Appendix B

Category B Laboratory Deliverable

New Jersey
ACCUTEST LABORATORIES

03/10/15

Technical Report for

ERM, Inc.

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

0271614.02

Accutest Job Number: JB88934A

Sampling Date: 02/26/15

Report to:

ERM, Inc.
105 Maxess Road Suite 316
Melville, NY 11747-3851
greg.shkuda@erm.com; andrew.coenen@erm.com;
brice.lynch@erm.com; eugene.gabay@erm.com
ATTN: Eugene Gabay

Total number of pages in report: **153**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

Sections: 1 2 3 4 5 6 7

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Sample Summary

ERM, Inc.

Job No: JB88934A

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB88934-2	02/26/15	11:45	BL	02/26/15	AQ	Field Blank Water	FB022615
JB88934-3	02/26/15	14:25	BL	02/26/15	AQ	Trip Blank Water	TB022615

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JB88934A
Site:	Northrop Grumman, Containment System, (Hydraulic Effectiveness)	**Report Date**	3/10/2015 11:37:01 A

On 02/26/2015, 0 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a temperature of #1: (3.2/2.9) C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB88934A was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V2B5765

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88910-1MS, JB88910-1MSD were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB88934A
Account: ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Collected: 02/26/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB88934-2	**FB022615**					
Acetone		3.4 J	10	2.7	ug/l	SW846 8260C
o-Xylene		0.32 J	1.0	0.20	ug/l	SW846 8260C
Xylene (total)		0.32 J	1.0	0.20	ug/l	SW846 8260C
JB88934-3	**TB022615**					

No hits reported in this sample.

New Jersey ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID: FB022615
Lab Sample ID: JB88934-2 **Date Sampled:** 02/26/15
Matrix: AQ - Field Blank Water **Date Received:** 02/26/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127890.D	1	02/27/15	BK	n/a	n/a	V2B5765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	3.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022615		
Lab Sample ID:	JB88934-2	**Date Sampled:**	02/26/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.32	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.32	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB022615
Lab Sample ID: JB88934-3 **Date Sampled:** 02/26/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/26/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127893.D	1	02/27/15	BK	n/a	n/a	V2B5765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
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Report of Analysis

Client Sample ID:	TB022615		
Lab Sample ID:	JB88934-3	**Date Sampled:**	02/26/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	85%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

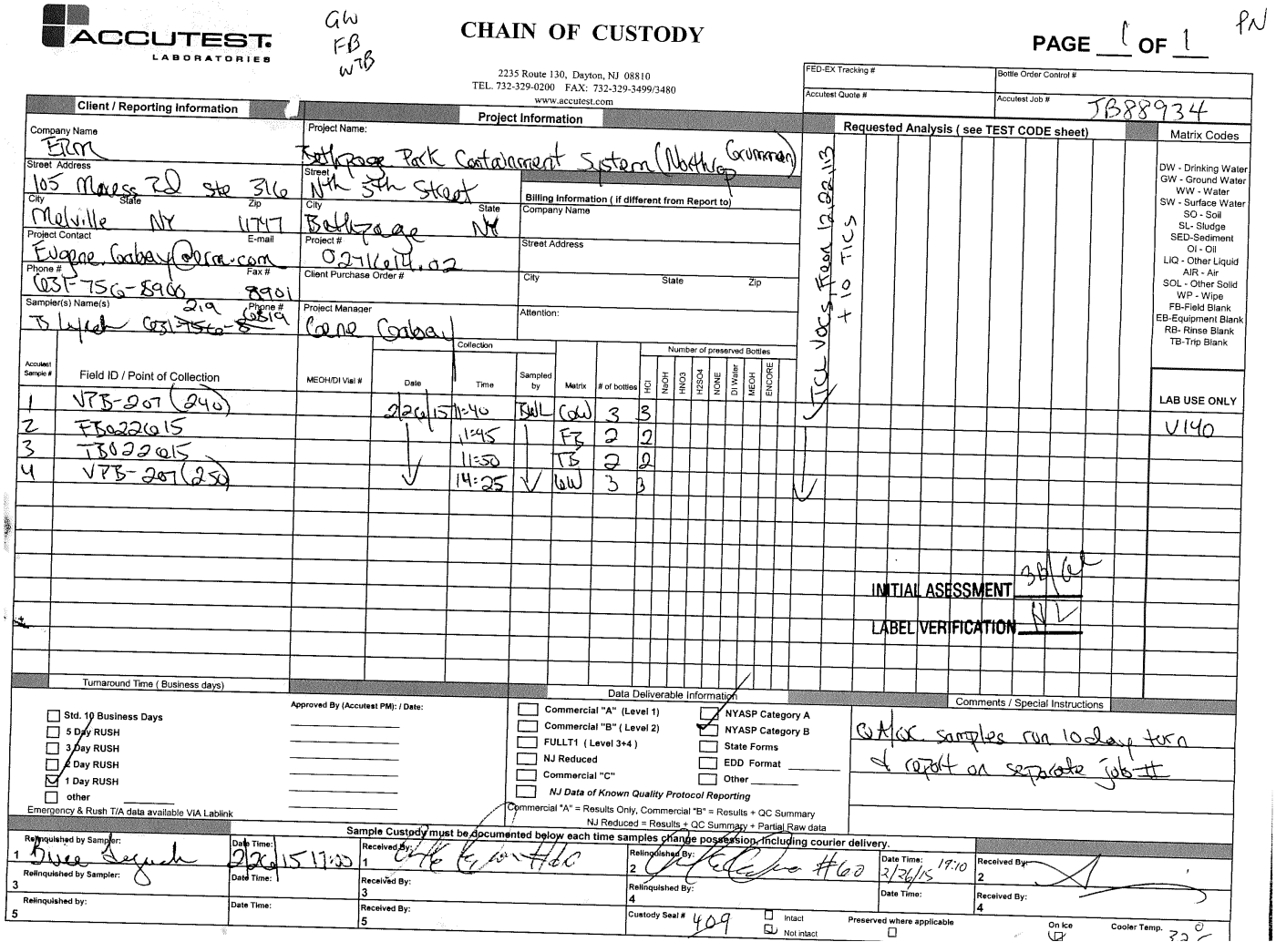
New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



ACCUTEST LABORATORIES

GW
FB
WTB

CHAIN OF CUSTODY

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PN

2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #

Bottle Order Control #

Accutest Quote #

Accutest Job # JB88934

Client / Reporting Information

Company Name: Erm
Street Address: 105 Maxess Rd ste 316
City: Melville State: NY Zip: 11747
Project Contact: Eugene.Gaba@erm.com E-mail:
Phone #: 631-756-8900 Fax #: 8901
Sampler(s) Name(s): B Lynch 631-756-8 Phone #: 8819

Project Information

Project Name: Bethpage Park Containment System (Northrop Grumman)
Street: NK 3th Street
City: Bethpage State: NY
Project #: 0271614.02
Client Purchase Order #:
Project Manager: Gene Gaba

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

VOCs, Freon 12, 22, 113 + 10 TICs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE
1	VPB-207 (240)		2/26/15	11:40	BWL	GW	3	3							
2	FB022615			1:45		FB	2	2							
3	TB022615			11:50		TB	2	2							
4	VPB-207 (250)			14:25	V	GW	3	3							

LAB USE ONLY: V140

INITIAL ASESSMENT 3/6/15

LABEL VERIFICATION NV

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [x] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

GW/QC samples run 10 day turn
& report on separate job #

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Brian Lynch	2/26/15 17:30	1 Cathe Ewen #60	2 Cathe Ewen #60	2/26/15 19:10	2
3	Relinquished by Sampler:	Date Time:	3 Received By:	4 Relinquished By:	Date Time:	4 Received By:
5	Relinquished by:	Date Time:	5 Received By:	Custody Seal # 409 [ ] Intact [x] Not intact	Preserved where applicable [ ]	On Ice [x] Cooler Temp. 3.2

5.1
5

JB88934A: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB88934 **Client:** ERM **Project:** Bethpage Park Containment System

Date / Time Received: 2/26/2015 7:10:00 PM **Delivery Method:** Other Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (3.2/2.9); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No, Coolers	1		

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments -1 & -4 3 of 3 voc's rec'd with 80-90% sediment/slurry.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB88934A: Chain of Custody
Page 2 of 3

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB88934 **Initiator:** ANDREWS

CSR: Tammy McCloskey/ Sash **Response Date:** 2/27/2015

Response: JB88934-1 and -4 please centrifuge prior to analysis per prior instructions from Gene Gabay

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB88934A: Chain of Custody
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Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JB88934A

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB88934-2 FB022615	Collected: 26-FEB-15 11:45 By: BL		Received: 26-FEB-15 By: AS			
JB88934-2	SW846 8260C	27-FEB-15 14:31	BK			VC8260TCL20+ 20
JB88934-3 TB022615	Collected: 26-FEB-15 14:25 By: BL		Received: 26-FEB-15 By: AS			
JB88934-3	SW846 8260C	27-FEB-15 15:56	BK			VC8260TCL20+ 20

Accutest Internal Chain of Custody

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Received: 02/26/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB88934-2.1	Secured Storage	Nicole Horvath	02/27/15 12:39	Retrieve from Storage
JB88934-2.1	Nicole Horvath	GCMS2B	02/27/15 12:39	Load on Instrument
JB88934-2.1	GCMS2B	Bridget Kelly	03/02/15 09:29	Unload from Instrument
JB88934-2.1	Bridget Kelly	Secured Storage	03/02/15 09:29	Return to Storage
JB88934-3.1	Secured Storage	Nicole Horvath	02/27/15 12:39	Retrieve from Storage
JB88934-3.1	Nicole Horvath	GCMS2B	02/27/15 12:39	Load on Instrument
JB88934-3.1	GCMS2B	Bridget Kelly	03/02/15 09:29	Unload from Instrument
JB88934-3.1	Bridget Kelly	Secured Storage	03/02/15 09:29	Return to Storage

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5765-MB	2B127885.D	1	02/27/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88934-2, JB88934-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5765-MB	2B127885.D	1	02/27/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88934-2, JB88934-3

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	76-120%
17060-07-0	1,2-Dichloroethane-D4	84%	73-122%
2037-26-5	Toluene-D8	94%	84-119%
460-00-4	4-Bromofluorobenzene	92%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5765-MB2	2B127904.D	1	02/28/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88910-1MS, JB88910-1MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5765-MB2	2B127904.D	1	02/28/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88910-1MS, JB88910-1MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	76-120%
17060-07-0	1,2-Dichloroethane-D4	81%	73-122%
2037-26-5	Toluene-D8	95%	84-119%
460-00-4	4-Bromofluorobenzene	91%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5765-BS	2B127886.D	1	02/27/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88934-2, JB88934-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	47.7	95	47-144
71-43-2	Benzene	50	54.9	110	81-119
74-97-5	Bromochloromethane	50	56.7	113	84-120
75-27-4	Bromodichloromethane	50	49.5	99	81-125
75-25-2	Bromoform	50	50.6	101	74-128
74-83-9	Bromomethane	50	53.1	106	52-146
78-93-3	2-Butanone (MEK)	50	56.9	114	68-130
75-15-0	Carbon disulfide	50	59.0	118	71-129
56-23-5	Carbon tetrachloride	50	45.9	92	77-140
108-90-7	Chlorobenzene	50	53.8	108	84-116
75-45-6	Chlorodifluoromethane	50	63.7	127	44-147
75-00-3	Chloroethane	50	67.8	136	70-148
67-66-3	Chloroform	50	52.3	105	81-120
74-87-3	Chloromethane	50	61.0	122	50-143
110-82-7	Cyclohexane	50	58.5	117	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	51.3	103	66-132
124-48-1	Dibromochloromethane	50	50.0	100	81-122
106-93-4	1,2-Dibromoethane	50	53.6	107	81-120
95-50-1	1,2-Dichlorobenzene	50	53.9	108	80-117
541-73-1	1,3-Dichlorobenzene	50	52.4	105	81-116
106-46-7	1,4-Dichlorobenzene	50	51.9	104	80-115
75-71-8	Dichlorodifluoromethane	50	47.3	95	36-169
75-34-3	1,1-Dichloroethane	50	58.5	117	80-125
107-06-2	1,2-Dichloroethane	50	44.5	89	78-131
75-35-4	1,1-Dichloroethene	50	58.2	116	73-127
156-59-2	cis-1,2-Dichloroethene	50	55.7	111	77-118
156-60-5	trans-1,2-Dichloroethene	50	53.8	108	75-118
78-87-5	1,2-Dichloropropane	50	55.9	112	80-124
10061-01-5	cis-1,3-Dichloropropene	50	55.2	110	72-121
10061-02-6	trans-1,3-Dichloropropene	50	50.3	101	73-122
100-41-4	Ethylbenzene	50	50.8	102	80-118
76-13-1	Freon 113	50	57.5	115	76-140
591-78-6	2-Hexanone	50	56.8	114	66-128
98-82-8	Isopropylbenzene	50	54.9	110	78-125
79-20-9	Methyl Acetate	50	52.2	104	63-120
108-87-2	Methylcyclohexane	50	53.1	106	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5765-BS	2B127886.D	1	02/27/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88934-2, JB88934-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	101	101	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	55.3	111	73-129
75-09-2	Methylene chloride	50	56.5	113	75-122
100-42-5	Styrene	50	56.1	112	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	55.8	112	69-116
127-18-4	Tetrachloroethene	50	50.4	101	69-138
108-88-3	Toluene	50	53.3	107	80-122
87-61-6	1,2,3-Trichlorobenzene	50	55.3	111	74-137
120-82-1	1,2,4-Trichlorobenzene	50	55.4	111	75-135
71-55-6	1,1,1-Trichloroethane	50	50.7	101	80-131
79-00-5	1,1,2-Trichloroethane	50	53.0	106	78-122
79-01-6	Trichloroethene	50	53.5	107	83-122
75-69-4	Trichlorofluoromethane	50	49.9	100	66-143
75-01-4	Vinyl chloride	50	58.5	117	57-138
	m,p-Xylene	100	108	108	82-119
95-47-6	o-Xylene	50	53.0	106	82-119
1330-20-7	Xylene (total)	150	161	107	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	76-120%
17060-07-0	1,2-Dichloroethane-D4	83%	73-122%
2037-26-5	Toluene-D8	95%	84-119%
460-00-4	4-Bromofluorobenzene	93%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88910-1MS	2B127905.D	1	02/28/15	BK	n/a	n/a	V2B5765
JB88910-1MSD	2B127906.D	1	02/28/15	BK	n/a	n/a	V2B5765
JB88910-1	2B127894.D	1	02/27/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88934-2, JB88934-3

CAS No.	Compound	JB88910-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	48.0	96	50	46.7	93	3	33-158/19
71-43-2	Benzene	ND		50	43.6	87	50	44.6	89	2	43-138/12
74-97-5	Bromochloromethane	ND		50	48.8	98	50	49.1	98	1	75-127/12
75-27-4	Bromodichloromethane	ND		50	43.5	87	50	44.1	88	1	72-128/13
75-25-2	Bromoform	ND		50	45.3	91	50	45.2	90	0	70-131/12
74-83-9	Bromomethane	ND		50	48.1	96	50	47.5	95	1	47-142/16
78-93-3	2-Butanone (MEK)	ND		50	51.3	103	50	48.6	97	5	56-146/12
75-15-0	Carbon disulfide	ND		50	37.9	76	50	38.3	77	1	38-136/17
56-23-5	Carbon tetrachloride	ND		50	25.0	50	50	25.4	51	2	45-149/17
108-90-7	Chlorobenzene	ND		50	45.3	91	50	46.2	92	2	70-124/12
75-45-6	Chlorodifluoromethane	ND		50	36.4	73	50	34.9	70	4	26-147/19
75-00-3	Chloroethane	ND		50	49.8	100	50	50.7	101	2	47-139/15
67-66-3	Chloroform	ND		50	42.2	84	50	42.4	85	0	66-126/13
74-87-3	Chloromethane	ND		50	52.4	105	50	51.6	103	2	41-140/15
110-82-7	Cyclohexane	ND		50	22.6	45	50	22.3	45	1	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	44.9	90	50	44.0	88	2	64-136/14
124-48-1	Dibromochloromethane	ND		50	45.1	90	50	45.4	91	1	75-126/12
106-93-4	1,2-Dibromoethane	ND		50	48.2	96	50	48.2	96	0	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		50	46.9	94	50	47.6	95	1	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		50	44.8	90	50	45.6	91	2	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		50	44.0	88	50	44.7	89	2	69-122/12
75-71-8	Dichlorodifluoromethane	ND		50	19.5	39	50	18.1	36	7	24-161/20
75-34-3	1,1-Dichloroethane	ND		50	45.5	91	50	46.2	92	2	60-129/13
107-06-2	1,2-Dichloroethane	ND		50	39.1	78	50	39.5	79	1	72-133/12
75-35-4	1,1-Dichloroethene	ND		50	32.4	65	50	32.7	65	1	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		50	46.1	92	50	46.1	92	0	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		50	40.0	80	50	40.3	81	1	53-128/15
78-87-5	1,2-Dichloropropane	ND		50	50.8	102	50	51.2	102	1	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		50	47.0	94	50	47.0	94	0	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		50	43.0	86	50	43.6	87	1	68-130/14
100-41-4	Ethylbenzene	ND		50	40.0	80	50	40.3	81	1	38-139/12
76-13-1	Freon 113	ND		50	21.5	43	50	20.6	41	4	34-154/18
591-78-6	2-Hexanone	ND		50	53.0	106	50	52.3	105	1	55-148/15
98-82-8	Isopropylbenzene	ND		50	40.3	81	50	40.6	81	1	54-137/15
79-20-9	Methyl Acetate	ND		50	47.2	94	50	46.3	93	2	60-137/13
108-87-2	Methylcyclohexane	ND		50	21.8	44	50	21.9	44	0	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88910-1MS	2B127905.D	1	02/28/15	BK	n/a	n/a	V2B5765
JB88910-1MSD	2B127906.D	1	02/28/15	BK	n/a	n/a	V2B5765
JB88910-1	2B127894.D	1	02/27/15	BK	n/a	n/a	V2B5765

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB88934-2, JB88934-3

CAS No.	Compound	JB88910-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		50	47.3	95	50	47.1	94	0	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		50	52.6	105	50	52.2	104	1	68-139/12
75-09-2	Methylene chloride	ND		50	49.1	98	50	49.5	99	1	63-128/13
100-42-5	Styrene	ND		50	47.5	95	50	48.3	97	2	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	52.8	106	50	52.6	105	0	67-126/13
127-18-4	Tetrachloroethene	ND		50	31.9	64	50	32.4	65	2	43-145/15
108-88-3	Toluene	ND		50	42.8	86	50	43.3	87	1	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		50	47.1	94	50	47.7	95	1	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		50	45.8	92	50	46.5	93	2	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		50	32.7	65	50	32.7	65	0	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		50	47.9	96	50	48.1	96	0	71-127/12
79-01-6	Trichloroethene	ND		50	39.3	79	50	39.9	80	2	55-136/14
75-69-4	Trichlorofluoromethane	ND		50	24.1	48	50	23.4	47	3	33-157/21
75-01-4	Vinyl chloride	ND		50	39.0	78	50	39.0	78	0	34-147/17
	m,p-Xylene	ND		100	84.6	85	100	85.3	85	1	42-139/13
95-47-6	o-Xylene	ND		50	44.4	89	50	44.5	89	0	56-134/13
1330-20-7	Xylene (total)	ND		150	129	86	150	130	87	1	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JB88910-1	Limits
1868-53-7	Dibromofluoromethane	93%	91%	92%	76-120%
17060-07-0	1,2-Dichloroethane-D4	83%	81%	85%	73-122%
2037-26-5	Toluene-D8	95%	97%	94%	84-119%
460-00-4	4-Bromofluorobenzene	93%	93%	91%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V2B5744-BFB
Lab File ID: 2B127389.D
Instrument ID: GCMS2B
Injection Date: 02/05/15
Injection Time: 15:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17802	17.9		Pass
75	30.0 - 60.0% of mass 95	48517	48.9		Pass
95	Base peak, 100% relative abundance	99285	100.0		Pass
96	5.0 - 9.0% of mass 95	6558	6.61		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	109778	110.6		Pass
175	5.0 - 9.0% of mass 174	8374	8.43	(7.63) [a]	Pass
176	95.0 - 101.0% of mass 174	109376	110.2	(99.6) [a]	Pass
177	5.0 - 9.0% of mass 176	7201	7.25	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5744-IC5744	2B127390.D	02/05/15	16:12	00:35	Initial cal 0.2
V2B5744-IC5744	2B127391.D	02/05/15	16:44	01:07	Initial cal 0.5
V2B5744-IC5744	2B127392.D	02/05/15	17:13	01:36	Initial cal 1
V2B5744-IC5744	2B127393.D	02/05/15	17:42	02:05	Initial cal 2
V2B5744-IC5744	2B127394.D	02/05/15	18:10	02:33	Initial cal 5
V2B5744-IC5744	2B127395.D	02/05/15	18:39	03:02	Initial cal 10
V2B5744-IC5744	2B127396.D	02/05/15	19:07	03:30	Initial cal 20
V2B5744-ICC5744	2B127397.D	02/05/15	19:36	03:59	Initial cal 50
V2B5744-IC5744	2B127398.D	02/05/15	20:04	04:27	Initial cal 100
V2B5744-IC5744	2B127399.D	02/05/15	20:32	04:55	Initial cal 200
V2B5744-ICV5744	2B127402.D	02/05/15	21:58	06:21	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V2B5765-BFB
Lab File ID: 2B127881.D
Instrument ID: GCMS2B
Injection Date: 02/27/15
Injection Time: 09:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	22072	15.9		Pass
75	30.0 - 60.0% of mass 95	61877	44.5		Pass
95	Base peak, 100% relative abundance	139192	100.0		Pass
96	5.0 - 9.0% of mass 95	9040	6.49		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	150634	108.2		Pass
175	5.0 - 9.0% of mass 174	11638	8.36	(7.73) [a]	Pass
176	95.0 - 101.0% of mass 174	149354	107.3	(99.2) [a]	Pass
177	5.0 - 9.0% of mass 176	9288	6.67	(6.22) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5765-CC5744	2B127883.D	02/27/15	10:43	01:13	Continuing cal 20
V2B5765-MB	2B127885.D	02/27/15	11:52	02:22	Method Blank
V2B5765-BS	2B127886.D	02/27/15	12:37	03:07	Blank Spike
JB88934-2	2B127890.D	02/27/15	14:31	05:01	FB022615
ZZZZZZ	2B127891.D	02/27/15	14:59	05:29	(unrelated sample)
ZZZZZZ	2B127892.D	02/27/15	15:27	05:57	(unrelated sample)
JB88934-3	2B127893.D	02/27/15	15:56	06:26	TB022615
JB88910-1	2B127894.D	02/27/15	16:25	06:55	(used for QC only; not part of job JB88934A)
ZZZZZZ	2B127897.D	02/27/15	17:51	08:21	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V2B5765-BFB
Lab File ID: 2B127901.D
Instrument ID: GCMS2B
Injection Date: 02/28/15
Injection Time: 10:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15999	15.2		Pass
75	30.0 - 60.0% of mass 95	45891	43.6		Pass
95	Base peak, 100% relative abundance	105286	100.0		Pass
96	5.0 - 9.0% of mass 95	6874	6.53		Pass
173	Less than 2.0% of mass 174	429	0.41	(0.38) [a]	Pass
174	50.0 - 120.0% of mass 95	113260	107.6		Pass
175	5.0 - 9.0% of mass 174	8460	8.04	(7.47) [a]	Pass
176	95.0 - 101.0% of mass 174	110355	104.8	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	7502	7.13	(6.80) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5765-CC5744	2B127902.D	02/28/15	11:05	00:28	Continuing cal 50
V2B5765-MB2	2B127904.D	02/28/15	12:15	01:38	Method Blank
JB88910-1MS	2B127905.D	02/28/15	12:54	02:17	Matrix Spike
JB88910-1MSD	2B127906.D	02/28/15	13:23	02:46	Matrix Spike Duplicate

Volatile Internal Standard Area Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Check Std:	V2B5765-CC5744	**Injection Date:**	02/27/15
Lab File ID:	2B127883.D	**Injection Time:**	10:43
Instrument ID:	GCMS2B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	179300	8.37	606675	10.82	658527	11.73	552358	14.71	287416	16.87
Upper Limit [a]	358600	8.87	1213350	11.32	1317054	12.23	1104716	15.21	574832	17.37
Lower Limit [b]	89650	7.87	303338	10.32	329264	11.23	276179	14.21	143708	16.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2B5765-MB	178920	8.36	624877	10.81	662203	11.73	557855	14.71	286612	16.87
V2B5765-BS	172070	8.36	571375	10.81	626948	11.72	526858	14.71	279292	16.87
JB88934-2	165382	8.37	603491	10.82	640316	11.73	538250	14.71	277922	16.87
ZZZZZZ	162411	8.36	589413	10.82	627072	11.73	523324	14.71	272571	16.87
ZZZZZZ	163603	8.36	584065	10.82	619406	11.73	523489	14.71	270576	16.87
JB88934-3	158886	8.36	586621	10.82	623335	11.73	519516	14.71	269845	16.87
JB88910-1	155092	8.36	582178	10.82	618441	11.73	515225	14.71	266841	16.87
ZZZZZZ	168473	8.36	618396	10.82	655225	11.73	565884	14.71	291891	16.87

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Check Std:	V2B5765-CC5744	**Injection Date:**	02/28/15
Lab File ID:	2B127902.D	**Injection Time:**	11:05
Instrument ID:	GCMS2B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	148105	8.37	514993	10.82	567875	11.73	476034	14.71	250284	16.87
Upper Limit [a]	296210	8.87	1029986	11.32	1135750	12.23	952068	15.21	500568	17.37
Lower Limit [b]	74053	7.87	257497	10.32	283938	11.23	238017	14.21	125142	16.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2B5765-MB2	150715	8.36	548998	10.82	581680	11.73	486519	14.71	252010	16.87
JB88910-1MS	144389	8.37	499527	10.82	546292	11.73	458569	14.71	241150	16.87
JB88910-1MSD	139495	8.37	505812	10.82	546272	11.73	459535	14.71	241740	16.87

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: JB88934A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB88934-2	2B127890.D	91	84	94	91
JB88934-3	2B127893.D	92	85	93	91
JB88910-1MS	2B127905.D	93	83	95	93
JB88910-1MSD	2B127906.D	91	81	97	93
V2B5765-BS	2B127886.D	93	83	95	93
V2B5765-MB	2B127885.D	92	84	94	92
V2B5765-MB2	2B127904.D	91	81	95	91

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JB88934A **Sample:** V2B5744-ICC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127397.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Response Factor Report MS2B

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:47:32 2015
Response via : Initial Calibration

Calibration Files
1 =2B127392.D 2 =2B127393.D 100 =2B127398.D 50 =2B127397.D
20 =2B127396.D 200 =2B127399.D 5 =2B127394.D 10 =2B127395.D
0.5 =2B127391.D 0.2 =2B127390.D = =

Compound	1	2	100	50	20	200	5	10	0.5	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol	0.925	0.947	1.086	1.054	0.997	1.111	1.072	1.050			1.030	6.50
3) ethanol	0.102	0.114	0.113	0.117	0.115	0.107	0.115	0.112			0.112	4.59
4) 1,4-dioxane	0.077	0.109	0.102	0.095	0.112	0.091	0.090				0.097	12.66
5) I pentafluorobenzene ----------ISTD----------												
6) freon 143a											0.000#	-1.00
7) freon 142b											0.000#	-1.00
8) freon 141b											0.000#	-1.00
9) chlorodifluoromethane	0.347	0.307	0.416	0.388	0.395	0.398	0.330	0.315			0.362	11.63
10) dichlorodifluoromethane	0.346	0.515	0.492	0.517	0.448	0.394	0.419				0.447	14.50
11) chlorotrifluoroethene											0.000#	-1.00
12) chloromethane	0.445	0.379	0.496	0.493	0.502	0.460	0.434	0.449	0.456		0.457	8.38
13) vinyl chloride	0.421	0.353	0.461	0.446	0.453	0.423	0.392	0.400	0.405		0.417	8.15
14) 1,3-Butadiene											0.000#	-1.00
15) bromomethane	0.314	0.275	0.299	0.304	0.319	0.279	0.291	0.304	0.379		0.307	9.93
16) chloroethane	0.192	0.158	0.205	0.205	0.213	0.202	0.180	0.201			0.195	9.17
17) vinyl bromide											0.000#	-1.00
18) trichlorofluoromethane	0.449	0.400	0.592	0.577	0.612	0.559	0.512	0.533			0.529	13.79
19) Pentane											0.000#	-1.00
20) ethyl ether	0.174	0.159	0.171	0.164	0.160	0.184	0.141	0.166			0.165	7.66
21) acrolein	0.056	0.054		0.050	0.053		0.048	0.049			0.051	6.23
22) 2-chloropropane	0.630	0.570	0.550	0.526	0.536	0.569	0.509	0.523	0.449		0.540	9.23
23) 1,2-dichloro-1,2,2-trifluoroet												

											0.000#	-1.00
24)	1,1-dichloroethene											
	0.385	0.312	0.301	0.282	0.300	0.308	0.287	0.287	0.268		0.304	11.09
25)	acetone											
		0.087	0.092	0.098	0.085	0.093	0.100				0.093	6.45
26)	allyl chloride											
	0.175	0.159	0.171	0.164	0.162	0.186	0.149	0.146	0.112		0.158	13.48
27)	acetonitrile											
		0.017	0.017	0.019	0.018	0.017	0.018				0.018	3.59
28)	iodomethane											
	0.729	0.669	0.670	0.641	0.642	0.701	0.601	0.625	0.528		0.645	9.07
29)	iso-butyl alcohol											
		0.004	0.003	0.004	0.004	0.003	0.004				0.004#	9.75
30)	carbon disulfide											
	1.100	1.010	1.006	0.946	0.966	1.047	0.898	0.926	0.958		0.984	6.40
31)	methylene chloride											
	0.420	0.341	0.335	0.319	0.326	0.353	0.311	0.317	0.311		0.337	10.19
32)	methyl acetate											
		0.051	0.050	0.049	0.056	0.046	0.048				0.050	6.95
33)	1-chloropropane											
	0.716	0.614	0.555	0.529	0.538	0.577	0.512	0.535	0.617		0.577	11.04
34)	methyl tert butyl ether											
	1.120	0.999	0.975	0.952	0.949	0.999	0.893	0.943	0.840		0.963	8.05
35)	trans-1,2-dichloroethene											
	0.373	0.350	0.315	0.301	0.309	0.328	0.311	0.309	0.300		0.322	7.65
36)	di-isopropyl ether											
	0.952	0.854	0.959	0.953	0.953	1.025	0.886	0.897	0.784		0.918	7.74
37)	2-butanone											
		0.036	0.033	0.032	0.038	0.028	0.030				0.033	12.17
38)	1,1-dichloroethane											
	0.655	0.595	0.580	0.555	0.553	0.605	0.517	0.534	0.480		0.564	9.19
39)	chloroprene											
	0.383	0.376	0.443	0.423	0.433	0.466	0.400	0.373	0.299		0.400	12.42
40)	acrylonitrile											
	0.117	0.110	0.118	0.113	0.111	0.126	0.102	0.108	0.074		0.109	13.54
41)	vinyl acetate											
		0.052	0.051	0.047	0.057		0.045				0.050	8.94
42)	ethyl tert-butyl ether											
	0.981	0.876	1.066	1.046	1.018	1.127	0.928	0.942	0.811		0.977	10.12
43)	ethyl acetate											
		0.037	0.038	0.035	0.040	0.032	0.033				0.036	9.11
44)	2,2-dichloropropane											
	0.594	0.519	0.482	0.463	0.484	0.464	0.443	0.468	0.420		0.482	10.43
45)	cis-1,2-dichloroethene											
	0.398	0.387	0.355	0.340	0.335	0.371	0.327	0.331	0.304		0.350	8.71
46)	propionitrile											
	0.042	0.040	0.042	0.040	0.040	0.043	0.037	0.040	0.031		0.039	8.85
47)	bromochloromethane											
	0.194	0.198	0.193	0.184	0.181	0.202	0.170	0.184	0.133		0.182	11.45
48)	tetrahydrofuran											
	0.094	0.082	0.083	0.080	0.080	0.088	0.078	0.075			0.083	7.41
49)	chloroform											
	0.652	0.617	0.592	0.566	0.569	0.600	0.545	0.572	0.580	0.568	0.586	5.23
50)	t-butyl formate											
	0.257	0.217	0.300	0.288	0.281	0.322	0.251	0.252	0.220		0.265	13.28
51)	dibromofluoromethane (s)											
	0.378	0.296	0.324	0.325	0.330	0.345	0.303	0.310			0.326	8.01
52)	1,2-dichloroethane-d4 (s)											
	0.394	0.355	0.385	0.396	0.398	0.392	0.358	0.375			0.381	4.51
53)	freon 113											

```
                0.261 0.246 0.258 0.262 0.228 0.209              0.244    8.86
54)  methacrylonitrile
      0.164 0.177 0.191 0.178 0.179 0.201 0.161 0.175 0.176      0.178    6.78
55)  1,1,1-trichloroethane
      0.559 0.519 0.553 0.515 0.515 0.551 0.450 0.482 0.455      0.511    8.00
56)  Cyclohexane
      0.434 0.448 0.444 0.407 0.425 0.458 0.384 0.382 0.373      0.417    7.59
57)  tert amyl alcohol
                                                                 0.000#  -1.00

58) I   1,4-difluorobenzene   ----------------ISTD---------------------
59)  tert amyl ethyl ether
                                                                 0.000#  -1.00
60)  Di-isobutylene
                                                                 0.000#  -1.00
61)  epichlorohydrin
      0.022 0.023 0.027 0.026 0.025 0.029 0.023 0.024            0.025    8.44
62)  n-butyl alcohol
           0.005 0.008 0.007 0.007 0.008 0.006 0.006             0.007#  13.82
63)  carbon tetrachloride
      0.595 0.551 0.502 0.481 0.490 0.475 0.458 0.484 0.416      0.495   10.49
64)  1,1-dichloropropene
      0.483 0.410 0.398 0.372 0.381 0.390 0.364 0.382 0.318      0.389   11.32
65)  hexane
      0.295 0.274 0.332 0.303 0.322 0.344 0.288 0.265 0.239      0.296   11.44
66)  benzene
      1.297 1.193 1.093 1.043 1.060 1.082 1.019 1.043 1.022 0.849  1.070   10.91
67)  2,2,4-trimethylpentane
      0.985 0.855 0.987 0.935 0.971 0.989 0.797 0.766 0.779      0.896   10.74
68)  tert-amyl methyl ether
      0.894 0.861 0.884 0.888 0.886 0.908 0.814 0.829 0.707      0.852    7.34
69)  heptane
      0.174 0.148 0.197 0.181 0.184 0.204 0.166 0.146 0.169      0.174   11.35
70)  isopropyl acetate
      0.474 0.459 0.515 0.498 0.484 0.534 0.459 0.477 0.360      0.474   10.40
71)  1,2-dichloroethane
      0.496 0.486 0.442 0.433 0.434 0.419 0.415 0.434 0.389      0.438    7.65
72)  trichloroethene
      0.313 0.308 0.318 0.293 0.297 0.316 0.275 0.286 0.250      0.295    7.55
73)  ethyl acrylate
                                                                 0.000#  -1.00
74)  2-nitropropane
                0.085 0.078 0.078 0.088       0.074              0.081    6.98
75)  2-chloroethyl vinyl ether
      0.150 0.147 0.170 0.168 0.167 0.173 0.146 0.152 0.126      0.156    9.88
76)  methyl methacrylate
      0.050 0.058 0.071 0.069 0.068 0.073 0.062 0.064            0.064   11.86
77)  1,2-dichloropropane
      0.291 0.286 0.287 0.270 0.272 0.289 0.251 0.267 0.226      0.271    7.82
78)  dibromomethane
      0.209 0.211 0.201 0.193 0.193 0.201 0.185 0.190 0.164      0.194    7.38
79)  methylcyclohexane
      0.428 0.344 0.464 0.441 0.452 0.465 0.399 0.361            0.419   11.11
80)  bromodichloromethane
      0.472 0.453 0.452 0.427 0.421 0.444 0.388 0.409 0.332      0.422   10.04
81)  cis-1,3-dichloropropene
      0.515 0.466 0.503 0.473 0.469 0.506 0.432 0.444 0.376      0.465    9.38
82)  toluene-d8 (s)
      0.989 0.929 1.019 1.030 1.068 1.013 0.919 0.942 1.153      1.007    7.39
83)  4-methyl-2-pentanone
```

```
            0.085 0.100 0.096 0.092 0.104 0.090 0.090              0.094    6.74
84)  toluene
      0.735 0.710 0.667 0.631 0.629 0.673 0.599 0.627 0.535        0.645    9.25
85)  3-methyl-1-butanol
      0.008 0.009 0.011 0.011 0.010 0.012 0.010 0.010              0.010#  13.48
86)  trans-1,3-dichloropropene
      0.505 0.465 0.479 0.458 0.449 0.480 0.410 0.428 0.372        0.449    9.01
87)  ethyl methacrylate
      0.291 0.291 0.341 0.330 0.318 0.346 0.280 0.299              0.312    8.09
88)  1,1,2-trichloroethane
      0.223 0.223 0.223 0.212 0.212 0.227 0.206 0.207 0.204        0.215    4.07
89)  2-hexanone
            0.073 0.087 0.081 0.080 0.089 0.069 0.071              0.079   10.04

90) I   chlorobenzene-d5      ----------------ISTD---------------------
91)  butyl ether
      1.214 1.179 1.383 1.250 1.206 1.459 1.053 1.135 0.944        1.202   12.97
92)  tetrachloroethene
      0.375 0.364 0.348 0.318 0.327 0.353 0.299 0.316 0.306        0.334    8.02
93)  1,3-dichloropropane
      0.503 0.474 0.518 0.482 0.473 0.544 0.461 0.463 0.406        0.480    8.17
94)  butyl acetate
      0.159 0.136 0.185 0.175 0.170 0.209 0.156 0.163              0.169   12.87
95)  3,3-dimethyl-1-butanol
            0.019 0.028 0.025 0.024 0.034 0.022 0.023              0.025   18.99
96)  dibromochloromethane
      0.443 0.405 0.469 0.433 0.426 0.493 0.391 0.415 0.377        0.428    8.58
97)  1,2-dibromoethane
      0.343 0.359 0.367 0.339 0.329 0.392 0.311 0.325 0.240        0.334   12.85
98)  chlorobenzene
      0.972 0.904 0.914 0.849 0.856 0.964 0.803 0.807 0.746 0.724  0.854    9.99
99)  1,1,1,2-tetrachloroethane
      0.424 0.377 0.415 0.386 0.380 0.430 0.355 0.363 0.284        0.379   11.69
100)  ethylbenzene
      1.601 1.482 1.459 1.366 1.404 1.503 1.327 1.358 1.288        1.421    6.94
101)  m,p-xylene
      0.608 0.547 0.574 0.524 0.531 0.618 0.490 0.516 0.461        0.541    9.58
102)  o-xylene
      0.638 0.591 0.614 0.569 0.559 0.657 0.502 0.529 0.501        0.573    9.86
103)  styrene
      0.848 0.898 0.998 0.925 0.922 1.054 0.772 0.855 0.677        0.883   12.82
104)  butyl acrylate
                                                                   0.000#  -1.00
105)  bromoform
      0.315 0.311 0.376 0.346 0.336 0.398 0.290 0.311 0.260        0.327   12.95

106) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
107)  isopropylbenzene
      2.868 2.863 2.814 2.681 2.707 2.754 2.440 2.573 2.267        2.663    7.63
108)  4-bromofluorobenzene (s)
      0.918 0.790 0.777 0.811 0.850 0.801 0.752 0.758              0.807    6.75

109)  cyclohexanone   cyclohexanone ***Compound failed in this calibration.
            0.032 0.027 0.026 0.025 0.026 0.026 0.024              0.027    9.86
110)  bromobenzene
      0.929 0.857 0.846 0.827 0.836 0.842 0.769 0.798 0.764 0.643  0.811    9.31
111)  1,1,2,2-tetrachloroethane
      0.773 0.742 0.724 0.702 0.693 0.733 0.659 0.671 0.621 0.587  0.691    8.28
112)  trans-1,4-dichloro-2-butene
      0.149 0.187 0.199 0.183 0.186 0.194 0.168 0.175              0.180    8.77
```

Initial Calibration Summary

Job Number: JB88934A **Sample:** V2B5744-ICC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127397.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

```
113)  1,2,3-trichloropropane
       0.185 0.189 0.200 0.199 0.195 0.197 0.186 0.195 0.143        0.188    9.39
114)  n-propylbenzene
       3.065 3.285 2.884 2.805 2.909 2.842 2.690 2.770 2.447        2.855    8.18
115)  2-chlorotoluene
       0.793 0.713 0.714 0.672 0.680 0.731 0.616 0.645 0.563        0.681    9.94
116)  4-chlorotoluene
       2.047 2.056 1.929 1.862 1.885 1.931 1.793 1.781 1.716        1.889    6.14
117)  1,3,5-trimethylbenzene
       2.449 2.375 2.285 2.187 2.235 2.248 2.090 2.147 1.793        2.201    8.56
118)  tert-butylbenzene
       2.139 2.036 2.237 2.053 2.015 2.147 1.833 1.924 1.722        2.012    8.07
119)  pentachloroethane
       0.585 0.580 0.584 0.565 0.569 0.578 0.533 0.544 0.456        0.555    7.43
120)  1,2,4-trimethylbenzene
       2.286 2.248 2.251 2.195 2.225 2.214 2.044 2.137 1.825        2.159    6.68
121)  sec-butylbenzene
       3.221 3.069 3.115 2.929 2.952 3.028 2.627 2.794 2.430        2.907    8.63
122)  1,3-dichlorobenzene
       1.663 1.572 1.520 1.459 1.490 1.522 1.413 1.431 1.305 1.293  1.467    7.77
123)  p-isopropyltoluene
       2.633 2.603 2.729 2.578 2.569 2.674 2.286 2.361 1.968        2.489    9.72
124)  1,4-dichlorobenzene
       1.638 1.588 1.536 1.450 1.431 1.550 1.310 1.369 1.395 1.437  1.470    7.06
125)  1,2-dichlorobenzene
       1.571 1.470 1.561 1.526 1.514 1.548 1.409 1.440 1.279        1.480    6.31
126)  n-butylbenzene
       1.249 1.182 1.337 1.259 1.236 1.329 1.056 1.120 0.976        1.194   10.25
127)  1,2-dibromo-3-chloropropane
       0.140 0.125 0.161 0.152 0.143 0.159 0.132 0.136              0.144    9.02
128)  1,3,5-trichlorobenzene
       1.487 1.479 1.623 1.543 1.505 1.477 1.341 1.369 1.299        1.458    7.08
129)  1,2,4-trichlorobenzene
       1.218 1.162 1.475 1.399 1.337 1.322 1.153 1.187              1.282    9.31
130)  hexachlorobutadiene
       0.824 0.765 0.800 0.751 0.748 0.704 0.679 0.707 0.584        0.729    9.77
131)  naphthalene
       1.997 2.043 2.575 2.474 2.355 2.296 1.972 2.139              2.232   10.20
132)  1,2,3-trichlorobenzene
       1.104 1.126 1.284 1.247 1.196 1.099 1.011 1.110 1.034        1.135    8.07
133)  hexachloroethane
       0.542 0.598 0.664 0.611 0.591 0.654 0.483 0.531 0.506        0.575   11.07
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2B5744.M         Fri Feb 06 17:45:39 2015   MS2B
```

Initial Calibration Verification

Job Number: JB88934A **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.01	8.38
2	M	tertiary butyl alcohol	1.030	1.128	-9.5	123	0.00	8.50
3		ethanol	0.112	0.128	-14.3	126	-0.01	6.93
4	M	1,4-dioxane	0.097	0.105	-8.2	118	0.00	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.407	-12.4	122	0.00	4.48
10	M	dichlorodifluoromethane	0.447	0.458	-2.5	108	0.00	4.46
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.494	-8.1	117	0.00	4.89
13	M	vinyl chloride	0.417	0.457	-9.6	120	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.311	-1.3	119	0.00	5.90
16	M	chloroethane	0.195	0.235	-20.5	134	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.560	-5.9	113	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.187	-13.3	133	0.00	7.15
21	M	acrolein	0.051	0.058	-13.7	137	0.00	7.39
22		2-chloropropane	0.540	0.574	-6.3	127	0.00	7.35
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.326	-7.2	134	0.00	7.61
25	M	acetone	0.093	0.090	3.2	115	0.00	7.63
26	M	allyl chloride	0.158	0.186	-17.7	132	0.00	8.21
27	M	acetonitrile	0.018	0.018	0.0	124	0.00	8.12
28	M	iodomethane	0.645	0.695	-7.8	127	0.00	7.91
29	M	iso-butyl alcohol	0.004	0.004#	0.0	137	0.00	11.10
30	M	carbon disulfide	0.984	1.075	-9.2	133	0.00	8.06
31	M	methylene chloride	0.337	0.348	-3.3	127	0.00	8.39
32	M	methyl acetate	0.050	0.049	2.0	113	0.00	8.18
33		1-chloropropane	0.577	0.579	-0.3	128	0.00	8.46
34	M	methyl tert butyl ether	0.963	0.966	-2.4	119	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.321	0.3	124	0.00	8.83
36	M	di-isopropyl ether	0.918	1.019	-11.0	125	0.00	9.50
37	M	2-butanone	0.033	0.036	-9.1	128	0.00	10.20
38	M	1,1-dichloroethane	0.564	0.607	-7.6	128	0.00	9.44
39	M	chloroprene	0.400	0.403	-0.8	111	0.00	9.58
40	M	acrylonitrile	0.109	0.123	-12.8	126	0.00	8.74
41	M	vinyl acetate	0.050	0.059	-18.0	136	0.00	9.45

Initial Calibration Verification

Job Number: JB88934A **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.049	-7.4	117	0.00	10.00
43	M	ethyl acetate	0.036	0.039	-8.3	122	0.00	10.25
44	M	2,2-dichloropropane	0.482	0.490	-1.7	124	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.361	-3.1	124	0.00	10.23
46	M	propionitrile	0.039	0.043	-10.3	125	0.00	10.28
47	M	bromochloromethane	0.182	0.196	-7.7	125	0.00	10.55
48	M	tetrahydrofuran	0.083	0.087	-4.8	127	0.00	10.62
49	M	chloroform	0.586	0.602	-2.7	124	0.00	10.62
50		t-butyl formate	0.265	0.305	-15.1	123	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.318	2.5	114	0.00	10.83
52	S	1,2-dichloroethane-d4 (s)	0.381	0.370	2.9	109	0.00	11.26
53	M	freon 113	0.244	0.282	-15.6	134	0.00	7.63
54	M	methacrylonitrile	0.178	0.193	-8.4	126	0.00	10.49
55	M	1,1,1-trichloroethane	0.511	0.554	-8.4	125	0.00	10.92
56	M	Cyclohexane	0.417	0.463	-11.0	133	0.00	11.03
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	118	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.028	-12.0	129	0.00	12.91
62	M	n-butyl alcohol	0.007	0.008#	-14.3	127	0.00	11.83
63	M	carbon tetrachloride	0.495	0.515	-4.0	126	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.423	-8.7	134	0.00	11.11
65	M	hexane	0.296	0.329	-11.1	127	0.00	9.23
66	M	benzene	1.070	1.151	-7.6	130	0.00	11.36
67		2,2,4-trimethylpentane	0.896	0.921	-2.8	116	0.00	11.43
68	M	tert-amyl methyl ether	0.852	0.877	-2.9	116	0.00	11.43
69	M	heptane	0.174	0.177	-1.7	115	0.00	11.59
70	M	isopropyl acetate	0.474	0.524	-10.5	124	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.438	0.0	119	0.00	11.35
72	M	trichloroethene	0.295	0.319	-8.1	128	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.079	2.5	118	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.179	-14.7	125	0.00	12.81
76	M	methyl methacrylate	0.064	0.072	-12.5	123	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.293	-8.1	127	0.00	12.31
78	M	dibromomethane	0.194	0.200	-3.1	122	0.00	12.44
79	M	methylcyclohexane	0.419	0.441	-5.3	118	0.00	12.31
80	M	bromodichloromethane	0.422	0.449	-6.4	124	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.506	-8.8	126	0.00	13.01
82	S	toluene-d8 (s)	1.007	1.017	-1.0	116	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.104	-10.6	127	0.00	13.12
84	M	toluene	0.645	0.680	-5.4	127	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.011	-10.0	122	0.00	13.11
86	M	trans-1,3-dichloropropene	0.449	0.463	-3.1	119	0.00	13.53
87	M	ethyl methacrylate	0.312	0.341	-9.3	122	0.00	13.55
88	M	1,1,2-trichloroethane	0.215	0.219	-1.9	121	0.00	13.73
89	M	2-hexanone	0.079	0.086	-8.9	124	0.00	13.92
90	I	chlorobenzene-d5	1.000	1.000	0.0	113	0.00	14.71
91	m	butyl ether	1.202	1.340	-11.5	121	0.00	14.69
92	M	tetrachloroethene	0.334	0.349	-4.5	124	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.525	-9.4	123	0.00	13.90
94	M	butyl acetate	0.169	0.192	-13.6	124	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.027	-8.0	122	0.00	14.06
96	M	dibromochloromethane	0.428	0.455	-6.3	119	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.366	-9.6	122	0.00	14.29
98	M	chlorobenzene	0.854	0.935	-9.5	125	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.414	-9.2	121	0.00	14.79

Initial Calibration Verification

Job Number: JB88934A **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.489	-4.8	123	0.00	14.81
101	M	m,p-xylene	0.541	0.584	-7.9	126	0.00	14.90
102	M	o-xylene	0.573	0.615	-7.3	122	0.00	15.29
103	M	styrene	0.883	1.021	-15.6	125	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.367	-12.2	120	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	16.87
107	M	isopropylbenzene	2.663	2.882	-8.2	123	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.814	-0.9	114	0.00	15.78
109	M	cyclohexanone	0.027	0.017	37.0#	74	0.00	15.74
110	M	bromobenzene	0.811	0.893	-10.1	123	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.735	-6.4	119	0.00	15.86
112	M	trans-1,4-dichloro-2-bute	0.180	0.190	-5.6	118	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.200	-6.4	114	0.00	15.93
114	M	n-propylbenzene	2.855	3.182	-11.5	129	0.00	15.99
115	M	2-chlorotoluene	0.681	0.732	-7.5	124	0.00	16.12
116	M	4-chlorotoluene	1.889	1.981	-4.9	121	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.330	-5.9	121	0.00	16.13
118	M	tert-butylbenzene	2.012	2.261	-12.4	126	0.00	16.46
119	M	pentachloroethane	0.555	0.592	-6.7	119	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.412	-11.7	125	0.00	16.49
121	M	sec-butylbenzene	2.907	3.171	-9.1	123	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.534	-4.6	120	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.817	-13.2	125	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.552	-5.6	122	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.611	-8.9	120	0.00	17.27
126	M	n-butylbenzene	1.194	1.402	-17.4	127	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.159	-10.4	119	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.603	-9.9	118	0.00	18.23
129	M	1,2,4-trichlorobenzene	1.282	1.525	-19.0	124	0.00	18.87
130	M	hexachlorobutadiene	0.729	0.812	-11.4	123	0.00	19.01
131	M	naphthalene	2.232	2.662	-19.3	123	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.342	-18.2	123	0.00	19.39
133	M	hexachloroethane	0.575	0.669	-16.3	125	0.00	17.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B127397.D M2B5744.M Tue Feb 10 09:36:46 2015 MS2B

Continuing Calibration Summary

Job Number: JB88934A **Sample:** V2B5765-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127883.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2b\v2b5765\2B127883.D Vial: 3
Acq On : 27 Feb 2015 10:43 am Operator: bridgetk
Sample : CC5744-20 Inst : MS2B
Misc : MS81300,V2B5765,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	153	0.00	8.37
2	M	tertiary butyl alcohol	1.030	0.976	5.2	150	0.00	8.49
3		ethanol	0.112	0.115	-2.7	152	0.00	6.94
4	M	1,4-dioxane	0.097	0.091	6.2	146	0.00	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	157	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.435	-20.2#	173	0.00	4.48
10	M	dichlorodifluoromethane	0.447	0.455	-1.8	138	0.00	4.46
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.570	-24.7#	178	0.00	4.88
13	M	vinyl chloride	0.417	0.506	-21.3#	175	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.342	-11.4	168	0.00	5.91
16	M	chloroethane	0.195	0.244	-25.1#	179	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.544	-2.8	139	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.193	-17.0	188	0.00	7.15
21	M	acrolein	0.051	0.047	7.8	138	0.00	7.39
22		2-chloropropane	0.540	0.599	-10.9	175	0.00	7.35
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.335	-10.2	175	0.00	7.61
25	M	acetone	0.093	0.110	-18.3	175	0.00	7.64
26	M	allyl chloride	0.158	0.194	-22.8#	187	0.00	8.20
27	M	acetonitrile	0.018	0.018	0.0	148	0.00	8.11
28	M	iodomethane	0.645	0.698	-8.2	170	0.00	7.90
29	M	iso-butyl alcohol	0.004	0.004#	0.0	158	0.00	11.10
30	M	carbon disulfide	0.984	1.161	-18.0	188	0.00	8.06
31	M	methylene chloride	0.337	0.374	-11.0	180	0.00	8.40
32	M	methyl acetate	0.050	0.057	-14.0	183	0.00	8.18
33		1-chloropropane	0.577	0.589	-2.1	171	0.00	8.46
34	M	methyl tert butyl ether	0.963	0.987	-2.5	163	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.354	-9.9	179	0.00	8.83
36	M	di-isopropyl ether	0.918	1.042	-13.5	171	0.00	9.50
37	M	2-butanone	0.033	0.041	-24.2#	200	0.00	10.20
38	M	1,1-dichloroethane	0.564	0.635	-12.6	180	0.00	9.44
39	M	chloroprene	0.400	0.415	-3.7	150	0.00	9.58
40	M	acrylonitrile	0.109	0.122	-11.9	172	0.00	8.74
41	M	vinyl acetate	0.050	0.047	6.0	155	0.00	9.45

Continuing Calibration Summary

Job Number: JB88934A **Sample:** V2B5765-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127883.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.013	-3.7	156	0.00	10.00
43	M	ethyl acetate	0.036	0.040	-11.1	175	0.00	10.25
44	M	2,2-dichloropropane	0.482	0.505	-4.8	164	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.384	-9.7	179	0.00	10.23
46	M	propionitrile	0.039	0.046	-17.9	177	0.00	10.28
47	M	bromochloromethane	0.182	0.200	-9.9	173	0.00	10.56
48	M	tetrahydrofuran	0.083	0.093	-12.0	182	0.00	10.62
49	M	chloroform	0.586	0.598	-2.0	164	0.00	10.62
50		t-butyl formate	0.265	0.251	5.3	140	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.299	8.3	142	0.00	10.82
52	S	1,2-dichloroethane-d4 (s)	0.381	0.318	16.5	125	0.00	11.26
53	M	freon 113	0.244	0.238	2.5	144	0.00	7.63
54	M	methacrylonitrile	0.178	0.196	-10.1	172	0.00	10.50
55	M	1,1,1-trichloroethane	0.511	0.496	2.9	151	0.00	10.92
56	M	Cyclohexane	0.417	0.460	-10.3	169	0.00	11.02
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	168	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.024	4.0	160	0.00	12.91
62	M	n-butyl alcohol	0.007	0.007#	0.0	167	0.00	11.83
63	M	carbon tetrachloride	0.495	0.436	11.9	150	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.405	-4.1	179	0.00	11.10
65	M	hexane	0.296	0.354	-19.6	185	0.00	9.23
66	M	benzene	1.070	1.179	-10.2	187	0.00	11.36
67		2,2,4-trimethylpentane	0.896	0.961	-7.3	167	0.00	11.42
68	M	tert-amyl methyl ether	0.852	0.795	6.7	151	0.00	11.43
69	M	heptane	0.174	0.197	-13.2	179	0.00	11.59
70	M	isopropyl acetate	0.474	0.465	1.9	162	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.386	11.9	150	0.00	11.35
72	M	trichloroethene	0.295	0.319	-8.1	181	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.066	18.5	143	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.161	-3.2	163	0.00	12.81
76	M	methyl methacrylate	0.064	0.070	-9.4	173	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.315	-16.2	195	0.00	12.31
78	M	dibromomethane	0.194	0.201	-3.6	175	0.00	12.44
79	M	methylcyclohexane	0.419	0.429	-2.4	159	0.00	12.31
80	M	bromodichloromethane	0.422	0.425	-0.7	170	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.506	-8.8	182	0.00	13.01
82	S	toluene-d8 (s)	1.007	0.951	5.6	150	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.102	-8.5	186	0.00	13.12
84	M	toluene	0.645	0.682	-5.7	182	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.010#	0.0	159	0.00	13.12
86	M	trans-1,3-dichloropropene	0.449	0.442	1.6	166	0.00	13.53
87	M	ethyl methacrylate	0.312	0.334	-7.1	176	0.00	13.55
88	M	1,1,2-trichloroethane	0.215	0.224	-4.2	178	0.00	13.73
89	M	2-hexanone	0.079	0.091	-15.2	191	0.00	13.92
90	I	chlorobenzene-d5	1.000	1.000	0.0	165	0.00	14.71
91	m	butyl ether	1.202	1.412	-17.5	193	0.00	14.69
92	M	tetrachloroethene	0.334	0.334	0.0	168	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.524	-9.2	182	0.00	13.90
94	M	butyl acetate	0.169	0.173	-2.4	167	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.023	8.0	157	0.00	14.06
96	M	dibromochloromethane	0.428	0.420	1.9	162	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.344	-3.0	172	0.00	14.29
98	M	chlorobenzene	0.854	0.906	-6.1	174	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.372	1.8	162	0.00	14.79

Continuing Calibration Summary

Job Number: JB88934A **Sample:** V2B5765-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127883.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.459	-2.7	171	0.00	14.80
101	M	m,p-xylene	0.541	0.575	-6.3	178	0.00	14.90
102	M	o-xylene	0.573	0.602	-5.1	177	0.00	15.29
103	M	styrene	0.883	0.965	-9.3	172	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.312	4.6	153	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	156	0.00	16.87
107	M	isopropylbenzene	2.663	2.959	-11.1	171	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.733	9.2	135	0.00	15.78
109	M	cyclohexanone	0.027	0.043	-59.3#	270#	0.00	15.73
110	M	bromobenzene	0.811	0.901	-11.1	168	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.784	-13.5	177	0.00	15.85
112	M	trans-1,4-dichloro-2-bute	0.180	0.140	22.2#	118	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.197	-4.8	157	0.00	15.93
114	M	n-propylbenzene	2.855	3.169	-11.0	170	0.00	15.99
115	M	2-chlorotoluene	0.681	0.758	-11.3	174	0.00	16.12
116	M	4-chlorotoluene	1.889	1.986	-5.1	165	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.361	-7.3	165	0.00	16.13
118	M	tert-butylbenzene	2.012	2.137	-6.2	166	0.00	16.46
119	M	pentachloroethane	0.555	0.564	-1.6	155	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.325	-7.7	163	0.00	16.49
121	M	sec-butylbenzene	2.907	3.194	-9.9	169	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.579	-7.6	165	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.726	-9.5	166	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.499	-2.0	164	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.576	-6.5	163	0.00	17.27
126	M	n-butylbenzene	1.194	1.348	-12.9	170	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.139	3.5	151	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.514	-3.8	157	0.00	18.23
129	M	1,2,4-trichlorobenzene	1.282	1.347	-5.1	157	0.00	18.86
130	M	hexachlorobutadiene	0.729	0.728	0.1	152	0.00	19.01
131	M	naphthalene	2.232	2.405	-7.8	159	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.206	-6.3	158	0.00	19.39
133	M	hexachloroethane	0.575	0.601	-4.5	159	0.00	17.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B127396.D M2B5744.M Fri Feb 27 14:58:48 2015 ACC-VOA-CLN-05A

Continuing Calibration Summary

Job Number: JB88934A **Sample:** V2B5765-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127902.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2b\v2b5765-5766\2B127902.D Vial: 22
Acq On : 28 Feb 2015 11:05 am Operator: bridgetk
Sample : cc5744-50 Inst : MS2B
Misc : MS81419,V2B5765,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	131	0.00	8.37
2	M	tertiary butyl alcohol	1.030	1.019	1.1	126	0.00	8.50
3		ethanol	0.112	0.120	-7.1	135	-0.01	6.93
4	M	1,4-dioxane	0.097	0.102	-5.2	130	0.00	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	135	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.458	-26.5#	159	0.00	4.48
10	M	dichlorodifluoromethane	0.447	0.455	-1.8	125	0.00	4.46
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.577	-26.3#	158	0.00	4.89
13	M	vinyl chloride	0.417	0.524	-25.7#	158	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.339	-10.4	150	0.00	5.91
16	M	chloroethane	0.195	0.248	-27.2#	163	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.558	-5.5	130	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.191	-15.8	157	-0.01	7.14
21	M	acrolein	0.051	0.046	9.8	124	0.00	7.38
22		2-chloropropane	0.540	0.599	-10.9	154	0.00	7.36
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.333	-9.5	159	0.00	7.61
25	M	acetone	0.093	0.089	4.3	130	0.00	7.64
26	M	allyl chloride	0.158	0.186	-17.7	153	0.00	8.20
27	M	acetonitrile	0.018	0.019	-5.6	150	-0.01	8.10
28	M	iodomethane	0.645	0.701	-8.7	147	0.00	7.90
29	M	iso-butyl alcohol	0.004	0.004#	0.0	149	0.00	11.10
30	M	carbon disulfide	0.984	1.157	-17.6	165	0.00	8.05
31	M	methylene chloride	0.337	0.373	-10.7	158	0.00	8.40
32	M	methyl acetate	0.050	0.057	-14.0	154	0.00	8.18
33		1-chloropropane	0.577	0.568	1.6	145	0.00	8.46
34	M	methyl tert butyl ether	0.963	0.990	-2.8	140	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.347	-7.8	155	0.00	8.83
36	M	di-isopropyl ether	0.918	1.094	-19.2	155	0.00	9.50
37	M	2-butanone	0.033	0.035	-6.1	141	0.00	10.20
38	M	1,1-dichloroethane	0.564	0.614	-8.9	149	0.00	9.44
39	M	chloroprene	0.400	0.444	-11.0	141	0.00	9.58
40	M	acrylonitrile	0.109	0.117	-7.3	140	0.00	8.74
41	M	vinyl acetate	0.050	0.050	0.0	133	0.00	9.45

Continuing Calibration Summary

Job Number: JB88934A **Sample:** V2B5765-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127902.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.091	-11.7	141	0.00	10.00
43	M	ethyl acetate	0.036	0.041	-13.9	146	0.00	10.25
44	M	2,2-dichloropropane	0.482	0.348	27.8#	101	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.381	-8.9	151	0.00	10.23
46	M	propionitrile	0.039	0.044	-12.8	148	0.00	10.27
47	M	bromochloromethane	0.182	0.196	-7.7	144	0.00	10.55
48	M	tetrahydrofuran	0.083	0.086	-3.6	145	0.00	10.62
49	M	chloroform	0.586	0.576	1.7	137	0.00	10.62
50		t-butyl formate	0.265	0.273	-3.0	128	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.299	8.3	124	0.00	10.82
52	S	1,2-dichloroethane-d4 (s)	0.381	0.309	18.9	105	0.00	11.26
53	M	freon 113	0.244	0.267	-9.4	146	0.00	7.63
54	M	methacrylonitrile	0.178	0.188	-5.6	143	0.00	10.49
55	M	1,1,1-trichloroethane	0.511	0.506	1.0	132	0.00	10.92
56	M	Cyclohexane	0.417	0.489	-17.3	162	0.00	11.02
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	146	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.023	8.0	130	0.00	12.91
62	M	n-butyl alcohol	0.007	0.007#	0.0	143	0.00	11.83
63	M	carbon tetrachloride	0.495	0.429	13.3	130	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.387	0.5	151	0.00	11.10
65	M	hexane	0.296	0.342	-15.5	164	0.00	9.23
66	M	benzene	1.070	1.133	-5.9	158	0.00	11.36
67		2,2,4-trimethylpentane	0.896	0.961	-7.3	150	0.00	11.43
68	M	tert-amyl methyl ether	0.852	0.839	1.5	138	0.00	11.43
69	M	heptane	0.174	0.178	-2.3	143	0.00	11.59
70	M	isopropyl acetate	0.474	0.486	-2.5	142	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.366	16.4	123	0.00	11.35
72	M	trichloroethene	0.295	0.306	-3.7	152	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.067	17.3	124	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.172	-10.3	149	0.00	12.81
76	M	methyl methacrylate	0.064	0.069	-7.8	146	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.304	-12.2	164	0.00	12.31
78	M	dibromomethane	0.194	0.190	2.1	143	0.00	12.44
79	M	methylcyclohexane	0.419	0.469	-11.9	155	0.00	12.31
80	M	bromodichloromethane	0.422	0.407	3.6	139	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.470	-1.1	145	0.00	13.01
82	S	toluene-d8 (s)	1.007	0.962	4.5	136	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.100	-6.4	151	0.00	13.12
84	M	toluene	0.645	0.674	-4.5	155	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.010	0.0	137	0.00	13.11
86	M	trans-1,3-dichloropropene	0.449	0.416	7.3	132	0.00	13.53
87	M	ethyl methacrylate	0.312	0.337	-8.0	149	0.00	13.55
88	M	1,1,2-trichloroethane	0.215	0.223	-3.7	153	0.00	13.73
89	M	2-hexanone	0.079	0.085	-7.6	152	0.00	13.91
90	I	chlorobenzene-d5	1.000	1.000	0.0	142	0.00	14.71
91	m	butyl ether	1.202	1.428	-18.8	163	0.00	14.69
92	M	tetrachloroethene	0.334	0.333	0.3	149	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.509	-6.0	150	0.00	13.90
94	M	butyl acetate	0.169	0.190	-12.4	155	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.026	-4.0	145	0.00	14.06
96	M	dibromochloromethane	0.428	0.419	2.1	138	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.346	-3.6	145	0.00	14.29
98	M	chlorobenzene	0.854	0.895	-4.8	150	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.372	1.8	137	0.00	14.79

Continuing Calibration Summary

Job Number: JB88934A **Sample:** V2B5765-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127902.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.412	0.6	147	0.00	14.80
101	M	m,p-xylene	0.541	0.563	-4.1	153	0.00	14.90
102	M	o-xylene	0.573	0.597	-4.2	149	0.00	15.29
103	M	styrene	0.883	0.966	-9.4	149	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.313	4.3	129	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	133	0.00	16.87
107	M	isopropylbenzene	2.663	2.871	-7.8	143	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.755	6.4	124	0.00	15.78
109	M	cyclohexanone	0.027	0.010	63.0#	53	0.00	15.74
110	M	bromobenzene	0.811	0.855	-5.4	138	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.770	-11.4	146	0.00	15.85
112	M	trans-1,4-dichloro-2-bute	0.180	0.110	38.9#	80	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.189	-0.5	127	0.00	15.93
114	M	n-propylbenzene	2.855	2.983	-4.5	142	0.00	15.99
115	M	2-chlorotoluene	0.681	0.731	-7.3	145	0.00	16.12
116	M	4-chlorotoluene	1.889	1.923	-1.8	138	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.263	-2.8	138	0.00	16.13
118	M	tert-butylbenzene	2.012	2.116	-5.2	137	0.00	16.46
119	M	pentachloroethane	0.555	0.525	5.4	124	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.244	-3.9	136	0.00	16.49
121	M	sec-butylbenzene	2.907	3.128	-7.6	142	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.498	-2.1	137	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.630	-5.7	136	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.461	0.6	134	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.538	-3.9	134	0.00	17.27
126	M	n-butylbenzene	1.194	1.298	-8.7	137	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.136	5.6	119	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.448	0.7	125	0.00	18.22
129	M	1,2,4-trichlorobenzene	1.282	1.336	-4.2	127	0.00	18.86
130	M	hexachlorobutadiene	0.729	0.688	5.6	122	0.00	19.01
131	M	naphthalene	2.232	2.385	-6.9	129	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.199	-5.6	128	0.00	19.39
133	M	hexachloroethane	0.575	0.590	-2.6	129	0.00	17.54

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

2B127397.D M2B5744.M Tue Mar 03 10:38:36 2015 ACC-VOA-CLN-05A

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 27 15:42:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

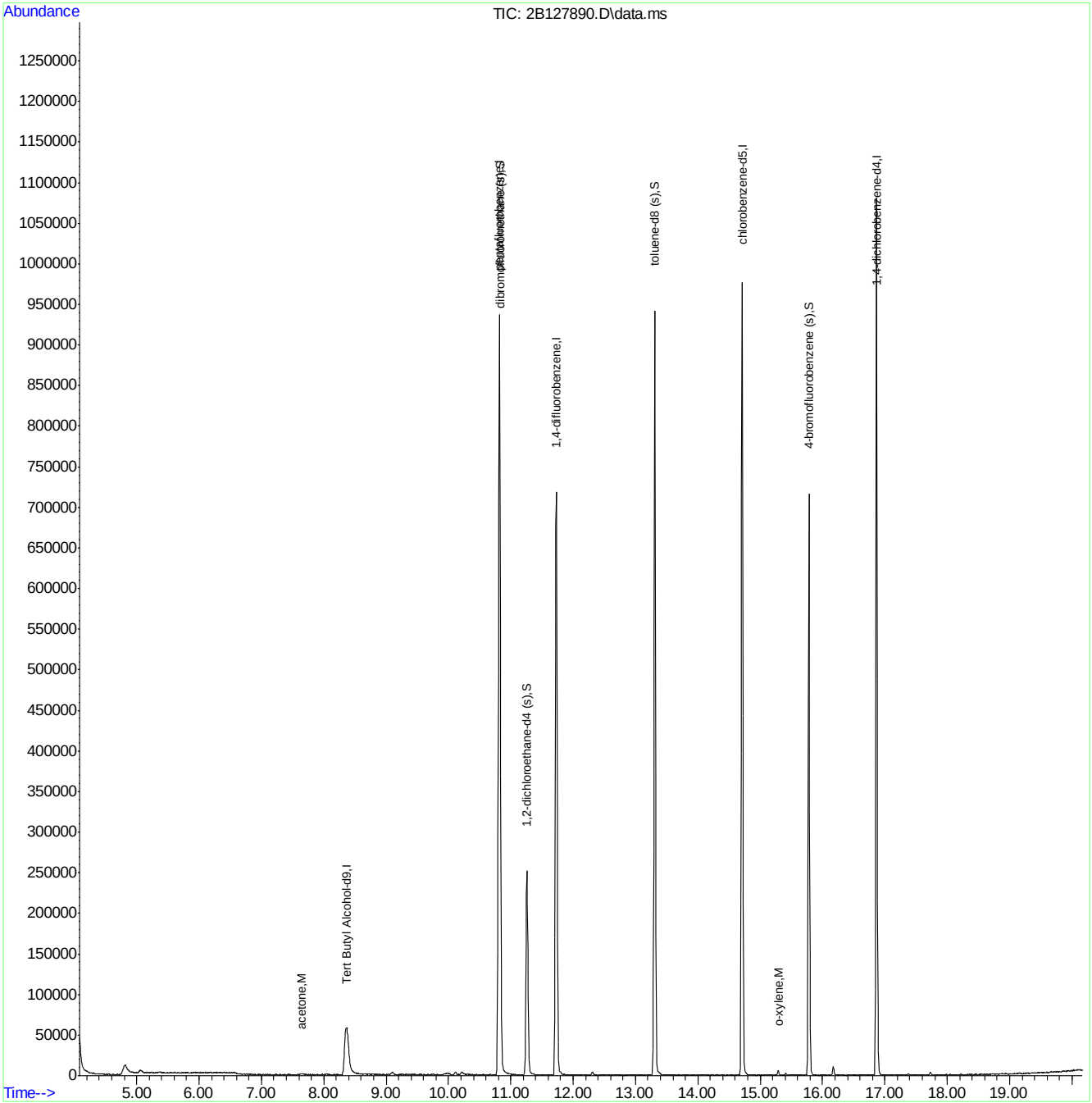
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.373	65	165382	500.00	ug/L	0.00
5) pentafluorobenzene	10.817	168	603491	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.729	114	640316	50.00	ug/L	0.00
90) chlorobenzene-d5	14.712	117	538250	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.867	152	277922	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.822	113	179389	45.53	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 91.06%			
52) 1,2-dichloroethane-d4 (s)	11.257	65	192370	41.78	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 83.56%			
82) toluene-d8 (s)	13.307	98	604847	46.91	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 93.82%			
108) 4-bromofluorobenzene (s)	15.782	95	205055	45.71	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.42%			
Target Compounds						Qvalue
25) acetone	7.639	43	3778	3.38	ug/L	88
102) o-xylene	15.289	106	1962	0.32	ug/L	87

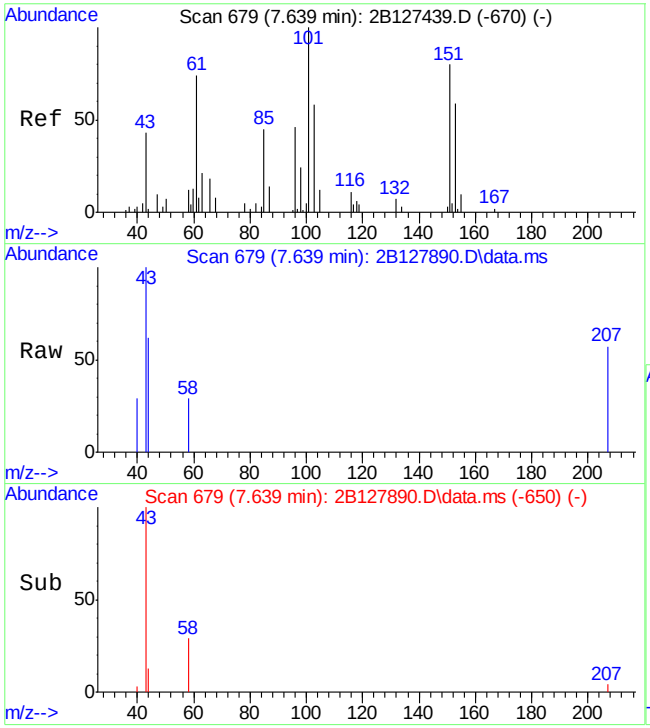
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 27 15:42:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

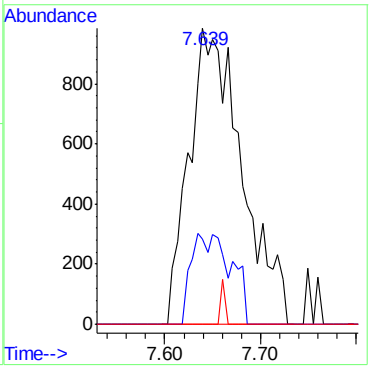


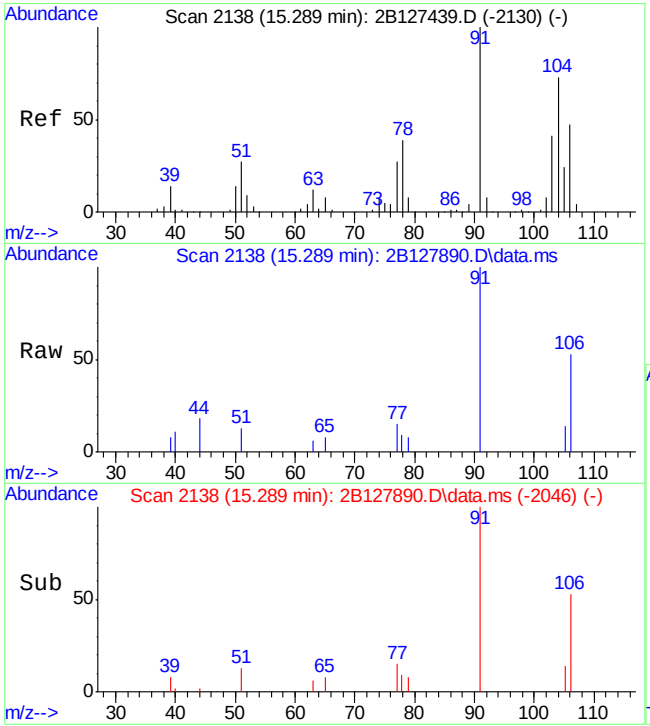


#25
acetone
Concen: 3.38 ug/L
RT: 7.639 min Scan# 679
Delta R.T. 0.000 min
Lab File: 2B127890.D
Acq: 27 Feb 2015 2:31 pm

Tgt Ion: 43 Resp: 3778

Ion	Ratio	Lower	Upper
43	100		
58	28.7	0.0	53.7
42	0.0	0.0	36.8

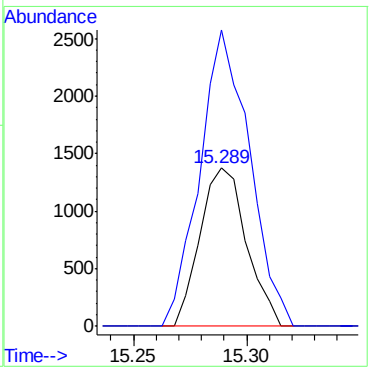




#102
o-xylene
Concen: 0.32 ug/L
RT: 15.289 min Scan# 2138
Delta R.T. 0.000 min
Lab File: 2B127890.D
Acq: 27 Feb 2015 2:31 pm

Tgt Ion:106 Resp: 1962

Ion	Ratio	Lower	Upper
106	100		
91	187.4	176.8	236.8



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

Signal : TIC: 2B127890.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.488	76	78	86	rVB3	804	1083	0.05%	0.011%
2	4.572	86	94	114	rBV3	692	1812	0.09%	0.018%
3	4.819	126	141	178	rBV5	11877	78425	3.73%	0.765%
4	5.065	181	188	209	rVB5	3880	15288	0.73%	0.149%
5	5.191	209	212	215	rBV3	1183	1228	0.06%	0.012%
6	5.605	288	291	301	rBV3	974	1274	0.06%	0.012%
7	5.878	341	343	356	rVB5	1334	3074	0.15%	0.030%
8	5.988	356	364	369	rBV2	1109	2095	0.10%	0.020%
9	6.019	369	370	375	rVV3	1195	1192	0.06%	0.012%
10	6.056	375	377	379	rVB2	1341	810	0.04%	0.008%
11	6.318	425	427	440	rVB4	832	1543	0.07%	0.015%
12	6.523	464	466	486	rVB4	2784	9626	0.46%	0.094%
13	6.643	486	489	509	rVB3	1364	3919	0.19%	0.038%
14	6.759	509	511	516	rBV2	503	701	0.03%	0.007%
15	6.795	516	518	524	rBV2	583	773	0.04%	0.008%
16	6.848	524	528	532	rVB2	781	960	0.05%	0.009%
17	6.879	532	534	552	rBV3	640	1522	0.07%	0.015%
18	7.241	593	603	613	rVB3	607	1745	0.08%	0.017%
19	7.304	613	615	622	rVB2	834	1017	0.05%	0.010%
20	7.372	622	628	632	rBV	1009	1305	0.06%	0.013%
21	7.424	636	638	642	rVV	866	881	0.04%	0.009%
22	7.456	642	644	650	rVB2	791	852	0.04%	0.008%
23	7.660	672	683	697	rVB4	1455	5717	0.27%	0.056%
24	7.760	697	702	712	rBV3	639	1166	0.06%	0.011%
25	7.823	712	714	724	rVB3	636	721	0.03%	0.007%
26	7.959	731	740	741	rBV3	498	1025	0.05%	0.010%
27	8.022	741	752	753	rBV3	587	964	0.05%	0.009%
28	8.227	787	791	802	rVB4	475	1284	0.06%	0.013%
29	8.358	802	816	881	rBV3	58141	293965	13.99%	2.867%
30	8.725	881	886	891	rBV3	611	1325	0.06%	0.013%
31	8.793	891	899	909	rBV4	559	1464	0.07%	0.014%
32	8.882	914	916	919	rVB2	917	767	0.04%	0.007%
33	8.908	919	921	925	rBV2	953	906	0.04%	0.009%
34	8.961	930	931	939	rVB3	681	818	0.04%	0.008%

M2B5744.M Fri Feb 27 16:06:13 2015 ACC-VOA-CLN-05A Page: 1

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

35	9.013	939	941	949	rBV4	938	1643	0.08%	0.016%
36	9.097	949	957	965	rVB6	3337	8131	0.39%	0.079%
37	9.238	983	984	994	rVB3	988	1644	0.08%	0.016%
38	9.312	996	998	1004	rVB2	942	1080	0.05%	0.011%
39	9.370	1007	1009	1016	rVB4	832	978	0.05%	0.010%
40	9.453	1016	1025	1026	rBV3	710	1431	0.07%	0.014%
41	9.469	1026	1028	1037	rBV2	828	835	0.04%	0.008%
42	9.532	1037	1040	1042	rVB2	668	725	0.03%	0.007%
43	9.569	1042	1047	1065	rBV3	920	3259	0.16%	0.032%
44	9.674	1065	1067	1071	rVB	587	679	0.03%	0.007%
45	9.820	1094	1095	1113	rBV4	656	2573	0.12%	0.025%
46	9.962	1117	1122	1123	rBV3	1037	1337	0.06%	0.013%
47	10.109	1144	1150	1164	rBV5	3200	6830	0.33%	0.067%
48	10.219	1164	1171	1181	rVV3	3225	7719	0.37%	0.075%
49	10.534	1228	1231	1234	rBV2	582	830	0.04%	0.008%
50	10.675	1256	1258	1265	rVB2	612	871	0.04%	0.008%
51	10.817	1273	1285	1332	rVB2	936114	2101418	100.00%	20.495%
52	11.257	1359	1369	1402	rVB	251355	532962	25.36%	5.198%
53	11.493	1407	1414	1419	rBV2	448	820	0.04%	0.008%
54	11.729	1449	1459	1491	rVV	717868	1368312	65.11%	13.345%
55	11.902	1491	1492	1508	rVB3	602	1355	0.06%	0.013%
56	12.306	1562	1569	1582	rVB2	4452	8700	0.41%	0.085%
57	12.625	1627	1630	1640	rVV2	332	849	0.04%	0.008%
58	13.071	1712	1715	1720	rBV2	426	769	0.04%	0.007%
59	13.202	1734	1740	1743	rBV3	557	839	0.04%	0.008%
60	13.307	1750	1760	1804	rVB	941873	1535766	73.08%	14.978%
61	13.574	1804	1811	1825	rVB3	754	2603	0.12%	0.025%
62	14.503	1983	1988	1992	rBV2	613	889	0.04%	0.009%
63	14.628	2007	2012	2016	rBV2	647	748	0.04%	0.007%
64	14.707	2016	2027	2051	rBB	976385	1527560	72.69%	14.898%
65	15.289	2128	2138	2144	rBV2	6222	9482	0.45%	0.092%
66	15.410	2157	2161	2166	rBV4	2940	3297	0.16%	0.032%
67	15.714	2216	2219	2223	rBV2	601	934	0.04%	0.009%
68	15.782	2223	2232	2251	rVV	716624	1055926	50.25%	10.298%
69	16.170	2299	2306	2314	rVV	10188	14998	0.71%	0.146%
70	16.233	2314	2318	2322	rVB2	458	687	0.03%	0.007%
71	16.867	2429	2439	2455	rVV	1080668	1546537	73.59%	15.083%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

72	16.961	2455	2457	2462	rVV3	556	768	0.04%	0.007%
73	17.035	2465	2471	2474	rBV2	400	811	0.04%	0.008%
74	17.066	2474	2477	2483	rVB2	521	685	0.03%	0.007%
75	17.114	2483	2486	2496	rBV3	432	1085	0.05%	0.011%
76	17.276	2510	2517	2521	rBV2	452	824	0.04%	0.008%
77	17.381	2531	2537	2543	rBV3	1739	2772	0.13%	0.027%
78	17.449	2543	2550	2561	rBV3	447	990	0.05%	0.010%
79	17.564	2571	2572	2581	rVB2	499	795	0.04%	0.008%
80	17.701	2590	2598	2599	rVB3	502	740	0.04%	0.007%
81	17.732	2599	2604	2610	rBV4	3821	4859	0.23%	0.047%
82	17.963	2647	2648	2652	rVB3	736	795	0.04%	0.008%
83	17.989	2652	2653	2659	rBV2	930	1155	0.05%	0.011%
84	18.047	2663	2664	2673	rBV3	680	843	0.04%	0.008%
85	18.225	2693	2698	2708	rBV3	666	1388	0.07%	0.014%
86	18.398	2728	2731	2735	rBV2	1034	1102	0.05%	0.011%
87	18.445	2738	2740	2754	rVB3	838	1968	0.09%	0.019%
88	18.529	2754	2756	2759	rBV2	946	785	0.04%	0.008%
89	18.561	2761	2762	2771	rVB3	704	1003	0.05%	0.010%
90	18.692	2784	2787	2790	rBV3	1010	1034	0.05%	0.010%
91	18.718	2790	2792	2795	rVV2	681	670	0.03%	0.007%
92	18.755	2795	2799	2802	rVB4	1226	1491	0.07%	0.015%
93	18.781	2802	2804	2811	rBV2	1188	1840	0.09%	0.018%
94	18.854	2811	2818	2819	rBV3	1017	1708	0.08%	0.017%
95	18.875	2819	2822	2824	rBV3	1227	939	0.04%	0.009%
96	18.938	2831	2834	2842	rVB5	1414	2412	0.11%	0.024%
97	19.127	2842	2870	2872	rBV5	1400	7968	0.38%	0.078%
98	19.185	2872	2881	2887	rVV5	987	2062	0.10%	0.020%
99	19.337	2908	2910	2912	rBV2	1211	950	0.05%	0.009%
100	19.604	2919	2961	2963	rBV7	1934	11758	0.56%	0.115%

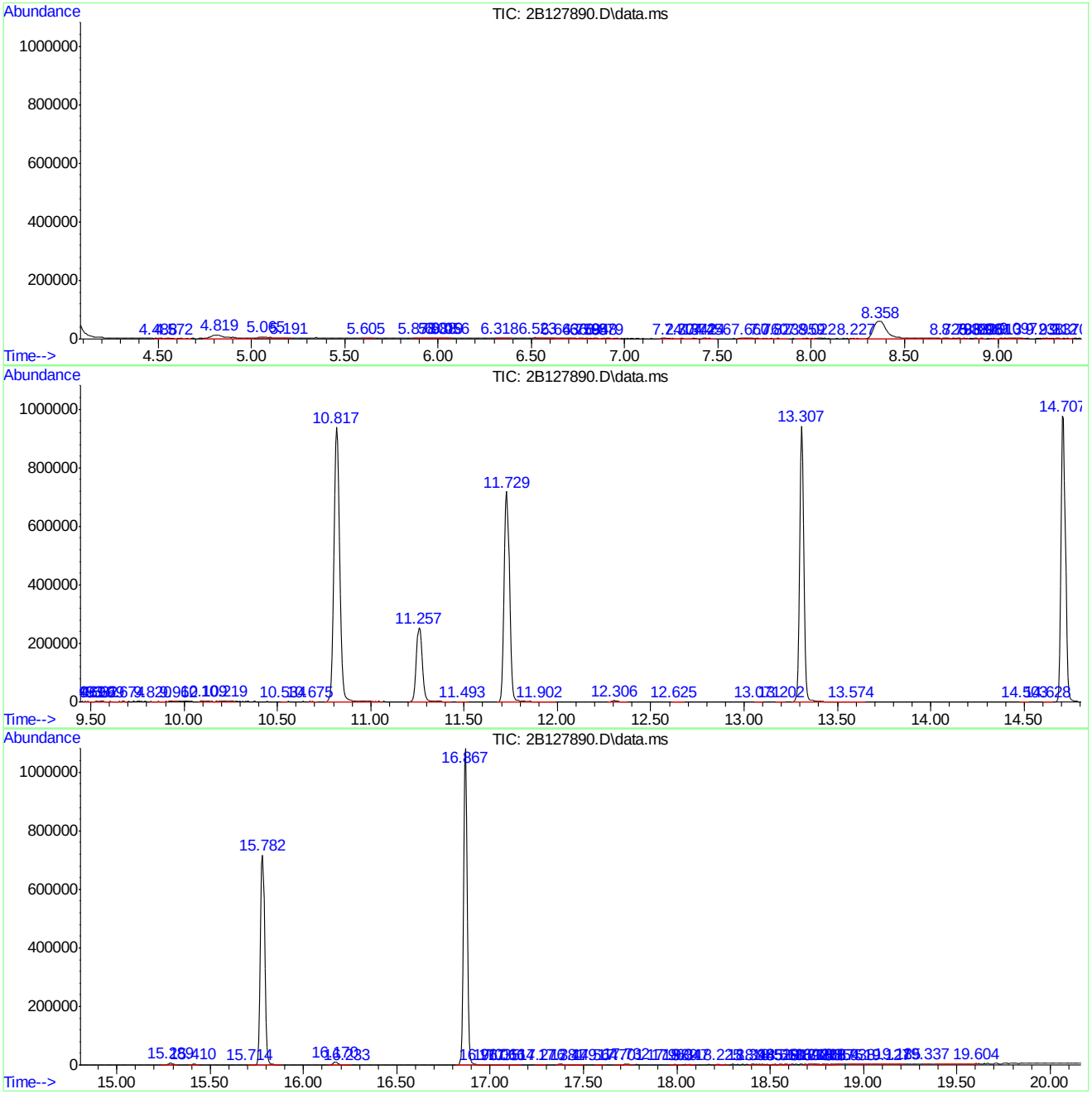
Sum of corrected areas: 10253463

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127890.D
Acq On : 27 Feb 2015 2:31 pm
Operator : bridgetk
Sample : JB88934-2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 27 16:11:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

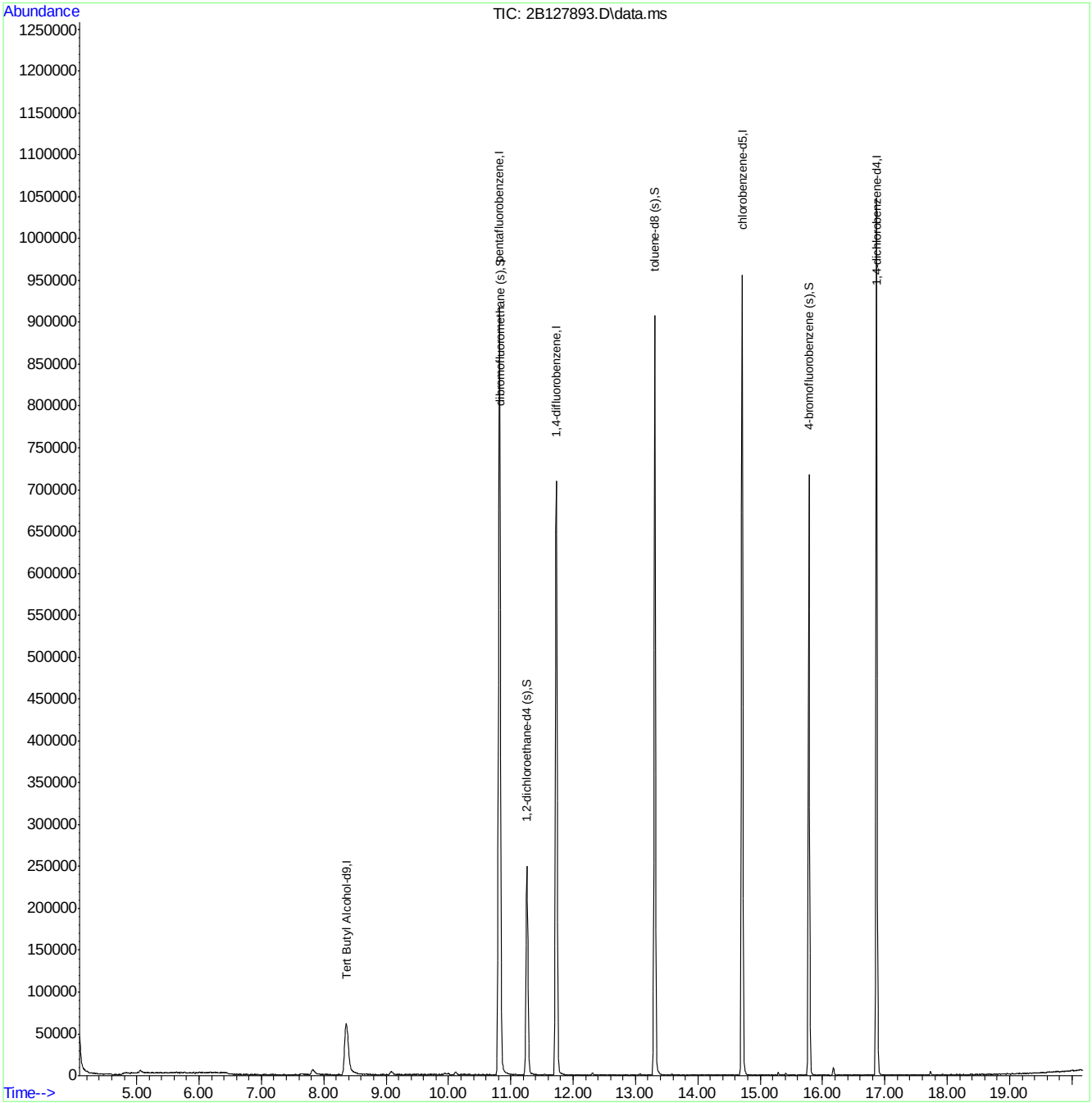
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.363	65	158886	500.00	ug/L	0.00
5) pentafluorobenzene	10.817	168	586621	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.729	114	623335	50.00	ug/L	0.00
90) chlorobenzene-d5	14.712	117	519516	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.867	152	269845	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.827	113	175304	45.77	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 91.54%			
52) 1,2-dichloroethane-d4 (s)	11.257	65	190571	42.58	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 85.16%			
82) toluene-d8 (s)	13.307	98	586733	46.74	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 93.48%			
108) 4-bromofluorobenzene (s)	15.782	95	197555	45.35	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 90.70%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 27 16:11:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

Signal : TIC: 2B127893.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.488	75	78	123	rVB3	1197	7746	0.38%	0.077%
2	4.829	127	143	158	rBV6	2875	14494	0.70%	0.145%
3	4.913	158	159	178	rVV5	1814	7997	0.39%	0.080%
4	5.018	178	179	182	rVV2	2010	2062	0.10%	0.021%
5	5.060	182	187	264	rVB7	3811	34535	1.68%	0.345%
6	5.479	265	267	281	rVV4	840	1754	0.09%	0.018%
7	5.684	288	306	308	rBV5	1822	6187	0.30%	0.062%
8	5.914	308	350	354	rVB5	1634	12963	0.63%	0.129%
9	6.176	398	400	430	rVB5	1531	7661	0.37%	0.076%
10	6.365	430	436	440	rBV4	1258	2247	0.11%	0.022%
11	6.433	447	449	468	rVB4	2842	6264	0.30%	0.063%
12	6.591	477	479	532	rVB3	942	6274	0.31%	0.063%
13	6.916	540	541	574	rBV3	742	3074	0.15%	0.031%
14	7.225	598	600	625	rBV3	774	1584	0.08%	0.016%
15	7.645	673	680	691	rVV5	1390	4180	0.20%	0.042%
16	7.823	703	714	750	rBV	6332	29390	1.43%	0.293%
17	8.027	750	753	757	rBV2	961	1164	0.06%	0.012%
18	8.132	771	773	785	rBV3	381	897	0.04%	0.009%
19	8.242	785	794	801	rVV3	713	1081	0.05%	0.011%
20	8.363	801	817	888	rVV2	61527	289760	14.09%	2.892%
21	8.787	897	898	904	rVB3	646	838	0.04%	0.008%
22	8.945	926	928	938	rVB3	752	957	0.05%	0.010%
23	9.086	946	955	970	rBV4	3883	11659	0.57%	0.116%
24	9.217	975	980	983	rBV3	624	854	0.04%	0.009%
25	9.322	996	1000	1003	rVB3	777	1035	0.05%	0.010%
26	9.348	1003	1005	1011	rVB2	744	1125	0.05%	0.011%
27	9.443	1021	1023	1034	rVB3	580	755	0.04%	0.008%
28	9.632	1057	1059	1064	rVB3	709	734	0.04%	0.007%
29	9.674	1064	1067	1071	rBV2	662	899	0.04%	0.009%
30	9.778	1085	1087	1095	rVB2	744	1303	0.06%	0.013%
31	9.847	1096	1100	1107	rBV3	654	766	0.04%	0.008%
32	9.946	1112	1119	1128	rBV3	1749	5147	0.25%	0.051%
33	10.114	1142	1151	1164	rVB4	3622	7983	0.39%	0.080%
34	10.240	1173	1175	1180	rVB2	785	960	0.05%	0.010%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

35	10.334	1190	1193	1210	rVV3	610	1364	0.07%	0.014%
36	10.617	1236	1247	1255	rBV4	543	1596	0.08%	0.016%
37	10.817	1275	1285	1314	rBV2	917988	2056456	100.00%	20.526%
38	10.995	1318	1319	1325	rBV	728	1020	0.05%	0.010%
39	11.073	1331	1334	1340	rBV3	893	824	0.04%	0.008%
40	11.257	1356	1369	1390	rVV	248871	524912	25.53%	5.239%
41	11.378	1390	1392	1405	rVB4	1124	2093	0.10%	0.021%
42	11.488	1412	1413	1419	rVB2	640	895	0.04%	0.009%
43	11.535	1419	1422	1425	rBV2	985	824	0.04%	0.008%
44	11.582	1427	1431	1443	rVV3	306	912	0.04%	0.009%
45	11.729	1449	1459	1495	rVB	709173	1336150	64.97%	13.336%
46	11.923	1495	1496	1508	rVB3	401	692	0.03%	0.007%
47	12.311	1564	1570	1581	rVV4	2502	4728	0.23%	0.047%
48	12.557	1614	1617	1622	rVB2	557	706	0.03%	0.007%
49	12.840	1664	1671	1681	rVB2	465	1130	0.05%	0.011%
50	13.076	1709	1716	1721	rBV3	1688	2531	0.12%	0.025%
51	13.129	1721	1726	1734	rVB2	349	817	0.04%	0.008%
52	13.197	1734	1739	1742	rBV2	439	700	0.03%	0.007%
53	13.307	1747	1760	1788	rVV	907320	1492343	72.57%	14.895%
54	13.459	1788	1789	1798	rVV2	542	822	0.04%	0.008%
55	13.585	1807	1813	1822	rBV3	1184	2218	0.11%	0.022%
56	14.041	1893	1900	1904	rVB2	557	795	0.04%	0.008%
57	14.497	1980	1987	1996	rVB3	702	1509	0.07%	0.015%
58	14.607	2005	2008	2016	rVB	479	830	0.04%	0.008%
59	14.712	2016	2028	2056	rBV	956350	1477809	71.86%	14.750%
60	14.911	2061	2066	2069	rVB2	789	1057	0.05%	0.011%
61	14.964	2073	2076	2081	rVB2	614	925	0.04%	0.009%
62	15.006	2081	2084	2089	rBV2	612	983	0.05%	0.010%
63	15.289	2132	2138	2149	rBV3	4220	6219	0.30%	0.062%
64	15.409	2156	2161	2170	rVB5	2619	3904	0.19%	0.039%
65	15.483	2170	2175	2179	rBV	519	713	0.03%	0.007%
66	15.635	2203	2204	2213	rVB2	378	765	0.04%	0.008%
67	15.703	2213	2217	2223	rBV2	869	1192	0.06%	0.012%
68	15.782	2223	2232	2250	rVV	717750	1020150	49.61%	10.182%
69	16.023	2275	2278	2288	rVB	410	763	0.04%	0.008%
70	16.175	2296	2307	2315	rBV2	9159	14720	0.72%	0.147%
71	16.867	2430	2439	2461	rVV	1047859	1504734	73.17%	15.019%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

72	16.988	2461	2462	2470	rVB3	542	826	0.04%	0.008%
73	17.260	2512	2514	2531	rBV3	424	1294	0.06%	0.013%
74	17.370	2531	2535	2542	rBV3	449	831	0.04%	0.008%
75	17.449	2547	2550	2554	rVB3	770	1029	0.05%	0.010%
76	17.533	2554	2566	2570	rBV3	425	1228	0.06%	0.012%
77	17.585	2570	2576	2583	rVB3	387	905	0.04%	0.009%
78	17.680	2583	2594	2598	rBV3	476	1326	0.06%	0.013%
79	17.732	2598	2604	2609	rVB2	4554	5529	0.27%	0.055%
80	17.774	2609	2612	2633	rBV3	683	2579	0.13%	0.026%
81	17.926	2633	2641	2643	rBV	895	1272	0.06%	0.013%
82	18.062	2665	2667	2671	rVV3	996	706	0.03%	0.007%
83	18.094	2671	2673	2679	rVV3	578	746	0.04%	0.007%
84	18.152	2683	2684	2692	rVV2	618	757	0.04%	0.008%
85	18.262	2700	2705	2707	rBV3	893	827	0.04%	0.008%
86	18.288	2707	2710	2713	rVB	563	756	0.04%	0.008%
87	18.408	2731	2733	2740	rVB4	422	741	0.04%	0.007%
88	18.450	2740	2741	2747	rBV3	911	879	0.04%	0.009%
89	18.566	2758	2763	2767	rVB4	782	1213	0.06%	0.012%
90	18.644	2776	2778	2780	rVB2	1077	769	0.04%	0.008%
91	18.702	2786	2789	2797	rBV3	922	1263	0.06%	0.013%
92	18.828	2810	2813	2818	rBV4	1210	1417	0.07%	0.014%
93	18.959	2835	2838	2847	rBV6	1311	2523	0.12%	0.025%
94	19.038	2850	2853	2865	rBV5	1197	3068	0.15%	0.031%
95	19.163	2865	2877	2882	rVB5	971	3111	0.15%	0.031%
96	19.268	2883	2897	2904	rBV7	737	3188	0.16%	0.032%
97	19.331	2904	2909	2913	rVB5	1433	1788	0.09%	0.018%
98	19.436	2913	2929	2931	rBV6	1449	5141	0.25%	0.051%
99	19.546	2931	2950	2954	rBV5	1589	6456	0.31%	0.064%
100	19.740	2954	2987	3014	rBV9	2042	19530	0.95%	0.195%

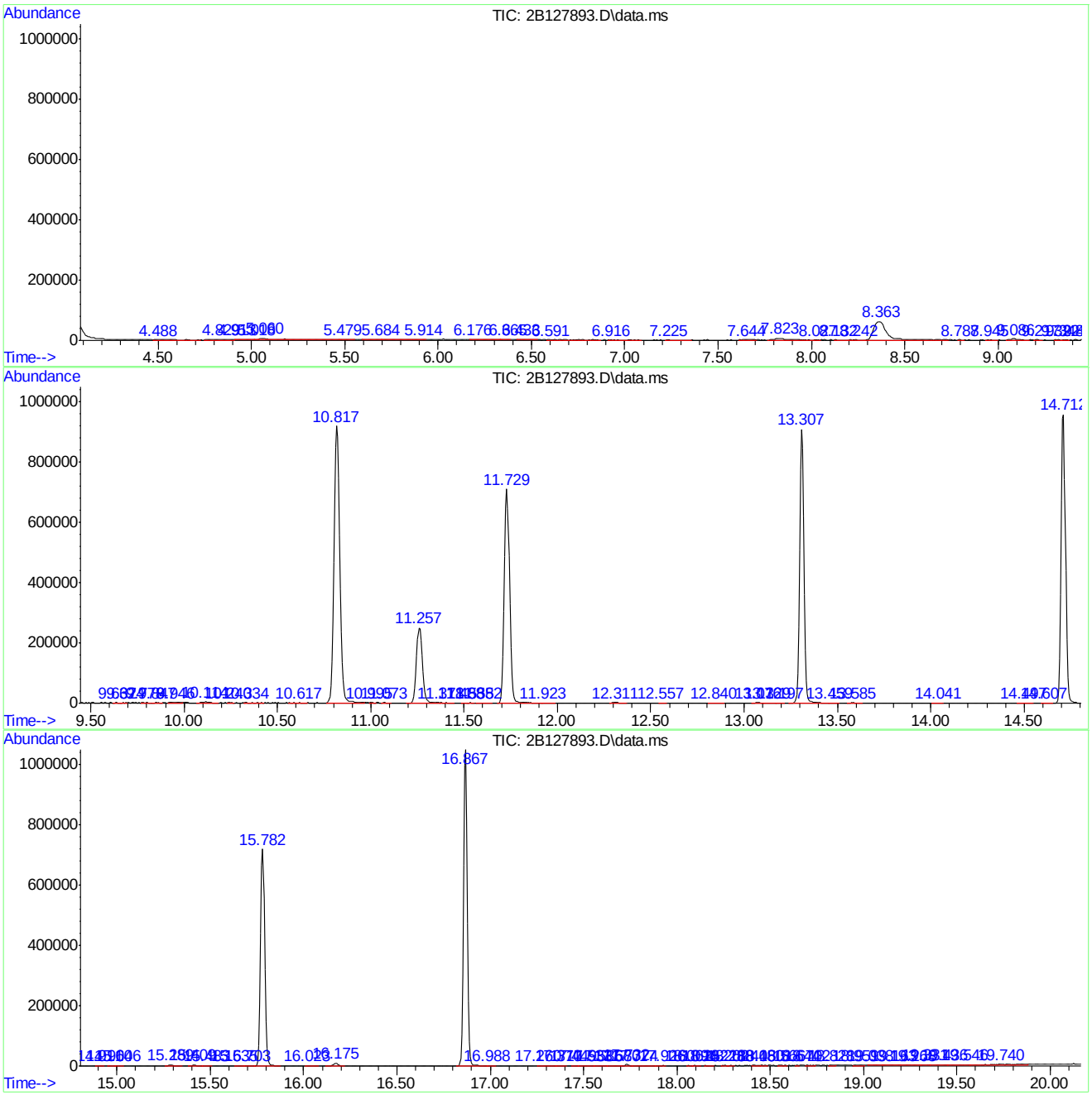
Sum of corrected areas: 10018828

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127893.D
Acq On : 27 Feb 2015 3:56 pm
Operator : bridgetk
Sample : JB88934-3
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 27 15:00:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

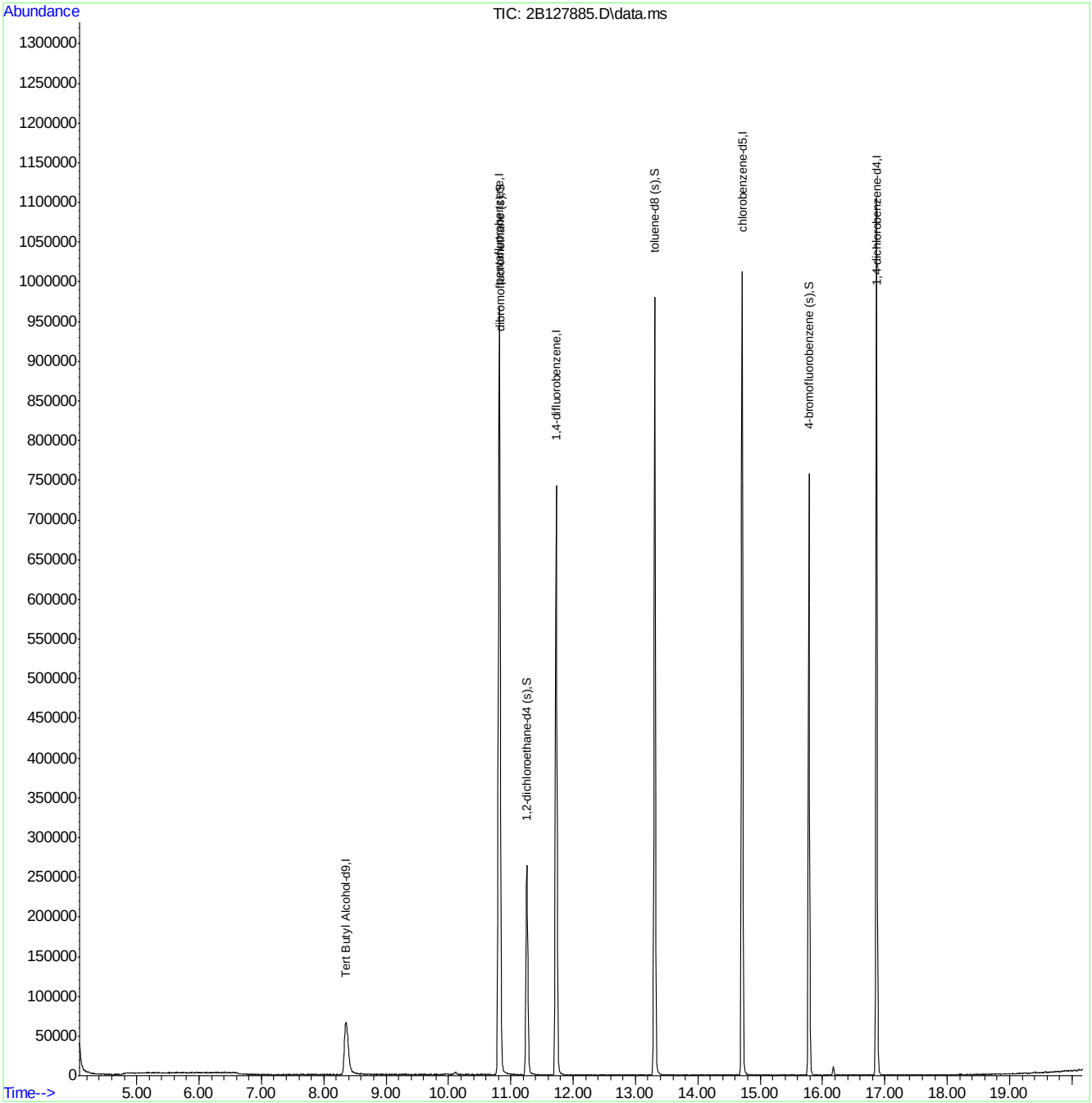
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.358	65	178920	500.00	ug/L	-0.01
5) pentafluorobenzene	10.811	168	624877	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.729	114	662203	50.00	ug/L	0.00
90) chlorobenzene-d5	14.712	117	557855	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.867	152	286612	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.822	113	187189	45.88	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 91.76%			
52) 1,2-dichloroethane-d4 (s)	11.257	65	199664	41.89	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 83.78%			
82) toluene-d8 (s)	13.307	98	629026	47.17	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 94.34%			
108) 4-bromofluorobenzene (s)	15.782	95	213449	46.14	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.28%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 27 15:00:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

Signal : TIC: 2B127885.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.520	83	84	106	rVB2	1050	2784	0.13%	0.027%
2	4.703	116	119	127	rVB3	421	748	0.03%	0.007%
3	4.772	127	132	136	rBV2	1036	1912	0.09%	0.018%
4	4.924	136	161	172	rVV6	1901	13009	0.60%	0.124%
5	5.191	172	212	213	rVV4	1699	14439	0.66%	0.138%
6	5.852	331	338	353	rBV2	1044	3506	0.16%	0.033%
7	6.502	460	462	469	rBV5	1727	2274	0.10%	0.022%
8	6.879	522	534	543	rVB3	688	1917	0.09%	0.018%
9	7.031	560	563	566	rVB3	664	799	0.04%	0.008%
10	7.110	571	578	585	rVV3	583	1301	0.06%	0.012%
11	7.272	603	609	625	rBV3	684	2424	0.11%	0.023%
12	7.398	631	633	638	rBV2	637	701	0.03%	0.007%
13	7.461	642	645	653	rBV3	695	1117	0.05%	0.011%
14	7.645	675	680	696	rVB4	640	1781	0.08%	0.017%
15	7.802	709	710	720	rVV3	658	1074	0.05%	0.010%
16	7.980	739	744	748	rBV	648	1226	0.06%	0.012%
17	8.012	748	750	754	rVV2	910	897	0.04%	0.009%
18	8.054	754	758	764	rVV4	974	1858	0.09%	0.018%
19	8.090	764	765	773	rVV2	1183	1409	0.06%	0.013%
20	8.169	777	780	783	rVV4	723	903	0.04%	0.009%
21	8.216	787	789	793	rBV2	745	829	0.04%	0.008%
22	8.358	801	816	859	rBV2	66266	314613	14.44%	2.997%
23	8.588	859	860	872	rBV4	1391	2293	0.11%	0.022%
24	8.720	881	885	889	rVB4	822	1222	0.06%	0.012%
25	8.751	889	891	919	rBV3	836	3012	0.14%	0.029%
26	8.997	935	938	952	rVB4	681	1579	0.07%	0.015%
27	9.212	977	979	993	rVB4	904	2264	0.10%	0.022%
28	9.312	993	998	1001	rBV3	791	1277	0.06%	0.012%
29	9.412	1006	1017	1024	rVB3	565	1979	0.09%	0.019%
30	9.475	1024	1029	1036	rBV3	829	1621	0.07%	0.015%
31	9.621	1053	1057	1067	rVB5	789	1589	0.07%	0.015%
32	9.710	1071	1074	1089	rVB4	849	1736	0.08%	0.017%
33	9.962	1114	1122	1139	rVB4	1138	5264	0.24%	0.050%
34	10.114	1139	1151	1165	rBV4	3770	11113	0.51%	0.106%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

35	10.203	1165	1168	1170	rVB2	725	653	0.03%	0.006%
36	10.230	1170	1173	1183	rBV3	524	1302	0.06%	0.012%
37	10.319	1187	1190	1199	rVB3	676	1725	0.08%	0.016%
38	10.450	1214	1215	1228	rBV3	627	1446	0.07%	0.014%
39	10.544	1228	1233	1235	rVB2	760	688	0.03%	0.007%
40	10.581	1237	1240	1242	rVB2	930	698	0.03%	0.007%
41	10.602	1242	1244	1248	rBV3	738	1025	0.05%	0.010%
42	10.670	1254	1257	1265	rVB4	709	1027	0.05%	0.010%
43	10.817	1271	1285	1325	rVV2	966339	2178175	100.00%	20.748%
44	11.037	1325	1327	1332	rVB3	725	774	0.04%	0.007%
45	11.074	1332	1334	1338	rVB3	910	922	0.04%	0.009%
46	11.110	1338	1341	1348	rBV2	793	1352	0.06%	0.013%
47	11.163	1348	1351	1356	rBV2	965	669	0.03%	0.006%
48	11.257	1358	1369	1400	rVB	263856	550400	25.27%	5.243%
49	11.561	1425	1427	1433	rVV2	493	668	0.03%	0.006%
50	11.619	1433	1438	1441	rVV3	450	774	0.04%	0.007%
51	11.645	1441	1443	1448	rVB2	677	854	0.04%	0.008%
52	11.729	1448	1459	1486	rBV	743166	1410932	64.78%	13.440%
53	11.876	1486	1487	1496	rVB2	658	1169	0.05%	0.011%
54	11.939	1496	1499	1503	rVB2	648	679	0.03%	0.006%
55	13.192	1734	1738	1743	rBV3	660	1188	0.05%	0.011%
56	13.234	1743	1746	1750	rVV2	574	937	0.04%	0.009%
57	13.307	1750	1760	1792	rVV	979622	1583176	72.68%	15.081%
58	13.580	1805	1812	1827	rVB3	1150	2758	0.13%	0.026%
59	13.915	1870	1876	1880	rVB	369	806	0.04%	0.008%
60	14.162	1917	1923	1928	rVB2	353	782	0.04%	0.007%
61	14.497	1984	1987	1995	rVB3	746	1443	0.07%	0.014%
62	14.545	1995	1996	2002	rBB2	695	722	0.03%	0.007%
63	14.628	2006	2012	2014	rVB2	745	686	0.03%	0.007%
64	14.707	2014	2027	2048	rBV	1012306	1573217	72.23%	14.986%
65	15.279	2130	2136	2141	rBV	455	1010	0.05%	0.010%
66	15.541	2181	2186	2190	rVB2	541	892	0.04%	0.008%
67	15.714	2211	2219	2223	rBV3	1059	1979	0.09%	0.019%
68	15.782	2223	2232	2250	rVB	758448	1090927	50.08%	10.392%
69	16.175	2296	2307	2318	rVB2	10738	15551	0.71%	0.148%
70	16.254	2318	2322	2328	rVB2	501	932	0.04%	0.009%
71	16.322	2328	2335	2338	rBV2	595	1147	0.05%	0.011%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

72	16.595	2382	2387	2390	rVV2	537	698	0.03%	0.007%
73	16.684	2398	2404	2409	rBV2	450	926	0.04%	0.009%
74	16.731	2409	2413	2418	rVB	536	837	0.04%	0.008%
75	16.867	2429	2439	2464	rBV	1105194	1594936	73.22%	15.193%
76	17.218	2495	2506	2507	rVB3	482	1056	0.05%	0.010%
77	17.439	2545	2548	2555	rBV3	668	1144	0.05%	0.011%
78	17.502	2555	2560	2568	rVB3	378	830	0.04%	0.008%
79	17.622	2578	2583	2586	rBV2	498	676	0.03%	0.006%
80	17.722	2598	2602	2612	rBV2	522	1036	0.05%	0.010%
81	17.869	2626	2630	2637	rVB2	715	1220	0.06%	0.012%
82	17.916	2637	2639	2642	rBV2	754	835	0.04%	0.008%
83	17.968	2648	2649	2658	rBV3	693	909	0.04%	0.009%
84	18.042	2658	2663	2667	rBV2	572	882	0.04%	0.008%
85	18.162	2684	2686	2689	rBV3	606	846	0.04%	0.008%
86	18.288	2708	2710	2714	rBV2	593	652	0.03%	0.006%
87	18.424	2734	2736	2739	rVV2	795	690	0.03%	0.007%
88	18.456	2741	2742	2752	rVB3	954	1317	0.06%	0.013%
89	18.540	2756	2758	2768	rVB2	623	1033	0.05%	0.010%
90	18.676	2778	2784	2788	rBV4	712	1043	0.05%	0.010%
91	18.723	2792	2793	2796	rBV2	884	633	0.03%	0.006%
92	18.839	2806	2815	2818	rVB4	804	1855	0.09%	0.018%
93	18.870	2818	2821	2833	rBV4	1043	2952	0.14%	0.028%
94	18.949	2833	2836	2846	rBV5	855	2495	0.11%	0.024%
95	19.048	2846	2855	2861	rBV5	914	2715	0.12%	0.026%
96	19.153	2873	2875	2886	rVB6	1040	2164	0.10%	0.021%
97	19.263	2886	2896	2899	rVB6	1255	3396	0.16%	0.032%
98	19.305	2900	2904	2909	rBV4	1280	1760	0.08%	0.017%
99	19.337	2909	2910	2914	rBV2	1081	1200	0.06%	0.011%
100	19.578	2918	2956	2982	rBV2	2329	26780	1.23%	0.255%

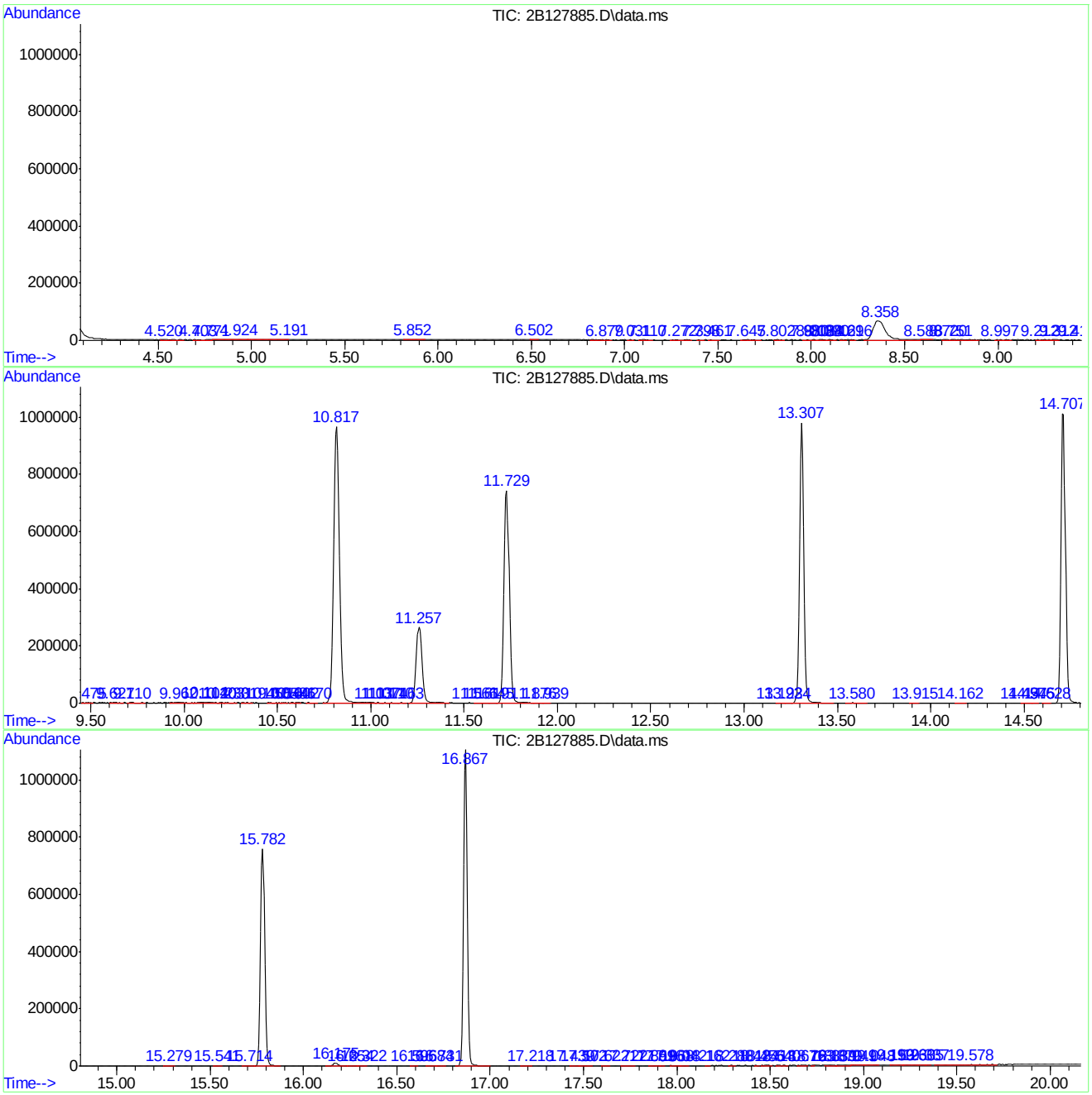
Sum of corrected areas: 10498071

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127885.D
Acq On : 27 Feb 2015 11:52 am
Operator : bridgetk
Sample : MB
Misc : MS81051,V2B5765,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127904.D
Acq On : 28 Feb 2015 12:15 pm
Operator : bridgetk
Sample : mb2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 03 10:33:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

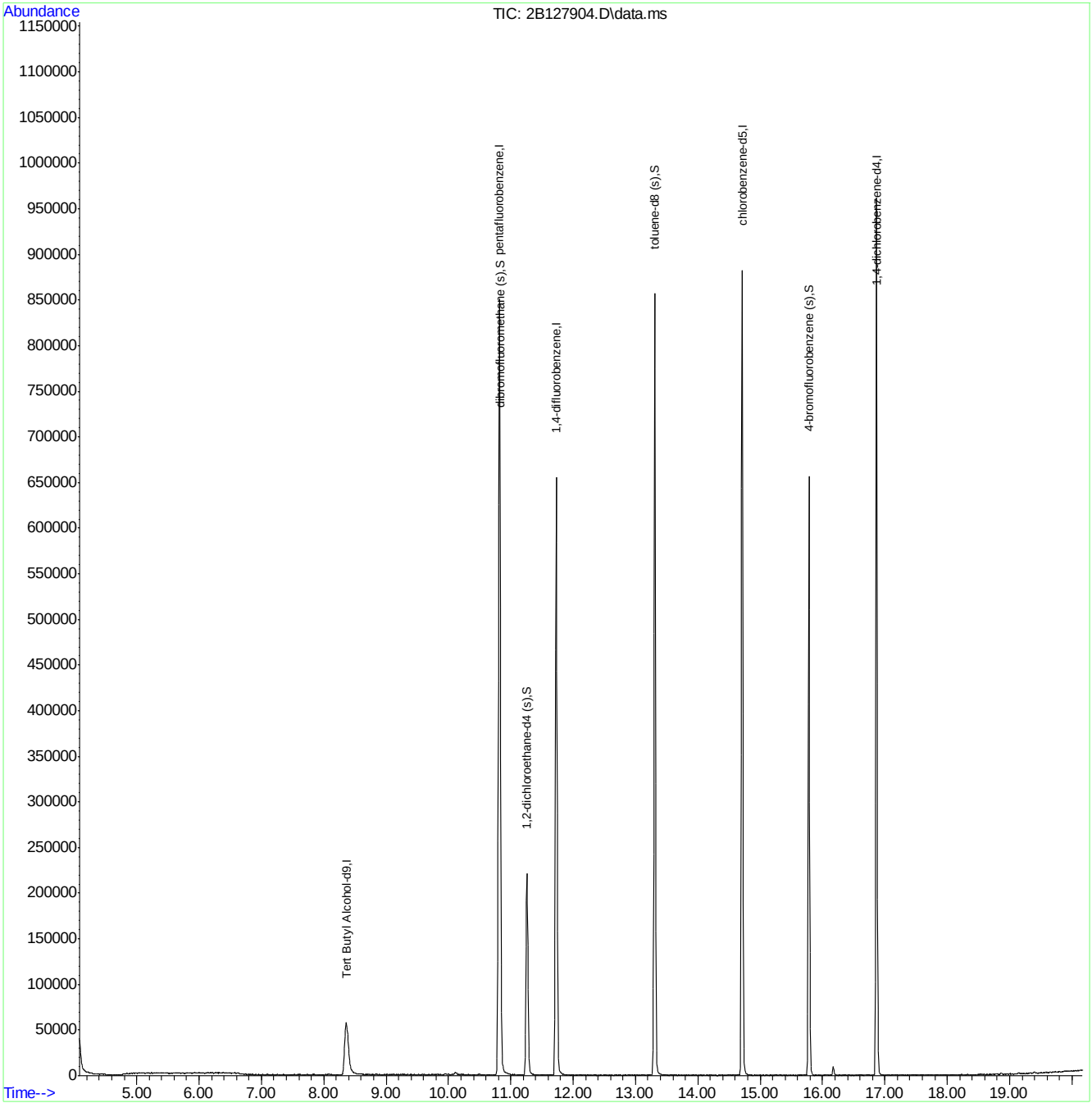
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.363	65	150715	500.00	ug/L	0.00
5) pentafluorobenzene	10.817	168	548998	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.729	114	581680	50.00	ug/L	0.00
90) chlorobenzene-d5	14.712	117	486519	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.867	152	252010	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.827	113	162764	45.41	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 90.82%			
52) 1,2-dichloroethane-d4 (s)	11.262	65	169230	40.41	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 80.82%			
82) toluene-d8 (s)	13.307	98	553890	47.29	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 94.58%			
108) 4-bromofluorobenzene (s)	15.782	95	184175	45.27	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 90.54%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127904.D
Acq On : 28 Feb 2015 12:15 pm
Operator : bridgetk
Sample : mb2
Misc : MS81423,V2B5765,w,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 03 10:33:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127886.D
Acq On : 27 Feb 2015 12:37 pm
Operator : bridgetk
Sample : BS
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 27 14:49:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.363	65	172070	500.00	ug/L		0.00
5) pentafluorobenzene	10.811	168	571375	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.724	114	626948	50.00	ug/L		0.00
90) chlorobenzene-d5	14.707	117	526858	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	279292	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	173788	46.59	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 93.18%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	181604	41.66	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 83.32%				
82) toluene-d8 (s)	13.307	98	598888	47.44	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 94.88%				
108) 4-bromofluorobenzene (s)	15.782	95	209201	46.40	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.80%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.494	59	92094	259.74	ug/L		97
3) ethanol	6.921	45	214471	5572.10	ug/L		99
4) 1,4-dioxane	12.410	88	42372	1270.86	ug/L		98
9) chlorodifluoromethane	4.472	51	263366	63.68	ug/L		92
10) dichlorodifluoromethane	4.452	85	241822	47.29	ug/L		98
12) chloromethane	4.876	50	318800	61.02	ug/L		99
13) vinyl chloride	5.170	62	278784	58.48	ug/L		98
15) bromomethane	5.909	94	186307	53.08	ug/L		97
16) chloroethane	6.103	64	150624	67.77	ug/L		98
18) trichlorofluoromethane	6.680	101	301762	49.90	ug/L		96
20) ethyl ether	7.152	74	118081	62.65	ug/L		95
21) acrolein	7.382	56	258217	438.91	ug/L		99
22) 2-chloropropane	7.351	43	346741	56.18	ug/L		89
24) 1,1-dichloroethene	7.613	96	201775	58.17	ug/L		96
25) acetone	7.634	43	50464	47.68	ug/L		82
26) allyl chloride	8.200	76	127128	70.31	ug/L	#	71
27) acetonitrile	8.101	40	109182	539.43	ug/L		88
28) iodomethane	7.901	142	407678	55.30	ug/L		94
29) iso-butyl alcohol	11.094	74	23365	567.01	ug/L	#	62
30) carbon disulfide	8.059	76	663307	58.99	ug/L		96
31) methylene chloride	8.394	84	217683	56.52	ug/L		99
32) methyl acetate	8.185	74	29865	52.24	ug/L	#	81
33) 1-chloropropane	8.457	42	349597	53.02	ug/L		97
34) methyl tert butyl ether	8.814	73	1111018	100.92	ug/L		96
35) trans-1,2-dichloroethene	8.835	96	197820	53.79	ug/L		97
36) di-isopropyl ether	9.490	45	631383	60.19	ug/L		97
37) 2-butanone	10.198	72	21297	56.90	ug/L		90
38) 1,1-dichloroethane	9.443	63	376781	58.50	ug/L		96
39) chloroprene	9.579	53	258138	56.53	ug/L		92
40) acrylonitrile	8.735	53	382604	308.28	ug/L		96
41) vinyl acetate	9.443	86	35456	61.51	ug/L		94
42) ethyl tert-butyl ether	9.993	59	622084	55.71	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127886.D
Acq On : 27 Feb 2015 12:37 pm
Operator : bridgetk
Sample : BS
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 27 14:49:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	ethyl acetate	10.245	45	23993	58.55	ug/L		80
44)	2,2-dichloropropane	10.266	77	272798	49.55	ug/L		96
45)	cis-1,2-dichloroethene	10.235	96	222661	55.69	ug/L		96
46)	propionitrile	10.271	54	259869	576.60	ug/L		99
47)	bromochloromethane	10.549	128	118124	56.73	ug/L		95
48)	tetrahydrofuran	10.617	42	52529	55.60	ug/L		96
49)	chloroform	10.617	83	350363	52.31	ug/L		97
50)	t-butyl formate	10.696	59	169736	55.96	ug/L		94
53)	freon 113	7.624	151	160449	57.53	ug/L		87
54)	methacrylonitrile	10.486	41	114094	56.08	ug/L		94
55)	1,1,1-trichloroethane	10.916	97	296012	50.69	ug/L		99
56)	Cyclohexane	11.021	84	278913	58.47	ug/L		88
61)	epichlorohydrin	12.903	57	82731	266.17	ug/L		96
62)	n-butyl alcohol	11.823	56	243740	2873.63	ug/L		95
63)	carbon tetrachloride	11.136	117	284377	45.85	ug/L		99
64)	1,1-dichloropropene	11.100	75	261699	53.68	ug/L		97
65)	hexane	9.223	57	170147	45.88	ug/L		98
66)	benzene	11.362	78	736674	54.90	ug/L		100
67)	2,2,4-trimethylpentane	11.425	57	609870	54.29	ug/L		93
68)	tert-amyl methyl ether	11.430	73	531554	49.74	ug/L		98
69)	heptane	11.587	57	126880	58.01	ug/L		97
70)	isopropyl acetate	11.299	43	310122	52.23	ug/L		97
71)	1,2-dichloroethane	11.346	62	244417	44.45	ug/L		91
72)	trichloroethene	12.059	95	197836	53.47	ug/L		98
74)	2-nitropropane	12.767	41	43874	43.32	ug/L		99
75)	2-chloroethyl vinyl ether	12.809	63	554169	284.15	ug/L		99
76)	methyl methacrylate	12.327	100	44937	55.73	ug/L	#	81
77)	1,2-dichloropropane	12.306	63	189822	55.86	ug/L		97
78)	dibromomethane	12.437	93	124615	51.17	ug/L		95
79)	methylcyclohexane	12.311	83	279122	53.08	ug/L		96
80)	bromodichloromethane	12.563	83	261845	49.50	ug/L		98
81)	cis-1,3-dichloropropene	13.013	75	321994	55.23	ug/L		92
83)	4-methyl-2-pentanone	13.118	58	65112	55.31	ug/L	#	86
84)	toluene	13.375	92	430916	53.27	ug/L		99
85)	3-methyl-1-butanol	13.113	55	134012	1071.04	ug/L		93
86)	trans-1,3-dichloropropene	13.532	75	283374	50.29	ug/L		94
87)	ethyl methacrylate	13.553	69	213613	54.59	ug/L		98
88)	1,1,2-trichloroethane	13.732	83	143131	53.04	ug/L		97
89)	2-hexanone	13.910	58	55937	56.79	ug/L		96
91)	butyl ether	14.691	57	726661	57.35	ug/L		95
92)	tetrachloroethene	13.926	164	177427	50.41	ug/L		98
93)	1,3-dichloropropane	13.905	76	278207	54.95	ug/L		93
94)	butyl acetate	13.989	56	103252	57.91	ug/L		96
95)	3,3-dimethyl-1-butanol	14.062	57	139339	528.33	ug/L		94
96)	dibromochloromethane	14.146	129	225350	49.95	ug/L		99
97)	1,2-dibromoethane	14.293	107	188540	53.58	ug/L		98
98)	chlorobenzene	14.738	112	483635	53.75	ug/L		98
99)	1,1,1,2-tetrachloroethane	14.791	131	198400	49.63	ug/L		96
100)	ethylbenzene	14.801	91	761210	50.84	ug/L		96
101)	m,p-xylene	14.901	106	614218	107.74	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127886.D
Acq On : 27 Feb 2015 12:37 pm
Operator : bridgetk
Sample : BS
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 27 14:49:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

