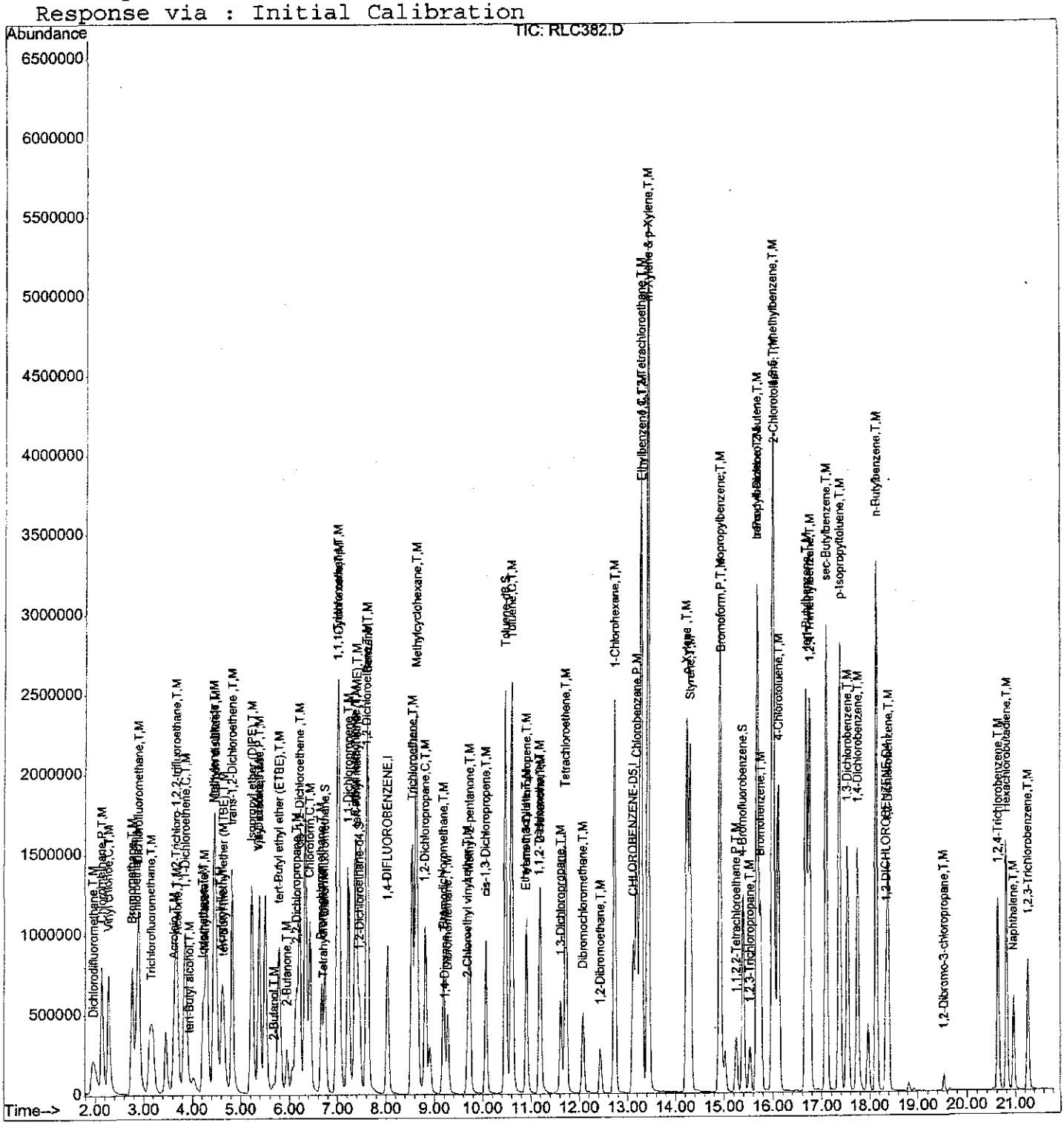
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC382.D
Acq On : 18 Dec 2014 10:44 pm
Sample : VO67L1805 20ppb
Misc : 20ppb8260/100ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 6
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



12/24/14

2078

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D
Acq On : 18 Dec 2014 11:19 pm
Sample : VO67L1806 30ppb
Misc : 30ppb8260/150ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 7
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1544741	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1127667	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	371019	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	1388934	32.75	ug/l	-0.01
Spiked Amount 10.000			Recovery =	327.50%		
43) 1,2-Dichloroethane-d4	7.45	65	778052	31.75	ug/l	-0.02
Spiked Amount 10.000			Recovery =	317.50%		
56) Toluene-d8	10.48	98	5307644	31.85	ug/l	0.00
Spiked Amount 10.000			Recovery =	318.50%		
77) 4-Bromofluorobenzene	15.39	95	1381197	29.87	ug/l	0.00
Spiked Amount 10.000			Recovery =	298.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	1684757	32.33	ug/l	99
4) Chloromethane	2.14	50	2482419	32.28	ug/l	100
5) Vinyl chloride	2.28	62	2793920	33.24	ug/l	100
6) Bromomethane	2.76	94	1843874	32.32	ug/l	100
7) Chloroethane	2.86	64	1661054	31.72	ug/l	100
8) Dichlorofluoromethane	2.91	67	3398350	32.02	ug/l	99
9) Trichlorofluoromethane	3.18	101	2407566	32.95	ug/l	99
11) Acrolein	3.62	56	314043	147.02	ug/l	97
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	1297160	31.17	ug/l	100
13) Acetone	3.70	43	525014	142.55	ug/l	97
14) 1,1-Dichloroethene	3.86	61	2490520	30.89	ug/l	99
15) tert-Butyl alcohol	3.95	59	197890	161.06	ug/l	96
16) Methyl acetate	4.25	43	371388	30.86	ug/l	96
17) Iodomethane	4.22	142	2638644	31.86	ug/l	99
19) Methylene chloride	4.44	49	1493128	29.37	ug/l	99
20) Carbon disulfide	4.47	76	6803439	31.41	ug/l	100
21) Acrylonitrile	4.60	53	849275	156.39	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	1967695	31.56	ug/l	99
23) trans-1,2-Dichloroethene	4.82	61	2159543	31.03	ug/l	99
24) Isopropyl ether (DIPE)	5.23	45	4350328	31.38	ug/l	99
25) 1,1-Dichloroethane	5.38	63	2697154	31.17	ug/l	100
26) Vinyl acetate	5.38	43	1444115	33.52	ug/l	99
27) 2-Butanol	5.69	45	156413	154.55	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	3211926	31.99	ug/l	100
29) 2-Butanone	5.95	43	943207	152.88	ug/l	99
30) 2,2-Dichloropropane	6.15	77	1517956	30.37	ug/l	99
31) cis-1,2-Dichloroethene	6.21	96	1610585	31.32	ug/l	99

(#) = qualifier out of range (m) = manual integration

SM 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D
Acq On : 18 Dec 2014 11:19 pm
Sample : VO67L1806 30ppb
Misc : 30ppb8260/150ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 7
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	2392690	31.49 ug/l	99
33)	Bromochloromethane	6.66	49	832805	31.41 ug/l	96
36)	Tetrahydrofuran	6.71	42	95993	29.05 ug/l	89
37)	1,1,1-Trichloroethane	7.00	97	2117142	31.48 ug/l	100
38)	Cyclohexane	7.01	56	3366883	30.85 ug/l	99
40)	1,1-Dichloropropene	7.22	110	826870	31.56 ug/l	100
41)	Carbon tetrachloride	7.37	119	1921222	31.53 ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	530905	32.14 ug/l	97
44)	1,2-Dichloroethane	7.60	62	908327	31.45 ug/l	99
45)	Benzene	7.61	78	5740455	31.22 ug/l	100
46)	Trichloroethene	8.55	130	1660281	28.66 ug/l	100
47)	Methylcyclohexane	8.64	83	3536107	31.47 ug/l	99
48)	1,2-Dichloropropane	8.81	63	1249285	31.02 ug/l	99
49)	Bromodichloromethane	9.19	83	1467538	31.47 ug/l	99
50)	1,4-Dioxane	9.22	88	76899	655.63 ug/l	97
51)	Dibromomethane	9.28	93	523230	32.33 ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	319752	36.01 ug/l	100
53)	4-Methyl-2-pentanone	9.73	43	2385802	157.07 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	1813893	31.63 ug/l	99
57)	Toluene	10.61	91	6003231	30.88 ug/l	100
58)	Ethyl methacrylate	10.90	69	772401	32.62 ug/l	99
59)	trans-1,3-Dichloropropene	10.92	75	1253040	31.67 ug/l	98
60)	1,1,2-Trichloroethane	11.18	97	607409	31.64 ug/l	100
61)	2-Hexanone	11.19	43	1433480	152.45 ug/l	99
62)	1,3-Dichloropropane	11.62	76	1169853	31.53 ug/l	100
63)	Tetrachloroethene	11.72	164	1294678	30.94 ug/l	100
64)	Dibromochloromethane	12.08	129	852872	31.97 ug/l	99
65)	1,2-Dibromoethane	12.44	107	587369	31.45 ug/l	100
66)	1-Chlorohexane	12.74	91	3073614	31.43 ug/l	99
67)	Chlorobenzene	13.20	112	3403472	31.34 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.27	131	1144700	31.83 ug/l	99
69)	Ethylbenzene	13.28	91	7035879	31.61 ug/l	99
70)	m-Xylene & p-Xylene	13.43	91	10058952	63.17 ug/l	99
71)	o-Xylene	14.23	91	4688152	31.41 ug/l	100
72)	Styrene	14.31	104	3603195	31.73 ug/l	99
73)	Isopropylbenzene	14.92	105	6535849	31.62 ug/l	99
75)	Bromoform	14.93	173	433449	32.51 ug/l	100
76)	1,1,2,2-Tetrachloroethane	15.26	83	621263	31.73 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	162524	32.40 ug/l	96
79)	trans-1,4-Dichloro-2-buten	15.68	53	166644	32.11 ug/l	99
80)	n-Propylbenzene	15.68	91	8171852	31.36 ug/l	99

(#) = qualifier out of range (m) = manual integration

SW 12/24/14

2080

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D
Acq On : 18 Dec 2014 11:19 pm
Sample : VO67L1806 30ppb
Misc : 30ppb8260/150ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 7
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81) Bromobenzene	15.75	156	1145989	31.06 ug/l	99
82) 1,3,5-Trimethylbenzene	16.00	105	5074847	31.79 ug/l	99
83) 2-Chlorotoluene	16.02	91	4498264	30.38 ug/l	95
84) 4-Chlorotoluene	16.12	91	3912624	31.13 ug/l	97
85) tert-Butylbenzene	16.69	134	1207803	31.77 ug/l	93
86) 1,2,4-Trimethylbenzene	16.76	105	4692986	31.28 ug/l	99
87) sec-Butylbenzene	17.10	105	7269599	31.51 ug/l	100
88) p-Isopropyltoluene	17.37	119	5869956	31.52 ug/l	99
89) 1,3-Dichlorobenzene	17.53	146	2299553	30.84 ug/l	100
90) 1,4-Dichlorobenzene	17.75	146	2165936	30.30 ug/l	99
91) n-Butylbenzene	18.13	91	5564670	31.40 ug/l	100
92) 1,2-Dichlorobenzene	18.40	146	1744113	30.57 ug/l	100
93) 1,2-Dibromo-3-chloropropan	19.54	157	84855	32.92 ug/l	99
94) 1,2,4-Trichlorobenzene	20.63	180	1071680	30.58 ug/l	99
95) Hexachlorobutadiene	20.81	225	947672	30.38 ug/l	100
96) Naphthalene	20.95	128	1262384	32.09 ug/l	100
97) 1,2,3-Trichlorobenzene	21.28	180	753634	30.39 ug/l	99

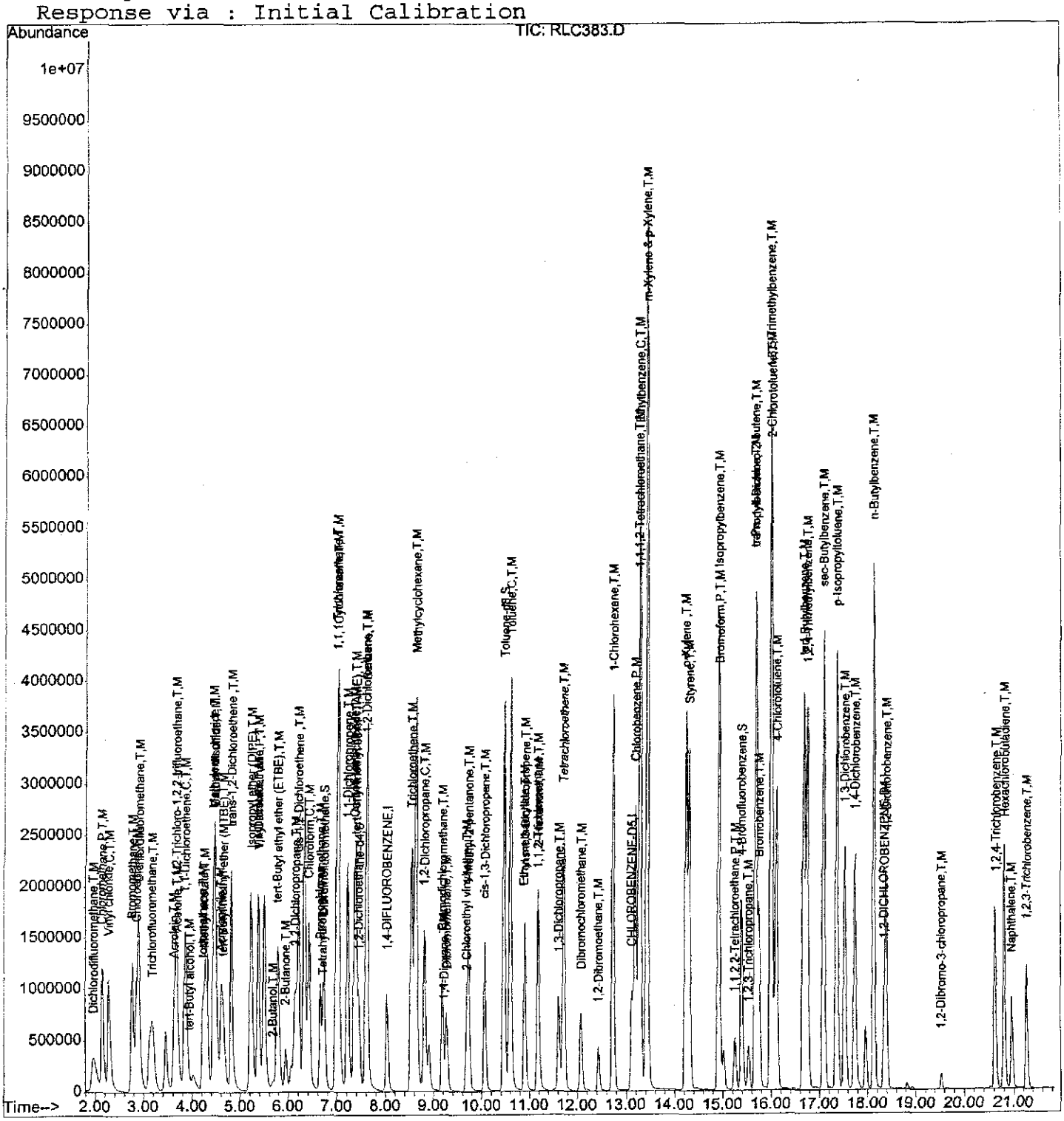
Su 12/24/14

(#) = qualifier out of range (m) = manual integration
RLC383.D VO67L18.M Mon Dec 22 19:46:39 2014

Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC383.D Vial: 7
Acq On : 18 Dec 2014 11:19 pm Operator: ASmith
Sample : VO67L1806 30ppb Inst : TO67
Misc : 30ppb8260/150ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SM 12/24/14

2662

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D
Acq On : 18 Dec 2014 11:52 pm
Sample : VO67L1807 50ppb
Misc : 50ppb8260/250ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 8
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1658864	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1221170	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	398158	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	2481437	54.49	ug/l	-0.02
Spiked Amount 10.000			Recovery =	544.90%		
43) 1,2-Dichloroethane-d4	7.45	65	1385807	52.65	ug/l	-0.02
Spiked Amount 10.000			Recovery =	526.50%		
56) Toluene-d8	10.48	98	9629649	53.36	ug/l	0.00
Spiked Amount 10.000			Recovery =	533.60%		
77) 4-Bromofluorobenzene	15.39	95	2467030	49.71	ug/l	0.00
Spiked Amount 10.000			Recovery =	497.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	2564554	45.83	ug/l	100
4) Chloromethane	2.14	50	3752948	45.44	ug/l	100
5) Vinyl chloride	2.28	62	4308052	47.73	ug/l	99
6) Bromomethane	2.76	94	2852226	46.50	ug/l	100
7) Chloroethane	2.86	64	2562713	45.56	ug/l	99
8) Dichlorofluoromethane	2.89	67	5695148	49.96	ug/l	99
9) Trichlorofluoromethane	3.18	101	3700449	47.17	ug/l	99
11) Acrolein	3.62	56	518072	225.85	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	2135141	47.77	ug/l	100
13) Acetone	3.68	43	868307	219.54	ug/l	96
14) 1,1-Dichloroethene	3.86	61	4131788	47.72	ug/l	98
15) tert-Butyl alcohol	3.95	59	327989	248.58	ug/l	98
16) Methyl acetate	4.25	43	622221	48.34	ug/l	95
17) Iodomethane	4.22	142	4427193	49.78	ug/l	98
19) Methylene chloride	4.44	49	2493503	45.67	ug/l	97
20) Carbon disulfide	4.46	76	12503701	53.76	ug/l	100
21) Acrylonitrile	4.60	53	1462642	250.81	ug/l	99
22) tert-Butyl methyl ether (M	4.63	73	3367706	50.29	ug/l	99
23) trans-1,2-Dichloroethene	4.82	61	3591578	48.05	ug/l	98
24) Isopropyl ether (DIPE)	5.23	45	7365785	49.47	ug/l	99
25) 1,1-Dichloroethane	5.38	63	4554266	49.02	ug/l	100
26) Vinyl acetate	5.38	43	2300370	49.72	ug/l	99
27) 2-Butanol	5.68	45	267250	245.89	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	5490819	50.92	ug/l	100
29) 2-Butanone	5.95	43	1624230	245.16	ug/l	98
30) 2,2-Dichloropropane	6.15	77	2422153	45.12	ug/l	98
31) cis-1,2-Dichloroethene	6.21	96	2747426	49.75	ug/l	97

(#) = qualifier out of range (m) = manual integration
RLC384.D VO67L18.M Mon Dec 22 19:46:54 2014

Su 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D
Acq On : 18 Dec 2014 11:52 pm
Sample : VO67L1807 50ppb
Misc : 50ppb8260/250ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 8
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	3983068	48.81 ug/l	99
33)	Bromochloromethane	6.66	49	1406735	49.41 ug/l	96
36)	Tetrahydrofuran	6.71	42	163920	46.19 ug/l	88
37)	1,1,1-Trichloroethane	7.00	97	3531420	48.89 ug/l	99
38)	Cyclohexane	7.01	56	5653355	48.24 ug/l	98
40)	1,1-Dichloropropene	7.22	110	1388554	49.36 ug/l	100
41)	Carbon tetrachloride	7.37	119	3196591	48.84 ug/l	100
42)	tert-Amyl methyl ether (TA	7.39	87	912599	51.45 ug/l	97
44)	1,2-Dichloroethane	7.60	62	1534174	49.47 ug/l	100
45)	Benzene	7.61	78	9795061	49.60 ug/l	99
46)	Trichloroethene	8.55	130	2823675	45.39 ug/l	99
47)	Methylcyclohexane	8.64	83	5893479	48.84 ug/l	98
48)	1,2-Dichloropropane	8.81	63	2131961	49.29 ug/l	99
49)	Bromodichloromethane	9.19	83	2520430	50.33 ug/l	99
50)	1,4-Dioxane	9.22	88	131902	1047.21 ug/l	96
51)	Dibromomethane	9.28	93	896560	51.58 ug/l	99
52)	2-Chloroethyl vinyl ether	9.69	63	564535	59.20 ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	4094508	251.01 ug/l	99
54)	cis-1,3-Dichloropropene	10.07	75	3110991	50.52 ug/l	98
57)	Toluene	10.61	91	10258648	48.73 ug/l	100
58)	Ethyl methacrylate	10.90	69	1326717	51.74 ug/l	98
59)	trans-1,3-Dichloropropene	10.92	75	2128647	49.68 ug/l	97
60)	1,1,2-Trichloroethane	11.18	97	1046968	50.36 ug/l	100
61)	2-Hexanone	11.19	43	2460056	241.59 ug/l	98
62)	1,3-Dichloropropane	11.62	76	1972518	49.09 ug/l	100
63)	Tetrachloroethene	11.72	164	2177652	48.06 ug/l	100
64)	Dibromochloromethane	12.08	129	1450260	50.20 ug/l	100
65)	1,2-Dibromoethane	12.44	107	1009673	49.91 ug/l	100
66)	1-Chlorohexane	12.74	91	5161031	48.73 ug/l	98
67)	Chlorobenzene	13.20	112	5751695	48.91 ug/l	98
68)	1,1,1,2-Tetrachloroethane	13.28	131	1991375	51.13 ug/l	99
69)	Ethylbenzene	13.30	91	12056019	50.01 ug/l	99
70)	m-Xylene & p-Xylene	13.43	91	17264219	100.11 ug/l	97
71)	o-Xylene	14.23	91	7903490	48.89 ug/l	99
72)	Styrene	14.31	104	6171625	50.19 ug/l	98
73)	Isopropylbenzene	14.92	105	10972813	49.01 ug/l	99
75)	Bromoform	14.93	173	747074	52.21 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.26	83	1057162	50.31 ug/l	99
78)	1,2,3-Trichloropropane	15.53	110	278007	51.65 ug/l	95
79)	trans-1,4-Dichloro-2-buten	15.68	53	279001	50.09 ug/l	98
80)	n-Propylbenzene	15.68	91	13814247	49.40 ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D
Acq On : 18 Dec 2014 11:52 pm
Sample : VO67L1807 50ppb
Misc : 50ppb8260/250ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 8
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
81)	Bromobenzene	15.75	156	1929457	48.73 ug/l		98
82)	1,3,5-Trimethylbenzene	16.00	105	8379231	48.91 ug/l		98
83)	2-Chlorotoluene	16.02	91	7908055	49.77 ug/l		97
84)	4-Chlorotoluene	16.12	91	6102175	45.24 ug/l		98
85)	tert-Butylbenzene	16.69	134	2009200	49.24 ug/l	#	91
86)	1,2,4-Trimethylbenzene	16.76	105	7736265	48.04 ug/l		99
87)	sec-Butylbenzene	17.10	105	11933626	48.20 ug/l		100
88)	p-Isopropyltoluene	17.37	119	9603049	48.05 ug/l		99
89)	1,3-Dichlorobenzene	17.53	146	3795946	47.44 ug/l		100
90)	1,4-Dichlorobenzene	17.75	146	3605586	47.00 ug/l		99
91)	n-Butylbenzene	18.13	91	8971807	47.17 ug/l		99
92)	1,2-Dichlorobenzene	18.40	146	2910726	47.54 ug/l		99
93)	1,2-Dibromo-3-chloropropan	19.54	157	143392	51.84 ug/l		98
94)	1,2,4-Trichlorobenzene	20.63	180	1747362	46.46 ug/l		99
95)	Hexachlorobutadiene	20.81	225	1500451	44.82 ug/l		100
96)	Naphthalene	20.95	128	2103302	49.82 ug/l		100
97)	1,2,3-Trichlorobenzene	21.28	180	1244120	46.74 ug/l		99

Su 12/24/14

(#) = qualifier out of range (m) = manual integration

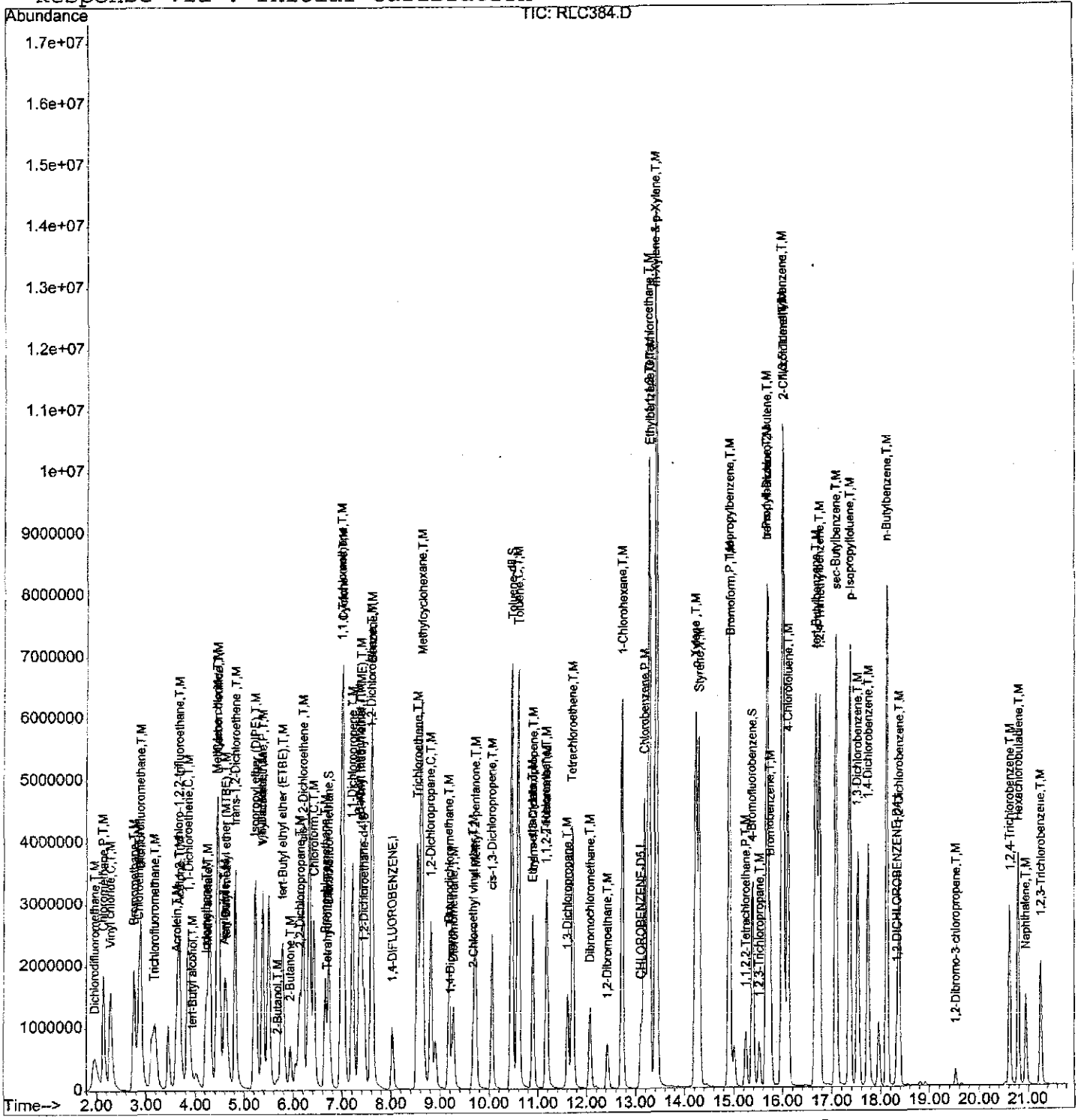
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC384.D
Acq On : 18 Dec 2014 11:52 pm
Sample : VO67L1807 50ppb
Misc : 50ppb8260/250ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 8
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SU 12/24/14

2086

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D Vial: 9
Acq On : 19 Dec 2014 12:26 am Operator: ASmith
Sample : VO67L1808 100ppb Inst : TO67
Misc : 100ppb8260/500ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1587237	10.00 ug/l	-0.01
55) CHLOROBENZENE-D5	13.12	117	1158304	10.00 ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	357730	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.74	111	5270832	120.97 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 1209.70%	
43) 1,2-Dichloroethane-d4	7.47	65	2819162	111.95 ug/l	0.00
Spiked Amount 10.000			Recovery	= 1119.50%	
56) Toluene-d8	10.48	98	20749708	121.23 ug/l	0.00
Spiked Amount 10.000			Recovery	= 1212.30%	
77) 4-Bromofluorobenzene	15.40	95	5096645	114.30 ug/l	0.01
Spiked Amount 10.000			Recovery	= 1143.00%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.97	85	5399589	100.85 ug/l	100
4) Chloromethane	2.15	50	8267071	104.62 ug/l	100
5) Vinyl chloride	2.29	62	8867048	102.68 ug/l	99
6) Bromomethane	2.76	94	6627947	112.78 ug/l	99
7) Chloroethane	2.85	64	5738183	106.63 ug/l	99
8) Dichlorofluoromethane	2.89	67	11810576	108.29 ug/l	99
9) Trichlorofluoromethane	3.18	101	7944639	105.83 ug/l	99
11) Acrolein	3.61	56	1060910	483.36 ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	4346270	101.63 ug/l	100
13) Acetone	3.70	43	1710943	452.10 ug/l	97
14) 1,1-Dichloroethene	3.86	61	8407080	101.47 ug/l	97
15) tert-Butyl alcohol	3.96	59	678896	537.74 ug/l	96
16) Methyl acetate	4.25	43	1257953	102.51 ug/l	94
17) Iodomethane	4.24	142	9286330	109.12 ug/l	97
19) Methylene chloride	4.44	49	5050158	96.67 ug/l	95
20) Carbon disulfide	4.46	76	23795270	106.92 ug/l	100
21) Acrylonitrile	4.60	53	2951250	528.91 ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	6816529	106.39 ug/l	98
23) trans-1,2-Dichloroethene	4.82	61	7291752	101.95 ug/l	96
24) Isopropyl ether (DIPE)	5.23	45	14921687	104.74 ug/l	98
25) 1,1-Dichloroethane	5.38	63	9274951	104.33 ug/l	100
26) Vinyl acetate	5.38	43	5024775	113.50 ug/l	98
27) 2-Butanol	5.69	45	570830	548.92 ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	11175639	108.32 ug/l	99
29) 2-Butanone	5.95	43	3283828	518.02 ug/l	99
30) 2,2-Dichloropropane	6.15	77	4484899	87.32 ug/l	98
31) cis-1,2-Dichloroethene	6.21	96	5788564	109.55 ug/l	95

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D
Acq On : 19 Dec 2014 12:26 am
Sample : VO67L1808 100ppb
Misc : 100ppb8260/500ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 9
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) Chloroform	6.43	83	8293745	106.22	ug/l	99
33) Bromochloromethane	6.66	49	2866797	105.23	ug/l	94
36) Tetrahydrofuran	6.71	42	331021	97.49	ug/l	87
37) 1,1,1-Trichloroethane	7.00	97	7089506	102.58	ug/l	98
38) Cyclohexane	7.01	56	11810001	105.31	ug/l	96
40) 1,1-Dichloropropene	7.23	110	2897054	107.62	ug/l	100
41) Carbon tetrachloride	7.37	119	6453999	103.07	ug/l	100
42) tert-Amyl methyl ether (TA	7.39	87	1880647	110.80	ug/l	97
44) 1,2-Dichloroethane	7.60	62	3075929	103.66	ug/l	100
45) Benzene	7.61	78	20721819	109.67	ug/l	99
46) Trichloroethene	8.55	130	5978981	100.44	ug/l	98
47) Methylcyclohexane	8.64	83	12594920	109.09	ug/l	96
48) 1,2-Dichloropropane	8.83	63	4403807	106.42	ug/l	97
49) Bromodichloromethane	9.19	83	5122962	106.92	ug/l	99
50) 1,4-Dioxane	9.22	88	269606	2237.08	ug/l	95
51) Dibromomethane	9.28	93	1829301	110.00	ug/l	99
52) 2-Chloroethyl vinyl ether	9.69	63	1167993	128.02	ug/l	99
53) 4-Methyl-2-pentanone	9.73	43	8242487	528.11	ug/l	98
54) cis-1,3-Dichloropropene	10.07	75	6401472	108.64	ug/l	97
57) Toluene	10.61	91	21186498	106.11	ug/l	98
58) Ethyl methacrylate	10.90	69	2747207	112.94	ug/l	97
59) trans-1,3-Dichloropropene	10.92	75	4395851	108.15	ug/l	96
60) 1,1,2-Trichloroethane	11.19	97	2184851	110.80	ug/l	99
61) 2-Hexanone	11.21	43	4892349	506.53	ug/l	97
62) 1,3-Dichloropropane	11.63	76	4042135	106.06	ug/l	100
63) Tetrachloroethene	11.73	164	4542407	105.70	ug/l	100
64) Dibromochloromethane	12.09	129	2991914	109.18	ug/l	99
65) 1,2-Dibromoethane	12.44	107	2055727	107.14	ug/l	100
66) 1-Chlorohexane	12.74	91	10719202	106.70	ug/l	96
67) Chlorobenzene	13.20	112	12273380	110.04	ug/l	96
68) 1,1,1,2-Tetrachloroethane	13.28	131	4270614	115.59	ug/l	99
69) Ethylbenzene	13.30	91	24107931	105.43	ug/l	94
70) m-Xylene & p-Xylene	13.44	91	27886339	170.48	ug/l	70
71) o-Xylene	14.25	91	16259061	106.04	ug/l	97
72) Styrene	14.32	104	13019807	111.62	ug/l	97
73) Isopropylbenzene	14.92	105	22414329	105.55	ug/l	98
75) Bromoform	14.93	173	1585185	123.30	ug/l	99
76) 1,1,2,2-Tetrachloroethane	15.26	83	2078011	110.06	ug/l	99
78) 1,2,3-Trichloropropane	15.53	110	540176	111.69	ug/l	94
79) trans-1,4-Dichloro-2-buten	15.68	53	527353	105.38	ug/l	96
80) n-Propylbenzene	15.69	91	25259249	100.53	ug/l	95

(#) = qualifier out of range (m) = manual integration

12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D Vial: 9
Acq On : 19 Dec 2014 12:26 am Operator: ASmith
Sample : VO67L1808 100ppb Inst : TO67
Misc : 100ppb8260/500ppbKET-A-AN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014 Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
81)	Bromobenzene	15.77	156	3950260	111.05 ug/l	97
82)	1,3,5-Trimethylbenzene	16.00	105	17307018	112.45 ug/l	96
83)	2-Chlorotoluene	16.02	91	15852288	111.05 ug/l	95
84)	4-Chlorotoluene	16.12	91	12732201	105.07 ug/l	98
85)	tert-Butylbenzene	16.69	134	4124949	112.52 ug/l	92
86)	1,2,4-Trimethylbenzene	16.76	105	15694000	108.48 ug/l	98
87)	sec-Butylbenzene	17.10	105	23068960	103.71 ug/l	98
88)	p-Isopropyltoluene	17.37	119	19031034	105.99 ug/l	98
89)	1,3-Dichlorobenzene	17.55	146	7595304	105.65 ug/l	99
90)	1,4-Dichlorobenzene	17.75	146	7199802	104.46 ug/l	99
91)	n-Butylbenzene	18.15	91	17446127	102.09 ug/l	98
92)	1,2-Dichlorobenzene	18.40	146	5768257	104.86 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.54	157	274393	110.41 ug/l	97
94)	1,2,4-Trichlorobenzene	20.63	180	3461308	102.43 ug/l	99
95)	Hexachlorobutadiene	20.81	225	2909501	96.73 ug/l	100
96)	Naphthalene	20.95	128	4101324	108.13 ug/l	100
97)	1,2,3-Trichlorobenzene	21.28	180	2428973	101.57 ug/l	99

Sa 12/24/14

(#) = qualifier out of range (m) = manual integration

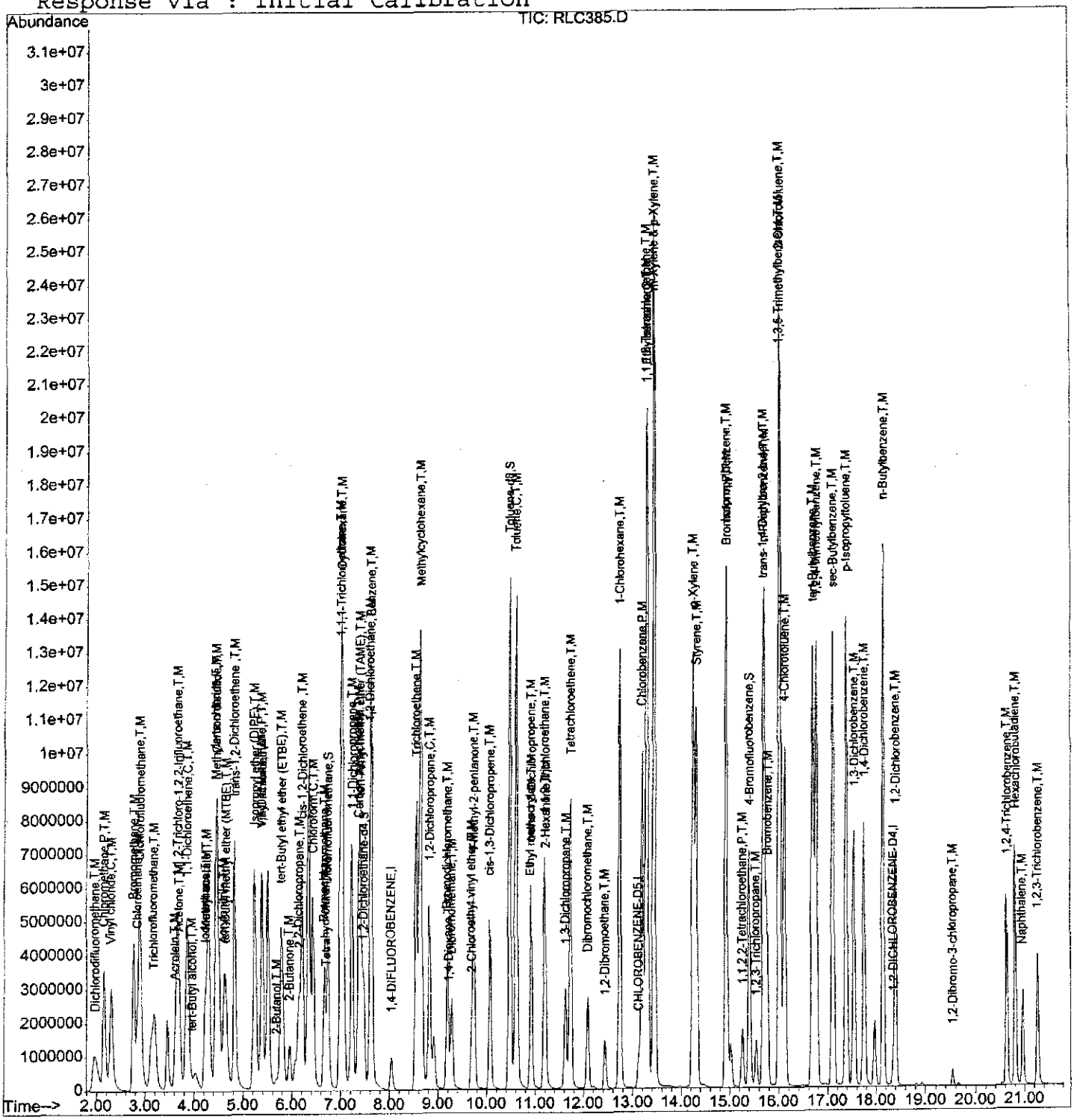
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L18\RLC385.D
Acq On : 19 Dec 2014 12:26 am
Sample : VO67L1808 100ppb
Misc : 100ppb8260/500ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:29 2014

Vial: 9
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SU 2/24/14

2090

SECOND SOURCE VERIFICATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RLC394
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D142
BFB Injection Date : 12/19/14
BFB Injection Time : 11:33
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.09
75	30.0 - 60.0% of mass 95	45.63
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.90
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	83.68
175	5.0 - 9.0% of mass 174	7.05(8.4)1
176	95.0 - 101.0% of mass 174	80.11(95.7)1
177	5.0 - 9.0% of mass 176	5.81(7.2)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	1V067L1802	RLC396	12/19/14	12:39

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO67
IC_Beginning DateTime :12/18/14 20:33
Spike Amount :10 PPB
CC/CV File :RLC396
IC File :RLC381

Column Spec :RTX502.2 ID :0.25MM
IC_Ending DateTime :12/19/14 03:13
HPChem Method :VO67L18
Date_Time :12/19/14 12:39

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AVRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1498992	1	1	8.036	8.039	0				
	2	Dichlorodifluoromethane	8.534	-14.7	431539	0.288	0.337	1.953	1.963	13.31				
	3	Dichlorotetrafluoroethane												
	4	Chloromethane	9.175	-8.3	684683	0.457	0.498	2.138	2.139	11.81				
	5	Vinyl chloride	9.450	-5.5	770676	0.514	0.544	2.280	2.276	13.43				
	6	Bromomethane	8.161	-18.4	447018	0.298	0.336	2.764	2.769	19.31	-0.0043	0.3706		0.9978
	7	Chloroethane	8.810	-11.9	447751	0.299	0.339	2.864	2.864	10.52				
	8	Dichlorofluoromethane	10.510	5.1	1082505	0.722	0.687	2.893	2.898	6.49				
	9	Trichlorofluoromethane	9.684	-3.2	686544	0.458	0.473	3.135	3.160	13.72				
	10	sec-Propyl alcohol												
5	11	Acrolein	62.003	24.0	128522	0.017	0.014	3.623	3.623	4.63				
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	10.458	4.6	422365	0.282	0.269	3.667	3.669	3.67				
5	13	Acetone	49.841	-0.3	178133	0.024	0.024	3.696	3.693	13.42				
	14	1,1-Dichloroethene	10.582	5.8	828002	0.552	0.522	3.857	3.854	3.74				
5	15	tert-Butyl alcohol	53.927	7.9	64297	0.009	0.008	3.945	3.954	7.93				
	16	Methyl acetate	9.648	-3.5	115292	0.077	0.083	4.252	4.255	15.31	0.0026	0.0771		0.9993
	17	Iodomethane	11.853	18.5	952655	0.636	0.536	4.222	4.231	6.48				
10	18	Acetonitrile												
	19	Methylene chloride	10.446	4.5	515326	0.344	0.329	4.442	4.444	9.85				
	20	Carbon disulfide	10.318	3.2	2168558	1.447	1.402	4.471	4.468	10.25				
5	21	Acrylonitrile	50.653	1.3	266922	0.036	0.035	4.602	4.607	5.91				
	22	tert-Butyl methyl ether (MTBE)	10.114	1.1	611970	0.408	0.404	4.646	4.643	6.11				
	23	trans-1,2-Dichloroethene	11.055	10.5	746699	0.498	0.451	4.821	4.824	3.22				
	24	Isopropyl ether (DIPE)	9.855	-1.4	1325896	0.885	0.898	5.231	5.232	4.05				
	25	1,1-Dichloroethane	10.989	9.9	922627	0.615	0.560	5.377	5.383	4.45				
	26	Vinyl acetate	8.834	-11.7	369350	0.246	0.279	5.377	5.383	13.77				
5	27	2-Butanol	50.261	0.5	49361	0.007	0.007	5.684	5.685	6.35				
	28	tert-Butyl ethyl ether (ETBE)	10.163	1.6	990247	0.661	0.650	5.786	5.786	6.36				
5	29	2-Butanone	51.099	2.2	305916	0.041	0.040	5.947	5.953	9.24				
	30	2,2-Dichloropropane	11.531	15.3	559324	0.373	0.324	6.151	6.151	8.85				
	31	cis-1,2-Dichloroethene	10.871	8.7	542494	0.362	0.333	6.210	6.213	5.15				
	32	Chloroform	10.851	8.5	800150	0.534	0.492	6.429	6.432	4.26				
	33	Bromochloromethane	11.167	11.7	287295	0.192	0.172	6.663	6.662	6.34				
5	34	tert-Amyl alcohol												
	35	Dibromofluoromethane	10.715	7.2	440926	0.294	0.275	6.736	6.739	14.92				
	36	Tetrahydrofuran	11.728	17.3	37607	0.025	0.021	6.706	6.710	4.19				
	37	1,1,1-Trichloroethane	10.805	8.1	705243	0.470	0.435	6.999	7.000	5.62				
	38	Cyclohexane	9.568	-4.3	1013377	0.676	0.707	7.013	7.017	5.02				
	39	2,2,4-Trimethylpentane												
	40	1,1-Dichloropropene	10.402	4.0	264445	0.176	0.170	7.218	7.225	4.92				
	41	Carbon tetrachloride	10.695	7.0	632501	0.422	0.395	7.364	7.368	4.53				
	42	tert-Amyl methyl ether (TAME)	10.269	2.7	164607	0.110	0.107	7.393	7.396	8.35				
	43	1,2-Dichloroethane-d4	10.269	2.7	244221	0.163	0.159	7.452	7.459	9.82				
	44	1,2-Dichloroethane	11.294	12.9	316497	0.211	0.187	7.598	7.599	4.67				
	45	Benzene	11.351	13.5	2025451	1.351	1.190	7.612	7.617	4.61				
	46	Trichloroethene	10.256	2.6	576545	0.385	0.375	8.547	8.547	10.45				
	47	Methylcyclohexane	9.296	-7.0	1013580	0.676	0.727	8.635	8.635	6.20				
	48	1,2-Dichloropropane	10.881	8.8	425246	0.284	0.261	8.810	8.818	4.08				
	49	Bromodichloromethane	11.390	13.9	515373	0.344	0.302	9.190	9.190	4.99				
20	50	1,4-Dioxane	223.263	11.6	25411	0.001	0.001	9.219	9.225	13.06				
	51	Dibromomethane	11.360	13.6	178418	0.119	0.105	9.278	9.276	7.78				
	52	2-Chloroethyl vinyl ether	8.060	-19.4	69449	0.046	0.057	9.687	9.686	14.24				
5	53	4-Methyl-2-pentanone	50.465	0.9	743843	0.099	0.098	9.731	9.732	6.18				
	54	cis-1,3-Dichloropropene	11.045	10.4	614642	0.410	0.371	10.067	10.068	5.97				
	55	CHLOROBENZENE-D5	10.000	0	1107672	1	1	13.121	13.122	0				
	56	Toluene-d8	9.827	-1.7	1608447	1.452	1.478	10.476	10.476	11.50				
	57	Toluene	10.538	5.4	2012061	1.816	1.724	10.608	10.608	3.83				
	58	Ethyl methacrylate	10.689	6.9	248645	0.224	0.210	10.900	10.903	8.33				
	59	trans-1,3-Dichloropropene	10.776	7.8	418867	0.378	0.351	10.915	10.916	5.18				
	60	1,1,2-Trichloroethane	10.857	8.6	204738	0.185	0.170	11.177	11.183	5.72				
5	61	2-Hexanone	49.230	-1.5	454709	0.082	0.083	11.192	11.201	7.80				
	62	1,3-Dichloropropane	10.891	8.9	396927	0.358	0.329	11.616	11.619	4.21				
	63	Tetrachloroethene	10.604	6.0	435770	0.393	0.371	11.718	11.722	3.87				
	64	Dibromochloromethane	10.990	9.9	287976	0.260	0.237	12.083	12.085	5.72				
	65	1,2-Dibromoethane	10.924	9.2	200425	0.181	0.166	12.434	12.436	4.99				
	66	1-Chlorohexane	9.172	-8.3	881112	0.795	0.867	12.726	12.739	4.29				
	67	Chlorobenzene	10.736	7.4	1145073	1.034	0.963	13.194	13.195	5.23				
	68	1,1,1,2-Tetrachloroethane	10.399	4.0	367376	0.332	0.319	13.267	13.276	7.44				
	69	Ethylbenzene	10.278	2.8	2247585	2.029	1.974	13.281	13.292	3.76				
2	70	m-Xylene & p-Xylene	21.090	5.5	3298966	1.489	1.412	13.428	13.429	3.74				
	71	o-Xylene	10.558	5.6	1548167	1.398	1.324	14.231	14.236	3.59				
	72	Styrene	10.889	8.9	1214613	1.097	1.007	14.304	14.309	5.87				
	73	Isopropylbenzene	10.782	7.8	2189538	1.977	1.833	14.918	14.919	4.02				
	74	1,2-DICHLOROBENZENE-D4	10.000	0	377033	1	1	18.352	18.353	0				
	75	Bromoform	10.394	3.9	140842	0.374	0.359	14.933	14.934	10.37				
	76	1,1,2,2-Tetrachloroethane	10.421	4.2	207366	0.550	0.528	15.254	15.255	5.75				
	77	4-Bromofluorobenzene	9.452	-5.5	444211	1.178	1.246	15.385	15.393	9.77				
	78	1,2,3-Trichloropropane	10.693	6.9	54506	0.145	0.135	15.532	15.535	11.66				
	79	trans-1,4-Dichloro-2-butene	10.722	7.2	56551	0.150	0.140	15.678	15.676	5.37				

SA 12/24/14

80	n-Propylbenzene	10.248	2.5	2713796	7.198	7.024	15.678	15.684	3.61				
81	Bromobenzene	10.238	2.4	383867	1.018	0.994	15.751	15.755	5.51				
82	1,3,5-Trimethylbenzene	10.084	0.8	1635804	4.339	4.302	15.999	15.996	5.78				
83	2-Chlorotoluene	9.917	-0.8	1492025	3.957	3.991	16.014	16.015	5.45				
84	4-Chlorotoluene	10.429	4.3	1331952	3.533	3.388	16.116	16.113	6.28				
85	tert-Butylbenzene	10.129	1.3	391349	1.038	1.025	16.686	16.683	6.40				
86	1,2,4-Trimethylbenzene	10.207	2.1	1556334	4.128	4.044	16.759	16.756	4.56				
87	sec-Butylbenzene	10.033	0.3	2351906	6.238	6.218	17.095	17.097	4.19				
88	p-Isopropyltoluene	10.062	0.6	1904058	5.050	5.019	17.373	17.374	4.73				
89	1,3-Dichlorobenzene	10.374	3.7	785997	2.085	2.010	17.533	17.539	7.12				
90	1,4-Dichlorobenzene	10.283	2.8	746948	1.981	1.927	17.753	17.754	8.07				
91	n-Butylbenzene	10.203	2.0	1837665	4.874	4.777	18.132	18.135	4.72				
92	1,2-Dichlorobenzene	10.609	6.1	615068	1.631	1.538	18.396	18.397	5.79				
93	1,2-Dibromo-3-chloropropane	10.836	8.4	28385	0.075	0.069	19.535	19.537	10.82				
94	1,2,4-Trichlorobenzene	10.468	4.7	372846	0.989	0.945	20.631	20.632	12.69				
95	Hexachlorobutadiene	10.240	2.4	324635	0.861	0.841	20.806	20.808	7.07				
96	Naphthalene	10.631	6.3	424989	1.127	1.060	20.952	20.954	11.13				
97	1,2,3-Trichlorobenzene	10.557	5.6	266070	0.706	0.668	21.274	21.275	13.72				

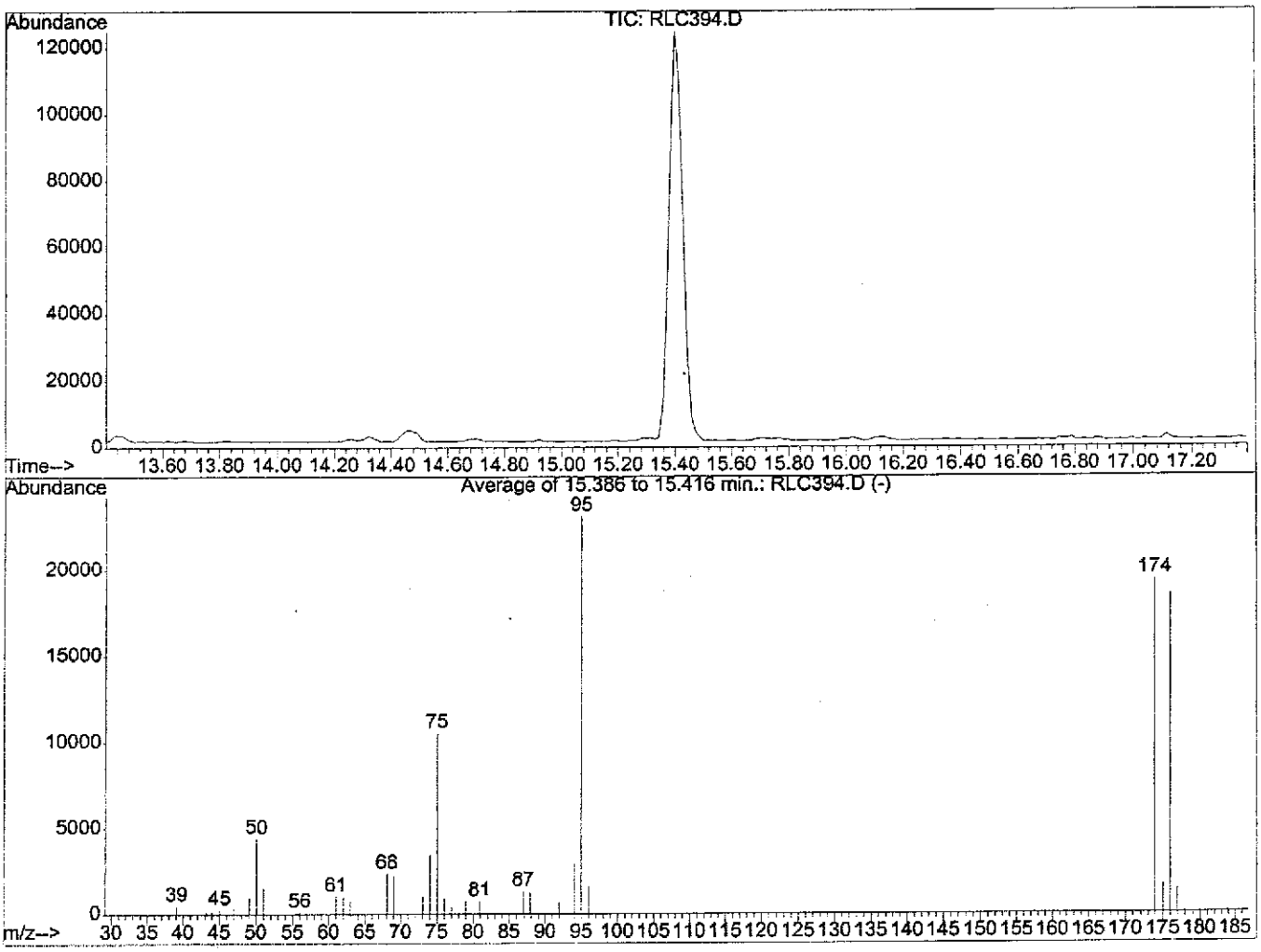
Spike Amount = Nominal Amount * M

Sm
12/24/14

BFB

Data File : D:\HPCHEM\1\DATA\14L19\RLC394.D
Acq On : 19 Dec 2014 11:33 am
Sample : BFB67L15
Misc : T/CHECK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B

Vial: 1
Operator: ASmith
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 933, 934, 935; Background Corrected with Scan 927

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	4419	PASS
75	95	30	60	45.6	10561	PASS
95	95	100	100	100.0	23144	PASS
96	95	5	9	6.9	1597	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.7	19368	PASS
175	174	5	9	8.4	1631	PASS
176	174	95	101	95.7	18541	PASS
177	176	5	9	7.2	1344	PASS

RLC394.D VO67L18.M Fri Dec 19 14:41:27 2014

SM 12/24/14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	95	-0.02	
2	T,M	Dichlorodifluoromethane	10.000	8.534	14.7	75	-0.01	
3	T,M	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00	
4	P,T,M	Chloromethane	10.000	9.175	8.2	83	0.00	
5	C,T,M	Vinyl chloride	10.000	9.449	5.5	85	0.00	
6	T,M	Bromomethane	10.000	8.161	18.4	76	-0.01	
7	T,M	Chloroethane	10.000	8.810	11.9	81	0.00	
8	T,M	Dichlorofluoromethane	10.000	10.510	-5.1	100	-0.01	
9	T,M	Trichlorofluoromethane	10.000	9.684	3.2	88	-0.03	
10	T,M	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00	
11	T,M	Acrolein	50.000	62.003	-24.0#	126	0.00	Not on
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.458	-4.6	102	0.00	
13	T,M	Acetone	50.000	49.841	0.3	101	0.00	
14	C,T,M	1,1-Dichloroethene	10.000	10.582	-5.8	101	0.00	
15	T,M	tert-Butyl alcohol	50.000	53.927	-7.9	100	-0.02	
16	T,M	Methyl acetate	10.000	9.648	3.5	96	-0.02	
17	T,M	Iodomethane	10.000	11.853	-18.5	112	-0.02	
18	T,M	Acetonitrile	-1.000	0.000	0.0	106	-0.02	
19	T,M	Methylene chloride	10.000	10.446	-4.5	105	-0.02	
20	T,M	Carbon disulfide	10.000	10.318	-3.2	99	0.00	
21	T,M	Acrylonitrile	50.000	50.653	-1.3	98	-0.02	
22	T,M	tert-Butyl methyl ether (MT	10.000	10.114	-1.1	95	0.00	
23	T,M	trans-1,2-Dichloroethene	10.000	11.055	-10.5	106	-0.02	
24	T,M	Isopropyl ether (DIPE)	10.000	9.855	1.4	94	0.00	
25	P,T,M	1,1-Dichloroethane	10.000	10.989	-9.9	105	-0.02	
26	T,M	Vinyl acetate	10.000	8.834	11.7	77	-0.02	
27	T,M	2-Butanol	50.000	50.260	-0.5	105	0.00	
28	T,M	tert-Butyl ethyl ether (ETB	10.000	10.163	-1.6	96	0.00	
29	T,M	2-Butanone	50.000	51.099	-2.2	102	-0.02	
30	T,M	2,2-Dichloropropane	10.000	11.531	-15.3	105	0.00	
31	T,M	cis-1,2-Dichloroethene	10.000	10.871	-8.7	104	-0.02	
32	C,T,M	Chloroform	10.000	10.851	-8.5	104	-0.02	
33	T,M	Bromochloromethane	10.000	11.167	-11.7	103	0.00	
34	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00	
35	S	Dibromofluoromethane	10.000	10.715	-7.1	93	-0.02	
36	T,M	Tetrahydrofuran	10.000	11.728	-17.3	106	0.00	
37	T,M	1,1,1-Trichloroethane	10.000	10.805	-8.0	102	0.00	
38	T,M	Cyclohexane	10.000	9.568	4.3	99	-0.02	
39	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00	
40	T,M	1,1-Dichloropropene	10.000	10.402	-4.0	99	-0.02	
41	T,M	Carbon tetrachloride	10.000	10.695	-7.0	101	-0.02	

(#) = Out of Range

SM 12/24/14

2096

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	10.000	10.269	-2.7	95	0.00
43	S	1,2-Dichloroethane-d4	10.000	10.269	-2.7	89	-0.02
44	T,M	1,2-Dichloroethane	10.000	11.294	-12.9	105	0.00
45	T,M	Benzene	10.000	11.351	-13.5	110	-0.02
46	T,M	Trichloroethene	10.000	10.256	-2.6	107	0.00
47	T,M	Methylcyclohexane	10.000	9.296	7.0	96	0.00
48	C,T,M	1,2-Dichloropropane	10.000	10.881	-8.8	104	-0.02
49	T,M	Bromodichloromethane	10.000	11.390	-13.9	107	0.00
50	T,M	1,4-Dioxane	200.000	223.263	-11.6	105	-0.02
51	T,M	Dibromomethane	10.000	11.360	-13.6	106	0.00
52	T,M	2-Chloroethyl vinyl ether	10.000	8.060	19.4	70	0.00
53	T,M	4-Methyl-2-pentanone	50.000	50.465	-0.9	98	0.00
54	T,M	cis-1,3-Dichloropropene	10.000	11.045	-10.4	104	0.00
55	I	CHLOROBENZENE-D5	10.000	10.000	0.0	97	0.00
56	S	Toluene-d8	10.000	9.827	1.7	91	0.00
57	C,T,M	Toluene	10.000	10.538	-5.4	105	0.00
58	T,M	Ethyl methacrylate	10.000	10.690	-6.9	102	0.00
59	T,M	trans-1,3-Dichloropropene	10.000	10.777	-7.8	103	0.00
60	T,M	1,1,2-Trichloroethane	10.000	10.857	-8.6	106	0.00
61	T,M	2-Hexanone	50.000	49.230	1.5	101	0.00
62	T,M	1,3-Dichloropropane	10.000	10.891	-8.9	105	0.00
63	T,M	Tetrachloroethene	10.000	10.603	-6.0	106	0.00
64	T,M	Dibromochloromethane	10.000	10.990	-9.9	106	0.00
65	T,M	1,2-Dibromoethane	10.000	10.924	-9.2	106	0.00
66	T,M	1-Chlorohexane	10.000	9.172	8.3	91	-0.02
67	P,M	Chlorobenzene	10.000	10.736	-7.4	107	0.00
68	T,M	1,1,1,2-Tetrachloroethane	10.000	10.398	-4.0	102	0.00
69	C,T,M	Ethylbenzene	10.000	10.278	-2.8	102	0.00
70	T,M	m-Xylene & p-Xylene	20.000	21.090	-5.4	105	0.00
71	T,M	o-Xylene	10.000	10.558	-5.6	105	0.00
72	T,M	Styrene	10.000	10.889	-8.9	107	0.00
73	T,M	Isopropylbenzene	10.000	10.782	-7.8	106	0.00
74	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	98	0.00
75	P,T,M	Bromoform	10.000	10.394	-3.9	105	0.00
76	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.421	-4.2	102	0.00
77	S	4-Bromofluorobenzene	10.000	9.452	5.5	93	0.00
78	T,M	1,2,3-Trichloropropane	10.000	10.693	-6.9	103	0.00
79	T,M	trans-1,4-Dichloro-2-butene	10.000	10.722	-7.2	105	0.00
80	T,M	n-Propylbenzene	10.000	10.248	-2.5	104	0.00

(#) = Out of Range

SK 12/24/14

2097

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	10.000	10.239	-2.4	105	0.00
82	T,M	1,3,5-Trimethylbenzene	10.000	10.084	-0.8	103	0.01
83	T,M	2-Chlorotoluene	10.000	9.917	0.8	104	0.00
84	T,M	4-Chlorotoluene	10.000	10.429	-4.3	107	0.01
85	T,M	tert-Butylbenzene	10.000	10.129	-1.3	104	0.01
86	T,M	1,2,4-Trimethylbenzene	10.000	10.207	-2.1	104	0.01
87	T,M	sec-Butylbenzene	10.000	10.032	-0.3	102	0.00
88	T,M	p-Isopropyltoluene	10.000	10.062	-0.6	101	0.00
89	T,M	1,3-Dichlorobenzene	10.000	10.374	-3.7	107	0.00
90	T,M	1,4-Dichlorobenzene	10.000	10.283	-2.8	107	0.00
91	T,M	n-Butylbenzene	10.000	10.203	-2.0	103	0.00
92	T,M	1,2-Dichlorobenzene	10.000	10.609	-6.1	108	0.00
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.836	-8.4	104	0.00
94	T,M	1,2,4-Trichlorobenzene	10.000	10.468	-4.7	106	0.00
95	T,M	Hexachlorobutadiene	10.000	10.240	-2.4	103	0.00
96	T,M	Naphthalene	10.000	10.631	-6.3	105	0.00
97	T,M	1,2,3-Trichlorobenzene	10.000	10.557	-5.6	107	0.00

Sa 12/24/14

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	95	-0.02
2	T,M	Dichlorodifluoromethane	0.337	0.288	14.5	75	-0.01
3	T,M	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T,M	Chloromethane	0.498	0.457	8.2	83	0.00
5	C,T,M	Vinyl chloride	0.544	0.514	5.5	85	0.00
6	T,M	Bromomethane	0.336	0.298	11.3	76	-0.01
7	T,M	Chloroethane	0.339	0.299	11.8	81	0.00
8	T,M	Dichlorofluoromethane	0.687	0.722	-5.1	100	-0.01
9	T,M	Trichlorofluoromethane	0.473	0.458	3.2	88	-0.03
10	T,M	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T,M	Acrolein	0.014	0.017	-21.4#	126	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.269	0.282	-4.8	102	0.00
13	T,M	Acetone	0.024	0.024	0.0	101	0.00
14	C,T,M	1,1-Dichloroethene	0.522	0.552	-5.7	101	0.00
15	T,M	tert-Butyl alcohol	0.008	0.009	-12.5	100	-0.02
16	T,M	Methyl acetate	0.083	0.077	7.2	96	-0.02
17	T,M	Iodomethane	0.536	0.636	-18.7	112	-0.02
18	T,M	Acetonitrile	0.000	0.000	0.0	106	-0.02
19	T,M	Methylene chloride	0.329	0.344	-4.6	105	-0.02
20	T,M	Carbon disulfide	1.402	1.447	-3.2	99	0.00
21	T,M	Acrylonitrile	0.035	0.036	-2.9	98	-0.02
22	T,M	tert-Butyl methyl ether (MT	0.404	0.408	-1.0	95	0.00
23	T,M	trans-1,2-Dichloroethene	0.451	0.498	-10.4	106	-0.02
24	T,M	Isopropyl ether (DIPE)	0.898	0.885	1.4	94	0.00
25	P,T,M	1,1-Dichloroethane	0.560	0.615	-9.8	105	-0.02
26	T,M	Vinyl acetate	0.279	0.246	11.8	77	-0.02
27	T,M	2-Butanol	0.007	0.007	0.0	105	0.00
28	T,M	tert-Butyl ethyl ether (ETB	0.650	0.661	-1.7	96	0.00
29	T,M	2-Butanone	0.040	0.041	-2.5	102	-0.02
30	T,M	2,2-Dichloropropane	0.324	0.373	-15.1	105	0.00
31	T,M	cis-1,2-Dichloroethene	0.333	0.362	-8.7	104	-0.02
32	C,T,M	Chloroform	0.492	0.534	-8.5	104	-0.02
33	T,M	Bromochloromethane	0.172	0.192	-11.6	103	0.00
34	T,M	tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00
35	S	Dibromofluoromethane	0.275	0.294	-6.9	93	-0.02
36	T,M	Tetrahydrofuran	0.021	0.025	-19.0	106	0.00
37	T,M	1,1,1-Trichloroethane	0.435	0.470	-8.0	102	0.00
38	T,M	Cyclohexane	0.707	0.676	4.4	99	-0.02
39	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
40	T,M	1,1-Dichloropropene	0.170	0.176	-3.5	99	-0.02
41	T,M	Carbon tetrachloride	0.395	0.422	-6.8	101	-0.02

(#) = Out of Range

SA 12/24/14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IV067L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	0.107	0.110	-2.8	95	0.00
43	S	1,2-Dichloroethane-d4	0.159	0.163	-2.5	89	-0.02
44	T,M	1,2-Dichloroethane	0.187	0.211	-12.8	105	0.00
45	T,M	Benzene	1.190	1.351	-13.5	110	-0.02
46	T,M	Trichloroethene	0.375	0.385	-2.7	107	0.00
47	T,M	Methylcyclohexane	0.727	0.676	7.0	96	0.00
48	C,T,M	1,2-Dichloropropane	0.261	0.284	-8.8	104	-0.02
49	T,M	Bromodichloromethane	0.302	0.344	-13.9	107	0.00
50	T,M	1,4-Dioxane	0.001	0.001	0.0	105	-0.02
51	T,M	Dibromomethane	0.105	0.119	-13.3	106	0.00
52	T,M	2-Chloroethyl vinyl ether	0.057	0.046	19.3	70	0.00
53	T,M	4-Methyl-2-pentanone	0.098	0.099	-1.0	98	0.00
54	T,M	cis-1,3-Dichloropropene	0.371	0.410	-10.5	104	0.00
55	I	CHLOROBENZENE-D5	1.000	1.000	0.0	97	0.00
56	S	Toluene-d8	1.478	1.452	1.8	91	0.00
57	C,T,M	Toluene	1.724	1.816	-5.3	105	0.00
58	T,M	Ethyl methacrylate	0.210	0.224	-6.7	102	0.00
59	T,M	trans-1,3-Dichloropropene	0.351	0.378	-7.7	103	0.00
60	T,M	1,1,2-Trichloroethane	0.170	0.185	-8.8	106	0.00
61	T,M	2-Hexanone	0.083	0.082	1.2	101	0.00
62	T,M	1,3-Dichloropropane	0.329	0.358	-8.8	105	0.00
63	T,M	Tetrachloroethene	0.371	0.393	-5.9	106	0.00
64	T,M	Dibromochloromethane	0.237	0.260	-9.7	106	0.00
65	T,M	1,2-Dibromoethane	0.166	0.181	-9.0	106	0.00
66	T,M	1-Chlorohexane	0.867	0.795	8.3	91	-0.02
67	P,M	Chlorobenzene	0.963	1.034	-7.4	107	0.00
68	T,M	1,1,1,2-Tetrachloroethane	0.319	0.332	-4.1	102	0.00
69	C,T,M	Ethylbenzene	1.974	2.029	-2.8	102	0.00
70	T,M	m-Xylene & p-Xylene	1.412	1.489	-5.5	105	0.00
71	T,M	o-Xylene	1.324	1.398	-5.6	105	0.00
72	T,M	Styrene	1.007	1.097	-8.9	107	0.00
73	T,M	Isopropylbenzene	1.833	1.977	-7.9	106	0.00
74	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	98	0.00
75	P,T,M	Bromoform	0.359	0.374	-4.2	105	0.00
76	P,T,M	1,1,2,2-Tetrachloroethane	0.528	0.550	-4.2	102	0.00
77	S	4-Bromofluorobenzene	1.246	1.178	5.5	93	0.00
78	T,M	1,2,3-Trichloropropane	0.135	0.145	-7.4	103	0.00
79	T,M	trans-1,4-Dichloro-2-butene	0.140	0.150	-7.1	105	0.00
80	T,M	n-Propylbenzene	7.024	7.198	-2.5	104	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	0.994	1.018	-2.4	105	0.00
82	T,M	1,3,5-Trimethylbenzene	4.302	4.339	-0.9	103	0.01
83	T,M	2-Chlorotoluene	3.991	3.957	0.9	104	0.00
84	T,M	4-Chlorotoluene	3.388	3.533	-4.3	107	0.01
85	T,M	tert-Butylbenzene	1.025	1.038	-1.3	104	0.01
86	T,M	1,2,4-Trimethylbenzene	4.044	4.128	-2.1	104	0.01
87	T,M	sec-Butylbenzene	6.218	6.238	-0.3	102	0.00
88	T,M	p-Isopropyltoluene	5.019	5.050	-0.6	101	0.00
89	T,M	1,3-Dichlorobenzene	2.010	2.085	-3.7	107	0.00
90	T,M	1,4-Dichlorobenzene	1.927	1.981	-2.8	107	0.00
91	T,M	n-Butylbenzene	4.777	4.874	-2.0	103	0.00
92	T,M	1,2-Dichlorobenzene	1.538	1.631	-6.0	108	0.00
93	T,M	1,2-Dibromo-3-chloropropane	0.069	0.075	-8.7	104	0.00
94	T,M	1,2,4-Trichlorobenzene	0.945	0.989	-4.7	106	0.00
95	T,M	Hexachlorobutadiene	0.841	0.861	-2.4	103	0.00
96	T,M	Naphthalene	1.060	1.127	-6.3	105	0.00
97	T,M	1,2,3-Trichlorobenzene	0.668	0.706	-5.7	107	0.00

SA
12/24/14

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.04	114	1498992	10.00	ug/l	-0.02
55) CHLOROBENZENE-D5	13.12	117	1107672	10.00	ug/l	0.00
74) 1,2-DICHLOROBENZENE-D4	18.35	152	377033	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.74	111	440926	10.71	ug/l	-0.02
Spiked Amount 10.000			Recovery =	107.10%		
43) 1,2-Dichloroethane-d4	7.45	65	244221	10.27	ug/l	-0.02
Spiked Amount 10.000			Recovery =	102.70%		
56) Toluene-d8	10.48	98	1608447	9.83	ug/l	0.00
Spiked Amount 10.000			Recovery =	98.30%		
77) 4-Bromofluorobenzene	15.39	95	444211	9.45	ug/l	0.00
Spiked Amount 10.000			Recovery =	94.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.95	85	431539	8.53	ug/l	100
4) Chloromethane	2.14	50	684683	9.17	ug/l	99
5) Vinyl chloride	2.28	62	770676	9.45	ug/l	99
6) Bromomethane	2.76	94	447018	8.16	ug/l	99
7) Chloroethane	2.86	64	447751	8.81	ug/l	98
8) Dichlorofluoromethane	2.89	67	1082505	10.51	ug/l	100
9) Trichlorofluoromethane	3.13	101	686544	9.68	ug/l	99
11) Acrolein	3.62	56	128522	62.00	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	422365	10.46	ug/l	100
13) Acetone	3.70	43	178133	49.84	ug/l	99
14) 1,1-Dichloroethene	3.86	61	828002	10.58	ug/l	99
15) tert-Butyl alcohol	3.94	59	64297	53.93	ug/l	99
16) Methyl acetate	4.25	43	115292	9.65	ug/l	99
17) Iodomethane	4.22	142	952655	11.85	ug/l	99
19) Methylene chloride	4.44	49	515326	10.45	ug/l	99
20) Carbon disulfide	4.47	76	2168558	10.32	ug/l	99
21) Acrylonitrile	4.60	53	266922	50.65	ug/l	99
22) tert-Butyl methyl ether (M	4.65	73	611970	10.11	ug/l	98
23) trans-1,2-Dichloroethene	4.82	61	746699	11.05	ug/l	100
24) Isopropyl ether (DIPE)	5.23	45	1325896	9.86	ug/l	99
25) 1,1-Dichloroethane	5.38	63	922627	10.99	ug/l	100
26) Vinyl acetate	5.38	43	369350	8.83	ug/l	100
27) 2-Butanol	5.68	45	49361	50.26	ug/l #	100
28) tert-Butyl ethyl ether (ET	5.79	59	990247	10.16	ug/l	99
29) 2-Butanone	5.95	43	305916	51.10	ug/l	100
30) 2,2-Dichloropropane	6.15	77	559324	11.53	ug/l	100
31) cis-1,2-Dichloroethene	6.21	96	542494	10.87	ug/l	100

(#) = qualifier out of range (m) = manual integration

SM 12/24/14

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Chloroform	6.43	83	800150	10.85 ug/l	100
33)	Bromochloromethane	6.66	49	287295	11.17 ug/l	99
36)	Tetrahydrofuran	6.71	42	37607	11.73 ug/l	97
37)	1,1,1-Trichloroethane	7.00	97	705243	10.80 ug/l	100
38)	Cyclohexane	7.01	56	1013377	9.57 ug/l	99
40)	1,1-Dichloropropene	7.22	110	264445	10.40 ug/l	100
41)	Carbon tetrachloride	7.36	119	632501	10.70 ug/l	99
42)	tert-Amyl methyl ether (TA	7.39	87	164607	10.27 ug/l	100
44)	1,2-Dichloroethane	7.60	62	316497	11.29 ug/l	100
45)	Benzene	7.61	78	2025451	11.35 ug/l	100
46)	Trichloroethene	8.55	130	576545	10.26 ug/l	99
47)	Methylcyclohexane	8.64	83	1013580	9.30 ug/l	99
48)	1,2-Dichloropropane	8.81	63	425246	10.88 ug/l	99
49)	Bromodichloromethane	9.19	83	515373	11.39 ug/l	100
50)	1,4-Dioxane	9.22	88	25411	223.26 ug/l	100
51)	Dibromomethane	9.28	93	178418	11.36 ug/l	100
52)	2-Chloroethyl vinyl ether	9.69	63	69449	8.06 ug/l	99
53)	4-Methyl-2-pentanone	9.73	43	743843	50.46 ug/l	98
54)	cis-1,3-Dichloropropene	10.07	75	614642	11.04 ug/l	99
57)	Toluene	10.61	91	2012061	10.54 ug/l	100
58)	Ethyl methacrylate	10.90	69	248645	10.69 ug/l	98
59)	trans-1,3-Dichloropropene	10.91	75	418867	10.78 ug/l	99
60)	1,1,2-Trichloroethane	11.18	97	204738	10.86 ug/l	99
61)	2-Hexanone	11.19	43	454709	49.23 ug/l	100
62)	1,3-Dichloropropane	11.62	76	396927	10.89 ug/l	100
63)	Tetrachloroethene	11.72	164	435770	10.60 ug/l	100
64)	Dibromochloromethane	12.08	129	287976	10.99 ug/l	98
65)	1,2-Dibromoethane	12.43	107	200425	10.92 ug/l	100
66)	1-Chlorohexane	12.73	91	881112	9.17 ug/l	99
67)	Chlorobenzene	13.19	112	1145073	10.74 ug/l	100
68)	1,1,1,2-Tetrachloroethane	13.27	131	367376	10.40 ug/l	100
69)	Ethylbenzene	13.28	91	2247585	10.28 ug/l	100
70)	m-Xylene & p-Xylene	13.43	91	3298966	21.09 ug/l	100
71)	o-Xylene	14.23	91	1548167	10.56 ug/l	99
72)	Styrene	14.30	104	1214613	10.89 ug/l	100
73)	Isopropylbenzene	14.92	105	2189538	10.78 ug/l	100
75)	Bromoform	14.93	173	140842	10.39 ug/l	99
76)	1,1,2,2-Tetrachloroethane	15.25	83	207366	10.42 ug/l	100
78)	1,2,3-Trichloropropane	15.53	110	54506	10.69 ug/l	97
79)	trans-1,4-Dichloro-2-buten	15.68	53	56551	10.72 ug/l	99
80)	n-Propylbenzene	15.68	91	2713796	10.25 ug/l	100

(#) = qualifier out of range (m) = manual integration

12/24/14

2103

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromobenzene	15.75	156	383867	10.24	ug/l	100
82)	1,3,5-Trimethylbenzene	16.00	105	1635804	10.08	ug/l	100
83)	2-Chlorotoluene	16.01	91	1492025	9.92	ug/l	96
84)	4-Chlorotoluene	16.12	91	1331952	10.43	ug/l	96
85)	tert-Butylbenzene	16.69	134	391349	10.13	ug/l	99
86)	1,2,4-Trimethylbenzene	16.76	105	1556334	10.21	ug/l	100
87)	sec-Butylbenzene	17.10	105	2351906	10.03	ug/l	100
88)	p-Isopropyltoluene	17.37	119	1904058	10.06	ug/l	100
89)	1,3-Dichlorobenzene	17.53	146	785997	10.37	ug/l	100
90)	1,4-Dichlorobenzene	17.75	146	746948	10.28	ug/l	99
91)	n-Butylbenzene	18.13	91	1837665	10.20	ug/l	99
92)	1,2-Dichlorobenzene	18.40	146	615068	10.61	ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.54	157	28385	10.84	ug/l	100
94)	1,2,4-Trichlorobenzene	20.63	180	372846	10.47	ug/l	100
95)	Hexachlorobutadiene	20.81	225	324635	10.24	ug/l	100
96)	Naphthalene	20.95	128	424989	10.63	ug/l	100
97)	1,2,3-Trichlorobenzene	21.27	180	266070	10.56	ug/l	99

Sa 12/24/14

(#) = qualifier out of range (m) = manual integration

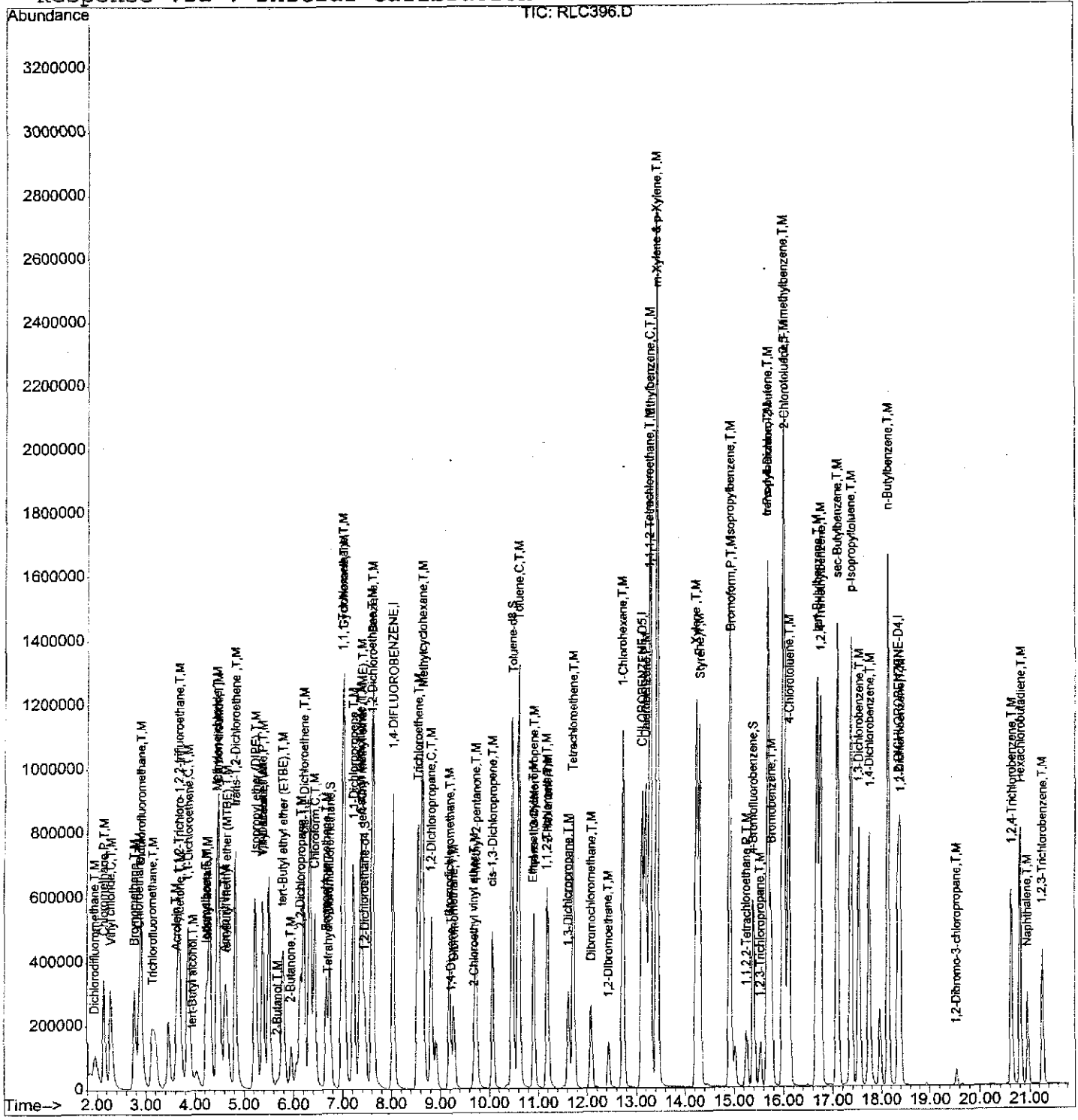
Quantitation Report

Data File : D:\HPCHEM\1\DATA\14L19\RLC396.D
Acq On : 19 Dec 2014 12:39 pm
Sample : IVO67L1802 10ppb
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Dec 22 19:30 2014

Vial: 3
Operator: ASmith
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



SM 12/24/14

2105

DAILY CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: REC001
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D142
BFB Injection Date : 05/01/15
BFB Injection Time : 07:19
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.72
75	30.0 - 60.0% of mass 95	42.38
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.51
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	91.08
175	5.0 - 9.0% of mass 174	6.31(6.9)1
176	95.0 - 101.0% of mass 174	87.71(96.3)1
177	5.0 - 9.0% of mass 176	5.62(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV067L1897	REC002	05/01/15	07:56
2	MBLK1W	V067E01B	REC006	05/01/15	10:19
3	LCS1W	V067E01L	REC003	05/01/15	08:38
4	LCD1W	V067E01C	REC004	05/01/15	09:12
5	04-21-15-BBW-3	D142-01	REC008	05/01/15	11:24
6	04-21-15-FDUP-3	D142-02	REC009	05/01/15	12:00
7	04-21-15-TB-7	D142-04	REC010	05/01/15	12:34
8	04-22-15-AR-1	D142-05	REC011	05/01/15	13:13
9	04-21-15-TB-6	D142-06	REC012	05/01/15	13:48
10	04-22-15-PWB-1	D142-07	REC013	05/01/15	14:22
11	04-22-15-TB-8	D142-08	REC014	05/01/15	14:56
12	04-22-15-PWB-13A	D142-09	REC015	05/01/15	15:30
13	04-21-15-AMW-3R	D142-03	REC017	05/01/15	16:40
14	04-21-15-AMW-3RMS	D142-03M	REC018	05/01/15	17:17
15	04-21-15-AMW-3RMSD	D142-03S	REC019	05/01/15	17:50

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
Lab Code : EMXT
Lab File ID : RLC381
Instrument ID: 67
GC Column : RTX502.2ID:0.25mm (mm)

Project : B & B GROUNDWATER SAMPLING
SDG No. : 15D142
Date Analyzed : 12/18/14
Time Analyzed : 22:11
Heated Purge : No

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1579429	8.05	1147311	13.12	386538	18.35
	UPPER LIMIT	3158858	8.55	2294622	13.62	773076	18.85
	LOWER LIMIT	789715	7.55	573656	12.62	193269	17.85
	SAMPLE ID						
1	VSTD010	1518128	8.07	1131776	13.17	384052	18.38
2	MBLK1W	1638136	8.08	1211333	13.17	390810	18.40
3	LCS1W	1537500	8.07	1147222	13.15	395771	18.38
4	LCD1W	1599238	8.08	1235227	13.17	435292	18.38
5	04-21-15-BBW-3	1670800	8.08	1259083	13.17	402136	18.40
6	04-21-15-FDUP-3	1651067	8.07	1236683	13.17	401943	18.38
7	04-21-15-TB-7	1526504	8.07	1152755	13.17	387011	18.40
8	04-22-15-AR-1	1630155	8.08	1230935	13.17	401540	18.40
9	04-21-15-TB-6	1593154	8.08	1192582	13.17	382779	18.40
10	04-22-15-PWB-1	1534593	8.08	1141417	13.16	372667	18.40
11	04-22-15-TB-8	1602720	8.08	1204966	13.18	388183	18.40
12	04-22-15-PWB-13A	1555335	8.08	1165082	13.18	387083	18.40
13	04-21-15-AMW-3R	1542965	8.08	1147882	13.18	376219	18.40
14	04-21-15-AMW-3RMS	1547646	8.08	1178556	13.16	419715	18.40
15	04-21-15-AMW-3RMSD	1544282	8.08	1180062	13.18	413984	18.40

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

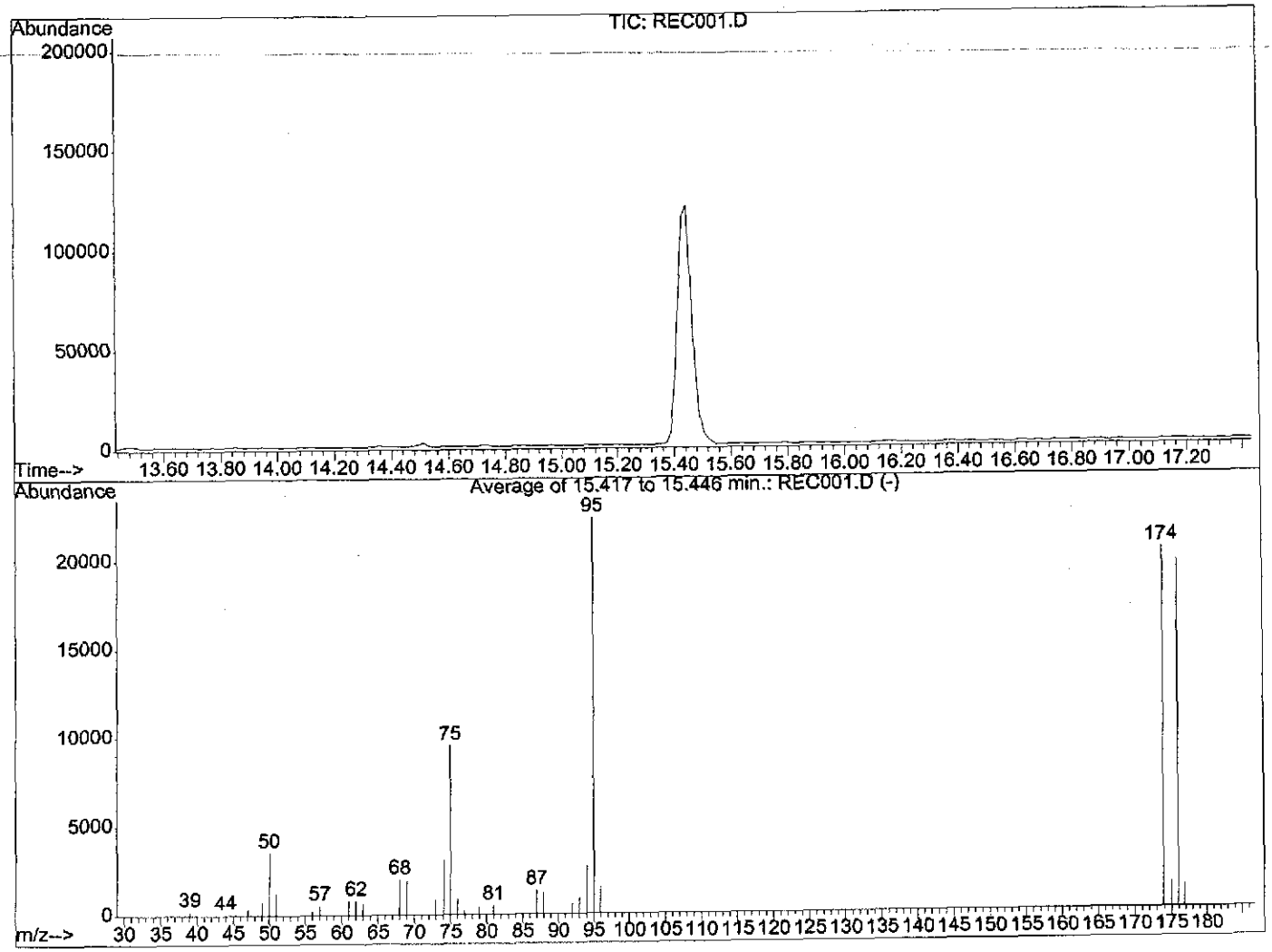
AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.5 minutes (30 sec) of internal standard RT
RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

BFB

Data File : D:\HPCHEM\1\DATA\15E01\REC001.D
Acq On : 1 May 2015 7:19 am
Sample : BFB67E01
Misc : T/CHECK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B

Vial: 1
Operator: SDuong
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 934, 935, 936; Background Corrected with Scan 928

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	3516	PASS
75	95	30	60	42.4	9480	PASS
95	95	100	100	100.0	22368	PASS
96	95	5	9	6.5	1457	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	91.1	20374	PASS
175	174	5	9	6.9	1411	PASS
176	174	95	101	96.3	19620	PASS
177	176	5	9	6.4	1258	PASS

REC001.D VO67L18.M Fri May 01 16:25:32 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	96	0.01
2	T,M	Dichlorodifluoromethane	10.000	11.069	-10.7	99	0.00
3	T,M	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T,M	Chloromethane	10.000	8.790	12.1	81	0.02
5	C,T,M	Vinyl chloride	10.000	8.471	15.3	77	0.02
6	T,M	Bromomethane	10.000	8.946	10.5	84	0.00
7	T,M	Chloroethane	10.000	8.060	19.4	75	0.02
8	T,M	Dichlorofluoromethane	10.000	8.919	10.8	86	0.00
9	T,M	Trichlorofluoromethane	10.000	8.698	13.0	80	0.00
10	T,M	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T,M	Acrolein	50.000	62.417	-24.8#	128	0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	9.806	1.9	96	0.01
13	T,M	Acetone	50.000	50.181	-0.4	103	0.01
14	C,T,M	1,1-Dichloroethene	10.000	8.364	16.4	81	0.01
15	T,M	tert-Butyl alcohol	50.000	41.511	17.0	78	0.01
16	T,M	Methyl acetate	10.000	-0.332	103.3#	0	-4.27#
17	T,M	Iodomethane	10.000	9.734	2.7	93	0.01
18	T,M	Acetonitrile	-1.000	0.000	0.0	84	0.01
19	T,M	Methylene chloride	10.000	8.346	16.5	85	0.01
20	T,M	Carbon disulfide	10.000	8.514	14.9	83	0.01
21	T,M	Acrylonitrile	50.000	48.565	2.9	95	0.01
22	T,M	tert-Butyl methyl ether (MT	10.000	8.523	14.8	81	0.01
23	T,M	trans-1,2-Dichloroethene	10.000	8.156	18.4	79	0.01
24	T,M	Isopropyl ether (DIPE)	10.000	8.217	17.8	79	0.03
25	P,T,M	1,1-Dichloroethane	10.000	9.040	9.6	88	0.01
26	T,M	Vinyl acetate	10.000	8.858	11.4	79	0.01
27	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.68#
28	T,M	tert-Butyl ethyl ether (ETB	10.000	8.206	17.9	78	0.01
29	T,M	2-Butanone	50.000	48.033	3.9	97	0.01
30	T,M	2,2-Dichloropropane	10.000	9.056	9.4	83	0.01
31	T,M	cis-1,2-Dichloroethene	10.000	9.934	0.7	96	0.01
32	C,T,M	Chloroform	10.000	9.721	2.8	94	0.01
33	T,M	Bromochloromethane	10.000	8.923	10.8	83	0.03
34	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00
35	S	Dibromofluoromethane	10.000	10.938	-9.4	96	0.01
36	T,M	Tetrahydrofuran	10.000	8.910	10.9	81	0.03
37	T,M	1,1,1-Trichloroethane	10.000	9.142	8.6	87	0.03
38	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.03#
39	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
40	T,M	1,1-Dichloropropene	10.000	9.959	0.4	96	0.03
41	T,M	Carbon tetrachloride	10.000	9.647	3.5	92	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	10.000	9.093	9.1	85	0.03
43	S	1,2-Dichloroethane-d4	10.000	9.445	5.5	83	0.03
44	T,M	1,2-Dichloroethane	10.000	9.219	7.8	87	0.03
45	T,M	Benzene	10.000	9.044	9.6	88	0.03
46	T,M	Trichloroethene	10.000	9.914	0.9	105	0.03
47	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-8.64#
48	C,T,M	1,2-Dichloropropane	10.000	9.438	5.6	92	0.03
49	T,M	Bromodichloromethane	10.000	10.029	-0.3	95	0.03
50	T,M	1,4-Dioxane	200.000	198.821	0.6	95	0.01
51	T,M	Dibromomethane	10.000	10.078	-0.8	95	0.03
52	T,M	2-Chloroethyl vinyl ether	10.000	1.411	85.9#	12	0.03
53	T,M	4-Methyl-2-pentanone	50.000	44.142	11.7	86	0.03
54	T,M	cis-1,3-Dichloropropene	10.000	9.757	2.4	93	0.04
55	I	CHLOROBENZENE-D5	10.000	10.000	0.0	99	0.04
56	S	Toluene-d8	10.000	10.174	-1.7	96	0.03
57	C,T,M	Toluene	10.000	9.378	6.2	96	0.03
58	T,M	Ethyl methacrylate	10.000	8.888	11.1	86	0.04
59	T,M	trans-1,3-Dichloropropene	10.000	9.272	7.3	91	0.04
60	T,M	1,1,2-Trichloroethane	10.000	10.490	-4.9	104	0.04
61	T,M	2-Hexanone	50.000	43.968	12.1	92	0.04
62	T,M	1,3-Dichloropropane	10.000	9.424	5.8	93	0.04
63	T,M	Tetrachloroethene	10.000	10.449	-4.5	106	0.04
64	T,M	Dibromochloromethane	10.000	11.224	-12.2	110	0.04
65	T,M	1,2-Dibromoethane	10.000	10.283	-2.8	102	0.04
66	T,M	1-Chlorohexane	10.000	8.593	14.1	87	0.03
67	P,M	Chlorobenzene	10.000	10.464	-4.6	106	0.04
68	T,M	1,1,1,2-Tetrachloroethane	10.000	11.172	-11.7	112	0.04
69	C,T,M	Ethylbenzene	10.000	9.387	6.1	95	0.04
70	T,M	m-Xylene & p-Xylene	20.000	18.508	7.5	94	0.04
71	T,M	o-Xylene	10.000	9.661	3.4	98	0.04
72	T,M	Styrene	10.000	10.315	-3.1	103	0.04
73	T,M	Isopropylbenzene	10.000	10.273	-2.7	103	0.04
74	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	99	0.03
75	P,T,M	Bromoform	10.000	10.837	-8.4	111	0.04
76	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.099	-1.0	101	0.04
77	S	4-Bromofluorobenzene	10.000	9.504	5.0	95	0.04
78	T,M	1,2,3-Trichloropropane	10.000	10.457	-4.6	103	0.04
79	T,M	trans-1,4-Dichloro-2-butene	10.000	8.320	16.8	83	0.04
80	T,M	n-Propylbenzene	10.000	9.389	6.1	97	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	10.000	10.956	-9.6	114	0.04
82	T,M	1,3,5-Trimethylbenzene	10.000	9.730	2.7	101	0.06
83	T,M	2-Chlorotoluene	10.000	9.171	8.3	98	0.04
84	T,M	4-Chlorotoluene	10.000	9.458	5.4	99	0.06
85	T,M	tert-Butylbenzene	10.000	10.822	-8.2	113	0.04
86	T,M	1,2,4-Trimethylbenzene	10.000	9.593	4.1	100	0.06
87	T,M	sec-Butylbenzene	10.000	9.959	0.4	103	0.04
88	T,M	p-Isopropyltoluene	10.000	10.148	-1.5	104	0.04
89	T,M	1,3-Dichlorobenzene	10.000	10.768	-7.7	113	0.04
90	T,M	1,4-Dichlorobenzene	10.000	10.688	-6.9	114	0.04
91	T,M	n-Butylbenzene	10.000	9.284	7.2	95	0.04
92	T,M	1,2-Dichlorobenzene	10.000	10.953	-9.5	113	0.03
93	T,M	1,2-Dibromo-3-chloropropane	10.000	11.514	-15.1	112	0.03
94	T,M	1,2,4-Trichlorobenzene	10.000	10.450	-4.5	108	0.03
95	T,M	Hexachlorobutadiene	10.000	10.473	-4.7	107	0.03
96	T,M	Naphthalene	10.000	9.578	4.2	97	0.04
97	T,M	1,2,3-Trichlorobenzene	10.000	10.246	-2.5	105	0.04

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	96	0.01
2	T,M	Dichlorodifluoromethane	0.337	0.373	-10.7	99	0.00
3	T,M	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T,M	Chloromethane	0.498	0.438	12.0	81	0.02
5	C,T,M	Vinyl chloride	0.544	0.461	15.3	77	0.02
6	T,M	Bromomethane	0.336	0.327	2.7	84	0.00
7	T,M	Chloroethane	0.339	0.273	19.5	75	0.02
8	T,M	Dichlorofluoromethane	0.687	0.613	10.8	86	0.00
9	T,M	Trichlorofluoromethane	0.473	0.411	13.1	80	0.00
10	T,M	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T,M	Acrolein	0.014	0.017	-21.4#	128	0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.269	0.264	1.9	96	0.01
13	T,M	Acetone	0.024	0.024	0.0	103	0.01
14	C,T,M	1,1-Dichloroethene	0.522	0.437	16.3	81	0.01
15	T,M	tert-Butyl alcohol	0.008	0.007	12.5	78	0.01
16	T,M	Methyl acetate	0.083	0.000	100.0#	0#	-4.27#
17	T,M	Iodomethane	0.536	0.522	2.6	93	0.01
18	T,M	Acetonitrile	0.000	0.000	0.0	84	0.01
19	T,M	Methylene chloride	0.329	0.275	16.4	85	0.01
20	T,M	Carbon disulfide	1.402	1.194	14.8	83	0.01
21	T,M	Acrylonitrile	0.035	0.034	2.9	95	0.01
22	T,M	tert-Butyl methyl ether (MT	0.404	0.344	14.9	81	0.01
23	T,M	trans-1,2-Dichloroethene	0.451	0.368	18.4	79	0.01
24	T,M	Isopropyl ether (DIPE)	0.898	0.737	17.9	79	0.03
25	P,T,M	1,1-Dichloroethane	0.560	0.506	9.6	88	0.01
26	T,M	Vinyl acetate	0.279	0.247	11.5	79	0.01
27	T,M	2-Butanol	0.007	0.000	100.0#	0#	-5.68#
28	T,M	tert-Butyl ethyl ether (ETB	0.650	0.533	18.0	78	0.01
29	T,M	2-Butanone	0.040	0.038	5.0	97	0.01
30	T,M	2,2-Dichloropropane	0.324	0.293	9.6	83	0.01
31	T,M	cis-1,2-Dichloroethene	0.333	0.331	0.6	96	0.01
32	C,T,M	Chloroform	0.492	0.478	2.8	94	0.01
33	T,M	Bromochloromethane	0.172	0.153	11.0	83	0.03
34	T,M	tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00
35	S	Dibromofluoromethane	0.275	0.300	-9.1	96	0.01
36	T,M	Tetrahydrofuran	0.021	0.019	9.5	81	0.03
37	T,M	1,1,1-Trichloroethane	0.435	0.398	8.5	87	0.03
38	T,M	Cyclohexane	0.707	0.000	100.0#	0#	-7.03#
39	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
40	T,M	1,1-Dichloropropene	0.170	0.169	0.6	96	0.03
41	T,M	Carbon tetrachloride	0.395	0.381	3.5	92	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	tert-Amyl methyl ether (TAM	0.107	0.097	9.3	85	0.03
43	S	1,2-Dichloroethane-d4	0.159	0.150	5.7	83	0.03
44	T,M	1,2-Dichloroethane	0.187	0.172	8.0	87	0.03
45	T,M	Benzene	1.190	1.077	9.5	88	0.03
46	T,M	Trichloroethene	0.375	0.372	0.8	105	0.03
47	T,M	Methylcyclohexane	0.727	0.000	100.0#	0#	-8.64#
48	C,T,M	1,2-Dichloropropane	0.261	0.246	5.7	92	0.03
49	T,M	Bromodichloromethane	0.302	0.303	-0.3	95	0.03
50	T,M	1,4-Dioxane	0.001	0.001	0.0	95	0.01
51	T,M	Dibromomethane	0.105	0.106	-1.0	95	0.03
52	T,M	2-Chloroethyl vinyl ether	0.057	0.008	86.0#	12#	0.03
53	T,M	4-Methyl-2-pentanone	0.098	0.087	11.2	86	0.03
54	T,M	cis-1,3-Dichloropropene	0.371	0.362	2.4	93	0.04
55	I	CHLOROBENZENE-D5	1.000	1.000	0.0	99	0.04
56	S	Toluene-d8	1.478	1.503	-1.7	96	0.03
57	C,T,M	Toluene	1.724	1.617	6.2	96	0.03
58	T,M	Ethyl methacrylate	0.210	0.187	11.0	86	0.04
59	T,M	trans-1,3-Dichloropropene	0.351	0.325	7.4	91	0.04
60	T,M	1,1,2-Trichloroethane	0.170	0.179	-5.3	104	0.04
61	T,M	2-Hexanone	0.083	0.073	12.0	92	0.04
62	T,M	1,3-Dichloropropane	0.329	0.310	5.8	93	0.04
63	T,M	Tetrachloroethene	0.371	0.388	-4.6	106	0.04
64	T,M	Dibromochloromethane	0.237	0.266	-12.2	110	0.04
65	T,M	1,2-Dibromoethane	0.166	0.170	-2.4	102	0.04
66	T,M	1-Chlorohexane	0.867	0.745	14.1	87	0.03
67	P,M	Chlorobenzene	0.963	1.008	-4.7	106	0.04
68	T,M	1,1,1,2-Tetrachloroethane	0.319	0.356	-11.6	112	0.04
69	C,T,M	Ethylbenzene	1.974	1.853	6.1	95	0.04
70	T,M	m-Xylene & p-Xylene	1.412	1.307	7.4	94	0.04
71	T,M	o-Xylene	1.324	1.279	3.4	98	0.04
72	T,M	Styrene	1.007	1.039	-3.2	103	0.04
73	T,M	Isopropylbenzene	1.833	1.883	-2.7	103	0.04
74	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	99	0.03
75	P,T,M	Bromoform	0.359	0.389	-8.4	111	0.04
76	P,T,M	1,1,2,2-Tetrachloroethane	0.528	0.533	-0.9	101	0.04
77	S	4-Bromofluorobenzene	1.246	1.185	4.9	95	0.04
78	T,M	1,2,3-Trichloropropane	0.135	0.141	-4.4	103	0.04
79	T,M	trans-1,4-Dichloro-2-butene	0.140	0.116	17.1	83	0.04
80	T,M	n-Propylbenzene	7.024	6.594	6.1	97	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	Bromobenzene	0.994	1.089	-9.6	114	0.04
82	T,M	1,3,5-Trimethylbenzene	4.302	4.186	2.7	101	0.06
83	T,M	2-Chlorotoluene	3.991	3.660	8.3	98	0.04
84	T,M	4-Chlorotoluene	3.388	3.204	5.4	99	0.06
85	T,M	tert-Butylbenzene	1.025	1.109	-8.2	113	0.04
86	T,M	1,2,4-Trimethylbenzene	4.044	3.880	4.1	100	0.06
87	T,M	sec-Butylbenzene	6.218	6.192	0.4	103	0.04
88	T,M	p-Isopropyltoluene	5.019	5.093	-1.5	104	0.04
89	T,M	1,3-Dichlorobenzene	2.010	2.164	-7.7	113	0.04
90	T,M	1,4-Dichlorobenzene	1.927	2.059	-6.9	114	0.04
91	T,M	n-Butylbenzene	4.777	4.435	7.2	95	0.04
92	T,M	1,2-Dichlorobenzene	1.538	1.684	-9.5	113	0.03
93	T,M	1,2-Dibromo-3-chloropropane	0.069	0.080	-15.9	112	0.03
94	T,M	1,2,4-Trichlorobenzene	0.945	0.987	-4.4	108	0.03
95	T,M	Hexachlorobutadiene	0.841	0.881	-4.8	107	0.03
96	T,M	Naphthalene	1.060	1.016	4.2	97	0.04
97	T,M	1,2,3-Trichlorobenzene	0.668	0.685	-2.5	105	0.04

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.07	114	1518128	10.00	ug/l	0.01
55) CHLOROBENZENE-D5	13.17	117	1131776	10.00	ug/l	0.04
74) 1,2-DICHLOROBENZENE-D4	18.38	152	384052	10.00	ug/l	0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.77	111	455839	10.94	ug/l	0.01
Spiked Amount 10.000			Recovery =	109.40%		
43) 1,2-Dichloroethane-d4	7.50	65	227498	9.45	ug/l	0.03
Spiked Amount 10.000			Recovery =	94.50%		
56) Toluene-d8	10.51	98	1701553	10.17	ug/l	0.03
Spiked Amount 10.000			Recovery =	101.70%		
77) 4-Bromofluorobenzene	15.43	95	454975	9.50	ug/l	0.04
Spiked Amount 10.000			Recovery =	95.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.97	85	566866	11.07	ug/l	99
4) Chloromethane	2.16	50	664307	8.79	ug/l	100
5) Vinyl chloride	2.30	62	699727	8.47	ug/l	99
6) Bromomethane	2.78	94	496870	8.95	ug/l	99
7) Chloroethane	2.88	64	414856	8.06	ug/l	97
8) Dichlorofluoromethane	2.91	67	930378	8.92	ug/l	99
9) Trichlorofluoromethane	3.17	101	624539	8.70	ug/l	100
11) Acrolein	3.64	56	131031	62.42	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	401095	9.81	ug/l	99
13) Acetone	3.71	43	181639	50.18	ug/l	88
14) 1,1-Dichloroethene	3.87	61	662808	8.36	ug/l	95
15) tert-Butyl alcohol	3.98	59	50126	41.51	ug/l #	69
17) Iodomethane	4.25	142	792297	9.73	ug/l	93
19) Methylene chloride	4.47	49	416997	8.35	ug/l	93
20) Carbon disulfide	4.49	76	1812340	8.51	ug/l	100
21) Acrylonitrile	4.63	53	259187	48.56	ug/l	99
22) tert-Butyl methyl ether (M	4.66	73	522287	8.52	ug/l	99
23) trans-1,2-Dichloroethene	4.85	61	557931	8.16	ug/l	92
24) Isopropyl ether (DIPE)	5.26	45	1119589	8.22	ug/l	95
25) 1,1-Dichloroethane	5.41	63	768642	9.04	ug/l	100
26) Vinyl acetate	5.41	43	375072	8.86	ug/l	99
28) tert-Butyl ethyl ether (ET	5.80	59	809793	8.21	ug/l	94
29) 2-Butanone	5.98	43	291236	48.03	ug/l	99
30) 2,2-Dichloropropane	6.17	77	444890	9.06	ug/l	97
31) cis-1,2-Dichloroethene	6.24	96	502078	9.93	ug/l	92
32) Chloroform	6.46	83	725910	9.72	ug/l	99
33) Bromochloromethane	6.69	49	232505	8.92	ug/l	80

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Tetrahydrofuran	6.74	42	28936	8.91 ug/l		98
37)	1,1,1-Trichloroethane	7.03	97	604292	9.14 ug/l		98
40)	1,1-Dichloropropene	7.26	110	256393	9.96 ug/l		100
41)	Carbon tetrachloride	7.41	119	577789	9.65 ug/l		100
42)	tert-Amyl methyl ether (TA	7.42	87	147621	9.09 ug/l		95
44)	1,2-Dichloroethane	7.63	62	261660	9.22 ug/l		100
45)	Benzene	7.66	78	1634358	9.04 ug/l		98
46)	Trichloroethene	8.58	130	564455	9.91 ug/l		92
48)	1,2-Dichloropropane	8.86	63	373544	9.44 ug/l		99
49)	Bromodichloromethane	9.22	83	459579	10.03 ug/l		99
50)	1,4-Dioxane	9.25	88	22918	198.82 ug/l		90
51)	Dibromomethane	9.31	93	160299	10.08 ug/l		94
52)	2-Chloroethyl vinyl ether	9.72	63	12317	1.41 ug/l		80
53)	4-Methyl-2-pentanone	9.76	43	658947	44.14 ug/l		94
54)	cis-1,3-Dichloropropene	10.11	75	549899	9.76 ug/l		96
57)	Toluene	10.64	91	1829612	9.38 ug/l		100
58)	Ethyl methacrylate	10.94	69	211229	8.89 ug/l		98
59)	trans-1,3-Dichloropropene	10.96	75	368249	9.27 ug/l		96
60)	1,1,2-Trichloroethane	11.22	97	202119	10.49 ug/l		97
61)	2-Hexanone	11.24	43	414941	43.97 ug/l		98
62)	1,3-Dichloropropane	11.66	76	350936	9.42 ug/l		100
63)	Tetrachloroethene	11.76	164	438779	10.45 ug/l		98
64)	Dibromochloromethane	12.13	129	300509	11.22 ug/l		98
65)	1,2-Dibromoethane	12.48	107	192781	10.28 ug/l		100
66)	1-Chlorohexane	12.77	91	843459	8.59 ug/l		95
67)	Chlorobenzene	13.24	112	1140389	10.46 ug/l		93
68)	1,1,1,2-Tetrachloroethane	13.31	131	403306	11.17 ug/l		98
69)	Ethylbenzene	13.33	91	2097289	9.39 ug/l		97
70)	m-Xylene & p-Xylene	13.47	91	2958021	18.51 ug/l		96
71)	o-Xylene	14.28	91	1447439	9.66 ug/l		96
72)	Styrene	14.35	104	1175641	10.32 ug/l		97
73)	Isopropylbenzene	14.96	105	2131570	10.27 ug/l		97
75)	Bromoform	14.98	173	149569	10.84 ug/l		99
76)	1,1,2,2-Tetrachloroethane	15.30	83	204718	10.10 ug/l		99
78)	1,2,3-Trichloropropane	15.58	110	54293	10.46 ug/l		90
79)	trans-1,4-Dichloro-2-buten	15.72	53	44698	8.32 ug/l		97
80)	n-Propylbenzene	15.72	91	2532609	9.39 ug/l		95
81)	Bromobenzene	15.80	156	418400	10.96 ug/l	#	85
82)	1,3,5-Trimethylbenzene	16.04	105	1607688	9.73 ug/l		95
83)	2-Chlorotoluene	16.06	91	1405524	9.17 ug/l		88
84)	4-Chlorotoluene	16.16	91	1230435	9.46 ug/l		96

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67L18.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration
DataAcq Meth : VO67L18

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
85)	tert-Butylbenzene	16.72	134	425928	10.82	ug/l	#	88
86)	1,2,4-Trimethylbenzene	16.80	105	1490025	9.59	ug/l		94
87)	sec-Butylbenzene	17.14	105	2378201	9.96	ug/l		97
88)	p-Isopropyltoluene	17.42	119	1956143	10.15	ug/l		97
89)	1,3-Dichlorobenzene	17.58	146	831055	10.77	ug/l		97
90)	1,4-Dichlorobenzene	17.80	146	790859	10.69	ug/l		98
91)	n-Butylbenzene	18.18	91	1703414	9.28	ug/l		98
92)	1,2-Dichlorobenzene	18.43	146	646863	10.95	ug/l		98
93)	1,2-Dibromo-3-chloropropan	19.57	157	30722	11.51	ug/l		89
94)	1,2,4-Trichlorobenzene	20.66	180	379126	10.45	ug/l		99
95)	Hexachlorobutadiene	20.84	225	338214	10.47	ug/l		99
96)	Naphthalene	21.00	128	390022	9.58	ug/l		100
97)	1,2,3-Trichlorobenzene	21.32	180	263046	10.25	ug/l		99

(#) = qualifier out of range (m) = manual integration

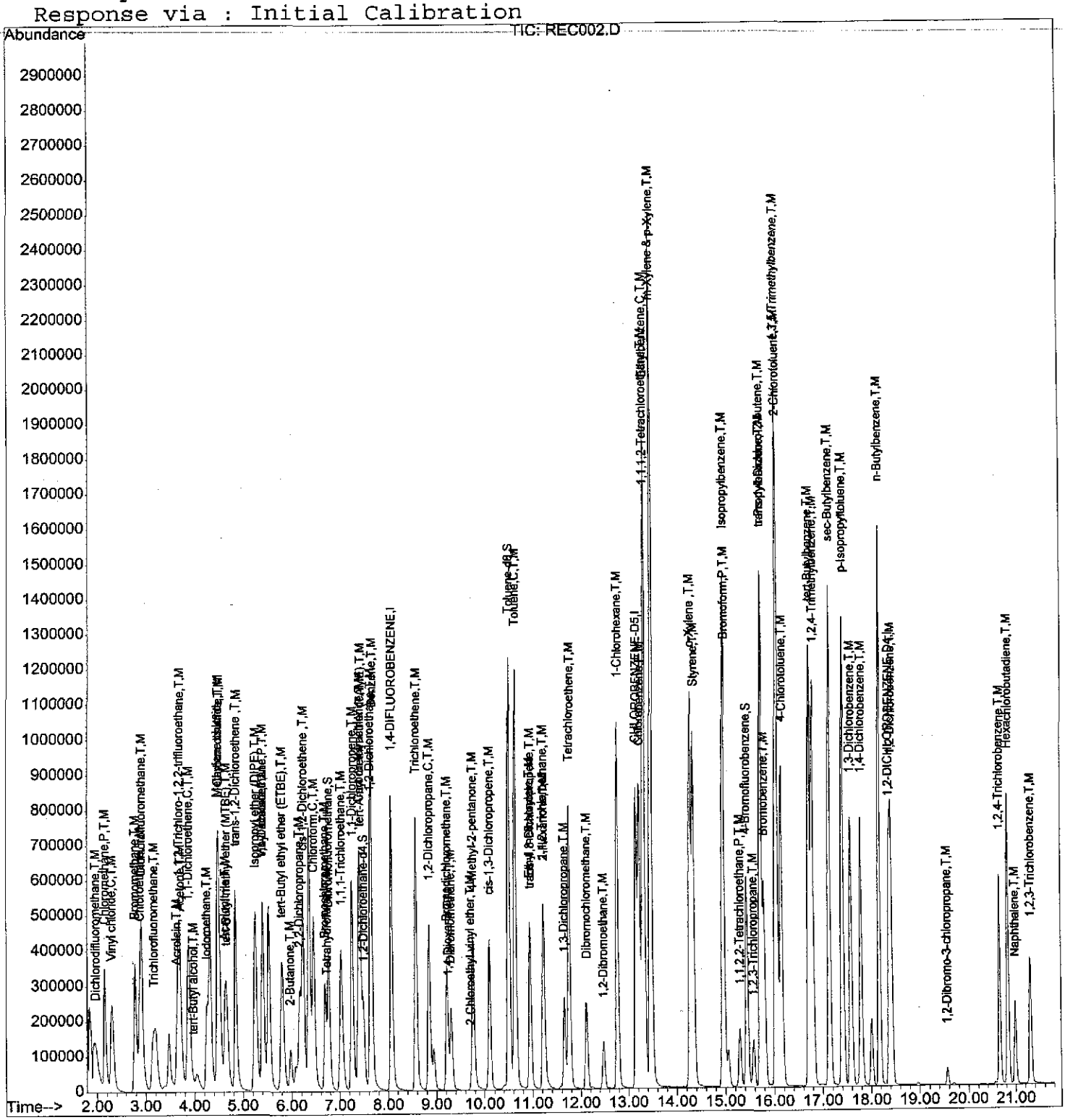
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REC002.D
Acq On : 1 May 2015 7:56 am
Sample : CVO67L1897
Misc : 10ppb8260/50ppbKET-A-AN-TBA
MS Integration Params: LSCINT1.P
Quant Time: May 1 16:24 2015

Vial: 2
Operator: SDuong
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67L18.RES

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Dec 22 18:09:36 2014
Response via : Initial Calibration



ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 12-18-14 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge

Book #: A67-056

BATCH V067L1804

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH ≤2	Matrix W Cl_2 ≤5ppm	Matrix S	Notes
01	RLC377	BFB67L14	1 L					T/CHECK 19:59
02	378	V067L1801	[illegible]					1.0ppb 8260/5ppb Ket-A-AN-TBA
03	379	02	[illegible]					1 / 10
04	380	03	2.5/2.5/.5/.5/.5					5 / 25
05	381	04	5/5/1/1/1					10 / 50
06	382	05	10/10/2/2/2					20 / 100
07	383	06	15/15/3/3/3					30 / 150
08	384	07	25/25/5/5/5					50 / 250
09	385	08	50/50/10/10/10					100 / 500
10	386	rinse	25mls	1.0				
11	387	↓	↓	↓				
12	388	V067L14B	↓	↓				MB
13	389	V067L1809	1.5/1.5/.03/.03/.03					0.3 / 1.5
14	390	10	2.5/2.5/.05/.05/.05					0.5 / 2.5
15	391	IV067L1801 *	5/5/1/1/5/1.25					
16	392	rinse	25mls	1.0				
17	393	LOD	.1/.1/.02/.02/.02					0.2ppb / 1.0ppb
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								AS 12-19-14

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12-18-14
ICAL ID	V067L18

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/l)
DCC 8260	SV1-23-34-3	Varies	50/250
DCC Ket-A-AN	-24-02-2	↓	250
DCC Gas	-01-2	↓	250
DCC CS2 4 Add'l	-03-3 -23-38-1	↓	250 250
BFB	-02-3	1	50
IS/SURR. IS SS	-24-04-2 -04-3	1 Varies	250 250
ICV/LCS 8260	-23-41-2	5	50/250
ICV/LCS Ket A-AN	-43-1	5	250
ICV/LCS [illegible] CS2	-24-01-1 -23-40-3	1 1	250 250
ICV/LCS 3 Add'l 2 Butanol	-22-49-1 SV1-12-45-2	5 1.25	50 1K
Data File Folder	14L18		

	LOT #	Syringe Lot #	
pH strip	—	MSV-01-0404-1	497283-02
Chlorine strip	—	-05-1	-03 -04
Methanol	—	M04-A3652	M06-#2887-02 -01
$NaHSO_4$	—		-03 -04
Reagent Water	RW3-14-001		-05 -06
Sand	—		-07

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments: * ESTD Spike low ouple high (inversely)

Analyzed By: AS

Date Disposed: 12-19-14 Disposed By: AS

2121

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 12-19-14 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge

Book #: A67-056

BATCH CV067L1801

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W O_2 <5ppm	Matrix S	Notes
01	RLC394	BFB67L15-	1 µl					T/CHECK 11:33
02	395	STD TEST	5/5/1/1/5/1.25 µl					3 add'l amped Needle plugged.
03	396	IV067L1802-	5/5/1/1/5/1.25 µl					
04	397	CV067L1801-	5/5/1/1 µl					
05	398	V067L15L	5/5/1/1 µl					
06	399	↓ C	5/5/1/1 µl					
07	400	rinse ~~V067L15B~~	25 mls	1.0				
08	401	V067L15X -	5/5/1/1 µl					
09	402	rinse	25 mls	1.0				
10	403	V067L15B	↓					MB [illegible]
11	404	14L097-12I	5 mls	5K	<2	<5		Too Dilute
12	405	↓ -07I	↓	↓	-	-		↓
13	406	rinse	25 mls	1.0				
14	407	↓	↓	↓				
15	408	V067L15Q -	↓	↓				MB
16	409	14L097-06I	5 µls	5K	<2	<5		
17	410	-05I	↓	↓	-	-		
18	411	-16	25 mls	1.0	-	-		
19	412	-15	↓	↓	-	-		
20	413	-14			-	-		
21	414	-11			-	-		22:59
22	415	-10			-	-		out of 12 hrs 23:35 (2 min out)
23								
24								
25								
26								
27								
28								
29								
30								AS 12-22-14

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12-18-14
ICAL ID	V067L18

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC 8260	SV1-23-34-3	5	50/250
DCC Ket Apex	-24-02-2	5	250
DCC gases	-01-2	1	250
DCC CS_2	-03-3	1	250
BFB	23-02-3	1	50
IS/SURR.	-40-2	1	250
ICV/LCS 8260	-41-2	5	50/250
ICV/LCS Ket Apex	-43-1	5	250
ICV/LCS gases CS_2	-24-01-1 -23-40-3	1 1	250 250
ICV/LCS 3 Add'l 2-Butanone	SV1-22-49-1 SV1-12-45-2	5 1.25	50 1K
Data File Folder	14L19		

	LOT #	Syringe Lot #	
pH strip	HC412469	MAV01-001-044	497283-05
Chlorine strip	42423	↓ -05	MG-F28487-02
Methanol	—		↓ -03
$NaHSO_4$	—		497283-04
Reagent Water	RW3-14-001		-05
Sand	—		↓ -06 -07

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: AS

Date Disposed: 12-22-14 Disposed By: AS

2122

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 5/1/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A67-057

BATCH CV067L1897 sd 5/4/15

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 ≤5ppm	Matrix S	Notes
01	REC001	BFB67E01	0.2mL					7:19am
02	002	CV067L1897	5/5/1/1mL					
03	003	V067E01L						
04	004	C						
05	005	RINSE						
06	006	V067E01B	25mL					
07	007	15D153-12		1.0	✓	✓		
08	008	15D142-01			✓	✓		
09	009	-02			✓	✓		
10	010	-04			✓	✓		
11	011	-05			✓	✓		
12	012	-06			✓	✓		
13	013	-07			✓	✓		
14	014	-08			✓	✓		
15	015	-09			✓	✓		
16	016	~~15D142-03~~ sd 5/4/15 15D153-15			✓	✓		
17	017	15D142-03			✓	✓		
18	018	-03M			✓	✓		
19	019	-03S			✓	✓		
20	020	15D153-12M			✓	✓		
21	021	-12S			✓	✓		6:57pm
22	022	RINSE						
23								
24								
25								
26								
27								
28								
29								
30								sd 5/4/15

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12/18/14
ICAL ID	V067L18

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
OCC	SV1-24-38-01	5	250
DCC	-24-02	5	50/250
DCC	-37-03	1	250
DCC	-22-03	1	250
BFB	-16-03	0.2	250
IS/SURR.	-26-03	1	250
ICV/LCS	-35-01	5	250
ICV/LCS	-40-01	5	50/250
ICV/LCS	-36-02	1	250
ICV/LCS	-23-03	1	250
Data File Folder	15E01		

	LOT #	Syringe Lot #
pH strip	HC413032	MSV-01-01-06-01
Chlorine strip	42422	MSV-01-02-22-1
Methanol		497283-11
$NaHSO_4$		
Reagent Water	RW4-14-007	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: sd

Date Disposed: 5/4/15 Disposed By: sd

2123

Injection Log

Directory: D:\HPCHEM\1\DATA\15E01

Line	Vial	FileName	Multiplier	SampleName		Misc Info	Injected
1	1	REC001.D	1.	BFB67E01		T/CHECK	1 May 2015 07:19
2	2	REC002.D	1.	CVO67L1897		10ppb8260/50ppbKET-A-AN-TBA	1 May 2015 07:56
3	3	REC003.D	1.	VO67E01L		10ppb8260/50ppbKET-A-AN-TBA	1 May 2015 08:38
4	4	REC004.D	1.	VO67E01C		10ppb8260/50ppbKET-A-AN-TBA	1 May 2015 09:12
5	5	REC005.D	1.	RINSE		BLANK	1 May 2015 09:46
6	6	REC006.D	1.	VO67E01B		BLANK	1 May 2015 10:19
7	7	REC007.D	1.	15D153-12	25mL	DF=1.0	1 May 2015 10:50
8	8	REC008.D	1.	15D142-01	25mL	DF=1.0	1 May 2015 11:24
9	9	REC009.D	1.	15D142-02	25mL	DF=1.0	1 May 2015 12:00
10	10	REC010.D	1.	15D142-04	25mL	DF=1.0	1 May 2015 12:34
11	11	REC011.D	1.	15D142-05	25mL	DF=1.0	1 May 2015 13:13
12	12	REC012.D	1.	15D142-06	25mL	DF=1.0	1 May 2015 13:48
13	13	REC013.D	1.	15D142-07	25mL	DF=1.0	1 May 2015 14:22
14	14	REC014.D	1.	15D142-08	25mL	DF=1.0	1 May 2015 14:56
15	15	REC015.D	1.	15D142-09	25mL	DF=1.0	1 May 2015 15:30
16	16	REC016.D	1.	15D153-15	25mL	DF=1.0	1 May 2015 16:05
17	17	REC017.D	1.	15D142-03	25mL	DF=1.0	1 May 2015 16:40
18	18	REC018.D	1.	15D142-03M	25mL	DF=1.0	1 May 2015 17:17
19	19	REC019.D	1.	15D142-03S	25mL	DF=1.0	1 May 2015 17:50
20	20	REC020.D	1.	15D153-12M	25mL	DF=1.0	1 May 2015 18:24
21	21	REC021.D	1.	15D153-12S	25mL	DF=1.0	1 May 2015 18:57
22	1	REC022.D	1.	RINSE			1 May 2015 19:31
23	1	REC023.D	1.	BFB67E02		T/CHECK	1 May 2015 20:41
24	2	REC024.D	1.	CVO67L1898		10ppb8260/50ppbKET-A-AN-TBA	1 May 2015 21:17
25	3	REC025.D	1.	VO67E02L		10ppb8260/50ppbKET-A-AN-TBA	1 May 2015 21:53
26	4	REC026.D	1.	VO67E02C		10ppb8260/50ppbKET-A-AN-TBA	1 May 2015 22:30
27	5	REC027.D	1.	RINSE		BLANK	1 May 2015 23:06
28	6	REC028.D	1.	VO67E02B		BLANK	1 May 2015 23:43
29	7	REC029.D	1.	15D176-01	25mL	DF=1.0	2 May 2015 00:16
30	8	REC030.D	1.	15D176-02	25mL	DF=1.0	2 May 2015 00:50
31	9	REC031.D	1.	15D176-03	25mL	DF=1.0	2 May 2015 01:26
32	10	REC032.D	1.	15D176-04	25mL	DF=1.0	2 May 2015 01:58
33	11	REC033.D	1.	15D176-05	25mL	DF=1.0	2 May 2015 02:32
34	12	REC034.D	1.	15D176-06	25mL	DF=1.0	2 May 2015 03:08
35	13	REC035.D	1.	15D176-07	25mL	DF=1.0	2 May 2015 03:40
36	14	REC036.D	1.	15D176-08	25mL	DF=1.0	2 May 2015 04:15
37	15	REC037.D	1.	15D176-09	25mL	DF=1.0	2 May 2015 04:48
38	16	REC038.D	1.	15D176-10	25mL	DF=1.0	2 May 2015 05:21
39	17	REC039.D	1.	15D176-11	25mL	DF=1.0	2 May 2015 05:56
40	18	REC040.D	1.	15D162-01	25mL	DF=1.0	2 May 2015 06:29
41	19	REC041.D	1.	15D162-03	25mL	DF=1.0	2 May 2015 07:02
42	20	REC042.D	1.	15D162-02	25mL	DF=1.0	2 May 2015 07:37
43	21	REC043.D	1.	15D162-02I	2.5mL	DF=10	2 May 2015 08:09
44	22	REC044.D	1.	RINSE		RT1	2 May 2015 08:43
45	23	REC045.D	1.	RINSE		RT2	2 May 2015 09:19
46	24	REC046.D	1.	RINSE		RT3	2 May 2015 09:53

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

SDG#: 15D142

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

A total of six (6) water samples were received on 04/22/15 to be analyzed for Volatile Organics by GC/MS SIM in accordance with Method 5030B/8260B SIM and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. V001D22Q - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. V001D22L/V001D22C - all analytes were within LCS QC limits. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed and the following was noted: D142-03M/S - Percent recovery for 1,2,3-Trichloropropane(2X) was not within MSD QC limits. The enclosed value(#X) is the ratio of parent sample result and spike amount. Presence of matrix interference was suspected. The rest of the analytes were in control. Refer to Matrix QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met with the exception of those that were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC. SDG NO. : 15D142
Project : B & B GROUNDWATER SAMPLING Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001D22Q	1	NA	04/24/1513:15	04/24/1513:15	RDV492	RAV178	V001D22	Method Blank
LCS1W	V001D22L	1	NA	04/24/1511:42	04/24/1511:42	RDV489	RAV178	V001D22	Lab Control Sample (LCS)
LCD1W	V001D22C	1	NA	04/24/1512:07	04/24/1512:07	RDV490	RAV178	V001D22	LCS Duplicate
04-21-15-AMW-3RMS	D142-03M	1	NA	04/24/1514:56	04/24/1514:56	RDV496	RAV178	V001D22	Matrix Spike Sample (MS)
04-21-15-AMW-3RMSD	D142-03S	1	NA	04/24/1515:20	04/24/1515:20	RDV497	RAV178	V001D22	MS Duplicate (MSD)
04-21-15-BBW-3	D142-01	1	NA	04/24/1515:45	04/24/1515:45	RDV498	RAV178	V001D22	Field Sample
04-21-15-FDUP-3	D142-02	1	NA	04/24/1516:10	04/24/1516:10	RDV499	RAV178	V001D22	Field Sample
04-22-15-AR-1	D142-05	1	NA	04/24/1516:35	04/24/1516:35	RDV500	RAV178	V001D22	Field Sample
04-22-15-PWB-1	D142-07	1	NA	04/24/1517:00	04/24/1517:00	RDV501	RAV178	V001D22	Field Sample
04-21-15-AMW-3R	D142-03	1	NA	04/24/1517:25	04/24/1517:25	RDV502	RAV178	V001D22	Field Sample
04-22-15-PWB-13A	D142-09	1	NA	04/24/1519:55	04/24/1519:55	RDV508	RAV178	V001D22	Field Sample
04-22-15-PWB-13ADL	D142-09I	25	NA	04/24/1520:20	04/24/1520:20	RDV509	RAV178	V001D22	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 15:45
Sample ID: 04-21-15-BBW-3	Date Analyzed: 04/24/15 15:45
Lab Samp ID: D142-01	Dilution Factor: 1
Lab File ID: RDV498	Matrix : WATER
Ext Btch ID: VOO1D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.0075	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	*ND*	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.105	0.1000	105	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 16:10
Sample ID: 04-21-15-FDUP-3	Date Analyzed: 04/24/15 16:10
Lab Samp ID: D142-02	Dilution Factor: 1
Lab File ID: RDV499	Matrix : WATER
Ext Btch ID: VOO1D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.0060	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.107	0.1000	107	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 17:25
Sample ID: 04-21-15-AMW-3R	Date Analyzed: 04/24/15 17:25
Lab Samp ID: D142-03	Dilution Factor: 1
Lab File ID: RDV502	Matrix : WATER
Ext Btch ID: VOO1D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.24	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0975	0.1000	97.5	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 16:35
Sample ID: 04-22-15-AR-1	Date Analyzed: 04/24/15 16:35
Lab Samp ID: D142-05	Dilution Factor: 1
Lab File ID: RDV500	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.068	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.104	0.1000	104	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 17:00
Sample ID: 04-22-15-PWB-1	Date Analyzed: 04/24/15 17:00
Lab Samp ID: D142-07	Dilution Factor: 1
Lab File ID: RDV501	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.11	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.105	0.1000	105	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV501.D
Acq On : 24 Apr 2015 5:00 pm
Sample : 15D142-07 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 13:16 2015

Vial: 15
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5112	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48345	104.64	ng/l	0.00
Spiked Amount 100.000			Recovery = 104.64%			
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	11.02	75	6263	114.71	ng/l	93

(#) = qualifier out of range (m) = manual integration

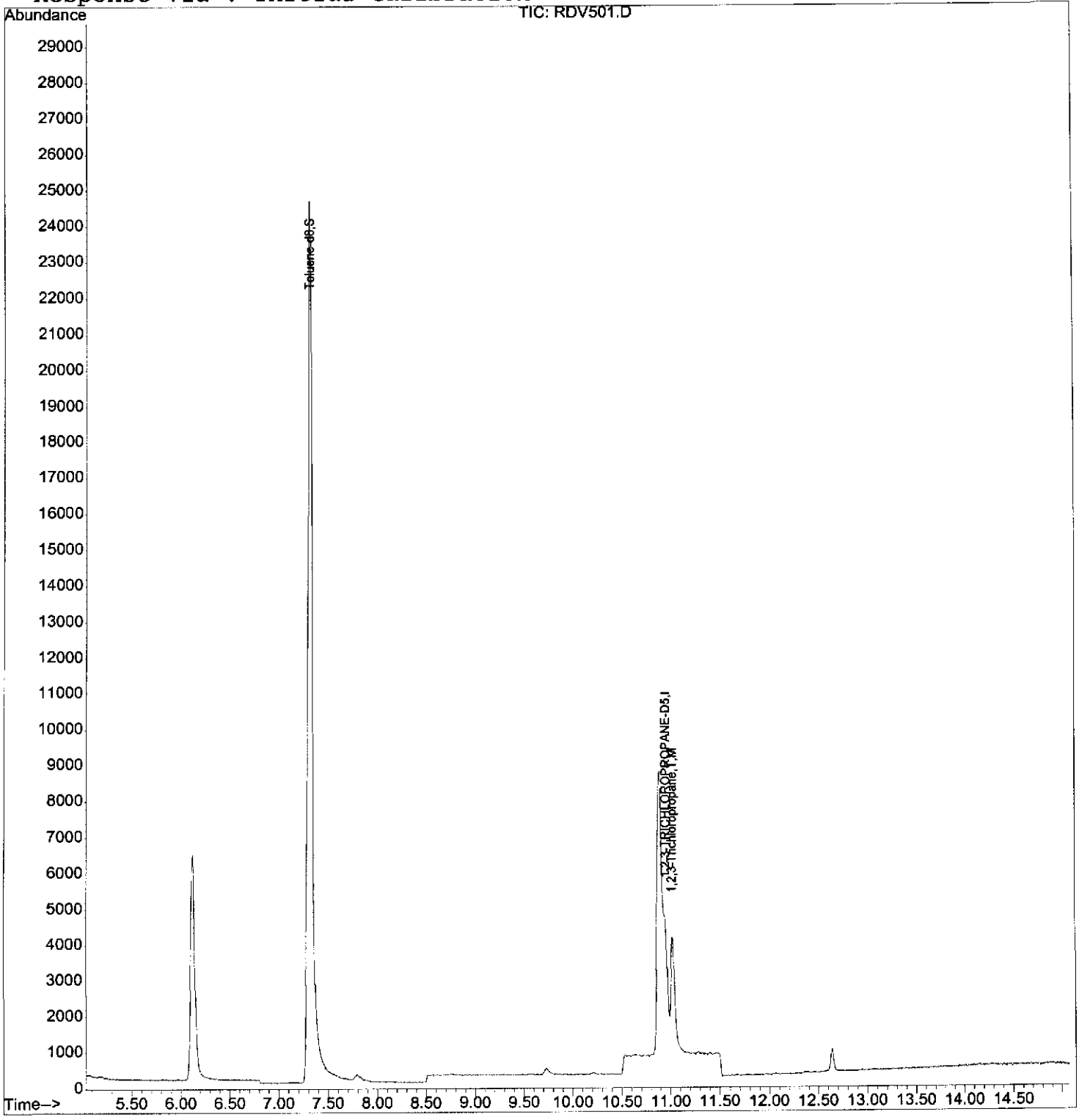
Quantitation Report

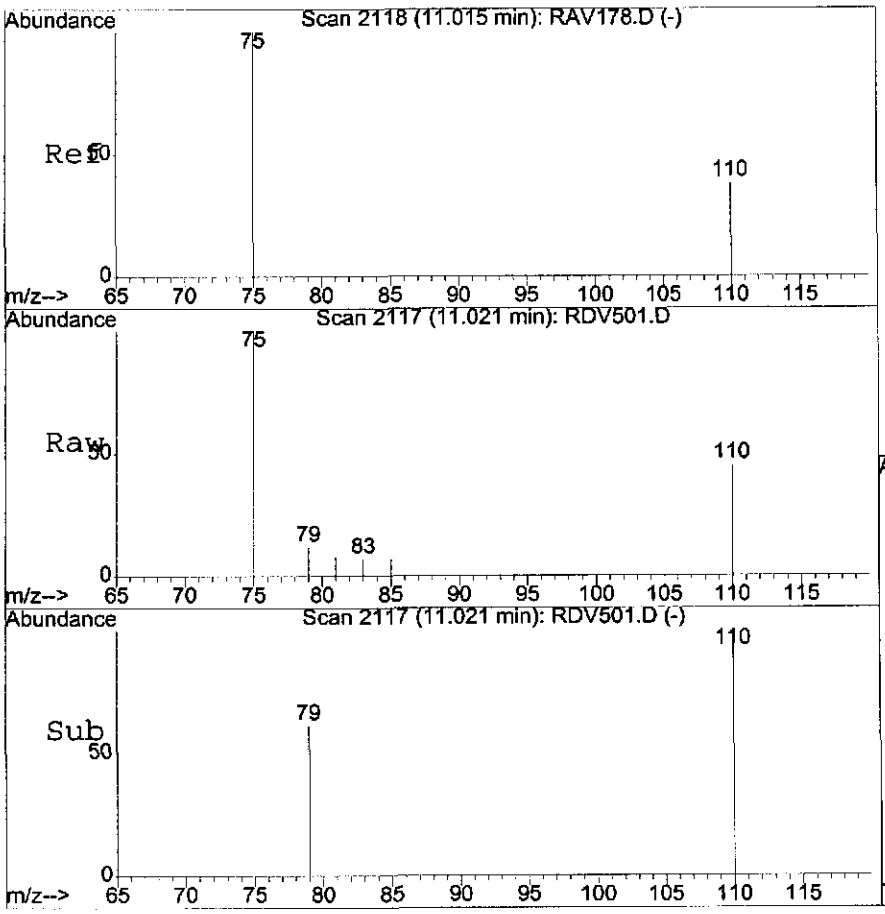
Data File : D:\HPCHEM\1\DATA\15D24\RDV501.D
Acq On : 24 Apr 2015 5:00 pm
Sample : 15D142-07 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 13:16 2015

Vial: 15
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

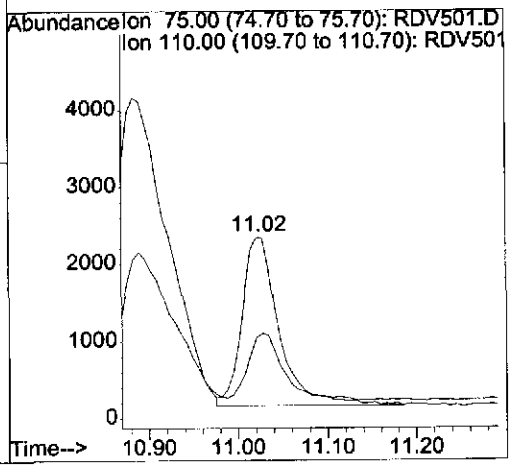




#6
1,2,3-Trichloropropane
Concen: 114.71 ng/l
RT: 11.02 min Scan# 2117
Delta R.T. 0.01 min
Lab File: RDV501.D
Acq: 24 Apr 2015 5:00 pm

Tgt Ion: 75 Resp: 6263

Ion	Ratio	Lower	Upper
75	100		
110	36.9	11.6	71.6



METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 19:55 # 04/24/15 20:20
Sample ID: 04-22-15-PWB-13A	Date Analyzed: 04/24/15 19:55 # 04/24/15 20:20
Lab Samp ID: D142-09 #D142-09I	Dilution Factor: 1 # 25
Lab File ID: RDV508 #RDV509	Matrix : WATER
Ext Btch ID: VOO1D22 #VOO1D22	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	9.4	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	0.81	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0929	0.1000	92.9	80-120
# TOLUENE-D8	2.46	2.500	98.3	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 19:55
Sample ID: 04-22-15-PWB-13A	Date Analyzed: 04/24/15 19:55
Lab Samp ID: D142-09	Dilution Factor: 1
Lab File ID: RDV508	Matrix : WATER
Ext Btch ID: V001D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	9.6E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.81	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0929	0.1000	92.9	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 20:20
Sample ID: 04-22-15-PWB-13ADL	Date Analyzed: 04/24/15 20:20
Lab Samp ID: D142-09I	Dilution Factor: 25
Lab File ID: RDV509	Matrix : WATER
Ext Btch ID: VOO1D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	9.4	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	0.73J	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.46	2.500	98.3	80-120

QC SUMMARIES

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/24/15
Batch No. : 15D142	Date Extracted: 04/24/15 13:15
Sample ID: MBLK1W	Date Analyzed: 04/24/15 13:15
Lab Samp ID: VO01D22Q	Dilution Factor: 1
Lab File ID: RDV492	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.112	0.1000	112	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001D22Q	V001D22L	V001022C		
LAB FILE ID:	RDV492	RDV489	RDV490		
DATE EXTRACTED:	04/24/1513:15	04/24/1511:42	04/24/1512:07	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/1513:15	04/24/1511:42	04/24/1512:07	DATE RECEIVED:	04/24/15
PREP. BATCH:	V001D22	V001D22	V001D22		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	ND	0.100	0.0985	98	0.100	0.100	100	2	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0817	82	0.100	0.0847	85	4	50-130	30
1,2-Dibromoethane	ND	0.100	0.104	104	0.100	0.102	102	2	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.108	108	0.100	0.0946	95	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-21-15-AMW-3R				
LAB SAMP ID:	D142-03	D142-03M	D142-03S		
LAB FILE ID:	RDV502	RDV496	RDV497		
DATE EXTRACTED:	04/24/1517:25	04/24/1514:56	04/24/1515:20	DATE COLLECTED:	04/21/15
DATE ANALYZED:	04/24/1517:25	04/24/1514:56	04/24/1515:20	DATE RECEIVED:	04/22/15
PREP. BATCH:	V001D22	V001D22	V001D22		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	0.240	0.100	0.339	100	0.100	0.368	128*	8	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0794	79	0.100	0.0872	87	9	50-130	30
1,2-Dibromoethane	ND	0.100	0.100	100	0.100	0.108	108	7	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.104	104	0.100	0.104	104	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV492.D Vial: 6
Acq On : 24 Apr 2015 1:15 pm Operator: WLau
Sample : VO01D22Q 25mL Inst : TO01
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 28 12:24 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4768	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48117	111.66	ng/l	0.00
Spiked Amount 100.000			Recovery =	111.66%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

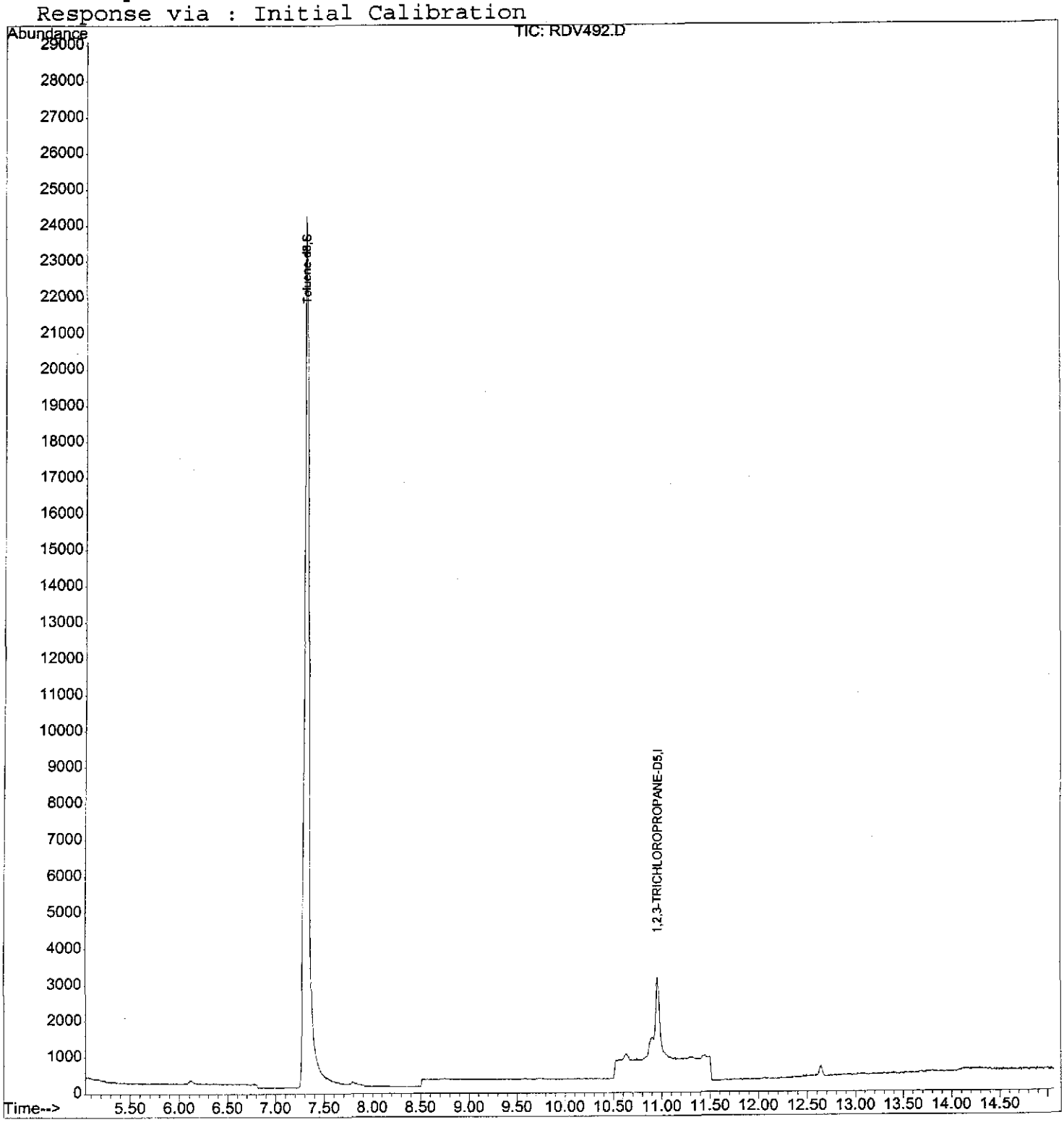
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV492.D
Acq On : 24 Apr 2015 1:15 pm
Sample : VO01D22Q 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 12:24 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV489.D
Acq On : 24 Apr 2015 11:42 am
Sample : VO01D22L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 11:57 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4693	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45762	107.89	ng/l	0.00
Spiked Amount 100.000			Recovery =	107.89%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	10721	105.98	ng/l	98
4) 1,2-Dibromoethane	8.75	107	6641	103.98	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.96	83	7479	102.51	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	4936	98.48	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.07	157	723	81.73	ng/l	91

(#) = qualifier out of range (m) = manual integration

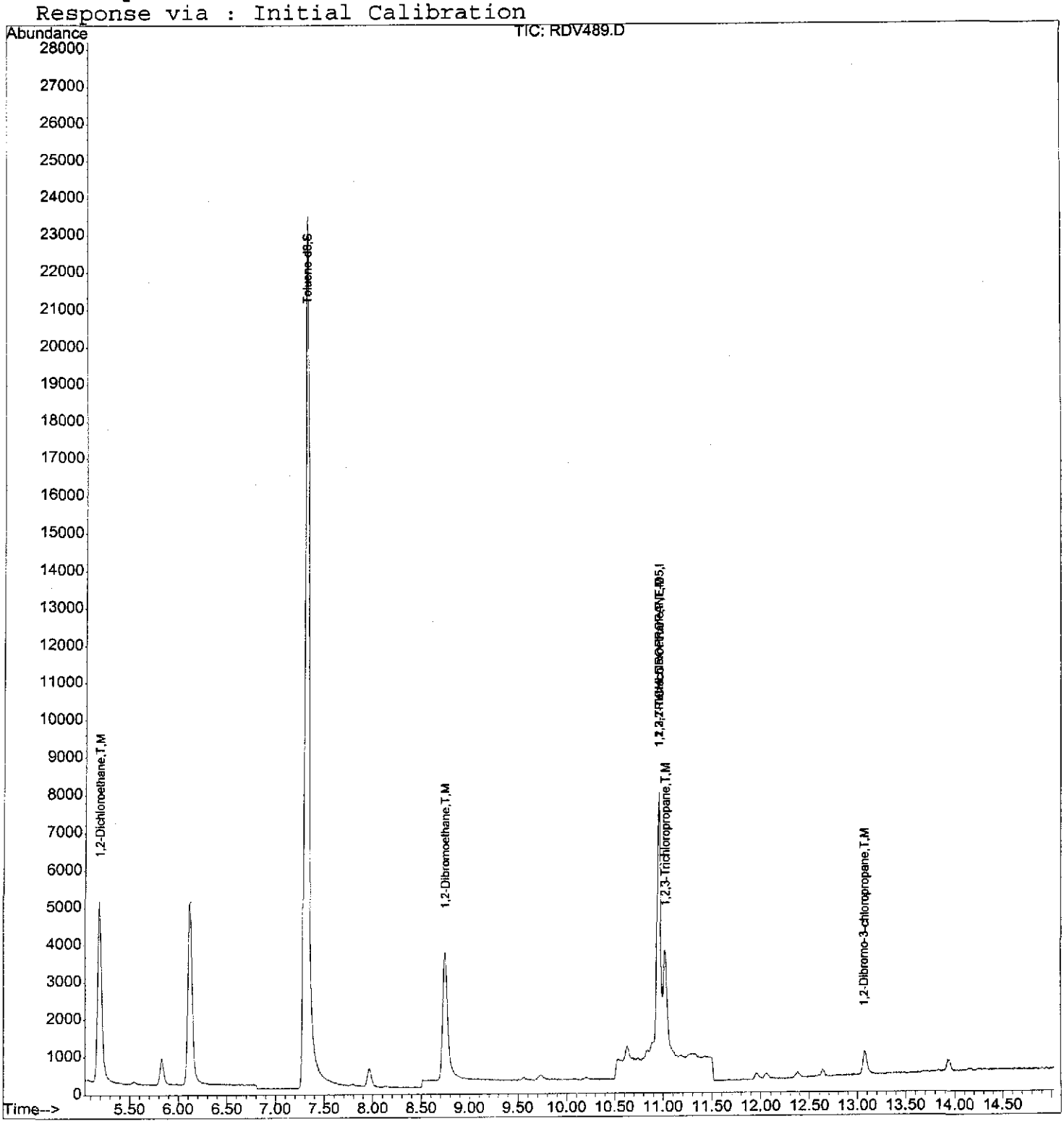
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV489.D
Acq On : 24 Apr 2015 11:42 am
Sample : VO01D22L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 11:57 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV490.D
Acq On : 24 Apr 2015 12:07 pm
Sample : VO01D22C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 12:22 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5304	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45360	94.62	ng/l	0.00
Spiked Amount 100.000			Recovery = 94.62%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	11460	100.23	ng/l	99
4) 1,2-Dibromoethane	8.74	107	7333	101.59	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	8475	102.78	ng/l	96
6) 1,2,3-Trichloropropane	11.02	75	5686	100.37	ng/l	91
7) 1,2-Dibromo-3-chloropropan	13.08	157	847	84.72	ng/l	83

(#) = qualifier out of range (m) = manual integration

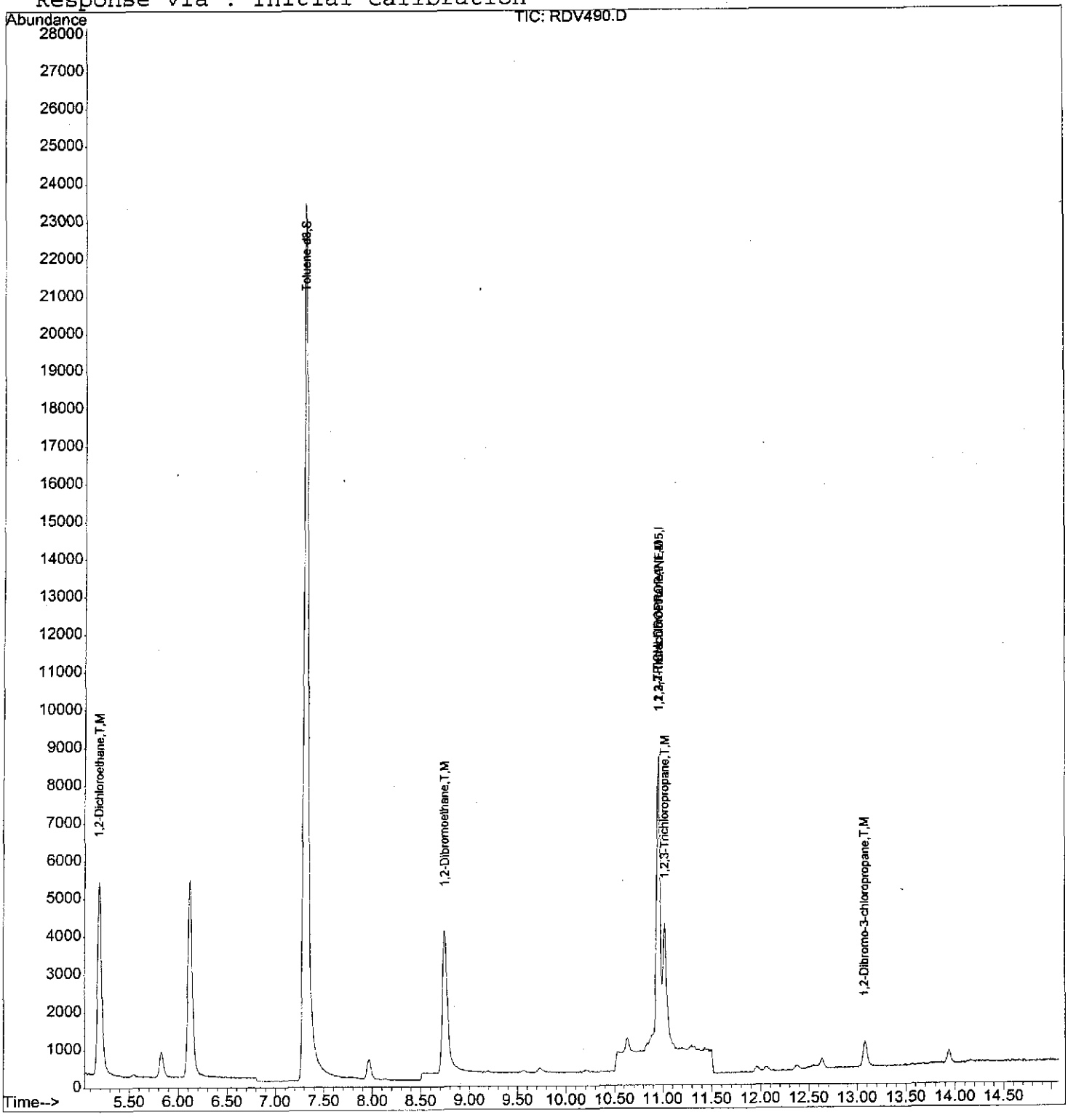
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV490.D
Acq On : 24 Apr 2015 12:07 pm
Sample : VO01D22C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 12:22 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV502.D
Acq On : 24 Apr 2015 5:25 pm
Sample : 15D142-03 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 13:17 2015

Vial: 16
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5373	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	47368	97.54	ng/l	0.00
Spiked Amount 100.000			Recovery = 97.54%			
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	11.02	75	13745	239.52	ng/l	95

(#) = qualifier out of range (m) = manual integration

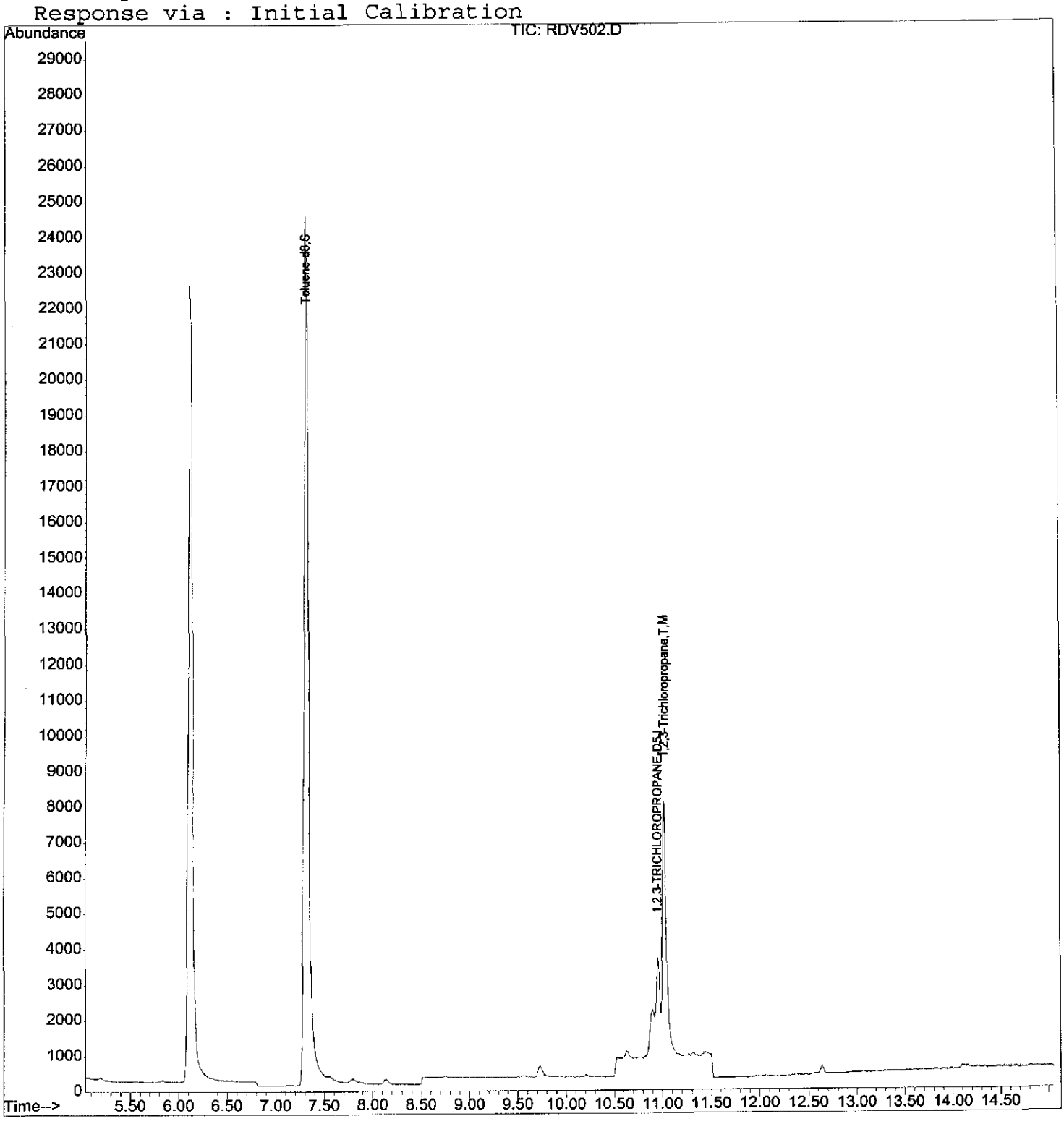
Quantitation Report

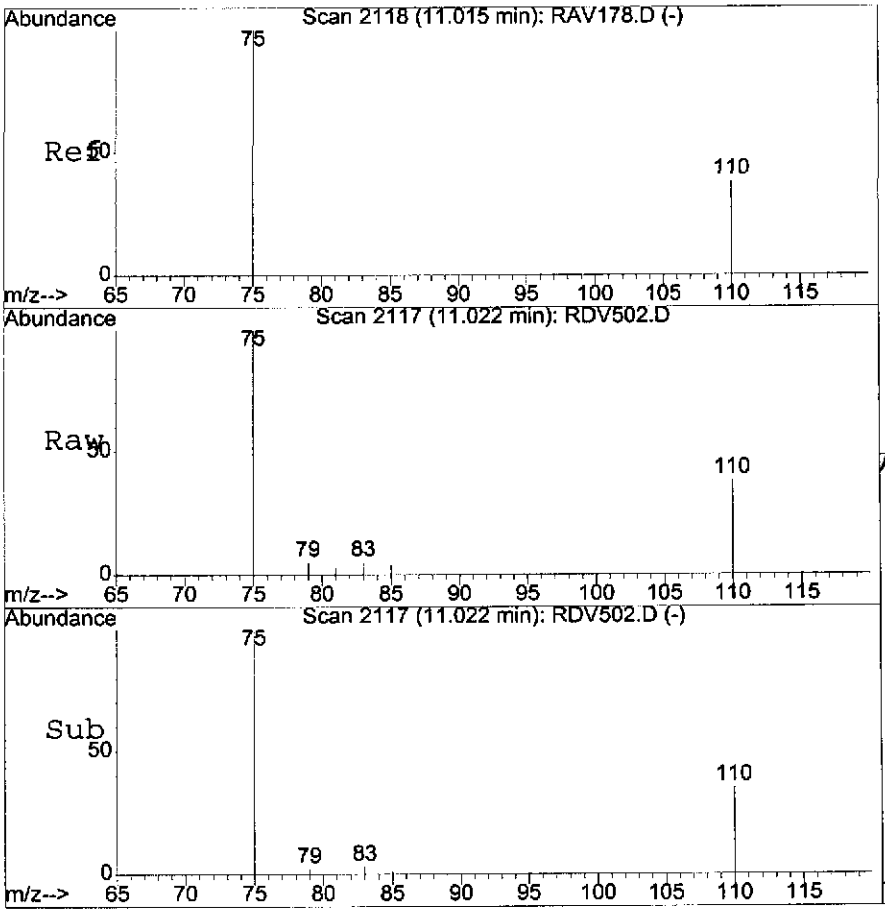
Data File : D:\HPCHEM\1\DATA\15D24\RDV502.D
Acq On : 24 Apr 2015 5:25 pm
Sample : 15D142-03 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 13:17 2015

Vial: 16
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

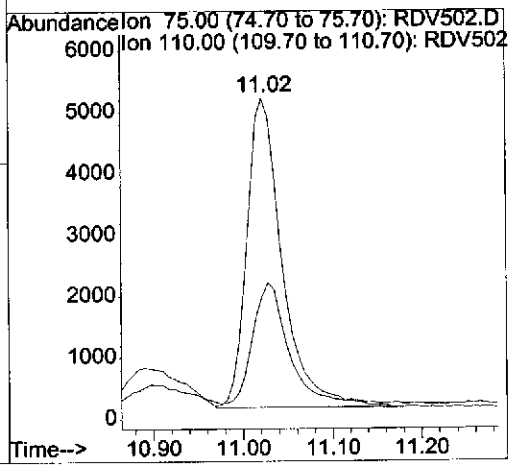




#6
1,2,3-Trichloropropane
Concen: 239.52 ng/l
RT: 11.02 min Scan# 2117
Delta R.T. 0.01 min
Lab File: RDV502.D
Acq: 24 Apr 2015 5:25 pm

Tgt Ion: 75 Resp: 13745

Ion	Ratio	Lower	Upper
75	100		
110	38.7	11.6	71.6



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV496.D
Acq On : 24 Apr 2015 2:56 pm
Sample : 15D142-03M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:34 2015

Vial: 10
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5398	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	50658	103.83	ng/l	0.00
Spiked Amount 100.000			Recovery =	103.83%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12264	105.40	ng/l	99
4) 1,2-Dibromoethane	8.74	107	7356	100.13	ng/l	95
5) 1,1,2,2-Tetrachloroethane	10.95	83	7851	93.56	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	19559	339.26	ng/l	99
7) 1,2-Dibromo-3-chloropropan	13.09	157	808	79.41	ng/l	91

(#) = qualifier out of range (m) = manual integration

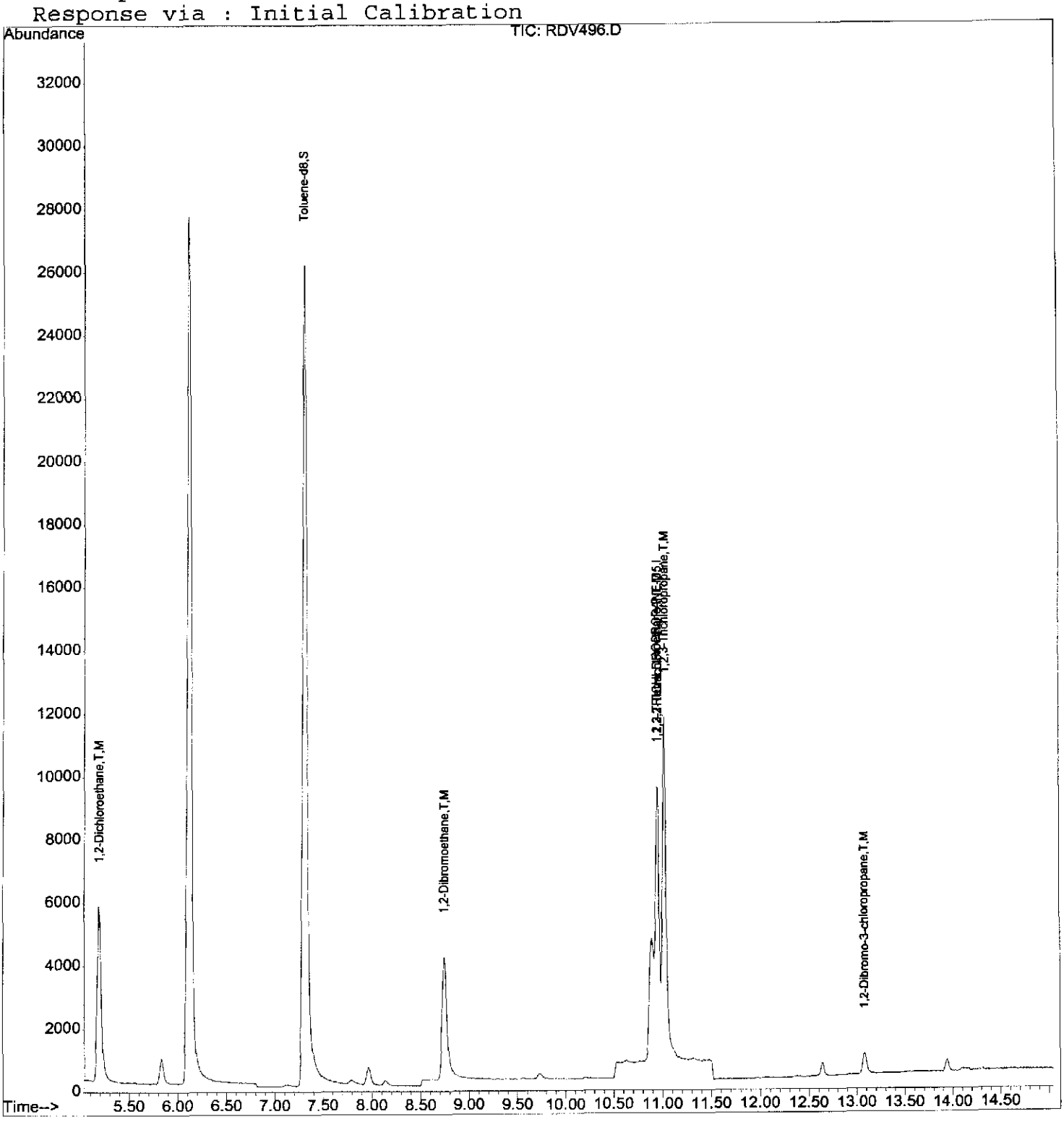
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV496.D
Acq On : 24 Apr 2015 2:56 pm
Sample : 15D142-03M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:34 2015

Vial: 10
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV497.D
Acq On : 24 Apr 2015 3:20 pm
Sample : 15D142-03S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:34 2015

Vial: 11
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5290	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	49868	104.30	ng/l	0.00
Spiked Amount 100.000			Recovery = 104.30%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12386	108.62	ng/l	98
4) 1,2-Dibromoethane	8.75	107	7769	107.91	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.96	83	8297	100.89	ng/l	95
6) 1,2,3-Trichloropropane	11.02	75	20785	367.89	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.08	157	870	87.25	ng/l	88

(#) = qualifier out of range (m) = manual integration

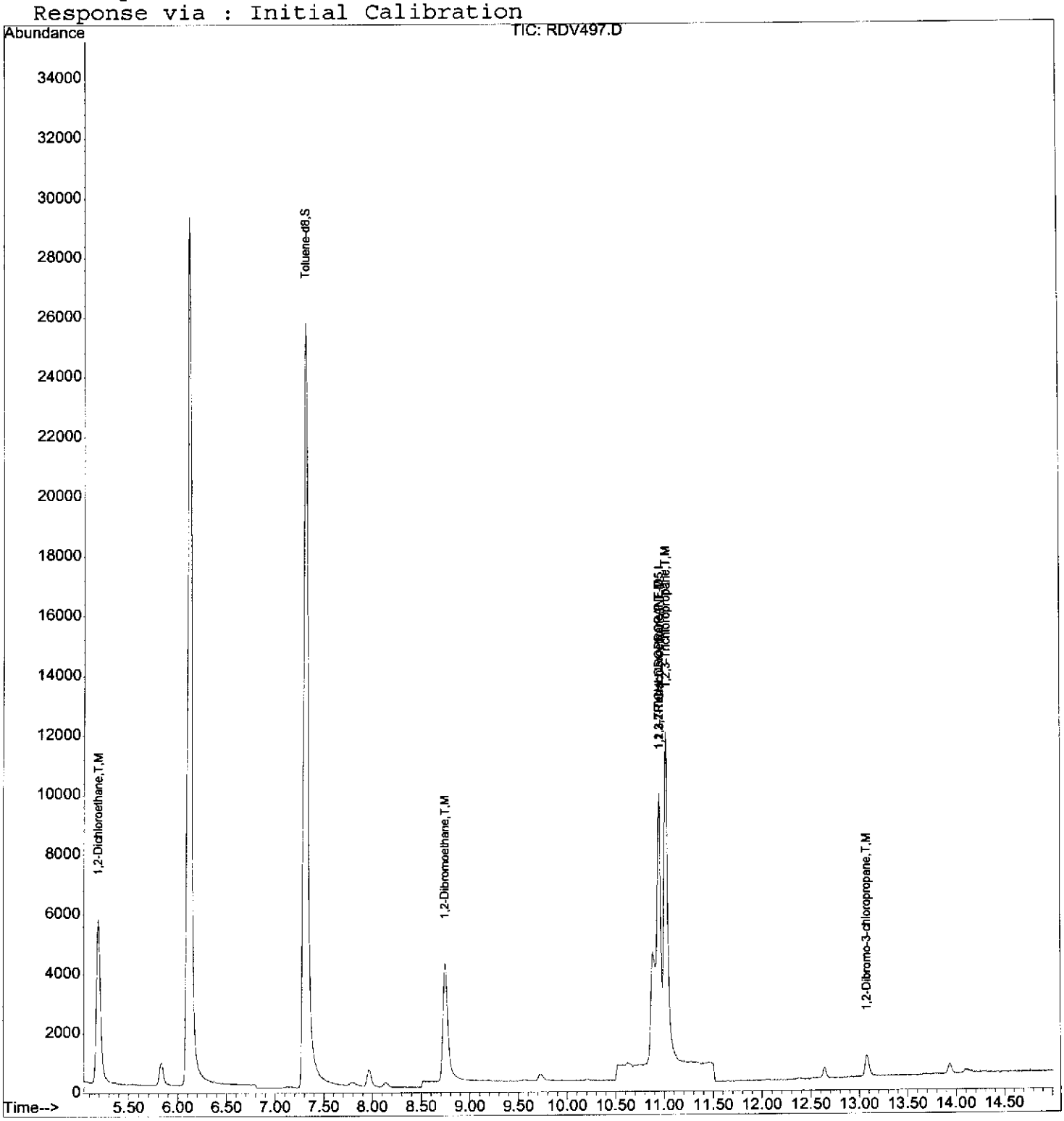
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV497.D
Acq On : 24 Apr 2015 3:20 pm
Sample : 15D142-03S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:34 2015

Vial: 11
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING

Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D142

Lab File ID: RAV173 BFB Injection Date : 01/13/15

Instrument ID: TO01 BFB Injection Time : 09:57

GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.28
75	30.0 - 60.0% of mass 95	42.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.05
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.80
175	5.0 - 9.0% of mass 174	6.26(7.0)1
176	95.0 - 101.0% of mass 174	86.06(95.8)1
177	5.0 - 9.0% of mass 176	5.52(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD05	VO01A131	RAV174	01/13/15	10:27
2	VSTD010	VO01A132	RAV175	01/13/15	10:51
3	VSTD020	VO01A133	RAV176	01/13/15	11:15
4	VSTD050	VO01A134	RAV177	01/13/15	11:39
5	VSTD100	VO01A135	RAV178	01/13/15	12:03
6	VSTD200	VO01A136	RAV179	01/13/15	12:27
7	VSTD400	VO01A137	RAV180	01/13/15	12:51
8	VSTD1000	VO01A138	RAV181	01/13/15	13:15
9	VSTD2000	VO01A139	RAV182	01/13/15	13:39
10	VSTD100	IVO01A1301	RAV184	01/13/15	14:26

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TOO1
Beginning DateTime :01/13/15 10:27
Spike Units :PPT
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
Ending DateTime :01/13/15 13:39
HPChem Method :V001A13

M	IDX	Parameters	5 10:27 RAV174	10 10:51 RAV175	20 11:15 RAV176	50 11:39 RAV177	100 12:03 RAV178	200 12:27 RAV179	400 12:51 RAV180	1000 13:15 RAV181	2000 13:39 RAV182	Av_RRF	%_RSD	Av_Rt_M
	1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	1	0	10.9505
	2	1,2-Dichloroethane	1.837	2.098	2.023	2.328	2.184	2.528	2.100	2.202	2.100	2.156	8.99	5.1880
	3	Toluene-d8	------	11.392	9.024	9.095	8.109	9.522	7.988	8.730	8.446	9.038	11.97	7.3057
	4	1,2-Dibromoethane	1.213	1.332	1.266	1.377	1.349	1.570	1.324	1.425	1.391	1.361	7.45	8.7375
	5	1,1,2,2-Tetrachloroethane	1.429	1.390	1.384	1.571	1.543	1.804	1.530	1.680	1.660	1.555	9.16	10.9461
	6	1,2,3-Trichloropropane	1.186	1.045	0.954	0.987	1.004	1.204	1.010	1.117	1.105	1.068	8.35	11.0147
	7	1,2-Dibromo-3-chloropropane	------	0.214	0.175	0.174	0.171	0.200	0.172	0.197	0.205	0.188	9.17	13.0710

Ave_%RSD : 9.2 Max_%RSD : 12

SM
1/14/15

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	10.95	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	5.19	0.474	A	1	A	B
3	S	Toluene-d8	98	7.31	0.667	A	1	A	B
4	T	1,2-Dibromoethane	107	8.74	0.798	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	10.94	0.999	A	1	A	B
6	T	1,2,3-Trichloropropane	75	11.02	1.006	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	13.07	1.194	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

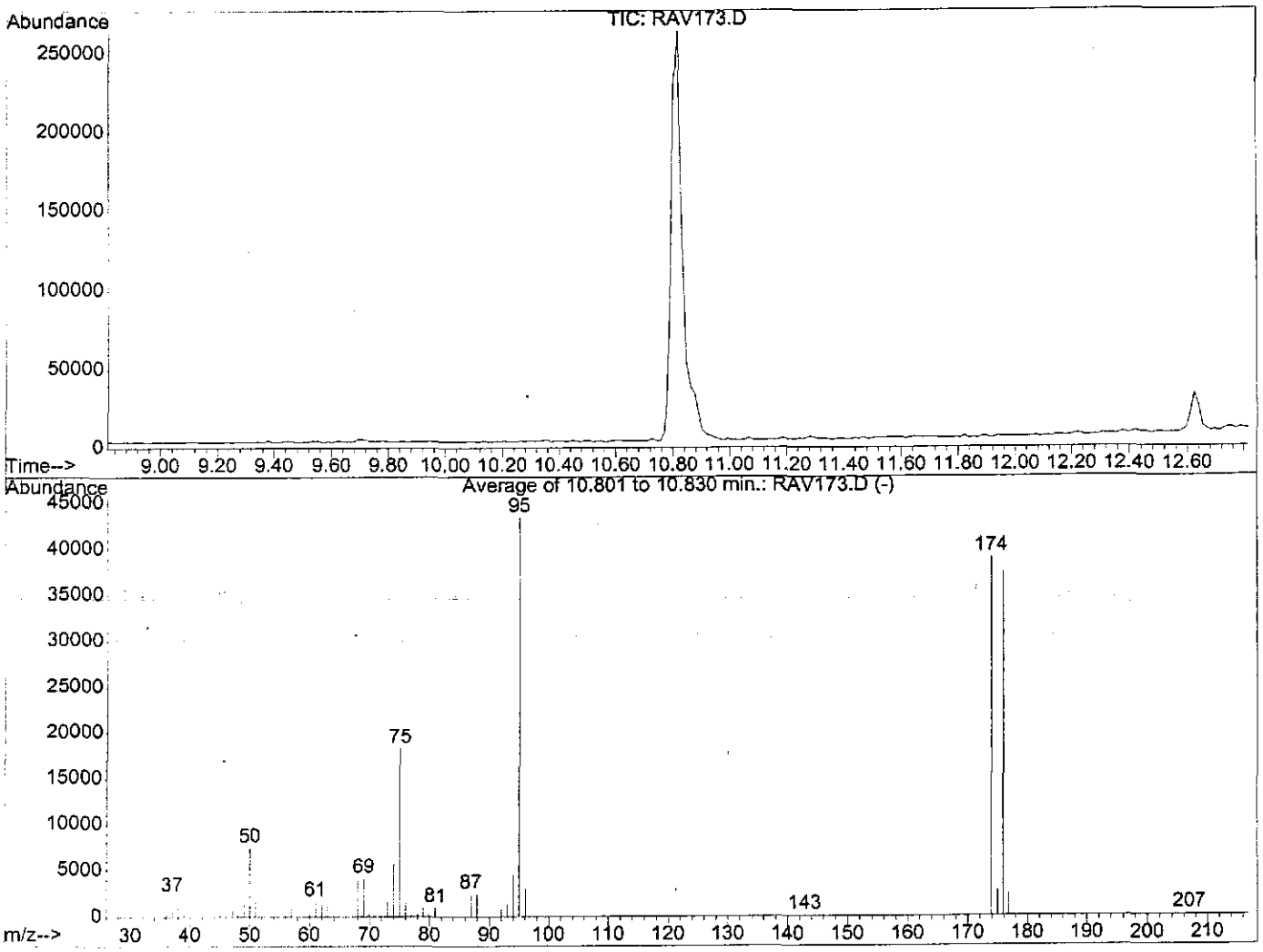
VO01A13.M Wed Jan 14 15:08:24 2015

SM 1/14/15

BFB

Data File : D:\HPCHEM\1\DATA\15A13\RAV173.D
Acq On : 13 Jan 2015 9:57 am
Sample : BFB01A11
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: DNguye
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	7513	PASS
75	95	30	60	42.2	18354	PASS
95	95	100	100	100.0	43472	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.8	39037	PASS
175	174	5	9	7.0	2721	PASS
176	174	95	101	95.8	37411	PASS
177	176	5	9	6.4	2399	PASS

RAV173.D VO01A13A.M Wed Jan 14 11:20:32 2015

SA 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5194	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	2994	6.38	ng/l	0.00
Spiked Amount 100.000			Recovery =	6.38%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	477	4.26	ng/l #	41
4) 1,2-Dibromoethane	8.74	107	315	4.46	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.94	83	371	4.59	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	308	5.55	ng/l	88

SM 1/14/15

(#) = qualifier out of range (m) = manual integration

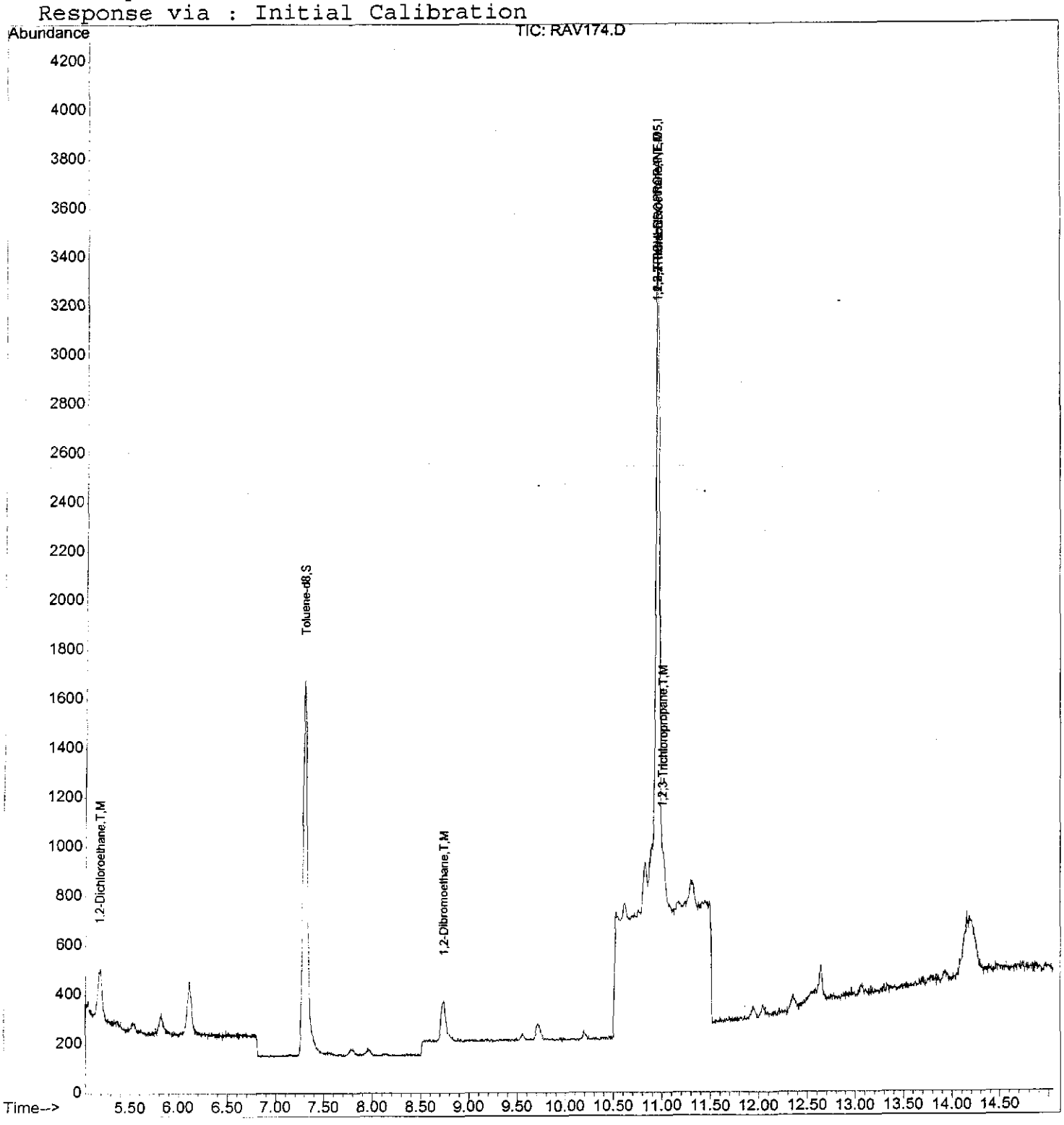
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SG 1/14/15

2164

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5044	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	5746	12.60	ng/l	0.00
Spiked Amount 100.000			Recovery =	12.60%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	1058	9.73	ng/l	97
4) 1,2-Dibromoethane	8.73	107	672	9.79	ng/l	92
5) 1,1,2,2-Tetrachloroethane	10.94	83	701	8.94	ng/l	97
6) 1,2,3-Trichloropropane	11.01	75	527	9.78	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.08	157	108	11.36	ng/l #	44

SA 1/14/15

(#) = qualifier out of range (m) = manual integration

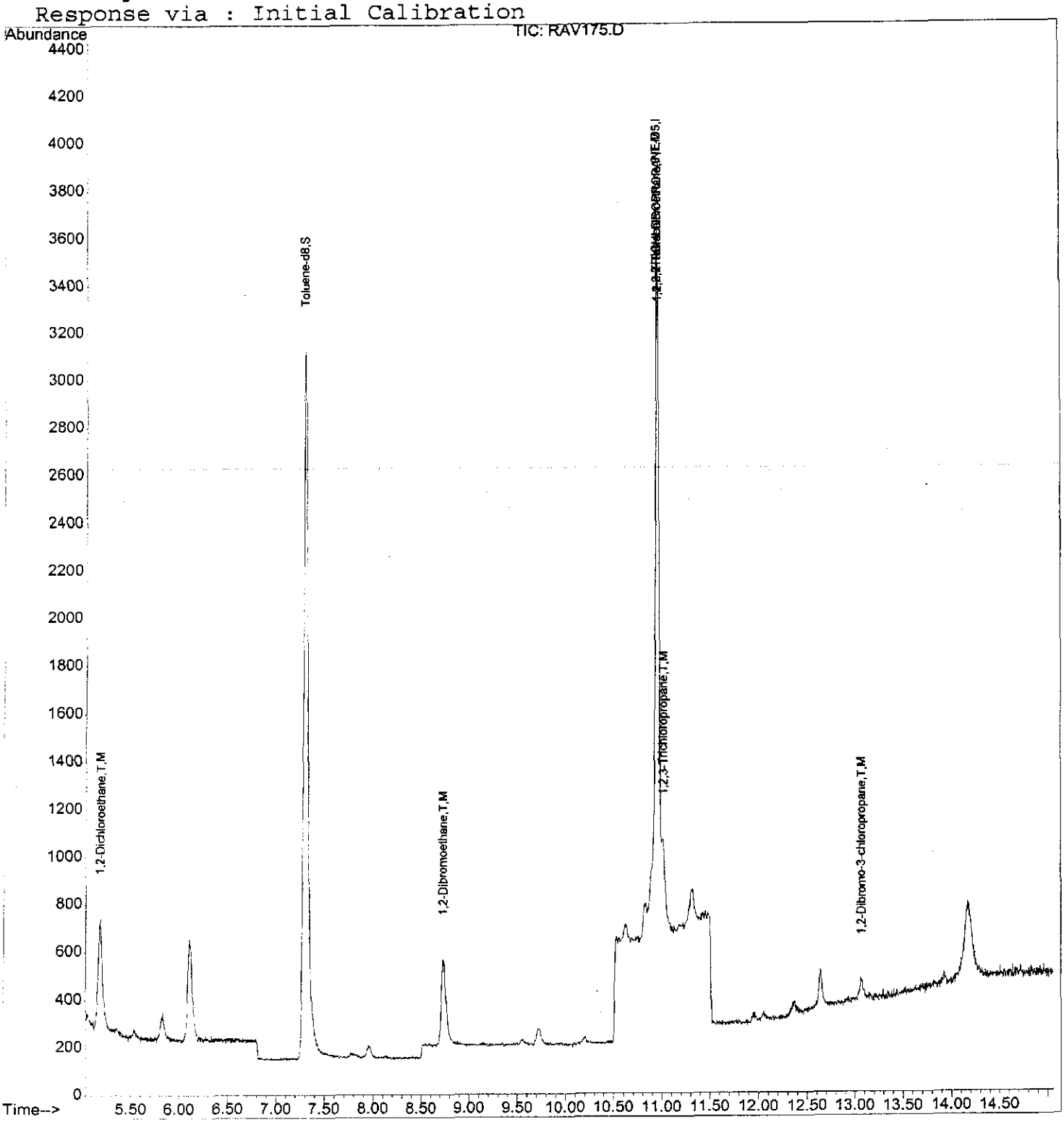
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2166

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4945	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	8925	19.97	ng/l	0.00
Spiked Amount 100.000			Recovery = 19.97%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.18	62	2001	18.77	ng/l	98
4) 1,2-Dibromoethane	8.73	107	1252	18.60	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.94	83	1369	17.81	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	944	17.87	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.07	157	173	18.56	ng/l #	66

Su 1/14/15

(#) = qualifier out of range (m) = manual integration

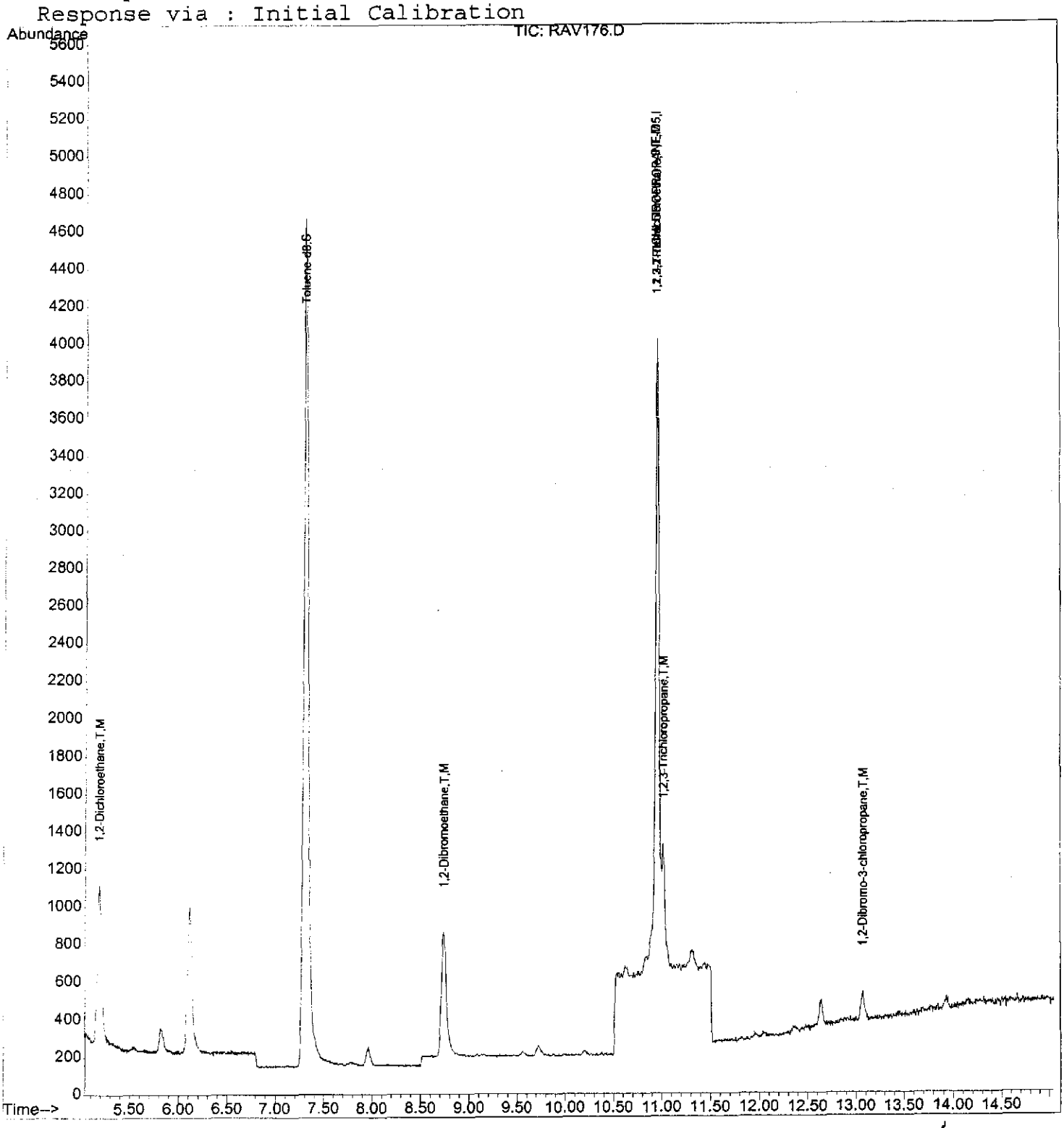
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SM 1/14/15

2168

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4947	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	22497	50.32	ng/l	0.00
Spiked Amount 100.000			Recovery = 50.32%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	5759	54.01	ng/l	96
4) 1,2-Dibromoethane	8.74	107	3407	50.61	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	3885	50.52	ng/l	96
6) 1,2,3-Trichloropropane	11.01	75	2442	46.22	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.07	157	431	46.22	ng/l	89

SG 1/14/15

(#) = qualifier out of range (m) = manual integration

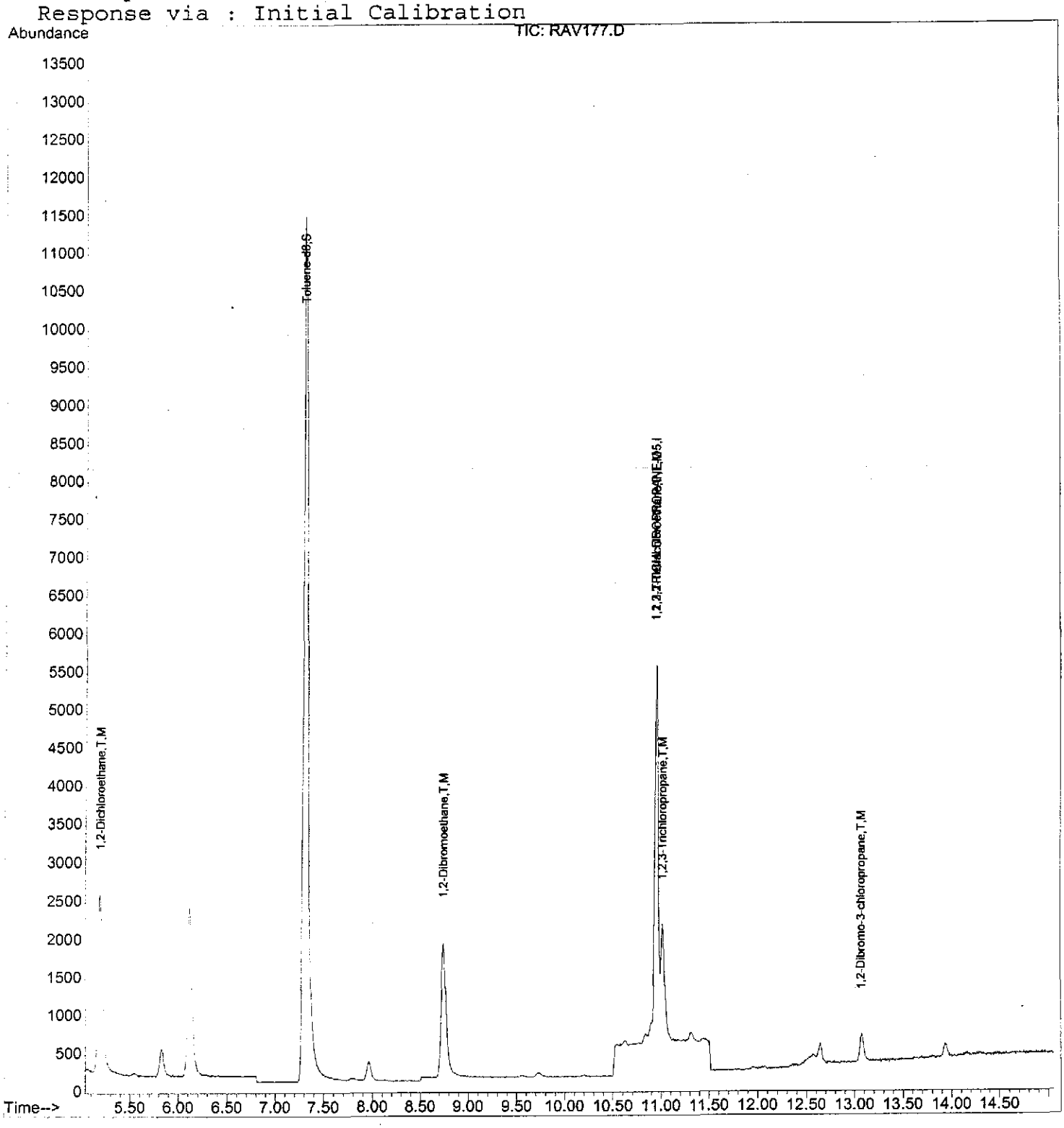
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2179

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5060	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	41033	89.72	ng/l	0.00
Spiked Amount 100.000			Recovery =	89.72%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	11051	101.32	ng/l	100
4) 1,2-Dibromoethane	8.74	107	6828	99.15	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.94	83	7809	99.27	ng/l	100
6) 1,2,3-Trichloropropane	11.02	75	5081	94.02	ng/l	100
7) 1,2-Dibromo-3-chloropropan	13.07	157	867	90.90	ng/l	100

Sa 1/14/15

(#) = qualifier out of range (m) = manual integration

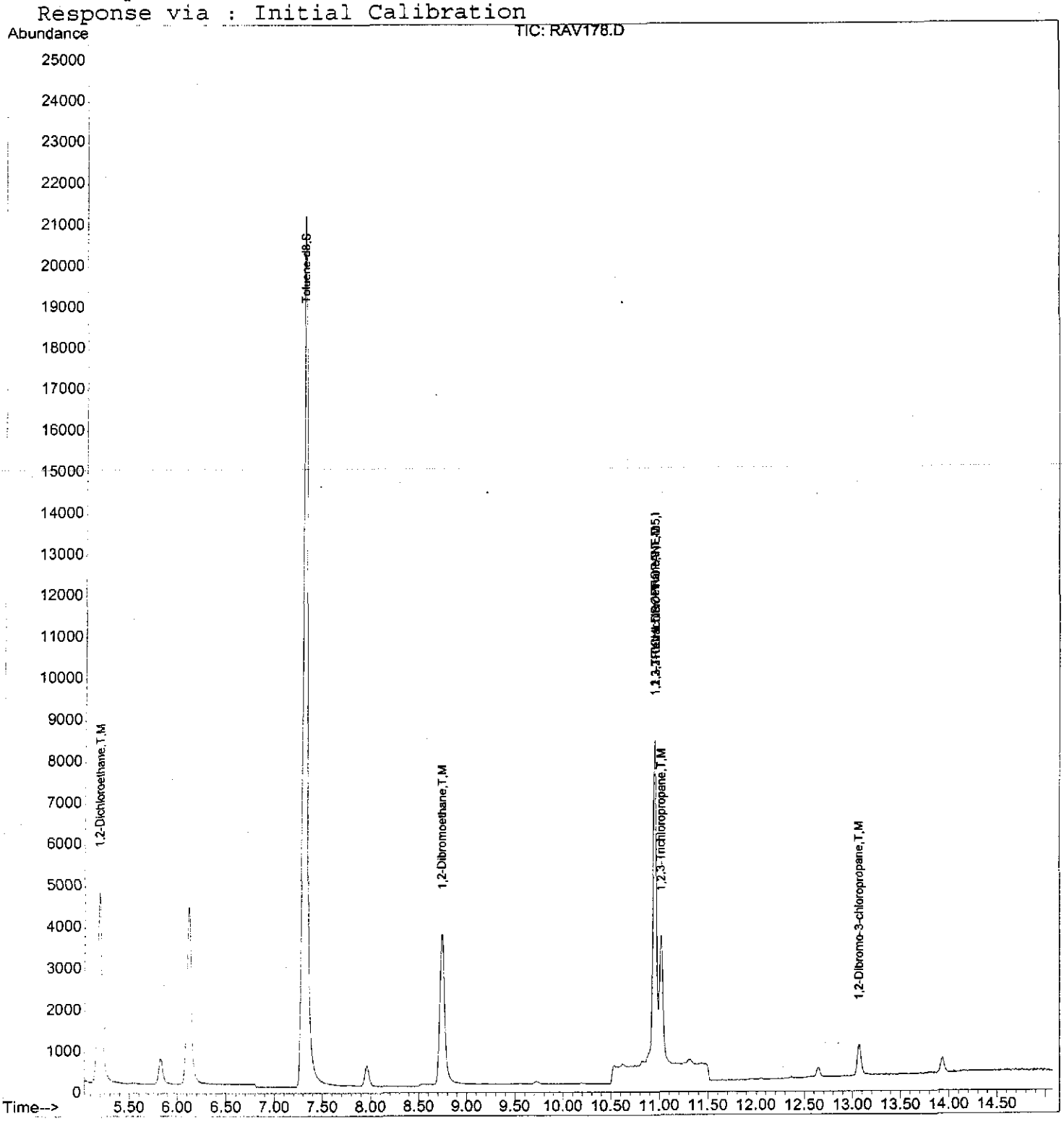
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2172

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4682	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	89160	210.70	ng/l	0.00
Spiked Amount 100.000			Recovery =	210.70%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	23674	234.57	ng/l	98
4) 1,2-Dibromoethane	8.74	107	14703	230.75	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	16894	232.10	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	11277	225.52	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.07	157	1876	212.57	ng/l	94

SM 1/14/15

(#) = qualifier out of range (m) = manual integration

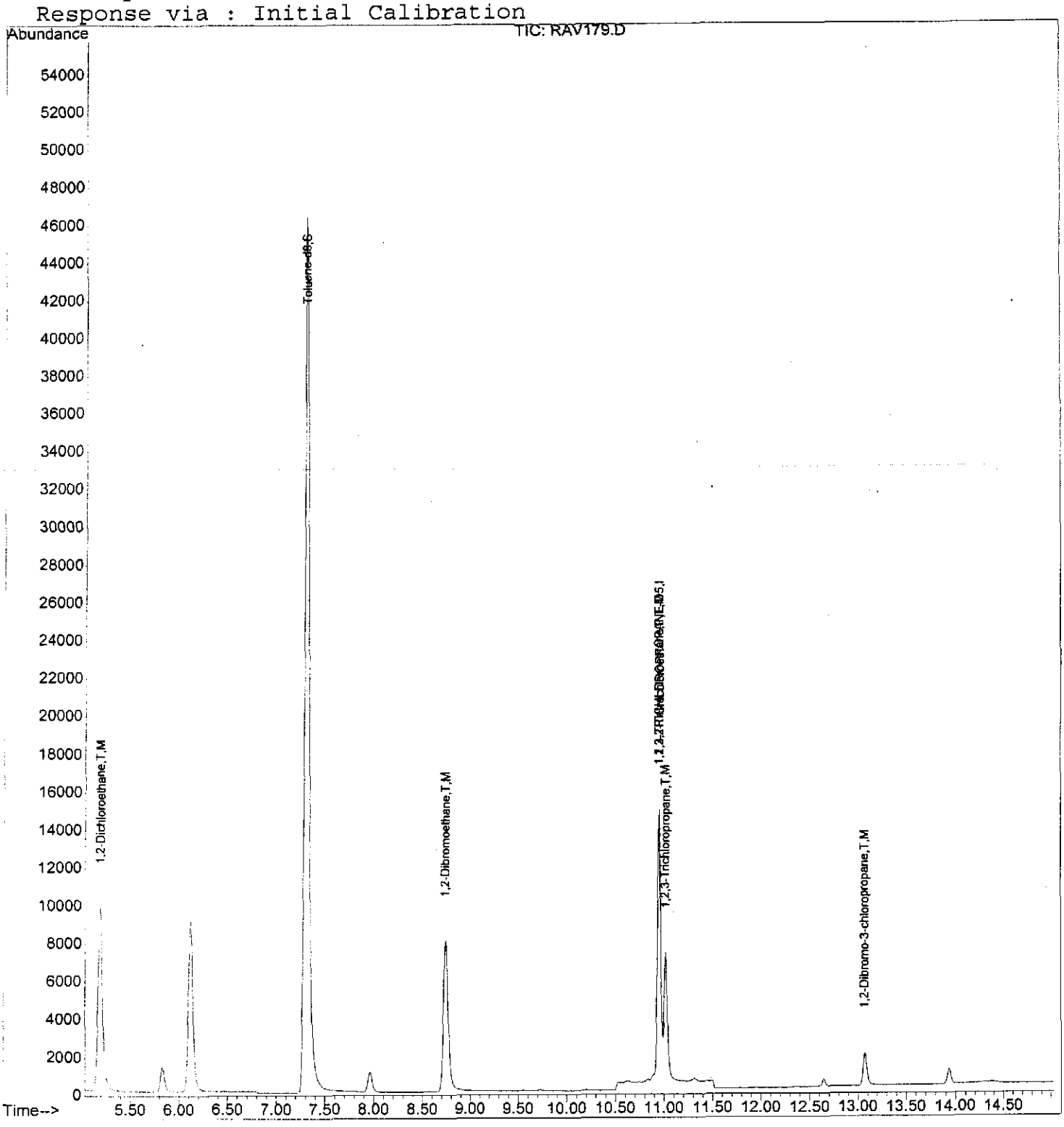
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2174

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5436	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	173683	353.51	ng/l	0.00
Spiked Amount 100.000			Recovery = 353.51%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	45662	389.68	ng/l	98
4) 1,2-Dibromoethane	8.74	107	28798	389.27	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	33274	393.74	ng/l	100
6) 1,2,3-Trichloropropane	11.01	75	21958	378.21	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	3732	364.21	ng/l	91

SA 1/14/15

(#) = qualifier out of range (m) = manual integration

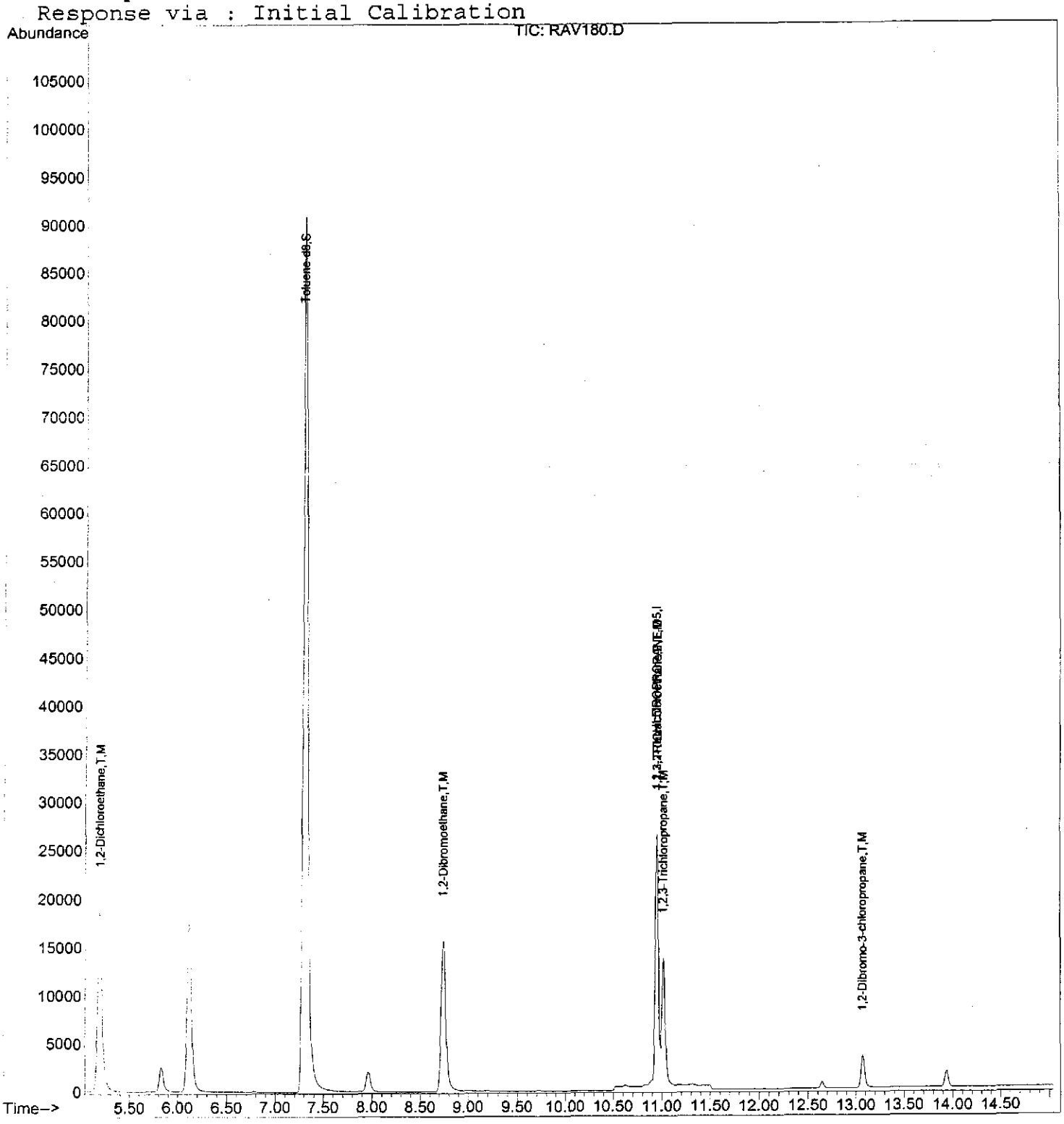
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2176

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5252	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	458513	965.93	ng/l	0.00
Spiked Amount 100.000			Recovery =	965.93%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	115670	1021.70	ng/l	99
4) 1,2-Dibromoethane	8.74	107	74830	1046.93	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	88254	1080.91	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	58654	1045.67	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	10326	1043.03	ng/l	91

SA 1/14/15

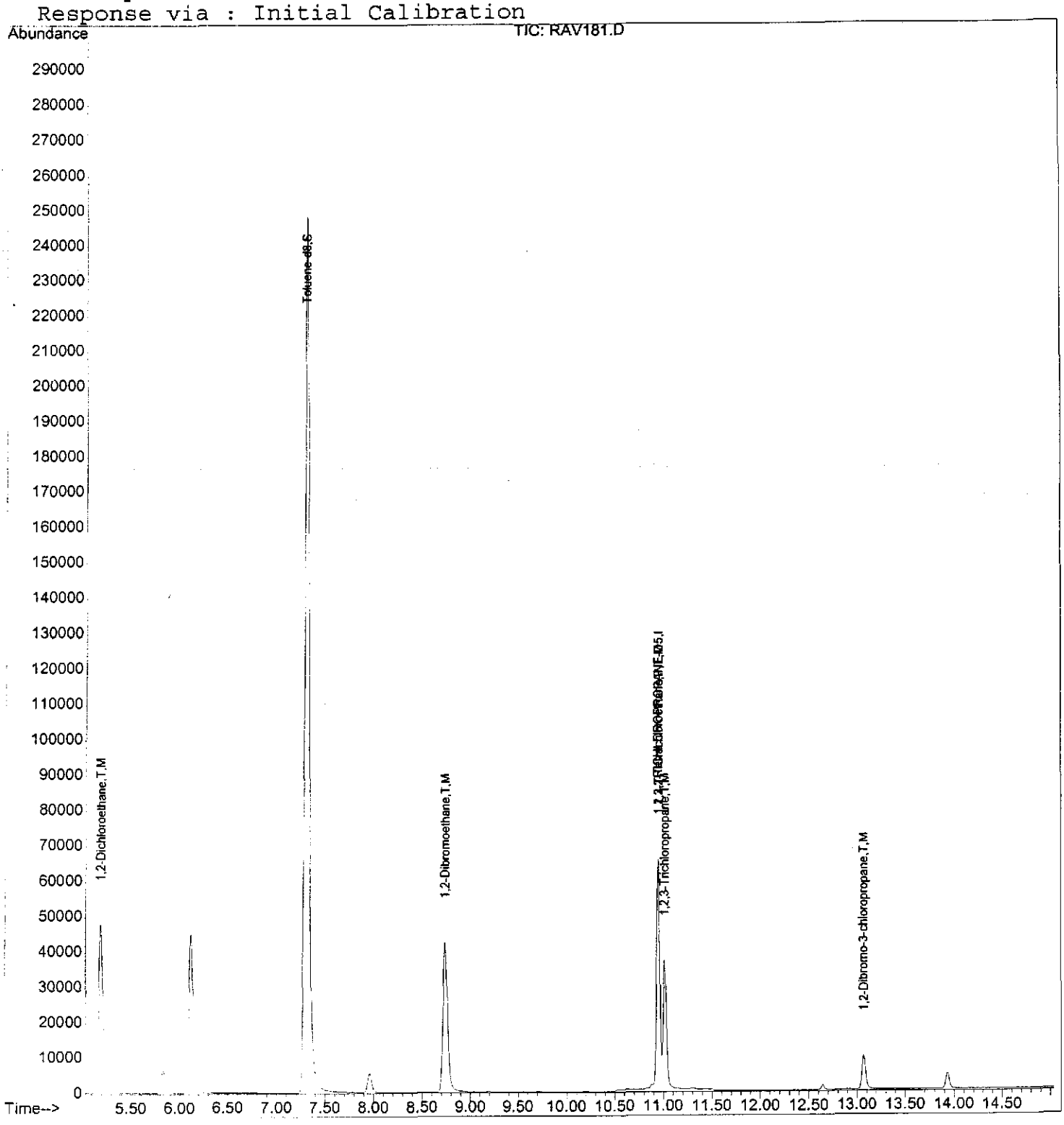
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2178

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5393	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	910939	1868.86	ng/l	0.00
Spiked Amount 100.000			Recovery = 1868.86%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	226521	1948.53	ng/l	99
4) 1,2-Dibromoethane	8.73	107	150027	2044.12	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	179068	2135.83	ng/l	98
6) 1,2,3-Trichloropropane	11.01	75	119133	2068.35	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	22087	2172.69	ng/l	90

SV 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV182.D VO01A13.M Wed Jan 14 11:23:09 2015

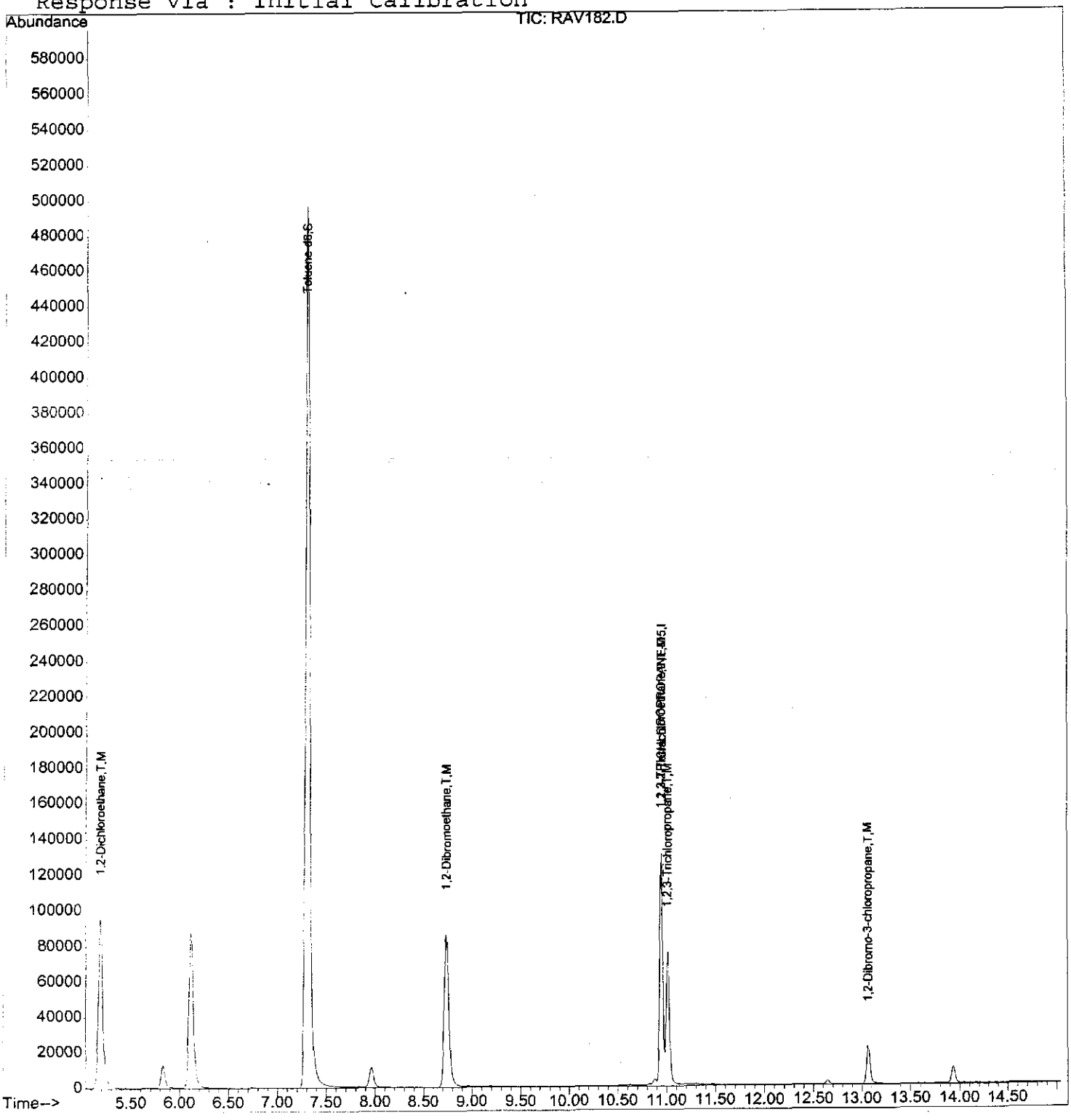
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2180

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TOO1
IC_Beginning DateTime :01/13/15 10:27
Spike Amount :100 PPT
CC/CV File :RAV184
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
IC_Ending DateTime :01/13/15 13:39
HPChem Method :VO01A13
Date_Time :01/13/15 14:26

M IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
1	1,2,3-TRICHLOROPROPANE-D5	100.000	0	5387	1	1	10.956	10.950	0				
2	1,2-Dichloroethane	109.281	9.3	12690	2.356	2.156	5.194	5.188	8.99				
3	Toluene-d8	94.453	-5.5	45988	8.537	9.038	7.311	7.306	11.97				
4	1,2-Dibromoethane	108.576	8.6	7960	1.478	1.361	8.743	8.738	7.45				
5	1,1,2,2-Tetrachloroethane	111.897	11.9	9371	1.740	1.555	10.949	10.946	9.16				
6	1,2,3-Trichloropropane	108.840	8.8	6262	1.162	1.068	11.022	11.015	8.35				
7	1,2-Dibromo-3-chloropropane	104.191	4.2	1058	0.196	0.188	13.074	13.071	9.17				

SA
1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	106	0.00
2	T,M	1,2-Dichloroethane	100.000	109.281	-9.3	115	0.00
3	S	Toluene-d8	100.000	94.453	5.5	112	0.00
4	T,M	1,2-Dibromoethane	100.000	108.576	-8.6	117	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	111.897	-11.9	120	0.00
6	T,M	1,2,3-Trichloropropane	100.000	108.840	-8.8	123	0.00
7	T,M	1,2-Dibromo-3-chloropropane	100.000	104.191	-4.2	122	0.00

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

bn 1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	106	0.00
2	T,M	1,2-Dichloroethane	2.156	2.356	-9.3	115	0.00
3	S	Toluene-d8	9.038	8.537	5.5	112	0.00
4	T,M	1,2-Dibromoethane	1.361	1.478	-8.6	117	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.740	-11.9	120	0.00
6	T,M	1,2,3-Trichloropropane	1.068	1.162	-8.8	123	0.00
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.196	-4.3	122	0.00

5a
1/14/15

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5387	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45988	94.45	ng/l	0.00
Spiked Amount 100.000			Recovery = 94.45%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12690	109.28	ng/l	98
4) 1,2-Dibromoethane	8.74	107	7960	108.58	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	9371	111.90	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	6262	108.84	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	1058	104.19	ng/l	97

SK 1/14/15

(#) = qualifier out of range (m) = manual integration

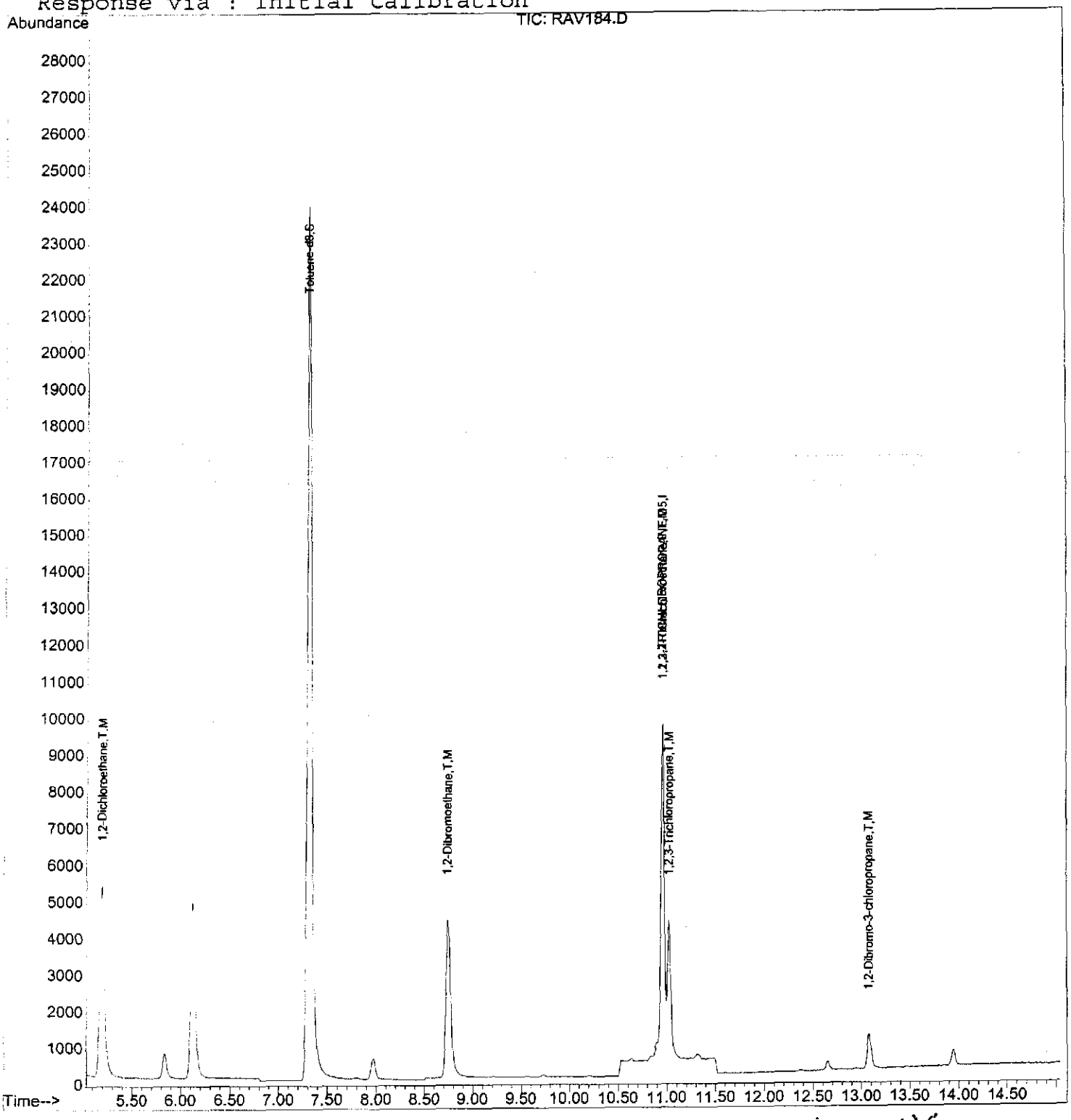
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2186

DAILY CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D142
Lab File ID: RDV487 BFB Injection Date : 04/24/15
Instrument ID: TD01 BFB Injection Time : 10:16
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.88
75	30.0 - 60.0% of mass 95	42.55
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.78
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	83.83
175	5.0 - 9.0% of mass 174	6.10(7.3)1
176	95.0 - 101.0% of mass 174	81.47(97.2)1
177	5.0 - 9.0% of mass 176	5.33(6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD100	CV001A1309	RDV488	04/24/15	11:17
2	MBLK1W	V001D22Q	RDV492	04/24/15	13:15
3	LCS1W	V001D22L	RDV489	04/24/15	11:42
4	LCD1W	V001D22C	RDV490	04/24/15	12:07
5	04-21-15-AMW-3RMS	D142-03M	RDV496	04/24/15	14:56
6	04-21-15-AMW-3RMSD	D142-03S	RDV497	04/24/15	15:20
7	04-21-15-BBW-3	D142-01	RDV498	04/24/15	15:45
8	04-21-15-FDUP-3	D142-02	RDV499	04/24/15	16:10
9	04-22-15-AR-1	D142-05	RDV500	04/24/15	16:35
10	04-22-15-PWB-1	D142-07	RDV501	04/24/15	17:00
11	04-21-15-AMW-3R	D142-03	RDV502	04/24/15	17:25
12	04-22-15-PWB-13A	D142-09	RDV508	04/24/15	19:55
13	04-22-15-PWB-13ADL	D142-09I	RDV509	04/24/15	20:20

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RAV178
Instrument ID: TO01

Project: B & B GROUNDWATER SAMPLING
SDG No.: 15D142
Date Analyzed: 01/13/15
Time Analyzed: 12:03

		IS1(TCP) AREA #	RT #
	12 HOUR STD	5060	10.95
	UPPER LIMIT	10120	11.45
	LOWER LIMIT	2530	10.45
	SAMPLE ID		
1	VSTD100	4939	10.96
2	MBLK1W	4768	10.96
3	LCS1W	4693	10.96
4	LCD1W	5304	10.96
5	04-21-15-AMW-3RMS	5398	10.96
6	04-21-15-AMW-3RMSD	5290	10.96
7	04-21-15-BBW-3	5131	10.96
8	04-21-15-FDUP-3	5143	10.96
9	04-22-15-AR-1	5126	10.96
10	04-22-15-PWB-1	5112	10.96
11	04-21-15-AMW-3R	5373	10.96
12	04-22-15-PWB-13A	5950	10.95
13	04-22-15-PWB-13ADL	5275	10.96

IS1 (TCP) = 1,2,3-Trichloropropane-d5

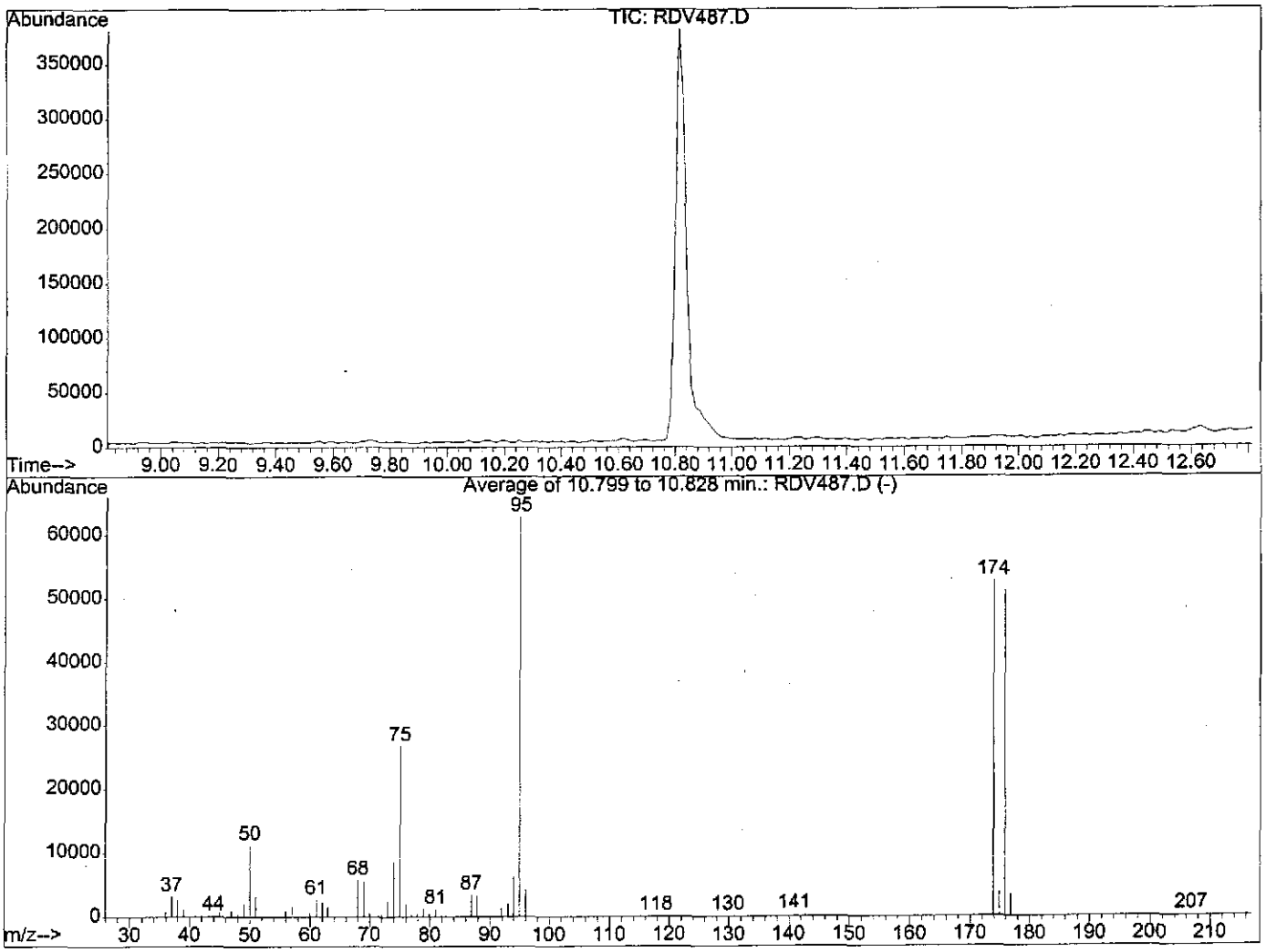
AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

BFB

Data File : D:\HPCHEM\1\DATA\15D24\RDV487.D
Acq On : 24 Apr 2015 10:16 am
Sample : BFB01D22
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	11242	PASS
75	95	30	60	42.6	26755	PASS
95	95	100	100	100.0	62875	PASS
96	95	5	9	6.8	4264	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.8	52707	PASS
175	174	5	9	7.3	3835	PASS
176	174	95	101	97.2	51224	PASS
177	176	5	9	6.5	3349	PASS

RDV487.D VO01A13A.M Tue Apr 28 12:23:58 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D
Acq On : 24 Apr 2015 11:17 am
Sample : CVO01A1309
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	98	0.00
2	T,M	1,2-Dichloroethane	100.000	100.577	-0.6	97	0.00
3	S	Toluene-d8	100.000	107.501	-7.5	117	0.00
4	T,M	1,2-Dibromoethane	100.000	106.166	-6.2	105	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	98.773	1.2	97	0.00
6	T,M	1,2,3-Trichloropropane	100.000	97.101	2.9	101	0.00
7	T,M	1,2-Dibromo-3-chloropropane	100.000	83.781	16.2	90	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D
Acq On : 24 Apr 2015 11:17 am
Sample : CVO01A1309
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	98	0.00
2	T,M	1,2-Dichloroethane	2.156	2.168	-0.6	97	0.00
3	S	Toluene-d8	9.038	9.716	-7.5	117	0.00
4	T,M	1,2-Dibromoethane	1.361	1.445	-6.2	105	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.536	1.2	97	0.00
6	T,M	1,2,3-Trichloropropane	1.068	1.037	2.9	101	0.00
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.158	16.0	90	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D
Acq On : 24 Apr 2015 11:17 am
Sample : CVO01A1309
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 11:32 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4939	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	47988	107.50	ng/l	0.00
Spiked Amount 100.000			Recovery =	107.50%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	10708	100.58	ng/l	95
4) 1,2-Dibromoethane	8.74	107	7136	106.17	ng/l	93
5) 1,1,2,2-Tetrachloroethane	10.95	83	7584	98.77	ng/l	97
6) 1,2,3-Trichloropropane	11.02	75	5122	97.10	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.08	157	780	83.78	ng/l	89

(#) = qualifier out of range (m) = manual integration

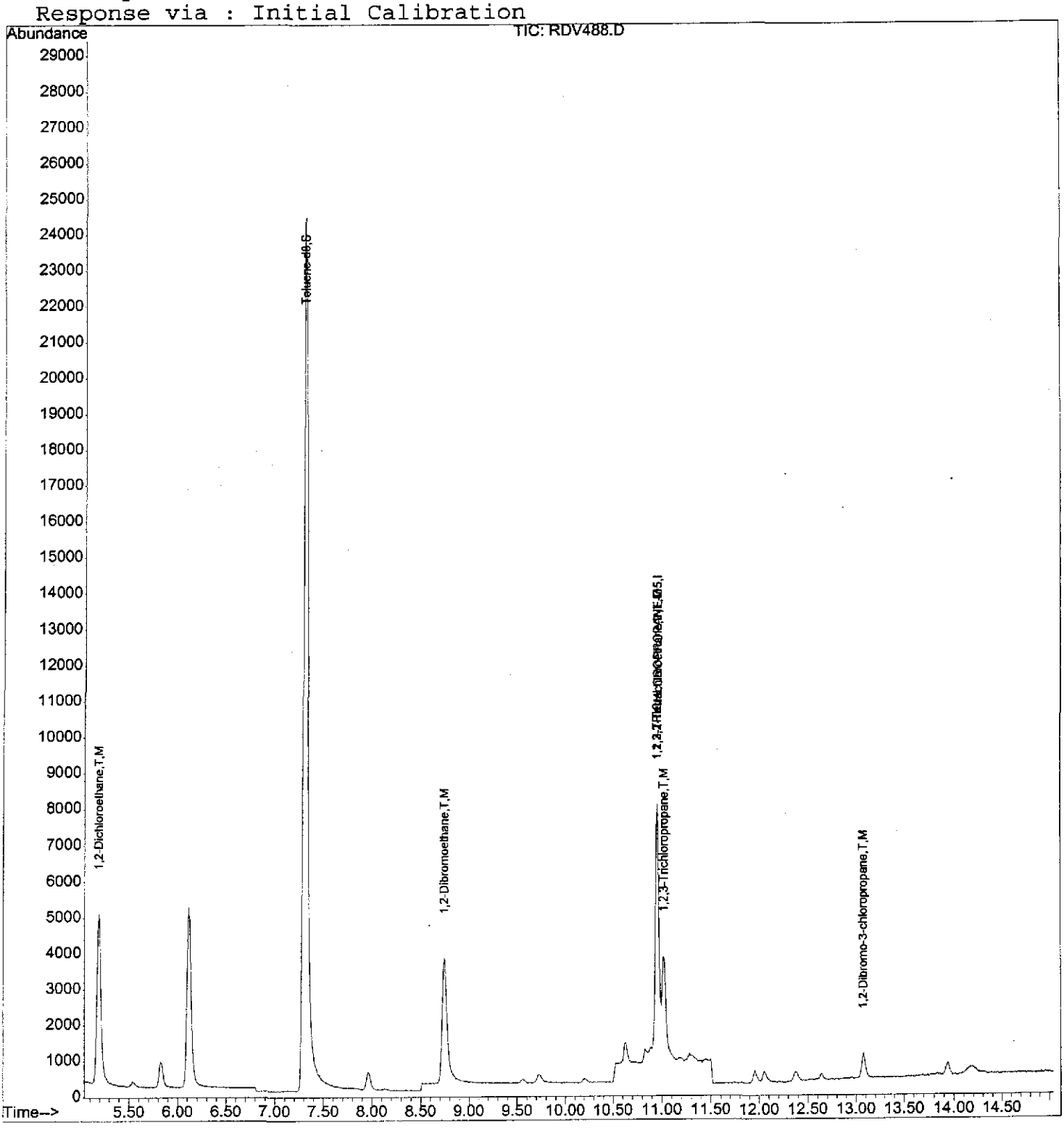
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D
Acq On : 24 Apr 2015 11:17 am
Sample : CVO01A1309
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 11:32 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 1/13/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH V0O1A135

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 ≤5ppm	Matrix S	Notes
01		RAV173	BFB01A11	1mL	NA	NA	NA		V0O1A13A 9:57pm
02		174	V0O1A131	0.05 mL					5 ppt
03		175	2	0.1					10
04		176	3	0.2					20
05		177	4	0.5					50
06		178	5	1					100
07		179	6	2					200
08		180	7	4					400
09		181	8	10					1000
10		182	9	20					2000
11		183	Rinse ~~to~~ mL 1/14/15						
12		184	V0O1A1301	1					100 ppt ~~12~~ 2.2ppm mL 1/14/15
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									mL 1/14/15

2196

Instrument No.	01
INITIAL CALIBRATION REFERENCE mL 1/14/15	
DATE	1/13/15
ICAL ID	V0O1A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	*	2.5
BFB	SV1-23-02-02	1	50
IS/SURR.	SV1-24-09-03 -10-01	1 *	2.5
ICV/LCS	↓ -10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15A13		

	LOT #	Syringe Lot #
pH strip	—	M06-1487-04
Chlorine strip	—	1 -05
Methanol		MW01-01-08-01
$NaHSO_4$		M04-A3652
Reagent Water	RW4-14-001	W63-C6327
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/T001	

Comments:

* varied amount

Analyzed By: mL

Date Disposed: 1/14/15 Disposed By: mL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 (wc 4/29/15) ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 4/24/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH CV001A1309

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH ≤2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01	RDV487	BFB01D22						10-16am
02	488	CV001A1309						
03	489	V001D22L						
04	490	C						
05	491	B	25mL					TCP contamination
06	492	Q	25mL					
07	493	15D143-01	25mL	1.0	✓	✓		
08	494	-01M			✓	✓		
09	495	-01S			✓	✓		
10	496	15D142-03M			✓	✓		
11	497	-03S			✓	✓		
12	498	-01			✓	✓		
13	499	-02			✓	✓		
14	500	-05			✓	✓		
15	501	-07			✓	✓		
16	502	-03			✓	✓		
17	503	15D143-05			✓	✓		
18	504	-08			✓	✓		
19	505	-09			✓	✓		
20	506	-10			✓	✓		
21	507	-07I	50uL	500	✓	✓		
22	508	15D142-09	4/24/15 ≠25mL	1.0	✓	✓		
23	509 (wc 4/29/15)	-09I	1.0mL	25	✓	✓		
24	510	15D143-07	25mL	1.0	✓	✓		
25	511	-07J	2.5mL	10	✓	✓		Dilution not needed.
26	512	-03			✓	✓		1000x
27	513	-04			✓	✓		1000x. 10-00pm
28	514→519	Rinse						
29								
30								wc 4/27/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	1	2.5
BFB	-17-01	1	50
IS/SURR.	-09-03 -10-01	1	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15D24		

	LOT #	Syringe Lot #
pH strip	HC413032	MLV01-01-08-01
Chlorine strip	40719	MLV01-01-07-01
Methanol		M06-F2487-04
$NaHSO_4$		-05
Reagent Water	RW4-14-001	J08-B4164
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: wc

Date Disposed: 4/27/15 Disposed By: wc

2197

Injection Log

Directory: D:\HPCHEM\1\DATA\15D24

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV487.D	1.	BFB01D22	T/CHK	24 Apr 2015 10:16
2	2	RDV488.D	1.	CVO01A1309	100ppt	24 Apr 2015 11:17
3	3	RDV489.D	1.	VO01D22L	100ppt	24 Apr 2015 11:42
4	4	RDV490.D	1.	VO01D22C	100ppt	24 Apr 2015 12:07
5	5	RDV491.D	1.	VO01D22B 25mL	BLANK	24 Apr 2015 12:32
6	6	RDV492.D	1.	VO01D22Q 25mL	DF=1.0	24 Apr 2015 13:15
7	7	RDV493.D	1.	15D143-01 25mL	DF=1.0	24 Apr 2015 13:40
8	8	RDV494.D	1.	15D143-01M 25mL	DF=1.0	24 Apr 2015 14:05
9	9	RDV495.D	1.	15D143-01S 25mL	DF=1.0	24 Apr 2015 14:30
10	10	RDV496.D	1.	15D142-03M 25mL	DF=1.0	24 Apr 2015 14:56
11	11	RDV497.D	1.	15D142-03S 25mL	DF=1.0	24 Apr 2015 15:20
12	12	RDV498.D	1.	15D142-01 25mL	DF=1.0	24 Apr 2015 15:45
13	13	RDV499.D	1.	15D142-02 25mL	DF=1.0	24 Apr 2015 16:10
14	14	RDV500.D	1.	15D142-05 25mL	DF=1.0	24 Apr 2015 16:35
15	15	RDV501.D	1.	15D142-07 25mL	DF=1.0	24 Apr 2015 17:00
16	16	RDV502.D	1.	15D142-03 25mL	DF=1.0	24 Apr 2015 17:25
17	17	RDV503.D	1.	15D143-05 25mL	DF=1.0	24 Apr 2015 17:50
18	18	RDV504.D	1.	15D143-08 25mL	DF=1.0	24 Apr 2015 18:15
19	19	RDV505.D	1.	15D143-09 25mL	DF=1.0	24 Apr 2015 18:40
20	20	RDV506.D	1.	15D143-10 25mL	DF=1.0	24 Apr 2015 19:05
21	21	RDV507.D	1.	15D143-07I 50uL	DF=500	24 Apr 2015 19:30
22	22	RDV508.D	1.	15D142-09 25mL	DF=1.0	24 Apr 2015 19:55
23	23	RDV509.D	1.	15D142-09I 1.0mL	DF=25	24 Apr 2015 20:20
24	24	RDV510.D	1.	15D143-07 25mL	DF=1.0	24 Apr 2015 20:45
25	25	RDV511.D	1.	15D143-07J 2.5mL	DF=10	24 Apr 2015 21:10
26	26	RDV512.D	1.	15D143-03 2.5mL	DF=10	24 Apr 2015 21:35
27	27	RDV513.D	1.	15D143-04 2.5mL	DF=10	24 Apr 2015 22:00
28	1	RDV514.D	1.	RINSE	DF=10	24 Apr 2015 22:25
29	2	RDV515.D	1.	RINSE	DF=10	24 Apr 2015 22:50
30	3	RDV516.D	1.	RINSE	DF=10	24 Apr 2015 23:15
31	4	RDV517.D	1.	RINSE	DF=10	24 Apr 2015 23:40
32	5	RDV518.D	1.	RINSE	DF=10	25 Apr 2015 00:05
33	6	RDV519.D	1.	RINSE	DF=10	25 Apr 2015 00:30

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 8151A
HERBICIDES

SDG#: 15D142

5000

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD 8151A
HERBICIDES

A total of six (6) water samples were received on 04/22/15 to be analyzed for Herbicides in accordance with Method 8151A and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. HED009WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Dinoseb was within LCS QC limits in HED009WL/HED009WC. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Dinoseb was within MS QC limits in D142-03M/S. Refer to Matrix QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D142
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HED009WB	1	NA	04/24/1517:50	04/24/1509:30	QD24003A	QD24002A	HED009W	Method Blank
LCS1W	HED009WL	1	NA	04/24/1518:18	04/24/1509:30	QD24004A	QD24002A	HED009W	Lab Control Sample (LCS)
LCD1W	HED009WC	1	NA	04/24/1518:55	04/24/1509:30	QD24005A	QD24002A	HED009W	LCS Duplicate
04-21-15-BBW-3	0142-01	1	NA	04/24/1521:58	04/24/1509:30	QD24010A	QD24002A	HED009W	Field Sample
04-21-15-FDUP-3	D142-02	1	NA	04/24/1522:34	04/24/1509:30	QD24011A	QD24002A	HED009W	Field Sample
04-21-15-AMW-3R	D142-03	1	NA	04/24/1523:11	04/24/1509:30	QD24012A	QD24002A	HED009W	Field Sample
04-22-15-AR-1	D142-05	1	NA	04/25/1501:37	04/24/1509:30	QD24016A	QD24015A	HED009W	Field Sample
04-22-15-PWB-1	D142-07	1	NA	04/25/1502:14	04/24/1509:30	QD24017A	QD24015A	HED009W	Field Sample
04-22-15-PWB-13A	0142-09	1	NA	04/25/1502:50	04/24/1509:30	QD24018A	QD24015A	HED009W	Field Sample
04-21-15-AMW-3RMS	D142-03M	1	NA	04/24/1519:31	04/24/1509:30	QD24006A	QD24002A	HED009W	Matrix Spike Sample (MS)
04-21-15-AMW-3RMSD	D142-03S	1	NA	04/24/1520:08	04/24/1509:30	QD24007A	QD24002A	HED009W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-BBW-3	Date Analyzed: 04/24/15 21:58
Lab Samp ID: D142-01	Dilution Factor: 1
Lab File ID: QD24010A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.912|(8.989)	10.00	89.1|(89.9)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-FDUP-3	Date Analyzed: 04/24/15 22:34
Lab Samp ID: D142-02	Dilution Factor: 1
Lab File ID: QD24011A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.288|(9.447)	10.00	92.9|(94.5)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-AMW-3R	Date Analyzed: 04/24/15 23:11
Lab Samp ID: D142-03	Dilution Factor: 1
Lab File ID: QD24012A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24002A	Instrument ID : GCTD09

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.762)|9.658	10.00	(97.6)|96.6	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: 04-22-15-AR-1	Date Analyzed: 04/25/15 01:37
Lab Samp ID: D142-05	Dilution Factor: 1
Lab File ID: QD24016A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24015A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.968)|9.721	10.00	(99.7)|97.2	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: 04-22-15-PWB-1	Date Analyzed: 04/25/15 02:14
Lab Samp ID: D142-07	Dilution Factor: 1
Lab File ID: QD24017A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24015A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.937)|9.908	10.00	(99.4)|99.1	40-140

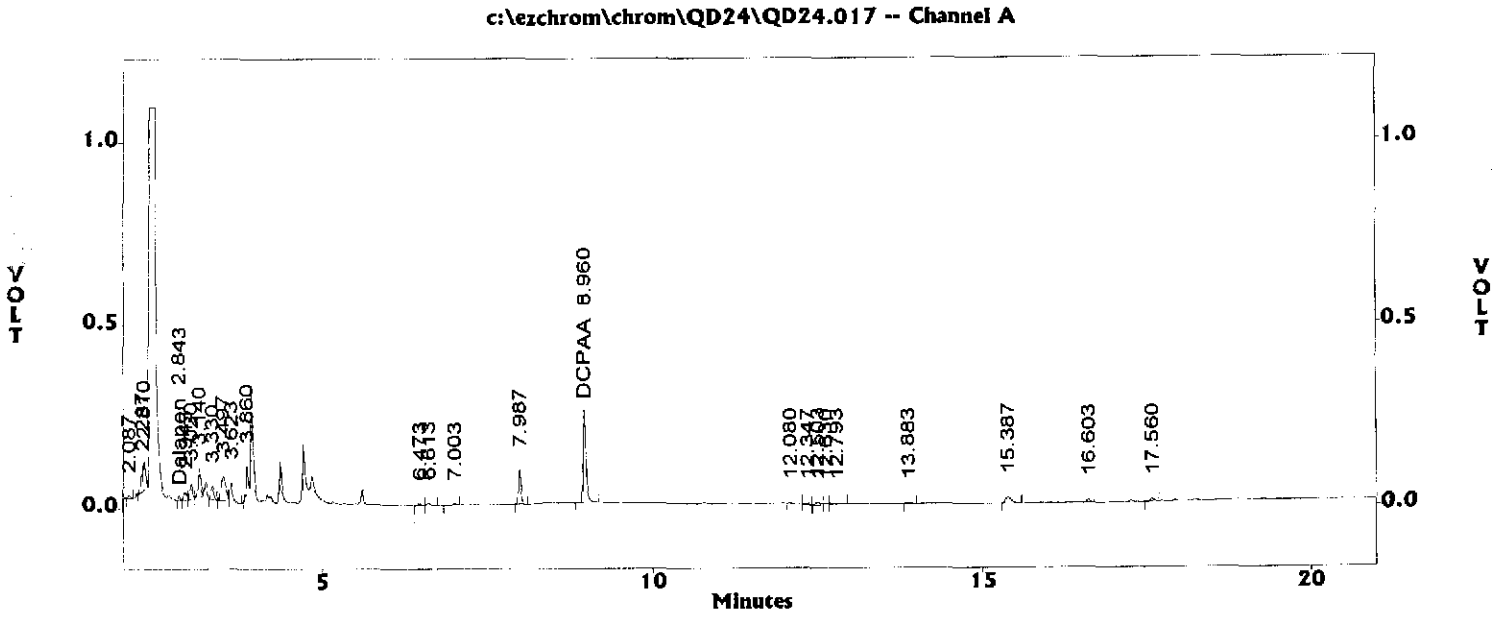
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.017
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-07
Acquired : Apr 25, 2015 02:14:23
Printed : Apr 27, 2015 12:37:07
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.843	21517.0	1656.60	12.989	VV
3,5 Dichlorobenzo	7.707	0.0	0.00	0.000	--
4-Nitrophenol	8.603	0.0	0.00	0.000	--
DCPAA	8.960	745391.0	750.10	993.722	vv
Dicamba	9.197	0.0	0.00	0.000	--
MCPP	9.493	0.0	0.00	0.000	--
MCPA	9.700	0.0	0.00	0.000	--
DCP	10.177	0.0	0.00	0.000	--
2,4-D	10.470	0.0	0.00	0.000	--
Pentachlorophenol	10.713	0.0	0.00	0.000	--
Silvex	11.487	0.0	0.00	0.000	--
Chloramben	11.663	0.0	0.00	0.000	--
2,4,5-T	11.817	0.0	0.00	0.000	--
2,4-DB	12.453	0.0	0.00	0.000	--
Bentazon/Picloram	13.450	0.0	0.00	0.000	--
Dinoseb	13.613	0.0	0.00	0.000	--
Dacthal	13.913	0.0	0.00	0.000	--
Acifluorfen	16.583	0.0	0.00	0.000	--

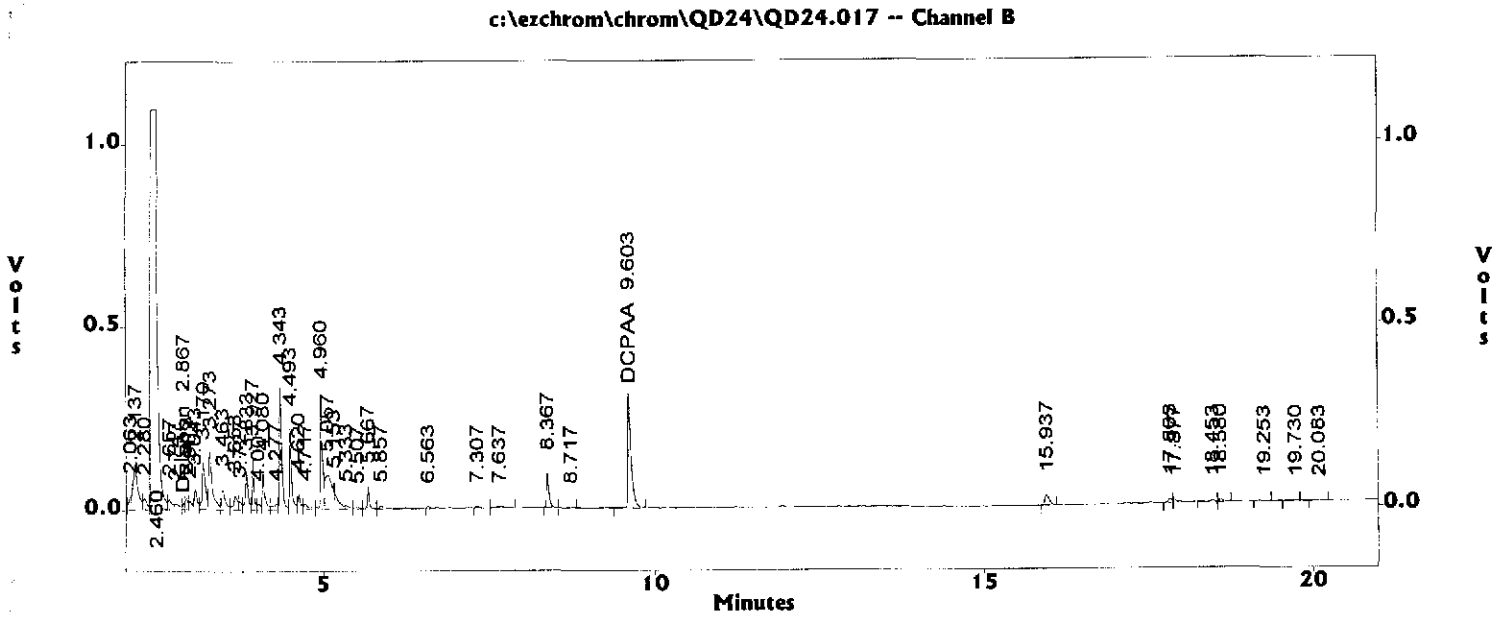


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.017
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-07
Acquired : Apr 25, 2015 02:14:23
Printed : Apr 27, 2015 12:37:08
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.867	35668.0	1730.88	20.607	VS
3,5 Dichlorobenzoic	8.087	0.0	0.00	0.000	--
4-Nitrophenol	8.917	0.0	0.00	0.000	--
DCPAA	9.603	1072069.0	1082.03	990.797	VV
Dicamba	9.843	0.0	0.00	0.000	--
MCPP	10.023	0.0	0.00	0.000	--
MCPA	10.340	0.0	0.00	0.000	--
DCP	10.767	0.0	0.00	0.000	--
2,4-D	11.167	0.0	0.00	0.000	--
Pentachlorophenol	11.623	0.0	0.00	0.000	--
Silvex	12.130	0.0	0.00	0.000	--
2,4,5-T	12.580	0.0	0.00	0.000	--
Chloramben	12.630	0.0	0.00	0.000	--
2,4-DB	13.163	0.0	0.00	0.000	--
Dinoseb	13.490	0.0	0.00	0.000	--
Bentazon	14.100	0.0	0.00	0.000	--
Dacthal	14.497	0.0	0.00	0.000	--
Picloram	14.580	0.0	0.00	0.000	--
Acifluorfen	16.783	0.0	0.00	0.000	--



METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNOWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: 04-22-15-PWB-13A	Date Analyzed: 04/25/15 02:50
Lab Samp ID: D142-09	Dilution Factor: 1
Lab File ID: QD24018A	Matrix : WATER
Ext Btch ID: HE0009W	% Moisture : NA
Calib. Ref.: QD24015A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	0.64|(0.69)	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	10.08|(10.09)	10.00	101|(101)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/24/15
Batch No. : 15D142	Date Extracted: 04/24/15 09:30
Sample ID: MBLK1W	Date Analyzed: 04/24/15 17:50
Lab Samp ID: HED009WB	Dilution Factor: 1
Lab File ID: QD24003A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.475|(8.517)	10.00	84.7|(85.2)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HED009WB	HED009WL	HED009WC		
LAB FILE ID:	QD24003A	QD24004A	QD24005A		
DATE EXTRACTED:	04/24/1509:30	04/24/1509:30	04/24/1509:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/1517:50	04/24/1518:18	04/24/1518:55	DATE RECEIVED:	04/24/15
PREP. BATCH:	HED009W	HED009W	HED009W		
CALIB. REF:	QD24002A	QD24002A	QD24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Dinoseb	(ND)|ND	1.00	0.590|(0.666)	59|(67)	1.00	0.617|(0.674)	62|(67)	4|(1)	20-100	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4-DCPAA	10.00	7.926|(8.354)	79.3|(83.5)	10.00	8.400|(8.696)	84.0|(87.0)	40-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150142
METHOD: METHOD 8151A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-21-15-AMW-3R
LAB SAMP ID: D142-03 D142-03M D142-03S
LAB FILE ID: QD24012A QD24006A QD24007A
DATE EXTRACTED: 04/24/1509:30 04/24/1509:30 04/24/1509:30 DATE COLLECTED: 04/21/15
DATE ANALYZED: 04/24/1523:11 04/24/1519:31 04/24/1520:08 DATE RECEIVED: 04/22/15
PREP. BATCH: HED009W HED009W HED009W
CALIB. REF: QD24002A QD24002A QD24002A

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Dinoseb	(ND)|ND	1.00	0.684|(0.724)	68|(72)	1.00	0.712|(0.733)	71|(73)	4|(1)	20-100	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
2,4-DCPAA	10.00	8.931|(9.175)	89.3|(91.7)	10.00	9.499|(9.735)	95.0|(97.4)	40-140

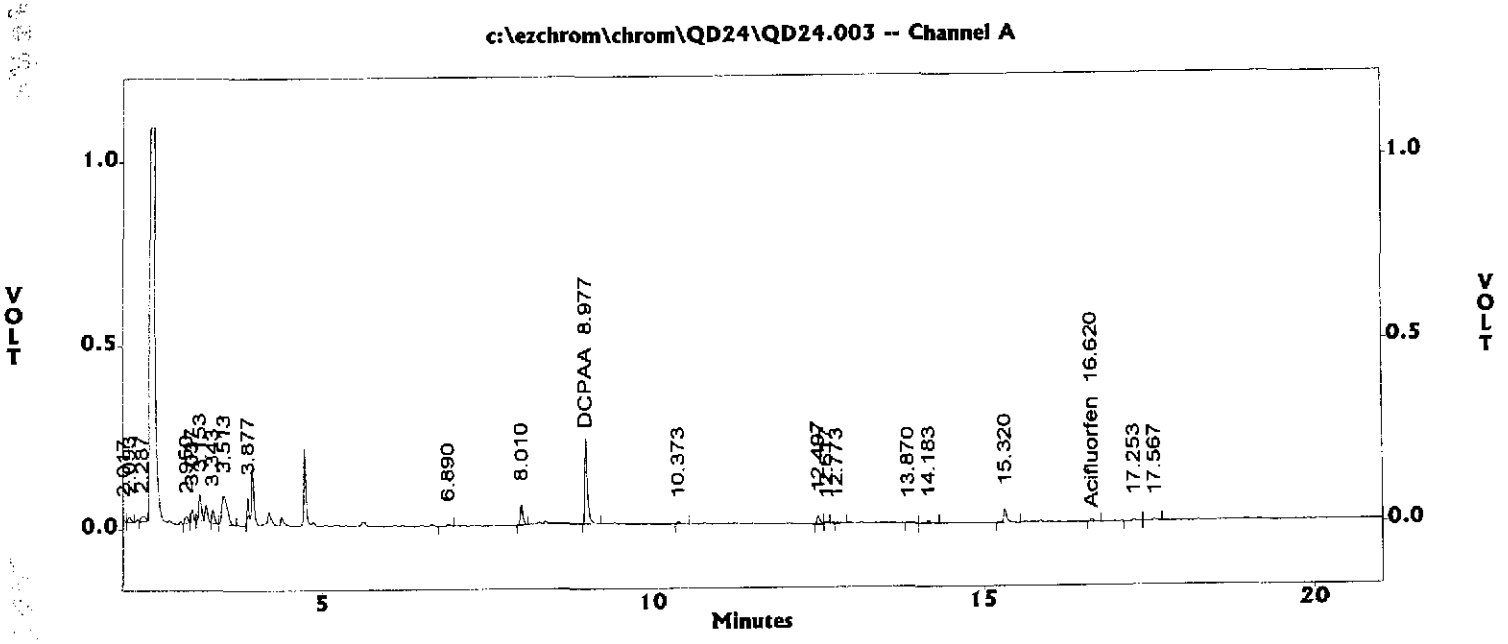
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WB
Acquired : Apr 24, 2015 17:50:41
Printed : Apr 27, 2015 12:35:59
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.730	0.0	0.00	0.000	--
4-Nitrophenol	8.623	0.0	0.00	0.000	--
DCPAA	8.977	635704.0	750.10	847.492	vv
Dicamba	9.220	0.0	0.00	0.000	--
MCPP	9.513	0.0	0.00	0.000	--
MCPA	9.720	0.0	0.00	0.000	--
DCP	10.197	0.0	0.00	0.000	--
2,4-D	10.493	0.0	0.00	0.000	--
Pentachlorophenol	10.740	0.0	0.00	0.000	--
Silvex	11.510	0.0	0.00	0.000	--
Chloramben	11.680	0.0	0.00	0.000	--
2,4,5-T	11.837	0.0	0.00	0.000	--
2,4-DB	12.463	0.0	0.00	0.000	--
Bentazon/Picloram	13.460	0.0	0.00	0.000	--
Dinoseb	13.640	0.0	0.00	0.000	--
Dacthal	13.937	0.0	0.00	0.000	--
Acifluorfen	16.620	23454.0	4699.56	4.991	vv

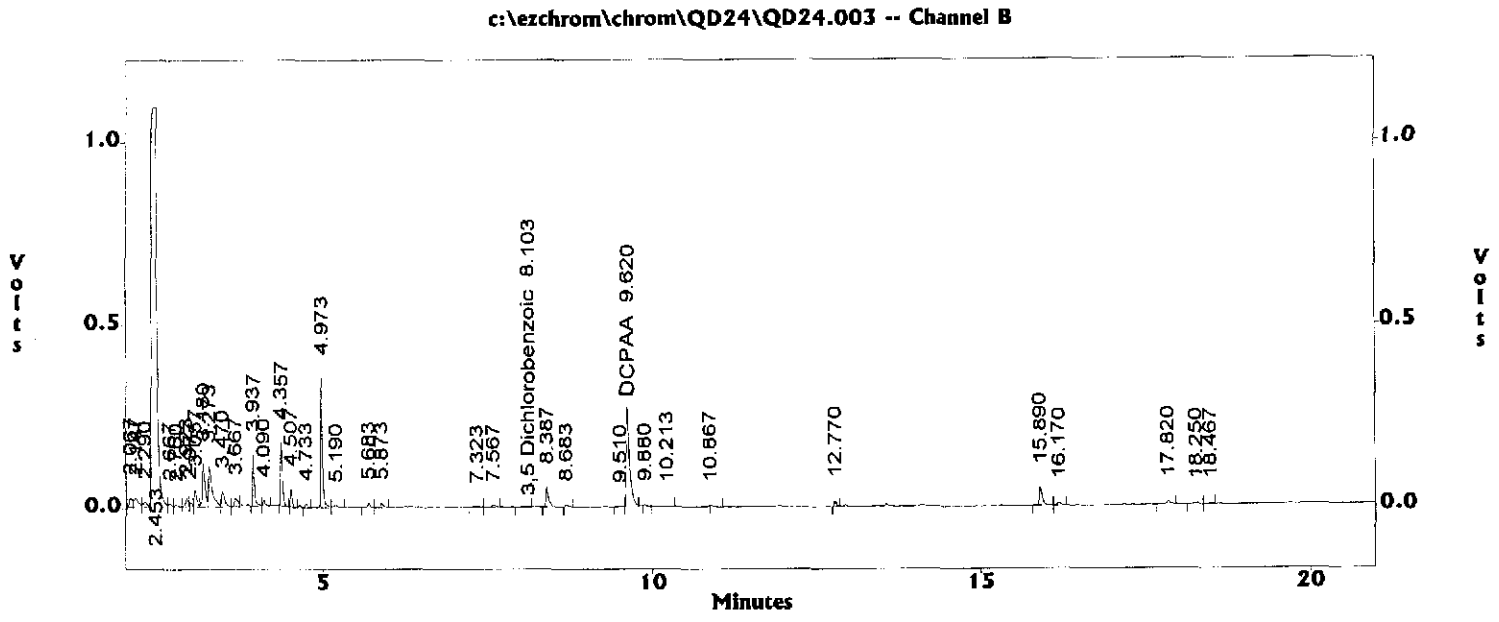


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WB
Acquired : Apr 24, 2015 17:50:41
Printed : Apr 27, 2015 12:35:59
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.103	20185.0	1937.97	10.416	VV
4-Nitrophenol	8.933	0.0	0.00	0.000	--
DCPAA	9.620	921593.0	1082.03	851.729	VV
Dicamba	9.863	0.0	0.00	0.000	--
MCPP	10.040	0.0	0.00	0.000	--
MCPA	10.357	0.0	0.00	0.000	--
DCP	10.787	0.0	0.00	0.000	--
2,4-D	11.183	0.0	0.00	0.000	--
Pentachlorophenol	11.647	0.0	0.00	0.000	--
Silvex	12.147	0.0	0.00	0.000	--
2,4,5-T	12.600	0.0	0.00	0.000	--
Chloramben	12.647	0.0	0.00	0.000	--
2,4-DB	13.173	0.0	0.00	0.000	--
Dinoseb	13.510	0.0	0.00	0.000	--
Bentazon	14.113	0.0	0.00	0.000	--
Dacthal	14.517	0.0	0.00	0.000	--
Picloram	14.593	0.0	0.00	0.000	--
Acifluorfen	16.800	0.0	0.00	0.000	--

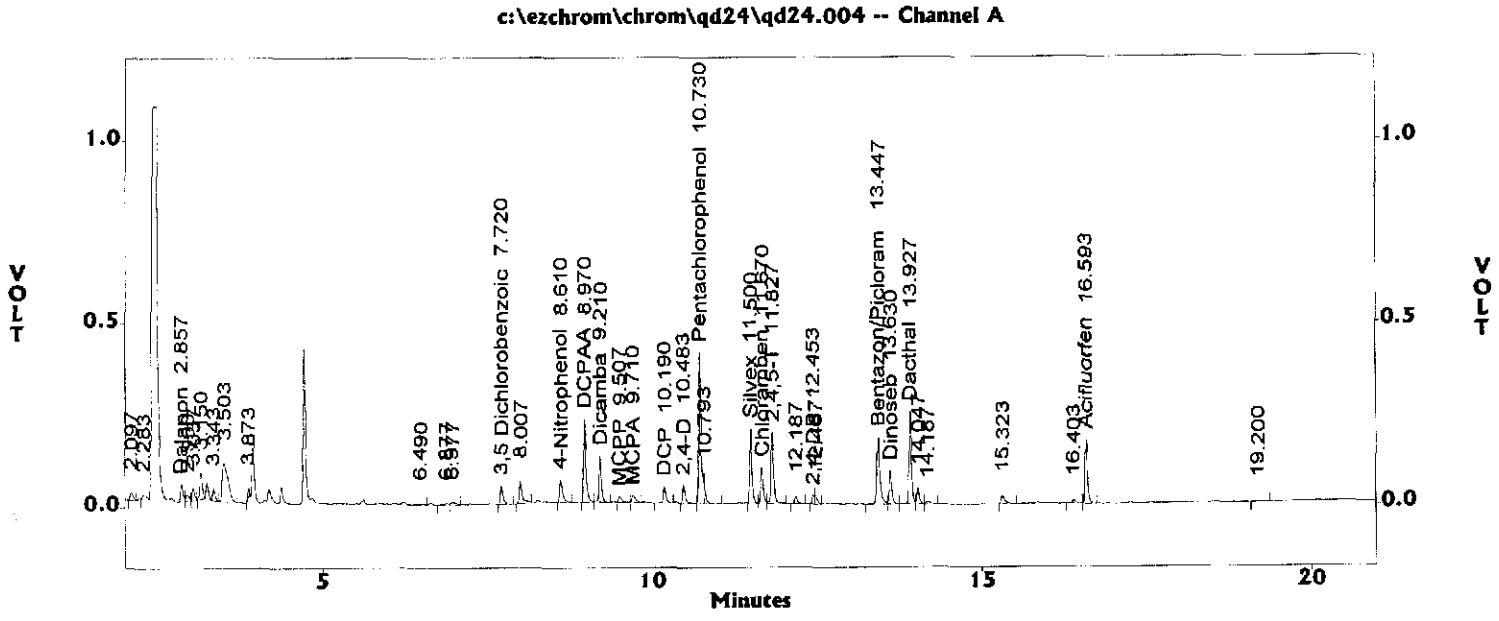


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WL
Acquired : Apr 24, 2015 18:18:42
Printed : Apr 27, 2015 12:43:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	123665.0	1656.60	74.650	VV
3,5 Dichlorobenzo	7.720	141334.0	1722.43	82.055	vv
4-Nitrophenol	8.610	201180.0	1289.87	155.969	VV
DCPAA	8.970	594532.0	750.10	792.604	vv
Dicamba	9.210	316181.0	3238.35	97.637	vv
MCPP	9.507	54169.0	8.42	6435.658	VV
MCPA	9.710	77431.0	15.83	4891.214	VV
DCP	10.190	126516.0	1193.88	105.970	VV
2,4-D	10.483	155818.0	1510.05	103.187	VV
Pentachlorophenol	10.730	1062110.0	12495.55	84.999	VS
Silvex	11.500	508997.0	5002.75	101.743	SV
Chloramben	11.670	264216.0	4132.75	63.932	VV
2,4,5-T	11.827	544620.0	5396.66	100.918	VV
2,4-DB	12.453	51677.0	801.45	64.480	Bx
Bentazon/Picloram	13.447	603895.0	3540.81	170.553	VV
Dinoseb	13.630	241265.0	4088.80	59.006	VV
Dacthal	13.927	632358.0	6873.97	91.993	VV
Acifluorfen	16.593	454946.0	4699.56	96.806	vv

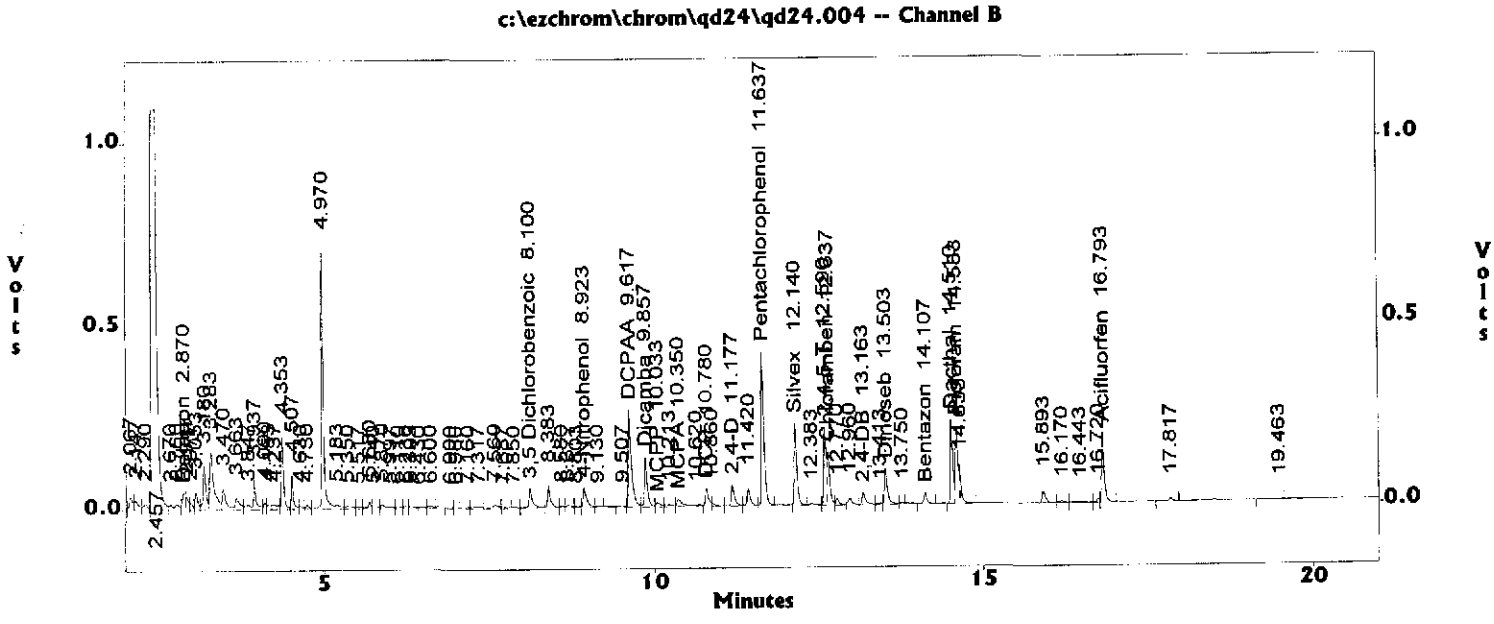


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WL
Acquired : Apr 24, 2015 18:18:42
Printed : Apr 27, 2015 12:43:15
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	139377.0	1730.88	80.524	VS
3,5 Dichlorobenzoic	8.100	224236.0	1937.97	115.707	VV
4-Nitrophenol	8.923	217411.0	1457.43	149.174	VV
DCPAA	9.617	903913.0	1082.03	835.389	VV
Dicamba	9.857	417139.0	3890.32	107.225	VV
MCPP	10.033	55891.0	8.21	6803.546	VV
MCPA	10.350	118775.0	17.76	6689.497	VV
DCP	10.780	167903.0	1485.51	113.027	Vx
2,4-D	11.177	216365.0	1894.33	114.217	VV
Pentachlorophenol	11.637	1274246.0	14739.16	86.453	VV
Silvex	12.140	644882.0	5953.99	108.311	VV
2,4,5-T	12.590	513080.0	4983.71	102.951	VS
Chloramben	12.637	419754.0	6012.12	69.818	SV
2,4-DB	13.163	134101.0	1025.98	130.706	VV
Dinoseb	13.503	324345.0	4871.89	66.575	VV
Bentazon	14.107	114878.0	803.13	143.038	VV
Dacthal	14.510	592195.0	6624.78	89.391	VV
Picloram	14.583	637329.0	8580.05	74.280	VS
Acifluorfen	16.793	535450.0	6000.10	89.240	SV

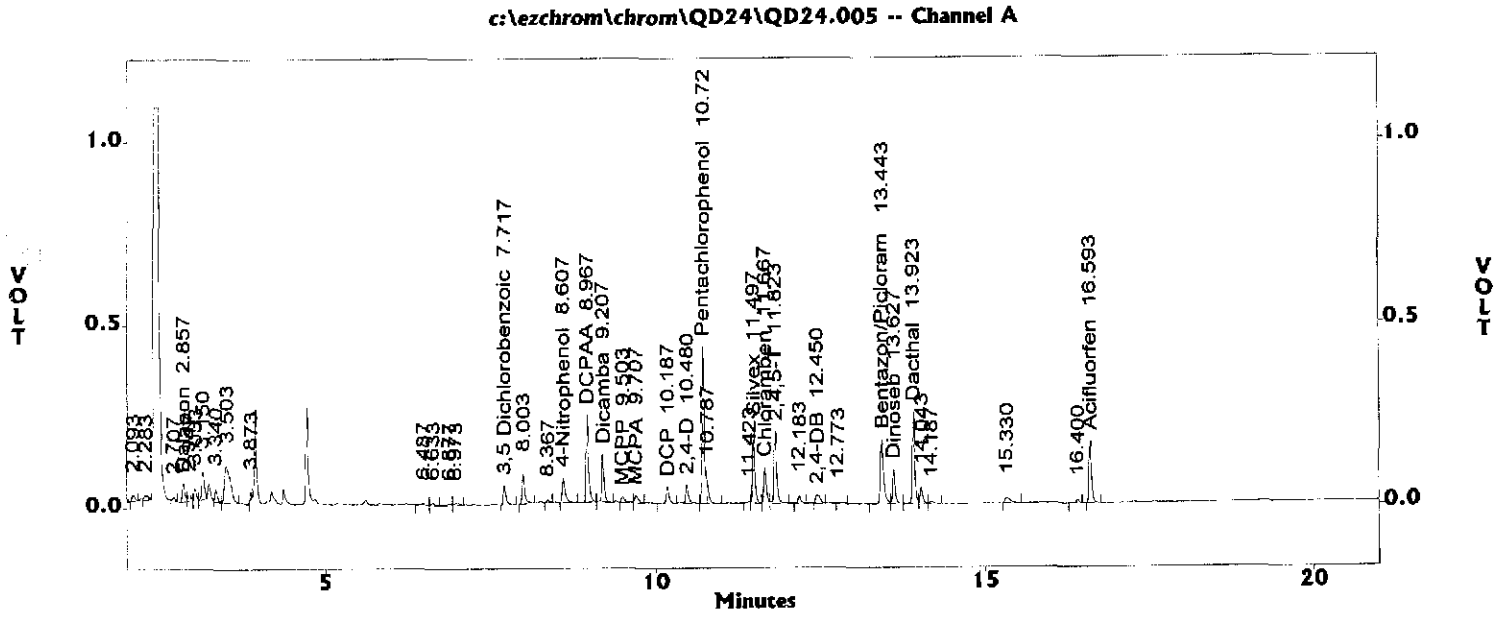


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WC
Acquired : Apr 24, 2015 18:55:05
Printed : Apr 27, 2015 12:36:06
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	135347.0	1656.60	81.702	VV
3,5 Dichlorobenzo	7.717	150863.0	1722.43	87.587	vv
4-Nitrophenol	8.607	217475.0	1289.87	168.602	VV
DCPAA	8.967	630077.0	750.10	839.991	vv
Dicamba	9.207	325601.0	3238.35	100.545	vv
MCPP	9.503	53283.0	8.42	6330.395	VV
MCPA	9.707	78667.0	15.83	4969.291	VV
DCP	10.187	129925.0	1193.88	108.826	VV
2,4-D	10.480	159559.0	1510.05	105.665	VV
Pentachlorophenol	10.727	1095941.0	12495.55	87.706	VS
Silvex	11.497	523493.0	5002.75	104.641	SV
Chloramben	11.667	268663.0	4132.75	65.008	VV
2,4,5-T	11.823	558609.0	5396.66	103.510	VV
2,4-DB	12.450	111329.0	801.45	138.910	VV
Bentazon/Picloram	13.443	608709.0	3540.81	171.912	VV
Dinoseb	13.627	252370.0	4088.80	61.722	VV
Dacthal	13.923	640605.0	6873.97	93.193	VV
Acifluorfen	16.593	445389.0	4699.56	94.773	vv

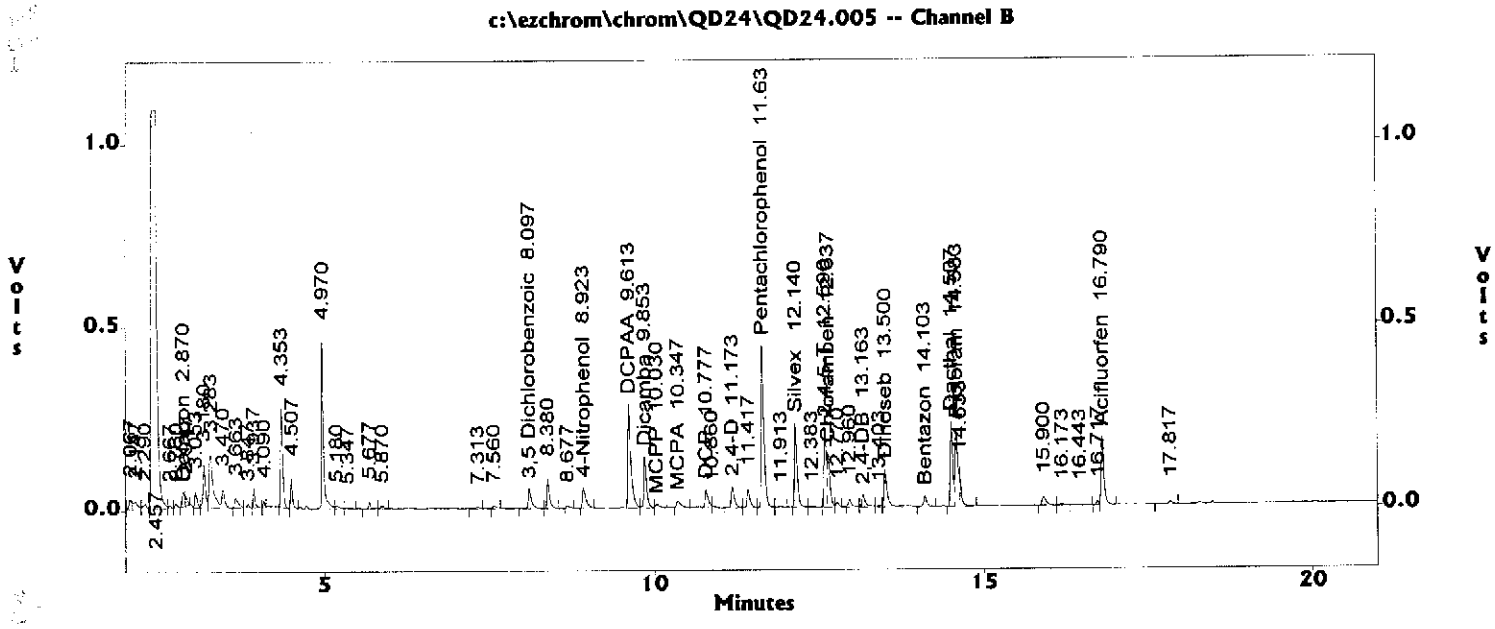


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WC
Acquired : Apr 24, 2015 18:55:05
Printed : Apr 27, 2015 12:36:06
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	101428.0	1730.88	58.599	VS
3,5 Dichlorobenzoic	8.097	191346.0	1937.97	98.735	VV
4-Nitrophenol	8.923	211896.0	1457.43	145.390	VV
DCPAA	9.613	940964.0	1082.03	869.631	VV
Dicamba	9.853	414479.0	3890.32	106.541	VV
MCPP	10.030	49058.0	8.21	5971.773	VV
MCPA	10.347	96371.0	17.76	5427.687	VV
DCP	10.777	161817.0	1485.51	108.930	Vx
2,4-D	11.173	200537.0	1894.33	105.862	VV
Pentachlorophenol	11.637	1338109.0	14739.16	90.786	VV
Silvex	12.140	656133.0	5953.99	110.201	VV
2,4,5-T	12.590	528761.0	4983.71	106.098	VS
Chloramben	12.637	416380.0	6012.12	69.257	SV
2,4-DB	13.163	130397.0	1025.98	127.096	VV
Dinoseb	13.500	328234.0	4871.89	67.373	VV
Bentazon	14.103	111644.0	803.13	139.011	VV
Dacthal	14.507	602572.0	6624.78	90.957	VV
Picloram	14.583	637082.0	8580.05	74.252	VS
Acifluorfen	16.790	515834.0	6000.10	85.971	SV

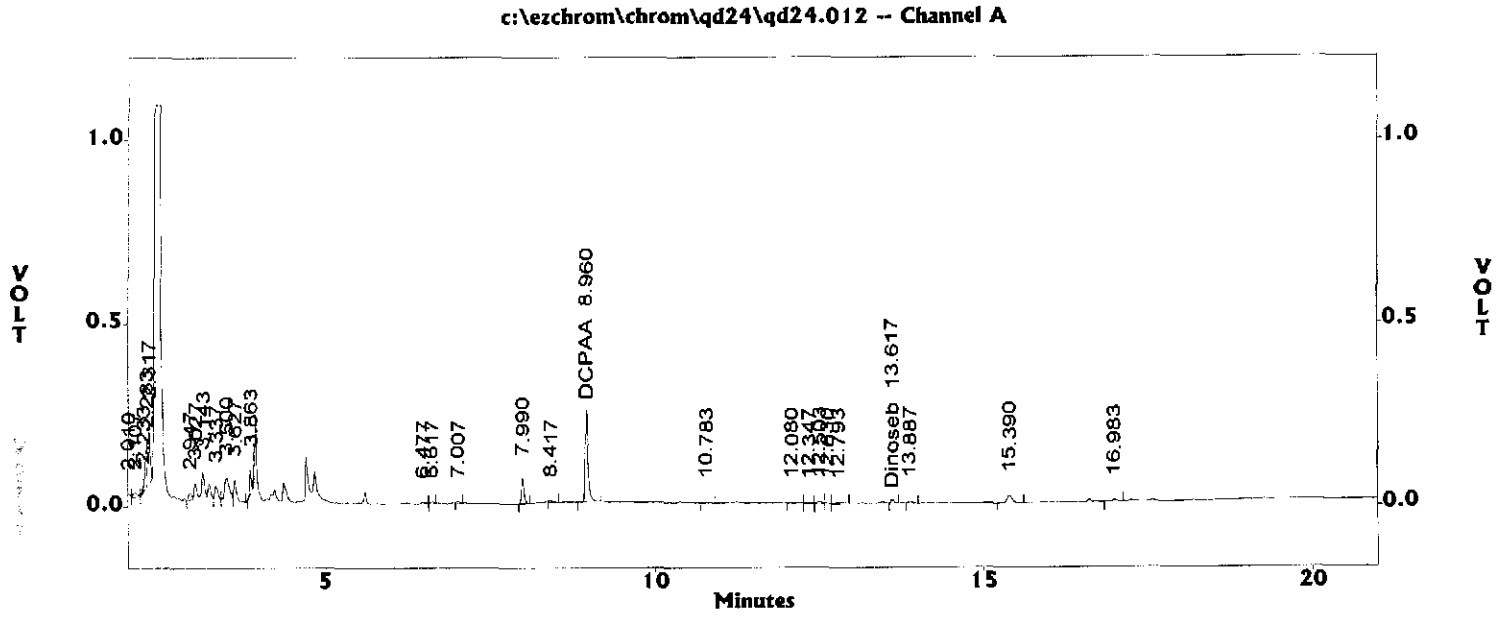


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.012
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-03
Acquired : Apr 24, 2015 23:11:27
Printed : Apr 27, 2015 12:58:44
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.713	0.0	0.00	0.000	--
4-Nitrophenol	8.603	0.0	0.00	0.000	--
DCPAA	8.960	732221.0	750.10	976.164	vv
Dicamba	9.203	0.0	0.00	0.000	--
MCPP	9.495	0.0	0.00	0.000	--
MCPA	9.707	0.0	0.00	0.000	--
DCP	10.183	0.0	0.00	0.000	--
2,4-D	10.477	0.0	0.00	0.000	--
Pentachlorophenol	10.723	0.0	0.00	0.000	--
Silvex	11.493	0.0	0.00	0.000	--
Chloramben	11.667	0.0	0.00	0.000	--
2,4,5-T	11.820	0.0	0.00	0.000	--
2,4-DB	12.447	0.0	0.00	0.000	--
Bentazon/Picloram	13.443	0.0	0.00	0.000	--
Dinoseb	13.617	29636.0	4088.80	7.248	VB
Dacthal	13.920	0.0	0.00	0.000	--
Acifluorfen	16.590	0.0	0.00	0.000	--

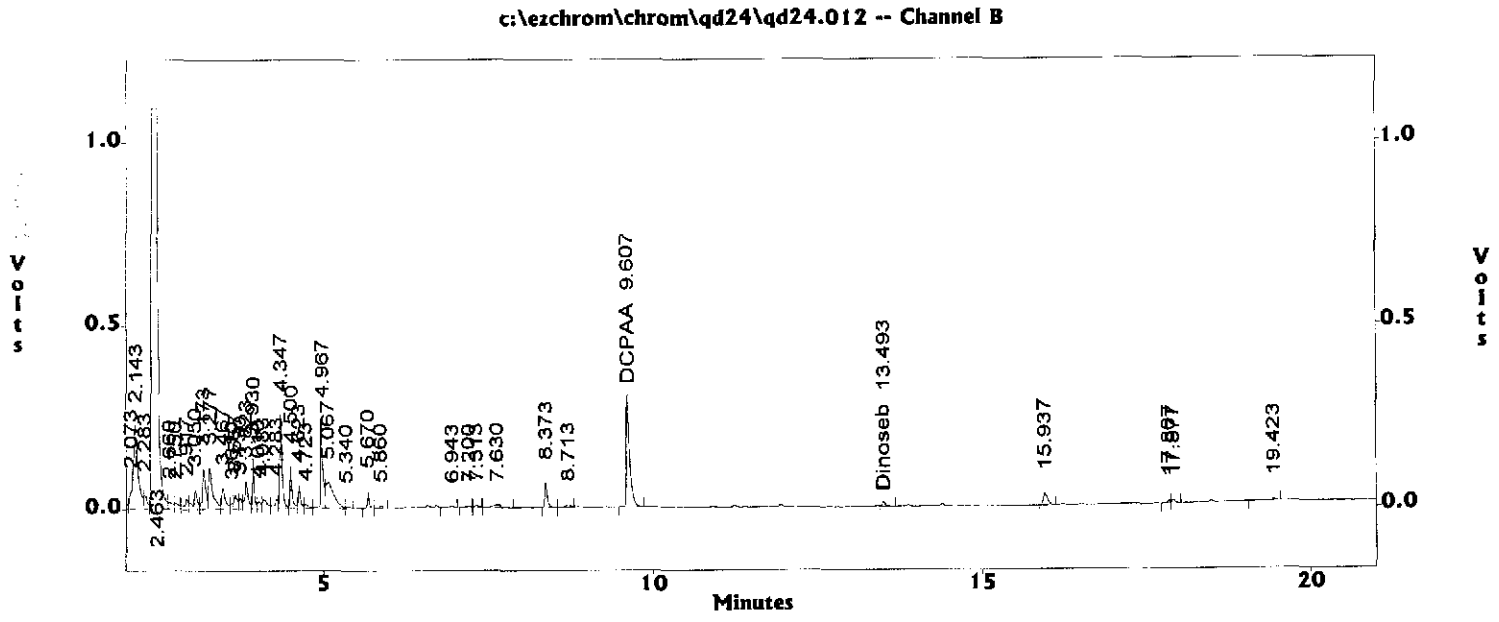


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.012
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-03
Acquired : Apr 24, 2015 23:11:27
Printed : Apr 27, 2015 12:58:44
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.867	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.097	0.0	0.00	0.000	--
4-Nitrophenol	8.920	0.0	0.00	0.000	--
DCPAA	9.607	1045006.0	1082.03	965.786	BV
Dicamba	9.853	0.0	0.00	0.000	--
MCPP	10.030	0.0	0.00	0.000	--
MCPA	10.347	0.0	0.00	0.000	--
DCP	10.777	0.0	0.00	0.000	--
2,4-D	11.173	0.0	0.00	0.000	--
Pentachlorophenol	11.633	0.0	0.00	0.000	--
Silvex	12.137	0.0	0.00	0.000	--
2,4,5-T	12.587	0.0	0.00	0.000	--
Chloramben	12.637	0.0	0.00	0.000	--
2,4-DB	13.163	0.0	0.00	0.000	--
Dinoseb	13.493	42256.0	4871.89	8.673	VV
Bentazon	14.103	0.0	0.00	0.000	--
Dacthal	14.503	0.0	0.00	0.000	--
Picloram	14.583	0.0	0.00	0.000	--
Acifluorfen	16.787	0.0	0.00	0.000	--

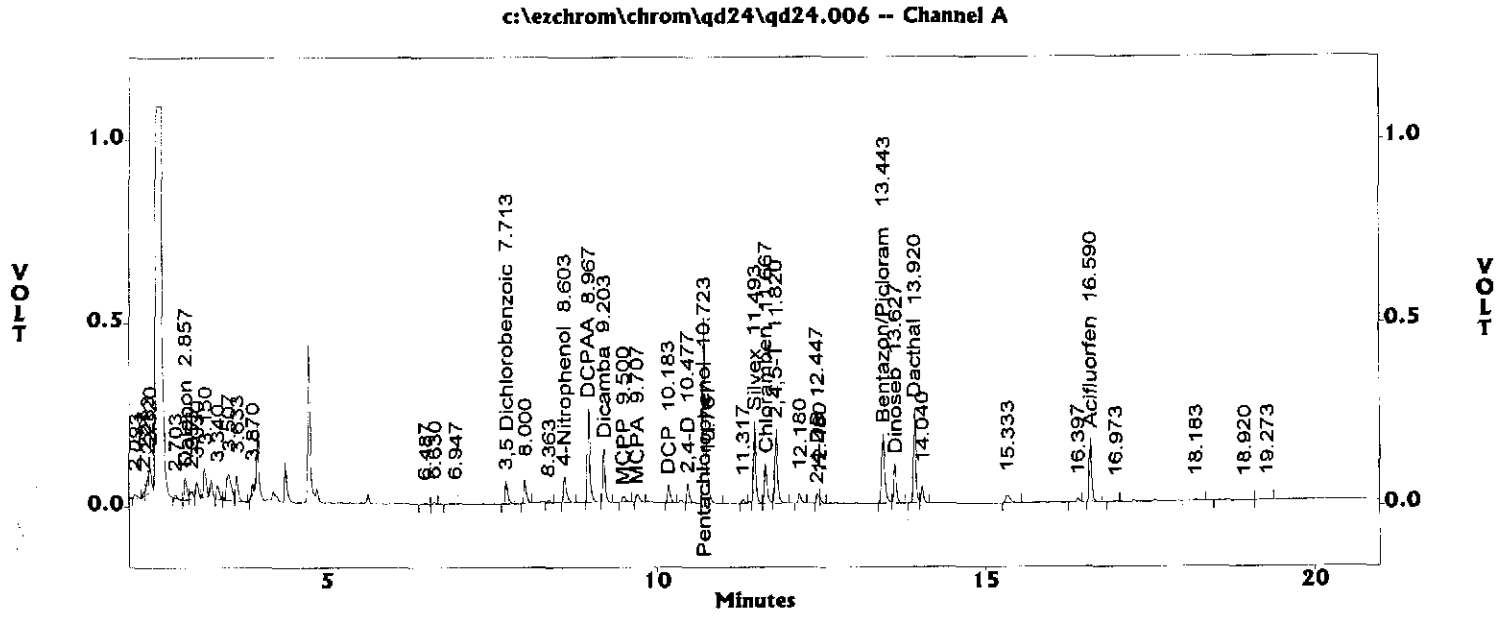


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-03M
Acquired : Apr 24, 2015 19:31:29
Printed : Apr 27, 2015 12:47:50
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	161874.0	1656.60	97.715	VV
3,5 Dichlorobenzo	7.713	172339.0	1722.43	100.056	vv
4-Nitrophenol	8.603	221187.0	1289.87	171.479	VV
DCPAA	8.967	669945.0	750.10	893.141	vv
Dicamba	9.203	350787.0	3238.35	108.323	vv
MCPP	9.500	51650.0	8.42	6136.383	VI
MCPA	9.707	77029.0	15.83	4865.820	BV
DCP	10.183	128374.0	1193.88	107.526	BI
2,4-D	10.477	147611.0	1510.05	97.752	BV
Pentachlorophenol	10.723	1300141.0	12495.55	104.048	VS
Silvex	11.493	553232.0	5002.75	110.586	SV
Chloramben	11.667	301343.0	4132.75	72.916	VV
2,4,5-T	11.820	573237.0	5396.66	106.221	VV
2,4-DB	12.447	66205.0	801.45	82.607	VS
Bentazon/Picloram	13.443	629609.0	3540.81	177.815	BV
Dinoseb	13.627	279684.0	4088.80	68.403	VB
Dacthal	13.920	652969.0	6873.97	94.991	BV
Acifluorfen	16.590	453331.0	4699.56	96.462	vv

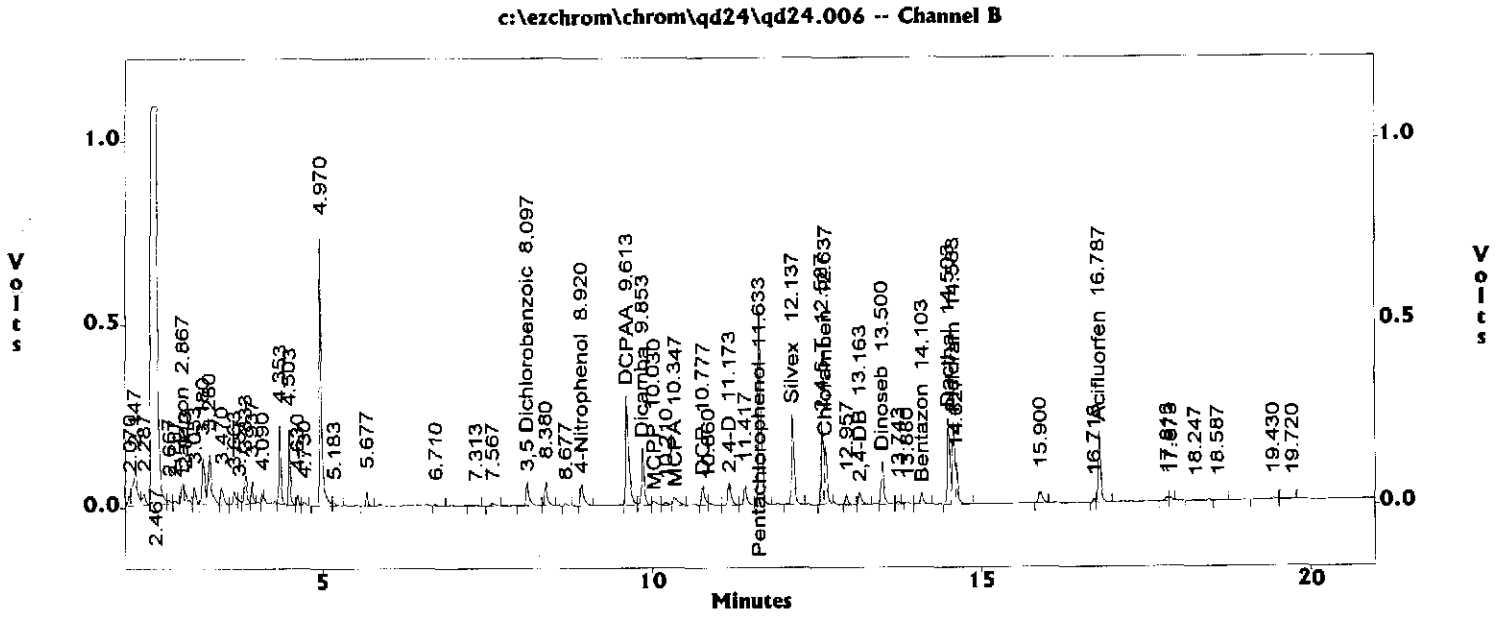


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-03M
Acquired : Apr 24, 2015 19:31:29
Printed : Apr 27, 2015 12:47:50
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.867	146331.0	1730.88	84.541	MM
3,5 Dichlorobenzoic	8.097	211089.0	1937.97	108.923	VV
4-Nitrophenol	8.920	221984.0	1457.43	152.312	VV
DCPAA	9.613	992709.0	1082.03	917.453	VV
Dicamba	9.853	445813.0	3890.32	114.596	VV
MCPP	10.030	45189.0	8.21	5500.804	VV
MCPA	10.347	106203.0	17.76	5981.433	VV
DCP	10.777	171554.0	1485.51	115.485	Vx
2,4-D	11.173	209170.0	1894.33	110.419	VV
Pentachlorophenol	11.633	1594372.0	14739.16	108.173	VV
Silvex	12.137	715485.0	5953.99	120.169	VV
2,4,5-T	12.587	528930.0	4983.71	106.132	MM
Chloramben	12.637	409165.0	6012.12	68.057	MM
2,4-DB	13.163	114705.0	1025.98	111.801	VV
Dinoseb	13.500	352940.0	4871.89	72.444	VV
Bentazon	14.103	99091.0	803.13	123.381	VV
Dacthal	14.503	608783.0	6624.78	91.895	VV
Picloram	14.583	652685.0	8580.05	76.070	VS
Acifluorfen	16.787	532232.0	6000.10	88.704	VV

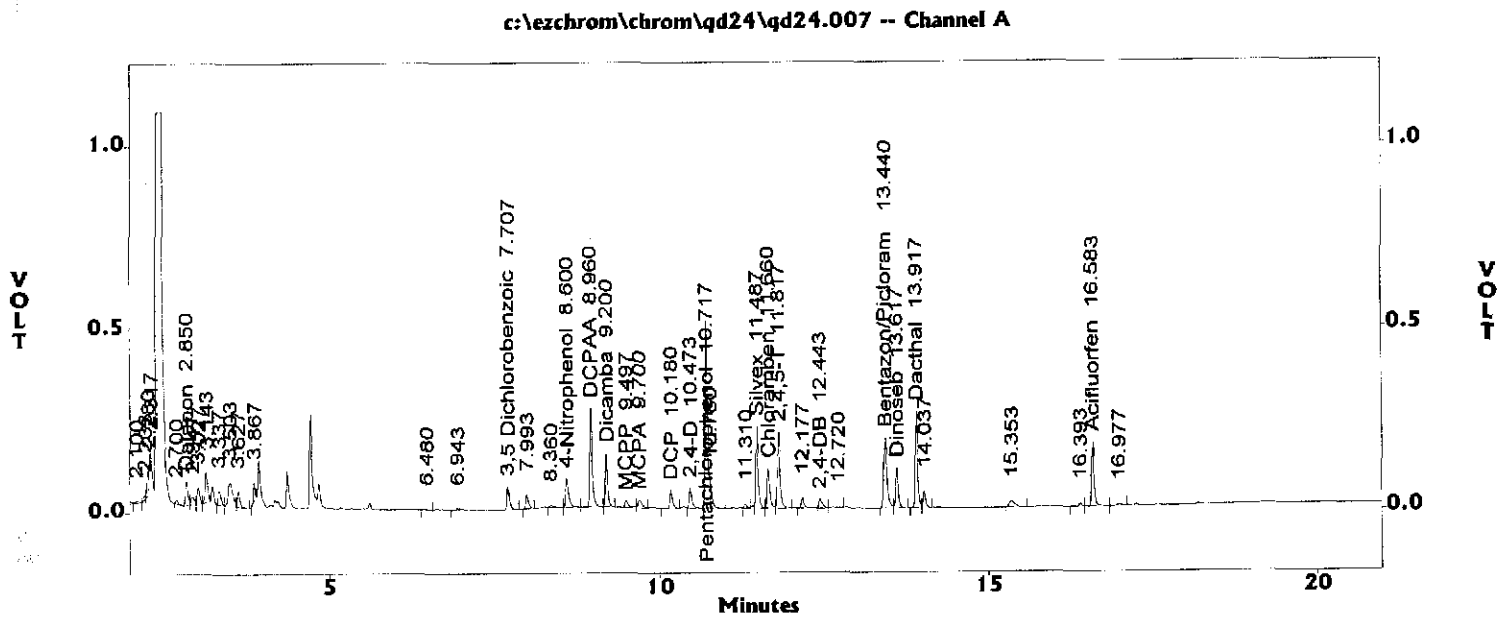


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-03S
Acquired : Apr 24, 2015 20:08:09
Printed : Apr 27, 2015 12:51:45
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.850	165338.0	1656.60	99.806	VV
3,5 Dichlorobenzo	7.707	177397.0	1722.43	102.992	BV
4-Nitrophenol	8.600	249449.0	1289.87	193.390	VV
DCPAA	8.960	712495.0	750.10	949.867	vv
Dicamba	9.200	356694.0	3238.35	110.147	vv
MCPP	9.497	58463.0	8.42	6945.815	VV
MCPA	9.700	84176.0	15.83	5317.287	VV
DCP	10.180	130795.0	1193.88	109.554	VV
2,4-D	10.473	168875.0	1510.05	111.834	VV
Pentachlorophenol	10.717	1312268.0	12495.55	105.019	VS
Silvex	11.487	566872.0	5002.75	113.312	SV
Chloramben	11.660	307151.0	4132.75	74.321	VV
2,4,5-T	11.817	593581.0	5396.66	109.990	VV
2,4-DB	12.443	90541.0	801.45	112.972	VV
Bentazon/Picloram	13.440	674116.0	3540.81	190.384	BV
Dinoseb	13.617	291025.0	4088.80	71.176	VB
Dacthal	13.917	667718.0	6873.97	97.137	BV
Acifluorfen	16.583	469239.0	4699.56	99.847	vv

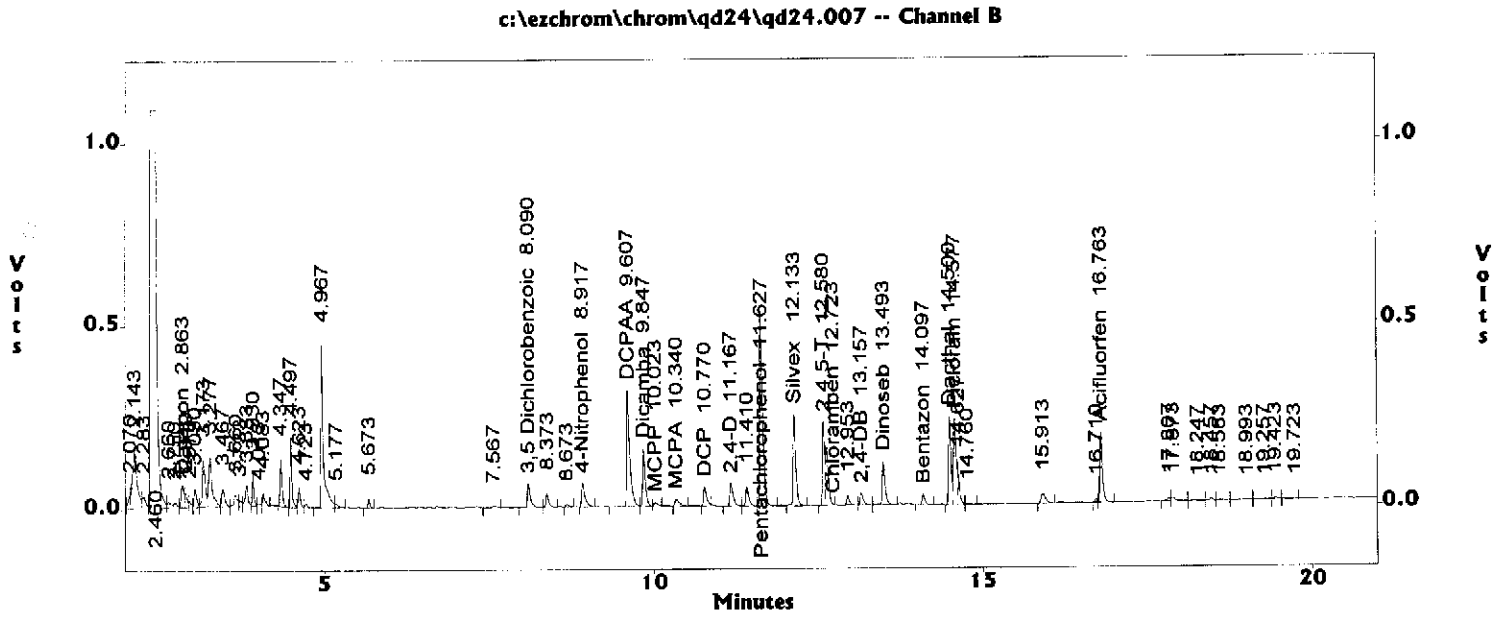


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D142-03S
Acquired : Apr 24, 2015 20:08:09
Printed : Apr 27, 2015 12:51:45
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.863	175343.0	1730.88	101.303	VS
3,5 Dichlorobenzoic	8.090	208887.0	1937.97	107.787	VV
4-Nitrophenol	8.917	230975.0	1457.43	158.481	vv
DCPAA	9.607	1053392.0	1082.03	973.536	VV
Dicamba	9.847	443726.0	3890.32	114.059	VV
MCPP	10.023	39890.0	8.21	4855.763	VV
MCPA	10.340	94012.0	17.76	5294.826	VV
DCP	10.770	172377.0	1485.51	116.039	Vx
2,4-D	11.167	212690.0	1894.33	112.277	VV
Pentachlorophenol	11.627	1620392.0	14739.16	109.938	VV
Silvex	12.133	733471.0	5953.99	123.190	VV
2,4,5-T	12.580	507156.0	4983.71	101.763	MM
Chloramben	12.723	481267.0	6012.12	80.049	MM
2,4-DB	13.157	104675.0	1025.98	102.025	VV
Dinoseb	13.493	357332.0	4871.89	73.346	VV
Bentazon	14.097	84023.0	803.13	104.619	vv
Dacthal	14.500	634521.0	6624.78	95.780	VV
Picloram	14.577	711000.0	8580.05	82.867	VS
Acifluorfen	16.783	536876.0	6000.10	89.478	SV



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08008A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	1809	1805	1712	1656	1563	1556	1495	1656.6	7.5
3,5-Dichlorobenzo	9.31	0	2078	1910	1765	1677	1577	1572	1479	1722.4	12.3
4-Nitrophenol	9.09	0	1534	1436	1334	1258	1188	1167	1112	1289.9	11.9
Dicamba	9.40	0	3647	3441	3288	3204	3073	3058	2958	3238.3	7.5
MCPP	469.30	0	0	11	9	8	8	8	7	8.4	16.6
MCPA	467.30	0	0	21	17	15	14	13	0	15.8	19.9
Dichloroprop	9.44	0	1405	1283	1226	1177	1114	1098	1053	1193.9	10.2
2,4-D	9.40	0	1874	1730	1530	1567	1321	1302	1246	1510.1	15.6
Pentachlorophenol	9.50	13925	13848	13159	12518	12163	11620	11552	11179	12495.6	8.5
2,4,5-TP(Silvex)	9.50	0	5286	5192	5108	5054	4855	4838	4686	5002.7	4.3
Chloramben	9.36	0	4116	4122	4174	4244	4105	4138	4030	4132.7	1.6
2,4,5-T	9.48	0	6036	5721	5485	5420	5147	5071	4896	5396.7	7.3
2,4-DB	9.47	0	881	822	795	793	761	778	780	801.4	5.0
Bentazon/Picloram	18.90	3392	3597	3537	3608	3645	3523	3561	3463	3540.8	2.3
Dinoseb	9.45	0	5054	4461	4163	3937	3747	3695	3564	4088.8	12.8
Dacthal	9.15	0	7742	7239	7013	6826	6535	6498	6264	6874.0	7.4
Acifluorfen	9.63	0	5063	4885	4841	4621	4525	4529	4432	4699.6	4.9
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	984	847	755	712	668	657	628	750.1	16.8

AM 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31
CONC UNIT: ppb

	CONC	CALIBRATION FACTORS (AREA)/UNIT								
COMPOUND	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	1753	1769	1717	1706	1630	1723	1817	1730.9	3.4
3,5-Dichlorobenzo	9.31	0	2181	2065	1959	1911	1840	1834	1776	1938.0	7.4
4-Nitrophenol	9.09	0	1792	1637	1508	1414	1325	1294	1231	1457.4	13.8
Dicamba	9.40	0	4050	3934	3873	3897	3810	3866	3803	3890.3	2.2
MCPP	469.30	0	0	8	8	8	8	8	8	8.2	2.7
MCPA	467.30	0	0	22	19	18	17	16	15	17.8	13.3
Dichloroprop	9.44	0	1697	1580	1484	1454	1410	1409	1364	1485.5	7.8
2,4-D	9.40	0	2126	1995	1919	1879	1799	1799	1743	1894.3	7.0
Pentachlorophenol	9.50	13837	14569	14883	15072	15167	14776	14949	14660	14739.2	2.8
2,4,5-TP(Silvex)	9.50	0	5590	5718	5943	6118	6045	6172	6092	5954.0	3.7
Chloramben	9.36	0	5223	5359	5888	6423	6199	6421	6573	6012.1	9.0
2,4,5-T	9.48	0	5054	5193	5118	4935	4957	4984	4645	4983.7	3.5
2,4-DB	9.47	0	1135	1050	1033	1031	981	991	961	1026.0	5.6
Dinoseb	9.45	0	5336	5095	4957	4817	4655	4681	4562	4871.9	5.7
Bentazon	9.45	0	800	747	780	824	807	834	829	803.1	3.8
Dacthal	9.15	0	6383	6458	6737	6779	6657	6724	6635	6624.8	2.3
Picloram	9.45	0	7449	7767	8358	8929	8929	9333	9295	8580.1	8.7
Acifluorfen	9.63	0	5984	5948	6055	5972	5946	6064	6031	6000.1	0.8
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	1299	1179	1091	1050	1000	994	960	1082.0	11.1

AC 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08008A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31

	RT OF STANDARDS (MIN)							MEAN	RT WINDOW		RTWINDOW
COMPOUND	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
Dalapon	2.887	2.883	2.883	2.880	2.877	2.877	2.877	2.877	2.879	2.865	2.893	0.014
3,5-Dichlorobenzo	7.810	7.800	7.793	7.793	7.790	7.790	7.787	7.787	7.791	7.769	7.813	0.022
4-Nitrophenol	8.717	8.703	8.697	8.693	8.690	8.690	8.683	8.683	8.691	8.670	8.712	0.021
Dicamba	0.000	9.297	9.290	9.290	9.287	9.287	9.283	9.283	9.288	9.273	9.303	0.015
MCPP	9.603	9.593	9.587	9.587	9.583	9.583	9.580	9.580	9.583	9.562	9.604	0.021
MCPA	9.810	9.800	9.793	9.793	9.787	9.790	9.783	9.787	9.789	9.767	9.811	0.022
Dichloroprop	10.290	10.283	10.277	10.273	10.270	10.273	10.267	10.270	10.273	10.255	10.291	0.018
2,4-D	10.590	10.583	10.573	10.573	10.567	10.570	10.563	10.563	10.570	10.550	10.590	0.020
Pentachlorophenol	10.833	10.827	10.820	10.820	10.817	10.817	10.813	10.813	10.820	10.802	10.838	0.018
2,4,5-TP(Silvex)	11.607	11.600	11.593	11.593	11.587	11.590	11.583	11.587	11.590	11.574	11.606	0.016
Chloramben	0.000	11.773	11.767	11.763	11.760	11.760	11.753	11.757	11.762	11.746	11.778	0.016
2,4,5-T	11.940	11.933	11.927	11.923	11.917	11.917	11.913	11.917	11.921	11.900	11.942	0.021
2,4-DB	12.570	12.560	12.550	12.550	12.543	12.543	12.540	12.540	12.547	12.525	12.569	0.022
Bentazon/Picloram	13.573	13.563	13.553	13.550	13.543	13.543	13.540	13.543	13.551	13.530	13.572	0.021
Dinoseb	13.747	13.743	13.737	13.737	13.730	13.733	13.727	13.730	13.734	13.716	13.752	0.018
Dacthal	14.047	14.040	14.033	14.033	14.027	14.030	14.023	14.030	14.031	14.010	14.052	0.021
Acifluorfen	16.730	16.723	16.720	16.717	16.713	16.713	16.707	16.710	16.715	16.697	16.733	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	0.000	9.057	9.050	9.050	9.047	9.047	9.043	9.043	9.048	9.032	9.064	0.016

4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31

	RT OF STANDARDS (MIN)								MEAN	RT WINDOW		RTWINDOW
COMPOUND	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
Dalapon	2.883	2.880	2.877	2.877	2.873	2.873	2.873	2.873	2.875	2.859	2.891	0.016
3,5-Dichlorobenzo	8.143	8.133	8.130	8.127	8.123	8.127	8.123	8.123	8.127	8.111	8.143	0.016
4-Nitrophenol	8.973	8.967	8.960	8.957	8.953	8.953	8.950	8.950	8.956	8.938	8.974	0.018
Dicamba	9.897	9.890	9.887	9.883	9.880	9.883	9.880	9.880	9.883	9.867	9.899	0.016
MCPP	0.000	10.067	10.060	10.060	10.053	10.057	10.053	10.053	10.056	10.040	10.072	0.016
MCPA	0.000	10.387	10.377	10.377	10.370	10.373	10.370	10.370	10.373	10.357	10.389	0.016
Dichloroprop	10.817	10.813	10.807	10.807	10.800	10.803	10.800	10.800	10.804	10.790	10.818	0.014
2,4-D	11.217	11.213	11.207	11.203	11.200	11.200	11.197	11.197	11.202	11.186	11.218	0.016
Pentachlorophenol	11.677	11.673	11.667	11.667	11.663	11.663	11.660	11.663	11.667	11.649	11.685	0.018
2,4,5-TP(Silvex)	12.177	12.173	12.167	12.167	12.163	12.163	12.160	12.163	12.165	12.151	12.179	0.014
Chloramben	12.680	12.673	12.667	12.667	12.660	12.663	12.660	12.663	12.665	12.635	12.695	0.030
2,4,5-T	12.627	12.623	12.617	12.617	12.610	12.613	12.610	12.610	12.614	12.598	12.630	0.016
2,4-DB	13.203	13.197	13.193	13.190	13.183	13.187	13.183	13.183	13.188	13.164	13.212	0.024
Dinoseb	13.537	13.533	13.527	13.527	13.523	13.523	13.520	13.523	13.525	13.507	13.543	0.018
Bentazon	14.140	14.133	14.130	14.130	14.127	14.127	14.123	14.127	14.128	14.112	14.144	0.016
Dacthal	14.540	14.537	14.533	14.530	14.527	14.527	14.523	14.527	14.529	14.513	14.545	0.016
Picloram	14.623	14.617	14.610	14.610	14.603	14.603	14.600	14.603	14.607	14.583	14.631	0.024
Acifluorfen	16.820	16.813	16.810	16.810	16.807	16.803	16.803	16.803	16.807	16.789	16.825	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	9.657	9.650	9.643	9.643	9.640	9.640	9.637	9.637	9.641	9.625	9.657	0.016

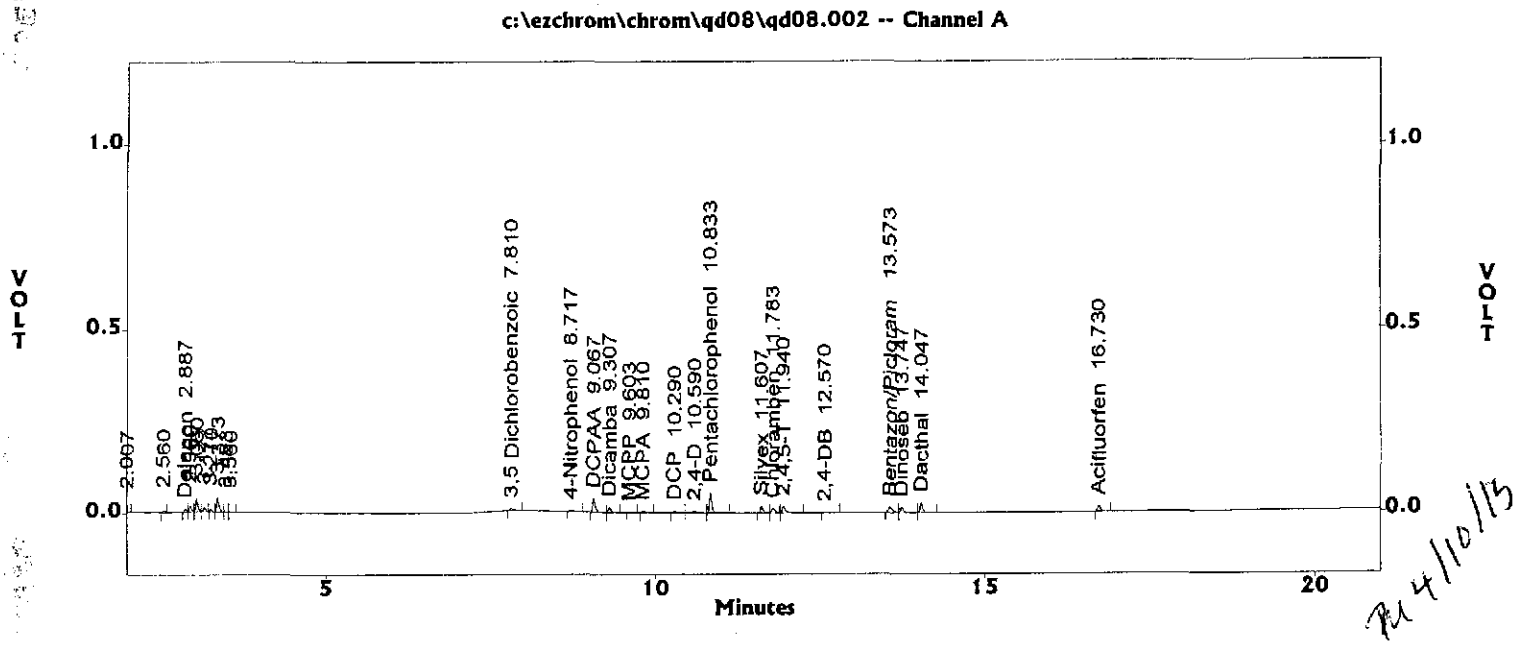
JM 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	10.866	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	12.034	vv
4-Nitrophenol	8.717	13948.0	1289.87	10.813	BV
DCPAA	9.067	104261.0	750.10	138.996	vv
Dicamba	9.307	35254.0	3238.35	10.886	vv
MCPP	9.603	7291.0	8.42	866.222	BB
MCPA	9.810	17622.0	15.83	1113.159	BV
DCP	10.290	14098.0	1193.88	11.809	BV
2,4-D	10.590	18783.0	1510.05	12.439	VV
Pentachlorophenol	10.833	132233.0	12495.55	10.582	VB
Silvex	11.607	49337.0	5002.75	9.862	BV
Chloramben	11.783	37175.0	4132.75	8.995	VV
2,4,5-T	11.940	57327.0	5396.66	10.623	VB
2,4-DB	12.570	8202.0	801.45	10.234	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.106	BV
Dinoseb	13.747	48219.0	4088.80	11.793	VV
Dacthal	14.047	71024.0	6873.97	10.332	VB
Acifluorfen	16.730	46390.0	4699.56	9.871	vv



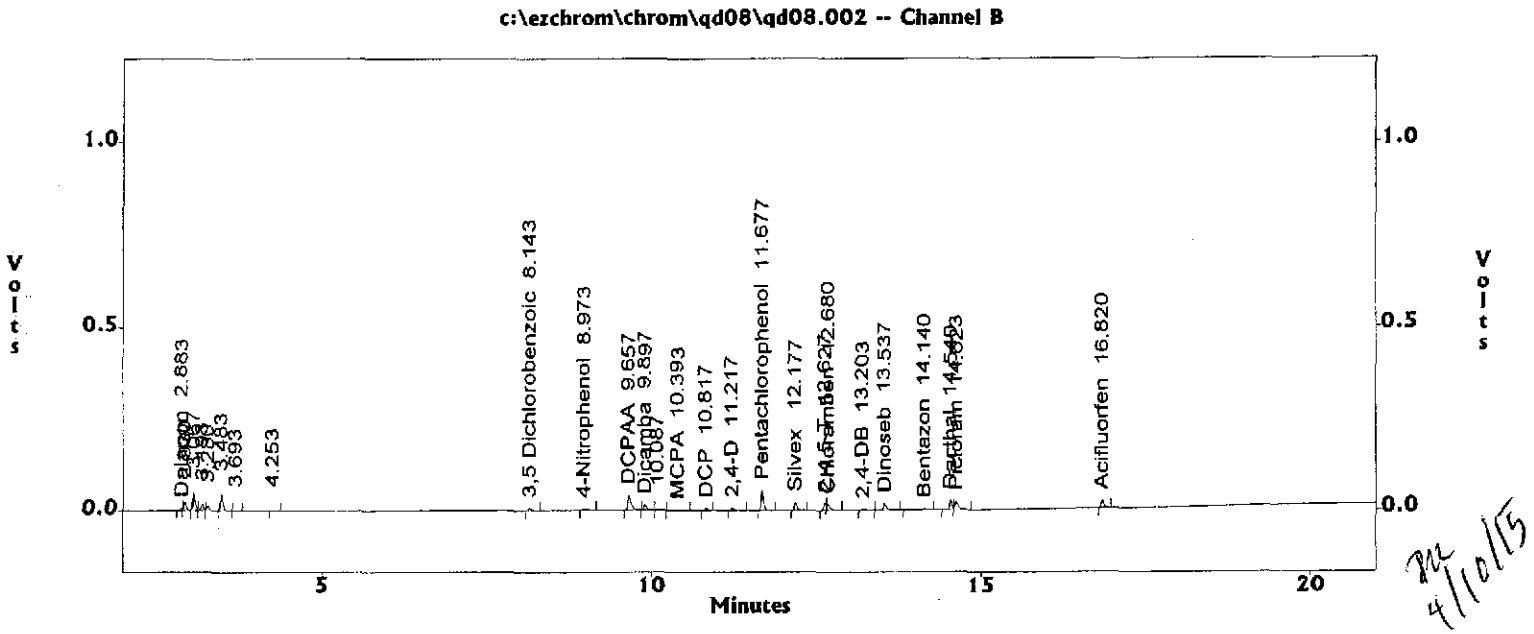
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	9.179	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	11.058	BV
4-Nitrophenol	8.973	17332.0	1457.43	11.892	BV
DCPAA	9.657	133013.0	1082.03	122.930	BV
Dicamba	9.897	39981.0	3890.32	10.277	VV
MCPP	10.067	0.0	0.00	0.000	--
MCPA	10.393	14654.0	17.76	825.324	VB
DCP	10.817	15209.0	1485.51	10.238	BB
2,4-D	11.217	20704.0	1894.33	10.929	BV
Pentachlorophenol	11.677	131400.0	14739.16	8.915	BB
Silvex	12.177	51685.0	5953.99	8.681	BV
2,4,5-T	12.627	47190.0	4983.71	9.469	VS
Chloramben	12.680	47598.0	6012.12	7.917	Sx
2,4-DB	13.203	10709.0	1025.98	10.438	BV
Dinoseb	13.537	51661.0	4871.89	10.604	VV
Bentazon	14.140	6769.0	803.13	8.428	xV
Dacthal	14.540	58416.0	6624.78	8.818	VV
Picloram	14.623	66443.0	8580.05	7.744	VV
Acifluorfen	16.820	54971.0	6000.10	9.162	BV



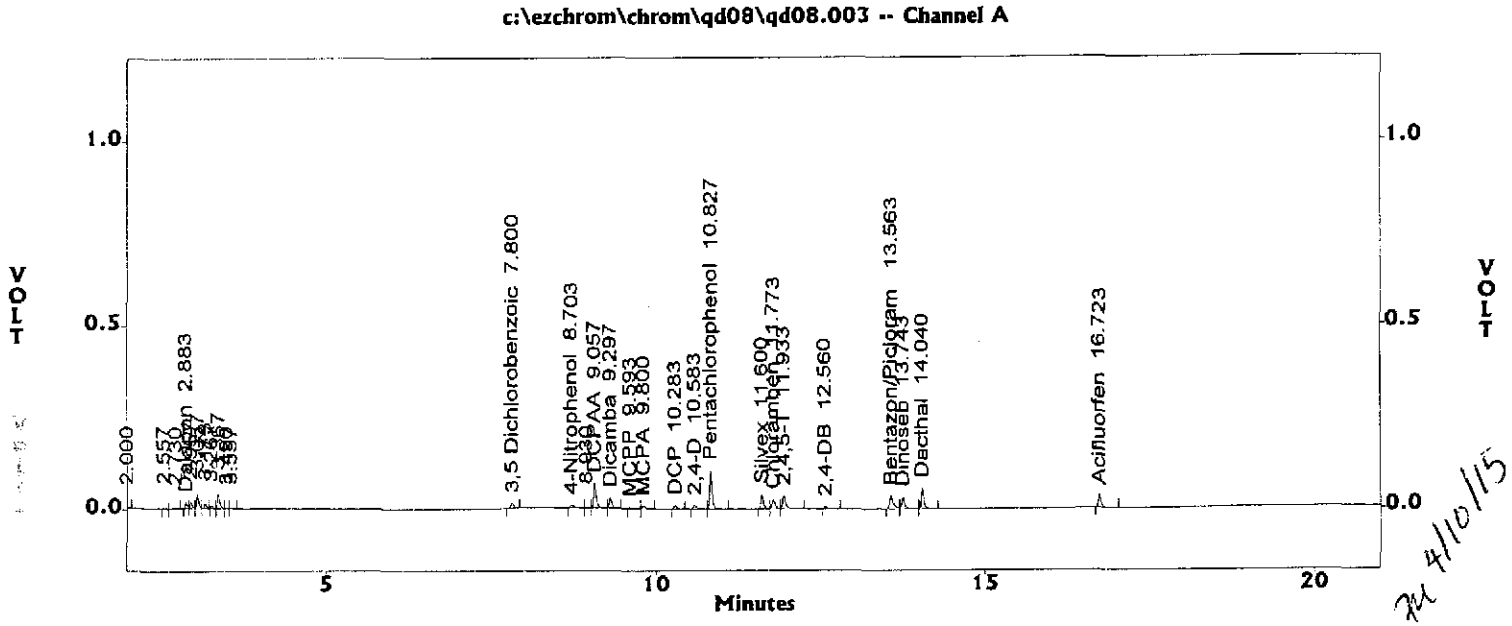
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:31
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	19.876	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	22.469	vv
4-Nitrophenol	8.703	27870.0	1289.87	21.607	BV
DCPAA	9.057	184122.0	750.10	245.463	vv
Dicamba	9.297	68576.0	3238.35	21.176	vv
MCPP	9.593	14588.0	8.42	1733.157	BV
MCPA	9.800	29185.0	15.83	1843.578	VV
DCP	10.283	26509.0	1193.88	22.204	BV
2,4-D	10.583	35240.0	1510.05	23.337	VV
Pentachlorophenol	10.827	263001.0	12495.55	21.048	VB
Silvex	11.600	100470.0	5002.75	20.083	BV
Chloramben	11.773	77061.0	4132.75	18.646	VV
2,4,5-T	11.933	114414.0	5396.66	21.201	VB
2,4-DB	12.560	16675.0	801.45	20.806	BB
Bentazon/Picloram	13.563	135936.0	3540.81	38.391	BV
Dinoseb	13.743	95519.0	4088.80	23.361	VV
Dacthal	14.040	141696.0	6873.97	20.613	VV
Acifluorfen	16.723	97486.0	4699.56	20.744	vv



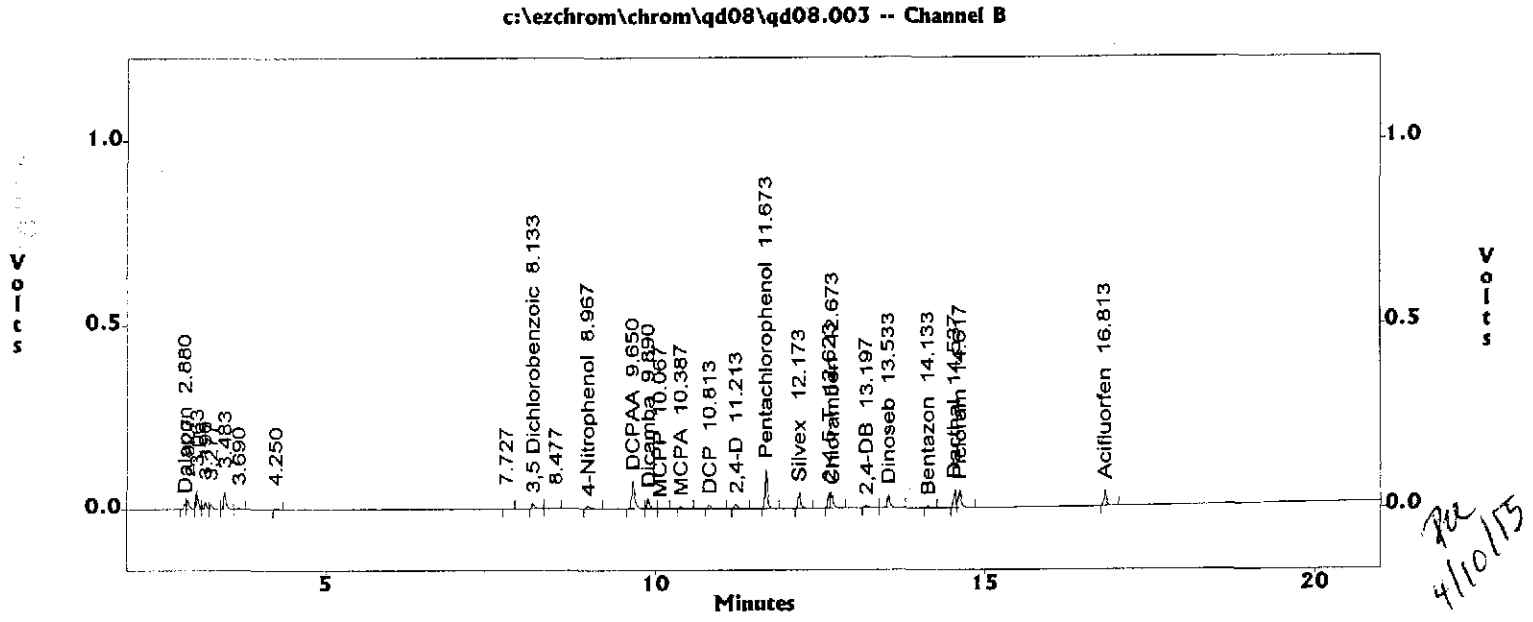
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:32
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.443	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	20.960	BV
4-Nitrophenol	8.967	32561.0	1457.43	22.341	BB
DCPAA	9.650	243181.0	1082.03	224.746	VV
Dicamba	9.890	76149.0	3890.32	19.574	VV
MCPP	10.067	7747.0	8.21	943.033	VV
MCPA	10.387	23831.0	17.76	1342.180	VB
DCP	10.813	32025.0	1485.51	21.558	BB
2,4-D	11.213	39982.0	1894.33	21.106	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.773	BB
Silvex	12.173	106249.0	5953.99	17.845	BB
2,4,5-T	12.623	94613.0	4983.71	18.984	BV
Chloramben	12.673	98990.0	6012.12	16.465	VB
2,4-DB	13.197	21479.0	1025.98	20.935	BV
Dinoseb	13.533	100845.0	4871.89	20.699	Vx
Bentazon	14.133	15125.0	803.13	18.833	BV
Dacthal	14.537	116826.0	6624.78	17.635	VV
Picloram	14.617	140775.0	8580.05	16.407	VB
Acifluorfen	16.813	115218.0	6000.10	19.203	BV



RZ 4/10/15

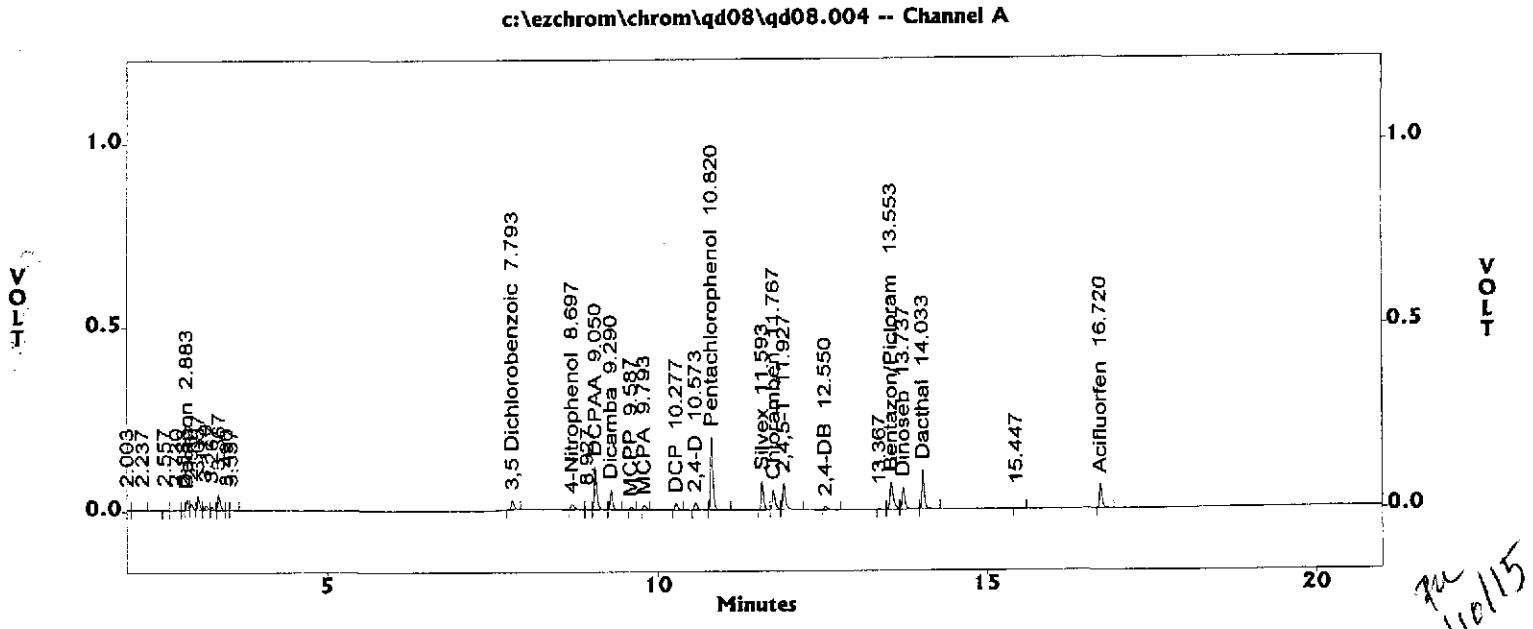
5037

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:47:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	39.681	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	41.307	vv
4-Nitrophenol	8.697	52186.0	1289.87	40.458	BV
DCPAA	9.050	317147.0	750.10	422.806	vv
Dicamba	9.290	129398.0	3238.35	39.958	vv
MCPP	9.587	20397.0	8.42	2423.307	BI
MCPA	9.793	38401.0	15.83	2425.740	BI
DCP	10.277	48433.0	1193.88	40.568	BI
2,4-D	10.573	65069.0	1510.05	43.091	BV
Pentachlorophenol	10.820	499826.0	12495.55	40.000	VB
Silvex	11.593	197359.0	5002.75	39.450	BV
Chloramben	11.767	154338.0	4132.75	37.345	VV
2,4,5-T	11.927	216887.0	5396.66	40.189	VB
2,4-DB	12.550	31116.0	801.45	38.825	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.506	VV
Dinoseb	13.737	168625.0	4088.80	41.241	VV
Dacthal	14.033	264994.0	6873.97	38.550	VB
Acifluorfen	16.720	188126.0	4699.56	40.031	vv



4/10/15

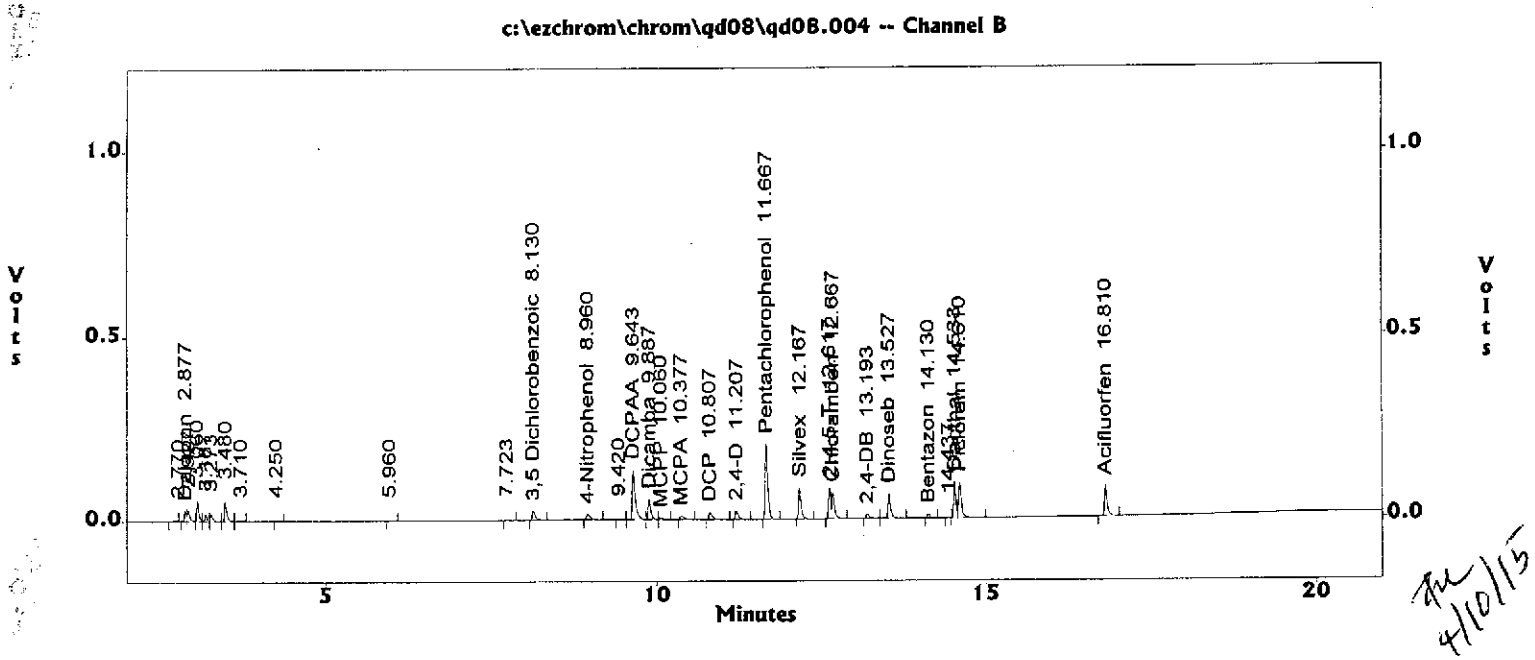
5038

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:47:41
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	37.216	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	39.707	BV
4-Nitrophenol	8.960	59478.0	1457.43	40.810	BB
DCPAA	9.643	441194.0	1082.03	407.748	VV
Dicamba	9.887	147963.0	3890.32	38.034	VV
MCPP	10.060	15953.0	8.21	1941.940	VV
MCPA	10.377	40808.0	17.76	2298.337	VB
DCP	10.807	59641.0	1485.51	40.149	BV
2,4-D	11.207	75010.0	1894.33	39.597	VV
Pentachlorophenol	11.667	565297.0	14739.16	38.353	BB
Silvex	12.167	217350.0	5953.99	36.505	BB
2,4,5-T	12.617	194435.0	4983.71	39.014	BV
Chloramben	12.667	203136.0	6012.12	33.788	Vx
2,4-DB	13.193	39769.0	1025.98	38.762	BV
Dinoseb	13.527	192562.0	4871.89	39.525	Vx
Bentazon	14.130	28250.0	803.13	35.175	BV
Dacthal	14.533	236390.0	6624.78	35.683	VV
Picloram	14.610	293562.0	8580.05	34.214	VV
Acifluorfen	16.810	229055.0	6000.10	38.175	VV



4/10/15

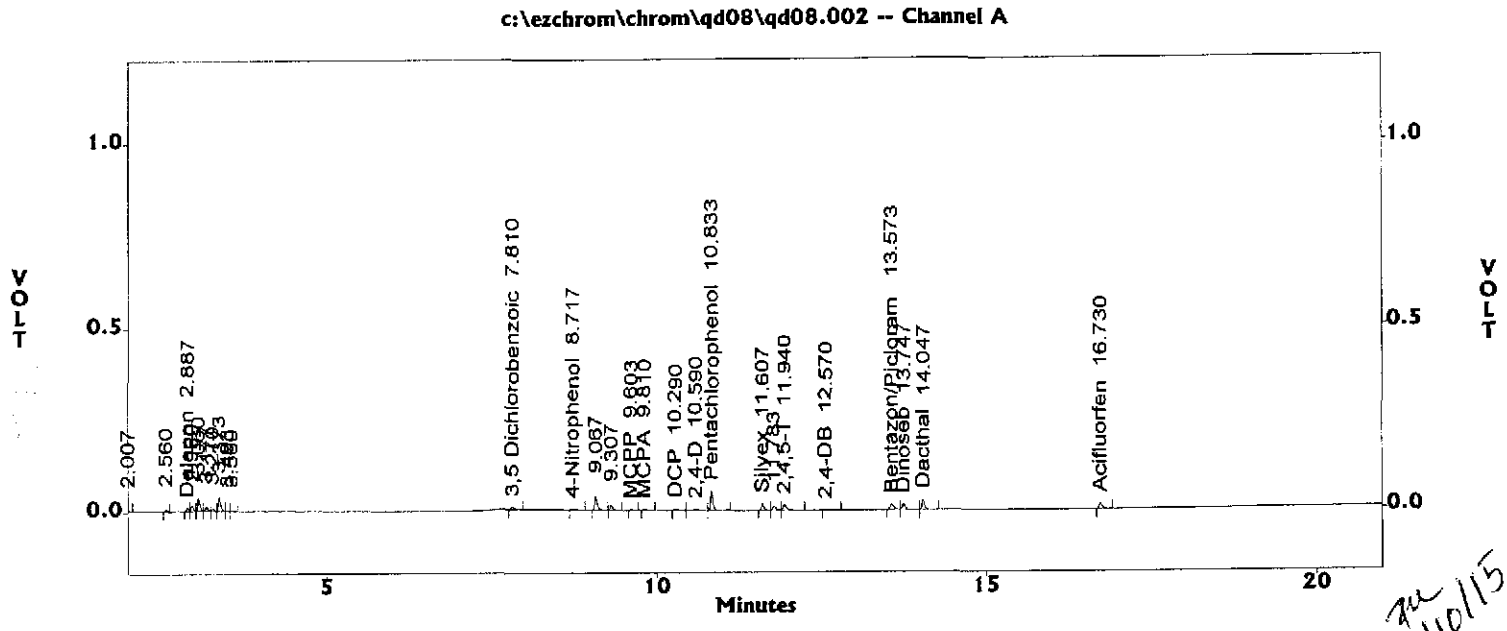
5039

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE	
Dalapon	2.887	18000.0	1656.60	-1.000	xV	
3,5 Dichlorobenzo	7.810	20728.0	1722.43	-1.000	vv	
4-Nitrophenol	8.717	13948.0	1289.87	-1.000	BV	
DCPAA	9.050	0.0	0.00	0.000		--
Dicamba	9.290	0.0	0.00	0.000		--
MCPP	9.603	7291.0	8.42	-1.000	BB	
MCPA	9.810	17622.0	15.83	-1.000	BV	
DCP	10.290	14098.0	1193.88	-1.000	BV	
2,4-D	10.590	18783.0	1510.05	-1.000	VV	
Pentachlorophenol	10.833	132233.0	12495.55	9.496	VB	
Silvex	11.607	49337.0	5002.75	-1.000	BV	
Chloramben	11.767	0.0	0.00	0.000		--
2,4,5-T	11.940	57327.0	5396.66	-1.000	VB	
2,4-DB	12.570	8202.0	801.45	-1.000	BB	
Bentazon/Picloram	13.573	64110.0	3540.81	18.898	BV	
Dinoseb	13.747	48219.0	4088.80	-1.000	VV	
Dacthal	14.047	71024.0	6873.97	-1.000	VB	
Acifluorfen	16.730	46390.0	4699.56	-1.000	vv	



4/10/15

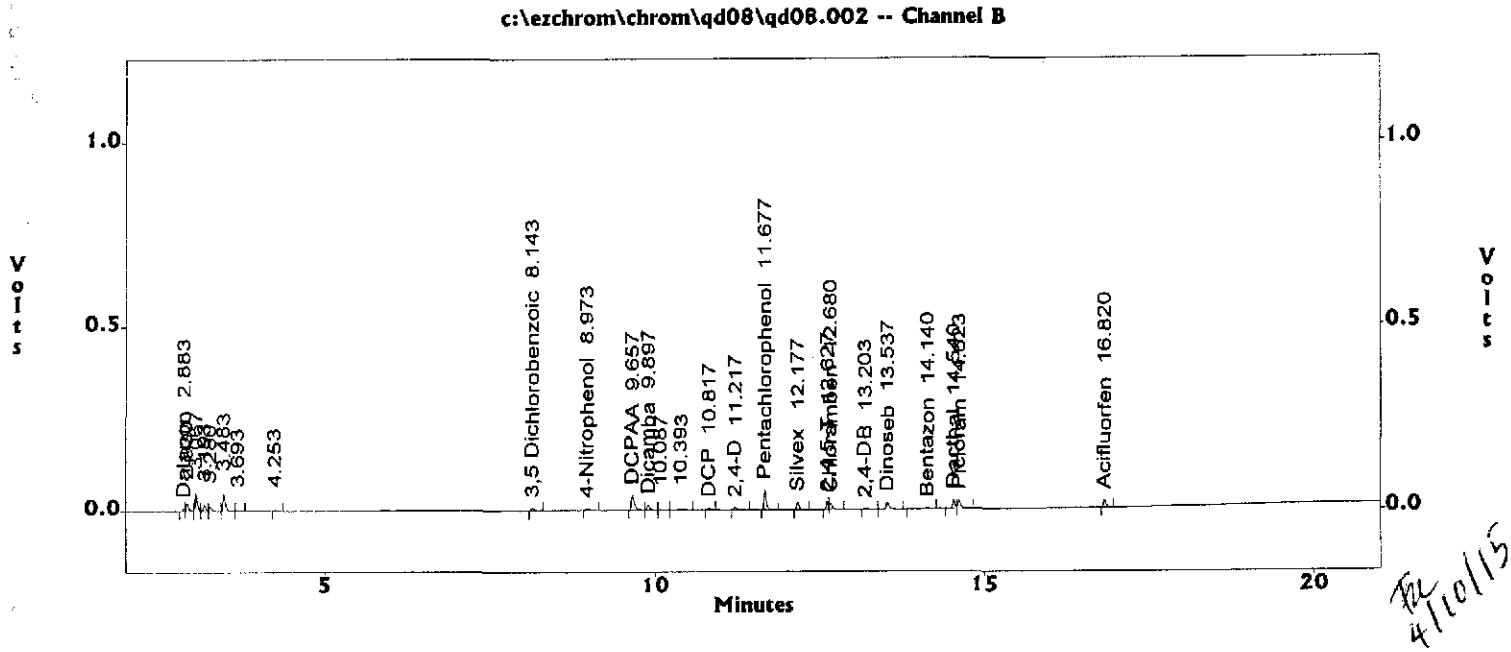
5040

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	-1.000	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	-1.000	BV
4-Nitrophenol	8.973	17332.0	1457.43	-1.000	BV
DCPAA	9.657	133013.0	1082.03	-1.000	BV
Dicamba	9.897	39981.0	3890.32	-1.000	VV
MCPP	10.060	0.0	0.00	0.000	--
MCPA	10.377	0.0	0.00	0.000	--
DCP	10.817	15209.0	1485.51	-1.000	BB
2,4-D	11.217	20704.0	1894.33	-1.000	BV
Pentachlorophenol	11.677	131400.0	14739.16	9.496	BB
Silvex	12.177	51685.0	5953.99	-1.000	BV
2,4,5-T	12.627	47190.0	4983.71	-1.000	VS
Chloramben	12.680	47598.0	6012.12	-1.000	Sx
2,4-DB	13.203	10709.0	1025.98	-1.000	BV
Dinoseb	13.537	51661.0	4871.89	-1.000	VV
Bentazon	14.140	6769.0	803.13	-1.000	xV
Dacthal	14.540	58416.0	6624.78	-1.000	VV
Picloram	14.623	66443.0	8580.05	-1.000	VV
Acifluorfen	16.820	54971.0	6000.10	-1.000	BV



4/10/15

5041

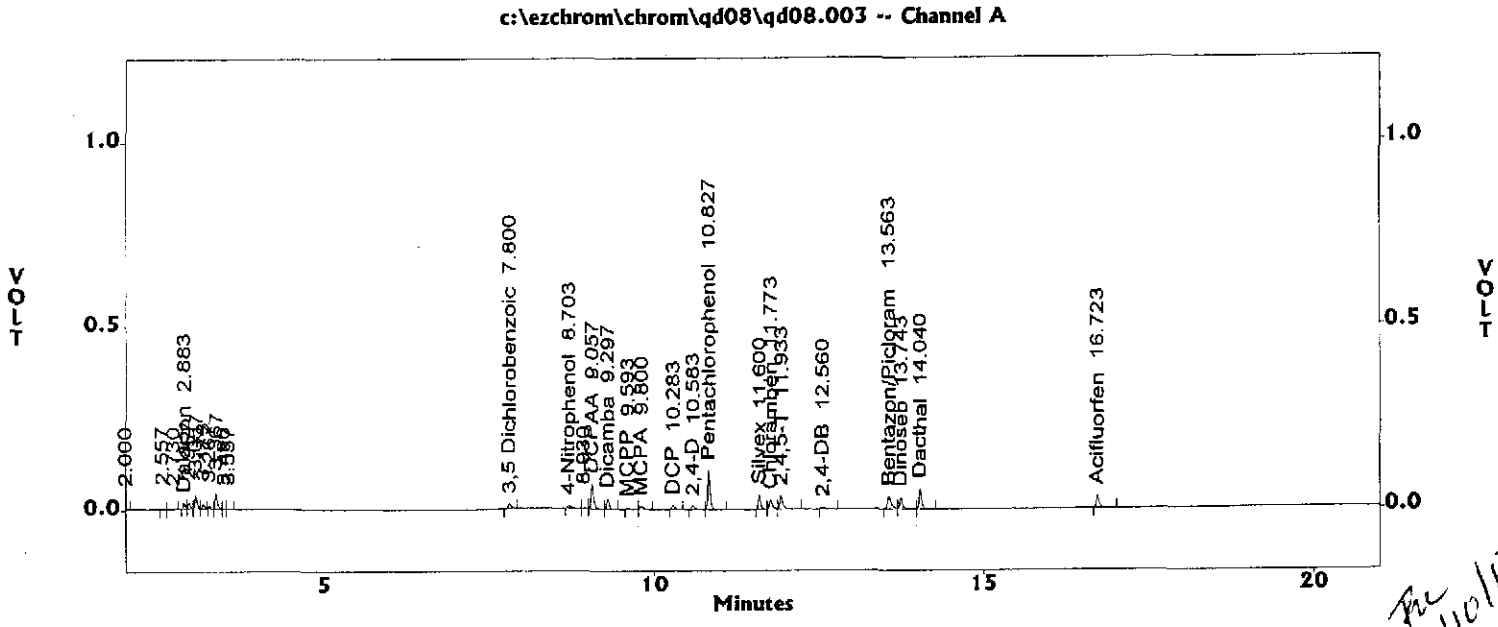
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	18.206	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	18.628	vv
4-Nitrophenol	8.703	27870.0	1289.87	18.170	BV
DCPAA	9.057	184122.0	750.10	187.160	vv
Dicamba	9.297	68576.0	3238.35	18.804	vv
MCPP	9.593	14588.0	8.42	-1.000	BV
MCPA	9.800	29185.0	15.83	-1.000	VV
DCP	10.283	26509.0	1193.88	18.870	BV
2,4-D	10.583	35240.0	1510.05	18.804	VV
Pentachlorophenol	10.827	263001.0	12495.55	18.992	VB
Silvex	11.600	100470.0	5002.75	19.006	BV
Chloramben	11.773	77061.0	4132.75	18.722	VV
2,4,5-T	11.933	114414.0	5396.66	18.954	VB
2,4-DB	12.560	16675.0	801.45	18.932	BB
Bentazon/Picloram	13.563	135936.0	3540.81	37.796	BV
Dinoseb	13.743	95519.0	4088.80	18.898	VV
Dacthal	14.040	141696.0	6873.97	18.302	VV
Acifluorfen	16.723	97486.0	4699.56	19.254	vv

c:\ezchrom\chrom\qd08\qd08.003 -- Channel A



FRC 4/10/15

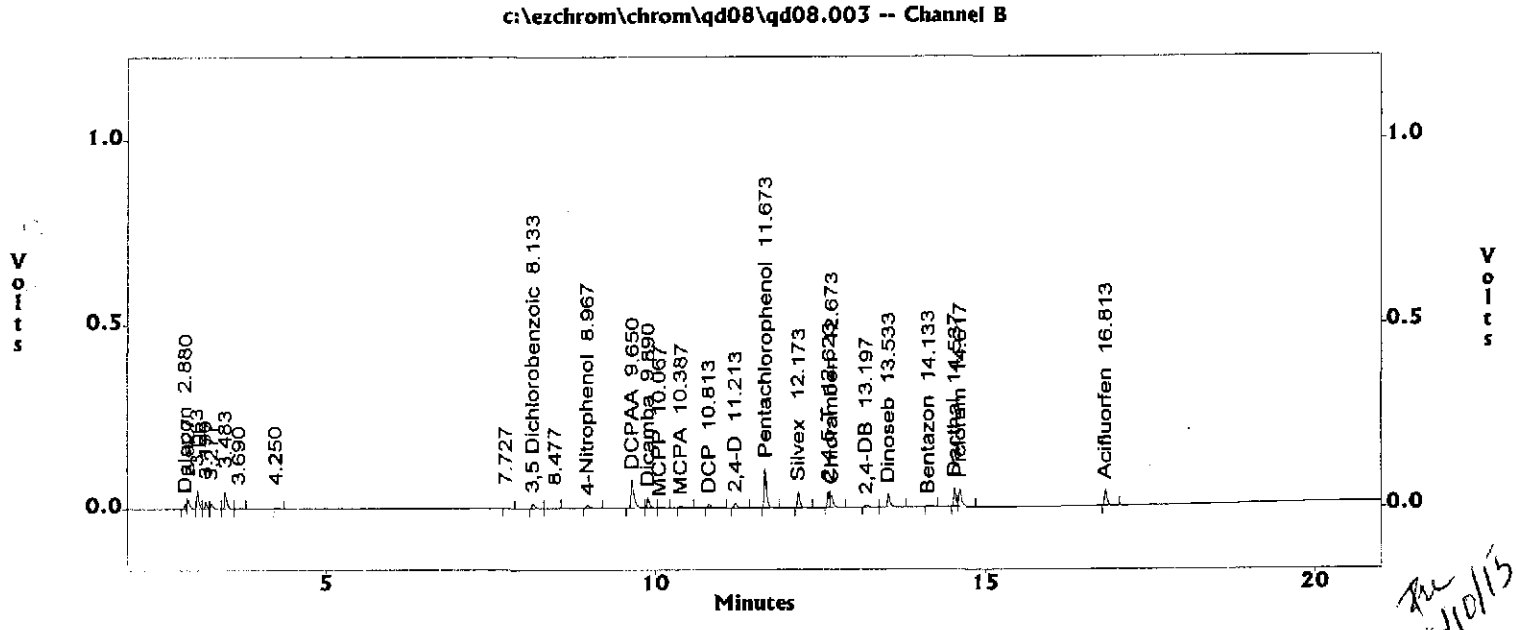
5042

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.206	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	18.628	BV
4-Nitrophenol	8.967	32561.0	1457.43	18.170	BB
DCPAA	9.650	243181.0	1082.03	187.160	VV
Dicamba	9.890	76149.0	3890.32	18.804	VV
MCPP	10.067	7747.0	8.21	-1.000	VV
MCPA	10.387	23831.0	17.76	-1.000	VB
DCP	10.813	32025.0	1485.51	18.870	BB
2,4-D	11.213	39982.0	1894.33	18.804	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.992	BB
Silvex	12.173	106249.0	5953.99	19.006	BB
2,4,5-T	12.623	94613.0	4983.71	18.722	BV
Chloramben	12.673	98990.0	6012.12	18.954	VB
2,4-DB	13.197	21479.0	1025.98	18.932	BV
Dinoseb	13.533	100845.0	4871.89	18.898	Vx
Bentazon	14.133	15125.0	803.13	18.898	BV
Dacthal	14.537	116826.0	6624.78	18.302	VV
Picloram	14.617	140775.0	8580.05	18.898	VB
Acifluorfen	16.813	115218.0	6000.10	19.254	BV



4/10/15

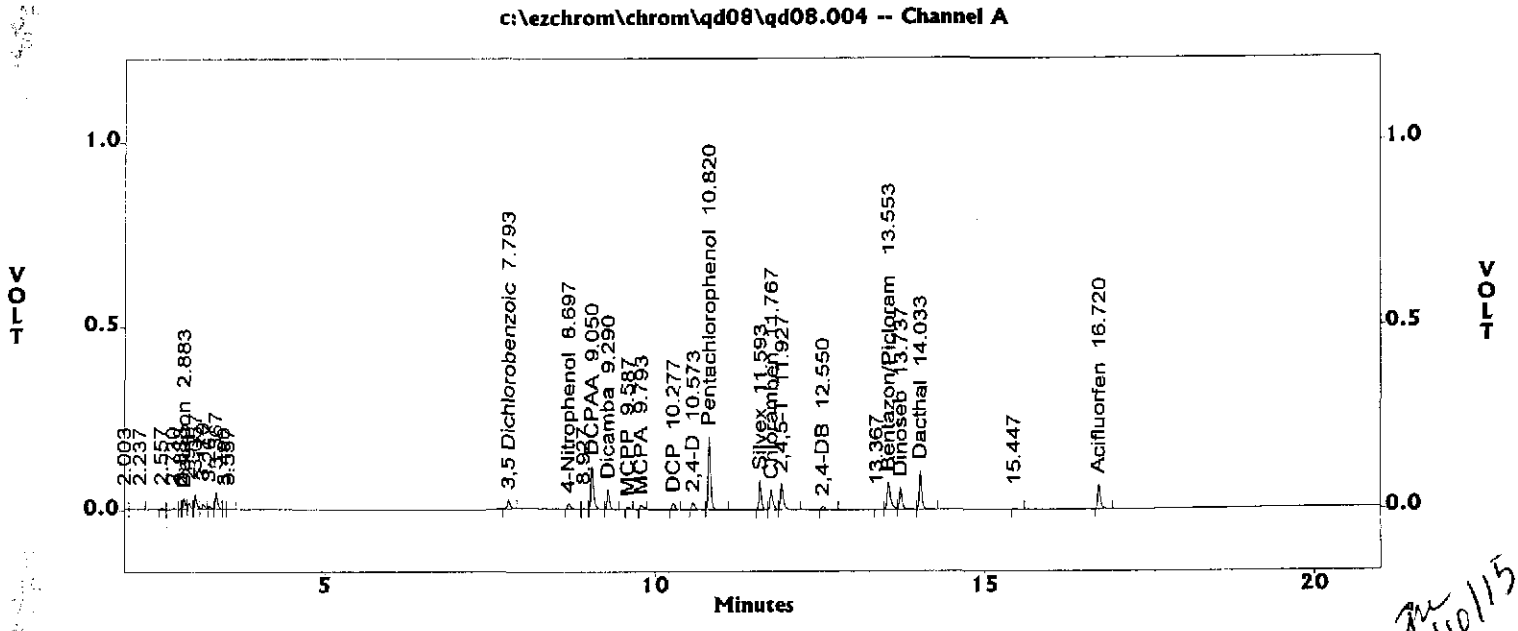
5043

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:48:27
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	36.412	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	37.256	vv
4-Nitrophenol	8.697	52186.0	1289.87	36.340	BV
DCPAA	9.050	317147.0	750.10	374.320	vv
Dicamba	9.290	129398.0	3238.35	37.608	vv
MCPP	9.587	20397.0	8.42	1877.200	BI
MCPA	9.793	38401.0	15.83	1869.200	BI
DCP	10.277	48433.0	1193.88	37.740	BI
2,4-D	10.573	65069.0	1510.05	37.608	BV
Pentachlorophenol	10.820	499826.0	12495.55	37.984	VB
Silvex	11.593	197359.0	5002.75	38.012	BV
Chloramben	11.767	154338.0	4132.75	37.444	VV
2,4,5-T	11.927	216887.0	5396.66	37.908	VB
2,4-DB	12.550	31116.0	801.45	37.864	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.592	VV
Dinoseb	13.737	168625.0	4088.80	37.796	VV
Dacthal	14.033	264994.0	6873.97	36.604	VB
Acifluorfen	16.720	188126.0	4699.56	38.508	vv



4/10/15

5044

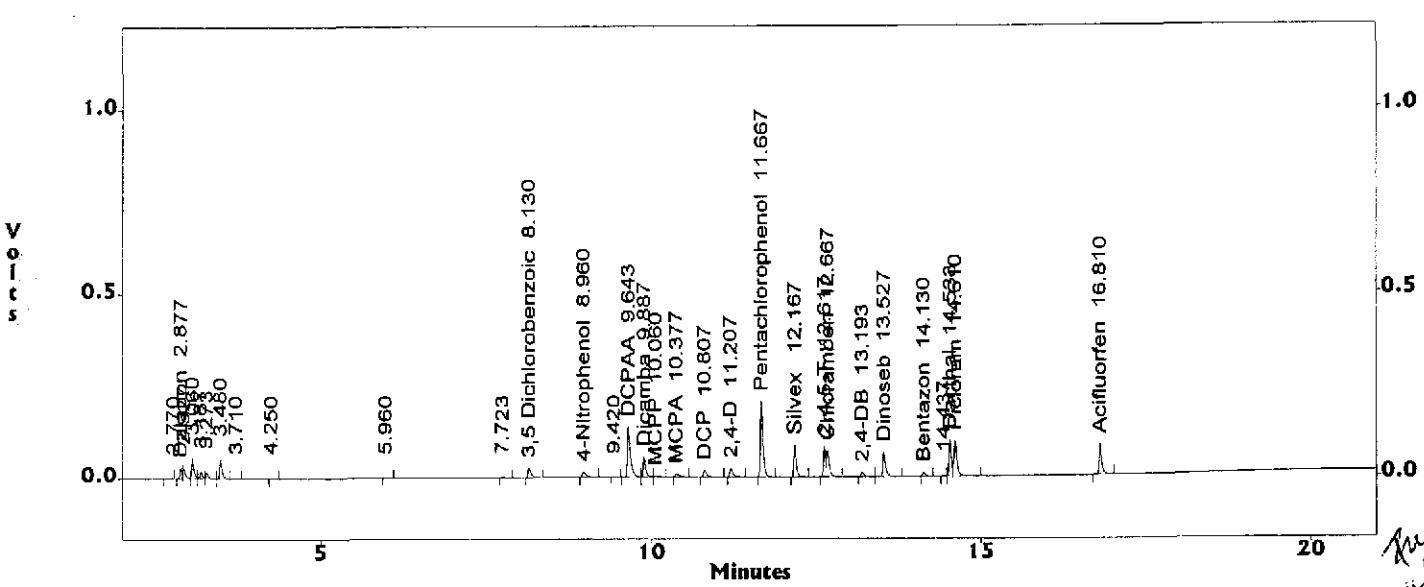
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:48:27
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	36.412	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	37.256	BV
4-Nitrophenol	8.960	59478.0	1457.43	36.340	BB
DCPAA	9.643	441194.0	1082.03	374.320	VV
Dicamba	9.887	147963.0	3890.32	37.608	VV
MCPP	10.060	15953.0	8.21	1877.200	VV
MCPA	10.377	40808.0	17.76	1869.200	VB
DCP	10.807	59641.0	1485.51	37.740	BV
2,4-D	11.207	75010.0	1894.33	37.608	VV
Pentachlorophenol	11.667	565297.0	14739.16	37.984	BB
Silvex	12.167	217350.0	5953.99	38.012	BB
2,4,5-T	12.617	194435.0	4983.71	37.444	BV
Chloramben	12.667	203136.0	6012.12	37.908	Vx
2,4-DB	13.193	39769.0	1025.98	37.864	BV
Dinoseb	13.527	192562.0	4871.89	37.796	Vx
Bentazon	14.130	28250.0	803.13	37.796	BV
Dacthal	14.533	236390.0	6624.78	36.604	VV
Picloram	14.610	293562.0	8580.05	37.796	VV
Acifluorfen	16.810	229055.0	6000.10	38.508	VV

c:\ezchrom\chrom\qd08\qd08.004 -- Channel B



Fu 4/10/15

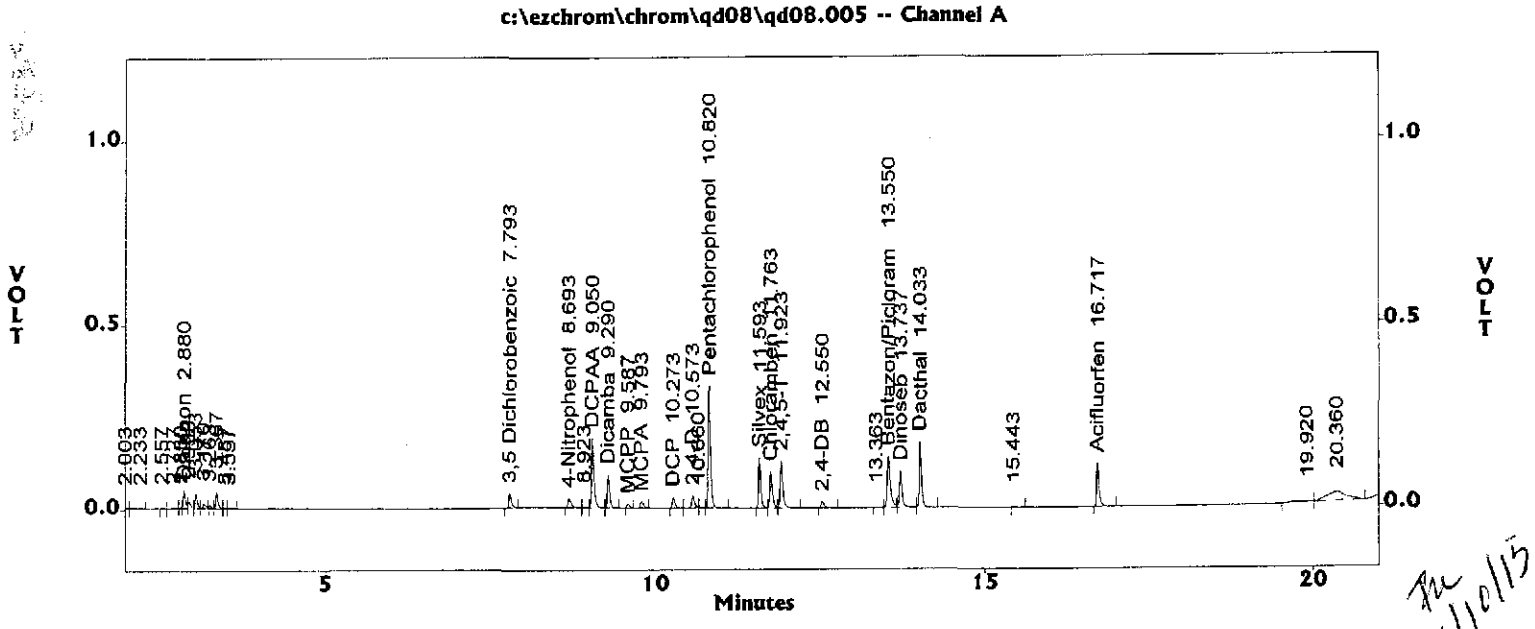
5045

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	109079.0	1656.60	63.721	xV
3,5 Dichlorobenzo	7.793	115094.0	1722.43	65.198	vv
4-Nitrophenol	8.693	84857.0	1289.87	63.595	BV
DCPAA	9.050	494353.0	750.10	655.060	vv
Dicamba	9.290	216364.0	3238.35	65.814	vv
MCPP	9.587	29818.0	8.42	3285.100	BI
MCPA	9.793	56310.0	15.83	3271.100	BI
DCP	10.273	80985.0	1193.88	66.045	BV
2,4-D	10.573	100684.0	1510.05	65.814	Vx
Pentachlorophenol	10.820	832103.0	12495.55	66.472	VB
Silvex	11.593	339802.0	5002.75	66.521	BV
Chloramben	11.763	273515.0	4132.75	65.527	VV
2,4,5-T	11.923	363884.0	5396.66	66.339	VV
2,4-DB	12.550	52693.0	801.45	66.262	BV
Bentazon/Picloram	13.550	477351.0	3540.81	132.286	VV
Dinoseb	13.737	275342.0	4088.80	66.143	VV
Dacthal	14.033	449214.0	6873.97	64.057	VB
Acifluorfen	16.717	326255.0	4699.56	67.389	vv



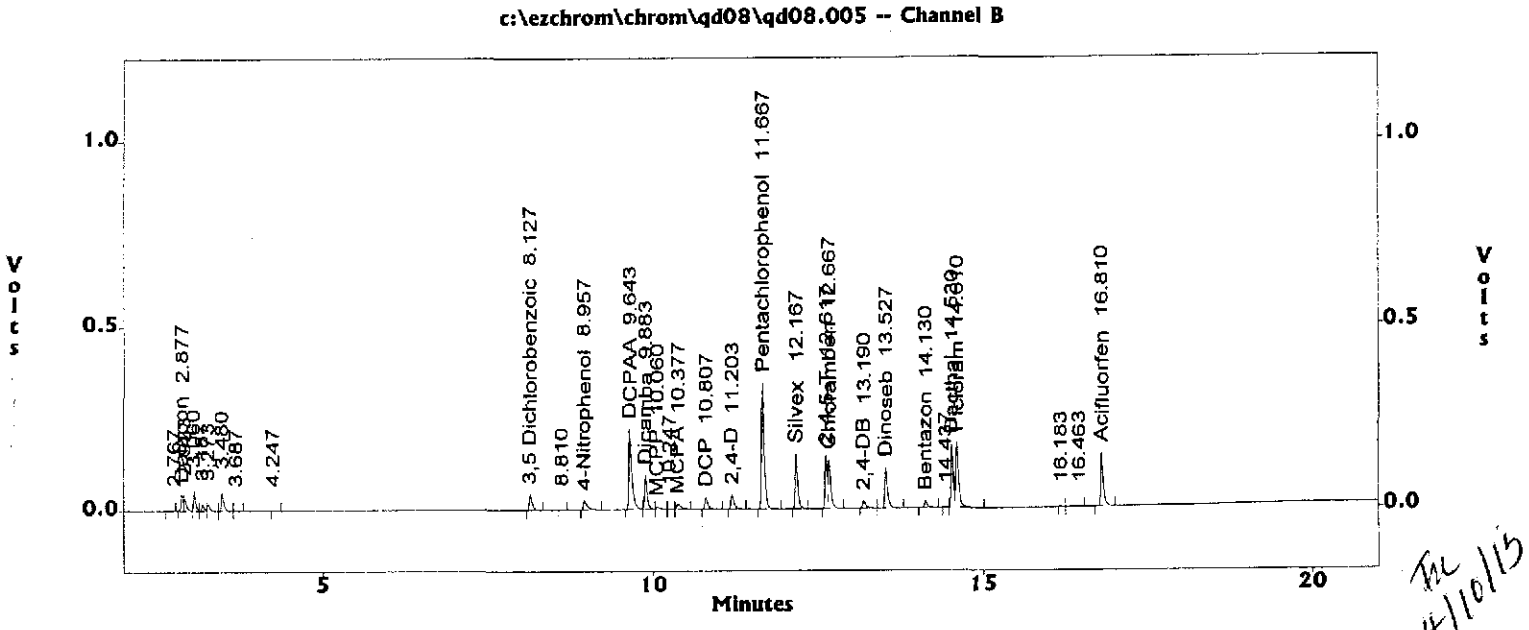
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	109402.0	1730.88	63.721	xS
3,5 Dichlorobenzoic	8.127	127742.0	1937.97	65.198	BV
4-Nitrophenol	8.957	95925.0	1457.43	63.595	BV
DCPAA	9.643	714961.0	1082.03	655.060	BV
Dicamba	9.883	254892.0	3890.32	65.814	VV
MCPP	10.060	27558.0	8.21	3285.100	VV
MCPA	10.377	61491.0	17.76	3271.100	VB
DCP	10.807	98014.0	1485.51	66.045	BB
2,4-D	11.203	126298.0	1894.33	65.814	BV
Pentachlorophenol	11.667	1001886.0	14739.16	66.472	VB
Silvex	12.167	395357.0	5953.99	66.521	BB
2,4,5-T	12.617	335369.0	4983.71	65.527	BS
Chloramben	12.667	390587.0	6012.12	66.339	Sx
2,4-DB	13.190	68438.0	1025.98	66.262	BV
Dinoseb	13.527	327888.0	4871.89	66.143	Vx
Bentazon	14.130	51611.0	803.13	66.143	BB
Dacthal	14.530	431578.0	6624.78	64.057	VV
Picloram	14.610	552804.0	8580.05	66.143	VV
Acifluorfen	16.810	408059.0	6000.10	67.389	VV



RZ 4/10/15

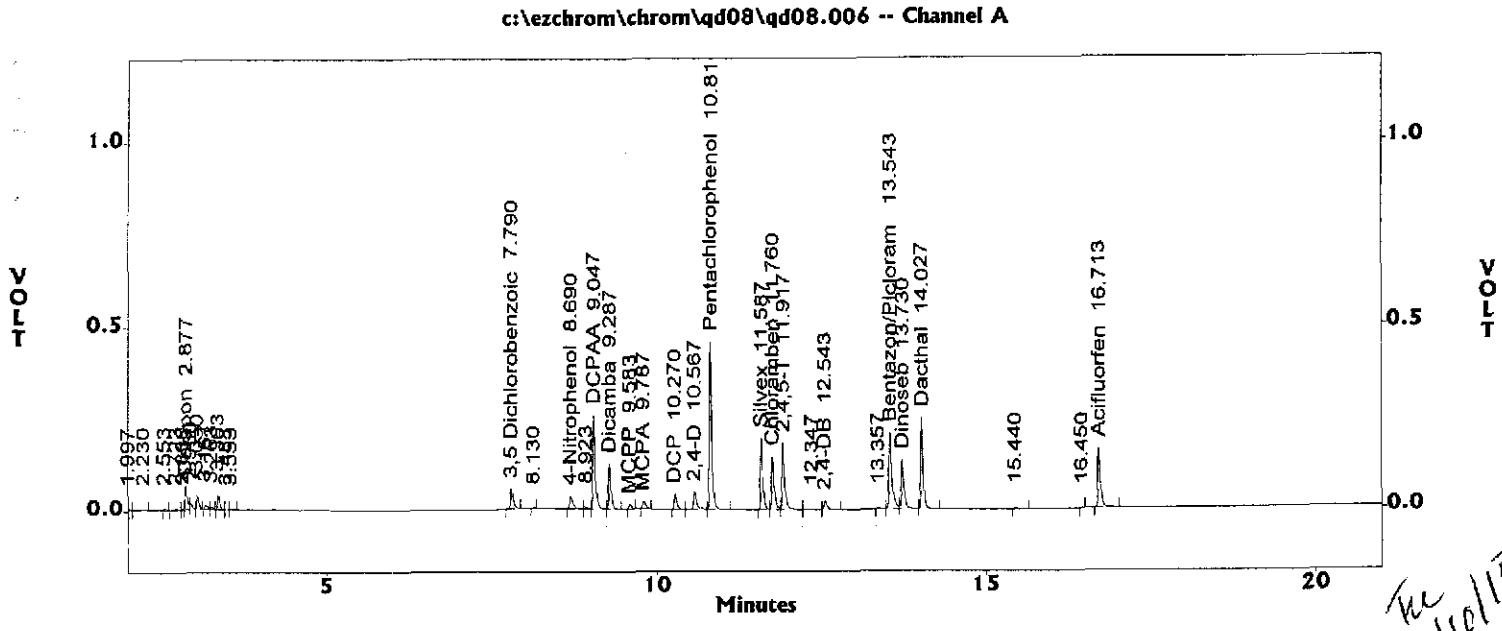
5047

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	150769.0	1656.60	91.030	xS
3,5 Dichlorobenzo	7.790	156164.0	1722.43	93.140	vv
4-Nitrophenol	8.690	114268.0	1289.87	90.850	BV
DCPAA	9.047	665980.0	750.10	935.800	vv
Dicamba	9.287	301254.0	3238.35	94.020	vv
MCPP	9.583	38372.0	8.42	4693.000	BI
MCPA	9.787	70480.0	15.83	4673.000	BI
DCP	10.270	111080.0	1193.88	94.350	BV
2,4-D	10.567	147315.0	1510.05	94.020	VV
Pentachlorophenol	10.817	1154990.0	12495.55	94.960	VB
Silvex	11.587	480286.0	5002.75	95.030	BV
Chloramben	11.760	397306.0	4132.75	93.610	VV
2,4,5-T	11.917	513643.0	5396.66	94.770	VV
2,4-DB	12.543	75070.0	801.45	94.660	VV
Bentazon/Picloram	13.543	688754.0	3540.81	188.980	VV
Dinoseb	13.730	372007.0	4088.80	94.490	VV
Dacthal	14.027	624679.0	6873.97	91.510	VB
Acifluorfen	16.713	444901.0	4699.56	96.270	vv



4/10/15

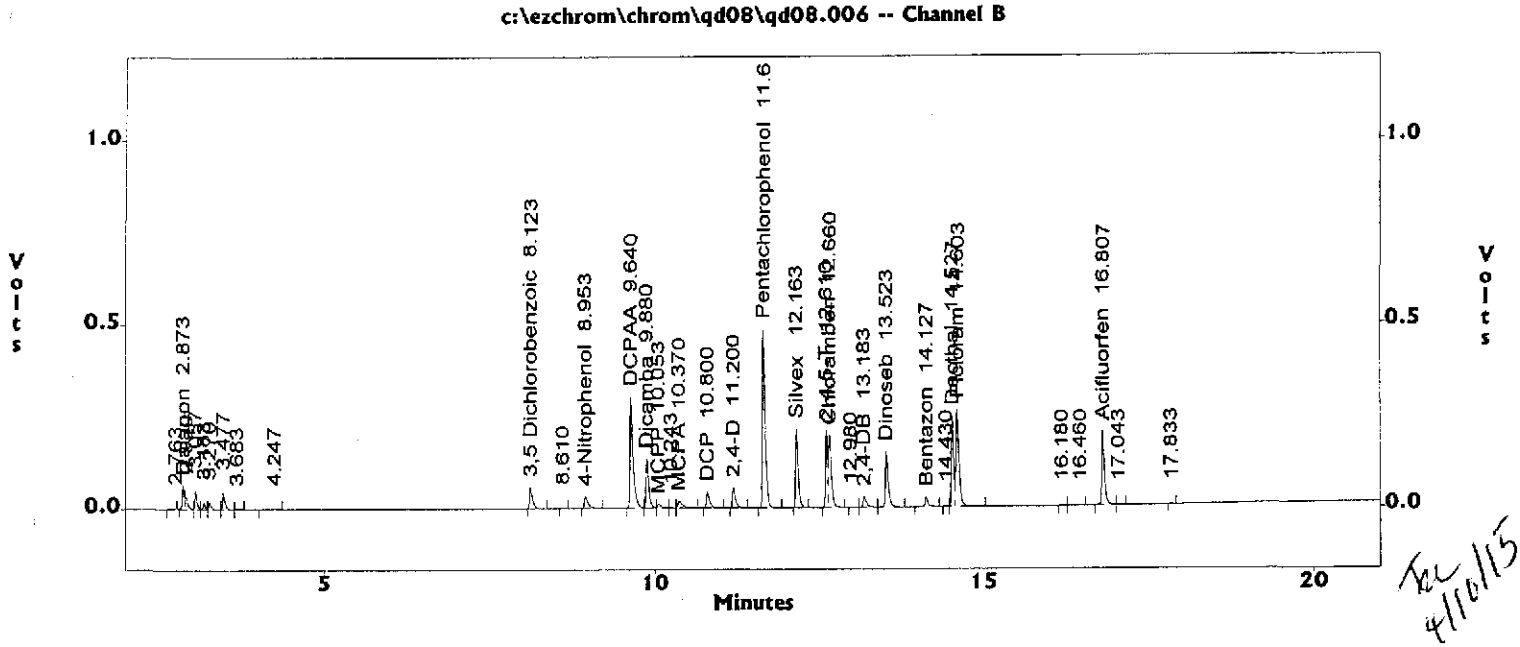
5048

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	155275.0	1730.88	91.030	xS
3,5 Dichlorobenzoic	8.123	177949.0	1937.97	93.140	BB
4-Nitrophenol	8.953	128503.0	1457.43	90.850	BV
DCPAA	9.640	982800.0	1082.03	935.800	BV
Dicamba	9.880	366379.0	3890.32	94.020	VV
MCPP	10.053	38647.0	8.21	4693.000	VV
MCPA	10.370	82280.0	17.76	4673.000	VB
DCP	10.800	137177.0	1485.51	94.350	BB
2,4-D	11.200	176618.0	1894.33	94.020	BV
Pentachlorophenol	11.663	1440250.0	14739.16	94.960	VB
Silvex	12.163	581388.0	5953.99	95.030	BB
2,4,5-T	12.610	462002.0	4983.71	93.610	BS
Chloramben	12.660	608728.0	6012.12	94.770	Sx
2,4-DB	13.183	97565.0	1025.98	94.660	VV
Dinoseb	13.523	455117.0	4871.89	94.490	Vx
Bentazon	14.127	77839.0	803.13	94.490	VB
Dacthal	14.527	620323.0	6624.78	91.510	VV
Picloram	14.603	843681.0	8580.05	94.490	VV
Acifluorfen	16.807	574884.0	6000.10	96.270	VV



RZ 4/10/15

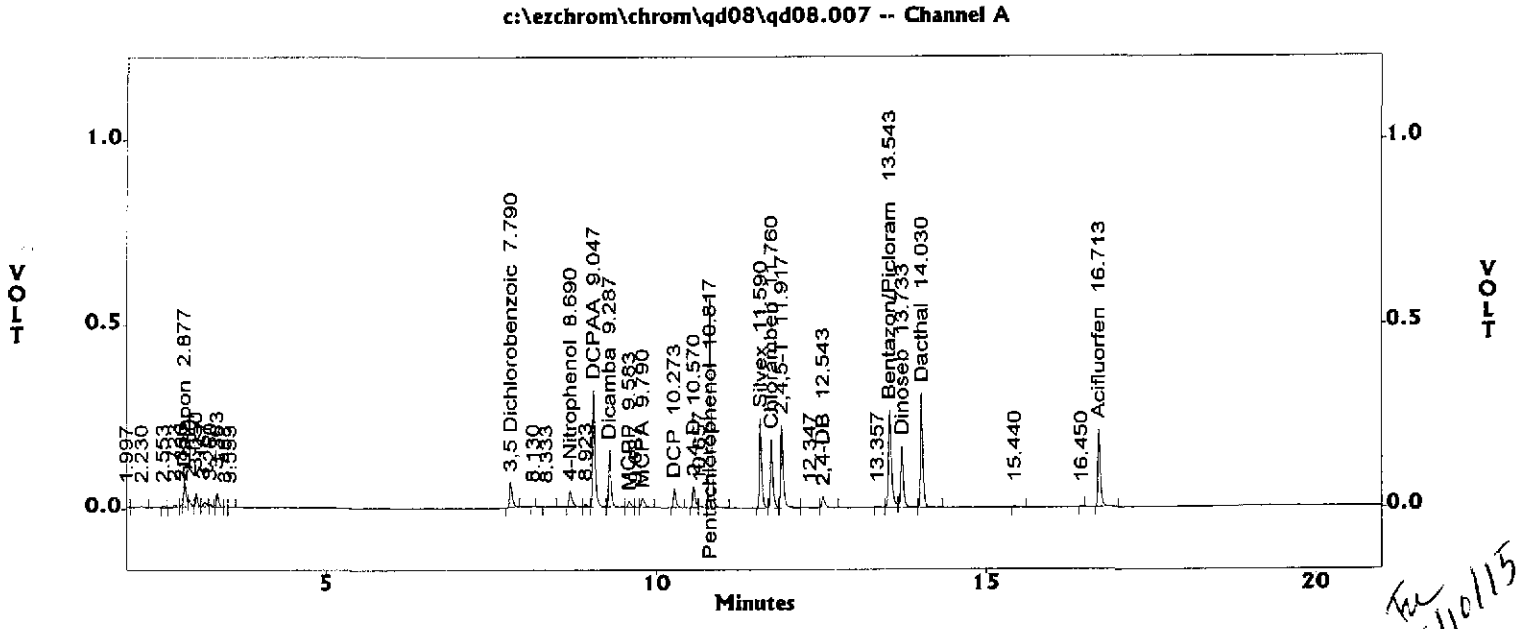
5049

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0806
Acquired : Apr 08, 2015 17:34:21
Printed : Apr 09, 2015 09:48:47
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	184922.0	1656.60	118.339	SS
3,5 Dichlorobenzo	7.790	190910.0	1722.43	121.082	vv
4-Nitrophenol	8.690	140286.0	1289.87	118.105	BV
DCPAA	9.047	813136.0	750.10	1216.540	vv
Dicamba	9.287	375613.0	3238.35	122.226	vv
MCPP	9.583	48414.0	8.42	6100.900	VV
MCPA	9.790	83207.0	15.83	6074.900	VV
DCP	10.273	136641.0	1193.88	122.655	BV
2,4-D	10.570	161457.0	1510.05	122.226	VS
Pentachlorophenol	10.817	1434487.0	12495.55	123.448	VB
Silvex	11.590	599722.0	5002.75	123.539	BV
Chloramben	11.760	499502.0	4132.75	121.693	VV
2,4,5-T	11.917	634158.0	5396.66	123.201	VV
2,4-DB	12.543	93671.0	801.45	123.058	VV
Bentazon/Picloram	13.543	865529.0	3540.81	245.674	VV
Dinoseb	13.733	460225.0	4088.80	122.837	VV
Dacthal	14.030	777428.0	6873.97	118.963	VB
Acifluorfen	16.713	566335.0	4699.56	125.151	vv



RZ 4/10/15

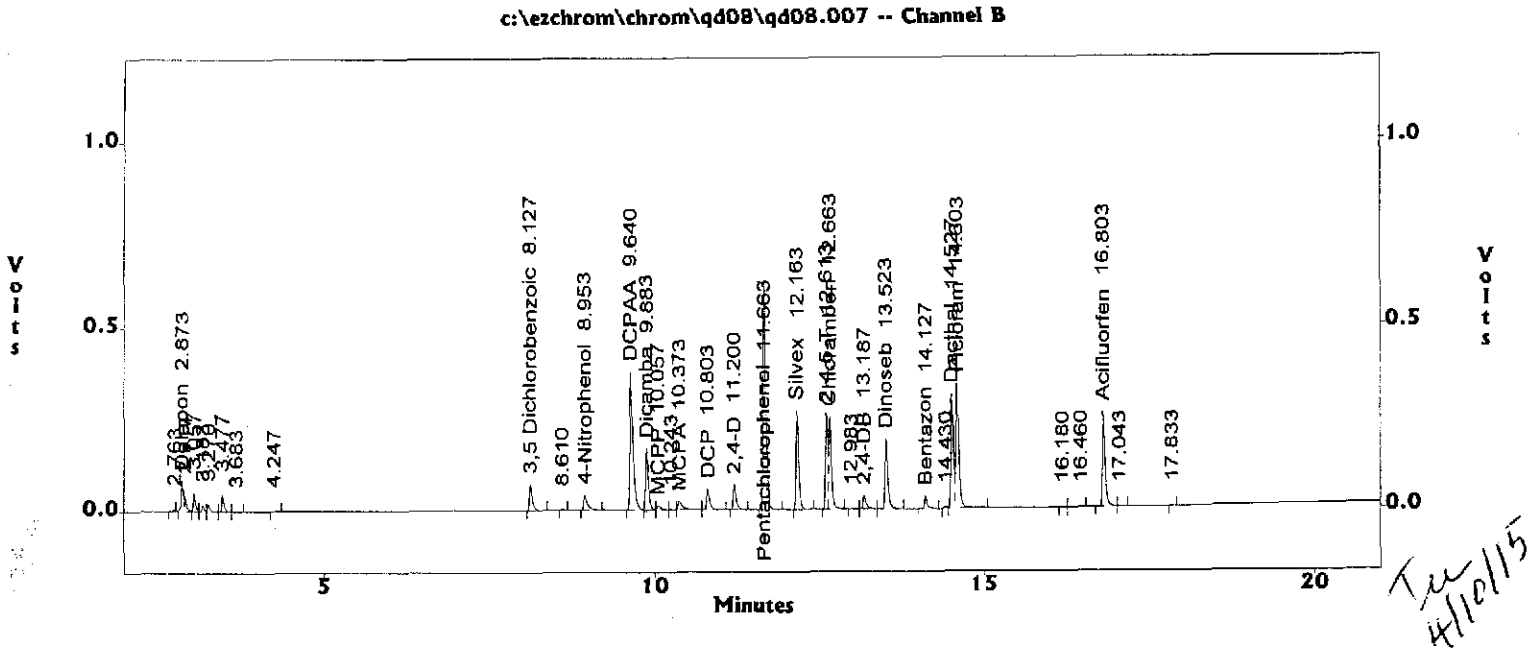
5050

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0806
Acquired : Apr 08, 2015 17:34:21
Printed : Apr 09, 2015 09:48:47
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	192924.0	1730.88	118.339	MM
3,5 Dichlorobenzoic	8.127	222768.0	1937.97	121.082	BV
4-Nitrophenol	8.953	156547.0	1457.43	118.105	BV
DCPAA	9.640	1216560.0	1082.03	1216.540	BV
Dicamba	9.883	465644.0	3890.32	122.226	VV
MCPP	10.057	49861.0	8.21	6100.900	VV
MCPA	10.373	103228.0	17.76	6074.900	VV
DCP	10.803	172928.0	1485.51	122.655	VB
2,4-D	11.200	219939.0	1894.33	122.226	BV
Pentachlorophenol	11.663	1824080.0	14739.16	123.448	VB
Silvex	12.163	746772.0	5953.99	123.539	BV
2,4,5-T	12.613	603197.0	4983.71	121.693	VS
Chloramben	12.663	763704.0	6012.12	123.201	Sx
2,4-DB	13.187	120728.0	1025.98	123.058	VV
Dinoseb	13.523	571856.0	4871.89	122.837	Vx
Bentazon	14.127	99125.0	803.13	122.837	BB
Dacthal	14.527	791905.0	6624.78	118.963	VV
Picloram	14.603	1096835.0	8580.05	122.837	VV
Acifluorfen	16.803	744166.0	6000.10	125.151	VV



4/10/15

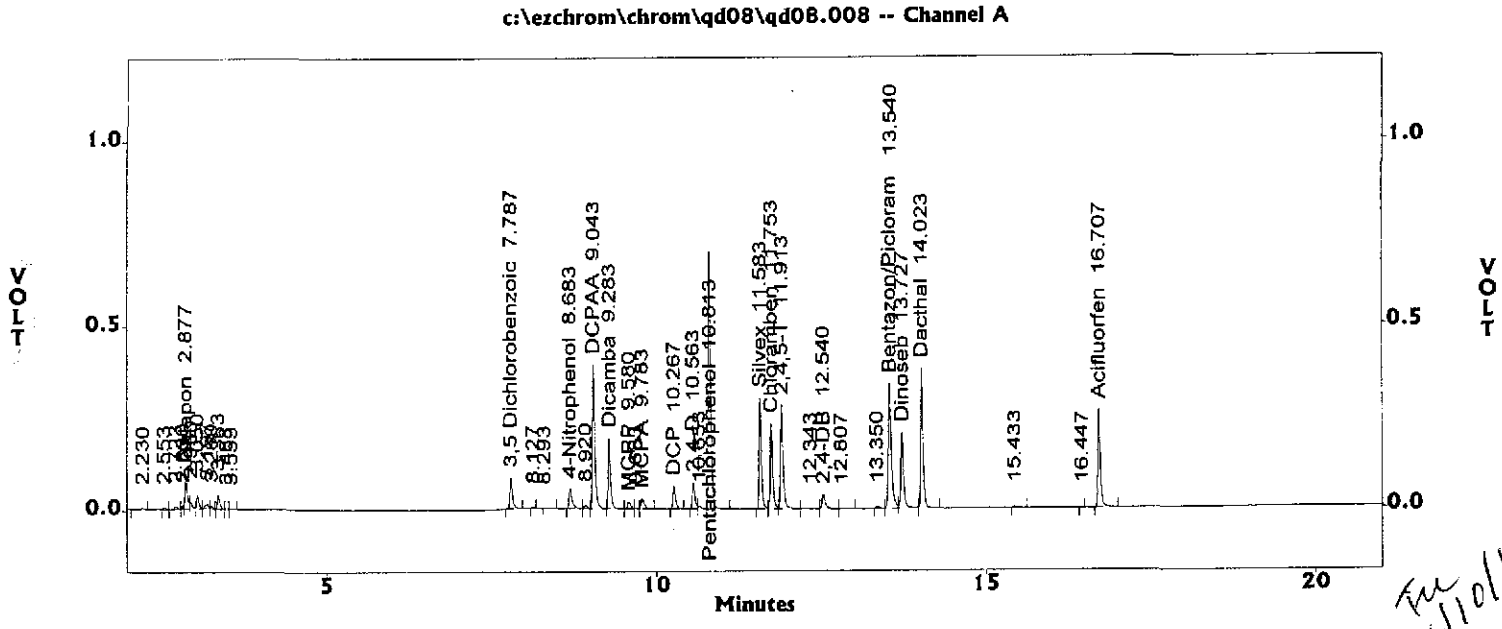
5051

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0807
Acquired : Apr 08, 2015 18:02:53
Printed : Apr 09, 2015 09:48:53
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	226682.0	1656.60	145.648	SS
3,5 Dichlorobenzo	7.787	234280.0	1722.43	149.024	vv
4-Nitrophenol	8.683	169638.0	1289.87	145.360	BV
DCPAA	9.043	983920.0	750.10	1497.280	vv
Dicamba	9.283	460022.0	3238.35	150.432	vv
MCPP	9.580	56636.0	8.42	7508.800	VV
MCPA	9.783	94323.0	15.83	7476.800	VV
DCP	10.267	165810.0	1193.88	150.960	BV
2,4-D	10.563	195903.0	1510.05	150.432	VS
Pentachlorophenol	10.813	1755239.0	12495.55	151.936	VB
Silvex	11.583	735580.0	5002.75	152.048	BV
Chloramben	11.753	619813.0	4132.75	149.776	VV
2,4,5-T	11.913	768898.0	5396.66	151.632	VV
2,4-DB	12.540	117830.0	801.45	151.456	VV
Bentazon/Picloram	13.540	1076789.0	3540.81	302.368	VV
Dinoseb	13.727	558697.0	4088.80	151.184	VV
Dacthal	14.023	951399.0	6873.97	146.416	VB
Acifluorfen	16.707	697596.0	4699.56	154.032	vv



4/10/15

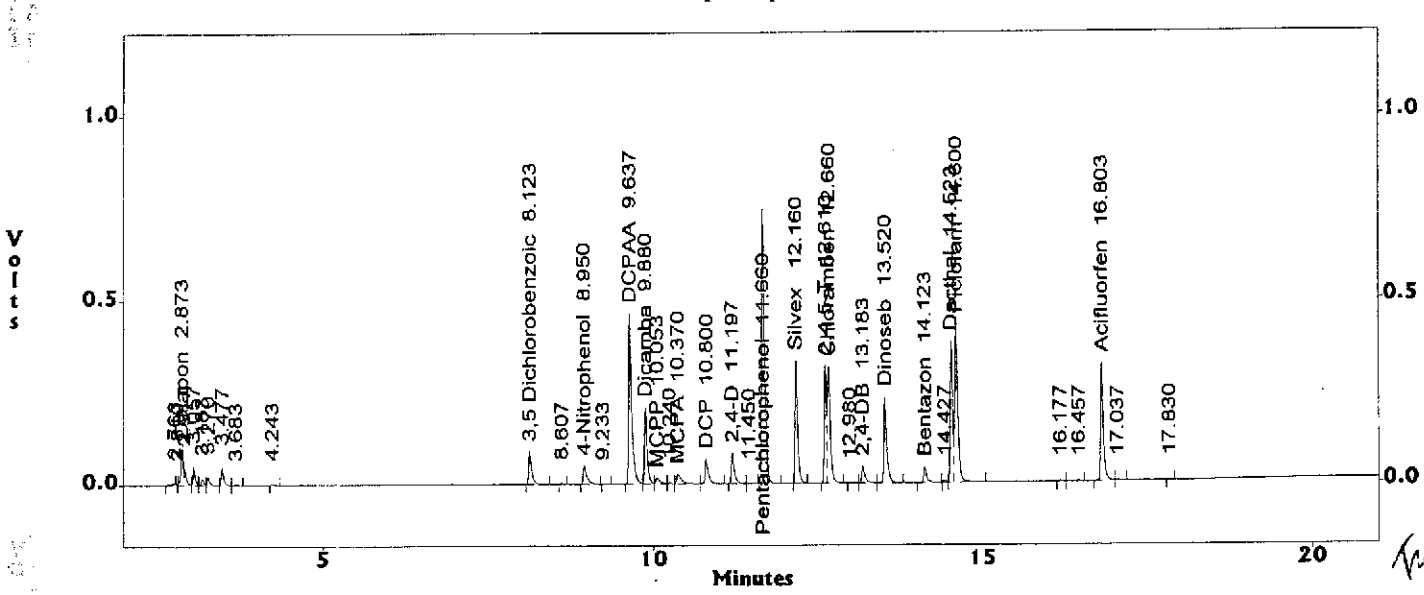
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0807
Acquired : Apr 08, 2015 18:02:53
Printed : Apr 09, 2015 09:48:54
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	250996.0	1730.88	145.648	xS
3,5 Dichlorobenzoic	8.123	273300.0	1937.97	149.024	BV
4-Nitrophenol	8.950	188082.0	1457.43	145.360	BV
DCPAA	9.637	1489031.0	1082.03	1497.280	BV
Dicamba	9.880	581571.0	3890.32	150.432	VV
MCPP	10.053	61142.0	8.21	7508.800	VV
MCPA	10.370	121086.0	17.76	7476.800	VV
DCP	10.800	212688.0	1485.51	150.960	VB
2,4-D	11.197	270646.0	1894.33	150.432	BV
Pentachlorophenol	11.660	2271329.0	14739.16	151.936	VB
Silvex	12.160	938413.0	5953.99	152.048	BB
2,4,5-T	12.610	746512.0	4983.71	149.776	BS
Chloramben	12.660	973632.0	6012.12	151.632	Sx
2,4-DB	13.183	150151.0	1025.98	151.456	VV
Dinoseb	13.520	707712.0	4871.89	151.184	Vx
Bentazon	14.123	126048.0	803.13	151.184	BV
Dacthal	14.523	984509.0	6624.78	146.416	VV
Picloram	14.600	1411045.0	8580.05	151.184	VV
Acifluorfen	16.803	934036.0	6000.10	154.032	VV

c:\ezchrom\chrom\qd08\qd08.008 -- Channel B



Tec 4/10/15

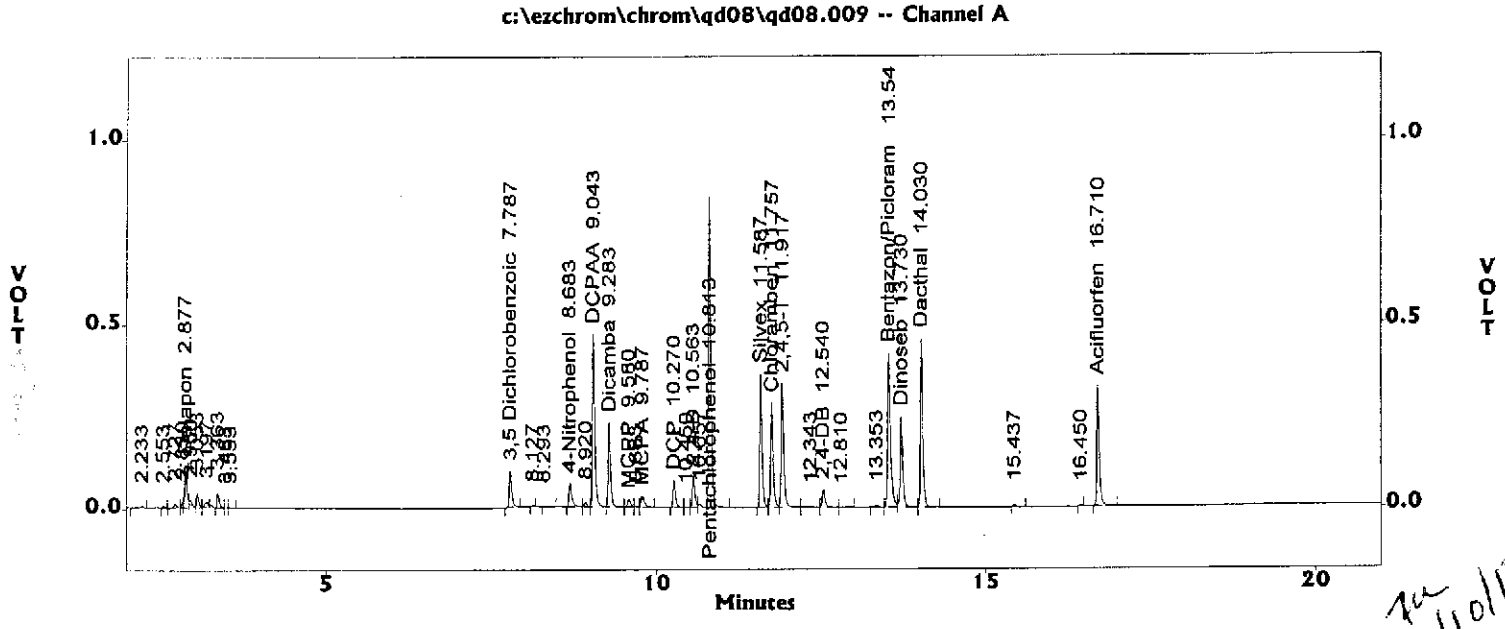
5053

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0808
Acquired : Apr 08, 2015 18:31:36
Printed : Apr 09, 2015 09:49:01
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	272222.0	1656.60	182.060	SS
3,5 Dichlorobenzo	7.787	275487.0	1722.43	186.280	vv
4-Nitrophenol	8.683	202105.0	1289.87	181.700	BV
DCPAA	9.043	1174981.0	750.10	1871.600	vv
Dicamba	9.283	556237.0	3238.35	188.040	vv
MCPP	9.580	64811.0	8.42	9386.000	VV
MCPA	9.787	106124.0	15.83	-1.000	VV
DCP	10.270	198719.0	1193.88	188.700	BV
2,4-D	10.563	234331.0	1510.05	188.040	VS
Pentachlorophenol	10.813	2123075.0	12495.55	189.920	VB
Silvex	11.587	890701.0	5002.75	190.060	BV
Chloramben	11.757	754518.0	4132.75	187.220	VV
2,4,5-T	11.917	927897.0	5396.66	189.540	VV
2,4-DB	12.540	147689.0	801.45	189.320	VV
Bentazon/Picloram	13.543	1309029.0	3540.81	377.960	VV
Dinoseb	13.730	673476.0	4088.80	188.980	VV
Dacthal	14.030	1146474.0	6873.97	183.020	VB
Acifluorfen	16.710	853242.0	4699.56	192.540	vv



4/10/15

5054

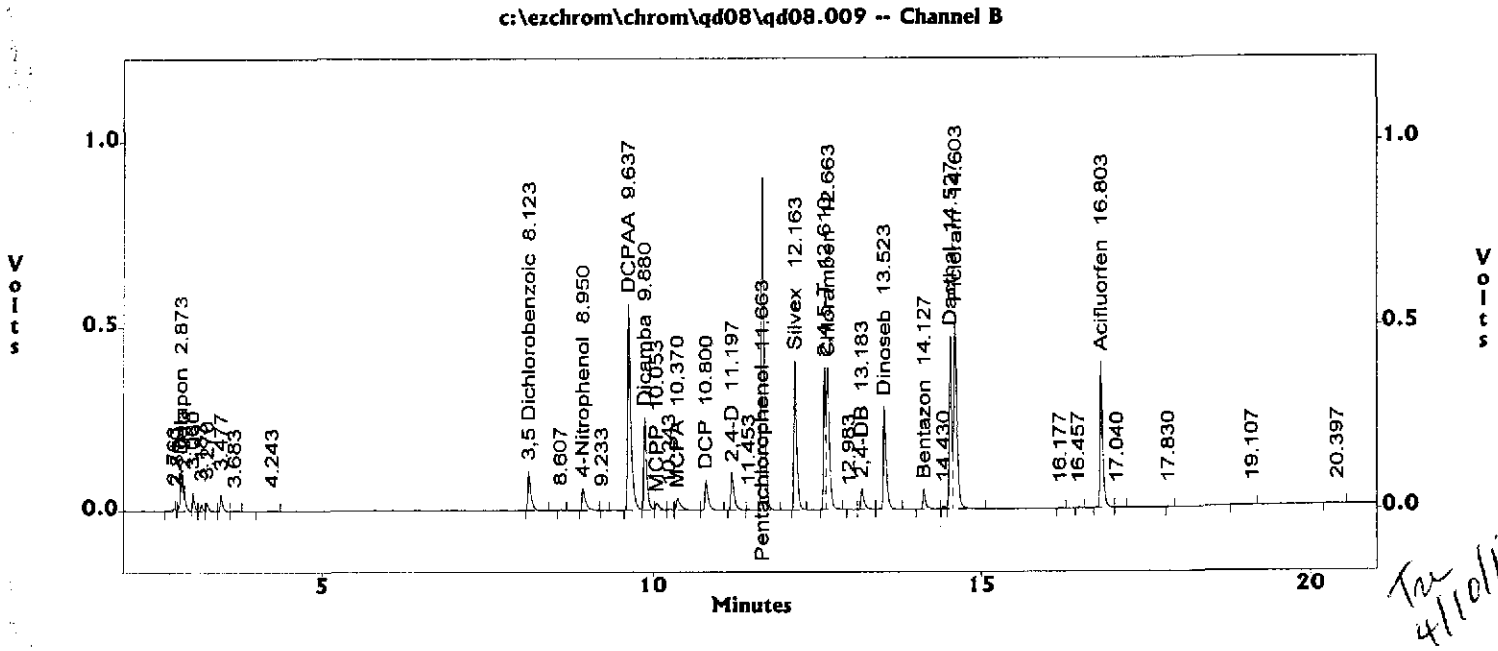
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0808
Acquired : Apr 08, 2015 18:31:36
Printed : Apr 09, 2015 09:49:01
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	330884.0	1730.88	182.060	xS
3,5 Dichlorobenzoic	8.123	330857.0	1937.97	186.280	BV
4-Nitrophenol	8.950	223682.0	1457.43	181.700	BV
DCPAA	9.637	1796801.0	1082.03	1871.600	BV
Dicamba	9.880	715082.0	3890.32	188.040	VV
MCPP	10.053	73702.0	8.21	9386.000	VV
MCPA	10.370	141196.0	17.76	9346.000	VV
DCP	10.800	257454.0	1485.51	188.700	VB
2,4-D	11.197	327840.0	1894.33	188.040	BV
Pentachlorophenol	11.663	2784160.0	14739.16	189.920	VB
Silvex	12.163	1157805.0	5953.99	190.060	BB
2,4,5-T	12.610	869713.0	4983.71	187.220	BS
Chloramben	12.663	1245791.0	6012.12	189.540	Sx
2,4-DB	13.183	181938.0	1025.98	189.320	VV
Dinoseb	13.523	862098.0	4871.89	188.980	Vx
Bentazon	14.127	156732.0	803.13	188.980	BV
Dacthal	14.527	1214382.0	6624.78	183.020	VV
Picloram	14.603	1756604.0	8580.05	188.980	VV
Acifluorfen	16.803	1161291.0	6000.10	192.540	VV

c:\ezchrom\chrom\qd08\qd08.009 -- Channel B



Tr 4/10/15

5055

SECOND SOURCE VERIFICATION

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD0801DA 04/08/2015 19:00
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.877	2.863	2.891	91.0	1656.6	155836	94.07	3		20
3,5-Dichlorobenzo	7.787	7.765	7.809	93.1	1722.4	144264	83.76	-10		20
4-Nitrophenol	8.687	8.666	8.708	90.8	1289.9	119778	92.86	2		20
Dicamba	9.283	9.268	9.298	94.0	3238.3	314105	97.00	3		20
Dichloroprop	10.270	10.252	10.288	94.3	1193.9	119536	100.12	6		20
2,4-D	10.567	10.547	10.587	94.0	1510.1	140414	92.99	-1		20
Pentachlorophenol	10.813	10.795	10.831	95.0	12495.6	1173716	93.93	-1		20
2,4,5-TP(Silvex)	11.587	11.571	11.603	95.0	5002.7	494677	98.88	4		20
Chloramben	11.757	11.741	11.773	93.6	4132.7	414904	100.39	7		20
2,4,5-T	11.917	11.896	11.938	94.8	5396.7	544211	100.84	6		20
2,4-DB	12.540	12.518	12.562	94.7	801.400	74774	93.30	-1		20
Bentazon/Picloram	13.543	13.522	13.564	189.0	3540.8	720655	203.53	8		20
Dinoseb	13.730	13.712	13.748	94.5	4088.8	386970	94.64	0		20
Dacthal	14.027	14.006	14.048	91.5	6874.0	650430	94.62	3		20
Acifluorfen	16.710	16.692	16.728	96.3	4699.6	463640	98.66	2		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.043	9.027	9.059	935.8	750.100	686706	915.49	-2		20

TW 4/10/15

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08010B 04/08/2015 19:00
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.873	2.857	2.889	91.0	1730.9	151015	87.25	-4		20
3,5-Dichlorobenzo	8.123	8.107	8.139	93.1	1938.0	170121	87.78	-6		20
4-Nitrophenol	8.950	8.932	8.968	90.8	1457.4	131837	90.46	-0		20
Dicamba	9.877	9.861	9.893	94.0	3890.3	381414	98.04	4		20
Dichloroprop	10.800	10.786	10.814	94.3	1485.5	149707	100.78	7		20
2,4-D	11.197	11.181	11.213	94.0	1894.3	172102	90.85	-3		20
Pentachlorophenol	11.660	11.642	11.678	95.0	14739.2	1473344	99.96	5		20
2,4,5-TP(Silvex)	12.160	12.146	12.174	95.0	5954.0	605701	101.73	7		20
Chloramben	12.660	12.630	12.690	93.6	6012.1	627649	104.40	12		20
2,4,5-T	12.610	12.594	12.626	94.8	4983.7	509009	102.14	8		20
2,4-DB	13.183	13.159	13.207	94.7	1026.0	95673	93.25	-1		20
Dinoseb	13.520	13.502	13.538	94.5	4871.9	471782	96.84	2		20
Bentazon	14.123	14.107	14.139	94.5	803.100	78704	98.00	4		20
Dacthal	14.523	14.507	14.539	91.5	6624.8	642595	97.00	6		20
Picloram	14.600	14.576	14.624	94.5	8580.1	882118	102.81	9		20
Acifluorfen	16.803	16.785	16.821	96.3	6000.1	610451	101.74	6		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.637	9.621	9.653	935.8	1082.0	999048	923.31	-1		20

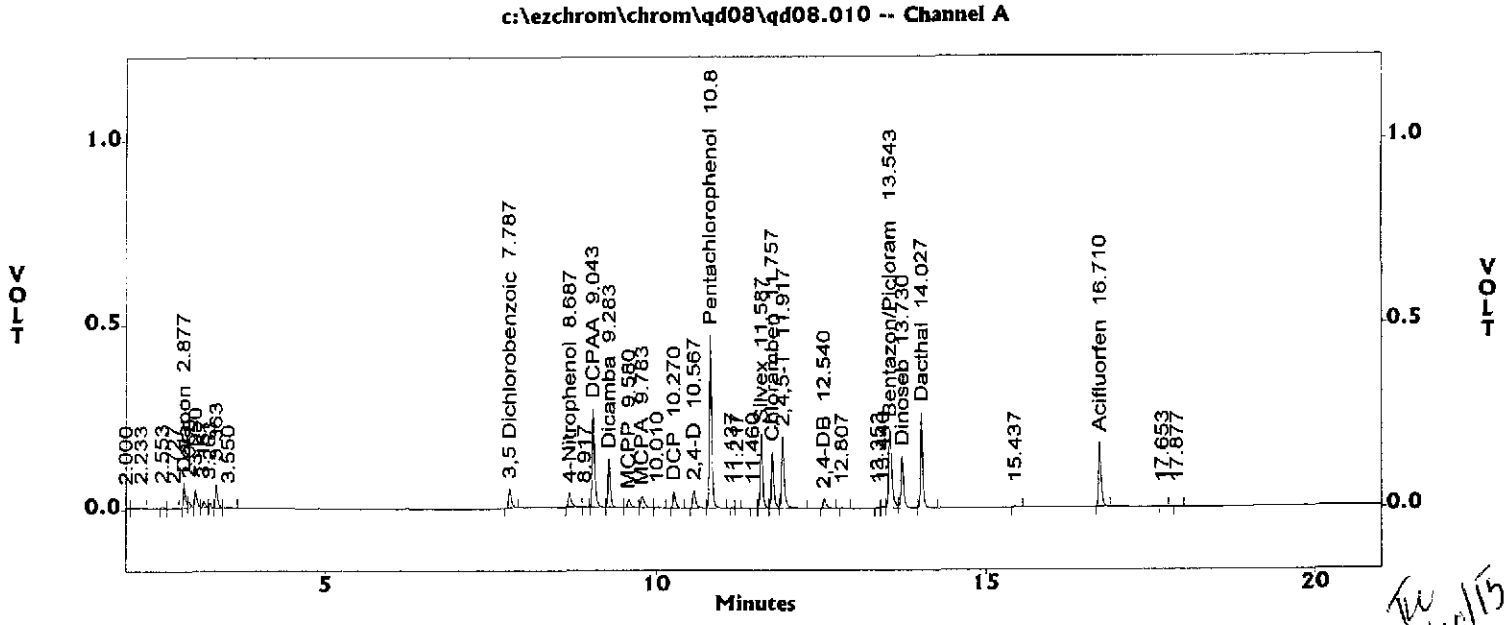
Tw 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08001
Acquired : Apr 08, 2015 19:00:21
Printed : Apr 09, 2015 09:49:08
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	155836.0	1656.60	94.070	xV
3,5 Dichlorobenzo	7.787	144264.0	1722.43	83.756	vv
4-Nitrophenol	8.687	119778.0	1289.87	92.860	BV
DCPAA	9.043	686706.0	750.10	915.486	vv
Dicamba	9.283	314105.0	3238.35	96.995	vv
MCPP	9.580	69714.0	8.42	8282.514	VV
MCPA	9.783	109447.0	15.83	6913.623	VV
DCP	10.270	119536.0	1193.88	100.124	BV
2,4-D	10.567	140414.0	1510.05	92.986	VV
Pentachlorophenol	10.813	1173716.0	12495.55	93.931	VB
Silvex	11.587	494677.0	5002.75	98.881	VV
Chloramben	11.757	414904.0	4132.75	100.394	VV
2,4,5-T	11.917	544211.0	5396.66	100.842	VB
2,4-DB	12.540	74774.0	801.45	93.299	BB
Bentazon/Picloram	13.543	720655.0	3540.81	203.528	VV
Dinoseb	13.730	386970.0	4088.80	94.642	VV
Dacthal	14.027	650430.0	6873.97	94.622	VB
Acifluorfen	16.710	463640.0	4699.56	98.656	vv



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5059

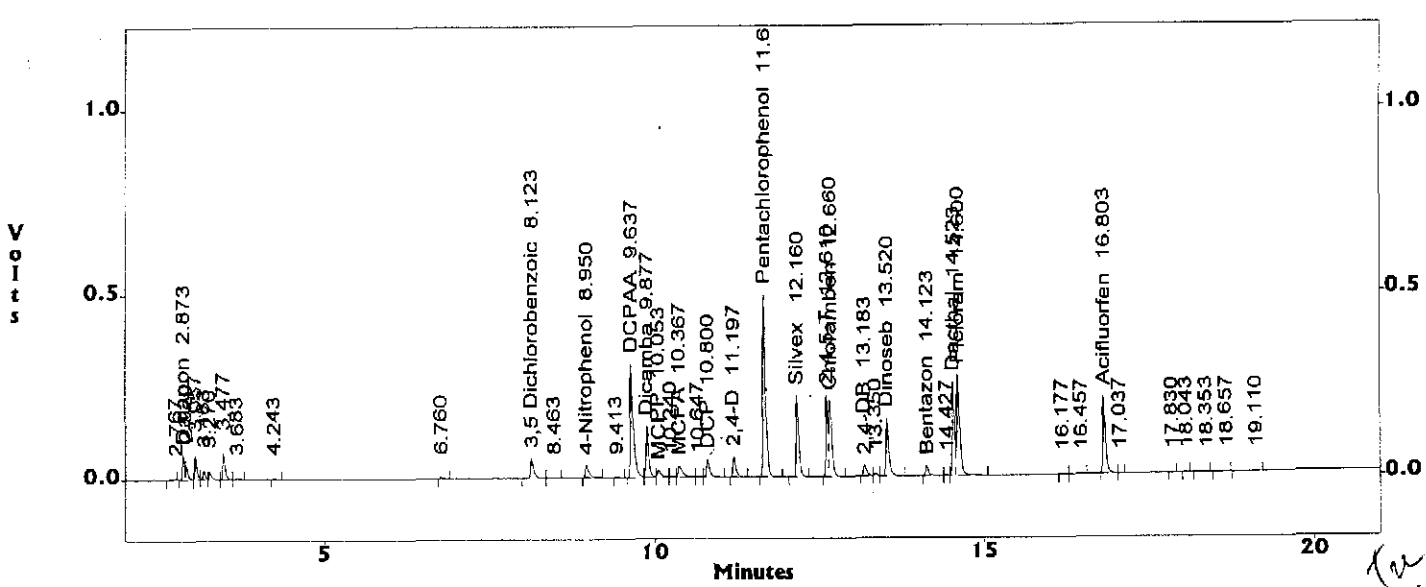
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08001
Acquired : Apr 08, 2015 19:00:21
Printed : Apr 09, 2015 09:49:08
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	151015.0	1730.88	87.247	xS
3,5 Dichlorobenzoic	8.123	170121.0	1937.97	87.783	BV
4-Nitrophenol	8.950	131837.0	1457.43	90.459	BB
DCPAA	9.637	999048.0	1082.03	923.312	VV
Dicamba	9.877	381414.0	3890.32	98.042	VV
MCPP	10.053	72184.0	8.21	8786.874	VV
MCPA	10.367	141662.0	17.76	7978.510	VV
DCP	10.800	149707.0	1485.51	100.778	VB
2,4-D	11.197	172102.0	1894.33	90.851	BV
Pentachlorophenol	11.660	1473344.0	14739.16	99.961	BB
Silvex	12.160	605701.0	5953.99	101.730	BV
2,4,5-T	12.610	509009.0	4983.71	102.135	VS
Chloramben	12.660	627649.0	6012.12	104.397	Sx
2,4-DB	13.183	95673.0	1025.98	93.251	BV
Dinoseb	13.520	471782.0	4871.89	96.837	VB
Bentazon	14.123	78704.0	803.13	97.996	BV
Dacthal	14.523	642595.0	6624.78	96.999	VV
Picloram	14.600	882118.0	8580.05	102.810	VB
Acifluorfen	16.803	610451.0	6000.10	101.740	VV

c:\ezchrom\chrom\qd08\qd08.010 -- Channel B



Tu 4/10/15

5060

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24002A 04/24/2015 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.640	13.622	13.658	94.5	4088.8	405145	99.09	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.980	8.964	8.996	935.8	750.100	668719	891.51	-5		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24002B 04/24/2015 17:22
CONC UNIT : ppb

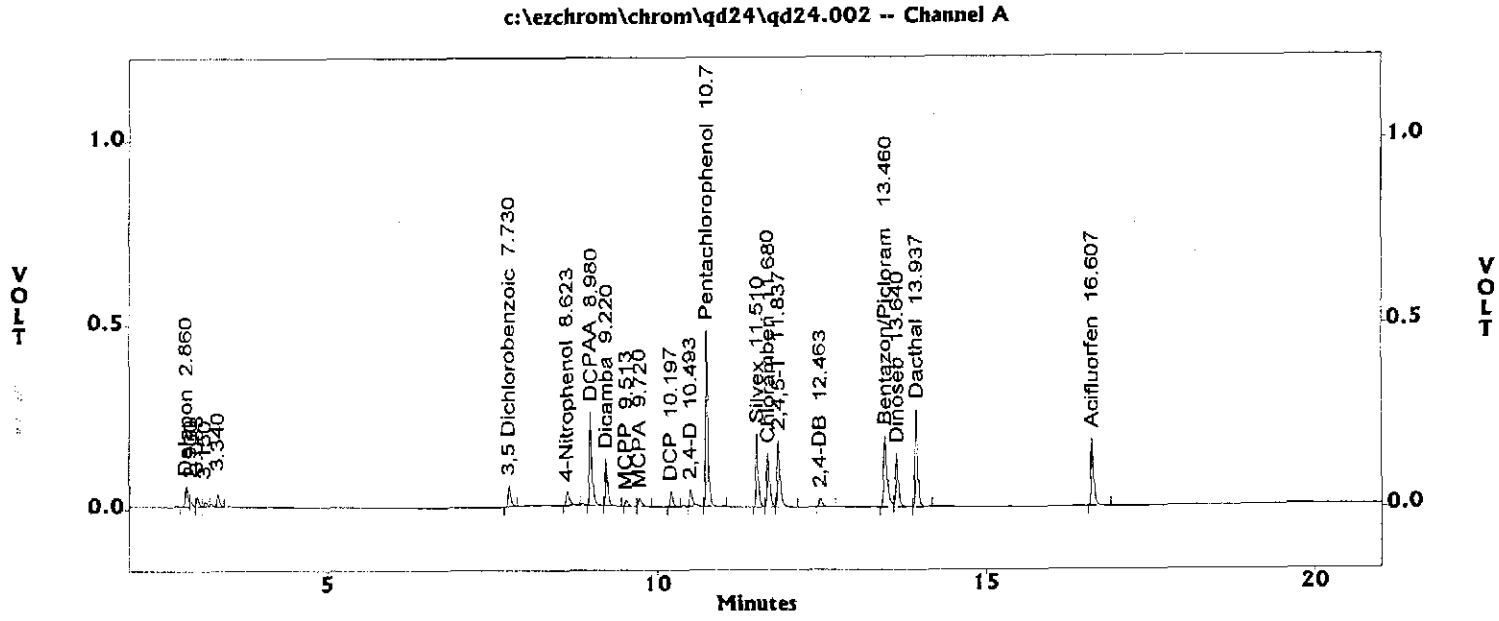
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.510	13.492	13.528	94.5	4871.9	474311	97.36	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.623	9.607	9.639	935.8	1082.0	1000647	924.79	-1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08013
Acquired : Apr 24, 2015 17:22:29
Printed : Apr 27, 2015 12:07:30
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	169268.0	1656.60	102.178	VS
3,5 Dichlorobenzo	7.730	159363.0	1722.43	92.522	VV
4-Nitrophenol	8.623	126412.0	1289.87	98.003	BV
DCPAA	8.980	668719.0	750.10	891.506	VV
Dicamba	9.220	308949.0	3238.35	95.403	VV
MCPP	9.513	47640.0	8.42	5659.967	VV
MCPA	9.720	76016.0	15.83	4801.831	VV
DCP	10.197	110717.0	1193.88	92.737	BV
2,4-D	10.493	148479.0	1510.05	98.327	VV
Pentachlorophenol	10.740	1205751.0	12495.55	96.494	VB
Silvex	11.510	501513.0	5002.75	100.248	BV
Chloramben	11.680	413371.0	4132.75	100.023	VV
2,4,5-T	11.837	527229.0	5396.66	97.695	VB
2,4-DB	12.463	74064.0	801.45	92.413	BV
Bentazon/Picloram	13.460	701387.0	3540.81	198.086	VV
Dinoseb	13.640	405145.0	4088.80	99.087	VV
Dacthal	13.937	672315.0	6873.97	97.806	VB
Acifluorfen	16.607	502957.0	4699.56	107.022	VV

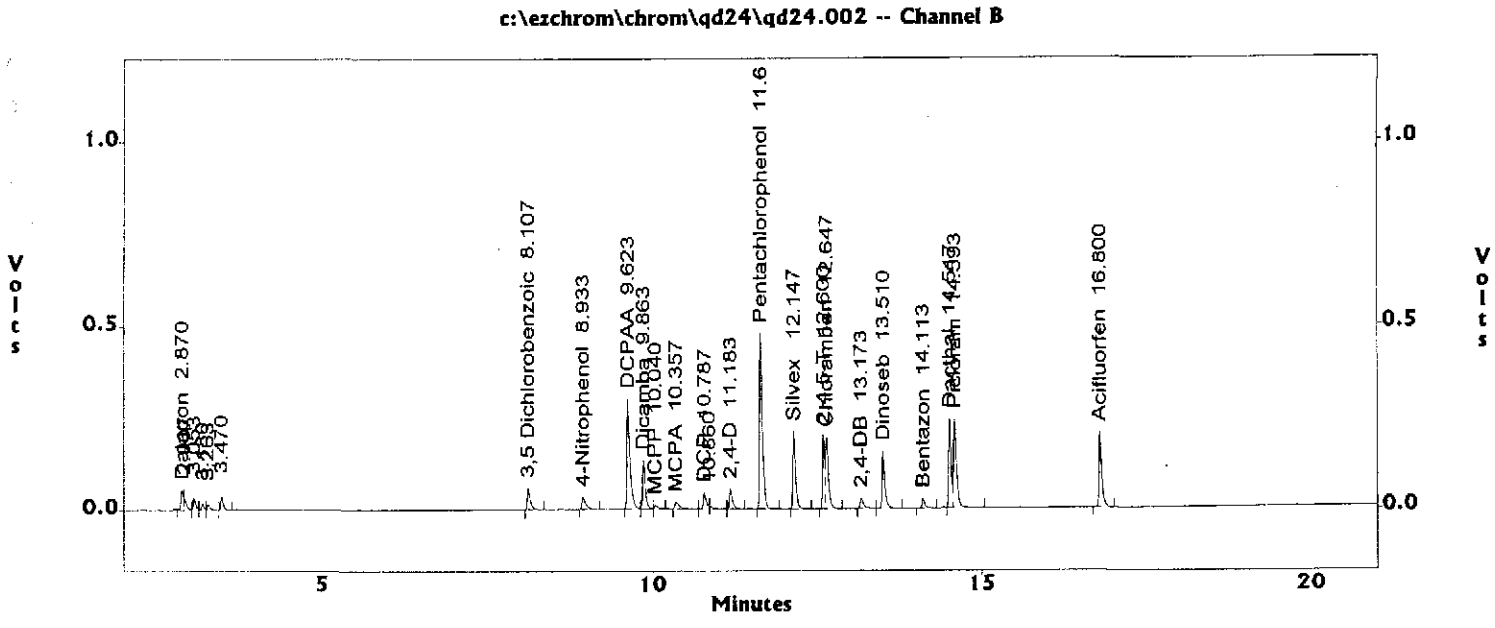


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08013
Acquired : Apr 24, 2015 17:22:29
Printed : Apr 27, 2015 12:07:30
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	156815.0	1730.88	90.598	SS
3,5 Dichlorobenzoic	8.107	180263.0	1937.97	93.017	BV
4-Nitrophenol	8.933	134758.0	1457.43	92.463	VV
DCPAA	9.623	1000647.0	1082.03	924.790	VV
Dicamba	9.863	369306.0	3890.32	94.930	VV
MCPP	10.040	42513.0	8.21	5175.058	VV
MCPA	10.357	88786.0	17.76	5000.494	VV
DCP	10.787	136336.0	1485.51	91.777	Vx
2,4-D	11.183	176976.0	1894.33	93.424	VV
Pentachlorophenol	11.647	1448524.0	14739.16	98.277	VB
Silvex	12.147	583558.0	5953.99	98.011	BB
2,4,5-T	12.600	447047.0	4983.71	89.702	BS
Chloramben	12.647	615903.0	6012.12	102.444	Sx
2,4-DB	13.173	98292.0	1025.98	95.803	VV
Dinoseb	13.510	474311.0	4871.89	97.357	Vx
Bentazon	14.113	75910.0	803.13	94.518	BB
Dacthal	14.517	632402.0	6624.78	95.460	VV
Picloram	14.593	792378.0	8580.05	92.351	VV
Acifluorfen	16.800	596879.0	6000.10	99.478	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24015A 04/25/2015 01:01
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.613	13.595	13.631	94.5	4088.8	421232	103.02	9		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.960	8.944	8.976	935.8	750.100	684883	913.05	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24015B 04/25/2015 01:01
CONC UNIT : ppb

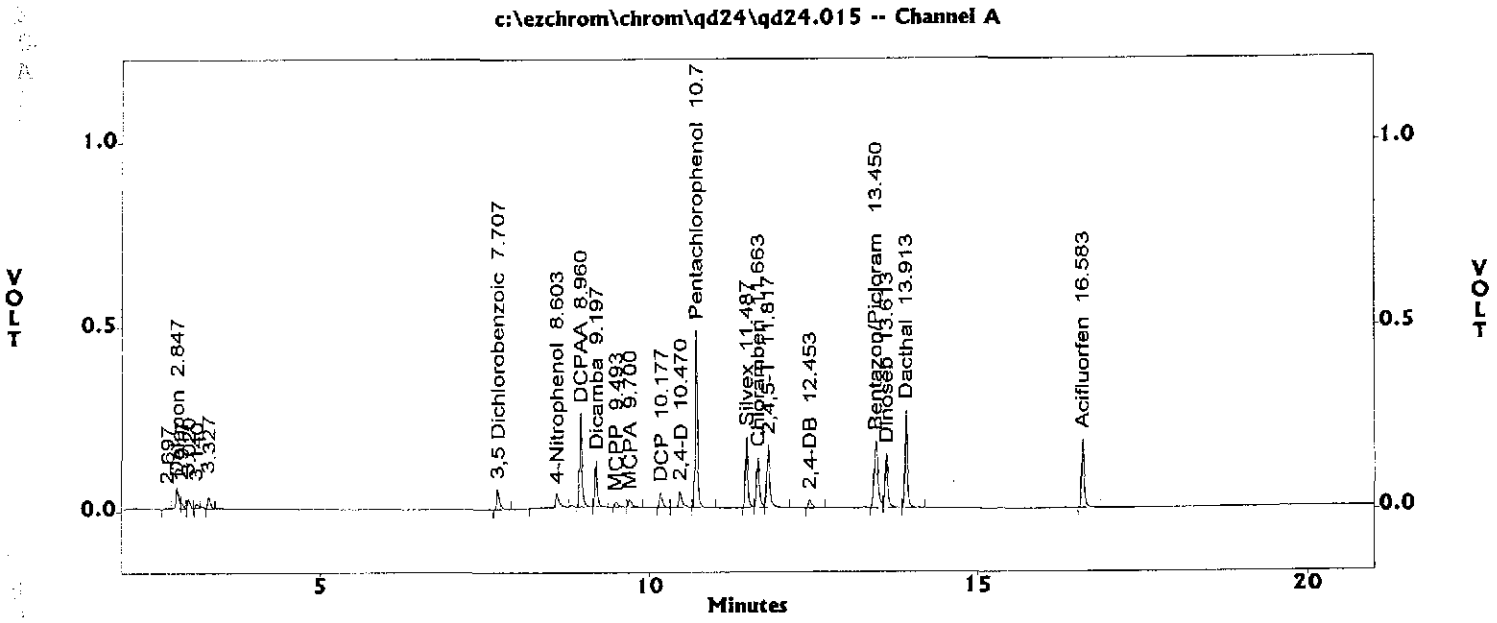
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.490	13.472	13.508	94.5	4871.9	485166	99.58	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.603	9.587	9.619	935.8	1082.0	1021705	944.25	1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.015
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08014
Acquired : Apr 25, 2015 01:01:13
Printed : Apr 27, 2015 12:27:06
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	180024.0	1656.60	108.671	VS
3,5 Dichlorobenzo	7.707	171538.0	1722.43	99.591	BV
4-Nitrophenol	8.603	143480.0	1289.87	111.236	BV
DCPAA	8.960	684883.0	750.10	913.055	VV
Dicamba	9.197	314667.0	3238.35	97.169	VV
MCPP	9.493	46359.0	8.42	5507.775	BV
MCPA	9.700	74316.0	15.83	4694.444	VV
DCP	10.177	110391.0	1193.88	92.464	BV
2,4-D	10.470	150541.0	1510.05	99.693	VV
Pentachlorophenol	10.713	1226117.0	12495.55	98.124	VB
Silvex	11.487	509375.0	5002.75	101.819	BV
Chloramben	11.663	421831.0	4132.75	102.070	VV
2,4,5-T	11.817	548348.0	5396.66	101.609	VB
2,4-DB	12.453	73903.0	801.45	92.212	BV
Bentazon/Picloram	13.450	718006.0	3540.81	202.780	VV
Dinoseb	13.613	421232.0	4088.80	103.021	VV
Dacthal	13.913	697622.0	6873.97	101.487	VB
Acifluorfen	16.583	523999.0	4699.56	111.500	VV

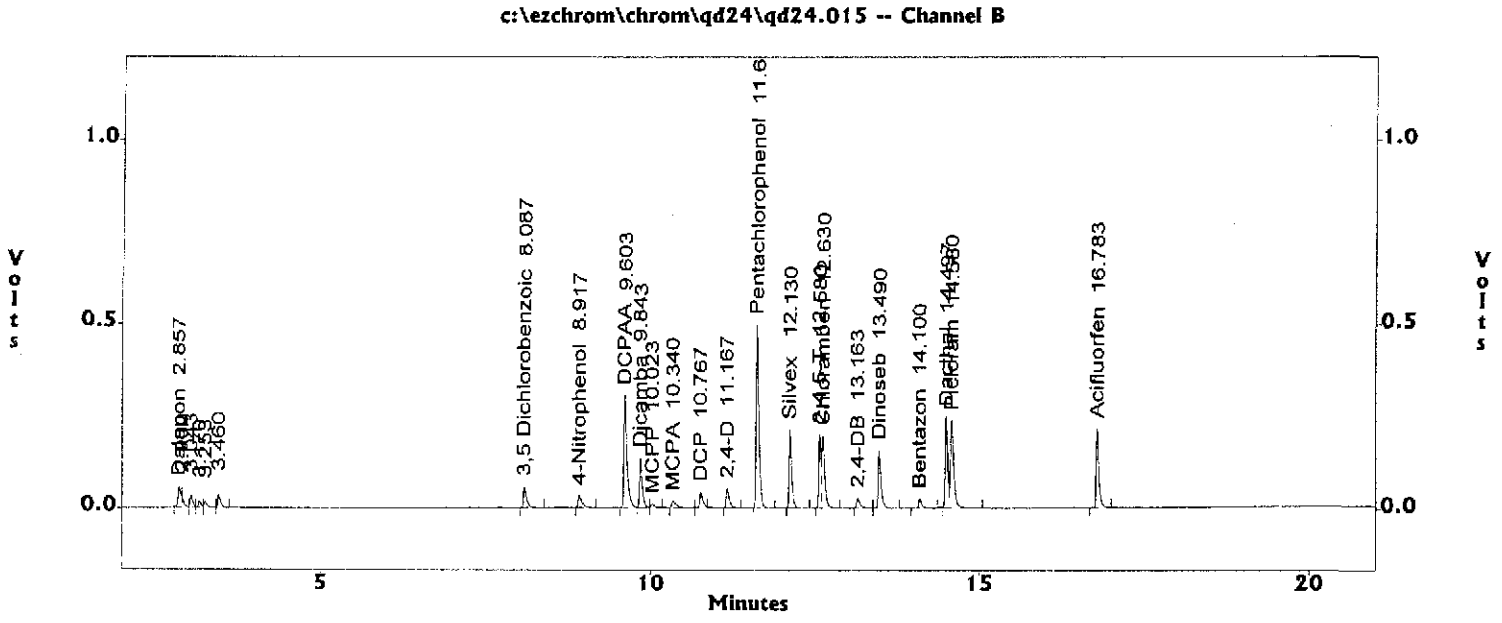


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.015
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08014
Acquired : Apr 25, 2015 01:01:13
Printed : Apr 27, 2015 12:27:06
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	175617.0	1730.88	101.461	VS
3,5 Dichlorobenzoic	8.087	184351.0	1937.97	95.126	BV
4-Nitrophenol	8.917	135110.0	1457.43	92.704	BV
DCPAA	9.603	1021705.0	1082.03	944.251	VV
Dicamba	9.843	378108.0	3890.32	97.192	VV
MCPP	10.023	41435.0	8.21	5043.834	VV
MCPA	10.340	88592.0	17.76	4989.568	VV
DCP	10.767	138338.0	1485.51	93.125	Vx
2,4-D	11.167	180264.0	1894.33	95.160	VV
Pentachlorophenol	11.623	1489737.0	14739.16	101.073	VB
Silvex	12.130	596910.0	5953.99	100.254	BB
2,4,5-T	12.580	465276.0	4983.71	93.359	BS
Chloramben	12.630	627461.0	6012.12	104.366	Sx
2,4-DB	13.163	101062.0	1025.98	98.503	VV
Dinoseb	13.490	485166.0	4871.89	99.585	Vx
Bentazon	14.100	76792.0	803.13	95.616	VV
Dacthal	14.497	653026.0	6624.78	98.573	VV
Picloram	14.580	813403.0	8580.05	94.802	VB
Acifluorfen	16.783	634597.0	6000.10	105.764	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24027A 04/25/2015 08:19
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.623	13.605	13.641	94.5	4088.8	425812	104.14	10		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	8.973	8.957	8.989	935.8	750.100	681463	908.50	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24027B 04/25/2015 08:19
CONC UNIT : ppb

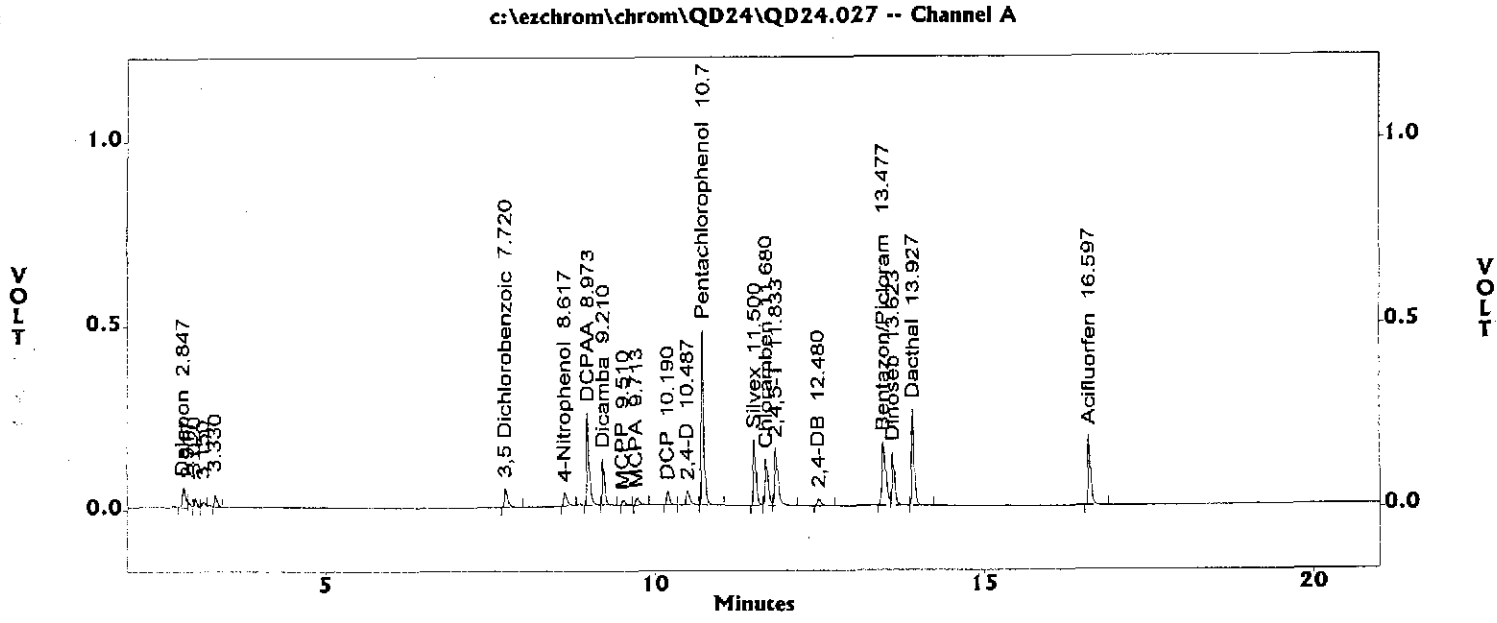
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.497	13.479	13.515	94.5	4871.9	475091	97.52	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.613	9.597	9.629	935.8	1082.0	1010987	934.35	-0		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.027
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08015
Acquired : Apr 25, 2015 08:19:56
Printed : Apr 27, 2015 12:26:28
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	181983.0	1656.60	109.853	VS
3,5 Dichlorobenzo	7.720	177941.0	1722.43	103.308	vv
4-Nitrophenol	8.617	127627.0	1289.87	98.945	BV
DCPAA	8.973	681463.0	750.10	908.496	vv
Dicamba	9.210	314086.0	3238.35	96.990	vv
MCPP	9.510	43275.0	8.42	5141.374	BI
MCPA	9.713	72467.0	15.83	4577.645	BB
DCP	10.190	110249.0	1193.88	92.345	BV
2,4-D	10.487	147103.0	1510.05	97.416	VV
Pentachlorophenol	10.720	1227256.0	12495.55	98.215	VB
Silvex	11.500	510083.0	5002.75	101.961	BV
Chloramben	11.680	419897.0	4132.75	101.602	VV
2,4,5-T	11.833	558743.0	5396.66	103.535	VV
2,4-DB	12.480	72846.0	801.45	90.893	BV
Bentazon/Picloram	13.477	717458.0	3540.81	202.625	VV
Dinoseb	13.623	425812.0	4088.80	104.141	VV
Dacthal	13.927	701368.0	6873.97	102.032	VB
Acifluorfen	16.597	528417.0	4699.56	112.440	vv

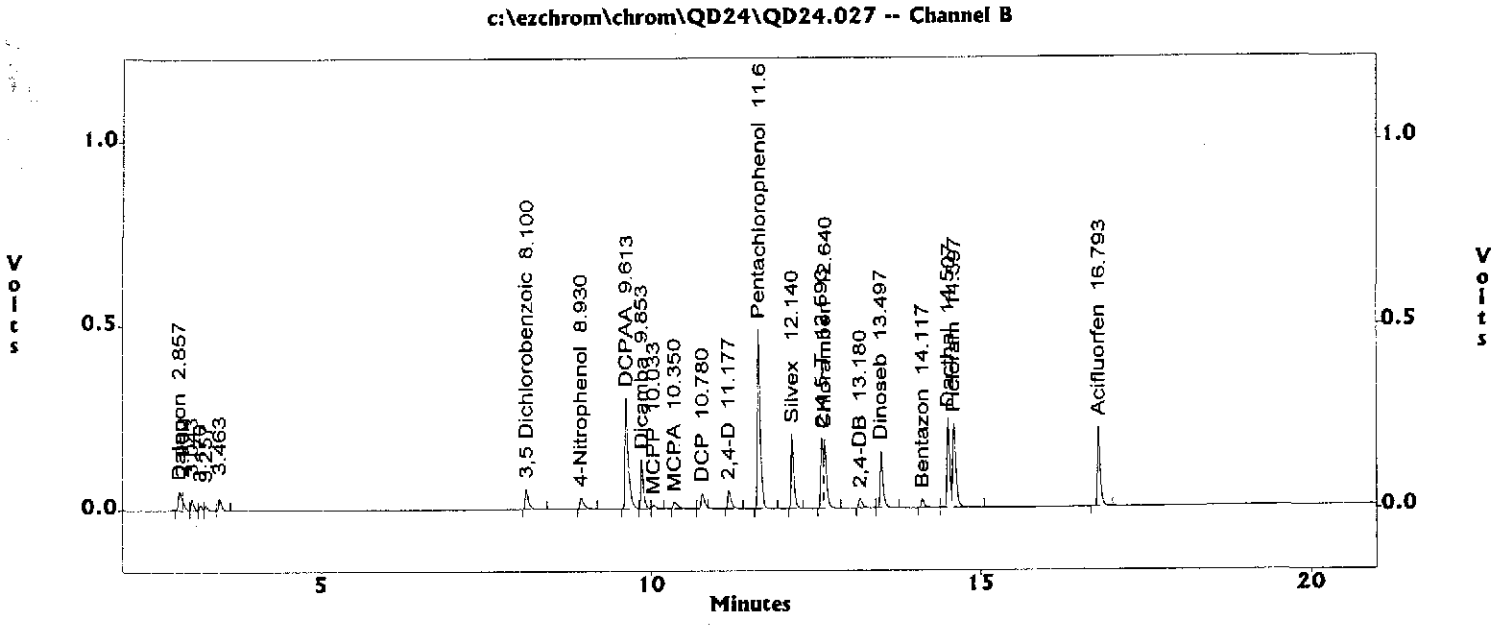


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.027
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08015
Acquired : Apr 25, 2015 08:19:56
Printed : Apr 27, 2015 12:26:28
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	176741.0	1730.88	102.110	VS
3,5 Dichlorobenzoic	8.100	183053.0	1937.97	94.456	BV
4-Nitrophenol	8.930	131433.0	1457.43	90.181	BV
DCPAA	9.613	1010987.0	1082.03	934.346	BV
Dicamba	9.853	373526.0	3890.32	96.014	VV
MCPP	10.033	39130.0	8.21	4763.249	VV
MCPA	10.350	85232.0	17.76	4800.330	VV
DCP	10.780	133082.0	1485.51	89.587	Vx
2,4-D	11.177	179679.0	1894.33	94.851	BV
Pentachlorophenol	11.630	1476441.0	14739.16	100.171	VB
Silvex	12.140	586817.0	5953.99	98.559	BB
2,4,5-T	12.593	452262.0	4983.71	90.748	BS
Chloramben	12.640	630952.0	6012.12	104.947	Sx
2,4-DB	13.180	97320.0	1025.98	94.856	BV
Dinoseb	13.497	475091.0	4871.89	97.517	VB
Bentazon	14.117	75604.0	803.13	94.137	BV
Dacthal	14.507	661611.0	6624.78	99.869	VV
Picloram	14.597	806385.0	8580.05	93.984	VB
Acifluorfen	16.793	638036.0	6000.10	106.338	VV



ANALYTICAL LOGS

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A09-018
Instrument No.: 09
Analytical Sequence: QD08
Method File: HE09D08
Analytical Batch: QD08006

SOP #	Rev. #
☑ EMAX-8151	4
☐ EMAX-8082CON	1
☐ EMAX-504.1	4
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09D08	QD08	4/8/15

STANDARDS ID		Conc (µg/L)
DCC	554B-03-75-01	100-5000
ICAL	75-02	10/500-200/10,000
ICV	75-03	100-10,000 (20-1000

Hexane Lot # 5487

Column	☑ A. RTX CLPEST I B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Syringe Lot #: ☑ 430353 ☑ 454251 ☐ 475284 ☐ 354311

Analyzed By: RZ Date: 4/8/15

Disposed By: RZ Date Disposed: 4/9/15

This page is checked during data review.

	Sample ID	Method	Filename	Mult	Description
1	IB09D08001	he09d08.met	QD08.001	1	
2	HE09D0801	he09d08.met	QD08.002	1	
3	HE09D0802	he09d08.met	QD08.003	1	
4	HE09D0803	he09d08.met	QD08.004	1	
5	HE09D0804	he09d08.met	QD08.005	1	
6	HE09D0805	he09d08.met	QD08.006	1	
7	HE09D0806	he09d08.met	QD08.007	1	
8	HE09D0807	he09d08.met	QD08.008	1	
9	HE09D0808	he09d08.met	QD08.009	1	
10	IHE09D08001	he09d08.met	QD08.010	1	
11	IHE09D08002	he09d08.met	QD08.011	1	
12	CHE09D08001	he09d08.met	QD08.012	1	
13	B	he09d08.met	QD08.013	1	

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Dilution:

D143-13:

10X : 100uL sample, 900uL Hexane

100X : 10uL Sample(10x), 990 uL Hexane

20,000X : 50uL Sample(1000x), 950 uL Hexane

50,000X : 20 uL Sample(1000x), 980 uL Hexane

D143-14 and -16:

5X : 200uL Sample, 800uL Hexane

D143-07:

20X : 50 uL Sample, 950 uL Hexane

D143-03 and -04:

100X : 10 uL Sample, 990 uL Hexane

Book #:	A09-018
Instrument No.:	09
Analytical Sequence:	QD24
Method File:	HE09D08
Analytical Batch:	QD2400Z

SOP #	Rev. #
☑ EMAX-8151	4
☐ EMAX-8082CON	1
☐ EMAX-504.1	4
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09D08	QD08	4/8/15

STANDARDS ID	Conc (µg/L)
DCC SS4B-03-25-01	100-5000

Hexane Lot # 5487

Column: ☑ A. RTX CLPEST I ☐ B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Syringe Lot #: ☑ 430353 ☑ 454251 ☑ 475284 ☑ 354311

Analyzed By: [signature] Date: 4/24/15

Disposed By: [signature] Date Disposed: 4/27/15

This page is checked during data review.

5077

Un	Sample ID	Method	Filename	Mult.	Description
1	IB09D08013	he09d08.met	QD24.001	1	
2	CHE09D08013	he09d08.met	QD24.002	1	
3	HED009WB	he09d08.met	QD24.003	1	
4	HED009WL	he09d08.met	QD24.004	1	
5	HED009WC	he09d08.met	QD24.005	1	
6	D142-03M	he09d08.met	QD24.006	1	
7	D142-03S	he09d08.met	QD24.007	1	
8	D143-01M	he09d08.met	QD24.008	1	
9	D143-01S	he09d08.met	QD24.009	1	
10	D142-01	he09d08.met	QD24.010	1	
11	D142-02	he09d08.met	QD24.011	1	
12	D142-03	he09d08.met	QD24.012	1	
13	BLANK	he09d08.met	QD24.013	1	
14	IB09D08014	he09d08.met	QD24.014	1	
15	CHE09D08014	he09d08.met	QD24.015	1	
16	D142-05	he09d08.met	QD24.016	1	
17	D142-07	he09d08.met	QD24.017	1	
18	D142-09	he09d08.met	QD24.018	1	
19	D143-01	he09d08.met	QD24.019	1	
20	D143-03	he09d08.met	QD24.020	1	
21	D143-04	he09d08.met	QD24.021	1	
22	D143-05	he09d08.met	QD24.022	1	
23	D143-07	he09d08.met	QD24.023	1	
24	D143-08	he09d08.met	QD24.024	1	
25	BLANK	he09d08.met	QD24.025	1	
26	IB09D08015	he09d08.met	QD24.026	1	
27	CHE09D08015	he09d08.met	QD24.027	1	
28	D143-09	he09d08.met	QD24.028	1	
29	D143-10	he09d08.met	QD24.029	1	
30	D143-12	he09d08.met	QD24.030	1	
31	D143-13	he09d08.met	QD24.031	1	
32	D143-13I DF=10	he09d08.met	QD24.032	10	
33	D143-14	he09d08.met	QD24.033	1	

Sample ID	Method	Filename	Mult	Description
D143-16	he09d08.met	QD24.034	1	
BLANK	he09d08.met	QD24.035	1	
IB09D08016	he09d08.met	QD24.036	1	
CHE09D08016	he09d08.met	QD24.037	1	
IB09D08017	he09d08.met	QD24.038	1	
CHE09D08017	he09d08.met	QD24.039	1	
D143-03I DF=100	he09d08.met	QD24.040	100	
D143-04I DF=100	he09d08.met	QD24.041	100	
D143-07I DF=20	he09d08.met	QD24.042	20	
D143-13J DF=1000	he09d08.met	QD24.043	1000	
D143-14I DF=5	he09d08.met	QD24.044	5	
D143-16I DF=5	he09d08.met	QD24.045	5	
D143-03J DF=1000	he09d08.met	QD24.046	1000	
D143-04J DF=1000	he09d08.met	QD24.047	1000	
D143-13K DF=20000	he09d08.met	QD24.048	20000	
D143-13T DF=50000 x	he09d08.met	QD24.049	50000	not used
BLANK	he09d08.met	QD24.050	1	
IB09D08018	he09d08.met	QD24.051	1	
CHE09D08018	he09d08.met	QD24.052	1	
IB	he09d08.met	QD24.053	1	

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☑ EMAX-8151	4
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Book #.: EHE-019
Preparation Batch: HED009 W
Matrix Water
Micropipette ID: PE00-04 (1000 ul)
Micropipette ID: PE97C-03 (100 ul)

Lab Sample ID	Sonicator #	Concentrator #
HED009 -WB		1
-WL		1
-WC		1
D142 -01	✓	1
-02	✓	1
-03	✓	1
-03M	✓	2
-03S	✓	2
-05	✓	2
-07	✓	2
-09	✓	2
D143 -01	✓	2
-01M	✓	3
-01S	✓	3
-03	✓	3
-04	✓	3
-05	✓	3
-07	✓	3
-08	✓	4
-09	✓	4
-10	✓	4
-12	✓	4
-13	✓	4
-14	✓	4
-16	✓	1

Standards	ID	Amount Added (ml)
Surrogate	SS4B-03-09-03	1.0 ✓
LCS/MS	SS4A-02-155	0.1 ✓

Reagent	Lot # / ID
CH_2Cl_2	
Hexane	54297
Ethyl Ether	DM087
Acified Na_2SO_4	SP1B-08-02-02
H_2SO_4	3113040
Diazo-methane	SP1B-08-08-04
Silica Sand	-
Silicic Acid	SP1A-07-01-07
Reagent Water	SW1A-005-12-02
Residual Chlorine Strip	4406
pH Strip	HC413032

TUNING

Sonicator #	Reading

Concentrator	Water Bath Temperature Setting(°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Test Thermometer = SVOC-T1

Prepared By: my/IR — Standard Added By: my

Witnessed By: IR — Checked By: JM

Extract Received By: Kz — Extract Location: SE04-Herb-01

Disposal Date: — Disposed By:

FileID: HED009W

EMAX LABORATORIES, INC.

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
15HED009W01	HED009WB	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W02	HED009WL	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W03	HED009WC	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W04	D142-01	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W05	D142-02	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W06	D142-03	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W07	D142-03M	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W08	D142-03S	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W09	D142-05	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W10	D142-07	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W11	D142-09	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W12	D143-01	500	ml	4/24/15 9:09	5	500	5	1	Yellow
15HED009W13	D143-01M	500	ml	4/24/15 9:09	5	500	5	1	Yellow
15HED009W14	D143-01S	500	ml	4/24/15 9:09	5	500	5	1	Yellow
15HED009W15	D143-03	500	ml	4/24/15 9:09	5	500	5	1	Yellow Green
15HED009W16	D143-04	500	ml	4/24/15 9:09	5	500	5	1	Yellow Green
15HED009W17	D143-05	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W18	D143-07	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W19	D143-08	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W20	D143-09	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W21	D143-10	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W22	D143-12	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W23	D143-13	500	ml	4/24/15 9:09	5	500	5	1	Dark Yellow Green
15HED009W24	D143-14	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W25	D143-16	500	ml	4/24/15 9:09	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/ExpV

☑ Extraction Started @ 4/24/15 9:30

☑ Extraction Ended @ 4/24/15 15:30

Prepared By: MYokoo/IRagas

Checked By: JM

Date 4/24/15

Comments: Traces of Cl not detected in all samples

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

WET CHEMICAL ANALYSES

SDG#: 15D142

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD 300.0
ANIONS BY IC

A total of six (6) water samples were received on 04/22/15 to be analyzed for Nitrate-N, Nitrite-N and Sulfate in accordance with Method 300.0 and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed. ICD022WB and ICD024WB were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, two (2) sets of LCS/LCD were analyzed. Nitrate-N, Nitrite-N and Sulfate were within LCS QC limits in ICD022WL/ICD022WC. Nitrate-N and Sulfate were within LCS QC limits in ICD024WL/ICD024WC. Refer to LCS summary forms for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Nitrate-N, Nitrite-N and Sulfate were within MS QC limits in D142-03IM/D142-03IS. Refer to Matrix QC summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

SAMPLE RESULTS

METHOD 300.0
NITRATE-N

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D142

Matrix : WATER
Instrument ID : D7

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICD022WB	ND	1	NA	0.100	0.0500	04/22/1511:22	NA	AD18-03	AD18-01	ICD022W	NA	NA
LCS1W	ICD022WL	1.03	1	NA	0.100	0.0500	04/22/1511:41	NA	AD18-04	AD18-01	ICD022W	NA	NA
LCD1W	ICD022WC	1.03	1	NA	0.100	0.0500	04/22/1511:59	NA	AD18-05	AD18-01	ICD022W	NA	NA
04-21-15-AMW-3R	D142-03I	35.0	20	NA	2.00	1.00	04/22/1520:26	NA	AD18-32	AD18-25	ICD022W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMS	D142-03IM	56.7	20	NA	2.00	1.00	04/22/1520:45	NA	AD18-33	AD18-25	ICD022W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMSD	D142-03IS	56.6	20	NA	2.00	1.00	04/22/1521:03	NA	AD18-34	AD18-25	ICD022W	04/21/1514:45	04/22/15
LCS2W	ICD024WL	1.03	1	NA	0.100	0.0500	04/22/1521:22	NA	AD18-35	AD18-25	ICD024W	NA	NA
LCD2W	ICD024WC	1.03	1	NA	0.100	0.0500	04/22/1521:41	NA	AD18-36	AD18-25	ICD024W	NA	NA
MBLK2W	ICD024WB	ND	1	NA	0.100	0.0500	04/22/1522:37	NA	AD18-39	AD18-37	ICD024W	NA	NA
04-21-15-BBW-3	D142-01I	38.8	20	NA	2.00	1.00	04/22/1522:56	NA	AD18-40	AD18-37	ICD024W	04/21/1514:55	04/22/15
04-21-15-FDUP-3	D142-02I	38.3	20	NA	2.00	1.00	04/22/1523:15	NA	AD18-41	AD18-37	ICD024W	04/21/1515:00	04/22/15
04-22-15-AR-1	D142-05I	36.9	20	NA	2.00	1.00	04/22/1523:33	NA	AD18-42	AD18-37	ICD024W	04/22/1508:10	04/22/15
04-22-15-PWB-1	D142-07I	28.2	20	NA	2.00	1.00	04/22/1523:52	NA	AD18-43	AD18-37	ICD024W	04/22/1508:55	04/22/15
04-22-15-PWB-13A	D142-09I	33.7	20	NA	2.00	1.00	04/23/1500:11	NA	AD18-44	AD18-37	1CD024W	04/22/1509:10	04/22/15

METHOD 300.0
NITRITE-N

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D142

Matrix : WATER
Instrument ID : D7

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICD022WB	ND	1	NA	0.100	0.0500	04/22/1511:22	NA	AD18-03	AD18-01	ICD022W	NA	NA
LCS1W	ICD022WL	2.07	1	NA	0.100	0.0500	04/22/1511:41	NA	AD18-04	AD18-01	ICD022W	NA	NA
LCD1W	ICD022WC	2.07	1	NA	0.100	0.0500	04/22/1511:59	NA	AD18-05	AD18-01	ICD022W	NA	NA
04-21-15-BBW-3	D142-01	ND	1	NA	0.100	0.0500	04/22/1515:07	NA	AD18-15	AD18-13	ICD022W	04/21/1514:55	04/22/15
04-21-15-FDUP-3	D142-02	ND	1	NA	0.100	0.0500	04/22/1515:26	NA	AD18-16	AD18-13	ICD022W	04/21/1515:00	04/22/15
04-22-15-AR-1	D142-05	ND	1	NA	0.100	0.0500	04/22/1516:41	NA	AD18-20	AD18-13	ICD022W	04/22/1508:10	04/22/15
04-21-15-AMW-3R	D142-03	ND	1	NA	0.100	0.0500	04/22/1517:00	NA	AD18-21	AD18-13	ICD022W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMS	D142-03M	2.18	1	NA	0.100	0.0500	04/22/1517:18	NA	AD18-22	AD18-13	ICD022W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMSD	0142-03S	2.20	1	NA	0.100	0.0500	04/22/1517:37	NA	AD18-23	AD18-13	ICD022W	04/21/1514:45	04/22/15
04-22-15-PWB-1	D142-07	ND	1	NA	0.100	0.0500	04/22/1518:52	NA	AD18-27	AD18-25	ICD022W	04/22/1508:55	04/22/15
04-22-15-PWB-13A	D142-09	ND	1	NA	0.100	0.0500	04/22/1519:11	NA	AD18-28	AD18-25	ICD022W	04/22/1509:10	04/22/15

9902

METHOD 300.0
SULFATE

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D142

Matrix : WATER
Instrument ID : D7

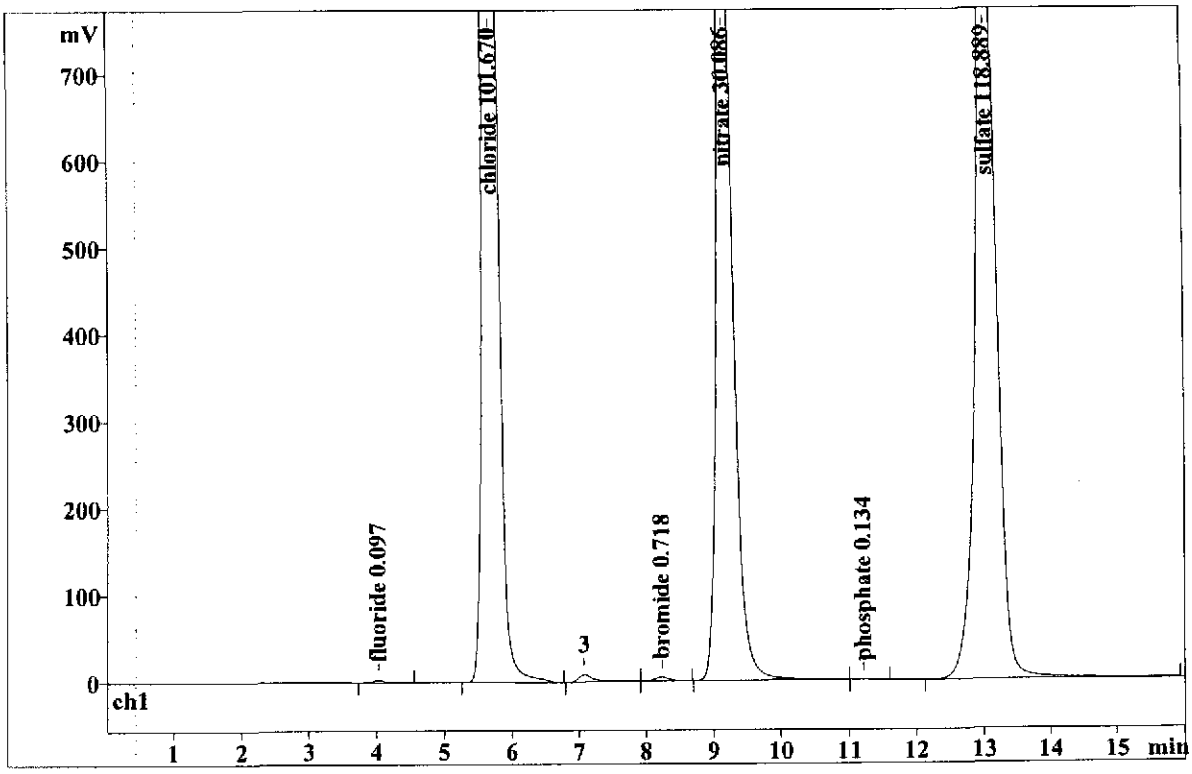
SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICD022WB	ND	1	NA	0.500	0.250	04/22/1511:22	NA	AD18-03	AD18-01	ICD022W	NA	NA
LCS1W	ICD022WL	5.02	1	NA	0.500	0.250	04/22/1511:41	NA	AD18-04	AD18-01	ICD022W	NA	NA
LCD1W	ICD022WC	4.95	1	NA	0.500	0.250	04/22/1511:59	NA	AD18-05	AD18-01	ICD022W	NA	NA
04-21-15-AMW-3R	D142-03I	116	20	NA	10.0	5.00	04/22/1520:26	NA	AD18-32	AD18-25	ICD022W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMS	D142-03IM	217	20	NA	10.0	5.00	04/22/1520:45	NA	AD18-33	AD18-25	ICD022W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMSD	D142-03IS	218	20	NA	10.0	5.00	04/22/1521:03	NA	AD18-34	AD18-25	ICD022W	04/21/1514:45	04/22/15
LCS2W	ICD024WL	4.96	1	NA	0.500	0.250	04/22/1521:22	NA	AD18-35	AD18-25	ICD024W	NA	NA
LCD2W	ICD024WC	4.95	1	NA	0.500	0.250	04/22/1521:41	NA	AD18-36	AD18-25	ICD024W	NA	NA
MBLK2W	ICD024WB	ND	1	NA	0.500	0.250	04/22/1522:37	NA	AD18-39	AD18-37	ICD024W	NA	NA
04-21-15-BBW-3	D142-01I	204	20	NA	10.0	5.00	04/22/1522:56	NA	AD18-40	AD18-37	ICD024W	04/21/1514:55	04/22/15
04-21-15-FDUP-3	D142-02I	201	20	NA	10.0	5.00	04/22/1523:15	NA	AD18-41	AD18-37	ICD024W	04/21/1515:00	04/22/15
04-22-15-AR-1	D142-05I	115	20	NA	10.0	5.00	04/22/1523:33	NA	AD18-42	AD18-37	ICD024W	04/22/1508:10	04/22/15
04-22-15-PWB-1	D142-07I	117	20	NA	10.0	5.00	04/22/1523:52	NA	AD18-43	AD18-37	ICD024W	04/22/1508:55	04/22/15
04-22-15-PWB-13A	D142-09I	151	20	NA	10.0	5.00	04/23/1500:11	NA	AD18-44	AD18-37	ICD024W	04/22/1509:10	04/22/15

8951

Report date: 4/24/2015 11:14:07 AM
Printed by: JChun

Ident: AD18-27 D142-07
Analysis from: 4/22/2015 6:52:32 PM
File: z4221852.chw Last save: 4/22/2015 7:08:32 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80463

SAMPLE:
:
Vial number: 27
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.03	2.97	30.775	0.097	fluoride
2	5.69	1637.25	23407.244	101.670	chloride
3	7.07	8.54	141.896	0.000	
4	8.22	4.29	55.164	0.718	bromide
5	9.17	1125.19	16952.337	30.086	nitrate
6	11.22	0.16	2.664	0.134	phosphate
7	13.06	991.61	19799.363	118.889	sulfate
7	15.99	3770.02	60389.443	251.595	

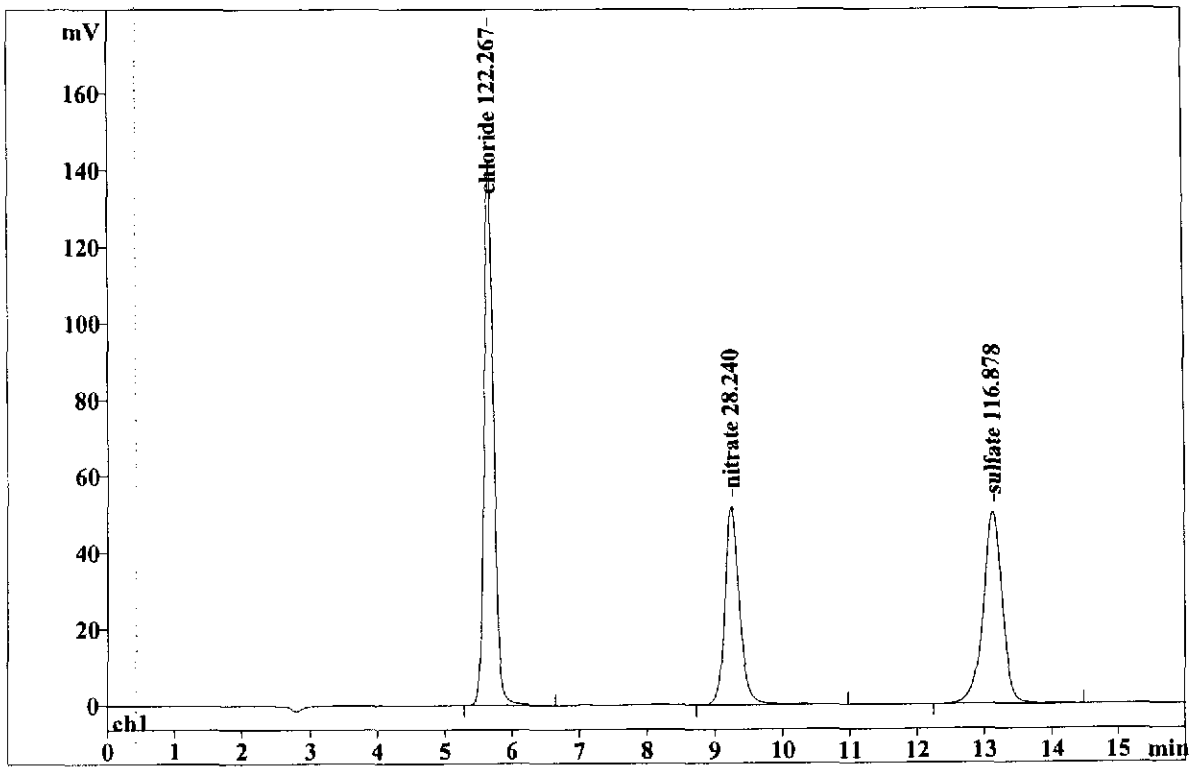
NO2N

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:37:16 AM
Printed by: JChun

Ident: AD18-43 D142-07I DF=20
Analysis from: 4/22/2015 11:52:30 PM
File: z4222352.chw Last save: 4/23/2015 12:08:30 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80479

SAMPLE:
:
Vial number: 43
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name	
1	5.66	142.28	1398.966	122.267	chloride	
2	9.24	52.05	772.715	28.240	nitrate	✓
3	13.14	50.09	972.840	116.878	sulfate	✓
3	16.00	244.42	3144.521	267.385		

This report has been created by IC Net
METROHM LTD

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICD022WB	ICD022WL	ICD022WC		
LAB FILE ID:	AD18-03	AD18-04	AD18-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/22/1511:22	04/22/1511:41	04/22/1511:59	DATE RECEIVED:	NA
PREP. BATCH:	ICD022W	ICD022W	ICD022W		
CALIB. REF:	AD18-01	AD18-01	AD18-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-N	ND	1	1.03	103	1	1.03	103	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECQ & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICD024WB	ICD024WL	ICD024WC		
LAB FILE ID:	AD18-39	AD18-35	AD18-36		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/22/1522:37	04/22/1521:22	04/22/1521:41	DATE RECEIVED:	NA
PREP. BATCH:	ICD024W	ICD024W	ICD024W		
CALIB. REF:	AD18-37	AD18-25	AD18-25		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-N	ND	1	1.03	103	1	1.03	103	0	90-110	20

0015

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	20	20	20		
SAMPLE ID:	04-21-15-AMW-3R				
LAB SAMP ID:	D142-03I	D142-03IM	D142-03IS		
LAB FILE ID:	AD18-32	AD18-33	AD18-34		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	04/21/15 14:45
DATE ANALYZED:	04/22/1520:26	04/22/1520:45	04/22/1521:03	DATE RECEIVED:	04/22/15
PREP. BATCH:	ICD022W	ICD022W	ICD022W		
CALIB. REF:	AD18-25	AD18-25	AD18-25		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-N	35	20	56.7	109	20	56.6	108	0	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICD022WB	ICD022WL	ICD022WC		
LAB FILE ID:	AD18-03	AD18-04	AD18-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/22/1511:22	04/22/1511:41	04/22/1511:59	DATE RECEIVED:	NA
PREP. BATCH:	ICD022W	ICD022W	ICD022W		
CALIB. REF:	AD18-01	AD18-01	AD18-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-N	ND	2	2.07	104	2	2.07	104	0	90-110	20

0512

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-21-15-AMW-3R				
LAB SAMP ID:	D142-03	D142-03M	D142-03S		
LAB FILE ID:	AD18-21	AD18-22	AD18-23		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	04/21/15 14:45
DATE ANALYZED:	04/22/1517:00	04/22/1517:18	04/22/1517:37	DATE RECEIVED:	04/22/15
PREP. BATCH:	ICD022W	ICD022W	ICD022W		
CALIB. REF:	AD18-13	AD18-13	AD18-13		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-N	ND	2	2.18	109	2	2.2	110	1	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICD022WB	ICD022WL	ICD022WC		
LAB FILE ID:	AD18-03	AD18-04	AD18-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/22/1511:22	04/22/1511:41	04/22/1511:59	DATE RECEIVED:	NA
PREP. BATCH:	ICD022W	ICD022W	ICD022W		
CALIB. REF:	AD18-01	AD18-01	AD18-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfate	ND	5	5.02	100	5	4.95	99	2	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECD & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICD024WB	ICD024WL	ICD024WC		
LAB FILE ID:	AD18-39	AD18-35	AD18-36		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/22/1522:37	04/22/1521:22	04/22/1521:41	DATE RECEIVED:	NA
PREP. BATCH:	ICD024W	ICD024W	ICD024W		
CALIB. REF:	AD18-37	AD18-25	AD18-25		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfate	ND	5	4.96	99	5	4.95	99	0	90-110	20

8014

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	20	20	20		
SAMPLE ID:	04-21-15-AMW-3R				
LAB SAMP ID:	D142-03I	D142-03IM	D142-03IS		
LAB FILE ID:	AD18-32	AD18-33	AD18-34		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	04/21/15 14:45
DATE ANALYZED:	04/22/1520:26	04/22/1520:45	04/22/1521:03	DATE RECEIVED:	04/22/15
PREP. BATCH:	ICD022W	ICD022W	ICD022W		
CALIB. REF:	AD18-25	AD18-25	AD18-25		

ACCESSION:

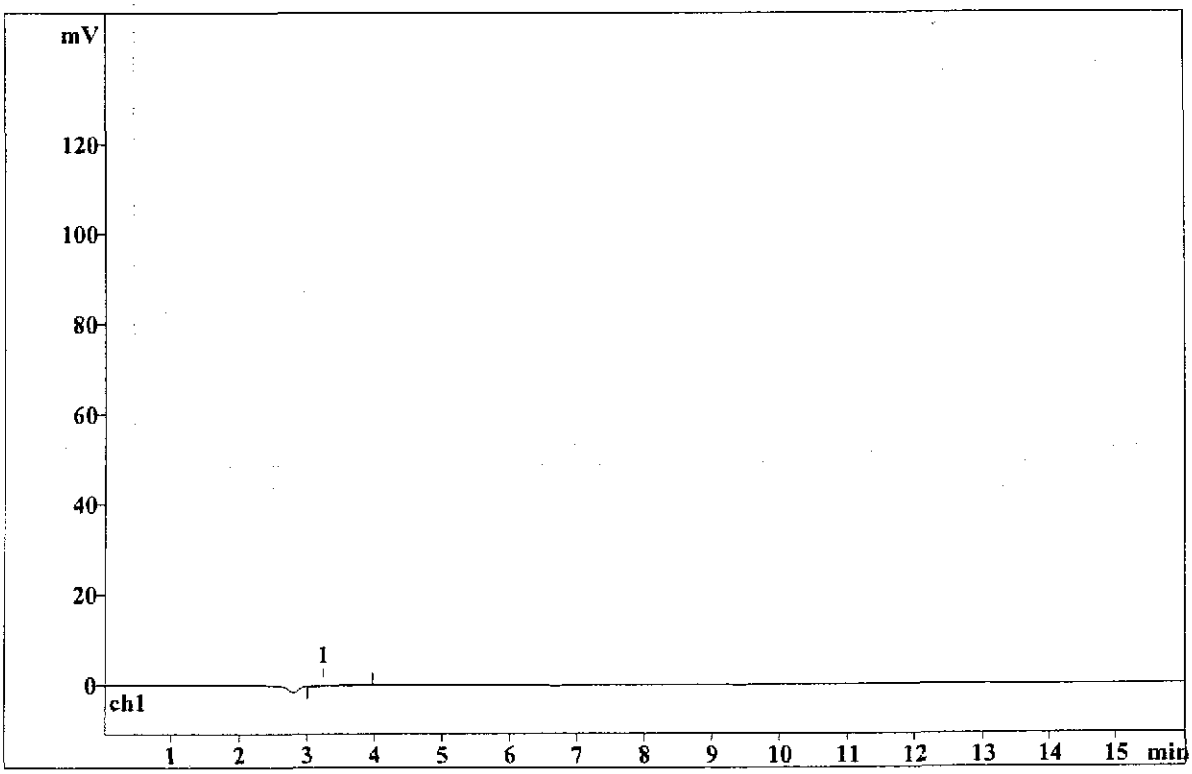
PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfate	116	100	217	101	100	218	102	0	80-120	20

QC DATA

Report date: 4/23/2015 11:27:33 AM
Printed by: JChun

Ident: AD18-03 ICD022WB
Analysis from: 4/22/2015 11:22:16 AM
File: z4221122.chw Last save: 4/22/2015 11:38:17 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80439

SAMPLE:
:
Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.25	0.10	3.691	0.000	

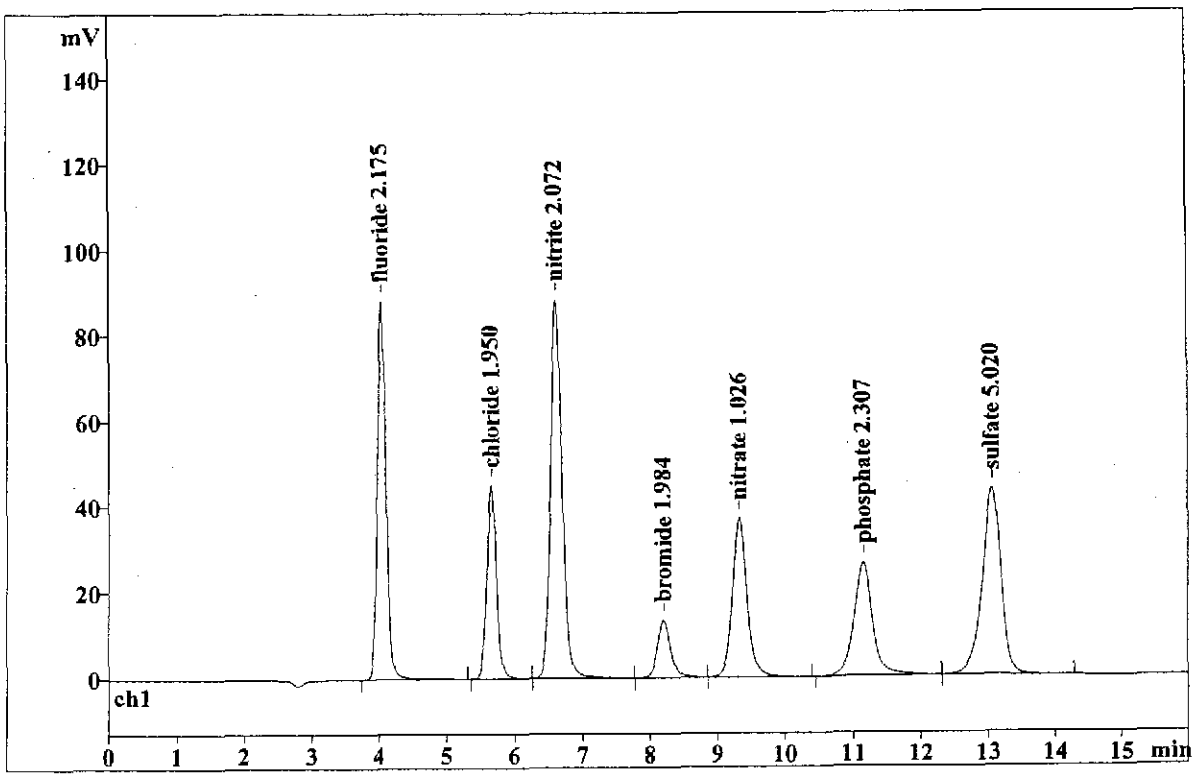
This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 11:57:01 AM
Printed by: JChun

Ident: AD18-04 ICD022WL
Analysis from: 4/22/2015 11:41:01 AM
File: Z4221141.CHW Last save: 4/22/2015 11:57:01 AM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80440

SAMPLE:
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	88.37	800.004	2.175	fluoride
2	5.66	45.02	440.049	1.950	chloride
3	6.61	88.32	1058.151	2.072	nitrite
4	8.20	13.27	178.483	1.984	bromide
5	9.32	36.84	555.125	1.026	nitrate
6	11.16	26.32	503.429	2.307	phosphate
7	13.06	43.34	835.642	5.020	sulfate
7	16.00	341.47	4370.883	16.535	

This report has been created by IC Net
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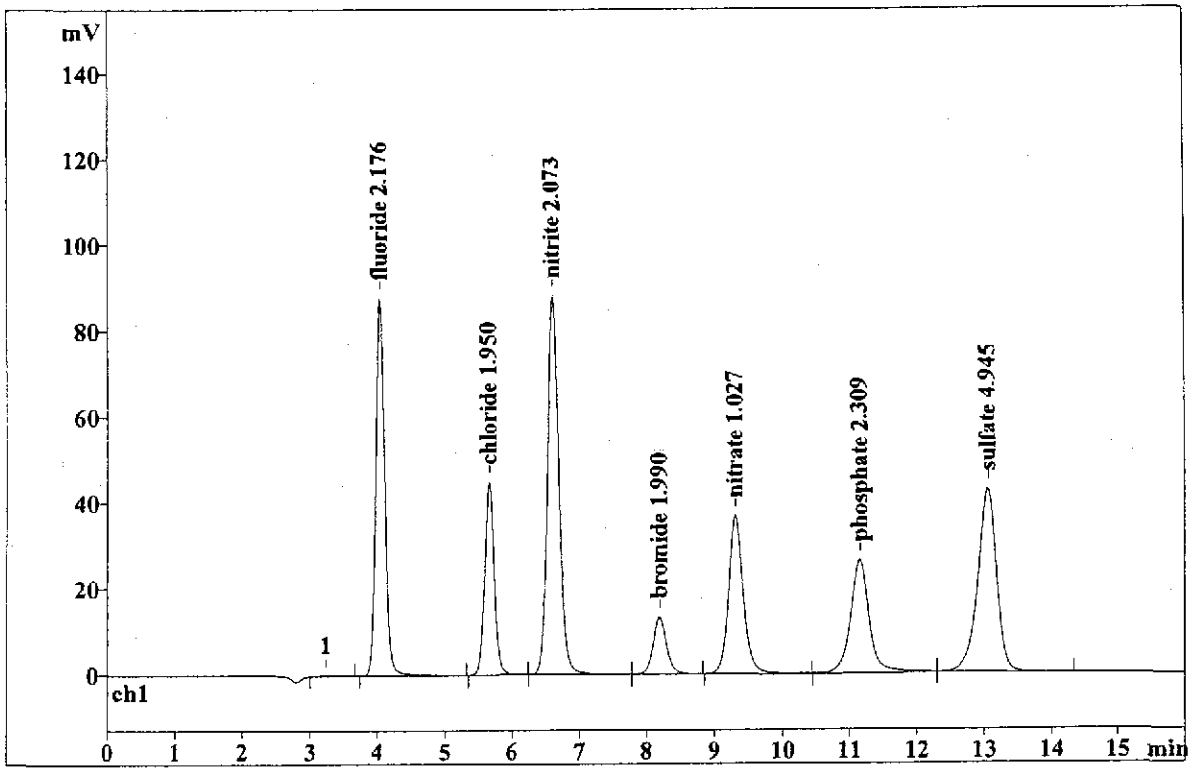
Report date: 4/22/2015 12:15:46 PM
Printed by: JChun

Ident: AD18-05 ICD022WC
Analysis from: 4/22/2015 11:59:46 AM
File: Z4221159.CHW Last save: 4/22/2015 12:15:46 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80441

SAMPLE:
:
Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

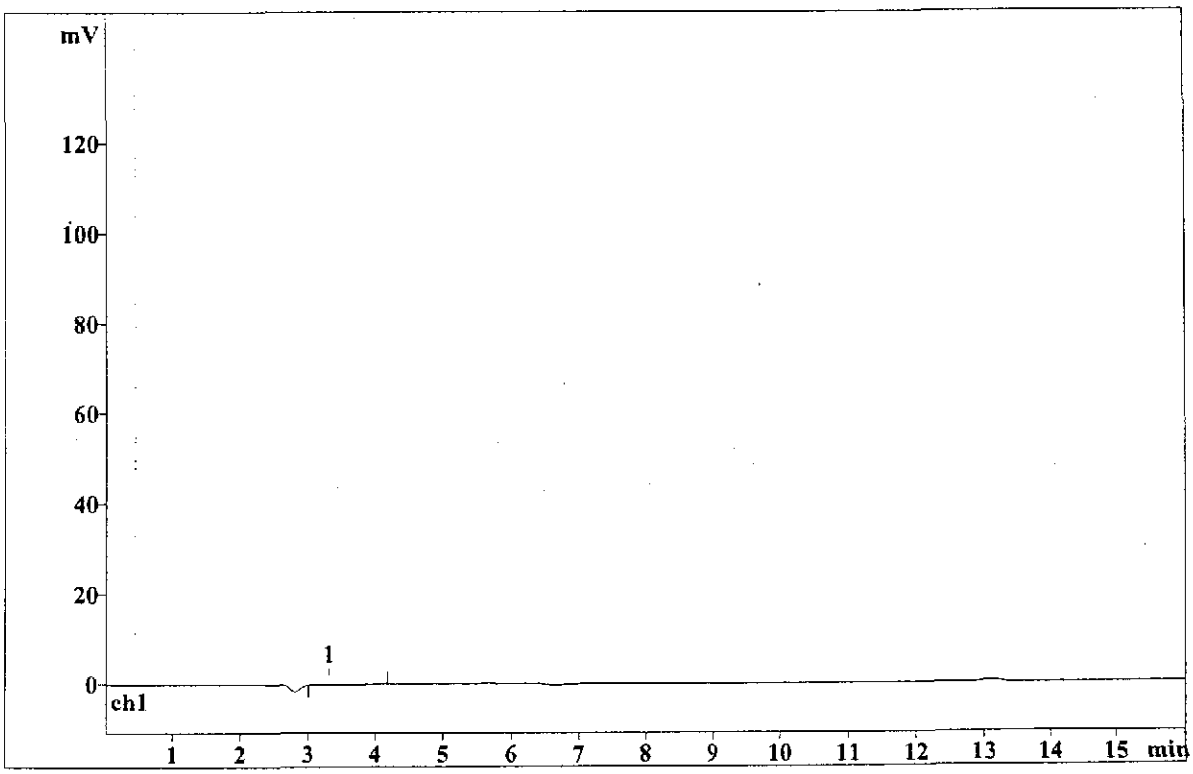
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.23	0.08	1.961	0.000	
2	4.04	87.85	800.517	2.176	fluoride
3	5.66	44.84	440.176	1.950	chloride
4	6.61	88.18	1058.686	2.073	nitrite
5	8.19	13.28	179.037	1.990	bromide
6	9.31	36.82	555.341	1.027	nitrate
7	11.16	26.27	503.712	2.309	phosphate
8	13.06	42.54	823.188	4.945	sulfate
8	16.00	339.86	4362.618	16.470	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 11:32:10 AM
Printed by: JChun

Ident: AD18-39 ICD024WB
Analysis from: 4/22/2015 10:37:31 PM
File: z4222237.chw Last save: 4/22/2015 10:53:31 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80475

SAMPLE:
:
Vial number: 39
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.31	0.11	4.794	0.000	

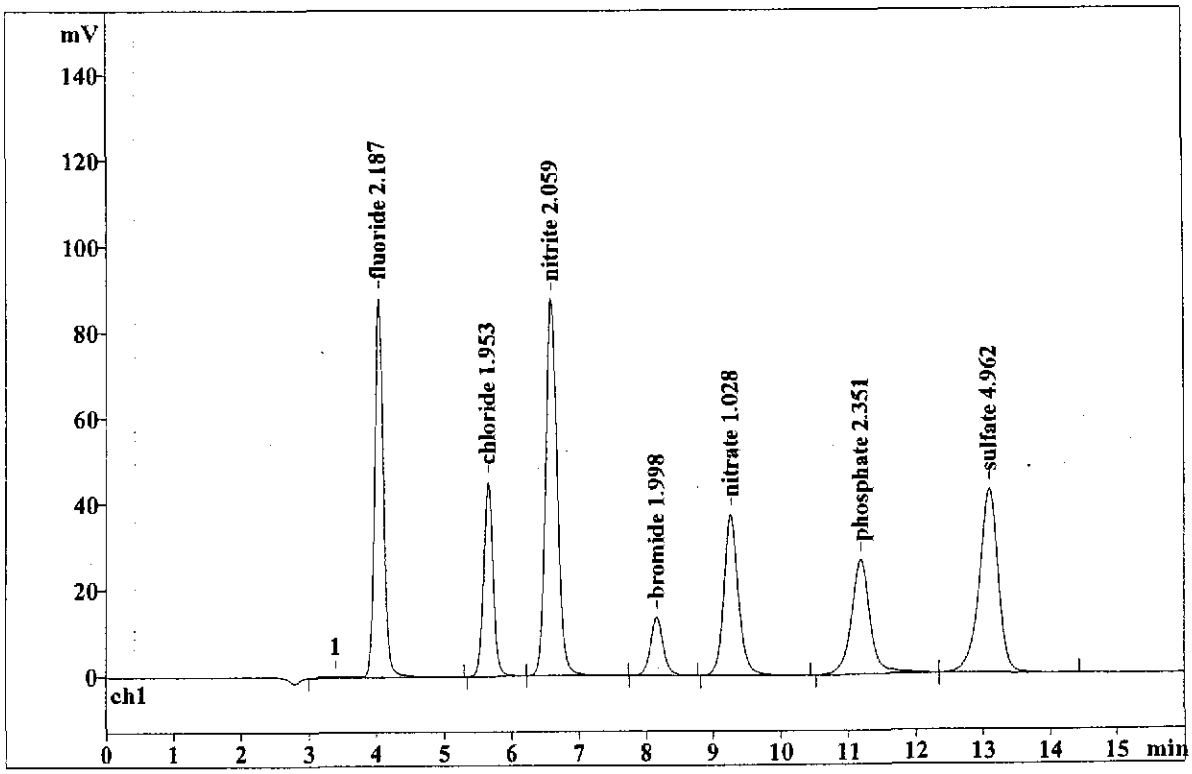
This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 9:38:32 PM
Printed by: JChun

Ident: AD18-35 ICD024WL
Analysis from: 4/22/2015 9:22:32 PM
File: Z4222122.CHW Last save: 4/22/2015 9:38:32 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80471

SAMPLE:
:
Vial number: 35
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.40	0.09	3.497	0.000	
2	4.04	88.32	804.676	2.187	fluoride
3	5.65	45.08	440.724	1.953	chloride
4	6.59	87.80	1051.298	2.059	nitrite
5	8.16	13.45	179.832	1.998	bromide
6	9.26	37.25	556.246	1.028	nitrate
7	11.19	26.60	513.577	2.351	phosphate
8	13.11	42.54	826.003	4.962	sulfate
8	16.00	341.14	4375.853	16.539	

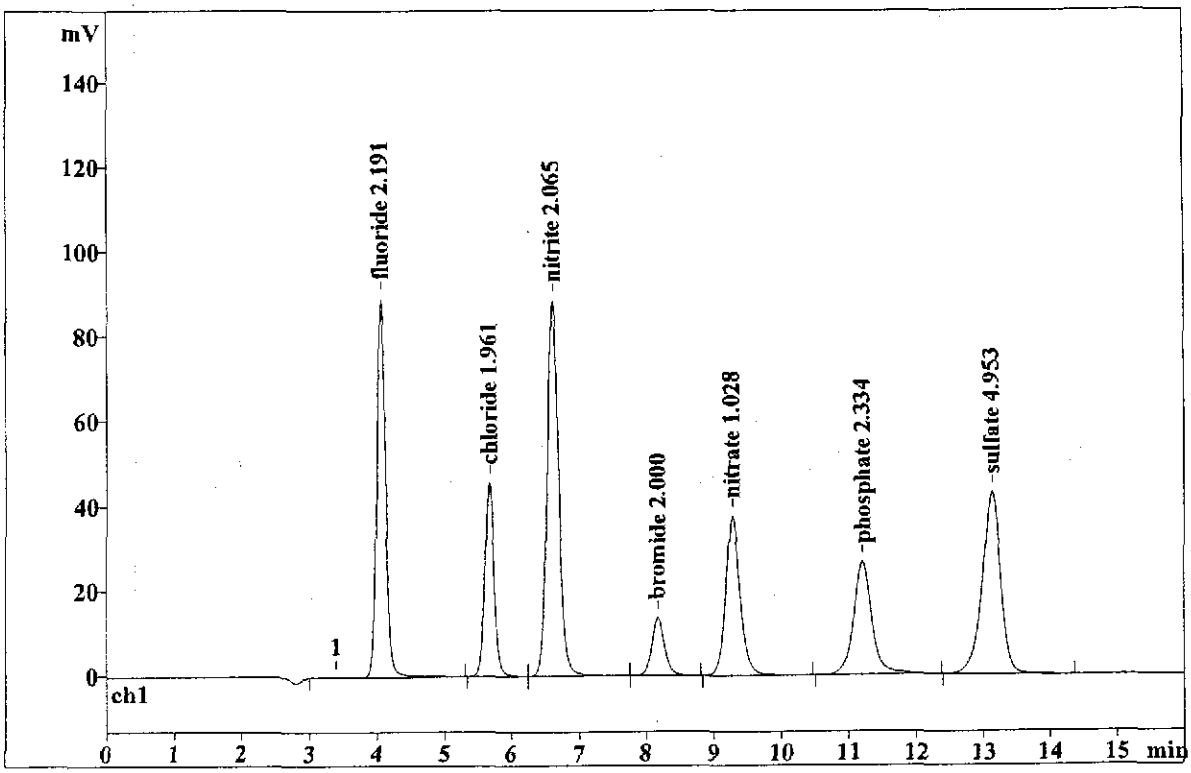
This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 9:57:17 PM
Printed by: JChun

Ident: AD18-36 ICD024WC
Analysis from: 4/22/2015 9:41:17 PM
File: Z4222141.CHW Last save: 4/22/2015 9:57:17 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80472

SAMPLE:
:
Vial number: 36
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.38	0.11	4.204	0.000	
2	4.05	89.47	806.048	2.191	fluoride
3	5.66	45.67	442.566	1.961	chloride
4	6.61	88.64	1054.606	2.065	nitrite
5	8.17	13.55	180.012	2.000	bromide
6	9.28	37.45	556.261	1.028	nitrate
7	11.21	26.60	509.503	2.334	phosphate
8	13.13	42.70	824.436	4.953	sulfate
8	16.00	344.18	4377.636	16.532	

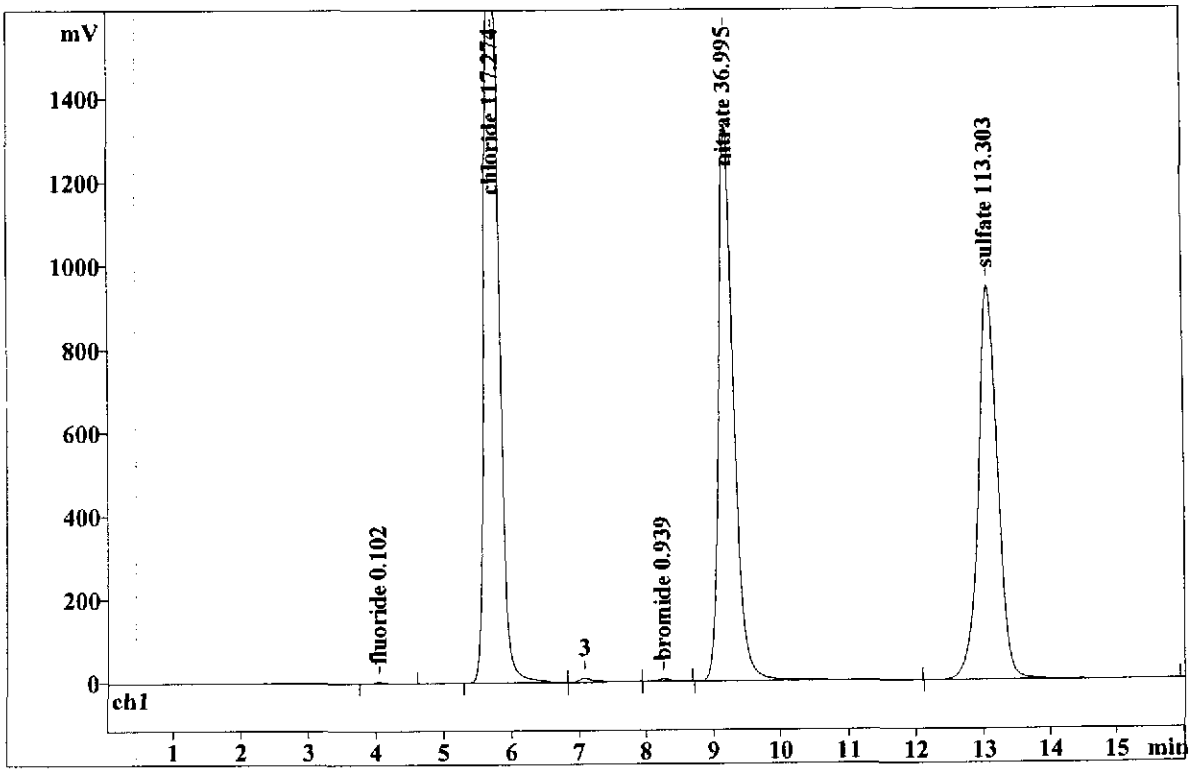
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:56:43 AM
Printed by: JChun

Ident: AD18-21 D142-03
Analysis from: 4/22/2015 5:00:03 PM
File: z4221700.chw Last save: 4/22/2015 5:16:03 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80457

SAMPLE:
:
Vial number: 21
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	3.07	32.444	0.102	fluoride
2	5.72	1707.64	27000.901	117.274	chloride
3	7.06	10.26	150.706	0.000	
4	8.24	5.96	76.677	0.939	bromide
5	9.20	1332.99	20850.946	36.995	nitrate
6	13.07	946.95	18869.008	113.303	sulfate
6	16.00	4006.88	66980.682	268.613	

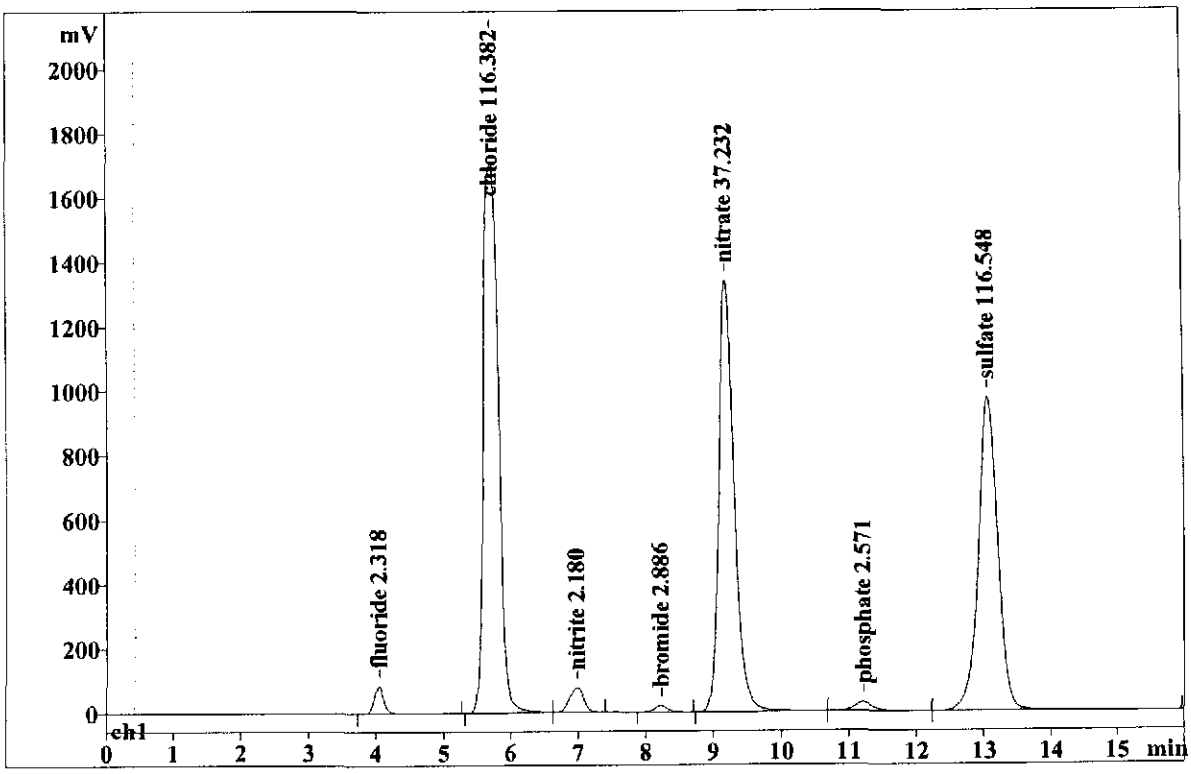
NO3-N ✓

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:16:31 AM
Printed by: JChun

Ident: AD18-22 D142-03M
Analysis from: 4/22/2015 5:18:48 PM
File: z4221718.chw Last save: 4/22/2015 5:34:49 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80458

SAMPLE:
:
Vial number: 22
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

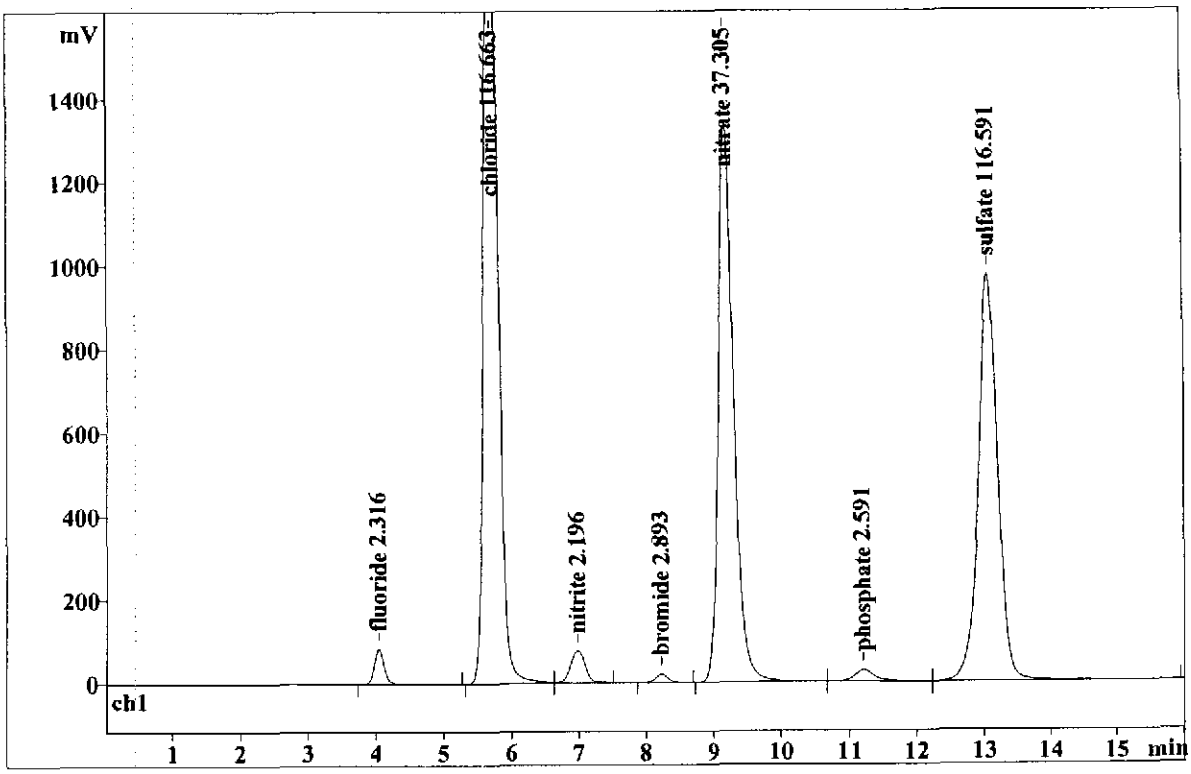
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	85.49	853.055	2.318	fluoride
2	5.72	1707.16	26795.542	116.382	chloride
3	6.98	75.72	1112.908	2.180	nitrite
4	8.22	21.05	266.396	2.886	bromide
5	9.19	1341.22	20984.736	37.232	nitrate
6	11.21	27.49	564.076	2.571	phosphate
7	13.07	975.04	19409.441	116.548	sulfate
7	16.00	4233.17	69986.153	280.117	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:16:57 AM
Printed by: JChun

Ident: AD18-23 D142-03S
Analysis from: 4/22/2015 5:37:33 PM
File: z4221737.chw Last save: 4/22/2015 5:53:34 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80459

SAMPLE:
:
Vial number: 23
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

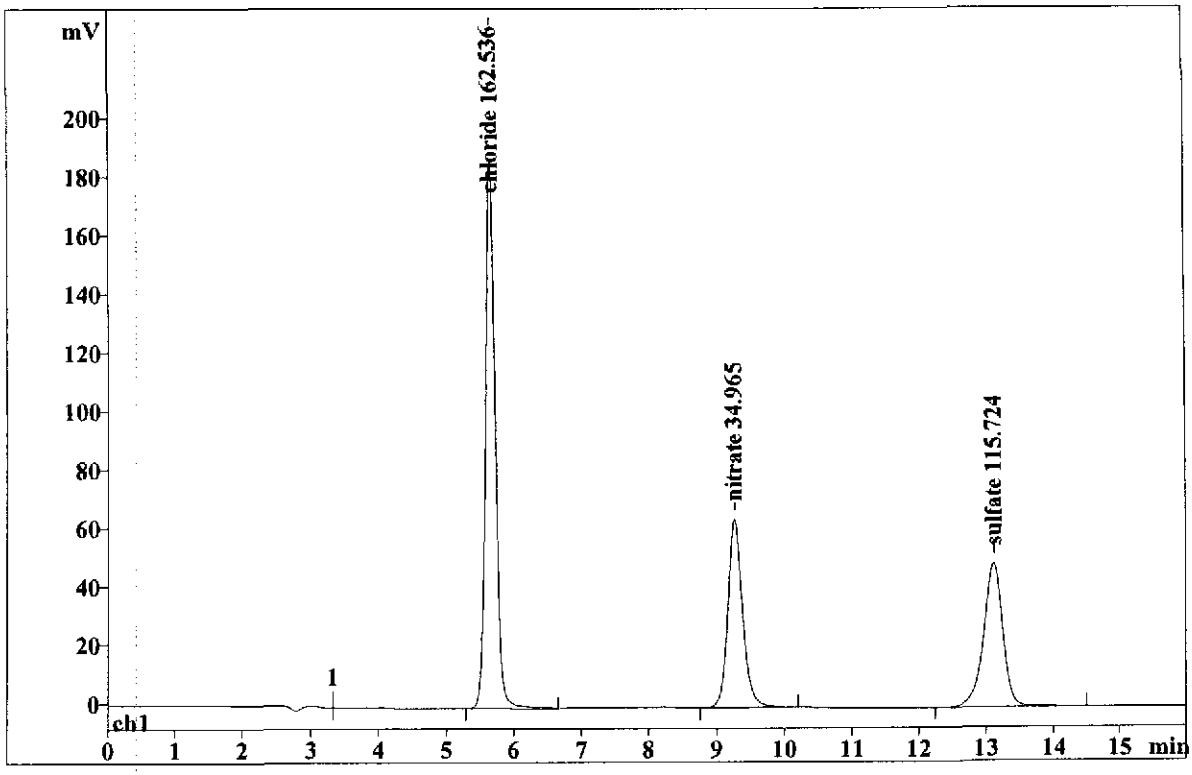
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.03	84.83	852.323	2.316	fluoride
2	5.71	1705.74	26860.208	116.663	chloride
3	6.97	75.67	1121.574	2.196	nitrite
4	8.22	20.97	267.025	2.893	bromide
5	9.19	1339.35	21025.895	37.305	nitrate
6	11.21	27.61	568.828	2.591	phosphate
7	13.07	974.16	19416.674	116.591	sulfate
7	16.00	4228.33	70112.528	280.556	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:34:51 AM
Printed by: JChun

Ident: AD18-32 D142-03I DF=20
Analysis from: 4/22/2015 8:26:17 PM
File: z4222026.chw Last save: 4/22/2015 8:42:17 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80468

SAMPLE:
:
Vial number: 32
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.32	-0.00	0.000	0.000	
2	5.65	187.09	1862.696	162.536	chloride
3	9.27	64.27	962.435	34.965	nitrate ✓
4	13.11	49.17	963.233	115.724	sulfate ✓
4	16.00	300.53	3788.364	313.225	

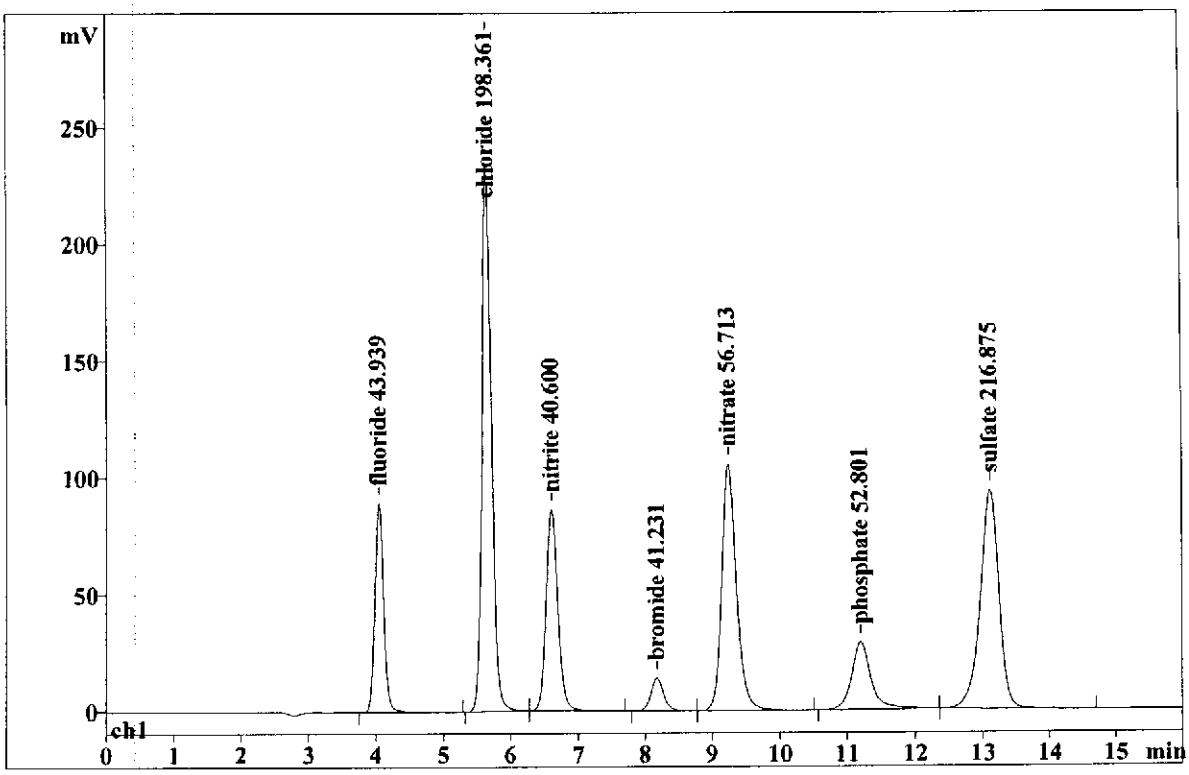
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:35:05 AM
Printed by: JChun

Ident: AD18-33 D142-03IM DF=20
Analysis from: 4/22/2015 8:45:02 PM
File: z4222045.chw Last save: 4/22/2015 9:01:02 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80469

SAMPLE:
:
Vial number: 33
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.05	89.39	808.217	43.939	fluoride
2	5.66	233.64	2275.248	198.361	chloride
3	6.60	86.18	1036.457	40.600	nitrite
4	8.17	14.13	186.034	41.231	bromide
5	9.24	105.37	1576.033	56.713	nitrate ✓
6	11.20	28.89	580.068	52.801	phosphate
7	13.11	93.29	1805.510	216.875	sulfate
7	16.00	650.90	8267.567	650.519	

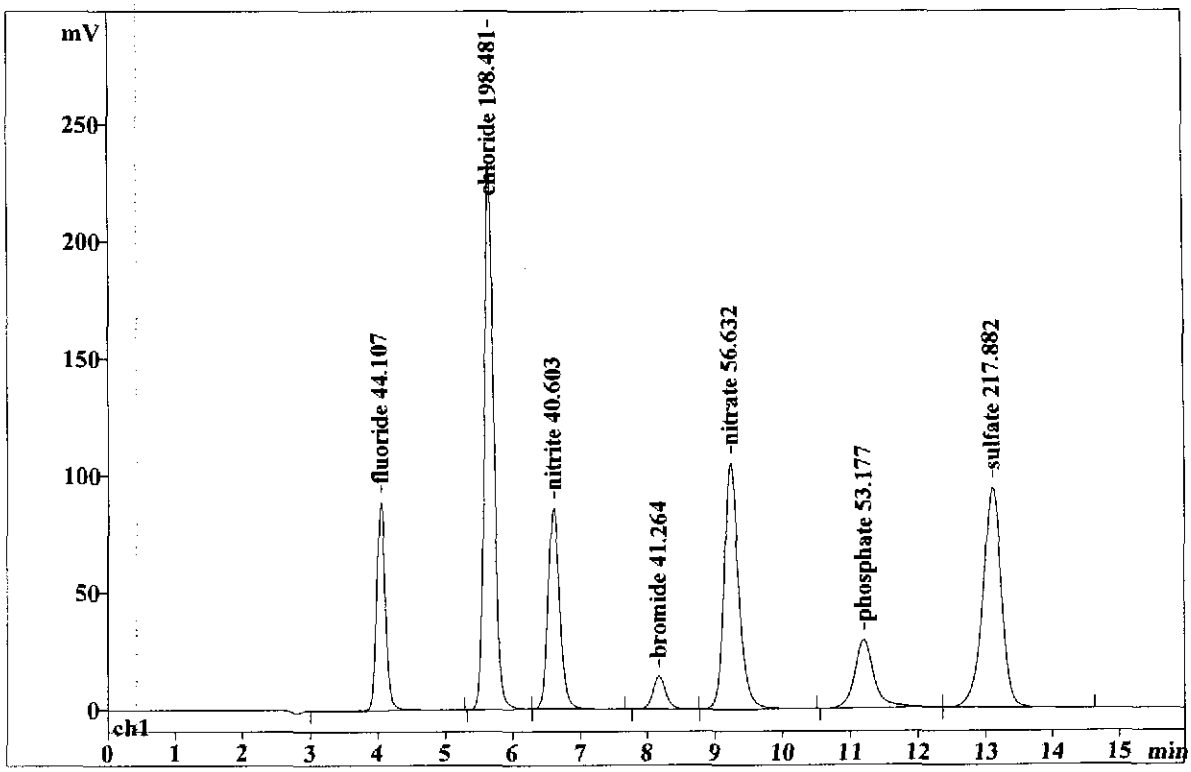
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:35:12 AM
Printed by: JChun

Ident: AD18-34 D142-03IS DF=20
Analysis from: 4/22/2015 9:03:47 PM
File: z4222103.chw Last save: 4/22/2015 9:19:47 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80470

SAMPLE:
:
Vial number: 34
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	89.09	811.343	44.107	fluoride
2	5.65	233.38	2276.624	198.481	chloride
3	6.60	86.14	1036.550	40.603	nitrite
4	8.17	14.13	186.198	41.264	bromide
5	9.23	105.39	1573.750	56.632	nitrate
6	11.20	29.19	584.398	53.177	phosphate
7	13.11	93.95	1813.897	217.882	sulfate
7	15.99	651.26	8282.759	652.146	

This report has been created by IC Net
METROHM LTD

INITIAL CALIBRATION(S)

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	phosphate	iodide	fluoride	chloride	nitrite	bromide	nitrate	sulfate	RawNetID
AB02-01	IB	POFCIBNS	0	0	0	0	0	0	0	0	z2261436
AB02-02	S0	POFCIBNS	0	0	0	0	0	0	0	0	z2261501
AB02-03	S1	POFCIBNS	0.156628	0	0.0560121	0.0885108	0.0424721	0.192396	0.081939	0.078677	z2261527
AB02-04	S2	POFCIBNS	0.19585	0	0.0995603	0.13986	0.0851461	0.231869	0.123177	0.151005	z2261553
AB02-05	S3	POFCIBNS	0.275456	0	0.190113	0.244672	0.176289	0.30949	0.208241	0.291219	z2261619
AB02-06	S4	POFCIBNS	0.520043	0	0.484631	0.506127	0.476143	0.555107	0.481496	0.541167	z2261645
AB02-07	S5	POFCIBNS	0.958595	0	0.997267	1.01757	0.993505	0.97932	0.964975	1.0939	z2261710
AB02-08	S6	POFCIBNS	1.89713	0	2.03387	1.96124	2.04434	1.87916	1.97215	1.95588	z2261736
AB02-09	S7	POFCIBNS	4.83494	0	4.98855	4.87395	5.07932	4.73336	5.01802	4.73278	z2261802
AB02-10	S8	POFCIBNS	9.92734	0	9.61765	9.97148	9.95278	9.80631	10.2109	9.89415	z2261828
AB02-11	S9	POFCIBNS	20.084	0	18.1695	20.0466	18.9516	20.163	20.5611	20.1112	z2261854
AB02-12	ICV	POFCIBNS	96.6%	0%*	105.6%	94.2%	102.5%	95.1%	99.6%	95.8%	z2261919
AB02-13	ICV1	POFCIBNS	98.6%	0%*	102.7%	92.8%	100.2%	99.2%	98.9%	96%	z2261945
AB02-14	ICB	POFCIBNS	0	0	0	0	0	0	0	0	z2262011

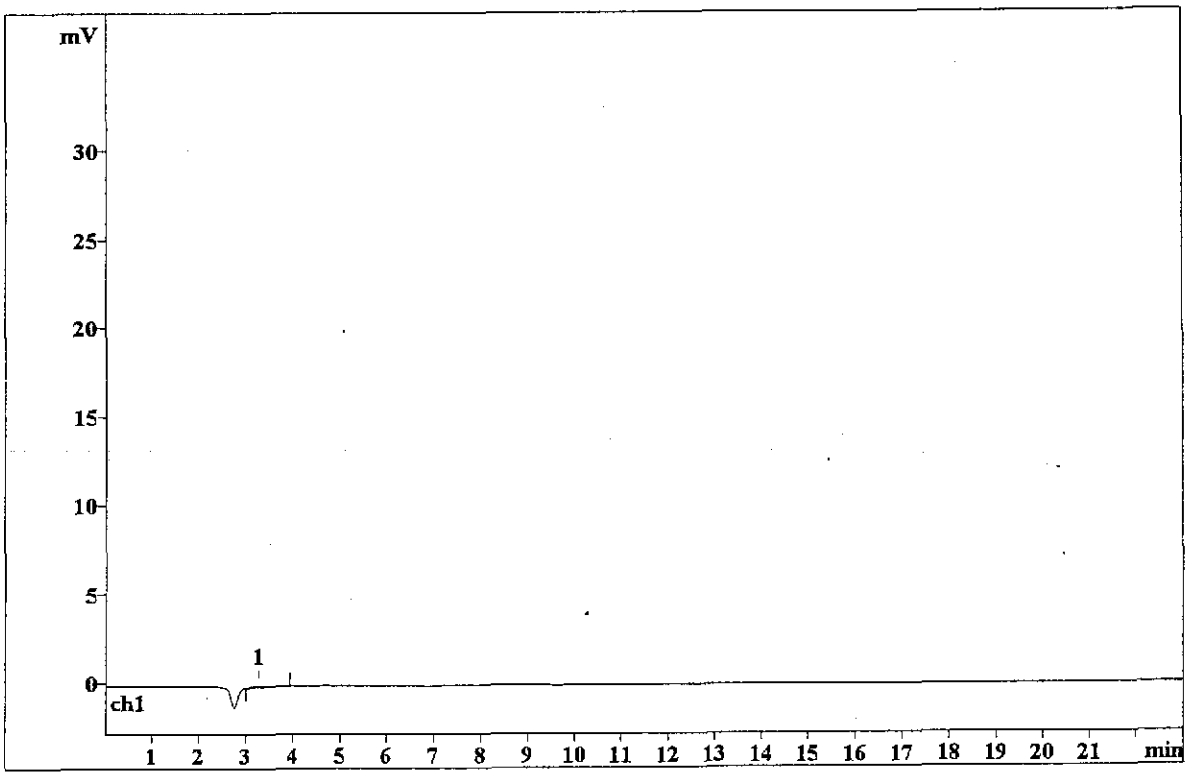
AS
02/27/15

Report date: 2/27/2015 10:05:24 AM
Printed by: JChun

Ident: AB02-02 S0
Analysis from: 2/26/2015 3:01:54 PM
File: z2261501.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79840

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.28	0.06	2.211	0.000	

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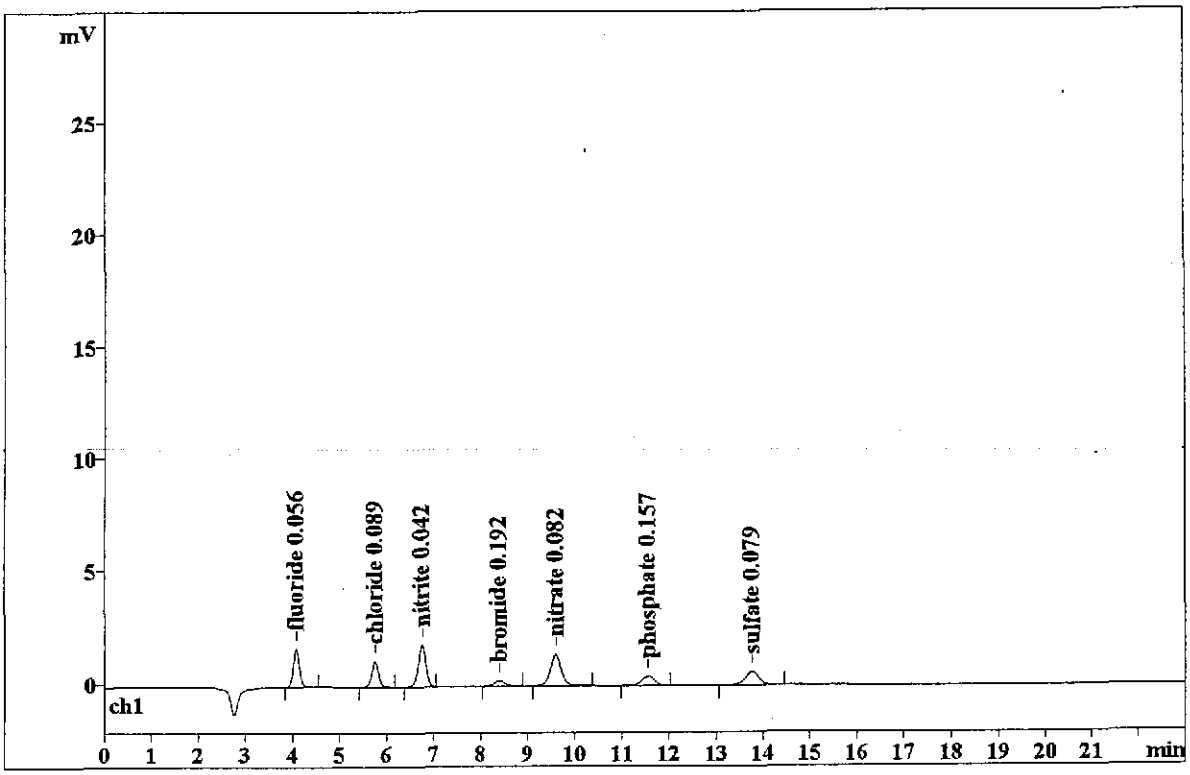
AA 02/27/15

Report date: 2/27/2015 10:05:32 AM
Printed by: JChun

Ident: AB02-03 S1
Analysis from: 2/26/2015 3:27:41 PM
File: z2261527.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79841

SAMPLE: 0.05PPM
:
Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	1.70	15.423 ✓	0.056	fluoride
2	5.75	1.13	11.352 ✓	0.089	chloride
3	6.74	1.86	20.431 ✓	0.042	nitrite
4	8.40	0.26	3.908 ✓	0.192	bromide
5	9.60	1.38	22.197 ✓	0.082	nitrate
6	11.56	0.43	7.955 ✓	0.157	phosphate
7	13.77	0.62	12.705 ✓	0.079	sulfate
7	23.00	7.38	93.971	0.697	

QA 02/27/15

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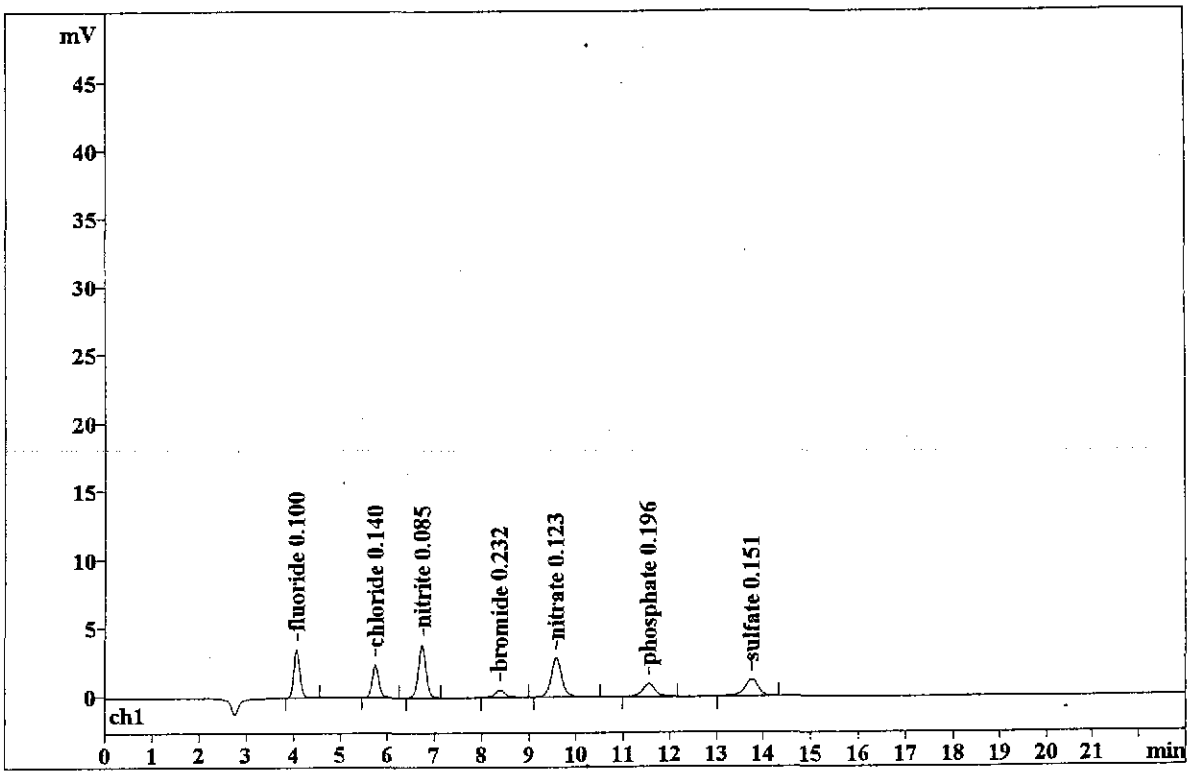
Report date: 2/27/2015 10:05:39 AM
Printed by: JChun

Ident: AB02-04 S2
Analysis from: 2/26/2015 3:53:28 PM
File: z2261553.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79842

SAMPLE: 0.10PPM
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	3.52	31.549	0.100	fluoride ✓
2	5.75	2.33	23.179	0.140	chloride
3	6.74	3.84	42.247	0.085	nitrite ✓
4	8.39	0.53	7.754	0.232	bromide
5	9.59	2.87	45.466	0.123	nitrate ✓
6	11.56	0.92	16.991	0.196	phosphate
7	13.77	1.22	24.750	0.151	sulfate
7	23.00	15.24	191.936	1.026	

DA 02/27/15

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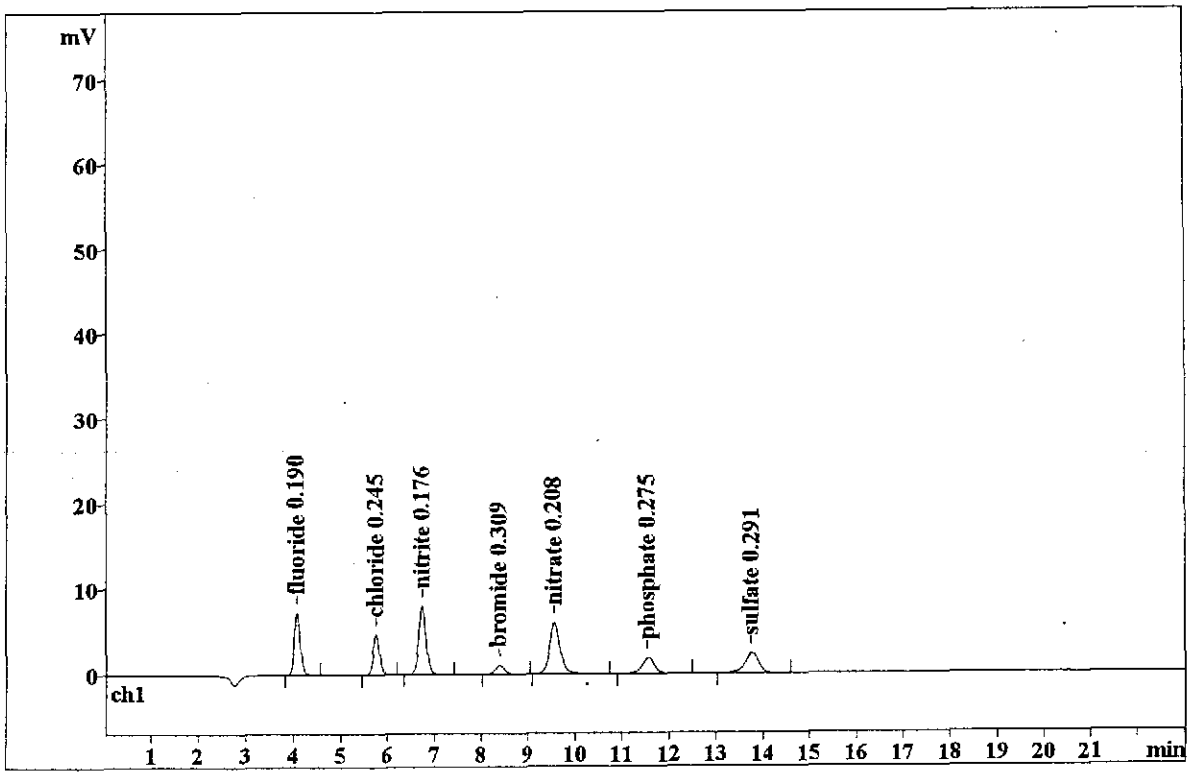
Report date: 2/27/2015 10:05:45 AM
Printed by: JChun

Ident: AB02-05 S3
Analysis from: 2/26/2015 4:19:17 PM
File: z2261619.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79843

SAMPLE: 0.20PPM
:
Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	7.35	65.081	0.190	fluoride
2	5.75	4.81	47.319	0.245	chloride
3	6.74	8.00	88.839	0.176	nitrite
4	8.38	1.07	15.317	0.309	bromide
5	9.57	6.01	93.465	0.208	nitrate
6	11.55	1.89	35.330	0.275	phosphate
7	13.76	2.38	48.102	0.291	sulfate
7	23.00	31.52	393.453	1.695	

RA 02/27/15

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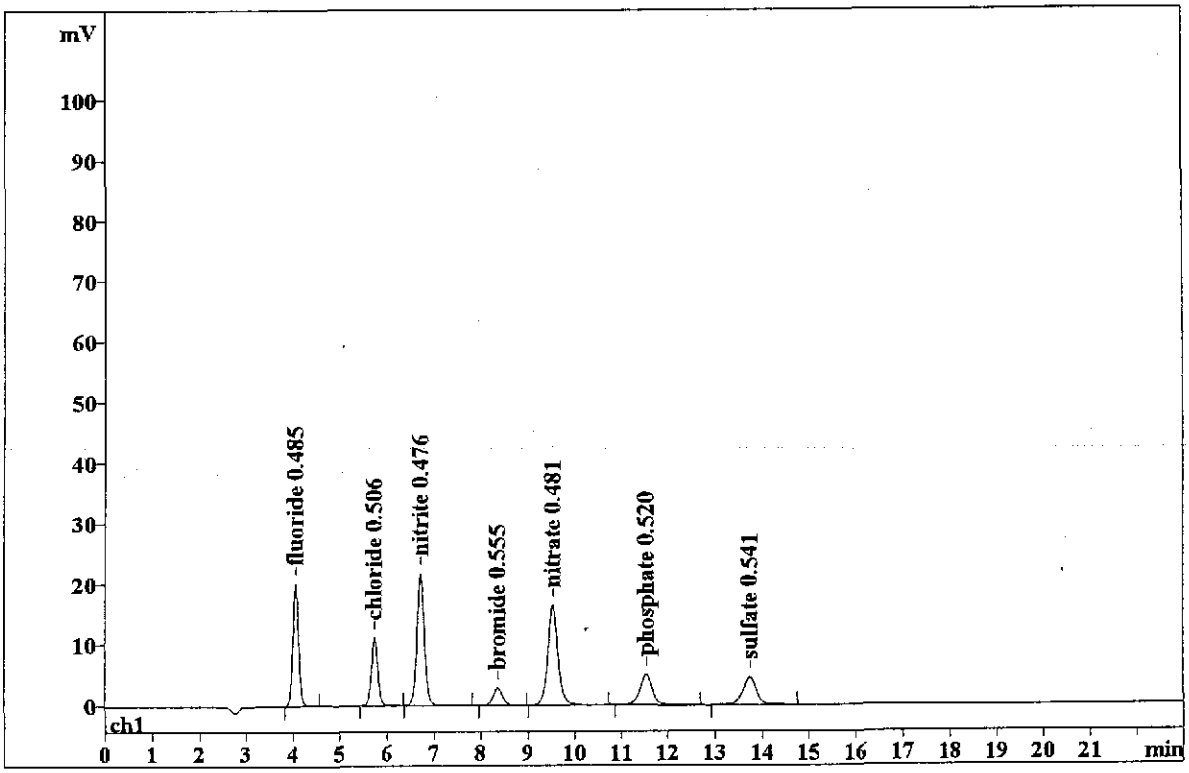
METROHM LTD

Report date: 2/27/2015 10:05:50 AM
Printed by: JChun

Ident: AB02-06 S4
Analysis from: 2/26/2015 4:45:04 PM
File: z2261645.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79844

SAMPLE: 0.50PPM
:
Vial number: 6
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	20.28	174.143	0.485	fluoride
2	5.74	11.19	107.536	0.506	chloride
3	6.73	21.74	242.127	0.476	nitrite
4	8.37	2.84	39.250	0.555	bromide
5	9.54	16.46	247.653	0.481	nitrate
6	11.55	5.02	91.676	0.520	phosphate
7	13.76	4.50	89.728	0.541	sulfate
7	23.00	82.04	992.113	3.565	

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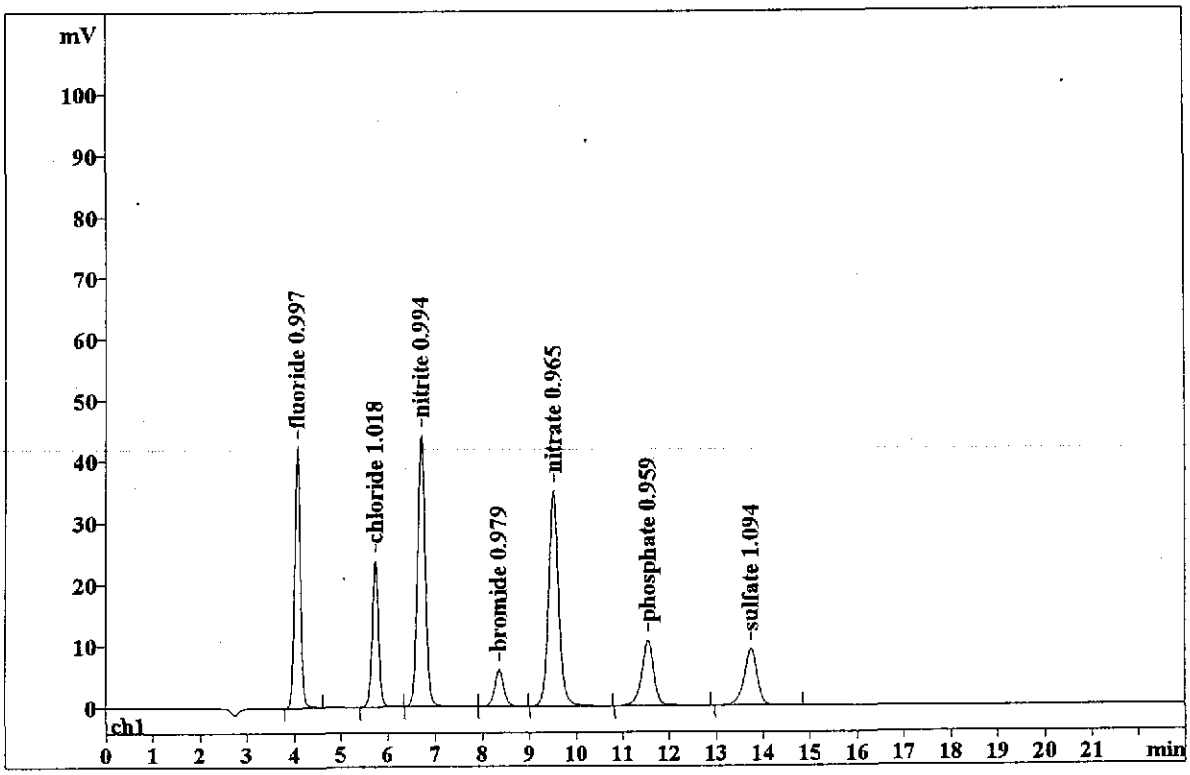
Report date: 2/27/2015 10:05:56 AM
Printed by: JChun

Ident: AB02-07 S5
Analysis from: 2/26/2015 5:10:52 PM
File: z2261710.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79845

SAMPLE: 1.00PPM
:
Vial number: 7
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	42.50	363.975	0.997	fluoride
2	5.74	23.77	225.330	1.018	chloride
3	6.72	44.19	506.606	0.994	nitrite
4	8.37	5.95	80.585	0.979	bromide
5	9.52	35.04	520.464	0.965	nitrate
6	11.55	10.69	192.707	0.959	phosphate
7	13.76	9.27	181.780	1.094	sulfate
7	23.00	171.42	2071.447	7.005	

AA 02/27/15

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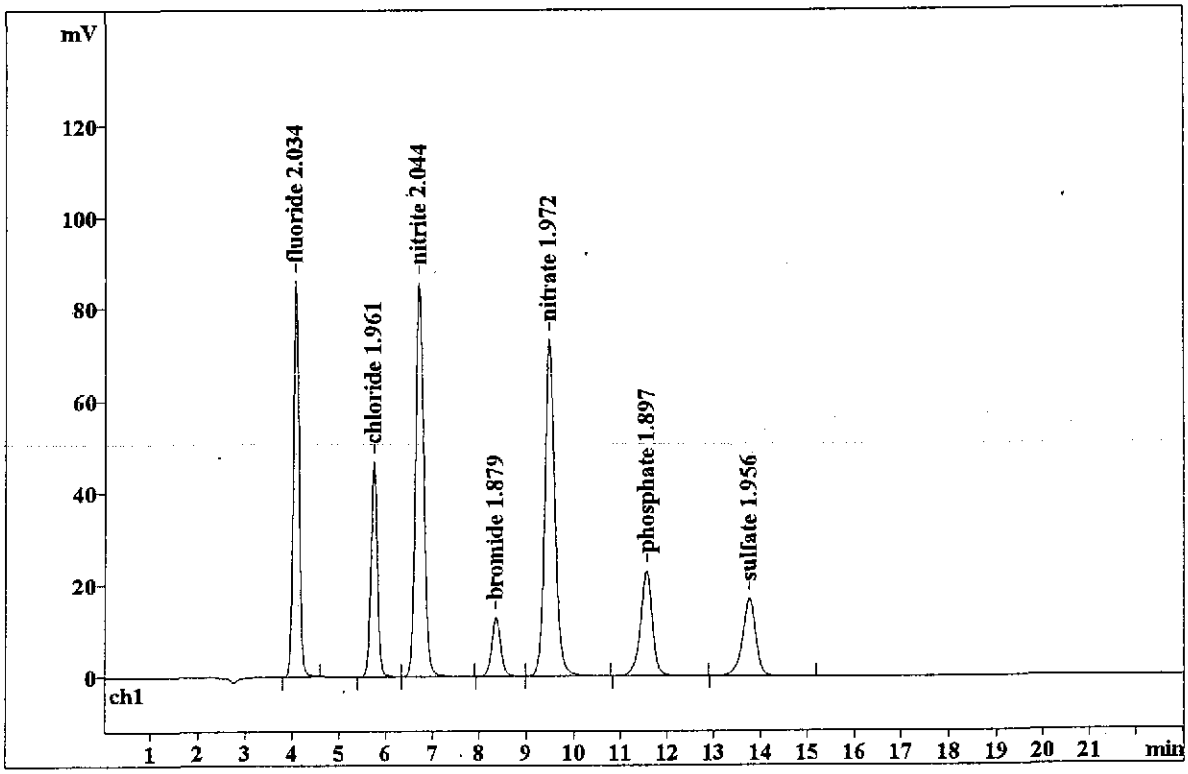
Report date: 2/27/2015 10:06:12 AM
Printed by: JChun