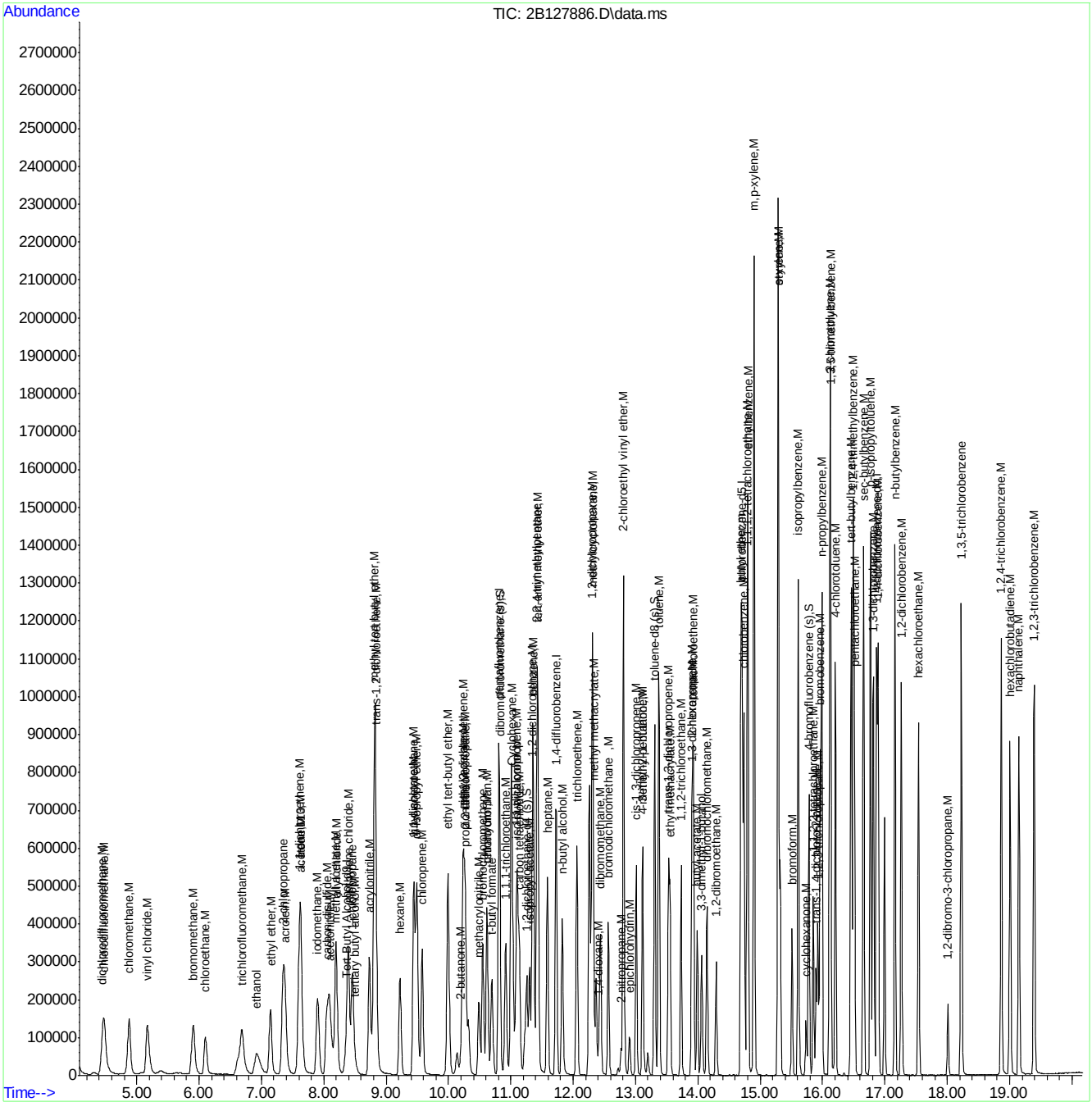
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	319886	52.96	ug/L	94
103) styrene	15.289	104	522589	56.15	ug/L	93
105) bromoform	15.509	173	174430	50.62	ug/L	98
107) isopropylbenzene	15.609	105	816025	54.86	ug/L	99
109) cyclohexanone	15.735	98	26218	176.51	ug/L	94
110) bromobenzene	15.960	156	247329	54.60	ug/L	94
111) 1,1,2,2-tetrachloroethane	15.850	83	215105	55.76	ug/L	98
112) trans-1,4-dichloro-2-b...	15.897	53	46170	45.84	ug/L	84
113) 1,2,3-trichloropropane	15.923	110	55427	52.86	ug/L	93
114) n-propylbenzene	15.991	91	911959	57.18	ug/L	98
115) 2-chlorotoluene	16.117	126	211194	55.54	ug/L	93
116) 4-chlorotoluene	16.206	91	554584	52.56	ug/L	96
117) 1,3,5-trimethylbenzene	16.128	105	646842	52.61	ug/L	99
118) tert-butylbenzene	16.458	119	617676	54.96	ug/L	96
119) pentachloroethane	16.511	167	161667	52.15	ug/L	98
120) 1,2,4-trimethylbenzene	16.490	105	673704	55.88	ug/L	98
121) sec-butylbenzene	16.657	105	904892	55.72	ug/L	98
122) 1,3-dichlorobenzene	16.815	146	429649	52.44	ug/L	99
123) p-isopropyltoluene	16.767	119	787967	56.68	ug/L	98
124) 1,4-dichlorobenzene	16.888	146	426458	51.92	ug/L	98
125) 1,2-dichlorobenzene	17.265	146	445517	53.90	ug/L	99
126) n-butylbenzene	17.161	92	400377	60.04	ug/L	98
127) 1,2-dibromo-3-chloropr...	18.010	75	41158	51.27	ug/L	97
128) 1,3,5-trichlorobenzene	18.225	180	428814	52.65	ug/L	97
129) 1,2,4-trichlorobenzene	18.865	180	396798	55.42	ug/L	99
130) hexachlorobutadiene	19.006	225	209744	51.49	ug/L	98
131) naphthalene	19.148	128	711259	57.06	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	350596	55.32	ug/L	100
133) hexachloroethane	17.538	201	177996	55.38	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127886.D
Acq On : 27 Feb 2015 12:37 pm
Operator : bridgetk
Sample : BS
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 27 14:49:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127905.D
Acq On : 28 Feb 2015 12:54 pm
Operator : bridgetk
Sample : jb88910-1ms
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 09:58:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.368	65	144389	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	499527	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	546292	50.00	ug/L		0.00
90) chlorobenzene-d5	14.707	117	458569	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	241150	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	151282	46.39	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 92.78%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	157251	41.27	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 82.54%				
82) toluene-d8 (s)	13.307	98	525232	47.75	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 95.50%				
108) 4-bromofluorobenzene (s)	15.782	95	181694	46.68	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.36%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.499	59	80696	271.23	ug/L		78
3) ethanol	6.932	45	170662	5283.94	ug/L		96
4) 1,4-dioxane	12.411	88	35666	1274.81	ug/L		95
9) chlorodifluoromethane	4.488	51	131758	36.44	ug/L		94
10) dichlorodifluoromethane	4.467	85	87385	19.55	ug/L		99
12) chloromethane	4.882	50	239176	52.37	ug/L		97
13) vinyl chloride	5.180	62	162410	38.97	ug/L		99
15) bromomethane	5.904	94	147592	48.09	ug/L		96
16) chloroethane	6.108	64	96757	49.79	ug/L		98
18) trichlorofluoromethane	6.690	101	127356	24.09	ug/L		97
20) ethyl ether	7.141	74	88564	53.75	ug/L		89
21) acrolein	7.382	56	201793	392.34	ug/L		100
22) 2-chloropropane	7.351	43	188957	35.02	ug/L		90
24) 1,1-dichloroethene	7.613	96	98318	32.42	ug/L		95
25) acetone	7.634	43	44446	48.03	ug/L		84
26) allyl chloride	8.200	76	68399	43.27	ug/L	#	72
27) acetonitrile	8.106	40	92080	520.36	ug/L		89
28) iodomethane	7.902	142	284939	44.21	ug/L		94
29) iso-butyl alcohol	11.095	74	13935	386.81	ug/L	#	86
30) carbon disulfide	8.054	76	372332	37.87	ug/L		95
31) methylene chloride	8.394	84	165382	49.12	ug/L		99
32) methyl acetate	8.185	74	23579	47.18	ug/L	#	85
33) 1-chloropropane	8.457	42	192418	33.38	ug/L		96
34) methyl tert butyl ether	8.819	73	455516	47.33	ug/L		99
35) trans-1,2-dichloroethene	8.830	96	128645	40.01	ug/L		98
36) di-isopropyl ether	9.490	45	501211	54.65	ug/L		96
37) 2-butanone	10.203	72	16772	51.26	ug/L	#	76
38) 1,1-dichloroethane	9.443	63	255937	45.45	ug/L		99
39) chloroprene	9.579	53	140182	35.12	ug/L		93
40) acrylonitrile	8.730	53	279292	257.40	ug/L		98
41) vinyl acetate	9.443	86	18900	37.50	ug/L		87
42) ethyl tert-butyl ether	9.993	59	500852	51.30	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127905.D
Acq On : 28 Feb 2015 12:54 pm
Operator : bridgetk
Sample : jb88910-1ms
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 09:58:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) ethyl acetate	10.245	45	17104	47.74	ug/L		81
44) 2,2-dichloropropane	10.266	77	124553	25.88	ug/L		96
45) cis-1,2-dichloroethene	10.235	96	161289	46.14	ug/L		93
46) propionitrile	10.271	54	209420	531.49	ug/L		97
47) bromochloromethane	10.549	128	88877	48.83	ug/L		92
48) tetrahydrofuran	10.617	42	41806	50.62	ug/L		96
49) chloroform	10.617	83	247222	42.22	ug/L		97
50) t-butyl formate	10.916	59	1629	0.61	ug/L	#	25
53) freon 113	7.624	151	52316	21.46	ug/L		94
54) methacrylonitrile	10.486	41	90334	50.79	ug/L		95
55) 1,1,1-trichloroethane	10.916	97	167130	32.74	ug/L		99
56) Cyclohexane	11.021	84	94301	22.61	ug/L	#	67
61) epichlorohydrin	12.903	57	11492	42.43	ug/L		95
62) n-butyl alcohol	11.823	56	186856	2528.24	ug/L		96
63) carbon tetrachloride	11.136	117	135171	25.01	ug/L		99
64) 1,1-dichloropropene	11.100	75	134915	31.76	ug/L		99
65) hexane	9.228	57	74042	22.91	ug/L		98
66) benzene	11.362	78	509447	43.57	ug/L		100
67) 2,2,4-trimethylpentane	11.425	57	229131	23.41	ug/L		87
68) tert-amyl methyl ether	11.430	73	431881	46.38	ug/L		97
69) heptane	11.593	57	43858	23.01	ug/L		97
70) isopropyl acetate	11.304	43	233878	45.21	ug/L		96
71) 1,2-dichloroethane	11.346	62	187302	39.10	ug/L		94
72) trichloroethene	12.059	95	126645	39.29	ug/L		99
74) 2-nitropropane	12.767	41	33288	37.72	ug/L		98
75) 2-chloroethyl vinyl ether	12.914	63	508	0.30	ug/L	#	45
76) methyl methacrylate	12.327	100	36506	51.96	ug/L	#	74
77) 1,2-dichloropropane	12.306	63	150491	50.83	ug/L		96
78) dibromomethane	12.437	93	97693	46.04	ug/L		93
79) methylcyclohexane	12.311	83	100035	21.83	ug/L		98
80) bromodichloromethane	12.568	83	200652	43.53	ug/L		99
81) cis-1,3-dichloropropene	13.013	75	238642	46.98	ug/L		92
83) 4-methyl-2-pentanone	13.118	58	53954	52.60	ug/L	#	87
84) toluene	13.375	92	301690	42.80	ug/L		99
85) 3-methyl-1-butanol	13.113	55	111775	1025.21	ug/L		97
86) trans-1,3-dichloropropene	13.533	75	211138	43.01	ug/L		95
87) ethyl methacrylate	13.554	69	173869	50.99	ug/L		98
88) 1,1,2-trichloroethane	13.732	83	112595	47.89	ug/L		98
89) 2-hexanone	13.910	58	45499	53.02	ug/L		92
91) butyl ether	14.691	57	544239	49.35	ug/L		96
92) tetrachloroethene	13.926	164	97716	31.90	ug/L		96
93) 1,3-dichloropropane	13.905	76	216393	49.11	ug/L		94
94) butyl acetate	13.994	56	70276	45.28	ug/L		91
95) 3,3-dimethyl-1-butanol	14.062	57	117455	511.67	ug/L		97
96) dibromochloromethane	14.146	129	177074	45.10	ug/L		99
97) 1,2-dibromoethane	14.293	107	147464	48.15	ug/L		100
98) chlorobenzene	14.738	112	354730	45.30	ug/L		98
99) 1,1,1,2-tetrachloroethane	14.791	131	152627	43.86	ug/L		97
100) ethylbenzene	14.801	91	521673	40.03	ug/L		97
101) m,p-xylene	14.901	106	419642	84.57	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127905.D
Acq On : 28 Feb 2015 12:54 pm
Operator : bridgetk
Sample : jb88910-1ms
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 09:58:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

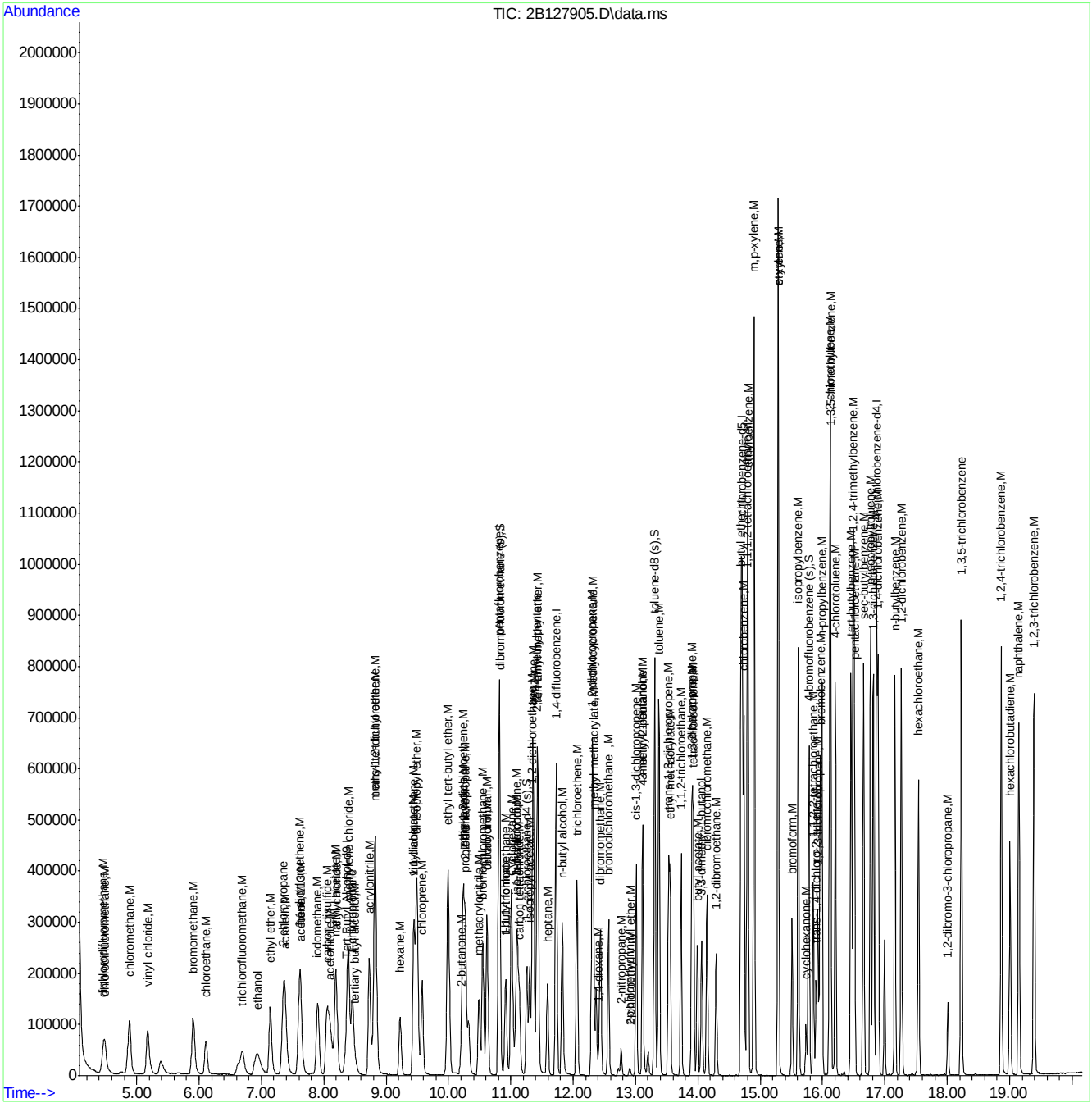
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	233209	44.36	ug/L	94
103) styrene	15.289	104	384824	47.50	ug/L	94
105) bromoform	15.509	173	135969	45.34	ug/L	99
107) isopropylbenzene	15.609	105	517422	40.29	ug/L	99
109) cyclohexanone	15.735	98	17998	140.34	ug/L	97
110) bromobenzene	15.965	156	183569	46.93	ug/L	99
111) 1,1,2,2-tetrachloroethane	15.850	83	175721	52.75	ug/L	98
112) trans-1,4-dichloro-2-b...	15.892	53	30064	34.57	ug/L	94
113) 1,2,3-trichloropropane	15.923	110	43558	48.11	ug/L	93
114) n-propylbenzene	15.992	91	544294	39.52	ug/L	98
115) 2-chlorotoluene	16.117	126	148023	45.09	ug/L	92
116) 4-chlorotoluene	16.206	91	398606	43.75	ug/L	96
117) 1,3,5-trimethylbenzene	16.128	105	443099	41.74	ug/L	99
118) tert-butylbenzene	16.458	119	375801	38.73	ug/L	97
119) pentachloroethane	16.511	167	123781	46.25	ug/L	98
120) 1,2,4-trimethylbenzene	16.490	105	461969	44.38	ug/L	97
121) sec-butylbenzene	16.657	105	514941	36.72	ug/L	98
122) 1,3-dichlorobenzene	16.815	146	316591	44.75	ug/L	100
123) p-isopropyltoluene	16.767	119	470424	39.19	ug/L	98
124) 1,4-dichlorobenzene	16.888	146	311748	43.96	ug/L	98
125) 1,2-dichlorobenzene	17.266	146	335065	46.95	ug/L	99
126) n-butylbenzene	17.161	92	221976	38.55	ug/L	99
127) 1,2-dibromo-3-chloropr...	18.010	75	31144	44.93	ug/L	99
128) 1,3,5-trichlorobenzene	18.225	180	296300	42.13	ug/L	98
129) 1,2,4-trichlorobenzene	18.865	180	282840	45.75	ug/L	97
130) hexachlorobutadiene	19.006	225	106782	30.36	ug/L	98
131) naphthalene	19.148	128	549802	51.08	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	257924	47.13	ug/L	99
133) hexachloroethane	17.538	201	110627	39.86	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127905.D
Acq On : 28 Feb 2015 12:54 pm
Operator : bridgetk
Sample : jb88910-1ms
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 09:58:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127906.D
Acq On : 28 Feb 2015 1:23 pm
Operator : bridgetk
Sample : jb88910-1msd
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:58:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.368	65	139495	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	505812	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	546272	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	459535	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	241740	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	150060	45.44	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 90.88%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	156484	40.55	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 81.10%				
82) toluene-d8 (s)	13.307	98	530800	48.25	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 96.50%				
108) 4-bromofluorobenzene (s)	15.782	95	182197	46.69	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.38%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.489	59	79098	275.19	ug/L		88
3) ethanol	6.926	45	167612	5371.58	ug/L		97
4) 1,4-dioxane	12.410	88	33974	1256.93	ug/L		99
9) chlorodifluoromethane	4.483	51	127840	34.92	ug/L		95
10) dichlorodifluoromethane	4.462	85	81778	18.07	ug/L		98
12) chloromethane	4.887	50	238602	51.59	ug/L		99
13) vinyl chloride	5.180	62	164704	39.03	ug/L		97
15) bromomethane	5.909	94	147462	47.45	ug/L		95
16) chloroethane	6.114	64	99672	50.66	ug/L		95
18) trichlorofluoromethane	6.690	101	125393	23.42	ug/L		100
20) ethyl ether	7.141	74	88723	53.18	ug/L		90
21) acrolein	7.388	56	226362	434.64	ug/L		100
22) 2-chloropropane	7.351	43	193882	35.49	ug/L		90
24) 1,1-dichloroethene	7.618	96	100453	32.72	ug/L		94
25) acetone	7.639	43	43716	46.66	ug/L		84
26) allyl chloride	8.200	76	71872	44.90	ug/L	#	82
27) acetonitrile	8.106	40	91371	509.94	ug/L		95
28) iodomethane	7.901	142	291939	44.73	ug/L		93
29) iso-butyl alcohol	11.100	74	14200	389.27	ug/L	#	61
30) carbon disulfide	8.054	76	381162	38.29	ug/L		95
31) methylene chloride	8.394	84	168752	49.50	ug/L		98
32) methyl acetate	8.190	74	23424	46.29	ug/L		90
33) 1-chloropropane	8.457	42	198259	33.97	ug/L		96
34) methyl tert butyl ether	8.819	73	458840	47.08	ug/L		100
35) trans-1,2-dichloroethene	8.835	96	131086	40.26	ug/L		98
36) di-isopropyl ether	9.495	45	512020	55.13	ug/L		95
37) 2-butanone	10.203	72	16111	48.62	ug/L	#	76
38) 1,1-dichloroethane	9.443	63	263272	46.17	ug/L		97
39) chloroprene	9.579	53	143716	35.55	ug/L		92
40) acrylonitrile	8.735	53	279604	254.49	ug/L		99
41) vinyl acetate	9.448	86	18844	36.93	ug/L		89
42) ethyl tert-butyl ether	9.993	59	514731	52.07	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127906.D
Acq On : 28 Feb 2015 1:23 pm
Operator : bridgetk
Sample : jb88910-1msd
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:58:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) ethyl acetate	10.250	45	15984	44.06	ug/L		63
44) 2,2-dichloropropane	10.266	77	126263	25.91	ug/L		99
45) cis-1,2-dichloroethene	10.229	96	163108	46.08	ug/L		94
46) propionitrile	10.277	54	206920	518.62	ug/L		97
47) bromochloromethane	10.554	128	90522	49.11	ug/L		98
48) tetrahydrofuran	10.617	42	40202	48.07	ug/L		95
49) chloroform	10.623	83	251196	42.36	ug/L		96
50) t-butyl formate	10.916	59	1684	0.63	ug/L	#	25
53) freon 113	7.634	151	50747	20.55	ug/L		87
54) methacrylonitrile	10.492	41	90696	50.36	ug/L		94
55) 1,1,1-trichloroethane	10.921	97	168849	32.66	ug/L		99
56) Cyclohexane	11.021	84	94187	22.30	ug/L	#	64
61) epichlorohydrin	12.909	57	11558	42.68	ug/L		99
62) n-butyl alcohol	11.829	56	180155	2437.66	ug/L		97
63) carbon tetrachloride	11.136	117	137363	25.42	ug/L		99
64) 1,1-dichloropropene	11.100	75	136500	32.13	ug/L		99
65) hexane	9.228	57	73205	22.65	ug/L		99
66) benzene	11.362	78	520882	44.55	ug/L		99
67) 2,2,4-trimethylpentane	11.425	57	229808	23.48	ug/L		82
68) tert-amyl methyl ether	11.430	73	439235	47.17	ug/L		98
69) heptane	11.587	57	42626	22.37	ug/L		98
70) isopropyl acetate	11.304	43	233906	45.21	ug/L		97
71) 1,2-dichloroethane	11.346	62	189241	39.50	ug/L		89
72) trichloroethene	12.064	95	128696	39.92	ug/L		98
74) 2-nitropropane	12.767	41	32398	36.71	ug/L		93
75) 2-chloroethyl vinyl ether	12.909	63	553	0.33	ug/L	#	45
76) methyl methacrylate	12.327	100	35992	51.23	ug/L	#	80
77) 1,2-dichloropropane	12.306	63	151568	51.19	ug/L		95
78) dibromomethane	12.437	93	99059	46.68	ug/L		94
79) methylcyclohexane	12.311	83	100171	21.86	ug/L		95
80) bromodichloromethane	12.568	83	203457	44.14	ug/L		98
81) cis-1,3-dichloropropene	13.013	75	238971	47.04	ug/L		92
83) 4-methyl-2-pentanone	13.118	58	53584	52.24	ug/L	#	80
84) toluene	13.375	92	305238	43.30	ug/L		98
85) 3-methyl-1-butanol	13.113	55	109881	1007.88	ug/L		97
86) trans-1,3-dichloropropene	13.533	75	214250	43.64	ug/L		95
87) ethyl methacrylate	13.553	69	175242	51.40	ug/L		97
88) 1,1,2-trichloroethane	13.732	83	113000	48.06	ug/L		97
89) 2-hexanone	13.910	58	44902	52.32	ug/L		94
91) butyl ether	14.691	57	556749	50.38	ug/L		95
92) tetrachloroethene	13.931	164	99411	32.38	ug/L		98
93) 1,3-dichloropropane	13.905	76	220089	49.84	ug/L		94
94) butyl acetate	13.989	56	71122	45.73	ug/L		91
95) 3,3-dimethyl-1-butanol	14.062	57	118473	515.02	ug/L		97
96) dibromochloromethane	14.146	129	178538	45.38	ug/L		100
97) 1,2-dibromoethane	14.293	107	147786	48.15	ug/L		99
98) chlorobenzene	14.738	112	362408	46.18	ug/L		96
99) 1,1,1,2-tetrachloroethane	14.791	131	152605	43.76	ug/L		98
100) ethylbenzene	14.801	91	526542	40.32	ug/L		97
101) m,p-xylene	14.901	106	424354	85.34	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127906.D
Acq On : 28 Feb 2015 1:23 pm
Operator : bridgetk
Sample : jb88910-1msd
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:58:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

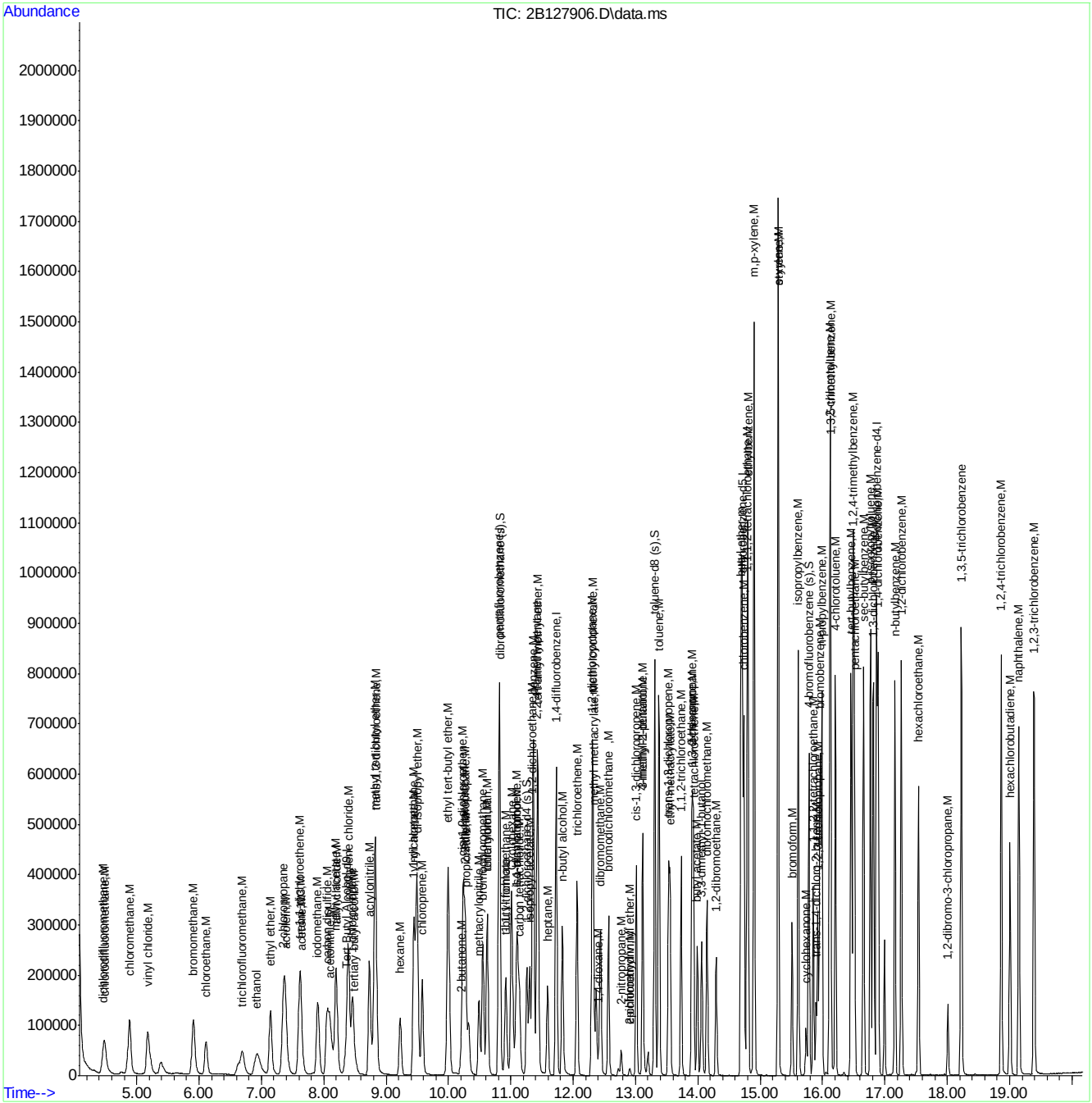
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	234328	44.48	ug/L	97
103) styrene	15.289	104	391948	48.28	ug/L	93
105) bromoform	15.509	173	135888	45.22	ug/L	97
107) isopropylbenzene	15.609	105	523240	40.64	ug/L	99
109) cyclohexanone	15.735	98	17699	137.67	ug/L	91
110) bromobenzene	15.960	156	189033	48.21	ug/L	93
111) 1,1,2,2-tetrachloroethane	15.850	83	175489	52.56	ug/L	94
112) trans-1,4-dichloro-2-b...	15.897	53	23350	26.78	ug/L	86
113) 1,2,3-trichloropropane	15.923	110	43473	47.90	ug/L	93
114) n-propylbenzene	15.991	91	549310	39.79	ug/L	99
115) 2-chlorotoluene	16.117	126	152446	46.32	ug/L	91
116) 4-chlorotoluene	16.206	91	406066	44.46	ug/L	97
117) 1,3,5-trimethylbenzene	16.128	105	446319	41.94	ug/L	100
118) tert-butylbenzene	16.458	119	381566	39.23	ug/L	95
119) pentachloroethane	16.511	167	124166	46.28	ug/L	99
120) 1,2,4-trimethylbenzene	16.490	105	468883	44.93	ug/L	97
121) sec-butylbenzene	16.657	105	520007	36.99	ug/L	99
122) 1,3-dichlorobenzene	16.815	146	323333	45.59	ug/L	99
123) p-isopropyltoluene	16.767	119	479359	39.83	ug/L	98
124) 1,4-dichlorobenzene	16.888	146	317467	44.66	ug/L	98
125) 1,2-dichlorobenzene	17.266	146	340541	47.60	ug/L	99
126) n-butylbenzene	17.161	92	221271	38.33	ug/L	99
127) 1,2-dibromo-3-chloropr...	18.010	75	30545	43.96	ug/L	96
128) 1,3,5-trichlorobenzene	18.225	180	301221	42.73	ug/L	97
129) 1,2,4-trichlorobenzene	18.865	180	288091	46.49	ug/L	100
130) hexachlorobutadiene	19.006	225	108919	30.89	ug/L	98
131) naphthalene	19.148	128	550035	50.98	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	261391	47.65	ug/L	99
133) hexachloroethane	17.538	201	111244	39.99	ug/L	98

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

Quantitation Report (QT Reviewed)

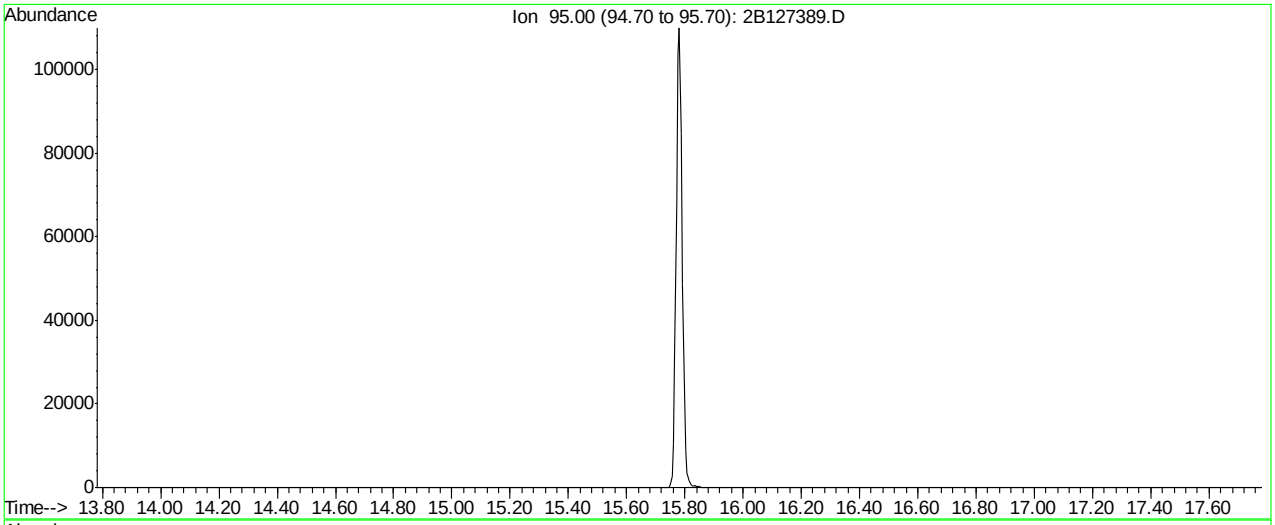
Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127906.D
Acq On : 28 Feb 2015 1:23 pm
Operator : bridgetk
Sample : jb88910-1msd
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

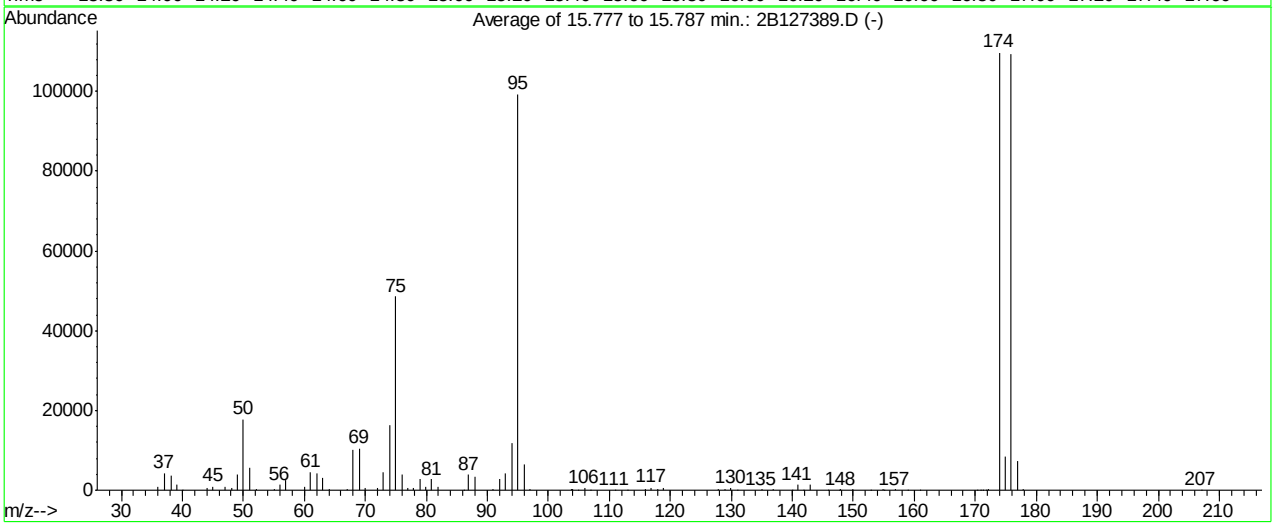
Quant Time: Mar 03 09:58:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\2B127389.D Vial: 1
Acq On : 5 Feb 2015 3:37 pm Operator: bridgetk
Sample : BFB Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um





AutoFind: Scans 2231, 2232, 2233; Background Corrected with Scan 2223

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	17802	PASS
75	95	30	60	48.9	48517	PASS
95	95	100	100	100.0	99285	PASS
96	95	5	9	6.6	6558	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	110.6	109778	PASS
175	174	5	9	7.6	8374	PASS
176	174	95	101	99.6	109376	PASS
177	176	5	9	6.6	7201	PASS

2B127389.D M2B5744.M Fri Feb 06 17:02:06 2015 MS2B

Average of 15.777 to 15.787 min.: 2B127389.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	915	51.05	5529	68.00	10066	79.85	879
37.00	4345	52.05	221	69.00	10514	80.90	2701
38.10	3789	55.00	240	70.00	686	81.90	757
39.05	1531	56.00	1369	72.00	509	86.10	53
40.00	60	57.00	2481	73.00	4574	86.95	3851
44.00	438	60.00	938	74.00	16203	87.95	3322
45.00	883	61.00	4620	75.00	48517	90.90	419
47.05	893	62.00	4314	76.00	4086	92.00	2869
48.05	598	63.00	3004	77.00	542	93.00	4111
49.00	3992	64.05	321	77.95	498	94.00	11762
50.00	17802	67.10	289	78.90	2744	95.00	99285

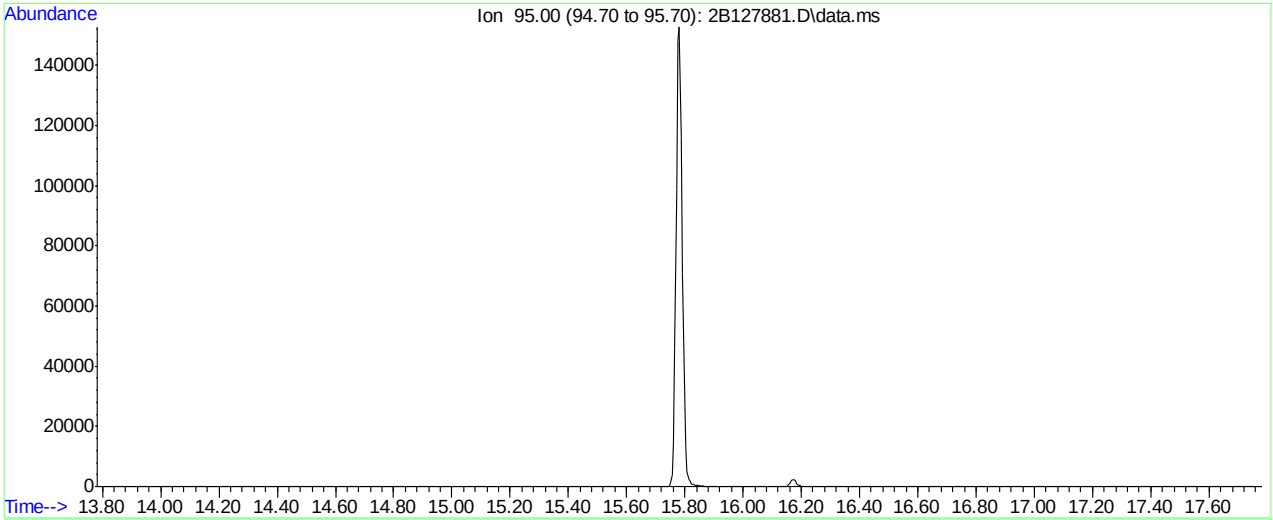
Average of 15.777 to 15.787 min.: 2B127389.D
BFB
Modified:subtracted

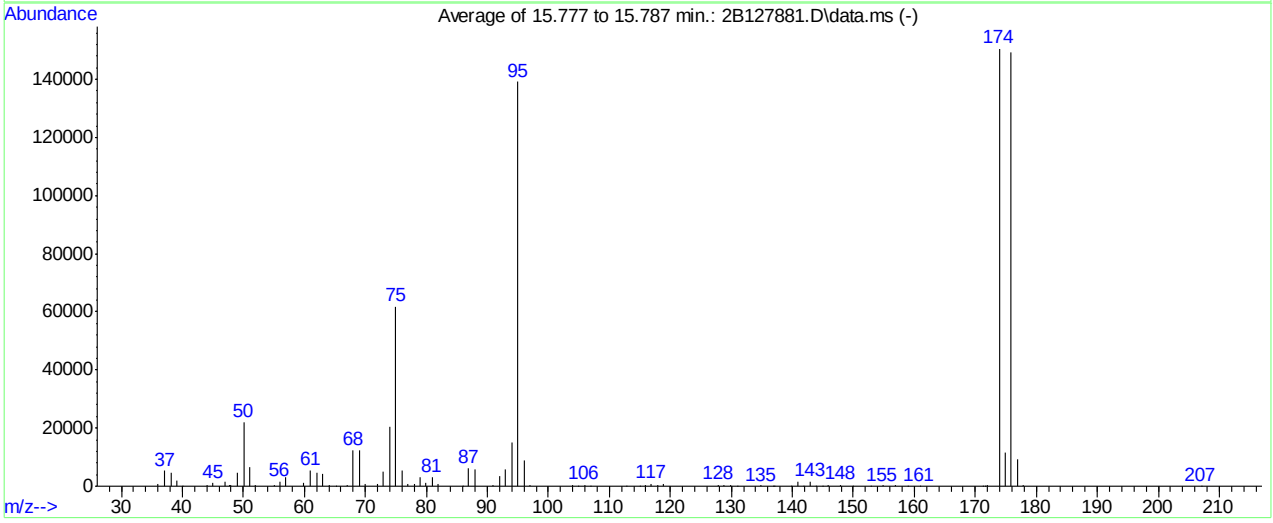
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	6558	117.85	413	142.90	1302	170.40	51
97.00	218	118.90	526	145.90	129	170.85	101
103.80	313	127.85	416	147.70	89	171.20	53
104.00	219	128.90	208	147.90	239	171.80	146
104.90	121	129.90	492	149.90	184	172.10	223
105.95	473	131.00	123	152.80	50	173.90	109778
106.90	56	134.95	201	154.80	197	174.90	8374
110.90	55	136.90	198	155.00	66	175.90	109376
112.90	51	139.90	58	156.85	202	176.90	7201
115.95	420	140.90	1329	159.00	80	177.90	206
116.85	683	141.90	59	160.90	117	207.00	55

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2b\v2b5765\2B127881.D Vial: 1
Acq On : 27 Feb 2015 9:30 am Operator: bridgetk
Sample : BFB Inst : MS2B
Misc : MS81300,V2B5765,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um





AutoFind: Scans 2231, 2232, 2233; Background Corrected with Scan 2223

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	22072	PASS
75	95	30	60	44.5	61877	PASS
95	95	100	100	100.0	139192	PASS
96	95	5	9	6.5	9040	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	108.2	150634	PASS
175	174	5	9	7.7	11638	PASS
176	174	95	101	99.2	149354	PASS
177	176	5	9	6.2	9288	PASS

2B127881.D M2B5744.M Fri Feb 27 14:50:44 2015 ACC-VOA-CLN-05A

Average of 15.777 to 15.787 min.: 2B127881.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	902	50.05	22072	65.10	76	78.00	660
37.10	5260	51.05	6491	67.05	260	78.95	3048
38.10	4573	52.00	279	68.00	12493	79.95	985
39.10	2020	55.05	235	69.00	12403	80.95	3252
40.00	67	56.00	1553	70.00	798	81.90	696
44.00	482	57.00	3205	71.95	669	85.95	197
45.05	1084	59.95	1095	73.00	5037	86.95	6290
47.05	1478	61.00	5596	74.00	20328	88.00	5693
47.80	268	62.05	4828	75.00	61877	90.95	479
48.00	416	63.00	4065	76.00	5229	92.00	3646
49.05	4503	64.00	343	76.95	775	93.00	5640

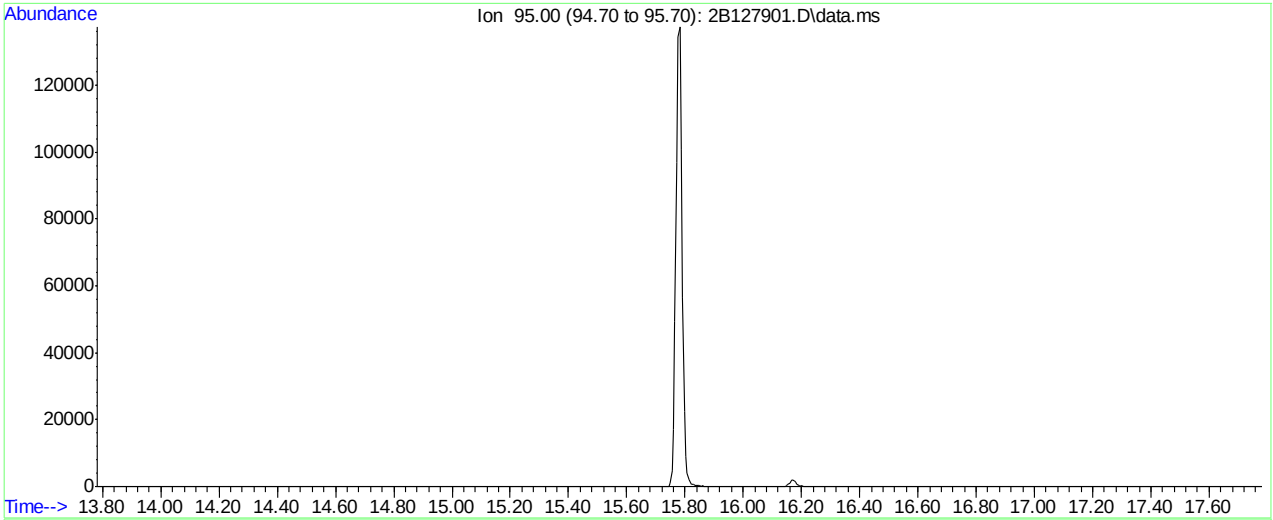
Average of 15.777 to 15.787 min.: 2B127881.D\data.ms
BFB
Modified:subtracted

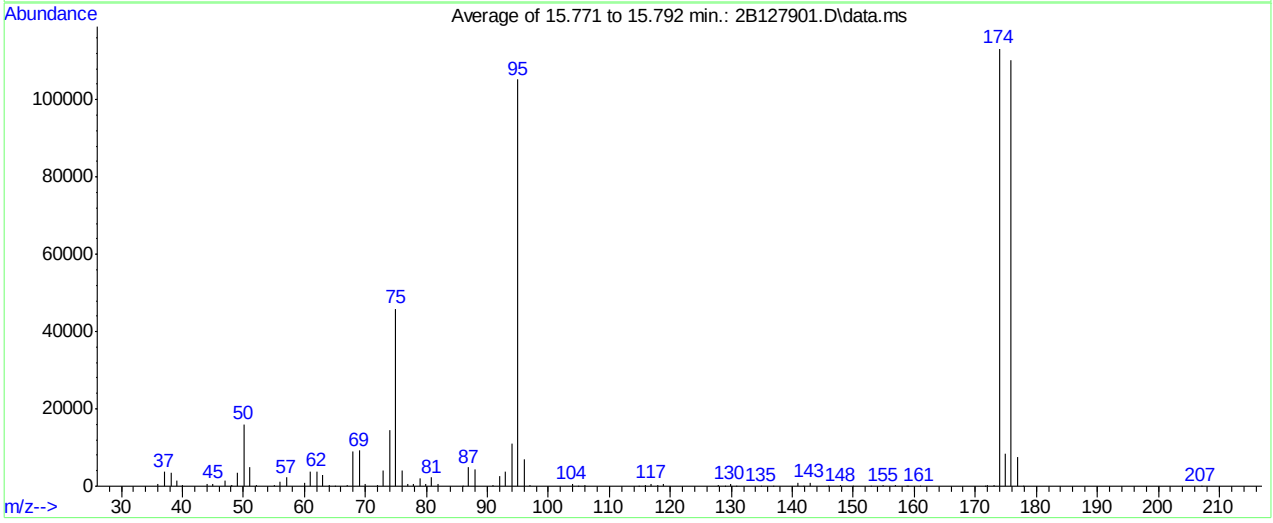
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	15137	116.90	795	140.90	1403	158.90	121
95.00	139192	117.95	442	141.75	104	160.90	108
96.00	9040	118.90	668	142.95	1566	171.30	76
97.00	291	127.90	563	143.80	51	171.60	85
103.90	564	128.85	332	144.90	51	171.90	448
104.90	144	129.90	497	145.85	238	173.90	150634
105.95	573	130.90	146	147.90	404	174.90	11638
106.90	63	134.85	223	149.90	170	175.90	149354
112.80	53	136.80	171	152.85	121	176.90	9288
114.95	163	137.00	62	154.85	368	177.90	296
115.90	390	139.80	56	156.90	324	207.00	51

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2b\v2b5765-5766\2B127901.D Vial: 1
Acq On : 28 Feb 2015 10:37 am Operator: bridgetk
Sample : bfb Inst : MS2B
Misc : MS81419,V2B5765,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um





Spectrum Information: Average of 15.771 to 15.792 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	15999	PASS
75	95	30	60	43.6	45891	PASS
95	95	100	100	100.0	105286	PASS
96	95	5	9	6.5	6874	PASS
173	174	0.00	2	0.4	429	PASS
174	95	50	120	107.6	113260	PASS
175	174	5	9	7.5	8460	PASS
176	174	95	101	97.4	110355	PASS
177	176	5	9	6.8	7502	PASS

2B127901.D M2B5744.M Tue Mar 03 10:37:59 2015 ACC-VOA-CLN-05A

Average of 15.771 to 15.792 min.: 2B127901.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	671	50.05	15999	65.00	42	77.95	480
37.05	3762	51.00	4953	67.05	194	78.90	2160
38.10	3481	52.05	204	68.00	8883	79.95	650
39.05	1375	55.05	174	69.00	9226	80.90	2212
40.00	314	56.00	1121	70.00	683	81.95	480
44.00	620	57.05	2243	72.00	429	86.00	34
45.05	700	60.00	743	73.00	4032	86.95	4877
47.05	1343	61.00	3761	74.00	14585	87.95	4483
47.90	101	62.05	3774	75.00	45891	90.95	269
48.05	447	63.00	2937	76.00	4057	92.00	2616
49.00	3526	64.05	268	77.00	569	93.00	3914

Average of 15.771 to 15.792 min.: 2B127901.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	11110	118.85	548	147.95	279	173.90	113260
95.00	105286	127.90	395	149.95	73	174.90	8460
96.00	6874	128.95	141	152.90	69	175.90	110355
97.00	169	129.85	450	154.90	266	176.90	7502
103.90	456	130.85	116	156.90	171	177.85	115
104.80	70	134.85	138	158.75	60	207.00	31
105.90	371	136.90	132	158.95	69		
114.90	83	140.90	996	160.90	40		
115.95	313	141.85	97	171.60	52		
116.90	637	142.90	1019	172.00	337		
117.95	323	145.90	128	173.10	429		

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127390.D Vial: 2
Acq On : 5 Feb 2015 4:12 pm Operator: bridgetk
Sample : ic5744-0.2 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:38 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

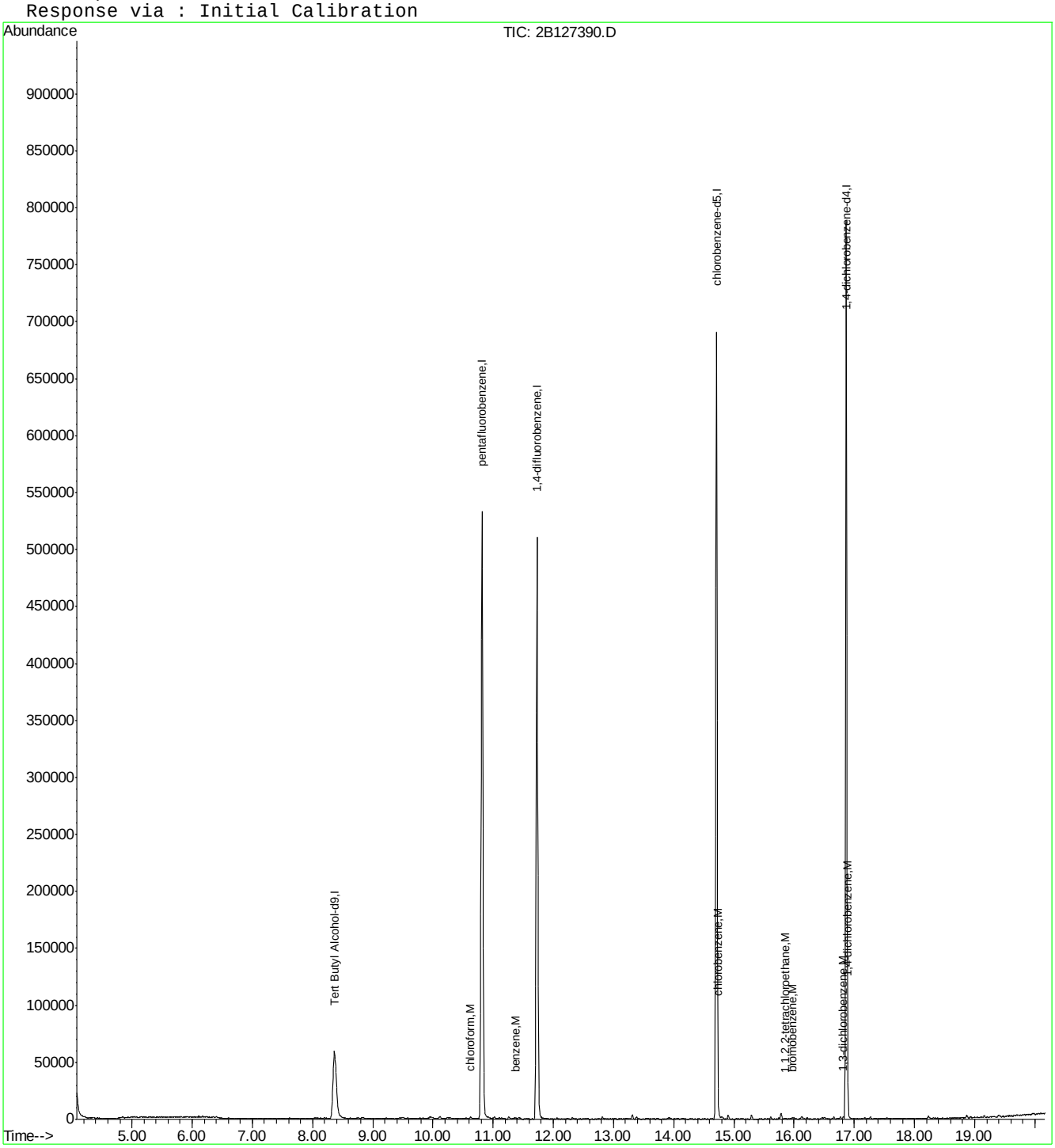
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	132206	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	432372	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	426382	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	363842	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	195850	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery =	0.00%#		
52) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery =	0.00%#		
82) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 119		Recovery =	0.00%#		
108) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery =	0.00%#		
Target Compounds						Qvalue
49) chloroform	10.63	83	983	0.20	ug/L	67
66) benzene	11.38	78	1448	0.16	ug/L	82
98) chlorobenzene	14.74	112	1054	0.17	ug/L	91
110) bromobenzene	15.97	156	504	0.16	ug/L	76
111) 1,1,2,2-tetrachloroethane	15.85	83	460	0.17	ug/L	84
122) 1,3-dichlorobenzene	16.81	146	1013	0.18	ug/L	77
124) 1,4-dichlorobenzene	16.89	146	1126	0.20	ug/L	84

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127390.D Vial: 2
Acq On : 5 Feb 2015 4:12 pm Operator: bridgetk
Sample : ic5744-0.2 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 17:40 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:43 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	129083	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	424971	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	422131	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	356161	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	192888	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery =	0.00%#		
52) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery =	0.00%#		
82) toluene-d8 (s)	13.31	98	4869	0.56	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	1.12%#		
108) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery =	0.00%#		
Target Compounds						Qvalue
12) chloromethane	4.83	50	1938	0.46	ug/L	80
13) vinyl chloride	5.15	62	1721	0.45	ug/L	91
15) bromomethane	5.89	94	1609	0.62	ug/L #	67
22) 2-chloropropane	7.36	43	1906	0.43	ug/L	97
24) 1,1-dichloroethene	7.62	96	1141	0.48	ug/L	89
26) allyl chloride	8.21	76	476	0.34	ug/L #	27
28) iodomethane	7.91	142	2245	0.41	ug/L	88
30) carbon disulfide	8.06	76	4072	0.51	ug/L	83
31) methylene chloride	8.41	84	1321	0.49	ug/L #	42
33) 1-chloropropane	8.47	42	2622	0.58	ug/L	85
34) methyl tert butyl ether	8.82	73	3570	0.44	ug/L	83
35) trans-1,2-dichloroethene	8.85	96	1277	0.50	ug/L	82
36) di-isopropyl ether	9.50	45	3330	0.41	ug/L	87
38) 1,1-dichloroethane	9.45	63	2038	0.43	ug/L	65
39) chloroprene	9.58	53	1270	0.35	ug/L	86
40) acrylonitrile	8.75	53	1564	1.63	ug/L	80
42) ethyl tert-butyl ether	10.00	59	3447	0.39	ug/L	94
44) 2,2-dichloropropane	10.26	77	1785	0.45	ug/L	92
45) cis-1,2-dichloroethene	10.23	96	1294	0.45	ug/L	96
46) propionitrile	10.30	54	1337	3.95	ug/L	58
47) bromochloromethane	10.55	128	566	0.36	ug/L	90
49) chloroform	10.63	83	2465	0.51	ug/L	93
50) t-butyl formate	10.71	59	937	0.38	ug/L	68
54) methacrylonitrile	10.50	41	748	0.49	ug/L	82
55) 1,1,1-trichloroethane	10.92	97	1933	0.44	ug/L	89
56) Cyclohexane	11.03	84	1586	0.46	ug/L #	61
63) carbon tetrachloride	11.14	117	1758	0.43	ug/L	81
64) 1,1-dichloropropene	11.10	75	1343	0.43	ug/L	95
65) hexane	9.23	57	1008	0.39	ug/L #	59
66) benzene	11.38	78	4316	0.49	ug/L	97
67) 2,2,4-trimethylpentane	11.43	57	3287	0.42	ug/L	84
68) tert-amyl methyl ether	11.44	73	2986	0.40	ug/L	95
69) heptane	11.59	57	713	0.47	ug/L	81

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:43 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

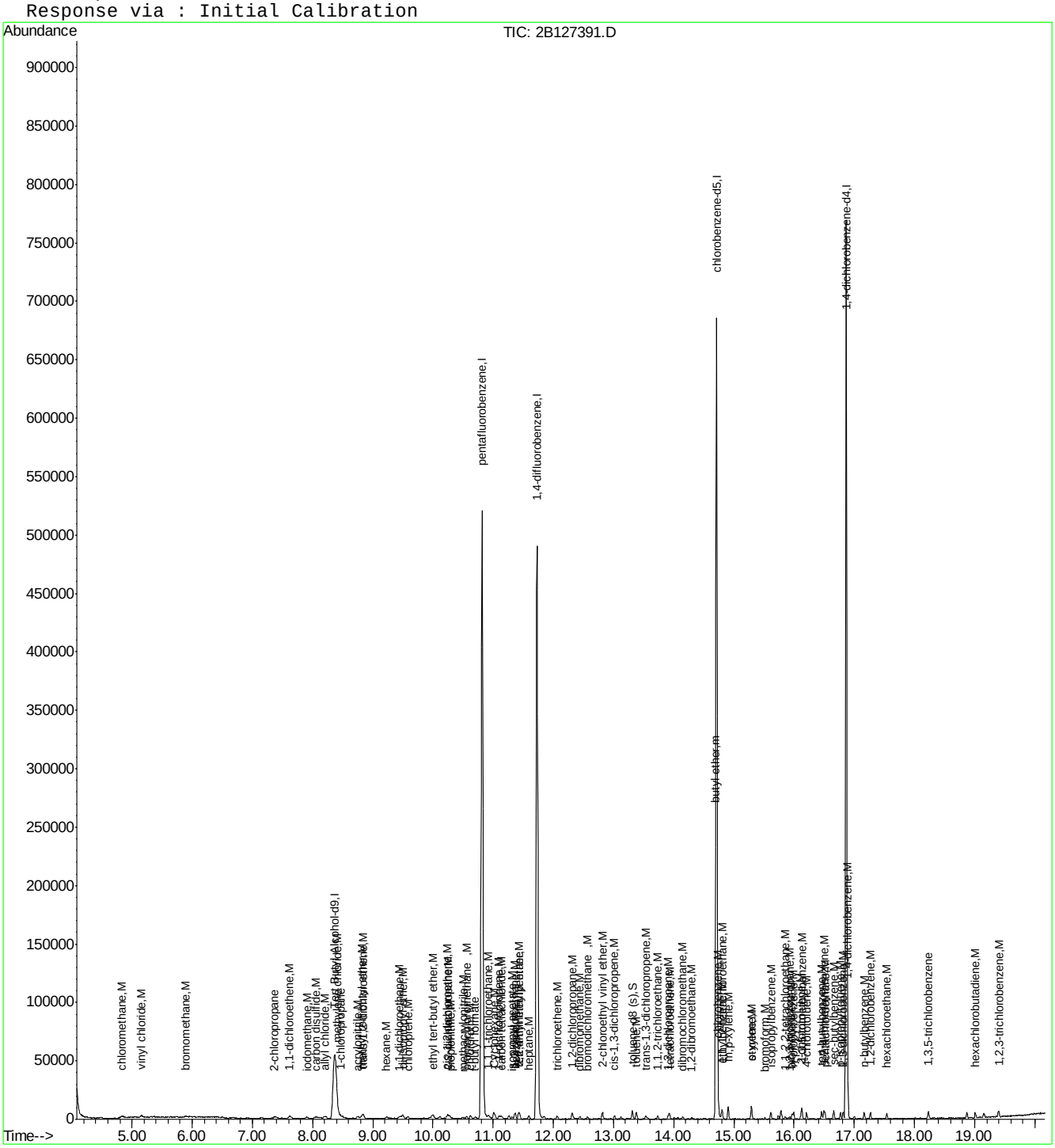
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
70)	isopropyl acetate	11.31	43	1521	0.36 ug/L		81
71)	1,2-dichloroethane	11.35	62	1640	0.45 ug/L		92
72)	trichloroethene	12.06	95	1056	0.43 ug/L		90
75)	2-chloroethyl vinyl ether	12.81	63	2649	1.86 ug/L		99
77)	1,2-dichloropropane	12.31	63	956	0.42 ug/L		94
78)	dibromomethane	12.44	93	691	0.42 ug/L	#	66
80)	bromodichloromethane	12.57	83	1401	0.39 ug/L		92
81)	cis-1,3-dichloropropene	13.01	75	1586	0.40 ug/L		83
84)	toluene	13.38	92	2259	0.42 ug/L	#	70
86)	trans-1,3-dichloropropene	13.53	75	1571	0.41 ug/L		98
88)	1,1,2-trichloroethane	13.74	83	863	0.48 ug/L		80
91)	butyl ether	14.69	57	3363	0.38 ug/L	#	78
92)	tetrachloroethene	13.94	164	1090	0.48 ug/L	#	76
93)	1,3-dichloropropane	13.91	76	1446	0.42 ug/L		89
96)	dibromochloromethane	14.15	129	1344	0.44 ug/L		80
97)	1,2-dibromoethane	14.30	107	854	0.35 ug/L		87
98)	chlorobenzene	14.74	112	2656	0.44 ug/L		91
99)	1,1,1,2-tetrachloroethane	14.80	131	1013	0.37 ug/L	#	76
100)	ethylbenzene	14.80	91	4589	0.47 ug/L		95
101)	m,p-xylene	14.90	106	3286	0.88 ug/L		89
102)	o-xylene	15.29	106	1785	0.44 ug/L	#	67
103)	styrene	15.29	104	2412	0.37 ug/L		83
105)	bromoform	15.51	173	926	0.38 ug/L		84
107)	isopropylbenzene	15.61	105	4372	0.42 ug/L		96
110)	bromobenzene	15.97	156	1474	0.46 ug/L		86
111)	1,1,2,2-tetrachloroethane	15.86	83	1198	0.44 ug/L		90
113)	1,2,3-trichloropropane	15.93	110	276	0.36 ug/L	#	36
114)	n-propylbenzene	15.99	91	4720	0.44 ug/L		95
115)	2-chlorotoluene	16.11	126	1086	0.42 ug/L	#	58
116)	4-chlorotoluene	16.21	91	3310	0.46 ug/L		76
117)	1,3,5-trimethylbenzene	16.13	105	3458	0.41 ug/L		87
118)	tert-butylbenzene	16.46	119	3321	0.42 ug/L		92
119)	pentachloroethane	16.52	167	880	0.40 ug/L		91
120)	1,2,4-trimethylbenzene	16.49	105	3521	0.42 ug/L		91
121)	sec-butylbenzene	16.66	105	4688	0.41 ug/L		91
122)	1,3-dichlorobenzene	16.82	146	2517	0.45 ug/L		96
123)	p-isopropyltoluene	16.77	119	3797	0.38 ug/L		90
124)	1,4-dichlorobenzene	16.89	146	2691	0.48 ug/L		91
125)	1,2-dichlorobenzene	17.27	146	2468	0.42 ug/L		90
126)	n-butylbenzene	17.16	92	1883	0.39 ug/L		83
128)	1,3,5-trichlorobenzene	18.23	180	2505	0.42 ug/L	#	87
130)	hexachlorobutadiene	19.01	225	1127	0.39 ug/L		89
132)	1,2,3-trichlorobenzene	19.40	180	1995	0.41 ug/L		84
133)	hexachloroethane	17.54	201	976	0.41 ug/L		83

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	118872	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	398583	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	392928	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	335376	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	186830	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	3017	1.16	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery =	2.32%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	3137	0.99	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery =	1.98%#			
82) toluene-d8 (s)	13.31	98	7774	0.96	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	1.92%#			
108) 4-bromofluorobenzene (s)	15.78	95	3430	1.13	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery =	2.26%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	1100	4.39	ug/L		52
3) ethanol	6.95	45	2414m	87.02	ug/L		
9) chlorodifluoromethane	4.47	51	2768	0.90	ug/L		74
12) chloromethane	4.84	50	3547	0.90	ug/L		89
13) vinyl chloride	5.16	62	3356	0.94	ug/L		93
15) bromomethane	5.88	94	2506	1.03	ug/L		76
16) chloroethane	6.11	64	1529	0.94	ug/L	#	63
18) trichlorofluoromethane	6.67	101	3581m	0.78	ug/L		
20) ethyl ether	7.15	74	1385	1.06	ug/L		83
21) acrolein	7.38	56	443819	1118.02	ug/L		99
22) 2-chloropropane	7.35	43	5025	1.21	ug/L	#	1
24) 1,1-dichloroethene	7.62	96	3073	1.36	ug/L		85
26) allyl chloride	8.20	76	1393	1.06	ug/L	#	71
28) iodomethane	7.91	142	5813	1.14	ug/L		97
30) carbon disulfide	8.06	76	8766	1.16	ug/L		95
31) methylene chloride	8.39	84	3350	1.32	ug/L		91
33) 1-chloropropane	8.46	42	5707	1.35	ug/L		95
34) methyl tert butyl ether	8.82	73	8928	1.18	ug/L		99
35) trans-1,2-dichloroethene	8.83	96	2975	1.24	ug/L		84
36) di-isopropyl ether	9.49	45	7590	1.00	ug/L		91
38) 1,1-dichloroethane	9.45	63	5218	1.18	ug/L		97
39) chloroprene	9.58	53	3050	0.90	ug/L		78
40) acrylonitrile	8.74	53	4645	5.15	ug/L		86
42) ethyl tert-butyl ether	9.99	59	7819	0.94	ug/L		96
44) 2,2-dichloropropane	10.26	77	4736	1.28	ug/L		95
45) cis-1,2-dichloroethene	10.23	96	3175	1.17	ug/L		89
46) propionitrile	10.29	54	3327	10.47	ug/L		97
47) bromochloromethane	10.55	128	1545	1.05	ug/L	#	67
48) tetrahydrofuran	10.64	42	753	1.18	ug/L	#	48
49) chloroform	10.62	83	5199	1.15	ug/L		91
50) t-butyl formate	10.70	59	2050	0.89	ug/L		88
54) methacrylonitrile	10.50	41	1311	0.92	ug/L		87
55) 1,1,1-trichloroethane	10.92	97	4457	1.09	ug/L		86

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
56)	Cyclohexane	11.02	84	3458	1.07 ug/L	#	83
61)	epichlorohydrin	12.91	57	880	4.38 ug/L		51
63)	carbon tetrachloride	11.14	117	4678	1.24 ug/L		98
64)	1,1-dichloropropene	11.10	75	3798	1.30 ug/L		89
65)	hexane	9.22	57	2317	0.97 ug/L		93
66)	benzene	11.36	78	10195	1.24 ug/L		90
67)	2,2,4-trimethylpentane	11.42	57	7742	1.05 ug/L		89
68)	tert-amyl methyl ether	11.44	73	7024	1.01 ug/L		90
69)	heptane	11.58	57	1370	0.96 ug/L	#	65
70)	isopropyl acetate	11.30	43	3727	0.95 ug/L		82
71)	1,2-dichloroethane	11.35	62	3895	1.14 ug/L		85
72)	trichloroethene	12.06	95	2462	1.07 ug/L		93
75)	2-chloroethyl vinyl ether	12.81	63	5910	4.47 ug/L		91
76)	methyl methacrylate	12.33	100	393	0.72 ug/L	#	43
77)	1,2-dichloropropane	12.31	63	2288	1.08 ug/L		92
78)	dibromomethane	12.44	93	1640	1.08 ug/L		97
79)	methylcyclohexane	12.32	83	3367	0.97 ug/L		88
80)	bromodichloromethane	12.57	83	3709	1.11 ug/L		81
81)	cis-1,3-dichloropropene	13.01	75	4047	1.09 ug/L		95
84)	toluene	13.38	92	5777	1.17 ug/L		86
85)	3-methyl-1-butanol	13.11	55	1195	14.19 ug/L		74
86)	trans-1,3-dichloropropene	13.53	75	3965	1.10 ug/L		92
87)	ethyl methacrylate	13.56	69	2284	0.88 ug/L		94
88)	1,1,2-trichloroethane	13.73	83	1749	1.05 ug/L	#	71
91)	butyl ether	14.69	57	8143	0.97 ug/L	#	92
92)	tetrachloroethene	13.93	164	2517	1.18 ug/L		85
93)	1,3-dichloropropane	13.91	76	3374	1.04 ug/L		95
94)	butyl acetate	14.00	56	1068	0.91 ug/L		82
96)	dibromochloromethane	14.15	129	2973	1.02 ug/L		91
97)	1,2-dibromoethane	14.29	107	2304	1.01 ug/L		95
98)	chlorobenzene	14.74	112	6522	1.14 ug/L		94
99)	1,1,1,2-tetrachloroethane	14.80	131	2845	1.10 ug/L		93
100)	ethylbenzene	14.81	91	10736	1.17 ug/L		99
101)	m,p-xylene	14.90	106	8158	2.32 ug/L		97
102)	o-xylene	15.29	106	4277	1.12 ug/L		96
103)	styrene	15.29	104	5690	0.92 ug/L		98
105)	bromoform	15.51	173	2116	0.91 ug/L		94
107)	isopropylbenzene	15.61	105	10717	1.07 ug/L		92
110)	bromobenzene	15.97	156	3470	1.12 ug/L		92
111)	1,1,2,2-tetrachloroethane	15.85	83	2890	1.10 ug/L		99
112)	trans-1,4-dichloro-2-buten	15.90	53	558	0.81 ug/L		96
113)	1,2,3-trichloropropane	15.92	110	690	0.93 ug/L		71
114)	n-propylbenzene	15.99	91	11452	1.09 ug/L		94
115)	2-chlorotoluene	16.12	126	2962m	1.18 ug/L		
116)	4-chlorotoluene	16.21	91	7649	1.10 ug/L		99
117)	1,3,5-trimethylbenzene	16.13	105	9150	1.12 ug/L		92
118)	tert-butylbenzene	16.45	119	7993	1.04 ug/L		97
119)	pentachloroethane	16.51	167	2187	1.04 ug/L		94
120)	1,2,4-trimethylbenzene	16.49	105	8541	1.04 ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

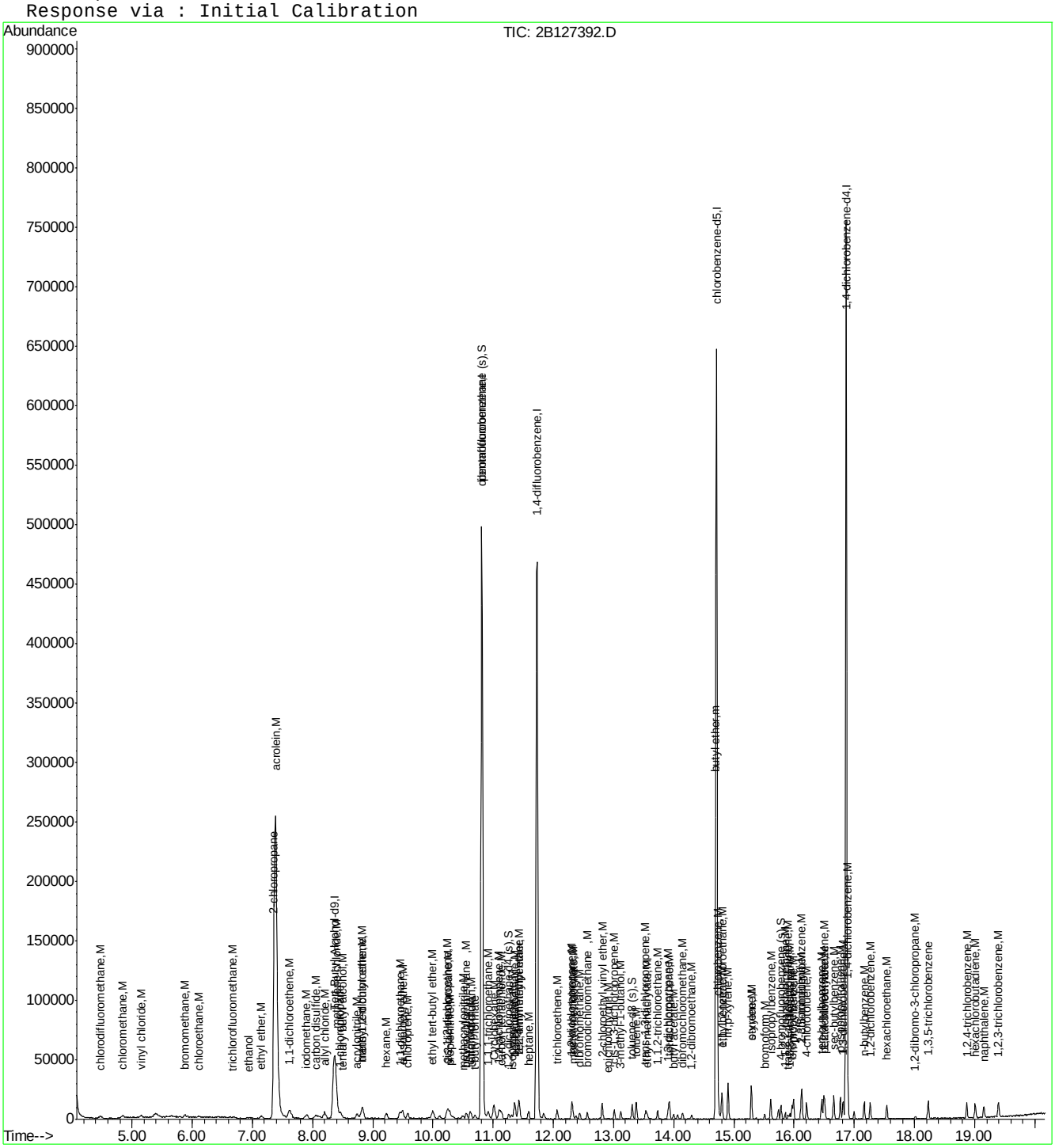
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
121) sec-butylbenzene	16.66	105	12037	1.10	ug/L		94
122) 1,3-dichlorobenzene	16.81	146	6214	1.14	ug/L		96
123) p-isopropyltoluene	16.77	119	9840	1.02	ug/L		95
124) 1,4-dichlorobenzene	16.89	146	6121	1.13	ug/L		98
125) 1,2-dichlorobenzene	17.27	146	5871	1.03	ug/L		98
126) n-butylbenzene	17.17	92	4666	0.99	ug/L		90
127) 1,2-dibromo-3-chloropropan	18.01	75	523	0.92	ug/L	#	70
128) 1,3,5-trichlorobenzene	18.23	180	5558	0.96	ug/L		91
129) 1,2,4-trichlorobenzene	18.86	180	4553	0.87	ug/L		94
130) hexachlorobutadiene	19.01	225	3079	1.10	ug/L		84
131) naphthalene	19.15	128	7462	0.81	ug/L		97
132) 1,2,3-trichlorobenzene	19.39	180	4125	0.88	ug/L		96
133) hexachloroethane	17.54	201	2025	0.89	ug/L		82

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:22 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

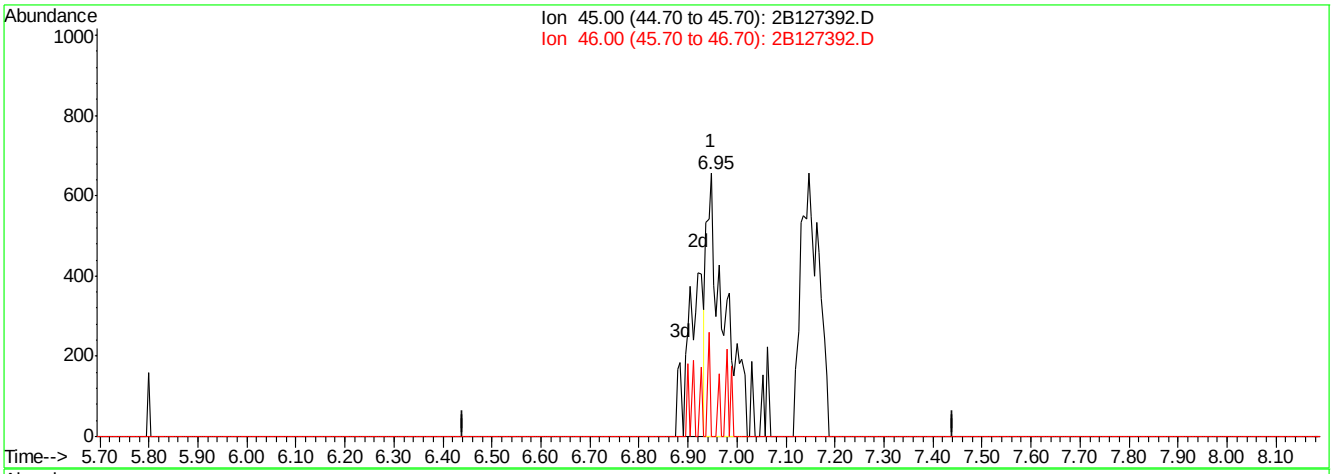
Sample Number: V2B5744-IC5744
Lab FileID: 2B127392.D
Injection Time: 02/05/15 17:13
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

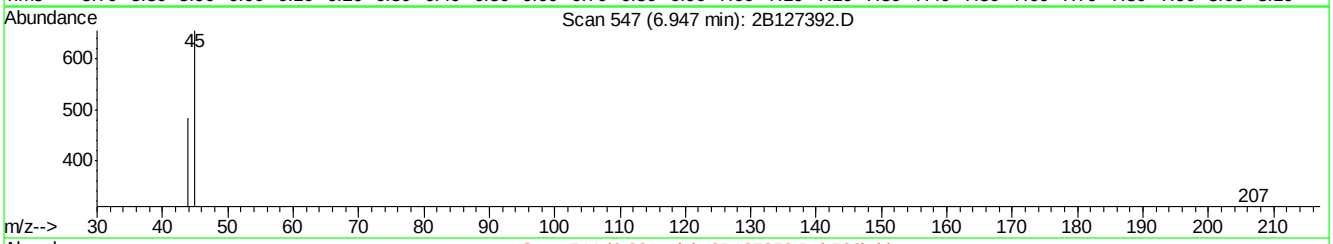
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.67	Split peak
Ethanol	64-17-5		6.95	Split peak
o-Chlorotoluene	95-49-8		16.12	Missed peak

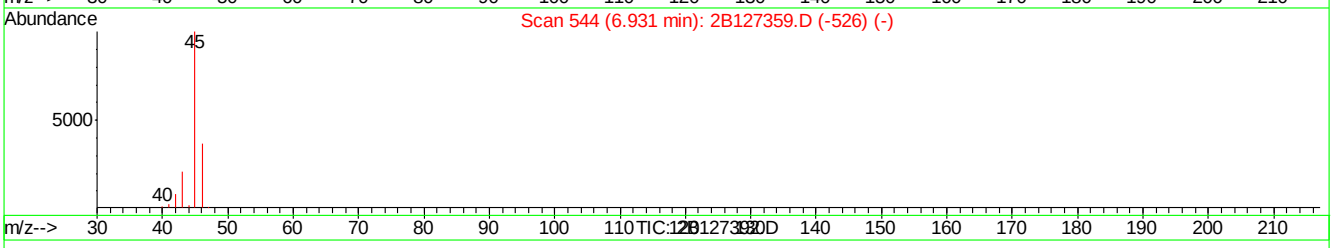
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:27 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(3) ethanol

6.95min 58.43ug/L

response 1621

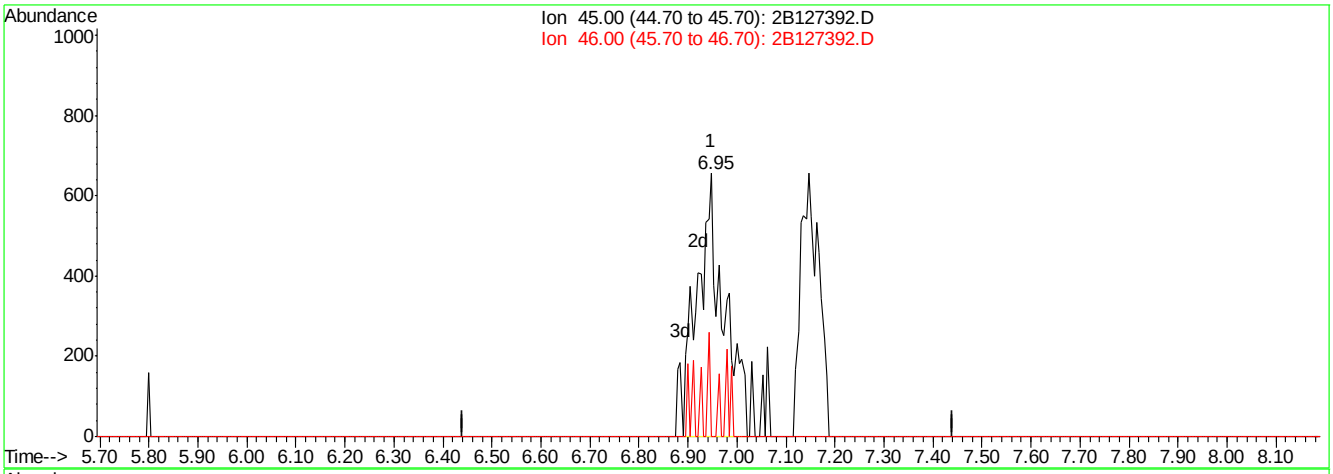
Ion	Exp%	Act%
45.00	100	100
46.00	41.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

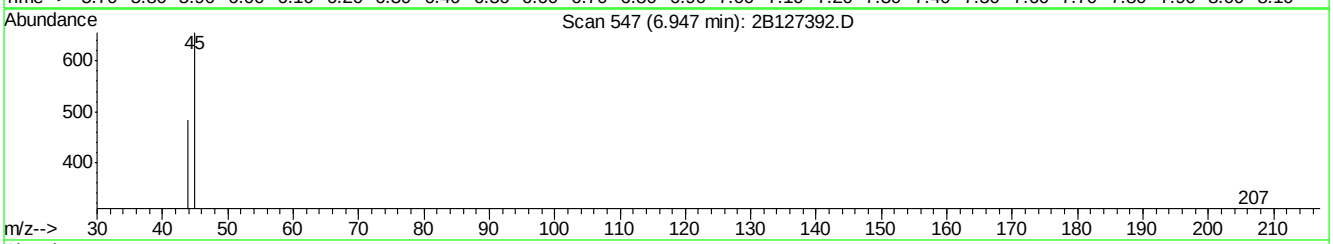
2B127392.D M2B5744.M Fri Feb 06 09:28:56 2015 MS2B

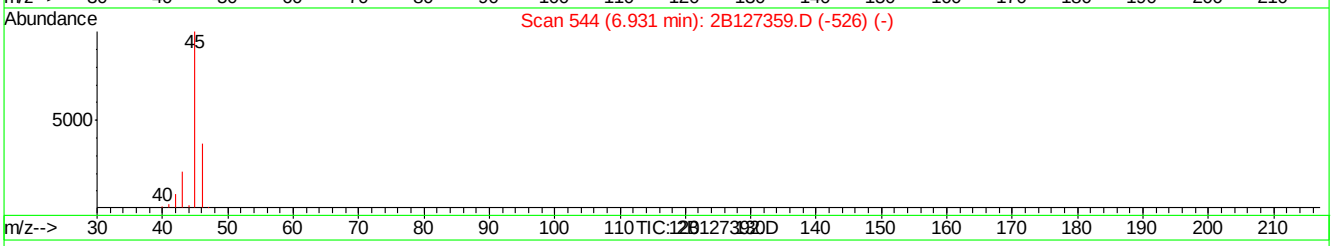
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:29 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(3) ethanol

6.95min 87.02ug/L m

response 2414

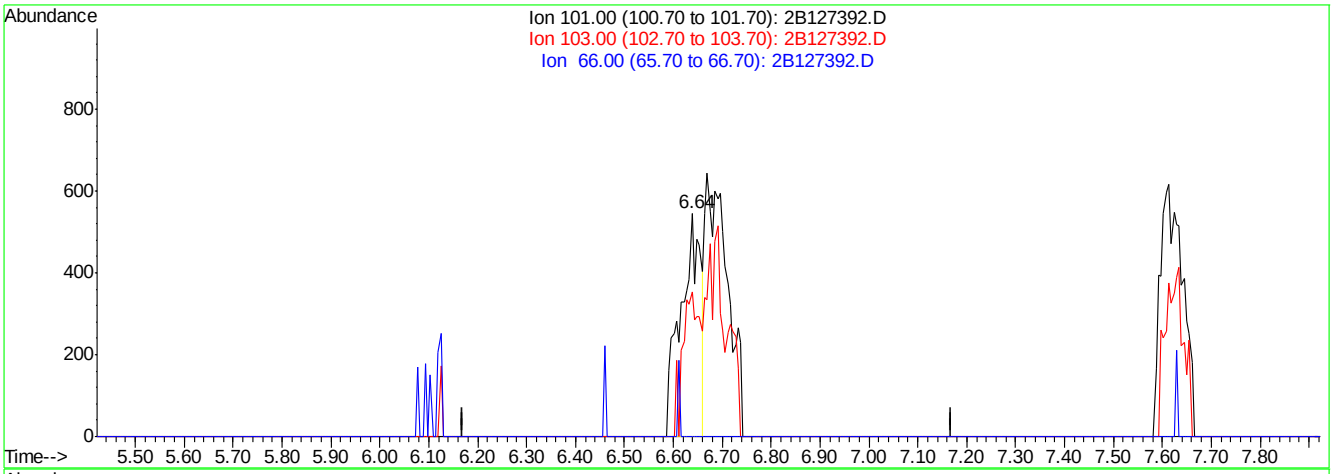
Ion	Exp%	Act%
45.00	100	100
46.00	41.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

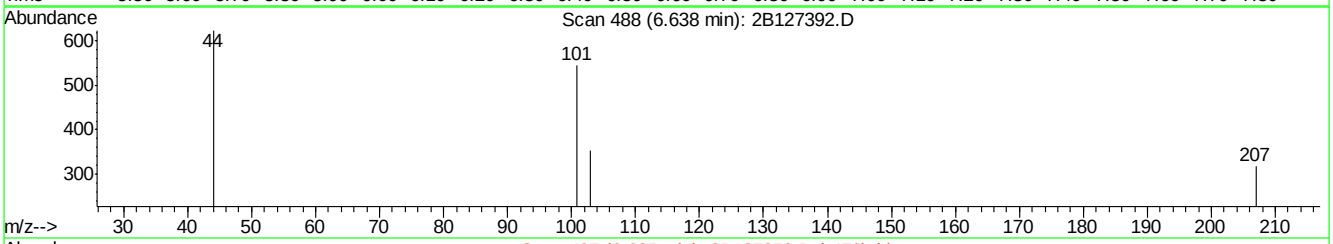
2B127392.D M2B5744.M Fri Feb 06 09:29:45 2015 MS2B

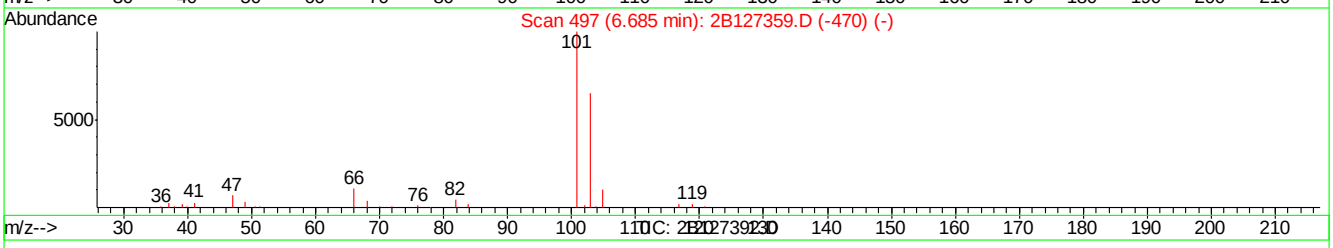
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:29 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.64min 0.33ug/L

response 1524

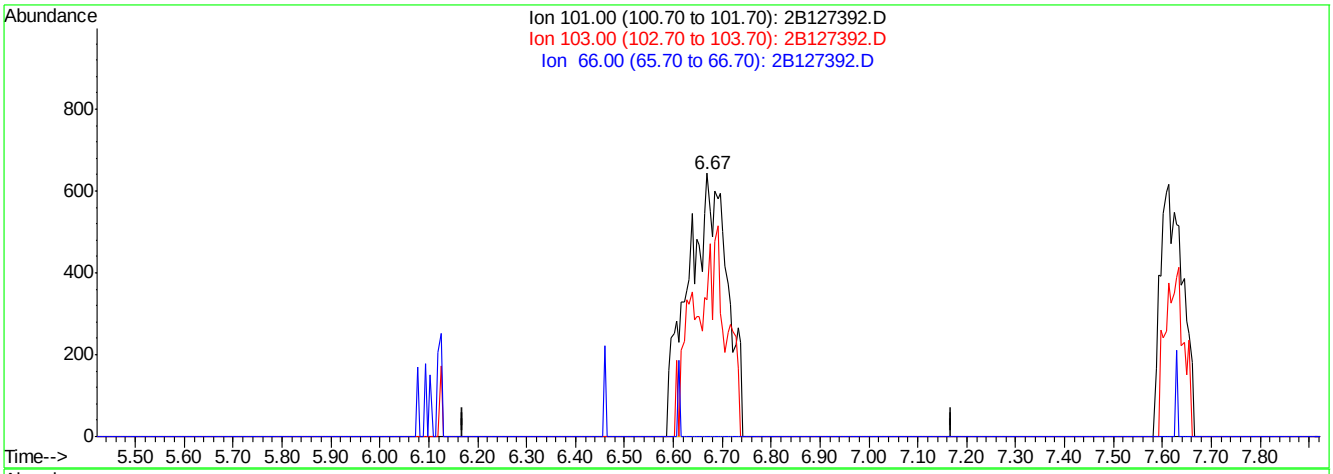
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	64.65
66.00	11.60	0.00
0.00	0.00	0.00

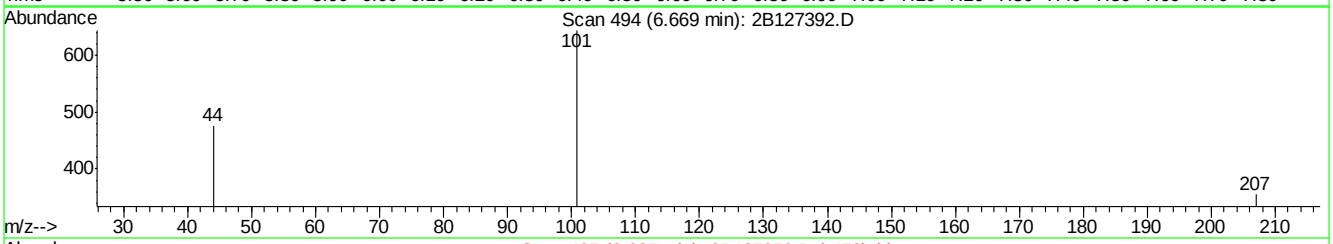
2B127392.D M2B5744.M Fri Feb 06 09:32:35 2015 MS2B

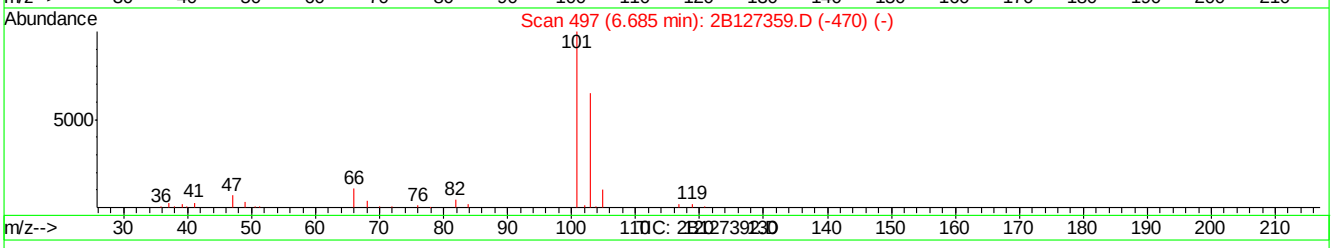
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:32 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.67min 0.78ug/L m

response 3581

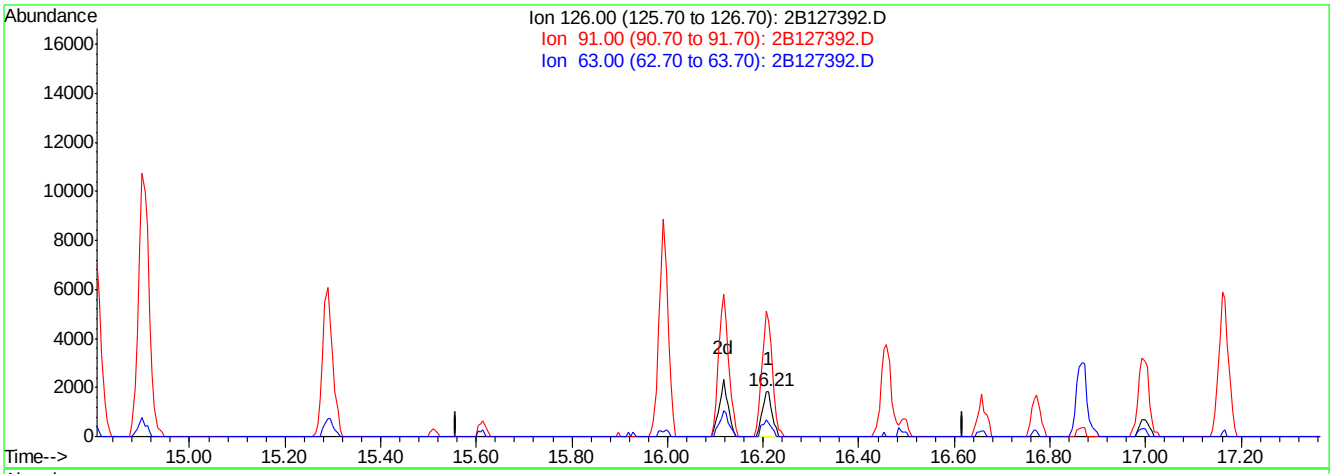
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	51.94
66.00	11.60	0.00
0.00	0.00	0.00

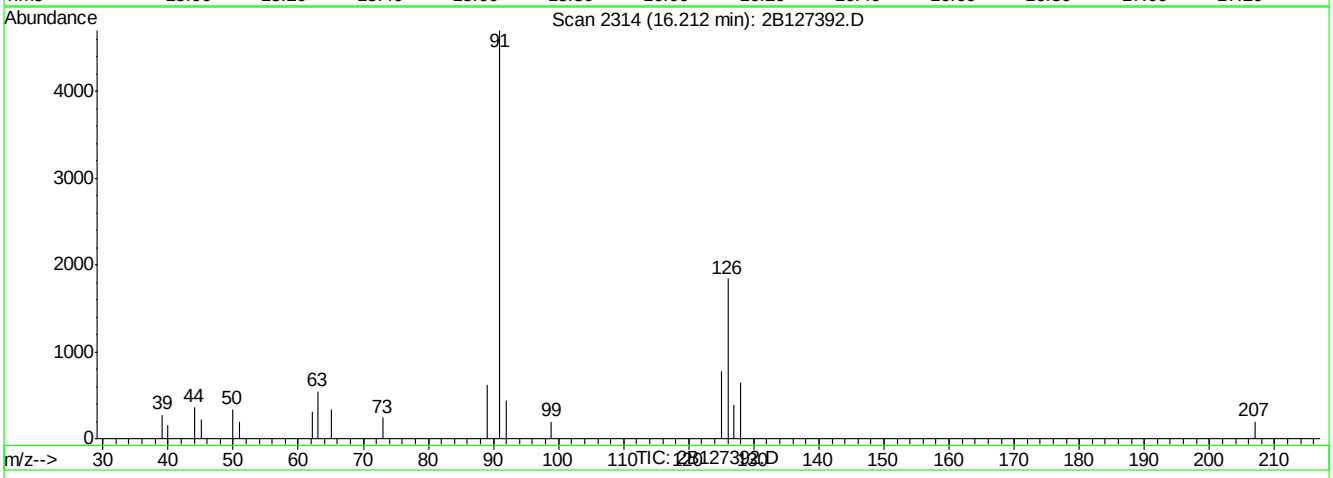
2B127392.D M2B5744.M Fri Feb 06 09:32:46 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:15:05 2015
Response via : Multiple Level Calibration





(115) 2-chlorotoluene (M)

16.21min 1.02ug/L

response 2566

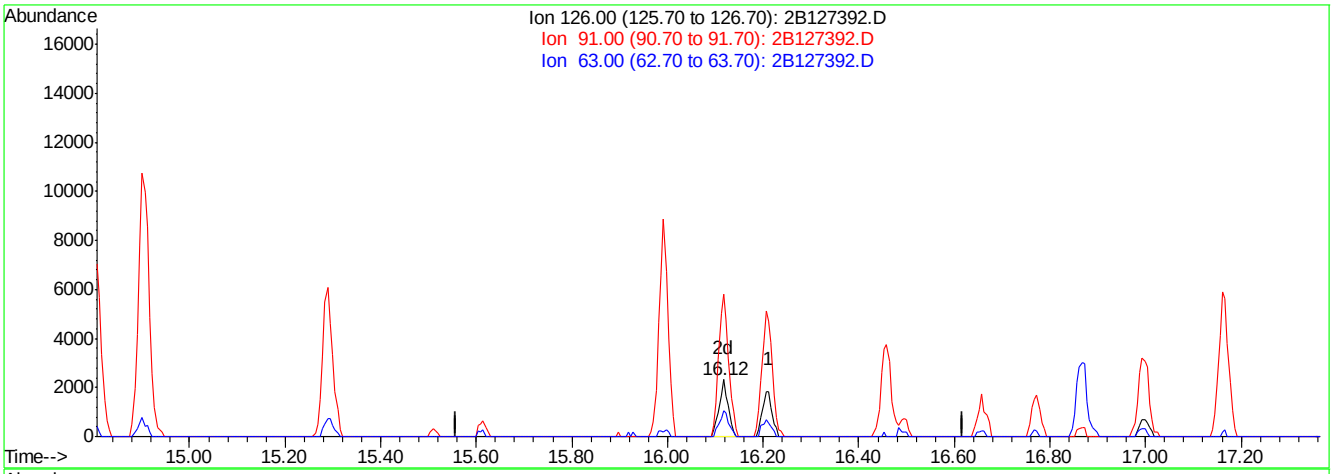
Ion	Exp%	Act%
126.00	100	100
91.00	282.30	255.18
63.00	45.00	29.68
0.00	0.00	0.00

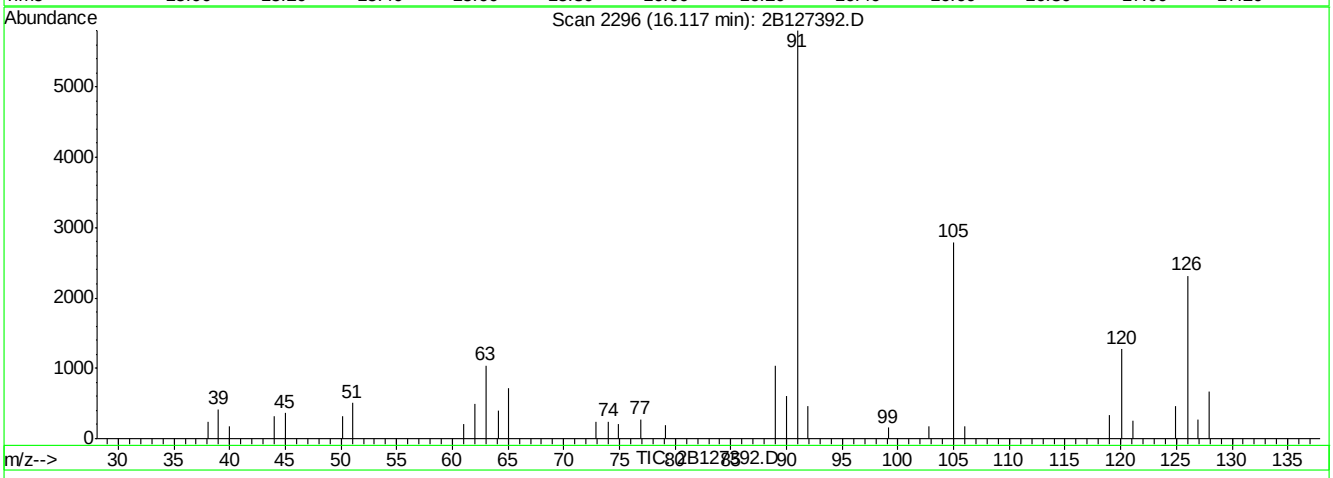
2B127392.D M2B5744.M Fri Feb 06 16:21:52 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:22 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:15:05 2015
Response via : Multiple Level Calibration





(115) 2-chlorotoluene (M)

16.12min 1.18ug/L m

response 2962

Ion	Exp%	Act%
126.00	100	100
91.00	282.30	250.58#
63.00	45.00	44.92
0.00	0.00	0.00

2B127392.D M2B5744.M Fri Feb 06 16:22:39 2015 MS2B

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	115960	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	402095	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	398407	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	342317	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	185887	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	4766	1.82	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery =	3.64%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	5703	1.79	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery =	3.58%#			
82) toluene-d8 (s)	13.31	98	14798	1.80	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	3.60%#			
108) 4-bromofluorobenzene (s)	15.78	95	5875	1.95	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery =	3.90%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.51	59	2196	8.98	ug/L		78
3) ethanol	6.92	45	5285	195.29	ug/L	#	76
4) 1,4-dioxane	12.43	88	894	37.62	ug/L		66
9) chlorodifluoromethane	4.49	51	4941	1.59	ug/L		99
10) dichlorodifluoromethane	4.49	85	5571	1.41	ug/L		85
12) chloromethane	4.84	50	6092	1.54	ug/L		98
13) vinyl chloride	5.17	62	5677	1.58	ug/L		93
15) bromomethane	5.89	94	4423	1.81	ug/L		99
16) chloroethane	6.09	64	2537	1.54	ug/L		95
18) trichlorofluoromethane	6.68	101	6433m	1.39	ug/L		
20) ethyl ether	7.16	74	2565	1.95	ug/L	#	83
21) acrolein	7.38	56	873443	2181.06	ug/L		98
22) 2-chloropropane	7.36	43	9169	2.20	ug/L	#	1
24) 1,1-dichloroethene	7.61	96	5026	2.21	ug/L		85
26) allyl chloride	8.21	76	2558	1.94	ug/L		93
28) iodomethane	7.91	142	10763	2.09	ug/L		94
30) carbon disulfide	8.06	76	16242	2.13	ug/L		92
31) methylene chloride	8.39	84	5491	2.14	ug/L		83
33) 1-chloropropane	8.47	42	9869	2.32	ug/L		93
34) methyl tert butyl ether	8.82	73	16064	2.10	ug/L		97
35) trans-1,2-dichloroethene	8.84	96	5623	2.32	ug/L		90
36) di-isopropyl ether	9.49	45	13738	1.79	ug/L		99
38) 1,1-dichloroethane	9.44	63	9562	2.14	ug/L		99
39) chloroprene	9.58	53	6043	1.78	ug/L		93
40) acrylonitrile	8.74	53	8837	9.72	ug/L		79
42) ethyl tert-butyl ether	9.99	59	14085	1.67	ug/L		100
44) 2,2-dichloropropane	10.26	77	8340	2.24	ug/L		97
45) cis-1,2-dichloroethene	10.23	96	6220	2.27	ug/L		77
46) propionitrile	10.28	54	6395	19.96	ug/L		95
47) bromochloromethane	10.56	128	3186	2.15	ug/L		71
48) tetrahydrofuran	10.63	42	1320	2.05	ug/L		78
49) chloroform	10.62	83	9918	2.18	ug/L		88
50) t-butyl formate	10.70	59	3493	1.51	ug/L		90

(#) = qualifier out of range (m) = manual integration
2B127393.D M2B5744.M Tue Feb 10 09:39:31 2015 MS2B Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	methacrylonitrile	10.50	41	2843	1.99	ug/L		89
55)	1,1,1-trichloroethane	10.92	97	8350	2.02	ug/L		98
56)	Cyclohexane	11.02	84	7203	2.20	ug/L		92
61)	epichlorohydrin	12.91	57	1832	8.99	ug/L		94
62)	n-butyl alcohol	11.83	56	4367	77.16	ug/L		86
63)	carbon tetrachloride	11.14	117	8775	2.29	ug/L		88
64)	1,1-dichloropropene	11.11	75	6541	2.21	ug/L		97
65)	hexane	9.23	57	4363	1.81	ug/L		86
66)	benzene	11.37	78	19007	2.29	ug/L		98
67)	2,2,4-trimethylpentane	11.42	57	13624	1.83	ug/L		93
68)	tert-amyl methyl ether	11.44	73	13714	1.94	ug/L		92
69)	heptane	11.59	57	2358	1.63	ug/L		89
70)	isopropyl acetate	11.30	43	7318	1.84	ug/L		93
71)	1,2-dichloroethane	11.35	62	7740	2.24	ug/L		96
72)	trichloroethene	12.06	95	4905	2.10	ug/L		92
75)	2-chloroethyl vinyl ether	12.81	63	11752	8.76	ug/L		95
76)	methyl methacrylate	12.34	100	917	1.67	ug/L	#	37
77)	1,2-dichloropropane	12.31	63	4557	2.12	ug/L		91
78)	dibromomethane	12.44	93	3368	2.19	ug/L		93
79)	methylcyclohexane	12.31	83	5485	1.56	ug/L		88
80)	bromodichloromethane	12.57	83	7215	2.12	ug/L		96
81)	cis-1,3-dichloropropene	13.01	75	7433	1.97	ug/L		92
83)	4-methyl-2-pentanone	13.12	58	1362	1.79	ug/L	#	88
84)	toluene	13.38	92	11312	2.25	ug/L		96
85)	3-methyl-1-butanol	13.12	55	2756	32.27	ug/L		93
86)	trans-1,3-dichloropropene	13.53	75	7406	2.03	ug/L		99
87)	ethyl methacrylate	13.56	69	4643	1.77	ug/L		95
88)	1,1,2-trichloroethane	13.73	83	3553	2.11	ug/L		82
89)	2-hexanone	13.92	58	1168	1.80	ug/L	#	79
91)	butyl ether	14.69	57	16138	1.89	ug/L		93
92)	tetrachloroethene	13.93	164	4978	2.29	ug/L		94
93)	1,3-dichloropropane	13.90	76	6491	1.97	ug/L		96
94)	butyl acetate	14.00	56	1865	1.56	ug/L	#	75
95)	3,3-dimethyl-1-butanol	14.06	57	2568	14.90	ug/L		98
96)	dibromochloromethane	14.15	129	5549	1.87	ug/L		97
97)	1,2-dibromoethane	14.29	107	4912	2.12	ug/L		88
98)	chlorobenzene	14.74	112	12373	2.13	ug/L		95
99)	1,1,1,2-tetrachloroethane	14.79	131	5166	1.96	ug/L		96
100)	ethylbenzene	14.81	91	20298	2.17	ug/L		92
101)	m,p-xylene	14.90	106	14981	4.17	ug/L		98
102)	o-xylene	15.29	106	8091	2.08	ug/L		92
103)	styrene	15.29	104	12296	1.94	ug/L		97
105)	bromoform	15.51	173	4258	1.80	ug/L		94
107)	isopropylbenzene	15.61	105	21291	2.14	ug/L		98
109)	cyclohexanone	15.74	98	2391	24.77	ug/L		99
110)	bromobenzene	15.97	156	6372	2.07	ug/L		88
111)	1,1,2,2-tetrachloroethane	15.86	83	5516	2.11	ug/L		95
112)	trans-1,4-dichloro-2-buten	15.90	53	1392	2.04	ug/L		82
113)	1,2,3-trichloropropane	15.93	110	1405	1.90	ug/L		91

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

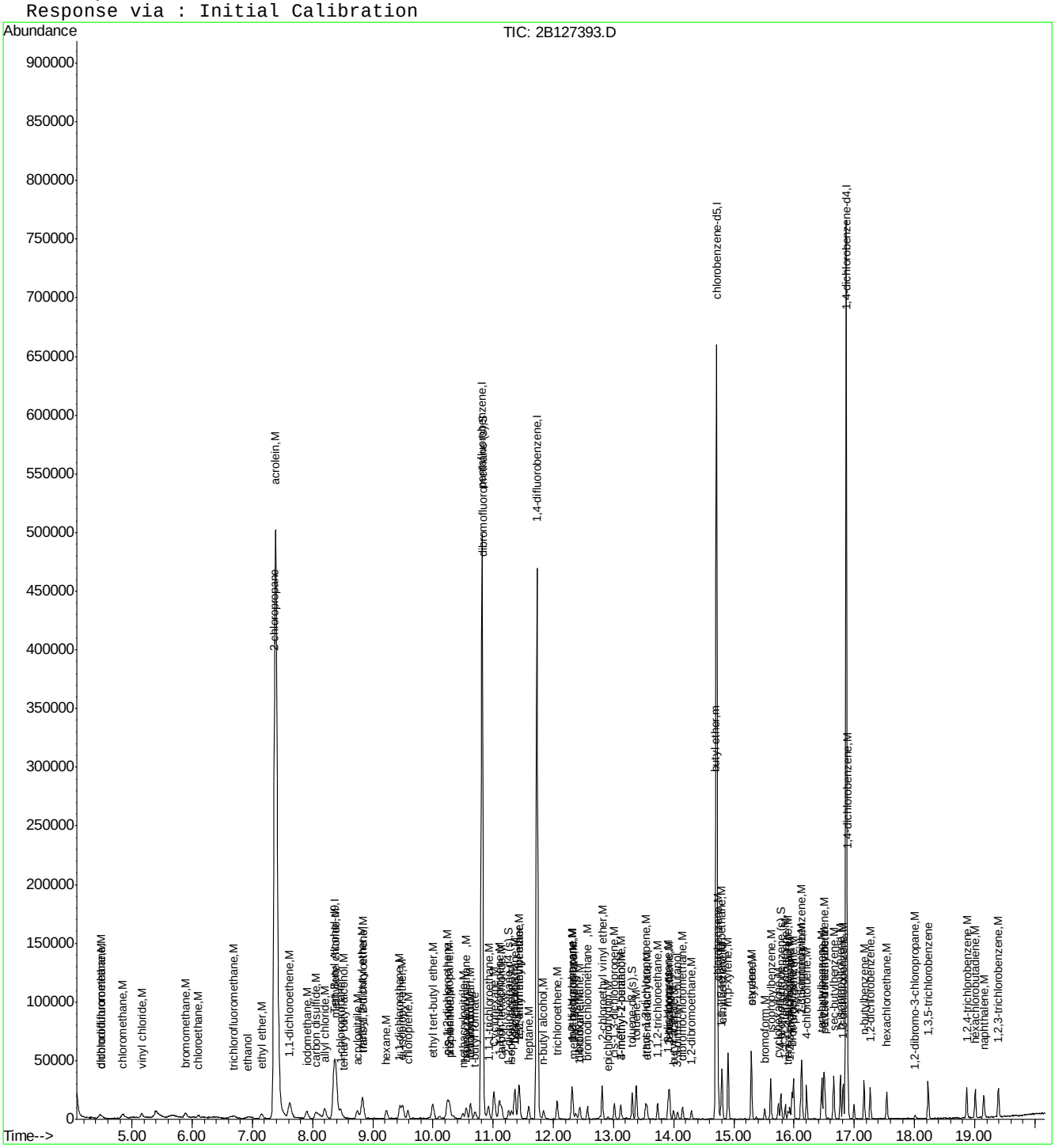
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
114)	n-propylbenzene	15.99	91	24428	2.34	ug/L	98
115)	2-chlorotoluene	16.12	126	5298	2.12	ug/L	95
116)	4-chlorotoluene	16.21	91	15291	2.21	ug/L	92
117)	1,3,5-trimethylbenzene	16.13	105	17659	2.17	ug/L	97
118)	tert-butylbenzene	16.46	119	15135	1.98	ug/L	96
119)	pentachloroethane	16.51	167	4310	2.05	ug/L	90
120)	1,2,4-trimethylbenzene	16.49	105	16718	2.05	ug/L	99
121)	sec-butylbenzene	16.66	105	22818	2.10	ug/L	100
122)	1,3-dichlorobenzene	16.81	146	11691	2.15	ug/L	93
123)	p-isopropyltoluene	16.77	119	19355	2.02	ug/L	95
124)	1,4-dichlorobenzene	16.89	146	11805	2.19	ug/L	96
125)	1,2-dichlorobenzene	17.27	146	10929	1.93	ug/L	91
126)	n-butylbenzene	17.17	92	8789	1.88	ug/L	91
127)	1,2-dibromo-3-chloropropan	18.01	75	932	1.65	ug/L	87
128)	1,3,5-trichlorobenzene	18.23	180	10999	1.92	ug/L	95
129)	1,2,4-trichlorobenzene	18.86	180	8640	1.66	ug/L	92
130)	hexachlorobutadiene	19.01	225	5688	2.04	ug/L	84
131)	naphthalene	19.15	128	15191	1.65	ug/L	95
132)	1,2,3-trichlorobenzene	19.39	180	8373	1.81	ug/L	97
133)	hexachloroethane	17.54	201	4445	1.96	ug/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:25 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

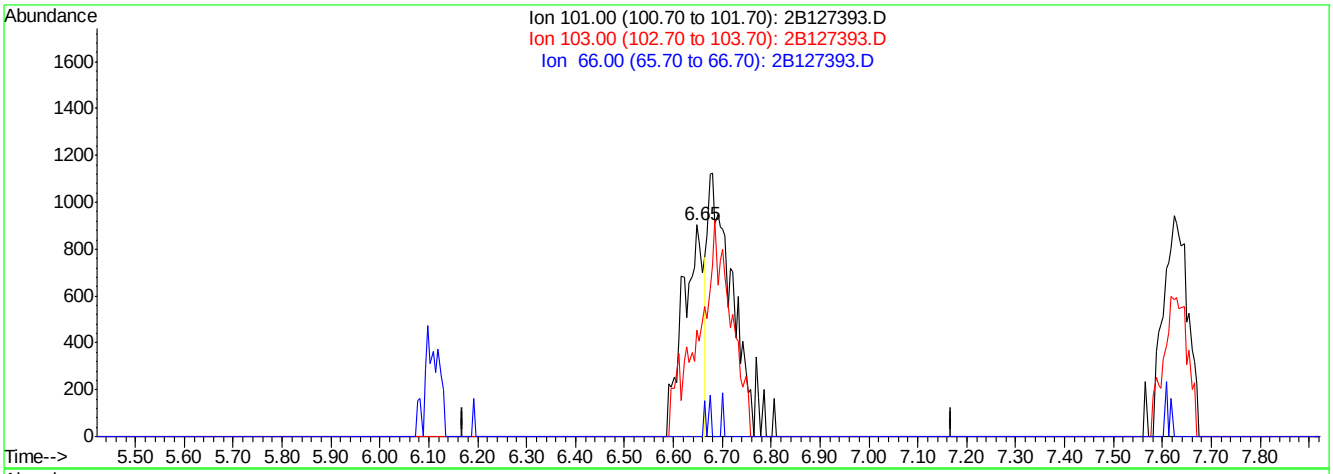
Sample Number: V2B5744-IC5744
Lab FileID: 2B127393.D
Injection Time: 02/05/15 17:42
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

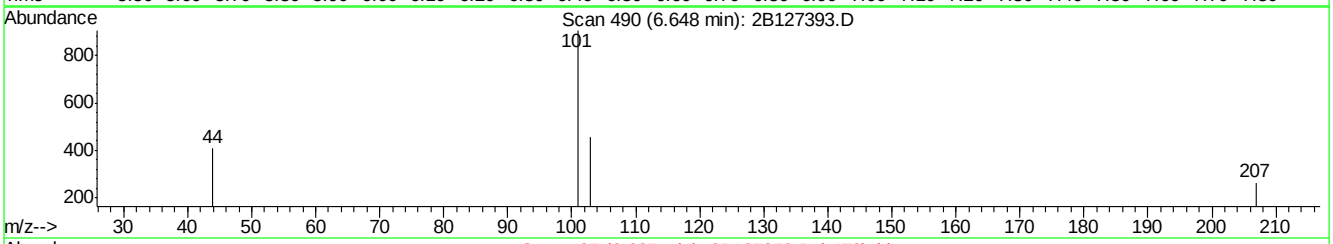
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.68	Split peak

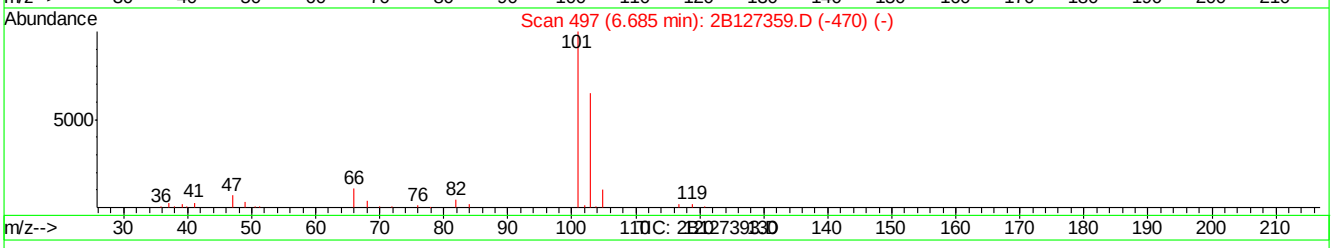
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:44 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.65min 0.57ug/L

response 2667

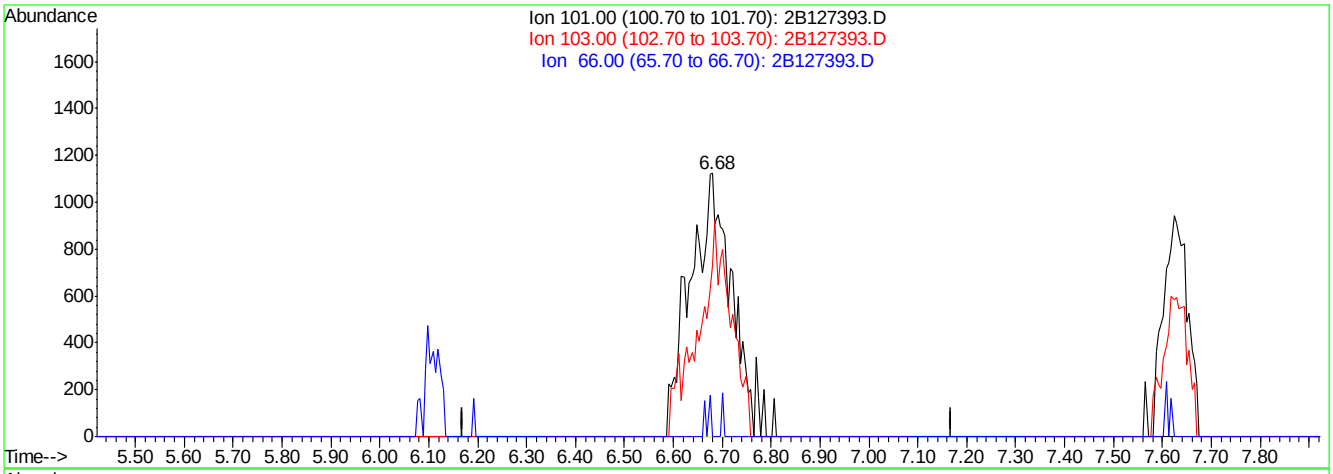
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	50.44
66.00	11.60	0.00
0.00	0.00	0.00

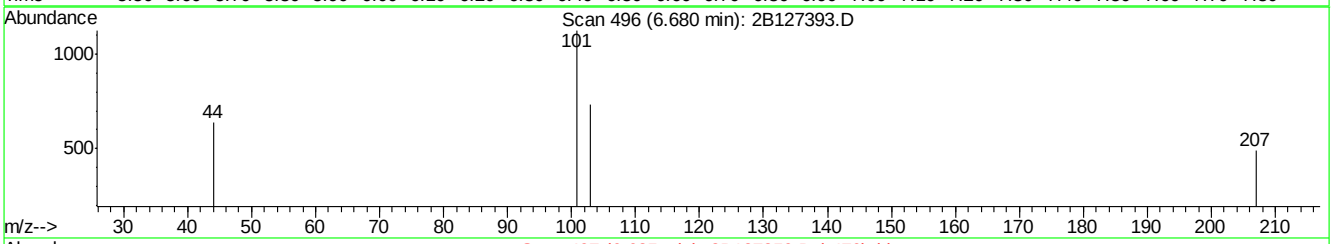
2B127393.D M2B5744.M Fri Feb 06 09:45:02 2015 MS2B

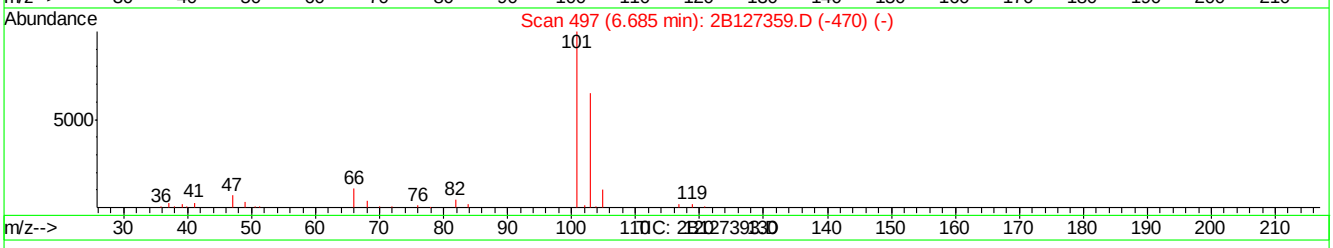
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:45 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.68min 1.39ug/L m

response 6433

Ion	Exp%	Act%
101.00	100	100
103.00	61.30	65.21
66.00	11.60	0.00
0.00	0.00	0.00

2B127393.D M2B5744.M Fri Feb 06 09:45:18 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	120373	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	400629	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	399092	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	341999	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	185204	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	12124	4.65	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 9.30%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	14328	4.52	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 9.04%#				
82) toluene-d8 (s)	13.31	98	36678	4.46	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 8.92%#				
108) 4-bromofluorobenzene (s)	15.78	95	13926	4.63	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 9.26%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	6449	25.41	ug/L		79
3) ethanol	6.93	45	13830	492.30	ug/L	#	34
4) 1,4-dioxane	12.43	88	2743	111.19	ug/L		93
9) chlorodifluoromethane	4.49	51	13215	4.25	ug/L		93
10) dichlorodifluoromethane	4.46	85	15793	4.00	ug/L		92
12) chloromethane	4.86	50	17383	4.40	ug/L		92
13) vinyl chloride	5.16	62	15715	4.40	ug/L		99
15) bromomethane	5.90	94	11675	4.79	ug/L		84
16) chloroethane	6.11	64	7228	4.40	ug/L		98
18) trichlorofluoromethane	6.69	101	20512	4.44	ug/L		90
20) ethyl ether	7.15	74	5643	4.30	ug/L		88
21) acrolein	7.39	56	19100	47.87	ug/L		97
22) 2-chloropropane	7.35	43	20375	4.90	ug/L		95
24) 1,1-dichloroethene	7.62	96	11513	5.09	ug/L		93
25) acetone	7.64	43	3733	5.07	ug/L		94
26) allyl chloride	8.20	76	5967	4.53	ug/L		88
27) acetonitrile	8.13	40	6865	49.98	ug/L		87
28) iodomethane	7.91	142	24094	4.69	ug/L		93
29) iso-butyl alcohol	11.09	74	1216	43.85	ug/L	#	81
30) carbon disulfide	8.07	76	35970	4.74	ug/L		96
31) methylene chloride	8.40	84	12440	4.86	ug/L		94
32) methyl acetate	8.20	74	1861	4.64	ug/L	#	70
33) 1-chloropropane	8.47	42	20527	4.84	ug/L		98
34) methyl tert butyl ether	8.82	73	35778	4.69	ug/L		99
35) trans-1,2-dichloroethene	8.84	96	12467	5.17	ug/L		85
36) di-isopropyl ether	9.50	45	35492	4.65	ug/L		94
37) 2-butanone	10.21	72	1102	4.16	ug/L		93
38) 1,1-dichloroethane	9.45	63	20706	4.65	ug/L		95
39) chloroprene	9.58	53	16026	4.73	ug/L		95
40) acrylonitrile	8.75	53	20425	22.55	ug/L		94
42) ethyl tert-butyl ether	10.00	59	37186	4.44	ug/L		95
43) ethyl acetate	10.26	45	1263	4.18	ug/L	#	1
44) 2,2-dichloropropane	10.27	77	17736	4.78	ug/L		96

(#) = qualifier out of range (m) = manual integration
2B127394.D M2B5744.M Tue Feb 10 09:39:37 2015 MS2B Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	cis-1,2-dichloroethene	10.23	96	13118	4.81	ug/L		94
46)	propionitrile	10.28	54	14781	46.30	ug/L		98
47)	bromochloromethane	10.56	128	6801	4.62	ug/L		85
48)	tetrahydrofuran	10.62	42	3115	4.85	ug/L		99
49)	chloroform	10.63	83	21828	4.81	ug/L		97
50)	t-butyl formate	10.70	59	10052	4.35	ug/L		91
53)	freon 113	7.63	151	9137	4.64	ug/L		83
54)	methacrylonitrile	10.49	41	6456	4.53	ug/L		92
55)	1,1,1-trichloroethane	10.93	97	18038	4.37	ug/L		98
56)	Cyclohexane	11.03	84	15403	4.72	ug/L		89
61)	epichlorohydrin	12.91	57	4618	22.61	ug/L		97
62)	n-butyl alcohol	11.83	56	12018	211.99	ug/L		87
63)	carbon tetrachloride	11.14	117	18267	4.76	ug/L		97
64)	1,1-dichloropropene	11.10	75	14511	4.89	ug/L		96
65)	hexane	9.23	57	11487	4.75	ug/L		94
66)	benzene	11.37	78	40648	4.88	ug/L		98
67)	2,2,4-trimethylpentane	11.42	57	31794	4.26	ug/L		97
68)	tert-amyl methyl ether	11.44	73	32479	4.58	ug/L		99
69)	heptane	11.59	57	6615	4.58	ug/L		89
70)	isopropyl acetate	11.30	43	18306	4.60	ug/L		94
71)	1,2-dichloroethane	11.35	62	16560	4.79	ug/L		99
72)	trichloroethene	12.06	95	10959	4.68	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	29173	21.71	ug/L		96
76)	methyl methacrylate	12.33	100	2470	4.48	ug/L	#	84
77)	1,2-dichloropropane	12.31	63	10007	4.64	ug/L		95
78)	dibromomethane	12.44	93	7378	4.78	ug/L		95
79)	methylcyclohexane	12.32	83	15925	4.53	ug/L		90
80)	bromodichloromethane	12.57	83	15465	4.54	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	17247	4.57	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	3581	4.69	ug/L	#	86
84)	toluene	13.38	92	23924	4.75	ug/L		100
85)	3-methyl-1-butanol	13.12	55	7839	91.62	ug/L		91
86)	trans-1,3-dichloropropene	13.53	75	16356	4.47	ug/L		90
87)	ethyl methacrylate	13.56	69	11172	4.25	ug/L		97
88)	1,1,2-trichloroethane	13.73	83	8208	4.86	ug/L		96
89)	2-hexanone	13.92	58	2747	4.23	ug/L		85
91)	butyl ether	14.69	57	36003	4.21	ug/L		97
92)	tetrachloroethene	13.93	164	10228	4.70	ug/L		96
93)	1,3-dichloropropane	13.90	76	15771	4.78	ug/L		88
94)	butyl acetate	13.99	56	5321	4.45	ug/L		90
95)	3,3-dimethyl-1-butanol	14.06	57	7553	43.87	ug/L		90
96)	dibromochloromethane	14.15	129	13378	4.52	ug/L		98
97)	1,2-dibromoethane	14.29	107	10632	4.59	ug/L		97
98)	chlorobenzene	14.74	112	27459	4.73	ug/L		94
99)	1,1,1,2-tetrachloroethane	14.79	131	12149	4.60	ug/L		94
100)	ethylbenzene	14.81	91	45370	4.85	ug/L		99
101)	m,p-xylene	14.90	106	33531	9.35	ug/L		98
102)	o-xylene	15.29	106	17156	4.41	ug/L		87
103)	styrene	15.29	104	26408	4.18	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

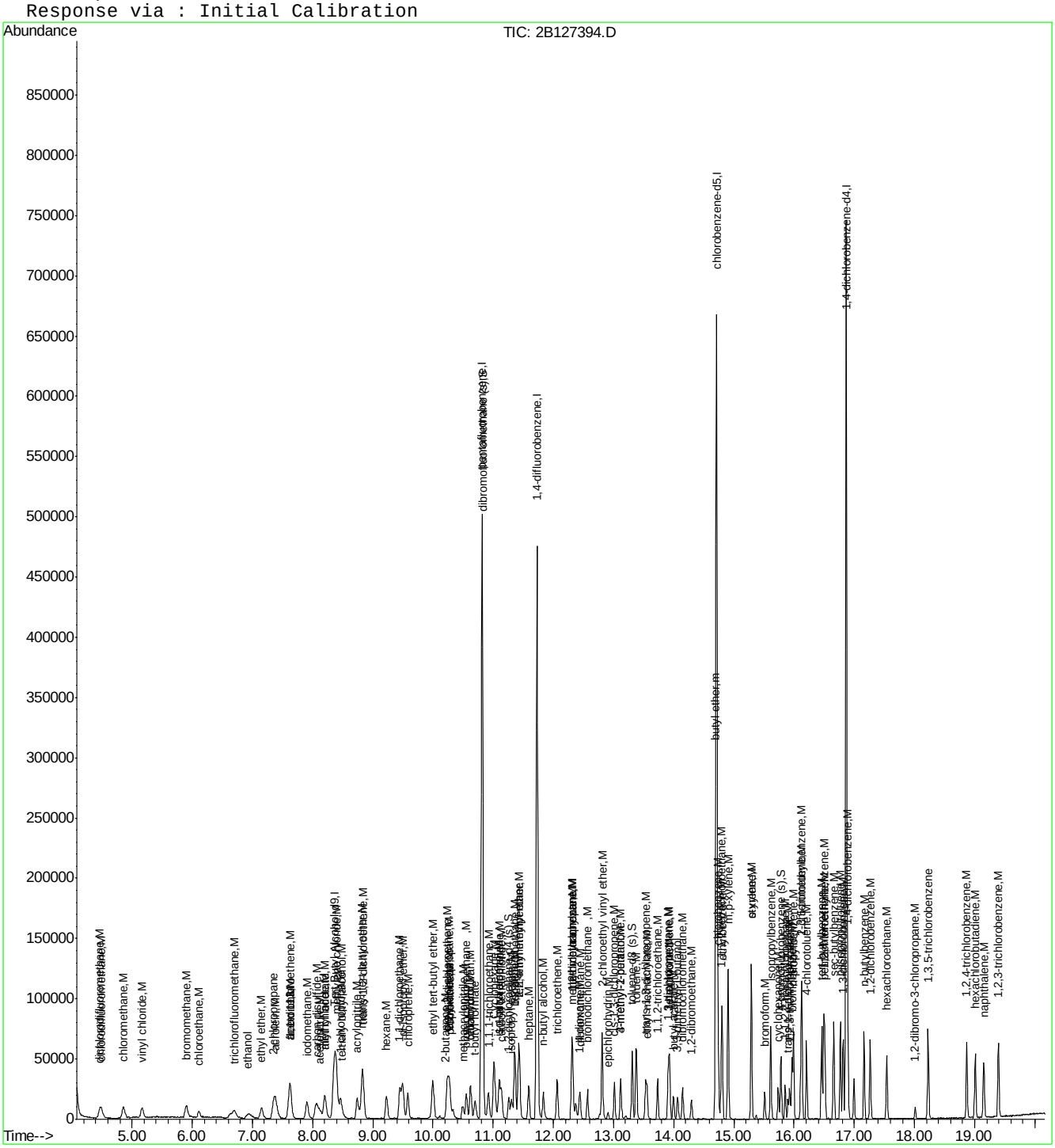
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
105)	bromoform	15.51	173	9919	4.19	ug/L	97
107)	isopropylbenzene	15.61	105	45185	4.55	ug/L	95
109)	cyclohexanone	15.74	98	4855	50.48	ug/L	96
110)	bromobenzene	15.97	156	14233	4.65	ug/L	91
111)	1,1,2,2-tetrachloroethane	15.85	83	12211	4.69	ug/L	91
112)	trans-1,4-dichloro-2-buten	15.90	53	3120	4.60	ug/L	93
113)	1,2,3-trichloropropane	15.92	110	3450	4.68	ug/L	89
114)	n-propylbenzene	15.99	91	49811	4.79	ug/L	97
115)	2-chlorotoluene	16.12	126	11405	4.58	ug/L	99
116)	4-chlorotoluene	16.21	91	33216	4.82	ug/L	98
117)	1,3,5-trimethylbenzene	16.13	105	38716	4.78	ug/L	95
118)	tert-butylbenzene	16.46	119	33950	4.46	ug/L	98
119)	pentachloroethane	16.51	167	9864	4.71	ug/L	94
120)	1,2,4-trimethylbenzene	16.49	105	37856	4.66	ug/L	97
121)	sec-butylbenzene	16.66	105	48657	4.48	ug/L	99
122)	1,3-dichlorobenzene	16.81	146	26164	4.84	ug/L	98
123)	p-isopropyltoluene	16.77	119	42332	4.43	ug/L	95
124)	1,4-dichlorobenzene	16.89	146	24268	4.52	ug/L	98
125)	1,2-dichlorobenzene	17.27	146	26094	4.62	ug/L	95
126)	n-butylbenzene	17.16	92	19565	4.19	ug/L	98
127)	1,2-dibromo-3-chloropropan	18.01	75	2444	4.34	ug/L	82
128)	1,3,5-trichlorobenzene	18.22	180	24837	4.35	ug/L	97
129)	1,2,4-trichlorobenzene	18.87	180	21363	4.12	ug/L	94
130)	hexachlorobutadiene	19.01	225	12581	4.52	ug/L	92
131)	naphthalene	19.15	128	36531	3.99	ug/L	98
132)	1,2,3-trichlorobenzene	19.39	180	18723	4.05	ug/L	95
133)	hexachloroethane	17.54	201	8945	3.95	ug/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	116059	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	390368	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	388792	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	329213	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	184387	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	24229	9.51	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 19.02%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	29292	9.84	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 19.68%#				
82) toluene-d8 (s)	13.31	98	73257	9.36	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 18.72%#				
108) 4-bromofluorobenzene (s)	15.78	95	27962	9.39	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 18.78%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	12184	50.95	ug/L		81
3) ethanol	6.93	45	26009	1001.84	ug/L		96
4) 1,4-dioxane	12.42	88	5229	232.52	ug/L		92
9) chlorodifluoromethane	4.48	51	24583	8.70	ug/L		96
10) dichlorodifluoromethane	4.46	85	32712	9.36	ug/L		97
12) chloromethane	4.86	50	35086	9.73	ug/L		98
13) vinyl chloride	5.16	62	31244	9.59	ug/L		98
15) bromomethane	5.90	94	23736	9.81	ug/L		98
16) chloroethane	6.11	64	15658	10.31	ug/L		96
18) trichlorofluoromethane	6.69	101	41624	10.07	ug/L		91
20) ethyl ether	7.15	74	12970	10.07	ug/L		94
21) acrolein	7.39	56	38097	94.78	ug/L		93
22) 2-chloropropane	7.35	43	40803	9.68	ug/L		94
24) 1,1-dichloroethene	7.62	96	22369	9.44	ug/L		92
25) acetone	7.66	43	7822	10.82	ug/L		88
26) allyl chloride	8.20	76	11371	9.20	ug/L	#	87
27) acetonitrile	8.12	40	14205	102.17	ug/L		83
28) iodomethane	7.91	142	48762	9.68	ug/L		95
29) iso-butyl alcohol	11.10	74	2752	100.96	ug/L	#	38
30) carbon disulfide	8.05	76	72292	9.65	ug/L		98
31) methylene chloride	8.39	84	24760	9.40	ug/L		96
32) methyl acetate	8.19	74	3741	9.58	ug/L		93
33) 1-chloropropane	8.46	42	41756	9.32	ug/L		98
34) methyl tert butyl ether	8.82	73	73612	9.99	ug/L		94
35) trans-1,2-dichloroethene	8.83	96	24094	9.59	ug/L		92
36) di-isopropyl ether	9.50	45	70010	9.77	ug/L		99
37) 2-butanone	10.21	72	2310	9.03	ug/L		96
38) 1,1-dichloroethane	9.44	63	41711	9.48	ug/L		93
39) chloroprene	9.58	53	29155	9.35	ug/L		95
40) acrylonitrile	8.74	53	42189	49.75	ug/L		100
41) vinyl acetate	9.45	86	3531	8.97	ug/L		58
42) ethyl tert-butyl ether	10.00	59	73537	9.64	ug/L		99
43) ethyl acetate	10.26	45	2576	9.20	ug/L	#	37