Ident: AB02-08 S6
Analysis from: 2/26/2015 5:36:39 PM
File: z2261736.chw Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79846

SAMPLE: 2.00PPM
:
Vial number: 8
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	86.15	747.833	2.034	fluoride
2	5.74	46.91	442.671	1.961	chloride
3	6.70	85.78	1043.802	2.044	nitrite
4	8.35	12.72	168.264	1.879	bromide
5	9.48	73.18	1088.778	1.972	nitrate
6	11.55	22.86	408.921	1.897	phosphate
7	13.76	16.75	325.333	1.956	sulfate
7	23.00	344.36	4225.600	13.744	

RS 02/27/15

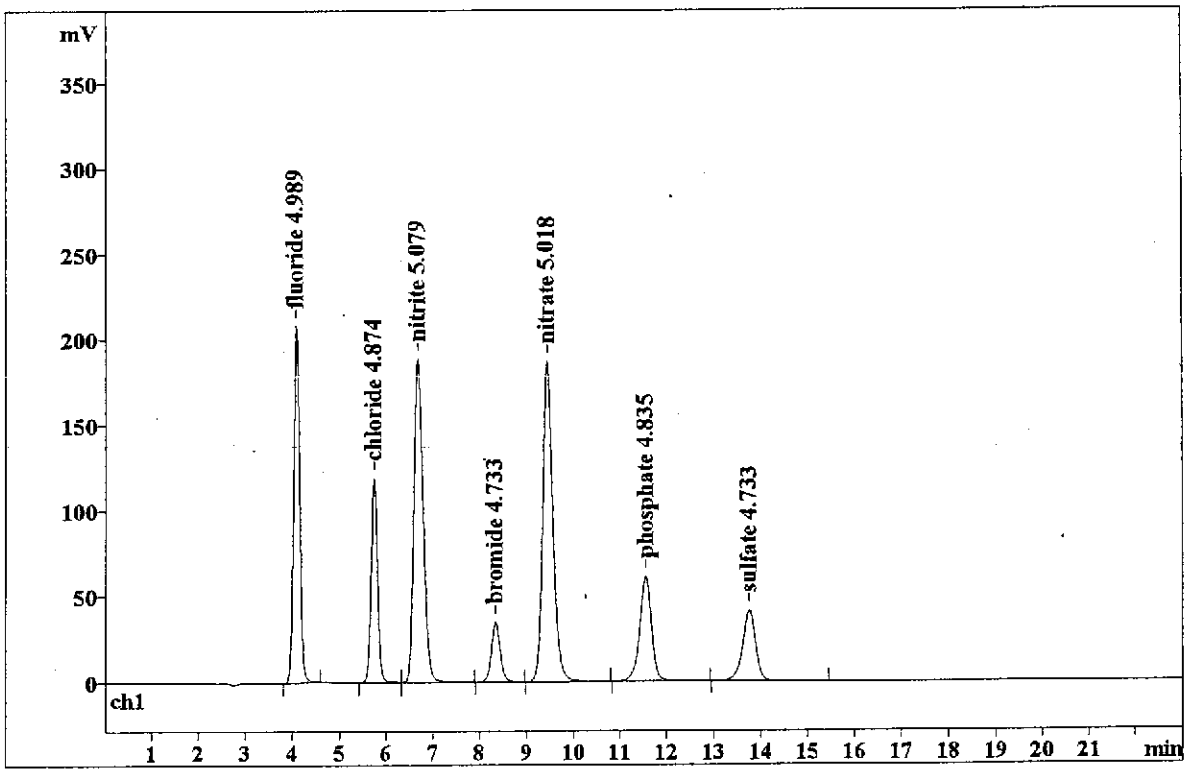
This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 11:13:10 AM
Printed by: JChun

Ident: AB02-09 S7
Analysis from: 2/26/2015 6:02:26 PM
File: z2261802.chw Last save: 2/27/2015 11:09:00 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79847

SAMPLE: 5.00PPM
:
Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.08	207.85	1841.968	4.989	fluoride
2	5.73	118.97	1113.514	4.874	chloride
3	6.66	188.47	2595.305	5.079	nitrite
4	8.33	34.68	446.373	4.733	bromide
5	9.43	186.72	2807.463	5.018	nitrate
6	11.56	60.88	1085.717	4.835	phosphate
7	13.76	41.08	787.796	4.733	sulfate
7	23.00	838.66	10678.135	34.261	

AA 02/27/15

This report has been created by IC Net
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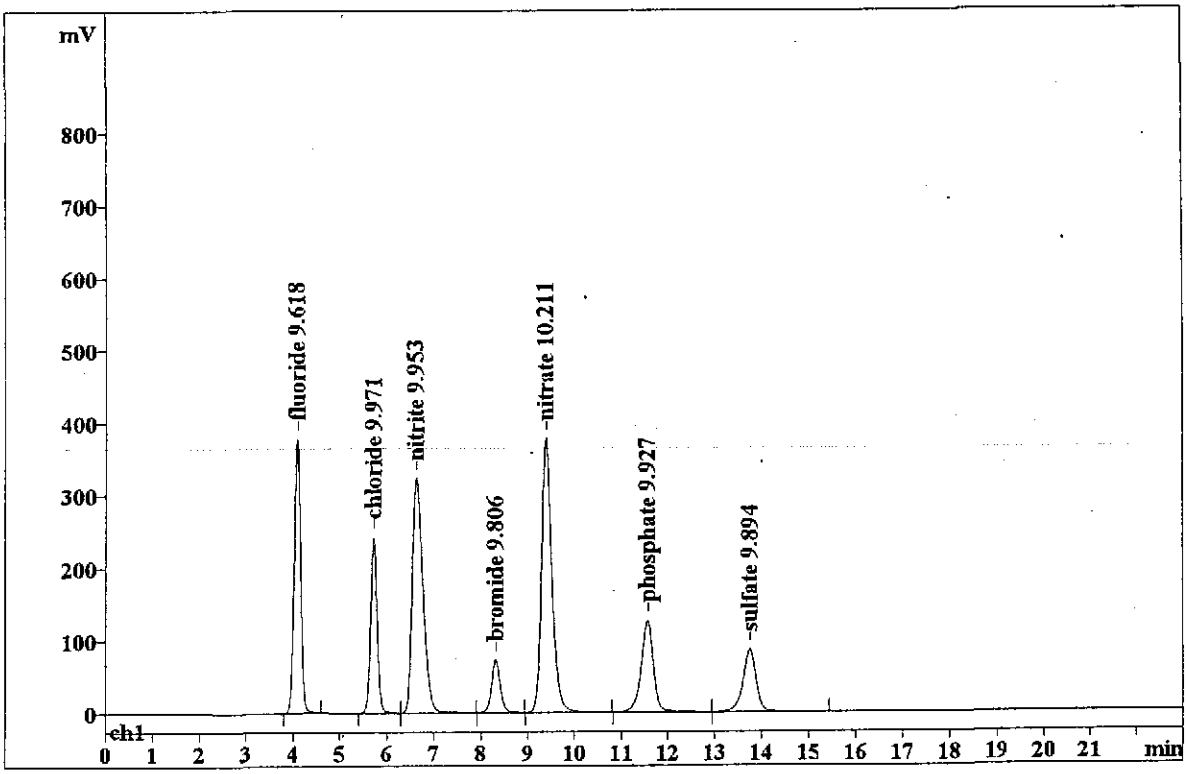
Report date: 2/27/2015 11:12:30 AM
Printed by: JChun

Ident: AB02-10 S8
Analysis from: 2/26/2015 6:28:13 PM
File: z2261828.chw Last save: 2/27/2015 11:09:00 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79848

SAMPLE: 10.0PPM
:
Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.09	378.44	3556.147	9.618	fluoride
2	5.73	242.52	2287.552	9.971	chloride
3	6.62	322.32	5086.648	9.953	nitrite
4	8.32	72.99	940.675	9.806	bromide
5	9.39	376.76	5737.645	10.211	nitrate
6	11.56	125.72	2258.873	9.927	phosphate
7	13.75	85.79	1647.368	9.894	sulfate
7	23.00	1604.54	21514.908	69.381	

DS
02/27/15

This report has been created by IC Net
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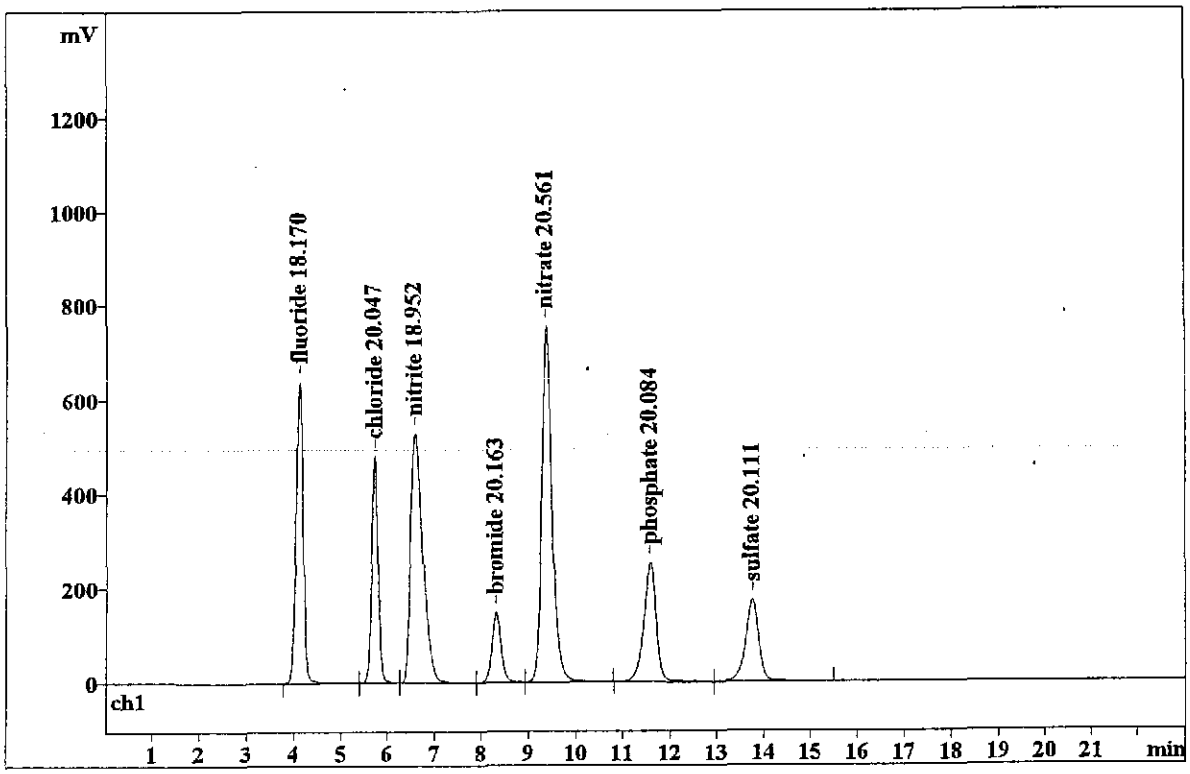
3040

Report date: 2/27/2015 11:12:22 AM
Printed by: JChun

Ident: AB02-11 S9
Analysis from: 2/26/2015 6:54:01 PM
File: z2261854.chw Last save: 2/27/2015 11:09:00 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79849

SAMPLE: 20.0PPM
:
Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.12	639.30	6722.951	18.170	fluoride
2	5.72	480.72	4608.005	20.047	chloride
3	6.58	528.54	9686.929	18.952	nitrite
4	8.30	146.62	1949.815	20.163	bromide
5	9.37	753.25	11577.902	20.561	nitrate
6	11.58	252.67	4598.711	20.084	phosphate
7	13.75	173.16	3348.912	20.111	sulfate
7	23.00	2974.25	42493.225	138.087	

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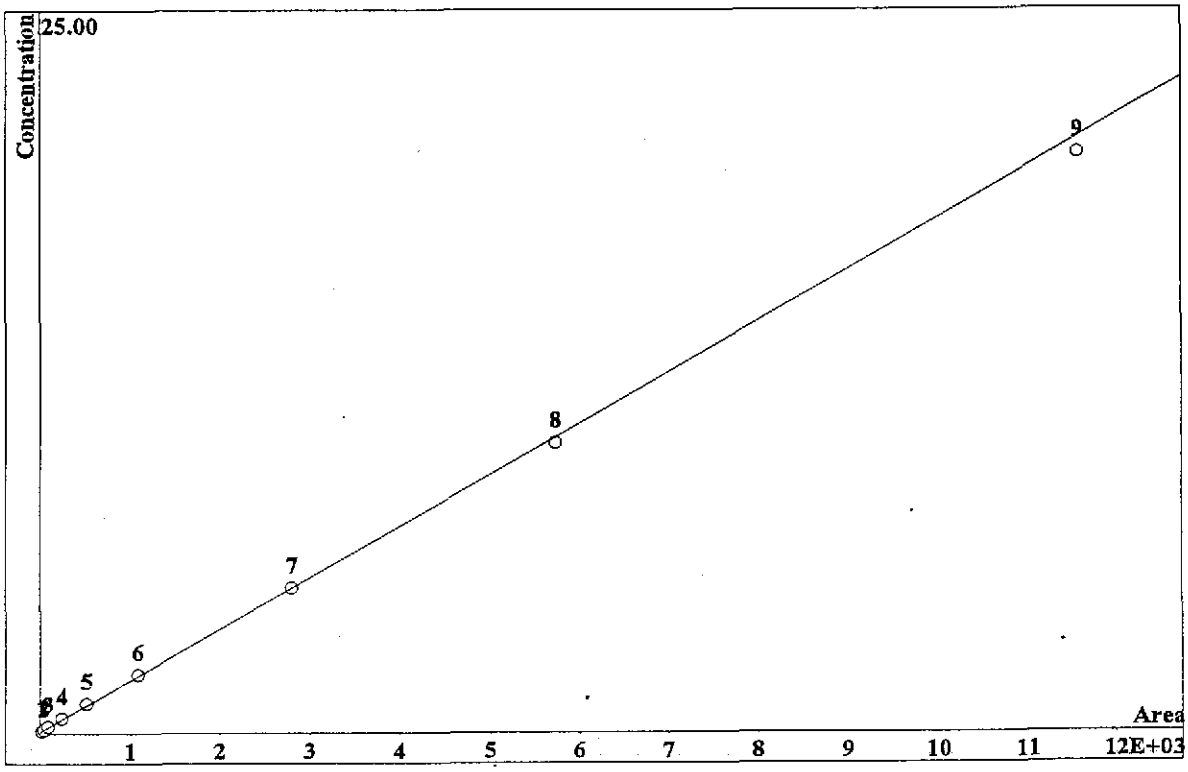
CALIBRATION OF COMPONENT nitrate

Method: ICD7-B26.mtw
Equation: Q = 0.00177221·A + 0.0426012
RSD: 2.318 %
Correlation coefficient: 0.999888



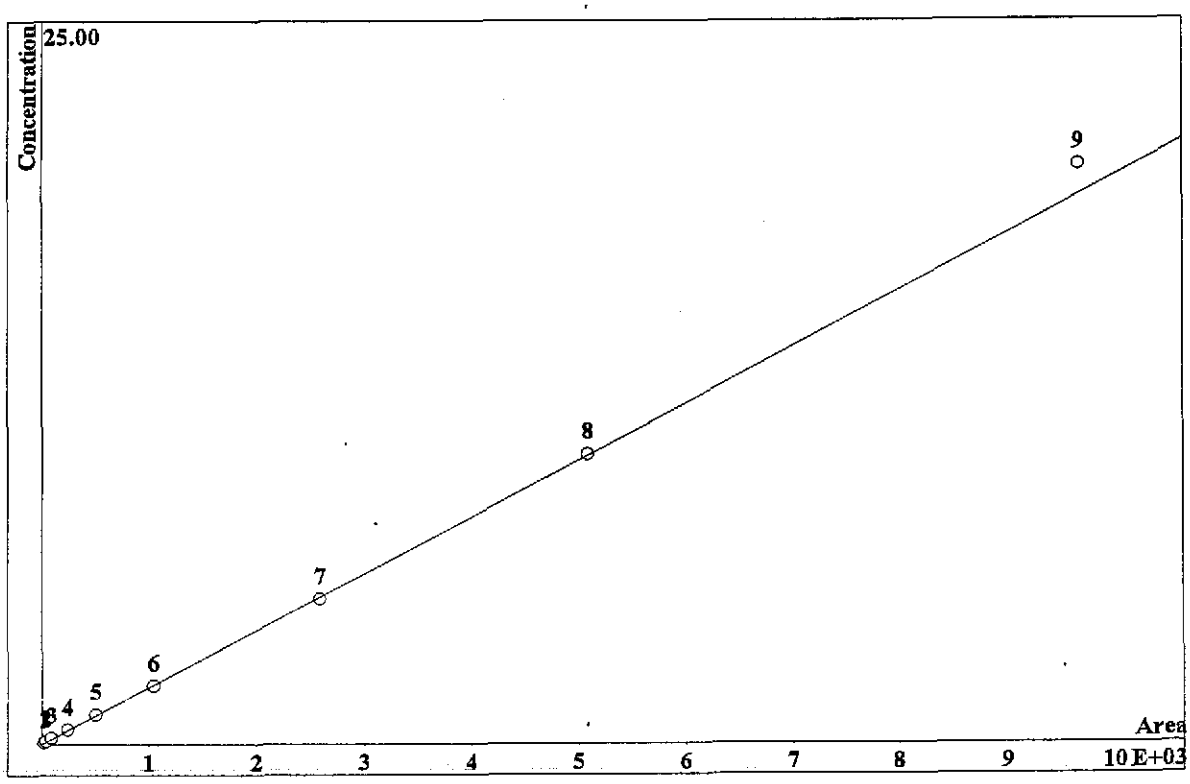
K3 = 0 K2 = 0 K1 = 0.00177221 K0 = 0.0426012
Base: Area
Ref.channel: ch1
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	1.381	22.2	0.05	1	9.478	Yes	z2261527.chw
2	2.872	45.47	0.1	1	9.478	Yes	z2261553.chw
3	6.01	93.47	0.2	1	9.478	Yes	z2261619.chw
4	16.46	247.7	0.5	1	9.478	Yes	z2261645.chw
5	35.04	520.5	1	1	9.478	Yes	z2261710.chw
6	73.18	1089	2	1	9.478	Yes	z2261736.chw
7	186.7	2807	5	1	9.478	Yes	z2261802.chw
8	376.8	5738	10	1	9.478	No	z2261828.chw
9	753.3	1.158e+04	20	1	9.478	No	z2261854.chw

AA 02/27/15

CALIBRATION OF COMPONENT nitrite

Method: ICD7-B26.mtw
Equation: Q = 0.00195616·A + 0.00250527
RSD: 1.893 %
Correlation coefficient: 0.999930

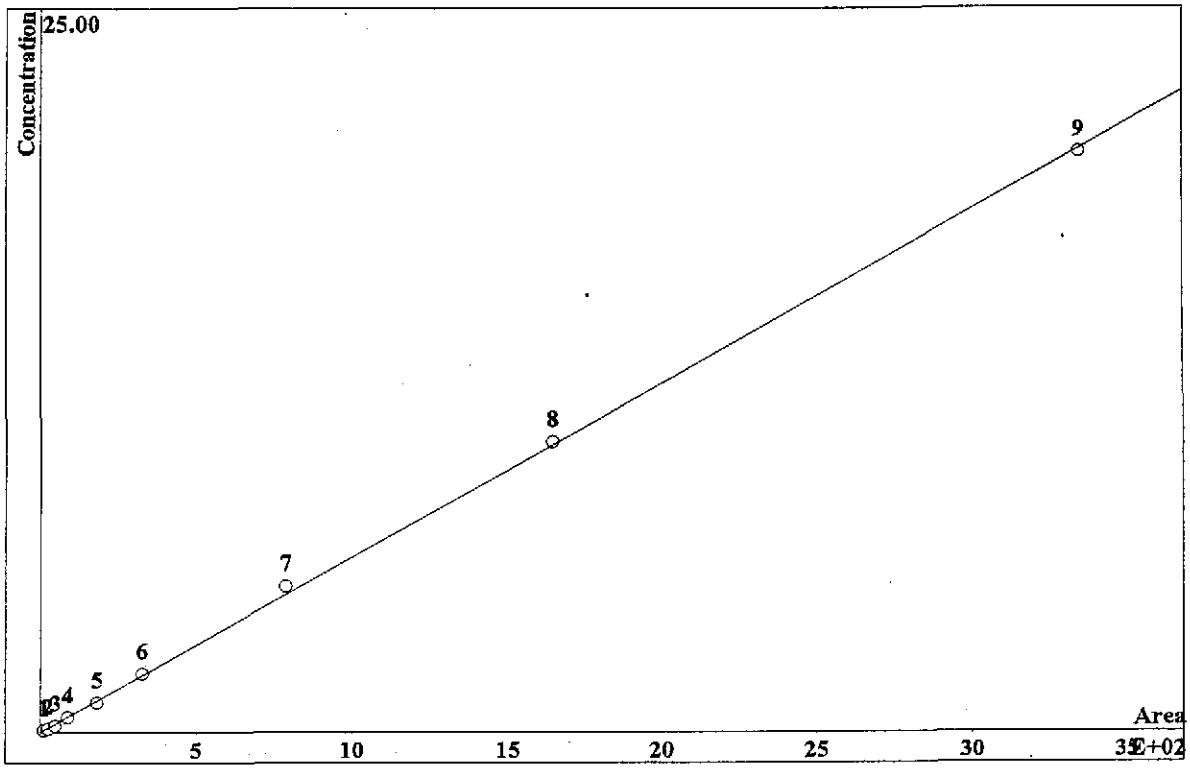


K3 = 0 K2 = 0 K1 = 0.00195616 K0 = 0.00250527
Base: Area
Ref.channel: ch1
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	1.86	20.43	0.05	1	6.51	Yes	z2261527.chw
2	3.845	42.25	0.1	1	6.51	Yes	z2261553.chw
3	8.002	88.84	0.2	1	6.51	Yes	z2261619.chw
4	21.74	242.1	0.5	1	6.51	Yes	z2261645.chw
5	44.2	506.6	1	1	6.51	Yes	z2261710.chw
6	85.78	1044	2	1	6.51	Yes	z2261736.chw
7	188.5	2595	5	1	6.51	Yes	z2261802.chw
8	322.3	5087	10	1	6.51	Yes	z2261828.chw
9	528.6	9687	20	1	6.51	No	z2261854.chw

CALIBRATION OF COMPONENT sulfate

Method: ICD7-B26.mtw
Equation: Q = 0.00600459·A + 0.00238898
RSD: 3.023 %
Correlation coefficient: 0.999836



K3 = 0 K2 = 0 K1 = 0.00600459 K0 = 0.00238898
Base: Area
Ref.channel: ch1
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.6209	12.7 ✓	0.05	1	13.09	Yes	z2261527.chw
2	1.221	24.75 ✓	0.1	1	13.09	Yes	z2261553.chw
3	2.384	48.1 ✓	0.2	1	13.09	Yes	z2261619.chw
4	4.497	89.73 ✓	0.5	1	13.09	Yes	z2261645.chw
5	9.269	181.8 ✓	1	1	13.09	Yes	z2261710.chw
6	16.75	325.3 ✓	2	1	13.09	Yes	z2261736.chw
7	41.08	787.8 ✓	5	1	13.09	Yes	z2261802.chw
8	85.79	1647 ✓	10	1	13.09	Yes	z2261828.chw
9	173.2	3349 ✓	20	1	13.09	Yes	z2261854.chw

02/27/15

SECOND SOURCE VERIFICATION

IC Result Check FormVersion : B26/AB02(2015)

EFID	LSID	Selection	nitrite	phosphate	iodide	fluoride	chloride	bromide	nitrate	sulfate	RawNetID
AB02-12	ICV	IPOFCBNS	102.5%	96.6%	0%*	105.6%	94.2%	95.1%	99.6%	95.8%	z2261919
AB02-13	ICV1	IPOFCBNS	100.2%	98.6%	0%*	102.7%	92.8%	99.2%	98.9%	96%	z2261945
AB02-14	ICB	IPOFCBNS	0	0	0	0	0	0	0	0	z2262011

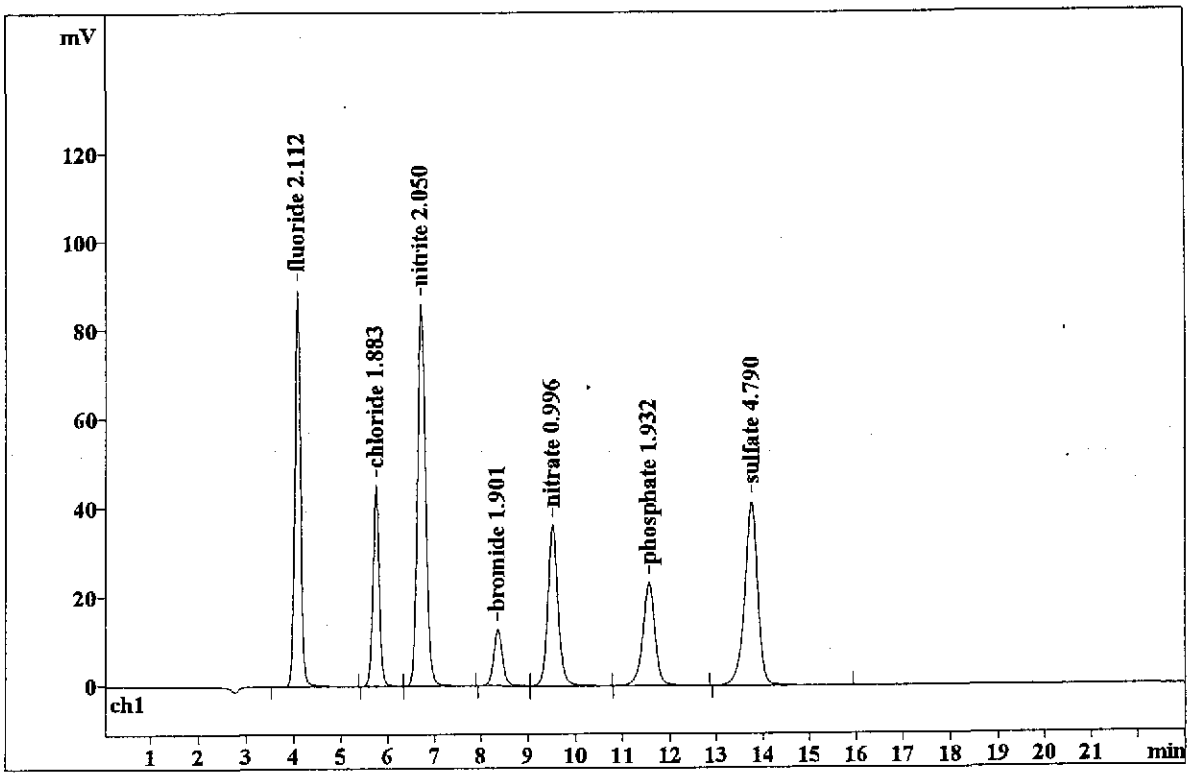
AS
02/27/15

Report date: 2/27/2015 10:06:36 AM
Printed by: JChun

Ident: AB02-12 ICV
Analysis from: 2/26/2015 7:19:47 PM
File: z2261919.chw Last save: 2/27/2015 10:04:06 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79850

SAMPLE:
:
Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	89.41	776.771	2.112	fluoride
2	5.74	45.21	424.684	1.883	chloride
3	6.70	86.07	1046.757	2.050	nitrite
4	8.35	12.85	170.424	1.901	bromide
5	9.51	36.29	537.754	0.996	nitrate
6	11.55	23.36	416.959	1.932	phosphate
7	13.75	41.38	797.378	4.790	sulfate
7	23.00	334.56	4170.727	15.665	

RS 02/27/15

This report has been created by IC Net
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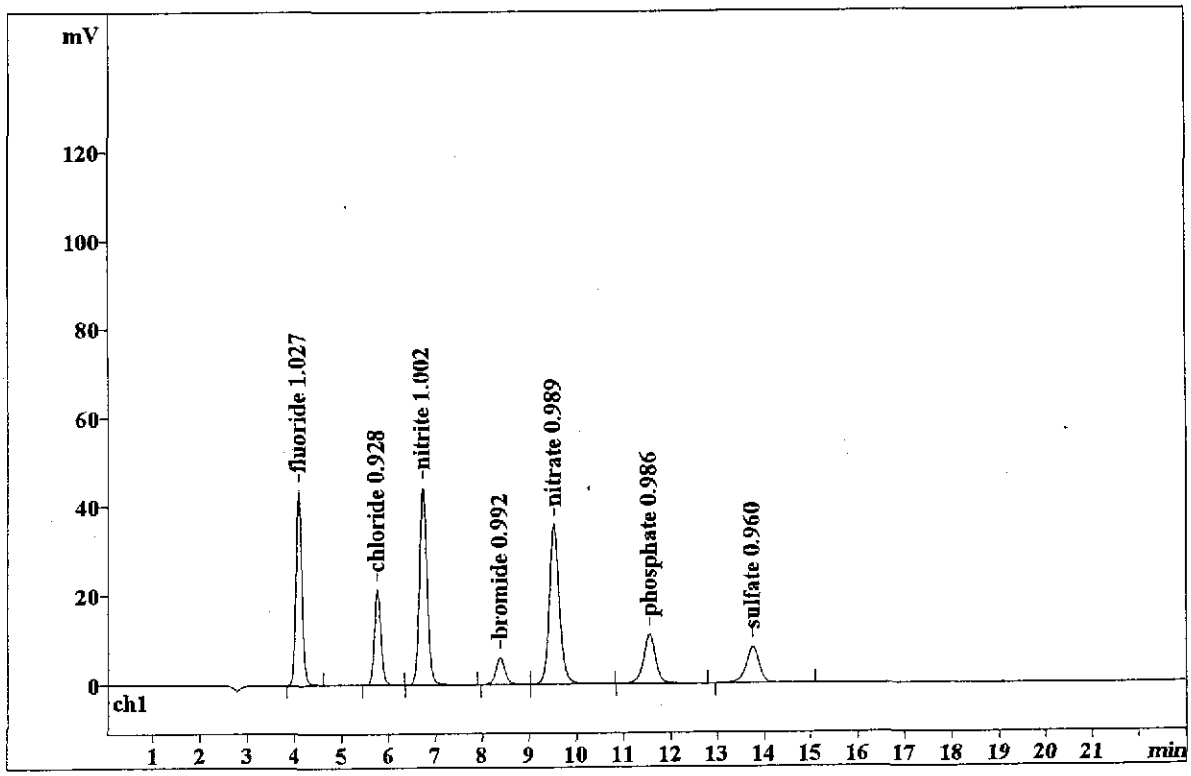
Report date: 2/27/2015 10:06:44 AM
Printed by: JChun

Ident: AB02-13 ICV1
Analysis from: 2/26/2015 7:45:35 PM
File: z2261945.chw Last save: 2/27/2015 10:04:06 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79851

SAMPLE: 1.00PPM
:
Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	43.78	374.899 ✓	1.027 ✓	fluoride
2	5.74	21.56	204.661 ✓	0.928 ✓	chloride
3	6.72	44.54	510.739 ✓	1.002 ✓	nitrite
4	8.36	6.03	81.803 ✓	0.992 ✓	bromide
5	9.51	35.95	534.067 ✓	0.989 ✓	nitrate
6	11.55	11.05	198.936 ✓	0.986 ✓	phosphate
7	13.76	8.08	159.468 ✓	0.960 ✓	sulfate
7	23.00	170.99	2064.574	6.883	

02/27/15

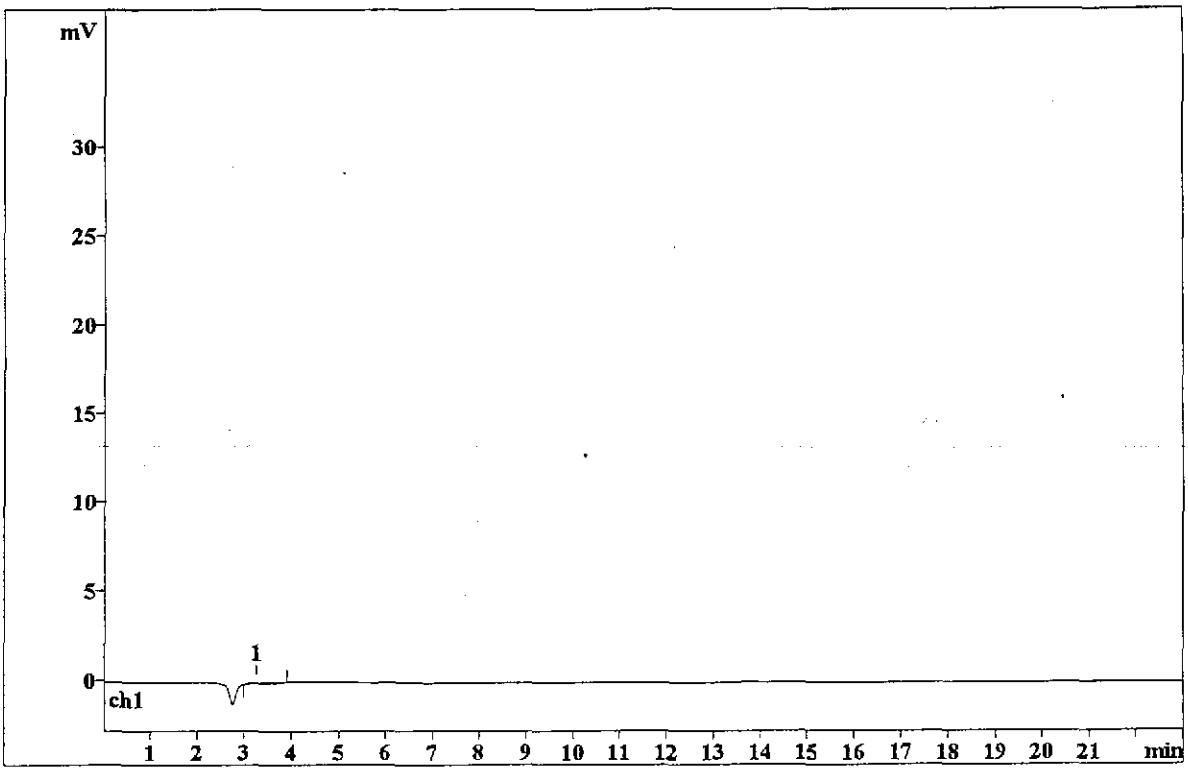
This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 10:06:49 AM
Printed by: JChun

Ident: AB02-14 ICB
Analysis from: 2/26/2015 8:11:23 PM
File: z2262011.chw Last save: 2/27/2015 10:04:06 AM

Method: ICD7-B26.mtw Last save: 2/26/2015 4:42:17 PM
Run operator: JChun
Analysis number: 79852

SAMPLE:
:
Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.24	0.06	2.054	0.000	

This report has been created by IC Net
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2/27/15

DAILY CALIBRATION(S)

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	nitrite	phosphate	iodide	fluoride	chloride	bromide	nitrate	sulfate	RawNetID
AD18-01	CCV128	IPOFCBNS	103.3%	117.1%*	0%*	106.3%	96.4%	99.3%	98.7%	95.9%	z4221044
AD18-02	CCB128	IPOFCBNS	0	0	0	0	0	0	0	0	z4221103
AD18-03	ICD022WB	IPOFCBNS	0	0	0	0	0	0	0	0	z4221122
AD18-04	ICD022WL	IPOFCBNS	2.07241	2.30736	0	2.17475	1.94986	1.98403	1.0264	5.02007	z4221141
AD18-05	ICD022WC	IPOFCBNS	2.07346	2.3086	0	2.17614	1.95041	1.98972	1.02678	4.94529	z4221159
AD18-06	D138-02	IPOF*BN*	0	0.145972	0	0.306566	119.322E	0.281159	0.313324	71.2279E	z4221218
AD18-07	D138-02I	IPOFCBNS	0	0	0	0	159.092	0	0	83.1867	z4221237
AD18-08	D112-01I	IPOFCBNS	0	0	0	0	200.192	0	0	1507.16	z4221256
AD18-09	D112-02I	IPOFCBNS	0	0	0	0	175.597	0	0	353.725	z4221315
AD18-10	D112-03I	IPOFCBNS	0	0	0	0	203.341	0	0	565.956	z4221333
AD18-11	D122-01I	IPOFCBNS	0	0	0	0	1443.73	0	0	2519.02	z4221352
AD18-12	D122-02I	IPOFCBNS	0	0	0	0	1434.94	0	0	2522.59	z4221411
AD18-13	CCV130	IPOFCBNS	103.9%	114.9%*	0%*	106.5%	97.1%	99.9%	99.1%	96.3%	z4221430
AD18-14	CCB130	IPOFCBNS	0	0	0	0	0	0	0	0	z4221448
AD18-15	D142-01	IPOF*B**	0	0.132719	0	0.099893	137.683E	1.18379	40.2674E	198.956E	z4221507
AD18-16	D142-02	IPOF*B**	0	0	0	0.10947	138.048E	1.19297	40.4103E	199.136E	z4221526
AD18-17	D144-01	IPOF*BN*	0	0.18084	0	0.59542	252.915E	1.67352	3.81648	236.814E	z4221545
AD18-18	D144-03	IPOF*BN*	0	0.211994	0	0.59908	292.461E	2.26221	0.258003	223.043E	z4221603
AD18-19	D144-04	IPOF*BN*	0	0	0	0.736129	277.117E	1.98497	3.30338	230.666E	z4221622
AD18-20	D142-05	IPOF*B**	0	0	0	0.0899528	95.2485E	0.768838	38.2023E	115.498E	z4221641
AD18-21	D142-03	IPOF*B**	0	0	0	0.101977	117.274E	0.93922	36.9949E	113.303E	z4221700
AD18-22	D142-03M	IPOF*B**	2.17952	2.57062	0	2.31802	116.382E	2.88628	37.232E	116.548E	z4221718
AD18-23	D142-03S	IPOF*B**	2.19648	2.59124	0	2.31604	116.663E	2.89274	37.305E	116.592E	z4221737
AD18-24	ICD022WQ	IPOFCBNS	0	0	0	0	0	0	0	0	z4221756
AD18-25	CCV132	IPOFCBNS	103.8%	114.9%*	0%*	106.5%	97.9%	100.3%	99.2%	96.6%	z4221815
AD18-26	CCB132	IPOFCBNS	0	0	0	0	0	0	0	0	z4221833
AD18-27	D142-07	IPOF*B**	0	0.133661	0	0.0974709	101.671E	0.71843	30.0858E	118.889E	z4221852
AD18-28	D142-09	IPOF*B**	0	0.129283	0	0.133287	112.769E	2.2464	35.5375E	148.572E	z4221911
AD18-29	D144-01I	IPOF*BN*	0	0	0	0.556222	329.001E	1.72987	3.73368	270.652E	z4221930
AD18-30	D144-03I	IPOF*BN*	0	0	0	0.549052	372.936E	2.26352	0.258401	245.533E	z4221948
AD18-31	D144-04I	IPOF*BN*	0	0	0	0.671866	350.083E	1.98683	3.1564	255.87E	z4222007
AD18-32	D142-03I	IPOFCBNS	0	0	0	0	162.536	0	34.9648	115.724	z4222026
AD18-33	D142-03IM	IPOFCBNS	40.5995	52.8007	0	43.9387	198.361	41.2306	56.7134	216.875	z4222045
AD18-34	D142-03IS	IPOFCBNS	40.6031	53.1767	0	44.1075	198.481	41.2643	56.6324	217.882	z4222103
AD18-35	ICD024WL	IPOFCBNS	2.05901	2.35141	0	2.18737	1.95279	1.99788	1.02839	4.9622	z4222122
AD18-36	ICD024WC	IPOFCBNS	2.06548	2.33373	0	2.19108	1.96079	1.99973	1.02841	4.95279	z4222141
AD18-37	CCV134	IPOFCBNS	103.2%	115%*	0%*	106.1%	98.2%	100%	98.3%	97.8%	z4222200
AD18-38	CCB134	IPOFCBNS	0	0	0	0	0	0	0	0	z4222218
AD18-39	ICD024WB	IPOFCBNS	0	0	0	0	0	0	0	0	z4222237
AD18-40	D142-01I	IPOFCBNS	0	0	0	0	231.647	0	38.7841	204.114	z4222256
AD18-41	D142-02I	IPOFCBNS	0	0	0	0	228.251	0	38.2765	200.584	z4222315
AD18-42	D142-05I	IPOFCBNS	0	0	0	0	109.113	0	36.8555	114.818	z4222333
AD18-43	D142-07I	IPOFCBNS	0	0	0	0	122.267	0	28.2403	116.878	z4222352
AD18-44	D142-09I	IPOFCBNS	0	0	0	0	155.58	4.94162	33.6622	151.499	z4230011
AD18-45	D093-03I	IPOFCBNS	0	0	0	0.659174	120.523	0	0	47.7214	z4230030
AD18-46	D093-03ID	IPOFCBNS	0	0	0	0.643105	120.546	0	0	48.3653	z4230048
AD18-47	D093-03IM	IPOFCBNS	20.1023	26.1307	0	22.2102	138.002	20.4527	10.5357	101.108	z4230107
AD18-48	D093-03IS	IPOFCBNS	20.0721	26.3327	0	22.1755	137.415	20.4754	10.509	99.1629	z4230126
AD18-49	CCV136	IPOFCBNS	102.6%	116.9%*	0%*	105.2%	96.5%	99.6%	98%	95.6%	z4230144
AD18-50	CCB136	IPOFCBNS	0	0	0	0	0	0	0	0	z4230203
AD18-51	D122-04I	IPOFCBNS	0	0	0	0	1575.95	0	0	750.552	z4230222
AD18-52	D122-05I	IPOF*BNS	0	0	0	0	1213.33E	0	0	402.371	z4230241
AD18-53	D122-05J	IPOFCBNS	0	0	0	0	1175.42	0	0	418.181	z4230300
AD18-54	D144-01J	IPOFCBNS	0	0	0	0	628.465	0	4.71845	268.79	z4230318
AD18-55	D144-03J	IPOFCBNS	0	0	0	0	804.508	0	0	228.626	z4230337
AD18-56	D144-04J	IPOFCBNS	0	0	0	1.99731	724.424	0	4.24113	251.908	z4230356
AD18-57	ICD024WQ	IPOFCBNS	0	0	0	0	0	0	0	0	z4230414
AD18-58	CCV138	IPOFCBNS	102.5%	113.9%*	0%*	105.3%	97.1%	99.3%	97.9%	96.8%	z4230433
AD18-59	CCB138	IPOFCBNS	0	0	0	0	0	0	0	0	z4230452

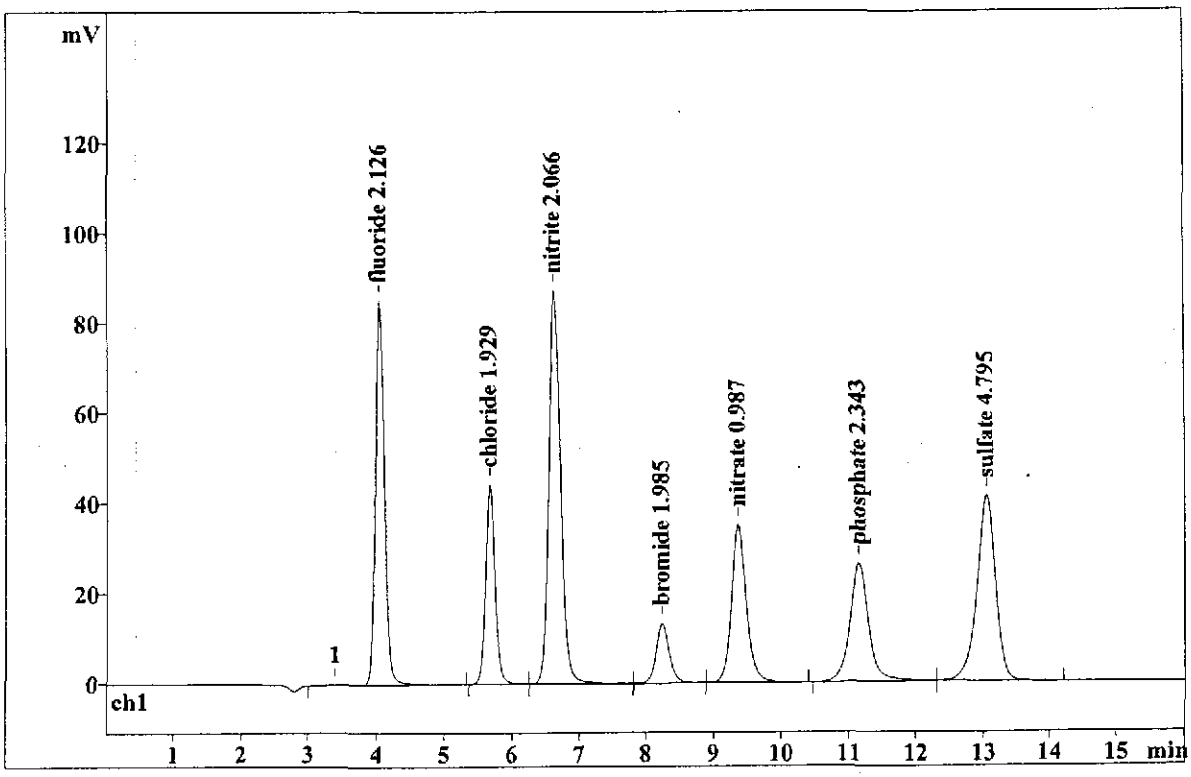
IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	nitrate	chloride	fluoride	iodide	nitrite	bromide	phosphate	sulfate	RawWetID
AD18-01	CCV128	NCFOIBPS	98.7%	96.4%	106.3%	0%*	103.3%	99.3%	117.1%*	95.9%	z4221044
AD18-02	CCB128	NCFOIBPS	0	0	0	0	0	0	0	0	z4221103
AD18-13	CCV130	NCFOIBPS	99.1%	97.1%	106.5%	0%*	103.9%	99.9%	114.9%*	96.3%	z4221430
AD18-14	CCB130	NCFOIBPS	0	0	0	0	0	0	0	0	z4221448
AD18-25	CCV132	NCFOIBPS	99.2%	97.9%	106.5%	0%*	103.8%	100.3%	114.9%*	96.6%	z4221815
AD18-26	CCB132	NCFOIBPS	0	0	0	0	0	0	0	0	z4221833
AD18-37	CCV134	NCFOIBPS	98.3%	98.2%	106.1%	0%*	103.2%	100%	115%*	97.8%	z4222200
AD18-38	CCB134	NCFOIBPS	0	0	0	0	0	0	0	0	z4222218
AD18-49	CCV136	NCFOIBPS	98%	96.5%	105.2%	0%*	102.6%	99.6%	116.9%*	95.6%	z4230144
AD18-50	CCB136	NCFOIBPS	0	0	0	0	0	0	0	0	z4230203
AD18-58	CCV138	NCFOIBPS	97.9%	97.1%	105.3%	0%*	102.5%	99.3%	113.9%*	96.8%	z4230433
AD18-59	CCB138	NCFOIBPS	0	0	0	0	0	0	0	0	z4230452

Report date: 4/23/2015 11:24:39 AM
Printed by: JChun

Ident: AD18-01 CCV128
Analysis from: 4/22/2015 10:44:46 AM
File: z4221044.chw Last save: 4/22/2015 11:00:47 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80437

SAMPLE:
:
Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.39	0.11	3.353	0.000	
2	4.04	85.32	781.930	2.126	fluoride
3	5.67	44.24	435.222	1.929	chloride
4	6.63	87.30	1055.048	2.066	nitrite
5	8.23	13.15	178.591	1.985	bromide
6	9.36	35.01	533.114	0.987	nitrate
7	11.15	26.35	511.627	2.343	phosphate
8	13.05	41.12	798.144	4.795	sulfate
8	16.00	332.60	4297.028	16.232	

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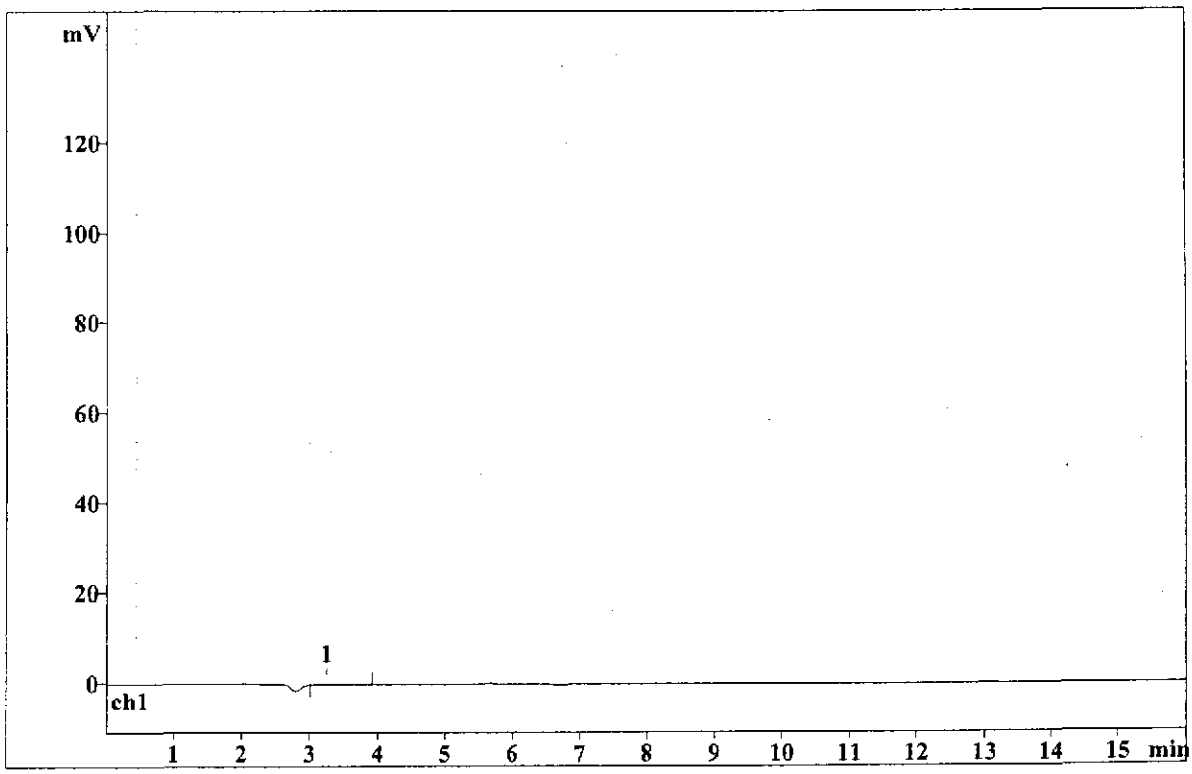
Report date: 4/23/2015 11:25:55 AM
Printed by: JChun

Ident: AD18-02 CCB128
Analysis from: 4/22/2015 11:03:31 AM
File: z4221103.chw Last save: 4/22/2015 11:19:32 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80438

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.24	0.10	3.337	0.000	

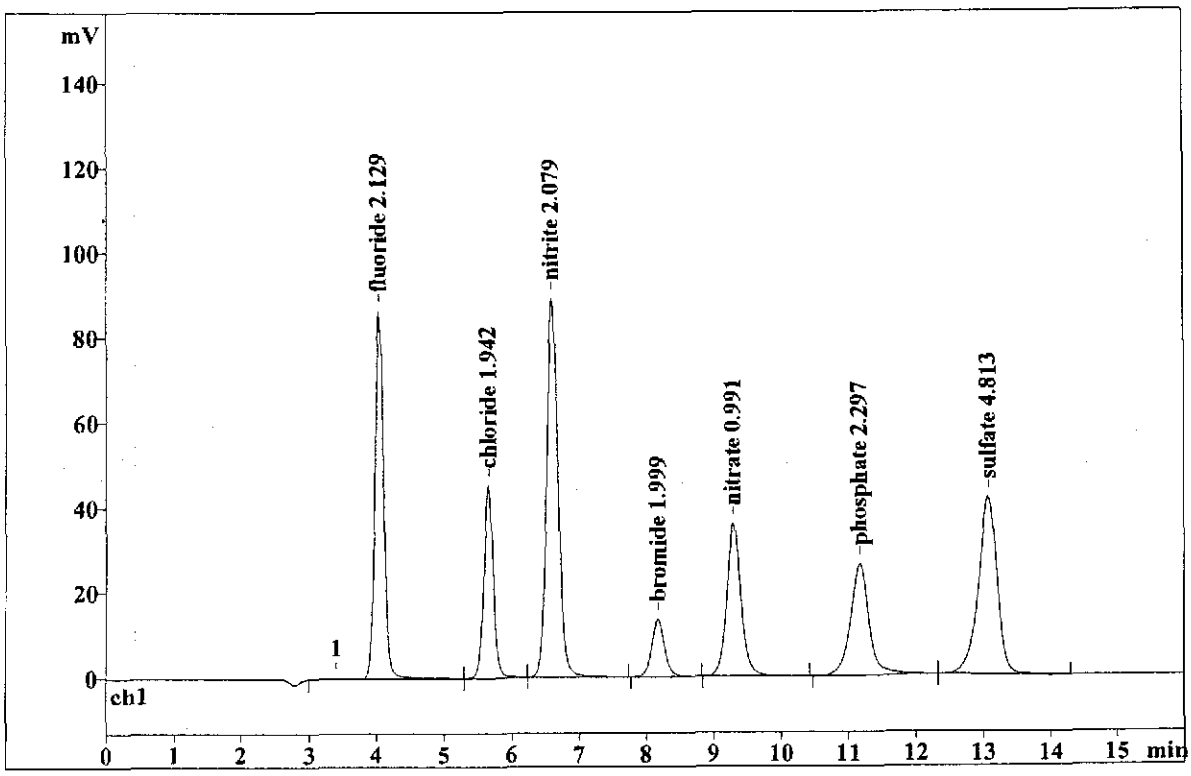
This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 2:46:04 PM
Printed by: JChun

Ident: AD18-13 CCV130
Analysis from: 4/22/2015 2:30:04 PM
File: Z4221430.CHW Last save: 4/22/2015 2:46:04 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80449

SAMPLE:
:
Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

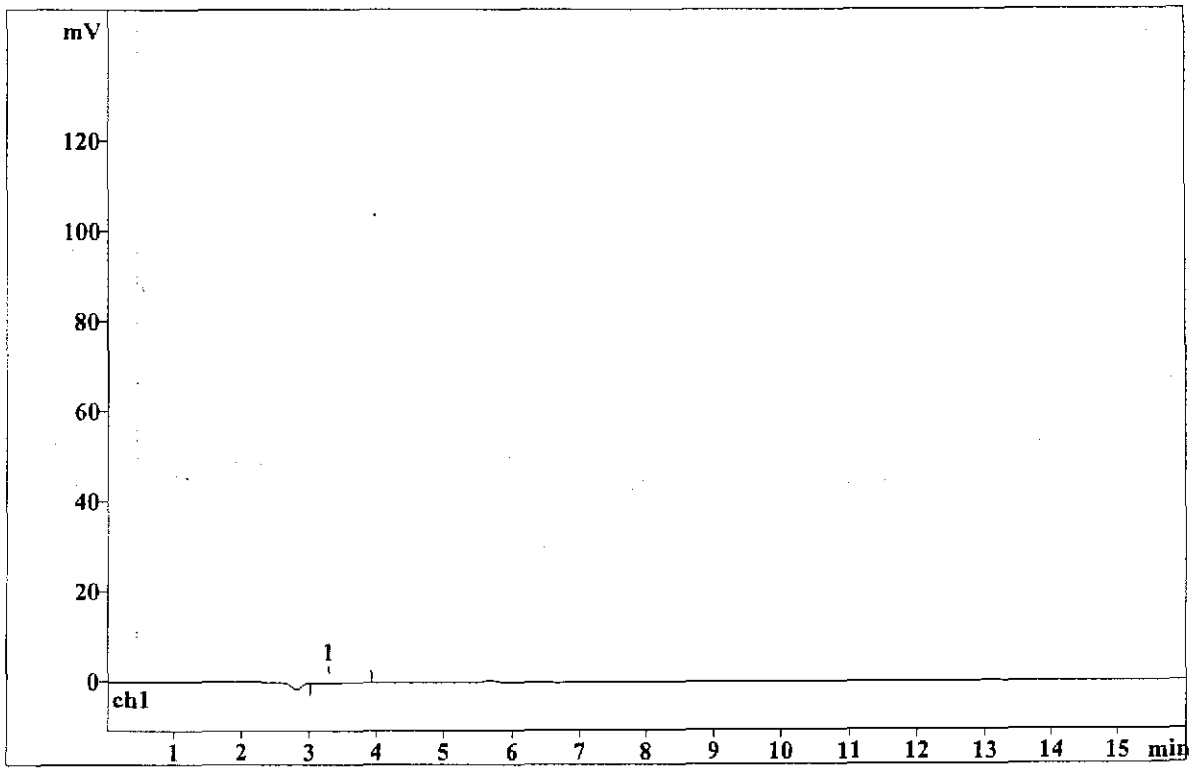
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.41	0.10	2.693	0.000	
2	4.04	86.50	783.108	2.129	fluoride
3	5.66	45.05	438.132	1.942	chloride
4	6.60	89.04	1061.388	2.079	nitrite
5	8.18	13.48	179.932	1.999	bromide
6	9.29	35.75	535.006	0.991	nitrate
7	11.17	26.05	501.109	2.297	phosphate
8	13.08	41.51	801.126	4.813	sulfate
8	16.00	337.49	4302.495	16.249	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 11:28:13 AM
Printed by: JChun

Ident: AD18-14 CCB130
Analysis from: 4/22/2015 2:48:48 PM
File: z4221448.chw Last save: 4/22/2015 3:04:49 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80450

SAMPLE:
:
Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.29	0.10	3.558	0.000	

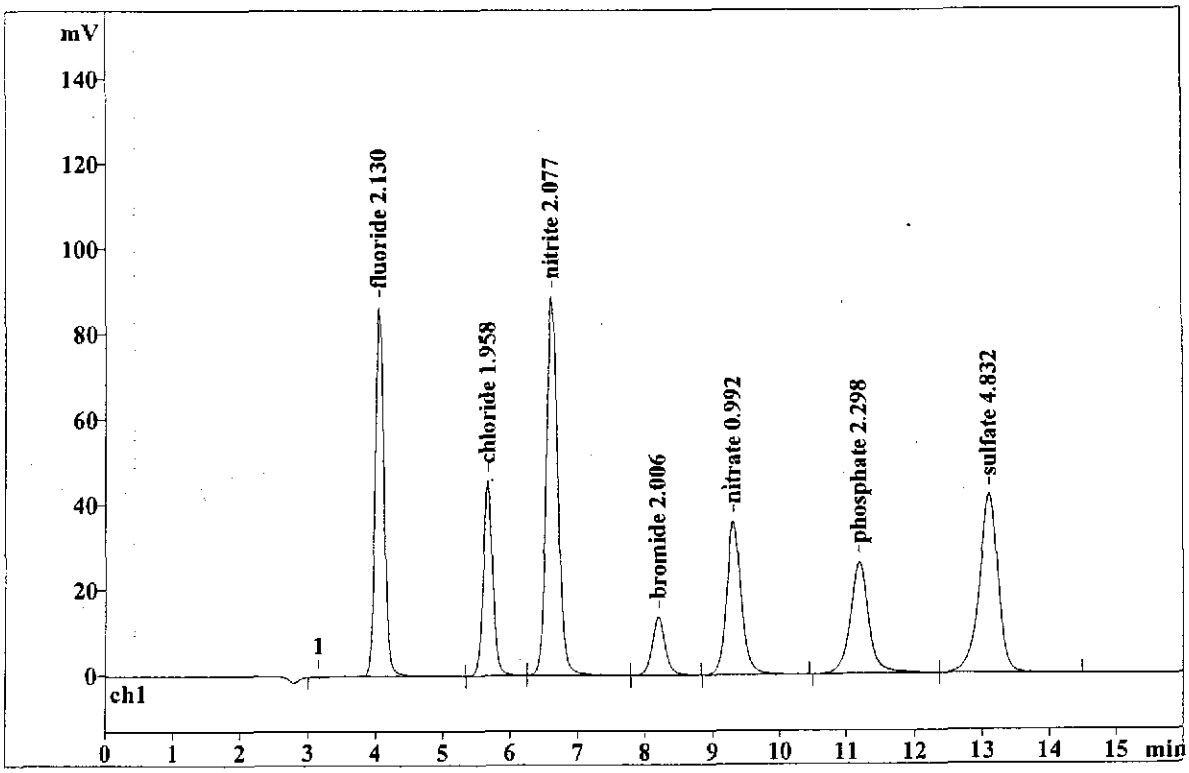
This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 6:31:03 PM
Printed by: JChun

Ident: AD18-25 CCV132
Analysis from: 4/22/2015 6:15:03 PM
File: Z4221815.CHW Last save: 4/22/2015 6:31:03 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80461

SAMPLE:
:
Vial number: 25
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

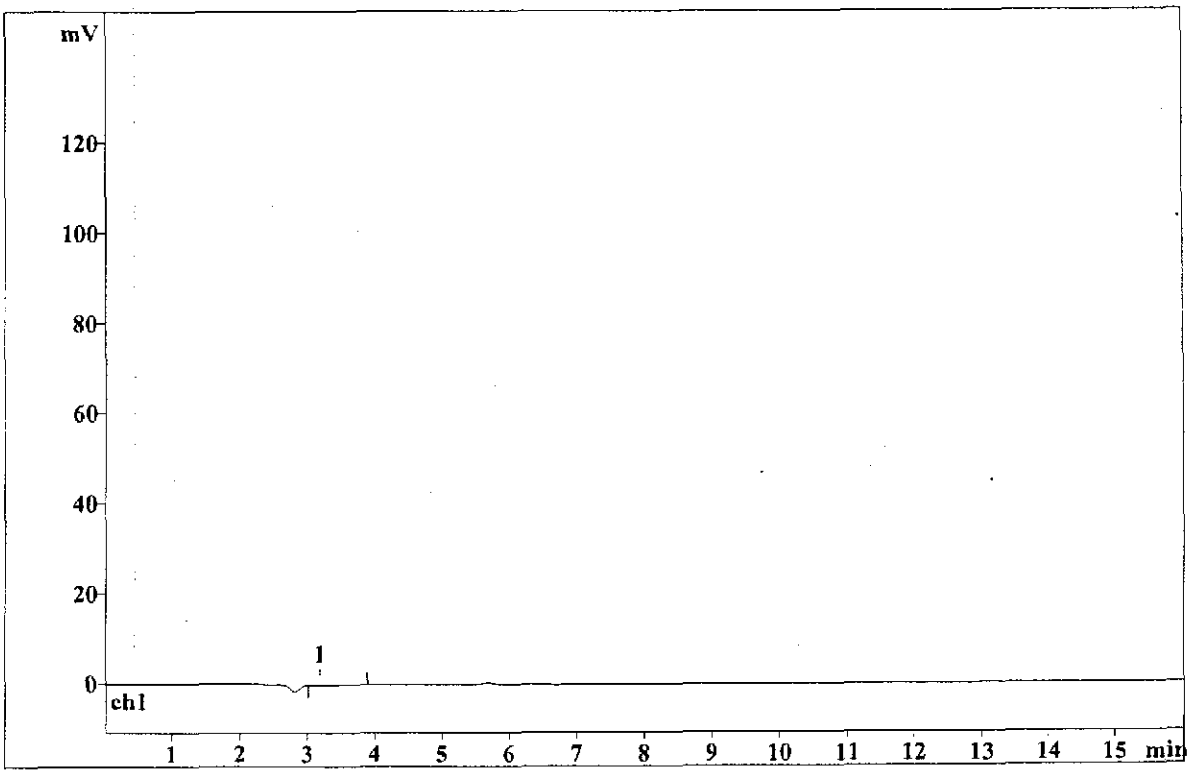
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.15	0.07	2.446	0.000	
2	4.05	86.79	783.514	2.130	fluoride
3	5.67	45.45	441.815	1.958	chloride
4	6.61	88.66	1060.276	2.077	nitrite
5	8.19	13.51	180.631	2.006	bromide
6	9.31	35.76	535.897	0.992	nitrate
7	11.19	26.12	501.324	2.298	phosphate
8	13.10	41.68	804.292	4.832	sulfate
8	16.00	338.04	4310.196	16.293	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 11:29:45 AM
Printed by: JChun

Ident: AD18-26 CCB132
Analysis from: 4/22/2015 6:33:47 PM
File: z4221833.chw Last save: 4/22/2015 6:49:47 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80462

SAMPLE:
:
Vial number: 26
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.19	0.09	3.251	0.000	

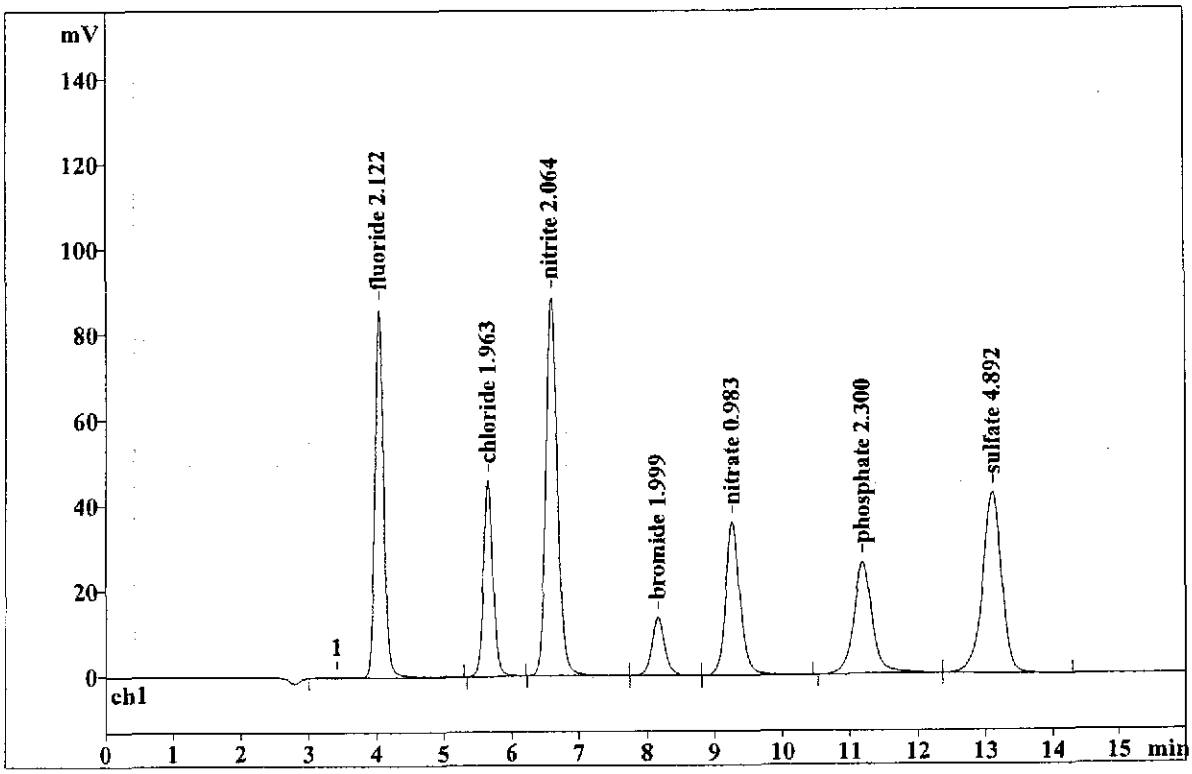
This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 10:16:02 PM
Printed by: JChun

Ident: AD18-37 CCV134
Analysis from: 4/22/2015 10:00:02 PM
File: Z4222200.CHW Last save: 4/22/2015 10:16:02 PM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80473

SAMPLE:
:
Vial number: 37
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

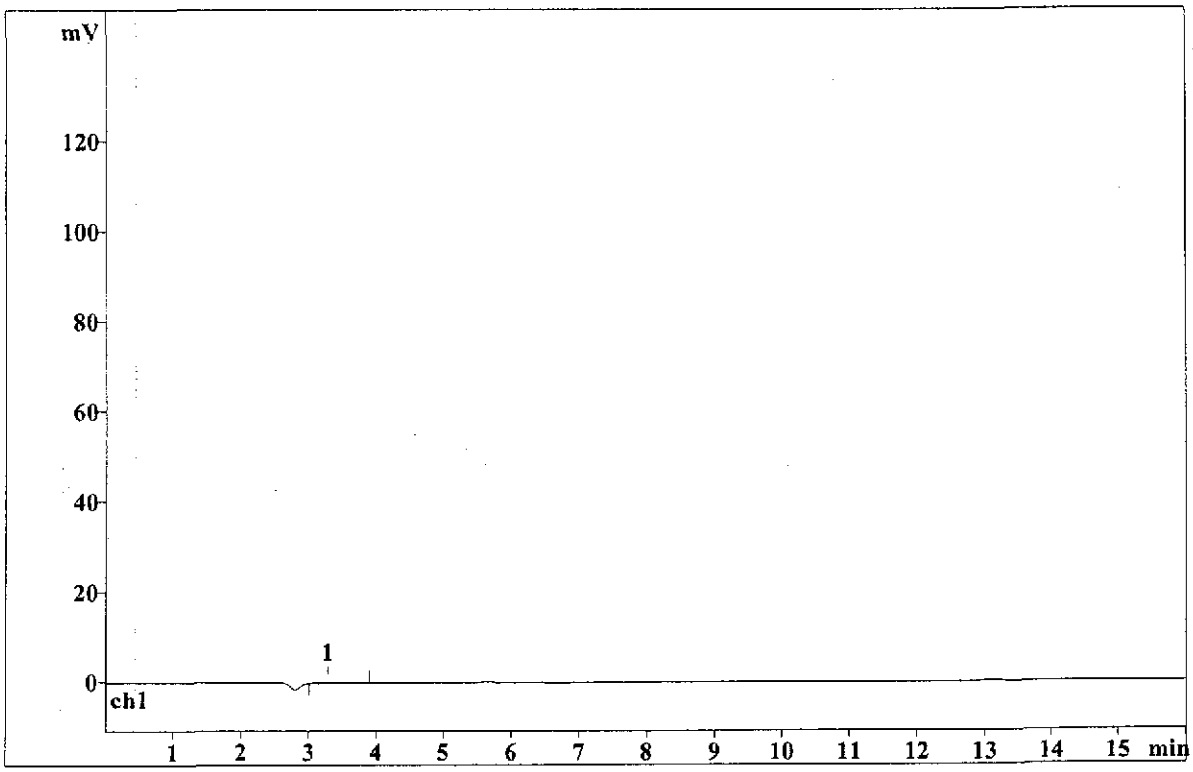
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.38	0.10	3.784	0.000	
2	4.04	86.45	780.437	2.122	fluoride
3	5.65	45.70	443.116	1.963	chloride
4	6.59	88.67	1053.870	2.064	nitrite
5	8.16	13.57	179.984	1.999	bromide
6	9.26	35.78	530.852	0.983	nitrate
7	11.19	26.18	501.711	2.300	phosphate
8	13.11	42.22	814.336	4.892	sulfate
8	15.99	338.67	4308.090	16.324	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 11:31:47 AM
Printed by: JChun

Ident: AD18-38 CCB134
Analysis from: 4/22/2015 10:18:47 PM
File: z4222218.chw Last save: 4/22/2015 10:34:47 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80474

SAMPLE:
:
Vial number: 38
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.30	0.10	3.483	0.000	

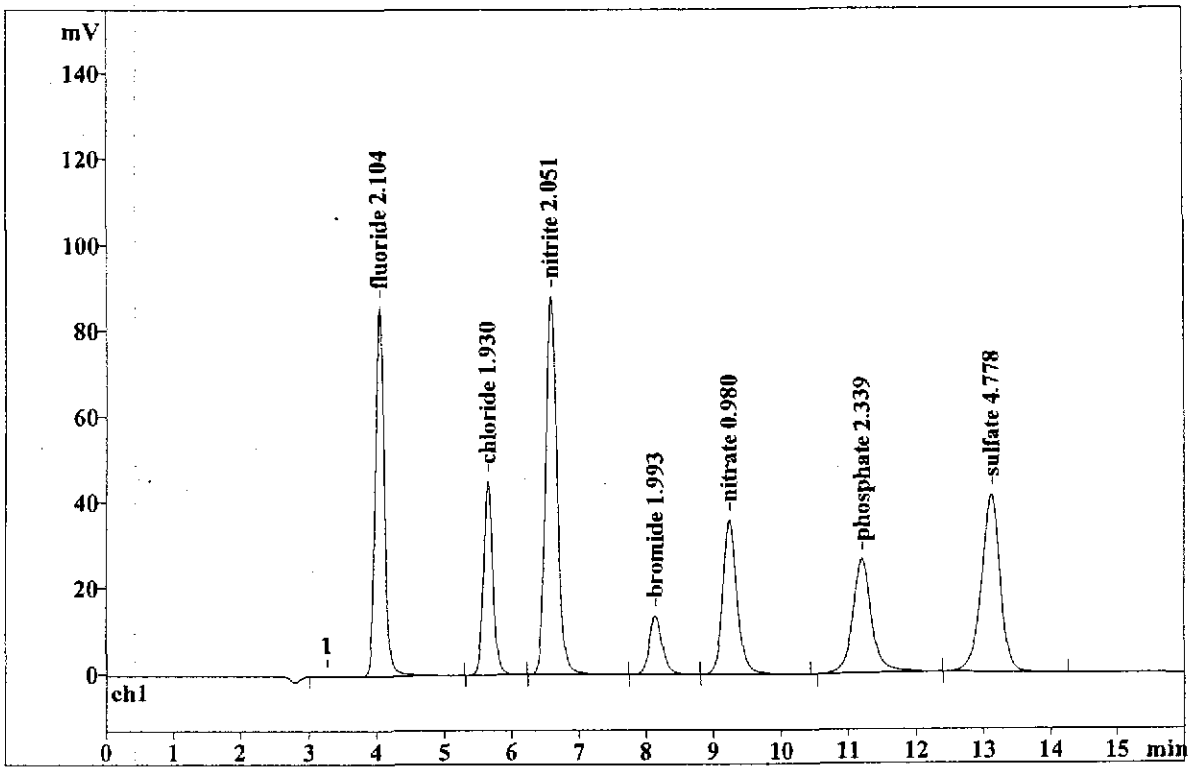
This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 2:01:00 AM
Printed by: JChun

Ident: AD18-49 CCV136
Analysis from: 4/23/2015 1:44:59 AM
File: Z4230144.CHW Last save: 4/23/2015 2:01:00 AM

Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80485

SAMPLE:
:
Vial number: 49
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

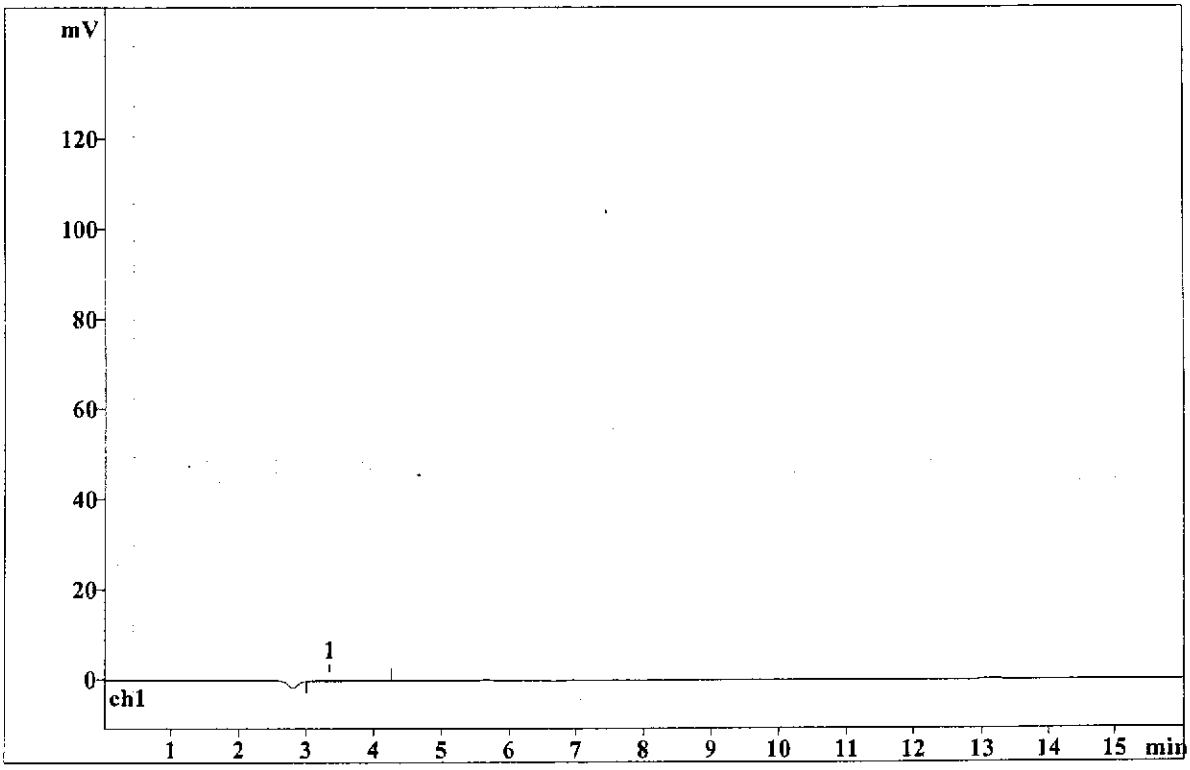
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.28	0.08	2.893	0.000	
2	4.04	85.88	773.738	2.104	fluoride
3	5.65	44.96	435.565	1.930	chloride
4	6.58	88.14	1047.299	2.051	nitrite
5	8.14	13.57	179.342	1.993	bromide
6	9.24	35.79	528.690	0.980	nitrate
7	11.21	26.40	510.604	2.339	phosphate
8	13.13	41.12	795.274	4.778	sulfate
8	16.00	335.94	4273.404	16.174	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 11:32:41 AM
Printed by: JChun

Ident: AD18-50 CCB136
Analysis from: 4/23/2015 2:03:45 AM
File: z4230203.chw Last save: 4/23/2015 2:19:45 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/22/2015 10:59:48 AM
Run operator: JChun
Analysis number: 80486

SAMPLE:
:
Vial number: 50
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.35	0.12	5.944	0.000	

This report has been created by IC Net
METROHM LTD

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Concentrations of (ppm) : S1 – 0.05
S2 – 0.1
S3 – 0.2
S4 – 0.5
S5 – 1.0
S6 – 2.0
S7 – 5.0
S8 – 10.0
S9 – 20.0

Linearity (ppm) : F^- – 5
Cl^- – 20
NO_2N – 10
Br^- – 20
NO_3N – 5
PO_4P – 20
SO_4^{2-} – 20

ICB002W : LOQ & LOD verification

Column: #14035175 Metrosep A Supp 5-150 / Metrosep RP2 Guard # 0026.1217

Flow Rate: 0.70 ml/min

IC Eluent:

(350 mM Na_2CO_3 / 100 mM $NaHCO_3$) SW4-02-47-03 20 ml → 2 L reagent water

(100 mM $NaHCO_3$) SW4-02-47-04 20 ml → 2 L reagent water

IC Regenerant:

SW4-02-48-04 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RWI-13-002

Book #:	AD7-020
Instrument No.:	D7
Pipette ID's:	039380124
	SW3-02-02-02
	SW8A-02-13
Analytical Sequence:	AB62
Method File:	ICDT-B26.mtw
Analytical Batch:	ICB002W

SOP #	Rev. #
☑ EMAX-300.0	10
☑ EMAX-4110B	4
☑ EMAX-9056	7
☐ EMAX-	

STANDARDS ID	
ICAL	SI1B-29-34-02
ICV 1	-34-03
CCV	-33-01
LCS / ICV	-33-02
MS	NA

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METHROHM	
☐ External Hard Drive	

Filters:
0.45 µm: ✓ cd 02/26/15
0.2 µm:

Snap Seal Container:
4 oz: 14914007
1.5 oz:

Analyzed By: JC / cd
Date: 02/26/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
z2261436.chw	ICD7-B26.mtw	AB02-01 IB	1	1.0	1.0	1.0	100.0	0		
z2261501.chw	ICD7-B26.mtw	AB02-02 S0	2	1.0	1.0	1.0	100.0	0		
z2261527.chw	ICD7-B26.mtw	AB02-03 S1	3	1.0	1.0	1.0	100.0	1	0.05PPM	
z2261553.chw	ICD7-B26.mtw	AB02-04 S2	4	1.0	1.0	1.0	100.0	2	0.10PPM	
z2261619.chw	ICD7-B26.mtw	AB02-05 S3	5	1.0	1.0	1.0	100.0	3	0.20PPM	
z2261645.chw	ICD7-B26.mtw	AB02-06 S4	6	1.0	1.0	1.0	100.0	4	0.50PPM	
z2261710.chw	ICD7-B26.mtw	AB02-07 S5	7	1.0	1.0	1.0	100.0	5	1.00PPM	
z2261736.chw	ICD7-B26.mtw	AB02-08 S6	8	1.0	1.0	1.0	100.0	6	2.00PPM	
z2261802.chw	ICD7-B26.mtw	AB02-09 S7	9	1.0	1.0	1.0	100.0	7	5.00PPM	
z2261828.chw	ICD7-B26.mtw	AB02-10 S8	10	1.0	1.0	1.0	100.0	8	10.0PPM	
z2261854.chw	ICD7-B26.mtw	AB02-11 S9	11	1.0	1.0	1.0	100.0	9	20.0PPM	
z2261919.chw	ICD7-B26.mtw	AB02-12 ICV	12	1.0	1.0	1.0	100.0	0		
z2261945.chw	ICD7-B26.mtw	AB02-13 ICV1	13	1.0	1.0	1.0	100.0	0	1.00PPM	
z2262011.chw	ICD7-B26.mtw	AB02-14 ICB	14	1.0	1.0	1.0	100.0	0		
z2262037.chw	ICD7-B26.mtw	AB02-15 CCV2	15	1.0	1.0	1.0	100.0	0		
z2262102.chw	ICD7-B26.mtw	AB02-16 CCB2	16	1.0	1.0	1.0	100.0	0		
z2262128.chw	ICD7-B26.mtw	AB02-17 ICB002WB	17	1.0	1.0	1.0	100.0	0		
z2262154.chw	ICD7-B26.mtw	AB02-18 ICB002WL	18	1.0	1.0	1.0	100.0	0		
z2262220.chw	ICD7-B26.mtw	AB02-19 ICB002WC	19	1.0	1.0	1.0	100.0	0		
z2262246.chw	ICD7-B26.mtw	AB02-20 LOQ-01	20	1.0	1.0	1.0	100.0	0		
z2262311.chw	ICD7-B26.mtw	AB02-21 LOD-01	21	1.0	1.0	1.0	100.0	0		
z2262337.chw	ICD7-B26.mtw	AB02-22 CCV4	22	1.0	1.0	1.0	100.0	0		
z2270003.chw	ICD7-B26.mtw	AB02-23 CCB4	23	1.0	1.0	1.0	100.0	0		

F1

FINAL cl 02/2

02/27/15

8065

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Column: Metrosep A Supp 5-150

Flow Rate: 0.70 ml/min

IC Eluent:

SW4-02-47-03
(350 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

SW4-02-47-04
(100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:

SW4-02-50-04 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-15-001

Book #:	AD7-020
Instrument No.:	D7
Pipette ID's:	039380124
	SW3-02-02-02
	SW8A-02-13
Analytical Sequence:	A018
Method File:	ICD7-826.mtw
Analytical Batch:	ICD022W; ICD024W

SOP #	Rev. #
☑ EMAX-300.0	10
☐ EMAX-4110B	4
☑ EMAX-9056	7
☐ EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SIB-30-26-01
LCS	SIB-30-26-02
MS	SCO Refer to LCS Parent ID

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METHROHM	
☐ External Hard Drive	

Filters:	Snap Seal Container:
0.45 µm: 2186123	4 oz: 19414007
0.2 µm: 2186478	1.5 oz: 20814900

Analyzed By: JL

Date: 4/22/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
z4221044.chw	ICD7-B26.mtw	AD18-01 CCV128	1	1.0	1.0	1.0	100.0	0		
z4221103.chw	ICD7-B26.mtw	AD18-02 CCB128	2	1.0	1.0	1.0	100.0	0		
z4221122.chw	ICD7-B26.mtw	AD18-03 ICD022WB	3	1.0	1.0	1.0	100.0	0		
z4221141.chw	ICD7-B26.mtw	AD18-04 ICD022WL	4	1.0	1.0	1.0	100.0	0		
z4221159.chw	ICD7-B26.mtw	AD18-05 ICD022WC	5	1.0	1.0	1.0	100.0	0		
z4221218.chw	ICD7-B26.mtw	AD18-06 D138-02	6	1.0	1.0	1.0	100.0	0		
z4221237.chw	ICD7-B26.mtw	AD18-07 D138-02I DF=20	7	1.0	20.0	1.0	100.0	0		
z4221256.chw	ICD7-B26.mtw	AD18-08 D112-01I DF=125	8	1.0	125.0	1.0	100.0	0		
z4221315.chw	ICD7-B26.mtw	AD18-09 D112-02I DF=40	9	1.0	40.0	1.0	100.0	0		
z4221333.chw	ICD7-B26.mtw	AD18-10 D112-03I DF=50	10	1.0	50.0	1.0	100.0	0		
z4221352.chw	ICD7-B26.mtw	AD18-11 D122-01I DF=400	11	1.0	400.0	1.0	100.0	0		
z4221411.chw	ICD7-B26.mtw	AD18-12 D122-02I DF=400	12	1.0	400.0	1.0	100.0	0		
z4221430.chw	ICD7-B26.mtw	AD18-13 CCV130	13	1.0	1.0	1.0	100.0	0		
z4221448.chw	ICD7-B26.mtw	AD18-14 CCB130	14	1.0	1.0	1.0	100.0	0		
z4221507.chw	ICD7-B26.mtw	AD18-15 D142-01	15	1.0	1.0	1.0	100.0	0		
z4221526.chw	ICD7-B26.mtw	AD18-16 D142-02	16	1.0	1.0	1.0	100.0	0		
z4221545.chw	ICD7-B26.mtw	AD18-17 D144-01	17	1.0	1.0	1.0	100.0	0		
z4221603.chw	ICD7-B26.mtw	AD18-18 D144-03	18	1.0	1.0	1.0	100.0	0		
z4221622.chw	ICD7-B26.mtw	AD18-19 D144-04	19	1.0	1.0	1.0	100.0	0		
z4221641.chw	ICD7-B26.mtw	AD18-20 D142-05	20	1.0	1.0	1.0	100.0	0		
z4221700.chw	ICD7-B26.mtw	AD18-21 D142-03	21	1.0	1.0	1.0	100.0	0		
z4221718.chw	ICD7-B26.mtw	AD18-22 D142-03M	22	1.0	1.0	1.0	100.0	0		
z4221737.chw	ICD7-B26.mtw	AD18-23 D142-03S	23	1.0	1.0	1.0	100.0	0		
z4221756.chw	ICD7-B26.mtw	AD18-24 ICD022WQ	24	1.0	1.0	1.0	100.0	0		
z4221815.chw	ICD7-B26.mtw	AD18-25 CCV132	25	1.0	1.0	1.0	100.0	0		
z4221833.chw	ICD7-B26.mtw	AD18-26 CCB132	26	1.0	1.0	1.0	100.0	0		
z4221852.chw	ICD7-B26.mtw	AD18-27 D142-07	27	1.0	1.0	1.0	100.0	0		
z4221911.chw	ICD7-B26.mtw	AD18-28 D142-09	28	1.0	1.0	1.0	100.0	0		
z4221930.chw	ICD7-B26.mtw	AD18-29 D144-01I DF=2	29	1.0	2.0	1.0	100.0	0		
z4221948.chw	ICD7-B26.mtw	AD18-30 D144-03I DF=2	30	1.0	2.0	1.0	100.0	0		
z4222007.chw	ICD7-B26.mtw	AD18-31 D144-04I DF=2	31	1.0	2.0	1.0	100.0	0		
z4222026.chw	ICD7-B26.mtw	AD18-32 D142-03I DF=20	32	1.0	20.0	1.0	100.0	0		
z4222045.chw	ICD7-B26.mtw	AD18-33 D142-03IM DF=20	33	1.0	20.0	1.0	100.0	0		
z4222103.chw	ICD7-B26.mtw	AD18-34 D142-03IS DF=20	34	1.0	20.0	1.0	100.0	0		
z4222122.chw	ICD7-B26.mtw	AD18-35 ICD024WL	35	1.0	1.0	1.0	100.0	0		
z4222141.chw	ICD7-B26.mtw	AD18-36 ICD024WC	36	1.0	1.0	1.0	100.0	0		
z4222200.chw	ICD7-B26.mtw	AD18-37 CCV134	37	1.0	1.0	1.0	100.0	0		
z4222218.chw	ICD7-B26.mtw	AD18-38 CCB134	38	1.0	1.0	1.0	100.0	0		
z4222237.chw	ICD7-B26.mtw	AD18-39 ICD024WB	39	1.0	1.0	1.0	100.0	0		
z4222256.chw	ICD7-B26.mtw	AD18-40 D142-01I DF=20	40	1.0	20.0	1.0	100.0	0		
z4222315.chw	ICD7-B26.mtw	AD18-41 D142-02I DF=20	41	1.0	20.0	1.0	100.0	0		
z4222333.chw	ICD7-B26.mtw	AD18-42 D142-05I DF=20	42	1.0	20.0	1.0	100.0	0		
z4222352.chw	ICD7-B26.mtw	AD18-43 D142-07I DF=20	43	1.0	20.0	1.0	100.0	0		
z4230011.chw	ICD7-B26.mtw	AD18-44 D142-09I DF=20	44	1.0	20.0	-1.0	100.0	0		
z4230030.chw	ICD7-B26.mtw	AD18-45 D093-03I DF=10	45	1.0	10.0	1.0	100.0	0		
z4230048.chw	ICD7-B26.mtw	AD18-46 D093-03ID DF=10	46	1.0	10.0	1.0	100.0	0		
z4230107.chw	ICD7-B26.mtw	AD18-47 D093-03IM DF=10	47	1.0	10.0	1.0	100.0	0		
z4230126.chw	ICD7-B26.mtw	AD18-48 D093-03IS DF=10	48	1.0	10.0	1.0	100.0	0		
z4230144.chw	ICD7-B26.mtw	AD18-49 CCV136	49	1.0	1.0	1.0	100.0	0		
z4230203.chw	ICD7-B26.mtw	AD18-50 CCB136	50	1.0	1.0	1.0	100.0	0		
z4230222.chw	ICD7-B26.mtw	AD18-51 D122-04I DF=400	51	1.0	400.0	1.0	100.0	0		
z4230241.chw	ICD7-B26.mtw	AD18-52 D122-05I DF=50	52	1.0	50.0	1.0	100.0	0		
z4230300.chw	ICD7-B26.mtw	AD18-53 D122-05J DF=400	53	1.0	400.0	1.0	100.0	0		
z4230318.chw	ICD7-B26.mtw	AD18-54 D144-01J DF=50	54	1.0	50.0	1.0	100.0	0		
z4230337.chw	ICD7-B26.mtw	AD18-55 D144-03J DF=50	55	1.0	50.0	1.0	100.0	0		
z4230356.chw	ICD7-B26.mtw	AD18-56 D144-04J DF=50	56	1.0	50.0	1.0	100.0	0		
z4230414.chw	ICD7-B26.mtw	AD18-57 ICD024WQ	57	1.0	1.0	1.0	100.0	0		
z4230433.chw	ICD7-B26.mtw	AD18-58 CCV138	58	1.0	1.0	1.0	100.0	0		

FINAL

JL 4/23/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2 F2
z4230452.chw	*ICD7-B26.mtw*	*AD18-59 CCB138*	59	1.0	1.0	1.0	100.0	0		

JC 4/24/15

FINAL

RETENTION TIME WINDOW

RETENTION TIME WINDOW
METHOD 300.0

Lab name: **EMAX** **Method:** **EMAX-300.0**

Instrument ID: D7 (800 IC) IC column: METROSEP A SUPP 5
Column size: 150X4.0mm

Compound	ICAL Mean RT	from	to	RTW
FLUORIDE	**4.08**	3.93	4.23	**0.151**
CHLORIDE	**5.74**	5.54	5.93	**0.195**
NITRITE	**6.69**	6.45	6.93	**0.240**
BROMIDE	**8.36**	8.09	8.63	**0.271**
NITRATE	**9.50**	9.18	9.81	**0.315**
PHOSPHATE	**11.56**	10.96	12.16	**0.600**
SULFATE	**13.76**	12.92	14.60	**0.840**
IODIDE	**0.00**			**0.920**

ICD7-B26.MTW

02/27/15

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD 415.1
TOC

A total of six (6) water samples were received on 04/22/15 to be analyzed for TOC in accordance with Method 415.1 and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. TOC was not detected in TCD008WB. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. TOC was within LCS QC limits in TCD008WL/TCD008WC. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. TOC was within MS QC limits in D142-03M/S. Refer to Matrix QC summary form for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

METHOD 415.1
TOC

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D142

Matrix : WATER
Instrument ID : I62

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	TCD008WB	ND	1	NA	1.00	0.500	04/25/1503:56	NA	TCD007-39	TCD007-37	TCD008W	NA	NA
LCS1W	TCD008WL	25.2	1	NA	1.00	0.500	04/25/1504:09	NA	TCD007-40	TCD007-37	TCD008W	NA	NA
LCD1W	TCD008WC	25.1	1	NA	1.00	0.500	04/25/1504:22	NA	TCD007-41	TCD007-37	TCD008W	NA	NA
04-21-15-BBW-3	D142-01	0.796J	1	NA	1.00	0.500	04/25/1504:33	NA	TCD007-42	TCD007-37	TCD008W	04/21/1514:55	04/22/15
04-21-15-FDUP-3	D142-02	0.860J	1	NA	1.00	0.500	04/25/1504:44	NA	TCD007-43	TCD007-37	TCD008W	04/21/1515:00	04/22/15
04-21-15-AMW-3R	D142-03	1.12	1	NA	1.00	0.500	04/25/1504:54	NA	TCD007-44	TCD007-37	TCD008W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMS	D142-03M	26.5	1	NA	1.00	0.500	04/25/1505:07	NA	TCD007-45	TCD007-37	TCD008W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMSD	D142-03S	26.0	1	NA	1.00	0.500	04/25/1505:19	NA	TCD007-46	TCD007-37	TCD008W	04/21/1514:45	04/22/15
04-22-15-AR-1	D142-05	0.828J	1	NA	1.00	0.500	04/25/1505:30	NA	TCD007-47	TCD007-37	TCD008W	04/22/1508:10	04/22/15
04-22-15-PWB-1	D142-07	0.979J	1	NA	1.00	0.500	04/25/1505:41	NA	TCD007-48	TCD007-37	TCD008W	04/22/1508:55	04/22/15
04-22-15-PWB-13A	D142-09	0.936J	1	NA	1.00	0.500	04/25/1506:21	NA	TCD007-51	TCD007-49	TCD008W	04/22/1509:10	04/22/15

0072

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	TCD008WB	TCD008WL	TCD008WC		
LAB FILE ID:	TCD007-39	TCD007-40	TCD007-41		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/25/1503:56	04/25/1504:09	04/25/1504:22	DATE RECEIVED:	NA
PREP. BATCH:	TCD008W	TCD008W	TCD008W		
CALIB. REF:	TCD007-37	TCD007-37	TCD007-37		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
TOC	ND	25	25.2	101	25	25.1	100	0	80-120	20

8073

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D142
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-21-15-AMW-3R				
LAB SAMP ID:	D142-03	D142-03M	D142-03S		
LAB FILE ID:	TCD007-44	TCD007-45	TCD007-46		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	04/21/15 14:45
DATE ANALYZED:	04/25/1504:54	04/25/1505:07	04/25/1505:19	DATE RECEIVED:	04/22/15
PREP. BATCH:	TCD008W	TCD008W	TCD008W		
CALIB. REF:	TCD007-37	TCD007-37	TCD007-37		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
TOC	1.12	25	26.5	101	25	26	99	2	75-125	20

8074

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
TOC

	Date	Time
Start	4/24/15	19:35
End	4/25/15	13:17

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

☐ Sample was filtered. Filter ID:

Comments:

TCD007WL D571
D133
D157
TCD008W D142
D156
D144
D583
TCD009W D160
D169
D584

D583-01 ⇒ Turbid, strong odor ⇒ 20x
D584-01 ⇒ Turbid ⇒ 5X

Reagent Water ID #: RW1-15-001
pH Strips Lot #: HC270245
2 M HCl SW4-02-49-01

Book #: A62-029
Instrument No.: 62
Pipette ID: 39380025
SW3-01-33
SI1A-01-4
Analytical Sequence: TCD007
Method File: TCD007
Analytical Batch: TCD007W, TCD008W, TCD009W

SOP #	Rev. #
☑ EMAX-415.1	4
☑ EMAX-5310B	3
☑ EMAX-9060	3
☐ EMAX-	

STANDARDS ID		CONC. (mg/L)
S0	RW1-15-001	0
S1	SW10B-06-64-05	1
S2	↓	5
S3		10
S4		40
S5		80
S6	–	–
ICV/LCS	SW10B-06-64-06	25
CCV	SW10B-06-64-07	25

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ TOC	
☐	

Analyzed By: KWL
Date: 4/2

8075

	Type	Analysis	Sample Na	Sample ID	ObjectID	Origin	Diluti	Result	Comment
1	Standard	NPOC	ICAL	TCD007-01	0A-123456	C:\Program	1.00		
2	Control	NPOC	ICV	TCD007-02	0A-123456	C:\Program	1.00	NPOC:24.61 mg/L	
3	Unknown	NPOC	ICB	TCD007-03	0A-123456	C:\Program	1.00	NPOC:0.3522 mg/L	
4	Unknown	NPOC	HCO3/CO3	TCD007-04	0A-123456	C:\Program	1.00	NPOC:0.1948 mg/L	
5	Unknown	NPOC	TCD007WB	TCD007-05	0A-123456	C:\Program	1.00	NPOC:0.3386 mg/L	
6	Unknown	NPOC	TCD007WL	TCD007-06	0A-123456	C:\Program	1.00	NPOC:24.94 mg/L	
7	Unknown	NPOC	TCD007WC	TCD007-07	0A-123456	C:\Program	1.00	NPOC:24.84 mg/L	
8	Unknown	NPOC	D571-01	TCD007-08	0A-123456	C:\Program	1.00	NPOC:1.513 mg/L	PH<2
9	Unknown	NPOC	D571-02	TCD007-09	0A-123456	C:\Program	1.00	NPOC:1.314 mg/L	PH<2
10	Unknown	NPOC	D571-03	TCD007-10	0A-123456	C:\Program	1.00	NPOC:2.560 mg/L	PH<2
11	Unknown	NPOC	D571-03D	TCD007-11	0A-123456	C:\Program	1.00	NPOC:2.625 mg/L	PH<2
12	Unknown	NPOC	D571-03M	TCD007-12	0A-123456	C:\Program	1.00	NPOC:26.63 mg/L	PH<2
13	Unknown	NPOC	D133-01	TCD007-13	0A-123456	C:\Program	1.00	NPOC:4.851 mg/L	PH<2
14	Control	NPOC	CCV1	TCD007-14	0A-123456	C:\Program	1.00	NPOC:24.92 mg/L	
15	Unknown	NPOC	CCB1	TCD007-15	0A-123456	C:\Program	1.00	NPOC:0.2970 mg/L	
16	Unknown	NPOC	D133-03	TCD007-16	0A-123456	C:\Program	1.00	NPOC:4.959 mg/L	PH<2
17	Unknown	NPOC	D133-04	TCD007-17	0A-123456	C:\Program	1.00	NPOC:4.102 mg/L	PH<2
18	Unknown	NPOC	D157-01	TCD007-18	0A-123456	C:\Program	1.00	NPOC:0.9586 mg/L	PH<2
19	Unknown	NPOC	D157-02	TCD007-19	0A-123456	C:\Program	1.00	NPOC:0.7809 mg/L	PH<2
20	Unknown	NPOC	D157-04	TCD007-20	0A-123456	C:\Program	1.00	NPOC:0.8044 mg/L	PH<2
21	Unknown	NPOC	D157-05	TCD007-21	0A-123456	C:\Program	1.00	NPOC:0.9579 mg/L	PH<2
22	Unknown	NPOC	D157-07	TCD007-22	0A-123456	C:\Program	1.00	NPOC:1.076 mg/L	PH<2
23	Unknown	NPOC	D157-08	TCD007-23	0A-123456	C:\Program	1.00	NPOC:0.8437 mg/L	PH<2
24	Unknown	NPOC	D157-09	TCD007-24	0A-123456	C:\Program	1.00	NPOC:0.9429 mg/L	PH<2
25	Unknown	NPOC	D157-11	TCD007-25	0A-123456	C:\Program	1.00	NPOC:0.8477 mg/L	PH<2
26	Control	NPOC	CCV2	TCD007-26	0A-123456	C:\Program	1.00	NPOC:25.02 mg/L	
27	Unknown	NPOC	CCB2	TCD007-26	0A-123456	C:\Program	1.00	NPOC:0.2279 mg/L	
28	Unknown	NPOC	D157-12	TCD007-28	0A-123456	C:\Program	1.00	NPOC:0.8436 mg/L	PH<2
29	Unknown	NPOC	D157-13	TCD007-29	0A-123456	C:\Program	1.00	NPOC:1.045 mg/L	PH<2
30	Unknown	NPOC	D157-14	TCD007-30	0A-123456	C:\Program	1.00	NPOC:1.124 mg/L	PH<2
31	Unknown	NPOC	D157-16	TCD007-31	0A-123456	C:\Program	1.00	NPOC:0.7158 mg/L	PH<2
32	Unknown	NPOC	D157-17	TCD007-32	0A-123456	C:\Program	1.00	NPOC:0.8751 mg/L	PH<2
33	Unknown	NPOC	D157-17D	TCD007-33	0A-123456	C:\Program	1.00	NPOC:1.031 mg/L	PH<2
34	Unknown	NPOC	D157-17M	TCD007-34	0A-123456	C:\Program	1.00	NPOC:25.57 mg/L	PH<2
35	Unknown	NPOC	D157-17S	TCD007-35	0A-123456	C:\Program	1.00	NPOC:26.60 mg/L	PH<2
36	Unknown	NPOC	D157-19	TCD007-36	0A-123456	C:\Program	1.00	NPOC:0.9125 mg/L	PH<2
37	Control	NPOC	CCV3	TCD007-37	0A-123456	C:\Program	1.00	NPOC:25.05 mg/L	
38	Unknown	NPOC	CCB3	TCD007-38	0A-123456	C:\Program	1.00	NPOC:0.2647 mg/L	
39	Unknown	NPOC	TCD008WB	TCD007-39	0A-123456	C:\Program	1.00	NPOC:0.3514 mg/L	
40	Unknown	NPOC	TCD008WL	TCD007-40	0A-123456	C:\Program	1.00	NPOC:25.21 mg/L	
41	Unknown	NPOC	TCD008WC	TCD007-41	0A-123456	C:\Program	1.00	NPOC:25.11 mg/L	
42	Unknown	NPOC	D142-01	TCD007-42	0A-123456	C:\Program	1.00	NPOC:0.7958 mg/L	PH<2
43	Unknown	NPOC	D142-02	TCD007-43	0A-123456	C:\Program	1.00	NPOC:0.8596 mg/L	PH<2
44	Unknown	NPOC	D142-03	TCD007-44	0A-123456	C:\Program	1.00	NPOC:1.119 mg/L	PH<2
45	Unknown	NPOC	D142-03M	TCD007-45	0A-123456	C:\Program	1.00	NPOC:26.46 mg/L	PH<2
46	Unknown	NPOC	D142-03S	TCD007-46	0A-123456	C:\Program	1.00	NPOC:25.99 mg/L	PH<2
47	Unknown	NPOC	D142-05	TCD007-47	0A-123456	C:\Program	1.00	NPOC:0.8278 mg/L	PH<2
48	Unknown	NPOC	D142-07	TCD007-48	0A-123456	C:\Program	1.00	NPOC:0.9788 mg/L	PH<2
49	Control	NPOC	CCV4	TCD007-49	0A-123456	C:\Program	1.00	NPOC:25.01 mg/L	
50	Unknown	NPOC	CCB4	TCD007-50	0A-123456	C:\Program	1.00	NPOC:0.3597 mg/L	
51	Unknown	NPOC	D142-09	TCD007-51	0A-123456	C:\Program	1.00	NPOC:0.9359 mg/L	PH<2
52	Unknown	NPOC	D156-01	TCD007-52	0A-123456	C:\Program	1.00	NPOC:1.064 mg/L	PH<2
53	Unknown	NPOC	D156-02	TCD007-53	0A-123456	C:\Program	1.00	NPOC:0.7813 mg/L	PH<2
54	Unknown	NPOC	D156-03	TCD007-54	0A-123456	C:\Program	1.00	NPOC:2.280 mg/L	PH<2
55	Unknown	NPOC	D156-05	TCD007-55	0A-123456	C:\Program	1.00	NPOC:0.8798 mg/L	PH<2
56	Unknown	NPOC	D156-06	TCD007-56	0A-123456	C:\Program	1.00	NPOC:0.4998 mg/L	PH<2
57	Unknown	NPOC	D156-07	TCD007-57	0A-123456	C:\Program	1.00	NPOC:0.8455 mg/L	PH<2
58	Unknown	NPOC	D156-08	TCD007-58	0A-123456	C:\Program	1.00	NPOC:0.7843 mg/L	PH<2
59	Unknown	NPOC	D156-10	TCD007-59	0A-123456	C:\Program	1.00	NPOC:0.9678 mg/L	PH<2
60	Unknown	NPOC	D156-11	TCD007-60	0A-123456	C:\Program	1.00	NPOC:1.129 mg/L	PH<2
61	Control	NPOC	CCV5	TCD007-61	0A-123456	C:\Program	1.00	NPOC:25.13 mg/L	
62	Unknown	NPOC	CCB5	TCD007-62	0A-123456	C:\Program	1.00	NPOC:0.2819 mg/L	
63	Unknown	NPOC	D144-01	TCD007-63	0A-123456	C:\Program	1.00	NPOC:3.471 mg/L	PH<2
64	Unknown	NPOC	D144-03	TCD007-64	0A-123456	C:\Program	1.00	NPOC:3.960 mg/L	PH<2
65	Unknown	NPOC	D144-04	TCD007-65	0A-123456	C:\Program	1.00	NPOC:3.541 mg/L	PH<2
66	Unknown	NPOC	D144-04D	TCD007-66	0A-123456	C:\Program	1.00	NPOC:3.515 mg/L	PH<2
67	Unknown	NPOC	D144-04M	TCD007-67	0A-123456	C:\Program	1.00	NPOC:28.67 mg/L	PH<2

FINAL

Kmc 4/28/2015 1/2

04/27/15 11:41:23 AM

	Type	Analysis	Sample Na	Sample ID	ObjectID	Origin	Diluti	Result	Comment
68	Unknown	NPOC	D583-01	TCD007-68	0A-123456-	C:\Program	20.0	NPOC:360.3 mg/L	PH<2; DF=20
69	Unknown	NPOC	TCD009WL	TCD007-69	0A-123456-	C:\Program	1.00	NPOC:25.43 mg/L	
70	Unknown	NPOC	TCD009WC	TCD007-70	0A-123456-	C:\Program	1.00	NPOC:25.30 mg/L	
71	Unknown	NPOC	TCD009WB	TCD007-71	0A-123456-	C:\Program	1.00	NPOC:0.04007 mg/L	
72	Control	NPOC	CCV6	TCD007-72	0A-123456-	C:\Program	1.00	NPOC:25.22 mg/L	
73	Unknown	NPOC	CCB6	TCD007-73	0A-123456-	C:\Program	1.00	NPOC:0.3420 mg/L	
74	Unknown	NPOC	D160-01	TCD007-74	0A-123456-	C:\Program	1.00	NPOC:3.695 mg/L	PH<2
75	Unknown	NPOC	D160-03	TCD007-75	0A-123456-	C:\Program	1.00	NPOC:2.970 mg/L	PH<2
76	Unknown	NPOC	D160-04	TCD007-76	0A-123456-	C:\Program	1.00	NPOC:4.159 mg/L	PH<2
77	Unknown	NPOC	D160-04D	TCD007-77	0A-123456-	C:\Program	1.00	NPOC:4.048 mg/L	PH<2
78	Unknown	NPOC	D160-04M	TCD007-78	0A-123456-	C:\Program	1.00	NPOC:29.06 mg/L	PH<2
79	Unknown	NPOC	D169-01	TCD007-79	0A-123456-	C:\Program	1.00	NPOC:13.57 mg/L	PH<2
80	Unknown	NPOC	D169-02	TCD007-80	0A-123456-	C:\Program	1.00	NPOC:13.68 mg/L	PH<2
81	Unknown	NPOC	D169-04	TCD007-81	0A-123456-	C:\Program	1.00	NPOC:9.378 mg/L	PH<2
82	Unknown	NPOC	D169-05	TCD007-82	0A-123456-	C:\Program	1.00	NPOC:3.819 mg/L	PH<2
83	Unknown	NPOC	D584-01I	TCD007-83	0A-123456-	C:\Program	5.00	NPOC:37.02 mg/L	PH<2; DF=5
84	Control	NPOC	CCV7	TCD007-84	0A-123456-	C:\Program	1.00	NPOC:25.26 mg/L	
85	Unknown	NPOC	CCB7	TCD007-85	0A-123456-	C:\Program	1.00	NPOC:0.2665 mg/L	FINAL

KM 4/27/15

Instr.Information

System	toc
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

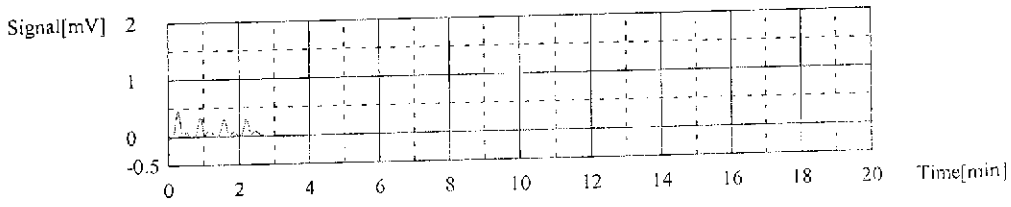
Sample Name:	ICAL
Sample ID:	TCD007-01
Cal. Curve:	TCD007.2015_04_24_19_28_16.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4775	50uL	1	*******		04/24/15 07:35:31 PM
2	0.3938	50uL	1	*******		04/24/15 07:36:23 PM
3	0.2484	50uL	1	*******		04/24/15 07:37:13 PM
4	0.000	50uL	1	*******		04/24/15 07:39:19 PM

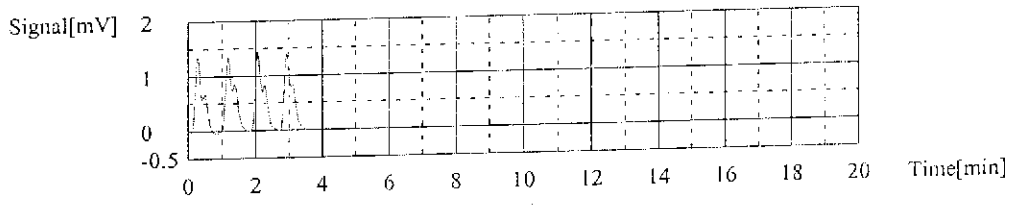
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 0.2799



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.201	50uL	1	*******		04/24/15 07:46:42 PM
2	2.424	50uL	1	*******		04/24/15 07:47:47 PM
3	2.393	50uL	1	*******		04/24/15 07:48:51 PM
4	2.336	50uL	1	*******		04/24/15 07:49:55 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 2.339

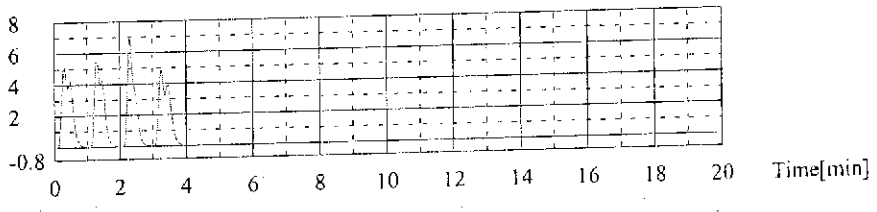


Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.64	50uL	1	*******		04/24/15 07:57:25 PM
2	10.63	50uL	1	*******		04/24/15 07:58:37 PM
3	10.81	50uL	1	*******		04/24/15 07:59:46 PM
4	10.68	50uL	1	*******		04/24/15 08:01:01 PM

8078

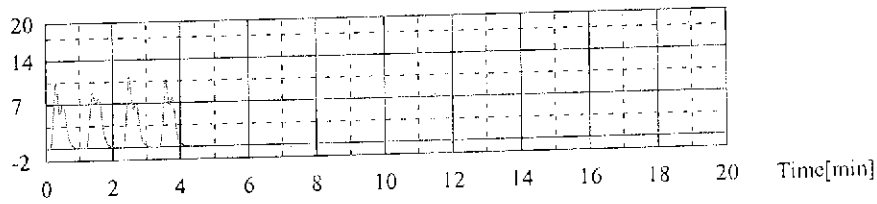
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 10.69



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.25	50uL	1	*******		04/24/15 08:08:38 PM
2	20.26	50uL	1	*******		04/24/15 08:09:56 PM
3	20.78	50uL	1	*******		04/24/15 08:11:13 PM
4	20.41	50uL	1	*******		04/24/15 08:12:30 PM

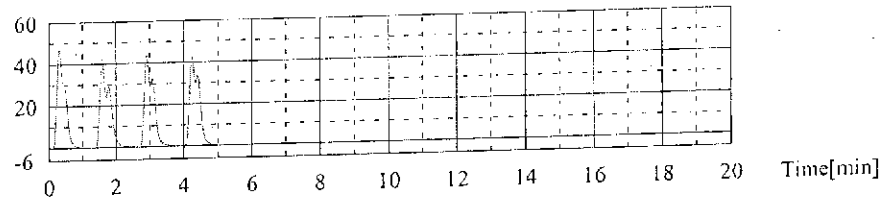
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 20.43



Conc: 40.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	80.23	50uL	1	*******		04/24/15 08:20:21 PM
2	81.60	50uL	1	*******		04/24/15 08:21:52 PM
3	82.18	50uL	1	*******		04/24/15 08:23:24 PM
4	80.45	50uL	1	*******		04/24/15 08:24:49 PM

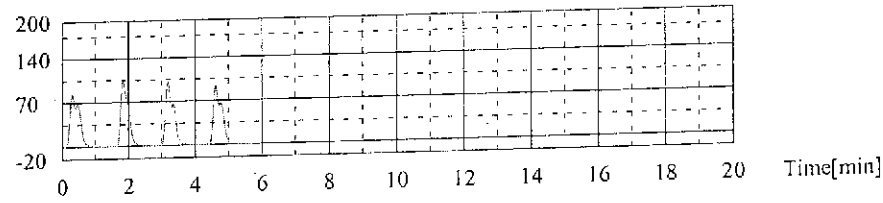
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 81.12



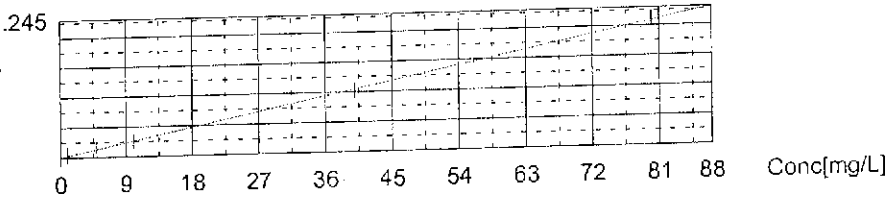
Conc: 80.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	166.2	50uL	1	*******		04/24/15 08:32:55 PM
2	169.3	50uL	1	*******		04/24/15 08:34:28 PM
3	170.7	50uL	1	*******		04/24/15 08:36:05 PM
4	167.6	50uL	1	*******		04/24/15 08:37:43 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 168.5



Slope: 2.094
Intercept 0.000
r^2 0.999641



8079

Control Sample

Sample Name: ICV
Sample ID: TCD007-02
Method: Tcd007.tpl
Chk. Result Control value: 24.61 / Control exceeds range!

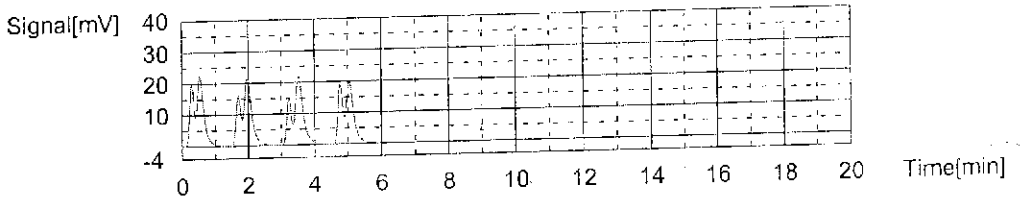
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.61 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.13	24.42mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:45:48 PM
2	51.64	24.66mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:47:31 PM
3	51.74	24.71mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:49:15 PM
4	51.57	24.63mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:50:58 PM

Mean Area 51.52
Mean Conc. 24.61mg/L



Sample

Sample Name: ICB
Sample ID: TCD007-03
Origin: TCD007.cal
Chk. Result

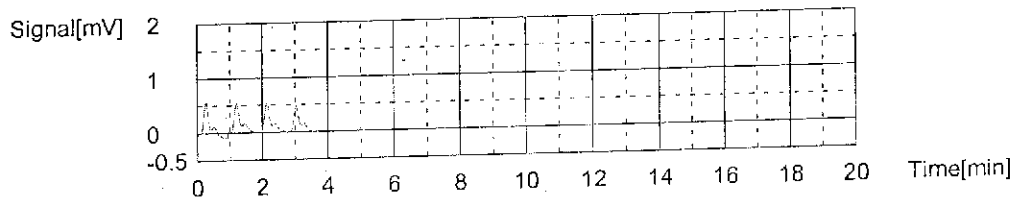
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3522 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7984	0.3813mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:56:19 PM
2	0.7375	0.3522mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:57:27 PM
3	0.7759	0.3706mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:58:33 PM
4	0.6374	0.3044mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:59:40 PM

Mean Area 0.7373
Mean Conc. 0.3522mg/L



8080

Sample

Sample Name: HCO3/CO3
Sample ID: TCD007-04
Origin: TCD007.cal
Chk. Result

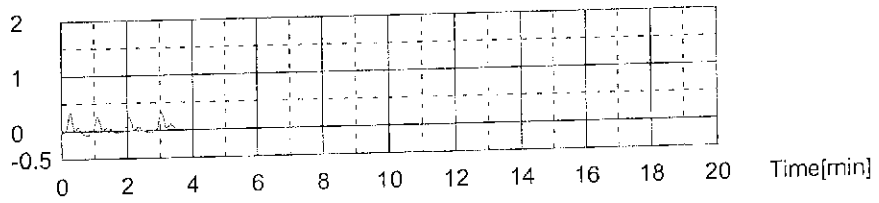
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1948 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4390	0.2097mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:07:02 PM
2	0.3306	0.1579mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:08:11 PM
3	0.3917	0.1871mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:09:22 PM
4	0.4703	0.2246mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:10:32 PM

Mean Area 0.4079
Mean Conc. 0.1948mg/L



Sample

Sample Name: TCD007WB
Sample ID: TCD007-05
Origin: TCD007.cal
Chk. Result

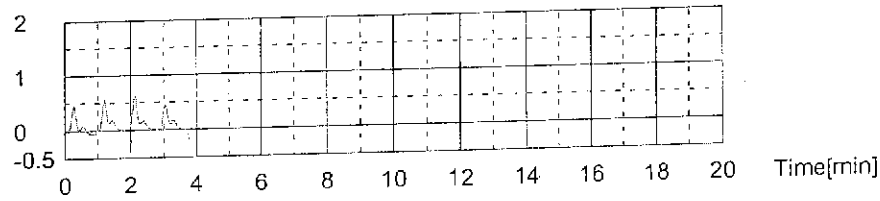
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3386 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6043	0.2886mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:15:53 PM
2	0.7823	0.3736mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:17:00 PM
3	0.8211	0.3922mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:18:08 PM
4	0.6284	0.3001mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:19:15 PM

Mean Area 0.7090
Mean Conc. 0.3386mg/L



Sample

8081

Sample Name: TCD007WL
Sample ID: TCD007-06
Origin: TCD007.cal
Chk. Result

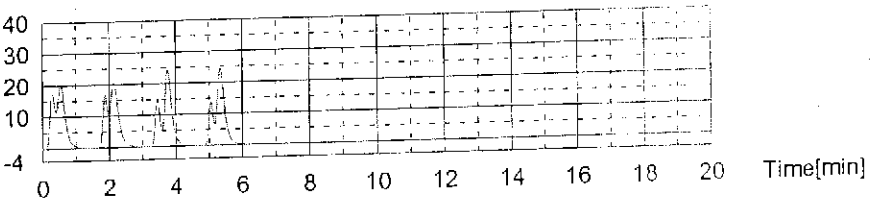
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.94 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.95	24.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:27:19 PM
2	52.32	24.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:29:05 PM
3	52.58	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:30:54 PM
4	52.05	24.86mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:32:36 PM

Mean Area 52.23
Mean Conc. 24.94mg/L



Sample

Sample Name: TCD007WC
Sample ID: TCD007-07
Origin: TCD007.cal
Chk. Result

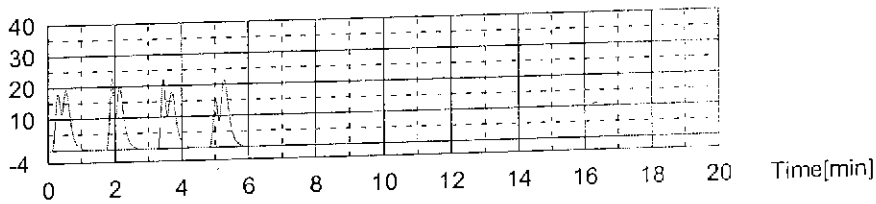
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.84 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.78	24.25mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:40:42 PM
2	52.46	25.06mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:42:26 PM
3	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:44:12 PM
4	52.09	24.88mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:45:59 PM

Mean Area 52.02
Mean Conc. 24.84mg/L



Sample

Sample Name: D571-01
Sample ID: TCD007-08
Origin: TCD007.cal
Chk. Result

KLinn 04/27/15 11:29:35 AM

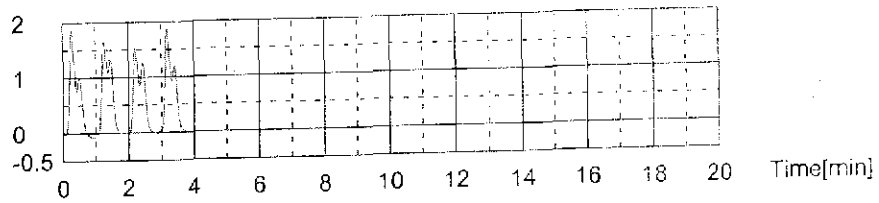
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.513 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.143	1.501mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:53:27 PM
2	3.153	1.506mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:54:36 PM
3	3.097	1.479mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:55:46 PM
4	3.282	1.568mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:56:56 PM

Mean Area 3.169
Mean Conc. 1.513mg/L



Sample

Sample Name: D571-02
Sample ID: TCD007-09
Origin: TCD007.cal
Chk. Result

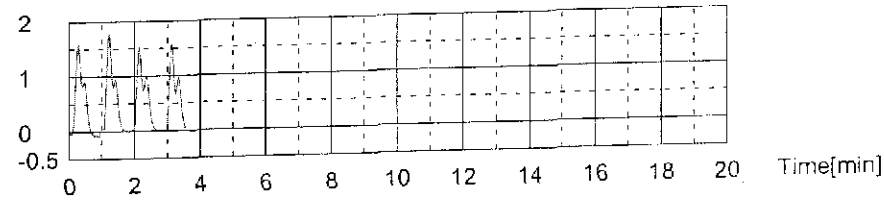
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.314 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.769	1.323mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:04:22 PM
2	2.768	1.322mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:05:29 PM
3	2.781	1.328mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:06:40 PM
4	2.687	1.283mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:07:51 PM

Mean Area 2.751
Mean Conc. 1.314mg/L



Sample

Sample Name: D571-03
Sample ID: TCD007-10
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.560 mg/L

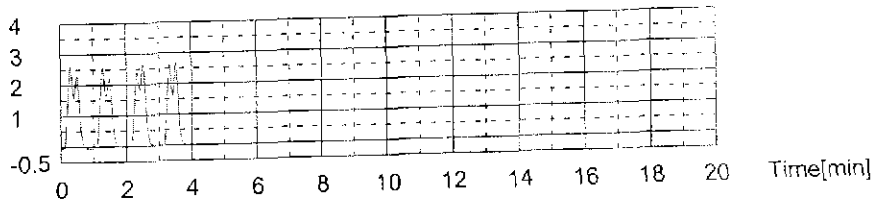
8083

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.367	2.563mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:15:19 PM
2	5.386	2.572mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:16:34 PM
3	5.329	2.545mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:17:46 PM
4	5.356	2.558mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:18:57 PM

Mean Area 5.360
Mean Conc. 2.560mg/L



Sample

Sample Name: D571-03D
Sample ID: TCD007-11
Origin: TCD007.cal
Chk. Result

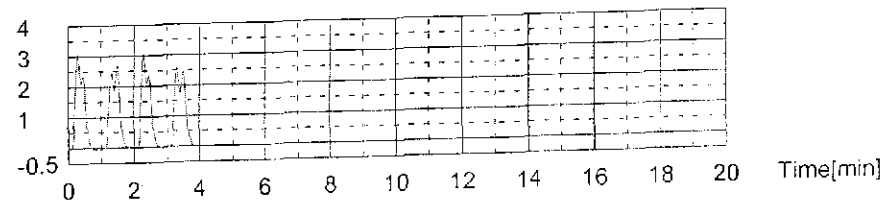
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.625 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.539	2.646mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:26:27 PM
2	5.409	2.583mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:27:38 PM
3	5.534	2.643mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:28:51 PM
4	5.499	2.626mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:30:02 PM

Mean Area 5.495
Mean Conc. 2.625mg/L



Sample

Sample Name: D571-03M
Sample ID: TCD007-12
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.63 mg/L

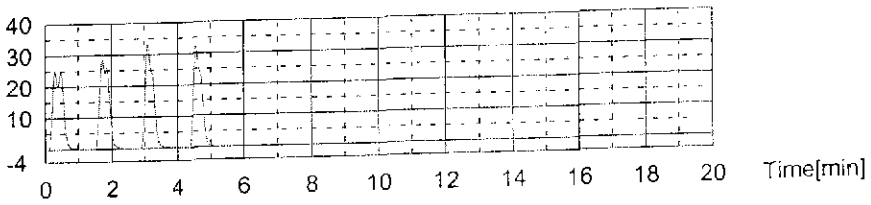
1. Det

Anal.: NPOC

8084

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.10	26.32mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:37:55 PM
2	55.57	26.54mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:39:30 PM
3	56.13	26.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:41:10 PM
4	56.23	26.86mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:42:45 PM

Mean Area 55.76
Mean Conc. 26.63mg/L



Sample

Sample Name: D133-01
Sample ID: TCD007-13
Origin: TCD007.cal
Chk. Result

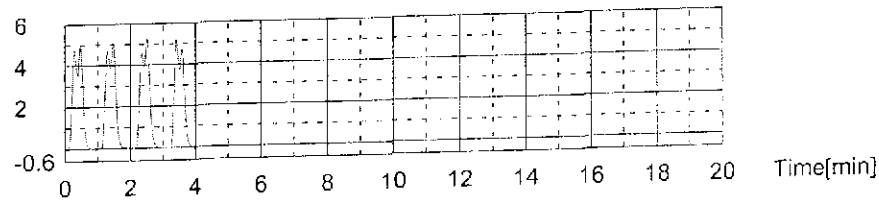
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.851 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.19	4.867mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:50:14 PM
2	10.09	4.819mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:51:29 PM
3	10.12	4.834mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:52:45 PM
4	10.23	4.886mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:54:01 PM

Mean Area 10.16
Mean Conc. 4.851mg/L



Control Sample

Sample Name: CCV1
Sample ID: TCD007-14
Method: Tcd007.tpl
Chk. Result Control value: 24.92 / Control exceeds range!

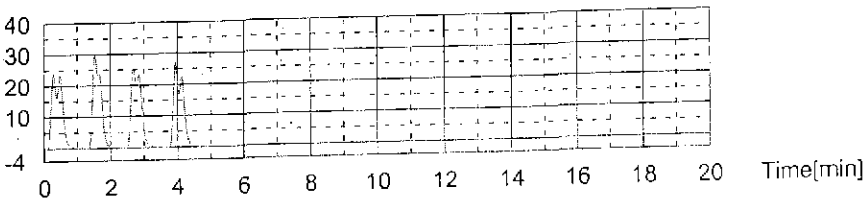
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.92 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.42	24.56mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:01:44 PM
2	52.38	25.02mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:03:05 PM
3	52.91	25.27mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:04:33 PM
4	51.98	24.83mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:06:02 PM

Mean Area 52.17
Mean Conc. 24.92mg/L



Sample

Sample Name: CCB1
Sample ID: TCD007-15
Origin: TCD007.cal
Chk. Result

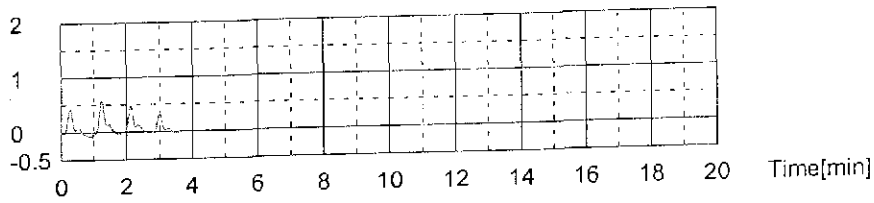
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2970 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6377	0.3046mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:20:05 PM
2	0.7823	0.3736mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:21:10 PM
3	0.6482	0.3096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:22:15 PM
4	0.4194	0.2003mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:23:18 PM

Mean Area 0.6219
Mean Conc. 0.2970mg/L



Sample

Sample Name: 0133-03
Sample ID: TCD007-16
Origin: TCD007.cal
Chk. Result

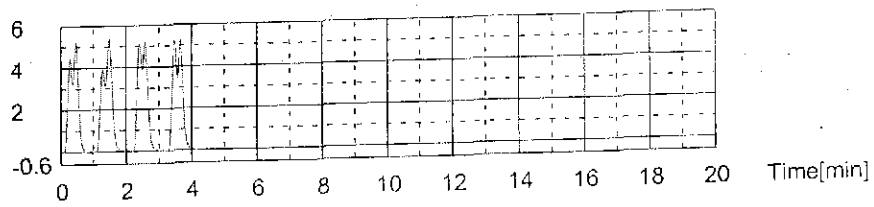
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.959 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.850	4.705mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:30:48 PM
2	10.45	4.991mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:32:07 PM
3	10.63	5.077mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:33:23 PM
4	10.60	5.063mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:34:35 PM

Mean Area 10.38
Mean Conc. 4.959mg/L



Sample

Sample Name: D133-04
Sample ID: TCD007-17
Origin: TCD007.cal
Chk. Result

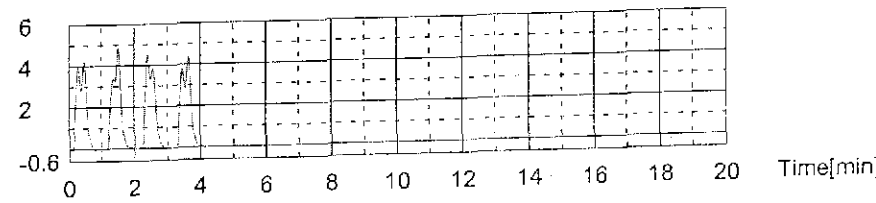
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.102 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.674	4.143mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:42:07 PM
2	8.573	4.095mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:43:23 PM
3	8.508	4.064mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:44:38 PM
4	8.597	4.106mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:45:51 PM

Mean Area 8.588
Mean Conc. 4.102mg/L



Sample

Sample Name: D157-01
Sample ID: TCD007-18
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9586 mg/L

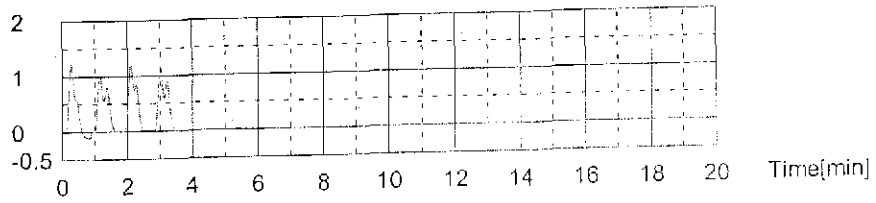
1. Det

Anal.: NPOC

8087

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.8912mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:53:13 PM
2	1.917	0.9156mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:54:21 PM
3	2.120	1.013mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:55:28 PM
4	2.125	1.015mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:56:35 PM

Mean Area 2.007
Mean Conc. 0.9586mg/L



Sample

Sample Name: D157-02
Sample ID: TCD007-19
Origin: TCD007.cal
Chk. Result

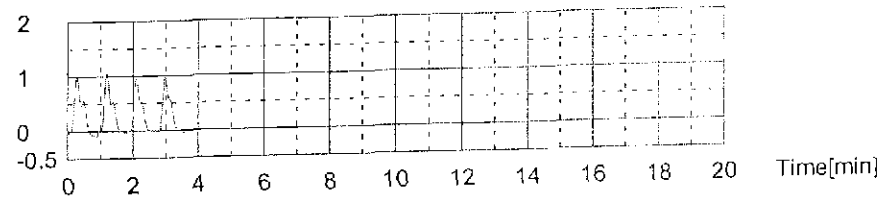
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7809 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.813	0.8659mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:04:00 AM
2	1.660	0.7929mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:05:06 AM
3	1.498	0.7155mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:06:11 AM
4	1.569	0.7494mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:07:15 AM

Mean Area 1.635
Mean Conc. 0.7809mg/L



Sample

Sample Name: D157-04
Sample ID: TCD007-20
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8044 mg/L

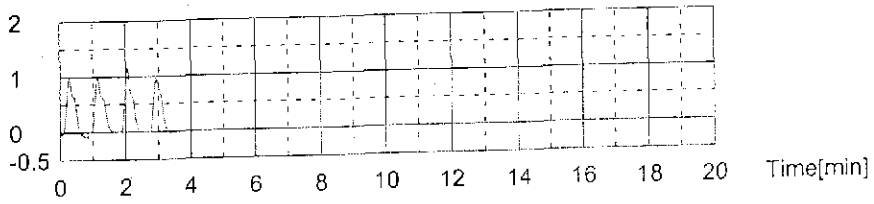
1. Det

Anal.: NPOC

8088

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.658	0.7919mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:14:36 AM
2	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:15:42 AM
3	1.788	0.8540mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:16:47 AM
4	1.582	0.7556mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:17:49 AM

Mean Area 1.684
Mean Conc. 0.8044mg/L



Sample

Sample Name: D157-05
Sample ID: TCD007-21
Origin: TCD007.cal
Chk. Result

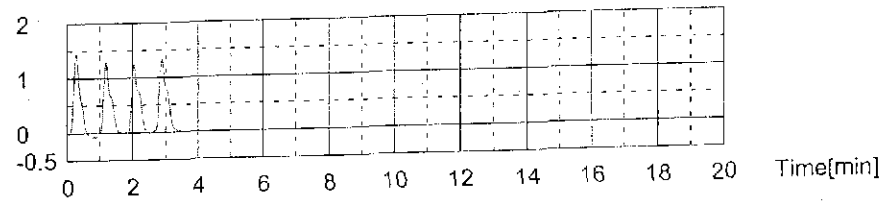
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9579 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.077	0.9920mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:25:14 AM
2	1.937	0.9252mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:26:17 AM
3	1.958	0.9352mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:27:20 AM
4	2.050	0.9791mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:28:24 AM

Mean Area 2.006
Mean Conc. 0.9579mg/L



Sample

Sample Name: D157-07
Sample ID: TCD007-22
Origin: TCD007.cal
Chk. Result

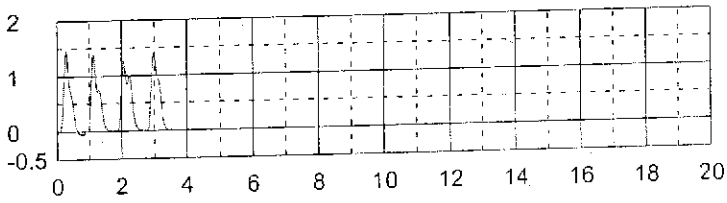
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.076 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.109	1.007mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:35:45 AM
2	2.189	1.046mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:36:53 AM
3	2.418	1.155mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:38:00 AM
4	2.294	1.096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:39:03 AM

Mean Area 2.252
Mean Conc. 1.076mg/L



Sample

Sample Name: D157-08
Sample ID: TCD007-23
Origin: TCD007.cal
Chk. Result

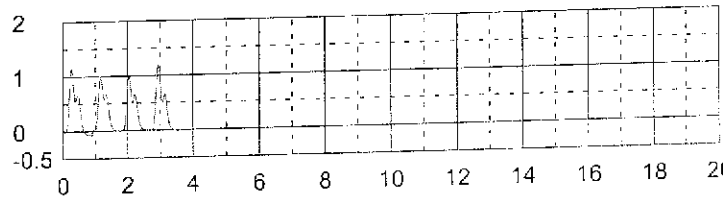
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8437 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.892	0.9037mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:46:27 AM
2	1.639	0.7828mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:47:31 AM
3	1.690	0.8072mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:48:37 AM
4	1.845	0.8812mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:49:44 AM

Mean Area 1.767
Mean Conc. 0.8437mg/L



Sample

Sample Name: D157-09
Sample ID: TCD007-24
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9429 mg/L

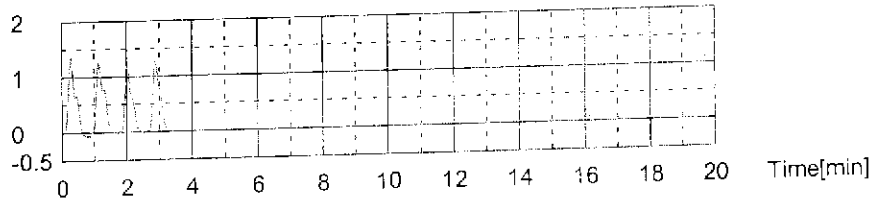
1. Det

Anal.: NPOC

8090

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.071	0.9892mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:57:06 AM
2	2.087	0.9968mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:58:10 AM
3	1.832	0.8750mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:59:14 AM
4	1.907	0.9108mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:00:15 AM

Mean Area 1.974
Mean Conc. 0.9429mg/L



Sample

Sample Name: D157-11
Sample ID: TCD007-25
Origin: TCD007.cal
Chk. Result

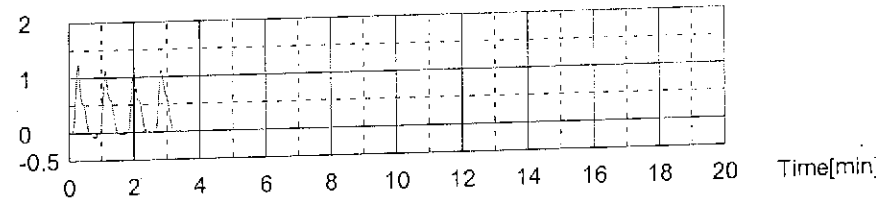
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8477 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.769	0.8449mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:07:36 AM
2	1.753	0.8373mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:08:39 AM
3	1.806	0.8626mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:09:42 AM
4	1.771	0.8459mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:10:45 AM

Mean Area 1.775
Mean Conc. 0.8477mg/L



Control Sample

Sample Name: CCV2
Sample ID: TCD007-26
Method: Tcd007.tpl
Chk. Result Control value: 25.02 / Control exceeds range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.02 mg/L

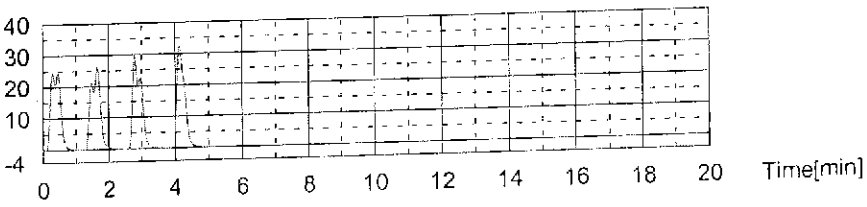
1. Det.

Anal.: NPOC

8091

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.56	24.63mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:18:26 AM
2	51.91	24.79mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:19:57 AM
3	53.32	25.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:21:28 AM
4	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:22:52 AM

Mean Area 52.38
Mean Conc. 25.02mg/L



Sample

Sample Name: CCB2
Sample ID: TCD007-26
Origin: TCD007.cal
Chk. Result

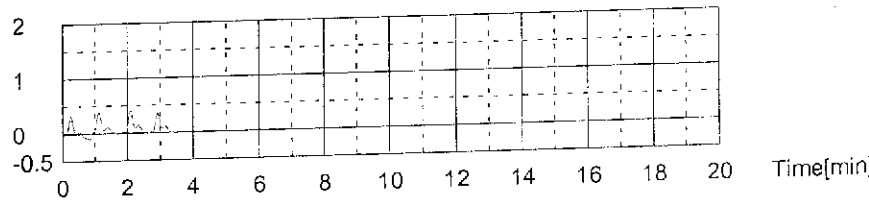
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2279 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4848	0.2316mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:28:10 AM
2	0.4695	0.2242mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:29:20 AM
3	0.5136	0.2453mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:30:22 AM
4	0.4410	0.2106mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:31:23 AM

Mean Area 0.4772
Mean Conc. 0.2279mg/L



Sample

Sample Name: D157-12
Sample ID: TCD007-28
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8436 mg/L

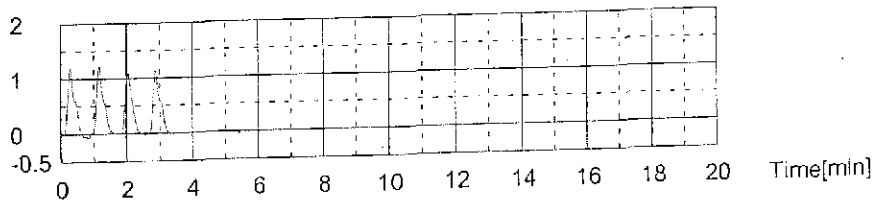
1. Det

Anal.: NPOC

8092

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.8912mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:47:23 AM
2	1.787	0.8535mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:48:27 AM
3	1.692	0.8081mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:49:29 AM
4	1.720	0.8215mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:50:33 AM

Mean Area 1.766
Mean Conc. 0.8436mg/L



Sample

Sample Name: D157-13
Sample ID: TCD007-29
Origin: TCD007.cal
Chk. Result

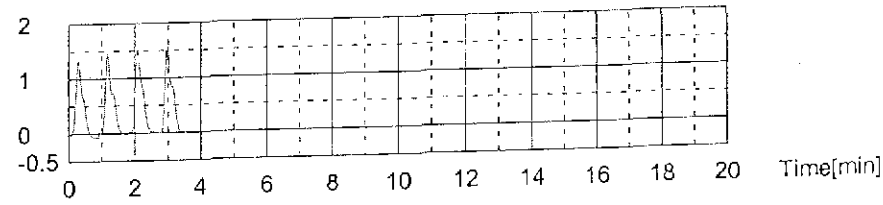
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.045 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.012	0.9610mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:57:57 AM
2	2.127	1.016mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:59:03 AM
3	2.260	1.079mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:00:08 AM
4	2.350	1.122mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:01:12 AM

Mean Area 2.187
Mean Conc. 1.045mg/L



Sample

Sample Name: D157-14
Sample ID: TCD007-30
Origin: TCD007.cal
Chk. Result

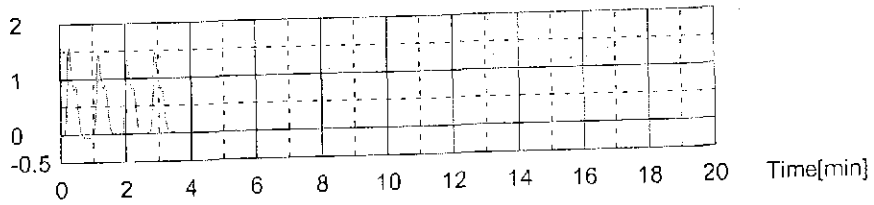
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.124 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.573	1.229mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:08:36 AM
2	2.362	1.128mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:09:41 AM
3	2.167	1.035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:10:43 AM
4	2.311	1.104mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:11:51 AM

Mean Area 2.353
Mean Conc. 1.124mg/L



Sample

Sample Name: D157-16
Sample ID: TCD007-31
Origin: TCD007.cal
Chk. Result

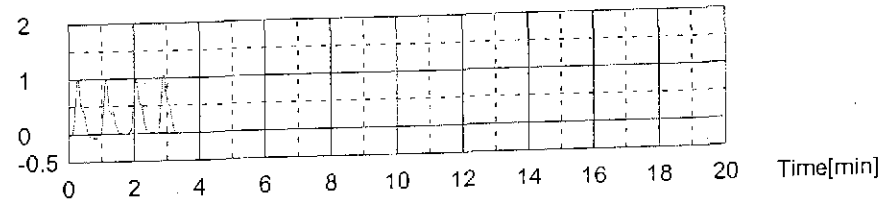
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7158 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.473	0.7035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:19:14 AM
2	1.423	0.6797mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:20:20 AM
3	1.531	0.7312mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:21:22 AM
4	1.568	0.7489mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:22:24 AM

Mean Area 1.499
Mean Conc. 0.7158mg/L



Sample

Sample Name: D157-17
Sample ID: TCD007-32
Origin: TCD007.cal
Chk. Result

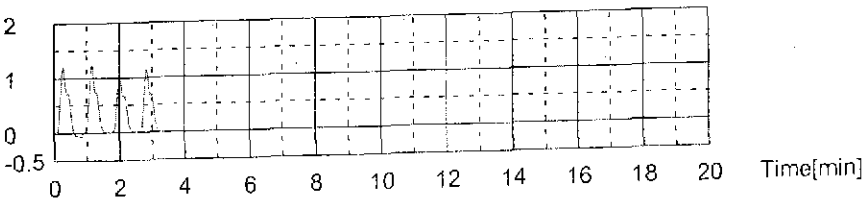
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8751 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.026	0.9677mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:29:48 AM
2	1.877	0.8965mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:30:50 AM
3	1.669	0.7972mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:31:52 AM
4	1.757	0.8392mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:32:54 AM

Mean Area 1.832
Mean Conc. 0.8751mg/L



Sample

Sample Name: D157-17D
Sample ID: TCD007-33
Origin: TCD007.cal
Chk. Result

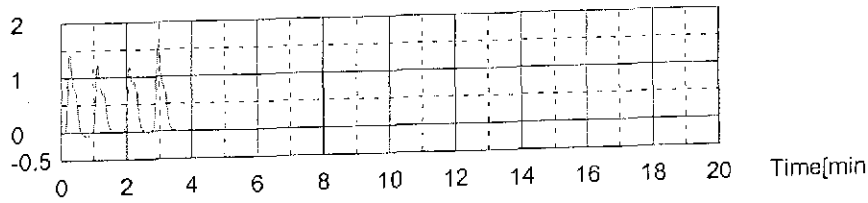
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.031 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.108	1.007mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:40:16 AM
2	1.981	0.9462mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:41:25 AM
3	2.168	1.035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:42:30 AM
4	2.377	1.135mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:43:36 AM

Mean Area 2.159
Mean Conc. 1.031mg/L



Sample

Sample Name: D157-17M
Sample ID: TCD007-34
Origin: TCD007.cal
Chk. Result

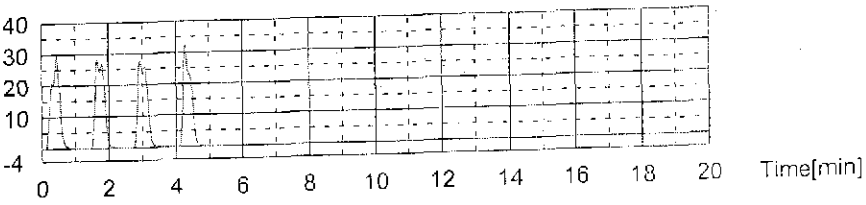
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.57 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.64	25.14mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:51:29 AM
2	53.77	25.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:52:57 AM
3	54.41	25.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:54:29 AM
4	53.32	25.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:56:05 AM

Mean Area 53.53
Mean Conc. 25.57mg/L



Sample

Sample Name: D157-17S
Sample ID: TCD007-35
Origin: TCD007.cal
Chk. Result

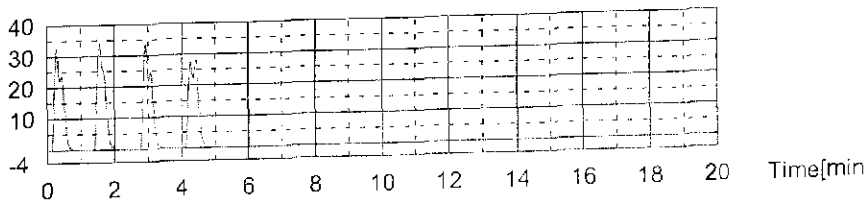
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.60 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.84	26.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:03:53 AM
2	55.85	26.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:05:27 AM
3	56.70	27.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:06:58 AM
4	55.42	26.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:08:32 AM

Mean Area 55.70
Mean Conc. 26.60mg/L



Sample

Sample Name: D157-19
Sample ID: TCD007-36
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9125 mg/L

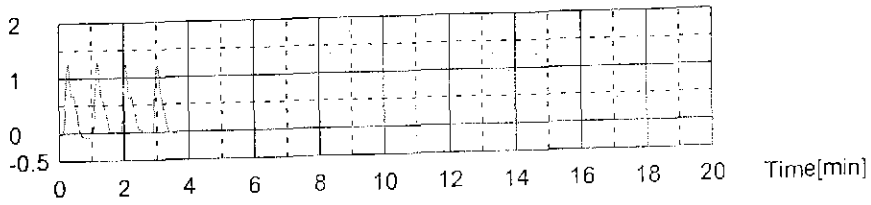
1. Det

Anal.: NPOC

8096

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.020	0.9648mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:15:58 AM
2	1.860	0.8884mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:17:02 AM
3	1.954	0.9333mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:18:11 AM
4	1.808	0.8635mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:19:16 AM

Mean Area 1.910
Mean Conc. 0.9125mg/L



Control Sample

Sample Name: CCV3
Sample ID: TCD007-37
Method: Tcd007.tpl
Chk. Result Control value: 25.05 / Control exceeds range!

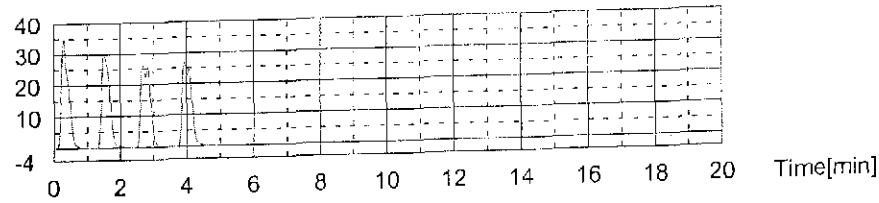
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.05 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.25	24.96mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:26:59 AM
2	52.16	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:28:21 AM
3	53.03	25.33mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:29:48 AM
4	52.39	25.02mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:31:15 AM

Mean Area 52.46
Mean Conc. 25.05mg/L



Sample

Sample Name: CCB3
Sample ID: TCD007-38
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2647 mg/L

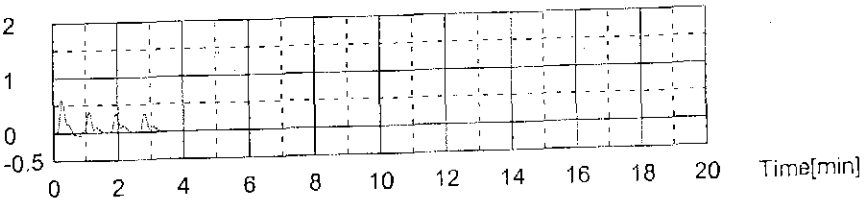
1. Det

Anal.: NPOC

8097

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8264	0.3947mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:44:59 AM
2	0.4105	0.1961mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:46:00 AM
3	0.4904	0.2342mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:47:05 AM
4	0.4896	0.2338mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:48:12 AM

Mean Area 0.5542
Mean Conc. 0.2647mg/L



Sample

Sample Name: TCD008WB
Sample ID: TCD007-39
Origin: TCD007.cal
Chk. Result

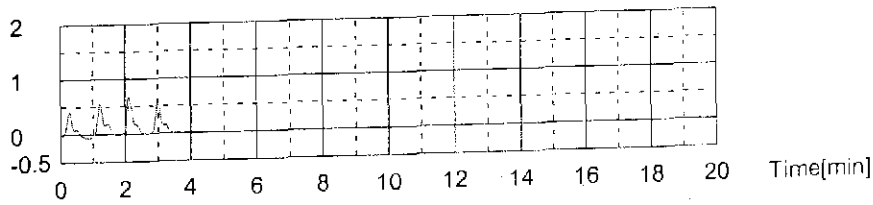
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3514 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5475	0.2615mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:53:35 AM
2	0.8049	0.3844mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:54:40 AM
3	0.8885	0.4244mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:55:45 AM
4	0.7017	0.3351mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:56:49 AM

Mean Area 0.7356
Mean Conc. 0.3514mg/L



Sample

Sample Name: TCD008WL
Sample ID: TCD007-40
Origin: TCD007.cal
Chk. Result

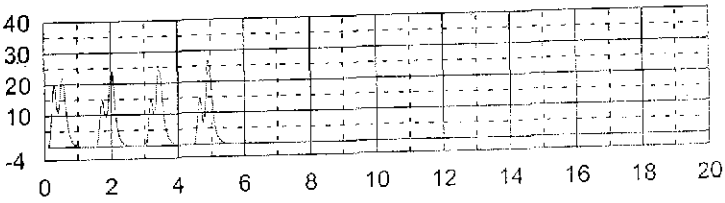
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.21 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.44	25.05mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:04:47 AM
2	52.85	25.24mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:06:26 AM
3	53.26	25.44mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:08:06 AM
4	52.54	25.09mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:09:46 AM

Mean Area 52.77
Mean Conc. 25.21mg/L



Sample

Sample Name: TCD008WC
Sample ID: TCD007-41
Origin: TCD007.cal
Chk. Result

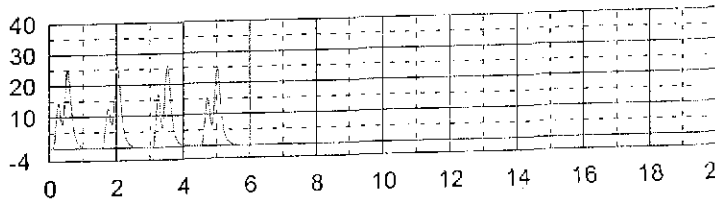
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.11 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.69	24.69mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:17:44 AM
2	52.57	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:19:26 AM
3	53.30	25.46mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:21:06 AM
4	52.75	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:22:50 AM

Mean Area 52.58
Mean Conc. 25.11mg/L



Sample

Sample Name: D142-01
Sample ID: TCD007-42
Origin: TCD007.cal
Chk. Result

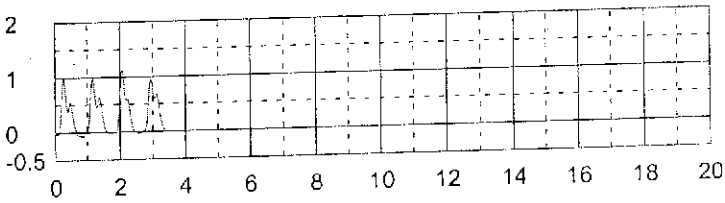
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7958 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.634	0.7804mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:30:16 AM
2	1.583	0.7561mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:31:20 AM
3	1.767	0.8440mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:32:25 AM
4	1.681	0.8029mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:33:30 AM

Mean Area 1.666
Mean Conc. 0.7958mg/L



Sample

Sample Name: D142-02
Sample ID: TCD007-43
Origin: TCD007.cal
Chk. Result

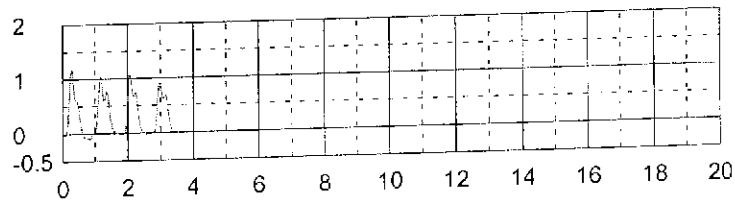
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8596 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.843	0.8803mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:40:54 AM
2	1.848	0.8826mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:41:59 AM
3	1.869	0.8927mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:43:06 AM
4	1.639	0.7828mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:44:10 AM

Mean Area 1.800
Mean Conc. 0.8596mg/L



Sample

Sample Name: D142-03
Sample ID: TCD007-44
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.119 mg/L

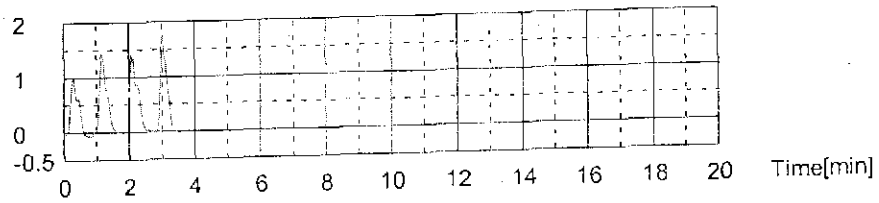
1. Det

Anal.: NPOC

8100

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.717	0.8201mg/L	50uL	1	E	TCD007.2015_04_24_19_28_16.cal	04/25/15 04:51:34 AM
2	2.184	1.043mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:52:41 AM
3	2.405	1.149mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:53:49 AM
4	2.439	1.165mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:54:52 AM

Mean Area 2.343
Mean Conc. 1.119mg/L



Sample

Sample Name: D142-03M
Sample ID: TCD007-45
Origin: TCD007.cal
Chk. Result

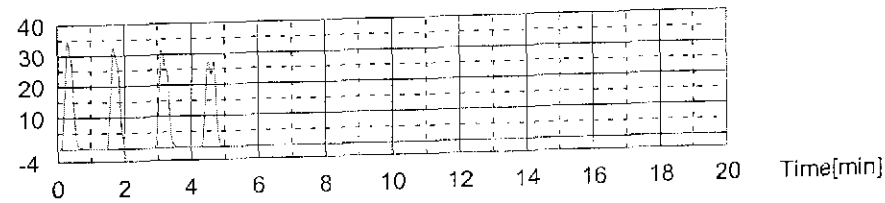
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.46 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.63	26.09mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:02:45 AM
2	55.58	26.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:04:23 AM
3	55.88	26.69mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:05:58 AM
4	55.50	26.51mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:07:33 AM

Mean Area 55.40
Mean Conc. 26.46mg/L



Sample

Sample Name: D142-03S
Sample ID: TCD007-46
Origin: TCD007.cal
Chk. Result

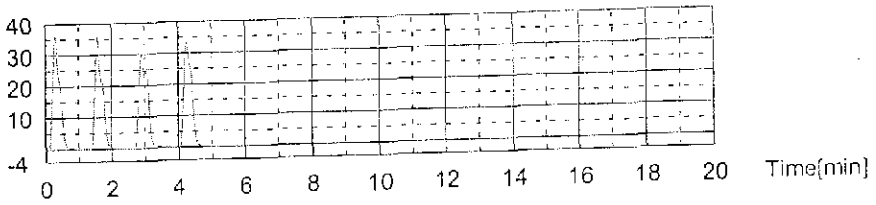
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.88	25.73mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:15:21 AM
2	54.61	26.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:16:52 AM
3	54.71	26.13mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:18:25 AM
4	54.42	25.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:19:56 AM

Mean Area 54.41
Mean Conc. 25.99mg/L



Sample

Sample Name: D142-05
Sample ID: TCD007-47
Origin: TCD007.cal
Chk. Result

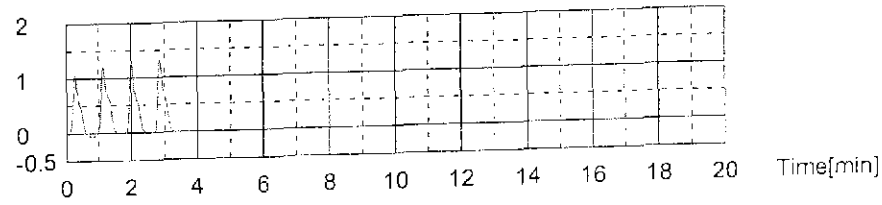
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8278 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.503	0.7179mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:27:19 AM
2	1.773	0.8468mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:28:23 AM
3	1.877	0.8965mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:29:27 AM
4	1.780	0.8502mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:30:31 AM

Mean Area 1.733
Mean Conc. 0.8278mg/L



Sample

Sample Name: D142-07
Sample ID: TCD007-48
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9783 mg/L

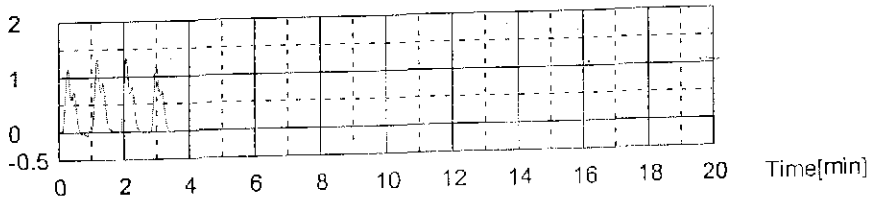
1. Det

Anal.: NPOC

8102

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.934	0.9237mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:37:56 AM
2	2.131	1.018mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:39:01 AM
3	2.182	1.042mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:40:09 AM
4	1.950	0.9314mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:41:12 AM

Mean Area 2.049
Mean Conc. 0.9788mg/L



Control Sample

Sample Name: CCV4
Sample ID: TCD007-49
Method: Tcd007.tpl
Chk. Result Control value: 25.01 / Control exceeds range!

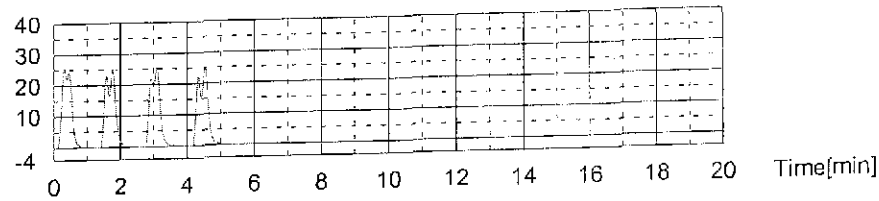
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.01 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.64	24.66mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:49:00 AM
2	52.50	25.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:50:33 AM
3	52.79	25.21mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:52:10 AM
4	52.56	25.10mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:53:40 AM

Mean Area 52.37
Mean Conc. 25.01mg/L



Sample

Sample Name: CCB4
Sample ID: TCD007-50
Origin: TCD007.cal
Chk. Result

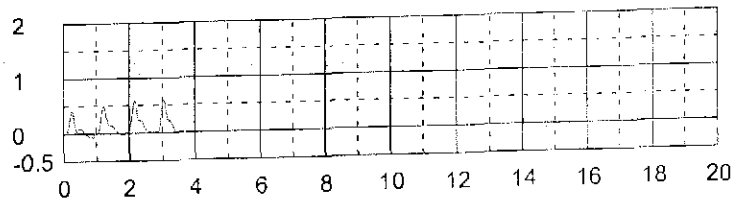
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3597 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5809	0.2775mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:59:03 AM
2	0.7566	0.3614mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:00:11 AM
3	0.8274	0.3952mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:01:16 AM
4	0.8476	0.4048mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:02:24 AM

Mean Area 0.7531
Mean Conc. 0.3597mg/L



Sample

Sample Name: D142-09
Sample ID: TCD007-51
Origin: TCD007.cal
Chk. Result

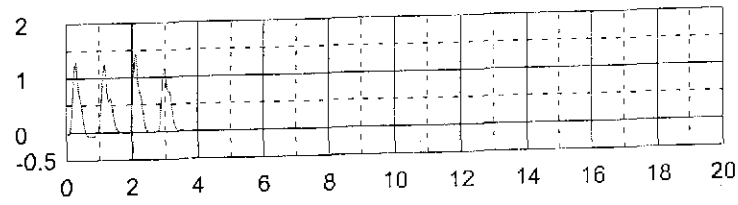
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9359 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.945	0.9290mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:18:27 AM
2	1.910	0.9123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:19:35 AM
3	2.062	0.9849mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:20:39 AM
4	1.921	0.9175mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:21:43 AM

Mean Area 1.960
Mean Conc. 0.9359mg/L



Sample

Sample Name: D156-01
Sample ID: TCD007-52
Origin: TCD007.cal
Chk. Result

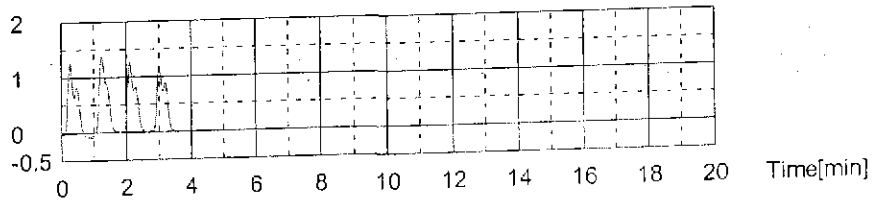
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.064 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.339	1.117mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:29:12 AM
2	2.304	1.100mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:30:16 AM
3	2.144	1.024mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:31:22 AM
4	2.123	1.014mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:32:28 AM

Mean Area 2.228
Mean Conc. 1.064mg/L



Sample

Sample Name: D156-02
Sample ID: TCD007-53
Origin: TCD007.cal
Chk. Result

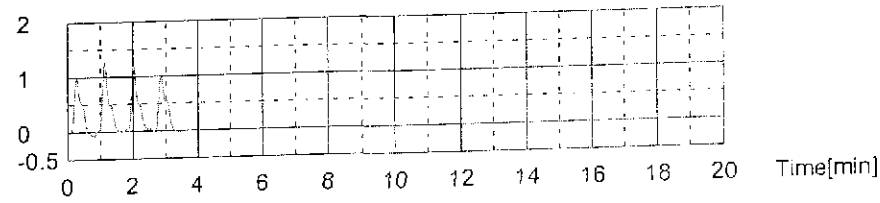
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7813 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.603	0.7656mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:39:51 AM
2	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:40:56 AM
3	1.620	0.7738mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:41:58 AM
4	1.611	0.7695mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:43:02 AM

Mean Area 1.636
Mean Conc. 0.7813mg/L



Sample

Sample Name: 0156-03
Sample ID: TCD007-54
Origin: TCD007.cal
Chk. Result

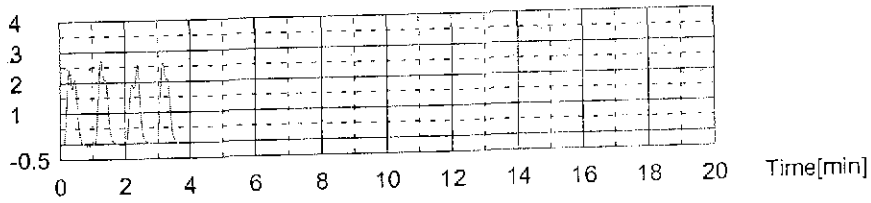
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.280 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.717	2.253mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:50:31 AM
2	4.781	2.284mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:51:40 AM
3	4.695	2.242mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:52:48 AM
4	4.898	2.339mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:53:57 AM

Mean Area 4.773
Mean Conc. 2.280mg/L



Sample

Sample Name: D156-05
Sample ID: TCD007-55
Origin: TCD007.cal
Chk. Result

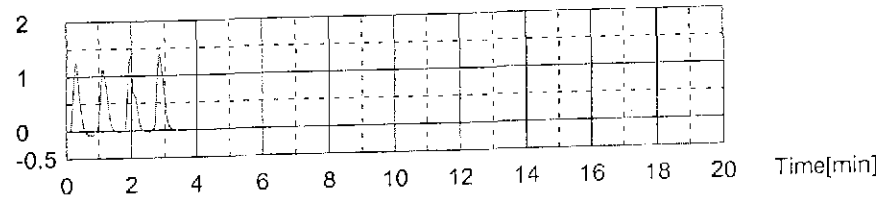
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8798 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:01:18 AM
2	1.688	0.8062mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:02:20 AM
3	1.943	0.9280mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:03:25 AM
4	2.028	0.9686mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:04:26 AM

Mean Area 1.842
Mean Conc. 0.8798mg/L



Sample

Sample Name: D156-06
Sample ID: TCD007-56
Origin: TCD007.cal
Chk. Result

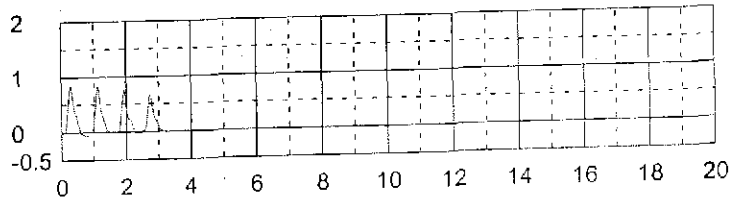
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4998 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.216	0.5808mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:11:47 AM
2	1.067	0.5096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:12:48 AM
3	1.021	0.4877mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:13:49 AM
4	0.8820	0.4213mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:14:52 AM

Mean Area 1.047
Mean Conc. 0.4998mg/L



Sample

Sample Name: D156-07
Sample ID: TCD007-57
Origin: TCD007.cal
Chk. Result

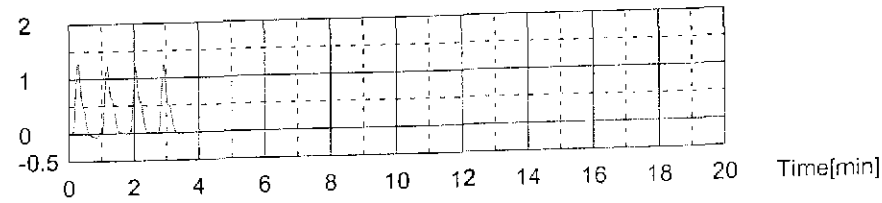
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8455 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.825	0.8717mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:22:18 AM
2	1.801	0.8602mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:23:22 AM
3	1.716	0.8196mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:24:27 AM
4	1.739	0.8306mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:25:31 AM

Mean Area 1.770
Mean Conc. 0.8455mg/L



Sample

Sample Name: D156-08
Sample ID: TCD007-58
Origin: TCD007.cal
Chk. Result

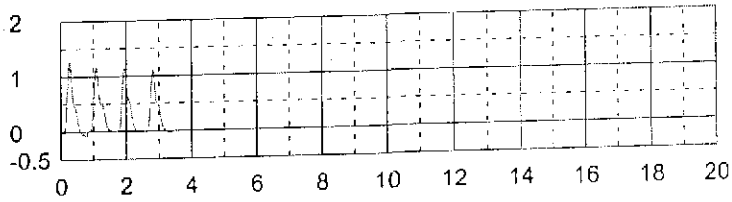
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7843 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.669	0.7972mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:32:52 AM
2	1.649	0.7876mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:33:55 AM
3	1.652	0.7890mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:34:59 AM
4	1.598	0.7632mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:36:04 AM

Mean Area 1.642
Mean Conc. 0.7843mg/L



Sample

Sample Name: D156-10
Sample ID: TCD007-59
Origin: TCD007.cal
Chk. Result

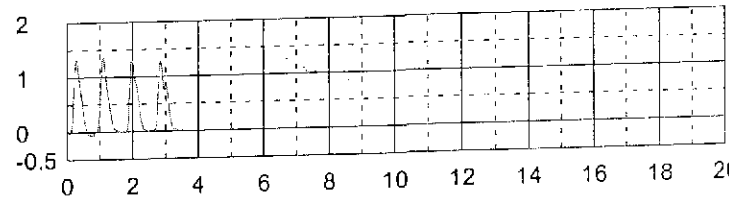
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9678 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.954	0.9333mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:43:25 AM
2	1.978	0.9447mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:44:30 AM
3	2.056	0.9820mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:45:34 AM
4	2.117	1.011mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:46:43 AM

Mean Area 2.026
Mean Conc. 0.9678mg/L



Sample

Sample Name: D156-11
Sample ID: TCD007-60
Origin: TCD007.cal
Chk. Result

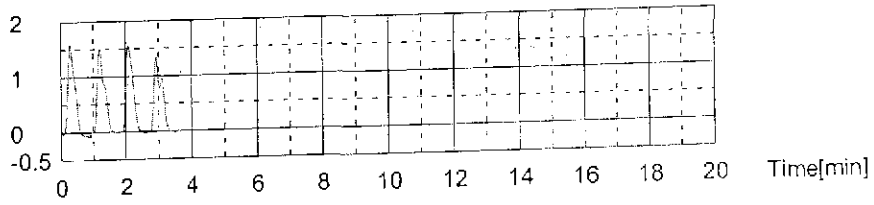
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.129 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.407	1.150mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:54:09 AM
2	2.352	1.123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:55:14 AM
3	2.422	1.157mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:56:17 AM
4	2.272	1.085mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:57:22 AM

Mean Area 2.363
Mean Conc. 1.129mg/L



Control Sample

Sample Name: CCV5
Sample ID: TCD007-61
Method: Tcd007.tpl
Chk. Result Control value: 25.13 / Control exceeds range!

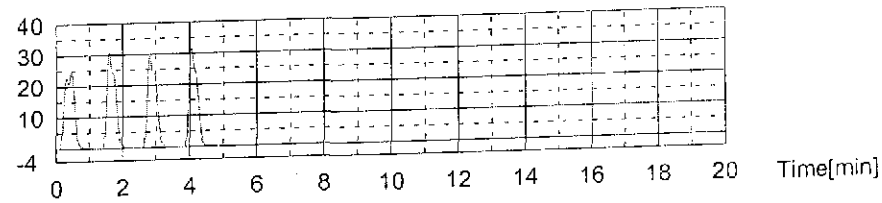
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.13 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.40	24.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:05:12 AM
2	52.73	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:06:37 AM
3	53.49	25.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:08:03 AM
4	52.87	25.25mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:09:25 AM

Mean Area 52.62
Mean Conc. 25.13mg/L



Sample

Sample Name: CCB5
Sample ID: TCD007-62
Origin: TCD007.cal
Chk. Result

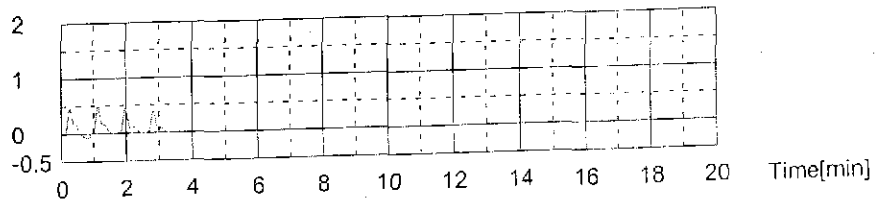
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6758	0.3228mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:14:44 AM
2	0.6666	0.3184mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:15:46 AM
3	0.5491	0.2623mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:16:49 AM
4	0.4696	0.2243mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:17:53 AM

Mean Area 0.5903
Mean Conc. 0.2819mg/L



Sample

Sample Name: D144-01
Sample ID: TCD007-63
Origin: TCD007.cal
Chk. Result

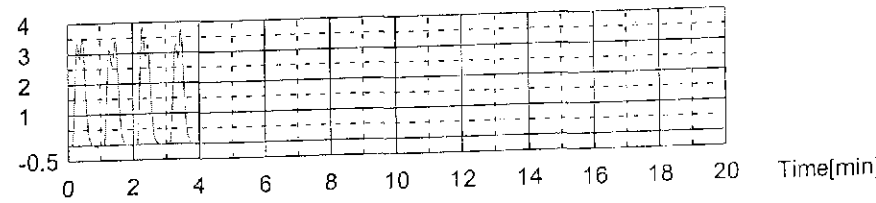
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.471 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.202	3.440mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:34:05 AM
2	7.252	3.464mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:35:17 AM
3	7.260	3.468mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:36:29 AM
4	7.359	3.515mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:37:41 AM

Mean Area 7.268
Mean Conc. 3.471mg/L



Sample

Sample Name: D144-03
Sample ID: TCD007-64
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.960 mg/L

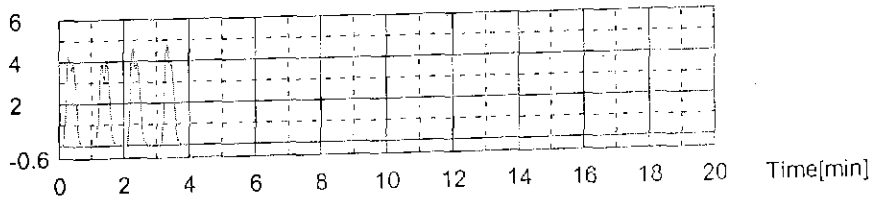
1. Det

Anal.: NPOC

8110

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.179	3.906mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:45:14 AM
2	8.156	3.896mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:46:24 AM
3	8.438	4.030mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:47:39 AM
4	8.387	4.006mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:48:50 AM

Mean Area 8.290
Mean Conc. 3.960mg/L



Sample

Sample Name: D144-04
Sample ID: TCD007-65
Origin: TCD007.cal
Chk. Result

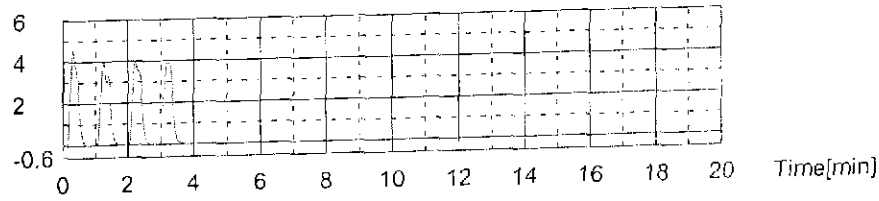
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.541 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.444	3.555mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:56:18 AM
2	7.366	3.518mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:57:29 AM
3	7.407	3.538mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:58:37 AM
4	7.437	3.552mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:59:50 AM

Mean Area 7.414
Mean Conc. 3.541mg/L



Sample

Sample Name: D144-04D
Sample ID: TCD007-66
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.515 mg/L

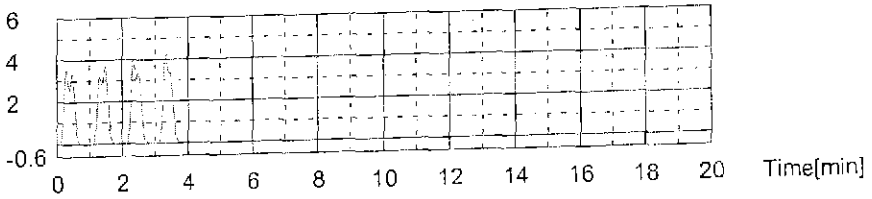
1. Det

Anal.: NPOC

8111

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.187	3.433mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:07:22 AM
2	7.330	3.501mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:08:36 AM
3	7.442	3.554mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:09:46 AM
4	7.482	3.574mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:10:58 AM

Mean Area 7.360
Mean Conc. 3.515mg/L



Sample

Sample Name: D144-04M
Sample ID: TCD007-67
Origin: TCD007.cal
Chk. Result

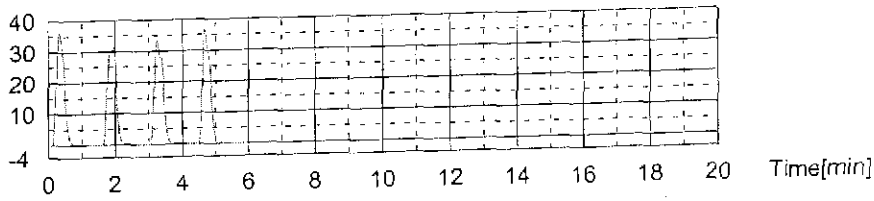
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:28.67 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.39	28.37mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:19:01 AM
2	59.98	28.65mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:20:38 AM
3	60.27	28.79mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:22:17 AM
4	60.45	28.87mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:24:01 AM

Mean Area 60.02
Mean Conc. 28.67mg/L



Sample

Sample Name: D583-01
Sample ID: TCD007-68
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	20.00	NPOC:360.3 mg/L

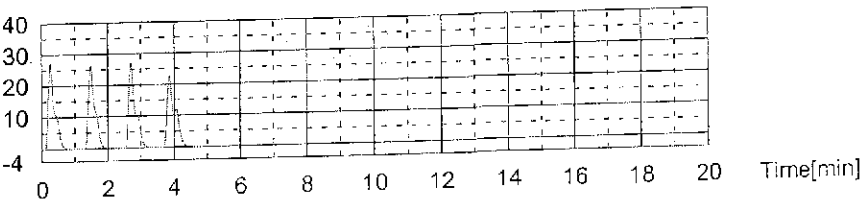
1. Det

Anal.: NPOC

8112

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.83	361.4mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:42:47 AM
2	37.54	358.6mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:44:13 AM
3	38.07	363.7mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:45:34 AM
4	37.42	357.5mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:47:00 AM

Mean Area 37.72
Mean Conc. 360.3mg/L



Sample

Sample Name: TCD009WL
Sample ID: TCD007-69
Origin: TCD007.cal
Chk. Result

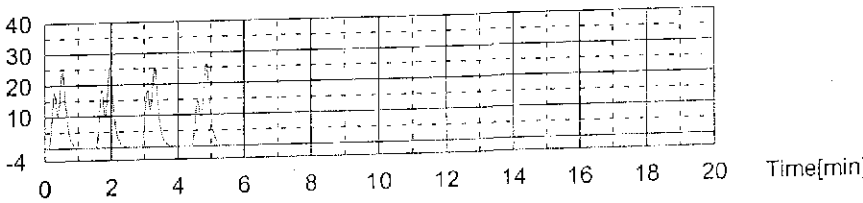
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.43 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.15	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:54:58 AM
2	53.40	25.51mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:56:32 AM
3	53.75	25.67mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:58:14 AM
4	53.68	25.64mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:59:53 AM

Mean Area 53.25
Mean Conc. 25.43mg/L



Sample

Sample Name: TCD009WC
Sample ID: TCD007-70
Origin: TCD007.cal
Chk. Result

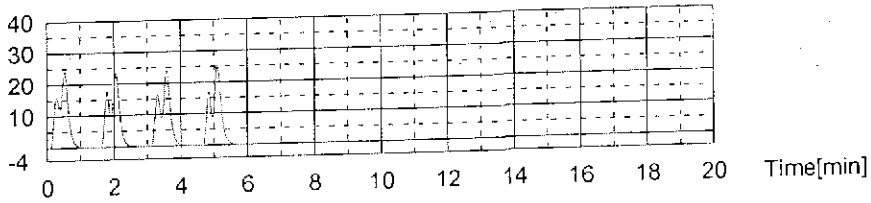
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.30 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.37	25.01mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:07:55 AM
2	52.83	25.23mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:09:37 AM
3	53.62	25.61mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:11:24 AM
4	53.10	25.36mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:13:06 AM

Mean Area 52.98
Mean Conc. 25.30mg/L



Sample

Sample Name: TCD009WB
Sample ID: TCD007-71
Origin: TCD007.cal
Chk. Result

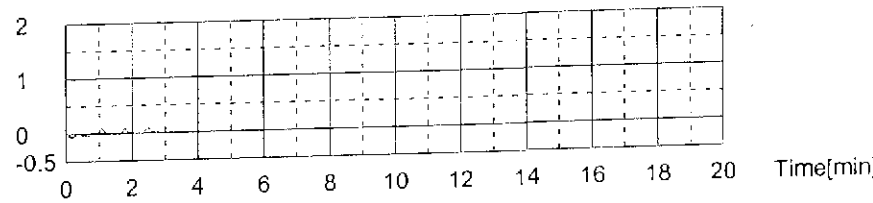
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.04007 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.06860	0.03277mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:20:21 AM
2	0.08470	0.04045mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:21:15 AM
3	0.09510	0.04542mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:22:10 AM
4	0.08720	0.04165mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:23:04 AM

Mean Area 0.08390
Mean Conc. 0.04007mg/L



Control Sample

Sample Name: CCV6
Sample ID: TCD007-72
Method: Tcd007.tpl
Chk. Result Control value: 25.22 / Control exceeds range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.22 mg/L

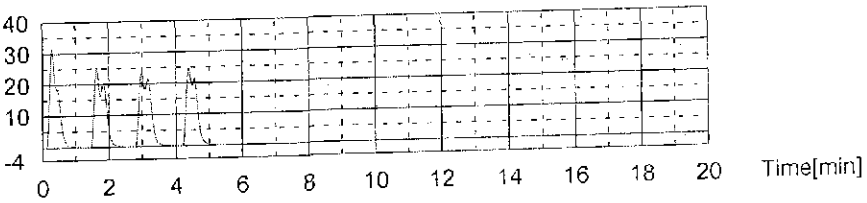
1. Det.

Anal.: NPOC

0114

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.58	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:30:58 AM
2	52.49	25.07mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:32:30 AM
3	53.51	25.56mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:34:07 AM
4	52.63	25.14mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:35:43 AM

Mean Area 52.80
Mean Conc. 25.22mg/L



Sample

Sample Name: CCB6
Sample ID: TCD007-73
Origin: TCD007.cal
Chk. Result

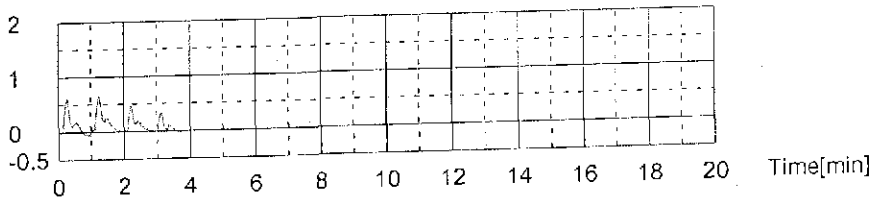
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3420 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8967	0.4283mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:41:09 AM
2	0.9133	0.4362mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:42:20 AM
3	0.6351	0.3033mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:43:28 AM
4	0.4188	0.2000mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:44:31 AM

Mean Area 0.7160
Mean Conc. 0.3420mg/L



Sample

Sample Name: D160-01
Sample ID: TCD007-74
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.695 mg/L

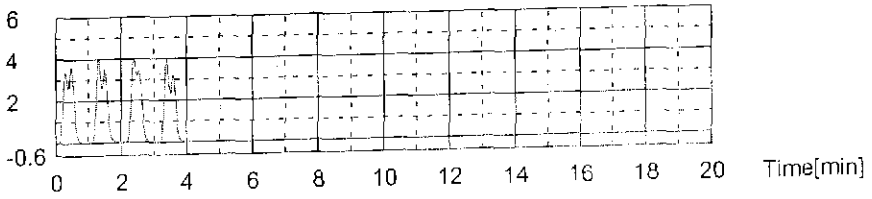
1. Det

Anal.: NPOC

8115

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.739	3.696mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:00:52 AM
2	7.955	3.800mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:02:07 AM
3	7.703	3.679mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:03:20 AM
4	7.549	3.606mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:04:35 AM

Mean Area 7.737
Mean Conc. 3.695mg/L



Sample

Sample Name: D160-03
Sample ID: TCD007-75
Origin: TCD007.cal
Chk. Result

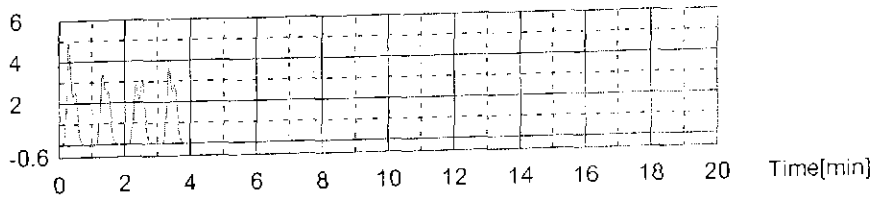
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.970 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.487	3.576mg/L	50uL	1	E	TCD007.2015_04_24_19_28_16.cal	04/25/15 11:12:10 AM
2	6.018	2.874mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:13:23 AM
3	6.206	2.964mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:14:36 AM
4	6.433	3.073mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:15:45 AM

Mean Area 6.219
Mean Conc. 2.970mg/L



Sample

Sample Name: D160-04
Sample ID: TCD007-76
Origin: TCD007.cal
Chk. Result

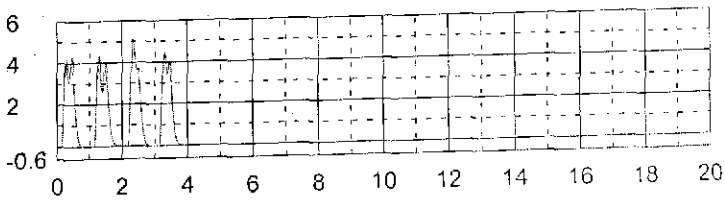
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.159 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.837	4.221mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:23:19 AM
2	8.706	4.158mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:24:33 AM
3	8.632	4.123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:25:42 AM
4	8.654	4.133mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:26:54 AM

Mean Area 8.707
Mean Conc. 4.159mg/L



Sample

Sample Name: D160-04D
Sample ID: TCD007-77
Origin: TCD007.cal
Chk. Result

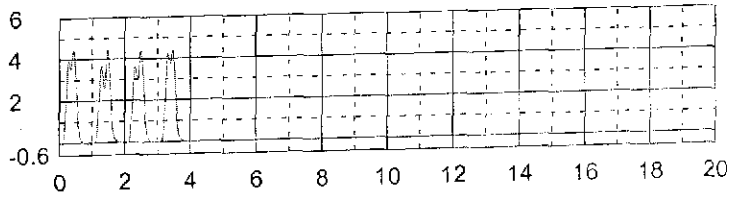
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.048 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.451	4.036mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:34:27 AM
2	8.346	3.986mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:35:40 AM
3	8.534	4.076mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:36:53 AM
4	8.573	4.095mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:38:05 AM

Mean Area 8.476
Mean Conc. 4.048mg/L



Sample

Sample Name: D160-04M
Sample ID: TCD007-78
Origin: TCD007.cal
Chk. Result

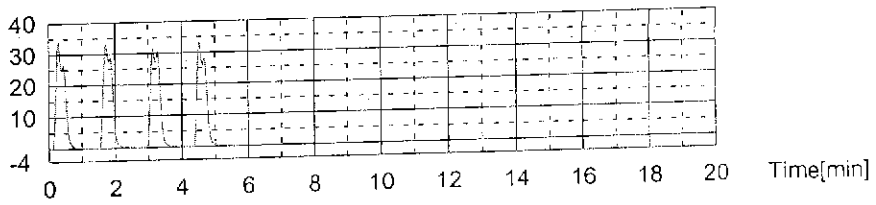
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:29.06 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.96	28.64mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:46:04 AM
2	60.56	28.92mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:47:41 AM
3	61.61	29.43mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:49:17 AM
4	61.20	29.23mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:50:57 AM

Mean Area 60.83
Mean Conc. 29.06mg/L



Sample

Sample Name: D169-01
Sample ID: TCD007-79
Origin: TCD007.cal
Chk. Result

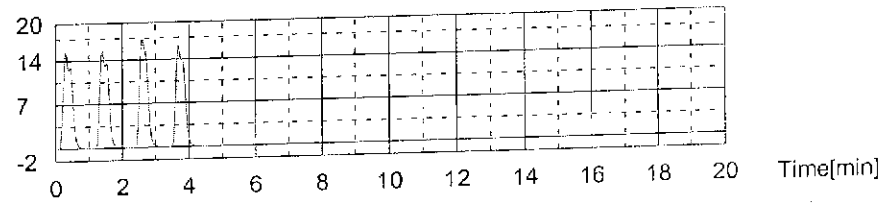
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.57 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.69	13.23mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:58:36 AM
2	28.17	13.45mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:00:00 PM
3	28.85	13.78mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:01:17 PM
4	28.91	13.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:02:39 PM

Mean Area 28.41
Mean Conc. 13.57mg/L



Sample

Sample Name: D169-02
Sample ID: TCD007-80
Origin: TCD007.cal
Chk. Result

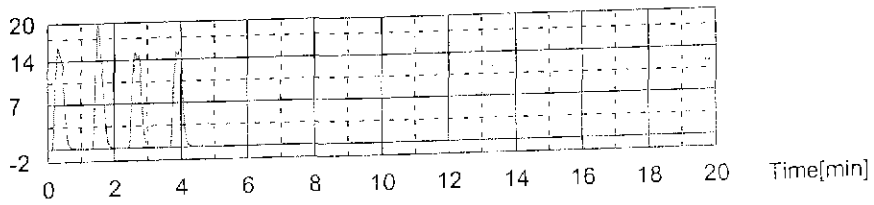
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.68 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.07	13.41mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:10:25 PM
2	28.77	13.74mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:11:42 PM
3	28.81	13.76mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:13:08 PM
4	28.93	13.82mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:14:30 PM

Mean Area 28.65
Mean Conc. 13.68mg/L



Sample

Sample Name: D169-04
Sample ID: TCD007-81
Origin: TCD007.cal
Chk. Result

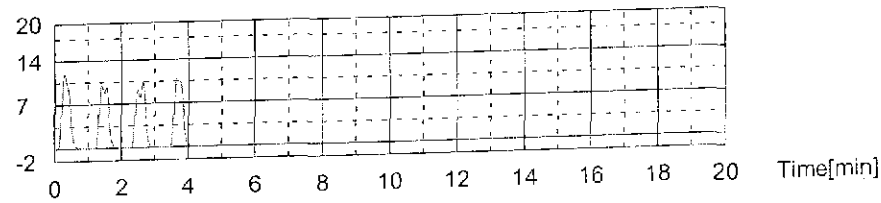
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:9.378 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.33	9.232mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:22:09 PM
2	19.33	9.232mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:23:25 PM
3	19.84	9.476mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:24:46 PM
4	20.04	9.572mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:26:03 PM

Mean Area 19.64
Mean Conc. 9.378mg/L



Sample

Sample Name: D169-05
Sample ID: TCD007-82
Origin: TCD007.cal
Chk. Result

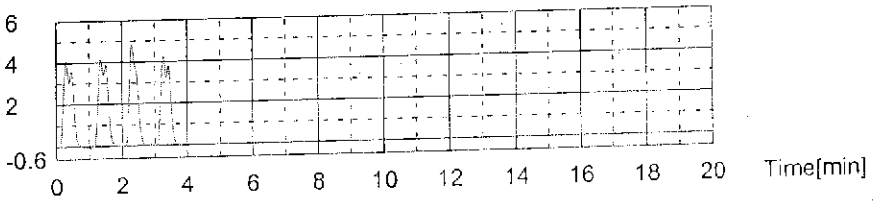
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.976	3.810mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:33:39 PM
2	8.013	3.827mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:34:47 PM
3	7.980	3.811mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:35:57 PM
4	8.017	3.829mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:37:07 PM

Mean Area 7.997
Mean Conc. 3.819mg/L



Sample

Sample Name: D584-01I
Sample ID: TCD007-83
Origin: TCD007.cal
Chk. Result

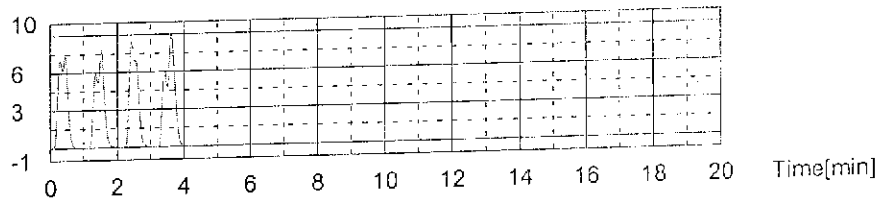
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:37.02 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.71	35.13mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:44:43 PM
2	14.44	34.48mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:45:59 PM
3	14.99	35.80mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:47:11 PM
4	17.87	42.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:48:31 PM

Mean Area 15.50
Mean Conc. 37.02mg/L



Control Sample

Sample Name: CCV7
Sample ID: TCD007-84
Method: Tcd007.tpl
Chk. Result Control value: 25.26 / Control exceeds range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.26 mg/L

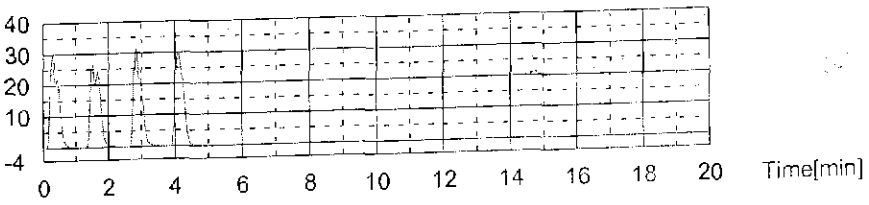
1. Det.

Anal.: NPOC

8120

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.16	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:56:17 PM
2	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:57:47 PM
3	53.49	25.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:59:14 PM
4	53.18	25.40mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:00:39 PM

Mean Area 52.89
Mean Conc. 25.26mg/L



Sample

Sample Name: CCB7
Sample ID: TCD007-85
Origin: TCD007.cal
Chk. Result

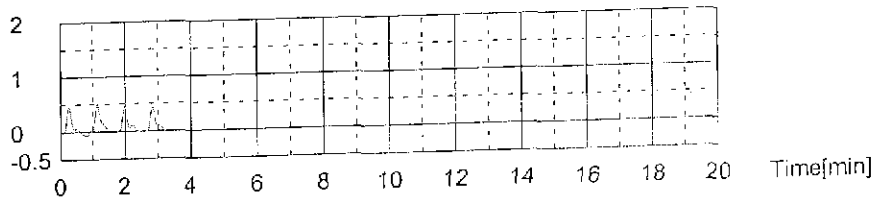
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2665 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5357	0.2559mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:14:24 PM
2	0.6261	0.2990mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:15:26 PM
3	0.5041	0.2408mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:16:29 PM
4	0.5662	0.2704mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:17:30 PM

Mean Area 0.5580
Mean Conc. 0.2665mg/L



8121

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD SM3500
FERROUS IRON

A total of six (6) water samples were received on 04/22/15 to be analyzed for Ferrous Iron in accordance with Method SM3500 and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Calibration was performed as prescribed by the method and was verified using a secondary source (ICV). All calibration requirements were within acceptance criteria.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. Ferrous Iron was not detected in FED001WB. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Ferrous Iron was within LCS QC limits in FED001WL/FED001WC. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Ferrous Iron was within MS QC limits in D142-03M/S. Sample duplicate was analyzed and RPD was within expected value. Refer to Matrix QC summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

SM3500
FERROUS IRON

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D142

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DFxPREP FACTOR	MOIST (%)	RL (mg/L)	MDL (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	FED001WB	ND	1	NA	2	0.5	04/22/1519:02	NA	15FED00109	15FED001	FED001W	NA	NA
LCS1W	FED001WL	15.6	1	NA	2	0.5	04/22/1519:02	NA	15FED00110	15FED001	FED001W	NA	NA
LCD1W	FED001WC	15.5	1	NA	2	0.5	04/22/1519:02	NA	15FED00111	15FED001	FED001W	NA	NA
04-21-15-BBW-3	D142-01	ND	1	NA	2	0.5	04/22/1519:03	NA	15FED00114	15FED001	FED001W	04/21/1514:55	04/22/15
04-21-15-FDUP-3	D142-02	ND	1	NA	2	0.5	04/22/1519:03	NA	15FED00115	15FED001	FED001W	04/21/1515:00	04/22/15
04-21-15-AMW-3R	D142-03	ND	1	NA	2	0.5	04/22/1519:03	NA	15FED00116	15FED001	FED001W	04/21/1514:45	04/22/15
04-21-15-AMW-3RDUP	D142-03D	ND	1	NA	2	0.5	04/22/1519:04	NA	15FED00117	15FED001	FED001W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMS	D142-03M	14.8	1	NA	2	0.5	04/22/1519:04	NA	15FED00118	15FED001	FED001W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMSD	D142-03S	14.9	1	NA	2	0.5	04/22/1519:14	NA	15FED00121	15FED001	FED001W	04/21/1514:45	04/22/15
04-22-15-AR-1	D142-05	ND	1	NA	2	0.5	04/22/1519:15	NA	15FED00122	15FED001	FED001W	04/22/1508:10	04/22/15
04-22-15-PWB-1	D142-07	ND	1	NA	2	0.5	04/22/1519:15	NA	15FED00123	15FED001	FED001W	04/22/1508:55	04/22/15
04-22-15-PWB-13A	D142-09	ND	1	NA	2	0.5	04/22/1519:15	NA	15FED00124	15FED001	FED001W	04/22/1509:10	04/22/15

0120

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D142
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	FED001WB	FED001WL	FED001WC
LAB FILE ID :	15FED00109	15FED00110	15FED00111
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	04/22/1519:02	04/22/1519:02	04/22/1519:02
PREP BATCH :	FED001W	FED001W	FED001W
CALIBRATION REF:	15FED001	15FED001	15FED001

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	15.6	104	15	15.5	104	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D142
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	04-21-15-AMW-3R	04-21-15-AMW-3RMS	04-21-15-AMW-3RMSD
LAB SAMPLE ID :	D142-03	D142-03M	D142-03S
LAB FILE ID :	15FED00116	15FED00118	15FED00121
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	04/22/1519:03	04/22/1519:04	04/22/1519:14
PREP BATCH :	FED001W	FED001W	FED001W
CALIBRATION REF:	15FED001	15FED001	15FED001

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	SPIKE AMT (mg/L)	MSD RESULT (mg/L)	MSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	14.8	99	15	14.9	99	0.7	75-125	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D142
METHOD : SM3500

MATRIX : WATER		
DILUTION FACTOR: 1	1	
SAMPLE ID : 04-21-15-AMW-3R	04-21-15-AMW-3RDUP	
LAB SAMPLE ID : 0142-03	D142-03D	
LAB FILE ID : 15FE000116	15FED00117	
DATE PREPARED : NA	NA	
DATE ANALYZED : 04/22/1519:03	04/22/1519:04	
PREP BATCH : FED001W	FED001W	
CALIBRATION REF: 15FED001	15FED001	

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX RPD (%)
Ferrous Iron	ND	ND	0	20

0220

EMAX LABORATORIES, INC.

FERROUS IRON ANALYSIS

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Blkcrd	DF	%M	Conc.	DFXPrep Factor	Notes	Analyst	Sample pH	Coloring Time
15FED00109	FED001WB	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:02	0	1		0.020232	1		TKosak		4/22/15 18:56
15FED00110	FED001WL	15.62		mg/L	10	mL	NA	10	510NM	0.331 A	4/22/15 19:02	0	1		15.62142	1		TKosak		4/22/15 18:56
15FED00111	FED001WC	15.53		mg/L	10	mL	NA	10	510NM	0.329 A	4/22/15 19:02	0	1		15.52716	1		TKosak		4/22/15 18:56
15FED00112	LOD@0.5	0.589	J	mg/L	10	mL	NA	10	510NM	0.012 A	4/22/15 19:02	0	1		0.585834	1		TKosak		4/22/15 18:56
15FED00113	LOQ@2	2.047		mg/L	10	mL	NA	10	510NM	0.043 A	4/22/15 19:03	0	1		2.046973	1		TKosak		4/22/15 18:56
15FED00114	D142-01	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:03	0	1		0.020232	1		TKosak	7	4/22/15 18:56
15FED00115	D142-02	ND		mg/L	10	mL	NA	10	510NM	0.001 A	4/22/15 19:03	0	1		0.067356	1		TKosak	7	4/22/15 18:56
15FED00116	D142-03	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:03	0	1		0.020232	1		TKosak	7	4/22/15 18:56
15FED00117	D142-03D	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:04	0	1		0.020232	1		TKosak	7	4/22/15 18:56
15FED00118	D142-03M	14.82		mg/L	10	mL	NA	10	510NM	0.314 A	4/22/15 19:04	0	1		14.82016	1		TKosak	7	4/22/15 18:56
15FED00119	CCV1	14.73		mg/L	10	mL	NA	10	510NM	0.312 A	4/22/15 19:04	0	1		14.72589	1		TKosak		4/22/15 18:56
15FED00120	CCB1	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:04	0	1		0.020232	1		TKosak		4/22/15 18:56
15FED00121	D142-03S	14.91		mg/L	10	mL	NA	10	510NM	0.316 A	4/22/15 19:14	0	1		14.91442	1		TKosak	7	4/22/15 19:08
15FED00122	D142-05	ND		mg/L	10	mL	NA	10	510NM	0.002 A	4/22/15 19:15	0	1		0.114499	1		TKosak	7	4/22/15 19:08
15FED00123	D142-07	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:15	0	1		0.020232	1		TKosak	7	4/22/15 19:08
15FED00124	D142-09	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:15	0	1		0.020232	1		TKosak	7	4/22/15 19:08
15FED00125	CCV2	14.77		mg/L	10	mL	NA	10	510NM	0.313 A	4/22/15 19:16	0	1		14.77902	1		TKosak		4/22/15 19:08
15FED00126	CCB2	ND		mg/L	10	mL	NA	10	510NM	0 A	4/22/15 19:16	0	1		0.020232	1		TKosak		4/22/15 19:08

Reviewed by: TK
Date: 5/12/15

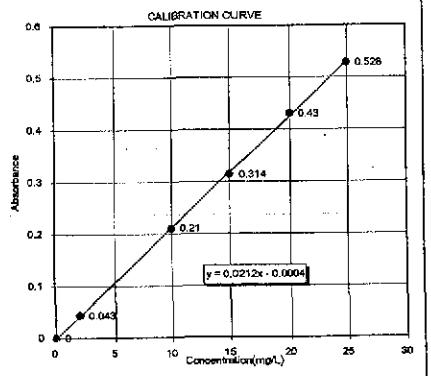
EMAX LABORATORIES, INC.

FERROUS IRON ANALYSIS

Date File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec	Coloring Time
15FED00101	S0	0	510NM	0	4/22/15 18:49	0.020232141	ND	4/22/15 18:42
15FED00102	S1	2	510NM	0.043	4/22/15 18:49	2.048973195	102	4/22/15 18:42
15FED00103	S2	10	510NM	0.21	4/22/15 18:49	9.918209847	99	4/22/15 18:42
15FED00104	S3	15	510NM	0.314	4/22/15 18:49	14.82015519	99	4/22/15 18:42
15FED00105	S4	20	510NM	0.43	4/22/15 18:49	20.28764268	101	4/22/15 18:42
15FED00106	S5	25	510NM	0.528	4/22/15 18:49	24.90672685	100	4/22/15 18:42
15FED00107	ICV	15	510NM	0.332	4/22/15 18:49	15.66855842	104 ✓	4/22/15 18:42
15FED00108	ICB	0	510NM	0	4/22/15 18:50	0.020232141	ND ✓	4/22/15 18:42
15FED00119	CCV1	15	510NM	0.312	4/22/15 19:04	14.72588816	98 ✓	
15FED00120	CCB1	0	510NM	0	4/22/15 19:04	0.020232141	0 ✓	
15FED00125	CCV2	15	510NM	0.313	4/22/15 19:16	14.77302168	98 ✓	
15FED00126	CCB2	0	510NM	0	4/22/15 19:16	0.020232141	0 ✓	

TK 05/05/15

$FC = [(A * CF) - Y] * DF$ InstrumentID: 70



CF= 47.13351289 Y= -0.02023 ✓ r= 0.999864 ✓

DL Water(mg/L)	0.25	DL Soil(mg/Kg)	2.5
LOD Water(mg/L)	0.5	LOD Soil(mg/Kg)	5
LOQ Water(mg/L)	2	LOQ Soil(mg/Kg)	20

SOP

☑ EMAX-3500 Fe B Rev. 4

Comment:

**Concentrations can be found in Reagent Log SWP1-14.

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-04-89-09	Intermediate ICAL CCV Std (mg/L)	200	05/12/15
SW2-08-15-03	Intermediate ICV LCS Std (mg/L)	500	04/22/16
SW2-08-15-03	MS Std (mg/L)	500	04/22/15
RW1-15-001	Reagent Water	NA	NA
NA	Reagent Water	NA	NA
SW1A-005-08-04	HCl	Conc.	10/02/16
SWP1-14-86-02	$NH_4C_2H_3O_2$ Buffer	**	09/12/15
SWP1-18-20-02	Phenanthroline Solution	0.1%	09/17/15
SWP1-18-09-01	Hydroxylamine-HCl Solution	10%	12/11/15
HC413032	pH Strip	0-14	04/21/25
NA	Sand	NA	NA

Standard Prep	Intermediate Std Aliquot (ml)	Final Vol (ml)	DateTime
S0	0	10	4/22/15 18:05
S1	0.1	10	4/22/15 18:05
S2	0.5	10	4/22/15 18:05
S3	0.75	10	4/22/15 18:06
S4	1	10	4/22/15 18:06
S5	1.25	10	4/22/15 18:06
ICV	0.3	10	4/22/15 18:06
CCV	0.75	10	4/22/15 18:06
LCS EV (mg/L)	0.3	10	4/22/15 18:06
MS EV (mg/L)	0.3	10	4/22/15 18:06
A EV			

Expected Sample Amount: 10

Snapseal Lot (1.5oz | 4oz | 10oz): 19414007

Balance ID: NA

Micropipette ID: PE97C-02 541460054 442781398

☐ Leaching DateTime Start: ☐ End:

Analyzed by: TKosak

Reviewed by: TK

Date: 05/15/15

EMAX LABORATORIES, INC.

FERROUS IRON ANALYSIS

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15FED00109	FED001WB	ND	ND	MB Passed
15FED00110	FED001WL	15.62	15	%R=104
15FED00111	FED001WC	15.53	15	%R=104

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15FED00116	D142-03	ND		RPD=1
15FED00118	D142-03M	14.82	15.00	%R=99
15FED00121	D142-03S	14.91	15.00	%R=99

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
15FED00116	D142-03	ND		0
15FED00117	D142-03D	ND	ND	

Reviewed by: TW
Date: 8/2/05

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D142

METHOD SM4500S2D
SULFIDE

A total of six (6) water samples were received on 04/22/15 to be analyzed for Sulfide in accordance with Method SM4500S2D and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Calibration was performed as prescribed by the method and was verified using a secondary source (ICV). All calibration requirements were within acceptance criteria.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. Sulfide was not detected in SFD004WB. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Sulfide was within LCS QC limits in SFD004WL/SFD004WC. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) MS was analyzed. Matrix spike recovery for Sulfide was within MS QC limits in D142-03M. Sample duplicate was analyzed and RPD was within expected value. Refer to Matrix QC summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

METHOD SM4500S2D
SULFIDE

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D142

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DFxPREP FACTOR	MOIST (%)	RL (mg/L)	MDL (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	SFD004WB	ND	1	NA	0.1	0.02	04/27/1514:01	NA	15SFD00410	15SFD004	SFD004W	NA	NA
LCS1W	SFD004WL	0.420	1	NA	0.1	0.02	04/27/1514:01	NA	15SFD00411	15SFD004	SFD004W	NA	NA
LCD1W	SFD004WC	0.416	1	NA	0.1	0.02	04/27/1514:01	NA	15SFD00412	15SFD004	SFD004W	NA	NA
04-21-15-BBW-3	D142-01	ND	1	NA	0.1	0.02	04/27/1514:02	NA	15SFD00413	15SFD004	SFD004W	04/21/1514:55	04/22/15
04-21-15-FOUP-3	D142-02	ND	1	NA	0.1	0.02	04/27/1514:02	NA	15SFD00414	15SFD004	SFD004W	04/21/1515:00	04/22/15
04-21-15-AMW-3R	D142-03	ND	1	NA	0.1	0.02	04/27/1514:03	NA	15SFD00415	15SFD004	SFD004W	04/21/1514:45	04/22/15
04-21-15-AMW-3RDUP	D142-03D	ND	1	NA	0.1	0.02	04/27/1514:04	NA	15SFD00416	15SFD004	SFD004W	04/21/1514:45	04/22/15
04-21-15-AMW-3RMS	D142-03M	0.417	1	NA	0.1	0.02	04/27/1514:04	NA	15SFD00417	15SFD004	SFD004W	04/21/1514:45	04/22/15
04-22-15-AR-1	D142-05	ND	1	NA	0.1	0.02	04/27/1514:05	NA	15SFD00418	15SFD004	SFD004W	04/22/1508:10	04/22/15
04-22-15-PWB-1	D142-07	ND	1	NA	0.1	0.02	04/27/1514:05	NA	15SFD00419	15SFD004	SFD004W	04/22/1508:55	04/22/15
04-22-15-PWB-13A	D142-09	ND	1	NA	0.1	0.02	04/27/1514:09	NA	15SFD00422	15SFD004	SFD004W	04/22/1509:10	04/22/15

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D142
METHOD : SM4500S2D

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	SFD004WB	SFD004WL	SFD004WC
LAB FILE ID :	15SFD00410	15SFD00411	15SFD00412
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	04/27/1514:01	04/27/1514:01	04/27/1514:01
PREP BATCH :	SFD004W	SFD004W	SFD004W
CALIBRATION REF:	15SFD004	15SFD004	15SFD004

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
SULFIDE	ND	0.4	0.420	105	0.4	0.416	104	1	80-120	20

EMAX QUALITY CONTROL DATA
MATRIX SPIKE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D142
METHOD : SM4500S2D

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1
SAMPLE ID :	04-21-15-AMW-3R	04-21-15-AMW-3RMS
LAB SAMPLE ID :	D142-03	D142-03M
LAB FILE ID :	15SFD00415	15SFD00417
DATE PREPARED :	NA	NA
DATE ANALYZED :	04/27/1514:03	04/27/1514:04
PREP BATCH :	SFD004W	SFD004W
CALIBRATION REF:	15SFD004	15SFD004

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	QC LIMIT (%)
SULFIDE	ND	0.4	0.417	104	75-125

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D142
METHOD : SM4500S2D

MATRIX : WATER

DILUTION FACTOR:	1	1
SAMPLE ID :	04-21-15-AMW-3R	04-21-15-AMW-3RDUP
LAB SAMPLE ID :	D142-03	D142-03D
LAB FILE ID :	15SFD00415	15SFD00416
DATE PREPARED :	NA	NA
DATE ANALYZED :	04/27/1514:03	04/27/1514:04
PREP BATCH :	SFD004W	SFD004W
CALIBRATION REF:	15SFD004	15SFD004

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX RPD (%)
SULFIDE	ND	ND	0	20

EMAX LABORATORIES, INC.

SULFIDE ANALYSIS
(COLORIMETRY)

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Blkcrd	DF	%M	FC	DFnPrep Factor	Notes	Analyst	ph check	Coloring Time
15SFD00410	SFD004WB	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/27/15 14:01	0	1		0	1		TKosak		4/27/15 13:16
15SFD00411	SFD004WL	0.42		mg/L	7.5	ml	NA	7.5	664nm	0.331	4/27/15 14:01	0	1		0.419942	1		TKosak		4/27/15 13:16
15SFD00412	SFD004WC	0.416		mg/L	7.5	ml	NA	7.5	664nm	0.328	4/27/15 14:01	0	1		0.416136	1		TKosak		4/27/15 13:16
15SFD00413	D142-01	0.0152	J	mg/L	7.5	ml	NA	7.5	664nm	0.012	4/27/15 14:02	0	1		0.015224	1		TKosak	>9	4/27/15 13:16
15SFD00414	D142-02	0.014	J	mg/L	7.5	ml	NA	7.5	664nm	0.011	4/27/15 14:02	0	1		0.013966	1		TKosak	>9	4/27/15 13:16
15SFD00415	D142-03	ND		mg/L	7.5	ml	NA	7.5	664nm	0.002	4/27/15 14:03	0	1		0.002537	1		TKosak	>9	4/27/15 13:16
15SFD00416	D142-03D	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/27/15 14:04	0	1		0.003806	1		TKosak	>9	4/27/15 13:16
15SFD00417	D142-03M	0.417		mg/L	7.5	ml	NA	7.5	664nm	0.329	4/27/15 14:04	0	1		0.417405	1		TKosak	>9	4/27/15 13:16
15SFD00418	D142-05	ND		mg/L	7.5	ml	NA	7.5	664nm	0.002	4/27/15 14:05	0	1		0.002537	1		TKosak	>9	4/27/15 13:16
15SFD00419	D142-07	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/27/15 14:05	0	1		0.003806	1		TKosak	>9	4/27/15 13:16
15SFD00420	CCV1	0.397		mg/L	7.5	ml	NA	7.5	664nm	0.313	4/27/15 14:06	0	1		0.397105	1		TKosak		4/27/15 13:16
15SFD00421	CCB1	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/27/15 14:08	0	1		0	1		TKosak		4/27/15 13:16
15SFD00422	D142-06	ND		mg/L	7.5	ml	NA	7.5	664nm	0.004	4/27/15 14:09	0	1		0.005075	1		TKosak	>9	4/27/15 13:33
15SFD00423	D156-01	ND		mg/L	7.5	ml	NA	7.5	664nm	0.004	4/27/15 14:09	0	1		0.005075	1		TKosak	>9	4/27/15 13:33
15SFD00424	D156-02	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/27/15 14:10	0	1		0.003806	1		TKosak	>9	4/27/15 13:33
15SFD00425	D156-03	0.0152	J	mg/L	7.5	ml	NA	7.5	664nm	0.076	4/27/15 14:11	0.064	1		0.015224	1		TKosak	>9	4/27/15 13:33
15SFD00426	D156-05	0.0152	J	mg/L	7.5	ml	NA	7.5	664nm	0.02	4/27/15 14:12	0.008	1		0.015224	1		TKosak	>9	4/27/15 13:33
15SFD00427	D156-06	ND		mg/L	7.5	ml	NA	7.5	664nm	0.002	4/27/15 14:13	0	1		0.002537	1		TKosak	>9	4/27/15 13:33
15SFD00428	D156-07	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/27/15 14:13	0	1		0.003806	1		TKosak	>9	4/27/15 13:33
15SFD00429	D156-08	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/27/15 14:13	0	1		0.003806	1		TKosak	>9	4/27/15 13:33
15SFD00430	D156-10	0.0608	J	mg/L	7.5	ml	NA	7.5	664nm	0.23	4/27/15 14:14	0.182	1		0.060898	1		TKosak	>9	4/27/15 13:33
15SFD00431	D156-11	0.0304	J	mg/L	7.5	ml	NA	7.5	664nm	0.141	4/27/15 14:14	0.117	1		0.030449	1		TKosak	>9	4/27/15 13:33
15SFD00432	CCV2	0.398		mg/L	7.5	ml	NA	7.5	664nm	0.312	4/27/15 14:14	0	1		0.395837	1		TKosak		4/27/15 13:33
15SFD00433	CCB2	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/27/15 14:14	0	1		0	1		TKosak		4/27/15 13:33

Reviewed by: _____

Date: 5/6/15

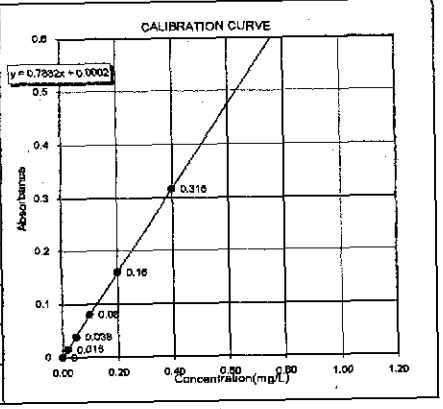
EMAX LABORATORIES, INC.

SULFIDE ANALYSIS (COLORIMETRY)

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec	
15SFD00401	S0	0.00	664nm	0	4/27/15 13:53	0	ND	C
15SFD00402	S1	0.02	664nm	0.015	4/27/15 13:54	0.019030608	95	C
15SFD00403	S2	0.05	664nm	0.036	4/27/15 13:55	0.048210875	96	C
15SFD00404	S3	0.10	664nm	0.08	4/27/15 13:56	0.101496578	101	C
15SFD00405	S4	0.20	664nm	0.16	4/27/15 13:58	0.202993158	101	C
15SFD00406	S5	0.40	664nm	0.316	4/27/15 13:58	0.400911483	100	C
15SFD00407	S6	0.80	664nm	0.63	4/27/15 13:58	0.799285551	100	C
15SFD00408	ICV	0.40	664nm	0.333	4/27/15 13:57	0.422479508	106 ✓	C
15SFD00409	ICB	0.00	664nm	0	4/27/15 13:57	0	ND ✓	C
15SFD00420	CCV1	0.40	664nm	0.313	4/27/15 14:05	0.397105361	99 ✓	
15SFD00421	CCB1	0.00	664nm	0	4/27/15 14:05	0	ND ✓	
15SFD00432	CCV2	0.40	664nm	0.312	4/27/15 14:14	0.395838654	99 ✓	
15SFD00433	CCB2	0.00	664nm	0	4/27/15 14:14	0	ND ✓	

TR 05/04/15

Coloring Time	$FC = [(A * CF) - Y] * DF$	InstrumentID: 70
4/27/15 13:05		
4/27/15 13:05		
4/27/15 13:05		
4/27/15 13:05		
4/27/15 13:05		
4/27/15 13:05		
4/27/15 13:05		
4/27/15 13:05		



CF= 1.268707224 Y= 0.00000 ✓ r= 0.999984 ✓

DL Water(mg/L)	0.01	DL Soil(mg/Kg)	
LOD Water(mg/L)	0.02	LOD Soil(mg/Kg)	
LOQ Water(mg/L)	0.1	LOQ Soil(mg/Kg)	

SOP

☐ EMAX-376.2 Rev. 2

☑ EMAX-4500-S2D Rev. 2

Comment:

**Concentration can be found in Reagent Prep Log SWP1-18.

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-08-15-10	Intermediate ICAL CCV Std (mg/L)	10	04/27/15
SW2-08-17-01	Intermediate ICV LCS Std (mg/L)	10	04/27/15
SW1-01-562	MS Spike	1000	03/22/16
RW1-15-001	Reagent Water	NA	NA
NA	Sand	NA	NA
SWR1-01-754	Amine Sulfuric Acid	CRT RGT	07/01/15
SWR1-01-795	Ferric Chloride (%)	100	10/01/16
SWP1-18-03-02	Diammonium Phosphate	**	12/12/15
SWP1-15-02-01	Sulfuric Acid,%	90	10/17/15
HC413032	pH strip	0-14	04/21/25

Standard Prep	Intermediate Std Aliquot (mg/L)	Final Vol (ml)	Date/Time
S0	0	7.5	4/27/15 12:59
S1	0.015	7.5	4/27/15 12:59
S2	0.0375	7.5	4/27/15 12:59
S3	0.075	7.5	4/27/15 12:59
S4	0.15	7.5	4/27/15 12:59
S5	0.3	7.5	4/27/15 12:59
S6	0.6	7.5	4/27/15 12:59
ICV/LCS	0.3	7.5	4/27/15 12:59
CCV	0.3	7.5	4/27/15 12:59
MS	0.008	15	4/27/15 12:59

Balance ID: NA

Micropipette ID: GFAA-07 PE97C-02

541460054 442761398

Snapseal Lot# (1.5oz | 4oz | 10oz |): 26414009

Analyzed by: TKosak

Reviewed by: TR

Date 5/6/15

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15SFD00410	SFD004WB	ND	ND	MB Passed ✓
15SFD00411	SFD004WL	0.42	0.4	%R=105 ✓
15SFD00412	SFD004WC	0.416	0.4	%R=104 ✓

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15SFD00415	D142-03	ND	0	
15SFD00417	D142-03M	0.417	0.4	%R=104 ✓

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
15SFD00415	D142-03	ND	0	0 ✓
15SFD00416	D142-03D	ND		

Reviewed by: [signature]
Date: 8/9/16

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHANE AND DISSOLVED HYDROGEN

SDG#: 15D142

Air TECHNOLOGY Laboratories, Inc.

May 15, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

EMAX Laboratories, Inc.
ATTN: Richard Beauvil
1835 205th St.
Torrance, CA 90501

LABORATORY TEST RESULTS

Project Reference: 15D142; Eco & Associates, Inc.
Lab Number: G042702-01/06

Enclosed are results for sample(s) received 4/27/15 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Richard Beauvil on 5/14/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY

GD42702-01/08CQ

EMAX LABORATORIES, INC.
Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	15D142
PROJECT CODE	ECO1302
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

ATTN: Richard Beauvil

CLIENT: Eco & Associates, Inc.
PROJECT: B & B Groundwater Sampli

SEND SAMPLES TO:

AIR TECHNOLOGY LAB
1850 E. Gale Ave, Suite 130
City of Industry, CA 91748.

EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method		COMMENTS
D142-01	04-21-15-BBW-3	4/21/2015	2:55:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-02	04-21-15-FDUP-3	4/21/2015	3:00:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-03	04-21-15-AMW-3R	4/21/2015	2:45:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-03M	04-21-15-AMW-3RMS	4/21/2015	2:45:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-03S	04-21-15-AMW-3RMSD	4/21/2015	2:45:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-05	04-22-15-AR-1	4/22/2015	8:10:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-07	04-22-15-PWB-1	4/22/2015	8:55:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
D142-09	04-22-15-PWB-13A	4/22/2015	9:10:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	

INSTRUCTION:

DATA PACKAGES: 2 HARDCOPIES AND 1 CD IN .PDF EDDs: ADR & EXCEL

COOLER TEMPERATURE

4°C W

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	4/27/15	12:00		04/27/15	12
	4/27/15	1305		4/27/15	1305

Client:	**EMAX Laboratories**
Attn:	**Richard Beauvil**
Project Name:	**Eco & Associates, Inc.**
Project No.:	**15D142**
Date Received:	**04/27/15**
Matrix:	**Water**
Reporting Units:	**ug/L**

RSK175

Lab No.:	G042702-01		G042702-02		G042702-03		G042702-04	
Client Sample I.D.:	D142-01 / 04-21-15 BBW-3		D142-02 / 04-21-15 FDUP-3		D142-03 / 04-21-15 AMW-3R		D142-05 / 04-22-15 AR-1	
Date/Time Sampled:	4/21/15 14:55		4/21/15 15:00		4/21/15 14:45		4/22/15 8:10	
Date/Time Analyzed:	4/28/15 15:12		4/28/15 15:25		4/28/15 15:38		4/28/15 16:18	
QC Batch No.:	150428GC8A1		150428GC8A1		150428GC8A1		150428GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	**Result ug/L**	**RL ug/L**	**Result ug/L**	**RL ug/L**	**Result ug/L**	**RL ug/L**	**Result ug/L**	**RL ug/L**
Methane	ND	1.0	ND	1.0	ND	1.0	ND	1.0

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 5/13/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client:	**EMAX Laboratories**
Attn:	**Richard Beauvil**
Project Name:	**Eco & Associates, Inc.**
Project No.:	**15D142**
Date Received:	**04/27/15**
Matrix:	**Water**
Reporting Units:	**ug/L**

RSK175

Lab No.:	G042702-05		G042702-06					
Client Sample I.D.:	D142-07 / 04-22-15 PWB-1		D142-09 / 04-22-15 PWB-13A					
Date/Time Sampled:	4/22/15 8:55		4/22/15 9:10					
Date/Time Analyzed:	4/28/15 16:31		4/29/15 8:10					
QC Batch No.:	150428GC8A1		150428GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	1.0		1.0					
ANALYTE	**Result ug/L**	**RL ug/L**	**Result ug/L**	**RL ug/L**				
Methane	ND	1.0	ND	1.0				

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 5/13/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150428GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		G042702-03		G042702-03 MS		G042702-03 MSD			
Date/ Time Analyzed:		4/28/15 15:38		4/28/15 15:51		4/28/15 16:04			
Analyst Initials:		AS		AS		AS			
Datafile:		28apr023		28apr024		28apr025			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	1.0	1.0	ND	98	70-130%	97	70-130%	0.6	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 5/13/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

QC Batch No.: 150428GC8A1
Matrix: Air
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/28/15 14:47		4/28/15 13:34		4/28/15 13:50			
Analyst Initials:	AS		AS		AS			
Datafile:	28apr020		28apr015		28apr016			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	ND	1.0	99	70-130%	101	70-130%	1.9	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 5/13/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Client:	**EMAX Laboratories**
Attn:	**Richard Beauvil**
Project Name:	**Eco & Associates, Inc.**
Project No.:	**15D142**
Date Received:	**04/27/15**
Matrix:	**Water**
Reporting Units:	**ug/L**

RSK175

Lab No.:	G042702-01		G042702-02		G042702-03		G042702-04	
Client Sample I.D.:	D142-01 / 04-21-15 BBW-3		D142-02 / 04-21-15 FDUP-3		D142-03 / 04-21-15 AMW-3R		D142-05 / 04-22-15 AR-1	
Date/Time Sampled:	4/21/15 14:55		4/21/15 15:00		4/21/15 14:45		4/22/15 8:10	
Date/Time Analyzed:	4/30/15 9:12		4/30/15 9:22		4/30/15 9:29		4/30/15 10:19	
QC Batch No.:	150430GC8A1		150430GC8A1		150430GC8A1		150430GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Hydrogen	ND	10	ND	10	ND	10	ND	10

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 5/13/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client:	**EMAX Laboratories**
Attn:	**Richard Beauvil**
Project Name:	**Eco & Associates, Inc.**
Project No.:	**15D142**
Date Received:	**04/27/15**
Matrix:	**Water**
Reporting Units:	**ug/L**

RSK175

Lab No.:	G042702-05		G042702-06					
Client Sample I.D.:	D142-07 / 04-22-15-PWB-1		D142-09 / 04-22-15-PWB-13A					
Date/Time Sampled:	4/22/15 8:55		4/22/15 9:10					
Date/Time Analyzed:	4/30/15 10:49		4/30/15 10:56					
QC Batch No.:	150430GC8A1		150430GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	1.0		1.0					
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L				
Hydrogen	ND	10	ND	10				

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 5/13/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150430GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		G042702-03		G042702-03 MS		G042702-03 MSD			
Date Analyzed:		4/30/2015 09:29		4/30/2015 09:57		4/30/2015 10:12			
Analyst Initials:		AS		AS		AS			
Datafile:		30apr007		30apr009		30apr011			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	10	10	ND	98	70-130%	92	70-130%	5.9	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 5/13/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

QC Batch No.: 150430GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date Analyzed:		4/30/2015 08:56		4/30/2015 08:40		4/30/2015 08:48			
Analyst Initials:		AS		AS		AS			
Datafile:		30apr003		30apr001		30apr002			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	10	10	ND	111	70-130%	116	70-130%	4.6	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 5/13/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

GC Raw Data Index
General Information

Method: RSK175

Lab Project No.: G042702

Section	Page #
1. Supporting Documents	12
2. Sample Raw Data	19
3. Initial Calibration	68
4. Continuing Calibration	97
5. Method Blank	106
6. LCS/LCSD	115

Conventions and Conversions

1 ppbv = 0.001 ppmv = 0.0000001% v/v
1% v/v = 10,000 ppmv = 10,000,000 ppbv

1 ug/m^3 = 1 ng/L = ppbv x MW/24.45
1 ug/L = 1 mg/m^3 = ppmv x MW/24.45

Where **MW** is the molecular weight of the compound and 24.45 is the molar volume of ideal gas at 1 atmosphere and 25° C.

1 atmosphere = 14.6 psia = 0 psig
30" Hg = 0 psia = -14.6 psig

Standard pressure is taken as 14.6 psia at Air Technology Labs' facility.

1. Supporting Documents

a. Pressurization log (if applicable)

b. ICAL run log

c. CCAL/QC/Samples run log

d. Miscellaneous documents

Instrument ID: GC 8A

Analytical Method: nmoc fixed-140106; rskhydrogen

Datafile Directory: GC8A\2014\Jun

GC Injection Logbook

Chemist: AS

Blank Lot #: 1205FS462A

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	6/27/14	1646	27Jun020	300ppmnmoc	AS074304	STD 200cc	–	–	1.0	4	ok		140627GC8A1
2	6/30/14	0828	30Jun	0.1% H2	AW120234	250cc	–	–	1.0	–	No		140630GC8A1
3		0839	30Jun001	0.1% H2	AW120234								
4		0851	002	0.5% H2	AW120235								
5		0900	003	0.1% H2	AW120234								
6		0908	004	100% H2	1264SFSH169A						No	too high	
7		0925	005	0.1% H2	AW120234								
8		0937	006	100% H2	0264SFSH169A						No	too high	
9		0950	007	5% H2	AW120236						ok	NR	
10		1013	008	5% H2	AW120236						ok	rskhydrogen140630 used	
11		1022	009	2.5% H2	AW120237								
12		1030	010	1% H2	AW120238								
13		1048	011	0.5% H2	AW120239								
14		1056	012	0.1% H2	AW120240								
15		1104	013	0.1% H2	AW120240						NO	NR	
16		1119	014	1% H2 ICV	AW120241						OK		
17													
18													
19													
20													

Approved by/Date:_____

Instrument ID: GC 8A

Analytical Method: nmocfixed_150105,rsk175fg150428(ical)

Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS

Blank Lot #: 3005FS4628A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/28/15	0843	27apr044	FG LOQ $H_2N_2O_2$	AW1208813	STD loop	–	–	1.0	2	ok	NR	150427GC8A2
	0828	045										
	0843	046								No	Air out	
4/28/15	0913	28apr	3ppmv 1Cal	AW1208814	250µl	–	–	1.0	-	ok	RSK 1Cal	150428GC8A1
	0927	28apr001	10ppmv 1Cal	AW1208809								
	0941	002	100ppmv 1Cal	AW1208808								
	0956	003	1000ppmv 1Cal	AW1208802								
	1011	004	5000ppmv 1Cal	AS014319	125µl							
	1026	005	1% 1Cal	AS014319	250µl						10000ppmv	
	1039	006	10% CH_4CO_2 1Cal	AW1208815							100000	
	1052	007	50% CH_4CO_2 1Cal	AW1208816							500000	
	1117	008	0.5% RSK 1CV	AS014513	125µl							

Approved by/Date:_____

Air Technology Laboratories, Inc.

GC8A Logbook #34

Instrument ID: GC 8A

Analytical Method: rsk175fg150428

Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS

Blank Lot #: 300SFS4628A

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	4/28/15	1320	28apr014	RSK 0.5%CCV	AS014319	125µl	-	-	1.0	-	ok		150428GC8A1
2		1334	015	RSK LCS	AW1208819	250µl							
3		1350	016	RSK LCSD	AW1208820								
4		1403	017	Method Blank	—							NR	
5		1417	018	↓								↓	
6		1432	019	He Blank									
7		~~1512~~ 1442	020	Method Blank									
8		1512	021	G042702-01	Emax						ok		
9		1525	022	-02									
10		1538	023	-03									
11		1551	024	-03MS									
12		1604	025	-03MSD									
13		1618	026	-04									
14		1631	027	-05									
15	4/29/15	0810	028	-06									
16		0829	029	G042704-01	Emax						ok		
17		0842	030	-02									
18		0855	031	-03									
19		0909	032	-04									
20		0922	033	-05									

Approved by/Date:_____

Air Technology Laboratories, Inc.

GC8A Logbook #34

Instrument ID: GC 8A

Analytical Method: rsk175fg150428

Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS

Blank Lot #: 300SFS4628A

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	4/29/15	0936	28apr034	GC42704-06	Emax	25µL	–	–	1.0	–	No	baseline	150428GC8A1
2		0950	035	-06							ok		
3		1024	036	-07									
4		1037	037	-08									
5		1050	038	-09									
6		1106	29apr	RSK 0.5% CCV	RSO15319	125µL					ok		150429GC8A1
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Air Technology Laboratories, Inc.

Approved by/Date:_____

GC8A Logbook #34

Instrument ID: GC 8A

Analytical Method: rsk175fg150428, fskhydrogen140630

Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS

Blank Lot #: 300SFS4628A

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	4/29/15	1445	29apr015	G042705-09	Emax	250µL	-	-	1.0	-	ok		150429GC8A1
2		1458	C16	-10									
3		1512	C17	-11									
4		1525	C18	-12									
5		1539	C19	-13									
6		1552	C20	-14									
7		1605	C21	-13MS									
8		1618	C22	-13MSD									
9		1631	C23	RSK 0.5% CCV	AS015319	125µL							
10	4/30/15	0824	30apr	1% RSK H_2 CCV	AW120505	250µL	-	-	1.0	-	ok		150430GC8A1
11		0840	30apr001	H_2 RSK LCS	AW120604								
12		0848	C02	H_2 RSK LCSD	AW120909								
13		0856	C03	Method Blank	-								
14		0904	C04	He Blank	-								
15		0912	C05	G042702-01	Emax								
16		0922	C06	-02									
17		0929	C07	-03									
18		0936	C08	-03MS									
19		0957	C09	-03MS									
20		1004	C10	-03MSD									

Approved by/Date:_____

GC Injection Logbook

Instrument ID: GC 8A
Analytical Method: rskhydrogen140630
Datafile Directory: GC8A\2015\Apr

Chemist: AS
Blank Lot #: 300SFS4628A

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	4/30/15	1012	30apr011	G042702-03MSD	Emax	25ml	-	-	1.0	-	ok		150430GC8A1
2		1019	012	-04									
3		1026	013	-05							No	o/r comb. ← late inject	
4		1034	014	-05							No	baseline drop	
5		1042	015	-05				40/1	40.0		ok	not needed	
6		1049	016	-05				-	1.0		ok	Reported	
7		1056	017	-06							ok		
8		1103	018	G042702 AS 4/30/15 -01	Emax						No	shift	
9		1111	019	-01							ok		
10		1118	020	-02									
11		1126	021	-03									
12		1132	022	-04									
13		1142	023	-05									
14		1149	024	-06							No	baseline	
15		1159	025	-06							ok		
16		1206	026	-07									
17		1212	027	-08									
18		1219	028	-09									
19		1226	029	1% H2 RSK CCV	AW1208905						NO	shift	150430GC8A2
20		1234	030								ok		

Air Technology Laboratories, Inc.

Approved by/Date:_____

GC8A Logbook #34

2. Sample Raw Data

a. Calculations (if applicable)

b. Chromatograms/Results

	G042702-01	28apr021							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	0.894	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	8.94E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	2.165E-11	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	1.922E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	3.576E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	6.497E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	8.419E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.08	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.08	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0128652		
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!		
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!		
	42.535787	1	4	26	Acetylene	1.0633947	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	G042702-02	28apr022							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	0.809	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	8.09E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.959E-11	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	1.739E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	3.236E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_t	#VALUE!	#VALUE!	#VALUE!	5.879E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	7.618E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.08	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.08	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R	
26.175869	1	4	16	Methane	0.6543967	0.011642	
49.079755	1	4	30	Ethane	1.2269939	#VALUE!	
45.807771	1	4	28	Ethene	1.1451943	#VALUE!	
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!	
#VALUE!	NA	4	44	Propane	#VALUE!		
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
71.98364	1	4	44	CO2	1.799591	#VALUE!	
		4	28	Nitrogen			

	G042702-03	28apr023							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	0	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0		
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!		
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!		
	42.535787	1	4	26	Acetylene	1.0633947	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

Calculations

G042702-03 MS	28apr024	4/28/2015	15:51					
Parameter	methane	ethane	ethene	O2	CO2	CO	acetylene	Units
ppmv in headspace	6777.11	NA	NA	NA	NA	NA	NA	ppmv
p_g	0.0067771	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m								
b								
x_g	1.641E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	41300	30200	11400	43800	1640	57800	1330	none
n_g								
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	0.1457161	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A_h	0.0271084	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	0.492495	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0.6382111	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	638.21	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	640	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	97.526629
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
3.2719836	1	4	2	Hydrogen	0.0817996	#VALUE!

G042702-03 MSD		28apr025	4/28/2015	16:04				
Parameter	methane	ethane	ethene	O2	CO2	CO	acetylene	Units
ppmv in headspace	6738.609	NA	NA	NA	NA	NA	NA	ppmv
p_g	0.0067386	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m								
b								
x_g	1.632E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	41300	30200	11400	43800	1640	57800	1330	none
n_g								
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	0.1448883	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A_h	0.0269544	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	0.4896971	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0.6345854	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	634.59	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	630	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation								
		spike amt.						
	ug	%	mL	MW		mg/L	%R	
	26.175869	1	4	16	Methane	0.6543967	96.972576	
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!	
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!	
	#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!	
	#VALUE!	NA	4	44	Propane	#VALUE!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
	71.98364	1	4	44	CO2	1.799591	#VALUE!	
	3.2719836	1	4	2	Hydrogen	0.0817996	#VALUE!	