(#) = qualifier out of range (m) = manual integration
2B127395.D M2B5744.M Tue Feb 10 09:39:43 2015 MS2B Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	36545	9.72	ug/L		97
45)	cis-1,2-dichloroethene	10.23	96	25819	9.45	ug/L		93
46)	propionitrile	10.28	54	31162	101.20	ug/L		96
47)	bromochloromethane	10.56	128	14354	10.09	ug/L		97
48)	tetrahydrofuran	10.62	42	5888m	8.99	ug/L		
49)	chloroform	10.62	83	44686	9.77	ug/L		93
50)	t-butyl formate	10.70	59	19654	9.48	ug/L		94
53)	freon 113	7.62	151	16290	8.55	ug/L		97
54)	methacrylonitrile	10.50	41	13669	9.83	ug/L		99
55)	1,1,1-trichloroethane	10.92	97	37667	9.44	ug/L		97
56)	Cyclohexane	11.02	84	29853	9.16	ug/L		97
61)	epichlorohydrin	12.91	57	9312	48.31	ug/L		93
62)	n-butyl alcohol	11.83	56	24347	462.88	ug/L		97
63)	carbon tetrachloride	11.14	117	37608	9.78	ug/L		99
64)	1,1-dichloropropene	11.10	75	29728	9.83	ug/L		99
65)	hexane	9.23	57	20621	8.97	ug/L		93
66)	benzene	11.36	78	81073	9.74	ug/L		94
67)	2,2,4-trimethylpentane	11.43	57	59593	8.55	ug/L		97
68)	tert-amyl methyl ether	11.44	73	64489	9.92	ug/L		99
69)	heptane	11.59	57	11377	8.39	ug/L		96
70)	isopropyl acetate	11.30	43	37098	10.08	ug/L		98
71)	1,2-dichloroethane	11.35	62	33762	10.26	ug/L		96
72)	trichloroethene	12.06	95	22246	9.70	ug/L		96
74)	2-nitropropane	12.77	41	5786	9.50	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	59245	50.56	ug/L		98
76)	methyl methacrylate	12.33	100	4995	9.99	ug/L	#	92
77)	1,2-dichloropropane	12.31	63	20753	9.85	ug/L		96
78)	dibromomethane	12.44	93	14787	9.79	ug/L		96
79)	methylcyclohexane	12.31	83	28075	8.88	ug/L		96
80)	bromodichloromethane	12.57	83	31801	9.69	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	34544	9.55	ug/L		94
83)	4-methyl-2-pentanone	13.11	58	7012	9.61	ug/L	#	78
84)	toluene	13.38	92	48781	9.72	ug/L		97
85)	3-methyl-1-butanol	13.11	55	15215	196.09	ug/L		96
86)	trans-1,3-dichloropropene	13.53	75	33276	9.52	ug/L		94
87)	ethyl methacrylate	13.55	69	23253	9.58	ug/L		96
88)	1,1,2-trichloroethane	13.73	83	16130	9.64	ug/L		97
89)	2-hexanone	13.92	58	5491	8.99	ug/L		92
91)	butyl ether	14.69	57	74758	9.44	ug/L		96
92)	tetrachloroethene	13.93	164	20811	9.46	ug/L		97
93)	1,3-dichloropropane	13.90	76	30465	9.91	ug/L		95
94)	butyl acetate	13.99	56	10733	9.63	ug/L		99
95)	3,3-dimethyl-1-butanol	14.07	57	15198	92.22	ug/L		92
96)	dibromochloromethane	14.15	129	27295	9.95	ug/L		96
97)	1,2-dibromoethane	14.29	107	21394	9.73	ug/L		94
98)	chlorobenzene	14.74	112	53139	9.45	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	23921	9.58	ug/L		98
100)	ethylbenzene	14.80	91	89442	9.56	ug/L		99
101)	m,p-xylene	14.90	106	67905	19.06	ug/L		99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

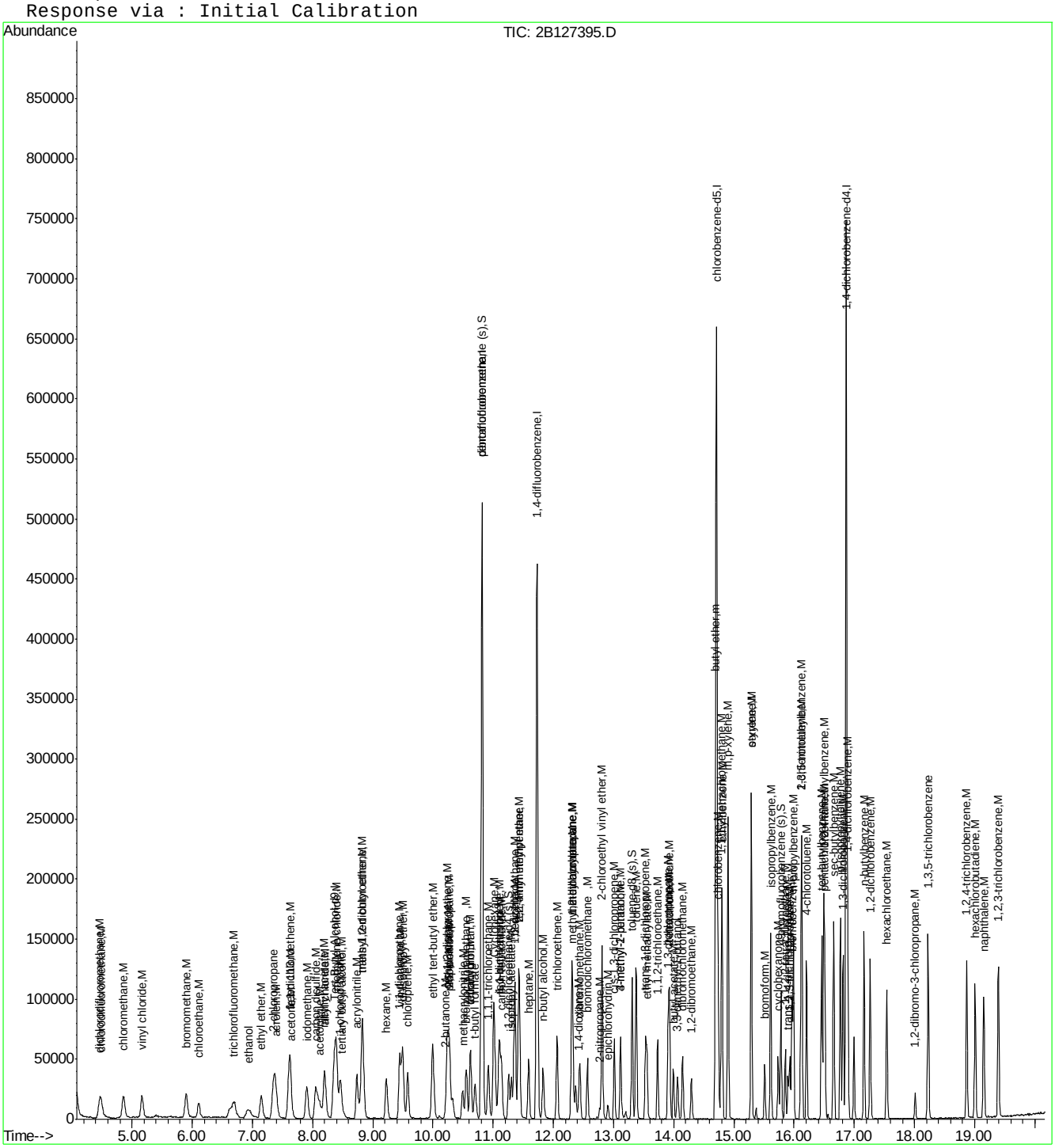
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	34840	9.23	ug/L	92
103) styrene	15.29	104	56321	9.68	ug/L	98
105) bromoform	15.51	173	20469	9.51	ug/L	99
107) isopropylbenzene	15.61	105	94894	10.01	ug/L	98
109) cyclohexanone	15.73	98	9009	91.87	ug/L	96
110) bromobenzene	15.97	156	29428	9.84	ug/L	96
111) 1,1,2,2-tetrachloroethane	15.86	83	24762	9.72	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	6468	9.73	ug/L	97
113) 1,2,3-trichloropropane	15.93	110	7185	10.38	ug/L	95
114) n-propylbenzene	15.99	91	102167	9.98	ug/L	99
115) 2-chlorotoluene	16.12	126	23776	9.64	ug/L	99
116) 4-chlorotoluene	16.21	91	65689	9.62	ug/L	97
117) 1,3,5-trimethylbenzene	16.13	105	79176	10.08	ug/L	95
118) tert-butylbenzene	16.46	119	70970	9.90	ug/L	98
119) pentachloroethane	16.51	167	20075	10.11	ug/L	94
120) 1,2,4-trimethylbenzene	16.49	105	78820	10.19	ug/L	97
121) sec-butylbenzene	16.66	105	103053	9.94	ug/L	97
122) 1,3-dichlorobenzene	16.81	146	52759	9.75	ug/L	97
123) p-isopropyltoluene	16.77	119	87057	9.82	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	50481	9.31	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	53092	10.11	ug/L	97
126) n-butylbenzene	17.16	92	41290	9.38	ug/L	97
127) 1,2-dibromo-3-chloropropan	18.02	75	5021	9.47	ug/L	92
128) 1,3,5-trichlorobenzene	18.23	180	50490	9.57	ug/L	97
129) 1,2,4-trichlorobenzene	18.87	180	43783	9.26	ug/L	94
130) hexachlorobutadiene	19.01	225	26090	9.96	ug/L	95
131) naphthalene	19.15	128	78895	9.59	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	40921	9.90	ug/L	98
133) hexachloroethane	17.54	201	19573	9.22	ug/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:47 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V2B5744-IC5744
Lab FileID: 2B127395.D
Injection Time: 02/05/15 18:39

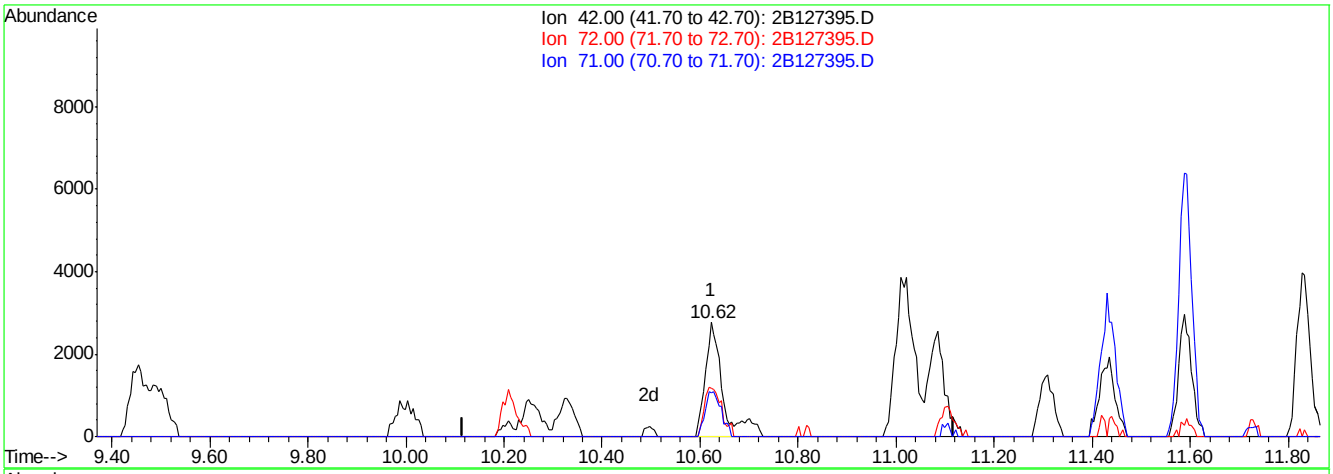
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

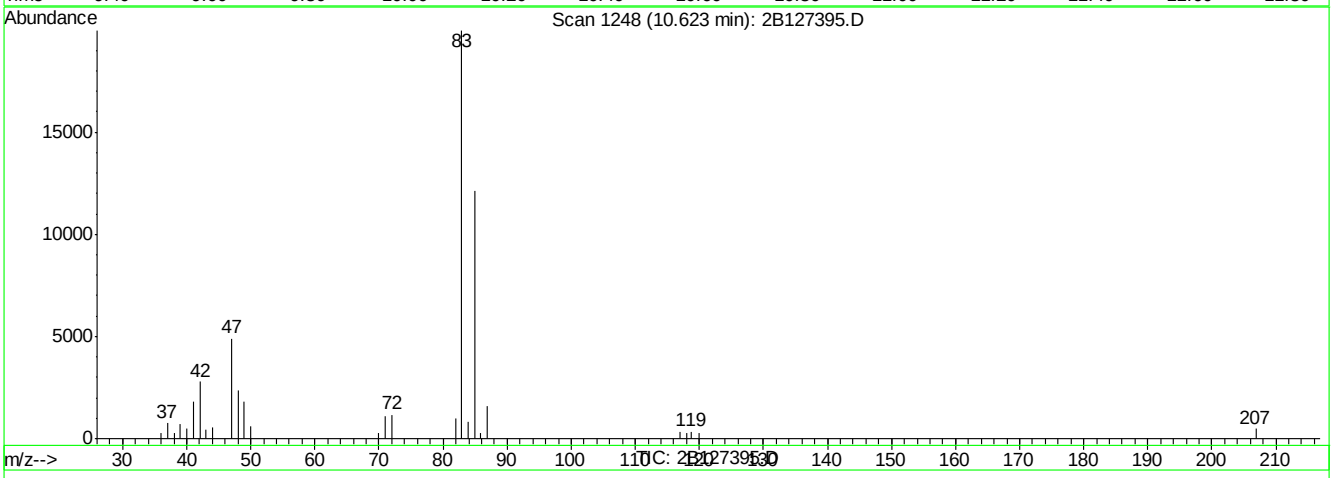
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrahydrofuran	109-99-9		10.62	Overlapping peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:28:56 2015
Response via : Multiple Level Calibration





(48) tetrahydrofuran (M)

10.62min 10.58ug/L

response 6933

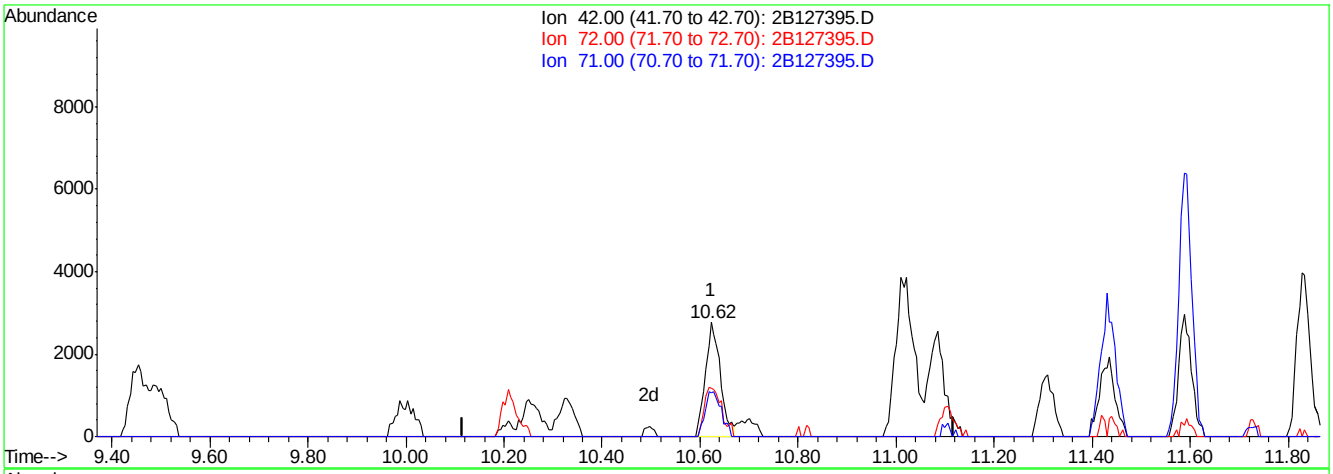
Ion	Exp%	Act%
42.00	100	100
72.00	46.20	41.87
71.00	39.20	38.67
0.00	0.00	0.00

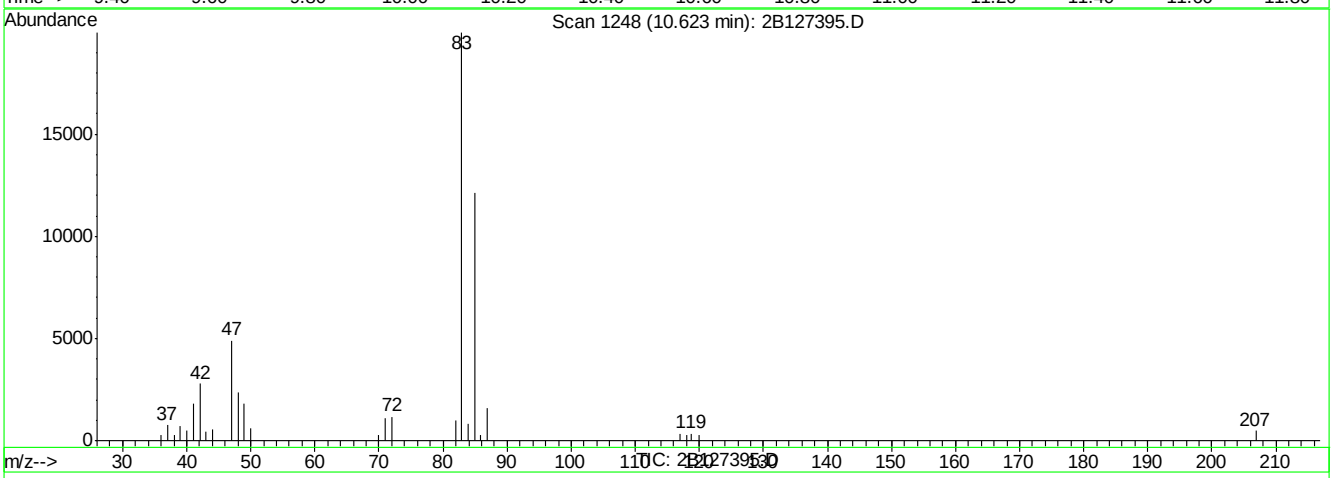
2B127395.D M2B5744.M Fri Feb 06 16:46:48 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:47 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:28:56 2015
Response via : Multiple Level Calibration





(48) tetrahydrofuran (M)

10.62min 8.99ug/L m

response 5888

Ion	Exp%	Act%
42.00	100	100
72.00	46.20	41.87
71.00	39.20	38.67
0.00	0.00	0.00

2B127395.D M2B5744.M Fri Feb 06 16:47:42 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	117068	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	387565	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	391421	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	335303	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	184029	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	127773	50.50	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 101.00%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	154311	52.19	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 104.38%			
82) toluene-d8 (s)	13.31	98	417958	53.03	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 106.06%			
108) 4-bromofluorobenzene (s)	15.78	95	156358	52.64	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 105.28%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.49	59	23344	96.77	ug/L	80
3) ethanol	6.94	45	54075	2064.97	ug/L	94
4) 1,4-dioxane	12.42	88	11177	492.73	ug/L	94
9) chlorodifluoromethane	4.47	51	61190	21.81	ug/L	96
10) dichlorodifluoromethane	4.46	85	80078	23.09	ug/L	99
12) chloromethane	4.87	50	77887	21.76	ug/L	99
13) vinyl chloride	5.16	62	70304	21.74	ug/L	99
15) bromomethane	5.90	94	49426	20.57	ug/L	99
16) chloroethane	6.11	64	33052	21.92	ug/L	98
18) trichlorofluoromethane	6.70	101	94804	23.11	ug/L	96
20) ethyl ether	7.15	74	24853	19.44	ug/L	88
21) acrolein	7.38	56	81613	204.52	ug/L	100
22) 2-chloropropane	7.35	43	83098	19.85	ug/L	98
24) 1,1-dichloroethene	7.61	96	46431	19.74	ug/L	91
25) acetone	7.63	43	15247	21.24	ug/L	93
26) allyl chloride	8.20	76	25177	20.53	ug/L	98
27) acetonitrile	8.12	40	29025	210.28	ug/L	98
28) iodomethane	7.90	142	99518	19.90	ug/L	98
29) iso-butyl alcohol	11.09	74	5782	213.65	ug/L #	76
30) carbon disulfide	8.05	76	149728	20.13	ug/L	99
31) methylene chloride	8.39	84	50494	19.31	ug/L	99
32) methyl acetate	8.19	74	7541	19.45	ug/L	94
33) 1-chloropropane	8.46	42	83447	18.77	ug/L	98
34) methyl tert butyl ether	8.82	73	147196	20.13	ug/L	97
35) trans-1,2-dichloroethene	8.83	96	47906	19.20	ug/L	97
36) di-isopropyl ether	9.50	45	147672	20.75	ug/L	98
37) 2-butanone	10.20	72	4956	19.52	ug/L	92
38) 1,1-dichloroethane	9.45	63	85787	19.64	ug/L	99
39) chloroprene	9.58	53	67095	21.66	ug/L	97
40) acrylonitrile	8.73	53	86138	102.32	ug/L	99
41) vinyl acetate	9.45	86	7317	18.71	ug/L	89
42) ethyl tert-butyl ether	10.00	59	157786	20.83	ug/L	98
43) ethyl acetate	10.25	45	5491	19.76	ug/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	74956	20.07	ug/L		99
45)	cis-1,2-dichloroethene	10.23	96	51914	19.14	ug/L		95
46)	propionitrile	10.27	54	62392	204.09	ug/L		96
47)	bromochloromethane	10.55	128	28129	19.92	ug/L		100
48)	tetrahydrofuran	10.62	42	12391	19.05	ug/L		92
49)	chloroform	10.62	83	88221	19.42	ug/L		94
50)	t-butyl formate	10.70	59	43632	21.21	ug/L		97
53)	freon 113	7.62	151	40035	21.16	ug/L		96
54)	methacrylonitrile	10.49	41	27782	20.13	ug/L		96
55)	1,1,1-trichloroethane	10.92	97	79844	20.16	ug/L		97
56)	Cyclohexane	11.02	84	65952	20.38	ug/L		95
61)	epichlorohydrin	12.91	57	19586	100.93	ug/L		97
62)	n-butyl alcohol	11.83	56	52538	992.12	ug/L		98
63)	carbon tetrachloride	11.14	117	76730	19.82	ug/L		99
64)	1,1-dichloropropene	11.10	75	59620	19.59	ug/L		98
65)	hexane	9.22	57	50366	21.75	ug/L		94
66)	benzene	11.36	78	166016	19.82	ug/L		98
67)	2,2,4-trimethylpentane	11.43	57	151971	21.67	ug/L		97
68)	tert-amyl methyl ether	11.43	73	138747	21.19	ug/L		98
69)	heptane	11.59	57	28861	21.14	ug/L		94
70)	isopropyl acetate	11.30	43	75826	20.46	ug/L		99
71)	1,2-dichloroethane	11.35	62	67892	20.50	ug/L		97
72)	trichloroethene	12.06	95	46439	20.11	ug/L		94
74)	2-nitropropane	12.77	41	12217	20.44	ug/L		100
75)	2-chloroethyl vinyl ether	12.81	63	130591	110.70	ug/L		99
76)	methyl methacrylate	12.33	100	10680	21.21	ug/L	#	91
77)	1,2-dichloropropane	12.31	63	42644	20.10	ug/L		99
78)	dibromomethane	12.44	93	30228	19.88	ug/L		92
79)	methylcyclohexane	12.31	83	70821	22.26	ug/L		98
80)	bromodichloromethane	12.57	83	65847	19.94	ug/L		97
81)	cis-1,3-dichloropropene	13.01	75	73484	20.19	ug/L		100
83)	4-methyl-2-pentanone	13.12	58	14473	19.69	ug/L		90
84)	toluene	13.38	92	98534	19.51	ug/L		99
85)	3-methyl-1-butanol	13.12	55	32409	414.87	ug/L		94
86)	trans-1,3-dichloropropene	13.53	75	70236	19.97	ug/L		97
87)	ethyl methacrylate	13.55	69	49867	20.41	ug/L		99
88)	1,1,2-trichloroethane	13.73	83	33149	19.68	ug/L		95
89)	2-hexanone	13.92	58	12483	20.30	ug/L		90
91)	butyl ether	14.69	57	161686	20.05	ug/L		99
92)	tetrachloroethene	13.93	164	43911	19.60	ug/L		96
93)	1,3-dichloropropane	13.90	76	63419	20.26	ug/L		99
94)	butyl acetate	13.99	56	22817	20.11	ug/L		95
95)	3,3-dimethyl-1-butanol	14.06	57	32644	194.49	ug/L		99
96)	dibromochloromethane	14.15	129	57180	20.47	ug/L		99
97)	1,2-dibromoethane	14.29	107	44169	19.72	ug/L		95
98)	chlorobenzene	14.74	112	114791	20.05	ug/L		96
99)	1,1,1,2-tetrachloroethane	14.79	131	50918	20.01	ug/L		98
100)	ethylbenzene	14.81	91	188252	19.76	ug/L		99
101)	m,p-xylene	14.90	106	142360	39.24	ug/L		99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

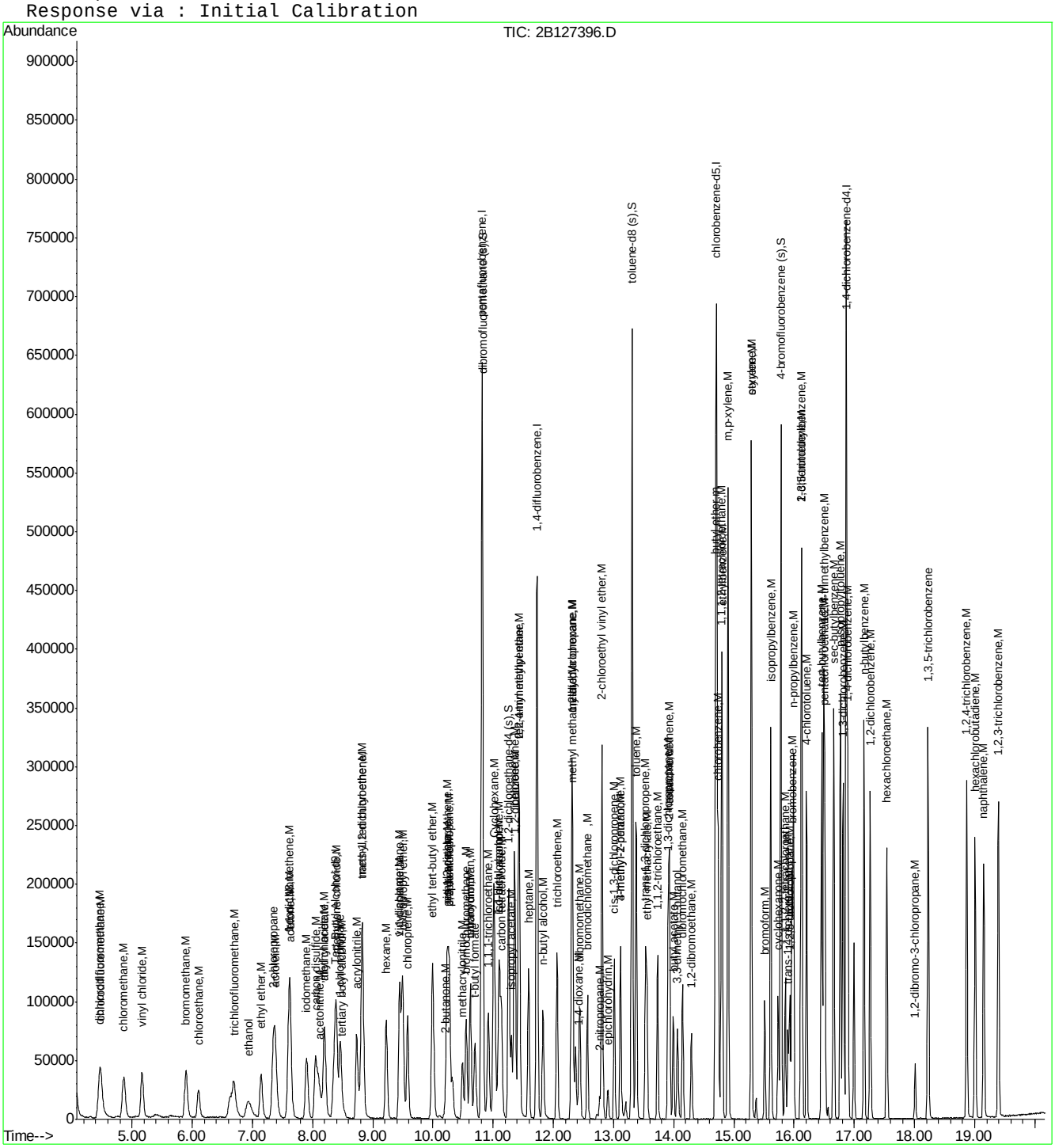
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	74975	19.51	ug/L	97
103) styrene	15.29	104	123673	20.88	ug/L	98
105) bromoform	15.51	173	45055	20.55	ug/L	100
107) isopropylbenzene	15.61	105	199231	21.05	ug/L	99
109) cyclohexanone	15.74	98	18145	185.40	ug/L	97
110) bromobenzene	15.97	156	61521	20.61	ug/L	99
111) 1,1,2,2-tetrachloroethane	15.85	83	50986	20.06	ug/L	98
112) trans-1,4-dichloro-2-buten	15.90	53	13667	20.59	ug/L	88
113) 1,2,3-trichloropropane	15.92	110	14375	20.81	ug/L	96
114) n-propylbenzene	15.99	91	214166	20.96	ug/L	99
115) 2-chlorotoluene	16.12	126	50066	20.34	ug/L	96
116) 4-chlorotoluene	16.21	91	138754	20.37	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	164547	21.00	ug/L	98
118) tert-butylbenzene	16.46	119	148362	20.74	ug/L	97
119) pentachloroethane	16.51	167	41855	21.12	ug/L	97
120) 1,2,4-trimethylbenzene	16.49	105	163796	21.21	ug/L	99
121) sec-butylbenzene	16.66	105	217293	21.00	ug/L	98
122) 1,3-dichlorobenzene	16.81	146	109667	20.31	ug/L	100
123) p-isopropyltoluene	16.77	119	189076	21.36	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	105370	19.47	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	111431	21.26	ug/L	99
126) n-butylbenzene	17.16	92	90990	20.71	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	10556	19.96	ug/L	95
128) 1,3,5-trichlorobenzene	18.22	180	110757	21.04	ug/L	99
129) 1,2,4-trichlorobenzene	18.87	180	98434	20.86	ug/L	98
130) hexachlorobutadiene	19.01	225	55061	21.05	ug/L	99
131) naphthalene	19.15	128	173385	21.11	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	88037	21.34	ug/L	99
133) hexachloroethane	17.54	201	43468	20.52	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	113322	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	382082	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	390245	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	334476	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	187662	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	124327	49.84	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.68%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	151150	51.86	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 103.72%			
82) toluene-d8 (s)	13.31	98	401889	51.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 102.28%			
108) 4-bromofluorobenzene (s)	15.78	95	152231	50.25	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.50	59	59741	255.85	ug/L	100
3) ethanol	6.94	45	132234	5216.56	ug/L	100
4) 1,4-dioxane	12.42	88	29031	1322.12	ug/L	100
9) chlorodifluoromethane	4.48	51	148103	53.55	ug/L	100
10) dichlorodifluoromethane	4.46	85	188159	55.03	ug/L	100
12) chloromethane	4.88	50	188227	53.34	ug/L	100
13) vinyl chloride	5.18	62	170243	53.41	ug/L	100
15) bromomethane	5.90	94	116115	49.01	ug/L	100
16) chloroethane	6.11	64	78359	52.72	ug/L	100
18) trichlorofluoromethane	6.69	101	220470	54.52	ug/L	100
20) ethyl ether	7.15	74	62538	49.62	ug/L	100
21) acrolein	7.39	56	190268	483.64	ug/L	100
22) 2-chloropropane	7.35	43	200932	48.75	ug/L	100
24) 1,1-dichloroethene	7.61	96	107930	46.53	ug/L	100
25) acetone	7.64	43	35095	49.58	ug/L	100
26) allyl chloride	8.21	76	62765	51.91	ug/L	100
27) acetonitrile	8.11	40	65498	481.33	ug/L	100
28) iodomethane	7.91	142	244731	49.64	ug/L	100
29) iso-butyl alcohol	11.09	74	13224	495.65	ug/L	100
30) carbon disulfide	8.05	76	361485	49.29	ug/L	100
31) methylene chloride	8.39	84	121966	47.32	ug/L	100
32) methyl acetate	8.19	74	19143	50.08	ug/L	100
33) 1-chloropropane	8.46	42	202083	46.11	ug/L	100
34) methyl tert butyl ether	8.82	73	363805	50.46	ug/L	100
35) trans-1,2-dichloroethene	8.83	96	115005	46.76	ug/L	100
36) di-isopropyl ether	9.50	45	364255	51.92	ug/L	100
37) 2-butanone	10.20	72	12618	50.41	ug/L	100
38) 1,1-dichloroethane	9.44	63	212110	49.25	ug/L	100
39) chloroprene	9.58	53	161638	52.94	ug/L	100
40) acrylonitrile	8.74	53	215994	260.25	ug/L	100
41) vinyl acetate	9.45	86	19397	50.32	ug/L	100
42) ethyl tert-butyl ether	10.00	59	399791	53.54	ug/L	100
43) ethyl acetate	10.25	45	14396	52.54	ug/L	100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	176894	48.05	ug/L		100
45)	cis-1,2-dichloroethene	10.23	96	130002	48.62	ug/L		100
46)	propionitrile	10.28	54	152236	505.13	ug/L		100
47)	bromochloromethane	10.55	128	70259	50.46	ug/L		100
48)	tetrahydrofuran	10.62	42	30610	47.74	ug/L		100
49)	chloroform	10.62	83	216295	48.29	ug/L		100
50)	t-butyl formate	10.70	59	110164	54.32	ug/L		100
53)	freon 113	7.63	151	93989	50.40	ug/L		100
54)	methacrylonitrile	10.49	41	67999	49.99	ug/L		100
55)	1,1,1-trichloroethane	10.92	97	196804	50.40	ug/L		100
56)	Cyclohexane	11.02	84	155576	48.77	ug/L		100
61)	epichlorohydrin	12.91	57	49921	258.03	ug/L		100
62)	n-butyl alcohol	11.83	56	138588	2624.97	ug/L		100
63)	carbon tetrachloride	11.14	117	187663	48.61	ug/L		100
64)	1,1-dichloropropene	11.10	75	145210	47.85	ug/L		100
65)	hexane	9.22	57	118280	51.24	ug/L		100
66)	benzene	11.36	78	407111	48.74	ug/L		100
67)	2,2,4-trimethylpentane	11.43	57	364764	52.17	ug/L		100
68)	tert-amyl methyl ether	11.44	73	346613	53.10	ug/L		100
69)	heptane	11.59	57	70641	51.89	ug/L		100
70)	isopropyl acetate	11.30	43	194424	52.61	ug/L		100
71)	1,2-dichloroethane	11.35	62	169041	51.18	ug/L		100
72)	trichloroethene	12.06	95	114418	49.69	ug/L		100
74)	2-nitropropane	12.77	41	30566	50.00	ug/L	#	100
75)	2-chloroethyl vinyl ether	12.81	63	328528	279.33	ug/L		100
76)	methyl methacrylate	12.33	100	26965	53.72	ug/L		100
77)	1,2-dichloropropane	12.31	63	105449	49.86	ug/L		100
78)	dibromomethane	12.44	93	75468	49.78	ug/L		100
79)	methylcyclohexane	12.31	83	171957	54.20	ug/L		100
80)	bromodichloromethane	12.57	83	166669	50.62	ug/L		100
81)	cis-1,3-dichloropropene	13.01	75	184449	50.83	ug/L		100
83)	4-methyl-2-pentanone	13.12	58	37364	50.99	ug/L		100
84)	toluene	13.38	92	246114	48.87	ug/L		100
85)	3-methyl-1-butanol	13.11	55	83665	1074.24	ug/L		100
86)	trans-1,3-dichloropropene	13.53	75	178701	50.95	ug/L		100
87)	ethyl methacrylate	13.55	69	128588	52.79	ug/L		100
88)	1,1,2-trichloroethane	13.73	83	82609	49.18	ug/L		100
89)	2-hexanone	13.92	58	31783	51.84	ug/L		100
91)	butyl ether	14.69	57	417991	51.97	ug/L		100
92)	tetrachloroethene	13.93	164	106324	47.59	ug/L		100
93)	1,3-dichloropropane	13.90	76	161330	51.67	ug/L		100
94)	butyl acetate	13.99	56	58514	51.69	ug/L		100
95)	3,3-dimethyl-1-butanol	14.06	57	84193	502.85	ug/L		100
96)	dibromochloromethane	14.15	129	144887	51.99	ug/L		100
97)	1,2-dibromoethane	14.29	107	113287	50.71	ug/L		100
98)	chlorobenzene	14.74	112	284082	49.73	ug/L		100
99)	1,1,1,2-tetrachloroethane	14.79	131	129011	50.83	ug/L		100
100)	ethylbenzene	14.80	91	457007	48.08	ug/L		100
101)	m,p-xylene	14.90	106	350724	96.90	ug/L		100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

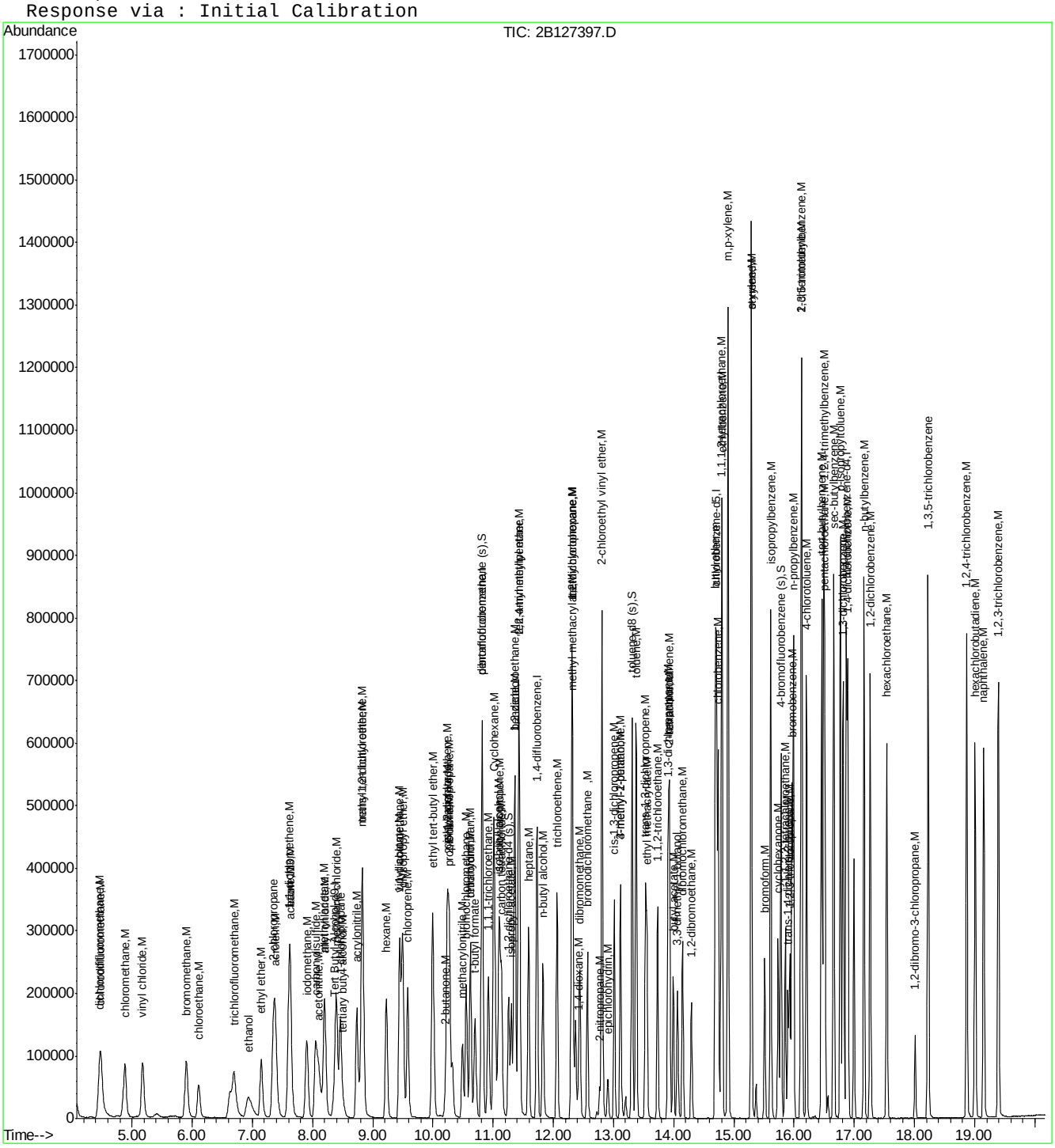
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	190213	49.61	ug/L	100
103) styrene	15.29	104	309244	52.34	ug/L	100
105) bromoform	15.51	173	115743	52.91	ug/L	100
107) isopropylbenzene	15.61	105	503090	52.13	ug/L	100
109) cyclohexanone	15.74	98	48727	488.24	ug/L	100
110) bromobenzene	15.97	156	155203	50.99	ug/L	100
111) 1,1,2,2-tetrachloroethane	15.86	83	131828	50.86	ug/L	100
112) trans-1,4-dichloro-2-buten	15.90	53	34391	50.82	ug/L	100
113) 1,2,3-trichloropropane	15.93	110	37385	53.06	ug/L	100
114) n-propylbenzene	15.99	91	526432	50.53	ug/L	100
115) 2-chlorotoluene	16.12	126	126195	50.26	ug/L	100
116) 4-chlorotoluene	16.21	91	349336	50.28	ug/L	100
117) 1,3,5-trimethylbenzene	16.13	105	410343	51.34	ug/L	100
118) tert-butylbenzene	16.46	119	385257	52.80	ug/L	100
119) pentachloroethane	16.51	167	106072	52.48	ug/L	100
120) 1,2,4-trimethylbenzene	16.49	105	411990	52.32	ug/L	100
121) sec-butylbenzene	16.66	105	549684	52.09	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	273864	49.74	ug/L	100
123) p-isopropyltoluene	16.77	119	483854	53.61	ug/L	100
124) 1,4-dichlorobenzene	16.89	146	272030	49.29	ug/L	100
125) 1,2-dichlorobenzene	17.27	146	286398	53.57	ug/L	100
126) n-butylbenzene	17.16	92	236349	52.75	ug/L	100
127) 1,2-dibromo-3-chloropropan	18.01	75	28539	52.91	ug/L	100
128) 1,3,5-trichlorobenzene	18.22	180	289523	53.94	ug/L	100
129) 1,2,4-trichlorobenzene	18.87	180	262520	54.57	ug/L	100
130) hexachlorobutadiene	19.01	225	141005	52.87	ug/L	100
131) naphthalene	19.15	128	464334	55.44	ug/L	100
132) 1,2,3-trichlorobenzene	19.39	180	234107	55.65	ug/L	100
133) hexachloroethane	17.54	201	114712	53.11	ug/L	100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 12:30 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	119534	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	401627	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	418118	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	347865	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	200396	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	260340	99.29	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 198.58%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	309472	101.01	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 202.02%#			
82) toluene-d8 (s)	13.31	98	852053	101.20	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 202.40%#			
108) 4-bromofluorobenzene (s)	15.78	95	311261	96.22	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 192.44%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.49	59	129784	526.93	ug/L	96
3) ethanol	6.94	45	271044	10136.87	ug/L	97
4) 1,4-dioxane	12.41	88	65442	2825.46	ug/L	97
9) chlorodifluoromethane	4.48	51	333965	114.87	ug/L	99
10) dichlorodifluoromethane	4.46	85	413872	115.15	ug/L	99
12) chloromethane	4.88	50	398646	107.46	ug/L	99
13) vinyl chloride	5.18	62	370056	110.44	ug/L	98
15) bromomethane	5.90	94	240383	96.52	ug/L	96
16) chloroethane	6.10	64	164700	105.42	ug/L	96
18) trichlorofluoromethane	6.68	101	475440	111.84	ug/L	98
20) ethyl ether	7.15	74	137479	103.77	ug/L	91
22) 2-chloropropane	7.35	43	441638	101.80	ug/L	97
24) 1,1-dichloroethene	7.61	96	242114	99.31	ug/L	99
25) acetone	7.64	43	69820	93.85	ug/L	90
26) allyl chloride	8.20	76	137344	108.07	ug/L	98
27) acetonitrile	8.11	40	139602	975.98	ug/L	99
28) iodomethane	7.90	142	538040	103.83	ug/L	98
29) iso-butyl alcohol	11.10	74	30805	1098.41	ug/L #	60
30) carbon disulfide	8.05	76	807892	104.79	ug/L	98
31) methylene chloride	8.39	84	269065	99.31	ug/L	98
32) methyl acetate	8.18	74	40652	101.17	ug/L	90
33) 1-chloropropane	8.46	42	445952	96.79	ug/L	99
34) methyl tert butyl ether	8.82	73	782824	103.30	ug/L	98
35) trans-1,2-dichloroethene	8.83	96	252954	97.85	ug/L	97
36) di-isopropyl ether	9.50	45	770181	104.44	ug/L	99
37) 2-butanone	10.20	72	29219	111.06	ug/L #	74
38) 1,1-dichloroethane	9.44	63	465643	102.85	ug/L	97
39) chloroprene	9.58	53	356239	110.99	ug/L	99
40) acrylonitrile	8.74	53	472682	541.82	ug/L	99
41) vinyl acetate	9.45	86	41976	103.59	ug/L	89
42) ethyl tert-butyl ether	9.99	59	856627	109.13	ug/L	98
43) ethyl acetate	10.25	45	29758	103.31	ug/L	65
44) 2,2-dichloropropane	10.27	77	387456	100.12	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	cis-1,2-dichloroethene	10.23	96	285213	101.49	ug/L	99
46)	propionitrile	10.28	54	334549	1056.03	ug/L	99
47)	bromochloromethane	10.55	128	155240	106.07	ug/L	99
48)	tetrahydrofuran	10.62	42	66927	99.31	ug/L	97
49)	chloroform	10.62	83	475405	100.98	ug/L	97
50)	t-butyl formate	10.70	59	240878	112.99	ug/L	98
53)	freon 113	7.62	151	209977	107.11	ug/L	91
54)	methacrylonitrile	10.49	41	153252	107.17	ug/L	97
55)	1,1,1-trichloroethane	10.92	97	443973	108.16	ug/L	98
56)	Cyclohexane	11.02	84	357019	106.48	ug/L	98
61)	epichlorohydrin	12.91	57	111691	538.81	ug/L	95
62)	n-butyl alcohol	11.83	56	317998	5621.62	ug/L	98
63)	carbon tetrachloride	11.14	117	420116	101.57	ug/L	98
64)	1,1-dichloropropene	11.11	75	333072	102.44	ug/L	98
65)	hexane	9.22	57	277781	112.31	ug/L	100
66)	benzene	11.36	78	914190	102.16	ug/L	100
67)	2,2,4-trimethylpentane	11.43	57	825173	110.15	ug/L	97
68)	tert-amyl methyl ether	11.43	73	739009	105.66	ug/L	99
69)	heptane	11.59	57	164815	112.99	ug/L	98
70)	isopropyl acetate	11.30	43	430807	108.80	ug/L	99
71)	1,2-dichloroethane	11.35	62	369364	104.39	ug/L	98
72)	trichloroethene	12.06	95	266137	107.86	ug/L	98
74)	2-nitropropane	12.77	41	70842	110.13	ug/L	94
75)	2-chloroethyl vinyl ether	12.81	63	709065	562.69	ug/L	98
76)	methyl methacrylate	12.33	100	58977	109.67	ug/L	97
77)	1,2-dichloropropane	12.31	63	239592	105.73	ug/L	97
78)	dibromomethane	12.44	93	168427	103.70	ug/L	97
79)	methylcyclohexane	12.31	83	388013	114.16	ug/L	97
80)	bromodichloromethane	12.57	83	378100	107.17	ug/L	99
81)	cis-1,3-dichloropropene	13.01	75	420380	108.12	ug/L	98
83)	4-methyl-2-pentanone	13.12	58	83585	106.47	ug/L	92
84)	toluene	13.38	92	557823	103.39	ug/L	97
85)	3-methyl-1-butanol	13.11	55	186846	2239.13	ug/L	95
86)	trans-1,3-dichloropropene	13.53	75	400332	106.54	ug/L	100
87)	ethyl methacrylate	13.55	69	285357	109.35	ug/L	97
88)	1,1,2-trichloroethane	13.73	83	186706	103.74	ug/L	98
89)	2-hexanone	13.91	58	72968	111.09	ug/L	94
91)	butyl ether	14.69	57	962043	115.00	ug/L	99
92)	tetrachloroethene	13.93	164	242291	104.27	ug/L	99
93)	1,3-dichloropropane	13.90	76	360162	110.92	ug/L	99
94)	butyl acetate	13.99	56	128864	109.46	ug/L	98
95)	3,3-dimethyl-1-butanol	14.06	57	196036	1125.77	ug/L	99
96)	dibromochloromethane	14.15	129	326199	112.55	ug/L	99
97)	1,2-dibromoethane	14.29	107	255600	110.02	ug/L	96
98)	chlorobenzene	14.74	112	635770	107.02	ug/L	100
99)	1,1,1,2-tetrachloroethane	14.79	131	288779	109.40	ug/L	98
100)	ethylbenzene	14.80	91	1015039	102.68	ug/L	97
101)	m,p-xylene	14.90	106	798792	212.21	ug/L	96
102)	o-xylene	15.29	106	426842	107.04	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

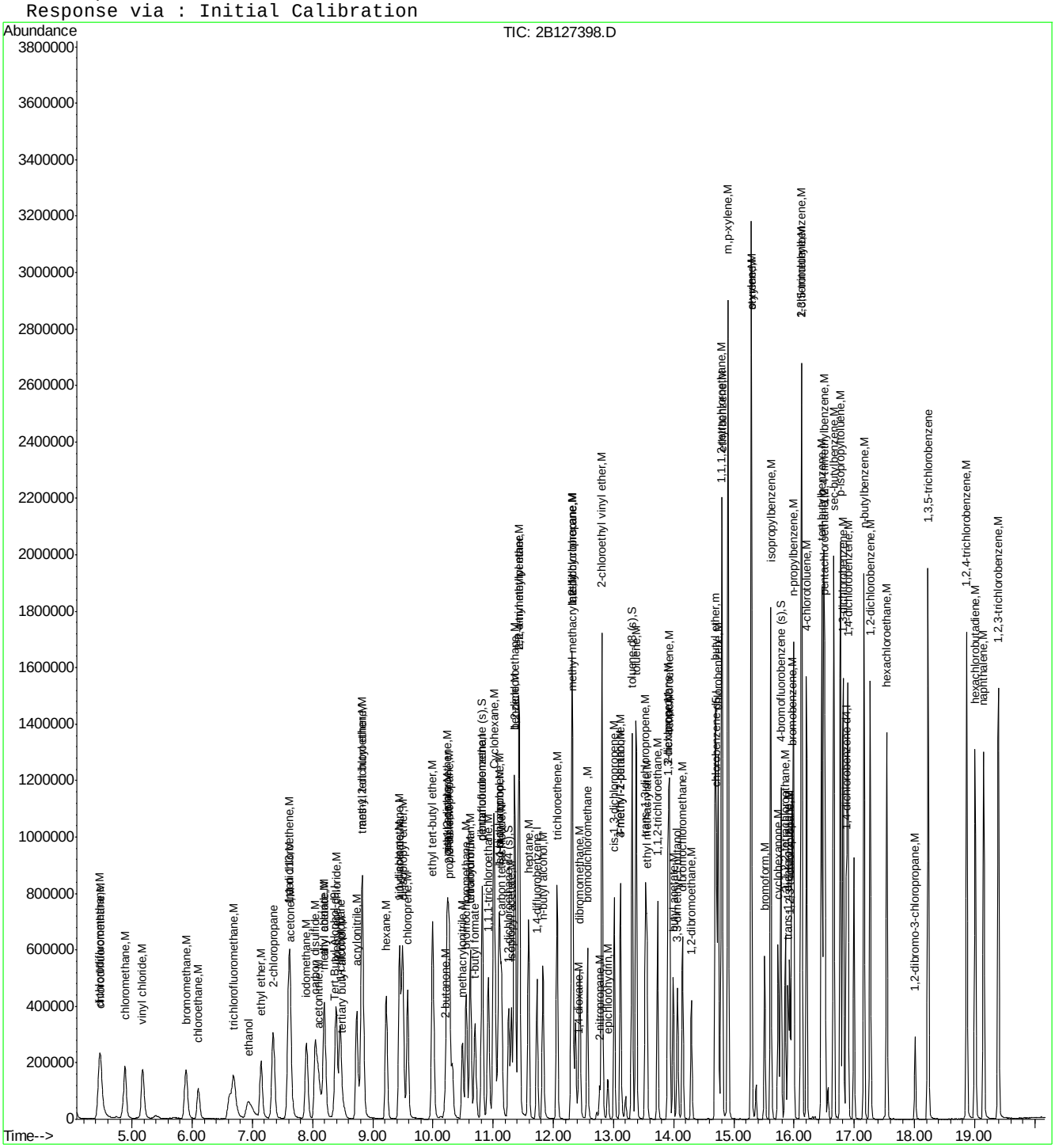
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
103) styrene	15.29	104	694374	112.99	ug/L	97
105) bromoform	15.51	173	261463	114.93	ug/L	99
107) isopropylbenzene	15.61	105	1127665	109.43	ug/L	99
109) cyclohexanone	15.74	98	108780	1020.70	ug/L	96
110) bromobenzene	15.97	156	339118	104.33	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.85	83	290211	104.84	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	79780	110.40	ug/L	99
113) 1,2,3-trichloropropane	15.93	110	80180	106.57	ug/L	98
114) n-propylbenzene	15.99	91	1155916	103.91	ug/L	99
115) 2-chlorotoluene	16.12	126	286145	106.73	ug/L	95
116) 4-chlorotoluene	16.21	91	773162	104.22	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	915785	107.31	ug/L	99
118) tert-butylbenzene	16.46	119	896498	115.07	ug/L	98
119) pentachloroethane	16.51	167	234206	108.51	ug/L	99
120) 1,2,4-trimethylbenzene	16.49	105	902199	107.29	ug/L	98
121) sec-butylbenzene	16.66	105	1248376	110.78	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	609232	103.63	ug/L	99
123) p-isopropyltoluene	16.77	119	1093688	113.49	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	615486	104.44	ug/L	97
125) 1,2-dichlorobenzene	17.27	146	625696	109.60	ug/L	99
126) n-butylbenzene	17.16	92	536008	112.02	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	64709	112.34	ug/L	97
128) 1,3,5-trichlorobenzene	18.23	180	650494	113.49	ug/L	99
129) 1,2,4-trichlorobenzene	18.87	180	591277	115.09	ug/L	99
130) hexachlorobutadiene	19.01	225	320440	112.52	ug/L	98
131) naphthalene	19.15	128	1032147	115.40	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	514602	114.55	ug/L	100
133) hexachloroethane	17.54	201	266064	115.37	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	140641	500.00	ug/L	0.02
5) pentafluorobenzene	10.82	168	444312	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	481473	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	381823	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	229683	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	612352	211.10	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 422.20%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	695805	205.28	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 410.56%#			
82) toluene-d8 (s)	13.31	98	1950137	201.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 402.28%#			
108) 4-bromofluorobenzene (s)	15.78	95	735993	198.51	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 397.02%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.51	59	312632	1078.80	ug/L	62
3) ethanol	6.94	45	600775	19096.57	ug/L	94
4) 1,4-dioxane	12.41	88	158054	5799.86	ug/L	97
9) chlorodifluoromethane	4.48	51	707806	220.07	ug/L	99
10) dichlorodifluoromethane	4.46	85	796877	200.41	ug/L	99
12) chloromethane	4.90	50	817910	199.30	ug/L	99
13) vinyl chloride	5.19	62	751925	202.85	ug/L	98
15) bromomethane	5.89	94	496186	180.09	ug/L	97
16) chloroethane	6.10	64	359341	207.90	ug/L	97
18) trichlorofluoromethane	6.68	101	993372	211.23	ug/L	95
20) ethyl ether	7.15	74	327198	223.25	ug/L	91
22) 2-chloropropane	7.35	43	1010915	210.64	ug/L	93
24) 1,1-dichloroethene	7.61	96	547304	202.92	ug/L	95
25) acetone	7.64	43	151447	184.01	ug/L	89
26) allyl chloride	8.20	76	330519	235.08	ug/L	90
27) acetonitrile	8.11	40	314531	1987.69	ug/L	92
28) iodomethane	7.90	142	1245886	217.34	ug/L	97
29) iso-butyl alcohol	11.10	74	71979	2319.99	ug/L	85
30) carbon disulfide	8.05	76	1861029	218.20	ug/L	97
31) methylene chloride	8.39	84	627459	209.34	ug/L	97
32) methyl acetate	8.19	74	100291	225.61	ug/L	89
33) 1-chloropropane	8.46	42	1025042	201.11	ug/L	98
34) methyl tert butyl ether	8.82	73	1776195	211.87	ug/L	99
35) trans-1,2-dichloroethene	8.83	96	583819	204.14	ug/L	99
36) di-isopropyl ether	9.50	45	1821660	223.30	ug/L	96
37) 2-butanone	10.20	72	67629	232.36	ug/L #	81
38) 1,1-dichloroethane	9.44	63	1074499	214.54	ug/L	97
39) chloroprene	9.58	53	828470	233.33	ug/L	97
40) acrylonitrile	8.74	53	1115366	1155.69	ug/L	99
41) vinyl acetate	9.45	86	100912	225.11	ug/L	87
42) ethyl tert-butyl ether	10.00	59	2002589	230.61	ug/L	98
43) ethyl acetate	10.25	45	71955	225.81	ug/L	72
44) 2,2-dichloropropane	10.27	77	824009	192.47	ug/L	98

(#) = qualifier out of range (m) = manual integration
2B127399.D M2B5744.M Tue Feb 10 09:40:06 2015 MS2B Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	cis-1,2-dichloroethene	10.23	96	659369	212.08	ug/L	98
46)	propionitrile	10.28	54	772236	2203.44	ug/L	97
47)	bromochloromethane	10.55	128	359869	222.27	ug/L	98
48)	tetrahydrofuran	10.62	42	156937	210.49	ug/L	99
49)	chloroform	10.62	83	1065930	204.65	ug/L	99
50)	t-butyl formate	10.70	59	571541	242.33	ug/L	99
53)	freon 113	7.62	151	465611	214.69	ug/L	92
54)	methacrylonitrile	10.49	41	356783	225.54	ug/L	97
55)	1,1,1-trichloroethane	10.92	97	978453	215.47	ug/L	99
56)	Cyclohexane	11.02	84	814306	219.52	ug/L	97
61)	epichlorohydrin	12.91	57	274549	1150.18	ug/L	96
62)	n-butyl alcohol	11.83	56	786402	12072.81	ug/L	97
63)	carbon tetrachloride	11.14	117	914177	191.93	ug/L	99
64)	1,1-dichloropropene	11.10	75	751935	200.83	ug/L	98
65)	hexane	9.22	57	663395	232.93	ug/L	99
66)	benzene	11.36	78	2084178	202.25	ug/L	99
67)	2,2,4-trimethylpentane	11.43	57	1904302	220.75	ug/L	96
68)	tert-amyl methyl ether	11.44	73	1748527	217.10	ug/L	99
69)	heptane	11.59	57	393148	234.07	ug/L	98
70)	isopropyl acetate	11.30	43	1029124	225.70	ug/L	98
71)	1,2-dichloroethane	11.35	62	806973	198.05	ug/L	96
72)	trichloroethene	12.06	95	607620	213.86	ug/L	98
74)	2-nitropropane	12.77	41	170197	229.77	ug/L	94
75)	2-chloroethyl vinyl ether	12.81	63	1666750	1148.64	ug/L	97
76)	methyl methacrylate	12.33	100	140473	226.85	ug/L	95
77)	1,2-dichloropropane	12.31	63	555773	212.98	ug/L	98
78)	dibromomethane	12.44	93	387884	207.39	ug/L	97
79)	methylcyclohexane	12.31	83	895977	228.92	ug/L	97
80)	bromodichloromethane	12.57	83	855131	210.50	ug/L	99
81)	cis-1,3-dichloropropene	13.01	75	975454	217.86	ug/L	97
83)	4-methyl-2-pentanone	13.12	58	199657	220.85	ug/L	94
84)	toluene	13.38	92	1295554	208.53	ug/L	96
85)	3-methyl-1-butanol	13.12	55	451972	4703.64	ug/L	95
86)	trans-1,3-dichloropropene	13.53	75	923760	213.49	ug/L	98
87)	ethyl methacrylate	13.56	69	667078	221.98	ug/L	99
88)	1,1,2-trichloroethane	13.73	83	437499	211.11	ug/L	98
89)	2-hexanone	13.92	58	170791	225.80	ug/L	95
91)	butyl ether	14.69	57	2227568	242.60	ug/L	98
92)	tetrachloroethene	13.93	164	538375	211.08	ug/L	98
93)	1,3-dichloropropane	13.90	76	831565	233.32	ug/L	96
94)	butyl acetate	13.99	56	319823	247.50	ug/L	98
95)	3,3-dimethyl-1-butanol	14.06	57	513071	2684.37	ug/L	97
96)	dibromochloromethane	14.15	129	753053	236.73	ug/L	99
97)	1,2-dibromoethane	14.29	107	598895	234.86	ug/L	97
98)	chlorobenzene	14.74	112	1472321	225.79	ug/L	100
99)	1,1,1,2-tetrachloroethane	14.79	131	656606	226.62	ug/L	98
100)	ethylbenzene	14.81	91	2295402	211.54	ug/L	95
101)	m,p-xylene	14.91	106	1887456	456.83	ug/L	87
102)	o-xylene	15.29	106	1003367	229.23	ug/L	93

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

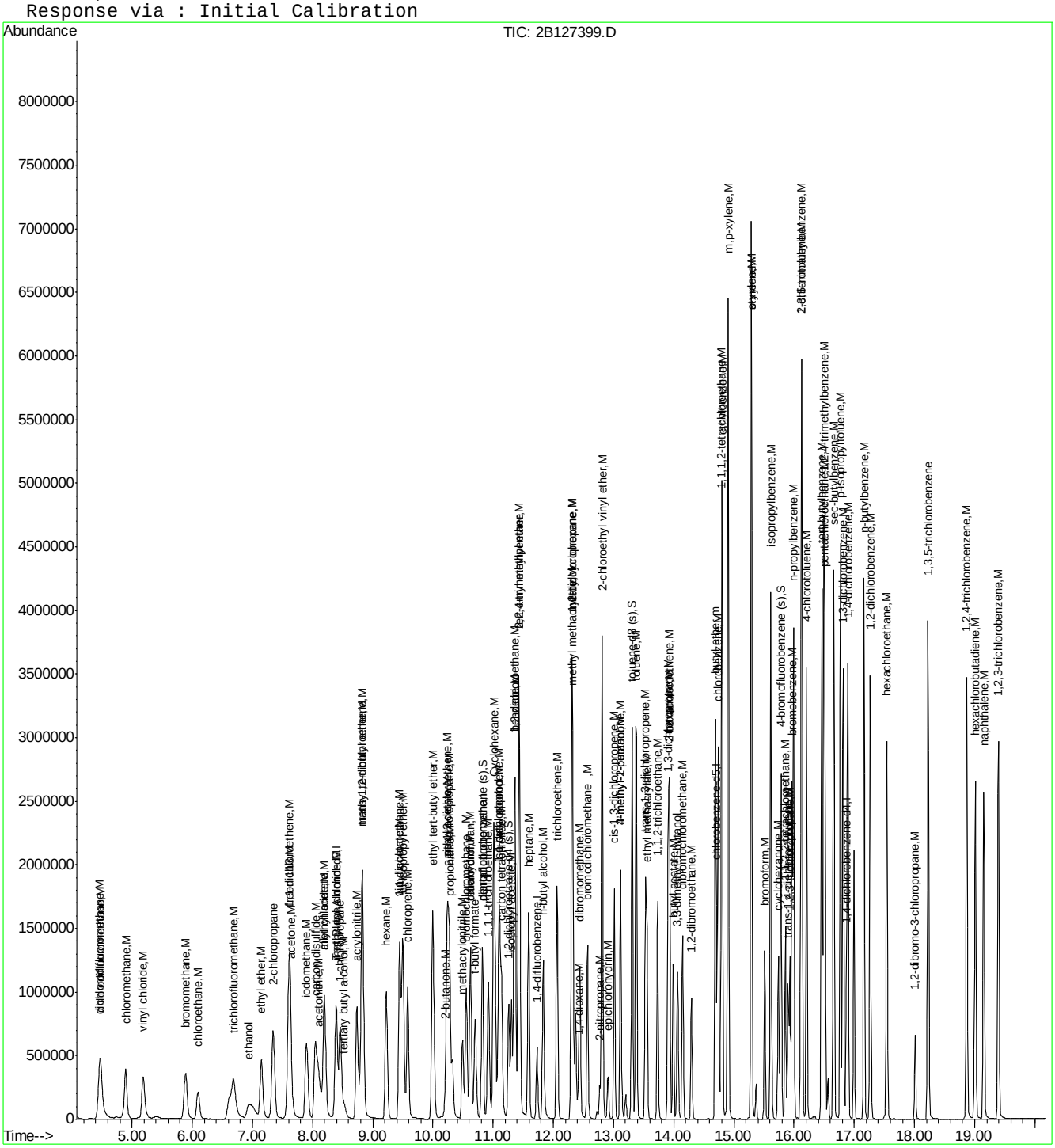
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
103) styrene	15.29	104	1609787	238.65	ug/L	93
105) bromoform	15.51	173	607644	243.34	ug/L	99
107) isopropylbenzene	15.61	105	2530006	214.20	ug/L	98
109) cyclohexanone	15.74	98	234996	1923.85	ug/L	98
110) bromobenzene	15.97	156	773196	207.54	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.86	83	673230	212.21	ug/L	96
112) trans-1,4-dichloro-2-buten	15.90	53	178332	215.30	ug/L	97
113) 1,2,3-trichloropropane	15.93	110	181114	210.03	ug/L	95
114) n-propylbenzene	15.99	91	2611437	204.82	ug/L	98
115) 2-chlorotoluene	16.12	126	671504	218.53	ug/L	89
116) 4-chlorotoluene	16.21	91	1773647	208.59	ug/L	97
117) 1,3,5-trimethylbenzene	16.13	105	2065720	211.18	ug/L	99
118) tert-butylbenzene	16.46	119	1972646	220.91	ug/L	98
119) pentachloroethane	16.51	167	531288	214.77	ug/L	99
120) 1,2,4-trimethylbenzene	16.49	105	2034181	211.07	ug/L	96
121) sec-butylbenzene	16.66	105	2781994	215.39	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	1398670	207.58	ug/L	99
123) p-isopropyltoluene	16.77	119	2456489	222.40	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	1424084	210.83	ug/L	96
125) 1,2-dichlorobenzene	17.27	146	1422163	217.35	ug/L	98
126) n-butylbenzene	17.16	92	1220870	222.62	ug/L	95
127) 1,2-dibromo-3-chloropropan	18.01	75	146423	221.79	ug/L	96
128) 1,3,5-trichlorobenzene	18.23	180	1356739	206.52	ug/L	96
129) 1,2,4-trichlorobenzene	18.87	180	1214440	206.25	ug/L	98
130) hexachlorobutadiene	19.01	225	647030	198.22	ug/L	99
131) naphthalene	19.15	128	2109664	205.79	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	1009800	196.13	ug/L	99
133) hexachloroethane	17.54	201	600586	227.21	ug/L	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	130530	500.00	ug/L		0.01
5) pentafluorobenzene	10.82	168	445672	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	458625	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	378456	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	213932	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	141692	48.70	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.40%				
52) 1,2-dichloroethane-d4 (s)	11.26	65	164973	48.52	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 97.04%				
82) toluene-d8 (s)	13.31	98	466205	50.48	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 100.96%				
108) 4-bromofluorobenzene (s)	15.78	95	174154	50.43	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.86%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	73650	273.83	ug/L		87
3) ethanol	6.93	45	166453	5700.81	ug/L		100
4) 1,4-dioxane	12.41	88	34142	1349.90	ug/L		99
9) chlorodifluoromethane	4.48	51	181183	56.16	ug/L		97
10) dichlorodifluoromethane	4.46	85	203934	51.13	ug/L		99
12) chloromethane	4.89	50	220050	54.00	ug/L		97
13) vinyl chloride	5.18	62	203627	54.77	ug/L		98
15) bromomethane	5.90	94	138605	50.62	ug/L		98
16) chloroethane	6.11	64	104900	60.51	ug/L		96
18) trichlorofluoromethane	6.69	101	249722	52.94	ug/L		99
20) ethyl ether	7.15	74	83196	56.59	ug/L		96
21) acrolein	7.39	56	259853	566.27	ug/L		99
22) 2-chloropropane	7.35	43	255690	53.11	ug/L		95
24) 1,1-dichloroethene	7.61	96	145098	53.63	ug/L		98
25) acetone	7.63	43	40203	48.70	ug/L		90
26) allyl chloride	8.21	76	82995	58.85	ug/L	#	71
27) acetonitrile	8.12	40	81520	516.36	ug/L		94
28) iodomethane	7.91	142	309959	53.90	ug/L		96
29) iso-butyl alcohol	11.10	74	18104	563.26	ug/L	#	54
30) carbon disulfide	8.06	76	479234	54.64	ug/L		97
31) methylene chloride	8.39	84	154988	51.60	ug/L		99
32) methyl acetate	8.18	74	21644	48.54	ug/L		94
33) 1-chloropropane	8.46	42	257966	50.16	ug/L		99
34) methyl tert butyl ether	8.82	73	860970	100.27	ug/L		98
35) trans-1,2-dichloroethene	8.83	96	142917	49.82	ug/L		98
36) di-isopropyl ether	9.50	45	454160	55.50	ug/L		100
37) 2-butanone	10.20	72	16115	55.20	ug/L		88
38) 1,1-dichloroethane	9.44	63	270474	53.84	ug/L		99
39) chloroprene	9.58	53	179522	50.41	ug/L		97
40) acrylonitrile	8.74	53	273169	282.18	ug/L		99
41) vinyl acetate	9.45	86	26400	58.71	ug/L		99
42) ethyl tert-butyl ether	10.00	59	467592	53.68	ug/L		98
43) ethyl acetate	10.25	45	17534	54.86	ug/L		65

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	218477	50.88	ug/L		96
45)	cis-1,2-dichloroethene	10.23	96	160887	51.59	ug/L		99
46)	propionitrile	10.28	54	190476	541.83	ug/L		99
47)	bromochloromethane	10.55	128	87571	53.92	ug/L		99
48)	tetrahydrofuran	10.62	42	38855	52.73	ug/L		99
49)	chloroform	10.62	83	268490	51.39	ug/L		98
50)	t-butyl formate	10.70	59	135783	57.40	ug/L		99
53)	freon 113	7.63	151	125825	57.84	ug/L		94
54)	methacrylonitrile	10.49	41	85795	54.07	ug/L		95
55)	1,1,1-trichloroethane	10.92	97	246718	54.16	ug/L		100
56)	Cyclohexane	11.03	84	206224	55.42	ug/L	#	81
61)	epichlorohydrin	12.91	57	64369	283.10	ug/L		97
62)	n-butyl alcohol	11.83	56	175375	2826.48	ug/L		99
63)	carbon tetrachloride	11.14	117	236290	52.08	ug/L		95
64)	1,1-dichloropropene	11.11	75	193881	54.36	ug/L		99
65)	hexane	9.23	57	150790	55.58	ug/L		97
66)	benzene	11.36	78	527996	53.79	ug/L		99
67)	2,2,4-trimethylpentane	11.43	57	422225	51.38	ug/L		98
68)	tert-amyl methyl ether	11.43	73	402274	51.46	ug/L		99
69)	heptane	11.59	57	81077	50.68	ug/L		99
70)	isopropyl acetate	11.30	43	240290	55.32	ug/L		97
71)	1,2-dichloroethane	11.35	62	200889	49.95	ug/L		93
72)	trichloroethene	12.06	95	146378	54.09	ug/L		98
74)	2-nitropropane	12.77	41	36132	48.77	ug/L		98
75)	2-chloroethyl vinyl ether	12.81	63	410860	287.98	ug/L		100
76)	methyl methacrylate	12.33	100	33043	56.02	ug/L	#	91
77)	1,2-dichloropropane	12.31	63	134236	54.01	ug/L		98
78)	dibromomethane	12.44	93	91826	51.54	ug/L		98
79)	methylcyclohexane	12.31	83	202203	52.57	ug/L		97
80)	bromodichloromethane	12.57	83	205901	53.21	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	231934	54.38	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	47529	55.19	ug/L		92
84)	toluene	13.38	92	311714	52.67	ug/L		99
85)	3-methyl-1-butanol	13.11	55	102172	1116.27	ug/L		94
86)	trans-1,3-dichloropropene	13.53	75	212393	51.53	ug/L		97
87)	ethyl methacrylate	13.55	69	156288	54.60	ug/L		98
88)	1,1,2-trichloroethane	13.73	83	100368	50.84	ug/L		96
89)	2-hexanone	13.92	58	39515	54.84	ug/L		97
91)	butyl ether	14.69	57	506970	55.70	ug/L		98
92)	tetrachloroethene	13.93	164	132182	52.29	ug/L		96
93)	1,3-dichloropropane	13.90	76	198770	54.66	ug/L		98
94)	butyl acetate	13.99	56	72789	56.83	ug/L		98
95)	3,3-dimethyl-1-butanol	14.06	57	102630	541.73	ug/L		95
96)	dibromochloromethane	14.15	129	172381	53.20	ug/L		100
97)	1,2-dibromoethane	14.29	107	138441	54.77	ug/L		99
98)	chlorobenzene	14.74	112	354016	54.77	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	156565	54.52	ug/L		97
100)	ethylbenzene	14.81	91	563642	52.41	ug/L		97
101)	m,p-xylene	14.90	106	442363	108.02	ug/L		97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

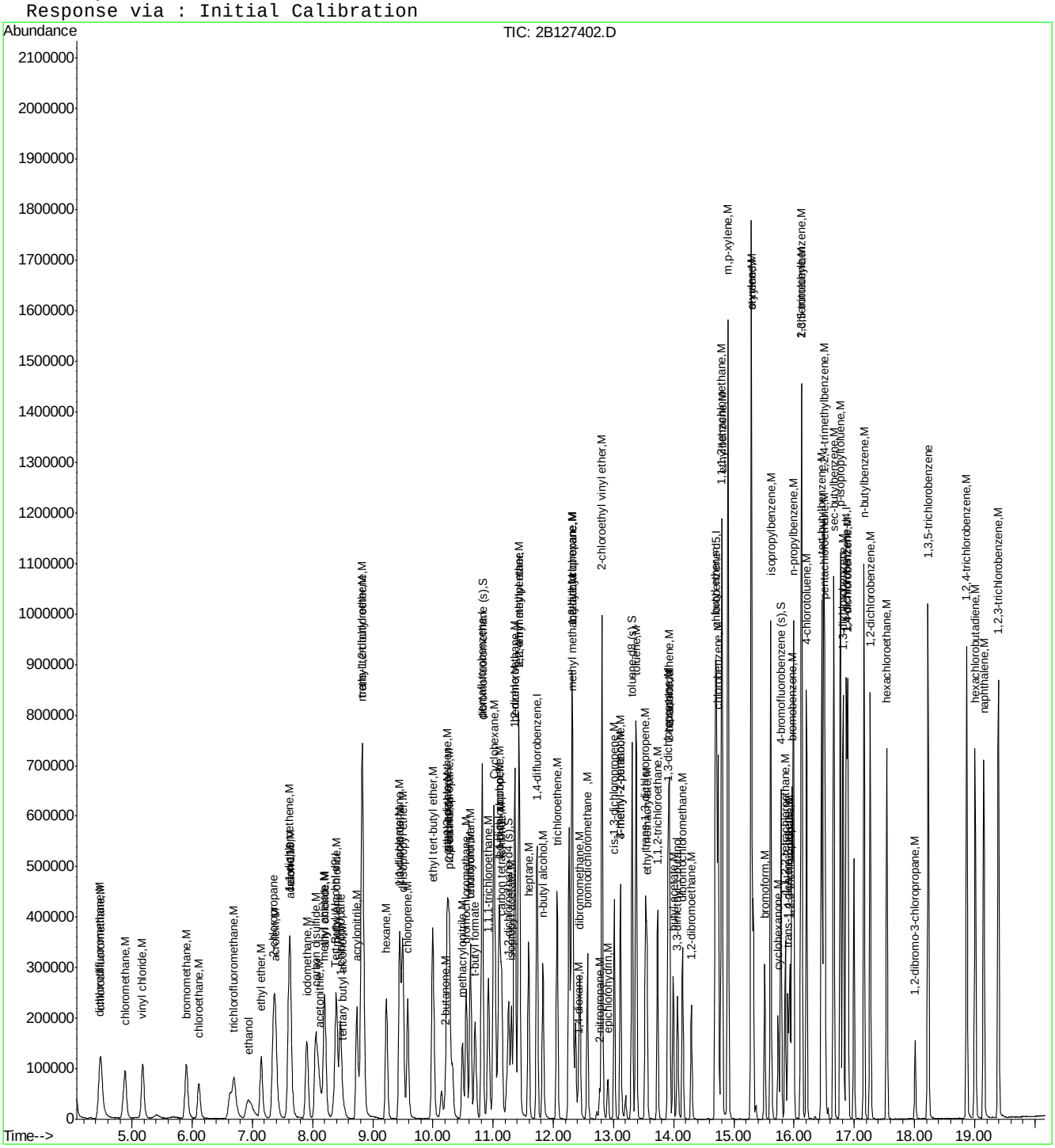
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	232661	53.63	ug/L	99
103) styrene	15.29	104	386233	57.77	ug/L	98
105) bromoform	15.51	173	138993	56.16	ug/L	99
107) isopropylbenzene	15.61	105	616564	54.12	ug/L	99
109) cyclohexanone	15.74	98	36275	318.84	ug/L	98
110) bromobenzene	15.97	156	191079	55.07	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.86	83	157301	53.23	ug/L	98
112) trans-1,4-dichloro-2-buten	15.90	53	40697	52.75	ug/L	98
113) 1,2,3-trichloropropane	15.93	110	42769	53.25	ug/L	95
114) n-propylbenzene	15.99	91	680818	55.73	ug/L	99
115) 2-chlorotoluene	16.12	126	156635	53.78	ug/L	97
116) 4-chlorotoluene	16.21	91	423786	52.44	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	498388	52.92	ug/L	99
118) tert-butylbenzene	16.46	119	483659	56.19	ug/L	99
119) pentachloroethane	16.51	167	126630	53.33	ug/L	97
120) 1,2,4-trimethylbenzene	16.49	105	516024	55.87	ug/L	99
121) sec-butylbenzene	16.66	105	678474	54.54	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	328218	52.30	ug/L	99
123) p-isopropyltoluene	16.77	119	602568	56.58	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	332096	52.79	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	344633	54.43	ug/L	99
126) n-butylbenzene	17.16	92	299886	58.71	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	33943	55.20	ug/L	98
128) 1,3,5-trichlorobenzene	18.23	180	342839	54.95	ug/L	95
129) 1,2,4-trichlorobenzene	18.87	180	326243	59.49	ug/L	99
130) hexachlorobutadiene	19.01	225	173716	55.68	ug/L	100
131) naphthalene	19.15	128	569500	59.64	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	287170	59.15	ug/L	100
133) hexachloroethane	17.54	201	143035	58.10	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 9:34 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127883.D
Acq On : 27 Feb 2015 10:43 am
Operator : bridgetk
Sample : CC5744-20
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 14:55:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.368	65	179300	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	606675	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	658527	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	552358	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	287416	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	181450	45.81	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 91.62%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	192673	41.63	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 83.26%				
82) toluene-d8 (s)	13.307	98	626293	47.23	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 94.46%				
108) 4-bromofluorobenzene (s)	15.782	95	210601	45.39	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 90.78%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.494	59	35005	94.75	ug/L		83
3) ethanol	6.937	45	82410	2054.73	ug/L		96
4) 1,4-dioxane	12.411	88	16265	468.16	ug/L		93
9) chlorodifluoromethane	4.483	51	105634	24.05	ug/L		95
10) dichlorodifluoromethane	4.462	85	110430	20.34	ug/L		100
12) chloromethane	4.876	50	138398	24.95	ug/L		96
13) vinyl chloride	5.175	62	122870	24.28	ug/L		100
15) bromomethane	5.909	94	83081	22.29	ug/L		97
16) chloroethane	6.114	64	59163	25.07	ug/L		95
18) trichlorofluoromethane	6.685	101	131971	20.55	ug/L		95
20) ethyl ether	7.147	74	46741	23.36	ug/L		86
21) acrolein	7.388	56	112972	180.85	ug/L		99
22) 2-chloropropane	7.351	43	145301	22.17	ug/L		89
24) 1,1-dichloroethene	7.613	96	81277	22.07	ug/L		95
25) acetone	7.645	43	26708	23.77	ug/L		86
26) allyl chloride	8.200	76	47015	24.49	ug/L	#	89
27) acetonitrile	8.111	40	42932	199.77	ug/L		85
28) iodomethane	7.902	142	169361	21.64	ug/L		92
29) iso-butyl alcohol	11.100	74	9126	208.58	ug/L	#	44
30) carbon disulfide	8.059	76	281689	23.59	ug/L		95
31) methylene chloride	8.400	84	90847	22.22	ug/L		97
32) methyl acetate	8.185	74	13781	22.70	ug/L		91
33) 1-chloropropane	8.457	42	142984	20.42	ug/L		95
34) methyl tert butyl ether	8.824	73	239401	20.48	ug/L		99
35) trans-1,2-dichloroethene	8.835	96	85905	22.00	ug/L		95
36) di-isopropyl ether	9.495	45	252870	22.70	ug/L		96
37) 2-butanone	10.203	72	9895	24.90	ug/L		90
38) 1,1-dichloroethane	9.443	63	154162	22.54	ug/L		95
39) chloroprene	9.579	53	100806	20.79	ug/L		91
40) acrylonitrile	8.735	53	147861	112.20	ug/L		97
41) vinyl acetate	9.454	86	11363	18.56	ug/L		97
42) ethyl tert-butyl ether	9.999	59	245905	20.74	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127883.D
Acq On : 27 Feb 2015 10:43 am
Operator : bridgetk
Sample : CC5744-20
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 14:55:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) ethyl acetate	10.251	45	9598	22.06	ug/L		70
44) 2,2-dichloropropane	10.266	77	122621	20.98	ug/L		97
45) cis-1,2-dichloroethene	10.235	96	93158	21.94	ug/L		98
46) propionitrile	10.277	54	110644	231.21	ug/L		98
47) bromochloromethane	10.560	128	48526	21.95	ug/L		92
48) tetrahydrofuran	10.623	42	22592	22.52	ug/L		98
49) chloroform	10.623	83	144997	20.39	ug/L		96
50) t-butyl formate	10.696	59	60995	18.94	ug/L		92
53) freon 113	7.634	151	57691	19.48	ug/L		96
54) methacrylonitrile	10.497	41	47674	22.07	ug/L		93
55) 1,1,1-trichloroethane	10.922	97	120425	19.42	ug/L		98
56) Cyclohexane	11.021	84	111737	22.06	ug/L		95
61) epichlorohydrin	12.909	57	31347	96.02	ug/L		97
62) n-butyl alcohol	11.829	56	87707	984.46	ug/L		96
63) carbon tetrachloride	11.137	117	114810	17.62	ug/L		98
64) 1,1-dichloropropene	11.100	75	106576	20.81	ug/L		98
65) hexane	9.228	57	93272	23.94	ug/L		96
66) benzene	11.362	78	310452	22.03	ug/L		100
67) 2,2,4-trimethylpentane	11.425	57	253260	21.46	ug/L		91
68) tert-amyl methyl ether	11.430	73	209333	18.65	ug/L		97
69) heptane	11.593	57	51783	22.54	ug/L		97
70) isopropyl acetate	11.304	43	122488	19.64	ug/L		99
71) 1,2-dichloroethane	11.352	62	101771	17.62	ug/L		93
72) trichloroethene	12.065	95	83980	21.61	ug/L		98
74) 2-nitropropane	12.767	41	17510	16.46	ug/L		99
75) 2-chloroethyl vinyl ether	12.809	63	212415	103.69	ug/L		98
76) methyl methacrylate	12.327	100	18455	21.79	ug/L	#	86
77) 1,2-dichloropropane	12.306	63	83010	23.26	ug/L		94
78) dibromomethane	12.437	93	52991	20.72	ug/L		92
79) methylcyclohexane	12.311	83	112883	20.44	ug/L		94
80) bromodichloromethane	12.568	83	112057	20.17	ug/L		98
81) cis-1,3-dichloropropene	13.014	75	133390	21.78	ug/L		93
83) 4-methyl-2-pentanone	13.118	58	26890	21.75	ug/L	#	87
84) toluene	13.375	92	179600	21.14	ug/L		100
85) 3-methyl-1-butanol	13.118	55	51398	391.08	ug/L		91
86) trans-1,3-dichloropropene	13.533	75	116515	19.69	ug/L		95
87) ethyl methacrylate	13.554	69	87958	21.40	ug/L		99
88) 1,1,2-trichloroethane	13.732	83	58988	20.81	ug/L		98
89) 2-hexanone	13.915	58	23895	23.10	ug/L		89
91) butyl ether	14.691	57	311970	23.49	ug/L		96
92) tetrachloroethene	13.926	164	73803	20.00	ug/L		98
93) 1,3-dichloropropane	13.905	76	115715	21.80	ug/L		93
94) butyl acetate	13.994	56	38193	20.43	ug/L		96
95) 3,3-dimethyl-1-butanol	14.062	57	51088	184.77	ug/L		96
96) dibromochloromethane	14.146	129	92773	19.62	ug/L		99
97) 1,2-dibromoethane	14.293	107	75967	20.59	ug/L		97
98) chlorobenzene	14.739	112	200244	21.23	ug/L		96
99) 1,1,1,2-tetrachloroethane	14.791	131	82294	19.63	ug/L		97
100) ethylbenzene	14.801	91	322376	20.54	ug/L		98
101) m,p-xylene	14.901	106	253908	42.48	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127883.D
Acq On : 27 Feb 2015 10:43 am
Operator : bridgetk
Sample : CC5744-20
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 14:55:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

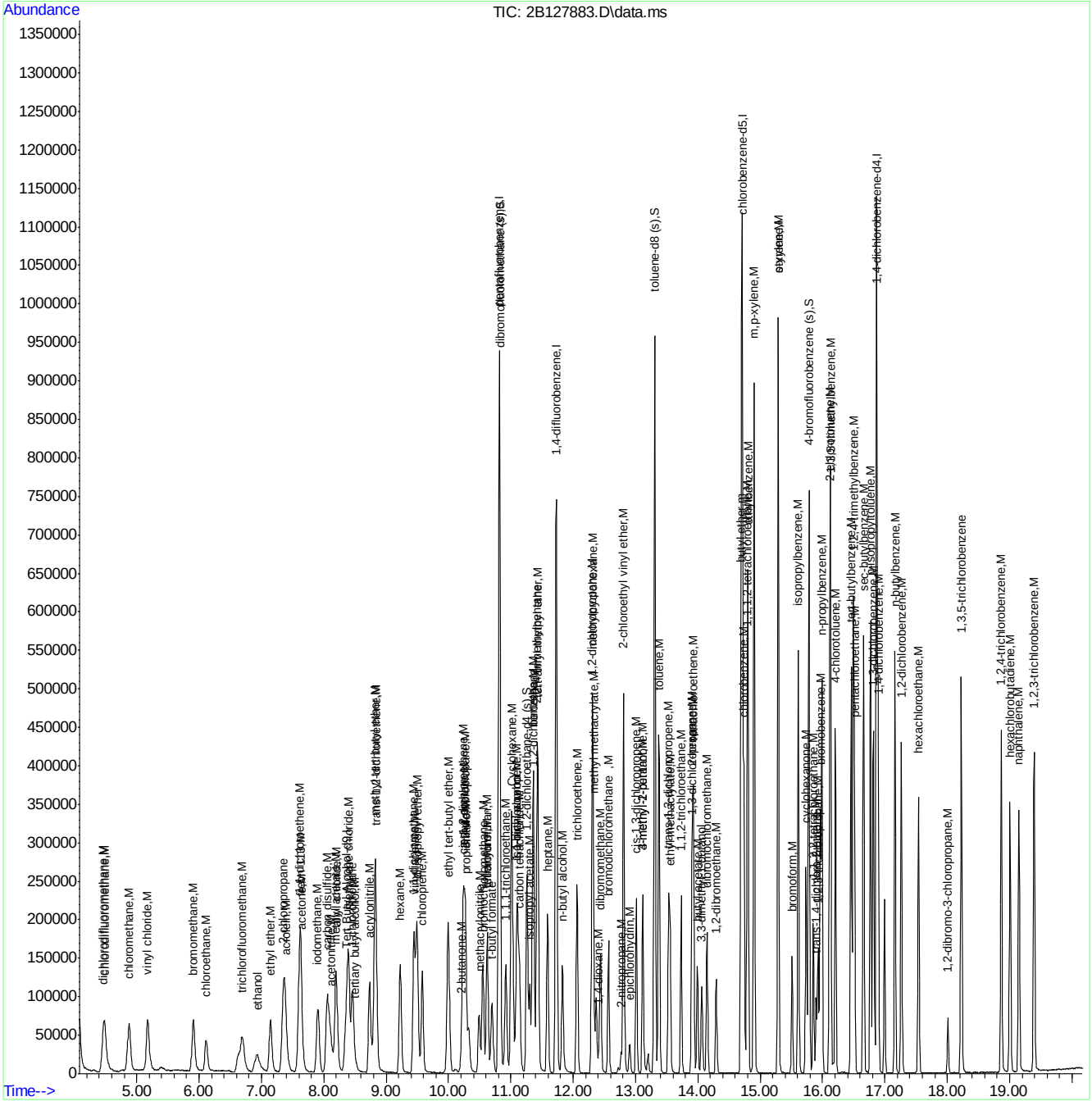
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	132962	21.00	ug/L	98
103) styrene	15.289	104	213155	21.84	ug/L	94
105) bromoform	15.509	173	68828	19.05	ug/L	99
107) isopropylbenzene	15.609	105	340140	22.22	ug/L	99
109) cyclohexanone	15.735	98	48984	320.47	ug/L	95
110) bromobenzene	15.965	156	103579	22.22	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.850	83	90095	22.69	ug/L	98
112) trans-1,4-dichloro-2-b...	15.897	53	16080	15.51	ug/L	85
113) 1,2,3-trichloropropane	15.929	110	22612	20.95	ug/L	91
114) n-propylbenzene	15.992	91	364327	22.20	ug/L	99
115) 2-chlorotoluene	16.117	126	87109	22.26	ug/L	89
116) 4-chlorotoluene	16.207	91	228272	21.02	ug/L	96
117) 1,3,5-trimethylbenzene	16.128	105	271406	21.45	ug/L	99
118) tert-butylbenzene	16.458	119	245652	21.24	ug/L	97
119) pentachloroethane	16.511	167	64898	20.34	ug/L	98
120) 1,2,4-trimethylbenzene	16.495	105	267301	21.54	ug/L	97
121) sec-butylbenzene	16.657	105	367231	21.97	ug/L	99
122) 1,3-dichlorobenzene	16.815	146	181495	21.53	ug/L	98
123) p-isopropyltoluene	16.768	119	313394	21.90	ug/L	99
124) 1,4-dichlorobenzene	16.893	146	172343	20.39	ug/L	100
125) 1,2-dichlorobenzene	17.266	146	181220	21.30	ug/L	98
126) n-butylbenzene	17.161	92	154954	22.58	ug/L	99
127) 1,2-dibromo-3-chloropr...	18.010	75	15947	19.30	ug/L	95
128) 1,3,5-trichlorobenzene	18.225	180	174093	20.77	ug/L	96
129) 1,2,4-trichlorobenzene	18.865	180	154827	21.01	ug/L	98
130) hexachlorobutadiene	19.006	225	83718	19.97	ug/L	96
131) naphthalene	19.148	128	276544	21.56	ug/L	98
132) 1,2,3-trichlorobenzene	19.394	180	138696	21.27	ug/L	98
133) hexachloroethane	17.538	201	69056	20.88	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765\
Data File : 2B127883.D
Acq On : 27 Feb 2015 10:43 am
Operator : bridgetk
Sample : CC5744-20
Misc : MS81300,V2B5765,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 14:55:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127902.D
Acq On : 28 Feb 2015 11:05 am
Operator : bridgetk
Sample : cc5744-50
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 03 10:29:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.368	65	148105	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	514993	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	567875	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	476034	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	250284	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	154004	45.80	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 91.60%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	159120	40.50	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 81.00%				
82) toluene-d8 (s)	13.307	98	546423	47.78	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 95.56%				
108) 4-bromofluorobenzene (s)	15.782	95	189072	46.80	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.60%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.499	59	75477	247.32	ug/L		98
3) ethanol	6.931	45	177975	5372.11	ug/L		96
4) 1,4-dioxane	12.410	88	37680	1313.00	ug/L		97
9) chlorodifluoromethane	4.483	51	235655	63.21	ug/L		95
10) dichlorodifluoromethane	4.457	85	234394	50.86	ug/L		99
12) chloromethane	4.887	50	297326	63.14	ug/L		98
13) vinyl chloride	5.180	62	269743	62.78	ug/L		99
15) bromomethane	5.909	94	174457	55.14	ug/L		95
16) chloroethane	6.114	64	127871	63.83	ug/L		94
18) trichlorofluoromethane	6.690	101	287297	52.71	ug/L		97
20) ethyl ether	7.141	74	98460	57.96	ug/L		92
21) acrolein	7.382	56	236396	445.81	ug/L		100
22) 2-chloropropane	7.356	43	308457	55.45	ug/L		89
24) 1,1-dichloroethene	7.613	96	171383	54.82	ug/L		94
25) acetone	7.639	43	45623	47.83	ug/L		87
26) allyl chloride	8.200	76	95835	58.81	ug/L	#	82
27) acetonitrile	8.101	40	98440	539.60	ug/L		98
28) iodomethane	7.901	142	360782	54.30	ug/L		93
29) iso-butyl alcohol	11.100	74	19679	529.84	ug/L	#	44
30) carbon disulfide	8.053	76	595808	58.78	ug/L		95
31) methylene chloride	8.399	84	192139	55.35	ug/L		97
32) methyl acetate	8.185	74	29495	57.24	ug/L	#	75
33) 1-chloropropane	8.462	42	292329	49.19	ug/L		95
34) methyl tert butyl ether	8.819	73	510043	51.40	ug/L		100
35) trans-1,2-dichloroethene	8.835	96	178653	53.89	ug/L		96
36) di-isopropyl ether	9.495	45	563218	59.57	ug/L		96
37) 2-butanone	10.198	72	17799	52.76	ug/L	#	85
38) 1,1-dichloroethane	9.443	63	316360	54.50	ug/L		96
39) chloroprene	9.579	53	228587	55.54	ug/L		92
40) acrylonitrile	8.735	53	302106	270.07	ug/L		98
41) vinyl acetate	9.453	86	25752	49.56	ug/L		84
42) ethyl tert-butyl ether	9.999	59	562050	55.84	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127902.D
Acq On : 28 Feb 2015 11:05 am
Operator : bridgetk
Sample : cc5744-50
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 03 10:29:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	ethyl acetate	10.250	45	20983	56.81	ug/L		61
44)	2,2-dichloropropane	10.266	77	179101	36.09	ug/L		96
45)	cis-1,2-dichloroethene	10.235	96	196015	54.39	ug/L		95
46)	propionitrile	10.271	54	225514	555.15	ug/L		98
47)	bromochloromethane	10.549	128	101073	53.86	ug/L		96
48)	tetrahydrofuran	10.617	42	44274	52.00	ug/L		98
49)	chloroform	10.623	83	296840	49.17	ug/L		99
50)	t-butyl formate	10.701	59	140837	51.52	ug/L		91
53)	freon 113	7.629	151	137366	54.65	ug/L		86
54)	methacrylonitrile	10.491	41	97031	52.92	ug/L		94
55)	1,1,1-trichloroethane	10.921	97	260537	49.50	ug/L		99
56)	Cyclohexane	11.021	84	251671	58.53	ug/L		97
61)	epichlorohydrin	12.909	57	64945	230.68	ug/L		96
62)	n-butyl alcohol	11.828	56	197712	2573.45	ug/L		94
63)	carbon tetrachloride	11.136	117	243566	43.36	ug/L		99
64)	1,1-dichloropropene	11.100	75	219867	49.79	ug/L		98
65)	hexane	9.228	57	194174	57.81	ug/L		99
66)	benzene	11.362	78	643263	52.92	ug/L		100
67)	2,2,4-trimethylpentane	11.430	57	545850	53.65	ug/L		93
68)	tert-amyl methyl ether	11.430	73	476602	49.23	ug/L		99
69)	heptane	11.592	57	100962	50.96	ug/L		97
70)	isopropyl acetate	11.304	43	275927	51.31	ug/L		97
71)	1,2-dichloroethane	11.351	62	207963	41.76	ug/L		88
72)	trichloroethene	12.064	95	173868	51.88	ug/L		98
74)	2-nitropropane	12.772	41	37985	41.41	ug/L		93
75)	2-chloroethyl vinyl ether	12.809	63	489687	277.20	ug/L		99
76)	methyl methacrylate	12.327	100	39360	53.89	ug/L		93
77)	1,2-dichloropropane	12.306	63	172809	56.15	ug/L		99
78)	dibromomethane	12.437	93	108159	49.03	ug/L		96
79)	methylcyclohexane	12.311	83	266528	55.96	ug/L		96
80)	bromodichloromethane	12.568	83	230902	48.19	ug/L		98
81)	cis-1,3-dichloropropene	13.013	75	266646	50.49	ug/L		91
83)	4-methyl-2-pentanone	13.118	58	56512	53.00	ug/L	#	86
84)	toluene	13.375	92	382655	52.22	ug/L		98
85)	3-methyl-1-butanol	13.113	55	114815	1013.07	ug/L		94
86)	trans-1,3-dichloropropene	13.532	75	236434	46.33	ug/L		95
87)	ethyl methacrylate	13.553	69	191149	53.93	ug/L		99
88)	1,1,2-trichloroethane	13.732	83	126738	51.85	ug/L		97
89)	2-hexanone	13.910	58	48233	54.06	ug/L		93
91)	butyl ether	14.691	57	679963	59.40	ug/L		95
92)	tetrachloroethene	13.931	164	158603	49.88	ug/L		99
93)	1,3-dichloropropane	13.905	76	242498	53.01	ug/L		94
94)	butyl acetate	13.994	56	90427	56.13	ug/L		90
95)	3,3-dimethyl-1-butanol	14.062	57	122175	512.71	ug/L		94
96)	dibromochloromethane	14.146	129	199381	48.92	ug/L		99
97)	1,2-dibromoethane	14.293	107	164648	51.79	ug/L		98
98)	chlorobenzene	14.738	112	426053	52.41	ug/L		98
99)	1,1,1,2-tetrachloroethane	14.791	131	176852	48.96	ug/L		96
100)	ethylbenzene	14.801	91	672126	49.68	ug/L		97
101)	m,p-xylene	14.901	106	536253	104.11	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127902.D
Acq On : 28 Feb 2015 11:05 am
Operator : bridgetk
Sample : cc5744-50
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 03 10:29:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

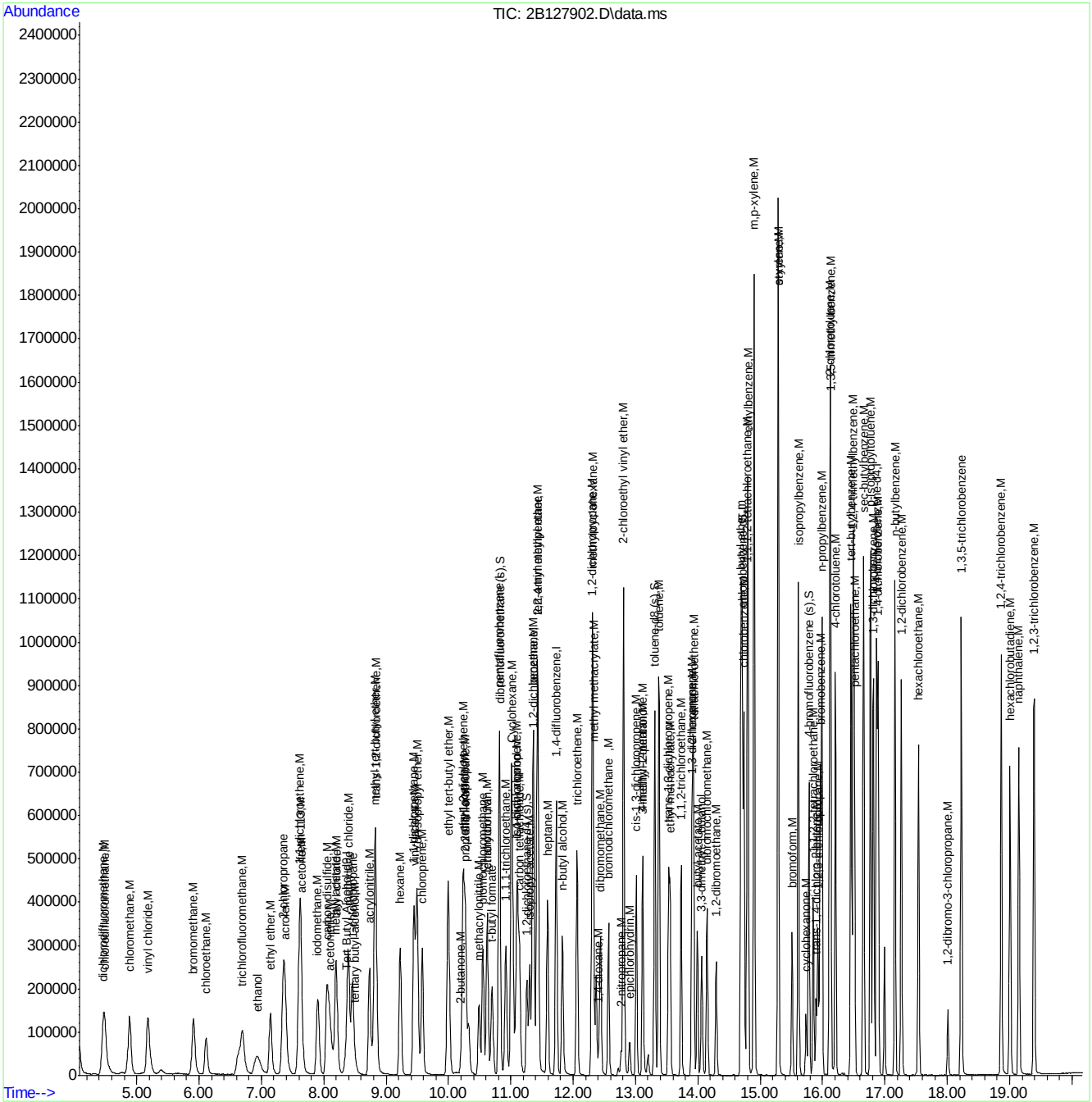
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) o-xylene	15.289	106	284169	52.07	ug/L		98
103) styrene	15.289	104	460019	54.70	ug/L		92
105) bromoform	15.509	173	148838	47.81	ug/L		98
107) isopropylbenzene	15.614	105	718582	53.91	ug/L		97
109) cyclohexanone	15.740	98	25693	193.03	ug/L		94
110) bromobenzene	15.965	156	214074	52.73	ug/L		99
111) 1,1,2,2-tetrachloroethane	15.850	83	192654	55.73	ug/L		98
112) trans-1,4-dichloro-2-b...	15.897	53	27526	30.50	ug/L	#	81
113) 1,2,3-trichloropropane	15.928	110	47427	50.47	ug/L		91
114) n-propylbenzene	15.991	91	746610	52.24	ug/L		99
115) 2-chlorotoluene	16.117	126	182899	53.68	ug/L		93
116) 4-chlorotoluene	16.206	91	481258	50.90	ug/L		96
117) 1,3,5-trimethylbenzene	16.128	105	566324	51.40	ug/L		99
118) tert-butylbenzene	16.458	119	529711	52.60	ug/L		96
119) pentachloroethane	16.510	167	131311	47.27	ug/L		98
120) 1,2,4-trimethylbenzene	16.490	105	561751	51.99	ug/L		98
121) sec-butylbenzene	16.657	105	782820	53.79	ug/L		99
122) 1,3-dichlorobenzene	16.815	146	374967	51.07	ug/L		99
123) p-isopropyltoluene	16.767	119	658283	52.84	ug/L		97
124) 1,4-dichlorobenzene	16.888	146	365783	49.70	ug/L		97
125) 1,2-dichlorobenzene	17.265	146	384893	51.96	ug/L		99
126) n-butylbenzene	17.161	92	324866	54.36	ug/L		97
127) 1,2-dibromo-3-chloropr...	18.010	75	34005	47.27	ug/L		96
128) 1,3,5-trichlorobenzene	18.225	180	362371	49.65	ug/L		97
129) 1,2,4-trichlorobenzene	18.865	180	334293	52.10	ug/L		100
130) hexachlorobutadiene	19.006	225	172125	47.15	ug/L		98
131) naphthalene	19.148	128	596845	53.43	ug/L		99
132) 1,2,3-trichlorobenzene	19.394	180	300017	52.82	ug/L		99
133) hexachloroethane	17.538	201	147628	51.25	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5765-5766\
Data File : 2B127902.D
Acq On : 28 Feb 2015 11:05 am
Operator : bridgetk
Sample : cc5744-50
Misc : MS81419,V2B5765,w,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 03 10:29:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



ACCUTEST

VOLATILE ANALYSIS LOG

Int only V015-2016-49
Surr V015-2016-31(13)

Batch ID: V2B5744

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: DB624 (60m x 0.25mm x 1.4um)

Method V8260B/C

Initial Cal. Method M2B5744

Date: 2/5/15

Standard Data

Lot #	Description	Conc.
V015-2016-15	(60) 8260A	100 ppm
-29	(41) B	↓
-55	(10) C	
-8	(42) acro	1000
-14	(12) EtOH	10000

Standard Data

Lot #	Description	Conc.
V015-2016-53	(3) Pxt 8260A	100 ppm
-32	(20) B	↓
-40	(7) C	↓
-23	(9) acro	1000
-12	(5) EtOH	10000
-48	(3) Hex	100

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 2/6/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L +	I S	S U	Status (Data)	Comments	pH* < 2
	2B127389	BFB				1	5		1x				OK	337m	
	127390	ICS744-0.2	8260 Initial Calibration	AQ		2	5		1x		✓		OK	2uL ABC acro etoh IS /1000mL DE	
	127391	ICS744-0.5	↓	↓		3	5		1x		✓		OK	5uL ↓ ↓	
	127392	ICS744-1				4	5		1x		✓		OK	1uL ABC etoh IS 100uL acro /100mL DE	
	127393	ICS744-2				5	5		1x		✓		OK	2uL ABC etoh IS 200uL acro /100mL DE	
	127394	ICS744-5				6	5		1x		✓		OK	5uL ABC acro etoh IS /100mL DE	
	127395	ICS744-10				7	5		1x		✓		OK	10uL ↓ ↓	
	127396	ICS744-20				8	5		1x		✓		OK	20uL ABC acro etoh 50uL IS /100mL DE	
	127397	ICCS744-50				9	5		1x		✓		OK	25uL ABC acro etoh IS /50mL DE	
	127398	ICS744-100				10	5		1x		✓		OK	50uL ABC etoh IS /50mL DE	
	127399	ICS744-200				11	5		1x		✓		OK	100uL ↓ ↓	
	127400	IB				12	5		1x		—		—		
	127401	IB				13	5		1x		—		—		
	127402	ICV5744-50	↓	↓		14	5		1x		✓		OK	50uL Ext ABC acro etoh Hex IS /100mL DE	
	127403	IB				15	5		1x		—		—		
														BK 2/5/15	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V2B5765

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Horvath

Columns: ZB624(60m x0.25mmx1.4um)

Method V8260C

Initial Cal. Method M2B5744

Date: 2/27/15

pH paper 2127B Exp 5/01/16

Standard Data

Lot #		Description	Conc.
58	24	Ext A	100ppm
75	10	Ext B	
98	7	Ext C	
85	7	Acrolein	1000
98	3	Ethanol	10000
87	6	Hexane	2000

Standard Data

Lot #		Description	Conc.
V015-2016 62	45	Std A	100ppm
82	6	Std B	
88	10	Std C	
60	29	Acrolein	1000
78	3	Ethanol	10000
75	6	Hexane	2000

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 3/3/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (m) or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	ZB 127880	IB													
	127881	BFB											OK	9:30am	
	127882	CC5744-20											NG	10ul Std ABL, ACL Ethanol/50mL GASTEST	
	127883	CC5744-20											OK		
	127884	IB											—		
	127885	MB								+			OK		
	127886	BS											OK	25ul Ext ABS, ACL Ethanol, Hex/50mL	
	127887	IB											—		
2	127888	JB88399-1	8105I TCL20+Z0 F22	GW	3		5		1x				OK		✓
2	127889	JB88399-4	CENTRIFUGE	GW	3		5		1x				OK		✓
	127890	JB88934-2	81423 TCL20+Z0 F22	WB	1		5		1x	+			OK		✓
	127891	JB88934-4 -3		WB	2		5		1x	+			OK		✓
	127892	JB88934-1		GW	2		5		1x	+			OK		✓
	192893	JB88934-4 -3		GW	#1		5		1x	+			OK		✓
	192894	JB88910-1	81419 STAR	GW	1		5		1x				OK		✓
	192895	JB88910-3		GW	1		5x		1x				OK FIDLOX		✓
	192896	JB88910-5		GW	1		5		1x				RR RRwoclo		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9
Rev. Date: 2/14/2007

7.7.2 7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V2B5765

Print Analyst Name: Nicole Nonato

Analyst Signature: [signature]

Date: 2/27/15

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method M2BS744

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See pg 125	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/3/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L +	I S	S U	Status (Data)	Comments	pH* < 2
	2B127897	JB88910-12	81419 STAR		1		5/50		10x		✓	✓	OK	~~ODRRSx~~ MD 3/2@ 5:51pm	✓
	127898	JB88910-1 MS	↓		1/2		5		1X					sequence didn't change end position	
	127899	~~JB88910-1 MSD~~	↓		1/2		5		1X				NOT USED	BFB	
	127900	~~IB~~					5		1X				NG	CC 5744-20 internal ↑	
	127901	JB88910-6	81419 STAR		4		5		1X				OK	BFB 15.771 to 15.792 10:37am	
	127902	JB88910-7			1		5		1X		✓	✓	OK	9↑, 12↑, 13↑, 16↑ CC 5744-20	
	127903	JB88910-8			1		5		1X	+	✓	✓	OK	IB MB2	
	127904	JB88910-9			1		5		1X		✓	✓	OK	JB88910-1 ms 81419 STAR	✓
	127905	JB88910-2	↓		1		12.5/50		4X		✓	✓	OK	JB88910-1 msd ↓ 1:23pm	✓
	127906	BFB											NR		
	127907	CC5744-50												25 uL STD A, B, C, Alco, eth / 50 mL DI H2O	
	127908	IB													
	127909	MB2													
	127910	JB88910-13	81419 STAR		1		5/50		10X						
	127911	JB88910-18			1		2.5/50		20X						
	127912	JB88910-14			1		2.5/50		20X						
	127913	JB88910-11			1		2/50		25X						
	127914	JB88910-4	↓		1		1/50		50X				↓		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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New Jersey ACCUTEST LABORATORIES

03/04/15

Technical Report for

ERM, Inc.

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

0271614.02

Accutest Job Number: JB89010

Sampling Date: 02/27/15

Report to:

ERM, Inc.
105 Maxess Road Suite 316
Melville, NY 11747-3851
greg.shkuda@erm.com; andrew.coenen@erm.com;
brice.lynch@erm.com; eugene.gabay@erm.com
ATTN: Eugene Gabay

Total number of pages in report: **123**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy L. Cole
Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

Sections: 1 2 3 4 5 6 7

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Sample Summary

ERM, Inc.

Job No: JB89010

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB89010-1	02/27/15	13:00	BL	02/27/15	AQ	Ground Water	VPB-207(260)

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JB89010
Site:	Northrop Grumman, Containment System, (Hydraulic Effectiveness)	**Report Date**	3/4/2015 4:44:46 PM

On 02/27/2015, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 1.1 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB89010 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V1C6111

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89011-2MS, JB89011-2MSD were used as the QC samples indicated.
- RPD(s) for MSD for Carbon disulfide are outside control limits for sample JB89011-2MSD. Outside control limits due to matrix interference.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB89010
Account: ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Collected: 02/27/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB89010-1	**VPB-207(260)**					
Acetone		56.8	10	2.7	ug/l	SW846 8260C
Toluene		2.6	1.0	0.22	ug/l	SW846 8260C
m,p-Xylene		0.66 J	1.0	0.35	ug/l	SW846 8260C
Xylene (total)		0.66 J	1.0	0.20	ug/l	SW846 8260C

New Jersey ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(260)
Lab Sample ID: JB89010-1 **Date Sampled:** 02/27/15
Matrix: AQ - Ground Water **Date Received:** 02/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C137494.D	1	03/02/15	ST	n/a	n/a	V1C6111
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	56.8	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(260)		
Lab Sample ID:	JB89010-1	**Date Sampled:**	02/27/15
Matrix:	AQ - Ground Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.66	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.66	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	94%		73-122%
2037-26-5	Toluene-D8	109%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

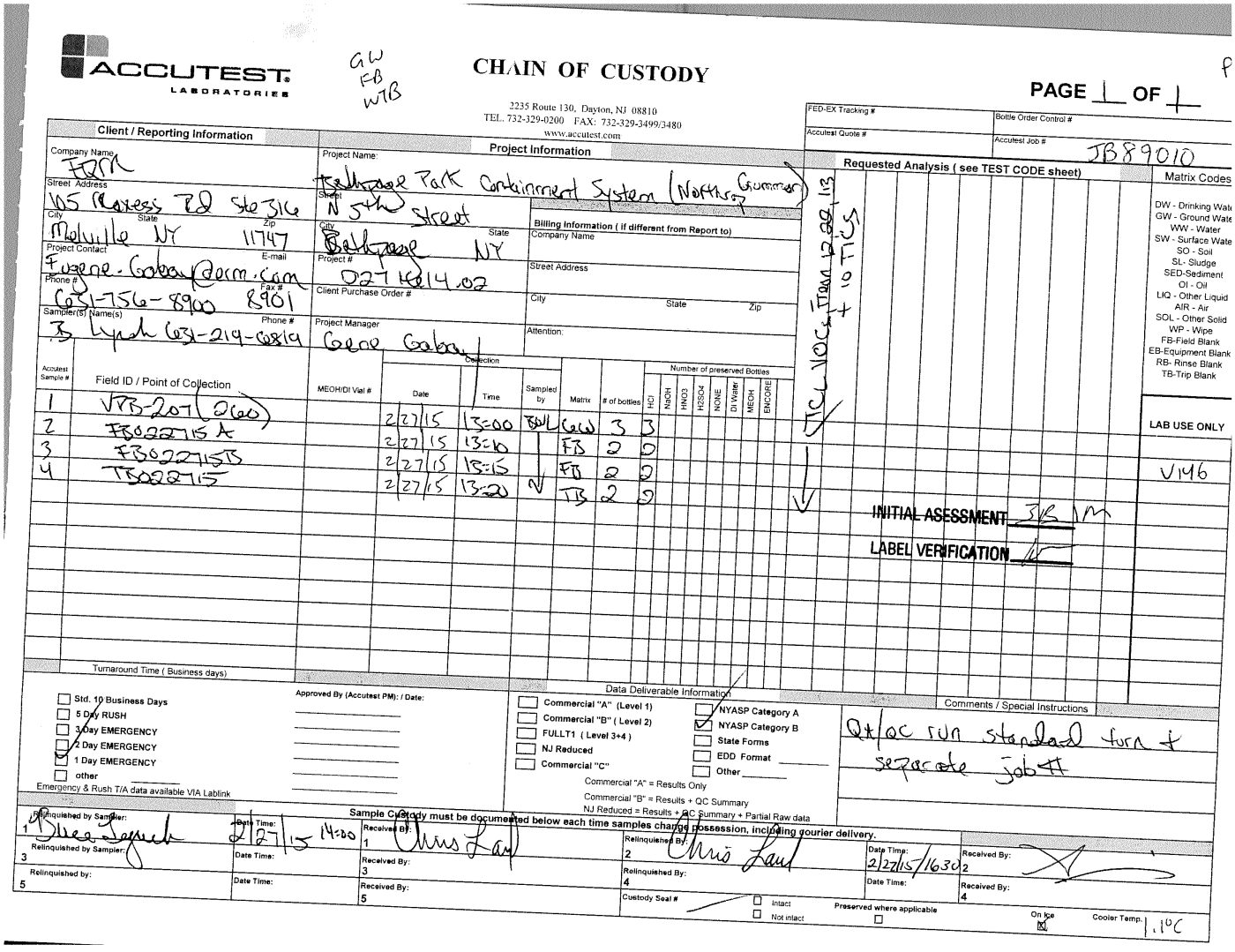
New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



ACCUTEST LABORATORIES

GW
FB
WTB

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #
Bottle Order Control #
Accutest Quote #
Accutest Job # JB89010

Client / Reporting Information

Company Name: FSSA
Street Address: 105 Maxess Rd Ste 316
City: Melville State: NY Zip: 11747
Project Contact: Eugene.Gaba@dem.com E-mail
Phone # 631-756-8900 Fax # 8961
Sampler(s) Name(s): J Lynch 631-219-6819 Phone #

Project Information

Project Name: Bethpage Park Containment System (Northrop Grumman)
Street: N 5th Street
City: Bethpage State: NY
Project #: 027 KE14.02
Client Purchase Order #
Project Manager: Gene Gaba

Billing Information (If different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

TCL VOCs + 10 TICs

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE
1	VBS-207 (2160)		2/27/15	13:00	BWL	GW	3	3							
2	FB022715A		2/27/15	13:10		FB	2	2							
3	FB022715B		2/27/15	15:15		FB	2	2							
4	TB022715		2/27/15	13:20	V	TB	2	2							

Matrix Codes

DW - Drinking Wate
GW - Ground Wate
WW - Water
SW - Surface Wate
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

LAB USE ONLY

V146

INITIAL ASSESSMENT JS 2/28
LABEL VERIFICATION

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [x] 1 Day EMERGENCY
- [ ] other _____

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Qt/qc run standard turn + separate job #

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Lynch	2/27/15 14:20	Chris Land	Chris Land	2/27/15 1630	
2	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3						
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not intact	Preserved where applicable
5						On Ice: Cooler Temp: 1.1°C

5.1 5

JB89010: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB89010 **Client:** ERM **Project:** Bethpage Park Containment System

Date / Time Received: 2/27/2015 4:30:00 PM **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.1/0.8); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No, Coolers	1		

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments -1 3 of 3 voc's rec'd with 90% sediment/slurry.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB89010: Chain of Custody
Page 2 of 3

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB89010 **Initiator:** ANDREWS

CSR: Tammy McCloskey **Response Date:** 2/27/2015

Response: -1 please centrifuge prior to analysis per prior instructions from Gene Gabay.

Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JB89010

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB89010-1	Collected: 27-FEB-15 13:00	By: BL	Received: 27-FEB-15	By: AS		
VPB-207(260)						
JB89010-1	SW846 8260C	02-MAR-15 13:44	ST			VC8260TCL20+ 20

Accutest Internal Chain of Custody

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Received: 02/27/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB89010-1.1	Secured Storage	Bridget Kelly	03/02/15 11:22	Retrieve from Storage
JB89010-1.1	Bridget Kelly	Secured Storage	03/02/15 12:09	Return to Storage
JB89010-1.1	Secured Storage	Nicole Horvath	03/02/15 12:47	Retrieve from Storage
JB89010-1.1	Nicole Horvath	GCMS1C	03/02/15 12:48	Load on Instrument
JB89010-1.1	GCMS1C	Shannon Tilly	03/03/15 10:03	Unload from Instrument
JB89010-1.1	Shannon Tilly	Secured Storage	03/03/15 10:03	Return to Storage
JB89010-1.2	Secured Storage	Bridget Kelly	03/02/15 11:22	Retrieve from Storage
JB89010-1.2	Bridget Kelly	Secured Storage	03/02/15 12:09	Return to Storage
JB89010-1.3	Secured Storage	Bridget Kelly	03/02/15 11:22	Retrieve from Storage
JB89010-1.3	Bridget Kelly	Secured Storage	03/02/15 12:09	Return to Storage

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-MB	1C137491.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-MB	1C137491.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-1

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	95%	73-122%
2037-26-5	Toluene-D8	109%	84-119%
460-00-4	4-Bromofluorobenzene	105%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-BS	1C137492.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	43.0	86	47-144
71-43-2	Benzene	50	49.0	98	81-119
74-97-5	Bromochloromethane	50	51.1	102	84-120
75-27-4	Bromodichloromethane	50	49.0	98	81-125
75-25-2	Bromoform	50	52.0	104	74-128
74-83-9	Bromomethane	50	48.6	97	52-146
78-93-3	2-Butanone (MEK)	50	48.9	98	68-130
75-15-0	Carbon disulfide	50	46.1	92	71-129
56-23-5	Carbon tetrachloride	50	49.1	98	77-140
108-90-7	Chlorobenzene	50	50.7	101	84-116
75-45-6	Chlorodifluoromethane	50	37.2	74	44-147
75-00-3	Chloroethane	50	58.7	117	70-148
67-66-3	Chloroform	50	49.8	100	81-120
74-87-3	Chloromethane	50	46.2	92	50-143
110-82-7	Cyclohexane	50	55.3	111	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	49.3	99	66-132
124-48-1	Dibromochloromethane	50	51.1	102	81-122
106-93-4	1,2-Dibromoethane	50	51.8	104	81-120
95-50-1	1,2-Dichlorobenzene	50	49.5	99	80-117
541-73-1	1,3-Dichlorobenzene	50	47.9	96	81-116
106-46-7	1,4-Dichlorobenzene	50	49.2	98	80-115
75-71-8	Dichlorodifluoromethane	50	44.9	90	36-169
75-34-3	1,1-Dichloroethane	50	49.8	100	80-125
107-06-2	1,2-Dichloroethane	50	48.0	96	78-131
75-35-4	1,1-Dichloroethene	50	47.9	96	73-127
156-59-2	cis-1,2-Dichloroethene	50	51.7	103	77-118
156-60-5	trans-1,2-Dichloroethene	50	50.9	102	75-118
78-87-5	1,2-Dichloropropane	50	49.7	99	80-124
10061-01-5	cis-1,3-Dichloropropene	50	50.2	100	72-121
10061-02-6	trans-1,3-Dichloropropene	50	50.7	101	73-122
100-41-4	Ethylbenzene	50	49.6	99	80-118
76-13-1	Freon 113	50	52.2	104	76-140
591-78-6	2-Hexanone	50	53.5	107	66-128
98-82-8	Isopropylbenzene	50	53.2	106	78-125
79-20-9	Methyl Acetate	50	39.8	80	63-120
108-87-2	Methylcyclohexane	50	49.7	99	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-BS	1C137492.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	96.2	96	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	51.4	103	73-129
75-09-2	Methylene chloride	50	49.3	99	75-122
100-42-5	Styrene	50	52.6	105	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	49.8	100	69-116
127-18-4	Tetrachloroethene	50	50.3	101	69-138
108-88-3	Toluene	50	49.8	100	80-122
87-61-6	1,2,3-Trichlorobenzene	50	50.9	102	74-137
120-82-1	1,2,4-Trichlorobenzene	50	49.2	98	75-135
71-55-6	1,1,1-Trichloroethane	50	51.0	102	80-131
79-00-5	1,1,2-Trichloroethane	50	50.7	101	78-122
79-01-6	Trichloroethene	50	50.0	100	83-122
75-69-4	Trichlorofluoromethane	50	49.6	99	66-143
75-01-4	Vinyl chloride	50	48.1	96	57-138
	m,p-Xylene	100	104	104	82-119
95-47-6	o-Xylene	50	51.2	102	82-119
1330-20-7	Xylene (total)	150	155	103	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	73-122%
2037-26-5	Toluene-D8	108%	84-119%
460-00-4	4-Bromofluorobenzene	106%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89011-2MS	1C137499.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2MSD	1C137500.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2	1C137497.D	25	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-1

CAS No.	Compound	JB89011-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		1250	1050	84	1250	1050	84	0	33-158/19
71-43-2	Benzene	164		1250	1380	97	1250	1290	90	7	43-138/12
74-97-5	Bromochloromethane	ND		1250	1340	107	1250	1200	96	11	75-127/12
75-27-4	Bromodichloromethane	ND		1250	1260	101	1250	1170	94	7	72-128/13
75-25-2	Bromoform	ND		1250	1290	103	1250	1270	102	2	70-131/12
74-83-9	Bromomethane	ND		1250	1190	95	1250	1090	87	9	47-142/16
78-93-3	2-Butanone (MEK)	ND		1250	1230	98	1250	1200	96	2	56-146/12
75-15-0	Carbon disulfide	ND		1250	1190	95	1250	995	80	18* [a]	38-136/17
56-23-5	Carbon tetrachloride	ND		1250	1280	102	1250	1190	95	7	45-149/17
108-90-7	Chlorobenzene	ND		1250	1250	100	1250	1200	96	4	70-124/12
75-45-6	Chlorodifluoromethane	ND		1250	1290	103	1250	1180	94	9	26-147/19
75-00-3	Chloroethane	ND		1250	1320	106	1250	1190	95	10	47-139/15
67-66-3	Chloroform	ND		1250	1250	100	1250	1170	94	7	66-126/13
74-87-3	Chloromethane	ND		1250	1190	95	1250	1060	85	12	41-140/15
110-82-7	Cyclohexane	42.7	J	1250	1500	117	1250	1470	114	2	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1200	96	1250	1220	98	2	64-136/14
124-48-1	Dibromochloromethane	ND		1250	1270	102	1250	1240	99	2	75-126/12
106-93-4	1,2-Dibromoethane	ND		1250	1280	102	1250	1260	101	2	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		1250	1230	98	1250	1170	94	5	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		1250	1210	97	1250	1140	91	6	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		1250	1220	98	1250	1150	92	6	69-122/12
75-71-8	Dichlorodifluoromethane	ND		1250	1340	107	1250	1330	106	1	24-161/20
75-34-3	1,1-Dichloroethane	ND		1250	1240	99	1250	1160	93	7	60-129/13
107-06-2	1,2-Dichloroethane	ND		1250	1200	96	1250	1150	92	4	72-133/12
75-35-4	1,1-Dichloroethene	ND		1250	1290	103	1250	1140	91	12	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		1250	1330	106	1250	1220	98	9	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		1250	1310	105	1250	1190	95	10	53-128/15
78-87-5	1,2-Dichloropropane	ND		1250	1260	101	1250	1180	94	7	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1270	102	1250	1190	95	7	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1310	105	1250	1230	98	6	68-130/14
100-41-4	Ethylbenzene	540		1250	1700	93	1250	1630	87	4	38-139/12
76-13-1	Freon 113	ND		1250	1590	127	1250	1520	122	5	34-154/18
591-78-6	2-Hexanone	ND		1250	1360	109	1250	1340	107	1	55-148/15
98-82-8	Isopropylbenzene	70.1		1250	1390	106	1250	1330	101	4	54-137/15
79-20-9	Methyl Acetate	ND		1250	1290	103	1250	1220	98	6	60-137/13
108-87-2	Methylcyclohexane	46.5	J	1250	1630	127	1250	1560	121	4	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89011-2MS	1C137499.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2MSD	1C137500.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2	1C137497.D	25	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-1

CAS No.	Compound	JB89011-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		1250	1260	101	1250	1180	94	7	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		1250	1340	107	1250	1310	105	2	68-139/12
75-09-2	Methylene chloride	ND		1250	1240	99	1250	1120	90	10	63-128/13
100-42-5	Styrene	ND		1250	1300	104	1250	1250	100	4	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1280	102	1250	1270	102	1	67-126/13
127-18-4	Tetrachloroethene	ND		1250	1300	104	1250	1230	98	6	43-145/15
108-88-3	Toluene	ND		1250	1280	102	1250	1200	96	6	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		1250	1290	103	1250	1170	94	10	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		1250	1260	101	1250	1150	92	9	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		1250	1310	105	1250	1210	97	8	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1300	104	1250	1210	97	7	71-127/12
79-01-6	Trichloroethene	ND		1250	1270	102	1250	1180	94	7	55-136/14
75-69-4	Trichlorofluoromethane	ND		1250	1350	108	1250	1290	103	5	33-157/21
75-01-4	Vinyl chloride	ND		1250	1250	100	1250	1140	91	9	34-147/17
	m,p-Xylene	5030		2500	6840	72	2500	6620	64	3	42-139/13
95-47-6	o-Xylene	11.2	J	1250	1290	102	1250	1230	98	5	56-134/13
1330-20-7	Xylene (total)	5040		3750	8140	83	3750	7860	75	4	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JB89011-2	Limits
1868-53-7	Dibromofluoromethane	107%	104%	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	97%	92%	94%	73-122%
2037-26-5	Toluene-D8	111%	110%	109%	84-119%
460-00-4	4-Bromofluorobenzene	106%	108%	106%	78-117%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V1C6103-BFB
Lab File ID: 1C137266.D
Instrument ID: GCMS1C
Injection Date: 02/20/15
Injection Time: 09:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11124	17.4		Pass
75	30.0 - 60.0% of mass 95	30296	47.5		Pass
95	Base peak, 100% relative abundance	63792	100.0		Pass
96	5.0 - 9.0% of mass 95	4082	6.40		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	68725	107.7		Pass
175	5.0 - 9.0% of mass 174	5487	8.60	(7.98) [a]	Pass
176	95.0 - 101.0% of mass 174	66280	103.9	(96.4) [a]	Pass
177	5.0 - 9.0% of mass 176	4616	7.24	(6.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6103-IC6103	1C137267.D	02/20/15	09:54	00:34	Initial cal 0.2
V1C6103-IC6103	1C137268.D	02/20/15	10:24	01:04	Initial cal 0.5
V1C6103-IC6103	1C137269.D	02/20/15	10:52	01:32	Initial cal 1
V1C6103-IC6103	1C137270.D	02/20/15	11:21	02:01	Initial cal 2
V1C6103-IC6103	1C137271.D	02/20/15	11:50	02:30	Initial cal 5
V1C6103-IC6103	1C137272.D	02/20/15	12:19	02:59	Initial cal 10
V1C6103-IC6103	1C137273.D	02/20/15	12:47	03:27	Initial cal 20
V1C6103-ICC6103	1C137274.D	02/20/15	13:16	03:56	Initial cal 50
V1C6103-IC6103	1C137276.D	02/20/15	14:14	04:54	Initial cal 200

Instrument Performance Check (BFB)

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V1C6103-BFB2
Lab File ID: 1C137290.D
Instrument ID: GCMS1C
Injection Date: 02/23/15
Injection Time: 12:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9216	17.7		Pass
75	30.0 - 60.0% of mass 95	24336	46.7		Pass
95	Base peak, 100% relative abundance	52133	100.0		Pass
96	5.0 - 9.0% of mass 95	3569	6.85		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	54701	104.9		Pass
175	5.0 - 9.0% of mass 174	4252	8.16	(7.77) [a]	Pass
176	95.0 - 101.0% of mass 174	53075	101.8	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3480	6.68	(6.56) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6103-ICV6103	1C137291.D	02/23/15	13:11	00:36	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V1C6111-BFB
Lab File ID: 1C137488.D
Instrument ID: GCMS1C
Injection Date: 03/02/15
Injection Time: 10:09

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	7297	16.6		Pass
75	30.0 - 60.0% of mass 95	20016	45.5		Pass
95	Base peak, 100% relative abundance	43995	100.0		Pass
96	5.0 - 9.0% of mass 95	2738	6.22		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	47499	108.0		Pass
175	5.0 - 9.0% of mass 174	3634	8.26	(7.65) [a]	Pass
176	95.0 - 101.0% of mass 174	46899	106.6	(98.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3164	7.19	(6.75) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6111-CC6103	1C137489.D	03/02/15	10:41	00:32	Continuing cal 20
V1C6111-MB	1C137491.D	03/02/15	11:50	01:41	Method Blank
V1C6111-BS	1C137492.D	03/02/15	12:27	02:18	Blank Spike
JB89010-1	1C137494.D	03/02/15	13:44	03:35	VPB-207(260)
ZZZZZZ	1C137495.D	03/02/15	14:14	04:05	(unrelated sample)
ZZZZZZ	1C137496.D	03/02/15	14:43	04:34	(unrelated sample)
JB89011-2	1C137497.D	03/02/15	15:12	05:03	(used for QC only; not part of job JB89010)
ZZZZZZ	1C137498.D	03/02/15	15:42	05:33	(unrelated sample)
JB89011-2MS	1C137499.D	03/02/15	16:11	06:02	Matrix Spike
JB89011-2MSD	1C137500.D	03/02/15	16:40	06:31	Matrix Spike Duplicate
ZZZZZZ	1C137502.D	03/02/15	17:38	07:29	(unrelated sample)
ZZZZZZ	1C137503.D	03/02/15	18:06	07:57	(unrelated sample)
ZZZZZZ	1C137504.D	03/02/15	18:35	08:26	(unrelated sample)
ZZZZZZ	1C137505.D	03/02/15	19:04	08:55	(unrelated sample)
ZZZZZZ	1C137506.D	03/02/15	19:33	09:24	(unrelated sample)
ZZZZZZ	1C137507.D	03/02/15	20:02	09:53	(unrelated sample)
ZZZZZZ	1C137508.D	03/02/15	20:31	10:22	(unrelated sample)
ZZZZZZ	1C137509.D	03/02/15	21:00	10:51	(unrelated sample)
ZZZZZZ	1C137510.D	03/02/15	21:29	11:20	(unrelated sample)
ZZZZZZ	1C137511.D	03/02/15	21:58	11:49	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Check Std: V1C6111-CC6103 **Injection Date:** 03/02/15
Lab File ID: 1C137489.D **Injection Time:** 10:41
Instrument ID: GCMS1C **Method:** SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	133964	7.09	191428	9.59	204389	10.56	188973	13.93	120633	16.40
Upper Limit [a]	267928	7.59	382856	10.09	408778	11.06	377946	14.43	241266	16.90
Lower Limit [b]	66982	6.59	95714	9.09	102195	10.06	94487	13.43	60317	15.90

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1C6111-MB	132388	7.09	186701	9.60	195428	10.56	182735	13.93	117524	16.40
V1C6111-BS	136395	7.09	191308	9.59	203495	10.56	187366	13.93	118526	16.40
JB89010-1	134322	7.09	190752	9.60	197219	10.56	184322	13.93	117500	16.40
ZZZZZZ	124112	7.09	182182	9.60	189621	10.56	173135	13.93	113495	16.40
ZZZZZZ	136110	7.10	189907	9.60	199085	10.57	183451	13.93	118281	16.40
JB89011-2	131360	7.09	188157	9.60	197202	10.57	183017	13.93	117605	16.40
ZZZZZZ	130179	7.09	187686	9.61	196215	10.57	181253	13.93	112529	16.40
JB89011-2MS	138843	7.09	183607	9.60	194576	10.56	185106	13.93	117980	16.40
JB89011-2MSD	133846	7.11	188399	9.60	197637	10.56	182506	13.93	114715	16.40
ZZZZZZ	125090	7.09	179911	9.60	189090	10.57	174121	13.93	116283	16.40
ZZZZZZ	127827	7.09	179857	9.60	188816	10.56	174842	13.93	114144	16.40
ZZZZZZ	129016	7.09	183715	9.60	192021	10.56	179019	13.93	119417	16.40
ZZZZZZ	133579	7.09	182048	9.60	191252	10.56	178836	13.93	119928	16.40
ZZZZZZ	127477	7.08	182477	9.60	191400	10.56	178399	13.93	116869	16.40
ZZZZZZ	127748	7.08	182190	9.60	189921	10.56	179621	13.93	121725	16.40
ZZZZZZ	128993	7.09	175838	9.60	184248	10.56	169243	13.93	112612	16.40
ZZZZZZ	124788	7.09	176723	9.60	183462	10.56	169558	13.93	109505	16.40
ZZZZZZ	123223	7.09	174305	9.60	184376	10.56	169809	13.93	114312	16.40
ZZZZZZ	117600	7.10	174634	9.60	183710	10.56	170148	13.93	107678	16.40

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: JB89010
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB89010-1	1C137494.D	103	94	109	106
JB89011-2MS	1C137499.D	107	97	111	106
JB89011-2MSD	1C137500.D	104	92	110	108
V1C6111-BS	1C137492.D	106	96	108	106
V1C6111-MB	1C137491.D	106	95	109	105

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JB89010 **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Response Factor Report MS1C

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Feb 25 11:24:28 2015
Response via : Initial Calibration

Calibration Files
1 =1C137269.D 2 =1C137270.D 100 =1C137280.D 50 =1C137274.D
20 =1C137273.D 200 =1C137276.D 5 =1C137271.D 10 =1C137272.D
0.5 =1C137268.D 0.2 =1C137267.D = =

Compound	1	2	100	50	20	200	5	10	0.5	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol	0.753	0.935	0.911	0.894	0.986	0.846	0.888				0.887	8.27
3) 1,4-dioxane			0.077	0.074	0.070	0.088	0.057	0.070			0.072	13.93
4) ethanol											0.000#	-1.00
5) I pentafluorobenzene ----------ISTD----------												
6) Freon 115											0.000#	-1.00
7) Freon 143a											0.000#	-1.00
8) Freon 152a											0.000#	-1.00
9) chlorotrifluoroethene											0.000#	-1.00
10) chlorodifluoromethane			0.535	0.505	0.483	0.560	0.439	0.481			0.500	8.59
11) dichlorodifluoromethane	0.368	0.415	0.408	0.426	0.419	0.361	0.436	0.418			0.406	6.76
12) Freon 142b											0.000#	-1.00
13) chloromethane	0.605	0.567	0.632	0.583	0.519	0.678	0.531	0.524	0.559		0.577	9.21
14) vinyl chloride	0.590	0.591	0.650	0.587	0.533	0.665	0.536	0.532	0.599		0.587	8.27
15) bromomethane	0.464	0.429	0.438	0.408	0.360	0.447	0.392	0.363	0.443		0.416	9.02
16) chloroethane	0.197	0.207	0.219	0.201	0.191	0.212	0.211	0.191			0.204	5.11
17) PENTANE											0.000#	-1.00
18) 1,3-BUTADIENE											0.000#	-1.00
19) vinyl bromide											0.000#	-1.00
20) trichlorofluoromethane	0.430	0.478	0.572	0.548	0.488	0.566	0.493	0.486			0.508	9.71
21) ethyl ether		0.112	0.164	0.150	0.153	0.169	0.132	0.136			0.145	13.78
22) freon 123a											0.000#	-1.00
23) acrolein												

```
      0.073 0.073 0.074 0.070 0.067       0.079 0.065              0.071    6.56
24)  1,1-dichloroethene
      0.292 0.307 0.311 0.285 0.280 0.330 0.246 0.264              0.289    9.25
25)  acetone
                  0.126 0.103 0.112 0.114       0.101              0.111    8.93
26)  acetonitrile
                  0.036 0.033 0.031 0.037 0.037 0.035              0.035    7.51
27)  allyl chloride
            0.128 0.155 0.140 0.143 0.160 0.110 0.134              0.138   12.05
28)  iodomethane
      0.607 0.720 0.785 0.718 0.686 0.830 0.619 0.690 0.618        0.697   11.03
29)  carbon disulfide
      1.300 1.270 1.230 1.084 1.047 1.233 0.972 1.017              1.144   11.17
30)  2-CHLOROPROPANE
            0.517 0.524 0.483 0.474 0.536 0.406 0.476              0.488    8.94
31)  methylene chloride
      0.324 0.402 0.370 0.341 0.332 0.390 0.307 0.319 0.315        0.344   10.06
32)  methyl acetate
                  0.299 0.273 0.267 0.310 0.254 0.253              0.276    8.61
33)  methyl tert butyl ether
      1.015 1.172 1.158 1.101 1.094 1.251 0.990 1.094 1.072        1.105    7.26
34)  trans-1,2-dichloroethene
      0.246 0.287 0.303 0.271 0.267 0.309 0.241 0.275              0.275    8.86
35)  1-CHLOROPROPANE   *** Compound failed in this Calibration.
                  0.512 0.516 0.603 0.532 0.953 0.737              0.642   27.15
            ----- Linear regression -----  Coefficient =  0.9988
              Response Ratio = 0.02568 + 0.51911 *A

36)  di-isopropyl ether
      0.923 0.928 1.047 0.967 0.951 1.104 0.932 0.965              0.977    6.63
37)  2-butanone
                  0.044 0.038 0.040 0.046       0.031              0.040   15.26
38)  1,1-dichloroethane
      0.465 0.575 0.565 0.526 0.537 0.592 0.468 0.527              0.532    8.74
39)  chloroprene
      0.297 0.328 0.387 0.355 0.356 0.407 0.341 0.348              0.352    9.54
40)  acrylonitrile
                  0.124 0.112 0.111 0.128 0.095 0.104              0.112   10.85
41)  vinyl acetate    *** Compound failed in this Calibration.
                  0.047 0.036 0.030 0.050       0.022              0.037   30.94
            ----- Linear regression -----  Coefficient =  0.9979
              Response Ratio = -0.00974 + 0.05187 *A

42)  ethyl tert-butyl ether
      0.972 1.051 1.144 1.069 1.038 1.233 0.994 1.054 0.970        1.058    8.02
43)  ethyl acetate    *** Compound failed in this Calibration.
                  0.052 0.041 0.043 0.049       0.029              0.043   20.58
            ----- Linear regression -----  Coefficient =  0.9970
              Response Ratio = -0.00423 + 0.05061 *A

44)  2,2-dichloropropane
      0.552 0.605 0.605 0.567 0.564 0.614 0.497 0.553              0.570    6.73
45)  cis-1,2-dichloroethene
      0.278 0.289 0.355 0.322 0.327 0.369 0.281 0.315 0.298        0.315   10.17
46)  propionitrile
            0.041 0.053 0.048 0.049 0.058 0.041 0.048              0.048   12.95
47)  methylacrylate
                  0.374 0.339 0.340 0.403 0.261 0.319              0.339   14.34
48)  bromochloromethane
      0.138 0.181 0.192 0.176 0.180 0.202 0.152 0.178              0.175   11.72
```

Initial Calibration Summary

Job Number: JB89010 **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

49)	tetrahydrofuran										
		0.050	0.047	0.046	0.054		0.041			0.048	10.14
50)	chloroform										
	0.297	0.363	0.373	0.350	0.359	0.396	0.308	0.344		0.349	9.38
51)	T-BUTYL FORMATE										
		0.303	0.368	0.341	0.327	0.395	0.319	0.339		0.342	9.04
52)	isobutyl alcohol										
		0.022	0.020	0.019	0.025	0.017	0.020			0.021	14.34
53)	dibromofluoromethane (s)										
		0.321	0.303	0.318	0.351	0.322	0.321			0.323	4.82
54)	1,2-dichloroethane-d4 (s)										
		0.340	0.331	0.359	0.375	0.405	0.366			0.363	7.31
55)	freon 113										
		0.214	0.212	0.194	0.189	0.182	0.187			0.196	6.85
56)	methacrylonitrile										
		0.135	0.118	0.127	0.148		0.113			0.128	10.92
57)	1,1,1-trichloroethane										
	0.429	0.532	0.562	0.524	0.511	0.598	0.446	0.505		0.513	10.87
58)	Cyclohexane										
		0.313	0.352	0.329	0.316	0.338	0.278	0.284		0.316	8.67
59)	I 1,4-difluorobenzene	----------ISTD----------									
60)	ISO-OCTANE										
	0.522	0.538	0.699	0.708	0.620	0.538	0.615	0.564		0.600	12.13
61)	epichlorohydrin										
		0.026	0.036	0.033	0.033	0.039	0.028	0.033		0.033	13.62
62)	n-butyl alcohol										
		0.013	0.012	0.011	0.015	0.010	0.011			0.012	15.22
63)	carbon tetrachloride										
	0.418	0.435	0.467	0.457	0.442	0.498	0.394	0.438	0.485	0.448	7.25
64)	1,1-dichloropropene										
	0.318	0.343	0.351	0.318	0.314	0.369	0.275	0.313		0.325	8.91
65)	hexane										
		0.117	0.161	0.163	0.155	0.129	0.146	0.143		0.145	11.65
66)	benzene										
	0.937	1.170	1.126	1.033	1.032	1.193	0.927	1.028	1.030	1.068	1.054	8.38
67)	tert-amyl methyl ether										
	0.945	0.990	1.091	1.033	0.987	1.176	0.968	1.027	0.950		1.019	7.34
68)	heptane										
		0.076	0.097	0.100	0.089	0.076	0.083	0.084		0.086	10.85
69)	isopropyl acetate										
		0.526	0.640	0.599	0.608	0.675	0.572	0.636		0.608	8.05
70)	1,2-dichloroethane										
	0.341	0.417	0.410	0.403	0.415	0.442	0.349	0.389	0.351		0.391	9.13
71)	trichloroethene										
	0.242	0.281	0.291	0.268	0.276	0.307	0.249	0.267	0.251		0.270	7.82
72)	2-nitropropane										
		0.135	0.126	0.124	0.130	0.139	0.120	0.125		0.128	5.22
73)	2-chloroethyl vinyl ether										
	0.159	0.168	0.210	0.193	0.192	0.224	0.180	0.197	0.158		0.187	12.08
74)	methyl methacrylate										
		0.084	0.075	0.076	0.090		0.069			0.079	10.27
75)	1,2-dichloropropane										
	0.248	0.278	0.297	0.278	0.278	0.319	0.256	0.285		0.280	7.89
76)	dibromomethane										
	0.162	0.214	0.205	0.195	0.195	0.220	0.168	0.191	0.173		0.191	10.54
77)	methylcyclohexane										
	0.240	0.227	0.304	0.293	0.276	0.273	0.275	0.266			0.269	9.48
78)	bromodichloromethane										
	0.377	0.418	0.427	0.407	0.407	0.466	0.370	0.407	0.346		0.403	8.66

Initial Calibration Summary

Job Number: JB89010 **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY


```
 79)  ETHYL ACRYLATE
                                                                    0.000#  -1.00
 80)  cis-1,3-dichloropropene
       0.418 0.490 0.506 0.469 0.475 0.543 0.423 0.461 0.460        0.472    8.22
 81)  toluene-d8 (s)
                  0.989 0.928 0.969 1.080 1.056 0.990               1.002    5.63
 82)  4-methyl-2-pentanone
                  0.140 0.131 0.126 0.156 0.106 0.120               0.130   13.25
 83)  toluene
       0.580 0.693 0.696 0.641 0.631 0.744 0.568 0.627 0.657        0.649    8.72
 84)  3-methyl-1-butanol
             0.017 0.022 0.020 0.020 0.025 0.017 0.020              0.020   13.69
 85)  trans-1,3-dichloropropene
       0.401 0.443 0.481 0.458 0.456 0.523 0.387 0.431 0.357        0.437   11.54
 86)  ethyl methacrylate
             0.326 0.409 0.374 0.364 0.447 0.310 0.349              0.369   12.87
 87)  1,1,2-trichloroethane
       0.194 0.240 0.240 0.229 0.231 0.263 0.204 0.223 0.184        0.223   11.17
 88)  2-hexanone
                  0.132 0.117 0.120 0.144 0.081 0.101               0.116   19.36

 89) I   chlorobenzene-d5      ----------------ISTD--------------------
 90)  tetrachloroethene
       0.246 0.290 0.295 0.260 0.277 0.301 0.240 0.263 0.282        0.273    8.01
 91)  1,3-dichloropropane
       0.412 0.460 0.490 0.449 0.473 0.512 0.414 0.455 0.385        0.450    8.98
 92)  butyl acetate
             0.202 0.228 0.207 0.207 0.241 0.195 0.215              0.214    7.39
 93)  3,3-DIMETHYL-1-BUTANOL
       0.050 0.051 0.063 0.056 0.056 0.075 0.052 0.056              0.057   14.25
 94)  dibromochloromethane
       0.365 0.405 0.410 0.381 0.400 0.438 0.355 0.386 0.346        0.387    7.57
 95)  1,2-dibromoethane
       0.292 0.331 0.343 0.313 0.327 0.357 0.284 0.308 0.268        0.314    9.15
 96)  n-butyl ether
                                                                    0.000#  -1.00
 97)  chlorobenzene
       0.812 0.954 0.906 0.816 0.842 0.958 0.745 0.820 0.946 0.858  0.866    8.34
 98)  1,1,1,2-tetrachloroethane
       0.367 0.402 0.435 0.395 0.391 0.475 0.332 0.391 0.352        0.393   10.88
 99)  ethylbenzene
       1.375 1.525 1.495 1.354 1.396 1.587 1.234 1.367 1.486 1.302  1.412    7.71
100)  m,p-xylene
       0.479 0.579 0.579 0.514 0.527 0.619 0.464 0.529 0.556 0.468  0.531    9.82
101)  o-xylene
       0.509 0.600 0.622 0.560 0.566 0.684 0.504 0.558 0.533        0.571   10.03
102)  styrene
       0.808 0.940 1.017 0.888 0.905 1.105 0.775 0.879 0.874        0.910   11.11
103)  Butyl Acrylate
                                                                    0.000#  -1.00
104)  bromoform
       0.280 0.330 0.354 0.326 0.334 0.393 0.290 0.317              0.328   10.82

105) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
106)  isopropylbenzene
       2.135 2.482 2.601 2.244 2.343 2.468 1.929 2.163 2.057 2.514  2.294    9.71
107)  4-bromofluorobenzene (s)
                  0.691 0.619 0.686 0.654 0.706 0.664               0.670    4.67
108)  cyclohexanone    *** Compound failed in this Calibration.
       0.131 0.130 0.107 0.105 0.124 0.090 0.096 0.086 0.125        0.110   15.90
```

Initial Calibration Summary

Job Number: JB89010 **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

109)	bromobenzene											
	0.661	0.703	0.767	0.675	0.713	0.747	0.601	0.681	0.651	0.561	0.676	9.25
110)	1,1,2,2-tetrachloroethane											
	0.728	0.790	0.804	0.708	0.781	0.776	0.647	0.709	0.719		0.740	6.89
111)	trans-1,4-dichloro-2-butene											
		0.184	0.198	0.184	0.205	0.186	0.156	0.186			0.185	8.17
112)	1,2,3-trichloropropane											
	0.168	0.175	0.206	0.182	0.203	0.197	0.158	0.192			0.185	9.32
113)	n-propylbenzene											
	2.413	2.749	2.770	2.398	2.541	2.634	2.127	2.366	2.635	2.589	2.522	7.83
114)	2-chlorotoluene											
	0.566	0.596	0.672	0.583	0.617	0.672	0.496	0.554	0.556		0.590	9.64
115)	4-chlorotoluene											
	1.619	1.806	1.808	1.569	1.696	1.765	1.412	1.591	1.807		1.675	8.22
116)	1,3,5-trimethylbenzene											
	2.012	2.226	2.400	2.066	2.120	2.504	1.719	1.950	2.014	2.140	2.115	10.61
117)	tert-butylbenzene											
	1.636	1.828	2.113	1.786	1.828	2.188	1.486	1.623	1.650	1.931	1.807	12.32
118)	pentachloroethane											
		0.550	0.675	0.572	0.586	0.704	0.461	0.538			0.584	14.22
119)	1,2,4-trimethylbenzene											
	1.975	2.142	2.359	2.054	2.121	2.514	1.738	1.975	2.170	2.304	2.135	10.36
120)	sec-butylbenzene											
	2.420	2.838	3.174	2.679	2.765	3.289	2.189	2.477	2.710	2.811	2.735	12.09
121)	1,3-dichlorobenzene											
	1.388	1.586	1.510	1.311	1.405	1.577	1.185	1.293	1.591	1.682	1.453	11.04
122)	p-isopropyltoluene											
	2.398	2.516	2.762	2.362	2.409	3.006	1.996	2.201	2.413	2.527	2.459	11.32
123)	1,2,3-trimethylbenzene											
											0.000#	-1.00
124)	1,4-dichlorobenzene											
	1.500	1.623	1.571	1.343	1.463	1.633	1.256	1.370	1.590		1.483	9.11
125)	benzyl chloride											
	1.682	1.575	1.823	1.572	1.661	1.853	1.466	1.548	1.831		1.668	8.42
126)	1,2-dichlorobenzene											
	1.428	1.630	1.635	1.434	1.521	1.799	1.228	1.390	1.616		1.520	11.17
127)	n-butylbenzene											
	1.241	1.256	1.314	1.112	1.177	1.442	0.957	1.047	1.234	1.219	1.200	11.40
128)	1,2-dibromo-3-chloropropane											
	0.170	0.205	0.217	0.195	0.218	0.240	0.165	0.196			0.201	12.53
129)	1,3,5-trichlorobenzene											
	1.766	1.919	2.041	1.655	1.691	2.188	1.409	1.493	1.816		1.775	14.07
130)	1,2,4-trichlorobenzene											
	1.961	2.067	2.242	1.871	1.908	2.124	1.535	1.743	2.181		1.959	11.49
131)	hexachlorobutadiene											
	0.823	0.898	1.005	0.813	0.830	0.981	0.658	0.716	0.890		0.846	13.36
132)	naphthalene											
	4.777	4.828	5.040	4.378	4.674	4.581	3.826	4.245	5.517		4.652	10.40
133)	1,2,3-trichlorobenzene											
	1.990	2.138	2.169	1.919	2.025	1.925	1.664	1.833	2.326		1.999	9.81
134)	hexachloroethane											
		0.522	0.682	0.558	0.553		0.415	0.487			0.536	16.50

(#) = Out of Range ### Number of calibration levels exceeded format ###

M1C6103.M Wed Feb 25 11:32:12 2015 RPT1

Initial Calibration Verification

Job Number: JB89010 **Sample:** V1C6103-ICV6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137291.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\1C\V1c6103\1C137291.D Vial: 26
Acq On : 23 Feb 2015 1:11 pm Operator: shannont
Sample : ICV6103-50 Inst : MS1C
Misc : MS80764,V1C6103,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Feb 25 11:24:28 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	-0.02	7.08
2		tertiary butyl alcohol	0.887	0.948	-6.9	104	0.00	7.23
3		1,4-dioxane	0.072	0.071	1.4	97	0.00	11.33
4		ethanol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	9.59
6	m	Freon 115		----------NA----------				
7	m	Freon 143a		----------NA----------				
8	m	Freon 152a		----------NA----------				
9		chlorotrifluoroethene		----------NA----------				
10		chlorodifluoromethane	0.500	0.446	10.8	85	-0.02	3.47
11		dichlorodifluoromethane	0.406	0.353	13.1	79	0.00	3.46
12	m	Freon 142b		----------NA----------				
13		chloromethane	0.577	0.559	3.1	92	0.00	3.77
14		vinyl chloride	0.587	0.580	1.2	95	0.00	4.02
15		bromomethane	0.416	0.402	3.4	94	-0.01	4.67
16		chloroethane	0.204	0.238	-16.7	113	0.00	4.85
17		PENTANE		----------NA----------				
18		1,3-BUTADIENE		----------NA----------				
19		vinyl bromide		----------NA----------				
20		trichlorofluoromethane	0.508	0.537	-5.7	94	-0.01	5.37
21		ethyl ether	0.145	0.169	-16.6	108	0.00	5.81
22		freon 123a		----------NA----------				
23		acrolein	0.071	0.073	-2.8	99	0.00	6.09
24		1,1-dichloroethene	0.289	0.306	-5.9	103	-0.01	6.27
25		acetone	0.111	0.111	0.0	103	0.00	6.36
26		acetonitrile	0.035	0.036	-2.9	105	0.00	6.84
27		allyl chloride	0.138	0.157	-13.8	108	0.00	6.86
28		iodomethane	0.697	0.720	-3.3	96	0.00	6.56
29		carbon disulfide	1.144	1.155	-1.0	102	-0.01	6.68
30		2-CHLOROPROPANE	0.488	0.532	-9.0	106	0.00	6.02
31		methylene chloride	0.344	0.350	-1.7	98	-0.01	7.08
32		methyl acetate	0.276	0.250	9.4	87	0.00	6.88
33		methyl tert butyl ether	1.105	1.099	0.5	96	-0.02	7.46
34		trans-1,2-dichloroethene	0.275	0.294	-6.9	104	0.00	7.50
		----------	True	Calc.	% Drift	----------		
35		1-CHLOROPROPANE	50.000	52.598	-5.2	106	0.00	7.12
		----------	AvgRF	CCRF	% Dev	----------		
36		di-isopropyl ether	0.977	1.031	-5.5	102	0.00	8.16
37		2-butanone	0.040	0.043	-7.5	106	-0.01	8.98

Initial Calibration Verification

Job Number: JB89010 **Sample:** V1C6103-ICV6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137291.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

38		1,1-dichloroethane	0.532	0.564	-6.0	103	0.00	8.16
39		chloroprene	0.352	0.370	-5.1	100	0.00	8.28
40		acrylonitrile	0.112	0.134	-19.6	115	0.00	7.47
		----------	True	Calc.	% Drift	----------		
41		vinyl acetate	50.000	55.586	-11.2	127	-0.02	8.17
		----------	AvgRF	CCRF	% Dev	----------		
42		ethyl tert-butyl ether	1.058	1.057	0.1	95	-0.01	8.68
		----------	True	Calc.	% Drift	----------		
43		ethyl acetate	50.000	52.067	-4.1	114	-0.01	9.01
		----------	AvgRF	CCRF	% Dev	----------		
44		2,2-dichloropropane	0.570	0.609	-6.8	103	0.00	8.99
45		cis-1,2-dichloroethene	0.315	0.334	-6.0	99	0.00	8.99
46		propionitrile	0.048	0.052	-8.3	104	0.00	9.08
47		methylacrylate	0.339	0.374	-10.3	106	0.00	9.09
48		bromochloromethane	0.175	0.177	-1.1	96	0.00	9.33
49		tetrahydrofuran	0.048	0.050	-4.2	102	0.00	9.38
50		chloroform	0.349	0.356	-2.0	97	0.00	9.41
51		T-BUTYL FORMATE	0.342	0.368	-7.6	103	0.00	9.44
52		isobutyl alcohol	0.021	0.021	0.0	102	0.00	9.93
53	S	dibromofluoromethane (s)	0.323	0.313	3.1	99	0.00	9.62
54	S	1,2-dichloroethane-d4 (s)	0.363	0.340	6.3	98	0.00	10.07
55		freon 113	0.196	0.225	-14.8	101	-0.02	6.25
56		methacrylonitrile	0.128	0.133	-3.9	108	0.00	9.28
57		1,1,1-trichloroethane	0.513	0.553	-7.8	101	-0.01	9.66
58		Cyclohexane	0.316	0.362	-14.6	105	0.00	9.73
59	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	10.56
60		ISO-OCTANE	0.600	0.617	-2.8	85	0.00	10.15
61		epichlorohydrin	0.033	0.035	-6.1	101	0.00	11.91
62		n-butyl alcohol	0.012	0.013	-8.3	105	0.00	10.74
63		carbon tetrachloride	0.448	0.469	-4.7	101	0.00	9.88
64		1,1-dichloropropene	0.325	0.364	-12.0	112	0.00	9.86
65		hexane	0.145	0.119	17.9	72	0.00	7.86
66		benzene	1.054	1.089	-3.3	103	0.00	10.13
67		tert-amyl methyl ether	1.019	1.008	1.1	96	0.00	10.20
68		heptane	0.086	0.092	-7.0	90	0.00	10.35
69		isopropyl acetate	0.608	0.662	-8.9	108	0.00	10.10
70		1,2-dichloroethane	0.391	0.395	-1.0	96	0.00	10.17
71		trichloroethene	0.270	0.283	-4.8	103	0.00	10.91
72		2-nitropropane	0.128	0.135	-5.5	106	0.00	11.75
73		2-chloroethyl vinyl ether	0.187	0.202	-8.0	102	0.00	11.78
74		methyl methacrylate	0.079	0.083	-5.1	108	0.00	11.23
75		1,2-dichloropropane	0.280	0.295	-5.4	104	0.00	11.18
76		dibromomethane	0.191	0.194	-1.6	97	0.00	11.36
77		methylcyclohexane	0.269	0.304	-13.0	102	0.00	11.13
78		bromodichloromethane	0.403	0.404	-0.2	97	0.00	11.51
79		ETHYL ACRYLATE		----------NA----------				
80		cis-1,3-dichloropropene	0.472	0.486	-3.0	101	0.00	12.00
81	S	toluene-d8 (s)	1.002	0.999	0.3	105	0.00	12.30
82		4-methyl-2-pentanone	0.130	0.151	-16.2	113	0.00	12.12
83		toluene	0.649	0.665	-2.5	101	0.00	12.38
84		3-methyl-1-butanol	0.020	0.021	-5.0	104	0.00	12.16
85		trans-1,3-dichloropropene	0.437	0.449	-2.7	96	0.00	12.61
86		ethyl methacrylate	0.369	0.395	-7.0	103	0.00	12.62
87		1,1,2-trichloroethane	0.223	0.231	-3.6	99	0.00	12.83
88		2-hexanone	0.116	0.131	-12.9	110	0.00	13.04

Initial Calibration Verification

Job Number: JB89010 **Sample:** V1C6103-ICV6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137291.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

89	I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	13.93
90		tetrachloroethene	0.273	0.284	-4.0	103	0.00	13.01
91		1,3-dichloropropane	0.450	0.478	-6.2	100	0.00	13.03
92		butyl acetate	0.214	0.226	-5.6	103	0.00	13.12
93		3,3-DIMETHYL-1-BUTANOL	0.057	0.061	-7.0	102	0.00	13.23
94		dibromochloromethane	0.387	0.388	-0.3	96	0.00	13.30
95		1,2-dibromoethane	0.314	0.327	-4.1	98	0.00	13.45
96		n-butyl ether	----------	NA	----------			
97		chlorobenzene	0.866	0.865	0.1	100	0.00	13.96
98		1,1,1,2-tetrachloroethane	0.393	0.403	-2.5	96	0.00	14.03
99		ethylbenzene	1.412	1.435	-1.6	100	0.00	14.02
100		m,p-xylene	0.531	0.558	-5.1	102	0.00	14.13
101		o-xylene	0.571	0.596	-4.4	100	0.00	14.58
102		styrene	0.910	0.964	-5.9	102	0.00	14.60
103		Butyl Acrylate	----------	NA	----------			
104		bromoform	0.328	0.337	-2.7	97	0.00	14.88
105	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	16.40
106		isopropylbenzene	2.294	2.586	-12.7	101	0.00	14.95
107	S	4-bromofluorobenzene (s)	0.670	0.712	-6.3	101	0.00	15.17
108		cyclohexanone	0.110	0.075	31.8#	63	0.00	15.13
109		bromobenzene	0.676	0.759	-12.3	99	0.00	15.37
110		1,1,2,2-tetrachloroethane	0.740	0.787	-6.4	98	0.00	15.29
111		trans-1,4-dichloro-2-bute	0.185	0.211	-14.1	101	0.00	15.34
112		1,2,3-trichloropropane	0.185	0.203	-9.7	98	0.00	15.36
113		n-propylbenzene	2.522	2.915	-15.6	107	0.00	15.38
114		2-chlorotoluene	0.590	0.665	-12.7	100	0.00	15.54
115		4-chlorotoluene	1.675	1.782	-6.4	100	0.00	15.65
116		1,3,5-trimethylbenzene	2.115	2.346	-10.9	100	0.00	15.55
117		tert-butylbenzene	1.807	2.057	-13.8	101	0.00	15.92
118		pentachloroethane	0.584	0.644	-10.3	99	0.00	16.01
119		1,2,4-trimethylbenzene	2.135	2.400	-12.4	103	0.00	15.97
120		sec-butylbenzene	2.735	3.086	-12.8	101	0.00	16.14
121		1,3-dichlorobenzene	1.453	1.417	2.5	95	0.00	16.34
122		p-isopropyltoluene	2.459	2.706	-10.0	101	0.00	16.27
123		1,2,3-trimethylbenzene	----------	NA	----------			
124		1,4-dichlorobenzene	1.483	1.481	0.1	97	0.00	16.43
125		benzyl chloride	1.668	1.947	-16.7	109	0.00	16.56
126		1,2-dichlorobenzene	1.520	1.546	-1.7	95	0.00	16.85
127		n-butylbenzene	1.200	1.300	-8.3	103	0.00	16.71
128		1,2-dibromo-3-chloropropa	0.201	0.214	-6.5	96	0.00	17.68
129		1,3,5-trichlorobenzene	1.775	1.762	0.7	94	0.00	17.87
130		1,2,4-trichlorobenzene	1.959	1.982	-1.2	93	0.00	18.56
131		hexachlorobutadiene	0.846	0.841	0.6	91	0.00	18.68
132		naphthalene	4.652	4.750	-2.1	95	0.00	18.86
133		1,2,3-trichlorobenzene	1.999	2.052	-2.7	94	0.00	19.12
134		hexachloroethane	0.536	0.625	-16.6	99	0.00	17.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C137274.D M1C6103.M Wed Feb 25 11:25:48 2015 RPT1

6.7.2
6

Continuing Calibration Summary

Job Number: JB89010 **Sample:** V1C6111-CC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137489.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\1c\v1c6111\1C137489.D Vial: 2
Acq On : 2 Mar 2015 10:41 am Operator: shannont
Sample : cc6103-20 Inst : MS1C
Misc : MS81356,V1C6111,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Feb 25 11:17:39 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	89	-0.02	7.09
2		tertiary butyl alcohol	0.887	0.911	-2.7	90	-0.01	7.23
3		1,4-dioxane	0.072	0.071	1.4	89	0.00	11.33
4		ethanol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	85	0.00	9.59
6	m	Freon 115		----------NA----------				
7	m	Freon 143a		----------NA----------				
8	m	Freon 152a		----------NA----------				
9		chlorotrifluoroethene		----------NA----------				
10		chlorodifluoromethane	0.500	0.502	-0.4	89	-0.02	3.47
11		dichlorodifluoromethane	0.406	0.418	-3.0	85	0.00	3.47
12	m	Freon 142b		----------NA----------				
13		chloromethane	0.577	0.500	13.3	82	-0.02	3.76
14		vinyl chloride	0.587	0.536	8.7	86	-0.01	4.02
15		bromomethane	0.416	0.365	12.3	86	0.00	4.68
16		chloroethane	0.204	0.195	4.4	87	0.00	4.85
17		PENTANE		----------NA----------				
18		1,3-BUTADIENE		----------NA----------				
19		vinyl bromide		----------NA----------				
20		trichlorofluoromethane	0.508	0.488	3.9	85	0.00	5.38
21		ethyl ether	0.145	0.153	-5.5	85	0.00	5.82
22		freon 123a		----------NA----------				
23		acrolein	0.071	0.051	28.2#	64	0.00	6.10
24		1,1-dichloroethene	0.289	0.270	6.6	82	-0.02	6.26
25		acetone	0.111	0.104	6.3	80	0.01	6.37
26		acetonitrile	0.035	0.035	0.0	96	0.02	6.86
27		allyl chloride	0.138	0.136	1.4	81	0.00	6.86
28		iodomethane	0.697	0.688	1.3	86	0.00	6.56
29		carbon disulfide	1.144	1.029	10.1	84	0.00	6.69
30		2-CHLOROPROPANE	0.488	0.471	3.5	85	0.00	6.02
31		methylene chloride	0.344	0.323	6.1	83	0.00	7.08
32		methyl acetate	0.276	0.284	-2.9	91	0.01	6.89
33		methyl tert butyl ether	1.105	1.089	1.4	85	0.00	7.47
34		trans-1,2-dichloroethene	0.275	0.278	-1.1	89	0.00	7.51
		----------	True	Calc.	% Drift	----------		
35		1-CHLOROPROPANE	20.000	19.542	2.3	81	0.00	7.11
		----------	AvgRF	CCRF	% Dev	----------		
36		di-isopropyl ether	0.977	1.017	-4.1	91	0.00	8.17
37		2-butanone	0.040	0.033	17.5	72	0.01	9.00

Continuing Calibration Summary

Job Number: JB89010 **Sample:** V1C6111-CC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137489.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

38		1,1-dichloroethane	0.532	0.511	3.9	81	0.00	8.16
39		chloroprene	0.352	0.364	-3.4	87	0.00	8.28
40		acrylonitrile	0.112	0.114	-1.8	88	0.00	7.48
		----------	True	Calc.	% Drift	----------		
41		vinyl acetate	20.000	22.240	-11.2	95	0.00	8.19
		----------	AvgRF	CCRF	% Dev	----------		
42		ethyl tert-butyl ether	1.058	1.052	0.6	87	0.00	8.69
		----------	True	Calc.	% Drift	----------		
43		ethyl acetate	20.000	29.658	-48.3#	128	0.00	9.01
		----------	AvgRF	CCRF	% Dev	----------		
44		2,2-dichloropropane	0.570	0.556	2.5	84	0.00	8.99
45		cis-1,2-dichloroethene	0.315	0.321	-1.9	84	0.00	8.99
46		propionitrile	0.048	0.049	-2.1	84	0.00	9.08
47		methylacrylate	0.339	0.366	-8.0	92	0.01	9.10
48		bromochloromethane	0.175	0.184	-5.1	88	0.00	9.33
49		tetrahydrofuran	0.048	0.046	4.2	86	0.01	9.39
50		chloroform	0.349	0.346	0.9	82	0.00	9.41
51		T-BUTYL FORMATE	0.342	0.351	-2.6	92	0.00	9.44
52		isobutyl alcohol	0.021	0.020	4.8	87	0.00	9.95
53	S	dibromofluoromethane (s)	0.323	0.338	-4.6	91	0.00	9.63
54	S	1,2-dichloroethane-d4 (s)	0.363	0.346	4.7	82	0.00	10.07
55		freon 113	0.196	0.215	-9.7	94	-0.01	6.26
56		methacrylonitrile	0.128	0.123	3.9	83	0.00	9.29
57		1,1,1-trichloroethane	0.513	0.510	0.6	85	0.00	9.66
58		Cyclohexane	0.316	0.334	-5.7	90	-0.01	9.73
59	I	1,4-difluorobenzene	1.000	1.000	0.0	87	0.00	10.56
60		ISO-OCTANE	0.600	0.637	-6.2	90	0.00	10.15
61		epichlorohydrin	0.033	0.035	-6.1	91	0.00	11.91
62		n-butyl alcohol	0.012	0.012	0.0	95	0.00	10.75
63		carbon tetrachloride	0.448	0.418	6.7	83	0.00	9.88
64		1,1-dichloropropene	0.325	0.315	3.1	88	0.00	9.86
65		hexane	0.145	0.177	-22.1#	100	0.00	7.86
66		benzene	1.054	1.026	2.7	87	0.00	10.14
67		tert-amyl methyl ether	1.019	0.995	2.4	88	0.00	10.20
68		heptane	0.086	0.102	-18.6	99	0.00	10.35
69		isopropyl acetate	0.608	0.614	-1.0	88	0.00	10.11
70		1,2-dichloroethane	0.391	0.367	6.1	77	0.00	10.17
71		trichloroethene	0.270	0.272	-0.7	86	0.00	10.91
72		2-nitropropane	0.128	0.134	-4.7	90	0.00	11.76
73		2-chloroethyl vinyl ether	0.187	0.194	-3.7	88	0.00	11.78
74		methyl methacrylate	0.079	0.077	2.5	88	0.00	11.24
75		1,2-dichloropropane	0.280	0.273	2.5	86	0.00	11.19
76		dibromomethane	0.191	0.190	0.5	85	0.00	11.36
77		methylcyclohexane	0.269	0.297	-10.4	94	0.00	11.13
78		bromodichloromethane	0.403	0.394	2.2	84	0.00	11.51
79		ETHYL ACRYLATE		----------NA----------				
80		cis-1,3-dichloropropene	0.472	0.465	1.5	85	0.00	12.01
81	S	toluene-d8 (s)	1.002	1.096	-9.4	99	0.00	12.30
82		4-methyl-2-pentanone	0.130	0.139	-6.9	96	0.00	12.12
83		toluene	0.649	0.632	2.6	87	0.00	12.38
84		3-methyl-1-butanol	0.020	0.021	-5.0	95	0.00	12.17
85		trans-1,3-dichloropropene	0.437	0.448	-2.5	86	0.00	12.61
86		ethyl methacrylate	0.369	0.392	-6.2	94	0.00	12.62
87		1,1,2-trichloroethane	0.223	0.228	-2.2	86	0.00	12.84
88		2-hexanone	0.116	0.124	-6.9	90	0.00	13.04

Continuing Calibration Summary

Job Number: JB89010 **Sample:** V1C6111-CC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137489.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

89	I	chlorobenzene-d5	1.000	1.000	0.0	88	0.00	13.93
90		tetrachloroethene	0.273	0.277	-1.5	88	0.00	13.01
91		1,3-dichloropropane	0.450	0.458	-1.8	85	0.00	13.03
92		butyl acetate	0.214	0.218	-1.9	93	0.00	13.13
93		3,3-DIMETHYL-1-BUTANOL	0.057	0.059	-3.5	94	0.00	13.23
94		dibromochloromethane	0.387	0.397	-2.6	88	0.00	13.31
95		1,2-dibromoethane	0.314	0.326	-3.8	88	0.00	13.46
96		n-butyl ether		----------NA----------				
97		chlorobenzene	0.866	0.862	0.5	90	0.00	13.96
98		1,1,1,2-tetrachloroethane	0.393	0.395	-0.5	89	0.00	14.03
99		ethylbenzene	1.412	1.388	1.7	88	0.00	14.02
100		m,p-xylene	0.531	0.541	-1.9	91	0.00	14.14
101		o-xylene	0.571	0.576	-0.9	90	0.00	14.58
102		styrene	0.910	0.923	-1.4	90	0.00	14.60
103		Butyl Acrylate		----------NA----------				
104		bromoform	0.328	0.344	-4.9	91	0.00	14.88
105	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	16.40
106		isopropylbenzene	2.294	2.301	-0.3	87	0.00	14.95
107	S	4-bromofluorobenzene (s)	0.670	0.713	-6.4	92	0.00	15.17
108		cyclohexanone	0.110	0.082	25.5#	59	0.00	15.13
109		bromobenzene	0.676	0.723	-7.0	90	0.00	15.37
110		1,1,2,2-tetrachloroethane	0.740	0.777	-5.0	88	0.00	15.29
111		trans-1,4-dichloro-2-bute	0.185	0.154	16.8	67	0.00	15.34
112		1,2,3-trichloropropane	0.185	0.197	-6.5	86	0.00	15.36
113		n-propylbenzene	2.522	2.538	-0.6	88	0.00	15.39
114		2-chlorotoluene	0.590	0.613	-3.9	88	0.00	15.54
115		4-chlorotoluene	1.675	1.678	-0.2	88	0.00	15.65
116		1,3,5-trimethylbenzene	2.115	2.069	2.2	86	0.00	15.55
117		tert-butylbenzene	1.807	1.825	-1.0	88	0.00	15.92
118		pentachloroethane	0.584	0.585	-0.2	88	0.00	16.01
119		1,2,4-trimethylbenzene	2.135	2.085	2.3	87	0.00	15.97
120		sec-butylbenzene	2.735	2.697	1.4	86	0.00	16.14
121		1,3-dichlorobenzene	1.453	1.388	4.5	87	0.00	16.34
122		p-isopropyltoluene	2.459	2.371	3.6	87	0.00	16.27
123		1,2,3-trimethylbenzene		----------NA----------				
124		1,4-dichlorobenzene	1.483	1.442	2.8	87	0.00	16.43
125		benzyl chloride	1.668	1.583	5.1	84	0.00	16.56
126		1,2-dichlorobenzene	1.520	1.488	2.1	87	0.00	16.85
127		n-butylbenzene	1.200	1.119	6.7	84	0.00	16.71
128		1,2-dibromo-3-chloropropa	0.201	0.197	2.0	80	0.00	17.68
129		1,3,5-trichlorobenzene	1.775	1.650	7.0	86	0.00	17.87
130		1,2,4-trichlorobenzene	1.959	1.830	6.6	85	0.00	18.56
131		hexachlorobutadiene	0.846	0.784	7.3	84	0.00	18.68
132		naphthalene	4.652	4.487	3.5	85	0.00	18.86
133		1,2,3-trichlorobenzene	1.999	1.970	1.5	86	0.00	19.12
134		hexachloroethane	0.536	0.545	-1.7	87	0.00	17.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C137273.D M1C6103.M Mon Mar 02 15:09:59 2015

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 02 14:51:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

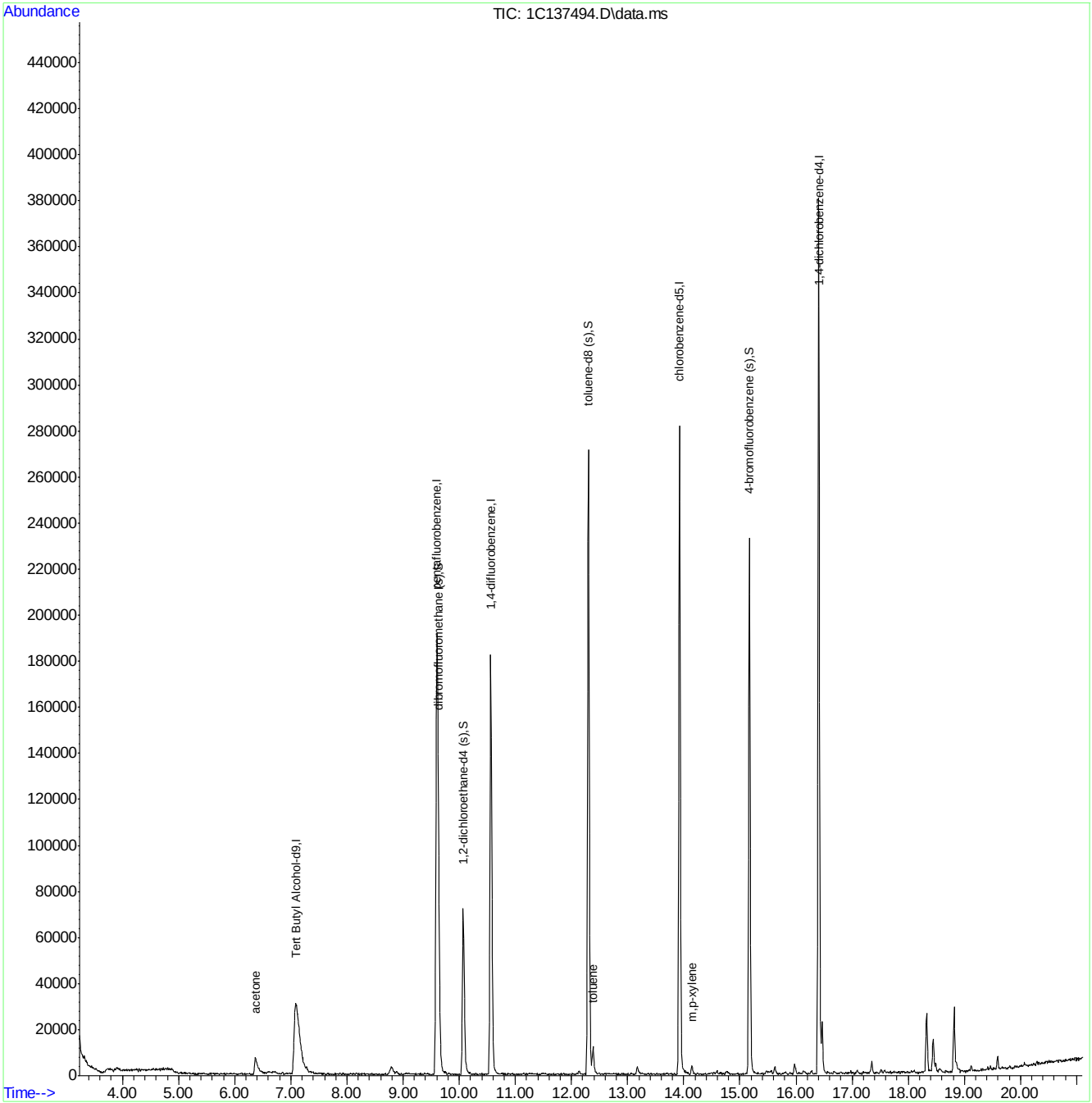
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.090	65	134322	500.00	ug/L	-0.02
5) pentafluorobenzene	9.600	168	190752	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.563	114	197219	50.00	ug/L	0.00
89) chlorobenzene-d5	13.926	117	184322	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.405	152	117500	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.626	113	63588	51.64	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.28%			
54) 1,2-dichloroethane-d4 (s)	10.071	65	65307	47.22	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 94.44%			
81) toluene-d8 (s)	12.299	98	214871	54.35	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 108.70%			
107) 4-bromofluorobenzene (s)	15.170	95	83122	52.79	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.58%			
Target Compounds						Qvalue
25) acetone	6.373	43	24069	56.76	ug/L	97
83) toluene	12.388	92	6544	2.56	ug/L	99
100) m,p-xylene	14.145	106	1297	0.66	ug/L #	60

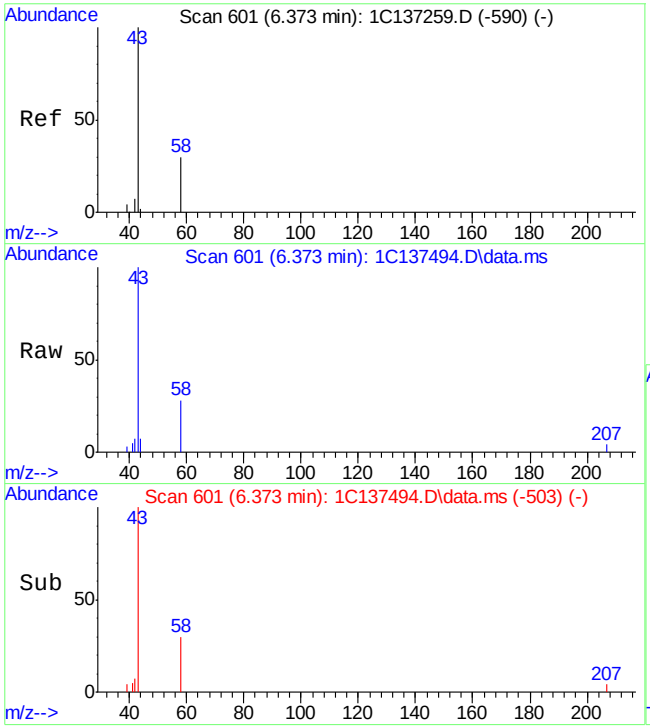
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 02 14:51:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

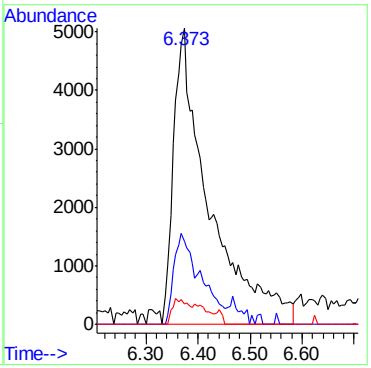


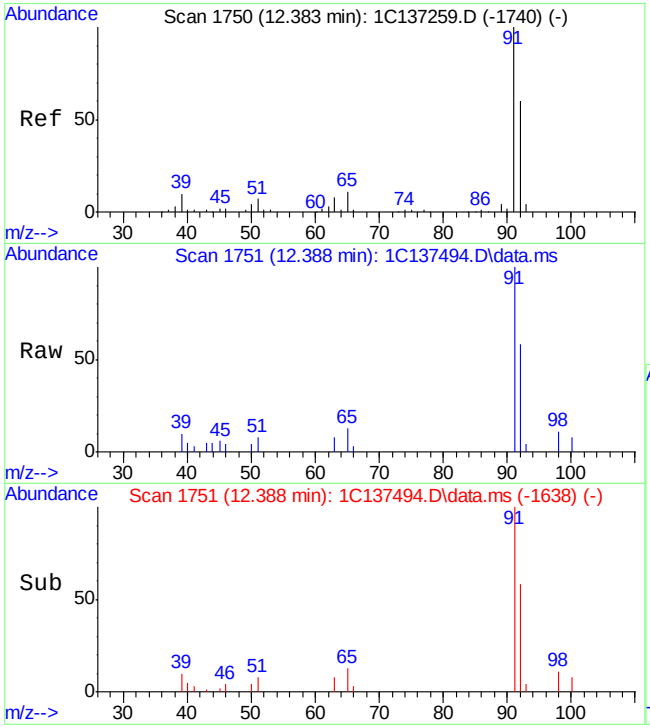


#25
acetone
Concen: 56.76 ug/L
RT: 6.373 min Scan# 601
Delta R.T. 0.010 min
Lab File: 1C137494.D
Acq: 2 Mar 2015 1:44 pm

Tgt Ion: 43 Resp: 24069

Ion	Ratio	Lower	Upper
43	100		
58	28.1	18.4	34.2
42	6.8	5.0	9.2

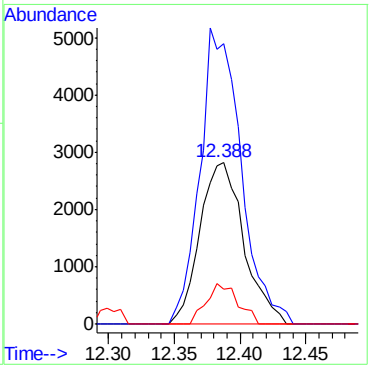


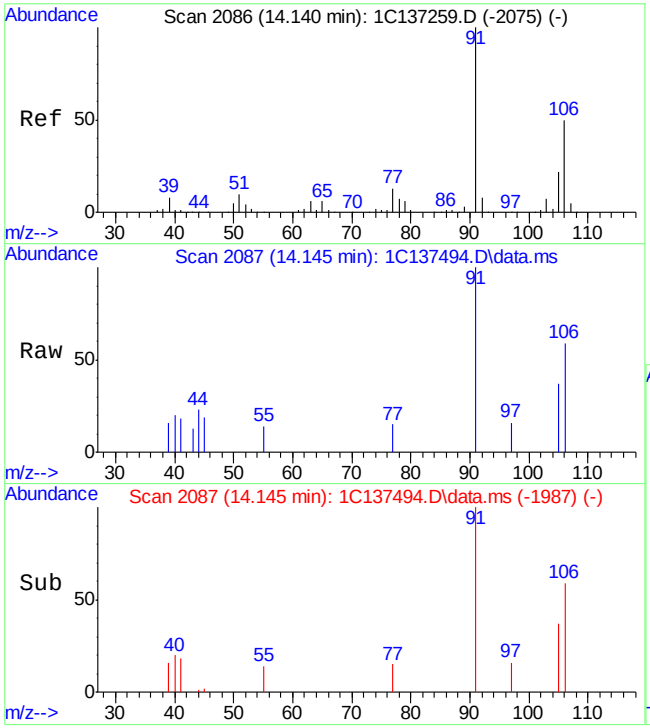


#83
toluene
Concen: 2.56 ug/L
RT: 12.388 min Scan# 1751
Delta R.T. 0.010 min
Lab File: 1C137494.D
Acq: 2 Mar 2015 1:44 pm

Tgt Ion: 92 Resp: 6544

Ion	Ratio	Lower	Upper
92	100		
91	172.9	142.3	202.3
65	21.7	0.0	49.6

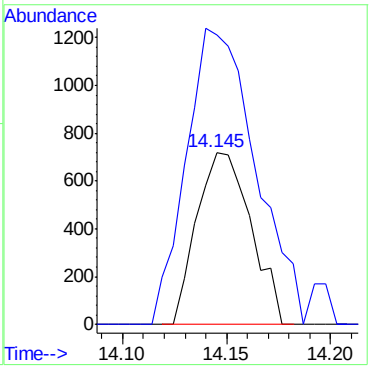




#100
m,p-xylene
Concen: 0.66 ug/L
RT: 14.145 min Scan# 2087
Delta R.T. 0.005 min
Lab File: 1C137494.D
Acq: 2 Mar 2015 1:44 pm

Tgt Ion:106 Resp: 1297

Ion	Ratio	Lower	Upper
106	100		
91	140.7	171.8	231.8#



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.05 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

Signal : TIC: 1C137494.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.742	87	98	101	rBV5	1492	3983	0.60%	0.095%
2	3.863	118	121	124	rBV3	1027	1247	0.19%	0.030%
3	3.910	124	130	132	rBV5	1227	2106	0.32%	0.050%
4	4.291	201	203	208	rBV2	1334	1598	0.24%	0.038%
5	4.333	208	211	219	rVV5	904	1989	0.30%	0.047%
6	4.710	276	283	285	rBV7	1195	2792	0.42%	0.066%
7	4.804	300	301	305	rVB4	1273	1073	0.16%	0.026%
8	5.160	368	369	381	rBV4	660	1322	0.20%	0.031%
9	5.395	411	414	418	rVV2	662	1117	0.17%	0.027%
10	5.442	422	423	434	rVV3	535	1285	0.19%	0.031%
11	5.568	441	447	448	rBV2	827	1243	0.19%	0.030%
12	5.688	467	470	477	rVB3	737	1381	0.21%	0.033%
13	5.751	477	482	484	rBV2	812	997	0.15%	0.024%
14	5.861	499	503	509	rBV3	699	1371	0.21%	0.033%
15	5.918	512	514	532	rVB4	733	1836	0.28%	0.044%
16	6.368	593	600	627	rBV2	7579	33401	5.01%	0.794%
17	6.608	637	646	654	rVB3	994	2648	0.40%	0.063%
18	6.682	654	660	665	rBV3	831	1944	0.29%	0.046%
19	6.849	688	692	697	rVB3	920	1052	0.16%	0.025%
20	7.084	724	737	792	rBV3	31046	227820	34.20%	5.416%
21	7.508	813	818	828	rVB5	749	1684	0.25%	0.040%
22	7.670	842	849	851	rVB3	786	1207	0.18%	0.029%
23	7.827	875	879	885	rBV2	522	1069	0.16%	0.025%
24	7.874	885	888	892	rVB3	827	1292	0.19%	0.031%
25	7.989	905	910	914	rVB3	520	959	0.14%	0.023%
26	8.162	940	943	951	rVB2	750	1508	0.23%	0.036%
27	8.235	954	957	962	rVB2	736	1238	0.19%	0.029%
28	8.308	969	971	975	rVB2	957	1084	0.16%	0.026%
29	8.361	975	981	987	rBV2	749	2221	0.33%	0.053%
30	8.789	1048	1063	1075	rBV3	3659	13738	2.06%	0.327%
31	9.041	1105	1111	1115	rVV3	775	1375	0.21%	0.033%
32	9.605	1207	1219	1243	rBV2	191510	666170	100.00%	15.837%
33	9.809	1256	1258	1267	rVB3	846	1505	0.23%	0.036%
34	10.071	1297	1308	1335	rBV	72267	178765	26.83%	4.250%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.05 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

35	10.563	1391	1402	1423	rVV	182449	416094	62.46%	9.892%
36	11.473	1567	1576	1587	rBV3	799	3206	0.48%	0.076%
37	11.750	1624	1629	1635	rBV3	579	1473	0.22%	0.035%
38	12.011	1675	1679	1686	rVB3	776	1174	0.18%	0.028%
39	12.137	1698	1703	1716	rVB3	1616	3290	0.49%	0.078%
40	12.299	1726	1734	1745	rBV	271485	540289	81.10%	12.844%
41	12.383	1745	1750	1764	rVB2	12161	28559	4.29%	0.679%
42	13.057	1873	1879	1891	rBV3	693	1746	0.26%	0.042%
43	13.172	1894	1901	1915	rVV2	3597	9113	1.37%	0.217%
44	13.926	2033	2045	2079	rVB	281765	523764	78.62%	12.452%
45	14.145	2079	2087	2095	rBV2	3773	7880	1.18%	0.187%
46	14.496	2149	2154	2158	rVB3	706	1307	0.20%	0.031%
47	14.532	2158	2161	2167	rBV5	1050	1332	0.20%	0.032%
48	14.595	2167	2173	2179	rVB3	1585	2795	0.42%	0.066%
49	14.762	2200	2205	2211	rBV6	1456	3196	0.48%	0.076%
50	15.061	2256	2262	2263	rBV	863	1008	0.15%	0.024%
51	15.170	2271	2283	2309	rVV	232828	424274	63.69%	10.086%
52	15.395	2322	2326	2332	rVB4	790	1208	0.18%	0.029%
53	15.479	2333	2342	2345	rBV3	1392	3007	0.45%	0.071%
54	15.625	2364	2370	2378	rVV2	3004	5834	0.88%	0.139%
55	15.814	2397	2406	2414	rVB6	1360	3909	0.59%	0.093%
56	15.892	2414	2421	2429	rBV3	1069	2654	0.40%	0.063%
57	15.971	2429	2436	2447	rBV6	4647	11141	1.67%	0.265%
58	16.054	2447	2452	2458	rVV3	747	1223	0.18%	0.029%
59	16.122	2462	2465	2481	rVB6	1481	4971	0.75%	0.118%
60	16.227	2481	2485	2489	rBV3	767	1195	0.18%	0.028%
61	16.279	2489	2495	2504	rVB5	1594	2979	0.45%	0.071%
62	16.405	2508	2519	2527	rBV	380599	657142	98.64%	15.622%
63	16.467	2527	2531	2546	rVB2	22664	43696	6.56%	1.039%
64	16.567	2546	2550	2552	rBV	1147	1124	0.17%	0.027%
65	16.677	2567	2571	2582	rBV6	1029	2713	0.41%	0.064%
66	16.802	2587	2595	2599	rBV3	919	2021	0.30%	0.048%
67	16.886	2605	2611	2615	rBV4	813	1393	0.21%	0.033%
68	16.975	2623	2628	2632	rVB3	1260	1270	0.19%	0.030%
69	17.001	2632	2633	2639	rVB4	1093	1567	0.24%	0.037%
70	17.090	2643	2650	2660	rBV3	1651	3615	0.54%	0.086%
71	17.163	2660	2664	2666	rVB3	900	1238	0.19%	0.029%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.05 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

72	17.200	2666	2671	2679	rBV5	1586	3598	0.54%	0.086%
73	17.278	2684	2686	2691	rBV2	726	980	0.15%	0.023%
74	17.351	2691	2700	2709	rBV3	5547	11084	1.66%	0.264%
75	17.430	2714	2715	2724	rVB4	830	1754	0.26%	0.042%
76	17.514	2724	2731	2737	rBV3	2062	3944	0.59%	0.094%
77	17.576	2737	2743	2755	rVB4	1396	3445	0.52%	0.082%
78	17.681	2760	2763	2767	rVB3	949	1100	0.17%	0.026%
79	17.749	2767	2776	2778	rBV6	1075	1822	0.27%	0.043%
80	17.780	2778	2782	2789	rVV4	629	1170	0.18%	0.028%
81	17.827	2789	2791	2798	rVB3	1058	1565	0.23%	0.037%
82	17.874	2798	2800	2805	rBV3	950	1476	0.22%	0.035%
83	17.911	2805	2807	2817	rVB2	1020	1725	0.26%	0.041%
84	18.052	2829	2834	2840	rVV3	1282	2508	0.38%	0.060%
85	18.105	2840	2844	2849	rVB6	1430	2337	0.35%	0.056%
86	18.199	2859	2862	2867	rBV3	721	1395	0.21%	0.033%
87	18.329	2875	2887	2902	rBV3	25950	53927	8.10%	1.282%
88	18.444	2902	2909	2916	rVV3	14057	28200	4.23%	0.670%
89	18.486	2916	2917	2926	rVB5	3772	5089	0.76%	0.121%
90	18.549	2926	2929	2930	rBV2	1196	1136	0.17%	0.027%
91	18.659	2949	2950	2964	rVB5	1323	3776	0.57%	0.090%
92	18.816	2972	2980	3002	rVB3	28442	62555	9.39%	1.487%
93	18.941	3002	3004	3020	rBV5	1143	3710	0.56%	0.088%
94	19.067	3020	3028	3029	rBV4	1176	2206	0.33%	0.052%
95	19.119	3034	3038	3052	rVV6	2405	4827	0.72%	0.115%
96	19.334	3075	3079	3092	rBV8	840	2698	0.41%	0.064%
97	19.417	3092	3095	3099	rVB3	1441	1707	0.26%	0.041%
98	19.590	3123	3128	3138	rVB	5530	10114	1.52%	0.240%
99	20.066	3216	3219	3249	rVB8	1611	4320	0.65%	0.103%
100	20.965	3258	3391	3412	rBV8	3555	91841	13.79%	2.183%

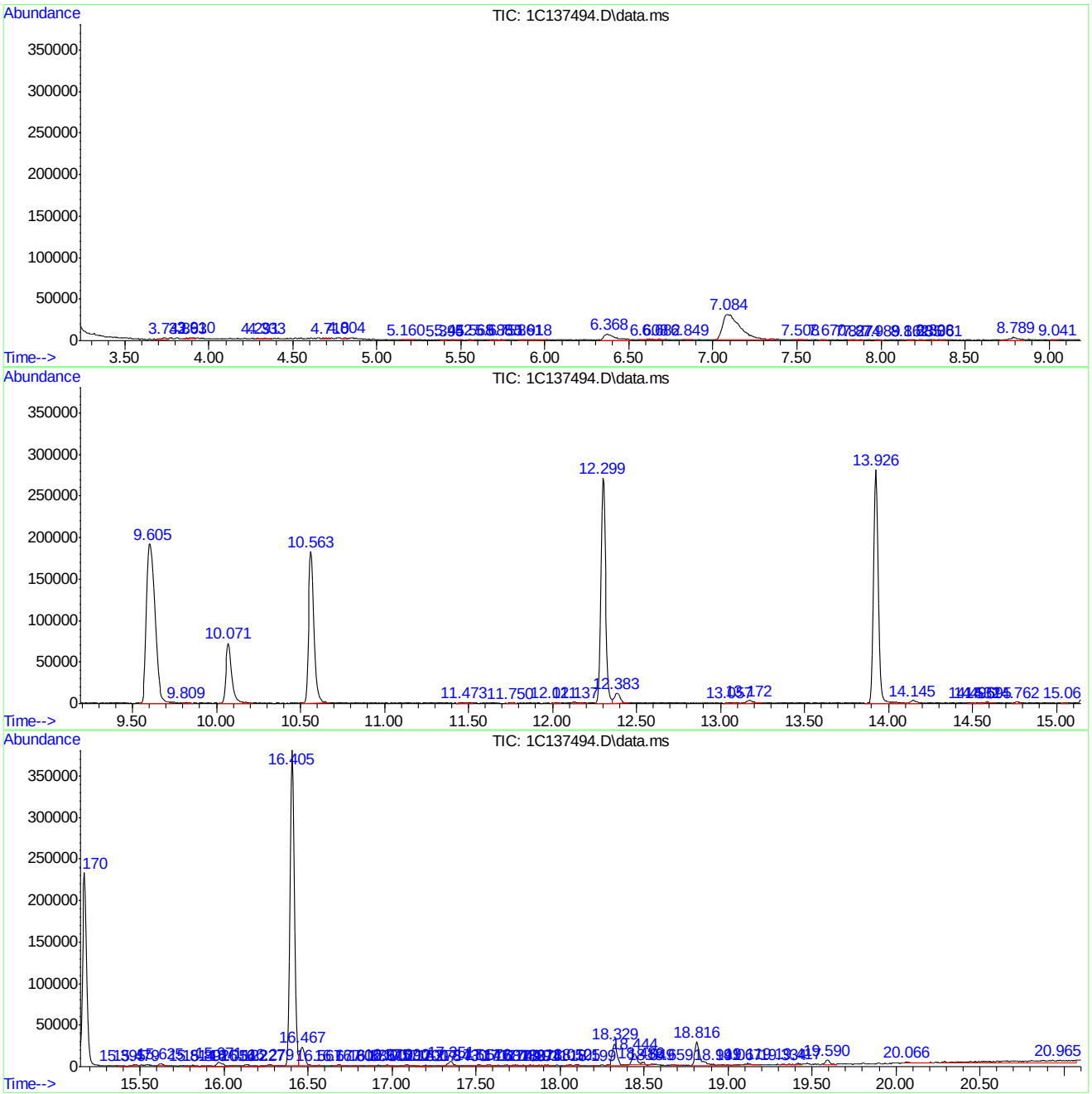
Sum of corrected areas: 4206429

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137494.D
Acq On : 2 Mar 2015 1:44 pm
Operator : shannont
Sample : JB89010-1
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 02 14:47:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

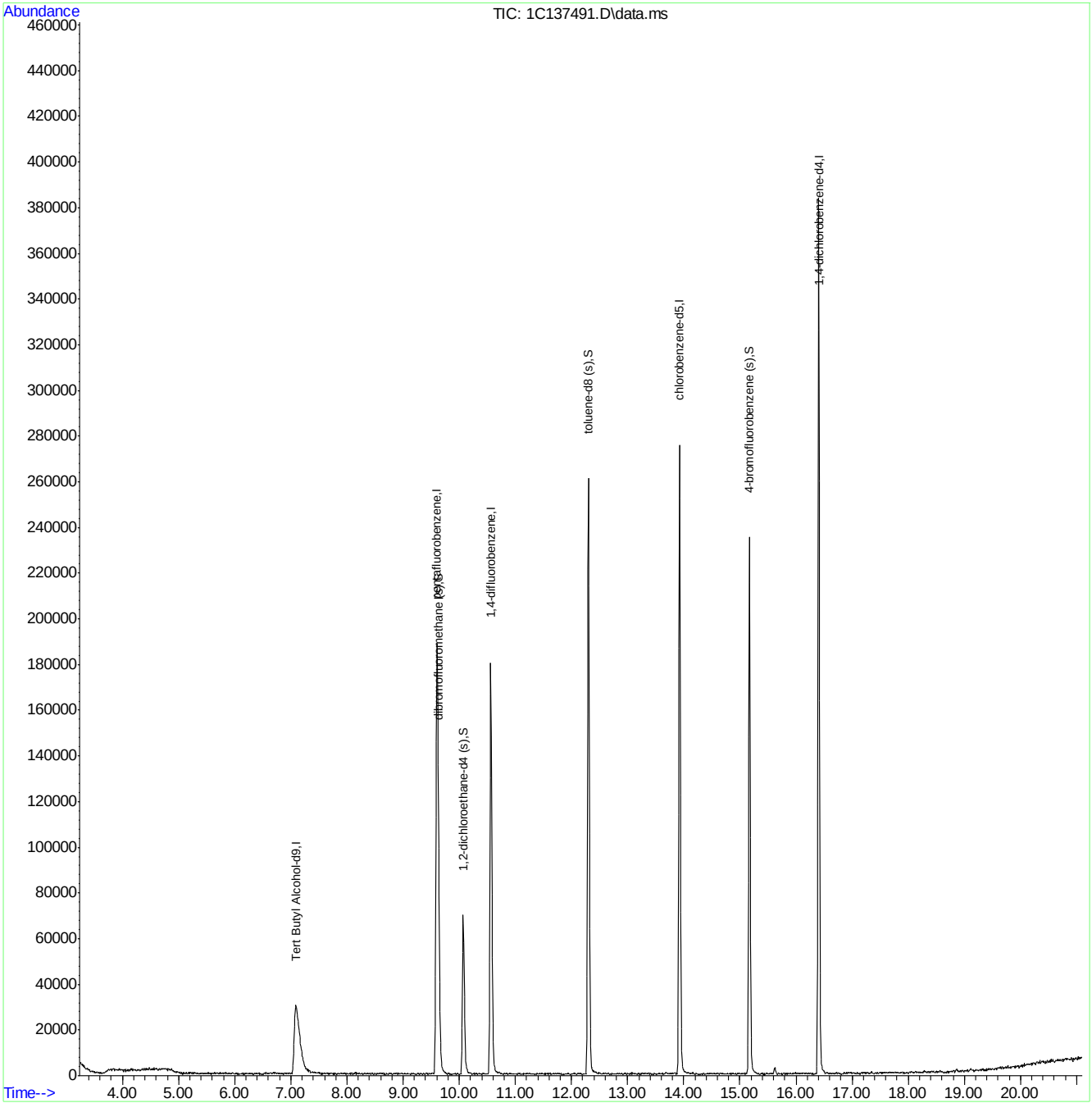
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.090	65	132388	500.00	ug/L	-0.02
5) pentafluorobenzene	9.600	168	186701	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.562	114	195428	50.00	ug/L	0.00
89) chlorobenzene-d5	13.926	117	182735	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.405	152	117524	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.626	113	63687	52.85	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.70%			
54) 1,2-dichloroethane-d4 (s)	10.071	65	64255	47.46	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 94.92%			
81) toluene-d8 (s)	12.299	98	212817	54.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 108.66%			
107) 4-bromofluorobenzene (s)	15.170	95	82849	52.60	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.20%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 02 14:47:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.648	76	80	83	rBV2	627	1039	0.16%	0.028%
2	3.706	85	91	94	rVV3	1014	1738	0.26%	0.046%
3	3.847	94	118	135	rVV7	1413	13776	2.09%	0.368%
4	3.946	135	137	145	rVB6	790	1174	0.18%	0.031%
5	4.056	151	158	163	rBV5	1228	2677	0.41%	0.071%
6	4.135	167	173	175	rVV3	793	1007	0.15%	0.027%
7	4.286	195	202	207	rBV6	809	1481	0.22%	0.040%
8	4.814	301	303	310	rBV4	1080	1782	0.27%	0.048%
9	5.045	344	347	353	rVB4	1231	1745	0.26%	0.047%
10	5.092	353	356	358	rBV2	1002	862	0.13%	0.023%
11	5.275	390	391	400	rBV4	771	933	0.14%	0.025%
12	5.541	440	442	449	rVB3	738	1244	0.19%	0.033%
13	5.672	463	467	475	rBV4	511	914	0.14%	0.024%
14	5.955	518	521	531	rVV5	544	1325	0.20%	0.035%
15	6.023	531	534	538	rVB3	713	869	0.13%	0.023%
16	6.200	563	568	570	rBV3	759	1095	0.17%	0.029%
17	6.248	576	577	586	rBV2	667	926	0.14%	0.025%
18	6.561	634	637	646	rBV3	926	1517	0.23%	0.040%
19	6.624	646	649	655	rVB4	589	879	0.13%	0.023%
20	6.896	697	701	706	rBV4	650	960	0.15%	0.026%
21	6.980	712	717	720	rBV3	597	994	0.15%	0.027%
22	7.090	724	738	783	rBV3	30139	217576	32.95%	5.805%
23	7.508	817	818	823	rVB4	898	954	0.14%	0.025%
24	7.838	877	881	886	rBV3	522	1022	0.15%	0.027%
25	7.994	909	911	916	rBV	781	880	0.13%	0.023%
26	8.141	933	939	942	rBV2	951	1180	0.18%	0.031%
27	8.376	976	984	989	rVV4	517	856	0.13%	0.023%
28	8.449	995	998	1004	rVB	634	846	0.13%	0.023%
29	8.643	1032	1035	1038	rVB4	816	895	0.14%	0.024%
30	8.706	1045	1047	1053	rVB3	646	875	0.13%	0.023%
31	8.842	1066	1073	1075	rBV3	621	935	0.14%	0.025%
32	8.920	1085	1088	1093	rBV3	722	926	0.14%	0.025%
33	9.182	1135	1138	1147	rVB2	763	1409	0.21%	0.038%
34	9.255	1147	1152	1155	rBV2	632	1101	0.17%	0.029%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

35	9.312	1158	1163	1166	rBV3	666	1081	0.16%	0.029%
36	9.459	1189	1191	1198	rBV3	692	848	0.13%	0.023%
37	9.516	1198	1202	1207	rVV	571	1015	0.15%	0.027%
38	9.600	1207	1218	1254	rVB2	188550	660388	100.00%	17.618%
39	9.799	1254	1256	1262	rVB2	740	934	0.14%	0.025%
40	9.877	1270	1271	1276	rBV	642	987	0.15%	0.026%
41	9.924	1276	1280	1284	rVB2	693	935	0.14%	0.025%
42	9.971	1284	1289	1295	rBV4	964	1262	0.19%	0.034%
43	10.071	1295	1308	1337	rBV2	69889	176866	26.78%	4.718%
44	10.353	1356	1362	1367	rBV2	651	1032	0.16%	0.028%
45	10.421	1372	1375	1379	rBV	651	890	0.13%	0.024%
46	10.562	1389	1402	1429	rBV	180100	416506	63.07%	11.112%
47	10.746	1435	1437	1444	rVB4	765	1014	0.15%	0.027%
48	11.106	1505	1506	1513	rBV3	501	933	0.14%	0.025%
49	11.541	1585	1589	1594	rBV3	813	1369	0.21%	0.037%
50	11.614	1600	1603	1607	rBV	770	892	0.14%	0.024%
51	11.677	1610	1615	1625	rVV4	571	1635	0.25%	0.044%
52	12.132	1696	1702	1714	rVB2	621	2009	0.30%	0.054%
53	12.299	1724	1734	1766	rVV	260809	534015	80.86%	14.247%
54	12.482	1767	1769	1776	rVB5	932	1384	0.21%	0.037%
55	12.644	1799	1800	1806	rVB3	827	1047	0.16%	0.028%
56	12.691	1806	1809	1813	rBV2	583	981	0.15%	0.026%
57	12.749	1816	1820	1830	rBV3	371	965	0.15%	0.026%
58	12.953	1856	1859	1864	rVB	720	1128	0.17%	0.030%
59	13.000	1864	1868	1875	rBV3	719	1188	0.18%	0.032%
60	13.078	1882	1883	1892	rBV3	878	1131	0.17%	0.030%
61	13.131	1892	1893	1900	rVB2	716	1048	0.16%	0.028%
62	13.183	1900	1903	1908	rBV3	622	1024	0.16%	0.027%
63	13.685	1993	1999	2008	rBV3	722	1679	0.25%	0.045%
64	13.926	2033	2045	2073	rBV	275630	518477	78.51%	13.832%
65	14.156	2088	2089	2098	rVB3	1015	1573	0.24%	0.042%
66	14.218	2098	2101	2108	rBV2	732	1201	0.18%	0.032%
67	14.360	2123	2128	2131	rVB2	777	1322	0.20%	0.035%
68	14.496	2153	2154	2164	rVB2	585	902	0.14%	0.024%
69	14.605	2170	2175	2180	rVB3	495	1060	0.16%	0.028%
70	14.642	2180	2182	2189	rBV3	598	888	0.13%	0.024%
71	15.170	2274	2283	2312	rVB	235169	425503	64.43%	11.352%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

72	15.631	2363	2371	2378	rVB5	3167	6704	1.02%	0.179%
73	15.683	2378	2381	2391	rBV3	666	1469	0.22%	0.039%
74	15.787	2396	2401	2405	rBV4	545	955	0.14%	0.025%
75	16.295	2497	2498	2502	rBV2	920	868	0.13%	0.023%
76	16.405	2511	2519	2543	rVV	383729	657659	99.59%	17.545%
77	16.603	2553	2557	2562	rVB3	550	962	0.15%	0.026%
78	16.661	2562	2568	2572	rBV3	708	1183	0.18%	0.032%
79	16.907	2611	2615	2618	rBV3	895	1119	0.17%	0.030%
80	16.970	2623	2627	2633	rVB5	631	951	0.14%	0.025%
81	17.168	2660	2665	2668	rBV5	929	1495	0.23%	0.040%
82	17.200	2668	2671	2677	rVV4	916	1552	0.24%	0.041%
83	17.493	2723	2727	2733	rVB4	591	1173	0.18%	0.031%
84	18.021	2825	2828	2832	rBV2	726	1234	0.19%	0.033%
85	18.052	2832	2834	2840	rVB2	737	1174	0.18%	0.031%
86	18.157	2853	2854	2859	rVB4	631	874	0.13%	0.023%
87	18.288	2875	2879	2881	rBV3	1071	1126	0.17%	0.030%
88	18.350	2888	2891	2895	rBV4	872	1200	0.18%	0.032%
89	18.387	2895	2898	2901	rVV3	1007	959	0.15%	0.026%
90	18.418	2901	2904	2907	rVV3	908	1070	0.16%	0.029%
91	18.444	2907	2909	2915	rVV4	716	1211	0.18%	0.032%
92	18.492	2915	2918	2923	rVB2	709	1215	0.18%	0.032%
93	18.701	2954	2958	2959	rVB3	1032	888	0.13%	0.024%
94	18.769	2966	2971	2975	rBV4	688	1289	0.20%	0.034%
95	18.805	2975	2978	2983	rVB4	1195	1991	0.30%	0.053%
96	18.868	2983	2990	2995	rBV3	1745	4257	0.64%	0.114%
97	19.119	3031	3038	3049	rBV8	1516	3466	0.52%	0.092%
98	19.422	3093	3096	3117	rVB8	746	2594	0.39%	0.069%
99	19.956	3188	3198	3202	rVB5	1378	3975	0.60%	0.106%
100	20.071	3218	3220	3246	rBV5	1784	8254	1.25%	0.220%

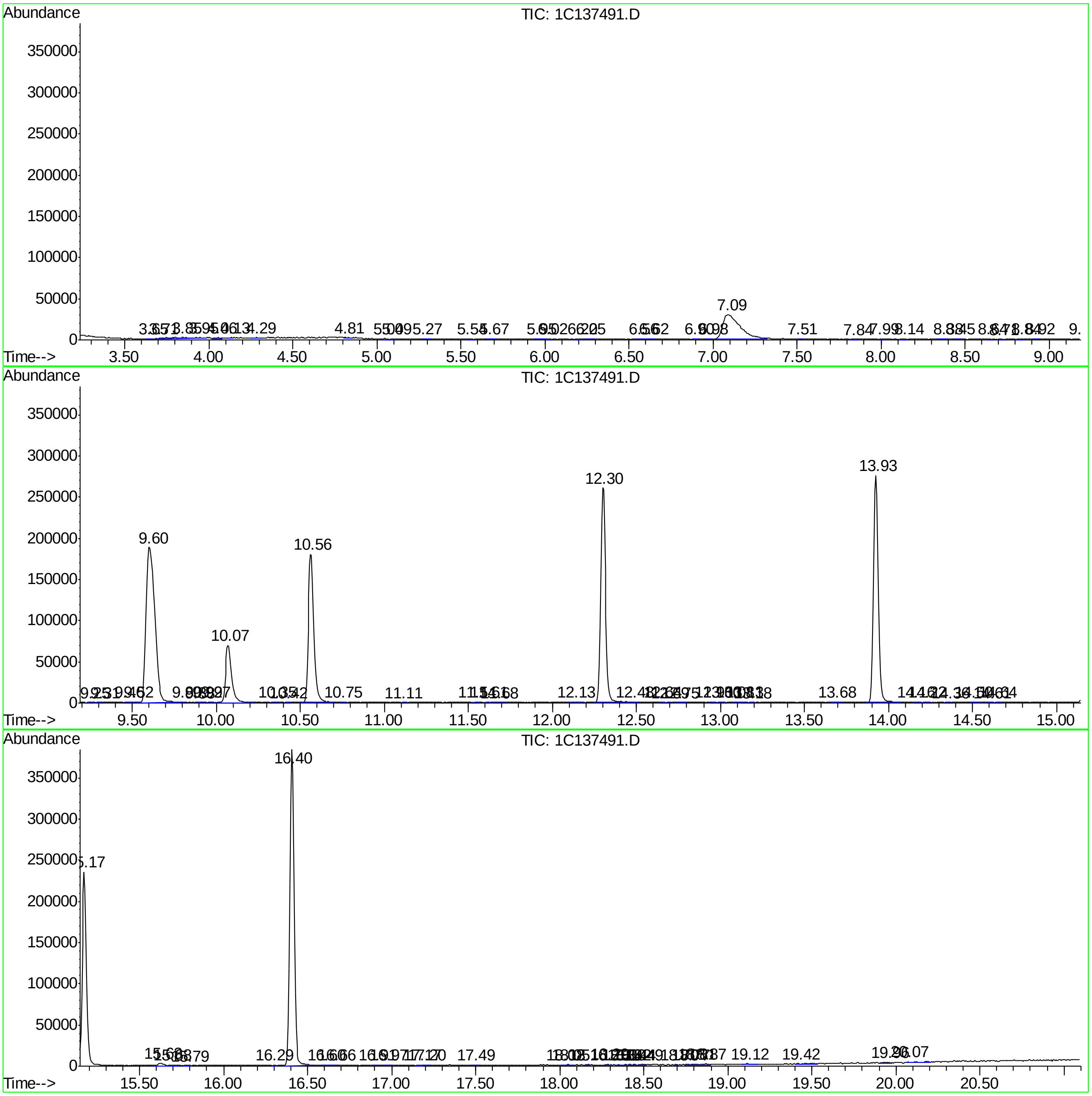
Sum of corrected areas: 3748371

LSC Report - Integrated Chromatogram

```
Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On    :  2 Mar 2015  11:50 am
Operator  : shannont
Sample    : mb
Misc      : MS81468,V1C6111,5,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title  : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library   : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p
```



Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.090	65	136395	500.00	ug/L		-0.02
5) pentafluorobenzene	9.595	168	191308	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	203495	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	187366	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	118526	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.621	113	65166	52.77	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.54%				
54) 1,2-dichloroethane-d4 (s)	10.066	65	66466	47.91	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.82%				
81) toluene-d8 (s)	12.299	98	220756	54.12	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 108.24%				
107) 4-bromofluorobenzene (s)	15.170	95	84520	53.21	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.42%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.231	59	61922	255.77	ug/L		70
3) 1,4-dioxane	11.326	88	24203	1224.11	ug/L		98
10) chlorodifluoromethane	3.476	51	71194	37.19	ug/L		94
11) dichlorodifluoromethane	3.460	85	69887	44.94	ug/L		97
13) chloromethane	3.769	50	102156	46.23	ug/L		100
14) vinyl chloride	4.030	62	108012	48.10	ug/L		99
15) bromomethane	4.673	94	77400	48.62	ug/L		96
16) chloroethane	4.851	64	45718	58.67	ug/L		96
20) trichlorofluoromethane	5.379	101	96369	49.61	ug/L		99
21) ethyl ether	5.819	74	30803	55.47	ug/L	#	83
23) acrolein	6.096	56	140519	513.85	ug/L		97
24) 1,1-dichloroethene	6.269	96	53006	47.87	ug/L		99
25) acetone	6.357	43	18287	43.00	ug/L		96
26) acetonitrile	6.854	40	66362	495.85	ug/L		98
27) allyl chloride	6.865	76	29942	56.56	ug/L		94
28) iodomethane	6.561	142	135834	50.94	ug/L		97
29) carbon disulfide	6.687	76	201639	46.05	ug/L		99
30) 2-CHLOROPROPANE	6.018	43	102333	54.83	ug/L		99
31) methylene chloride	7.084	84	64920	49.26	ug/L		99
32) methyl acetate	6.875	43	42064	39.85	ug/L		99
33) methyl tert butyl ether	7.461	73	406752	96.20	ug/L		88
34) trans-1,2-dichloroethene	7.503	96	53488	50.88	ug/L		86
35) 1-CHLOROPROPANE	7.116	42	91101	43.39	ug/L		94
36) di-isopropyl ether	8.157	45	182006	48.68	ug/L		96
37) 2-butanone	8.993	72	7451	48.92	ug/L	#	84
38) 1,1-dichloroethane	8.157	63	101365	49.82	ug/L		99
39) chloroprene	8.277	53	62628	46.45	ug/L		92
40) acrylonitrile	7.471	53	115851	269.59	ug/L		99
41) vinyl acetate	8.178	86	9584	57.68	ug/L		84
42) ethyl tert-butyl ether	8.690	59	194014	47.91	ug/L		95
43) ethyl acetate	9.014	45	10813	60.02	ug/L		96
44) 2,2-dichloropropane	8.983	77	109844	50.40	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) cis-1,2-dichloroethene	8.993	96	62361	51.75	ug/L	100
46) propionitrile	9.077	54	99310	536.86	ug/L	94
47) methylacrylate	9.093	55	70014	53.91	ug/L	99
48) bromochloromethane	9.328	128	34171	51.08	ug/L	95
49) tetrahydrofuran	9.381	72	8831	48.58	ug/L	85
50) chloroform	9.407	85	66494	49.83	ug/L	97
51) T-BUTYL FORMATE	9.443	59	69084	52.83	ug/L	99
52) isobutyl alcohol	9.935	43	38250	487.61	ug/L	98
55) freon 113	6.248	151	39228	52.20	ug/L	96
56) methacrylonitrile	9.281	67	24047	49.01	ug/L	92
57) 1,1,1-trichloroethane	9.658	97	100229	51.04	ug/L	94
58) Cyclohexane	9.731	84	66795	55.32	ug/L	93
60) ISO-OCTANE	10.149	57	119597	48.94	ug/L	97
61) epichlorohydrin	11.907	57	33845	253.39	ug/L	95
62) n-butyl alcohol	10.740	56	130432	2671.80	ug/L	97
63) carbon tetrachloride	9.877	117	89661	49.15	ug/L	93
64) 1,1-dichloropropene	9.857	75	67457	50.98	ug/L	98
65) hexane	7.859	57	26269	44.55	ug/L	98
66) benzene	10.134	78	210381	49.02	ug/L	99
67) tert-amyl methyl ether	10.196	73	194703	46.97	ug/L	98
68) heptane	10.348	57	17613	50.10	ug/L	95
69) isopropyl acetate	10.102	43	131995	53.36	ug/L	98
70) 1,2-dichloroethane	10.165	62	76340	47.98	ug/L	98
71) trichloroethene	10.908	95	54974	49.97	ug/L	97
72) 2-nitropropane	11.750	41	26115	50.00	ug/L	99
73) 2-chloroethyl vinyl ether	11.781	63	191531	251.87	ug/L	99
74) methyl methacrylate	11.232	100	16456	51.33	ug/L	98
75) 1,2-dichloropropane	11.185	63	56658	49.75	ug/L	100
76) dibromomethane	11.358	93	38407	49.31	ug/L	95
77) methylcyclohexane	11.127	83	54511	49.74	ug/L	90
78) bromodichloromethane	11.509	83	80264	48.98	ug/L	99
80) cis-1,3-dichloropropene	11.996	75	96401	50.23	ug/L	99
82) 4-methyl-2-pentanone	12.111	58	27162	51.43	ug/L	95
83) toluene	12.377	92	131369	49.76	ug/L	98
84) 3-methyl-1-butanol	12.163	55	83590	1026.45	ug/L	98
85) trans-1,3-dichloropropene	12.608	75	90298	50.72	ug/L	99
86) ethyl methacrylate	12.613	69	77775	51.85	ug/L	99
87) 1,1,2-trichloroethane	12.833	83	46042	50.69	ug/L	99
88) 2-hexanone	13.031	58	25249	53.50	ug/L	95
90) tetrachloroethene	13.005	164	51400	50.30	ug/L	97
91) 1,3-dichloropropane	13.026	76	87296	51.77	ug/L	99
92) butyl acetate	13.120	56	40066	50.07	ug/L	98
93) 3,3-DIMETHYL-1-BUTANOL	13.230	57	109873	510.37	ug/L	99
94) dibromochloromethane	13.308	129	74188	51.10	ug/L	98
95) 1,2-dibromoethane	13.460	107	60883	51.81	ug/L	96
97) chlorobenzene	13.957	112	164466	50.70	ug/L	99
98) 1,1,1,2-tetrachloroethane	14.025	131	76737	52.06	ug/L	98
99) ethylbenzene	14.020	91	262584	49.62	ug/L	98
100) m,p-xylene	14.135	106	206592	103.76	ug/L	98
101) o-xylene	14.585	106	109465	51.19	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

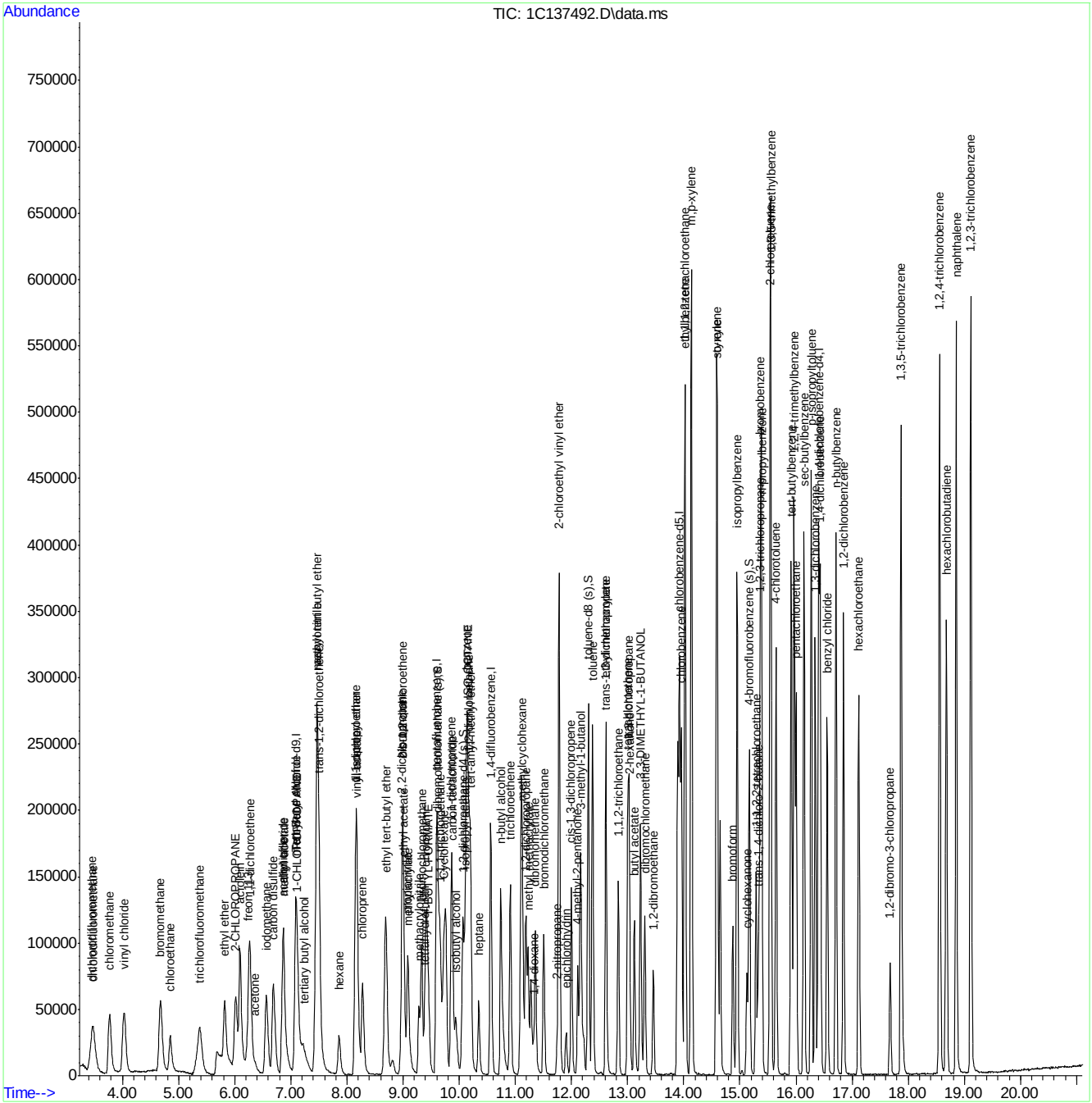
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) styrene	14.595	104	179465	52.63	ug/L	99
104) bromoform	14.878	173	63957	52.02	ug/L	95
106) isopropylbenzene	14.951	105	289386	53.23	ug/L	99
108) cyclohexanone	15.129	55	38125	145.73	ug/L	98
109) bromobenzene	15.369	156	88785	55.42	ug/L	93
110) 1,1,2,2-tetrachloroethane	15.291	83	87431	49.82	ug/L	99
111) trans-1,4-dichloro-2-b...	15.333	53	21197	48.23	ug/L	86
112) 1,2,3-trichloropropane	15.359	110	22958	52.38	ug/L	87
113) n-propylbenzene	15.390	91	321104	53.70	ug/L	99
114) 2-chlorotoluene	15.542	126	75707	54.11	ug/L	93
115) 4-chlorotoluene	15.646	91	202666	51.05	ug/L	97
116) 1,3,5-trimethylbenzene	15.552	105	259889	51.83	ug/L	99
117) tert-butylbenzene	15.913	119	230561	53.83	ug/L	97
118) pentachloroethane	16.007	167	73892	53.39	ug/L	97
119) 1,2,4-trimethylbenzene	15.965	105	269372	53.22	ug/L	98
120) sec-butylbenzene	16.143	105	337673	52.08	ug/L	99
121) 1,3-dichlorobenzene	16.342	146	165010	47.91	ug/L	100
122) p-isopropyltoluene	16.274	119	306434	52.57	ug/L	99
124) 1,4-dichlorobenzene	16.431	146	173056	49.22	ug/L	96
125) benzyl chloride	16.556	91	213325	53.96	ug/L	98
126) 1,2-dichlorobenzene	16.849	146	178461	49.53	ug/L	98
127) n-butylbenzene	16.713	92	145286	51.08	ug/L	98
128) 1,2-dibromo-3-chloropr...	17.676	75	23446	49.29	ug/L	85
129) 1,3,5-trichlorobenzene	17.874	180	201643	47.92	ug/L	100
130) 1,2,4-trichlorobenzene	18.560	180	228569	49.21	ug/L	98
131) hexachlorobutadiene	18.680	225	99234	49.48	ug/L	97
132) naphthalene	18.858	128	533066	48.34	ug/L	99
133) 1,2,3-trichlorobenzene	19.119	180	241276	50.92	ug/L	99
134) hexachloroethane	17.121	201	72242	56.84	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.090	65	138843	500.00	ug/L		-0.02
5) pentafluorobenzene	9.600	168	183607	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	194576	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	185106	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	117980	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.626	113	63286	53.40	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.80%				
54) 1,2-dichloroethane-d4 (s)	10.071	65	64683	48.59	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 97.18%				
81) toluene-d8 (s)	12.299	98	216247	55.45	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 110.90%				
107) 4-bromofluorobenzene (s)	15.170	95	83929	53.08	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.16%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.226	59	63594	258.05	ug/L		87
3) 1,4-dioxane	11.326	88	24284	1206.55	ug/L		93
10) chlorodifluoromethane	3.481	51	94912	51.66	ug/L		91
11) dichlorodifluoromethane	3.465	85	80139	53.69	ug/L		99
13) chloromethane	3.768	50	100833	47.55	ug/L		99
14) vinyl chloride	4.025	62	107362	49.81	ug/L		99
15) bromomethane	4.673	94	72595	47.51	ug/L		98
16) chloroethane	4.856	64	39507	52.83	ug/L		97
20) trichlorofluoromethane	5.369	101	100723	54.03	ug/L		97
21) ethyl ether	5.824	74	27947	52.44	ug/L		98
23) acrolein	6.101	56	100699	383.68	ug/L		95
24) 1,1-dichloroethene	6.274	96	54858	51.62	ug/L		98
25) acetone	6.363	43	17122	41.95	ug/L	#	94
26) acetonitrile	6.844	40	65046	506.40	ug/L		98
27) allyl chloride	6.870	76	27053	53.25	ug/L		90
28) iodomethane	6.567	142	134955	52.74	ug/L		96
29) carbon disulfide	6.687	76	200817	47.79	ug/L		99
30) 2-CHLOROPROPANE	6.023	43	90299	50.41	ug/L		99
31) methylene chloride	7.090	84	62688	49.57	ug/L		96
32) methyl acetate	6.880	43	52269	51.59	ug/L		98
33) methyl tert butyl ether	7.466	73	205038	50.53	ug/L		95
34) trans-1,2-dichloroethene	7.508	96	52962	52.49	ug/L		92
35) 1-CHLOROPROPANE	7.121	42	93448	46.55	ug/L		92
36) di-isopropyl ether	8.162	45	185325	51.65	ug/L		98
37) 2-butanone	8.993	72	7221	49.40	ug/L	#	88
38) 1,1-dichloroethane	8.162	63	96650	49.49	ug/L		97
39) chloroprene	8.287	53	69129	53.42	ug/L		94
40) acrylonitrile	7.471	53	104524	253.44	ug/L		98
41) vinyl acetate	8.183	86	7353	47.99	ug/L		81
42) ethyl tert-butyl ether	8.695	59	201053	51.73	ug/L		93
43) ethyl acetate	9.014	45	9588	55.77	ug/L		80
44) 2,2-dichloropropane	8.988	77	109588	52.39	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	cis-1,2-dichloroethene	8.993	96	61502	53.18	ug/L	97
46)	propionitrile	9.082	54	93867	528.72	ug/L	98
47)	methylacrylate	9.093	55	65460	52.52	ug/L	98
48)	bromochloromethane	9.333	128	34388	53.56	ug/L	95
49)	tetrahydrofuran	9.386	72	8555	49.04	ug/L	88
50)	chloroform	9.412	85	64155	50.10	ug/L	99
51)	T-BUTYL FORMATE	9.448	59	66763	53.20	ug/L	97
52)	isobutyl alcohol	9.935	43	40401	536.63	ug/L	98
55)	freon 113	6.258	151	45958	63.72	ug/L	95
56)	methacrylonitrile	9.281	67	24147	51.28	ug/L	96
57)	1,1,1-trichloroethane	9.663	97	98541	52.28	ug/L	95
58)	Cyclohexane	9.731	84	69432	59.91	ug/L	88
60)	ISO-OCTANE	10.155	57	159281	68.16	ug/L	95
61)	epichlorohydrin	11.907	57	34277	268.39	ug/L	98
62)	n-butyl alcohol	10.740	56	129207	2768.03	ug/L	98
63)	carbon tetrachloride	9.877	117	89288	51.19	ug/L	98
64)	1,1-dichloropropene	9.856	75	66275	52.39	ug/L	97
65)	hexane	7.864	57	39872	70.73	ug/L	97
66)	benzene	10.139	78	225993	55.08	ug/L	100
67)	tert-amyl methyl ether	10.202	73	202511	51.09	ug/L	99
68)	heptane	10.353	57	22810	67.86	ug/L	92
69)	isopropyl acetate	10.107	43	123132	52.06	ug/L	96
70)	1,2-dichloroethane	10.165	62	72915	47.93	ug/L	99
71)	trichloroethene	10.913	95	53410	50.77	ug/L	96
72)	2-nitropropane	11.750	41	24891	49.84	ug/L	96
73)	2-chloroethyl vinyl ether	11.781	63	162721	223.79	ug/L	99
74)	methyl methacrylate	11.227	100	15651	51.06	ug/L	97
75)	1,2-dichloropropane	11.190	63	54859	50.38	ug/L	99
76)	dibromomethane	11.358	93	37846	50.82	ug/L	99
77)	methylcyclohexane	11.127	83	68241	65.12	ug/L	99
78)	bromodichloromethane	11.509	83	78691	50.22	ug/L	99
80)	cis-1,3-dichloropropene	12.001	75	93350	50.87	ug/L	95
82)	4-methyl-2-pentanone	12.116	58	26990	53.45	ug/L	97
83)	toluene	12.377	92	129082	51.13	ug/L	98
84)	3-methyl-1-butanol	12.163	55	88073	1131.08	ug/L	98
85)	trans-1,3-dichloropropene	12.613	75	89117	52.35	ug/L	99
86)	ethyl methacrylate	12.618	69	75978	52.98	ug/L	99
87)	1,1,2-trichloroethane	12.832	83	45125	51.96	ug/L	98
88)	2-hexanone	13.036	58	24630	54.58	ug/L	96
90)	tetrachloroethene	13.005	164	52471	51.97	ug/L	97
91)	1,3-dichloropropane	13.026	76	83898	50.36	ug/L	99
92)	butyl acetate	13.125	56	40707	51.49	ug/L	96
93)	3,3-DIMETHYL-1-BUTANOL	13.230	57	117103	550.59	ug/L	100
94)	dibromochloromethane	13.308	129	72699	50.69	ug/L	98
95)	1,2-dibromoethane	13.460	107	59456	51.22	ug/L	99
97)	chlorobenzene	13.957	112	159829	49.87	ug/L	98
98)	1,1,1,2-tetrachloroethane	14.030	131	76210	52.33	ug/L	100
99)	ethylbenzene	14.025	91	355542	68.01	ug/L	99
100)	m,p-xylene	14.135	106	538385	273.70	ug/L	97
101)	o-xylene	14.585	106	109292	51.73	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

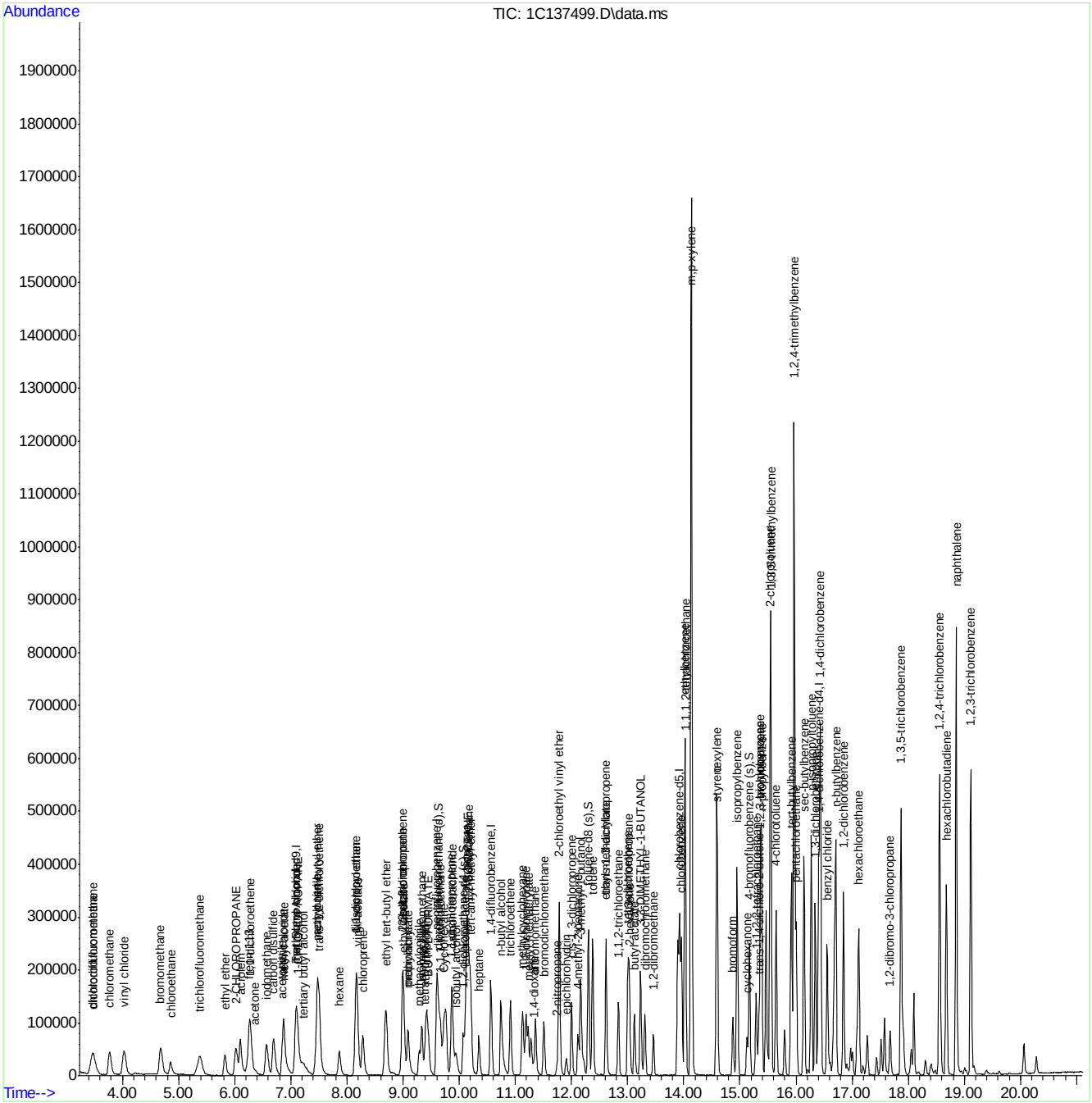
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) styrene	14.600	104	174833	51.89	ug/L		97
104) bromoform	14.877	173	62633	51.57	ug/L		93
106) isopropylbenzene	14.951	105	300207	55.47	ug/L		98
108) cyclohexanone	15.129	55	35911	137.90	ug/L		97
109) bromobenzene	15.369	156	85010	53.31	ug/L		93
110) 1,1,2,2-tetrachloroethane	15.291	83	89158	51.04	ug/L		99
111) trans-1,4-dichloro-2-b...	15.338	53	18350	41.94	ug/L	#	71
112) 1,2,3-trichloropropane	15.364	110	22591	51.78	ug/L		92
113) n-propylbenzene	15.390	91	315092	52.94	ug/L		99
114) 2-chlorotoluene	15.542	126	75234	54.02	ug/L		99
115) 4-chlorotoluene	15.646	91	195082	49.37	ug/L		98
116) 1,3,5-trimethylbenzene	15.552	105	404745	81.09	ug/L		97
117) tert-butylbenzene	15.918	119	232001	54.41	ug/L		97
118) pentachloroethane	16.007	167	73597	53.42	ug/L		96
119) 1,2,4-trimethylbenzene	15.965	105	761656	151.16	ug/L		99
120) sec-butylbenzene	16.143	105	340520	52.76	ug/L		98
121) 1,3-dichlorobenzene	16.342	146	165283	48.22	ug/L		99
122) p-isopropyltoluene	16.274	119	306169	52.77	ug/L		99
124) 1,4-dichlorobenzene	16.431	146	171346	48.96	ug/L		99
125) benzyl chloride	16.556	91	200617	50.98	ug/L		99
126) 1,2-dichlorobenzene	16.849	146	175906	49.05	ug/L		97
127) n-butylbenzene	16.713	92	144504	51.04	ug/L		98
128) 1,2-dibromo-3-chloropr...	17.676	75	22715	47.97	ug/L		96
129) 1,3,5-trichlorobenzene	17.874	180	207603	49.56	ug/L		100
130) 1,2,4-trichlorobenzene	18.560	180	232438	50.28	ug/L		98
131) hexachlorobutadiene	18.680	225	103792	51.99	ug/L		98
132) naphthalene	18.858	128	806681	73.49	ug/L		99
133) 1,2,3-trichlorobenzene	19.119	180	242731	51.47	ug/L		100
134) hexachloroethane	17.121	201	71273	56.34	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.111	65	133846	500.00	ug/L	0.00
5) pentafluorobenzene	9.600	168	188399	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.563	114	197637	50.00	ug/L	0.00
89) chlorobenzene-d5	13.926	117	182506	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.405	152	114715	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.626	113	63096	51.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.76%			
54) 1,2-dichloroethane-d4 (s)	10.071	65	63042	46.15	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 92.30%			
81) toluene-d8 (s)	12.299	98	217763	54.97	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 109.94%			
107) 4-bromofluorobenzene (s)	15.171	95	83368	54.23	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.46%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.221	59	60932	256.48	ug/L	75
3) 1,4-dioxane	11.332	88	26846	1383.64	ug/L	96
10) chlorodifluoromethane	3.476	51	89103	47.26	ug/L	94
11) dichlorodifluoromethane	3.455	85	81291	53.08	ug/L	99
13) chloromethane	3.769	50	92203	42.37	ug/L	97
14) vinyl chloride	4.020	62	100502	45.44	ug/L	99
15) bromomethane	4.679	94	68534	43.71	ug/L	97
16) chloroethane	4.846	64	36672	47.79	ug/L	98
20) trichlorofluoromethane	5.374	101	98436	51.46	ug/L	98
21) ethyl ether	5.819	74	26791	48.99	ug/L	99
23) acrolein	6.091	56	96821	359.52	ug/L	99
24) 1,1-dichloroethene	6.274	96	49907	45.77	ug/L	96
25) acetone	6.373	43	17650	42.14	ug/L	95
26) acetonitrile	6.854	40	61494	466.57	ug/L	98
27) allyl chloride	6.870	76	25015	47.98	ug/L	92
28) iodomethane	6.556	142	125013	47.61	ug/L	97
29) carbon disulfide	6.687	76	171628	39.80	ug/L	98
30) 2-CHLOROPROPANE	6.018	43	84237	45.83	ug/L	99
31) methylene chloride	7.085	84	58132	44.79	ug/L	92
32) methyl acetate	6.881	43	50544	48.62	ug/L	99
33) methyl tert butyl ether	7.466	73	196318	47.15	ug/L	94
34) trans-1,2-dichloroethene	7.503	96	49104	47.43	ug/L	89
35) 1-CHLOROPROPANE	7.116	42	89396	43.23	ug/L	98
36) di-isopropyl ether	8.162	45	178788	48.56	ug/L	98
37) 2-butanone	8.994	72	7207	48.05	ug/L	92
38) 1,1-dichloroethane	8.162	63	92877	46.35	ug/L	99
39) chloroprene	8.282	53	67037	50.48	ug/L	96
40) acrylonitrile	7.472	53	101276	239.31	ug/L	96
41) vinyl acetate	8.183	86	7234	46.40	ug/L	84
42) ethyl tert-butyl ether	8.690	59	192141	48.18	ug/L	95
43) ethyl acetate	9.015	45	9595	54.50	ug/L	90
44) 2,2-dichloropropane	8.983	77	103024	48.00	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	cis-1,2-dichloroethene	8.994	96	58008	48.88	ug/L	96
46)	propionitrile	9.083	54	93610	513.86	ug/L	96
47)	methylacrylate	9.093	55	63828	49.91	ug/L	96
48)	bromochloromethane	9.334	128	31729	48.16	ug/L	96
49)	tetrahydrofuran	9.386	72	8465	47.29	ug/L	88
50)	chloroform	9.412	85	61555	46.85	ug/L	97
51)	T-BUTYL FORMATE	9.443	59	62136	48.25	ug/L	96
52)	isobutyl alcohol	9.935	43	42941	555.86	ug/L	93
55)	freon 113	6.258	151	44877	60.64	ug/L	91
56)	methacrylonitrile	9.281	67	23571	48.78	ug/L	93
57)	1,1,1-trichloroethane	9.663	97	93262	48.22	ug/L	95
58)	Cyclohexane	9.731	84	70049	58.91	ug/L	86
60)	ISO-OCTANE	10.150	57	140200	59.07	ug/L	95
61)	epichlorohydrin	11.907	57	34705	267.53	ug/L	91
62)	n-butyl alcohol	10.741	56	131669	2777.09	ug/L	98
63)	carbon tetrachloride	9.878	117	84424	47.65	ug/L	100
64)	1,1-dichloropropene	9.862	75	62735	48.82	ug/L	98
65)	hexane	7.859	57	39771	69.45	ug/L	97
66)	benzene	10.139	78	215115	51.61	ug/L	98
67)	tert-amyl methyl ether	10.197	73	196594	48.83	ug/L	98
68)	heptane	10.348	57	21403	62.68	ug/L	95
69)	isopropyl acetate	10.108	43	117446	48.88	ug/L	98
70)	1,2-dichloroethane	10.165	62	71046	45.98	ug/L	98
71)	trichloroethene	10.913	95	50446	47.21	ug/L	95
72)	2-nitropropane	11.750	41	22418	44.19	ug/L	86
73)	2-chloroethyl vinyl ether	11.781	63	127815	173.06	ug/L	99
74)	methyl methacrylate	11.232	100	15319	49.20	ug/L	93
75)	1,2-dichloropropane	11.190	63	52238	47.23	ug/L	100
76)	dibromomethane	11.358	93	35988	47.57	ug/L	96
77)	methylcyclohexane	11.128	83	66266	62.25	ug/L	93
78)	bromodichloromethane	11.509	83	74191	46.61	ug/L	100
80)	cis-1,3-dichloropropene	12.001	75	88513	47.49	ug/L	98
82)	4-methyl-2-pentanone	12.116	58	26967	52.58	ug/L	97
83)	toluene	12.378	92	122905	47.93	ug/L	98
84)	3-methyl-1-butanol	12.163	55	88868	1123.61	ug/L	97
85)	trans-1,3-dichloropropene	12.608	75	85338	49.36	ug/L	94
86)	ethyl methacrylate	12.618	69	75704	51.97	ug/L	98
87)	1,1,2-trichloroethane	12.833	83	42702	48.41	ug/L	97
88)	2-hexanone	13.037	58	24579	53.62	ug/L	94
90)	tetrachloroethene	13.005	164	49095	49.32	ug/L	97
91)	1,3-dichloropropane	13.031	76	82035	49.94	ug/L	98
92)	butyl acetate	13.120	56	40339	51.75	ug/L	96
93)	3,3-DIMETHYL-1-BUTANOL	13.230	57	114275	544.95	ug/L	100
94)	dibromochloromethane	13.309	129	69947	49.46	ug/L	97
95)	1,2-dibromoethane	13.460	107	57601	50.33	ug/L	99
97)	chlorobenzene	13.957	112	151241	47.87	ug/L	100
98)	1,1,1,2-tetrachloroethane	14.030	131	71399	49.73	ug/L	100
99)	ethylbenzene	14.020	91	336909	65.36	ug/L	98
100)	m,p-xylene	14.135	106	513808	264.93	ug/L	96
101)	o-xylene	14.585	106	102815	49.36	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

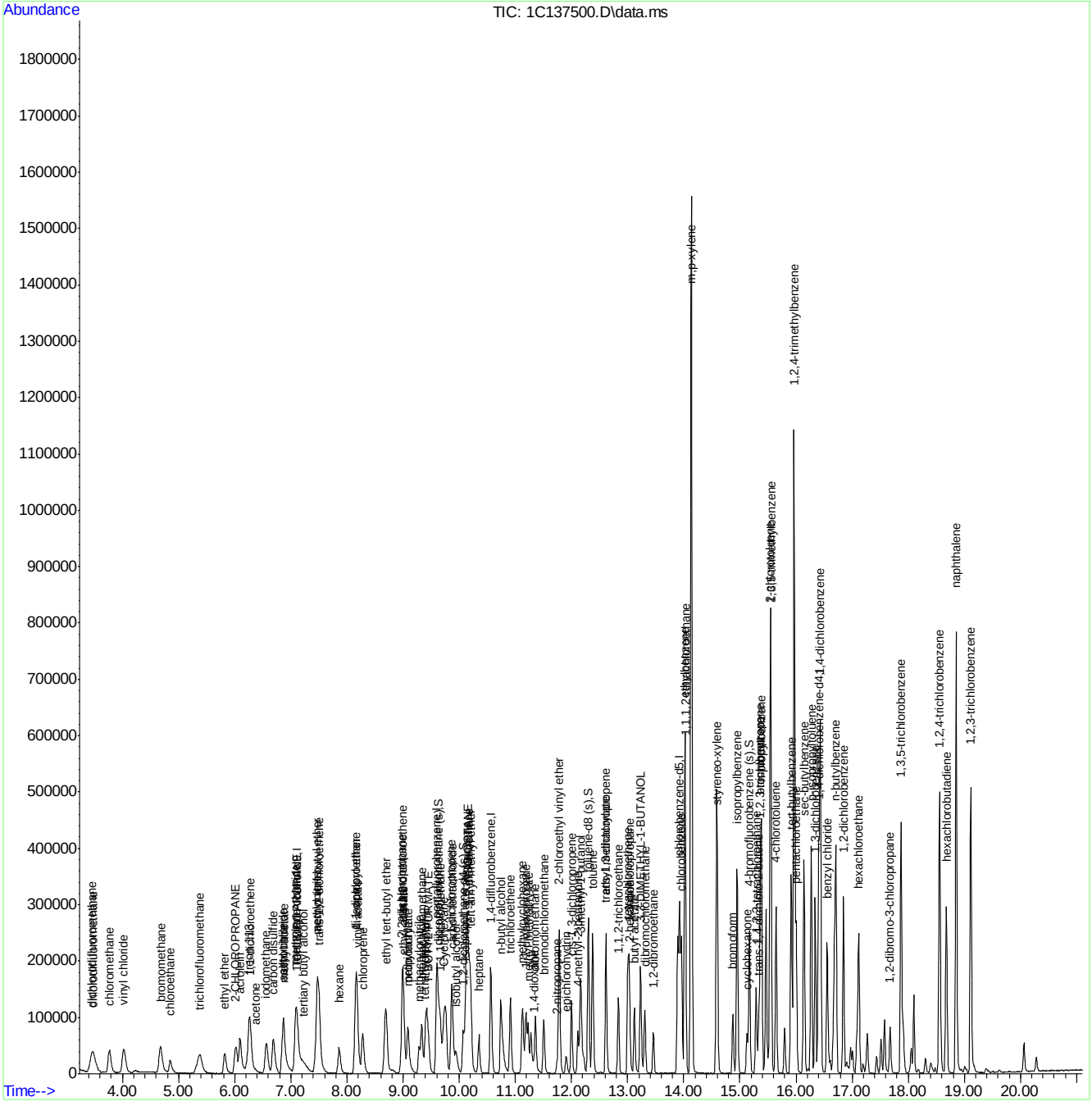
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) styrene	14.600	104	165660	49.87	ug/L	97
104) bromoform	14.878	173	60772	50.75	ug/L	94
106) isopropylbenzene	14.951	105	280845	53.37	ug/L	98
108) cyclohexanone	15.129	55	36329	143.47	ug/L	95
109) bromobenzene	15.369	156	81450	52.53	ug/L	94
110) 1,1,2,2-tetrachloroethane	15.291	83	86043	50.66	ug/L	98
111) trans-1,4-dichloro-2-b...	15.333	53	18601	43.73	ug/L	90
112) 1,2,3-trichloropropane	15.364	110	22027	51.92	ug/L	87
113) n-propylbenzene	15.385	91	292546	50.55	ug/L	99
114) 2-chlorotoluene	15.542	126	70495	52.06	ug/L	96
115) 4-chlorotoluene	15.646	91	183578	47.78	ug/L	98
116) 1,3,5-trimethylbenzene	15.552	105	374080	77.08	ug/L	99
117) tert-butylbenzene	15.913	119	212113	51.16	ug/L	99
118) pentachloroethane	16.007	167	67927	50.71	ug/L	98
119) 1,2,4-trimethylbenzene	15.966	105	706447	144.20	ug/L	98
120) sec-butylbenzene	16.143	105	312563	49.81	ug/L	99
121) 1,3-dichlorobenzene	16.342	146	152430	45.73	ug/L	99
122) p-isopropyltoluene	16.274	119	279513	49.54	ug/L	99
124) 1,4-dichlorobenzene	16.431	146	156163	45.89	ug/L	99
125) benzyl chloride	16.557	91	190337	49.74	ug/L	99
126) 1,2-dichlorobenzene	16.849	146	163891	47.00	ug/L	97
127) n-butylbenzene	16.708	92	126248	45.86	ug/L	99
128) 1,2-dibromo-3-chloropr...	17.676	75	22519	48.91	ug/L	90
129) 1,3,5-trichlorobenzene	17.875	180	183200	44.98	ug/L	99
130) 1,2,4-trichlorobenzene	18.560	180	206329	45.90	ug/L	98
131) hexachlorobutadiene	18.680	225	86961	44.80	ug/L	97
132) naphthalene	18.853	128	746509	69.95	ug/L	99
133) 1,2,3-trichlorobenzene	19.119	180	213993	46.67	ug/L	99
134) hexachloroethane	17.121	201	64487	52.43	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

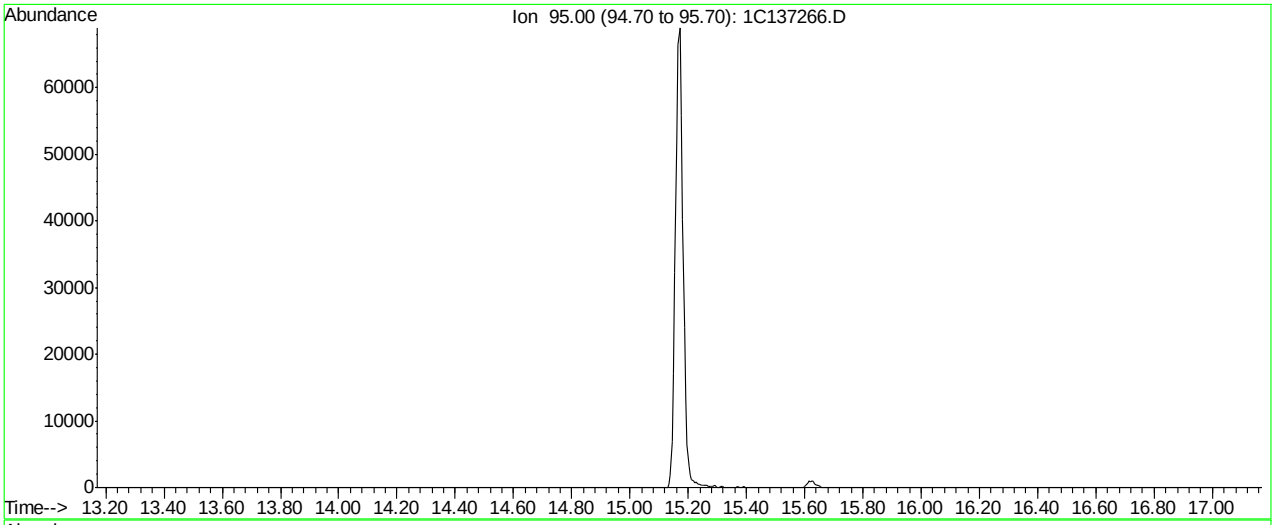
Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

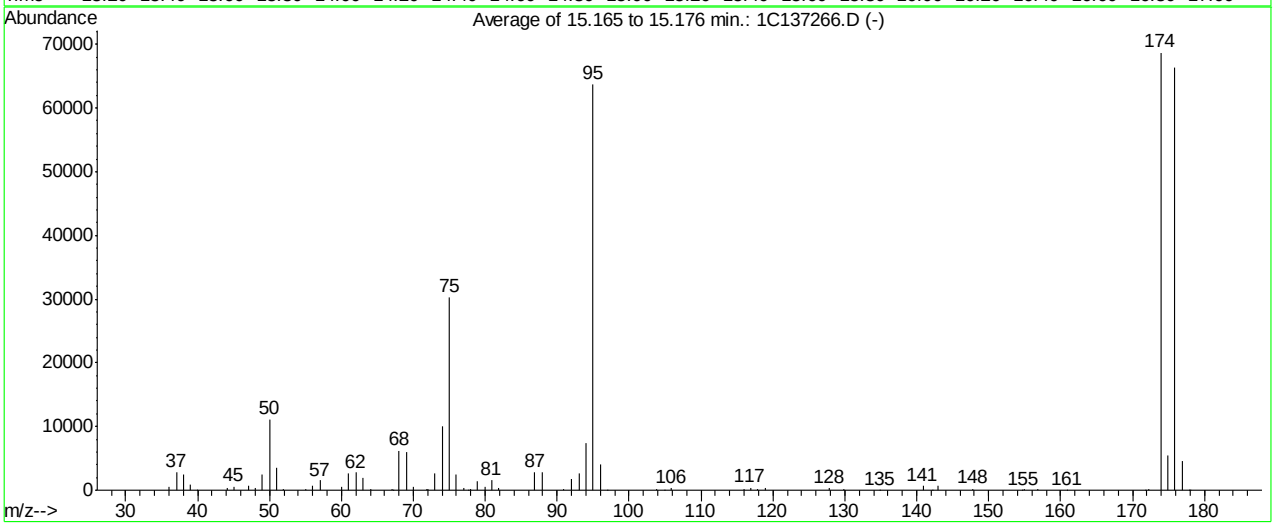


SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\1C137266.D Vial: 1
Acq On : 20 Feb 2015 9:20 am Operator: shannont
Sample : bfb Inst : MS1C
Misc : MS80764,V1C6103,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2282, 2283, 2284; Background Corrected with Scan 2273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	11124	PASS
75	95	30	60	47.5	30296	PASS
95	95	100	100	100.0	63792	PASS
96	95	5	9	6.4	4082	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	107.7	68725	PASS
175	174	5	9	8.0	5487	PASS
176	174	95	101	96.4	66280	PASS
177	176	5	9	7.0	4616	PASS

1C137266.D M1C6103.M Tue Feb 24 09:48:29 2015 RPT1

Average of 15.165 to 15.176 min.: 1C137266.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	526	51.00	3538	67.20	56	77.70	59
37.05	2883	51.95	111	68.00	6172	77.95	202
38.00	2428	55.05	126	69.00	6042	78.85	1476
39.05	949	56.00	778	70.00	477	79.95	498
39.95	17	57.00	1535	71.80	106	80.90	1622
44.05	341	60.00	604	72.05	240	81.90	288
45.00	547	61.00	2668	73.00	2669	86.90	2827
47.05	774	62.00	2761	74.00	10039	87.95	2767
47.95	330	63.00	1856	75.00	30296	90.90	235
49.00	2458	64.00	222	76.00	2550	92.00	1789
50.00	11124	67.00	203	76.95	337	93.00	2728

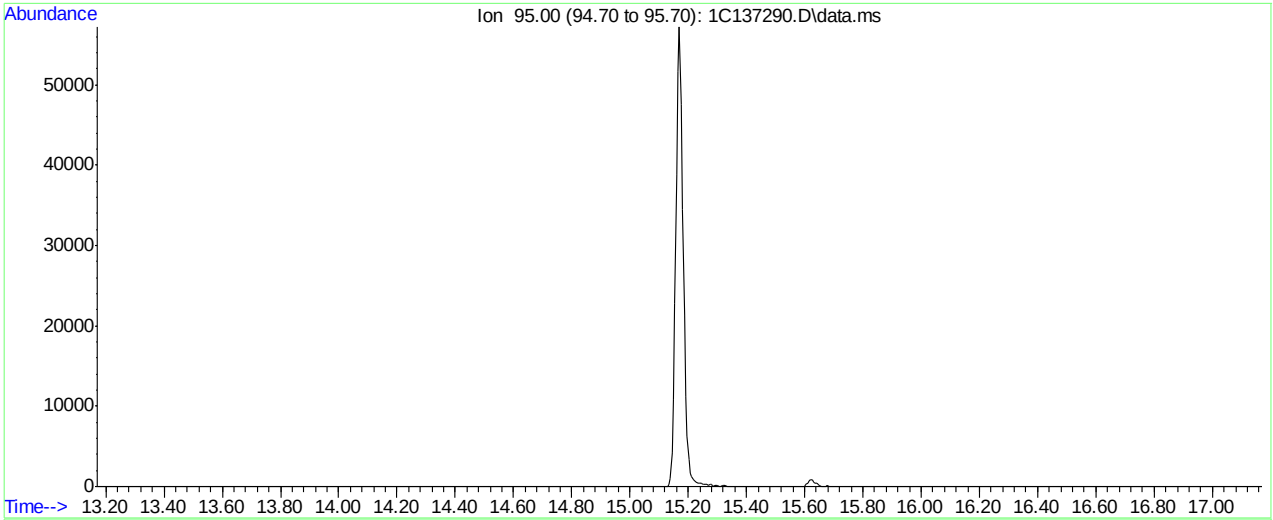
Average of 15.165 to 15.176 min.: 1C137266.D
bfb
Modified:subtracted

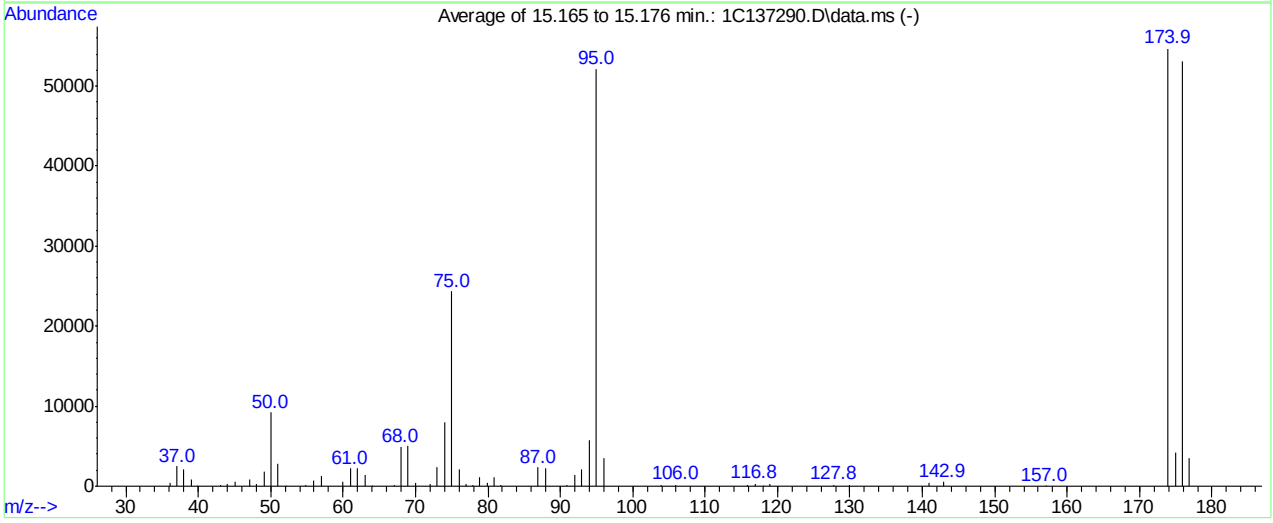
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	7456	127.85	273	171.80	62		
95.00	63792	129.85	268	172.25	181		
96.00	4082	134.90	57	173.90	68725		
96.90	55	140.90	655	174.90	5487		
103.85	216	142.20	52	175.90	66280		
104.90	62	142.90	644	176.90	4616		
105.90	292	147.85	193	177.80	53		
115.95	258	154.70	51	178.00	57		
116.85	433	154.95	134				
117.90	150	156.80	119				
118.90	317	160.90	71				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\1C\V1c6103\1C137290.D Vial: 25
Acq On : 23 Feb 2015 12:35 pm Operator: shannont
Sample : bfb2 Inst : MS1C
Misc : MS80764,V1C6103,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2282, 2283, 2284; Background Corrected with Scan 2273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	9216	PASS
75	95	30	60	46.7	24336	PASS
95	95	100	100	100.0	52133	PASS
96	95	5	9	6.8	3569	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	104.9	54701	PASS
175	174	5	9	7.8	4252	PASS
176	174	95	101	97.0	53075	PASS
177	176	5	9	6.6	3480	PASS

1C137290.D M1C6103.M Tue Feb 24 10:33:48 2015 RPT1

Average of 15.165 to 15.176 min.: 1C137290.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	446	50.00	9216	67.05	136	78.90	1111
37.05	2486	51.00	2778	68.00	4871	79.85	356
38.00	2070	52.10	50	69.00	5021	80.90	1120
39.05	841	54.90	155	70.00	378	81.85	214
39.90	42	55.95	654	72.05	269	86.95	2350
43.00	129	57.05	1242	73.00	2441	87.90	2252
43.95	302	60.00	517	74.00	8049	90.90	125
45.05	526	61.00	2238	75.00	24336	92.00	1422
47.05	783	62.00	2238	76.00	2073	93.00	2053
48.00	282	63.00	1474	76.95	304	94.00	5779
49.05	1814	64.00	54	77.85	189	95.00	52133

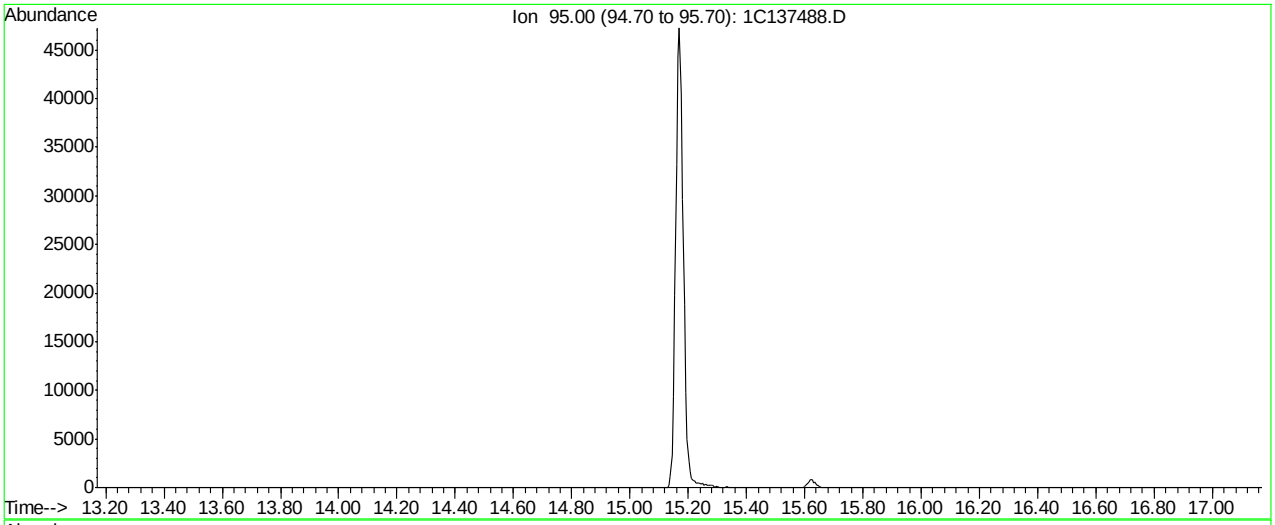
Average of 15.165 to 15.176 min.: 1C137290.D\data.ms
bfb2
Modified:subtracted

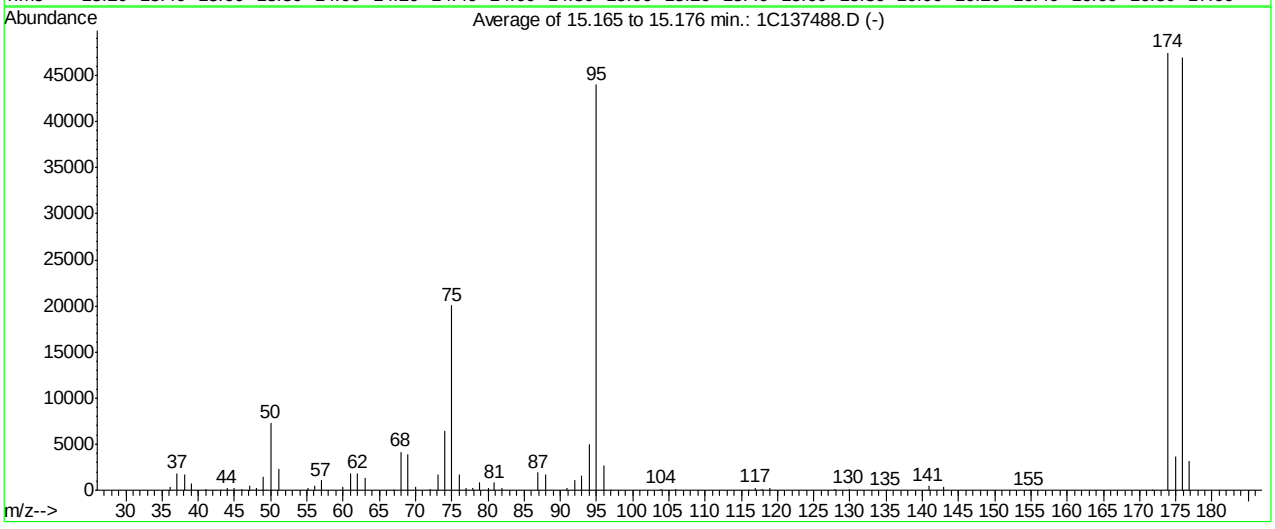
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	3569	157.00	52				
103.95	159	173.90	54701				
105.95	207	174.90	4252				
115.90	189	175.90	53075				
116.85	319	176.90	3480				
118.00	64						
118.90	314						
127.80	192						
129.90	188						
140.85	463						
142.90	504						

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\1C137488.D Vial: 1
Acq On : 2 Mar 2015 10:09 am Operator: shannont
Sample : bfb Inst : MS1C
Misc : MS81356,V1C6111,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2282, 2283, 2284; Background Corrected with Scan 2273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	7297	PASS
75	95	30	60	45.5	20016	PASS
95	95	100	100	100.0	43994	PASS
96	95	5	9	6.2	2738	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	108.0	47498	PASS
175	174	5	9	7.7	3634	PASS
176	174	95	101	98.7	46898	PASS
177	176	5	9	6.7	3164	PASS

1C137488.D M1C6103.M Mon Mar 02 14:41:36 2015 RPT1

Average of 15.165 to 15.176 min.: 1C137488.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	408	49.00	1507	68.00	4185	80.00	307
37.05	1852	50.00	7297	69.00	3925	80.90	845
38.05	1670	51.05	2326	70.05	333	81.95	261
39.05	682	55.10	195	72.00	163	86.95	1909
41.00	112	56.05	544	73.05	1738	87.95	1760
43.05	24	57.00	1040	74.00	6465	90.95	197
43.95	230	60.00	393	75.00	20016	92.00	1105
45.00	221	61.05	1827	76.00	1766	93.00	1637
46.00	105	62.00	1855	77.00	257	94.00	4956
47.05	507	63.05	1310	77.95	189	95.00	43994
48.00	268	66.90	58	78.90	840	96.00	2738

Average of 15.165 to 15.176 min.: 1C137488.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	52	142.90	427				
103.95	158	154.80	60				
105.90	107	171.70	54				
116.00	50	173.90	47498				
116.95	272	174.95	3634				
117.85	168	175.90	46898				
118.90	209	176.90	3164				
127.90	117						
129.90	136						
135.00	55						
140.90	471						

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137267.D
Acq On : 20 Feb 2015 9:54 am
Operator : shannont
Sample : ic6103-0.2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 09:39:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration

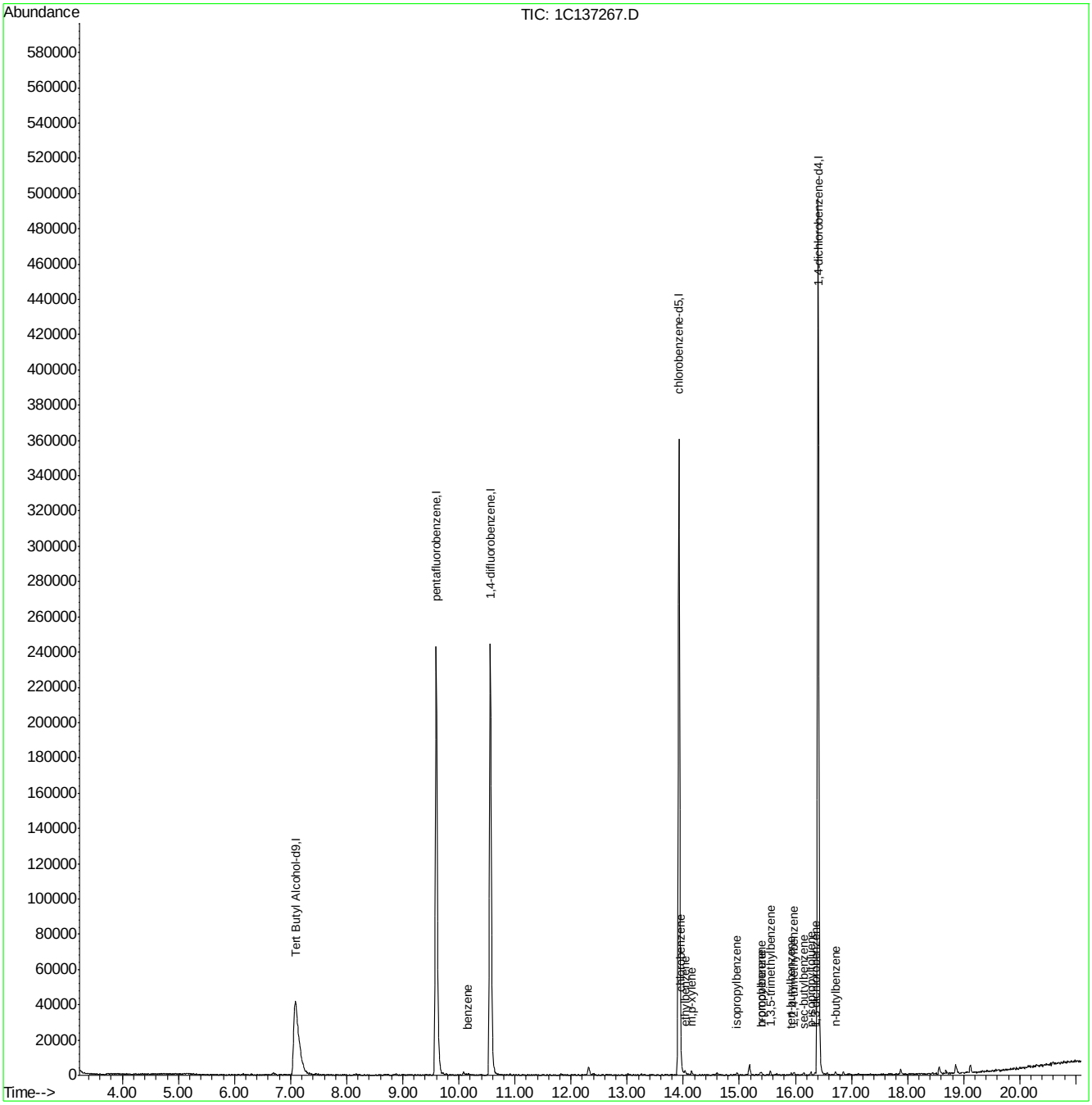
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	165575	500.00	ug/L	0.00
5) pentafluorobenzene	9.59	168	248884	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.56	114	256704	50.00	ug/L	0.00
89) chlorobenzene-d5	13.93	117	236529	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.40	152	153840	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#		
54) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#		
81) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#		
107) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#		
Target Compounds						Qvalue
66) benzene	10.15	78	1097	0.21	ug/L	51
97) chlorobenzene	13.96	112	812	0.21	ug/L	91
99) ethylbenzene	14.03	91	1232	0.19	ug/L	84
100) m,p-xylene	14.15	106	885	0.36	ug/L	99
106) isopropylbenzene	14.95	105	1547	0.23	ug/L	76
109) bromobenzene	15.38	156	345	0.17	ug/L #	57
113) n-propylbenzene	15.40	91	1593	0.21	ug/L	60
116) 1,3,5-trimethylbenzene	15.55	105	1317	0.21	ug/L	89
117) tert-butylbenzene	15.91	119	1188	0.23	ug/L #	57
119) 1,2,4-trimethylbenzene	15.98	105	1418	0.23	ug/L	93
120) sec-butylbenzene	16.15	105	1730	0.22	ug/L	81
121) 1,3-dichlorobenzene	16.35	146	1035	0.25	ug/L	86
122) p-isopropyltoluene	16.28	119	1555	0.22	ug/L	91
127) n-butylbenzene	16.72	92	750	0.21	ug/L #	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137267.D
Acq On : 20 Feb 2015 9:54 am
Operator : shannont
Sample : ic6103-0.2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 09:39:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137268.D
Acq On : 20 Feb 2015 10:24 am
Operator : shannont
Sample : ic6103-0.5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:23:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.085	65	162184	500.00	ug/L		0.00
5) pentafluorobenzene	9.600	168	244320	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	253470	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	234857	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	158516	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L		
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#			
54) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00	ug/L		
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#			
81) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#			
107) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#			
Target Compounds							Qvalue
13) chloromethane	3.753	50	1366	0.51	ug/L	#	51
14) vinyl chloride	4.014	62	1464	0.54	ug/L	#	51
15) bromomethane	4.653	94	1083	0.55	ug/L	#	67
28) iodomethane	6.562	142	1509	0.46	ug/L		90
31) methylene chloride	7.100	84	770	0.47	ug/L		79
33) methyl tert butyl ether	7.466	73	2618	0.50	ug/L		54
42) ethyl tert-butyl ether	8.685	59	2371	0.47	ug/L		82
45) cis-1,2-dichloroethene	9.015	96	728	0.50	ug/L		88
63) carbon tetrachloride	9.878	117	1229	0.57	ug/L		85
66) benzene	10.150	78	2611	0.51	ug/L		100
67) tert-amyl methyl ether	10.207	73	2408	0.48	ug/L		87
70) 1,2-dichloroethane	10.191	62	890	0.46	ug/L		52
71) trichloroethene	10.929	95	637	0.48	ug/L	#	65
73) 2-chloroethyl vinyl ether	11.823	63	1999	2.20	ug/L		72
76) dibromomethane	11.373	93	439	0.47	ug/L	#	73
78) bromodichloromethane	11.520	83	878	0.44	ug/L		87
80) cis-1,3-dichloropropene	12.022	75	1167	0.51	ug/L		90
83) toluene	12.393	92	1666	0.53	ug/L		87
85) trans-1,3-dichloropropene	12.639	75	905	0.42	ug/L		75
87) 1,1,2-trichloroethane	12.838	83	467	0.42	ug/L	#	64
90) tetrachloroethene	13.010	164	663	0.54	ug/L		89
91) 1,3-dichloropropane	13.042	76	904	0.43	ug/L		99
94) dibromochloromethane	13.319	129	813	0.45	ug/L		77
95) 1,2-dibromoethane	13.476	107	630	0.44	ug/L		70
97) chlorobenzene	13.957	112	2222	0.57	ug/L		91
98) 1,1,1,2-tetrachloroethane	14.030	131	827	0.47	ug/L		78
99) ethylbenzene	14.036	91	3490	0.54	ug/L		77
100) m,p-xylene	14.151	106	2610	1.08	ug/L		96
101) o-xylene	14.595	106	1251	0.49	ug/L	#	75
102) styrene	14.616	104	2053	0.51	ug/L		92
106) isopropylbenzene	14.956	105	3260	0.47	ug/L		94
108) cyclohexanone	15.134	55	1987	5.53	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137268.D
Acq On : 20 Feb 2015 10:24 am
Operator : shannont
Sample : ic6103-0.5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:23:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration

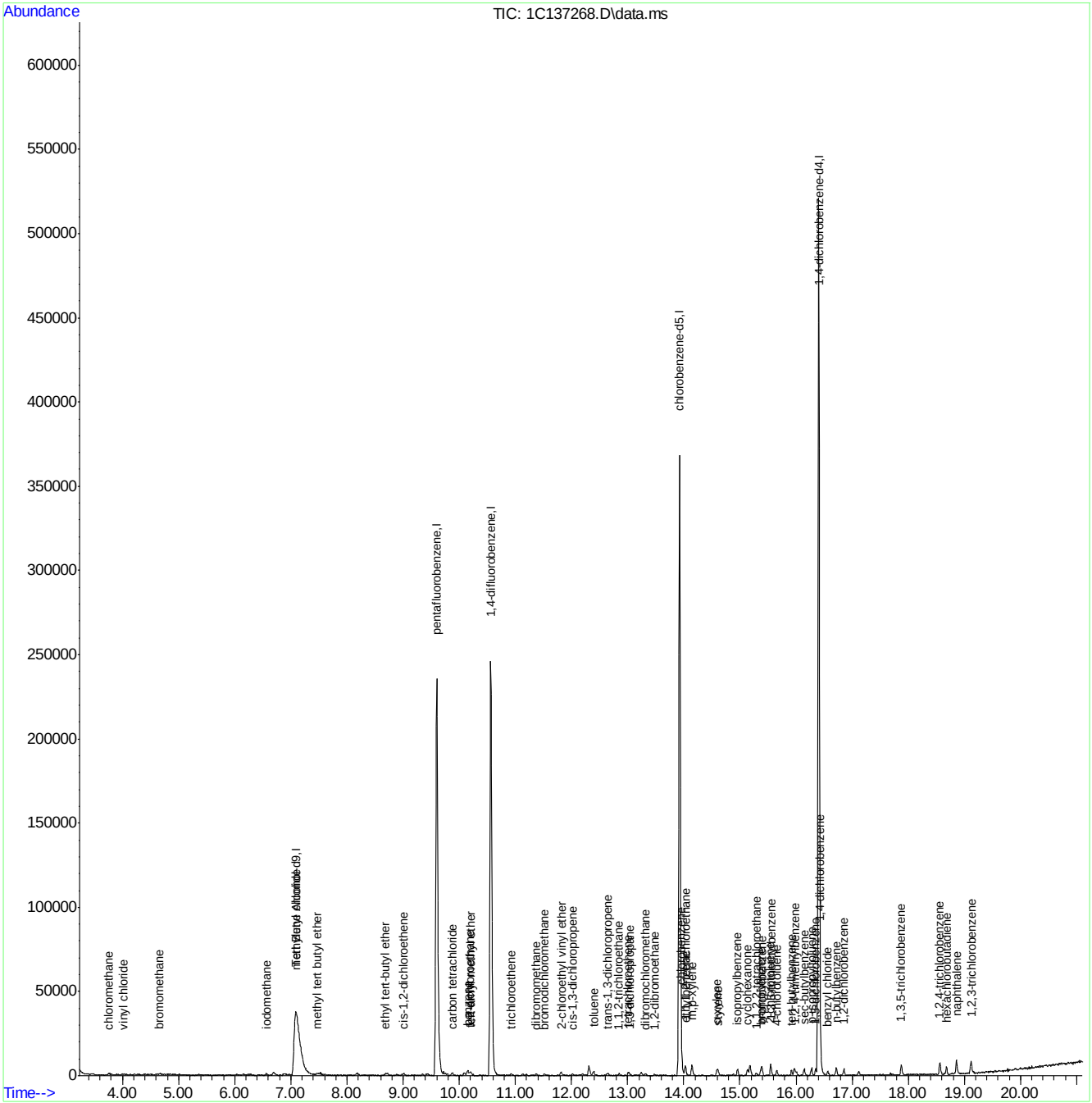
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
109) bromobenzene	15.375	156	1032	0.48	ug/L		79
110) 1,1,2,2-tetrachloroethane	15.291	83	1140	0.49	ug/L	#	63
113) n-propylbenzene	15.395	91	4177	0.54	ug/L		93
114) 2-chlorotoluene	15.542	126	882	0.49	ug/L		93
115) 4-chlorotoluene	15.662	91	2865	0.56	ug/L		94
116) 1,3,5-trimethylbenzene	15.552	105	3193	0.50	ug/L		96
117) tert-butylbenzene	15.924	119	2616	0.49	ug/L		95
119) 1,2,4-trimethylbenzene	15.976	105	3440	0.55	ug/L		97
120) sec-butylbenzene	16.149	105	4296	0.53	ug/L		98
121) 1,3-dichlorobenzene	16.347	146	2522	0.58	ug/L		93
122) p-isopropyltoluene	16.279	119	3825	0.52	ug/L		88
124) 1,4-dichlorobenzene	16.431	146	2520	0.55	ug/L		74
125) benzyl chloride	16.562	91	2902	0.58	ug/L		93
126) 1,2-dichlorobenzene	16.855	146	2561	0.56	ug/L		91
127) n-butylbenzene	16.719	92	1956	0.54	ug/L		96
129) 1,3,5-trichlorobenzene	17.875	180	2878	0.55	ug/L		99
130) 1,2,4-trichlorobenzene	18.560	180	3458	0.59	ug/L		82
131) hexachlorobutadiene	18.685	225	1410	0.57	ug/L		75
132) naphthalene	18.863	128	8745	0.62	ug/L		97
133) 1,2,3-trichlorobenzene	19.125	180	3687	0.60	ug/L		88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137268.D
Acq On : 20 Feb 2015 10:24 am
Operator : shannont
Sample : ic6103-0.5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:23:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137269.D
Acq On : 20 Feb 2015 10:52 am
Operator : shannont
Sample : ic6103-1
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 09:30:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:32:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.09	65	153073	500.00	ug/L	0.00
5) pentafluorobenzene	9.60	168	234253	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.56	114	238826	50.00	ug/L	0.00
89) chlorobenzene-d5	13.93	117	216703	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.40	152	139724	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#		
54) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#		
81) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#		
107) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#		
Target Compounds						Qvalue
11) dichlorodifluoromethane	3.46	85	1722	0.87	ug/L #	51
13) chloromethane	3.75	50	2833	1.13	ug/L	83
14) vinyl chloride	4.03	62	2764	1.08	ug/L	84
15) bromomethane	4.68	94	2175	1.20	ug/L #	61
16) chloroethane	4.86	64	923	0.98	ug/L	70
20) trichlorofluoromethane	5.38	101	2016	0.88	ug/L	82
23) acrolein	6.09	56	342579	1031.43	ug/L	99
24) 1,1-dichloroethene	6.27	96	1369	1.06	ug/L #	68
28) iodomethane	6.56	142	2842	0.89	ug/L	90
29) carbon disulfide	6.69	76	6092	1.21	ug/L	90
31) methylene chloride	7.11	84	1520	0.95	ug/L	91
33) methyl tert butyl ether	7.47	73	4755	0.93	ug/L	99
34) trans-1,2-dichloroethene	7.53	96	1154	0.92	ug/L	95
36) di-isopropyl ether	8.18	45	4324	0.98	ug/L	88
38) 1,1-dichloroethane	8.17	63	2179	0.88	ug/L	77
39) chloroprene	8.30	53	1393	0.87	ug/L	76
42) ethyl tert-butyl ether	8.69	59	4555	0.94	ug/L	87
44) 2,2-dichloropropane	8.99	77	2587	1.00	ug/L	92
45) cis-1,2-dichloroethene	9.00	96	1304	0.92	ug/L	78
48) bromochloromethane	9.35	128	648	0.80	ug/L #	61
50) chloroform	9.43	85	1390	0.86	ug/L	94
57) 1,1,1-trichloroethane	9.66	97	2008	0.86	ug/L #	1
60) ISO-OCTANE	10.15	57	2493	0.89	ug/L #	46
63) carbon tetrachloride	9.88	117	1998	0.98	ug/L	81
64) 1,1-dichloropropene	9.87	75	1518	1.02	ug/L	67
66) benzene	10.15	78	4474	0.90	ug/L	99
67) tert-amyl methyl ether	10.21	73	4516	0.95	ug/L	94
70) 1,2-dichloroethane	10.19	62	1628	0.87	ug/L	52
71) trichloroethene	10.92	95	1157	0.90	ug/L	77
73) 2-chloroethyl vinyl ether	11.81	63	3790	4.30	ug/L	92
75) 1,2-dichloropropane	11.20	63	1184	0.90	ug/L	95
76) dibromomethane	11.37	93	774	0.84	ug/L	97
77) methylcyclohexane	11.14	83	1147	0.92	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137269.D
Acq On : 20 Feb 2015 10:52 am
Operator : shannont
Sample : ic6103-1
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 09:30:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:32:55 2015
Response via : Initial Calibration

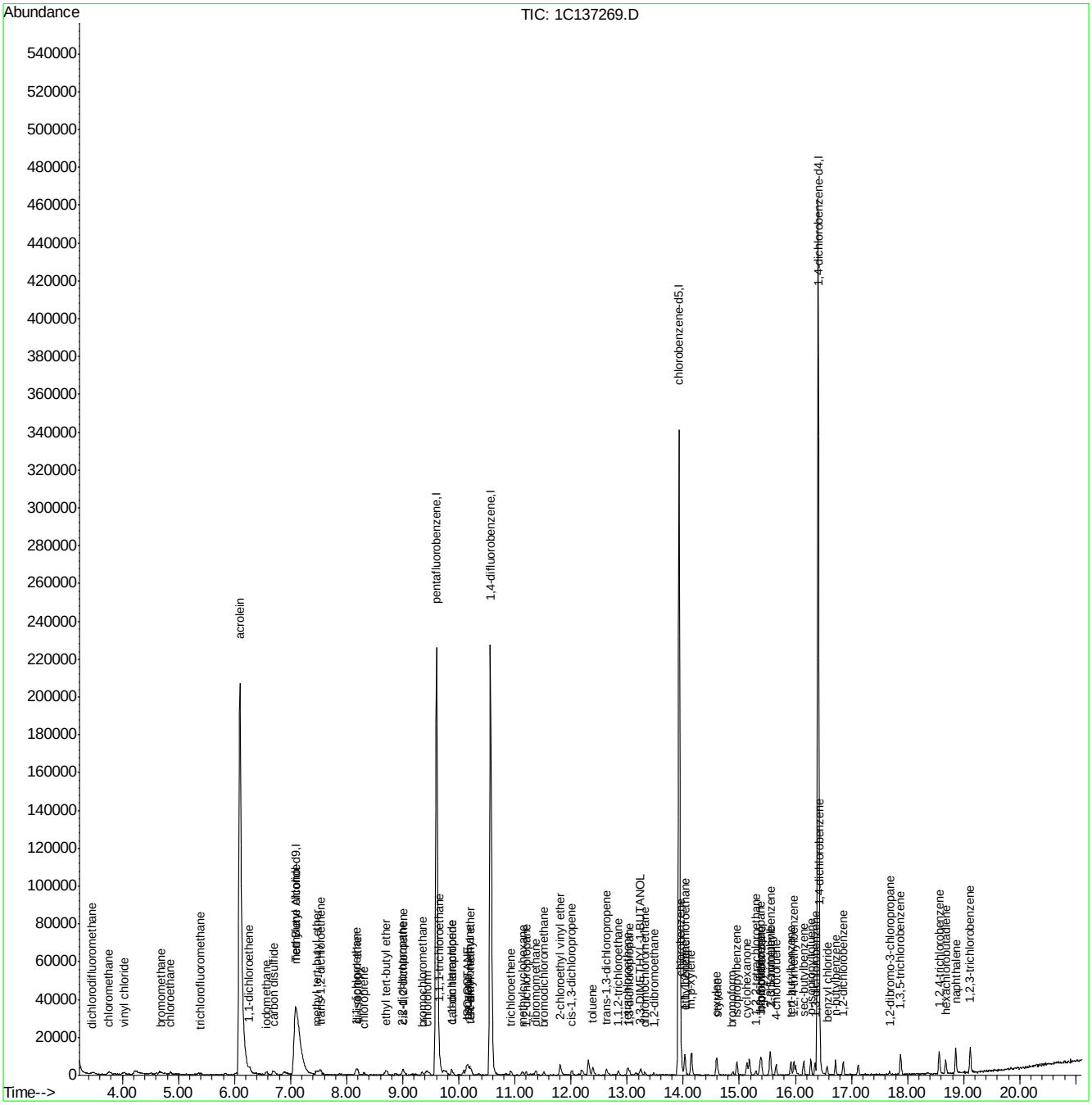
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) bromodichloromethane	11.52	83	1799	0.94	ug/L		95
80) cis-1,3-dichloropropene	12.01	75	1996	0.90	ug/L		94
83) toluene	12.39	92	2768	0.92	ug/L		99
85) trans-1,3-dichloropropene	12.63	75	1913	0.93	ug/L	#	69
87) 1,1,2-trichloroethane	12.84	83	927	0.86	ug/L		99
90) tetrachloroethene	13.01	164	1066	0.92	ug/L		93
91) 1,3-dichloropropane	13.04	76	1785	0.91	ug/L		97
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	2160	9.25	ug/L		91
94) dibromochloromethane	13.31	129	1583	0.94	ug/L		89
95) 1,2-dibromoethane	13.47	107	1265	0.93	ug/L		77
97) chlorobenzene	13.96	112	3519	0.97	ug/L		96
98) 1,1,1,2-tetrachloroethane	14.02	131	1590	0.97	ug/L		87
99) ethylbenzene	14.03	91	5959	1.00	ug/L		96
100) m,p-xylene	14.14	106	4150	1.83	ug/L		85
101) o-xylene	14.59	106	2206	0.91	ug/L		89
102) styrene	14.61	104	3503	0.92	ug/L		86
104) bromoform	14.88	173	1215	0.88	ug/L		87
106) isopropylbenzene	14.96	105	5965	0.96	ug/L		98
108) cyclohexanone	15.13	55	3655	12.01	ug/L		94
109) bromobenzene	15.38	156	1846	0.98	ug/L	#	75
110) 1,1,2,2-tetrachloroethane	15.30	83	2034	0.99	ug/L		94
112) 1,2,3-trichloropropane	15.37	110	469	0.92	ug/L		85
113) n-propylbenzene	15.40	91	6744	0.99	ug/L		96
114) 2-chlorotoluene	15.55	126	1582	1.00	ug/L		98
115) 4-chlorotoluene	15.66	91	4524	1.00	ug/L		99
116) 1,3,5-trimethylbenzene	15.55	105	5623	1.00	ug/L		98
117) tert-butylbenzene	15.92	119	4572	0.97	ug/L		97
119) 1,2,4-trimethylbenzene	15.97	105	5519	0.99	ug/L		91
120) sec-butylbenzene	16.15	105	6762	0.94	ug/L		99
121) 1,3-dichlorobenzene	16.35	146	3880	1.02	ug/L		95
122) p-isopropyltoluene	16.27	119	6700	1.05	ug/L		97
124) 1,4-dichlorobenzene	16.44	146	4193	1.05	ug/L		94
125) benzyl chloride	16.56	91	4700	1.08	ug/L		96
126) 1,2-dichlorobenzene	16.85	146	3990	0.99	ug/L		95
127) n-butylbenzene	16.71	92	3468	1.12	ug/L	#	72
128) 1,2-dibromo-3-chloropropan	17.69	75	475	0.87	ug/L	#	81
129) 1,3,5-trichlorobenzene	17.88	180	4934	1.08	ug/L		96
130) 1,2,4-trichlorobenzene	18.56	180	5479	1.08	ug/L		92
131) hexachlorobutadiene	18.69	225	2301	1.06	ug/L		89
132) naphthalene	18.86	128	13349	1.09	ug/L		97
133) 1,2,3-trichlorobenzene	19.12	180	5561	1.04	ug/L		88

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137269.D
Acq On : 20 Feb 2015 10:52 am
Operator : shannont
Sample : ic6103-1
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 09:30:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:32:55 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/25/15 14:13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.09	65	154904	500.00	ug/L		0.00
5) pentafluorobenzene	9.60	168	233088	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	239471	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	216173	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.41	152	140842	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L		
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#			
54) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L		
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#			
81) toluene-d8 (s)	0.00	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#			
107) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	2333	8.60	ug/L	#	42
11) dichlorodifluoromethane	3.44	85	3872	1.96	ug/L		86
13) chloromethane	3.77	50	5287	2.16	ug/L		97
14) vinyl chloride	4.02	62	5510	2.22	ug/L		94
15) bromomethane	4.67	94	4002	2.31	ug/L		79
16) chloroethane	4.86	64	1934	2.10	ug/L		91
20) trichlorofluoromethane	5.38	101	4454	1.95	ug/L		93
21) ethyl ether	5.84	74	1044	1.60	ug/L		77
23) acrolein	6.09	56	680387	2079.07	ug/L		99
24) 1,1-dichloroethene	6.27	96	2861	2.33	ug/L		77
27) allyl chloride	6.89	76	1192	1.99	ug/L	#	69
28) iodomethane	6.57	142	6713	2.17	ug/L		97
29) carbon disulfide	6.70	76	11845	2.51	ug/L		91
30) 2-CHLOROPROPANE	6.02	43	4816	2.29	ug/L	#	86
31) methylene chloride	7.09	84	3752	2.52	ug/L		83
33) methyl tert butyl ether	7.47	73	10928	2.21	ug/L		91
34) trans-1,2-dichloroethene	7.52	96	2675	2.20	ug/L		90
36) di-isopropyl ether	8.17	45	8654	1.96	ug/L		78
38) 1,1-dichloroethane	8.17	63	5361	2.25	ug/L		96
39) chloroprene	8.29	53	3061	1.88	ug/L		95
42) ethyl tert-butyl ether	8.70	59	9801	2.04	ug/L		91
44) 2,2-dichloropropane	8.99	77	5637	2.25	ug/L		92
45) cis-1,2-dichloroethene	9.02	96	2692	1.88	ug/L	#	70
46) propionitrile	9.13	54	3787	17.62	ug/L	#	64
48) bromochloromethane	9.34	128	1687	2.13	ug/L		89
50) chloroform	9.42	85	3381	2.15	ug/L		88
51) T-BUTYL FORMATE	9.45	59	2828	1.85	ug/L	#	90
57) 1,1,1-trichloroethane	9.67	97	4960	2.18	ug/L	#	71
58) Cyclohexane	9.75	84	2916	2.14	ug/L		99
60) ISO-OCTANE	10.16	57	5153	1.79	ug/L		73
61) epichlorohydrin	11.93	57	1258	8.35	ug/L		61
63) carbon tetrachloride	9.88	117	4169	2.05	ug/L		96
64) 1,1-dichloropropene	9.87	75	3285	2.28	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
65) hexane	7.87	57	1124	1.59	ug/L		80
66) benzene	10.14	78	11211	2.35	ug/L		100
67) tert-amyl methyl ether	10.21	73	9487	1.99	ug/L		96
68) heptane	10.37	57	729	1.78	ug/L	#	53
69) isopropyl acetate	10.13	43	5039	1.74	ug/L		95
70) 1,2-dichloroethane	10.19	62	3995	2.17	ug/L		81
71) trichloroethene	10.92	95	2693	2.13	ug/L		96
72) 2-nitropropane	11.76	41	1291	2.16	ug/L		97
73) 2-chloroethyl vinyl ether	11.80	63	8066	8.86	ug/L		91
75) 1,2-dichloropropane	11.20	63	2666	2.04	ug/L		98
76) dibromomethane	11.37	93	2049	2.31	ug/L		77
77) methylcyclohexane	11.13	83	2171	1.66	ug/L		88
78) bromodichloromethane	11.52	83	4003	2.12	ug/L		84
80) cis-1,3-dichloropropene	12.02	75	4693	2.16	ug/L		84
83) toluene	12.39	92	6640	2.28	ug/L		88
84) 3-methyl-1-butanol	12.19	55	3268	36.23	ug/L		88
85) trans-1,3-dichloropropene	12.63	75	4244	2.09	ug/L		98
86) ethyl methacrylate	12.64	69	3122	1.91	ug/L		94
87) 1,1,2-trichloroethane	12.84	83	2301	2.19	ug/L		78
90) tetrachloroethene	13.01	164	2510	2.24	ug/L		93
91) 1,3-dichloropropane	13.03	76	3981	2.06	ug/L		97
92) butyl acetate	13.15	56	1744	1.96	ug/L	#	67
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	4424	18.68	ug/L		91
94) dibromochloromethane	13.31	129	3505	2.13	ug/L		88
95) 1,2-dibromoethane	13.48	107	2858	2.16	ug/L		86
97) chlorobenzene	13.96	112	8245	2.38	ug/L		89
98) 1,1,1,2-tetrachloroethane	14.03	131	3480	2.17	ug/L		95
99) ethylbenzene	14.02	91	13189	2.29	ug/L		98
100) m,p-xylene	14.15	106	10005	4.57	ug/L		92
101) o-xylene	14.59	106	5192	2.21	ug/L		96
102) styrene	14.61	104	8127	2.20	ug/L		96
104) bromoform	14.88	173	2851	2.10	ug/L		83
106) isopropylbenzene	14.96	105	13984	2.31	ug/L		97
108) cyclohexanone	15.13	55	7297	25.39	ug/L		93
109) bromobenzene	15.38	156	3958	2.11	ug/L		97
110) 1,1,2,2-tetrachloroethane	15.30	83	4452	2.22	ug/L		94
111) trans-1,4-dichloro-2-buten	15.34	53	1037m	2.02	ug/L		
112) 1,2,3-trichloropropane	15.37	110	986	1.90	ug/L		92
113) n-propylbenzene	15.39	91	15486	2.34	ug/L		96
114) 2-chlorotoluene	15.54	126	3355	2.14	ug/L		85
115) 4-chlorotoluene	15.66	91	10173	2.31	ug/L		96
116) 1,3,5-trimethylbenzene	15.55	105	12541	2.31	ug/L		95
117) tert-butylbenzene	15.92	119	10300	2.22	ug/L		98
118) pentachloroethane	16.01	167	3099	2.08	ug/L		90
119) 1,2,4-trimethylbenzene	15.97	105	12067	2.20	ug/L		97
120) sec-butylbenzene	16.15	105	15986	2.29	ug/L		99
121) 1,3-dichlorobenzene	16.35	146	8934	2.45	ug/L		93
122) p-isopropyltoluene	16.27	119	14174	2.29	ug/L		94
124) 1,4-dichlorobenzene	16.44	146	9141	2.38	ug/L		92
125) benzyl chloride	16.56	91	8874	2.02	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration

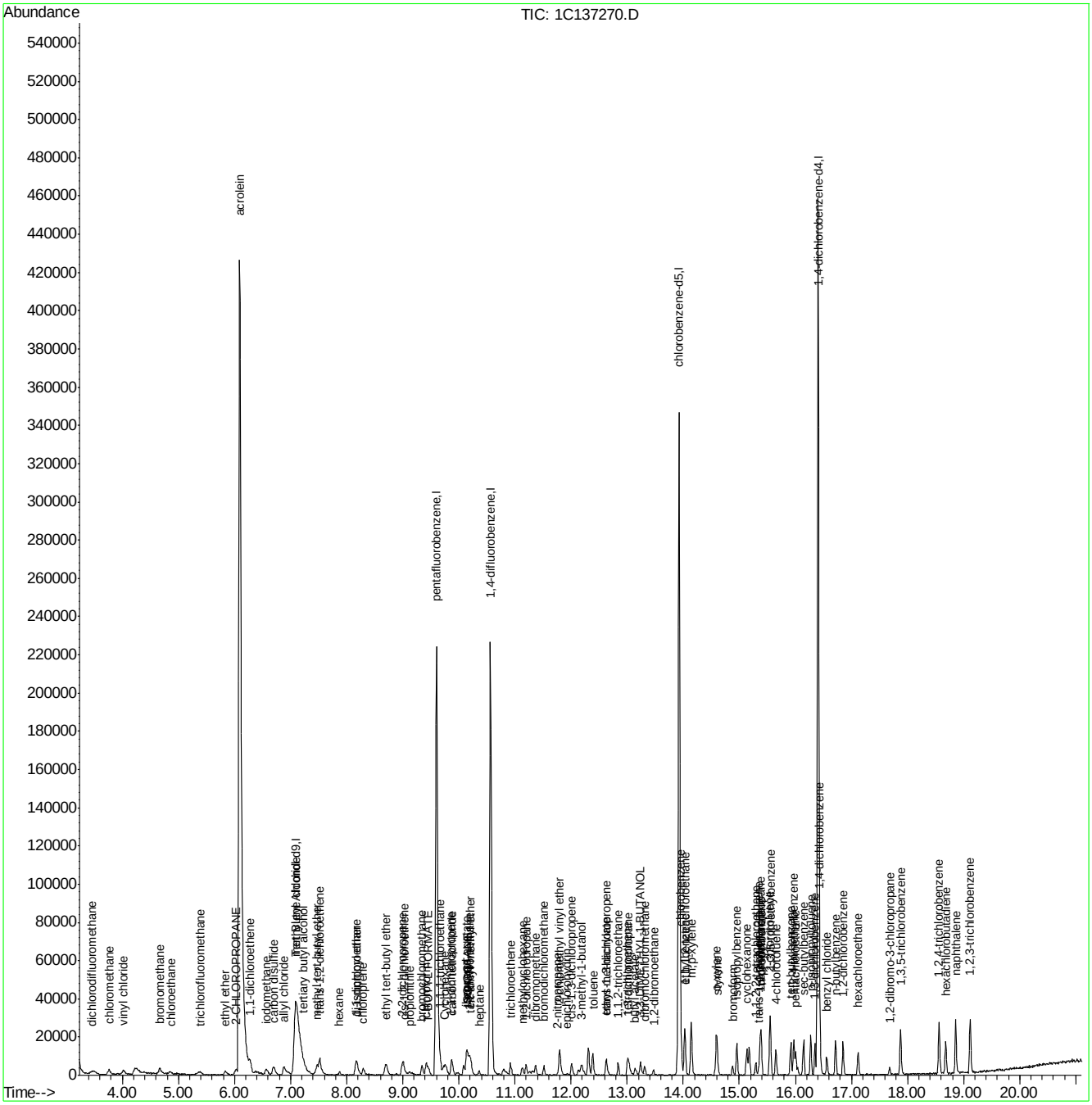
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
126) 1,2-dichlorobenzene	16.85	146	9181	2.36	ug/L	97
127) n-butylbenzene	16.72	92	7075	2.37	ug/L	89
128) 1,2-dibromo-3-chloropropan	17.68	75	1155	2.13	ug/L	95
129) 1,3,5-trichlorobenzene	17.88	180	10811	2.51	ug/L	95
130) 1,2,4-trichlorobenzene	18.56	180	11647	2.39	ug/L	96
131) hexachlorobutadiene	18.68	225	5061	2.45	ug/L	84
132) naphthalene	18.86	128	27198	2.27	ug/L	97
133) 1,2,3-trichlorobenzene	19.12	180	12047	2.32	ug/L	97
134) hexachloroethane	17.12	201	2939	2.15	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration



Manual Integration Approval Summary

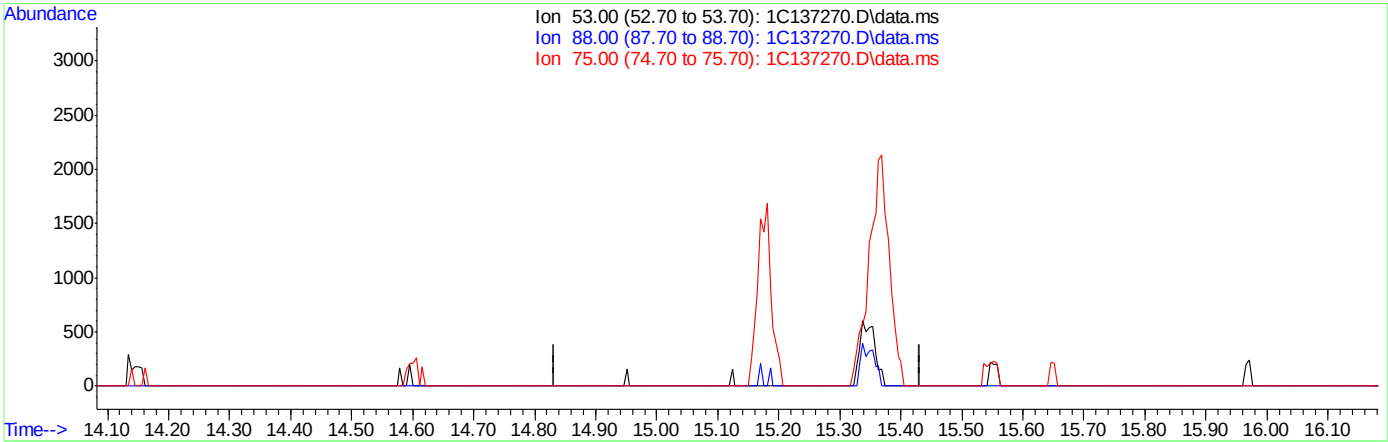
Sample Number: V1C6103-IC6103
Lab FileID: 1C137270.D
Injection Time: 02/20/15 11:21
Method: SW846 8260C
Analyst approved: 02/24/15 10:32 Yunxia Chen
Supervisor approved: 02/25/15 14:13 Jessica Reitan-Chu

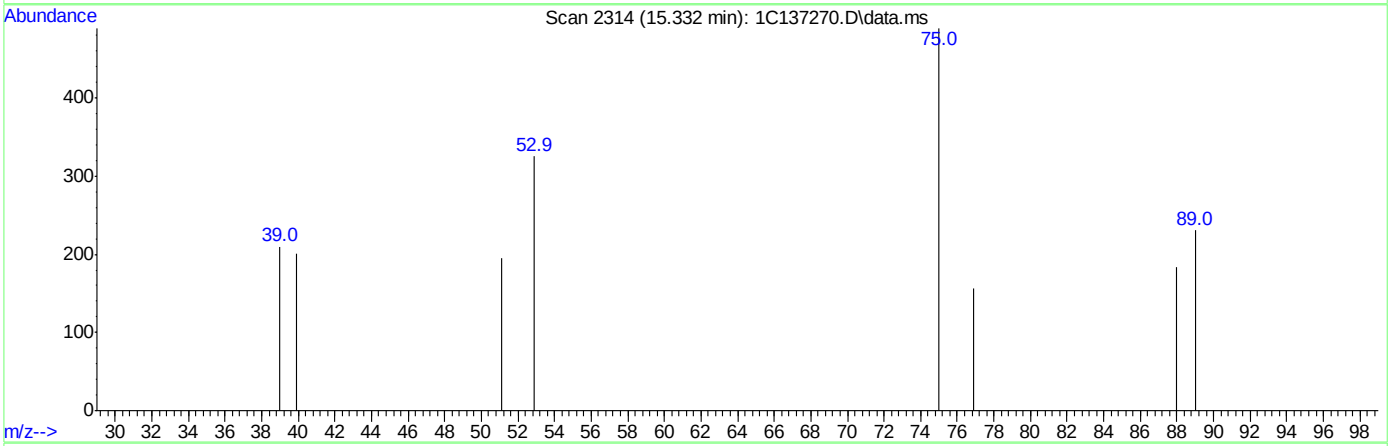
Parameter	CAS	Sig#	R.T. (min.)	Reason
trans-1,4-Dichloro-2-Butene	110-57-6		15.34	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\v1c6103raw\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:17:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 08:28:46 2015
Response via : Initial Calibration





TIC: 1C137270.D\data.ms

(111) trans-1,4-dichloro-2-butene

15.332min (-15.332) 0.00ug/L

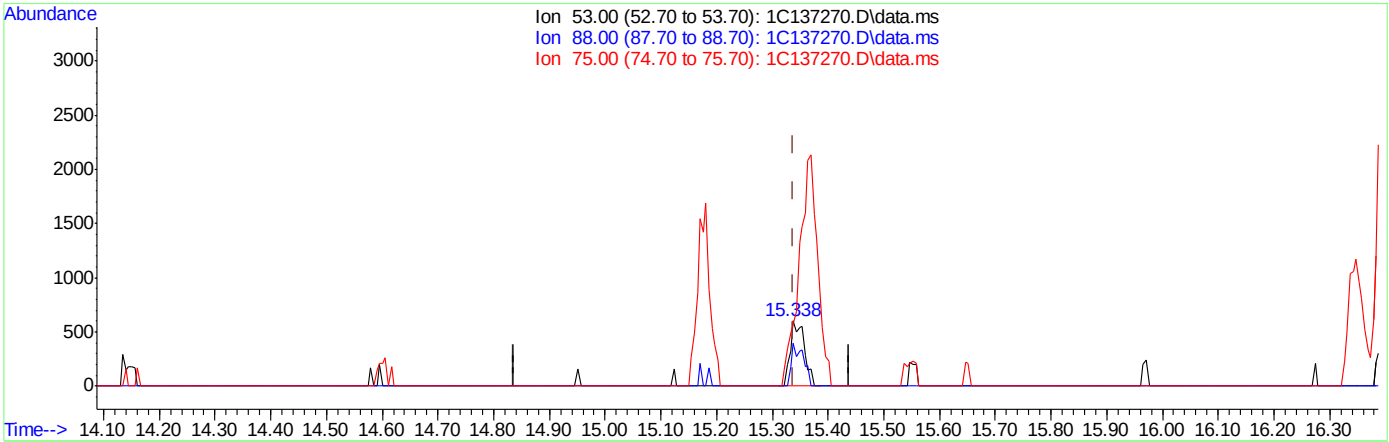
response 0

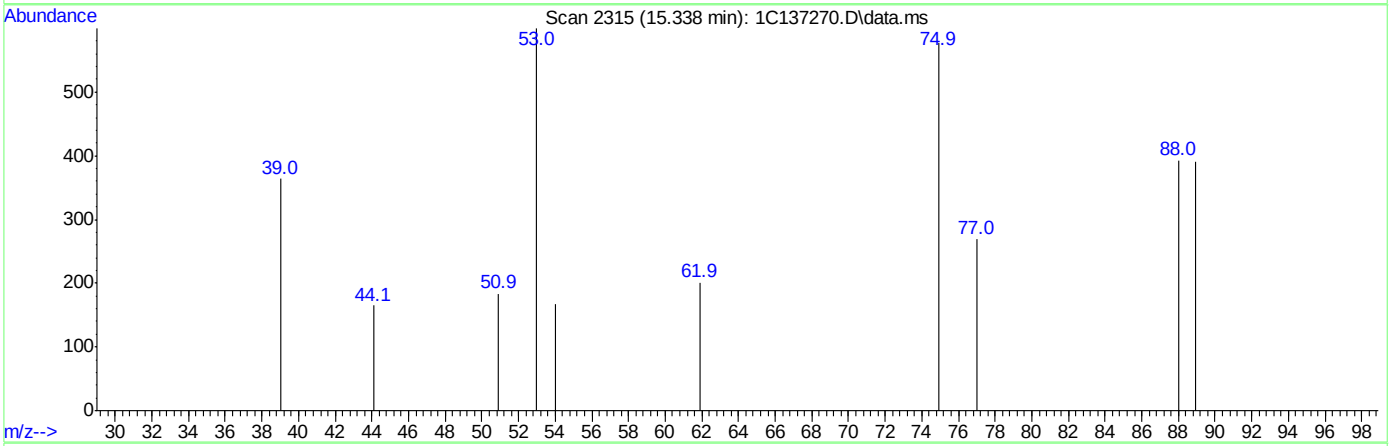
Ion	Exp%	Act%
53.00	100	0.00
88.00	54.10	0.00#
75.00	147.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration





TIC: 1C137270.D\data.ms

(111) trans-1,4-dichloro-2-butene

15.338min (-0.000) 2.02ug/L m

response 1037

Ion	Exp%	Act%
53.00	100	100
88.00	63.60	65.50
75.00	185.50	96.17#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/25/15 14:13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	152003	500.00	ug/L		0.00
5) pentafluorobenzene	9.60	168	228462	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	237257	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	218885	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	147996	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	7347	5.00	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 10.00%#				
54) 1,2-dichloroethane-d4 (s)	10.08	65	9253	5.54	ug/L		0.01
Spiked Amount 50.000	Range 71 - 124		Recovery = 11.08%#				
81) toluene-d8 (s)	12.30	98	25061	5.33	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 10.66%#				
107) 4-bromofluorobenzene (s)	15.18	95	10449	5.32	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 10.64%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	6428	23.80	ug/L		77
3) 1,4-dioxane	11.34	88	2161	101.76	ug/L	#	25
10) chlorodifluoromethane	3.48	51	10021	4.56	ug/L		92
11) dichlorodifluoromethane	3.46	85	9968	5.22	ug/L		93
13) chloromethane	3.76	50	12142	5.07	ug/L		94
14) vinyl chloride	4.01	62	12239	5.04	ug/L		97
15) bromomethane	4.67	94	8956	5.40	ug/L		92
16) chloroethane	4.85	64	4817	5.53	ug/L		93
20) trichlorofluoromethane	5.36	101	11270	5.07	ug/L		98
21) ethyl ether	5.83	74	3010	4.86	ug/L		84
23) acrolein	6.11	56	18014	61.05	ug/L		98
24) 1,1-dichloroethene	6.28	96	5616	4.65	ug/L		86
26) acetonitrile	6.87	40	8523m	53.28	ug/L		
27) allyl chloride	6.88	76	2515	4.12	ug/L	#	76
28) iodomethane	6.56	142	14136	4.49	ug/L		97
29) carbon disulfide	6.69	76	22217	4.78	ug/L		94
30) 2-CHLOROPROPANE	6.02	43	9278	4.27	ug/L		95
31) methylene chloride	7.10	84	7005	4.81	ug/L		94
32) methyl acetate	6.91	43	5801	5.02	ug/L		85
33) methyl tert butyl ether	7.47	73	22613	4.52	ug/L		91
34) trans-1,2-dichloroethene	7.51	96	5498	4.38	ug/L		92
35) 1-CHLOROPROPANE	7.12	42	21769	6.47	ug/L	#	79
36) di-isopropyl ether	8.16	45	21289	4.83	ug/L		88
38) 1,1-dichloroethane	8.17	63	10700	4.45	ug/L		96
39) chloroprene	8.29	53	7795	4.91	ug/L		97
40) acrylonitrile	7.50	53	10872	22.80	ug/L		92
42) ethyl tert-butyl ether	8.69	59	22716	4.72	ug/L		99
44) 2,2-dichloropropane	8.99	77	11354	4.49	ug/L		95
45) cis-1,2-dichloroethene	9.00	96	6414	4.45	ug/L		85
46) propionitrile	9.11	54	9437	43.36	ug/L		71
47) methylacrylate	9.13	55	5973	4.10	ug/L	#	87
48) bromochloromethane	9.34	128	3481	4.29	ug/L		85
50) chloroform	9.41	85	7046	4.49	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) T-BUTYL FORMATE	9.45	59	7283	4.70	ug/L	#	92
52) isobutyl alcohol	9.96	43	3787	41.85	ug/L	#	93
55) freon 113	6.26	151	4154	4.85	ug/L		81
57) 1,1,1-trichloroethane	9.66	97	10194	4.42	ug/L		77
58) Cyclohexane	9.73	84	6344	4.89	ug/L		92
60) ISO-OCTANE	10.15	57	14600	5.46	ug/L		85
61) epichlorohydrin	11.92	57	3347	21.36	ug/L		87
62) n-butyl alcohol	10.77	56	11851	229.03	ug/L		99
63) carbon tetrachloride	9.87	117	9352	4.50	ug/L		99
64) 1,1-dichloropropene	9.87	75	6513	4.38	ug/L		89
65) hexane	7.87	57	3457	5.09	ug/L		97
66) benzene	10.14	78	21997	4.51	ug/L		99
67) tert-amyl methyl ether	10.20	73	22958	4.71	ug/L		94
68) heptane	10.36	57	1970	4.93	ug/L		94
69) isopropyl acetate	10.12	43	13566	4.50	ug/L		89
70) 1,2-dichloroethane	10.17	62	8290	4.49	ug/L		99
71) trichloroethene	10.91	95	5912	4.67	ug/L		92
72) 2-nitropropane	11.77	41	2839	4.80	ug/L		82
73) 2-chloroethyl vinyl ether	11.79	63	21398	22.84	ug/L		98
75) 1,2-dichloropropane	11.20	63	6078	4.50	ug/L		85
76) dibromomethane	11.37	93	3981	4.38	ug/L		94
77) methylcyclohexane	11.14	83	6526	5.17	ug/L		94
78) bromodichloromethane	11.51	83	8785	4.55	ug/L		96
80) cis-1,3-dichloropropene	12.01	75	10038	4.59	ug/L		94
82) 4-methyl-2-pentanone	12.13	58	2510	4.40	ug/L		86
83) toluene	12.39	92	13477	4.53	ug/L		96
84) 3-methyl-1-butanol	12.18	55	8153	86.90	ug/L		98
85) trans-1,3-dichloropropene	12.62	75	9188	4.50	ug/L		97
86) ethyl methacrylate	12.63	69	7354	4.44	ug/L		94
87) 1,1,2-trichloroethane	12.84	83	4846	4.58	ug/L		91
88) 2-hexanone	13.06	58	1929	4.03	ug/L	#	75
90) tetrachloroethene	13.00	164	5245	4.56	ug/L		82
91) 1,3-dichloropropane	13.03	76	9051	4.54	ug/L		87
92) butyl acetate	13.14	56	4279	4.54	ug/L	#	81
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	11339	45.88	ug/L		97
94) dibromochloromethane	13.31	129	7766	4.59	ug/L		89
95) 1,2-dibromoethane	13.47	107	6214	4.60	ug/L		91
97) chlorobenzene	13.96	112	16301	4.54	ug/L		94
98) 1,1,1,2-tetrachloroethane	14.03	131	7271	4.25	ug/L		92
99) ethylbenzene	14.03	91	27005	4.51	ug/L		94
100) m,p-xylene	14.14	106	20328	8.78	ug/L		98
101) o-xylene	14.59	106	11037	4.52	ug/L		86
102) styrene	14.61	104	16955	4.41	ug/L		97
104) bromoform	14.88	173	6353	4.58	ug/L		93
106) isopropylbenzene	14.95	105	28545	4.46	ug/L		99
108) cyclohexanone	15.13	55	14208	55.95	ug/L		97
109) bromobenzene	15.38	156	8894	4.41	ug/L		90
110) 1,1,2,2-tetrachloroethane	15.29	83	9578	4.56	ug/L		94
111) trans-1,4-dichloro-2-buten	15.34	53	2312	4.21	ug/L		89
112) 1,2,3-trichloropropane	15.37	110	2334	4.11	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) n-propylbenzene	15.39	91	31478	4.50	ug/L	96
114) 2-chlorotoluene	15.54	126	7344	4.47	ug/L	86
115) 4-chlorotoluene	15.65	91	20890	4.44	ug/L	95
116) 1,3,5-trimethylbenzene	15.55	105	25434	4.41	ug/L	94
117) tert-butylbenzene	15.92	119	21985	4.58	ug/L	98
118) pentachloroethane	16.01	167	6825	4.29	ug/L	96
119) 1,2,4-trimethylbenzene	15.97	105	25717	4.40	ug/L	98
120) sec-butylbenzene	16.15	105	32397	4.42	ug/L	99
121) 1,3-dichlorobenzene	16.35	146	17538	4.58	ug/L	91
122) p-isopropyltoluene	16.27	119	29544	4.53	ug/L	98
124) 1,4-dichlorobenzene	16.44	146	18584	4.58	ug/L	95
125) benzyl chloride	16.56	91	21696	4.73	ug/L	100
126) 1,2-dichlorobenzene	16.85	146	18171	4.42	ug/L	99
127) n-butylbenzene	16.71	92	14168	4.57	ug/L	87
128) 1,2-dibromo-3-chloropropan	17.68	75	2436	4.19	ug/L	86
129) 1,3,5-trichlorobenzene	17.87	180	20853	4.72	ug/L	98
130) 1,2,4-trichlorobenzene	18.56	180	22718	4.40	ug/L	98
131) hexachlorobutadiene	18.68	225	9735	4.59	ug/L	96
132) naphthalene	18.86	128	56630	4.51	ug/L	99
133) 1,2,3-trichlorobenzene	19.12	180	24632	4.54	ug/L	97
134) hexachloroethane	17.12	201	6143	4.26	ug/L	94

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

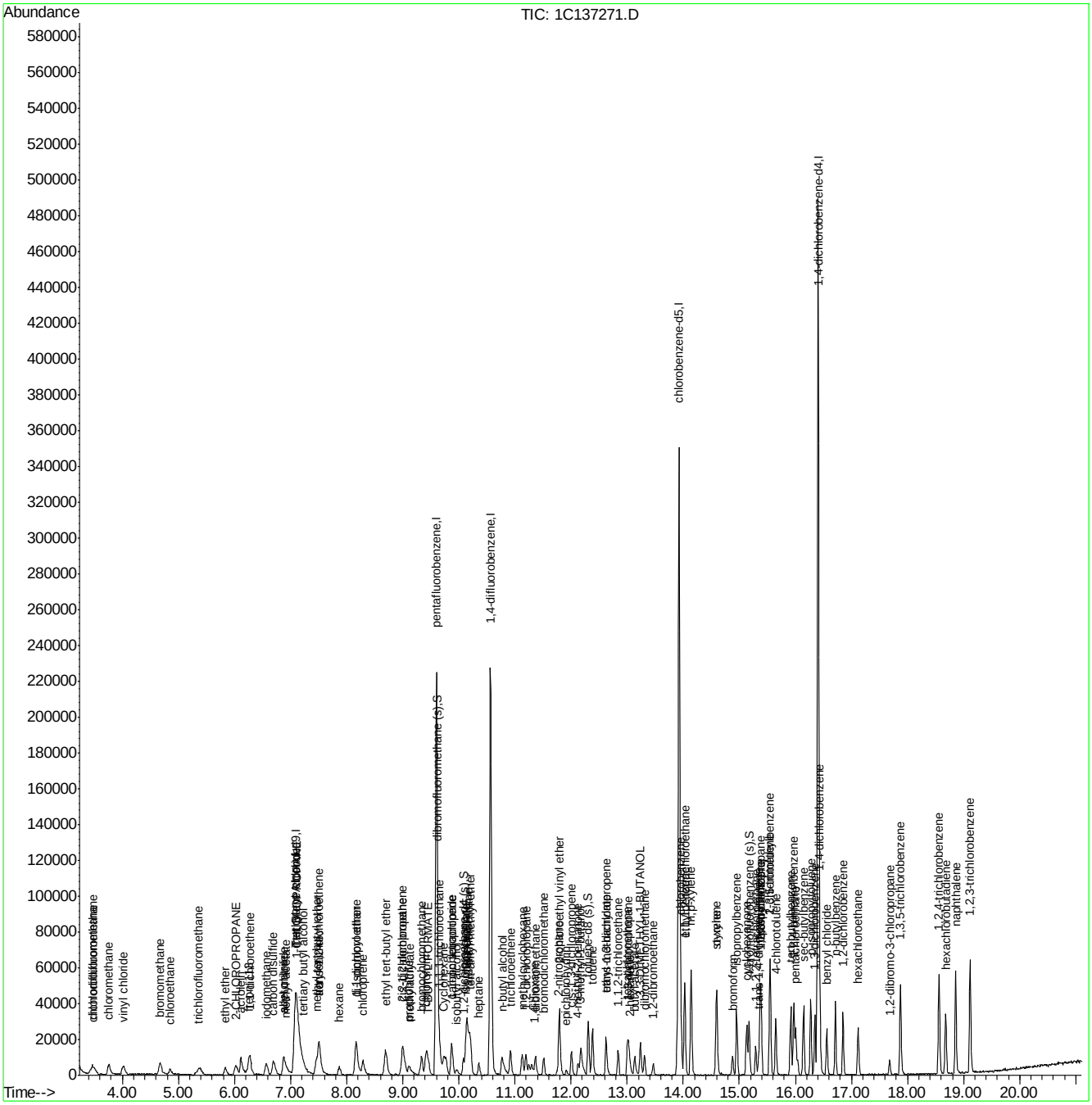
7.6.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration



Manual Integration Approval Summary

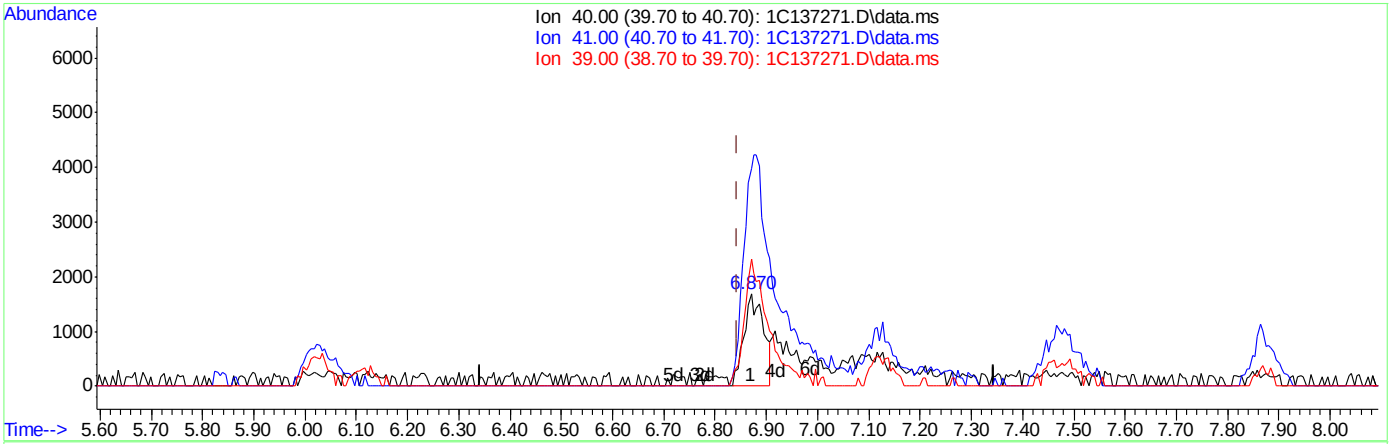
Sample Number: V1C6103-IC6103
Lab FileID: 1C137271.D
Injection Time: 02/20/15 11:50
Method: SW846 8260C
Analyst approved: 02/24/15 10:32 Yunxia Chen
Supervisor approved: 02/25/15 14:13 Jessica Reitan-Chu

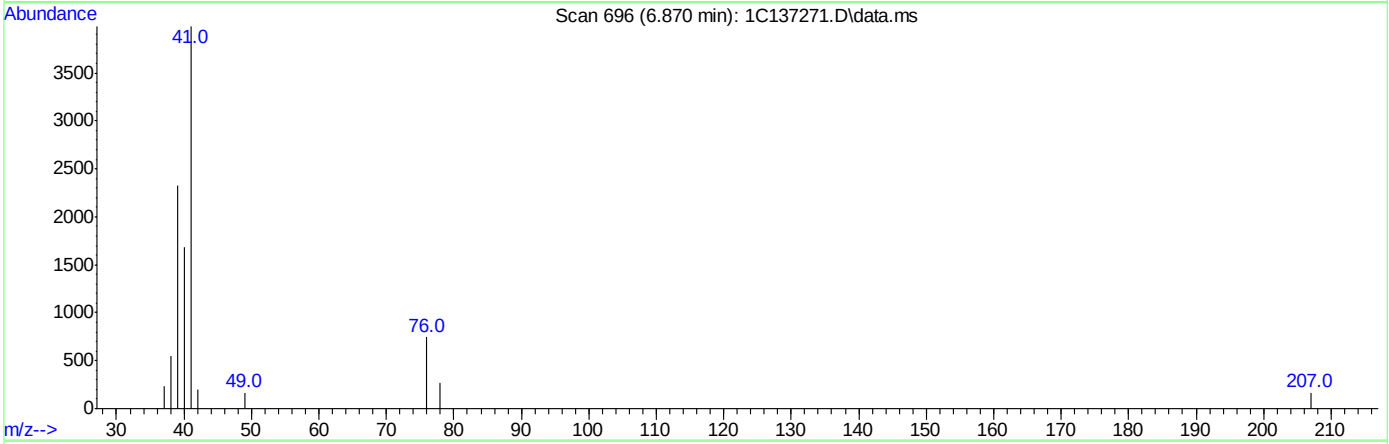
Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		6.87	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\v1c6103raw\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:11:01 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 08:28:46 2015
Response via : Initial Calibration





TIC: 1C137271.D\data.ms

(26) acetonitrile

6.870min (+0.026) 28.27ug/L

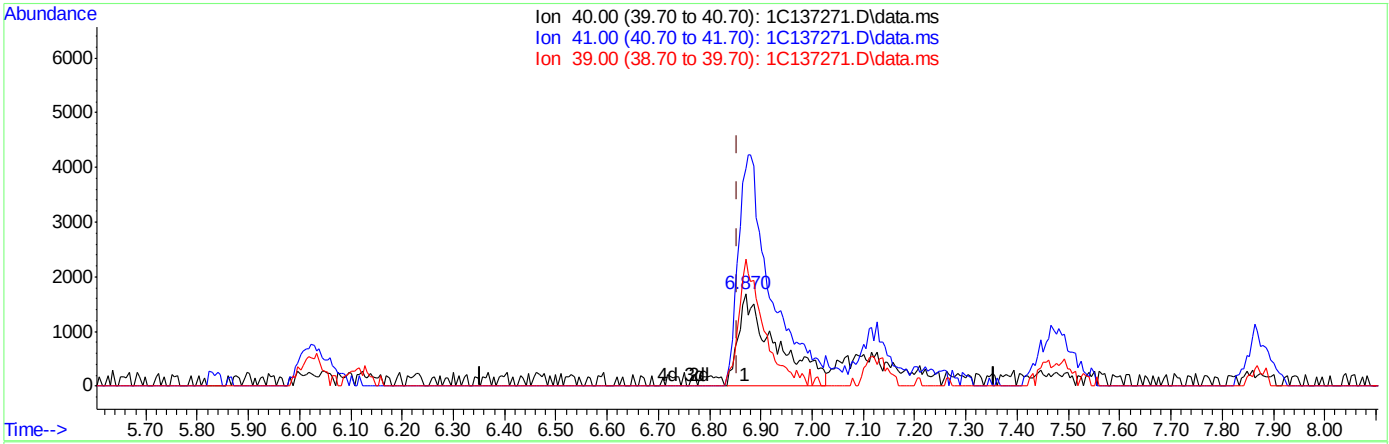
response 4518

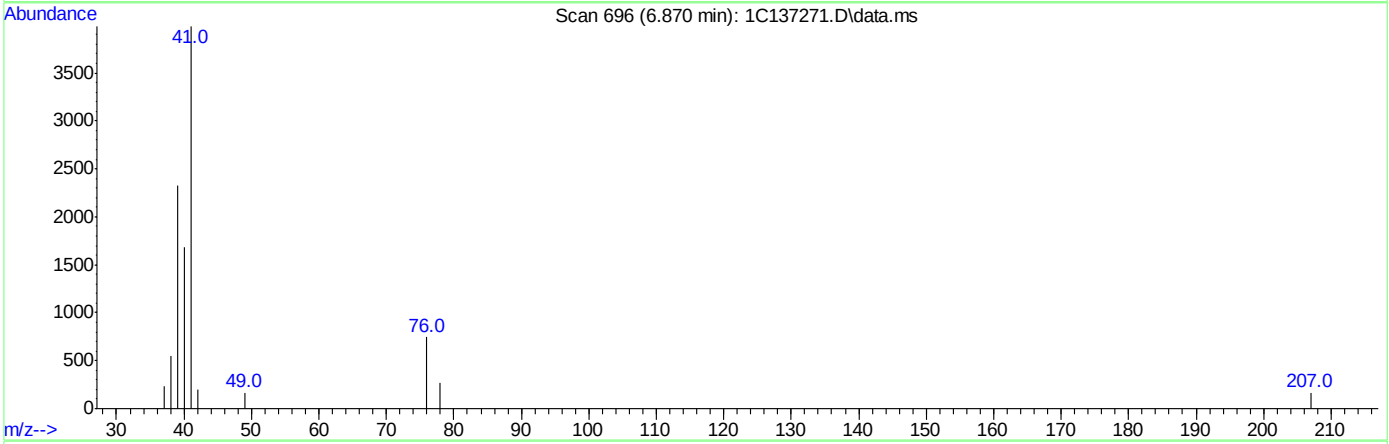
Ion	Exp%	Act%
40.00	100	100
41.00	269.40	415.91#
39.00	108.80	166.67#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration





TIC: 1C137271.D\data.ms

(26) acetonitrile

6.870min (+0.016) 53.28ug/L m

response 8523

Ion	Exp%	Act%
40.00	100	100
41.00	270.40	220.47
39.00	109.30	88.35
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	149224	500.00	ug/L		-0.01
5) pentafluorobenzene	9.60	168	223522	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	229163	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	210832	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	141046	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.64	113	14370	10.40	ug/L		0.01
Spiked Amount 50.000	Range 76 - 122		Recovery = 20.80%#				
54) 1,2-dichloroethane-d4 (s)	10.08	65	16346	10.22	ug/L		0.01
Spiked Amount 50.000	Range 71 - 124		Recovery = 20.44%#				
81) toluene-d8 (s)	12.30	98	45386	10.27	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 20.54%#				
107) 4-bromofluorobenzene (s)	15.17	95	18724	10.53	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 21.06%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.24	59	13257	49.48	ug/L		83
3) 1,4-dioxane	11.34	88	5212	228.39	ug/L	#	73
10) chlorodifluoromethane	3.48	51	21504	9.06	ug/L		98
11) dichlorodifluoromethane	3.45	85	18698	9.52	ug/L		97
13) chloromethane	3.76	50	23417	9.02	ug/L		93
14) vinyl chloride	4.02	62	23781	9.10	ug/L		95
15) bromomethane	4.67	94	16213	9.07	ug/L		94
16) chloroethane	4.86	64	8529	9.47	ug/L		92
20) trichlorofluoromethane	5.38	101	21748	9.10	ug/L		97
21) ethyl ether	5.83	74	6061	9.23	ug/L		89
23) acrolein	6.11	56	28869	93.55	ug/L		98
24) 1,1-dichloroethene	6.27	96	11824	9.63	ug/L		95
25) acetone	6.38	43	4521	9.25	ug/L	#	88
26) acetonitrile	6.87	40	15650	102.98	ug/L		89
27) allyl chloride	6.87	76	5977	9.71	ug/L	#	74
28) iodomethane	6.56	142	30831	9.97	ug/L		98
29) carbon disulfide	6.69	76	45474	9.95	ug/L		100
30) 2-CHLOROPROPANE	6.03	43	21269	10.09	ug/L		92
31) methylene chloride	7.08	84	14244	9.62	ug/L		91
32) methyl acetate	6.90	43	11298	9.02	ug/L		92
33) methyl tert butyl ether	7.47	73	48897	9.77	ug/L		100
34) trans-1,2-dichloroethene	7.51	96	12283	10.32	ug/L		95
35) 1-CHLOROPROPANE	7.12	42	32927	14.44	ug/L	#	85
36) di-isopropyl ether	8.16	45	43130	9.72	ug/L		83
37) 2-butanone	9.02	72	1366	8.38	ug/L	#	52
38) 1,1-dichloroethane	8.17	63	23539	10.30	ug/L		97
39) chloroprene	8.29	53	15543	9.41	ug/L		95
40) acrylonitrile	7.49	53	23328	48.07	ug/L		96
41) vinyl acetate	8.20	86	1002	6.18	ug/L	#	19
42) ethyl tert-butyl ether	8.69	59	47109	9.48	ug/L		96
43) ethyl acetate	9.03	45	1300	6.76	ug/L	#	83
44) 2,2-dichloropropane	8.99	77	24743	10.23	ug/L		93
45) cis-1,2-dichloroethene	9.00	96	14098	9.89	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) propionitrile	9.10	54	21292	96.88	ug/L		80
47) methylacrylate	9.13	55	14241	9.30	ug/L	#	1
48) bromochloromethane	9.34	128	7940	10.21	ug/L		90
49) tetrahydrofuran	9.39	72	1829	8.89	ug/L		95
50) chloroform	9.41	85	15357	9.88	ug/L		95
51) T-BUTYL FORMATE	9.45	59	15150	9.59	ug/L		98
52) isobutyl alcohol	9.95	43	8854	95.38	ug/L	#	96
55) freon 113	6.25	151	8380	9.07	ug/L		87
56) methacrylonitrile	9.30	67	5040	9.23	ug/L		85
57) 1,1,1-trichloroethane	9.66	97	22560	9.53	ug/L		96
58) Cyclohexane	9.74	84	12681	8.97	ug/L		96
60) ISO-OCTANE	10.15	57	25838	8.22	ug/L		94
61) epichlorohydrin	11.92	57	7566	48.82	ug/L		94
62) n-butyl alcohol	10.75	56	24990	452.63	ug/L		93
63) carbon tetrachloride	9.88	117	20059	9.62	ug/L		95
64) 1,1-dichloropropene	9.86	75	14363	9.71	ug/L		94
65) hexane	7.86	57	6562	9.03	ug/L		97
66) benzene	10.14	78	47127	10.00	ug/L		96
67) tert-amyl methyl ether	10.20	73	47053	9.69	ug/L		99
68) heptane	10.36	57	3857	8.95	ug/L		93
69) isopropyl acetate	10.12	43	29139	9.83	ug/L		96
70) 1,2-dichloroethane	10.18	62	17847	9.44	ug/L		99
71) trichloroethene	10.92	95	12224	10.04	ug/L		96
72) 2-nitropropane	11.75	41	5710	9.39	ug/L		90
73) 2-chloroethyl vinyl ether	11.79	63	45253	49.32	ug/L		97
74) methyl methacrylate	11.24	100	3176	9.53	ug/L		97
75) 1,2-dichloropropane	11.19	63	13058	10.41	ug/L		97
76) dibromomethane	11.36	93	8772	9.90	ug/L		89
77) methylcyclohexane	11.13	83	12190	9.03	ug/L		91
78) bromodichloromethane	11.51	83	18636	9.78	ug/L		98
80) cis-1,3-dichloropropene	12.00	75	21141	9.98	ug/L		97
82) 4-methyl-2-pentanone	12.13	58	5508	8.84	ug/L		89
83) toluene	12.38	92	28737	9.81	ug/L		96
84) 3-methyl-1-butanol	12.17	55	18123	191.28	ug/L		93
85) trans-1,3-dichloropropene	12.62	75	19743	9.52	ug/L		92
86) ethyl methacrylate	12.63	69	16015	9.25	ug/L		98
87) 1,1,2-trichloroethane	12.84	83	10212	9.92	ug/L		93
88) 2-hexanone	13.05	58	4627	8.42	ug/L	#	80
90) tetrachloroethene	13.01	164	11085	9.90	ug/L		98
91) 1,3-dichloropropane	13.03	76	19202	9.96	ug/L		93
92) butyl acetate	13.13	56	9069	10.01	ug/L	#	81
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	23806	99.08	ug/L		97
94) dibromochloromethane	13.31	129	16288	9.94	ug/L		94
95) 1,2-dibromoethane	13.46	107	13007	9.81	ug/L		98
97) chlorobenzene	13.96	112	34561	10.04	ug/L		89
98) 1,1,1,2-tetrachloroethane	14.03	131	16466	9.87	ug/L		99
99) ethylbenzene	14.03	91	57632	10.08	ug/L		98
100) m,p-xylene	14.15	106	44603	20.65	ug/L		91
101) o-xylene	14.58	106	23534	10.04	ug/L		98
102) styrene	14.60	104	37059	9.67	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) bromoform	14.88	173	13367	9.56	ug/L	96
106) isopropylbenzene	14.95	105	61020	9.67	ug/L	99
108) cyclohexanone	15.13	55	24201	133.77	ug/L	97
109) bromobenzene	15.37	156	19208	10.04	ug/L	91
110) 1,1,2,2-tetrachloroethane	15.29	83	20006	9.98	ug/L	97
111) trans-1,4-dichloro-2-buten	15.34	53	5236	10.80	ug/L	91
112) 1,2,3-trichloropropane	15.36	110	5416	10.10	ug/L	92
113) n-propylbenzene	15.39	91	66740	9.90	ug/L	98
114) 2-chlorotoluene	15.54	126	15641	9.60	ug/L	100
115) 4-chlorotoluene	15.65	91	44870	10.15	ug/L	97
116) 1,3,5-trimethylbenzene	15.55	105	55012	9.55	ug/L	98
117) tert-butylbenzene	15.92	119	45795	9.11	ug/L	99
118) pentachloroethane	16.01	167	15176	9.42	ug/L	98
119) 1,2,4-trimethylbenzene	15.97	105	55719	9.72	ug/L	99
120) sec-butylbenzene	16.15	105	69868	9.30	ug/L	98
121) 1,3-dichlorobenzene	16.35	146	36479	9.95	ug/L	98
122) p-isopropyltoluene	16.27	119	62095	9.44	ug/L	99
124) 1,4-dichlorobenzene	16.43	146	38634	9.98	ug/L	98
125) benzyl chloride	16.56	91	43677	10.52	ug/L	99
126) 1,2-dichlorobenzene	16.85	146	39216	9.72	ug/L	99
127) n-butylbenzene	16.71	92	29533	9.48	ug/L	97
128) 1,2-dibromo-3-chloropropan	17.68	75	5540	9.83	ug/L	94
129) 1,3,5-trichlorobenzene	17.87	180	42103	9.10	ug/L	97
130) 1,2,4-trichlorobenzene	18.56	180	49163	9.24	ug/L	99
131) hexachlorobutadiene	18.68	225	20205	8.92	ug/L	99
132) naphthalene	18.86	128	119748	9.49	ug/L	100
133) 1,2,3-trichlorobenzene	19.12	180	51694	9.35	ug/L	100
134) hexachloroethane	17.12	201	13748	8.90	ug/L	95

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

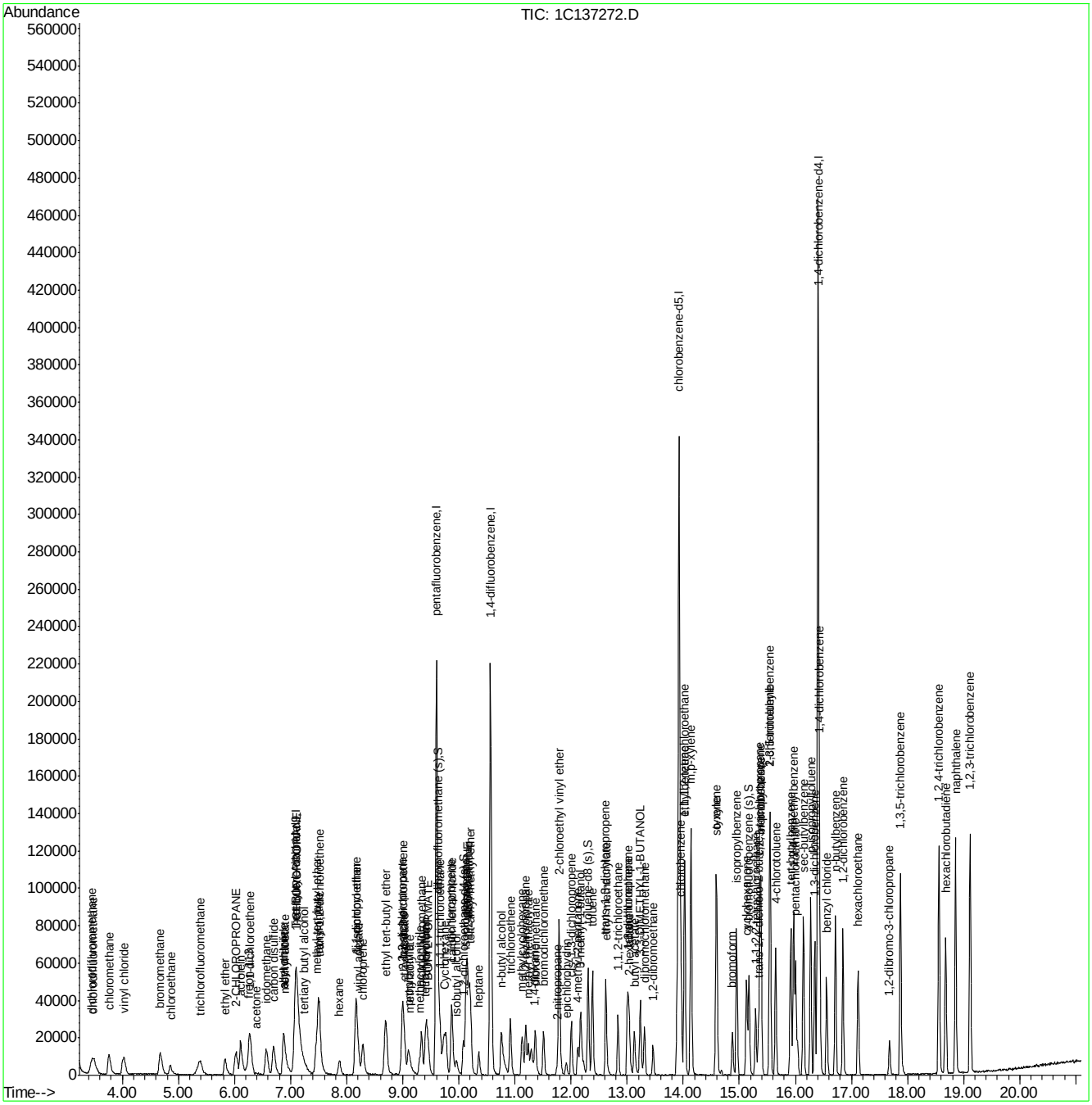
7.6.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.10	65	151326	500.00	ug/L		0.01
5) pentafluorobenzene	9.60	168	224108	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	234158	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	214150	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	136320	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	71303	49.48	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.96%				
54) 1,2-dichloroethane-d4 (s)	10.07	65	80455	46.58	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 93.16%				
81) toluene-d8 (s)	12.30	98	226979	47.36	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 94.72%				
107) 4-bromofluorobenzene (s)	15.17	95	93571	50.11	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.22%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	27055	103.10	ug/L		98
3) 1,4-dioxane	11.33	88	10565	550.94	ug/L		82
10) chlorodifluoromethane	3.47	51	43287	21.00	ug/L		99
11) dichlorodifluoromethane	3.47	85	37602	19.63	ug/L		97
13) chloromethane	3.76	50	46540	19.68	ug/L		94
14) vinyl chloride	4.02	62	47752	19.96	ug/L		99
15) bromomethane	4.67	94	32295	19.09	ug/L		96
16) chloroethane	4.85	64	17128	19.03	ug/L		96
20) trichlorofluoromethane	5.38	101	43771	19.93	ug/L		89
21) ethyl ether	5.82	74	13716	22.89	ug/L		97
23) acrolein	6.10	56	60216	187.34	ug/L		98
24) 1,1-dichloroethene	6.27	96	25138	21.98	ug/L		96
25) acetone	6.37	43	10042	22.15	ug/L	#	94
26) acetonitrile	6.86	40	27479	169.56	ug/L		90
27) allyl chloride	6.87	76	12782	23.40	ug/L		95
28) iodomethane	6.56	142	61498	20.97	ug/L		97
29) carbon disulfide	6.69	76	93859	21.05	ug/L		97
30) 2-CHLOROPROPANE	6.02	43	42505	21.51	ug/L		98
31) methylene chloride	7.09	84	29746	21.23	ug/L		98
32) methyl acetate	6.89	43	23900	21.05	ug/L		95
33) methyl tert butyl ether	7.46	73	98030	20.99	ug/L		96
34) trans-1,2-dichloroethene	7.51	96	23936	20.72	ug/L		97
35) 1-CHLOROPROPANE	7.12	42	54044	14.27	ug/L	#	85
36) di-isopropyl ether	8.16	45	85292	20.07	ug/L		90
37) 2-butanone	9.01	72	3552	25.93	ug/L	#	3
38) 1,1-dichloroethane	8.16	63	48135	21.59	ug/L		98
39) chloroprene	8.28	53	31927	20.68	ug/L		97
40) acrylonitrile	7.48	53	49709	111.16	ug/L		97
41) vinyl acetate	8.19	86	2689	26.77	ug/L		49
42) ethyl tert-butyl ether	8.69	59	93069	20.28	ug/L		99
43) ethyl acetate	9.02	45	3872	29.71	ug/L		65
44) 2,2-dichloropropane	8.98	77	50594	21.49	ug/L		96
45) cis-1,2-dichloroethene	8.99	96	29349	21.97	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
46) propionitrile	9.08	54	44258	222.06 ug/L	80
47) methylacrylate	9.10	55	30435	23.41 ug/L	98
48) bromochloromethane	9.33	128	16096	21.77 ug/L	95
49) tetrahydrofuran	9.39	72	4107	27.09 ug/L	85
50) chloroform	9.41	85	32225	22.06 ug/L	97
51) T-BUTYL FORMATE	9.44	59	29339	19.91 ug/L	99
52) isobutyl alcohol	9.95	43	17296	212.13 ug/L	97
55) freon 113	6.26	151	17432	21.06 ug/L	98
56) methacrylonitrile	9.29	67	11348	24.40 ug/L	94
57) 1,1,1-trichloroethane	9.66	97	45794	21.49 ug/L	97
58) Cyclohexane	9.73	84	28325	22.52 ug/L	90
60) ISO-OCTANE	10.15	57	58081	21.04 ug/L	83
61) epichlorohydrin	11.91	57	15505	108.14 ug/L	96
62) n-butyl alcohol	10.75	56	52601	1075.09 ug/L	99
63) carbon tetrachloride	9.87	117	41360	21.23 ug/L	92
64) 1,1-dichloropropene	9.86	75	29402	21.36 ug/L	91
65) hexane	7.86	57	14546	21.50 ug/L	91
66) benzene	10.14	78	96614	21.10 ug/L	97
67) tert-amyl methyl ether	10.20	73	92481	19.80 ug/L	98
68) heptane	10.35	57	8373	21.39 ug/L	95
69) isopropyl acetate	10.11	43	56946	20.14 ug/L	96
70) 1,2-dichloroethane	10.17	62	38903	22.49 ug/L	96
71) trichloroethene	10.92	95	25815	21.37 ug/L	95
72) 2-nitropropane	11.75	41	12171	21.28 ug/L	96
73) 2-chloroethyl vinyl ether	11.78	63	90122	101.86 ug/L	97
74) methyl methacrylate	11.23	100	7120	26.18 ug/L	95
75) 1,2-dichloropropane	11.19	63	26008	20.53 ug/L	99
76) dibromomethane	11.36	93	18287	21.74 ug/L	93
77) methylcyclohexane	11.13	83	25878	20.43 ug/L	98
78) bromodichloromethane	11.51	83	38147	20.97 ug/L	91
80) cis-1,3-dichloropropene	12.00	75	44448	21.46 ug/L	96
82) 4-methyl-2-pentanone	12.12	58	11792	22.29 ug/L	98
83) toluene	12.38	92	59121	21.13 ug/L	94
84) 3-methyl-1-butanol	12.17	55	36620	423.22 ug/L	95
85) trans-1,3-dichloropropene	12.61	75	42737	22.31 ug/L	92
86) ethyl methacrylate	12.62	69	34125	22.10 ug/L	94
87) 1,1,2-trichloroethane	12.83	83	21652	21.65 ug/L	99
88) 2-hexanone	13.04	58	11214	26.28 ug/L	92
90) tetrachloroethene	13.01	164	23691	22.02 ug/L	96
91) 1,3-dichloropropane	13.03	76	40560	21.80 ug/L	98
92) butyl acetate	13.13	56	17768	20.21 ug/L	99
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	48030	207.17 ug/L	97
94) dibromochloromethane	13.31	129	34270	21.59 ug/L	97
95) 1,2-dibromoethane	13.46	107	27977	22.05 ug/L	99
97) chlorobenzene	13.96	112	72140	21.53 ug/L	98
98) 1,1,1,2-tetrachloroethane	14.03	131	33459	21.62 ug/L	97
99) ethylbenzene	14.02	91	119596	21.48 ug/L	96
100) m,p-xylene	14.14	106	90245	42.43 ug/L	97
101) o-xylene	14.58	106	48486	21.31 ug/L	98
102) styrene	14.60	104	77546	21.90 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration

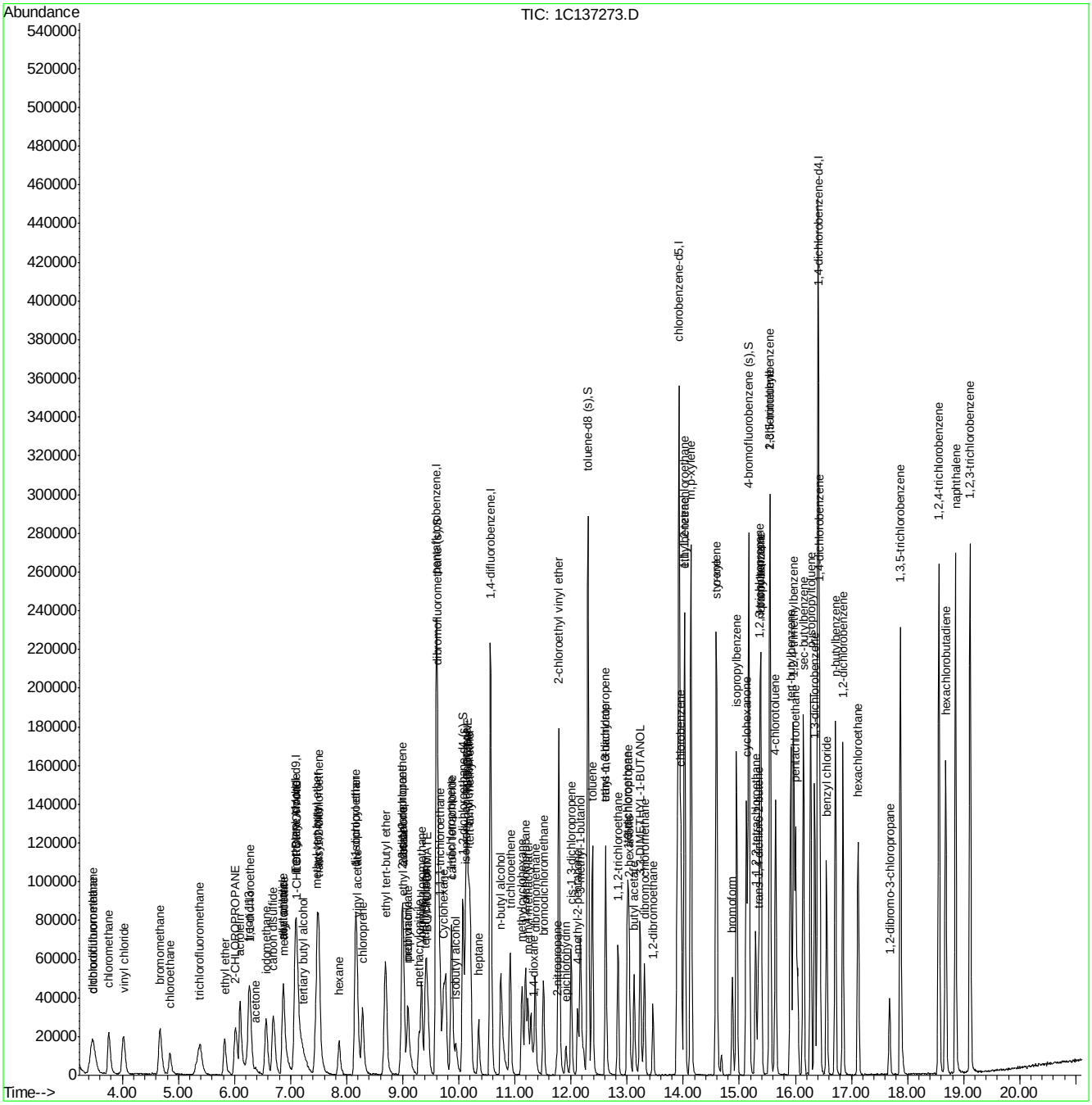
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) bromoform	14.88	173	28640	22.02	ug/L	99
106) isopropylbenzene	14.95	105	127756	22.90	ug/L	98
108) cyclohexanone	15.13	55	67755	273.40	ug/L	99
109) bromobenzene	15.37	156	38865	22.24	ug/L	98
110) 1,1,2,2-tetrachloroethane	15.29	83	42601	23.04	ug/L	93
111) trans-1,4-dichloro-2-buten	15.34	53	11151	23.93	ug/L	96
112) 1,2,3-trichloropropane	15.36	110	11057	23.19	ug/L	95
113) n-propylbenzene	15.39	91	138566	22.62	ug/L	99
114) 2-chlorotoluene	15.54	126	33627	23.48	ug/L	94
115) 4-chlorotoluene	15.65	91	92497	22.60	ug/L	99
116) 1,3,5-trimethylbenzene	15.55	105	115597	23.11	ug/L	99
117) tert-butylbenzene	15.92	119	99692	23.52	ug/L	98
118) pentachloroethane	16.01	167	31961	23.47	ug/L	96
119) 1,2,4-trimethylbenzene	15.97	105	115668	22.85	ug/L	100
120) sec-butylbenzene	16.14	105	150797	23.71	ug/L	98
121) 1,3-dichlorobenzene	16.35	146	76603	22.68	ug/L	97
122) p-isopropyltoluene	16.27	119	131347	22.95	ug/L	100
124) 1,4-dichlorobenzene	16.43	146	79780	22.29	ug/L	98
125) benzyl chloride	16.56	91	90576	22.04	ug/L	99
126) 1,2-dichlorobenzene	16.85	146	82939	23.24	ug/L	98
127) n-butylbenzene	16.71	92	64170	23.49	ug/L	98
128) 1,2-dibromo-3-chloropropan	17.68	75	11860	24.10	ug/L	96
129) 1,3,5-trichlorobenzene	17.87	180	92182	23.31	ug/L	99
130) 1,2,4-trichlorobenzene	18.56	180	104018	23.28	ug/L	98
131) hexachlorobutadiene	18.68	225	45272	24.17	ug/L	94
132) naphthalene	18.86	128	254875	23.16	ug/L	99
133) 1,2,3-trichlorobenzene	19.12	180	110407	23.16	ug/L	100
134) hexachloroethane	17.12	201	30172	24.53	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.11	65	155038	500.00	ug/L	0.02
5) pentafluorobenzene	9.60	168	232205	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.56	114	239115	50.00	ug/L	0.00
89) chlorobenzene-d5	13.93	117	227402	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.40	152	149717	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.63	113	70453	40.02	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 80.04%			
54) 1,2-dichloroethane-d4 (s)	10.07	65	76772	36.53	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 73.06%			
81) toluene-d8 (s)	12.30	98	221975	37.96	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 75.92%#			
107) 4-bromofluorobenzene (s)	15.17	95	92662	36.74	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 73.48%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.24	59	70588	269.31	ug/L	91
3) 1,4-dioxane	11.33	88	28571	1406.47	ug/L	97
10) chlorodifluoromethane	3.49	51	117235	55.41	ug/L	96
11) dichlorodifluoromethane	3.47	85	98960	51.80	ug/L	99
13) chloromethane	3.77	50	135286	52.88	ug/L	97
14) vinyl chloride	4.03	62	136302	52.09	ug/L	96
15) bromomethane	4.68	94	94805	49.96	ug/L	99
16) chloroethane	4.85	64	46622	50.34	ug/L	97
20) trichlorofluoromethane	5.38	101	127161	57.62	ug/L	94
21) ethyl ether	5.82	74	34862	56.41	ug/L	98
23) acrolein	6.10	56	162661	490.97	ug/L	97
24) 1,1-dichloroethene	6.28	96	66130	51.23	ug/L	98
25) acetone	6.36	43	23880	48.25	ug/L	94
26) acetonitrile	6.84	40	77230	484.51	ug/L	99
27) allyl chloride	6.86	76	32526	54.48	ug/L #	87
28) iodomethane	6.56	142	166673	54.67	ug/L	97
29) carbon disulfide	6.69	76	251680	48.32	ug/L	97
30) 2-CHLOROPROPANE	6.02	43	112143	52.45	ug/L	98
31) methylene chloride	7.09	84	79169	51.17	ug/L	98
32) methyl acetate	6.88	43	63411	52.97	ug/L	100
33) methyl tert butyl ether	7.47	73	255620	51.32	ug/L	96
34) trans-1,2-dichloroethene	7.51	96	62872	51.45	ug/L	96
35) 1-CHLOROPROPANE	7.12	42	119909	33.79	ug/L	92
36) di-isopropyl ether	8.16	45	224525	51.44	ug/L	98
37) 2-butanone	8.99	72	8929	54.79	ug/L	98
38) 1,1-dichloroethane	8.16	63	122151	51.13	ug/L	99
39) chloroprene	8.28	53	82472	53.15	ug/L	99
40) acrylonitrile	7.47	53	129506	283.78	ug/L	99
41) vinyl acetate	8.19	86	8370	68.78	ug/L	93
42) ethyl tert-butyl ether	8.70	59	248163	52.73	ug/L	96
43) ethyl acetate	9.02	45	9473	56.45	ug/L	87
44) 2,2-dichloropropane	8.99	77	131592	51.12	ug/L	97
45) cis-1,2-dichloroethene	9.00	96	74834	54.06	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
46) propionitrile	9.08	54	111219	588.38 ug/L	97
47) methylacrylate	9.09	55	78734	55.31 ug/L	98
48) bromochloromethane	9.33	128	40896	53.13 ug/L	96
49) tetrahydrofuran	9.38	72	10903	62.07 ug/L	92
50) chloroform	9.41	85	81288	52.38 ug/L	100
51) T-BUTYL FORMATE	9.44	59	79186	52.94 ug/L	99
52) isobutyl alcohol	9.94	43	46035	534.12 ug/L	98
55) freon 113	6.27	151	49315	61.52 ug/L	94
56) methacrylonitrile	9.29	67	27483	53.14 ug/L	91
57) 1,1,1-trichloroethane	9.67	97	121567	54.03 ug/L	94
58) Cyclohexane	9.74	84	76282	57.37 ug/L	91
60) ISO-OCTANE	10.15	57	169179	61.87 ug/L	97
61) epichlorohydrin	11.91	57	39951	277.07 ug/L	91
62) n-butyl alcohol	10.74	56	141711	2940.34 ug/L	97
63) carbon tetrachloride	9.88	117	109180	52.45 ug/L	96
64) 1,1-dichloropropene	9.86	75	76004	52.13 ug/L	97
65) hexane	7.86	57	38877	57.91 ug/L	97
66) benzene	10.14	78	247050	50.28 ug/L	99
67) tert-amyl methyl ether	10.20	73	246916	52.80 ug/L	99
68) heptane	10.35	57	23796	59.83 ug/L	89
69) isopropyl acetate	10.11	43	143120	51.12 ug/L	96
70) 1,2-dichloroethane	10.16	62	96396	53.44 ug/L	99
71) trichloroethene	10.91	95	64073	51.33 ug/L	98
72) 2-nitropropane	11.75	41	29666	48.75 ug/L	95
73) 2-chloroethyl vinyl ether	11.78	63	231040	274.72 ug/L	98
74) methyl methacrylate	11.23	100	17882	58.37 ug/L	97
75) 1,2-dichloropropane	11.19	63	66472	51.67 ug/L	99
76) dibromomethane	11.36	93	46515	52.88 ug/L	92
77) methylcyclohexane	11.13	83	70037	57.02 ug/L	97
78) bromodichloromethane	11.51	83	97208	52.45 ug/L	95
80) cis-1,3-dichloropropene	12.00	75	112033	51.54 ug/L	98
82) 4-methyl-2-pentanone	12.12	58	31277	58.23 ug/L	97
83) toluene	12.38	92	153349	52.37 ug/L	96
84) 3-methyl-1-butanol	12.16	55	94912	1130.67 ug/L	97
85) trans-1,3-dichloropropene	12.61	75	109483	55.50 ug/L	96
86) ethyl methacrylate	12.62	69	89366	58.84 ug/L	99
87) 1,1,2-trichloroethane	12.83	83	54730	53.78 ug/L	95
88) 2-hexanone	13.04	58	27979	58.12 ug/L	94
90) tetrachloroethene	13.01	164	59140	48.84 ug/L	98
91) 1,3-dichloropropane	13.03	76	102190	51.86 ug/L	98
92) butyl acetate	13.12	56	46979	50.41 ug/L	94
93) 3,3-DIMETHYL-1-BUTANOL	13.23	57	127652	528.91 ug/L	98
94) dibromochloromethane	13.31	129	86580	50.59 ug/L	97
95) 1,2-dibromoethane	13.46	107	71227	51.93 ug/L	96
97) chlorobenzene	13.96	112	185668	47.82 ug/L	97
98) 1,1,1,2-tetrachloroethane	14.02	131	89926	53.09 ug/L	96
99) ethylbenzene	14.02	91	307820	48.92 ug/L	99
100) m,p-xylene	14.14	106	233714	99.90 ug/L	100
101) o-xylene	14.58	106	127417	53.36 ug/L	96
102) styrene	14.60	104	201885	53.05 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration

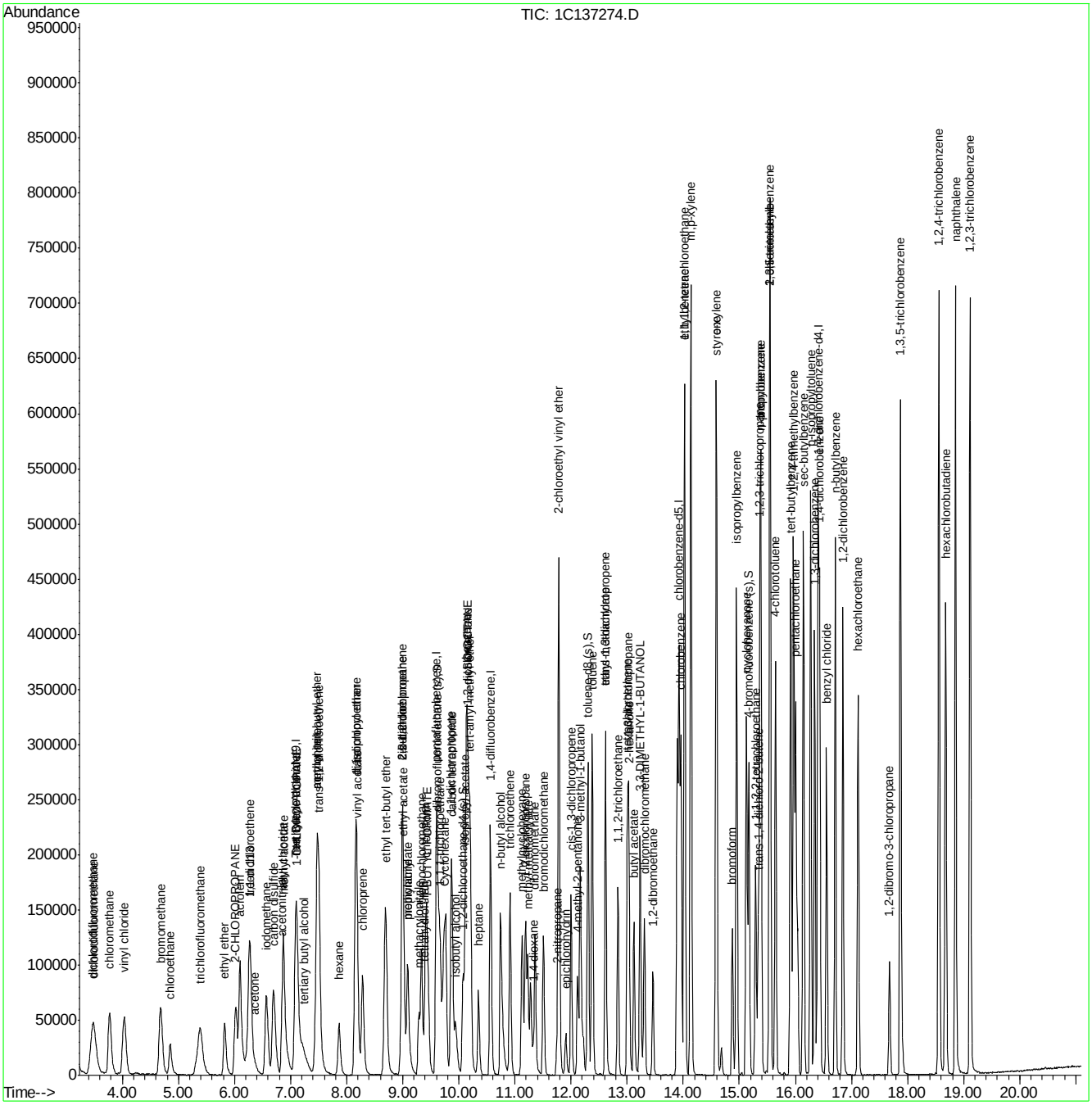
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) bromoform	14.88	173	74029	53.55	ug/L		94
106) isopropylbenzene	14.95	105	335908	50.27	ug/L		99
108) cyclohexanone	15.13	55	156578	453.58	ug/L		99
109) bromobenzene	15.37	156	101069	51.71	ug/L		98
110) 1,1,2,2-tetrachloroethane	15.29	83	105933	50.31	ug/L		98
111) trans-1,4-dichloro-2-buten	15.33	53	27490	50.28	ug/L	#	77
112) 1,2,3-trichloropropane	15.36	110	27178	50.69	ug/L		91
113) n-propylbenzene	15.39	91	359066	48.19	ug/L		99
114) 2-chlorotoluene	15.54	126	87274	53.33	ug/L		99
115) 4-chlorotoluene	15.65	91	234872	47.39	ug/L		99
116) 1,3,5-trimethylbenzene	15.55	105	309264	50.98	ug/L		99
117) tert-butylbenzene	15.92	119	267372	52.16	ug/L		99
118) pentachloroethane	16.01	167	85578	54.82	ug/L		98
119) 1,2,4-trimethylbenzene	15.97	105	307526	49.84	ug/L		99
120) sec-butylbenzene	16.14	105	401032	51.48	ug/L		98
121) 1,3-dichlorobenzene	16.34	146	196276	45.29	ug/L		99
122) p-isopropyltoluene	16.27	119	353652	50.23	ug/L		99
124) 1,4-dichlorobenzene	16.43	146	201029	45.77	ug/L		99
125) benzyl chloride	16.56	91	235386	48.31	ug/L		100
126) 1,2-dichlorobenzene	16.85	146	214634	48.81	ug/L		98
127) n-butylbenzene	16.71	92	166484	47.87	ug/L		99
128) 1,2-dibromo-3-chloropropan	17.68	75	29177	51.10	ug/L		91
129) 1,3,5-trichlorobenzene	17.87	180	247775	49.19	ug/L		99
130) 1,2,4-trichlorobenzene	18.56	180	280133	49.26	ug/L		97
131) hexachlorobutadiene	18.68	225	121748	50.66	ug/L		95
132) naphthalene	18.86	128	655467	47.13	ug/L		99
133) 1,2,3-trichlorobenzene	19.12	180	287278	48.07	ug/L		100
134) hexachloroethane	17.12	201	83520	56.95	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.11	65	183946	500.00	ug/L		0.00
5) pentafluorobenzene	9.60	168	255836	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	272207	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	265179	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	197522	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	359394	194.69	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 389.38%#				
54) 1,2-dichloroethane-d4 (s)	10.07	65	383839	178.43	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 356.86%#				
81) toluene-d8 (s)	12.30	98	1176372	187.13	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 374.26%#				
107) 4-bromofluorobenzene (s)	15.17	95	516972	166.00	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 332.00%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	362724	1129.32	ug/L		70
3) 1,4-dioxane	11.32	88	161251	6207.13	ug/L		95
10) chlorodifluoromethane	3.47	51	572753	225.31	ug/L		96
11) dichlorodifluoromethane	3.47	85	369104	158.97	ug/L		98
13) chloromethane	3.78	50	693522	237.05	ug/L		100
14) vinyl chloride	4.04	62	680660	225.50	ug/L		99
15) bromomethane	4.67	94	457294	215.31	ug/L		100
16) chloroethane	4.85	64	216808	206.89	ug/L		98
20) trichlorofluoromethane	5.36	101	578717	212.28	ug/L		100
21) ethyl ether	5.82	74	173010	240.82	ug/L		97
24) 1,1-dichloroethene	6.27	96	337358	227.62	ug/L		100
25) acetone	6.35	43	116625	210.43	ug/L		97
26) acetonitrile	6.84	40	382729	2192.02	ug/L		98
27) allyl chloride	6.86	76	163323	236.00	ug/L		95
28) iodomethane	6.56	142	849564	243.91	ug/L		96
29) carbon disulfide	6.69	76	1262061	217.22	ug/L		99
30) 2-CHLOROPROPANE	6.01	43	548030	223.29	ug/L		95
31) methylene chloride	7.08	84	399127	230.91	ug/L		98
32) methyl acetate	6.87	43	317550	232.64	ug/L		100
33) methyl tert butyl ether	7.46	73	1280551	229.70	ug/L		95
34) trans-1,2-dichloroethene	7.50	96	315762	227.45	ug/L		94
35) 1-CHLOROPROPANE	7.11	42	544170	157.79	ug/L	#	91
36) di-isopropyl ether	8.16	45	1130119	230.26	ug/L	#	62
37) 2-butanone	8.98	72	47278	242.64	ug/L	#	62
38) 1,1-dichloroethane	8.16	63	605796	225.44	ug/L		99
39) chloroprene	8.28	53	416379	231.52	ug/L		95
40) acrylonitrile	7.47	53	656804	1250.71	ug/L		99
41) vinyl acetate	8.18	86	50902	301.60	ug/L		72
42) ethyl tert-butyl ether	8.69	59	1261571	237.05	ug/L		94
43) ethyl acetate	9.01	45	50232	248.80	ug/L		85
44) 2,2-dichloropropane	8.98	77	627955	214.71	ug/L		97
45) cis-1,2-dichloroethene	8.99	96	377833	239.71	ug/L		99
46) propionitrile	9.08	54	597065	2692.19	ug/L		86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
47) methylacrylate	9.08	55	412859	248.99 ug/L	97
48) bromochloromethane	9.33	128	206828	237.21 ug/L	96
49) tetrahydrofuran	9.38	72	55061	257.71 ug/L	85
50) chloroform	9.41	85	405003	230.54 ug/L	96
51) T-BUTYL FORMATE	9.44	59	403867	236.89 ug/L	99
52) isobutyl alcohol	9.94	43	257965	2597.75 ug/L	99
55) freon 113	6.25	151	193198	182.82 ug/L	92
56) methacrylonitrile	9.28	67	151502	252.87 ug/L	94
57) 1,1,1-trichloroethane	9.66	97	612212	234.01 ug/L	97
58) Cyclohexane	9.73	84	346290	211.19 ug/L	98
60) ISO-OCTANE	10.15	57	585788	160.14 ug/L #	54
61) epichlorohydrin	11.90	57	214317	1245.32 ug/L	96
62) n-butyl alcohol	10.74	56	826842	13978.87 ug/L	97
63) carbon tetrachloride	9.88	117	542691	218.80 ug/L	99
64) 1,1-dichloropropene	9.86	75	401916	232.11 ug/L	99
65) hexane	7.86	57	140236	155.92 ug/L	98
66) benzene	10.13	78	1299148	229.11 ug/L	100
67) tert-amyl methyl ether	10.20	73	1280546	234.78 ug/L	98
68) heptane	10.35	57	82378	154.00 ug/L	91
69) isopropyl acetate	10.11	43	734760	222.24 ug/L	98
70) 1,2-dichloroethane	10.17	62	480721	228.41 ug/L	99
71) trichloroethene	10.91	95	334810	229.67 ug/L	99
72) 2-nitropropane	11.75	41	151352	217.54 ug/L	96
73) 2-chloroethyl vinyl ether	11.78	63	1217232	1226.30 ug/L	100
74) methyl methacrylate	11.23	100	97747	257.50 ug/L	99
75) 1,2-dichloropropane	11.19	63	346812	231.62 ug/L	99
76) dibromomethane	11.36	93	239165	233.54 ug/L	99
77) methylcyclohexane	11.13	83	297147	185.75 ug/L	97
78) bromodichloromethane	11.51	83	507116	234.88 ug/L	99
80) cis-1,3-dichloropropene	12.00	75	590701	234.29 ug/L	97
82) 4-methyl-2-pentanone	12.11	58	170042	260.02 ug/L	98
83) toluene	12.38	92	810284	237.09 ug/L	99
84) 3-methyl-1-butanol	12.16	55	545627	5434.33 ug/L	99
85) trans-1,3-dichloropropene	12.61	75	569201	243.97 ug/L	98
86) ethyl methacrylate	12.61	69	486883	263.84 ug/L	98
87) 1,1,2-trichloroethane	12.83	83	286269	240.53 ug/L	97
88) 2-hexanone	13.03	58	157142	262.79 ug/L	96
90) tetrachloroethene	13.01	164	319615	221.73 ug/L	97
91) 1,3-dichloropropane	13.03	76	542574	231.26 ug/L	98
92) butyl acetate	13.12	56	255185	230.78 ug/L	99
93) 3,3-DIMETHYL-1-BUTANOL	13.23	57	793341	2730.26 ug/L	99
94) dibromochloromethane	13.30	129	464914	229.52 ug/L	98
95) 1,2-dibromoethane	13.46	107	378289	231.80 ug/L	95
97) chlorobenzene	13.96	112	1015926	223.40 ug/L	100
98) 1,1,1,2-tetrachloroethane	14.03	131	503872	247.13 ug/L	99
99) ethylbenzene	14.02	91	1683321	226.62 ug/L	100
100) m,p-xylene	14.14	106	1313890	473.04 ug/L	98
101) o-xylene	14.58	106	725058	252.19 ug/L	97
102) styrene	14.60	104	1171959	255.65 ug/L	98
104) bromoform	14.88	173	417195	250.95 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration

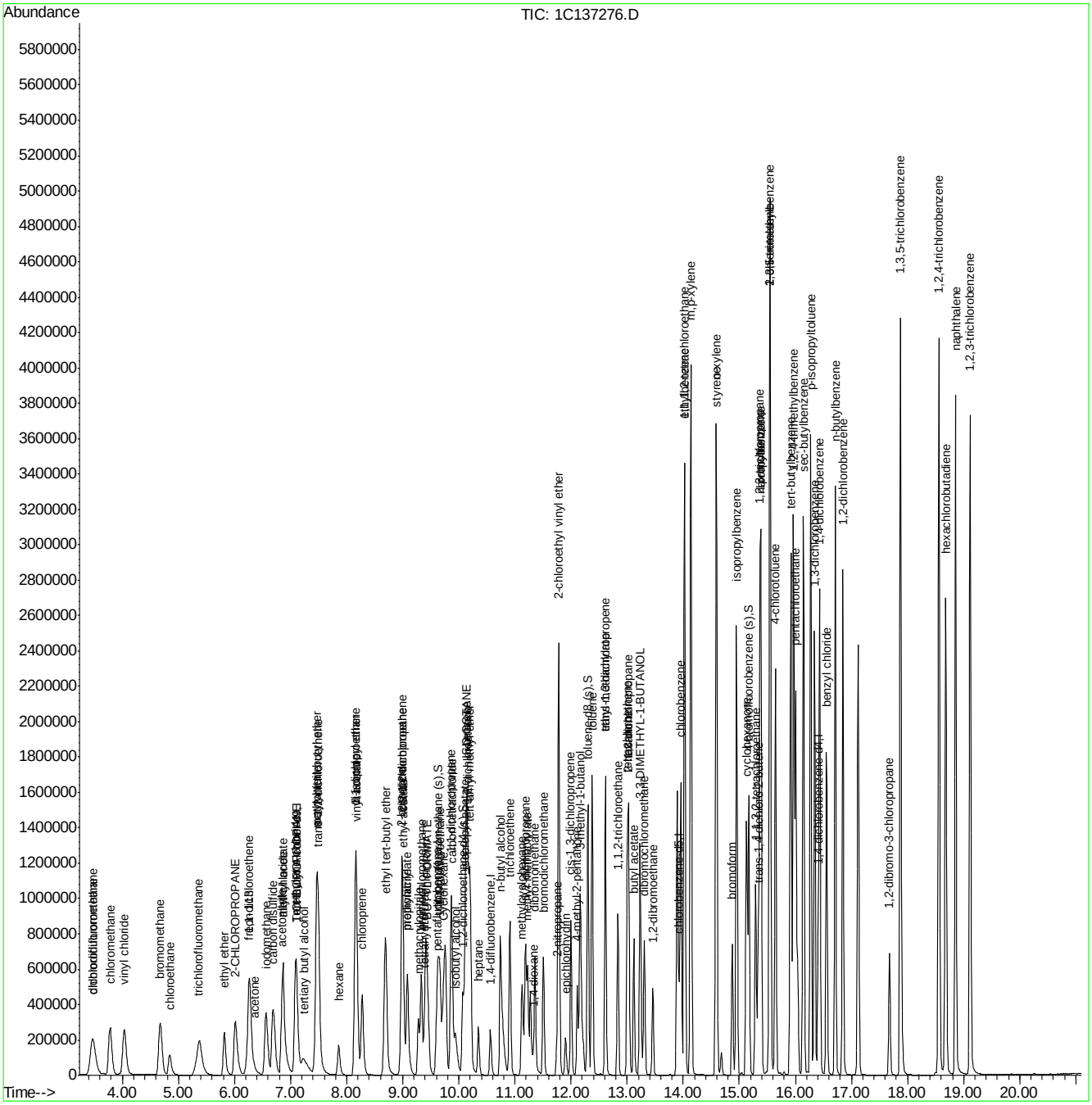
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
106) isopropylbenzene	14.95	105	1950272	215.34 ug/L	99
108) cyclohexanone	15.13	55	712898	1569.37 ug/L	96
109) bromobenzene	15.37	156	590112	223.18 ug/L	95
110) 1,1,2,2-tetrachloroethane	15.29	83	612926	217.40 ug/L	99
111) trans-1,4-dichloro-2-buten	15.33	53	146983	200.42 ug/L	87
112) 1,2,3-trichloropropane	15.36	110	155364	215.33 ug/L	90
113) n-propylbenzene	15.39	91	2081292	208.36 ug/L	100
114) 2-chlorotoluene	15.54	126	530657	236.93 ug/L	96
115) 4-chlorotoluene	15.65	91	1394469	211.67 ug/L	99
116) 1,3,5-trimethylbenzene	15.55	105	1978694	240.17 ug/L	99
117) tert-butylbenzene	15.92	119	1728697	245.09 ug/L	100
118) pentachloroethane	16.01	167	556443	257.01 ug/L	98
119) 1,2,4-trimethylbenzene	15.97	105	1986661	239.18 ug/L	99
120) sec-butylbenzene	16.14	105	2598576	242.61 ug/L	98
121) 1,3-dichlorobenzene	16.34	146	1245646	218.73 ug/L	99
122) p-isopropyltoluene	16.27	119	2375358	247.90 ug/L	100
124) 1,4-dichlorobenzene	16.43	146	1290524	222.96 ug/L	99
125) benzyl chloride	16.56	91	1463899	225.95 ug/L	99
126) 1,2-dichlorobenzene	16.85	146	1421506	241.45 ug/L	98
127) n-butylbenzene	16.71	92	1139407	242.99 ug/L	99
128) 1,2-dibromo-3-chloropropan	17.68	75	189796	245.67 ug/L	96
129) 1,3,5-trichlorobenzene	17.87	180	1728729	252.75 ug/L	100
130) 1,2,4-trichlorobenzene	18.56	180	1678523	218.66 ug/L	98
131) hexachlorobutadiene	18.68	225	774781	232.08 ug/L	99
132) naphthalene	18.86	128	3619544	196.45 ug/L	99
133) 1,2,3-trichlorobenzene	19.12	180	1520559	191.06 ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	155357	500.00	ug/L		-0.02
5) pentafluorobenzene	9.59	168	222279	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	233928	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	214140	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	131569	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.62	113	69519	48.45	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 96.90%				
54) 1,2-dichloroethane-d4 (s)	10.07	65	75577	46.89	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 93.78%				
81) toluene-d8 (s)	12.30	98	233722	49.84	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.68%				
107) 4-bromofluorobenzene (s)	15.17	95	93708	53.15	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.30%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	73660	267.12	ug/L		70
3) 1,4-dioxane	11.33	88	27670	1228.65	ug/L		95
10) chlorodifluoromethane	3.47	51	99110	44.56	ug/L		99
11) dichlorodifluoromethane	3.46	85	78521	43.45	ug/L		98
13) chloromethane	3.77	50	124297	48.42	ug/L		98
14) vinyl chloride	4.02	62	128874	49.39	ug/L		99
15) bromomethane	4.67	94	89423	48.34	ug/L		98
16) chloroethane	4.85	64	52886	58.42	ug/L		97
20) trichlorofluoromethane	5.37	101	119393	52.90	ug/L		99
21) ethyl ether	5.81	74	37536	58.18	ug/L		99
23) acrolein	6.09	56	161258	507.52	ug/L		97
24) 1,1-dichloroethene	6.27	96	68062	52.91	ug/L		97
25) acetone	6.36	43	24596	49.77	ug/L		93
26) acetonitrile	6.84	40	81095	521.50	ug/L		93
27) allyl chloride	6.86	76	34989	56.88	ug/L		97
28) iodomethane	6.56	142	160051	51.66	ug/L		95
29) carbon disulfide	6.68	76	256800	50.48	ug/L		98
30) 2-CHLOROPROPANE	6.02	43	118341	55.40	ug/L		95
31) methylene chloride	7.08	84	77836	50.84	ug/L		97
32) methyl acetate	6.88	43	55465	45.22	ug/L		97
33) methyl tert butyl ether	7.46	73	488580	99.45	ug/L		93
34) trans-1,2-dichloroethene	7.50	96	65409	53.55	ug/L		91
35) 1-CHLOROPROPANE	7.12	42	127091	52.60	ug/L		96
36) di-isopropyl ether	8.16	45	229093	52.74	ug/L		73
37) 2-butanone	8.98	72	9471	53.52	ug/L	#	61
38) 1,1-dichloroethane	8.16	63	125277	52.99	ug/L		98
39) chloroprene	8.28	53	82231	52.49	ug/L		98
40) acrylonitrile	7.47	53	149146	298.71	ug/L		99
41) vinyl acetate	8.17	86	10653	55.59	ug/L		52
42) ethyl tert-butyl ether	8.68	59	234926	49.93	ug/L		95
43) ethyl acetate	9.01	45	10774	52.07	ug/L		79
44) 2,2-dichloropropane	8.99	77	135423	53.48	ug/L		98
45) cis-1,2-dichloroethene	8.99	96	74333	53.09	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) propionitrile	9.08	54	115859	539.06	ug/L		98
47) methylacrylate	9.09	55	83210	55.15	ug/L		98
48) bromochloromethane	9.33	128	39411	50.70	ug/L		98
49) tetrahydrofuran	9.38	72	11087	52.50	ug/L		98
50) chloroform	9.41	85	79030	50.98	ug/L		98
51) T-BUTYL FORMATE	9.44	59	81830	53.86	ug/L		99
52) isobutyl alcohol	9.93	43	46804	513.52	ug/L		96
55) freon 113	6.25	151	49970	57.23	ug/L		93
56) methacrylonitrile	9.28	67	29671	52.05	ug/L		98
57) 1,1,1-trichloroethane	9.66	97	122961	53.89	ug/L		95
58) Cyclohexane	9.73	84	80358	57.28	ug/L		96
60) ISO-OCTANE	10.15	57	144365	51.39	ug/L	#	59
61) epichlorohydrin	11.91	57	40474	263.60	ug/L		93
62) n-butyl alcohol	10.74	56	148119	2639.39	ug/L		99
63) carbon tetrachloride	9.88	117	109821	52.37	ug/L		100
64) 1,1-dichloropropene	9.86	75	85172	56.00	ug/L		99
65) hexane	7.86	57	27859	41.10	ug/L		94
66) benzene	10.13	78	254644	51.62	ug/L		99
67) tert-amyl methyl ether	10.20	73	235886	49.50	ug/L		98
68) heptane	10.35	57	21458	53.10	ug/L		98
69) isopropyl acetate	10.10	43	154963	54.49	ug/L		98
70) 1,2-dichloroethane	10.17	62	92379	50.51	ug/L		98
71) trichloroethene	10.91	95	66129	52.29	ug/L		95
72) 2-nitropropane	11.75	41	31520	52.50	ug/L		90
73) 2-chloroethyl vinyl ether	11.78	63	236270	270.28	ug/L		98
74) methyl methacrylate	11.23	100	19400	52.64	ug/L		88
75) 1,2-dichloropropane	11.18	63	69038	52.73	ug/L		99
76) dibromomethane	11.36	93	45296	50.59	ug/L		99
77) methylcyclohexane	11.13	83	71189	56.50	ug/L		88
78) bromodichloromethane	11.51	83	94585	50.21	ug/L		100
80) cis-1,3-dichloropropene	12.00	75	113579	51.48	ug/L		99
82) 4-methyl-2-pentanone	12.12	58	35226	58.02	ug/L		97
83) toluene	12.38	92	155466	51.23	ug/L		99
84) 3-methyl-1-butanol	12.16	55	98595	1053.20	ug/L		95
85) trans-1,3-dichloropropene	12.61	75	105073	51.34	ug/L		98
86) ethyl methacrylate	12.62	69	92385	53.58	ug/L		96
87) 1,1,2-trichloroethane	12.83	83	53940	51.66	ug/L		98
88) 2-hexanone	13.04	58	30703	56.59	ug/L		95
90) tetrachloroethene	13.01	164	60810	52.06	ug/L		99
91) 1,3-dichloropropane	13.03	76	102441	53.15	ug/L		96
92) butyl acetate	13.12	56	48484	53.01	ug/L		96
93) 3,3-DIMETHYL-1-BUTANOL	13.23	57	129675	527.04	ug/L		99
94) dibromochloromethane	13.30	129	83155	50.11	ug/L		99
95) 1,2-dibromoethane	13.45	107	70127	52.22	ug/L		96
97) chlorobenzene	13.96	112	185265	49.97	ug/L		98
98) 1,1,1,2-tetrachloroethane	14.03	131	86266	51.21	ug/L		100
99) ethylbenzene	14.02	91	307244	50.80	ug/L		100
100) m,p-xylene	14.13	106	238912	104.99	ug/L		97
101) o-xylene	14.58	106	127608	52.21	ug/L		98
102) styrene	14.60	104	206522	52.99	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration

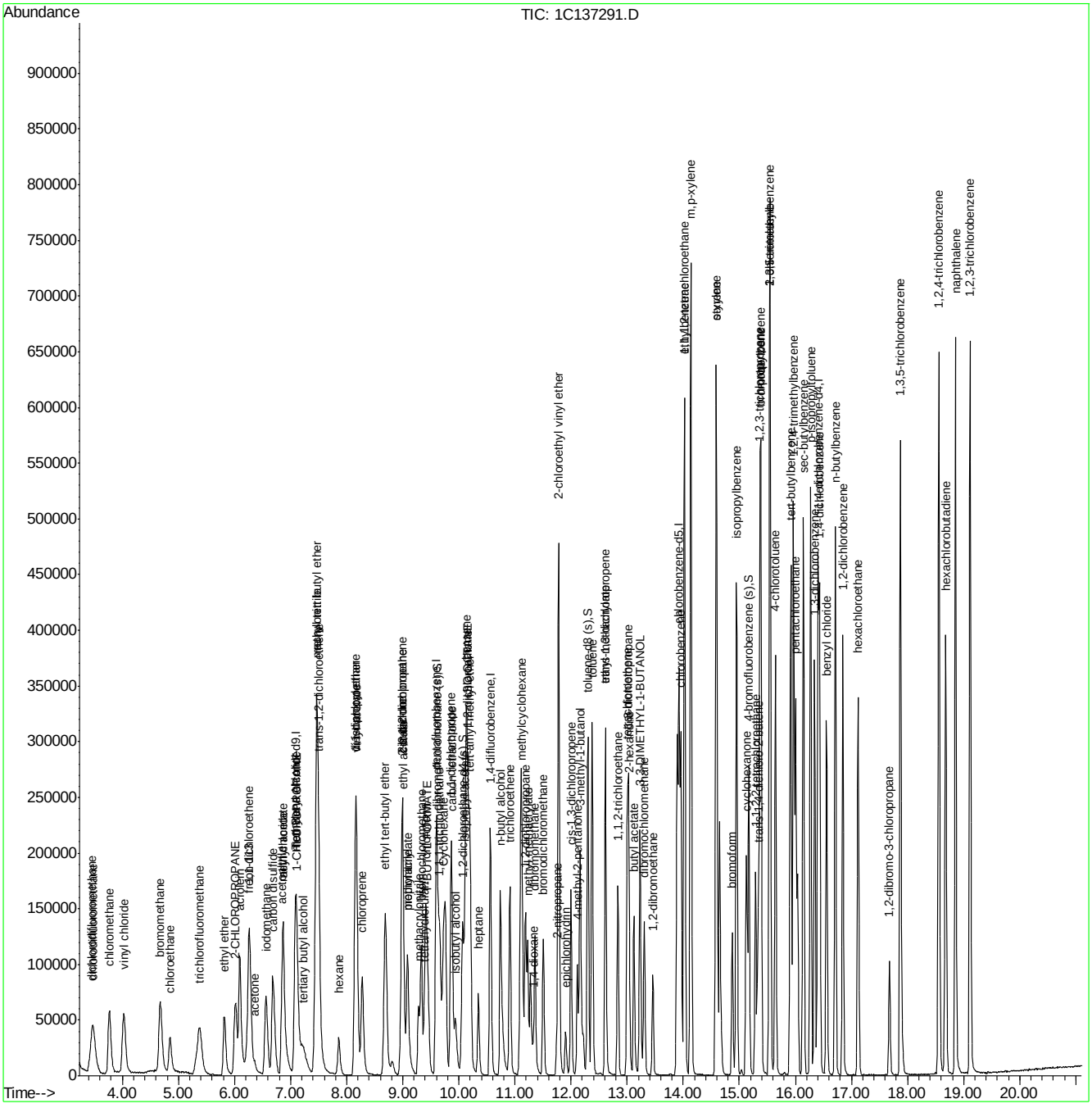
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
104) bromoform	14.88	173	72072	51.29 ug/L		94
106) isopropylbenzene	14.95	105	340176	56.37 ug/L		98
108) cyclohexanone	15.13	55	98782	340.15 ug/L		98
109) bromobenzene	15.37	156	99868	56.16 ug/L		97
110) 1,1,2,2-tetrachloroethane	15.29	83	103529	53.15 ug/L		99
111) trans-1,4-dichloro-2-buten	15.34	53	27753	56.88 ug/L	#	80
112) 1,2,3-trichloropropane	15.36	110	26685	54.85 ug/L		86
113) n-propylbenzene	15.38	91	383488	57.78 ug/L		99
114) 2-chlorotoluene	15.54	126	87461	56.32 ug/L		98
115) 4-chlorotoluene	15.65	91	234427	53.20 ug/L		99
116) 1,3,5-trimethylbenzene	15.55	105	308705	55.46 ug/L		100
117) tert-butylbenzene	15.92	119	270596	56.91 ug/L		99
118) pentachloroethane	16.01	167	84760	55.17 ug/L		96
119) 1,2,4-trimethylbenzene	15.97	105	315736	56.19 ug/L		99
120) sec-butylbenzene	16.14	105	406041	56.42 ug/L		99
121) 1,3-dichlorobenzene	16.34	146	186437	48.77 ug/L		99
122) p-isopropyltoluene	16.27	119	356048	55.03 ug/L		99
124) 1,4-dichlorobenzene	16.43	146	194842	49.92 ug/L		99
125) benzyl chloride	16.56	91	256199	58.38 ug/L		100
126) 1,2-dichlorobenzene	16.85	146	203457	50.87 ug/L		100
127) n-butylbenzene	16.71	92	170998	54.16 ug/L		97
128) 1,2-dibromo-3-chloropropan	17.68	75	28128	53.27 ug/L		97
129) 1,3,5-trichlorobenzene	17.87	180	231857	49.64 ug/L		100
130) 1,2,4-trichlorobenzene	18.56	180	260784	50.58 ug/L		99
131) hexachlorobutadiene	18.68	225	110593	49.68 ug/L		99
132) naphthalene	18.86	128	624918	51.05 ug/L		100
133) 1,2,3-trichlorobenzene	19.12	180	269972	51.33 ug/L		99
134) hexachloroethane	17.12	201	82279	58.32 ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.090	65	133964	500.00	ug/L		-0.02
5) pentafluorobenzene	9.595	168	191428	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	204389	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	188973	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	120633	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.626	113	64777	52.42	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.84%				
54) 1,2-dichloroethane-d4 (s)	10.071	65	66170	47.67	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.34%				
81) toluene-d8 (s)	12.299	98	224043	54.69	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 109.38%				
107) 4-bromofluorobenzene (s)	15.170	95	85971	53.18	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.36%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.226	59	24397	102.60	ug/L		87
3) 1,4-dioxane	11.331	88	9445	486.37	ug/L		88
10) chlorodifluoromethane	3.465	51	38425	20.06	ug/L		98
11) dichlorodifluoromethane	3.465	85	32007	20.57	ug/L		96
13) chloromethane	3.758	50	38284	17.32	ug/L		98
14) vinyl chloride	4.019	62	41046	18.27	ug/L		99
15) bromomethane	4.678	94	27914	17.52	ug/L		93
16) chloroethane	4.846	64	14899	19.11	ug/L		97
20) trichlorofluoromethane	5.379	101	37368	19.23	ug/L		98
21) ethyl ether	5.824	74	11702	21.06	ug/L		96
23) acrolein	6.101	56	38745	141.59	ug/L		93
24) 1,1-dichloroethene	6.263	96	20694	18.68	ug/L		92
25) acetone	6.373	43	7992	18.78	ug/L		99
26) acetonitrile	6.860	40	26465	197.62	ug/L		97
27) allyl chloride	6.865	76	10392	19.62	ug/L	#	84
28) iodomethane	6.561	142	52685	19.75	ug/L		94
29) carbon disulfide	6.687	76	78811	17.99	ug/L		98
30) 2-CHLOROPROPANE	6.017	43	36103	19.33	ug/L	#	93
31) methylene chloride	7.084	84	24750	18.77	ug/L		97
32) methyl acetate	6.891	43	21730	20.57	ug/L		95
33) methyl tert butyl ether	7.471	73	83353	19.70	ug/L		99
34) trans-1,2-dichloroethene	7.508	96	21296	20.24	ug/L		88
35) 1-CHLOROPROPANE	7.111	42	43754	19.54	ug/L	#	91
36) di-isopropyl ether	8.167	45	77863	20.81	ug/L		93
37) 2-butanone	9.004	72	2544	16.69	ug/L	#	25
38) 1,1-dichloroethane	8.162	63	39149	19.23	ug/L		98
39) chloroprene	8.282	53	27855	20.65	ug/L		96
40) acrylonitrile	7.477	53	43810	101.88	ug/L		99
41) vinyl acetate	8.188	86	2552	22.24	ug/L		91
42) ethyl tert-butyl ether	8.690	59	80534	19.87	ug/L		90
43) ethyl acetate	9.014	45	4937	29.66	ug/L		86
44) 2,2-dichloropropane	8.988	77	42542	19.51	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	cis-1,2-dichloroethene	8.993	96	24608	20.41	ug/L	93
46)	propionitrile	9.082	54	37188	200.91	ug/L	81
47)	methylacrylate	9.103	55	28002	21.55	ug/L	93
48)	bromochloromethane	9.333	128	14104	21.07	ug/L	93
49)	tetrahydrofuran	9.391	72	3515	19.33	ug/L	85
50)	chloroform	9.412	85	26505	19.85	ug/L	97
51)	T-BUTYL FORMATE	9.438	59	26914	20.57	ug/L	97
52)	isobutyl alcohol	9.945	43	15046	191.68	ug/L	96
55)	freon 113	6.258	151	16473	21.91	ug/L	98
56)	methacrylonitrile	9.292	67	9445	19.24	ug/L	89
57)	1,1,1-trichloroethane	9.663	97	39088	19.89	ug/L	95
58)	Cyclohexane	9.726	84	25561	21.16	ug/L	81
60)	ISO-OCTANE	10.155	57	52079	21.22	ug/L	97
61)	epichlorohydrin	11.907	57	14160	105.55	ug/L	93
62)	n-butyl alcohol	10.746	56	50144	1022.67	ug/L	99
63)	carbon tetrachloride	9.877	117	34137	18.63	ug/L	96
64)	1,1-dichloropropene	9.862	75	25738	19.37	ug/L	96
65)	hexane	7.864	57	14478	24.45	ug/L	93
66)	benzene	10.139	78	83914	19.47	ug/L	95
67)	tert-amyl methyl ether	10.196	73	81322	19.53	ug/L	96
68)	heptane	10.353	57	8302	23.51	ug/L	91
69)	isopropyl acetate	10.113	43	50173	20.19	ug/L	98
70)	1,2-dichloroethane	10.170	62	29979	18.76	ug/L	97
71)	trichloroethene	10.913	95	22240	20.13	ug/L	96
72)	2-nitropropane	11.755	41	10987	20.94	ug/L	99
73)	2-chloroethyl vinyl ether	11.781	63	79287	103.81	ug/L	99
74)	methyl methacrylate	11.237	100	6277	19.49	ug/L	90
75)	1,2-dichloropropane	11.190	63	22303	19.50	ug/L	99
76)	dibromomethane	11.358	93	15572	19.90	ug/L	98
77)	methylcyclohexane	11.133	83	24259	22.04	ug/L	95
78)	bromodichloromethane	11.509	83	32232	19.58	ug/L	98
80)	cis-1,3-dichloropropene	12.006	75	37989	19.71	ug/L	97
82)	4-methyl-2-pentanone	12.116	58	11333	21.37	ug/L	95
83)	toluene	12.377	92	51657	19.48	ug/L	97
84)	3-methyl-1-butanol	12.168	55	34677	423.96	ug/L	96
85)	trans-1,3-dichloropropene	12.613	75	36639	20.49	ug/L	95
86)	ethyl methacrylate	12.623	69	32026	21.26	ug/L	98
87)	1,1,2-trichloroethane	12.838	83	18609	20.40	ug/L	96
88)	2-hexanone	13.042	58	10103	21.31	ug/L	96
90)	tetrachloroethene	13.005	164	20905	20.28	ug/L	99
91)	1,3-dichloropropane	13.026	76	34620	20.36	ug/L	98
92)	butyl acetate	13.125	56	16454	20.39	ug/L	91
93)	3,3-DIMETHYL-1-BUTANOL	13.230	57	44960	207.07	ug/L	100
94)	dibromochloromethane	13.308	129	30001	20.49	ug/L	99
95)	1,2-dibromoethane	13.460	107	24634	20.79	ug/L	94
97)	chlorobenzene	13.957	112	65179	19.92	ug/L	99
98)	1,1,1,2-tetrachloroethane	14.030	131	29870	20.09	ug/L	99
99)	ethylbenzene	14.025	91	104881	19.65	ug/L	99
100)	m,p-xylene	14.140	106	81810	40.74	ug/L	92
101)	o-xylene	14.585	106	43509	20.17	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

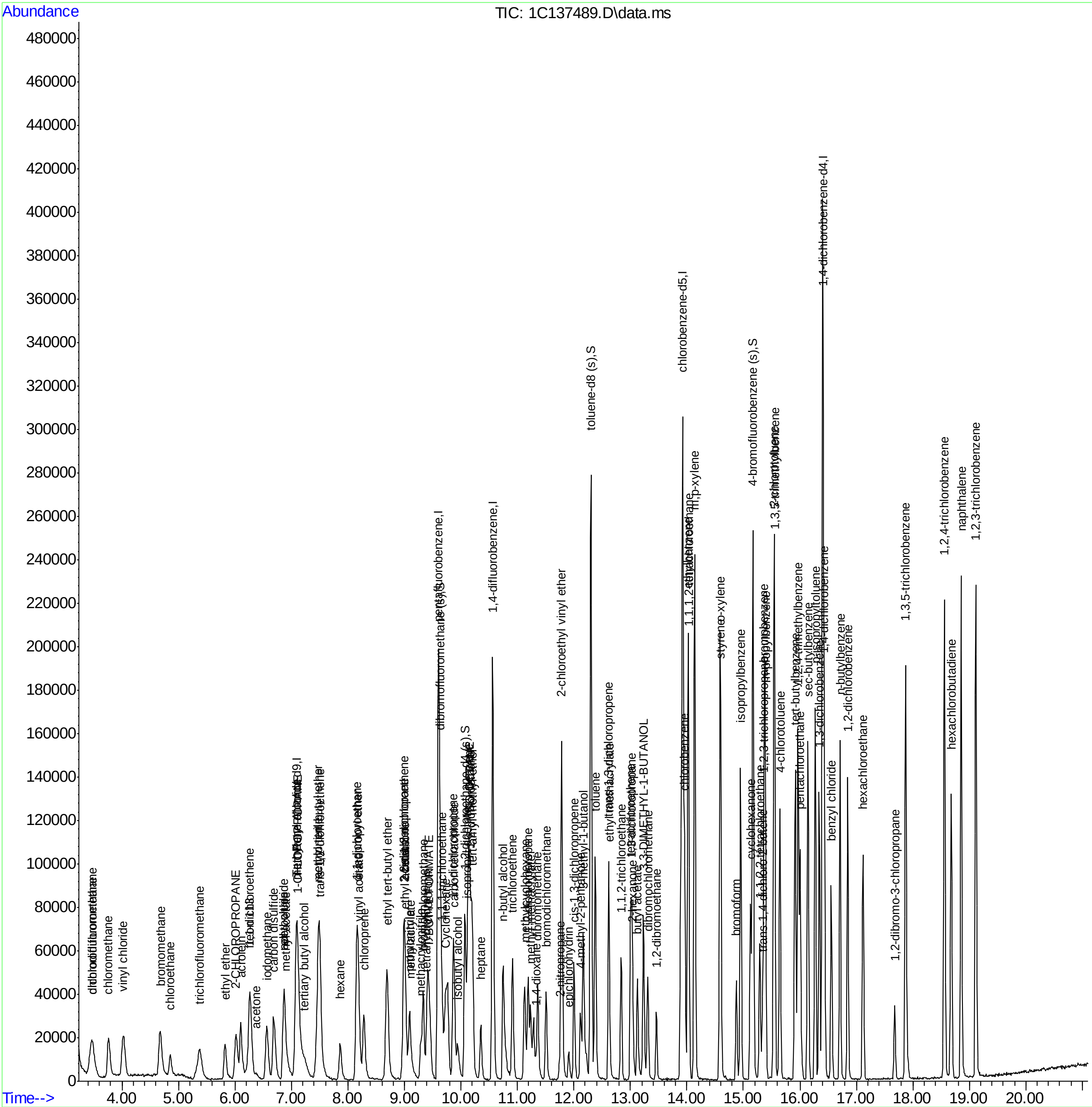
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) styrene	14.600	104	69799	20.29	ug/L		98
104) bromoform	14.877	173	26019	20.98	ug/L		95
106) isopropylbenzene	14.951	105	111047	20.07	ug/L		98
108) cyclohexanone	15.129	55	39747	149.27	ug/L		98
109) bromobenzene	15.369	156	34900	21.40	ug/L		98
110) 1,1,2,2-tetrachloroethane	15.291	83	37486	20.99	ug/L		98
111) trans-1,4-dichloro-2-b...	15.338	53	7419	16.58	ug/L	#	67
112) 1,2,3-trichloropropane	15.359	110	9484	21.26	ug/L		96
113) n-propylbenzene	15.390	91	122454	20.12	ug/L		100
114) 2-chlorotoluene	15.542	126	29585	20.78	ug/L		91
115) 4-chlorotoluene	15.652	91	80959	20.04	ug/L		98
116) 1,3,5-trimethylbenzene	15.552	105	99841	19.56	ug/L		98
117) tert-butylbenzene	15.918	119	88073	20.20	ug/L		96
118) pentachloroethane	16.007	167	28240	20.05	ug/L		96
119) 1,2,4-trimethylbenzene	15.965	105	100601	19.53	ug/L		99
120) sec-butylbenzene	16.143	105	130142	19.72	ug/L		99
121) 1,3-dichlorobenzene	16.342	146	66953	19.10	ug/L		97
122) p-isopropyltoluene	16.274	119	114420	19.29	ug/L		99
124) 1,4-dichlorobenzene	16.431	146	69569	19.44	ug/L		98
125) benzyl chloride	16.556	91	76362	18.98	ug/L		100
126) 1,2-dichlorobenzene	16.849	146	71808	19.58	ug/L		97
127) n-butylbenzene	16.713	92	53992	18.65	ug/L		99
128) 1,2-dibromo-3-chloropr...	17.681	75	9488	19.60	ug/L		87
129) 1,3,5-trichlorobenzene	17.874	180	79598	18.59	ug/L		99
130) 1,2,4-trichlorobenzene	18.560	180	88320	18.68	ug/L		97
131) hexachlorobutadiene	18.680	225	37821	18.53	ug/L		96
132) naphthalene	18.858	128	216496	19.29	ug/L		98
133) 1,2,3-trichlorobenzene	19.119	180	95059	19.71	ug/L		98
134) hexachloroethane	17.121	201	26320	20.35	ug/L		98