Calculations

	G042702-04	28apr026							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	2.19	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	2.19E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	5.303E-11	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	4.709E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	8.76E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_t	#VALUE!	#VALUE!	#VALUE!	0.0001591	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0002062	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.21	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.21	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	0.0315154
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	G042702-05	28apr027							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	2.453	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	2.453E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	5.939E-11	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	5.274E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	9.812E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.0001783	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.000231	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.23	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.23	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0353001		
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!		
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!		
	42.535787	1	4	26	Acetylene	1.0633947	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	G042702-06	28apr028							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	5.839	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	5.839E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.414E-10	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.0001255	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	2.336E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_t	#VALUE!	#VALUE!	#VALUE!	0.0004243	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0005499	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.55	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.55	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0840267		
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!		
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!		
	42.535787	1	4	26	Acetylene	1.0633947	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr021.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-01 Emax

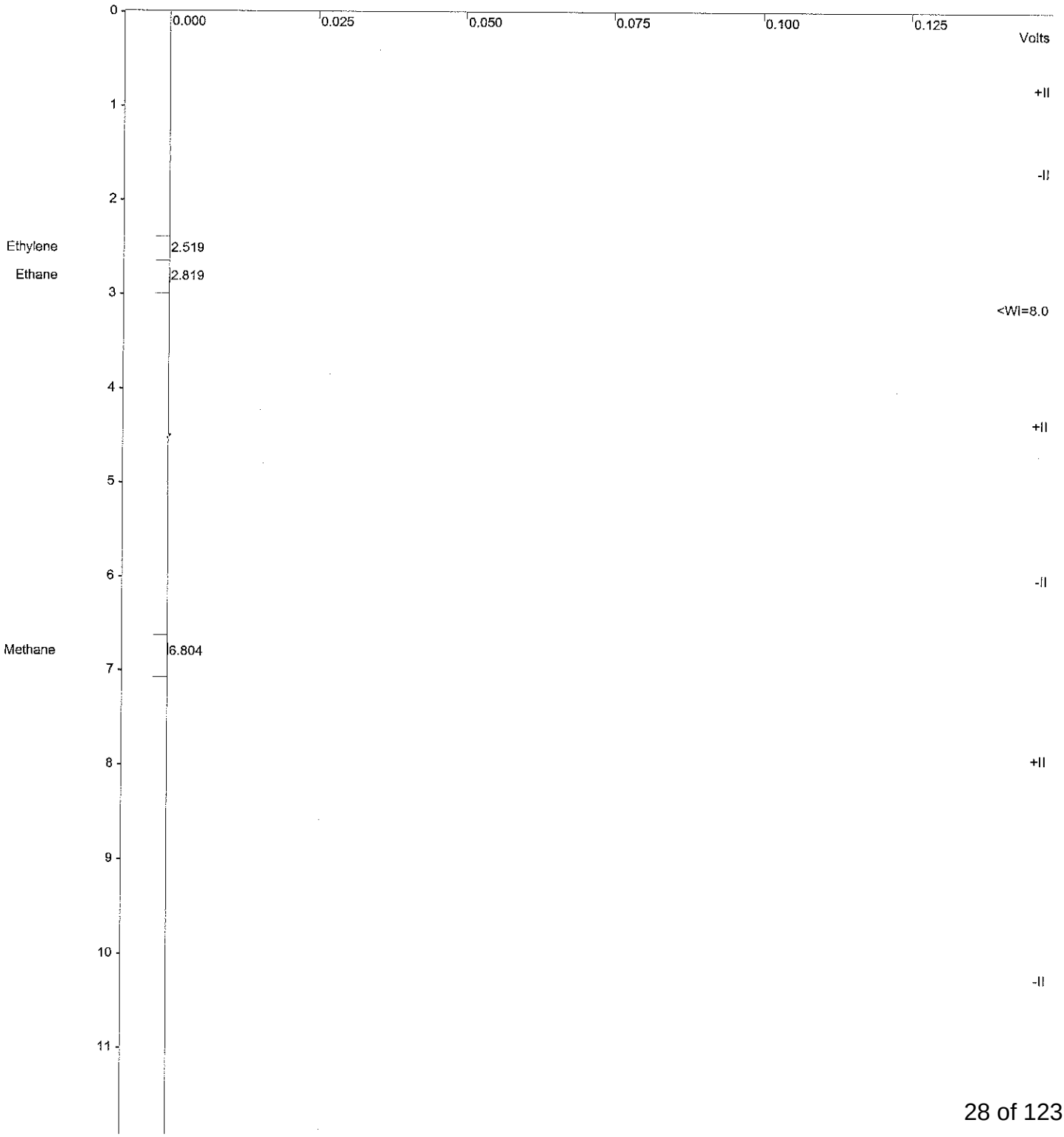
Injection Date: 4/28/2015 15:12 Calculation Date: 4/28/2015 15:24

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr021.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-01 Emax

Injection Date: 4/28/2015 15:12 Calculation Date: 4/28/2015 15:24

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.105	2.519	0.006	277	BV	6.4	
2	Ethane	0.126	2.819	-0.001	344	VB	6.5	
3	Acetylene		3.513					M
4	Methane	0.894	6.804	0.005	1214	BB	10.4	
	Totals:	1.125		0.010	1835			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -10 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr022.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-02 Emax

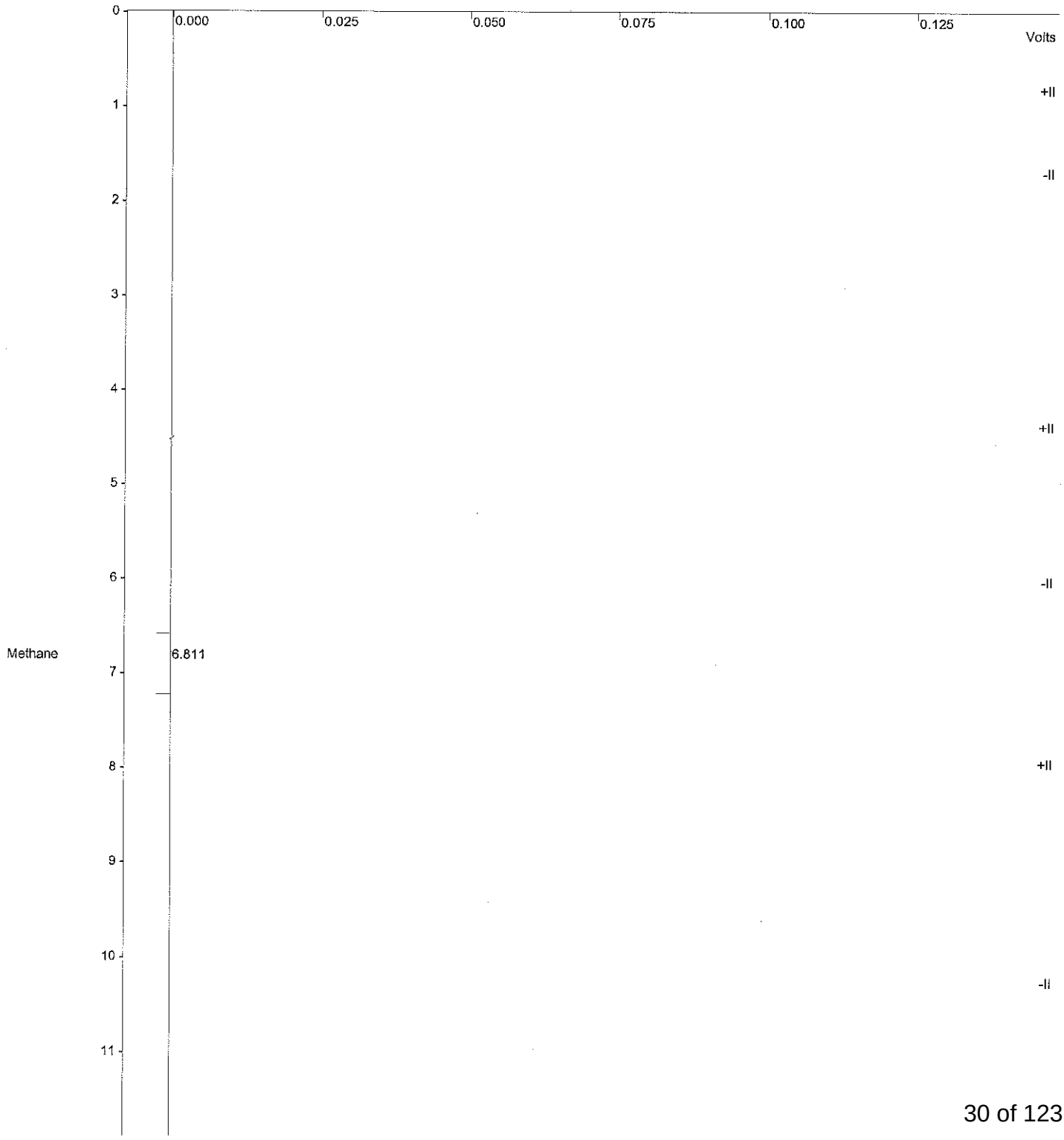
Injection Date: 4/28/2015 15:25 Calculation Date: 4/28/2015 15:37

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr022.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-02 Emax

Injection Date: 4/28/2015 15:25 Calculation Date: 4/28/2015 15:37

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.513					M
2	Ethane		2.820					M
3	Acetylene		3.513					M
4	Methane	0.809	6.811	0.012	1099	BB	11.6	
	Totals:	0.809		0.012	1099			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -44 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr023.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-03 Emax

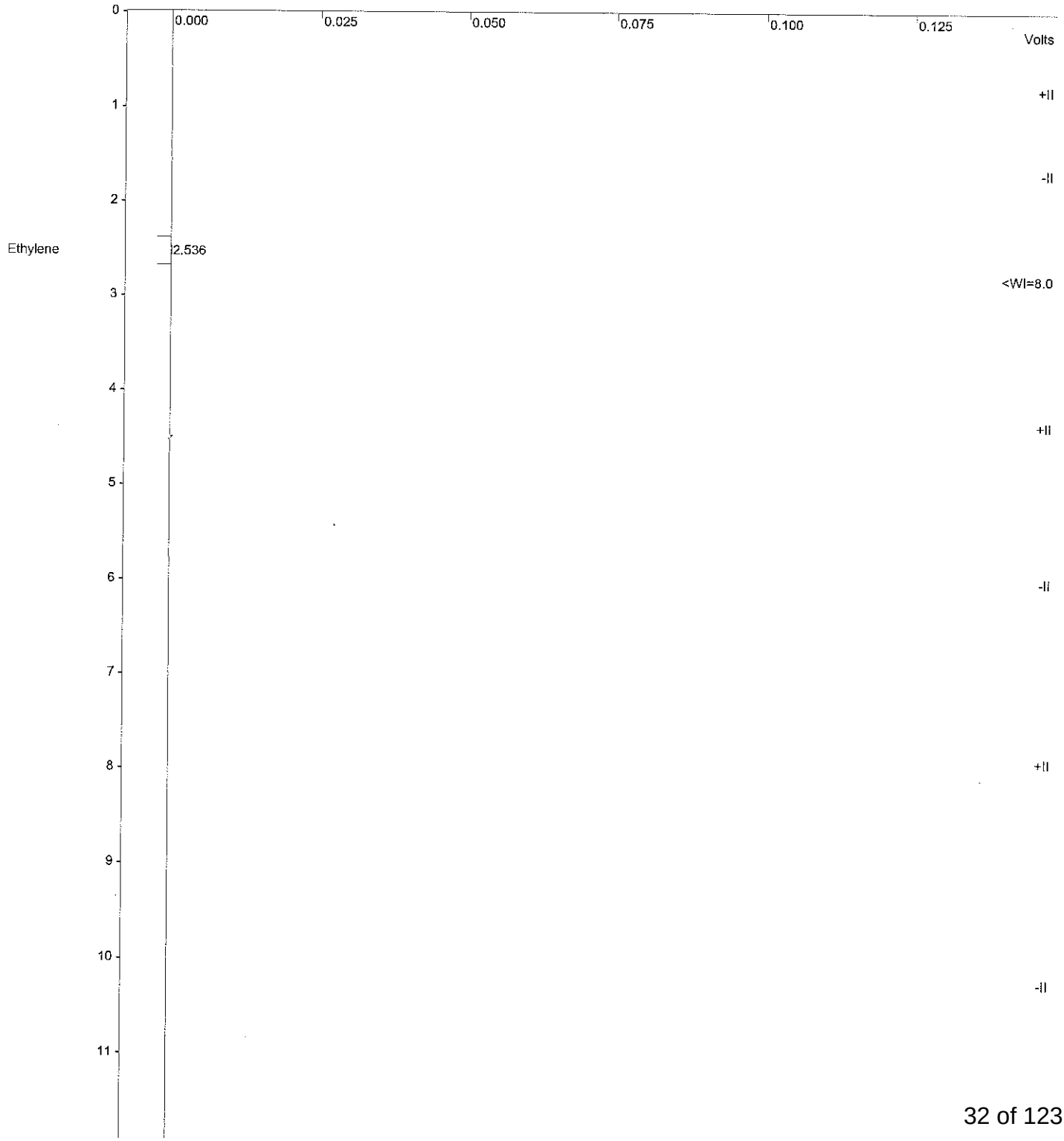
Injection Date: 4/28/2015 15:38 Calculation Date: 4/28/2015 15:50

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr023.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-03 Emax

Injection Date: 4/28/2015 15:38 Calculation Date: 4/28/2015 15:50

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.175	2.536	0.023	462	BB	6.2	
2	Ethane		2.820					M
3	Acetylene		3.513					M
4	Methane		6.799					M
	Totals:	0.175		0.023	462			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -50 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr024.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-03 MS Emax

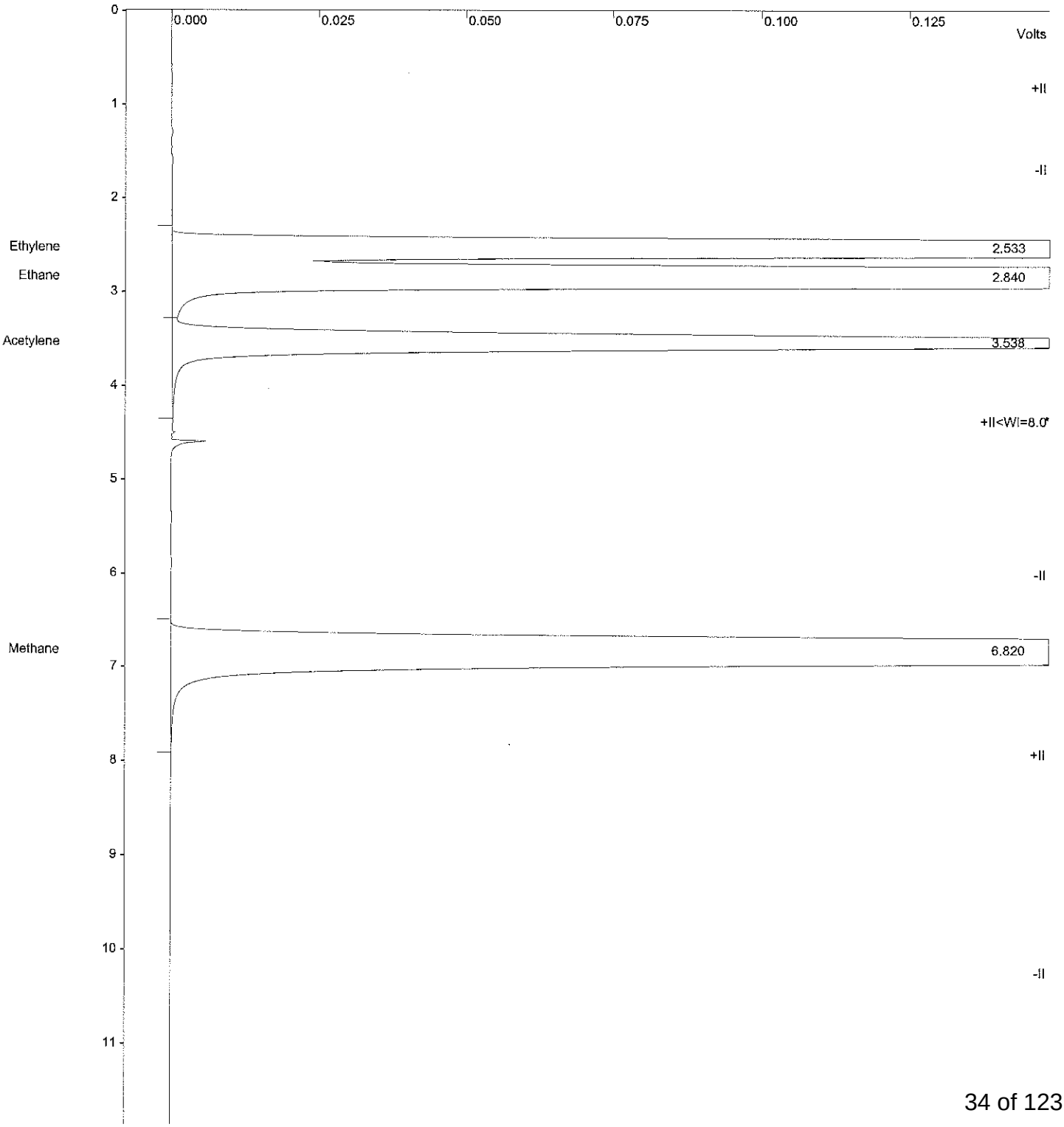
Injection Date: 4/28/2015 15:51 Calculation Date: 4/28/2015 16:03

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr024.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-03 MS Emax

Injection Date: 4/28/2015 15:51 Calculation Date: 4/28/2015 16:03

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4038.453	2.533	0.020	10696119	BV	6.0	
2	Ethane	6144.460	2.840	0.020	16708785	VV	6.8	
3	Acetylene	710.269	3.538	0.025	2034346	VB	8.7	
4	Methane	6777.110	6.820	0.022	9209591	BB	10.6	
	Totals:	17670.292		0.087	38648841			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr025.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-03 MSD Emax

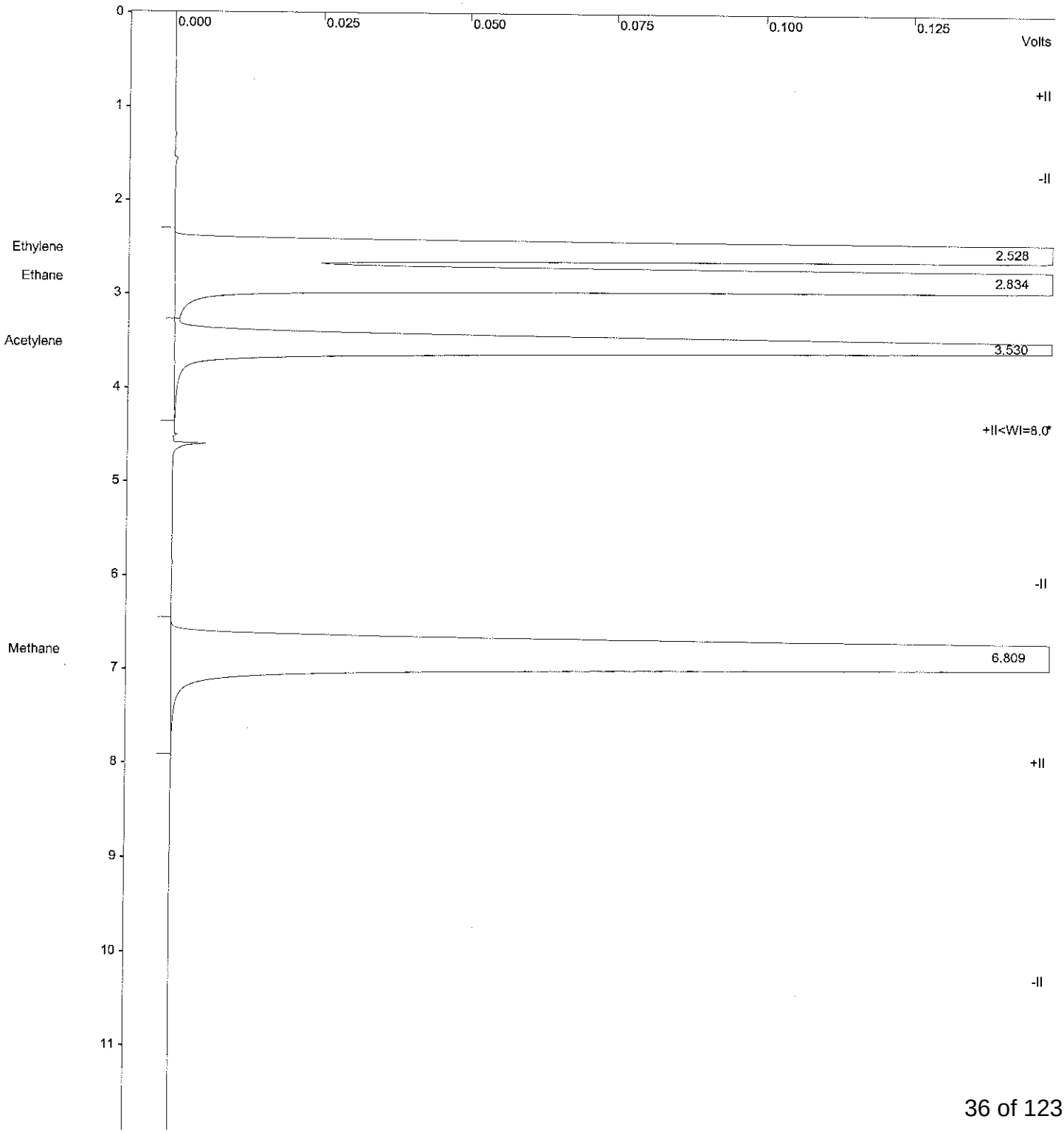
Injection Date: 4/28/2015 16:04 Calculation Date: 4/28/2015 16:16

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr025.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-03 MSD Emax

Injection Date: 4/28/2015 16:04 Calculation Date: 4/28/2015 16:16

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4029.186	2.528	0.015	10671574	BV	6.0	
2	Ethane	6104.381	2.834	0.014	16599798	VV	6.7	
3	Acetylene	734.328	3.530	0.017	2103256	VB	8.7	
4	Methane	6738.609	6.809	0.010	9157270	BB	10.6	
	Totals:	17606.504		0.056	38531898			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -48 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr026.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-04 Emax

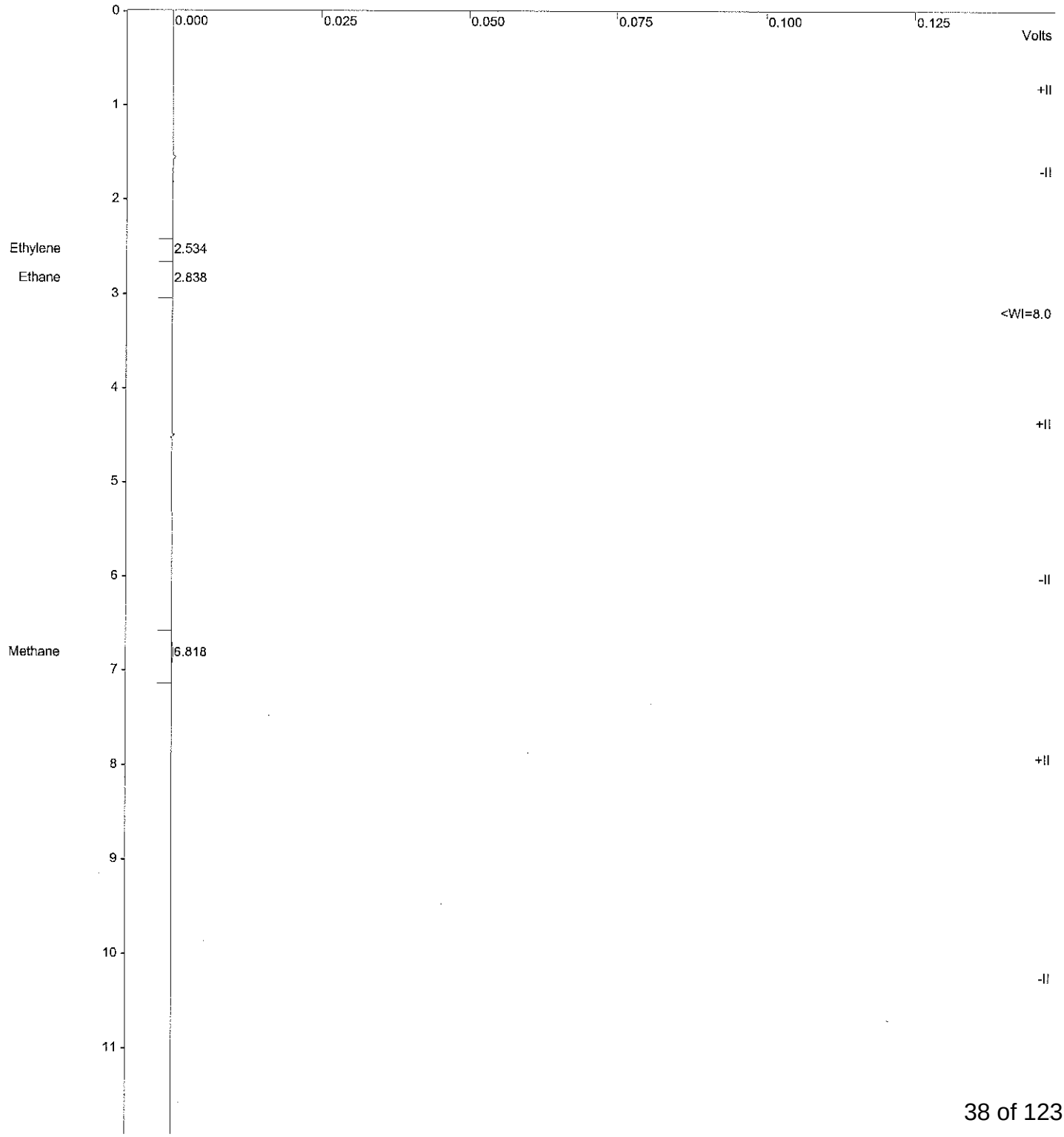
Injection Date: 4/28/2015 16:18 Calculation Date: 4/28/2015 16:30

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr026.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-04 Emax

Injection Date: 4/28/2015 16:18 Calculation Date: 4/28/2015 16:30

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.106	2.534	0.021	280	BV	5.9	
2	Ethane	0.207	2.838	0.018	562	VB	6.9	
3	Acetylene		3.513					M
4	Methane	2.190	6.818	0.019	2976	BB	11.0	
	Totals:	2.503		0.058	3818			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -36 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr027.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-05 Emax

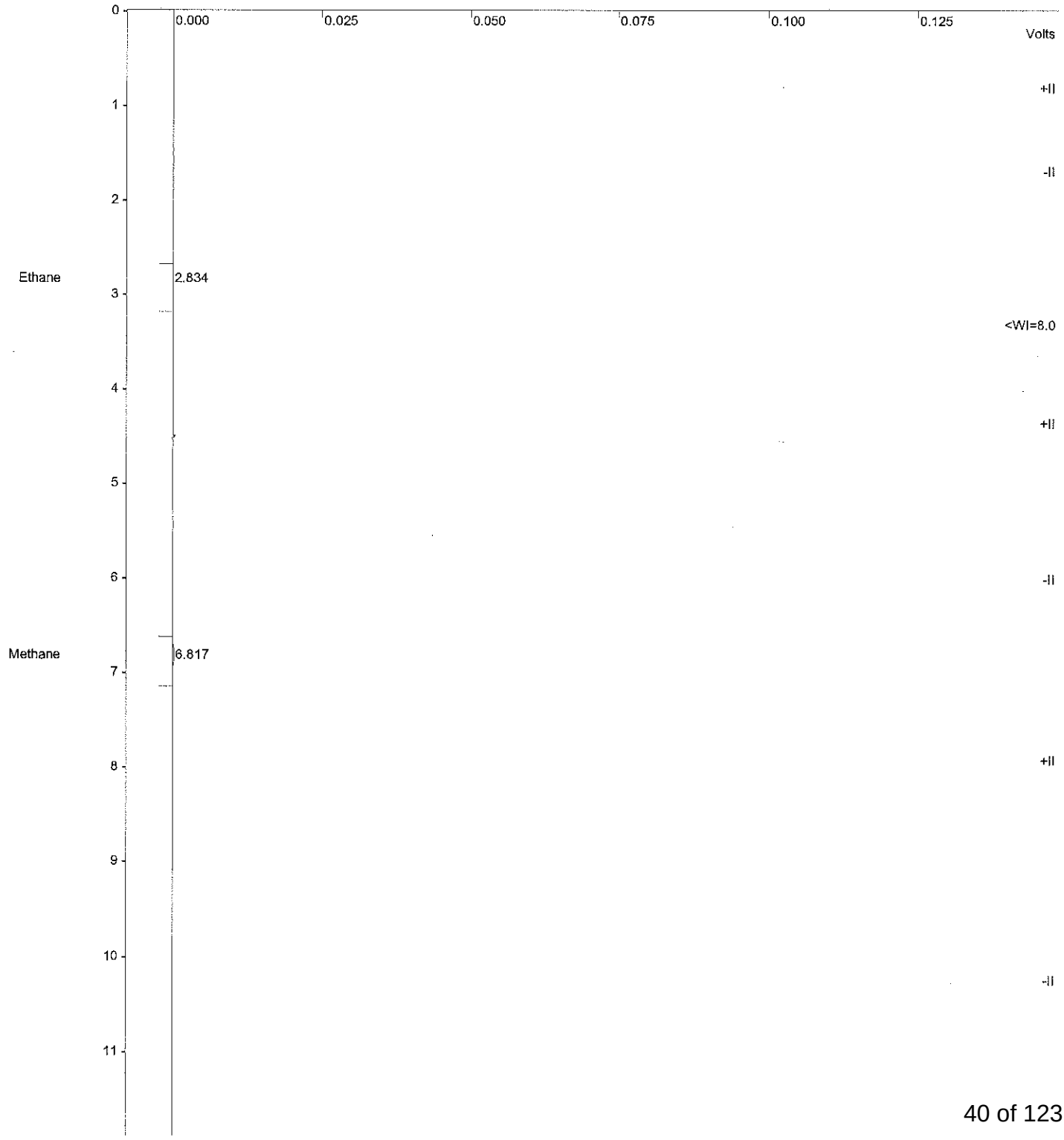
Injection Date: 4/28/2015 16:31 Calculation Date: 4/28/2015 16:43

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr027.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-05 Emax

Injection Date: 4/28/2015 16:31 Calculation Date: 4/28/2015 16:43

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.513					M
2	Ethane	0.171	2.834	0.014	465	BB	7.0	
3	Acetylene		3.513					M
4	Methane	2.453	6.817	0.018	3334	BB	10.7	
	Totals:	2.624		0.032	3799			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -29 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr028.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-06 Emax

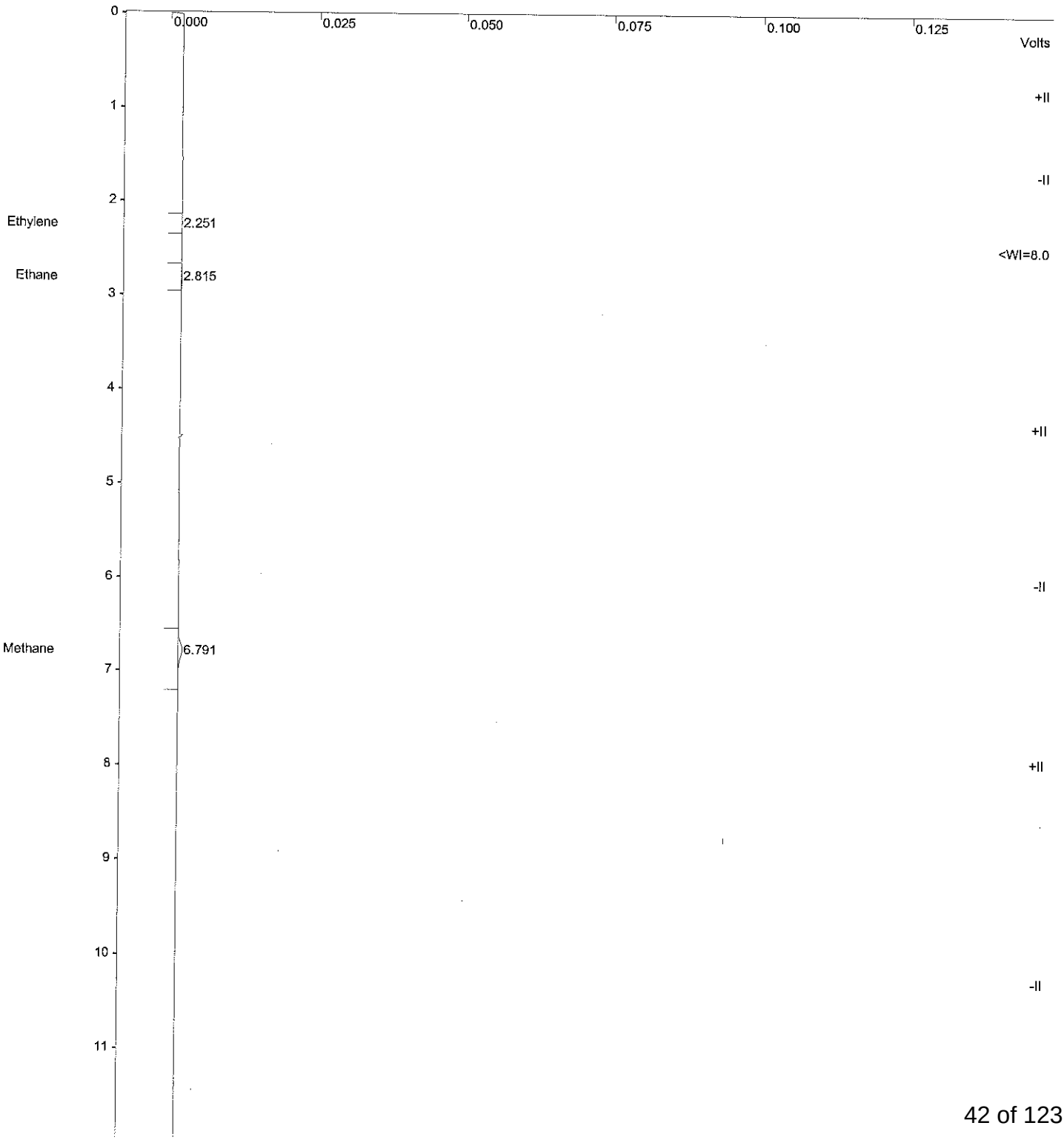
Injection Date: 4/29/2015 08:10 Calculation Date: 4/29/2015 08:22

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr028.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042702-06 Emax

Injection Date: 4/29/2015 08:10 Calculation Date: 4/29/2015 08:22

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.082	2.251	-0.262	216	BB	4.8	
2	Ethane	0.190	2.815	-0.005	517	BB	6.9	
3	Acetylene		3.513					M
4	Methane	5.839	6.791	-0.008	7935	BB	10.8	
	Totals:	6.111		-0.275	8668			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -6 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

	G042702-06	30apr017							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	#VALUE!
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	G042702-01	30apr005							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	#VALUE!
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

Calculations

	G042702-02	30apr006							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	#VALUE!
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	G042702-03	30apr007							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	#VALUE!		
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!		
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!		
	42.535787	1	4	26	Acetylene	1.0633947	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

Calculations

G042702-03 MS	30apr009	4/30/2015						
Parameter	methane	ethane	ethene	O2	CO2	H2	acetylene	Units
ppmv in headspace	NA	NA	NA	NA	NA	7487.178	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0074872	#VALUE!	none
m								
b								
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	1.059E-07	#VALUE!	none
H	41300	30200	11400	43800	1640	70700	1330	none
n_g								
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.011755	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0299487	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.068012	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.079767	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	79.77	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	80	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	#VALUE!
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
3.2719836	1	4	2	Hydrogen	0.0817996	97.515111

EPA Method RSK-175

Calculations

G042702-03 MSD	30apr011	4/30/2015						
Parameter	methane	ethane	ethene	O2	CO2	H2	acetylene	Units
ppmv in headspace	NA	NA	NA	NA	NA	7057.542	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0070575	#VALUE!	none
m								
b								
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	9.982E-08	#VALUE!	none
H	41300	30200	11400	43800	1640	70700	1330	none
n_g								
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0110804	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0282302	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0641093	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0751897	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	75.19	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	75	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	#VALUE!
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
3.2719836	1	4	2	Hydrogen	0.0817996	91.919411

	G042702-04	30apr012							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	#VALUE!
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	G042702-05	30apr016							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	#VALUE!		
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!		
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!		
	42.535787	1	4	26	Acetylene	1.0633947	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr005.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : G042702-01 Emax

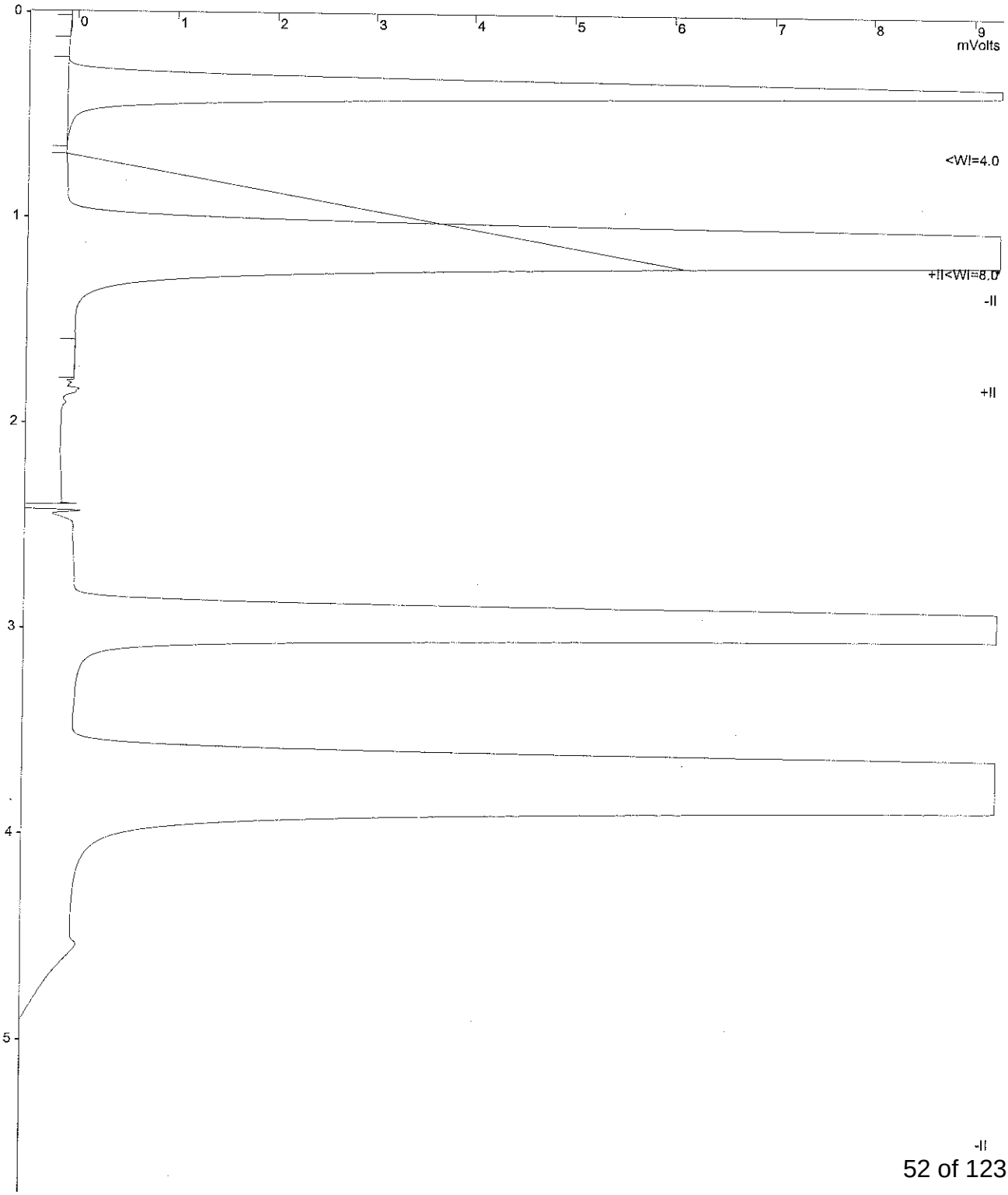
Injection Date: 4/30/2015 09:12 Calculation Date: 4/30/2015 10:18

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr005.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : G042702-01 Emax

Injection Date: 4/30/2015 09:12 Calculation Date: 4/30/2015 10:18

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 162525 counts

Detected Peaks: 4 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -64 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 8 microVolts

Manual injection

Revision Log:

4/30/2015 09:17: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 09:11:42 4/30/2015 10:18: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen140630.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr006.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-02 Emax

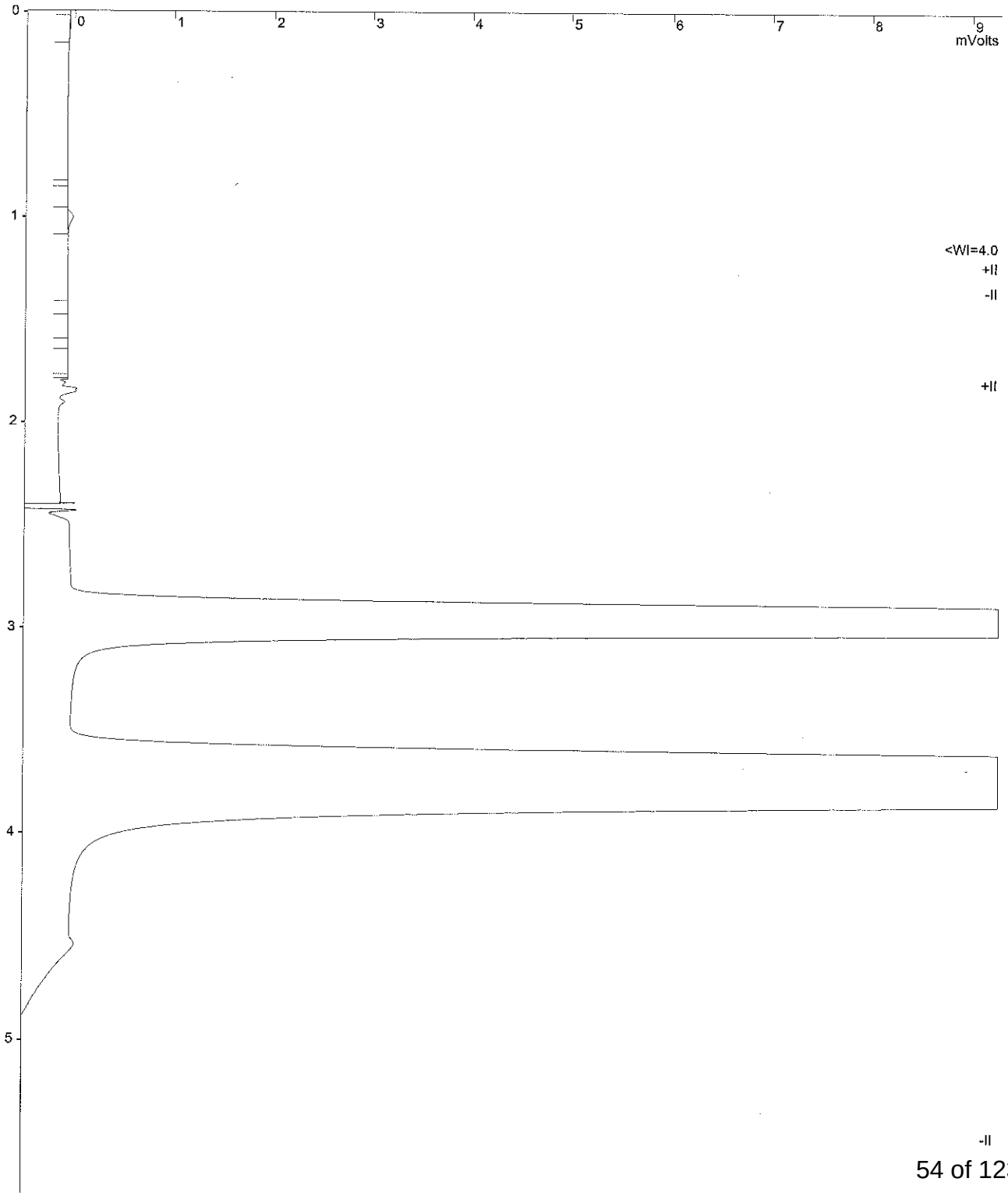
Injection Date: 4/30/2015 09:22 Calculation Date: 4/30/2015 09:27

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr006.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-02 Emax

Injection Date: 4/30/2015 09:22 Calculation Date: 4/30/2015 09:27

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 232 counts

Detected Peaks: 8 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -51 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 25 microVolts

Manual injection

Revision Log:

4/30/2015 09:27: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 09:17:48

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr007.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-03 Emax

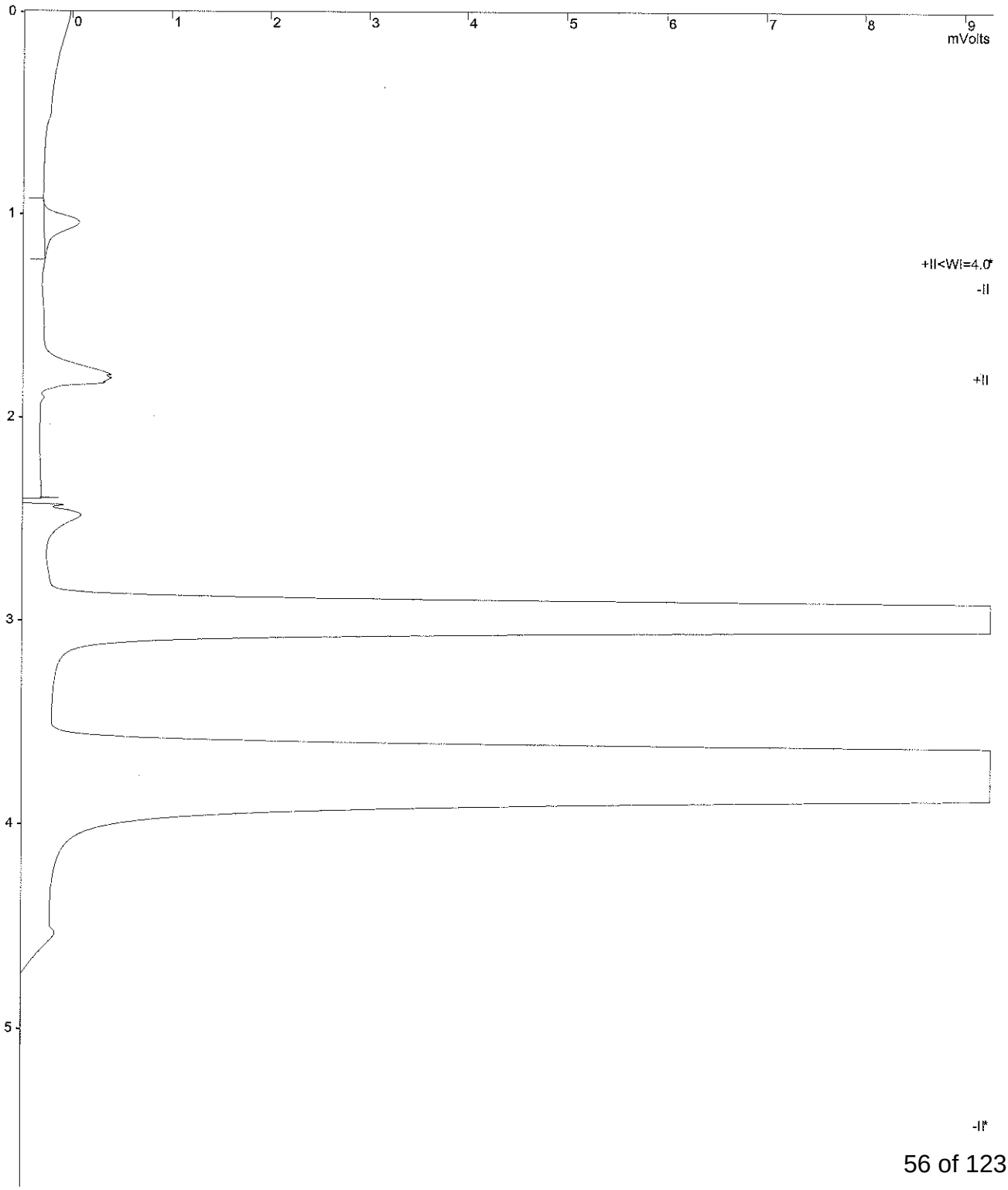
Injection Date: 4/30/2015 09:29 Calculation Date: 4/30/2015 09:34

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr007.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-03 Emax

Injection Date: 4/30/2015 09:29 Calculation Date: 4/30/2015 09:34

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2106 counts

Detected Peaks: 2 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -17 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 34 microVolts

Manual injection

Revision Log:

4/30/2015 09:34: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 09:27:41

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr009.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-03 MS Emax

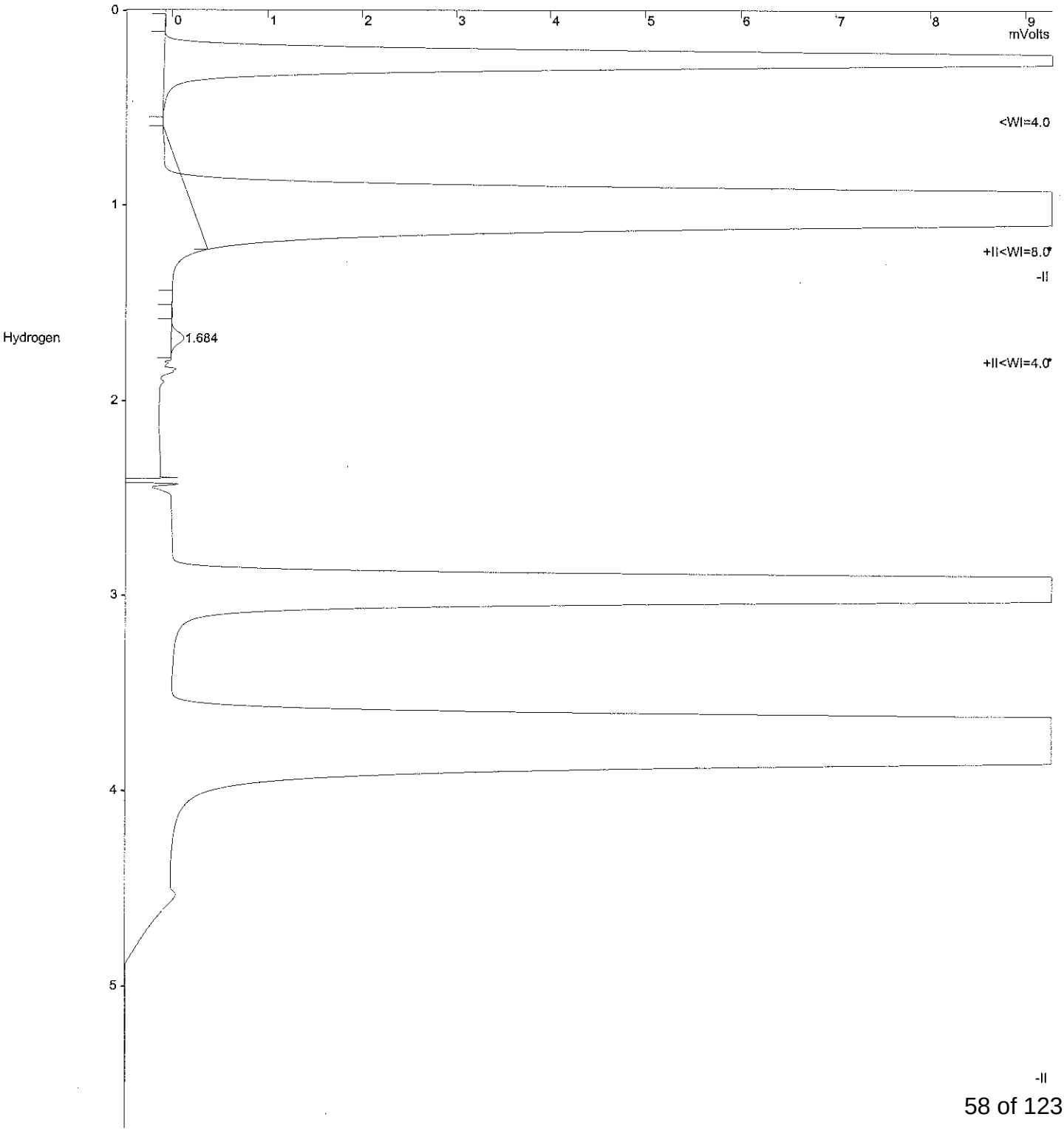
Injection Date: 4/30/2015 09:57 Calculation Date: 4/30/2015 10:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr009.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-03 MS Emax

Injection Date: 4/30/2015 09:57 Calculation Date: 4/30/2015 10:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	7487.178	1.684	-0.000	580	VB	3.9	
	Totals:	7487.178		0.000	580			

Total Unidentified Counts : 313535 counts

Detected Peaks: 6 Rejected Peaks: 3 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -73 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

Revision Log:

4/30/2015 10:02: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 09:56:38

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr011.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-03 MSD Emax

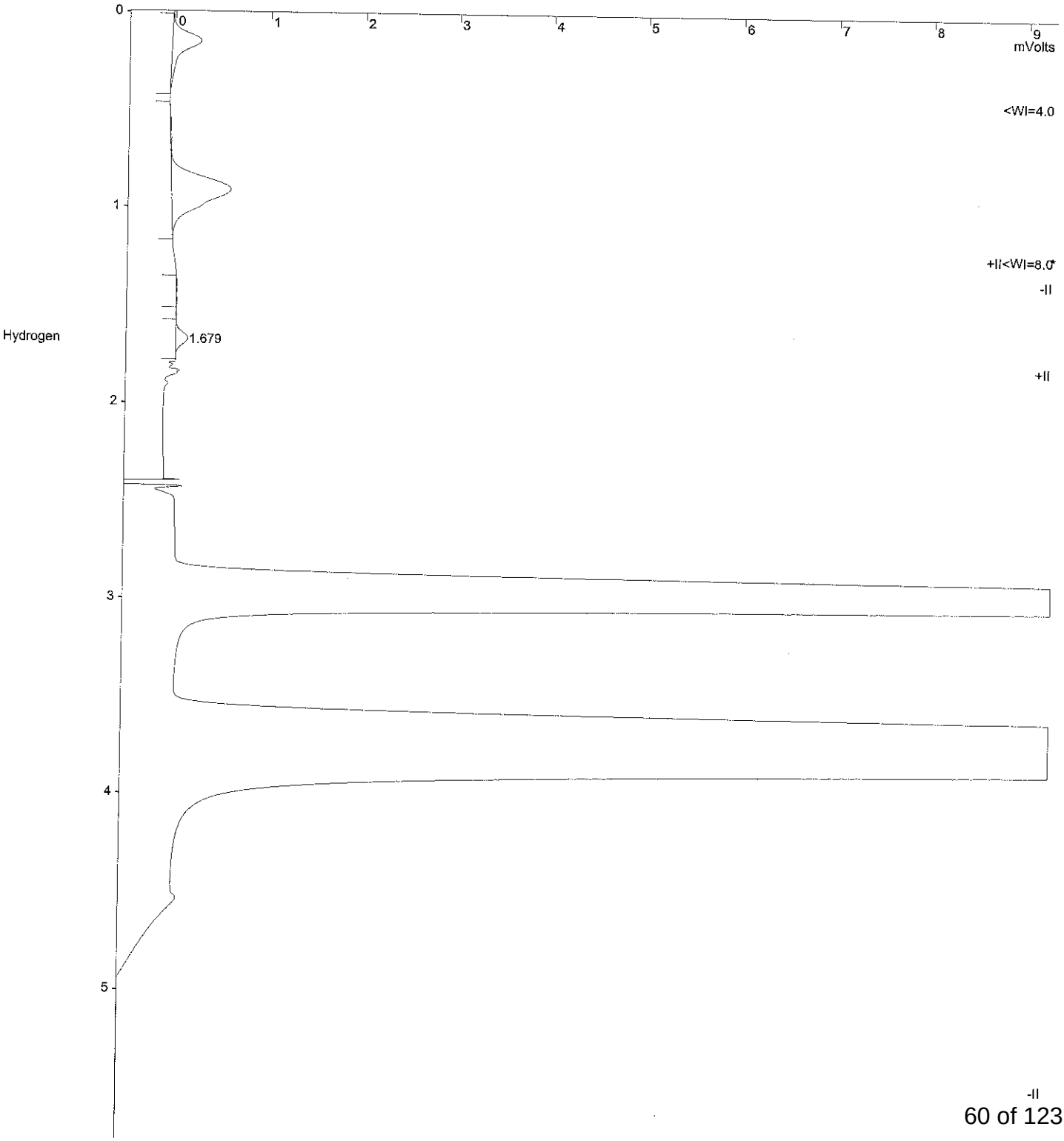
Injection Date: 4/30/2015 10:12 Calculation Date: 4/30/2015 10:18

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr011.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-03 MSD Emax

Injection Date: 4/30/2015 10:12 Calculation Date: 4/30/2015 10:18

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	7057.542	1.679	-0.005	546	VB	4.1	
	Totals:	7057.542		-0.005	546			

Total Unidentified Counts : 8155 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -26 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

Revision Log:

4/30/2015 10:18: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 10:11:49

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr012.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-04 Emax

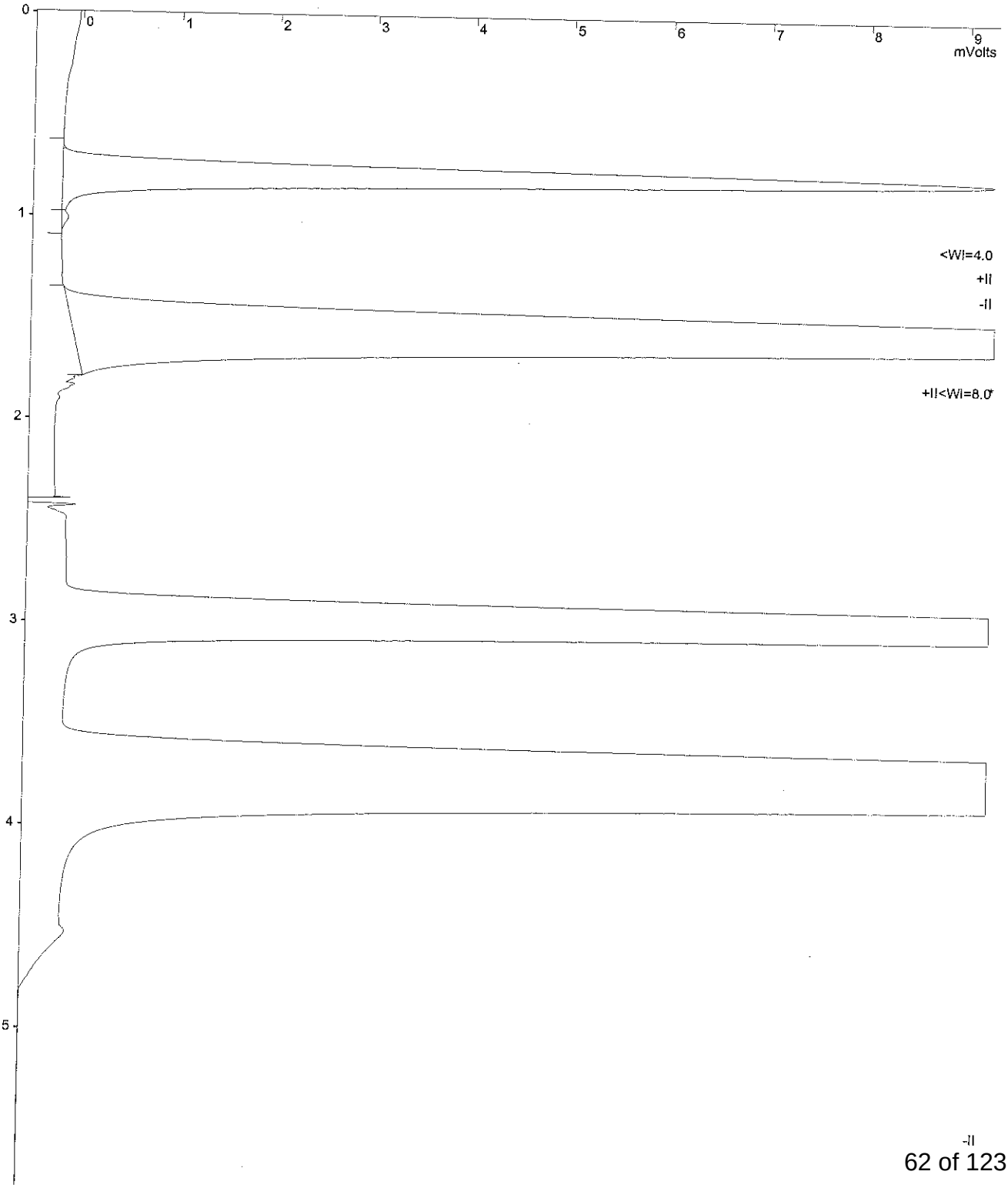
Injection Date: 4/30/2015 10:19 Calculation Date: 4/30/2015 10:25

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr012.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-04 Emax

Injection Date: 4/30/2015 10:19 Calculation Date: 4/30/2015 10:25

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 236786 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -32 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 28 microVolts

Manual injection

Revision Log:

4/30/2015 10:25: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 10:17:54

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr016.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : G042702-05 Emax

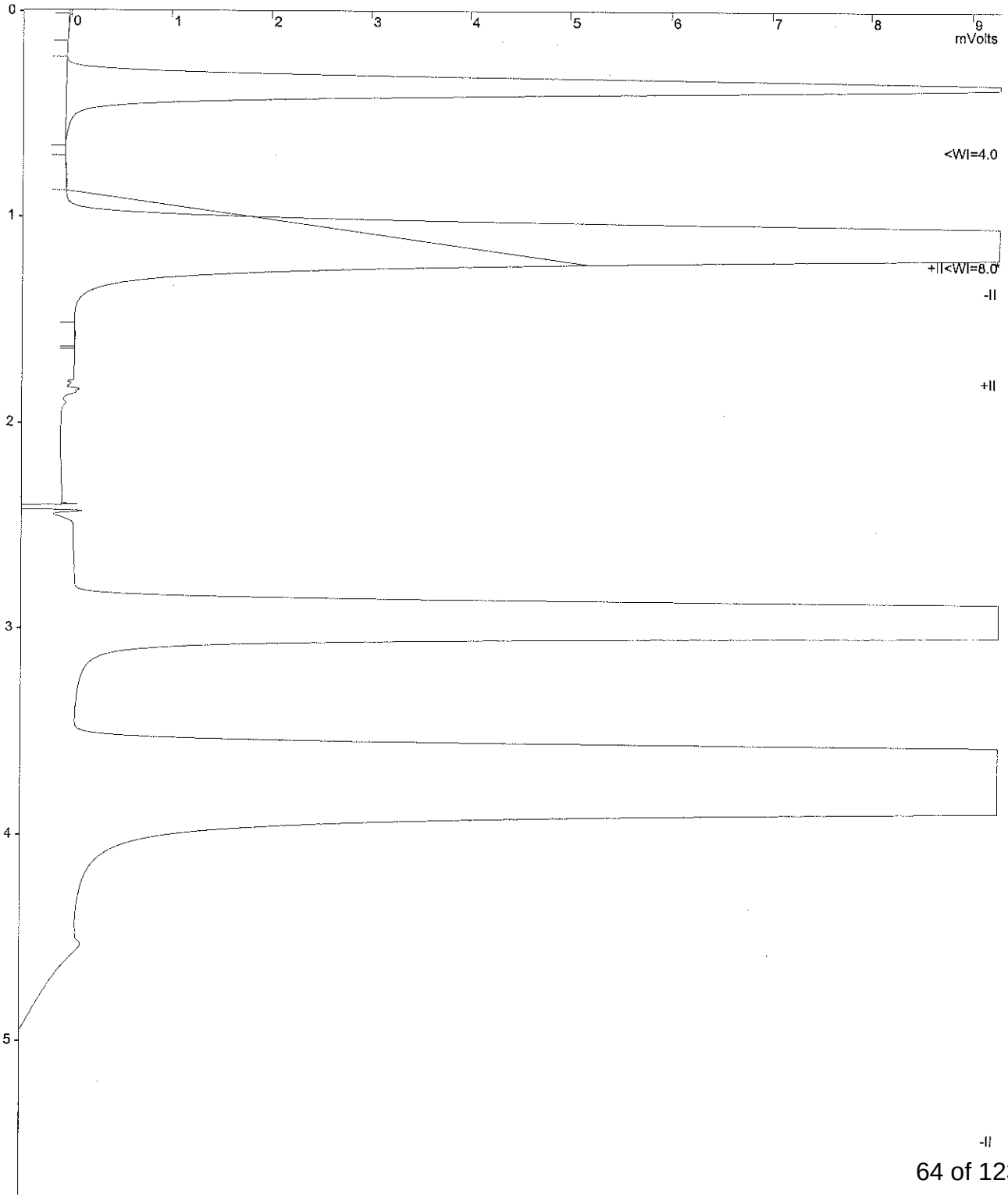
Injection Date: 4/30/2015 10:49 Calculation Date: 4/30/2015 11:00

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr016.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : G042702-05 Emax

Injection Date: 4/30/2015 10:49 Calculation Date: 4/30/2015 11:00

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 179078 counts

Detected Peaks: 6 Rejected Peaks: 3 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -19 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 7 microVolts

Manual injection

Revision Log:

/30/2015 10:55: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 10:48:59 4/30/2015 11:00: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen140630.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr017.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-06 Emax

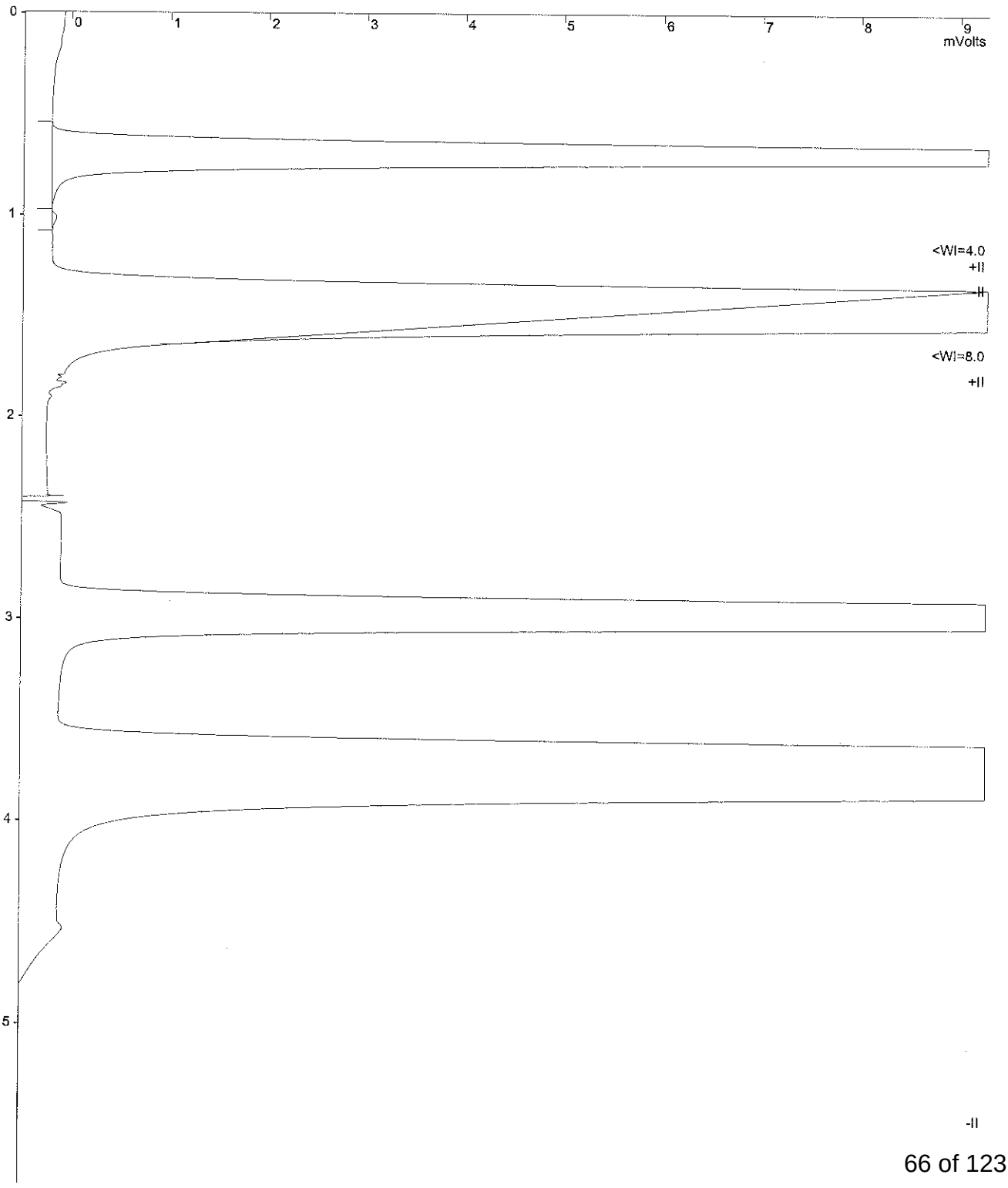
Injection Date: 4/30/2015 10:56 Calculation Date: 4/30/2015 11:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr017.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042702-06 Emax

Injection Date: 4/30/2015 10:56 Calculation Date: 4/30/2015 11:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 353937 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -73 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 35 microVolts

Manual injection

Revision Log:

4/30/2015 11:02: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 10:55:09

****

3. Initial Calibration

a. ICAL Summary
b. Chromatograms/Results

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Data Method Time : 4/28/2015 10:58

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Middle

Calibration Dates
Last Injection Date : 4/28/2015 10:26

Last Recalculation Date : 4/28/2015 10:58

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X^3	X^2	X	C	r^2	Cal. Range	No. of Points	Edit Codes
2.513	Ethylene	1 F			+2.6486e+003	+0.0000e+000	+9.9994e-001	1-6	6	
2.820	Ethane	1 F			+2.7193e+003	+0.0000e+000	+9.9991e-001	1-6	6	
3.513	Acetylene	1 F			+2.8642e+003	+0.0000e+000	+9.9945e-001	1-6	6	
6.799	Methane	1 F			+1.3589e+003	+0.0000e+000	+9.9985e-001	1-6	6	

Curve Codes	Origin Codes	Edit Codes
1 linear	I include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 2.513 min.
Peak Name: Ethylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7166	7166.3	#
2	10.000000	1	27376	27376.0	#
3	100.000000	1	270463	270463.2	#
4	1000.000000	1	2618394	2618394.3	#
5	5000.000000	1	13061288	13061288.0	#
6	10000.000000	1	26579418	26579418.0	#

Ret. Time: 2.820 min.
Peak Name: Ethane
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7755	7755.3	#
2	10.000000	1	28699	28698.8	#
3	100.000000	1	278523	278523.3	#
4	1000.000000	1	2689042	2689041.8	#
5	5000.000000	1	13380106	13380106.0	#
6	10000.000000	1	27304472	27304472.0	#

Ret. Time: 3.513 min.
Peak Name: Acetylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	6309	6309.0	#
2	10.000000	1	23753	23752.9	#
3	100.000000	1	245499	245498.7	#
4	1000.000000	1	2557204	2557203.5	#
5	5000.000000	1	13780426	13780426.0	#
6	10000.000000	1	28943272	28943272.0	#

Ret. Time: 6.799 min.
Peak Name: Methane

Peak Measurement: Area
Curve\Origin: 1 F

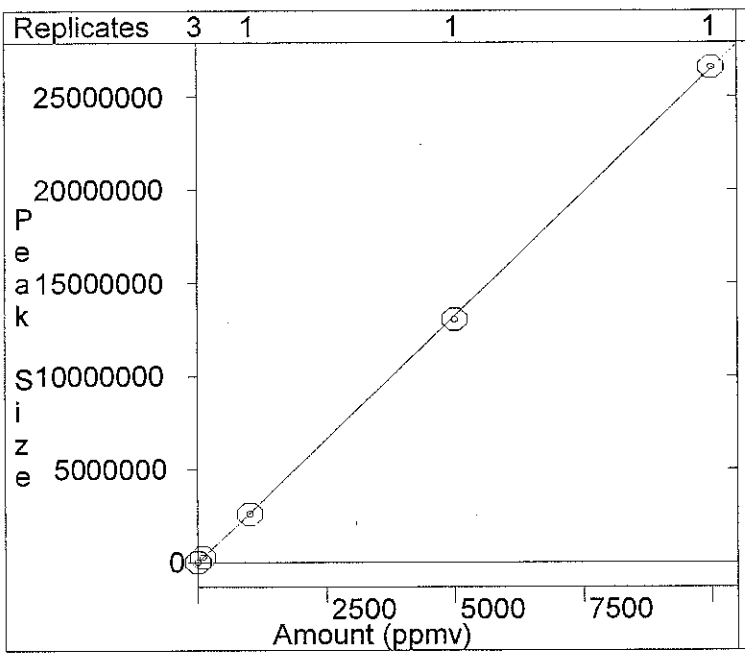
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	3842	3841.7	#
2	10.000000	1	18252	18251.6	#
3	100.000000	1	137914	137913.6	#
4	1000.000000	1	1313784	1313783.8	#
5	5000.000000	1	6653391	6653391.0	#
6	10000.000000	1	13664368	13664368.0	#

= Too few points to calculate.

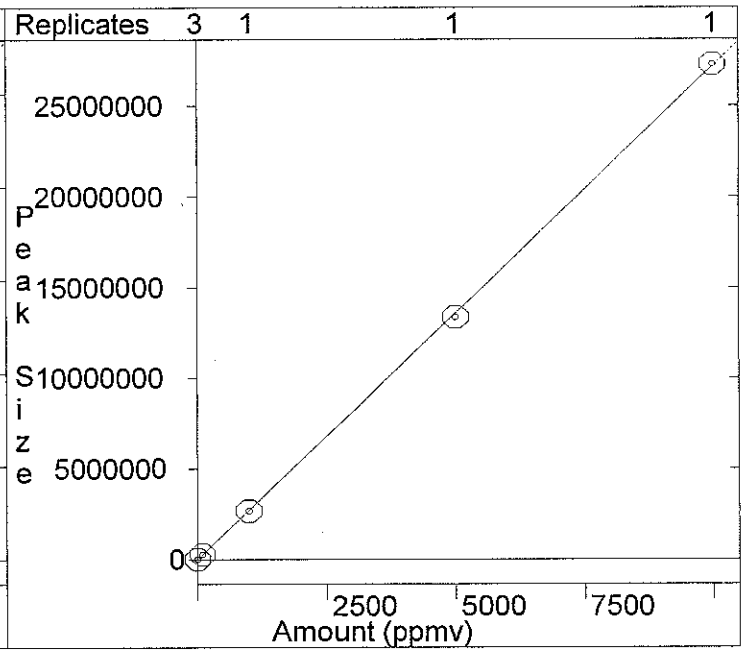
Peak Name	Level	Rep.	Injection Date Time	Run Files
Ethylene	1	1	4/28/2015 09:13	c:\temp gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp gc\gc8a\2015\apr\28apr005.run
Ethane	1	1	4/28/2015 09:13	c:\temp gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp gc\gc8a\2015\apr\28apr005.run
Acetylene	1	1	4/28/2015 09:13	c:\temp gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp gc\gc8a\2015\apr\28apr005.run
Methane	1	1	4/28/2015 09:13	c:\temp gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp gc\gc8a\2015\apr\28apr005.run

Print Date: 28 Apr 2015 11:16:09
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rsk175fg150428.mth
Detector: 3800 GC, Address: 44, Channel ID: Middle

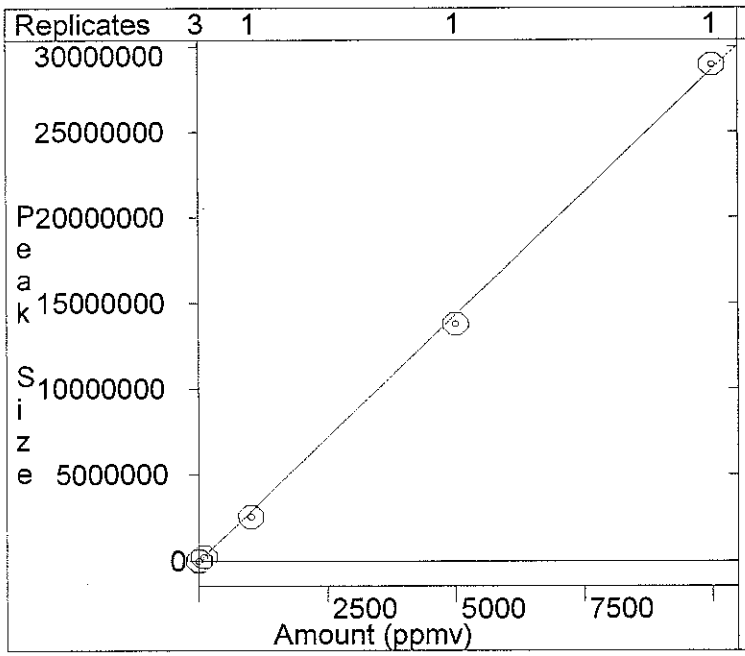
Ethylene
External Standard Analysis
Resp. Fact. RSD: 4.704%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999936
y = +2.6486e+003x



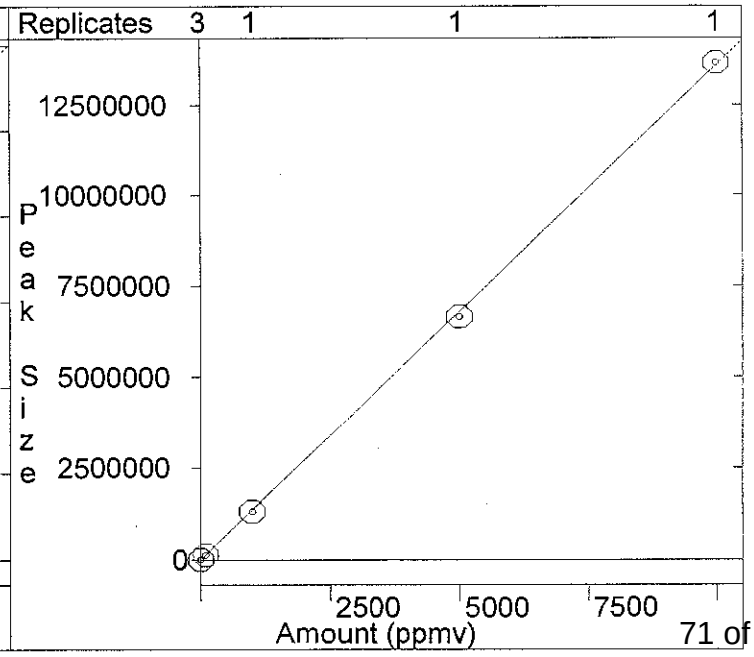
Ethane
External Standard Analysis
Resp. Fact. RSD: 3.594%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999914
y = +2.7193e+003x



Acetylene
External Standard Analysis
Resp. Fact. RSD: 11.16%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999448
y = +2.8642e+003x



Methane
External Standard Analysis
Resp. Fact. RSD: 14.38%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999846
y = +1.3589e+003x



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 3 ppmv ICAL

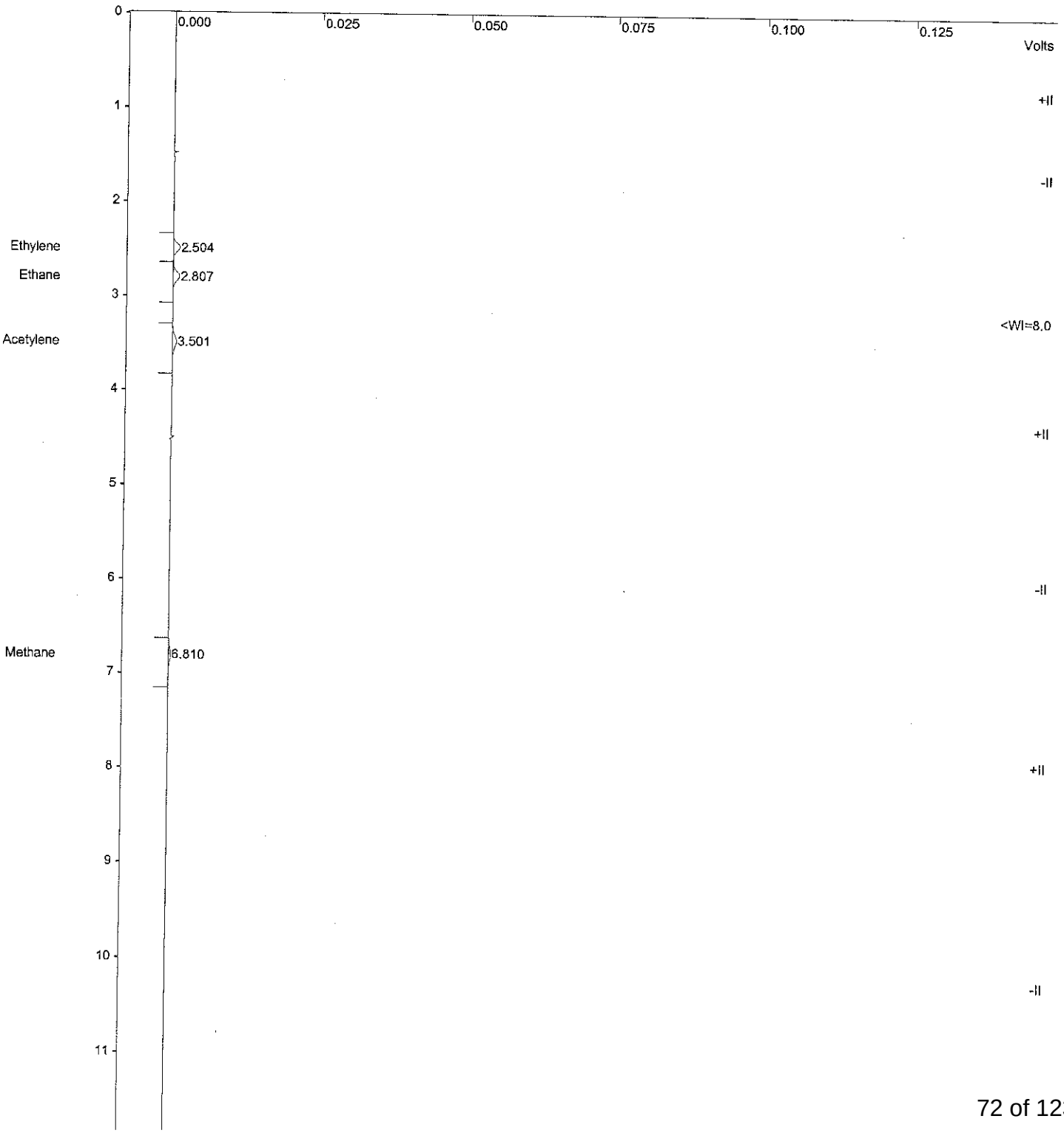
Injection Date: 4/28/2015 09:13 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 3 ppmv ICAL

Injection Date: 4/28/2015 09:13 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.504	0.055	7166	BV	6.0	
2	Ethane	2.807	-0.016	7755	VB	6.6	
3	Acetylene	3.501	0.005	6309	BB	8.8	
4	Methane	6.810	0.142	3842	BB	10.3	
	Totals:		0.186	25072			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -15 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 10 ppmv ICAL

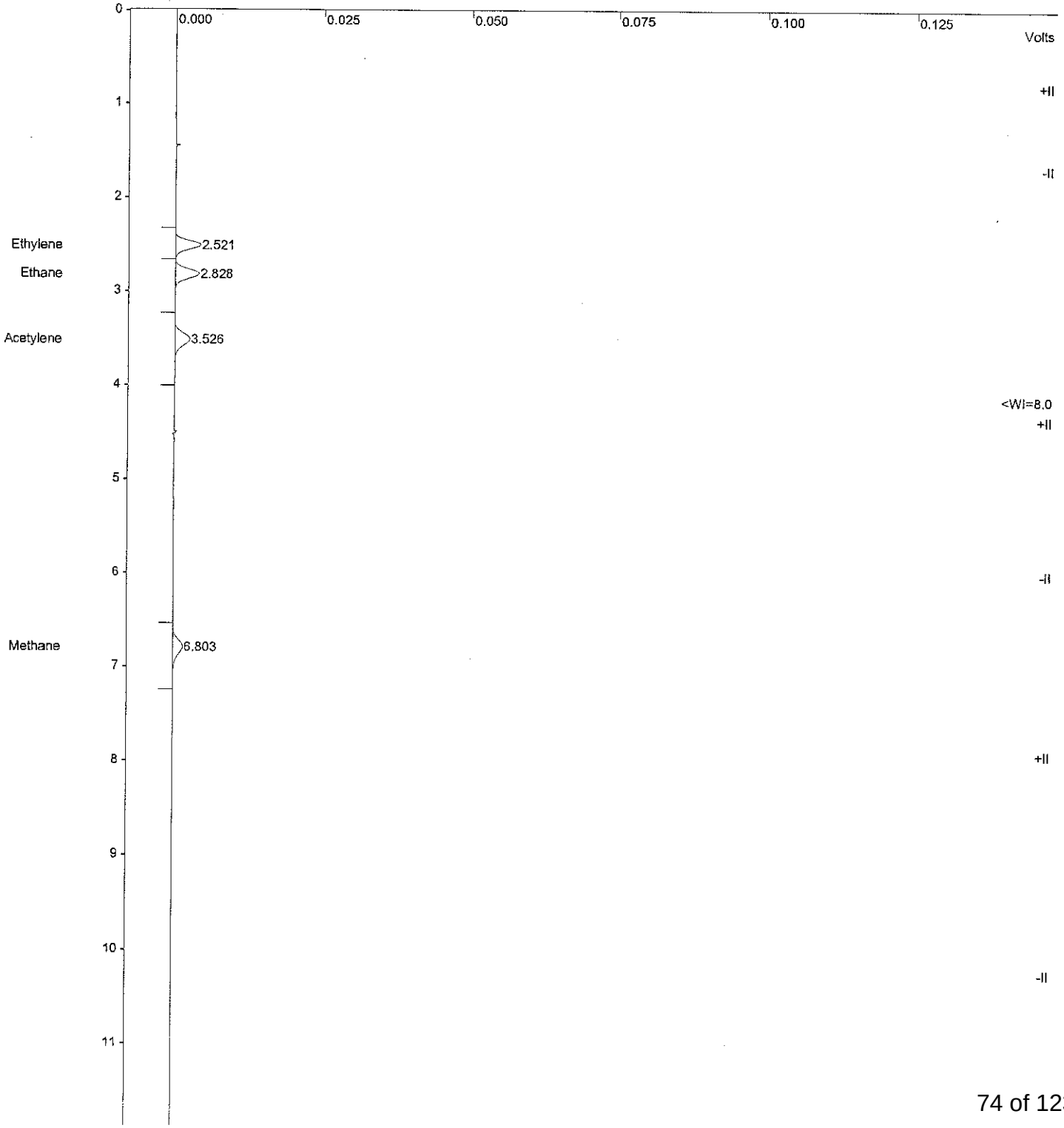
Injection Date: 4/28/2015 09:27 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 10 ppmv ICAL

Injection Date: 4/28/2015 09:27 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.521	0.018	27376	BV	6.0	
2	Ethane	2.828	0.021	28699	VP	6.7	
3	Acetylene	3.526	0.025	23753	PB	8.8	
4	Methane	6.803	-0.007	18252	BB	10.7	
	Totals:		0.057	98080			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -36 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 100 ppmv ICAL

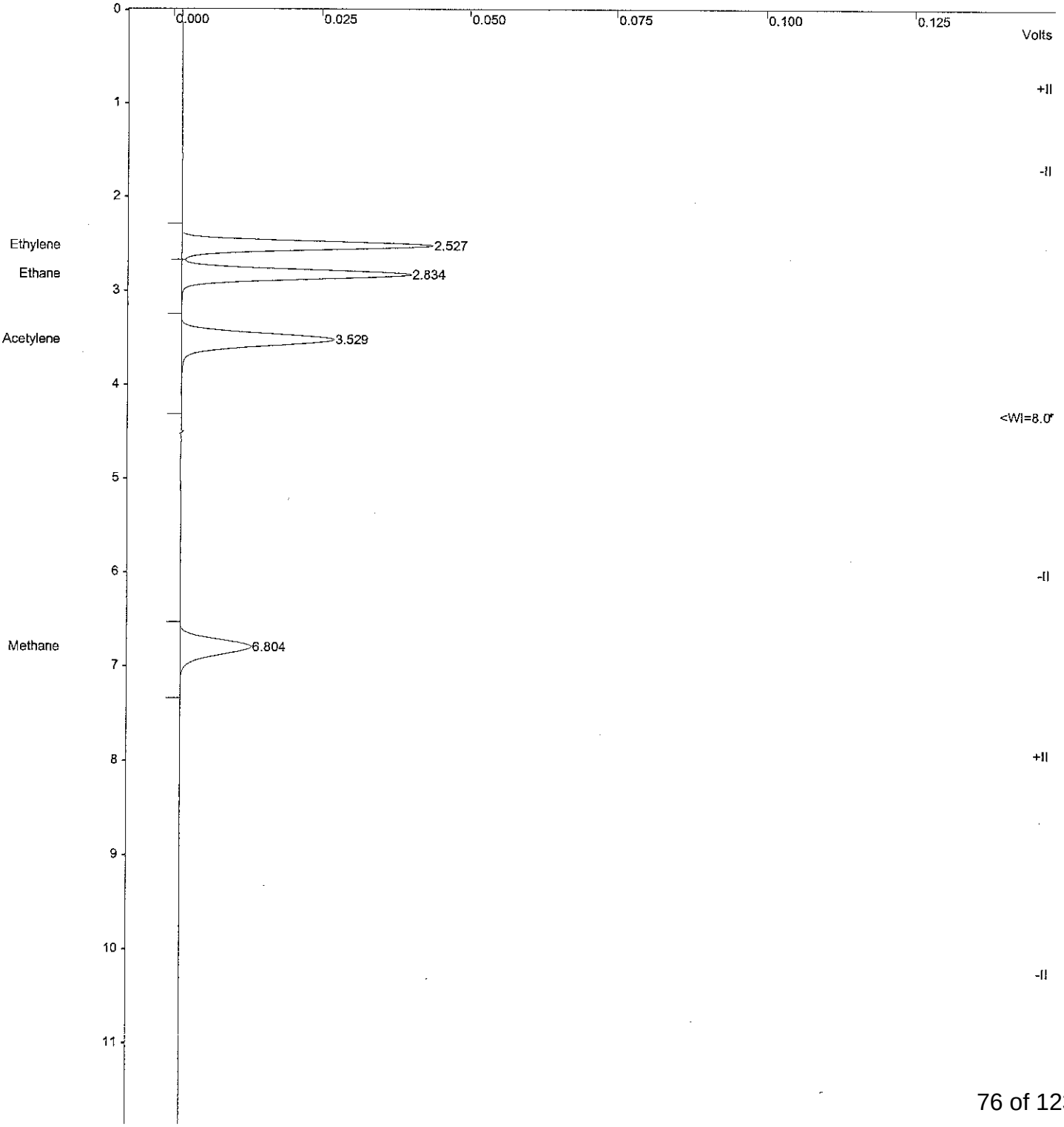
Injection Date: 4/28/2015 09:41 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 100 ppmv ICAL

Injection Date: 4/28/2015 09:41 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.527	0.006	270463	BV	5.9	
2	Ethane	2.834	0.006	278523	VV	6.7	
3	Acetylene	3.529	0.003	245499	VB	8.8	
4	Methane	6.804	0.002	137914	BB	10.6	
	Totals:		0.017	932399			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 1083 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1000 ppmv ICAL

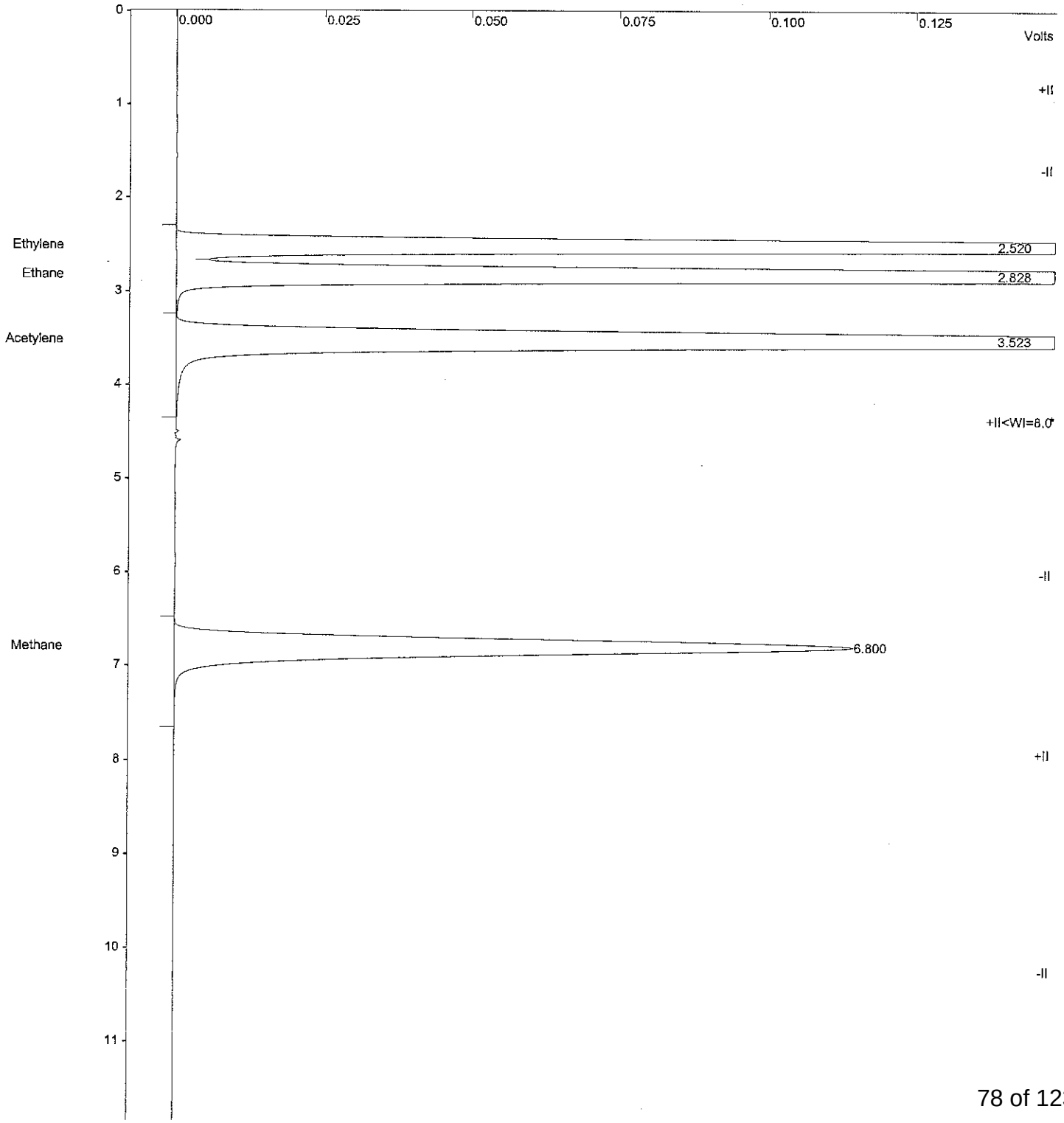
Injection Date: 4/28/2015 09:56 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1000 ppmv ICAL

Injection Date: 4/28/2015 09:56 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.520	-0.007	2618394	BV	6.0	
2	Ethane	2.828	-0.006	2689042	VV	6.7	
3	Acetylene	3.523	-0.005	2557204	VB	8.7	
4	Methane	6.800	-0.003	1313784	BB	10.5	
	Totals:		-0.021	9178424			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 14 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 5000 ppmv ICAL

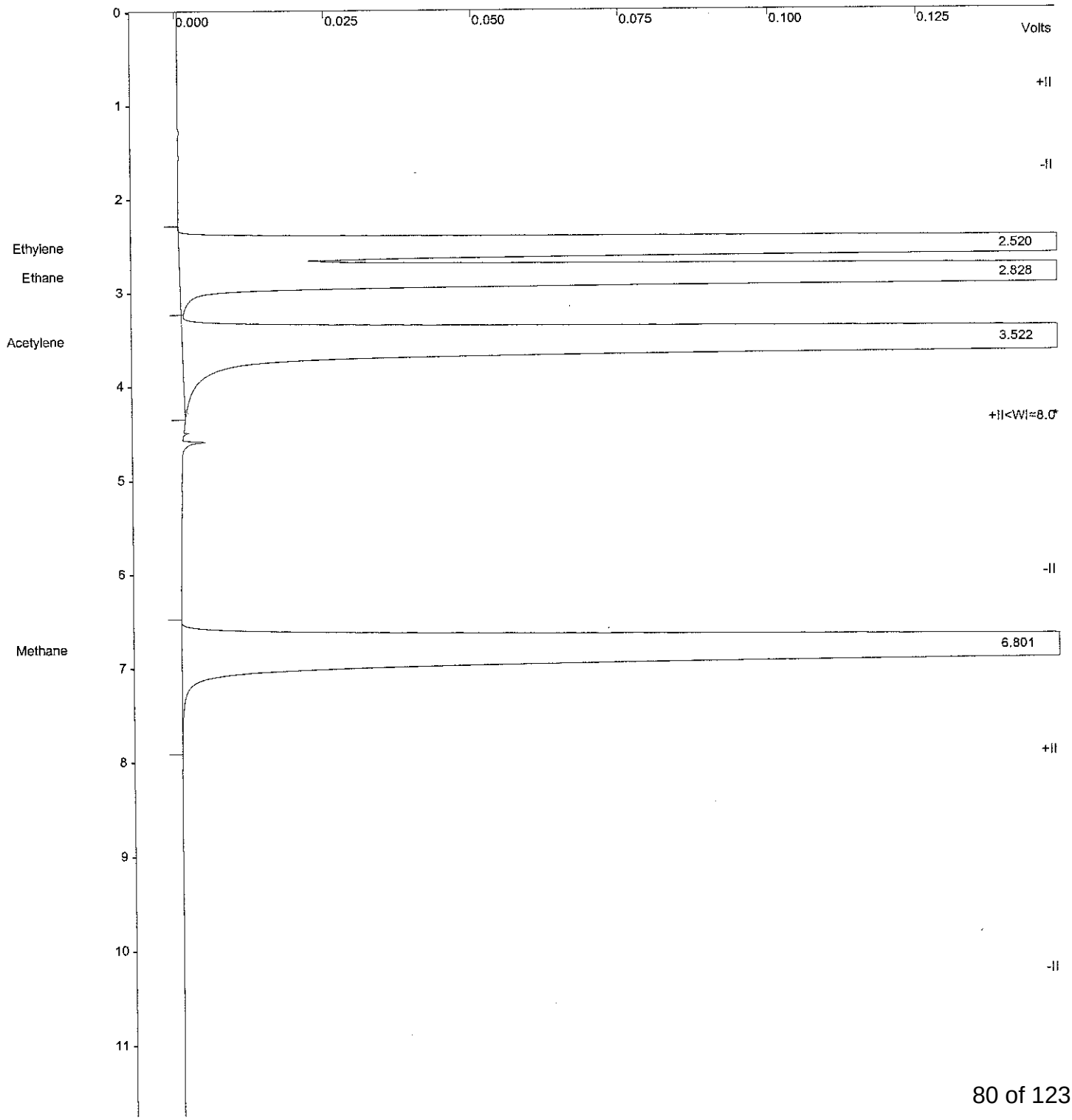
Injection Date: 4/28/2015 10:11 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 5000 ppmv ICAL

Injection Date: 4/28/2015 10:11 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.520	0.001	13061288	BV	6.0	
2	Ethane	2.828	-0.000	13380106	VV	6.7	
3	Acetylene	3.522	-0.001	13780426	VB	8.7	
4	Methane	6.801	0.001	6653391	BB	10.5	
	Totals:		0.001	46875211			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 413 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr005.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1% (10000ppmv) ICAL

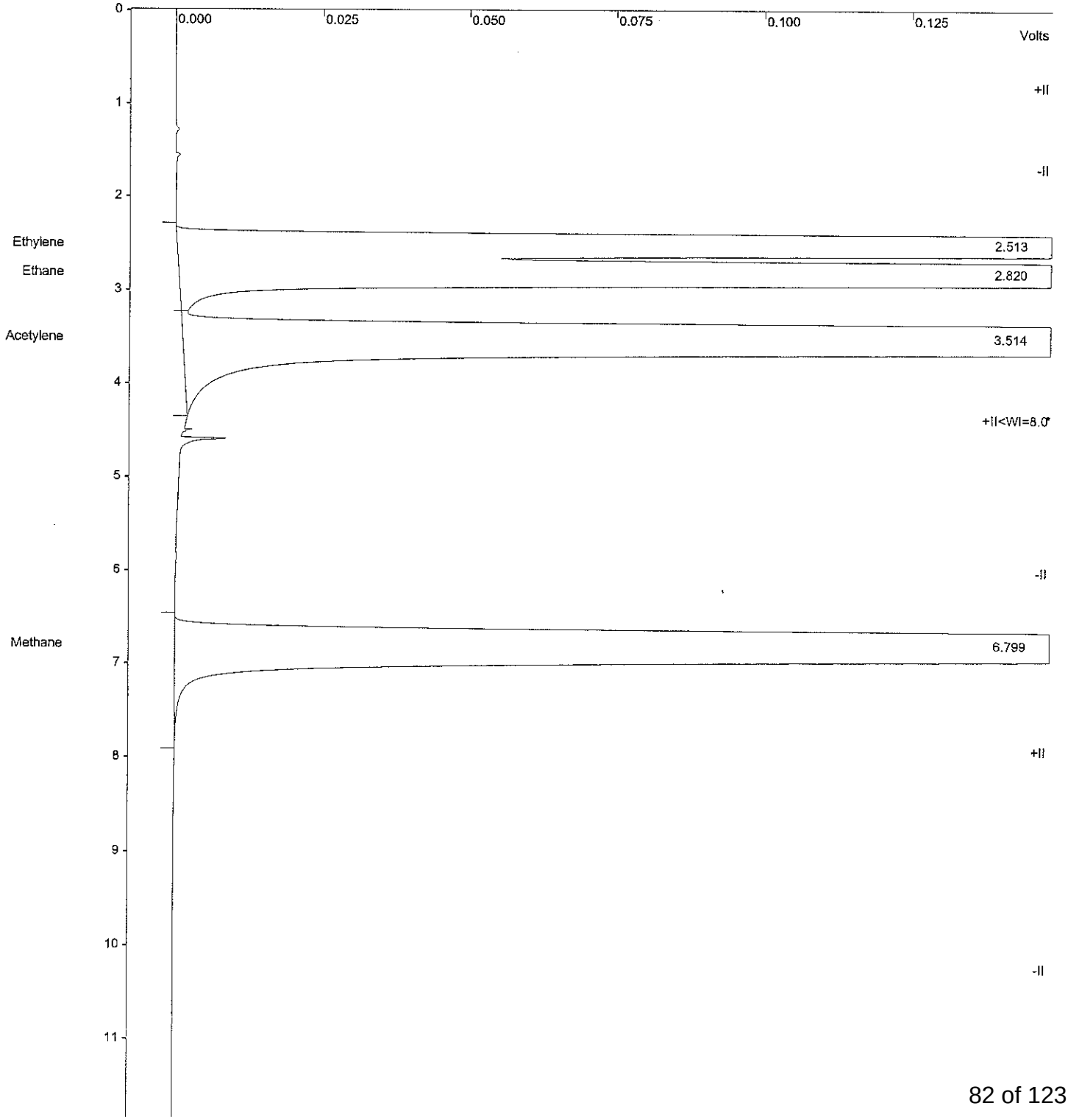
Injection Date: 4/28/2015 10:26 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr005.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1% (10000ppmv) ICAL

Injection Date: 4/28/2015 10:26 Calculation Date: 4/28/2015 10:58

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.513	-0.007	26579418	BV	6.0	
2	Ethane	2.820	-0.007	27304472	VV	6.8	
3	Acetylene	3.514	-0.007	28943272	VB	8.8	
4	Methane	6.799	-0.002	13664368	BB	10.6	
	Totals:		-0.023	96491530			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 24 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Data Method Time : 6/30/2014 3:29 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Front

Calibration Dates
Last Injection Date : 6/30/2014 10:56 AM

Last Recalculation Date : 6/30/2014 11:14 AM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X³	X²	X	C	r²	Cal. Range	No. of Points	Edit Codes
1.739	Hydrogen	1 F			+7.7423e-002	+0.0000e+000	+9.9929e-001	1-5	5	

Curve Codes		Origin Codes		Edit Codes	
1	linear	I	include	1	curve
2	quadratic	IG	ignore	2	origin
3	cubic	F	force	3	coefficient

Ret. Time: 1.739 min.
Peak Name: Hydrogen
Peak Measurement: Area
Curve\Origin: 1 F

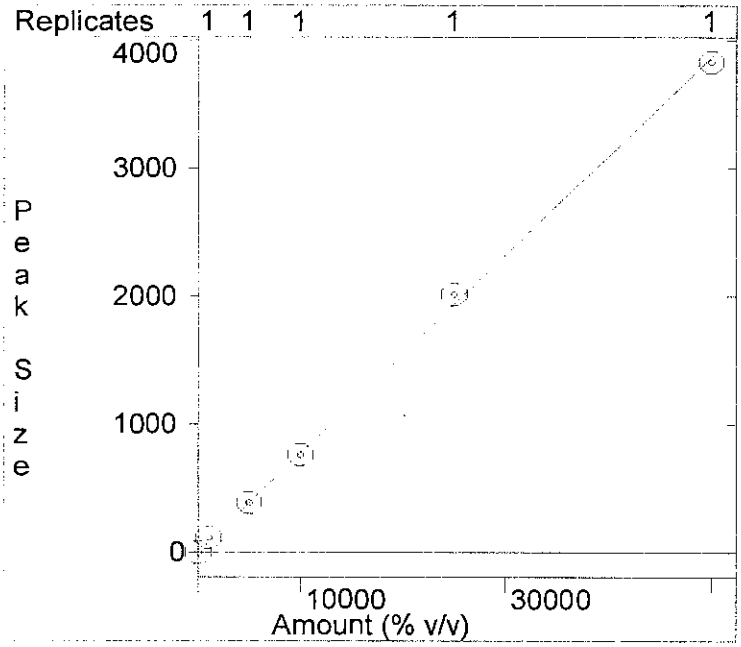
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	1000.000000	1	116	115.7	#
2	5000.000000	1	388	387.5	#
3	10000.000000	1	763	762.5	#
4	25000.000000	1	2014	2013.9	#
5	50000.000000	1	3834	3833.5	#

= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Hydrogen	1	1	6/30/2014 10:56 AM	c:\temp gc\gc8a\2014\jun\30jun012.run
	2	1	6/30/2014 10:43 AM	c:\temp gc\gc8a\2014\jun\30jun011.run
	3	1	6/30/2014 10:30 AM	c:\temp gc\gc8a\2014\jun\30jun010.run
	4	1	6/30/2014 10:22 AM	c:\temp gc\gc8a\2014\jun\30jun009.run
	5	1	6/30/2014 10:13 AM	c:\temp gc\gc8a\2014\jun\30jun008.run

Print Date: 01 Jul 2014 09:51:13
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Detector: 3800 GC, Address: 44, Channel ID: Front

Hydrogen
External Standard Analysis
Resp. Fact. RSD: 19.97%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999293
y = +7.7423e-002x



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun012.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.1 % h2

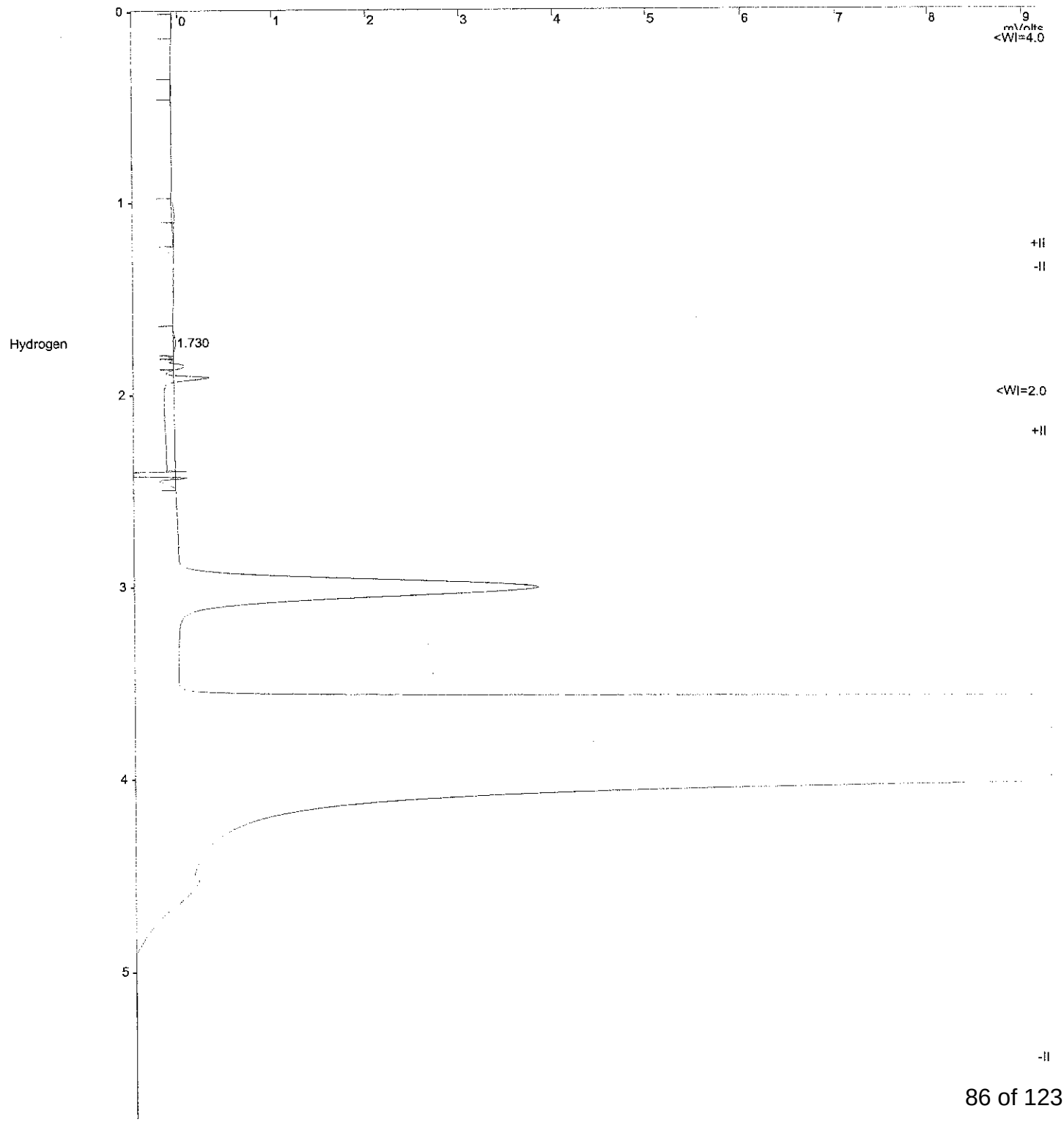
Injection Date: 6/30/2014 10:56 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun012.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.1 % h2

Injection Date: 6/30/2014 10:56 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.730	0.019	116	BV	4.5	U
	Totals:		0.019	116			

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 345 counts

Detected Peaks: 8 Rejected Peaks: 4 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -57 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

6/30/2014 11:01 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:43:15 AM 6/30/2014 11:02 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun011.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.5 % h2

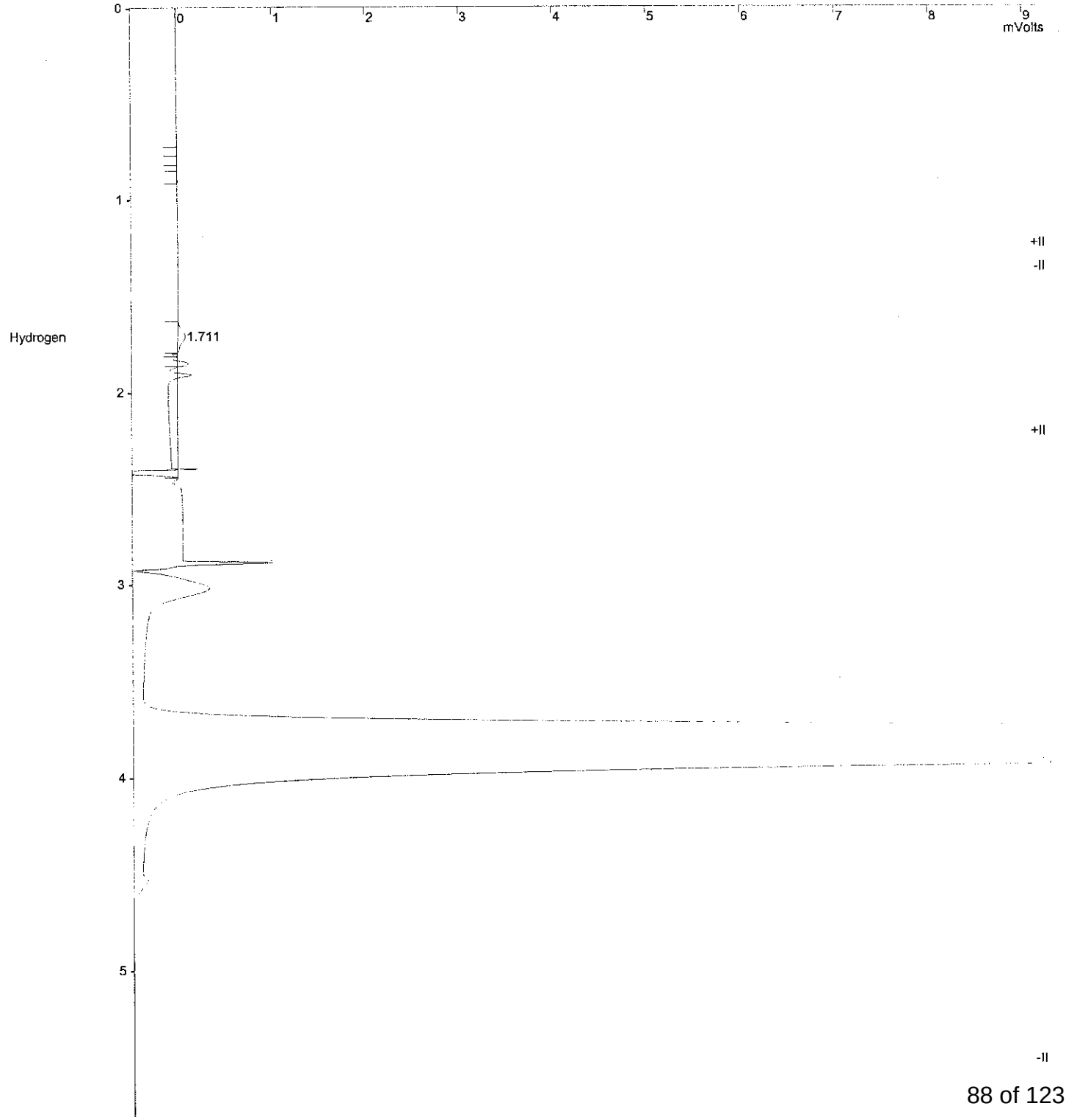
Injection Date: 6/30/2014 10:43 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun011.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.5 % h2

Injection Date: 6/30/2014 10:43 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.711	-0.019	388	BV	4.1	U
	Totals:		-0.019	388			

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 132 counts

Detected Peaks: 7 Rejected Peaks: 5 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

6/30/2014 10:49 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:29:51 AM 6/30/2014 10:50 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:50 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:51 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:51 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun010.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 1 % h2

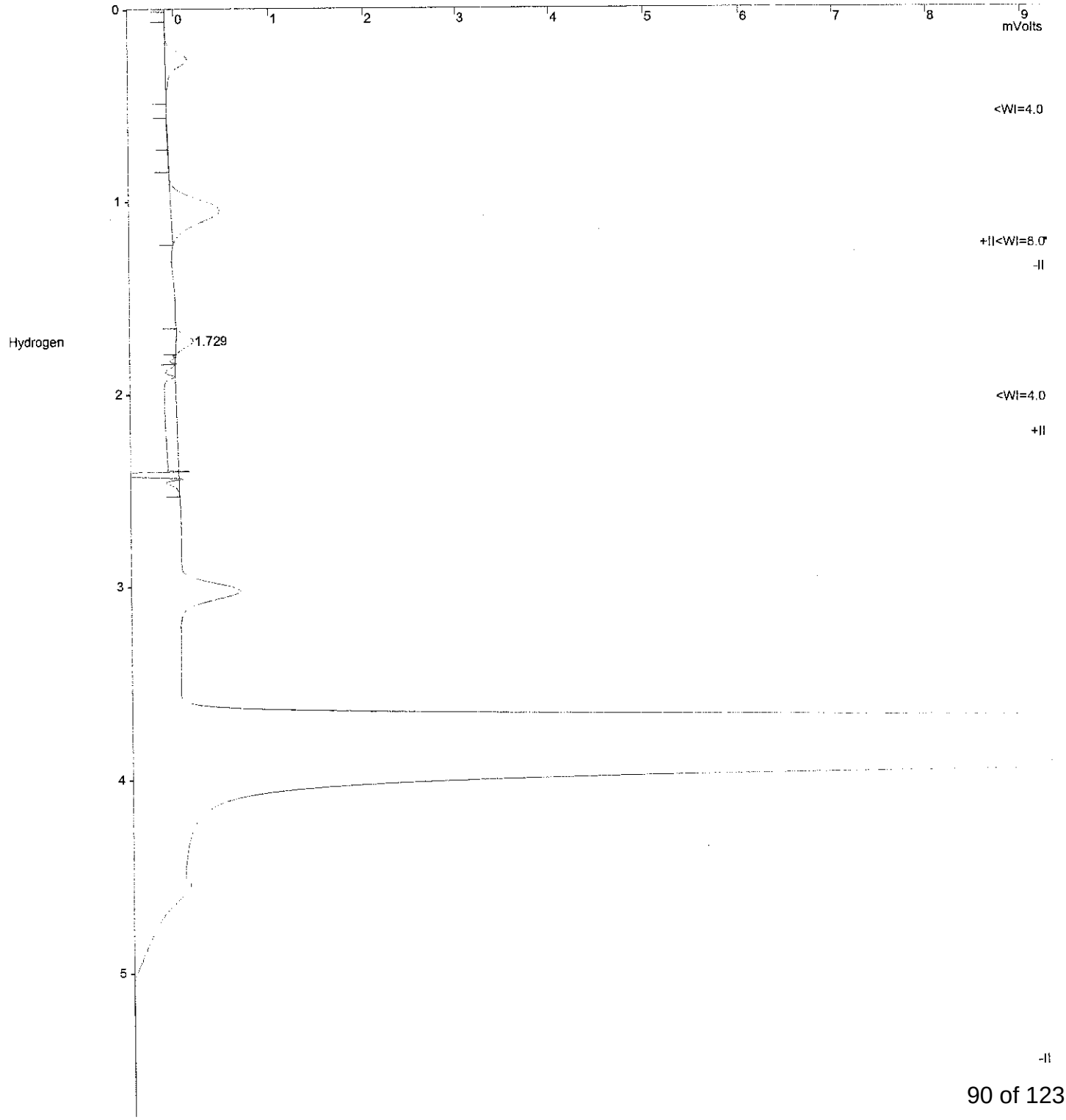
Injection Date: 6/30/2014 10:30 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun010.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 1 % h2

Injection Date: 6/30/2014 10:30 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.729	0.018	763	BV	4.7	U
	Totals:		0.018	763			

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 5954 counts

Detected Peaks: 9 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -95 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

Revision Log:

6/30/2014 10:36 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:21:46 AM 6/30/2014 10:39 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:42 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun009.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 2.5 % h2

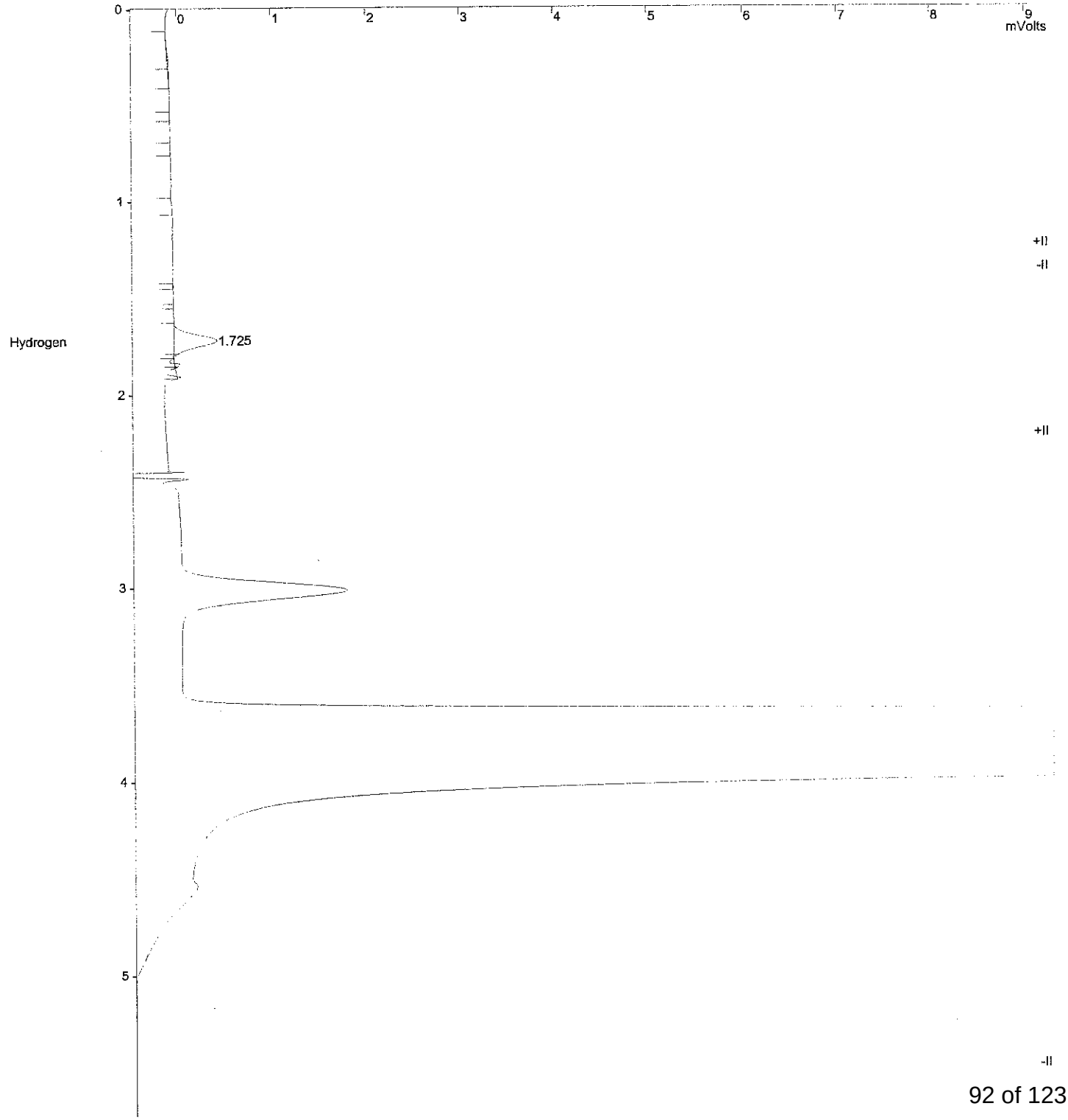
Injection Date: 6/30/2014 10:22 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun009.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 2.5 % h2

Injection Date: 6/30/2014 10:22 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.725	-0.003	2014	BV	4.2	U
	Totals:		-0.003	2014			

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 62 counts

Detected Peaks: 12 Rejected Peaks: 10 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -82 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

Revision Log:

6/30/2014 10:28 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:13:16 AM 6/30/2014 10:39 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:42 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:

'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun008.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 5 % h2

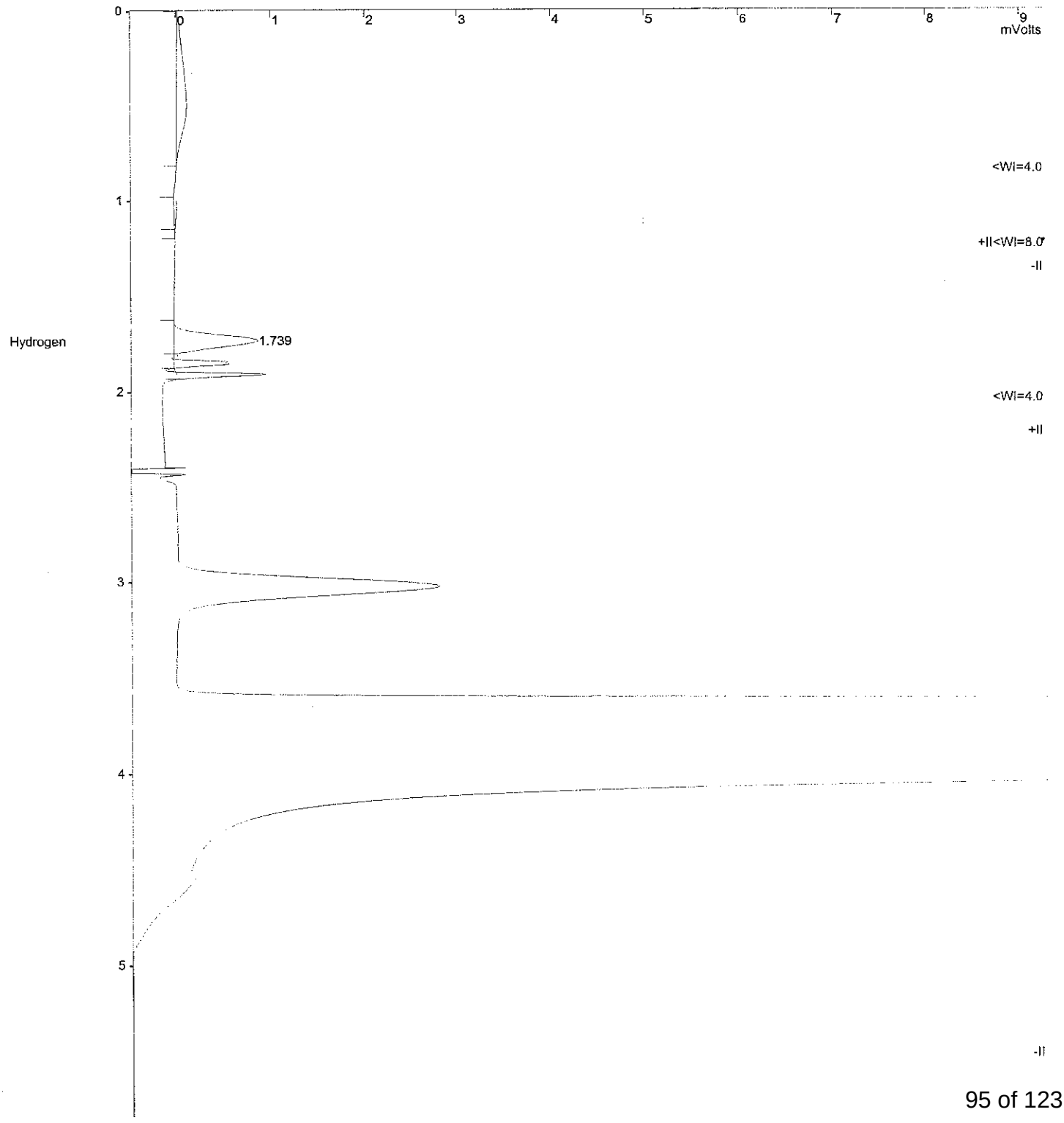
Injection Date: 6/30/2014 10:13 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun008.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 5 % h2

Injection Date: 6/30/2014 10:13 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD
Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.739	0.015	3834	BV	4.2	U
	Totals:		0.015	3834			

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 5232 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

Revision Log:

6/30/2014 10:19 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 9:48:22 AM 6/30/2014 10:21 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:39 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:39 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:40 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:59 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:59 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

****

4. Continuing Calibration

a. CCAL Summary
b. Chromatograms/Results

Continuing Calibration Criteria:

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr014.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

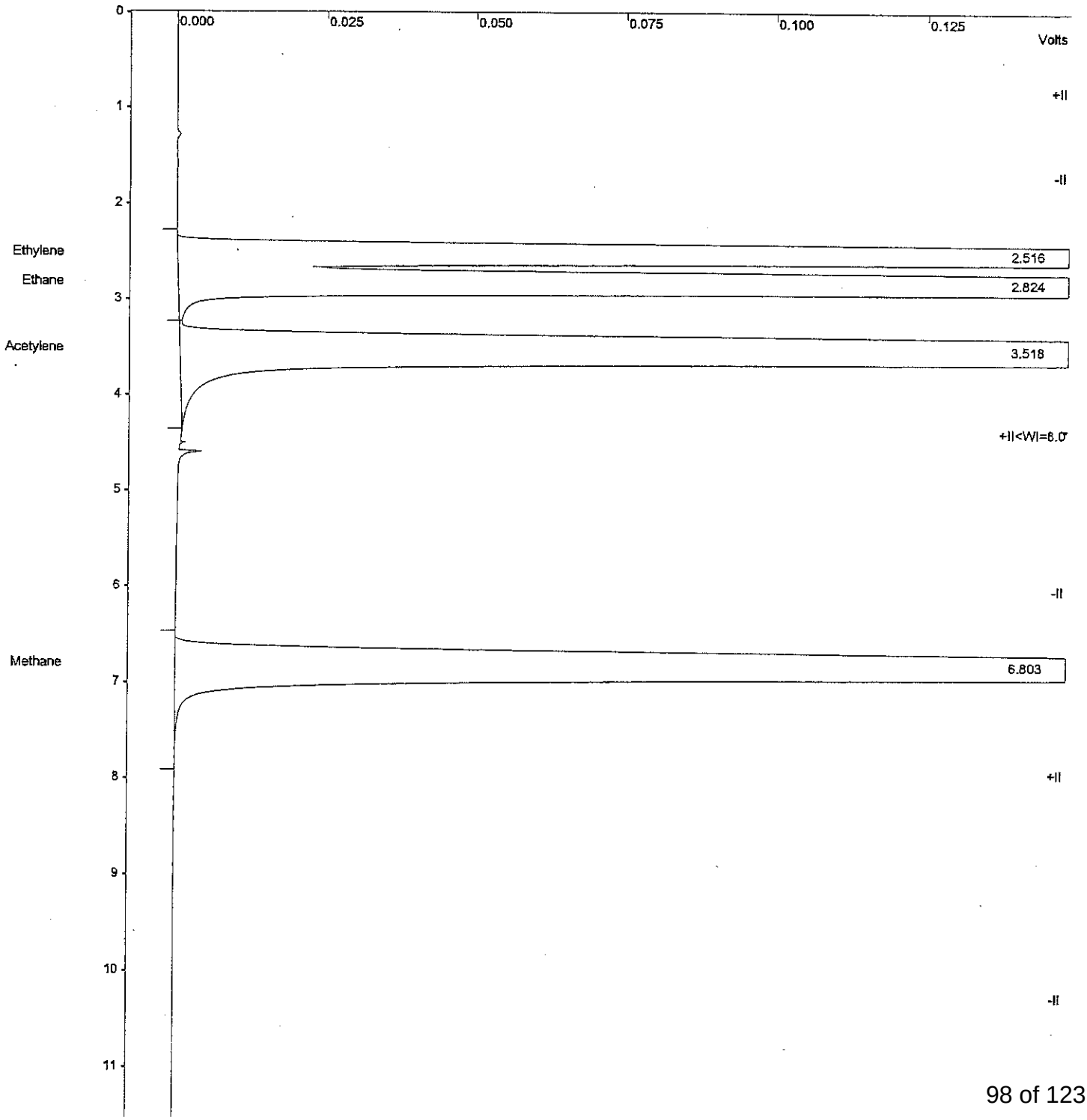
Injection Date: 4/28/2015 13:20 Calculation Date: 4/28/2015 13:33

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr014.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/28/2015 13:20 Calculation Date: 4/28/2015 13:33

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5040.030	0.8	2.516	0.003	13348862	
2	Ethane	5000.000	5033.612	0.7	2.824	0.004	13688027	
3	Acetylene	5000.000	5008.515	0.2	3.518	0.005	14345338	
4	Methane	5000.000	5002.250	0.0	6.803	0.004	6797687	
	Totals:		20084.407			0.016	48179914	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -6 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

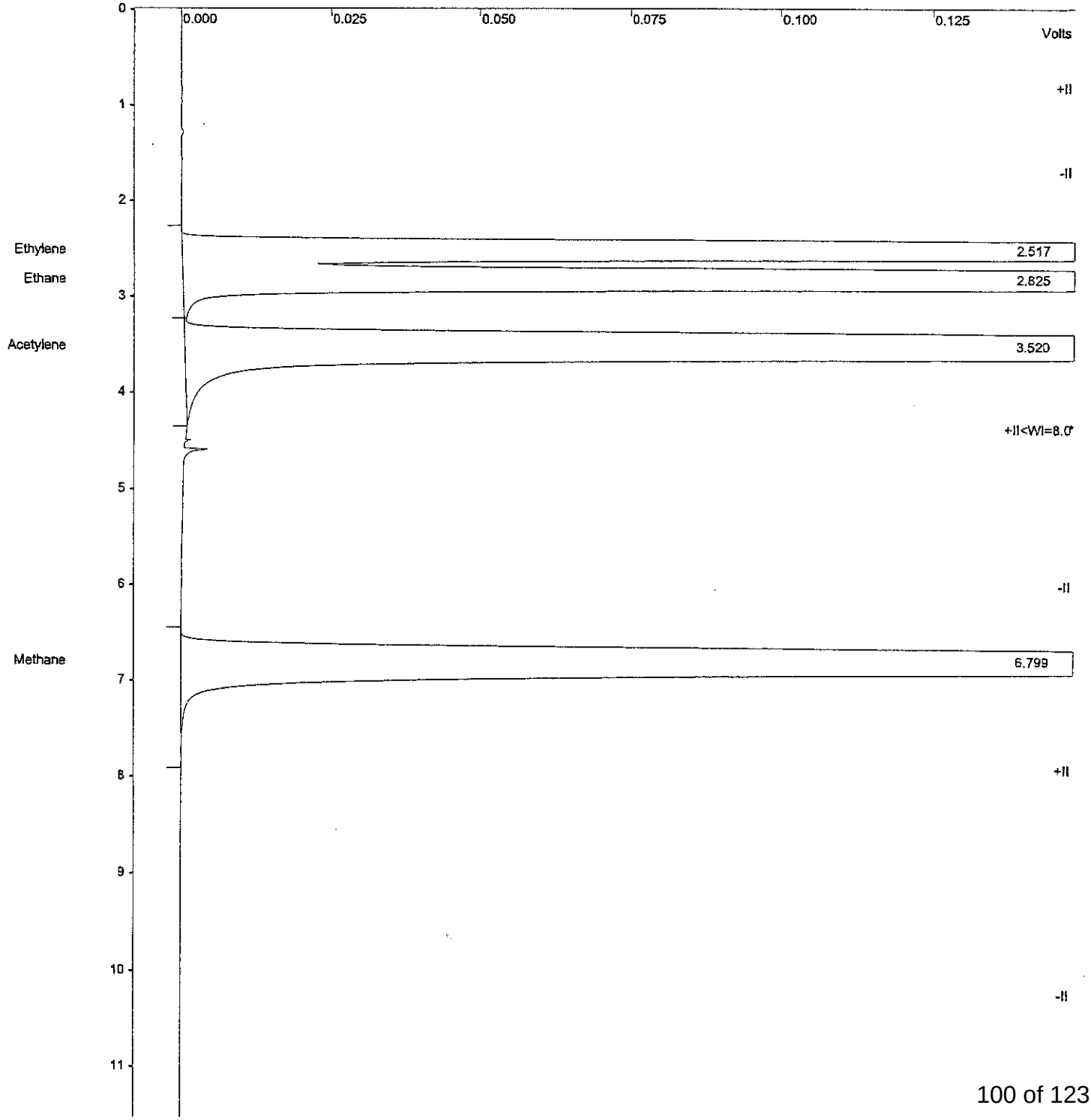
Injection Date: 4/29/2015 11:06 Calculation Date: 4/29/2015 11:18

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 11:06 Calculation Date: 4/29/2015 11:18

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-758B-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5111.147	2.2	2.517	0.004	13537221	
2	Ethane	5000.000	5105.223	2.1	2.825	0.005	13882760	
3	Acetylene	5000.000	4962.398	0.8	3.520	0.007	14213249	
4	Methane	5000.000	5065.820	1.3	6.799	-0.000	6884074	
	Totals:		20244.588			0.016	48517304	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 13 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

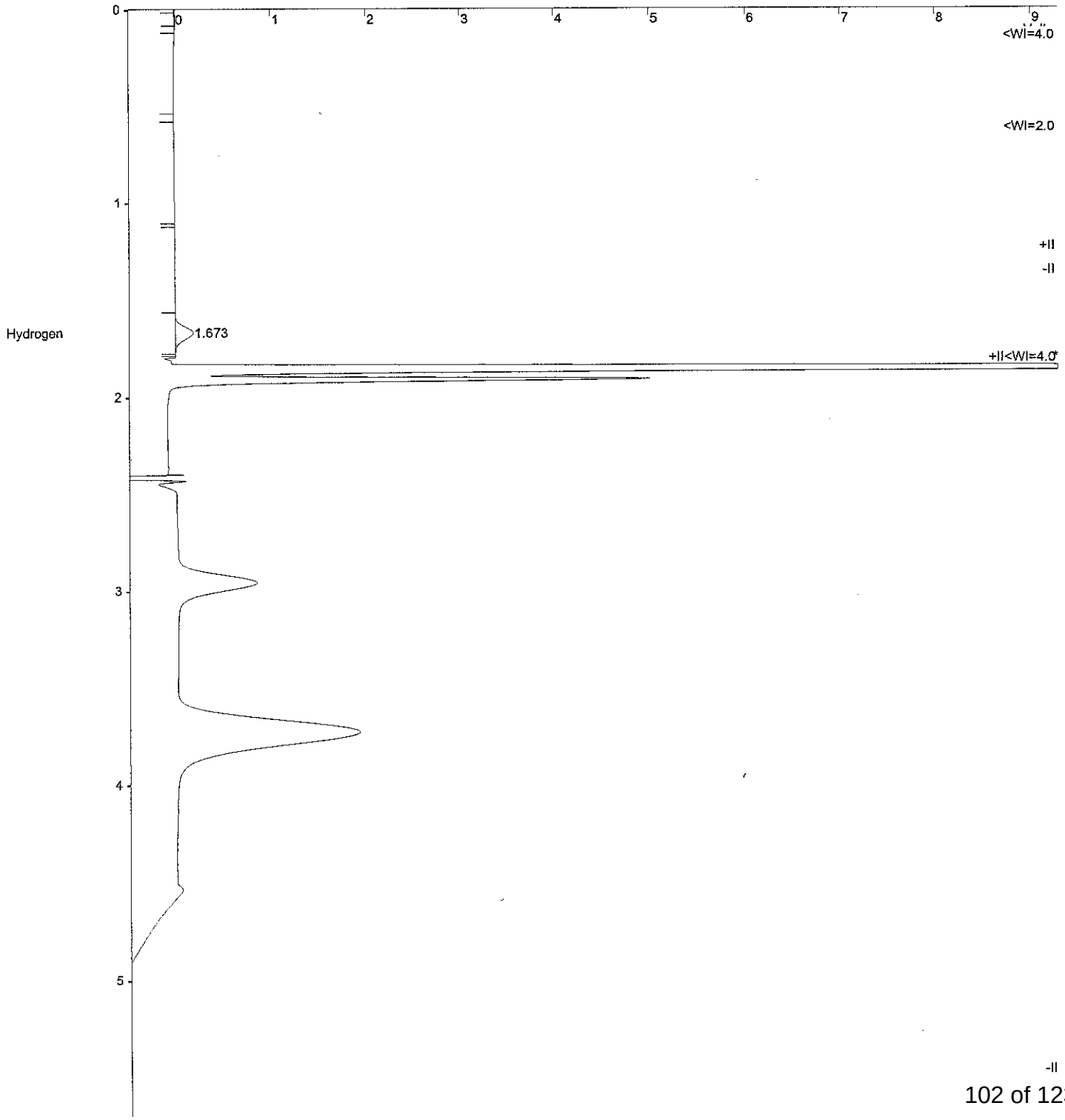
Injection Date: 4/30/2015 08:24 Calculation Date: 4/30/2015 08:31

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

itle : RSK-175 TCD
un File : c:\temp gc\gc8a\2015\apr\30apr.run
ethod File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
ample ID : 1% H2 RSK CCV

njection Date: 4/30/2015 08:24 Calculation Date: 4/30/2015 08:31

perator : AS
orkstation:
nstrument : GC8A
hannel : Front = TCD
Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

* GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

un Mode : Verification
eak Measurement: Peak Area
alculation Type: External Standard
evel : 3
olerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	10628.011	6.3	1.673	-0.012	823	
	Totals:		10628.011			-0.012	823	

otal Unidentified Counts : 0 counts

etected Peaks: 6 Rejected Peaks: 5 Identified Peaks: 1

ultiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

aseline Offset: 11 microVolts LSB: 1 microVolts

oise (used): 5 microVolts - fixed value
oise (monitored before this run): 2 microVolts

anual injection

evision Log:

/30/2015 08:30: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
ream: 1, Advance Time: 16:30:01 4/30/2015 08:31: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen140630.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr030.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

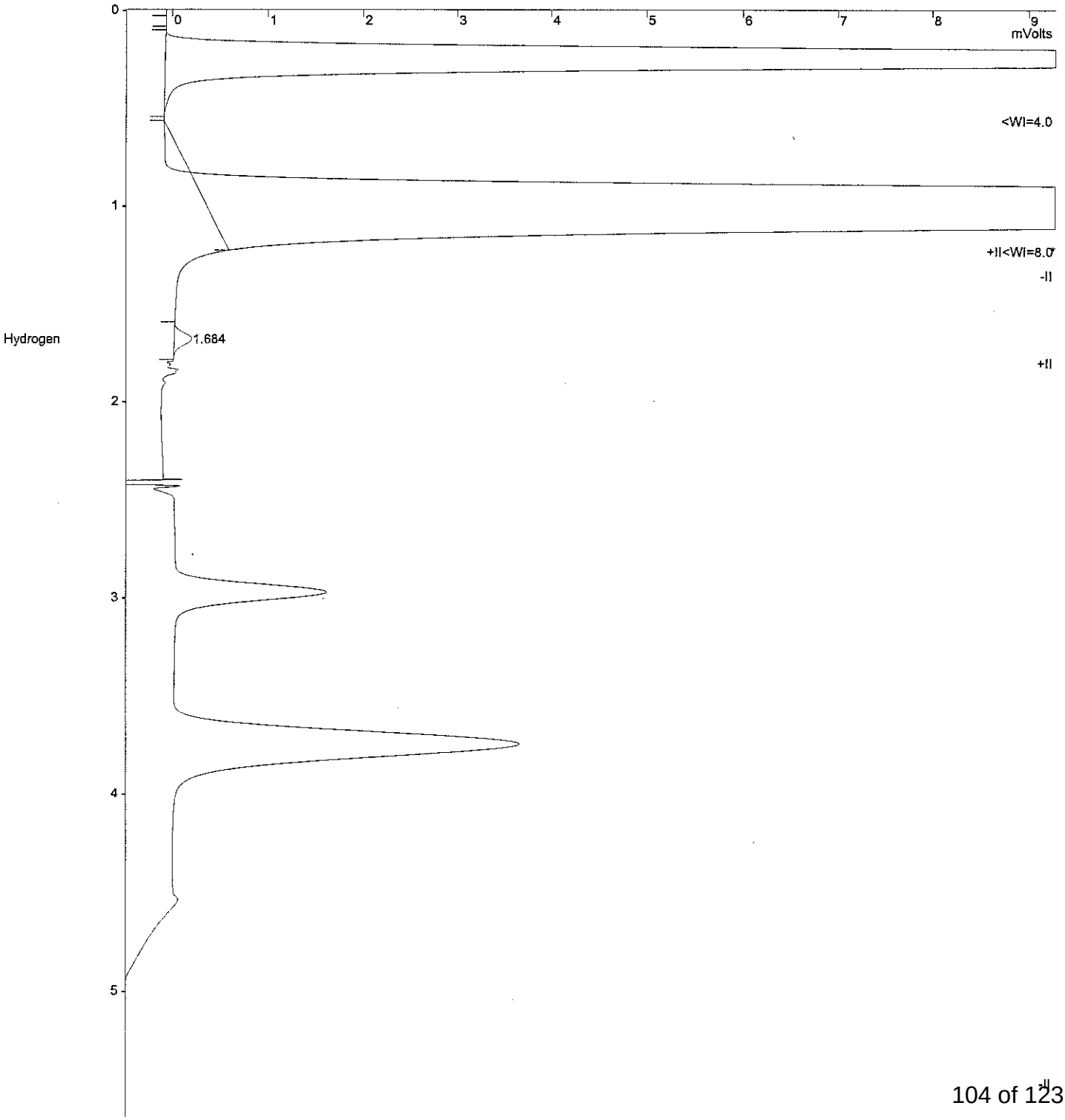
Injection Date: 4/30/2015 12:34 Calculation Date: 4/30/2015 12:39

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr030.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 12:34 Calculation Date: 4/30/2015 12:39

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	10080.690	0.8	1.684	0.000	780	
	Totals:		10080.690			0.000	780	

Total Unidentified Counts : 533679 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -60 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

Revision Log:

4/30/2015 12:39: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 12:33:29

****

5. Method Blank

a. Chromatograms/ Results

Method Blank Criteria:

All compounds < Reporting Limit

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr019.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : He Blank

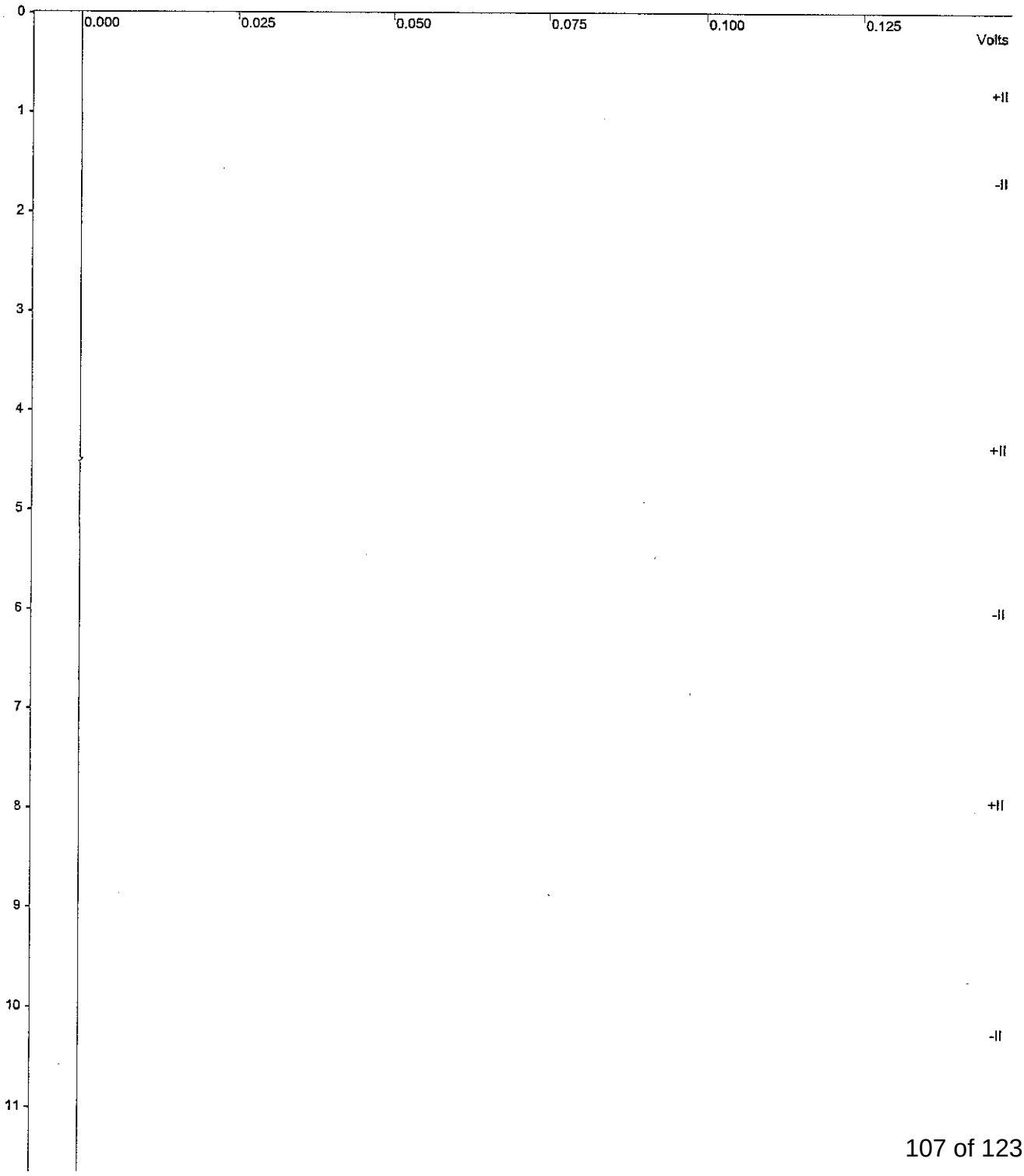
Injection Date: 4/28/2015 14:32 Calculation Date: 4/28/2015 14:44

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr019.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : He Blank

Injection Date: 4/28/2015 14:32 Calculation Date: 4/28/2015 14:44

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.513					M
2	Ethane		2.820					M
3	Acetylene		3.513					M
4	Methane		6.799					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 0 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -5 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

Data Handling: No peaks

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr020.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : Method Blank

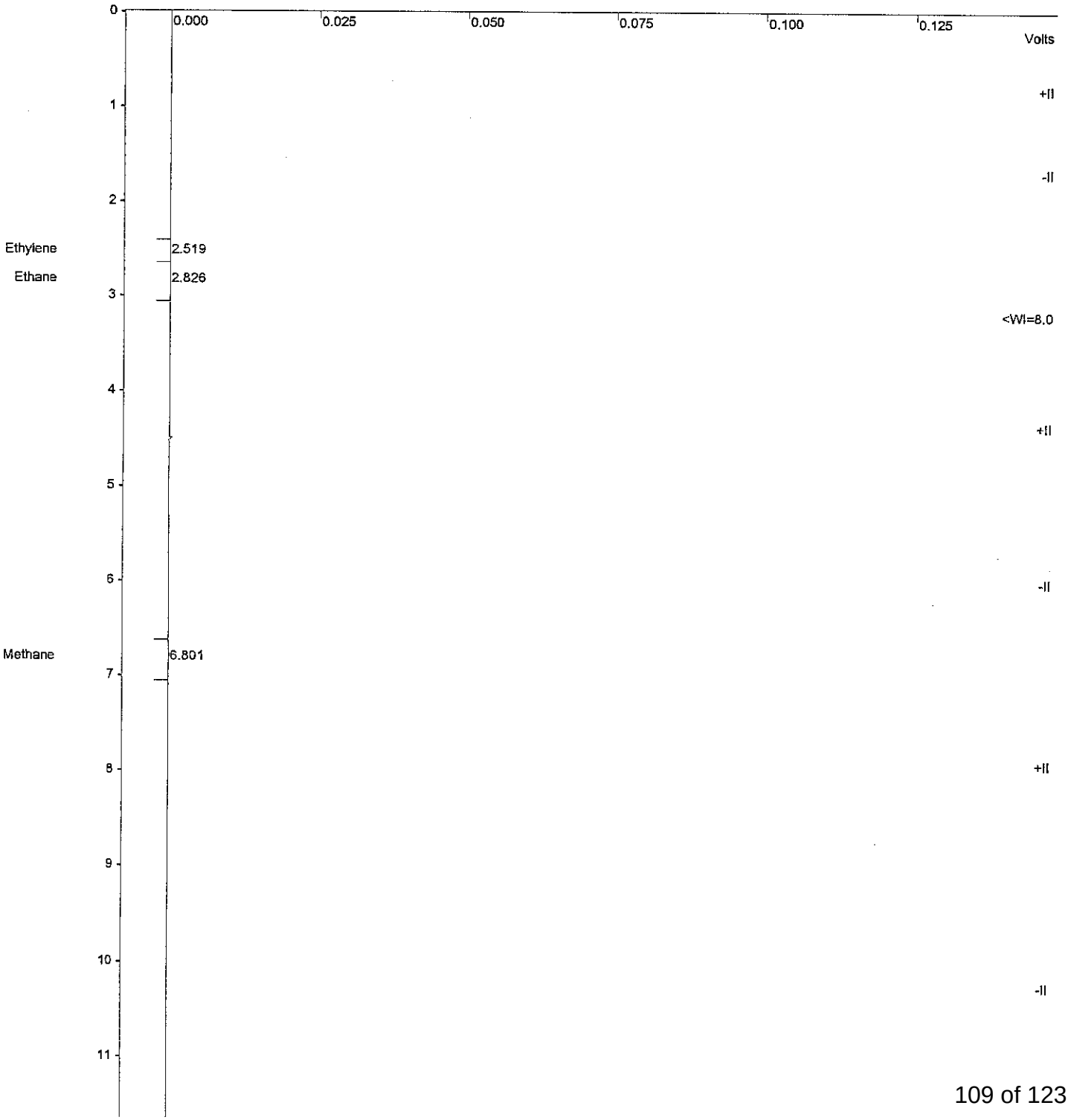
Injection Date: 4/28/2015 14:47 Calculation Date: 4/28/2015 14:59

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr020.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : Method Blank

Injection Date: 4/28/2015 14:47 Calculation Date: 4/28/2015 14:59

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.094	2.519	0.006	248	BV	6.0	
2	Ethane	0.111	2.826	0.006	301	VB	6.4	
3	Acetylene		3.513					M
4	Methane	1.187	6.801	0.002	1613	BB	10.2	
	Totals:	1.392		0.014	2162			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -12 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr003.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : Method Blank

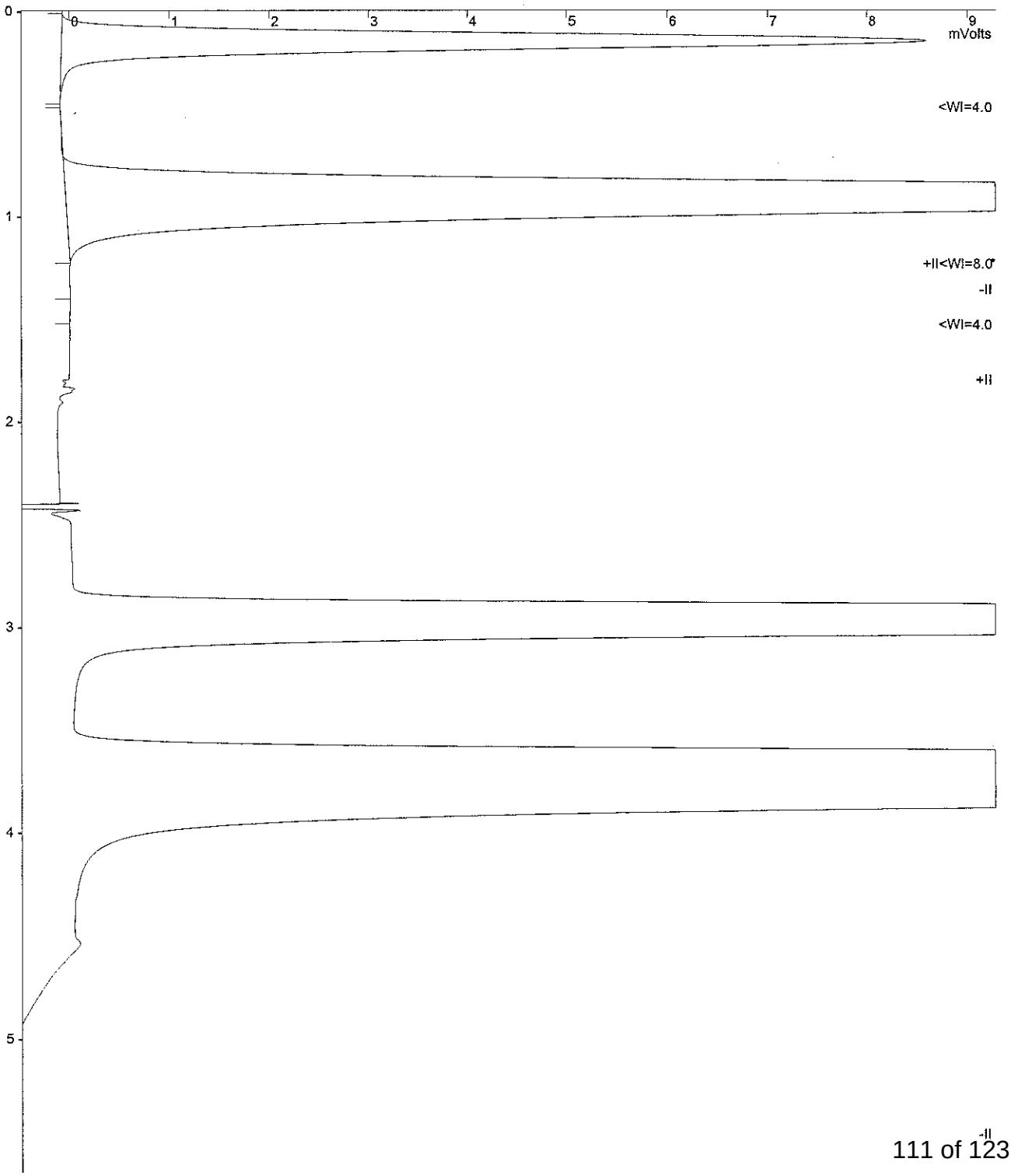
Injection Date: 4/30/2015 08:56 Calculation Date: 4/30/2015 09:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Print Date: Thu Apr 30 09:02:08 2015 Page 1 of 1

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr003.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : Method Blank

Injection Date: 4/30/2015 08:56 Calculation Date: 4/30/2015 09:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 218652 counts

Detected Peaks: 3 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -66 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

Revision Log:

4/30/2015 09:02: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 08:54:08

****

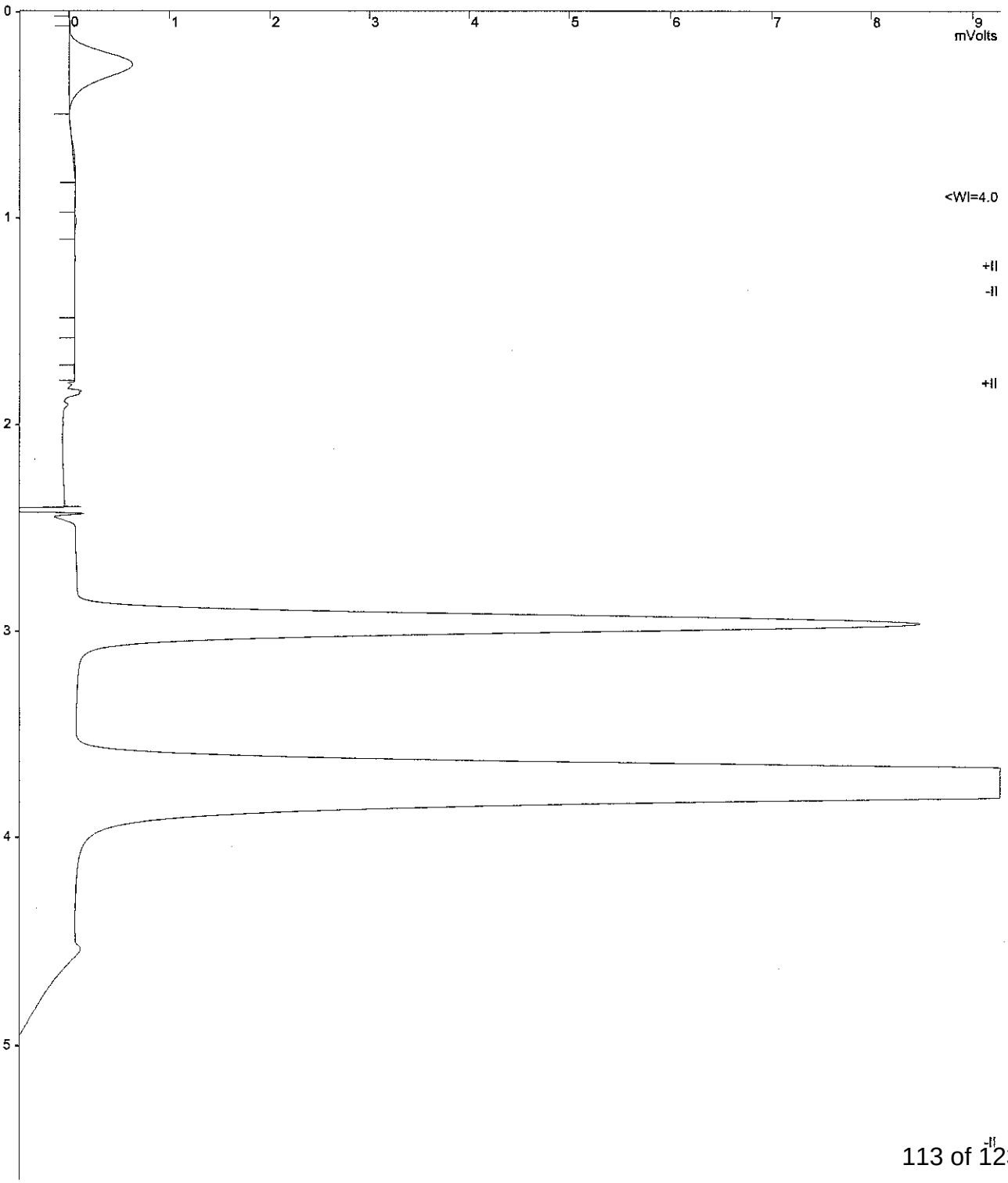
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr004.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : He Blank

Injection Date: 4/30/2015 09:04 Calculation Date: 4/30/2015 09:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr004.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : He Blank

Injection Date: 4/30/2015 09:04 Calculation Date: 4/30/2015 09:10

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.684					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 5900 counts

Detected Peaks: 6 Rejected Peaks: 3 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 2 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 29 microVolts

Manual injection

Revision Log:

4/30/2015 09:10: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 09:01:53

****

6. LCS/LCSD

a. Chromatograms/Results

Criteria as listed on report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr015.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCS

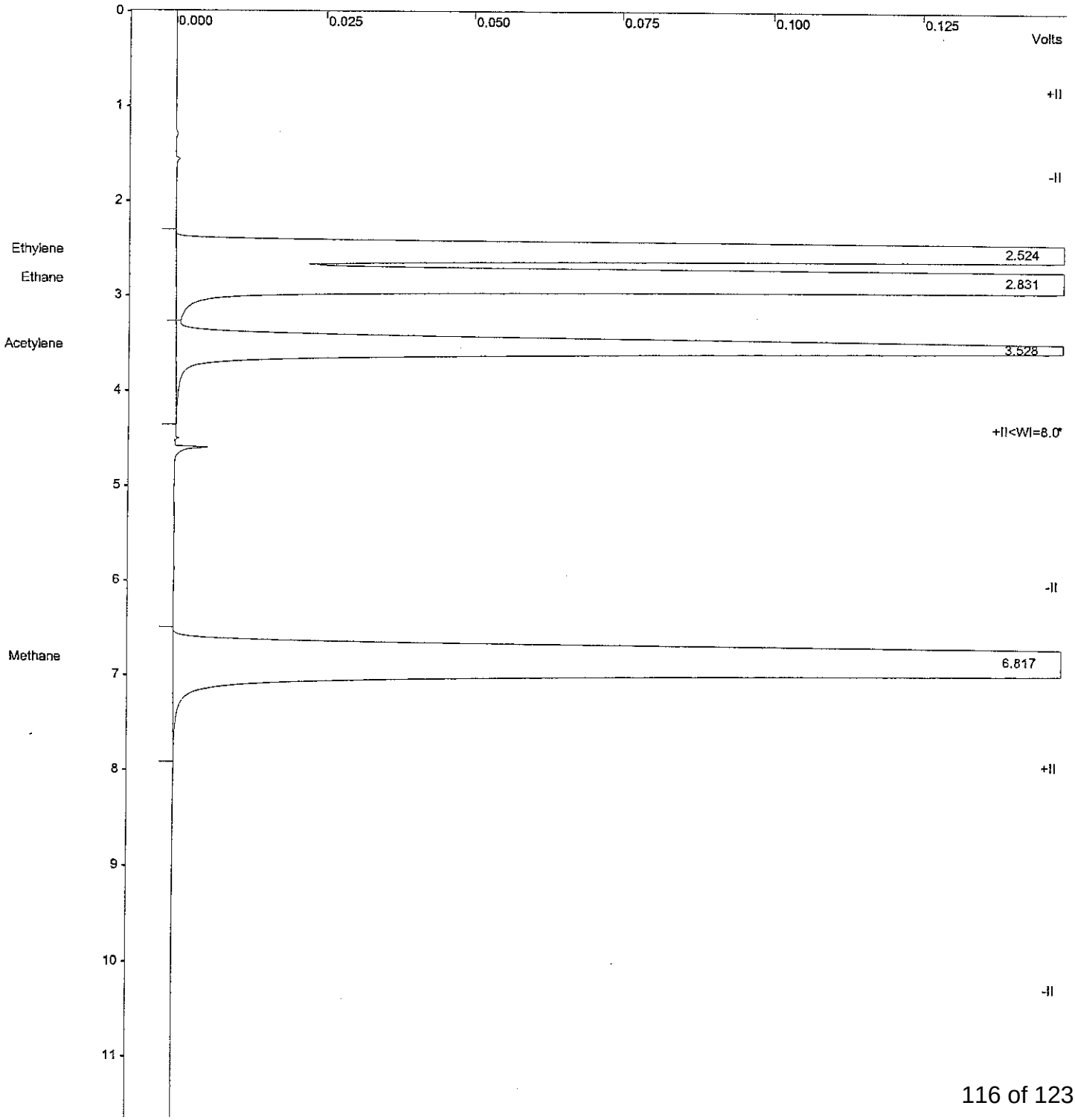
Injection Date: 4/28/2015 13:34 Calculation Date: 4/28/2015 13:46

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr015.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCS

Injection Date: 4/28/2015 13:34 Calculation Date: 4/28/2015 13:46

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	3784.840	2.524	0.011	10024407	BV	6.0	
2	Ethane	6031.059	2.831	0.011	16400409	VV	6.8	
3	Acetylene	651.241	3.528	0.015	1865279	VB	8.7	
4	Methane	6865.687	6.817	0.018	9329960	BB	10.6	
	Totals:	17332.827		0.055	37620055			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -25 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr016.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCSD

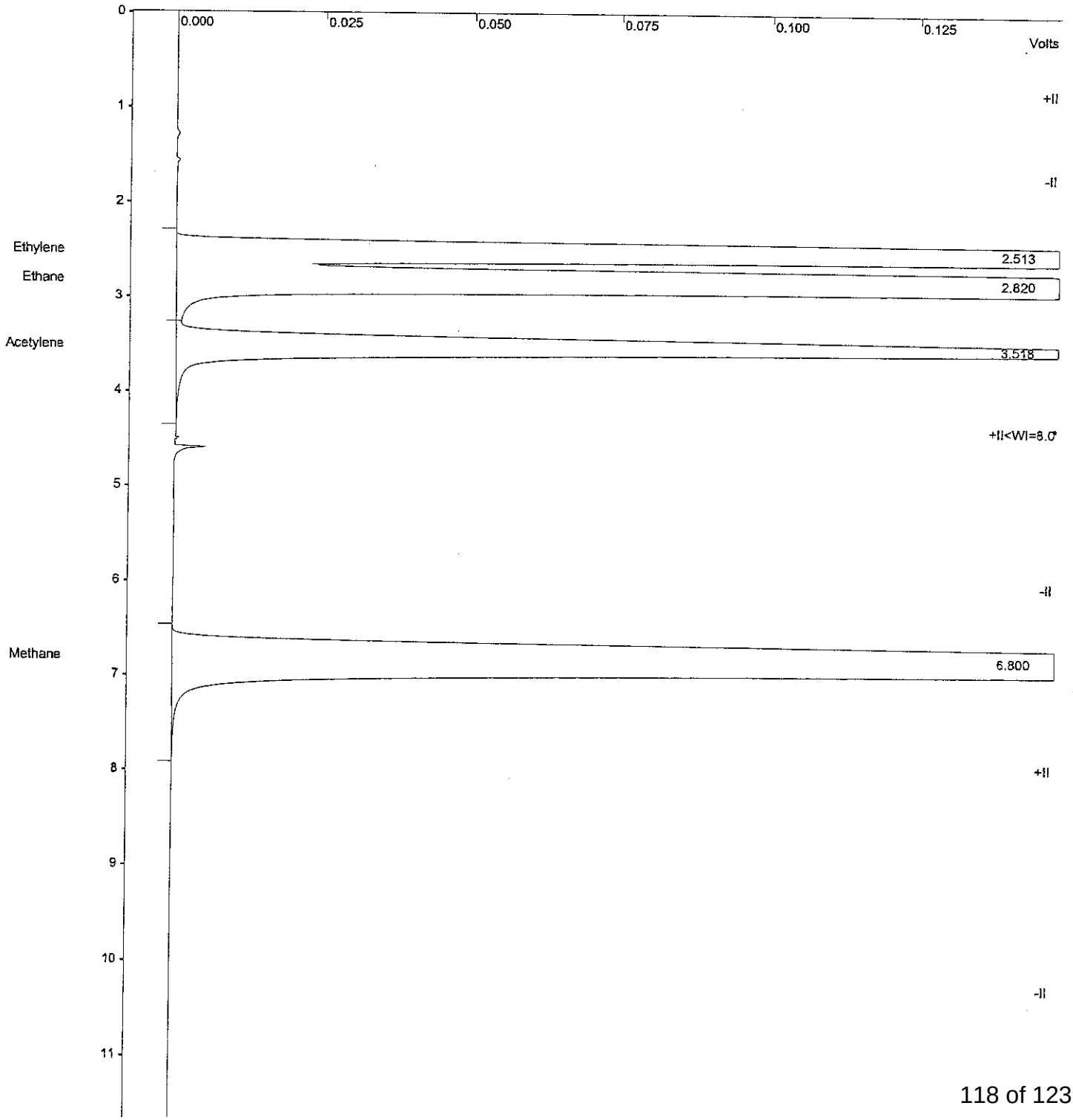
Injection Date: 4/28/2015 13:50 Calculation Date: 4/28/2015 14:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr016.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCSD

Injection Date: 4/28/2015 13:50 Calculation Date: 4/28/2015 14:02

Operator : AS
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	3873.215	2.513	-0.000	10258473	BV	6.0	
2	Ethane	6182.702	2.820	-0.000	16812778	VV	6.7	
3	Acetylene	680.005	3.518	0.005	1947663	VB	8.7	
4	Methane	6994.041	6.800	0.002	9504383	BB	10.6	
	Totals:	17729.963		0.007	38523297			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -8 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr001.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCS

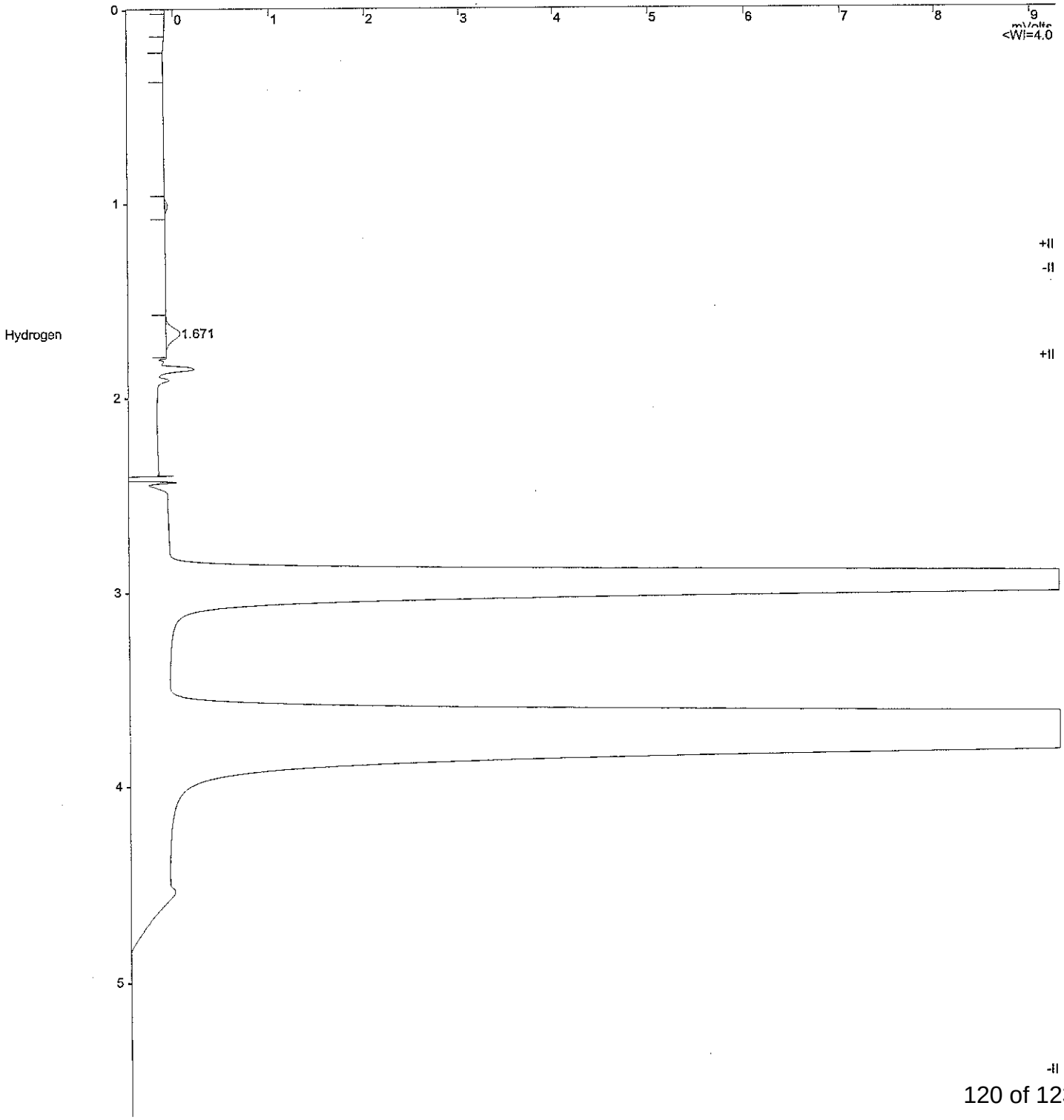
Injection Date: 4/30/2015 08:40 Calculation Date: 4/30/2015 08:47

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



itle : RSK-175 TCD
in File : c:\temp gc\gc8a\2015\apr\30apr001.run
ethod File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
ample ID : H2 RSK LCS

njection Date: 4/30/2015 08:40 Calculation Date: 4/30/2015 08:47

perator : AS
orkstation:
nstrument : GC8A
hannel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

* GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

in Mode : Analysis
eak Measurement: Peak Area
alculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8510.739	1.671	-0.013	659	BB	4.2	
	Totals:	8510.739		-0.013	659			

otal Unidentified Counts : 96 counts

etected Peaks: 4 Rejected Peaks: 2 Identified Peaks: 1

ultiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

aseline Offset: -86 microVolts LSB: 1 microVolts

oise (used): 5 microVolts - fixed value
oise (monitored before this run): 3 microVolts

anual injection

evision Log:

/30/2015 08:46: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
tream: 1, Advance Time: 08:36:42 4/30/2015 08:47: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen140630.mth'

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr002.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCSD

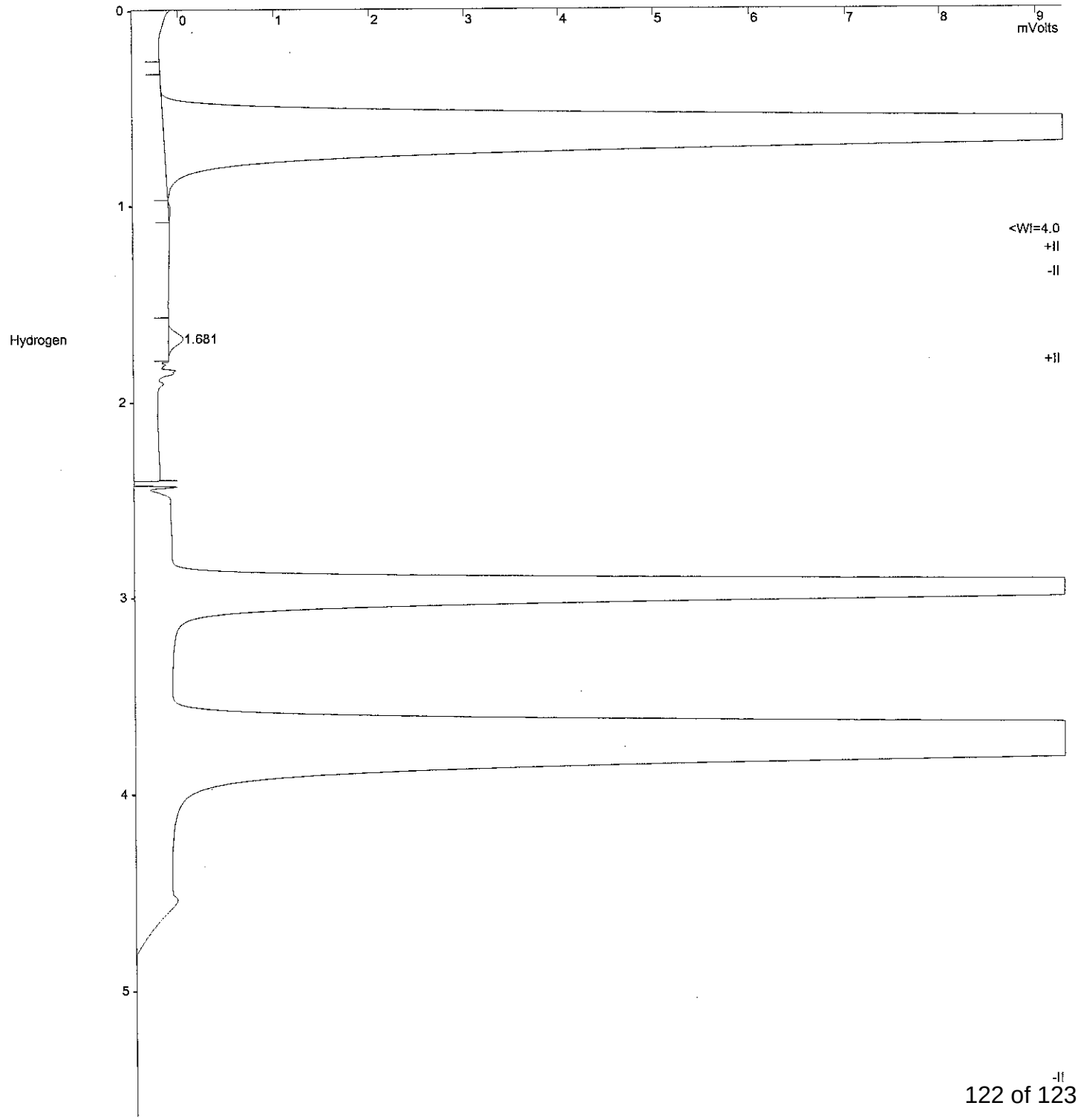
Injection Date: 4/30/2015 08:48 Calculation Date: 4/30/2015 08:54

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr002.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCSD

Injection Date: 4/30/2015 08:48 Calculation Date: 4/30/2015 08:54

Operator : AS
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8912.107	1.681	-0.003	690	BB	4.2	
	Totals:	8912.107		-0.003	690			

Total Unidentified Counts : 157709 counts

Detected Peaks: 4 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -75 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

Revision Log:

4/30/2015 08:54: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 08:46:10

****

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **B & B GROUNDWATER SAMPLING**

SDG: **15D143**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B METHOD 5030B/8260B SIM	2000 – 2161 2162 – 2267
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5100
HPLC	**	6000 –
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 05-11-2015
EMAX Batch No.: 15D143

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: B & B Groundwater Sampling

Enclosed is the Laboratory report for samples received on 04/22/15.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
04-21-15-WA-1	D143-01	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-TB-2	D143-02	04/21/15	WATER	VOLATILE ORGANICS BY GC/MS
04-21-15-FDUP-2	D143-03	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-EPA5-3	D143-04	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-WA-5	D143-05	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-TB-4	D143-06	04/21/15	WATER	VOLATILE ORGANICS BY GC/MS
04-21-15-EPA5-1	D143-07	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-WA-9	D143-08	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM

Sample ID	Control #	Col Date	Matrix	Analysis
				VOLATILE ORGANICS BY GC/MS
04-21-15-PWA-3	D143-09	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-PWA-7A	D143-10	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-TB-3	D143-11	04/21/15	WATER	VOLATILE ORGANICS BY GC/MS
04-21-15-EB-1	D143-12	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-PWA-2	D143-13	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-EPA5-2	D143-14	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-TB-5	D143-15	04/21/15	WATER	VOLATILE ORGANICS BY GC/MS
04-21-15-WA-3	D143-16	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-WA-1MS	D143-01M	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
04-21-15-WA-1MSD	D143-01S	04/21/15	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-13-601
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 15D143
PROJECT CODE: Eco-13-601

CLIENT: Eco & Associates, Inc.
PROJECT: Spring 2015 B&B Groundwater Sampling
COORDINATOR: Carlos Hernandez
TEL: (714) 289-0995 FAX: EMAIL: chernandez@ecoinc.info
SEND REPORT TO: Carlos Hernandez
COMPANY: Eco & Associates, Inc.
ADDRESS: 1855 W. Katella Ave. Suite 340
Orange CA 92867
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice ✓
GW=Ground Water ✓	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: 8260, 8260 SIM, 8151-Dinoseb

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ Standard

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE								COMMENTS
1	04-21-15-WA-1	A-Zone	4/21/15	0815	24	Var.	Var.	GW		✓	✓	✓						MS/MSD
2	~~TB-2~~ 04-21-15-TB-2	–	4/21/15	0900	3	40mL	VOA	W		✓								
3	04-21-15-FDUP-2	–	4/21/15	1100	8	Var	Var.	GW		✓	✓	✓						
4	04-21-15-EPAS-3	A-Zone	4/21/15	1100	8	Var.	Var.	GW		✓	✓	✓						
5	04-21-15-WA-5	"	4/21/15	0930	8	Var.	Var	GW		✓	✓	✓						
6	04-21-15-TB-4	–	4/21/15	1300	3	40mL	VOA	W		✓								
7	04-21-15-EPAS-1	A-Zone	4/21/05	1105	7	Var.	Var.	GW		✓	✓	✓						
8	04-21-15-WA-9	"	"	0952	7	Var.	Var.	GW		✓	✓	✓						
9	04-21-15-PWA-3	"	"	1145	8	Var.	Var.	GW		✓	✓	✓						Level IV
10	04-21-15-PWA-7A	"	"	1217	8	Var	Var	GW		✓	✓	✓						

Instructions

Cooler #	Temp. (°C)	Sample #s
1	1.7	
2	2.5	
3	3.8	
4	2.8	
5	2.5	
6	5.3 c	
7	3.7 c	

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
C. Hernandez [signature]	4/22/15	1000	[signature]	4/22/15	1000
[signature]	4/22/15	1300	[signature]	4/22/15	1300

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1002

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-13-601
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 15D143
PROJECT CODE: Eco-13-601

CLIENT: Eco & Associates Inc.
PROJECT: Spring 2015 B & B Groundwater Sampling
COORDINATOR: Carlos Hernandez
TEL: (714) 269-0995 FAX: EMAIL: chernandez@ecoinc.info
SEND REPORT TO: Carlos Hernandez
COMPANY: Eco & Associates Inc.
ADDRESS: 1855 W. Katella Ave. Suite 340
Orange, CA 92867
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water ✓; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O=

PRESERVATIVE CODE: IC = Ice ✓; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: 8260B; 8260 SIM; 8151A-Dinoseb

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Standard

LAB	SAMPLE ID: CLIENT	SAMPLING: LOCATION	DATE	TIME	CONTAINER: NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	8260B	8260 SIM	8151A-Dinoseb	COMMENTS
11	04-21-15-TB-3 ✓	–	4/21/15	1200	3	40 mL	VOA	W			✓			
12	04-21-15-EB-1 ✓	A-Zone	4/21/15	1210	8	Var.	Var.	W			✓	✓	✓	
13	04-21-15-PWA-2 ✓	"	"	1325	8	Var.	Var.	GW			✓	✓	✓	
14	04-21-15-EPAS-2 ✓	"	"	1245	8	Var.	Var.	GW			✓	✓	✓	
15	04-21-15-TB-5 ✓	–	4/21/15	1400	3	40 mL	VOA	W			✓			
16	04-21-15-WA-3 ✓	A-Zone	4/21/15	0909	7	Var.	Var.	GW			✓	✓	✓	
7														
8														
9														
10														

Instructions

Cooler #	Temp. (°C)	Sample #s

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
C. Hernandez	4/22/15	1000	Kaur M	4/22/15	1000
Kaur M.	4/22/15	1300		4/22/15	13:00

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1005

SAMPLE RECEIPT FORM 1

Reference Number: SM02.7.3

Type of Delivery	Airbill / Tracking Number	ECN 15D143
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient C. Chaver
☐ EMAX Courier ☑ Client Delivery		Date 4/22/15 Time 1300

COC INSPECTION

☑ Client Name ☑ Client PM/FC NO ☐ Sampler Name ☑ Sampling Date/Time ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT
Safety Issues (if any) ☐ High concentrations expected ☐ From Superfund Site ☐ Rad screening required
Note:

PACKAGING INSPECTION

Container ☑ Coolers (4) ☐ Box ☐ Other
Condition ☐ Custody Seal ☑ Intact ☐ Damaged
Packaging ☑ Bubble Pack ☐ Styrofoam ☐ Popcorn ☑ Sufficient ☑ Plastic Bag
Temperatures (Cool, ≤6 °C but not frozen) ☑ Cooler 1 1.7 °C ☑ Cooler 2 2.5 °C ☑ Cooler 3 3.8 °C ☑ Cooler 4 2.8 °C ☐ Cooler 5 ___ °C
☐ Cooler 6 ___ °C ☐ Cooler 7 ___ °C ☐ Cooler 8 ___ °C ☐ Cooler 9 ___ °C ☐ Cooler 10 ___ °C
Thermometer: A - S/N ___ FM 1/20/15 B - S/N 140252070 C - S/N 140252067 D - S/N ___
Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**
Note:

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
11		D5	One vial Redd Broken	R8
1-16		D16	All vials Redd Pre/HCl (Emax HCl sticker)	R8
16	120	D19	Redd ~500 ml Sample volume	R8

4/22/15 4/22/15

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:

☐ **Continue to next page.**

LEGEND:

Code	Description- Sample Management
D1	Analysis is not indicated in ___
D2	Analysis mismatch COC vs label
D3	Sample ID mismatch COC vs label
D4	Sample ID is not indicated in ___
✓ D5	Container -[improper] [leaking] [broken]
D6	Date/Time is not indicated in ___
D7	Date/Time mismatch COC vs label
D8	Sample listed in COC is not received
D9	Sample received is not listed in COC
D10	No initial/date on corrections in COC/label
D11	Container count mismatch COC vs received
D12	Container size mismatch COC vs received

Code	Description-Sample Management
D13	Out of Holding Time
D14	Bubble is >6mm
D15	No trip blank in cooler
✓ D16	Preservation not indicated in COC & labels
D17	Preservation mismatch COC vs label
D18	Insufficient chemical preservative
✓ D19	Insufficient Sample
D20	No filtration info for dissolved analysis
D21	No sample for moisture determination
D22	
D23	
D24	

Code	Description-Sample Management
R1	Proceed as indicated in ☐ COC ☐ Label
R2	Refer to attached instruction
R3	Cancel the analysis
R4	Use vial with smallest bubble first
R5	Log-in with latest sampling date and time+1 min
R6	Adjust pH as necessary
R7	Filter and preserved as necessary
R8	Inform Client
R9	
R10	
R11	
R12	

REVIEWS:

Sample Labeling [signature] Date 4/22/15 / 4/22/15
SRF [signature] Date 4/22/15
PM RB Date 4/22/15

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than LOQ/RL but greater than LOD/MDL/DL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 15D143

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D143

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

A total of sixteen (16) water samples were received on 04/22/15 to be analyzed for Volatile Organics by GC/MS in accordance with Method 5030B/8260B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. For this SDG, the following were noted: Target analytes in CCV(Datafile ID:RDV608) were within calibration acceptance criteria. 2,2-Dichloropropane was detected bias high(%D=24.8) in CCV(data file ID REV002). However, note that 2,2-Dichloropropane was not detected in any of the field samples. Bromomethane was detected bias low(%D=-21.8) in CCV(data file ID REV044). [However Bromomethane is not an analyte required dilution in associated diluted samples]. The rest of the analytes were compliant to calibration requirements. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, three (3) method blanks were analyzed. VO01D26B - result was compliant to project requirement. Methylene Chloride(0.62J < LOQ) was detected at trace level in VO01E01B and VO01E03B - result was compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, three (3) sets of LCS/LCD were analyzed. VO01D26L/VO01D26C - all analytes were within LCS QC limits. VO01E01L/VO01E01Y - all analytes were within LCS QC limits. VO01E03L/VO01E03C - all analytes were within LCS QC limits. Refer to LCS summary forms for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. D143-01M/S - all analytes were within MS QC limits. Refer to Matrix QC summary form for details.

Surrogate
Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met with the exception of those that were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
SDG NO. : 15D143
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VO01D26B	1	NA	04/30/1515:31	04/30/1515:31	RDV612	RBV140	VO01D26	Method Blank
LCS1W	VO01D26L	1	NA	04/30/1514:09	04/30/1514:09	RDV609	RBV140	VO01D26	Lab Control Sample (LCS)
LCD1W	VO01D26C	1	NA	04/30/1514:37	04/30/1514:37	RDV610	RBV140	VO01D26	LCS Duplicate
04-21-15-WA-1MS	D143-01M	1	NA	04/30/1515:57	04/30/1515:57	RDV613	RBV140	VO01D26	Matrix Spike Sample (MS)
04-21-15-WA-1MSD	0143-01S	1	NA	04/30/1516:24	04/30/1516:24	RDV614	RBV140	VO01D26	MS Duplicate (MSD)
04-21-15-WA-1	D143-01	1	NA	04/30/1519:07	04/30/1519:07	RDV620	RBV140	VO01D26	Field Sample
04-21-15-TB-3	D143-11	1	NA	04/30/1519:36	04/30/1519:36	RDV621	RBV140	VO01D26	Field Sample
04-21-15-EB-1	D143-12	1	NA	04/30/1520:04	04/30/1520:04	RDV622	RBV140	VO01D26	Field Sample
04-21-15-TB-5	D143-15	1	NA	04/30/1520:32	04/30/1520:32	RDV623	RBV140	VO01D26	Field Sample
04-21-15-WA-5	D143-05	1	NA	04/30/1521:00	04/30/1521:00	RDV624	RBV140	VO01D26	Field Sample
04-21-15-WA-9	D143-08	1	NA	04/30/1521:29	04/30/1521:29	RDV625	RBV140	VO01D26	Field Sample
04-21-15-PWA-3	D143-09	1	NA	04/30/1521:57	04/30/1521:57	RDV626	RBV140	VO01D26	Field Sample
04-21-15-PWA-7A	D143-10	1	NA	04/30/1522:26	04/30/1522:26	RDV627	RBV140	VO01D26	Field Sample
04-21-15-EPA5-2	D143-14	1	NA	04/30/1522:54	04/30/1522:54	RDV628	RBV140	VO01D26	Field Sample
04-21-15-WA-3	D143-16	1	NA	04/30/1523:22	04/30/1523:22	RDV629	RBV140	VO01D26	Field Sample
04-21-15-EPA5-1	D143-07	1	NA	04/30/1523:51	04/30/1523:51	RDV630	RBV140	VO01D26	Field Sample
04-21-15-FDUP-2	D143-03	1	NA	05/01/1500:21	05/01/1500:21	RDV631	RBV140	VO01D26	Field Sample
04-21-15-EPA5-3	D143-04	1	NA	05/01/1500:50	05/01/1500:50	RDV632	RBV14D	VO01D26	Field Sample
MBLK2W	VO01E01B	1	NA	05/01/1517:58	05/01/1517:58	REV007	RBV140	VO01E01	Method Blank
LCS2W	VO01E01L	1	NA	05/01/1516:01	05/01/1516:01	REV003	RBV140	VO01E01	Lab Control Sample (LCS)
LCD2W	VO01E01Y	1	NA	05/01/1517:05	05/01/1517:05	REV005	RBV140	VO01E01	LCS Duplicate
04-21-15-EPA5-1DL	D143-07I	10	NA	05/01/1519:21	05/01/1519:21	REV010	RBV140	VO01E01	Diluted Sample
04-21-15-TB-2	D143-02	1	NA	05/01/1519:49	05/01/1519:49	REV011	RBV140	VO01E01	Field Sample
04-21-15-TB-4	D143-06	1	NA	05/01/1520:17	05/01/1520:17	REV012	RBV140	VO01E01	Field Sample
04-21-15-PWA-2	D143-13	1	NA	05/02/1501:57	05/02/1501:57	REV024	RBV140	VO01E01	Field Sample
MBLK3W	VO01E03B	1	NA	05/04/1519:55	05/04/1519:55	REV048	RBV140	VO01E03	Method Blank
LCS3W	VO01E03L	1	NA	05/04/1518:30	05/04/1518:30	REV045	RBV140	VO01E03	Lab Control Sample (LCS)
LCD3W	VO01E03C	1	NA	05/04/1518:59	05/04/1518:59	REV046	RBV140	VO01E03	LCS Duplicate
04-21-15-FDUP-2DL	D143-03J	100	NA	05/04/1520:23	05/04/1520:23	REV049	RBV140	VO01E03	Diluted Sample
04-21-15-EPA5-3DL	D143-04J	100	NA	05/04/1520:53	05/04/1520:53	REV050	RBV140	VO01E03	Diluted Sample
04-21-15-PWA-2DL	D143-13J	100	NA	05/04/1521:23	05/04/1521:23	REV051	RBV140	VO01E03	Diluted Sample

FN - Filename
% Moist - Percent Moisture

2552

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 19:07
Sample ID: 04-21-15-WA-1	Date Analyzed: 04/30/15 19:07
Lab Samp ID: D143-01	Dilution Factor: 1
Lab File ID: RDV620	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	0.91J	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	0.44J	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	4.6	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	3.5	1.0	0.50
MTBE	0.91J	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.19	10.00	91.9	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.96	10.00	99.6	85-120
DIBROMOFLUOROMETHANE	9.14	10.00	91.4	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	05/01/15 19:49
Sample ID:	04-21-15-TB-2	Date Analyzed:	05/01/15 19:49
Lab Samp ID:	D143-02	Dilution Factor:	1
Lab File ID:	REV011	Matrix	: WATER
Ext Btch ID:	VOO1E01	% Moisture	: NA
Calib. Ref.:	RBV140	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.10	10.00	91.0	70-120
4-BROMOFLUOROBENZENE	9.92	10.00	99.2	75-120
TOLUENE-D8	9.91	10.00	99.1	85-120
DIBROMOFLUOROMETHANE	9.17	10.00	91.7	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	05/01/15 00:21 # 05/04/15 20:23
Sample ID:	04-21-15-FDUP-2	Date Analyzed:	05/01/15 00:21 # 05/04/15 20:23
Lab Samp ID:	D143-03 #D143-03J	Dilution Factor:	1 # 100
Lab File ID:	RDV631 #REV049	Matrix	: WATER
Ext Btch ID:	VD01D26 #VD01E03	% Moisture	: NA
Calib. Ref.:	RBV140 #RBV140	Instrument ID	: T-001

	PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
	1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,1-TRICHLOROETHANE	ND	1.0	0.20
	1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,2-TRICHLOROETHANE	0.78J	1.0	0.20
	1,1-DICHLOROETHANE	0.35J	1.0	0.20
	1,1-DICHLOROETHENE	ND	1.0	0.20
	1,1-DICHLOROPROPENE	0.54J	1.0	0.20
	1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
#	1,2,3-TRICHLOROPROPANE	450	100	50
	1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
	1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
#	1,2-DIBROMO-3-CHLOROPROPANE	190	100	50
	1,2-DIBROMOETHANE	1.5	1.0	0.20
	1,2-DICHLOROBENZENE	0.42J	1.0	0.20
	1,2-DICHLOROETHANE	2.7	1.0	0.20
#	1,2-DICHLOROPROPANE	2700	100	20
	1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
	1,3-DICHLOROBENZENE	ND	1.0	0.20
	1,3-DICHLOROPROPANE	3.5	0.50	0.20
	1,4-DICHLOROBENZENE	ND	1.0	0.20
	2,2-DICHLOROPROPANE	ND	1.0	0.20
	2-BUTANONE	ND	10	4.0
	2-CHLOROTOLUENE	ND	1.0	0.20
	2-HEXANONE	ND	10	4.0
	4-CHLOROTOLUENE	ND	1.0	0.20
	ACETONE	ND	10	5.0
	BENZENE	0.62J	1.0	0.20
	BROMOBENZENE	ND	1.0	0.20
	BROMOCHLOROMETHANE	ND	1.0	0.20
	BROMODICHLOROMETHANE	ND	1.0	0.20
	BROMOFORM	ND	1.0	0.30
	BROMOMETHANE	ND	1.0	0.30
	CARBON DISULFIDE	ND	1.0	0.20
	CARBON TETRACHLORIDE	ND	1.0	0.20
	CHLOROBENZENE	1.2	1.0	0.20
	CHLOROETHANE	ND	1.0	0.30
	CHLOROFORM	2.6	1.0	0.20
	CHLOROMETHANE	ND	1.0	0.30
	CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
	CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
	DIBROMOCHLOROMETHANE	ND	1.0	0.20
	DIBROMOMETHANE	ND	1.0	0.20
	DICHLORODIFLUOROMETHANE	ND	1.0	0.30
	ETHYLBENZENE	ND	1.0	0.20
	HEXACHLOROBUTADIENE	ND	1.0	0.30
	ISOPROPYL BENZENE	ND	1.0	0.20
	M,P-XYLENES	ND	1.0	0.40
	MIBK	ND	10	4.0
	METHYLENE CHLORIDE	3.5	1.0	0.50
	MTBE	ND	1.0	0.20
	NAPHTHALENE	ND	1.0	0.50
	N-BUTYLBENZENE	ND	1.0	0.20
	N-PROPYLBENZENE	ND	1.0	0.20
	O-XYLENE	ND	1.0	0.20
	P-ISOPROPYLTOLUENE	ND	1.0	0.20
	SEC-BUTYLBENZENE	ND	1.0	0.20
	STYRENE	ND	1.0	0.20
	TERT-BUTYLBENZENE	ND	1.0	0.20
	TETRACHLOROETHENE	ND	1.0	0.20
	TOLUENE	ND	1.0	0.20
	TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
	TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
	TRICHLOROETHENE	ND	1.0	0.20
	TRICHLOROFLUOROMETHANE	ND	1.0	0.30
	VINYL CHLORIDE	ND	1.0	0.20
	FREON113	ND	1.0	0.30
	VINYL ACETATE	ND	2.0	0.50

	SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
	1,2-DICHLOROETHANE-D4	9.35	10.00	93.5	70-120
	4-BROMOFLUOROBENZENE	9.90	10.00	99.0	75-120
	TOLUENE-D8	9.44	10.00	94.4	85-120
	DIBROMOFLUOROMETHANE	9.31	10.00	93.1	85-115
#	1,2-DICHLOROETHANE-D4	893	1000	89.3	70-120
#	4-BROMOFLUOROBENZENE	983	1000	98.3	75-120
#	TOLUENE-D8	990	1000	99.0	85-120
#	DIBROMOFLUOROMETHANE	898	1000	89.8	85-115

Members of the Associated File

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECD & ASSOCIATES, INC.	Date Collected	: 04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received	: 04/22/15
Batch No.	: 15D143	Date Extracted	: 05/01/15 00:21
Sample ID	: 04-21-15-FDUP-2	Date Analyzed	: 05/01/15 00:21
Lab Samp ID	: D143-03	Dilution Factor	: 1
Lab File ID	: RDV631	Matrix	: WATER
Ext Btch ID	: VOO1D26	% Moisture	: NA
Calib. Ref.	: RBV140	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	0.78J	1.0	0.20
1,1-DICHLOROETHANE	0.35J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.54J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	440E	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	290E	1.0	0.50
1,2-DIBROMOETHANE	1.5	1.0	0.20
1,2-DICHLOROBENZENE	0.42J	1.0	0.20
1,2-DICHLOROETHANE	2.7	1.0	0.20
1,2-DICHLOROPROPANE	790E	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	3.5	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	0.62J	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	1.2	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	2.6	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
M18K	ND	10	4.0
METHYLENE CHLORIDE	3.5	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.35	10.00	93.5	70-120
4-BROMOFLUOROBENZENE	9.90	10.00	99.0	75-120
TOLUENE-D8	9.44	10.00	94.4	85-120
DIBROMOFLUOROMETHANE	9.31	10.00	93.1	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	05/04/15 20:23
Sample ID:	04-21-15-FDUP-2DL	Date Analyzed:	05/04/15 20:23
Lab Samp ID:	D143-03J	Dilution Factor:	100
Lab File ID:	REV049	Matrix	: WATER
Ext Btch ID:	VOO1E03	% Moisture	: NA
Calib. Ref.:	RBV140	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	100	20
1,1,1-TRICHLOROETHANE	ND	100	20
1,1,2,2-TETRACHLOROETHANE	ND	100	20
1,1,2-TRICHLOROETHANE	ND	100	20
1,1-DICHLOROETHANE	ND	100	20
1,1-DICHLOROETHENE	ND	100	20
1,1-DICHLOROPROPENE	ND	100	20
1,2,3-TRICHLOROBENZENE	ND	100	30
1,2,3-TRICHLOROPROPANE	450	100	50
1,2,4-TRICHLOROBENZENE	ND	100	30
1,2,4-TRIMETHYLBENZENE	ND	100	20
1,2-DIBROMO-3-CHLOROPROPANE	190	100	50
1,2-DIBROMOETHANE	ND	100	20
1,2-DICHLOROBENZENE	ND	100	20
1,2-DICHLOROETHANE	ND	100	20
1,2-DICHLOROPROPANE	2700	100	20
1,3,5-TRIMETHYLBENZENE	ND	100	20
1,3-DICHLOROBENZENE	ND	100	20
1,3-DICHLOROPROPANE	ND	50	20
1,4-DICHLOROBENZENE	ND	100	20
2,2-DICHLOROPROPANE	ND	100	20
2-BUTANONE	ND	1000	400
2-CHLOROTOLUENE	ND	100	20
2-HEXANONE	ND	1000	400
4-CHLOROTOLUENE	ND	100	20
ACETONE	ND	1000	500
BENZENE	ND	100	20
BROMOBENZENE	ND	100	20
BROMOCHLOROMETHANE	ND	100	20
BROMODICHLOROMETHANE	ND	100	20
BROMOFORM	ND	100	30
BROMOMETHANE	ND	100	30
CARBON DISULFIDE	ND	100	20
CARBON TETRACHLORIDE	ND	100	20
CHLOROBENZENE	ND	100	20
CHLOROETHANE	ND	100	50
CHLOROFORM	ND	100	20
CHLOROMETHANE	ND	100	30
CIS-1,2-DICHLOROETHENE	ND	100	20
CIS-1,3-DICHLOROPROPENE	ND	100	20
DIBROMOCHLOROMETHANE	ND	100	20
DIBROMOMETHANE	ND	100	20
DICHLORODIFLUOROMETHANE	ND	100	30
ETHYLBENZENE	ND	100	20
HEXACHLOROBUTADIENE	ND	100	30
ISOPROPYL BENZENE	ND	100	20
M,P-XYLENES	ND	100	40
MIBK	ND	1000	400
METHYLENE CHLORIDE	ND	100	50
MTBE	ND	100	20
NAPHTHALENE	ND	100	50
N-BUTYLBENZENE	ND	100	20
N-PROPYLBENZENE	ND	100	20
O-XYLENE	ND	100	20
P-ISOPROPYLTOLUENE	ND	100	20
SEC-BUTYLBENZENE	ND	100	20
STYRENE	ND	100	20
TERT-BUTYLBENZENE	ND	100	20
TETRACHLOROETHENE	ND	100	20
TOLUENE	ND	100	20
TRANS-1,2-DICHLOROETHENE	ND	100	20
TRANS-1,3-DICHLOROPROPENE	ND	100	20
TRICHLOROETHENE	ND	100	20
TRICHLOROFLUOROMETHANE	ND	100	30
VINYL CHLORIDE	ND	100	20
FREON113	ND	100	30
VINYL ACETATE	ND	200	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	893	1000	89.3	70-120
4-BROMOFLUOROBENZENE	983	1000	98.3	75-120
TOLUENE-D8	990	1000	99.0	85-120
DIBROMOFLUOROMETHANE	898	1000	89.8	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected	: 04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received	: 04/22/15
Batch No.	: 15D143	Date Extracted	: 05/01/15 00:50 # 05/04/15 20:53
Sample ID	: 04-21-15-EPA5-3	Date Analyzed	: 05/01/15 00:50 # 05/04/15 20:53
Lab Samp ID	: D143-04 #D143-04J	Dilution Factor	: 1 # 100
Lab File ID	: RDV632 #REV050	Matrix	: WATER
Ext Btch ID	: V001D26 #V001E03	% Moisture	: NA
Calib. Ref.	: RBV140 #RBV140	Instrument ID	: T-001

	PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
	1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,1-TRICHLOROETHANE	ND	1.0	0.20
	1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,2-TRICHLOROETHANE	0.90J	1.0	0.20
	1,1-DICHLOROETHANE	0.44J	1.0	0.20
	1,1-DICHLOROETHENE	ND	1.0	0.20
	1,1-DICHLOROPROPENE	0.63J	1.0	0.20
	1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
#	1,2,3-TRICHLOROPROPANE	460	100	50
	1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
	1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
#	1,2-DIBROMO-3-CHLOROPROPANE	210	100	50
	1,2-DIBROMOETHANE	1.8	1.0	0.20
	1,2-DICHLOROBENZENE	0.50J	1.0	0.20
	1,2-DICHLOROETHANE	3.1	1.0	0.20
#	1,2-DICHLOROPROPANE	3000	100	20
	1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
	1,3-DICHLOROBENZENE	0.20J	1.0	0.20
	1,3-DICHLOROPROPANE	4.1	0.50	0.20
	1,4-DICHLOROBENZENE	ND	1.0	0.20
	2,2-DICHLOROPROPANE	ND	1.0	0.20
	2-BUTANONE	ND	10	4.0
	2-CHLOROTOLUENE	ND	1.0	0.20
	2-HEXANONE	ND	10	4.0
	4-CHLOROTOLUENE	ND	1.0	0.20
	ACETONE	ND	10	5.0
	BENZENE	0.73J	1.0	0.20
	BROMOBENZENE	ND	1.0	0.20
	BROMOCHLOROMETHANE	ND	1.0	0.20
	BROMODICHLOROMETHANE	ND	1.0	0.20
	BROMOFORM	ND	1.0	0.30
	BROMOMETHANE	ND	1.0	0.30
	CARBON DISULFIDE	ND	1.0	0.20
	CARBON TETRACHLORIDE	ND	1.0	0.20
	CHLOROBENZENE	1.4	1.0	0.20
	CHLOROETHANE	ND	1.0	0.30
	CHLOROFORM	3.2	1.0	0.20
	CHLOROMETHANE	ND	1.0	0.30
	CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
	CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
	DIBROMOCHLOROMETHANE	ND	1.0	0.20
	DIBROMOMETHANE	ND	1.0	0.20
	DICHLORODIFLUOROMETHANE	ND	1.0	0.30
	ETHYLBENZENE	ND	1.0	0.20
	HEXACHLOROBUTADIENE	ND	1.0	0.30
	ISOPROPYL BENZENE	ND	1.0	0.20
	M,P-XYLENES	ND	1.0	0.40
	MIBK	ND	10	4.0
	METHYLENE CHLORIDE	4.1	1.0	0.50
	MTBE	ND	1.0	0.20
	NAPHTHALENE	ND	1.0	0.50
	N-BUTYLBENZENE	ND	1.0	0.20
	N-PROPYLBENZENE	ND	1.0	0.20
	O-XYLENE	ND	1.0	0.20
	P-ISOPROPYLTOLUENE	ND	1.0	0.20
	SEC-BUTYLBENZENE	ND	1.0	0.20
	STYRENE	ND	1.0	0.20
	TERT-BUTYLBENZENE	ND	1.0	0.20
	TETRACHLOROETHENE	ND	1.0	0.20
	TOLUENE	ND	1.0	0.20
	TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
	TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
	TRICHLOROETHENE	ND	1.0	0.20
	TRICHLOROFLUOROMETHANE	ND	1.0	0.30
	VINYL CHLORIDE	ND	1.0	0.20
	FREON113	ND	1.0	0.30
	VINYL ACETATE	ND	2.0	0.50

	SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
	1,2-DICHLOROETHANE-D4	9.50	10.00	95.0	70-120
	4-BROMOFLUOROBENZENE	9.87	10.00	98.7	75-120
	TOLUENE-D8	9.56	10.00	95.6	85-120
	DIBROMOFLUOROMETHANE	9.35	10.00	93.5	85-115
#	1,2-DICHLOROETHANE-D4	893	1000	89.3	70-120
#	4-BROMOFLUOROBENZENE	1010	1000	101	75-120
#	TOLUENE-D8	990	1000	99.0	85-120
#	DIBROMOFLUOROMETHANE	901	1000	90.1	85-115

Members of the Associated File

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/01/15 00:50
Sample ID: 04-21-15-EPA5-3	Date Analyzed: 05/01/15 00:50
Lab Samp ID: D143-04	Dilution Factor: 1
Lab File ID: RDV632	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	0.90J	1.0	0.20
1,1-DICHLOROETHANE	0.44J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.63J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	480E	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	320E	1.0	0.50
1,2-DIBROMOETHANE	1.8	1.0	0.20
1,2-DICHLOROBENZENE	0.50J	1.0	0.20
1,2-DICHLOROETHANE	3.1	1.0	0.20
1,2-DICHLOROPROPANE	860E	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	0.20J	1.0	0.20
1,3-DICHLOROPROPANE	4.1	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	0.73J	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	1.4	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	3.2	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	4.1	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.50	10.00	95.0	70-120
4-BROMOFLUOROBENZENE	9.87	10.00	98.7	75-120
TOLUENE-D8	9.56	10.00	95.6	85-120
DIBROMOFLUOROMETHANE	9.35	10.00	93.5	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	05/04/15 20:53
Sample ID:	04-21-15-EPA5-3DL	Date Analyzed:	05/04/15 20:53
Lab Samp ID:	D143-04J	Dilution Factor:	100
Lab File ID:	REV050	Matrix	: WATER
Ext Btch ID:	V001E03	% Moisture	: NA
Calib. Ref.:	RBV140	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	100	20
1,1,1-TRICHLOROETHANE	ND	100	20
1,1,2,2-TETRACHLOROETHANE	ND	100	20
1,1,2-TRICHLOROETHANE	ND	100	20
1,1-DICHLOROETHANE	ND	100	20
1,1-DICHLOROETHENE	ND	100	20
1,1-DICHLOROPROPENE	ND	100	20
1,2,3-TRICHLOROBENZENE	ND	100	30
1,2,3-TRICHLOROPROPANE	460	100	50
1,2,4-TRICHLOROBENZENE	ND	100	30
1,2,4-TRIMETHYLBENZENE	ND	100	20
1,2-DIBROMO-3-CHLOROPROPANE	210	100	50
1,2-DIBROMOETHANE	ND	100	20
1,2-DICHLOROBENZENE	ND	100	20
1,2-DICHLOROETHANE	ND	100	20
1,2-DICHLOROPROPANE	3000	100	20
1,3,5-TRIMETHYLBENZENE	ND	100	20
1,3-DICHLOROBENZENE	ND	100	20
1,3-DICHLOROPROPANE	ND	50	20
1,4-DICHLOROBENZENE	ND	100	20
2,2-DICHLOROPROPANE	ND	100	20
2-BUTANONE	ND	1000	400
2-CHLOROTOLUENE	ND	100	20
2-HEXANONE	ND	1000	400
4-CHLOROTOLUENE	ND	100	20
ACETONE	ND	1000	500
BENZENE	ND	100	20
BROMOBENZENE	ND	100	20
BROMOCHLOROMETHANE	ND	100	20
BROMODICHLOROMETHANE	ND	100	20
BROMOFORM	ND	100	30
BROMOMETHANE	ND	100	30
CARBON DISULFIDE	ND	100	20
CARBON TETRACHLORIDE	ND	100	20
CHLOROBENZENE	ND	100	20
CHLOROETHANE	ND	100	30
CHLOROFORM	ND	100	20
CHLOROMETHANE	ND	100	30
CIS-1,2-DICHLOROETHENE	ND	100	20
CIS-1,3-DICHLOROPROPENE	ND	100	20
DIBROMOCHLOROMETHANE	ND	100	20
DIBROMOMETHANE	ND	100	20
DICHLORODIFLUOROMETHANE	ND	100	30
ETHYLBENZENE	ND	100	20
HEXACHLOROBUTADIENE	ND	100	30
ISOPROPYL BENZENE	ND	100	20
M,P-XYLENES	ND	100	40
MIBK	ND	1000	400
METHYLENE CHLORIDE	ND	100	50
MTBE	ND	100	20
NAPHTHALENE	ND	100	50
N-BUTYLBENZENE	ND	100	20
N-PROPYLBENZENE	ND	100	20
O-XYLENE	ND	100	20
P-ISOPROPYLTOLUENE	ND	100	20
SEC-BUTYLBENZENE	ND	100	20
STYRENE	ND	100	20
TERT-BUTYLBENZENE	ND	100	20
TETRACHLOROETHENE	ND	100	20
TOLUENE	ND	100	20
TRANS-1,2-DICHLOROETHENE	ND	100	20
TRANS-1,3-DICHLOROPROPENE	ND	100	20
TRICHLOROETHENE	ND	100	20
TRICHLOROFLUOROMETHANE	ND	100	30
VINYL CHLORIDE	ND	100	20
FREON113	ND	100	30
VINYL ACETATE	ND	200	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	893	1000	89.3	70-120
4-BROMOFLUOROBENZENE	1010	1000	101	75-120
TOLUENE-D8	990	1000	99.0	85-120
DIBROMOFLUOROMETHANE	901	1000	90.1	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 21:00
Sample ID: 04-21-15-WA-5	Date Analyzed: 04/30/15 21:00
Lab Samp ID: D143-05	Dilution Factor: 1
Lab File ID: RDV624	Matrix : WATER
Ext Btch ID: VO01D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	0.44J	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	5.3	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.56J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.94J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.23J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.31	10.00	93.1	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.72	10.00	97.2	85-120
DIBROMOFLUOROMETHANE	9.28	10.00	92.8	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/01/15 20:17
Sample ID: 04-21-15-TB-4	Date Analyzed: 05/01/15 20:17
Lab Samp ID: D143-06	Dilution Factor: 1
Lab File ID: REV012	Matrix : WATER
Ext Btch ID: V001E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.20	10.00	92.0	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.83	10.00	98.3	85-120
DIBROMOFLUOROMETHANE	9.27	10.00	92.7	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	04/30/15 23:51 # 05/01/15 19:21
Sample ID:	04-21-15-EPA5-1	Date Analyzed:	04/30/15 23:51 # 05/01/15 19:21
Lab Samp ID:	D143-07 #D143-07I	Dilution Factor:	1 # 10
Lab File ID:	RDV630 #REV010	Matrix	: WATER
Ext Btch ID:	V001D26 #V001E01	% Moisture	: NA
Calib. Ref.:	RBV140 #RBV140	Instrument ID	: T-001

	PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
	1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,1-TRICHLOROETHANE	ND	1.0	0.20
	1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,2-TRICHLOROETHANE	ND	1.0	0.20
	1,1-DICHLOROETHANE	ND	1.0	0.20
	1,1-DICHLOROETHENE	ND	1.0	0.20
	1,1-DICHLOROPROPENE	ND	1.0	0.20
	1,2,3-TRICHLOROBENZENE	ND	1.0	0.50
#	1,2,3-TRICHLOROPROPANE	72	10	5.0
	1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
	1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
	1,2-DIBROMO-3-CHLOROPROPANE	1.5	1.0	0.50
	1,2-DIBROMOETHANE	ND	1.0	0.20
	1,2-DICHLOROBENZENE	ND	1.0	0.20
	1,2-DICHLOROETHANE	ND	1.0	0.20
	1,2-DICHLOROPROPANE	19	1.0	0.20
	1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
	1,3-DICHLOROBENZENE	ND	1.0	0.20
	1,3-DICHLOROPROPANE	ND	0.50	0.20
	1,4-DICHLOROBENZENE	ND	1.0	0.20
	2,2-DICHLOROPROPANE	ND	1.0	0.20
	2-BUTANONE	ND	10	4.0
	2-CHLOROTOLUENE	ND	1.0	0.20
	2-HEXANONE	ND	10	4.0
	4-CHLOROTOLUENE	ND	1.0	0.20
	ACETONE	ND	10	5.0
	BENZENE	ND	1.0	0.20
	BROMOBENZENE	ND	1.0	0.20
	BROMOCHLOROMETHANE	ND	1.0	0.20
	BROMODICHLOROMETHANE	ND	1.0	0.20
	BROMOFORM	ND	1.0	0.30
	BROMOMETHANE	ND	1.0	0.30
	CARBON DISULFIDE	ND	1.0	0.20
	CARBON TETRACHLORIDE	ND	1.0	0.20
	CHLOROBENZENE	ND	1.0	0.20
	CHLOROETHANE	ND	1.0	0.30
	CHLOROFORM	7.5	1.0	0.20
	CHLOROMETHANE	ND	1.0	0.30
	CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
	CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
	DIBROMOCHLOROMETHANE	ND	1.0	0.20
	DIBROMOMETHANE	ND	1.0	0.20
	DICHLORODIFLUOROMETHANE	ND	1.0	0.30
	ETHYLBENZENE	ND	1.0	0.20
	HEXACHLOROBUTADIENE	ND	1.0	0.30
	ISOPROPYL BENZENE	ND	1.0	0.20
	M,P-XYLENES	ND	1.0	0.40
	MIBK	ND	10	4.0
	METHYLENE CHLORIDE	ND	1.0	0.50
	MTBE	ND	1.0	0.20
	NAPHTHALENE	ND	1.0	0.50
	N-BUTYLBENZENE	ND	1.0	0.20
	N-PROPYLBENZENE	ND	1.0	0.20
	O-XYLENE	ND	1.0	0.20
	P-ISOPROPYLTOLUENE	ND	1.0	0.20
	SEC-BUTYLBENZENE	ND	1.0	0.20
	STYRENE	ND	1.0	0.20
	TERT-BUTYLBENZENE	ND	1.0	0.20
	TETRACHLOROETHENE	ND	1.0	0.20
	TOLUENE	ND	1.0	0.20
	TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
	TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
	TRICHLOROETHENE	ND	1.0	0.20
	TRICHLOROFLUOROMETHANE	ND	1.0	0.30
	VINYL CHLORIDE	ND	1.0	0.20
	FREON113	ND	1.0	0.30
	VINYL ACETATE	ND	2.0	0.50

	SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
	1,2-DICHLOROETHANE-D4	9.15	10.00	91.5	70-120
	4-BROMOFLUORDBENZENE	10.1	10.00	101	75-120
	TOLUENE-D8	9.77	10.00	97.7	85-120
	DIBROMOFLUOROMETHANE	9.21	10.00	92.1	85-115
#	1,2-DICHLOROETHANE-D4	91.6	100.0	91.6	70-120
#	4-BROMOFLUOROBENZENE	100	100.0	100	75-120
#	TOLUENE-D8	96.9	100.0	96.9	85-120
#	DIBROMOFLUOROMETHANE	91.6	100.0	91.6	85-115

Members of the Associated File

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 23:51
Sample ID: 04-21-15-EPA5-1	Date Analyzed: 04/30/15 23:51
Lab Samp ID: D143-07	Dilution Factor: 1
Lab File ID: RDV630	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	78E	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	1.5	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	19	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	7.5	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.15	10.00	91.5	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.77	10.00	97.7	85-120
DIBROMOFLUOROMETHANE	9.21	10.00	92.1	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/01/15 19:21
Sample ID: 04-21-15-EPA5-1DL	Date Analyzed: 05/01/15 19:21
Lab Samp ID: D143-071	Dilution Factor: 10
Lab File ID: REV010	Matrix : WATER
Ext Btch ID: V001E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	10	2.0
1,1,1-TRICHLOROETHANE	ND	10	2.0
1,1,2,2-TETRACHLOROETHANE	ND	10	2.0
1,1,2-TRICHLOROETHANE	ND	10	2.0
1,1-DICHLOROETHANE	ND	10	2.0
1,1-DICHLOROETHENE	ND	10	2.0
1,1-DICHLOROPROPENE	ND	10	2.0
1,2,3-TRICHLOROBENZENE	ND	10	3.0
1,2,3-TRICHLOROPROPANE	72	10	5.0
1,2,4-TRICHLOROBENZENE	ND	10	3.0
1,2,4-TRIMETHYLBENZENE	ND	10	2.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10	5.0
1,2-DIBROMOETHANE	ND	10	2.0
1,2-DICHLOROBENZENE	ND	10	2.0
1,2-DICHLOROETHANE	ND	10	2.0
1,2-DICHLOROPROPANE	18	10	2.0
1,3,5-TRIMETHYLBENZENE	ND	10	2.0
1,3-DICHLOROBENZENE	ND	10	2.0
1,3-DICHLOROPROPANE	ND	5.0	2.0
1,4-DICHLOROBENZENE	ND	10	2.0
2,2-DICHLOROPROPANE	ND	10	2.0
2-BUTANONE	ND	100	40
2-CHLOROTOLUENE	ND	10	2.0
2-HEXANONE	ND	100	40
4-CHLOROTOLUENE	ND	10	2.0
ACETONE	ND	100	50
BENZENE	ND	10	2.0
BROMOBENZENE	ND	10	2.0
BROMOCHLOROMETHANE	ND	10	2.0
BROMODICHLOROMETHANE	ND	10	2.0
BROMOFORM	ND	10	3.0
BROMOMETHANE	ND	10	3.0
CARBON DISULFIDE	ND	10	2.0
CARBON TETRACHLORIDE	ND	10	2.0
CHLOROBENZENE	ND	10	2.0
CHLOROETHANE	ND	10	3.0
CHLOROFORM	7.1J	10	2.0
CHLOROMETHANE	ND	10	3.0
CIS-1,2-DICHLOROETHENE	ND	10	2.0
CIS-1,3-DICHLOROPROPENE	ND	10	2.0
DIBROMOCHLOROMETHANE	ND	10	2.0
DIBROMOMETHANE	ND	10	2.0
DICHLORODIFLUOROMETHANE	ND	10	3.0
ETHYLBENZENE	ND	10	2.0
HEXACHLOROBUTADIENE	ND	10	3.0
ISOPROPYL BENZENE	ND	10	2.0
M,P-XYLENES	ND	10	4.0
MIBK	ND	100	40
METHYLENE CHLORIDE	ND	10	5.0
MTBE	ND	10	2.0
NAPHTHALENE	ND	10	3.0
N-BUTYLBENZENE	ND	10	2.0
N-PROPYLBENZENE	ND	10	2.0
O-XYLENE	ND	10	2.0
P-ISOPROPYLTOLUENE	ND	10	2.0
SEC-BUTYLBENZENE	ND	10	2.0
STYRENE	ND	10	2.0
TERT-BUTYLBENZENE	ND	10	2.0
TETRACHLOROETHENE	ND	10	2.0
TOLUENE	ND	10	2.0
TRANS-1,2-DICHLOROETHENE	ND	10	2.0
TRANS-1,3-DICHLOROPROPENE	ND	10	5.0
TRICHLOROETHENE	ND	10	2.0
TRICHLOROFLUOROMETHANE	ND	10	3.0
VINYL CHLORIDE	ND	10	2.0
FREON113	ND	10	3.0
VINYL ACETATE	ND	20	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91.6	100.0	91.6	70-120
4-BROMOFLUOROBENZENE	100	100.0	100	75-120
TOLUENE-D8	96.9	100.0	96.9	85-120
DIBROMOFLUOROMETHANE	91.6	100.0	91.6	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 21:29
Sample ID: 04-21-15-WA-9	Date Analyzed: 04/30/15 21:29
Lab Samp ID: D143-08	Dilution Factor: 1
Lab File ID: RDV625	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.21	10.00	92.1	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.61	10.00	96.1	85-120
DIBROMOFLUOROMETHANE	9.19	10.00	91.9	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 21:57
Sample ID: 04-21-15-PWA-3	Date Analyzed: 04/30/15 21:57
Lab Samp ID: D143-09	Dilution Factor: 1
Lab File ID: RDV626	Matrix : WATER
Ext Btch ID: VO01D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.26J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	11	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	8.4	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.24	10.00	92.4	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.81	10.00	98.1	85-120
DIBROMOFLUOROMETHANE	9.25	10.00	92.5	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV626.D
Acq On : 30 Apr 2015 9:57 pm
Sample : 15D143-09 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:11 2015

Vial: 20
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1141487	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.00	117	886786	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	292406	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	350950	9.25	ug/l	0.02
Spiked Amount 10.000			Recovery =	92.50%		
38) 1,2-Dichloroethane-d4	6.86	65	226084	9.24	ug/l	0.02
Spiked Amount 10.000			Recovery =	92.40%		
54) Toluene-d8	9.61	98	1177148	9.82	ug/l	0.02
Spiked Amount 10.000			Recovery =	98.20%		
74) 4-Bromofluorobenzene	13.60	95	336350	10.00	ug/l	0.02
Spiked Amount 10.000			Recovery =	100.00%		
Target Compounds						Qvalue
18) Methylene chloride	4.27	49	419367	8.40	ug/l	99
33) Chloroform	6.21	83	678514	11.09	ug/l	99
46) 1,2-Dichloropropane	8.16	63	10388	0.26	ug/l #	54
68) m-Xylene & p-Xylene	12.40	91	30001	0.25	ug/l	98

(#) = qualifier out of range (m) = manual integration

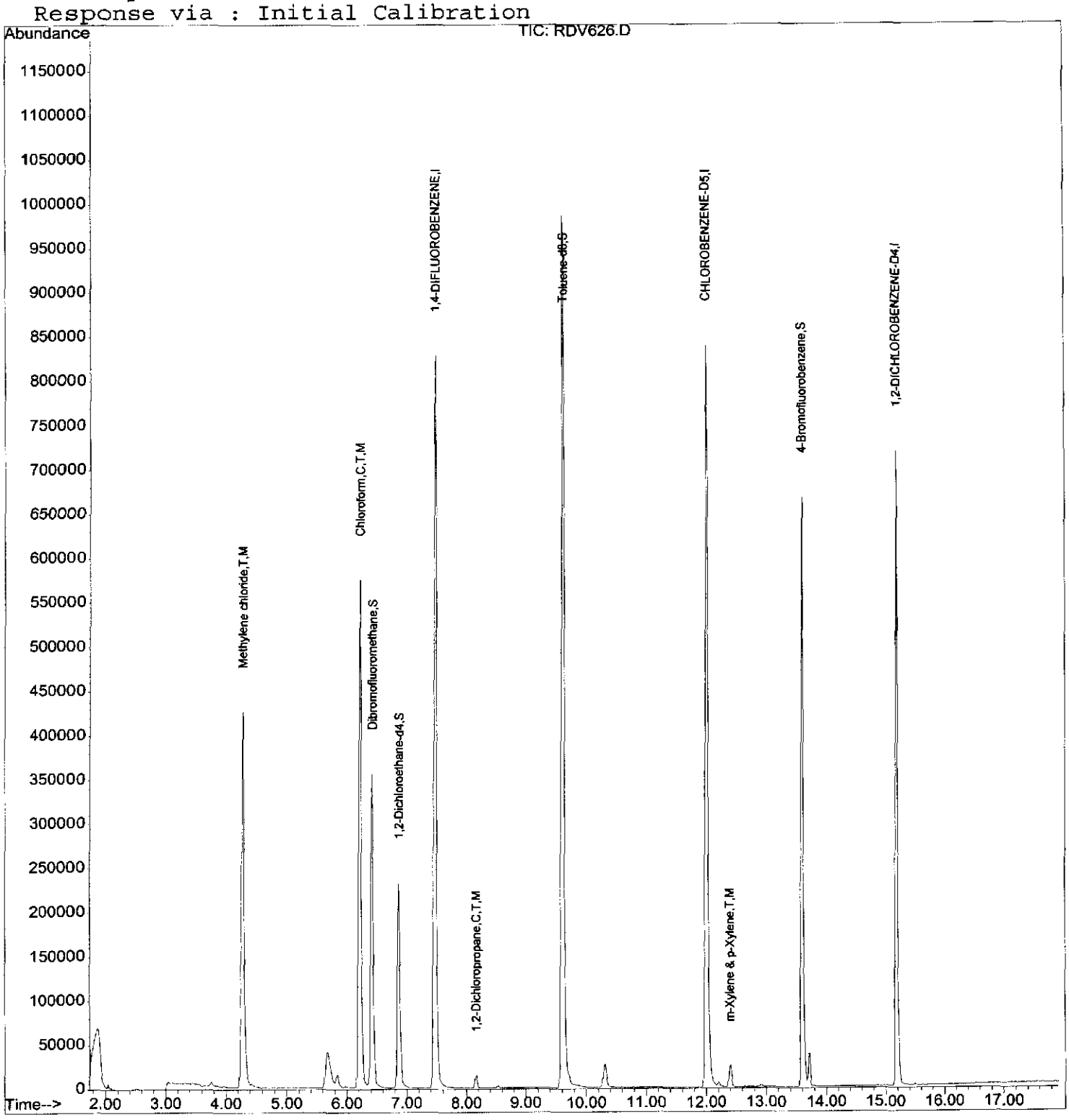
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV626.D
Acq On : 30 Apr 2015 9:57 pm
Sample : 15D143-09 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:11 2015

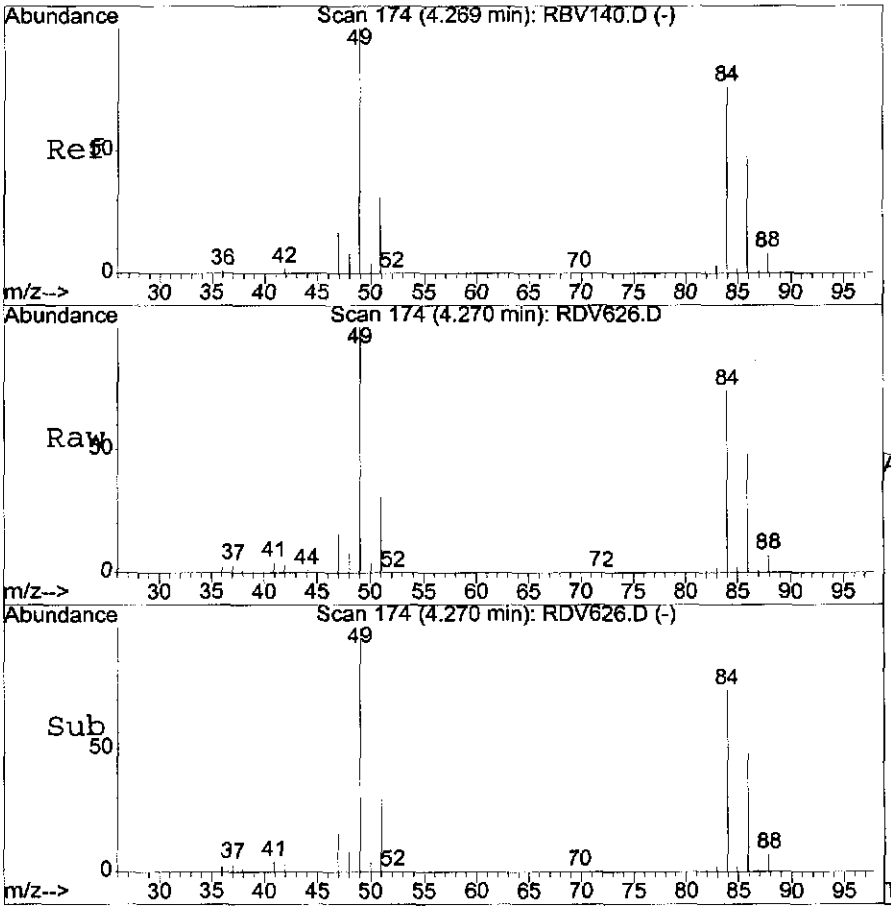
Vial: 20
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



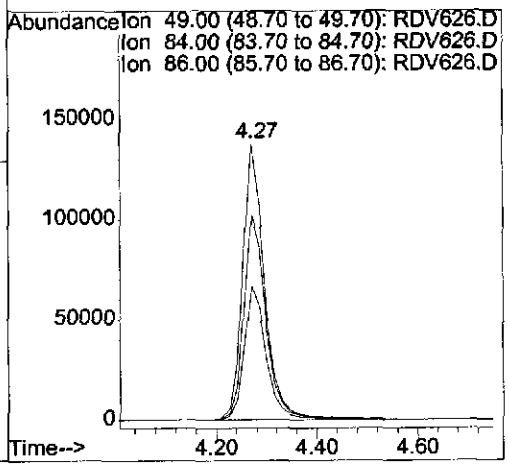
2020

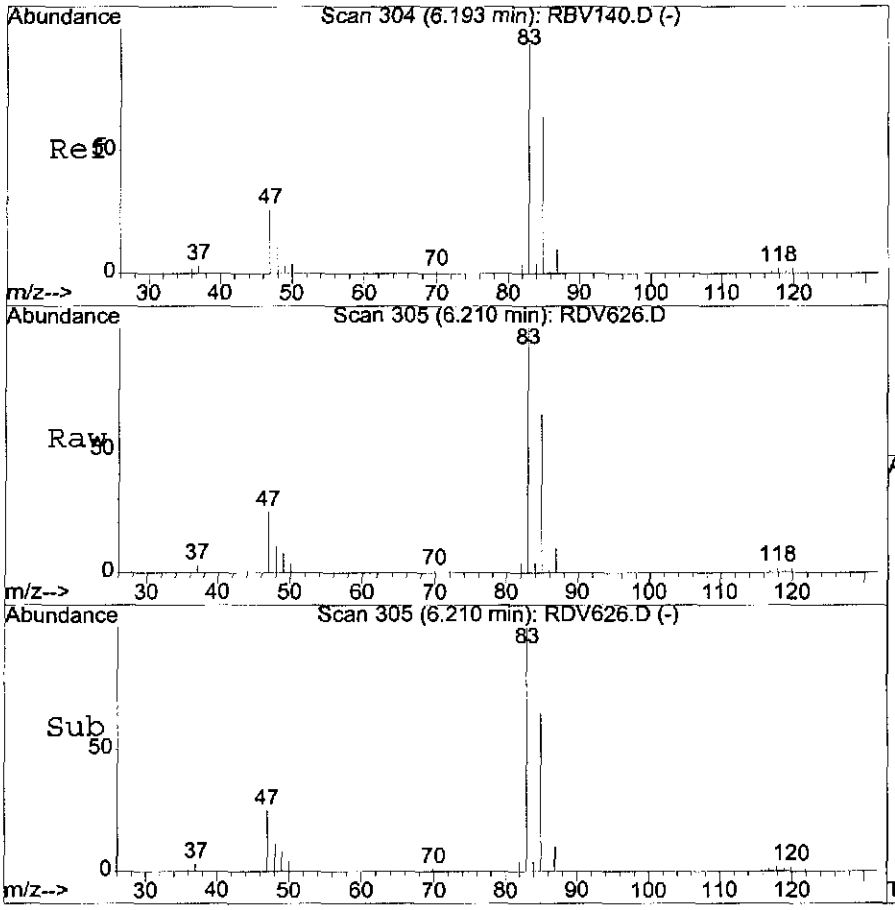


#18
Methylene chloride
Concen: 8.40 ug/l
RT: 4.27 min Scan# 174
Delta R.T. 0.00 min
Lab File: RDV626.D
Acq: 30 Apr 2015 9:57 pm

Tgt Ion: 49 Resp: 419367

Ion	Ratio	Lower	Upper
49	100		
84	74.9	45.9	105.9
86	48.5	18.6	78.6

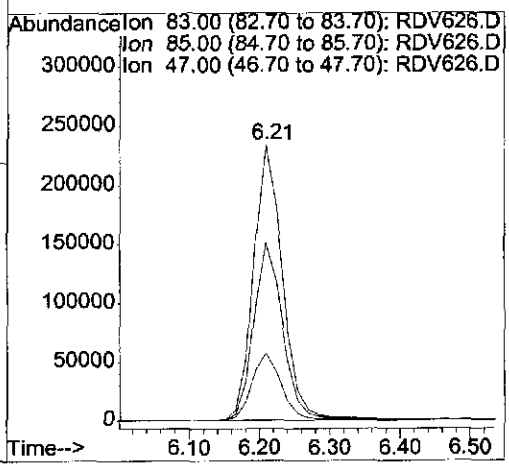




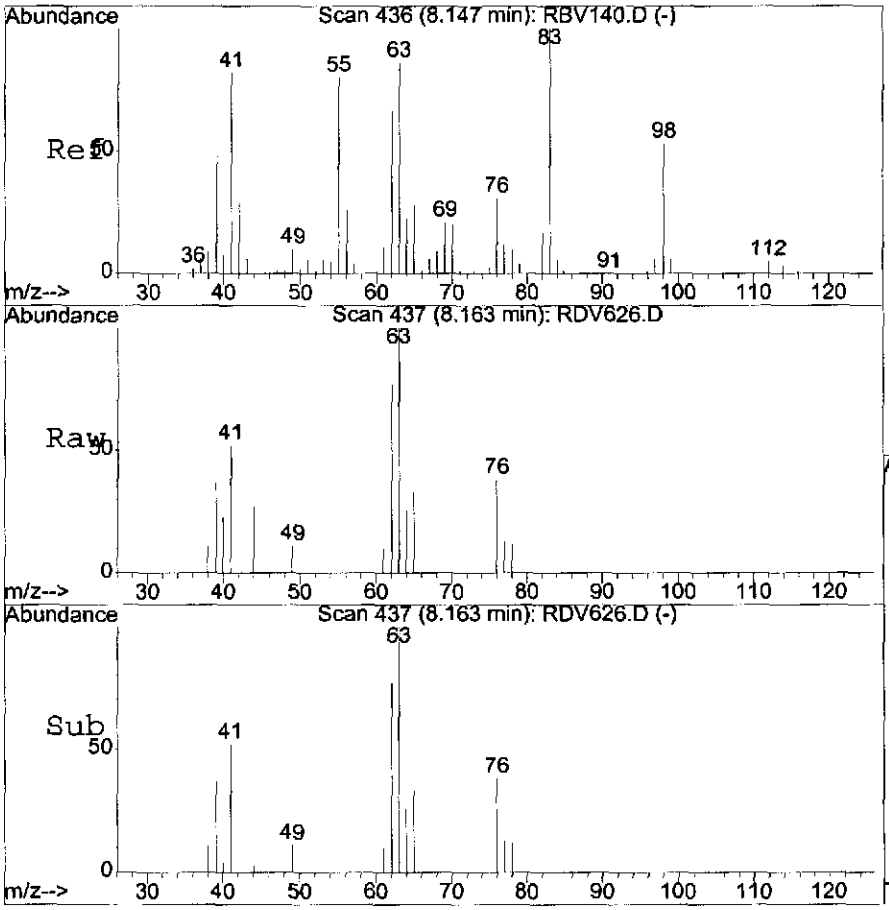
#33
Chloroform
Concen: 11.09 ug/l
RT: 6.21 min Scan# 305
Delta R.T. 0.02 min
Lab File: RDV626.D
Acq: 30 Apr 2015 9:57 pm

Tgt Ion: 83 Resp: 678514

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.4	95.4
47	24.9	0.0	55.3



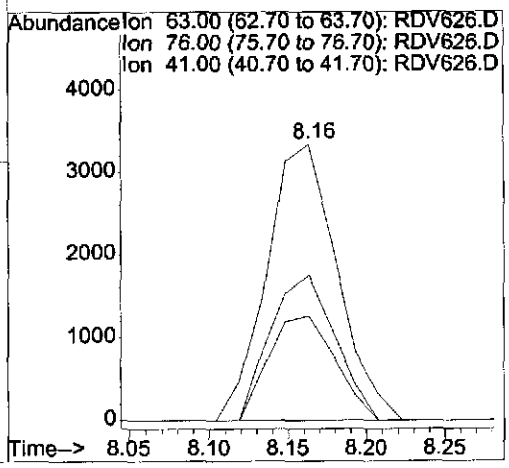
2021

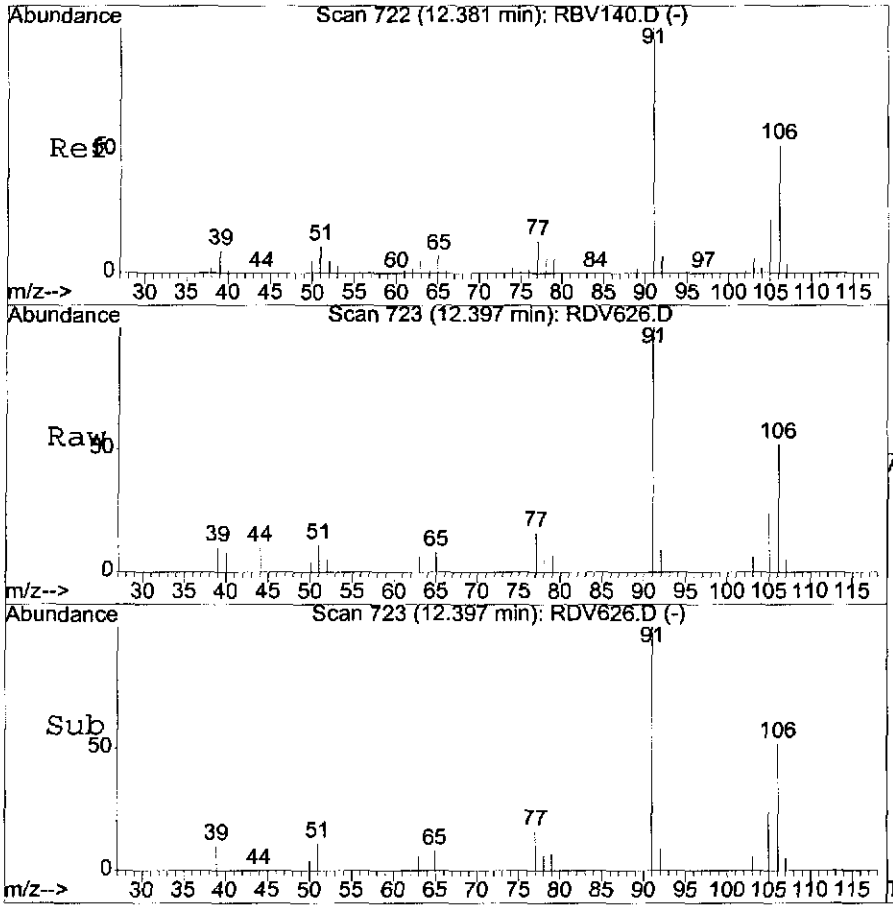


#46
1,2-Dichloropropane
Concen: 0.26 ug/l
RT: 8.16 min Scan# 437
Delta R.T. 0.02 min
Lab File: RDV626.D
Acq: 30 Apr 2015 9:57 pm

Tgt Ion: 63 Resp: 10388

Ion	Ratio	Lower	Upper
63	100		
76	35.7	5.5	65.5
41	48.4	83.2	143.2#

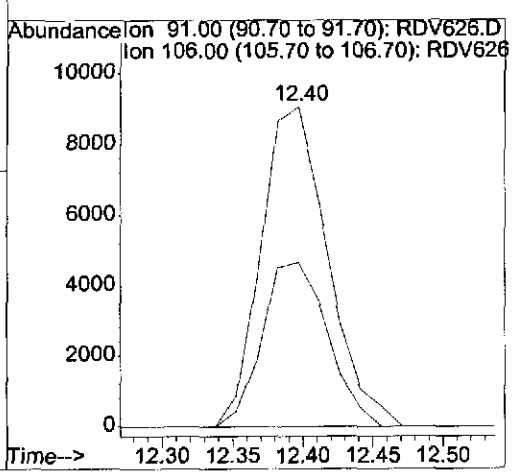




#68
m-Xylene & p-Xylene
Concen: 0.25 ug/l
RT: 12.40 min Scan# 723
Delta R.T. 0.02 min
Lab File: RDV626.D
Acq: 30 Apr 2015 9:57 pm

Tgt Ion: 91 Resp: 30001

Ion	Ratio	Lower	Upper
91	100		
106	50.6	22.4	82.4



2022

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 22:26
Sample ID: 04-21-15-PWA-7A	Date Analyzed: 04/30/15 22:26
Lab Samp ID: D143-10	Dilution Factor: 1
Lab File ID: RDV627	Matrix : WATER
Ext Btch ID: VD01D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.28J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	4.8	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.16	10.00	91.6	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.82	10.00	98.2	85-120
DIBROMOFLUOROMETHANE	9.25	10.00	92.5	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 19:36
Sample ID: 04-21-15-TB-3	Date Analyzed: 04/30/15 19:36
Lab Samp ID: D143-11	Dilution Factor: 1
Lab File ID: RDV621	Matrix : WATER
Ext Btch ID: VOO1D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.98	10.00	89.8	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	10.0	10.00	100	85-120
DIBROMOFLUOROMETHANE	9.05	10.00	90.5	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 20:04
Sample ID: 04-21-15-EB-1	Date Analyzed: 04/30/15 20:04
Lab Samp ID: D143-12	Dilution Factor: 1
Lab File ID: RDV622	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.16	10.00	91.6	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.88	10.00	98.8	85-120
DIBROMOFLUOROMETHANE	9.18	10.00	91.8	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected	: 04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received	: 04/22/15
Batch No.	: 150143	Date Extracted	: 05/02/15 01:57 # 05/04/15 21:23
Sample ID	: 04-21-15-PWA-2	Date Analyzed	: 05/02/15 01:57 # 05/04/15 21:23
Lab Samp ID	: D143-13 #D143-13J	Dilution Factor	: 1 # 100
Lab File ID	: REV024 #REV051	Matrix	: WATER
Ext Btch ID	: VO01E01 #VO01E03	% Moisture	: NA
Calib. Ref.	: RBV140 #RBV140	Instrument ID	: T-001

	PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
	1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,1-TRICHLOROETHANE	ND	1.0	0.20
	1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
	1,1,2-TRICHLOROETHANE	0.79J	1.0	0.20
	1,1-DICHLOROETHANE	0.26J	1.0	0.20
	1,1-DICHLOROETHENE	ND	1.0	0.20
	1,1-DICHLOROPROPENE	0.28J	1.0	0.20
	1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
#	1,2,3-TRICHLOROPROPANE	380	100	50
	1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
	1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
#	1,2-DIBROMO-3-CHLOROPROPANE	140	100	50
	1,2-DIBROMOETHANE	33	1.0	0.20
	1,2-DICHLOROBENZENE	0.26J	1.0	0.20
	1,2-DICHLOROETHANE	3.4	1.0	0.20
#	1,2-DICHLOROPROPANE	2400	100	20
	1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
	1,3-DICHLOROBENZENE	ND	1.0	0.20
	1,3-DICHLOROPROPANE	3.4	0.50	0.20
	1,4-DICHLOROBENZENE	ND	1.0	0.20
	2,2-DICHLOROPROPANE	ND	1.0	0.20
	2-BUTANONE	ND	10	4.0
	2-CHLOROTOLUENE	ND	1.0	0.20
	2-HEXANONE	ND	10	4.0
	4-CHLOROTOLUENE	ND	1.0	0.20
	ACETONE	ND	10	5.0
	BENZENE	0.73J	1.0	0.20
	BROMOBENZENE	ND	1.0	0.20
	BROMOCHLOROMETHANE	ND	1.0	0.20
	BROMODICHLOROMETHANE	ND	1.0	0.20
	BROMOFORM	ND	1.0	0.30
	BROMOMETHANE	ND	1.0	0.30
	CARBON DISULFIDE	ND	1.0	0.20
	CARBON TETRACHLORIDE	ND	1.0	0.20
	CHLOROBENZENE	1.1	1.0	0.20
	CHLOROETHANE	ND	1.0	0.30
	CHLOROFORM	3.7	1.0	0.20
	CHLOROMETHANE	ND	1.0	0.30
	CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
	CIS-1,3-DICHLOROPROPENE	0.30J	1.0	0.20
	DIBROMOCHLOROMETHANE	ND	1.0	0.20
	DIBROMOMETHANE	ND	1.0	0.20
	DICHLORODIFLUOROMETHANE	ND	1.0	0.30
	ETHYLBENZENE	ND	1.0	0.20
	HEXACHLOROBUTADIENE	ND	1.0	0.30
	ISOPROPYL BENZENE	ND	1.0	0.20
	M,P-XYLENES	ND	1.0	0.40
	MIBK	ND	10	4.0
	METHYLENE CHLORIDE	1.4	1.0	0.50
	MTBE	ND	1.0	0.20
	NAPHTHALENE	ND	1.0	0.50
	N-BUTYLBENZENE	ND	1.0	0.20
	N-PROPYLBENZENE	ND	1.0	0.20
	O-XYLENE	ND	1.0	0.20
	P-ISOPROPYLTOLUENE	ND	1.0	0.20
	SEC-BUTYLBENZENE	ND	1.0	0.20
	STYRENE	ND	1.0	0.20
	TERT-BUTYLBENZENE	ND	1.0	0.20
	TETRACHLOROETHENE	ND	1.0	0.20
	TOLUENE	ND	1.0	0.20
	TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
	TRANS-1,3-DICHLOROPROPENE	0.27J	1.0	0.20
	TRICHLOROETHENE	ND	1.0	0.20
	TRICHLOROFLUOROMETHANE	ND	1.0	0.30
	VINYL CHLORIDE	ND	1.0	0.20
	FREON113	ND	1.0	0.30
	VINYL ACETATE	ND	2.0	0.50

	SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
	1,2-DICHLOROETHANE-D4	9.39	10.00	93.9	70-120
	4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
	TOLUENE-D8	9.41	10.00	94.1	85-120
	DIBROMOFLUOROMETHANE	9.33	10.00	93.3	85-115
#	1,2-DICHLOROETHANE-D4	889	1000	88.9	70-120
#	4-BROMOFLUOROBENZENE	1010	1000	101	75-120
#	TOLUENE-D8	1010	1000	101	85-120
#	DIBROMOFLUOROMETHANE	904	1000	90.4	85-115

Members of the Associated File

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/02/15 01:57
Sample ID: 04-21-15-PWA-2	Date Analyzed: 05/02/15 01:57
Lab Samp ID: D143-13	Dilution Factor: 1
Lab File ID: REV024	Matrix : WATER
Ext Btch ID: VQ01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	0.79J	1.0	0.20
1,1-DICHLOROETHANE	0.26J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.28J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	440E	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	220E	1.0	0.50
1,2-DIBROMOETHANE	33	1.0	0.20
1,2-DICHLOROBENZENE	0.26J	1.0	0.20
1,2-DICHLOROETHANE	3.4	1.0	0.20
1,2-DICHLOROPROPANE	740E	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	3.4	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	0.73J	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	1.1	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	3.7	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	0.30J	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	1.4	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	0.27J	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.39	10.00	93.9	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.41	10.00	94.1	85-120
DIBROMOFLUOROMETHANE	9.33	10.00	93.3	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	05/04/15 21:23
Sample ID:	04-21-15-PWA-2DL	Date Analyzed:	05/04/15 21:23
Lab Samp ID:	D143-13J	Dilution Factor:	100
Lab File ID:	REV051	Matrix	: WATER
Ext Btch ID:	VOO1E03	% Moisture	: NA
Calib. Ref.:	RBV140	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	100	20
1,1,1-TRICHLOROETHANE	ND	100	20
1,1,2,2-TETRACHLOROETHANE	ND	100	20
1,1,2-TRICHLOROETHANE	ND	100	20
1,1-DICHLOROETHANE	ND	100	20
1,1-DICHLOROETHENE	ND	100	20
1,1-DICHLOROPROPENE	ND	100	20
1,2,3-TRICHLOROBENZENE	ND	100	30
1,2,3-TRICHLOROPROPANE	380	100	50
1,2,4-TRICHLOROBENZENE	ND	100	30
1,2,4-TRIMETHYLBENZENE	ND	100	20
1,2-DIBROMO-3-CHLOROPROPANE	140	100	50
1,2-DIBROMOETHANE	26J	100	20
1,2-DICHLOROBENZENE	ND	100	20
1,2-DICHLOROETHANE	ND	100	20
1,2-DICHLOROPROPANE	2400	100	20
1,3,5-TRIMETHYLBENZENE	ND	100	20
1,3-DICHLOROBENZENE	ND	100	20
1,3-DICHLOROPROPANE	ND	50	20
1,4-DICHLOROBENZENE	ND	100	20
2,2-DICHLOROPROPANE	ND	100	20
2-BUTANONE	ND	1000	400
2-CHLOROTOLUENE	ND	100	20
2-HEXANONE	ND	1000	400
4-CHLOROTOLUENE	ND	100	20
ACETONE	ND	1000	500
BENZENE	ND	100	20
BROMOBENZENE	ND	100	20
BROMOCHLOROMETHANE	ND	100	20
BROMODICHLOROMETHANE	ND	100	20
BROMOFORM	ND	100	30
BROMOMETHANE	ND	100	30
CARBON DISULFIDE	ND	100	20
CARBON TETRACHLORIDE	ND	100	20
CHLOROBENZENE	ND	100	20
CHLOROETHANE	ND	100	30
CHLOROFORM	ND	100	20
CHLOROMETHANE	ND	100	30
CIS-1,2-DICHLOROETHENE	ND	100	20
CIS-1,3-DICHLOROPROPENE	ND	100	20
DIBROMOCHLOROMETHANE	ND	100	20
DIBROMOMETHANE	ND	100	20
DICHLORODIFLUOROMETHANE	ND	100	30
ETHYLBENZENE	ND	100	20
HEXACHLOROBUTADIENE	ND	100	30
ISOPROPYL BENZENE	ND	100	20
M,P-XYLENES	ND	100	40
MIBK	ND	1000	400
METHYLENE CHLORIDE	ND	100	50
MTBE	ND	100	20
NAPHTHALENE	ND	100	50
N-BUTYLBENZENE	ND	100	20
N-PROPYLBENZENE	ND	100	20
O-XYLENE	ND	100	20
P-ISOPROPYLTOLUENE	ND	100	20
SEC-BUTYLBENZENE	ND	100	20
STYRENE	ND	100	20
TERT-BUTYLBENZENE	ND	100	20
TETRACHLOROETHENE	ND	100	20
TOLUENE	ND	100	20
TRANS-1,2-DICHLOROETHENE	ND	100	20
TRANS-1,3-DICHLOROPROPENE	ND	100	20
TRICHLOROETHENE	ND	100	20
TRICHLOROFLUOROMETHANE	ND	100	30
VINYL CHLORIDE	ND	100	20
FREON113	ND	100	30
VINYL ACETATE	ND	200	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	889	1000	88.9	70-120
4-BROMOFLUOROBENZENE	1010	1000	101	75-120
TOLUENE-D8	1010	1000	101	85-120
DIBROMOFLUOROMETHANE	904	1000	90.4	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 22:54
Sample ID: 04-21-15-EPA5-2	Date Analyzed: 04/30/15 22:54
Lab Samp ID: D143-14	Dilution Factor: 1
Lab File ID: RDV628	Matrix : WATER
Ext Btch ID: VOO1D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	5.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	0.71J	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	42	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	3.1	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.70J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.24	10.00	92.4	70-120
4-BROMOFLUOROBENZENE	9.93	10.00	99.3	75-120
TOLUENE-D8	9.80	10.00	98.0	85-120
DIBROMOFLUOROMETHANE	9.19	10.00	91.9	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 20:32
Sample ID: 04-21-15-TB-5	Date Analyzed: 04/30/15 20:32
Lab Samp ID: D143-15	Dilution Factor: 1
Lab File ID: RDV623	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.10	10.00	91.0	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.72	10.00	97.2	85-120
DIBROMOFLUOROMETHANE	9.19	10.00	91.9	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/30/15 23:22
Sample ID: 04-21-15-WA-3	Date Analyzed: 04/30/15 23:22
Lab Samp ID: D143-16	Dilution Factor: 1
Lab File ID: RDV629	Matrix : WATER
Ext Btch ID: VO01D26	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	29	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.21J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.31	10.00	93.1	70-120
4-BROMOFLUOROBENZENE	10.3	10.00	103	75-120
TOLUENE-D8	9.69	10.00	96.9	85-120
DIBROMOFLUOROMETHANE	9.18	10.00	91.8	85-115

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/30/15
Batch No. : 15D143	Date Extracted: 04/30/15 15:31
Sample ID: MBLK1W	Date Analyzed: 04/30/15 15:31
Lab Samp ID: V001D26B	Dilution Factor: 1
Lab File ID: RDV612	Matrix : WATER
Ext Btch ID: V001D26	% Moisture : NA
Calib. Ref.: R8V140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.98	10.00	89.8	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.83	10.00	98.3	85-120
DIBROMOFLUOROMETHANE	9.15	10.00	91.5	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01D26B	VO01D26L	VO01D26C		
LAB FILE ID:	RDV612	RDV609	RDV610		
DATE EXTRACTED:	04/30/1515:31	04/30/1514:09	04/30/1514:37	DATE COLLECTED:	NA
DATE ANALYZED:	04/30/1515:31	04/30/1514:09	04/30/1514:37	DATE RECEIVED:	04/30/15
PREP. BATCH:	VO01D26	VO01D26	VO01D26		
CALIB. REF:	RBV140	RBV140	RBV140		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.7	107	10.0	9.55	96	11	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.4	104	10.0	9.17	92	12	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.8	108	10.0	9.55	96	13	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.5	105	10.0	9.61	96	9	75-125	30
1,1-Dichloroethane	ND	10.0	10.2	102	10.0	9.41	94	8	70-135	30
1,1-Dichloroethene	ND	10.0	9.69	97	10.0	8.94	89	8	70-130	30
1,1-Dichloropropene	ND	10.0	9.62	96	10.0	8.71	87	10	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.62	86	10.0	8.12	81	6	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.4	104	10.0	9.59	96	8	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.10	91	10.0	8.38	84	8	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.90	99	10.0	9.02	90	9	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.75	97	10.0	8.82	88	10	50-130	30
1,2-Dibromoethane	ND	10.0	10.3	103	10.0	9.39	94	9	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.90	99	10.0	9.10	91	8	70-120	30
1,2-Dichloroethane	ND	10.0	10.3	103	10.0	9.29	93	10	70-130	30
1,2-Dichloropropane	ND	10.0	10.5	105	10.0	9.61	96	9	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.0	100	10.0	9.08	91	10	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.1	101	10.0	9.13	91	10	75-125	30
1,3-Dichloropropane	ND	10.0	10.6	106	10.0	9.50	95	11	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.1	101	10.0	9.21	92	9	75-125	30
2,2-Dichloropropane	ND	10.0	11.7	117	10.0	10.4	104	12	70-135	30
2-Butanone	ND	50.0	52.4	105	50.0	47.7	95	9	30-150	30
2-Chlorotoluene	ND	10.0	10.0	100	10.0	9.07	91	10	75-125	30
2-Hexanone	ND	50.0	51.7	103	50.0	47.6	95	8	55-130	30
4-Chlorotoluene	ND	10.0	10.1	101	10.0	9.11	91	11	75-130	30
Acetone	ND	50.0	53.7	107	50.0	48.6	97	10	40-140	30
Benzene	ND	10.0	9.90	99	10.0	9.10	91	8	80-120	30
Bromobenzene	ND	10.0	10.4	104	10.0	9.37	94	10	75-125	30
Bromochloromethane	ND	10.0	9.96	100	10.0	9.04	90	10	65-130	30
Bromodichloromethane	ND	10.0	10.7	107	10.0	9.74	97	9	75-120	30
Bromoform	ND	10.0	10.2	102	10.0	9.27	93	10	70-130	30
Bromomethane	ND	10.0	9.06	91	10.0	8.73	87	4	30-145	30
Carbon Disulfide	ND	10.0	10.3	103	10.0	9.92	99	4	35-160	30
Carbon Tetrachloride	ND	10.0	9.99	100	10.0	8.89	89	12	65-140	30
Chlorobenzene	ND	10.0	10.1	101	10.0	9.20	92	9	80-120	30
Chloroethane	ND	10.0	10.5	105	10.0	9.73	97	7	60-135	30
Chloroform	ND	10.0	10.3	103	10.0	9.51	95	8	65-135	30
Chloromethane	ND	10.0	9.81	98	10.0	9.55	95	3	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.1	101	10.0	9.33	93	8	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.9	109	10.0	9.82	98	10	70-130	30
Dibromochloromethane	ND	10.0	10.7	107	10.0	9.79	98	9	60-135	30
Dibromomethane	ND	10.0	10.2	102	10.0	9.35	94	8	75-125	30
Dichlorodifluoromethane	ND	10.0	11.2	112	10.0	10.8	108	4	30-155	30
Ethylbenzene	ND	10.0	9.95	100	10.0	8.92	89	11	75-125	30
Hexachlorobutadiene	ND	10.0	9.54	95	10.0	8.89	89	7	50-140	30
Isopropyl Benzene	ND	10.0	9.90	99	10.0	8.93	89	10	75-125	30
m,p-Xylenes	ND	20.0	20.0	100	20.0	17.7	89	12	75-130	30
MIBK	ND	50.0	52.9	106	50.0	48.8	98	8	60-135	30
Methylene Chloride	ND	10.0	9.84	98	10.0	9.08	91	8	55-140	30
MTBE	ND	10.0	10.9	109	10.0	9.92	99	10	65-125	30
Naphthalene	ND	10.0	8.50	85	10.0	7.92	79	7	55-140	30
n-Butylbenzene	ND	10.0	9.69	97	10.0	8.85	89	9	70-135	30
n-Propylbenzene	ND	10.0	10.0	100	10.0	9.01	90	10	70-130	30
o-Xylene	ND	10.0	10.1	101	10.0	9.16	92	9	80-120	30
p-Isopropyltoluene	ND	10.0	9.89	99	10.0	8.99	90	10	75-130	30
Sec-Butylbenzene	ND	10.0	9.99	100	10.0	8.93	89	11	70-125	30
Styrene	ND	10.0	10.4	104	10.0	9.40	94	10	65-135	30
Tert-Butylbenzene	ND	10.0	10.3	103	10.0	9.29	93	11	70-130	30
Tetrachloroethene	ND	10.0	9.64	96	10.0	8.54	85	12	45-150	30
Toluene	ND	10.0	9.82	98	10.0	8.87	89	10	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.50	95	10.0	8.75	87	8	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	10.9	109	10.0	9.97	100	9	55-140	30
Trichloroethene	ND	10.0	9.92	99	10.0	9.11	91	8	70-125	30
Trichlorofluoromethane	ND	10.0	10.7	107	10.0	9.71	97	9	60-145	30
Vinyl Chloride	ND	10.0	10.2	102	10.0	9.77	98	4	50-145	30
Freon113	ND	10.0	9.44	94	10.0	8.44	84	11	65-135	30
Vinyl Acetate	ND	10.0	7.95	80	10.0	8.38	84	5	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.13	91	10.0	8.99	90	70-120
4-Bromofluorobenzene	10.0	9.54	95	10.0	9.56	96	75-120
Toluene-d8	10.0	9.48	95	10.0	9.48	95	85-120
Dibromofluoromethane	10.0	9.12	91	10.0	9.01	90	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 05/01/15
Batch No. : 15D143	Date Extracted: 05/01/15 17:58
Sample ID: MBLK2W	Date Analyzed: 05/01/15 17:58
Lab Samp ID: V001E01B	Dilution Factor: 1
Lab File ID: REV007	Matrix : WATER
Ext Btch ID: V001E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.62J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.69	10.00	86.9	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.93	10.00	99.3	85-120
DIBROMOFLUOROMETHANE	9.01	10.00	90.1	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID:	MBLK2W		
LAB SAMP ID:	V001E01B	V001E01L	V001E01Y
LAB FILE ID:	REV007	REV003	REV005
DATE EXTRACTED:	05/01/1517:58	05/01/1516:01	05/01/1517:05
DATE ANALYZED:	05/01/1517:58	05/01/1516:01	05/01/1517:05
PREP. BATCH:	V001E01	V001E01	V001E01
CALIB. REF:	RBV140	RBV140	RBV140

DATE COLLECTED: NA
DATE RECEIVED: 05/01/15

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.5	105	10.0	10.5	105	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.1	101	10.0	10.2	102	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.8	108	10.0	10.9	109	1	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.7	107	10.0	10.7	107	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.4	104	10.0	10.1	101	3	70-135	30
1,1-Dichloroethene	ND	10.0	10.1	101	10.0	9.31	93	8	70-130	30
1,1-Dichloropropene	ND	10.0	9.57	96	10.0	9.49	95	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.39	84	10.0	9.22	92	9	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.9	109	10.0	10.8	108	1	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	8.67	87	10.0	9.55	95	10	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.77	98	10.0	9.72	97	1	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.42	94	10.0	10.6	106	11	50-130	30
1,2-Dibromoethane	ND	10.0	10.5	105	10.0	10.5	105	0	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.95	100	10.0	9.79	98	2	70-120	30
1,2-Dichloroethane	ND	10.0	10.2	102	10.0	10.2	102	0	70-130	30
1,2-Dichloropropane	ND	10.0	10.7	107	10.0	10.5	105	2	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.74	97	10.0	9.67	97	1	75-130	30
1,3-Dichlorobenzene	ND	10.0	9.75	97	10.0	9.67	97	1	75-125	30
1,3-Dichloropropane	ND	10.0	10.6	106	10.0	10.7	107	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	9.90	99	10.0	9.81	98	1	75-125	30
2,2-Dichloropropane	ND	10.0	11.5	115	10.0	11.6	116	1	70-135	30
2-Butanone	ND	50.0	50.9	102	50.0	58.2	116	13	30-150	30
2-Chlorotoluene	ND	10.0	9.96	100	10.0	9.50	95	5	75-125	30
2-Hexanone	ND	50.0	50.0	100	50.0	58.2	116	15	55-130	30
4-Chlorotoluene	ND	10.0	9.86	99	10.0	9.61	96	3	75-130	30
Acetone	ND	50.0	52.3	105	50.0	56.1	112	7	40-140	30
Benzene	ND	10.0	10.0	100	10.0	9.61	96	4	80-120	30
Bromobenzene	ND	10.0	10.3	103	10.0	10.0	100	2	75-125	30
Bromochloromethane	ND	10.0	10.2	102	10.0	9.91	99	2	65-130	30
Bromodichloromethane	ND	10.0	10.7	107	10.0	10.5	105	2	75-120	30
Bromoform	ND	10.0	10.2	102	10.0	10.2	102	0	70-130	30
Bromomethane	ND	10.0	8.49	85	10.0	8.43	84	1	30-145	30
Carbon Disulfide	ND	10.0	10.5	105	10.0	10.3	103	2	35-160	30
Carbon Tetrachloride	ND	10.0	9.85	99	10.0	9.79	98	1	65-140	30
Chlorobenzene	ND	10.0	10.1	101	10.0	10.1	101	0	80-120	30
Chloroethane	ND	10.0	9.70	97	10.0	10.1	101	4	60-135	30
Chloroform	ND	10.0	10.5	105	10.0	9.99	100	4	65-135	30
Chloromethane	ND	10.0	9.23	92	10.0	9.32	93	1	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.2	102	10.0	9.91	99	3	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.8	108	10.0	10.8	108	0	70-130	30
Dibromochloromethane	ND	10.0	10.8	108	10.0	10.8	108	0	60-135	30
Dibromomethane	ND	10.0	10.4	104	10.0	10.4	104	0	75-125	30
Dichlorodifluoromethane	ND	10.0	10.5	105	10.0	10.6	106	1	30-155	30
Ethylbenzene	ND	10.0	9.76	98	10.0	9.84	98	1	75-125	30
Hexachlorobutadiene	ND	10.0	9.10	91	10.0	9.46	95	4	50-140	30
Isopropyl Benzene	ND	10.0	9.76	98	10.0	9.54	95	2	75-125	30
m,p-Xylenes	ND	20.0	19.4	97	20.0	19.6	98	1	75-130	30
MIBK	ND	50.0	51.7	103	50.0	58.9	118	13	60-135	30
Methylene Chloride	0.622J	10.0	10.0	100	10.0	9.48	95	5	55-140	30
MTBE	ND	10.0	11.0	110	10.0	11.3	113	3	65-125	30
Naphthalene	ND	10.0	8.55	86	10.0	9.28	93	8	55-140	30
n-Butylbenzene	ND	10.0	9.38	94	10.0	9.54	95	2	70-135	30
n-Propylbenzene	ND	10.0	9.68	97	10.0	9.50	95	2	70-130	30
o-Xylene	ND	10.0	9.95	99	10.0	9.99	100	0	80-120	30
p-Isopropyltoluene	ND	10.0	9.56	96	10.0	9.53	95	0	75-130	30
Sec-Butylbenzene	ND	10.0	9.70	97	10.0	9.65	96	1	70-125	30
Styrene	ND	10.0	10.3	103	10.0	10.6	106	3	65-135	30
Tert-Butylbenzene	ND	10.0	10.2	102	10.0	9.88	99	3	70-130	30
Tetrachloroethene	ND	10.0	9.36	94	10.0	9.36	94	0	45-150	30
Toluene	ND	10.0	9.81	98	10.0	9.48	95	3	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.72	97	10.0	9.09	91	7	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	11.0	110	10.0	11.1	111	1	55-140	30
Trichloroethene	ND	10.0	10.1	101	10.0	9.72	97	4	70-125	30
Trichlorofluoromethane	ND	10.0	9.66	97	10.0	9.95	100	3	60-145	30
Vinyl Chloride	ND	10.0	9.43	94	10.0	9.44	94	0	50-145	30
Freon113	ND	10.0	9.49	95	10.0	9.46	95	0	65-135	30
Vinyl Acetate	ND	10.0	8.04	80	10.0	8.91	89	10	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.08	91	10.0	9.29	93	70-120
4-Bromofluorobenzene	10.0	9.51	95	10.0	9.14	91	75-120
Toluene-d8	10.0	9.63	96	10.0	9.41	94	85-120
Dibromofluoromethane	10.0	9.05	90	10.0	9.19	92	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 05/04/15
Batch No. : 15D143	Date Extracted: 05/04/15 19:55
Sample ID: MBLK3W	Date Analyzed: 05/04/15 19:55
Lab Samp ID: V001E03B	Dilution Factor: 1
Lab File ID: REV048	Matrix : WATER
Ext Btch ID: V001E03	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.07	10.00	90.7	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.90	10.00	99.0	85-120
DIBROMOFLUOROMETHANE	9.10	10.00	91.0	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 50308/8260B

MATRIX: WATER
DILUTION FACTOR: 1
SAMPLE ID: MBLK3W
LAB SAMP ID: V001E03B
LAB FILE ID: REV048
DATE EXTRACTED: 05/04/1519:55
DATE ANALYZED: 05/04/1519:55
PREP. BATCH: V001E03
CALIB. REF: RBV140

1 | V001E03L | REV045 | 05/04/1518:30 | 05/04/1518:30 | V001E03 | RBV140

1 | V001E03C | REV046 | 05/04/1518:59 | 05/04/1518:59 | V001E03 | RBV140

% MOISTURE: NA
DATE COLLECTED: NA
DATE RECEIVED: 05/04/15

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.5	105	10.0	10.6	106	1	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.4	104	10.0	10.2	102	3	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.6	106	10.0	10.9	109	2	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.7	107	10.0	10.8	108	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.5	105	10.0	10.3	103	2	70-135	30
1,1-Dichloroethene	ND	10.0	10.4	104	10.0	9.96	100	5	70-130	30
1,1-Dichloropropene	ND	10.0	10.4	104	10.0	10.2	102	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	9.30	93	10.0	9.57	96	3	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.5	105	10.0	10.6	106	1	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.66	97	10.0	9.94	99	3	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	10.3	103	10.0	10.2	102	0	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.99	100	10.0	10.4	104	4	50-130	30
1,2-Dibromoethane	ND	10.0	10.6	106	10.0	10.9	109	3	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.1	101	10.0	10.1	101	0	70-120	30
1,2-Dichloroethane	ND	10.0	10.3	103	10.0	10.4	104	1	70-130	30
1,2-Dichloropropane	ND	10.0	10.8	108	10.0	11.0	110	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.7	107	10.0	10.4	104	2	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.4	104	10.0	10.1	101	3	75-125	30
1,3-Dichloropropane	ND	10.0	10.9	109	10.0	11.0	110	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.2	102	10.0	10.1	101	1	75-125	30
2,2-Dichloropropane	ND	10.0	11.7	117	10.0	11.3	113	3	70-135	30
2-Butanone	ND	50.0	55.5	111	50.0	58.1	116	5	30-150	30
2-Chlorotoluene	ND	10.0	10.3	103	10.0	10.2	102	2	75-125	30
2-Hexanone	ND	50.0	55.1	110	50.0	60.1	120	9	55-130	30
4-Chlorotoluene	ND	10.0	10.4	104	10.0	10.3	103	1	75-130	30
Acetone	ND	50.0	51.1	102	50.0	55.0	110	7	40-140	30
Benzene	ND	10.0	10.5	105	10.0	10.4	104	1	80-120	30
Bromobenzene	ND	10.0	10.4	104	10.0	10.2	102	1	75-125	30
Bromochloromethane	ND	10.0	10.6	106	10.0	10.6	106	0	65-130	30
Bromodichloromethane	ND	10.0	10.6	106	10.0	10.7	107	0	75-120	30
Bromoform	ND	10.0	10.5	105	10.0	10.5	105	1	70-130	30
Bromomethane	ND	10.0	8.54	85	10.0	8.49	85	1	30-145	30
Carbon Disulfide	ND	10.0	7.86	79	10.0	8.13	81	3	35-160	30
Carbon Tetrachloride	ND	10.0	10.2	102	10.0	9.97	100	2	65-140	30
Chlorobenzene	ND	10.0	10.5	105	10.0	10.5	105	0	80-120	30
Chloroethane	ND	10.0	10.2	102	10.0	10.1	101	1	60-135	30
Chloroform	ND	10.0	10.2	102	10.0	10.2	102	0	65-135	30
Chloromethane	ND	10.0	10.1	101	10.0	10.1	101	0	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.3	103	10.0	10.1	101	2	70-125	30
cis-1,3-Dichloropropene	ND	10.0	11.0	110	10.0	11.1	111	0	70-130	30
Dibromochloromethane	ND	10.0	10.8	108	10.0	10.9	109	1	60-135	30
Dibromomethane	ND	10.0	10.4	104	10.0	10.6	106	2	75-125	30
Dichlorodifluoromethane	ND	10.0	11.1	111	10.0	11.2	112	1	30-155	30
Ethylbenzene	ND	10.0	10.6	106	10.0	10.6	106	0	75-125	30
Hexachlorobutadiene	ND	10.0	10.1	101	10.0	10.1	101	0	50-140	30
Isopropyl Benzene	ND	10.0	10.7	107	10.0	10.4	104	3	75-125	30
m,p-Xylenes	ND	20.0	21.2	106	20.0	21.2	106	0	75-130	30
MIBK	ND	50.0	55.3	111	50.0	59.4	119	7	60-135	30
Methylene Chloride	ND	10.0	10.3	103	10.0	10.1	101	2	55-140	30
MTBE	ND	10.0	10.7	107	10.0	10.9	109	2	65-125	30
Naphthalene	ND	10.0	9.17	92	10.0	9.61	96	5	55-140	30
n-Butylbenzene	ND	10.0	10.5	105	10.0	10.4	104	2	70-135	30
n-Propylbenzene	ND	10.0	10.6	106	10.0	10.3	103	2	70-130	30
o-Xylene	ND	10.0	10.8	108	10.0	10.6	106	2	80-120	30
p-Isopropyltoluene	ND	10.0	10.4	104	10.0	10.2	102	2	75-130	30
Sec-Butylbenzene	ND	10.0	10.6	106	10.0	10.4	104	3	70-125	30
Styrene	ND	10.0	10.9	109	10.0	10.9	109	0	65-135	30
Tert-Butylbenzene	ND	10.0	10.7	107	10.0	10.6	106	1	70-130	30
Tetrachloroethene	ND	10.0	10.6	106	10.0	10.4	104	2	45-150	30
Toluene	ND	10.0	10.5	105	10.0	10.5	105	0	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.4	104	10.0	10.2	102	2	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	11.4	114	10.0	11.5	115	1	55-140	30
Trichloroethene	ND	10.0	10.3	103	10.0	10.3	103	0	70-125	30
Trichlorofluoromethane	ND	10.0	10.3	103	10.0	10.2	102	1	60-145	30
Vinyl Chloride	ND	10.0	10.5	105	10.0	10.5	105	0	50-145	30
Freon113	ND	10.0	9.89	99	10.0	9.84	98	1	65-135	30
Vinyl Acetate	ND	10.0	9.27	93	10.0	9.55	95	3	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.04	90	10.0	9.22	92	70-120
4-Bromofluorobenzene	10.0	9.49	95	10.0	9.49	95	75-120
Toluene-d8	10.0	9.51	95	10.0	9.55	96	85-120
Dibromofluoromethane	10.0	8.95	90	10.0	9.04	90	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-21-15-WA-1				
LAB SAMP ID:	D143-01	D143-01M	D143-01S		
LAB FILE ID:	RDV620	RDV613	RDV614		
DATE EXTRACTED:	04/30/1519:07	04/30/1515:57	04/30/1516:24	DATE COLLECTED:	04/21/15
DATE ANALYZED:	04/30/1519:07	04/30/1515:57	04/30/1516:24	DATE RECEIVED:	04/22/15
PREP. BATCH:	VOD1D26	VOD1D26	VOD1D26		
CALIB. REF:	RBV140	RBV140	RBV140		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.3	103	10.0	10.2	102	1	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.1	101	10.0	9.88	99	2	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.3	103	10.0	10.2	102	0	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.1	101	10.0	10.1	101	0	75-125	30
1,1-Dichloroethane	ND	10.0	10.0	100	10.0	9.75	98	3	70-135	30
1,1-Dichloroethene	ND	10.0	9.49	95	10.0	9.34	93	2	70-130	30
1,1-Dichloropropene	ND	10.0	9.52	95	10.0	9.44	94	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.54	85	10.0	8.89	89	4	55-140	30
1,2,3-Trichloropropane	0.915J	10.0	10.9	99	10.0	10.7	98	2	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	8.95	89	10.0	9.14	91	2	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.87	99	10.0	9.66	97	2	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.31	93	10.0	9.57	96	3	50-130	30
1,2-Dibromoethane	ND	10.0	9.85	98	10.0	9.82	98	0	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.81	98	10.0	9.78	98	0	70-120	30
1,2-Dichloroethane	ND	10.0	9.72	97	10.0	9.74	97	0	70-130	30
1,2-Dichloropropane	ND	10.0	10.4	104	10.0	10.2	102	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.1	101	10.0	9.63	96	5	75-130	30
1,3-Dichlorobenzene	ND	10.0	9.97	100	10.0	9.81	98	2	75-125	30
1,3-Dichloropropane	ND	10.0	10.0	100	10.0	9.96	100	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	9.97	100	10.0	9.82	98	1	75-125	30
2,2-Dichloropropane	ND	10.0	11.4	114	10.0	11.0	110	4	70-135	30
2-Butanone	ND	50.0	47.8	96	50.0	48.9	98	2	30-150	30
2-Chlorotoluene	ND	10.0	10.1	101	10.0	9.84	98	2	75-125	30
2-Hexanone	ND	50.0	45.2	90	50.0	48.5	97	7	55-130	30
4-Chlorotoluene	ND	10.0	10.1	101	10.0	9.76	98	3	75-130	30
Acetone	ND	50.0	44.8	90	50.0	46.7	93	4	40-140	30
Benzene	ND	10.0	9.71	97	10.0	9.46	95	3	80-120	30
Bromobenzene	ND	10.0	10.2	102	10.0	9.89	99	4	75-125	30
Bromochloromethane	ND	10.0	9.43	94	10.0	9.51	95	1	65-130	30
Bromodichloromethane	0.438J	10.0	10.8	103	10.0	10.9	104	1	75-120	30
Bromoform	ND	10.0	9.81	98	10.0	9.79	98	0	70-130	30
Bromomethane	ND	10.0	8.39	84	10.0	8.46	85	1	30-145	30
Carbon Disulfide	ND	10.0	10.9	109	10.0	10.2	102	7	35-160	30
Carbon Tetrachloride	ND	10.0	9.79	98	10.0	9.64	96	2	65-140	30
Chlorobenzene	ND	10.0	10.0	100	10.0	9.76	98	3	80-120	30
Chloroethane	ND	10.0	9.91	99	10.0	10.0	100	1	60-135	30
Chloroform	4.61	10.0	14.6	100	10.0	14.6	100	0	65-135	30
Chloromethane	ND	10.0	8.68	87	10.0	8.96	90	3	40-125	30
cis-1,2-Dichloroethene	ND	10.0	9.81	98	10.0	9.55	96	3	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.3	103	10.0	10.2	102	0	70-130	30
Dibromochloromethane	ND	10.0	10.4	104	10.0	10.3	103	1	60-135	30
Dibromomethane	ND	10.0	9.77	98	10.0	9.74	97	0	75-125	30
Dichlorodifluoromethane	ND	10.0	11.1	111	10.0	11.3	113	1	30-155	30
Ethylbenzene	ND	10.0	9.84	98	10.0	9.66	97	2	75-125	30
Hexachlorobutadiene	ND	10.0	9.42	94	10.0	9.41	94	0	50-140	30
Isopropyl Benzene	ND	10.0	10.1	101	10.0	9.70	97	4	75-125	30
m,p-Xylenes	ND	20.0	19.9	100	20.0	19.4	97	3	75-130	30
MIBK	ND	50.0	48.0	96	50.0	50.8	102	6	60-135	30
Methylene Chloride	3.48	10.0	12.4	89	10.0	12.4	89	0	55-140	30
MTBE	0.911J	10.0	11.2	102	10.0	11.3	103	1	65-125	30
Naphthalene	ND	10.0	8.07	81	10.0	8.83	88	9	55-140	30
n-Butylbenzene	ND	10.0	9.68	97	10.0	9.63	96	1	70-135	30
n-Propylbenzene	ND	10.0	10.1	101	10.0	9.73	97	3	70-130	30
o-Xylene	ND	10.0	10.1	101	10.0	9.71	97	4	80-120	30
p-Isopropyltoluene	ND	10.0	9.92	99	10.0	9.68	97	2	75-130	30
Sec-Butylbenzene	ND	10.0	9.93	99	10.0	9.83	98	1	70-125	30
Styrene	ND	10.0	9.45	95	10.0	9.12	91	4	65-135	30
Tert-Butylbenzene	ND	10.0	10.5	105	10.0	10.1	101	4	70-130	30
Tetrachloroethene	ND	10.0	9.58	96	10.0	9.35	94	2	45-150	30
Toluene	ND	10.0	9.67	97	10.0	9.52	95	2	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.30	93	10.0	9.01	90	3	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	10.4	104	10.0	10.3	103	1	55-140	30
Trichloroethene	ND	10.0	9.72	97	10.0	9.52	95	2	70-125	30
Trichlorofluoromethane	ND	10.0	10.0	100	10.0	10.2	102	2	60-145	30
Vinyl Chloride	ND	10.0	9.50	95	10.0	9.69	97	2	50-145	30
Freon113	ND	10.0	9.22	92	10.0	9.35	94	1	65-135	30
Vinyl Acetate	ND	10.0	8.17	82	10.0	8.61	86	5	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.07	91	10.0	9.18	92	70-120
4-Bromofluorobenzene	10.0	9.66	97	10.0	9.40	94	75-120
Toluene-d8	10.0	9.59	96	10.0	9.48	95	85-120
Dibromofluoromethane	10.0	9.10	91	10.0	9.10	91	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV612.D
Acq On : 30 Apr 2015 3:31 pm
Sample : VO01D26B 25mL
Misc : BLANK
MS Integration Params: 524C.P
Quant Time: May 1 11:35 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1275017	10.00	ug/l	0.01
53) CHLOROBENZENE-D5	12.01	117	994546	10.00	ug/l	0.03
71) 1,2-DICHLOROBENZENE-D4	15.18	152	325514	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	387818	9.15	ug/l	0.02
Spiked Amount 10.000			Recovery = 91.50%			
38) 1,2-Dichloroethane-d4	6.86	65	245445	8.98	ug/l	0.02
Spiked Amount 10.000			Recovery = 89.80%			
54) Toluene-d8	9.61	98	1322558	9.83	ug/l	0.02
Spiked Amount 10.000			Recovery = 98.30%			
74) 4-Bromofluorobenzene	13.59	95	380225	10.16	ug/l	0.02
Spiked Amount 10.000			Recovery = 101.60%			
Target Compounds						Qvalue
18) Methylene chloride	4.28	49	27715	0.50	ug/l	100

(#) = qualifier out of range (m) = manual integration

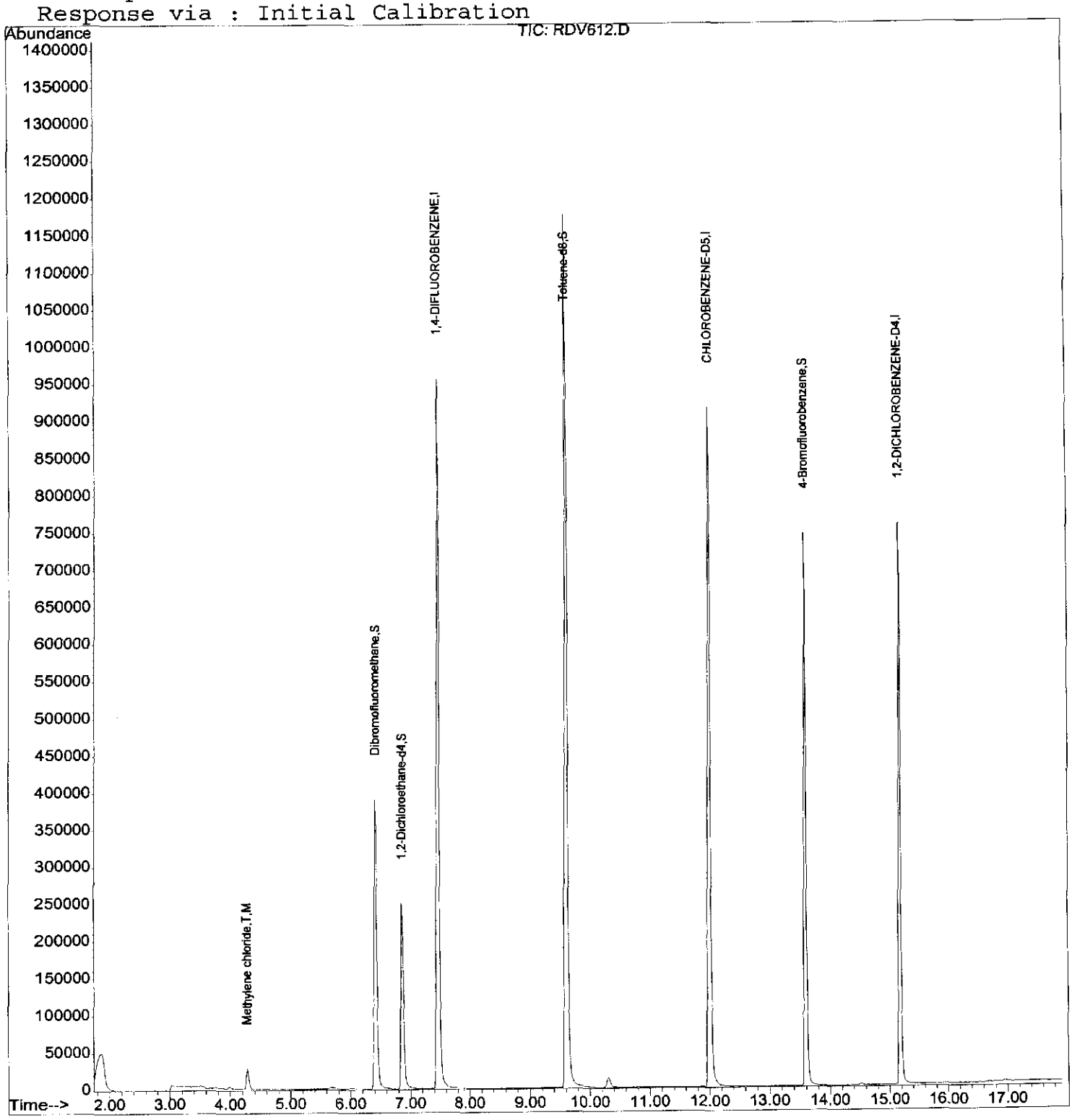
Quantitation Report

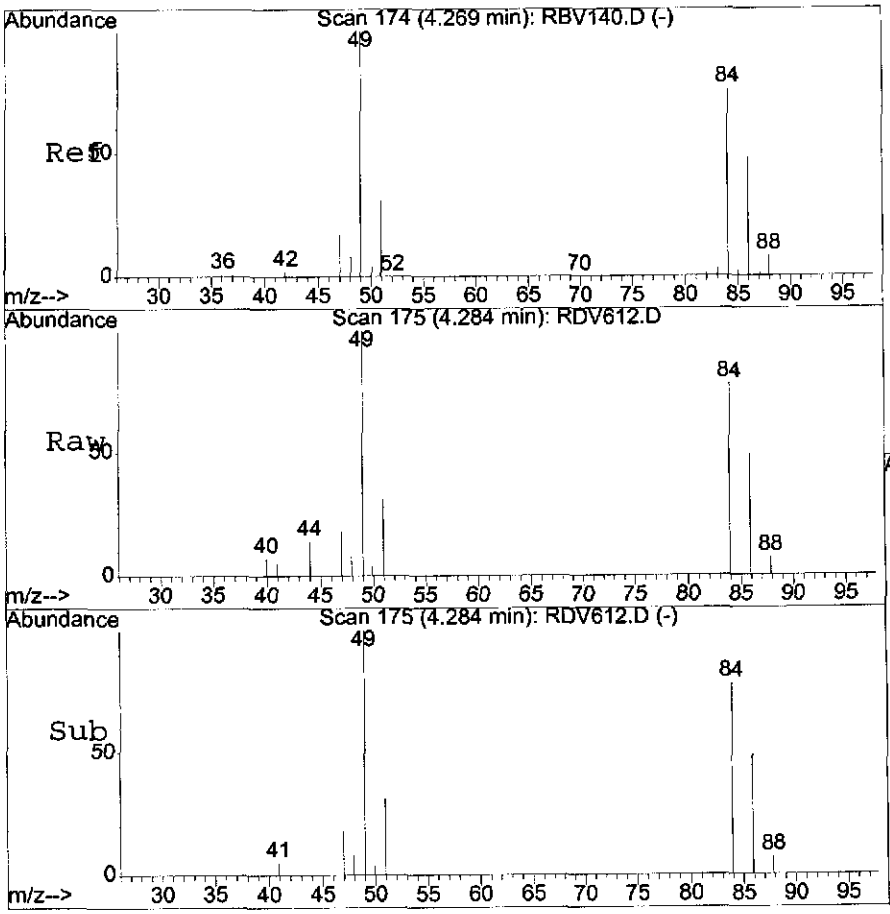
Data File : D:\HPCHEM\1\DATA\15D30\RDV612.D
Acq On : 30 Apr 2015 3:31 pm
Sample : VO01D26B 25mL
Misc : BLANK
MS Integration Params: 524C.P
Quant Time: May 1 11:35 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration

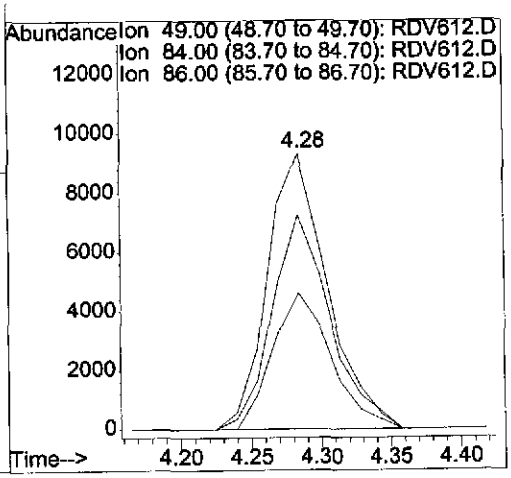




#18
Methylene chloride
Concen: 0.50 ug/l
RT: 4.28 min Scan# 175
Delta R.T. 0.01 min
Lab File: RDV612.D
Acq: 30 Apr 2015 3:31 pm

Tgt Ion: 49 Resp: 27715

Ion	Ratio	Lower	Upper
49	100		
84	75.7	45.9	105.9
86	48.5	18.6	78.6



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV609.D
Acq On : 30 Apr 2015 2:09 pm
Sample : VO01D26L
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:35 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1197780	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.00	117	992065	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	374541	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	363083	9.12	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.20%		
38) 1,2-Dichloroethane-d4	6.86	65	234449	9.13	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.30%		
54) Toluene-d8	9.60	98	1272000	9.48	ug/l	0.00
Spiked Amount 10.000			Recovery =	94.80%		
74) 4-Bromofluorobenzene	13.60	95	411039	9.54	ug/l	0.02
Spiked Amount 10.000			Recovery =	95.40%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	303147	11.23	ug/l	99
4) Chloromethane	2.21	50	419646	9.81	ug/l	99
5) Vinyl chloride	2.38	62	388607	10.15	ug/l	98
7) Bromomethane	2.73	94	283549	9.06	ug/l	98
8) Chloroethane	2.85	64	270181	10.46	ug/l	98
9) Dichlorofluoromethane	3.12	67	701267	10.62	ug/l	99
10) Trichlorofluoromethane	3.13	101	383250	10.66	ug/l	97
11) Acrolein	3.59	56	71989	36.67	ug/l	91
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	225805	9.44	ug/l	100
13) Acetone	3.74	43	203278	53.66	ug/l	98
14) 1,1-Dichloroethene	3.72	61	467685	9.69	ug/l	100
15) Iodomethane	3.89	142	636812	9.46	ug/l	99
16) Carbon disulfide	3.97	76	1216167	10.29	ug/l	100
18) Methylene chloride	4.27	49	515697	9.84	ug/l	98
19) tert-Butyl alcohol	4.39	59	79991	59.14	ug/l	96
20) Acrylonitrile	4.52	53	306990	52.63	ug/l	98
21) tert-Butyl methyl ether (M	4.60	73	672852	10.93	ug/l	100
22) trans-1,2-Dichloroethene	4.60	61	560331	9.50	ug/l	100
23) Vinyl acetate	5.10	43	434642	7.95	ug/l	96
24) 1,1-Dichloroethane	5.10	63	775285	10.21	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	1455434	10.27	ug/l	99
27) tert-Butyl ethyl ether (ET	5.59	59	1043171	10.57	ug/l	100
28) 2-Butanone	5.77	43	419156	52.35	ug/l	99
29) cis-1,2-Dichloroethene	5.79	96	456356	10.08	ug/l	99
30) 2,2-Dichloropropane	5.81	77	499142	11.68	ug/l	99
31) Tetrahydrofurane	6.12	42	50399	10.28	ug/l	96
32) Bromochloromethane	6.09	49	306594	9.96	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV609.D
Acq On : 30 Apr 2015 2:09 pm
Sample : VO01D26L
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:35 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33) Chloroform	6.21	83	660472	10.29 ug/l		99
35) 1,1,1-Trichloroethane	6.45	97	491554	10.37 ug/l		99
37) tert-Amyl methyl ether (TA	7.08	87	167864	11.31 ug/l		97
39) 1,1-Dichloropropene	6.64	110	206526	9.62 ug/l		100
40) Carbon tetrachloride	6.65	119	429915	9.99 ug/l		99
41) Benzene	6.90	78	1584657	9.90 ug/l		99
42) 1,2-Dichloroethane	6.96	62	322993	10.31 ug/l		99
44) Trichloroethene	7.79	130	473709	9.92 ug/l		100
46) 1,2-Dichloropropane	8.15	63	436860	10.50 ug/l	#	55
47) 1,4-Dioxane	8.27	88	28300	214.80 ug/l		98
48) Dibromomethane	8.28	93	166767	10.18 ug/l		99
49) Bromodichloromethane	8.53	83	462734	10.70 ug/l		99
51) cis-1,3-Dichloropropene	9.18	75	619396	10.88 ug/l		99
52) 4-Methyl-2-pentanone	9.39	43	966060	52.90 ug/l		99
55) Toluene	9.72	91	1667095	9.82 ug/l		99
56) Ethyl methacrylate	10.16	69	298928	10.72 ug/l		99
57) trans-1,3-Dichloropropene	10.07	75	424227	10.93 ug/l		99
58) 1,1,2-Trichloroethane	10.38	97	237303	10.48 ug/l		100
59) Tetrachloroethene	10.56	164	366506	9.64 ug/l		99
60) 1,3-Dichloropropane	10.65	76	449581	10.57 ug/l		99
61) 2-Hexanone	10.74	43	612500	51.67 ug/l		100
62) Dibromochloromethane	11.02	129	303258	10.66 ug/l		100
63) 1,2-Dibromoethane	11.23	107	227296	10.32 ug/l		100
64) 1-Chlorohexane	12.03	91	675588	9.10 ug/l		99
65) Chlorobenzene	12.04	112	1036151	10.09 ug/l		99
66) 1,1,1,2-Tetrachloroethane	12.19	131	365872	10.66 ug/l		100
67) Ethylbenzene	12.20	91	1878851	9.95 ug/l		100
68) m-Xylene & p-Xylene	12.40	91	2717792	20.02 ug/l		99
69) o-Xylene	12.91	91	1350176	10.06 ug/l		99
70) Styrene	12.94	104	1073014	10.44 ug/l		99
72) Bromoform	13.18	173	155863	10.24 ug/l		99
73) Isopropylbenzene	13.37	105	1722938	9.90 ug/l		99
75) 1,1,2,2-Tetrachloroethane	13.74	83	285668	10.83 ug/l		99
76) Bromobenzene	13.76	156	410451	10.40 ug/l		98
77) trans-1,4-Dichloro-2-buten	13.77	53	47351	9.53 ug/l		98
78) 1,2,3-Trichloropropane	13.80	110	67509	10.43 ug/l		95
79) n-Propylbenzene	13.86	91	2223133	10.01 ug/l		99
80) 1,3,5-Trimethylbenzene	14.07	105	1340513	10.04 ug/l		100
81) 2-Chlorotoluene	13.97	91	1170930	10.03 ug/l		100
82) 4-Chlorotoluene	14.10	91	1308770	10.14 ug/l		100
83) tert-Butylbenzene	14.41	134	352554	10.35 ug/l		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV609.D
Acq On : 30 Apr 2015 2:09 pm
Sample : VO01D26L
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:35 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1295801	9.90	ug/l	99
85)	sec-Butylbenzene	14.63	105	1898883	9.99	ug/l	100
86)	p-Isopropyltoluene	14.78	119	1519359	9.89	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	767586	10.07	ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	746290	10.07	ug/l	100
89)	n-Butylbenzene	15.16	91	1366149	9.69	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	616320	9.90	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	34273	9.75	ug/l	98
92)	1,2,4-Trichlorobenzene	16.67	180	311635	9.10	ug/l	99
93)	Hexachlorobutadiene	16.81	225	219277	9.54	ug/l	99
94)	Naphthalene	16.94	128	383262	8.50	ug/l	100
95)	1,2,3-Trichlorobenzene	17.16	180	224133	8.62	ug/l	99

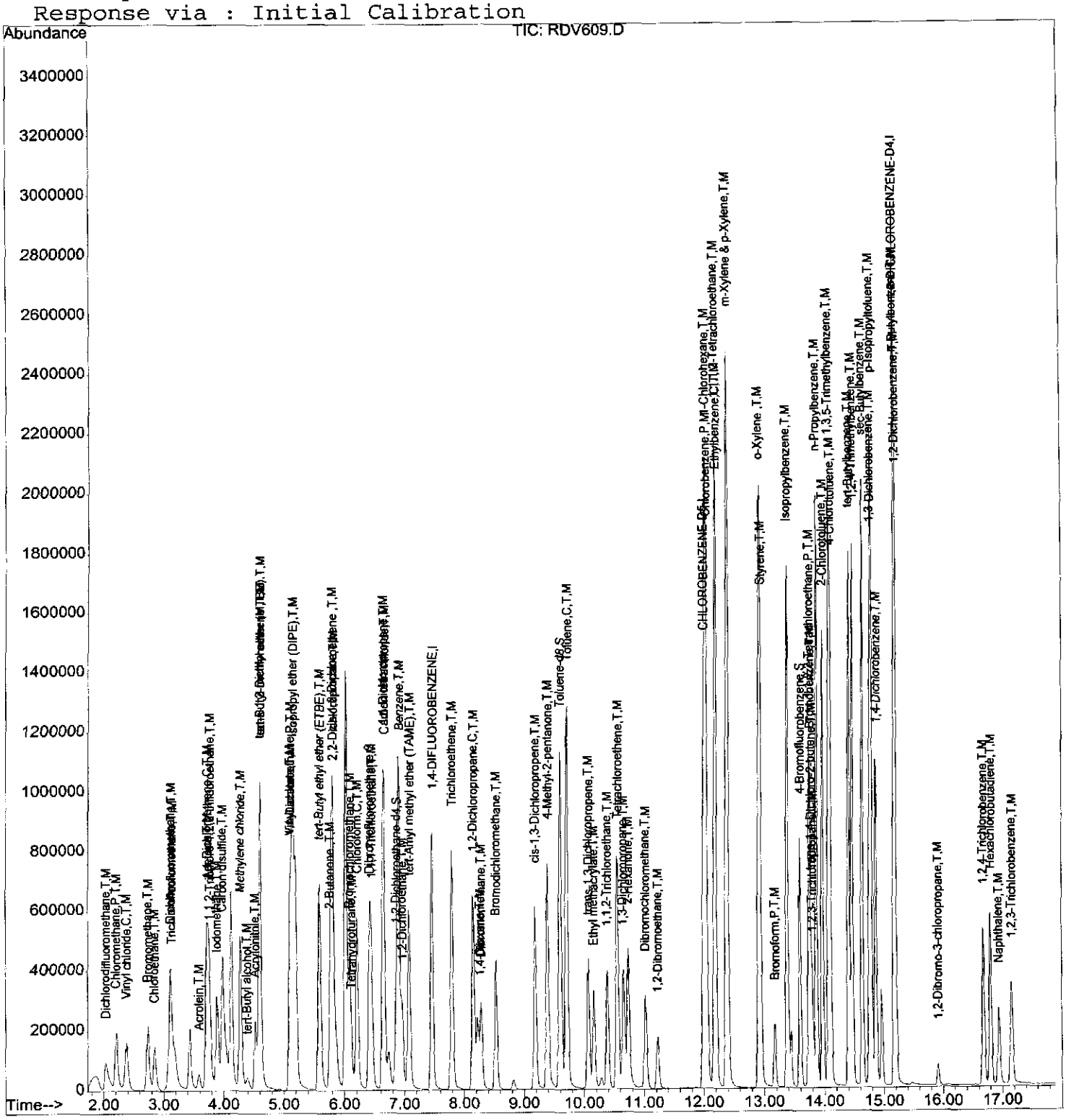
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\15D30\RDV609.D
Acq On : 30 Apr 2015 2:09 pm
Sample : VO01D26L
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:35 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV610.D
Acq On : 30 Apr 2015 2:37 pm
Sample : VO01D26C
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:36 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1255246	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.00	117	1039645	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	389120	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	376090	9.01	ug/l	0.02
Spiked Amount 10.000			Recovery =	90.10%		
38) 1,2-Dichloroethane-d4	6.86	65	241908	8.99	ug/l	0.02
Spiked Amount 10.000			Recovery =	89.90%		
54) Toluene-d8	9.61	98	1332418	9.48	ug/l	0.02
Spiked Amount 10.000			Recovery =	94.80%		
74) 4-Bromofluorobenzene	13.59	95	427890	9.56	ug/l	0.02
Spiked Amount 10.000			Recovery =	95.60%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	305844	10.81	ug/l	100
4) Chloromethane	2.21	50	428082	9.55	ug/l	99
5) Vinyl chloride	2.38	62	391694	9.77	ug/l	99
7) Bromomethane	2.74	94	286231	8.73	ug/l	98
8) Chloroethane	2.85	64	263292	9.73	ug/l	97
9) Dichlorofluoromethane	3.11	67	660339	9.54	ug/l	99
10) Trichlorofluoromethane	3.13	101	365675	9.71	ug/l	99
11) Acrolein	3.60	56	68009	33.06	ug/l	93
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	211763	8.44	ug/l	99
13) Acetone	3.75	43	193151	48.65	ug/l	99
14) 1,1-Dichloroethene	3.72	61	451934	8.94	ug/l	100
15) Iodomethane	3.90	142	615890	8.73	ug/l	99
16) Carbon disulfide	3.99	76	1228073	9.92	ug/l	100
18) Methylene chloride	4.28	49	498452	9.08	ug/l	98
19) tert-Butyl alcohol	4.40	59	73881	52.12	ug/l	95
20) Acrylonitrile	4.54	53	296772	48.54	ug/l	98
21) tert-Butyl methyl ether (M	4.61	73	639735	9.92	ug/l	100
22) trans-1,2-Dichloroethene	4.61	61	541073	8.75	ug/l	98
23) Vinyl acetate	5.10	43	479971	8.38	ug/l	99
24) 1,1-Dichloroethane	5.11	63	749047	9.41	ug/l	100
25) Isopropyl ether (DIPE)	5.16	45	1415456	9.53	ug/l	98
27) tert-Butyl ethyl ether (ET	5.60	59	1016951	9.83	ug/l	100
28) 2-Butanone	5.76	43	400179	47.69	ug/l	99
29) cis-1,2-Dichloroethene	5.79	96	443059	9.33	ug/l	99
30) 2,2-Dichloropropane	5.82	77	465074	10.38	ug/l	100
31) Tetrahydrofurane	6.13	42	47647	9.28	ug/l	96
32) Bromochloromethane	6.09	49	291685	9.04	ug/l	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV610.D Vial: 4
Acq On : 30 Apr 2015 2:37 pm Operator: WLau
Sample : VO01D26C Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 1 11:36 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Chloroform	6.22	83	640278	9.51 ug/l		99
35)	1,1,1-Trichloroethane	6.45	97	455546	9.17 ug/l		100
37)	tert-Amyl methyl ether (TA	7.08	87	160422	10.31 ug/l		98
39)	1,1-Dichloropropene	6.65	110	195861	8.71 ug/l		100
40)	Carbon tetrachloride	6.67	119	400925	8.89 ug/l		100
41)	Benzene	6.90	78	1525958	9.10 ug/l		99
42)	1,2-Dichloroethane	6.96	62	305070	9.29 ug/l		99
44)	Trichloroethene	7.81	130	456037	9.11 ug/l		99
46)	1,2-Dichloropropane	8.16	63	418932	9.61 ug/l	#	53
47)	1,4-Dioxane	8.27	88	27395	198.41 ug/l		98
48)	Dibromomethane	8.28	93	160565	9.35 ug/l		99
49)	Bromodichloromethane	8.53	83	441300	9.74 ug/l		100
51)	cis-1,3-Dichloropropene	9.18	75	585768	9.82 ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	933327	48.77 ug/l		99
55)	Toluene	9.72	91	1577883	8.87 ug/l		99
56)	Ethyl methacrylate	10.18	69	281434	9.63 ug/l		99
57)	trans-1,3-Dichloropropene	10.07	75	405687	9.97 ug/l		99
58)	1,1,2-Trichloroethane	10.40	97	227916	9.61 ug/l		99
59)	Tetrachloroethene	10.56	164	339977	8.54 ug/l		99
60)	1,3-Dichloropropane	10.66	76	423386	9.50 ug/l		100
61)	2-Hexanone	10.74	43	591140	47.59 ug/l		99
62)	Dibromochloromethane	11.02	129	291838	9.79 ug/l		99
63)	1,2-Dibromoethane	11.23	107	216772	9.39 ug/l		100
64)	1-Chlorohexane	12.03	91	636237	8.18 ug/l		100
65)	Chlorobenzene	12.06	112	989611	9.20 ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	343723	9.55 ug/l		99
67)	Ethylbenzene	12.20	91	1764303	8.92 ug/l		100
68)	m-Xylene & p-Xylene	12.40	91	2524490	17.74 ug/l		99
69)	o-Xylene	12.91	91	1288304	9.16 ug/l		100
70)	Styrene	12.94	104	1012765	9.40 ug/l		99
72)	Bromoform	13.18	173	146570	9.27 ug/l		98
73)	Isopropylbenzene	13.39	105	1615609	8.93 ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.74	83	261812	9.55 ug/l		99
76)	Bromobenzene	13.76	156	384203	9.37 ug/l		99
77)	trans-1,4-Dichloro-2-buten	13.79	53	44910	8.70 ug/l		98
78)	1,2,3-Trichloropropane	13.80	110	64488	9.59 ug/l		94
79)	n-Propylbenzene	13.88	91	2079301	9.01 ug/l		100
80)	1,3,5-Trimethylbenzene	14.07	105	1259942	9.08 ug/l		100
81)	2-Chlorotoluene	13.96	91	1100658	9.07 ug/l		99
82)	4-Chlorotoluene	14.10	91	1221747	9.11 ug/l		99
83)	tert-Butylbenzene	14.41	134	328882	9.29 ug/l		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV610.D
Acq On : 30 Apr 2015 2:37 pm
Sample : VO01D26C
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:36 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1227355	9.02 ug/l	99
85)	sec-Butylbenzene	14.63	105	1763916	8.93 ug/l	99
86)	p-Isopropyltoluene	14.79	119	1434852	8.99 ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	723215	9.13 ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	709214	9.21 ug/l	100
89)	n-Butylbenzene	15.18	91	1297000	8.85 ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	588599	9.10 ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	32229	8.82 ug/l	100
92)	1,2,4-Trichlorobenzene	16.69	180	297925	8.38 ug/l	98
93)	Hexachlorobutadiene	16.81	225	212445	8.89 ug/l	98
94)	Naphthalene	16.94	128	371048	7.92 ug/l	100
95)	1,2,3-Trichlorobenzene	17.16	180	219183	8.12 ug/l	100

(#) = qualifier out of range (m) = manual integration

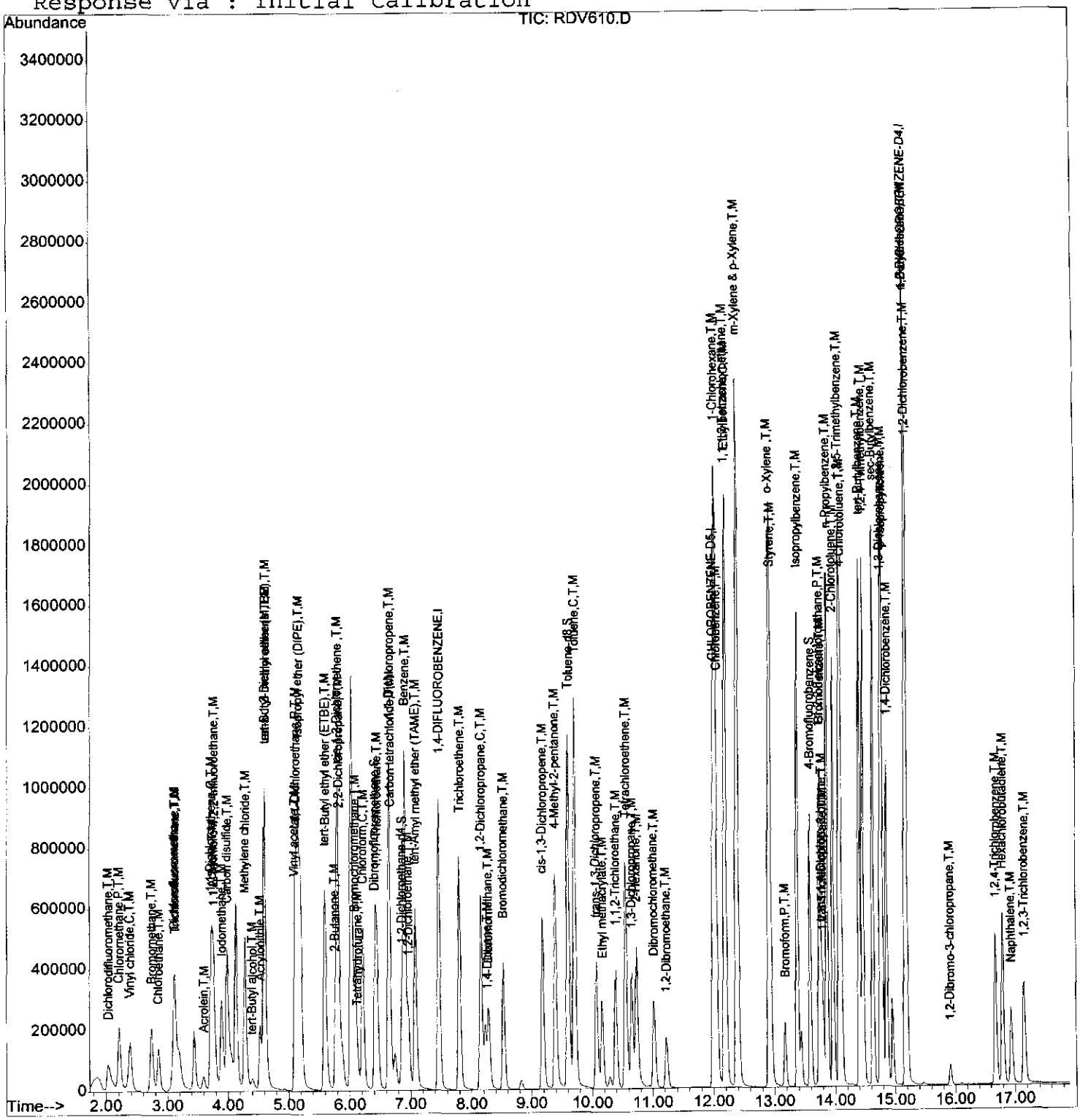
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV610.D
Acq On : 30 Apr 2015 2:37 pm
Sample : VO01D26C
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:36 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV620.D
Acq On : 30 Apr 2015 7:07 pm
Sample : 15D143-01 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:04 2015

Vial: 14
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1233460	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.01	117	945735	10.00	ug/l	0.03
71) 1,2-DICHLOROBENZENE-D4	15.18	152	315874	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	374804	9.14	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.40%		
38) 1,2-Dichloroethane-d4	6.86	65	243082	9.19	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.90%		
54) Toluene-d8	9.61	98	1274000	9.96	ug/l	0.02
Spiked Amount 10.000			Recovery =	99.60%		
74) 4-Bromofluorobenzene	13.60	95	371348	10.22	ug/l	0.02
Spiked Amount 10.000			Recovery =	102.20%		
Target Compounds						Qvalue
18) Methylene chloride	4.27	49	187530	3.48	ug/l	99
21) tert-Butyl methyl ether (M	4.61	73	57728	0.91	ug/l	100
33) Chloroform	6.21	83	304542	4.61	ug/l	100
49) Bromodichloromethane	8.53	83	19511	0.44	ug/l	98
78) 1,2,3-Trichloropropane	13.82	110	4996	0.91	ug/l	87

(#) = qualifier out of range (m) = manual integration

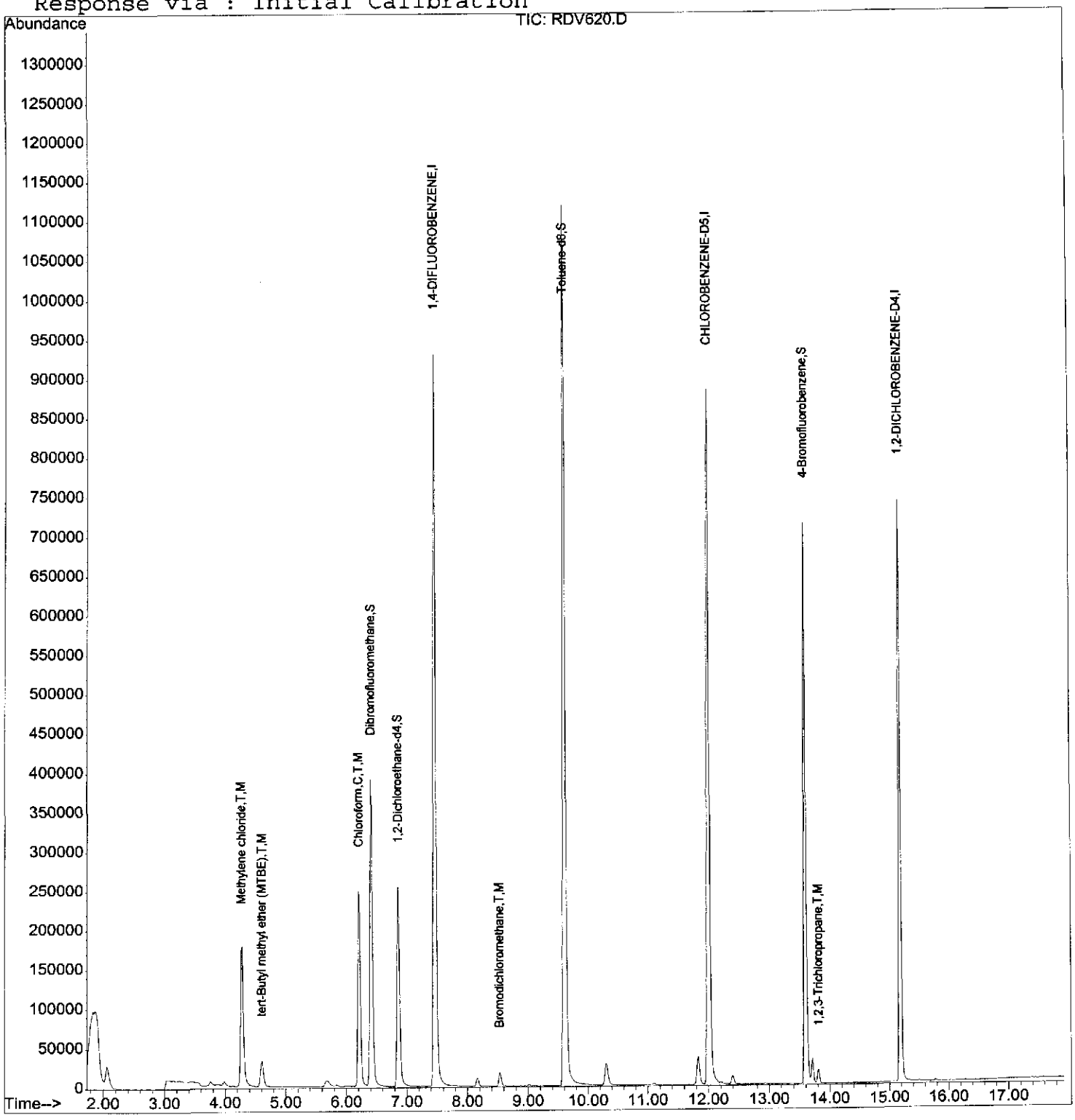
Quantitation Report

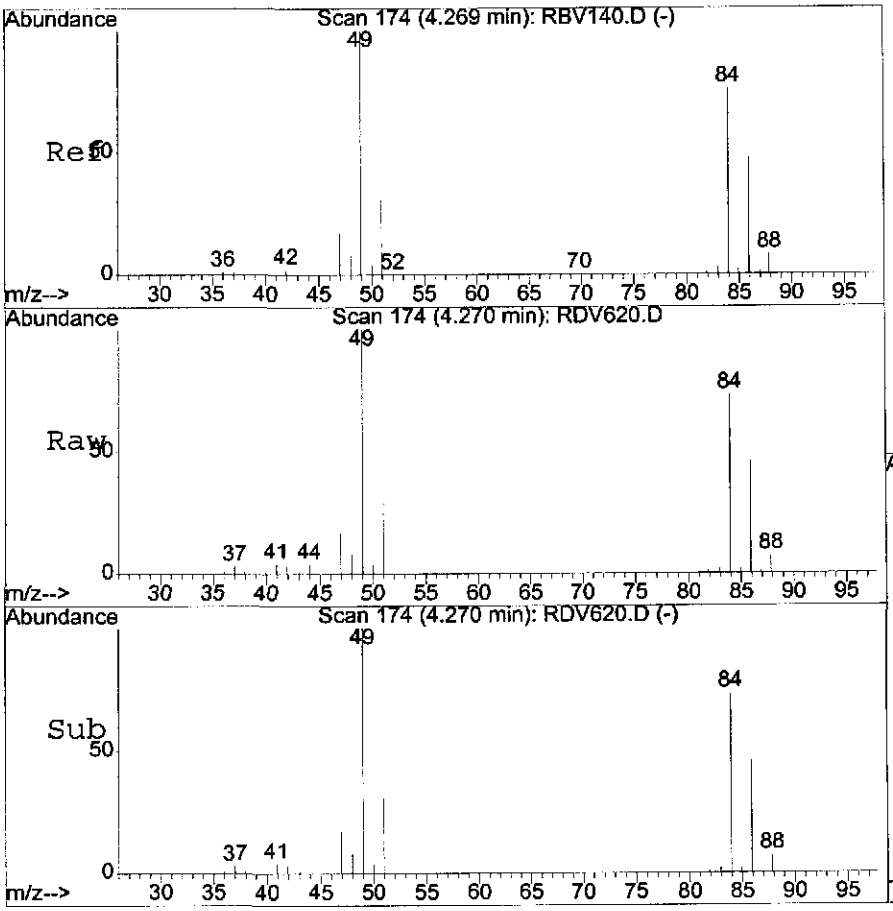
Data File : D:\HPCHEM\1\DATA\15D30\RDV620.D
Acq On : 30 Apr 2015 7:07 pm
Sample : 15D143-01 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:04 2015

Vial: 14
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration

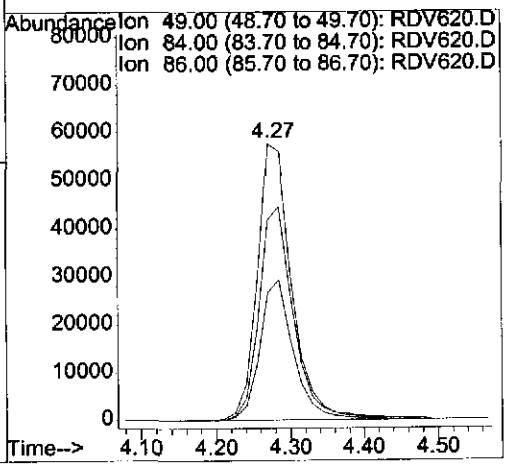


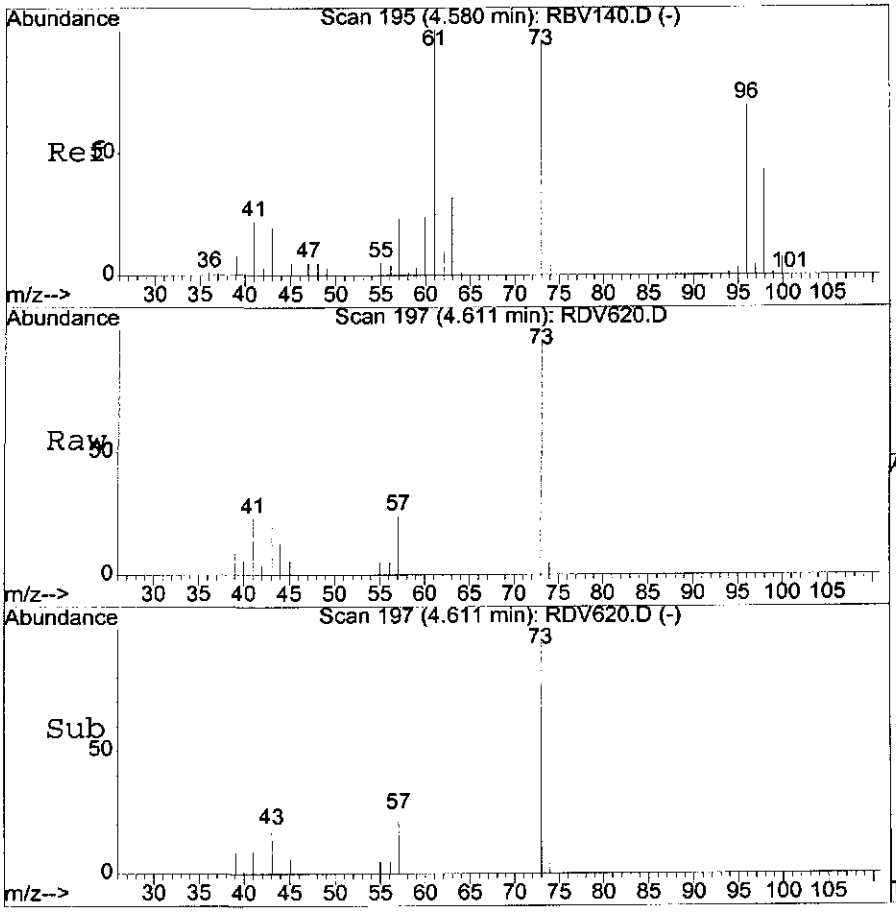


#18
Methylene chloride
Concen: 3.48 ug/l
RT: 4.27 min Scan# 174
Delta R.T. 0.00 min
Lab File: RDV620.D
Acq: 30 Apr 2015 7:07 pm

Tgt Ion: 49 Resp: 187530

Ion	Ratio	Lower	Upper
49	100		
84	77.1	45.9	105.9
86	49.2	18.6	78.6

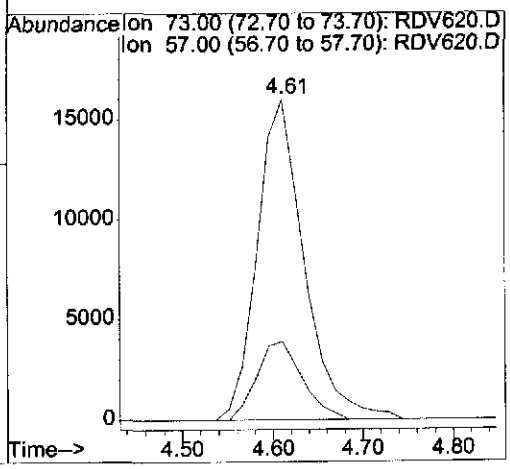


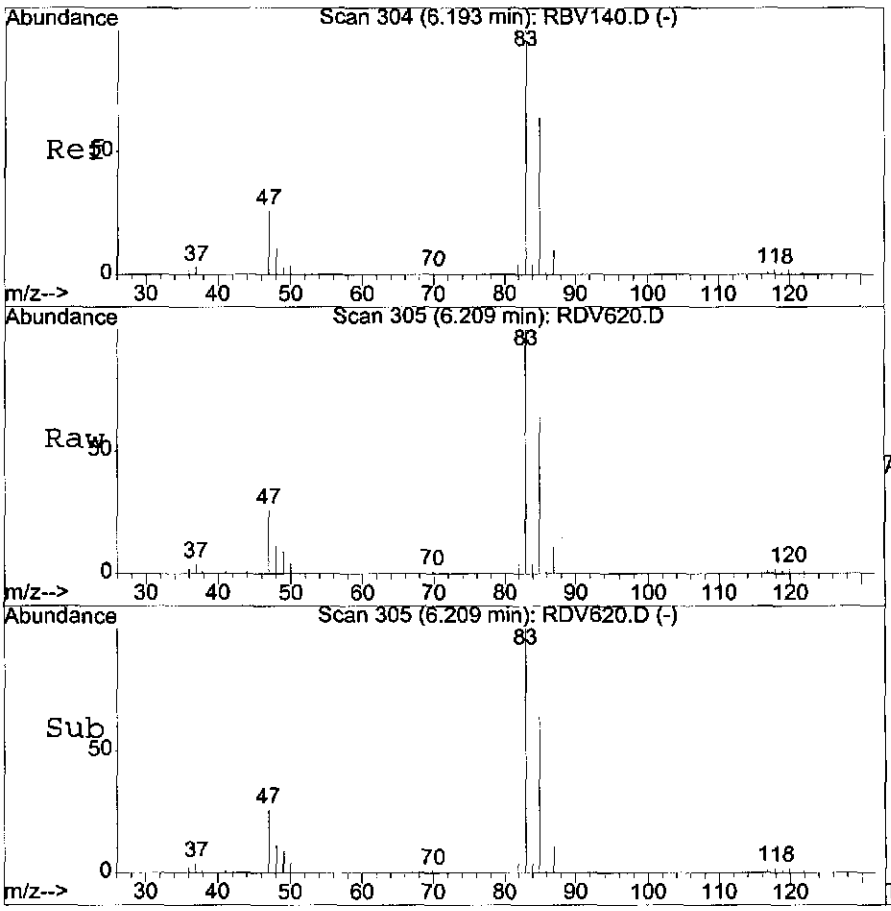


#21
tert-Butyl methyl ether (MTE
Concen: 0.91 ug/l
RT: 4.61 min Scan# 197
Delta R.T. 0.03 min
Lab File: RDV620.D
Acq: 30 Apr 2015 7:07 pm

Tgt Ion: 73 Resp: 57728

Ion	Ratio	Lower	Upper
73	100		
57	23.7	0.0	53.7

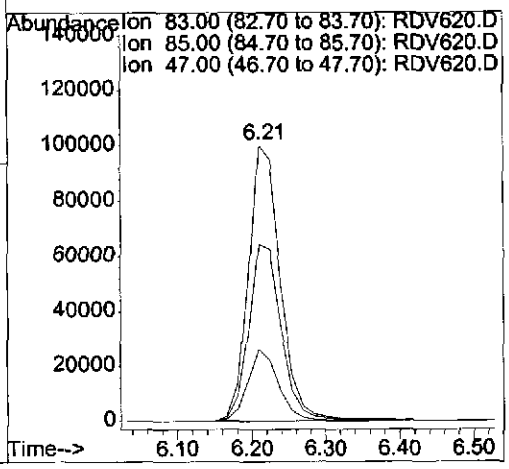


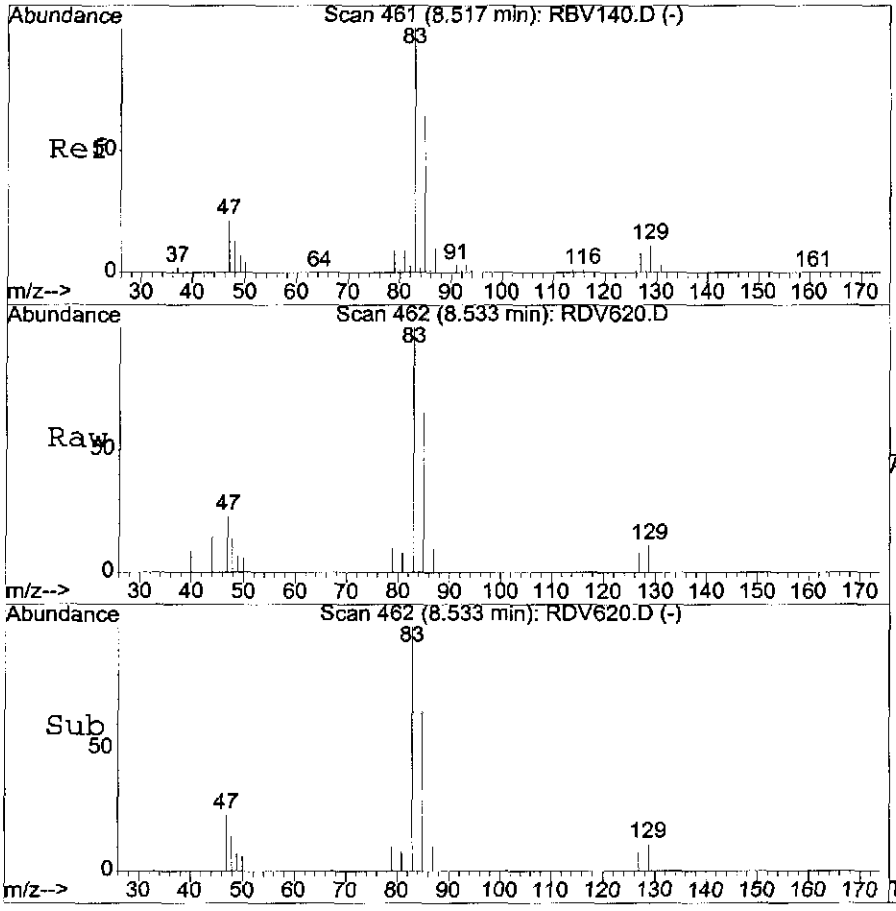


#33
Chloroform
Concen: 4.61 ug/l
RT: 6.21 min Scan# 305
Delta R.T. 0.02 min
Lab File: RDV620.D
Acq: 30 Apr 2015 7:07 pm

Tgt Ion: 83 Resp: 304542

Ion	Ratio	Lower	Upper
83	100		
85	65.4	35.4	95.4
47	25.1	0.0	55.3

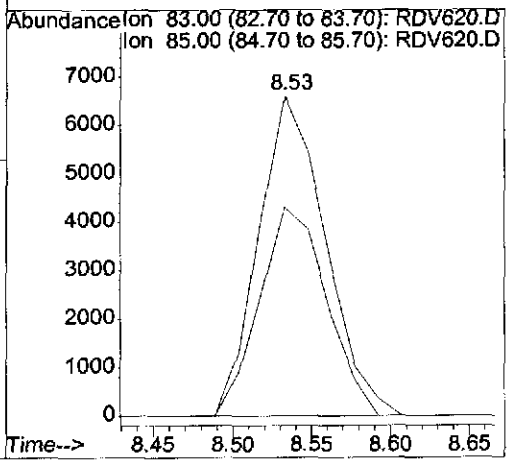


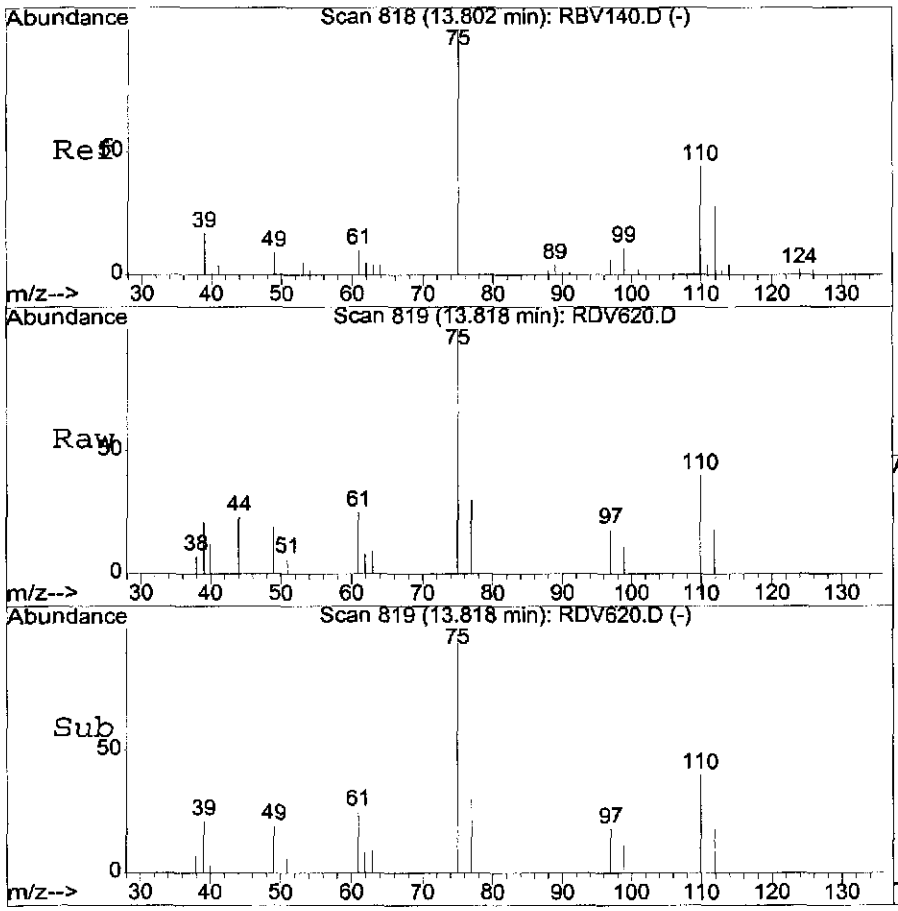


#49
Bromodichloromethane
Concen: 0.44 ug/l
RT: 8.53 min Scan# 462
Delta R.T. 0.02 min
Lab File: RDV620.D
Acq: 30 Apr 2015 7:07 pm

Tgt Ion: 83 Resp: 19511

Ion	Ratio	Lower	Upper
83	100		
85	65.6	33.7	93.7

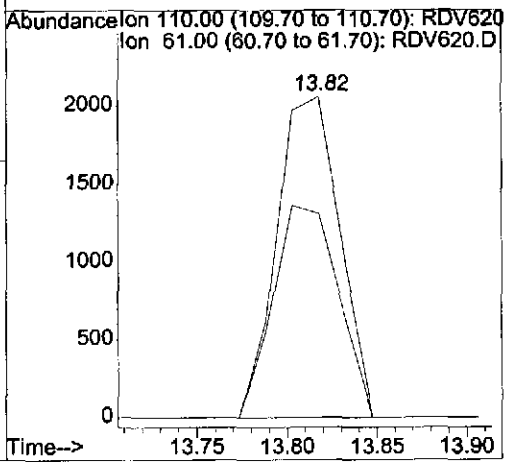




#78
1,2,3-Trichloropropane
Concen: 0.91 ug/l
RT: 13.82 min Scan# 819
Delta R.T. 0.02 min
Lab File: RDV620.D
Acq: 30 Apr 2015 7:07 pm

Tgt Ion:110 Resp: 4996

Ion	Ratio	Lower	Upper
110	100		
61	68.5	49.7	109.7



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV613.D
Acq On : 30 Apr 2015 3:57 pm
Sample : 15D143-01M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:02 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1190425	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.01	117	982859	10.00	ug/l	0.03
71) 1,2-DICHLOROBENZENE-D4	15.18	152	367080	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	360224	9.10	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.00%		
38) 1,2-Dichloroethane-d4	6.86	65	231388	9.07	ug/l	0.02
Spiked Amount 10.000			Recovery =	90.70%		
54) Toluene-d8	9.61	98	1275126	9.59	ug/l	0.02
Spiked Amount 10.000			Recovery =	95.90%		
74) 4-Bromofluorobenzene	13.60	95	408027	9.66	ug/l	0.02
Spiked Amount 10.000			Recovery =	96.60%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	299101	11.14	ug/l	99
4) Chloromethane	2.24	50	368942	8.68	ug/l	98
5) Vinyl chloride	2.40	62	361500	9.50	ug/l	99
7) Bromomethane	2.75	94	260805	8.39	ug/l	99
8) Chloroethane	2.85	64	254435	9.91	ug/l	97
9) Dichlorofluoromethane	3.12	67	650513	9.91	ug/l	99
10) Trichlorofluoromethane	3.13	101	357001	10.00	ug/l	99
11) Acrolein	3.60	56	63243	32.42	ug/l	91
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	219281	9.22	ug/l	100
13) Acetone	3.75	43	168546	44.76	ug/l	98
14) 1,1-Dichloroethene	3.72	61	454832	9.49	ug/l	100
15) Iodomethane	3.90	142	613948	9.17	ug/l	99
16) Carbon disulfide	3.99	76	1279336	10.89	ug/l	100
18) Methylene chloride	4.28	49	646844	12.42	ug/l	98
19) tert-Butyl alcohol	4.40	59	75797	56.39	ug/l	97
20) Acrylonitrile	4.54	53	281648	48.58	ug/l	98
21) tert-Butyl methyl ether (M	4.61	73	682254	11.16	ug/l	100
22) trans-1,2-Dichloroethene	4.61	61	545304	9.30	ug/l	99
23) Vinyl acetate	5.10	43	443773	8.17	ug/l	100
24) 1,1-Dichloroethane	5.11	63	755311	10.01	ug/l	99
25) Isopropyl ether (DIPE)	5.16	45	1389251	9.87	ug/l	99
27) tert-Butyl ethyl ether (ET	5.60	59	977488	9.96	ug/l	100
28) 2-Butanone	5.77	43	380482	47.82	ug/l	98
29) cis-1,2-Dichloroethene	5.81	96	441600	9.81	ug/l	98
30) 2,2-Dichloropropane	5.82	77	482897	11.37	ug/l	99
31) Tetrahydrofurane	6.14	42	44397	9.11	ug/l	97
32) Bromochloromethane	6.09	49	288548	9.43	ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV613.D
Acq On : 30 Apr 2015 3:57 pm
Sample : 15D143-01M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:02 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
33)	Chloroform	6.22	83	933969	14.64	ug/l		99
35)	1,1,1-Trichloroethane	6.45	97	475610	10.09	ug/l		100
37)	tert-Amyl methyl ether (TA	7.08	87	154716	10.49	ug/l		98
39)	1,1-Dichloropropene	6.65	110	203084	9.52	ug/l		100
40)	Carbon tetrachloride	6.67	119	418814	9.79	ug/l		99
41)	Benzene	6.90	78	1544437	9.71	ug/l		99
42)	1,2-Dichloroethane	6.96	62	302592	9.72	ug/l		100
44)	Trichloroethene	7.81	130	461354	9.72	ug/l		99
46)	1,2-Dichloropropane	8.16	63	429503	10.39	ug/l	#	53
47)	1,4-Dioxane	8.27	88	28645	218.76	ug/l		96
48)	Dibromomethane	8.28	93	159099	9.77	ug/l		98
49)	Bromodichloromethane	8.53	83	462952	10.78	ug/l		99
51)	cis-1,3-Dichloropropene	9.18	75	581079	10.27	ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	870404	47.95	ug/l		100
55)	Toluene	9.72	91	1626963	9.67	ug/l		99
56)	Ethyl methacrylate	10.18	69	283755	10.27	ug/l		100
57)	trans-1,3-Dichloropropene	10.07	75	401260	10.44	ug/l		99
58)	1,1,2-Trichloroethane	10.40	97	225945	10.08	ug/l		99
59)	Tetrachloroethene	10.56	164	360570	9.58	ug/l		100
60)	1,3-Dichloropropane	10.66	76	422343	10.02	ug/l		100
61)	2-Hexanone	10.74	43	531020	45.22	ug/l		100
62)	Dibromochloromethane	11.03	129	292913	10.39	ug/l		99
63)	1,2-Dibromoethane	11.23	107	214801	9.85	ug/l		99
64)	1-Chlorohexane	12.03	91	676903	9.21	ug/l		99
65)	Chlorobenzene	12.06	112	1021949	10.05	ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	349671	10.28	ug/l		99
67)	Ethylbenzene	12.20	91	1839852	9.84	ug/l		100
68)	m-Xylene & p-Xylene	12.40	91	2679937	19.92	ug/l		99
69)	o-Xylene	12.91	91	1344117	10.11	ug/l		99
70)	Styrene	12.94	104	963060	9.45	ug/l		98
72)	Bromoform	13.18	173	146282	9.81	ug/l		98
73)	Isopropylbenzene	13.39	105	1724575	10.11	ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.74	83	265045	10.25	ug/l		99
76)	Bromobenzene	13.76	156	396431	10.25	ug/l		99
77)	trans-1,4-Dichloro-2-buten	13.79	53	43449	8.92	ug/l		99
78)	1,2,3-Trichloropropane	13.80	110	68913	10.86	ug/l		98
79)	n-Propylbenzene	13.88	91	2190154	10.06	ug/l		100
80)	1,3,5-Trimethylbenzene	14.07	105	1318510	10.08	ug/l		100
81)	2-Chlorotoluene	13.97	91	1152575	10.07	ug/l		99
82)	4-Chlorotoluene	14.10	91	1278564	10.11	ug/l		99
83)	tert-Butylbenzene	14.41	134	350057	10.48	ug/l		98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\15D30\RDV613.D
Acq On : 30 Apr 2015 3:57 pm
Sample : 15D143-01M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:02 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1267290	9.87	ug/l	99
85)	sec-Butylbenzene	14.63	105	1850316	9.93	ug/l	99
86)	p-Isopropyltoluene	14.79	119	1493531	9.92	ug/l	98
87)	1,3-Dichlorobenzene	14.77	146	745200	9.97	ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	723803	9.97	ug/l	100
89)	n-Butylbenzene	15.18	91	1337846	9.68	ug/l	99
90)	1,2-Dichlorobenzene	15.21	146	598421	9.81	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	32087	9.31	ug/l	99
92)	1,2,4-Trichlorobenzene	16.69	180	300143	8.95	ug/l	99
93)	Hexachlorobutadiene	16.81	225	212279	9.42	ug/l	99
94)	Naphthalene	16.94	128	356616	8.07	ug/l	99
95)	1,2,3-Trichlorobenzene	17.16	180	217559	8.54	ug/l	99

(#) = qualifier out of range (m) = manual integration

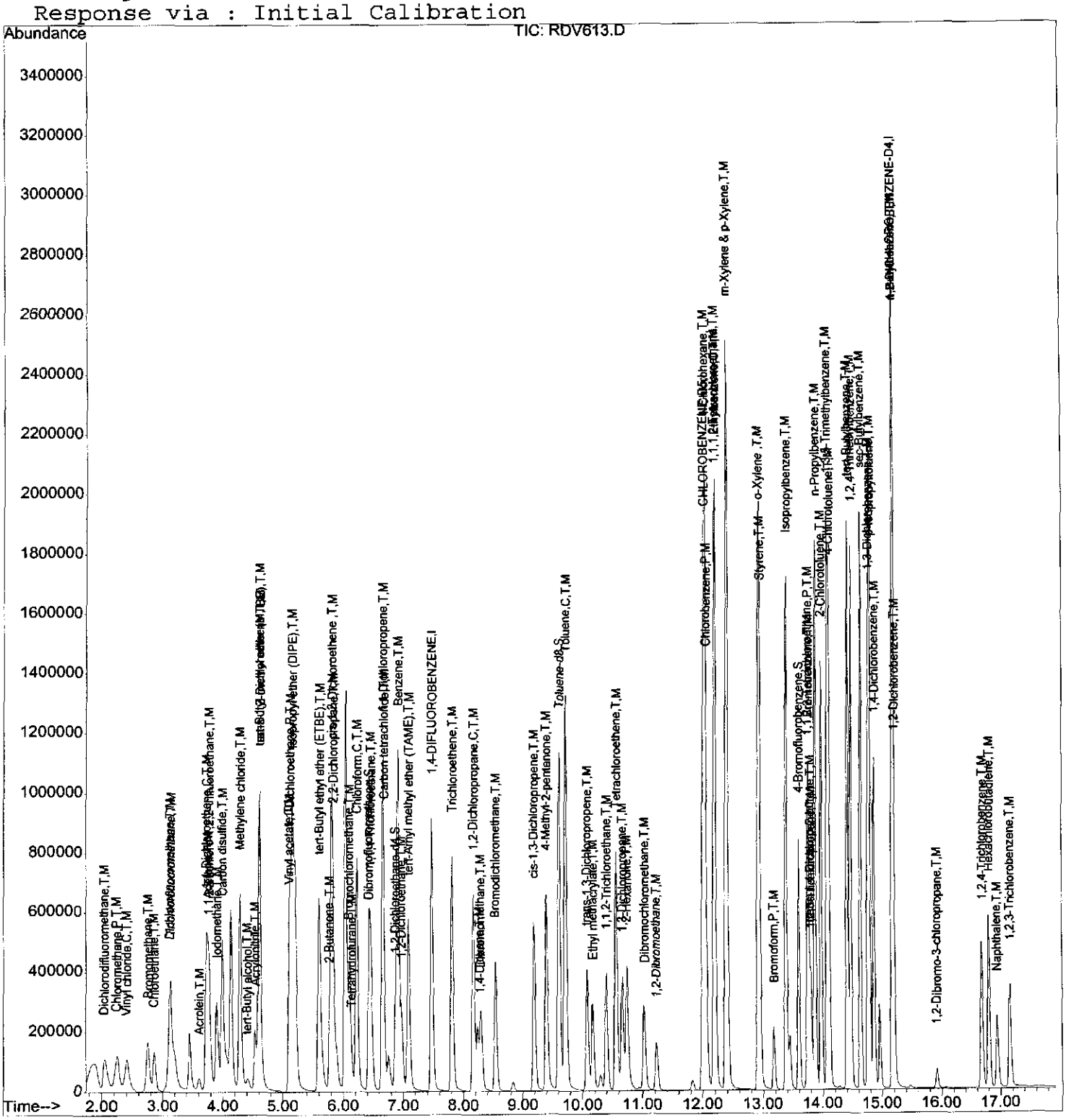
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV613.D
Acq On : 30 Apr 2015 3:57 pm
Sample : 15D143-01M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:02 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2060

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV614.D
Acq On : 30 Apr 2015 4:24 pm
Sample : 15D143-01S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:03 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1192964	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.01	117	993094	10.00	ug/l	0.03
71) 1,2-DICHLOROBENZENE-D4	15.18	152	375916	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	360926	9.10	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.00%		
38) 1,2-Dichloroethane-d4	6.86	65	234733	9.18	ug/l	0.02
Spiked Amount 10.000			Recovery =	91.80%		
54) Toluene-d8	9.61	98	1272639	9.48	ug/l	0.02
Spiked Amount 10.000			Recovery =	94.80%		
74) 4-Bromofluorobenzene	13.59	95	406552	9.40	ug/l	0.02
Spiked Amount 10.000			Recovery =	94.00%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	303955	11.30	ug/l	100
4) Chloromethane	2.24	50	381835	8.96	ug/l	97
5) Vinyl chloride	2.40	62	369188	9.69	ug/l	99
7) Bromomethane	2.74	94	263588	8.46	ug/l	99
8) Chloroethane	2.85	64	257158	10.00	ug/l	97
9) Dichlorofluoromethane	3.11	67	645197	9.81	ug/l	99
10) Trichlorofluoromethane	3.13	101	365815	10.22	ug/l	97
11) Acrolein	3.59	56	65705	33.61	ug/l	93
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	222840	9.35	ug/l	99
13) Acetone	3.75	43	176081	46.67	ug/l	98
14) 1,1-Dichloroethene	3.72	61	448612	9.34	ug/l	100
15) Iodomethane	3.88	142	601312	8.96	ug/l	99
16) Carbon disulfide	3.99	76	1197211	10.17	ug/l	100
18) Methylene chloride	4.28	49	646585	12.39	ug/l	98
19) tert-Butyl alcohol	4.40	59	77474	57.51	ug/l	99
20) Acrylonitrile	4.52	53	290124	49.93	ug/l	99
21) tert-Butyl methyl ether (M	4.59	73	689674	11.25	ug/l	100
22) trans-1,2-Dichloroethene	4.61	61	529533	9.01	ug/l	99
23) Vinyl acetate	5.10	43	468616	8.61	ug/l	100
24) 1,1-Dichloroethane	5.11	63	737427	9.75	ug/l	100
25) Isopropyl ether (DIPE)	5.16	45	1374579	9.74	ug/l	99
27) tert-Butyl ethyl ether (ET	5.60	59	984357	10.01	ug/l	100
28) 2-Butanone	5.76	43	390022	48.91	ug/l	99
29) cis-1,2-Dichloroethene	5.79	96	430874	9.55	ug/l	98
30) 2,2-Dichloropropane	5.82	77	466814	10.97	ug/l	99
31) Tetrahydrofurane	6.13	42	45447	9.31	ug/l	98
32) Bromochloromethane	6.09	49	291570	9.51	ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV614.D
Acq On : 30 Apr 2015 4:24 pm
Sample : 15D143-01S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: May 1 12:03 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
33)	Chloroform	6.22	83	932320	14.58	ug/l		99
35)	1,1,1-Trichloroethane	6.45	97	466430	9.88	ug/l		100
37)	tert-Amyl methyl ether (TA	7.08	87	157817	10.68	ug/l		99
39)	1,1-Dichloropropene	6.65	110	201814	9.44	ug/l		99
40)	Carbon tetrachloride	6.65	119	413410	9.64	ug/l		99
41)	Benzene	6.90	78	1508292	9.46	ug/l		100
42)	1,2-Dichloroethane	6.96	62	303957	9.74	ug/l		100
44)	Trichloroethene	7.81	130	453005	9.52	ug/l		99
46)	1,2-Dichloropropane	8.16	63	424611	10.25	ug/l	#	53
47)	1,4-Dioxane	8.27	88	27790	211.78	ug/l		100
48)	Dibromomethane	8.28	93	158891	9.74	ug/l		98
49)	Bromodichloromethane	8.53	83	467470	10.86	ug/l		100
51)	cis-1,3-Dichloropropene	9.18	75	579760	10.23	ug/l		100
52)	4-Methyl-2-pentanone	9.39	43	923255	50.76	ug/l		99
55)	Toluene	9.72	91	1617959	9.52	ug/l		99
56)	Ethyl methacrylate	10.18	69	291553	10.44	ug/l		100
57)	trans-1,3-Dichloropropene	10.07	75	401324	10.33	ug/l		99
58)	1,1,2-Trichloroethane	10.40	97	227888	10.06	ug/l		100
59)	Tetrachloroethene	10.56	164	355786	9.35	ug/l		99
60)	1,3-Dichloropropane	10.66	76	424001	9.96	ug/l		100
61)	2-Hexanone	10.74	43	575639	48.51	ug/l		100
62)	Dibromochloromethane	11.03	129	292987	10.29	ug/l		99
63)	1,2-Dibromoethane	11.23	107	216339	9.82	ug/l		100
64)	1-Chlorohexane	12.03	91	667120	8.98	ug/l		99
65)	Chlorobenzene	12.06	112	1003641	9.76	ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	350696	10.21	ug/l		99
67)	Ethylbenzene	12.20	91	1825858	9.66	ug/l		99
68)	m-Xylene & p-Xylene	12.40	91	2630514	19.35	ug/l		99
69)	o-Xylene	12.91	91	1303630	9.71	ug/l		100
70)	Styrene	12.94	104	938855	9.12	ug/l		98
72)	Bromoform	13.18	173	149472	9.79	ug/l		99
73)	Isopropylbenzene	13.39	105	1694298	9.70	ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.74	83	270993	10.24	ug/l		100
76)	Bromobenzene	13.76	156	391564	9.89	ug/l		100
77)	trans-1,4-Dichloro-2-buten	13.79	53	44993	9.02	ug/l		99
78)	1,2,3-Trichloropropane	13.80	110	69353	10.67	ug/l		99
79)	n-Propylbenzene	13.88	91	2168797	9.73	ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	1290530	9.63	ug/l		99
81)	2-Chlorotoluene	13.96	91	1152603	9.84	ug/l		99
82)	4-Chlorotoluene	14.10	91	1264748	9.76	ug/l		99
83)	tert-Butylbenzene	14.41	134	343766	10.05	ug/l		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV614.D Vial: 8
Acq On : 30 Apr 2015 4:24 pm Operator: WLau
Sample : 15D143-01S 25mL Inst : TO01
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 1 12:03 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

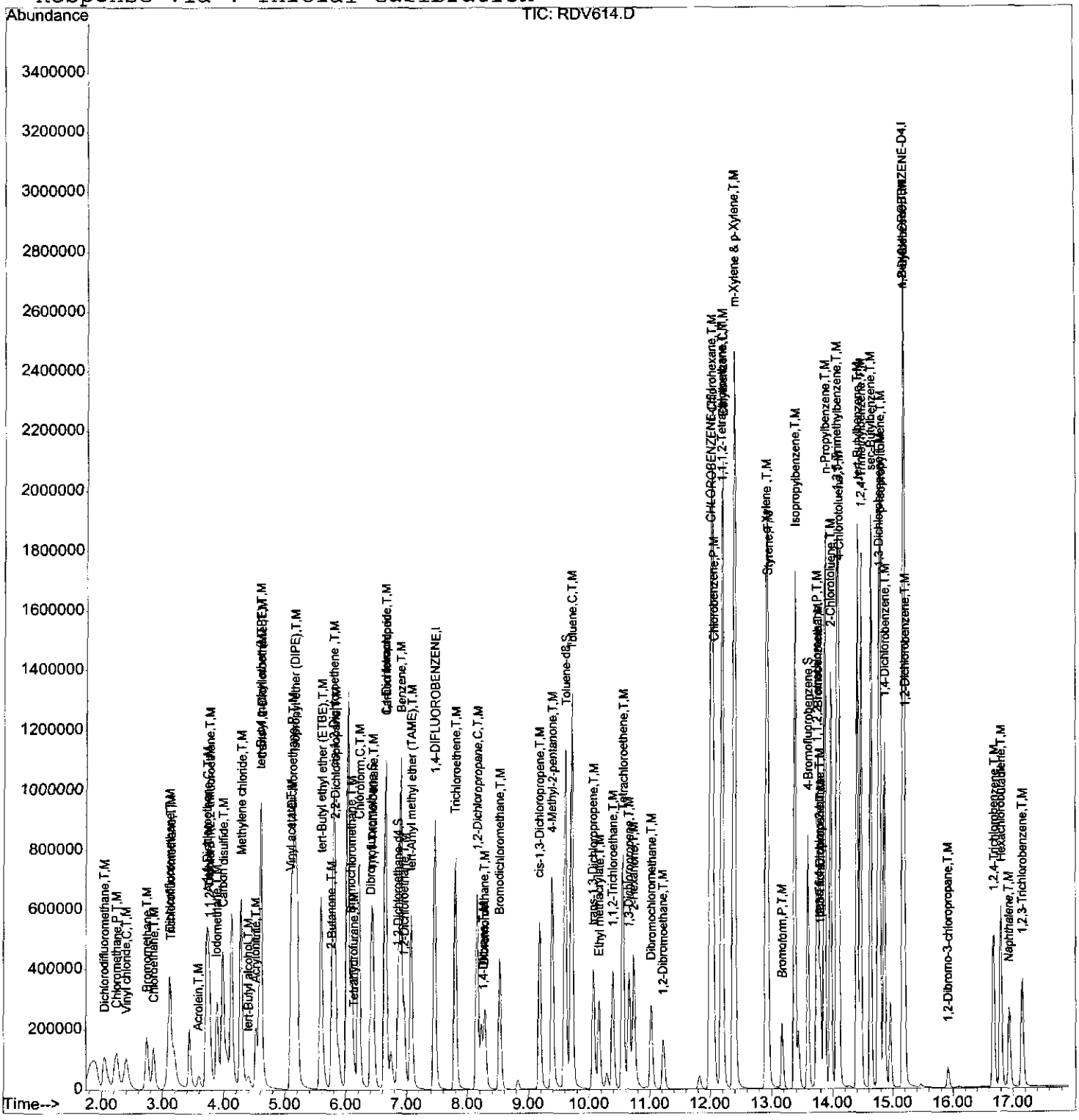
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1269588	9.66	ug/l	98
85)	sec-Butylbenzene	14.63	105	1876076	9.83	ug/l	100
86)	p-Isopropyltoluene	14.79	119	1491840	9.68	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	750391	9.81	ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	730501	9.82	ug/l	99
89)	n-Butylbenzene	15.18	91	1362529	9.63	ug/l	99
90)	1,2-Dichlorobenzene	15.21	146	611104	9.78	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	33771	9.57	ug/l	99
92)	1,2,4-Trichlorobenzene	16.69	180	313946	9.14	ug/l	99
93)	Hexachlorobutadiene	16.81	225	217280	9.41	ug/l	98
94)	Naphthalene	16.94	128	399509	8.83	ug/l	100
95)	1,2,3-Trichlorobenzene	17.16	180	231859	8.89	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV614.D Vial: 8
Acq On : 30 Apr 2015 4:24 pm Operator: WLau
Sample : 15D143-01S 25mL Inst : TO01
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 1 12:03 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D143
Lab File ID: RBV134 BFB Injection Date : 02/12/15
Instrument ID: TO01 BFB Injection Time : 16:56
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.11
75	30.0 - 60.0% of mass 95	45.18
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.87
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	78.35
175	5.0 - 9.0% of mass 174	5.63(7.2)1
176	95.0 - 101.0% of mass 174	75.79(96.7)1
177	5.0 - 9.0% of mass 176	5.00(6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	VO01B121	RBV135	02/12/15	17:43
2	VSTD0.5	VO01B122	RBV136	02/12/15	18:11
3	VSTD01	VO01B123	RBV137	02/12/15	18:39
4	VSTD02	VO01B124	RBV138	02/12/15	19:07
5	VSTD05	VO01B125	RBV139	02/12/15	19:35
6	VSTD010	VO01B126	RBV140	02/12/15	20:03
7	VSTD020	VO01B127	RBV141	02/12/15	20:31
8	VSTD030	VO01B128	RBV142	02/12/15	20:59
9	VSTD050	VO01B129	RBV143	02/12/15	21:27

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T001
Beginning DateTime :02/12/15 17:43
Spike Units :PPB
IC File :RBV140

Column Spec :RXI-624SILMS ID :0.25MM
Ending DateTime :02/12/15 21:27
HPChem Method :V001B12

M	IDX	Parameters	.3 17:43 RBV135	.5 18:11 RBV136	1 18:39 RBV137	2 19:07 RBV138	5 19:35 RBV139	10 20:03 RBV140	20 20:31 RBV141	30 20:59 RBV142	50 21:27 RBV143	Av_RRF	% RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	7.4523
	2	Chlorotrifluoroethylene	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	3	Dichlorodifluoromethane	0.221	0.213	0.206	0.236	0.224	0.257	0.234	0.221	0.218	0.225	6.61	2.0375
	4	Chloromethane	0.330	0.366	0.364	0.372	0.352	0.399	0.364	0.336	0.332	0.357	6.20	2.1925
	5	Vinyl chloride	0.305	0.313	0.313	0.332	0.316	0.358	0.331	0.304	0.304	0.320	5.56	2.3569
	6	2-Chloro-1,1,1-trifluoroethane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	7	Bromomethane	------	0.310	0.266	0.277	0.245	0.257	0.213	------	------	0.261	12.36	2.7155
	8	Chloroethane	0.201	0.220	0.207	0.224	0.221	0.241	0.214	0.196	------	0.216	6.59	2.8359
	9	Dichlorofluoromethane	0.558	0.527	0.625	0.587	0.543	0.547	0.564	0.516	0.492	0.551	7.10	3.1004
	10	Trichlorofluoromethane	0.277	0.273	0.278	0.318	0.310	0.344	0.316	0.297	0.287	0.300	7.89	3.1744
5	11	Acrolein	0.016	0.017	0.016	0.016	0.017	0.017	0.018	0.016	0.016	0.016	4.37	3.5839
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.219	0.196	0.209	0.205	0.193	0.198	0.203	0.189	0.186	0.200	5.25	3.7517
5	13	Acetone	------	------	------	0.038	0.035	0.030	0.033	0.027	0.027	0.032	13.74	3.7368
	14	1,1-Dichloroethene	0.419	0.393	0.433	0.426	0.398	0.398	0.410	0.381	0.365	0.403	5.41	3.7221
	15	Iodomethane	0.557	0.542	0.572	0.576	0.562	0.567	0.592	0.550	0.542	0.562	2.93	3.8866
	16	Carbon disulfide	------	0.912	0.983	1.026	1.038	1.074	1.000	0.939	0.920	0.986	5.98	4.0126
	17	Methyl acetate	------	0.106	0.108	0.112	0.117	0.113	0.112	0.099	0.099	0.108	6.18	4.0978
	18	Methylene chloride	------	0.525	0.488	0.451	0.420	0.411	0.427	0.393	0.384	0.437	11.04	4.2698
5	19	tert-Butyl alcohol	------	0.009	0.010	0.011	0.011	0.012	0.014	0.011	0.012	0.011	13.23	4.3864
5	20	Acrylonitrile	0.045	0.045	0.047	0.047	0.052	0.051	0.056	0.047	0.049	0.049	7.16	4.5148
	21	tert-Butyl methyl ether (MTBE)	0.502	0.499	0.516	0.521	0.521	0.527	0.561	0.482	0.494	0.514	4.53	4.5839
	22	trans-1,2-Dichloroethene	0.499	0.494	0.512	0.513	0.491	0.497	0.504	0.472	0.452	0.493	3.99	4.5905
	23	Vinyl acetate	------	------	0.416	0.462	0.432	0.519	0.526	0.380	0.458	0.456	11.61	5.0839
	24	1,1-Dichloroethane	0.653	0.610	0.659	0.654	0.627	0.635	0.658	0.620	0.588	0.634	3.90	5.0954
	25	Isopropyl ether (DIPE)	1.189	1.153	1.215	1.227	1.184	1.201	1.250	1.136	1.090	1.183	4.18	5.1415
5	26	2-Butanol	------	------	0.008	0.009	0.010	0.011	0.012	0.010	0.011	0.010	10.66	5.9889
	27	tert-Butyl ethyl ether (ETBE)	0.791	0.785	0.843	0.836	0.821	0.839	0.898	0.808	0.798	0.824	4.22	5.5773
5	28	2-Butanone	0.069	0.065	0.066	0.062	0.070	0.070	0.075	0.062	0.064	0.067	6.48	5.7550
	29	cis-1,2-Dichloroethene	0.376	0.366	0.396	0.392	0.381	0.384	0.395	0.364	0.349	0.378	4.24	5.7796
	30	2,2-Dichloropropane	0.384	0.351	0.375	0.370	0.354	0.361	0.363	0.334	0.320	0.357	5.66	5.7961
	31	Tetrahydrofurane	------	------	0.040	0.043	0.044	0.040	0.046	0.036	0.037	0.041	8.98	6.1116
	32	Bromochloromethane	0.247	0.246	0.268	0.264	0.259	0.262	0.276	0.249	0.242	0.257	4.58	6.0757
	33	Chloroform	0.554	0.509	0.551	0.548	0.534	0.531	0.565	0.527	0.505	0.536	3.84	6.1957
	34	Dibromofluoromethane	------	0.296	0.328	0.338	0.352	0.352	0.349	0.326	0.318	0.332	5.89	6.4014
	35	1,1,1-Trichloroethane	0.396	0.376	0.402	0.407	0.395	0.400	0.413	0.395	0.378	0.396	3.08	6.4309
	36	Cyclohexane	0.540	0.506	0.472	0.553	0.550	0.538	0.502	0.510	0.491	0.518	5.46	6.5346
	37	tert-Amyl methyl ether (TAME)	0.111	0.104	0.123	0.124	0.128	0.133	0.141	0.125	0.126	0.124	8.68	7.0675
	38	1,2-Dichloroethane-d4	------	0.193	0.211	0.223	0.224	0.227	0.228	0.205	0.204	0.214	6.07	6.8455
	39	1,1-Dichloropropene	0.192	0.175	0.181	0.184	0.179	0.181	0.182	0.173	0.164	0.179	4.34	6.6332
	40	Carbon tetrachloride	0.364	0.334	0.360	0.370	0.360	0.368	0.377	0.355	0.344	0.359	3.72	6.6382
	41	Benzene	1.397	1.287	1.387	1.381	1.311	1.329	1.377	1.299	1.257	1.336	3.80	6.8898
	42	1,2-Dichloroethane	0.245	0.249	0.270	0.271	0.266	0.268	0.282	0.253	0.249	0.262	4.87	6.9490
	43	2,2,4-Trimethylpentane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	44	Trichloroethene	0.418	0.382	0.407	0.407	0.397	0.398	0.410	0.392	0.378	0.399	3.33	7.7895
	45	Methylcyclohexane	0.490	0.456	0.427	0.515	0.513	0.508	0.481	0.479	0.459	0.481	6.14	8.1332
	46	1,2-Dichloropropane	0.352	0.331	0.361	0.362	0.354	0.350	0.368	0.333	0.315	0.347	5.04	8.1447
20	47	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	12.12	8.2516
	48	Dibromomethane	0.123	0.127	0.136	0.139	0.139	0.145	0.153	0.135	0.134	0.137	6.70	8.2664
	49	Bromodichloromethane	0.333	0.335	0.354	0.364	0.368	0.373	0.397	0.365	0.358	0.361	5.40	8.5181
	50	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	51	cis-1,3-Dichloropropene	0.411	0.427	0.460	0.483	0.487	0.498	0.537	0.491	0.482	0.475	7.95	9.1694
5	52	4-Methyl-2-pentanone	0.133	0.132	0.145	0.141	0.163	0.166	0.183	0.150	0.160	0.152	11.09	9.3799
	53	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	11.9868
	54	Toluene-d8	0.955	1.311	1.410	1.426	1.466	1.444	1.423	1.393	1.345	1.352	11.58	9.5970
	55	Toluene	1.872	1.694	1.792	1.718	1.696	1.649	1.729	1.652	1.603	1.712	4.73	9.7023
	56	Ethyl methacrylate	------	0.216	0.251	0.262	0.288	0.299	0.332	0.296	0.304	0.281	12.89	10.1519
	57	trans-1,3-Dichloropropene	0.349	0.330	0.378	0.382	0.405	0.407	0.447	0.412	0.411	0.391	9.16	10.0575
	58	1,1,2-Trichloroethane	0.226	0.216	0.231	0.232	0.233	0.230	0.245	0.220	0.220	0.228	3.90	10.3832

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2/18/15

59	Tetrachloroethene	0.421	0.379	0.402	0.386	0.378	0.368	0.382	0.373	0.358	0.383	4.85	10.5460
60	1,3-Dichloropropane	0.419	0.399	0.436	0.437	0.439	0.436	0.465	0.418	0.412	0.429	4.47	10.6497
5 61	2-Hexanone	------	0.100	0.107	0.106	0.124	0.126	0.143	0.121	0.128	0.119	11.92	10.7274
62	Dibromochloromethane	0.260	0.249	0.282	0.282	0.295	0.298	0.324	0.295	0.295	0.287	7.66	11.0066
63	1,2-Dibromoethane	0.208	0.204	0.220	0.217	0.229	0.229	0.248	0.221	0.220	0.222	5.77	11.2121
64	1-Chlorohexane	0.839	0.728	0.765	0.761	0.735	0.731	0.762	0.733	0.680	0.748	5.72	12.0115
65	Chlorobenzene	1.063	0.998	1.084	1.057	1.040	1.030	1.073	1.016	0.953	1.035	3.99	12.0411
66	1,1,1,2-Tetrachloroethane	0.335	0.327	0.356	0.353	0.355	0.348	0.368	0.344	0.328	0.346	3.96	12.1743
67	Ethylbenzene	1.958	1.853	1.966	1.932	1.918	1.894	1.958	1.876	1.771	1.903	3.32	12.1891
2 68	m-Xylene & p-Xylene	1.420	1.338	1.415	1.375	1.372	1.363	1.412	1.353	1.270	1.369	3.44	12.3815
69	o-Xylene	1.385	1.263	1.420	1.379	1.360	1.362	1.414	1.325	1.263	1.352	4.29	12.8996
70	Styrene	0.958	0.923	1.033	1.046	1.053	1.086	1.142	1.062	1.024	1.036	6.28	12.9309
71	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	15.1792
72	Bromoform	------	0.346	0.375	0.379	0.409	0.415	0.451	0.431	0.444	0.406	9.03	13.1661
73	Isopropylbenzene	4.917	4.404	4.835	4.697	4.593	4.547	4.591	4.728	4.511	4.647	3.49	13.3733
74	4-Bromofluorobenzene	0.910	1.150	1.179	1.197	1.215	1.193	1.177	1.171	1.159	1.150	8.01	13.5805
75	1,1,2,2-Tetrachloroethane	0.709	0.655	0.712	0.699	0.721	0.714	0.752	0.687	0.689	0.704	3.83	13.7286
76	Bromobenzene	1.038	0.997	1.093	1.055	1.045	1.036	1.085	1.081	1.052	1.054	2.82	13.7450
77	trans-1,4-Dichloro-2-butene	------	------	0.112	0.114	0.131	0.138	0.152	0.138	0.143	0.133	11.34	13.7729
78	1,2,3-Trichloropropane	------	0.157	0.171	0.172	0.176	0.176	0.188	0.170	0.172	0.173	4.93	13.8026
79	n-Propylbenzene	6.219	5.618	6.116	5.906	5.844	5.871	6.014	6.209	5.570	5.930	3.96	13.8618
80	1,3,5-Trimethylbenzene	3.628	3.398	3.706	3.576	3.547	3.514	3.615	3.682	3.419	3.565	3.01	14.0690
81	2-Chlorotoluene	3.275	3.034	3.251	3.194	3.062	3.015	3.079	3.140	3.006	3.117	3.28	13.9654
82	4-Chlorotoluene	3.724	3.377	3.506	3.512	3.402	3.340	3.434	3.464	3.250	3.446	3.87	14.0986
83	tert-Butylbenzene	0.925	0.861	0.959	0.949	0.909	0.895	0.912	0.914	0.864	0.910	3.67	14.3980
84	1,2,4-Trimethylbenzene	3.648	3.366	3.543	3.535	3.468	3.413	3.537	3.584	3.373	3.496	2.79	14.4555
85	sec-Butylbenzene	5.276	4.800	5.157	5.175	5.015	5.071	5.134	5.174	4.877	5.076	3.03	14.6315
86	p-Isopropyltoluene	4.213	3.768	4.168	4.173	4.100	4.062	4.311	4.225	3.891	4.101	4.21	14.7795
87	1,3-Dichlorobenzene	2.155	1.953	2.066	2.066	1.993	1.960	2.101	2.050	1.976	2.036	3.41	14.7516
88	1,4-Dichlorobenzene	2.063	1.896	2.046	2.010	1.918	1.924	2.065	1.977	1.908	1.978	3.51	14.8536
89	n-Butylbenzene	3.891	3.466	3.799	3.775	3.741	3.796	3.911	3.946	3.564	3.766	4.22	15.1644
90	1,2-Dichlorobenzene	1.747	1.610	1.730	1.687	1.633	1.616	1.704	1.638	1.588	1.661	3.43	15.1940
91	1,2-Dibromo-3-chloropropane	------	------	0.074	0.083	0.093	0.097	0.108	0.099	0.102	0.094	12.45	15.9151
92	1,2,4-Trichlorobenzene	0.876	0.784	0.851	0.890	0.930	0.945	1.002	1.001	0.946	0.914	7.77	16.6759
93	Hexachlorobutadiene	0.621	0.568	0.617	0.613	0.630	0.635	0.643	0.637	0.562	0.614	4.77	16.7943
94	Naphthalene	1.249	1.003	1.063	1.071	1.179	1.244	1.376	1.327	1.326	1.204	11.07	16.9407
95	1,2,3-Trichlorobenzene	0.671	0.586	0.658	0.681	0.716	0.723	0.758	0.739	0.715	0.694	7.45	17.1512

Spike Amount = Nominal Amount * M
Ave_%RSD : 6.2 Max_%RSD : 13.7

5a
2/18/15

2608

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
Total Cpnds : 95

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	7.45	1.000	A	1	A	B
2	T	Chlorotrifluoroethylene	116	1.98	0.266	A	2	A	B
3	T	Dichlorodifluoromethane	85	2.04	0.274	A	1	A	B
4	T	Chloromethane	50	2.20	0.295	A	1	A	B
5	T	Vinyl chloride	62	2.37	0.318	A	1	A	B
6	T	2-Chloro-1,1,1-trifluoroethane	118	2.48	0.333	A	2	A	B
7	T	Bromomethane	94	2.72	0.365	A	1	A	B
8	T	Chloroethane	64	2.84	0.381	A	2	A	B
9	T	Dichlorofluoromethane	67	3.10	0.416	A	1	A	B
10	T	Trichlorofluoromethane	101	3.17	0.426	A	1	A	B
11	T	Acrolein	56	3.59	0.482	A	1	A	B
12	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.75	0.503	A	1	A	B
13	T	Acetone	43	3.74	0.501	A	2	A	B
14	T	1,1-Dichloroethene	61	3.72	0.499	A	2	A	B
15	T	Iodomethane	142	3.88	0.521	A	1	A	B
16	T	Carbon disulfide	76	4.02	0.539	A	1	A	B
17	T	Methyl acetate	43	4.09	0.549	A	1	A	B
18	T	Methylene chloride	49	4.27	0.573	A	2	A	B
19	T	tert-Butyl alcohol	59	4.39	0.589	A	1	A	B
20	T	Acrylonitrile	53	4.50	0.605	A	2	A	B
21	T	tert-Butyl methyl ether (MTBE)	73	4.58	0.615	A	1	A	B
22	T	trans-1,2-Dichloroethene	61	4.59	0.617	A	2	A	B
23	T	Vinyl acetate	43	5.08	0.682	A	1	A	B
24	T	1,1-Dichloroethane	63	5.10	0.684	A	2	A	B
25	T	Isopropyl ether (DIPE)	45	5.14	0.690	A	1	A	B
26	T	2-Butanol	45	5.99	0.803	A	1	A	B
27	T	tert-Butyl ethyl ether (ETBE)	59	5.57	0.748	A	1	A	B
28	T	2-Butanone	43	5.75	0.772	A	1	A	B
29	T	cis-1,2-Dichloroethene	96	5.78	0.776	A	2	A	B
30	T	2,2-Dichloropropane	77	5.79	0.778	A	2	A	B
31	T	Tetrahydrofurane	42	6.10	0.819	A	2	A	B
32	T	Bromochloromethane	49	6.07	0.815	A	2	A	B
33	T	Chloroform	83	6.19	0.831	A	2	A	B
34	S	Dibromofluoromethane	111	6.40	0.859	A	2	A	B
35	T	1,1,1-Trichloroethane	97	6.43	0.863	A	2	A	B
36	T	Cyclohexane	56	6.53	0.877	A	2	A	B
37	T	tert-Amyl methyl ether (TAME)	87	7.07	0.948	A	2	A	B
38	S	1,2-Dichloroethane-d4	65	6.84	0.918	A	1	A	B
39	T	1,1-Dichloropropene	110	6.64	0.891	A	1	A	B
40	T	Carbon tetrachloride	119	6.64	0.891	A	1	A	B
41	T	Benzene	78	6.89	0.925	A	2	A	B
42	T	1,2-Dichloroethane	62	6.95	0.932	A	1	A	B
43	T	2,2,4-Trimethylpentane	57	7.07	0.948	A	3	A	B
44	T	Trichloroethene	130	7.79	1.046	A	3	A	B
45	T	Methylcylohexane	83	8.13	1.091	A	2	A	B
46	T	1,2-Dichloropropane	63	8.15	1.093	A	2	A	B
47	T	1,4-Dioxane	88	8.25	1.107	A	1	A	B
48	T	Dibromomethane	93	8.27	1.109	A	2	A	B
49	T	Bromodichloromethane	83	8.52	1.143	A	1	A	B
50	T	2-Chloroethyl vinyl ether	63	8.93	1.199	A	2	A	B
51	T	cis-1,3-Dichloropropene	75	9.17	1.230	A	3	A	B
52	T	4-Methyl-2-pentanone	43	9.38	1.258	A	3	A	B

2/18/15

53	I	CHLOROBENZENE-D5	117	11.98	1.000	A	2	A	B
54	S	Toluene-d8	98	9.60	0.801	A	1	A	B
55	T	Toluene	91	9.70	0.810	A	1	A	B
56	T	Ethyl methacrylate	69	10.15	0.847	A	2	A	B
57	T	trans-1,3-Dichloropropene	75	10.06	0.839	A	2	A	B
58	T	1,1,2-Trichloroethane	97	10.38	0.867	A	3	A	B
59	T	Tetrachloroethene	164	10.55	0.880	A	3	A	B
60	T	1,3-Dichloropropane	76	10.65	0.889	A	1	A	B
61	T	2-Hexanone	43	10.72	0.895	A	2	A	B
62	T	Dibromochloromethane	129	11.00	0.918	A	1	A	B
63	T	1,2-Dibromoethane	107	11.21	0.936	A	1	A	B
64	T	1-Chlorohexane	91	12.01	1.002	A	3	A	B
65	P,M	Chlorobenzene	112	12.04	1.005	A	3	A	B
66	T	1,1,1,2-Tetrachloroethane	131	12.17	1.016	A	3	A	B
67	T	Ethylbenzene	91	12.19	1.017	A	1	A	B
68	T	m-Xylene & p-Xylene	91	12.38	1.033	A	1	A	B
69	T	o-Xylene	91	12.90	1.077	A	1	A	B
70	T	Styrene	104	12.93	1.079	A	2	A	B
71	I	1,2-DICHLOROBENZENE-D4	152	15.18	1.000	A	1	A	B
72	T	Bromoform	173	13.16	0.867	A	2	A	B
73	T	Isopropylbenzene	105	13.37	0.881	A	3	A	B
74	S	4-Bromofluorobenzene	95	13.58	0.895	A	2	A	B
75	T	1,1,2,2-Tetrachloroethane	83	13.73	0.904	A	1	A	B
76	T	Bromobenzene	156	13.74	0.905	A	2	A	B
77	T	trans-1,4-Dichloro-2-butene	53	13.77	0.907	A	1	A	B
78	T	1,2,3-Trichloropropane	110	13.80	0.909	A	1	A	B
79	T	n-Propylbenzene	91	13.86	0.913	A	2	A	B
80	T	1,3,5-Trimethylbenzene	105	14.07	0.927	A	2	A	B
81	T	2-Chlorotoluene	91	13.96	0.920	A	1	A	B
82	T	4-Chlorotoluene	91	14.10	0.929	A	1	A	B
83	T	tert-Butylbenzene	134	14.39	0.948	A	2	A	B
84	T	1,2,4-Trimethylbenzene	105	14.45	0.952	A	1	A	B
85	T	sec-Butylbenzene	105	14.63	0.964	A	1	A	B
86	T	p-Isopropyltoluene	119	14.78	0.974	A	2	A	B
87	T	1,3-Dichlorobenzene	146	14.75	0.972	A	2	A	B
88	T	1,4-Dichlorobenzene	146	14.85	0.978	A	2	A	B
89	T	n-Butylbenzene	91	15.16	0.999	A	2	A	B
90	T	1,2-Dichlorobenzene	146	15.19	1.001	A	2	A	B
91	T	1,2-Dibromo-3-chloropropane	157	15.92	1.049	A	2	A	B
92	T	1,2,4-Trichlorobenzene	180	16.67	1.098	A	2	A	B
93	T	Hexachlorobutadiene	225	16.79	1.106	A	2	A	B
94	T	Naphthalene	128	16.94	1.116	A	1	A	B
95	T	1,2,3-Trichlorobenzene	180	17.15	1.130	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

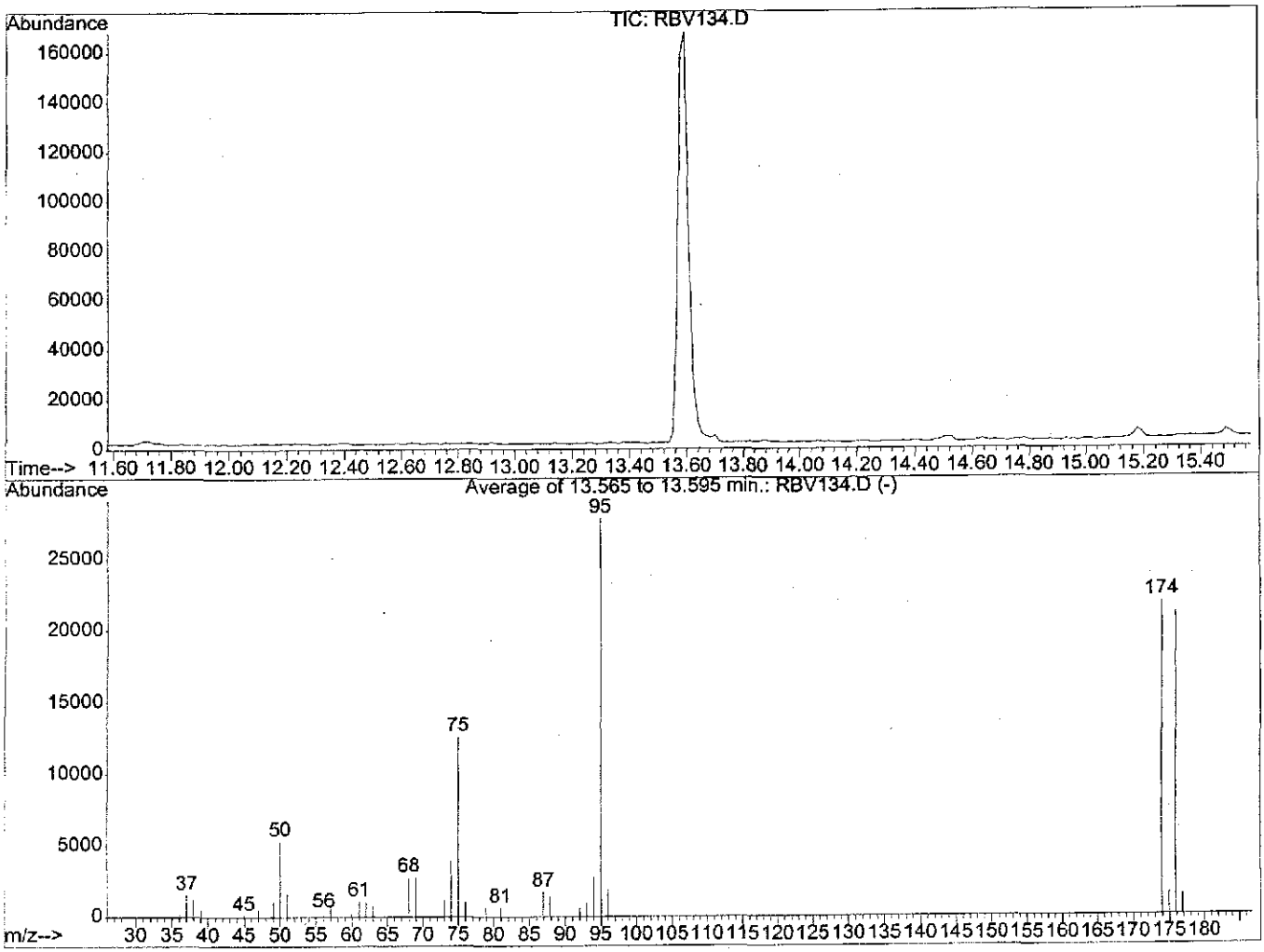
VO01B12.M Tue Feb 17 10:58:18 2015

SC 2/18/15

BFB

Data File : D:\HPCHEM\1\DATA\15B12\RBV134.D
Acq On : 12 Feb 2015 4:56 pm
Sample : BFB01B08
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 802, 803, 804; Background Corrected with Scan 799

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	5326	PASS
75	95	30	60	45.2	12593	PASS
95	95	100	100	100.0	27872	PASS
96	95	5	9	6.9	1916	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.4	21838	PASS
175	174	5	9	7.2	1570	PASS
176	174	95	101	96.7	21125	PASS
177	176	5	9	6.6	1393	PASS

RBV134.D VO01B12.M Wed Feb 18 17:01:38 2015 SW 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D
Acq On : 12 Feb 2015 5:43 pm
Sample : VO01B121
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1552376	10.00	ug/l		0.00
53) CHLOROBENZENE-D5	12.00	117	1232249	10.00	ug/l		0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	443326	10.00	ug/l		0.00
System Monitoring Compounds							
34) Dibromofluoromethane	6.40	111	8016	0.16	ug/l		0.00
Spiked Amount 10.000			Recovery =	1.60%			
38) 1,2-Dichloroethane-d4	6.85	65	5011	0.15	ug/l		0.00
Spiked Amount 10.000			Recovery =	1.50%			
54) Toluene-d8	9.60	98	35303	0.21	ug/l		0.00
Spiked Amount 10.000			Recovery =	2.10%			
74) 4-Bromofluorobenzene	13.58	95	12106	0.24	ug/l		0.00
Spiked Amount 10.000			Recovery =	2.40%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	2.03	85	10303	0.29	ug/l		85
4) Chloromethane	2.18	50	15391	0.28	ug/l		98
5) Vinyl chloride	2.35	62	14182	0.29	ug/l		96
7) Bromomethane	2.72	94	16397	0.40	ug/l	#	60
8) Chloroethane	2.83	64	9377	0.28	ug/l		95
9) Dichlorofluoromethane	3.10	67	26005	0.30	ug/l		97
10) Trichlorofluoromethane	3.17	101	12892	0.28	ug/l		95
11) Acrolein	3.59	56	3727	1.46	ug/l		69
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	10222	0.33	ug/l		98
13) Acetone	3.75	43	19362	3.94	ug/l		87
14) 1,1-Dichloroethene	3.72	61	19521	0.31	ug/l		99
15) Iodomethane	3.88	142	25952	0.30	ug/l		99
16) Carbon disulfide	4.02	76	42848	0.28	ug/l		100
18) Methylene chloride	4.27	49	29793	0.44	ug/l		99
20) Acrylonitrile	4.52	53	10583	1.40	ug/l		93
21) tert-Butyl methyl ether (M	4.58	73	23385	0.29	ug/l		97
22) trans-1,2-Dichloroethene	4.60	61	23226	0.30	ug/l		100
23) Vinyl acetate	5.08	43	12323	0.17	ug/l		99
24) 1,1-Dichloroethane	5.10	63	30407	0.31	ug/l		99
25) Isopropyl ether (DIPE)	5.14	45	55373	0.30	ug/l		97
27) tert-Butyl ethyl ether (ET	5.59	59	36833	0.29	ug/l		97
28) 2-Butanone	5.76	43	15966	1.54	ug/l		92
29) cis-1,2-Dichloroethene	5.78	96	17517	0.30	ug/l		98
30) 2,2-Dichloropropane	5.79	77	17892	0.32	ug/l		96
32) Bromochloromethane	6.08	49	11493	0.29	ug/l		99
33) Chloroform	6.19	83	25813	0.31	ug/l		98
35) 1,1,1-Trichloroethane	6.43	97	18445	0.30	ug/l		99

(#) = qualifier out of range (m) = manual integration

Su 2/18/15

2072

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D
Acq On : 12 Feb 2015 5:43 pm
Sample : VO01B121
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Cyclohexane	6.53	56	25166	0.31	ug/l		98
37)	tert-Amyl methyl ether (TA	7.07	87	5187	0.27	ug/l	#	85
39)	1,1-Dichloropropene	6.64	110	8949	0.32	ug/l		95
40)	Carbon tetrachloride	6.64	119	16954	0.30	ug/l		97
41)	Benzene	6.89	78	65043	0.31	ug/l		98
42)	1,2-Dichloroethane	6.95	62	11423	0.28	ug/l		96
44)	Trichloroethene	7.79	130	19471	0.31	ug/l		98
45)	Methylcylohexane	8.13	83	22821	0.31	ug/l		98
46)	1,2-Dichloropropane	8.15	63	16383	0.30	ug/l		96
48)	Dibromomethane	8.27	93	5710	0.27	ug/l		99
49)	Bromodichloromethane	8.52	83	15503	0.28	ug/l		98
51)	cis-1,3-Dichloropropene	9.17	75	19164	0.26	ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	30965	1.31	ug/l		95
55)	Toluene	9.70	91	69194	0.33	ug/l		99
56)	Ethyl methacrylate	10.16	69	7774	0.22	ug/l	#	84
57)	trans-1,3-Dichloropropene	10.06	75	12894	0.27	ug/l		95
58)	1,1,2-Trichloroethane	10.38	97	8357	0.30	ug/l		95
59)	Tetrachloroethene	10.55	164	15553	0.33	ug/l		99
60)	1,3-Dichloropropane	10.65	76	15500	0.29	ug/l		96
61)	2-Hexanone	10.74	43	19113	1.30	ug/l		92
62)	Dibromochloromethane	11.00	129	9627	0.27	ug/l		97
63)	1,2-Dibromoethane	11.21	107	7676	0.28	ug/l		98
64)	1-Chlorohexane	12.01	91	31010	0.34	ug/l		72
65)	Chlorobenzene	12.04	112	39301	0.31	ug/l		78
66)	1,1,1,2-Tetrachloroethane	12.17	131	12394	0.29	ug/l	#	84
67)	Ethylbenzene	12.19	91	72397	0.31	ug/l		98
68)	m-Xylene & p-Xylene	12.38	91	105005	0.62	ug/l		98
69)	o-Xylene	12.90	91	51186	0.31	ug/l		100
70)	Styrene	12.94	104	35418	0.28	ug/l		99
72)	Bromoform	13.17	173	4590	0.25	ug/l		94
73)	Isopropylbenzene	13.37	105	65399	0.32	ug/l		97
75)	1,1,2,2-Tetrachloroethane	13.73	83	9431	0.30	ug/l		93
76)	Bromobenzene	13.76	156	13808	0.30	ug/l		92
78)	1,2,3-Trichloropropane	13.80	110	2144	0.28	ug/l		92
79)	n-Propylbenzene	13.86	91	82713	0.31	ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	48247	0.31	ug/l		99
81)	2-Chlorotoluene	13.97	91	43555	0.32	ug/l		100
82)	4-Chlorotoluene	14.10	91	49528	0.32	ug/l		98
83)	tert-Butylbenzene	14.41	134	12296	0.30	ug/l		94
84)	1,2,4-Trimethylbenzene	14.47	105	48519	0.31	ug/l		99
85)	sec-Butylbenzene	14.63	105	70169	0.31	ug/l		99

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D Vial: 2
Acq On : 12 Feb 2015 5:43 pm Operator: WLau
Sample : VO01B121 Inst : TO01
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	p-Isopropyltoluene	14.78	119	56036	0.31	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	28661	0.32	ug/l	98
88)	1,4-Dichlorobenzene	14.85	146	27440	0.31	ug/l	99
89)	n-Butylbenzene	15.16	91	51750	0.31	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	23239	0.32	ug/l	83
92)	1,2,4-Trichlorobenzene	16.69	180	11655	0.29	ug/l	98
93)	Hexachlorobutadiene	16.81	225	8264	0.30	ug/l	99
94)	Naphthalene	16.94	128	16618	0.31	ug/l	95
95)	1,2,3-Trichlorobenzene	17.16	180	8926	0.29	ug/l	98

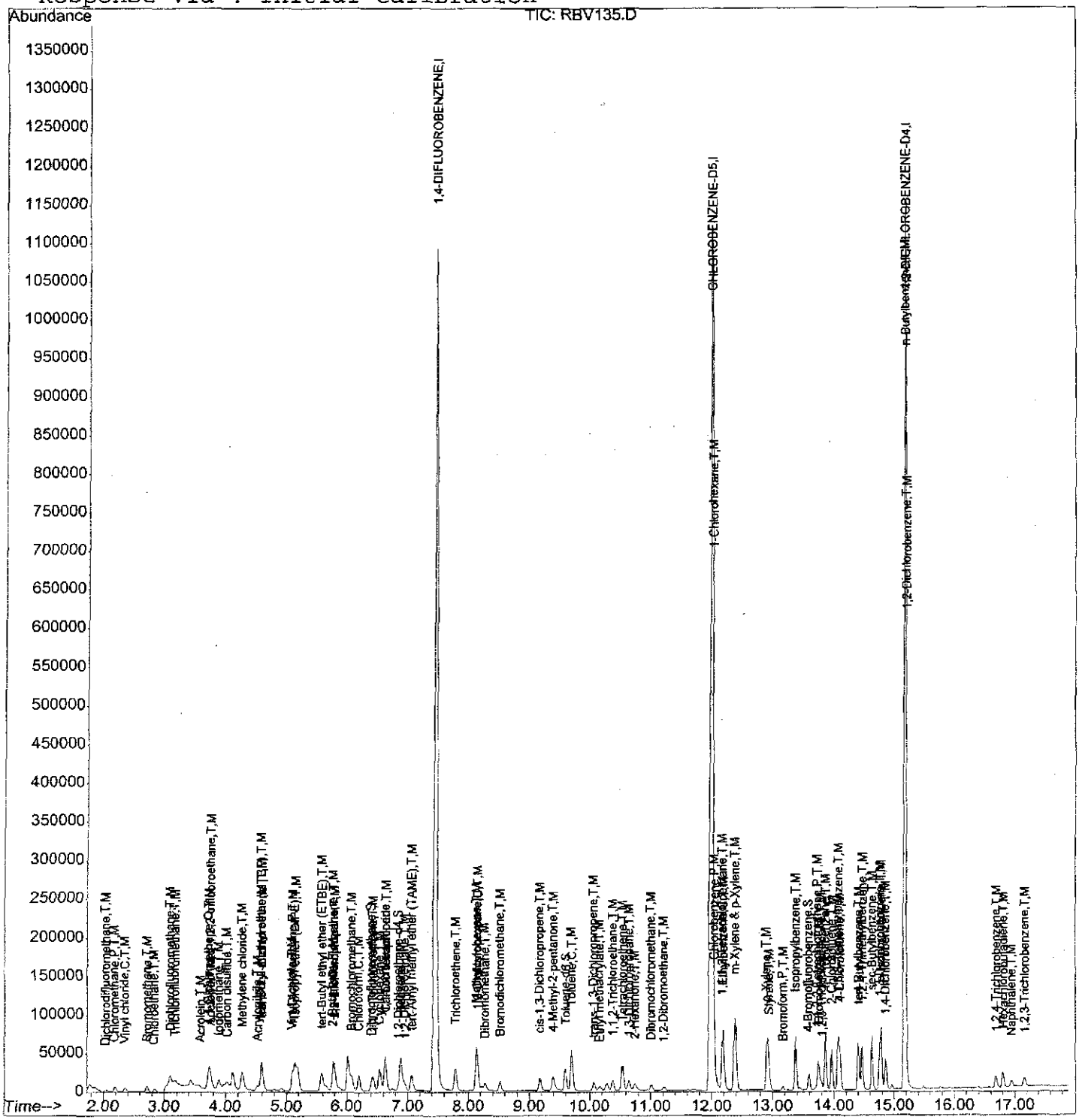
SV 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D Vial: 2
Acq On : 12 Feb 2015 5:43 pm Operator: WLau
Sample : VO01B121 Inst : TO01
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2075

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D Vial: 3
Acq On : 12 Feb 2015 6:11 pm Operator: WLau
Sample : VO01B122 Inst : TO01
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1571959	10.00	ug/l		0.00
53) CHLOROBENZENE-D5	11.98	117	1271950	10.00	ug/l		0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	468465	10.00	ug/l		0.00
System Monitoring Compounds							
34) Dibromofluoromethane	6.40	111	23253	0.44	ug/l		0.00
Spiked Amount 10.000			Recovery =	4.40%			
38) 1,2-Dichloroethane-d4	6.85	65	15135	0.45	ug/l		0.00
Spiked Amount 10.000			Recovery =	4.50%			
54) Toluene-d8	9.60	98	83358	0.48	ug/l		0.00
Spiked Amount 10.000			Recovery =	4.80%			
74) 4-Bromofluorobenzene	13.58	95	26939	0.50	ug/l		0.00
Spiked Amount 10.000			Recovery =	5.00%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	2.05	85	16722	0.47	ug/l		95
4) Chloromethane	2.19	50	28747	0.51	ug/l		95
5) Vinyl chloride	2.35	62	24603	0.49	ug/l		98
7) Bromomethane	2.72	94	24346	0.59	ug/l		77
8) Chloroethane	2.84	64	17297	0.51	ug/l		96
9) Dichlorofluoromethane	3.10	67	41457	0.48	ug/l		98
10) Trichlorofluoromethane	3.17	101	21485	0.46	ug/l		99
11) Acrolein	3.59	56	6604	2.56	ug/l		88
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	15411	0.49	ug/l		94
13) Acetone	3.75	43	22681	4.56	ug/l		89
14) 1,1-Dichloroethene	3.72	61	30896	0.49	ug/l		99
15) Iodomethane	3.89	142	42635	0.48	ug/l		100
16) Carbon disulfide	4.02	76	71678	0.46	ug/l		99
17) Methyl acetate	4.11	43	8332	0.49	ug/l		83
18) Methylene chloride	4.27	49	41255	0.60	ug/l		100
19) tert-Butyl alcohol	4.40	59	3491	1.97	ug/l		45
20) Acrylonitrile	4.52	53	17659	2.31	ug/l		99
21) tert-Butyl methyl ether (M	4.60	73	39244	0.49	ug/l		97
22) trans-1,2-Dichloroethene	4.60	61	38850	0.50	ug/l		97
24) 1,1-Dichloroethane	5.10	63	47966	0.48	ug/l		99
25) Isopropyl ether (DIPE)	5.14	45	90650	0.49	ug/l		97
27) tert-Butyl ethyl ether (ET	5.59	59	61709	0.48	ug/l		97
28) 2-Butanone	5.77	43	25513	2.43	ug/l		92
29) cis-1,2-Dichloroethene	5.78	96	28732	0.48	ug/l		97
30) 2,2-Dichloropropane	5.80	77	27565	0.49	ug/l		97
31) Tetrahydrofurane	6.12	42	2717	0.42	ug/l	#	37
32) Bromochloromethane	6.08	49	19329	0.48	ug/l		98

(#) = qualifier out of range (m) = manual integration
RBV136.D VO01B12.M Tue Feb 17 10:27:03 2015 2/18/15 Page 1

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D
Acq On : 12 Feb 2015 6:11 pm
Sample : VO01B122
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Chloroform	6.19	83	39994	0.47 ug/l		99
35)	1,1,1-Trichloroethane	6.43	97	29522	0.47 ug/l		97
36)	Cyclohexane	6.54	56	39808	0.49 ug/l		98
37)	tert-Amyl methyl ether (TA	7.07	87	8212	0.42 ug/l	#	78
39)	1,1-Dichloropropene	6.64	110	13772	0.49 ug/l		95
40)	Carbon tetrachloride	6.64	119	26250	0.46 ug/l		100
41)	Benzene	6.89	78	101179	0.48 ug/l		100
42)	1,2-Dichloroethane	6.95	62	19590	0.48 ug/l		99
44)	Trichloroethene	7.79	130	30009	0.48 ug/l		99
45)	Methylcylohexane	8.13	83	35874	0.47 ug/l		97
46)	1,2-Dichloropropane	8.15	63	25996	0.48 ug/l		97
47)	1,4-Dioxane	8.27	88	1005	5.81 ug/l	#	11
48)	Dibromomethane	8.27	93	9957	0.46 ug/l		98
49)	Bromodichloromethane	8.52	83	26365	0.46 ug/l		98
51)	cis-1,3-Dichloropropene	9.17	75	33572	0.45 ug/l		98
52)	4-Methyl-2-pentanone	9.39	43	51843	2.16 ug/l		97
55)	Toluene	9.70	91	107741	0.49 ug/l		100
56)	Ethyl methacrylate	10.16	69	13744	0.38 ug/l		93
57)	trans-1,3-Dichloropropene	10.06	75	20956	0.42 ug/l		96
58)	1,1,2-Trichloroethane	10.38	97	13713	0.47 ug/l		98
59)	Tetrachloroethene	10.55	164	24128	0.50 ug/l		99
60)	1,3-Dichloropropane	10.65	76	25358	0.46 ug/l		99
61)	2-Hexanone	10.74	43	31693	2.09 ug/l		96
62)	Dibromochloromethane	11.02	129	15846	0.43 ug/l		99
63)	1,2-Dibromoethane	11.21	107	13002	0.46 ug/l		100
64)	1-Chlorohexane	12.01	91	46322	0.49 ug/l		79
65)	Chlorobenzene	12.04	112	63502	0.48 ug/l		85
66)	1,1,1,2-Tetrachloroethane	12.17	131	20813	0.47 ug/l		93
67)	Ethylbenzene	12.19	91	117843	0.49 ug/l		100
68)	m-Xylene & p-Xylene	12.38	91	170172	0.98 ug/l		99
69)	o-Xylene	12.90	91	80330	0.47 ug/l		98
70)	Styrene	12.93	104	58692	0.45 ug/l		99
72)	Bromoform	13.17	173	8109	0.43 ug/l		95
73)	Isopropylbenzene	13.37	105	103158	0.47 ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.73	83	15333	0.46 ug/l		99
76)	Bromobenzene	13.74	156	23364	0.47 ug/l		98
77)	trans-1,4-Dichloro-2-buten	13.77	53	2086	0.34 ug/l	#	35
78)	1,2,3-Trichloropropane	13.80	110	3685	0.45 ug/l		99
79)	n-Propylbenzene	13.86	91	131595	0.47 ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	79596	0.48 ug/l		99
81)	2-Chlorotoluene	13.97	91	71065	0.49 ug/l		99

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D Vial: 3
Acq On : 12 Feb 2015 6:11 pm Operator: WLau
Sample : VO01B122 Inst : TO01
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
82) 4-Chlorotoluene	14.10	91	79108	0.49 ug/l	98
83) tert-Butylbenzene	14.40	134	20157	0.47 ug/l	96
84) 1,2,4-Trimethylbenzene	14.45	105	78832	0.48 ug/l	99
85) sec-Butylbenzene	14.63	105	112429	0.47 ug/l	99
86) p-Isopropyltoluene	14.78	119	88258	0.46 ug/l	99
87) 1,3-Dichlorobenzene	14.75	146	45756	0.48 ug/l	99
88) 1,4-Dichlorobenzene	14.85	146	44405	0.48 ug/l	98
89) n-Butylbenzene	15.16	91	81193	0.46 ug/l	99
90) 1,2-Dichlorobenzene	15.19	146	37700	0.48 ug/l	87
91) 1,2-Dibromo-3-chloropropan	15.92	157	1577	0.36 ug/l	89
92) 1,2,4-Trichlorobenzene	16.67	180	18366	0.43 ug/l	98
93) Hexachlorobutadiene	16.79	225	13315	0.46 ug/l	97
94) Naphthalene	16.94	128	23485	0.42 ug/l	96
95) 1,2,3-Trichlorobenzene	17.16	180	13737	0.42 ug/l	98

SM 2/18/15

(#) = qualifier out of range (m) = manual integration

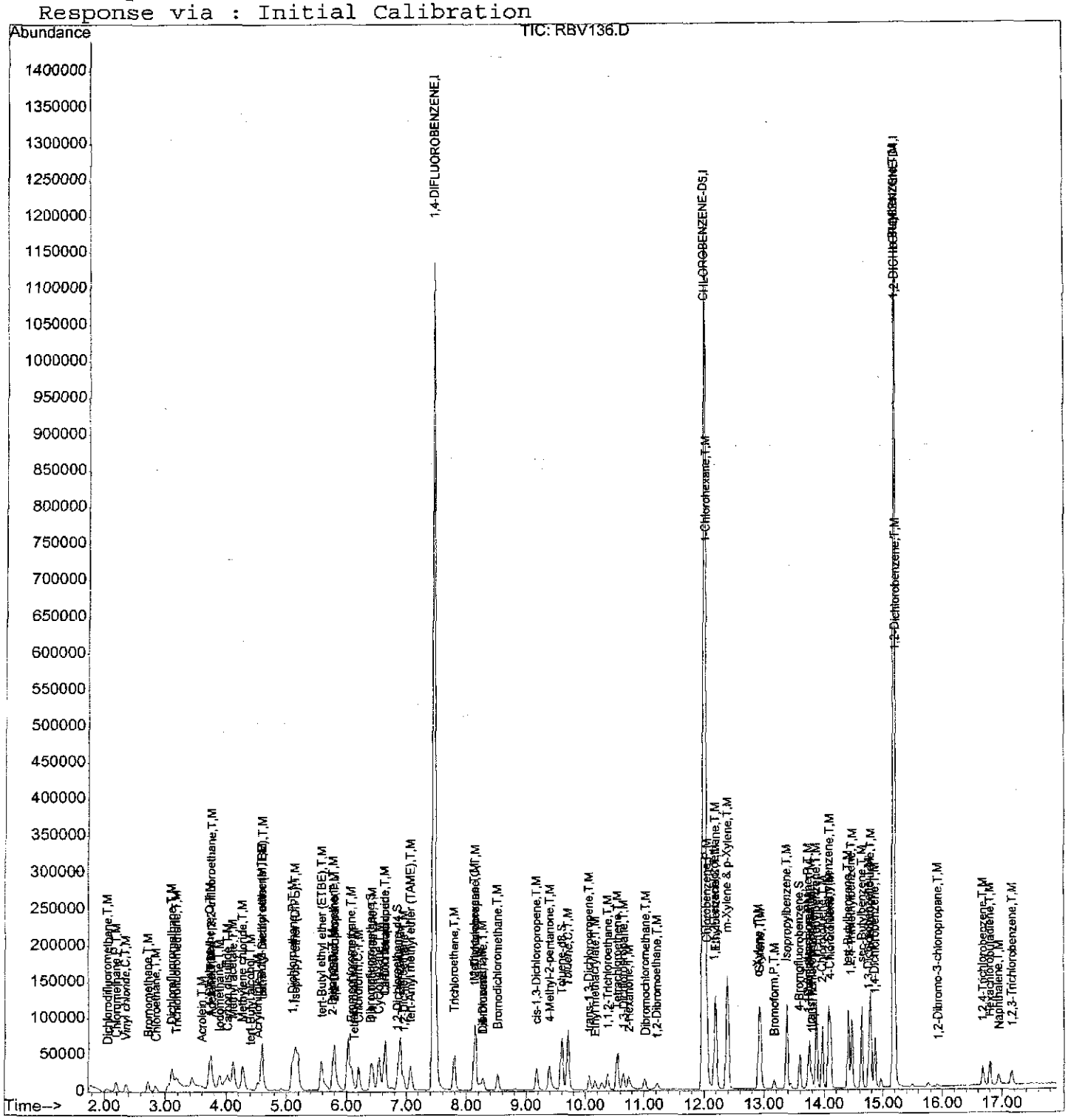
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D
Acq On : 12 Feb 2015 6:11 pm
Sample : VO01B122
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SM 2/18/15

2079

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1463252	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1184718	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	435393	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	47931	0.99	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.90%		
38) 1,2-Dichloroethane-d4	6.85	65	30937	0.99	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.90%		
54) Toluene-d8	9.60	98	167028	1.04	ug/l	0.00
Spiked Amount 10.000			Recovery =	10.40%		
74) 4-Bromofluorobenzene	13.58	95	51339	1.03	ug/l	0.00
Spiked Amount 10.000			Recovery =	10.30%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	30180	0.91	ug/l	97
4) Chloromethane	2.18	50	53198	1.02	ug/l	96
5) Vinyl chloride	2.35	62	45788	0.98	ug/l	100
7) Bromomethane	2.71	94	38889	1.02	ug/l	87
8) Chloroethane	2.83	64	30297	0.96	ug/l	99
9) Dichlorofluoromethane	3.10	67	91419	1.13	ug/l	93
10) Trichlorofluoromethane	3.17	101	40720	0.93	ug/l	98
11) Acrolein	3.59	56	11838	4.94	ug/l	96
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	30528	1.04	ug/l	100
13) Acetone	3.74	43	32633	7.05	ug/l	93
14) 1,1-Dichloroethene	3.72	61	63369	1.08	ug/l	99
15) Iodomethane	3.89	142	83664	1.02	ug/l	99
16) Carbon disulfide	4.00	76	143805	1.00	ug/l	99
17) Methyl acetate	4.09	43	15812	1.00	ug/l	92
18) Methylene chloride	4.27	49	71339	1.11	ug/l	99
19) tert-Butyl alcohol	4.39	59	7076	4.28	ug/l	78
20) Acrylonitrile	4.52	53	34383	4.82	ug/l	100
21) tert-Butyl methyl ether (M	4.58	73	75511	1.00	ug/l	99
22) trans-1,2-Dichloroethene	4.60	61	74891	1.04	ug/l	99
23) Vinyl acetate	5.08	43	60897	0.91	ug/l	98
24) 1,1-Dichloroethane	5.10	63	96363	1.04	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	177829	1.03	ug/l	99
26) 2-Butanol	6.00	45	6169	4.09	ug/l #	52
27) tert-Butyl ethyl ether (ET	5.57	59	123323	1.02	ug/l	98
28) 2-Butanone	5.75	43	48126	4.92	ug/l	95
29) cis-1,2-Dichloroethene	5.78	96	57946	1.05	ug/l	100
30) 2,2-Dichloropropane	5.79	77	54903	1.05	ug/l	98

(#) = qualifier out of range (m) = manual integration
RBV137.D VO01B12.M Tue Feb 17 10:27:52 2015 2/18/15 Page 1

2080

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Tetrahydrofurane	6.12	42	5890	0.98 ug/l	86
32)	Bromochloromethane	6.08	49	39285	1.04 ug/l	97
33)	Chloroform	6.19	83	80613	1.03 ug/l	99
35)	1,1,1-Trichloroethane	6.43	97	58891	1.02 ug/l	99
36)	Cyclohexane	6.53	56	69080	0.91 ug/l	99
37)	tert-Amyl methyl ether (TA	7.07	87	18060	1.00 ug/l	93
39)	1,1-Dichloropropene	6.64	110	26544	1.01 ug/l	99
40)	Carbon tetrachloride	6.64	119	52718	1.00 ug/l	97
41)	Benzene	6.89	78	202881	1.04 ug/l	100
42)	1,2-Dichloroethane	6.95	62	39487	1.03 ug/l	99
44)	Trichloroethene	7.79	130	59587	1.02 ug/l	100
45)	Methylcylohexane	8.13	83	62545	0.89 ug/l	98
46)	1,2-Dichloropropane	8.15	63	52795	1.04 ug/l	92
47)	1,4-Dioxane	8.25	88	2492	15.48 ug/l	93
48)	Dibromomethane	8.27	93	19845	0.99 ug/l	98
49)	Bromodichloromethane	8.52	83	51825	0.98 ug/l	98
51)	cis-1,3-Dichloropropene	9.17	75	67242	0.97 ug/l	99
52)	4-Methyl-2-pentanone	9.38	43	105746	4.74 ug/l	97
55)	Toluene	9.70	91	212293	1.05 ug/l	99
56)	Ethyl methacrylate	10.16	69	29776	0.89 ug/l	96
57)	trans-1,3-Dichloropropene	10.06	75	44739	0.97 ug/l	96
58)	1,1,2-Trichloroethane	10.38	97	27328	1.01 ug/l	98
59)	Tetrachloroethene	10.55	164	47608	1.05 ug/l	99
60)	1,3-Dichloropropane	10.65	76	51597	1.02 ug/l	100
61)	2-Hexanone	10.74	43	63560	4.49 ug/l	97
62)	Dibromochloromethane	11.01	129	33405	0.98 ug/l	99
63)	1,2-Dibromoethane	11.21	107	26075	0.99 ug/l	99
64)	1-Chlorohexane	12.01	91	90591	1.02 ug/l	89
65)	Chlorobenzene	12.04	112	128471	1.05 ug/l	94
66)	1,1,1,2-Tetrachloroethane	12.17	131	42212	1.03 ug/l	94
67)	Ethylbenzene	12.19	91	232925	1.03 ug/l	99
68)	m-Xylene & p-Xylene	12.38	91	335329	2.07 ug/l	100
69)	o-Xylene	12.90	91	168227	1.05 ug/l	100
70)	Styrene	12.93	104	122340	1.00 ug/l	100
72)	Bromoform	13.17	173	16315	0.92 ug/l	99
73)	Isopropylbenzene	13.37	105	210494	1.04 ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	30980	1.01 ug/l	99
76)	Bromobenzene	13.74	156	47572	1.04 ug/l	100
77)	trans-1,4-Dichloro-2-buten	13.77	53	4871	0.84 ug/l	85
78)	1,2,3-Trichloropropane	13.80	110	7455	0.99 ug/l	94
79)	n-Propylbenzene	13.86	91	266271	1.03 ug/l	100

(#) = qualifier out of range (m) = manual integration
RBV137.D VO01B12.M Tue Feb 17 10:27:53 2015 2/18/15 Page 2

2081

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	161339	1.04	ug/l	100
81)	2-Chlorotoluene	13.97	91	141554	1.04	ug/l	100
82)	4-Chlorotoluene	14.10	91	152668	1.02	ug/l	100
83)	tert-Butylbenzene	14.39	134	41761	1.05	ug/l	99
84)	1,2,4-Trimethylbenzene	14.45	105	154239	1.01	ug/l	100
85)	sec-Butylbenzene	14.63	105	224522	1.02	ug/l	100
86)	p-Isopropyltoluene	14.78	119	181480	1.02	ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	89963	1.02	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	89084	1.03	ug/l	100
89)	n-Butylbenzene	15.16	91	165406	1.01	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	75304	1.04	ug/l	95
91)	1,2-Dibromo-3-chloropropan	15.92	157	3226	0.79	ug/l	87
92)	1,2,4-Trichlorobenzene	16.67	180	37068	0.93	ug/l	98
93)	Hexachlorobutadiene	16.79	225	26862	1.00	ug/l	97
94)	Naphthalene	16.94	128	46281	0.88	ug/l	97
95)	1,2,3-Trichlorobenzene	17.15	180	28628	0.95	ug/l	99

Su 2/18/15

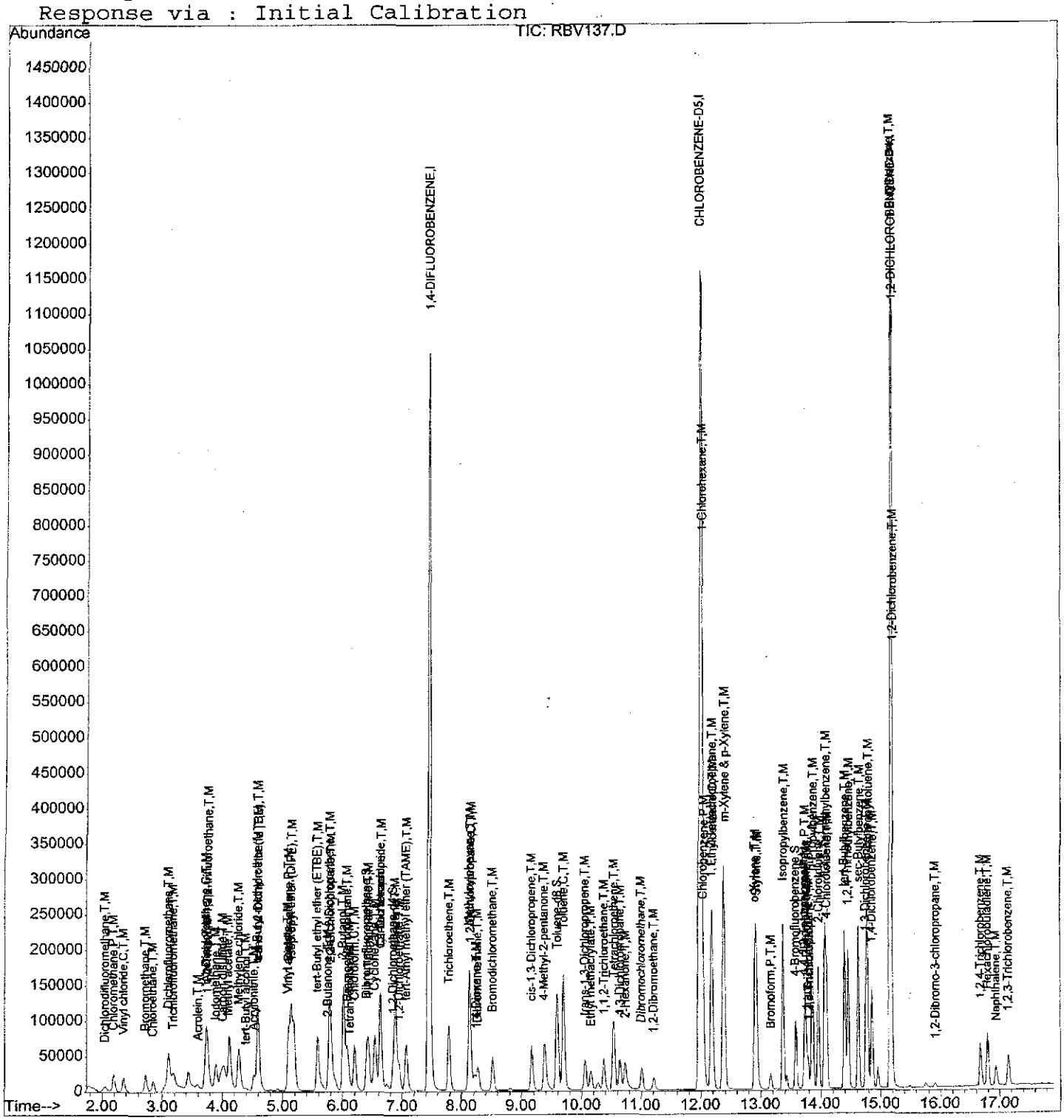
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D
Acq On : 12 Feb 2015 6:39 pm
Sample : VO01B123
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SL 2/18/15

2083

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1427539	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1178667	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	436970	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	96622	2.04	ug/l	0.00
Spiked Amount 10.000			Recovery =	20.40%		
38) 1,2-Dichloroethane-d4	6.85	65	63600	2.08	ug/l	0.00
Spiked Amount 10.000			Recovery =	20.80%		
54) Toluene-d8	9.60	98	336067	2.11	ug/l	0.00
Spiked Amount 10.000			Recovery =	21.10%		
74) 4-Bromofluorobenzene	13.58	95	104615	2.08	ug/l	0.00
Spiked Amount 10.000			Recovery =	20.80%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.03	85	67252	2.09	ug/l	98
4) Chloromethane	2.19	50	106163	2.08	ug/l	98
5) Vinyl chloride	2.35	62	94928	2.08	ug/l	100
7) Bromomethane	2.72	94	79106	2.12	ug/l	95
8) Chloroethane	2.84	64	63874	2.08	ug/l	98
9) Dichlorofluoromethane	3.10	67	167690	2.13	ug/l	98
10) Trichlorofluoromethane	3.17	101	90862	2.12	ug/l	100
11) Acrolein	3.59	56	22324	9.54	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	58454	2.05	ug/l	99
13) Acetone	3.74	43	53979	11.95	ug/l	94
14) 1,1-Dichloroethene	3.72	61	121652	2.12	ug/l	99
15) Iodomethane	3.89	142	164441	2.05	ug/l	100
16) Carbon disulfide	4.00	76	292976	2.08	ug/l	100
17) Methyl acetate	4.11	43	31985	2.07	ug/l	93
18) Methylene chloride	4.27	49	128822	2.06	ug/l	99
19) tert-Butyl alcohol	4.39	59	15667	9.72	ug/l	86
20) Acrylonitrile	4.52	53	66634	9.58	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	148706	2.03	ug/l	99
22) trans-1,2-Dichloroethene	4.60	61	146491	2.08	ug/l	100
23) Vinyl acetate	5.08	43	131866	2.02	ug/l	98
24) 1,1-Dichloroethane	5.10	63	186848	2.06	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	350320	2.07	ug/l	99
26) 2-Butanol	6.00	45	13403	9.12	ug/l	87
27) tert-Butyl ethyl ether (ET	5.57	59	238671	2.03	ug/l	99
28) 2-Butanone	5.75	43	88348	9.26	ug/l	100
29) cis-1,2-Dichloroethene	5.78	96	112017	2.08	ug/l	99
30) 2,2-Dichloropropane	5.79	77	105747	2.08	ug/l	98

(#) = qualifier out of range (m) = manual integration
RBV138.D VO01B12.M Tue Feb 17 10:28:34 2015 SC 2/18/15 Page 1

2084

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Tetrahydrofurane	6.12	42	12218	2.09 ug/l	87
32)	Bromochloromethane	6.08	49	75360	2.05 ug/l	99
33)	Chloroform	6.19	83	156583	2.05 ug/l	99
35)	1,1,1-Trichloroethane	6.43	97	116144	2.06 ug/l	98
36)	Cyclohexane	6.54	56	157831	2.13 ug/l	98
37)	tert-Amyl methyl ether (TA	7.07	87	35273	1.99 ug/l	95
39)	1,1-Dichloropropene	6.64	110	52508	2.05 ug/l	98
40)	Carbon tetrachloride	6.64	119	105746	2.06 ug/l	98
41)	Benzene	6.89	78	394264	2.07 ug/l	100
42)	1,2-Dichloroethane	6.95	62	77385	2.07 ug/l	99
44)	Trichloroethene	7.79	130	116241	2.04 ug/l	100
45)	Methylcylohexane	8.13	83	147050	2.14 ug/l	100
46)	1,2-Dichloropropane	8.15	63	103357	2.08 ug/l	100
47)	1,4-Dioxane	8.25	88	5820	37.07 ug/l	92
48)	Dibromomethane	8.27	93	39568	2.03 ug/l	98
49)	Bromodichloromethane	8.52	83	103861	2.02 ug/l	100
51)	cis-1,3-Dichloropropene	9.17	75	138037	2.03 ug/l	100
52)	4-Methyl-2-pentanone	9.38	43	200873	9.23 ug/l	99
55)	Toluene	9.70	91	404924	2.01 ug/l	100
56)	Ethyl methacrylate	10.16	69	61713	1.86 ug/l	98
57)	trans-1,3-Dichloropropene	10.06	75	90131	1.95 ug/l	99
58)	1,1,2-Trichloroethane	10.38	97	54780	2.04 ug/l	97
59)	Tetrachloroethene	10.55	164	91099	2.02 ug/l	99
60)	1,3-Dichloropropane	10.65	76	103012	2.04 ug/l	99
61)	2-Hexanone	10.72	43	125498	8.91 ug/l	99
62)	Dibromochloromethane	11.01	129	66537	1.97 ug/l	98
63)	1,2-Dibromoethane	11.21	107	51232	1.96 ug/l	98
64)	1-Chlorohexane	12.01	91	179335	2.03 ug/l	95
65)	Chlorobenzene	12.04	112	249200	2.04 ug/l	97
66)	1,1,1,2-Tetrachloroethane	12.17	131	83120	2.04 ug/l	97
67)	Ethylbenzene	12.19	91	455444	2.03 ug/l	100
68)	m-Xylene & p-Xylene	12.38	91	648088	4.02 ug/l	100
69)	o-Xylene	12.90	91	325135	2.04 ug/l	100
70)	Styrene	12.93	104	246608	2.02 ug/l	99
72)	Bromoform	13.17	173	33156	1.87 ug/l	99
73)	Isopropylbenzene	13.37	105	410494	2.02 ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	61088	1.99 ug/l	99
76)	Bromobenzene	13.74	156	92182	2.00 ug/l	97
77)	trans-1,4-Dichloro-2-buten	13.77	53	9923	1.71 ug/l	96
78)	1,2,3-Trichloropropane	13.80	110	15030	1.99 ug/l	99
79)	n-Propylbenzene	13.86	91	516107	1.99 ug/l	99

(#) = qualifier out of range (m) = manual integration

SM 2/18/15

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D
Acq On : 12 Feb 2015 7:07 pm
Sample : VO01B124
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015

Vial: 5
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	312523	2.01	ug/l	99
81)	2-Chlorotoluene	13.97	91	279093	2.05	ug/l	99
82)	4-Chlorotoluene	14.10	91	306894	2.04	ug/l	100
83)	tert-Butylbenzene	14.40	134	82914	2.09	ug/l	98
84)	1,2,4-Trimethylbenzene	14.45	105	308907	2.02	ug/l	100
85)	sec-Butylbenzene	14.63	105	452296	2.04	ug/l	99
86)	p-Isopropyltoluene	14.78	119	364691	2.04	ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	180526	2.03	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	175639	2.03	ug/l	99
89)	n-Butylbenzene	15.16	91	329904	2.00	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	147402	2.03	ug/l	98
91)	1,2-Dibromo-3-chloropropan	15.92	157	7279	1.77	ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	77804	1.95	ug/l	98
93)	Hexachlorobutadiene	16.79	225	53564	2.00	ug/l	98
94)	Naphthalene	16.94	128	93566	1.78	ug/l	99
95)	1,2,3-Trichlorobenzene	17.15	180	59490	1.96	ug/l	98

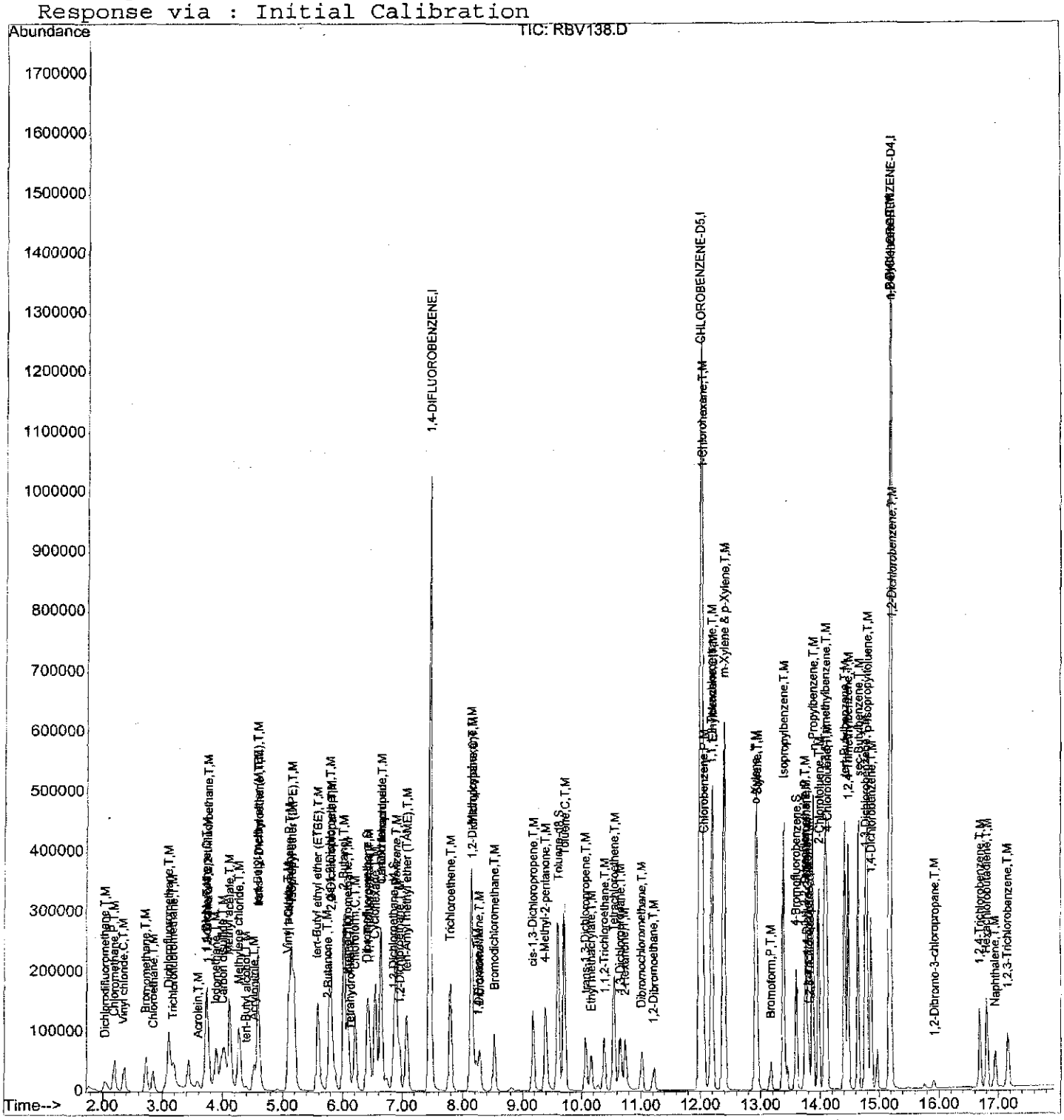
SU 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2087

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D
Acq On : 12 Feb 2015 7:35 pm
Sample : VO01B125
Misc : 5.0ppb 8260/25ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1461404	10.00 ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	1206358	10.00 ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	459916	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	6.40	111	257350	5.30 ug/l	0.00
Spiked Amount 10.000			Recovery =	53.00%	
38) 1,2-Dichloroethane-d4	6.85	65	163517	5.22 ug/l	0.00
Spiked Amount 10.000			Recovery =	52.20%	
54) Toluene-d8	9.60	98	884014	5.42 ug/l	0.00
Spiked Amount 10.000			Recovery =	54.20%	
74) 4-Bromofluorobenzene	13.58	95	279410	5.28 ug/l	0.00
Spiked Amount 10.000			Recovery =	52.80%	
Target Compounds					Qvalue
3) Dichlorodifluoromethane	2.04	85	163505	4.96 ug/l	100
4) Chloromethane	2.20	50	257166	4.93 ug/l	100
5) Vinyl chloride	2.35	62	230778	4.94 ug/l	100
7) Bromomethane	2.72	94	178693	4.68 ug/l	98
8) Chloroethane	2.84	64	161760	5.13 ug/l	100
9) Dichlorofluoromethane	3.10	67	396494	4.92 ug/l	100
10) Trichlorofluoromethane	3.17	101	226399	5.16 ug/l	96
11) Acrolein	3.59	56	61102	25.51 ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	140997	4.83 ug/l	98
13) Acetone	3.74	43	127258	27.53 ug/l	97
14) 1,1-Dichloroethene	3.72	61	290897	4.94 ug/l	100
15) Iodomethane	3.90	142	410627	5.00 ug/l	99
16) Carbon disulfide	4.02	76	758715	5.26 ug/l	99
17) Methyl acetate	4.11	43	85850	5.43 ug/l	98
18) Methylene chloride	4.27	49	307068	4.80 ug/l	99
19) tert-Butyl alcohol	4.39	59	41911	25.40 ug/l	96
20) Acrylonitrile	4.52	53	188911	26.54 ug/l	98
21) tert-Butyl methyl ether (M	4.60	73	380767	5.07 ug/l	100
22) trans-1,2-Dichloroethene	4.60	61	358595	4.98 ug/l	100
23) Vinyl acetate	5.08	43	315866	4.74 ug/l	99
24) 1,1-Dichloroethane	5.10	63	458376	4.95 ug/l	99
25) Isopropyl ether (DIPE)	5.14	45	865206	5.01 ug/l	100
26) 2-Butanol	5.99	45	37901	25.18 ug/l	98
27) tert-Butyl ethyl ether (ET	5.59	59	600189	4.98 ug/l	100
28) 2-Butanone	5.77	43	255013	26.11 ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	278517	5.04 ug/l	99
30) 2,2-Dichloropropane	5.81	77	258370	4.95 ug/l	99

(#) = qualifier out of range (m) = manual integration

SG 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D Vial: 6
Acq On : 12 Feb 2015 7:35 pm Operator: WLau
Sample : VO01B125 Inst : TO01
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Tetrahydrofurane	6.12	42	31860	5.33 ug/l	90
32)	Bromochloromethane	6.08	49	189421	5.04 ug/l	100
33)	Chloroform	6.21	83	390088	4.98 ug/l	99
35)	1,1,1-Trichloroethane	6.43	97	288978	5.00 ug/l	99
36)	Cyclohexane	6.53	56	401624	5.31 ug/l	99
37)	tert-Amyl methyl ether (TA	7.07	87	93532	5.16 ug/l	98
39)	1,1-Dichloropropene	6.64	110	130981	5.00 ug/l	100
40)	Carbon tetrachloride	6.64	119	263203	5.01 ug/l	99
41)	Benzene	6.89	78	958213	4.91 ug/l	100
42)	1,2-Dichloroethane	6.95	62	194285	5.08 ug/l	99
44)	Trichloroethene	7.79	130	289889	4.97 ug/l	99
45)	Methylcylohexane	8.13	83	374898	5.33 ug/l	99
46)	1,2-Dichloropropane	8.15	63	258734	5.10 ug/l	100
47)	1,4-Dioxane	8.25	88	15842	98.55 ug/l	97
48)	Dibromomethane	8.27	93	101887	5.10 ug/l	98
49)	Bromodichloromethane	8.52	83	268902	5.10 ug/l	99
51)	cis-1,3-Dichloropropene	9.17	75	355648	5.12 ug/l	100
52)	4-Methyl-2-pentanone	9.38	43	595809	26.74 ug/l	100
55)	Toluene	9.70	91	1022947	4.95 ug/l	99
56)	Ethyl methacrylate	10.15	69	173722	5.12 ug/l	98
57)	trans-1,3-Dichloropropene	10.06	75	244471	5.18 ug/l	98
58)	1,1,2-Trichloroethane	10.38	97	140792	5.12 ug/l	99
59)	Tetrachloroethene	10.55	164	228000	4.93 ug/l	100
60)	1,3-Dichloropropane	10.65	76	264614	5.12 ug/l	100
61)	2-Hexanone	10.72	43	375341	26.04 ug/l	99
62)	Dibromochloromethane	11.01	129	178116	5.15 ug/l	99
63)	1,2-Dibromoethane	11.21	107	138343	5.17 ug/l	99
64)	1-Chlorohexane	12.01	91	443249	4.91 ug/l	98
65)	Chlorobenzene	12.04	112	627277	5.02 ug/l	99
66)	1,1,1,2-Tetrachloroethane	12.17	131	213849	5.12 ug/l	99
67)	Ethylbenzene	12.19	91	1156735	5.04 ug/l	100
68)	m-Xylene & p-Xylene	12.38	91	1654555	10.02 ug/l	100
69)	o-Xylene	12.90	91	820309	5.03 ug/l	100
70)	Styrene	12.93	104	635410	5.08 ug/l	99
72)	Bromoform	13.17	173	93947	5.03 ug/l	98
73)	Isopropylbenzene	13.37	105	1056245	4.94 ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	165893	5.12 ug/l	100
76)	Bromobenzene	13.74	156	240417	4.96 ug/l	100
77)	trans-1,4-Dichloro-2-buten	13.77	53	30231	4.95 ug/l	98
78)	1,2,3-Trichloropropane	13.80	110	40387	5.08 ug/l	100
79)	n-Propylbenzene	13.86	91	1343844	4.93 ug/l	100

(#) = qualifier out of range (m) = manual integration

Su 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D Vial: 6
Acq On : 12 Feb 2015 7:35 pm Operator: WLau
Sample : VO01B125 Inst : TO01
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	815589	4.97	ug/l	100
81)	2-Chlorotoluene	13.97	91	704099	4.91	ug/l	99
82)	4-Chlorotoluene	14.10	91	782266	4.94	ug/l	100
83)	tert-Butylbenzene	14.39	134	209142	5.00	ug/l	99
84)	1,2,4-Trimethylbenzene	14.45	105	797477	4.96	ug/l	100
85)	sec-Butylbenzene	14.63	105	1153131	4.94	ug/l	100
86)	p-Isopropyltoluene	14.78	119	942717	5.00	ug/l	100
87)	1,3-Dichlorobenzene	14.75	146	458304	4.90	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	441065	4.85	ug/l	99
89)	n-Butylbenzene	15.16	91	860346	4.97	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	375490	4.91	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	21444	4.97	ug/l	98
92)	1,2,4-Trichlorobenzene	16.67	180	213763	5.09	ug/l	99
93)	Hexachlorobutadiene	16.79	225	144865	5.13	ug/l	99
94)	Naphthalene	16.94	128	271098	4.89	ug/l	99
95)	1,2,3-Trichlorobenzene	17.15	180	164599	5.16	ug/l	100

SM 2/18/15

(#) = qualifier out of range (m) = manual integration

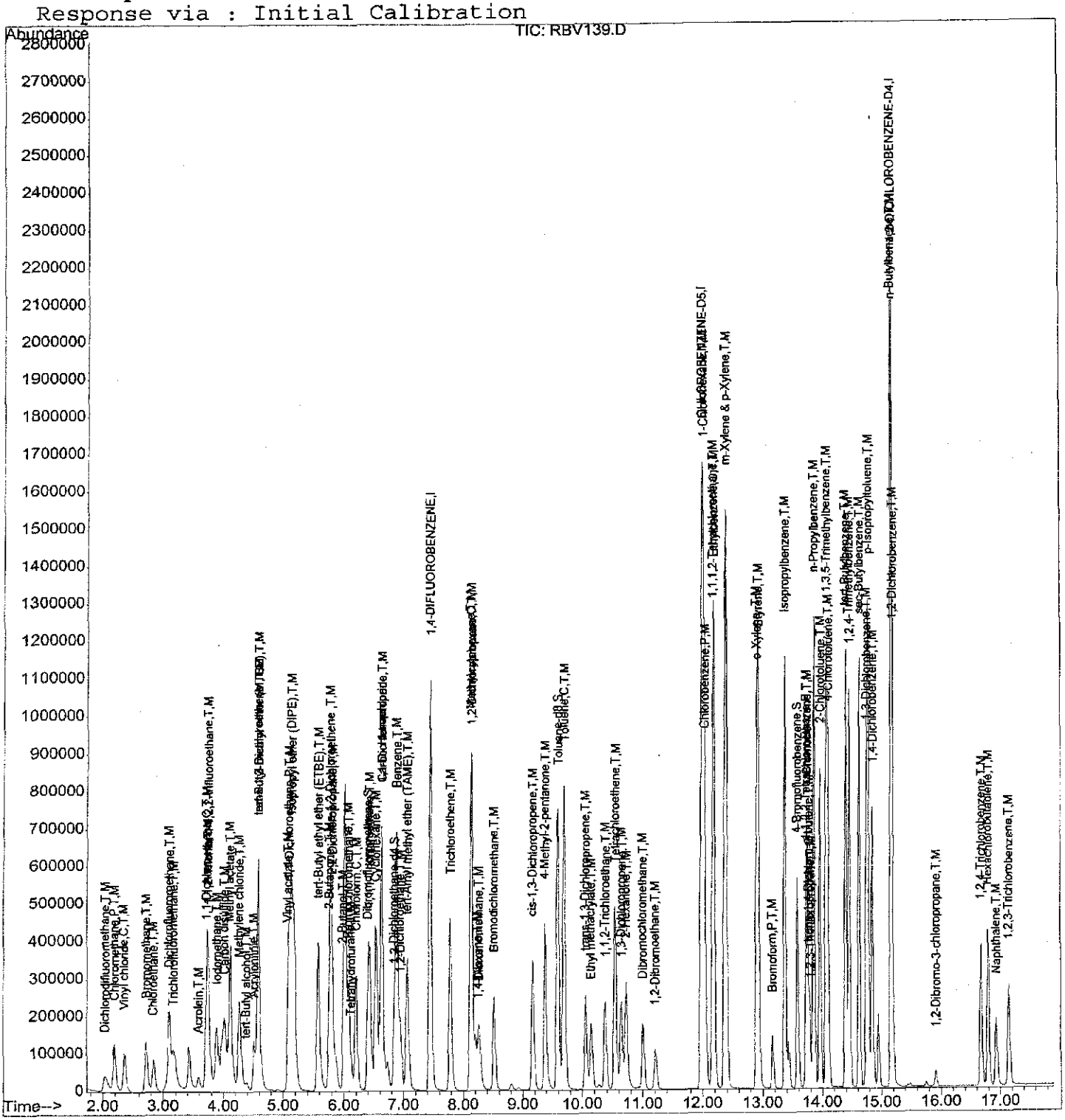
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D
Acq On : 12 Feb 2015 7:35 pm
Sample : VO01B125
Misc : 5.0ppb 8260/25ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2091

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D
Acq On : 12 Feb 2015 8:03 pm
Sample : VO01B126
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1495146	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1270714	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	491901	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	526159	10.59	ug/l	0.00
Spiked Amount 10.000			Recovery =	105.90%		
38) 1,2-Dichloroethane-d4	6.84	65	339433	10.59	ug/l	0.00
Spiked Amount 10.000			Recovery =	105.90%		
54) Toluene-d8	9.60	98	1834529	10.67	ug/l	0.00
Spiked Amount 10.000			Recovery =	106.70%		
74) 4-Bromofluorobenzene	13.58	95	586677	10.37	ug/l	0.00
Spiked Amount 10.000			Recovery =	103.70%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	383804	11.39	ug/l	100
4) Chloromethane	2.20	50	596209	11.17	ug/l	100
5) Vinyl chloride	2.37	62	534518	11.19	ug/l	100
7) Bromomethane	2.72	94	383810	9.83	ug/l	100
8) Chloroethane	2.84	64	360251	11.18	ug/l	100
9) Dichlorofluoromethane	3.10	67	817667	9.92	ug/l	100
10) Trichlorofluoromethane	3.17	101	513641	11.45	ug/l	100
11) Acrolein	3.59	56	123522	50.41	ug/l	100
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	296208	9.92	ug/l	100
13) Acetone	3.74	43	227540	48.12	ug/l	100
14) 1,1-Dichloroethene	3.72	61	595613	9.89	ug/l	100
15) Iodomethane	3.88	142	847719	10.08	ug/l	100
16) Carbon disulfide	4.02	76	1605401	10.88	ug/l	100
17) Methyl acetate	4.09	43	168448	10.41	ug/l	100
18) Methylene chloride	4.27	49	614372	9.40	ug/l	100
19) tert-Butyl alcohol	4.39	59	90972	53.88	ug/l	100
20) Acrylonitrile	4.51	53	380441	52.25	ug/l	100
21) tert-Butyl methyl ether (M	4.58	73	787803	10.26	ug/l	100
22) trans-1,2-Dichloroethene	4.59	61	743469	10.09	ug/l	100
23) Vinyl acetate	5.08	43	776463	11.38	ug/l	100
24) 1,1-Dichloroethane	5.10	63	950138	10.03	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	1795529	10.15	ug/l	100
26) 2-Butanol	5.99	45	82601	53.64	ug/l	100
27) tert-Butyl ethyl ether (ET	5.57	59	1253721	10.17	ug/l	100
28) 2-Butanone	5.75	43	522636	52.29	ug/l	100
29) cis-1,2-Dichloroethene	5.78	96	573456	10.14	ug/l	100
30) 2,2-Dichloropropane	5.79	77	539354	10.11	ug/l	100

(#) = qualifier out of range (m) = manual integration

SM 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D Vial: 7
Acq On : 12 Feb 2015 8:03 pm Operator: WLau
Sample : VO01B126 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31)	Tetrahydrofurane	6.10	42	60326	9.86	ug/l	100
32)	Bromochloromethane	6.07	49	391691	10.19	ug/l	100
33)	Chloroform	6.19	83	793375	9.90	ug/l	100
35)	1,1,1-Trichloroethane	6.43	97	598763	10.12	ug/l	100
36)	Cyclohexane	6.53	56	803860	10.38	ug/l	100
37)	tert-Amyl methyl ether (TA	7.07	87	198802	10.73	ug/l	100
39)	1,1-Dichloropropene	6.64	110	271050	10.12	ug/l	100
40)	Carbon tetrachloride	6.64	119	550784	10.25	ug/l	100
41)	Benzene	6.89	78	1986581	9.95	ug/l	100
42)	1,2-Dichloroethane	6.95	62	401333	10.26	ug/l	100
44)	Trichloroethene	7.79	130	594687	9.97	ug/l	100
45)	Methylcylohexane	8.13	83	760059	10.57	ug/l	100
46)	1,2-Dichloropropane	8.15	63	524035	10.09	ug/l	100
47)	1,4-Dioxane	8.25	88	35480	215.74	ug/l	100
48)	Dibromomethane	8.27	93	217262	10.63	ug/l	100
49)	Bromodichloromethane	8.52	83	558405	10.35	ug/l	100
51)	cis-1,3-Dichloropropene	9.17	75	744795	10.48	ug/l	100
52)	4-Methyl-2-pentanone	9.38	43	1243526	54.55	ug/l	100
55)	Toluene	9.70	91	2095958	9.64	ug/l	100
56)	Ethyl methacrylate	10.15	69	380239	10.65	ug/l	100
57)	trans-1,3-Dichloropropene	10.06	75	517788	10.42	ug/l	100
58)	1,1,2-Trichloroethane	10.38	97	292188	10.08	ug/l	100
59)	Tetrachloroethene	10.55	164	467662	9.61	ug/l	100
60)	1,3-Dichloropropane	10.65	76	553439	10.16	ug/l	100
61)	2-Hexanone	10.72	43	798864	52.61	ug/l	100
62)	Dibromochloromethane	11.00	129	378283	10.38	ug/l	100
63)	1,2-Dibromoethane	11.21	107	291292	10.33	ug/l	100
64)	1-Chlorohexane	12.01	91	929305	9.78	ug/l	100
65)	Chlorobenzene	12.04	112	1308705	9.95	ug/l	100
66)	1,1,1,2-Tetrachloroethane	12.17	131	442383	10.06	ug/l	100
67)	Ethylbenzene	12.19	91	2407359	9.96	ug/l	100
68)	m-Xylene & p-Xylene	12.38	91	3463611	19.92	ug/l	100
69)	o-Xylene	12.90	91	1731048	10.07	ug/l	100
70)	Styrene	12.93	104	1379957	10.48	ug/l	100
72)	Bromoform	13.17	173	204363	10.23	ug/l	100
73)	Isopropylbenzene	13.37	105	2236442	9.78	ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	351131	10.14	ug/l	100
76)	Bromobenzene	13.74	156	509641	9.83	ug/l	100
77)	trans-1,4-Dichloro-2-buten	13.77	53	68000	10.42	ug/l	100
78)	1,2,3-Trichloropropane	13.80	110	86811	10.21	ug/l	100
79)	n-Propylbenzene	13.86	91	2887889	9.90	ug/l	100

(#) = qualifier out of range (m) = manual integration

SW 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D Vial: 7
Acq On : 12 Feb 2015 8:03 pm Operator: WLau
Sample : VO01B126 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	1728512	9.86	ug/l	100
81)	2-Chlorotoluene	13.96	91	1483193	9.67	ug/l	100
82)	4-Chlorotoluene	14.10	91	1643080	9.69	ug/l	100
83)	tert-Butylbenzene	14.39	134	440274	9.84	ug/l	100
84)	1,2,4-Trimethylbenzene	14.45	105	1678651	9.76	ug/l	100
85)	sec-Butylbenzene	14.63	105	2494617	9.99	ug/l	100
86)	p-Isopropyltoluene	14.78	119	1998045	9.90	ug/l	100
87)	1,3-Dichlorobenzene	14.75	146	964018	9.63	ug/l	100
88)	1,4-Dichlorobenzene	14.85	146	946321	9.72	ug/l	100
89)	n-Butylbenzene	15.16	91	1867416	10.08	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	795152	9.73	ug/l	100
91)	1,2-Dibromo-3-chloropropan	15.92	157	47689	10.33	ug/l	100
92)	1,2,4-Trichlorobenzene	16.67	180	465003	10.34	ug/l	100
93)	Hexachlorobutadiene	16.79	225	312265	10.34	ug/l	100
94)	Naphthalene	16.94	128	611911	10.33	ug/l	100
95)	1,2,3-Trichlorobenzene	17.15	180	355769	10.42	ug/l	100

SM 2/18/15

(#) = qualifier out of range (m) = manual integration

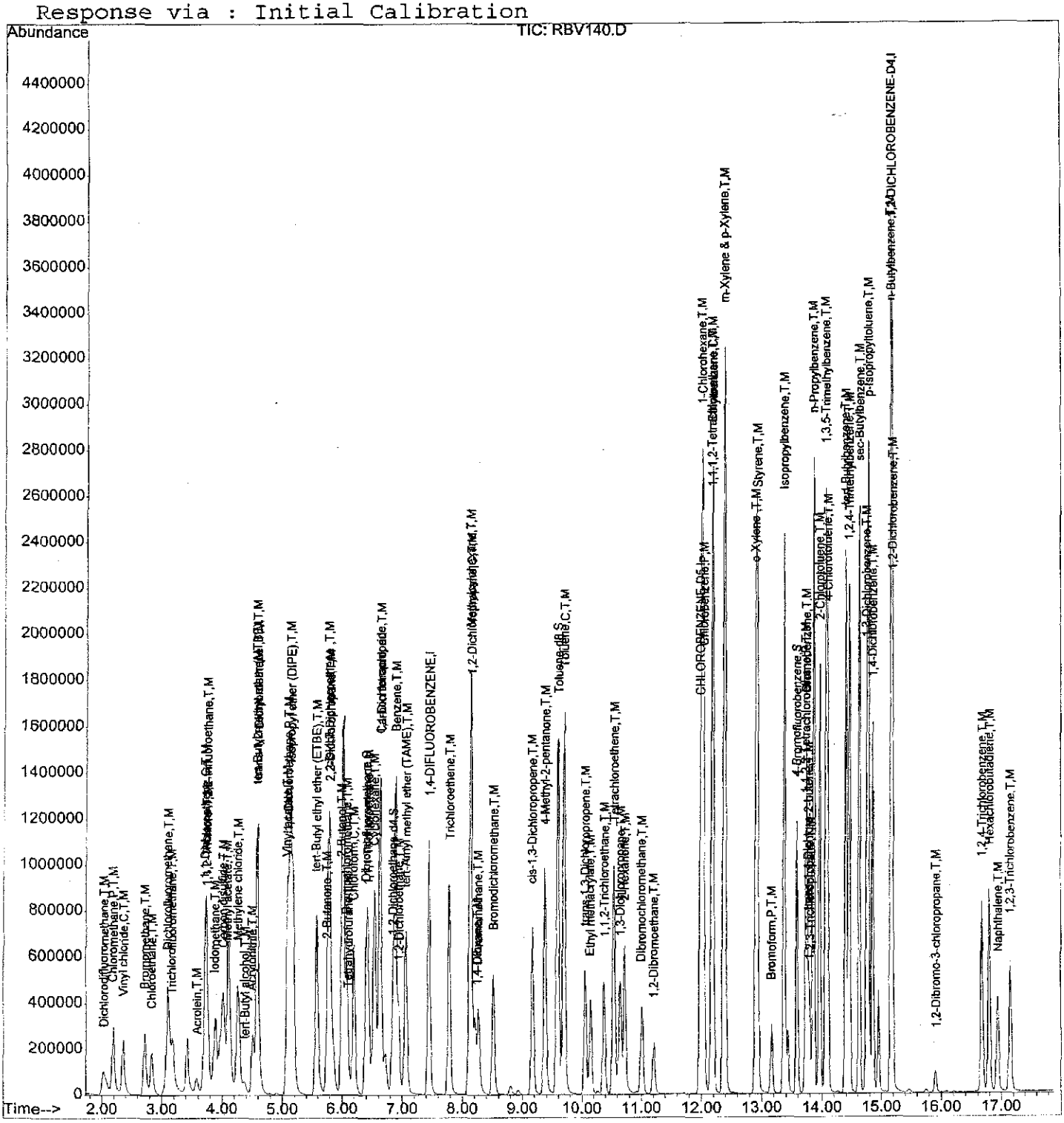
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D
Acq On : 12 Feb 2015 8:03 pm
Sample : VO01B126
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



Su 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D Vial: 8
Acq On : 12 Feb 2015 8:31 pm Operator: WLau
Sample : VO01B127 Inst : TO01
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1496628	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	1269187	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	495887	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	1044818	21.00	ug/l	0.00
Spiked Amount 10.000			Recovery =	210.00%		
38) 1,2-Dichloroethane-d4	6.84	65	683312	21.30	ug/l	0.00
Spiked Amount 10.000			Recovery =	213.00%		
54) Toluene-d8	9.60	98	3611603	21.04	ug/l	0.00
Spiked Amount 10.000			Recovery =	210.40%		
74) 4-Bromofluorobenzene	13.58	95	1167229	20.47	ug/l	0.00
Spiked Amount 10.000			Recovery =	204.70%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	700220	20.75	ug/l	99
4) Chloromethane	2.20	50	1088506	20.37	ug/l	99
5) Vinyl chloride	2.37	62	989826	20.70	ug/l	99
7) Bromomethane	2.71	94	638664	16.34	ug/l	99
8) Chloroethane	2.84	64	640406	19.85	ug/l	99
9) Dichlorofluoromethane	3.10	67	1689307	20.48	ug/l	100
10) Trichlorofluoromethane	3.17	101	946073	21.07	ug/l	99
11) Acrolein	3.57	56	268485	109.46	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	608551	20.35	ug/l	99
13) Acetone	3.74	43	489915	103.49	ug/l	99
14) 1,1-Dichloroethene	3.72	61	1228420	20.38	ug/l	100
15) Iodomethane	3.88	142	1772200	21.06	ug/l	100
16) Carbon disulfide	4.02	76	2994591	20.28	ug/l	99
17) Methyl acetate	4.09	43	334555	20.66	ug/l	99
18) Methylene chloride	4.27	49	1278664	19.54	ug/l	100
19) tert-Butyl alcohol	4.37	59	202964	120.10	ug/l	99
20) Acrylonitrile	4.51	53	833264	114.32	ug/l	98
21) tert-Butyl methyl ether (M	4.58	73	1680690	21.86	ug/l	99
22) trans-1,2-Dichloroethene	4.58	61	1509698	20.47	ug/l	99
23) Vinyl acetate	5.08	43	1574406	23.06	ug/l	99
24) 1,1-Dichloroethane	5.10	63	1969457	20.76	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	3740775	21.13	ug/l	99
26) 2-Butanol	5.99	45	173277	112.41	ug/l	95
27) tert-Butyl ethyl ether (ET	5.57	59	2686963	21.78	ug/l	99
28) 2-Butanone	5.75	43	1121305	112.08	ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	1183194	20.91	ug/l	99
30) 2,2-Dichloropropane	5.79	77	1086567	20.34	ug/l	100

(#) = qualifier out of range (m) = manual integration
RBV141.D VO01B12.M Tue Feb 17 10:53:50 2015 Sm 2/18/15 Page 1

2096

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D
Acq On : 12 Feb 2015 8:31 pm
Sample : VO01B127
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Tetrahydrofurane	6.10	42	138910	22.68 ug/l	98
32)	Bromochloromethane	6.08	49	826822	21.50 ug/l	99
33)	Chloroform	6.19	83	1692459	21.09 ug/l	99
35)	1,1,1-Trichloroethane	6.43	97	1235601	20.86 ug/l	99
36)	Cyclohexane	6.53	56	1501206	19.36 ug/l	99
37)	tert-Amyl methyl ether (TA	7.07	87	421669	22.74 ug/l	99
39)	1,1-Dichloropropene	6.62	110	545219	20.33 ug/l	100
40)	Carbon tetrachloride	6.64	119	1129151	20.99 ug/l	100
41)	Benzene	6.89	78	4120927	20.61 ug/l	100
42)	1,2-Dichloroethane	6.95	62	844736	21.58 ug/l	100
44)	Trichloroethene	7.79	130	1227659	20.57 ug/l	100
45)	Methylcylohexane	8.13	83	1440089	20.00 ug/l	99
46)	1,2-Dichloropropane	8.15	63	1102896	21.21 ug/l	96
47)	1,4-Dioxane	8.25	88	75044	455.86 ug/l	98
48)	Dibromomethane	8.27	93	458993	22.43 ug/l	99
49)	Bromodichloromethane	8.52	83	1189040	22.01 ug/l	99
51)	cis-1,3-Dichloropropene	9.17	75	1606076	22.58 ug/l	99
52)	4-Methyl-2-pentanone	9.38	43	2736510	119.92 ug/l	100
55)	Toluene	9.70	91	4388098	20.20 ug/l	100
56)	Ethyl methacrylate	10.15	69	842169	23.61 ug/l	100
57)	trans-1,3-Dichloropropene	10.06	75	1135035	22.86 ug/l	99
58)	1,1,2-Trichloroethane	10.38	97	622225	21.49 ug/l	100
59)	Tetrachloroethene	10.55	164	969198	19.93 ug/l	100
60)	1,3-Dichloropropane	10.65	76	1179337	21.67 ug/l	100
61)	2-Hexanone	10.72	43	1819206	119.96 ug/l	100
62)	Dibromochloromethane	11.00	129	822066	22.58 ug/l	100
63)	1,2-Dibromoethane	11.21	107	628758	22.32 ug/l	100
64)	1-Chlorohexane	12.01	91	1932982	20.36 ug/l	98
65)	Chlorobenzene	12.04	112	2723547	20.73 ug/l	99
66)	1,1,1,2-Tetrachloroethane	12.17	131	933820	21.26 ug/l	99
67)	Ethylbenzene	12.19	91	4970024	20.58 ug/l	99
68)	m-Xylene & p-Xylene	12.38	91	7167591	41.26 ug/l	100
69)	o-Xylene	12.90	91	3589734	20.91 ug/l	99
70)	Styrene	12.93	104	2899677	22.05 ug/l	100
72)	Bromoform	13.17	173	446829	22.18 ug/l	100
73)	Isopropylbenzene	13.37	105	4552914	19.76 ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	746182	21.37 ug/l	100
76)	Bromobenzene	13.74	156	1076486	20.60 ug/l	100
77)	trans-1,4-Dichloro-2-buten	13.77	53	151109	22.97 ug/l	97
78)	1,2,3-Trichloropropane	13.80	110	186668	21.77 ug/l	98
79)	n-Propylbenzene	13.86	91	5964727	20.29 ug/l	100

(#) = qualifier out of range (m) = manual integration

2/18/15

2097

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D Vial: 8
Acq On : 12 Feb 2015 8:31 pm Operator: WLau
Sample : VO01B127 Inst : TO01
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) 1,3,5-Trimethylbenzene	14.07	105	3585172	20.28	ug/l	100
81) 2-Chlorotoluene	13.96	91	3054102	19.76	ug/l	100
82) 4-Chlorotoluene	14.10	91	3405736	19.93	ug/l	100
83) tert-Butylbenzene	14.39	134	904224	20.04	ug/l	99
84) 1,2,4-Trimethylbenzene	14.45	105	3507894	20.23	ug/l	99
85) sec-Butylbenzene	14.63	105	5091993	20.23	ug/l	99
86) p-Isopropyltoluene	14.78	119	4275082	21.02	ug/l	99
87) 1,3-Dichlorobenzene	14.75	146	2084139	20.65	ug/l	99
88) 1,4-Dichlorobenzene	14.85	146	2047710	20.87	ug/l	100
89) n-Butylbenzene	15.16	91	3878737	20.77	ug/l	100
90) 1,2-Dichlorobenzene	15.19	146	1690243	20.52	ug/l	99
91) 1,2-Dibromo-3-chloropropan	15.92	157	107502	23.09	ug/l	99
92) 1,2,4-Trichlorobenzene	16.67	180	994151	21.93	ug/l	100
93) Hexachlorobutadiene	16.79	225	637364	20.93	ug/l	100
94) Naphthalene	16.94	128	1364812	22.86	ug/l	99
95) 1,2,3-Trichlorobenzene	17.15	180	751273	21.83	ug/l	99

SA 2/18/15

(#) = qualifier out of range (m) = manual integration

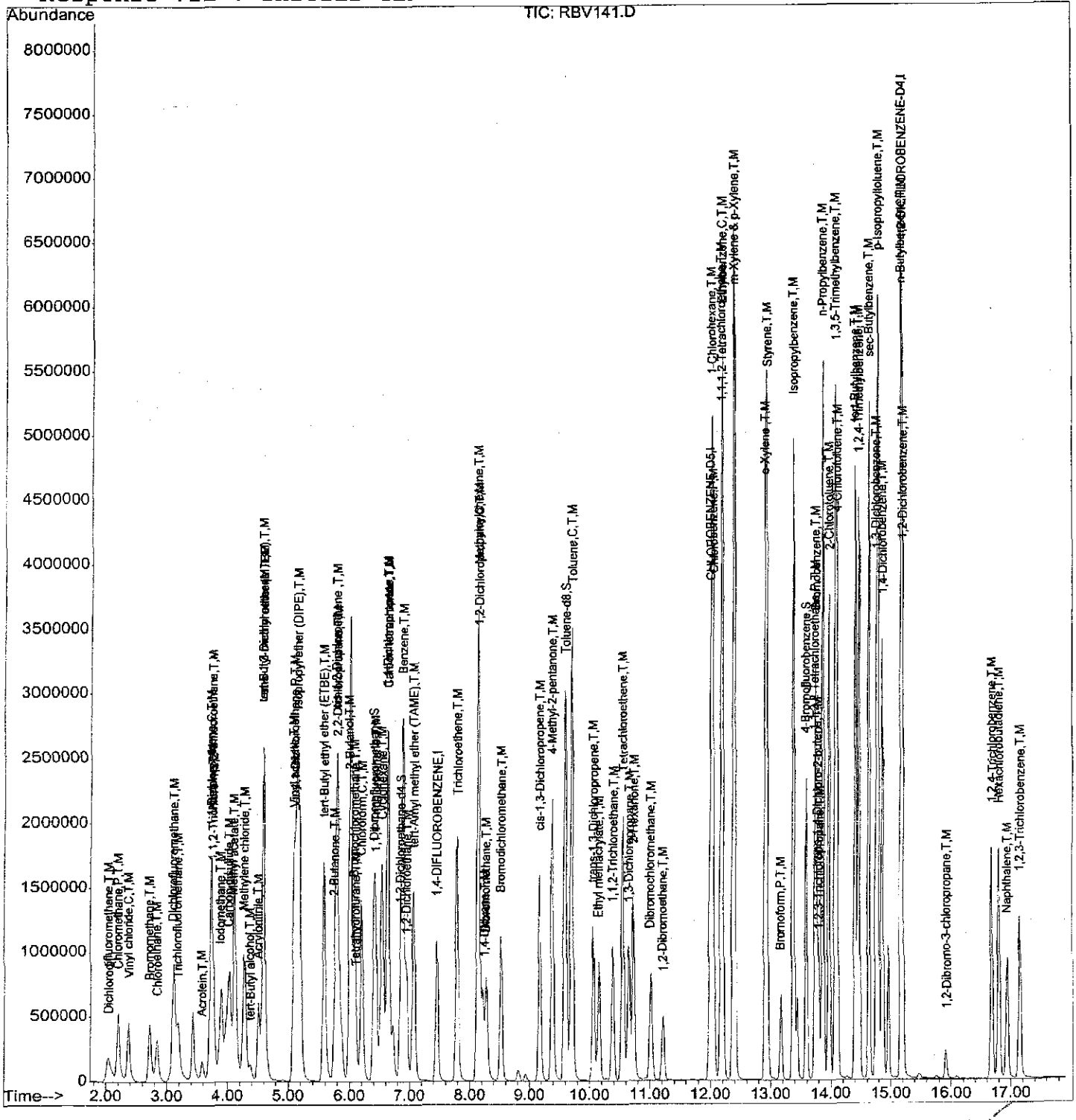
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D
Acq On : 12 Feb 2015 8:31 pm
Sample : VO01B127
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2099

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1584622	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1311301	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	480786	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	1551660	29.46	ug/l	0.00
Spiked Amount 10.000			Recovery =	294.60%		
38) 1,2-Dichloroethane-d4	6.85	65	973385	28.65	ug/l	0.00
Spiked Amount 10.000			Recovery =	286.50%		
54) Toluene-d8	9.58	98	5481801	30.91	ug/l	-0.01
Spiked Amount 10.000			Recovery =	309.10%		
74) 4-Bromofluorobenzene	13.58	95	1689010	30.54	ug/l	0.00
Spiked Amount 10.000			Recovery =	305.40%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.03	85	1052119	29.45	ug/l	100
4) Chloromethane	2.20	50	1596577	28.21	ug/l	100
5) Vinyl chloride	2.37	62	1446013	28.56	ug/l	99
7) Bromomethane	2.71	94	850331	20.54	ug/l	100
8) Chloroethane	2.82	64	933290	27.32	ug/l	99
9) Dichlorofluoromethane	3.10	67	2454343	28.10	ug/l	99
10) Trichlorofluoromethane	3.17	101	1413120	29.72	ug/l	100
11) Acrolein	3.57	56	373374	143.77	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	898890	28.39	ug/l	99
13) Acetone	3.74	43	642273	128.15	ug/l	99
14) 1,1-Dichloroethene	3.72	61	1812803	28.40	ug/l	100
15) Iodomethane	3.88	142	2616291	29.36	ug/l	100
16) Carbon disulfide	4.00	76	4463937	28.56	ug/l	98
17) Methyl acetate	4.09	43	468407	27.32	ug/l	99
18) Methylene chloride	4.27	49	1868658	26.96	ug/l	99
19) tert-Butyl alcohol	4.37	59	267245	149.35	ug/l	99
20) Acrylonitrile	4.51	53	1117268	144.77	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	2289677	28.13	ug/l	100
22) trans-1,2-Dichloroethene	4.58	61	2244643	28.75	ug/l	99
23) Vinyl acetate	5.08	43	1807608	25.00	ug/l	95
24) 1,1-Dichloroethane	5.08	63	2949430	29.36	ug/l	100
25) Isopropyl ether (DIPE)	5.13	45	5399201	28.81	ug/l	99
26) 2-Butanol	5.97	45	241116	147.73	ug/l	97
27) tert-Butyl ethyl ether (ET	5.57	59	3841409	29.41	ug/l	99
28) 2-Butanone	5.75	43	1464210	138.23	ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	1732115	28.91	ug/l	99
30) 2,2-Dichloropropane	5.79	77	1589094	28.10	ug/l	100

(#) = qualifier out of range (m) = manual integration

2/18/15

2100

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D
Acq On : 12 Feb 2015 8:59 pm
Sample : VO01B128
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 9
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Tetrahydrofurane	6.11	42	171254	26.41 ug/l	98
32)	Bromochloromethane	6.08	49	1182707	29.04 ug/l	99
33)	Chloroform	6.19	83	2507439	29.52 ug/l	99
35)	1,1,1-Trichloroethane	6.43	97	1876729	29.92 ug/l	99
36)	Cyclohexane	6.53	56	2425448	29.55 ug/l	99
37)	tert-Amyl methyl ether (TA	7.07	87	592738	30.18 ug/l	98
39)	1,1-Dichloropropene	6.62	110	822322	28.96 ug/l	100
40)	Carbon tetrachloride	6.64	119	1689377	29.67 ug/l	99
41)	Benzene	6.89	78	6175955	29.17 ug/l	99
42)	1,2-Dichloroethane	6.95	62	1201789	29.00 ug/l	98
44)	Trichloroethene	7.78	130	1863222	29.49 ug/l	100
45)	Methylcylohexane	8.13	83	2275708	29.86 ug/l	99
46)	1,2-Dichloropropane	8.13	63	1582957	28.76 ug/l	99
47)	1,4-Dioxane	8.25	88	106902	613.33 ug/l	98
48)	Dibromomethane	8.27	93	639992	29.54 ug/l	99
49)	Bromodichloromethane	8.52	83	1733748	30.32 ug/l	99
51)	cis-1,3-Dichloropropene	9.17	75	2335288	31.01 ug/l	99
52)	4-Methyl-2-pentanone	9.38	43	3572116	147.85 ug/l	100
55)	Toluene	9.70	91	6497176	28.95 ug/l	100
56)	Ethyl methacrylate	10.15	69	1165061	31.61 ug/l	100
57)	trans-1,3-Dichloropropene	10.06	75	1620413	31.59 ug/l	99
58)	1,1,2-Trichloroethane	10.38	97	867053	28.98 ug/l	99
59)	Tetrachloroethene	10.55	164	1469167	29.25 ug/l	100
60)	1,3-Dichloropropane	10.65	76	1644676	29.25 ug/l	100
61)	2-Hexanone	10.72	43	2375832	151.63 ug/l	100
62)	Dibromochloromethane	11.00	129	1161721	30.89 ug/l	100
63)	1,2-Dibromoethane	11.21	107	870362	29.91 ug/l	99
64)	1-Chlorohexane	12.01	91	2881704	29.38 ug/l	97
65)	Chlorobenzene	12.04	112	3998282	29.46 ug/l	99
66)	1,1,1,2-Tetrachloroethane	12.17	131	1354605	29.85 ug/l	98
67)	Ethylbenzene	12.19	91	7381499	29.58 ug/l	99
68)	m-Xylene & p-Xylene	12.38	91	10648647	59.33 ug/l	99
69)	o-Xylene	12.90	91	5210630	29.38 ug/l	99
70)	Styrene	12.93	104	4176323	30.73 ug/l	100
72)	Bromoform	13.17	173	621114	31.80 ug/l	100
73)	Isopropylbenzene	13.37	105	6819044	30.52 ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	990233	29.25 ug/l	100
76)	Bromobenzene	13.74	156	1559767	30.79 ug/l	98
77)	trans-1,4-Dichloro-2-buten	13.77	53	199002	31.20 ug/l	96
78)	1,2,3-Trichloropropane	13.80	110	245586	29.54 ug/l	99
79)	n-Propylbenzene	13.86	91	8954960	31.41 ug/l	99

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	5310529	30.98	ug/l	99
81)	2-Chlorotoluene	13.97	91	4529612	30.22	ug/l	99
82)	4-Chlorotoluene	14.10	91	4996691	30.16	ug/l	100
83)	tert-Butylbenzene	14.39	134	1318109	30.14	ug/l	98
84)	1,2,4-Trimethylbenzene	14.45	105	5169964	30.76	ug/l	99
85)	sec-Butylbenzene	14.63	105	7462910	30.58	ug/l	99
86)	p-Isopropyltoluene	14.78	119	6094087	30.91	ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	2957240	30.22	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	2851531	29.98	ug/l	99
89)	n-Butylbenzene	15.16	91	5691925	31.44	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	2362871	29.58	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.90	157	142695	31.61	ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	1443508	32.85	ug/l	99
93)	Hexachlorobutadiene	16.79	225	918146	31.10	ug/l	99
94)	Naphthalene	16.94	128	1914030	33.06	ug/l	99
95)	1,2,3-Trichlorobenzene	17.15	180	1065540	31.93	ug/l	99

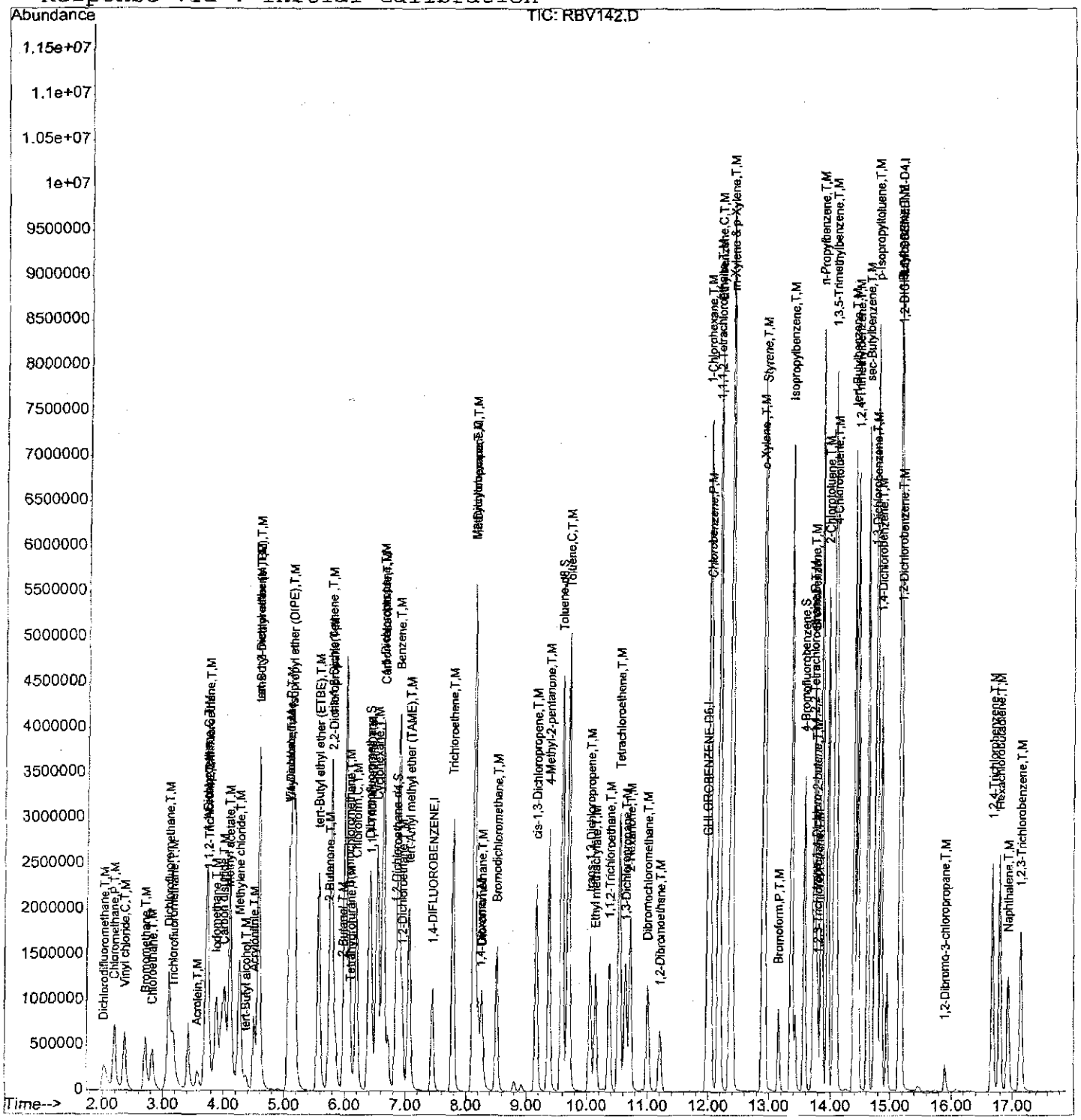
SA 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D Vial: 10
Acq On : 12 Feb 2015 9:27 pm Operator: WLau
Sample : VO01B129 Inst : TO01
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1611857	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1339087	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	492316	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	2563110	47.83	ug/l	0.00
Spiked Amount 10.000			Recovery =	478.30%		
38) 1,2-Dichloroethane-d4	6.85	65	1648013	47.69	ug/l	0.00
Spiked Amount 10.000			Recovery =	476.90%		
54) Toluene-d8	9.60	98	9007206	49.73	ug/l	0.00
Spiked Amount 10.000			Recovery =	497.30%		
74) 4-Bromofluorobenzene	13.58	95	2853080	50.39	ug/l	0.00
Spiked Amount 10.000			Recovery =	503.90%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	1753891	48.26	ug/l	100
4) Chloromethane	2.21	50	2677480	46.51	ug/l	100
5) Vinyl chloride	2.37	62	2453353	47.64	ug/l	99
7) Bromomethane	2.71	94	1029347	24.45	ug/l	99
8) Chloroethane	2.82	64	1377235	39.63	ug/l	99
9) Dichlorofluoromethane	3.10	67	3968965	44.67	ug/l	99
10) Trichlorofluoromethane	3.17	101	2312792	47.82	ug/l	99
11) Acrolein	3.57	56	643799	243.71	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	1496066	46.46	ug/l	99
13) Acetone	3.74	43	1085547	212.93	ug/l	99
14) 1,1-Dichloroethene	3.72	61	2943508	45.34	ug/l	100
15) Iodomethane	3.88	142	4365470	48.17	ug/l	100
16) Carbon disulfide	4.02	76	7410584	46.60	ug/l	98
17) Methyl acetate	4.09	43	799230	45.82	ug/l	99
18) Methylene chloride	4.27	49	3091333	43.85	ug/l	100
19) tert-Butyl alcohol	4.39	59	498135	273.68	ug/l	98
20) Acrylonitrile	4.51	53	1974153	251.48	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	3981256	48.08	ug/l	99
22) trans-1,2-Dichloroethene	4.58	61	3639621	45.83	ug/l	98
23) Vinyl acetate	5.08	43	3688282	50.16	ug/l	99
24) 1,1-Dichloroethane	5.08	63	4735728	46.35	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	8784920	46.08	ug/l	99
26) 2-Butanol	5.99	45	448678	270.25	ug/l	97
27) tert-Butyl ethyl ether (ET	5.57	59	6431415	48.41	ug/l	100
28) 2-Butanone	5.75	43	2587574	240.16	ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	2812736	46.15	ug/l	99
30) 2,2-Dichloropropane	5.79	77	2576368	44.79	ug/l	100

(#) = qualifier out of range (m) = manual integration
RBV143.D VO01B12.M Tue Feb 17 10:54:51 2015 2/18/15 Page 1

2104

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D Vial: 10
Acq On : 12 Feb 2015 9:27 pm Operator: WLau
Sample : VO01B129 Inst : TO01
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31)	Tetrahydrofurane	6.11	42	298088	45.20	ug/l	98
32)	Bromochloromethane	6.08	49	1947631	47.02	ug/l	98
33)	Chloroform	6.19	83	4069633	47.10	ug/l	99
35)	1,1,1-Trichloroethane	6.43	97	3048672	47.78	ug/l	99
36)	Cyclohexane	6.53	56	3957916	47.40	ug/l	99
37)	tert-Amyl methyl ether (TA	7.07	87	1015050	50.82	ug/l	97
39)	1,1-Dichloropropene	6.62	110	1324565	45.86	ug/l	100
40)	Carbon tetrachloride	6.64	119	2776015	47.92	ug/l	100
41)	Benzene	6.89	78	10128980	47.04	ug/l	99
42)	1,2-Dichloroethane	6.95	62	2008003	47.63	ug/l	100
44)	Trichloroethene	7.78	130	3048094	47.42	ug/l	99
45)	Methylcylohexane	8.13	83	3697844	47.70	ug/l	98
46)	1,2-Dichloropropane	8.13	63	2538039	45.33	ug/l	99
47)	1,4-Dioxane	8.25	88	190258	1073.12	ug/l	96
48)	Dibromomethane	8.27	93	1083592	49.16	ug/l	98
49)	Bromodichloromethane	8.52	83	2888653	49.66	ug/l	99
51)	cis-1,3-Dichloropropene	9.17	75	3888448	50.77	ug/l	99
52)	4-Methyl-2-pentanone	9.38	43	6429608	261.62	ug/l	99
55)	Toluene	9.70	91	10729942	46.82	ug/l	100
56)	Ethyl methacrylate	10.15	69	2037530	54.13	ug/l	100
57)	trans-1,3-Dichloropropene	10.06	75	2750125	52.50	ug/l	99
58)	1,1,2-Trichloroethane	10.38	97	1471717	48.17	ug/l	100
59)	Tetrachloroethene	10.55	164	2397922	46.74	ug/l	99
60)	1,3-Dichloropropane	10.65	76	2756224	48.00	ug/l	100
61)	2-Hexanone	10.72	43	4290468	268.14	ug/l	99
62)	Dibromochloromethane	11.00	129	1976796	51.47	ug/l	100
63)	1,2-Dibromoethane	11.21	107	1476069	49.67	ug/l	99
64)	1-Chlorohexane	12.01	91	4550000	45.42	ug/l	96
65)	Chlorobenzene	12.04	112	6380907	46.04	ug/l	98
66)	1,1,1,2-Tetrachloroethane	12.17	131	2195071	47.37	ug/l	98
67)	Ethylbenzene	12.19	91	11855244	46.52	ug/l	98
68)	m-Xylene & p-Xylene	12.38	91	17005287	92.79	ug/l	98
69)	o-Xylene	12.90	91	8458675	46.71	ug/l	99
70)	Styrene	12.93	104	6857460	49.41	ug/l	99
72)	Bromoform	13.17	173	1093529	54.68	ug/l	99
73)	Isopropylbenzene	13.37	105	11105172	48.54	ug/l	99
75)	1,1,2,2-Tetrachloroethane	13.73	83	1696474	48.94	ug/l	99
76)	Bromobenzene	13.74	156	2589194	49.91	ug/l	98
77)	trans-1,4-Dichloro-2-buten	13.77	53	352682	53.99	ug/l	95
78)	1,2,3-Trichloropropane	13.80	110	423432	49.75	ug/l	97
79)	n-Propylbenzene	13.86	91	13711766	46.97	ug/l	99

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D
Acq On : 12 Feb 2015 9:27 pm
Sample : VO01B129
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 10
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	8415710	47.95	ug/l	99
81)	2-Chlorotoluene	13.97	91	7398315	48.21	ug/l	99
82)	4-Chlorotoluene	14.10	91	7999828	47.16	ug/l	100
83)	tert-Butylbenzene	14.41	134	2127056	47.49	ug/l	98
84)	1,2,4-Trimethylbenzene	14.45	105	8302618	48.24	ug/l	100
85)	sec-Butylbenzene	14.63	105	12006206	48.05	ug/l	99
86)	p-Isopropyltoluene	14.78	119	9578201	47.44	ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	4862910	48.52	ug/l	98
88)	1,4-Dichlorobenzene	14.85	146	4696584	48.22	ug/l	99
89)	n-Butylbenzene	15.16	91	8773043	47.32	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	3909435	47.80	ug/l	98
91)	1,2-Dibromo-3-chloropropan	15.90	157	251669	54.45	ug/l	98
92)	1,2,4-Trichlorobenzene	16.67	180	2328076	51.74	ug/l	99
93)	Hexachlorobutadiene	16.79	225	1383575	45.77	ug/l	99
94)	Naphthalene	16.94	128	3264817	55.07	ug/l	100
95)	1,2,3-Trichlorobenzene	17.15	180	1760908	51.53	ug/l	100

Sm 2/18/15

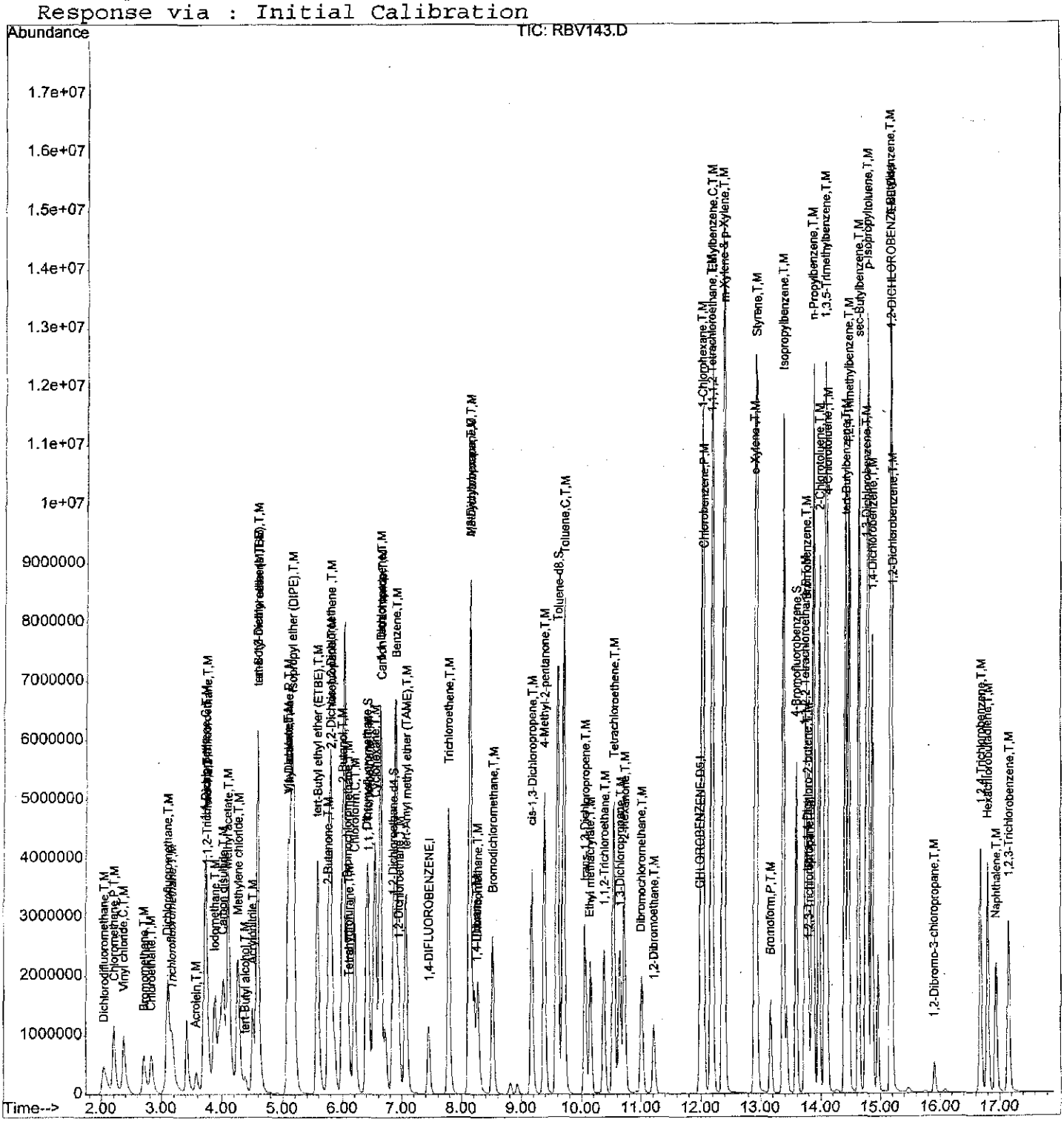
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D
Acq On : 12 Feb 2015 9:27 pm
Sample : VO01B129
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 10
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SM 2/18/15

2107

SECOND SOURCE VERIFICATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RBV149
Instrument ID: IO01
GC Column:RXI-624SILMSID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D143
BFB Injection Date : 02/13/15
BFB Injection Time : 10:03
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.75
75	30.0 - 60.0% of mass 95	43.31
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.44
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	82.50
175	5.0 - 9.0% of mass 174	5.95(7.2)1
176	95.0 - 101.0% of mass 174	79.44(96.3)1
177	5.0 - 9.0% of mass 176	5.14(6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	IV001B1201	RBV150	02/13/15	10:31

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO01
IC_Beginning DateTime :02/12/15 17:43
Spike Amount :10 PPB
CC/CV File :RBV150
IC File :RBV140

Column Spec :RXI-624SILMS ID :0.25MM
IC_Ending DateTime :02/12/15 21:27
HPChem Method :VOD1B12
Date_Time :02/13/15 10:31

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1545118	1	1	7.452	7.452	0				
	2	Chlorotrifluoroethylene												
	3	Dichlorodifluoromethane	9.516	-4.8	331489	0.215	0.225	2.034	2.037	6.61				
	4	Chloromethane	9.148	-8.5	504754	0.327	0.357	2.205	2.193	6.20				
	5	Vinyl chloride	9.431	-5.7	465582	0.301	0.320	2.376	2.357	5.56				
	6	2-Chloro-1,1,1-trifluoroethane												
	7	Bromomethane	8.363	-16.4	337515	0.218	0.261	2.717	2.716	12.36				
	8	Chloroethane	10.100	1.0	336450	0.218	0.216	2.831	2.836	6.59				
	9	Dichlorofluoromethane	9.665	-3.4	823056	0.533	0.551	3.115	3.100	7.10				
	10	Trichlorofluoromethane	10.063	0.6	466502	0.302	0.300	3.174	3.174	7.89				
5	11	Acrolein	51.042	2.1	129253	0.017	0.016	3.574	3.584	4.37				
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	9.463	-5.4	292108	0.189	0.200	3.751	3.752	5.25				
5	13	Acetone	49.552	-0.9	242165	0.031	0.032	3.737	3.737	13.74				
	14	1,1-Dichloroethene	9.582	-4.2	596268	0.386	0.403	3.722	3.722	5.41				
	15	Iodomethane	9.822	-1.8	853312	0.552	0.562	3.885	3.887	2.93				
	16	Carbon disulfide	9.866	-1.3	1503903	0.973	0.986	4.018	4.013	5.98				
	17	Methyl acetate	10.038	0.4	167843	0.109	0.108	4.092	4.098	6.18				
	18	Methylene chloride	9.575	-4.2	647025	0.419	0.437	4.270	4.270	11.04				
5	19	tert-Butyl alcohol	49.661	-0.7	86646	0.011	0.011	4.373	4.386	13.23				
5	20	Acrylonitrile	51.953	3.9	390954	0.051	0.049	4.506	4.515	7.16				
	21	tert-Butyl methyl ether (MTBE)	9.892	-1.1	785157	0.508	0.514	4.580	4.584	4.53				
	22	trans-1,2-Dichloroethene	9.643	-3.6	734056	0.475	0.493	4.580	4.590	3.99				
	23	Vinyl acetate	8.209	-17.9	578649	0.375	0.456	5.084	5.084	11.61				
	24	1,1-Dichloroethane	9.819	-1.8	961688	0.622	0.634	5.084	5.095	3.90				
	25	Isopropyl ether (DIPE)	9.661	-3.4	1765642	1.143	1.183	5.128	5.141	4.18				
5	26	2-Butanol	51.487	3.0	81941	0.011	0.010	5.987	5.989	10.66				
	27	tert-Butyl ethyl ether (ETBE)	9.959	-0.4	1268358	0.821	0.824	5.572	5.577	4.22				
5	28	2-Butanone	50.325	0.6	519766	0.067	0.067	5.750	5.755	6.48				
	29	cis-1,2-Dichloroethene	9.844	-1.6	575197	0.372	0.378	5.779	5.780	4.24				
	30	2,2-Dichloropropane	10.264	2.6	565970	0.366	0.357	5.794	5.796	5.66				
	31	Tetrahydrofurane	9.796	-2.0	61929	0.040	0.041	6.105	6.112	8.98				
	32	Bromochloromethane	9.789	-2.1	388737	0.252	0.257	6.076	6.076	4.58				
	33	Chloroform	9.823	-1.8	813632	0.527	0.536	6.194	6.196	3.84				
	34	Dibromofluoromethane	10.270	2.7	527525	0.341	0.332	6.401	6.401	5.89				
	35	1,1,1-Trichloroethane	9.795	-2.0	599123	0.388	0.396	6.431	6.431	3.08				
	36	Cyclohexane	10.213	2.1	817429	0.529	0.518	6.534	6.535	5.46				
	37	tert-Amyl methyl ether (TAME)	10.235	2.3	195975	0.127	0.124	7.052	7.068	8.68				
	38	1,2-Dichloroethane-d4	10.123	1.2	335321	0.217	0.214	6.845	6.845	6.07				
	39	1,1-Dichloropropene	9.611	-3.9	266097	0.172	0.179	6.623	6.633	4.34				
	40	Carbon tetrachloride	9.744	-2.6	541041	0.350	0.359	6.638	6.638	3.72				
	41	Benzene	9.669	-3.3	1995998	1.292	1.336	6.875	6.890	3.80				
	42	1,2-Dichloroethane	9.712	-2.9	392473	0.254	0.262	6.934	6.949	4.87				
	43	2,2,4-Trimethylpentane												
	44	Trichloroethene	9.684	-3.2	596662	0.386	0.399	7.778	7.790	3.33				
	45	Methylcyclohexane	10.607	6.1	788341	0.510	0.481	8.133	8.133	6.14				
	46	1,2-Dichloropropane	9.858	-1.4	529081	0.342	0.347	8.133	8.145	5.04				
20	47	1,4-Dioxane	192.964	-3.5	32795	0.001	0.001	8.251	8.252	12.12				
	48	Dibromomethane	9.970	-0.3	210642	0.136	0.137	8.266	8.266	6.70				
	49	Bromodichloromethane	10.069	0.7	561471	0.363	0.361	8.518	8.518	5.40				
	50	2-Chloroethyl vinyl ether												
	51	cis-1,3-Dichloropropene	10.218	2.2	750227	0.486	0.475	9.169	9.169	7.95				
5	52	4-Methyl-2-pentanone	51.269	2.5	1207825	0.156	0.152	9.376	9.380	11.09				
	53	CHLOROBENZENE-D5	10.000	0	1273949	1	1	11.982	11.987	0				
	54	Toluene-d8	10.703	7.0	1844157	1.448	1.352	9.584	9.597	11.58				
	55	Toluene	9.470	-5.3	2064782	1.621	1.712	9.687	9.702	4.73				
	56	Ethyl methacrylate	10.118	1.2	362315	0.284	0.281	10.146	10.152	12.89				
	57	trans-1,3-Dichloropropene	10.426	4.3	519588	0.408	0.391	10.057	10.057	9.16				
	58	1,1,2-Trichloroethane	9.682	-3.2	281436	0.221	0.228	10.368	10.383	3.90				
	59	Tetrachloroethene	9.663	-3.4	471599	0.370	0.383	10.531	10.546	4.85				
	60	1,3-Dichloropropane	9.684	-3.2	528991	0.415	0.429	10.635	10.650	4.47				
5	61	2-Hexanone	51.120	2.2	778170	0.122	0.119	10.709	10.727	11.92				
	62	Dibromochloromethane	10.037	0.4	366726	0.288	0.287	11.005	11.007	7.66				
	63	1,2-Dibromoethane	9.896	-1.0	279812	0.220	0.222	11.212	11.212	5.77				
	64	1-Chlorohexane	9.844	-1.6	938151	0.736	0.748	12.011	12.012	5.72				
	65	Chlorobenzene	9.885	-1.2	1303383	1.023	1.035	12.026	12.041	3.99				
	66	1,1,1,2-Tetrachloroethane	10.007	0.1	441121	0.346	0.346	12.174	12.174	3.96				
	67	Ethylbenzene	9.675	-3.2	2345502	1.841	1.903	12.189	12.189	3.32				
2	68	m-Xylene & p-Xylene	19.577	-2.1	3413283	1.340	1.369	12.381	12.382	3.44				
	69	o-Xylene	9.769	-2.3	1683046	1.321	1.352	12.899	12.900	4.29				
	70	Styrene	10.094	0.9	1332722	1.046	1.036	12.929	12.931	6.28				
	71	1,2-DICHLOROBENZENE-D4	10.000	0	480946	1	1	15.164	15.179	0				
	72	Bromoform	10.151	1.5	198326	0.412	0.406	13.166	13.166	9.03				
	73	Isopropylbenzene	9.714	-2.9	2170916	4.514	4.647	13.373	13.373	3.49				
	74	4-Bromofluorobenzene	10.477	4.8	579538	1.205	1.150	13.580	13.580	8.01				
	75	1,1,2,2-Tetrachloroethane	9.881	-1.2	334639	0.696	0.704	13.728	13.729	3.83				
	76	Bromobenzene	9.817	-1.8	497480	1.034	1.054	13.743	13.745	2.82				
	77	trans-1,4-Dichloro-2-butene	10.372	3.7	66186	0.138	0.133	13.773	13.773	11.34				
	78	1,2,3-Trichloropropane	9.844	-1.6	81859	0.170	0.173	13.788	13.803	4.93				
	79	n-Propylbenzene	9.767	-2.3	2785410	5.792	5.930	13.862	13.862	3.96				

SA 2/18/15

80	1,3,5-Trimethylbenzene	9.863	-1.4	1690979	3.516	3.565	14.054	14.069	3.01				
81	2-Chlorotoluene	9.597	-4.0	1438808	2.992	3.117	13.950	13.965	3.28				
82	4-Chlorotoluene	9.718	-2.8	1610440	3.348	3.446	14.084	14.099	3.87				
83	tert-Butylbenzene	9.827	-1.7	429924	0.894	0.910	14.394	14.398	3.67				
84	1,2,4-Trimethylbenzene	9.823	-1.8	1651699	3.434	3.496	14.454	14.455	2.79				
85	sec-Butylbenzene	9.802	-2.0	2392659	4.975	5.076	14.616	14.632	3.03				
86	p-Isopropyltoluene	10.070	0.7	1986201	4.130	4.101	14.779	14.780	4.21				
87	1,3-Dichlorobenzene	9.810	-1.9	960420	1.997	2.036	14.750	14.752	3.41				
88	1,4-Dichlorobenzene	9.799	-2.0	932418	1.939	1.978	14.853	14.854	3.51				
89	n-Butylbenzene	10.219	2.2	1850791	3.848	3.766	15.164	15.164	4.22				
90	1,2-Dichlorobenzene	9.700	-3.0	775075	1.612	1.661	15.194	15.194	3.43				
91	1,2-Dibromo-3-chloropropane	10.143	1.4	45797	0.095	0.094	15.904	15.915	12.45				
92	1,2,4-Trichlorobenzene	10.164	1.6	446798	0.929	0.914	16.674	16.676	7.77				
93	Hexachlorobutadiene	10.253	2.5	302771	0.630	0.614	16.792	16.794	4.77				
94	Naphthalene	9.443	-5.6	546900	1.137	1.204	16.926	16.941	11.07				
95	1,2,3-Trichlorobenzene	10.141	1.4	338500	0.704	0.694	17.148	17.151	7.45				

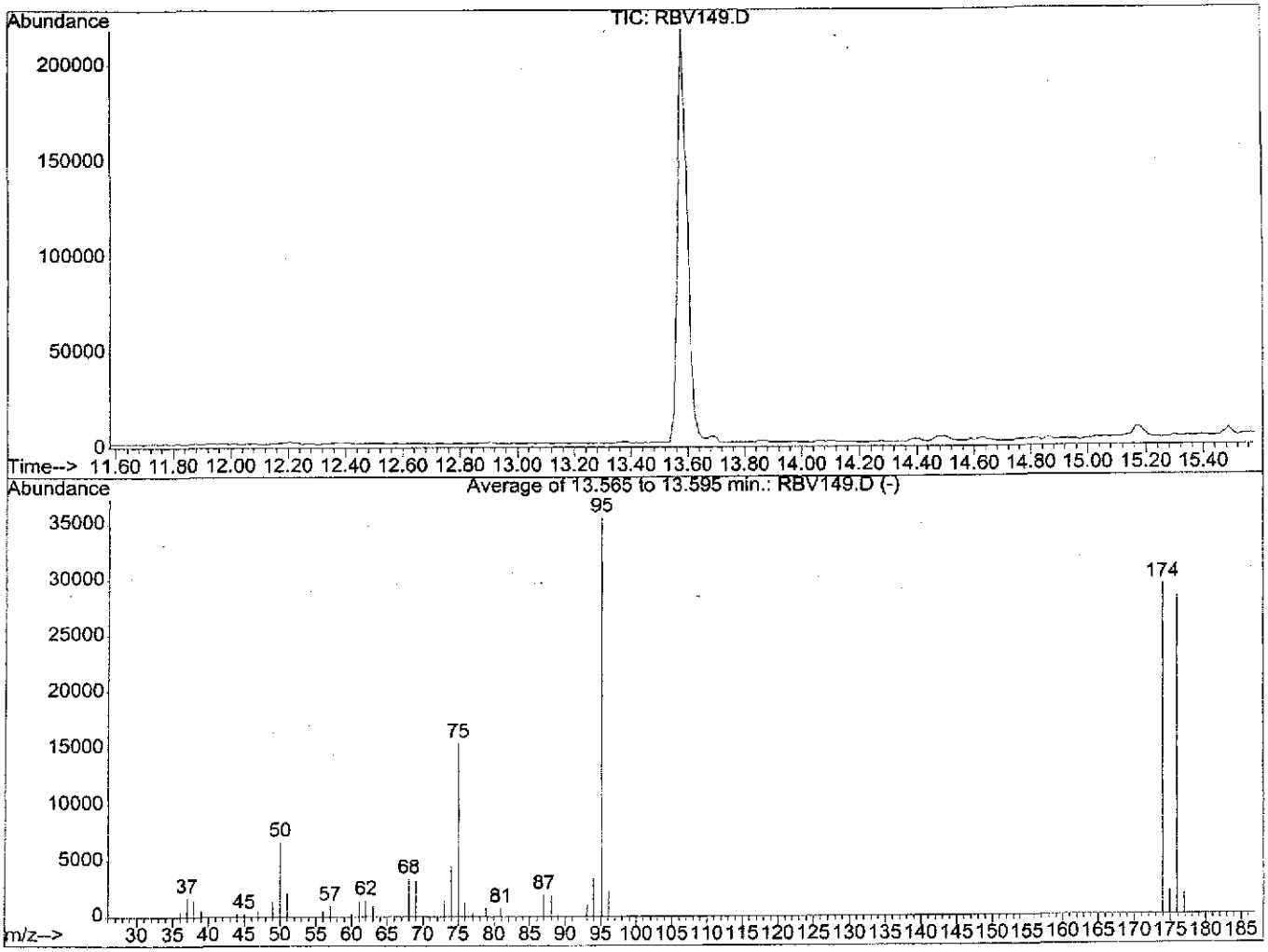
Spike Amount = Nominal Amount * M

SCM
2/18/15

BFB

Data File : D:\HPCHEM\1\DATA\15B13\RBV149.D
Acq On : 13 Feb 2015 10:03 am
Sample : BFB01B09
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 802, 803, 804; Background Corrected with Scan 799

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	6666	PASS
75	95	30	60	43.3	15397	PASS
95	95	100	100	100.0	35552	PASS
96	95	5	9	6.4	2291	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.5	29331	PASS
175	174	5	9	7.2	2117	PASS
176	174	95	101	96.3	28242	PASS
177	176	5	9	6.5	1829	PASS

RBV149.D VO01B12.M Tue Feb 17 10:56:50 2015

SM 2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IV001B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	103	0.00
2	T,M	Chlorotrifluoroethylene	-1.000	0.000	0.0	0	-1.98#
3	T,M	Dichlorodifluoromethane	10.000	9.516	4.8	86	0.00
4	P,T,M	Chloromethane	10.000	9.148	8.5	85	0.00
5	C,T,M	Vinyl chloride	10.000	9.431	5.7	87	0.00
6	T,M	2-Chloro-1,1,1-trifluoroeth	-1.000	0.000	0.0	0	-2.48#
7	T,M	Bromomethane	10.000	8.363	16.4	88	0.00
8	T,M	Chloroethane	10.000	10.100	-1.0	93	0.00
9	T,M	Dichlorofluoromethane	10.000	9.664	3.4	101	0.02
10	T,M	Trichlorofluoromethane	10.000	10.063	-0.6	91	0.00
11	T,M	Acrolein	50.000	51.042	-2.1	105	-0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	9.463	5.4	99	0.00
13	T,M	Acetone	50.000	49.552	0.9	106	0.00
14	C,T,M	1,1-Dichloroethene	10.000	9.581	4.2	100	0.00
15	T,M	Iodomethane	10.000	9.822	1.8	101	0.00
16	T,M	Carbon disulfide	10.000	9.867	1.3	94	0.00
17	T,M	Methyl acetate	10.000	10.038	-0.4	100	0.00
18	T,M	Methylene chloride	10.000	9.575	4.3	105	0.00
19	T,M	tert-Butyl alcohol	50.000	49.661	0.7	95	-0.01
20	T,M	Acrylonitrile	50.000	51.953	-3.9	103	0.00
21	T,M	tert-Butyl methyl ether (MT	10.000	9.892	1.1	100	0.00
22	T,M	trans-1,2-Dichloroethene	10.000	9.643	3.6	99	-0.01
23	T,M	Vinyl acetate	10.000	8.209	17.9	75	0.00
24	P,T,M	1,1-Dichloroethane	10.000	9.819	1.8	101	-0.01
25	T,M	Isopropyl ether (DIPE)	10.000	9.661	3.4	98	-0.01
26	T,M	2-Butanol	50.000	51.487	-3.0	99	0.00
27	T,M	tert-Butyl ethyl ether (ETB	10.000	9.959	0.4	101	0.00
28	T,M	2-Butanone	50.000	50.325	-0.7	99	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	9.844	1.6	100	0.00
30	T,M	2,2-Dichloropropane	10.000	10.264	-2.6	105	0.00
31	T,M	Tetrahydrofurane	10.000	9.796	2.0	103	0.00
32	T,M	Bromochloromethane	10.000	9.789	2.1	99	0.00
33	C,T,M	Chloroform	10.000	9.823	1.8	103	0.00
34	S	Dibromofluoromethane	10.000	10.270	-2.7	100	0.00
35	T,M	1,1,1-Trichloroethane	10.000	9.795	2.1	100	0.00
36	T,M	Cyclohexane	10.000	10.213	-2.1	102	0.00
37	T,M	tert-Amyl methyl ether (TAM	10.000	10.235	-2.3	99	-0.01
38	S	1,2-Dichloroethane-d4	10.000	10.123	-1.2	99	0.00
39	T,M	1,1-Dichloropropene	10.000	9.611	3.9	98	-0.01
40	T,M	Carbon tetrachloride	10.000	9.744	2.6	98	0.00
41	T,M	Benzene	10.000	9.669	3.3	100	-0.01

(#) = Out of Range

Sm 2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IVO01B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	10.000	9.712	2.9	98	-0.01
43	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	-0.01
44	T,M	Trichloroethene	10.000	9.684	3.2	100	-0.01
45	T,M	Methylcylohexane	10.000	10.607	-6.1	104	0.00
46	C,T,M	1,2-Dichloropropane	10.000	9.858	1.4	101	-0.01
47	T,M	1,4-Dioxane	200.000	192.964	3.5	92	0.00
48	T,M	Dibromomethane	10.000	9.970	0.3	97	0.00
49	T,M	Bromodichloromethane	10.000	10.069	-0.7	101	0.00
50	T,M	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
51	T,M	cis-1,3-Dichloropropene	10.000	10.218	-2.2	101	0.00
52	T,M	4-Methyl-2-pentanone	50.000	51.269	-2.5	97	0.00
53	I	CHLOROBENZENE-D5	10.000	10.000	0.0	100	0.00
54	S	Toluene-d8	10.000	10.704	-7.0	101	-0.01
55	C,T,M	Toluene	10.000	9.470	5.3	99	-0.01
56	T,M	Ethyl methacrylate	10.000	10.118	-1.2	95	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	10.426	-4.3	100	0.00
58	T,M	1,1,2-Trichloroethane	10.000	9.683	3.2	96	-0.01
59	T,M	Tetrachloroethene	10.000	9.663	3.4	101	-0.01
60	T,M	1,3-Dichloropropane	10.000	9.684	3.2	96	-0.01
61	T,M	2-Hexanone	50.000	51.120	-2.2	97	-0.01
62	T,M	Dibromochloromethane	10.000	10.037	-0.4	97	0.00
63	T,M	1,2-Dibromoethane	10.000	9.896	1.0	96	0.00
64	T,M	1-Chlorohexane	10.000	9.844	1.6	101	0.00
65	P,M	Chlorobenzene	10.000	9.885	1.2	100	-0.01
66	T,M	1,1,1,2-Tetrachloroethane	10.000	10.007	-0.1	100	0.00
67	C,T,M	Ethylbenzene	10.000	9.675	3.2	97	0.00
68	T,M	m-Xylene & p-Xylene	20.000	19.577	2.1	99	0.00
69	T,M	o-Xylene	10.000	9.769	2.3	97	0.00
70	T,M	Styrene	10.000	10.094	-0.9	97	0.00
71	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	98	-0.01
72	P,T,M	Bromoform	10.000	10.152	-1.5	97	0.00
73	T,M	Isopropylbenzene	10.000	9.714	2.9	97	0.00
74	S	4-Bromofluorobenzene	10.000	10.477	-4.8	99	0.00
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.881	1.2	95	0.00
76	T,M	Bromobenzene	10.000	9.817	1.8	98	0.00
77	T,M	trans-1,4-Dichloro-2-butene	10.000	10.372	-3.7	97	0.00
78	T,M	1,2,3-Trichloropropane	10.000	9.845	1.5	94	-0.01
79	T,M	n-Propylbenzene	10.000	9.767	2.3	96	0.00
80	T,M	1,3,5-Trimethylbenzene	10.000	9.863	1.4	98	-0.01

(#) = Out of Range

Sw 2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	10.000	9.597	4.0	97	-0.01
82	T,M	4-Chlorotoluene	10.000	9.718	2.8	98	-0.01
83	T,M	tert-Butylbenzene	10.000	9.827	1.7	98	0.00
84	T,M	1,2,4-Trimethylbenzene	10.000	9.823	1.8	98	0.00
85	T,M	sec-Butylbenzene	10.000	9.802	2.0	96	-0.01
86	T,M	p-Isopropyltoluene	10.000	10.070	-0.7	99	0.00
87	T,M	1,3-Dichlorobenzene	10.000	9.810	1.9	100	0.00
88	T,M	1,4-Dichlorobenzene	10.000	9.799	2.0	99	0.00
89	T,M	n-Butylbenzene	10.000	10.220	-2.2	99	0.00
90	T,M	1,2-Dichlorobenzene	10.000	9.700	3.0	97	0.00
91	T,M	1,2-Dibromo-3-chloropropane	10.000	10.143	-1.4	96	-0.01
92	T,M	1,2,4-Trichlorobenzene	10.000	10.164	-1.6	96	0.00
93	T,M	Hexachlorobutadiene	10.000	10.253	-2.5	97	0.00
94	T,M	Naphthalene	10.000	9.443	5.6	89	-0.01
95	T,M	1,2,3-Trichlorobenzene	10.000	10.141	-1.4	95	0.00

SY 2/18/15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
RBV150.D VO01B12.M Tue Feb 17 10:57:54 2015 Page 3

2115

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IVO01B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	103	0.00
2	T,M	Chlorotrifluoroethylene	0.000	0.000	0.0	0#	-1.98#
3	T,M	Dichlorodifluoromethane	0.225	0.215	4.4	86	0.00
4	P,T,M	Chloromethane	0.357	0.327	8.4	85	0.00
5	C,T,M	Vinyl chloride	0.320	0.301	5.9	87	0.00
6	T,M	2-Chloro-1,1,1-trifluoroeth	0.000	0.000	0.0	0#	-2.48#
7	T,M	Bromomethane	0.261	0.218	16.5	88	0.00
8	T,M	Chloroethane	0.216	0.218	-0.9	93	0.00
9	T,M	Dichlorofluoromethane	0.551	0.533	3.3	101	0.02
10	T,M	Trichlorofluoromethane	0.300	0.302	-0.7	91	0.00
11	T,M	Acrolein	0.016	0.017	-6.3	105	-0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.200	0.189	5.5	99	0.00
13	T,M	Acetone	0.032	0.031	3.1	106	0.00
14	C,T,M	1,1-Dichloroethene	0.403	0.386	4.2	100	0.00
15	T,M	Iodomethane	0.562	0.552	1.8	101	0.00
16	T,M	Carbon disulfide	0.986	0.973	1.3	94	0.00
17	T,M	Methyl acetate	0.108	0.109	-0.9	100	0.00
18	T,M	Methylene chloride	0.437	0.419	4.1	105	0.00
19	T,M	tert-Butyl alcohol	0.011	0.011	0.0	95	-0.01
20	T,M	Acrylonitrile	0.049	0.051	-4.1	103	0.00
21	T,M	tert-Butyl methyl ether (MT	0.514	0.508	1.2	100	0.00
22	T,M	trans-1,2-Dichloroethene	0.493	0.475	3.7	99	-0.01
23	T,M	Vinyl acetate	0.456	0.375	17.8	75	0.00
24	P,T,M	1,1-Dichloroethane	0.634	0.622	1.9	101	-0.01
25	T,M	Isopropyl ether (DIPE)	1.183	1.143	3.4	98	-0.01
26	T,M	2-Butanol	0.010	0.011	-10.0	99	0.00
27	T,M	tert-Butyl ethyl ether (ETB	0.824	0.821	0.4	101	0.00
28	T,M	2-Butanone	0.067	0.067	0.0	99	0.00
29	T,M	cis-1,2-Dichloroethene	0.378	0.372	1.6	100	0.00
30	T,M	2,2-Dichloropropane	0.357	0.366	-2.5	105	0.00
31	T,M	Tetrahydrofurane	0.041	0.040	2.4	103	0.00
32	T,M	Bromochloromethane	0.257	0.252	1.9	99	0.00
33	C,T,M	Chloroform	0.536	0.527	1.7	103	0.00
34	S	Dibromofluoromethane	0.332	0.341	-2.7	100	0.00
35	T,M	1,1,1-Trichloroethane	0.396	0.388	2.0	100	0.00
36	T,M	Cyclohexane	0.518	0.529	-2.1	102	0.00
37	T,M	tert-Amyl methyl ether (TAM	0.124	0.127	-2.4	99	-0.01
38	S	1,2-Dichloroethane-d4	0.214	0.217	-1.4	99	0.00
39	T,M	1,1-Dichloropropene	0.179	0.172	3.9	98	-0.01
40	T,M	Carbon tetrachloride	0.359	0.350	2.5	98	0.00
41	T,M	Benzene	1.336	1.292	3.3	100	-0.01

(#) = Out of Range

2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	0.262	0.254	3.1	98	-0.01
43	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	-0.01
44	T,M	Trichloroethene	0.399	0.386	3.3	100	-0.01
45	T,M	Methylcylohexane	0.481	0.510	-6.0	104	0.00
46	C,T,M	1,2-Dichloropropane	0.347	0.342	1.4	101	-0.01
47	T,M	1,4-Dioxane	0.001	0.001	0.0	92	0.00
48	T,M	Dibromomethane	0.137	0.136	0.7	97	0.00
49	T,M	Bromodichloromethane	0.361	0.363	-0.6	101	0.00
50	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.00
51	T,M	cis-1,3-Dichloropropene	0.475	0.486	-2.3	101	0.00
52	T,M	4-Methyl-2-pentanone	0.152	0.156	-2.6	97	0.00
53	I	CHLOROBENZENE-D5	1.000	1.000	0.0	100	0.00
54	S	Toluene-d8	1.352	1.448	-7.1	101	-0.01
55	C,T,M	Toluene	1.712	1.621	5.3	99	-0.01
56	T,M	Ethyl methacrylate	0.281	0.284	-1.1	95	0.00
57	T,M	trans-1,3-Dichloropropene	0.391	0.408	-4.3	100	0.00
58	T,M	1,1,2-Trichloroethane	0.228	0.221	3.1	96	-0.01
59	T,M	Tetrachloroethene	0.383	0.370	3.4	101	-0.01
60	T,M	1,3-Dichloropropane	0.429	0.415	3.3	96	-0.01
61	T,M	2-Hexanone	0.119	0.122	-2.5	97	-0.01
62	T,M	Dibromochloromethane	0.287	0.288	-0.3	97	0.00
63	T,M	1,2-Dibromoethane	0.222	0.220	0.9	96	0.00
64	T,M	1-Chlorohexane	0.748	0.736	1.6	101	0.00
65	P,M	Chlorobenzene	1.035	1.023	1.2	100	-0.01
66	T,M	1,1,1,2-Tetrachloroethane	0.346	0.346	0.0	100	0.00
67	C,T,M	Ethylbenzene	1.903	1.841	3.3	97	0.00
68	T,M	m-Xylene & p-Xylene	1.369	1.340	2.1	99	0.00
69	T,M	o-Xylene	1.352	1.321	2.3	97	0.00
70	T,M	Styrene	1.036	1.046	-1.0	97	0.00
71	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	98	-0.01
72	P,T,M	Bromoform	0.406	0.412	-1.5	97	0.00
73	T,M	Isopropylbenzene	4.647	4.514	2.9	97	0.00
74	S	4-Bromofluorobenzene	1.150	1.205	-4.8	99	0.00
75	P,T,M	1,1,2,2-Tetrachloroethane	0.704	0.696	1.1	95	0.00
76	T,M	Bromobenzene	1.054	1.034	1.9	98	0.00
77	T,M	trans-1,4-Dichloro-2-butene	0.133	0.138	-3.8	97	0.00
78	T,M	1,2,3-Trichloropropane	0.173	0.170	1.7	94	-0.01
79	T,M	n-Propylbenzene	5.930	5.792	2.3	96	0.00
80	T,M	1,3,5-Trimethylbenzene	3.565	3.516	1.4	98	-0.01

(#) = Out of Range

2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	3.117	2.992	4.0	97	-0.01
82	T,M	4-Chlorotoluene	3.446	3.348	2.8	98	-0.01
83	T,M	tert-Butylbenzene	0.910	0.894	1.8	98	0.00
84	T,M	1,2,4-Trimethylbenzene	3.496	3.434	1.8	98	0.00
85	T,M	sec-Butylbenzene	5.076	4.975	2.0	96	-0.01
86	T,M	p-Isopropyltoluene	4.101	4.130	-0.7	99	0.00
87	T,M	1,3-Dichlorobenzene	2.036	1.997	1.9	100	0.00
88	T,M	1,4-Dichlorobenzene	1.978	1.939	2.0	99	0.00
89	T,M	n-Butylbenzene	3.766	3.848	-2.2	99	0.00
90	T,M	1,2-Dichlorobenzene	1.661	1.612	3.0	97	0.00
91	T,M	1,2-Dibromo-3-chloropropane	0.094	0.095	-1.1	96	-0.01
92	T,M	1,2,4-Trichlorobenzene	0.914	0.929	-1.6	96	0.00
93	T,M	Hexachlorobutadiene	0.614	0.630	-2.6	97	0.00
94	T,M	Naphthalene	1.204	1.137	5.6	89	-0.01
95	T,M	1,2,3-Trichlorobenzene	0.694	0.704	-1.4	95	0.00

SM 2/18/15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
RBV150.D VO01B12.M Tue Feb 17 10:58:02 2015 Page 3

2118

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IVO01B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1545118	10.00 ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1273949	10.00 ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.16	152	480946	10.00 ug/l	-0.01
System Monitoring Compounds					
34) Dibromofluoromethane	6.40	111	527525	10.27 ug/l	0.00
Spiked Amount 10.000			Recovery =	102.70%	
38) 1,2-Dichloroethane-d4	6.85	65	335321	10.12 ug/l	0.00
Spiked Amount 10.000			Recovery =	101.20%	
54) Toluene-d8	9.58	98	1844157	10.70 ug/l	-0.01
Spiked Amount 10.000			Recovery =	107.00%	
74) 4-Bromofluorobenzene	13.58	95	579538	10.48 ug/l	0.00
Spiked Amount 10.000			Recovery =	104.80%	
Target Compounds					Qvalue
3) Dichlorodifluoromethane	2.03	85	331489	9.52 ug/l	99
4) Chloromethane	2.21	50	504754	9.15 ug/l	99
5) Vinyl chloride	2.38	62	465582	9.43 ug/l	100
7) Bromomethane	2.72	94	337515	8.36 ug/l	98
8) Chloroethane	2.83	64	336450	10.10 ug/l	98
9) Dichlorofluoromethane	3.11	67	823056	9.66 ug/l	100
10) Trichlorofluoromethane	3.17	101	466502	10.06 ug/l	99
11) Acrolein	3.57	56	129253	51.04 ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	292108	9.46 ug/l	98
13) Acetone	3.74	43	242165	49.55 ug/l	100
14) 1,1-Dichloroethene	3.72	61	596268	9.58 ug/l	99
15) Iodomethane	3.88	142	853312	9.82 ug/l	99
16) Carbon disulfide	4.02	76	1503903	9.87 ug/l	98
17) Methyl acetate	4.09	43	167843	10.04 ug/l	99
18) Methylene chloride	4.27	49	647025	9.58 ug/l	100
19) tert-Butyl alcohol	4.37	59	86646	49.66 ug/l	100
20) Acrylonitrile	4.51	53	390954	51.95 ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	785157	9.89 ug/l	99
22) trans-1,2-Dichloroethene	4.58	61	734056	9.64 ug/l	99
23) Vinyl acetate	5.08	43	578649	8.21 ug/l	95
24) 1,1-Dichloroethane	5.08	63	961688	9.82 ug/l	100
25) Isopropyl ether (DIPE)	5.13	45	1765642	9.66 ug/l	99
26) 2-Butanol	5.99	45	81941	51.49 ug/l	99
27) tert-Butyl ethyl ether (ET	5.57	59	1268358	9.96 ug/l	100
28) 2-Butanone	5.75	43	519766	50.32 ug/l	100
29) cis-1,2-Dichloroethene	5.78	96	575197	9.84 ug/l	99
30) 2,2-Dichloropropane	5.79	77	565970	10.26 ug/l	99

(#) = qualifier out of range (m) = manual integration

S 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IVO01B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Tetrahydrofurane	6.11	42	61929	9.80 ug/l	97
32)	Bromochloromethane	6.08	49	388737	9.79 ug/l	98
33)	Chloroform	6.19	83	813632	9.82 ug/l	98
35)	1,1,1-Trichloroethane	6.43	97	599123	9.80 ug/l	99
36)	Cyclohexane	6.53	56	817429	10.21 ug/l	100
37)	tert-Amyl methyl ether (TA	7.05	87	195975	10.24 ug/l	97
39)	1,1-Dichloropropene	6.62	110	266097	9.61 ug/l	100
40)	Carbon tetrachloride	6.64	119	541041	9.74 ug/l	99
41)	Benzene	6.87	78	1995998	9.67 ug/l	100
42)	1,2-Dichloroethane	6.93	62	392473	9.71 ug/l	99
44)	Trichloroethene	7.78	130	596662	9.68 ug/l	100
45)	Methylcylohexane	8.13	83	788341	10.61 ug/l	99
46)	1,2-Dichloropropane	8.13	63	529081	9.86 ug/l	98
47)	1,4-Dioxane	8.25	88	32795	192.96 ug/l	96
48)	Dibromomethane	8.27	93	210642	9.97 ug/l	99
49)	Bromodichloromethane	8.52	83	561471	10.07 ug/l	99
51)	cis-1,3-Dichloropropene	9.17	75	750227	10.22 ug/l	99
52)	4-Methyl-2-pentanone	9.38	43	1207825	51.27 ug/l	99
55)	Toluene	9.69	91	2064782	9.47 ug/l	100
56)	Ethyl methacrylate	10.15	69	362315	10.12 ug/l	100
57)	trans-1,3-Dichloropropene	10.06	75	519588	10.43 ug/l	100
58)	1,1,2-Trichloroethane	10.37	97	281436	9.68 ug/l	100
59)	Tetrachloroethene	10.53	164	471599	9.66 ug/l	99
60)	1,3-Dichloropropane	10.63	76	528991	9.68 ug/l	99
61)	2-Hexanone	10.71	43	778170	51.12 ug/l	100
62)	Dibromochloromethane	11.00	129	366726	10.04 ug/l	100
63)	1,2-Dibromoethane	11.21	107	279812	9.90 ug/l	100
64)	1-Chlorohexane	12.01	91	938151	9.84 ug/l	98
65)	Chlorobenzene	12.03	112	1303383	9.88 ug/l	100
66)	1,1,1,2-Tetrachloroethane	12.17	131	441121	10.01 ug/l	100
67)	Ethylbenzene	12.19	91	2345502	9.68 ug/l	100
68)	m-Xylene & p-Xylene	12.38	91	3413283	19.58 ug/l	100
69)	o-Xylene	12.90	91	1683046	9.77 ug/l	100
70)	Styrene	12.93	104	1332722	10.09 ug/l	100
72)	Bromoform	13.17	173	198326	10.15 ug/l	99
73)	Isopropylbenzene	13.37	105	2170916	9.71 ug/l	100
75)	1,1,2,2-Tetrachloroethane	13.73	83	334639	9.88 ug/l	100
76)	Bromobenzene	13.74	156	497480	9.82 ug/l	99
77)	trans-1,4-Dichloro-2-buten	13.77	53	66186	10.37 ug/l	99
78)	1,2,3-Trichloropropane	13.79	110	81859	9.84 ug/l	97
79)	n-Propylbenzene	13.86	91	2785410	9.77 ug/l	100

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) 1,3,5-Trimethylbenzene	14.05	105	1690979	9.86	ug/l	100
81) 2-Chlorotoluene	13.95	91	1438808	9.60	ug/l	100
82) 4-Chlorotoluene	14.08	91	1610440	9.72	ug/l	100
83) tert-Butylbenzene	14.39	134	429924	9.83	ug/l	97
84) 1,2,4-Trimethylbenzene	14.45	105	1651699	9.82	ug/l	98
85) sec-Butylbenzene	14.62	105	2392659	9.80	ug/l	100
86) p-Isopropyltoluene	14.78	119	1986201	10.07	ug/l	100
87) 1,3-Dichlorobenzene	14.75	146	960420	9.81	ug/l	99
88) 1,4-Dichlorobenzene	14.85	146	932418	9.80	ug/l	99
89) n-Butylbenzene	15.16	91	1850791	10.22	ug/l	100
90) 1,2-Dichlorobenzene	15.19	146	775075	9.70	ug/l	100
91) 1,2-Dibromo-3-chloropropan	15.90	157	45797	10.14	ug/l	98
92) 1,2,4-Trichlorobenzene	16.67	180	446798	10.16	ug/l	99
93) Hexachlorobutadiene	16.79	225	302771	10.25	ug/l	99
94) Naphthalene	16.93	128	546900	9.44	ug/l	100
95) 1,2,3-Trichlorobenzene	17.15	180	338500	10.14	ug/l	99

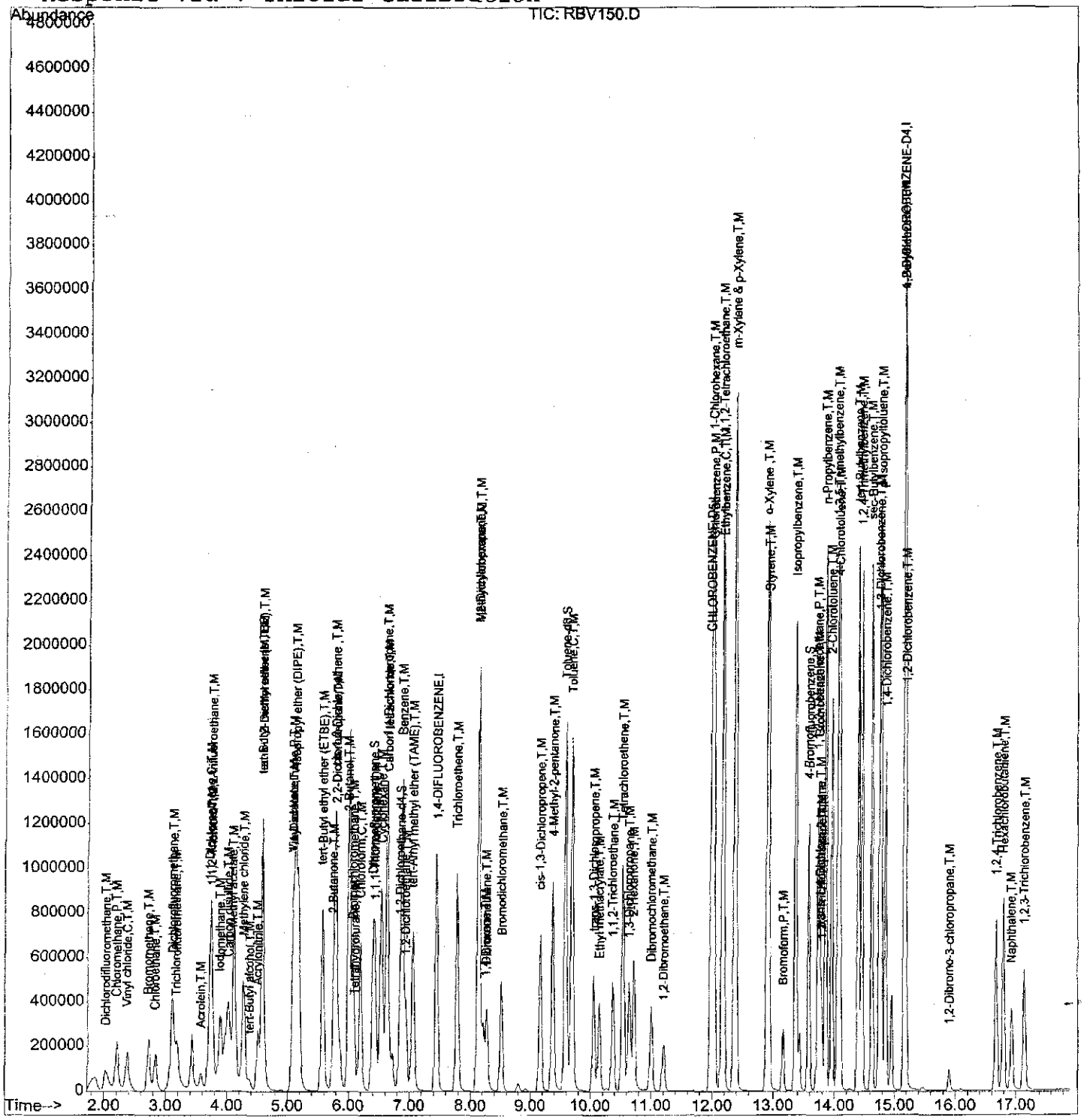
Sa 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2122

DAILY CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RDV607
Instrument ID: TO01
GC Column:RXI-624SILMSID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D143
BFB Injection Date : 04/30/15
BFB Injection Time : 13:07
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.12
75	30.0 - 60.0% of mass 95	43.47
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.79
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	82.02
175	5.0 - 9.0% of mass 174	5.59(6.8)1
176	95.0 - 101.0% of mass 174	79.34(96.7)1
177	5.0 - 9.0% of mass 176	5.02(6.3)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001B1231	RDV608	04/30/15	13:34
2	MBLK1W	VO01D26B	RDV612	04/30/15	15:31
3	LCS1W	VO01D26L	RDV609	04/30/15	14:09
4	LCD1W	VO01D26C	RDV610	04/30/15	14:37
5	04-21-15-WA-1MS	D143-01M	RDV613	04/30/15	15:57
6	04-21-15-WA-1MSD	D143-01S	RDV614	04/30/15	16:24
7	04-21-15-WA-1	D143-01	RDV620	04/30/15	19:07
8	04-21-15-TB-3	D143-11	RDV621	04/30/15	19:36
9	04-21-15-EB-1	D143-12	RDV622	04/30/15	20:04
10	04-21-15-TB-5	D143-15	RDV623	04/30/15	20:32
11	04-21-15-WA-5	D143-05	RDV624	04/30/15	21:00
12	04-21-15-WA-9	D143-08	RDV625	04/30/15	21:29
13	04-21-15-PWA-3	D143-09	RDV626	04/30/15	21:57
14	04-21-15-PWA-7A	D143-10	RDV627	04/30/15	22:26
15	04-21-15-EPA5-2	D143-14	RDV628	04/30/15	22:54
16	04-21-15-WA-3	D143-16	RDV629	04/30/15	23:22
17	04-21-15-EPA5-1	D143-07	RDV630	04/30/15	23:51
18	04-21-15-FDUP-2	D143-03	RDV631	05/01/15	00:21
19	04-21-15-EPA5-3	D143-04	RDV632	05/01/15	00:50

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
Lab Code : EMXT
Lab File ID : RBV140
Instrument ID: TD01
GC Column : RXI-624SILMSID:0.25mm (mm)

Project : B & B GROUNDWATER SAMPLING
SDG No. : 15D143
Date Analyzed : 02/12/15
Time Analyzed : 20:03
Heated Purge : No

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1495146	7.45	1270714	11.98	491901	15.18
	UPPER LIMIT	2990292	7.95	2541428	12.48	983802	15.68
	LOWER LIMIT	747573	6.95	635357	11.48	245951	14.68
	SAMPLE ID						
1	VSTD010	1219495	7.47	1029739	12.00	396820	15.18
2	MBLK1W	1275017	7.47	994546	12.01	325514	15.18
3	LCS1W	1197780	7.47	992065	12.00	374541	15.18
4	LCD1W	1255246	7.47	1039645	12.00	389120	15.18
5	04-21-15-WA-1MS	1190425	7.47	982859	12.01	367080	15.18
6	04-21-15-WA-1MSD	1192964	7.47	993094	12.01	375916	15.18
7	04-21-15-WA-1	1233460	7.47	945735	12.01	315874	15.18
8	04-21-15-TB-3	1210756	7.47	918368	12.01	302079	15.18
9	04-21-15-EB-1	1177205	7.47	917430	12.01	300248	15.18
10	04-21-15-TB-5	1164401	7.47	911563	12.01	293866	15.18
11	04-21-15-WA-5	1167790	7.47	916622	12.00	303608	15.18
12	04-21-15-WA-9	1171163	7.47	924198	12.00	300874	15.18
13	04-21-15-PWA-3	1141487	7.47	886786	12.00	292406	15.18
14	04-21-15-PWA-7A	1121064	7.47	879632	12.00	289833	15.18
15	04-21-15-EPA5-2	1152297	7.47	901194	12.00	298960	15.18
16	04-21-15-WA-3	1211558	7.47	949635	12.00	307817	15.18
17	04-21-15-EPA5-1	1196566	7.45	937306	12.00	311329	15.18
18	04-21-15-FDUP-2	1150877	7.47	974755	12.00	345192	15.18
19	04-21-15-EPA5-3	1137696	7.47	944468	12.00	338863	15.18

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

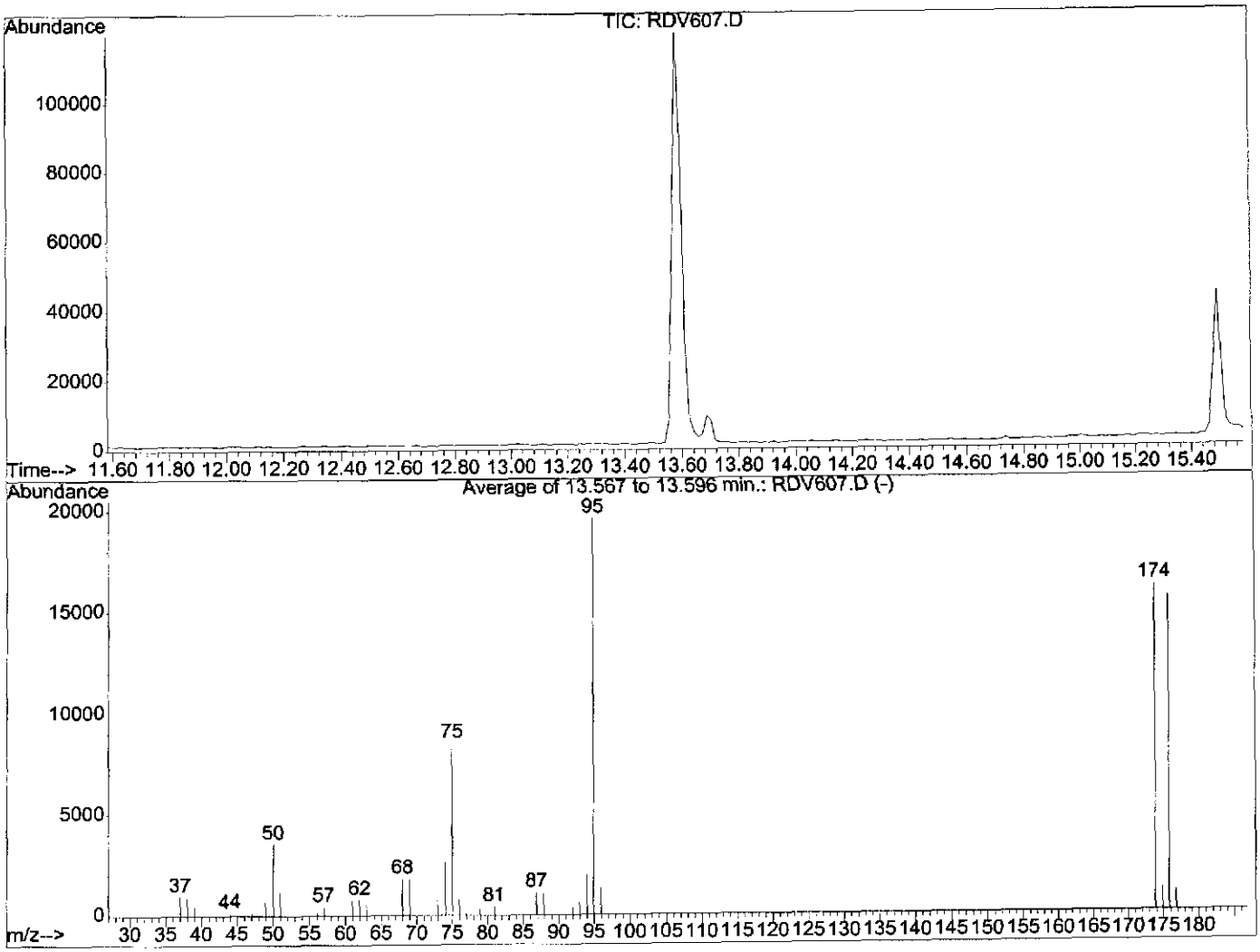
AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.5 minutes (30 sec) of internal standard RT
RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

BFB

Data File : D:\HPCHEM\1\DATA\15D30\RDV607.D
Acq On : 30 Apr 2015 1:07 pm
Sample : BFB01D26
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 802, 803, 804; Background Corrected with Scan 799

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	3545	PASS
75	95	30	60	43.5	8505	PASS
95	95	100	100	100.0	19565	PASS
96	95	5	9	6.8	1329	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.0	16048	PASS
175	174	5	9	6.8	1093	PASS
176	174	95	101	96.7	15522	PASS
177	176	5	9	6.3	983	PASS

RDV607.D VO01B12.M Fri May 01 11:23:32 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CV001B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	82	0.02
2	T,M	Chlorotrifluoroethylene	-1.000	0.000	0.0	0	-1.98#
3	T,M	Dichlorodifluoromethane	10.000	11.054	-10.5	79	0.00
4	P,T,M	Chloromethane	10.000	9.465	5.4	69	0.02
5	C,T,M	Vinyl chloride	10.000	9.874	1.3	72	0.02
6	T,M	2-Chloro-1,1,1-trifluoroeth	-1.000	0.000	0.0	0	-2.48#
7	T,M	Bromomethane	10.000	8.466	15.3	70	0.02
8	T,M	Chloroethane	10.000	9.766	2.3	71	0.02
9	T,M	Dichlorofluoromethane	10.000	9.735	2.7	80	0.02
10	T,M	Trichlorofluoromethane	10.000	10.176	-1.8	72	-0.04
11	T,M	Acrolein	50.000	33.978	32.0#m	55	0.02
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	8.743	12.6	72	0.02
13	T,M	Acetone	50.000	51.045	-2.1	87	0.02
14	C,T,M	1,1-Dichloroethene	10.000	9.138	8.6	75	0.00
15	T,M	Iodomethane	10.000	8.994	10.1	73	0.02
16	T,M	Carbon disulfide	10.000	9.931	0.7	74	-0.03
17	T,M	Methyl acetate	10.000	0.000	100.0#m	0	-4.09#
18	T,M	Methylene chloride	10.000	9.279	7.2	81	0.02
19	T,M	tert-Butyl alcohol	50.000	57.273	-14.5	87	0.02
20	T,M	Acrylonitrile	50.000	49.899	0.2	78	0.03
21	T,M	tert-Butyl methyl ether (MT	10.000	10.243	-2.4	81	0.03
22	T,M	trans-1,2-Dichloroethene	10.000	8.958	10.4	72	0.02
23	T,M	Vinyl acetate	10.000	8.848	11.5	63	0.02
24	P,T,M	1,1-Dichloroethane	10.000	9.645	3.6	78	0.02
25	T,M	Isopropyl ether (DIPE)	10.000	9.773	2.3	79	0.02
26	T,M	2-Butanol	50.000	0.000	100.0#m	0	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	10.000	10.051	-0.5	81	0.03
28	T,M	2-Butanone	50.000	49.883	0.2	78	0.02
29	T,M	cis-1,2-Dichloroethene	10.000	9.539	4.6	77	0.02
30	T,M	2,2-Dichloropropane	10.000	11.000	-10.0	89	0.03
31	T,M	Tetrahydrofurane	10.000	10.273	-2.7	85	0.03
32	T,M	Bromochloromethane	10.000	9.419	5.8	75	0.02
33	C,T,M	Chloroform	10.000	9.778	2.2	81	0.03
34	S	Dibromofluoromethane	10.000	9.229	7.7	71	0.02
35	T,M	1,1,1-Trichloroethane	10.000	9.602	4.0	77	0.02
36	T,M	Cyclohexane	10.000	0.000	100.0#m	0	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	10.000	10.767	-7.7	82	0.02
38	S	1,2-Dichloroethane-d4	10.000	9.309	6.9	72	0.02
39	T,M	1,1-Dichloropropene	10.000	9.034	9.7	73	0.02
40	T,M	Carbon tetrachloride	10.000	9.158	8.4	73	0.02
41	T,M	Benzene	10.000	9.408	5.9	77	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	10.000	9.754	2.5	78	0.02
43	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.02
44	T,M	Trichloroethene	10.000	9.294	7.1	76	0.02
45	T,M	Methylcylohexane	10.000	0.000	100.0#	0	-8.13#
46	C,T,M	1,2-Dichloropropane	10.000	9.965	0.4	81	0.02
47	T,M	1,4-Dioxane	200.000	222.496	-11.2	84	0.02
48	T,M	Dibromomethane	10.000	9.720	2.8	75	0.02
49	T,M	Bromodichloromethane	10.000	10.215	-2.1	81	0.02
50	T,M	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	-8.93#
51	T,M	cis-1,3-Dichloropropene	10.000	10.265	-2.7	80	0.02
52	T,M	4-Methyl-2-pentanone	50.000	51.206	-2.4	77	0.02
53	I	CHLOROBENZENE-D5	10.000	10.000	0.0	81	0.02
54	S	Toluene-d8	10.000	9.397	6.0	71	0.02
55	C,T,M	Toluene	10.000	8.944	10.6	75	0.02
56	T,M	Ethyl methacrylate	10.000	10.295	-2.9	78	0.02
57	T,M	trans-1,3-Dichloropropene	10.000	10.364	-3.6	81	0.02
58	T,M	1,1,2-Trichloroethane	10.000	9.910	0.9	80	0.02
59	T,M	Tetrachloroethene	10.000	8.786	12.1	74	0.02
60	T,M	1,3-Dichloropropane	10.000	9.808	1.9	78	0.02
61	T,M	2-Hexanone	50.000	49.502	1.0	76	0.02
62	T,M	Dibromochloromethane	10.000	9.967	0.3	78	0.02
63	T,M	1,2-Dibromoethane	10.000	9.498	5.0	75	0.02
64	T,M	1-Chlorohexane	10.000	8.489	15.1	70	0.02
65	P,M	Chlorobenzene	10.000	9.483	5.2	77	0.00
66	T,M	1,1,1,2-Tetrachloroethane	10.000	9.839	1.6	79	0.02
67	C,T,M	Ethylbenzene	10.000	9.228	7.7	75	0.02
68	T,M	m-Xylene & p-Xylene	20.000	18.367	8.2	75	0.02
69	T,M	o-Xylene	10.000	9.495	5.1	76	0.02
70	T,M	Styrene	10.000	9.937	0.6	77	0.02
71	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	81	0.00
72	P,T,M	Bromoform	10.000	9.431	5.7	74	0.02
73	T,M	Isopropylbenzene	10.000	9.059	9.4	75	0.00
74	S	4-Bromofluorobenzene	10.000	9.406	5.9	73	0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.924	0.8	79	0.02
76	T,M	Bromobenzene	10.000	9.523	4.8	78	0.02
77	T,M	trans-1,4-Dichloro-2-butene	10.000	9.051	9.5	70	0.00
78	T,M	1,2,3-Trichloropropane	10.000	9.576	4.2	76	0.00
79	T,M	n-Propylbenzene	10.000	8.934	10.7	73	0.00
80	T,M	1,3,5-Trimethylbenzene	10.000	9.153	8.5	75	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	10.000	9.103	9.0	76	0.00
82	T,M	4-Chlorotoluene	10.000	9.248	7.5	77	0.00
83	T,M	tert-Butylbenzene	10.000	9.384	6.2	77	0.02
84	T,M	1,2,4-Trimethylbenzene	10.000	9.194	8.1	76	0.02
85	T,M	sec-Butylbenzene	10.000	9.107	8.9	74	0.00
86	T,M	p-Isopropyltoluene	10.000	9.055	9.5	74	0.00
87	T,M	1,3-Dichlorobenzene	10.000	9.362	6.4	78	0.02
88	T,M	1,4-Dichlorobenzene	10.000	9.264	7.4	77	0.02
89	T,M	n-Butylbenzene	10.000	9.013	9.9	72	0.00
90	T,M	1,2-Dichlorobenzene	10.000	9.278	7.2	77	0.00
91	T,M	1,2-Dibromo-3-chloropropane	10.000	9.058	9.4	71	0.00
92	T,M	1,2,4-Trichlorobenzene	10.000	8.684	13.2	68	0.00
93	T,M	Hexachlorobutadiene	10.000	8.871	11.3	69	0.02
94	T,M	Naphthalene	10.000	8.012	19.9	63	0.00
95	T,M	1,2,3-Trichlorobenzene	10.000	8.327	16.7	64	0.02

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	82	0.02
2	T,M	Chlorotrifluoroethylene	0.000	0.000	0.0	0#	-1.98#
3	T,M	Dichlorodifluoromethane	0.225	0.249	-10.7	79	0.00
4	P,T,M	Chloromethane	0.357	0.338	5.3	69	0.02
5	C,T,M	Vinyl chloride	0.320	0.315	1.6	72	0.02
6	T,M	2-Chloro-1,1,1-trifluoroeth	0.000	0.000	0.0	0#	-2.48#
7	T,M	Bromomethane	0.261	0.221	15.3	70	0.02
8	T,M	Chloroethane	0.216	0.211	2.3	71	0.02
9	T,M	Dichlorofluoromethane	0.551	0.537	2.5	80	0.02
10	T,M	Trichlorofluoromethane	0.300	0.305	-1.7	72	-0.04
11	T,M	Acrolein	0.016	0.011	31.3#	55	0.02
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.200	0.175	12.5	72	0.02
13	T,M	Acetone	0.032	0.032	0.0	87	0.02
14	C,T,M	1,1-Dichloroethene	0.403	0.368	8.7	75	0.00
15	T,M	Iodomethane	0.562	0.506	10.0	73	0.02
16	T,M	Carbon disulfide	0.986	0.980	0.6	74	-0.03
17	T,M	Methyl acetate	0.108	0.000	100.0#	0#	-4.09#
18	T,M	Methylene chloride	0.437	0.406	7.1	81	0.02
19	T,M	tert-Butyl alcohol	0.011	0.013	-18.2	87	0.02
20	T,M	Acrylonitrile	0.049	0.049	0.0	78	0.03
21	T,M	tert-Butyl methyl ether (MT	0.514	0.526	-2.3	81	0.03
22	T,M	trans-1,2-Dichloroethene	0.493	0.441	10.5	72	0.02
23	T,M	Vinyl acetate	0.456	0.404	11.4	63	0.02
24	P,T,M	1,1-Dichloroethane	0.634	0.611	3.6	78	0.02
25	T,M	Isopropyl ether (DIPE)	1.183	1.156	2.3	79	0.02
26	T,M	2-Butanol	0.010	0.000	100.0#	0#	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	0.824	0.828	-0.5	81	0.03
28	T,M	2-Butanone	0.067	0.067	0.0	78	0.02
29	T,M	cis-1,2-Dichloroethene	0.378	0.361	4.5	77	0.02
30	T,M	2,2-Dichloropropane	0.357	0.393	-10.1	89	0.03
31	T,M	Tetrahydrofurane	0.041	0.042	-2.4	85	0.03
32	T,M	Bromochloromethane	0.257	0.242	5.8	75	0.02
33	C,T,M	Chloroform	0.536	0.524	2.2	81	0.03
34	S	Dibromofluoromethane	0.332	0.307	7.5	71	0.02
35	T,M	1,1,1-Trichloroethane	0.396	0.380	4.0	77	0.02
36	T,M	Cyclohexane	0.518	0.000	100.0#	0#	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	0.124	0.133	-7.3	82	0.02
38	S	1,2-Dichloroethane-d4	0.214	0.200	6.5	72	0.02
39	T,M	1,1-Dichloropropene	0.179	0.162	9.5	73	0.02
40	T,M	Carbon tetrachloride	0.359	0.329	8.4	73	0.02
41	T,M	Benzene	1.336	1.257	5.9	77	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	0.262	0.255	2.7	78	0.02
43	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.02
44	T,M	Trichloroethene	0.399	0.371	7.0	76	0.02
45	T,M	Methylcylohexane	0.481	0.000	100.0#	0#	-8.13#
46	C,T,M	1,2-Dichloropropane	0.347	0.346	0.3	81	0.02
47	T,M	1,4-Dioxane	0.001	0.001	0.0	84	0.02
48	T,M	Dibromomethane	0.137	0.133	2.9	75	0.02
49	T,M	Bromodichloromethane	0.361	0.369	-2.2	81	0.02
50	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-8.93#
51	T,M	cis-1,3-Dichloropropene	0.475	0.488	-2.7	80	0.02
52	T,M	4-Methyl-2-pentanone	0.152	0.156	-2.6	77	0.02
53	I	CHLOROBENZENE-D5	1.000	1.000	0.0	81	0.02
54	S	Toluene-d8	1.352	1.271	6.0	71	0.02
55	C,T,M	Toluene	1.712	1.531	10.6	75	0.02
56	T,M	Ethyl methacrylate	0.281	0.289	-2.8	78	0.02
57	T,M	trans-1,3-Dichloropropene	0.391	0.405	-3.6	81	0.02
58	T,M	1,1,2-Trichloroethane	0.228	0.226	0.9	80	0.02
59	T,M	Tetrachloroethene	0.383	0.337	12.0	74	0.02
60	T,M	1,3-Dichloropropane	0.429	0.421	1.9	78	0.02
61	T,M	2-Hexanone	0.119	0.118	0.8	76	0.02
62	T,M	Dibromochloromethane	0.287	0.286	0.3	78	0.02
63	T,M	1,2-Dibromoethane	0.222	0.211	5.0	75	0.02
64	T,M	1-Chlorohexane	0.748	0.635	15.1	70	0.02
65	P,M	Chlorobenzene	1.035	0.981	5.2	77	0.00
66	T,M	1,1,1,2-Tetrachloroethane	0.346	0.340	1.7	79	0.02
67	C,T,M	Ethylbenzene	1.903	1.756	7.7	75	0.02
68	T,M	m-Xylene & p-Xylene	1.369	1.257	8.2	75	0.02
69	T,M	o-Xylene	1.352	1.284	5.0	76	0.02
70	T,M	Styrene	1.036	1.030	0.6	77	0.02
71	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	81	0.00
72	P,T,M	Bromoform	0.406	0.383	5.7	74	0.02
73	T,M	Isopropylbenzene	4.647	4.210	9.4	75	0.00
74	S	4-Bromofluorobenzene	1.150	1.082	5.9	73	0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.704	0.699	0.7	79	0.02
76	T,M	Bromobenzene	1.054	1.003	4.8	78	0.02
77	T,M	trans-1,4-Dichloro-2-butene	0.133	0.120	9.8	70	0.00
78	T,M	1,2,3-Trichloropropane	0.173	0.166	4.0	76	0.00
79	T,M	n-Propylbenzene	5.930	5.298	10.7	73	0.00
80	T,M	1,3,5-Trimethylbenzene	3.565	3.263	8.5	75	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	3.117	2.838	9.0	76	0.00
82	T,M	4-Chlorotoluene	3.446	3.187	7.5	77	0.00
83	T,M	tert-Butylbenzene	0.910	0.854	6.2	77	0.02
84	T,M	1,2,4-Trimethylbenzene	3.496	3.214	8.1	76	0.02
85	T,M	sec-Butylbenzene	5.076	4.622	8.9	74	0.00
86	T,M	p-Isopropyltoluene	4.101	3.714	9.4	74	0.00
87	T,M	1,3-Dichlorobenzene	2.036	1.906	6.4	78	0.02
88	T,M	1,4-Dichlorobenzene	1.978	1.833	7.3	77	0.02
89	T,M	n-Butylbenzene	3.766	3.394	9.9	72	0.00
90	T,M	1,2-Dichlorobenzene	1.661	1.541	7.2	77	0.00
91	T,M	1,2-Dibromo-3-chloropropane	0.094	0.085	9.6	71	0.00
92	T,M	1,2,4-Trichlorobenzene	0.914	0.794	13.1	68	0.00
93	T,M	Hexachlorobutadiene	0.614	0.545	11.2	69	0.02
94	T,M	Naphthalene	1.204	0.965	19.9	63	0.00
95	T,M	1,2,3-Trichlorobenzene	0.694	0.578	16.7	64	0.02

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:23 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1219495	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.00	117	1029739	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	396820	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	374145	9.23	ug/l	0.02
Spiked Amount 10.000			Recovery =	92.30%		
38) 1,2-Dichloroethane-d4	6.86	65	243371	9.31	ug/l	0.02
Spiked Amount 10.000			Recovery =	93.10%		
54) Toluene-d8	9.61	98	1308635	9.40	ug/l	0.02
Spiked Amount 10.000			Recovery =	94.00%		
74) 4-Bromofluorobenzene	13.60	95	429278	9.41	ug/l	0.02
Spiked Amount 10.000			Recovery =	94.10%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	303930	11.05	ug/l	99
4) Chloromethane	2.21	50	412209	9.47	ug/l	99
5) Vinyl chloride	2.38	62	384728	9.87	ug/l	100
7) Bromomethane	2.74	94	269673	8.47	ug/l	100
8) Chloroethane	2.85	64	256761	9.77	ug/l	97
9) Dichlorofluoromethane	3.12	67	654364	9.74	ug/l	99
10) Trichlorofluoromethane	3.13	101	372329	10.18	ug/l	96
11) Acrolein	3.60	56	67909	33.98	ug/l	89
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	213013	8.74	ug/l	99
13) Acetone	3.75	43	196891	51.05	ug/l	99
14) 1,1-Dichloroethene	3.72	61	448835	9.14	ug/l	100
15) Iodomethane	3.90	142	616684	8.99	ug/l	99
16) Carbon disulfide	3.99	76	1194746	9.93	ug/l	100
18) Methylene chloride	4.28	49	494851	9.28	ug/l	99
19) tert-Butyl alcohol	4.40	59	78869	57.27	ug/l	95
20) Acrylonitrile	4.54	53	296365	49.90	ug/l	99
21) tert-Butyl methyl ether (M	4.61	73	641715	10.24	ug/l	100
22) trans-1,2-Dichloroethene	4.61	61	538211	8.96	ug/l	100
23) Vinyl acetate	5.10	43	492241	8.85	ug/l	99
24) 1,1-Dichloroethane	5.11	63	745561	9.64	ug/l	100
25) Isopropyl ether (DIPE)	5.16	45	1409599	9.77	ug/l	99
27) tert-Butyl ethyl ether (ET	5.60	59	1010340	10.05	ug/l	100
28) 2-Butanone	5.76	43	406627	49.88	ug/l	99
29) cis-1,2-Dichloroethene	5.79	96	439912	9.54	ug/l	99
30) 2,2-Dichloropropane	5.82	77	478730	11.00	ug/l	99
31) Tetrahydrofurane	6.13	42	51258	10.27	ug/l	95
32) Bromochloromethane	6.09	49	295201	9.42	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:23 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Chloroform	6.22	83	639211	9.78 ug/l		99
35)	1,1,1-Trichloroethane	6.45	97	463545	9.60 ug/l		99
37)	tert-Amyl methyl ether (TA	7.08	87	162710	10.77 ug/l		98
39)	1,1-Dichloropropene	6.65	110	197419	9.03 ug/l		100
40)	Carbon tetrachloride	6.65	119	401350	9.16 ug/l		100
41)	Benzene	6.90	78	1532846	9.41 ug/l		99
42)	1,2-Dichloroethane	6.96	62	311105	9.75 ug/l		100
44)	Trichloroethene	7.81	130	451952	9.29 ug/l		99
46)	1,2-Dichloropropane	8.16	63	422138	9.97 ug/l	#	53
47)	1,4-Dioxane	8.27	88	29845	222.50 ug/l		99
48)	Dibromomethane	8.28	93	162084	9.72 ug/l		98
49)	Bromodichloromethane	8.53	83	449562	10.21 ug/l		99
51)	cis-1,3-Dichloropropene	9.18	75	594845	10.26 ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	952119	51.21 ug/l		99
55)	Toluene	9.72	91	1576370	8.94 ug/l		99
56)	Ethyl methacrylate	10.16	69	297997	10.30 ug/l		99
57)	trans-1,3-Dichloropropene	10.07	75	417486	10.36 ug/l		99
58)	1,1,2-Trichloroethane	10.40	97	232839	9.91 ug/l		100
59)	Tetrachloroethene	10.56	164	346586	8.79 ug/l		99
60)	1,3-Dichloropropane	10.66	76	433051	9.81 ug/l		100
61)	2-Hexanone	10.74	43	609090	49.50 ug/l		99
62)	Dibromochloromethane	11.02	129	294354	9.97 ug/l		100
63)	1,2-Dibromoethane	11.23	107	217076	9.50 ug/l		98
64)	1-Chlorohexane	12.03	91	653920	8.49 ug/l		99
65)	Chlorobenzene	12.04	112	1010674	9.48 ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	350581	9.84 ug/l		100
67)	Ethylbenzene	12.20	91	1808202	9.23 ug/l		100
68)	m-Xylene & p-Xylene	12.40	91	2588445	18.37 ug/l		99
69)	o-Xylene	12.91	91	1322199	9.49 ug/l		99
70)	Styrene	12.94	104	1060456	9.94 ug/l		99
72)	Bromoform	13.18	173	152017	9.43 ug/l		98
73)	Isopropylbenzene	13.37	105	1670555	9.06 ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.74	83	277303	9.92 ug/l		100
76)	Bromobenzene	13.76	156	398193	9.52 ug/l		99
77)	trans-1,4-Dichloro-2-buten	13.77	53	47654	9.05 ug/l		99
78)	1,2,3-Trichloropropane	13.80	110	65700	9.58 ug/l		95
79)	n-Propylbenzene	13.86	91	2102243	8.93 ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	1294720	9.15 ug/l		99
81)	2-Chlorotoluene	13.97	91	1126073	9.10 ug/l		99
82)	4-Chlorotoluene	14.10	91	1264467	9.25 ug/l		99
83)	tert-Butylbenzene	14.41	134	338734	9.38 ug/l		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:23 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1275509	9.19	ug/l	100
85)	sec-Butylbenzene	14.63	105	1834297	9.11	ug/l	99
86)	p-Isopropyltoluene	14.78	119	1473635	9.06	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	756223	9.36	ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	727340	9.26	ug/l	99
89)	n-Butylbenzene	15.16	91	1346776	9.01	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	611675	9.28	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	33745	9.06	ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	314945	8.68	ug/l	99
93)	Hexachlorobutadiene	16.81	225	216122	8.87	ug/l	99
94)	Naphthalene	16.94	128	382852	8.01	ug/l	99
95)	1,2,3-Trichlorobenzene	17.16	180	229345	8.33	ug/l	99

(#) = qualifier out of range (m) = manual integration

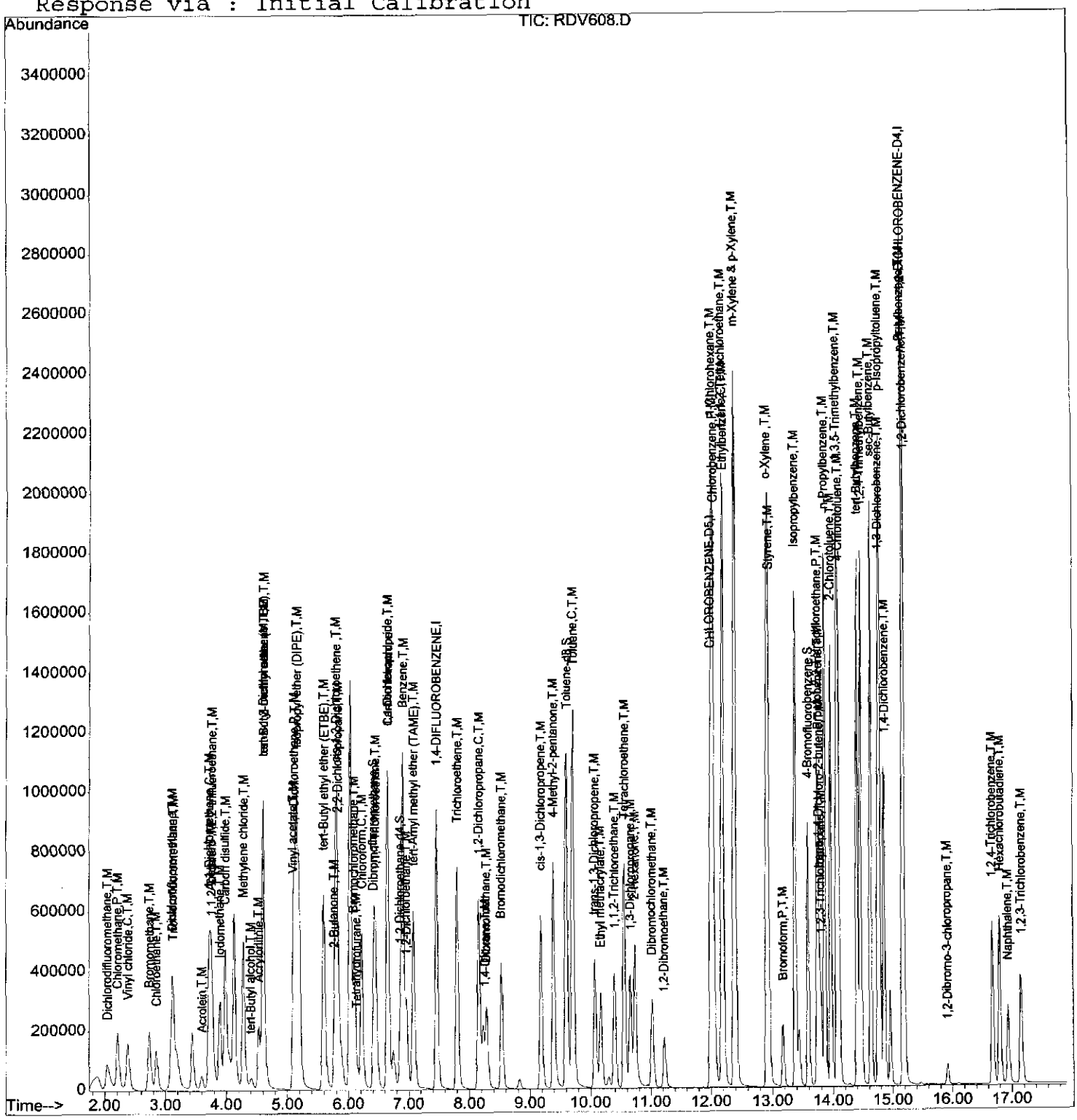
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D30\RDV608.D
Acq On : 30 Apr 2015 1:34 pm
Sample : CVO01B1231
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: May 1 11:23 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: REV001
Instrument ID: TO01
GC Column:RXI-624SILMSID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D143
BFB Injection Date : 05/01/15
BFB Injection Time : 14:35
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.43
75	30.0 - 60.0% of mass 95	40.75
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.57
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.67
175	5.0 - 9.0% of mass 174	6.25(7.0)1
176	95.0 - 101.0% of mass 174	85.97(95.9)1
177	5.0 - 9.0% of mass 176	5.68(6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001B1232	REV002	05/01/15	15:35
2	MBLK2W	VO01E01B	REV007	05/01/15	17:58
3	LCS2W	VO01E01L	REV003	05/01/15	16:01
4	LCD2W	VO01E01Y	REV005	05/01/15	17:05
5	04-21-15-EPA5-1DL	D143-07I	REV010	05/01/15	19:21
6	04-21-15-TB-2	D143-02	REV011	05/01/15	19:49
7	04-21-15-TB-4	D143-06	REV012	05/01/15	20:17
8	04-21-15-PWA-2	D143-13	REV024	05/02/15	01:57

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
Lab Code : EMXT
Lab File ID : RBV140
Instrument ID: T001
GC Column : RXI-624SILMSID:0.25mm (mm)

Project : B & B GROUNDWATER SAMPLING
SDG No. : 15D143
Date Analyzed : 02/12/15
Time Analyzed : 20:03
Heated Purge : No

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1495146	7.45	1270714	11.98	491901	15.18
	UPPER LIMIT	2990292	7.95	2541428	12.48	983802	15.68
	LOWER LIMIT	747573	6.95	635357	11.48	245951	14.68
	SAMPLE ID						
1	VSTD010	1320930	7.47	1101107	12.00	402677	15.18
2	MBLK2W	1437124	7.47	1112938	12.00	352723	15.18
3	LCS2W	1370760	7.47	1130895	12.00	421873	15.18
4	LCD2W	1469957	7.45	1230334	12.00	485129	15.18
5	04-21-15-EPA5-1DL	1465463	7.47	1160004	12.00	381940	15.18
6	04-21-15-TB-2	1410069	7.47	1092135	12.00	365223	15.18
7	04-21-15-TB-4	1343231	7.47	1045557	12.00	338955	15.18
8	04-21-15-PWA-2	1364466	7.47	1140058	12.00	395434	15.18

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.5 minutes (30 sec) of internal standard RT
RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	88	0.01
2	T,M	Chlorotrifluoroethylene	-1.000	0.000	0.0	0	-1.98#
3	T,M	Dichlorodifluoromethane	10.000	11.552	-15.5	90	0.00
4	P,T,M	Chloromethane	10.000	10.202	-2.0	81	0.01
5	C,T,M	Vinyl chloride	10.000	10.496	-5.0	83	0.01
6	T,M	2-Chloro-1,1,1-trifluoroeth	-1.000	0.000	0.0	0	-2.48#
7	T,M	Bromomethane	10.000	9.157	8.4	82	0.01
8	T,M	Chloroethane	10.000	10.832	-8.3	86	0.01
9	T,M	Dichlorofluoromethane	10.000	11.239	-12.4	100	0.01
10	T,M	Trichlorofluoromethane	10.000	10.880	-8.8	84	-0.04
11	T,M	Acrolein	50.000	36.218	27.6#	63	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.390	-3.9	93	0.01
13	T,M	Acetone	50.000	55.267	-10.5	101	0.00
14	C,T,M	1,1-Dichloroethene	10.000	10.347	-3.5	92	-0.02
15	T,M	Iodomethane	10.000	10.011	-0.1	88	0.00
16	T,M	Carbon disulfide	10.000	10.465	-4.6	85	-0.04
17	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.09#
18	T,M	Methylene chloride	10.000	10.370	-3.7	98	0.00
19	T,M	tert-Butyl alcohol	50.000	63.225	-26.5#	104	0.00
20	T,M	Acrylonitrile	50.000	54.693	-9.4	92	0.02
21	T,M	tert-Butyl methyl ether (MT	10.000	11.245	-12.4	97	0.01
22	T,M	trans-1,2-Dichloroethene	10.000	9.985	0.2	87	0.00
23	T,M	Vinyl acetate	10.000	8.408	15.9	65	0.01
24	P,T,M	1,1-Dichloroethane	10.000	10.965	-9.6	97	0.00
25	T,M	Isopropyl ether (DIPE)	10.000	11.012	-10.1	96	0.00
26	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	10.000	11.056	-10.6	96	0.01
28	T,M	2-Butanone	50.000	53.215	-6.4	90	0.01
29	T,M	cis-1,2-Dichloroethene	10.000	10.803	-8.0	94	0.01
30	T,M	2,2-Dichloropropane	10.000	12.481	-24.8#	109	0.01
31	T,M	Tetrahydrofurane	10.000	10.009	-0.1	90	0.01
32	T,M	Bromochloromethane	10.000	10.579	-5.8	92	0.01
33	C,T,M	Chloroform	10.000	10.966	-9.7	98	0.01
34	S	Dibromofluoromethane	10.000	9.204	8.0	77	0.00
35	T,M	1,1,1-Trichloroethane	10.000	11.134	-11.3	97	0.01
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	10.000	11.479	-14.8	95	0.00
38	S	1,2-Dichloroethane-d4	10.000	9.079	9.2	76	0.00
39	T,M	1,1-Dichloropropene	10.000	10.454	-4.5	91	0.00
40	T,M	Carbon tetrachloride	10.000	10.607	-6.1	91	0.01
41	T,M	Benzene	10.000	10.679	-6.8	95	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D
Acq On : 1 May 2015 3:35 pm
Sample : CVO01B1232
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	10.000	10.760	-7.6	93	0.00
43	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
44	T,M	Trichloroethene	10.000	10.543	-5.4	93	0.00
45	T,M	Methylcylohexane	10.000	0.000	100.0#	0	-8.13#
46	C,T,M	1,2-Dichloropropane	10.000	11.093	-10.9	97	0.00
47	T,M	1,4-Dioxane	200.000	249.796	-24.9#	102	0.02
48	T,M	Dibromomethane	10.000	10.762	-7.6	89	0.01
49	T,M	Bromodichloromethane	10.000	11.218	-12.2	96	0.01
50	T,M	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	-8.93#
51	T,M	cis-1,3-Dichloropropene	10.000	11.334	-13.3	96	0.01
52	T,M	4-Methyl-2-pentanone	50.000	53.399	-6.8	86	0.02
53	I	CHLOROBENZENE-D5	10.000	10.000	0.0	87	0.01
54	S	Toluene-d8	10.000	9.440	5.6	77	0.00
55	C,T,M	Toluene	10.000	10.595	-6.0	95	0.01
56	T,M	Ethyl methacrylate	10.000	11.139	-11.4	91	0.01
57	T,M	trans-1,3-Dichloropropene	10.000	11.448	-14.5	95	0.02
58	T,M	1,1,2-Trichloroethane	10.000	11.089	-10.9	95	0.00
59	T,M	Tetrachloroethene	10.000	10.374	-3.7	94	0.00
60	T,M	1,3-Dichloropropane	10.000	11.004	-10.0	94	0.00
61	T,M	2-Hexanone	50.000	51.889	-3.8	85	0.02
62	T,M	Dibromochloromethane	10.000	11.197	-12.0	93	0.01
63	T,M	1,2-Dibromoethane	10.000	10.826	-8.3	91	0.01
64	T,M	1-Chlorohexane	10.000	9.993	0.1	89	0.01
65	P,M	Chlorobenzene	10.000	11.035	-10.4	96	0.00
66	T,M	1,1,1,2-Tetrachloroethane	10.000	11.224	-12.2	97	0.01
67	C,T,M	Ethylbenzene	10.000	10.730	-7.3	93	0.00
68	T,M	m-Xylene & p-Xylene	20.000	21.420	-7.1	93	0.02
69	T,M	o-Xylene	10.000	10.780	-7.8	93	0.01
70	T,M	Styrene	10.000	11.012	-10.1	91	0.01
71	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	82	0.00
72	P,T,M	Bromoform	10.000	10.686	-6.9	86	0.00
73	T,M	Isopropylbenzene	10.000	11.077	-10.8	93	0.00
74	S	4-Bromofluorobenzene	10.000	9.581	4.2	76	0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	11.374	-13.7	92	0.00
76	T,M	Bromobenzene	10.000	11.355	-13.6	95	0.01
77	T,M	trans-1,4-Dichloro-2-butene	10.000	10.157	-1.6	80	0.00
78	T,M	1,2,3-Trichloropropane	10.000	11.286	-12.9	91	0.00
79	T,M	n-Propylbenzene	10.000	11.147	-11.5	92	0.00
80	T,M	1,3,5-Trimethylbenzene	10.000	11.131	-11.3	92	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D
Acq On : 1 May 2015 3:35 pm
Sample : CVO01B1232
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	10.000	11.107	-11.1	94	0.00
82	T,M	4-Chlorotoluene	10.000	11.196	-12.0	95	0.00
83	T,M	tert-Butylbenzene	10.000	11.480	-14.8	96	0.01
84	T,M	1,2,4-Trimethylbenzene	10.000	10.894	-8.9	91	0.01
85	T,M	sec-Butylbenzene	10.000	11.011	-10.1	90	0.00
86	T,M	p-Isopropyltoluene	10.000	10.954	-9.5	91	0.00
87	T,M	1,3-Dichlorobenzene	10.000	11.124	-11.2	95	0.01
88	T,M	1,4-Dichlorobenzene	10.000	11.001	-10.0	93	0.02
89	T,M	n-Butylbenzene	10.000	10.795	-7.9	88	0.00
90	T,M	1,2-Dichlorobenzene	10.000	10.994	-9.9	93	0.00
91	T,M	1,2-Dibromo-3-chloropropane	10.000	10.367	-3.7	82	0.00
92	T,M	1,2,4-Trichlorobenzene	10.000	9.787	2.1	77	0.00
93	T,M	Hexachlorobutadiene	10.000	10.430	-4.3	83	0.01
94	T,M	Naphthalene	10.000	9.273	7.3	73	0.00
95	T,M	1,2,3-Trichlorobenzene	10.000	9.325	6.8	73	0.01