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On    :  2 Mar 2015  10:41 am
Operator  : shannont
Sample    : cc6103-20
Misc      : MS81356,V1C6111,5,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title  : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration
```



M1C6103.M Mon Mar 02 15:10:30 2015 Page: 4

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V1C6103

Print Analyst Name: Shannon Tilly

Analyst Signature:

Columns: ZB624 60m×0.25mmx1.4um

Method V8260C

Initial Cal. Method M1C6103

Date: 2/20/15

Standard Data

Lot #	Description	Conc.
V015-2016-53.15	Int A	100ppm
-75.7	B	↓
-84.2	C	↓
-87.2	Hexa	↓
-85.7	Aroma	1000ppm

Standard Data

Lot #	Description	Conc.
V015-2016-62.38	A	100ppm
-83.8	B	↓
-81.6	C	↓
-60.34	Aroma	1000ppm
-71	Int only	250/2500ppm
-82.4	Surrogate	100 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: _____ **Date:** 2/21/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	IC 137266	BFB											OK	9:20am	
	137267	IC6103-0.2	8260C				5				W		OK	1ul Std ABC → 5.00mL	
	137268	IC6103-0.5									W		OK	2.5 ul Std ABC, ACR Surr → 5.00mL	
	137269	IC6103-1									W		OK	2ul Std ABC, Surr 2000ul ACR → 200mL	
	137270	IC6103-2									W		OK	2ul Std ABC, Surr 2000ul ACR → 100mL	
	137271	IC6103-5									W		OK	5ul A.B.C./Bnh. Surr →100mL DI	
	137272	IC6103-10									W		OK	5ul A.B.C Bnh. Surr→ 50mL DI	
	137273	IC6103-20									W		OK	10ul A.B.C./Bnh. 25ul Sur→ 50mL DI	
	137274	IC6103-50									W		OK	25ul A.B.C./Bnh Sur →50mL DI	
	137275	IC6103-100									W		NG	50ul ABC Bnh. Sur → 50mL DI 1x10	
	137276	IC6103-120									W		OK	100ul ABC Bnh. Sur → 50mL DI	
	137277	IB													
	137278	IB													
	137279	ICV6103-50											Not	Load	
	137280	IC6103-100											OK	50ul A.B.C Bnh. Sur → 50mL DI	
	137282	IB												IC137281 skipped accidently	
	137283	ICV6103-50											NG	CS2. dichlorodifluoro methane RIC w/ NOW (A.B.C) STD EXT	
	137284	IB											Not used		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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7.2.1

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6103

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Horvath

Columns: ZB624 (60mx0.25mmx1.4um

Method V8260

Initial Cal. Method V1C6103

Date: 2/23/15

Standard Data

Lot #	Description	Conc.
V015-2016-71	Int Only	2500/2500ppm
-89.4	Surr	100ppm

Standard Data

Lot #	Description	Conc.
V15-2016-53	Ext A (16)	100ppm
-75	Ext B (6)	↓
-84	Ext C (5)	
-87	Ext hexane (8)	✓
-85	Ext Surr. (7)	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: _____ **Date:** 2/23/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	IC137285	BFB									↑		NG	Due to power off	
	137286	ICV 6103-50									↑				
	137287	IB									↑				
	137288	IB									↑				
	137289	IB									↑		↓		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

9

Form: OR001-9
Rev. Date: 2/14/2007

7.7.1 7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6103

Print Analyst Name: YUNXIA CHEN

Analyst Signature:

Date: 2/23/15

Columns: ZB624 60m x 0.25mm x 1.4µm

Method V8260C

Initial Cal. Method M1C6103

Standard Data

Lot #	Description	Conc.
V015-2016-71	Int only	250-500ppm
	-84.4 Y x L	
	-82.4 Surr.	100ppm

Standard Data

Lot #	Description	Conc.
V015-2016	53.16 BFB/8	100ppm
	+75.6 B	↓
	-84.5 C	
	-87.8 hexane	
	+85.7 ↓ mix	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Patel **Date:** 2/24/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	IC137290	BFB											OK		
	137291	6 ICV8103-50	8260C				5						OK	25ml Int (1BC, Surr, hexane) Surr → 50ml V1.	
	137292	1B	↓				↓								
	137293 4	1B											Not load		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

11

Form: OR001-9
Rev. Date: 2/14/2007

7.2.1 7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6111

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Horvath

Columns: ZB624/60mx0.25mmx1.4um

Method 8260C

Initial Cal. Method MC6103

Date: 3/2/2015 (Monday)

Standard Data

Lot #	Description	Conc.
1015 53	Std Ext A	100ppm
1016 75	Ext B	
98	Ext C	
85	Acrolein	1000
90	Ethanol	10000

pH paper 212713 05/01/2016

Standard Data

Lot #	Description	Conc.
1015-62	Std A	100ppm
-85	Std B	
-103	Std C	
-60	Acrolein	1000
-79	IS	10000

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 3/3/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	IC 137488	BFB					5		1x				0,K	10:09am	
	137489	CC6103-20					5		1x		/		?,K	10ul Std ABC, ACR →50 mL	
	137490	IB					5		1x		/		/		
	137491	MB					5		1x	+	/		?,K		
	137492	BS					5		1x		/		?,K	25ul Ext ABC ACR Hex→ 50mL	
	137493	IB					5		1x				/		
	137494	JB89010-1	81468 F22 TCL20+20	GW	1		5		1x	+	-	/	?,K		✓
	137495	JB89010-2	↓	WB	1		5		1x	+	/		?,K		✓
	137496	JB89011-1	81486 BTXM	GW	1		5		1x		/		0,K		✓
	137497	JB89011-2		GW	1		2/50		25x		/		0,K		✓
	137498	JB89011-9		GW	1		2.50/50		4x		/		?,K		✓
	137499	JB89011-2MS		03	1		2/50		25x		/		?,K	25ul Std ABC, ACR →50mL	✓
	137500	JB89011-2MSD	↓	03	1		2/50		25x		/		?,K	↓	✓
	137501	IB										W	/		
	137502	JB89010-3	81468 TCL20+20	WB	1		5		1x			W	RR	1x c/o	✓
	137503	JB89010-4	F22 ↓	WB	1		5		1x			W	RR	1x c/o	✓
	137504	JB89011-14	81486 BTXM	IB			5		1x			W	?,K		✓

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Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
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Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6111

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Horvath

Columns: ZB624 (60mx0.25mmx1.4um)

Method 8260C

Initial Cal. Method M1C6103

Date: 3/2/15 (Mon. Day)

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Pg 45	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 3/3/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	IC B71505	JB89014-4	81486 BTXM	GB	1		5		1x		✓		PK		✓
	B71506	JB89014-5	↓	GB	1		5		1x		✓		PK		✓
	B71507	JB88920-1	81436 STAR	GB	1		5		1x		✓		PK		✓
	B71508	JB88920-2		GB	1		5		1x		✓		PK		✓
	B71509	JB88920-3		GB	1		5		1x		✓		PK		✓
	B71510	JB88920-5		GB	1		5		1x		✓		PK		✓
	B71511	JB89011-7	81486 BTXM	GB	1		2.50		2x		✓		PK	9:58 pm	✓

NHP 3/2/15

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

New Jersey ACCUTEST LABORATORIES

03/12/15

Technical Report for

ERM, Inc.

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

0271614.02

Accutest Job Number: JB89010A

Sampling Date: 02/27/15

Report to:

ERM, Inc.
105 Maxess Road Suite 316
Melville, NY 11747-3851
greg.shkuda@erm.com; andrew.coenen@erm.com;
brice.lynch@erm.com; eugene.gabay@erm.com
ATTN: Eugene Gabay

Total number of pages in report: **244**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

Sections: 1 2 3 4 5 6 7

Table of Contents

Sample Summary

ERM, Inc.

Job No: JB89010A

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB89010-2	02/27/15	13:10	BL	02/27/15	AQ	Field Blank Water	FB022715A
JB89010-3	02/27/15	13:15	BL	02/27/15	AQ	Field Blank Water	FB022715B
JB89010-4	02/27/15	13:15	BL	02/27/15	AQ	Trip Blank Water	TB022715

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JB89010A
Site:	Northrop Grumman, Containment System, (Hydraulic Effectiveness)	**Report Date**	3/12/2015 12:12:23 P

On 02/27/2015, 0 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at Accutest Laboratories at a temperature of 1.1 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB89010A was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V1C6111

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89011-2MS, JB89011-2MSD were used as the QC samples indicated.
- RPD(s) for MSD for Carbon disulfide are outside control limits for sample JB89011-2MSD. Outside control limits due to matrix interference.

Matrix: AQ **Batch ID:** V2B5771

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88920-6MS, JB88920-6MSD were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB89010A
Account: ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Collected: 02/27/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB89010-2	**FB022715A**					
No hits reported in this sample.						
JB89010-3	**FB022715B**					
No hits reported in this sample.						
JB89010-4	**TB022715**					
o-Xylene		0.23 J	1.0	0.20	ug/l	SW846 8260C
Xylene (total)		0.23 J	1.0	0.20	ug/l	SW846 8260C

New Jersey ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID: FB022715A
Lab Sample ID: JB89010-2 **Date Sampled:** 02/27/15
Matrix: AQ - Field Blank Water **Date Received:** 02/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C137495.D	1	03/02/15	ST	n/a	n/a	V1C6111
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022715A		
Lab Sample ID:	JB89010-2	**Date Sampled:**	02/27/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	108%		84-119%
460-00-4	4-Bromofluorobenzene	105%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB022715B		
Lab Sample ID:	JB89010-3	**Date Sampled:**	02/27/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128058.D	1	03/04/15	BK	n/a	n/a	V2B5771
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022715B		
Lab Sample ID:	JB89010-3	**Date Sampled:**	02/27/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB022715
Lab Sample ID: JB89010-4 **Date Sampled:** 02/27/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128059.D	1	03/04/15	BK	n/a	n/a	V2B5771
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB022715		
Lab Sample ID:	JB89010-4	**Date Sampled:**	02/27/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.23	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.23	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

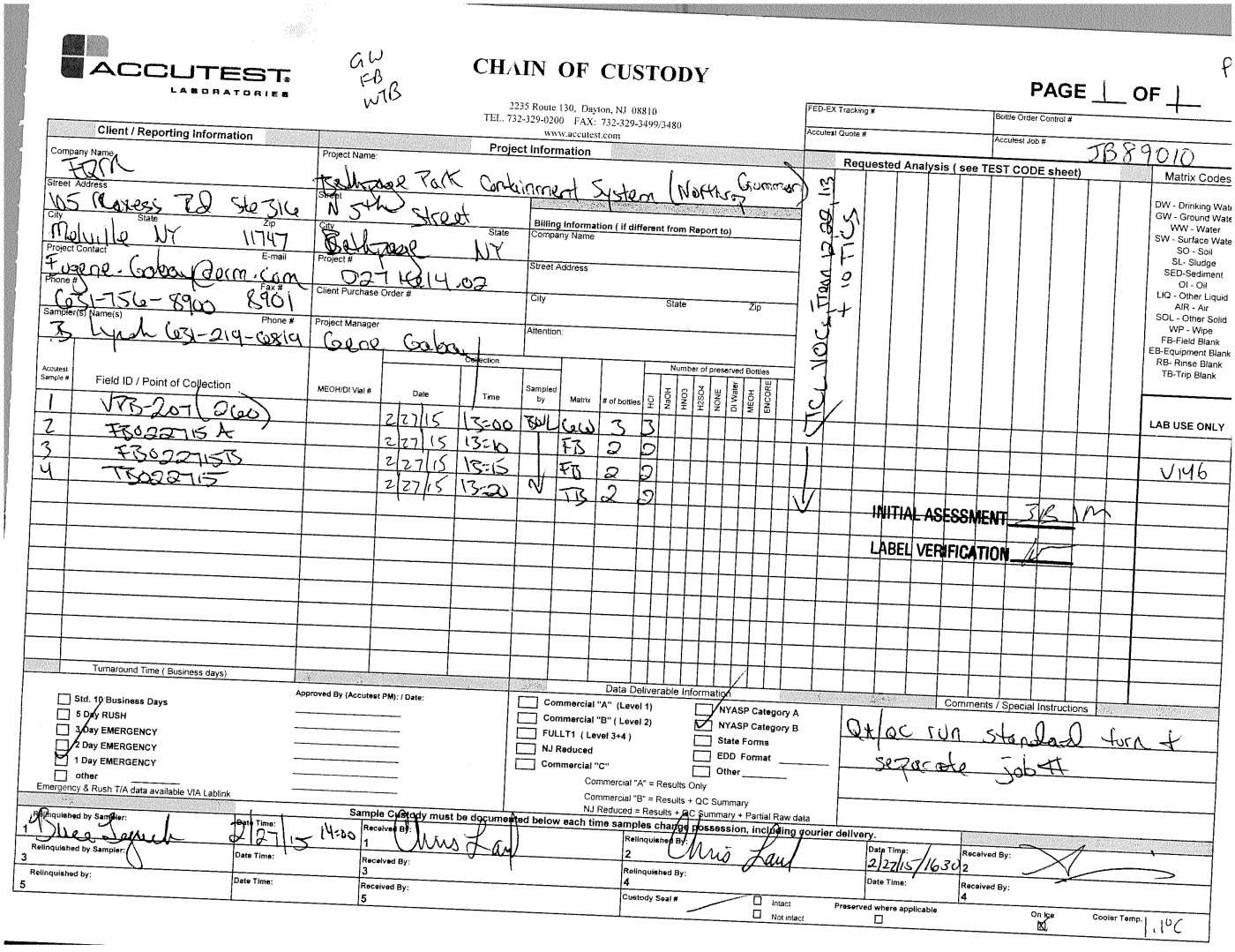
New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



ACCUTEST LABORATORIES

GW
FB
WTB

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 1

Client / Reporting Information

Company Name: ERM
Street Address: 105 Raynes Rd Ste 316
City: Melville State: NY Zip: 11747
Project Contact: Eugene.Gaba@erm.com E-mail:
Phone #: 631-756-8900 Fax #: 8901
Sampler(s) Name(s): J Lynch 631-219-6819 Phone #:

Project Information

Project Name: Bethpage Park Containment System (Northrop Grumman)
Street: N 5th Street
City: Bethpage State: NY
Project #: 027 KB14.02
Client Purchase Order #:
Project Manager: Gene Gaba

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: JB89010

Requested Analysis (see TEST CODE sheet)

TCL VOCs + TICs + 10 TICs

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE
1	VBS-207 (2160)		2/27/15	13:00	BWL	GW	3	3							
2	FB022715A		2/27/15	13:10		FB	2	2							
3	FB022715B		2/27/15	13:15		FB	2	2							
4	TB022715		2/27/15	13:20	N	TB	2	2							

Number of preserved Bottles

Matrix Codes

DW - Drinking Wate
GW - Ground Wate
WW - Water
SW - Surface Wate
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

LAB USE ONLY

V146

INITIAL ASSESSMENT
LABEL VERIFICATION

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [x] 1 Day EMERGENCY
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Qt/qc run standard turn + separate job #

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 J Lynch	2/27/15 14:20	1 Chris Land	2 Chris Land	2/27/15/1630	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not intact	Preserved where applicable
5		5			On Ice [x] Cooler Temp: 1.1°C

5.1 5

JB89010A: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB89010 **Client:** ERM **Project:** Bethpage Park Containment System

Date / Time Received: 2/27/2015 4:30:00 PM **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.1/0.8); 0

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IR Gun
3. Cooler media:	Ice (Bag)
4. No, Coolers	1

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments -1 3 of 3 voc's rec'd with 90% sediment/slurry.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB89010A: Chain of Custody
Page 2 of 3

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB89010

Initiator: ANDREWS

CSR: Tammy McCloskey

Response Date: 2/27/2015

Response: -1 please centrifuge prior to analysis per prior instructions from Gene Gabay.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB89010A: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JB89010A

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB89010-2 FB022715A	Collected: 27-FEB-15 13:10	By: BL	Received: 27-FEB-15	By: AS		
JB89010-2	SW846 8260C	02-MAR-15 14:14	ST			VC8260TCL20+ 20
JB89010-3 FB022715B	Collected: 27-FEB-15 13:15	By: BL	Received: 27-FEB-15	By: AS		
JB89010-3	SW846 8260C	04-MAR-15 18:30	BK			VC8260TCL20+ 20
JB89010-4 TB022715	Collected: 27-FEB-15 13:15	By: BL	Received: 27-FEB-15	By: AS		
JB89010-4	SW846 8260C	04-MAR-15 18:59	BK			VC8260TCL20+ 20

Accutest Internal Chain of Custody

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Received: 02/27/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB89010-2.1	Secured Storage	Nicole Horvath	03/02/15 12:47	Retrieve from Storage
JB89010-2.1	Nicole Horvath	GCMS1C	03/02/15 12:48	Load on Instrument
JB89010-2.1	GCMS1C	Shannon Tilly	03/03/15 10:03	Unload from Instrument
JB89010-2.1	Shannon Tilly	Secured Storage	03/03/15 10:03	Return to Storage
JB89010-3.1	Secured Storage	Nicole Horvath	03/02/15 16:02	Retrieve from Storage
JB89010-3.1	Nicole Horvath	GCMS1C	03/02/15 16:02	Load on Instrument
JB89010-3.1	GCMS1C	Shannon Tilly	03/03/15 10:03	Unload from Instrument
JB89010-3.1	Shannon Tilly	Secured Storage	03/03/15 10:03	Return to Storage
JB89010-3.2	Secured Storage	Bridget Kelly	03/04/15 15:16	Retrieve from Storage
JB89010-3.2	Bridget Kelly	GCMS2B	03/04/15 15:16	Load on Instrument
JB89010-3.2	GCMS2B	Bridget Kelly	03/05/15 09:09	Unload from Instrument
JB89010-3.2	Bridget Kelly	Secured Storage	03/05/15 09:09	Return to Storage
JB89010-4.1	Secured Storage	Nicole Horvath	03/02/15 16:02	Retrieve from Storage
JB89010-4.1	Nicole Horvath	GCMS1C	03/02/15 16:02	Load on Instrument
JB89010-4.1	GCMS1C	Shannon Tilly	03/03/15 10:03	Unload from Instrument
JB89010-4.1	Shannon Tilly	Secured Storage	03/03/15 10:03	Return to Storage
JB89010-4.2	Secured Storage	Bridget Kelly	03/04/15 15:16	Retrieve from Storage
JB89010-4.2	Bridget Kelly	GCMS2B	03/04/15 15:16	Load on Instrument
JB89010-4.2	GCMS2B	Bridget Kelly	03/05/15 09:09	Unload from Instrument
JB89010-4.2	Bridget Kelly	Secured Storage	03/05/15 09:09	Return to Storage

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-MB	1C137491.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-MB	1C137491.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-2

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	95%	73-122%
2037-26-5	Toluene-D8	109%	84-119%
460-00-4	4-Bromofluorobenzene	105%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5771-MB	2B128043.D	1	03/04/15	BK	n/a	n/a	V2B5771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-3, JB89010-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5771-MB	2B128043.D	1	03/04/15	BK	n/a	n/a	V2B5771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-3, JB89010-4

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	95%	73-122%
2037-26-5	Toluene-D8	99%	84-119%
460-00-4	4-Bromofluorobenzene	100%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-BS	1C137492.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	43.0	86	47-144
71-43-2	Benzene	50	49.0	98	81-119
74-97-5	Bromochloromethane	50	51.1	102	84-120
75-27-4	Bromodichloromethane	50	49.0	98	81-125
75-25-2	Bromoform	50	52.0	104	74-128
74-83-9	Bromomethane	50	48.6	97	52-146
78-93-3	2-Butanone (MEK)	50	48.9	98	68-130
75-15-0	Carbon disulfide	50	46.1	92	71-129
56-23-5	Carbon tetrachloride	50	49.1	98	77-140
108-90-7	Chlorobenzene	50	50.7	101	84-116
75-45-6	Chlorodifluoromethane	50	37.2	74	44-147
75-00-3	Chloroethane	50	58.7	117	70-148
67-66-3	Chloroform	50	49.8	100	81-120
74-87-3	Chloromethane	50	46.2	92	50-143
110-82-7	Cyclohexane	50	55.3	111	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	49.3	99	66-132
124-48-1	Dibromochloromethane	50	51.1	102	81-122
106-93-4	1,2-Dibromoethane	50	51.8	104	81-120
95-50-1	1,2-Dichlorobenzene	50	49.5	99	80-117
541-73-1	1,3-Dichlorobenzene	50	47.9	96	81-116
106-46-7	1,4-Dichlorobenzene	50	49.2	98	80-115
75-71-8	Dichlorodifluoromethane	50	44.9	90	36-169
75-34-3	1,1-Dichloroethane	50	49.8	100	80-125
107-06-2	1,2-Dichloroethane	50	48.0	96	78-131
75-35-4	1,1-Dichloroethene	50	47.9	96	73-127
156-59-2	cis-1,2-Dichloroethene	50	51.7	103	77-118
156-60-5	trans-1,2-Dichloroethene	50	50.9	102	75-118
78-87-5	1,2-Dichloropropane	50	49.7	99	80-124
10061-01-5	cis-1,3-Dichloropropene	50	50.2	100	72-121
10061-02-6	trans-1,3-Dichloropropene	50	50.7	101	73-122
100-41-4	Ethylbenzene	50	49.6	99	80-118
76-13-1	Freon 113	50	52.2	104	76-140
591-78-6	2-Hexanone	50	53.5	107	66-128
98-82-8	Isopropylbenzene	50	53.2	106	78-125
79-20-9	Methyl Acetate	50	39.8	80	63-120
108-87-2	Methylcyclohexane	50	49.7	99	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6111-BS	1C137492.D	1	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	96.2	96	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	51.4	103	73-129
75-09-2	Methylene chloride	50	49.3	99	75-122
100-42-5	Styrene	50	52.6	105	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	49.8	100	69-116
127-18-4	Tetrachloroethene	50	50.3	101	69-138
108-88-3	Toluene	50	49.8	100	80-122
87-61-6	1,2,3-Trichlorobenzene	50	50.9	102	74-137
120-82-1	1,2,4-Trichlorobenzene	50	49.2	98	75-135
71-55-6	1,1,1-Trichloroethane	50	51.0	102	80-131
79-00-5	1,1,2-Trichloroethane	50	50.7	101	78-122
79-01-6	Trichloroethene	50	50.0	100	83-122
75-69-4	Trichlorofluoromethane	50	49.6	99	66-143
75-01-4	Vinyl chloride	50	48.1	96	57-138
	m,p-Xylene	100	104	104	82-119
95-47-6	o-Xylene	50	51.2	102	82-119
1330-20-7	Xylene (total)	150	155	103	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	73-122%
2037-26-5	Toluene-D8	108%	84-119%
460-00-4	4-Bromofluorobenzene	106%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5771-BS	2B128044.D	1	03/04/15	BK	n/a	n/a	V2B5771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-3, JB89010-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	51.8	104	47-144
71-43-2	Benzene	50	53.8	108	81-119
74-97-5	Bromochloromethane	50	53.6	107	84-120
75-27-4	Bromodichloromethane	50	50.4	101	81-125
75-25-2	Bromoform	50	47.8	96	74-128
74-83-9	Bromomethane	50	51.9	104	52-146
78-93-3	2-Butanone (MEK)	50	58.9	118	68-130
75-15-0	Carbon disulfide	50	57.0	114	71-129
56-23-5	Carbon tetrachloride	50	44.5	89	77-140
108-90-7	Chlorobenzene	50	52.1	104	84-116
75-45-6	Chlorodifluoromethane	50	51.4	103	44-147
75-00-3	Chloroethane	50	68.6	137	70-148
67-66-3	Chloroform	50	52.0	104	81-120
74-87-3	Chloromethane	50	63.0	126	50-143
110-82-7	Cyclohexane	50	59.7	119	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	52.5	105	66-132
124-48-1	Dibromochloromethane	50	49.0	98	81-122
106-93-4	1,2-Dibromoethane	50	51.8	104	81-120
95-50-1	1,2-Dichlorobenzene	50	51.7	103	80-117
541-73-1	1,3-Dichlorobenzene	50	50.2	100	81-116
106-46-7	1,4-Dichlorobenzene	50	50.2	100	80-115
75-71-8	Dichlorodifluoromethane	50	50.8	102	36-169
75-34-3	1,1-Dichloroethane	50	58.6	117	80-125
107-06-2	1,2-Dichloroethane	50	47.1	94	78-131
75-35-4	1,1-Dichloroethene	50	54.5	109	73-127
156-59-2	cis-1,2-Dichloroethene	50	54.1	108	77-118
156-60-5	trans-1,2-Dichloroethene	50	50.5	101	75-118
78-87-5	1,2-Dichloropropane	50	56.9	114	80-124
10061-01-5	cis-1,3-Dichloropropene	50	54.8	110	72-121
10061-02-6	trans-1,3-Dichloropropene	50	51.0	102	73-122
100-41-4	Ethylbenzene	50	50.3	101	80-118
76-13-1	Freon 113	50	51.2	102	76-140
591-78-6	2-Hexanone	50	56.9	114	66-128
98-82-8	Isopropylbenzene	50	53.9	108	78-125
79-20-9	Methyl Acetate	50	50.3	101	63-120
108-87-2	Methylcyclohexane	50	48.4	97	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5771-BS	2B128044.D	1	03/04/15	BK	n/a	n/a	V2B5771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-3, JB89010-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	103	103	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	57.2	114	73-129
75-09-2	Methylene chloride	50	55.8	112	75-122
100-42-5	Styrene	50	54.9	110	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	54.7	109	69-116
127-18-4	Tetrachloroethene	50	47.1	94	69-138
108-88-3	Toluene	50	51.3	103	80-122
87-61-6	1,2,3-Trichlorobenzene	50	53.7	107	74-137
120-82-1	1,2,4-Trichlorobenzene	50	54.0	108	75-135
71-55-6	1,1,1-Trichloroethane	50	51.9	104	80-131
79-00-5	1,1,2-Trichloroethane	50	51.5	103	78-122
79-01-6	Trichloroethene	50	52.4	105	83-122
75-69-4	Trichlorofluoromethane	50	51.7	103	66-143
75-01-4	Vinyl chloride	50	58.4	117	57-138
	m,p-Xylene	100	103	103	82-119
95-47-6	o-Xylene	50	51.3	103	82-119
1330-20-7	Xylene (total)	150	155	103	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	101%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89011-2MS	1C137499.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2MSD	1C137500.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2	1C137497.D	25	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-2

CAS No.	Compound	JB89011-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		1250	1050	84	1250	1050	84	0	33-158/19
71-43-2	Benzene	164		1250	1380	97	1250	1290	90	7	43-138/12
74-97-5	Bromochloromethane	ND		1250	1340	107	1250	1200	96	11	75-127/12
75-27-4	Bromodichloromethane	ND		1250	1260	101	1250	1170	94	7	72-128/13
75-25-2	Bromoform	ND		1250	1290	103	1250	1270	102	2	70-131/12
74-83-9	Bromomethane	ND		1250	1190	95	1250	1090	87	9	47-142/16
78-93-3	2-Butanone (MEK)	ND		1250	1230	98	1250	1200	96	2	56-146/12
75-15-0	Carbon disulfide	ND		1250	1190	95	1250	995	80	18* [a]	38-136/17
56-23-5	Carbon tetrachloride	ND		1250	1280	102	1250	1190	95	7	45-149/17
108-90-7	Chlorobenzene	ND		1250	1250	100	1250	1200	96	4	70-124/12
75-45-6	Chlorodifluoromethane	ND		1250	1290	103	1250	1180	94	9	26-147/19
75-00-3	Chloroethane	ND		1250	1320	106	1250	1190	95	10	47-139/15
67-66-3	Chloroform	ND		1250	1250	100	1250	1170	94	7	66-126/13
74-87-3	Chloromethane	ND		1250	1190	95	1250	1060	85	12	41-140/15
110-82-7	Cyclohexane	42.7	J	1250	1500	117	1250	1470	114	2	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1200	96	1250	1220	98	2	64-136/14
124-48-1	Dibromochloromethane	ND		1250	1270	102	1250	1240	99	2	75-126/12
106-93-4	1,2-Dibromoethane	ND		1250	1280	102	1250	1260	101	2	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		1250	1230	98	1250	1170	94	5	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		1250	1210	97	1250	1140	91	6	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		1250	1220	98	1250	1150	92	6	69-122/12
75-71-8	Dichlorodifluoromethane	ND		1250	1340	107	1250	1330	106	1	24-161/20
75-34-3	1,1-Dichloroethane	ND		1250	1240	99	1250	1160	93	7	60-129/13
107-06-2	1,2-Dichloroethane	ND		1250	1200	96	1250	1150	92	4	72-133/12
75-35-4	1,1-Dichloroethene	ND		1250	1290	103	1250	1140	91	12	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		1250	1330	106	1250	1220	98	9	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		1250	1310	105	1250	1190	95	10	53-128/15
78-87-5	1,2-Dichloropropane	ND		1250	1260	101	1250	1180	94	7	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1270	102	1250	1190	95	7	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1310	105	1250	1230	98	6	68-130/14
100-41-4	Ethylbenzene	540		1250	1700	93	1250	1630	87	4	38-139/12
76-13-1	Freon 113	ND		1250	1590	127	1250	1520	122	5	34-154/18
591-78-6	2-Hexanone	ND		1250	1360	109	1250	1340	107	1	55-148/15
98-82-8	Isopropylbenzene	70.1		1250	1390	106	1250	1330	101	4	54-137/15
79-20-9	Methyl Acetate	ND		1250	1290	103	1250	1220	98	6	60-137/13
108-87-2	Methylcyclohexane	46.5	J	1250	1630	127	1250	1560	121	4	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89011-2MS	1C137499.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2MSD	1C137500.D	25	03/02/15	ST	n/a	n/a	V1C6111
JB89011-2	1C137497.D	25	03/02/15	ST	n/a	n/a	V1C6111

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-2

CAS No.	Compound	JB89011-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		1250	1260	101	1250	1180	94	7	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		1250	1340	107	1250	1310	105	2	68-139/12
75-09-2	Methylene chloride	ND		1250	1240	99	1250	1120	90	10	63-128/13
100-42-5	Styrene	ND		1250	1300	104	1250	1250	100	4	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1280	102	1250	1270	102	1	67-126/13
127-18-4	Tetrachloroethene	ND		1250	1300	104	1250	1230	98	6	43-145/15
108-88-3	Toluene	ND		1250	1280	102	1250	1200	96	6	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		1250	1290	103	1250	1170	94	10	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		1250	1260	101	1250	1150	92	9	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		1250	1310	105	1250	1210	97	8	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1300	104	1250	1210	97	7	71-127/12
79-01-6	Trichloroethene	ND		1250	1270	102	1250	1180	94	7	55-136/14
75-69-4	Trichlorofluoromethane	ND		1250	1350	108	1250	1290	103	5	33-157/21
75-01-4	Vinyl chloride	ND		1250	1250	100	1250	1140	91	9	34-147/17
	m,p-Xylene	5030		2500	6840	72	2500	6620	64	3	42-139/13
95-47-6	o-Xylene	11.2	J	1250	1290	102	1250	1230	98	5	56-134/13
1330-20-7	Xylene (total)	5040		3750	8140	83	3750	7860	75	4	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JB89011-2	Limits
1868-53-7	Dibromofluoromethane	107%	104%	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	97%	92%	94%	73-122%
2037-26-5	Toluene-D8	111%	110%	109%	84-119%
460-00-4	4-Bromofluorobenzene	106%	108%	106%	78-117%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88920-6MS	2B128052.D	1	03/04/15	BK	n/a	n/a	V2B5771
JB88920-6MSD	2B128053.D	1	03/04/15	BK	n/a	n/a	V2B5771
JB88920-6	2B128048.D	1	03/04/15	BK	n/a	n/a	V2B5771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-3, JB89010-4

CAS No.	Compound	JB88920-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	47.5	95	50	46.9	94	1	33-158/19
71-43-2	Benzene	ND		50	45.3	91	50	44.3	89	2	43-138/12
74-97-5	Bromochloromethane	ND		50	48.5	97	50	46.8	94	4	75-127/12
75-27-4	Bromodichloromethane	ND		50	45.4	91	50	45.0	90	1	72-128/13
75-25-2	Bromoform	ND		50	45.8	92	50	45.3	91	1	70-131/12
74-83-9	Bromomethane	ND		50	47.8	96	50	45.2	90	6	47-142/16
78-93-3	2-Butanone (MEK)	ND		50	53.7	107	50	51.0	102	5	56-146/12
75-15-0	Carbon disulfide	ND		50	45.2	90	50	43.0	86	5	38-136/17
56-23-5	Carbon tetrachloride	ND		50	35.5	71	50	33.7	67	5	45-149/17
108-90-7	Chlorobenzene	ND		50	46.1	92	50	45.5	91	1	70-124/12
75-45-6	Chlorodifluoromethane	ND		50	48.4	97	50	44.5	89	8	26-147/19
75-00-3	Chloroethane	ND		50	53.5	107	50	51.9	104	3	47-139/15
67-66-3	Chloroform	ND		50	45.2	90	50	44.2	88	2	66-126/13
74-87-3	Chloromethane	ND		50	57.6	115	50	55.0	110	5	41-140/15
110-82-7	Cyclohexane	ND		50	44.7	89	50	42.2	84	6	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	52.6	105	50	50.8	102	3	64-136/14
124-48-1	Dibromochloromethane	ND		50	45.7	91	50	45.4	91	1	75-126/12
106-93-4	1,2-Dibromoethane	ND		50	48.2	96	50	47.7	95	1	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		50	48.9	98	50	47.9	96	2	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		50	47.3	95	50	46.0	92	3	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		50	46.5	93	50	45.6	91	2	69-122/12
75-71-8	Dichlorodifluoromethane	ND		50	43.3	87	50	39.6	79	9	24-161/20
75-34-3	1,1-Dichloroethane	ND		50	49.1	98	50	47.4	95	4	60-129/13
107-06-2	1,2-Dichloroethane	ND		50	42.0	84	50	42.1	84	0	72-133/12
75-35-4	1,1-Dichloroethene	ND		50	43.1	86	50	41.1	82	5	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		50	47.0	94	50	45.4	91	3	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		50	43.5	87	50	41.8	84	4	53-128/15
78-87-5	1,2-Dichloropropane	ND		50	52.0	104	50	52.1	104	0	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.2	102	50	50.2	100	2	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		50	47.7	95	50	47.3	95	1	68-130/14
100-41-4	Ethylbenzene	ND		50	43.8	88	50	42.3	85	3	38-139/12
76-13-1	Freon 113	ND		50	41.7	83	50	39.5	79	5	34-154/18
591-78-6	2-Hexanone	ND		50	58.4	117	50	56.9	114	3	55-148/15
98-82-8	Isopropylbenzene	ND		50	47.2	94	50	45.4	91	4	54-137/15
79-20-9	Methyl Acetate	ND		50	57.1	114	50	56.1	112	2	60-137/13
108-87-2	Methylcyclohexane	ND		50	43.3	87	50	40.7	81	6	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88920-6MS	2B128052.D	1	03/04/15	BK	n/a	n/a	V2B5771
JB88920-6MSD	2B128053.D	1	03/04/15	BK	n/a	n/a	V2B5771
JB88920-6	2B128048.D	1	03/04/15	BK	n/a	n/a	V2B5771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89010-3, JB89010-4

CAS No.	Compound	JB88920-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		50	48.8	98	50	48.5	97	1	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		50	57.4	115	50	56.7	113	1	68-139/12
75-09-2	Methylene chloride	ND		50	48.6	97	50	47.7	95	2	63-128/13
100-42-5	Styrene	ND		50	48.9	98	50	48.1	96	2	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	57.5	115	50	56.2	112	2	67-126/13
127-18-4	Tetrachloroethene	ND		50	39.3	79	50	37.1	74	6	43-145/15
108-88-3	Toluene	ND		50	44.5	89	50	43.4	87	3	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		50	51.1	102	50	50.1	100	2	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		50	49.3	99	50	48.8	98	1	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		50	41.1	82	50	38.7	77	6	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		50	48.9	98	50	49.4	99	1	71-127/12
79-01-6	Trichloroethene	ND		50	43.8	88	50	42.0	84	4	55-136/14
75-69-4	Trichlorofluoromethane	ND		50	42.4	85	50	39.4	79	7	33-157/21
75-01-4	Vinyl chloride	ND		50	50.2	100	50	47.4	95	6	34-147/17
	m,p-Xylene	ND		100	89.9	90	100	86.9	87	3	42-139/13
95-47-6	o-Xylene	ND		50	45.2	90	50	44.5	89	2	56-134/13
1330-20-7	Xylene (total)	ND		150	135	90	150	131	87	3	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JB88920-6	Limits
1868-53-7	Dibromofluoromethane	101%	101%	101%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	94%	98%	73-122%
2037-26-5	Toluene-D8	101%	102%	99%	84-119%
460-00-4	4-Bromofluorobenzene	104%	102%	100%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V1C6103-BFB
Lab File ID: 1C137266.D
Instrument ID: GCMS1C
Injection Date: 02/20/15
Injection Time: 09:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11124	17.4		Pass
75	30.0 - 60.0% of mass 95	30296	47.5		Pass
95	Base peak, 100% relative abundance	63792	100.0		Pass
96	5.0 - 9.0% of mass 95	4082	6.40		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	68725	107.7		Pass
175	5.0 - 9.0% of mass 174	5487	8.60	(7.98) [a]	Pass
176	95.0 - 101.0% of mass 174	66280	103.9	(96.4) [a]	Pass
177	5.0 - 9.0% of mass 176	4616	7.24	(6.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6103-IC6103	1C137267.D	02/20/15	09:54	00:34	Initial cal 0.2
V1C6102-IC6102	1C137267B.D	02/20/15	09:54	00:34	Initial cal 0.2
V1C6103-IC6103	1C137268.D	02/20/15	10:24	01:04	Initial cal 0.5
V1C6102-IC6102	1C137268B.D	02/20/15	10:24	01:04	Initial cal 0.5
V1C6103-IC6103	1C137269.D	02/20/15	10:52	01:32	Initial cal 1
V1C6102-IC6102	1C137269B.D	02/20/15	10:52	01:32	Initial cal 1
V1C6103-IC6103	1C137270.D	02/20/15	11:21	02:01	Initial cal 2
V1C6102-IC6102	1C137270B.D	02/20/15	11:21	02:01	Initial cal 2
V1C6103-IC6103	1C137271.D	02/20/15	11:50	02:30	Initial cal 5
V1C6102-IC6102	1C137271B.D	02/20/15	11:50	02:30	Initial cal 5
V1C6103-IC6103	1C137272.D	02/20/15	12:19	02:59	Initial cal 10
V1C6102-IC6102	1C137272B.D	02/20/15	12:19	02:59	Initial cal 10
V1C6103-IC6103	1C137273.D	02/20/15	12:47	03:27	Initial cal 20
V1C6102-IC6102	1C137273B.D	02/20/15	12:47	03:27	Initial cal 20
V1C6102-IC6102	1C137274B.D	02/20/15	13:16	03:56	Initial cal 50
V1C6102-ICC6102	1C137274B.D	02/20/15	13:16	03:56	Initial cal 50
V1C6103-ICC6103	1C137274.D	02/20/15	13:16	03:56	Initial cal 50
V1C6102-IC6102	1C137276B.D	02/20/15	14:14	04:54	Initial cal 200
V1C6103-IC6103	1C137276.D	02/20/15	14:14	04:54	Initial cal 200
V1C6102-IC6102	1C137280B.D	02/20/15	16:11	06:51	Initial cal 100

Instrument Performance Check (BFB)

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V1C6103-BFB2
Lab File ID: 1C137290.D
Instrument ID: GCMS1C
Injection Date: 02/23/15
Injection Time: 12:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9216	17.7		Pass
75	30.0 - 60.0% of mass 95	24336	46.7		Pass
95	Base peak, 100% relative abundance	52133	100.0		Pass
96	5.0 - 9.0% of mass 95	3569	6.85		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	54701	104.9		Pass
175	5.0 - 9.0% of mass 174	4252	8.16	(7.77) [a]	Pass
176	95.0 - 101.0% of mass 174	53075	101.8	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3480	6.68	(6.56) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6102-ICV6102	1C137291B.D	02/23/15	13:11	00:36	Initial cal verification 50
V1C6103-ICV6103	1C137291.D	02/23/15	13:11	00:36	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V1C6111-BFB
Lab File ID: 1C137488.D
Instrument ID: GCMS1C
Injection Date: 03/02/15
Injection Time: 10:09

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	7297	16.6		Pass
75	30.0 - 60.0% of mass 95	20016	45.5		Pass
95	Base peak, 100% relative abundance	43995	100.0		Pass
96	5.0 - 9.0% of mass 95	2738	6.22		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	47499	108.0		Pass
175	5.0 - 9.0% of mass 174	3634	8.26	(7.65) [a]	Pass
176	95.0 - 101.0% of mass 174	46899	106.6	(98.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3164	7.19	(6.75) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6111-CC6103	1C137489.D	03/02/15	10:41	00:32	Continuing cal 20
V1C6111-MB	1C137491.D	03/02/15	11:50	01:41	Method Blank
V1C6111-BS	1C137492.D	03/02/15	12:27	02:18	Blank Spike
ZZZZZZ	1C137494.D	03/02/15	13:44	03:35	(unrelated sample)
JB89010-2	1C137495.D	03/02/15	14:14	04:05	FB022715A
ZZZZZZ	1C137496.D	03/02/15	14:43	04:34	(unrelated sample)
JB89011-2	1C137497.D	03/02/15	15:12	05:03	(used for QC only; not part of job JB89010A)
ZZZZZZ	1C137498.D	03/02/15	15:42	05:33	(unrelated sample)
JB89011-2MS	1C137499.D	03/02/15	16:11	06:02	Matrix Spike
JB89011-2MSD	1C137500.D	03/02/15	16:40	06:31	Matrix Spike Duplicate
ZZZZZZ	1C137504.D	03/02/15	18:35	08:26	(unrelated sample)
ZZZZZZ	1C137505.D	03/02/15	19:04	08:55	(unrelated sample)
ZZZZZZ	1C137506.D	03/02/15	19:33	09:24	(unrelated sample)
ZZZZZZ	1C137507.D	03/02/15	20:02	09:53	(unrelated sample)
ZZZZZZ	1C137508.D	03/02/15	20:31	10:22	(unrelated sample)
ZZZZZZ	1C137509.D	03/02/15	21:00	10:51	(unrelated sample)
ZZZZZZ	1C137510.D	03/02/15	21:29	11:20	(unrelated sample)
ZZZZZZ	1C137511.D	03/02/15	21:58	11:49	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V2B5744-BFB
Lab File ID: 2B127389.D
Instrument ID: GCMS2B
Injection Date: 02/05/15
Injection Time: 15:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17802	17.9		Pass
75	30.0 - 60.0% of mass 95	48517	48.9		Pass
95	Base peak, 100% relative abundance	99285	100.0		Pass
96	5.0 - 9.0% of mass 95	6558	6.61		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	109778	110.6		Pass
175	5.0 - 9.0% of mass 174	8374	8.43	(7.63) [a]	Pass
176	95.0 - 101.0% of mass 174	109376	110.2	(99.6) [a]	Pass
177	5.0 - 9.0% of mass 176	7201	7.25	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5744-IC5744	2B127390.D	02/05/15	16:12	00:35	Initial cal 0.2
V2B5744-IC5744	2B127391.D	02/05/15	16:44	01:07	Initial cal 0.5
V2B5744-IC5744	2B127392.D	02/05/15	17:13	01:36	Initial cal 1
V2B5744-IC5744	2B127393.D	02/05/15	17:42	02:05	Initial cal 2
V2B5744-IC5744	2B127394.D	02/05/15	18:10	02:33	Initial cal 5
V2B5744-IC5744	2B127395.D	02/05/15	18:39	03:02	Initial cal 10
V2B5744-IC5744	2B127396.D	02/05/15	19:07	03:30	Initial cal 20
V2B5744-ICC5744	2B127397.D	02/05/15	19:36	03:59	Initial cal 50
V2B5744-IC5744	2B127398.D	02/05/15	20:04	04:27	Initial cal 100
V2B5744-IC5744	2B127399.D	02/05/15	20:32	04:55	Initial cal 200
V2B5744-ICV5744	2B127402.D	02/05/15	21:58	06:21	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample:	V2B5771-BFB	**Injection Date:**	03/04/15
Lab File ID:	2B128040.D	**Injection Time:**	09:43
Instrument ID:	GCMS2B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19157	17.8		Pass
75	30.0 - 60.0% of mass 95	50170	46.5		Pass
95	Base peak, 100% relative abundance	107800	100.0		Pass
96	5.0 - 9.0% of mass 95	6984	6.48		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	109752	101.8		Pass
175	5.0 - 9.0% of mass 174	8654	8.03	(7.89) [a]	Pass
176	95.0 - 101.0% of mass 174	107082	99.3	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6613	6.13	(6.18) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5771-CC5744	2B128041.D	03/04/15	10:14	00:31	Continuing cal 20
V2B5771-MB	2B128043.D	03/04/15	11:17	01:34	Method Blank
V2B5771-BS	2B128044.D	03/04/15	11:45	02:02	Blank Spike
ZZZZZZ	2B128046.D	03/04/15	12:45	03:02	(unrelated sample)
ZZZZZZ	2B128047.D	03/04/15	13:14	03:31	(unrelated sample)
JB88920-6	2B128048.D	03/04/15	13:43	04:00	(used for QC only; not part of job JB89010A)
ZZZZZZ	2B128049.D	03/04/15	14:11	04:28	(unrelated sample)
ZZZZZZ	2B128050.D	03/04/15	14:42	04:59	(unrelated sample)
ZZZZZZ	2B128051.D	03/04/15	15:10	05:27	(unrelated sample)
JB88920-6MS	2B128052.D	03/04/15	15:39	05:56	Matrix Spike
JB88920-6MSD	2B128053.D	03/04/15	16:08	06:25	Matrix Spike Duplicate
ZZZZZZ	2B128055.D	03/04/15	17:05	07:22	(unrelated sample)
ZZZZZZ	2B128056.D	03/04/15	17:33	07:50	(unrelated sample)
ZZZZZZ	2B128057.D	03/04/15	18:02	08:19	(unrelated sample)
JB89010-3	2B128058.D	03/04/15	18:30	08:47	FB022715B
JB89010-4	2B128059.D	03/04/15	18:59	09:16	TB022715
ZZZZZZ	2B128060.D	03/04/15	19:28	09:45	(unrelated sample)
ZZZZZZ	2B128061.D	03/04/15	19:56	10:13	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Check Std: V1C6111-CC6103 **Injection Date:** 03/02/15
Lab File ID: 1C137489.D **Injection Time:** 10:41
Instrument ID: GCMS1C **Method:** SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	133964	7.09	191428	9.59	204389	10.56	188973	13.93	120633	16.40
Upper Limit [a]	267928	7.59	382856	10.09	408778	11.06	377946	14.43	241266	16.90
Lower Limit [b]	66982	6.59	95714	9.09	102195	10.06	94487	13.43	60317	15.90

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1C6111-MB	132388	7.09	186701	9.60	195428	10.56	182735	13.93	117524	16.40
V1C6111-BS	136395	7.09	191308	9.59	203495	10.56	187366	13.93	118526	16.40
ZZZZZZ	134322	7.09	190752	9.60	197219	10.56	184322	13.93	117500	16.40
JB89010-2	124112	7.09	182182	9.60	189621	10.56	173135	13.93	113495	16.40
ZZZZZZ	136110	7.10	189907	9.60	199085	10.57	183451	13.93	118281	16.40
JB89011-2	131360	7.09	188157	9.60	197202	10.57	183017	13.93	117605	16.40
ZZZZZZ	130179	7.09	187686	9.61	196215	10.57	181253	13.93	112529	16.40
JB89011-2MS	138843	7.09	183607	9.60	194576	10.56	185106	13.93	117980	16.40
JB89011-2MSD	133846	7.11	188399	9.60	197637	10.56	182506	13.93	114715	16.40
ZZZZZZ	129016	7.09	183715	9.60	192021	10.56	179019	13.93	119417	16.40
ZZZZZZ	133579	7.09	182048	9.60	191252	10.56	178836	13.93	119928	16.40
ZZZZZZ	127477	7.08	182477	9.60	191400	10.56	178399	13.93	116869	16.40
ZZZZZZ	127748	7.08	182190	9.60	189921	10.56	179621	13.93	121725	16.40
ZZZZZZ	128993	7.09	175838	9.60	184248	10.56	169243	13.93	112612	16.40
ZZZZZZ	124788	7.09	176723	9.60	183462	10.56	169558	13.93	109505	16.40
ZZZZZZ	123223	7.09	174305	9.60	184376	10.56	169809	13.93	114312	16.40
ZZZZZZ	117600	7.10	174634	9.60	183710	10.56	170148	13.93	107678	16.40

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Check Std:	V2B5771-CC5744	**Injection Date:**	03/04/15
Lab File ID:	2B128041.D	**Injection Time:**	10:14
Instrument ID:	GCMS2B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	126131	8.37	412879	10.82	453237	11.73	383178	14.71	195478	16.87
Upper Limit [a]	252262	8.87	825758	11.32	906474	12.23	766356	15.21	390956	17.37
Lower Limit [b]	63066	7.87	206440	10.32	226619	11.23	191589	14.21	97739	16.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2B5771-MB	134467	8.36	430511	10.82	456100	11.73	374156	14.71	193337	16.87
V2B5771-BS	122184	8.38	401297	10.82	448393	11.73	370884	14.71	196621	16.87
ZZZZZZ	133068	8.37	434477	10.82	460629	11.73	382238	14.71	193208	16.87
ZZZZZZ	129942	8.36	427333	10.82	456586	11.73	375462	14.71	192141	16.87
JB88920-6	128391	8.37	419269	10.82	449780	11.73	366452	14.71	188239	16.87
ZZZZZZ	126479	8.36	413005	10.82	438579	11.73	365334	14.71	188170	16.87
ZZZZZZ	127910	8.36	411592	10.82	441136	11.73	361463	14.71	182340	16.87
ZZZZZZ	129193	8.36	437325	10.82	471748	11.73	392904	14.71	203676	16.87
JB88920-6MS	128684	8.37	416926	10.82	462137	11.73	384966	14.71	199426	16.87
JB88920-6MSD	128819	8.37	430419	10.82	472431	11.73	394948	14.71	205444	16.87
ZZZZZZ	133401	8.36	436594	10.82	462122	11.73	394434	14.71	203676	16.87
ZZZZZZ	132029	8.35	455428	10.82	492131	11.73	404913	14.71	204150	16.87
ZZZZZZ	130356	8.36	439338	10.82	467236	11.73	390187	14.71	197333	16.87
JB89010-3	127376	8.36	428117	10.82	459601	11.73	381700	14.71	192915	16.87
JB89010-4	126209	8.36	428666	10.82	455458	11.73	373651	14.71	188767	16.87
ZZZZZZ	127126	8.36	411460	10.82	442298	11.73	382139	14.71	197250	16.87
ZZZZZZ	144179	8.36	463659	10.82	490691	11.73	424281	14.71	215728	16.87

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: JB89010A
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB89010-2	1C137495.D	104	93	108	105
JB89010-3	2B128058.D	101	96	99	101
JB89010-4	2B128059.D	102	97	99	102
JB88920-6MS	2B128052.D	101	96	101	104
JB88920-6MSD	2B128053.D	101	94	102	102
JB89011-2MS	1C137499.D	107	97	111	106
JB89011-2MSD	1C137500.D	104	92	110	108
V1C6111-BS	1C137492.D	106	96	108	106
V1C6111-MB	1C137491.D	106	95	109	105
V2B5771-BS	2B128044.D	102	96	100	101
V2B5771-MB	2B128043.D	102	95	99	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JB89010A **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Response Factor Report MS1C

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Feb 25 11:24:28 2015
Response via : Initial Calibration

Calibration Files
1 =1C137269.D 2 =1C137270.D 100 =1C137280.D 50 =1C137274.D
20 =1C137273.D 200 =1C137276.D 5 =1C137271.D 10 =1C137272.D
0.5 =1C137268.D 0.2 =1C137267.D = =

Compound	1	2	100	50	20	200	5	10	0.5	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol	0.753	0.935	0.911	0.894	0.986	0.846	0.888				0.887	8.27
3) 1,4-dioxane			0.077	0.074	0.070	0.088	0.057	0.070			0.072	13.93
4) ethanol											0.000#	-1.00
5) I pentafluorobenzene ----------ISTD----------												
6) Freon 115											0.000#	-1.00
7) Freon 143a											0.000#	-1.00
8) Freon 152a											0.000#	-1.00
9) chlorotrifluoroethene											0.000#	-1.00
10) chlorodifluoromethane			0.535	0.505	0.483	0.560	0.439	0.481			0.500	8.59
11) dichlorodifluoromethane	0.368	0.415	0.408	0.426	0.419	0.361	0.436	0.418			0.406	6.76
12) Freon 142b											0.000#	-1.00
13) chloromethane	0.605	0.567	0.632	0.583	0.519	0.678	0.531	0.524	0.559		0.577	9.21
14) vinyl chloride	0.590	0.591	0.650	0.587	0.533	0.665	0.536	0.532	0.599		0.587	8.27
15) bromomethane	0.464	0.429	0.438	0.408	0.360	0.447	0.392	0.363	0.443		0.416	9.02
16) chloroethane	0.197	0.207	0.219	0.201	0.191	0.212	0.211	0.191			0.204	5.11
17) PENTANE											0.000#	-1.00
18) 1,3-BUTADIENE											0.000#	-1.00
19) vinyl bromide											0.000#	-1.00
20) trichlorofluoromethane	0.430	0.478	0.572	0.548	0.488	0.566	0.493	0.486			0.508	9.71
21) ethyl ether		0.112	0.164	0.150	0.153	0.169	0.132	0.136			0.145	13.78
22) freon 123a											0.000#	-1.00
23) acrolein												

```
      0.073 0.073 0.074 0.070 0.067       0.079 0.065              0.071    6.56
24)  1,1-dichloroethene
      0.292 0.307 0.311 0.285 0.280 0.330 0.246 0.264              0.289    9.25
25)  acetone
                  0.126 0.103 0.112 0.114       0.101              0.111    8.93
26)  acetonitrile
                  0.036 0.033 0.031 0.037 0.037 0.035              0.035    7.51
27)  allyl chloride
            0.128 0.155 0.140 0.143 0.160 0.110 0.134              0.138   12.05
28)  iodomethane
      0.607 0.720 0.785 0.718 0.686 0.830 0.619 0.690 0.618        0.697   11.03
29)  carbon disulfide
      1.300 1.270 1.230 1.084 1.047 1.233 0.972 1.017              1.144   11.17
30)  2-CHLOROPROPANE
            0.517 0.524 0.483 0.474 0.536 0.406 0.476              0.488    8.94
31)  methylene chloride
      0.324 0.402 0.370 0.341 0.332 0.390 0.307 0.319 0.315        0.344   10.06
32)  methyl acetate
                  0.299 0.273 0.267 0.310 0.254 0.253              0.276    8.61
33)  methyl tert butyl ether
      1.015 1.172 1.158 1.101 1.094 1.251 0.990 1.094 1.072        1.105    7.26
34)  trans-1,2-dichloroethene
      0.246 0.287 0.303 0.271 0.267 0.309 0.241 0.275              0.275    8.86
35)  1-CHLOROPROPANE   *** Compound failed in this Calibration.
                  0.512 0.516 0.603 0.532 0.953 0.737              0.642   27.15
            ----- Linear regression -----  Coefficient =  0.9988
              Response Ratio = 0.02568 + 0.51911 *A

36)  di-isopropyl ether
      0.923 0.928 1.047 0.967 0.951 1.104 0.932 0.965              0.977    6.63
37)  2-butanone
                  0.044 0.038 0.040 0.046       0.031              0.040   15.26
38)  1,1-dichloroethane
      0.465 0.575 0.565 0.526 0.537 0.592 0.468 0.527              0.532    8.74
39)  chloroprene
      0.297 0.328 0.387 0.355 0.356 0.407 0.341 0.348              0.352    9.54
40)  acrylonitrile
                  0.124 0.112 0.111 0.128 0.095 0.104              0.112   10.85
41)  vinyl acetate    *** Compound failed in this Calibration.
                  0.047 0.036 0.030 0.050       0.022              0.037   30.94
            ----- Linear regression -----  Coefficient =  0.9979
              Response Ratio = -0.00974 + 0.05187 *A

42)  ethyl tert-butyl ether
      0.972 1.051 1.144 1.069 1.038 1.233 0.994 1.054 0.970        1.058    8.02
43)  ethyl acetate    *** Compound failed in this Calibration.
                  0.052 0.041 0.043 0.049       0.029              0.043   20.58
            ----- Linear regression -----  Coefficient =  0.9970
              Response Ratio = -0.00423 + 0.05061 *A

44)  2,2-dichloropropane
      0.552 0.605 0.605 0.567 0.564 0.614 0.497 0.553              0.570    6.73
45)  cis-1,2-dichloroethene
      0.278 0.289 0.355 0.322 0.327 0.369 0.281 0.315 0.298        0.315   10.17
46)  propionitrile
            0.041 0.053 0.048 0.049 0.058 0.041 0.048              0.048   12.95
47)  methylacrylate
                  0.374 0.339 0.340 0.403 0.261 0.319              0.339   14.34
48)  bromochloromethane
      0.138 0.181 0.192 0.176 0.180 0.202 0.152 0.178              0.175   11.72
```

Initial Calibration Summary

Job Number: JB89010A **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

49)	tetrahydrofuran										0.048	10.14
		0.050	0.047	0.046	0.054		0.041					
50)	chloroform											
	0.297	0.363	0.373	0.350	0.359	0.396	0.308	0.344			0.349	9.38
51)	T-BUTYL FORMATE											
		0.303	0.368	0.341	0.327	0.395	0.319	0.339			0.342	9.04
52)	isobutyl alcohol											
		0.022	0.020	0.019	0.025	0.017	0.020				0.021	14.34
53)	dibromofluoromethane (s)											
		0.321	0.303	0.318	0.351	0.322	0.321				0.323	4.82
54)	1,2-dichloroethane-d4 (s)											
		0.340	0.331	0.359	0.375	0.405	0.366				0.363	7.31
55)	freon 113											
		0.214	0.212	0.194	0.189	0.182	0.187				0.196	6.85
56)	methacrylonitrile											
		0.135	0.118	0.127	0.148		0.113				0.128	10.92
57)	1,1,1-trichloroethane											
	0.429	0.532	0.562	0.524	0.511	0.598	0.446	0.505			0.513	10.87
58)	Cyclohexane											
		0.313	0.352	0.329	0.316	0.338	0.278	0.284			0.316	8.67
59)	I 1,4-difluorobenzene	----------ISTD----------										
60)	ISO-OCTANE											
	0.522	0.538	0.699	0.708	0.620	0.538	0.615	0.564			0.600	12.13
61)	epichlorohydrin											
		0.026	0.036	0.033	0.033	0.039	0.028	0.033			0.033	13.62
62)	n-butyl alcohol											
		0.013	0.012	0.011	0.015	0.010	0.011				0.012	15.22
63)	carbon tetrachloride											
	0.418	0.435	0.467	0.457	0.442	0.498	0.394	0.438	0.485		0.448	7.25
64)	1,1-dichloropropene											
	0.318	0.343	0.351	0.318	0.314	0.369	0.275	0.313			0.325	8.91
65)	hexane											
		0.117	0.161	0.163	0.155	0.129	0.146	0.143			0.145	11.65
66)	benzene											
	0.937	1.170	1.126	1.033	1.032	1.193	0.927	1.028	1.030	1.068	1.054	8.38
67)	tert-amyl methyl ether											
	0.945	0.990	1.091	1.033	0.987	1.176	0.968	1.027	0.950		1.019	7.34
68)	heptane											
		0.076	0.097	0.100	0.089	0.076	0.083	0.084			0.086	10.85
69)	isopropyl acetate											
		0.526	0.640	0.599	0.608	0.675	0.572	0.636			0.608	8.05
70)	1,2-dichloroethane											
	0.341	0.417	0.410	0.403	0.415	0.442	0.349	0.389	0.351		0.391	9.13
71)	trichloroethene											
	0.242	0.281	0.291	0.268	0.276	0.307	0.249	0.267	0.251		0.270	7.82
72)	2-nitropropane											
		0.135	0.126	0.124	0.130	0.139	0.120	0.125			0.128	5.22
73)	2-chloroethyl vinyl ether											
	0.159	0.168	0.210	0.193	0.192	0.224	0.180	0.197	0.158		0.187	12.08
74)	methyl methacrylate											
		0.084	0.075	0.076	0.090		0.069				0.079	10.27
75)	1,2-dichloropropane											
	0.248	0.278	0.297	0.278	0.278	0.319	0.256	0.285			0.280	7.89
76)	dibromomethane											
	0.162	0.214	0.205	0.195	0.195	0.220	0.168	0.191	0.173		0.191	10.54
77)	methylcyclohexane											
	0.240	0.227	0.304	0.293	0.276	0.273	0.275	0.266			0.269	9.48
78)	bromodichloromethane											
	0.377	0.418	0.427	0.407	0.407	0.466	0.370	0.407	0.346		0.403	8.66

Initial Calibration Summary

Job Number: JB89010A **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY


```
 79)  ETHYL ACRYLATE
                                                                    0.000#  -1.00
 80)  cis-1,3-dichloropropene
       0.418 0.490 0.506 0.469 0.475 0.543 0.423 0.461 0.460        0.472    8.22
 81)  toluene-d8 (s)
                  0.989 0.928 0.969 1.080 1.056 0.990               1.002    5.63
 82)  4-methyl-2-pentanone
                  0.140 0.131 0.126 0.156 0.106 0.120               0.130   13.25
 83)  toluene
       0.580 0.693 0.696 0.641 0.631 0.744 0.568 0.627 0.657        0.649    8.72
 84)  3-methyl-1-butanol
             0.017 0.022 0.020 0.020 0.025 0.017 0.020              0.020   13.69
 85)  trans-1,3-dichloropropene
       0.401 0.443 0.481 0.458 0.456 0.523 0.387 0.431 0.357        0.437   11.54
 86)  ethyl methacrylate
             0.326 0.409 0.374 0.364 0.447 0.310 0.349              0.369   12.87
 87)  1,1,2-trichloroethane
       0.194 0.240 0.240 0.229 0.231 0.263 0.204 0.223 0.184        0.223   11.17
 88)  2-hexanone
                  0.132 0.117 0.120 0.144 0.081 0.101               0.116   19.36

 89) I   chlorobenzene-d5      ----------------ISTD--------------------
 90)  tetrachloroethene
       0.246 0.290 0.295 0.260 0.277 0.301 0.240 0.263 0.282        0.273    8.01
 91)  1,3-dichloropropane
       0.412 0.460 0.490 0.449 0.473 0.512 0.414 0.455 0.385        0.450    8.98
 92)  butyl acetate
             0.202 0.228 0.207 0.207 0.241 0.195 0.215              0.214    7.39
 93)  3,3-DIMETHYL-1-BUTANOL
       0.050 0.051 0.063 0.056 0.056 0.075 0.052 0.056              0.057   14.25
 94)  dibromochloromethane
       0.365 0.405 0.410 0.381 0.400 0.438 0.355 0.386 0.346        0.387    7.57
 95)  1,2-dibromoethane
       0.292 0.331 0.343 0.313 0.327 0.357 0.284 0.308 0.268        0.314    9.15
 96)  n-butyl ether
                                                                    0.000#  -1.00
 97)  chlorobenzene
       0.812 0.954 0.906 0.816 0.842 0.958 0.745 0.820 0.946 0.858  0.866    8.34
 98)  1,1,1,2-tetrachloroethane
       0.367 0.402 0.435 0.395 0.391 0.475 0.332 0.391 0.352        0.393   10.88
 99)  ethylbenzene
       1.375 1.525 1.495 1.354 1.396 1.587 1.234 1.367 1.486 1.302  1.412    7.71
100)  m,p-xylene
       0.479 0.579 0.579 0.514 0.527 0.619 0.464 0.529 0.556 0.468  0.531    9.82
101)  o-xylene
       0.509 0.600 0.622 0.560 0.566 0.684 0.504 0.558 0.533        0.571   10.03
102)  styrene
       0.808 0.940 1.017 0.888 0.905 1.105 0.775 0.879 0.874        0.910   11.11
103)  Butyl Acrylate
                                                                    0.000#  -1.00
104)  bromoform
       0.280 0.330 0.354 0.326 0.334 0.393 0.290 0.317              0.328   10.82

105) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
106)  isopropylbenzene
       2.135 2.482 2.601 2.244 2.343 2.468 1.929 2.163 2.057 2.514  2.294    9.71
107)  4-bromofluorobenzene (s)
                  0.691 0.619 0.686 0.654 0.706 0.664               0.670    4.67
108)  cyclohexanone    *** Compound failed in this Calibration.
       0.131 0.130 0.107 0.105 0.124 0.090 0.096 0.086 0.125        0.110   15.90
```

Initial Calibration Summary

Job Number: JB89010A **Sample:** V1C6103-ICC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137274.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

109)	bromobenzene											
	0.661	0.703	0.767	0.675	0.713	0.747	0.601	0.681	0.651	0.561	0.676	9.25
110)	1,1,2,2-tetrachloroethane											
	0.728	0.790	0.804	0.708	0.781	0.776	0.647	0.709	0.719		0.740	6.89
111)	trans-1,4-dichloro-2-butene											
		0.184	0.198	0.184	0.205	0.186	0.156	0.186			0.185	8.17
112)	1,2,3-trichloropropane											
	0.168	0.175	0.206	0.182	0.203	0.197	0.158	0.192			0.185	9.32
113)	n-propylbenzene											
	2.413	2.749	2.770	2.398	2.541	2.634	2.127	2.366	2.635	2.589	2.522	7.83
114)	2-chlorotoluene											
	0.566	0.596	0.672	0.583	0.617	0.672	0.496	0.554	0.556		0.590	9.64
115)	4-chlorotoluene											
	1.619	1.806	1.808	1.569	1.696	1.765	1.412	1.591	1.807		1.675	8.22
116)	1,3,5-trimethylbenzene											
	2.012	2.226	2.400	2.066	2.120	2.504	1.719	1.950	2.014	2.140	2.115	10.61
117)	tert-butylbenzene											
	1.636	1.828	2.113	1.786	1.828	2.188	1.486	1.623	1.650	1.931	1.807	12.32
118)	pentachloroethane											
		0.550	0.675	0.572	0.586	0.704	0.461	0.538			0.584	14.22
119)	1,2,4-trimethylbenzene											
	1.975	2.142	2.359	2.054	2.121	2.514	1.738	1.975	2.170	2.304	2.135	10.36
120)	sec-butylbenzene											
	2.420	2.838	3.174	2.679	2.765	3.289	2.189	2.477	2.710	2.811	2.735	12.09
121)	1,3-dichlorobenzene											
	1.388	1.586	1.510	1.311	1.405	1.577	1.185	1.293	1.591	1.682	1.453	11.04
122)	p-isopropyltoluene											
	2.398	2.516	2.762	2.362	2.409	3.006	1.996	2.201	2.413	2.527	2.459	11.32
123)	1,2,3-trimethylbenzene											
											0.000#	-1.00
124)	1,4-dichlorobenzene											
	1.500	1.623	1.571	1.343	1.463	1.633	1.256	1.370	1.590		1.483	9.11
125)	benzyl chloride											
	1.682	1.575	1.823	1.572	1.661	1.853	1.466	1.548	1.831		1.668	8.42
126)	1,2-dichlorobenzene											
	1.428	1.630	1.635	1.434	1.521	1.799	1.228	1.390	1.616		1.520	11.17
127)	n-butylbenzene											
	1.241	1.256	1.314	1.112	1.177	1.442	0.957	1.047	1.234	1.219	1.200	11.40
128)	1,2-dibromo-3-chloropropane											
	0.170	0.205	0.217	0.195	0.218	0.240	0.165	0.196			0.201	12.53
129)	1,3,5-trichlorobenzene											
	1.766	1.919	2.041	1.655	1.691	2.188	1.409	1.493	1.816		1.775	14.07
130)	1,2,4-trichlorobenzene											
	1.961	2.067	2.242	1.871	1.908	2.124	1.535	1.743	2.181		1.959	11.49
131)	hexachlorobutadiene											
	0.823	0.898	1.005	0.813	0.830	0.981	0.658	0.716	0.890		0.846	13.36
132)	naphthalene											
	4.777	4.828	5.040	4.378	4.674	4.581	3.826	4.245	5.517		4.652	10.40
133)	1,2,3-trichlorobenzene											
	1.990	2.138	2.169	1.919	2.025	1.925	1.664	1.833	2.326		1.999	9.81
134)	hexachloroethane											
		0.522	0.682	0.558	0.553		0.415	0.487			0.536	16.50

(#) = Out of Range ### Number of calibration levels exceeded format ###

M1C6103.M Wed Feb 25 11:32:12 2015 RPT1

Initial Calibration Verification

Job Number: JB89010A **Sample:** V1C6103-ICV6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137291.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\1C\V1c6103\1C137291.D Vial: 26
Acq On : 23 Feb 2015 1:11 pm Operator: shannont
Sample : ICV6103-50 Inst : MS1C
Misc : MS80764,V1C6103,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Feb 25 11:24:28 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	-0.02	7.08
2		tertiary butyl alcohol	0.887	0.948	-6.9	104	0.00	7.23
3		1,4-dioxane	0.072	0.071	1.4	97	0.00	11.33
4		ethanol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	9.59
6	m	Freon 115		----------NA----------				
7	m	Freon 143a		----------NA----------				
8	m	Freon 152a		----------NA----------				
9		chlorotrifluoroethene		----------NA----------				
10		chlorodifluoromethane	0.500	0.446	10.8	85	-0.02	3.47
11		dichlorodifluoromethane	0.406	0.353	13.1	79	0.00	3.46
12	m	Freon 142b		----------NA----------				
13		chloromethane	0.577	0.559	3.1	92	0.00	3.77
14		vinyl chloride	0.587	0.580	1.2	95	0.00	4.02
15		bromomethane	0.416	0.402	3.4	94	-0.01	4.67
16		chloroethane	0.204	0.238	-16.7	113	0.00	4.85
17		PENTANE		----------NA----------				
18		1,3-BUTADIENE		----------NA----------				
19		vinyl bromide		----------NA----------				
20		trichlorofluoromethane	0.508	0.537	-5.7	94	-0.01	5.37
21		ethyl ether	0.145	0.169	-16.6	108	0.00	5.81
22		freon 123a		----------NA----------				
23		acrolein	0.071	0.073	-2.8	99	0.00	6.09
24		1,1-dichloroethene	0.289	0.306	-5.9	103	-0.01	6.27
25		acetone	0.111	0.111	0.0	103	0.00	6.36
26		acetonitrile	0.035	0.036	-2.9	105	0.00	6.84
27		allyl chloride	0.138	0.157	-13.8	108	0.00	6.86
28		iodomethane	0.697	0.720	-3.3	96	0.00	6.56
29		carbon disulfide	1.144	1.155	-1.0	102	-0.01	6.68
30		2-CHLOROPROPANE	0.488	0.532	-9.0	106	0.00	6.02
31		methylene chloride	0.344	0.350	-1.7	98	-0.01	7.08
32		methyl acetate	0.276	0.250	9.4	87	0.00	6.88
33		methyl tert butyl ether	1.105	1.099	0.5	96	-0.02	7.46
34		trans-1,2-dichloroethene	0.275	0.294	-6.9	104	0.00	7.50
		----------	True	Calc.	% Drift	----------		
35		1-CHLOROPROPANE	50.000	52.598	-5.2	106	0.00	7.12
		----------	AvgRF	CCRF	% Dev	----------		
36		di-isopropyl ether	0.977	1.031	-5.5	102	0.00	8.16
37		2-butanone	0.040	0.043	-7.5	106	-0.01	8.98

Initial Calibration Verification

Job Number: JB89010A **Sample:** V1C6103-ICV6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137291.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

38		1,1-dichloroethane	0.532	0.564	-6.0	103	0.00	8.16
39		chloroprene	0.352	0.370	-5.1	100	0.00	8.28
40		acrylonitrile	0.112	0.134	-19.6	115	0.00	7.47
		----------	True	Calc.	% Drift	----------		
41		vinyl acetate	50.000	55.586	-11.2	127	-0.02	8.17
		----------	AvgRF	CCRF	% Dev	----------		
42		ethyl tert-butyl ether	1.058	1.057	0.1	95	-0.01	8.68
		----------	True	Calc.	% Drift	----------		
43		ethyl acetate	50.000	52.067	-4.1	114	-0.01	9.01
		----------	AvgRF	CCRF	% Dev	----------		
44		2,2-dichloropropane	0.570	0.609	-6.8	103	0.00	8.99
45		cis-1,2-dichloroethene	0.315	0.334	-6.0	99	0.00	8.99
46		propionitrile	0.048	0.052	-8.3	104	0.00	9.08
47		methylacrylate	0.339	0.374	-10.3	106	0.00	9.09
48		bromochloromethane	0.175	0.177	-1.1	96	0.00	9.33
49		tetrahydrofuran	0.048	0.050	-4.2	102	0.00	9.38
50		chloroform	0.349	0.356	-2.0	97	0.00	9.41
51		T-BUTYL FORMATE	0.342	0.368	-7.6	103	0.00	9.44
52		isobutyl alcohol	0.021	0.021	0.0	102	0.00	9.93
53	S	dibromofluoromethane (s)	0.323	0.313	3.1	99	0.00	9.62
54	S	1,2-dichloroethane-d4 (s)	0.363	0.340	6.3	98	0.00	10.07
55		freon 113	0.196	0.225	-14.8	101	-0.02	6.25
56		methacrylonitrile	0.128	0.133	-3.9	108	0.00	9.28
57		1,1,1-trichloroethane	0.513	0.553	-7.8	101	-0.01	9.66
58		Cyclohexane	0.316	0.362	-14.6	105	0.00	9.73
59	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	10.56
60		ISO-OCTANE	0.600	0.617	-2.8	85	0.00	10.15
61		epichlorohydrin	0.033	0.035	-6.1	101	0.00	11.91
62		n-butyl alcohol	0.012	0.013	-8.3	105	0.00	10.74
63		carbon tetrachloride	0.448	0.469	-4.7	101	0.00	9.88
64		1,1-dichloropropene	0.325	0.364	-12.0	112	0.00	9.86
65		hexane	0.145	0.119	17.9	72	0.00	7.86
66		benzene	1.054	1.089	-3.3	103	0.00	10.13
67		tert-amyl methyl ether	1.019	1.008	1.1	96	0.00	10.20
68		heptane	0.086	0.092	-7.0	90	0.00	10.35
69		isopropyl acetate	0.608	0.662	-8.9	108	0.00	10.10
70		1,2-dichloroethane	0.391	0.395	-1.0	96	0.00	10.17
71		trichloroethene	0.270	0.283	-4.8	103	0.00	10.91
72		2-nitropropane	0.128	0.135	-5.5	106	0.00	11.75
73		2-chloroethyl vinyl ether	0.187	0.202	-8.0	102	0.00	11.78
74		methyl methacrylate	0.079	0.083	-5.1	108	0.00	11.23
75		1,2-dichloropropane	0.280	0.295	-5.4	104	0.00	11.18
76		dibromomethane	0.191	0.194	-1.6	97	0.00	11.36
77		methylcyclohexane	0.269	0.304	-13.0	102	0.00	11.13
78		bromodichloromethane	0.403	0.404	-0.2	97	0.00	11.51
79		ETHYL ACRYLATE		----------NA----------				
80		cis-1,3-dichloropropene	0.472	0.486	-3.0	101	0.00	12.00
81	S	toluene-d8 (s)	1.002	0.999	0.3	105	0.00	12.30
82		4-methyl-2-pentanone	0.130	0.151	-16.2	113	0.00	12.12
83		toluene	0.649	0.665	-2.5	101	0.00	12.38
84		3-methyl-1-butanol	0.020	0.021	-5.0	104	0.00	12.16
85		trans-1,3-dichloropropene	0.437	0.449	-2.7	96	0.00	12.61
86		ethyl methacrylate	0.369	0.395	-7.0	103	0.00	12.62
87		1,1,2-trichloroethane	0.223	0.231	-3.6	99	0.00	12.83
88		2-hexanone	0.116	0.131	-12.9	110	0.00	13.04

Initial Calibration Verification

Job Number: JB89010A **Sample:** V1C6103-ICV6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137291.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

89	I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	13.93
90		tetrachloroethene	0.273	0.284	-4.0	103	0.00	13.01
91		1,3-dichloropropane	0.450	0.478	-6.2	100	0.00	13.03
92		butyl acetate	0.214	0.226	-5.6	103	0.00	13.12
93		3,3-DIMETHYL-1-BUTANOL	0.057	0.061	-7.0	102	0.00	13.23
94		dibromochloromethane	0.387	0.388	-0.3	96	0.00	13.30
95		1,2-dibromoethane	0.314	0.327	-4.1	98	0.00	13.45
96		n-butyl ether	----------NA----------					
97		chlorobenzene	0.866	0.865	0.1	100	0.00	13.96
98		1,1,1,2-tetrachloroethane	0.393	0.403	-2.5	96	0.00	14.03
99		ethylbenzene	1.412	1.435	-1.6	100	0.00	14.02
100		m,p-xylene	0.531	0.558	-5.1	102	0.00	14.13
101		o-xylene	0.571	0.596	-4.4	100	0.00	14.58
102		styrene	0.910	0.964	-5.9	102	0.00	14.60
103		Butyl Acrylate	----------NA----------					
104		bromoform	0.328	0.337	-2.7	97	0.00	14.88
105	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	16.40
106		isopropylbenzene	2.294	2.586	-12.7	101	0.00	14.95
107	S	4-bromofluorobenzene (s)	0.670	0.712	-6.3	101	0.00	15.17
108		cyclohexanone	0.110	0.075	31.8#	63	0.00	15.13
109		bromobenzene	0.676	0.759	-12.3	99	0.00	15.37
110		1,1,2,2-tetrachloroethane	0.740	0.787	-6.4	98	0.00	15.29
111		trans-1,4-dichloro-2-bute	0.185	0.211	-14.1	101	0.00	15.34
112		1,2,3-trichloropropane	0.185	0.203	-9.7	98	0.00	15.36
113		n-propylbenzene	2.522	2.915	-15.6	107	0.00	15.38
114		2-chlorotoluene	0.590	0.665	-12.7	100	0.00	15.54
115		4-chlorotoluene	1.675	1.782	-6.4	100	0.00	15.65
116		1,3,5-trimethylbenzene	2.115	2.346	-10.9	100	0.00	15.55
117		tert-butylbenzene	1.807	2.057	-13.8	101	0.00	15.92
118		pentachloroethane	0.584	0.644	-10.3	99	0.00	16.01
119		1,2,4-trimethylbenzene	2.135	2.400	-12.4	103	0.00	15.97
120		sec-butylbenzene	2.735	3.086	-12.8	101	0.00	16.14
121		1,3-dichlorobenzene	1.453	1.417	2.5	95	0.00	16.34
122		p-isopropyltoluene	2.459	2.706	-10.0	101	0.00	16.27
123		1,2,3-trimethylbenzene	----------NA----------					
124		1,4-dichlorobenzene	1.483	1.481	0.1	97	0.00	16.43
125		benzyl chloride	1.668	1.947	-16.7	109	0.00	16.56
126		1,2-dichlorobenzene	1.520	1.546	-1.7	95	0.00	16.85
127		n-butylbenzene	1.200	1.300	-8.3	103	0.00	16.71
128		1,2-dibromo-3-chloropropa	0.201	0.214	-6.5	96	0.00	17.68
129		1,3,5-trichlorobenzene	1.775	1.762	0.7	94	0.00	17.87
130		1,2,4-trichlorobenzene	1.959	1.982	-1.2	93	0.00	18.56
131		hexachlorobutadiene	0.846	0.841	0.6	91	0.00	18.68
132		naphthalene	4.652	4.750	-2.1	95	0.00	18.86
133		1,2,3-trichlorobenzene	1.999	2.052	-2.7	94	0.00	19.12
134		hexachloroethane	0.536	0.625	-16.6	99	0.00	17.12

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

1C137274.D M1C6103.M Wed Feb 25 11:25:48 2015 RPT1

Continuing Calibration Summary

Job Number: JB89010A **Sample:** V1C6111-CC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137489.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\1c\v1c6111\1C137489.D Vial: 2
Acq On : 2 Mar 2015 10:41 am Operator: shannont
Sample : cc6103-20 Inst : MS1C
Misc : MS81356,V1C6111,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Feb 25 11:17:39 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	89	-0.02	7.09
2		tertiary butyl alcohol	0.887	0.911	-2.7	90	-0.01	7.23
3		1,4-dioxane	0.072	0.071	1.4	89	0.00	11.33
4		ethanol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	85	0.00	9.59
6	m	Freon 115		----------NA----------				
7	m	Freon 143a		----------NA----------				
8	m	Freon 152a		----------NA----------				
9		chlorotrifluoroethene		----------NA----------				
10		chlorodifluoromethane	0.500	0.502	-0.4	89	-0.02	3.47
11		dichlorodifluoromethane	0.406	0.418	-3.0	85	0.00	3.47
12	m	Freon 142b		----------NA----------				
13		chloromethane	0.577	0.500	13.3	82	-0.02	3.76
14		vinyl chloride	0.587	0.536	8.7	86	-0.01	4.02
15		bromomethane	0.416	0.365	12.3	86	0.00	4.68
16		chloroethane	0.204	0.195	4.4	87	0.00	4.85
17		PENTANE		----------NA----------				
18		1,3-BUTADIENE		----------NA----------				
19		vinyl bromide		----------NA----------				
20		trichlorofluoromethane	0.508	0.488	3.9	85	0.00	5.38
21		ethyl ether	0.145	0.153	-5.5	85	0.00	5.82
22		freon 123a		----------NA----------				
23		acrolein	0.071	0.051	28.2#	64	0.00	6.10
24		1,1-dichloroethene	0.289	0.270	6.6	82	-0.02	6.26
25		acetone	0.111	0.104	6.3	80	0.01	6.37
26		acetonitrile	0.035	0.035	0.0	96	0.02	6.86
27		allyl chloride	0.138	0.136	1.4	81	0.00	6.86
28		iodomethane	0.697	0.688	1.3	86	0.00	6.56
29		carbon disulfide	1.144	1.029	10.1	84	0.00	6.69
30		2-CHLOROPROPANE	0.488	0.471	3.5	85	0.00	6.02
31		methylene chloride	0.344	0.323	6.1	83	0.00	7.08
32		methyl acetate	0.276	0.284	-2.9	91	0.01	6.89
33		methyl tert butyl ether	1.105	1.089	1.4	85	0.00	7.47
34		trans-1,2-dichloroethene	0.275	0.278	-1.1	89	0.00	7.51
		----------	True	Calc.	% Drift	----------		
35		1-CHLOROPROPANE	20.000	19.542	2.3	81	0.00	7.11
		----------	AvgRF	CCRF	% Dev	----------		
36		di-isopropyl ether	0.977	1.017	-4.1	91	0.00	8.17
37		2-butanone	0.040	0.033	17.5	72	0.01	9.00

Continuing Calibration Summary

Job Number: JB89010A **Sample:** V1C6111-CC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137489.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

			True	Calc.	% Drift			
41		vinyl acetate	20.000	22.240	-11.2	95	0.00	8.19
			AvgRF	CCRF	% Dev			
42		ethyl tert-butyl ether	1.058	1.052	0.6	87	0.00	8.69
			True	Calc.	% Drift			
43		ethyl acetate	20.000	29.658	-48.3#	128	0.00	9.01
			AvgRF	CCRF	% Dev			
44		2,2-dichloropropane	0.570	0.556	2.5	84	0.00	8.99
45		cis-1,2-dichloroethene	0.315	0.321	-1.9	84	0.00	8.99
46		propionitrile	0.048	0.049	-2.1	84	0.00	9.08
47		methylacrylate	0.339	0.366	-8.0	92	0.01	9.10
48		bromochloromethane	0.175	0.184	-5.1	88	0.00	9.33
49		tetrahydrofuran	0.048	0.046	4.2	86	0.01	9.39
50		chloroform	0.349	0.346	0.9	82	0.00	9.41
51		T-BUTYL FORMATE	0.342	0.351	-2.6	92	0.00	9.44
52		isobutyl alcohol	0.021	0.020	4.8	87	0.00	9.95
53	S	dibromofluoromethane (s)	0.323	0.338	-4.6	91	0.00	9.63
54	S	1,2-dichloroethane-d4 (s)	0.363	0.346	4.7	82	0.00	10.07
55		freon 113	0.196	0.215	-9.7	94	-0.01	6.26
56		methacrylonitrile	0.128	0.123	3.9	83	0.00	9.29
57		1,1,1-trichloroethane	0.513	0.510	0.6	85	0.00	9.66
58		Cyclohexane	0.316	0.334	-5.7	90	-0.01	9.73
59	I	1,4-difluorobenzene	1.000	1.000	0.0	87	0.00	10.56
60		ISO-OCTANE	0.600	0.637	-6.2	90	0.00	10.15
61		epichlorohydrin	0.033	0.035	-6.1	91	0.00	11.91
62		n-butyl alcohol	0.012	0.012	0.0	95	0.00	10.75
63		carbon tetrachloride	0.448	0.418	6.7	83	0.00	9.88
64		1,1-dichloropropene	0.325	0.315	3.1	88	0.00	9.86
65		hexane	0.145	0.177	-22.1#	100	0.00	7.86
66		benzene	1.054	1.026	2.7	87	0.00	10.14
67		tert-amyl methyl ether	1.019	0.995	2.4	88	0.00	10.20
68		heptane	0.086	0.102	-18.6	99	0.00	10.35
69		isopropyl acetate	0.608	0.614	-1.0	88	0.00	10.11
70		1,2-dichloroethane	0.391	0.367	6.1	77	0.00	10.17
71		trichloroethene	0.270	0.272	-0.7	86	0.00	10.91
72		2-nitropropane	0.128	0.134	-4.7	90	0.00	11.76
73		2-chloroethyl vinyl ether	0.187	0.194	-3.7	88	0.00	11.78
74		methyl methacrylate	0.079	0.077	2.5	88	0.00	11.24
75		1,2-dichloropropane	0.280	0.273	2.5	86	0.00	11.19
76		dibromomethane	0.191	0.190	0.5	85	0.00	11.36
77		methylcyclohexane	0.269	0.297	-10.4	94	0.00	11.13
78		bromodichloromethane	0.403	0.394	2.2	84	0.00	11.51
79		ETHYL ACRYLATE		----------NA----------				
80		cis-1,3-dichloropropene	0.472	0.465	1.5	85	0.00	12.01
81	S	toluene-d8 (s)	1.002	1.096	-9.4	99	0.00	12.30
82		4-methyl-2-pentanone	0.130	0.139	-6.9	96	0.00	12.12
83		toluene	0.649	0.632	2.6	87	0.00	12.38
84		3-methyl-1-butanol	0.020	0.021	-5.0	95	0.00	12.17
85		trans-1,3-dichloropropene	0.437	0.448	-2.5	86	0.00	12.61
86		ethyl methacrylate	0.369	0.392	-6.2	94	0.00	12.62
87		1,1,2-trichloroethane	0.223	0.228	-2.2	86	0.00	12.84
88		2-hexanone	0.116	0.124	-6.9	90	0.00	13.04

Continuing Calibration Summary

Job Number: JB89010A **Sample:** V1C6111-CC6103
Account: ERMNYW ERM, Inc. **Lab FileID:** 1C137489.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

89	I	chlorobenzene-d5	1.000	1.000	0.0	88	0.00	13.93
90		tetrachloroethene	0.273	0.277	-1.5	88	0.00	13.01
91		1,3-dichloropropane	0.450	0.458	-1.8	85	0.00	13.03
92		butyl acetate	0.214	0.218	-1.9	93	0.00	13.13
93		3,3-DIMETHYL-1-BUTANOL	0.057	0.059	-3.5	94	0.00	13.23
94		dibromochloromethane	0.387	0.397	-2.6	88	0.00	13.31
95		1,2-dibromoethane	0.314	0.326	-3.8	88	0.00	13.46
96		n-butyl ether		----------NA----------				
97		chlorobenzene	0.866	0.862	0.5	90	0.00	13.96
98		1,1,1,2-tetrachloroethane	0.393	0.395	-0.5	89	0.00	14.03
99		ethylbenzene	1.412	1.388	1.7	88	0.00	14.02
100		m,p-xylene	0.531	0.541	-1.9	91	0.00	14.14
101		o-xylene	0.571	0.576	-0.9	90	0.00	14.58
102		styrene	0.910	0.923	-1.4	90	0.00	14.60
103		Butyl Acrylate		----------NA----------				
104		bromoform	0.328	0.344	-4.9	91	0.00	14.88
105	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	16.40
106		isopropylbenzene	2.294	2.301	-0.3	87	0.00	14.95
107	S	4-bromofluorobenzene (s)	0.670	0.713	-6.4	92	0.00	15.17
108		cyclohexanone	0.110	0.082	25.5#	59	0.00	15.13
109		bromobenzene	0.676	0.723	-7.0	90	0.00	15.37
110		1,1,2,2-tetrachloroethane	0.740	0.777	-5.0	88	0.00	15.29
111		trans-1,4-dichloro-2-bute	0.185	0.154	16.8	67	0.00	15.34
112		1,2,3-trichloropropane	0.185	0.197	-6.5	86	0.00	15.36
113		n-propylbenzene	2.522	2.538	-0.6	88	0.00	15.39
114		2-chlorotoluene	0.590	0.613	-3.9	88	0.00	15.54
115		4-chlorotoluene	1.675	1.678	-0.2	88	0.00	15.65
116		1,3,5-trimethylbenzene	2.115	2.069	2.2	86	0.00	15.55
117		tert-butylbenzene	1.807	1.825	-1.0	88	0.00	15.92
118		pentachloroethane	0.584	0.585	-0.2	88	0.00	16.01
119		1,2,4-trimethylbenzene	2.135	2.085	2.3	87	0.00	15.97
120		sec-butylbenzene	2.735	2.697	1.4	86	0.00	16.14
121		1,3-dichlorobenzene	1.453	1.388	4.5	87	0.00	16.34
122		p-isopropyltoluene	2.459	2.371	3.6	87	0.00	16.27
123		1,2,3-trimethylbenzene		----------NA----------				
124		1,4-dichlorobenzene	1.483	1.442	2.8	87	0.00	16.43
125		benzyl chloride	1.668	1.583	5.1	84	0.00	16.56
126		1,2-dichlorobenzene	1.520	1.488	2.1	87	0.00	16.85
127		n-butylbenzene	1.200	1.119	6.7	84	0.00	16.71
128		1,2-dibromo-3-chloropropa	0.201	0.197	2.0	80	0.00	17.68
129		1,3,5-trichlorobenzene	1.775	1.650	7.0	86	0.00	17.87
130		1,2,4-trichlorobenzene	1.959	1.830	6.6	85	0.00	18.56
131		hexachlorobutadiene	0.846	0.784	7.3	84	0.00	18.68
132		naphthalene	4.652	4.487	3.5	85	0.00	18.86
133		1,2,3-trichlorobenzene	1.999	1.970	1.5	86	0.00	19.12
134		hexachloroethane	0.536	0.545	-1.7	87	0.00	17.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C137273.D M1C6103.M Mon Mar 02 15:09:59 2015

Initial Calibration Summary

Job Number: JB89010A **Sample:** V2B5744-ICC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127397.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Response Factor Report MS2B

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:47:32 2015
Response via : Initial Calibration

Calibration Files
1 =2B127392.D 2 =2B127393.D 100 =2B127398.D 50 =2B127397.D
20 =2B127396.D 200 =2B127399.D 5 =2B127394.D 10 =2B127395.D
0.5 =2B127391.D 0.2 =2B127390.D = =

Compound	1	2	100	50	20	200	5	10	0.5	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol	0.925	0.947	1.086	1.054	0.997	1.111	1.072	1.050			1.030	6.50
3) ethanol	0.102	0.114	0.113	0.117	0.115	0.107	0.115	0.112			0.112	4.59
4) 1,4-dioxane	0.077	0.109	0.102	0.095	0.112	0.091	0.090				0.097	12.66
5) I pentafluorobenzene ----------ISTD----------												
6) freon 143a											0.000#	-1.00
7) freon 142b											0.000#	-1.00
8) freon 141b											0.000#	-1.00
9) chlorodifluoromethane	0.347	0.307	0.416	0.388	0.395	0.398	0.330	0.315			0.362	11.63
10) dichlorodifluoromethane	0.346	0.515	0.492	0.517	0.448	0.394	0.419				0.447	14.50
11) chlorotrifluoroethene											0.000#	-1.00
12) chloromethane	0.445	0.379	0.496	0.493	0.502	0.460	0.434	0.449	0.456		0.457	8.38
13) vinyl chloride	0.421	0.353	0.461	0.446	0.453	0.423	0.392	0.400	0.405		0.417	8.15
14) 1,3-Butadiene											0.000#	-1.00
15) bromomethane	0.314	0.275	0.299	0.304	0.319	0.279	0.291	0.304	0.379		0.307	9.93
16) chloroethane	0.192	0.158	0.205	0.205	0.213	0.202	0.180	0.201			0.195	9.17
17) vinyl bromide											0.000#	-1.00
18) trichlorofluoromethane	0.449	0.400	0.592	0.577	0.612	0.559	0.512	0.533			0.529	13.79
19) Pentane											0.000#	-1.00
20) ethyl ether	0.174	0.159	0.171	0.164	0.160	0.184	0.141	0.166			0.165	7.66
21) acrolein	0.056	0.054		0.050	0.053		0.048	0.049			0.051	6.23
22) 2-chloropropane	0.630	0.570	0.550	0.526	0.536	0.569	0.509	0.523	0.449		0.540	9.23
23) 1,2-dichloro-1,2,2-trifluoroet												

											0.000#	-1.00
24)	1,1-dichloroethene											
	0.385	0.312	0.301	0.282	0.300	0.308	0.287	0.287	0.268		0.304	11.09
25)	acetone											
		0.087	0.092	0.098	0.085	0.093	0.100				0.093	6.45
26)	allyl chloride											
	0.175	0.159	0.171	0.164	0.162	0.186	0.149	0.146	0.112		0.158	13.48
27)	acetonitrile											
		0.017	0.017	0.019	0.018	0.017	0.018				0.018	3.59
28)	iodomethane											
	0.729	0.669	0.670	0.641	0.642	0.701	0.601	0.625	0.528		0.645	9.07
29)	iso-butyl alcohol											
		0.004	0.003	0.004	0.004	0.003	0.004				0.004#	9.75
30)	carbon disulfide											
	1.100	1.010	1.006	0.946	0.966	1.047	0.898	0.926	0.958		0.984	6.40
31)	methylene chloride											
	0.420	0.341	0.335	0.319	0.326	0.353	0.311	0.317	0.311		0.337	10.19
32)	methyl acetate											
		0.051	0.050	0.049	0.056	0.046	0.048				0.050	6.95
33)	1-chloropropane											
	0.716	0.614	0.555	0.529	0.538	0.577	0.512	0.535	0.617		0.577	11.04
34)	methyl tert butyl ether											
	1.120	0.999	0.975	0.952	0.949	0.999	0.893	0.943	0.840		0.963	8.05
35)	trans-1,2-dichloroethene											
	0.373	0.350	0.315	0.301	0.309	0.328	0.311	0.309	0.300		0.322	7.65
36)	di-isopropyl ether											
	0.952	0.854	0.959	0.953	0.953	1.025	0.886	0.897	0.784		0.918	7.74
37)	2-butanone											
		0.036	0.033	0.032	0.038	0.028	0.030				0.033	12.17
38)	1,1-dichloroethane											
	0.655	0.595	0.580	0.555	0.553	0.605	0.517	0.534	0.480		0.564	9.19
39)	chloroprene											
	0.383	0.376	0.443	0.423	0.433	0.466	0.400	0.373	0.299		0.400	12.42
40)	acrylonitrile											
	0.117	0.110	0.118	0.113	0.111	0.126	0.102	0.108	0.074		0.109	13.54
41)	vinyl acetate											
		0.052	0.051	0.047	0.057		0.045				0.050	8.94
42)	ethyl tert-butyl ether											
	0.981	0.876	1.066	1.046	1.018	1.127	0.928	0.942	0.811		0.977	10.12
43)	ethyl acetate											
		0.037	0.038	0.035	0.040	0.032	0.033				0.036	9.11
44)	2,2-dichloropropane											
	0.594	0.519	0.482	0.463	0.484	0.464	0.443	0.468	0.420		0.482	10.43
45)	cis-1,2-dichloroethene											
	0.398	0.387	0.355	0.340	0.335	0.371	0.327	0.331	0.304		0.350	8.71
46)	propionitrile											
	0.042	0.040	0.042	0.040	0.040	0.043	0.037	0.040	0.031		0.039	8.85
47)	bromochloromethane											
	0.194	0.198	0.193	0.184	0.181	0.202	0.170	0.184	0.133		0.182	11.45
48)	tetrahydrofuran											
	0.094	0.082	0.083	0.080	0.080	0.088	0.078	0.075			0.083	7.41
49)	chloroform											
	0.652	0.617	0.592	0.566	0.569	0.600	0.545	0.572	0.580	0.568	0.586	5.23
50)	t-butyl formate											
	0.257	0.217	0.300	0.288	0.281	0.322	0.251	0.252	0.220		0.265	13.28
51)	dibromofluoromethane (s)											
	0.378	0.296	0.324	0.325	0.330	0.345	0.303	0.310			0.326	8.01
52)	1,2-dichloroethane-d4 (s)											
	0.394	0.355	0.385	0.396	0.398	0.392	0.358	0.375			0.381	4.51
53)	freon 113											

```
                0.261 0.246 0.258 0.262 0.228 0.209              0.244    8.86
54)  methacrylonitrile
      0.164 0.177 0.191 0.178 0.179 0.201 0.161 0.175 0.176      0.178    6.78
55)  1,1,1-trichloroethane
      0.559 0.519 0.553 0.515 0.515 0.551 0.450 0.482 0.455      0.511    8.00
56)  Cyclohexane
      0.434 0.448 0.444 0.407 0.425 0.458 0.384 0.382 0.373      0.417    7.59
57)  tert amyl alcohol
                                                                 0.000#  -1.00

58) I   1,4-difluorobenzene   ----------------ISTD---------------------
59)  tert amyl ethyl ether
                                                                 0.000#  -1.00
60)  Di-isobutylene
                                                                 0.000#  -1.00
61)  epichlorohydrin
      0.022 0.023 0.027 0.026 0.025 0.029 0.023 0.024            0.025    8.44
62)  n-butyl alcohol
           0.005 0.008 0.007 0.007 0.008 0.006 0.006             0.007#  13.82
63)  carbon tetrachloride
      0.595 0.551 0.502 0.481 0.490 0.475 0.458 0.484 0.416      0.495   10.49
64)  1,1-dichloropropene
      0.483 0.410 0.398 0.372 0.381 0.390 0.364 0.382 0.318      0.389   11.32
65)  hexane
      0.295 0.274 0.332 0.303 0.322 0.344 0.288 0.265 0.239      0.296   11.44
66)  benzene
      1.297 1.193 1.093 1.043 1.060 1.082 1.019 1.043 1.022 0.849  1.070   10.91
67)  2,2,4-trimethylpentane
      0.985 0.855 0.987 0.935 0.971 0.989 0.797 0.766 0.779      0.896   10.74
68)  tert-amyl methyl ether
      0.894 0.861 0.884 0.888 0.886 0.908 0.814 0.829 0.707      0.852    7.34
69)  heptane
      0.174 0.148 0.197 0.181 0.184 0.204 0.166 0.146 0.169      0.174   11.35
70)  isopropyl acetate
      0.474 0.459 0.515 0.498 0.484 0.534 0.459 0.477 0.360      0.474   10.40
71)  1,2-dichloroethane
      0.496 0.486 0.442 0.433 0.434 0.419 0.415 0.434 0.389      0.438    7.65
72)  trichloroethene
      0.313 0.308 0.318 0.293 0.297 0.316 0.275 0.286 0.250      0.295    7.55
73)  ethyl acrylate
                                                                 0.000#  -1.00
74)  2-nitropropane
                0.085 0.078 0.078 0.088       0.074              0.081    6.98
75)  2-chloroethyl vinyl ether
      0.150 0.147 0.170 0.168 0.167 0.173 0.146 0.152 0.126      0.156    9.88
76)  methyl methacrylate
      0.050 0.058 0.071 0.069 0.068 0.073 0.062 0.064            0.064   11.86
77)  1,2-dichloropropane
      0.291 0.286 0.287 0.270 0.272 0.289 0.251 0.267 0.226      0.271    7.82
78)  dibromomethane
      0.209 0.211 0.201 0.193 0.193 0.201 0.185 0.190 0.164      0.194    7.38
79)  methylcyclohexane
      0.428 0.344 0.464 0.441 0.452 0.465 0.399 0.361            0.419   11.11
80)  bromodichloromethane
      0.472 0.453 0.452 0.427 0.421 0.444 0.388 0.409 0.332      0.422   10.04
81)  cis-1,3-dichloropropene
      0.515 0.466 0.503 0.473 0.469 0.506 0.432 0.444 0.376      0.465    9.38
82)  toluene-d8 (s)
      0.989 0.929 1.019 1.030 1.068 1.013 0.919 0.942 1.153      1.007    7.39
83)  4-methyl-2-pentanone
```

```
            0.085 0.100 0.096 0.092 0.104 0.090 0.090              0.094    6.74
84)  toluene
      0.735 0.710 0.667 0.631 0.629 0.673 0.599 0.627 0.535        0.645    9.25
85)  3-methyl-1-butanol
      0.008 0.009 0.011 0.011 0.010 0.012 0.010 0.010              0.010#  13.48
86)  trans-1,3-dichloropropene
      0.505 0.465 0.479 0.458 0.449 0.480 0.410 0.428 0.372        0.449    9.01
87)  ethyl methacrylate
      0.291 0.291 0.341 0.330 0.318 0.346 0.280 0.299              0.312    8.09
88)  1,1,2-trichloroethane
      0.223 0.223 0.223 0.212 0.212 0.227 0.206 0.207 0.204        0.215    4.07
89)  2-hexanone
            0.073 0.087 0.081 0.080 0.089 0.069 0.071              0.079   10.04

90) I   chlorobenzene-d5      ----------------ISTD---------------------
91)  butyl ether
      1.214 1.179 1.383 1.250 1.206 1.459 1.053 1.135 0.944        1.202   12.97
92)  tetrachloroethene
      0.375 0.364 0.348 0.318 0.327 0.353 0.299 0.316 0.306        0.334    8.02
93)  1,3-dichloropropane
      0.503 0.474 0.518 0.482 0.473 0.544 0.461 0.463 0.406        0.480    8.17
94)  butyl acetate
      0.159 0.136 0.185 0.175 0.170 0.209 0.156 0.163              0.169   12.87
95)  3,3-dimethyl-1-butanol
            0.019 0.028 0.025 0.024 0.034 0.022 0.023              0.025   18.99
96)  dibromochloromethane
      0.443 0.405 0.469 0.433 0.426 0.493 0.391 0.415 0.377        0.428    8.58
97)  1,2-dibromoethane
      0.343 0.359 0.367 0.339 0.329 0.392 0.311 0.325 0.240        0.334   12.85
98)  chlorobenzene
      0.972 0.904 0.914 0.849 0.856 0.964 0.803 0.807 0.746 0.724  0.854    9.99
99)  1,1,1,2-tetrachloroethane
      0.424 0.377 0.415 0.386 0.380 0.430 0.355 0.363 0.284        0.379   11.69
100)  ethylbenzene
      1.601 1.482 1.459 1.366 1.404 1.503 1.327 1.358 1.288        1.421    6.94
101)  m,p-xylene
      0.608 0.547 0.574 0.524 0.531 0.618 0.490 0.516 0.461        0.541    9.58
102)  o-xylene
      0.638 0.591 0.614 0.569 0.559 0.657 0.502 0.529 0.501        0.573    9.86
103)  styrene
      0.848 0.898 0.998 0.925 0.922 1.054 0.772 0.855 0.677        0.883   12.82
104)  butyl acrylate
                                                                   0.000#  -1.00
105)  bromoform
      0.315 0.311 0.376 0.346 0.336 0.398 0.290 0.311 0.260        0.327   12.95

106) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
107)  isopropylbenzene
      2.868 2.863 2.814 2.681 2.707 2.754 2.440 2.573 2.267        2.663    7.63
108)  4-bromofluorobenzene (s)
      0.918 0.790 0.777 0.811 0.850 0.801 0.752 0.758              0.807    6.75

109)  cyclohexanone   cyclohexanone ***Compound failed in this calibration.
            0.032 0.027 0.026 0.025 0.026 0.026 0.024              0.027    9.86
110)  bromobenzene
      0.929 0.857 0.846 0.827 0.836 0.842 0.769 0.798 0.764 0.643  0.811    9.31
111)  1,1,2,2-tetrachloroethane
      0.773 0.742 0.724 0.702 0.693 0.733 0.659 0.671 0.621 0.587  0.691    8.28
112)  trans-1,4-dichloro-2-butene
      0.149 0.187 0.199 0.183 0.186 0.194 0.168 0.175              0.180    8.77
```

Initial Calibration Summary

Job Number: JB89010A **Sample:** V2B5744-ICC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127397.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