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	88	0.01
2	T,M	Chlorotrifluoroethylene	0.000	0.000	0.0	0#	-1.98#
3	T,M	Dichlorodifluoromethane	0.225	0.260	-15.6	90	0.00
4	P,T,M	Chloromethane	0.357	0.364	-2.0	81	0.01
5	C,T,M	Vinyl chloride	0.320	0.335	-4.7	83	0.01
6	T,M	2-Chloro-1,1,1-trifluoroeth	0.000	0.000	0.0	0#	-2.48#
7	T,M	Bromomethane	0.261	0.239	8.4	82	0.01
8	T,M	Chloroethane	0.216	0.234	-8.3	86	0.01
9	T,M	Dichlorofluoromethane	0.551	0.619	-12.3	100	0.01
10	T,M	Trichlorofluoromethane	0.300	0.326	-8.7	84	-0.04
11	T,M	Acrolein	0.016	0.012	25.0#	63	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.200	0.208	-4.0	93	0.01
13	T,M	Acetone	0.032	0.035	-9.4	101	0.00
14	C,T,M	1,1-Dichloroethene	0.403	0.417	-3.5	92	-0.02
15	T,M	Iodomethane	0.562	0.563	-0.2	88	0.00
16	T,M	Carbon disulfide	0.986	1.032	-4.7	85	-0.04
17	T,M	Methyl acetate	0.108	0.000	100.0#	0#	-4.09#
18	T,M	Methylene chloride	0.437	0.453	-3.7	98	0.00
19	T,M	tert-Butyl alcohol	0.011	0.014	-27.3#	104	0.00
20	T,M	Acrylonitrile	0.049	0.053	-8.2	92	0.02
21	T,M	tert-Butyl methyl ether (MT	0.514	0.578	-12.5	97	0.01
22	T,M	trans-1,2-Dichloroethene	0.493	0.492	0.2	87	0.00
23	T,M	Vinyl acetate	0.456	0.384	15.8	65	0.01
24	P,T,M	1,1-Dichloroethane	0.634	0.695	-9.6	97	0.00
25	T,M	Isopropyl ether (DIPE)	1.183	1.303	-10.1	96	0.00
26	T,M	2-Butanol	0.010	0.000	100.0#	0#	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	0.824	0.911	-10.6	96	0.01
28	T,M	2-Butanone	0.067	0.071	-6.0	90	0.01
29	T,M	cis-1,2-Dichloroethene	0.378	0.409	-8.2	94	0.01
30	T,M	2,2-Dichloropropane	0.357	0.445	-24.6#	109	0.01
31	T,M	Tetrahydrofurane	0.041	0.041	0.0	90	0.01
32	T,M	Bromochloromethane	0.257	0.272	-5.8	92	0.01
33	C,T,M	Chloroform	0.536	0.588	-9.7	98	0.01
34	S	Dibromofluoromethane	0.332	0.306	7.8	77	0.00
35	T,M	1,1,1-Trichloroethane	0.396	0.441	-11.4	97	0.01
36	T,M	Cyclohexane	0.518	0.000	100.0#	0#	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	0.124	0.142	-14.5	95	0.00
38	S	1,2-Dichloroethane-d4	0.214	0.195	8.9	76	0.00
39	T,M	1,1-Dichloropropene	0.179	0.187	-4.5	91	0.00
40	T,M	Carbon tetrachloride	0.359	0.381	-6.1	91	0.01
41	T,M	Benzene	1.336	1.427	-6.8	95	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D
Acq On : 1 May 2015 3:35 pm
Sample : CV001B1232
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	0.262	0.281	-7.3	93	0.00
43	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
44	T,M	Trichloroethene	0.399	0.420	-5.3	93	0.00
45	T,M	Methylcylohexane	0.481	0.000	100.0#	0#	-8.13#
46	C,T,M	1,2-Dichloropropane	0.347	0.385	-11.0	97	0.00
47	T,M	1,4-Dioxane	0.001	0.001	0.0	102	0.02
48	T,M	Dibromomethane	0.137	0.147	-7.3	89	0.01
49	T,M	Bromodichloromethane	0.361	0.405	-12.2	96	0.01
50	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-8.93#
51	T,M	cis-1,3-Dichloropropene	0.475	0.539	-13.5	96	0.01
52	T,M	4-Methyl-2-pentanone	0.152	0.163	-7.2	86	0.02
53	I	CHLOROBENZENE-D5	1.000	1.000	0.0	87	0.01
54	S	Toluene-d8	1.352	1.277	5.5	77	0.00
55	C,T,M	Toluene	1.712	1.813	-5.9	95	0.01
56	T,M	Ethyl methacrylate	0.281	0.313	-11.4	91	0.01
57	T,M	trans-1,3-Dichloropropene	0.391	0.448	-14.6	95	0.02
58	T,M	1,1,2-Trichloroethane	0.228	0.253	-11.0	95	0.00
59	T,M	Tetrachloroethene	0.383	0.397	-3.7	94	0.00
60	T,M	1,3-Dichloropropane	0.429	0.472	-10.0	94	0.00
61	T,M	2-Hexanone	0.119	0.124	-4.2	85	0.02
62	T,M	Dibromochloromethane	0.287	0.321	-11.8	93	0.01
63	T,M	1,2-Dibromoethane	0.222	0.240	-8.1	91	0.01
64	T,M	1-Chlorohexane	0.748	0.748	0.0	89	0.01
65	P,M	Chlorobenzene	1.035	1.142	-10.3	96	0.00
66	T,M	1,1,1,2-Tetrachloroethane	0.346	0.388	-12.1	97	0.01
67	C,T,M	Ethylbenzene	1.903	2.042	-7.3	93	0.00
68	T,M	m-Xylene & p-Xylene	1.369	1.466	-7.1	93	0.02
69	T,M	o-Xylene	1.352	1.458	-7.8	93	0.01
70	T,M	Styrene	1.036	1.141	-10.1	91	0.01
71	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	82	0.00
72	P,T,M	Bromoform	0.406	0.434	-6.9	86	0.00
73	T,M	Isopropylbenzene	4.647	5.147	-10.8	93	0.00
74	S	4-Bromofluorobenzene	1.150	1.102	4.2	76	0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.704	0.801	-13.8	92	0.00
76	T,M	Bromobenzene	1.054	1.197	-13.6	95	0.01
77	T,M	trans-1,4-Dichloro-2-butene	0.133	0.135	-1.5	80	0.00
78	T,M	1,2,3-Trichloropropane	0.173	0.195	-12.7	91	0.00
79	T,M	n-Propylbenzene	5.930	6.610	-11.5	92	0.00
80	T,M	1,3,5-Trimethylbenzene	3.565	3.968	-11.3	92	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D
Acq On : 1 May 2015 3:35 pm
Sample : CVO01B1232
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	3.117	3.462	-11.1	94	0.00
82	T,M	4-Chlorotoluene	3.446	3.857	-11.9	95	0.00
83	T,M	tert-Butylbenzene	0.910	1.044	-14.7	96	0.01
84	T,M	1,2,4-Trimethylbenzene	3.496	3.809	-9.0	91	0.01
85	T,M	sec-Butylbenzene	5.076	5.589	-10.1	90	0.00
86	T,M	p-Isopropyltoluene	4.101	4.492	-9.5	91	0.00
87	T,M	1,3-Dichlorobenzene	2.036	2.264	-11.2	95	0.01
88	T,M	1,4-Dichlorobenzene	1.978	2.177	-10.1	93	0.02
89	T,M	n-Butylbenzene	3.766	4.065	-7.9	88	0.00
90	T,M	1,2-Dichlorobenzene	1.661	1.827	-10.0	93	0.00
91	T,M	1,2-Dibromo-3-chloropropane	0.094	0.097	-3.2	82	0.00
92	T,M	1,2,4-Trichlorobenzene	0.914	0.895	2.1	77	0.00
93	T,M	Hexachlorobutadiene	0.614	0.640	-4.2	83	0.01
94	T,M	Naphthalene	1.204	1.117	7.2	73	0.00
95	T,M	1,2,3-Trichlorobenzene	0.694	0.647	6.8	73	0.01

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D143
Lab File ID: REV043 BFB Injection Date : 05/04/15
Instrument ID: TQ01 BFB Injection Time : 16:41
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.87
75	30.0 - 60.0% of mass 95	43.89
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.02
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	84.01
175	5.0 - 9.0% of mass 174	6.18(7.4)1
176	95.0 - 101.0% of mass 174	84.53(100.6)1
177	5.0 - 9.0% of mass 176	5.59(6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001B1233	REV044	05/04/15	18:02
2	MBLK3W	V001E03B	REV048	05/04/15	19:55
3	LCS3W	V001E03L	REV045	05/04/15	18:30
4	LCD3W	V001E03C	REV046	05/04/15	18:59
5	04-21-15-FDUP-2DL	D143-03J	REV049	05/04/15	20:23
6	04-21-15-EPA5-3DL	D143-04J	REV050	05/04/15	20:53
7	04-21-15-PWA-2DL	D143-13J	REV051	05/04/15	21:23

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
Lab Code : EMXT
Lab File ID : RBV140
Instrument ID: T001
GC Column : RXI-624SILMSID:0.25mm (mm)

Project : B & B GROUNDWATER SAMPLING
SDG No. : 15D143
Date Analyzed : 02/12/15
Time Analyzed : 20:03
Heated Purge : No

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1495146	7.45	1270714	11.98	491901	15.18
	UPPER LIMIT	2990292	7.95	2541428	12.48	983802	15.68
	LOWER LIMIT	747573	6.95	635357	11.48	245951	14.68
	SAMPLE ID						
1	VSTD010	1716039	7.45	1381410	11.98	501355	15.18
2	MBLK3W	1746029	7.45	1355769	12.00	447326	15.18
3	LCS3W	1678378	7.45	1375299	12.00	520287	15.18
4	LCD3W	1624140	7.45	1330272	12.00	518093	15.18
5	04-21-15-FDUP-2DL	1756459	7.45	1347997	12.00	461156	15.18
6	04-21-15-EPA5-3DL	1696733	7.45	1306564	11.98	431334	15.18
7	04-21-15-PWA-2DL	1675696	7.45	1274436	11.98	437688	15.18

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.5 minutes (30 sec) of internal standard RT
RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV044.D
Acq On : 4 May 2015 6:02 pm
Sample : CVO01B1233
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	115	0.00
2	T,M	Chlorotrifluoroethylene	-1.000	0.000	0.0	0	-1.98#
3	T,M	Dichlorodifluoromethane	10.000	9.962	0.4	100	-0.01
4	P,T,M	Chloromethane	10.000	9.089	9.1	93	0.00
5	C,T,M	Vinyl chloride	10.000	9.415	5.9	97	0.00
6	T,M	2-Chloro-1,1,1-trifluoroeth	-1.000	0.000	0.0	0	-2.48#
7	T,M	Bromomethane	10.000	7.821	21.8#	91	0.00
8	T,M	Chloroethane	10.000	9.485	5.2	97	0.00
9	T,M	Dichlorofluoromethane	10.000	10.493	-4.9	121	0.00
10	T,M	Trichlorofluoromethane	10.000	9.391	6.1	94	-0.06
11	T,M	Acrolein	50.000	62.735	-25.5#	143	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	9.703	3.0	112	0.00
13	T,M	Acetone	50.000	48.031	3.9	115	0.00
14	C,T,M	1,1-Dichloroethene	10.000	10.235	-2.3	119	-0.01
15	T,M	Iodomethane	10.000	9.373	6.3	107	0.00
16	T,M	Carbon disulfide	10.000	8.367	16.3	88	-0.04
17	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.09#
18	T,M	Methylene chloride	10.000	9.862	1.4	120	0.00
19	T,M	tert-Butyl alcohol	50.000	52.992	-6.0	113	0.00
20	T,M	Acrylonitrile	50.000	52.556	-5.1	115	0.00
21	T,M	tert-Butyl methyl ether (MT	10.000	9.796	2.0	110	0.00
22	T,M	trans-1,2-Dichloroethene	10.000	10.170	-1.7	116	0.00
23	T,M	Vinyl acetate	10.000	8.480	15.2	86	0.00
24	P,T,M	1,1-Dichloroethane	10.000	10.277	-2.8	118	0.00
25	T,M	Isopropyl ether (DIPE)	10.000	10.187	-1.9	115	0.00
26	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	10.000	9.895	1.1	112	0.00
28	T,M	2-Butanone	50.000	48.877	2.2	107	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	9.821	1.8	111	0.00
30	T,M	2,2-Dichloropropane	10.000	11.578	-15.8	131	0.00
31	T,M	Tetrahydrofurane	10.000	9.468	5.3	110	0.00
32	T,M	Bromochloromethane	10.000	9.230	7.7	104	0.00
33	C,T,M	Chloroform	10.000	9.916	0.8	115	0.00
34	S	Dibromofluoromethane	10.000	8.762	12.4	95	0.00
35	T,M	1,1,1-Trichloroethane	10.000	10.276	-2.8	117	0.00
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	10.000	9.886	1.1	106	0.00
38	S	1,2-Dichloroethane-d4	10.000	8.715	12.9	94	0.00
39	T,M	1,1-Dichloropropene	10.000	10.143	-1.4	115	0.00
40	T,M	Carbon tetrachloride	10.000	10.034	-0.3	112	0.00
41	T,M	Benzene	10.000	10.020	-0.2	116	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV044.D
Acq On : 4 May 2015 6:02 pm
Sample : CV001B1233
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	10.000	9.738	2.6	109	0.00
43	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
44	T,M	Trichloroethene	10.000	10.035	-0.4	115	0.00
45	T,M	Methylcylohexane	10.000	0.000	100.0#	0	-8.13#
46	C,T,M	1,2-Dichloropropane	10.000	10.499	-5.0	119	0.00
47	T,M	1,4-Dioxane	200.000	210.454	-5.2	112	0.00
48	T,M	Dibromomethane	10.000	9.679	3.2	105	0.00
49	T,M	Bromodichloromethane	10.000	10.027	-0.3	111	0.00
50	T,M	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
51	T,M	cis-1,3-Dichloropropene	10.000	10.520	-5.2	115	0.00
52	T,M	4-Methyl-2-pentanone	50.000	49.468	1.1	104	0.00
53	I	CHLOROBENZENE-D5	10.000	10.000	0.0	109	0.00
54	S	Toluene-d8	10.000	9.746	2.5	99	-0.01
55	C,T,M	Toluene	10.000	10.333	-3.3	117	0.00
56	T,M	Ethyl methacrylate	10.000	10.371	-3.7	106	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	10.826	-8.3	113	0.00
58	T,M	1,1,2-Trichloroethane	10.000	10.088	-0.9	109	0.00
59	T,M	Tetrachloroethene	10.000	10.384	-3.8	118	0.00
60	T,M	1,3-Dichloropropane	10.000	10.299	-3.0	110	0.00
61	T,M	2-Hexanone	50.000	49.054	1.9	101	0.00
62	T,M	Dibromochloromethane	10.000	10.272	-2.7	108	0.00
63	T,M	1,2-Dibromoethane	10.000	9.970	0.3	105	0.00
64	T,M	1-Chlorohexane	10.000	10.545	-5.4	117	0.00
65	P,M	Chlorobenzene	10.000	10.262	-2.6	112	0.00
66	T,M	1,1,1,2-Tetrachloroethane	10.000	10.375	-3.8	112	0.00
67	C,T,M	Ethylbenzene	10.000	10.675	-6.8	117	0.00
68	T,M	m-Xylene & p-Xylene	20.000	20.977	-4.9	115	0.00
69	T,M	o-Xylene	10.000	10.424	-4.2	112	0.00
70	T,M	Styrene	10.000	10.557	-5.6	110	0.00
71	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	102	0.00
72	P,T,M	Bromoform	10.000	10.226	-2.3	102	0.00
73	T,M	Isopropylbenzene	10.000	11.162	-11.6	116	0.00
74	S	4-Bromofluorobenzene	10.000	9.747	2.5	96	0.00
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.260	-2.6	103	0.00
76	T,M	Bromobenzene	10.000	10.411	-4.1	108	0.00
77	T,M	trans-1,4-Dichloro-2-butene	10.000	9.611	3.9	94	0.00
78	T,M	1,2,3-Trichloropropane	10.000	10.176	-1.8	102	-0.01
79	T,M	n-Propylbenzene	10.000	10.805	-8.0	111	0.00
80	T,M	1,3,5-Trimethylbenzene	10.000	10.819	-8.2	112	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV044.D Vial: 2
Acq On : 4 May 2015 6:02 pm Operator: WLau
Sample : CVO01B1233 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	10.000	10.618	-6.2	112	0.00
82	T,M	4-Chlorotoluene	10.000	10.574	-5.7	111	0.00
83	T,M	tert-Butylbenzene	10.000	11.003	-10.0	114	0.00
84	T,M	1,2,4-Trimethylbenzene	10.000	10.495	-4.9	110	0.00
85	T,M	sec-Butylbenzene	10.000	10.740	-7.4	110	0.00
86	T,M	p-Isopropyltoluene	10.000	10.543	-5.4	108	0.00
87	T,M	1,3-Dichlorobenzene	10.000	10.322	-3.2	109	0.00
88	T,M	1,4-Dichlorobenzene	10.000	10.214	-2.1	107	0.00
89	T,M	n-Butylbenzene	10.000	10.558	-5.6	107	0.00
90	T,M	1,2-Dichlorobenzene	10.000	10.012	-0.1	105	0.00
91	T,M	1,2-Dibromo-3-chloropropane	10.000	9.247	7.5	91	-0.01
92	T,M	1,2,4-Trichlorobenzene	10.000	9.015	9.8	89	0.00
93	T,M	Hexachlorobutadiene	10.000	9.792	2.1	97	0.00
94	T,M	Naphthalene	10.000	8.034	19.7	79	0.00
95	T,M	1,2,3-Trichlorobenzene	10.000	8.466	15.3	83	0.00

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV044.D Vial: 2
Acq On : 4 May 2015 6:02 pm Operator: WLau
Sample : CVO01B1233 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	115	0.00
2	T,M	Chlorotrifluoroethylene	0.000	0.000	0.0	0#	-1.98#
3	T,M	Dichlorodifluoromethane	0.225	0.225	0.0	100	-0.01
4	P,T,M	Chloromethane	0.357	0.325	9.0	93	0.00
5	C,T,M	Vinyl chloride	0.320	0.301	5.9	97	0.00
6	T,M	2-Chloro-1,1,1-trifluoroeth	0.000	0.000	0.0	0#	-2.48#
7	T,M	Bromomethane	0.261	0.204	21.8#	91	0.00
8	T,M	Chloroethane	0.216	0.204	5.6	97	0.00
9	T,M	Dichlorofluoromethane	0.551	0.578	-4.9	121	0.00
10	T,M	Trichlorofluoromethane	0.300	0.282	6.0	94	-0.06
11	T,M	Acrolein	0.016	0.021	-31.3#	143	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.200	0.194	3.0	112	0.00
13	T,M	Acetone	0.032	0.030	6.3	115	0.00
14	C,T,M	1,1-Dichloroethene	0.403	0.412	-2.2	119	-0.01
15	T,M	Iodomethane	0.562	0.527	6.2	107	0.00
16	T,M	Carbon disulfide	0.986	0.825	16.3	88	-0.04
17	T,M	Methyl acetate	0.108	0.000	100.0#	0#	-4.09#
18	T,M	Methylene chloride	0.437	0.431	1.4	120	0.00
19	T,M	tert-Butyl alcohol	0.011	0.012	-9.1	113	0.00
20	T,M	Acrylonitrile	0.049	0.051	-4.1	115	0.00
21	T,M	tert-Butyl methyl ether (MT	0.514	0.503	2.1	110	0.00
22	T,M	trans-1,2-Dichloroethene	0.493	0.501	-1.6	116	0.00
23	T,M	Vinyl acetate	0.456	0.387	15.1	86	0.00
24	P,T,M	1,1-Dichloroethane	0.634	0.651	-2.7	118	0.00
25	T,M	Isopropyl ether (DIPE)	1.183	1.205	-1.9	115	0.00
26	T,M	2-Butanol	0.010	0.000	100.0#	0#	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	0.824	0.816	1.0	112	0.00
28	T,M	2-Butanone	0.067	0.065	3.0	107	0.00
29	T,M	cis-1,2-Dichloroethene	0.378	0.371	1.9	111	0.00
30	T,M	2,2-Dichloropropane	0.357	0.413	-15.7	131	0.00
31	T,M	Tetrahydrofurane	0.041	0.039	4.9	110	0.00
32	T,M	Bromochloromethane	0.257	0.237	7.8	104	0.00
33	C,T,M	Chloroform	0.536	0.532	0.7	115	0.00
34	S	Dibromofluoromethane	0.332	0.291	12.3	95	0.00
35	T,M	1,1,1-Trichloroethane	0.396	0.407	-2.8	117	0.00
36	T,M	Cyclohexane	0.518	0.000	100.0#	0#	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	0.124	0.123	0.8	106	0.00
38	S	1,2-Dichloroethane-d4	0.214	0.187	12.6	94	0.00
39	T,M	1,1-Dichloropropene	0.179	0.182	-1.7	115	0.00
40	T,M	Carbon tetrachloride	0.359	0.361	-0.6	112	0.00
41	T,M	Benzene	1.336	1.339	-0.2	116	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV044.D Vial: 2
Acq On : 4 May 2015 6:02 pm Operator: WLau
Sample : CVO01B1233 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	0.262	0.255	2.7	109	0.00
43	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
44	T,M	Trichloroethene	0.399	0.400	-0.3	115	0.00
45	T,M	Methylcylohexane	0.481	0.000	100.0#	0#	-8.13#
46	C,T,M	1,2-Dichloropropane	0.347	0.365	-5.2	119	0.00
47	T,M	1,4-Dioxane	0.001	0.001	0.0	112	0.00
48	T,M	Dibromomethane	0.137	0.132	3.6	105	0.00
49	T,M	Bromodichloromethane	0.361	0.362	-0.3	111	0.00
50	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.00
51	T,M	cis-1,3-Dichloropropene	0.475	0.500	-5.3	115	0.00
52	T,M	4-Methyl-2-pentanone	0.152	0.151	0.7	104	0.00
53	I	CHLOROBENZENE-D5	1.000	1.000	0.0	109	0.00
54	S	Toluene-d8	1.352	1.318	2.5	99	-0.01
55	C,T,M	Toluene	1.712	1.769	-3.3	117	0.00
56	T,M	Ethyl methacrylate	0.281	0.292	-3.9	106	0.00
57	T,M	trans-1,3-Dichloropropene	0.391	0.424	-8.4	113	0.00
58	T,M	1,1,2-Trichloroethane	0.228	0.230	-0.9	109	0.00
59	T,M	Tetrachloroethene	0.383	0.398	-3.9	118	0.00
60	T,M	1,3-Dichloropropane	0.429	0.442	-3.0	110	0.00
61	T,M	2-Hexanone	0.119	0.117	1.7	101	0.00
62	T,M	Dibromochloromethane	0.287	0.295	-2.8	108	0.00
63	T,M	1,2-Dibromoethane	0.222	0.221	0.5	105	0.00
64	T,M	1-Chlorohexane	0.748	0.789	-5.5	117	0.00
65	P,M	Chlorobenzene	1.035	1.062	-2.6	112	0.00
66	T,M	1,1,1,2-Tetrachloroethane	0.346	0.359	-3.8	112	0.00
67	C,T,M	Ethylbenzene	1.903	2.031	-6.7	117	0.00
68	T,M	m-Xylene & p-Xylene	1.369	1.435	-4.8	115	0.00
69	T,M	o-Xylene	1.352	1.410	-4.3	112	0.00
70	T,M	Styrene	1.036	1.094	-5.6	110	0.00
71	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	102	0.00
72	P,T,M	Bromoform	0.406	0.415	-2.2	102	0.00
73	T,M	Isopropylbenzene	4.647	5.187	-11.6	116	0.00
74	S	4-Bromofluorobenzene	1.150	1.121	2.5	96	0.00
75	P,T,M	1,1,2,2-Tetrachloroethane	0.704	0.723	-2.7	103	0.00
76	T,M	Bromobenzene	1.054	1.097	-4.1	108	0.00
77	T,M	trans-1,4-Dichloro-2-butene	0.133	0.128	3.8	94	0.00
78	T,M	1,2,3-Trichloropropane	0.173	0.176	-1.7	102	-0.01
79	T,M	n-Propylbenzene	5.930	6.407	-8.0	111	0.00
80	T,M	1,3,5-Trimethylbenzene	3.565	3.857	-8.2	112	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV044.D
Acq On : 4 May 2015 6:02 pm
Sample : CVO01B1233
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	3.117	3.310	-6.2	112	0.00
82	T,M	4-Chlorotoluene	3.446	3.643	-5.7	111	0.00
83	T,M	tert-Butylbenzene	0.910	1.001	-10.0	114	0.00
84	T,M	1,2,4-Trimethylbenzene	3.496	3.669	-4.9	110	0.00
85	T,M	sec-Butylbenzene	5.076	5.451	-7.4	110	0.00
86	T,M	p-Isopropyltoluene	4.101	4.324	-5.4	108	0.00
87	T,M	1,3-Dichlorobenzene	2.036	2.101	-3.2	109	0.00
88	T,M	1,4-Dichlorobenzene	1.978	2.021	-2.2	107	0.00
89	T,M	n-Butylbenzene	3.766	3.976	-5.6	107	0.00
90	T,M	1,2-Dichlorobenzene	1.661	1.663	-0.1	105	0.00
91	T,M	1,2-Dibromo-3-chloropropane	0.094	0.087	7.4	91	-0.01
92	T,M	1,2,4-Trichlorobenzene	0.914	0.824	9.8	89	0.00
93	T,M	Hexachlorobutadiene	0.614	0.601	2.1	97	0.00
94	T,M	Naphthalene	1.204	0.967	19.7	79	0.00
95	T,M	1,2,3-Trichlorobenzene	0.694	0.588	15.3	83	0.00

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 2/12/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH V001B126

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01	RBV134	BFB01808	1 uL	N/A	NA	NA		CS2, Gases, 8260, 3-Add; Ket-AA, T&A 2-butanol (ppb)
02	135	V001B121	a .05 b .15 uL					0.5 1.5
03	136	2	.05 .25					0.5 2.5
04	137	3	.1 .5					1 5
05	138	4	.2 1					2 10
06	139	5	.5 2.5					5 25
07	140	6	1 5					10 50
08	141	7	2 10					20 100
09	142	8	3 15					30 150
10	143	9	5 25					50 w 2/13/15 250
11	144	10	10 50					IS low. 100 level is not used. 500
12	145	Rinse						
13	146	↓						
14	147	1V001B1201	1/1/5/5/1.25					IS low. Re ICV. 10/50 ppb w 2/13/15
15	148	Rinse						
16								
17								a= CS2, Gases, 4-Add, SS
18								b= Ket-AA, 8260
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								w 2/13/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	2/12/15
ICAL ID	V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC CS2 Gases	SV1-24-04-01 -17-03	*	250 250
DCC Ket-AA	-15-03		250
DCC 8260	-14-03		50/250
DCC 4-Add	-12-03		250/1250
BFB	-17-01		50
IS/SURR. IS SS	-19-02 -19-03	1 *	250
ICV/LCS CS2 Gases	-18-01 -05-03	1 1	250 250
ICV/LCS Ket-AA 8260	-20-01 SV1-23-42-01	5 5	250 50/250
ICV/LCS 3-Add	-19-01	5	50
ICV/LCS 2-butanol	SV1-12-45-02	1.25	1000
Data File Folder	15B12		

	LOT #	Syringe Lot #
pH strip	–	MSU 01-01-08-9
Chlorine strip	–	M66-2487-04
Methanol		↓ -05
$NaHSO_4$		N63-C6327
Reagent Water	RW4-14-001	M04-A3652
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

* varied amount

Analyzed By: w

Date Disposed: 2/13/15 Disposed By: w

2154

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 2/13/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH CV001B12-01

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl2 <5ppm	Matrix S	Notes
01		RBV149	BFB01B09						12:07 pm
02		150	IV001B12-01						
03		151	CV001B12-01						
04		152	V001B09L						
05		153	L C						
06		154	Rinse						
07		155	V001B09B	25mL					
08		156	15B065-12	25mL	1.0	✓	✓		
09		157	-13			✓	✓		
10		158	-23			✓	✓		
11		159	-31			✓	✓		
12		160	-31M			✓	✓		
13		161	-31S			✓	✓		
14		162	Rinse						
15		163	15B065-24	25mL	1.0	✓	✓		
16		164	-25			✓	✓		
17		165	-26			✓	✓		
18		166	-27			✓	✓		
19		167	-28			✓	✓		
20		168	-29			✓	✓		
21		169	-30			✓	✓		
22		170	-32			✓	✓		
23		171	15B086-01			✓	✓		
24		172	-02			✓	✓		9:00 pm
25		173-175	Rinse						
26									
27									
28									
29									
30									2/17/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	2/12/15
ICAL ID	V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-24-04-01 -17-03	1	
DCC	-15-03	5	
DCC	-14-03	5	
DCC	-12-03	1	
BFB	-17-01	1	50/250/1000
IS/SURR.	-14-01	1	
ICV/LCS	-18-01	1	
ICV/LCS	-05-03 -20-01	1 5	
ICV/LCS	SV1-23-42-01	5	
ICV/LCS	-19-01	5	
ICV/LCS	SV1-12-45-02	1.25	
Data File Folder	15B23		

	LOT #	Syringe Lot #
pH strip	HC412469	M06-F2487-4
Chlorine strip	4174	1 -05
Methanol		MeOH-08-01
$NaHSO_4$		
Reagent Water	EW4-14-001	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: [signature]

Date Disposed: 2/17/15 Disposed By: [signature]

2152

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 4/30/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH CV001B1231

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	RDV 607	BFB01D26						1:07 pm
02	608	CV001B1231						
03	609	V001D26L						
04	610	L C						
05	611	Rinse						
06	612	V001D26B	25mL					
07	613	15D143-01M	25mL	1.0	✓	✓		
08	614	-015			✓	✓		
09	615	Rinse						
10	616	15D124-05	25mL	1.0	✓	✓		
11	617	-06			✓	✓		
12	618	-07			✓	✓		
13	619	-08			✓	✓		
14	620	15D143-01			✓	✓		
15	621	-11			✓	✓		
16	622	-12			✓	✓		
17	623	-15			✓	✓		
18	624	-05			✓	✓		
19	625	-08			✓	✓		
20	626	-09			✓	✓		
21	627	-10			✓	✓		
22	628	-14			✓	✓		
23	629	-16			✓	✓		
24	630	-07			✓	✓		
25	631	-03			✓	✓		
26	632	-04			✓	✓		12:50am
27	633	-13			✓	✓		out of 12 hr. RR
28	634 → 636	Rinse						
29								
30								ML 5/1/15

Instrument No.	01

INITIAL CALIBRATION REFERENCE

DATE	ML	~~1/13/15~~ 2/12/15
ICAL ID	5/1/15	~~V001A13~~ V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-24-23-01	1	
DCC	-36-01	1	
DCC	-38-01	5	
DCC	-24-01	5	
BFB	-17-01	0.5	50/250
IS/SURR.	-27-01	1	
ICV/LCS	-23-02	1	
ICV/LCS	-36-02	1	
ICV/LCS	-35-01	5	
ICV/LCS	-25-02	5	
Data File Folder	15D30		

	LOT #	Syringe Lot #
pH strip	HC413032	MVA-01-08-01
Chlorine strip	42422	M06-F2487-04
Methanol		-05
$NaHSO_4$		
Reagent Water	RW4-14-001	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: ML

Date Disposed: 5/1/15 Disposed By: ML

2156

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 5/1/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH CV01B1232

	Sample Prep ID	Data File Name (wc 5/1/15)	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		~~RO~~REV001	BFB01E01						2:35pm
02		002	CV001B1232						
03		003	V001E01L						
04		004	C						IS/SS low ⇒ Response high
05		005	Y						
06		006	Rinse						
07		007	V001E01B	25mL					
08		008	15D143-03I	1.0mL	25	✓	✓		100X
09		009	-04I	↓	↓	✓	✓		100X
10		010	-07I	2.5mL	10	✓	✓		
11		011	-02	25mL	1.0	✓	✓		
12		012	-06			✓	✓		
13		013	15D156-01			✓	✓		
14		014	-02			✓	✓		
15		015	-05			✓	✓		
16		016	-04			✓	✓		
17		017	-05			✓	✓		
18		018	-06			✓	✓		
19		019	-07			✓	✓		
20		020	-08			✓	✓		
21		021	-09			✓	✓		
22		022	-10			✓	✓		
23		023	-11			✓	✓		
24		024	13D143-13			✓	✓		
25		025	-13I	2.5mL	10	✓	✓		100X. 2:25am
26		026 thru 035	Rinse						
27									
28									
29									
30									wc 5/4/15

Instrument No. 01

INITIAL CALIBRATION REFERENCE

DATE	2/12/15
ICAL ID	V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-24-23-01	1	
DCC	-36-01	1	
DCC	-28-01	5	
DCC	-24-01	5	
BFB	-17-01	0.5	50/250
IS/SURR.	-27-01	1	
ICV/LCS	-23-02	1	
ICV/LCS	-36-02	1	
ICV/LCS	-25-01	5	
ICV/LCS	-25-02	5	
Data File Folder	15E01		

	LOT #	Syringe Lot #
pH strip	1-HC413032	MSV01-01-08-01
Chlorine strip	42422	M06-F2487-04
Methanol		1 -05
$NaHSO_4$		MSV01-01-03-01
Reagent Water	RW4-14-001	MSV01-01-07-01
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/T001	

Comments:

Analyzed By: wc

Date Disposed: 5/4/15 Disposed By: wc

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 5/4/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH CV001B1233

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	REV 043		BFB01ED3						4.41 ppm
02	044		CV001B1233						
03	045		V001E031						
04	046		L C						
05	047		Rinse						
06	048		V001ED3B	25mL					
07	049		15D143-03IJ	0.25mL	100	✓	✓		
08	050		-04IJ	↓	↓	✓	✓		
09	051		-13IJ	↓	↓	✓	✓		9.25 ppm
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									5/5/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	3/12/15
ICAL ID	V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-24-23-01	1	
DCC	-36-01	1	
DCC	-38-01	5	
DCC	-24-01	5	
BFB	-17-01	1 ~~0.5~~	50/200
IS/SURR.	-27-01	5/5/15 1	
ICV/LCS	-23-02	1	
ICV/LCS	-36-02	1	
ICV/LCS	-35-01	5	
ICV/LCS	-25-02	5	
Data File Folder	15E04		

	LOT #	Syringe Lot #
pH strip	HC413037	MSV01-01-08-01
Chlorine strip	42422	MSV5-7487-04
Methanol		↓ -05
$NaHSO_4$		MSV01-01-07-01
Reagent Water	RW4-14-001	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: [signature]

Date Disposed: 5/15/15 Disposed By: [signature]

Injection Log

Directory: D:\HPCHEM\1\DATA\15D30

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV607.D	1.	BFB01D26	T/CHK	30 Apr 2015 13:07
2	2	RDV608.D	1.	CVO01B1231	100ppb 8260/50ppb KET-AA-TBA	30 Apr 2015 13:34
3	3	RDV609.D	1.	VO01D26L	100ppb 8260/50ppb KET-AA-TBA	30 Apr 2015 14:09
4	4	RDV610.D	1.	VO01D26C	100ppb 8260/50ppb KET-AA-TBA	30 Apr 2015 14:37
5	5	RDV611.D	1.	RINSE		30 Apr 2015 15:04
6	6	RDV612.D	1.	VO01D26B 25mL	BLANK	30 Apr 2015 15:31
7	7	RDV613.D	1.	15D143-01M 25mL	DF=1.0	30 Apr 2015 15:57
8	8	RDV614.D	1.	15D143-01S 25mL	DF=1.0	30 Apr 2015 16:24
9	9	RDV615.D	1.	RINSE	DF=1.0	30 Apr 2015 16:52
10	10	RDV616.D	1.	15D124-05 25mL	DF=1.0	30 Apr 2015 17:19
11	11	RDV617.D	1.	15D124-06 25mL	DF=1.0	30 Apr 2015 17:46
12	12	RDV618.D	1.	15D124-07 25mL	DF=1.0	30 Apr 2015 18:12
13	13	RDV619.D	1.	15D124-08 25mL	DF=1.0	30 Apr 2015 18:40
14	14	RDV620.D	1.	15D143-01 25mL	DF=1.0	30 Apr 2015 19:07
15	15	RDV621.D	1.	15D143-11 25mL	DF=1.0	30 Apr 2015 19:36
16	16	RDV622.D	1.	15D143-12 25mL	DF=1.0	30 Apr 2015 20:04
17	17	RDV623.D	1.	15D143-15 25mL	DF=1.0	30 Apr 2015 20:32
18	18	RDV624.D	1.	15D143-05 25mL	DF=1.0	30 Apr 2015 21:00
19	19	RDV625.D	1.	15D143-08 25mL	DF=1.0	30 Apr 2015 21:29
20	20	RDV626.D	1.	15D143-09 25mL	DF=1.0	30 Apr 2015 21:57
21	21	RDV627.D	1.	15D143-10 25mL	DF=1.0	30 Apr 2015 22:26
22	22	RDV628.D	1.	15D143-14 25mL	DF=1.0	30 Apr 2015 22:54
23	23	RDV629.D	1.	15D143-16 25mL	DF=1.0	30 Apr 2015 23:22
24	24	RDV630.D	1.	15D143-07 25mL	DF=1.0	30 Apr 2015 23:51
25	25	RDV631.D	1.	15D143-03 25mL	DF=1.0	1 May 2015 00:21
26	26	RDV632.D	1.	15D143-04 25mL	DF=1.0	1 May 2015 00:50
27	27	RDV633.D	1.	15D143-13 25mL	DF=1.0	1 May 2015 01:18
28	28	RDV634.D	1.	RINSE	DF=1.0	1 May 2015 01:47
29	29	RDV635.D	1.	RINSE	DF=1.0	1 May 2015 02:17
30	30	RDV636.D	1.	RINSE	DF=1.0	1 May 2015 02:47

Injection Log

Directory: D:\HPCHEM\1\DATA\15E01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	REV001.D	1.	BFB01E01	T/CHK	1 May 2015 14:35
2	2	REV002.D	1.	CVO01B1232	100ppb 8260/50ppb KET-AA-TBA	1 May 2015 15:35
3	3	REV003.D	1.	VO01E01L	100ppb 8260/50ppb KET-AA-TBA	1 May 2015 16:01
4	4	REV004.D	1.	VO01E01C	100ppb 8260/50ppb KET-AA-TBA	1 May 2015 16:28
5	5	REV005.D	1.	VO01E01Y	10ppb 8260/50ppb KET-AA-TBA	1 May 2015 17:05
6	6	REV006.D	1.	RINSE		1 May 2015 17:31
7	7	REV007.D	1.	VO01E01B 25mL	BLANK	1 May 2015 17:58
8	8	REV008.D	1.	15D143-03I 1.0mL	DF=25	1 May 2015 18:26
9	9	REV009.D	1.	15D143-04I 1.0mL	DF=25	1 May 2015 18:53
10	10	REV010.D	1.	15D143-07I 2.5mL	DF=10	1 May 2015 19:21
11	11	REV011.D	1.	15D143-02 25mL	DF=10	1 May 2015 19:49
12	12	REV012.D	1.	15D143-06 25mL	DF=10	1 May 2015 20:17
13	13	REV013.D	1.	15D156-01 25mL	DF=1.0	1 May 2015 20:46
14	14	REV014.D	1.	15D156-02 25mL	DF=1.0	1 May 2015 21:13
15	15	REV015.D	1.	15D156-03 25mL	DF=1.0	1 May 2015 21:43
16	16	REV016.D	1.	15D156-04 25mL	DF=1.0	1 May 2015 22:10
17	17	REV017.D	1.	15D156-05 25mL	DF=1.0	1 May 2015 22:40
18	18	REV018.D	1.	15D156-06 25mL	DF=1.0	1 May 2015 23:07
19	19	REV019.D	1.	15D156-07 25mL	DF=1.0	1 May 2015 23:36
20	20	REV020.D	1.	15D156-08 25mL	DF=1.0	2 May 2015 00:04
21	21	REV021.D	1.	15D156-09 25mL	DF=1.0	2 May 2015 00:33
22	22	REV022.D	1.	15D156-10 25mL	DF=1.0	2 May 2015 01:01
23	23	REV023.D	1.	15D156-11 25mL	DF=1.0	2 May 2015 01:28
24	24	REV024.D	1.	15D143-13 25mL	DF=1.0	2 May 2015 01:57
25	25	REV025.D	1.	15D143-13I 2.5mL	DF=10	2 May 2015 02:25
26	1	REV026.D	1.	RINSE	DF=1.0	2 May 2015 02:53
27	2	REV027.D	1.	RINSE	DF=1.0	2 May 2015 03:21
28	3	REV028.D	1.	RINSE	DF=1.0	2 May 2015 03:48
29	4	REV029.D	1.	RINSE	DF=1.0	2 May 2015 04:17
30	5	REV030.D	1.	RINSE	DF=1.0	2 May 2015 04:46
31	6	REV031.D	1.	RINSE	DF=1.0	2 May 2015 05:13
32	7	REV032.D	1.	RINSE	DF=1.0	2 May 2015 05:40
33	8	REV033.D	1.	RINSE	DF=1.0	2 May 2015 06:08
34	9	REV034.D	1.	RINSE	DF=1.0	2 May 2015 06:35
35	10	REV035.D	1.	RINSE	DF=1.0	2 May 2015 07:03

Injection Log

Directory: D:\HPCHEM\1\DATA\15E04

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	REV036.D	1.	BFB01E02	T/CHK	4 May 2015 13:40
2	2	REV037.D	1.	CVO01A1313	100ppt	4 May 2015 14:05
3	3	REV038.D	1.	VO01E02L	100ppt	4 May 2015 14:29
4	4	REV039.D	1.	VO01E02C	100ppt	4 May 2015 14:54
5	5	REV040.D	1.	VO01E02B 25mL	BLANK	4 May 2015 15:18
6	6	REV041.D	1.	15D143-16I 0.5mL	DF=50	4 May 2015 15:49
7	7	REV042.D	1.	15D143-16N 25mL	DF=1.0	4 May 2015 16:14
8	1	REV043.D	1.	BFB01E03	T/CHK	4 May 2015 16:41
9	2	REV044.D	1.	CVO01B1233	10ppb 8260/50ppb KET-AA-TBA	4 May 2015 18:02
10	3	REV045.D	1.	VO01E03L	10ppb 8260/50ppb KET-AA-TBA	4 May 2015 18:30
11	4	REV046.D	1.	VO01E03C	10ppb 8260/50ppb KET-AA-TBA	4 May 2015 18:59
12	5	REV047.D	1.	RINSE		4 May 2015 19:28
13	6	REV048.D	1.	VO01E03B 25mL	DF=1.0	4 May 2015 19:55
14	7	REV049.D	1.	15D143-03J 0.25mL	DF=100	4 May 2015 20:23
15	8	REV050.D	1.	15D143-04J 0.25mL	DF=100	4 May 2015 20:53
16	9	REV051.D	1.	15D143-13J 0.25mL	DF=100	4 May 2015 21:23

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

SDG#: 15D143

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D143

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

A total of twelve (12) water samples were received on 04/22/15 to be analyzed for Volatile Organics by GC/MS SIM in accordance with Method 5030B/8260B SIM and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, three (3) method blanks were analyzed. VO01D22Q, VO01D23B and VO01E02B were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, three (3) sets of LCS/LCD were analyzed. VO01D22L/VO01D22C - all analytes were within LCS QC limits. VO01D23L/VO01D23C - all analytes were within LCS QC limits. VO01E02L/VO01E02C - all analytes were within LCS QC limits. Refer to LCS summary forms for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed and the following was noted: D143-01M/S - Percent recovery for 1,2,3-Trichloropropane(10X) was not within MSD QC limits. The enclosed value(#X) is the ratio of parent sample result and spike amount. Presence of matrix interference was suspected. The rest of the analytes were in control. Refer to Matrix QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met with the exception of those that were discussed within the associated QC parameter.
Sample D143-03, -04, and -13 were initially analyzed at dilution due high level of target analytes.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
SDG NO. : 15D143
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W_	V001D22Q	1	NA	04/24/1513:15	04/24/1513:15	RDV492	RAV178	V001D22	Method Blank
LCS1W	V001D22L	1	NA	04/24/1511:42	04/24/1511:42	RDV489	RAV178	V001D22	Lab Control Sample (LCS)
LCD1W	V001D22C	1	NA	04/24/1512:07	04/24/1512:07	RDV490	RAV178	V001D22	LCS Duplicate
04-21-15-WA-1	D143-01	1	NA	04/24/1513:40	04/24/1513:40	RDV493	RAV178	V001D22	Field Sample
04-21-15-WA-1MS	D143-01M	1	NA	04/24/1514:05	04/24/1514:05	RDV494	RAV178	V001D22	Matrix Spike Sample (MS)
04-21-15-WA-1MSD	D143-01S	1	NA	04/24/1514:30	04/24/1514:30	RDV495	RAV178	V001D22	MS Duplicate (MSD)
04-21-15-WA-5	D143-05	1	NA	04/24/1517:50	04/24/1517:50	RDV503	RAV178	V001D22	Field Sample
04-21-15-WA-9	D143-08	1	NA	04/24/1518:15	04/24/1518:15	RDV504	RAV178	V001D22	Field Sample
04-21-15-PWA-3	D143-09	1	NA	04/24/1518:40	04/24/1518:40	RDV505	RAV178	V001D22	Field Sample
04-21-15-PWA-7A	D143-10	1	NA	04/24/1519:05	04/24/1519:05	RDV506	RAV178	V001D22	Field Sample
04-21-15-EPA5-1DL	D143-07I	500	NA	04/24/1519:30	04/24/1519:30	RDV507	RAV178	V001D22	Diluted Sample
04-21-15-EPA5-1	D143-07	1	NA	04/24/1520:45	04/24/1520:45	RDV510	RAV178	V001D22	Field Sample
04-21-15-FDUP-2	D143-03	10	NA	04/24/1521:35	04/24/1521:35	RDV512	RAV178	V001D22	Field Sample
04-21-15-EPA5-3	D143-04	10	NA	04/24/1522:00	04/24/1522:00	RDV513	RAV178	V001D22	Field Sample
MBLK2W	V001D23B	1	NA	04/27/1514:33	04/27/1514:33	RDV525	RAV178	V001D23	Method Blank
LCS2W	V001D23L	1	NA	04/27/1513:43	04/27/1513:43	RDV523	RAV178	V001D23	Lab Control Sample (LCS)
LCD2W	V001D23C	1	NA	04/27/1514:08	04/27/1514:08	RDV524	RAV178	V001D23	LCS Duplicate
04-21-15-EPA5-2DL	D143-14I	100	NA	04/27/1516:41	04/27/1516:41	RDV530	RAV178	V001D23	Diluted Sample
04-21-15-EB-1	D143-12	1	NA	04/27/1517:06	04/27/1517:06	RDV531	RAV178	V001D23	Field Sample
04-21-15-EPA5-2	D143-14	1	NA	04/27/1518:21	04/27/1518:21	RDV534	RAV178	V001D23	Field Sample
04-21-15-FDUP-2DL	D143-03I	1000	NA	04/27/1518:46	04/27/1518:46	RDV535	RAV178	V001D23	Diluted Sample
04-21-15-EPA5-3DL	D143-04I	1000	NA	04/27/1519:11	04/27/1519:11	RDV536	RAV178	V001D23	Diluted Sample
04-21-15-PWA-2	D143-13I	100	NA	04/27/1520:01	04/27/1520:01	RDV538	RAV178	V001D23	Diluted Sample
04-21-15-PWA-2DL	D143-13J	1000	NA	04/27/1520:26	04/27/1520:26	RDV539	RAV178	V001D23	Diluted Sample
MBLK3W	V001E02B	1	NA	05/04/1515:18	05/04/1515:18	REV040	RAV178	V001E02	Method Blank
LCS3W	V001E02L	1	NA	05/04/1514:28	05/04/1514:28	REV038	RAV178	V001E02	Lab Control Sample (LCS)
LCD3W	V001E02C	1	NA	05/04/1514:54	05/04/1514:54	REV039	RAV178	V001E02	LCS Duplicate
04-21-15-WA-3DL	D143-16I	50	NA	05/04/1515:49	05/04/1515:49	REV041	RAV178	V001E02	Diluted Sample
04-21-15-WA-3	D143-16N	1	NA	05/04/1516:14	05/04/1516:14	REV042	RAV178	V001E02	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 13:40
Sample ID: 04-21-15-WA-1	Date Analyzed: 04/24/15 13:40
Lab Samp ID: D143-01	Dilution Factor: 1
Lab File ID: RDV493	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.0	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.101	0.1000	101	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 21:35 # 04/27/15 18:46
Sample ID: 04-21-15-FDUP-2	Date Analyzed: 04/24/15 21:35 # 04/27/15 18:46
Lab Samp ID: D143-03 #D143-03I	Dilution Factor: 10 # 1000
Lab File ID: RDV512 #RDV535	Matrix : WATER
Ext Btch ID: V001D22 #V001D23	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	520	5.0	2.5
# 1,2-DIBROMO-3-CHLOROPROPANE	280	50	20
1,2-DIBROMOETHANE	1.8	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.936	1.000	93.6	80-120
# TOLUENE-D8	98.6	100.0	98.6	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 21:35
Sample ID: 04-21-15-FDUP-2	Date Analyzed: 04/24/15 21:35
Lab Samp ID: D143-03	Dilution Factor: 10
Lab File ID: RDV512	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	460E	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	260E	0.50	0.20
1,2-DIBROMOETHANE	1.8	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.936	1.000	93.6	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 18:46
Sample ID: 04-21-15-FDUP-2DL	Date Analyzed: 04/27/15 18:46
Lab Samp ID: D143-03I	Dilution Factor: 1000
Lab File ID: RDV535	Matrix : WATER
Ext Btch ID: VO01D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	520	5.0	2.5
1,2-DIBROMO-3-CHLOROPROPANE	280	50	20
1,2-DIBROMOETHANE	ND	50	20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	98.6	100.0	98.6	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client	: ECO & ASSOCIATES, INC.	Date Collected:	04/21/15
Project	: B & B GROUNDWATER SAMPLING	Date Received:	04/22/15
Batch No.	: 15D143	Date Extracted:	04/24/15 22:00 # 04/27/15 19:11
Sample ID:	04-21-15-EPA5-3	Date Analyzed:	04/24/15 22:00 # 04/27/15 19:11
Lab Samp ID:	D143-04 #D143-04I	Dilution Factor:	10 # 1000
Lab File ID:	RDV513 #RDV536	Matrix :	WATER
Ext Btch ID:	VO01D22 #VO01D23	% Moisture :	NA
Calib. Ref.:	RAV178 #RAV178	Instrument ID :	T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	510	5.0	2.5
# 1,2-DIBROMO-3-CHLOROPROPANE	260	50	20
1,2-DIBROMOETHANE	1.7	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.941	1.000	94.1	80-120
# TOLUENE-D8	103	100.0	103	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 22:00
Sample ID: 04-21-15-EPA5-3	Date Analyzed: 04/24/15 22:00
Lab Samp ID: D143-04	Dilution Factor: 10
Lab File ID: RDV513	Matrix : WATER
Ext Btch ID: V001D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	460E	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	270E	0.50	0.20
1,2-DIBROMOETHANE	1.7	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.941	1.000	94.1	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 19:11
Sample ID: 04-21-15-EPA5-3DL	Date Analyzed: 04/27/15 19:11
Lab Samp ID: D143-04I	Dilution Factor: 1000
Lab File ID: RDV536	Matrix : WATER
Ext Btch ID: VO01D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	510	5.0	2.5
1,2-DIBROMO-3-CHLOROPROPANE	260	50	20
1,2-DIBROMOETHANE	ND	50	20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	103	100.0	103	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 17:50
Sample ID: 04-21-15-WA-5	Date Analyzed: 04/24/15 17:50
Lab Samp ID: D143-05	Dilution Factor: 1
Lab File ID: RDV503	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.50	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	*ND*	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0997	0.1000	99.7	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 20:45 # 04/24/15 19:30
Sample ID: 04-21-15-EPA5-1	Date Analyzed: 04/24/15 20:45 # 04/24/15 19:3D
Lab Samp ID: D143-07 #D143-07I	Dilution Factor: 1 # 5D0
Lab File ID: RDV51D #RDV507	Matrix : WATER
Ext Btch ID: V001D22 #V001D22	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	70	2.5	1.2
1,2-DIBROMO-3-CHLOROPROPANE	1.8	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0924	0.1000	92.4	80-120
# TOLUENE-D8	49.0	50.00	98.1	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 20:45
Sample ID: 04-21-15-EPA5-1	Date Analyzed: 04/24/15 20:45
Lab Samp ID: D143-07	Dilution Factor: 1
Lab File ID: RDV510	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	71E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	1.8	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0924	0.1000	92.4	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 19:30
Sample ID: 04-21-15-EPA5-1DL	Date Analyzed: 04/24/15 19:30
Lab Samp ID: D143-071	Dilution Factor: 500
Lab File ID: RDV507	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	70	2.5	1.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	25	10
1,2-DIBROMOETHANE	ND	25	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	49.0	50.00	98.1	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 18:15
Sample ID: 04-21-15-WA-9	Date Analyzed: 04/24/15 18:15
Lab Samp ID: D143-08	Dilution Factor: 1
Lab File ID: RDV504	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.059	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.104	0.1000	104	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 18:40
Sample ID: 04-21-15-PWA-3	Date Analyzed: 04/24/15 18:40
Lab Samp ID: D143-09	Dilution Factor: 1
Lab File ID: RDV505	Matrix : WATER
Ext Btch ID: VOO1D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.073	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.101	0.1000	101	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV505.D
Acq On : 24 Apr 2015 6:40 pm
Sample : 15D143-09 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 13:20 2015

Vial: 19
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5363	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48929	100.94	ng/l	0.00
Spiked Amount 100.000			Recovery =	100.94%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	606	5.24	ng/l	62
6) 1,2,3-Trichloropropane	11.02	75	4191	73.17	ng/l	97

(#) = qualifier out of range (m) = manual integration

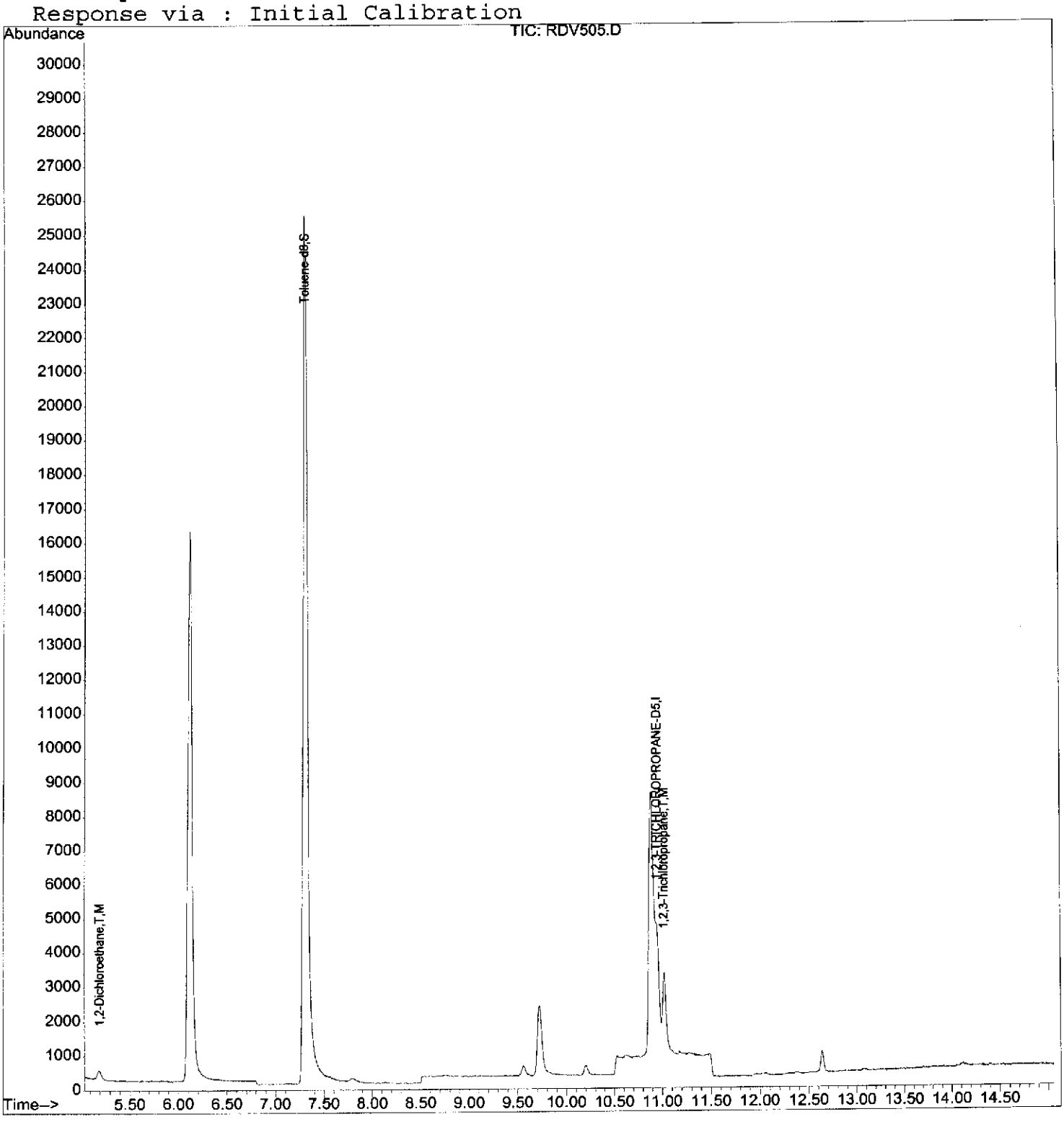
Quantitation Report

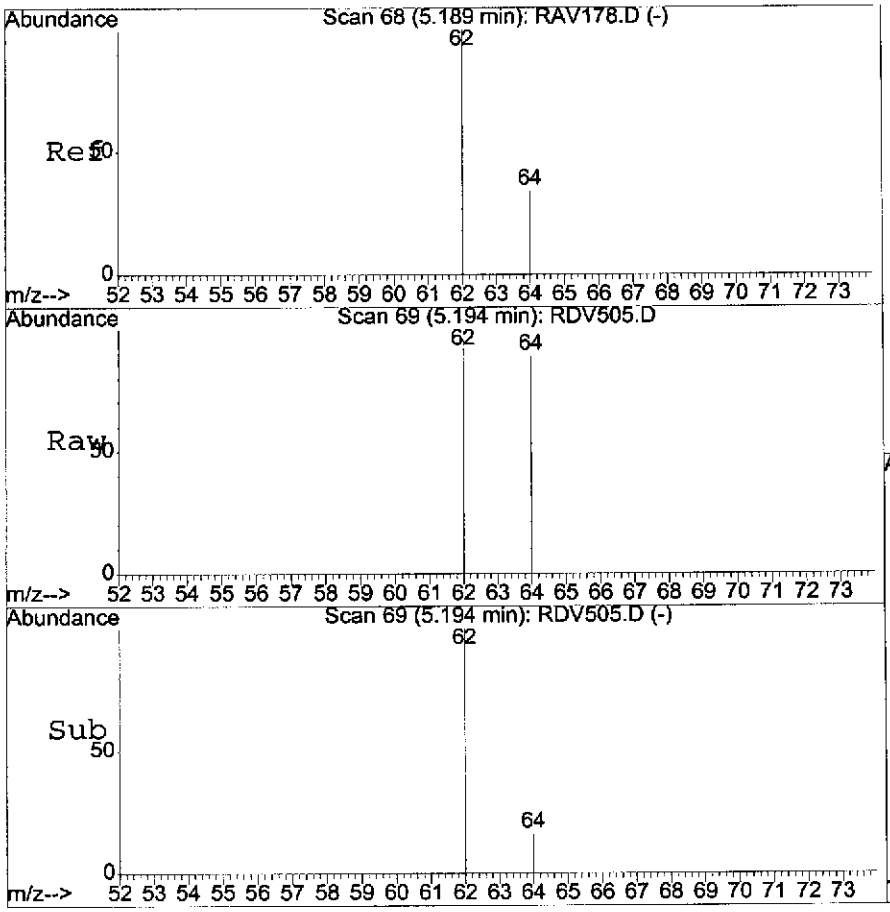
Data File : D:\HPCHEM\1\DATA\15D24\RDV505.D
Acq On : 24 Apr 2015 6:40 pm
Sample : 15D143-09 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 13:20 2015

Vial: 19
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

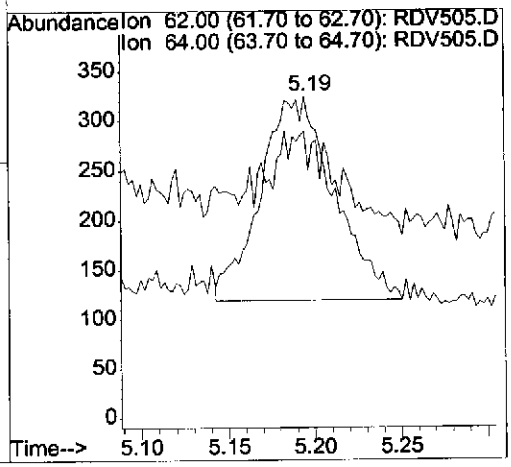


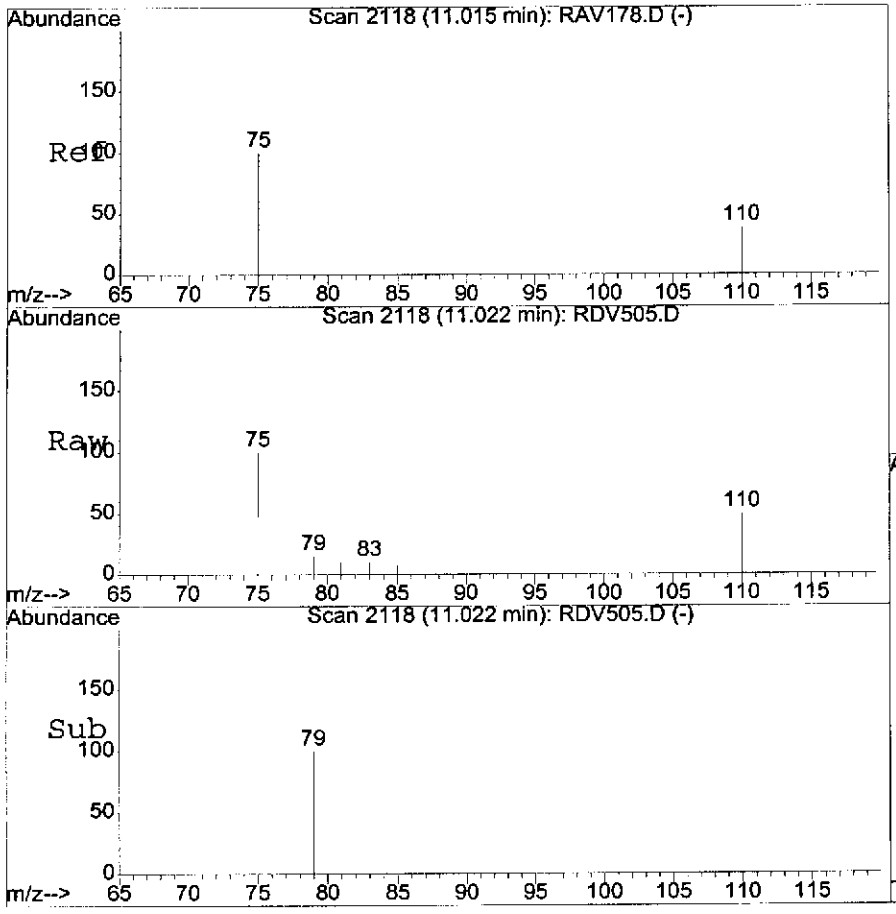


#2
1,2-Dichloroethane
Concen: 5.24 ng/l
RT: 5.19 min Scan# 69
Delta R.T. 0.01 min
Lab File: RDV505.D
Acq: 24 Apr 2015 6:40 pm

Tgt Ion: 62 Resp: 606

Ion	Ratio	Lower	Upper
62	100		
64	11.7	3.3	63.3

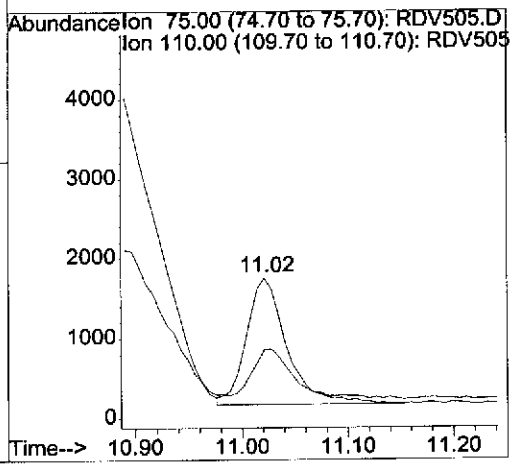




#6
1,2,3-Trichloropropane
Concen: 73.17 ng/l
RT: 11.02 min Scan# 2118
Delta R.T. 0.01 min
Lab File: RDV505.D
Acq: 24 Apr 2015 6:40 pm

Tgt Ion: 75 Resp: 4191

Ion	Ratio	Lower	Upper
75	100		
110	39.6	11.6	71.6



METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 19:05
Sample ID: 04-21-15-PWA-7A	Date Analyzed: 04/24/15 19:05
Lab Samp ID: D143-10	Dilution Factor: 1
Lab File ID: RDV506	Matrix : WATER
Ext Btch ID: VO01D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.52	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.105	0.1000	105	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 17:06
Sample ID: 04-21-15-EB-1	Date Analyzed: 04/27/15 17:06
Lab Samp ID: D143-12	Dilution Factor: 1
Lab File ID: RDV531	Matrix : WATER
Ext Btch ID: VOO1D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0981	0.1000	98.1	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 20:01 # 04/27/15 20:26
Sample ID: 04-21-15-PWA-2	Date Analyzed: 04/27/15 20:01 # 04/27/15 20:26
Lab Samp ID: D143-13I #D143-13J	Dilution Factor: 100 # 1000
Lab File ID: RDV538 #RDV539	Matrix : WATER
Ext Btch ID: V001D23 #V001D23	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	430	5.0	2.5
1,2-DIBROMO-3-CHLOROPROPANE	180	5.0	2.0
1,2-DIBROMOETHANE	37	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	9.58	10.00	95.8	80-120
# TOLUENE-D8	102	100.0	102	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 20:01
Sample ID: 04-21-15-PWA-2	Date Analyzed: 04/27/15 20:01
Lab Samp ID: D143-13I	Dilution Factor: 100
Lab File ID: RDV538	Matrix : WATER
Ext Btch ID: V001D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	430E	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	180	5.0	2.0
1,2-DIBROMOETHANE	37	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	9.58	10.00	95.8	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 20:26
Sample ID: 04-21-15-PWA-2DL	Date Analyzed: 04/27/15 20:26
Lab Samp ID: D143-13J	Dilution Factor: 1000
Lab File ID: RDV539	Matrix : WATER
Ext Btch ID: VOO1D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	430	5.0	2.5
1,2-DIBROMO-3-CHLOROPROPANE	180	50	20
1,2-DIBROMOETHANE	39J	50	20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	102	100.0	102	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 18:21 # 04/27/15 16:41
Sample ID: 04-21-15-EPA5-2	Date Analyzed: 04/27/15 18:21 # 04/27/15 16:41
Lab Samp ID: D143-14 #D143-14I	Dilution Factor: 1 # 100
Lab File ID: RDV534 #RDV530	Matrix : WATER
Ext Btch ID: V001D23 #V001D23	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	4.8	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	1.0	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.110	0.1000	110	80-120
# TOLUENE-D8	9.71	10.00	97.1	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 18:21
Sample ID: 04-21-15-EPA5-2	Date Analyzed: 04/27/15 18:21
Lab Samp ID: D143-14	Dilution Factor: 1
Lab File ID: RDV534	Matrix : WATER
Ext Btch ID: V001D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	5.3E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	1.0	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.110	0.1000	110	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/27/15 16:41
Sample ID: 04-21-15-EPA5-2DL	Date Analyzed: 04/27/15 16:41
Lab Samp ID: D143-14I	Dilution Factor: 100
Lab File ID: RDV530	Matrix : WATER
Ext Btch ID: VO01D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	4.8	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DIBROMOETHANE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	9.71	10.00	97.1	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/04/15 16:14 # 05/04/15 15:49
Sample ID: 04-21-15-WA-3	Date Analyzed: 05/04/15 16:14 # 05/04/15 15:49
Lab Samp ID: D143-16N #D143-16I	Dilution Factor: 1 # 50
Lab File ID: REV042 #REV041	Matrix : WATER
Ext Btch ID: VO01E02 #VO01E02	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	52	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	0.26	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0801	0.1000	80.1	80-120
# TOLUENE-D8	4.79	5.00	95.9	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/04/15 16:14
Sample ID: 04-21-15-WA-3	Date Analyzed: 05/04/15 16:14
Lab Samp ID: D143-16N	Dilution Factor: 1
Lab File ID: REV042	Matrix : WATER
Ext Btch ID: V001E02	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	52E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.26	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0801	0.1000	80.1	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 05/04/15 15:49
Sample ID: 04-21-15-WA-3DL	Date Analyzed: 05/04/15 15:49
Lab Samp ID: D143-16I	Dilution Factor: 50
Lab File ID: REV041	Matrix : WATER
Ext Btch ID: V001E02	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	52	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.5	1.0
1,2-DIBROMOETHANE	ND	2.5	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	4.79	5.000	95.9	80-120

QC SUMMARIES

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/24/15
Batch No. : 15D143	Date Extracted: 04/24/15 13:15
Sample ID: MBLK1W	Date Analyzed: 04/24/15 13:15
Lab Samp ID: V001D220	Dilution Factor: 1
Lab File ID: RDV492	Matrix : WATER
Ext Btch ID: V001D22	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.112	0.1000	112	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001D22Q	V001D22L	V001D22C		
LAB FILE ID:	RDV492	RDV489	RDV490		
DATE EXTRACTED:	04/24/1513:15	04/24/1511:42	04/24/1512:07	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/1513:15	04/24/1511:42	04/24/1512:07	DATE RECEIVED:	04/24/15
PREP. BATCH:	V001D22	V001D22	V001D22		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	ND	0.100	0.0985	98	0.100	0.100	100	2	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0817	82	0.100	0.0847	85	4	50-130	30
1,2-Dibromoethane	ND	0.100	0.104	104	0.100	0.102	102	2	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.108	108	0.100	0.0946	95	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/27/15
Batch No. : 15D143	Date Extracted: 04/27/15 14:33
Sample ID: MBLK2W	Date Analyzed: 04/27/15 14:33
Lab Samp ID: V001D23B	Dilution Factor: 1
Lab File ID: RDV525	Matrix : WATER
Ext Btch ID: V001D23	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.104	0.1000	104	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V001D23B	V001D23L	V001D23C		
LAB FILE ID:	RDV525	RDV523	RDV524		
DATE EXTRACTED:	04/27/1514:33	04/27/1513:43	04/27/1514:08	DATE COLLECTED:	NA
DATE ANALYZED:	04/27/1514:33	04/27/1513:43	04/27/1514:08	DATE RECEIVED:	04/27/15
PREP. BATCH:	V001D23	V001D23	V001D23		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	ND	0.100	0.0973	97	0.100	0.103	103	6	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0794	79	0.100	0.0820	82	3	50-130	30
1,2-Dibromoethane	ND	0.100	0.107	107	0.100	0.111	111	4	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.104	104	0.100	0.109	109	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 05/04/15
Batch No. : 15D143	Date Extracted: 05/04/15 15:18
Sample ID: MBLK3W	Date Analyzed: 05/04/15 15:18
Lab Samp ID: V001E02B	Dilution Factor: 1
Lab File ID: REV040	Matrix : WATER
Ext Btch ID: V001E02	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0918	0.1000	91.8	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK3W				
LAB SAMP ID:	V001E02B	V001E02L	V001E02C		
LAB FILE ID:	REV040	REV038	REV039		
DATE EXTRACTED:	05/04/1515:18	05/04/1514:28	05/04/1514:54	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/1515:18	05/04/1514:28	05/04/1514:54	DATE RECEIVED:	05/04/15
PREP. BATCH:	V001E02	V001E02	V001E02		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	ND	0.100	0.0994	99	0.100	0.0989	99	0	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0785	79	0.100	0.0835	84	6	50-130	30
1,2-Dibromoethane	ND	0.100	0.105	105	0.100	0.104	104	1	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.0868	87	0.100	0.0888	89	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-21-15-WA-1				
LAB SAMP ID:	D143-01	D143-01M	D143-01S		
LAB FILE ID:	RDV493	RDV494	RDV495		
DATE EXTRACTED:	04/24/1513:40	04/24/1514:05	04/24/1514:30	DATE COLLECTED:	04/21/15
DATE ANALYZED:	04/24/1513:40	04/24/1514:05	04/24/1514:30	DATE RECEIVED:	04/22/15
PREP. BATCH:	V001D22	V001D22	V001D22		
CALIB. REF:	RAV178	RAV178	RAV178		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	1.04	0.100	1.12	85	0.100	1.10	65*	2	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0907	91	0.100	0.0920	92	1	50-130	30
1,2-Dibromoethane	ND	0.100	0.109	109	0.100	0.107	107	2	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.104	104	0.100	0.104	104	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV492.D
Acq On : 24 Apr 2015 1:15 pm
Sample : VO01D22Q 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 12:24 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4768	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48117	111.66	ng/l	0.00
Spiked Amount 100.000			Recovery =	111.66%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

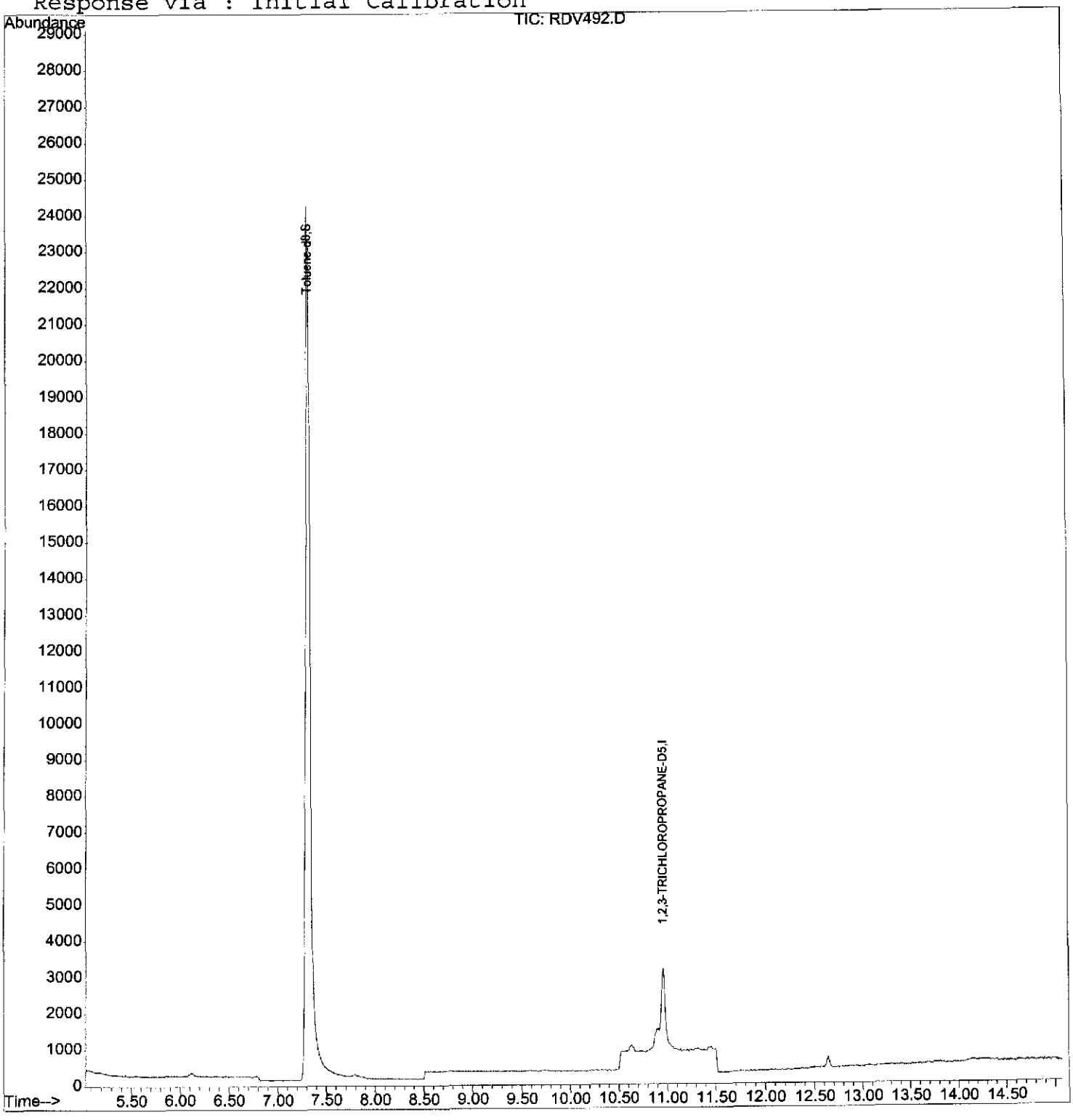
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV492.D
Acq On : 24 Apr 2015 1:15 pm
Sample : VO01D22Q 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 12:24 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV489.D
Acq On : 24 Apr 2015 11:42 am
Sample : VO01D22L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 11:57 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4693	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45762	107.89	ng/l	0.00
Spiked Amount 100.000			Recovery =	107.89%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	10721	105.98	ng/l	98
4) 1,2-Dibromoethane	8.75	107	6641	103.98	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.96	83	7479	102.51	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	4936	98.48	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.07	157	723	81.73	ng/l	91

(#) = qualifier out of range (m) = manual integration

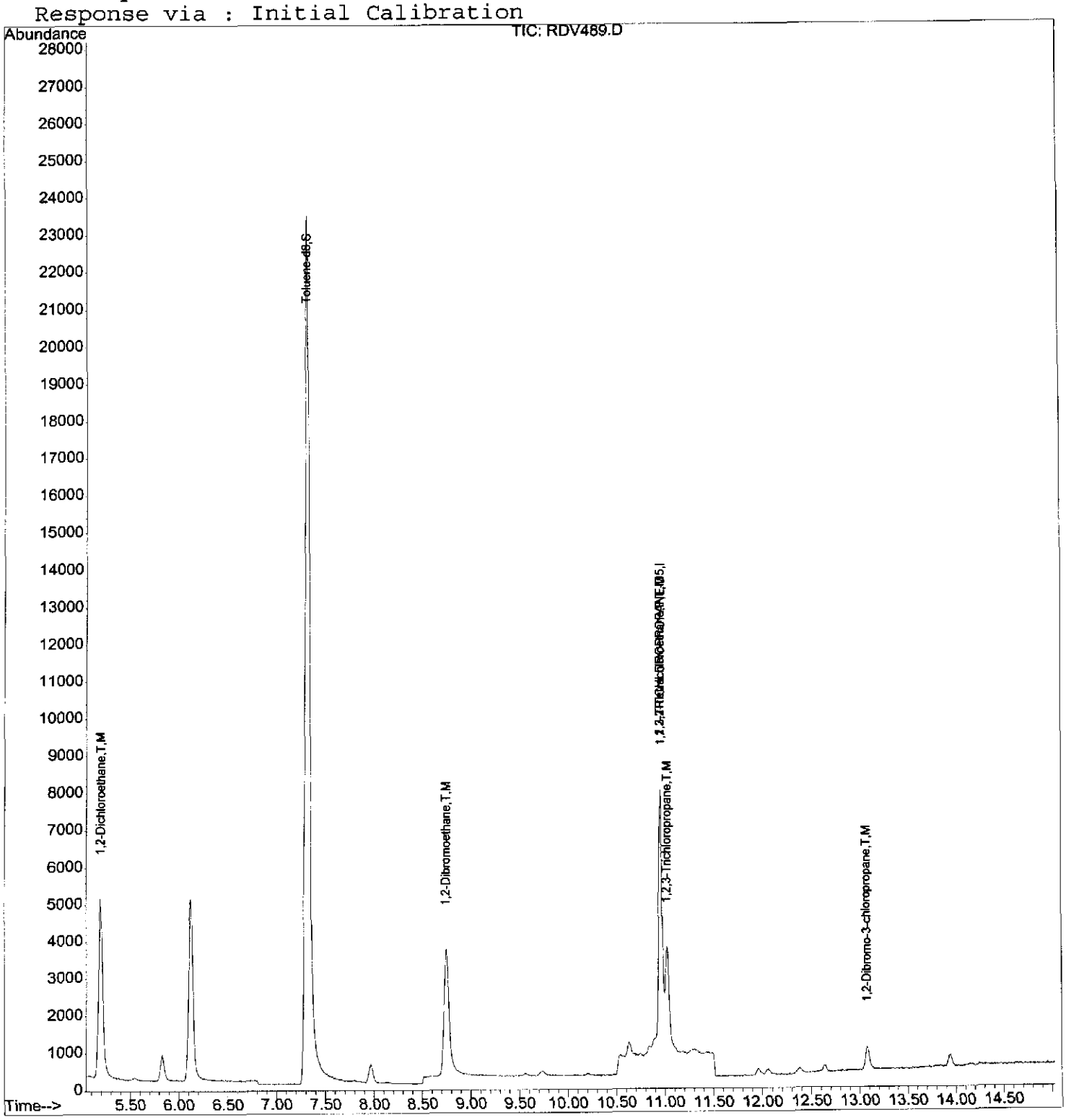
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV489.D
Acq On : 24 Apr 2015 11:42 am
Sample : VO01D22L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 11:57 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV490.D
Acq On : 24 Apr 2015 12:07 pm
Sample : VO01D22C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 12:22 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5304	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45360	94.62	ng/l	0.00
Spiked Amount 100.000			Recovery = 94.62%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	11460	100.23	ng/l	99
4) 1,2-Dibromoethane	8.74	107	7333	101.59	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	8475	102.78	ng/l	96
6) 1,2,3-Trichloropropane	11.02	75	5686	100.37	ng/l	91
7) 1,2-Dibromo-3-chloropropan	13.08	157	847	84.72	ng/l	83

(#) = qualifier out of range (m) = manual integration

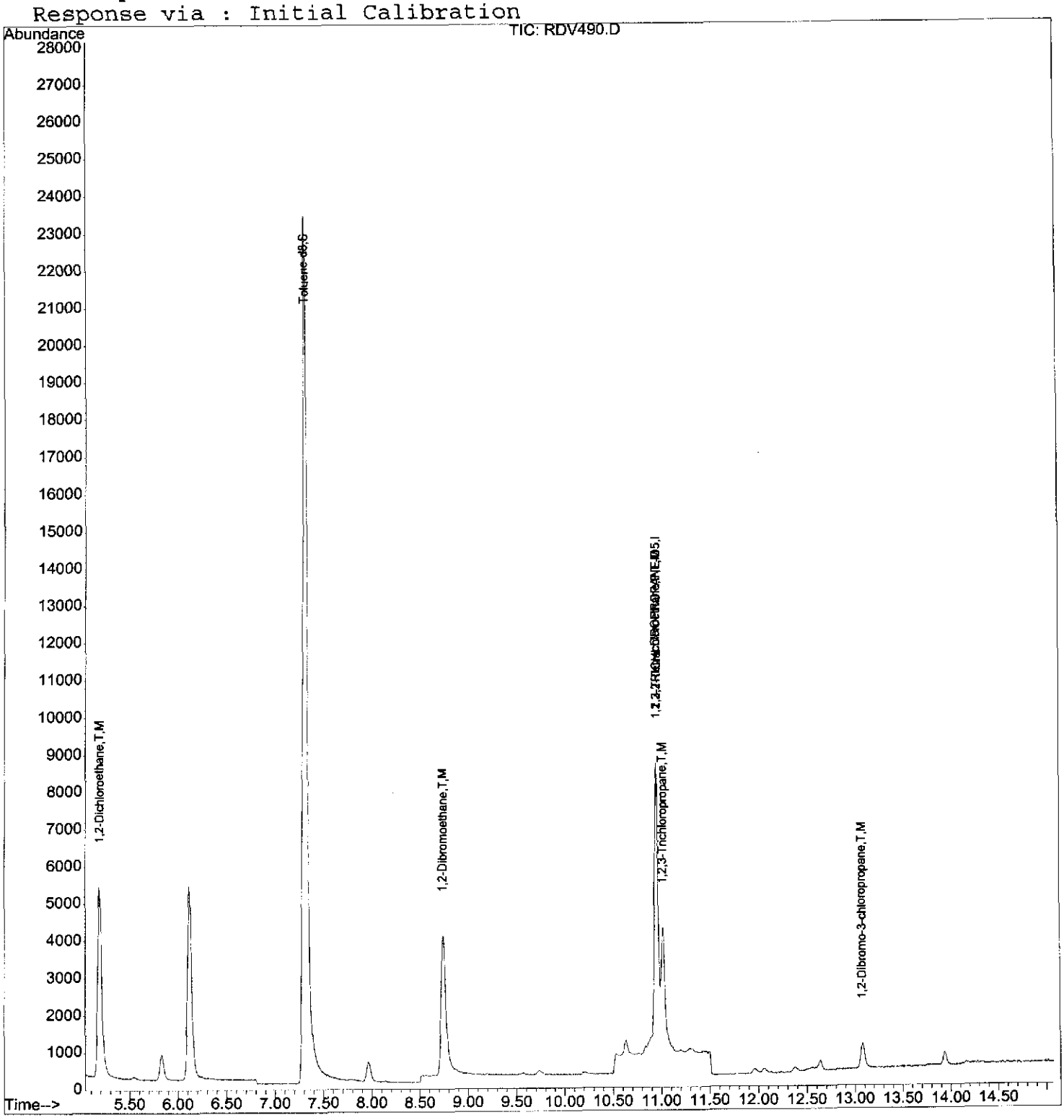
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV490.D
Acq On : 24 Apr 2015 12:07 pm
Sample : VO01D22C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 24 12:22 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



2207

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV493.D
Acq On : 24 Apr 2015 1:40 pm
Sample : 15D143-01 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 12:44 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5314	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48474	100.93	ng/l	0.00
Spiked Amount 100.000			Recovery = 100.93%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	2434	21.25	ng/l	96
6) 1,2,3-Trichloropropane	11.02	75	58791	1035.88	ng/l	97

(#) = qualifier out of range (m) = manual integration

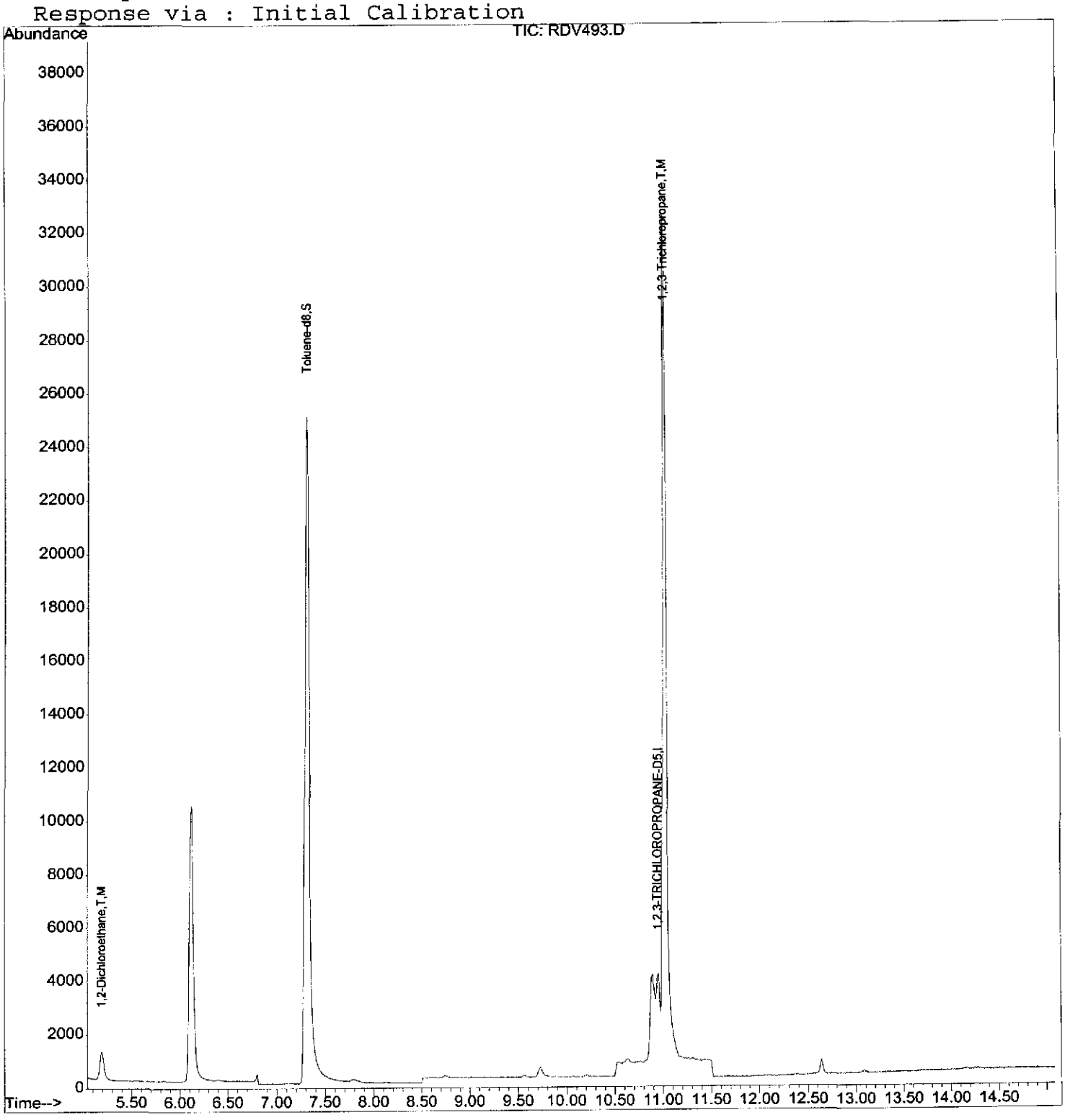
Quantitation Report

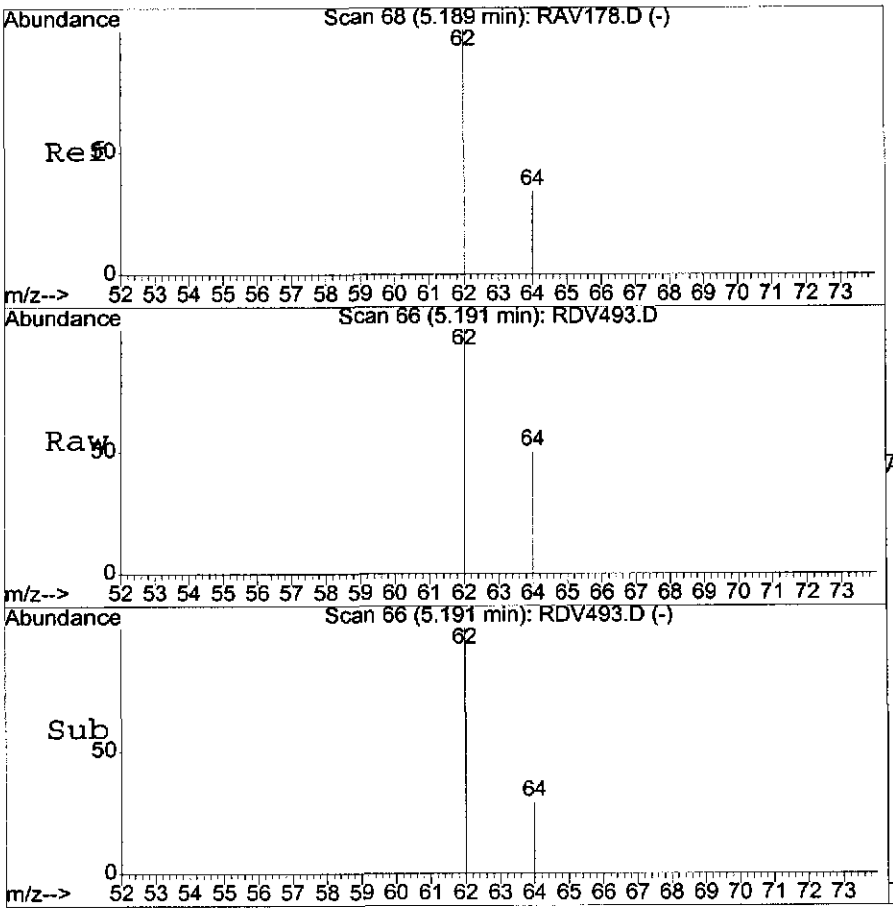
Data File : D:\HPCHEM\1\DATA\15D24\RDV493.D
Acq On : 24 Apr 2015 1:40 pm
Sample : 15D143-01 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 28 12:44 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

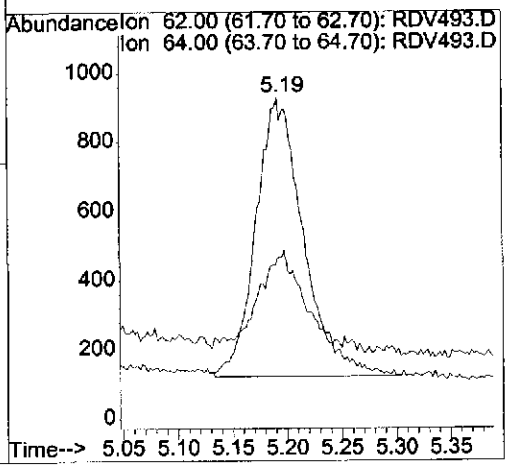


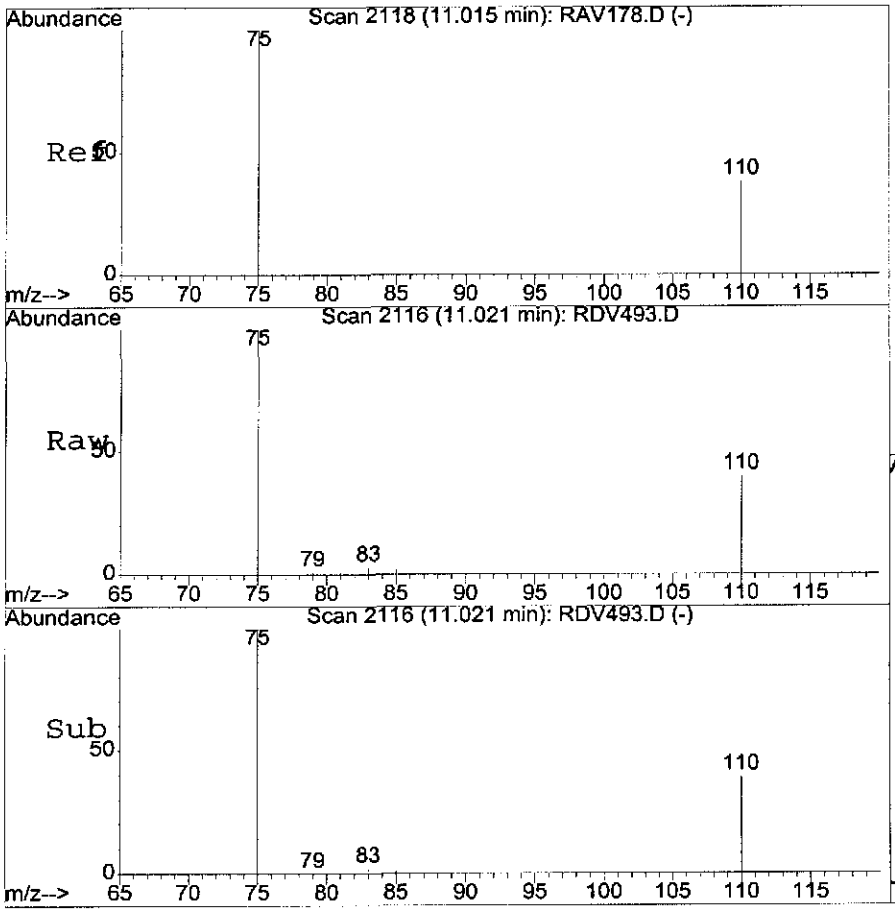


#2
1,2-Dichloroethane
Concen: 21.25 ng/l
RT: 5.19 min Scan# 66
Delta R.T. 0.00 min
Lab File: RDV493.D
Acq: 24 Apr 2015 1:40 pm

Tgt Ion: 62 Resp: 2434

Ion	Ratio	Lower	Upper
62	100		
64	31.3	3.3	63.3

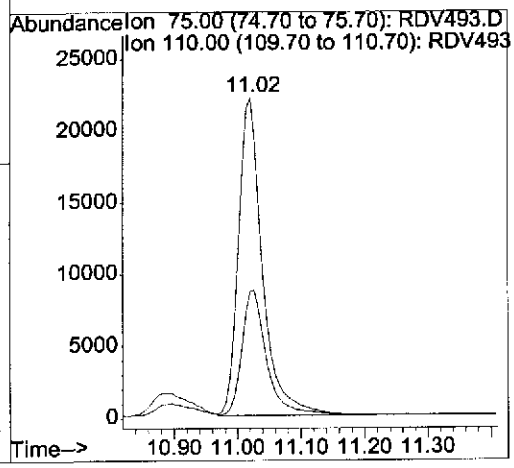




#6
1,2,3-Trichloropropane
Concen: 1035.88 ng/l
RT: 11.02 min Scan# 2116
Delta R.T. 0.01 min
Lab File: RDV493.D
Acq: 24 Apr 2015 1:40 pm

Tgt Ion: 75 Resp: 58791

Ion	Ratio	Lower	Upper
75	100		
110	39.9	11.6	71.6



2210

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV494.D
Acq On : 24 Apr 2015 2:05 pm
Sample : 15D143-01M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:33 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5196	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48861	104.04	ng/l	0.00
Spiked Amount 100.000			Recovery = 104.04%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	14915	133.16	ng/l	100
4) 1,2-Dibromoethane	8.74	107	7724	109.23	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.95	83	7572	93.74	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	62229	1121.36	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.07	157	888	90.66	ng/l	89

(#) = qualifier out of range (m) = manual integration

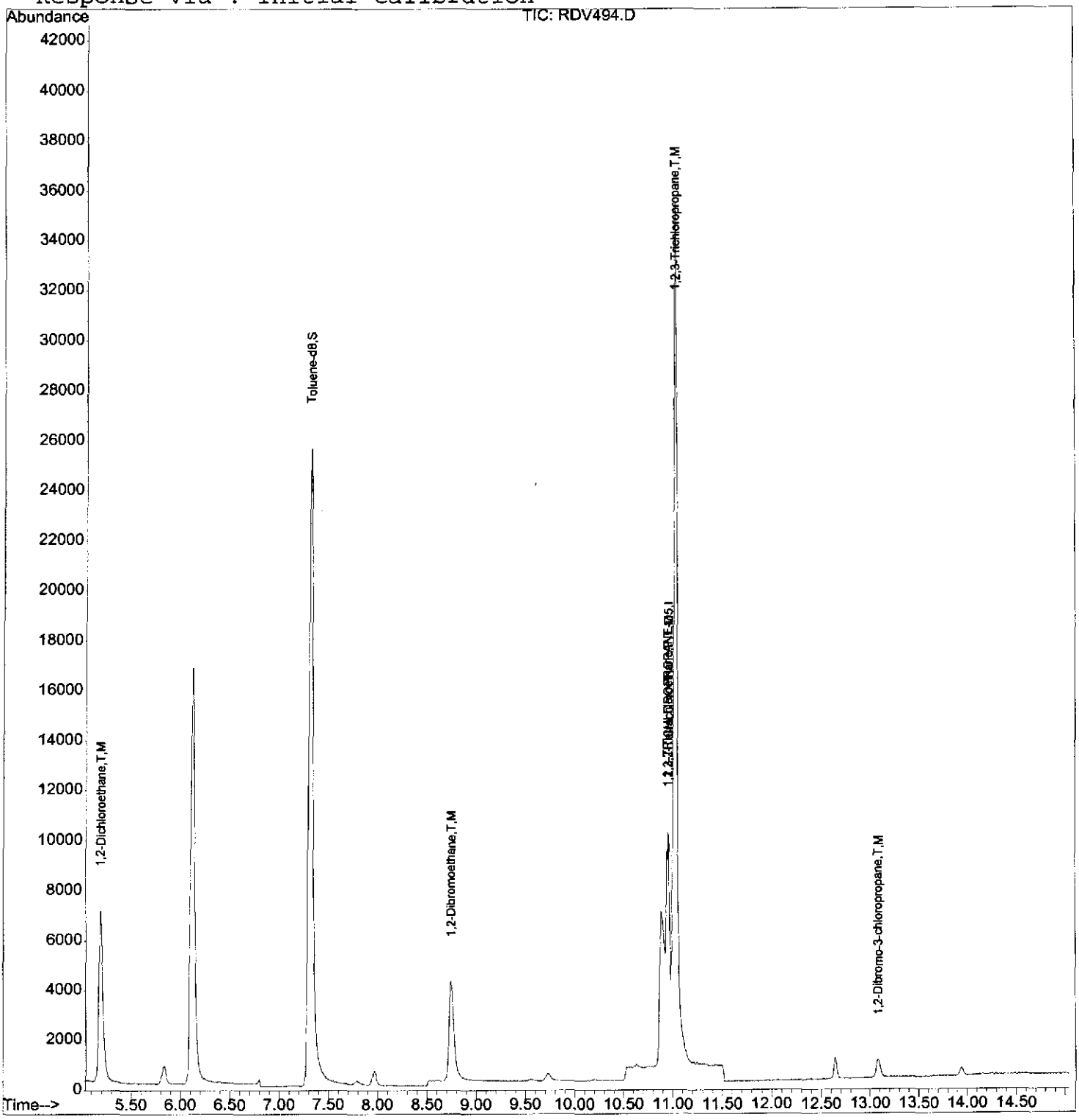
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV494.D
Acq On : 24 Apr 2015 2:05 pm
Sample : 15D143-01M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:33 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV495.D
Acq On : 24 Apr 2015 2:30 pm
Sample : 15D143-01S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:34 2015

Vial: 9
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5207	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	48827	103.75	ng/l	0.00
Spiked Amount 100.000			Recovery =	103.75%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	16087	143.32	ng/l	97
4) 1,2-Dibromoethane	8.75	107	7552	106.57	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	7761	95.88	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	61234	1101.10	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.08	157	903	92.00	ng/l	93

(#) = qualifier out of range (m) = manual integration

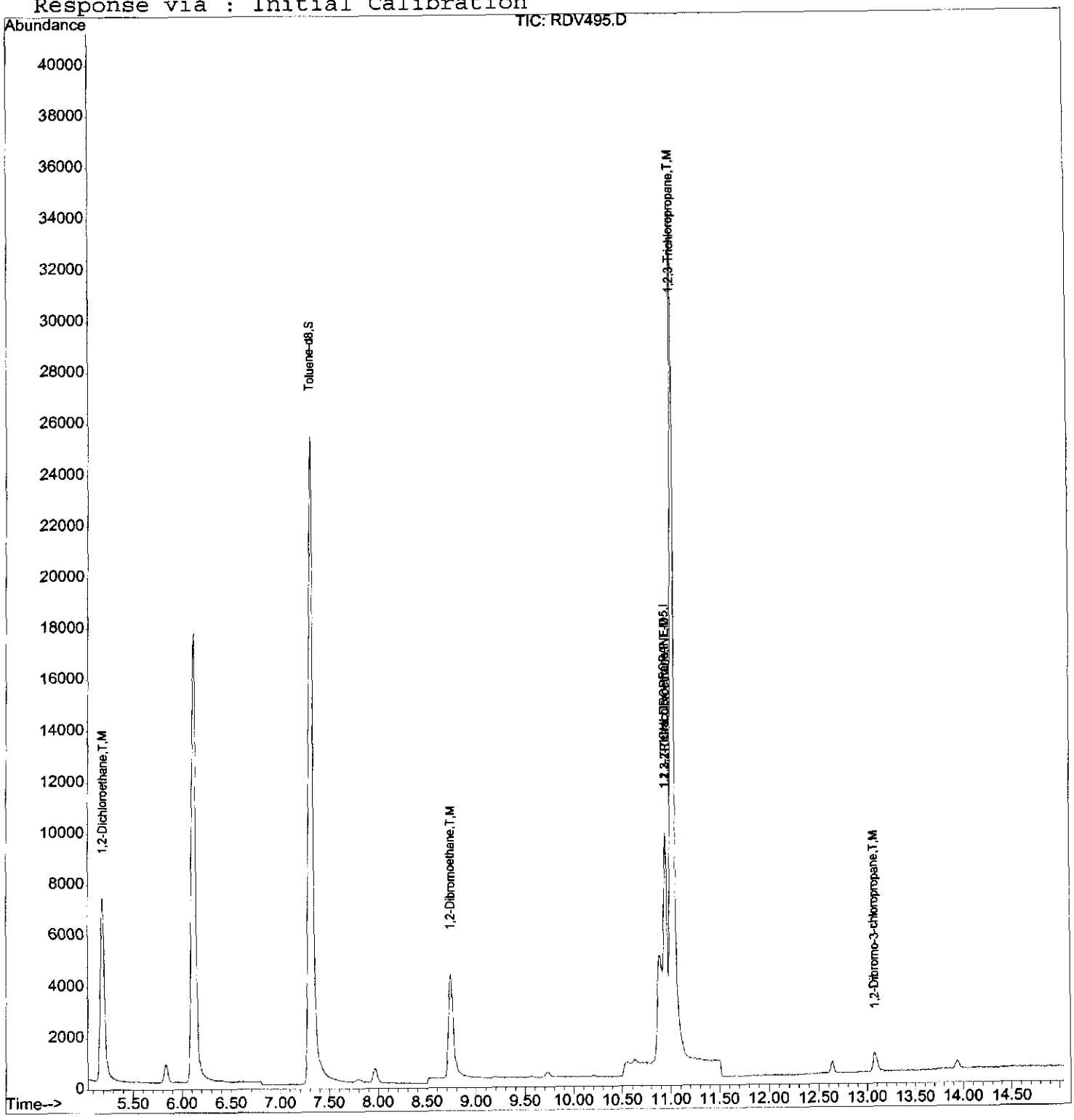
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV495.D
Acq On : 24 Apr 2015 2:30 pm
Sample : 15D143-01S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 27 10:34 2015

Vial: 9
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



2214

INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D143
Lab File ID: RAV173 BFB Injection Date : 01/13/15
Instrument ID: TO01 BFB Injection Time : 09:57
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.28
75	30.0 - 60.0% of mass 95	42.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.05
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.80
175	5.0 - 9.0% of mass 174	6.26(7.0)1
176	95.0 - 101.0% of mass 174	86.06(95.8)1
177	5.0 - 9.0% of mass 176	5.52(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD05	VO01A131	RAV174	01/13/15	10:27
2	VSTD010	VO01A132	RAV175	01/13/15	10:51
3	VSTD020	VO01A133	RAV176	01/13/15	11:15
4	VSTD050	VO01A134	RAV177	01/13/15	11:39
5	VSTD100	VO01A135	RAV178	01/13/15	12:03
6	VSTD200	VO01A136	RAV179	01/13/15	12:27
7	VSTD400	VO01A137	RAV180	01/13/15	12:51
8	VSTD1000	VO01A138	RAV181	01/13/15	13:15
9	VSTD2000	VO01A139	RAV182	01/13/15	13:39
10	VSTD100	IVO01A1301	RAV184	01/13/15	14:26

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO01
Beginning DateTime :01/13/15 10:27
Spike Units :PPT
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
Ending DateTime :01/13/15 13:39
HPChem Method :VO01A13

M	IDX	Parameters	5 10:27 RAV174	10 10:51 RAV175	20 11:15 RAV176	50 11:39 RAV177	100 12:03 RAV178	200 12:27 RAV179	400 12:51 RAV180	1000 13:15 RAV181	2000 13:39 RAV182	Av_RRF	%_RSD	Av_Rt_M
	1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	1	0	10.9505
	2	1,2-Dichloroethane	1.837	2.098	2.023	2.328	2.184	2.528	2.100	2.202	2.100	2.156	8.99	5.1880
	3	Toluene-d8	------	11.392	9.024	9.095	8.109	9.522	7.988	8.730	8.446	9.038	11.97	7.3057
	4	1,2-Dibromoethane	1.213	1.332	1.266	1.377	1.349	1.570	1.324	1.425	1.391	1.361	7.45	8.7375
	5	1,1,2,2-Tetrachloroethane	1.429	1.390	1.384	1.571	1.543	1.804	1.530	1.680	1.660	1.555	9.16	10.9461
	6	1,2,3-Trichloropropane	1.186	1.045	0.954	0.987	1.004	1.204	1.010	1.117	1.105	1.068	8.35	11.0147
	7	1,2-Dibromo-3-chloropropane	------	0.214	0.175	0.174	0.171	0.200	0.172	0.197	0.205	0.188	9.17	13.0710

Ave_%RSD : 9.2 Max_%RSD : 12

SA
1/14/15

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	10.95	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	5.19	0.474	A	1	A	B
3	S	Toluene-d8	98	7.31	0.667	A	1	A	B
4	T	1,2-Dibromoethane	107	8.74	0.798	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	10.94	0.999	A	1	A	B
6	T	1,2,3-Trichloropropane	75	11.02	1.006	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	13.07	1.194	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

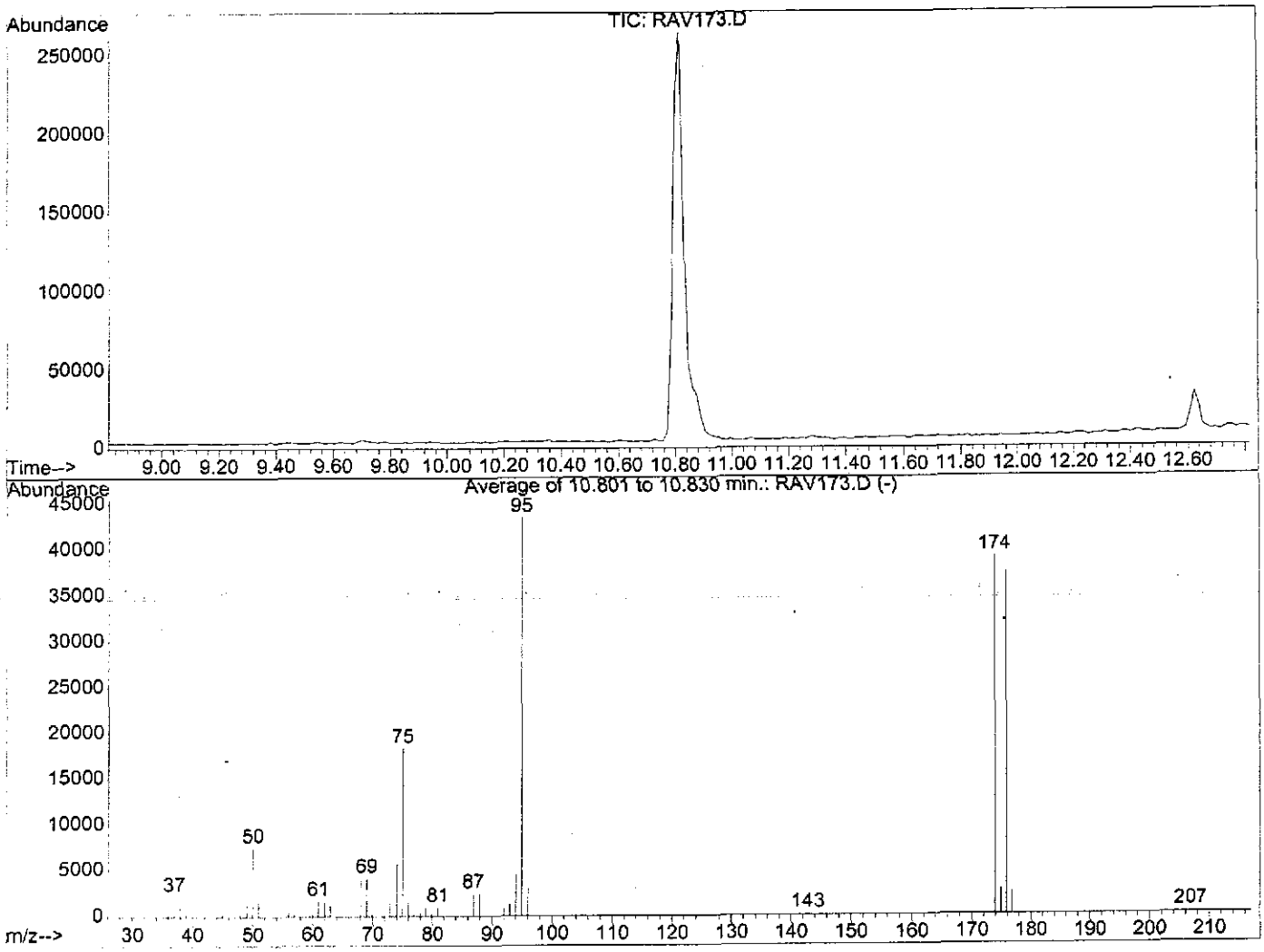
VO01A13.M Wed Jan 14 15:08:24 2015

SM 1/14/15

BFB

Data File : D:\HPCHEM\1\DATA\15A13\RAV173.D
Acq On : 13 Jan 2015 9:57 am
Sample : BFB01A11
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: DNguye
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	7513	PASS
75	95	30	60	42.2	18354	PASS
95	95	100	100	100.0	43472	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.8	39037	PASS
175	174	5	9	7.0	2721	PASS
176	174	95	101	95.8	37411	PASS
177	176	5	9	6.4	2399	PASS

RAV173.D VO01A13A.M Wed Jan 14 11:20:32 2015

SA 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5194	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	2994	6.38	ng/l	0.00
Spiked Amount 100.000			Recovery =	6.38%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	477	4.26	ng/l #	41
4) 1,2-Dibromoethane	8.74	107	315	4.46	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.94	83	371	4.59	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	308	5.55	ng/l	88

SN 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV174.D VO01A13.M Wed Jan 14 11:21:25 2015

2220

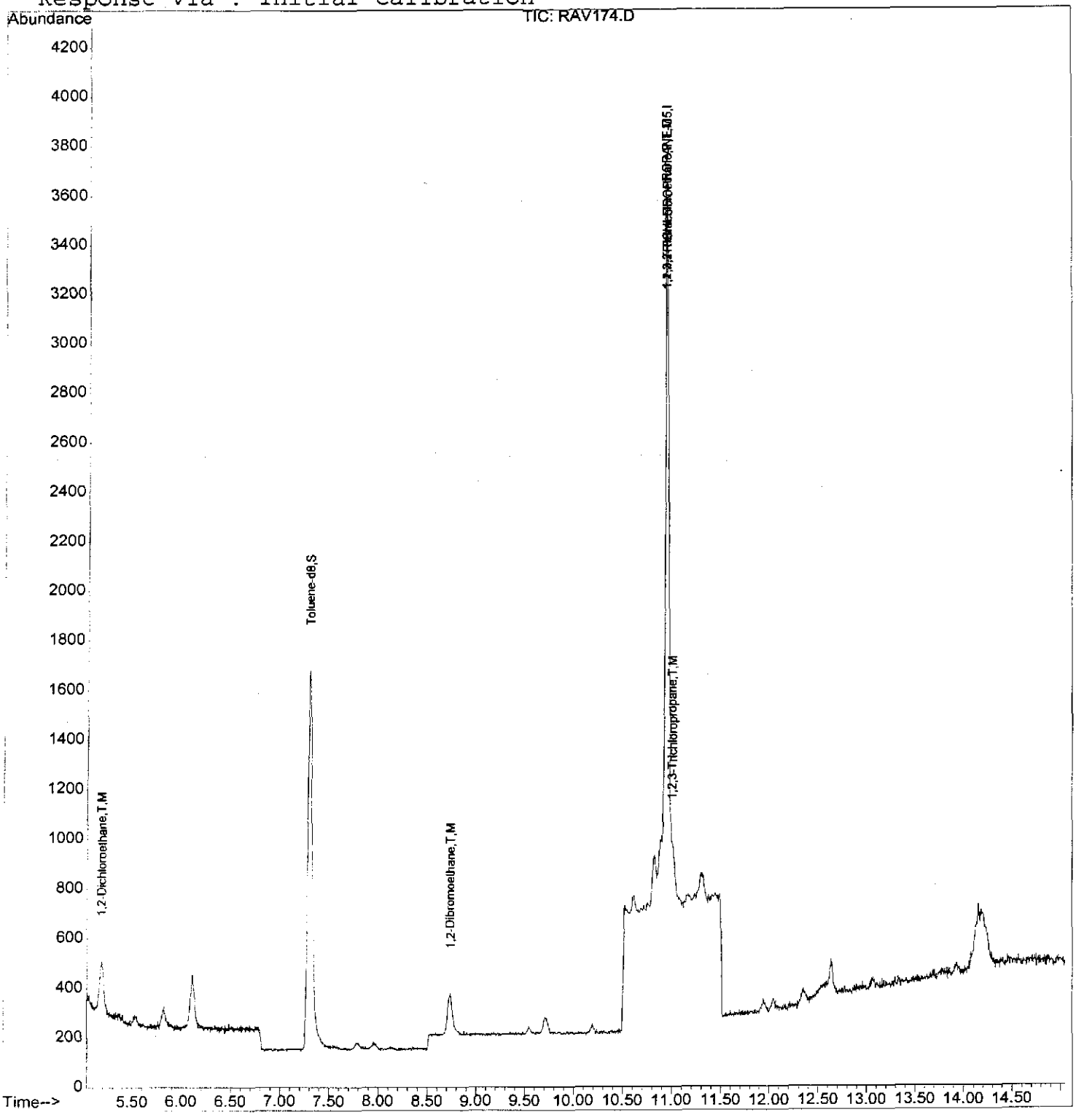
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SU 1/14/15

2221

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5044	100.00	ng/l		0.00
System Monitoring Compounds							
3) Toluene-d8	7.31	98	5746	12.60	ng/l		0.00
Spiked Amount 100.000			Recovery =	12.60%			
Target Compounds							Qvalue
2) 1,2-Dichloroethane	5.19	62	1058	9.73	ng/l		97
4) 1,2-Dibromoethane	8.73	107	672	9.79	ng/l		92
5) 1,1,2,2-Tetrachloroethane	10.94	83	701	8.94	ng/l		97
6) 1,2,3-Trichloropropane	11.01	75	527	9.78	ng/l		96
7) 1,2-Dibromo-3-chloropropan	13.08	157	108	11.36	ng/l	#	44

SA 1/14/15

(#) = qualifier out of range (m) = manual integration

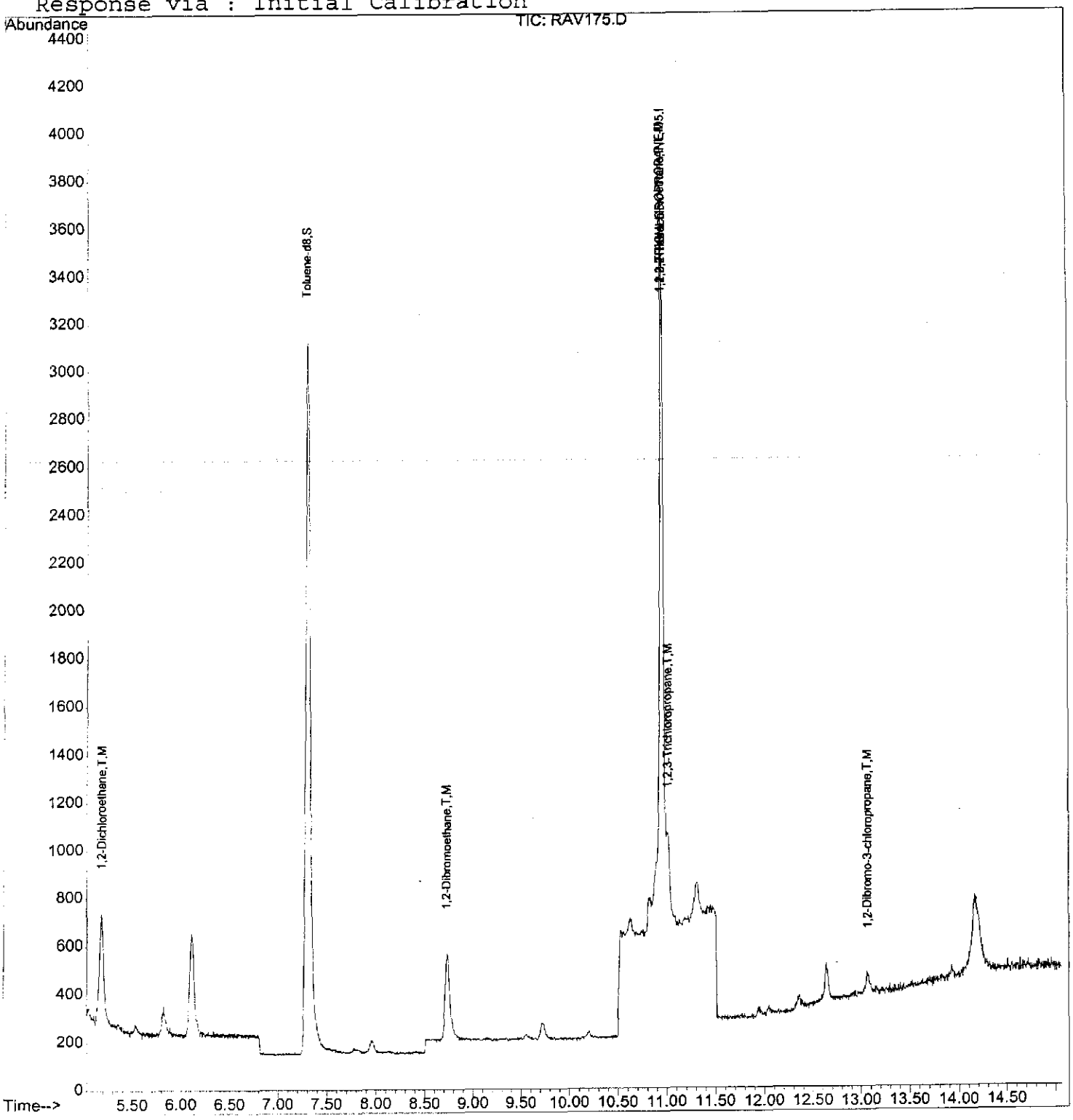
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2223

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4945	100.00	ng/l		0.00
System Monitoring Compounds							
3) Toluene-d8	7.30	98	8925	19.97	ng/l		0.00
Spiked Amount 100.000			Recovery = 19.97%				
Target Compounds							Qvalue
2) 1,2-Dichloroethane	5.18	62	2001	18.77	ng/l		98
4) 1,2-Dibromoethane	8.73	107	1252	18.60	ng/l		99
5) 1,1,2,2-Tetrachloroethane	10.94	83	1369	17.81	ng/l		99
6) 1,2,3-Trichloropropane	11.01	75	944	17.87	ng/l		96
7) 1,2-Dibromo-3-chloropropan	13.07	157	173	18.56	ng/l	#	66

Su 1/14/15

(#) = qualifier out of range (m) = manual integration

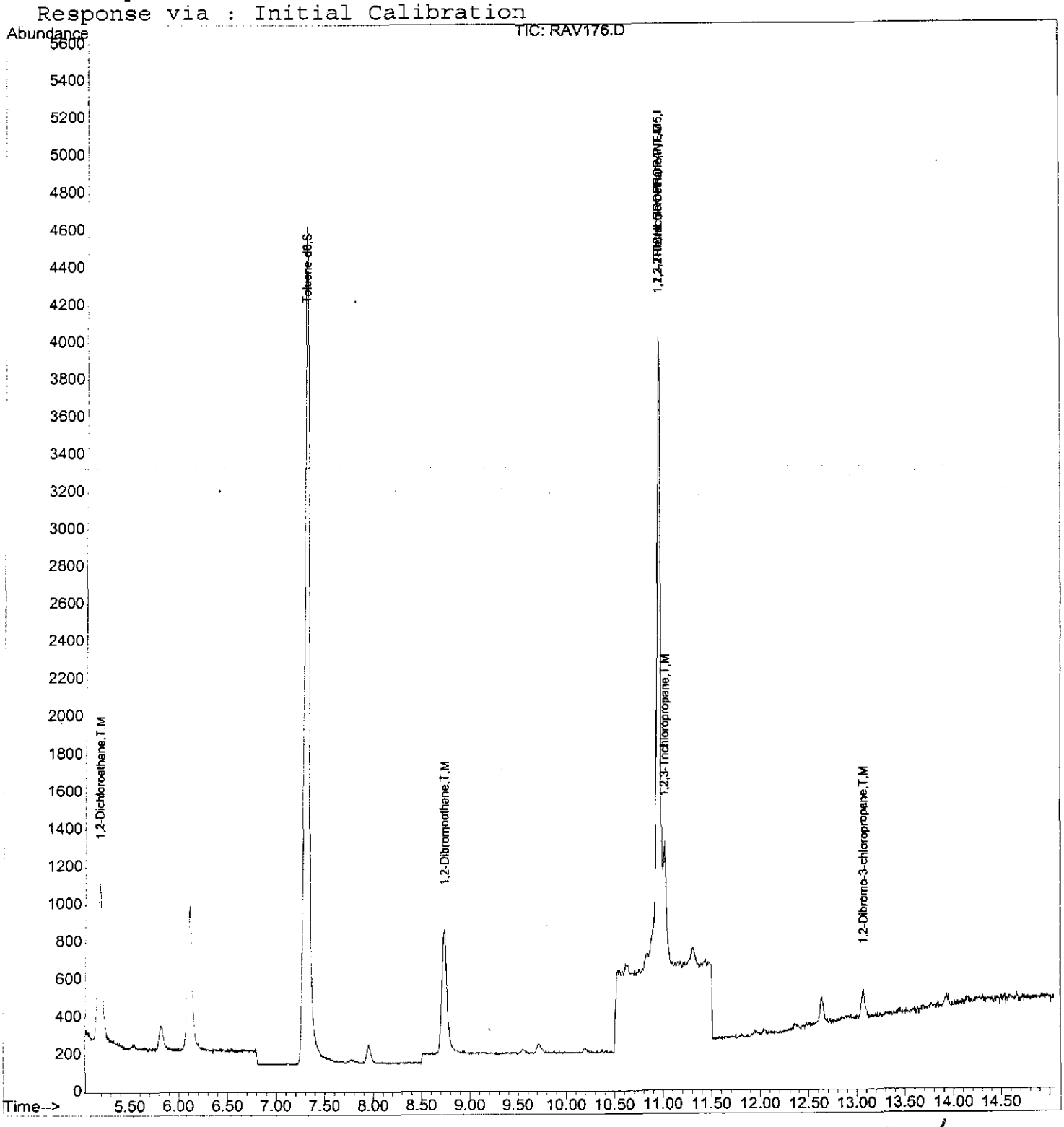
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SU 1/14/15

2225

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4947	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	22497	50.32	ng/l	0.00
Spiked Amount 100.000			Recovery =	50.32%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	5759	54.01	ng/l	96
4) 1,2-Dibromoethane	8.74	107	3407	50.61	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	3885	50.52	ng/l	96
6) 1,2,3-Trichloropropane	11.01	75	2442	46.22	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.07	157	431	46.22	ng/l	89

SG 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV177.D VO01A13.M Wed Jan 14 11:22:08 2015

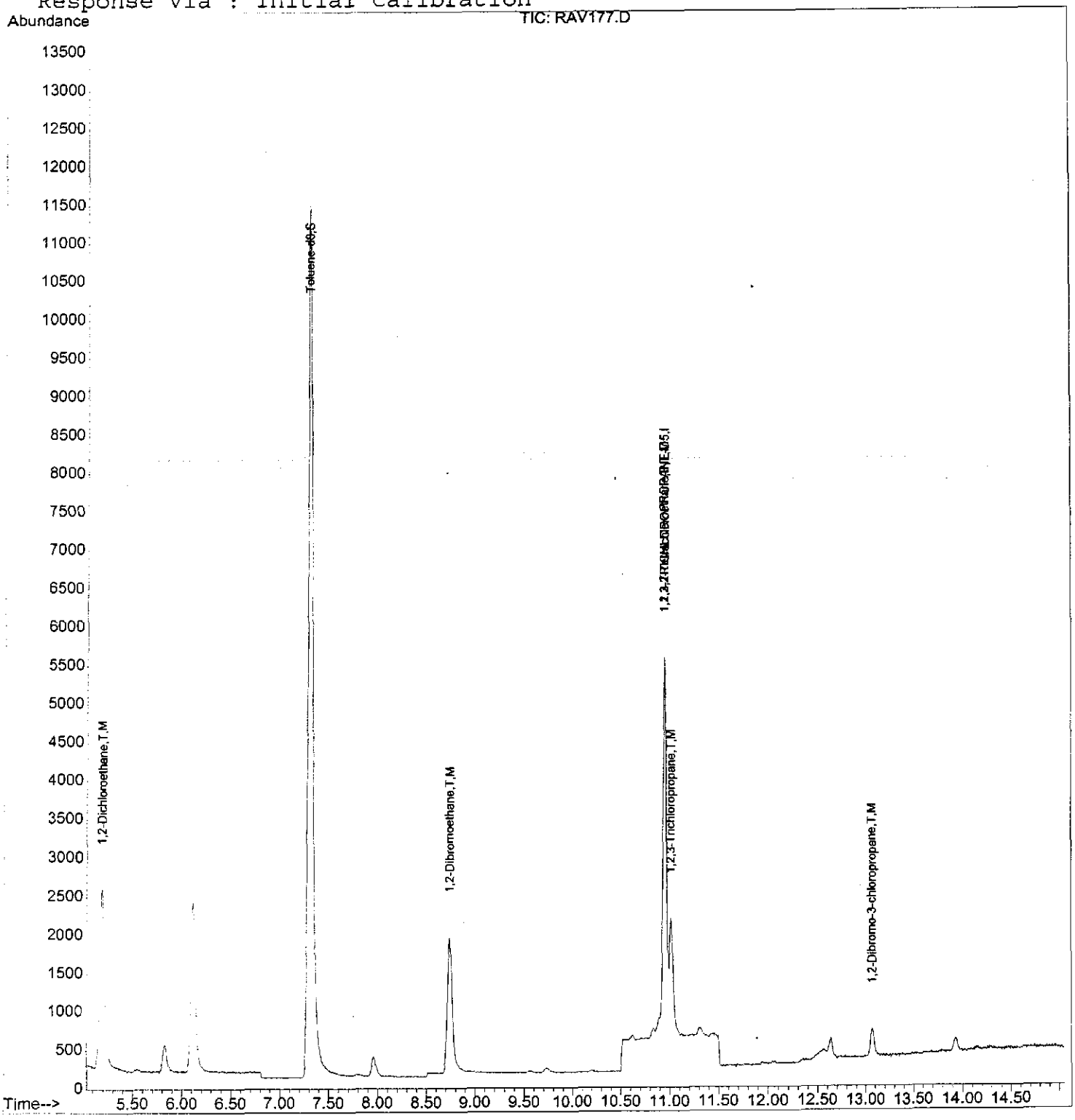
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2227

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5060	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	41033	89.72	ng/l	0.00
Spiked Amount 100.000			Recovery = 89.72%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	11051	101.32	ng/l	100
4) 1,2-Dibromoethane	8.74	107	6828	99.15	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.94	83	7809	99.27	ng/l	100
6) 1,2,3-Trichloropropane	11.02	75	5081	94.02	ng/l	100
7) 1,2-Dibromo-3-chloropropan	13.07	157	867	90.90	ng/l	100

Sa 1/14/15

(#) = qualifier out of range (m) = manual integration

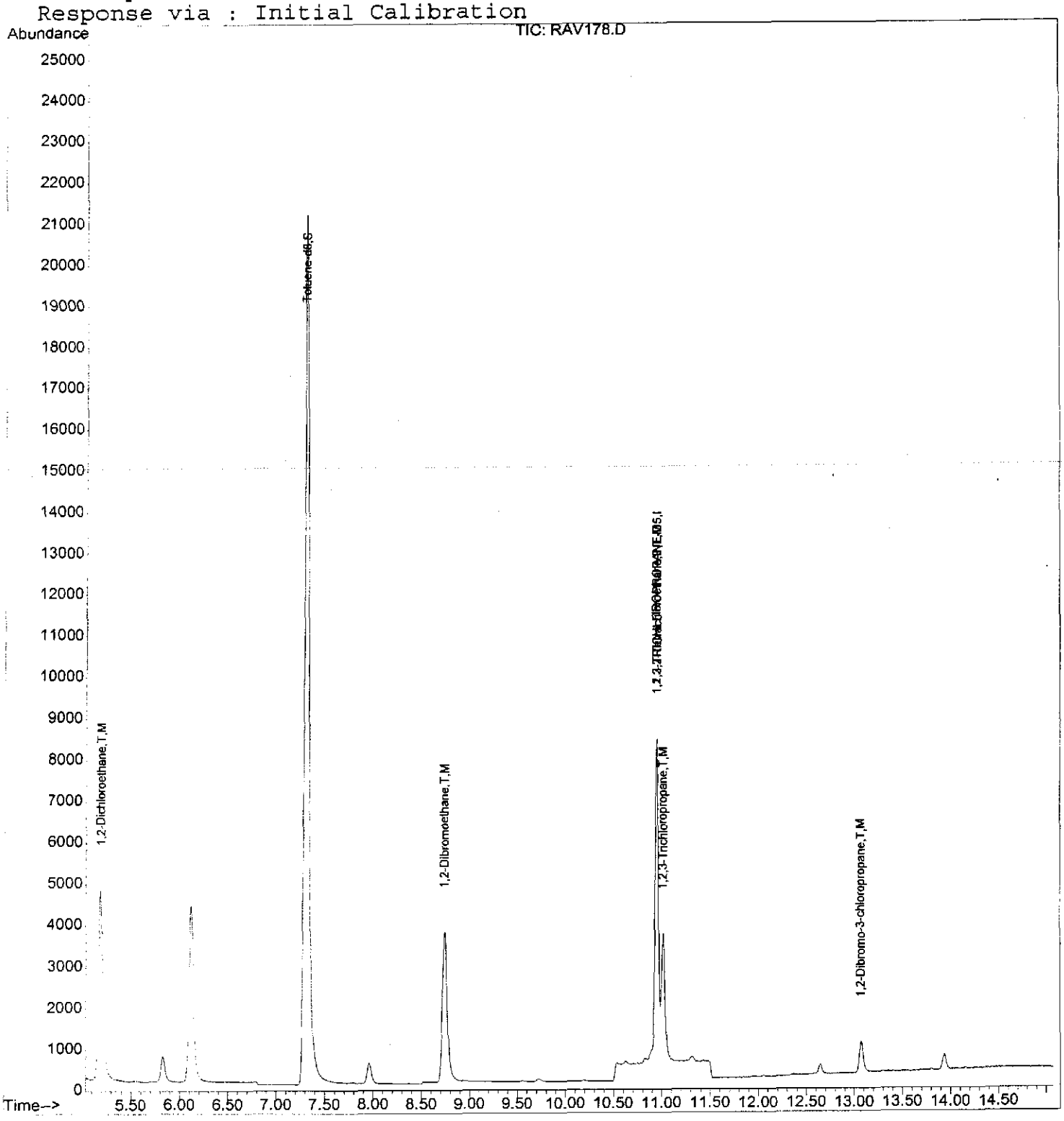
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SM 1/14/15

2229

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4682	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	89160	210.70	ng/l	0.00
Spiked Amount 100.000			Recovery =	210.70%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	23674	234.57	ng/l	98
4) 1,2-Dibromoethane	8.74	107	14703	230.75	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	16894	232.10	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	11277	225.52	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.07	157	1876	212.57	ng/l	94

SU 1/14/15

(#) = qualifier out of range (m) = manual integration

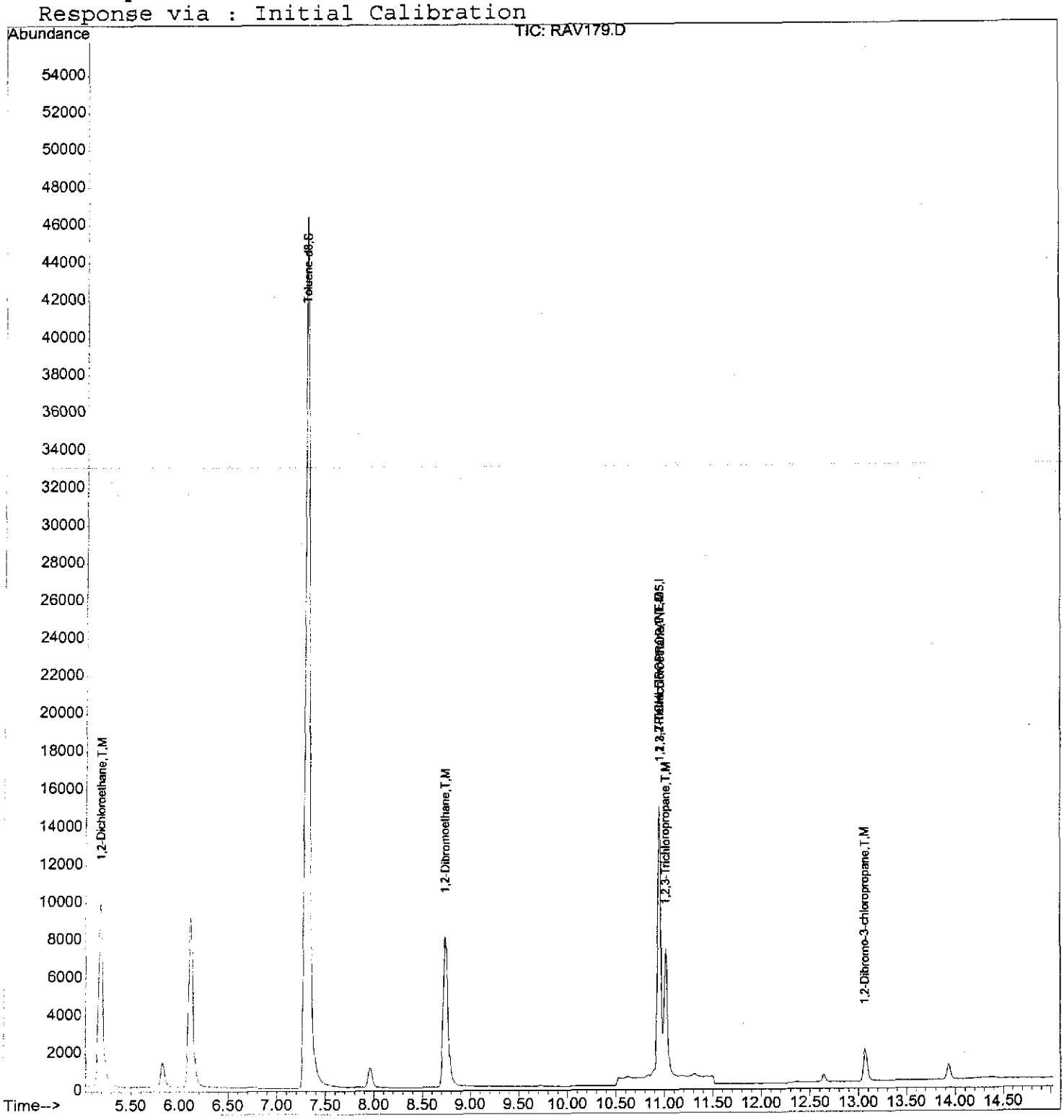
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2231

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5436	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	173683	353.51	ng/l	0.00
Spiked Amount 100.000			Recovery = 353.51%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	45662	389.68	ng/l	98
4) 1,2-Dibromoethane	8.74	107	28798	389.27	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	33274	393.74	ng/l	100
6) 1,2,3-Trichloropropane	11.01	75	21958	378.21	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	3732	364.21	ng/l	91

SA 1/14/15

(#) = qualifier out of range (m) = manual integration

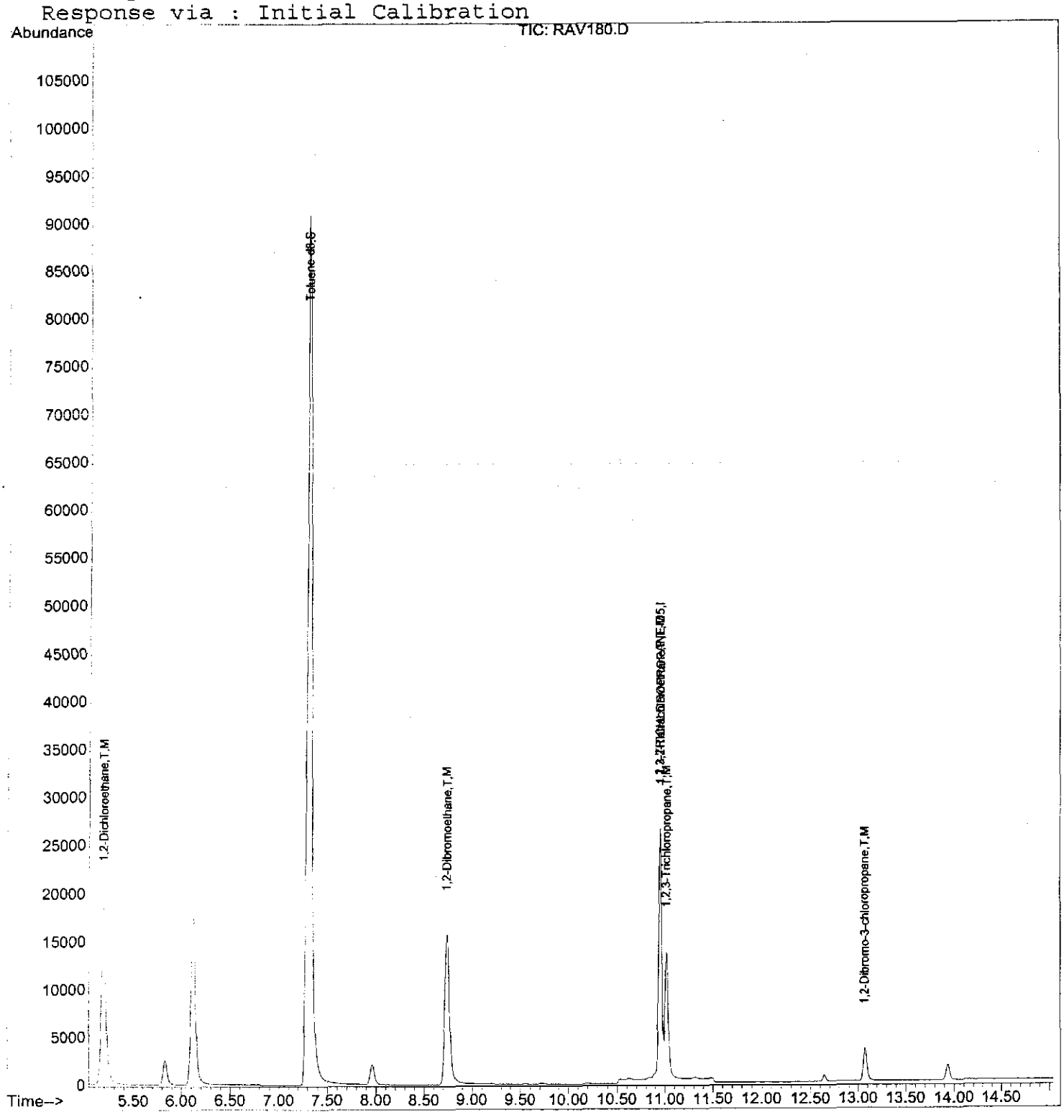
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5252	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	458513	965.93	ng/l	0.00
Spiked Amount 100.000			Recovery =	965.93%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	115670	1021.70	ng/l	99
4) 1,2-Dibromoethane	8.74	107	74830	1046.93	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	88254	1080.91	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	58654	1045.67	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	10326	1043.03	ng/l	91

Su 1114 115

(#) = qualifier out of range (m) = manual integration
RAV181.D VO01A13.M Wed Jan 14 11:22:56 2015

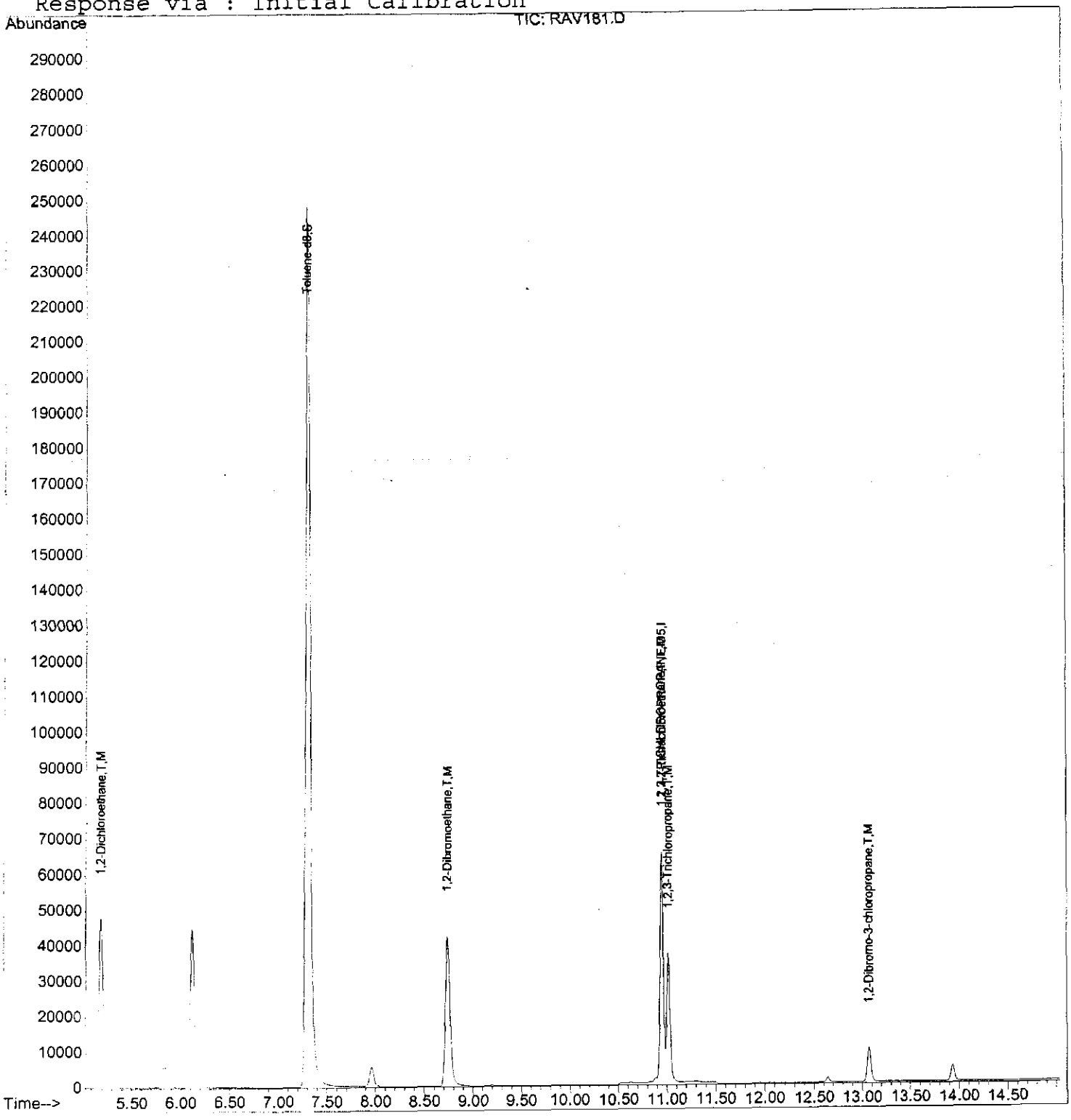
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2235

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5393	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	910939	1868.86	ng/l	0.00
Spiked Amount 100.000			Recovery = 1868.86%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	226521	1948.53	ng/l	99
4) 1,2-Dibromoethane	8.73	107	150027	2044.12	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	179068	2135.83	ng/l	98
6) 1,2,3-Trichloropropane	11.01	75	119133	2068.35	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	22087	2172.69	ng/l	90

SV 1/14/15

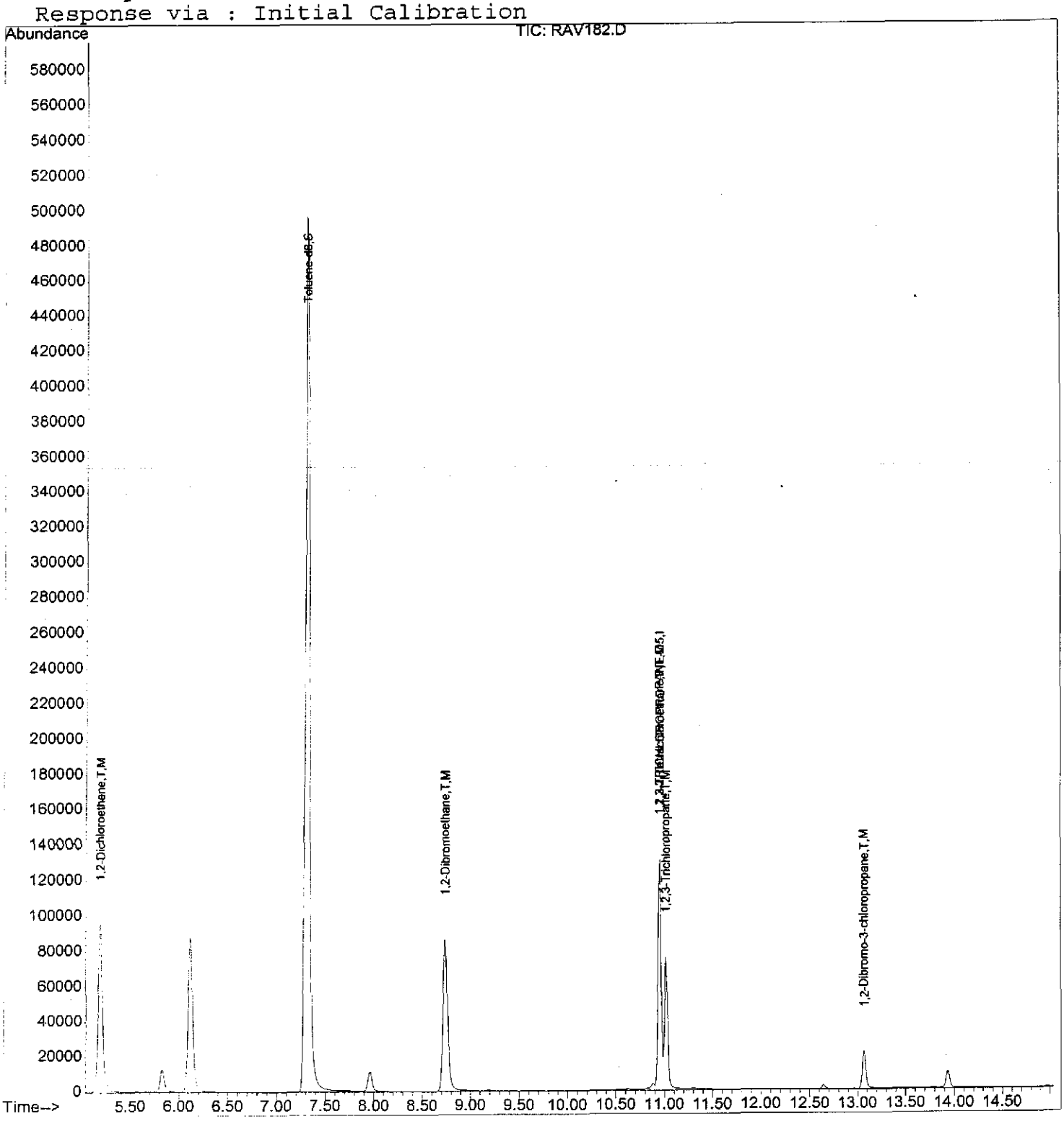
(#) = qualifier out of range (m) = manual integration
RAV182.D VO01A13.M Wed Jan 14 11:23:09 2015

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

2237

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T001
IC_Beginning DateTime :01/13/15 10:27
Spike Amount :100 PPT
CC/CV File :RAV184
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
IC_Ending DateTime :01/13/15 13:39
HPChem Method :V001A13
Date_Time :01/13/15 14:26

M IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
1	1,2,3-TRICHLOROPROPANE-D5	100.000	0	5387	1	1	10.956	10.950	0				
2	1,2-Dichloroethane	109.281	9.3	12690	2.356	2.156	5.194	5.188	8.99				
3	Toluene-d8	94.453	-5.5	45988	8.537	9.038	7.311	7.306	11.97				
4	1,2-Dibromoethane	108.576	8.6	7960	1.478	1.361	8.743	8.738	7.45				
5	1,1,2,2-Tetrachloroethane	111.897	11.9	9371	1.740	1.555	10.949	10.946	9.16				
6	1,2,3-Trichloropropane	108.840	8.8	6262	1.162	1.068	11.022	11.015	8.35				
7	1,2-Dibromo-3-chloropropane	104.191	4.2	1058	0.196	0.188	13.074	13.071	9.17				

SA
1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	106	0.00
2	T,M	1,2-Dichloroethane	100.000	109.281	-9.3	115	0.00
3	S	Toluene-d8	100.000	94.453	5.5	112	0.00
4	T,M	1,2-Dibromoethane	100.000	108.576	-8.6	117	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	111.897	-11.9	120	0.00
6	T,M	1,2,3-Trichloropropane	100.000	108.840	-8.8	123	0.00
7	T,M	1,2-Dibromo-3-chloropropane	100.000	104.191	-4.2	122	0.00

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

1/14/15

2240

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	106	0.00
2	T,M	1,2-Dichloroethane	2.156	2.356	-9.3	115	0.00
3	S	Toluene-d8	9.038	8.537	5.5	112	0.00
4	T,M	1,2-Dibromoethane	1.361	1.478	-8.6	117	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.740	-11.9	120	0.00
6	T,M	1,2,3-Trichloropropane	1.068	1.162	-8.8	123	0.00
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.196	-4.3	122	0.00

3a
1/14/15

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5387	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45988	94.45	ng/l	0.00
Spiked Amount 100.000			Recovery =	94.45%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12690	109.28	ng/l	98
4) 1,2-Dibromoethane	8.74	107	7960	108.58	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	9371	111.90	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	6262	108.84	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	1058	104.19	ng/l	97

5.4 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV184.D VO01A13.M Wed Jan 14 11:24:40 2015

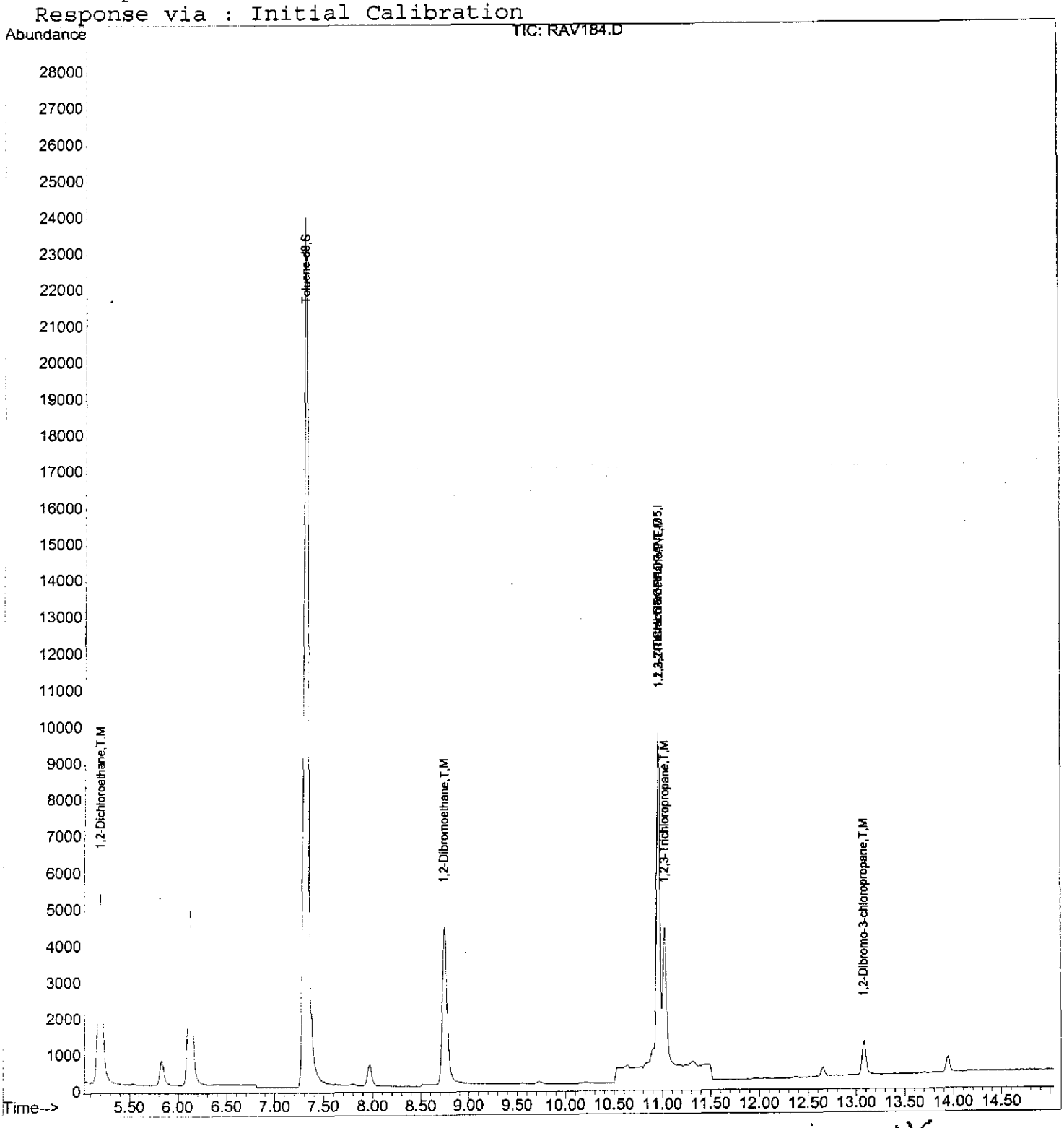
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

2243

DAILY CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D143
Lab File ID: RDV487 BFB Injection Date : 04/24/15
Instrument ID: TD01 BFB Injection Time : 10:16
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.88
75	30.0 - 60.0% of mass 95	42.55
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.78
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	83.83
175	5.0 - 9.0% of mass 174	6.10(7.3)1
176	95.0 - 101.0% of mass 174	81.47(97.2)1
177	5.0 - 9.0% of mass 176	5.33(6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD100	CV001A1309	RDV488	04/24/15	11:17
2	MBLK1W	V001D22Q	RDV492	04/24/15	13:15
3	LCS1W	V001D22L	RDV489	04/24/15	11:42
4	LCD1W	V001D22C	RDV490	04/24/15	12:07
5	04-21-15-WA-1	D143-01	RDV493	04/24/15	13:40
6	04-21-15-WA-1MS	D143-01M	RDV494	04/24/15	14:05
7	04-21-15-WA-1MSD	D143-01S	RDV495	04/24/15	14:30
8	04-21-15-WA-5	D143-05	RDV503	04/24/15	17:50
9	04-21-15-WA-9	D143-08	RDV504	04/24/15	18:15
10	04-21-15-PWA-3	D143-09	RDV505	04/24/15	18:40
11	04-21-15-PWA-7A	D143-10	RDV506	04/24/15	19:05
12	04-21-15-EPA5-10L	D143-07I	RDV507	04/24/15	19:30
13	04-21-15-EPA5-1	D143-07	RDV510	04/24/15	20:45
14	04-21-15-FDUP-2	D143-03	RDV512	04/24/15	21:35
15	04-21-15-EPA5-3	D143-04	RDV513	04/24/15	22:00

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RAV178
Instrument ID: T001

Project: B & B GROUNDWATER SAMPLING
SDG No.: 15D143
Date Analyzed: 01/13/15
Time Analyzed: 12:03

		IS1(TCP) AREA #		RT #
	12 HOUR STD	5060		10.95
	UPPER LIMIT	10120		11.45
	LOWER LIMIT	2530		10.45
	SAMPLE ID			
1	VSTD100	4939		10.96
2	MBLK1W	4768		10.96
3	LCS1W	4693		10.96
4	LCD1W	5304		10.96
5	04-21-15-WA-1	5314		10.96
6	04-21-15-WA-1MS	5196		10.95
7	04-21-15-WA-1MSD	5207		10.96
8	04-21-15-WA-5	5689		10.96
9	04-21-15-WA-9	5228		10.96
10	04-21-15-PWA-3	5363		10.96
11	04-21-15-PWA-7A	4990		10.96
12	04-21-15-EPA5-1DL	5252		10.96
13	04-21-15-EPA5-1	6356		10.95
14	04-21-15-FDUP-2	6344		10.95
15	04-21-15-EPA5-3	6423		10.95

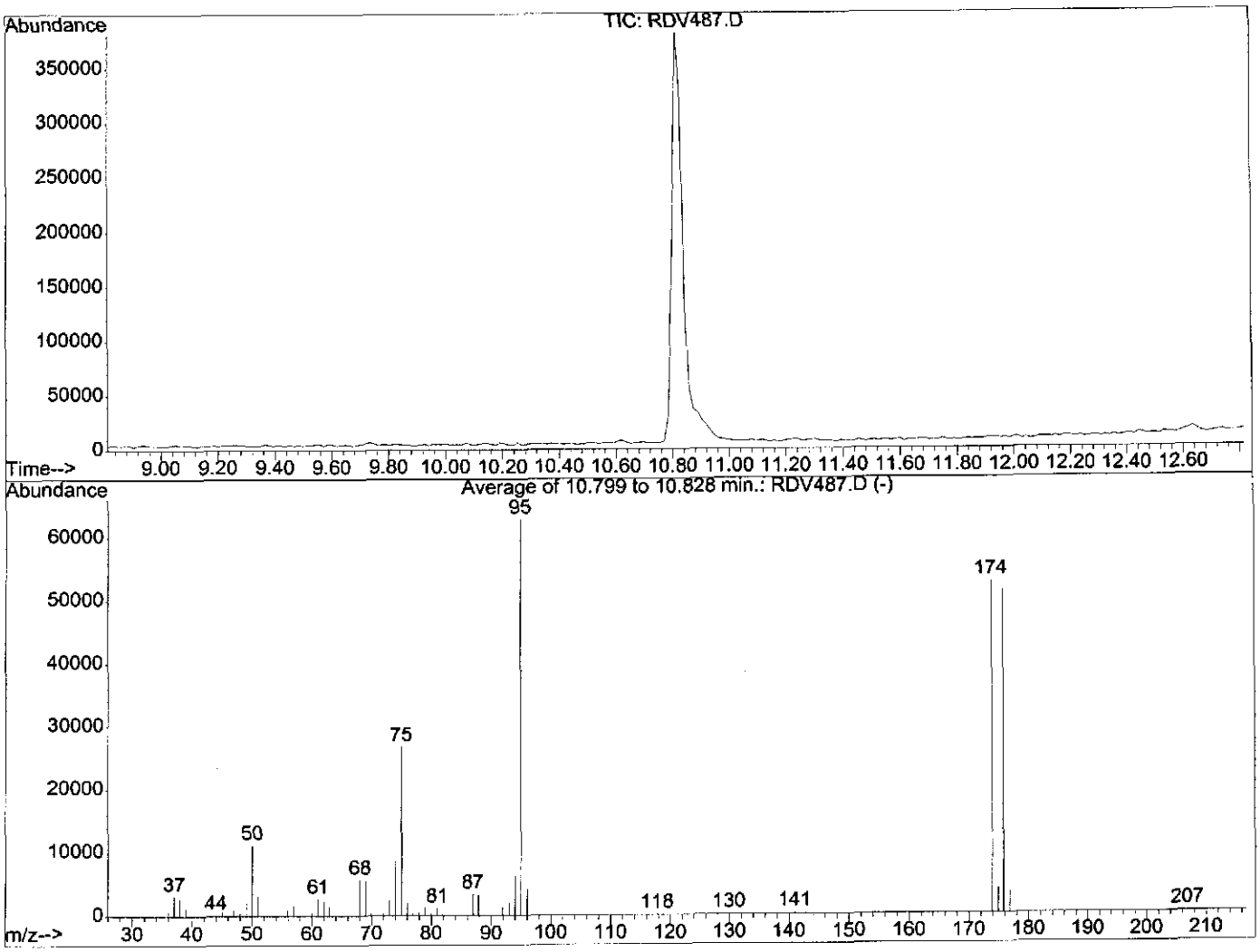
IS1 (TCP) = 1,2,3-Trichloropropane-d5

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

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

Data File : D:\HPCHEM\1\DATA\15D24\RDV487.D
Acq On : 24 Apr 2015 10:16 am
Sample : BFB01D22
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	11242	PASS
75	95	30	60	42.6	26755	PASS
95	95	100	100	100.0	62875	PASS
96	95	5	9	6.8	4264	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.8	52707	PASS
175	174	5	9	7.3	3835	PASS
176	174	95	101	97.2	51224	PASS
177	176	5	9	6.5	3349	PASS

RDV487.D VO01A13A.M Tue Apr 28 12:23:58 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D
Acq On : 24 Apr 2015 11:17 am
Sample : CVO01A1309
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	98	0.00
2	T,M	1,2-Dichloroethane	100.000	100.577	-0.6	97	0.00
3	S	Toluene-d8	100.000	107.501	-7.5	117	0.00
4	T,M	1,2-Dibromoethane	100.000	106.166	-6.2	105	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	98.773	1.2	97	0.00
6	T,M	1,2,3-Trichloropropane	100.000	97.101	2.9	101	0.00
7	T,M	1,2-Dibromo-3-chloropropane	100.000	83.781	16.2	90	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D Vial: 2
Acq On : 24 Apr 2015 11:17 am Operator: WLau
Sample : CVO01A1309 Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	98	0.00
2	T,M	1,2-Dichloroethane	2.156	2.168	-0.6	97	0.00
3	S	Toluene-d8	9.038	9.716	-7.5	117	0.00
4	T,M	1,2-Dibromoethane	1.361	1.445	-6.2	105	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.536	1.2	97	0.00
6	T,M	1,2,3-Trichloropropane	1.068	1.037	2.9	101	0.00
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.158	16.0	90	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D Vial: 2
Acq On : 24 Apr 2015 11:17 am Operator: WLau
Sample : CVO01A1309 Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 24 11:32 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

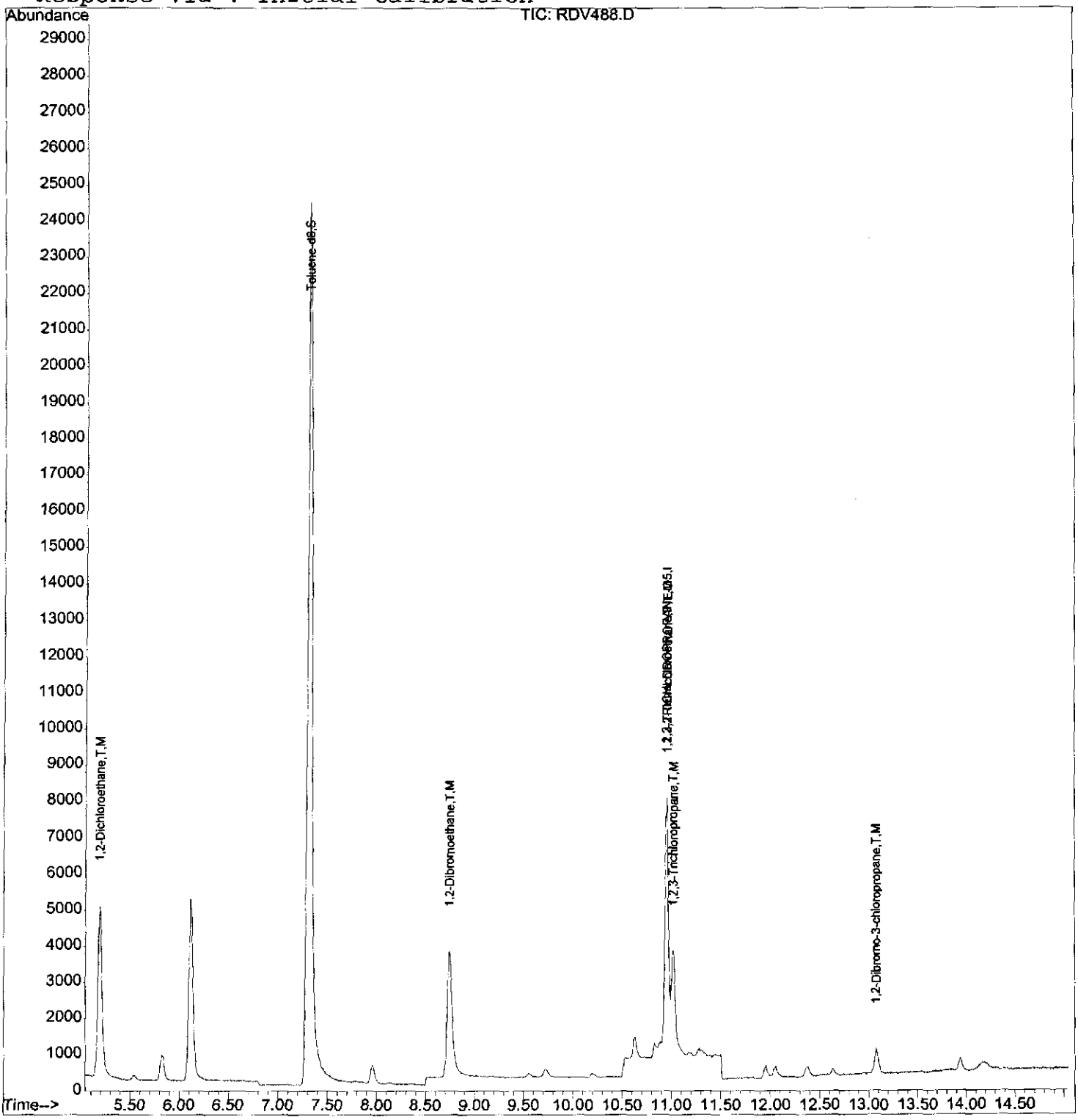
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4939	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	47988	107.50	ng/l	0.00
Spiked Amount 100.000			Recovery =	107.50%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	10708	100.58	ng/l	95
4) 1,2-Dibromoethane	8.74	107	7136	106.17	ng/l	93
5) 1,1,2,2-Tetrachloroethane	10.95	83	7584	98.77	ng/l	97
6) 1,2,3-Trichloropropane	11.02	75	5122	97.10	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.08	157	780	83.78	ng/l	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D24\RDV488.D Vial: 2
Acq On : 24 Apr 2015 11:17 am Operator: WLau
Sample : CVO01A1309 Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 24 11:32 2015 Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D143
Lab File ID: RDV520 BFB Injection Date : 04/27/15
Instrument ID: T001 BFB Injection Time : 12:33
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.98
75	30.0 - 60.0% of mass 95	42.35
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.41
173	Less than 2.0% of mass 174	0.13(0.1)1
174	Greater than 50% of mass 95	89.92
175	5.0 - 9.0% of mass 174	6.24(6.9)1
176	95.0 - 101.0% of mass 174	87.43(97.2)1
177	5.0 - 9.0% of mass 176	5.66(6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD100	CV001A1310	RDV522	04/27/15	13:18
2	MBLK2W	V001D23B	RDV525	04/27/15	14:33
3	LCS2W	V001D23L	RDV523	04/27/15	13:43
4	LCD2W	V001D23C	RDV524	04/27/15	14:08
5	04-21-15-EPA5-2DL	D143-14I	RDV530	04/27/15	16:41
6	04-21-15-EB-1	D143-12	RDV531	04/27/15	17:06
7	04-21-15-EPA5-2	D143-14	RDV534	04/27/15	18:21
8	04-21-15-FDUP-2DL	D143-03I	RDV535	04/27/15	18:46
9	04-21-15-EPA5-3DL	D143-04I	RDV536	04/27/15	19:11
10	04-21-15-PWA-2	D143-13I	RDV538	04/27/15	20:01
11	04-21-15-PWA-2DL	D143-13J	RDV539	04/27/15	20:26

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RAV178
Instrument ID: T001

Project: B & B GROUNDWATER SAMPLING
SDG No.: 15D143
Date Analyzed: 01/13/15
Time Analyzed: 12:03

		IS1(TCP) AREA #	RT #
	12 HOUR STD	5060	10.95
	UPPER LIMIT	10120	11.45
	LOWER LIMIT	2530	10.45
	SAMPLE ID		
1	VSTD100	5609	10.96
2	MBLK2W	5154	10.97
3	LCS2W	5090	10.97
4	LCD2W	5223	10.97
5	04-21-15-EPA5-2DL	5766	10.97
6	04-21-15-EB-1	5643	10.97
7	04-21-15-EPA5-2	5215	10.96
8	04-21-15-FDUP-2DL	5371	10.97
9	04-21-15-EPA5-3DL	5160	10.97
10	04-21-15-PWA-2	5725	10.97
11	04-21-15-PWA-2DL	5181	10.97

IS1 (TCP) = 1,2,3-Trichloropropane-d5

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

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDV522.D
Acq On : 27 Apr 2015 1:18 pm
Sample : CVO01A1310
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	111	0.01
2	T,M	1,2-Dichloroethane	100.000	107.652	-7.7	118	0.00
3	S	Toluene-d8	100.000	105.158	-5.2	130	0.01
4	T,M	1,2-Dibromoethane	100.000	105.222	-5.2	118	0.01
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	103.099	-3.1	115	0.01
6	T,M	1,2,3-Trichloropropane	100.000	99.157	0.8	117	0.01
7	T,M	1,2-Dibromo-3-chloropropane	100.000	81.624	18.4	100	0.01

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDV522.D
Acq On : 27 Apr 2015 1:18 pm
Sample : CVO01A1310
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	111	0.01
2	T,M	1,2-Dichloroethane	2.156	2.321	-7.7	118	0.00
3	S	Toluene-d8	9.038	9.504	-5.2	130	0.01
4	T,M	1,2-Dibromoethane	1.361	1.432	-5.2	118	0.01
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.603	-3.1	115	0.01
6	T,M	1,2,3-Trichloropropane	1.068	1.059	0.8	117	0.01
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.154	18.1	100	0.01

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D143
Lab File ID: REV036 BFB Injection Date : 05/04/15
Instrument ID: T001 BFB Injection Time : 13:40
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.00
75	30.0 - 60.0% of mass 95	43.56
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.73
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	91.68
175	5.0 - 9.0% of mass 174	6.43(7.0)1
176	95.0 - 101.0% of mass 174	90.66(98.9)1
177	5.0 - 9.0% of mass 176	6.03(6.7)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD100	CV001A1313	REV037	05/04/15	14:05
2	MBLK3W	V001E02B	REV040	05/04/15	15:18
3	LCS3W	V001E02L	REV038	05/04/15	14:28
4	LCD3W	V001E02C	REV039	05/04/15	14:54
5	04-21-15-WA-3DL	D143-16I	REV041	05/04/15	15:49
6	04-21-15-WA-3	D143-16N	REV042	05/04/15	16:14

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RAV178
Instrument ID: T001

Project: B & B GROUNDWATER SAMPLING
SDG No.: 15D143
Date Analyzed: 01/13/15
Time Analyzed: 12:03

		IS1(TCP) AREA #	RT #
	12 HOUR STD	5060	10.95
	UPPER LIMIT	10120	11.45
	LOWER LIMIT	2530	10.45
	SAMPLE ID		
1	VSTD100	4704	10.96
2	MBLK3W	4766	10.96
3	LCS3W	4857	10.96
4	LCD3W	4688	10.96
5	04-21-15-WA-3DL	4518	10.96
6	04-21-15-WA-3	5757	10.96

IS1 (TCP) = 1,2,3-Trichloropropane-d5

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

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV037.D
Acq On : 4 May 2015 2:05 pm
Sample : CVO01A1313
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	93	0.00
2	T,M	1,2-Dichloroethane	100.000	108.225	-8.2	99	0.00
3	S	Toluene-d8	100.000	92.775	7.2	96	0.00
4	T,M	1,2-Dibromoethane	100.000	104.143	-4.1	98	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	100.000	103.817	-3.8	97	0.01
6	T,M	1,2,3-Trichloropropane	100.000	97.772	2.2	97	0.00
7	T,M	1,2-Dibromo-3-chloropropane	100.000	89.997	10.0	92	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REV037.D
Acq On : 4 May 2015 2:05 pm
Sample : CVO01A1313
Misc : 100ppt
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	93	0.00
2	T,M	1,2-Dichloroethane	2.156	2.333	-8.2	99	0.00
3	S	Toluene-d8	9.038	8.385	7.2	96	0.00
4	T,M	1,2-Dibromoethane	1.361	1.417	-4.1	98	0.00
5	P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.614	-3.8	97	0.01
6	T,M	1,2,3-Trichloropropane	1.068	1.044	2.2	97	0.00
7	T,M	1,2-Dibromo-3-chloropropane	0.188	0.170	9.6	92	0.00

ANALYTICAL LOG(S)

ANALYSIS LOG FOR VOLATILES

EMAX LABORATORIES, INC.

SOP ☐ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 1/13/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH VOO1A135

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W O_2 <5ppm	Matrix S	Notes
01		RAV173	BFB01A11	1 uL	N/A	N/A	N/A		V001A13A 9.53ppm
02		174	V001A131	0.05 uL					5 ppt
03		175	2	0.1					10
04		176	3	0.2					20
05		177	4	0.5					50
06		178	5	1					100
07		179	6	2					200
08		180	7	4					400
09		181	8	10					1000
10		182	9	20					2000
11		183	Rinse ~~to~~ uL 1/14/15						
12		184	V001A1301	1					100 ppt ~~12~~ 2.26ppm uL 1/14/15
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									uL 1/14/15

2291

Instrument No.	01
INITIAL CALIBRATION REFERENCE uL 1/14/15	
DATE	~~4~~ 1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	*	2.5
BFB	SV1-23-02-02	1	50
IS/SURR.	SV1-24-09-03 -10-01	1 *	2.5
ICV/LCS	↓ -10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15A13		

	LOT #	Syringe Lot #
pH strip	—	M06-2487-04
Chlorine strip	—	↓ -05
Methanol		MW01-01-08-01
$NaHSO_4$		M04-A3652
Reagent Water	RW4-14-001	W63-26327
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

* varied amount

Analyzed By: uL

Date Disposed: 1/14/15 Disposed By: uL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 4/24/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH CV001A1309

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RDV487	BFB01D22						10-16bar
02		488	CV001A1309						
03		489	V0001D22L						
04		490	C						
05		491	B	25mL					TCP contamination
06		492	Q	25mL					
07		493	15D143-01	25mL	1.0	✓	✓		
08		494	-01M			✓	✓		
09		495	-01S			✓	✓		
10		496	15D142-03M			✓	✓		
11		497	-03S			✓	✓		
12		498	-01			✓	✓		
13		499	-02			✓	✓		
14		500	-05			✓	✓		
15		501	-07			✓	✓		
16		502	-03			✓	✓		
17		503	15D143-05			✓	✓		
18		504	-08			✓	✓		
19		505	-09			✓	✓		
20		506	-10			✓	✓		
21		507	-07I	50uL	500	✓	✓		
22		508	14D 142-09	25mL	1.0	✓	✓		
23		509	-09I	1.0mL	25	✓	✓		
24		510	14D 143-07	25mL	1.0	✓	✓		
25		511	-07J	2.5mL	10	✓	✓		Dilution not needed.
26		512	-03			✓	✓		1000x
27		513	-04			✓	✓		1000x. 10-00ppm
28		514+519	Rinse						
29									
30									4/27/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-14-10-02	1	2.5
BFB	-17-01	1	50
IS/SURR.	-09-03	1	2-5
	-10-01	1	
ICV/LCS	-10-03	1	2-5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15D24		

	LOT #	Syringe Lot #
pH strip	HC413052	MLVA-01-08-01
Chlorine strip	40719	MLVA-01-07-01
Methanol		MeOH2487-04
$NaHSO_4$		↓ -05
Reagent Water	RW4-14-001	JOB-B41164
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/T001	

Comments:

Analyzed By:

Date Disposed: 4/27/15 Disposed By:

2202

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4 — we 4/29/15

Start Date: 4/27/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH CV001A1310

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RDV520	BFB01D23						
02		521	CV001A1310						TCP contamination
03		522	CV001A1310						
04		523	V001D23L						
05		524	C						
06		525	B	25mL					
07		526	15D143-01M	25mL	1.0	✓	✓		Confirmation only
08		527	-01S	↓	↓	✓	✓		↓
09		528	-01N	↓	↓	✓	✓		
10		529	Rinse						
11		530	15D143-14I	0.25mL	100	✓	✓		
12		531	-12	25mL	1.0	✓	✓		
13		532	-13	↓	↓	✓	✓		Report only from dilution
14		533	-16	↓	↓	✓	✓		DBCP c/o
15		534	-14	↓	↓	✓	✓		
16		535	-03I	25 uL	1000	✓	✓		
17		536	-04I	↓	↓	✓	✓		
18		537	-16I	0.25mL	100	✓	✓		low IS. vial leaked? RR
19		538	-13I	↓	↓	✓	✓		
20		539	-13J	25 uL	1000	✓	✓		
21		540	15D156-01	25mL	1.0	✓	✓		RR w/ D15b
22		541	-02	↓	↓	✓	✓		low IS Needle plugged. RR
23		542	-03	↓	↓	✓	✓		↓
24		543	-05	↓	↓	✓	✓		
25		544	-06	↓	↓	✓	✓		
26		545	-07	↓	↓	✓	✓		
27		546	-08	↓	↓	✓	✓		
28		547	-10	↓	↓	✓	✓		
29		548	-11	↓	↓	✓	✓		↓
30		549-553	Rinse						

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	1	2.5
BFB	-17-01	1	50
IS/SURR.	-09-03	1	2.5
	-10-01	1	
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			

Data File Folder	15D27	
	LOT #	Syringe Lot #
pH strip	HC413032	MW01-01-08-01
Chlorine strip	40719	MW01-01-07-01
Methanol		M06-F2487-04
$NaHSO_4$		↓ -05
Reagent Water	RW4-14.001	J08-B41B4
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: we

Date Disposed: 4/28/15 Disposed By: we

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 (WL 5/5/15) ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 5/4/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book #: A01-048

BATCH CV001A1313

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	REV 036	BFB01E02						1:40pm
02	037	CV001A1313						
03	038	V001E02L						
04	039	C						
05	040	B	25mL					
06	041	15D143-16I	0.5mL	5.0	✓	✓		
07	042	-16N	25mL	1.0	✓	✓		4:14 pm
08	~~043~~							
09	~~044~~	WL 5/5/15						
10	~~04~~							
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 5/5/15

Instrument No.	01

INITIAL CALIBRATION REFERENCE

DATE	1/13/15
ICAL ID	V001A13

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	1	2.5
BFB	-17-01	1	50
IS/SURR.	-09-03 -10-01	1 1	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15E04		

	LOT #	Syringe Lot #
pH strip	HC413032	MSV01-01-08-01
Chlorine strip	42422	M06-F2487-04
Methanol		1 -05
$NaHSO_4$		MSV01-01-07-01
Reagent Water	RW4-14-001	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: WL

Date Disposed: 5/13/15 Disposed By: WL

2264

Injection Log

Directory: D:\HPCHEM\1\DATA\15D27

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV520.D	1.	BFB01D23	T/CHK	27 Apr 2015 12:33
2	2	RDV521.D	1.	CVO01A1310	100ppt	27 Apr 2015 12:53
3	3	RDV522.D	1.	CVO01A1310	100ppt	27 Apr 2015 13:18
4	4	RDV523.D	1.	VO01D23L	100ppt	27 Apr 2015 13:43
5	5	RDV524.D	1.	VO01D23C	100ppt	27 Apr 2015 14:08
6	6	RDV525.D	1.	VO01D23B 25mL	BLANK	27 Apr 2015 14:33
7	7	RDV526.D	1.	15D143-01M 25mL	DF=1.0	27 Apr 2015 15:02
8	8	RDV527.D	1.	15D143-01S 25mL	DF=1.0	27 Apr 2015 15:27
9	9	RDV528.D	1.	15D143-01N 25mL	DF=1.0	27 Apr 2015 15:51
10	10	RDV529.D	1.	RINSE	DF=1.0	27 Apr 2015 16:16
11	11	RDV530.D	1.	15D143-14I 0.25mL	DF=100	27 Apr 2015 16:41
12	12	RDV531.D	1.	15D143-12 25mL	DF=1.0	27 Apr 2015 17:06
13	13	RDV532.D	1.	15D143-13 25mL	DF=1.0	27 Apr 2015 17:31
14	14	RDV533.D	1.	15D143-16 25mL	DF=1.0	27 Apr 2015 17:56
15	15	RDV534.D	1.	15D143-14 25mL	DF=1.0	27 Apr 2015 18:21
16	16	RDV535.D	1.	15D143-03I 25uL	DF=1000	27 Apr 2015 18:46
17	17	RDV536.D	1.	15D143-04I 25uL	DF=1000	27 Apr 2015 19:11
18	18	RDV537.D	1.	15D143-16I 0.25mL	DF=100	27 Apr 2015 19:36
19	19	RDV538.D	1.	15D143-13I 0.25mL	DF=100	27 Apr 2015 20:01
20	20	RDV539.D	1.	15D143-13J 25uL	DF=1000	27 Apr 2015 20:26
21	21	RDV540.D	1.	15D156-01 25mL	DF=1.0	27 Apr 2015 20:51
22	22	RDV541.D	1.	15D156-02 25mL	DF=1.0	27 Apr 2015 21:16
23	23	RDV542.D	1.	15D156-03 25mL	DF=1.0	27 Apr 2015 21:41
24	24	RDV543.D	1.	15D156-05 25mL	DF=1.0	27 Apr 2015 22:07
25	25	RDV544.D	1.	15D156-06 25mL	DF=1.0	27 Apr 2015 22:32
26	26	RDV545.D	1.	15D156-07 25mL	DF=1.0	27 Apr 2015 22:56
27	27	RDV546.D	1.	15D156-08 25mL	DF=1.0	27 Apr 2015 23:21
28	28	RDV547.D	1.	15D156-10 25mL	DF=1.0	27 Apr 2015 23:47
29	29	RDV548.D	1.	15D156-11 25mL	DF=1.0	28 Apr 2015 00:12
30	30	RDV549.D	1.	RINSE	DF=1.0	28 Apr 2015 00:37
31	31	RDV550.D	1.	RINSE	DF=1.0	28 Apr 2015 01:02
32	32	RDV551.D	1.	RINSE	DF=1.0	28 Apr 2015 08:50
33	33	RDV552.D	1.	RINSE	DF=1.0	28 Apr 2015 09:15
34	34	RDV553.D	1.	RINSE	DF=1.0	28 Apr 2015 09:40

Injection Log

Directory: D:\HPCHEM\1\DATA\15D24

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV487.D	1.	BFB01D22	T/CHK	24 Apr 2015 10:16
2	2	RDV488.D	1.	CVO01A1309	100ppt	24 Apr 2015 11:17
3	3	RDV489.D	1.	VO01D22L	100ppt	24 Apr 2015 11:42
4	4	RDV490.D	1.	VO01D22C	100ppt	24 Apr 2015 12:07
5	5	RDV491.D	1.	VO01D22B 25mL	BLANK	24 Apr 2015 12:32
6	6	RDV492.D	1.	VO01D22Q 25mL	DF=1.0	24 Apr 2015 13:15
7	7	RDV493.D	1.	15D143-01 25mL	DF=1.0	24 Apr 2015 13:40
8	8	RDV494.D	1.	15D143-01M 25mL	DF=1.0	24 Apr 2015 14:05
9	9	RDV495.D	1.	15D143-01S 25mL	DF=1.0	24 Apr 2015 14:30
10	10	RDV496.D	1.	15D142-03M 25mL	DF=1.0	24 Apr 2015 14:56
11	11	RDV497.D	1.	15D142-03S 25mL	DF=1.0	24 Apr 2015 15:20
12	12	RDV498.D	1.	15D142-01 25mL	DF=1.0	24 Apr 2015 15:45
13	13	RDV499.D	1.	15D142-02 25mL	DF=1.0	24 Apr 2015 16:10
14	14	RDV500.D	1.	15D142-05 25mL	DF=1.0	24 Apr 2015 16:35
15	15	RDV501.D	1.	15D142-07 25mL	DF=1.0	24 Apr 2015 17:00
16	16	RDV502.D	1.	15D142-03 25mL	DF=1.0	24 Apr 2015 17:25
17	17	RDV503.D	1.	15D143-05 25mL	DF=1.0	24 Apr 2015 17:50
18	18	RDV504.D	1.	15D143-08 25mL	DF=1.0	24 Apr 2015 18:15
19	19	RDV505.D	1.	15D143-09 25mL	DF=1.0	24 Apr 2015 18:40
20	20	RDV506.D	1.	15D143-10 25mL	DF=1.0	24 Apr 2015 19:05
21	21	RDV507.D	1.	15D143-07I 50uL	DF=500	24 Apr 2015 19:30
22	22	RDV508.D	1.	15D142-09 25mL	DF=1.0	24 Apr 2015 19:55
23	23	RDV509.D	1.	15D142-09I 1.0mL	DF=25	24 Apr 2015 20:20
24	24	RDV510.D	1.	15D143-07 25mL	DF=1.0	24 Apr 2015 20:45
25	25	RDV511.D	1.	15D143-07J 2.5mL	DF=10	24 Apr 2015 21:10
26	26	RDV512.D	1.	15D143-03 2.5mL	DF=10	24 Apr 2015 21:35
27	27	RDV513.D	1.	15D143-04 2.5mL	DF=10	24 Apr 2015 22:00
28	1	RDV514.D	1.	RINSE	DF=10	24 Apr 2015 22:25
29	2	RDV515.D	1.	RINSE	DF=10	24 Apr 2015 22:50
30	3	RDV516.D	1.	RINSE	DF=10	24 Apr 2015 23:15
31	4	RDV517.D	1.	RINSE	DF=10	24 Apr 2015 23:40
32	5	RDV518.D	1.	RINSE	DF=10	25 Apr 2015 00:05
33	6	RDV519.D	1.	RINSE	DF=10	25 Apr 2015 00:30

Injection Log

Directory: D:\HPCHEM\1\DATA\15E04

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	REV036.D	1.	BFB01E02	T/CHK	4 May 2015 13:40
2	2	REV037.D	1.	CVO01A1313	100ppt	4 May 2015 14:05
3	3	REV038.D	1.	VO01E02L	100ppt	4 May 2015 14:29
4	4	REV039.D	1.	VO01E02C	100ppt	4 May 2015 14:54
5	5	REV040.D	1.	VO01E02B 25mL	BLANK	4 May 2015 15:18
6	6	REV041.D	1.	15D143-16I 0.5mL	DF=50	4 May 2015 15:49
7	7	REV042.D	1.	15D143-16N 25mL	DF=1.0	4 May 2015 16:14
8	1	REV043.D	1.	BFB01E03	T/CHK	4 May 2015 16:41
9	2	REV044.D	1.	CVO01B1233	10ppb 8260/50ppb KET-AA-TBA	4 May 2015 18:02
10	3	REV045.D	1.	VO01E03L	10ppb 8260/50ppb KET-AA-TBA	4 May 2015 18:30
11	4	REV046.D	1.	VO01E03C	10ppb 8260/50ppb KET-AA-TBA	4 May 2015 18:59
12	5	REV047.D	1.	RINSE		4 May 2015 19:28
13	6	REV048.D	1.	VO01E03B 25mL	DF=1.0	4 May 2015 19:55
14	7	REV049.D	1.	15D143-03I 0.25mL	DF=100	4 May 2015 20:23
15	8	REV050.D	1.	15D143-04I 0.25mL	DF=100	4 May 2015 20:53
16	9	REV051.D	1.	15D143-13I 0.25mL	DF=100	4 May 2015 21:23

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 8151A
HERBICIDES

SDG#: 15D143

5000

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D143

METHOD 8151A
HERBICIDES

A total of twelve (12) water samples were received on 04/22/15 to be analyzed for Herbicides in accordance with Method 8151A and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. HED009WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Dinoseb was within LCS QC limits in HED009WL/HED009WC. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Dinoseb was within MS QC limits in D143-01M/S. Refer to Matrix QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Dilution was necessary to bring result within calibration range which may result to undetermined surrogate percent recovery. In this SDG, the following were noted: Surrogate recoveries in D143-03J, -04J and -13K were diluted out.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D143
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HED009WB	1	NA	04/24/1517:50	04/24/1509:30	QD24003A	QD24002A	HED009W	Method Blank
LCS1W	HED009WL	1	NA	04/24/1518:18	04/24/1509:30	QD24004A	QD24002A	HED009W	Lab Control Sample (LCS)
LCD1W	HED009WC	1	NA	04/24/1518:55	04/24/1509:30	QD24005A	QD24002A	HED009W	LCS Duplicate
04-21-15-WA-1	D143-01	1	NA	04/25/1503:27	04/24/1509:30	QD24019A	QD24015A	HED009W	Field Sample
04-21-15-FDUP-2	D143-03J	1000	NA	04/27/1517:16	04/24/1509:30	QD24046A	QD24039A	HED009W	Diluted Sample
04-21-15-EPA5-3	D143-04J	1000	NA	04/27/1517:45	04/24/1509:30	QD24047A	QD24039A	HED009W	Diluted Sample
04-21-15-WA-5	D143-05	1	NA	04/25/1505:17	04/24/1509:30	QD24022A	QD24015A	HED009W	Field Sample
04-21-15-EPA5-1	D143-07I	20	NA	04/27/1515:24	04/24/1509:30	QD24042A	QD24039A	HED009W	Diluted Sample
04-21-15-WA-9	D143-08	1	NA	04/25/1506:30	04/24/1509:30	QD24024A	QD24015A	HED009W	Field Sample
04-21-15-PWA-3	D143-09	1	NA	04/25/1508:56	04/24/1509:30	QD24028A	QD24027A	HED009W	Field Sample
04-21-15-PWA-7A	D143-10	1	NA	04/25/1509:32	04/24/1509:30	QD24029A	QD24027A	HED009W	Field Sample
04-21-15-EB-1	D143-12	1	NA	04/25/1510:09	04/24/1509:30	QD24030A	QD24027A	HED009W	Field Sample
04-21-15-PWA-2	D143-13K	20000	NA	04/27/1518:13	04/24/1509:30	QD24048A	QD24039A	HED009W	Diluted Sample
04-21-15-EPA5-2	D143-14I	5	NA	04/27/1516:20	04/24/1509:30	QD24044A	QD24039A	HED009W	Diluted Sample
04-21-15-WA-3	D143-16I	5	NA	04/27/1516:48	04/24/1509:30	QD24045A	QD24039A	HED009W	Diluted Sample
04-21-15-WA-1MS	D143-01M	1	NA	04/24/1520:44	04/24/1509:30	QD24008A	QD24002A	HED009W	Matrix Spike Sample (MS)
04-21-15-WA-1MSD	D143-01S	1	NA	04/24/1521:21	04/24/1509:30	QD24009A	QD24002A	HED009W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

USGS

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-WA-1	Date Analyzed: 04/25/15 03:27
Lab Samp ID: D143-01	Dilution Factor: 1
Lab File ID: QD24019A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24015A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.082)|8.958	10.00	(90.8)|89.6	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-FDUP-2	Date Analyzed: 04/27/15 17:16
Lab Samp ID: D143-03J	Dilution Factor: 1000
Lab File ID: QD24046A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	820|(840)	400	200|200

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(ND)|ND	10.00	(0.000000*)|0.000000*	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: D4-21-15-EPA5-3	Date Analyzed: 04/27/15 17:45
Lab Samp ID: D143-04J	Dilution Factor: 1000
Lab File ID: QD24047A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	700|(730)	400	200|200

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(ND)|ND	10.00	(0.000000*)|0.000000*	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-WA-5	Date Analyzed: 04/25/15 05:17
Lab Samp ID: D143-05	Dilution Factor: 1
Lab File ID: QD24022A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24015A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.35)|9.986	10.00	(103)|99.9	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-EPA5-1	Date Analyzed: 04/27/15 15:24
Lab Samp ID: D143-07I	Dilution Factor: 20
Lab File ID: QD24042A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(12)|12	8.0	4.0|4.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(12.95)|12.83	10.00	(130)|128	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-WA-9	Date Analyzed: 04/25/15 06:30
Lab Samp ID: D143-08	Dilution Factor: 1
Lab File ID: QD24024A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24015A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.477)|9.274	10.00	(94.8)|92.7	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 150143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-PWA-3	Date Analyzed: 04/25/15 08:56
Lab Samp ID: D143-09	Dilution Factor: 1
Lab File ID: QD24028A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24027A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.835)|9.782	10.00	(98.3)|97.8	40-140

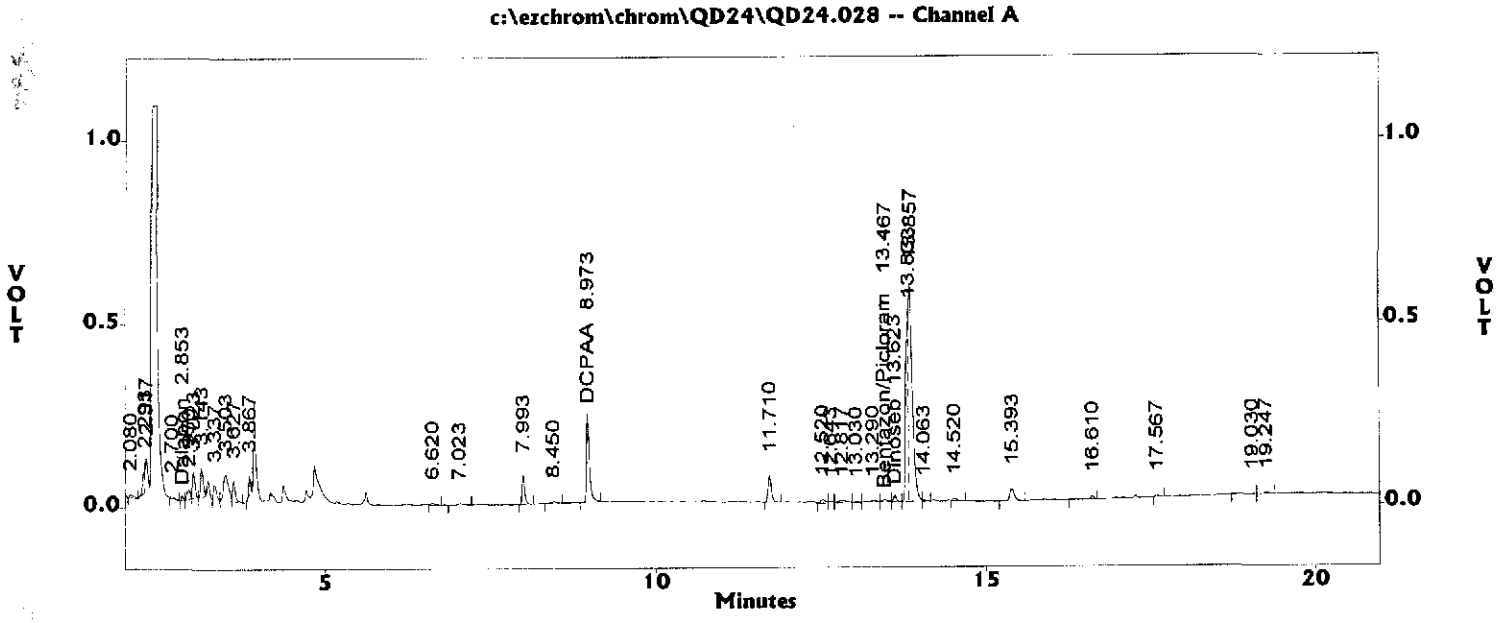
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.028
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-09
Acquired : Apr 25, 2015 08:56:24
Printed : Apr 27, 2015 12:38:34
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	24053.0	1656.60	14.520	VV
3,5 Dichlorobenzo	7.707	0.0	0.00	0.000	--
4-Nitrophenol	8.603	0.0	0.00	0.000	--
DCPAA	8.973	737715.0	750.10	983.489	VV
Dicamba	9.197	0.0	0.00	0.000	--
MCPP	9.493	0.0	0.00	0.000	--
MCPA	9.700	0.0	0.00	0.000	--
DCP	10.177	0.0	0.00	0.000	--
2,4-D	10.470	0.0	0.00	0.000	--
Pentachlorophenol	10.713	0.0	0.00	0.000	--
Silvex	11.487	0.0	0.00	0.000	--
Chloramben	11.680	0.0	0.00	0.000	--
2,4,5-T	11.817	0.0	0.00	0.000	--
2,4-DB	12.480	0.0	0.00	0.000	--
Bentazon/Picloram	13.467	39244.0	3540.81	11.083	VV
Dinoseb	13.623	51625.0	4088.80	12.626	VV
Dacthal	13.913	0.0	0.00	0.000	--
Acifluorfen	16.583	0.0	0.00	0.000	--

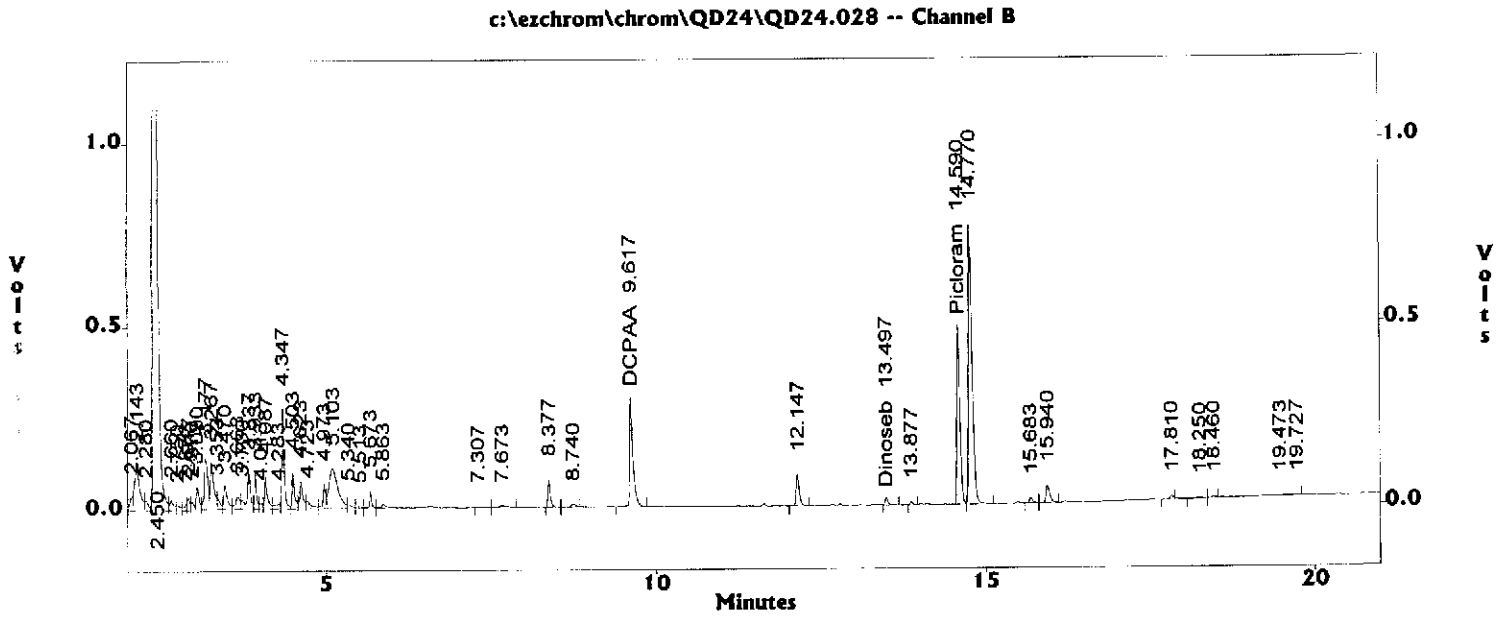


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.028
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-09
Acquired : Apr 25, 2015 08:56:24
Printed : Apr 27, 2015 12:38:34
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.087	0.0	0.00	0.000	--
4-Nitrophenol	8.917	0.0	0.00	0.000	--
DCPAA	9.617	1058447.0	1082.03	978.208	VV
Dicamba	9.853	0.0	0.00	0.000	--
MCPP	10.023	0.0	0.00	0.000	--
MCPA	10.340	0.0	0.00	0.000	--
DCP	10.767	0.0	0.00	0.000	--
2,4-D	11.167	0.0	0.00	0.000	--
Pentachlorophenol	11.623	0.0	0.00	0.000	--
Silvex	12.130	0.0	0.00	0.000	--
2,4,5-T	12.580	0.0	0.00	0.000	--
Chloramben	12.630	0.0	0.00	0.000	--
2,4-DB	13.163	0.0	0.00	0.000	--
Dinoseb	13.497	70682.0	4871.89	14.508	VV
Bentazon	14.117	0.0	0.00	0.000	--
Dacthal	14.497	0.0	0.00	0.000	--
Picloram	14.590	1546835.0	8580.05	180.283	VV
Acifluorfen	16.783	0.0	0.00	0.000	--



METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-PWA-7A	Date Analyzed: 04/25/15 09:32
Lab Samp ID: D143-10	Dilution Factor: 1
Lab File ID: QD24029A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24027A	Instrument ID : GCTD09

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	0.28J|(0.30J)	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.518)|9.300	10.00	(95.2)|93.0	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-EB-1	Date Analyzed: 04/25/15 10:09
Lab Samp ID: D143-12	Dilution Factor: 1
Lab File ID: QD24030A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24027A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.30)|10.28	10.00	(103)|103	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-PWA-2	Date Analyzed: 04/27/15 18:13
Lab Samp ID: D143-13K	Dilution Factor: 20000
Lab File ID: QD24048A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(24000)|24000	8000	4000|4000

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(ND)|ND	10.00	(0.000000*)|0.000000*	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 150143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-EPA5-2	Date Analyzed: 04/27/15 16:20
Lab Samp ID: D143-14I	Dilution Factor: 5
Lab File ID: QD24044A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	5.4|(5.7)	2.0	1.0|1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(12.26)|10.84	10.00	(123)|108	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/21/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/22/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: 04-21-15-WA-3	Date Analyzed: 04/27/15 16:48
Lab Samp ID: D143-16I	Dilution Factor: 5
Lab File ID: QD24045A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	6.2|(6.7)	2.0	1.0|1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(12.83)|11.40	10.00	(128)|114	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/24/15
Batch No. : 15D143	Date Extracted: 04/24/15 09:30
Sample ID: MBLK1W	Date Analyzed: 04/24/15 17:50
Lab Samp ID: HED009WB	Dilution Factor: 1
Lab File ID: QD24003A	Matrix : WATER
Ext Btch ID: HED009W	% Moisture : NA
Calib. Ref.: QD24002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.475|(8.517)	10.00	84.7|(85.2)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HED009WB	HED009WL	HED009WC		
LAB FILE ID:	QD24003A	QD24004A	QD24005A		
DATE EXTRACTED:	04/24/1509:30	04/24/1509:30	04/24/1509:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/1517:50	04/24/1518:18	04/24/1518:55	DATE RECEIVED:	04/24/15
PREP. BATCH:	HED009W	HED009W	HED009W		
CALIB. REF:	QD24002A	QD24002A	QD24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Dinoseb	(ND)|ND	1.00	0.590|(0.666)	59|(67)	1.00	0.617|(0.674)	62|(67)	4|(1)	20-100	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4-DCPAA	10.00	7.926|(8.354)	79.3|(83.5)	10.00	8.400|(8.696)	84.0|(87.0)	40-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D143
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	04-21-15-WA-1				
LAB SAMP ID:	D143-01	D143-01M	D143-01S		
LAB FILE ID:	QD24019A	QD24008A	QD24009A		
DATE EXTRACTED:	04/24/1509:30	04/24/1509:30	04/24/1509:30	DATE COLLECTED:	04/21/15
DATE ANALYZED:	04/25/1503:27	04/24/1520:44	04/24/1521:21	DATE RECEIVED:	04/22/15
PREP. BATCH:	HED009W	HED009W	HED009W		
CALIB. REF:	QD24015A	QD24002A	QD24002A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Dinoseb	(ND)|ND	1.00	0.728|(0.738)	73|(74)	1.00	0.603|(0.612)	60|(61)	19|(19)	20-100	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
2,4-DCPAA	10.00	10.01|(10.15)	100|(101)	10.00	(9.085)|8.822	(90.8)|88.2	40-140

5021

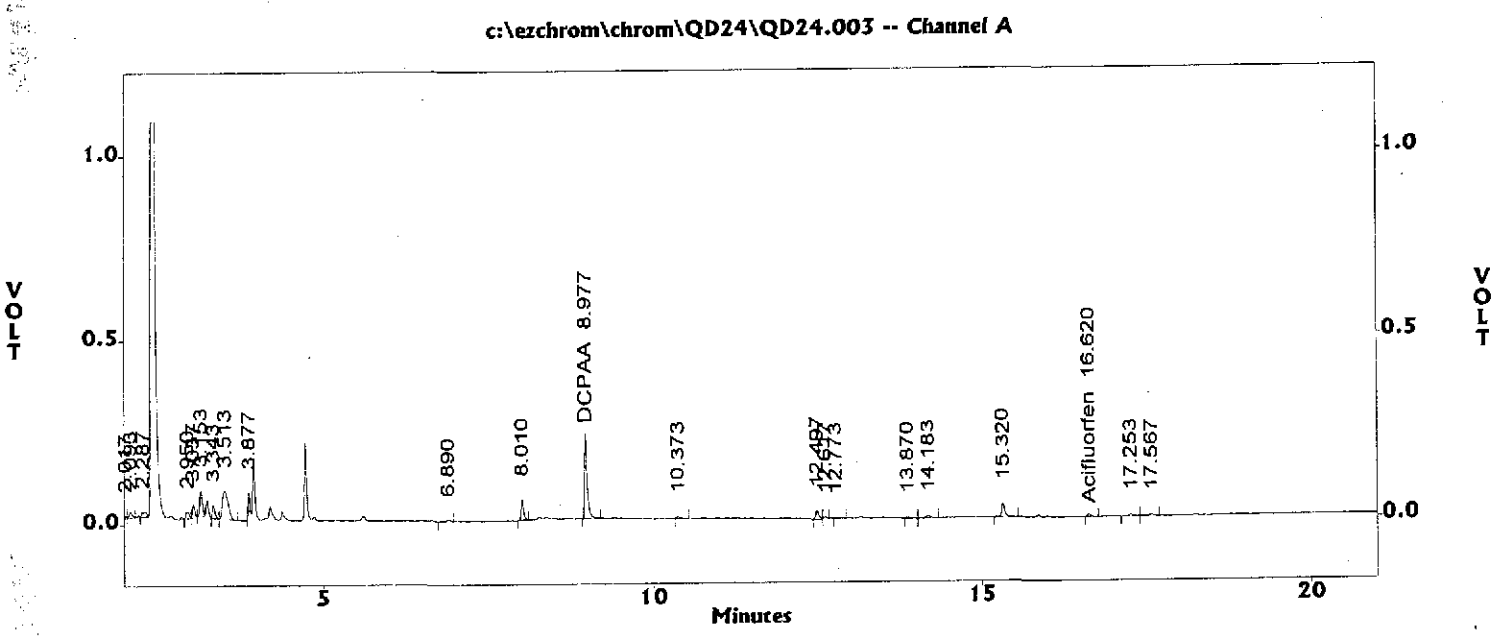
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WB
Acquired : Apr 24, 2015 17:50:41
Printed : Apr 27, 2015 12:35:59
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.730	0.0	0.00	0.000	--
4-Nitrophenol	8.623	0.0	0.00	0.000	--
DCPAA	8.977	635704.0	750.10	847.492	vv
Dicamba	9.220	0.0	0.00	0.000	--
MCPP	9.513	0.0	0.00	0.000	--
MCPA	9.720	0.0	0.00	0.000	--
DCP	10.197	0.0	0.00	0.000	--
2,4-D	10.493	0.0	0.00	0.000	--
Pentachlorophenol	10.740	0.0	0.00	0.000	--
Silvex	11.510	0.0	0.00	0.000	--
Chloramben	11.680	0.0	0.00	0.000	--
2,4,5-T	11.837	0.0	0.00	0.000	--
2,4-DB	12.463	0.0	0.00	0.000	--
Bentazon/Picloram	13.460	0.0	0.00	0.000	--
Dinoseb	13.640	0.0	0.00	0.000	--
Dacthal	13.937	0.0	0.00	0.000	--
Acifluorfen	16.620	23454.0	4699.56	4.991	vv

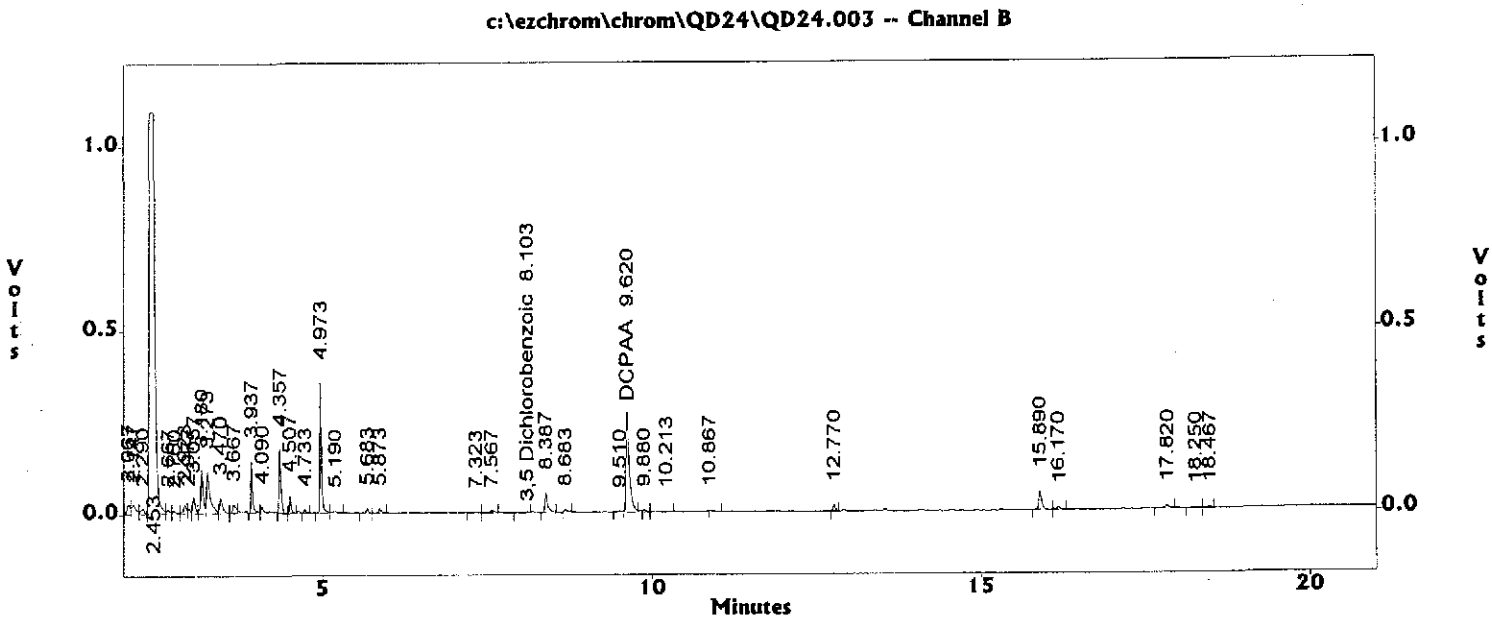


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WB
Acquired : Apr 24, 2015 17:50:41
Printed : Apr 27, 2015 12:35:59
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.103	20185.0	1937.97	10.416	VV
4-Nitrophenol	8.933	0.0	0.00	0.000	--
DCPAA	9.620	921593.0	1082.03	851.729	VV
Dicamba	9.863	0.0	0.00	0.000	--
MCPP	10.040	0.0	0.00	0.000	--
MCPA	10.357	0.0	0.00	0.000	--
DCP	10.787	0.0	0.00	0.000	--
2,4-D	11.183	0.0	0.00	0.000	--
Pentachlorophenol	11.647	0.0	0.00	0.000	--
Silvex	12.147	0.0	0.00	0.000	--
2,4,5-T	12.600	0.0	0.00	0.000	--
Chloramben	12.647	0.0	0.00	0.000	--
2,4-DB	13.173	0.0	0.00	0.000	--
Dinoseb	13.510	0.0	0.00	0.000	--
Bentazon	14.113	0.0	0.00	0.000	--
Dacthal	14.517	0.0	0.00	0.000	--
Picloram	14.593	0.0	0.00	0.000	--
Acifluorfen	16.800	0.0	0.00	0.000	--

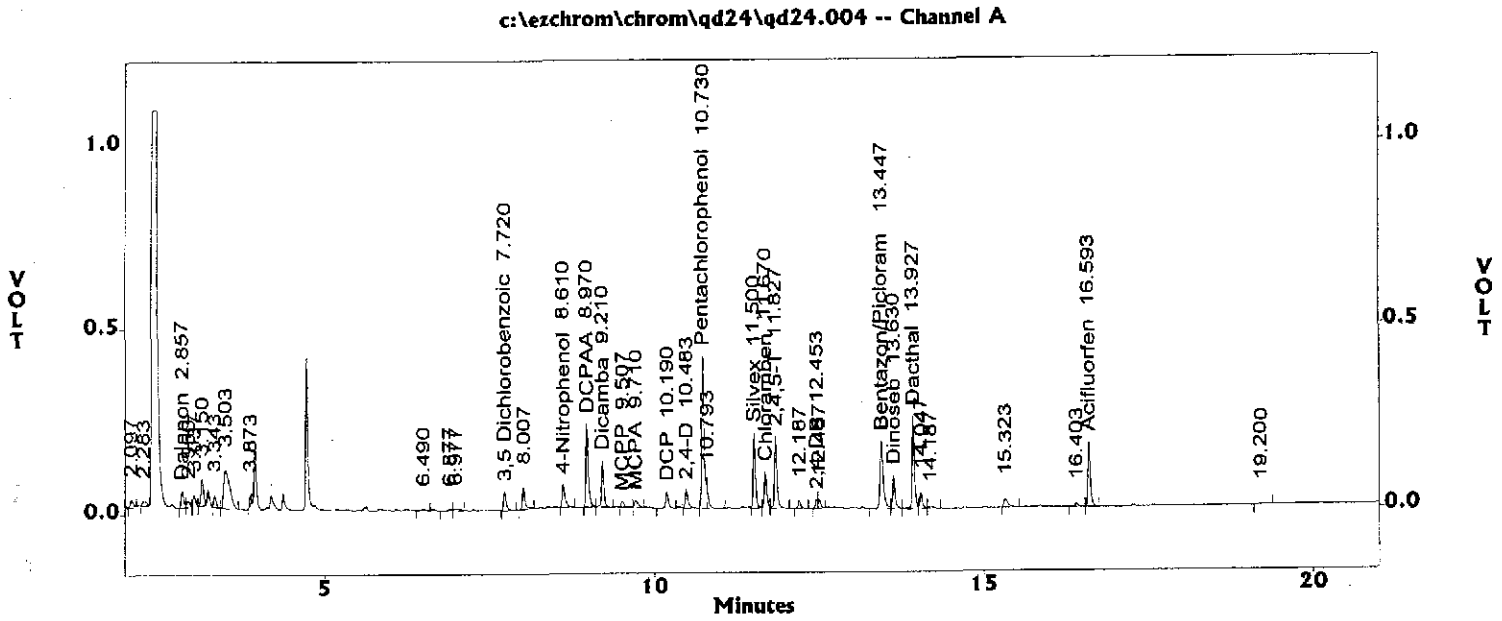


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WL
Acquired : Apr 24, 2015 18:18:42
Printed : Apr 27, 2015 12:43:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	123665.0	1656.60	74.650	VV
3,5 Dichlorobenzo	7.720	141334.0	1722.43	82.055	vv
4-Nitrophenol	8.610	201180.0	1289.87	155.969	VV
DCPAA	8.970	594532.0	750.10	792.604	vv
Dicamba	9.210	316181.0	3238.35	97.637	vv
MCPP	9.507	54169.0	8.42	6435.658	VV
MCPA	9.710	77431.0	15.83	4891.214	VV
DCP	10.190	126516.0	1193.88	105.970	VV
2,4-D	10.483	155818.0	1510.05	103.187	VV
Pentachlorophenol	10.730	1062110.0	12495.55	84.999	VS
Silvex	11.500	508997.0	5002.75	101.743	SV
Chloramben	11.670	264216.0	4132.75	63.932	VV
2,4,5-T	11.827	544620.0	5396.66	100.918	VV
2,4-DB	12.453	51677.0	801.45	64.480	Bx
Bentazon/Picloram	13.447	603895.0	3540.81	170.553	VV
Dinoseb	13.630	241265.0	4088.80	59.006	VV
Dacthal	13.927	632358.0	6873.97	91.993	VV
Acifluorfen	16.593	454946.0	4699.56	96.806	vv

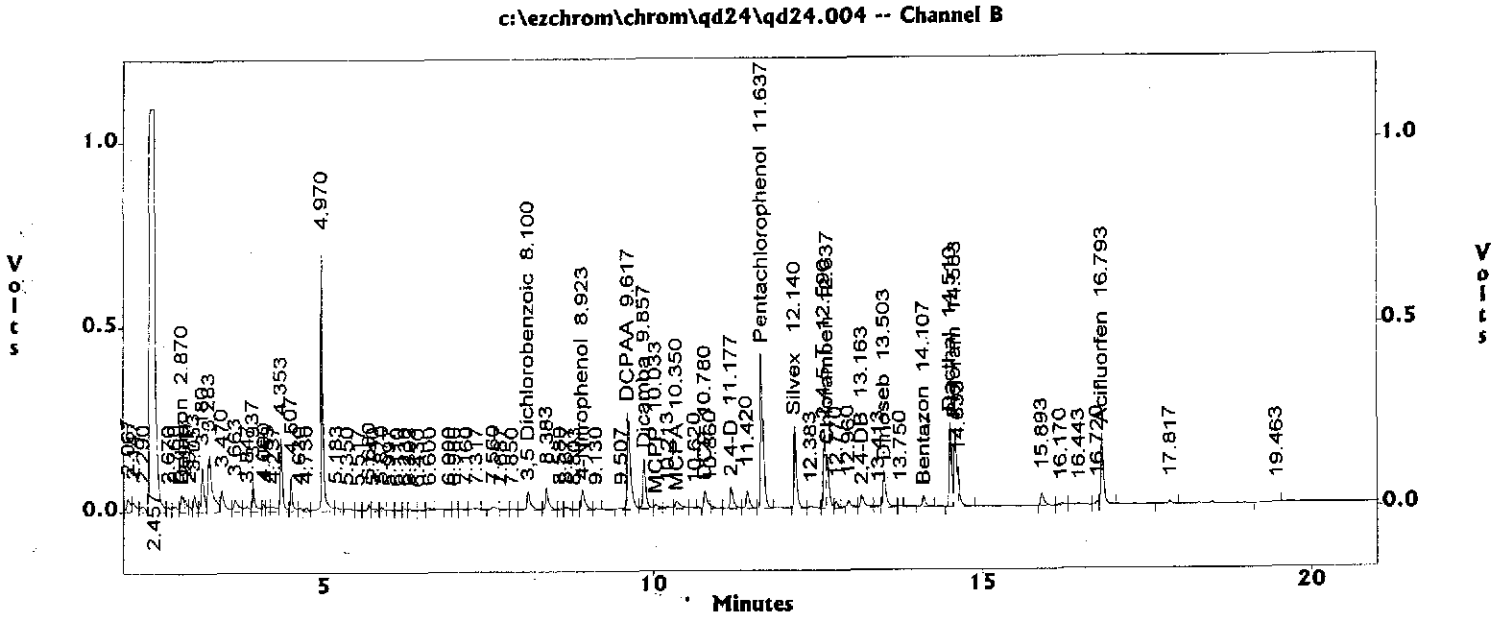


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WL
Acquired : Apr 24, 2015 18:18:42
Printed : Apr 27, 2015 12:43:15
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	139377.0	1730.88	80.524	VS
3,5 Dichlorobenzoic	8.100	224236.0	1937.97	115.707	VV
4-Nitrophenol	8.923	217411.0	1457.43	149.174	VV
DCPAA	9.617	903913.0	1082.03	835.389	VV
Dicamba	9.857	417139.0	3890.32	107.225	VV
MCPP	10.033	55891.0	8.21	6803.546	VV
MCPA	10.350	118775.0	17.76	6689.497	VV
DCP	10.780	167903.0	1485.51	113.027	Vx
2,4-D	11.177	216365.0	1894.33	114.217	VV
Pentachlorophenol	11.637	1274246.0	14739.16	86.453	VV
Silvex	12.140	644882.0	5953.99	108.311	VV
2,4,5-T	12.590	513080.0	4983.71	102.951	VS
Chloramben	12.637	419754.0	6012.12	69.818	SV
2,4-DB	13.163	134101.0	1025.98	130.706	VV
Dinoseb	13.503	324345.0	4871.89	66.575	VV
Bentazon	14.107	114878.0	803.13	143.038	VV
Dacthal	14.510	592195.0	6624.78	89.391	VV
Picloram	14.583	637329.0	8580.05	74.280	VS
Acifluorfen	16.793	535450.0	6000.10	89.240	SV

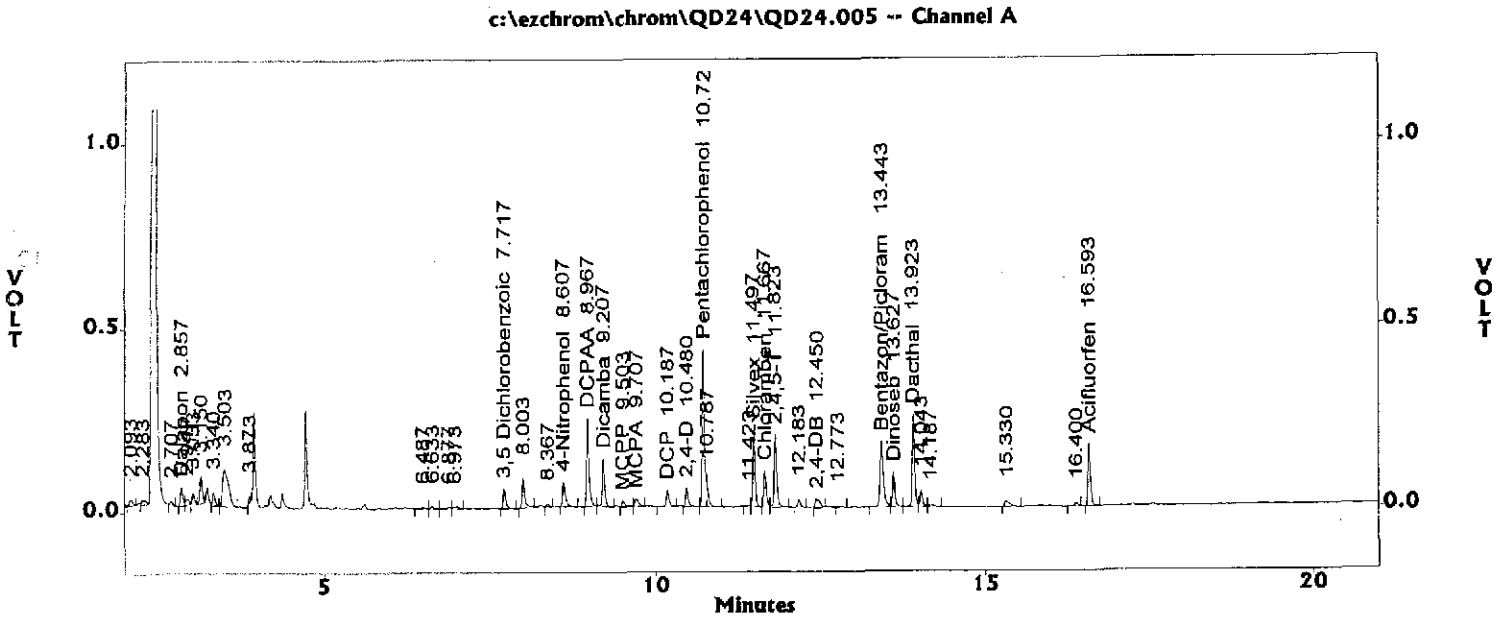


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WC
Acquired : Apr 24, 2015 18:55:05
Printed : Apr 27, 2015 12:36:06
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	135347.0	1656.60	81.702	VV
3,5 Dichlorobenzo	7.717	150863.0	1722.43	87.587	vv
4-Nitrophenol	8.607	217475.0	1289.87	168.602	VV
DCPAA	8.967	630077.0	750.10	839.991	vv
Dicamba	9.207	325601.0	3238.35	100.545	vv
MCPP	9.503	53283.0	8.42	6330.395	VV
MCPA	9.707	78667.0	15.83	4969.291	VV
DCP	10.187	129925.0	1193.88	108.826	VV
2,4-D	10.480	159559.0	1510.05	105.665	VV
Pentachlorophenol	10.727	1095941.0	12495.55	87.706	VS
Silvex	11.497	523493.0	5002.75	104.641	SV
Chloramben	11.667	268663.0	4132.75	65.008	VV
2,4,5-T	11.823	558609.0	5396.66	103.510	VV
2,4-DB	12.450	111329.0	801.45	138.910	VV
Bentazon/Picloram	13.443	608709.0	3540.81	171.912	VV
Dinoseb	13.627	252370.0	4088.80	61.722	VV
Dacthal	13.923	640605.0	6873.97	93.193	VV
Acifluorfen	16.593	445389.0	4699.56	94.773	vv

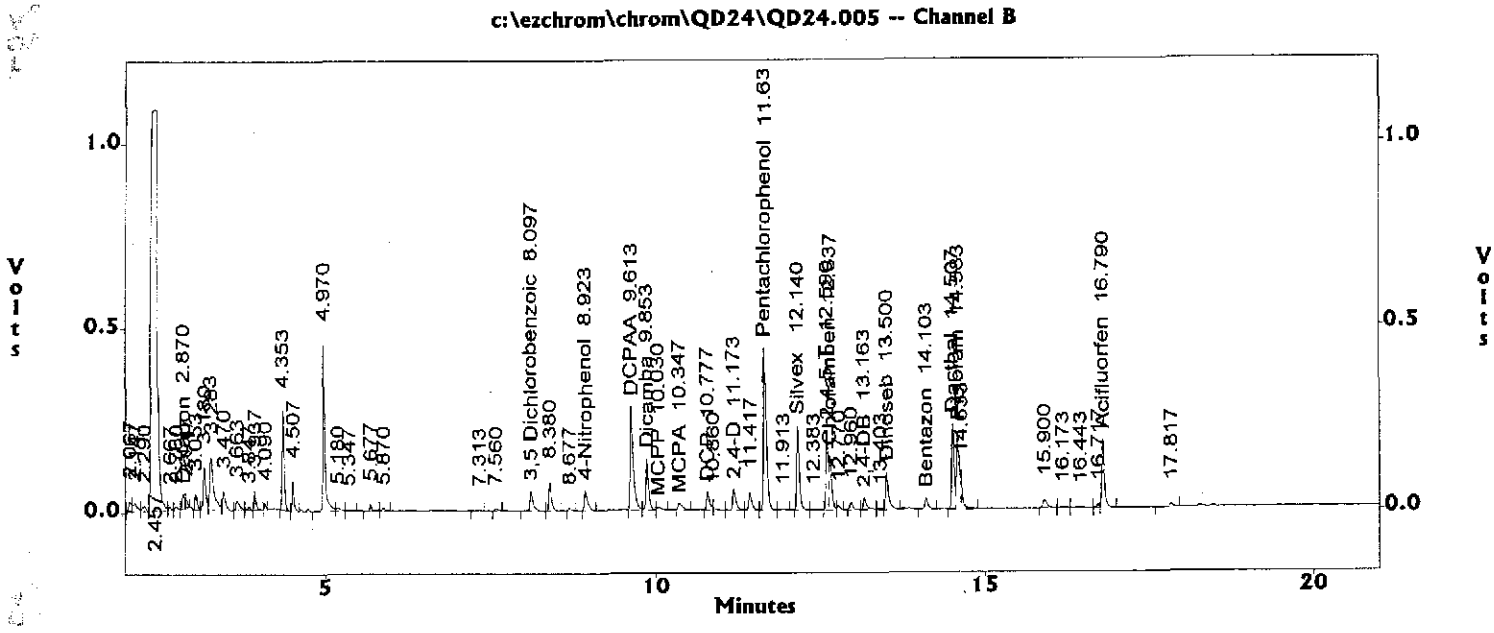


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED009WC
Acquired : Apr 24, 2015 18:55:05
Printed : Apr 27, 2015 12:36:06
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	101428.0	1730.88	58.599	VS
3,5 Dichlorobenzoic	8.097	191346.0	1937.97	98.735	VV
4-Nitrophenol	8.923	211896.0	1457.43	145.390	VV
DCPAA	9.613	940964.0	1082.03	869.631	VV
Dicamba	9.853	414479.0	3890.32	106.541	VV
MCPP	10.030	49058.0	8.21	5971.773	VV
MCPA	10.347	96371.0	17.76	5427.687	VV
DCP	10.777	161817.0	1485.51	108.930	Vx
2,4-D	11.173	200537.0	1894.33	105.862	VV
Pentachlorophenol	11.637	1338109.0	14739.16	90.786	VV
Silvex	12.140	656133.0	5953.99	110.201	VV
2,4,5-T	12.590	528761.0	4983.71	106.098	VS
Chloramben	12.637	416380.0	6012.12	69.257	SV
2,4-DB	13.163	130397.0	1025.98	127.096	VV
Dinoseb	13.500	328234.0	4871.89	67.373	VV
Bentazon	14.103	111644.0	803.13	139.011	VV
Dacthal	14.507	602572.0	6624.78	90.957	VV
Picloram	14.583	637082.0	8580.05	74.252	VS
Acifluorfen	16.790	515834.0	6000.10	85.971	SV

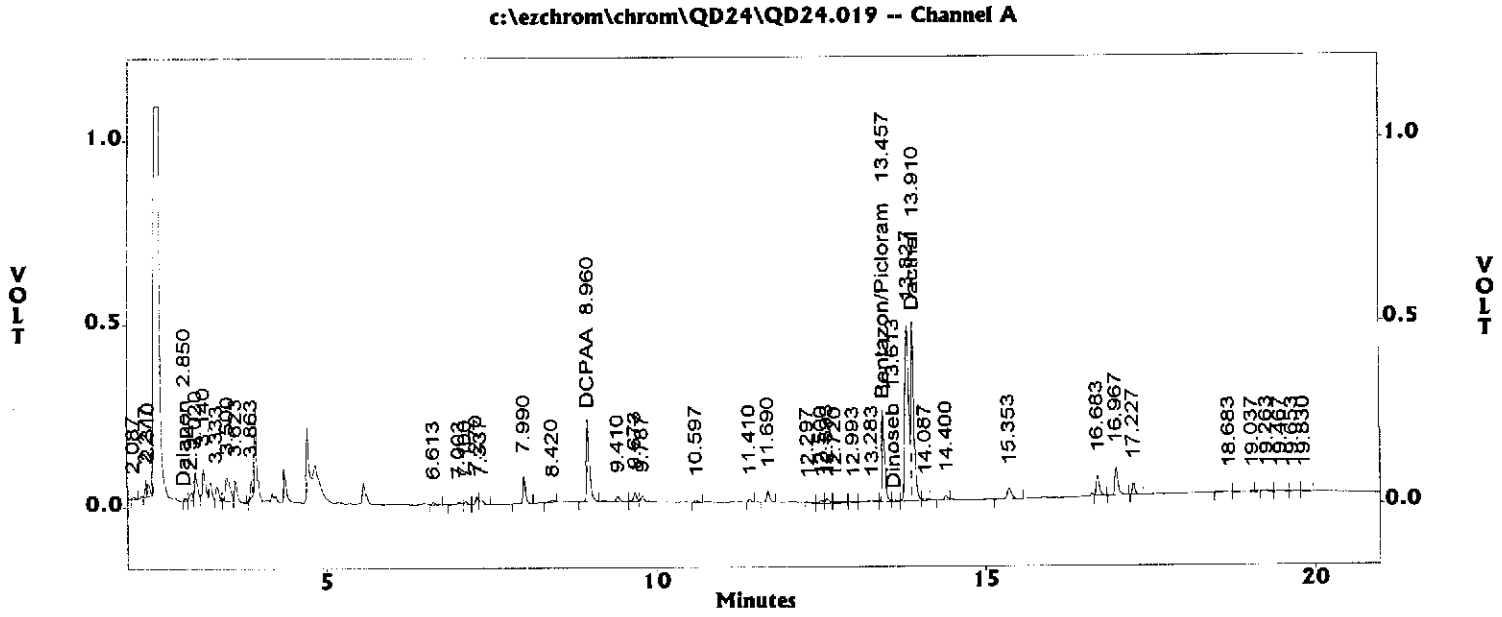


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.019
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-01
Acquired : Apr 25, 2015 03:27:33
Printed : Apr 27, 2015 12:37:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.850	20522.0	1656.60	12.388	BV
3,5 Dichlorobenzo	7.707	0.0	0.00	0.000	--
4-Nitrophenol	8.603	0.0	0.00	0.000	--
DCPAA	8.960	681214.0	750.10	908.164	VV
Dicamba	9.197	0.0	0.00	0.000	--
MCPP	9.493	0.0	0.00	0.000	--
MCPA	9.700	0.0	0.00	0.000	--
DCP	10.177	0.0	0.00	0.000	--
2,4-D	10.470	0.0	0.00	0.000	--
Pentachlorophenol	10.713	0.0	0.00	0.000	--
Silvex	11.487	0.0	0.00	0.000	--
Chloramben	11.663	0.0	0.00	0.000	--
2,4,5-T	11.817	0.0	0.00	0.000	--
2,4-DB	12.453	0.0	0.00	0.000	--
Bentazon/Picloram	13.457	679574.0	3540.81	191.926	VV
Dinoseb	13.613	25269.0	4088.80	6.180	VV
Dacthal	13.910	1402420.0	6873.97	204.019	VV
Acifluorfen	16.583	0.0	0.00	0.000	--

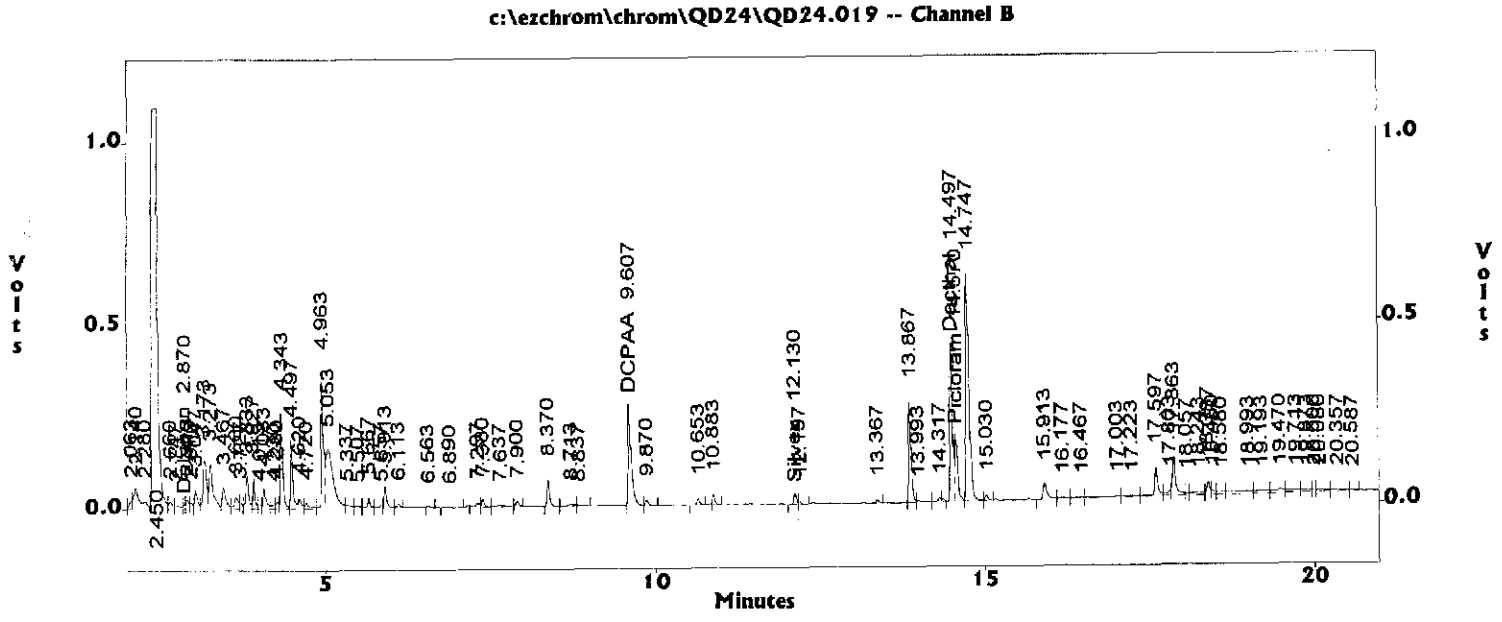


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.019
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-01
Acquired : Apr 25, 2015 03:27:33
Printed : Apr 27, 2015 12:37:14
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	30644.0	1730.88	17.704	VS
3,5 Dichlorobenzoic	8.087	0.0	0.00	0.000	--
4-Nitrophenol	8.917	0.0	0.00	0.000	--
DCPAA	9.607	969278.0	1082.03	895.799	VV
Dicamba	9.843	0.0	0.00	0.000	--
MCPP	10.023	0.0	0.00	0.000	--
MCPA	10.340	0.0	0.00	0.000	--
DCP	10.767	0.0	0.00	0.000	--
2,4-D	11.167	0.0	0.00	0.000	--
Pentachlorophenol	11.623	0.0	0.00	0.000	--
Silvex	12.130	91045.0	5953.99	15.291	VS
2,4,5-T	12.580	0.0	0.00	0.000	--
Chloramben	12.630	0.0	0.00	0.000	--
2,4-DB	13.163	0.0	0.00	0.000	--
Dinoseb	13.490	0.0	0.00	0.000	--
Bentazon	14.100	0.0	0.00	0.000	--
Dacthal	14.497	1180718.0	6624.78	178.228	VV
Picloram	14.570	552585.0	8580.05	64.403	VV
Acifluorfen	16.783	0.0	0.00	0.000	--

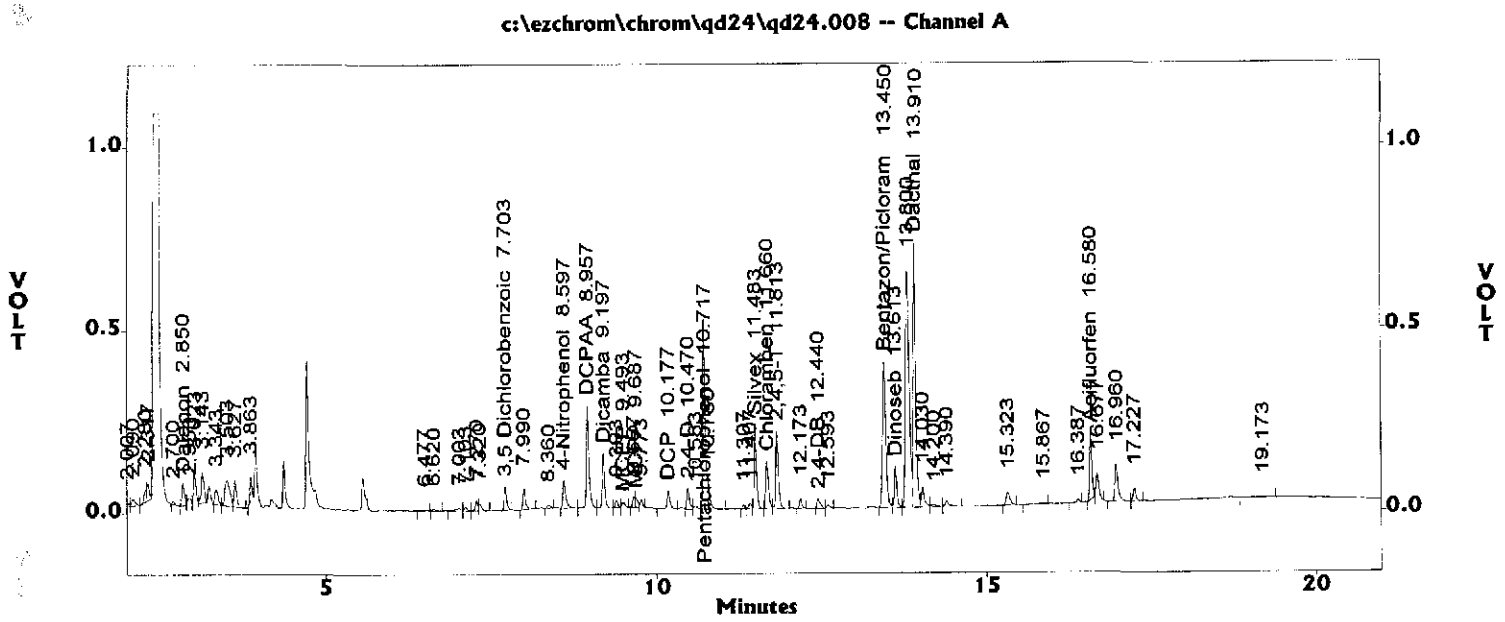


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-01M
Acquired : Apr 24, 2015 20:44:50
Printed : Apr 27, 2015 12:55:37
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.850	163710.0	1656.60	98.823	VV
3,5 Dichlorobenzo	7.703	169169.0	1722.43	98.215	VV
4-Nitrophenol	8.597	239751.0	1289.87	185.872	VV
DCPAA	8.957	751134.0	750.10	1001.378	vv
Dicamba	9.197	374718.0	3238.35	115.713	vv
MCPP	9.493	41216.0	8.42	4896.750	VV
MCPA	9.687	121922.0	15.83	7701.652	MM
DCP	10.177	143832.0	1193.88	120.474	VV
2,4-D	10.470	161648.0	1510.05	107.048	VV
Pentachlorophenol	10.717	1344577.0	12495.55	107.604	VS
Silvex	11.483	570053.0	5002.75	113.948	VV
Chloramben	11.660	392597.0	4132.75	94.997	VV
2,4,5-T	11.813	596787.0	5396.66	110.585	VV
2,4-DB	12.440	95557.0	801.45	119.231	VV
Bentazon/Picloram	13.450	1374336.0	3540.81	388.141	VV
Dinoseb	13.613	297837.0	4088.80	72.842	VV
Dacthal	13.910	1918353.0	6873.97	279.075	VV
Acifluorfen	16.580	430141.0	4699.56	91.528	vv

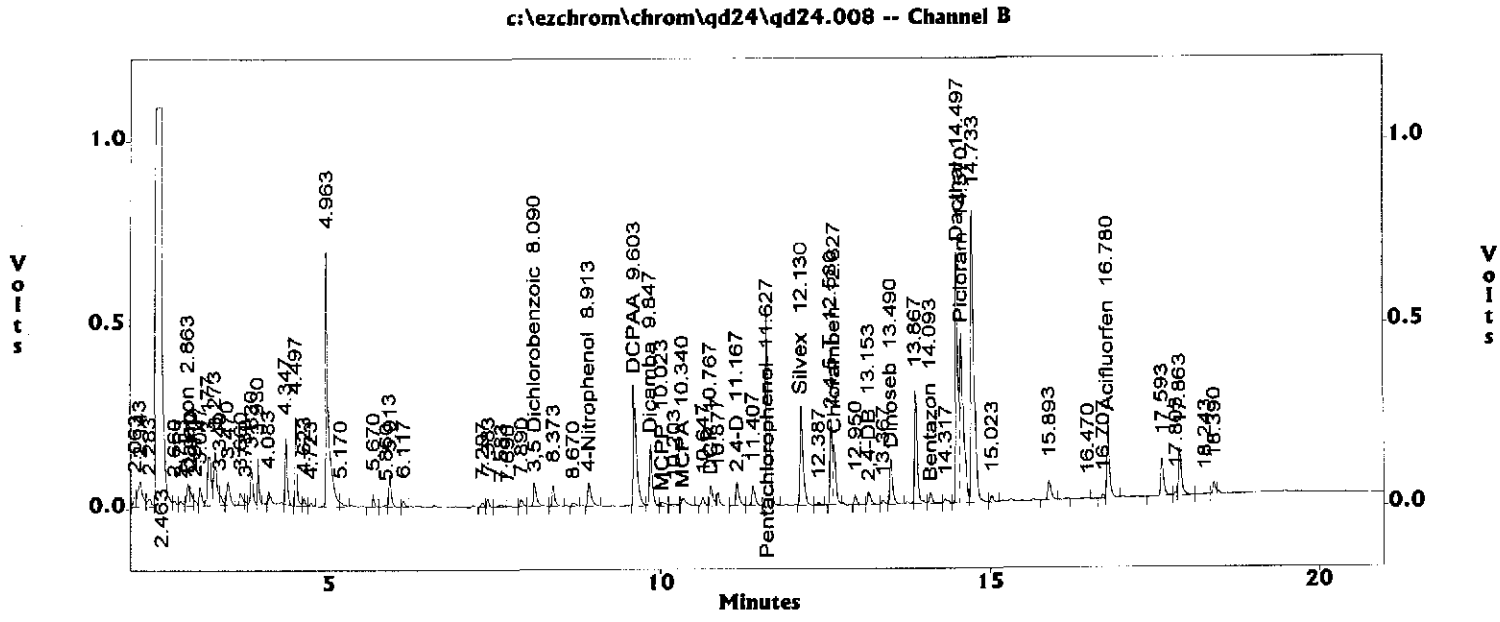


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-01M
Acquired : Apr 24, 2015 20:44:50
Printed : Apr 27, 2015 12:55:38
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.863	173221.0	1730.88	100.077	VS
3,5 Dichlorobenzoic	8.090	219645.0	1937.97	113.338	VV
4-Nitrophenol	8.913	237176.0	1457.43	162.736	VV
DCPAA	9.603	1098208.0	1082.03	1014.955	VV
Dicamba	9.847	511482.0	3890.32	131.476	VV
MCPP	10.023	52626.0	8.21	6406.101	VV
MCPA	10.340	102277.0	17.76	5760.317	VV
DCP	10.767	167600.0	1485.51	112.823	VV
2,4-D	11.167	206216.0	1894.33	108.859	VV
Pentachlorophenol	11.627	1641124.0	14739.16	111.344	VV
Silvex	12.130	848709.0	5953.99	142.545	SV
2,4,5-T	12.580	563983.0	4983.71	113.165	MM
Chloramben	12.627	455604.0	6012.12	75.781	MM
2,4-DB	13.153	115252.0	1025.98	112.334	VV
Dinoseb	13.490	359791.0	4871.89	73.850	VV
Bentazon	14.093	93357.0	803.13	116.241	VV
Dacthal	14.497	1844309.0	6624.78	278.396	VV
Picloram	14.570	1701134.0	8580.05	198.266	VV
Acifluorfen	16.780	588531.0	6000.10	98.087	SV

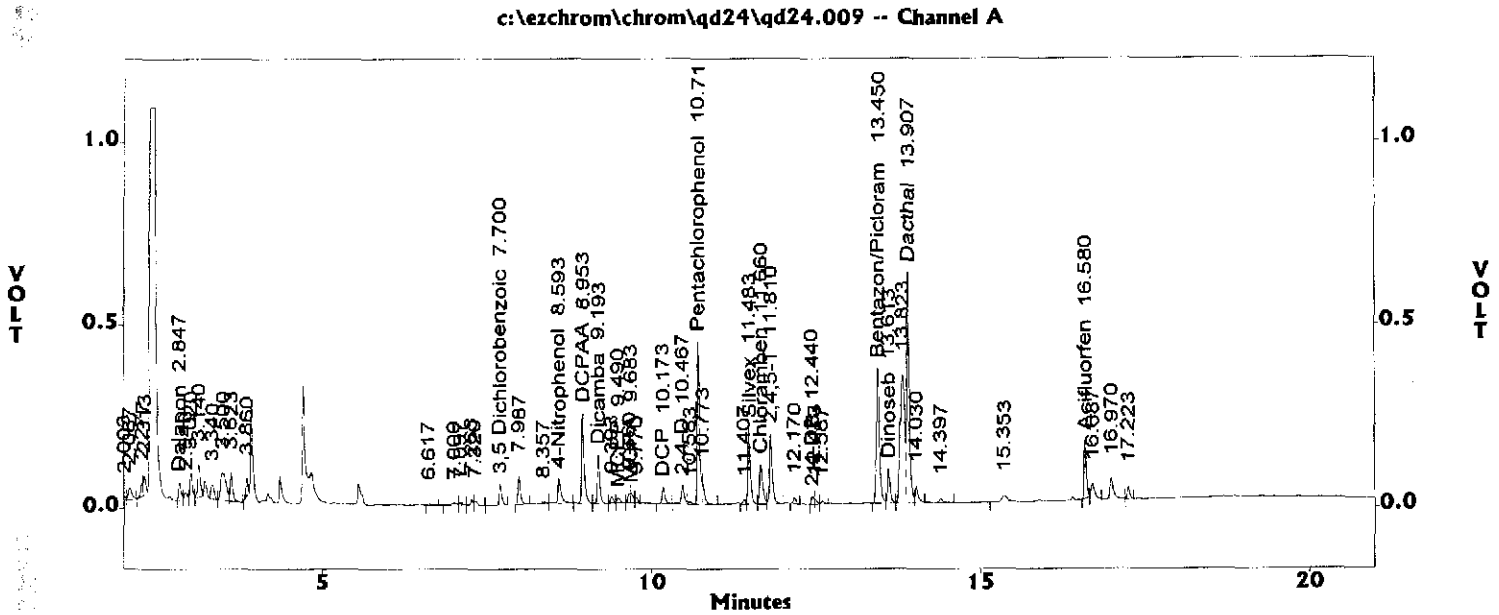


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-01S
Acquired : Apr 24, 2015 21:21:30
Printed : Apr 27, 2015 12:57:04
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	123295.0	1656.60	74.427	VV
3,5 Dichlorobenzo	7.700	149885.0	1722.43	87.020	VV
4-Nitrophenol	8.593	238526.0	1289.87	184.922	VV
DCPAA	8.953	681446.0	750.10	908.473	vv
Dicamba	9.193	331171.0	3238.35	102.265	vv
MCPP	9.490	44546.0	8.42	5292.378	VV
MCPA	9.683	83974.0	15.83	5304.527	xV
DCP	10.173	126036.0	1193.88	105.568	VV
2,4-D	10.467	156913.0	1510.05	103.912	VV
Pentachlorophenol	10.710	1130829.0	12495.55	90.499	VS
Silvex	11.483	521263.0	5002.75	104.195	VV
Chloramben	11.660	361114.0	4132.75	87.379	VV
2,4,5-T	11.810	563093.0	5396.66	104.341	VV
2,4-DB	12.440	60778.0	801.45	75.836	VS
Bentazon/Picloram	13.450	1186647.0	3540.81	335.134	VV
Dinoseb	13.613	246656.0	4088.80	60.325	VV
Dacthal	13.907	1788776.0	6873.97	260.224	VV
Acifluorfen	16.580	386666.0	4699.56	82.277	vv

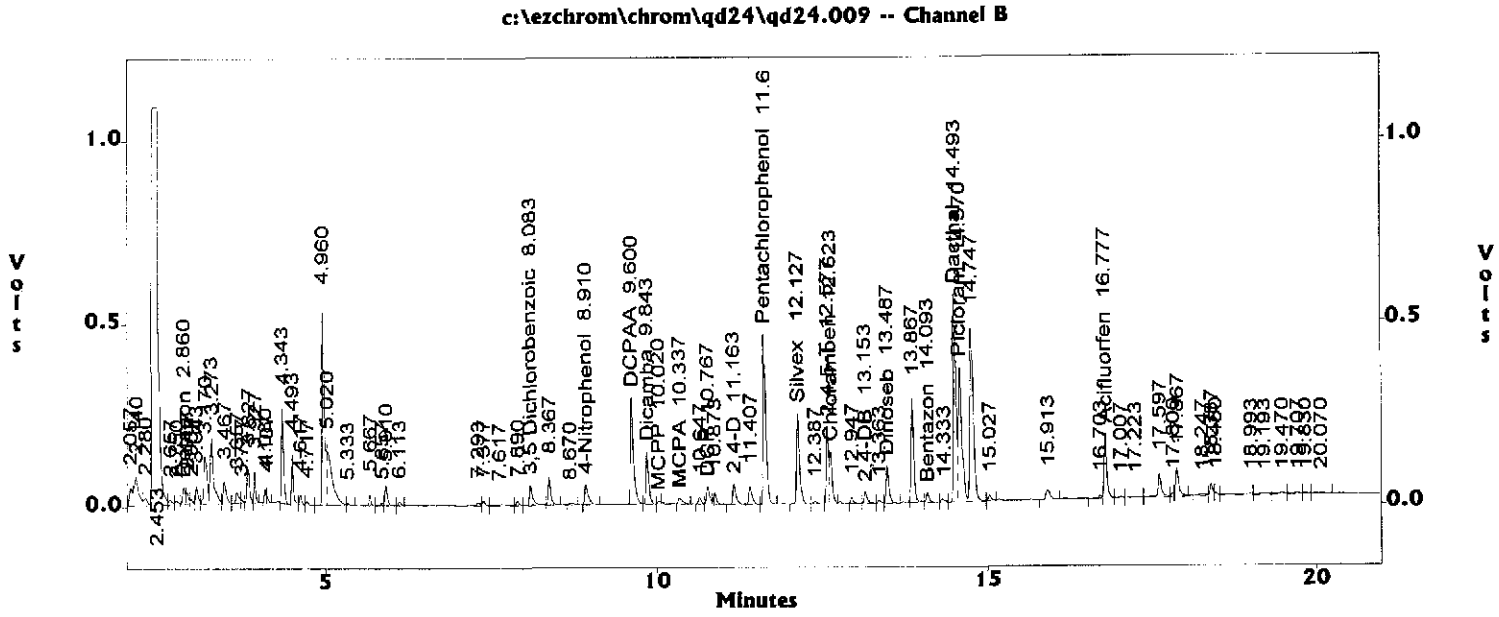


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D143-01S
Acquired : Apr 24, 2015 21:21:30
Printed : Apr 27, 2015 12:57:04
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	126870.0	1730.88	73.298	VS
3,5 Dichlorobenzoic	8.083	186944.0	1937.97	96.464	VV
4-Nitrophenol	8.910	203951.0	1457.43	139.939	VV
DCPAA	9.600	954593.0	1082.03	882.227	MM
Dicamba	9.843	419109.0	3890.32	107.731	MM
MCPP	10.020	22877.0	8.21	2784.790	MM
MCPA	10.337	78160.0	17.76	4402.030	MM
DCP	10.767	146033.0	1485.51	98.305	VV
2,4-D	11.163	185609.0	1894.33	97.981	BV
Pentachlorophenol	11.620	1394512.0	14739.16	94.613	VV
Silvex	12.127	758023.0	5953.99	127.313	VV
2,4,5-T	12.577	503810.0	4983.71	101.091	VS
Chloramben	12.623	410869.0	6012.12	68.340	SV
2,4-DB	13.153	106263.0	1025.98	103.573	VV
Dinoseb	13.487	298210.0	4871.89	61.210	VV
Bentazon	14.093	84748.0	803.13	105.522	VV
Dacthal	14.493	1536503.0	6624.78	231.933	SV
Picloram	14.570	1379376.0	8580.05	160.765	VV
Acifluorfen	16.777	500635.0	6000.10	83.438	SV



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08008A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31
CONC UNIT: ppb

	CONC	CALIBRATION FACTORS (AREA)/UNIT								
COMPOUND	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	1809	1805	1712	1656	1563	1556	1495	1656.6	7.5
3,5-Dichlorobenzo	9.31	0	2078	1910	1765	1677	1577	1572	1479	1722.4	12.3
4-Nitrophenol	9.09	0	1534	1436	1334	1258	1188	1167	1112	1289.9	11.9
Dicamba	9.40	0	3647	3441	3288	3204	3073	3058	2958	3238.3	7.5
MCPP	469.30	0	0	11	9	8	8	8	7	8.4	16.6
MCPA	467.30	0	0	21	17	15	14	13	0	15.8	19.9
Dichloroprop	9.44	0	1405	1283	1226	1177	1114	1098	1053	1193.9	10.2
2,4-D	9.40	0	1874	1730	1530	1567	1321	1302	1246	1510.1	15.6
Pentachlorophenol	9.50	13925	13848	13159	12518	12163	11620	11552	11179	12495.6	8.5
2,4,5-TP(Silvex)	9.50	0	5286	5192	5108	5054	4855	4838	4686	5002.7	4.3
Chloramben	9.36	0	4116	4122	4174	4244	4105	4138	4030	4132.7	1.6
2,4,5-T	9.48	0	6036	5721	5485	5420	5147	5071	4896	5396.7	7.3
2,4-DB	9.47	0	881	822	795	793	761	778	780	801.4	5.0
Bentazon/Picloram	18.90	3392	3597	3537	3608	3645	3523	3561	3463	3540.8	2.3
Dinoseb	9.45	0	5054	4461	4163	3937	3747	3695	3564	4088.8	12.8
Dacthal	9.15	0	7742	7239	7013	6826	6535	6498	6264	6874.0	7.4
Acifluorfen	9.63	0	5063	4885	4841	4621	4525	4529	4432	4699.6	4.9
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	984	847	755	712	668	657	628	750.1	16.8

AM 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	1753	1769	1717	1706	1630	1723	1817	1730.9	3.4
3,5-Dichlorobenzo	9.31	0	2181	2065	1959	1911	1840	1834	1776	1938.0	7.4
4-Nitrophenol	9.09	0	1792	1637	1508	1414	1325	1294	1231	1457.4	13.8
Dicamba	9.40	0	4050	3934	3873	3897	3810	3866	3803	3890.3	2.2
MCPP	469.30	0	0	8	8	8	8	8	8	8.2	2.7
MCPA	467.30	0	0	22	19	18	17	16	15	17.8	13.3
Dichloroprop	9.44	0	1697	1580	1484	1454	1410	1409	1364	1485.5	7.8
2,4-D	9.40	0	2126	1995	1919	1879	1799	1799	1743	1894.3	7.0
Pentachlorophenol	9.50	13837	14569	14883	15072	15167	14776	14949	14660	14739.2	2.8
2,4,5-TP(Silvex)	9.50	0	5590	5718	5943	6118	6045	6172	6092	5954.0	3.7
Chloramben	9.36	0	5223	5359	5888	6423	6199	6421	6573	6012.1	9.0
2,4,5-T	9.48	0	5054	5193	5118	4935	4957	4984	4645	4983.7	3.5
2,4-DB	9.47	0	1135	1050	1033	1031	981	991	961	1026.0	5.6
Dinoseb	9.45	0	5336	5095	4957	4817	4655	4681	4562	4871.9	5.7
Bentazon	9.45	0	800	747	780	824	807	834	829	803.1	3.8
Dacthal	9.15	0	6383	6458	6737	6779	6657	6724	6635	6624.8	2.3
Picloram	9.45	0	7449	7767	8358	8929	8929	9333	9295	8580.1	8.7
Acifluorfen	9.63	0	5984	5948	6055	5972	5946	6064	6031	6000.1	0.8
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	1299	1179	1091	1050	1000	994	960	1082.0	11.1

AW 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08008A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.887	2.883	2.883	2.880	2.877	2.877	2.877	2.877	2.879	2.865	2.893	0.014
3,5-Dichlorobenzo	7.810	7.800	7.793	7.793	7.790	7.790	7.787	7.787	7.791	7.769	7.813	0.022
4-Nitrophenol	8.717	8.703	8.697	8.693	8.690	8.690	8.683	8.683	8.691	8.670	8.712	0.021
Dicamba	0.000	9.297	9.290	9.290	9.287	9.287	9.283	9.283	9.288	9.273	9.303	0.015
MCPP	9.603	9.593	9.587	9.587	9.583	9.583	9.580	9.580	9.583	9.562	9.604	0.021
MCPA	9.810	9.800	9.793	9.793	9.787	9.790	9.783	9.787	9.789	9.767	9.811	0.022
Dichloroprop	10.290	10.283	10.277	10.273	10.270	10.273	10.267	10.270	10.273	10.255	10.291	0.018
2,4-D	10.590	10.583	10.573	10.573	10.567	10.570	10.563	10.563	10.570	10.550	10.590	0.020
Pentachlorophenol	10.833	10.827	10.820	10.820	10.817	10.817	10.813	10.813	10.820	10.802	10.838	0.018
2,4,5-TP(Silvex)	11.607	11.600	11.593	11.593	11.587	11.590	11.583	11.587	11.590	11.574	11.606	0.016
Chloramben	0.000	11.773	11.767	11.763	11.760	11.760	11.753	11.757	11.762	11.746	11.778	0.016
2,4,5-T	11.940	11.933	11.927	11.923	11.917	11.917	11.913	11.917	11.921	11.900	11.942	0.021
2,4-DB	12.570	12.560	12.550	12.550	12.543	12.543	12.540	12.540	12.547	12.525	12.569	0.022
Bentazon/Picloram	13.573	13.563	13.553	13.550	13.543	13.543	13.540	13.543	13.551	13.530	13.572	0.021
Dinoseb	13.747	13.743	13.737	13.737	13.730	13.733	13.727	13.730	13.734	13.716	13.752	0.018
Dacthal	14.047	14.040	14.033	14.033	14.027	14.030	14.023	14.030	14.031	14.010	14.052	0.021
Acifluorfen	16.730	16.723	16.720	16.717	16.713	16.713	16.707	16.710	16.715	16.697	16.733	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	0.000	9.057	9.050	9.050	9.047	9.047	9.043	9.043	9.048	9.032	9.064	0.016

4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.883	2.880	2.877	2.877	2.873	2.873	2.873	2.873	2.875	2.859	2.891	0.016
3,5-Dichlorobenzo	8.143	8.133	8.130	8.127	8.123	8.127	8.123	8.123	8.127	8.111	8.143	0.016
4-Nitrophenol	8.973	8.967	8.960	8.957	8.953	8.953	8.950	8.950	8.956	8.938	8.974	0.018
Dicamba	9.897	9.890	9.887	9.883	9.880	9.883	9.880	9.880	9.883	9.867	9.899	0.016
MCPP	0.000	10.067	10.060	10.060	10.053	10.057	10.053	10.053	10.056	10.040	10.072	0.016
MCPA	0.000	10.387	10.377	10.377	10.370	10.373	10.370	10.370	10.373	10.357	10.389	0.016
Dichloroprop	10.817	10.813	10.807	10.807	10.800	10.803	10.800	10.800	10.804	10.790	10.818	0.014
2,4-D	11.217	11.213	11.207	11.203	11.200	11.200	11.197	11.197	11.202	11.186	11.218	0.016
Pentachlorophenol	11.677	11.673	11.667	11.667	11.663	11.663	11.660	11.663	11.667	11.649	11.685	0.018
2,4,5-TP(Silvex)	12.177	12.173	12.167	12.167	12.163	12.163	12.160	12.163	12.165	12.151	12.179	0.014
Chloramben	12.680	12.673	12.667	12.667	12.660	12.663	12.660	12.663	12.665	12.635	12.695	0.030
2,4,5-T	12.627	12.623	12.617	12.617	12.610	12.613	12.610	12.610	12.614	12.598	12.630	0.016
2,4-DB	13.203	13.197	13.193	13.190	13.183	13.187	13.183	13.183	13.188	13.164	13.212	0.024
Dinoseb	13.537	13.533	13.527	13.527	13.523	13.523	13.520	13.523	13.525	13.507	13.543	0.018
Bentazon	14.140	14.133	14.130	14.130	14.127	14.127	14.123	14.127	14.128	14.112	14.144	0.016
Dacthal	14.540	14.537	14.533	14.530	14.527	14.527	14.523	14.527	14.529	14.513	14.545	0.016
Picloram	14.623	14.617	14.610	14.610	14.603	14.603	14.600	14.603	14.607	14.583	14.631	0.024
Acifluorfen	16.820	16.813	16.810	16.810	16.807	16.803	16.803	16.803	16.807	16.789	16.825	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	9.657	9.650	9.643	9.643	9.640	9.640	9.637	9.637	9.641	9.625	9.657	0.016

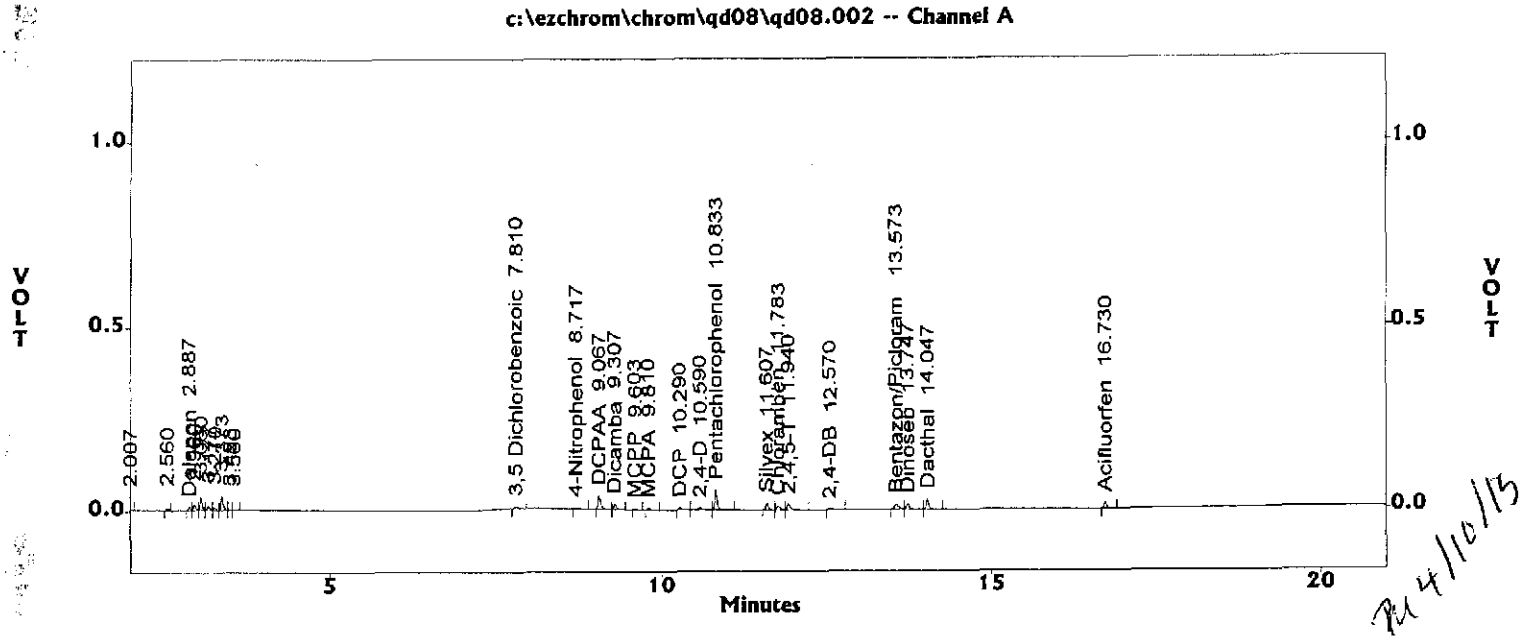
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	10.866	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	12.034	vv
4-Nitrophenol	8.717	13948.0	1289.87	10.813	BV
DCPAA	9.067	104261.0	750.10	138.996	vv
Dicamba	9.307	35254.0	3238.35	10.886	vv
MCPP	9.603	7291.0	8.42	866.222	BB
MCPA	9.810	17622.0	15.83	1113.159	BV
DCP	10.290	14098.0	1193.88	11.809	BV
2,4-D	10.590	18783.0	1510.05	12.439	VV
Pentachlorophenol	10.833	132233.0	12495.55	10.582	VB
Silvex	11.607	49337.0	5002.75	9.862	BV
Chloramben	11.783	37175.0	4132.75	8.995	VV
2,4,5-T	11.940	57327.0	5396.66	10.623	VB
2,4-DB	12.570	8202.0	801.45	10.234	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.106	BV
Dinoseb	13.747	48219.0	4088.80	11.793	VV
Dacthal	14.047	71024.0	6873.97	10.332	VB
Acifluorfen	16.730	46390.0	4699.56	9.871	vv



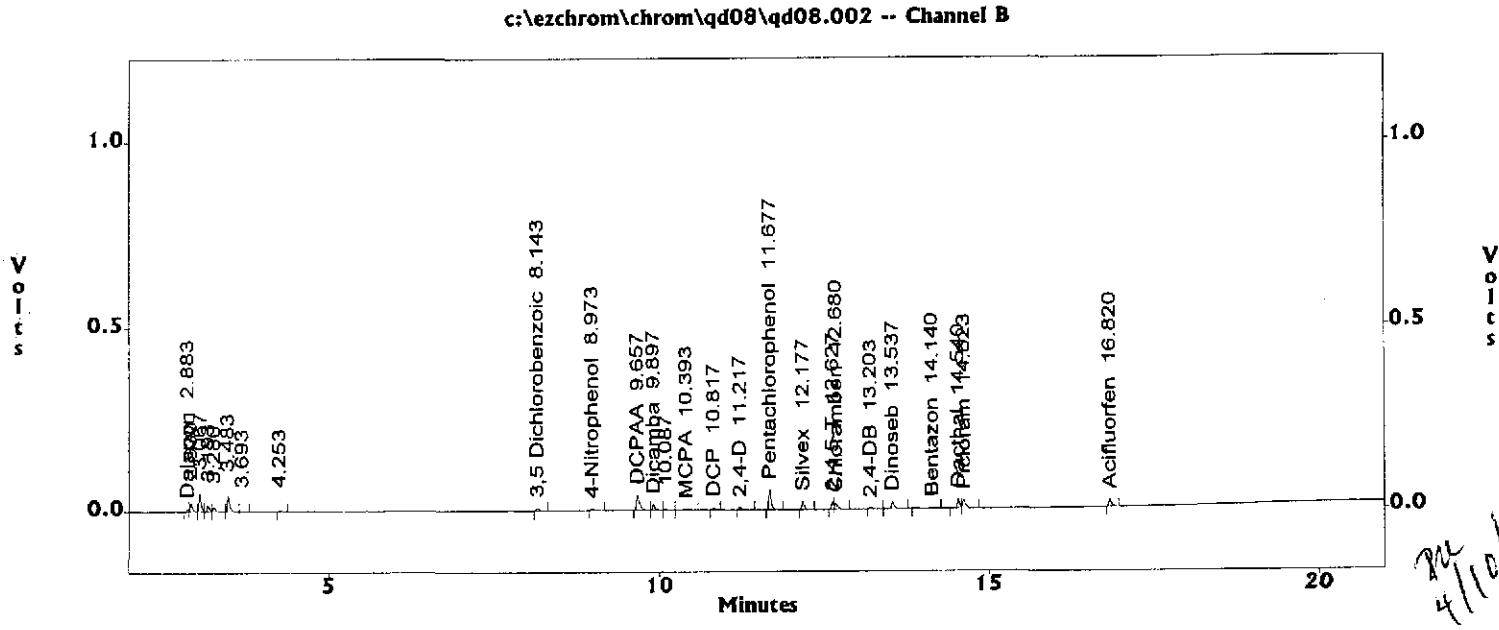
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	9.179	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	11.058	BV
4-Nitrophenol	8.973	17332.0	1457.43	11.892	BV
DCPAA	9.657	133013.0	1082.03	122.930	BV
Dicamba	9.897	39981.0	3890.32	10.277	VV
MCPP	10.067	0.0	0.00	0.000	--
MCPA	10.393	14654.0	17.76	825.324	VB
DCP	10.817	15209.0	1485.51	10.238	BB
2,4-D	11.217	20704.0	1894.33	10.929	BV
Pentachlorophenol	11.677	131400.0	14739.16	8.915	BB
Silvex	12.177	51685.0	5953.99	8.681	BV
2,4,5-T	12.627	47190.0	4983.71	9.469	VS
Chloramben	12.680	47598.0	6012.12	7.917	Sx
2,4-DB	13.203	10709.0	1025.98	10.438	BV
Dinoseb	13.537	51661.0	4871.89	10.604	VV
Bentazon	14.140	6769.0	803.13	8.428	xV
Dacthal	14.540	58416.0	6624.78	8.818	VV
Picloram	14.623	66443.0	8580.05	7.744	VV
Acifluorfen	16.820	54971.0	6000.10	9.162	BV



4/10/15

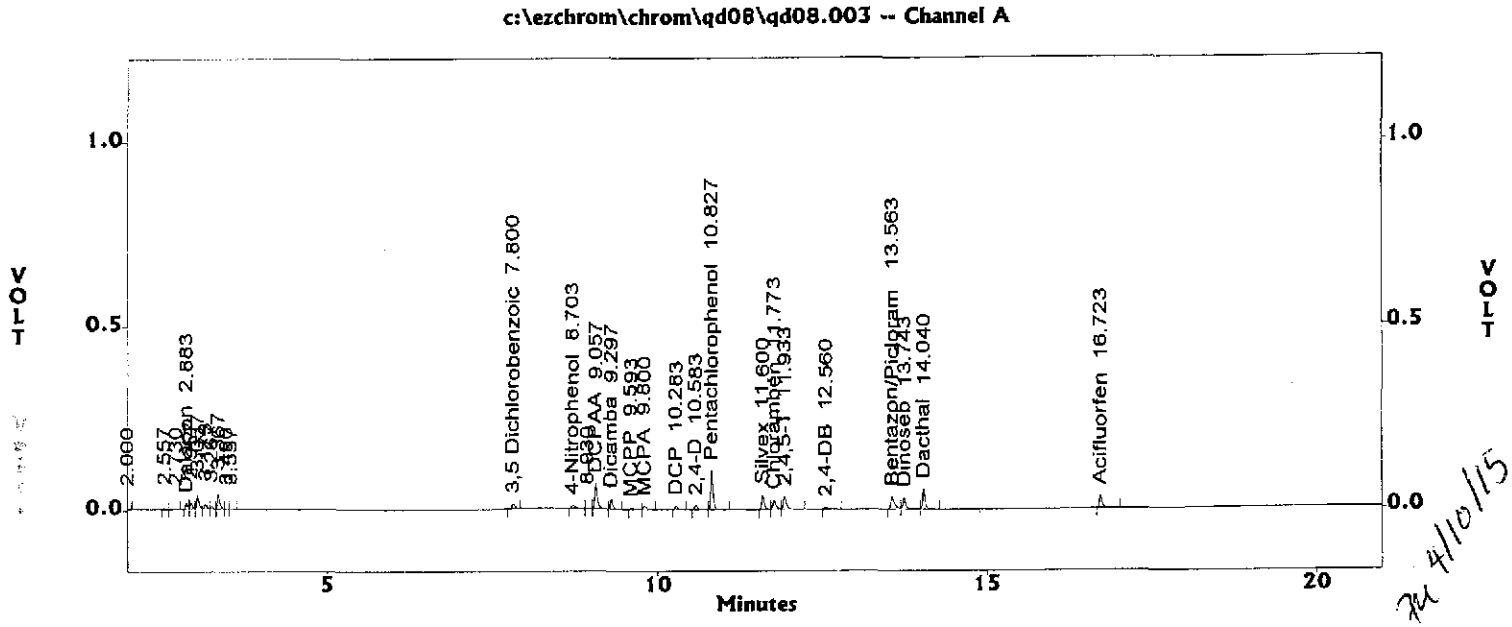
5041

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:31
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	19.876	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	22.469	vv
4-Nitrophenol	8.703	27870.0	1289.87	21.607	BV
DCPAA	9.057	184122.0	750.10	245.463	vv
Dicamba	9.297	68576.0	3238.35	21.176	vv
MCPP	9.593	14588.0	8.42	1733.157	BV
MCPA	9.800	29185.0	15.83	1843.578	VV
DCP	10.283	26509.0	1193.88	22.204	BV
2,4-D	10.583	35240.0	1510.05	23.337	VV
Pentachlorophenol	10.827	263001.0	12495.55	21.048	VB
Silvex	11.600	100470.0	5002.75	20.083	BV
Chloramben	11.773	77061.0	4132.75	18.646	VV
2,4,5-T	11.933	114414.0	5396.66	21.201	VB
2,4-DB	12.560	16675.0	801.45	20.806	BB
Bentazon/Picloram	13.563	135936.0	3540.81	38.391	BV
Dinoseb	13.743	95519.0	4088.80	23.361	VV
Dacthal	14.040	141696.0	6873.97	20.613	VV
Acifluorfen	16.723	97486.0	4699.56	20.744	vv



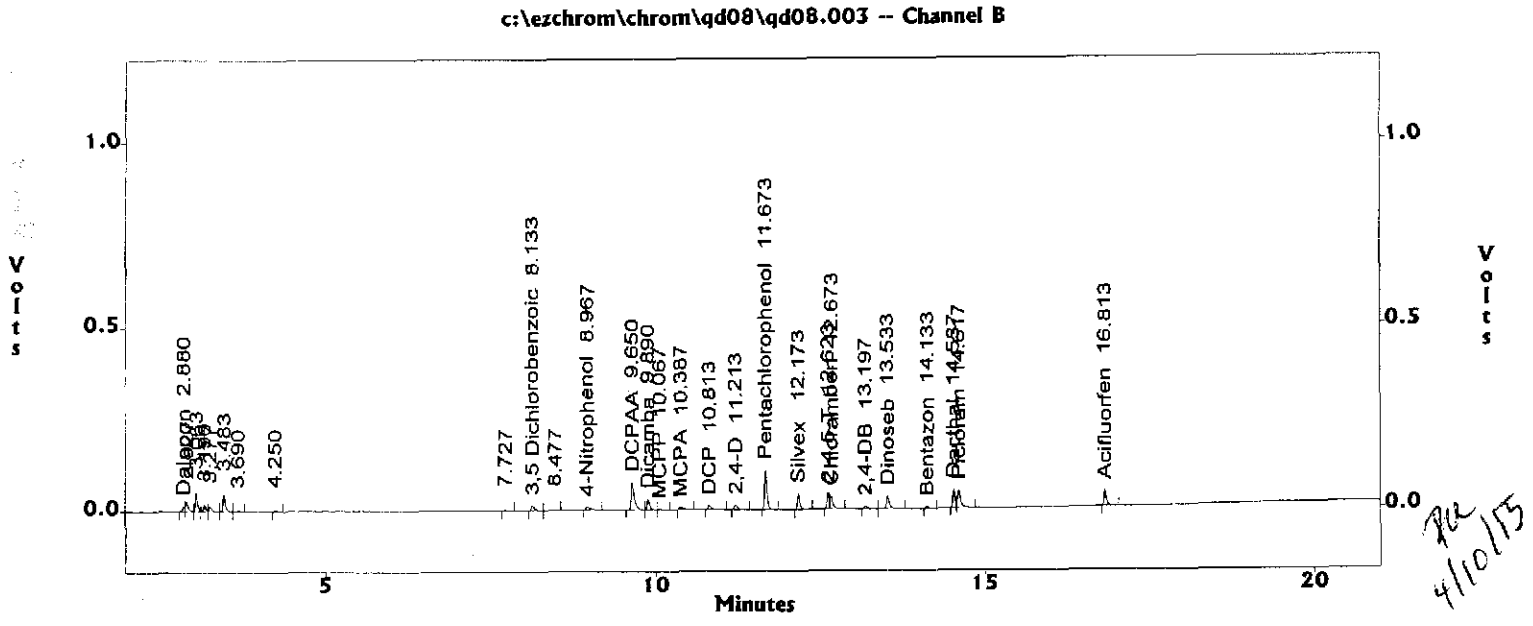
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:32
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.443	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	20.960	BV
4-Nitrophenol	8.967	32561.0	1457.43	22.341	BB
DCPAA	9.650	243181.0	1082.03	224.746	VV
Dicamba	9.890	76149.0	3890.32	19.574	VV
MCPP	10.067	7747.0	8.21	943.033	VV
MCPA	10.387	23831.0	17.76	1342.180	VB
DCP	10.813	32025.0	1485.51	21.558	BB
2,4-D	11.213	39982.0	1894.33	21.106	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.773	BB
Silvex	12.173	106249.0	5953.99	17.845	BB
2,4,5-T	12.623	94613.0	4983.71	18.984	BV
Chloramben	12.673	98990.0	6012.12	16.465	VB
2,4-DB	13.197	21479.0	1025.98	20.935	BV
Dinoseb	13.533	100845.0	4871.89	20.699	Vx
Bentazon	14.133	15125.0	803.13	18.833	BV
Dacthal	14.537	116826.0	6624.78	17.635	VV
Picloram	14.617	140775.0	8580.05	16.407	VB
Acifluorfen	16.813	115218.0	6000.10	19.203	BV



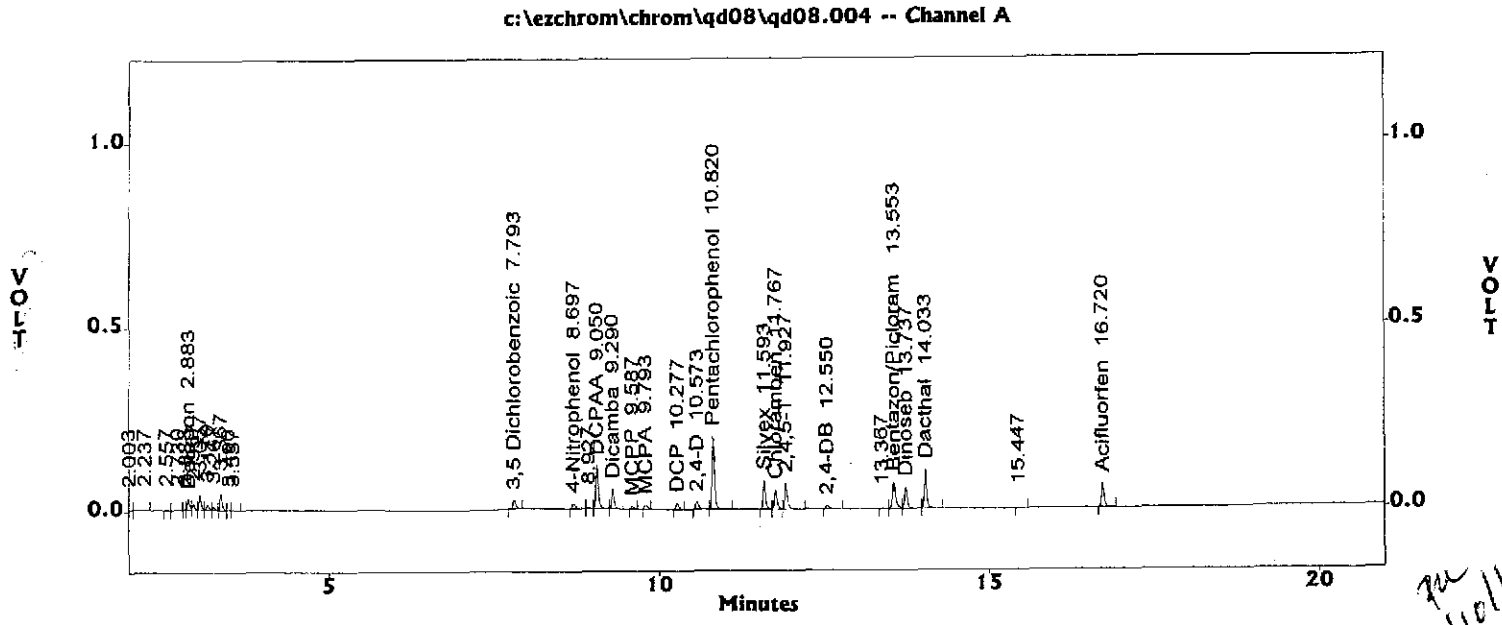
RZ 4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:47:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	39.681	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	41.307	vv
4-Nitrophenol	8.697	52186.0	1289.87	40.458	BV
DCPAA	9.050	317147.0	750.10	422.806	vv
Dicamba	9.290	129398.0	3238.35	39.958	vv
MCPP	9.587	20397.0	8.42	2423.307	BI
MCPA	9.793	38401.0	15.83	2425.740	BI
DCP	10.277	48433.0	1193.88	40.568	BI
2,4-D	10.573	65069.0	1510.05	43.091	BV
Pentachlorophenol	10.820	499826.0	12495.55	40.000	VB
Silvex	11.593	197359.0	5002.75	39.450	BV
Chloramben	11.767	154338.0	4132.75	37.345	VV
2,4,5-T	11.927	216887.0	5396.66	40.189	VB
2,4-DB	12.550	31116.0	801.45	38.825	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.506	VV
Dinoseb	13.737	168625.0	4088.80	41.241	VV
Dacthal	14.033	264994.0	6873.97	38.550	VB
Acifluorfen	16.720	188126.0	4699.56	40.031	vv



RZ 4/10/15

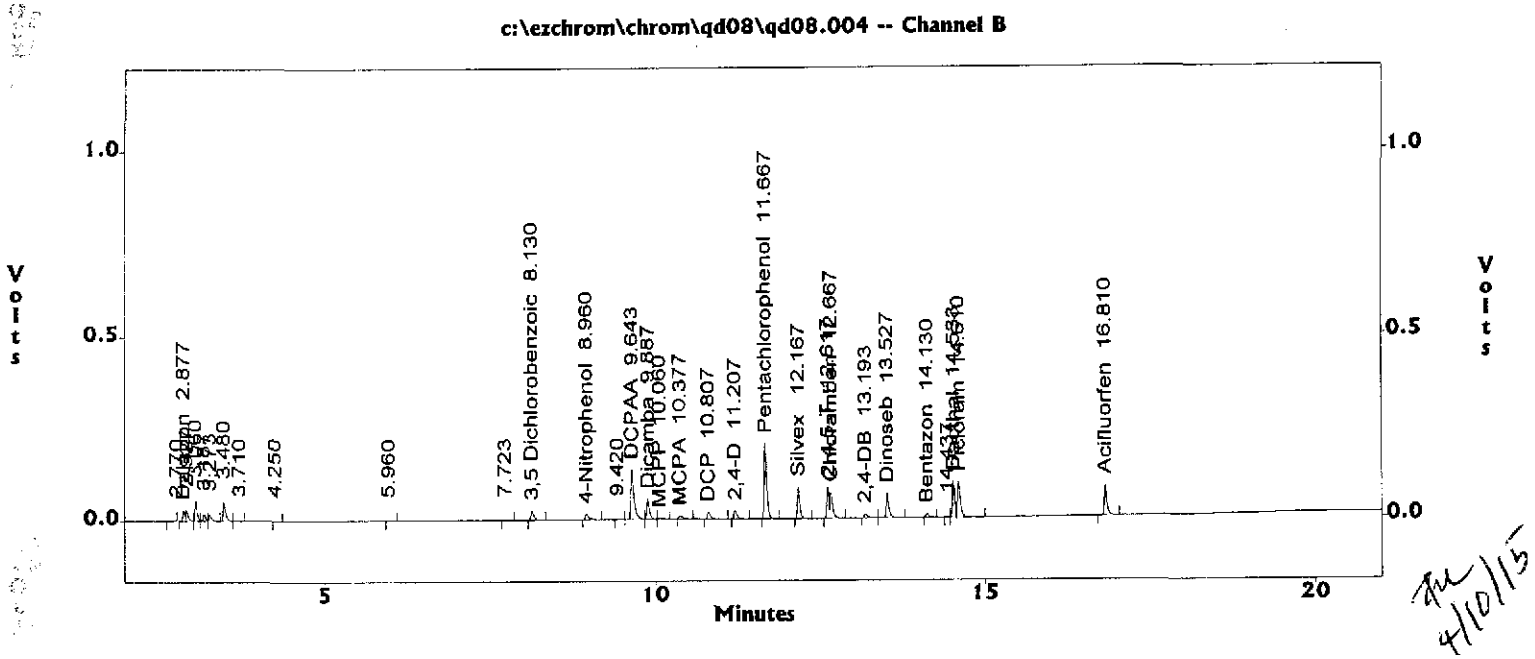
5044

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:47:41
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	37.216	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	39.707	BV
4-Nitrophenol	8.960	59478.0	1457.43	40.810	BB
DCPAA	9.643	441194.0	1082.03	407.748	VV
Dicamba	9.887	147963.0	3890.32	38.034	VV
MCPP	10.060	15953.0	8.21	1941.940	VV
MCPA	10.377	40808.0	17.76	2298.337	VB
DCP	10.807	59641.0	1485.51	40.149	BV
2,4-D	11.207	75010.0	1894.33	39.597	VV
Pentachlorophenol	11.667	565297.0	14739.16	38.353	BB
Silvex	12.167	217350.0	5953.99	36.505	BB
2,4,5-T	12.617	194435.0	4983.71	39.014	BV
Chloramben	12.667	203136.0	6012.12	33.788	Vx
2,4-DB	13.193	39769.0	1025.98	38.762	BV
Dinoseb	13.527	192562.0	4871.89	39.525	Vx
Bentazon	14.130	28250.0	803.13	35.175	BV
Dacthal	14.533	236390.0	6624.78	35.683	VV
Picloram	14.610	293562.0	8580.05	34.214	VV
Acifluorfen	16.810	229055.0	6000.10	38.175	VV



4/10/15

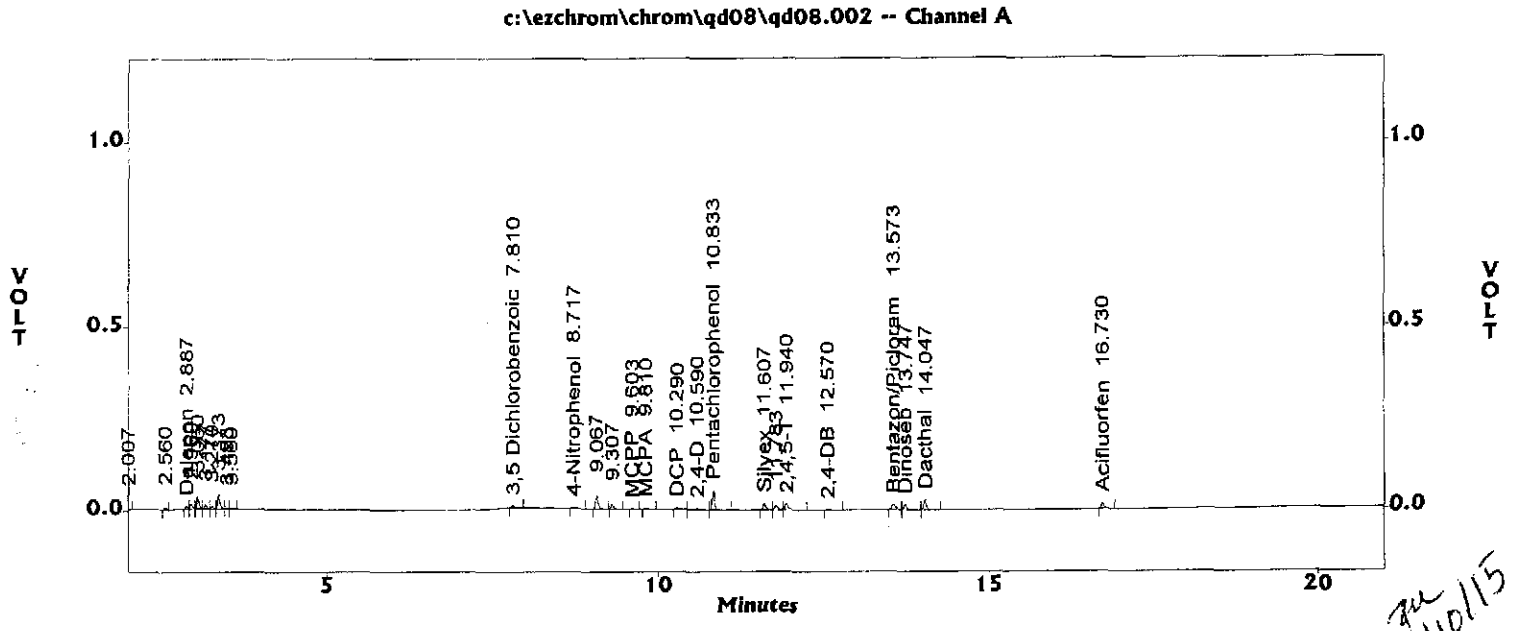
5045

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	-1.000	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	-1.000	vv
4-Nitrophenol	8.717	13948.0	1289.87	-1.000	BV
DCPAA	9.050	0.0	0.00	0.000	--
Dicamba	9.290	0.0	0.00	0.000	--
MCPP	9.603	7291.0	8.42	-1.000	BB
MCPA	9.810	17622.0	15.83	-1.000	BV
DCP	10.290	14098.0	1193.88	-1.000	BV
2,4-D	10.590	18783.0	1510.05	-1.000	VV
Pentachlorophenol	10.833	132233.0	12495.55	9.496	VB
Silvex	11.607	49337.0	5002.75	-1.000	BV
Chloramben	11.767	0.0	0.00	0.000	--
2,4,5-T	11.940	57327.0	5396.66	-1.000	VB
2,4-DB	12.570	8202.0	801.45	-1.000	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.898	BV
Dinoseb	13.747	48219.0	4088.80	-1.000	VV
Dacthal	14.047	71024.0	6873.97	-1.000	VB
Acifluorfen	16.730	46390.0	4699.56	-1.000	vv



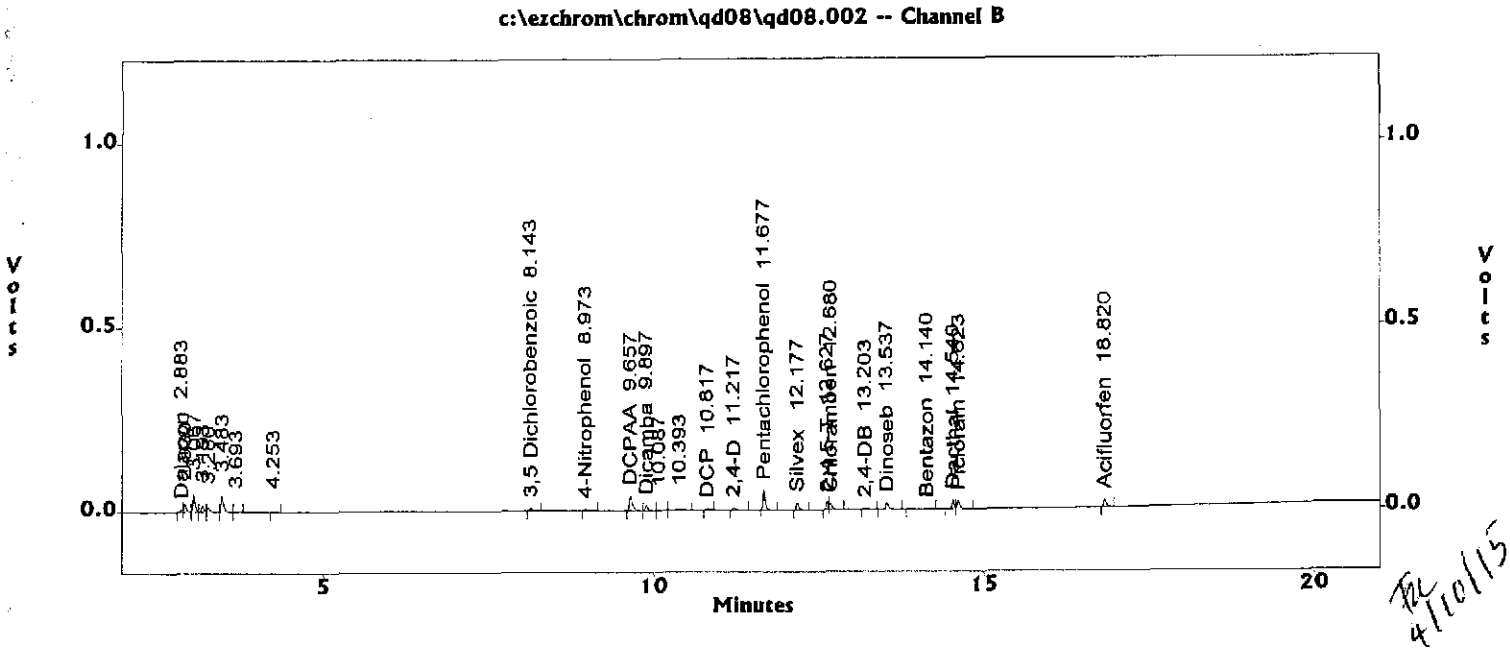
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	-1.000	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	-1.000	BV
4-Nitrophenol	8.973	17332.0	1457.43	-1.000	BV
DCPAA	9.657	133013.0	1082.03	-1.000	BV
Dicamba	9.897	39981.0	3890.32	-1.000	VV
MCPP	10.060	0.0	0.00	0.000	--
MCPA	10.377	0.0	0.00	0.000	--
DCP	10.817	15209.0	1485.51	-1.000	BB
2,4-D	11.217	20704.0	1894.33	-1.000	BV
Pentachlorophenol	11.677	131400.0	14739.16	9.496	BB
Silvex	12.177	51685.0	5953.99	-1.000	BV
2,4,5-T	12.627	47190.0	4983.71	-1.000	VS
Chloramben	12.680	47598.0	6012.12	-1.000	Sx
2,4-DB	13.203	10709.0	1025.98	-1.000	BV
Dinoseb	13.537	51661.0	4871.89	-1.000	VV
Bentazon	14.140	6769.0	803.13	-1.000	xV
Dacthal	14.540	58416.0	6624.78	-1.000	VV
Picloram	14.623	66443.0	8580.05	-1.000	VV
Acifluorfen	16.820	54971.0	6000.10	-1.000	BV



4/10/15

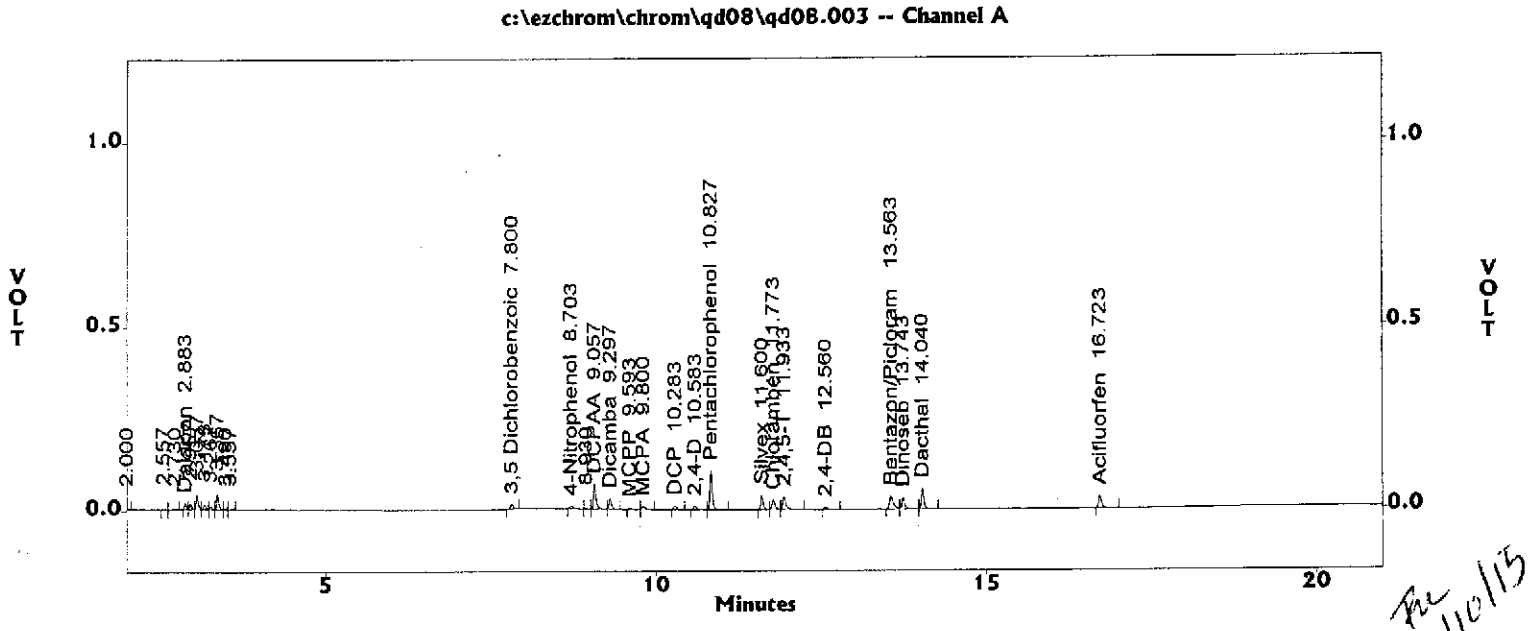
5947

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	18.206	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	18.628	vv
4-Nitrophenol	8.703	27870.0	1289.87	18.170	BV
DCPAA	9.057	184122.0	750.10	187.160	vv
Dicamba	9.297	68576.0	3238.35	18.804	vv
MCPP	9.593	14588.0	8.42	-1.000	BV
MCPA	9.800	29185.0	15.83	-1.000	VV
DCP	10.283	26509.0	1193.88	18.870	BV
2,4-D	10.583	35240.0	1510.05	18.804	VV
Pentachlorophenol	10.827	263001.0	12495.55	18.992	VB
Silvex	11.600	100470.0	5002.75	19.006	BV
Chloramben	11.773	77061.0	4132.75	18.722	VV
2,4,5-T	11.933	114414.0	5396.66	18.954	VB
2,4-DB	12.560	16675.0	801.45	18.932	BB
Bentazon/Picloram	13.563	135936.0	3540.81	37.796	BV
Dinoseb	13.743	95519.0	4088.80	18.898	VV
Dacthal	14.040	141696.0	6873.97	18.302	VV
Acifluorfen	16.723	97486.0	4699.56	19.254	vv



RZ 4/10/15

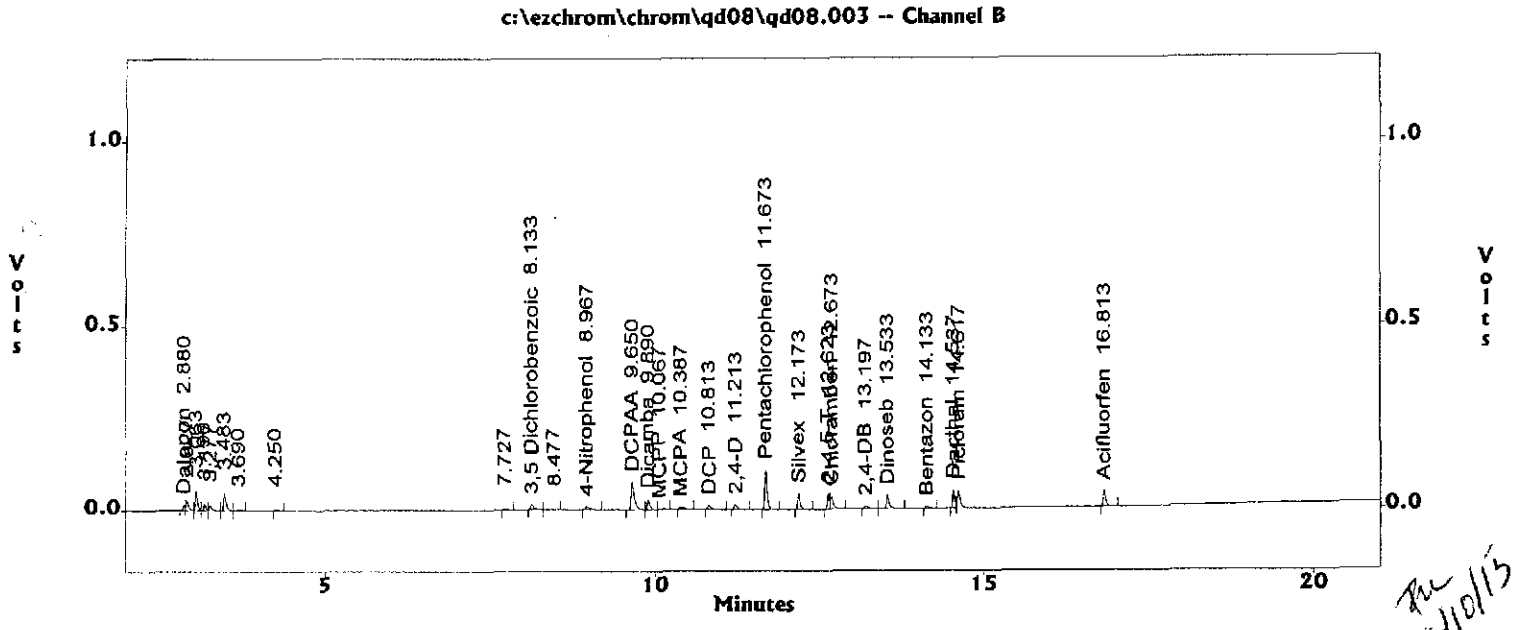
5048

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.206	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	18.628	BV
4-Nitrophenol	8.967	32561.0	1457.43	18.170	BB
DCPAA	9.650	243181.0	1082.03	187.160	VV
Dicamba	9.890	76149.0	3890.32	18.804	VV
MCPP	10.067	7747.0	8.21	-1.000	VV
MCPA	10.387	23831.0	17.76	-1.000	VB
DCP	10.813	32025.0	1485.51	18.870	BB
2,4-D	11.213	39982.0	1894.33	18.804	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.992	BB
Silvex	12.173	106249.0	5953.99	19.006	BB
2,4,5-T	12.623	94613.0	4983.71	18.722	BV
Chloramben	12.673	98990.0	6012.12	18.954	VB
2,4-DB	13.197	21479.0	1025.98	18.932	BV
Dinoseb	13.533	100845.0	4871.89	18.898	Vx
Bentazon	14.133	15125.0	803.13	18.898	BV
Dacthal	14.537	116826.0	6624.78	18.302	VV
Picloram	14.617	140775.0	8580.05	18.898	VB
Acifluorfen	16.813	115218.0	6000.10	19.254	BV



4/10/15

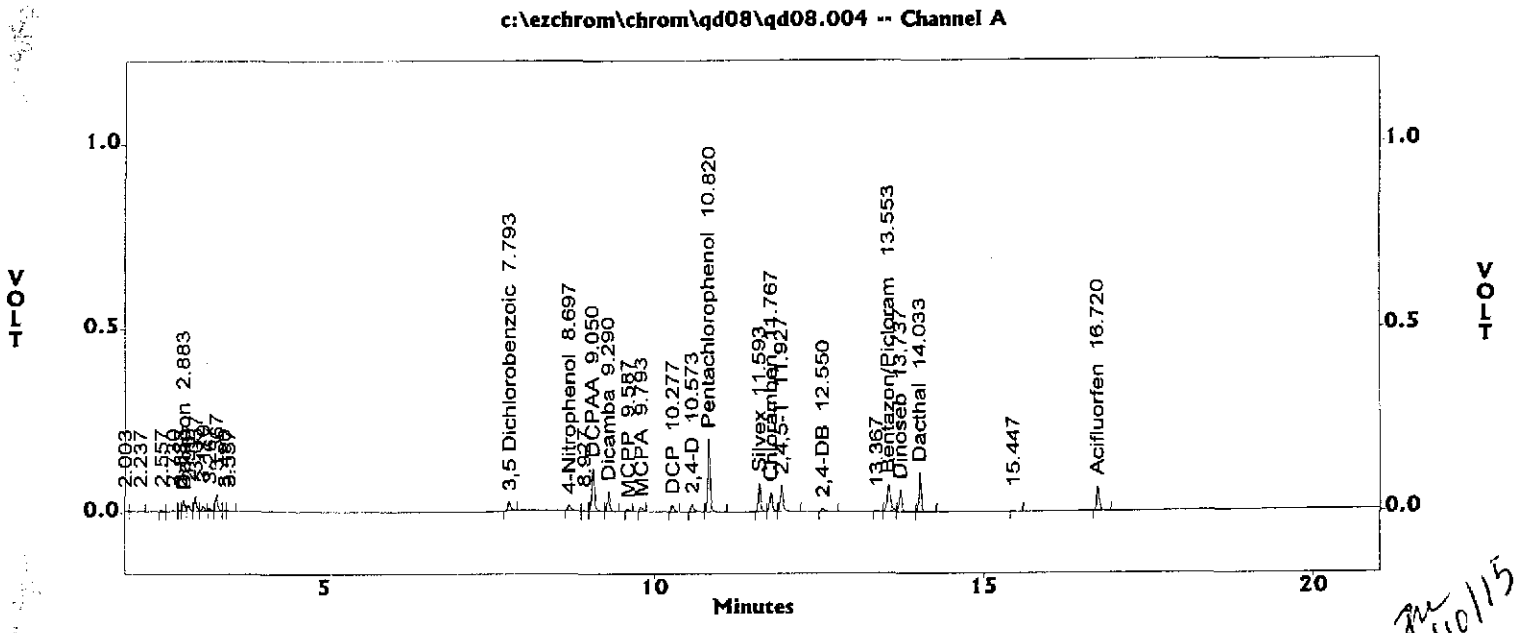
5049

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:48:27
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	36.412	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	37.256	vv
4-Nitrophenol	8.697	52186.0	1289.87	36.340	BV
DCPAA	9.050	317147.0	750.10	374.320	vv
Dicamba	9.290	129398.0	3238.35	37.608	vv
MCPP	9.587	20397.0	8.42	1877.200	BI
MCPA	9.793	38401.0	15.83	1869.200	BI
DCP	10.277	48433.0	1193.88	37.740	BI
2,4-D	10.573	65069.0	1510.05	37.608	BV
Pentachlorophenol	10.820	499826.0	12495.55	37.984	VB
Silvex	11.593	197359.0	5002.75	38.012	BV
Chloramben	11.767	154338.0	4132.75	37.444	VV
2,4,5-T	11.927	216887.0	5396.66	37.908	VB
2,4-DB	12.550	31116.0	801.45	37.864	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.592	VV
Dinoseb	13.737	168625.0	4088.80	37.796	VV
Dacthal	14.033	264994.0	6873.97	36.604	VB
Acifluorfen	16.720	188126.0	4699.56	38.508	vv



4/10/15

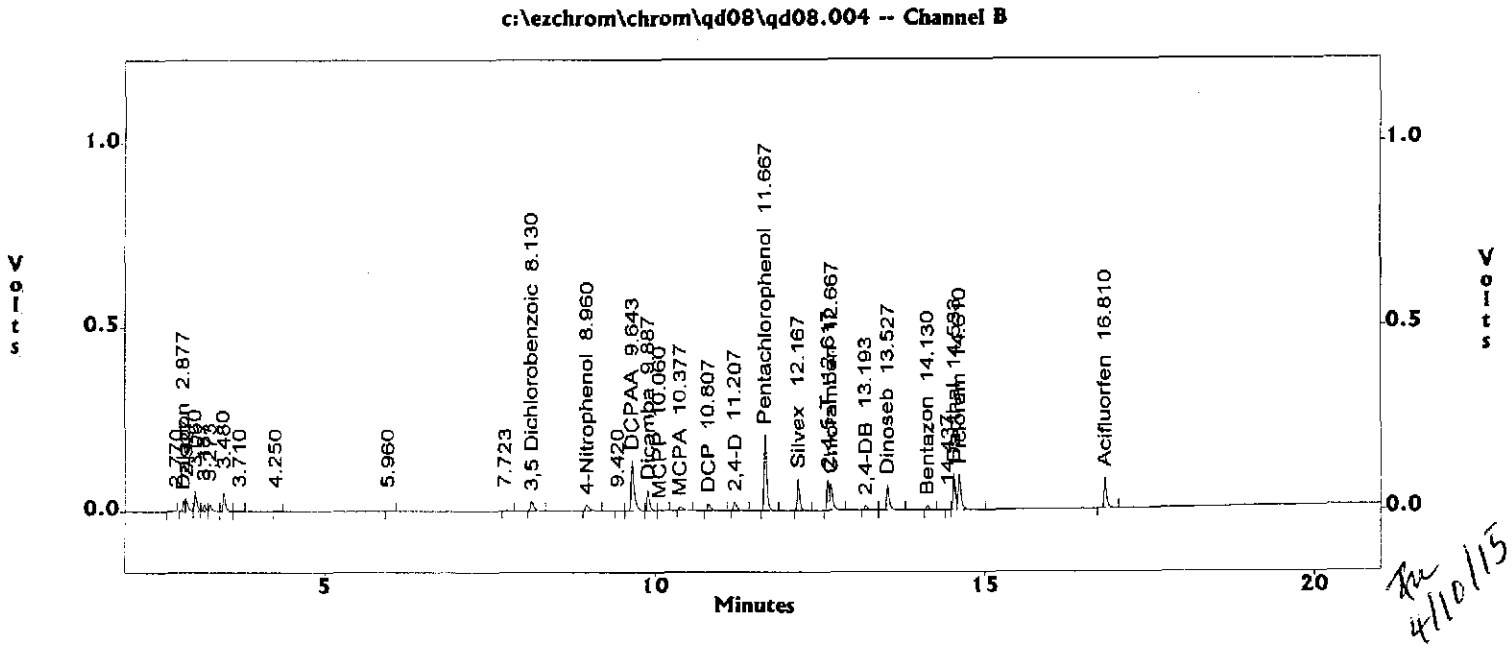
5050

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0803
Acquired : Apr 08, 2015 16:08:11
Printed : Apr 09, 2015 09:48:27
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	36.412	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	37.256	BV
4-Nitrophenol	8.960	59478.0	1457.43	36.340	BB
DCPAA	9.643	441194.0	1082.03	374.320	VV
Dicamba	9.887	147963.0	3890.32	37.608	VV
MCPP	10.060	15953.0	8.21	1877.200	VV
MCPA	10.377	40808.0	17.76	1869.200	VB
DCP	10.807	59641.0	1485.51	37.740	BV
2,4-D	11.207	75010.0	1894.33	37.608	VV
Pentachlorophenol	11.667	565297.0	14739.16	37.984	BB
Silvex	12.167	217350.0	5953.99	38.012	BB
2,4,5-T	12.617	194435.0	4983.71	37.444	BV
Chloramben	12.667	203136.0	6012.12	37.908	Vx
2,4-DB	13.193	39769.0	1025.98	37.864	BV
Dinoseb	13.527	192562.0	4871.89	37.796	Vx
Bentazon	14.130	28250.0	803.13	37.796	BV
Dacthal	14.533	236390.0	6624.78	36.604	VV
Picloram	14.610	293562.0	8580.05	37.796	VV
Acifluorfen	16.810	229055.0	6000.10	38.508	VV



4/10/15

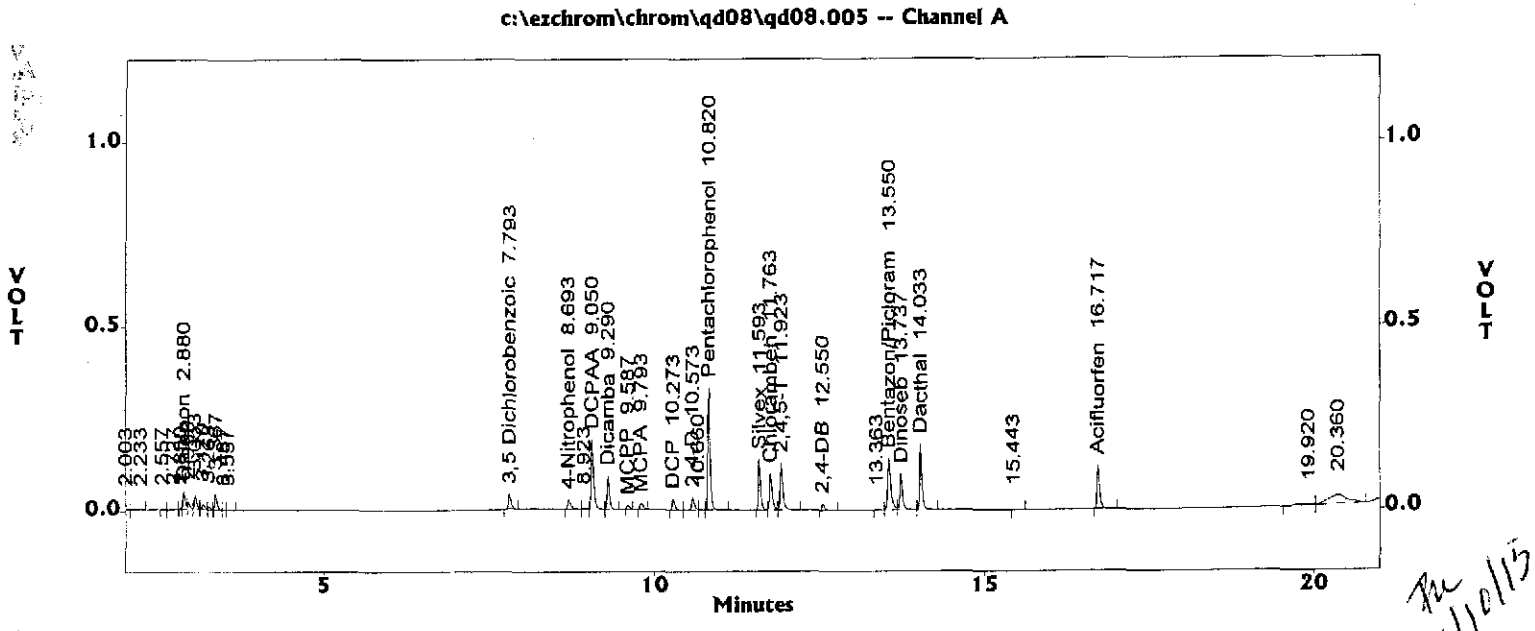
5051

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	109079.0	1656.60	63.721	xV
3,5 Dichlorobenzo	7.793	115094.0	1722.43	65.198	vv
4-Nitrophenol	8.693	84857.0	1289.87	63.595	BV
DCPAA	9.050	494353.0	750.10	655.060	vv
Dicamba	9.290	216364.0	3238.35	65.814	vv
MCPP	9.587	29818.0	8.42	3285.100	BI
MCPA	9.793	56310.0	15.83	3271.100	BI
DCP	10.273	80985.0	1193.88	66.045	BV
2,4-D	10.573	100684.0	1510.05	65.814	Vx
Pentachlorophenol	10.820	832103.0	12495.55	66.472	VB
Silvex	11.593	339802.0	5002.75	66.521	BV
Chloramben	11.763	273515.0	4132.75	65.527	VV
2,4,5-T	11.923	363884.0	5396.66	66.339	VV
2,4-DB	12.550	52693.0	801.45	66.262	BV
Bentazon/Picloram	13.550	477351.0	3540.81	132.286	VV
Dinoseb	13.737	275342.0	4088.80	66.143	VV
Dacthal	14.033	449214.0	6873.97	64.057	VB
Acifluorfen	16.717	326255.0	4699.56	67.389	vv



5052

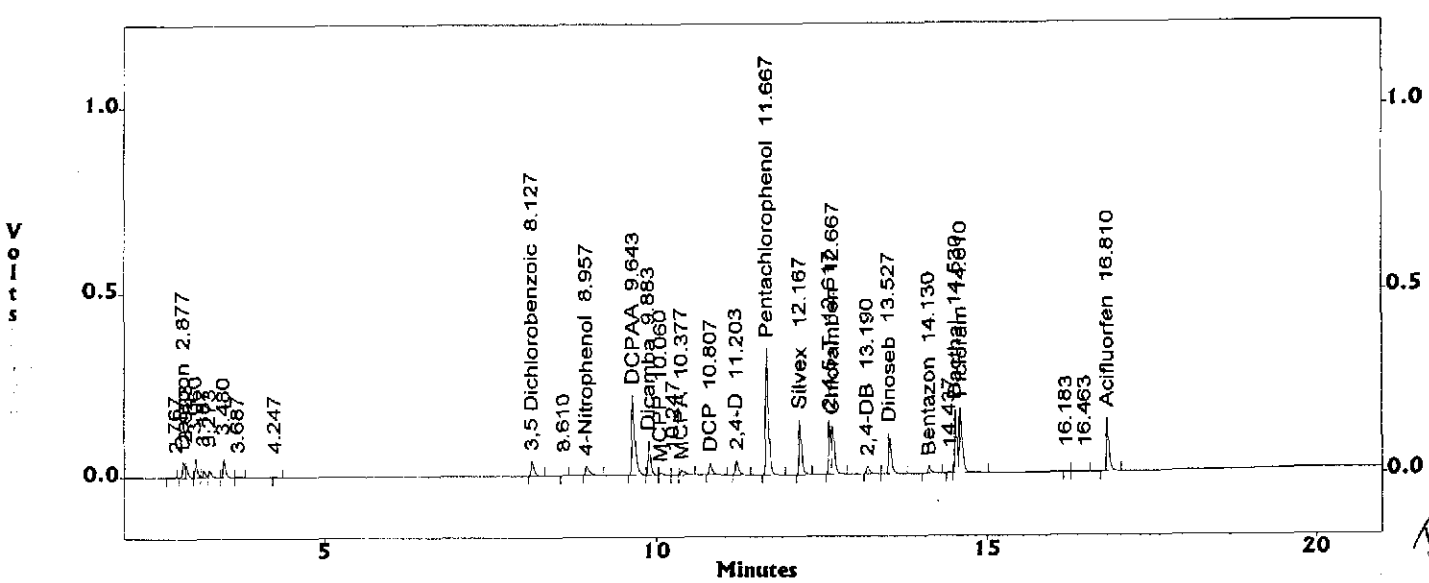
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	109402.0	1730.88	63.721	xS
3,5 Dichlorobenzoic	8.127	127742.0	1937.97	65.198	BV
4-Nitrophenol	8.957	95925.0	1457.43	63.595	BV
DCPAA	9.643	714961.0	1082.03	655.060	BV
Dicamba	9.883	254892.0	3890.32	65.814	VV
MCPP	10.060	27558.0	8.21	3285.100	VV
MCPA	10.377	61491.0	17.76	3271.100	VB
DCP	10.807	98014.0	1485.51	66.045	BB
2,4-D	11.203	126298.0	1894.33	65.814	BV
Pentachlorophenol	11.667	1001886.0	14739.16	66.472	VB
Silvex	12.167	395357.0	5953.99	66.521	BB
2,4,5-T	12.617	335369.0	4983.71	65.527	BS
Chloramben	12.667	390587.0	6012.12	66.339	Sx
2,4-DB	13.190	68438.0	1025.98	66.262	BV
Dinoseb	13.527	327888.0	4871.89	66.143	Vx
Bentazon	14.130	51611.0	803.13	66.143	BB
Dacthal	14.530	431578.0	6624.78	64.057	VV
Picloram	14.610	552804.0	8580.05	66.143	VV
Acifluorfen	16.810	408059.0	6000.10	67.389	VV

c:\ezchrom\chrom\qd08\qd08.005 -- Channel B



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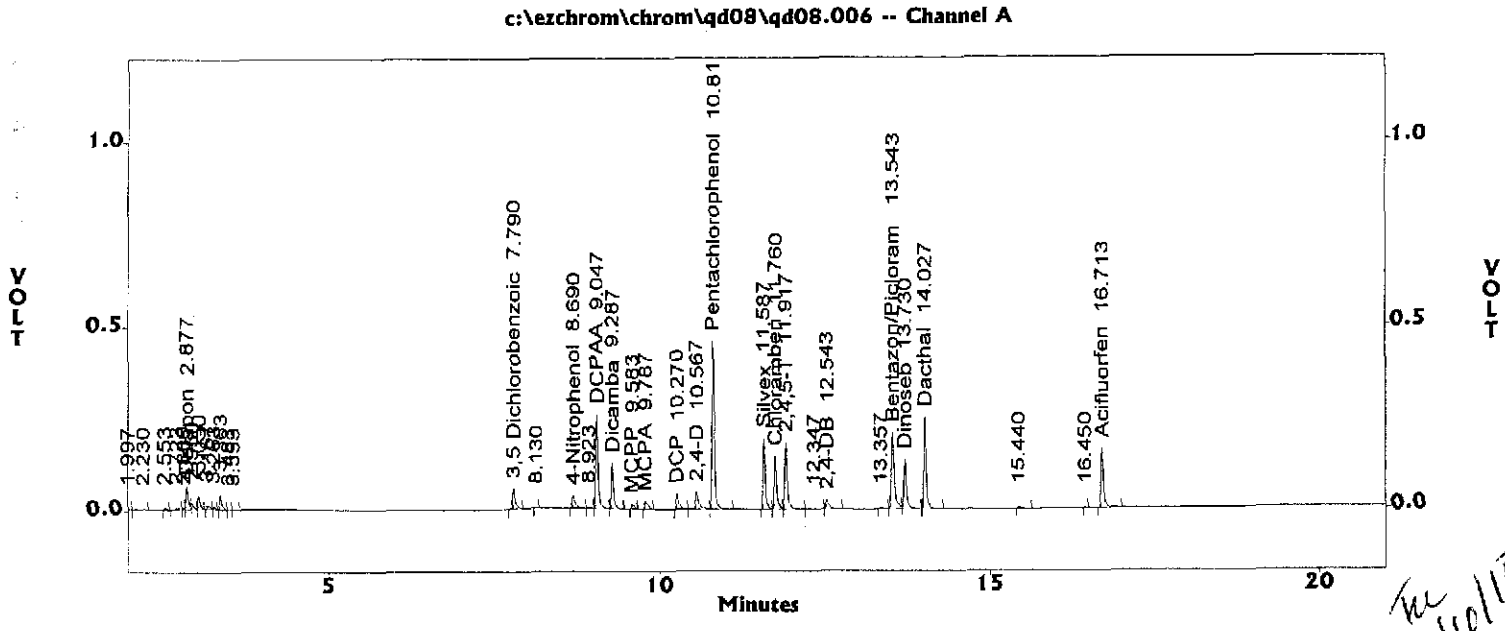
5053

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	150769.0	1656.60	91.030	xS
3,5 Dichlorobenzo	7.790	156164.0	1722.43	93.140	vv
4-Nitrophenol	8.690	114268.0	1289.87	90.850	BV
DCPAA	9.047	665980.0	750.10	935.800	vv
Dicamba	9.287	301254.0	3238.35	94.020	vv
MCPP	9.583	38372.0	8.42	4693.000	BI
MCPA	9.787	70480.0	15.83	4673.000	BI
DCP	10.270	111080.0	1193.88	94.350	BV
2,4-D	10.567	147315.0	1510.05	94.020	VV
Pentachlorophenol	10.817	1154990.0	12495.55	94.960	VB
Silvex	11.587	480286.0	5002.75	95.030	BV
Chloramben	11.760	397306.0	4132.75	93.610	VV
2,4,5-T	11.917	513643.0	5396.66	94.770	VV
2,4-DB	12.543	75070.0	801.45	94.660	VV
Bentazon/Picloram	13.543	688754.0	3540.81	188.980	VV
Dinoseb	13.730	372007.0	4088.80	94.490	VV
Dacthal	14.027	624679.0	6873.97	91.510	VB
Acifluorfen	16.713	444901.0	4699.56	96.270	vv



4/10/15

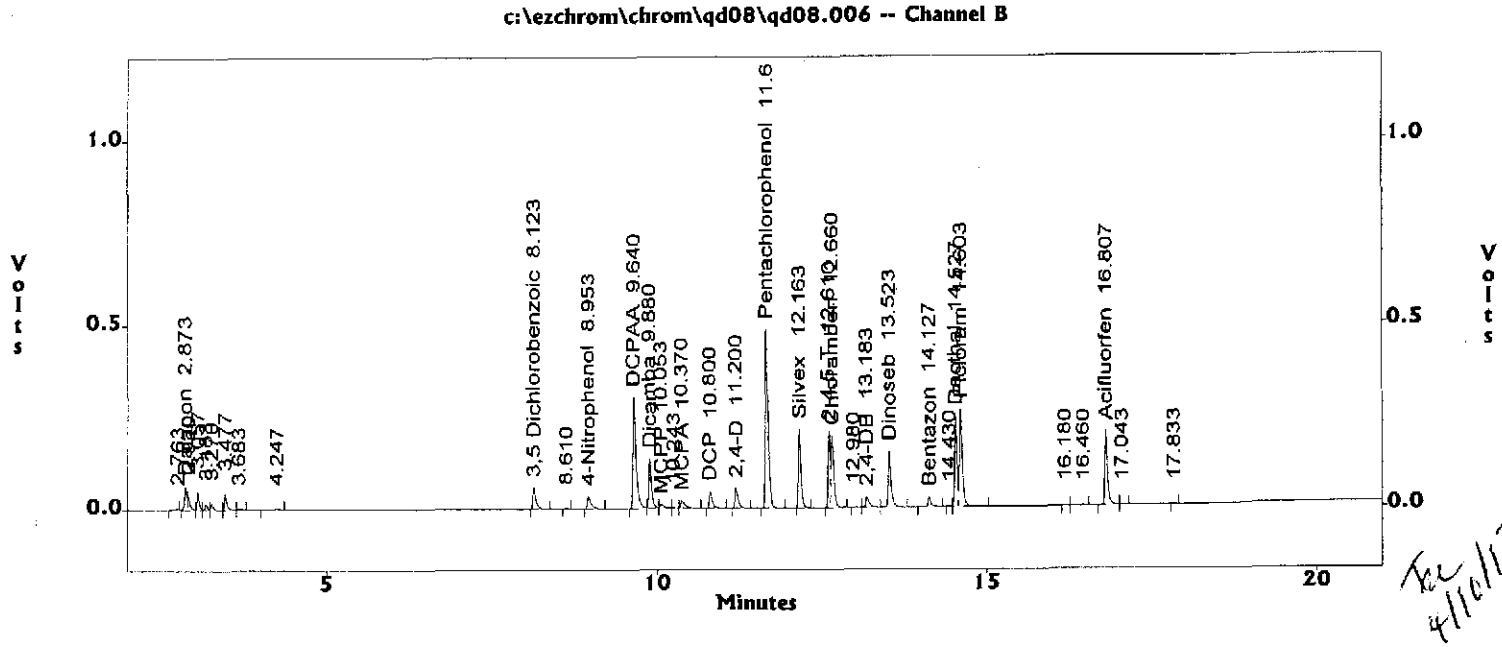
5054

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	155275.0	1730.88	91.030	xS
3,5 Dichlorobenzoic	8.123	177949.0	1937.97	93.140	BB
4-Nitrophenol	8.953	128503.0	1457.43	90.850	BV
DCPAA	9.640	982800.0	1082.03	935.800	BV
Dicamba	9.880	366379.0	3890.32	94.020	VV
MCPP	10.053	38647.0	8.21	4693.000	VV
MCPA	10.370	82280.0	17.76	4673.000	VB
DCP	10.800	137177.0	1485.51	94.350	BB
2,4-D	11.200	176618.0	1894.33	94.020	BV
Pentachlorophenol	11.663	1440250.0	14739.16	94.960	VB
Silvex	12.163	581388.0	5953.99	95.030	BB
2,4,5-T	12.610	462002.0	4983.71	93.610	BS
Chloramben	12.660	608728.0	6012.12	94.770	Sx
2,4-DB	13.183	97565.0	1025.98	94.660	VV
Dinoseb	13.523	455117.0	4871.89	94.490	Vx
Bentazon	14.127	77839.0	803.13	94.490	VB
Dacthal	14.527	620323.0	6624.78	91.510	VV
Picloram	14.603	843681.0	8580.05	94.490	VV
Acifluorfen	16.807	574884.0	6000.10	96.270	VV



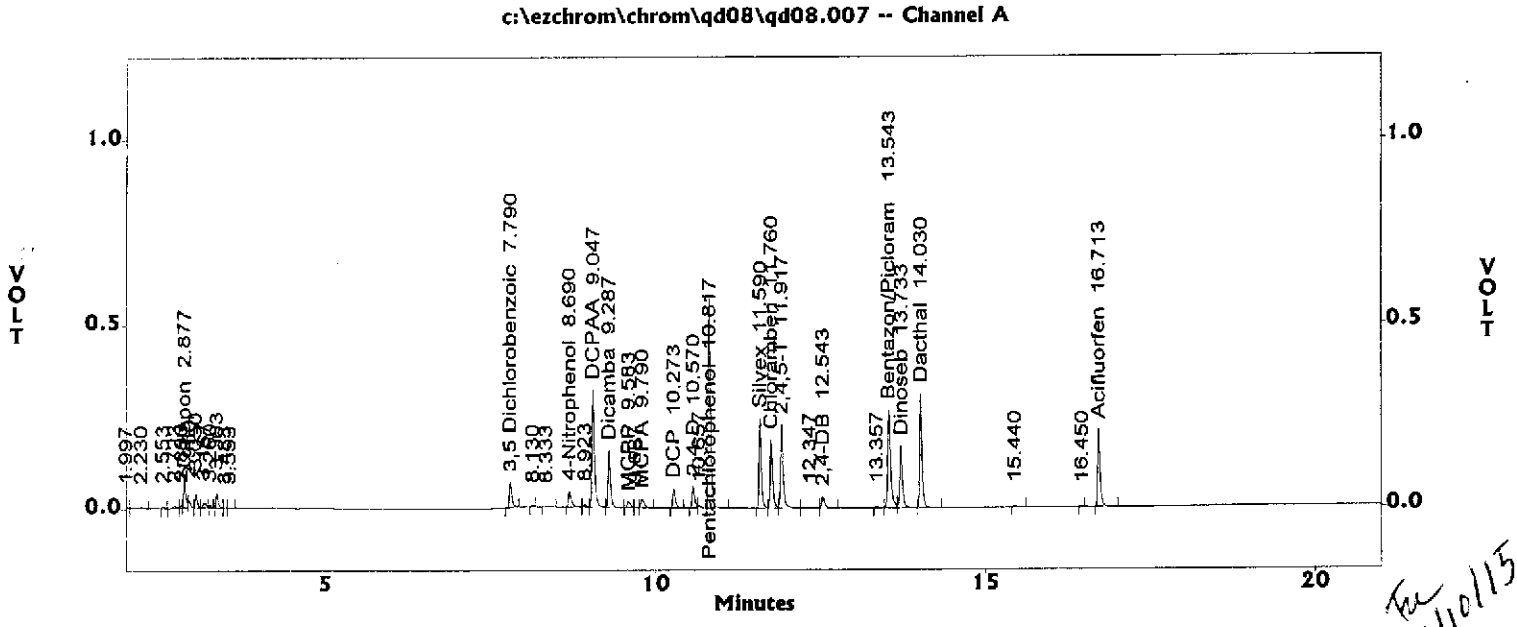
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0806
Acquired : Apr 08, 2015 17:34:21
Printed : Apr 09, 2015 09:48:47
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	184922.0	1656.60	118.339	SS
3,5 Dichlorobenzo	7.790	190910.0	1722.43	121.082	vv
4-Nitrophenol	8.690	140286.0	1289.87	118.105	BV
DCPAA	9.047	813136.0	750.10	1216.540	vv
Dicamba	9.287	375613.0	3238.35	122.226	vv
MCPP	9.583	48414.0	8.42	6100.900	VV
MCPA	9.790	83207.0	15.83	6074.900	VV
DCP	10.273	136641.0	1193.88	122.655	BV
2,4-D	10.570	161457.0	1510.05	122.226	VS
Pentachlorophenol	10.817	1434487.0	12495.55	123.448	VB
Silvex	11.590	599722.0	5002.75	123.539	BV
Chloramben	11.760	499502.0	4132.75	121.693	VV
2,4,5-T	11.917	634158.0	5396.66	123.201	VV
2,4-DB	12.543	93671.0	801.45	123.058	VV
Bentazon/Picloram	13.543	865529.0	3540.81	245.674	VV
Dinoseb	13.733	460225.0	4088.80	122.837	VV
Dacthal	14.030	777428.0	6873.97	118.963	VB
Acifluorfen	16.713	566335.0	4699.56	125.151	vv



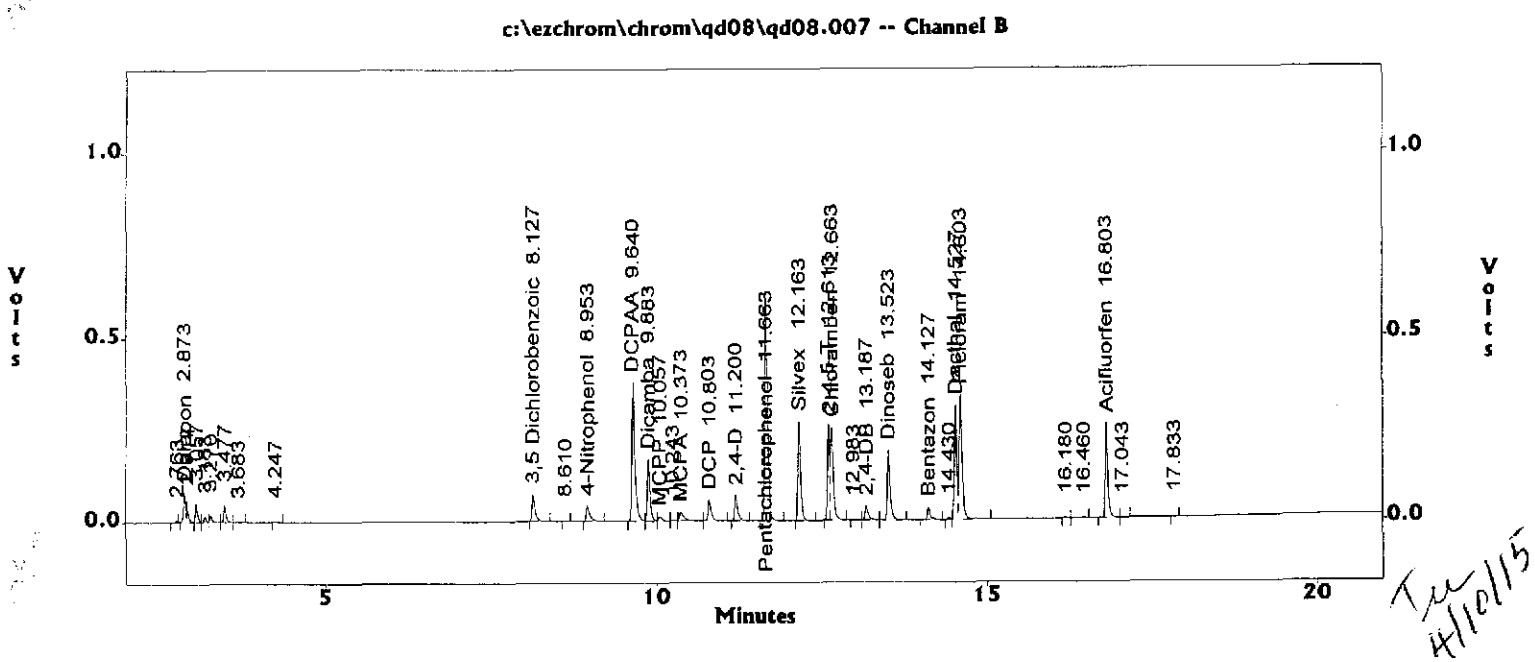
4/10/15

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0806
Acquired : Apr 08, 2015 17:34:21
Printed : Apr 09, 2015 09:48:47
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	192924.0	1730.88	118.339	MM
3,5 Dichlorobenzoic	8.127	222768.0	1937.97	121.082	BV
4-Nitrophenol	8.953	156547.0	1457.43	118.105	BV
DCPAA	9.640	1216560.0	1082.03	1216.540	BV
Dicamba	9.883	465644.0	3890.32	122.226	VV
MCPP	10.057	49861.0	8.21	6100.900	VV
MCPA	10.373	103228.0	17.76	6074.900	VV
DCP	10.803	172928.0	1485.51	122.655	VB
2,4-D	11.200	219939.0	1894.33	122.226	BV
Pentachlorophenol	11.663	1824080.0	14739.16	123.448	VB
Silvex	12.163	746772.0	5953.99	123.539	BV
2,4,5-T	12.613	603197.0	4983.71	121.693	VS
Chloramben	12.663	763704.0	6012.12	123.201	Sx
2,4-DB	13.187	120728.0	1025.98	123.058	VV
Dinoseb	13.523	571856.0	4871.89	122.837	Vx
Bentazon	14.127	99125.0	803.13	122.837	BB
Dacthal	14.527	791905.0	6624.78	118.963	VV
Picloram	14.603	1096835.0	8580.05	122.837	VV
Acifluorfen	16.803	744166.0	6000.10	125.151	VV



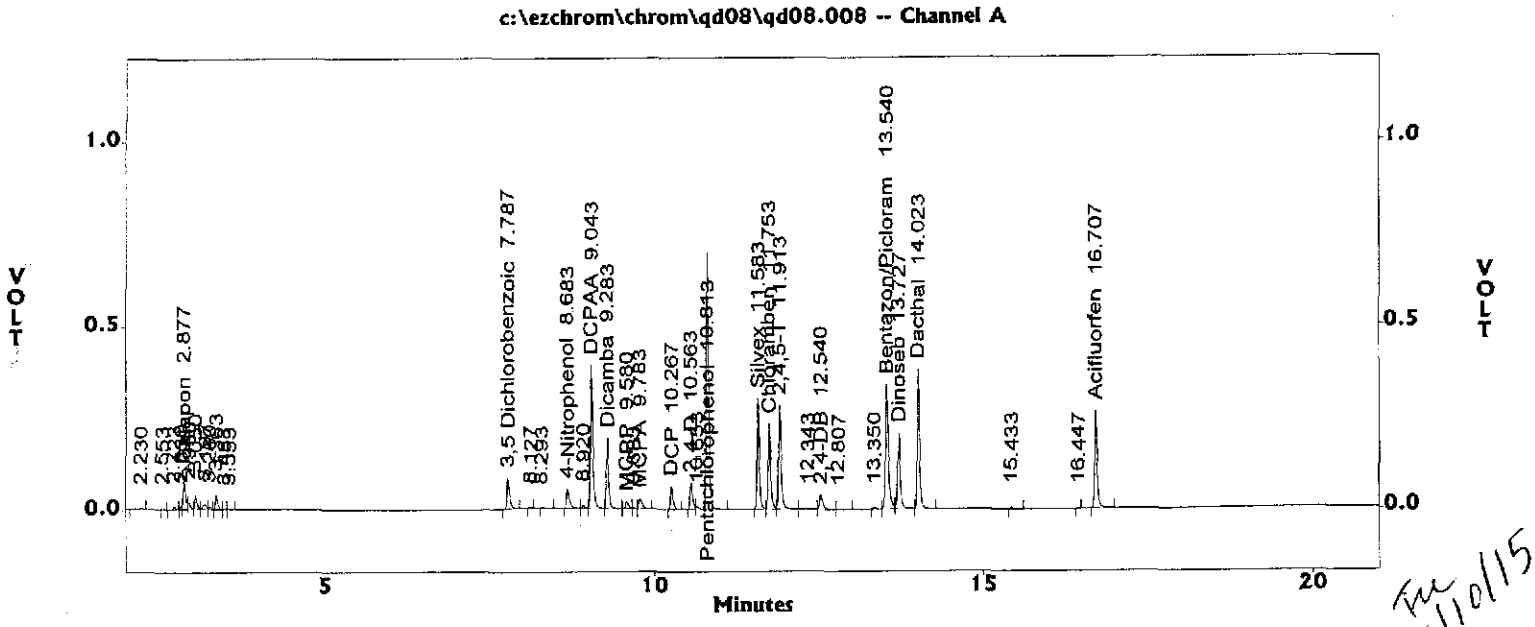
5057

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0807
Acquired : Apr 08, 2015 18:02:53
Printed : Apr 09, 2015 09:48:53
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	226682.0	1656.60	145.648	SS
3,5 Dichlorobenzo	7.787	234280.0	1722.43	149.024	vv
4-Nitrophenol	8.683	169638.0	1289.87	145.360	BV
DCPAA	9.043	983920.0	750.10	1497.280	vv
Dicamba	9.283	460022.0	3238.35	150.432	vv
MCPP	9.580	56636.0	8.42	7508.800	VV
MCPA	9.783	94323.0	15.83	7476.800	VV
DCP	10.267	165810.0	1193.88	150.960	BV
2,4-D	10.563	195903.0	1510.05	150.432	VS
Pentachlorophenol	10.813	1755239.0	12495.55	151.936	VB
Silvex	11.583	735580.0	5002.75	152.048	BV
Chloramben	11.753	619813.0	4132.75	149.776	VV
2,4,5-T	11.913	768898.0	5396.66	151.632	VV
2,4-DB	12.540	117830.0	801.45	151.456	VV
Bentazon/Picloram	13.540	1076789.0	3540.81	302.368	VV
Dinoseb	13.727	558697.0	4088.80	151.184	VV
Dacthal	14.023	951399.0	6873.97	146.416	VB
Acifluorfen	16.707	697596.0	4699.56	154.032	vv



4/10/15

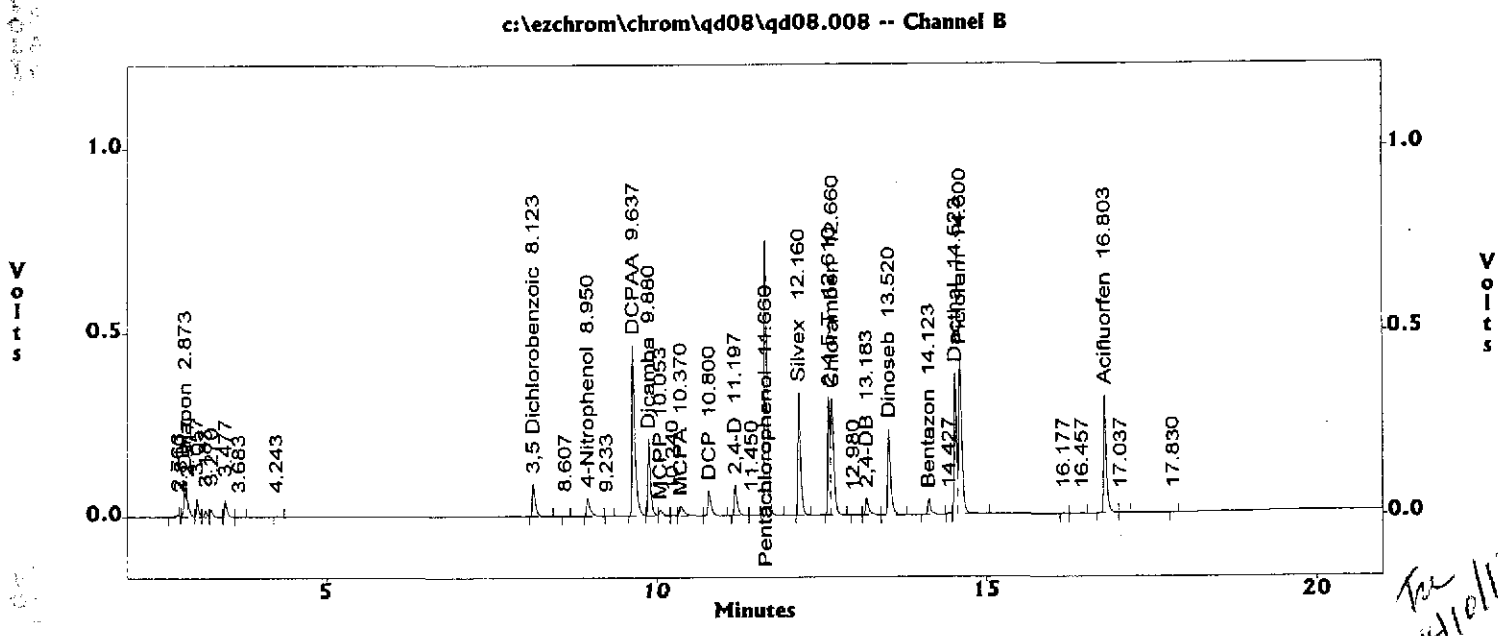
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0807
Acquired : Apr 08, 2015 18:02:53
Printed : Apr 09, 2015 09:48:54
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	250996.0	1730.88	145.648	xS
3,5 Dichlorobenzoic	8.123	273300.0	1937.97	149.024	BV
4-Nitrophenol	8.950	188082.0	1457.43	145.360	BV
DCPAA	9.637	1489031.0	1082.03	1497.280	BV
Dicamba	9.880	581571.0	3890.32	150.432	VV
MCPP	10.053	61142.0	8.21	7508.800	VV
MCPA	10.370	121086.0	17.76	7476.800	VV
DCP	10.800	212688.0	1485.51	150.960	VB
2,4-D	11.197	270646.0	1894.33	150.432	BV
Pentachlorophenol	11.660	2271329.0	14739.16	151.936	VB
Silvex	12.160	938413.0	5953.99	152.048	BB
2,4,5-T	12.610	746512.0	4983.71	149.776	BS
Chloramben	12.660	973632.0	6012.12	151.632	Sx
2,4-DB	13.183	150151.0	1025.98	151.456	VV
Dinoseb	13.520	707712.0	4871.89	151.184	Vx
Bentazon	14.123	126048.0	803.13	151.184	BV
Dacthal	14.523	984509.0	6624.78	146.416	VV
Picloram	14.600	1411045.0	8580.05	151.184	VV
Acifluorfen	16.803	934036.0	6000.10	154.032	VV

c:\ezchrom\chrom\qd08\qd08.008 -- Channel B



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5059

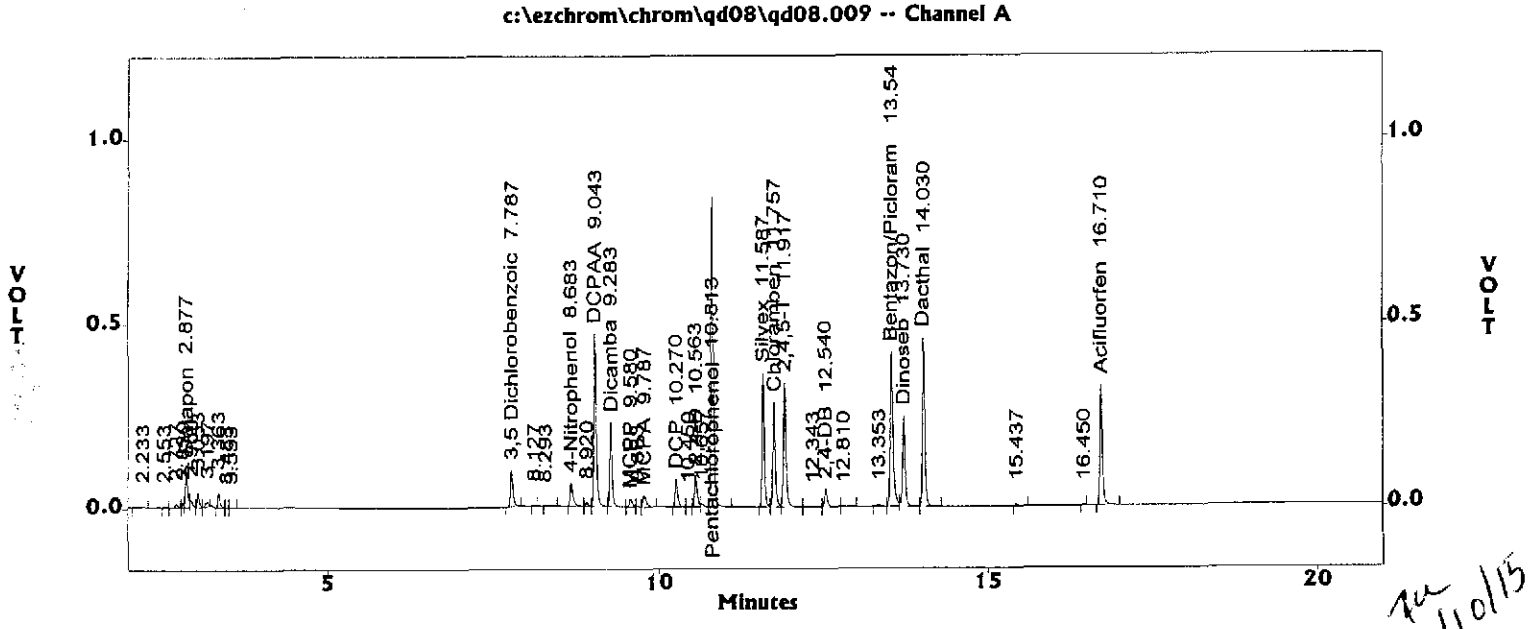
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0808
Acquired : Apr 08, 2015 18:31:36
Printed : Apr 09, 2015 09:49:01
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	272222.0	1656.60	182.060	SS
3,5 Dichlorobenzo	7.787	275487.0	1722.43	186.280	vv
4-Nitrophenol	8.683	202105.0	1289.87	181.700	BV
DCPAA	9.043	1174981.0	750.10	1871.600	vv
Dicamba	9.283	556237.0	3238.35	188.040	vv
MCPP	9.580	64811.0	8.42	9386.000	VV
MCPA	9.787	106124.0	15.83	-1.000	VV
DCP	10.270	198719.0	1193.88	188.700	BV
2,4-D	10.563	234331.0	1510.05	188.040	VS
Pentachlorophenol	10.813	2123075.0	12495.55	189.920	VB
Silvex	11.587	890701.0	5002.75	190.060	BV
Chloramben	11.757	754518.0	4132.75	187.220	VV
2,4,5-T	11.917	927897.0	5396.66	189.540	VV
2,4-DB	12.540	147689.0	801.45	189.320	VV
Bentazon/Picloram	13.543	1309029.0	3540.81	377.960	VV
Dinoseb	13.730	673476.0	4088.80	188.980	VV
Dacthal	14.030	1146474.0	6873.97	183.020	VB
Acifluorfen	16.710	853242.0	4699.56	192.540	vv

c:\ezchrom\chrom\qd08\qd08.009 -- Channel A



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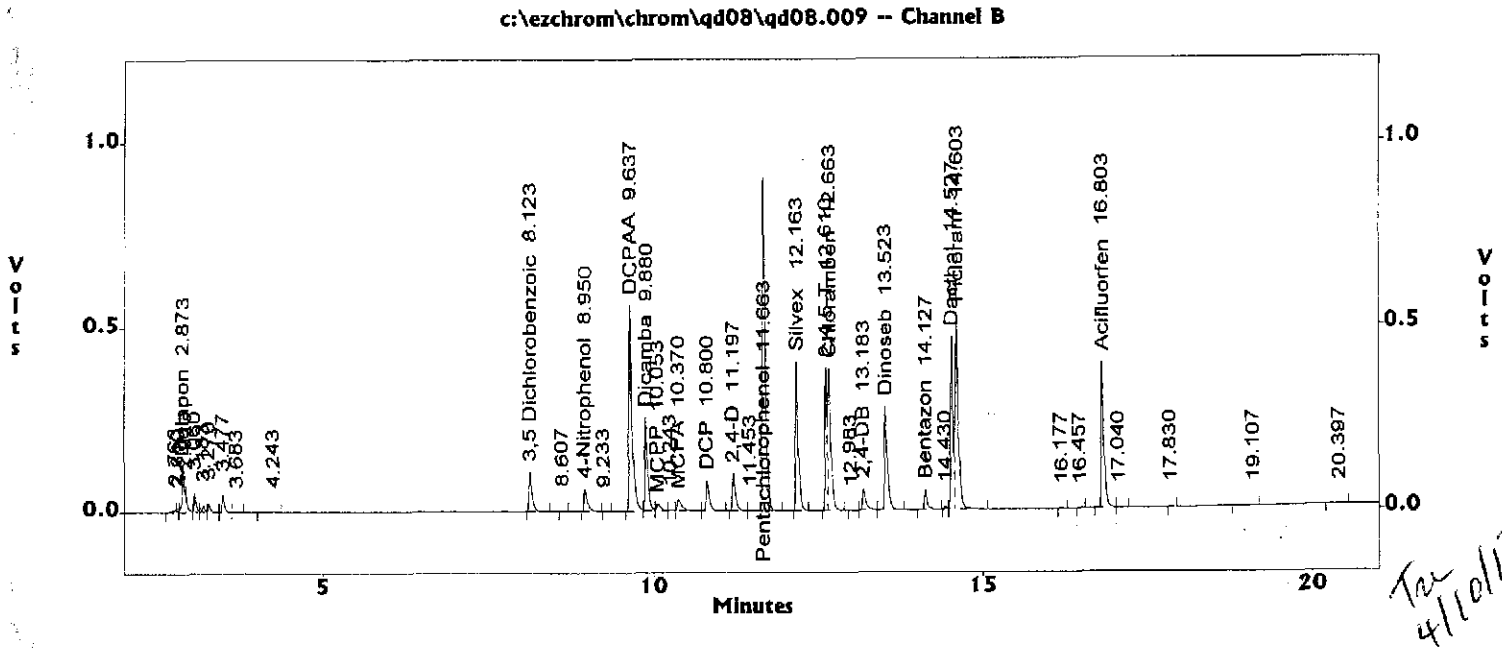
5060

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0808
Acquired : Apr 08, 2015 18:31:36
Printed : Apr 09, 2015 09:49:01
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	330884.0	1730.88	182.060	xS
3,5 Dichlorobenzoic	8.123	330857.0	1937.97	186.280	BV
4-Nitrophenol	8.950	223682.0	1457.43	181.700	BV
DCPAA	9.637	1796801.0	1082.03	1871.600	BV
Dicamba	9.880	715082.0	3890.32	188.040	VV
MCPP	10.053	73702.0	8.21	9386.000	VV
MCPA	10.370	141196.0	17.76	9346.000	VV
DCP	10.800	257454.0	1485.51	188.700	VB
2,4-D	11.197	327840.0	1894.33	188.040	BV
Pentachlorophenol	11.663	2784160.0	14739.16	189.920	VB
Silvex	12.163	1157805.0	5953.99	190.060	BB
2,4,5-T	12.610	869713.0	4983.71	187.220	BS
Chloramben	12.663	1245791.0	6012.12	189.540	Sx
2,4-DB	13.183	181938.0	1025.98	189.320	VV
Dinoseb	13.523	862098.0	4871.89	188.980	Vx
Bentazon	14.127	156732.0	803.13	188.980	BV
Dacthal	14.527	1214382.0	6624.78	183.020	VV
Picloram	14.603	1756604.0	8580.05	188.980	VV
Acifluorfen	16.803	1161291.0	6000.10	192.540	VV



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5061

SECOND SOURCE VERIFICATION

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08010A 04/08/2015 19:00
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.877	2.863	2.891	91.0	1656.6	155836	94.07	3		20
3,5-Dichlorobenzo	7.787	7.765	7.809	93.1	1722.4	144264	83.76	-10		20
4-Nitrophenol	8.687	8.666	8.708	90.8	1289.9	119778	92.86	2		20
Dicamba	9.283	9.268	9.298	94.0	3238.3	314105	97.00	3		20
Dichloroprop	10.270	10.252	10.288	94.3	1193.9	119536	100.12	6		20
2,4-D	10.567	10.547	10.587	94.0	1510.1	140414	92.99	-1		20
Pentachlorophenol	10.813	10.795	10.831	95.0	12495.6	1173716	93.93	-1		20
2,4,5-TP(Silvex)	11.587	11.571	11.603	95.0	5002.7	494677	98.88	4		20
Chloramben	11.757	11.741	11.773	93.6	4132.7	414904	100.39	7		20
2,4,5-T	11.917	11.896	11.938	94.8	5396.7	544211	100.84	6		20
2,4-DB	12.540	12.518	12.562	94.7	801.400	74774	93.30	-1		20
Bentazon/Picloram	13.543	13.522	13.564	189.0	3540.8	720655	203.53	8		20
Dinoseb	13.730	13.712	13.748	94.5	4088.8	386970	94.64	0		20
Dacthal	14.027	14.006	14.048	91.5	6874.0	650430	94.62	3		20
Acifluorfen	16.710	16.692	16.728	96.3	4699.6	46364D	98.66	2		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.043	9.027	9.059	935.8	750.100	686706	915.49	-2		20

TW 4/10/15

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD08010B 04/08/2015 19:00
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.873	2.857	2.889	91.0	1730.9	151015	87.25	-4		20
3,5-Dichlorobenzo	8.123	8.107	8.139	93.1	1938.0	170121	87.78	-6		20
4-Nitrophenol	8.950	8.932	8.968	90.8	1457.4	131837	90.46	-0		20
Dicamba	9.877	9.861	9.893	94.0	3890.3	381414	98.04	4		20
Dichloroprop	10.800	10.786	10.814	94.3	1485.5	149707	100.78	7		20
2,4-D	11.197	11.181	11.213	94.0	1894.3	172102	90.85	-3		20
Pentachlorophenol	11.660	11.642	11.678	95.0	14739.2	1473344	99.96	5		20
2,4,5-TP(Silvex)	12.160	12.146	12.174	95.0	5954.0	605701	101.73	7		20
Chloramben	12.660	12.630	12.690	93.6	6012.1	627649	104.40	12		20
2,4,5-T	12.610	12.594	12.626	94.8	4983.7	509009	102.14	8		20
2,4-DB	13.183	13.159	13.207	94.7	1026.0	95673	93.25	-1		20
Dinoseb	13.520	13.502	13.538	94.5	4871.9	471782	96.84	2		20
Bentazon	14.123	14.107	14.139	94.5	803.100	78704	98.00	4		20
Dacthal	14.523	14.507	14.539	91.5	6624.8	642595	97.00	6		20
Picloram	14.600	14.576	14.624	94.5	8580.1	882118	102.81	9		20
Acifluorfen	16.803	16.785	16.821	96.3	6000.1	610451	101.74	6		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.637	9.621	9.653	935.8	1082.0	999048	923.31	-1		20

Tw 4/10/15

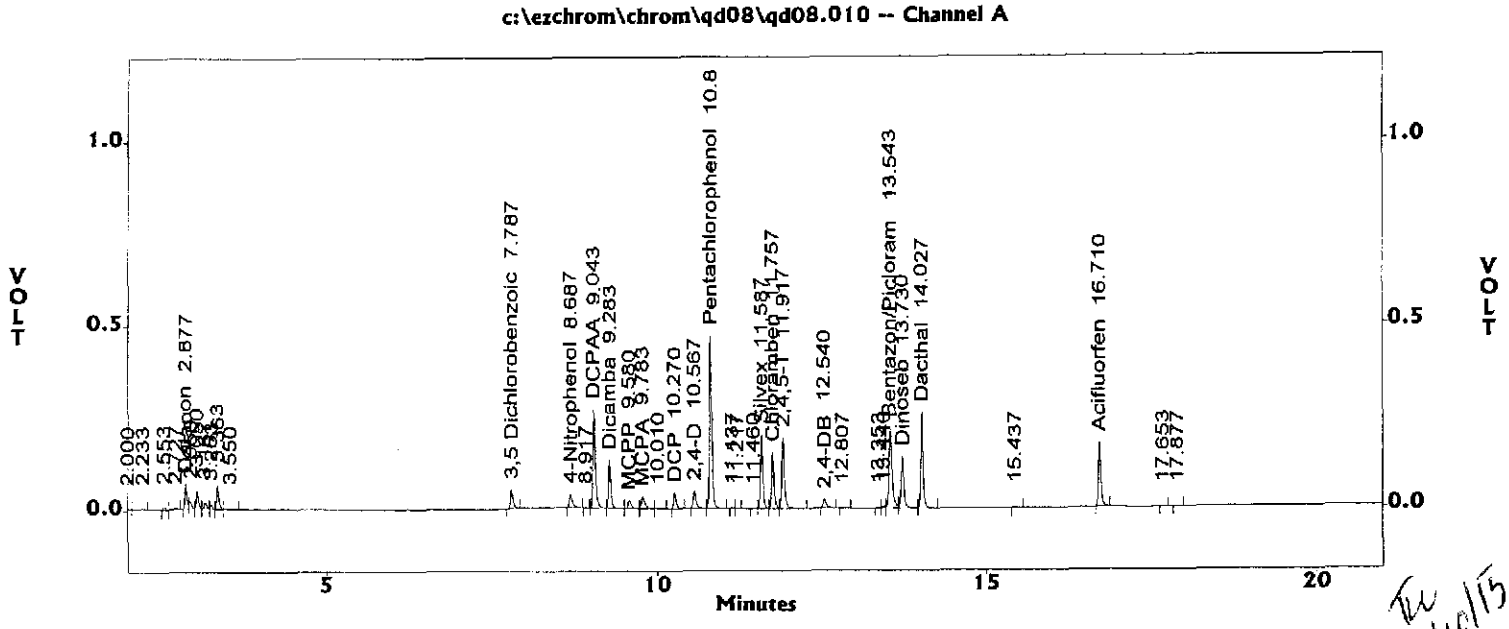
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08001
Acquired : Apr 08, 2015 19:00:21
Printed : Apr 09, 2015 09:49:08
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	155836.0	1656.60	94.070	xV
3,5 Dichlorobenzo	7.787	144264.0	1722.43	83.756	vv
4-Nitrophenol	8.687	119778.0	1289.87	92.860	BV
DCPAA	9.043	686706.0	750.10	915.486	vv
Dicamba	9.283	314105.0	3238.35	96.995	vv
MCPP	9.580	69714.0	8.42	8282.514	VV
MCPA	9.783	109447.0	15.83	6913.623	VV
DCP	10.270	119536.0	1193.88	100.124	BV
2,4-D	10.567	140414.0	1510.05	92.986	VV
Pentachlorophenol	10.813	1173716.0	12495.55	93.931	VB
Silvex	11.587	494677.0	5002.75	98.881	VV
Chloramben	11.757	414904.0	4132.75	100.394	VV
2,4,5-T	11.917	544211.0	5396.66	100.842	VB
2,4-DB	12.540	74774.0	801.45	93.299	BB
Bentazon/Picloram	13.543	720655.0	3540.81	203.528	VV
Dinoseb	13.730	386970.0	4088.80	94.642	VV
Dacthal	14.027	650430.0	6873.97	94.622	VB
Acifluorfen	16.710	463640.0	4699.56	98.656	vv

c:\ezchrom\chrom\qd08\qd08.010 -- Channel A



TW 4/10/15

5065

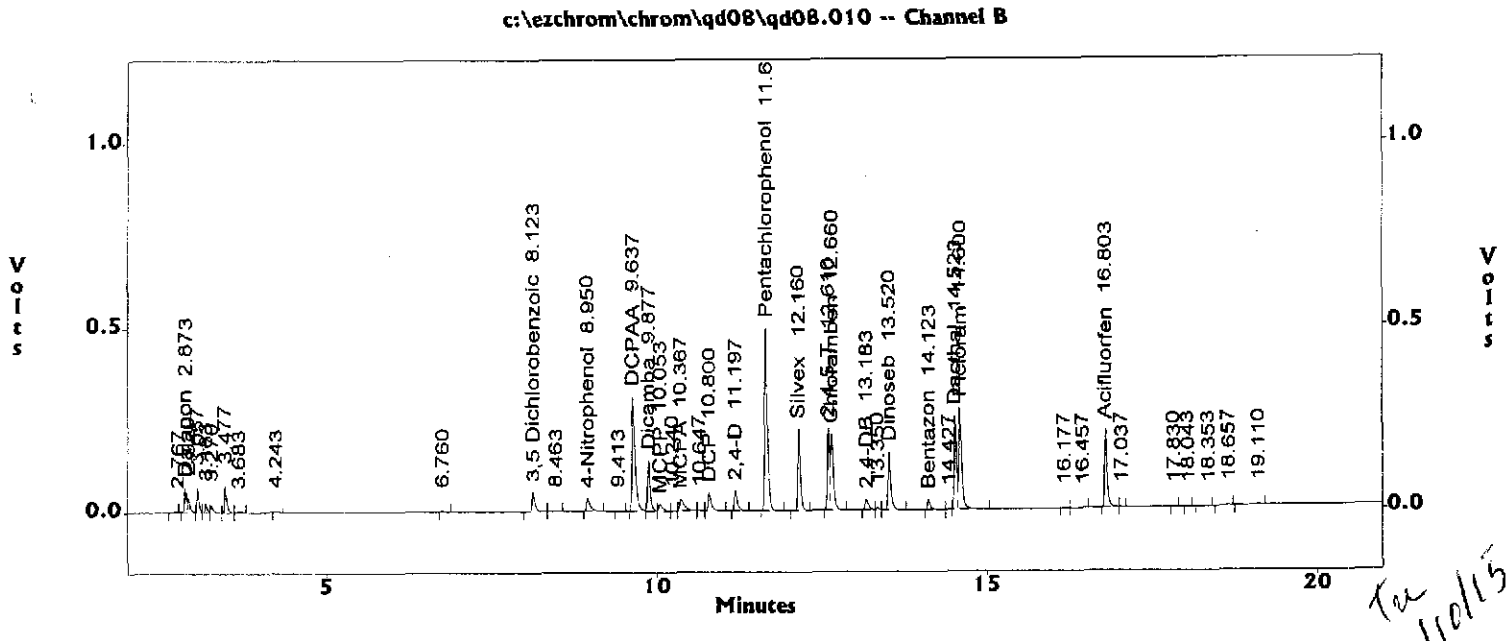
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
Method : c:\ezchrom\methods\he09d08.met
Sample ID : IHE09D08001
Acquired : Apr 08, 2015 19:00:21
Printed : Apr 09, 2015 09:49:08
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	151015.0	1730.88	87.247	xS
3,5 Dichlorobenzoic	8.123	170121.0	1937.97	87.783	BV
4-Nitrophenol	8.950	131837.0	1457.43	90.459	BB
DCPAA	9.637	999048.0	1082.03	923.312	VV
Dicamba	9.877	381414.0	3890.32	98.042	VV
MCPP	10.053	72184.0	8.21	8786.874	VV
MCPA	10.367	141662.0	17.76	7978.510	VV
DCP	10.800	149707.0	1485.51	100.778	VB
2,4-D	11.197	172102.0	1894.33	90.851	BV
Pentachlorophenol	11.660	1473344.0	14739.16	99.961	BB
Silvex	12.160	605701.0	5953.99	101.730	BV
2,4,5-T	12.610	509009.0	4983.71	102.135	VS
Chloramben	12.660	627649.0	6012.12	104.397	Sx
2,4-DB	13.183	95673.0	1025.98	93.251	BV
Dinoseb	13.520	471782.0	4871.89	96.837	VB
Bentazon	14.123	78704.0	803.13	97.996	BV
Dacthal	14.523	642595.0	6624.78	96.999	VV
Picloram	14.600	882118.0	8580.05	102.810	VB
Acifluorfen	16.803	610451.0	6000.10	101.740	VV

c:\ezchrom\chrom\qd08\qd08.010 -- Channel B



Tu 4/10/15

5066

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24002A 04/24/2015 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.640	13.622	13.658	94.5	4088.8	405145	99.09	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.980	8.964	8.996	935.8	750.100	668719	891.51	-5		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24002B 04/24/2015 17:22
CONC UNIT : ppb

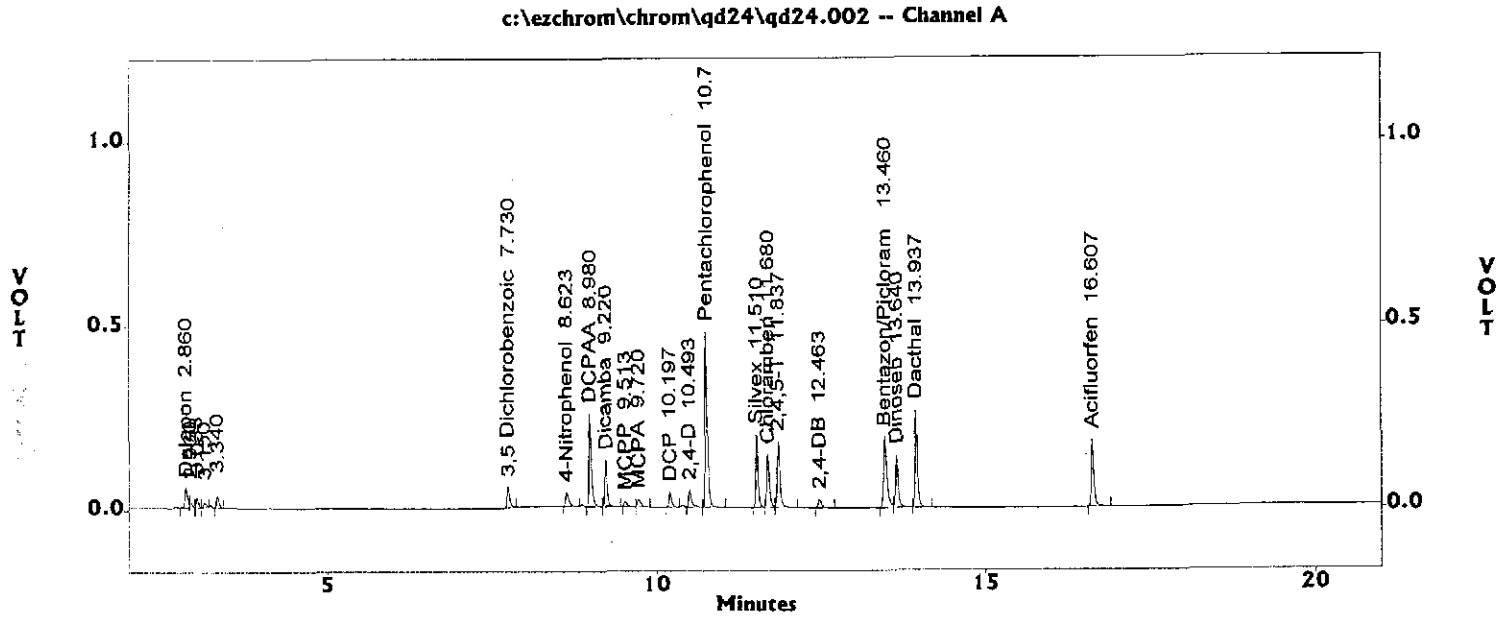
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.510	13.492	13.528	94.5	4871.9	474311	97.36	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.623	9.607	9.639	935.8	1082.0	1000647	924.79	-1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08013
Acquired : Apr 24, 2015 17:22:29
Printed : Apr 27, 2015 12:07:30
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	169268.0	1656.60	102.178	VS
3,5 Dichlorobenzo	7.730	159363.0	1722.43	92.522	vv
4-Nitrophenol	8.623	126412.0	1289.87	98.003	BV
DCPAA	8.980	668719.0	750.10	891.506	vv
Dicamba	9.220	308949.0	3238.35	95.403	vv
MCPP	9.513	47640.0	8.42	5659.967	VV
MCPA	9.720	76016.0	15.83	4801.831	VV
DCP	10.197	110717.0	1193.88	92.737	BV
2,4-D	10.493	148479.0	1510.05	98.327	VV
Pentachlorophenol	10.740	1205751.0	12495.55	96.494	VB
Silvex	11.510	501513.0	5002.75	100.248	BV
Chloramben	11.680	413371.0	4132.75	100.023	VV
2,4,5-T	11.837	527229.0	5396.66	97.695	VB
2,4-DB	12.463	74064.0	801.45	92.413	BV
Bentazon/Picloram	13.460	701387.0	3540.81	198.086	VV
Dinoseb	13.640	405145.0	4088.80	99.087	VV
Dacthal	13.937	672315.0	6873.97	97.806	VB
Acifluorfen	16.607	502957.0	4699.56	107.022	vv

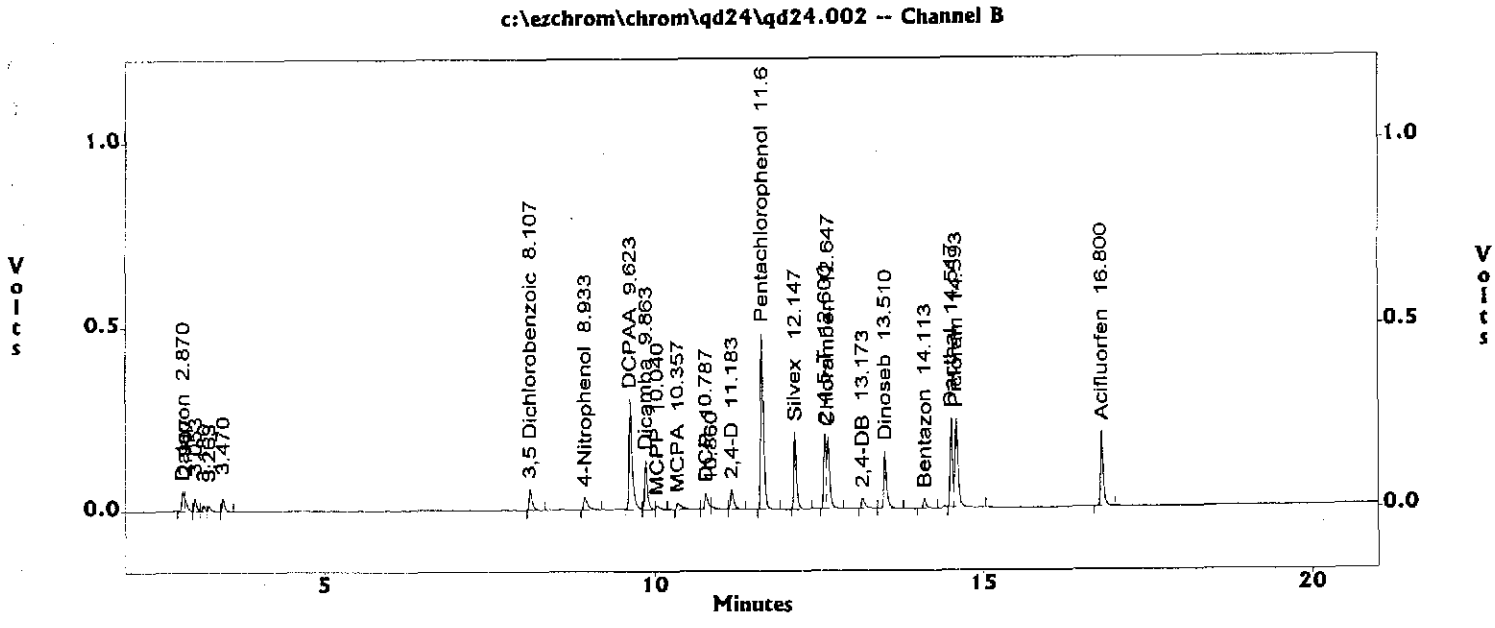


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08013
Acquired : Apr 24, 2015 17:22:29
Printed : Apr 27, 2015 12:07:30
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	156815.0	1730.88	90.598	SS
3,5 Dichlorobenzoic	8.107	180263.0	1937.97	93.017	BV
4-Nitrophenol	8.933	134758.0	1457.43	92.463	VV
DCPAA	9.623	1000647.0	1082.03	924.790	VV
Dicamba	9.863	369306.0	3890.32	94.930	VV
MCPP	10.040	42513.0	8.21	5175.058	VV
MCPA	10.357	88786.0	17.76	5000.494	VV
DCP	10.787	136336.0	1485.51	91.777	Vx
2,4-D	11.183	176976.0	1894.33	93.424	VV
Pentachlorophenol	11.647	1448524.0	14739.16	98.277	VB
Silvex	12.147	583558.0	5953.99	98.011	BB
2,4,5-T	12.600	447047.0	4983.71	89.702	BS
Chloramben	12.647	615903.0	6012.12	102.444	Sx
2,4-DB	13.173	98292.0	1025.98	95.803	VV
Dinoseb	13.510	474311.0	4871.89	97.357	Vx
Bentazon	14.113	75910.0	803.13	94.518	BB
Dacthal	14.517	632402.0	6624.78	95.460	VV
Picloram	14.593	792378.0	8580.05	92.351	VV
Acifluorfen	16.800	596879.0	6000.10	99.478	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24015A 04/25/2015 01:01
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.613	13.595	13.631	94.5	4088.8	421232	103.02	9		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.960	8.944	8.976	935.8	750.100	684883	913.05	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24015B 04/25/2015 01:01
CONC UNIT : ppb

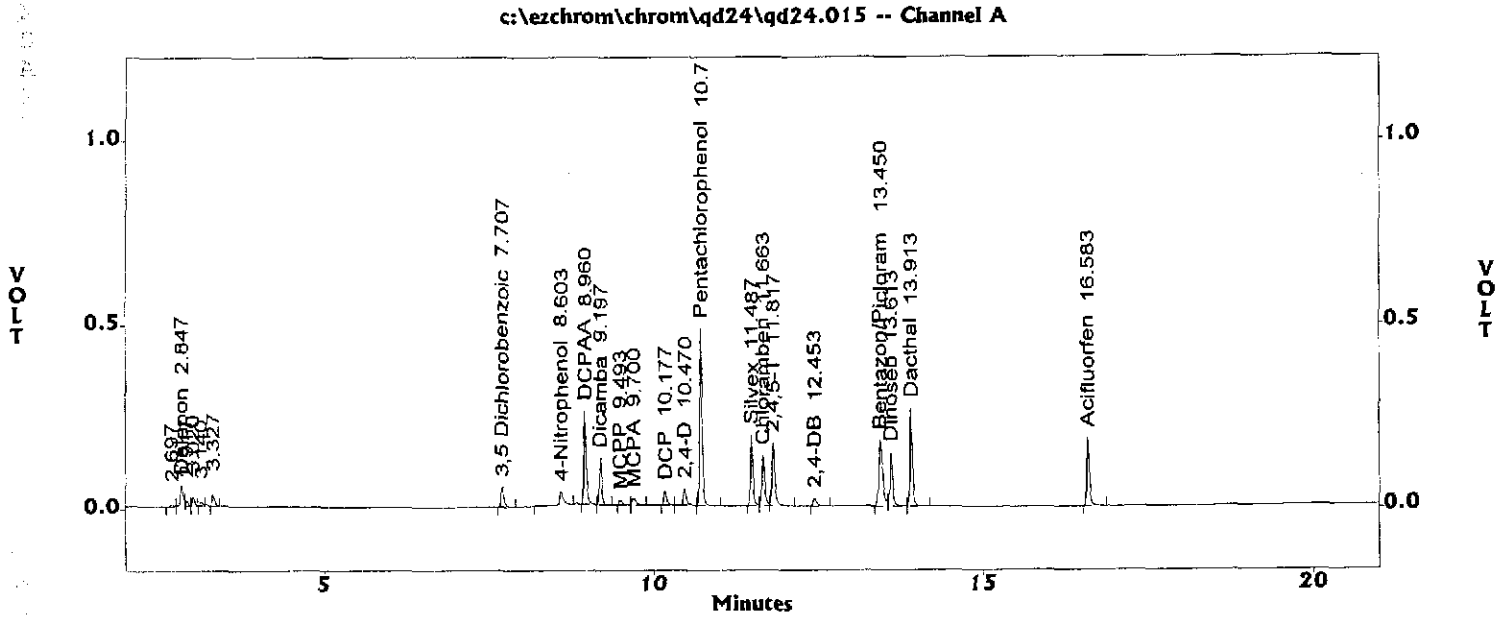
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.490	13.472	13.508	94.5	4871.9	485166	99.58	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.603	9.587	9.619	935.8	1082.0	1021705	944.25	1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.015
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08014
Acquired : Apr 25, 2015 01:01:13
Printed : Apr 27, 2015 12:27:06
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	180024.0	1656.60	108.671	VS
3,5 Dichlorobenzo	7.707	171538.0	1722.43	99.591	BV
4-Nitrophenol	8.603	143480.0	1289.87	111.236	BV
DCPAA	8.960	684883.0	750.10	913.055	VV
Dicamba	9.197	314667.0	3238.35	97.169	VV
MCPP	9.493	46359.0	8.42	5507.775	BV
MCPA	9.700	74316.0	15.83	4694.444	VV
DCP	10.177	110391.0	1193.88	92.464	BV
2,4-D	10.470	150541.0	1510.05	99.693	VV
Pentachlorophenol	10.713	1226117.0	12495.55	98.124	VB
Silvex	11.487	509375.0	5002.75	101.819	BV
Chloramben	11.663	421831.0	4132.75	102.070	VV
2,4,5-T	11.817	548348.0	5396.66	101.609	VB
2,4-DB	12.453	73903.0	801.45	92.212	BV
Bentazon/Picloram	13.450	718006.0	3540.81	202.780	VV
Dinoseb	13.613	421232.0	4088.80	103.021	VV
Dacthal	13.913	697622.0	6873.97	101.487	VB
Acifluorfen	16.583	523999.0	4699.56	111.500	VV

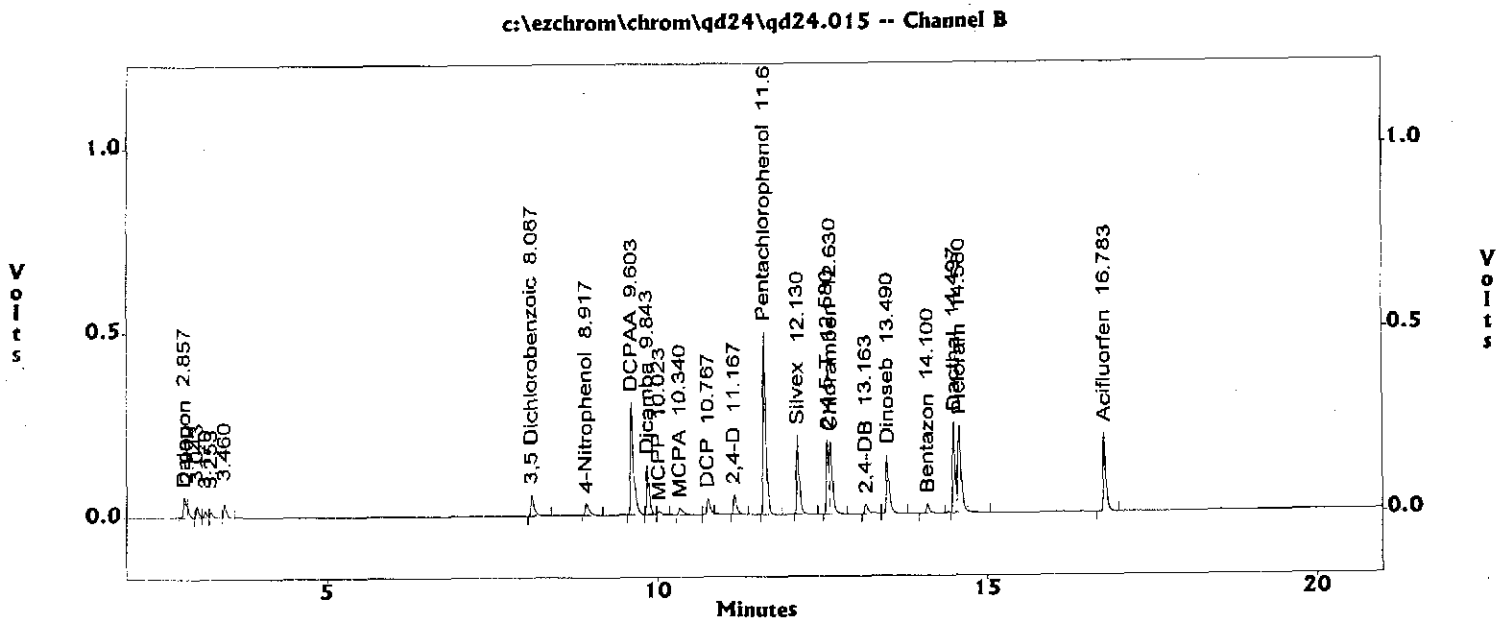


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.015
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08014
Acquired : Apr 25, 2015 01:01:13
Printed : Apr 27, 2015 12:27:06
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	175617.0	1730.88	101.461	VS
3,5 Dichlorobenzoic	8.087	184351.0	1937.97	95.126	BV
4-Nitrophenol	8.917	135110.0	1457.43	92.704	BV
DCPAA	9.603	1021705.0	1082.03	944.251	VV
Dicamba	9.843	378108.0	3890.32	97.192	VV
MCPP	10.023	41435.0	8.21	5043.834	VV
MCPA	10.340	88592.0	17.76	4989.568	VV
DCP	10.767	138338.0	1485.51	93.125	Vx
2,4-D	11.167	180264.0	1894.33	95.160	VV
Pentachlorophenol	11.623	1489737.0	14739.16	101.073	VB
Silvex	12.130	596910.0	5953.99	100.254	BB
2,4,5-T	12.580	465276.0	4983.71	93.359	BS
Chloramben	12.630	627461.0	6012.12	104.366	Sx
2,4-DB	13.163	101062.0	1025.98	98.503	VV
Dinoseb	13.490	485166.0	4871.89	99.585	Vx
Bentazon	14.100	76792.0	803.13	95.616	VV
Dacthal	14.497	653026.0	6624.78	98.573	VV
Picloram	14.580	813403.0	8580.05	94.802	VB
Acifluorfen	16.783	634597.0	6000.10	105.764	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24027A 04/25/2015 08:19
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.623	13.605	13.641	94.5	4088.8	425812	104.14	10		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.973	8.957	8.989	935.8	750.100	681463	908.50	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24027B 04/25/2015 08:19
CONC UNIT : ppb

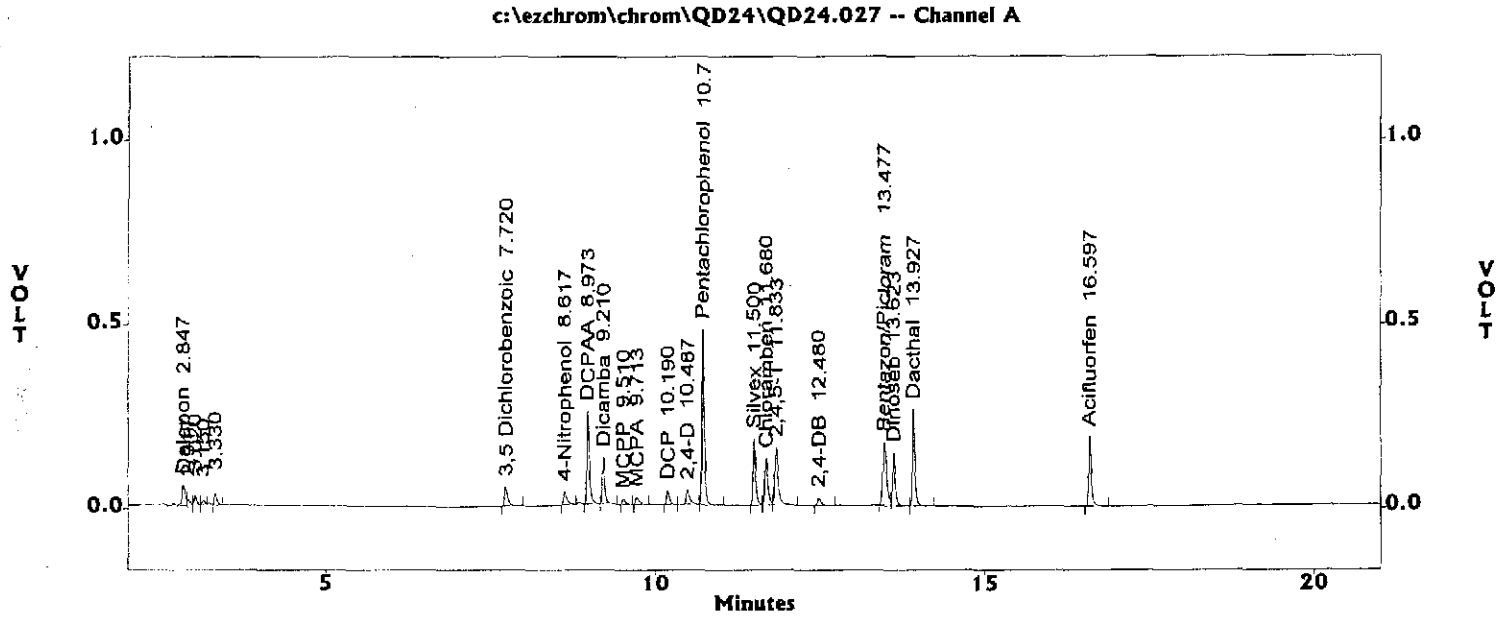
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.497	13.479	13.515	94.5	4871.9	475091	97.52	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.613	9.597	9.629	935.8	1082.0	1010987	934.35	-0		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.027
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08015
Acquired : Apr 25, 2015 08:19:56
Printed : Apr 27, 2015 12:26:28
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	181983.0	1656.60	109.853	VS
3,5 Dichlorobenzo	7.720	177941.0	1722.43	103.308	vv
4-Nitrophenol	8.617	127627.0	1289.87	98.945	BV
DCPAA	8.973	681463.0	750.10	908.496	vv
Dicamba	9.210	314086.0	3238.35	96.990	vv
MCPP	9.510	43275.0	8.42	5141.374	BI
MCPA	9.713	72467.0	15.83	4577.645	BB
DCP	10.190	110249.0	1193.88	92.345	BV
2,4-D	10.487	147103.0	1510.05	97.416	VV
Pentachlorophenol	10.720	1227256.0	12495.55	98.215	VB
Silvex	11.500	510083.0	5002.75	101.961	BV
Chloramben	11.680	419897.0	4132.75	101.602	VV
2,4,5-T	11.833	558743.0	5396.66	103.535	VV
2,4-DB	12.480	72846.0	801.45	90.893	BV
Bentazon/Picloram	13.477	717458.0	3540.81	202.625	VV
Dinoseb	13.623	425812.0	4088.80	104.141	VV
Dacthal	13.927	701368.0	6873.97	102.032	VB
Acifluorfen	16.597	528417.0	4699.56	112.440	vv

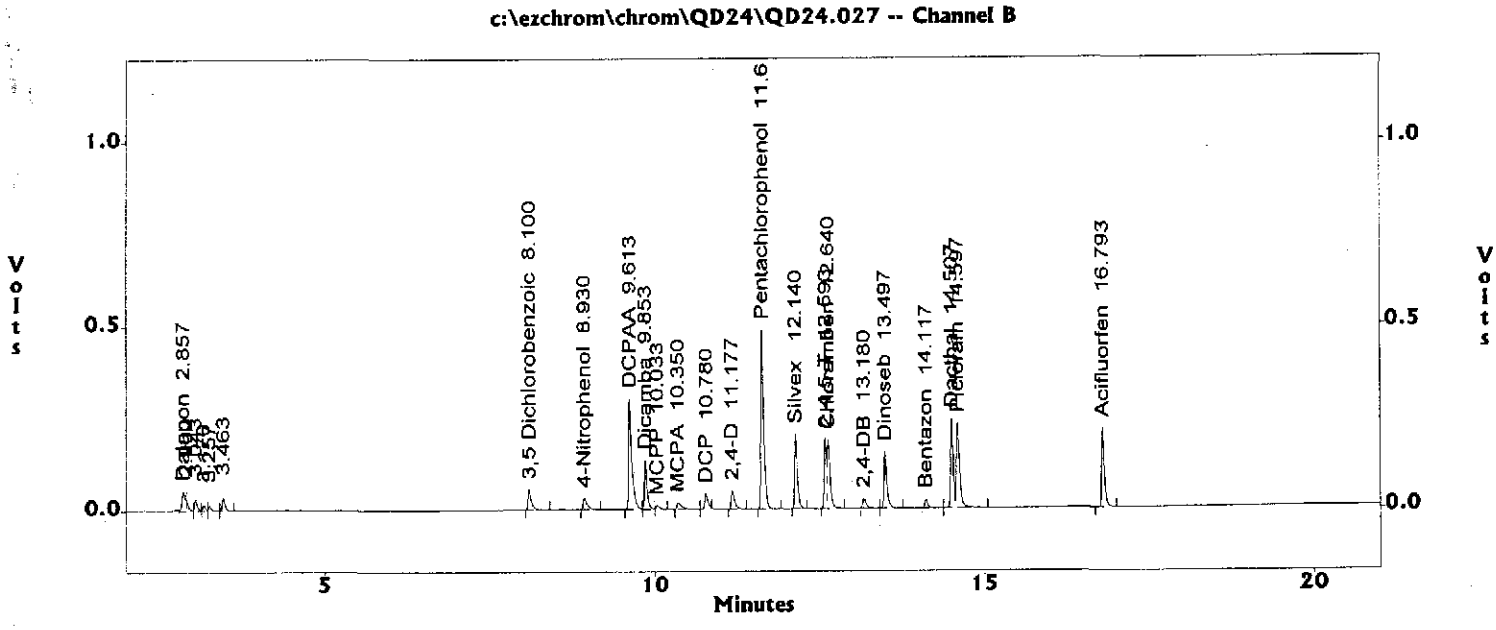


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.027
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08015
Acquired : Apr 25, 2015 08:19:56
Printed : Apr 27, 2015 12:26:28
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	176741.0	1730.88	102.110	VS
3,5 Dichlorobenzoic	8.100	183053.0	1937.97	94.456	BV
4-Nitrophenol	8.930	131433.0	1457.43	90.181	BV
DCPAA	9.613	1010987.0	1082.03	934.346	BV
Dicamba	9.853	373526.0	3890.32	96.014	VV
MCPP	10.033	39130.0	8.21	4763.249	VV
MCPA	10.350	85232.0	17.76	4800.330	VV
DCP	10.780	133082.0	1485.51	89.587	Vx
2,4-D	11.177	179679.0	1894.33	94.851	BV
Pentachlorophenol	11.630	1476441.0	14739.16	100.171	VB
Silvex	12.140	586817.0	5953.99	98.559	BB
2,4,5-T	12.593	452262.0	4983.71	90.748	BS
Chloramben	12.640	630952.0	6012.12	104.947	Sx
2,4-DB	13.180	97320.0	1025.98	94.856	BV
Dinoseb	13.497	475091.0	4871.89	97.517	VB
Bentazon	14.117	75604.0	803.13	94.137	BV
Dacthal	14.507	661611.0	6624.78	99.869	VV
Picloram	14.597	806385.0	8580.05	93.984	VB
Acifluorfen	16.793	638036.0	6000.10	106.338	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24037A 04/25/2015 14:24
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.620	13.602	13.638	94.5	4088.8	459350	112.34	19		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.970	8.954	8.986	935.8	750.100	773311	1030.94	10		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD080068 04/08/2015 17:05
Conc Cont LFID & Datetime: QD240378 04/25/2015 14:24
CONC UNIT : ppb

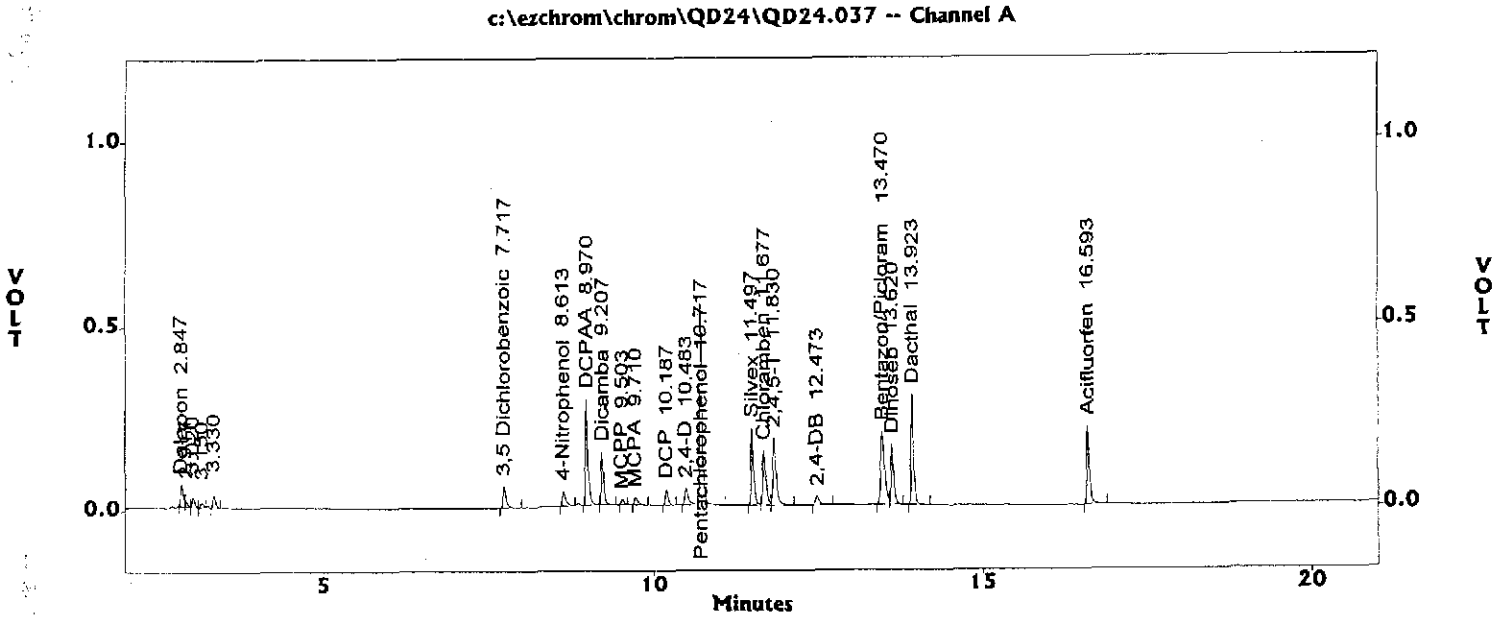
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.493	13.475	13.511	94.5	4871.9	543163	111.49	18		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.610	9.594	9.626	935.8	1082.0	1152110	1064.77	14		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.037
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08016
Acquired : Apr 25, 2015 14:24:40
Printed : Apr 27, 2015 12:32:26
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.847	177221.0	1656.60	106.979	BS
3,5 Dichlorobenzo	7.717	201851.0	1722.43	117.190	VV
4-Nitrophenol	8.613	144874.0	1289.87	112.316	BV
DCPAA	8.970	773311.0	750.10	1030.944	VV
Dicamba	9.207	360367.0	3238.35	111.281	VV
MCPP	9.503	40896.0	8.42	4858.732	BI
MCPA	9.710	77432.0	15.83	4891.277	BB
DCP	10.187	126114.0	1193.88	105.634	BV
2,4-D	10.483	168079.0	1510.05	111.307	VV
Pentachlorophenol	10.717	1410334.0	12495.55	112.867	VV
Silvex	11.497	592026.0	5002.75	118.340	BV
Chloramben	11.677	488347.0	4132.75	118.165	VV
2,4,5-T	11.830	648787.0	5396.66	120.220	VV
2,4-DB	12.473	84298.0	801.45	105.182	VV
Bentazon/Picloram	13.470	827993.0	3540.81	233.843	VV
Dinoseb	13.620	459350.0	4088.80	112.344	VI
Dacthal	13.923	793301.0	6873.97	115.406	BB
Acifluorfen	16.593	598269.0	4699.56	127.303	VV

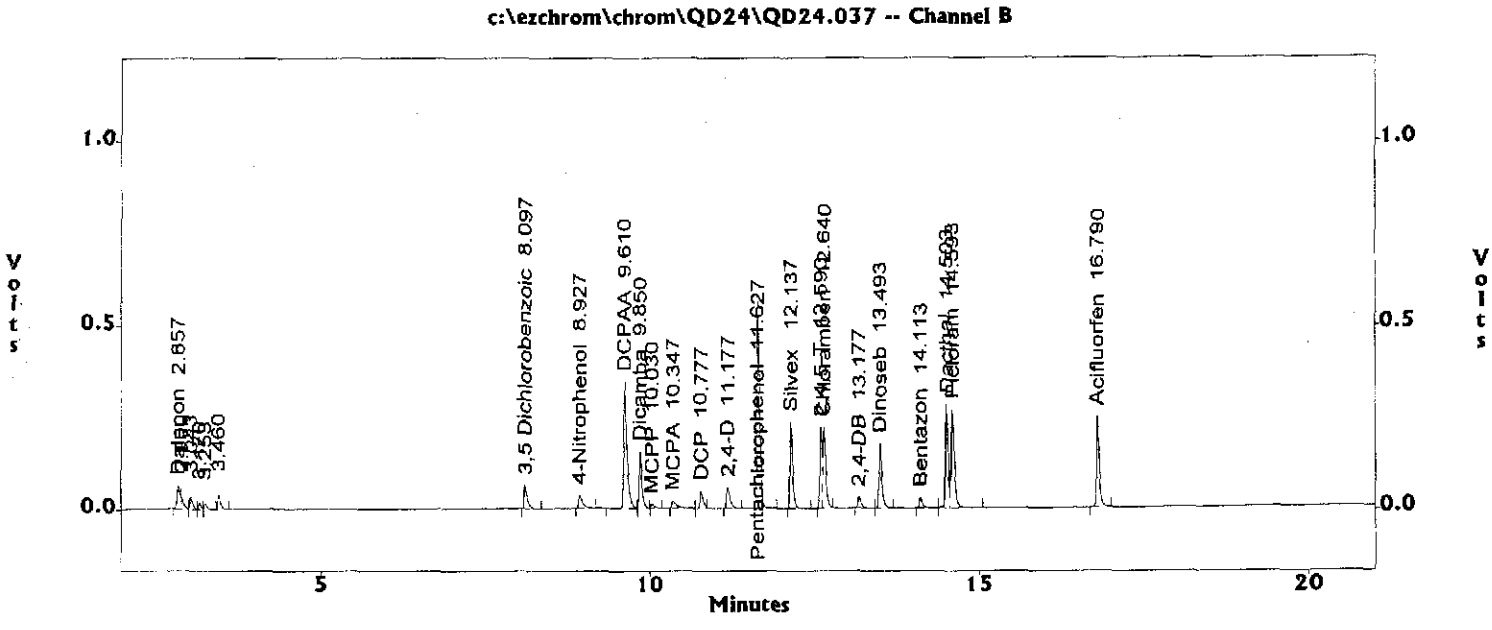


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\QD24\QD24.037
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08016
Acquired : Apr 25, 2015 14:24:40
Printed : Apr 27, 2015 12:32:26
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	200722.0	1730.88	115.965	VS
3,5 Dichlorobenzoic	8.097	209812.0	1937.97	108.264	BV
4-Nitrophenol	8.927	148511.0	1457.43	101.899	BV
DCPAA	9.610	1152110.0	1082.03	1064.771	VV
Dicamba	9.850	429250.0	3890.32	110.338	VV
MCPP	10.030	39005.0	8.21	4748.033	VV
MCPA	10.347	93289.0	17.76	5254.106	BV
DCP	10.777	154324.0	1485.51	103.886	Vx
2,4-D	11.177	206403.0	1894.33	108.958	BV
Pentachlorophenol	11.627	1712662.0	14739.16	116.198	VB
Silvex	12.137	691104.0	5953.99	116.074	BB
2,4,5-T	12.590	511213.0	4983.71	102.577	BS
Chloramben	12.640	731957.0	6012.12	121.747	SI
2,4-DB	13.177	111970.0	1025.98	109.135	BV
Dinoseb	13.493	543163.0	4871.89	111.489	VI
Bentazon	14.113	88683.0	803.13	110.422	BV
Dacthal	14.503	775234.0	6624.78	117.020	VV
Picloram	14.593	958125.0	8580.05	111.669	VB
Acifluorfen	16.790	736599.0	6000.10	122.764	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24039A 04/27/2015 13:56
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.633	13.615	13.651	94.5	4088.8	415493	101.62	8		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.977	8.961	8.993	935.8	750.100	694842	926.33	-1		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD080068 04/08/2015 17:05
Conc Cont LFID & Datetime: QD240398 04/27/2015 13:56
CONC UNIT : ppb

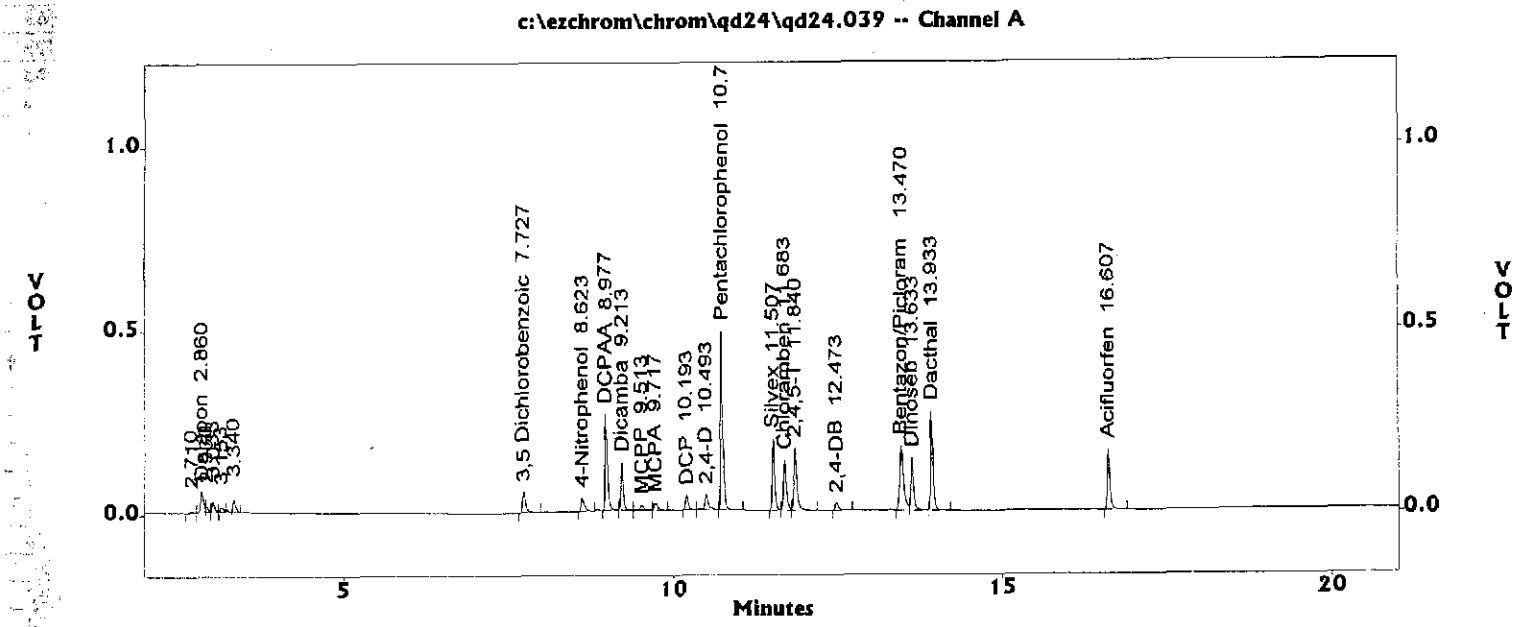
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.507	13.489	13.525	94.5	4871.9	461965	94.82	0		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	9.620	9.604	9.636	935.8	1082.0	1025607	947.86	1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.039
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08017
Acquired : Apr 27, 2015 13:56:59
Printed : Apr 27, 2015 14:57:19
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	173777.0	1656.60	104.900	VS
3,5 Dichlorobenzo	7.727	180095.0	1722.43	104.559	vv
4-Nitrophenol	8.623	133070.0	1289.87	103.165	BV
DCPAA	8.977	694842.0	750.10	926.332	vv
Dicamba	9.213	318136.0	3238.35	98.240	vv
MCPP	9.513	45352.0	8.42	5388.136	VV
MCPA	9.717	73270.0	15.83	4628.369	VV
DCP	10.193	110842.0	1193.88	92.842	BV
2,4-D	10.493	162901.0	1510.05	107.878	VV
Pentachlorophenol	10.733	1235726.0	12495.55	98.893	VB
Silvex	11.507	516825.0	5002.75	103.308	BV
Chloramben	11.683	419725.0	4132.75	101.561	VV
2,4,5-T	11.840	547204.0	5396.66	101.397	VB
2,4-DB	12.473	74520.0	801.45	92.982	BV
Bentazon/Picloram	13.470	713491.0	3540.81	201.505	VV
Dinoseb	13.633	415493.0	4088.80	101.617	VV
Dacthal	13.933	700356.0	6873.97	101.885	VB
Acifluorfen	16.607	455973.0	4699.56	97.025	vv

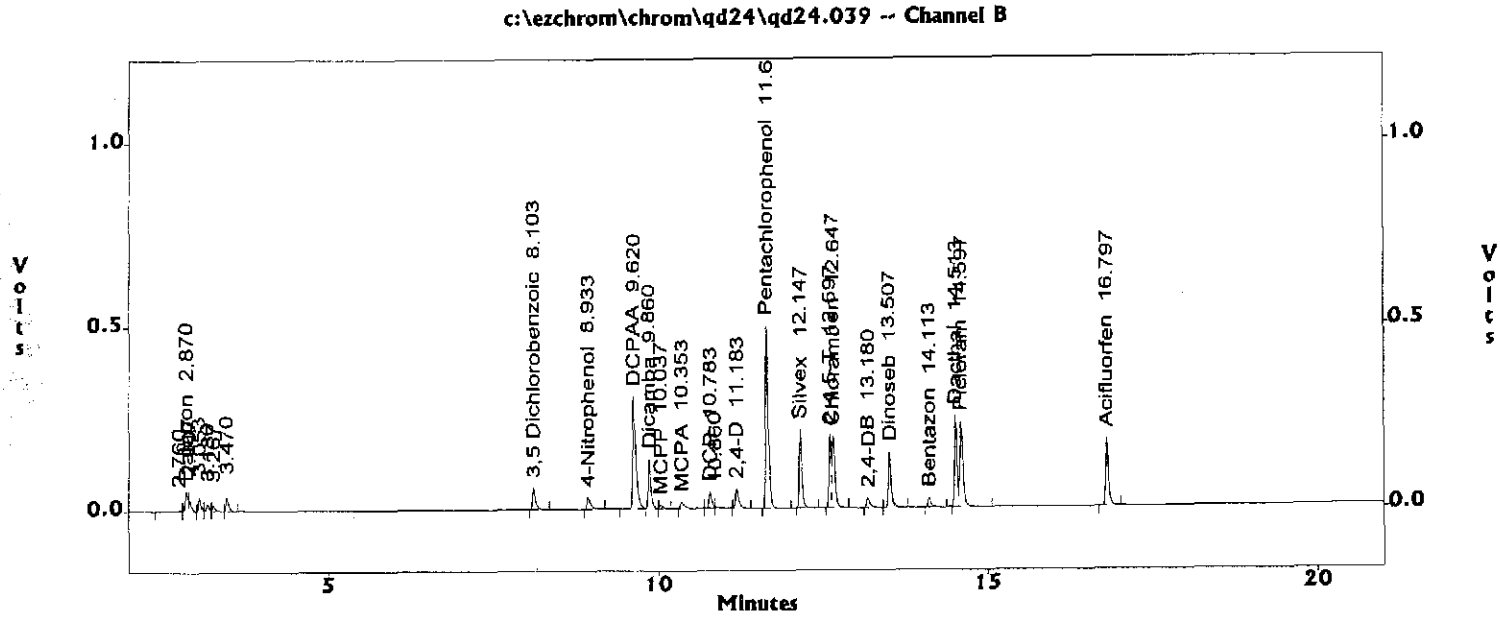


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.039
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08017
Acquired : Apr 27, 2015 13:56:59
Printed : Apr 27, 2015 14:57:19
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.870	155480.0	1730.88	89.827	VS
3,5 Dichlorobenzoic	8.103	185310.0	1937.97	95.621	BV
4-Nitrophenol	8.933	137159.0	1457.43	94.110	BV
DCPAA	9.620	1025607.0	1082.03	947.858	BV
Dicamba	9.860	380251.0	3890.32	97.743	VV
MCPP	10.037	43231.0	8.21	5262.459	VV
MCPA	10.353	90542.0	17.76	5099.394	VV
DCP	10.783	137366.0	1485.51	92.471	Vx
2,4-D	11.183	181444.0	1894.33	95.783	VV
Pentachlorophenol	11.640	1504790.0	14739.16	102.095	VB
Silvex	12.147	600222.0	5953.99	100.810	BB
2,4,5-T	12.597	460459.0	4983.71	92.393	BS
Chloramben	12.647	629480.0	6012.12	104.702	Sx
2,4-DB	13.180	99949.0	1025.98	97.418	VV
Dinoseb	13.507	461965.0	4871.89	94.822	VB
Bentazon	14.113	80136.0	803.13	99.779	BV
Dacthal	14.513	659758.0	6624.78	99.589	SV
Picloram	14.597	795932.0	8580.05	92.765	VB
Acifluorfen	16.797	537863.0	6000.10	89.642	VV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24052A 04/27/2015 20:06
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.613	13.595	13.631	94.5	4088.8	409239	100.09	6		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.960	8.944	8.976	935.8	750.100	691570	921.97	-1		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPEST11
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QD08D06B 04/08/2015 17:05
Conc Cont LFID & Datetime: QD24052B 04/27/2015 20:06
CONC UNIT : ppb

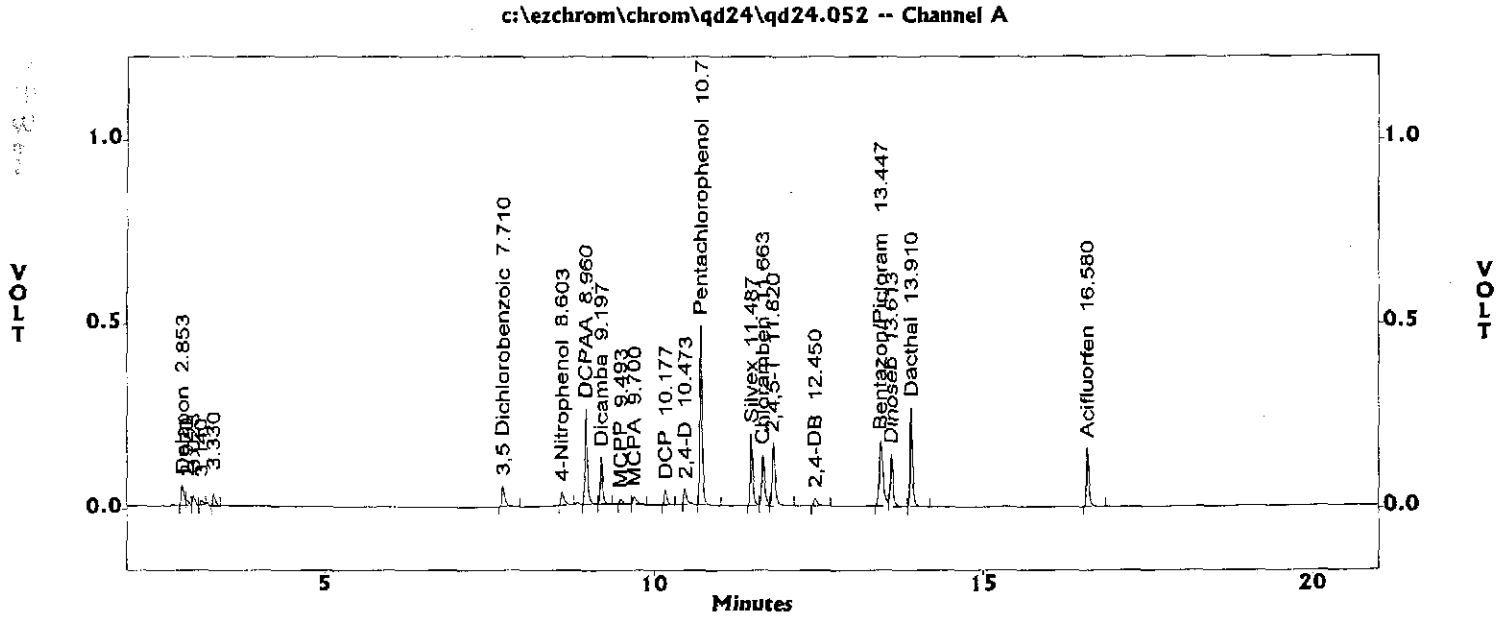
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	13.487	13.469	13.505	94.5	4871.9	456077	93.61	-1		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.603	9.587	9.619	935.8	1082.0	1017346	940.22	0		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.052
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08018
Acquired : Apr 27, 2015 20:06:05
Printed : Apr 28, 2015 14:27:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	163278.0	1656.60	98.562	BS
3,5 Dichlorobenzo	7.710	178535.0	1722.43	103.653	vv
4-Nitrophenol	8.603	128380.0	1289.87	99.529	BV
DCPAA	8.960	691570.0	750.10	921.970	vv
Dicamba	9.197	315748.0	3238.35	97.503	vv
MCPP	9.493	44881.0	8.42	5332.178	BV
MCPA	9.700	71279.0	15.83	4502.601	VV
DCP	10.177	110782.0	1193.88	92.791	BV
2,4-D	10.473	146497.0	1510.05	97.015	xV
Pentachlorophenol	10.713	1232677.0	12495.55	98.649	VB
Silvex	11.487	518038.0	5002.75	103.551	BV
Chloramben	11.663	420711.0	4132.75	101.799	VV
2,4,5-T	11.820	549594.0	5396.66	101.840	VB
2,4-DB	12.450	74115.0	801.45	92.477	BV
Bentazon/Picloram	13.447	719686.0	3540.81	203.254	VV
Dinoseb	13.613	409239.0	4088.80	100.088	VV
Dacthal	13.910	705846.0	6873.97	102.684	VB
Acifluorfen	16.580	453553.0	4699.56	96.510	vv

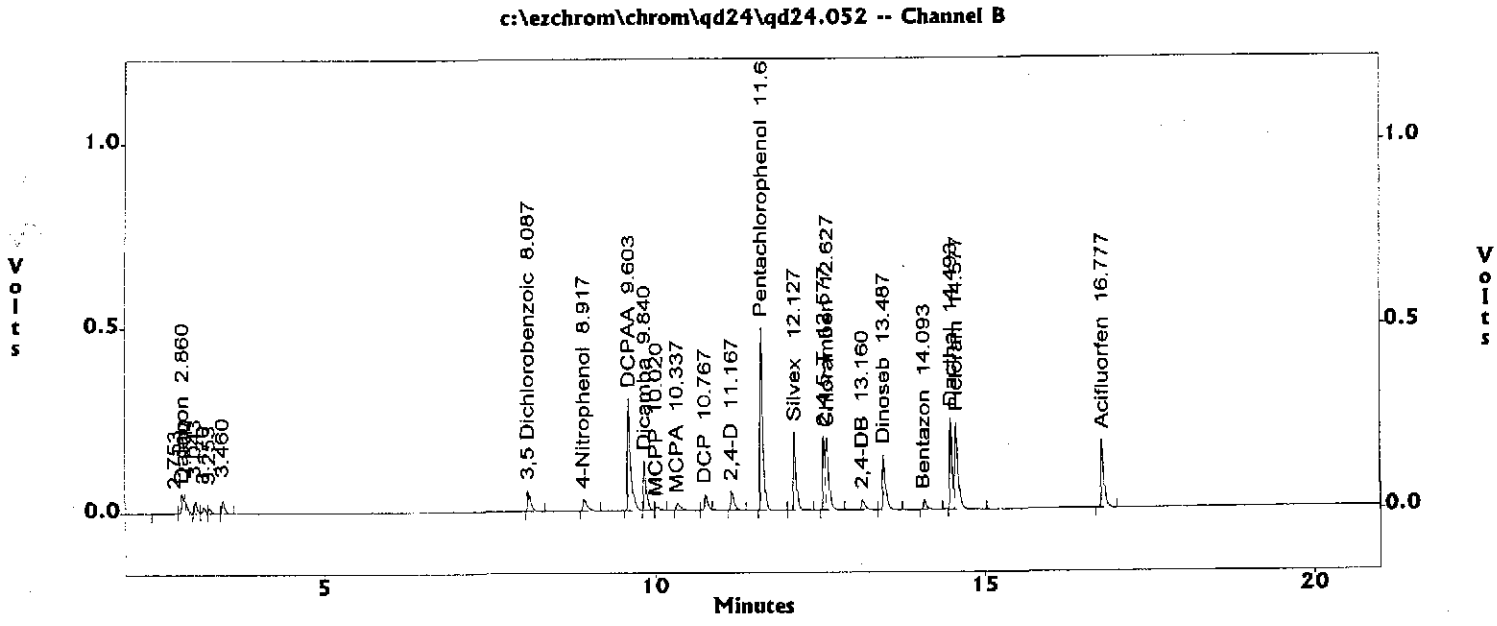


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd24\qd24.052
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08018
Acquired : Apr 27, 2015 20:06:05
Printed : Apr 28, 2015 14:27:14
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	161369.0	1730.88	93.229	VS
3,5 Dichlorobenzoic	8.087	183961.0	1937.97	94.925	BV
4-Nitrophenol	8.917	133926.0	1457.43	91.892	BV
DCPAA	9.603	1017346.0	1082.03	940.223	BV
Dicamba	9.840	376512.0	3890.32	96.782	VV
MCPP	10.020	42020.0	8.21	5115.045	VV
MCPA	10.337	90386.0	17.76	5090.607	VV
DCP	10.767	139378.0	1485.51	93.825	Vx
2,4-D	11.167	179838.0	1894.33	94.935	VV
Pentachlorophenol	11.620	1493504.0	14739.16	101.329	VV
Silvex	12.127	597781.0	5953.99	100.400	VB
2,4,5-T	12.577	455791.0	4983.71	91.456	BS
Chloramben	12.627	628559.0	6012.12	104.549	Sx
2,4-DB	13.160	99404.0	1025.98	96.887	VV
Dinoseb	13.487	456077.0	4871.89	93.614	VB
Bentazon	14.093	80564.0	803.13	100.312	BV
Dacthal	14.493	655084.0	6624.78	98.884	SV
Picloram	14.577	815042.0	8580.05	94.993	VV
Acifluorfen	16.777	539004.0	6000.10	89.833	VV



ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: *For samples and relevant QC/Standards* analyzed, refer to attached analytical sequence.

Comments:

Book #: A09-018
Instrument No.: 09
Analytical Sequence: QD08
Method File: HE09D08
Analytical Batch: QD08006

SOP #	Rev. #
☑ EMAX-8151	4
☐ EMAX-8082CON	1
☐ EMAX-504.1	4
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09D08	QD08	4/8/15

STANDARDS ID		Conc (µg/L)
DCC	554B-03-75-01	100-5000
ICAL	75-02	10/500-2000/10,000
ICV	75-03	100-10,000 (50-5000

Hexane Lot # 5487

Column	☑ A. RTX CLPEST I B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: RZ Date: 4/8/15

Disposed By: RZ Date Disposed: 4/9/15

This page is checked during data review.

Syringe Lot #: ☑ 430353 ☑ 454251 ☐ 475284 ☐ 354311

	Sample ID	Method	Filename	Multi	Description
1	IB09D08001	he09d08.met	QD08.001	1	
2	HE09D08001	he09d08.met	QD08.002	1	
3	HE09D08002	he09d08.met	QD08.003	1	
4	HE09D08003	he09d08.met	QD08.004	1	
5	HE09D08004	he09d08.met	QD08.005	1	
6	HE09D08005	he09d08.met	QD08.006	1	
7	HE09D08006	he09d08.met	QD08.007	1	
8	HE09D08007	he09d08.met	QD08.008	1	
9	HE09D08008	he09d08.met	QD08.009	1	
10	IHE09D08001	he09d08.met	QD08.010	1	
11	IHE09D08002	he09d08.met	QD08.011	1	
12	CHE09D08001	he09d08.met	QD08.012	1	
13	B	he09d08.met	QD08.013	1	

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG

for

PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

DMutton:

D143-13:

10X : 100uL Sample, 900uL Hexane

100X : 10uL Sample(10x), 990uL Hexane

20,000X : 50uL Sample(1000x), 950uL Hexane

50,000X : 20uL Sample(1000X), 980uL Hexane

D143-14 and -16:

5X : 200uL Sample, 800uL Hexane

D143-07:

20X : 50uL Sample, 950uL Hexane

D143-03 and -04:

100X : 10uL Sample, 990uL Hexane

Book #:	A09-018
Instrument No.:	09
Analytical Sequence:	QD24
Method File:	HE09D08
Analytical Batch:	QD2400Z

SOP #	Rev. #
☑ EMAX-8151	4
☐ EMAX-8082CON	1
☐ EMAX-504.1	4
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09D08	QD08	4/8/15

STANDARDS ID	Conc (µg/L)
DCC SS4B-03-25-01	100 – 5000

Hexane Lot # 54287

Column: ☑ A. RTX CLPEST I ☐ B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Syringe Lot #: ☑ 430353 ☑ 454251 ☑ 475284 ☑ 354311

Analyzed By: [signature] Date: 4/24/15

Disposed By: [signature] Date Disposed: 4/27/15

This page is checked during data review.

5095

Sample ID	Method	Filename	Multi	Description
IB09D08013	he09d08.met	QD24.001	1	
CHE09D08013	he09d08.met	QD24.002	1	
HED009WB	he09d08.met	QD24.003	1	
HED009WL	he09d08.met	QD24.004	1	
HED009WC	he09d08.met	QD24.005	1	
D142-03M	he09d08.met	QD24.006	1	
D142-03S	he09d08.met	QD24.007	1	
D143-01N	he09d08.met	QD24.008	1	
D143-01S	he09d08.met	QD24.009	1	
D142-01	he09d08.met	QD24.010	1	
D142-02	he09d08.met	QD24.011	1	
D142-03	he09d08.met	QD24.012	1	
BLANK	he09d08.met	QD24.013	1	
IB09D08014	he09d08.met	QD24.014	1	
CHE09D08014	he09d08.met	QD24.015	1	
D142-05	he09d08.met	QD24.016	1	
D142-07	he09d08.met	QD24.017	1	
D142-09	he09d08.met	QD24.018	1	
D143-01	he09d08.met	QD24.019	1	
D143-03 x "E"	he09d08.met	QD24.020	1	
D143-04 x "E"	he09d08.met	QD24.021	1	
D143-05	he09d08.met	QD24.022	1	
D143-07 x "E"	he09d08.met	QD24.023	1	
D143-08	he09d08.met	QD24.024	1	
BLANK	he09d08.met	QD24.025	1	
IB09D08015	he09d08.met	QD24.026	1	
CHE09D08015	he09d08.met	QD24.027	1	
D143-09	he09d08.met	QD24.028	1	
D143-10	he09d08.met	QD24.029	1	
D143-12	he09d08.met	QD24.030	1	
D143-13 x "E"	he09d08.met	QD24.031	1	
D143-13I DF=10 x "E"	he09d08.met	QD24.032	10	
D143-14 x "E"	he09d08.met	QD24.033	1	

	Sample ID	Method	Parameter	Conc	Description
1	D143-16 x "E"	he09d08.met	QD24.034	1	
2	BLANK	he09d08.met	QD24.035	1	
3	IB09D08016	he09d08.met	QD24.036	1	
4	CHE09D08016	he09d08.met	QD24.037	1	
5	IB09D08017	he09d08.met	QD24.038	1	
6	CHE09D08017	he09d08.met	QD24.039	1	
7	D143-03I DF=100 x "E"	he09d08.met	QD24.040	100	
8	D143-04I DF=100 x "E"	he09d08.met	QD24.041	100	
9	D143-07I DF=20	he09d08.met	QD24.042	20	
10	D143-13J DF=1000 x "E"	he09d08.met	QD24.043	1000	
11	D143-14I DF=5	he09d08.met	QD24.044	5	
12	D143-16I DF=5	he09d08.met	QD24.045	5	
13	D143-03J DF=1000	he09d08.met	QD24.046	1000	
14	D143-04J DF=1000	he09d08.met	QD24.047	1000	
15	D143-13K DF=20000	he09d08.met	QD24.048	20000	
16	D143-13T DF=50000 x	he09d08.met	QD24.049	50000	not met
17	BLANK	he09d08.met	QD24.050	1	
18	IB09D08018	he09d08.met	QD24.051	1	
19	CHE09D08018	he09d08.met	QD24.052	1	
20	IB	he09d08.met	QD24.053	1	

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☒ EMAX-8151	4
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Book #.: EHE-019
Preparation Batch: HED009 W
Matrix Water
Micropipette ID: PE00-04 (1000 ml)
Micropipette ID: PE97C-03 (100 ml)

Standards	ID	Amount Added (ml)
Surrogate	SS4B-03-09-03	1.0
LCS/MS	SS4A-02-155	0.1

Reagent	Lot # / ID
CH_2Cl_2	
Hexane	54297
Ethyl Ether	DM087
Acified Na_2SO_4	SP1B-08-02-02
H_2SO_4	311340
Diazo-methane	SP1B-08-08-04
Silica Sand	-
Silicic Acid	SP1A-07-01-07
Reagent Water	SW1A-005-12-02
Residual Chlorine Strip	4406
pH Strip	HC413032

TUNING

Sonicator #	Reading

Concentrator	Water Bath Temperature Setting(°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Lab Sample ID	Sonicator #	Concentrator #
HED009 -WB		1
-WL		1
-WC		1
D142 -01	✓	1
-02	✓	1
-03	✓	1
-03M	✓	2
-03S	✓	2
-05	✓	2
-07	✓	2
-09	✓	2
D143 -01	✓	2
-01M	✓	3
-01S	✓	3
-03	✓	3
-04	✓	3
-05	✓	3
-07	✓	3
-08	✓	4
-09	✓	4
-10	✓	4
-12	✓	4
-13	✓	4
-14	✓	4
-16	✓	1

Test Thermometer = SVOC-T1

Prepared By: MY/IR — Standard Added By: MY
Witnessed By: IR — Checked By: JM
Extract Received By: RZ — Extract Location: SE04-Herb-01
Disposal Date: — Disposed By:

FileID: HED009W

EMAX LABORATORIES, INC.

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
15HED009W01	HED009WB	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W02	HED009WL	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W03	HED009WC	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W04	D142-01	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W05	D142-02	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W06	D142-03	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W07	D142-03M	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W08	D142-03S	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W09	D142-05	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W10	D142-07	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W11	D142-09	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W12	D143-01	500	ml	4/24/15 9:09	5	500	5	1	Yellow
15HED009W13	D143-01M	500	ml	4/24/15 9:09	5	500	5	1	Yellow
15HED009W14	D143-01S	500	ml	4/24/15 9:09	5	500	5	1	Yellow
15HED009W15	D143-03	500	ml	4/24/15 9:09	5	500	5	1	Yellow Green
15HED009W16	D143-04	500	ml	4/24/15 9:09	5	500	5	1	Yellow Green
15HED009W17	D143-05	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W18	D143-07	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W19	D143-08	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W20	D143-09	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W21	D143-10	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W22	D143-12	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W23	D143-13	500	ml	4/24/15 9:09	5	500	5	1	Dark Yellow Green
15HED009W24	D143-14	500	ml	4/24/15 9:09	5	500	5	1	
15HED009W25	D143-16	500	ml	4/24/15 9:09	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/Exp\

☑ Extraction Started @ 4/24/15 9:30

☑ Extraction Ended @ 4/24/15 15:30

Prepared By: MYokoo/IRagas

Checked By: JM

Date 4/24/15

Comments: Traces of Cl not detected in all samples

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **B & B GROUNDWATER SAMPLING**

SDG: **15D156**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1007
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2110
	METHOD 5030B/8260B SIM	2111 – 2184
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5080
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8081
	METHOD 415.1	8082 – 8131
	METHOD SM3500	8132 – 8139
	METHOD SM4500S2D	8140 – 8145
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 05-19-2015
EMAX Batch No.: 15D156

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: B & B Groundwater Sampling

Enclosed is the Laboratory report for samples received on 04/23/15.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
04-22-15-WB2-3	D156-01	04/22/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-22-15-PWB-2	D156-02	04/22/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-22-15-PWB-6	D156-03	04/22/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON

Sample ID	Control #	Col Date	Matrix	Analysis
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-23-15-TB-15	D156-04	04/23/15	WATER	VOLATILE ORGANICS BY GC/MS
04-23-15-PWB-8	D156-05	04/23/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-23-15-EB-2	D156-06	04/23/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-23-15-PWB-3	D156-07	04/23/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-23-15-PWB-11	D156-08	04/23/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-23-15-TB-16	D156-09	04/23/15	WATER	VOLATILE ORGANICS BY GC/MS
04-23-15-BBW-1	D156-10	04/23/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES

Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
04-23-15-BBW-2	D156-11	04/23/15	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: ECO 13-601
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. *: 15D156
PROJECT CODE: ECO 13-601

CLIENT: Eco & Associates, Inc.
PROJECT: Spring 2015 B&B Groundwater Sampling
COORDINATOR: Carlos Hernandez
TEL: 714-289-0995 FAX: chernandez@ecoinc.info EMAIL:
SEND REPORT TO: Carlos Hernandez
COMPANY: Eco & Associates, Inc
ADDRESS: 1855 W. Katella Ave, Suite 340
Orange CA 92867
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice ✓
GW=Ground Water ✓	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ Standard

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	SAMPLING DATE	SAMPLING TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	8260B	8260SIM	8151A-Dinoseb	300-Nitrate-N-Nitrite-N Sulfate	SM4500S2D Sulfides	SM3500 Ferrous Iron	TOC-415.1	RSK175 Methane + H2	COMMENTS
1	04-22-15-WB2-3	B-Zone	4/22/15	1520	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
2	04-22-15-PWB-2	"	"	1435	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
3	04-22-15-PWB-6	"	"	1345	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
4	04-23-15-TB-15	—	4/23/15	0800	3	40mL	VOA	W		✓								
5	04-23-15-PWB-8	B-Zone	4/23/15	0800	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
6	04-23-15-EB-2	—	"	0905	14	Var.	Var.	W		✓	✓	✓	✓	✓	✓	✓	✓	
7	04-23-15-PWB-3	B-Zone	"	0810	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
8	04-23-15-PWB-11	"	"	0855	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
9	04-23-15-TB-16	—	"	0900	3	40mL	VOA	W		✓								
10	04-23-15-BBW-1	B-Zone	"	0920	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	

Instructions
Please Note that Nitrate has only 48 hours holding time. Method 300 is for Nitrate, Nitrite & Sulfates.

Cooler #	Temp. (°C)	Sample #s
1	5.4	
2	3.1	
3	4.2	
4	3.0	
6	3.1	

SAMPLER:
COURIER/AIRBILL:

RELINQUISHED BY	Date	Time	RECEIVED BY
C. Hernandez [signature]	4/23/15	1000	KASRA [signature]
Karl M	4/23/15	1243	[signature]

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: ECO 13-601
SAMPLE STORAGE: Coolers

EMAX CONTROL NO. * 15D156
PROJECT CODE: ECO 13-601

CLIENT: Eco & Associates, Inc
PROJECT: Spring 2015 B&B Groundwater Sampling
COORDINATOR: Carlos Herandez
TEL: 714-289-0995 FAX: chernandez@ecoinc.info EMAIL:
SEND REPORT TO: Carlos Hernandez
COMPANY: Eco & Associates, Inc
ADDRESS: 1855 W Katella Ave, Suite 340
Orange CA 92867
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED

8260B	8260 SIM	8151A - Dinoseb	300 - Nitrate, Nitrite & Sulfate	SM4500 S2D Sulfides	SM3500 Ferrous Iron	TOC - 415.1	RSK175 Methane & H_2

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ Standard

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	SAMPLING DATE	SAMPLING TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	PRESERVATIVE CODE 8260B	8260 SIM	8151A - Dinoseb	300 - Nitrate, Nitrite & Sulfate	SM4500 S2D Sulfides	SM3500 Ferrous Iron	TOC - 415.1	RSK175 Methane & H_2	COMMENTS
1	04-23-15-BBW-2	B-Zone	4/23/15	0840	14	Var	Var	GW		✓	✓	✓	✓	✓	✓	✓	✓	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
0																		

Instructions
Please Note that Nitrate has only 48 hours holding time. Method 300 is for Nitrate-N, Nitrite-N & Sulfates.

Cooler #	Temp. (°C)	Sample #s

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
C. Hernandez [signature]	4/23/15	1000	KASRA [signature]
Kamel M	4/23/15	1243	[signature]

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1004

SAMPLE RECEIPT FORM 1 Reference Number: SM02.7.3

Type of Delivery	Airbill / Tracking Number	ECN 15D156
☐ Fedex ☐ UPS ☐ GSO ☑ Others Direct Delivery		Recipient Shenfam
☐ EMAX Courier ☐ Client Delivery		Date 04-23-15 Time 1243

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☐ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☐ From Superfund Site	☑ Rad screening required		

Note:

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☑ Plastic bag
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 5.4 °C	☑ Cooler 2 3.1 °C	☑ Cooler 3 4.2 °C	☑ Cooler 4 3.0 °C	☐ Cooler 5 ___ °C
	☑ Cooler 6 3.1 °C	☐ Cooler 7 ___ °C	☐ Cooler 8 ___ °C	☐ Cooler 9 ___ °C	☐ Cooler 10 ___ °C
Thermometer:	A - S/N ___	FM 1/20/15 B - S/N 140252070	C S/N 140252067	D - S/N ___	

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note:

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1-3,5-8,10-11		D8	Did not rec container for	R8 . R9
↓		↓	ferrous Iron, recd 2 containers	↓
			for NO2/NO3	
6,8,10	60-72,89,90	D10		R8
	114,116			
10	112	D6	04/23/15	R1
11	4-23 ~~156~~ 126	D3	per label: ~~04~~ 04 22-15-BBW-12	↓
11	128	D3	per label: 04 - -15-BBW-2	R1
			C 4/23/15	AB 4/24/15

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:

LEGEND: ☐ **Continue to next page.**

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Sample Management
D1	Analysis is not indicated in ___	D13	Out of Holding Time	R1	Proceed as indicated in ☒ COC ☐ Label
D2	Analysis mismatch COC vs label	D14	Bubble is >6mm	R2	Refer to attached instruction
D3	Sample ID mismatch COC vs label	D15	No trip blank in cooler	R3	Cancel the analysis
D4	Sample ID is not indicated in ___	D16	Preservation not indicated in ___	R4	Use vial with smallest bubble first
D5	Container -[improper] [leaking] [broken]	D17	Preservation mismatch COC vs label	R5	Log-in with latest sampling date and time+1 min
D6	Date/Time is not indicated in label	D18	Insufficient chemical preservative	R6	Adjust pH as necessary
D7	Date/Time mismatch COC vs label	D19	Insufficient Sample	R7	Filter and preserved as necessary
D8	Sample listed in COC is not received	D20	No filtration info for dissolved analysis	R8	Informed client
D9	Sample received is not listed in COC	D21	No sample for moisture determination	R9	Analyze for Ferrous Iron
D10	No initial/date on corrections in COC/label	D22		R10	
D11	Container count mismatch COC vs received	D23		R11	
D12	Container size mismatch COC vs received	D24		R12	

REVIEWS:

Sample Labeling ___ Date 4/23/15

SRF ___ Date 4/24/15

PM AB Date 4/24/15

EMAX Laboratories, Inc. 1835 W. 205th St., Torrance, Ca 90501

Richard Beauvil

From: Mitra Fiuzat [mfiuzat@ecoinc.info]
Sent: Monday, April 27, 2015 1:17 PM
To: Richard Beauvil
Cc: 'Carlos Hernandez'; Orabbani@ecoinc.info
Subject: RE: 15D156, 15D157 SAMPLE RECEIPT FORMS FOR YOUR REVIEW

Hi Richard,

Would you please designate sample ID No. 04-22-PWB-12 for the Level IV for the SDG#15D157. For the SDG# 15D156 the Sample ID No. 04-23-15-PWB-8 is designated for the Level IV.

Thanks,
Mitra Fiuzat
Eco & Associates, Inc.
1855 W. Katella Ave., Suite 340
Orange, CA 92867
Tel: (714) 289-0995
Fax: (714) 289-0965

From: Richard Beauvil [mailto:RBeauvil@emaxlabs.com]
Sent: Friday, April 24, 2015 6:47 PM
To: 'Mitra Fiuzat'
Cc: 'Carlos Hernandez'; 'Quin Kinnebrew'; 'Orabbani@ecoinc.info'
Subject: 15D156, 15D157 SAMPLE RECEIPT FORMS FOR YOUR REVIEW

Hi Mitra,

Please find attached the logins for your review.

Richard M. Beauvil
Project Manager/Safety Officer
1835 W. 205th Street
Torrance, CA 90501
Tel: 310-618-8889 X118
rbeauvil@emaxlabs.com

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than LOQ/RL but greater than LOD/MDL/DL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 15D156

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

A total of eleven (11) water samples were received on 04/23/15 to be analyzed for Volatile Organics by GC/MS in accordance with Method 5030B/8260B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. For this SDG, the following were noted: 2,2-Dichloropropane was detected bias high(%D=24.8) in CCV(data file ID REV002). However, note that 2,2-Dichloropropane was not detected in any of the field samples. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. Methylene Chloride(0.62J < LOQ) was detected at trace level in VO01E01B. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. VO01E01L/VO01E01Y - all analytes were within LCS QC limits. Refer to LCS summary form for details.

Matrix QC Sample
No matrix QC sample was designated on this SDG.

Surrogate
Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D156
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VO01E01B	1	NA	05/01/1517:58	05/01/1517:58	REV007	RBV140	VO01E01	Method Blank
LCS1W	VO01E01L	1	NA	05/01/1516:01	05/01/1516:01	REV003	RBV140	VO01E01	Lab Control Sample (LCS)
LCD1W	VO01E01Y	1	NA	05/01/1517:05	05/01/1517:05	REV005	RBV140	VO01E01	LCS Duplicate
04-22-15-WB2-3	D156-01	1	NA	05/01/1520:46	05/01/1520:46	REV013	RBV140	VO01E01	Field Sample
04-22-15-PWB-2	D156-02	1	NA	05/01/1521:13	05/01/1521:13	REV014	RBV140	VO01E01	Field Sample
04-22-15-PWB-6	D156-03	1	NA	05/01/1521:43	05/01/1521:43	REV015	RBV140	VO01E01	Field Sample
04-23-15-TB-15	D156-04	1	NA	05/01/1522:10	05/01/1522:10	REV016	RBV140	VO01E01	Field Sample
04-23-15-PWB-8	D156-05	1	NA	05/01/1522:40	05/01/1522:40	REV017	RBV140	VO01E01	Field Sample
04-23-15-EB-2	D156-06	1	NA	05/01/1523:07	05/01/1523:07	REV018	RBV140	VO01E01	Field Sample
04-23-15-PWB-3	D156-07	1	NA	05/01/1523:36	05/01/1523:36	REV019	RBV140	VO01E01	Field Sample
04-23-15-PWB-11	D156-08	1	NA	05/02/1500:04	05/02/1500:04	REV020	RBV140	VO01E01	Field Sample
04-23-15-TB-16	D156-09	1	NA	05/02/1500:33	05/02/1500:33	REV021	RBV140	VO01E01	Field Sample
04-23-15-BBW-1	D156-10	1	NA	05/02/1501:01	05/02/1501:01	REV022	RBV140	VO01E01	Field Sample
04-23-15-BBW-2	D156-11	1	NA	05/02/1501:28	05/02/1501:28	REV023	RBV140	VO01E01	Field Sample

FN - Filename
% Moist - Percent Moisture

2502

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 20:46
Sample ID: 04-22-15-WB2-3	Date Analyzed: 05/01/15 20:46
Lab Samp ID: D156-01	Dilution Factor: 1
Lab File ID: REV013	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.50J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	4.7	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.09	10.00	90.9	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.83	10.00	98.3	85-120
DIBROMOFLUOROMETHANE	9.19	10.00	91.9	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 21:13
Sample ID: 04-22-15-PWB-2	Date Analyzed: 05/01/15 21:13
Lab Samp ID: D156-02	Dilution Factor: 1
Lab File ID: REV014	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	1.1	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.51J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	3.3	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.11	10.00	91.1	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.73	10.00	97.3	85-120
DIBROMOFLUOROMETHANE	9.17	10.00	91.7	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 21:43
Sample ID: 04-22-15-PWB-6	Date Analyzed: 05/01/15 21:43
Lab Samp ID: D156-03	Dilution Factor: 1
Lab File ID: REV015	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	5.1	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.10	10.00	91.0	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.64	10.00	96.4	85-120
DIBROMOFLUOROMETHANE	9.25	10.00	92.5	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 22:10
Sample ID: 04-23-15-TB-15	Date Analyzed: 05/01/15 22:10
Lab Samp ID: D156-04	Dilution Factor: 1
Lab File ID: REV016	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.17	10.00	91.7	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.90	10.00	99.0	85-120
DIBROMOFLUOROMETHANE	9.15	10.00	91.5	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 22:40
Sample ID: 04-23-15-PWB-8	Date Analyzed: 05/01/15 22:40
Lab Samp ID: D156-05	Dilution Factor: 1
Lab File ID: REV017	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	3.5	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	1.4	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.45J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.11	10.00	91.1	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.71	10.00	97.1	85-120
DIBROMOFLUOROMETHANE	9.20	10.00	92.0	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV017.D Vial: 17
Acq On : 1 May 2015 10:40 pm Operator: WLau
Sample : 15D156-05 25mL Inst : TO01
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 12:29 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1228661	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	960695	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	312662	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	375723	9.20	ug/l	0.00
Spiked Amount 10.000			Recovery =	92.00%		
38) 1,2-Dichloroethane-d4	6.85	65	239840	9.11	ug/l	0.00
Spiked Amount 10.000			Recovery =	91.10%		
54) Toluene-d8	9.60	98	1261865	9.71	ug/l	0.00
Spiked Amount 10.000			Recovery =	97.10%		
74) 4-Bromofluorobenzene	13.60	95	360186	10.02	ug/l	0.02
Spiked Amount 10.000			Recovery =	100.20%		
Target Compounds						Qvalue
18) Methylene chloride	4.27	49	24308	0.45	ug/l	99
33) Chloroform	6.21	83	29355	0.45	ug/l	99
46) 1,2-Dichloropropane	8.15	63	59806	1.40	ug/l #	53
78) 1,2,3-Trichloropropane	13.80	110	18807	3.48	ug/l	87

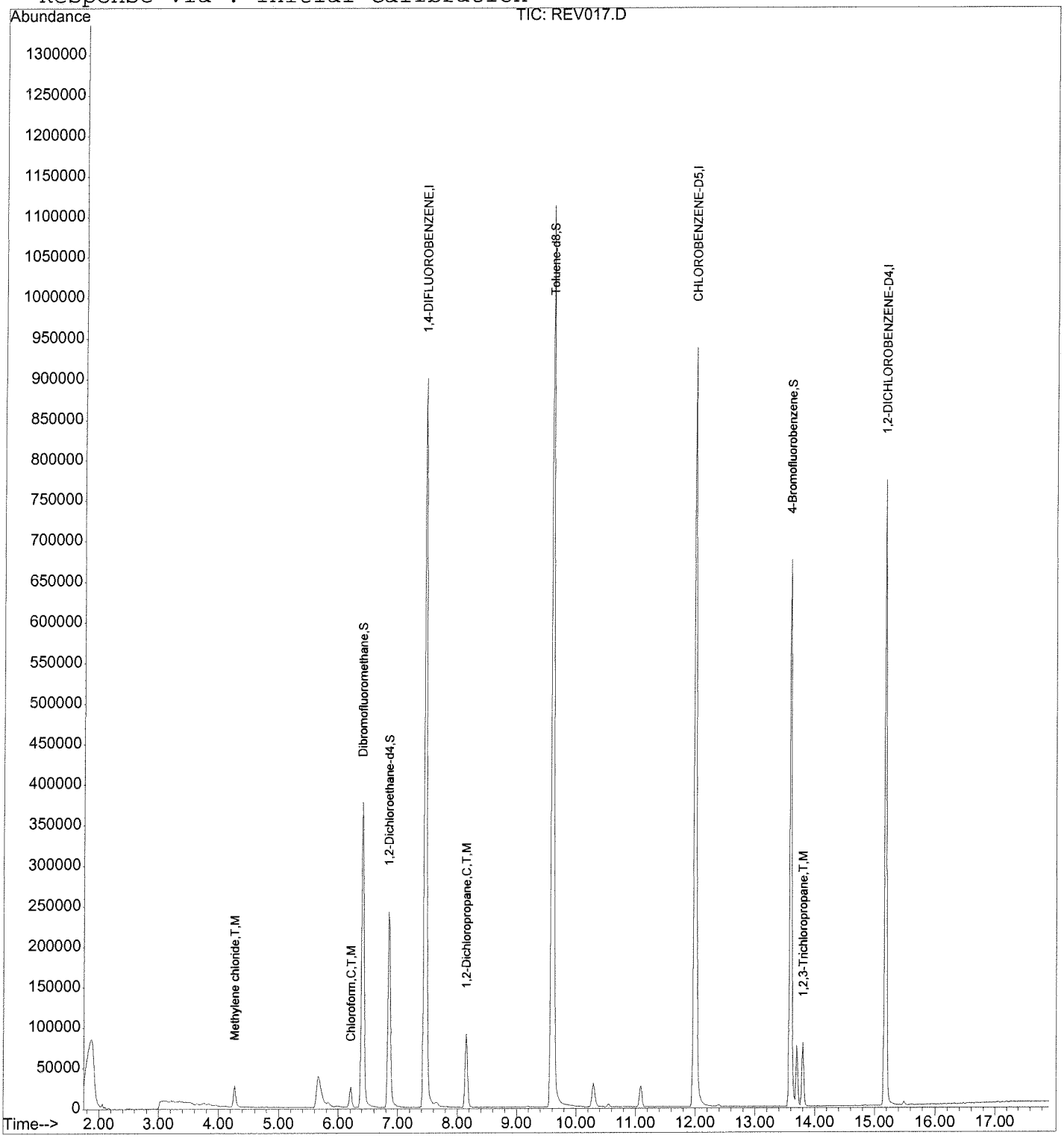
(#) = qualifier out of range (m) = manual integration

2009

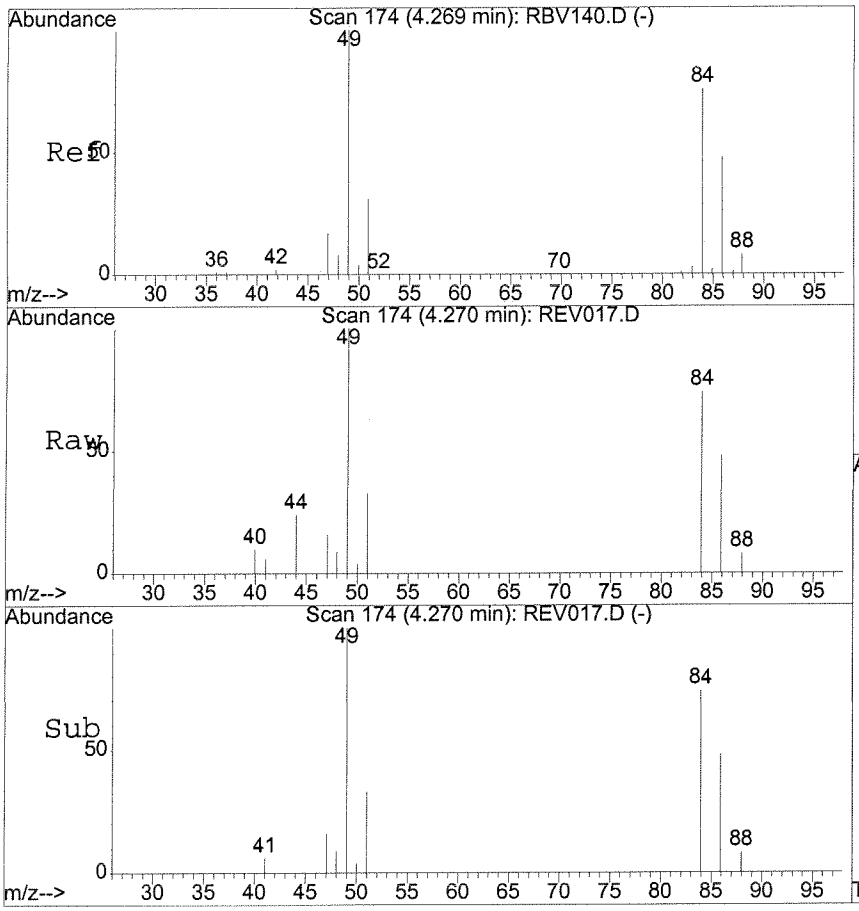
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REV017.D Vial: 17
Acq On : 1 May 2015 10:40 pm Operator: WLau
Sample : 15D156-05 25mL Inst : TO01
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 12:29 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



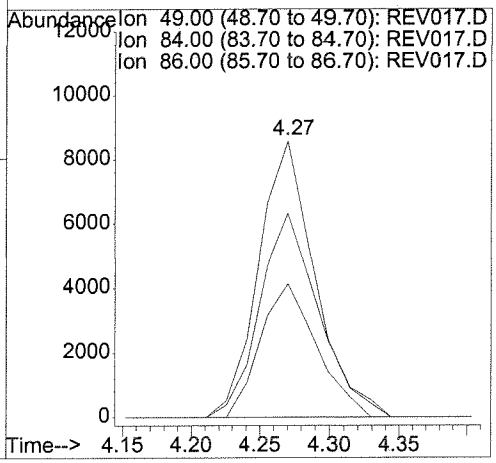
2010

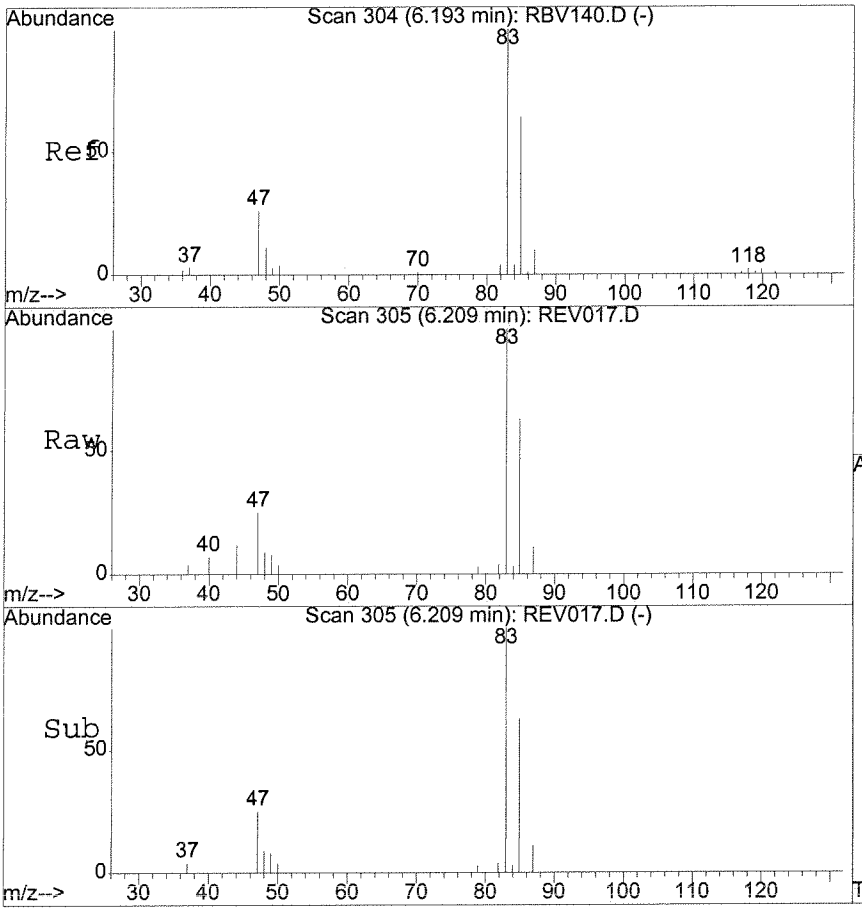


#18
Methylene chloride
Concen: 0.45 ug/l
RT: 4.27 min Scan# 174
Delta R.T. 0.00 min
Lab File: REV017.D
Acq: 1 May 2015 10:40 pm

Tgt Ion: 49 Resp: 24308

Ion	Ratio	Lower	Upper
49	100		
84	76.9	45.9	105.9
86	48.2	18.6	78.6

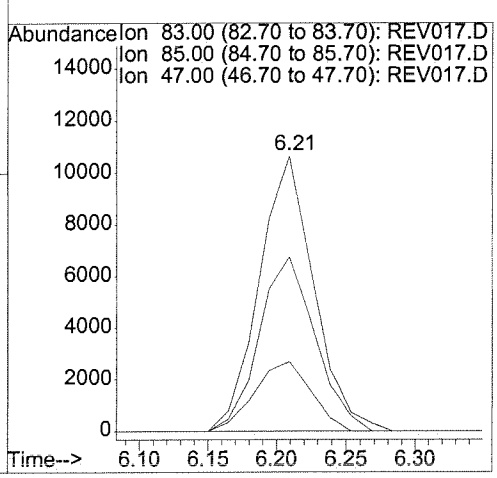




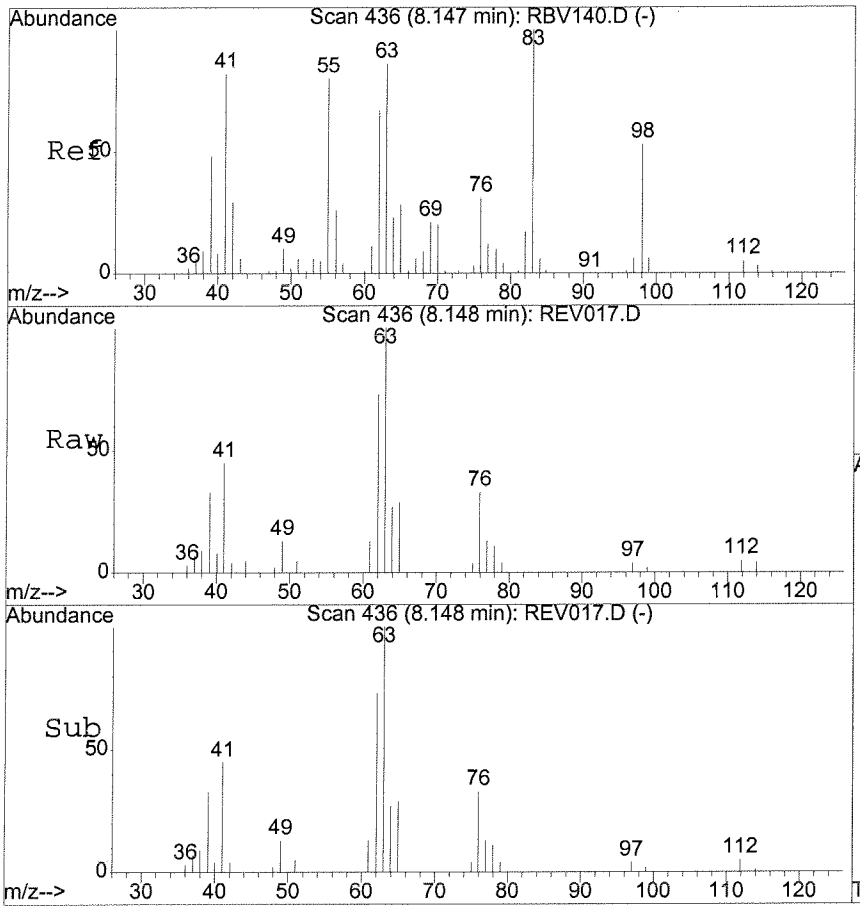
#33
Chloroform
Concen: 0.45 ug/l
RT: 6.21 min Scan# 305
Delta R.T. 0.02 min
Lab File: REV017.D
Acq: 1 May 2015 10:40 pm

Tgt Ion: 83 Resp: 29355

Ion	Ratio	Lower	Upper
83	100		
85	64.9	35.4	95.4
47	26.2	0.0	55.3



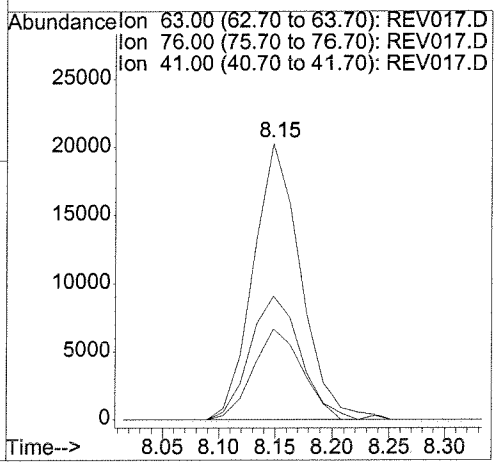
2011

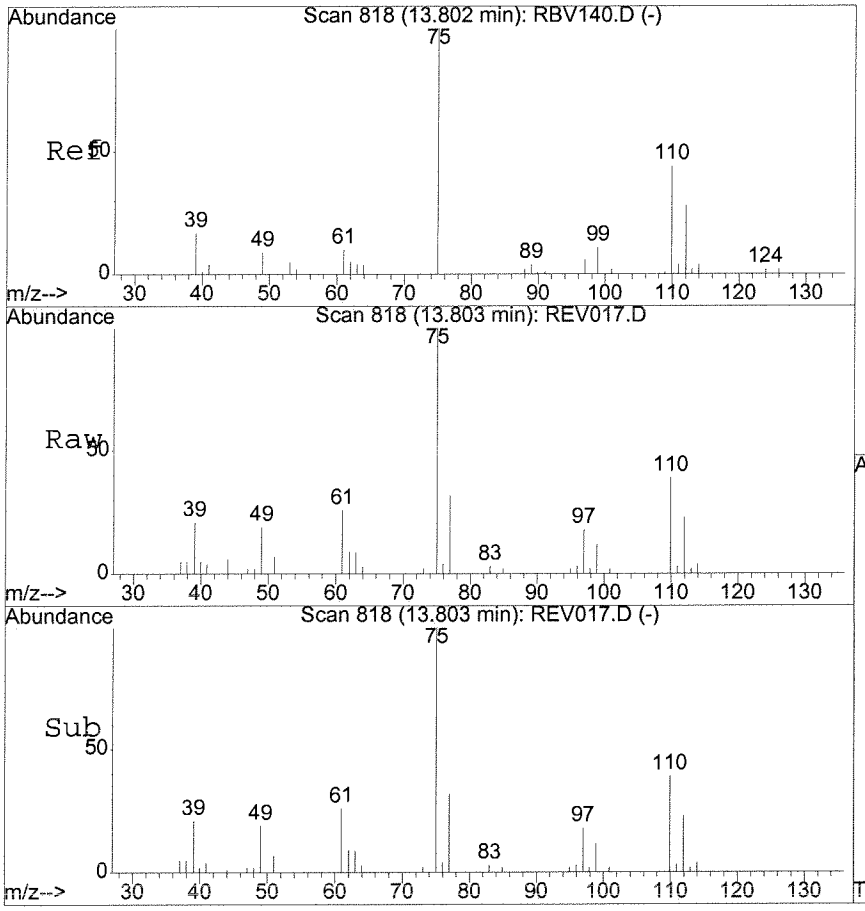


#46
1,2-Dichloropropane
Concen: 1.40 ug/l
RT: 8.15 min Scan# 436
Delta R.T. 0.00 min
Lab File: REV017.D
Acq: 1 May 2015 10:40 pm

Tgt Ion: 63 Resp: 59806

Ion	Ratio	Lower	Upper
63	100		
76	33.7	5.5	65.5
41	47.6	83.2	143.2#

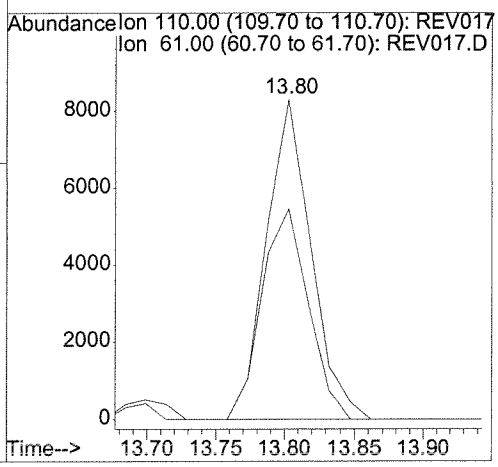




#78
1,2,3-Trichloropropane
Concen: 3.48 ug/l
RT: 13.80 min Scan# 818
Delta R.T. 0.00 min
Lab File: REV017.D
Acq: 1 May 2015 10:40 pm

Tgt Ion:110 Resp: 18807

Ion	Ratio	Lower	Upper
110	100		
61	68.6	49.7	109.7



2012

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 23:07
Sample ID: 04-23-15-EB-2	Date Analyzed: 05/01/15 23:07
Lab Samp ID: D156-06	Dilution Factor: 1
Lab File ID: REV018	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.02	10.00	90.2	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.87	10.00	98.7	85-120
DIBROMOFLUOROMETHANE	9.17	10.00	91.7	85-115

2013

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/01/15 23:36
Sample ID: 04-23-15-PWB-3	Date Analyzed: 05/01/15 23:36
Lab Samp ID: D156-07	Dilution Factor: 1
Lab File ID: REV019	Matrix : WATER
Ext.Btch ID: V001E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.28J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.35	10.00	93.5	70-120
4-BROMOFLUOROBENZENE	9.91	10.00	99.1	75-120
TOLUENE-D8	9.74	10.00	97.4	85-120
DIBROMOFLUOROMETHANE	9.29	10.00	92.9	85-115

2014

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/02/15 00:04
Sample ID: 04-23-15-PWB-11	Date Analyzed: 05/02/15 00:04
Lab Samp ID: D156-08	Dilution Factor: 1
Lab File ID: REV020	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	4.3	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.49J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.98J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.21	10.00	92.1	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.74	10.00	97.4	85-120
DIBROMOFLUOROMETHANE	9.22	10.00	92.2	85-115

2015

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/02/15 00:33
Sample ID: 04-23-15-TB-16	Date Analyzed: 05/02/15 00:33
Lab Samp ID: D156-09	Dilution Factor: 1
Lab File ID: REV021	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.47	10.00	94.7	70-120
4-BROMOFLUOROBENZENE	9.98	10.00	99.8	75-120
TOLUENE-D8	9.59	10.00	95.9	85-120
DIBROMOFLUOROMETHANE	9.44	10.00	94.4	85-115

2016

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 05/02/15 01:01
Sample ID: 04-23-15-BBW-1	Date Analyzed: 05/02/15 01:01
Lab Samp ID: D156-10	Dilution Factor: 1
Lab File ID: REV022	Matrix : WATER
Ext Btch ID: VO01E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	1.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	6.5	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.15	10.00	91.5	70-120
4-BROMOFLUOROBENZENE	10.1	10.00	101	75-120
TOLUENE-D8	9.72	10.00	97.2	85-120
DIBROMOFLUOROMETHANE	9.27	10.00	92.7	85-115

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected	: 04/23/15
Project	: B & B GROUNDWATER SAMPLING	Date Received	: 04/23/15
Batch No.	: 15D156	Date Extracted	: 05/02/15 01:28
Sample ID	: 04-23-15-BBW-2	Date Analyzed	: 05/02/15 01:28
Lab Samp ID	: D156-11	Dilution Factor	: 1
Lab File ID	: REV023	Matrix	: WATER
Ext Btch ID	: VO01E01	% Moisture	: NA
Calib. Ref.	: RBV140	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	1.2	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.32	10.00	93.2	70-120
4-BROMOFLUOROBENZENE	10.0	10.00	100	75-120
TOLUENE-D8	9.74	10.00	97.4	85-120
DIBROMOFLUOROMETHANE	9.25	10.00	92.5	85-115

2018

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 05/01/15
Batch No. : 15D156	Date Extracted: 05/01/15 17:58
Sample ID: MBLK1W	Date Analyzed: 05/01/15 17:58
Lab Samp ID: V001E01B	Dilution Factor: 1
Lab File ID: REV007	Matrix : WATER
Ext Btch ID: V001E01	% Moisture : NA
Calib. Ref.: RBV140	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.62J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.69	10.00	86.9	70-120
4-BROMOFLUOROBENZENE	10.2	10.00	102	75-120
TOLUENE-D8	9.93	10.00	99.3	85-120
DIBROMOFLUOROMETHANE	9.01	10.00	90.1	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01E01B	VO01E01L	VO01E01Y		
LAB FILE ID:	REV007	REV003	REV005		
DATE EXTRACTED:	05/01/1517:58	05/01/1516:01	05/01/1517:05	DATE COLLECTED:	NA
DATE ANALYZED:	05/01/1517:58	05/01/1516:01	05/01/1517:05	DATE RECEIVED:	05/01/15
PREP. BATCH:	VO01E01	VO01E01	VO01E01		
CALIB. REF:	RBV140	RBV140	RBV140		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.5	105	10.0	10.5	105	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.1	101	10.0	10.2	102	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.8	108	10.0	10.9	109	1	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.7	107	10.0	10.7	107	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.4	104	10.0	10.1	101	3	70-135	30
1,1-Dichloroethene	ND	10.0	10.1	101	10.0	9.31	93	8	70-130	30
1,1-Dichloropropene	ND	10.0	9.57	96	10.0	9.49	95	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.39	84	10.0	9.22	92	9	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.9	109	10.0	10.8	108	1	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	8.67	87	10.0	9.55	95	10	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.77	98	10.0	9.72	97	1	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.42	94	10.0	10.6	106	11	50-130	30
1,2-Dibromoethane	ND	10.0	10.5	105	10.0	10.5	105	0	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.95	100	10.0	9.79	98	2	70-120	30
1,2-Dichloroethane	ND	10.0	10.2	102	10.0	10.2	102	0	70-130	30
1,2-Dichloropropane	ND	10.0	10.7	107	10.0	10.5	105	2	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.74	97	10.0	9.67	97	1	75-130	30
1,3-Dichlorobenzene	ND	10.0	9.75	97	10.0	9.67	97	1	75-125	30
1,3-Dichloropropane	ND	10.0	10.6	106	10.0	10.7	107	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	9.90	99	10.0	9.81	98	1	75-125	30
2,2-Dichloropropane	ND	10.0	11.5	115	10.0	11.6	116	1	70-135	30
2-Butanone	ND	50.0	50.9	102	50.0	58.2	116	13	30-150	30
2-Chlorotoluene	ND	10.0	9.96	100	10.0	9.50	95	5	75-125	30
2-Hexanone	ND	50.0	50.0	100	50.0	58.2	116	15	55-130	30
4-Chlorotoluene	ND	10.0	9.86	99	10.0	9.61	96	3	75-130	30
Acetone	ND	50.0	52.3	105	50.0	56.1	112	7	40-140	30
Benzene	ND	10.0	10.0	100	10.0	9.61	96	4	80-120	30
Bromobenzene	ND	10.0	10.3	103	10.0	10.0	100	2	75-125	30
Bromochloromethane	ND	10.0	10.2	102	10.0	9.91	99	2	65-130	30
Bromodichloromethane	ND	10.0	10.7	107	10.0	10.5	105	2	75-120	30
Bromoform	ND	10.0	10.2	102	10.0	10.2	102	0	70-130	30
Bromomethane	ND	10.0	8.49	85	10.0	8.43	84	1	30-145	30
Carbon Disulfide	ND	10.0	10.5	105	10.0	10.3	103	2	35-160	30
Carbon Tetrachloride	ND	10.0	9.85	99	10.0	9.79	98	1	65-140	30
Chlorobenzene	ND	10.0	10.1	101	10.0	10.1	101	0	80-120	30
Chloroethane	ND	10.0	9.70	97	10.0	10.1	101	4	60-135	30
Chloroform	ND	10.0	10.5	105	10.0	9.99	100	4	65-135	30
Chloromethane	ND	10.0	9.23	92	10.0	9.32	93	1	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.2	102	10.0	9.91	99	3	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.8	108	10.0	10.8	108	0	70-130	30
Dibromochloromethane	ND	10.0	10.8	108	10.0	10.8	108	0	60-135	30
Dibromomethane	ND	10.0	10.4	104	10.0	10.4	104	0	75-125	30
Dichlorodifluoromethane	ND	10.0	10.5	105	10.0	10.6	106	1	30-155	30
Ethylbenzene	ND	10.0	9.76	98	10.0	9.84	98	1	75-125	30
Hexachlorobutadiene	ND	10.0	9.10	91	10.0	9.46	95	4	50-140	30
Isopropyl Benzene	ND	10.0	9.76	98	10.0	9.54	95	2	75-125	30
m,p-Xylenes	ND	20.0	19.4	97	20.0	19.6	98	1	75-130	30
MIBK	ND	50.0	51.7	103	50.0	58.9	118	13	60-135	30
Methylene Chloride	0.622J	10.0	10.0	100	10.0	9.48	95	5	55-140	30
MTBE	ND	10.0	11.0	110	10.0	11.3	113	3	65-125	30
Naphthalene	ND	10.0	8.55	86	10.0	9.28	93	8	55-140	30
n-Butylbenzene	ND	10.0	9.38	94	10.0	9.54	95	2	70-135	30
n-Propylbenzene	ND	10.0	9.68	97	10.0	9.50	95	2	70-130	30
o-Xylene	ND	10.0	9.95	99	10.0	9.99	100	0	80-120	30
p-Isopropyltoluene	ND	10.0	9.56	96	10.0	9.53	95	0	75-130	30
Sec-Butylbenzene	ND	10.0	9.70	97	10.0	9.65	96	1	70-125	30
Styrene	ND	10.0	10.3	103	10.0	10.6	106	3	65-135	30
Tert-Butylbenzene	ND	10.0	10.2	102	10.0	9.88	99	3	70-130	30
Tetrachloroethene	ND	10.0	9.36	94	10.0	9.36	94	0	45-150	30
Toluene	ND	10.0	9.81	98	10.0	9.48	95	3	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.72	97	10.0	9.09	91	7	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	11.0	110	10.0	11.1	111	1	55-140	30
Trichloroethene	ND	10.0	10.1	101	10.0	9.72	97	4	70-125	30
Trichlorofluoromethane	ND	10.0	9.66	97	10.0	9.95	100	3	60-145	30
Vinyl Chloride	ND	10.0	9.43	94	10.0	9.44	94	0	50-145	30
Freon113	ND	10.0	9.49	95	10.0	9.46	95	0	65-135	30
Vinyl Acetate	ND	10.0	8.04	80	10.0	8.91	89	10	65-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.08	91	10.0	9.29	93	70-120
4-Bromofluorobenzene	10.0	9.51	95	10.0	9.14	91	75-120
Toluene-d8	10.0	9.63	96	10.0	9.41	94	85-120
Dibromofluoromethane	10.0	9.05	90	10.0	9.19	92	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV007.D Vial: 7
Acq On : 1 May 2015 5:58 pm Operator: WLau
Sample : VO01E01B 25mL Inst : TO01
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:56 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1437124	10.00	ug/l	0.02
53) CHLOROBENZENE-D5	12.00	117	1112938	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	352723	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	430337	9.01	ug/l	0.02
Spiked Amount 10.000			Recovery =	90.10%		
38) 1,2-Dichloroethane-d4	6.86	65	267815	8.69	ug/l	0.02
Spiked Amount 10.000			Recovery =	86.90%		
54) Toluene-d8	9.61	98	1495019	9.93	ug/l	0.02
Spiked Amount 10.000			Recovery =	99.30%		
74) 4-Bromofluorobenzene	13.60	95	414463	10.22	ug/l	0.02
Spiked Amount 10.000			Recovery =	102.20%		
Target Compounds						Qvalue
18) Methylene chloride	4.28	49	39078	0.62	ug/l	99

(#) = qualifier out of range (m) = manual integration

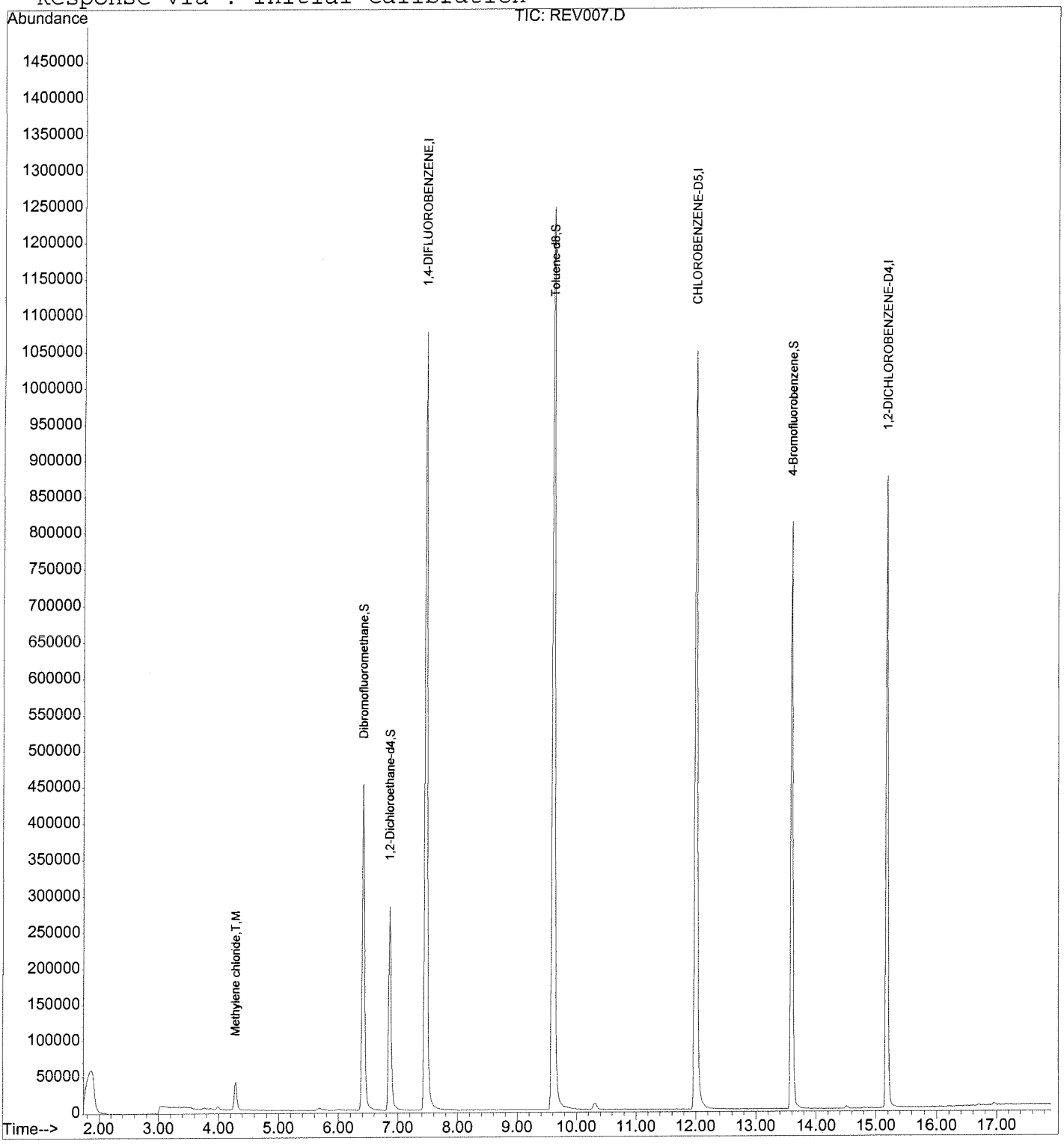
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REV007.D
Acq On : 1 May 2015 5:58 pm
Sample : VO01E01B 25mL
Misc : BLANK
MS Integration Params: 524C.P
Quant Time: May 4 11:56 2015

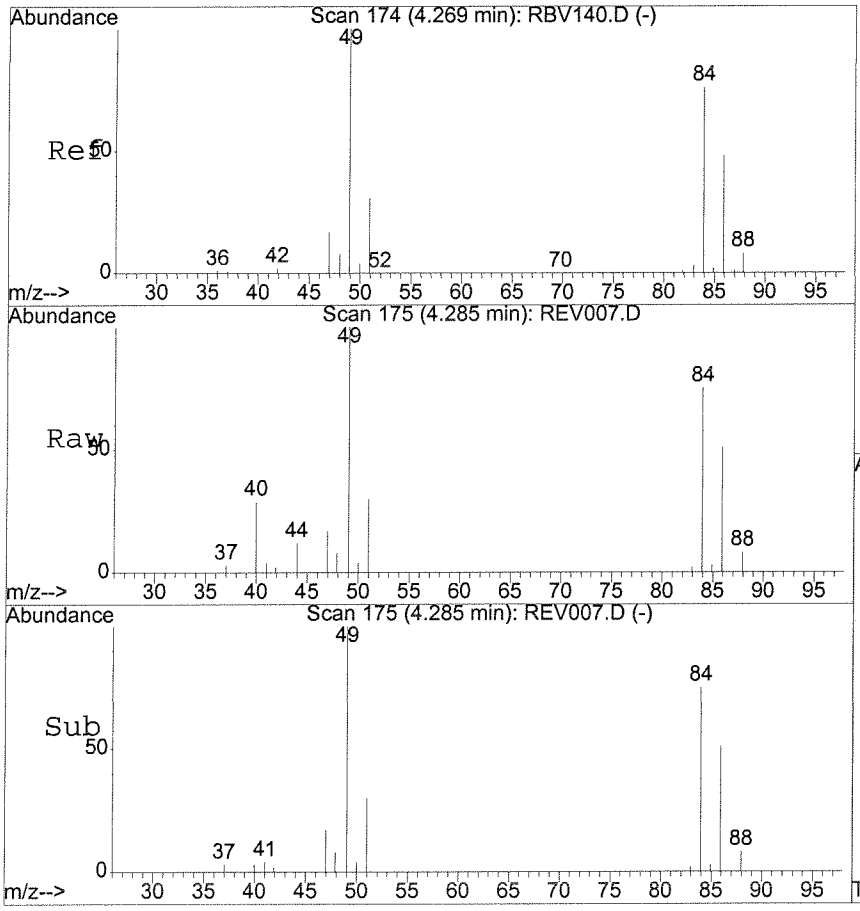
Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



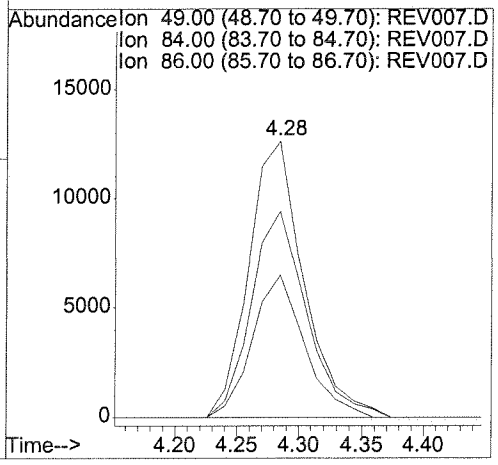
2024



#18
Methylene chloride
Concen: 0.62 ug/l
RT: 4.28 min Scan# 175
Delta R.T. 0.02 min
Lab File: REV007.D
Acq: 1 May 2015 5:58 pm

Tgt Ion: 49 Resp: 39078

Ion	Ratio	Lower	Upper
49	100		
84	74.9	45.9	105.9
86	48.9	18.6	78.6



2025

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV003.D Vial: 3
Acq On : 1 May 2015 4:01 pm Operator: WLau
Sample : VO01E01L Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1370760	10.00	ug/l	0.01
53) CHLOROBENZENE-D5	12.00	117	1130895	10.00	ug/l	0.01
71) 1,2-DICHLOROBENZENE-D4	15.18	152	421873	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.42	111	412375	9.05	ug/l	0.02
Spiked Amount 10.000			Recovery =	90.50%		
38) 1,2-Dichloroethane-d4	6.86	65	266818	9.08	ug/l	0.02
Spiked Amount 10.000			Recovery =	90.80%		
54) Toluene-d8	9.60	98	1472200	9.63	ug/l	0.00
Spiked Amount 10.000			Recovery =	96.30%		
74) 4-Bromofluorobenzene	13.59	95	461337	9.51	ug/l	0.02
Spiked Amount 10.000			Recovery =	95.10%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	323794	10.48	ug/l	100
4) Chloromethane	2.21	50	452051	9.23	ug/l	99
5) Vinyl chloride	2.38	62	412961	9.43	ug/l	100
7) Bromomethane	2.74	94	304107	8.49	ug/l	97
8) Chloroethane	2.85	64	286643	9.70	ug/l	98
9) Dichlorofluoromethane	3.11	67	814995	10.79	ug/l	100
10) Trichlorofluoromethane	3.13	101	397246	9.66	ug/l	98
11) Acrolein	3.60	56	77037	34.29	ug/l	88
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	259791	9.49	ug/l	98
13) Acetone	3.75	43	226918	52.34	ug/l	99
14) 1,1-Dichloroethene	3.72	61	556634	10.08	ug/l	99
15) Iodomethane	3.90	142	745124	9.67	ug/l	99
16) Carbon disulfide	3.99	76	1417367	10.48	ug/l	100
18) Methylene chloride	4.28	49	600470	10.02	ug/l	98
19) tert-Butyl alcohol	4.40	59	89985	58.13	ug/l	99
20) Acrylonitrile	4.54	53	347361	52.03	ug/l	99
21) tert-Butyl methyl ether (M	4.61	73	772304	10.97	ug/l	100
22) trans-1,2-Dichloroethene	4.61	61	656486	9.72	ug/l	99
23) Vinyl acetate	5.10	43	502898	8.04	ug/l	99
24) 1,1-Dichloroethane	5.11	63	902657	10.39	ug/l	100
25) Isopropyl ether (DIPE)	5.16	45	1670161	10.30	ug/l	99
27) tert-Butyl ethyl ether (ET	5.60	59	1197419	10.60	ug/l	100
28) 2-Butanone	5.76	43	466016	50.86	ug/l	99
29) cis-1,2-Dichloroethene	5.79	96	530523	10.23	ug/l	99
30) 2,2-Dichloropropane	5.81	77	562486	11.50	ug/l	100
31) Tetrahydrofurane	6.13	42	57802	10.31	ug/l	96
32) Bromochloromethane	6.09	49	357854	10.16	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV003.D Vial: 3
Acq On : 1 May 2015 4:01 pm Operator: WLau
Sample : VO01E01L Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Chloroform	6.21	83	768210	10.45 ug/l		99
35)	1,1,1-Trichloroethane	6.44	97	549408	10.12 ug/l		100
37)	tert-Amyl methyl ether (TA	7.08	87	190090	11.19 ug/l		97
39)	1,1-Dichloropropene	6.65	110	235119	9.57 ug/l		99
40)	Carbon tetrachloride	6.65	119	485249	9.85 ug/l		99
41)	Benzene	6.90	78	1838651	10.04 ug/l		100
42)	1,2-Dichloroethane	6.96	62	366028	10.21 ug/l		99
44)	Trichloroethene	7.81	130	550729	10.07 ug/l		99
46)	1,2-Dichloropropane	8.16	63	509234	10.69 ug/l	#	53
47)	1,4-Dioxane	8.27	88	36036	239.00 ug/l		99
48)	Dibromomethane	8.28	93	195712	10.44 ug/l		99
49)	Bromodichloromethane	8.53	83	529447	10.70 ug/l		99
51)	cis-1,3-Dichloropropene	9.18	75	701753	10.77 ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	1080004	51.67 ug/l		99
55)	Toluene	9.72	91	1898610	9.81 ug/l		99
56)	Ethyl methacrylate	10.16	69	340984	10.73 ug/l		99
57)	trans-1,3-Dichloropropene	10.07	75	486488	11.00 ug/l		98
58)	1,1,2-Trichloroethane	10.40	97	275049	10.66 ug/l		99
59)	Tetrachloroethene	10.56	164	405585	9.36 ug/l		99
60)	1,3-Dichloropropane	10.65	76	513018	10.58 ug/l		99
61)	2-Hexanone	10.74	43	675728	50.01 ug/l		100
62)	Dibromochloromethane	11.02	129	350550	10.81 ug/l		99
63)	1,2-Dibromoethane	11.23	107	263582	10.50 ug/l		99
64)	1-Chlorohexane	12.03	91	740546	8.75 ug/l		99
65)	Chlorobenzene	12.04	112	1183205	10.11 ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	411717	10.52 ug/l		99
67)	Ethylbenzene	12.20	91	2100446	9.76 ug/l		100
68)	m-Xylene & p-Xylene	12.40	91	3009397	19.44 ug/l		100
69)	o-Xylene	12.91	91	1521068	9.95 ug/l		99
70)	Styrene	12.94	104	1210428	10.33 ug/l		99
72)	Bromoform	13.18	173	175016	10.21 ug/l		98
73)	Isopropylbenzene	13.37	105	1913351	9.76 ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.73	83	319972	10.77 ug/l		100
76)	Bromobenzene	13.76	156	457076	10.28 ug/l		99
77)	trans-1,4-Dichloro-2-buten	13.77	53	52077	9.30 ug/l		100
78)	1,2,3-Trichloropropane	13.80	110	79392	10.88 ug/l		100
79)	n-Propylbenzene	13.86	91	2421309	9.68 ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	1465277	9.74 ug/l		100
81)	2-Chlorotoluene	13.96	91	1309349	9.96 ug/l		99
82)	4-Chlorotoluene	14.10	91	1432952	9.86 ug/l		99
83)	tert-Butylbenzene	14.41	134	390147	10.17 ug/l		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV003.D Vial: 3
Acq On : 1 May 2015 4:01 pm Operator: WLau
Sample : VO01E01L Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

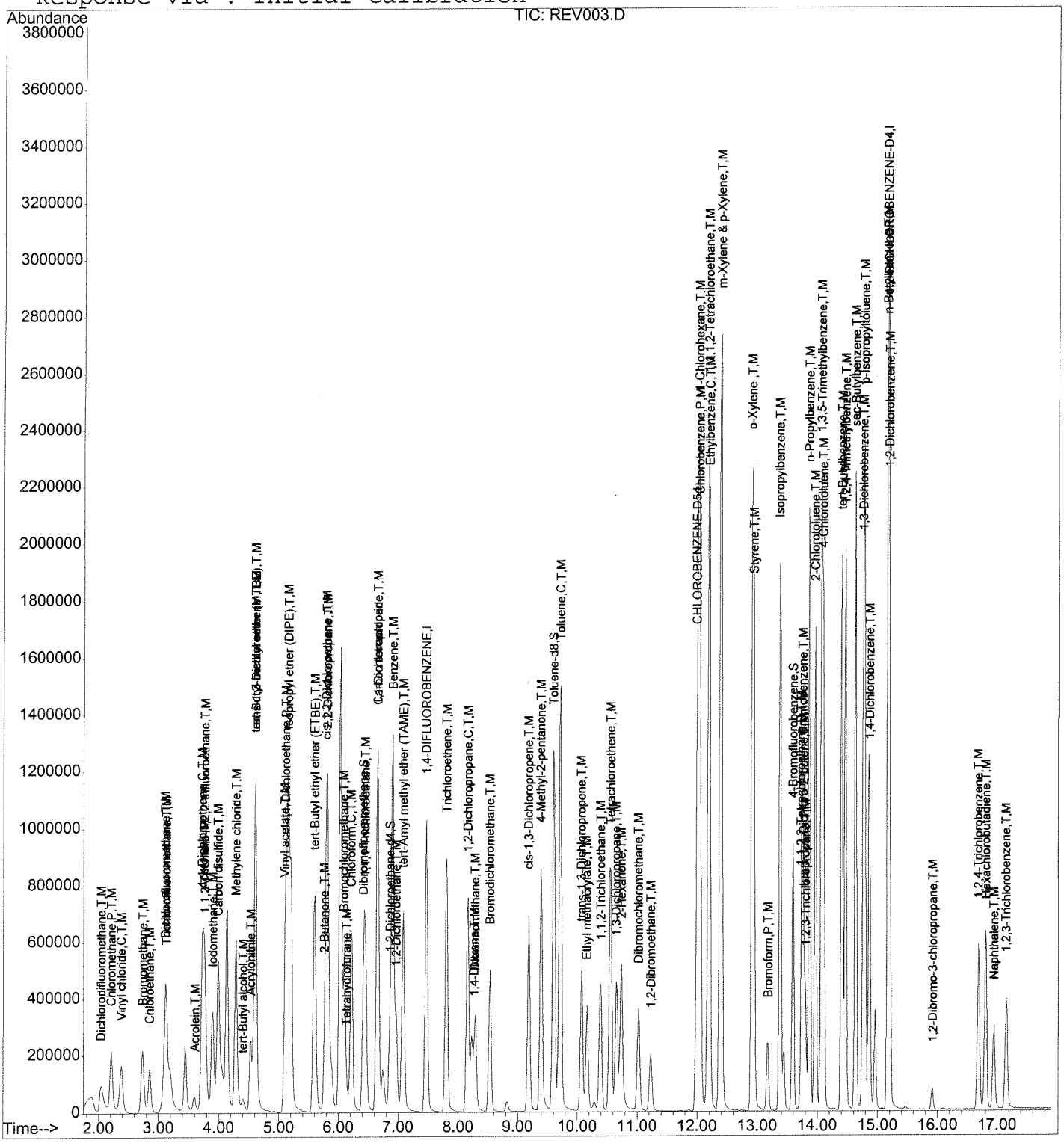
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1441474	9.77	ug/l	100
85)	sec-Butylbenzene	14.63	105	2077308	9.70	ug/l	100
86)	p-Isopropyltoluene	14.78	119	1653402	9.56	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	837287	9.75	ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	826246	9.90	ug/l	99
89)	n-Butylbenzene	15.16	91	1489349	9.38	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	697522	9.95	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	37310	9.42	ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	334264	8.67	ug/l	99
93)	Hexachlorobutadiene	16.81	225	235756	9.10	ug/l	99
94)	Naphthalene	16.94	128	434536	8.55	ug/l	100
95)	1,2,3-Trichlorobenzene	17.15	180	245770	8.39	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REV003.D Vial: 3
Acq On : 1 May 2015 4:01 pm Operator: WLau
Sample : VO01E01L Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV005.D Vial: 5
Acq On : 1 May 2015 5:05 pm Operator: WLau
Sample : VO01E01Y Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1469957	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	1230334	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	485129	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	449037	9.19	ug/l	0.00
Spiked Amount 10.000			Recovery =	91.90%		
38) 1,2-Dichloroethane-d4	6.85	65	292803	9.29	ug/l	0.00
Spiked Amount 10.000			Recovery =	92.90%		
54) Toluene-d8	9.60	98	1565577	9.41	ug/l	0.00
Spiked Amount 10.000			Recovery =	94.10%		
74) 4-Bromofluorobenzene	13.58	95	509848	9.14	ug/l	0.00
Spiked Amount 10.000			Recovery =	91.40%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	350215	10.57	ug/l	100
4) Chloromethane	2.21	50	489037	9.32	ug/l	99
5) Vinyl chloride	2.38	62	443204	9.44	ug/l	100
7) Bromomethane	2.73	94	323725	8.43	ug/l	100
8) Chloroethane	2.85	64	320118	10.10	ug/l	97
9) Dichlorofluoromethane	3.12	67	836173	10.32	ug/l	99
10) Trichlorofluoromethane	3.13	101	438970	9.95	ug/l	100
11) Acrolein	3.59	56	93828	38.95	ug/l	95
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	277687	9.46	ug/l	99
13) Acetone	3.74	43	261011	56.14	ug/l	99
14) 1,1-Dichloroethene	3.71	61	551199	9.31	ug/l	100
15) Iodomethane	3.89	142	751252	9.09	ug/l	99
16) Carbon disulfide	3.97	76	1490745	10.28	ug/l	100
18) Methylene chloride	4.27	49	609694	9.48	ug/l	98
19) tert-Butyl alcohol	4.39	59	110131	66.35	ug/l	94
20) Acrylonitrile	4.52	53	410625	57.36	ug/l	99
21) tert-Butyl methyl ether (M	4.60	73	849565	11.25	ug/l	100
22) trans-1,2-Dichloroethene	4.60	61	658608	9.09	ug/l	99
23) Vinyl acetate	5.10	43	597343	8.91	ug/l	99
24) 1,1-Dichloroethane	5.10	63	941487	10.10	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	1813266	10.43	ug/l	99
27) tert-Butyl ethyl ether (ET	5.59	59	1329641	10.97	ug/l	100
28) 2-Butanone	5.77	43	571379	58.15	ug/l	99
29) cis-1,2-Dichloroethene	5.80	96	550923	9.91	ug/l	100
30) 2,2-Dichloropropane	5.81	77	607801	11.59	ug/l	99
31) Tetrahydrofurane	6.12	42	65795	10.94	ug/l	98
32) Bromochloromethane	6.09	49	374488	9.91	ug/l	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV005.D Vial: 5
Acq On : 1 May 2015 5:05 pm Operator: WLau
Sample : VO01E01Y Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
33)	Chloroform	6.21	83	787624	9.99	ug/l		99
35)	1,1,1-Trichloroethane	6.45	97	594204	10.21	ug/l		99
37)	tert-Amyl methyl ether (TA	7.07	87	207114	11.37	ug/l		96
39)	1,1-Dichloropropene	6.64	110	249889	9.49	ug/l		100
40)	Carbon tetrachloride	6.65	119	517044	9.79	ug/l		99
41)	Benzene	6.89	78	1888202	9.61	ug/l		99
42)	1,2-Dichloroethane	6.95	62	392578	10.21	ug/l		99
44)	Trichloroethene	7.79	130	569511	9.72	ug/l		99
46)	1,2-Dichloropropane	8.15	63	534401	10.47	ug/l	#	52
47)	1,4-Dioxane	8.25	88	40241	248.88	ug/l		94
48)	Dibromomethane	8.28	93	209911	10.44	ug/l		99
49)	Bromodichloromethane	8.52	83	557918	10.52	ug/l		99
51)	cis-1,3-Dichloropropene	9.18	75	751148	10.75	ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	1320613	58.92	ug/l		99
55)	Toluene	9.70	91	1996606	9.48	ug/l		99
56)	Ethyl methacrylate	10.16	69	400490	11.58	ug/l		99
57)	trans-1,3-Dichloropropene	10.07	75	535033	11.12	ug/l		99
58)	1,1,2-Trichloroethane	10.38	97	300957	10.72	ug/l		99
59)	Tetrachloroethene	10.55	164	441011	9.36	ug/l		99
60)	1,3-Dichloropropane	10.65	76	565856	10.73	ug/l		99
61)	2-Hexanone	10.72	43	855219	58.17	ug/l		100
62)	Dibromochloromethane	11.02	129	380151	10.77	ug/l		99
63)	1,2-Dibromoethane	11.23	107	287552	10.53	ug/l		100
64)	1-Chlorohexane	12.03	91	845560	9.19	ug/l		99
65)	Chlorobenzene	12.04	112	1289863	10.13	ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	449123	10.55	ug/l		100
67)	Ethylbenzene	12.19	91	2304912	9.84	ug/l		100
68)	m-Xylene & p-Xylene	12.38	91	3300653	19.60	ug/l		100
69)	o-Xylene	12.92	91	1661631	9.99	ug/l		99
70)	Styrene	12.94	104	1354207	10.62	ug/l		100
72)	Bromoform	13.17	173	201220	10.21	ug/l		98
73)	Isopropylbenzene	13.37	105	2151414	9.54	ug/l		100
75)	1,1,2,2-Tetrachloroethane	13.73	83	373233	10.93	ug/l		99
76)	Bromobenzene	13.76	156	512952	10.03	ug/l		99
77)	trans-1,4-Dichloro-2-buten	13.77	53	65148	10.12	ug/l		98
78)	1,2,3-Trichloropropane	13.80	110	90646	10.81	ug/l		100
79)	n-Propylbenzene	13.86	91	2733435	9.50	ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	1672401	9.67	ug/l		100
81)	2-Chlorotoluene	13.97	91	1435999	9.50	ug/l		99
82)	4-Chlorotoluene	14.10	91	1606446	9.61	ug/l		99
83)	tert-Butylbenzene	14.41	134	436156	9.88	ug/l		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV005.D Vial: 5
Acq On : 1 May 2015 5:05 pm Operator: WLau
Sample : VO01E01Y Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

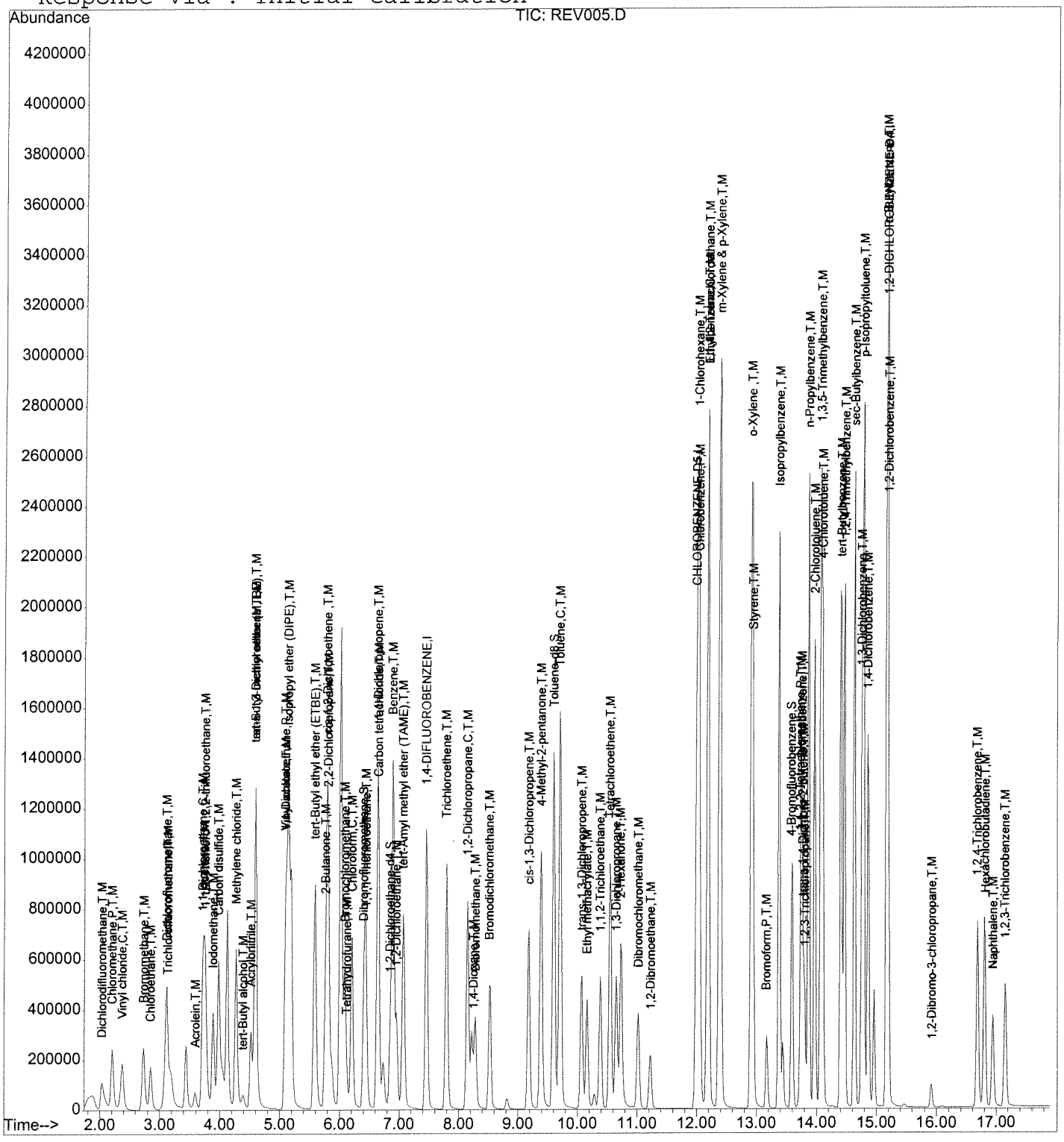
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1648959	9.72	ug/l	100
85)	sec-Butylbenzene	14.63	105	2374949	9.65	ug/l	100
86)	p-Isopropyltoluene	14.78	119	1895554	9.53	ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	954774	9.67	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	941381	9.81	ug/l	99
89)	n-Butylbenzene	15.16	91	1743264	9.54	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	789303	9.79	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	48071	10.56	ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	423372	9.55	ug/l	99
93)	Hexachlorobutadiene	16.81	225	281804	9.46	ug/l	99
94)	Naphthalene	16.94	128	542282	9.28	ug/l	100
95)	1,2,3-Trichlorobenzene	17.15	180	310557	9.22	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REV005.D Vial: 5
Acq On : 1 May 2015 5:05 pm Operator: WLau
Sample : VO01E01Y Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:57 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RBV134
Instrument ID: TO01
GC Column:RXI-624SILMSID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D156
BFB Injection Date : 02/12/15
BFB Injection Time : 16:56
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.11
75	30.0 - 60.0% of mass 95	45.18
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.87
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	78.35
175	5.0 - 9.0% of mass 174	5.63(7.2)1
176	95.0 - 101.0% of mass 174	75.79(96.7)1
177	5.0 - 9.0% of mass 176	5.00(6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	VO01B121	RBV135	02/12/15	17:43
2	VSTD0.5	VO01B122	RBV136	02/12/15	18:11
3	VSTD01	VO01B123	RBV137	02/12/15	18:39
4	VSTD02	VO01B124	RBV138	02/12/15	19:07
5	VSTD05	VO01B125	RBV139	02/12/15	19:35
6	VSTD010	VO01B126	RBV140	02/12/15	20:03
7	VSTD020	VO01B127	RBV141	02/12/15	20:31
8	VSTD030	VO01B128	RBV142	02/12/15	20:59
9	VSTD050	VO01B129	RBV143	02/12/15	21:27

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T001
Beginning DateTime :02/12/15 17:43
Spike Units :PPB
IC File :RBV140

Column Spec :RXI-624SILMS ID :0.25MM
Ending DateTime :02/12/15 21:27
HPChem Method :V001B12

M	IDX	Parameters	.3 17:43 RBV135	.5 18:11 RBV136	1 18:39 RBV137	2 19:07 RBV138	5 19:35 RBV139	10 20:03 RBV140	20 20:31 RBV141	30 20:59 RBV142	50 21:27 RBV143	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	7.4523
	2	Chlorotrifluoroethylene	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	3	Dichlorodifluoromethane	0.221	0.213	0.206	0.236	0.224	0.257	0.234	0.221	0.218	0.225	6.61	2.0375
	4	Chloromethane	0.330	0.366	0.364	0.372	0.352	0.399	0.364	0.336	0.332	0.357	6.20	2.1925
	5	Vinyl chloride	0.305	0.313	0.313	0.332	0.316	0.358	0.331	0.304	0.304	0.320	5.56	2.3569
	6	2-Chloro-1,1,1-trifluoroethane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	7	Bromomethane	------	0.310	0.266	0.277	0.245	0.257	0.213	------	------	0.261	12.36	2.7155
	8	Chloroethane	0.201	0.220	0.207	0.224	0.221	0.241	0.214	0.196	------	0.216	6.59	2.8359
	9	Dichlorofluoromethane	0.558	0.527	0.625	0.587	0.543	0.547	0.564	0.516	0.492	0.551	7.10	3.1004
	10	Trichlorofluoromethane	0.277	0.273	0.278	0.318	0.310	0.344	0.316	0.297	0.287	0.300	7.89	3.1744
5	11	Acrolein	0.016	0.017	0.016	0.016	0.017	0.017	0.018	0.016	0.016	0.016	4.37	3.5839
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.219	0.196	0.209	0.205	0.193	0.198	0.203	0.189	0.186	0.200	5.25	3.7517
5	13	Acetone	------	------	------	0.038	0.035	0.030	0.033	0.027	0.027	0.032	13.74	3.7368
	14	1,1-Dichloroethene	0.419	0.393	0.433	0.426	0.398	0.398	0.410	0.381	0.365	0.403	5.41	3.7221
	15	Iodomethane	0.557	0.542	0.572	0.576	0.562	0.567	0.592	0.550	0.542	0.562	2.93	3.8866
	16	Carbon disulfide	------	0.912	0.983	1.026	1.038	1.074	1.000	0.939	0.920	0.986	5.98	4.0126
	17	Methyl acetate	------	0.106	0.108	0.112	0.117	0.113	0.112	0.099	0.099	0.108	6.18	4.0978
	18	Methylene chloride	------	0.525	0.488	0.451	0.420	0.411	0.427	0.393	0.384	0.437	11.04	4.2698
5	19	tert-Butyl alcohol	------	0.009	0.010	0.011	0.011	0.012	0.014	0.011	0.012	0.011	13.23	4.3864
5	20	Acrylonitrile	0.045	0.045	0.047	0.047	0.052	0.051	0.056	0.047	0.049	0.049	7.16	4.5148
	21	tert-Butyl methyl ether (MTBE)	0.502	0.499	0.516	0.521	0.521	0.527	0.561	0.482	0.494	0.514	4.53	4.5839
	22	trans-1,2-Dichloroethene	0.499	0.494	0.512	0.513	0.491	0.497	0.504	0.472	0.452	0.493	3.99	4.5905
	23	Vinyl acetate	------	------	0.416	0.462	0.432	0.519	0.526	0.380	0.458	0.456	11.61	5.0839
	24	1,1-Dichloroethane	0.653	0.610	0.659	0.654	0.627	0.635	0.658	0.620	0.588	0.634	3.90	5.0954
	25	Isopropyl ether (DIPE)	1.189	1.153	1.215	1.227	1.184	1.201	1.250	1.136	1.090	1.183	4.18	5.1415
5	26	2-Butanol	------	------	0.008	0.009	0.010	0.011	0.012	0.010	0.011	0.010	10.66	5.9889
	27	tert-Butyl ethyl ether (ETBE)	0.791	0.785	0.843	0.836	0.821	0.839	0.898	0.808	0.798	0.824	4.22	5.5773
5	28	2-Butanone	0.069	0.065	0.066	0.062	0.070	0.070	0.075	0.062	0.064	0.067	6.48	5.7550
	29	cis-1,2-Dichloroethene	0.376	0.366	0.396	0.392	0.381	0.384	0.395	0.364	0.349	0.378	4.24	5.7796
	30	2,2-Dichloropropane	0.384	0.351	0.375	0.370	0.354	0.361	0.363	0.334	0.320	0.357	5.66	5.7961
	31	Tetrahydrofurane	------	------	0.040	0.043	0.044	0.040	0.046	0.036	0.037	0.041	8.98	6.1116
	32	Bromochloromethane	0.247	0.246	0.268	0.264	0.259	0.262	0.276	0.249	0.242	0.257	4.58	6.0757
	33	Chloroform	0.554	0.509	0.551	0.548	0.534	0.531	0.565	0.527	0.505	0.536	3.84	6.1957
	34	Dibromofluoromethane	------	0.296	0.328	0.338	0.352	0.352	0.349	0.326	0.318	0.332	5.89	6.4014
	35	1,1,1-Trichloroethane	0.396	0.376	0.402	0.407	0.395	0.400	0.413	0.395	0.378	0.396	3.08	6.4309
	36	Cyclohexane	0.540	0.506	0.472	0.553	0.550	0.538	0.502	0.510	0.491	0.518	5.46	6.5346
	37	tert-Amyl methyl ether (TAME)	0.111	0.104	0.123	0.124	0.128	0.133	0.141	0.125	0.126	0.124	8.68	7.0675
	38	1,2-Dichloroethane-d4	------	0.193	0.211	0.223	0.224	0.227	0.228	0.205	0.204	0.214	6.07	6.8455
	39	1,1-Dichloropropene	0.192	0.175	0.181	0.184	0.179	0.181	0.182	0.173	0.164	0.179	4.34	6.6332
	40	Carbon tetrachloride	0.364	0.334	0.360	0.370	0.360	0.368	0.377	0.355	0.344	0.359	3.72	6.6382
	41	Benzene	1.397	1.287	1.387	1.381	1.311	1.329	1.377	1.299	1.257	1.336	3.80	6.8898
	42	1,2-Dichloroethane	0.245	0.249	0.270	0.271	0.266	0.268	0.282	0.253	0.249	0.262	4.87	6.9490
	43	2,2,4-Trimethylpentane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	44	Trichloroethene	0.418	0.382	0.407	0.407	0.397	0.398	0.410	0.392	0.378	0.399	3.33	7.7895
	45	Methylcylohexane	0.490	0.456	0.427	0.515	0.513	0.508	0.481	0.479	0.459	0.481	6.14	8.1332
	46	1,2-Dichloropropane	0.352	0.331	0.361	0.362	0.354	0.350	0.368	0.333	0.315	0.347	5.04	8.1447
20	47	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	12.12	8.2516
	48	Dibromomethane	0.123	0.127	0.136	0.139	0.139	0.145	0.153	0.135	0.134	0.137	6.70	8.2664
	49	Bromodichloromethane	0.333	0.335	0.354	0.364	0.368	0.373	0.397	0.365	0.358	0.361	5.40	8.5181
	50	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	51	cis-1,3-Dichloropropene	0.411	0.427	0.460	0.483	0.487	0.498	0.537	0.491	0.482	0.475	7.95	9.1694
5	52	4-Methyl-2-pentanone	0.133	0.132	0.145	0.141	0.163	0.166	0.183	0.150	0.160	0.152	11.09	9.3799
	53	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	11.9868
	54	Toluene-d8	0.955	1.311	1.410	1.426	1.466	1.444	1.423	1.393	1.345	1.352	11.58	9.5970
	55	Toluene	1.872	1.694	1.792	1.718	1.696	1.649	1.729	1.652	1.603	1.712	4.73	9.7023
	56	Ethyl methacrylate	------	0.216	0.251	0.262	0.288	0.299	0.332	0.296	0.304	0.281	12.89	10.1519
	57	trans-1,3-Dichloropropene	0.349	0.330	0.378	0.382	0.405	0.407	0.447	0.412	0.411	0.391	9.16	10.0575
	58	1,1,2-Trichloroethane	0.226	0.216	0.231	0.232	0.233	0.230	0.245	0.220	0.220	0.228	3.90	10.3832

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2/18/15

	59	Tetrachloroethene	0.421	0.379	0.402	0.386	0.378	0.368	0.382	0.373	0.358	0.383	4.85	10.5460
	60	1,3-Dichloropropane	0.419	0.399	0.436	0.437	0.439	0.436	0.465	0.418	0.412	0.429	4.47	10.6497
5	61	2-Hexanone	------	0.100	0.107	0.106	0.124	0.126	0.143	0.121	0.128	0.119	11.92	10.7274
	62	Dibromochloromethane	0.260	0.249	0.282	0.282	0.295	0.298	0.324	0.295	0.295	0.287	7.66	11.0066
	63	1,2-Dibromoethane	0.208	0.204	0.220	0.217	0.229	0.229	0.248	0.221	0.220	0.222	5.77	11.2121
	64	1-Chlorohexane	0.839	0.728	0.765	0.761	0.735	0.731	0.762	0.733	0.680	0.748	5.72	12.0115
	65	Chlorobenzene	1.063	0.998	1.084	1.057	1.040	1.030	1.073	1.016	0.953	1.035	3.99	12.0411
	66	1,1,1,2-Tetrachloroethane	0.335	0.327	0.356	0.353	0.355	0.348	0.368	0.344	0.328	0.346	3.96	12.1743
	67	Ethylbenzene	1.958	1.853	1.966	1.932	1.918	1.894	1.958	1.876	1.771	1.903	3.32	12.1891
2	68	m-Xylene & p-Xylene	1.420	1.338	1.415	1.375	1.372	1.363	1.412	1.353	1.270	1.369	3.44	12.3815
	69	o-Xylene	1.385	1.263	1.420	1.379	1.360	1.362	1.414	1.325	1.263	1.352	4.29	12.8996
	70	Styrene	0.958	0.923	1.033	1.046	1.053	1.086	1.142	1.062	1.024	1.036	6.28	12.9309
	71	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	15.1792
	72	Bromoform	------	0.346	0.375	0.379	0.409	0.415	0.451	0.431	0.444	0.406	9.03	13.1661
	73	Isopropylbenzene	4.917	4.404	4.835	4.697	4.593	4.547	4.591	4.728	4.511	4.647	3.49	13.3733
	74	4-Bromofluorobenzene	0.910	1.150	1.179	1.197	1.215	1.193	1.177	1.171	1.159	1.150	8.01	13.5805
	75	1,1,2,2-Tetrachloroethane	0.709	0.655	0.712	0.699	0.721	0.714	0.752	0.687	0.689	0.704	3.83	13.7286
	76	Bromobenzene	1.038	0.997	1.093	1.055	1.045	1.036	1.085	1.081	1.052	1.054	2.82	13.7450
	77	trans-1,4-Dichloro-2-butene	------	------	0.112	0.114	0.131	0.138	0.152	0.138	0.143	0.133	11.34	13.7729
	78	1,2,3-Trichloropropane	------	0.157	0.171	0.172	0.176	0.176	0.188	0.170	0.172	0.173	4.93	13.8026
	79	n-Propylbenzene	6.219	5.618	6.116	5.906	5.844	5.871	6.014	6.209	5.570	5.930	3.96	13.8618
	80	1,3,5-Trimethylbenzene	3.628	3.398	3.706	3.576	3.547	3.514	3.615	3.682	3.419	3.565	3.01	14.0690
	81	2-Chlorotoluene	3.275	3.034	3.251	3.194	3.062	3.015	3.079	3.140	3.006	3.117	3.28	13.9654
	82	4-Chlorotoluene	3.724	3.377	3.506	3.512	3.402	3.340	3.434	3.464	3.250	3.446	3.87	14.0986
	83	tert-Butylbenzene	0.925	0.861	0.959	0.949	0.909	0.895	0.912	0.914	0.864	0.910	3.67	14.3980
	84	1,2,4-Trimethylbenzene	3.648	3.366	3.543	3.535	3.468	3.413	3.537	3.584	3.373	3.496	2.79	14.4555
	85	sec-Butylbenzene	5.276	4.800	5.157	5.175	5.015	5.071	5.134	5.174	4.877	5.076	3.03	14.6315
	86	p-Isopropyltoluene	4.213	3.768	4.168	4.173	4.100	4.062	4.311	4.225	3.891	4.101	4.21	14.7795
	87	1,3-Dichlorobenzene	2.155	1.953	2.066	2.066	1.993	1.960	2.101	2.050	1.976	2.036	3.41	14.7516
	88	1,4-Dichlorobenzene	2.063	1.896	2.046	2.010	1.918	1.924	2.065	1.977	1.908	1.978	3.51	14.8536
	89	n-Butylbenzene	3.891	3.466	3.799	3.775	3.741	3.796	3.911	3.946	3.564	3.766	4.22	15.1644
	90	1,2-Dichlorobenzene	1.747	1.610	1.730	1.687	1.633	1.616	1.704	1.638	1.588	1.661	3.43	15.1940
	91	1,2-Dibromo-3-chloropropane	------	------	0.074	0.083	0.093	0.097	0.108	0.099	0.102	0.094	12.45	15.9151
	92	1,2,4-Trichlorobenzene	0.876	0.784	0.851	0.890	0.930	0.945	1.002	1.001	0.946	0.914	7.77	16.6759
	93	Hexachlorobutadiene	0.621	0.568	0.617	0.613	0.630	0.635	0.643	0.637	0.562	0.614	4.77	16.7943
	94	Naphthalene	1.249	1.003	1.063	1.071	1.179	1.244	1.376	1.327	1.326	1.204	11.07	16.9407
	95	1,2,3-Trichlorobenzene	0.671	0.586	0.658	0.681	0.716	0.723	0.758	0.739	0.715	0.694	7.45	17.1512

Spike Amount = Nominal Amount * M

Ave_%RSD : 6.2 Max_%RSD : 13.7

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2/18/15

1 SS2

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
Total Cpnds : 95

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	7.45	1.000	A	1	A	B
2	T	Chlorotrifluoroethylene	116	1.98	0.266	A	2	A	B
3	T	Dichlorodifluoromethane	85	2.04	0.274	A	1	A	B
4	T	Chloromethane	50	2.20	0.295	A	1	A	B
5	T	Vinyl chloride	62	2.37	0.318	A	1	A	B
6	T	2-Chloro-1,1,1-trifluoroethane	118	2.48	0.333	A	2	A	B
7	T	Bromomethane	94	2.72	0.365	A	1	A	B
8	T	Chloroethane	64	2.84	0.381	A	2	A	B
9	T	Dichlorofluoromethane	67	3.10	0.416	A	1	A	B
10	T	Trichlorofluoromethane	101	3.17	0.426	A	1	A	B
11	T	Acrolein	56	3.59	0.482	A	1	A	B
12	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.75	0.503	A	1	A	B
13	T	Acetone	43	3.74	0.501	A	2	A	B
14	T	1,1-Dichloroethene	61	3.72	0.499	A	2	A	B
15	T	Iodomethane	142	3.88	0.521	A	1	A	B
16	T	Carbon disulfide	76	4.02	0.539	A	1	A	B
17	T	Methyl acetate	43	4.09	0.549	A	1	A	B
18	T	Methylene chloride	49	4.27	0.573	A	2	A	B
19	T	tert-Butyl alcohol	59	4.39	0.589	A	1	A	B
20	T	Acrylonitrile	53	4.50	0.605	A	2	A	B
21	T	tert-Butyl methyl ether (MTBE)	73	4.58	0.615	A	1	A	B
22	T	trans-1,2-Dichloroethene	61	4.59	0.617	A	2	A	B
23	T	Vinyl acetate	43	5.08	0.682	A	1	A	B
24	T	1,1-Dichloroethane	63	5.10	0.684	A	2	A	B
25	T	Isopropyl ether (DIPE)	45	5.14	0.690	A	1	A	B
26	T	2-Butanol	45	5.99	0.803	A	1	A	B
27	T	tert-Butyl ethyl ether (ETBE)	59	5.57	0.748	A	1	A	B
28	T	2-Butanone	43	5.75	0.772	A	1	A	B
29	T	cis-1,2-Dichloroethene	96	5.78	0.776	A	2	A	B
30	T	2,2-Dichloropropane	77	5.79	0.778	A	2	A	B
31	T	Tetrahydrofurane	42	6.10	0.819	A	2	A	B
32	T	Bromochloromethane	49	6.07	0.815	A	2	A	B
33	T	Chloroform	83	6.19	0.831	A	2	A	B
34	S	Dibromofluoromethane	111	6.40	0.859	A	2	A	B
35	T	1,1,1-Trichloroethane	97	6.43	0.863	A	2	A	B
36	T	Cyclohexane	56	6.53	0.877	A	2	A	B
37	T	tert-Amyl methyl ether (TAME)	87	7.07	0.948	A	2	A	B
38	S	1,2-Dichloroethane-d4	65	6.84	0.918	A	1	A	B
39	T	1,1-Dichloropropene	110	6.64	0.891	A	1	A	B
40	T	Carbon tetrachloride	119	6.64	0.891	A	1	A	B
41	T	Benzene	78	6.89	0.925	A	2	A	B
42	T	1,2-Dichloroethane	62	6.95	0.932	A	1	A	B
43	T	2,2,4-Trimethylpentane	57	7.07	0.948	A	3	A	B
44	T	Trichloroethene	130	7.79	1.046	A	3	A	B
45	T	Methylcylohexane	83	8.13	1.091	A	2	A	B
46	T	1,2-Dichloropropane	63	8.15	1.093	A	2	A	B
47	T	1,4-Dioxane	88	8.25	1.107	A	1	A	B
48	T	Dibromomethane	93	8.27	1.109	A	2	A	B
49	T	Bromodichloromethane	83	8.52	1.143	A	1	A	B
50	T	2-Chloroethyl vinyl ether	63	8.93	1.199	A	2	A	B
51	T	cis-1,3-Dichloropropene	75	9.17	1.230	A	3	A	B
52	T	4-Methyl-2-pentanone	43	9.38	1.258	A	3	A	B

2/18/15

53	I	CHLOROBENZENE-D5	117	11.98	1.000	A	2	A	B
54	S	Toluene-d8	98	9.60	0.801	A	1	A	B
55	T	Toluene	91	9.70	0.810	A	1	A	B
56	T	Ethyl methacrylate	69	10.15	0.847	A	2	A	B
57	T	trans-1,3-Dichloropropene	75	10.06	0.839	A	2	A	B
58	T	1,1,2-Trichloroethane	97	10.38	0.867	A	3	A	B
59	T	Tetrachloroethene	164	10.55	0.880	A	3	A	B
60	T	1,3-Dichloropropane	76	10.65	0.889	A	1	A	B
61	T	2-Hexanone	43	10.72	0.895	A	2	A	B
62	T	Dibromochloromethane	129	11.00	0.918	A	1	A	B
63	T	1,2-Dibromoethane	107	11.21	0.936	A	1	A	B
64	T	1-Chlorohexane	91	12.01	1.002	A	3	A	B
65	P,M	Chlorobenzene	112	12.04	1.005	A	3	A	B
66	T	1,1,1,2-Tetrachloroethane	131	12.17	1.016	A	3	A	B
67	T	Ethylbenzene	91	12.19	1.017	A	1	A	B
68	T	m-Xylene & p-Xylene	91	12.38	1.033	A	1	A	B
69	T	o-Xylene	91	12.90	1.077	A	1	A	B
70	T	Styrene	104	12.93	1.079	A	2	A	B
71	I	1,2-DICHLOROBENZENE-D4	152	15.18	1.000	A	1	A	B
72	T	Bromoform	173	13.16	0.867	A	2	A	B
73	T	Isopropylbenzene	105	13.37	0.881	A	3	A	B
74	S	4-Bromofluorobenzene	95	13.58	0.895	A	2	A	B
75	T	1,1,2,2-Tetrachloroethane	83	13.73	0.904	A	1	A	B
76	T	Bromobenzene	156	13.74	0.905	A	2	A	B
77	T	trans-1,4-Dichloro-2-butene	53	13.77	0.907	A	1	A	B
78	T	1,2,3-Trichloropropane	110	13.80	0.909	A	1	A	B
79	T	n-Propylbenzene	91	13.86	0.913	A	2	A	B
80	T	1,3,5-Trimethylbenzene	105	14.07	0.927	A	2	A	B
81	T	2-Chlorotoluene	91	13.96	0.920	A	1	A	B
82	T	4-Chlorotoluene	91	14.10	0.929	A	1	A	B
83	T	tert-Butylbenzene	134	14.39	0.948	A	2	A	B
84	T	1,2,4-Trimethylbenzene	105	14.45	0.952	A	1	A	B
85	T	sec-Butylbenzene	105	14.63	0.964	A	1	A	B
86	T	p-Isopropyltoluene	119	14.78	0.974	A	2	A	B
87	T	1,3-Dichlorobenzene	146	14.75	0.972	A	2	A	B
88	T	1,4-Dichlorobenzene	146	14.85	0.978	A	2	A	B
89	T	n-Butylbenzene	91	15.16	0.999	A	2	A	B
90	T	1,2-Dichlorobenzene	146	15.19	1.001	A	2	A	B
91	T	1,2-Dibromo-3-chloropropane	157	15.92	1.049	A	2	A	B
92	T	1,2,4-Trichlorobenzene	180	16.67	1.098	A	2	A	B
93	T	Hexachlorobutadiene	225	16.79	1.106	A	2	A	B
94	T	Naphthalene	128	16.94	1.116	A	1	A	B
95	T	1,2,3-Trichlorobenzene	180	17.15	1.130	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

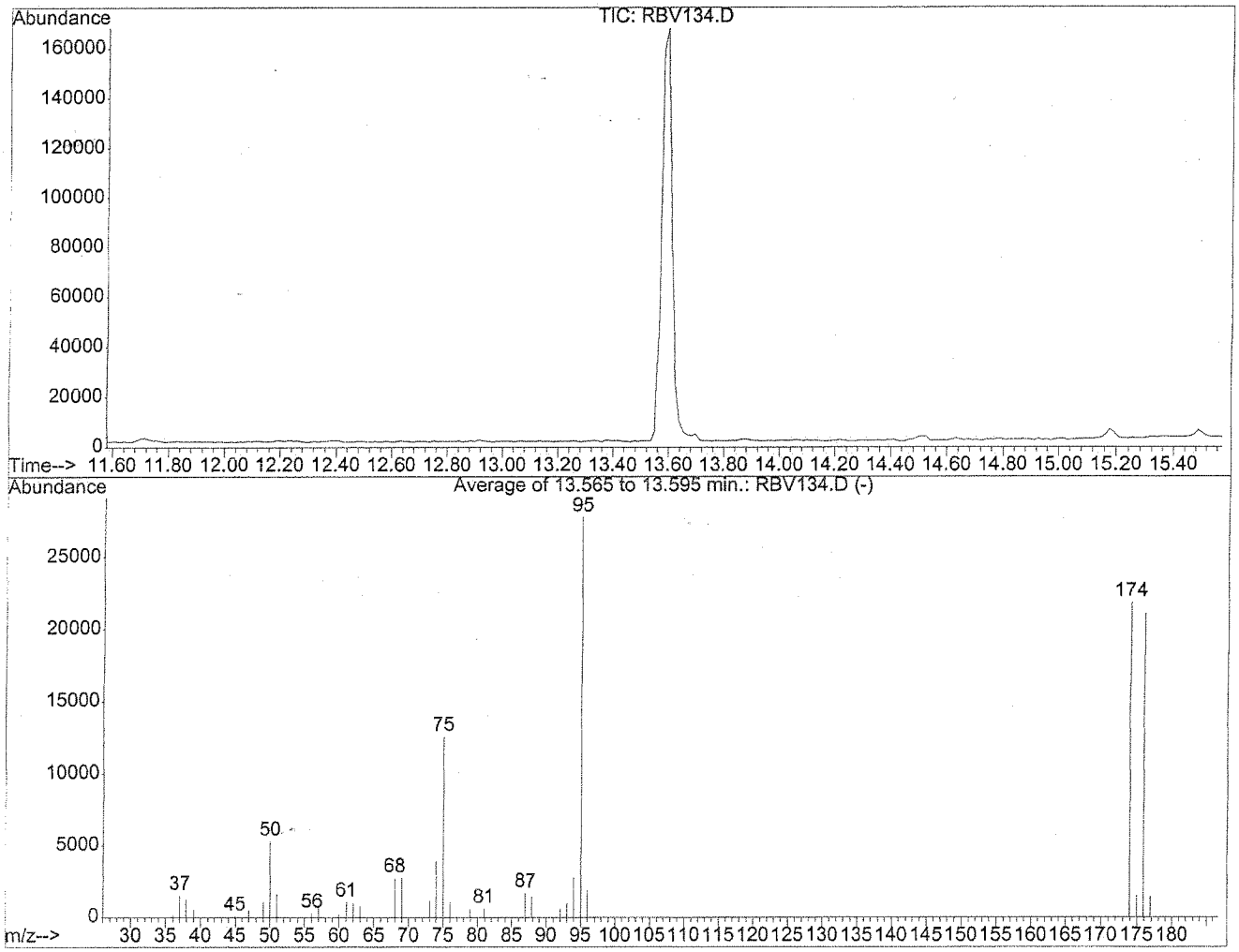
VO01B12.M Tue Feb 17 10:58:18 2015

SM 2/18/15

BFB

Data File : D:\HPCHEM\1\DATA\15B12\RBV134.D
Acq On : 12 Feb 2015 4:56 pm
Sample : BFB01B08
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 802, 803, 804; Background Corrected with Scan 799

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	5326	PASS
75	95	30	60	45.2	12593	PASS
95	95	100	100	100.0	27872	PASS
96	95	5	9	6.9	1916	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.4	21838	PASS
175	174	5	9	7.2	1570	PASS
176	174	95	101	96.7	21125	PASS
177	176	5	9	6.6	1393	PASS

RBV134.D VO01B12.M Wed Feb 18 17:01:38 2015

SW 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D Vial: 2
Acq On : 12 Feb 2015 5:43 pm Operator: WLau
Sample : VO01B121 Inst : TO01
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1552376	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	1232249	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	443326	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	8016	0.16	ug/l	0.00
Spiked Amount 10.000			Recovery =	1.60%		
38) 1,2-Dichloroethane-d4	6.85	65	5011	0.15	ug/l	0.00
Spiked Amount 10.000			Recovery =	1.50%		
54) Toluene-d8	9.60	98	35303	0.21	ug/l	0.00
Spiked Amount 10.000			Recovery =	2.10%		
74) 4-Bromofluorobenzene	13.58	95	12106	0.24	ug/l	0.00
Spiked Amount 10.000			Recovery =	2.40%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.03	85	10303	0.29	ug/l	85
4) Chloromethane	2.18	50	15391	0.28	ug/l	98
5) Vinyl chloride	2.35	62	14182	0.29	ug/l	96
7) Bromomethane	2.72	94	16397	0.40	ug/l #	60
8) Chloroethane	2.83	64	9377	0.28	ug/l	95
9) Dichlorofluoromethane	3.10	67	26005	0.30	ug/l	97
10) Trichlorofluoromethane	3.17	101	12892	0.28	ug/l	95
11) Acrolein	3.59	56	3727	1.46	ug/l	69
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	10222	0.33	ug/l	98
13) Acetone	3.75	43	19362	3.94	ug/l	87
14) 1,1-Dichloroethene	3.72	61	19521	0.31	ug/l	99
15) Iodomethane	3.88	142	25952	0.30	ug/l	99
16) Carbon disulfide	4.02	76	42848	0.28	ug/l	100
18) Methylene chloride	4.27	49	29793	0.44	ug/l	99
20) Acrylonitrile	4.52	53	10583	1.40	ug/l	93
21) tert-Butyl methyl ether (M	4.58	73	23385	0.29	ug/l	97
22) trans-1,2-Dichloroethene	4.60	61	23226	0.30	ug/l	100
23) Vinyl acetate	5.08	43	12323	0.17	ug/l	99
24) 1,1-Dichloroethane	5.10	63	30407	0.31	ug/l	99
25) Isopropyl ether (DIPE)	5.14	45	55373	0.30	ug/l	97
27) tert-Butyl ethyl ether (ET	5.59	59	36833	0.29	ug/l	97
28) 2-Butanone	5.76	43	15966	1.54	ug/l	92
29) cis-1,2-Dichloroethene	5.78	96	17517	0.30	ug/l	98
30) 2,2-Dichloropropane	5.79	77	17892	0.32	ug/l	96
32) Bromochloromethane	6.08	49	11493	0.29	ug/l	99
33) Chloroform	6.19	83	25813	0.31	ug/l	98
35) 1,1,1-Trichloroethane	6.43	97	18445	0.30	ug/l	99

(#) = qualifier out of range (m) = manual integration

Su 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D Vial: 2
Acq On : 12 Feb 2015 5:43 pm Operator: WLau
Sample : VO01B121 Inst : TO01
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Cyclohexane	6.53	56	25166	0.31 ug/l		98
37)	tert-Amyl methyl ether (TA	7.07	87	5187	0.27 ug/l	#	85
39)	1,1-Dichloropropene	6.64	110	8949	0.32 ug/l		95
40)	Carbon tetrachloride	6.64	119	16954	0.30 ug/l		97
41)	Benzene	6.89	78	65043	0.31 ug/l		98
42)	1,2-Dichloroethane	6.95	62	11423	0.28 ug/l		96
44)	Trichloroethene	7.79	130	19471	0.31 ug/l		98
45)	Methylcylohexane	8.13	83	22821	0.31 ug/l		98
46)	1,2-Dichloropropane	8.15	63	16383	0.30 ug/l		96
48)	Dibromomethane	8.27	93	5710	0.27 ug/l		99
49)	Bromodichloromethane	8.52	83	15503	0.28 ug/l		98
51)	cis-1,3-Dichloropropene	9.17	75	19164	0.26 ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	30965	1.31 ug/l		95
55)	Toluene	9.70	91	69194	0.33 ug/l		99
56)	Ethyl methacrylate	10.16	69	7774	0.22 ug/l	#	84
57)	trans-1,3-Dichloropropene	10.06	75	12894	0.27 ug/l		95
58)	1,1,2-Trichloroethane	10.38	97	8357	0.30 ug/l		95
59)	Tetrachloroethene	10.55	164	15553	0.33 ug/l		99
60)	1,3-Dichloropropane	10.65	76	15500	0.29 ug/l		96
61)	2-Hexanone	10.74	43	19113	1.30 ug/l		92
62)	Dibromochloromethane	11.00	129	9627	0.27 ug/l		97
63)	1,2-Dibromoethane	11.21	107	7676	0.28 ug/l		98
64)	1-Chlorohexane	12.01	91	31010	0.34 ug/l		72
65)	Chlorobenzene	12.04	112	39301	0.31 ug/l		78
66)	1,1,1,2-Tetrachloroethane	12.17	131	12394	0.29 ug/l	#	84
67)	Ethylbenzene	12.19	91	72397	0.31 ug/l		98
68)	m-Xylene & p-Xylene	12.38	91	105005	0.62 ug/l		98
69)	o-Xylene	12.90	91	51186	0.31 ug/l		100
70)	Styrene	12.94	104	35418	0.28 ug/l		99
72)	Bromoform	13.17	173	4590	0.25 ug/l		94
73)	Isopropylbenzene	13.37	105	65399	0.32 ug/l		97
75)	1,1,2,2-Tetrachloroethane	13.73	83	9431	0.30 ug/l		93
76)	Bromobenzene	13.76	156	13808	0.30 ug/l		92
78)	1,2,3-Trichloropropane	13.80	110	2144	0.28 ug/l		92
79)	n-Propylbenzene	13.86	91	82713	0.31 ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	48247	0.31 ug/l		99
81)	2-Chlorotoluene	13.97	91	43555	0.32 ug/l		100
82)	4-Chlorotoluene	14.10	91	49528	0.32 ug/l		98
83)	tert-Butylbenzene	14.41	134	12296	0.30 ug/l		94
84)	1,2,4-Trimethylbenzene	14.47	105	48519	0.31 ug/l		99
85)	sec-Butylbenzene	14.63	105	70169	0.31 ug/l		99

(#) = qualifier out of range (m) = manual integration

Sw 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D Vial: 2
Acq On : 12 Feb 2015 5:43 pm Operator: WLau
Sample : VO01B121 Inst : TO01
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	p-Isopropyltoluene	14.78	119	56036	0.31	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	28661	0.32	ug/l	98
88)	1,4-Dichlorobenzene	14.85	146	27440	0.31	ug/l	99
89)	n-Butylbenzene	15.16	91	51750	0.31	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	23239	0.32	ug/l	83
92)	1,2,4-Trichlorobenzene	16.69	180	11655	0.29	ug/l	98
93)	Hexachlorobutadiene	16.81	225	8264	0.30	ug/l	99
94)	Naphthalene	16.94	128	16618	0.31	ug/l	95
95)	1,2,3-Trichlorobenzene	17.16	180	8926	0.29	ug/l	98