```
113)  1,2,3-trichloropropane
       0.185 0.189 0.200 0.199 0.195 0.197 0.186 0.195 0.143        0.188    9.39
114)  n-propylbenzene
       3.065 3.285 2.884 2.805 2.909 2.842 2.690 2.770 2.447        2.855    8.18
115)  2-chlorotoluene
       0.793 0.713 0.714 0.672 0.680 0.731 0.616 0.645 0.563        0.681    9.94
116)  4-chlorotoluene
       2.047 2.056 1.929 1.862 1.885 1.931 1.793 1.781 1.716        1.889    6.14
117)  1,3,5-trimethylbenzene
       2.449 2.375 2.285 2.187 2.235 2.248 2.090 2.147 1.793        2.201    8.56
118)  tert-butylbenzene
       2.139 2.036 2.237 2.053 2.015 2.147 1.833 1.924 1.722        2.012    8.07
119)  pentachloroethane
       0.585 0.580 0.584 0.565 0.569 0.578 0.533 0.544 0.456        0.555    7.43
120)  1,2,4-trimethylbenzene
       2.286 2.248 2.251 2.195 2.225 2.214 2.044 2.137 1.825        2.159    6.68
121)  sec-butylbenzene
       3.221 3.069 3.115 2.929 2.952 3.028 2.627 2.794 2.430        2.907    8.63
122)  1,3-dichlorobenzene
       1.663 1.572 1.520 1.459 1.490 1.522 1.413 1.431 1.305 1.293  1.467    7.77
123)  p-isopropyltoluene
       2.633 2.603 2.729 2.578 2.569 2.674 2.286 2.361 1.968        2.489    9.72
124)  1,4-dichlorobenzene
       1.638 1.588 1.536 1.450 1.431 1.550 1.310 1.369 1.395 1.437  1.470    7.06
125)  1,2-dichlorobenzene
       1.571 1.470 1.561 1.526 1.514 1.548 1.409 1.440 1.279        1.480    6.31
126)  n-butylbenzene
       1.249 1.182 1.337 1.259 1.236 1.329 1.056 1.120 0.976        1.194   10.25
127)  1,2-dibromo-3-chloropropane
       0.140 0.125 0.161 0.152 0.143 0.159 0.132 0.136              0.144    9.02
128)  1,3,5-trichlorobenzene
       1.487 1.479 1.623 1.543 1.505 1.477 1.341 1.369 1.299        1.458    7.08
129)  1,2,4-trichlorobenzene
       1.218 1.162 1.475 1.399 1.337 1.322 1.153 1.187              1.282    9.31
130)  hexachlorobutadiene
       0.824 0.765 0.800 0.751 0.748 0.704 0.679 0.707 0.584        0.729    9.77
131)  naphthalene
       1.997 2.043 2.575 2.474 2.355 2.296 1.972 2.139              2.232   10.20
132)  1,2,3-trichlorobenzene
       1.104 1.126 1.284 1.247 1.196 1.099 1.011 1.110 1.034        1.135    8.07
133)  hexachloroethane
       0.542 0.598 0.664 0.611 0.591 0.654 0.483 0.531 0.506        0.575   11.07
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2B5744.M         Fri Feb 06 17:45:39 2015   MS2B
```

Initial Calibration Verification

Job Number: JB89010A **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.01	8.38
2	M	tertiary butyl alcohol	1.030	1.128	-9.5	123	0.00	8.50
3		ethanol	0.112	0.128	-14.3	126	-0.01	6.93
4	M	1,4-dioxane	0.097	0.105	-8.2	118	0.00	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.407	-12.4	122	0.00	4.48
10	M	dichlorodifluoromethane	0.447	0.458	-2.5	108	0.00	4.46
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.494	-8.1	117	0.00	4.89
13	M	vinyl chloride	0.417	0.457	-9.6	120	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.311	-1.3	119	0.00	5.90
16	M	chloroethane	0.195	0.235	-20.5	134	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.560	-5.9	113	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.187	-13.3	133	0.00	7.15
21	M	acrolein	0.051	0.058	-13.7	137	0.00	7.39
22		2-chloropropane	0.540	0.574	-6.3	127	0.00	7.35
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.326	-7.2	134	0.00	7.61
25	M	acetone	0.093	0.090	3.2	115	0.00	7.63
26	M	allyl chloride	0.158	0.186	-17.7	132	0.00	8.21
27	M	acetonitrile	0.018	0.018	0.0	124	0.00	8.12
28	M	iodomethane	0.645	0.695	-7.8	127	0.00	7.91
29	M	iso-butyl alcohol	0.004	0.004#	0.0	137	0.00	11.10
30	M	carbon disulfide	0.984	1.075	-9.2	133	0.00	8.06
31	M	methylene chloride	0.337	0.348	-3.3	127	0.00	8.39
32	M	methyl acetate	0.050	0.049	2.0	113	0.00	8.18
33		1-chloropropane	0.577	0.579	-0.3	128	0.00	8.46
34	M	methyl tert butyl ether	0.963	0.966	-2.4	119	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.321	0.3	124	0.00	8.83
36	M	di-isopropyl ether	0.918	1.019	-11.0	125	0.00	9.50
37	M	2-butanone	0.033	0.036	-9.1	128	0.00	10.20
38	M	1,1-dichloroethane	0.564	0.607	-7.6	128	0.00	9.44
39	M	chloroprene	0.400	0.403	-0.8	111	0.00	9.58
40	M	acrylonitrile	0.109	0.123	-12.8	126	0.00	8.74
41	M	vinyl acetate	0.050	0.059	-18.0	136	0.00	9.45

Initial Calibration Verification

Job Number: JB89010A **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.049	-7.4	117	0.00	10.00
43	M	ethyl acetate	0.036	0.039	-8.3	122	0.00	10.25
44	M	2,2-dichloropropane	0.482	0.490	-1.7	124	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.361	-3.1	124	0.00	10.23
46	M	propionitrile	0.039	0.043	-10.3	125	0.00	10.28
47	M	bromochloromethane	0.182	0.196	-7.7	125	0.00	10.55
48	M	tetrahydrofuran	0.083	0.087	-4.8	127	0.00	10.62
49	M	chloroform	0.586	0.602	-2.7	124	0.00	10.62
50		t-butyl formate	0.265	0.305	-15.1	123	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.318	2.5	114	0.00	10.83
52	S	1,2-dichloroethane-d4 (s)	0.381	0.370	2.9	109	0.00	11.26
53	M	freon 113	0.244	0.282	-15.6	134	0.00	7.63
54	M	methacrylonitrile	0.178	0.193	-8.4	126	0.00	10.49
55	M	1,1,1-trichloroethane	0.511	0.554	-8.4	125	0.00	10.92
56	M	Cyclohexane	0.417	0.463	-11.0	133	0.00	11.03
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	118	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.028	-12.0	129	0.00	12.91
62	M	n-butyl alcohol	0.007	0.008#	-14.3	127	0.00	11.83
63	M	carbon tetrachloride	0.495	0.515	-4.0	126	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.423	-8.7	134	0.00	11.11
65	M	hexane	0.296	0.329	-11.1	127	0.00	9.23
66	M	benzene	1.070	1.151	-7.6	130	0.00	11.36
67		2,2,4-trimethylpentane	0.896	0.921	-2.8	116	0.00	11.43
68	M	tert-amyl methyl ether	0.852	0.877	-2.9	116	0.00	11.43
69	M	heptane	0.174	0.177	-1.7	115	0.00	11.59
70	M	isopropyl acetate	0.474	0.524	-10.5	124	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.438	0.0	119	0.00	11.35
72	M	trichloroethene	0.295	0.319	-8.1	128	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.079	2.5	118	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.179	-14.7	125	0.00	12.81
76	M	methyl methacrylate	0.064	0.072	-12.5	123	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.293	-8.1	127	0.00	12.31
78	M	dibromomethane	0.194	0.200	-3.1	122	0.00	12.44
79	M	methylcyclohexane	0.419	0.441	-5.3	118	0.00	12.31
80	M	bromodichloromethane	0.422	0.449	-6.4	124	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.506	-8.8	126	0.00	13.01
82	S	toluene-d8 (s)	1.007	1.017	-1.0	116	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.104	-10.6	127	0.00	13.12
84	M	toluene	0.645	0.680	-5.4	127	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.011	-10.0	122	0.00	13.11
86	M	trans-1,3-dichloropropene	0.449	0.463	-3.1	119	0.00	13.53
87	M	ethyl methacrylate	0.312	0.341	-9.3	122	0.00	13.55
88	M	1,1,2-trichloroethane	0.215	0.219	-1.9	121	0.00	13.73
89	M	2-hexanone	0.079	0.086	-8.9	124	0.00	13.92
90	I	chlorobenzene-d5	1.000	1.000	0.0	113	0.00	14.71
91	m	butyl ether	1.202	1.340	-11.5	121	0.00	14.69
92	M	tetrachloroethene	0.334	0.349	-4.5	124	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.525	-9.4	123	0.00	13.90
94	M	butyl acetate	0.169	0.192	-13.6	124	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.027	-8.0	122	0.00	14.06
96	M	dibromochloromethane	0.428	0.455	-6.3	119	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.366	-9.6	122	0.00	14.29
98	M	chlorobenzene	0.854	0.935	-9.5	125	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.414	-9.2	121	0.00	14.79

Initial Calibration Verification

Job Number: JB89010A **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.489	-4.8	123	0.00	14.81
101	M	m,p-xylene	0.541	0.584	-7.9	126	0.00	14.90
102	M	o-xylene	0.573	0.615	-7.3	122	0.00	15.29
103	M	styrene	0.883	1.021	-15.6	125	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.367	-12.2	120	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	16.87
107	M	isopropylbenzene	2.663	2.882	-8.2	123	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.814	-0.9	114	0.00	15.78
109	M	cyclohexanone	0.027	0.017	37.0#	74	0.00	15.74
110	M	bromobenzene	0.811	0.893	-10.1	123	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.735	-6.4	119	0.00	15.86
112	M	trans-1,4-dichloro-2-bute	0.180	0.190	-5.6	118	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.200	-6.4	114	0.00	15.93
114	M	n-propylbenzene	2.855	3.182	-11.5	129	0.00	15.99
115	M	2-chlorotoluene	0.681	0.732	-7.5	124	0.00	16.12
116	M	4-chlorotoluene	1.889	1.981	-4.9	121	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.330	-5.9	121	0.00	16.13
118	M	tert-butylbenzene	2.012	2.261	-12.4	126	0.00	16.46
119	M	pentachloroethane	0.555	0.592	-6.7	119	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.412	-11.7	125	0.00	16.49
121	M	sec-butylbenzene	2.907	3.171	-9.1	123	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.534	-4.6	120	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.817	-13.2	125	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.552	-5.6	122	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.611	-8.9	120	0.00	17.27
126	M	n-butylbenzene	1.194	1.402	-17.4	127	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.159	-10.4	119	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.603	-9.9	118	0.00	18.23
129	M	1,2,4-trichlorobenzene	1.282	1.525	-19.0	124	0.00	18.87
130	M	hexachlorobutadiene	0.729	0.812	-11.4	123	0.00	19.01
131	M	naphthalene	2.232	2.662	-19.3	123	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.342	-18.2	123	0.00	19.39
133	M	hexachloroethane	0.575	0.669	-16.3	125	0.00	17.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B127397.D M2B5744.M Tue Feb 10 09:36:46 2015 MS2B

Continuing Calibration Summary

Job Number: JB89010A **Sample:** V2B5771-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B128041.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2B128041.D Vial: 2
Acq On : 4 Mar 2015 10:14 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	108	0.00	8.37
2	M	tertiary butyl alcohol	1.030	1.015	1.5	110	0.00	8.50
3		ethanol	0.112	0.124	-10.7	115	-0.01	6.93
4	M	1,4-dioxane	0.097	0.091	6.2	103	0.00	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.484	-33.7#	131	0.00	4.49
10	M	dichlorodifluoromethane	0.447	0.503	-12.5	104	0.01	4.47
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.613	-34.1#	130	0.00	4.88
13	M	vinyl chloride	0.417	0.529	-26.9#	124	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.329	-7.2	110	0.00	5.91
16	M	chloroethane	0.195	0.243	-24.6#	121	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.584	-10.4	102	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.188	-13.9	125	0.00	7.15
21	M	acrolein	0.051	0.046	9.8	93	0.01	7.40
22		2-chloropropane	0.540	0.616	-14.1	122	0.00	7.36
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.324	-6.6	115	0.02	7.62
25	M	acetone	0.093	0.108	-16.1	117	0.00	7.64
26	M	allyl chloride	0.158	0.168	-6.3	110	0.00	8.20
27	M	acetonitrile	0.018	0.020	-11.1	115	0.01	8.12
28	M	iodomethane	0.645	0.618	4.2	103	0.00	7.91
29	M	iso-butyl alcohol	0.004	0.004#	0.0	114	0.00	11.09
30	M	carbon disulfide	0.984	1.061	-7.8	117	0.01	8.06
31	M	methylene chloride	0.337	0.357	-5.9	117	0.00	8.40
32	M	methyl acetate	0.050	0.059	-18.0	129	0.00	8.19
33		1-chloropropane	0.577	0.606	-5.0	120	0.00	8.46
34	M	methyl tert butyl ether	0.963	0.960	0.3	108	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.336	-4.3	116	0.00	8.83
36	M	di-isopropyl ether	0.918	1.168	-27.2#	131	0.00	9.50
37	M	2-butanone	0.033	0.037	-12.1	122	0.00	10.21
38	M	1,1-dichloroethane	0.564	0.624	-10.6	120	0.00	9.45
39	M	chloroprene	0.400	0.450	-12.5	111	0.00	9.58
40	M	acrylonitrile	0.109	0.118	-8.3	113	0.00	8.74
41	M	vinyl acetate	0.050	0.047	6.0	106	0.00	9.45

Continuing Calibration Summary

Job Number: JB89010A **Sample:** V2B5771-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B128041.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.086	-11.2	114	0.00	10.00
43	M	ethyl acetate	0.036	0.044	-22.2#	134	0.01	10.26
44	M	2,2-dichloropropane	0.482	0.503	-4.4	111	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.365	-4.3	116	0.00	10.23
46	M	propionitrile	0.039	0.045	-15.4	119	0.00	10.28
47	M	bromochloromethane	0.182	0.186	-2.2	109	0.00	10.55
48	M	tetrahydrofuran	0.083	0.093	-12.0	124	0.00	10.62
49	M	chloroform	0.586	0.595	-1.5	111	0.00	10.62
50		t-butyl formate	0.265	0.270	-1.9	102	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.328	-0.6	106	0.00	10.83
52	S	1,2-dichloroethane-d4 (s)	0.381	0.369	3.1	99	0.00	11.26
53	M	freon 113	0.244	0.259	-6.1	107	0.00	7.64
54	M	methacrylonitrile	0.178	0.201	-12.9	119	0.00	10.50
55	M	1,1,1-trichloroethane	0.511	0.482	5.7	100	0.00	10.92
56	M	Cyclohexane	0.417	0.449	-7.7	112	0.00	11.02
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	116	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.025	0.0	117	0.00	12.90
62	M	n-butyl alcohol	0.007	0.007#	0.0	119	0.00	11.83
63	M	carbon tetrachloride	0.495	0.428	13.5	101	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.388	0.3	118	0.00	11.11
65	M	hexane	0.296	0.374	-26.4#	135	0.00	9.23
66	M	benzene	1.070	1.122	-4.9	123	0.00	11.36
67		2,2,4-trimethylpentane	0.896	1.015	-13.3	121	0.00	11.43
68	M	tert-amyl methyl ether	0.852	0.829	2.7	108	0.00	11.43
69	M	heptane	0.174	0.202	-16.1	127	0.00	11.59
70	M	isopropyl acetate	0.474	0.514	-8.4	123	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.400	8.7	107	0.00	11.35
72	M	trichloroethene	0.295	0.296	-0.3	115	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.070	13.6	104	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.171	-9.6	119	0.00	12.81
76	M	methyl methacrylate	0.064	0.065	-1.6	110	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.307	-13.3	130	0.00	12.31
78	M	dibromomethane	0.194	0.190	2.1	114	0.00	12.44
79	M	methylcyclohexane	0.419	0.438	-4.5	112	0.00	12.31
80	M	bromodichloromethane	0.422	0.412	2.4	113	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.493	-6.0	122	0.00	13.01
82	S	toluene-d8 (s)	1.007	1.013	-0.6	110	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.101	-7.4	126	0.00	13.12
84	M	toluene	0.645	0.646	-0.2	119	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.010	0.0	115	0.00	13.12
86	M	trans-1,3-dichloropropene	0.449	0.440	2.0	114	0.00	13.53
87	M	ethyl methacrylate	0.312	0.316	-1.3	115	0.00	13.56
88	M	1,1,2-trichloroethane	0.215	0.215	0.0	118	0.00	13.73
89	M	2-hexanone	0.079	0.085	-7.6	124	0.00	13.92
90	I	chlorobenzene-d5	1.000	1.000	0.0	114	0.00	14.71
91	m	butyl ether	1.202	1.408	-17.1	133	0.00	14.69
92	M	tetrachloroethene	0.334	0.307	8.1	107	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.502	-4.6	121	0.00	13.90
94	M	butyl acetate	0.169	0.187	-10.7	125	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.024	4.0	113	0.00	14.07
96	M	dibromochloromethane	0.428	0.402	6.1	108	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.322	3.6	112	0.00	14.29
98	M	chlorobenzene	0.854	0.860	-0.7	115	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.363	4.2	109	0.00	14.79

Continuing Calibration Summary

Job Number: JB89010A **Sample:** V2B5771-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B128041.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.406	1.1	114	0.00	14.81
101	M	m,p-xylene	0.541	0.543	-0.4	117	0.00	14.90
102	M	o-xylene	0.573	0.557	2.8	114	0.00	15.29
103	M	styrene	0.883	0.914	-3.5	113	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.285	12.8	97	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	16.87
107	M	isopropylbenzene	2.663	2.858	-7.3	112	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.832	-3.1	104	0.00	15.78
109	M	cyclohexanone	0.027	0.036	-33.3#	154	0.00	15.74
110	M	bromobenzene	0.811	0.830	-2.3	105	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.763	-10.4	117	0.00	15.85
112	M	trans-1,4-dichloro-2-bute	0.180	0.139	22.8#	80	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.193	-2.7	105	0.00	15.93
114	M	n-propylbenzene	2.855	3.122	-9.4	114	0.00	15.99
115	M	2-chlorotoluene	0.681	0.718	-5.4	112	0.00	16.12
116	M	4-chlorotoluene	1.889	1.981	-4.9	112	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.332	-6.0	111	0.00	16.13
118	M	tert-butylbenzene	2.012	2.145	-6.6	113	0.00	16.46
119	M	pentachloroethane	0.555	0.543	2.2	101	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.297	-6.4	110	0.00	16.49
121	M	sec-butylbenzene	2.907	3.099	-6.6	111	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.500	-2.2	107	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.650	-6.5	110	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.449	1.4	108	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.496	-1.1	105	0.00	17.27
126	M	n-butylbenzene	1.194	1.285	-7.6	110	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.135	6.2	100	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.413	3.1	100	0.00	18.23
129	M	1,2,4-trichlorobenzene	1.282	1.251	2.4	99	0.00	18.87
130	M	hexachlorobutadiene	0.729	0.703	3.6	100	0.00	19.01
131	M	naphthalene	2.232	2.233	-0.0	101	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.139	-0.4	101	0.00	19.39
133	M	hexachloroethane	0.575	0.541	5.9	97	0.00	17.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B127396.D M2B5744.M Wed Mar 04 16:00:01 2015 MS2B

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 02 14:53:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

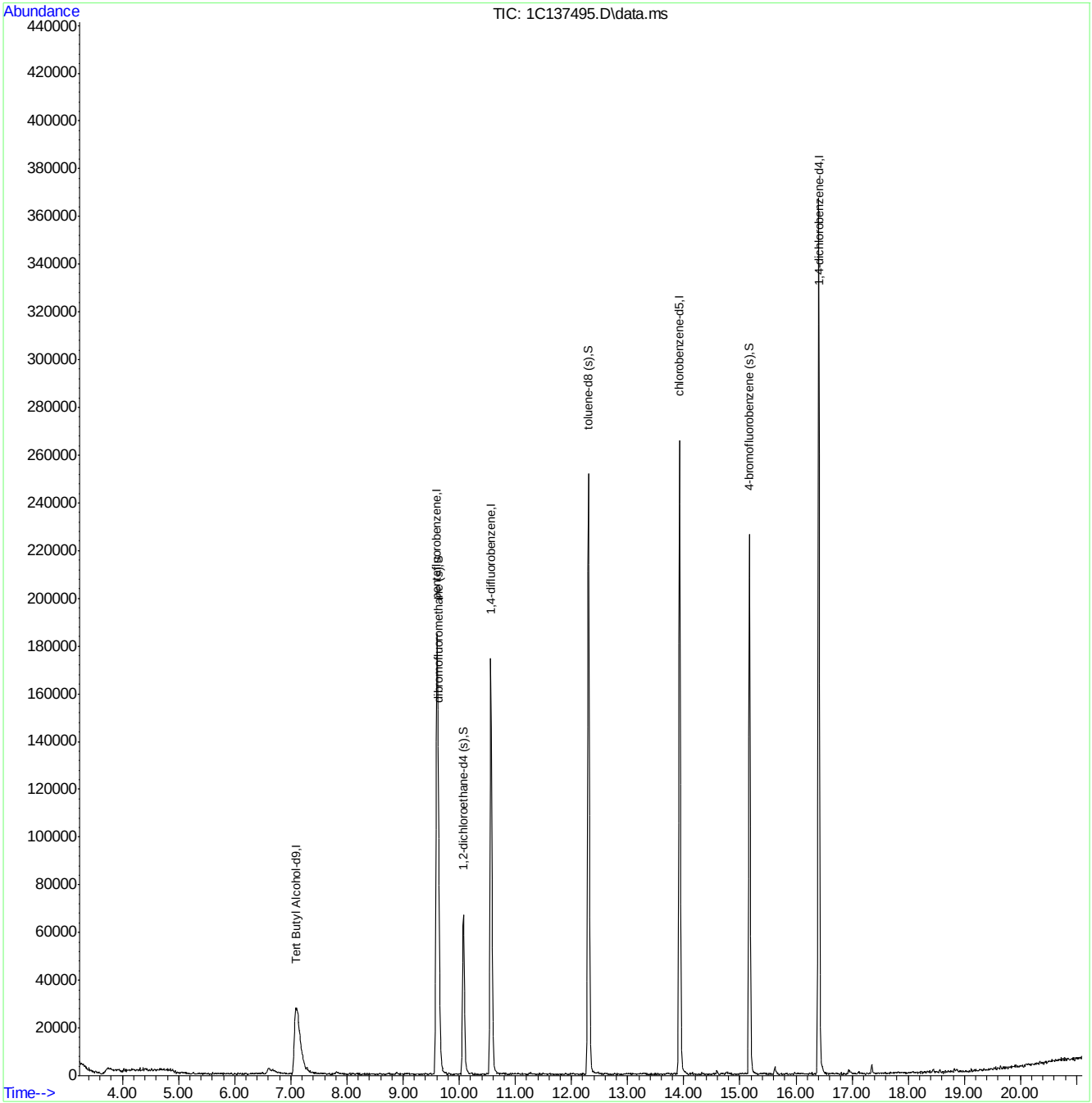
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.090	65	124112	500.00	ug/L	-0.02
5) pentafluorobenzene	9.600	168	182182	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.563	114	189621	50.00	ug/L	0.00
89) chlorobenzene-d5	13.926	117	173135	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.405	152	113495	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.626	113	61031	51.90	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.80%			
54) 1,2-dichloroethane-d4 (s)	10.076	65	61471	46.53	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 93.06%			
81) toluene-d8 (s)	12.304	98	205074	53.95	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 107.90%			
107) 4-bromofluorobenzene (s)	15.170	95	79859	52.50	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.00%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 02 14:53:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.748	85	99	108	rBV6	2271	11258	1.75%	0.309%
2	4.014	146	150	155	rBV4	1322	1611	0.25%	0.044%
3	4.056	155	158	160	rVB3	1009	921	0.14%	0.025%
4	4.124	160	171	177	rBV7	934	3482	0.54%	0.095%
5	4.292	200	203	206	rBV3	743	986	0.15%	0.027%
6	4.940	325	327	330	rVB2	1433	903	0.14%	0.025%
7	4.971	330	333	343	rBV3	848	1740	0.27%	0.048%
8	5.050	343	348	351	rBV3	576	1100	0.17%	0.030%
9	5.134	363	364	372	rVB3	983	1171	0.18%	0.032%
10	5.264	383	389	392	rVB2	906	1162	0.18%	0.032%
11	5.427	407	420	421	rVB3	614	1792	0.28%	0.049%
12	6.049	537	539	545	rBV4	671	1057	0.16%	0.029%
13	6.106	545	550	554	rVB2	770	1202	0.19%	0.033%
14	6.598	635	644	656	rBV3	2373	10326	1.60%	0.283%
15	6.969	712	715	723	rBV3	543	928	0.14%	0.025%
16	7.105	723	741	790	rVV3	27803	209757	32.58%	5.749%
17	7.404	790	798	800	rVB3	818	1814	0.28%	0.050%
18	7.613	836	838	843	rVB	809	874	0.14%	0.024%
19	7.764	863	867	870	rBV3	734	968	0.15%	0.027%
20	7.812	872	876	886	rVB3	1066	2941	0.46%	0.081%
21	8.047	918	921	927	rVB2	735	1165	0.18%	0.032%
22	8.193	939	949	951	rBV4	757	1595	0.25%	0.044%
23	8.355	976	980	986	rVB3	880	1179	0.18%	0.032%
24	8.586	1018	1024	1027	rBV2	702	1223	0.19%	0.034%
25	8.879	1079	1080	1086	rVV3	798	837	0.13%	0.023%
26	9.496	1189	1198	1201	rVB3	621	1448	0.22%	0.040%
27	9.605	1207	1219	1252	rVB2	184913	643765	100.00%	17.644%
28	9.825	1257	1261	1266	rVB2	614	1123	0.17%	0.031%
29	9.945	1277	1284	1290	rVB3	443	1163	0.18%	0.032%
30	10.076	1296	1309	1333	rVV	66965	167046	25.95%	4.578%
31	10.207	1333	1334	1341	rVB2	693	981	0.15%	0.027%
32	10.563	1392	1402	1423	rVV	174088	401035	62.30%	10.991%
33	10.782	1443	1444	1451	rVB2	680	913	0.14%	0.025%
34	11.054	1488	1496	1504	rVB3	671	2069	0.32%	0.057%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

35	11.274	1536	1538	1555	rVB3	991	2371	0.37%	0.065%
36	11.494	1576	1580	1588	rBV3	843	1454	0.23%	0.040%
37	11.896	1651	1657	1663	rBV2	591	1319	0.20%	0.036%
38	12.022	1679	1681	1690	rVV2	712	917	0.14%	0.025%
39	12.079	1690	1692	1700	rVB2	519	961	0.15%	0.026%
40	12.299	1724	1734	1762	rBV	251973	519501	80.70%	14.238%
41	12.545	1777	1781	1785	rVB2	674	937	0.15%	0.026%
42	12.587	1785	1789	1791	rBV4	824	864	0.13%	0.024%
43	12.827	1834	1835	1844	rBV2	582	1145	0.18%	0.031%
44	12.932	1850	1855	1861	rBV2	499	963	0.15%	0.026%
45	13.016	1867	1871	1880	rVB4	694	1474	0.23%	0.040%
46	13.089	1883	1885	1899	rVB3	628	1498	0.23%	0.041%
47	13.319	1926	1929	1932	rVB3	671	850	0.13%	0.023%
48	13.497	1957	1963	1965	rVB2	920	1046	0.16%	0.029%
49	13.539	1965	1971	1973	rBV2	743	1121	0.17%	0.031%
50	13.591	1977	1981	1987	rVV4	511	1189	0.18%	0.033%
51	13.696	1994	2001	2008	rVV4	816	2077	0.32%	0.057%
52	13.774	2014	2016	2021	rVV3	593	852	0.13%	0.023%
53	13.837	2021	2028	2033	rVV3	614	1404	0.22%	0.038%
54	13.926	2036	2045	2077	rVV	265497	496239	77.08%	13.600%
55	14.182	2091	2094	2106	rBV	554	1504	0.23%	0.041%
56	14.323	2119	2121	2125	rBV2	1125	1151	0.18%	0.032%
57	14.532	2155	2161	2163	rBV2	510	899	0.14%	0.025%
58	14.590	2167	2172	2179	rVB3	1803	2775	0.43%	0.076%
59	14.658	2182	2185	2189	rBV3	634	836	0.13%	0.023%
60	14.778	2198	2208	2213	rBV4	1165	3286	0.51%	0.090%
61	15.170	2271	2283	2300	rBV	226340	408510	63.46%	11.196%
62	15.265	2300	2301	2304	rVB2	1024	830	0.13%	0.023%
63	15.369	2314	2321	2323	rBV3	751	1498	0.23%	0.041%
64	15.411	2327	2329	2333	rVV3	808	1076	0.17%	0.029%
65	15.448	2333	2336	2341	rVV3	651	1099	0.17%	0.030%
66	15.626	2364	2370	2378	rBV3	3618	7487	1.16%	0.205%
67	15.939	2423	2430	2433	rBV2	534	1201	0.19%	0.033%
68	15.976	2433	2437	2440	rBV2	958	1185	0.18%	0.032%
69	16.044	2444	2450	2455	rVB3	502	1026	0.16%	0.028%
70	16.279	2490	2495	2496	rVB2	1155	911	0.14%	0.025%
71	16.405	2510	2519	2547	rVB	367257	637752	99.07%	17.479%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

72	16.855	2601	2605	2611	rVB2	811	884	0.14%	0.024%
73	16.938	2615	2621	2633	rVV5	2153	5568	0.86%	0.153%
74	17.127	2647	2657	2659	rBV4	1319	2208	0.34%	0.061%
75	17.263	2679	2683	2686	rBV3	574	871	0.14%	0.024%
76	17.346	2694	2699	2714	rBV4	3739	7151	1.11%	0.196%
77	17.472	2718	2723	2726	rBV3	608	1067	0.17%	0.029%
78	17.508	2726	2730	2734	rBV3	543	856	0.13%	0.023%
79	17.681	2759	2763	2770	rBV3	760	1221	0.19%	0.033%
80	17.885	2798	2802	2809	rBV2	599	915	0.14%	0.025%
81	18.010	2819	2826	2829	rBV5	613	849	0.13%	0.023%
82	18.089	2835	2841	2849	rBV4	873	2355	0.37%	0.065%
83	18.225	2866	2867	2873	rBV4	1026	1275	0.20%	0.035%
84	18.309	2876	2883	2885	rVV3	1045	1478	0.23%	0.041%
85	18.330	2885	2887	2896	rVV4	982	2252	0.35%	0.062%
86	18.387	2896	2898	2901	rVV2	1090	1025	0.16%	0.028%
87	18.439	2904	2908	2915	rVB5	1659	3205	0.50%	0.088%
88	18.570	2928	2933	2938	rVB5	1432	2458	0.38%	0.067%
89	18.633	2944	2945	2949	rBV2	927	1032	0.16%	0.028%
90	18.664	2949	2951	2957	rBV3	903	1083	0.17%	0.030%
91	18.717	2957	2961	2967	rBV2	677	1387	0.22%	0.038%
92	18.821	2977	2981	2985	rBV4	1574	1819	0.28%	0.050%
93	18.868	2985	2990	2998	rVB4	1348	3154	0.49%	0.086%
94	18.936	2998	3003	3007	rBV4	836	1279	0.20%	0.035%
95	19.119	3034	3038	3045	rVV4	1588	2284	0.35%	0.063%
96	19.177	3045	3049	3052	rVV4	1026	1324	0.21%	0.036%
97	19.208	3052	3055	3063	rVB7	1052	1940	0.30%	0.053%
98	19.433	3096	3098	3113	rBV6	1091	3062	0.48%	0.084%
99	19.559	3120	3122	3126	rVB3	1333	1072	0.17%	0.029%
100	19.642	3136	3138	3145	rVB7	1276	912	0.14%	0.025%

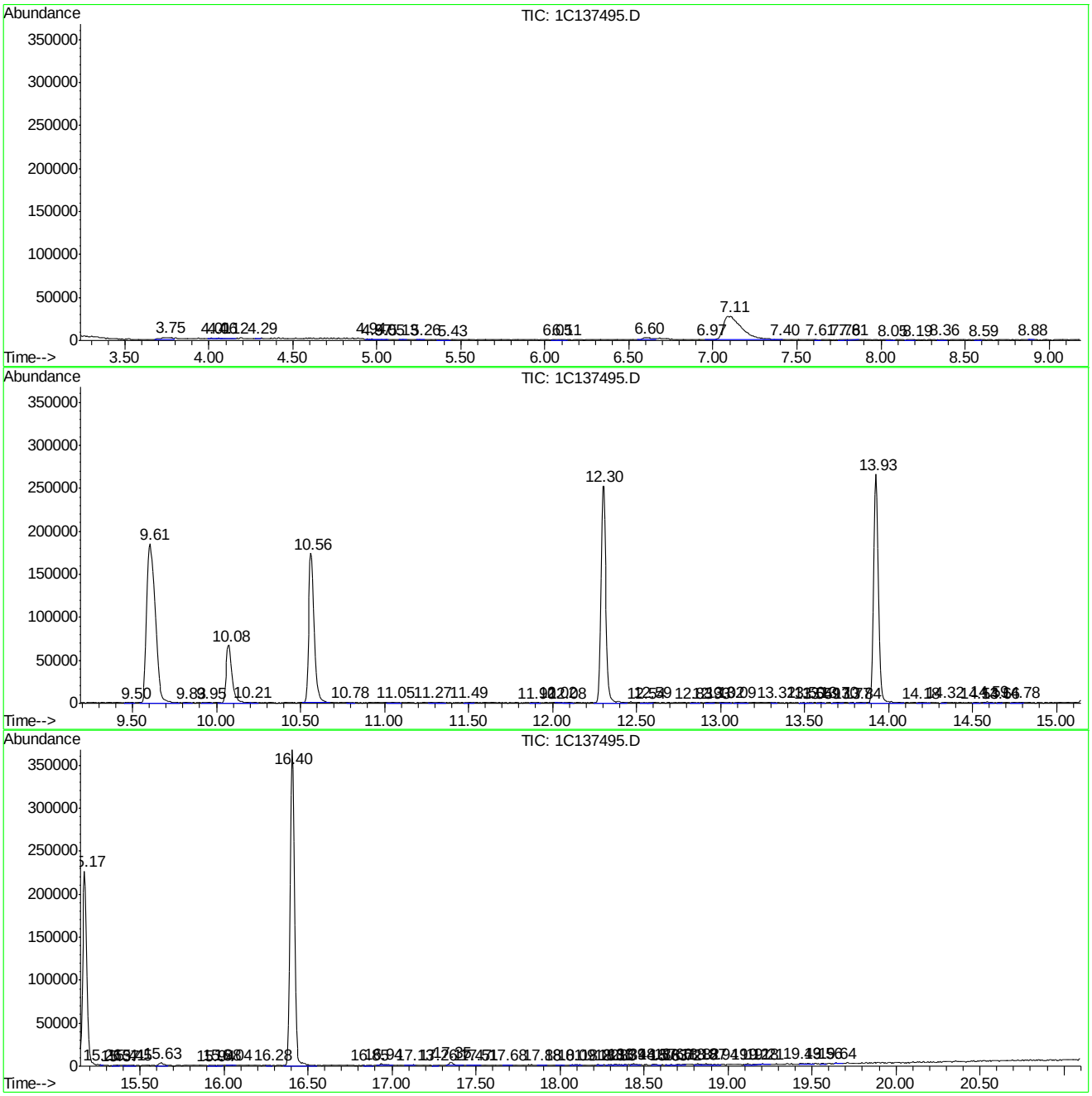
Sum of corrected areas: 3648729

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137495.D
Acq On : 2 Mar 2015 2:14 pm
Operator : shannont
Sample : JB89010-2
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 06 11:31:04 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

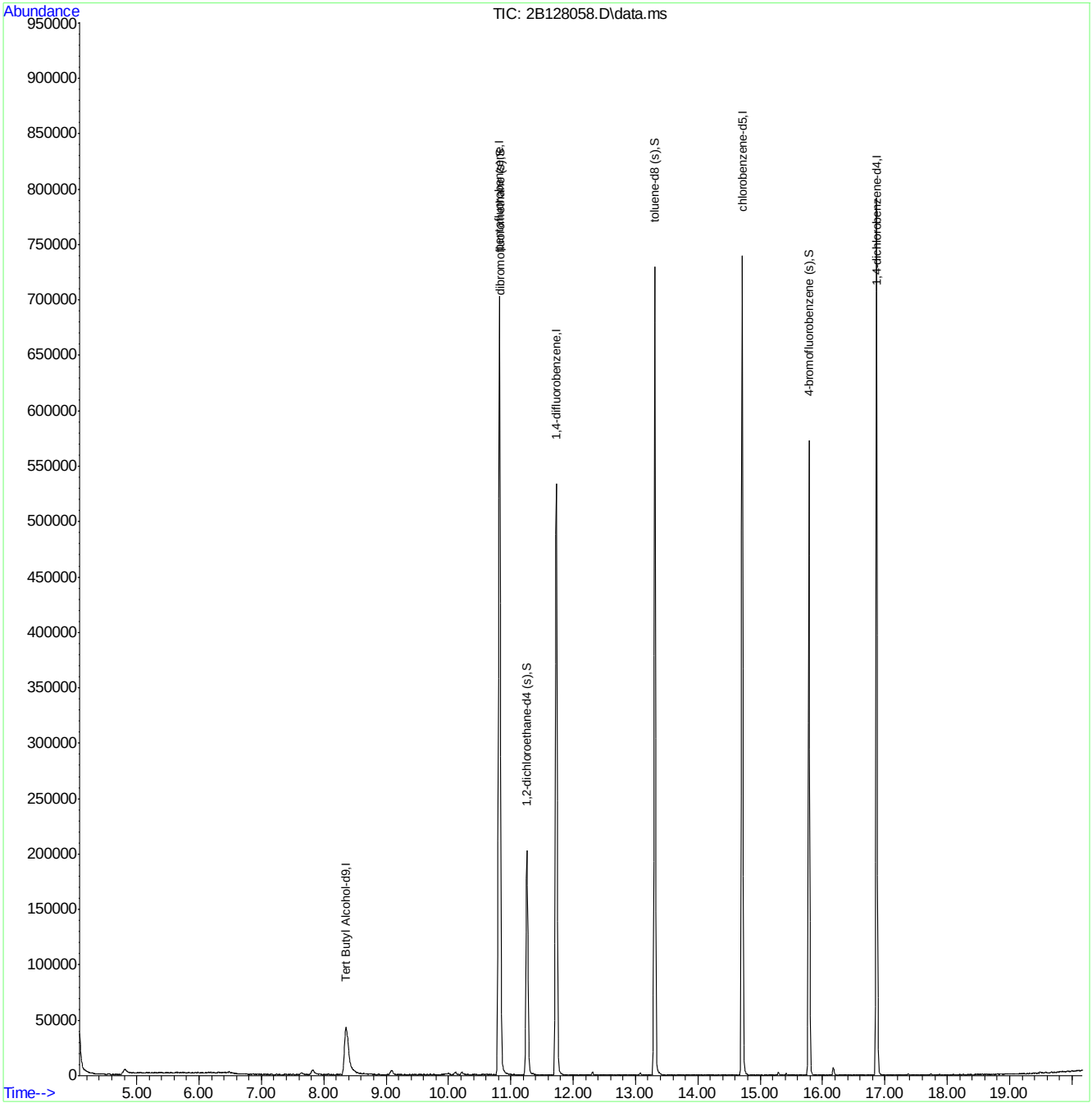
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.358	65	127376	500.00	ug/L	-0.01
5) pentafluorobenzene	10.817	168	428117	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.729	114	459601	50.00	ug/L	0.00
90) chlorobenzene-d5	14.712	117	381700	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.867	152	192915	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.822	113	140970	50.44	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.88%			
52) 1,2-dichloroethane-d4 (s)	11.262	65	156438	47.90	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 95.80%			
82) toluene-d8 (s)	13.307	98	460119	49.72	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.44%			
108) 4-bromofluorobenzene (s)	15.782	95	157585	50.60	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 101.20%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 06 11:31:04 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

Signal : TIC: 2B128058.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.562	84	92	102	rVB3	837	2621	0.17%	0.034%
2	4.719	121	122	128	rBV3	524	693	0.04%	0.009%
3	4.824	128	142	164	rBV6	4547	28352	1.80%	0.368%
4	5.049	183	185	228	rVB5	1048	7665	0.49%	0.099%
5	5.285	228	230	234	rBV2	876	1035	0.07%	0.013%
6	5.506	271	272	277	rBV3	887	799	0.05%	0.010%
7	5.537	277	278	285	rVV3	802	1072	0.07%	0.014%
8	5.631	285	296	310	rVV5	993	3596	0.23%	0.047%
9	6.182	400	401	407	rVB2	857	1272	0.08%	0.016%
10	6.229	407	410	423	rVV4	1197	2858	0.18%	0.037%
11	6.302	423	424	440	rVV3	1506	4628	0.29%	0.060%
12	6.460	440	454	456	rVV4	1470	4709	0.30%	0.061%
13	6.486	456	459	480	rVB4	2155	7480	0.48%	0.097%
14	6.607	480	482	519	rVB3	1111	5327	0.34%	0.069%
15	6.822	522	523	540	rVB2	650	1510	0.10%	0.020%
16	7.047	540	566	572	rVB3	429	2511	0.16%	0.033%
17	7.110	572	578	581	rVB3	585	654	0.04%	0.008%
18	7.157	585	587	609	rBV2	572	2517	0.16%	0.033%
19	7.377	625	629	636	rVB3	441	981	0.06%	0.013%
20	7.498	650	652	665	rVB3	621	1761	0.11%	0.023%
21	7.582	665	668	672	rBV3	609	806	0.05%	0.010%
22	7.655	672	682	699	rBV3	1642	5507	0.35%	0.071%
23	7.823	705	714	732	rBV2	4254	15426	0.98%	0.200%
24	8.206	783	787	797	rVB3	597	1365	0.09%	0.018%
25	8.358	802	816	861	rBV	43287	221235	14.08%	2.868%
26	8.746	884	890	902	rVV4	749	2429	0.15%	0.031%
27	8.877	912	915	925	rVB3	696	1392	0.09%	0.018%
28	9.087	947	955	974	rVB4	4057	11783	0.75%	0.153%
29	9.249	985	986	993	rVB2	510	701	0.04%	0.009%
30	9.301	994	996	1013	rVB2	446	1538	0.10%	0.020%
31	9.474	1022	1029	1036	rVB3	491	1115	0.07%	0.014%
32	9.543	1036	1042	1045	rBV2	552	758	0.05%	0.010%
33	9.716	1074	1075	1096	rVB2	558	1767	0.11%	0.023%
34	9.994	1117	1128	1141	rVV6	1097	3660	0.23%	0.047%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

35	10.109	1141	1150	1163	rVB4	2216	5139	0.33%	0.067%
36	10.219	1163	1171	1185	rBV	2489	5866	0.37%	0.076%
37	10.303	1185	1187	1202	rVV2	433	781	0.05%	0.010%
38	10.444	1212	1214	1231	rBV3	396	905	0.06%	0.012%
39	10.560	1233	1236	1244	rBV3	711	1131	0.07%	0.015%
40	10.649	1251	1253	1263	rVB3	627	1032	0.07%	0.013%
41	10.817	1275	1285	1326	rVV2	702843	1571078	100.00%	20.365%
42	11.047	1326	1329	1335	rVV2	508	756	0.05%	0.010%
43	11.110	1339	1341	1349	rVV2	427	685	0.04%	0.009%
44	11.262	1360	1370	1402	rVV	202611	432696	27.54%	5.609%
45	11.593	1430	1433	1444	rVB3	531	1328	0.08%	0.017%
46	11.729	1449	1459	1488	rVV	533393	1013227	64.49%	13.134%
47	12.306	1563	1569	1579	rVB3	2789	4485	0.29%	0.058%
48	12.704	1641	1645	1650	rBV2	553	1120	0.07%	0.015%
49	13.071	1709	1715	1721	rBV4	1914	3349	0.21%	0.043%
50	13.307	1751	1760	1789	rVV	729691	1187291	75.57%	15.390%
51	13.506	1794	1798	1808	rBV2	454	1285	0.08%	0.017%
52	13.585	1808	1813	1817	rVB2	647	1052	0.07%	0.014%
53	13.795	1851	1853	1861	rBV	390	817	0.05%	0.011%
54	14.225	1923	1935	1938	rVV2	309	859	0.05%	0.011%
55	14.330	1950	1955	1958	rBV	466	788	0.05%	0.010%
56	14.356	1958	1960	1976	rVB2	347	1016	0.06%	0.013%
57	14.497	1981	1987	1991	rBV2	554	898	0.06%	0.012%
58	14.712	2020	2028	2048	rVB	739750	1128192	71.81%	14.624%
59	14.838	2048	2052	2054	rBV2	569	674	0.04%	0.009%
60	15.142	2106	2110	2116	rBV2	465	1106	0.07%	0.014%
61	15.242	2125	2129	2132	rBV2	366	629	0.04%	0.008%
62	15.289	2132	2138	2145	rBV	2751	3495	0.22%	0.045%
63	15.415	2156	2162	2169	rBV2	1865	2096	0.13%	0.027%
64	15.782	2223	2232	2246	rBV	572448	812622	51.72%	10.533%
65	15.955	2257	2265	2274	rVB2	479	1721	0.11%	0.022%
66	16.170	2301	2306	2318	rVB4	7163	11129	0.71%	0.144%
67	16.322	2334	2335	2344	rVV2	422	775	0.05%	0.010%
68	16.401	2344	2350	2352	rVV2	415	697	0.04%	0.009%
69	16.474	2363	2364	2371	rBV2	510	837	0.05%	0.011%
70	16.689	2402	2405	2412	rBV2	529	1212	0.08%	0.016%
71	16.867	2431	2439	2461	rVB	791649	1112445	70.81%	14.420%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

72	17.108	2477	2485	2487	rVB2	652	1014	0.06%	0.013%
73	17.187	2496	2500	2507	rVB2	455	786	0.05%	0.010%
74	17.255	2507	2513	2516	rBV2	458	806	0.05%	0.010%
75	17.313	2519	2524	2527	rBV3	462	930	0.06%	0.012%
76	17.371	2532	2535	2544	rVB3	1230	2072	0.13%	0.027%
77	17.564	2563	2572	2577	rVB3	492	1294	0.08%	0.017%
78	17.643	2584	2587	2593	rVB3	391	695	0.04%	0.009%
79	17.732	2599	2604	2611	rVB3	1312	1502	0.10%	0.019%
80	17.874	2629	2631	2646	rBV3	619	1374	0.09%	0.018%
81	18.047	2659	2664	2672	rVB2	475	1257	0.08%	0.016%
82	18.099	2672	2674	2681	rBV2	750	1128	0.07%	0.015%
83	18.199	2691	2693	2703	rBV	536	791	0.05%	0.010%
84	18.466	2738	2744	2746	rVB2	446	624	0.04%	0.008%
85	18.519	2753	2754	2759	rVB3	483	642	0.04%	0.008%
86	18.566	2759	2763	2765	rBV3	641	665	0.04%	0.009%
87	18.713	2779	2791	2793	rVB3	313	721	0.05%	0.009%
88	18.880	2815	2823	2829	rVB3	648	1404	0.09%	0.018%
89	18.954	2834	2837	2845	rVB	660	921	0.06%	0.012%
90	19.012	2845	2848	2853	rBV3	705	946	0.06%	0.012%
91	19.090	2853	2863	2872	rVV3	493	1886	0.12%	0.024%
92	19.221	2886	2888	2904	rVB3	793	1485	0.09%	0.019%
93	19.331	2904	2909	2910	rVB3	969	1137	0.07%	0.015%
94	19.410	2915	2924	2927	rBV6	1273	3376	0.21%	0.044%
95	19.478	2936	2937	2953	rBV5	1307	4655	0.30%	0.060%
96	19.578	2953	2956	2958	rVV2	1074	1003	0.06%	0.013%
97	19.594	2958	2959	2969	rVB6	911	1345	0.09%	0.017%
98	19.677	2969	2975	2979	rVB5	904	1548	0.10%	0.020%
99	19.730	2979	2985	2988	rBV4	1268	1745	0.11%	0.023%
100	19.903	2988	3018	3020	rBV7	1437	10250	0.65%	0.133%

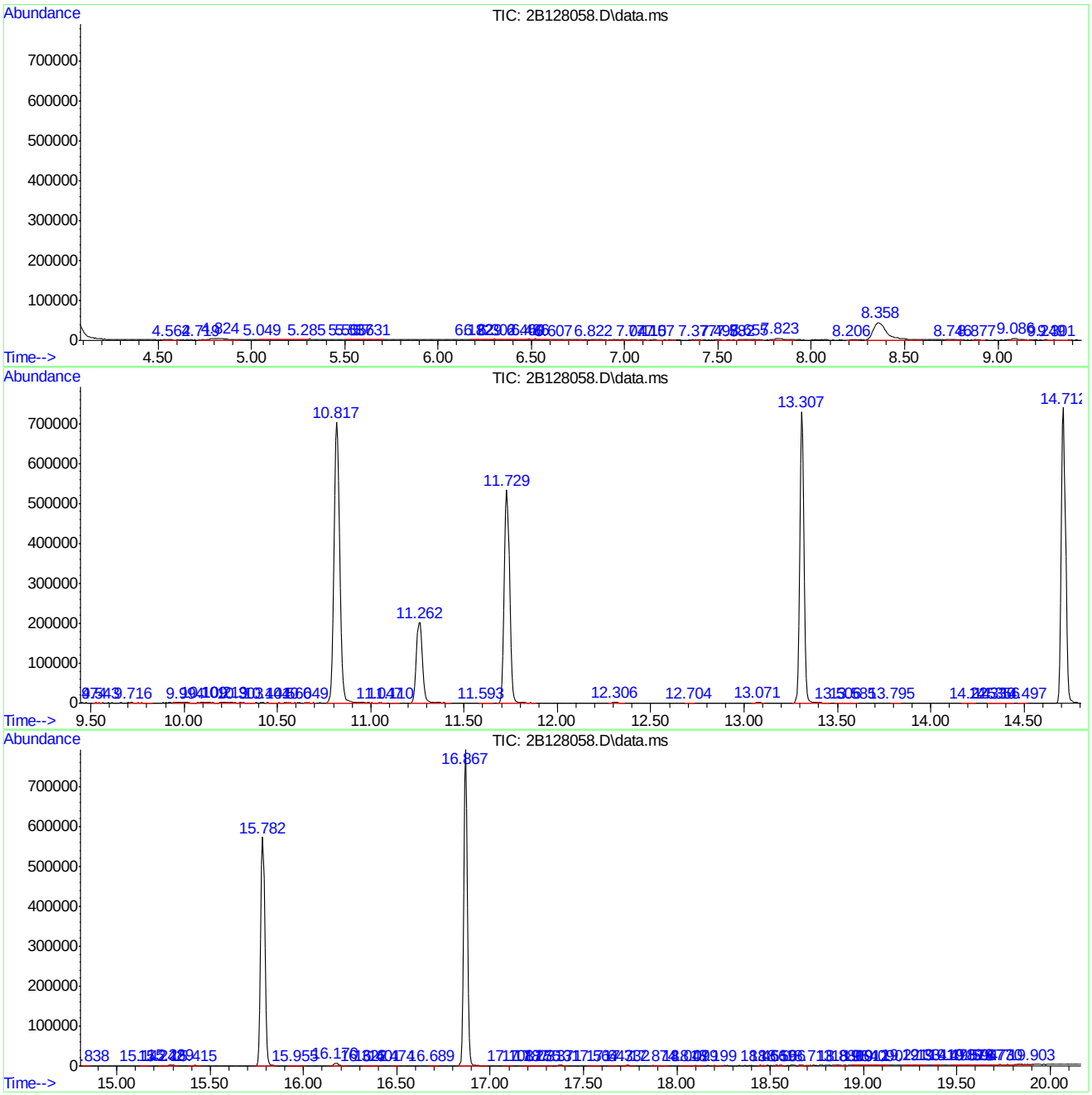
Sum of corrected areas: 7714739

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128058.D
Acq On : 4 Mar 2015 6:30 pm
Operator : bridgetk
Sample : jb89010-3
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 06 11:32:35 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

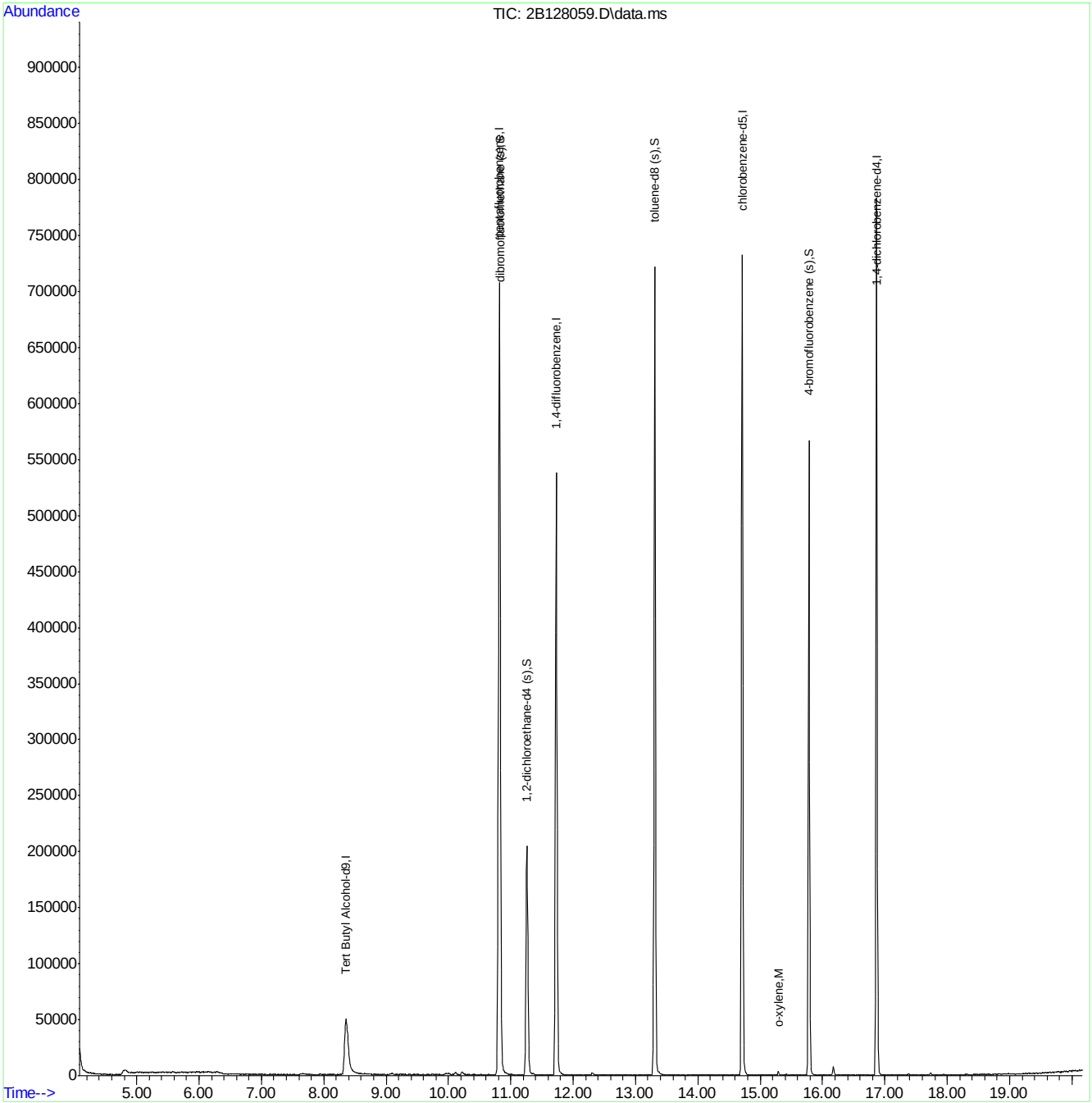
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.358	65	126209	500.00	ug/L	-0.01
5) pentafluorobenzene	10.817	168	428666	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.729	114	455458	50.00	ug/L	0.00
90) chlorobenzene-d5	14.712	117	373651	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.867	152	188767	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.822	113	142436	50.89	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 101.78%			
52) 1,2-dichloroethane-d4 (s)	11.257	65	157830	48.26	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.52%			
82) toluene-d8 (s)	13.307	98	453993	49.50	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.00%			
108) 4-bromofluorobenzene (s)	15.782	95	155198	50.93	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 101.86%			
Target Compounds						Qvalue
102) o-xylene	15.294	106	978	0.23	ug/L	# 74

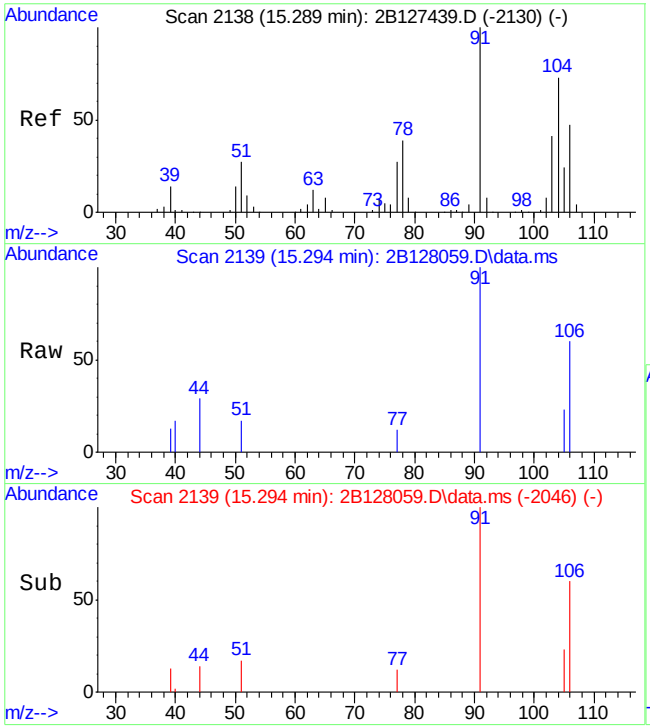
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 06 11:32:35 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

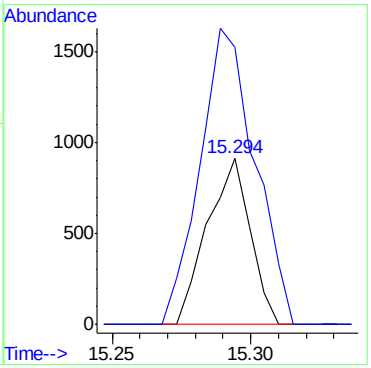




#102
o-xylene
Concen: 0.23 ug/L
RT: 15.294 min Scan# 2139
Delta R.T. 0.005 min
Lab File: 2B128059.D
Acq: 4 Mar 2015 6:59 pm

Tgt Ion:106 Resp: 978

Ion	Ratio	Lower	Upper
106	100		
91	166.7	176.8	236.8#



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

Signal : TIC: 2B128059.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.462	69	73	75	rBV2	532	666	0.04%	0.009%
2	4.572	91	94	110	rVB3	524	1677	0.11%	0.022%
3	4.798	125	137	150	rBV5	3856	19448	1.23%	0.255%
4	4.871	150	151	182	rVV7	1632	8897	0.56%	0.117%
5	5.039	182	183	190	rVB3	1074	1853	0.12%	0.024%
6	5.118	195	198	213	rVV3	1263	4415	0.28%	0.058%
7	5.212	213	216	244	rVV4	1181	6431	0.41%	0.084%
8	5.432	250	258	260	rBV4	1082	2222	0.14%	0.029%
9	5.553	268	281	284	rBV3	957	2371	0.15%	0.031%
10	5.679	302	305	306	rVB3	1026	842	0.05%	0.011%
11	6.287	417	421	456	rVB3	2553	13192	0.84%	0.173%
12	6.475	456	457	480	rVV3	643	2051	0.13%	0.027%
13	6.607	480	482	502	rVV3	387	1586	0.10%	0.021%
14	6.738	506	507	528	rVB3	482	1759	0.11%	0.023%
15	6.853	528	529	548	rBV3	405	1146	0.07%	0.015%
16	7.189	590	593	599	rVV3	408	591	0.04%	0.008%
17	7.262	604	607	617	rVB2	328	654	0.04%	0.009%
18	7.409	632	635	652	rBV3	575	1253	0.08%	0.016%
19	7.508	652	654	667	rVB3	386	751	0.05%	0.010%
20	7.666	671	684	695	rBV4	1173	5103	0.32%	0.067%
21	7.755	700	701	732	rBV3	486	2027	0.13%	0.027%
22	7.938	735	736	749	rBV3	550	1016	0.06%	0.013%
23	8.027	749	753	762	rVB3	424	1020	0.06%	0.013%
24	8.358	802	816	870	rBV2	49401	225027	14.28%	2.949%
25	8.657	870	873	899	rVB4	1135	3767	0.24%	0.049%
26	8.830	903	906	920	rVB3	605	1399	0.09%	0.018%
27	8.940	925	927	946	rBV3	472	1882	0.12%	0.025%
28	9.097	946	957	965	rBV4	1348	2941	0.19%	0.039%
29	9.181	971	973	980	rBV3	538	663	0.04%	0.009%
30	9.254	985	987	1004	rVB2	648	643	0.04%	0.008%
31	9.433	1015	1021	1025	rVB2	398	755	0.05%	0.010%
32	9.522	1035	1038	1050	rBV3	366	932	0.06%	0.012%
33	9.789	1087	1089	1093	rBV2	478	636	0.04%	0.008%
34	9.973	1113	1124	1127	rBV4	1049	2302	0.15%	0.030%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

35	10.004	1127	1130	1138	rVV5	1219	1727	0.11%	0.023%
36	10.114	1143	1151	1163	rVB4	2406	4689	0.30%	0.061%
37	10.214	1163	1170	1195	rVB3	2177	7152	0.45%	0.094%
38	10.397	1203	1205	1214	rVB3	493	913	0.06%	0.012%
39	10.649	1237	1253	1261	rBV2	410	1200	0.08%	0.016%
40	10.817	1273	1285	1320	rBV2	707287	1575860	100.00%	20.649%
41	11.095	1335	1338	1349	rBV3	211	603	0.04%	0.008%
42	11.257	1360	1369	1399	rVV	204023	432184	27.43%	5.663%
43	11.425	1399	1401	1408	rVB3	567	1089	0.07%	0.014%
44	11.477	1408	1411	1416	rBV2	490	757	0.05%	0.010%
45	11.587	1428	1432	1443	rBV3	350	1069	0.07%	0.014%
46	11.729	1448	1459	1497	rVB	537717	1009724	64.07%	13.231%
47	11.939	1497	1499	1511	rVB2	371	809	0.05%	0.011%
48	12.301	1559	1568	1581	rVB4	2337	5453	0.35%	0.071%
49	12.709	1641	1646	1653	rBV2	261	590	0.04%	0.008%
50	12.799	1660	1663	1670	rVB2	340	670	0.04%	0.009%
51	12.856	1670	1674	1679	rBV2	367	638	0.04%	0.008%
52	12.930	1684	1688	1692	rVB2	321	588	0.04%	0.008%
53	13.234	1741	1746	1749	rVV	512	955	0.06%	0.013%
54	13.307	1749	1760	1793	rVV	721492	1171258	74.33%	15.347%
55	13.538	1793	1804	1806	rVV2	241	578	0.04%	0.008%
56	13.585	1806	1813	1816	rVV3	519	797	0.05%	0.010%
57	13.622	1816	1820	1826	rVV2	377	639	0.04%	0.008%
58	13.727	1837	1840	1844	rBV2	500	734	0.05%	0.010%
59	14.340	1950	1957	1965	rBV2	390	1129	0.07%	0.015%
60	14.545	1991	1996	2002	rVV2	259	587	0.04%	0.008%
61	14.712	2019	2028	2050	rVB	732525	1110248	70.45%	14.548%
62	14.901	2062	2064	2071	rVB2	494	785	0.05%	0.010%
63	15.289	2132	2138	2146	rVB2	3617	4746	0.30%	0.062%
64	15.415	2157	2162	2166	rVB2	1453	1909	0.12%	0.025%
65	15.667	2208	2210	2220	rVB2	283	603	0.04%	0.008%
66	15.782	2221	2232	2248	rBV	566805	805370	51.11%	10.553%
67	16.175	2300	2307	2317	rVB	7561	10895	0.69%	0.143%
68	16.479	2362	2365	2373	rVB2	368	805	0.05%	0.011%
69	16.542	2373	2377	2385	rBV2	464	897	0.06%	0.012%
70	16.657	2385	2399	2402	rBV2	265	864	0.05%	0.011%
71	16.810	2422	2428	2431	rBV3	441	806	0.05%	0.011%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

72	16.867	2431	2439	2456	rVB	783137	1101916	69.92%	14.439%
73	17.234	2505	2509	2516	rVB3	377	886	0.06%	0.012%
74	17.371	2531	2535	2546	rBV4	1395	2354	0.15%	0.031%
75	17.559	2570	2571	2579	rVB3	420	828	0.05%	0.011%
76	17.648	2587	2588	2592	rBV2	496	622	0.04%	0.008%
77	17.732	2600	2604	2611	rVB4	1689	2224	0.14%	0.029%
78	17.942	2643	2644	2651	rVB3	557	567	0.04%	0.007%
79	18.005	2651	2656	2665	rBV2	439	947	0.06%	0.012%
80	18.131	2675	2680	2687	rBV2	396	837	0.05%	0.011%
81	18.288	2707	2710	2715	rBV3	562	735	0.05%	0.010%
82	18.351	2720	2722	2733	rBV2	373	917	0.06%	0.012%
83	18.451	2740	2741	2750	rBV3	568	837	0.05%	0.011%
84	18.561	2761	2762	2774	rVB4	433	644	0.04%	0.008%
85	18.666	2781	2782	2791	rVB2	960	978	0.06%	0.013%
86	18.776	2796	2803	2805	rVB3	676	858	0.05%	0.011%
87	18.959	2820	2838	2840	rBV3	707	3070	0.19%	0.040%
88	18.980	2840	2842	2845	rBV2	972	693	0.04%	0.009%
89	19.080	2858	2861	2864	rVB2	648	633	0.04%	0.008%
90	19.253	2881	2894	2896	rVB5	975	2918	0.19%	0.038%
91	19.279	2896	2899	2901	rBV	1072	972	0.06%	0.013%
92	19.326	2901	2908	2913	rVV	1127	2156	0.14%	0.028%
93	19.384	2913	2919	2921	rVV2	1068	1490	0.09%	0.020%
94	19.436	2921	2929	2934	rVV4	923	2270	0.14%	0.030%
95	19.525	2941	2946	2953	rBV6	1082	1827	0.12%	0.024%
96	19.751	2981	2989	2992	rBV4	904	1603	0.10%	0.021%
97	19.840	3004	3006	3010	rBV3	1036	1214	0.08%	0.016%
98	19.877	3010	3013	3016	rVB4	1117	1290	0.08%	0.017%
99	19.961	3016	3029	3037	rBV8	1543	6014	0.38%	0.079%
100	20.118	3037	3059	3063	rBV8	1893	7186	0.46%	0.094%

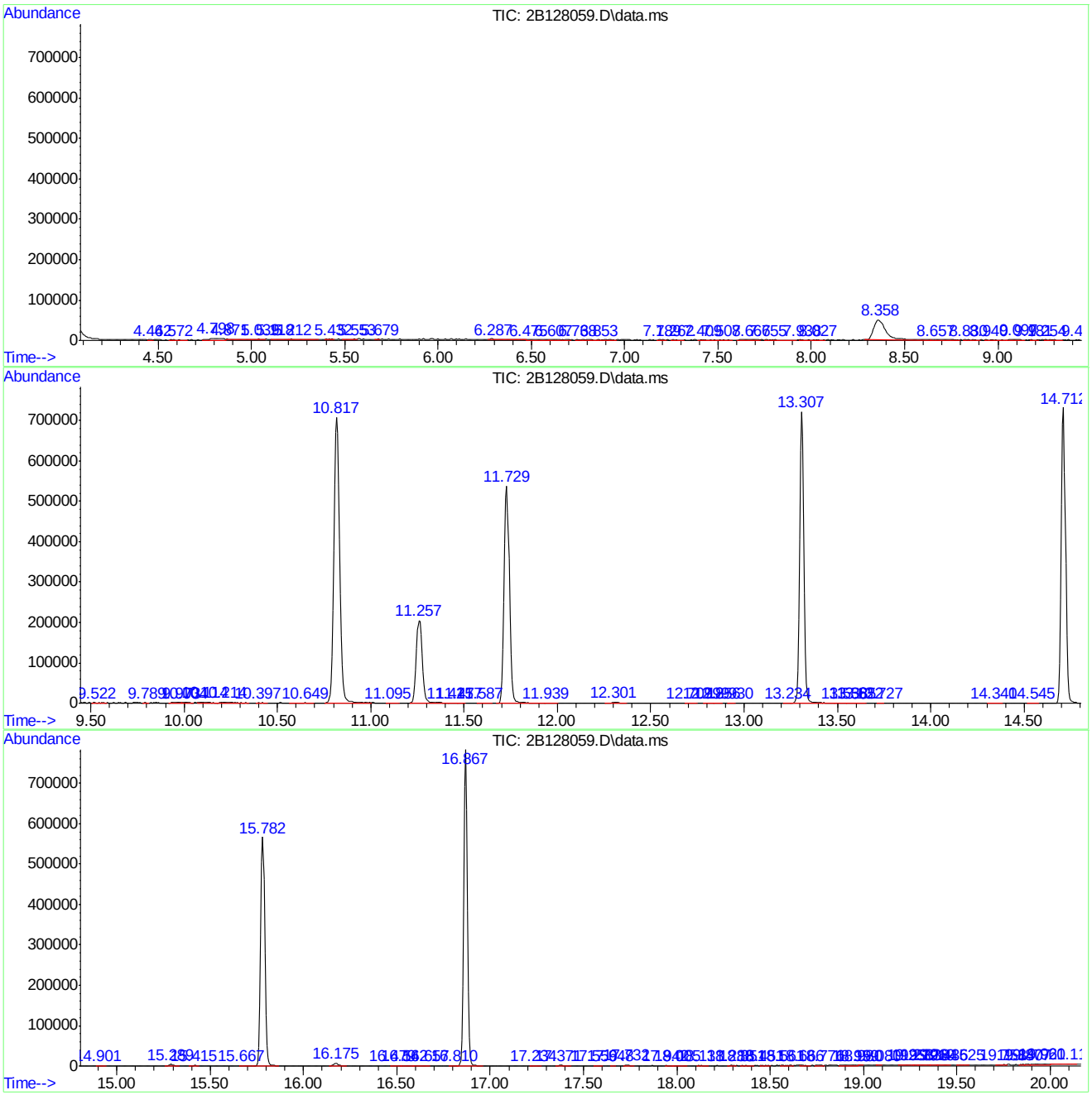
Sum of corrected areas: 7631724

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128059.D
Acq On : 4 Mar 2015 6:59 pm
Operator : bridgetk
Sample : jb89010-4
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 02 14:47:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

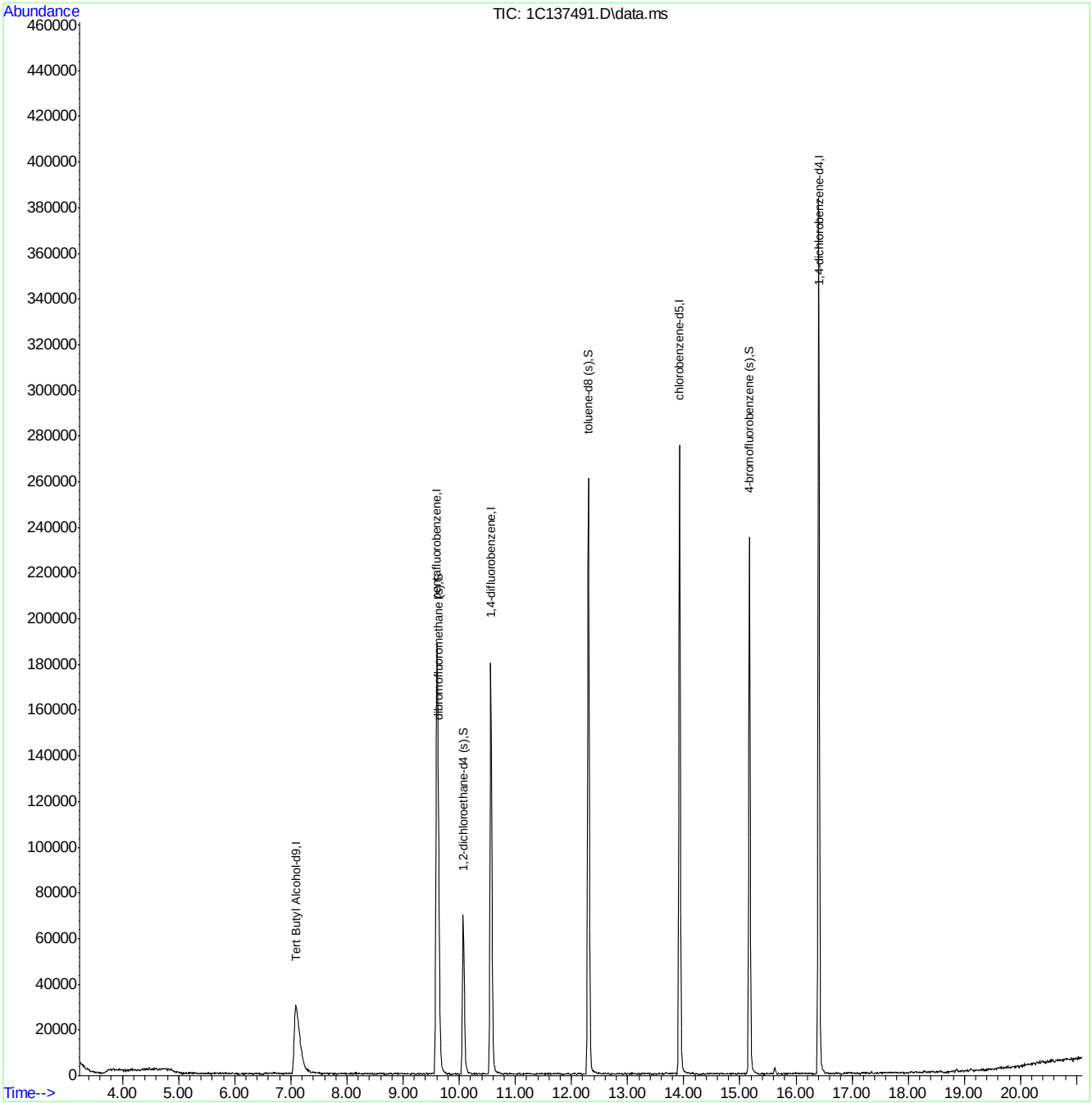
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.090	65	132388	500.00	ug/L	-0.02
5) pentafluorobenzene	9.600	168	186701	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.562	114	195428	50.00	ug/L	0.00
89) chlorobenzene-d5	13.926	117	182735	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.405	152	117524	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.626	113	63687	52.85	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.70%			
54) 1,2-dichloroethane-d4 (s)	10.071	65	64255	47.46	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 94.92%			
81) toluene-d8 (s)	12.299	98	212817	54.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 108.66%			
107) 4-bromofluorobenzene (s)	15.170	95	82849	52.60	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.20%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 02 14:47:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.648	76	80	83	rBV2	627	1039	0.16%	0.028%
2	3.706	85	91	94	rVV3	1014	1738	0.26%	0.046%
3	3.847	94	118	135	rVV7	1413	13776	2.09%	0.368%
4	3.946	135	137	145	rVB6	790	1174	0.18%	0.031%
5	4.056	151	158	163	rBV5	1228	2677	0.41%	0.071%
6	4.135	167	173	175	rVV3	793	1007	0.15%	0.027%
7	4.286	195	202	207	rBV6	809	1481	0.22%	0.040%
8	4.814	301	303	310	rBV4	1080	1782	0.27%	0.048%
9	5.045	344	347	353	rVB4	1231	1745	0.26%	0.047%
10	5.092	353	356	358	rBV2	1002	862	0.13%	0.023%
11	5.275	390	391	400	rBV4	771	933	0.14%	0.025%
12	5.541	440	442	449	rVB3	738	1244	0.19%	0.033%
13	5.672	463	467	475	rBV4	511	914	0.14%	0.024%
14	5.955	518	521	531	rVV5	544	1325	0.20%	0.035%
15	6.023	531	534	538	rVB3	713	869	0.13%	0.023%
16	6.200	563	568	570	rBV3	759	1095	0.17%	0.029%
17	6.248	576	577	586	rBV2	667	926	0.14%	0.025%
18	6.561	634	637	646	rBV3	926	1517	0.23%	0.040%
19	6.624	646	649	655	rVB4	589	879	0.13%	0.023%
20	6.896	697	701	706	rBV4	650	960	0.15%	0.026%
21	6.980	712	717	720	rBV3	597	994	0.15%	0.027%
22	7.090	724	738	783	rBV3	30139	217576	32.95%	5.805%
23	7.508	817	818	823	rVB4	898	954	0.14%	0.025%
24	7.838	877	881	886	rBV3	522	1022	0.15%	0.027%
25	7.994	909	911	916	rBV	781	880	0.13%	0.023%
26	8.141	933	939	942	rBV2	951	1180	0.18%	0.031%
27	8.376	976	984	989	rVV4	517	856	0.13%	0.023%
28	8.449	995	998	1004	rVB	634	846	0.13%	0.023%
29	8.643	1032	1035	1038	rVB4	816	895	0.14%	0.024%
30	8.706	1045	1047	1053	rVB3	646	875	0.13%	0.023%
31	8.842	1066	1073	1075	rBV3	621	935	0.14%	0.025%
32	8.920	1085	1088	1093	rBV3	722	926	0.14%	0.025%
33	9.182	1135	1138	1147	rVB2	763	1409	0.21%	0.038%
34	9.255	1147	1152	1155	rBV2	632	1101	0.17%	0.029%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

35	9.312	1158	1163	1166	rBV3	666	1081	0.16%	0.029%
36	9.459	1189	1191	1198	rBV3	692	848	0.13%	0.023%
37	9.516	1198	1202	1207	rVV	571	1015	0.15%	0.027%
38	9.600	1207	1218	1254	rVB2	188550	660388	100.00%	17.618%
39	9.799	1254	1256	1262	rVB2	740	934	0.14%	0.025%
40	9.877	1270	1271	1276	rBV	642	987	0.15%	0.026%
41	9.924	1276	1280	1284	rVB2	693	935	0.14%	0.025%
42	9.971	1284	1289	1295	rBV4	964	1262	0.19%	0.034%
43	10.071	1295	1308	1337	rBV2	69889	176866	26.78%	4.718%
44	10.353	1356	1362	1367	rBV2	651	1032	0.16%	0.028%
45	10.421	1372	1375	1379	rBV	651	890	0.13%	0.024%
46	10.562	1389	1402	1429	rBV	180100	416506	63.07%	11.112%
47	10.746	1435	1437	1444	rVB4	765	1014	0.15%	0.027%
48	11.106	1505	1506	1513	rBV3	501	933	0.14%	0.025%
49	11.541	1585	1589	1594	rBV3	813	1369	0.21%	0.037%
50	11.614	1600	1603	1607	rBV	770	892	0.14%	0.024%
51	11.677	1610	1615	1625	rVV4	571	1635	0.25%	0.044%
52	12.132	1696	1702	1714	rVB2	621	2009	0.30%	0.054%
53	12.299	1724	1734	1766	rVV	260809	534015	80.86%	14.247%
54	12.482	1767	1769	1776	rVB5	932	1384	0.21%	0.037%
55	12.644	1799	1800	1806	rVB3	827	1047	0.16%	0.028%
56	12.691	1806	1809	1813	rBV2	583	981	0.15%	0.026%
57	12.749	1816	1820	1830	rBV3	371	965	0.15%	0.026%
58	12.953	1856	1859	1864	rVB	720	1128	0.17%	0.030%
59	13.000	1864	1868	1875	rBV3	719	1188	0.18%	0.032%
60	13.078	1882	1883	1892	rBV3	878	1131	0.17%	0.030%
61	13.131	1892	1893	1900	rVB2	716	1048	0.16%	0.028%
62	13.183	1900	1903	1908	rBV3	622	1024	0.16%	0.027%
63	13.685	1993	1999	2008	rBV3	722	1679	0.25%	0.045%
64	13.926	2033	2045	2073	rBV	275630	518477	78.51%	13.832%
65	14.156	2088	2089	2098	rVB3	1015	1573	0.24%	0.042%
66	14.218	2098	2101	2108	rBV2	732	1201	0.18%	0.032%
67	14.360	2123	2128	2131	rVB2	777	1322	0.20%	0.035%
68	14.496	2153	2154	2164	rVB2	585	902	0.14%	0.024%
69	14.605	2170	2175	2180	rVB3	495	1060	0.16%	0.028%
70	14.642	2180	2182	2189	rBV3	598	888	0.13%	0.024%
71	15.170	2274	2283	2312	rVB	235169	425503	64.43%	11.352%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.06 Max Peaks: 100
Stop Thrs : 0.04 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

72	15.631	2363	2371	2378	rVB5	3167	6704	1.02%	0.179%
73	15.683	2378	2381	2391	rBV3	666	1469	0.22%	0.039%
74	15.787	2396	2401	2405	rBV4	545	955	0.14%	0.025%
75	16.295	2497	2498	2502	rBV2	920	868	0.13%	0.023%
76	16.405	2511	2519	2543	rVV	383729	657659	99.59%	17.545%
77	16.603	2553	2557	2562	rVB3	550	962	0.15%	0.026%
78	16.661	2562	2568	2572	rBV3	708	1183	0.18%	0.032%
79	16.907	2611	2615	2618	rBV3	895	1119	0.17%	0.030%
80	16.970	2623	2627	2633	rVB5	631	951	0.14%	0.025%
81	17.168	2660	2665	2668	rBV5	929	1495	0.23%	0.040%
82	17.200	2668	2671	2677	rVV4	916	1552	0.24%	0.041%
83	17.493	2723	2727	2733	rVB4	591	1173	0.18%	0.031%
84	18.021	2825	2828	2832	rBV2	726	1234	0.19%	0.033%
85	18.052	2832	2834	2840	rVB2	737	1174	0.18%	0.031%
86	18.157	2853	2854	2859	rVB4	631	874	0.13%	0.023%
87	18.288	2875	2879	2881	rBV3	1071	1126	0.17%	0.030%
88	18.350	2888	2891	2895	rBV4	872	1200	0.18%	0.032%
89	18.387	2895	2898	2901	rVV3	1007	959	0.15%	0.026%
90	18.418	2901	2904	2907	rVV3	908	1070	0.16%	0.029%
91	18.444	2907	2909	2915	rVV4	716	1211	0.18%	0.032%
92	18.492	2915	2918	2923	rVB2	709	1215	0.18%	0.032%
93	18.701	2954	2958	2959	rVB3	1032	888	0.13%	0.024%
94	18.769	2966	2971	2975	rBV4	688	1289	0.20%	0.034%
95	18.805	2975	2978	2983	rVB4	1195	1991	0.30%	0.053%
96	18.868	2983	2990	2995	rBV3	1745	4257	0.64%	0.114%
97	19.119	3031	3038	3049	rBV8	1516	3466	0.52%	0.092%
98	19.422	3093	3096	3117	rVB8	746	2594	0.39%	0.069%
99	19.956	3188	3198	3202	rVB5	1378	3975	0.60%	0.106%
100	20.071	3218	3220	3246	rBV5	1784	8254	1.25%	0.220%

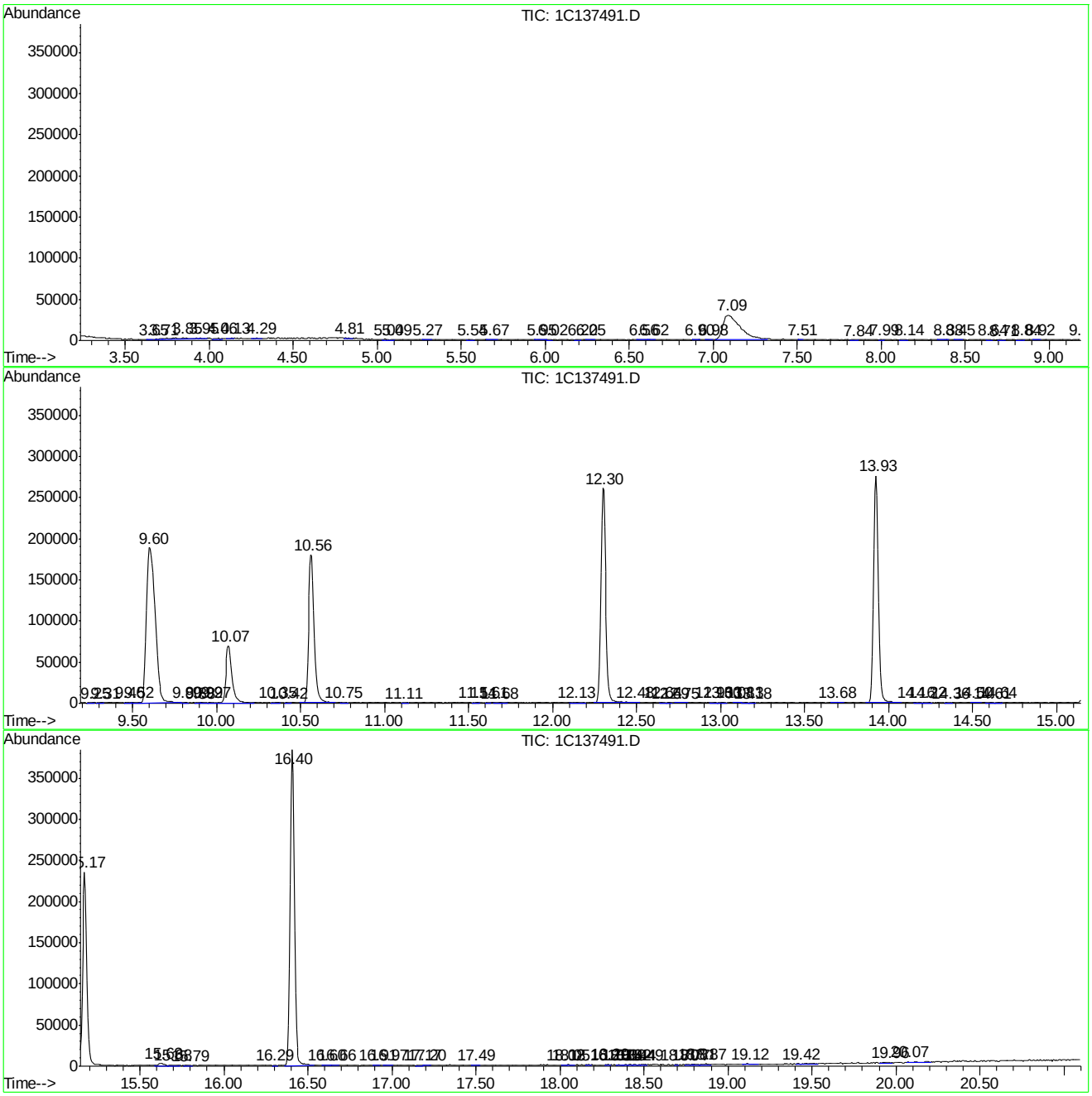
Sum of corrected areas: 3748371

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137491.D
Acq On : 2 Mar 2015 11:50 am
Operator : shannont
Sample : mb
Misc : MS81468,V1C6111,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128043.D Vial: 4
Acq On : 4 Mar 2015 11:17 am Operator: bridgetk
Sample : mb Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 11:39:16 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	134467	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	430511	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	456100	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	374156	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	193337	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	143275	50.98	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 101.96%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	156686	47.71	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 95.42%			
82) toluene-d8 (s)	13.31	98	453070	49.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 98.66%			
108) 4-bromofluorobenzene (s)	15.78	95	156278	50.08	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.16%			

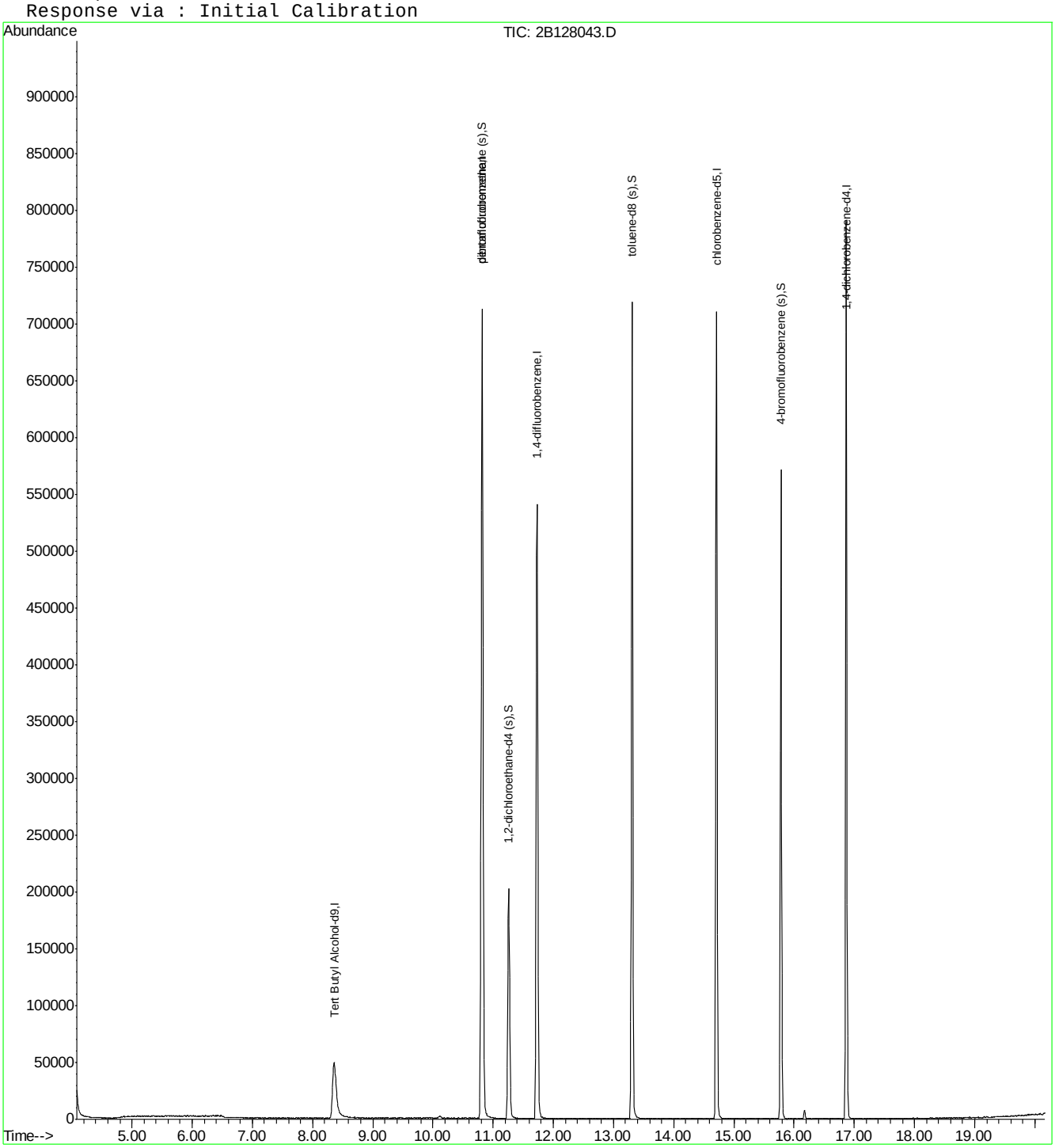
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128043.D Vial: 4
Acq On : 4 Mar 2015 11:17 am Operator: bridgetk
Sample : mb Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 4 16:03 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



2B128043.D M2B5744.M Wed Mar 04 16:09:11 2015 MS2B Page 2

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128043.D
Acq On : 4 Mar 2015 11:17 am
Operator : bridgetk
Sample : mb
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

Signal : TIC: 2B128043.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.509	80	82	91	rVB3	722	1105	0.07%	0.015%
2	4.562	91	92	99	rVB3	515	697	0.04%	0.009%
3	4.614	99	102	108	rBV3	483	823	0.05%	0.011%
4	4.787	127	135	139	rBV3	914	2474	0.16%	0.033%
5	4.845	139	146	148	rVV3	626	1244	0.08%	0.016%
6	5.322	234	237	251	rVB3	995	3007	0.19%	0.040%
7	5.421	251	256	264	rBV3	845	2150	0.13%	0.028%
8	5.479	264	267	271	rVB3	1117	948	0.06%	0.012%
9	5.715	310	312	332	rVB3	1036	3801	0.24%	0.050%
10	6.156	395	396	407	rVV4	910	1886	0.12%	0.025%
11	6.224	407	409	414	rVB2	1272	1266	0.08%	0.017%
12	6.349	428	433	439	rVV5	1206	2522	0.16%	0.033%
13	6.391	439	441	444	rVV3	1463	1444	0.09%	0.019%
14	6.475	444	457	507	rVB3	2302	14897	0.93%	0.196%
15	6.952	546	548	560	rVB3	665	1006	0.06%	0.013%
16	7.073	560	571	577	rBV3	449	1244	0.08%	0.016%
17	7.162	587	588	606	rVB3	636	1545	0.10%	0.020%
18	7.267	606	608	621	rBV2	605	1358	0.09%	0.018%
19	7.424	636	638	643	rBV2	812	865	0.05%	0.011%
20	7.498	649	652	656	rBV2	376	575	0.04%	0.008%
21	7.587	664	669	685	rVB3	423	815	0.05%	0.011%
22	7.734	692	697	703	rBV2	403	717	0.04%	0.009%
23	7.797	708	709	716	rVB2	471	764	0.05%	0.010%
24	7.854	718	720	726	rVV	641	613	0.04%	0.008%
25	7.896	726	728	739	rVB3	519	1248	0.08%	0.016%
26	8.048	755	757	765	rBV3	469	892	0.06%	0.012%
27	8.122	769	771	777	rVB2	481	721	0.05%	0.009%
28	8.158	777	778	793	rBV3	621	1471	0.09%	0.019%
29	8.363	798	817	865	rBV	49283	237510	14.90%	3.123%
30	8.704	881	882	888	rBV	836	785	0.05%	0.010%
31	8.819	903	904	910	rVB	726	573	0.04%	0.008%
32	9.202	975	977	987	rVV4	604	1156	0.07%	0.015%
33	9.469	1026	1028	1032	rVB2	849	701	0.04%	0.009%
34	9.501	1032	1034	1042	rBV2	608	873	0.05%	0.011%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128043.D
Acq On : 4 Mar 2015 11:17 am
Operator : bridgetk
Sample : mb
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

35	9.600	1048	1053	1059	rVB2	480	640	0.04%	0.008%
36	9.695	1066	1071	1079	rVB2	446	888	0.06%	0.012%
37	9.773	1079	1086	1087	rVB2	741	983	0.06%	0.013%
38	9.784	1087	1088	1098	rBV3	702	1577	0.10%	0.021%
39	9.889	1107	1108	1115	rBV2	466	802	0.05%	0.011%
40	9.951	1115	1120	1127	rVB3	645	1500	0.09%	0.020%
41	10.114	1140	1151	1162	rVV4	2128	5457	0.34%	0.072%
42	10.187	1162	1165	1169	rVB3	593	652	0.04%	0.009%
43	10.350	1193	1196	1203	rVB3	672	1441	0.09%	0.019%
44	10.397	1203	1205	1207	rBV2	546	613	0.04%	0.008%
45	10.596	1240	1243	1247	rBV2	440	640	0.04%	0.008%
46	10.680	1258	1259	1270	rVV2	397	926	0.06%	0.012%
47	10.817	1270	1285	1331	rVB2	712296	1593609	100.00%	20.956%
48	11.178	1350	1354	1360	rVB2	365	655	0.04%	0.009%
49	11.257	1360	1369	1401	rBV	202435	430353	27.00%	5.659%
50	11.619	1420	1438	1441	rBV2	439	1777	0.11%	0.023%
51	11.650	1441	1444	1449	rVV2	579	740	0.05%	0.010%
52	11.729	1449	1459	1480	rVV	541098	1007658	63.23%	13.251%
53	11.844	1480	1481	1493	rVB2	975	1829	0.11%	0.024%
54	11.933	1493	1498	1505	rVB3	500	1067	0.07%	0.014%
55	12.295	1565	1567	1583	rVB	443	1678	0.11%	0.022%
56	12.709	1643	1646	1651	rVB2	491	893	0.06%	0.012%
57	12.751	1651	1654	1658	rBV2	544	777	0.05%	0.010%
58	13.260	1744	1751	1752	rBV3	404	833	0.05%	0.011%
59	13.307	1752	1760	1782	rVV	718610	1165860	73.16%	15.331%
60	13.700	1831	1835	1844	rBV2	452	1122	0.07%	0.015%
61	13.810	1849	1856	1861	rBV	486	957	0.06%	0.013%
62	13.952	1880	1883	1888	rVB2	388	609	0.04%	0.008%
63	13.989	1888	1890	1895	rBV2	408	637	0.04%	0.008%
64	14.450	1976	1978	1987	rVB2	471	925	0.06%	0.012%
65	14.518	1987	1991	1995	rBV2	408	605	0.04%	0.008%
66	14.712	2019	2028	2054	rBV	710767	1102931	69.21%	14.503%
67	15.132	2103	2108	2112	rBV	298	634	0.04%	0.008%
68	15.168	2112	2115	2123	rVB2	423	607	0.04%	0.008%
69	15.782	2219	2232	2249	rVB	571611	811638	50.93%	10.673%
70	15.887	2251	2252	2257	rBV	472	601	0.04%	0.008%
71	16.049	2281	2283	2291	rVB2	378	853	0.05%	0.011%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128043.D
Acq On : 4 Mar 2015 11:17 am
Operator : bridgetk
Sample : mb
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

72	16.175	2301	2307	2317	rVV	7645	11016	0.69%	0.145%
73	16.317	2329	2334	2341	rBV2	444	999	0.06%	0.013%
74	16.600	2383	2388	2389	rBV	465	579	0.04%	0.008%
75	16.725	2405	2412	2423	rVB3	705	2026	0.13%	0.027%
76	16.867	2430	2439	2461	rBV	790357	1116145	70.04%	14.677%
77	17.203	2499	2503	2504	rBV2	451	582	0.04%	0.008%
78	17.507	2560	2561	2567	rBV2	432	670	0.04%	0.009%
79	17.690	2591	2596	2601	rVB3	441	860	0.05%	0.011%
80	17.779	2601	2613	2618	rBV3	603	2108	0.13%	0.028%
81	17.895	2632	2635	2647	rVV2	408	778	0.05%	0.010%
82	18.047	2658	2664	2671	rBV2	575	1426	0.09%	0.019%
83	18.298	2708	2712	2721	rVB3	480	784	0.05%	0.010%
84	18.351	2721	2722	2728	rVB2	754	1046	0.07%	0.014%
85	18.414	2731	2734	2741	rBV3	548	999	0.06%	0.013%
86	18.487	2745	2748	2760	rBV3	663	1166	0.07%	0.015%
87	18.555	2760	2761	2776	rVB3	554	1343	0.08%	0.018%
88	18.650	2776	2779	2784	rBV2	595	904	0.06%	0.012%
89	18.728	2792	2794	2799	rBV2	739	997	0.06%	0.013%
90	18.859	2813	2819	2828	rVV4	768	2039	0.13%	0.027%
91	18.917	2828	2830	2835	rVB	904	840	0.05%	0.011%
92	18.949	2835	2836	2846	rVB4	771	1759	0.11%	0.023%
93	19.032	2846	2852	2854	rBV2	782	1391	0.09%	0.018%
94	19.064	2854	2858	2871	rVB4	1056	2559	0.16%	0.034%
95	19.163	2871	2877	2890	rBV4	1245	4623	0.29%	0.061%
96	19.279	2895	2899	2903	rVB3	1291	1381	0.09%	0.018%
97	19.316	2903	2906	2910	rBV4	1071	1681	0.11%	0.022%
98	19.394	2919	2921	2934	rBV3	671	1382	0.09%	0.018%
99	19.473	2934	2936	2946	rVB5	988	1911	0.12%	0.025%
100	19.551	2949	2951	2959	rBV3	1149	1000	0.06%	0.013%

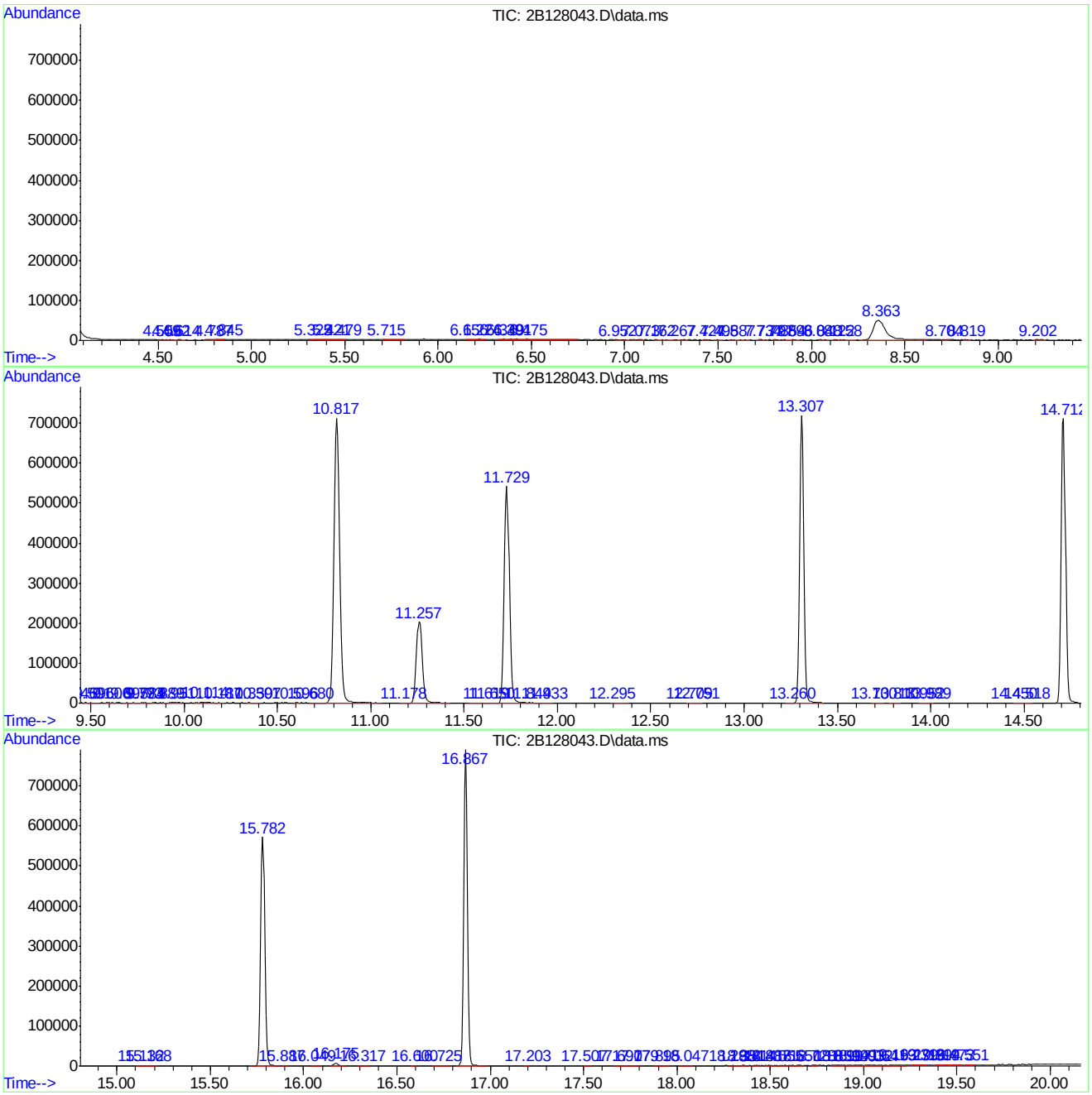
Sum of corrected areas: 7604657

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128043.D
Acq On : 4 Mar 2015 11:17 am
Operator : bridgetk
Sample : mb
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128043.D
Acq On : 4 Mar 2015 11:17 am
Operator : bridgetk
Sample : mb
Misc : MS81468,V2B5771,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um

TIC Library : C:\DATABASE\NIST08.L
TIC Integration Parameters: lscint.p

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.090	65	136395	500.00	ug/L		-0.02
5) pentafluorobenzene	9.595	168	191308	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	203495	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	187366	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	118526	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.621	113	65166	52.77	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.54%				
54) 1,2-dichloroethane-d4 (s)	10.066	65	66466	47.91	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.82%				
81) toluene-d8 (s)	12.299	98	220756	54.12	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 108.24%				
107) 4-bromofluorobenzene (s)	15.170	95	84520	53.21	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.42%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.231	59	61922	255.77	ug/L		70
3) 1,4-dioxane	11.326	88	24203	1224.11	ug/L		98
10) chlorodifluoromethane	3.476	51	71194	37.19	ug/L		94
11) dichlorodifluoromethane	3.460	85	69887	44.94	ug/L		97
13) chloromethane	3.769	50	102156	46.23	ug/L		100
14) vinyl chloride	4.030	62	108012	48.10	ug/L		99
15) bromomethane	4.673	94	77400	48.62	ug/L		96
16) chloroethane	4.851	64	45718	58.67	ug/L		96
20) trichlorofluoromethane	5.379	101	96369	49.61	ug/L		99
21) ethyl ether	5.819	74	30803	55.47	ug/L	#	83
23) acrolein	6.096	56	140519	513.85	ug/L		97
24) 1,1-dichloroethene	6.269	96	53006	47.87	ug/L		99
25) acetone	6.357	43	18287	43.00	ug/L		96
26) acetonitrile	6.854	40	66362	495.85	ug/L		98
27) allyl chloride	6.865	76	29942	56.56	ug/L		94
28) iodomethane	6.561	142	135834	50.94	ug/L		97
29) carbon disulfide	6.687	76	201639	46.05	ug/L		99
30) 2-CHLOROPROPANE	6.018	43	102333	54.83	ug/L		99
31) methylene chloride	7.084	84	64920	49.26	ug/L		99
32) methyl acetate	6.875	43	42064	39.85	ug/L		99
33) methyl tert butyl ether	7.461	73	406752	96.20	ug/L		88
34) trans-1,2-dichloroethene	7.503	96	53488	50.88	ug/L		86
35) 1-CHLOROPROPANE	7.116	42	91101	43.39	ug/L		94
36) di-isopropyl ether	8.157	45	182006	48.68	ug/L		96
37) 2-butanone	8.993	72	7451	48.92	ug/L	#	84
38) 1,1-dichloroethane	8.157	63	101365	49.82	ug/L		99
39) chloroprene	8.277	53	62628	46.45	ug/L		92
40) acrylonitrile	7.471	53	115851	269.59	ug/L		99
41) vinyl acetate	8.178	86	9584	57.68	ug/L		84
42) ethyl tert-butyl ether	8.690	59	194014	47.91	ug/L		95
43) ethyl acetate	9.014	45	10813	60.02	ug/L		96
44) 2,2-dichloropropane	8.983	77	109844	50.40	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) cis-1,2-dichloroethene	8.993	96	62361	51.75	ug/L	100
46) propionitrile	9.077	54	99310	536.86	ug/L	94
47) methylacrylate	9.093	55	70014	53.91	ug/L	99
48) bromochloromethane	9.328	128	34171	51.08	ug/L	95
49) tetrahydrofuran	9.381	72	8831	48.58	ug/L	85
50) chloroform	9.407	85	66494	49.83	ug/L	97
51) T-BUTYL FORMATE	9.443	59	69084	52.83	ug/L	99
52) isobutyl alcohol	9.935	43	38250	487.61	ug/L	98
55) freon 113	6.248	151	39228	52.20	ug/L	96
56) methacrylonitrile	9.281	67	24047	49.01	ug/L	92
57) 1,1,1-trichloroethane	9.658	97	100229	51.04	ug/L	94
58) Cyclohexane	9.731	84	66795	55.32	ug/L	93
60) ISO-OCTANE	10.149	57	119597	48.94	ug/L	97
61) epichlorohydrin	11.907	57	33845	253.39	ug/L	95
62) n-butyl alcohol	10.740	56	130432	2671.80	ug/L	97
63) carbon tetrachloride	9.877	117	89661	49.15	ug/L	93
64) 1,1-dichloropropene	9.857	75	67457	50.98	ug/L	98
65) hexane	7.859	57	26269	44.55	ug/L	98
66) benzene	10.134	78	210381	49.02	ug/L	99
67) tert-amyl methyl ether	10.196	73	194703	46.97	ug/L	98
68) heptane	10.348	57	17613	50.10	ug/L	95
69) isopropyl acetate	10.102	43	131995	53.36	ug/L	98
70) 1,2-dichloroethane	10.165	62	76340	47.98	ug/L	98
71) trichloroethene	10.908	95	54974	49.97	ug/L	97
72) 2-nitropropane	11.750	41	26115	50.00	ug/L	99
73) 2-chloroethyl vinyl ether	11.781	63	191531	251.87	ug/L	99
74) methyl methacrylate	11.232	100	16456	51.33	ug/L	98
75) 1,2-dichloropropane	11.185	63	56658	49.75	ug/L	100
76) dibromomethane	11.358	93	38407	49.31	ug/L	95
77) methylcyclohexane	11.127	83	54511	49.74	ug/L	90
78) bromodichloromethane	11.509	83	80264	48.98	ug/L	99
80) cis-1,3-dichloropropene	11.996	75	96401	50.23	ug/L	99
82) 4-methyl-2-pentanone	12.111	58	27162	51.43	ug/L	95
83) toluene	12.377	92	131369	49.76	ug/L	98
84) 3-methyl-1-butanol	12.163	55	83590	1026.45	ug/L	98
85) trans-1,3-dichloropropene	12.608	75	90298	50.72	ug/L	99
86) ethyl methacrylate	12.613	69	77775	51.85	ug/L	99
87) 1,1,2-trichloroethane	12.833	83	46042	50.69	ug/L	99
88) 2-hexanone	13.031	58	25249	53.50	ug/L	95
90) tetrachloroethene	13.005	164	51400	50.30	ug/L	97
91) 1,3-dichloropropane	13.026	76	87296	51.77	ug/L	99
92) butyl acetate	13.120	56	40066	50.07	ug/L	98
93) 3,3-DIMETHYL-1-BUTANOL	13.230	57	109873	510.37	ug/L	99
94) dibromochloromethane	13.308	129	74188	51.10	ug/L	98
95) 1,2-dibromoethane	13.460	107	60883	51.81	ug/L	96
97) chlorobenzene	13.957	112	164466	50.70	ug/L	99
98) 1,1,1,2-tetrachloroethane	14.025	131	76737	52.06	ug/L	98
99) ethylbenzene	14.020	91	262584	49.62	ug/L	98
100) m,p-xylene	14.135	106	206592	103.76	ug/L	98
101) o-xylene	14.585	106	109465	51.19	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

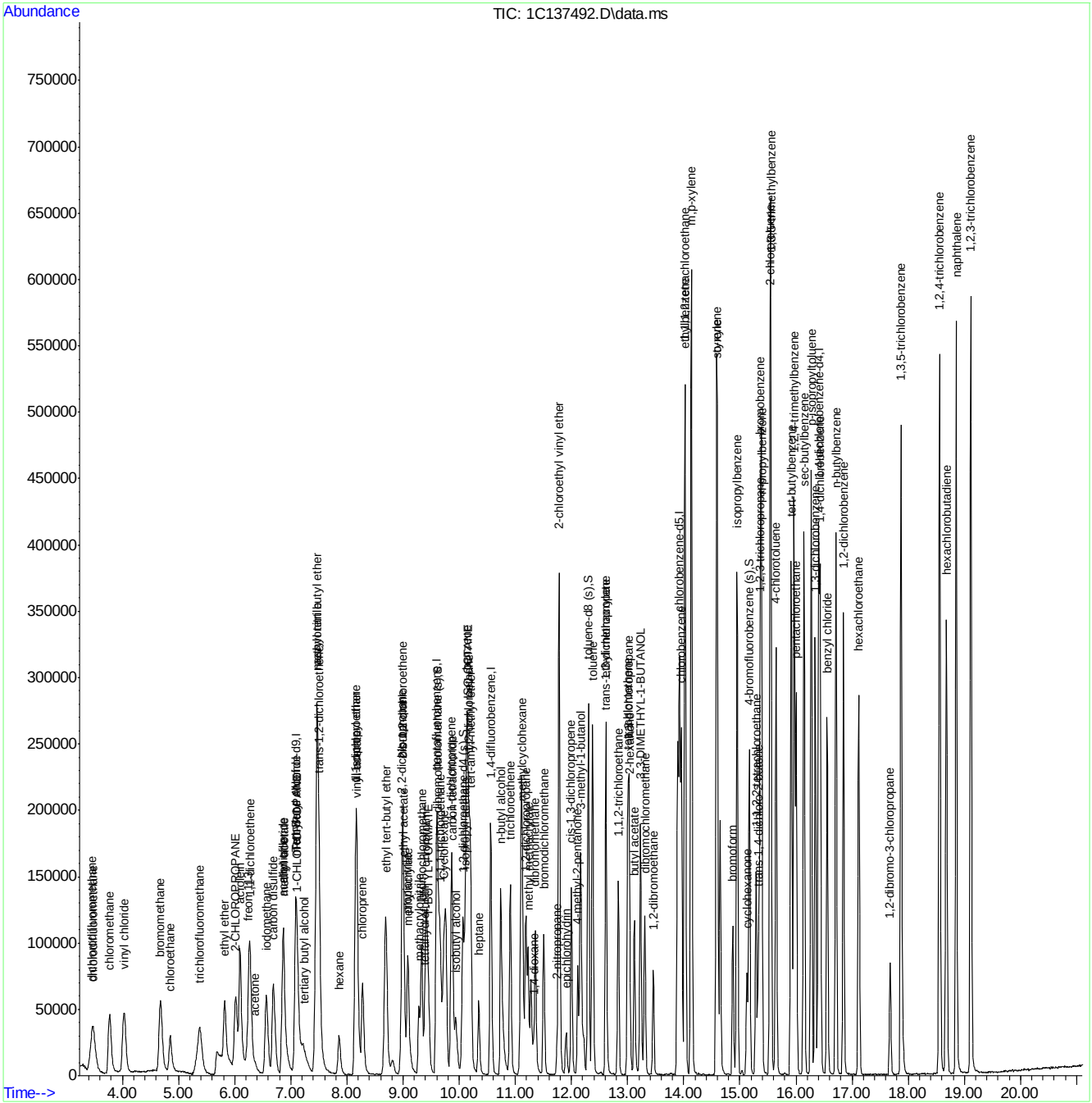
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) styrene	14.595	104	179465	52.63	ug/L	99
104) bromoform	14.878	173	63957	52.02	ug/L	95
106) isopropylbenzene	14.951	105	289386	53.23	ug/L	99
108) cyclohexanone	15.129	55	38125	145.73	ug/L	98
109) bromobenzene	15.369	156	88785	55.42	ug/L	93
110) 1,1,2,2-tetrachloroethane	15.291	83	87431	49.82	ug/L	99
111) trans-1,4-dichloro-2-b...	15.333	53	21197	48.23	ug/L	86
112) 1,2,3-trichloropropane	15.359	110	22958	52.38	ug/L	87
113) n-propylbenzene	15.390	91	321104	53.70	ug/L	99
114) 2-chlorotoluene	15.542	126	75707	54.11	ug/L	93
115) 4-chlorotoluene	15.646	91	202666	51.05	ug/L	97
116) 1,3,5-trimethylbenzene	15.552	105	259889	51.83	ug/L	99
117) tert-butylbenzene	15.913	119	230561	53.83	ug/L	97
118) pentachloroethane	16.007	167	73892	53.39	ug/L	97
119) 1,2,4-trimethylbenzene	15.965	105	269372	53.22	ug/L	98
120) sec-butylbenzene	16.143	105	337673	52.08	ug/L	99
121) 1,3-dichlorobenzene	16.342	146	165010	47.91	ug/L	100
122) p-isopropyltoluene	16.274	119	306434	52.57	ug/L	99
124) 1,4-dichlorobenzene	16.431	146	173056	49.22	ug/L	96
125) benzyl chloride	16.556	91	213325	53.96	ug/L	98
126) 1,2-dichlorobenzene	16.849	146	178461	49.53	ug/L	98
127) n-butylbenzene	16.713	92	145286	51.08	ug/L	98
128) 1,2-dibromo-3-chloropr...	17.676	75	23446	49.29	ug/L	85
129) 1,3,5-trichlorobenzene	17.874	180	201643	47.92	ug/L	100
130) 1,2,4-trichlorobenzene	18.560	180	228569	49.21	ug/L	98
131) hexachlorobutadiene	18.680	225	99234	49.48	ug/L	97
132) naphthalene	18.858	128	533066	48.34	ug/L	99
133) 1,2,3-trichlorobenzene	19.119	180	241276	50.92	ug/L	99
134) hexachloroethane	17.121	201	72242	56.84	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137492.D
Acq On : 2 Mar 2015 12:27 pm
Operator : shannont
Sample : bs
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 02 14:48:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128044.D Vial: 5
Acq On : 4 Mar 2015 11:45 am Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 12:08:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	122184	500.00	ug/L		0.01
5) pentafluorobenzene	10.82	168	401297	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	448393	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	370884	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	196621	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	134034	51.16	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 102.32%				
52) 1,2-dichloroethane-d4 (s)	11.26	65	147374	48.14	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.28%				
82) toluene-d8 (s)	13.31	98	450481	49.89	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.78%				
108) 4-bromofluorobenzene (s)	15.78	95	160641	50.61	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 101.22%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	65375	259.67	ug/L		96
3) ethanol	6.95	45	142533	5215.03	ug/L		94
4) 1,4-dioxane	12.42	88	24914	1052.33	ug/L		95
9) chlorodifluoromethane	4.48	51	149351	51.41	ug/L		96
10) dichlorodifluoromethane	4.46	85	182615	50.85	ug/L		99
12) chloromethane	4.89	50	231072	62.97	ug/L		98
13) vinyl chloride	5.18	62	195573	58.42	ug/L		99
15) bromomethane	5.91	94	127881	51.87	ug/L		99
16) chloroethane	6.11	64	107032	68.56	ug/L		97
18) trichlorofluoromethane	6.70	101	219595	51.70	ug/L		99
20) ethyl ether	7.15	74	81550	61.61	ug/L		87
21) acrolein	7.39	56	197699	478.47	ug/L		99
22) 2-chloropropane	7.35	43	293877	67.80	ug/L		89
24) 1,1-dichloroethene	7.62	96	132722	54.48	ug/L		98
25) acetone	7.64	43	38483	51.77	ug/L		92
26) allyl chloride	8.21	76	81369	64.08	ug/L		91
27) acetonitrile	8.11	40	81912	576.21	ug/L		96
28) iodomethane	7.91	142	267975	51.76	ug/L		96
29) iso-butyl alcohol	11.10	74	16404	566.80	ug/L	#	40
30) carbon disulfide	8.06	76	450468	57.04	ug/L		97
31) methylene chloride	8.39	84	151060	55.85	ug/L		92
32) methyl acetate	8.18	74	20207	50.33	ug/L	#	69
33) 1-chloropropane	8.46	42	238437	51.49	ug/L		96
34) methyl tert butyl ether	8.82	73	792632	102.51	ug/L		92
35) trans-1,2-dichloroethene	8.83	96	130518	50.53	ug/L		96
36) di-isopropyl ether	9.50	45	471824	64.04	ug/L		96
37) 2-butanone	10.21	72	15471	58.85	ug/L	#	81
38) 1,1-dichloroethane	9.44	63	265289	58.65	ug/L		97
39) chloroprene	9.58	53	176620	55.07	ug/L		96
40) acrylonitrile	8.74	53	271144	311.06	ug/L		98
41) vinyl acetate	9.45	86	24467	60.43	ug/L		79
42) ethyl tert-butyl ether	10.00	59	443449	56.54	ug/L		97
43) ethyl acetate	10.26	45	18660	64.84	ug/L	#	36

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128044.D Vial: 5
Acq On : 4 Mar 2015 11:45 am Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 12:08:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	210780	54.51	ug/L		97
45)	cis-1,2-dichloroethene	10.23	96	151860	54.08	ug/L		96
46)	propionitrile	10.28	54	201629	636.98	ug/L		98
47)	bromochloromethane	10.55	128	78367	53.59	ug/L		88
48)	tetrahydrofuran	10.62	42	40036	60.34	ug/L		94
49)	chloroform	10.62	83	244642	52.01	ug/L		98
50)	t-butyl formate	10.70	59	122790	57.64	ug/L		93
53)	freon 113	7.63	151	100305	51.21	ug/L		88
54)	methacrylonitrile	10.49	41	88430	61.89	ug/L		92
55)	1,1,1-trichloroethane	10.92	97	212995	51.93	ug/L		99
56)	Cyclohexane	11.03	84	200071	59.72	ug/L		92
61)	epichlorohydrin	12.91	57	59883	269.38	ug/L		98
62)	n-butyl alcohol	11.83	56	171214	2822.38	ug/L		98
63)	carbon tetrachloride	11.14	117	197392	44.50	ug/L		98
64)	1,1-dichloropropene	11.10	75	186849	53.59	ug/L		99
65)	hexane	9.23	57	156470	58.99	ug/L		98
66)	benzene	11.36	78	516544	53.82	ug/L		98
67)	2,2,4-trimethylpentane	11.43	57	419722	52.24	ug/L		97
68)	tert-amyl methyl ether	11.44	73	380447	49.77	ug/L		98
69)	heptane	11.59	57	82940	53.02	ug/L		98
70)	isopropyl acetate	11.30	43	240720	56.69	ug/L		98
71)	1,2-dichloroethane	11.35	62	185216	47.10	ug/L		89
72)	trichloroethene	12.06	95	138577	52.37	ug/L		95
74)	2-nitropropane	12.77	41	35413	48.89	ug/L		96
75)	2-chloroethyl vinyl ether	12.81	63	404365	289.90	ug/L		98
76)	methyl methacrylate	12.33	100	30659	53.16	ug/L	#	78
77)	1,2-dichloropropane	12.31	63	138341	56.93	ug/L		96
78)	dibromomethane	12.44	93	87042	49.97	ug/L		96
79)	methylcyclohexane	12.31	83	181984	48.39	ug/L		96
80)	bromodichloromethane	12.57	83	190823	50.44	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	228688	54.84	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	48198	57.25	ug/L		95
84)	toluene	13.38	92	297070	51.34	ug/L		99
85)	3-methyl-1-butanol	13.12	55	99921	1116.59	ug/L		93
86)	trans-1,3-dichloropropene	13.53	75	205683	51.04	ug/L		99
87)	ethyl methacrylate	13.55	69	152078	54.34	ug/L		94
88)	1,1,2-trichloroethane	13.73	83	99303	51.45	ug/L		98
89)	2-hexanone	13.92	58	40071	56.88	ug/L		95
91)	butyl ether	14.69	57	531208	59.56	ug/L		96
92)	tetrachloroethene	13.93	164	116795	47.14	ug/L		97
93)	1,3-dichloropropane	13.90	76	195184	54.77	ug/L		99
94)	butyl acetate	13.99	56	76335	60.82	ug/L		97
95)	3,3-dimethyl-1-butanol	14.06	57	102600	552.63	ug/L		96
96)	dibromochloromethane	14.15	129	155749	49.05	ug/L		99
97)	1,2-dibromoethane	14.29	107	128255	51.78	ug/L		97
98)	chlorobenzene	14.74	112	330246	52.14	ug/L		98
99)	1,1,1,2-tetrachloroethane	14.79	131	137156	48.73	ug/L		97
100)	ethylbenzene	14.81	91	530411	50.32	ug/L		98
101)	m,p-xylene	14.90	106	415117	103.44	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128044.D Vial: 5
Acq On : 4 Mar 2015 11:45 am Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 12:08:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

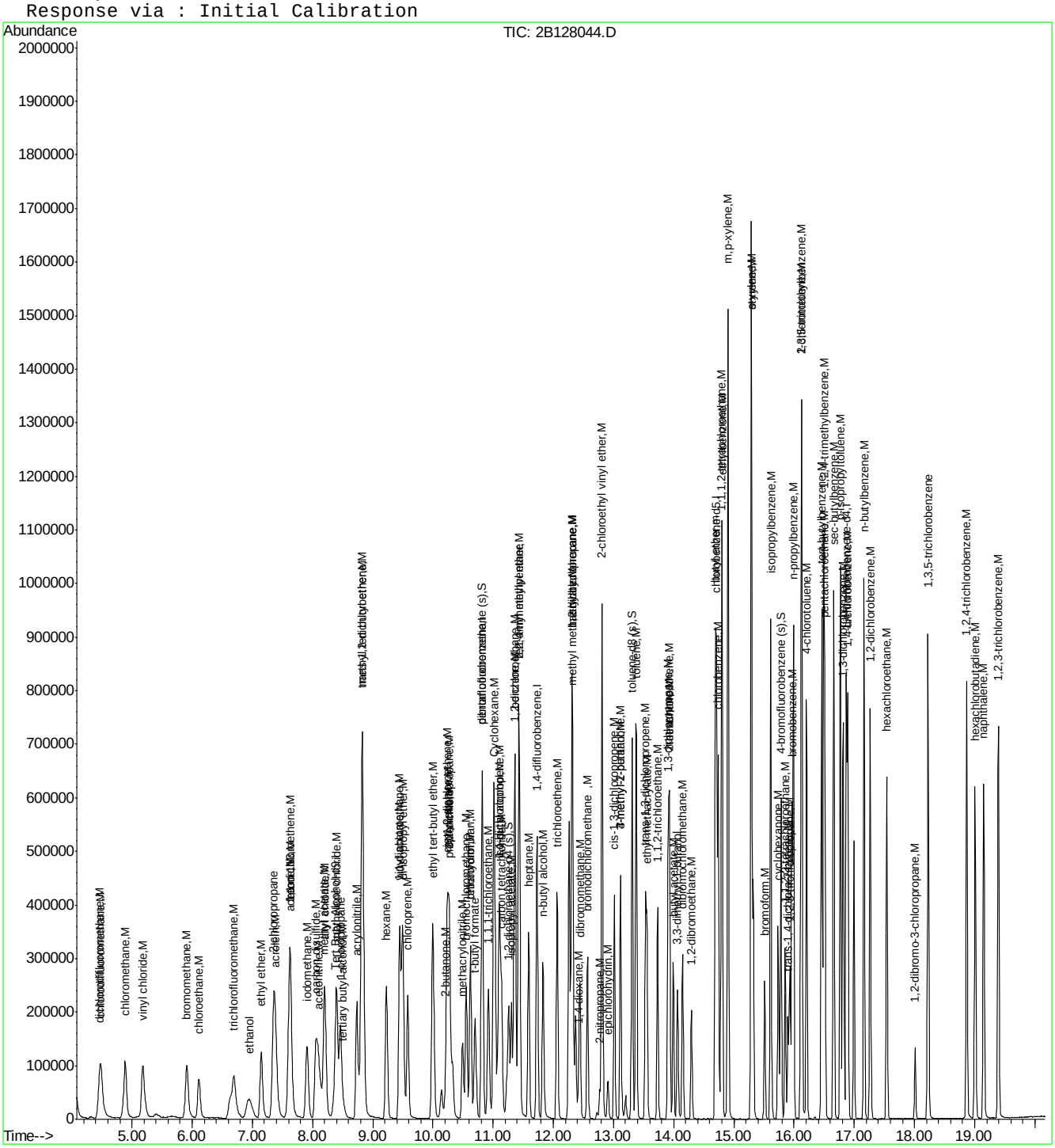
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
102) o-xylene	15.29	106	218291	51.34	ug/L		99
103) styrene	15.29	104	359817	54.92	ug/L		96
105) bromoform	15.51	173	115862	47.77	ug/L		99
107) isopropylbenzene	15.61	105	563933	53.85	ug/L		100
109) cyclohexanone	15.73	98	60290	576.57	ug/L	#	82
110) bromobenzene	15.97	156	166196	52.11	ug/L		97
111) 1,1,2,2-tetrachloroethane	15.85	83	148644	54.73	ug/L		97
112) trans-1,4-dichloro-2-buten	15.90	53	32261	45.50	ug/L		93
113) 1,2,3-trichloropropane	15.93	110	38406	52.03	ug/L		96
114) n-propylbenzene	15.99	91	637229	56.75	ug/L		99
115) 2-chlorotoluene	16.12	126	143225	53.51	ug/L		96
116) 4-chlorotoluene	16.21	91	387968	52.23	ug/L		100
117) 1,3,5-trimethylbenzene	16.13	105	453576	52.40	ug/L		98
118) tert-butylbenzene	16.46	119	432979	54.73	ug/L		99
119) pentachloroethane	16.51	167	110137	50.47	ug/L		99
120) 1,2,4-trimethylbenzene	16.49	105	474371	55.89	ug/L		98
121) sec-butylbenzene	16.66	105	624671	54.64	ug/L		99
122) 1,3-dichlorobenzene	16.81	146	289572	50.20	ug/L		99
123) p-isopropyltoluene	16.77	119	542311	55.41	ug/L		99
124) 1,4-dichlorobenzene	16.89	146	290363	50.22	ug/L		99
125) 1,2-dichlorobenzene	17.27	146	300800	51.69	ug/L		99
126) n-butylbenzene	17.16	92	279278	59.49	ug/L		98
127) 1,2-dibromo-3-chloropropan	18.01	75	29665	52.49	ug/L		92
128) 1,3,5-trichlorobenzene	18.22	180	291252	50.80	ug/L		98
129) 1,2,4-trichlorobenzene	18.86	180	272216	54.00	ug/L		98
130) hexachlorobutadiene	19.01	225	142788	49.79	ug/L		100
131) naphthalene	19.15	128	484691	55.23	ug/L		99
132) 1,2,3-trichlorobenzene	19.39	180	239782	53.74	ug/L		100
133) hexachloroethane	17.54	201	115773	51.16	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128044.D Vial: 5
Acq On : 4 Mar 2015 11:45 am Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 4 12:08 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.090	65	138843	500.00	ug/L		-0.02
5) pentafluorobenzene	9.600	168	183607	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	194576	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	185106	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	117980	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.626	113	63286	53.40	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.80%				
54) 1,2-dichloroethane-d4 (s)	10.071	65	64683	48.59	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 97.18%				
81) toluene-d8 (s)	12.299	98	216247	55.45	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 110.90%				
107) 4-bromofluorobenzene (s)	15.170	95	83929	53.08	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.16%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.226	59	63594	258.05	ug/L		87
3) 1,4-dioxane	11.326	88	24284	1206.55	ug/L		93
10) chlorodifluoromethane	3.481	51	94912	51.66	ug/L		91
11) dichlorodifluoromethane	3.465	85	80139	53.69	ug/L		99
13) chloromethane	3.768	50	100833	47.55	ug/L		99
14) vinyl chloride	4.025	62	107362	49.81	ug/L		99
15) bromomethane	4.673	94	72595	47.51	ug/L		98
16) chloroethane	4.856	64	39507	52.83	ug/L		97
20) trichlorofluoromethane	5.369	101	100723	54.03	ug/L		97
21) ethyl ether	5.824	74	27947	52.44	ug/L		98
23) acrolein	6.101	56	100699	383.68	ug/L		95
24) 1,1-dichloroethene	6.274	96	54858	51.62	ug/L		98
25) acetone	6.363	43	17122	41.95	ug/L	#	94
26) acetonitrile	6.844	40	65046	506.40	ug/L		98
27) allyl chloride	6.870	76	27053	53.25	ug/L		90
28) iodomethane	6.567	142	134955	52.74	ug/L		96
29) carbon disulfide	6.687	76	200817	47.79	ug/L		99
30) 2-CHLOROPROPANE	6.023	43	90299	50.41	ug/L		99
31) methylene chloride	7.090	84	62688	49.57	ug/L		96
32) methyl acetate	6.880	43	52269	51.59	ug/L		98
33) methyl tert butyl ether	7.466	73	205038	50.53	ug/L		95
34) trans-1,2-dichloroethene	7.508	96	52962	52.49	ug/L		92
35) 1-CHLOROPROPANE	7.121	42	93448	46.55	ug/L		92
36) di-isopropyl ether	8.162	45	185325	51.65	ug/L		98
37) 2-butanone	8.993	72	7221	49.40	ug/L	#	88
38) 1,1-dichloroethane	8.162	63	96650	49.49	ug/L		97
39) chloroprene	8.287	53	69129	53.42	ug/L		94
40) acrylonitrile	7.471	53	104524	253.44	ug/L		98
41) vinyl acetate	8.183	86	7353	47.99	ug/L		81
42) ethyl tert-butyl ether	8.695	59	201053	51.73	ug/L		93
43) ethyl acetate	9.014	45	9588	55.77	ug/L		80
44) 2,2-dichloropropane	8.988	77	109588	52.39	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	cis-1,2-dichloroethene	8.993	96	61502	53.18	ug/L	97
46)	propionitrile	9.082	54	93867	528.72	ug/L	98
47)	methylacrylate	9.093	55	65460	52.52	ug/L	98
48)	bromochloromethane	9.333	128	34388	53.56	ug/L	95
49)	tetrahydrofuran	9.386	72	8555	49.04	ug/L	88
50)	chloroform	9.412	85	64155	50.10	ug/L	99
51)	T-BUTYL FORMATE	9.448	59	66763	53.20	ug/L	97
52)	isobutyl alcohol	9.935	43	40401	536.63	ug/L	98
55)	freon 113	6.258	151	45958	63.72	ug/L	95
56)	methacrylonitrile	9.281	67	24147	51.28	ug/L	96
57)	1,1,1-trichloroethane	9.663	97	98541	52.28	ug/L	95
58)	Cyclohexane	9.731	84	69432	59.91	ug/L	88
60)	ISO-OCTANE	10.155	57	159281	68.16	ug/L	95
61)	epichlorohydrin	11.907	57	34277	268.39	ug/L	98
62)	n-butyl alcohol	10.740	56	129207	2768.03	ug/L	98
63)	carbon tetrachloride	9.877	117	89288	51.19	ug/L	98
64)	1,1-dichloropropene	9.856	75	66275	52.39	ug/L	97
65)	hexane	7.864	57	39872	70.73	ug/L	97
66)	benzene	10.139	78	225993	55.08	ug/L	100
67)	tert-amyl methyl ether	10.202	73	202511	51.09	ug/L	99
68)	heptane	10.353	57	22810	67.86	ug/L	92
69)	isopropyl acetate	10.107	43	123132	52.06	ug/L	96
70)	1,2-dichloroethane	10.165	62	72915	47.93	ug/L	99
71)	trichloroethene	10.913	95	53410	50.77	ug/L	96
72)	2-nitropropane	11.750	41	24891	49.84	ug/L	96
73)	2-chloroethyl vinyl ether	11.781	63	162721	223.79	ug/L	99
74)	methyl methacrylate	11.227	100	15651	51.06	ug/L	97
75)	1,2-dichloropropane	11.190	63	54859	50.38	ug/L	99
76)	dibromomethane	11.358	93	37846	50.82	ug/L	99
77)	methylcyclohexane	11.127	83	68241	65.12	ug/L	99
78)	bromodichloromethane	11.509	83	78691	50.22	ug/L	99
80)	cis-1,3-dichloropropene	12.001	75	93350	50.87	ug/L	95
82)	4-methyl-2-pentanone	12.116	58	26990	53.45	ug/L	97
83)	toluene	12.377	92	129082	51.13	ug/L	98
84)	3-methyl-1-butanol	12.163	55	88073	1131.08	ug/L	98
85)	trans-1,3-dichloropropene	12.613	75	89117	52.35	ug/L	99
86)	ethyl methacrylate	12.618	69	75978	52.98	ug/L	99
87)	1,1,2-trichloroethane	12.832	83	45125	51.96	ug/L	98
88)	2-hexanone	13.036	58	24630	54.58	ug/L	96
90)	tetrachloroethene	13.005	164	52471	51.97	ug/L	97
91)	1,3-dichloropropane	13.026	76	83898	50.36	ug/L	99
92)	butyl acetate	13.125	56	40707	51.49	ug/L	96
93)	3,3-DIMETHYL-1-BUTANOL	13.230	57	117103	550.59	ug/L	100
94)	dibromochloromethane	13.308	129	72699	50.69	ug/L	98
95)	1,2-dibromoethane	13.460	107	59456	51.22	ug/L	99
97)	chlorobenzene	13.957	112	159829	49.87	ug/L	98
98)	1,1,1,2-tetrachloroethane	14.030	131	76210	52.33	ug/L	100
99)	ethylbenzene	14.025	91	355542	68.01	ug/L	99
100)	m,p-xylene	14.135	106	538385	273.70	ug/L	97
101)	o-xylene	14.585	106	109292	51.73	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

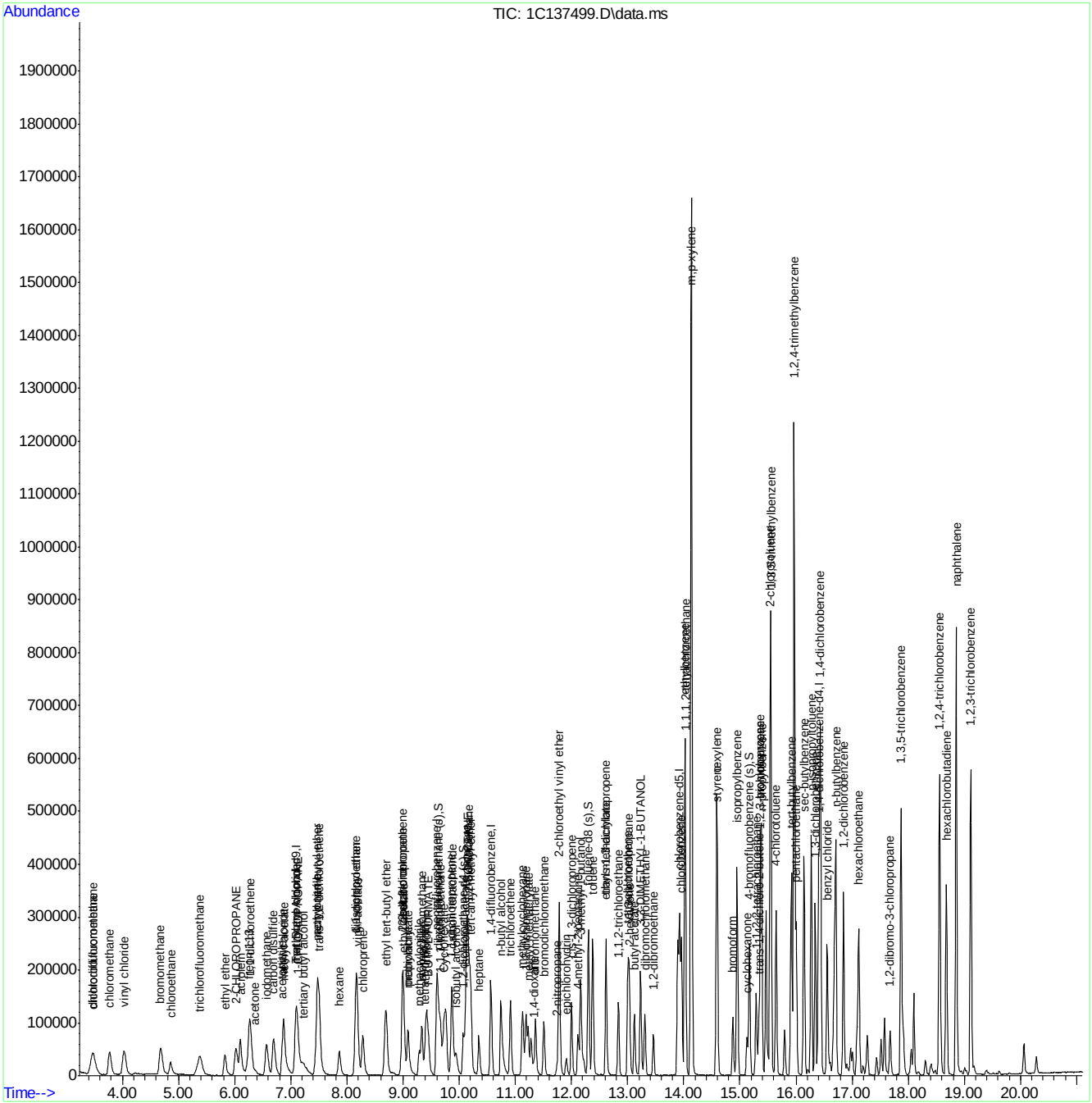
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) styrene	14.600	104	174833	51.89	ug/L		97
104) bromoform	14.877	173	62633	51.57	ug/L		93
106) isopropylbenzene	14.951	105	300207	55.47	ug/L		98
108) cyclohexanone	15.129	55	35911	137.90	ug/L		97
109) bromobenzene	15.369	156	85010	53.31	ug/L		93
110) 1,1,2,2-tetrachloroethane	15.291	83	89158	51.04	ug/L		99
111) trans-1,4-dichloro-2-b...	15.338	53	18350	41.94	ug/L	#	71
112) 1,2,3-trichloropropane	15.364	110	22591	51.78	ug/L		92
113) n-propylbenzene	15.390	91	315092	52.94	ug/L		99
114) 2-chlorotoluene	15.542	126	75234	54.02	ug/L		99
115) 4-chlorotoluene	15.646	91	195082	49.37	ug/L		98
116) 1,3,5-trimethylbenzene	15.552	105	404745	81.09	ug/L		97
117) tert-butylbenzene	15.918	119	232001	54.41	ug/L		97
118) pentachloroethane	16.007	167	73597	53.42	ug/L		96
119) 1,2,4-trimethylbenzene	15.965	105	761656	151.16	ug/L		99
120) sec-butylbenzene	16.143	105	340520	52.76	ug/L		98
121) 1,3-dichlorobenzene	16.342	146	165283	48.22	ug/L		99
122) p-isopropyltoluene	16.274	119	306169	52.77	ug/L		99
124) 1,4-dichlorobenzene	16.431	146	171346	48.96	ug/L		99
125) benzyl chloride	16.556	91	200617	50.98	ug/L		99
126) 1,2-dichlorobenzene	16.849	146	175906	49.05	ug/L		97
127) n-butylbenzene	16.713	92	144504	51.04	ug/L		98
128) 1,2-dibromo-3-chloropr...	17.676	75	22715	47.97	ug/L		96
129) 1,3,5-trichlorobenzene	17.874	180	207603	49.56	ug/L		100
130) 1,2,4-trichlorobenzene	18.560	180	232438	50.28	ug/L		98
131) hexachlorobutadiene	18.680	225	103792	51.99	ug/L		98
132) naphthalene	18.858	128	806681	73.49	ug/L		99
133) 1,2,3-trichlorobenzene	19.119	180	242731	51.47	ug/L		100
134) hexachloroethane	17.121	201	71273	56.34	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137499.D
Acq On : 2 Mar 2015 4:11 pm
Operator : shannont
Sample : JB89011-2ms
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 03 10:42:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.111	65	133846	500.00	ug/L	0.00
5) pentafluorobenzene	9.600	168	188399	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.563	114	197637	50.00	ug/L	0.00
89) chlorobenzene-d5	13.926	117	182506	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.405	152	114715	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.626	113	63096	51.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.76%			
54) 1,2-dichloroethane-d4 (s)	10.071	65	63042	46.15	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 92.30%			
81) toluene-d8 (s)	12.299	98	217763	54.97	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 109.94%			
107) 4-bromofluorobenzene (s)	15.171	95	83368	54.23	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.46%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.221	59	60932	256.48	ug/L	75
3) 1,4-dioxane	11.332	88	26846	1383.64	ug/L	96
10) chlorodifluoromethane	3.476	51	89103	47.26	ug/L	94
11) dichlorodifluoromethane	3.455	85	81291	53.08	ug/L	99
13) chloromethane	3.769	50	92203	42.37	ug/L	97
14) vinyl chloride	4.020	62	100502	45.44	ug/L	99
15) bromomethane	4.679	94	68534	43.71	ug/L	97
16) chloroethane	4.846	64	36672	47.79	ug/L	98
20) trichlorofluoromethane	5.374	101	98436	51.46	ug/L	98
21) ethyl ether	5.819	74	26791	48.99	ug/L	99
23) acrolein	6.091	56	96821	359.52	ug/L	99
24) 1,1-dichloroethene	6.274	96	49907	45.77	ug/L	96
25) acetone	6.373	43	17650	42.14	ug/L	95
26) acetonitrile	6.854	40	61494	466.57	ug/L	98
27) allyl chloride	6.870	76	25015	47.98	ug/L	92
28) iodomethane	6.556	142	125013	47.61	ug/L	97
29) carbon disulfide	6.687	76	171628	39.80	ug/L	98
30) 2-CHLOROPROPANE	6.018	43	84237	45.83	ug/L	99
31) methylene chloride	7.085	84	58132	44.79	ug/L	92
32) methyl acetate	6.881	43	50544	48.62	ug/L	99
33) methyl tert butyl ether	7.466	73	196318	47.15	ug/L	94
34) trans-1,2-dichloroethene	7.503	96	49104	47.43	ug/L	89
35) 1-CHLOROPROPANE	7.116	42	89396	43.23	ug/L	98
36) di-isopropyl ether	8.162	45	178788	48.56	ug/L	98
37) 2-butanone	8.994	72	7207	48.05	ug/L	92
38) 1,1-dichloroethane	8.162	63	92877	46.35	ug/L	99
39) chloroprene	8.282	53	67037	50.48	ug/L	96
40) acrylonitrile	7.472	53	101276	239.31	ug/L	96
41) vinyl acetate	8.183	86	7234	46.40	ug/L	84
42) ethyl tert-butyl ether	8.690	59	192141	48.18	ug/L	95
43) ethyl acetate	9.015	45	9595	54.50	ug/L	90
44) 2,2-dichloropropane	8.983	77	103024	48.00	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	cis-1,2-dichloroethene	8.994	96	58008	48.88	ug/L	96
46)	propionitrile	9.083	54	93610	513.86	ug/L	96
47)	methylacrylate	9.093	55	63828	49.91	ug/L	96
48)	bromochloromethane	9.334	128	31729	48.16	ug/L	96
49)	tetrahydrofuran	9.386	72	8465	47.29	ug/L	88
50)	chloroform	9.412	85	61555	46.85	ug/L	97
51)	T-BUTYL FORMATE	9.443	59	62136	48.25	ug/L	96
52)	isobutyl alcohol	9.935	43	42941	555.86	ug/L	93
55)	freon 113	6.258	151	44877	60.64	ug/L	91
56)	methacrylonitrile	9.281	67	23571	48.78	ug/L	93
57)	1,1,1-trichloroethane	9.663	97	93262	48.22	ug/L	95
58)	Cyclohexane	9.731	84	70049	58.91	ug/L	86
60)	ISO-OCTANE	10.150	57	140200	59.07	ug/L	95
61)	epichlorohydrin	11.907	57	34705	267.53	ug/L	91
62)	n-butyl alcohol	10.741	56	131669	2777.09	ug/L	98
63)	carbon tetrachloride	9.878	117	84424	47.65	ug/L	100
64)	1,1-dichloropropene	9.862	75	62735	48.82	ug/L	98
65)	hexane	7.859	57	39771	69.45	ug/L	97
66)	benzene	10.139	78	215115	51.61	ug/L	98
67)	tert-amyl methyl ether	10.197	73	196594	48.83	ug/L	98
68)	heptane	10.348	57	21403	62.68	ug/L	95
69)	isopropyl acetate	10.108	43	117446	48.88	ug/L	98
70)	1,2-dichloroethane	10.165	62	71046	45.98	ug/L	98
71)	trichloroethene	10.913	95	50446	47.21	ug/L	95
72)	2-nitropropane	11.750	41	22418	44.19	ug/L	86
73)	2-chloroethyl vinyl ether	11.781	63	127815	173.06	ug/L	99
74)	methyl methacrylate	11.232	100	15319	49.20	ug/L	93
75)	1,2-dichloropropane	11.190	63	52238	47.23	ug/L	100
76)	dibromomethane	11.358	93	35988	47.57	ug/L	96
77)	methylcyclohexane	11.128	83	66266	62.25	ug/L	93
78)	bromodichloromethane	11.509	83	74191	46.61	ug/L	100
80)	cis-1,3-dichloropropene	12.001	75	88513	47.49	ug/L	98
82)	4-methyl-2-pentanone	12.116	58	26967	52.58	ug/L	97
83)	toluene	12.378	92	122905	47.93	ug/L	98
84)	3-methyl-1-butanol	12.163	55	88868	1123.61	ug/L	97
85)	trans-1,3-dichloropropene	12.608	75	85338	49.36	ug/L	94
86)	ethyl methacrylate	12.618	69	75704	51.97	ug/L	98
87)	1,1,2-trichloroethane	12.833	83	42702	48.41	ug/L	97
88)	2-hexanone	13.037	58	24579	53.62	ug/L	94
90)	tetrachloroethene	13.005	164	49095	49.32	ug/L	97
91)	1,3-dichloropropane	13.031	76	82035	49.94	ug/L	98
92)	butyl acetate	13.120	56	40339	51.75	ug/L	96
93)	3,3-DIMETHYL-1-BUTANOL	13.230	57	114275	544.95	ug/L	100
94)	dibromochloromethane	13.309	129	69947	49.46	ug/L	97
95)	1,2-dibromoethane	13.460	107	57601	50.33	ug/L	99
97)	chlorobenzene	13.957	112	151241	47.87	ug/L	100
98)	1,1,1,2-tetrachloroethane	14.030	131	71399	49.73	ug/L	100
99)	ethylbenzene	14.020	91	336909	65.36	ug/L	98
100)	m,p-xylene	14.135	106	513808	264.93	ug/L	96
101)	o-xylene	14.585	106	102815	49.36	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

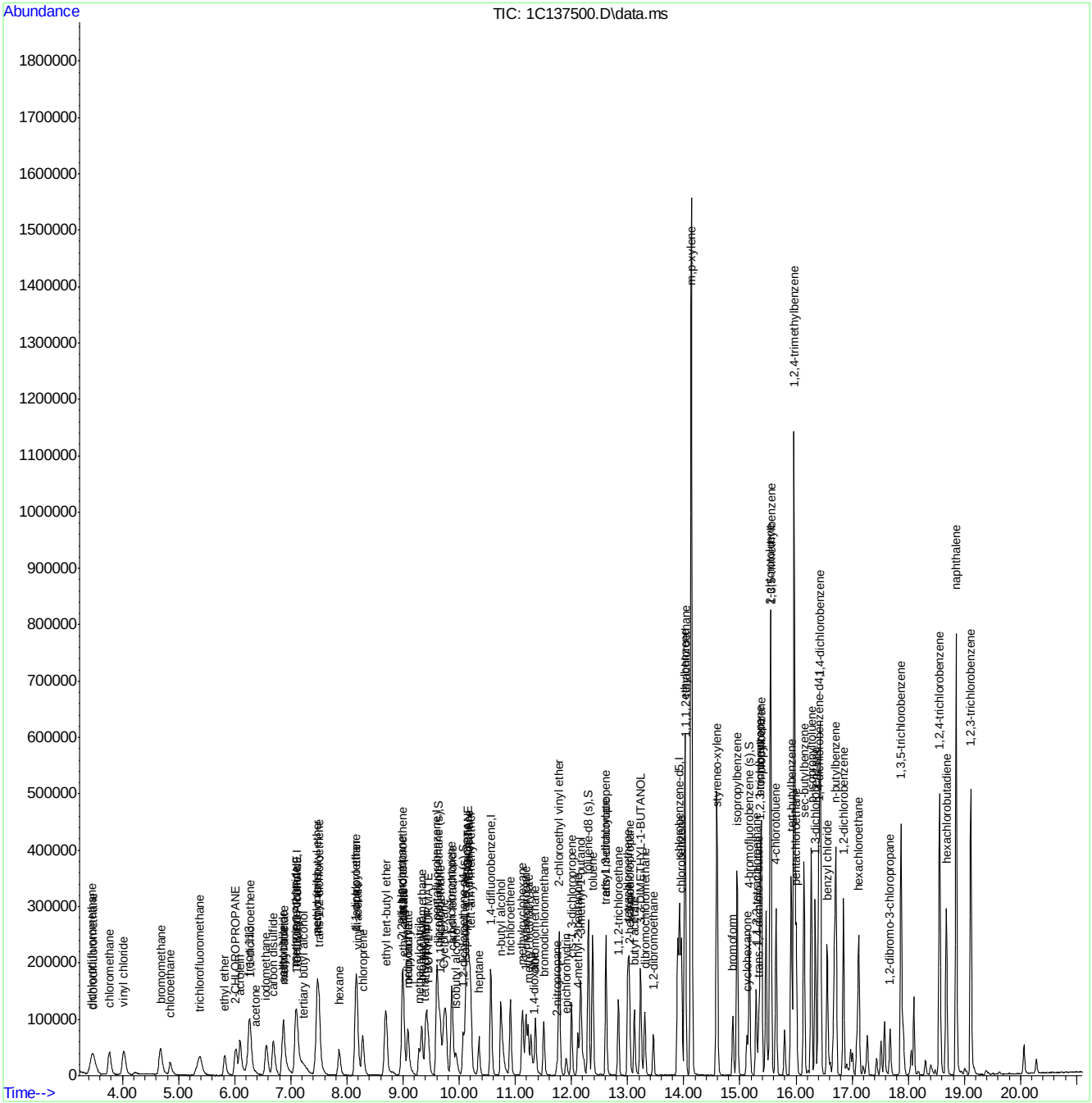
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) styrene	14.600	104	165660	49.87	ug/L	97
104) bromoform	14.878	173	60772	50.75	ug/L	94
106) isopropylbenzene	14.951	105	280845	53.37	ug/L	98
108) cyclohexanone	15.129	55	36329	143.47	ug/L	95
109) bromobenzene	15.369	156	81450	52.53	ug/L	94
110) 1,1,2,2-tetrachloroethane	15.291	83	86043	50.66	ug/L	98
111) trans-1,4-dichloro-2-b...	15.333	53	18601	43.73	ug/L	90
112) 1,2,3-trichloropropane	15.364	110	22027	51.92	ug/L	87
113) n-propylbenzene	15.385	91	292546	50.55	ug/L	99
114) 2-chlorotoluene	15.542	126	70495	52.06	ug/L	96
115) 4-chlorotoluene	15.646	91	183578	47.78	ug/L	98
116) 1,3,5-trimethylbenzene	15.552	105	374080	77.08	ug/L	99
117) tert-butylbenzene	15.913	119	212113	51.16	ug/L	99
118) pentachloroethane	16.007	167	67927	50.71	ug/L	98
119) 1,2,4-trimethylbenzene	15.966	105	706447	144.20	ug/L	98
120) sec-butylbenzene	16.143	105	312563	49.81	ug/L	99
121) 1,3-dichlorobenzene	16.342	146	152430	45.73	ug/L	99
122) p-isopropyltoluene	16.274	119	279513	49.54	ug/L	99
124) 1,4-dichlorobenzene	16.431	146	156163	45.89	ug/L	99
125) benzyl chloride	16.557	91	190337	49.74	ug/L	99
126) 1,2-dichlorobenzene	16.849	146	163891	47.00	ug/L	97
127) n-butylbenzene	16.708	92	126248	45.86	ug/L	99
128) 1,2-dibromo-3-chloropr...	17.676	75	22519	48.91	ug/L	90
129) 1,3,5-trichlorobenzene	17.875	180	183200	44.98	ug/L	99
130) 1,2,4-trichlorobenzene	18.560	180	206329	45.90	ug/L	98
131) hexachlorobutadiene	18.680	225	86961	44.80	ug/L	97
132) naphthalene	18.853	128	746509	69.95	ug/L	99
133) 1,2,3-trichlorobenzene	19.119	180	213993	46.67	ug/L	99
134) hexachloroethane	17.121	201	64487	52.43	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137500.D
Acq On : 2 Mar 2015 4:40 pm
Operator : shannont
Sample : JB89011-2MSD
Misc : MS81486,V1C6111,5,,,,25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 03 10:43:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128052.D
Acq On : 4 Mar 2015 3:39 pm
Operator : bridgetk
Sample : jb88920-6ms
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 10:43:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.373	65	128684	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	416926	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	462137	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	384966	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	199426	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	137451	50.50	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 101.00%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	153245	48.18	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.36%				
82) toluene-d8 (s)	13.307	98	472220	50.74	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 101.48%				
108) 4-bromofluorobenzene (s)	15.782	95	167153	51.92	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 103.84%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.494	59	68425	258.05	ug/L		95
3) ethanol	6.931	45	151532	5264.24	ug/L		95
4) 1,4-dioxane	12.410	88	26335	1056.17	ug/L		91
9) chlorodifluoromethane	4.472	51	145985	48.37	ug/L		96
10) dichlorodifluoromethane	4.452	85	161503	43.29	ug/L		98
12) chloromethane	4.881	50	219651	57.62	ug/L		99
13) vinyl chloride	5.170	62	174633	50.21	ug/L		99
15) bromomethane	5.904	94	122383	47.78	ug/L		93
16) chloroethane	6.103	64	86813	53.53	ug/L		96
18) trichlorofluoromethane	6.680	101	186917	42.36	ug/L		93
20) ethyl ether	7.136	74	73471	53.42	ug/L		88
21) acrolein	7.388	56	212645	495.35	ug/L		99
22) 2-chloropropane	7.346	43	217188	48.23	ug/L		89
24) 1,1-dichloroethene	7.613	96	109131	43.12	ug/L		99
25) acetone	7.634	43	36722	47.55	ug/L		89
26) allyl chloride	8.200	76	66290	50.24	ug/L	#	91
27) acetonitrile	8.111	40	85029	575.72	ug/L		96
28) iodomethane	7.901	142	232752	43.27	ug/L		94
29) iso-butyl alcohol	11.100	74	14459	480.87	ug/L	#	63
30) carbon disulfide	8.053	76	370813	45.19	ug/L		97
31) methylene chloride	8.394	84	136613	48.61	ug/L		91
32) methyl acetate	8.179	74	23801	57.06	ug/L	#	64
33) 1-chloropropane	8.457	42	214423	44.57	ug/L		96
34) methyl tert butyl ether	8.819	73	392398	48.85	ug/L		100
35) trans-1,2-dichloroethene	8.829	96	116682	43.48	ug/L		94
36) di-isopropyl ether	9.495	45	461046	60.23	ug/L		95
37) 2-butanone	10.203	72	14660	53.68	ug/L	#	66
38) 1,1-dichloroethane	9.443	63	230884	49.13	ug/L		96
39) chloroprene	9.579	53	160642	48.21	ug/L		97
40) acrylonitrile	8.730	53	253142	279.52	ug/L		98
41) vinyl acetate	9.448	86	19764	46.99	ug/L		76
42) ethyl tert-butyl ether	9.999	59	443566	54.43	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128052.D
Acq On : 4 Mar 2015 3:39 pm
Operator : bridgetk
Sample : jb88920-6ms
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 10:43:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) ethyl acetate	10.250	45	18819	62.94	ug/L	#	42
44) 2,2-dichloropropane	10.261	77	174405	43.41	ug/L		99
45) cis-1,2-dichloroethene	10.235	96	137130	47.00	ug/L		97
46) propionitrile	10.271	54	190330	578.74	ug/L		98
47) bromochloromethane	10.549	128	73740	48.54	ug/L		85
48) tetrahydrofuran	10.623	42	41472	60.16	ug/L		94
49) chloroform	10.623	83	220723	45.16	ug/L		98
50) t-butyl formate	10.701	59	49655	22.44	ug/L		96
53) freon 113	7.629	151	84809	41.67	ug/L		88
54) methacrylonitrile	10.491	41	86962	58.58	ug/L		95
55) 1,1,1-trichloroethane	10.921	97	175119	41.10	ug/L		98
56) Cyclohexane	11.021	84	155588	44.70	ug/L		87
61) epichlorohydrin	12.909	57	52416	228.78	ug/L		97
62) n-butyl alcohol	11.828	56	166781	2667.54	ug/L		97
63) carbon tetrachloride	11.136	117	162195	35.48	ug/L		99
64) 1,1-dichloropropene	11.100	75	149780	41.68	ug/L		97
65) hexane	9.223	57	135221	49.47	ug/L		98
66) benzene	11.362	78	448314	45.32	ug/L		99
67) 2,2,4-trimethylpentane	11.430	57	380381	45.94	ug/L		98
68) tert-amyl methyl ether	11.430	73	372649	47.30	ug/L		96
69) heptane	11.587	57	75823	47.03	ug/L		98
70) isopropyl acetate	11.304	43	246583	56.34	ug/L		99
71) 1,2-dichloroethane	11.346	62	170300	42.02	ug/L		93
72) trichloroethene	12.064	95	119466	43.81	ug/L		96
74) 2-nitropropane	12.772	41	32810	43.95	ug/L		95
75) 2-chloroethyl vinyl ether	12.909	63	2281	1.59	ug/L		64
76) methyl methacrylate	12.327	100	30468	51.26	ug/L	#	80
77) 1,2-dichloropropane	12.306	63	130255	52.01	ug/L		96
78) dibromomethane	12.437	93	83973	46.78	ug/L		93
79) methylcyclohexane	12.311	83	167840	43.30	ug/L		98
80) bromodichloromethane	12.568	83	177015	45.40	ug/L		100
81) cis-1,3-dichloropropene	13.013	75	219945	51.18	ug/L		98
83) 4-methyl-2-pentanone	13.118	58	49787	57.38	ug/L		91
84) toluene	13.375	92	265438	44.51	ug/L		99
85) 3-methyl-1-butanol	13.118	55	102625	1112.70	ug/L		94
86) trans-1,3-dichloropropene	13.532	75	198170	47.72	ug/L		99
87) ethyl methacrylate	13.553	69	155090	53.77	ug/L		95
88) 1,1,2-trichloroethane	13.732	83	97252	48.89	ug/L		96
89) 2-hexanone	13.915	58	42367	58.36	ug/L		98
91) butyl ether	14.691	57	510365	55.13	ug/L		97
92) tetrachloroethene	13.931	164	101166	39.34	ug/L		98
93) 1,3-dichloropropane	13.905	76	188471	50.95	ug/L		98
94) butyl acetate	13.994	56	75494	57.95	ug/L		99
95) 3,3-dimethyl-1-butanol	14.062	57	112088	581.65	ug/L		95
96) dibromochloromethane	14.151	129	150703	45.72	ug/L		100
97) 1,2-dibromoethane	14.293	107	124037	48.24	ug/L		100
98) chlorobenzene	14.738	112	302761	46.05	ug/L		99
99) 1,1,1,2-tetrachloroethane	14.791	131	130435	44.65	ug/L		99
100) ethylbenzene	14.807	91	478643	43.75	ug/L		96
101) m,p-xylene	14.901	106	374407	89.88	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128052.D
Acq On : 4 Mar 2015 3:39 pm
Operator : bridgetk
Sample : jb88920-6ms
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 10:43:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

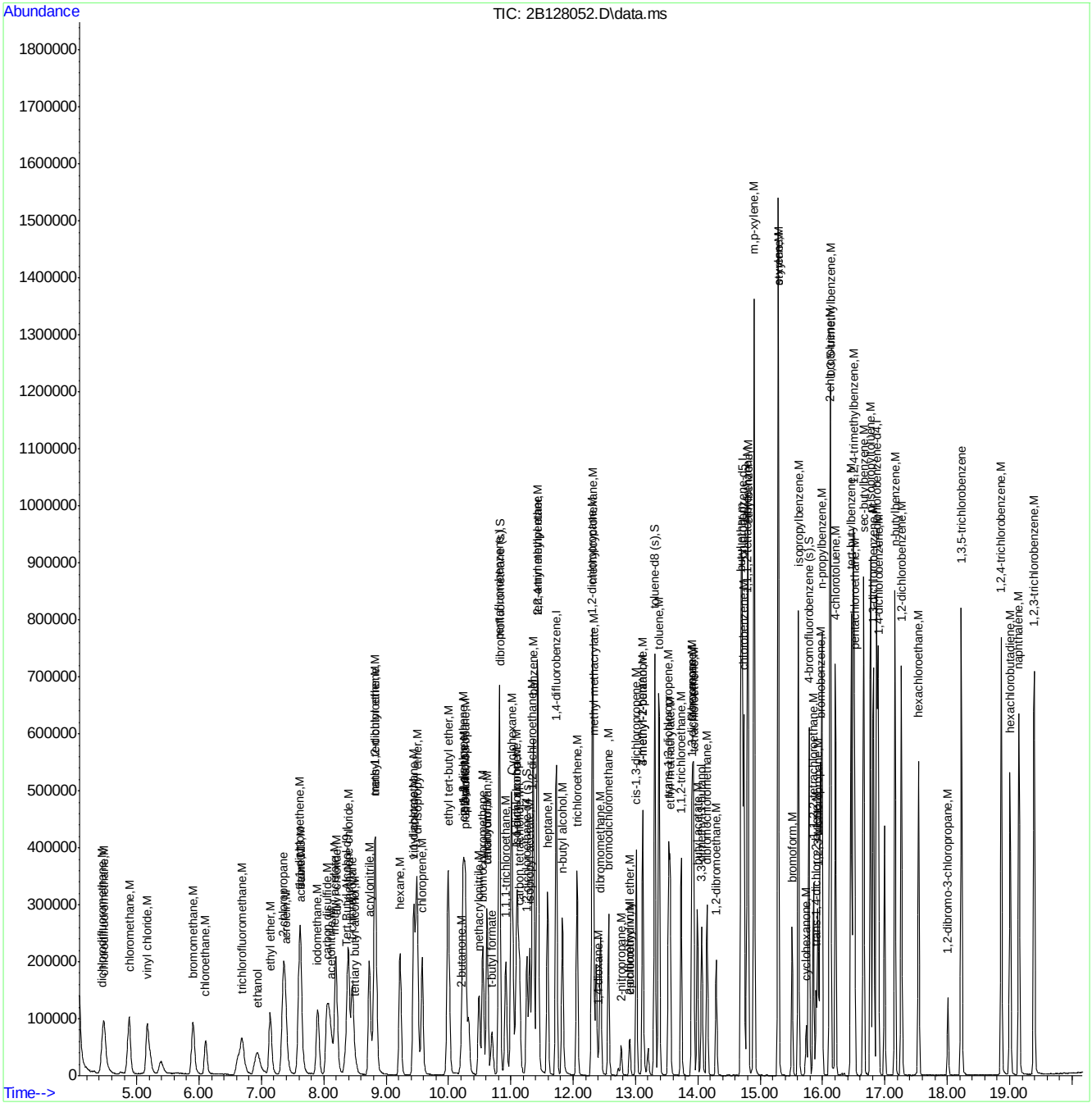
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	199643	45.24	ug/L	99
103) styrene	15.289	104	332493	48.89	ug/L	95
105) bromoform	15.509	173	115197	45.76	ug/L	98
107) isopropylbenzene	15.614	105	501783	47.24	ug/L	100
109) cyclohexanone	15.740	98	15204	143.36	ug/L	90
110) bromobenzene	15.965	156	153647	47.50	ug/L	93
111) 1,1,2,2-tetrachloroethane	15.850	83	158390	57.50	ug/L	97
112) trans-1,4-dichloro-2-b...	15.897	53	24366	33.88	ug/L	92
113) 1,2,3-trichloropropane	15.929	110	39029	52.13	ug/L	92
114) n-propylbenzene	15.991	91	535501	47.02	ug/L	99
115) 2-chlorotoluene	16.117	126	128542	47.35	ug/L	99
116) 4-chlorotoluene	16.206	91	359799	47.76	ug/L	100
117) 1,3,5-trimethylbenzene	16.128	105	407370	46.40	ug/L	98
118) tert-butylbenzene	16.458	119	377970	47.10	ug/L	100
119) pentachloroethane	16.510	167	103930	46.95	ug/L	97
120) 1,2,4-trimethylbenzene	16.495	105	411225	47.77	ug/L	99
121) sec-butylbenzene	16.657	105	543360	46.86	ug/L	99
122) 1,3-dichlorobenzene	16.815	146	276551	47.27	ug/L	99
123) p-isopropyltoluene	16.767	119	467556	47.10	ug/L	99
124) 1,4-dichlorobenzene	16.893	146	272802	46.52	ug/L	98
125) 1,2-dichlorobenzene	17.265	146	288624	48.90	ug/L	99
126) n-butylbenzene	17.161	92	236764	49.72	ug/L	96
127) 1,2-dibromo-3-chloropr...	18.010	75	30139	52.58	ug/L	88
128) 1,3,5-trichlorobenzene	18.225	180	267617	46.02	ug/L	98
129) 1,2,4-trichlorobenzene	18.865	180	251794	49.25	ug/L	99
130) hexachlorobutadiene	19.011	225	122748	42.20	ug/L	99
131) naphthalene	19.148	128	490053	55.06	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	231167	51.08	ug/L	100
133) hexachloroethane	17.538	201	100819	43.93	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128052.D
Acq On : 4 Mar 2015 3:39 pm
Operator : bridgetk
Sample : jb88920-6ms
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 10:43:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128053.D
Acq On : 4 Mar 2015 4:08 pm
Operator : bridgetk
Sample : jb88920-6msd
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 10:43:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.373	65	128819	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	430419	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	472431	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	394948	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	205444	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.827	113	141285	50.28	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.56%				
52) 1,2-dichloroethane-d4 (s)	11.262	65	154497	47.05	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 94.10%				
82) toluene-d8 (s)	13.307	98	484518	50.93	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 101.86%				
108) 4-bromofluorobenzene (s)	15.782	95	169572	51.13	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 102.26%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.489	59	70569	265.86	ug/L		88
3) ethanol	6.937	45	129568	4496.49	ug/L		90
4) 1,4-dioxane	12.411	88	26720	1070.49	ug/L		91
9) chlorodifluoromethane	4.483	51	138757	44.53	ug/L		97
10) dichlorodifluoromethane	4.467	85	152590	39.61	ug/L		99
12) chloromethane	4.887	50	216317	54.96	ug/L		99
13) vinyl chloride	5.175	62	170305	47.43	ug/L		99
15) bromomethane	5.909	94	119441	45.17	ug/L		99
16) chloroethane	6.114	64	86959	51.94	ug/L		98
18) trichlorofluoromethane	6.690	101	179642	39.43	ug/L		100
20) ethyl ether	7.147	74	75282	53.02	ug/L		82
21) acrolein	7.388	56	214789	484.65	ug/L		98
22) 2-chloropropane	7.351	43	209616	45.09	ug/L		91
24) 1,1-dichloroethene	7.613	96	107489	41.14	ug/L		97
25) acetone	7.645	43	37355	46.85	ug/L		88
26) allyl chloride	8.200	76	60998	44.78	ug/L	#	82
27) acetonitrile	8.106	40	77257	506.70	ug/L		91
28) iodomethane	7.907	142	234507	42.23	ug/L		95
29) iso-butyl alcohol	11.100	74	13804	444.69	ug/L	#	80
30) carbon disulfide	8.059	76	364085	42.98	ug/L		98
31) methylene chloride	8.400	84	138445	47.72	ug/L		93
32) methyl acetate	8.190	74	24152	56.08	ug/L	#	71
33) 1-chloropropane	8.463	42	212693	42.82	ug/L		98
34) methyl tert butyl ether	8.824	73	402523	48.54	ug/L		98
35) trans-1,2-dichloroethene	8.835	96	115771	41.79	ug/L		96
36) di-isopropyl ether	9.495	45	467238	59.12	ug/L		96
37) 2-butanone	10.203	72	14382	51.01	ug/L	#	70
38) 1,1-dichloroethane	9.443	63	229939	47.39	ug/L		96
39) chloroprene	9.585	53	154692	44.97	ug/L		97
40) acrylonitrile	8.730	53	252809	270.40	ug/L		97
41) vinyl acetate	9.454	86	19663	45.28	ug/L		78
42) ethyl tert-butyl ether	9.999	59	451431	53.66	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128053.D
Acq On : 4 Mar 2015 4:08 pm
Operator : bridgetk
Sample : jb88920-6msd
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 10:43:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) ethyl acetate	10.250	45	18525	60.01	ug/L	#	54
44) 2,2-dichloropropane	10.271	77	170004	40.99	ug/L		100
45) cis-1,2-dichloroethene	10.235	96	136634	45.37	ug/L		95
46) propionitrile	10.277	54	194009	571.44	ug/L		98
47) bromochloromethane	10.555	128	73478	46.85	ug/L		87
48) tetrahydrofuran	10.623	42	43831	61.59	ug/L		95
49) chloroform	10.623	83	222914	44.18	ug/L		98
50) t-butyl formate	10.701	59	31865	13.95	ug/L		91
53) freon 113	7.629	151	82901	39.46	ug/L		84
54) methacrylonitrile	10.492	41	87235	56.92	ug/L		95
55) 1,1,1-trichloroethane	10.922	97	170336	38.72	ug/L		99
56) Cyclohexane	11.026	84	151817	42.25	ug/L		95
61) epichlorohydrin	12.909	57	49485	211.28	ug/L		99
62) n-butyl alcohol	11.829	56	166323	2602.25	ug/L		98
63) carbon tetrachloride	11.137	117	157731	33.75	ug/L		95
64) 1,1-dichloropropene	11.105	75	145563	39.62	ug/L		99
65) hexane	9.228	57	130309	46.63	ug/L		98
66) benzene	11.362	78	447909	44.30	ug/L		100
67) 2,2,4-trimethylpentane	11.430	57	363322	42.92	ug/L		98
68) tert-amyl methyl ether	11.435	73	376258	46.72	ug/L		98
69) heptane	11.587	57	73161	44.39	ug/L		97
70) isopropyl acetate	11.304	43	247783	55.38	ug/L		99
71) 1,2-dichloroethane	11.352	62	174553	42.13	ug/L		89
72) trichloroethene	12.065	95	117216	42.05	ug/L		97
74) 2-nitropropane	12.772	41	32365	42.41	ug/L		89
75) 2-chloroethyl vinyl ether	12.903	63	1951	1.33	ug/L		72
76) methyl methacrylate	12.332	100	30984	50.99	ug/L	#	81
77) 1,2-dichloropropane	12.311	63	133342	52.08	ug/L		94
78) dibromomethane	12.442	93	85459	46.57	ug/L		93
79) methylcyclohexane	12.311	83	161357	40.72	ug/L		99
80) bromodichloromethane	12.568	83	179315	44.98	ug/L		99
81) cis-1,3-dichloropropene	13.014	75	220403	50.17	ug/L		98
83) 4-methyl-2-pentanone	13.118	58	50288	56.69	ug/L		98
84) toluene	13.375	92	264329	43.36	ug/L		98
85) 3-methyl-1-butanol	13.118	55	101700	1078.64	ug/L		94
86) trans-1,3-dichloropropene	13.533	75	200616	47.25	ug/L		99
87) ethyl methacrylate	13.554	69	157037	53.26	ug/L		96
88) 1,1,2-trichloroethane	13.732	83	100491	49.42	ug/L		96
89) 2-hexanone	13.910	58	42205	56.87	ug/L		98
91) butyl ether	14.691	57	515081	54.23	ug/L		97
92) tetrachloroethene	13.931	164	97905	37.11	ug/L		96
93) 1,3-dichloropropane	13.905	76	192994	50.85	ug/L		99
94) butyl acetate	13.994	56	76085	56.92	ug/L		98
95) 3,3-dimethyl-1-butanol	14.062	57	112689	569.99	ug/L		95
96) dibromochloromethane	14.146	129	153624	45.43	ug/L		99
97) 1,2-dibromoethane	14.293	107	125701	47.66	ug/L		100
98) chlorobenzene	14.739	112	306899	45.50	ug/L		99
99) 1,1,1,2-tetrachloroethane	14.791	131	132442	44.19	ug/L		98
100) ethylbenzene	14.807	91	474791	42.30	ug/L		98
101) m,p-xylene	14.901	106	371537	86.94	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128053.D
Acq On : 4 Mar 2015 4:08 pm
Operator : bridgetk
Sample : jb88920-6msd
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 10:43:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

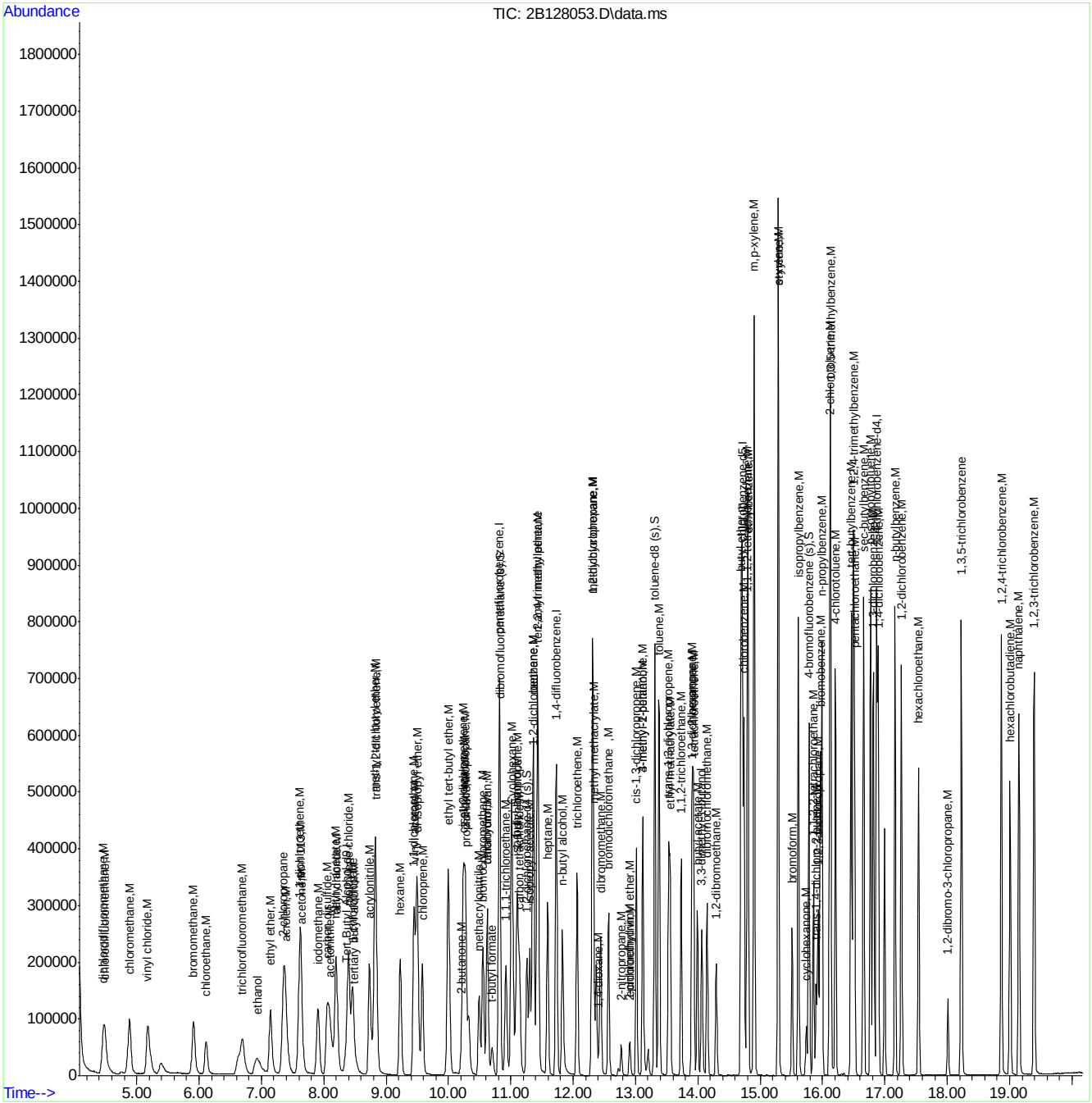
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	201493	44.50	ug/L	100
103) styrene	15.289	104	335305	48.06	ug/L	96
105) bromoform	15.509	173	117045	45.31	ug/L	97
107) isopropylbenzene	15.614	105	496407	45.37	ug/L	100
109) cyclohexanone	15.740	98	15155	138.71	ug/L	86
110) bromobenzene	15.965	156	156245	46.89	ug/L	94
111) 1,1,2,2-tetrachloroethane	15.855	83	159348	56.15	ug/L	98
112) trans-1,4-dichloro-2-b...	15.897	53	26973	36.41	ug/L	91
113) 1,2,3-trichloropropane	15.929	110	39250	50.89	ug/L	90
114) n-propylbenzene	15.992	91	526194	44.85	ug/L	98
115) 2-chlorotoluene	16.117	126	129964	46.47	ug/L	99
116) 4-chlorotoluene	16.207	91	358893	46.24	ug/L	100
117) 1,3,5-trimethylbenzene	16.128	105	405402	44.83	ug/L	99
118) tert-butylbenzene	16.458	119	368553	44.59	ug/L	98
119) pentachloroethane	16.511	167	105018	46.06	ug/L	97
120) 1,2,4-trimethylbenzene	16.495	105	408932	46.11	ug/L	97
121) sec-butylbenzene	16.657	105	528259	44.22	ug/L	99
122) 1,3-dichlorobenzene	16.815	146	277069	45.97	ug/L	98
123) p-isopropyltoluene	16.768	119	456305	44.62	ug/L	100
124) 1,4-dichlorobenzene	16.893	146	275659	45.63	ug/L	98
125) 1,2-dichlorobenzene	17.266	146	291064	47.87	ug/L	99
126) n-butylbenzene	17.161	92	228796	46.64	ug/L	99
127) 1,2-dibromo-3-chloropr...	18.010	75	30007	50.81	ug/L	93
128) 1,3,5-trichlorobenzene	18.225	180	264192	44.10	ug/L	99
129) 1,2,4-trichlorobenzene	18.870	180	256828	48.76	ug/L	97
130) hexachlorobutadiene	19.012	225	121154	40.43	ug/L	98
131) naphthalene	19.148	128	498202	54.33	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	233625	50.11	ug/L	100
133) hexachloroethane	17.538	201	99512	42.09	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5771-5772\
Data File : 2B128053.D
Acq On : 4 Mar 2015 4:08 pm
Operator : bridgetk
Sample : jb88920-6msd
Misc : MS81436,V2B5771,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

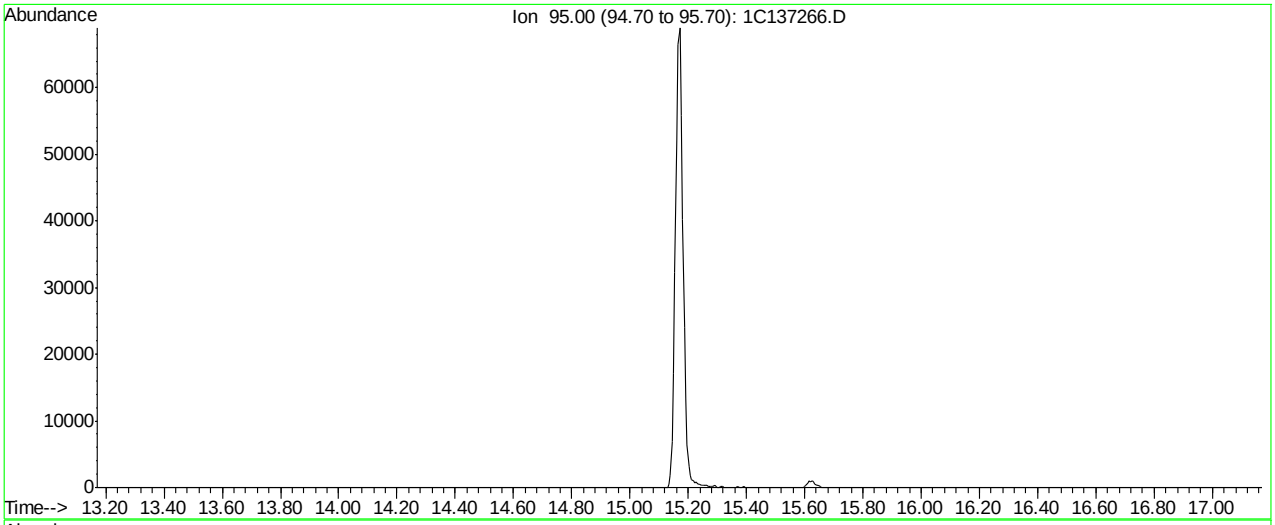
Quant Time: Mar 06 10:43:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

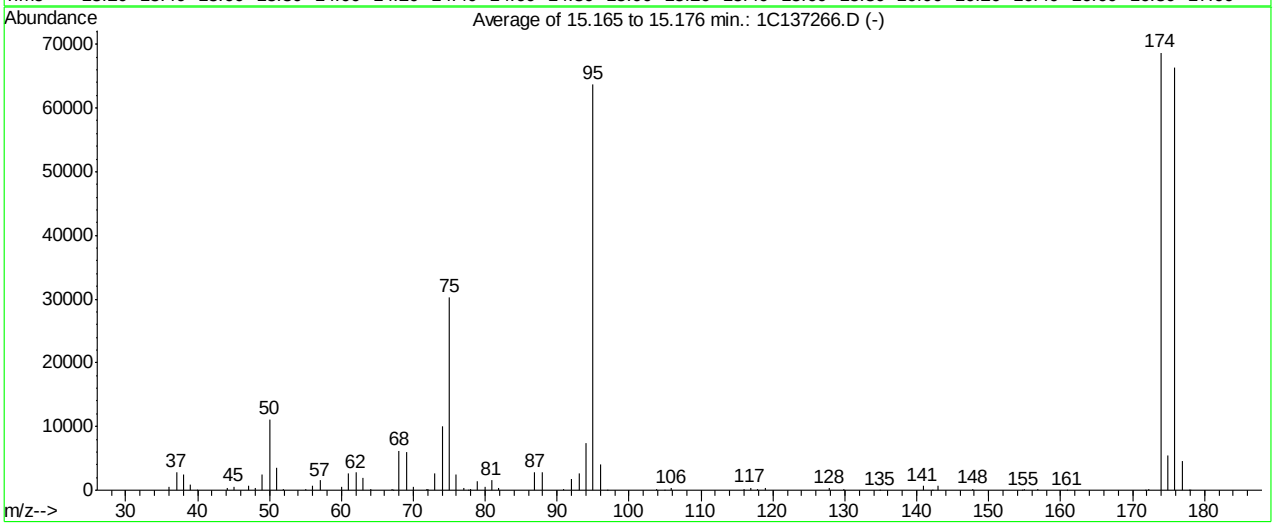


SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\1C137266.D Vial: 1
Acq On : 20 Feb 2015 9:20 am Operator: shannont
Sample : bfb Inst : MS1C
Misc : MS80764,V1C6103,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2282, 2283, 2284; Background Corrected with Scan 2273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	11124	PASS
75	95	30	60	47.5	30296	PASS
95	95	100	100	100.0	63792	PASS
96	95	5	9	6.4	4082	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	107.7	68725	PASS
175	174	5	9	8.0	5487	PASS
176	174	95	101	96.4	66280	PASS
177	176	5	9	7.0	4616	PASS

1C137266.D M1C6103.M Tue Feb 24 09:48:29 2015 RPT1

Average of 15.165 to 15.176 min.: 1C137266.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	526	51.00	3538	67.20	56	77.70	59
37.05	2883	51.95	111	68.00	6172	77.95	202
38.00	2428	55.05	126	69.00	6042	78.85	1476
39.05	949	56.00	778	70.00	477	79.95	498
39.95	17	57.00	1535	71.80	106	80.90	1622
44.05	341	60.00	604	72.05	240	81.90	288
45.00	547	61.00	2668	73.00	2669	86.90	2827
47.05	774	62.00	2761	74.00	10039	87.95	2767
47.95	330	63.00	1856	75.00	30296	90.90	235
49.00	2458	64.00	222	76.00	2550	92.00	1789
50.00	11124	67.00	203	76.95	337	93.00	2728

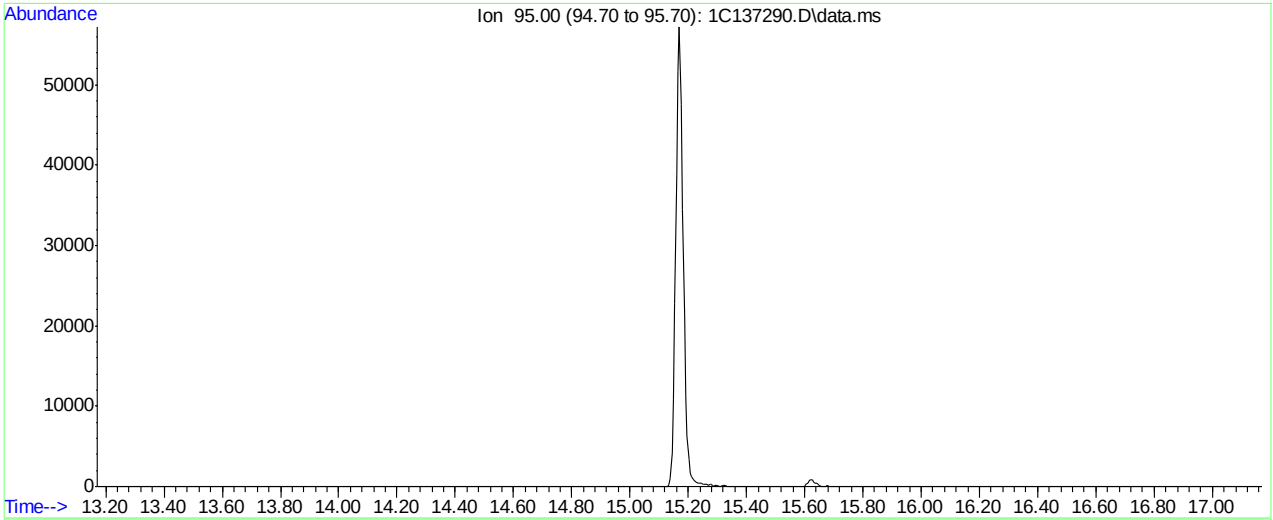
Average of 15.165 to 15.176 min.: 1C137266.D
bfb
Modified:subtracted

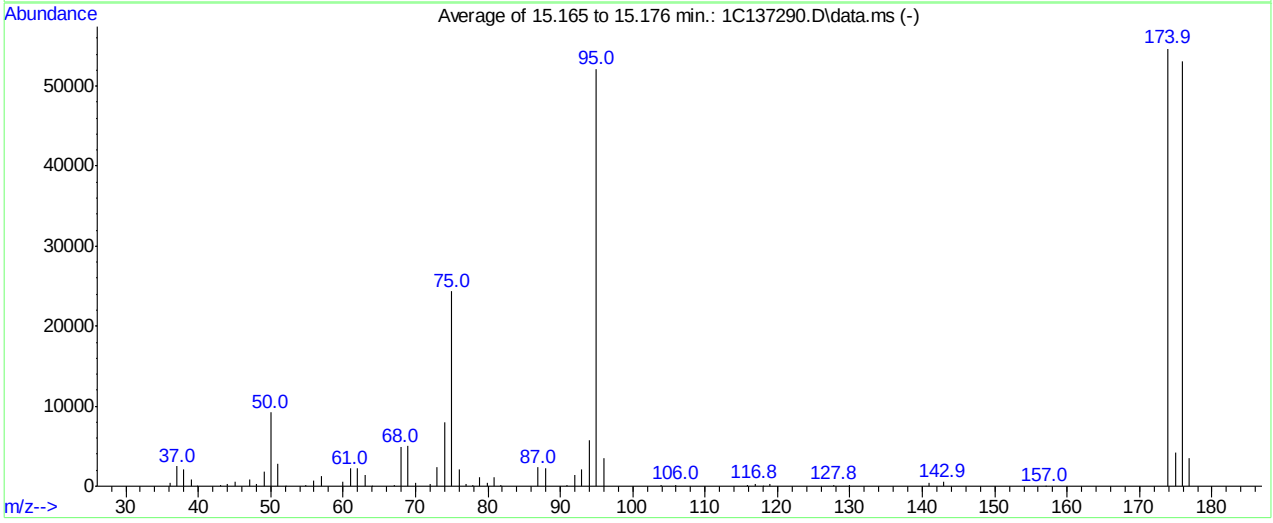
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	7456	127.85	273	171.80	62		
95.00	63792	129.85	268	172.25	181		
96.00	4082	134.90	57	173.90	68725		
96.90	55	140.90	655	174.90	5487		
103.85	216	142.20	52	175.90	66280		
104.90	62	142.90	644	176.90	4616		
105.90	292	147.85	193	177.80	53		
115.95	258	154.70	51	178.00	57		
116.85	433	154.95	134				
117.90	150	156.80	119				
118.90	317	160.90	71				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\1C\V1c6103\1C137290.D Vial: 25
Acq On : 23 Feb 2015 12:35 pm Operator: shannont
Sample : bfb2 Inst : MS1C
Misc : MS80764,V1C6103,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2282, 2283, 2284; Background Corrected with Scan 2273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	9216	PASS
75	95	30	60	46.7	24336	PASS
95	95	100	100	100.0	52133	PASS
96	95	5	9	6.8	3569	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	104.9	54701	PASS
175	174	5	9	7.8	4252	PASS
176	174	95	101	97.0	53075	PASS
177	176	5	9	6.6	3480	PASS

1C137290.D M1C6103.M Tue Feb 24 10:33:48 2015 RPT1

Average of 15.165 to 15.176 min.: 1C137290.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	446	50.00	9216	67.05	136	78.90	1111
37.05	2486	51.00	2778	68.00	4871	79.85	356
38.00	2070	52.10	50	69.00	5021	80.90	1120
39.05	841	54.90	155	70.00	378	81.85	214
39.90	42	55.95	654	72.05	269	86.95	2350
43.00	129	57.05	1242	73.00	2441	87.90	2252
43.95	302	60.00	517	74.00	8049	90.90	125
45.05	526	61.00	2238	75.00	24336	92.00	1422
47.05	783	62.00	2238	76.00	2073	93.00	2053
48.00	282	63.00	1474	76.95	304	94.00	5779
49.05	1814	64.00	54	77.85	189	95.00	52133

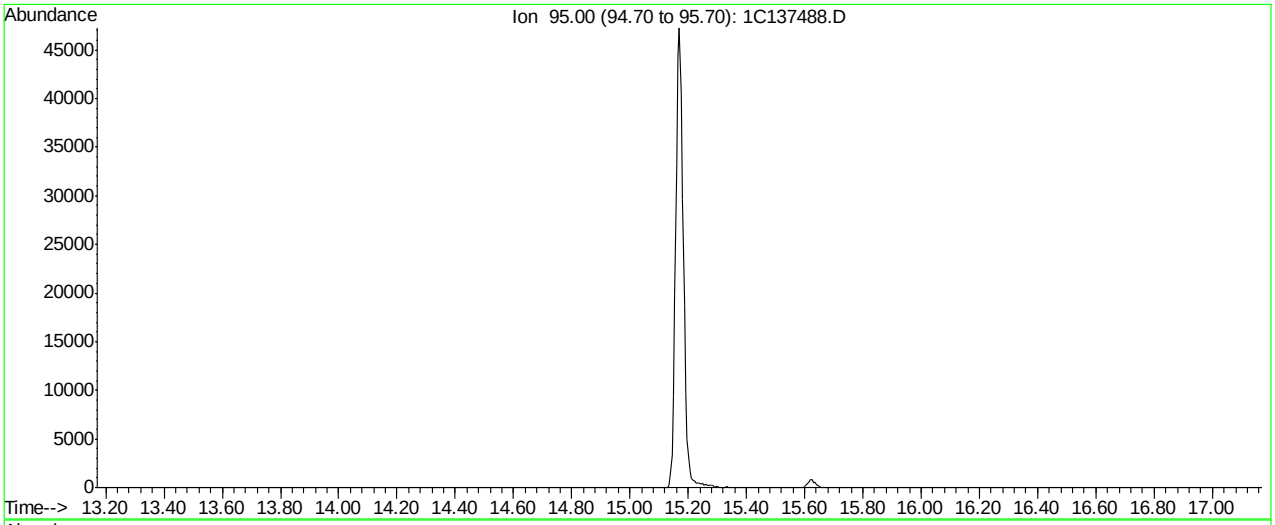
Average of 15.165 to 15.176 min.: 1C137290.D\data.ms
bfb2
Modified:subtracted

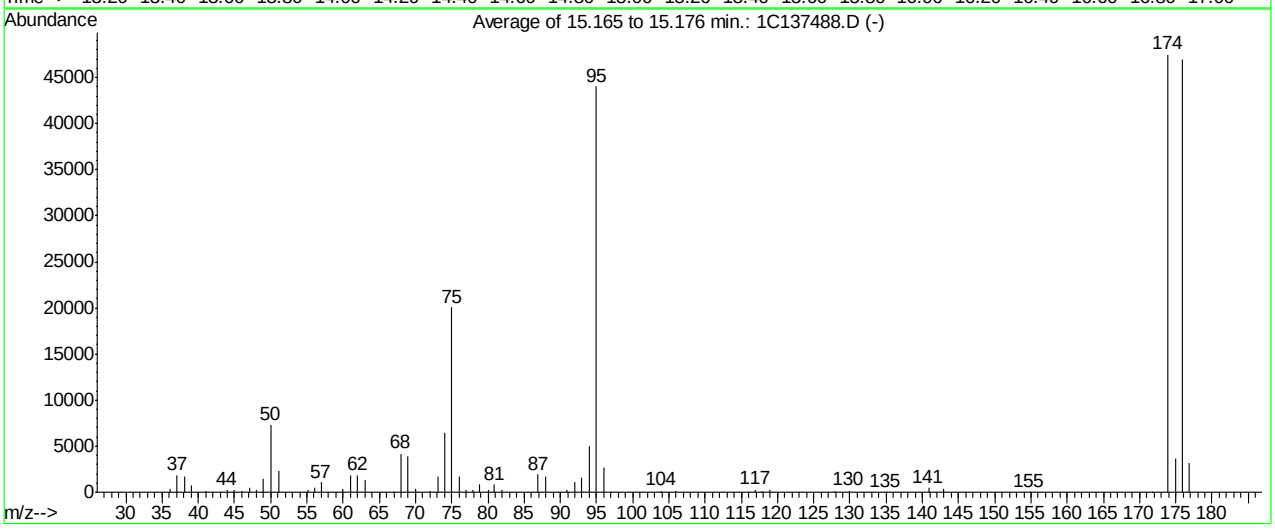
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	3569	157.00	52				
103.95	159	173.90	54701				
105.95	207	174.90	4252				
115.90	189	175.90	53075				
116.85	319	176.90	3480				
118.00	64						
118.90	314						
127.80	192						
129.90	188						
140.85	463						
142.90	504						

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\1C137488.D Vial: 1
Acq On : 2 Mar 2015 10:09 am Operator: shannont
Sample : bfb Inst : MS1C
Misc : MS81356,V1C6111,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M1C6103.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2282, 2283, 2284; Background Corrected with Scan 2273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	7297	PASS
75	95	30	60	45.5	20016	PASS
95	95	100	100	100.0	43994	PASS
96	95	5	9	6.2	2738	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	108.0	47498	PASS
175	174	5	9	7.7	3634	PASS
176	174	95	101	98.7	46898	PASS
177	176	5	9	6.7	3164	PASS

1C137488.D M1C6103.M Mon Mar 02 14:41:36 2015 RPT1

Average of 15.165 to 15.176 min.: 1C137488.D
bfb
Modified:subtracted

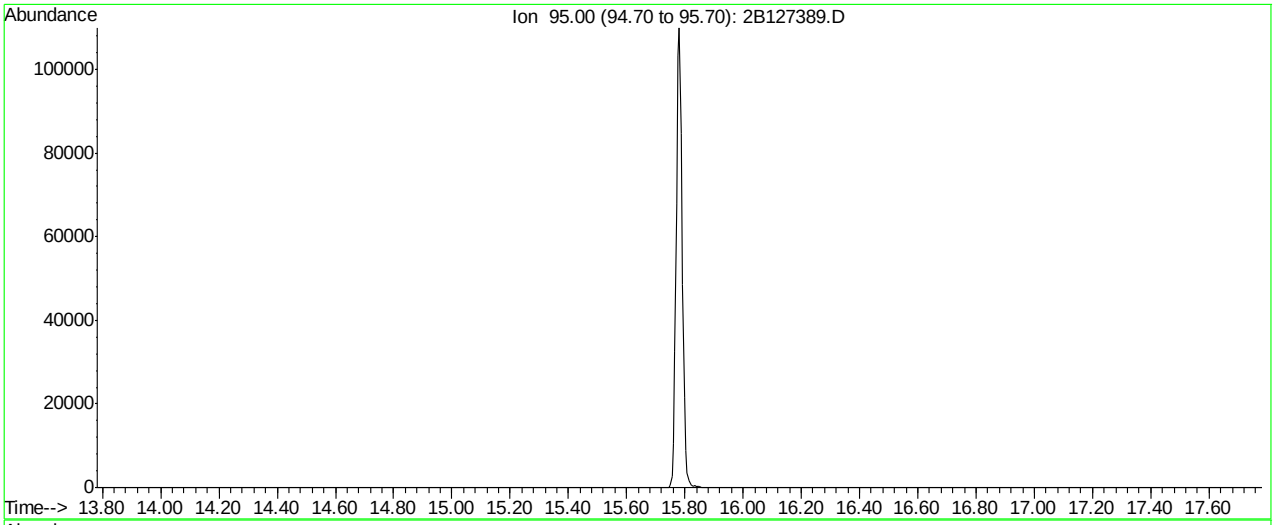
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	408	49.00	1507	68.00	4185	80.00	307
37.05	1852	50.00	7297	69.00	3925	80.90	845
38.05	1670	51.05	2326	70.05	333	81.95	261
39.05	682	55.10	195	72.00	163	86.95	1909
41.00	112	56.05	544	73.05	1738	87.95	1760
43.05	24	57.00	1040	74.00	6465	90.95	197
43.95	230	60.00	393	75.00	20016	92.00	1105
45.00	221	61.05	1827	76.00	1766	93.00	1637
46.00	105	62.00	1855	77.00	257	94.00	4956
47.05	507	63.05	1310	77.95	189	95.00	43994
48.00	268	66.90	58	78.90	840	96.00	2738

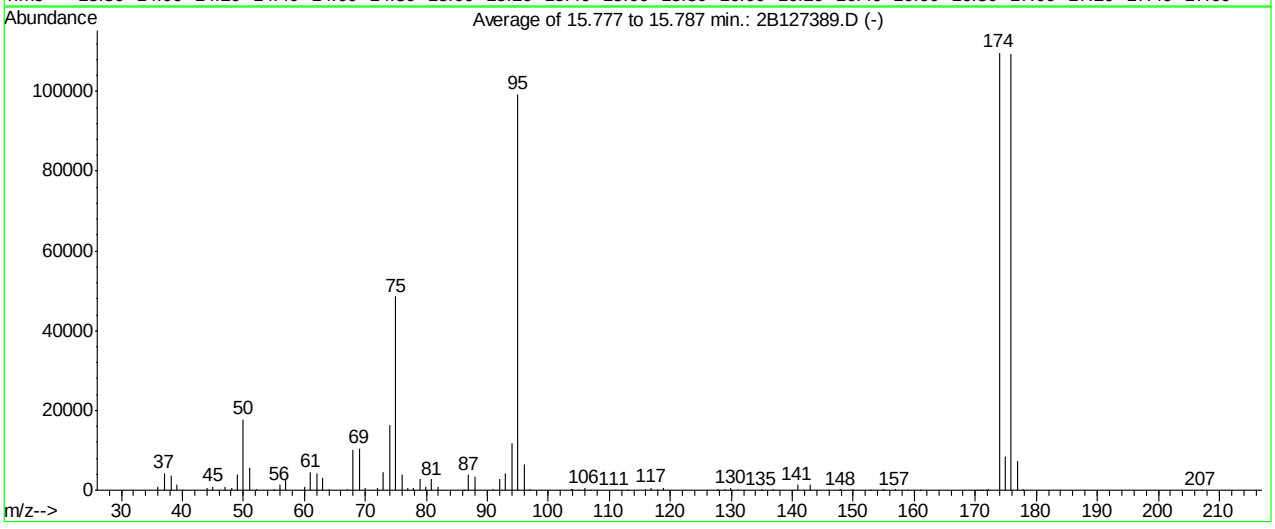
Average of 15.165 to 15.176 min.: 1C137488.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	52	142.90	427				
103.95	158	154.80	60				
105.90	107	171.70	54				
116.00	50	173.90	47498				
116.95	272	174.95	3634				
117.85	168	175.90	46898				
118.90	209	176.90	3164				
127.90	117						
129.90	136						
135.00	55						
140.90	471						

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\2B127389.D Vial: 1
Acq On : 5 Feb 2015 3:37 pm Operator: bridgetk
Sample : BFB Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um





AutoFind: Scans 2231, 2232, 2233; Background Corrected with Scan 2223

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	17802	PASS
75	95	30	60	48.9	48517	PASS
95	95	100	100	100.0	99285	PASS
96	95	5	9	6.6	6558	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	110.6	109778	PASS
175	174	5	9	7.6	8374	PASS
176	174	95	101	99.6	109376	PASS
177	176	5	9	6.6	7201	PASS

2B127389.D M2B5744.M Fri Feb 06 17:02:06 2015 MS2B

Average of 15.777 to 15.787 min.: 2B127389.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	915	51.05	5529	68.00	10066	79.85	879
37.00	4345	52.05	221	69.00	10514	80.90	2701
38.10	3789	55.00	240	70.00	686	81.90	757
39.05	1531	56.00	1369	72.00	509	86.10	53
40.00	60	57.00	2481	73.00	4574	86.95	3851
44.00	438	60.00	938	74.00	16203	87.95	3322
45.00	883	61.00	4620	75.00	48517	90.90	419
47.05	893	62.00	4314	76.00	4086	92.00	2869
48.05	598	63.00	3004	77.00	542	93.00	4111
49.00	3992	64.05	321	77.95	498	94.00	11762
50.00	17802	67.10	289	78.90	2744	95.00	99285

Average of 15.777 to 15.787 min.: 2B127389.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	6558	117.85	413	142.90	1302	170.40	51
97.00	218	118.90	526	145.90	129	170.85	101
103.80	313	127.85	416	147.70	89	171.20	53
104.00	219	128.90	208	147.90	239	171.80	146
104.90	121	129.90	492	149.90	184	172.10	223
105.95	473	131.00	123	152.80	50	173.90	109778
106.90	56	134.95	201	154.80	197	174.90	8374
110.90	55	136.90	198	155.00	66	175.90	109376
112.90	51	139.90	58	156.85	202	176.90	7201
115.95	420	140.90	1329	159.00	80	177.90	206
116.85	683	141.90	59	160.90	117	207.00	55

SW-846 Method 8260