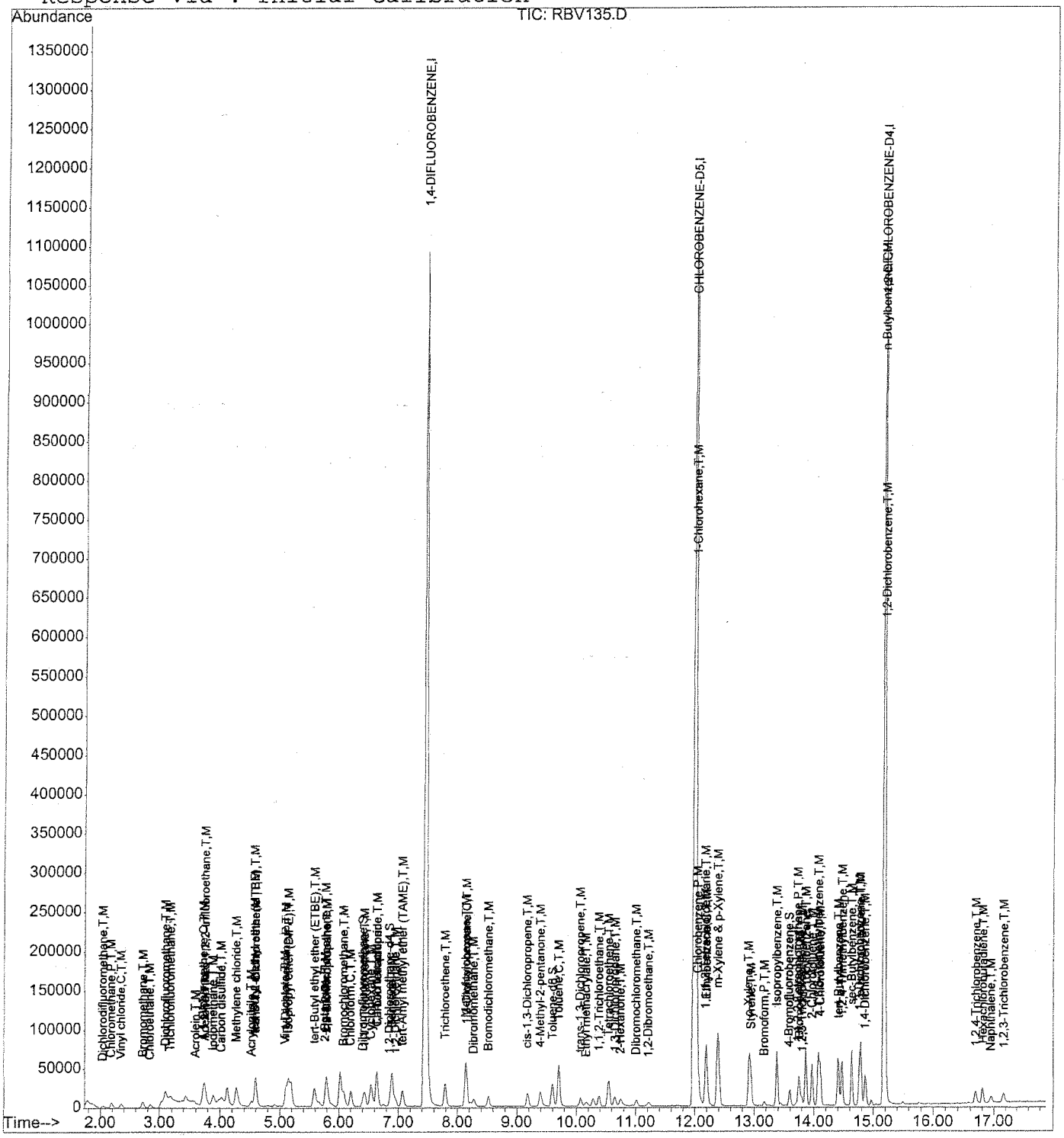
SM 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV135.D Vial: 2
Acq On : 12 Feb 2015 5:43 pm Operator: WLau
Sample : VO01B121 Inst : TO01
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:23 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2044

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D Vial: 3
Acq On : 12 Feb 2015 6:11 pm Operator: WLau
Sample : VO01B122 Inst : TO01
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1571959	10.00 ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1271950	10.00 ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	468465	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	6.40	111	23253	0.44 ug/l	0.00
Spiked Amount 10.000			Recovery =	4.40%	
38) 1,2-Dichloroethane-d4	6.85	65	15135	0.45 ug/l	0.00
Spiked Amount 10.000			Recovery =	4.50%	
54) Toluene-d8	9.60	98	83358	0.48 ug/l	0.00
Spiked Amount 10.000			Recovery =	4.80%	
74) 4-Bromofluorobenzene	13.58	95	26939	0.50 ug/l	0.00
Spiked Amount 10.000			Recovery =	5.00%	
Target Compounds					Qvalue
3) Dichlorodifluoromethane	2.05	85	16722	0.47 ug/l	95
4) Chloromethane	2.19	50	28747	0.51 ug/l	95
5) Vinyl chloride	2.35	62	24603	0.49 ug/l	98
7) Bromomethane	2.72	94	24346	0.59 ug/l	77
8) Chloroethane	2.84	64	17297	0.51 ug/l	96
9) Dichlorofluoromethane	3.10	67	41457	0.48 ug/l	98
10) Trichlorofluoromethane	3.17	101	21485	0.46 ug/l	99
11) Acrolein	3.59	56	6604	2.56 ug/l	88
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	15411	0.49 ug/l	94
13) Acetone	3.75	43	22681	4.56 ug/l	89
14) 1,1-Dichloroethene	3.72	61	30896	0.49 ug/l	99
15) Iodomethane	3.89	142	42635	0.48 ug/l	100
16) Carbon disulfide	4.02	76	71678	0.46 ug/l	99
17) Methyl acetate	4.11	43	8332	0.49 ug/l	83
18) Methylene chloride	4.27	49	41255	0.60 ug/l	100
19) tert-Butyl alcohol	4.40	59	3491	1.97 ug/l	45
20) Acrylonitrile	4.52	53	17659	2.31 ug/l	99
21) tert-Butyl methyl ether (M	4.60	73	39244	0.49 ug/l	97
22) trans-1,2-Dichloroethene	4.60	61	38850	0.50 ug/l	97
24) 1,1-Dichloroethane	5.10	63	47966	0.48 ug/l	99
25) Isopropyl ether (DIPE)	5.14	45	90650	0.49 ug/l	97
27) tert-Butyl ethyl ether (ET	5.59	59	61709	0.48 ug/l	97
28) 2-Butanone	5.77	43	25513	2.43 ug/l	92
29) cis-1,2-Dichloroethene	5.78	96	28732	0.48 ug/l	97
30) 2,2-Dichloropropane	5.80	77	27565	0.49 ug/l	97
31) Tetrahydrofurane	6.12	42	2717	0.42 ug/l #	37
32) Bromochloromethane	6.08	49	19329	0.48 ug/l	98

(#) = qualifier out of range (m) = manual integration
RBV136.D VO01B12.M Tue Feb 17 10:27:03 2015 Page 1

SF 2/18/15

2045

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D Vial: 3
Acq On : 12 Feb 2015 6:11 pm Operator: WLau
Sample : VO01B122 Inst : TO01
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Chloroform	6.19	83	39994	0.47 ug/l		99
35)	1,1,1-Trichloroethane	6.43	97	29522	0.47 ug/l		97
36)	Cyclohexane	6.54	56	39808	0.49 ug/l		98
37)	tert-Amyl methyl ether (TA	7.07	87	8212	0.42 ug/l	#	78
39)	1,1-Dichloropropene	6.64	110	13772	0.49 ug/l		95
40)	Carbon tetrachloride	6.64	119	26250	0.46 ug/l		100
41)	Benzene	6.89	78	101179	0.48 ug/l		100
42)	1,2-Dichloroethane	6.95	62	19590	0.48 ug/l		99
44)	Trichloroethene	7.79	130	30009	0.48 ug/l		99
45)	Methylcylohexane	8.13	83	35874	0.47 ug/l		97
46)	1,2-Dichloropropane	8.15	63	25996	0.48 ug/l		97
47)	1,4-Dioxane	8.27	88	1005	5.81 ug/l	#	11
48)	Dibromomethane	8.27	93	9957	0.46 ug/l		98
49)	Bromodichloromethane	8.52	83	26365	0.46 ug/l		98
51)	cis-1,3-Dichloropropene	9.17	75	33572	0.45 ug/l		98
52)	4-Methyl-2-pentanone	9.39	43	51843	2.16 ug/l		97
55)	Toluene	9.70	91	107741	0.49 ug/l		100
56)	Ethyl methacrylate	10.16	69	13744	0.38 ug/l		93
57)	trans-1,3-Dichloropropene	10.06	75	20956	0.42 ug/l		96
58)	1,1,2-Trichloroethane	10.38	97	13713	0.47 ug/l		98
59)	Tetrachloroethene	10.55	164	24128	0.50 ug/l		99
60)	1,3-Dichloropropane	10.65	76	25358	0.46 ug/l		99
61)	2-Hexanone	10.74	43	31693	2.09 ug/l		96
62)	Dibromochloromethane	11.02	129	15846	0.43 ug/l		99
63)	1,2-Dibromoethane	11.21	107	13002	0.46 ug/l		100
64)	1-Chlorohexane	12.01	91	46322	0.49 ug/l		79
65)	Chlorobenzene	12.04	112	63502	0.48 ug/l		85
66)	1,1,1,2-Tetrachloroethane	12.17	131	20813	0.47 ug/l		93
67)	Ethylbenzene	12.19	91	117843	0.49 ug/l		100
68)	m-Xylene & p-Xylene	12.38	91	170172	0.98 ug/l		99
69)	o-Xylene	12.90	91	80330	0.47 ug/l		98
70)	Styrene	12.93	104	58692	0.45 ug/l		99
72)	Bromoform	13.17	173	8109	0.43 ug/l		95
73)	Isopropylbenzene	13.37	105	103158	0.47 ug/l		99
75)	1,1,2,2-Tetrachloroethane	13.73	83	15333	0.46 ug/l		99
76)	Bromobenzene	13.74	156	23364	0.47 ug/l		98
77)	trans-1,4-Dichloro-2-buten	13.77	53	2086	0.34 ug/l	#	35
78)	1,2,3-Trichloropropane	13.80	110	3685	0.45 ug/l		99
79)	n-Propylbenzene	13.86	91	131595	0.47 ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	79596	0.48 ug/l		99
81)	2-Chlorotoluene	13.97	91	71065	0.49 ug/l		99

(#) = qualifier out of range (m) = manual integration
RBV136.D VO01B12.M Tue Feb 17 10:27:04 2015 Page 2

Su 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D Vial: 3
Acq On : 12 Feb 2015 6:11 pm Operator: WLau
Sample : VO01B122 Inst : TO01
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	4-Chlorotoluene	14.10	91	79108	0.49	ug/l	98
83)	tert-Butylbenzene	14.40	134	20157	0.47	ug/l	96
84)	1,2,4-Trimethylbenzene	14.45	105	78832	0.48	ug/l	99
85)	sec-Butylbenzene	14.63	105	112429	0.47	ug/l	99
86)	p-Isopropyltoluene	14.78	119	88258	0.46	ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	45756	0.48	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	44405	0.48	ug/l	98
89)	n-Butylbenzene	15.16	91	81193	0.46	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	37700	0.48	ug/l	87
91)	1,2-Dibromo-3-chloropropan	15.92	157	1577	0.36	ug/l	89
92)	1,2,4-Trichlorobenzene	16.67	180	18366	0.43	ug/l	98
93)	Hexachlorobutadiene	16.79	225	13315	0.46	ug/l	97
94)	Naphthalene	16.94	128	23485	0.42	ug/l	96
95)	1,2,3-Trichlorobenzene	17.16	180	13737	0.42	ug/l	98

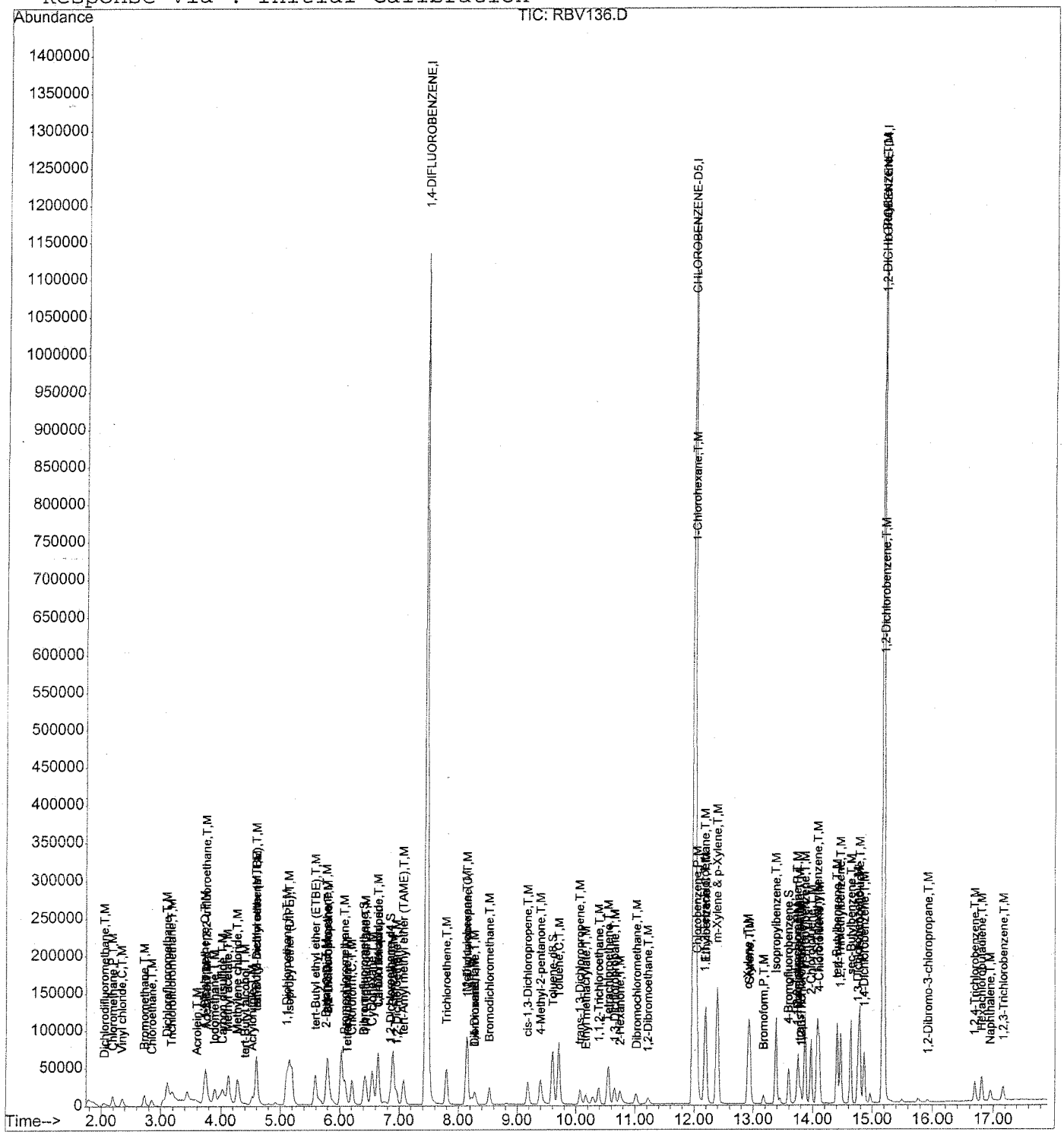
SM 2/18/15

(#) = qualifier out of range (m) = manual integration
RBV136.D VO01B12.M Tue Feb 17 10:27:04 2015 Page 3

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV136.D Vial: 3
Acq On : 12 Feb 2015 6:11 pm Operator: WLau
Sample : VO01B122 Inst : TO01
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 17 10:26 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SA 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1463252	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1184718	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	435393	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	47931	0.99	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.90%		
38) 1,2-Dichloroethane-d4	6.85	65	30937	0.99	ug/l	0.00
Spiked Amount 10.000			Recovery =	9.90%		
54) Toluene-d8	9.60	98	167028	1.04	ug/l	0.00
Spiked Amount 10.000			Recovery =	10.40%		
74) 4-Bromofluorobenzene	13.58	95	51339	1.03	ug/l	0.00
Spiked Amount 10.000			Recovery =	10.30%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	30180	0.91	ug/l	97
4) Chloromethane	2.18	50	53198	1.02	ug/l	96
5) Vinyl chloride	2.35	62	45788	0.98	ug/l	100
7) Bromomethane	2.71	94	38889	1.02	ug/l	87
8) Chloroethane	2.83	64	30297	0.96	ug/l	99
9) Dichlorofluoromethane	3.10	67	91419	1.13	ug/l	93
10) Trichlorofluoromethane	3.17	101	40720	0.93	ug/l	98
11) Acrolein	3.59	56	11838	4.94	ug/l	96
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	30528	1.04	ug/l	100
13) Acetone	3.74	43	32633	7.05	ug/l	93
14) 1,1-Dichloroethene	3.72	61	63369	1.08	ug/l	99
15) Iodomethane	3.89	142	83664	1.02	ug/l	99
16) Carbon disulfide	4.00	76	143805	1.00	ug/l	99
17) Methyl acetate	4.09	43	15812	1.00	ug/l	92
18) Methylene chloride	4.27	49	71339	1.11	ug/l	99
19) tert-Butyl alcohol	4.39	59	7076	4.28	ug/l	78
20) Acrylonitrile	4.52	53	34383	4.82	ug/l	100
21) tert-Butyl methyl ether (M	4.58	73	75511	1.00	ug/l	99
22) trans-1,2-Dichloroethene	4.60	61	74891	1.04	ug/l	99
23) Vinyl acetate	5.08	43	60897	0.91	ug/l	98
24) 1,1-Dichloroethane	5.10	63	96363	1.04	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	177829	1.03	ug/l	99
26) 2-Butanol	6.00	45	6169	4.09	ug/l #	52
27) tert-Butyl ethyl ether (ET	5.57	59	123323	1.02	ug/l	98
28) 2-Butanone	5.75	43	48126	4.92	ug/l	95
29) cis-1,2-Dichloroethene	5.78	96	57946	1.05	ug/l	100
30) 2,2-Dichloropropane	5.79	77	54903	1.05	ug/l	98

(#) = qualifier out of range (m) = manual integration
RBV137.D VO01B12.M Tue Feb 17 10:27:52 2015 Page 1

SM 2/18/15

2049

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.12	42	5890	0.98 ug/l	86
32) Bromochloromethane	6.08	49	39285	1.04 ug/l	97
33) Chloroform	6.19	83	80613	1.03 ug/l	99
35) 1,1,1-Trichloroethane	6.43	97	58891	1.02 ug/l	99
36) Cyclohexane	6.53	56	69080	0.91 ug/l	99
37) tert-Amyl methyl ether (TA	7.07	87	18060	1.00 ug/l	93
39) 1,1-Dichloropropene	6.64	110	26544	1.01 ug/l	99
40) Carbon tetrachloride	6.64	119	52718	1.00 ug/l	97
41) Benzene	6.89	78	202881	1.04 ug/l	100
42) 1,2-Dichloroethane	6.95	62	39487	1.03 ug/l	99
44) Trichloroethene	7.79	130	59587	1.02 ug/l	100
45) Methylcylohexane	8.13	83	62545	0.89 ug/l	98
46) 1,2-Dichloropropane	8.15	63	52795	1.04 ug/l	92
47) 1,4-Dioxane	8.25	88	2492	15.48 ug/l	93
48) Dibromomethane	8.27	93	19845	0.99 ug/l	98
49) Bromodichloromethane	8.52	83	51825	0.98 ug/l	98
51) cis-1,3-Dichloropropene	9.17	75	67242	0.97 ug/l	99
52) 4-Methyl-2-pentanone	9.38	43	105746	4.74 ug/l	97
55) Toluene	9.70	91	212293	1.05 ug/l	99
56) Ethyl methacrylate	10.16	69	29776	0.89 ug/l	96
57) trans-1,3-Dichloropropene	10.06	75	44739	0.97 ug/l	96
58) 1,1,2-Trichloroethane	10.38	97	27328	1.01 ug/l	98
59) Tetrachloroethene	10.55	164	47608	1.05 ug/l	99
60) 1,3-Dichloropropane	10.65	76	51597	1.02 ug/l	100
61) 2-Hexanone	10.74	43	63560	4.49 ug/l	97
62) Dibromochloromethane	11.01	129	33405	0.98 ug/l	99
63) 1,2-Dibromoethane	11.21	107	26075	0.99 ug/l	99
64) 1-Chlorohexane	12.01	91	90591	1.02 ug/l	89
65) Chlorobenzene	12.04	112	128471	1.05 ug/l	94
66) 1,1,1,2-Tetrachloroethane	12.17	131	42212	1.03 ug/l	94
67) Ethylbenzene	12.19	91	232925	1.03 ug/l	99
68) m-Xylene & p-Xylene	12.38	91	335329	2.07 ug/l	100
69) o-Xylene	12.90	91	168227	1.05 ug/l	100
70) Styrene	12.93	104	122340	1.00 ug/l	100
72) Bromoform	13.17	173	16315	0.92 ug/l	99
73) Isopropylbenzene	13.37	105	210494	1.04 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	30980	1.01 ug/l	99
76) Bromobenzene	13.74	156	47572	1.04 ug/l	100
77) trans-1,4-Dichloro-2-buten	13.77	53	4871	0.84 ug/l	85
78) 1,2,3-Trichloropropane	13.80	110	7455	0.99 ug/l	94
79) n-Propylbenzene	13.86	91	266271	1.03 ug/l	100

(#) = qualifier out of range (m) = manual integration
RBV137.D VO01B12.M Tue Feb 17 10:27:53 2015 SK 2/18/15 Page 2

2050

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) 1,3,5-Trimethylbenzene	14.07	105	161339	1.04	ug/l	100
81) 2-Chlorotoluene	13.97	91	141554	1.04	ug/l	100
82) 4-Chlorotoluene	14.10	91	152668	1.02	ug/l	100
83) tert-Butylbenzene	14.39	134	41761	1.05	ug/l	99
84) 1,2,4-Trimethylbenzene	14.45	105	154239	1.01	ug/l	100
85) sec-Butylbenzene	14.63	105	224522	1.02	ug/l	100
86) p-Isopropyltoluene	14.78	119	181480	1.02	ug/l	99
87) 1,3-Dichlorobenzene	14.75	146	89963	1.02	ug/l	99
88) 1,4-Dichlorobenzene	14.85	146	89084	1.03	ug/l	100
89) n-Butylbenzene	15.16	91	165406	1.01	ug/l	99
90) 1,2-Dichlorobenzene	15.19	146	75304	1.04	ug/l	95
91) 1,2-Dibromo-3-chloropropan	15.92	157	3226	0.79	ug/l	87
92) 1,2,4-Trichlorobenzene	16.67	180	37068	0.93	ug/l	98
93) Hexachlorobutadiene	16.79	225	26862	1.00	ug/l	97
94) Naphthalene	16.94	128	46281	0.88	ug/l	97
95) 1,2,3-Trichlorobenzene	17.15	180	28628	0.95	ug/l	99

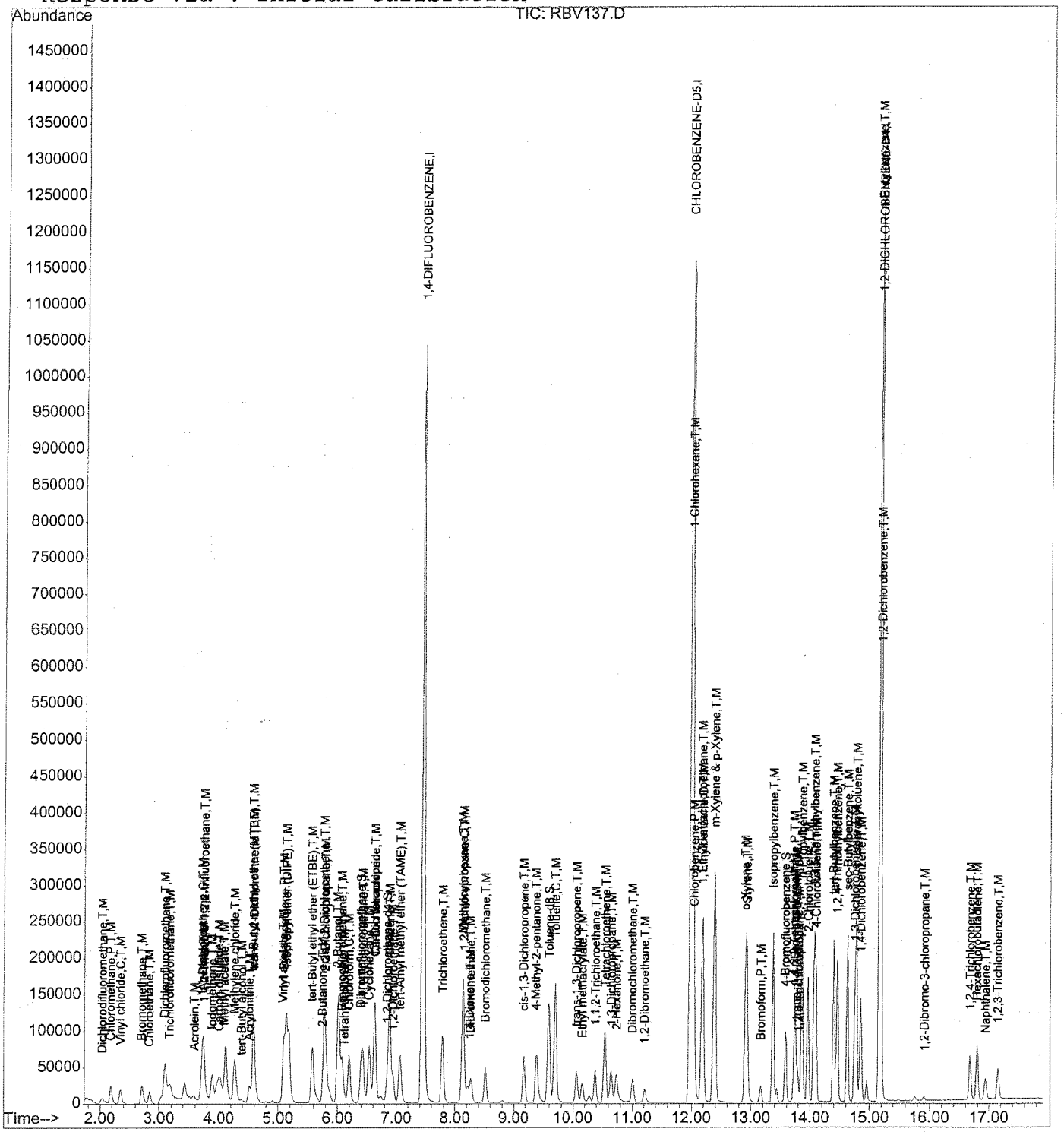
Sa 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV137.D Vial: 4
Acq On : 12 Feb 2015 6:39 pm Operator: WLau
Sample : VO01B123 Inst : TO01
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SY 2/18/15

2052

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1427539	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1178667	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	436970	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	96622	2.04	ug/l	0.00
Spiked Amount 10.000			Recovery =	20.40%		
38) 1,2-Dichloroethane-d4	6.85	65	63600	2.08	ug/l	0.00
Spiked Amount 10.000			Recovery =	20.80%		
54) Toluene-d8	9.60	98	336067	2.11	ug/l	0.00
Spiked Amount 10.000			Recovery =	21.10%		
74) 4-Bromofluorobenzene	13.58	95	104615	2.08	ug/l	0.00
Spiked Amount 10.000			Recovery =	20.80%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.03	85	67252	2.09	ug/l	98
4) Chloromethane	2.19	50	106163	2.08	ug/l	98
5) Vinyl chloride	2.35	62	94928	2.08	ug/l	100
7) Bromomethane	2.72	94	79106	2.12	ug/l	95
8) Chloroethane	2.84	64	63874	2.08	ug/l	98
9) Dichlorofluoromethane	3.10	67	167690	2.13	ug/l	98
10) Trichlorofluoromethane	3.17	101	90862	2.12	ug/l	100
11) Acrolein	3.59	56	22324	9.54	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	58454	2.05	ug/l	99
13) Acetone	3.74	43	53979	11.95	ug/l	94
14) 1,1-Dichloroethene	3.72	61	121652	2.12	ug/l	99
15) Iodomethane	3.89	142	164441	2.05	ug/l	100
16) Carbon disulfide	4.00	76	292976	2.08	ug/l	100
17) Methyl acetate	4.11	43	31985	2.07	ug/l	93
18) Methylene chloride	4.27	49	128822	2.06	ug/l	99
19) tert-Butyl alcohol	4.39	59	15667	9.72	ug/l	86
20) Acrylonitrile	4.52	53	66634	9.58	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	148706	2.03	ug/l	99
22) trans-1,2-Dichloroethene	4.60	61	146491	2.08	ug/l	100
23) Vinyl acetate	5.08	43	131866	2.02	ug/l	98
24) 1,1-Dichloroethane	5.10	63	186848	2.06	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	350320	2.07	ug/l	99
26) 2-Butanol	6.00	45	13403	9.12	ug/l	87
27) tert-Butyl ethyl ether (ET	5.57	59	238671	2.03	ug/l	99
28) 2-Butanone	5.75	43	88348	9.26	ug/l	100
29) cis-1,2-Dichloroethene	5.78	96	112017	2.08	ug/l	99
30) 2,2-Dichloropropane	5.79	77	105747	2.08	ug/l	98

(#) = qualifier out of range (m) = manual integration
RBV138.D VO01B12.M Tue Feb 17 10:28:34 2015 SV 2/18/15 Page 1

2053

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.12	42	12218	2.09 ug/l	87
32) Bromochloromethane	6.08	49	75360	2.05 ug/l	99
33) Chloroform	6.19	83	156583	2.05 ug/l	99
35) 1,1,1-Trichloroethane	6.43	97	116144	2.06 ug/l	98
36) Cyclohexane	6.54	56	157831	2.13 ug/l	98
37) tert-Amyl methyl ether (TA	7.07	87	35273	1.99 ug/l	95
39) 1,1-Dichloropropene	6.64	110	52508	2.05 ug/l	98
40) Carbon tetrachloride	6.64	119	105746	2.06 ug/l	98
41) Benzene	6.89	78	394264	2.07 ug/l	100
42) 1,2-Dichloroethane	6.95	62	77385	2.07 ug/l	99
44) Trichloroethene	7.79	130	116241	2.04 ug/l	100
45) Methylcylohexane	8.13	83	147050	2.14 ug/l	100
46) 1,2-Dichloropropane	8.15	63	103357	2.08 ug/l	100
47) 1,4-Dioxane	8.25	88	5820	37.07 ug/l	92
48) Dibromomethane	8.27	93	39568	2.03 ug/l	98
49) Bromodichloromethane	8.52	83	103861	2.02 ug/l	100
51) cis-1,3-Dichloropropene	9.17	75	138037	2.03 ug/l	100
52) 4-Methyl-2-pentanone	9.38	43	200873	9.23 ug/l	99
55) Toluene	9.70	91	404924	2.01 ug/l	100
56) Ethyl methacrylate	10.16	69	61713	1.86 ug/l	98
57) trans-1,3-Dichloropropene	10.06	75	90131	1.95 ug/l	99
58) 1,1,2-Trichloroethane	10.38	97	54780	2.04 ug/l	97
59) Tetrachloroethene	10.55	164	91099	2.02 ug/l	99
60) 1,3-Dichloropropane	10.65	76	103012	2.04 ug/l	99
61) 2-Hexanone	10.72	43	125498	8.91 ug/l	99
62) Dibromochloromethane	11.01	129	66537	1.97 ug/l	98
63) 1,2-Dibromoethane	11.21	107	51232	1.96 ug/l	98
64) 1-Chlorohexane	12.01	91	179335	2.03 ug/l	95
65) Chlorobenzene	12.04	112	249200	2.04 ug/l	97
66) 1,1,1,2-Tetrachloroethane	12.17	131	83120	2.04 ug/l	97
67) Ethylbenzene	12.19	91	455444	2.03 ug/l	100
68) m-Xylene & p-Xylene	12.38	91	648088	4.02 ug/l	100
69) o-Xylene	12.90	91	325135	2.04 ug/l	100
70) Styrene	12.93	104	246608	2.02 ug/l	99
72) Bromoform	13.17	173	33156	1.87 ug/l	99
73) Isopropylbenzene	13.37	105	410494	2.02 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	61088	1.99 ug/l	99
76) Bromobenzene	13.74	156	92182	2.00 ug/l	97
77) trans-1,4-Dichloro-2-buten	13.77	53	9923	1.71 ug/l	96
78) 1,2,3-Trichloropropane	13.80	110	15030	1.99 ug/l	99
79) n-Propylbenzene	13.86	91	516107	1.99 ug/l	99

(#) = qualifier out of range (m) = manual integration

SU 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	312523	2.01 ug/l	99
81)	2-Chlorotoluene	13.97	91	279093	2.05 ug/l	99
82)	4-Chlorotoluene	14.10	91	306894	2.04 ug/l	100
83)	tert-Butylbenzene	14.40	134	82914	2.09 ug/l	98
84)	1,2,4-Trimethylbenzene	14.45	105	308907	2.02 ug/l	100
85)	sec-Butylbenzene	14.63	105	452296	2.04 ug/l	99
86)	p-Isopropyltoluene	14.78	119	364691	2.04 ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	180526	2.03 ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	175639	2.03 ug/l	99
89)	n-Butylbenzene	15.16	91	329904	2.00 ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	147402	2.03 ug/l	98
91)	1,2-Dibromo-3-chloropropan	15.92	157	7279	1.77 ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	77804	1.95 ug/l	98
93)	Hexachlorobutadiene	16.79	225	53564	2.00 ug/l	98
94)	Naphthalene	16.94	128	93566	1.78 ug/l	99
95)	1,2,3-Trichlorobenzene	17.15	180	59490	1.96 ug/l	98

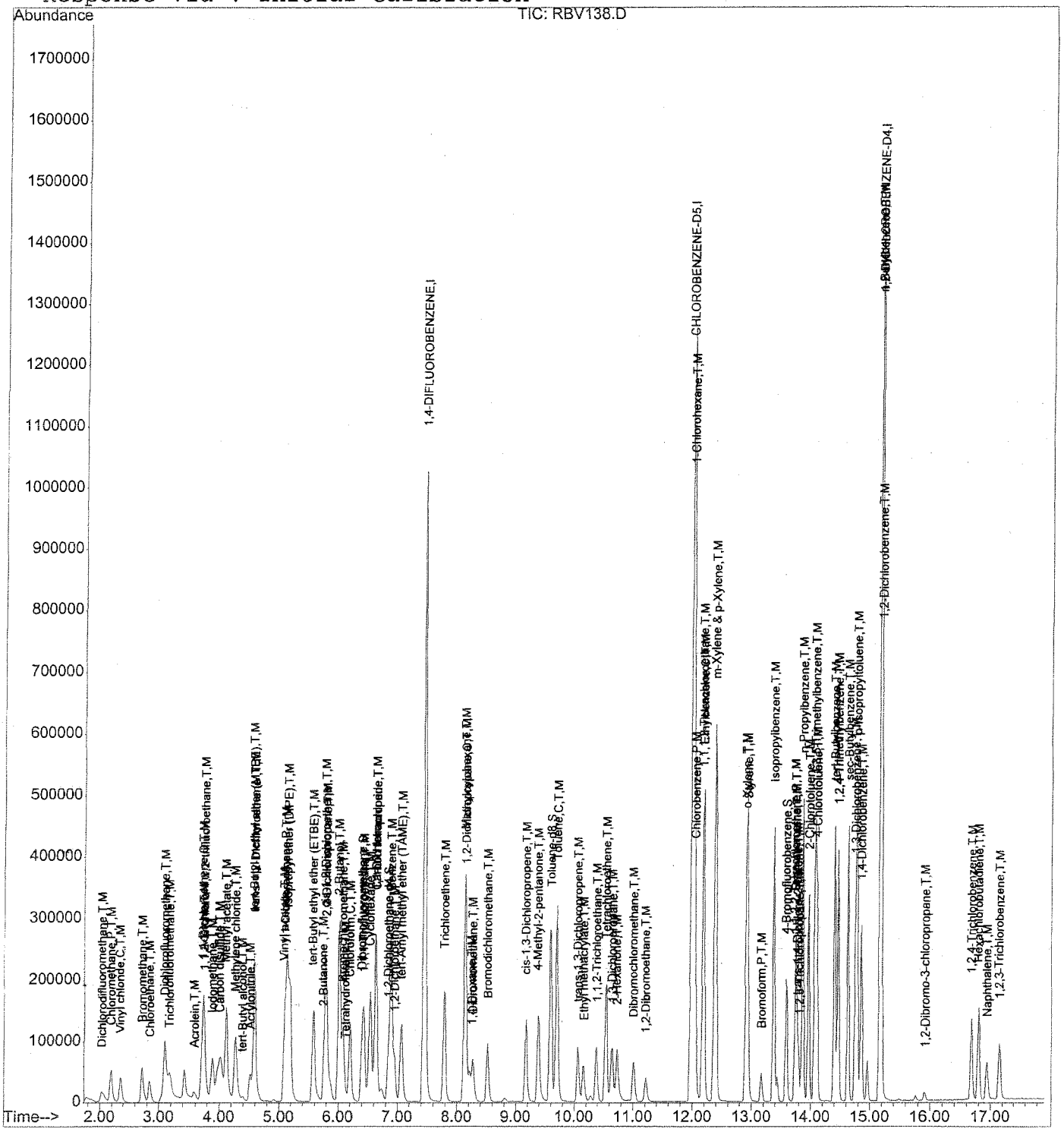
SU 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV138.D Vial: 5
Acq On : 12 Feb 2015 7:07 pm Operator: WLau
Sample : VO01B124 Inst : TO01
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2056

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D Vial: 6
Acq On : 12 Feb 2015 7:35 pm Operator: WLau
Sample : VO01B125 Inst : TO01
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1461404	10.00 ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	1206358	10.00 ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	459916	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	6.40	111	257350	5.30 ug/l	0.00
Spiked Amount 10.000			Recovery =	53.00%	
38) 1,2-Dichloroethane-d4	6.85	65	163517	5.22 ug/l	0.00
Spiked Amount 10.000			Recovery =	52.20%	
54) Toluene-d8	9.60	98	884014	5.42 ug/l	0.00
Spiked Amount 10.000			Recovery =	54.20%	
74) 4-Bromofluorobenzene	13.58	95	279410	5.28 ug/l	0.00
Spiked Amount 10.000			Recovery =	52.80%	
Target Compounds					Qvalue
3) Dichlorodifluoromethane	2.04	85	163505	4.96 ug/l	100
4) Chloromethane	2.20	50	257166	4.93 ug/l	100
5) Vinyl chloride	2.35	62	230778	4.94 ug/l	100
7) Bromomethane	2.72	94	178693	4.68 ug/l	98
8) Chloroethane	2.84	64	161760	5.13 ug/l	100
9) Dichlorofluoromethane	3.10	67	396494	4.92 ug/l	100
10) Trichlorofluoromethane	3.17	101	226399	5.16 ug/l	96
11) Acrolein	3.59	56	61102	25.51 ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	140997	4.83 ug/l	98
13) Acetone	3.74	43	127258	27.53 ug/l	97
14) 1,1-Dichloroethene	3.72	61	290897	4.94 ug/l	100
15) Iodomethane	3.90	142	410627	5.00 ug/l	99
16) Carbon disulfide	4.02	76	758715	5.26 ug/l	99
17) Methyl acetate	4.11	43	85850	5.43 ug/l	98
18) Methylene chloride	4.27	49	307068	4.80 ug/l	99
19) tert-Butyl alcohol	4.39	59	41911	25.40 ug/l	96
20) Acrylonitrile	4.52	53	188911	26.54 ug/l	98
21) tert-Butyl methyl ether (M	4.60	73	380767	5.07 ug/l	100
22) trans-1,2-Dichloroethene	4.60	61	358595	4.98 ug/l	100
23) Vinyl acetate	5.08	43	315866	4.74 ug/l	99
24) 1,1-Dichloroethane	5.10	63	458376	4.95 ug/l	99
25) Isopropyl ether (DIPE)	5.14	45	865206	5.01 ug/l	100
26) 2-Butanol	5.99	45	37901	25.18 ug/l	98
27) tert-Butyl ethyl ether (ET	5.59	59	600189	4.98 ug/l	100
28) 2-Butanone	5.77	43	255013	26.11 ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	278517	5.04 ug/l	99
30) 2,2-Dichloropropane	5.81	77	258370	4.95 ug/l	99

(#) = qualifier out of range (m) = manual integration

SM 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D Vial: 6
Acq On : 12 Feb 2015 7:35 pm Operator: WLau
Sample : VO01B125 Inst : TO01
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.12	42	31860	5.33 ug/l	90
32) Bromochloromethane	6.08	49	189421	5.04 ug/l	100
33) Chloroform	6.21	83	390088	4.98 ug/l	99
35) 1,1,1-Trichloroethane	6.43	97	288978	5.00 ug/l	99
36) Cyclohexane	6.53	56	401624	5.31 ug/l	99
37) tert-Amyl methyl ether (TA	7.07	87	93532	5.16 ug/l	98
39) 1,1-Dichloropropene	6.64	110	130981	5.00 ug/l	100
40) Carbon tetrachloride	6.64	119	263203	5.01 ug/l	99
41) Benzene	6.89	78	958213	4.91 ug/l	100
42) 1,2-Dichloroethane	6.95	62	194285	5.08 ug/l	99
44) Trichloroethene	7.79	130	289889	4.97 ug/l	99
45) Methylcylohexane	8.13	83	374898	5.33 ug/l	99
46) 1,2-Dichloropropane	8.15	63	258734	5.10 ug/l	100
47) 1,4-Dioxane	8.25	88	15842	98.55 ug/l	97
48) Dibromomethane	8.27	93	101887	5.10 ug/l	98
49) Bromodichloromethane	8.52	83	268902	5.10 ug/l	99
51) cis-1,3-Dichloropropene	9.17	75	355648	5.12 ug/l	100
52) 4-Methyl-2-pentanone	9.38	43	595809	26.74 ug/l	100
55) Toluene	9.70	91	1022947	4.95 ug/l	99
56) Ethyl methacrylate	10.15	69	173722	5.12 ug/l	98
57) trans-1,3-Dichloropropene	10.06	75	244471	5.18 ug/l	98
58) 1,1,2-Trichloroethane	10.38	97	140792	5.12 ug/l	99
59) Tetrachloroethene	10.55	164	228000	4.93 ug/l	100
60) 1,3-Dichloropropane	10.65	76	264614	5.12 ug/l	100
61) 2-Hexanone	10.72	43	375341	26.04 ug/l	99
62) Dibromochloromethane	11.01	129	178116	5.15 ug/l	99
63) 1,2-Dibromoethane	11.21	107	138343	5.17 ug/l	99
64) 1-Chlorohexane	12.01	91	443249	4.91 ug/l	98
65) Chlorobenzene	12.04	112	627277	5.02 ug/l	99
66) 1,1,1,2-Tetrachloroethane	12.17	131	213849	5.12 ug/l	99
67) Ethylbenzene	12.19	91	1156735	5.04 ug/l	100
68) m-Xylene & p-Xylene	12.38	91	1654555	10.02 ug/l	100
69) o-Xylene	12.90	91	820309	5.03 ug/l	100
70) Styrene	12.93	104	635410	5.08 ug/l	99
72) Bromoform	13.17	173	93947	5.03 ug/l	98
73) Isopropylbenzene	13.37	105	1056245	4.94 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	165893	5.12 ug/l	100
76) Bromobenzene	13.74	156	240417	4.96 ug/l	100
77) trans-1,4-Dichloro-2-buten	13.77	53	30231	4.95 ug/l	98
78) 1,2,3-Trichloropropane	13.80	110	40387	5.08 ug/l	100
79) n-Propylbenzene	13.86	91	1343844	4.93 ug/l	100

(#) = qualifier out of range (m) = manual integration

Su 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D Vial: 6
Acq On : 12 Feb 2015 7:35 pm Operator: WLau
Sample : VO01B125 Inst : TO01
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,3,5-Trimethylbenzene	14.07	105	815589	4.97 ug/l	100
81) 2-Chlorotoluene	13.97	91	704099	4.91 ug/l	99
82) 4-Chlorotoluene	14.10	91	782266	4.94 ug/l	100
83) tert-Butylbenzene	14.39	134	209142	5.00 ug/l	99
84) 1,2,4-Trimethylbenzene	14.45	105	797477	4.96 ug/l	100
85) sec-Butylbenzene	14.63	105	1153131	4.94 ug/l	100
86) p-Isopropyltoluene	14.78	119	942717	5.00 ug/l	100
87) 1,3-Dichlorobenzene	14.75	146	458304	4.90 ug/l	99
88) 1,4-Dichlorobenzene	14.85	146	441065	4.85 ug/l	99
89) n-Butylbenzene	15.16	91	860346	4.97 ug/l	100
90) 1,2-Dichlorobenzene	15.19	146	375490	4.91 ug/l	99
91) 1,2-Dibromo-3-chloropropan	15.92	157	21444	4.97 ug/l	98
92) 1,2,4-Trichlorobenzene	16.67	180	213763	5.09 ug/l	99
93) Hexachlorobutadiene	16.79	225	144865	5.13 ug/l	99
94) Naphthalene	16.94	128	271098	4.89 ug/l	99
95) 1,2,3-Trichlorobenzene	17.15	180	164599	5.16 ug/l	100

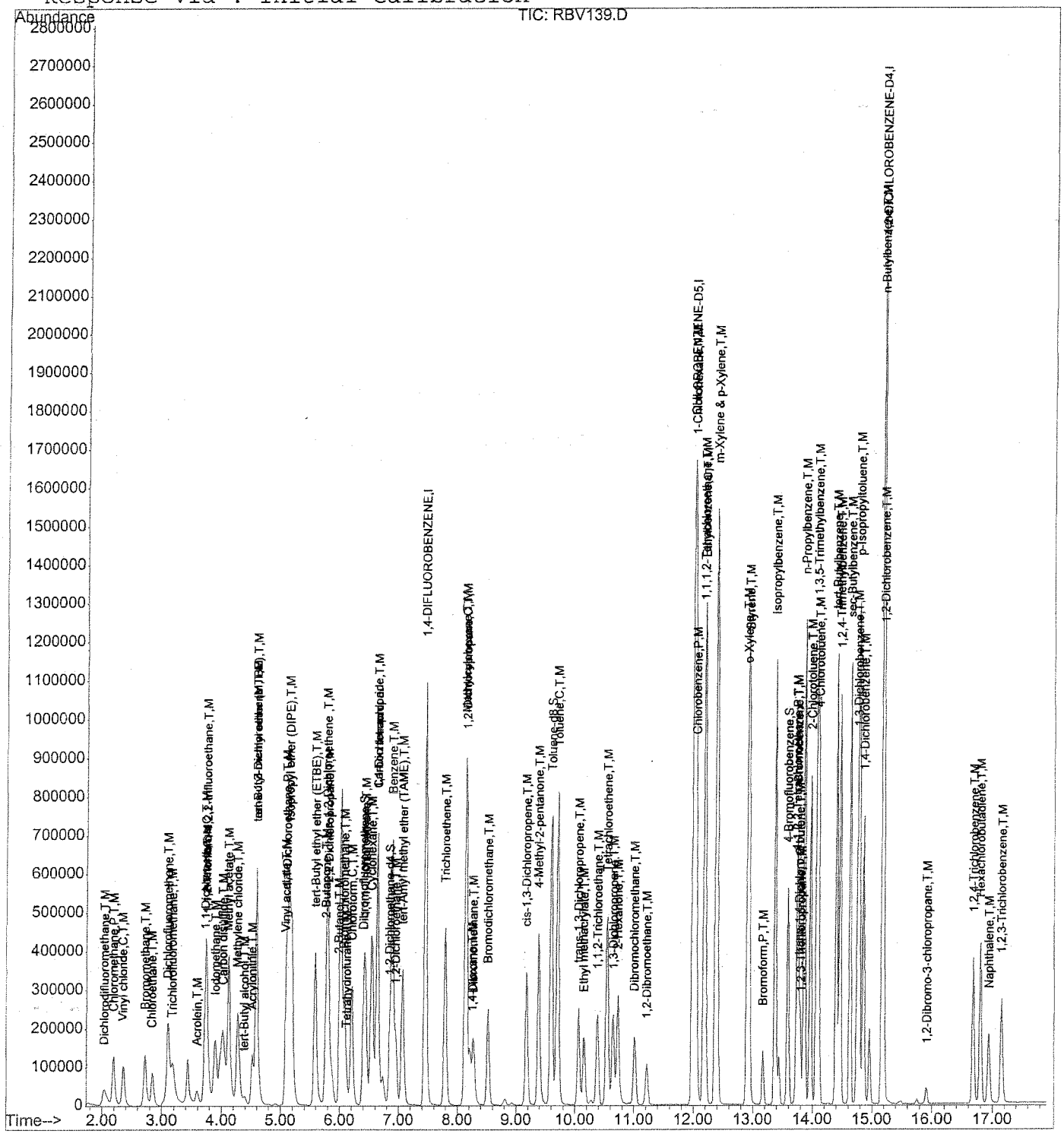
SM 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV139.D Vial: 6
Acq On : 12 Feb 2015 7:35 pm Operator: WLau
Sample : VO01B125 Inst : TO01
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:09 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2060

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D Vial: 7
Acq On : 12 Feb 2015 8:03 pm Operator: WLau
Sample : VO01B126 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1495146	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1270714	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	491901	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	526159	10.59	ug/l	0.00
Spiked Amount 10.000			Recovery =	105.90%		
38) 1,2-Dichloroethane-d4	6.84	65	339433	10.59	ug/l	0.00
Spiked Amount 10.000			Recovery =	105.90%		
54) Toluene-d8	9.60	98	1834529	10.67	ug/l	0.00
Spiked Amount 10.000			Recovery =	106.70%		
74) 4-Bromofluorobenzene	13.58	95	586677	10.37	ug/l	0.00
Spiked Amount 10.000			Recovery =	103.70%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	383804	11.39	ug/l	100
4) Chloromethane	2.20	50	596209	11.17	ug/l	100
5) Vinyl chloride	2.37	62	534518	11.19	ug/l	100
7) Bromomethane	2.72	94	383810	9.83	ug/l	100
8) Chloroethane	2.84	64	360251	11.18	ug/l	100
9) Dichlorofluoromethane	3.10	67	817667	9.92	ug/l	100
10) Trichlorofluoromethane	3.17	101	513641	11.45	ug/l	100
11) Acrolein	3.59	56	123522	50.41	ug/l	100
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	296208	9.92	ug/l	100
13) Acetone	3.74	43	227540	48.12	ug/l	100
14) 1,1-Dichloroethene	3.72	61	595613	9.89	ug/l	100
15) Iodomethane	3.88	142	847719	10.08	ug/l	100
16) Carbon disulfide	4.02	76	1605401	10.88	ug/l	100
17) Methyl acetate	4.09	43	168448	10.41	ug/l	100
18) Methylene chloride	4.27	49	614372	9.40	ug/l	100
19) tert-Butyl alcohol	4.39	59	90972	53.88	ug/l	100
20) Acrylonitrile	4.51	53	380441	52.25	ug/l	100
21) tert-Butyl methyl ether (M	4.58	73	787803	10.26	ug/l	100
22) trans-1,2-Dichloroethene	4.59	61	743469	10.09	ug/l	100
23) Vinyl acetate	5.08	43	776463	11.38	ug/l	100
24) 1,1-Dichloroethane	5.10	63	950138	10.03	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	1795529	10.15	ug/l	100
26) 2-Butanol	5.99	45	82601	53.64	ug/l	100
27) tert-Butyl ethyl ether (ET	5.57	59	1253721	10.17	ug/l	100
28) 2-Butanone	5.75	43	522636	52.29	ug/l	100
29) cis-1,2-Dichloroethene	5.78	96	573456	10.14	ug/l	100
30) 2,2-Dichloropropane	5.79	77	539354	10.11	ug/l	100

(#) = qualifier out of range (m) = manual integration

SM 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D Vial: 7
Acq On : 12 Feb 2015 8:03 pm Operator: WLau
Sample : VO01B126 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.10	42	60326	9.86 ug/l	100
32) Bromochloromethane	6.07	49	391691	10.19 ug/l	100
33) Chloroform	6.19	83	793375	9.90 ug/l	100
35) 1,1,1-Trichloroethane	6.43	97	598763	10.12 ug/l	100
36) Cyclohexane	6.53	56	803860	10.38 ug/l	100
37) tert-Amyl methyl ether (TA	7.07	87	198802	10.73 ug/l	100
39) 1,1-Dichloropropene	6.64	110	271050	10.12 ug/l	100
40) Carbon tetrachloride	6.64	119	550784	10.25 ug/l	100
41) Benzene	6.89	78	1986581	9.95 ug/l	100
42) 1,2-Dichloroethane	6.95	62	401333	10.26 ug/l	100
44) Trichloroethene	7.79	130	594687	9.97 ug/l	100
45) Methylcylohexane	8.13	83	760059	10.57 ug/l	100
46) 1,2-Dichloropropane	8.15	63	524035	10.09 ug/l	100
47) 1,4-Dioxane	8.25	88	35480	215.74 ug/l	100
48) Dibromomethane	8.27	93	217262	10.63 ug/l	100
49) Bromodichloromethane	8.52	83	558405	10.35 ug/l	100
51) cis-1,3-Dichloropropene	9.17	75	744795	10.48 ug/l	100
52) 4-Methyl-2-pentanone	9.38	43	1243526	54.55 ug/l	100
55) Toluene	9.70	91	2095958	9.64 ug/l	100
56) Ethyl methacrylate	10.15	69	380239	10.65 ug/l	100
57) trans-1,3-Dichloropropene	10.06	75	517788	10.42 ug/l	100
58) 1,1,2-Trichloroethane	10.38	97	292188	10.08 ug/l	100
59) Tetrachloroethene	10.55	164	467662	9.61 ug/l	100
60) 1,3-Dichloropropane	10.65	76	553439	10.16 ug/l	100
61) 2-Hexanone	10.72	43	798864	52.61 ug/l	100
62) Dibromochloromethane	11.00	129	378283	10.38 ug/l	100
63) 1,2-Dibromoethane	11.21	107	291292	10.33 ug/l	100
64) 1-Chlorohexane	12.01	91	929305	9.78 ug/l	100
65) Chlorobenzene	12.04	112	1308705	9.95 ug/l	100
66) 1,1,1,2-Tetrachloroethane	12.17	131	442383	10.06 ug/l	100
67) Ethylbenzene	12.19	91	2407359	9.96 ug/l	100
68) m-Xylene & p-Xylene	12.38	91	3463611	19.92 ug/l	100
69) o-Xylene	12.90	91	1731048	10.07 ug/l	100
70) Styrene	12.93	104	1379957	10.48 ug/l	100
72) Bromoform	13.17	173	204363	10.23 ug/l	100
73) Isopropylbenzene	13.37	105	2236442	9.78 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	351131	10.14 ug/l	100
76) Bromobenzene	13.74	156	509641	9.83 ug/l	100
77) trans-1,4-Dichloro-2-buten	13.77	53	68000	10.42 ug/l	100
78) 1,2,3-Trichloropropane	13.80	110	86811	10.21 ug/l	100
79) n-Propylbenzene	13.86	91	2887889	9.90 ug/l	100

(#) = qualifier out of range (m) = manual integration

SU 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D Vial: 7
Acq On : 12 Feb 2015 8:03 pm Operator: WLau
Sample : VO01B126 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) 1,3,5-Trimethylbenzene	14.07	105	1728512	9.86	ug/l	100
81) 2-Chlorotoluene	13.96	91	1483193	9.67	ug/l	100
82) 4-Chlorotoluene	14.10	91	1643080	9.69	ug/l	100
83) tert-Butylbenzene	14.39	134	440274	9.84	ug/l	100
84) 1,2,4-Trimethylbenzene	14.45	105	1678651	9.76	ug/l	100
85) sec-Butylbenzene	14.63	105	2494617	9.99	ug/l	100
86) p-Isopropyltoluene	14.78	119	1998045	9.90	ug/l	100
87) 1,3-Dichlorobenzene	14.75	146	964018	9.63	ug/l	100
88) 1,4-Dichlorobenzene	14.85	146	946321	9.72	ug/l	100
89) n-Butylbenzene	15.16	91	1867416	10.08	ug/l	100
90) 1,2-Dichlorobenzene	15.19	146	795152	9.73	ug/l	100
91) 1,2-Dibromo-3-chloropropan	15.92	157	47689	10.33	ug/l	100
92) 1,2,4-Trichlorobenzene	16.67	180	465003	10.34	ug/l	100
93) Hexachlorobutadiene	16.79	225	312265	10.34	ug/l	100
94) Naphthalene	16.94	128	611911	10.33	ug/l	100
95) 1,2,3-Trichlorobenzene	17.15	180	355769	10.42	ug/l	100

SM 2/18/15

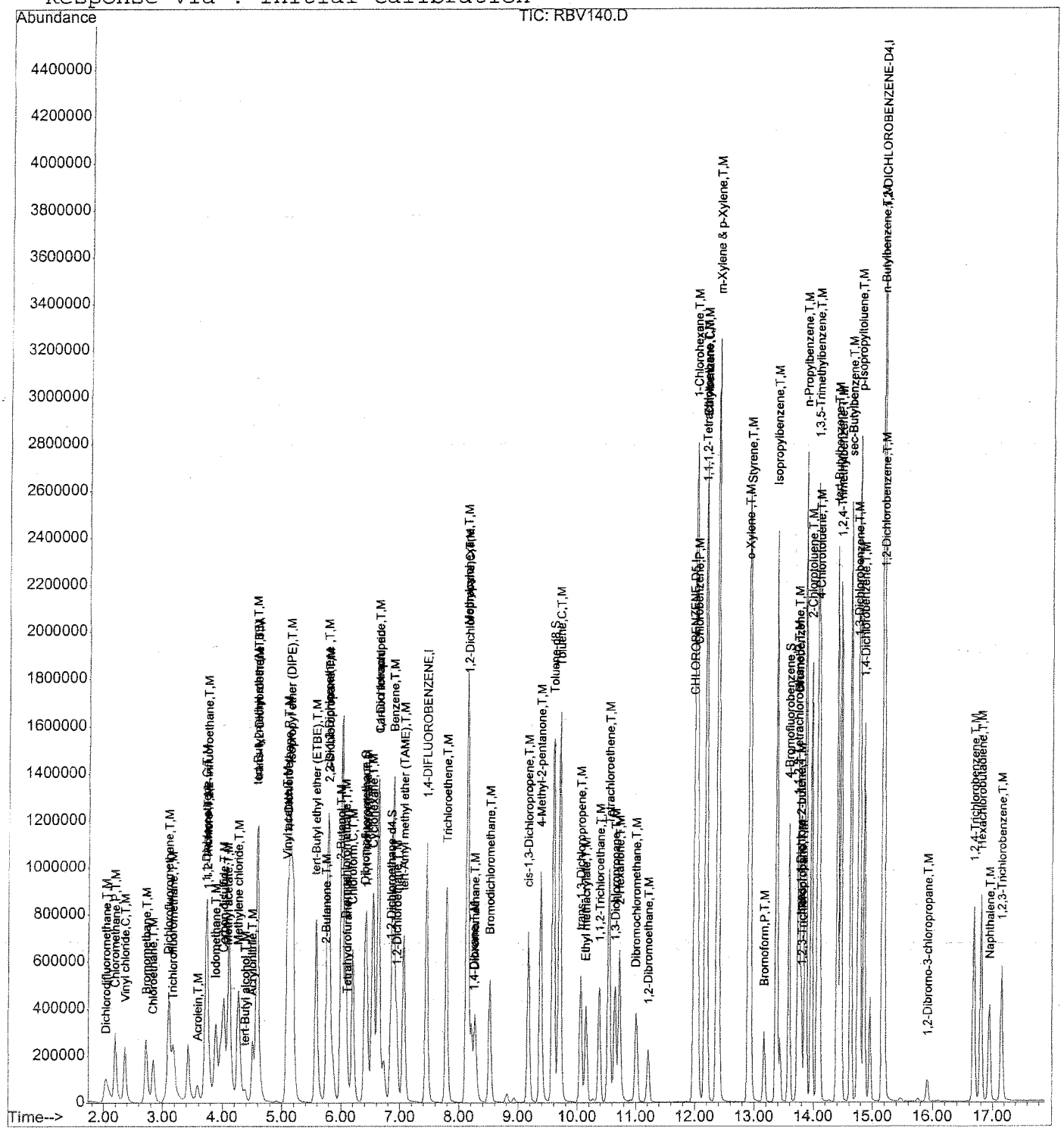
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV140.D
Acq On : 12 Feb 2015 8:03 pm
Sample : VO01B126
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SY 2/18/15

2064

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D Vial: 8
Acq On : 12 Feb 2015 8:31 pm Operator: WLau
Sample : VO01B127 Inst : TO01
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1496628	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	12.00	117	1269187	10.00	ug/l	0.02
71) 1,2-DICHLOROBENZENE-D4	15.18	152	495887	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	1044818	21.00	ug/l	0.00
Spiked Amount 10.000			Recovery =	210.00%		
38) 1,2-Dichloroethane-d4	6.84	65	683312	21.30	ug/l	0.00
Spiked Amount 10.000			Recovery =	213.00%		
54) Toluene-d8	9.60	98	3611603	21.04	ug/l	0.00
Spiked Amount 10.000			Recovery =	210.40%		
74) 4-Bromofluorobenzene	13.58	95	1167229	20.47	ug/l	0.00
Spiked Amount 10.000			Recovery =	204.70%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	700220	20.75	ug/l	99
4) Chloromethane	2.20	50	1088506	20.37	ug/l	99
5) Vinyl chloride	2.37	62	989826	20.70	ug/l	99
7) Bromomethane	2.71	94	638664	16.34	ug/l	99
8) Chloroethane	2.84	64	640406	19.85	ug/l	99
9) Dichlorofluoromethane	3.10	67	1689307	20.48	ug/l	100
10) Trichlorofluoromethane	3.17	101	946073	21.07	ug/l	99
11) Acrolein	3.57	56	268485	109.46	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	608551	20.35	ug/l	99
13) Acetone	3.74	43	489915	103.49	ug/l	99
14) 1,1-Dichloroethene	3.72	61	1228420	20.38	ug/l	100
15) Iodomethane	3.88	142	1772200	21.06	ug/l	100
16) Carbon disulfide	4.02	76	2994591	20.28	ug/l	99
17) Methyl acetate	4.09	43	334555	20.66	ug/l	99
18) Methylene chloride	4.27	49	1278664	19.54	ug/l	100
19) tert-Butyl alcohol	4.37	59	202964	120.10	ug/l	99
20) Acrylonitrile	4.51	53	833264	114.32	ug/l	98
21) tert-Butyl methyl ether (M	4.58	73	1680690	21.86	ug/l	99
22) trans-1,2-Dichloroethene	4.58	61	1509698	20.47	ug/l	99
23) Vinyl acetate	5.08	43	1574406	23.06	ug/l	99
24) 1,1-Dichloroethane	5.10	63	1969457	20.76	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	3740775	21.13	ug/l	99
26) 2-Butanol	5.99	45	173277	112.41	ug/l	95
27) tert-Butyl ethyl ether (ET	5.57	59	2686963	21.78	ug/l	99
28) 2-Butanone	5.75	43	1121305	112.08	ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	1183194	20.91	ug/l	99
30) 2,2-Dichloropropane	5.79	77	1086567	20.34	ug/l	100

(#) = qualifier out of range (m) = manual integration
RBV141.D VO01B12.M Tue Feb 17 10:53:50 2015 Su 2/18/15 Page 1

2065

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D Vial: 8
Acq On : 12 Feb 2015 8:31 pm Operator: WLau
Sample : VO01B127 Inst : TO01
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.10	42	138910	22.68 ug/l	98
32) Bromochloromethane	6.08	49	826822	21.50 ug/l	99
33) Chloroform	6.19	83	1692459	21.09 ug/l	99
35) 1,1,1-Trichloroethane	6.43	97	1235601	20.86 ug/l	99
36) Cyclohexane	6.53	56	1501206	19.36 ug/l	99
37) tert-Amyl methyl ether (TA	7.07	87	421669	22.74 ug/l	99
39) 1,1-Dichloropropene	6.62	110	545219	20.33 ug/l	100
40) Carbon tetrachloride	6.64	119	1129151	20.99 ug/l	100
41) Benzene	6.89	78	4120927	20.61 ug/l	100
42) 1,2-Dichloroethane	6.95	62	844736	21.58 ug/l	100
44) Trichloroethene	7.79	130	1227659	20.57 ug/l	100
45) Methylcylohexane	8.13	83	1440089	20.00 ug/l	99
46) 1,2-Dichloropropane	8.15	63	1102896	21.21 ug/l	96
47) 1,4-Dioxane	8.25	88	75044	455.86 ug/l	98
48) Dibromomethane	8.27	93	458993	22.43 ug/l	99
49) Bromodichloromethane	8.52	83	1189040	22.01 ug/l	99
51) cis-1,3-Dichloropropene	9.17	75	1606076	22.58 ug/l	99
52) 4-Methyl-2-pentanone	9.38	43	2736510	119.92 ug/l	100
55) Toluene	9.70	91	4388098	20.20 ug/l	100
56) Ethyl methacrylate	10.15	69	842169	23.61 ug/l	100
57) trans-1,3-Dichloropropene	10.06	75	1135035	22.86 ug/l	99
58) 1,1,2-Trichloroethane	10.38	97	622225	21.49 ug/l	100
59) Tetrachloroethene	10.55	164	969198	19.93 ug/l	100
60) 1,3-Dichloropropane	10.65	76	1179337	21.67 ug/l	100
61) 2-Hexanone	10.72	43	1819206	119.96 ug/l	100
62) Dibromochloromethane	11.00	129	822066	22.58 ug/l	100
63) 1,2-Dibromoethane	11.21	107	628758	22.32 ug/l	100
64) 1-Chlorohexane	12.01	91	1932982	20.36 ug/l	98
65) Chlorobenzene	12.04	112	2723547	20.73 ug/l	99
66) 1,1,1,2-Tetrachloroethane	12.17	131	933820	21.26 ug/l	99
67) Ethylbenzene	12.19	91	4970024	20.58 ug/l	99
68) m-Xylene & p-Xylene	12.38	91	7167591	41.26 ug/l	100
69) o-Xylene	12.90	91	3589734	20.91 ug/l	99
70) Styrene	12.93	104	2899677	22.05 ug/l	100
72) Bromoform	13.17	173	446829	22.18 ug/l	100
73) Isopropylbenzene	13.37	105	4552914	19.76 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	746182	21.37 ug/l	100
76) Bromobenzene	13.74	156	1076486	20.60 ug/l	100
77) trans-1,4-Dichloro-2-buten	13.77	53	151109	22.97 ug/l	97
78) 1,2,3-Trichloropropane	13.80	110	186668	21.77 ug/l	98
79) n-Propylbenzene	13.86	91	5964727	20.29 ug/l	100

(#) = qualifier out of range (m) = manual integration

SW 2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D Vial: 8
Acq On : 12 Feb 2015 8:31 pm Operator: WLau
Sample : VO01B127 Inst : TO01
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	3585172	20.28 ug/l	100
81)	2-Chlorotoluene	13.96	91	3054102	19.76 ug/l	100
82)	4-Chlorotoluene	14.10	91	3405736	19.93 ug/l	100
83)	tert-Butylbenzene	14.39	134	904224	20.04 ug/l	99
84)	1,2,4-Trimethylbenzene	14.45	105	3507894	20.23 ug/l	99
85)	sec-Butylbenzene	14.63	105	5091993	20.23 ug/l	99
86)	p-Isopropyltoluene	14.78	119	4275082	21.02 ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	2084139	20.65 ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	2047710	20.87 ug/l	100
89)	n-Butylbenzene	15.16	91	3878737	20.77 ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	1690243	20.52 ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	107502	23.09 ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	994151	21.93 ug/l	100
93)	Hexachlorobutadiene	16.79	225	637364	20.93 ug/l	100
94)	Naphthalene	16.94	128	1364812	22.86 ug/l	99
95)	1,2,3-Trichlorobenzene	17.15	180	751273	21.83 ug/l	99

Sa 2/18/15

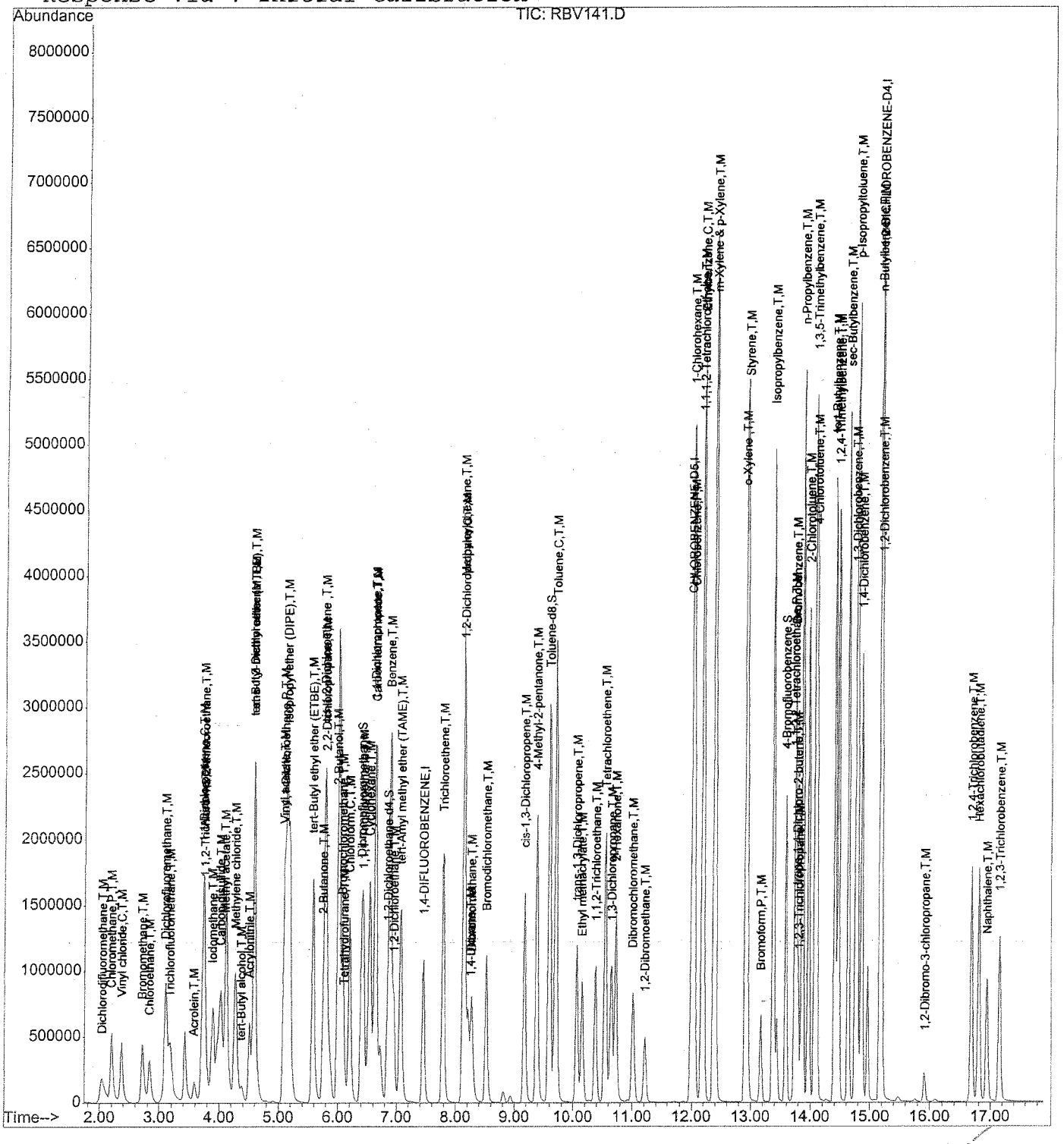
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV141.D
Acq On : 12 Feb 2015 8:31 pm
Sample : VO01B127
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2068

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1584622	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1311301	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	480786	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	1551660	29.46	ug/l	0.00
Spiked Amount 10.000			Recovery =	294.60%		
38) 1,2-Dichloroethane-d4	6.85	65	973385	28.65	ug/l	0.00
Spiked Amount 10.000			Recovery =	286.50%		
54) Toluene-d8	9.58	98	5481801	30.91	ug/l	-0.01
Spiked Amount 10.000			Recovery =	309.10%		
74) 4-Bromofluorobenzene	13.58	95	1689010	30.54	ug/l	0.00
Spiked Amount 10.000			Recovery =	305.40%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.03	85	1052119	29.45	ug/l	100
4) Chloromethane	2.20	50	1596577	28.21	ug/l	100
5) Vinyl chloride	2.37	62	1446013	28.56	ug/l	99
7) Bromomethane	2.71	94	850331	20.54	ug/l	100
8) Chloroethane	2.82	64	933290	27.32	ug/l	99
9) Dichlorofluoromethane	3.10	67	2454343	28.10	ug/l	99
10) Trichlorofluoromethane	3.17	101	1413120	29.72	ug/l	100
11) Acrolein	3.57	56	373374	143.77	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	898890	28.39	ug/l	99
13) Acetone	3.74	43	642273	128.15	ug/l	99
14) 1,1-Dichloroethene	3.72	61	1812803	28.40	ug/l	100
15) Iodomethane	3.88	142	2616291	29.36	ug/l	100
16) Carbon disulfide	4.00	76	4463937	28.56	ug/l	98
17) Methyl acetate	4.09	43	468407	27.32	ug/l	99
18) Methylene chloride	4.27	49	1868658	26.96	ug/l	99
19) tert-Butyl alcohol	4.37	59	267245	149.35	ug/l	99
20) Acrylonitrile	4.51	53	1117268	144.77	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	2289677	28.13	ug/l	100
22) trans-1,2-Dichloroethene	4.58	61	2244643	28.75	ug/l	99
23) Vinyl acetate	5.08	43	1807608	25.00	ug/l	95
24) 1,1-Dichloroethane	5.08	63	2949430	29.36	ug/l	100
25) Isopropyl ether (DIPE)	5.13	45	5399201	28.81	ug/l	99
26) 2-Butanol	5.97	45	241116	147.73	ug/l	97
27) tert-Butyl ethyl ether (ET	5.57	59	3841409	29.41	ug/l	99
28) 2-Butanone	5.75	43	1464210	138.23	ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	1732115	28.91	ug/l	99
30) 2,2-Dichloropropane	5.79	77	1589094	28.10	ug/l	100

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.11	42	171254	26.41 ug/l	98
32) Bromochloromethane	6.08	49	1182707	29.04 ug/l	99
33) Chloroform	6.19	83	2507439	29.52 ug/l	99
35) 1,1,1-Trichloroethane	6.43	97	1876729	29.92 ug/l	99
36) Cyclohexane	6.53	56	2425448	29.55 ug/l	99
37) tert-Amyl methyl ether (TA	7.07	87	592738	30.18 ug/l	98
39) 1,1-Dichloropropene	6.62	110	822322	28.96 ug/l	100
40) Carbon tetrachloride	6.64	119	1689377	29.67 ug/l	99
41) Benzene	6.89	78	6175955	29.17 ug/l	99
42) 1,2-Dichloroethane	6.95	62	1201789	29.00 ug/l	98
44) Trichloroethene	7.78	130	1863222	29.49 ug/l	100
45) Methylcylohexane	8.13	83	2275708	29.86 ug/l	99
46) 1,2-Dichloropropane	8.13	63	1582957	28.76 ug/l	99
47) 1,4-Dioxane	8.25	88	106902	613.33 ug/l	98
48) Dibromomethane	8.27	93	639992	29.54 ug/l	99
49) Bromodichloromethane	8.52	83	1733748	30.32 ug/l	99
51) cis-1,3-Dichloropropene	9.17	75	2335288	31.01 ug/l	99
52) 4-Methyl-2-pentanone	9.38	43	3572116	147.85 ug/l	100
55) Toluene	9.70	91	6497176	28.95 ug/l	100
56) Ethyl methacrylate	10.15	69	1165061	31.61 ug/l	100
57) trans-1,3-Dichloropropene	10.06	75	1620413	31.59 ug/l	99
58) 1,1,2-Trichloroethane	10.38	97	867053	28.98 ug/l	99
59) Tetrachloroethene	10.55	164	1469167	29.25 ug/l	100
60) 1,3-Dichloropropane	10.65	76	1644676	29.25 ug/l	100
61) 2-Hexanone	10.72	43	2375832	151.63 ug/l	100
62) Dibromochloromethane	11.00	129	1161721	30.89 ug/l	100
63) 1,2-Dibromoethane	11.21	107	870362	29.91 ug/l	99
64) 1-Chlorohexane	12.01	91	2881704	29.38 ug/l	97
65) Chlorobenzene	12.04	112	3998282	29.46 ug/l	99
66) 1,1,1,2-Tetrachloroethane	12.17	131	1354605	29.85 ug/l	98
67) Ethylbenzene	12.19	91	7381499	29.58 ug/l	99
68) m-Xylene & p-Xylene	12.38	91	10648647	59.33 ug/l	99
69) o-Xylene	12.90	91	5210630	29.38 ug/l	99
70) Styrene	12.93	104	4176323	30.73 ug/l	100
72) Bromoform	13.17	173	621114	31.80 ug/l	100
73) Isopropylbenzene	13.37	105	6819044	30.52 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	990233	29.25 ug/l	100
76) Bromobenzene	13.74	156	1559767	30.79 ug/l	98
77) trans-1,4-Dichloro-2-buten	13.77	53	199002	31.20 ug/l	96
78) 1,2,3-Trichloropropane	13.80	110	245586	29.54 ug/l	99
79) n-Propylbenzene	13.86	91	8954960	31.41 ug/l	99

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	5310529	30.98 ug/l	99
81)	2-Chlorotoluene	13.97	91	4529612	30.22 ug/l	99
82)	4-Chlorotoluene	14.10	91	4996691	30.16 ug/l	100
83)	tert-Butylbenzene	14.39	134	1318109	30.14 ug/l	98
84)	1,2,4-Trimethylbenzene	14.45	105	5169964	30.76 ug/l	99
85)	sec-Butylbenzene	14.63	105	7462910	30.58 ug/l	99
86)	p-Isopropyltoluene	14.78	119	6094087	30.91 ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	2957240	30.22 ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	2851531	29.98 ug/l	99
89)	n-Butylbenzene	15.16	91	5691925	31.44 ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	2362871	29.58 ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.90	157	142695	31.61 ug/l	99
92)	1,2,4-Trichlorobenzene	16.67	180	1443508	32.85 ug/l	99
93)	Hexachlorobutadiene	16.79	225	918146	31.10 ug/l	99
94)	Naphthalene	16.94	128	1914030	33.06 ug/l	99
95)	1,2,3-Trichlorobenzene	17.15	180	1065540	31.93 ug/l	99

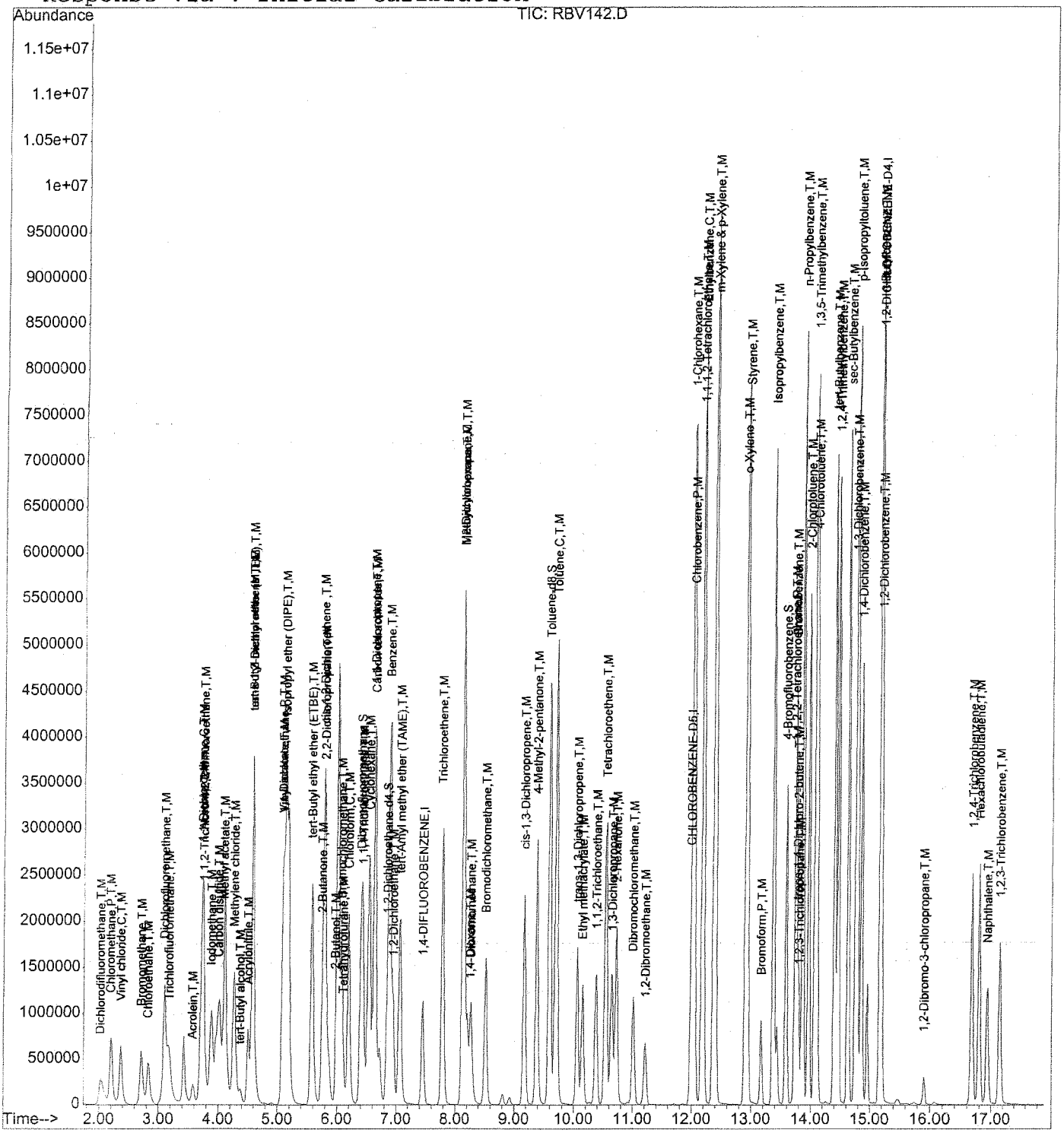
SA 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV142.D Vial: 9
Acq On : 12 Feb 2015 8:59 pm Operator: WLau
Sample : VO01B128 Inst : TO01
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



2/18/15

2072

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D Vial: 10
Acq On : 12 Feb 2015 9:27 pm Operator: WLau
Sample : VO01B129 Inst : TO01
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1611857	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1339087	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.18	152	492316	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	2563110	47.83	ug/l	0.00
Spiked Amount 10.000			Recovery =	478.30%		
38) 1,2-Dichloroethane-d4	6.85	65	1648013	47.69	ug/l	0.00
Spiked Amount 10.000			Recovery =	476.90%		
54) Toluene-d8	9.60	98	9007206	49.73	ug/l	0.00
Spiked Amount 10.000			Recovery =	497.30%		
74) 4-Bromofluorobenzene	13.58	95	2853080	50.39	ug/l	0.00
Spiked Amount 10.000			Recovery =	503.90%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	1753891	48.26	ug/l	100
4) Chloromethane	2.21	50	2677480	46.51	ug/l	100
5) Vinyl chloride	2.37	62	2453353	47.64	ug/l	99
7) Bromomethane	2.71	94	1029347	24.45	ug/l	99
8) Chloroethane	2.82	64	1377235	39.63	ug/l	99
9) Dichlorofluoromethane	3.10	67	3968965	44.67	ug/l	99
10) Trichlorofluoromethane	3.17	101	2312792	47.82	ug/l	99
11) Acrolein	3.57	56	643799	243.71	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	1496066	46.46	ug/l	99
13) Acetone	3.74	43	1085547	212.93	ug/l	99
14) 1,1-Dichloroethene	3.72	61	2943508	45.34	ug/l	100
15) Iodomethane	3.88	142	4365470	48.17	ug/l	100
16) Carbon disulfide	4.02	76	7410584	46.60	ug/l	98
17) Methyl acetate	4.09	43	799230	45.82	ug/l	99
18) Methylene chloride	4.27	49	3091333	43.85	ug/l	100
19) tert-Butyl alcohol	4.39	59	498135	273.68	ug/l	98
20) Acrylonitrile	4.51	53	1974153	251.48	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	3981256	48.08	ug/l	99
22) trans-1,2-Dichloroethene	4.58	61	3639621	45.83	ug/l	98
23) Vinyl acetate	5.08	43	3688282	50.16	ug/l	99
24) 1,1-Dichloroethane	5.08	63	4735728	46.35	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	8784920	46.08	ug/l	99
26) 2-Butanol	5.99	45	448678	270.25	ug/l	97
27) tert-Butyl ethyl ether (ET	5.57	59	6431415	48.41	ug/l	100
28) 2-Butanone	5.75	43	2587574	240.16	ug/l	99
29) cis-1,2-Dichloroethene	5.78	96	2812736	46.15	ug/l	99
30) 2,2-Dichloropropane	5.79	77	2576368	44.79	ug/l	100

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D Vial: 10
Acq On : 12 Feb 2015 9:27 pm Operator: WLau
Sample : VO01B129 Inst : TO01
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Tetrahydrofurane	6.11	42	298088	45.20	ug/l	98
32) Bromochloromethane	6.08	49	1947631	47.02	ug/l	98
33) Chloroform	6.19	83	4069633	47.10	ug/l	99
35) 1,1,1-Trichloroethane	6.43	97	3048672	47.78	ug/l	99
36) Cyclohexane	6.53	56	3957916	47.40	ug/l	99
37) tert-Amyl methyl ether (TA	7.07	87	1015050	50.82	ug/l	97
39) 1,1-Dichloropropene	6.62	110	1324565	45.86	ug/l	100
40) Carbon tetrachloride	6.64	119	2776015	47.92	ug/l	100
41) Benzene	6.89	78	10128980	47.04	ug/l	99
42) 1,2-Dichloroethane	6.95	62	2008003	47.63	ug/l	100
44) Trichloroethene	7.78	130	3048094	47.42	ug/l	99
45) Methylcylohexane	8.13	83	3697844	47.70	ug/l	98
46) 1,2-Dichloropropane	8.13	63	2538039	45.33	ug/l	99
47) 1,4-Dioxane	8.25	88	190258	1073.12	ug/l	96
48) Dibromomethane	8.27	93	1083592	49.16	ug/l	98
49) Bromodichloromethane	8.52	83	2888653	49.66	ug/l	99
51) cis-1,3-Dichloropropene	9.17	75	3888448	50.77	ug/l	99
52) 4-Methyl-2-pentanone	9.38	43	6429608	261.62	ug/l	99
55) Toluene	9.70	91	10729942	46.82	ug/l	100
56) Ethyl methacrylate	10.15	69	2037530	54.13	ug/l	100
57) trans-1,3-Dichloropropene	10.06	75	2750125	52.50	ug/l	99
58) 1,1,2-Trichloroethane	10.38	97	1471717	48.17	ug/l	100
59) Tetrachloroethene	10.55	164	2397922	46.74	ug/l	99
60) 1,3-Dichloropropane	10.65	76	2756224	48.00	ug/l	100
61) 2-Hexanone	10.72	43	4290468	268.14	ug/l	99
62) Dibromochloromethane	11.00	129	1976796	51.47	ug/l	100
63) 1,2-Dibromoethane	11.21	107	1476069	49.67	ug/l	99
64) 1-Chlorohexane	12.01	91	4550000	45.42	ug/l	96
65) Chlorobenzene	12.04	112	6380907	46.04	ug/l	98
66) 1,1,1,2-Tetrachloroethane	12.17	131	2195071	47.37	ug/l	98
67) Ethylbenzene	12.19	91	11855244	46.52	ug/l	98
68) m-Xylene & p-Xylene	12.38	91	17005287	92.79	ug/l	98
69) o-Xylene	12.90	91	8458675	46.71	ug/l	99
70) Styrene	12.93	104	6857460	49.41	ug/l	99
72) Bromoform	13.17	173	1093529	54.68	ug/l	99
73) Isopropylbenzene	13.37	105	11105172	48.54	ug/l	99
75) 1,1,2,2-Tetrachloroethane	13.73	83	1696474	48.94	ug/l	99
76) Bromobenzene	13.74	156	2589194	49.91	ug/l	98
77) trans-1,4-Dichloro-2-buten	13.77	53	352682	53.99	ug/l	95
78) 1,2,3-Trichloropropane	13.80	110	423432	49.75	ug/l	97
79) n-Propylbenzene	13.86	91	13711766	46.97	ug/l	99

(#) = qualifier out of range (m) = manual integration
RBV143.D VO01B12.M Tue Feb 17 10:54:52 2015 2/18/15 Page 2

2074

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D Vial: 10
Acq On : 12 Feb 2015 9:27 pm Operator: WLau
Sample : VO01B129 Inst : TO01
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.07	105	8415710	47.95 ug/l	99
81)	2-Chlorotoluene	13.97	91	7398315	48.21 ug/l	99
82)	4-Chlorotoluene	14.10	91	7999828	47.16 ug/l	100
83)	tert-Butylbenzene	14.41	134	2127056	47.49 ug/l	98
84)	1,2,4-Trimethylbenzene	14.45	105	8302618	48.24 ug/l	100
85)	sec-Butylbenzene	14.63	105	12006206	48.05 ug/l	99
86)	p-Isopropyltoluene	14.78	119	9578201	47.44 ug/l	99
87)	1,3-Dichlorobenzene	14.75	146	4862910	48.52 ug/l	98
88)	1,4-Dichlorobenzene	14.85	146	4696584	48.22 ug/l	99
89)	n-Butylbenzene	15.16	91	8773043	47.32 ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	3909435	47.80 ug/l	98
91)	1,2-Dibromo-3-chloropropan	15.90	157	251669	54.45 ug/l	98
92)	1,2,4-Trichlorobenzene	16.67	180	2328076	51.74 ug/l	99
93)	Hexachlorobutadiene	16.79	225	1383575	45.77 ug/l	99
94)	Naphthalene	16.94	128	3264817	55.07 ug/l	100
95)	1,2,3-Trichlorobenzene	17.15	180	1760908	51.53 ug/l	100

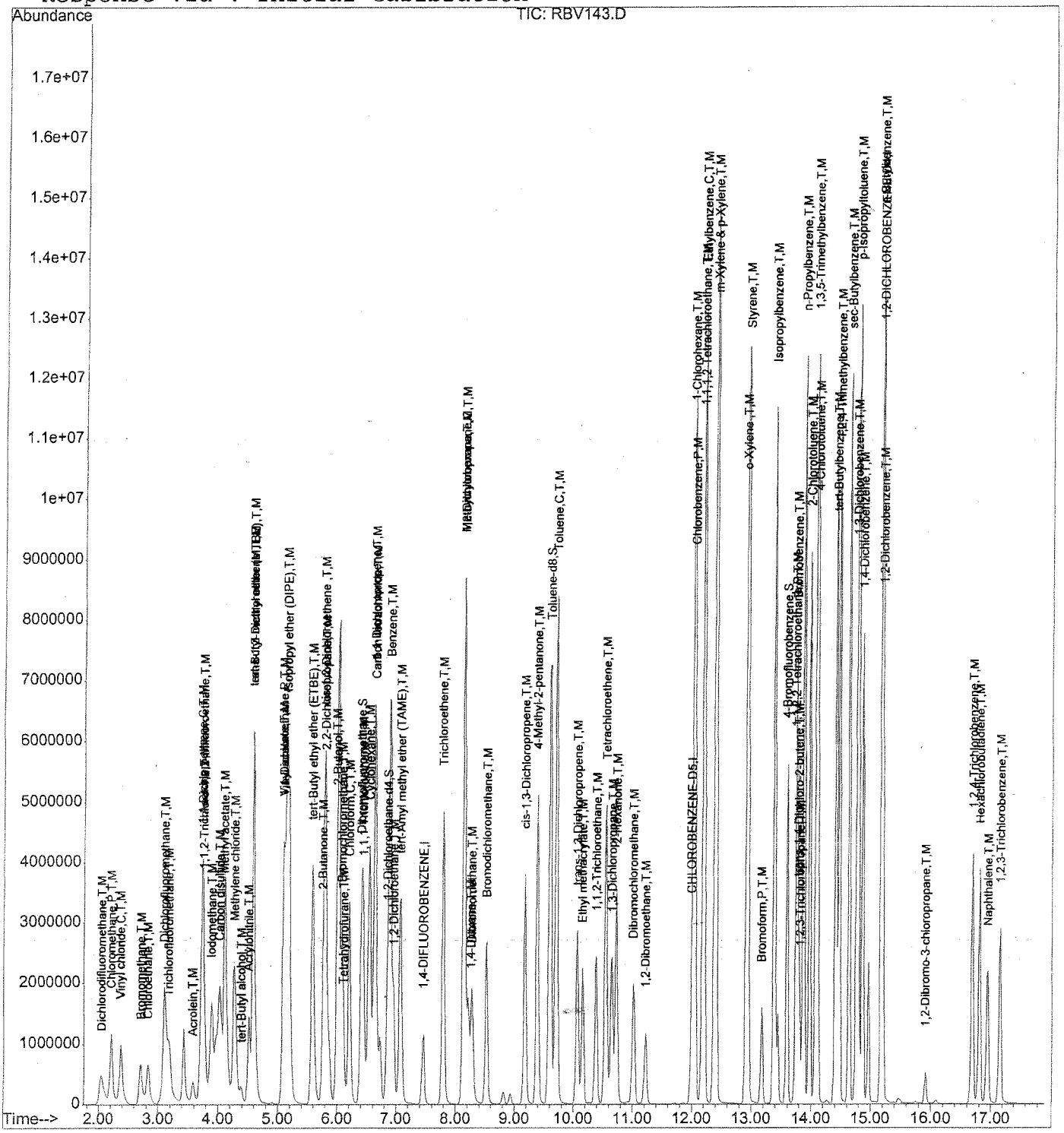
sm 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B12\RBV143.D Vial: 10
Acq On : 12 Feb 2015 9:27 pm Operator: WLau
Sample : VO01B129 Inst : TO01
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:10 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



SM 2/18/15

2076

SECOND SOURCE VERIFICATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D156
Lab File ID: RBV149 BFB Injection Date : 02/13/15
Instrument ID: TO01 BFB Injection Time : 10:03
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.75
75	30.0 - 60.0% of mass 95	43.31
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.44
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	82.50
175	5.0 - 9.0% of mass 174	5.95(7.2)1
176	95.0 - 101.0% of mass 174	79.44(96.3)1
177	5.0 - 9.0% of mass 176	5.14(6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	IV001B1201	RBV150	02/13/15	10:31

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO01
IC_Beginning DateTime :02/12/15 17:43
Spike Amount :10 PPB
CC/CV File :RBV150
IC File :RBV140

Column Spec :RXI-624SILMS ID :0.25MM
IC_Ending DateTime :02/12/15 21:27
HPChem Method :VO01B12
Date_Time :02/13/15 10:31

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1545118	1	1	7.452	7.452	0				
	2	Chlorotrifluoroethylene												
	3	Dichlorodifluoromethane	9.516	-4.8	331489	0.215	0.225	2.034	2.037	6.61				
	4	Chloromethane	9.148	-8.5	504754	0.327	0.357	2.205	2.193	6.20				
	5	Vinyl chloride	9.431	-5.7	465582	0.301	0.320	2.376	2.357	5.56				
	6	2-Chloro-1,1,1-trifluoroethane												
	7	Bromomethane	8.363	-16.4	337515	0.218	0.261	2.717	2.716	12.36				
	8	Chloroethane	10.100	1.0	336450	0.218	0.216	2.831	2.836	6.59				
	9	Dichlorofluoromethane	9.665	-3.4	823056	0.533	0.551	3.115	3.100	7.10				
	10	Trichlorofluoromethane	10.063	0.6	466502	0.302	0.300	3.174	3.174	7.89				
5	11	Acrolein	51.042	2.1	129253	0.017	0.016	3.574	3.584	4.37				
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	9.463	-5.4	292108	0.189	0.200	3.751	3.752	5.25				
5	13	Acetone	49.552	-0.9	242165	0.031	0.032	3.737	3.737	13.74				
	14	1,1-Dichloroethene	9.582	-4.2	596268	0.386	0.403	3.722	3.722	5.41				
	15	Iodomethane	9.822	-1.8	853312	0.552	0.562	3.885	3.887	2.93				
	16	Carbon disulfide	9.866	-1.3	1503903	0.973	0.986	4.018	4.013	5.98				
	17	Methyl acetate	10.038	0.4	167843	0.109	0.108	4.092	4.098	6.18				
	18	Methylene chloride	9.575	-4.2	647025	0.419	0.437	4.270	4.270	11.04				
5	19	tert-Butyl alcohol	49.661	-0.7	86646	0.011	0.011	4.373	4.386	13.23				
5	20	Acrylonitrile	51.953	3.9	390954	0.051	0.049	4.506	4.515	7.16				
	21	tert-Butyl methyl ether (MTBE)	9.892	-1.1	785157	0.508	0.514	4.580	4.584	4.53				
	22	trans-1,2-Dichloroethene	9.643	-3.6	734056	0.475	0.493	4.580	4.590	3.99				
	23	Vinyl acetate	8.209	-17.9	578649	0.375	0.456	5.084	5.084	11.61				
	24	1,1-Dichloroethane	9.819	-1.8	961688	0.622	0.634	5.084	5.095	3.90				
	25	Isopropyl ether (DIPE)	9.661	-3.4	1765642	1.143	1.183	5.128	5.141	4.18				
5	26	2-Butanol	51.487	3.0	81941	0.011	0.010	5.987	5.989	10.66				
	27	tert-Butyl ethyl ether (ETBE)	9.959	-0.4	1268358	0.821	0.824	5.572	5.577	4.22				
5	28	2-Butanone	50.325	0.6	519766	0.067	0.067	5.750	5.755	6.48				
	29	cis-1,2-Dichloroethene	9.844	-1.6	575197	0.372	0.378	5.779	5.780	4.24				
	30	2,2-Dichloropropane	10.264	2.6	565970	0.366	0.357	5.794	5.796	5.66				
	31	Tetrahydrofurane	9.796	-2.0	61929	0.040	0.041	6.105	6.112	8.98				
	32	Bromochloromethane	9.789	-2.1	388737	0.252	0.257	6.076	6.076	4.58				
	33	Chloroform	9.823	-1.8	813632	0.527	0.536	6.194	6.196	3.84				
	34	Dibromofluoromethane	10.270	2.7	527525	0.341	0.332	6.401	6.401	5.89				
	35	1,1,1-Trichloroethane	9.795	-2.0	599123	0.388	0.396	6.431	6.431	3.08				
	36	Cyclohexane	10.213	2.1	817429	0.529	0.518	6.534	6.535	5.46				
	37	tert-Amyl methyl ether (TAME)	10.235	2.3	195975	0.127	0.124	7.052	7.068	8.68				
	38	1,2-Dichloroethane-d4	10.123	1.2	335321	0.217	0.214	6.845	6.845	6.07				
	39	1,1-Dichloropropene	9.611	-3.9	266097	0.172	0.179	6.623	6.633	4.34				
	40	Carbon tetrachloride	9.744	-2.6	541041	0.350	0.359	6.638	6.638	3.72				
	41	Benzene	9.669	-3.3	1995998	1.292	1.336	6.875	6.890	3.80				
	42	1,2-Dichloroethane	9.712	-2.9	392473	0.254	0.262	6.934	6.949	4.87				
	43	2,2,4-Trimethylpentane												
	44	Trichloroethene	9.684	-3.2	596662	0.386	0.399	7.778	7.790	3.33				
	45	Methylcylohexane	10.607	6.1	788341	0.510	0.481	8.133	8.133	6.14				
	46	1,2-Dichloropropane	9.858	-1.4	529081	0.342	0.347	8.133	8.145	5.04				
20	47	1,4-Dioxane	192.964	-3.5	32795	0.001	0.001	8.251	8.252	12.12				
	48	Dibromomethane	9.970	-0.3	210642	0.136	0.137	8.266	8.266	6.70				
	49	Bromodichloromethane	10.069	0.7	561471	0.363	0.361	8.518	8.518	5.40				
	50	2-Chloroethyl vinyl ether												
	51	cis-1,3-Dichloropropene	10.218	2.2	750227	0.486	0.475	9.169	9.169	7.95				
5	52	4-Methyl-2-pentanone	51.269	2.5	1207825	0.156	0.152	9.376	9.380	11.09				
	53	CHLOROBENZENE-D5	10.000	0	1273949	1	1	11.982	11.987	0				
	54	Toluene-d8	10.703	7.0	1844157	1.448	1.352	9.584	9.597	11.58				
	55	Toluene	9.470	-5.3	2064782	1.621	1.712	9.687	9.702	4.73				
	56	Ethyl methacrylate	10.118	1.2	362315	0.284	0.281	10.146	10.152	12.89				
	57	trans-1,3-Dichloropropene	10.426	4.3	519588	0.408	0.391	10.057	10.057	9.16				
	58	1,1,2-Trichloroethane	9.682	-3.2	281436	0.221	0.228	10.368	10.383	3.90				
	59	Tetrachloroethene	9.663	-3.4	471599	0.370	0.383	10.531	10.546	4.85				
	60	1,3-Dichloropropane	9.684	-3.2	528991	0.415	0.429	10.635	10.650	4.47				
5	61	2-Hexanone	51.120	2.2	778170	0.122	0.119	10.709	10.727	11.92				
	62	Dibromochloromethane	10.037	0.4	366726	0.288	0.287	11.005	11.007	7.66				
	63	1,2-Dibromoethane	9.896	-1.0	279812	0.220	0.222	11.212	11.212	5.77				
	64	1-Chlorohexane	9.844	-1.6	938151	0.736	0.748	12.011	12.012	5.72				
	65	Chlorobenzene	9.885	-1.2	1303383	1.023	1.035	12.026	12.041	3.99				
	66	1,1,1,2-Tetrachloroethane	10.007	0.1	441121	0.346	0.346	12.174	12.174	3.96				
	67	Ethylbenzene	9.675	-3.2	2345502	1.841	1.903	12.189	12.189	3.32				
2	68	m-Xylene & p-Xylene	19.577	-2.1	3413283	1.340	1.369	12.381	12.382	3.44				
	69	o-Xylene	9.769	-2.3	1683046	1.321	1.352	12.899	12.900	4.29				
	70	Styrene	10.094	0.9	1332722	1.046	1.036	12.929	12.931	6.28				
	71	1,2-DICHLOROBENZENE-D4	10.000	0	480946	1	1	15.164	15.179	0				
	72	Bromoform	10.151	1.5	198326	0.412	0.406	13.166	13.166	9.03				
	73	Isopropylbenzene	9.714	-2.9	2170916	4.514	4.647	13.373	13.373	3.49				
	74	4-Bromofluorobenzene	10.477	4.8	579538	1.205	1.150	13.580	13.580	8.01				
	75	1,1,2,2-Tetrachloroethane	9.881	-1.2	334639	0.696	0.704	13.728	13.729	3.83				
	76	Bromobenzene	9.817	-1.8	497480	1.034	1.054	13.743	13.745	2.82				
	77	trans-1,4-Dichloro-2-butene	10.372	3.7	66186	0.138	0.133	13.773	13.773	11.34				
	78	1,2,3-Trichloropropane	9.844	-1.6	81859	0.170	0.173	13.788	13.803	4.93				
	79	n-Propylbenzene	9.767	-2.3	2785410	5.792	5.930	13.862	13.862	3.96				

sa 2/18/15

80	1,3,5-Trimethylbenzene	9.863	-1.4	1690979	3.516	3.565	14.054	14.069	3.01				
81	2-Chlorotoluene	9.597	-4.0	1438808	2.992	3.117	13.950	13.965	3.28				
82	4-Chlorotoluene	9.718	-2.8	1610440	3.348	3.446	14.084	14.099	3.87				
83	tert-Butylbenzene	9.827	-1.7	429924	0.894	0.910	14.394	14.398	3.67				
84	1,2,4-Trimethylbenzene	9.823	-1.8	1651699	3.434	3.496	14.454	14.455	2.79				
85	sec-Butylbenzene	9.802	-2.0	2392659	4.975	5.076	14.616	14.632	3.03				
86	p-Isopropyltoluene	10.070	0.7	1986201	4.130	4.101	14.779	14.780	4.21				
87	1,3-Dichlorobenzene	9.810	-1.9	960420	1.997	2.036	14.750	14.752	3.41				
88	1,4-Dichlorobenzene	9.799	-2.0	932418	1.939	1.978	14.853	14.854	3.51				
89	n-Butylbenzene	10.219	2.2	1850791	3.848	3.766	15.164	15.164	4.22				
90	1,2-Dichlorobenzene	9.700	-3.0	775075	1.612	1.661	15.194	15.194	3.43				
91	1,2-Dibromo-3-chloropropane	10.143	1.4	45797	0.095	0.094	15.904	15.915	12.45				
92	1,2,4-Trichlorobenzene	10.164	1.6	446798	0.929	0.914	16.674	16.676	7.77				
93	Hexachlorobutadiene	10.253	2.5	302771	0.630	0.614	16.792	16.794	4.77				
94	Naphthalene	9.443	-5.6	546900	1.137	1.204	16.926	16.941	11.07				
95	1,2,3-Trichlorobenzene	10.141	1.4	338500	0.704	0.694	17.148	17.151	7.45				

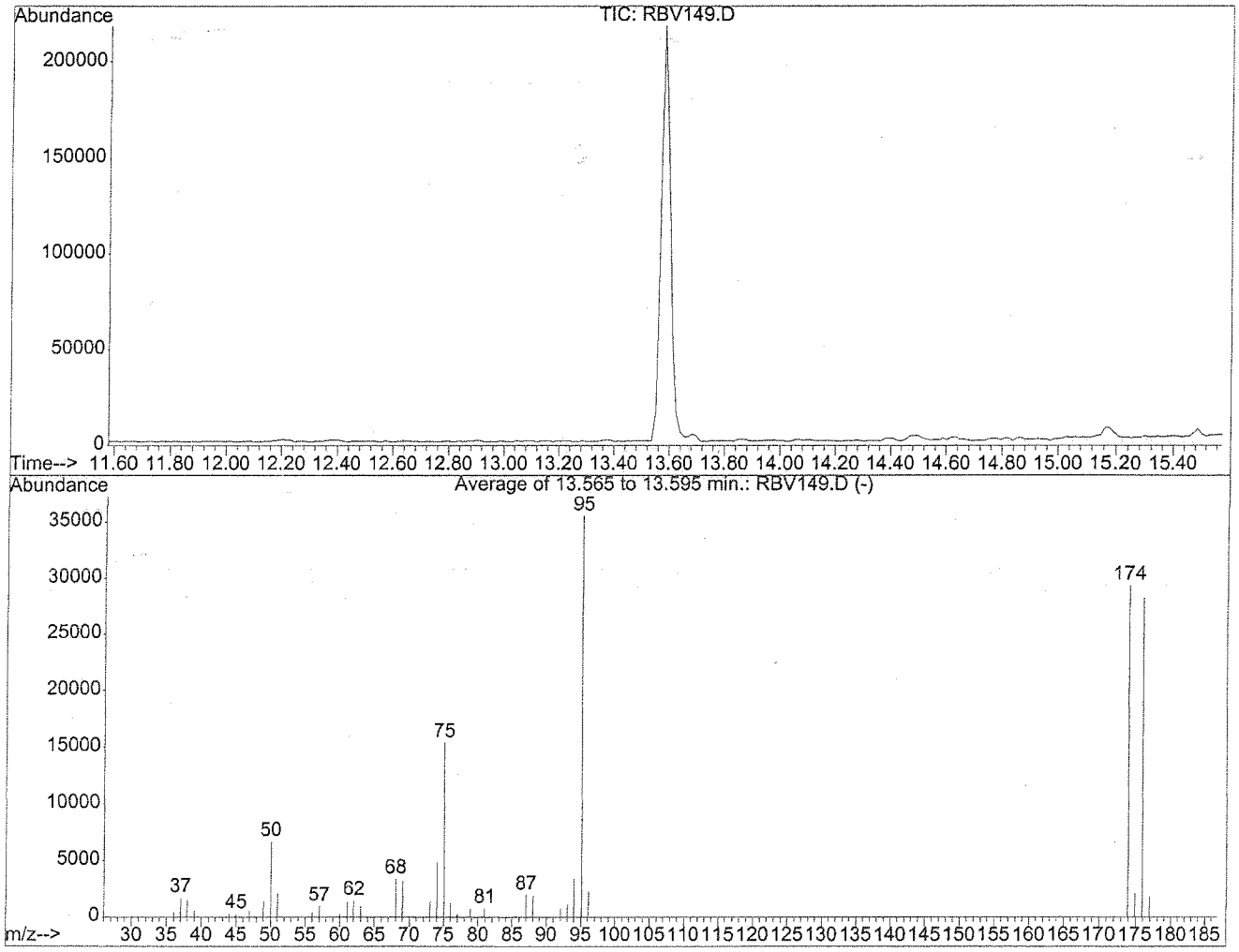
Spike Amount = Nominal Amount * M

SM
2/18/15

BFB

Data File : D:\HPCHEM\1\DATA\15B13\RBV149.D
Acq On : 13 Feb 2015 10:03 am
Sample : BFB01B09
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 802, 803, 804; Background Corrected with Scan 799

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	6666	PASS
75	95	30	60	43.3	15397	PASS
95	95	100	100	100.0	35552	PASS
96	95	5	9	6.4	2291	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.5	29331	PASS
175	174	5	9	7.2	2117	PASS
176	174	95	101	96.3	28242	PASS
177	176	5	9	6.5	1829	PASS

RBV149.D VO01B12.M Tue Feb 17 10:56:50 2015

SM 2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	103	0.00
2	T,M	Chlorotrifluoroethylene	-1.000	0.000	0.0	0	-1.98#
3	T,M	Dichlorodifluoromethane	10.000	9.516	4.8	86	0.00
4	P,T,M	Chloromethane	10.000	9.148	8.5	85	0.00
5	C,T,M	Vinyl chloride	10.000	9.431	5.7	87	0.00
6	T,M	2-Chloro-1,1,1-trifluoroeth	-1.000	0.000	0.0	0	-2.48#
7	T,M	Bromomethane	10.000	8.363	16.4	88	0.00
8	T,M	Chloroethane	10.000	10.100	-1.0	93	0.00
9	T,M	Dichlorofluoromethane	10.000	9.664	3.4	101	0.02
10	T,M	Trichlorofluoromethane	10.000	10.063	-0.6	91	0.00
11	T,M	Acrolein	50.000	51.042	-2.1	105	-0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	9.463	5.4	99	0.00
13	T,M	Acetone	50.000	49.552	0.9	106	0.00
14	C,T,M	1,1-Dichloroethene	10.000	9.581	4.2	100	0.00
15	T,M	Iodomethane	10.000	9.822	1.8	101	0.00
16	T,M	Carbon disulfide	10.000	9.867	1.3	94	0.00
17	T,M	Methyl acetate	10.000	10.038	-0.4	100	0.00
18	T,M	Methylene chloride	10.000	9.575	4.3	105	0.00
19	T,M	tert-Butyl alcohol	50.000	49.661	0.7	95	-0.01
20	T,M	Acrylonitrile	50.000	51.953	-3.9	103	0.00
21	T,M	tert-Butyl methyl ether (MT	10.000	9.892	1.1	100	0.00
22	T,M	trans-1,2-Dichloroethene	10.000	9.643	3.6	99	-0.01
23	T,M	Vinyl acetate	10.000	8.209	17.9	75	0.00
24	P,T,M	1,1-Dichloroethane	10.000	9.819	1.8	101	-0.01
25	T,M	Isopropyl ether (DIPE)	10.000	9.661	3.4	98	-0.01
26	T,M	2-Butanol	50.000	51.487	-3.0	99	0.00
27	T,M	tert-Butyl ethyl ether (ETB	10.000	9.959	0.4	101	0.00
28	T,M	2-Butanone	50.000	50.325	-0.7	99	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	9.844	1.6	100	0.00
30	T,M	2,2-Dichloropropane	10.000	10.264	-2.6	105	0.00
31	T,M	Tetrahydrofurane	10.000	9.796	2.0	103	0.00
32	T,M	Bromochloromethane	10.000	9.789	2.1	99	0.00
33	C,T,M	Chloroform	10.000	9.823	1.8	103	0.00
34	S	Dibromofluoromethane	10.000	10.270	-2.7	100	0.00
35	T,M	1,1,1-Trichloroethane	10.000	9.795	2.1	100	0.00
36	T,M	Cyclohexane	10.000	10.213	-2.1	102	0.00
37	T,M	tert-Amyl methyl ether (TAM	10.000	10.235	-2.3	99	-0.01
38	S	1,2-Dichloroethane-d4	10.000	10.123	-1.2	99	0.00
39	T,M	1,1-Dichloropropene	10.000	9.611	3.9	98	-0.01
40	T,M	Carbon tetrachloride	10.000	9.744	2.6	98	0.00
41	T,M	Benzene	10.000	9.669	3.3	100	-0.01

(#) = Out of Range

Sm 2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	10.000	9.712	2.9	98	-0.01
43	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	-0.01
44	T,M	Trichloroethene	10.000	9.684	3.2	100	-0.01
45	T,M	Methylcylohexane	10.000	10.607	-6.1	104	0.00
46	C,T,M	1,2-Dichloropropane	10.000	9.858	1.4	101	-0.01
47	T,M	1,4-Dioxane	200.000	192.964	3.5	92	0.00
48	T,M	Dibromomethane	10.000	9.970	0.3	97	0.00
49	T,M	Bromodichloromethane	10.000	10.069	-0.7	101	0.00
50	T,M	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
51	T,M	cis-1,3-Dichloropropene	10.000	10.218	-2.2	101	0.00
52	T,M	4-Methyl-2-pentanone	50.000	51.269	-2.5	97	0.00
53	I	CHLOROBENZENE-D5	10.000	10.000	0.0	100	0.00
54	S	Toluene-d8	10.000	10.704	-7.0	101	-0.01
55	C,T,M	Toluene	10.000	9.470	5.3	99	-0.01
56	T,M	Ethyl methacrylate	10.000	10.118	-1.2	95	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	10.426	-4.3	100	0.00
58	T,M	1,1,2-Trichloroethane	10.000	9.683	3.2	96	-0.01
59	T,M	Tetrachloroethene	10.000	9.663	3.4	101	-0.01
60	T,M	1,3-Dichloropropane	10.000	9.684	3.2	96	-0.01
61	T,M	2-Hexanone	50.000	51.120	-2.2	97	-0.01
62	T,M	Dibromochloromethane	10.000	10.037	-0.4	97	0.00
63	T,M	1,2-Dibromoethane	10.000	9.896	1.0	96	0.00
64	T,M	1-Chlorohexane	10.000	9.844	1.6	101	0.00
65	P,M	Chlorobenzene	10.000	9.885	1.2	100	-0.01
66	T,M	1,1,1,2-Tetrachloroethane	10.000	10.007	-0.1	100	0.00
67	C,T,M	Ethylbenzene	10.000	9.675	3.2	97	0.00
68	T,M	m-Xylene & p-Xylene	20.000	19.577	2.1	99	0.00
69	T,M	o-Xylene	10.000	9.769	2.3	97	0.00
70	T,M	Styrene	10.000	10.094	-0.9	97	0.00
71	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	98	-0.01
72	P,T,M	Bromoform	10.000	10.152	-1.5	97	0.00
73	T,M	Isopropylbenzene	10.000	9.714	2.9	97	0.00
74	S	4-Bromofluorobenzene	10.000	10.477	-4.8	99	0.00
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.881	1.2	95	0.00
76	T,M	Bromobenzene	10.000	9.817	1.8	98	0.00
77	T,M	trans-1,4-Dichloro-2-butene	10.000	10.372	-3.7	97	0.00
78	T,M	1,2,3-Trichloropropane	10.000	9.845	1.5	94	-0.01
79	T,M	n-Propylbenzene	10.000	9.767	2.3	96	0.00
80	T,M	1,3,5-Trimethylbenzene	10.000	9.863	1.4	98	-0.01

(#) = Out of Range

Sw 2/18/15

2083

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IVO01B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	10.000	9.597	4.0	97	-0.01
82	T,M	4-Chlorotoluene	10.000	9.718	2.8	98	-0.01
83	T,M	tert-Butylbenzene	10.000	9.827	1.7	98	0.00
84	T,M	1,2,4-Trimethylbenzene	10.000	9.823	1.8	98	0.00
85	T,M	sec-Butylbenzene	10.000	9.802	2.0	96	-0.01
86	T,M	p-Isopropyltoluene	10.000	10.070	-0.7	99	0.00
87	T,M	1,3-Dichlorobenzene	10.000	9.810	1.9	100	0.00
88	T,M	1,4-Dichlorobenzene	10.000	9.799	2.0	99	0.00
89	T,M	n-Butylbenzene	10.000	10.220	-2.2	99	0.00
90	T,M	1,2-Dichlorobenzene	10.000	9.700	3.0	97	0.00
91	T,M	1,2-Dibromo-3-chloropropane	10.000	10.143	-1.4	96	-0.01
92	T,M	1,2,4-Trichlorobenzene	10.000	10.164	-1.6	96	0.00
93	T,M	Hexachlorobutadiene	10.000	10.253	-2.5	97	0.00
94	T,M	Naphthalene	10.000	9.443	5.6	89	-0.01
95	T,M	1,2,3-Trichlorobenzene	10.000	10.141	-1.4	95	0.00

SM 2/18/15

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D
Acq On : 13 Feb 2015 10:31 am
Sample : IVO01B1201
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	103	0.00
2	T,M	Chlorotrifluoroethylene	0.000	0.000	0.0	0#	-1.98#
3	T,M	Dichlorodifluoromethane	0.225	0.215	4.4	86	0.00
4	P,T,M	Chloromethane	0.357	0.327	8.4	85	0.00
5	C,T,M	Vinyl chloride	0.320	0.301	5.9	87	0.00
6	T,M	2-Chloro-1,1,1-trifluoroeth	0.000	0.000	0.0	0#	-2.48#
7	T,M	Bromomethane	0.261	0.218	16.5	88	0.00
8	T,M	Chloroethane	0.216	0.218	-0.9	93	0.00
9	T,M	Dichlorofluoromethane	0.551	0.533	3.3	101	0.02
10	T,M	Trichlorofluoromethane	0.300	0.302	-0.7	91	0.00
11	T,M	Acrolein	0.016	0.017	-6.3	105	-0.01
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.200	0.189	5.5	99	0.00
13	T,M	Acetone	0.032	0.031	3.1	106	0.00
14	C,T,M	1,1-Dichloroethene	0.403	0.386	4.2	100	0.00
15	T,M	Iodomethane	0.562	0.552	1.8	101	0.00
16	T,M	Carbon disulfide	0.986	0.973	1.3	94	0.00
17	T,M	Methyl acetate	0.108	0.109	-0.9	100	0.00
18	T,M	Methylene chloride	0.437	0.419	4.1	105	0.00
19	T,M	tert-Butyl alcohol	0.011	0.011	0.0	95	-0.01
20	T,M	Acrylonitrile	0.049	0.051	-4.1	103	0.00
21	T,M	tert-Butyl methyl ether (MT	0.514	0.508	1.2	100	0.00
22	T,M	trans-1,2-Dichloroethene	0.493	0.475	3.7	99	-0.01
23	T,M	Vinyl acetate	0.456	0.375	17.8	75	0.00
24	P,T,M	1,1-Dichloroethane	0.634	0.622	1.9	101	-0.01
25	T,M	Isopropyl ether (DIPE)	1.183	1.143	3.4	98	-0.01
26	T,M	2-Butanol	0.010	0.011	-10.0	99	0.00
27	T,M	tert-Butyl ethyl ether (ETB	0.824	0.821	0.4	101	0.00
28	T,M	2-Butanone	0.067	0.067	0.0	99	0.00
29	T,M	cis-1,2-Dichloroethene	0.378	0.372	1.6	100	0.00
30	T,M	2,2-Dichloropropane	0.357	0.366	-2.5	105	0.00
31	T,M	Tetrahydrofurane	0.041	0.040	2.4	103	0.00
32	T,M	Bromochloromethane	0.257	0.252	1.9	99	0.00
33	C,T,M	Chloroform	0.536	0.527	1.7	103	0.00
34	S	Dibromofluoromethane	0.332	0.341	-2.7	100	0.00
35	T,M	1,1,1-Trichloroethane	0.396	0.388	2.0	100	0.00
36	T,M	Cyclohexane	0.518	0.529	-2.1	102	0.00
37	T,M	tert-Amyl methyl ether (TAM	0.124	0.127	-2.4	99	-0.01
38	S	1,2-Dichloroethane-d4	0.214	0.217	-1.4	99	0.00
39	T,M	1,1-Dichloropropene	0.179	0.172	3.9	98	-0.01
40	T,M	Carbon tetrachloride	0.359	0.350	2.5	98	0.00
41	T,M	Benzene	1.336	1.292	3.3	100	-0.01

(#) = Out of Range

2/18/15

2085

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	0.262	0.254	3.1	98	-0.01
43	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	-0.01
44	T,M	Trichloroethene	0.399	0.386	3.3	100	-0.01
45	T,M	Methylcylohexane	0.481	0.510	-6.0	104	0.00
46	C,T,M	1,2-Dichloropropane	0.347	0.342	1.4	101	-0.01
47	T,M	1,4-Dioxane	0.001	0.001	0.0	92	0.00
48	T,M	Dibromomethane	0.137	0.136	0.7	97	0.00
49	T,M	Bromodichloromethane	0.361	0.363	-0.6	101	0.00
50	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.00
51	T,M	cis-1,3-Dichloropropene	0.475	0.486	-2.3	101	0.00
52	T,M	4-Methyl-2-pentanone	0.152	0.156	-2.6	97	0.00
53	I	CHLOROBENZENE-D5	1.000	1.000	0.0	100	0.00
54	S	Toluene-d8	1.352	1.448	-7.1	101	-0.01
55	C,T,M	Toluene	1.712	1.621	5.3	99	-0.01
56	T,M	Ethyl methacrylate	0.281	0.284	-1.1	95	0.00
57	T,M	trans-1,3-Dichloropropene	0.391	0.408	-4.3	100	0.00
58	T,M	1,1,2-Trichloroethane	0.228	0.221	3.1	96	-0.01
59	T,M	Tetrachloroethene	0.383	0.370	3.4	101	-0.01
60	T,M	1,3-Dichloropropane	0.429	0.415	3.3	96	-0.01
61	T,M	2-Hexanone	0.119	0.122	-2.5	97	-0.01
62	T,M	Dibromochloromethane	0.287	0.288	-0.3	97	0.00
63	T,M	1,2-Dibromoethane	0.222	0.220	0.9	96	0.00
64	T,M	1-Chlorohexane	0.748	0.736	1.6	101	0.00
65	P,M	Chlorobenzene	1.035	1.023	1.2	100	-0.01
66	T,M	1,1,1,2-Tetrachloroethane	0.346	0.346	0.0	100	0.00
67	C,T,M	Ethylbenzene	1.903	1.841	3.3	97	0.00
68	T,M	m-Xylene & p-Xylene	1.369	1.340	2.1	99	0.00
69	T,M	o-Xylene	1.352	1.321	2.3	97	0.00
70	T,M	Styrene	1.036	1.046	-1.0	97	0.00
71	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	98	-0.01
72	P,T,M	Bromoform	0.406	0.412	-1.5	97	0.00
73	T,M	Isopropylbenzene	4.647	4.514	2.9	97	0.00
74	S	4-Bromofluorobenzene	1.150	1.205	-4.8	99	0.00
75	P,T,M	1,1,2,2-Tetrachloroethane	0.704	0.696	1.1	95	0.00
76	T,M	Bromobenzene	1.054	1.034	1.9	98	0.00
77	T,M	trans-1,4-Dichloro-2-butene	0.133	0.138	-3.8	97	0.00
78	T,M	1,2,3-Trichloropropane	0.173	0.170	1.7	94	-0.01
79	T,M	n-Propylbenzene	5.930	5.792	2.3	96	0.00
80	T,M	1,3,5-Trimethylbenzene	3.565	3.516	1.4	98	-0.01

(#) = Out of Range

SC 2/18/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	3.117	2.992	4.0	97	-0.01
82	T,M	4-Chlorotoluene	3.446	3.348	2.8	98	-0.01
83	T,M	tert-Butylbenzene	0.910	0.894	1.8	98	0.00
84	T,M	1,2,4-Trimethylbenzene	3.496	3.434	1.8	98	0.00
85	T,M	sec-Butylbenzene	5.076	4.975	2.0	96	-0.01
86	T,M	p-Isopropyltoluene	4.101	4.130	-0.7	99	0.00
87	T,M	1,3-Dichlorobenzene	2.036	1.997	1.9	100	0.00
88	T,M	1,4-Dichlorobenzene	1.978	1.939	2.0	99	0.00
89	T,M	n-Butylbenzene	3.766	3.848	-2.2	99	0.00
90	T,M	1,2-Dichlorobenzene	1.661	1.612	3.0	97	0.00
91	T,M	1,2-Dibromo-3-chloropropane	0.094	0.095	-1.1	96	-0.01
92	T,M	1,2,4-Trichlorobenzene	0.914	0.929	-1.6	96	0.00
93	T,M	Hexachlorobutadiene	0.614	0.630	-2.6	97	0.00
94	T,M	Naphthalene	1.204	1.137	5.6	89	-0.01
95	T,M	1,2,3-Trichlorobenzene	0.694	0.704	-1.4	95	0.00

SU 2/18/15

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.45	114	1545118	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	11.98	117	1273949	10.00	ug/l	0.00
71) 1,2-DICHLOROBENZENE-D4	15.16	152	480946	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	527525	10.27	ug/l	0.00
Spiked Amount 10.000			Recovery =	102.70%		
38) 1,2-Dichloroethane-d4	6.85	65	335321	10.12	ug/l	0.00
Spiked Amount 10.000			Recovery =	101.20%		
54) Toluene-d8	9.58	98	1844157	10.70	ug/l	-0.01
Spiked Amount 10.000			Recovery =	107.00%		
74) 4-Bromofluorobenzene	13.58	95	579538	10.48	ug/l	0.00
Spiked Amount 10.000			Recovery =	104.80%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.03	85	331489	9.52	ug/l	99
4) Chloromethane	2.21	50	504754	9.15	ug/l	99
5) Vinyl chloride	2.38	62	465582	9.43	ug/l	100
7) Bromomethane	2.72	94	337515	8.36	ug/l	98
8) Chloroethane	2.83	64	336450	10.10	ug/l	98
9) Dichlorofluoromethane	3.11	67	823056	9.66	ug/l	100
10) Trichlorofluoromethane	3.17	101	466502	10.06	ug/l	99
11) Acrolein	3.57	56	129253	51.04	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.75	151	292108	9.46	ug/l	98
13) Acetone	3.74	43	242165	49.55	ug/l	100
14) 1,1-Dichloroethene	3.72	61	596268	9.58	ug/l	99
15) Iodomethane	3.88	142	853312	9.82	ug/l	99
16) Carbon disulfide	4.02	76	1503903	9.87	ug/l	98
17) Methyl acetate	4.09	43	167843	10.04	ug/l	99
18) Methylene chloride	4.27	49	647025	9.58	ug/l	100
19) tert-Butyl alcohol	4.37	59	86646	49.66	ug/l	100
20) Acrylonitrile	4.51	53	390954	51.95	ug/l	99
21) tert-Butyl methyl ether (M	4.58	73	785157	9.89	ug/l	99
22) trans-1,2-Dichloroethene	4.58	61	734056	9.64	ug/l	99
23) Vinyl acetate	5.08	43	578649	8.21	ug/l	95
24) 1,1-Dichloroethane	5.08	63	961688	9.82	ug/l	100
25) Isopropyl ether (DIPE)	5.13	45	1765642	9.66	ug/l	99
26) 2-Butanol	5.99	45	81941	51.49	ug/l	99
27) tert-Butyl ethyl ether (ET	5.57	59	1268358	9.96	ug/l	100
28) 2-Butanone	5.75	43	519766	50.32	ug/l	100
29) cis-1,2-Dichloroethene	5.78	96	575197	9.84	ug/l	99
30) 2,2-Dichloropropane	5.79	77	565970	10.26	ug/l	99

(#) = qualifier out of range (m) = manual integration
RBV150.D VO01B12.M Tue Feb 17 10:58:08 2015 Page 1

2/18/15

2088

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Tetrahydrofurane	6.11	42	61929	9.80 ug/l	97
32) Bromochloromethane	6.08	49	388737	9.79 ug/l	98
33) Chloroform	6.19	83	813632	9.82 ug/l	98
35) 1,1,1-Trichloroethane	6.43	97	599123	9.80 ug/l	99
36) Cyclohexane	6.53	56	817429	10.21 ug/l	100
37) tert-Amyl methyl ether (TA	7.05	87	195975	10.24 ug/l	97
39) 1,1-Dichloropropene	6.62	110	266097	9.61 ug/l	100
40) Carbon tetrachloride	6.64	119	541041	9.74 ug/l	99
41) Benzene	6.87	78	1995998	9.67 ug/l	100
42) 1,2-Dichloroethane	6.93	62	392473	9.71 ug/l	99
44) Trichloroethene	7.78	130	596662	9.68 ug/l	100
45) Methylcylohexane	8.13	83	788341	10.61 ug/l	99
46) 1,2-Dichloropropane	8.13	63	529081	9.86 ug/l	98
47) 1,4-Dioxane	8.25	88	32795	192.96 ug/l	96
48) Dibromomethane	8.27	93	210642	9.97 ug/l	99
49) Bromodichloromethane	8.52	83	561471	10.07 ug/l	99
51) cis-1,3-Dichloropropene	9.17	75	750227	10.22 ug/l	99
52) 4-Methyl-2-pentanone	9.38	43	1207825	51.27 ug/l	99
55) Toluene	9.69	91	2064782	9.47 ug/l	100
56) Ethyl methacrylate	10.15	69	362315	10.12 ug/l	100
57) trans-1,3-Dichloropropene	10.06	75	519588	10.43 ug/l	100
58) 1,1,2-Trichloroethane	10.37	97	281436	9.68 ug/l	100
59) Tetrachloroethene	10.53	164	471599	9.66 ug/l	99
60) 1,3-Dichloropropane	10.63	76	528991	9.68 ug/l	99
61) 2-Hexanone	10.71	43	778170	51.12 ug/l	100
62) Dibromochloromethane	11.00	129	366726	10.04 ug/l	100
63) 1,2-Dibromoethane	11.21	107	279812	9.90 ug/l	100
64) 1-Chlorohexane	12.01	91	938151	9.84 ug/l	98
65) Chlorobenzene	12.03	112	1303383	9.88 ug/l	100
66) 1,1,1,2-Tetrachloroethane	12.17	131	441121	10.01 ug/l	100
67) Ethylbenzene	12.19	91	2345502	9.68 ug/l	100
68) m-Xylene & p-Xylene	12.38	91	3413283	19.58 ug/l	100
69) o-Xylene	12.90	91	1683046	9.77 ug/l	100
70) Styrene	12.93	104	1332722	10.09 ug/l	100
72) Bromoform	13.17	173	198326	10.15 ug/l	99
73) Isopropylbenzene	13.37	105	2170916	9.71 ug/l	100
75) 1,1,2,2-Tetrachloroethane	13.73	83	334639	9.88 ug/l	100
76) Bromobenzene	13.74	156	497480	9.82 ug/l	99
77) trans-1,4-Dichloro-2-buten	13.77	53	66186	10.37 ug/l	99
78) 1,2,3-Trichloropropane	13.79	110	81859	9.84 ug/l	97
79) n-Propylbenzene	13.86	91	2785410	9.77 ug/l	100

(#) = qualifier out of range (m) = manual integration

2/18/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,3,5-Trimethylbenzene	14.05	105	1690979	9.86	ug/l	100
81)	2-Chlorotoluene	13.95	91	1438808	9.60	ug/l	100
82)	4-Chlorotoluene	14.08	91	1610440	9.72	ug/l	100
83)	tert-Butylbenzene	14.39	134	429924	9.83	ug/l	97
84)	1,2,4-Trimethylbenzene	14.45	105	1651699	9.82	ug/l	98
85)	sec-Butylbenzene	14.62	105	2392659	9.80	ug/l	100
86)	p-Isopropyltoluene	14.78	119	1986201	10.07	ug/l	100
87)	1,3-Dichlorobenzene	14.75	146	960420	9.81	ug/l	99
88)	1,4-Dichlorobenzene	14.85	146	932418	9.80	ug/l	99
89)	n-Butylbenzene	15.16	91	1850791	10.22	ug/l	100
90)	1,2-Dichlorobenzene	15.19	146	775075	9.70	ug/l	100
91)	1,2-Dibromo-3-chloropropan	15.90	157	45797	10.14	ug/l	98
92)	1,2,4-Trichlorobenzene	16.67	180	446798	10.16	ug/l	99
93)	Hexachlorobutadiene	16.79	225	302771	10.25	ug/l	99
94)	Naphthalene	16.93	128	546900	9.44	ug/l	100
95)	1,2,3-Trichlorobenzene	17.15	180	338500	10.14	ug/l	99

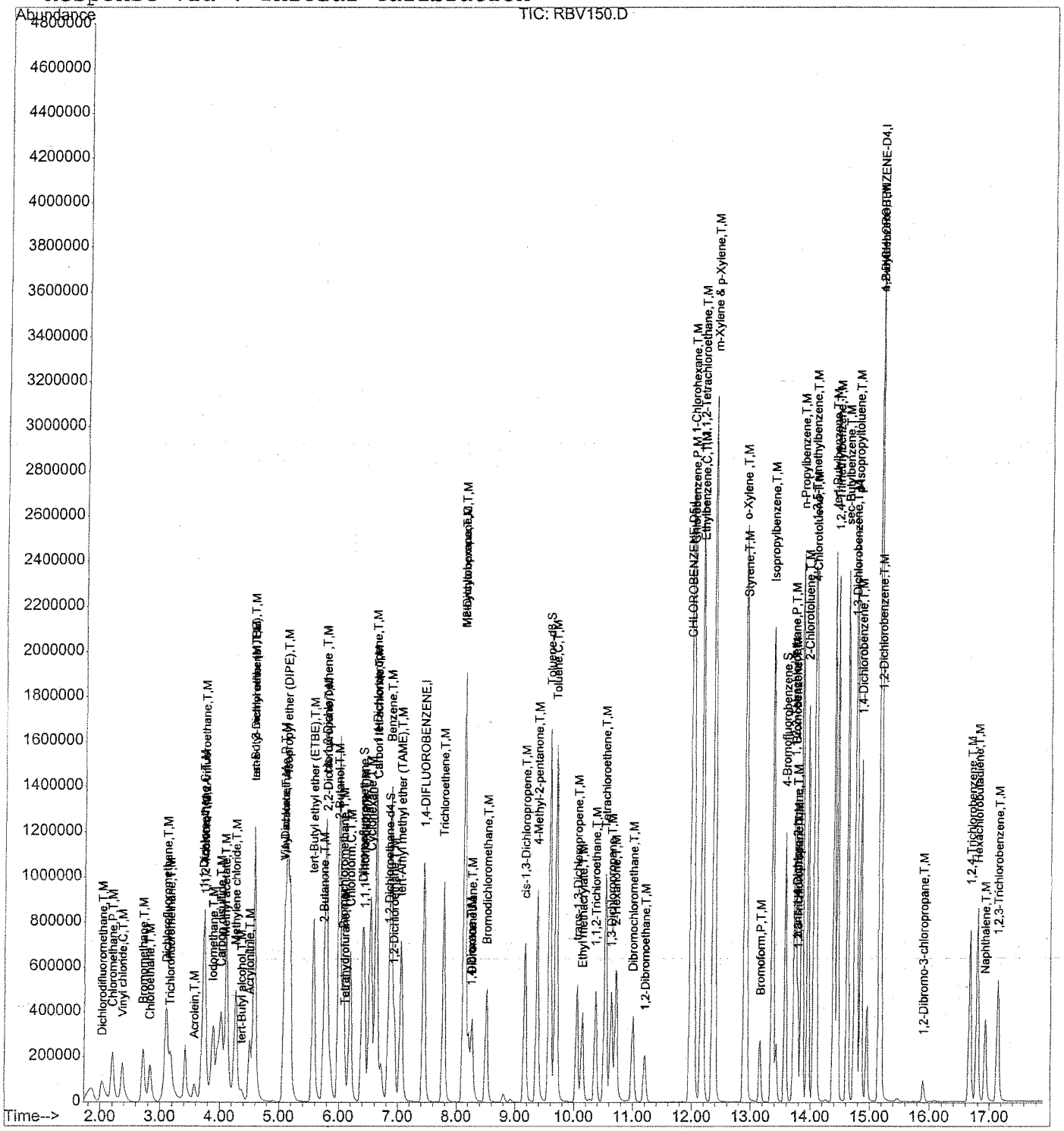
Sa 2/18/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15B13\RBV150.D Vial: 2
Acq On : 13 Feb 2015 10:31 am Operator: WLau
Sample : IVO01B1201 Inst : TO01
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Feb 13 18:11 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



Su 2/18/15

DAILY CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: REV001
Instrument ID: TO01
GC Column:RXI-624SILMSID:0.25mm (mm)

Contract: B & B GROUNDWATER SAMPLING
SAS No.: SDG No.: 15D156
BFB Injection Date : 05/01/15
BFB Injection Time : 14:35
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.43
75	30.0 - 60.0% of mass 95	40.75
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.57
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.67
175	5.0 - 9.0% of mass 174	6.25(7.0)1
176	95.0 - 101.0% of mass 174	85.97(95.9)1
177	5.0 - 9.0% of mass 176	5.68(6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001B1232	REV002	05/01/15	15:35
2	MBLK1W	V001E01B	REV007	05/01/15	17:58
3	LCS1W	V001E01L	REV003	05/01/15	16:01
4	LCD1W	V001E01Y	REV005	05/01/15	17:05
5	04-22-15-WB2-3	D156-01	REV013	05/01/15	20:46
6	04-22-15-PWB-2	D156-02	REV014	05/01/15	21:13
7	04-22-15-PWB-6	D156-03	REV015	05/01/15	21:43
8	04-23-15-TB-15	D156-04	REV016	05/01/15	22:10
9	04-23-15-PWB-8	D156-05	REV017	05/01/15	22:40
10	04-23-15-EB-2	D156-06	REV018	05/01/15	23:07
11	04-23-15-PWB-3	D156-07	REV019	05/01/15	23:36
12	04-23-15-PWB-11	D156-08	REV020	05/02/15	00:04
13	04-23-15-TB-16	D156-09	REV021	05/02/15	00:33
14	04-23-15-BBW-1	D156-10	REV022	05/02/15	01:01
15	04-23-15-BBW-2	D156-11	REV023	05/02/15	01:28

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
Lab Code : EMXT
Lab File ID : RBV140
Instrument ID: T001
GC Column : RXI-624SILMSID:0.25mm (mm)

Project : B & B GROUNDWATER SAMPLING
SDG No. : 15D156
Date Analyzed : 02/12/15
Time Analyzed : 20:03
Heated Purge : No

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1495146	7.45	1270714	11.98	491901	15.18
	UPPER LIMIT	2990292	7.95	2541428	12.48	983802	15.68
	LOWER LIMIT	747573	6.95	635357	11.48	245951	14.68
	SAMPLE ID						
1	VSTD010	1320930	7.47	1101107	12.00	402677	15.18
2	MBLK1W	1437124	7.47	1112938	12.00	352723	15.18
3	LCS1W	1370760	7.47	1130895	12.00	421873	15.18
4	LCD1W	1469957	7.45	1230334	12.00	485129	15.18
5	04-22-15-WB2-3	1326582	7.45	1037977	12.00	343581	15.18
6	04-22-15-PWB-2	1344267	7.47	1042038	12.00	342666	15.18
7	04-22-15-PWB-6	1370561	7.45	1089792	12.00	355460	15.18
8	04-23-15-TB-15	1395447	7.47	1066154	12.00	347608	15.18
9	04-23-15-PWB-8	1228661	7.45	960695	12.00	312662	15.18
10	04-23-15-EB-2	1394687	7.47	1064694	12.00	358442	15.18
11	04-23-15-PWB-3	1349331	7.45	1059557	12.00	351610	15.18
12	04-23-15-PWB-11	1369863	7.47	1069943	12.00	350181	15.18
13	04-23-15-TB-16	1369180	7.47	1091231	12.00	365203	15.18
14	04-23-15-BBW-1	1351911	7.47	1051751	12.00	339173	15.18
15	04-23-15-BBW-2	1327452	7.47	1030224	12.00	336846	15.18

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

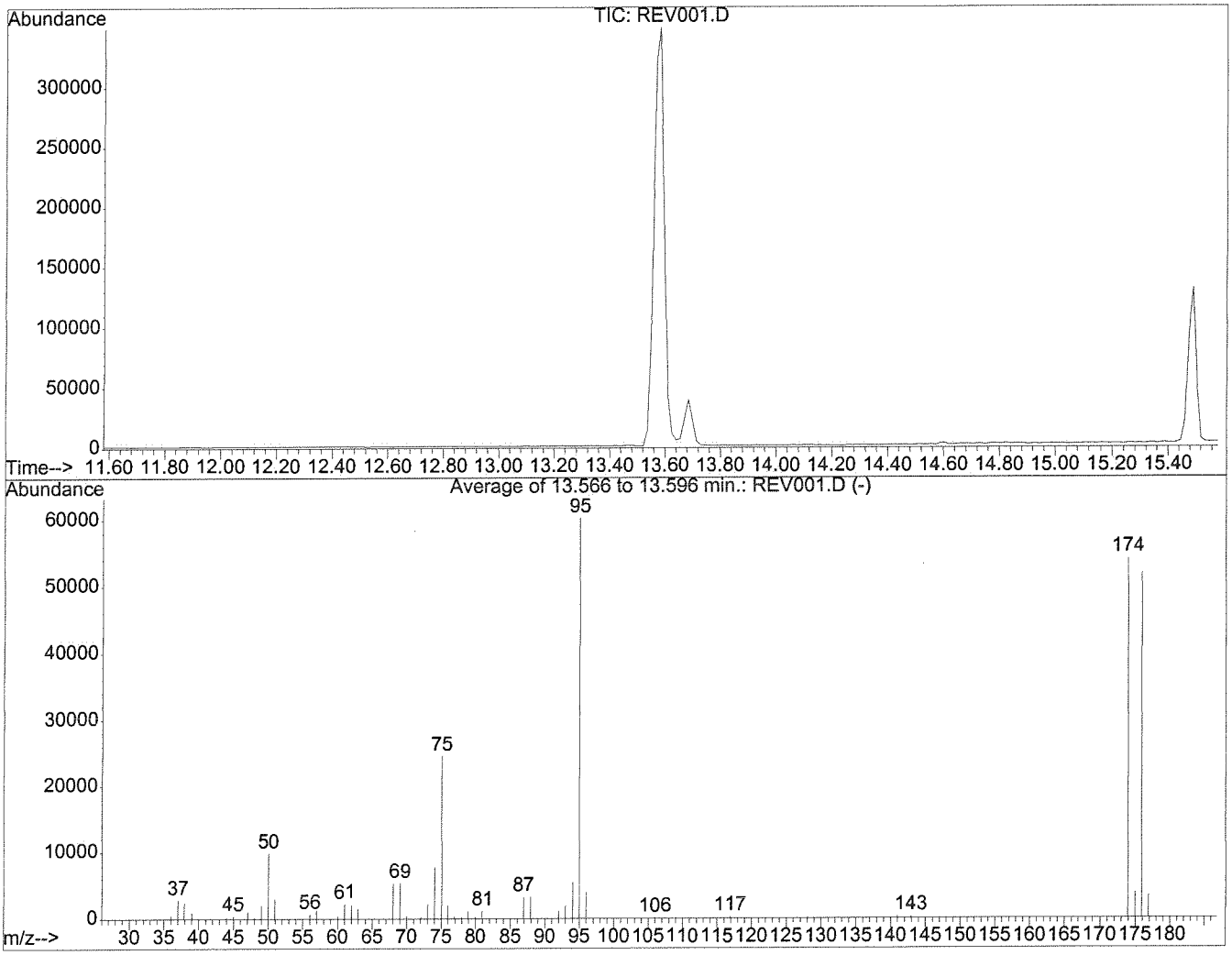
AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.5 minutes (30 sec) of internal standard RT
RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

BFB

Data File : D:\HPCHEM\1\DATA\15E01\REV001.D
Acq On : 1 May 2015 2:35 pm
Sample : BFB01E01
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls

Vial: 1
Operator: WLau
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 802, 803, 804; Background Corrected with Scan 798

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	9913	PASS
75	95	30	60	40.7	24576	PASS
95	95	100	100	100.0	60315	PASS
96	95	5	9	6.6	3965	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.7	54085	PASS
175	174	5	9	7.0	3769	PASS
176	174	95	101	95.9	51853	PASS
177	176	5	9	6.6	3429	PASS

REV001.D VO01B12.M Mon May 04 11:54:59 2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D
Acq On : 1 May 2015 3:35 pm
Sample : CVO01B1232
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	88	0.01
2	T,M	Chlorotrifluoroethylene	-1.000	0.000	0.0	0	-1.98#
3	T,M	Dichlorodifluoromethane	10.000	11.552	-15.5	90	0.00
4	P,T,M	Chloromethane	10.000	10.202	-2.0	81	0.01
5	C,T,M	Vinyl chloride	10.000	10.496	-5.0	83	0.01
6	T,M	2-Chloro-1,1,1-trifluoroeth	-1.000	0.000	0.0	0	-2.48#
7	T,M	Bromomethane	10.000	9.157	8.4	82	0.01
8	T,M	Chloroethane	10.000	10.832	-8.3	86	0.01
9	T,M	Dichlorofluoromethane	10.000	11.239	-12.4	100	0.01
10	T,M	Trichlorofluoromethane	10.000	10.880	-8.8	84	-0.04
11	T,M	Acrolein	50.000	36.218	27.6#	63	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.390	-3.9	93	0.01
13	T,M	Acetone	50.000	55.267	-10.5	101	0.00
14	C,T,M	1,1-Dichloroethene	10.000	10.347	-3.5	92	-0.02
15	T,M	Iodomethane	10.000	10.011	-0.1	88	0.00
16	T,M	Carbon disulfide	10.000	10.465	-4.6	85	-0.04
17	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.09#
18	T,M	Methylene chloride	10.000	10.370	-3.7	98	0.00
19	T,M	tert-Butyl alcohol	50.000	63.225	-26.5#	104	0.00
20	T,M	Acrylonitrile	50.000	54.693	-9.4	92	0.02
21	T,M	tert-Butyl methyl ether (MT	10.000	11.245	-12.4	97	0.01
22	T,M	trans-1,2-Dichloroethene	10.000	9.985	0.2	87	0.00
23	T,M	Vinyl acetate	10.000	8.408	15.9	65	0.01
24	P,T,M	1,1-Dichloroethane	10.000	10.965	-9.6	97	0.00
25	T,M	Isopropyl ether (DIPE)	10.000	11.012	-10.1	96	0.00
26	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	10.000	11.056	-10.6	96	0.01
28	T,M	2-Butanone	50.000	53.215	-6.4	90	0.01
29	T,M	cis-1,2-Dichloroethene	10.000	10.803	-8.0	94	0.01
30	T,M	2,2-Dichloropropane	10.000	12.481	-24.8#	109	0.01
31	T,M	Tetrahydrofurane	10.000	10.009	-0.1	90	0.01
32	T,M	Bromochloromethane	10.000	10.579	-5.8	92	0.01
33	C,T,M	Chloroform	10.000	10.966	-9.7	98	0.01
34	S	Dibromofluoromethane	10.000	9.204	8.0	77	0.00
35	T,M	1,1,1-Trichloroethane	10.000	11.134	-11.3	97	0.01
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	10.000	11.479	-14.8	95	0.00
38	S	1,2-Dichloroethane-d4	10.000	9.079	9.2	76	0.00
39	T,M	1,1-Dichloropropene	10.000	10.454	-4.5	91	0.00
40	T,M	Carbon tetrachloride	10.000	10.607	-6.1	91	0.01
41	T,M	Benzene	10.000	10.679	-6.8	95	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D
Acq On : 1 May 2015 3:35 pm
Sample : CVO01B1232
Misc : 100ppb 8260/50ppb KET-AA-TBA
MS Integration Params: 524C.P

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	10.000	10.760	-7.6	93	0.00
43	T,M	2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
44	T,M	Trichloroethene	10.000	10.543	-5.4	93	0.00
45	T,M	Methylcylohexane	10.000	0.000	100.0#	0	-8.13#
46	C,T,M	1,2-Dichloropropane	10.000	11.093	-10.9	97	0.00
47	T,M	1,4-Dioxane	200.000	249.796	-24.9#	102	0.02
48	T,M	Dibromomethane	10.000	10.762	-7.6	89	0.01
49	T,M	Bromodichloromethane	10.000	11.218	-12.2	96	0.01
50	T,M	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	-8.93#
51	T,M	cis-1,3-Dichloropropene	10.000	11.334	-13.3	96	0.01
52	T,M	4-Methyl-2-pentanone	50.000	53.399	-6.8	86	0.02
53	I	CHLOROBENZENE-D5	10.000	10.000	0.0	87	0.01
54	S	Toluene-d8	10.000	9.440	5.6	77	0.00
55	C,T,M	Toluene	10.000	10.595	-6.0	95	0.01
56	T,M	Ethyl methacrylate	10.000	11.139	-11.4	91	0.01
57	T,M	trans-1,3-Dichloropropene	10.000	11.448	-14.5	95	0.02
58	T,M	1,1,2-Trichloroethane	10.000	11.089	-10.9	95	0.00
59	T,M	Tetrachloroethene	10.000	10.374	-3.7	94	0.00
60	T,M	1,3-Dichloropropane	10.000	11.004	-10.0	94	0.00
61	T,M	2-Hexanone	50.000	51.889	-3.8	85	0.02
62	T,M	Dibromochloromethane	10.000	11.197	-12.0	93	0.01
63	T,M	1,2-Dibromoethane	10.000	10.826	-8.3	91	0.01
64	T,M	1-Chlorohexane	10.000	9.993	0.1	89	0.01
65	P,M	Chlorobenzene	10.000	11.035	-10.4	96	0.00
66	T,M	1,1,1,2-Tetrachloroethane	10.000	11.224	-12.2	97	0.01
67	C,T,M	Ethylbenzene	10.000	10.730	-7.3	93	0.00
68	T,M	m-Xylene & p-Xylene	20.000	21.420	-7.1	93	0.02
69	T,M	o-Xylene	10.000	10.780	-7.8	93	0.01
70	T,M	Styrene	10.000	11.012	-10.1	91	0.01
71	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	82	0.00
72	P,T,M	Bromoform	10.000	10.686	-6.9	86	0.00
73	T,M	Isopropylbenzene	10.000	11.077	-10.8	93	0.00
74	S	4-Bromofluorobenzene	10.000	9.581	4.2	76	0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	11.374	-13.7	92	0.00
76	T,M	Bromobenzene	10.000	11.355	-13.6	95	0.01
77	T,M	trans-1,4-Dichloro-2-butene	10.000	10.157	-1.6	80	0.00
78	T,M	1,2,3-Trichloropropane	10.000	11.286	-12.9	91	0.00
79	T,M	n-Propylbenzene	10.000	11.147	-11.5	92	0.00
80	T,M	1,3,5-Trimethylbenzene	10.000	11.131	-11.3	92	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	10.000	11.107	-11.1	94	0.00
82	T,M	4-Chlorotoluene	10.000	11.196	-12.0	95	0.00
83	T,M	tert-Butylbenzene	10.000	11.480	-14.8	96	0.01
84	T,M	1,2,4-Trimethylbenzene	10.000	10.894	-8.9	91	0.01
85	T,M	sec-Butylbenzene	10.000	11.011	-10.1	90	0.00
86	T,M	p-Isopropyltoluene	10.000	10.954	-9.5	91	0.00
87	T,M	1,3-Dichlorobenzene	10.000	11.124	-11.2	95	0.01
88	T,M	1,4-Dichlorobenzene	10.000	11.001	-10.0	93	0.02
89	T,M	n-Butylbenzene	10.000	10.795	-7.9	88	0.00
90	T,M	1,2-Dichlorobenzene	10.000	10.994	-9.9	93	0.00
91	T,M	1,2-Dibromo-3-chloropropane	10.000	10.367	-3.7	82	0.00
92	T,M	1,2,4-Trichlorobenzene	10.000	9.787	2.1	77	0.00
93	T,M	Hexachlorobutadiene	10.000	10.430	-4.3	83	0.01
94	T,M	Naphthalene	10.000	9.273	7.3	73	0.00
95	T,M	1,2,3-Trichlorobenzene	10.000	9.325	6.8	73	0.01

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	88	0.01
2	T,M	Chlorotrifluoroethylene	0.000	0.000	0.0	0#	-1.98#
3	T,M	Dichlorodifluoromethane	0.225	0.260	-15.6	90	0.00
4	P,T,M	Chloromethane	0.357	0.364	-2.0	81	0.01
5	C,T,M	Vinyl chloride	0.320	0.335	-4.7	83	0.01
6	T,M	2-Chloro-1,1,1-trifluoroeth	0.000	0.000	0.0	0#	-2.48#
7	T,M	Bromomethane	0.261	0.239	8.4	82	0.01
8	T,M	Chloroethane	0.216	0.234	-8.3	86	0.01
9	T,M	Dichlorofluoromethane	0.551	0.619	-12.3	100	0.01
10	T,M	Trichlorofluoromethane	0.300	0.326	-8.7	84	-0.04
11	T,M	Acrolein	0.016	0.012	25.0#	63	0.00
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.200	0.208	-4.0	93	0.01
13	T,M	Acetone	0.032	0.035	-9.4	101	0.00
14	C,T,M	1,1-Dichloroethene	0.403	0.417	-3.5	92	-0.02
15	T,M	Iodomethane	0.562	0.563	-0.2	88	0.00
16	T,M	Carbon disulfide	0.986	1.032	-4.7	85	-0.04
17	T,M	Methyl acetate	0.108	0.000	100.0#	0#	-4.09#
18	T,M	Methylene chloride	0.437	0.453	-3.7	98	0.00
19	T,M	tert-Butyl alcohol	0.011	0.014	-27.3#	104	0.00
20	T,M	Acrylonitrile	0.049	0.053	-8.2	92	0.02
21	T,M	tert-Butyl methyl ether (MT	0.514	0.578	-12.5	97	0.01
22	T,M	trans-1,2-Dichloroethene	0.493	0.492	0.2	87	0.00
23	T,M	Vinyl acetate	0.456	0.384	15.8	65	0.01
24	P,T,M	1,1-Dichloroethane	0.634	0.695	-9.6	97	0.00
25	T,M	Isopropyl ether (DIPE)	1.183	1.303	-10.1	96	0.00
26	T,M	2-Butanol	0.010	0.000	100.0#	0#	-5.99#
27	T,M	tert-Butyl ethyl ether (ETB	0.824	0.911	-10.6	96	0.01
28	T,M	2-Butanone	0.067	0.071	-6.0	90	0.01
29	T,M	cis-1,2-Dichloroethene	0.378	0.409	-8.2	94	0.01
30	T,M	2,2-Dichloropropane	0.357	0.445	-24.6#	109	0.01
31	T,M	Tetrahydrofurane	0.041	0.041	0.0	90	0.01
32	T,M	Bromochloromethane	0.257	0.272	-5.8	92	0.01
33	C,T,M	Chloroform	0.536	0.588	-9.7	98	0.01
34	S	Dibromofluoromethane	0.332	0.306	7.8	77	0.00
35	T,M	1,1,1-Trichloroethane	0.396	0.441	-11.4	97	0.01
36	T,M	Cyclohexane	0.518	0.000	100.0#	0#	-6.53#
37	T,M	tert-Amyl methyl ether (TAM	0.124	0.142	-14.5	95	0.00
38	S	1,2-Dichloroethane-d4	0.214	0.195	8.9	76	0.00
39	T,M	1,1-Dichloropropene	0.179	0.187	-4.5	91	0.00
40	T,M	Carbon tetrachloride	0.359	0.381	-6.1	91	0.01
41	T,M	Benzene	1.336	1.427	-6.8	95	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T,M	1,2-Dichloroethane	0.262	0.281	-7.3	93	0.00
43	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
44	T,M	Trichloroethene	0.399	0.420	-5.3	93	0.00
45	T,M	Methylcylohexane	0.481	0.000	100.0#	0#	-8.13#
46	C,T,M	1,2-Dichloropropane	0.347	0.385	-11.0	97	0.00
47	T,M	1,4-Dioxane	0.001	0.001	0.0	102	0.02
48	T,M	Dibromomethane	0.137	0.147	-7.3	89	0.01
49	T,M	Bromodichloromethane	0.361	0.405	-12.2	96	0.01
50	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-8.93#
51	T,M	cis-1,3-Dichloropropene	0.475	0.539	-13.5	96	0.01
52	T,M	4-Methyl-2-pentanone	0.152	0.163	-7.2	86	0.02
53	I	CHLOROBENZENE-D5	1.000	1.000	0.0	87	0.01
54	S	Toluene-d8	1.352	1.277	5.5	77	0.00
55	C,T,M	Toluene	1.712	1.813	-5.9	95	0.01
56	T,M	Ethyl methacrylate	0.281	0.313	-11.4	91	0.01
57	T,M	trans-1,3-Dichloropropene	0.391	0.448	-14.6	95	0.02
58	T,M	1,1,2-Trichloroethane	0.228	0.253	-11.0	95	0.00
59	T,M	Tetrachloroethene	0.383	0.397	-3.7	94	0.00
60	T,M	1,3-Dichloropropane	0.429	0.472	-10.0	94	0.00
61	T,M	2-Hexanone	0.119	0.124	-4.2	85	0.02
62	T,M	Dibromochloromethane	0.287	0.321	-11.8	93	0.01
63	T,M	1,2-Dibromoethane	0.222	0.240	-8.1	91	0.01
64	T,M	1-Chlorohexane	0.748	0.748	0.0	89	0.01
65	P,M	Chlorobenzene	1.035	1.142	-10.3	96	0.00
66	T,M	1,1,1,2-Tetrachloroethane	0.346	0.388	-12.1	97	0.01
67	C,T,M	Ethylbenzene	1.903	2.042	-7.3	93	0.00
68	T,M	m-Xylene & p-Xylene	1.369	1.466	-7.1	93	0.02
69	T,M	o-Xylene	1.352	1.458	-7.8	93	0.01
70	T,M	Styrene	1.036	1.141	-10.1	91	0.01
71	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	82	0.00
72	P,T,M	Bromoform	0.406	0.434	-6.9	86	0.00
73	T,M	Isopropylbenzene	4.647	5.147	-10.8	93	0.00
74	S	4-Bromofluorobenzene	1.150	1.102	4.2	76	0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.704	0.801	-13.8	92	0.00
76	T,M	Bromobenzene	1.054	1.197	-13.6	95	0.01
77	T,M	trans-1,4-Dichloro-2-butene	0.133	0.135	-1.5	80	0.00
78	T,M	1,2,3-Trichloropropane	0.173	0.195	-12.7	91	0.00
79	T,M	n-Propylbenzene	5.930	6.610	-11.5	92	0.00
80	T,M	1,3,5-Trimethylbenzene	3.565	3.968	-11.3	92	0.00

(#) = Out of Range

2100

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	2-Chlorotoluene	3.117	3.462	-11.1	94	0.00
82	T,M	4-Chlorotoluene	3.446	3.857	-11.9	95	0.00
83	T,M	tert-Butylbenzene	0.910	1.044	-14.7	96	0.01
84	T,M	1,2,4-Trimethylbenzene	3.496	3.809	-9.0	91	0.01
85	T,M	sec-Butylbenzene	5.076	5.589	-10.1	90	0.00
86	T,M	p-Isopropyltoluene	4.101	4.492	-9.5	91	0.00
87	T,M	1,3-Dichlorobenzene	2.036	2.264	-11.2	95	0.01
88	T,M	1,4-Dichlorobenzene	1.978	2.177	-10.1	93	0.02
89	T,M	n-Butylbenzene	3.766	4.065	-7.9	88	0.00
90	T,M	1,2-Dichlorobenzene	1.661	1.827	-10.0	93	0.00
91	T,M	1,2-Dibromo-3-chloropropane	0.094	0.097	-3.2	82	0.00
92	T,M	1,2,4-Trichlorobenzene	0.914	0.895	2.1	77	0.00
93	T,M	Hexachlorobutadiene	0.614	0.640	-4.2	83	0.01
94	T,M	Naphthalene	1.204	1.117	7.2	73	0.00
95	T,M	1,2,3-Trichlorobenzene	0.694	0.647	6.8	73	0.01

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:55 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	7.47	114	1320930	10.00	ug/l	0.01
53) CHLOROBENZENE-D5	12.00	117	1101107	10.00	ug/l	0.01
71) 1,2-DICHLOROBENZENE-D4	15.18	152	402677	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	6.40	111	404140	9.20	ug/l	0.00
Spiked Amount 10.000			Recovery =	92.00%		
38) 1,2-Dichloroethane-d4	6.84	65	257110	9.08	ug/l	0.00
Spiked Amount 10.000			Recovery =	90.80%		
54) Toluene-d8	9.60	98	1405760	9.44	ug/l	0.00
Spiked Amount 10.000			Recovery =	94.40%		
74) 4-Bromofluorobenzene	13.59	95	443746	9.58	ug/l	0.02
Spiked Amount 10.000			Recovery =	95.80%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	2.04	85	344037	11.55	ug/l	99
4) Chloromethane	2.21	50	481272	10.20	ug/l	100
5) Vinyl chloride	2.38	62	442997	10.50	ug/l	99
7) Bromomethane	2.73	94	315953	9.16	ug/l	99
8) Chloroethane	2.85	64	308497	10.83	ug/l	97
9) Dichlorofluoromethane	3.11	67	818284	11.24	ug/l	99
10) Trichlorofluoromethane	3.13	101	431221	10.88	ug/l	96
11) Acrolein	3.59	56	78406	36.22	ug/l	89
12) 1,1,2-Trichloro-1,2,2-trif	3.77	151	274191	10.39	ug/l	98
13) Acetone	3.74	43	230905	55.27	ug/l	99
14) 1,1-Dichloroethene	3.71	61	550467	10.35	ug/l	99
15) Iodomethane	3.88	142	743547	10.01	ug/l	99
16) Carbon disulfide	3.97	76	1363655	10.46	ug/l	100
18) Methylene chloride	4.27	49	599033	10.37	ug/l	98
19) tert-Butyl alcohol	4.39	59	94306	63.22	ug/l	93
20) Acrylonitrile	4.52	53	351853	54.69	ug/l	99
21) tert-Butyl methyl ether (M	4.59	73	763041	11.24	ug/l	100
22) trans-1,2-Dichloroethene	4.59	61	649802	9.98	ug/l	98
23) Vinyl acetate	5.10	43	506691	8.41	ug/l	97
24) 1,1-Dichloroethane	5.10	63	918111	10.96	ug/l	100
25) Isopropyl ether (DIPE)	5.14	45	1720541	11.01	ug/l	99
27) tert-Butyl ethyl ether (ET	5.59	59	1203739	11.06	ug/l	100
28) 2-Butanone	5.76	43	469874	53.22	ug/l	99
29) cis-1,2-Dichloroethene	5.79	96	539624	10.80	ug/l	100
30) 2,2-Dichloropropane	5.81	77	588362	12.48	ug/l	99
31) Tetrahydrofurane	6.12	42	54099	10.01	ug/l	98
32) Bromochloromethane	6.09	49	359128	10.58	ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:55 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Chloroform	6.21	83	776559	10.97 ug/l		99
35)	1,1,1-Trichloroethane	6.44	97	582175	11.13 ug/l		99
37)	tert-Amyl methyl ether (TA	7.07	87	187897	11.48 ug/l		97
39)	1,1-Dichloropropene	6.64	110	247448	10.45 ug/l		100
40)	Carbon tetrachloride	6.65	119	503529	10.61 ug/l		99
41)	Benzene	6.89	78	1884680	10.68 ug/l		99
42)	1,2-Dichloroethane	6.95	62	371749	10.76 ug/l		100
44)	Trichloroethene	7.79	130	555383	10.54 ug/l		99
46)	1,2-Dichloropropane	8.15	63	508977	11.09 ug/l	#	55
47)	1,4-Dioxane	8.27	88	36294	249.80 ug/l		99
48)	Dibromomethane	8.28	93	194397	10.76 ug/l		97
49)	Bromodichloromethane	8.53	83	534771	11.22 ug/l		99
51)	cis-1,3-Dichloropropene	9.18	75	711469	11.33 ug/l		99
52)	4-Methyl-2-pentanone	9.39	43	1075491	53.40 ug/l		99
55)	Toluene	9.72	91	1996733	10.60 ug/l		99
56)	Ethyl methacrylate	10.16	69	344763	11.14 ug/l		98
57)	trans-1,3-Dichloropropene	10.07	75	493121	11.45 ug/l		97
58)	1,1,2-Trichloroethane	10.38	97	278586	11.09 ug/l		99
59)	Tetrachloroethene	10.54	164	437586	10.37 ug/l		100
60)	1,3-Dichloropropane	10.65	76	519521	11.00 ug/l		99
61)	2-Hexanone	10.74	43	682712	51.89 ug/l		100
62)	Dibromochloromethane	11.02	129	353603	11.20 ug/l		100
63)	1,2-Dibromoethane	11.23	107	264577	10.83 ug/l		99
64)	1-Chlorohexane	12.03	91	823113	9.99 ug/l		99
65)	Chlorobenzene	12.04	112	1257688	11.04 ug/l		99
66)	1,1,1,2-Tetrachloroethane	12.19	131	427635	11.22 ug/l		99
67)	Ethylbenzene	12.19	91	2248240	10.73 ug/l		100
68)	m-Xylene & p-Xylene	12.40	91	3227929	21.42 ug/l		99
69)	o-Xylene	12.91	91	1605273	10.78 ug/l		100
70)	Styrene	12.94	104	1256681	11.01 ug/l		99
72)	Bromoform	13.16	173	174786	10.69 ug/l		98
73)	Isopropylbenzene	13.37	105	2072698	11.08 ug/l		100
75)	1,1,2,2-Tetrachloroethane	13.73	83	322509	11.37 ug/l		99
76)	Bromobenzene	13.76	156	481809	11.36 ug/l		99
77)	trans-1,4-Dichloro-2-buten	13.77	53	54265	10.16 ug/l		100
78)	1,2,3-Trichloropropane	13.80	110	78571	11.29 ug/l		96
79)	n-Propylbenzene	13.86	91	2661554	11.15 ug/l		99
80)	1,3,5-Trimethylbenzene	14.07	105	1597875	11.13 ug/l		100
81)	2-Chlorotoluene	13.96	91	1394248	11.11 ug/l		99
82)	4-Chlorotoluene	14.10	91	1553296	11.20 ug/l		99
83)	tert-Butylbenzene	14.41	134	420517	11.48 ug/l		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:55 2015 Quant Results File: VO01B12.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration
DataAcq Meth : VO01B12

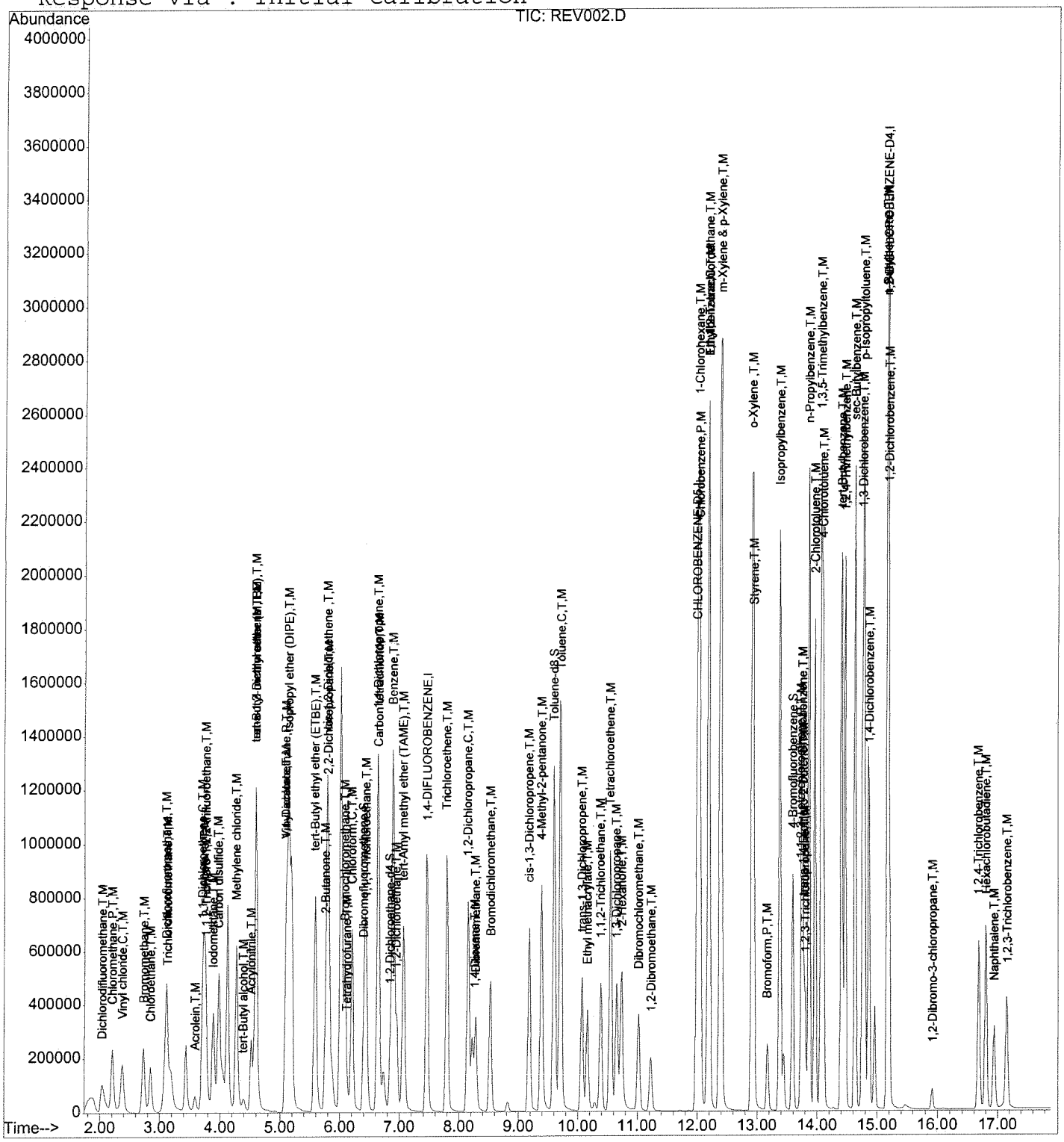
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	1,2,4-Trimethylbenzene	14.47	105	1533659	10.89	ug/l	99
85)	sec-Butylbenzene	14.63	105	2250514	11.01	ug/l	100
86)	p-Isopropyltoluene	14.78	119	1808987	10.95	ug/l	99
87)	1,3-Dichlorobenzene	14.76	146	911839	11.12	ug/l	99
88)	1,4-Dichlorobenzene	14.87	146	876464	11.00	ug/l	99
89)	n-Butylbenzene	15.16	91	1636831	10.79	ug/l	99
90)	1,2-Dichlorobenzene	15.19	146	735535	10.99	ug/l	99
91)	1,2-Dibromo-3-chloropropan	15.92	157	39191	10.37	ug/l	98
92)	1,2,4-Trichlorobenzene	16.67	180	360213	9.79	ug/l	99
93)	Hexachlorobutadiene	16.81	225	257871	10.43	ug/l	99
94)	Naphthalene	16.94	128	449651	9.27	ug/l	99
95)	1,2,3-Trichlorobenzene	17.16	180	260607	9.32	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15E01\REV002.D Vial: 2
Acq On : 1 May 2015 3:35 pm Operator: WLau
Sample : CVO01B1232 Inst : TO01
Misc : 100ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: May 4 11:55 2015 Quant Results File: VO01B12.RES

Method : D:\HPCHEM\1\METHODS\VO01B12.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Fri Feb 13 18:06:10 2015
Response via : Initial Calibration



ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 2/12/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge **Book #:** A01-048

BATCH V001B126

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RBV134	BFB01B08	1 mL	N/A	NA	NA		CS2, Gases, 8260, Kpt-MA, TBA 4-Add 2-butanol (ppb)
02		135	V001B121	a .08 b .15 mL					0.5 1.5
03		136	2	.05 .25					0.5 2.5
04		137	3	.1 .5					1 5
05		138	4	.2 1					2 10
06		139	5	.5 2.5					5 25
07		140	6	1 5					10 50
08		141	7	2 10					20 100
09		142	8	3 15					30 150
10		143	9	5 25					50 250
11		144	10	10 50					IS/SS low. 100 Level is not used. 500
12		145	Rinse						
13		146	↓						
14		147	IV001B12-01	1/1.5/5/7.5/10					IS low. RR ICV 10/50 ppb
15		148	Rinse		↓	↓	↓		
16									
17								*	a= CS2, Gases, 4-Add, SS
18									b= Kpt-AA, 8260
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									2/13/15

Instrument No. 01

INITIAL CALIBRATION REFERENCE

DATE	2/12/15
ICAL ID	V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC CS2 Gases	SV1-24-04-01 -17-03	*	250 250
DCC Kpt-MA	-15-03	↓	250
DCC 8260	-14-03		50/250
DCC 4-Add	-12-03		250/1250
BFB	-17-01		50
IS/SURR. IS SS	-19-02 -19-03	1 *	250
ICV/LCS CS2 Gases	-18-01 -05-03	1 1	250 250
ICV/LCS Kpt-MA 8260	-20-01 SV1-23 -42-01	5 5	250 150/250
ICV/LCS 3-Add	↓ -19-01	5	50
ICV/LCS 2-butanol	SV1-17-45-02	1.25	1000
Data File Folder	15B12		

	LOT #	Syringe Lot #
pH strip	—	MSV 01-01-08-9
Chlorine strip	—	M66-2487-04
Methanol		↓ -05
$NaHSO_4$		N63-C63-27
Reagent Water	RW4-14-09	MD4-A3652
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

* varied amount

Analyzed By: [signature]

Date Disposed: 2/13/15 Disposed By: [signature]

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 2/13/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH CV001B121

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RBV149	BFB01B09						10:03 am
02		150	IV001B1201						
03		151	CV001B1201						
04		152	V001B09L						
05		153	L C						
06		154	Rinse						
07		155	V001B09B	25mL					
08		156	15B065-12	25mL	1.0	✓	✓		
09		157	-15	↓	↓	✓	✓		
10		158	-25			✓	✓		
11		159	-31			✓	✓		
12		160	-31M			✓	✓		
13		161	-31S			✓	✓		
14		162	Rinse						
15		163	15B065-24	25mL	1.0	✓	✓		
16		164	-25			✓	✓		
17		165	-26			✓	✓		
18		166	-27			✓	✓		
19		167	-28			✓	✓		
20		168	-29			✓	✓		
21		169	-30			✓	✓		
22		170	-32			✓	✓		
23		171	15B086-01			✓	✓		
24		172	↓ -02	↓	↓	✓	✓		9:00 pm
25		173-175	Rinse						
26									
27									
28									
29									
30									mc 2/17/15

Instrument No. 01

INITIAL CALIBRATION REFERENCE

DATE 2/12/15

ICAL ID V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-24-04-01	1	
	-17-03	1	
DCC	-15-03	5	
DCC	-14-03	5	
DCC	-12-03	1	
BFB	-17-01	1	50/250/1000
IS/SURR.	-14-01	1	
ICV/LCS	-18-01	1	
	-05-03	1	
ICV/LCS	-20-01	5	
	SV1-23-42-01	5	
ICV/LCS	↓ -19-01	5	
ICV/LCS	SV1-12-45-02	1.25	

Data File Folder 15B93

	LOT #	Syringe Lot #
pH strip	HC412469	M06-F2489-04
Chlorine strip	4174	↓ -05
Methanol		MV01-01-08-01
$NaHSO_4$		
Reagent Water	EW4-14-001	
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: mc

Date Disposed: 2/17/15 Disposed By: mc

2102

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 10 ☐ EMAX-8260C Rev. No. 0 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-624 Rev.No. 4

Start Date: 5/1/15 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book #: A01-048

BATCH CV001B1232

	Sample Prep ID	Data File Name (we sign)	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		~~RD~~VREV01	BFB01E01						2-35pm
02		002	CV001B1232						
03		003	V001E01L						
04		004	↓ C						IS/SS low ⇒ Response high
05		005	Y						
06		006	Rinse						
07		007	V001E01B	25mL					
08		008	ISD143-03I	1.0mL	25	✓	✓		100X
09		009	-04I	↓	↓	✓	✓		100X
10		010	-07I	2.5mL	10	✓	✓		
11		011	-02	25mL	1.0	✓	✓		
12		012	-06			✓	✓		
13		013	ISD156-01			✓	✓		
14		014	-02			✓	✓		
15		015	-03			✓	✓		
16		016	-04			✓	✓		
17		017	-05			✓	✓		
18		018	-06			✓	✓		
19		019	-07			✓	✓		
20		020	-08			✓	✓		
21		021	-09			✓	✓		
22		022	-10			✓	✓		
23		023	-11			✓	✓		
24		024	ISD143-13			✓	✓		
25		025	↓ -13I	2.5mL	10	✓	✓		100X. 2:25 am
26		026-035	Rinse						
27									
28									
29									
30									we 5/4/15

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	2/12/15
ICAL ID	V001B12

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-24-23-01	1	
DCC	-36-01	1	
DCC	-38-01	5	
DCC	-24-01	5	
BFB	-17-01	0.5	50/250
IS/SURR.	-27-01	1	
ICV/LCS	-23-02	1	
ICV/LCS	-36-02	1	
ICV/LCS	-25-01	5	
ICV/LCS	-25-02	5	
Data File Folder	15E01		

	LOT #	Syringe Lot #
pH strip	HC413032	MSV01-01-08-01
Chlorine strip	42422	M06-P2487-04
Methanol		I -05
$NaHSO_4$		MSV01-01-03-01
Reagent Water	RW4-14-001	MSV01-01-07-01
Sand		

Electronic Data Archival Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: we

Date Disposed: 5/4/15 Disposed By: we

SOP 2012

Injection Log

Directory: D:\HPCHEM\1\DATA\15E01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	REV001.D	1.	BFB01E01	T/CHK	1 May 2015 14:35
2	2	REV002.D	1.	CVO01B1232	100ppb 8260/50ppb KET-AA-TBA	1 May 2015 15:35
3	3	REV003.D	1.	VO01E01L	100ppb 8260/50ppb KET-AA-TBA	1 May 2015 16:01
4	4	REV004.D	1.	VO01E01C	100ppb 8260/50ppb KET-AA-TBA	1 May 2015 16:28
5	5	REV005.D	1.	VO01E01Y	10ppb 8260/50ppb KET-AA-TBA	1 May 2015 17:05
6	6	REV006.D	1.	RINSE		1 May 2015 17:31
7	7	REV007.D	1.	VO01E01B 25mL	BLANK	1 May 2015 17:58
8	8	REV008.D	1.	15D143-03I 1.0mL	DF=25	1 May 2015 18:26
9	9	REV009.D	1.	15D143-04I 1.0mL	DF=25	1 May 2015 18:53
10	10	REV010.D	1.	15D143-07I 2.5mL	DF=10	1 May 2015 19:21
11	11	REV011.D	1.	15D143-02 25mL	DF=10	1 May 2015 19:49
12	12	REV012.D	1.	15D143-06 25mL	DF=10	1 May 2015 20:17
13	13	REV013.D	1.	15D156-01 25mL	DF=1.0	1 May 2015 20:46
14	14	REV014.D	1.	15D156-02 25mL	DF=1.0	1 May 2015 21:13
15	15	REV015.D	1.	15D156-03 25mL	DF=1.0	1 May 2015 21:43
16	16	REV016.D	1.	15D156-04 25mL	DF=1.0	1 May 2015 22:10
17	17	REV017.D	1.	15D156-05 25mL	DF=1.0	1 May 2015 22:40
18	18	REV018.D	1.	15D156-06 25mL	DF=1.0	1 May 2015 23:07
19	19	REV019.D	1.	15D156-07 25mL	DF=1.0	1 May 2015 23:36
20	20	REV020.D	1.	15D156-08 25mL	DF=1.0	2 May 2015 00:04
21	21	REV021.D	1.	15D156-09 25mL	DF=1.0	2 May 2015 00:33
22	22	REV022.D	1.	15D156-10 25mL	DF=1.0	2 May 2015 01:01
23	23	REV023.D	1.	15D156-11 25mL	DF=1.0	2 May 2015 01:28
24	24	REV024.D	1.	15D143-13 25mL	DF=1.0	2 May 2015 01:57
25	25	REV025.D	1.	15D143-13I 2.5mL	DF=10	2 May 2015 02:25
26	1	REV026.D	1.	RINSE	DF=1.0	2 May 2015 02:53
27	2	REV027.D	1.	RINSE	DF=1.0	2 May 2015 03:21
28	3	REV028.D	1.	RINSE	DF=1.0	2 May 2015 03:48
29	4	REV029.D	1.	RINSE	DF=1.0	2 May 2015 04:17
30	5	REV030.D	1.	RINSE	DF=1.0	2 May 2015 04:46
31	6	REV031.D	1.	RINSE	DF=1.0	2 May 2015 05:13
32	7	REV032.D	1.	RINSE	DF=1.0	2 May 2015 05:40
33	8	REV033.D	1.	RINSE	DF=1.0	2 May 2015 06:08
34	9	REV034.D	1.	RINSE	DF=1.0	2 May 2015 06:35
35	10	REV035.D	1.	RINSE	DF=1.0	2 May 2015 07:03

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

SDG#: 15D156

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

A total of nine (9) water samples were received on 04/23/15 to be analyzed for Volatile Organics by GC/MS SIM in accordance with Method 5030B/8260B SIM and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. VO01D25B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. VO01D25L/VO01D25C - all analytes were within LCS QC limits. Refer to LCS summary form for details.

Matrix QC Sample
No matrix QC sample was designated on this SDG.

Surrogate
Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D156
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VO01D25B	1	NA	04/29/1511:57	04/29/1511:57	RDV589	RAV178	VO01D25	Method Blank
LCS1W	VO01D25L	1	NA	04/29/1511:07	04/29/1511:07	RDV587	RAV178	VO01D25	Lab Control Sample (LCS)
LCD1W	VO01D25C	1	NA	04/29/1511:32	04/29/1511:32	RDV588	RAV178	VO01D25	LCS Duplicate
04-22-15-WB2-3	D156-01	1	NA	04/29/1514:11	04/29/1514:11	RDV594	RAV178	VO01D25	Field Sample
04-22-15-PWB-2	D156-02	1	NA	04/29/1514:36	04/29/1514:36	RDV595	RAV178	VO01D25	Field Sample
04-22-15-PWB-6	D156-03	1	NA	04/29/1515:01	04/29/1515:01	RDV596	RAV178	VO01D25	Field Sample
04-23-15-EB-2	D156-06	1	NA	04/29/1515:26	04/29/1515:26	RDV597	RAV178	VO01D25	Field Sample
04-23-15-PWB-3	D156-07	1	NA	04/29/1515:51	04/29/1515:51	RDV598	RAV178	VO01D25	Field Sample
04-23-15-BBW-1	D156-10	1	NA	04/29/1516:16	04/29/1516:16	RDV599	RAV178	VO01D25	Field Sample
04-23-15-BBW-2	D156-11	1	NA	04/29/1516:40	04/29/1516:40	RDV600	RAV178	VO01D25	Field Sample
04-23-15-PWB-8	D156-05	1	NA	04/29/1517:05	04/29/1517:05	RDV601	RAV178	VO01D25	Field Sample
04-23-15-PWB-11	D156-08	1	NA	04/29/1517:30	04/29/1517:30	RDV602	RAV178	VO01D25	Field Sample
04-23-15-PWB-8DL	D156-05I	10	NA	04/29/1517:55	04/29/1517:55	RDV603	RAV178	VO01D25	Diluted Sample
04-23-15-PWB-11DL	D156-08I	10	NA	04/29/1518:20	04/29/1518:20	RDV604	RAV178	VO01D25	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SEQ

SAMPLE RESULTS

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 14:11
Sample ID: 04-22-15-WB2-3	Date Analyzed: 04/29/15 14:11
Lab Samp ID: D156-01	Dilution Factor: 1
Lab File ID: RDV594	Matrix : WATER
Ext Btch ID: VOO1D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.28	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0947	0.1000	94.7	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 14:36
Sample ID: 04-22-15-PWB-2	Date Analyzed: 04/29/15 14:36
Lab Samp ID: D156-02	Dilution Factor: 1
Lab File ID: RDV595	Matrix : WATER
Ext Btch ID: VOO1D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.044	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0974	0.1000	97.4	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/22/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 15:01
Sample ID: 04-22-15-PWB-6	Date Analyzed: 04/29/15 15:01
Lab Samp ID: D156-03	Dilution Factor: 1
Lab File ID: RDV596	Matrix : WATER
Ext Btch ID: VO01D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.0053	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.101	0.1000	101	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 17:05 # 04/29/15 17:55
Sample ID: 04-23-15-PWB-8	Date Analyzed: 04/29/15 17:05 # 04/29/15 17:55
Lab Samp ID: D156-05 #D156-05I	Dilution Factor: 1 # 10
Lab File ID: RDV601 #RDV603	Matrix : WATER
Ext Btch ID: V001D25 #V001D25	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	3.2	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.19	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0908	0.1000	90.8	80-120
# TOLUENE-D8	1.04	1.000	104	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 17:05
Sample ID: 04-23-15-PWB-8	Date Analyzed: 04/29/15 17:05
Lab Samp ID: D156-05	Dilution Factor: 1
Lab File ID: RDV601	Matrix : WATER
Ext Btch ID: V001D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.0E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.19	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0908	0.1000	90.8	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D29\RDV601.D Vial: 17
Acq On : 29 Apr 2015 5:05 pm Operator: WLau
Sample : 15D156-05 25mL Inst : TO01
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 30 11:25 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	5703	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.33	98	46809	90.81	ng/l	0.02
Spiked Amount 100.000			Recovery =	90.81%		
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	11.03	75	181817	2985.06	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.09	157	2084	193.86	ng/l	90

(#) = qualifier out of range (m) = manual integration
RDV601.D VO01A13.M Thu Apr 30 11:25:08 2015 Page 1

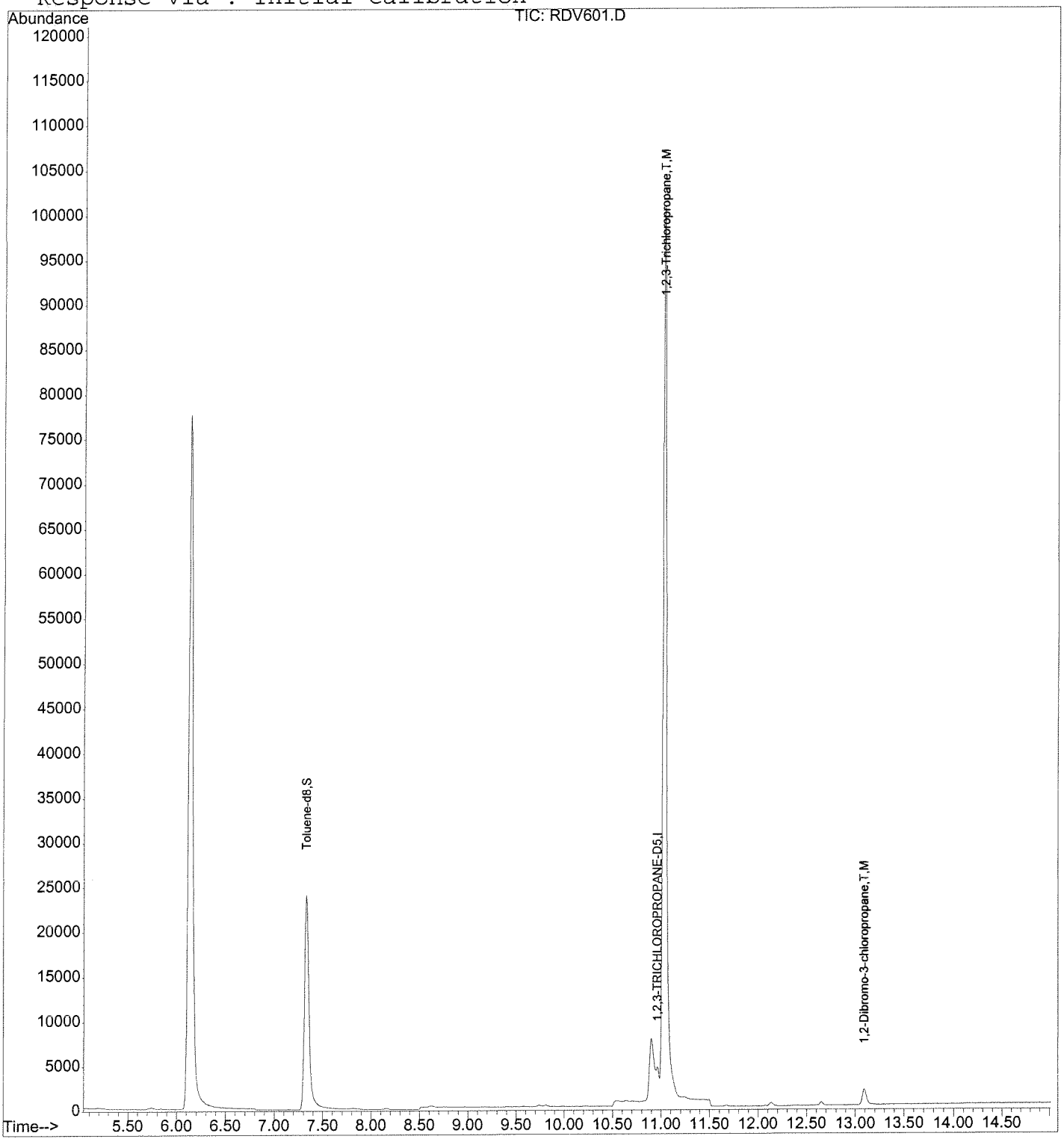
2120

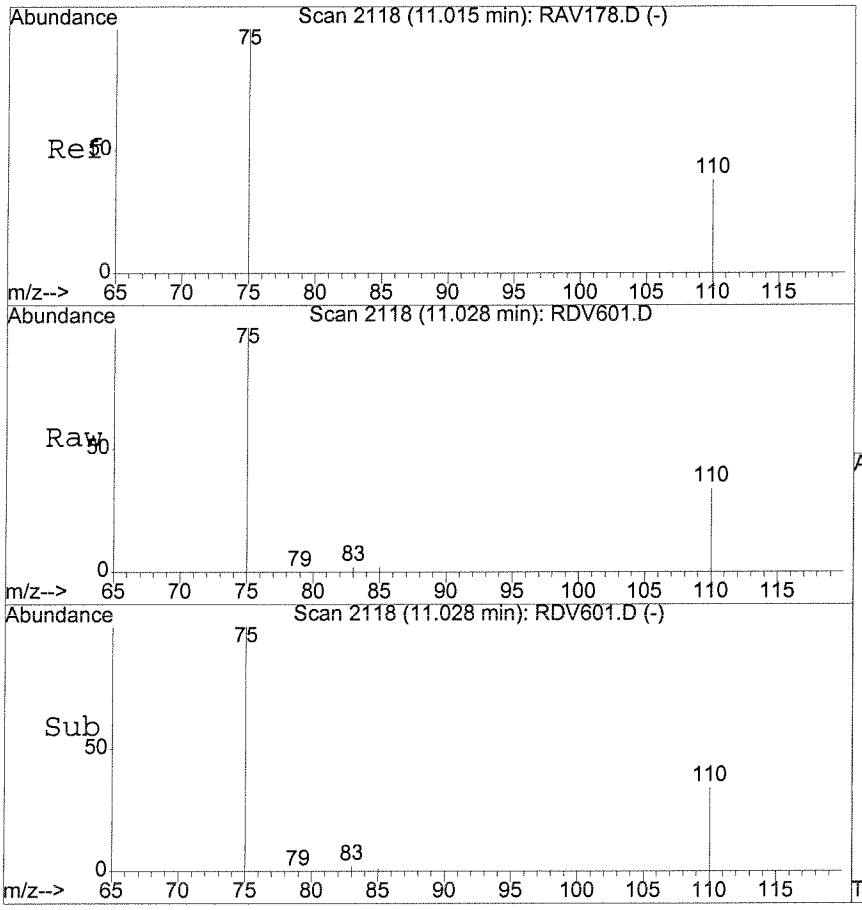
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV601.D
Acq On : 29 Apr 2015 5:05 pm
Sample : 15D156-05 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 30 11:25 2015

Vial: 17
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

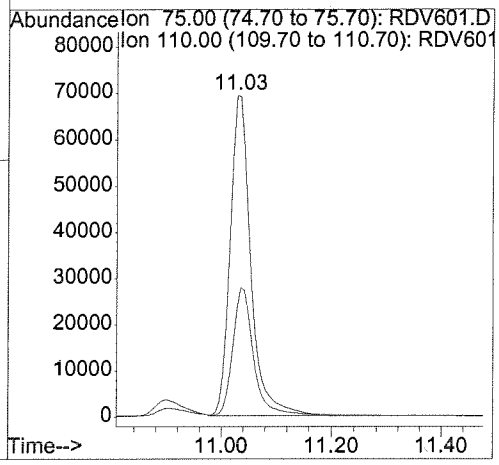


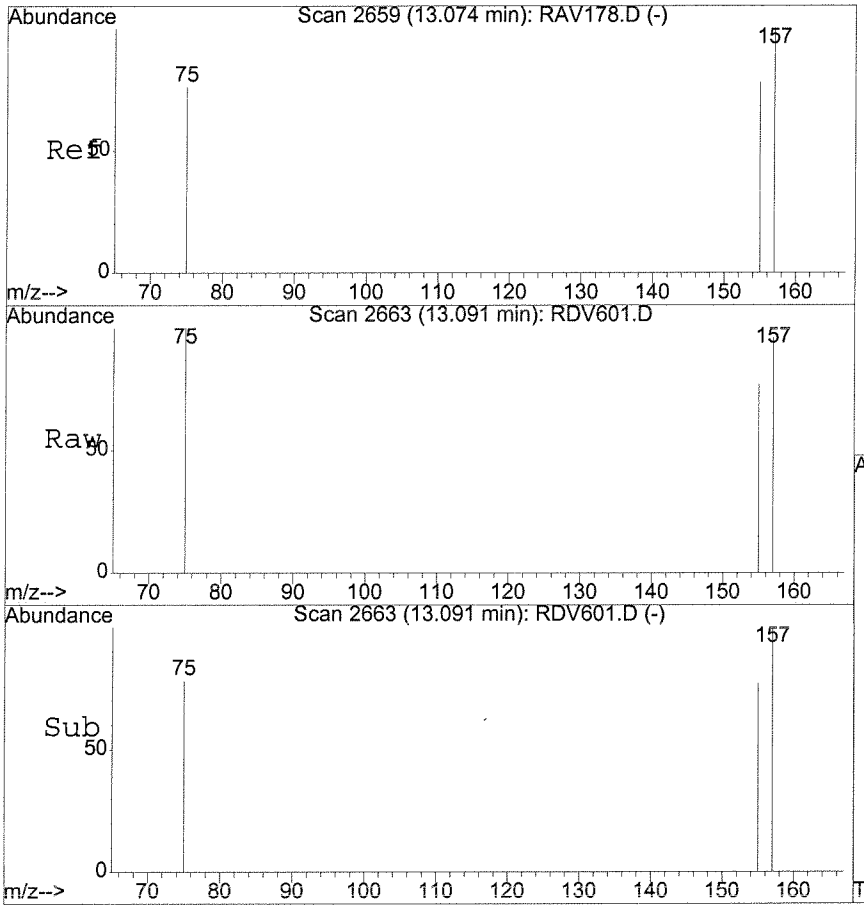


#6
1,2,3-Trichloropropane
Concen: 2985.06 ng/l
RT: 11.03 min Scan# 2118
Delta R.T. 0.01 min
Lab File: RDV601.D
Acq: 29 Apr 2015 5:05 pm

Tgt Ion: 75 Resp: 181817

Ion	Ratio	Lower	Upper
75	100		
110	39.5	11.6	71.6

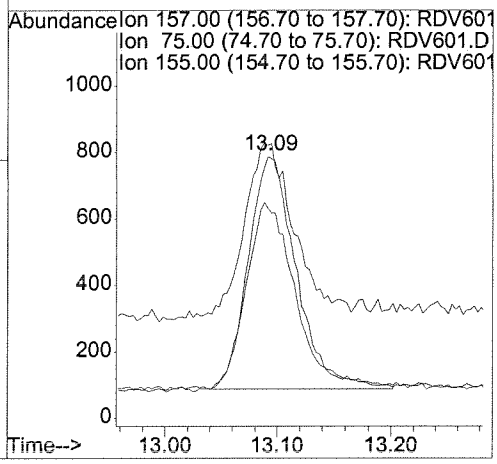




#7
1,2-Dibromo-3-chloropropane
Concen: 193.86 ng/l
RT: 13.09 min Scan# 2663
Delta R.T. 0.02 min
Lab File: RDV601.D
Acq: 29 Apr 2015 5:05 pm

Tgt Ion:157 Resp: 2084

Ion	Ratio	Lower	Upper
157	100		
75	76.1	61.8	121.8
155	81.4	49.6	109.6



METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 17:55
Sample ID: 04-23-15-PWB-8DL	Date Analyzed: 04/29/15 17:55
Lab Samp ID: D156-05I	Dilution Factor: 10
Lab File ID: RDV603	Matrix : WATER
Ext Btch ID: VO01D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.2	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.23J	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	1.04	1.000	104	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D29\RDV603.D Vial: 19
Acq On : 29 Apr 2015 5:55 pm Operator: WLau
Sample : 15D156-05I 2.5mL Inst : TO01
Misc : DF=10 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 30 11:26 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

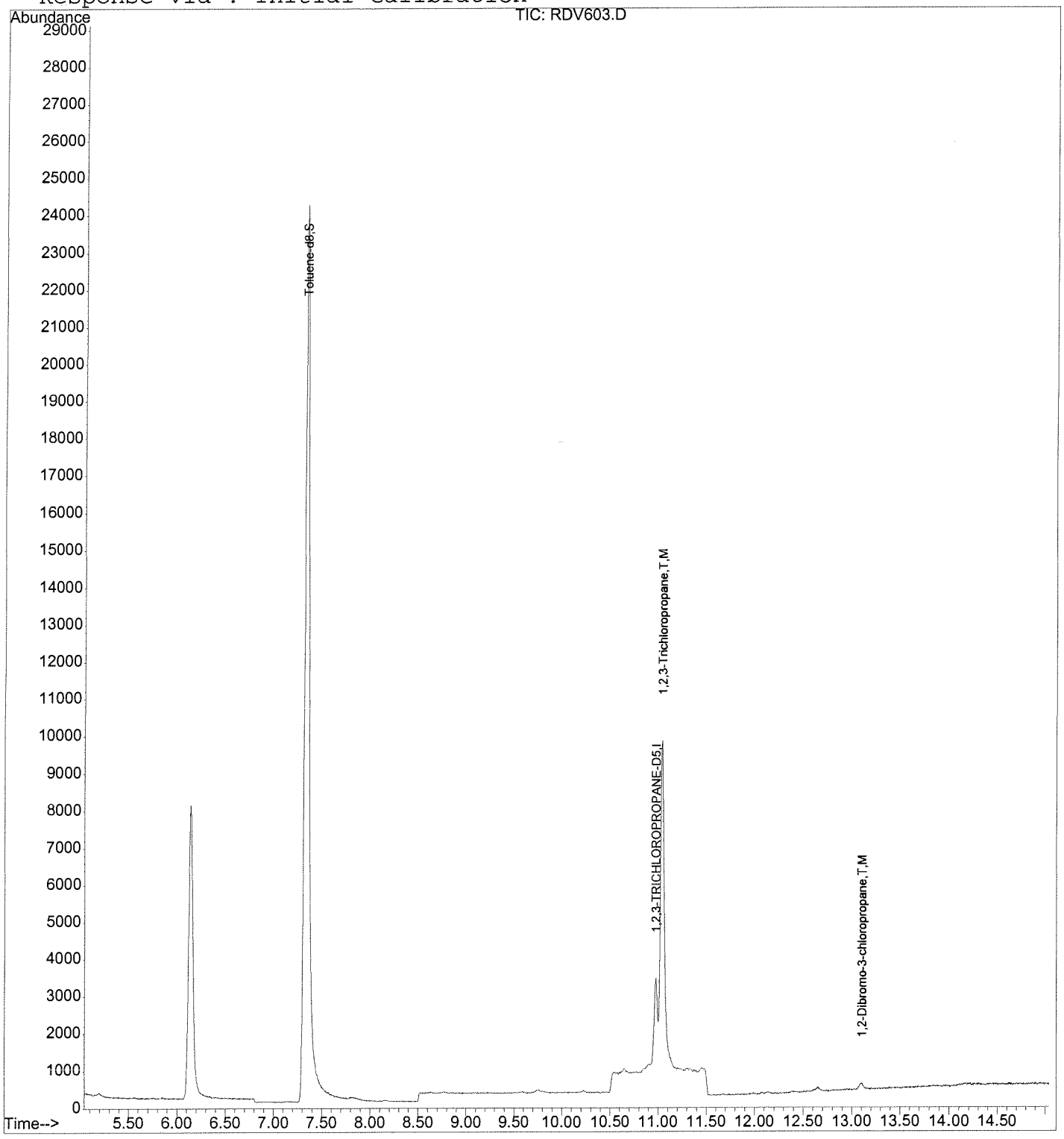
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.98	79	5213	100.00	ng/l	0.03
System Monitoring Compounds						
3) Toluene-d8	7.34	98	48892	103.77	ng/l	0.03
Spiked Amount 100.000			Recovery =	103.77%		
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	11.03	75	17598	316.08	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.10	157	227	23.10	ng/l #	62

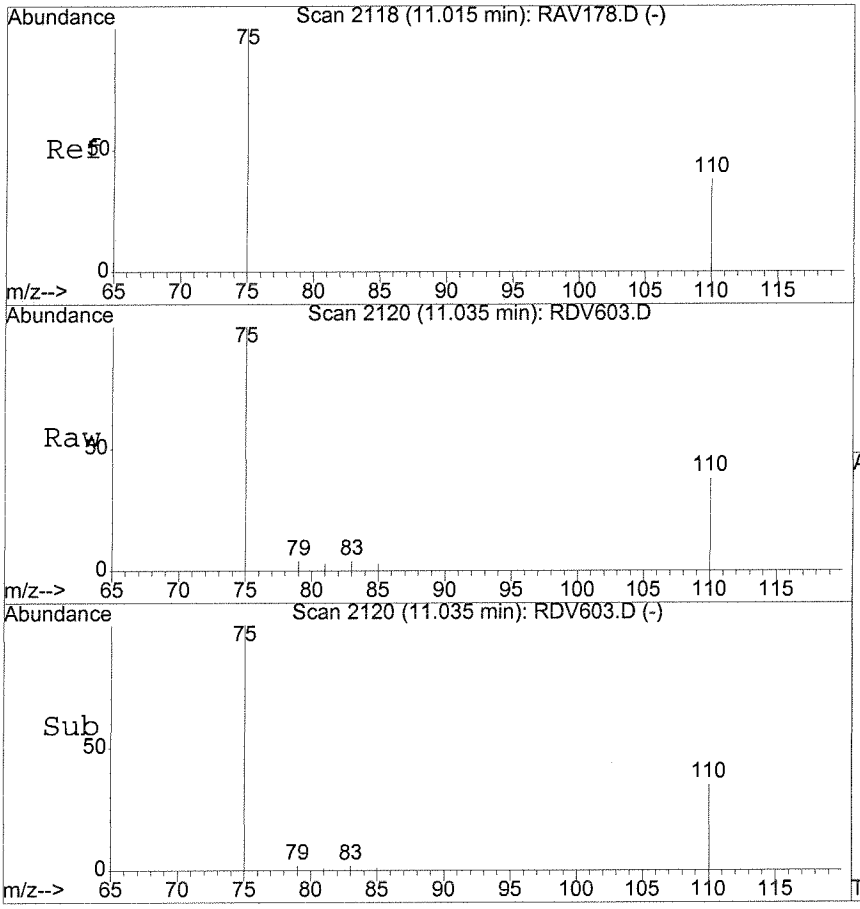
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV603.D Vial: 19
Acq On : 29 Apr 2015 5:55 pm Operator: WLau
Sample : 15D156-05I 2.5mL Inst : TO01
Misc : DF=10 Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 30 11:26 2015 Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration

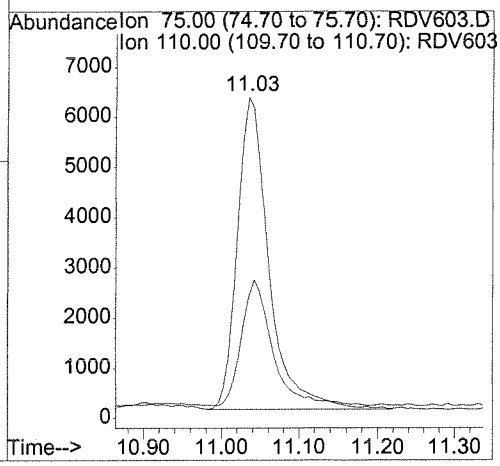


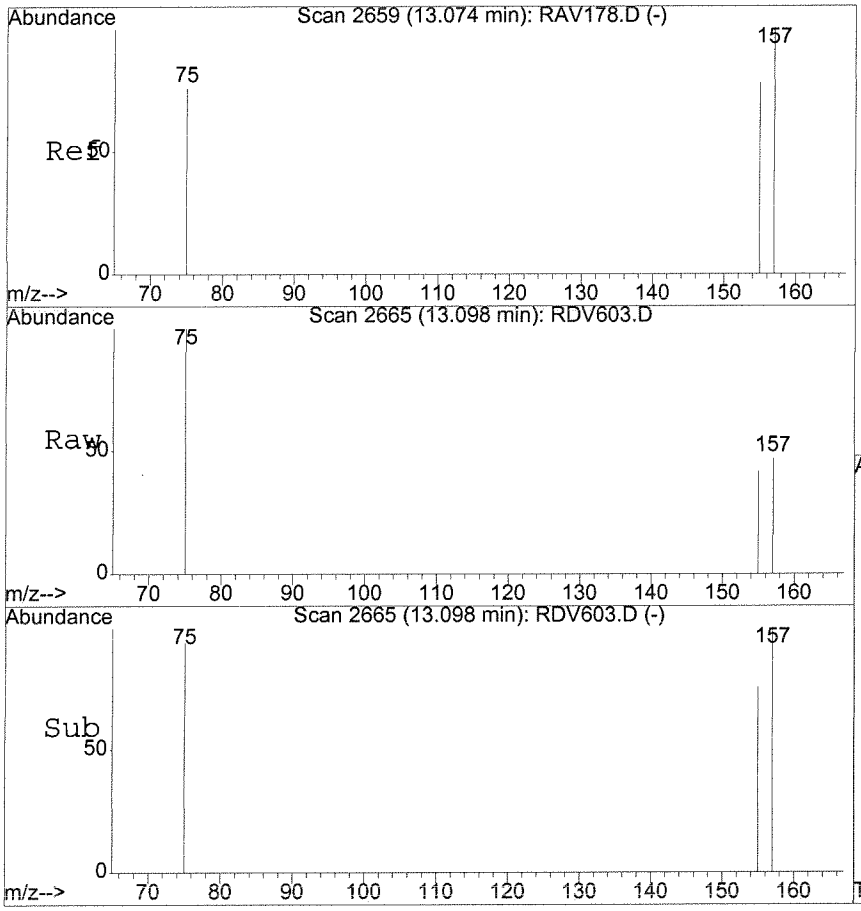


#6
1,2,3-Trichloropropane
Concen: 316.08 ng/l
RT: 11.03 min Scan# 2120
Delta R.T. 0.02 min
Lab File: RDV603.D
Acq: 29 Apr 2015 5:55 pm

Tgt Ion: 75 Resp: 17598

Ion	Ratio	Lower	Upper
75	100		
110	39.1	11.6	71.6

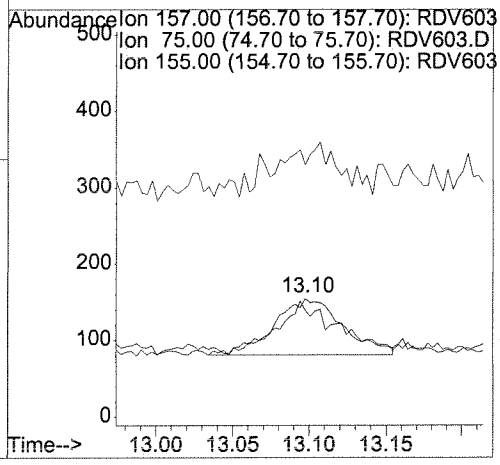




#7
1,2-Dibromo-3-chloropropane
Concen: 23.10 ng/l
RT: 13.10 min Scan# 2665
Delta R.T. 0.02 min
Lab File: RDV603.D
Acq: 29 Apr 2015 5:55 pm

Tgt Ion:157 Resp: 227

Ion	Ratio	Lower	Upper
157	100		
75	25.1	61.8	121.8#
155	80.6	49.6	109.6



METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 15:26
Sample ID: 04-23-15-EB-2	Date Analyzed: 04/29/15 15:26
Lab Samp ID: D156-06	Dilution Factor: 1
Lab File ID: RDV597	Matrix : WATER
Ext Btch ID: VOO1D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.103	0.1000	103	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 15:51
Sample ID: 04-23-15-PWB-3	Date Analyzed: 04/29/15 15:51
Lab Samp ID: D156-07	Dilution Factor: 1
Lab File ID: RDV598	Matrix : WATER
Ext Btch ID: VOO1D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.26	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0913	0.1000	91.3	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 17:30 # 04/29/15 18:20
Sample ID: 04-23-15-PWB-11	Date Analyzed: 04/29/15 17:30 # 04/29/15 18:20
Lab Samp ID: D156-08 #D156-08I	Dilution Factor: 1 # 10
Lab File ID: RDV602 #RDV604	Matrix : WATER
Ext Btch ID: VO01D25 #VO01D25	% Moisture : NA
Calib. Ref.: RAV178 #RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	4.1	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0917	0.1000	91.7	80-120
# TOLUENE-D8	1.03	1.000	103	80-120

Members of the Associated File

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 17:30
Sample ID: 04-23-15-PWB-11	Date Analyzed: 04/29/15 17:30
Lab Samp ID: D156-08	Dilution Factor: 1
Lab File ID: RDV602	Matrix : WATER
Ext Btch ID: VO01D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	4.0E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0917	0.1000	91.7	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 18:20
Sample ID: 04-23-15-PWB-11DL	Date Analyzed: 04/29/15 18:20
Lab Samp ID: D156-08I	Dilution Factor: 10
Lab File ID: RDV604	Matrix : WATER
Ext Btch ID: VO01D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	4.1	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	1.03	1.000	103	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 16:16
Sample ID: 04-23-15-BBW-1	Date Analyzed: 04/29/15 16:16
Lab Samp ID: D156-10	Dilution Factor: 1
Lab File ID: RDV599	Matrix : WATER
Ext Btch ID: VO01D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.4	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0950	0.1000	95.0	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: 04/23/15
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/23/15
Batch No. : 15D156	Date Extracted: 04/29/15 16:40
Sample ID: 04-23-15-BBW-2	Date Analyzed: 04/29/15 16:40
Lab Samp ID: D156-11	Dilution Factor: 1
Lab File ID: RDV600	Matrix : WATER
Ext Btch ID: VO01D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.042	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0994	0.1000	99.4	80-120

QC SUMMARIES

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : B & B GROUNDWATER SAMPLING	Date Received: 04/29/15
Batch No. : 15D156	Date Extracted: 04/29/15 11:57
Sample ID: MBLK1W	Date Analyzed: 04/29/15 11:57
Lab Samp ID: V001D25B	Dilution Factor: 1
Lab File ID: RDV589	Matrix : WATER
Ext Btch ID: V001D25	% Moisture : NA
Calib. Ref.: RAV178	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.103	0.1000	103	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V001D25B V001D25L V001D25C
LAB FILE ID: RDV589 RDV587 RDV588
DATE EXTRACTED: 04/29/1511:57 04/29/1511:07 04/29/1511:32 DATE COLLECTED: NA
DATE ANALYZED: 04/29/1511:57 04/29/1511:07 04/29/1511:32 DATE RECEIVED: 04/29/15
PREP. BATCH: V001D25 V001D25 V001D25
CALIB. REF: RAV178 RAV178 RAV178

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,3-Trichloropropane	ND	0.100	0.105	105	0.100	0.104	104	1	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0913	91	0.100	0.0858	86	6	50-130	30
1,2-Dibromoethane	ND	0.100	0.116	116	0.100	0.106	106	9	80-120	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Toluene-d8	0.100	0.107	107	0.100	0.0998	100	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D29\RDV589.D Vial: 5
Acq On : 29 Apr 2015 11:57 am Operator: WLau
Sample : VO01D25B 25mL Inst : TO01
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 29 17:13 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

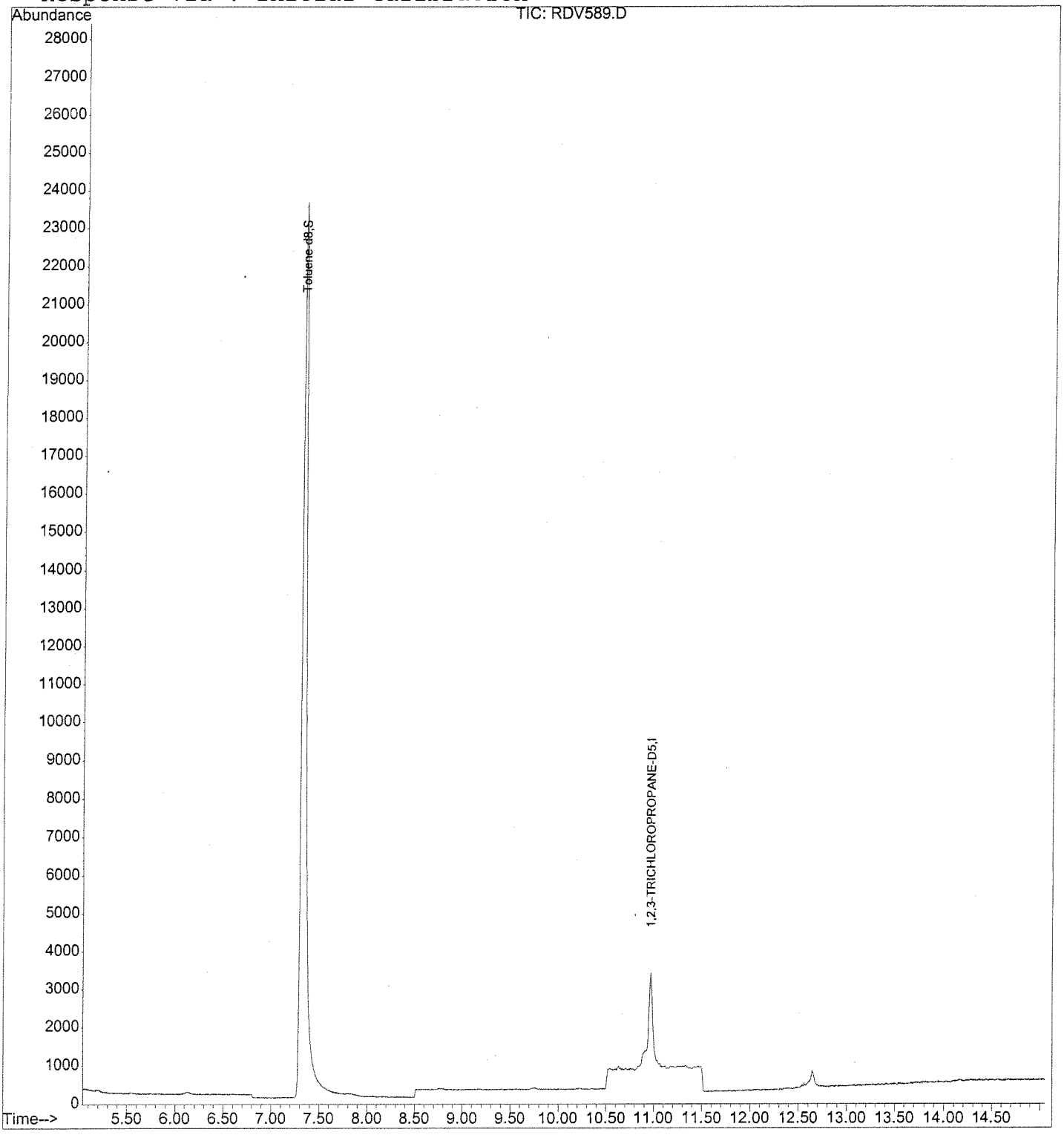
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	5184	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.33	98	48493	103.50	ng/l	0.02
Spiked Amount 100.000			Recovery = 103.50%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV589.D Vial: 5
Acq On : 29 Apr 2015 11:57 am Operator: WLau
Sample : VO01D25B 25mL Inst : TO01
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 29 17:13 2015 Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D29\RDV587.D Vial: 3
Acq On : 29 Apr 2015 11:07 am Operator: WLau
Sample : VO01D25L Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 29 11:22 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4680	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	45071	106.55	ng/l	0.02
Spiked Amount 100.000			Recovery =	106.55%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	11682	115.80	ng/l	97
4) 1,2-Dibromoethane	8.75	107	7360	115.56	ng/l	96
5) 1,1,2,2-Tetrachloroethane	10.96	83	7839	107.74	ng/l	99
6) 1,2,3-Trichloropropane	11.03	75	5241	104.86	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.09	157	805	91.25	ng/l	82

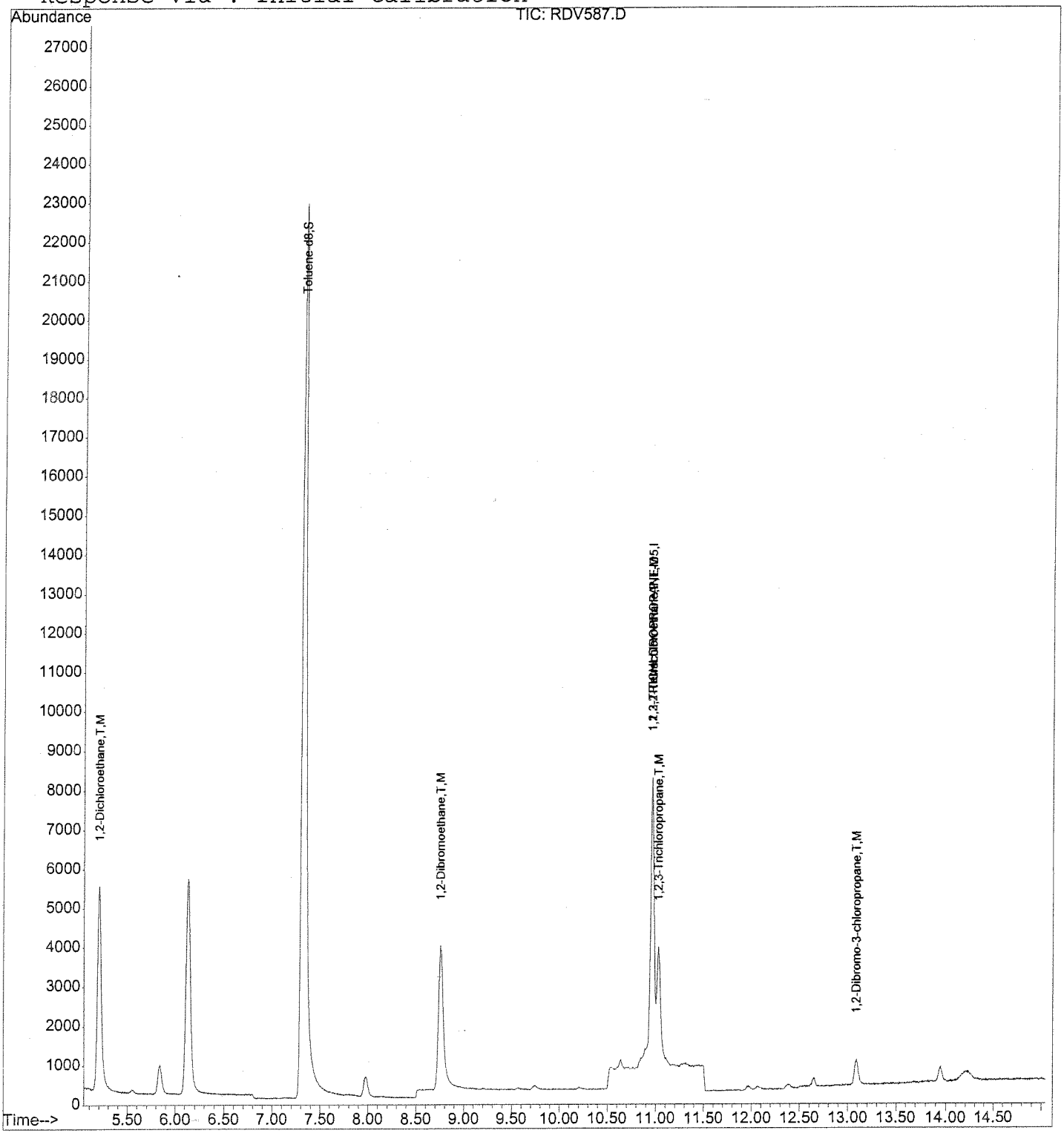
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV587.D
Acq On : 29 Apr 2015 11:07 am
Sample : VO01D25L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 29 11:22 2015

Vial: 3
Operator: WLau
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15D29\RDV588.D Vial: 4
Acq On : 29 Apr 2015 11:32 am Operator: WLau
Sample : VO01D25C Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Apr 29 11:47 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	5410	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	48793	99.79	ng/l	0.02
Spiked Amount 100.000			Recovery =	99.79%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	12323	105.67	ng/l	98
4) 1,2-Dibromoethane	8.76	107	7776	105.62	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.96	83	8930	106.18	ng/l	97
6) 1,2,3-Trichloropropane	11.03	75	5993	103.72	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.09	157	875	85.80	ng/l	98

(#) = qualifier out of range (m) = manual integration

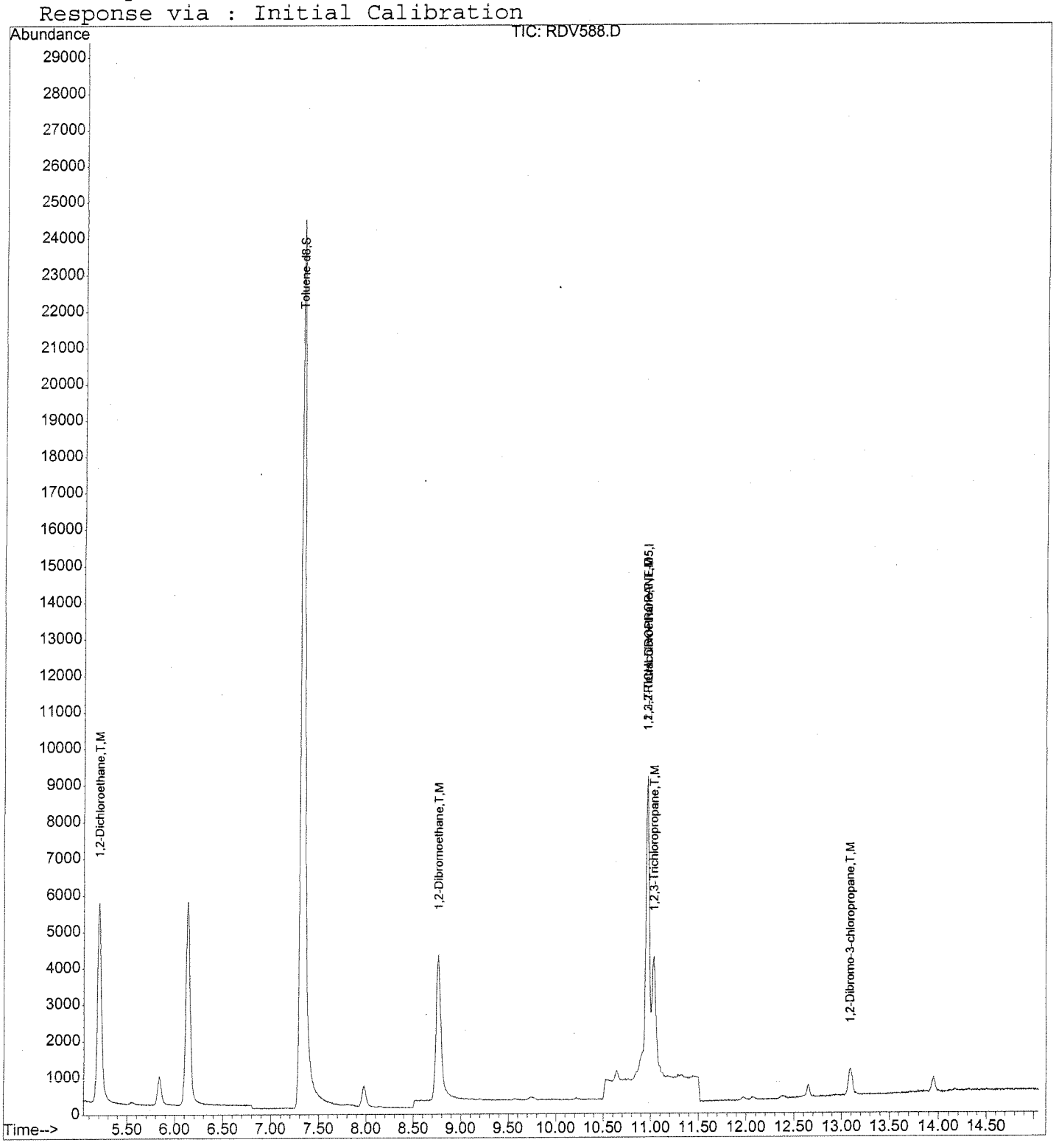
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV588.D
Acq On : 29 Apr 2015 11:32 am
Sample : VO01D25C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 29 11:47 2015

Vial: 4
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: B & B GROUNDWATER SAMPLING
Lab Code: EMXT Case No.: SAS No.: SDG No.: 15D156
Lab File ID: RAV173 BFB Injection Date : 01/13/15
Instrument ID: TO01 BFB Injection Time : 09:57
GC Column:RXI-624SILMSID:0.25mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.28
75	30.0 - 60.0% of mass 95	42.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.05
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.80
175	5.0 - 9.0% of mass 174	6.26(7.0)1
176	95.0 - 101.0% of mass 174	86.06(95.8)1
177	5.0 - 9.0% of mass 176	5.52(6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD05	VO01A131	RAV174	01/13/15	10:27
2	VSTD010	VO01A132	RAV175	01/13/15	10:51
3	VSTD020	VO01A133	RAV176	01/13/15	11:15
4	VSTD050	VO01A134	RAV177	01/13/15	11:39
5	VSTD100	VO01A135	RAV178	01/13/15	12:03
6	VSTD200	VO01A136	RAV179	01/13/15	12:27
7	VSTD400	VO01A137	RAV180	01/13/15	12:51
8	VSTD1000	VO01A138	RAV181	01/13/15	13:15
9	VSTD2000	VO01A139	RAV182	01/13/15	13:39
10	VSTD100	IVO01A1301	RAV184	01/13/15	14:26

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO01
Beginning DateTime :01/13/15 10:27
Spike Units :PPT
IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
Ending DateTime :01/13/15 13:39
HPChem Method :VO01A13

M IDX	Parameters	5 10:27 RAV174	10 10:51 RAV175	20 11:15 RAV176	50 11:39 RAV177	100 12:03 RAV178	200 12:27 RAV179	400 12:51 RAV180	1000 13:15 RAV181	2000 13:39 RAV182	Av_RRF	%_RSD	Av_Rt_M
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	1	0	10.9505
2	1,2-Dichloroethane	1.837	2.098	2.023	2.328	2.184	2.528	2.100	2.202	2.100	2.156	8.99	5.1880
3	Toluene-d8	------	11.392	9.024	9.095	8.109	9.522	7.988	8.730	8.446	9.038	11.97	7.3057
4	1,2-Dibromoethane	1.213	1.332	1.266	1.377	1.349	1.570	1.324	1.425	1.391	1.361	7.45	8.7375
5	1,1,2,2-Tetrachloroethane	1.429	1.390	1.384	1.571	1.543	1.804	1.530	1.680	1.660	1.555	9.16	10.9461
6	1,2,3-Trichloropropane	1.186	1.045	0.954	0.987	1.004	1.204	1.010	1.117	1.105	1.068	8.35	11.0147
7	1,2-Dibromo-3-chloropropane	------	0.214	0.175	0.174	0.171	0.200	0.172	0.197	0.205	0.188	9.17	13.0710

Ave_%RSD : 9.2 Max_%RSD : 12

SM
1/14/15

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	10.95	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	5.19	0.474	A	1	A	B
3	S	Toluene-d8	98	7.31	0.667	A	1	A	B
4	T	1,2-Dibromoethane	107	8.74	0.798	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	10.94	0.999	A	1	A	B
6	T	1,2,3-Trichloropropane	75	11.02	1.006	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	13.07	1.194	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

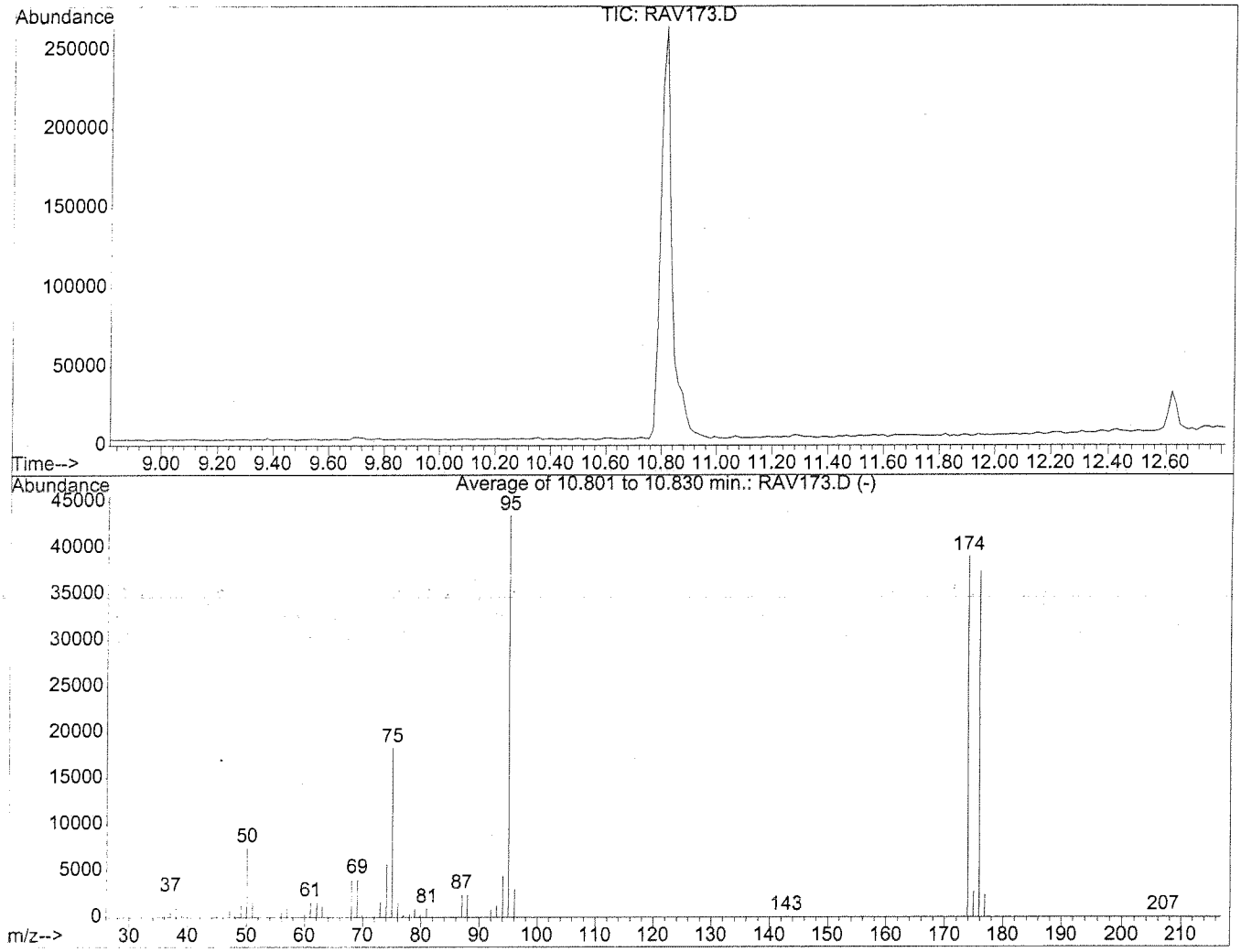
VO01A13.M Wed Jan 14 15:08:24 2015

SM 1/14/15

BFB

Data File : D:\HPCHEM\1\DATA\15A13\RAV173.D
Acq On : 13 Jan 2015 9:57 am
Sample : BFB01A11
Misc : T/CHK
MS Integration Params: 524C.P
Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
Operator: DNguye
Inst : TO01
Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	7513	PASS
75	95	30	60	42.2	18354	PASS
95	95	100	100	100.0	43472	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.8	39037	PASS
175	174	5	9	7.0	2721	PASS
176	174	95	101	95.8	37411	PASS
177	176	5	9	6.4	2399	PASS

RAV173.D VO01A13A.M Wed Jan 14 11:20:32 2015

SA 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D Vial: 2
Acq On : 13 Jan 2015 10:27 am Operator: DNguye
Sample : VO01A131 Inst : TO01
Misc : 5.0ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5194	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	2994	6.38	ng/l	0.00
Spiked Amount 100.000			Recovery =	6.38%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	477	4.26	ng/l #	41
4) 1,2-Dibromoethane	8.74	107	315	4.46	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.94	83	371	4.59	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	308	5.55	ng/l	88

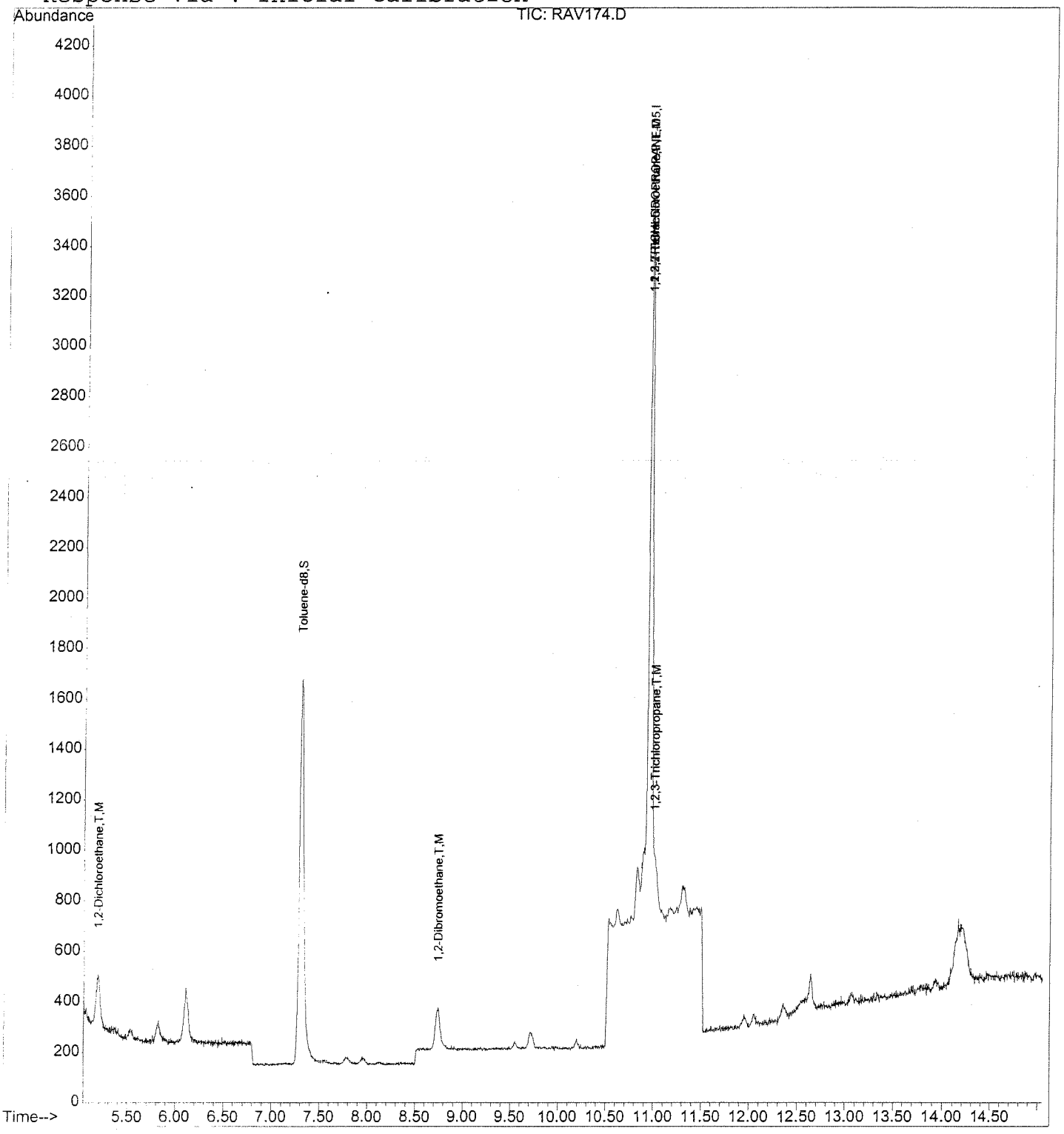
SA 1/14/15

(#) = qualifier out of range (m) = manual integration
RAV174.D VO01A13.M Wed Jan 14 11:21:25 2015 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D Vial: 2
Acq On : 13 Jan 2015 10:27 am Operator: DNguye
Sample : VO01A131 Inst : TO01
Misc : 5.0ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015 Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SG 1/14/15

2150

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5044	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	5746	12.60	ng/l	0.00
Spiked Amount 100.000			Recovery =	12.60%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	1058	9.73	ng/l	97
4) 1,2-Dibromoethane	8.73	107	672	9.79	ng/l	92
5) 1,1,2,2-Tetrachloroethane	10.94	83	701	8.94	ng/l	97
6) 1,2,3-Trichloropropane	11.01	75	527	9.78	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.08	157	108	11.36	ng/l #	44

SA 1/14/15

(#) = qualifier out of range (m) = manual integration

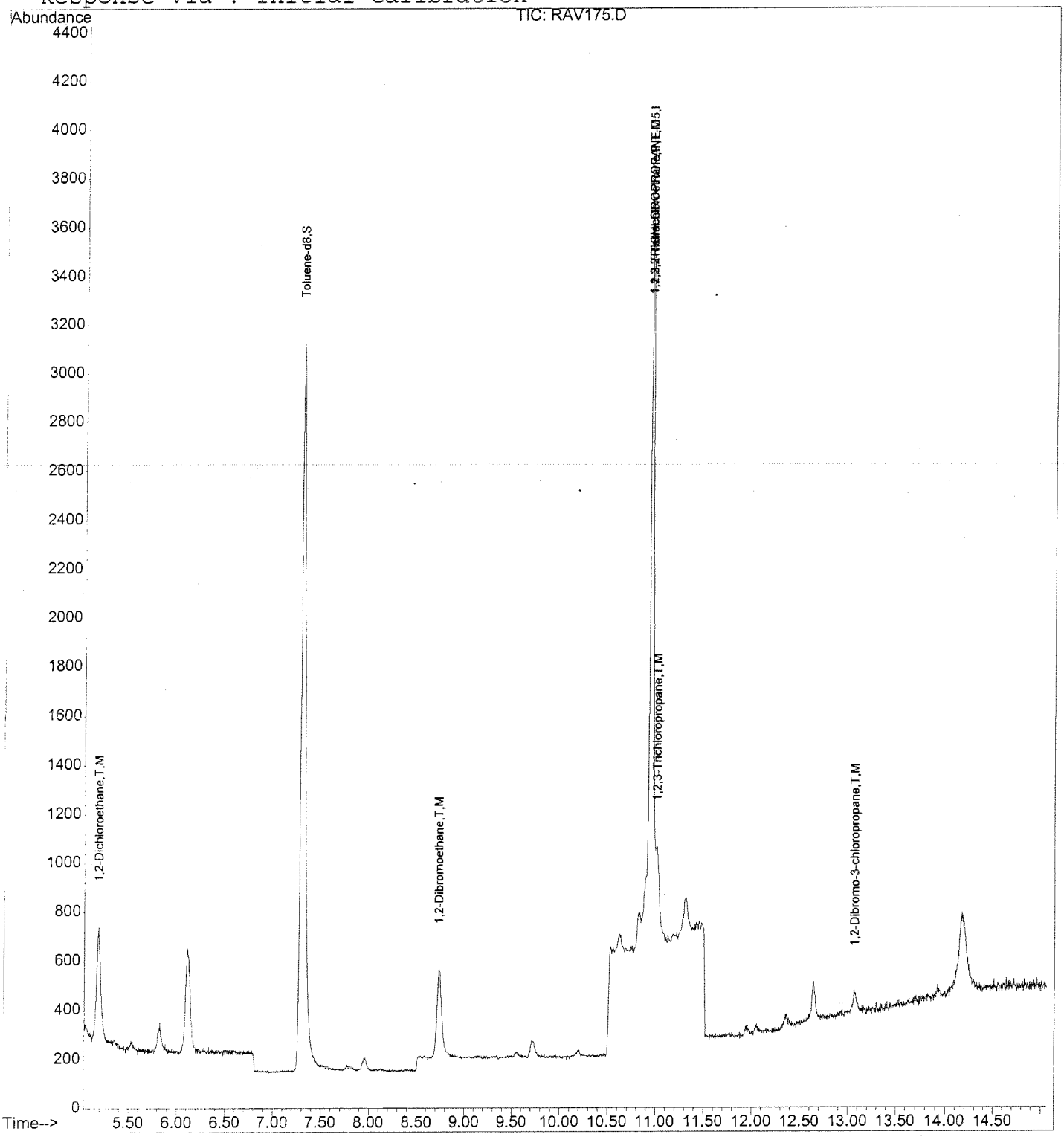
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Sm 1/14/15

2152

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4945	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	8925	19.97	ng/l	0.00
Spiked Amount 100.000			Recovery = 19.97%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.18	62	2001	18.77	ng/l	98
4) 1,2-Dibromoethane	8.73	107	1252	18.60	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.94	83	1369	17.81	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	944	17.87	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.07	157	173	18.56	ng/l #	66

SM 1/14/15

(#) = qualifier out of range (m) = manual integration

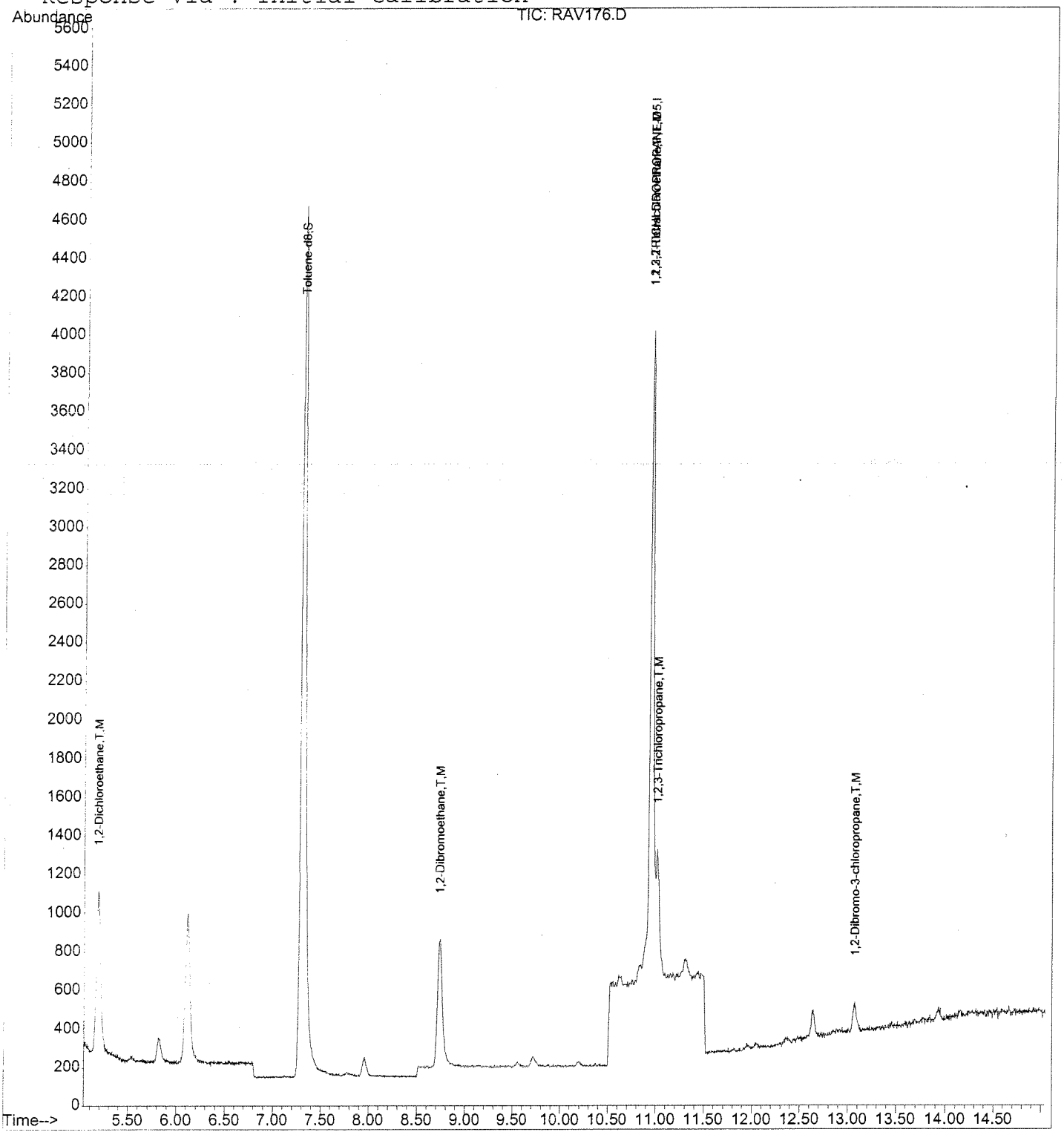
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SU 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4947	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	22497	50.32	ng/l	0.00
Spiked Amount 100.000			Recovery =	50.32%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	5759	54.01	ng/l	96
4) 1,2-Dibromoethane	8.74	107	3407	50.61	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	3885	50.52	ng/l	96
6) 1,2,3-Trichloropropane	11.01	75	2442	46.22	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.07	157	431	46.22	ng/l	89

SV 1/14/15

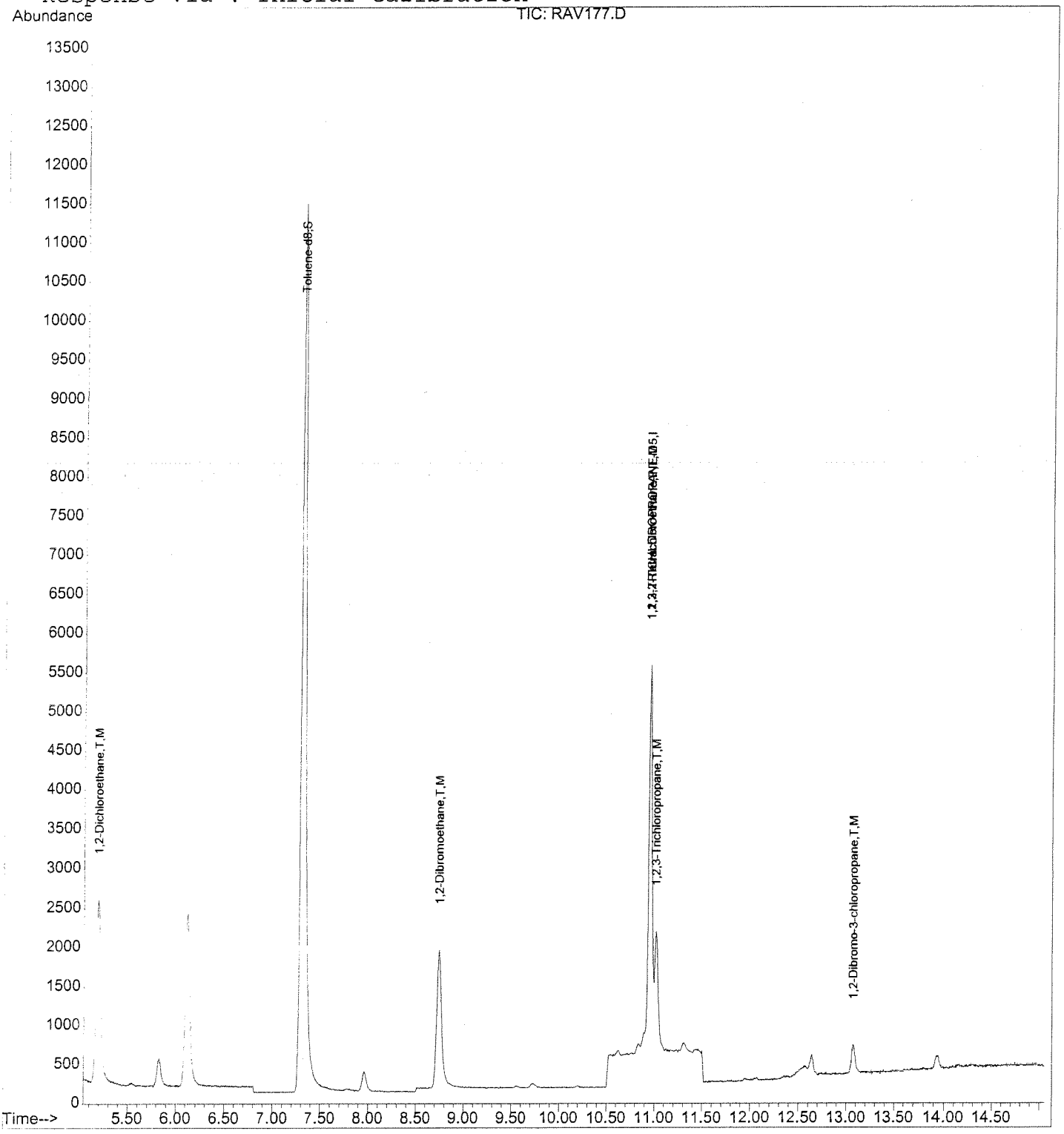
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D Vial: 6
Acq On : 13 Jan 2015 12:03 pm Operator: DNguye
Sample : VO01A135 Inst : TO01
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015 Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5060	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	41033	89.72	ng/l	0.00
Spiked Amount 100.000			Recovery =	89.72%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	11051	101.32	ng/l	100
4) 1,2-Dibromoethane	8.74	107	6828	99.15	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.94	83	7809	99.27	ng/l	100
6) 1,2,3-Trichloropropane	11.02	75	5081	94.02	ng/l	100
7) 1,2-Dibromo-3-chloropropan	13.07	157	867	90.90	ng/l	100

Sa 1/14/15

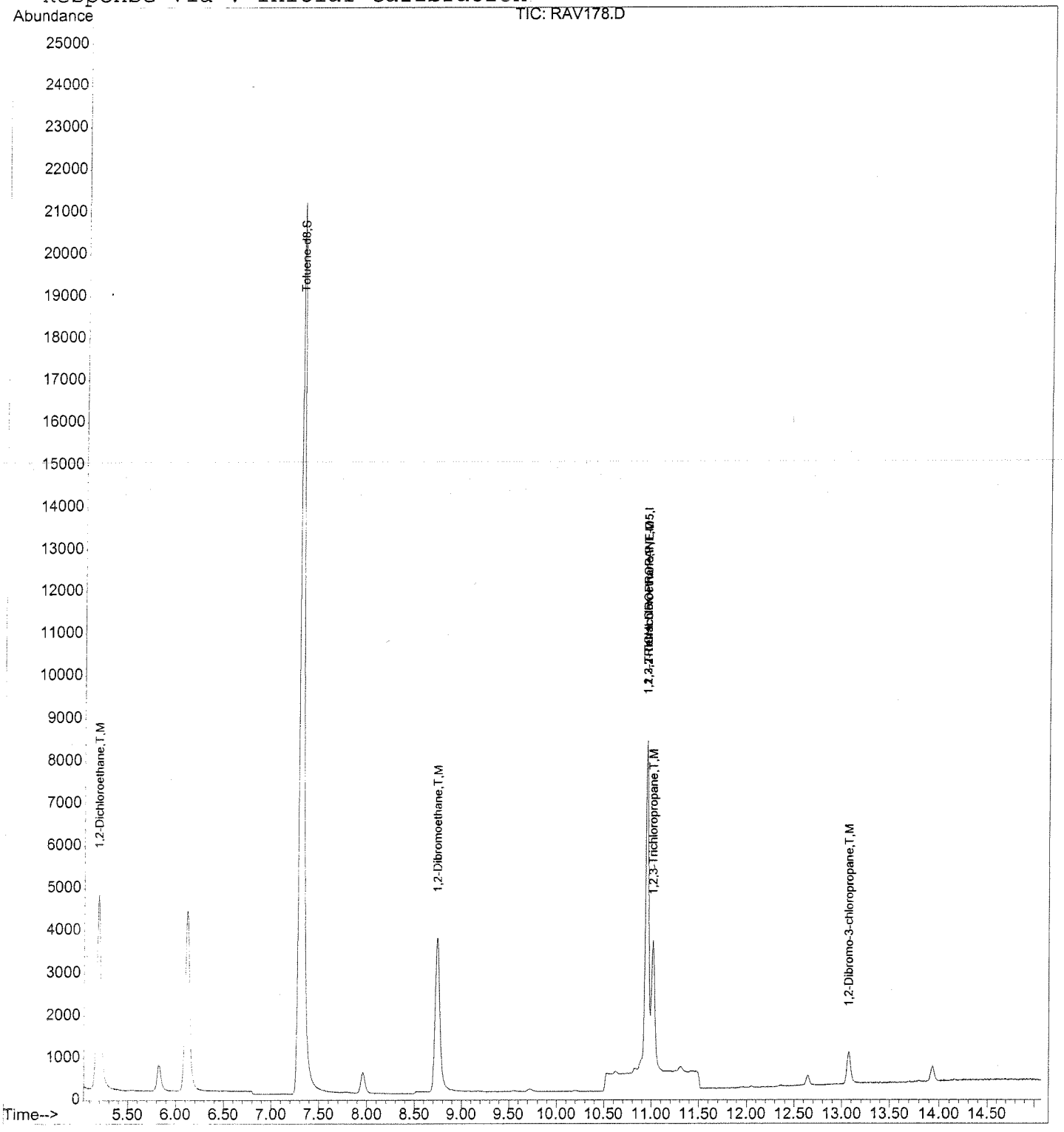
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SU 1/14/15

2158

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4682	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	89160	210.70	ng/l	0.00
Spiked Amount 100.000			Recovery = 210.70%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	23674	234.57	ng/l	98
4) 1,2-Dibromoethane	8.74	107	14703	230.75	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	16894	232.10	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	11277	225.52	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.07	157	1876	212.57	ng/l	94

SM 1/14/15

(#) = qualifier out of range (m) = manual integration

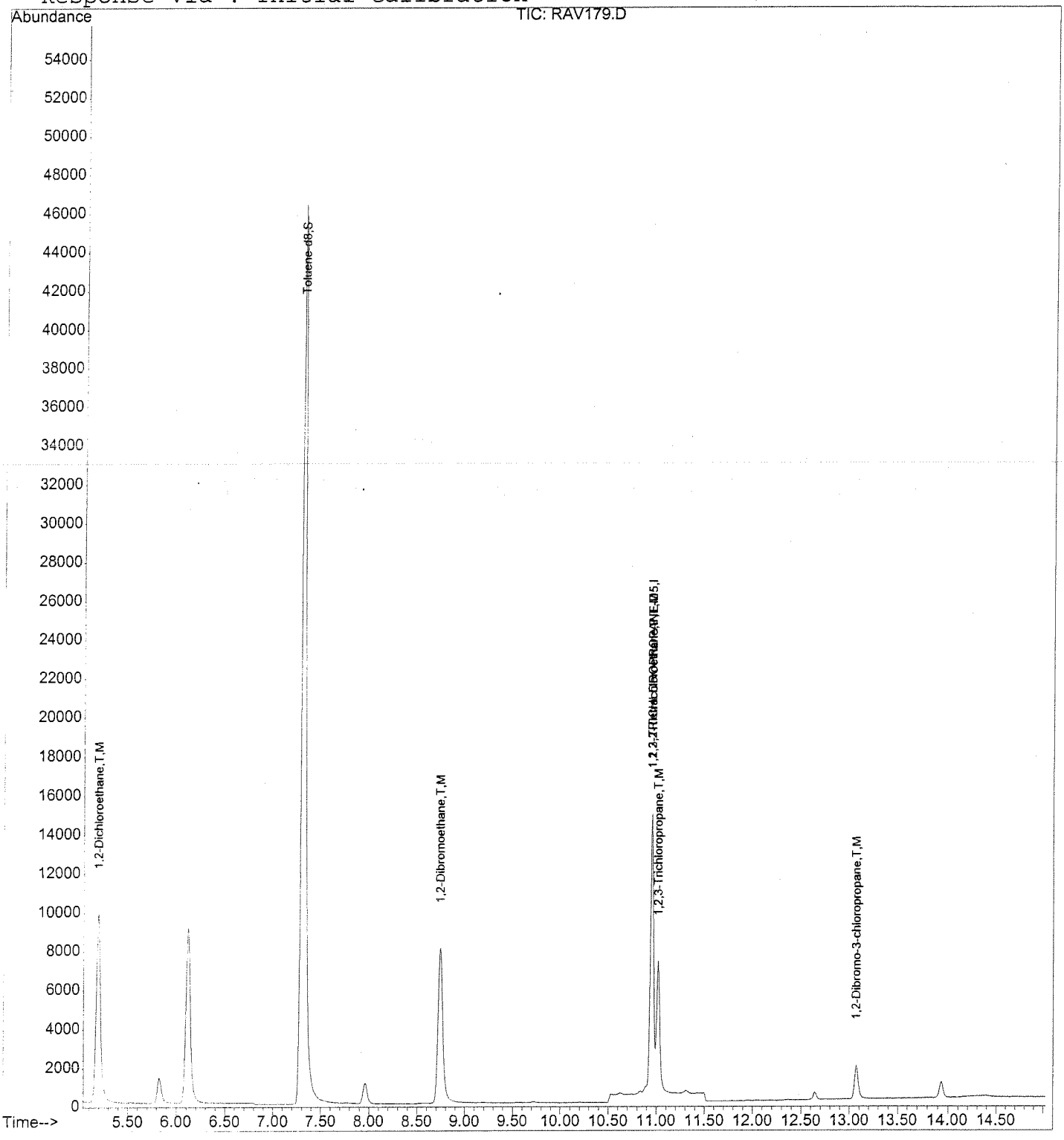
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SR 1/14/15

2160

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5436	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	173683	353.51	ng/l	0.00
Spiked Amount 100.000			Recovery = 353.51%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	45662	389.68	ng/l	98
4) 1,2-Dibromoethane	8.74	107	28798	389.27	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	33274	393.74	ng/l	100
6) 1,2,3-Trichloropropane	11.01	75	21958	378.21	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	3732	364.21	ng/l	91

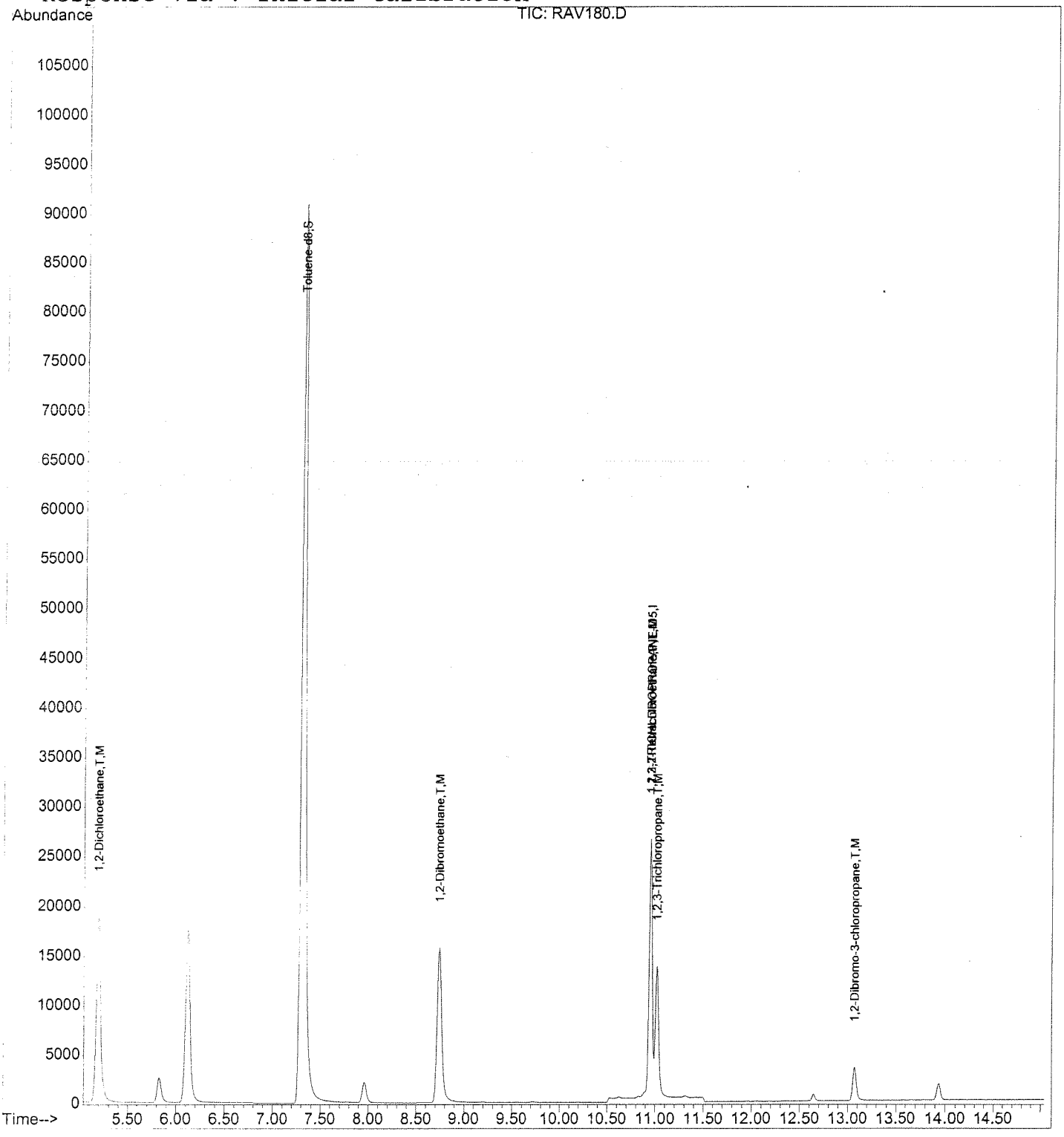
SA 1/14/15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D Vial: 8
Acq On : 13 Jan 2015 12:51 pm Operator: DNguye
Sample : VO01A137 Inst : TO01
Misc : 400ppt Multiplr: 1.00
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015 Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SV 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5252	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	458513	965.93	ng/l	0.00
Spiked Amount 100.000			Recovery =	965.93%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	115670	1021.70	ng/l	99
4) 1,2-Dibromoethane	8.74	107	74830	1046.93	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	88254	1080.91	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	58654	1045.67	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	10326	1043.03	ng/l	91

Su 1114115

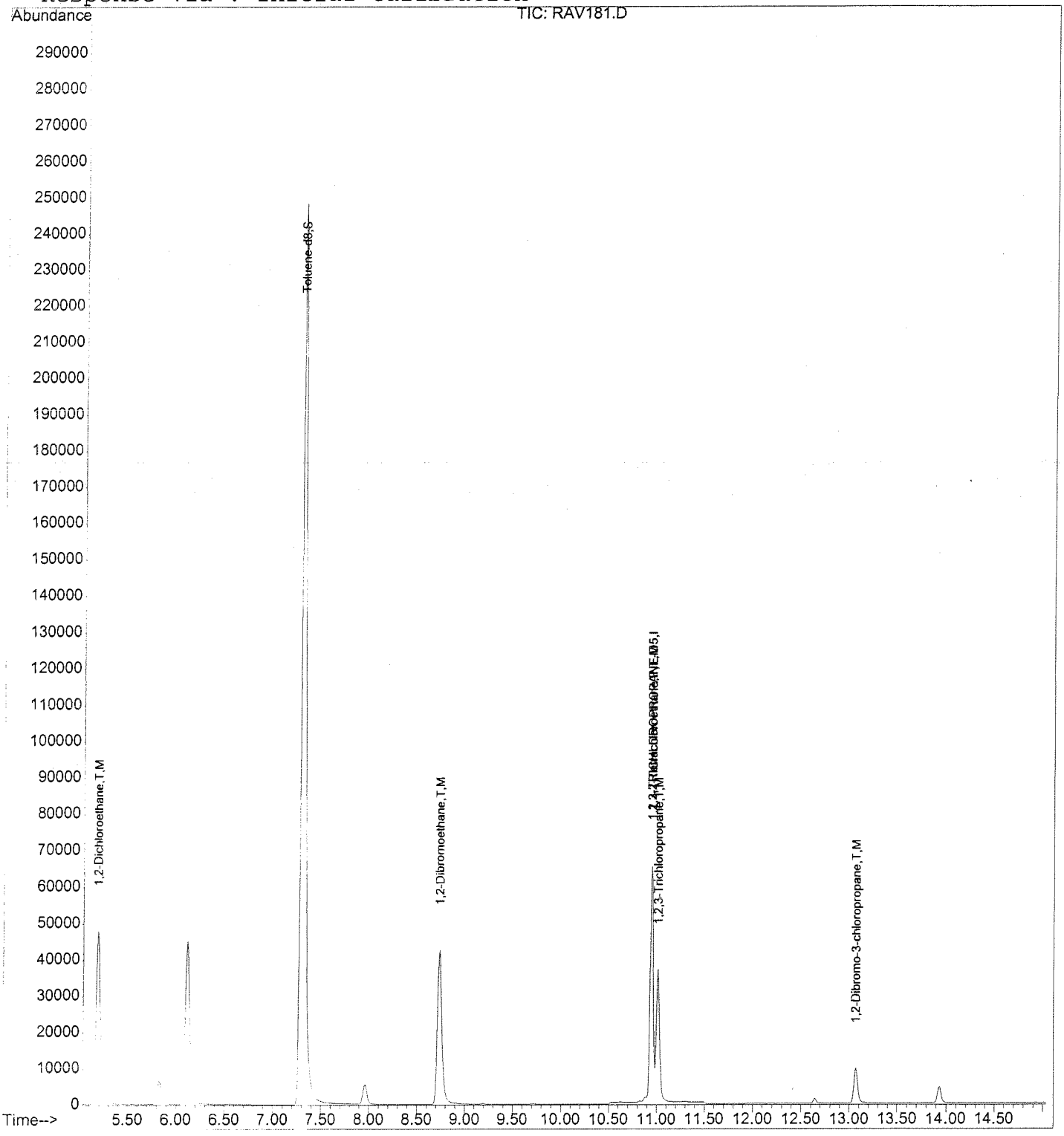
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5393	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	910939	1868.86	ng/l	0.00
Spiked Amount 100.000			Recovery = 1868.86%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	226521	1948.53	ng/l	99
4) 1,2-Dibromoethane	8.73	107	150027	2044.12	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	179068	2135.83	ng/l	98
6) 1,2,3-Trichloropropane	11.01	75	119133	2068.35	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	22087	2172.69	ng/l	90

SV 1/14/15

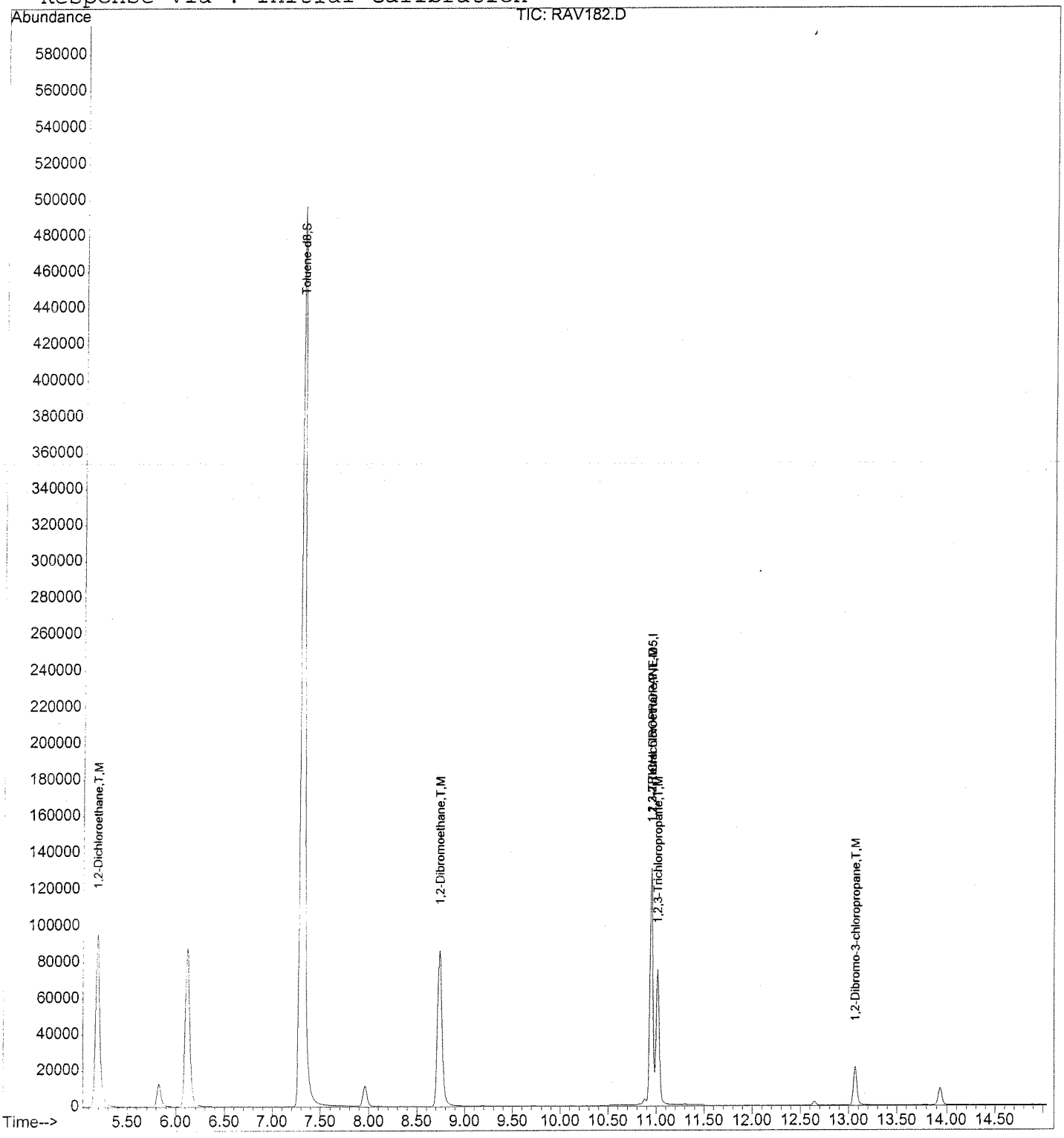
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : TO01
Multiplr: 1.00
Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



1/14/15