```
Data File : C:\MSDCHEM\1\DATA\2B128040.D              Vial: 3
Acq On    :  4 Mar 2015   9:43 am                  Operator: bridgetk
Sample    : bfb                                    Inst    : MS2B
Misc      : MS81419,V2B5771,w,,,,1                 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method    : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title     : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
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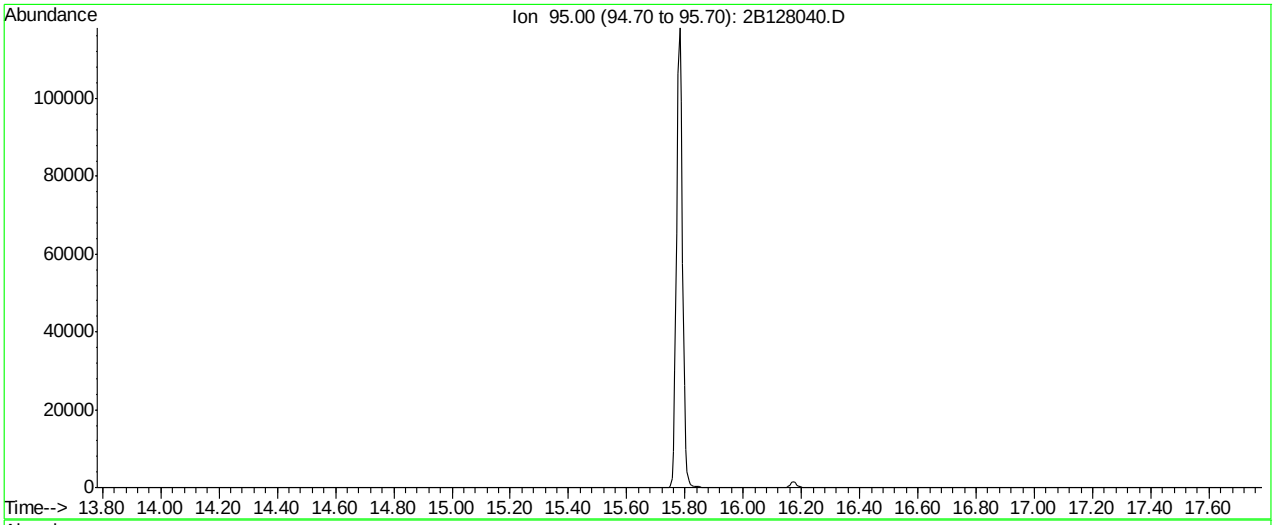
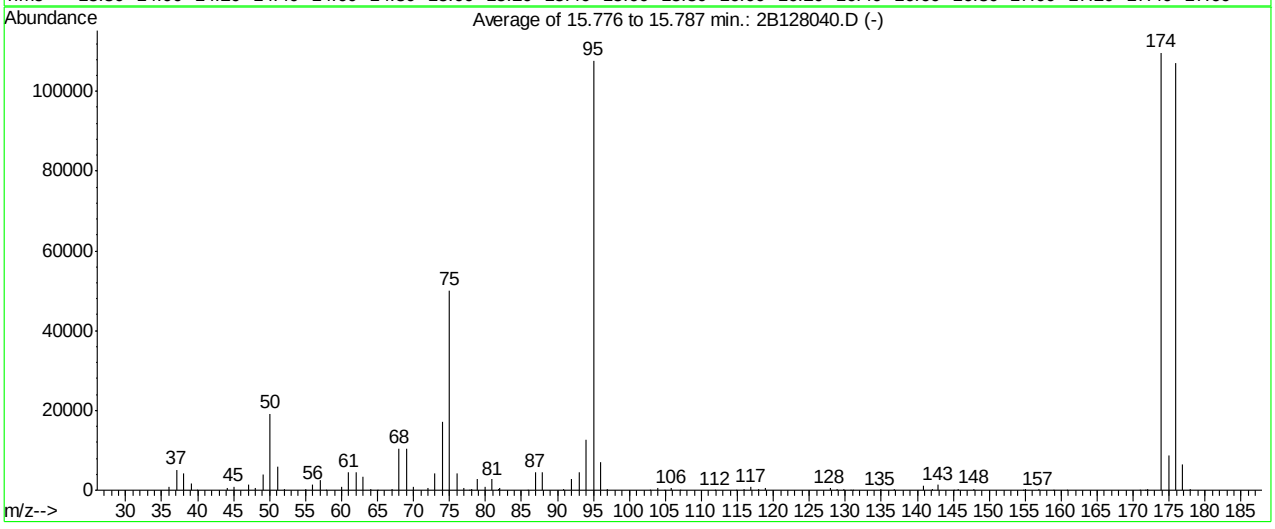




AutoFind: Scans 2231, 2232, 2233; Background Corrected with Scan 2223

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	19157	PASS
75	95	30	60	46.5	50170	PASS
95	95	100	100	100.0	107800	PASS
96	95	5	9	6.5	6984	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	101.8	109752	PASS
175	174	5	9	7.9	8654	PASS
176	174	95	101	97.6	107082	PASS
177	176	5	9	6.2	6613	PASS

2B128040.D M2B5744.M Wed Mar 04 15:58:58 2015 MS2B

Average of 15.776 to 15.787 min.: 2B128040.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	820	51.05	5998	65.00	67	77.70	136
37.05	5063	52.05	365	67.00	281	78.00	294
38.10	4365	55.05	224	68.00	10480	78.90	2725
39.10	1707	56.00	1416	69.00	10272	79.95	744
39.95	34	57.00	2628	70.05	759	80.90	2754
44.05	531	57.90	57	72.05	495	81.80	168
45.05	910	60.05	868	73.00	4140	82.00	481
47.05	1450	61.00	4565	74.00	17250	85.90	72
47.95	642	62.00	4468	75.00	50170	86.95	4622
49.05	3822	63.00	3487	76.00	4281	87.95	4395
50.05	19157	64.05	332	76.95	566	90.85	376

Average of 15.776 to 15.787 min.: 2B128040.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	2923	111.90	54	134.90	238	158.85	137
93.00	4390	114.80	58	136.85	197	160.80	50
94.00	12543	115.85	312	140.85	1177	170.90	65
95.00	107800	116.90	744	142.05	204	171.70	123
96.00	6984	117.90	345	142.90	1399	172.00	412
96.95	247	118.90	529	145.00	67	173.90	109752
102.90	56	127.85	447	145.75	167	174.90	8654
103.90	488	128.90	259	147.90	323	175.90	107082
104.85	109	129.85	385	154.70	101	176.90	6613
105.85	525	130.80	85	154.95	157	177.90	181
107.00	55	131.00	52	156.85	189		

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137267.D
Acq On : 20 Feb 2015 9:54 am
Operator : shannont
Sample : ic6103-0.2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 09:39:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration

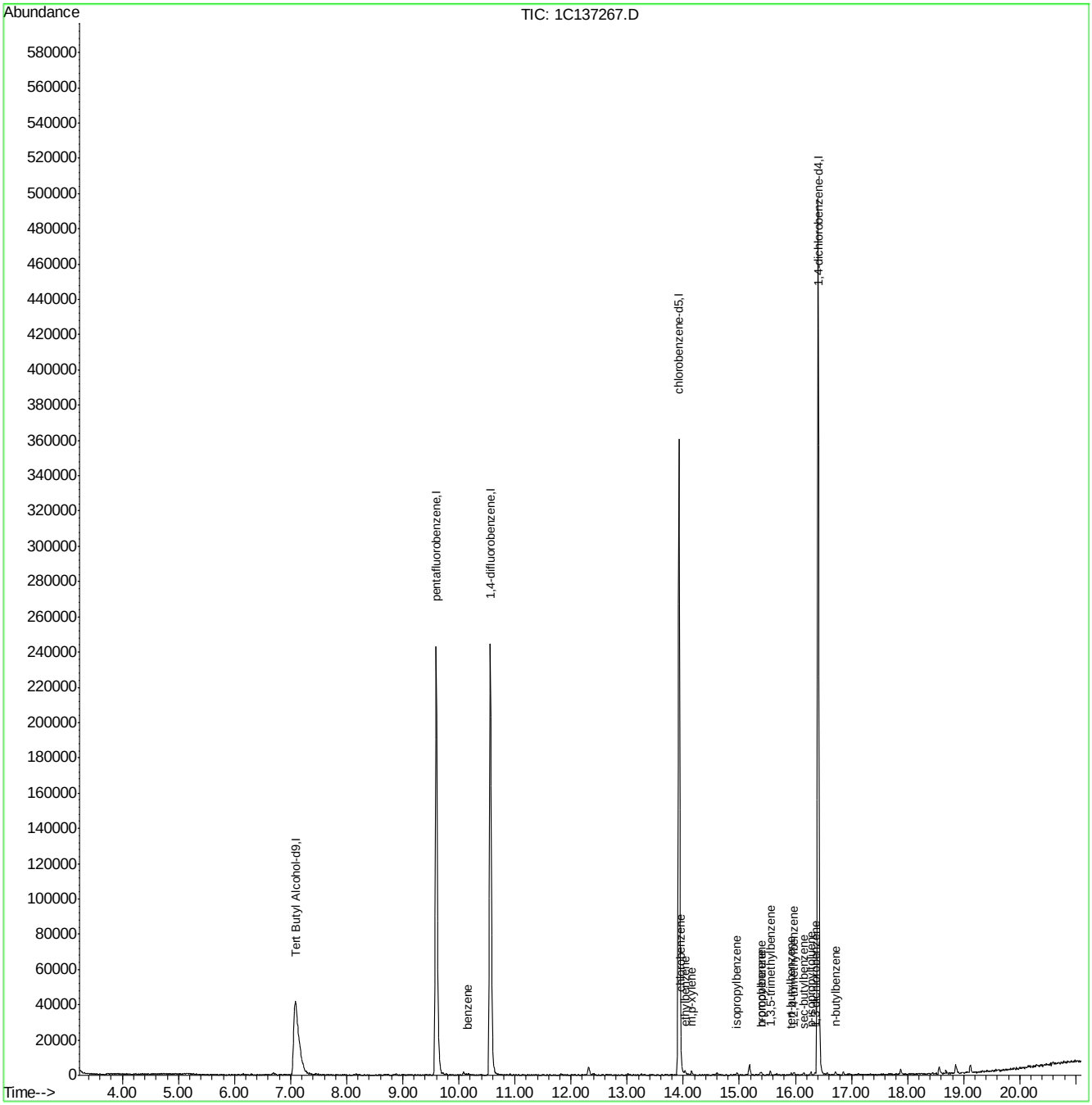
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	165575	500.00	ug/L	0.00
5) pentafluorobenzene	9.59	168	248884	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.56	114	256704	50.00	ug/L	0.00
89) chlorobenzene-d5	13.93	117	236529	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.40	152	153840	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#		
54) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#		
81) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#		
107) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#		
Target Compounds						Qvalue
66) benzene	10.15	78	1097	0.21	ug/L	51
97) chlorobenzene	13.96	112	812	0.21	ug/L	91
99) ethylbenzene	14.03	91	1232	0.19	ug/L	84
100) m,p-xylene	14.15	106	885	0.36	ug/L	99
106) isopropylbenzene	14.95	105	1547	0.23	ug/L	76
109) bromobenzene	15.38	156	345	0.17	ug/L #	57
113) n-propylbenzene	15.40	91	1593	0.21	ug/L	60
116) 1,3,5-trimethylbenzene	15.55	105	1317	0.21	ug/L	89
117) tert-butylbenzene	15.91	119	1188	0.23	ug/L #	57
119) 1,2,4-trimethylbenzene	15.98	105	1418	0.23	ug/L	93
120) sec-butylbenzene	16.15	105	1730	0.22	ug/L	81
121) 1,3-dichlorobenzene	16.35	146	1035	0.25	ug/L	86
122) p-isopropyltoluene	16.28	119	1555	0.22	ug/L	91
127) n-butylbenzene	16.72	92	750	0.21	ug/L #	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137267.D
Acq On : 20 Feb 2015 9:54 am
Operator : shannont
Sample : ic6103-0.2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 09:39:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137268.D
Acq On : 20 Feb 2015 10:24 am
Operator : shannont
Sample : ic6103-0.5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:23:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.085	65	162184	500.00	ug/L		0.00
5) pentafluorobenzene	9.600	168	244320	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	253470	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	234857	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	158516	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L		
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#			
54) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00	ug/L		
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#			
81) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#			
107) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#			
Target Compounds							Qvalue
13) chloromethane	3.753	50	1366	0.51	ug/L	#	51
14) vinyl chloride	4.014	62	1464	0.54	ug/L	#	51
15) bromomethane	4.653	94	1083	0.55	ug/L	#	67
28) iodomethane	6.562	142	1509	0.46	ug/L		90
31) methylene chloride	7.100	84	770	0.47	ug/L		79
33) methyl tert butyl ether	7.466	73	2618	0.50	ug/L		54
42) ethyl tert-butyl ether	8.685	59	2371	0.47	ug/L		82
45) cis-1,2-dichloroethene	9.015	96	728	0.50	ug/L		88
63) carbon tetrachloride	9.878	117	1229	0.57	ug/L		85
66) benzene	10.150	78	2611	0.51	ug/L		100
67) tert-amyl methyl ether	10.207	73	2408	0.48	ug/L		87
70) 1,2-dichloroethane	10.191	62	890	0.46	ug/L		52
71) trichloroethene	10.929	95	637	0.48	ug/L	#	65
73) 2-chloroethyl vinyl ether	11.823	63	1999	2.20	ug/L		72
76) dibromomethane	11.373	93	439	0.47	ug/L	#	73
78) bromodichloromethane	11.520	83	878	0.44	ug/L		87
80) cis-1,3-dichloropropene	12.022	75	1167	0.51	ug/L		90
83) toluene	12.393	92	1666	0.53	ug/L		87
85) trans-1,3-dichloropropene	12.639	75	905	0.42	ug/L		75
87) 1,1,2-trichloroethane	12.838	83	467	0.42	ug/L	#	64
90) tetrachloroethene	13.010	164	663	0.54	ug/L		89
91) 1,3-dichloropropane	13.042	76	904	0.43	ug/L		99
94) dibromochloromethane	13.319	129	813	0.45	ug/L		77
95) 1,2-dibromoethane	13.476	107	630	0.44	ug/L		70
97) chlorobenzene	13.957	112	2222	0.57	ug/L		91
98) 1,1,1,2-tetrachloroethane	14.030	131	827	0.47	ug/L		78
99) ethylbenzene	14.036	91	3490	0.54	ug/L		77
100) m,p-xylene	14.151	106	2610	1.08	ug/L		96
101) o-xylene	14.595	106	1251	0.49	ug/L	#	75
102) styrene	14.616	104	2053	0.51	ug/L		92
106) isopropylbenzene	14.956	105	3260	0.47	ug/L		94
108) cyclohexanone	15.134	55	1987	5.53	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137268.D
Acq On : 20 Feb 2015 10:24 am
Operator : shannont
Sample : ic6103-0.5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:23:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration

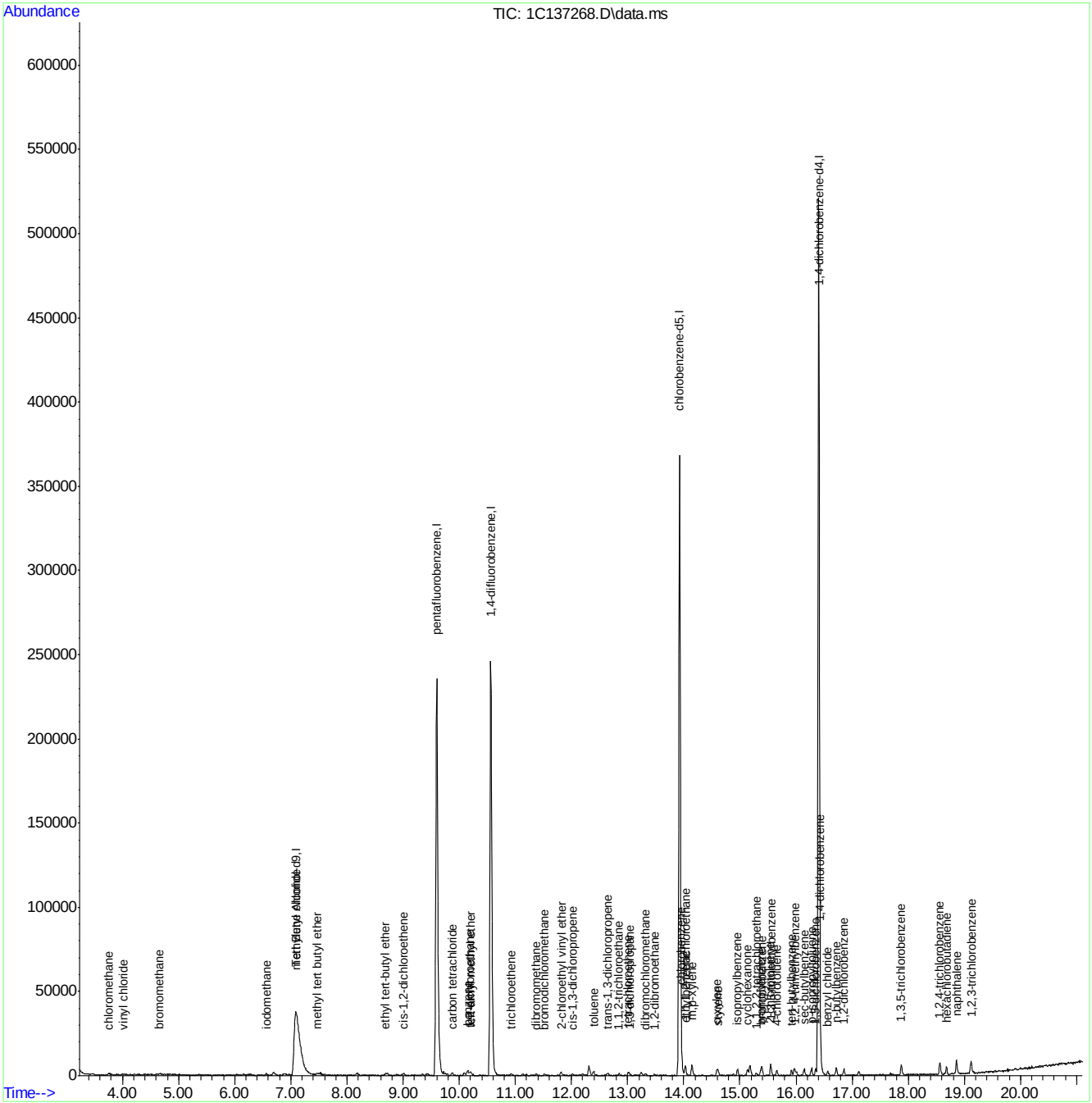
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
109) bromobenzene	15.375	156	1032	0.48	ug/L		79
110) 1,1,2,2-tetrachloroethane	15.291	83	1140	0.49	ug/L	#	63
113) n-propylbenzene	15.395	91	4177	0.54	ug/L		93
114) 2-chlorotoluene	15.542	126	882	0.49	ug/L		93
115) 4-chlorotoluene	15.662	91	2865	0.56	ug/L		94
116) 1,3,5-trimethylbenzene	15.552	105	3193	0.50	ug/L		96
117) tert-butylbenzene	15.924	119	2616	0.49	ug/L		95
119) 1,2,4-trimethylbenzene	15.976	105	3440	0.55	ug/L		97
120) sec-butylbenzene	16.149	105	4296	0.53	ug/L		98
121) 1,3-dichlorobenzene	16.347	146	2522	0.58	ug/L		93
122) p-isopropyltoluene	16.279	119	3825	0.52	ug/L		88
124) 1,4-dichlorobenzene	16.431	146	2520	0.55	ug/L		74
125) benzyl chloride	16.562	91	2902	0.58	ug/L		93
126) 1,2-dichlorobenzene	16.855	146	2561	0.56	ug/L		91
127) n-butylbenzene	16.719	92	1956	0.54	ug/L		96
129) 1,3,5-trichlorobenzene	17.875	180	2878	0.55	ug/L		99
130) 1,2,4-trichlorobenzene	18.560	180	3458	0.59	ug/L		82
131) hexachlorobutadiene	18.685	225	1410	0.57	ug/L		75
132) naphthalene	18.863	128	8745	0.62	ug/L		97
133) 1,2,3-trichlorobenzene	19.125	180	3687	0.60	ug/L		88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137268.D
Acq On : 20 Feb 2015 10:24 am
Operator : shannont
Sample : ic6103-0.5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:23:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:35:48 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137269.D
Acq On : 20 Feb 2015 10:52 am
Operator : shannont
Sample : ic6103-1
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 09:30:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:32:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.09	65	153073	500.00	ug/L	0.00
5) pentafluorobenzene	9.60	168	234253	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.56	114	238826	50.00	ug/L	0.00
89) chlorobenzene-d5	13.93	117	216703	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.40	152	139724	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#		
54) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#		
81) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#		
107) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#		
Target Compounds						Qvalue
11) dichlorodifluoromethane	3.46	85	1722	0.87	ug/L #	51
13) chloromethane	3.75	50	2833	1.13	ug/L	83
14) vinyl chloride	4.03	62	2764	1.08	ug/L	84
15) bromomethane	4.68	94	2175	1.20	ug/L #	61
16) chloroethane	4.86	64	923	0.98	ug/L	70
20) trichlorofluoromethane	5.38	101	2016	0.88	ug/L	82
23) acrolein	6.09	56	342579	1031.43	ug/L	99
24) 1,1-dichloroethene	6.27	96	1369	1.06	ug/L #	68
28) iodomethane	6.56	142	2842	0.89	ug/L	90
29) carbon disulfide	6.69	76	6092	1.21	ug/L	90
31) methylene chloride	7.11	84	1520	0.95	ug/L	91
33) methyl tert butyl ether	7.47	73	4755	0.93	ug/L	99
34) trans-1,2-dichloroethene	7.53	96	1154	0.92	ug/L	95
36) di-isopropyl ether	8.18	45	4324	0.98	ug/L	88
38) 1,1-dichloroethane	8.17	63	2179	0.88	ug/L	77
39) chloroprene	8.30	53	1393	0.87	ug/L	76
42) ethyl tert-butyl ether	8.69	59	4555	0.94	ug/L	87
44) 2,2-dichloropropane	8.99	77	2587	1.00	ug/L	92
45) cis-1,2-dichloroethene	9.00	96	1304	0.92	ug/L	78
48) bromochloromethane	9.35	128	648	0.80	ug/L #	61
50) chloroform	9.43	85	1390	0.86	ug/L	94
57) 1,1,1-trichloroethane	9.66	97	2008	0.86	ug/L #	1
60) ISO-OCTANE	10.15	57	2493	0.89	ug/L #	46
63) carbon tetrachloride	9.88	117	1998	0.98	ug/L	81
64) 1,1-dichloropropene	9.87	75	1518	1.02	ug/L	67
66) benzene	10.15	78	4474	0.90	ug/L	99
67) tert-amyl methyl ether	10.21	73	4516	0.95	ug/L	94
70) 1,2-dichloroethane	10.19	62	1628	0.87	ug/L	52
71) trichloroethene	10.92	95	1157	0.90	ug/L	77
73) 2-chloroethyl vinyl ether	11.81	63	3790	4.30	ug/L	92
75) 1,2-dichloropropane	11.20	63	1184	0.90	ug/L	95
76) dibromomethane	11.37	93	774	0.84	ug/L	97
77) methylcyclohexane	11.14	83	1147	0.92	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137269.D
Acq On : 20 Feb 2015 10:52 am
Operator : shannont
Sample : ic6103-1
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 09:30:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:32:55 2015
Response via : Initial Calibration

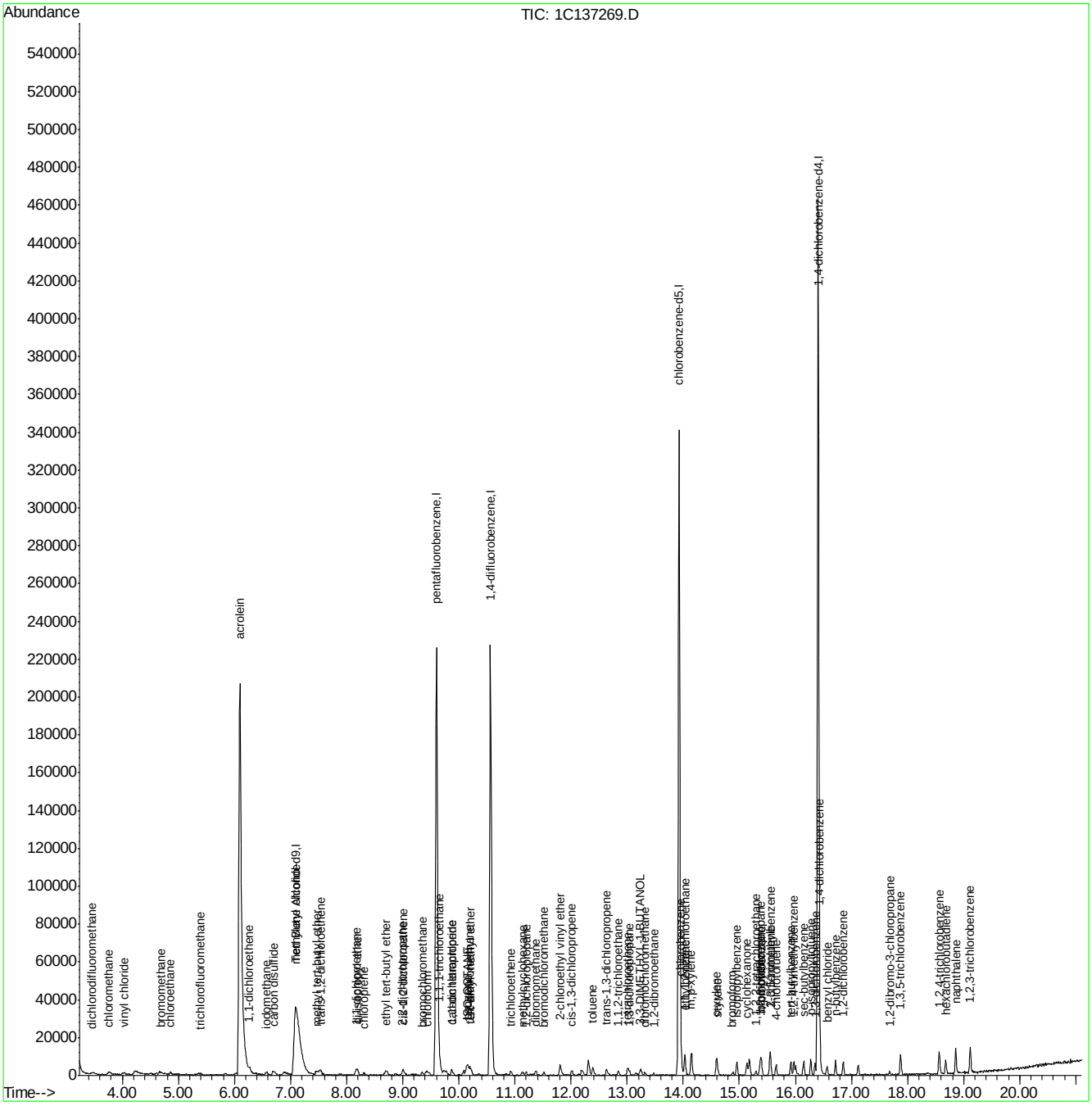
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) bromodichloromethane	11.52	83	1799	0.94	ug/L		95
80) cis-1,3-dichloropropene	12.01	75	1996	0.90	ug/L		94
83) toluene	12.39	92	2768	0.92	ug/L		99
85) trans-1,3-dichloropropene	12.63	75	1913	0.93	ug/L	#	69
87) 1,1,2-trichloroethane	12.84	83	927	0.86	ug/L		99
90) tetrachloroethene	13.01	164	1066	0.92	ug/L		93
91) 1,3-dichloropropane	13.04	76	1785	0.91	ug/L		97
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	2160	9.25	ug/L		91
94) dibromochloromethane	13.31	129	1583	0.94	ug/L		89
95) 1,2-dibromoethane	13.47	107	1265	0.93	ug/L		77
97) chlorobenzene	13.96	112	3519	0.97	ug/L		96
98) 1,1,1,2-tetrachloroethane	14.02	131	1590	0.97	ug/L		87
99) ethylbenzene	14.03	91	5959	1.00	ug/L		96
100) m,p-xylene	14.14	106	4150	1.83	ug/L		85
101) o-xylene	14.59	106	2206	0.91	ug/L		89
102) styrene	14.61	104	3503	0.92	ug/L		86
104) bromoform	14.88	173	1215	0.88	ug/L		87
106) isopropylbenzene	14.96	105	5965	0.96	ug/L		98
108) cyclohexanone	15.13	55	3655	12.01	ug/L		94
109) bromobenzene	15.38	156	1846	0.98	ug/L	#	75
110) 1,1,2,2-tetrachloroethane	15.30	83	2034	0.99	ug/L		94
112) 1,2,3-trichloropropane	15.37	110	469	0.92	ug/L		85
113) n-propylbenzene	15.40	91	6744	0.99	ug/L		96
114) 2-chlorotoluene	15.55	126	1582	1.00	ug/L		98
115) 4-chlorotoluene	15.66	91	4524	1.00	ug/L		99
116) 1,3,5-trimethylbenzene	15.55	105	5623	1.00	ug/L		98
117) tert-butylbenzene	15.92	119	4572	0.97	ug/L		97
119) 1,2,4-trimethylbenzene	15.97	105	5519	0.99	ug/L		91
120) sec-butylbenzene	16.15	105	6762	0.94	ug/L		99
121) 1,3-dichlorobenzene	16.35	146	3880	1.02	ug/L		95
122) p-isopropyltoluene	16.27	119	6700	1.05	ug/L		97
124) 1,4-dichlorobenzene	16.44	146	4193	1.05	ug/L		94
125) benzyl chloride	16.56	91	4700	1.08	ug/L		96
126) 1,2-dichlorobenzene	16.85	146	3990	0.99	ug/L		95
127) n-butylbenzene	16.71	92	3468	1.12	ug/L	#	72
128) 1,2-dibromo-3-chloropropan	17.69	75	475	0.87	ug/L	#	81
129) 1,3,5-trichlorobenzene	17.88	180	4934	1.08	ug/L		96
130) 1,2,4-trichlorobenzene	18.56	180	5479	1.08	ug/L		92
131) hexachlorobutadiene	18.69	225	2301	1.06	ug/L		89
132) naphthalene	18.86	128	13349	1.09	ug/L		97
133) 1,2,3-trichlorobenzene	19.12	180	5561	1.04	ug/L		88

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137269.D
Acq On : 20 Feb 2015 10:52 am
Operator : shannont
Sample : ic6103-1
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 09:30:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:32:55 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/25/15 14:13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.09	65	154904	500.00	ug/L		0.00
5) pentafluorobenzene	9.60	168	233088	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	239471	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	216173	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.41	152	140842	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L		
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#			
54) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L		
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#			
81) toluene-d8 (s)	0.00	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#			
107) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	2333	8.60	ug/L	#	42
11) dichlorodifluoromethane	3.44	85	3872	1.96	ug/L		86
13) chloromethane	3.77	50	5287	2.16	ug/L		97
14) vinyl chloride	4.02	62	5510	2.22	ug/L		94
15) bromomethane	4.67	94	4002	2.31	ug/L		79
16) chloroethane	4.86	64	1934	2.10	ug/L		91
20) trichlorofluoromethane	5.38	101	4454	1.95	ug/L		93
21) ethyl ether	5.84	74	1044	1.60	ug/L		77
23) acrolein	6.09	56	680387	2079.07	ug/L		99
24) 1,1-dichloroethene	6.27	96	2861	2.33	ug/L		77
27) allyl chloride	6.89	76	1192	1.99	ug/L	#	69
28) iodomethane	6.57	142	6713	2.17	ug/L		97
29) carbon disulfide	6.70	76	11845	2.51	ug/L		91
30) 2-CHLOROPROPANE	6.02	43	4816	2.29	ug/L	#	86
31) methylene chloride	7.09	84	3752	2.52	ug/L		83
33) methyl tert butyl ether	7.47	73	10928	2.21	ug/L		91
34) trans-1,2-dichloroethene	7.52	96	2675	2.20	ug/L		90
36) di-isopropyl ether	8.17	45	8654	1.96	ug/L		78
38) 1,1-dichloroethane	8.17	63	5361	2.25	ug/L		96
39) chloroprene	8.29	53	3061	1.88	ug/L		95
42) ethyl tert-butyl ether	8.70	59	9801	2.04	ug/L		91
44) 2,2-dichloropropane	8.99	77	5637	2.25	ug/L		92
45) cis-1,2-dichloroethene	9.02	96	2692	1.88	ug/L	#	70
46) propionitrile	9.13	54	3787	17.62	ug/L	#	64
48) bromochloromethane	9.34	128	1687	2.13	ug/L		89
50) chloroform	9.42	85	3381	2.15	ug/L		88
51) T-BUTYL FORMATE	9.45	59	2828	1.85	ug/L	#	90
57) 1,1,1-trichloroethane	9.67	97	4960	2.18	ug/L	#	71
58) Cyclohexane	9.75	84	2916	2.14	ug/L		99
60) ISO-OCTANE	10.16	57	5153	1.79	ug/L		73
61) epichlorohydrin	11.93	57	1258	8.35	ug/L		61
63) carbon tetrachloride	9.88	117	4169	2.05	ug/L		96
64) 1,1-dichloropropene	9.87	75	3285	2.28	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
65) hexane	7.87	57	1124	1.59	ug/L		80
66) benzene	10.14	78	11211	2.35	ug/L		100
67) tert-amyl methyl ether	10.21	73	9487	1.99	ug/L		96
68) heptane	10.37	57	729	1.78	ug/L	#	53
69) isopropyl acetate	10.13	43	5039	1.74	ug/L		95
70) 1,2-dichloroethane	10.19	62	3995	2.17	ug/L		81
71) trichloroethene	10.92	95	2693	2.13	ug/L		96
72) 2-nitropropane	11.76	41	1291	2.16	ug/L		97
73) 2-chloroethyl vinyl ether	11.80	63	8066	8.86	ug/L		91
75) 1,2-dichloropropane	11.20	63	2666	2.04	ug/L		98
76) dibromomethane	11.37	93	2049	2.31	ug/L		77
77) methylcyclohexane	11.13	83	2171	1.66	ug/L		88
78) bromodichloromethane	11.52	83	4003	2.12	ug/L		84
80) cis-1,3-dichloropropene	12.02	75	4693	2.16	ug/L		84
83) toluene	12.39	92	6640	2.28	ug/L		88
84) 3-methyl-1-butanol	12.19	55	3268	36.23	ug/L		88
85) trans-1,3-dichloropropene	12.63	75	4244	2.09	ug/L		98
86) ethyl methacrylate	12.64	69	3122	1.91	ug/L		94
87) 1,1,2-trichloroethane	12.84	83	2301	2.19	ug/L		78
90) tetrachloroethene	13.01	164	2510	2.24	ug/L		93
91) 1,3-dichloropropane	13.03	76	3981	2.06	ug/L		97
92) butyl acetate	13.15	56	1744	1.96	ug/L	#	67
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	4424	18.68	ug/L		91
94) dibromochloromethane	13.31	129	3505	2.13	ug/L		88
95) 1,2-dibromoethane	13.48	107	2858	2.16	ug/L		86
97) chlorobenzene	13.96	112	8245	2.38	ug/L		89
98) 1,1,1,2-tetrachloroethane	14.03	131	3480	2.17	ug/L		95
99) ethylbenzene	14.02	91	13189	2.29	ug/L		98
100) m,p-xylene	14.15	106	10005	4.57	ug/L		92
101) o-xylene	14.59	106	5192	2.21	ug/L		96
102) styrene	14.61	104	8127	2.20	ug/L		96
104) bromoform	14.88	173	2851	2.10	ug/L		83
106) isopropylbenzene	14.96	105	13984	2.31	ug/L		97
108) cyclohexanone	15.13	55	7297	25.39	ug/L		93
109) bromobenzene	15.38	156	3958	2.11	ug/L		97
110) 1,1,2,2-tetrachloroethane	15.30	83	4452	2.22	ug/L		94
111) trans-1,4-dichloro-2-buten	15.34	53	1037m	2.02	ug/L		
112) 1,2,3-trichloropropane	15.37	110	986	1.90	ug/L		92
113) n-propylbenzene	15.39	91	15486	2.34	ug/L		96
114) 2-chlorotoluene	15.54	126	3355	2.14	ug/L		85
115) 4-chlorotoluene	15.66	91	10173	2.31	ug/L		96
116) 1,3,5-trimethylbenzene	15.55	105	12541	2.31	ug/L		95
117) tert-butylbenzene	15.92	119	10300	2.22	ug/L		98
118) pentachloroethane	16.01	167	3099	2.08	ug/L		90
119) 1,2,4-trimethylbenzene	15.97	105	12067	2.20	ug/L		97
120) sec-butylbenzene	16.15	105	15986	2.29	ug/L		99
121) 1,3-dichlorobenzene	16.35	146	8934	2.45	ug/L		93
122) p-isopropyltoluene	16.27	119	14174	2.29	ug/L		94
124) 1,4-dichlorobenzene	16.44	146	9141	2.38	ug/L		92
125) benzyl chloride	16.56	91	8874	2.02	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration

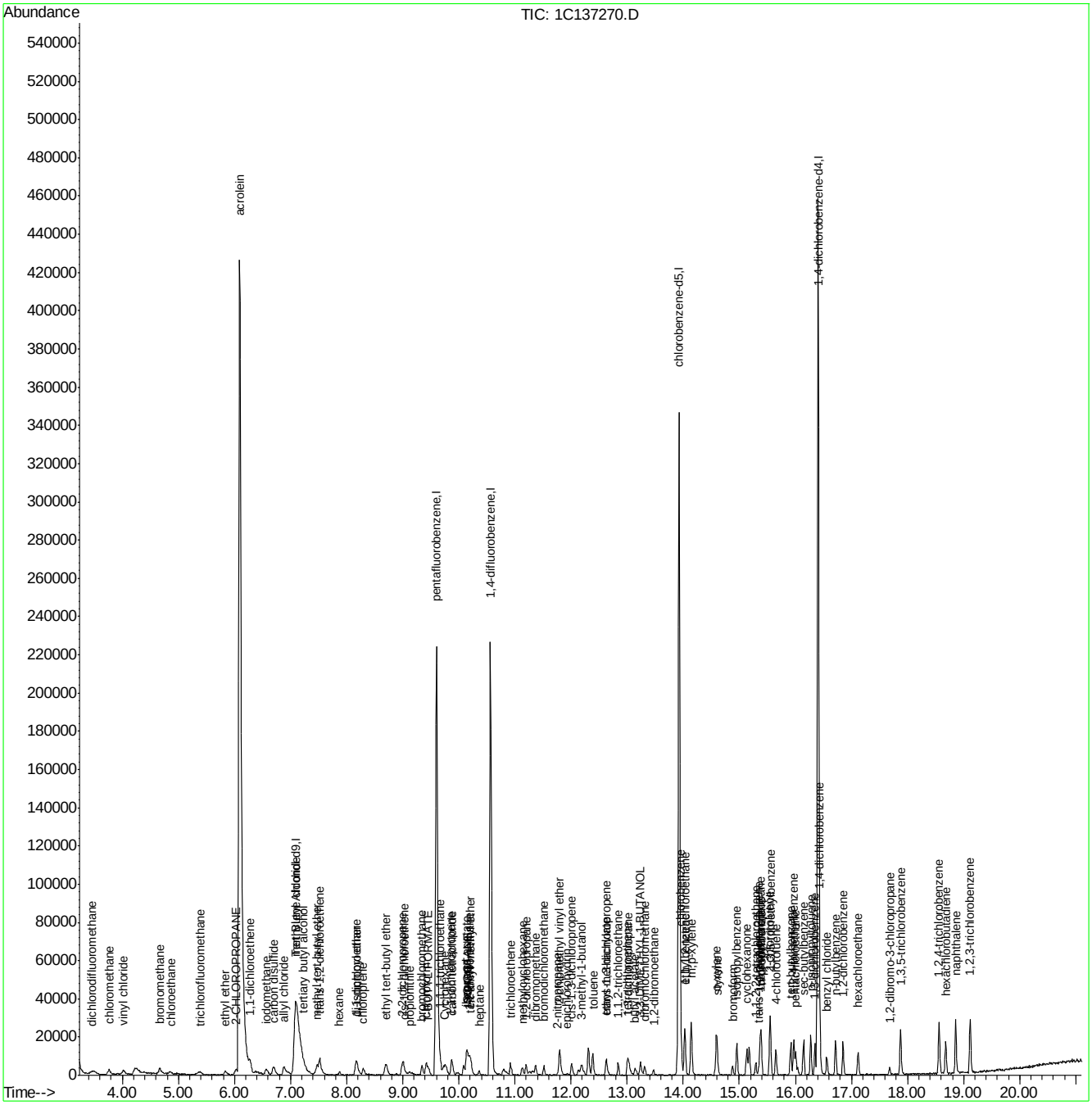
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
126) 1,2-dichlorobenzene	16.85	146	9181	2.36	ug/L	97
127) n-butylbenzene	16.72	92	7075	2.37	ug/L	89
128) 1,2-dibromo-3-chloropropan	17.68	75	1155	2.13	ug/L	95
129) 1,3,5-trichlorobenzene	17.88	180	10811	2.51	ug/L	95
130) 1,2,4-trichlorobenzene	18.56	180	11647	2.39	ug/L	96
131) hexachlorobutadiene	18.68	225	5061	2.45	ug/L	84
132) naphthalene	18.86	128	27198	2.27	ug/L	97
133) 1,2,3-trichlorobenzene	19.12	180	12047	2.32	ug/L	97
134) hexachloroethane	17.12	201	2939	2.15	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration



Manual Integration Approval Summary

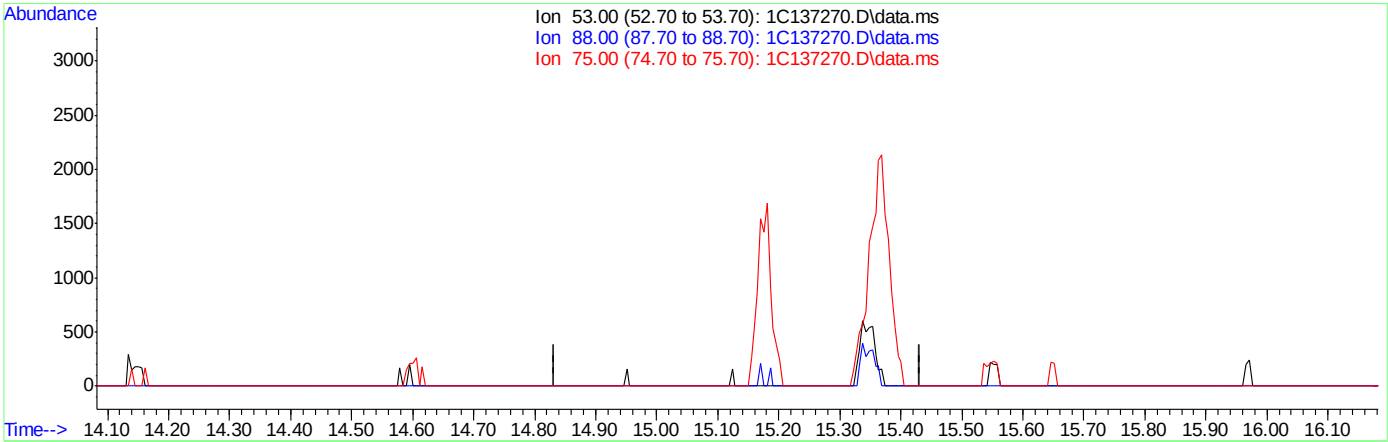
Sample Number: V1C6103-IC6103
Lab FileID: 1C137270.D
Injection Time: 02/20/15 11:21
Method: SW846 8260C
Analyst approved: 02/24/15 10:32 Yunxia Chen
Supervisor approved: 02/25/15 14:13 Jessica Reitan-Chu

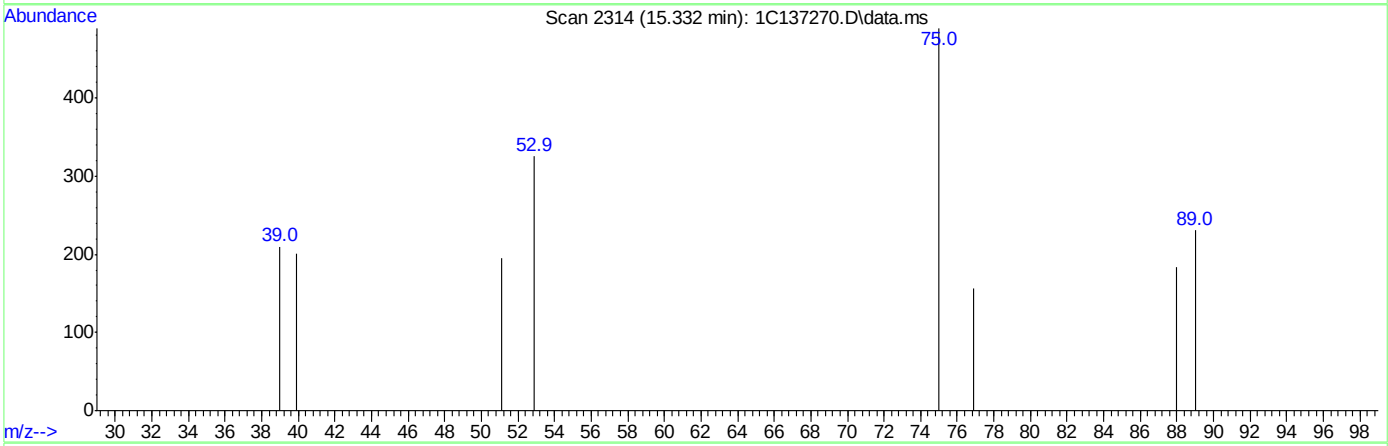
Parameter	CAS	Sig#	R.T. (min.)	Reason
trans-1,4-Dichloro-2-Butene	110-57-6		15.34	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\v1c6103raw\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:17:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 08:28:46 2015
Response via : Initial Calibration





TIC: 1C137270.D\data.ms

(111) trans-1,4-dichloro-2-butene

15.332min (-15.332) 0.00ug/L

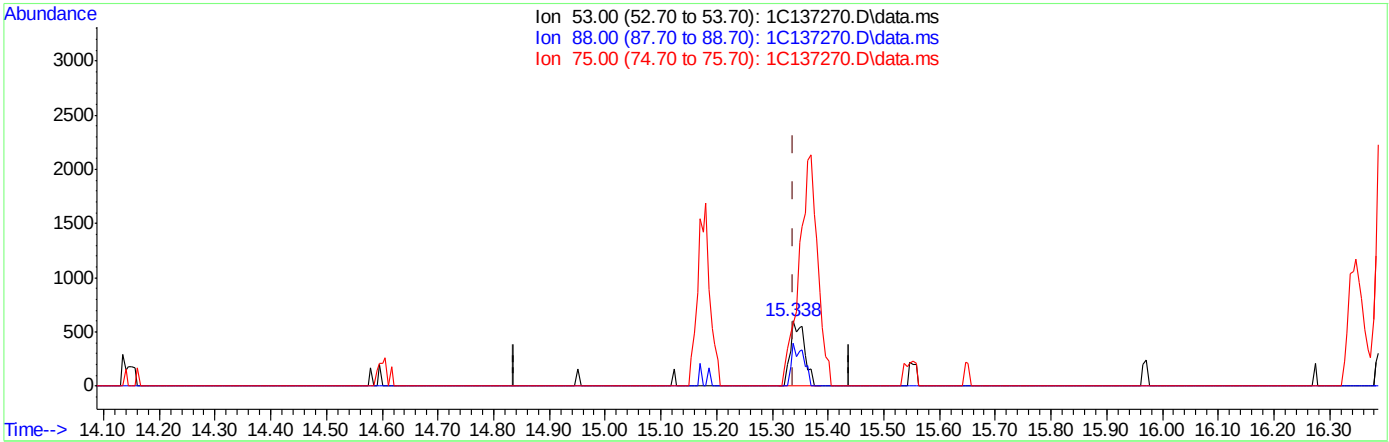
response 0

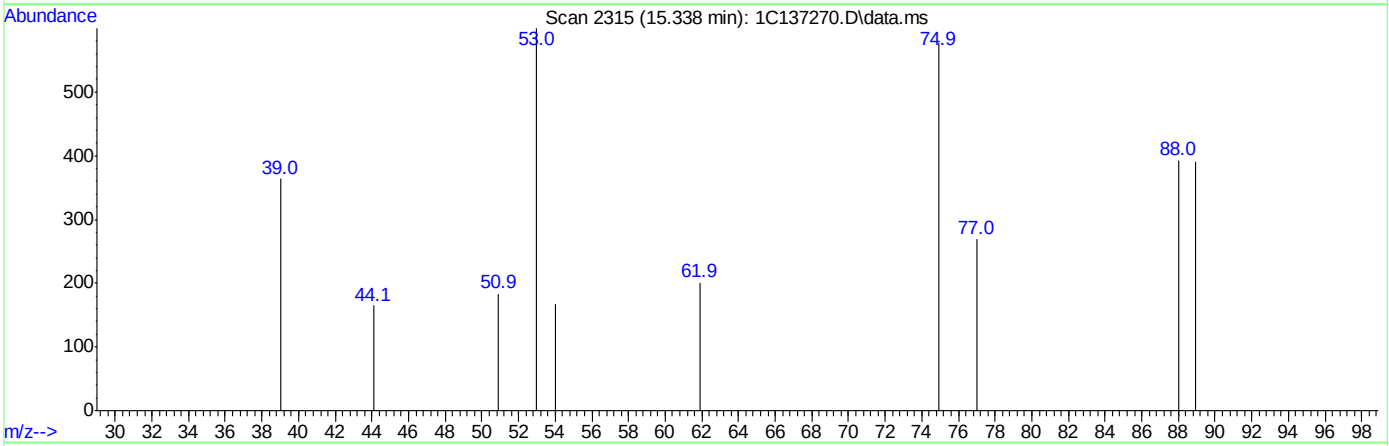
Ion	Exp%	Act%
53.00	100	0.00
88.00	54.10	0.00#
75.00	147.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137270.D
Acq On : 20 Feb 2015 11:21 am
Operator : shannont
Sample : ic6103-2
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 09:24:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:29:59 2015
Response via : Initial Calibration





TIC: 1C137270.D\data.ms

(111) trans-1,4-dichloro-2-butene

15.338min (-0.000) 2.02ug/L m

response 1037

Ion	Exp%	Act%
53.00	100	100
88.00	63.60	65.50
75.00	185.50	96.17#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/25/15 14:13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	152003	500.00	ug/L		0.00
5) pentafluorobenzene	9.60	168	228462	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	237257	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	218885	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	147996	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	7347	5.00	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 10.00%#				
54) 1,2-dichloroethane-d4 (s)	10.08	65	9253	5.54	ug/L		0.01
Spiked Amount 50.000	Range 71 - 124		Recovery = 11.08%#				
81) toluene-d8 (s)	12.30	98	25061	5.33	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 10.66%#				
107) 4-bromofluorobenzene (s)	15.18	95	10449	5.32	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 10.64%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	6428	23.80	ug/L		77
3) 1,4-dioxane	11.34	88	2161	101.76	ug/L	#	25
10) chlorodifluoromethane	3.48	51	10021	4.56	ug/L		92
11) dichlorodifluoromethane	3.46	85	9968	5.22	ug/L		93
13) chloromethane	3.76	50	12142	5.07	ug/L		94
14) vinyl chloride	4.01	62	12239	5.04	ug/L		97
15) bromomethane	4.67	94	8956	5.40	ug/L		92
16) chloroethane	4.85	64	4817	5.53	ug/L		93
20) trichlorofluoromethane	5.36	101	11270	5.07	ug/L		98
21) ethyl ether	5.83	74	3010	4.86	ug/L		84
23) acrolein	6.11	56	18014	61.05	ug/L		98
24) 1,1-dichloroethene	6.28	96	5616	4.65	ug/L		86
26) acetonitrile	6.87	40	8523m	53.28	ug/L		
27) allyl chloride	6.88	76	2515	4.12	ug/L	#	76
28) iodomethane	6.56	142	14136	4.49	ug/L		97
29) carbon disulfide	6.69	76	22217	4.78	ug/L		94
30) 2-CHLOROPROPANE	6.02	43	9278	4.27	ug/L		95
31) methylene chloride	7.10	84	7005	4.81	ug/L		94
32) methyl acetate	6.91	43	5801	5.02	ug/L		85
33) methyl tert butyl ether	7.47	73	22613	4.52	ug/L		91
34) trans-1,2-dichloroethene	7.51	96	5498	4.38	ug/L		92
35) 1-CHLOROPROPANE	7.12	42	21769	6.47	ug/L	#	79
36) di-isopropyl ether	8.16	45	21289	4.83	ug/L		88
38) 1,1-dichloroethane	8.17	63	10700	4.45	ug/L		96
39) chloroprene	8.29	53	7795	4.91	ug/L		97
40) acrylonitrile	7.50	53	10872	22.80	ug/L		92
42) ethyl tert-butyl ether	8.69	59	22716	4.72	ug/L		99
44) 2,2-dichloropropane	8.99	77	11354	4.49	ug/L		95
45) cis-1,2-dichloroethene	9.00	96	6414	4.45	ug/L		85
46) propionitrile	9.11	54	9437	43.36	ug/L		71
47) methylacrylate	9.13	55	5973	4.10	ug/L	#	87
48) bromochloromethane	9.34	128	3481	4.29	ug/L		85
50) chloroform	9.41	85	7046	4.49	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) T-BUTYL FORMATE	9.45	59	7283	4.70	ug/L	#	92
52) isobutyl alcohol	9.96	43	3787	41.85	ug/L	#	93
55) freon 113	6.26	151	4154	4.85	ug/L		81
57) 1,1,1-trichloroethane	9.66	97	10194	4.42	ug/L		77
58) Cyclohexane	9.73	84	6344	4.89	ug/L		92
60) ISO-OCTANE	10.15	57	14600	5.46	ug/L		85
61) epichlorohydrin	11.92	57	3347	21.36	ug/L		87
62) n-butyl alcohol	10.77	56	11851	229.03	ug/L		99
63) carbon tetrachloride	9.87	117	9352	4.50	ug/L		99
64) 1,1-dichloropropene	9.87	75	6513	4.38	ug/L		89
65) hexane	7.87	57	3457	5.09	ug/L		97
66) benzene	10.14	78	21997	4.51	ug/L		99
67) tert-amyl methyl ether	10.20	73	22958	4.71	ug/L		94
68) heptane	10.36	57	1970	4.93	ug/L		94
69) isopropyl acetate	10.12	43	13566	4.50	ug/L		89
70) 1,2-dichloroethane	10.17	62	8290	4.49	ug/L		99
71) trichloroethene	10.91	95	5912	4.67	ug/L		92
72) 2-nitropropane	11.77	41	2839	4.80	ug/L		82
73) 2-chloroethyl vinyl ether	11.79	63	21398	22.84	ug/L		98
75) 1,2-dichloropropane	11.20	63	6078	4.50	ug/L		85
76) dibromomethane	11.37	93	3981	4.38	ug/L		94
77) methylcyclohexane	11.14	83	6526	5.17	ug/L		94
78) bromodichloromethane	11.51	83	8785	4.55	ug/L		96
80) cis-1,3-dichloropropene	12.01	75	10038	4.59	ug/L		94
82) 4-methyl-2-pentanone	12.13	58	2510	4.40	ug/L		86
83) toluene	12.39	92	13477	4.53	ug/L		96
84) 3-methyl-1-butanol	12.18	55	8153	86.90	ug/L		98
85) trans-1,3-dichloropropene	12.62	75	9188	4.50	ug/L		97
86) ethyl methacrylate	12.63	69	7354	4.44	ug/L		94
87) 1,1,2-trichloroethane	12.84	83	4846	4.58	ug/L		91
88) 2-hexanone	13.06	58	1929	4.03	ug/L	#	75
90) tetrachloroethene	13.00	164	5245	4.56	ug/L		82
91) 1,3-dichloropropane	13.03	76	9051	4.54	ug/L		87
92) butyl acetate	13.14	56	4279	4.54	ug/L	#	81
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	11339	45.88	ug/L		97
94) dibromochloromethane	13.31	129	7766	4.59	ug/L		89
95) 1,2-dibromoethane	13.47	107	6214	4.60	ug/L		91
97) chlorobenzene	13.96	112	16301	4.54	ug/L		94
98) 1,1,1,2-tetrachloroethane	14.03	131	7271	4.25	ug/L		92
99) ethylbenzene	14.03	91	27005	4.51	ug/L		94
100) m,p-xylene	14.14	106	20328	8.78	ug/L		98
101) o-xylene	14.59	106	11037	4.52	ug/L		86
102) styrene	14.61	104	16955	4.41	ug/L		97
104) bromoform	14.88	173	6353	4.58	ug/L		93
106) isopropylbenzene	14.95	105	28545	4.46	ug/L		99
108) cyclohexanone	15.13	55	14208	55.95	ug/L		97
109) bromobenzene	15.38	156	8894	4.41	ug/L		90
110) 1,1,2,2-tetrachloroethane	15.29	83	9578	4.56	ug/L		94
111) trans-1,4-dichloro-2-buten	15.34	53	2312	4.21	ug/L		89
112) 1,2,3-trichloropropane	15.37	110	2334	4.11	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration

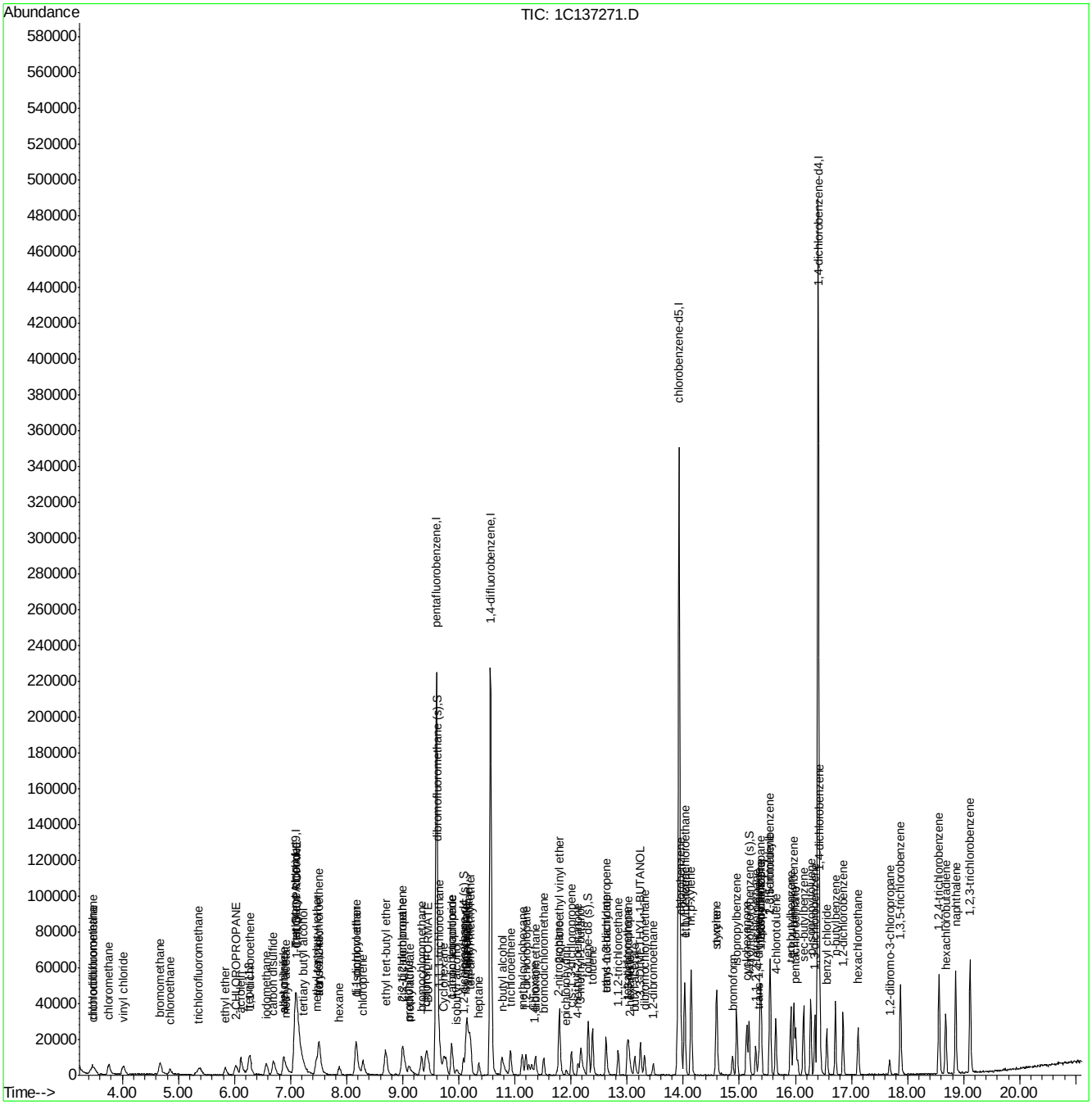
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) n-propylbenzene	15.39	91	31478	4.50	ug/L	96
114) 2-chlorotoluene	15.54	126	7344	4.47	ug/L	86
115) 4-chlorotoluene	15.65	91	20890	4.44	ug/L	95
116) 1,3,5-trimethylbenzene	15.55	105	25434	4.41	ug/L	94
117) tert-butylbenzene	15.92	119	21985	4.58	ug/L	98
118) pentachloroethane	16.01	167	6825	4.29	ug/L	96
119) 1,2,4-trimethylbenzene	15.97	105	25717	4.40	ug/L	98
120) sec-butylbenzene	16.15	105	32397	4.42	ug/L	99
121) 1,3-dichlorobenzene	16.35	146	17538	4.58	ug/L	91
122) p-isopropyltoluene	16.27	119	29544	4.53	ug/L	98
124) 1,4-dichlorobenzene	16.44	146	18584	4.58	ug/L	95
125) benzyl chloride	16.56	91	21696	4.73	ug/L	100
126) 1,2-dichlorobenzene	16.85	146	18171	4.42	ug/L	99
127) n-butylbenzene	16.71	92	14168	4.57	ug/L	87
128) 1,2-dibromo-3-chloropropan	17.68	75	2436	4.19	ug/L	86
129) 1,3,5-trichlorobenzene	17.87	180	20853	4.72	ug/L	98
130) 1,2,4-trichlorobenzene	18.56	180	22718	4.40	ug/L	98
131) hexachlorobutadiene	18.68	225	9735	4.59	ug/L	96
132) naphthalene	18.86	128	56630	4.51	ug/L	99
133) 1,2,3-trichlorobenzene	19.12	180	24632	4.54	ug/L	97
134) hexachloroethane	17.12	201	6143	4.26	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration



Manual Integration Approval Summary

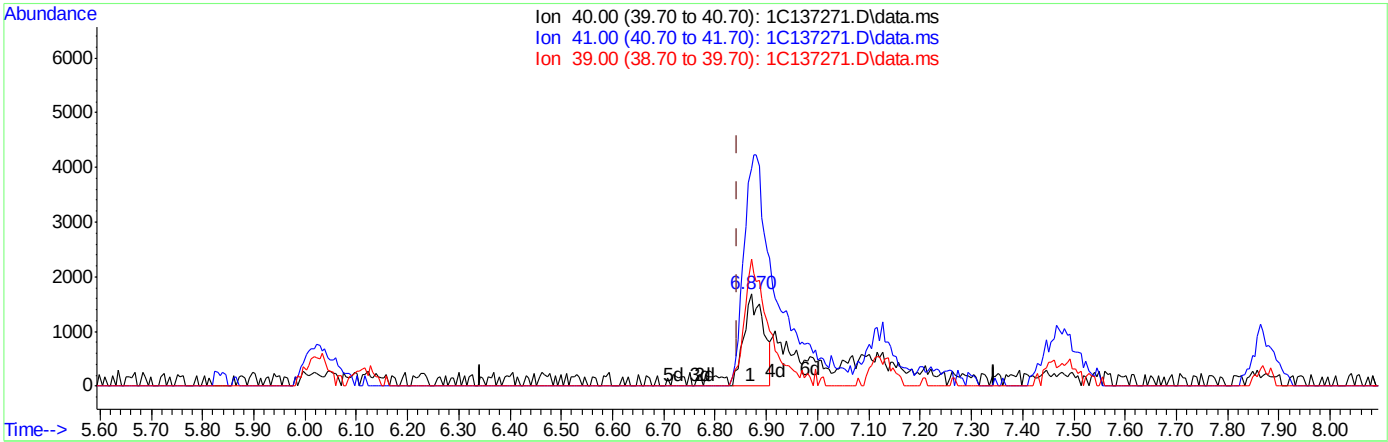
Sample Number: V1C6103-IC6103
Lab FileID: 1C137271.D
Injection Time: 02/20/15 11:50
Method: SW846 8260C
Analyst approved: 02/24/15 10:32 Yunxia Chen
Supervisor approved: 02/25/15 14:13 Jessica Reitan-Chu

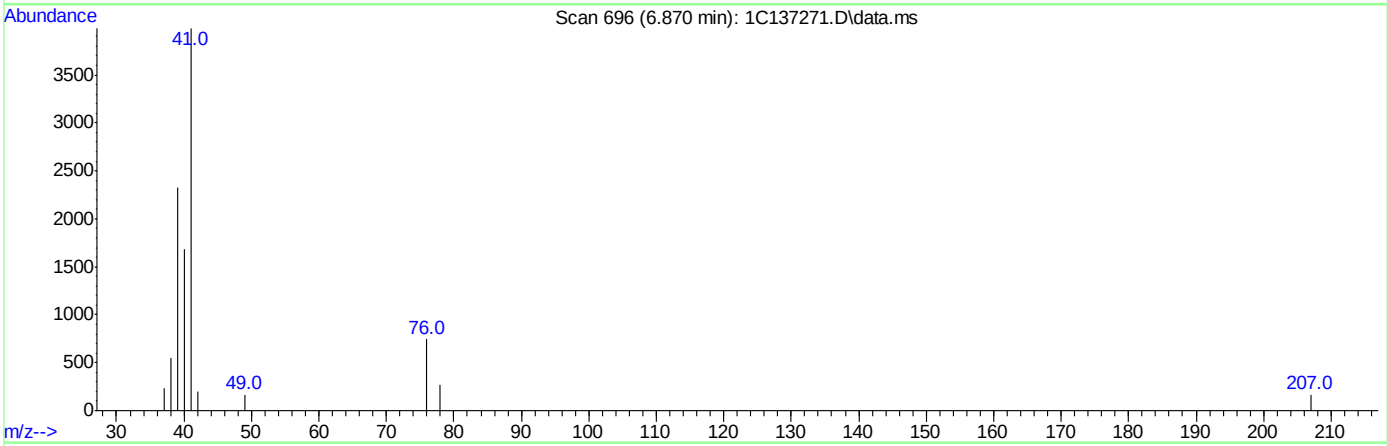
Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		6.87	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\v1c6103raw\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:11:01 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 08:28:46 2015
Response via : Initial Calibration





TIC: 1C137271.D\data.ms

(26) acetonitrile

6.870min (+0.026) 28.27ug/L

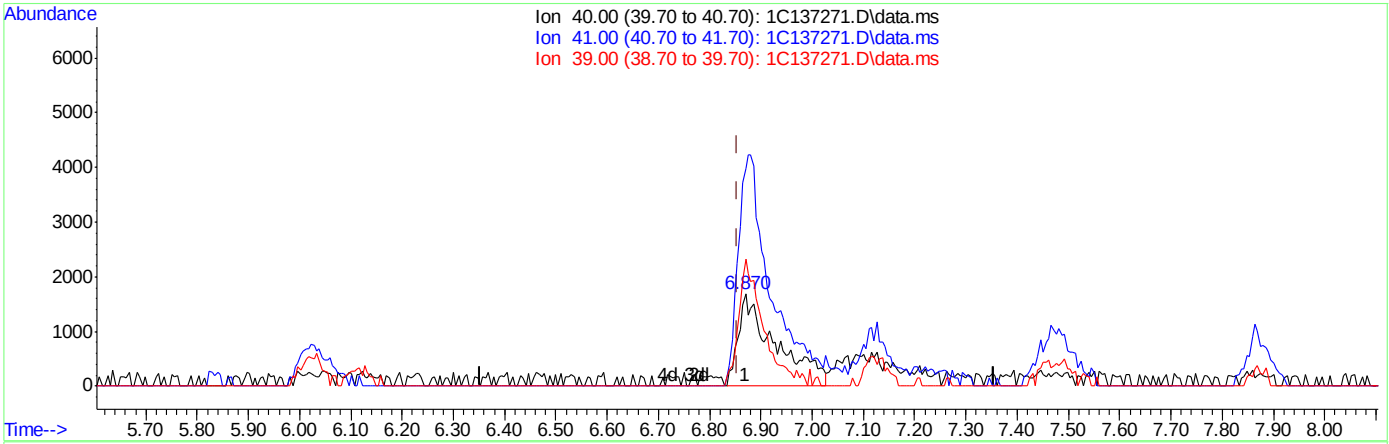
response 4518

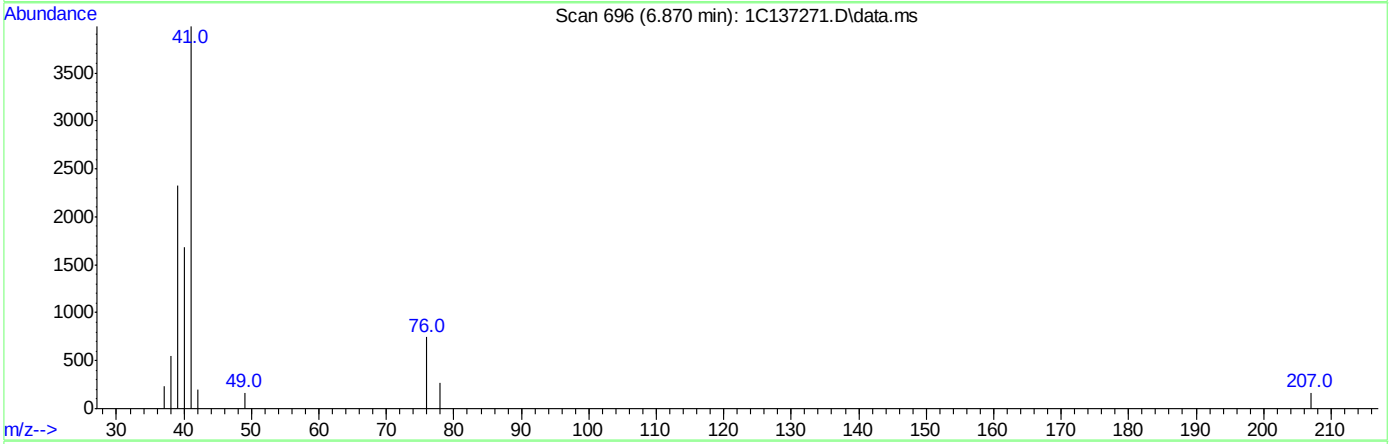
Ion	Exp%	Act%
40.00	100	100
41.00	269.40	415.91#
39.00	108.80	166.67#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1C\V1c6103\
Data File : 1C137271.D
Acq On : 20 Feb 2015 11:50 am
Operator : shannont
Sample : ic6103-5
Misc : MS80764,V1C6103,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 09:03:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:10:44 2015
Response via : Initial Calibration





TIC: 1C137271.D\data.ms

(26) acetonitrile

6.870min (+0.016) 53.28ug/L m

response 8523

Ion	Exp%	Act%
40.00	100	100
41.00	270.40	220.47
39.00	109.30	88.35
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	149224	500.00	ug/L		-0.01
5) pentafluorobenzene	9.60	168	223522	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	229163	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	210832	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	141046	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.64	113	14370	10.40	ug/L		0.01
Spiked Amount 50.000	Range 76 - 122		Recovery = 20.80%#				
54) 1,2-dichloroethane-d4 (s)	10.08	65	16346	10.22	ug/L		0.01
Spiked Amount 50.000	Range 71 - 124		Recovery = 20.44%#				
81) toluene-d8 (s)	12.30	98	45386	10.27	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 20.54%#				
107) 4-bromofluorobenzene (s)	15.17	95	18724	10.53	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 21.06%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.24	59	13257	49.48	ug/L		83
3) 1,4-dioxane	11.34	88	5212	228.39	ug/L	#	73
10) chlorodifluoromethane	3.48	51	21504	9.06	ug/L		98
11) dichlorodifluoromethane	3.45	85	18698	9.52	ug/L		97
13) chloromethane	3.76	50	23417	9.02	ug/L		93
14) vinyl chloride	4.02	62	23781	9.10	ug/L		95
15) bromomethane	4.67	94	16213	9.07	ug/L		94
16) chloroethane	4.86	64	8529	9.47	ug/L		92
20) trichlorofluoromethane	5.38	101	21748	9.10	ug/L		97
21) ethyl ether	5.83	74	6061	9.23	ug/L		89
23) acrolein	6.11	56	28869	93.55	ug/L		98
24) 1,1-dichloroethene	6.27	96	11824	9.63	ug/L		95
25) acetone	6.38	43	4521	9.25	ug/L	#	88
26) acetonitrile	6.87	40	15650	102.98	ug/L		89
27) allyl chloride	6.87	76	5977	9.71	ug/L	#	74
28) iodomethane	6.56	142	30831	9.97	ug/L		98
29) carbon disulfide	6.69	76	45474	9.95	ug/L		100
30) 2-CHLOROPROPANE	6.03	43	21269	10.09	ug/L		92
31) methylene chloride	7.08	84	14244	9.62	ug/L		91
32) methyl acetate	6.90	43	11298	9.02	ug/L		92
33) methyl tert butyl ether	7.47	73	48897	9.77	ug/L		100
34) trans-1,2-dichloroethene	7.51	96	12283	10.32	ug/L		95
35) 1-CHLOROPROPANE	7.12	42	32927	14.44	ug/L	#	85
36) di-isopropyl ether	8.16	45	43130	9.72	ug/L		83
37) 2-butanone	9.02	72	1366	8.38	ug/L	#	52
38) 1,1-dichloroethane	8.17	63	23539	10.30	ug/L		97
39) chloroprene	8.29	53	15543	9.41	ug/L		95
40) acrylonitrile	7.49	53	23328	48.07	ug/L		96
41) vinyl acetate	8.20	86	1002	6.18	ug/L	#	19
42) ethyl tert-butyl ether	8.69	59	47109	9.48	ug/L		96
43) ethyl acetate	9.03	45	1300	6.76	ug/L	#	83
44) 2,2-dichloropropane	8.99	77	24743	10.23	ug/L		93
45) cis-1,2-dichloroethene	9.00	96	14098	9.89	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) propionitrile	9.10	54	21292	96.88	ug/L		80
47) methylacrylate	9.13	55	14241	9.30	ug/L	#	1
48) bromochloromethane	9.34	128	7940	10.21	ug/L		90
49) tetrahydrofuran	9.39	72	1829	8.89	ug/L		95
50) chloroform	9.41	85	15357	9.88	ug/L		95
51) T-BUTYL FORMATE	9.45	59	15150	9.59	ug/L		98
52) isobutyl alcohol	9.95	43	8854	95.38	ug/L	#	96
55) freon 113	6.25	151	8380	9.07	ug/L		87
56) methacrylonitrile	9.30	67	5040	9.23	ug/L		85
57) 1,1,1-trichloroethane	9.66	97	22560	9.53	ug/L		96
58) Cyclohexane	9.74	84	12681	8.97	ug/L		96
60) ISO-OCTANE	10.15	57	25838	8.22	ug/L		94
61) epichlorohydrin	11.92	57	7566	48.82	ug/L		94
62) n-butyl alcohol	10.75	56	24990	452.63	ug/L		93
63) carbon tetrachloride	9.88	117	20059	9.62	ug/L		95
64) 1,1-dichloropropene	9.86	75	14363	9.71	ug/L		94
65) hexane	7.86	57	6562	9.03	ug/L		97
66) benzene	10.14	78	47127	10.00	ug/L		96
67) tert-amyl methyl ether	10.20	73	47053	9.69	ug/L		99
68) heptane	10.36	57	3857	8.95	ug/L		93
69) isopropyl acetate	10.12	43	29139	9.83	ug/L		96
70) 1,2-dichloroethane	10.18	62	17847	9.44	ug/L		99
71) trichloroethene	10.92	95	12224	10.04	ug/L		96
72) 2-nitropropane	11.75	41	5710	9.39	ug/L		90
73) 2-chloroethyl vinyl ether	11.79	63	45253	49.32	ug/L		97
74) methyl methacrylate	11.24	100	3176	9.53	ug/L		97
75) 1,2-dichloropropane	11.19	63	13058	10.41	ug/L		97
76) dibromomethane	11.36	93	8772	9.90	ug/L		89
77) methylcyclohexane	11.13	83	12190	9.03	ug/L		91
78) bromodichloromethane	11.51	83	18636	9.78	ug/L		98
80) cis-1,3-dichloropropene	12.00	75	21141	9.98	ug/L		97
82) 4-methyl-2-pentanone	12.13	58	5508	8.84	ug/L		89
83) toluene	12.38	92	28737	9.81	ug/L		96
84) 3-methyl-1-butanol	12.17	55	18123	191.28	ug/L		93
85) trans-1,3-dichloropropene	12.62	75	19743	9.52	ug/L		92
86) ethyl methacrylate	12.63	69	16015	9.25	ug/L		98
87) 1,1,2-trichloroethane	12.84	83	10212	9.92	ug/L		93
88) 2-hexanone	13.05	58	4627	8.42	ug/L	#	80
90) tetrachloroethene	13.01	164	11085	9.90	ug/L		98
91) 1,3-dichloropropane	13.03	76	19202	9.96	ug/L		93
92) butyl acetate	13.13	56	9069	10.01	ug/L	#	81
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	23806	99.08	ug/L		97
94) dibromochloromethane	13.31	129	16288	9.94	ug/L		94
95) 1,2-dibromoethane	13.46	107	13007	9.81	ug/L		98
97) chlorobenzene	13.96	112	34561	10.04	ug/L		89
98) 1,1,1,2-tetrachloroethane	14.03	131	16466	9.87	ug/L		99
99) ethylbenzene	14.03	91	57632	10.08	ug/L		98
100) m,p-xylene	14.15	106	44603	20.65	ug/L		91
101) o-xylene	14.58	106	23534	10.04	ug/L		98
102) styrene	14.60	104	37059	9.67	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration

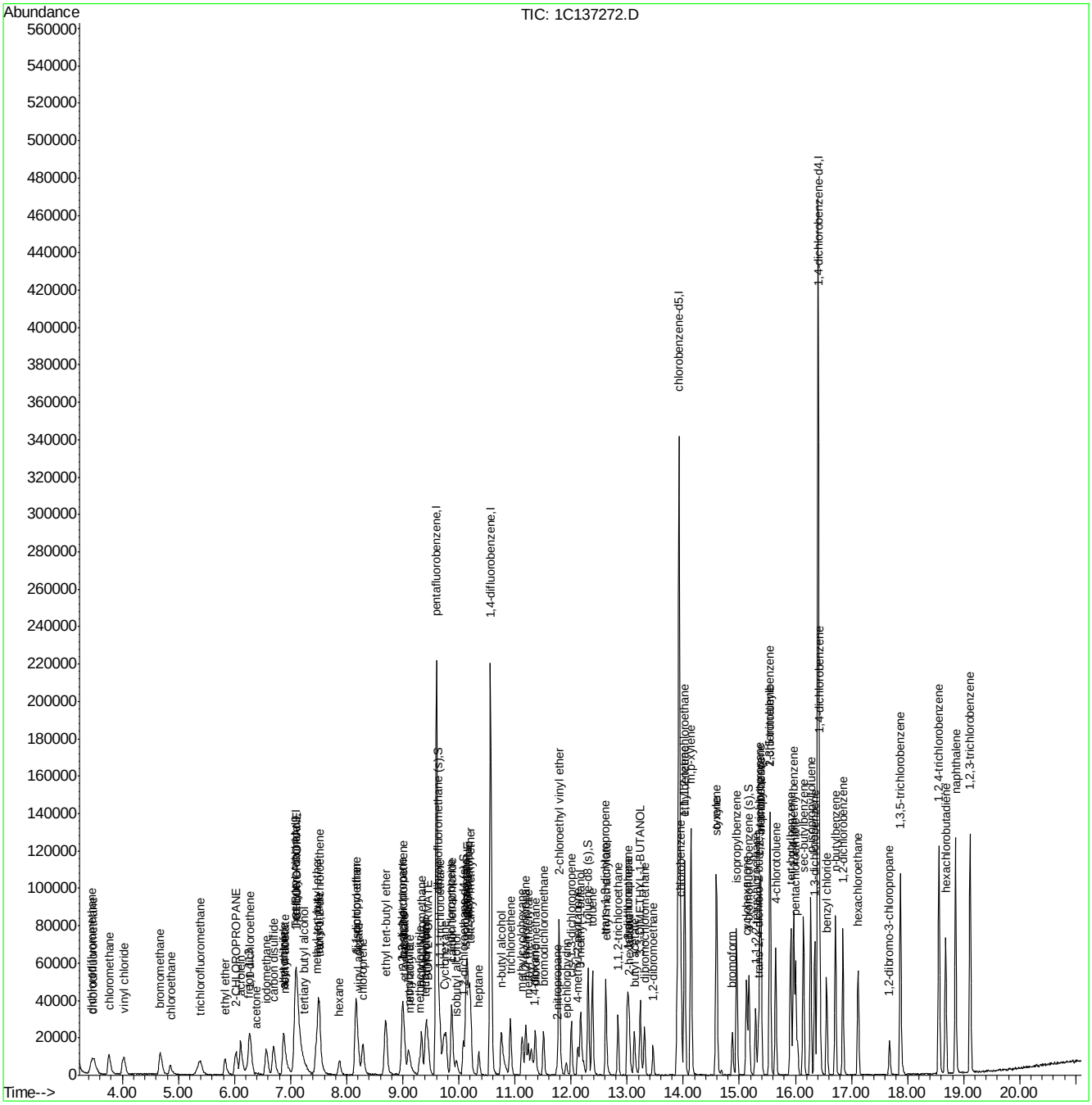
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) bromoform	14.88	173	13367	9.56	ug/L	96
106) isopropylbenzene	14.95	105	61020	9.67	ug/L	99
108) cyclohexanone	15.13	55	24201	133.77	ug/L	97
109) bromobenzene	15.37	156	19208	10.04	ug/L	91
110) 1,1,2,2-tetrachloroethane	15.29	83	20006	9.98	ug/L	97
111) trans-1,4-dichloro-2-buten	15.34	53	5236	10.80	ug/L	91
112) 1,2,3-trichloropropane	15.36	110	5416	10.10	ug/L	92
113) n-propylbenzene	15.39	91	66740	9.90	ug/L	98
114) 2-chlorotoluene	15.54	126	15641	9.60	ug/L	100
115) 4-chlorotoluene	15.65	91	44870	10.15	ug/L	97
116) 1,3,5-trimethylbenzene	15.55	105	55012	9.55	ug/L	98
117) tert-butylbenzene	15.92	119	45795	9.11	ug/L	99
118) pentachloroethane	16.01	167	15176	9.42	ug/L	98
119) 1,2,4-trimethylbenzene	15.97	105	55719	9.72	ug/L	99
120) sec-butylbenzene	16.15	105	69868	9.30	ug/L	98
121) 1,3-dichlorobenzene	16.35	146	36479	9.95	ug/L	98
122) p-isopropyltoluene	16.27	119	62095	9.44	ug/L	99
124) 1,4-dichlorobenzene	16.43	146	38634	9.98	ug/L	98
125) benzyl chloride	16.56	91	43677	10.52	ug/L	99
126) 1,2-dichlorobenzene	16.85	146	39216	9.72	ug/L	99
127) n-butylbenzene	16.71	92	29533	9.48	ug/L	97
128) 1,2-dibromo-3-chloropropan	17.68	75	5540	9.83	ug/L	94
129) 1,3,5-trichlorobenzene	17.87	180	42103	9.10	ug/L	97
130) 1,2,4-trichlorobenzene	18.56	180	49163	9.24	ug/L	99
131) hexachlorobutadiene	18.68	225	20205	8.92	ug/L	99
132) naphthalene	18.86	128	119748	9.49	ug/L	100
133) 1,2,3-trichlorobenzene	19.12	180	51694	9.35	ug/L	100
134) hexachloroethane	17.12	201	13748	8.90	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137272.D
Acq On : 20 Feb 2015 12:19 pm
Operator : shannont
Sample : ic6103-10
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 20 13:02:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:01:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.10	65	151326	500.00	ug/L		0.01
5) pentafluorobenzene	9.60	168	224108	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	234158	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	214150	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	136320	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	71303	49.48	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.96%				
54) 1,2-dichloroethane-d4 (s)	10.07	65	80455	46.58	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 93.16%				
81) toluene-d8 (s)	12.30	98	226979	47.36	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 94.72%				
107) 4-bromofluorobenzene (s)	15.17	95	93571	50.11	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.22%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	27055	103.10	ug/L		98
3) 1,4-dioxane	11.33	88	10565	550.94	ug/L		82
10) chlorodifluoromethane	3.47	51	43287	21.00	ug/L		99
11) dichlorodifluoromethane	3.47	85	37602	19.63	ug/L		97
13) chloromethane	3.76	50	46540	19.68	ug/L		94
14) vinyl chloride	4.02	62	47752	19.96	ug/L		99
15) bromomethane	4.67	94	32295	19.09	ug/L		96
16) chloroethane	4.85	64	17128	19.03	ug/L		96
20) trichlorofluoromethane	5.38	101	43771	19.93	ug/L		89
21) ethyl ether	5.82	74	13716	22.89	ug/L		97
23) acrolein	6.10	56	60216	187.34	ug/L		98
24) 1,1-dichloroethene	6.27	96	25138	21.98	ug/L		96
25) acetone	6.37	43	10042	22.15	ug/L	#	94
26) acetonitrile	6.86	40	27479	169.56	ug/L		90
27) allyl chloride	6.87	76	12782	23.40	ug/L		95
28) iodomethane	6.56	142	61498	20.97	ug/L		97
29) carbon disulfide	6.69	76	93859	21.05	ug/L		97
30) 2-CHLOROPROPANE	6.02	43	42505	21.51	ug/L		98
31) methylene chloride	7.09	84	29746	21.23	ug/L		98
32) methyl acetate	6.89	43	23900	21.05	ug/L		95
33) methyl tert butyl ether	7.46	73	98030	20.99	ug/L		96
34) trans-1,2-dichloroethene	7.51	96	23936	20.72	ug/L		97
35) 1-CHLOROPROPANE	7.12	42	54044	14.27	ug/L	#	85
36) di-isopropyl ether	8.16	45	85292	20.07	ug/L		90
37) 2-butanone	9.01	72	3552	25.93	ug/L	#	3
38) 1,1-dichloroethane	8.16	63	48135	21.59	ug/L		98
39) chloroprene	8.28	53	31927	20.68	ug/L		97
40) acrylonitrile	7.48	53	49709	111.16	ug/L		97
41) vinyl acetate	8.19	86	2689	26.77	ug/L		49
42) ethyl tert-butyl ether	8.69	59	93069	20.28	ug/L		99
43) ethyl acetate	9.02	45	3872	29.71	ug/L		65
44) 2,2-dichloropropane	8.98	77	50594	21.49	ug/L		96
45) cis-1,2-dichloroethene	8.99	96	29349	21.97	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
46) propionitrile	9.08	54	44258	222.06 ug/L	80
47) methylacrylate	9.10	55	30435	23.41 ug/L	98
48) bromochloromethane	9.33	128	16096	21.77 ug/L	95
49) tetrahydrofuran	9.39	72	4107	27.09 ug/L	85
50) chloroform	9.41	85	32225	22.06 ug/L	97
51) T-BUTYL FORMATE	9.44	59	29339	19.91 ug/L	99
52) isobutyl alcohol	9.95	43	17296	212.13 ug/L	97
55) freon 113	6.26	151	17432	21.06 ug/L	98
56) methacrylonitrile	9.29	67	11348	24.40 ug/L	94
57) 1,1,1-trichloroethane	9.66	97	45794	21.49 ug/L	97
58) Cyclohexane	9.73	84	28325	22.52 ug/L	90
60) ISO-OCTANE	10.15	57	58081	21.04 ug/L	83
61) epichlorohydrin	11.91	57	15505	108.14 ug/L	96
62) n-butyl alcohol	10.75	56	52601	1075.09 ug/L	99
63) carbon tetrachloride	9.87	117	41360	21.23 ug/L	92
64) 1,1-dichloropropene	9.86	75	29402	21.36 ug/L	91
65) hexane	7.86	57	14546	21.50 ug/L	91
66) benzene	10.14	78	96614	21.10 ug/L	97
67) tert-amyl methyl ether	10.20	73	92481	19.80 ug/L	98
68) heptane	10.35	57	8373	21.39 ug/L	95
69) isopropyl acetate	10.11	43	56946	20.14 ug/L	96
70) 1,2-dichloroethane	10.17	62	38903	22.49 ug/L	96
71) trichloroethene	10.92	95	25815	21.37 ug/L	95
72) 2-nitropropane	11.75	41	12171	21.28 ug/L	96
73) 2-chloroethyl vinyl ether	11.78	63	90122	101.86 ug/L	97
74) methyl methacrylate	11.23	100	7120	26.18 ug/L	95
75) 1,2-dichloropropane	11.19	63	26008	20.53 ug/L	99
76) dibromomethane	11.36	93	18287	21.74 ug/L	93
77) methylcyclohexane	11.13	83	25878	20.43 ug/L	98
78) bromodichloromethane	11.51	83	38147	20.97 ug/L	91
80) cis-1,3-dichloropropene	12.00	75	44448	21.46 ug/L	96
82) 4-methyl-2-pentanone	12.12	58	11792	22.29 ug/L	98
83) toluene	12.38	92	59121	21.13 ug/L	94
84) 3-methyl-1-butanol	12.17	55	36620	423.22 ug/L	95
85) trans-1,3-dichloropropene	12.61	75	42737	22.31 ug/L	92
86) ethyl methacrylate	12.62	69	34125	22.10 ug/L	94
87) 1,1,2-trichloroethane	12.83	83	21652	21.65 ug/L	99
88) 2-hexanone	13.04	58	11214	26.28 ug/L	92
90) tetrachloroethene	13.01	164	23691	22.02 ug/L	96
91) 1,3-dichloropropane	13.03	76	40560	21.80 ug/L	98
92) butyl acetate	13.13	56	17768	20.21 ug/L	99
93) 3,3-DIMETHYL-1-BUTANOL	13.24	57	48030	207.17 ug/L	97
94) dibromochloromethane	13.31	129	34270	21.59 ug/L	97
95) 1,2-dibromoethane	13.46	107	27977	22.05 ug/L	99
97) chlorobenzene	13.96	112	72140	21.53 ug/L	98
98) 1,1,1,2-tetrachloroethane	14.03	131	33459	21.62 ug/L	97
99) ethylbenzene	14.02	91	119596	21.48 ug/L	96
100) m,p-xylene	14.14	106	90245	42.43 ug/L	97
101) o-xylene	14.58	106	48486	21.31 ug/L	98
102) styrene	14.60	104	77546	21.90 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration

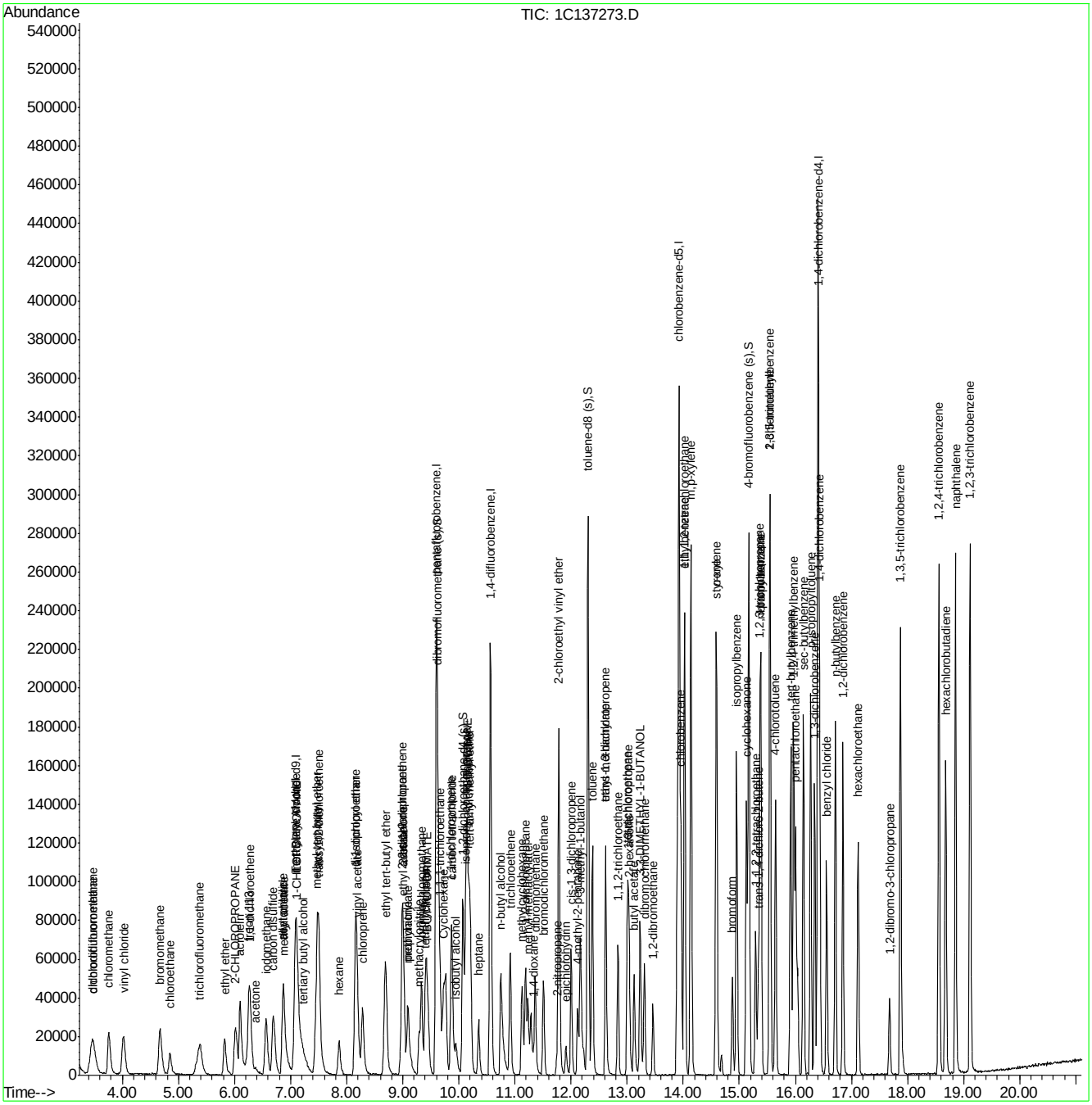
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) bromoform	14.88	173	28640	22.02	ug/L	99
106) isopropylbenzene	14.95	105	127756	22.90	ug/L	98
108) cyclohexanone	15.13	55	67755	273.40	ug/L	99
109) bromobenzene	15.37	156	38865	22.24	ug/L	98
110) 1,1,2,2-tetrachloroethane	15.29	83	42601	23.04	ug/L	93
111) trans-1,4-dichloro-2-buten	15.34	53	11151	23.93	ug/L	96
112) 1,2,3-trichloropropane	15.36	110	11057	23.19	ug/L	95
113) n-propylbenzene	15.39	91	138566	22.62	ug/L	99
114) 2-chlorotoluene	15.54	126	33627	23.48	ug/L	94
115) 4-chlorotoluene	15.65	91	92497	22.60	ug/L	99
116) 1,3,5-trimethylbenzene	15.55	105	115597	23.11	ug/L	99
117) tert-butylbenzene	15.92	119	99692	23.52	ug/L	98
118) pentachloroethane	16.01	167	31961	23.47	ug/L	96
119) 1,2,4-trimethylbenzene	15.97	105	115668	22.85	ug/L	100
120) sec-butylbenzene	16.14	105	150797	23.71	ug/L	98
121) 1,3-dichlorobenzene	16.35	146	76603	22.68	ug/L	97
122) p-isopropyltoluene	16.27	119	131347	22.95	ug/L	100
124) 1,4-dichlorobenzene	16.43	146	79780	22.29	ug/L	98
125) benzyl chloride	16.56	91	90576	22.04	ug/L	99
126) 1,2-dichlorobenzene	16.85	146	82939	23.24	ug/L	98
127) n-butylbenzene	16.71	92	64170	23.49	ug/L	98
128) 1,2-dibromo-3-chloropropan	17.68	75	11860	24.10	ug/L	96
129) 1,3,5-trichlorobenzene	17.87	180	92182	23.31	ug/L	99
130) 1,2,4-trichlorobenzene	18.56	180	104018	23.28	ug/L	98
131) hexachlorobutadiene	18.68	225	45272	24.17	ug/L	94
132) naphthalene	18.86	128	254875	23.16	ug/L	99
133) 1,2,3-trichlorobenzene	19.12	180	110407	23.16	ug/L	100
134) hexachloroethane	17.12	201	30172	24.53	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137273.D
Acq On : 20 Feb 2015 12:47 pm
Operator : shannont
Sample : ic6103-20
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 13:22:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 13:20:27 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.11	65	155038	500.00	ug/L		0.02
5) pentafluorobenzene	9.60	168	232205	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	239115	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	227402	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	149717	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	70453	40.02	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 80.04%				
54) 1,2-dichloroethane-d4 (s)	10.07	65	76772	36.53	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 73.06%				
81) toluene-d8 (s)	12.30	98	221975	37.96	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 75.92%#				
107) 4-bromofluorobenzene (s)	15.17	95	92662	36.74	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 73.48%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.24	59	70588	269.31	ug/L		91
3) 1,4-dioxane	11.33	88	28571	1406.47	ug/L		97
10) chlorodifluoromethane	3.49	51	117235	55.41	ug/L		96
11) dichlorodifluoromethane	3.47	85	98960	51.80	ug/L		99
13) chloromethane	3.77	50	135286	52.88	ug/L		97
14) vinyl chloride	4.03	62	136302	52.09	ug/L		96
15) bromomethane	4.68	94	94805	49.96	ug/L		99
16) chloroethane	4.85	64	46622	50.34	ug/L		97
20) trichlorofluoromethane	5.38	101	127161	57.62	ug/L		94
21) ethyl ether	5.82	74	34862	56.41	ug/L		98
23) acrolein	6.10	56	162661	490.97	ug/L		97
24) 1,1-dichloroethene	6.28	96	66130	51.23	ug/L		98
25) acetone	6.36	43	23880	48.25	ug/L		94
26) acetonitrile	6.84	40	77230	484.51	ug/L		99
27) allyl chloride	6.86	76	32526	54.48	ug/L	#	87
28) iodomethane	6.56	142	166673	54.67	ug/L		97
29) carbon disulfide	6.69	76	251680	48.32	ug/L		97
30) 2-CHLOROPROPANE	6.02	43	112143	52.45	ug/L		98
31) methylene chloride	7.09	84	79169	51.17	ug/L		98
32) methyl acetate	6.88	43	63411	52.97	ug/L		100
33) methyl tert butyl ether	7.47	73	255620	51.32	ug/L		96
34) trans-1,2-dichloroethene	7.51	96	62872	51.45	ug/L		96
35) 1-CHLOROPROPANE	7.12	42	119909	33.79	ug/L		92
36) di-isopropyl ether	8.16	45	224525	51.44	ug/L		98
37) 2-butanone	8.99	72	8929	54.79	ug/L		98
38) 1,1-dichloroethane	8.16	63	122151	51.13	ug/L		99
39) chloroprene	8.28	53	82472	53.15	ug/L		99
40) acrylonitrile	7.47	53	129506	283.78	ug/L		99
41) vinyl acetate	8.19	86	8370	68.78	ug/L		93
42) ethyl tert-butyl ether	8.70	59	248163	52.73	ug/L		96
43) ethyl acetate	9.02	45	9473	56.45	ug/L		87
44) 2,2-dichloropropane	8.99	77	131592	51.12	ug/L		97
45) cis-1,2-dichloroethene	9.00	96	74834	54.06	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) propionitrile	9.08	54	111219	588.38	ug/L	97
47) methylacrylate	9.09	55	78734	55.31	ug/L	98
48) bromochloromethane	9.33	128	40896	53.13	ug/L	96
49) tetrahydrofuran	9.38	72	10903	62.07	ug/L	92
50) chloroform	9.41	85	81288	52.38	ug/L	100
51) T-BUTYL FORMATE	9.44	59	79186	52.94	ug/L	99
52) isobutyl alcohol	9.94	43	46035	534.12	ug/L	98
55) freon 113	6.27	151	49315	61.52	ug/L	94
56) methacrylonitrile	9.29	67	27483	53.14	ug/L	91
57) 1,1,1-trichloroethane	9.67	97	121567	54.03	ug/L	94
58) Cyclohexane	9.74	84	76282	57.37	ug/L	91
60) ISO-OCTANE	10.15	57	169179	61.87	ug/L	97
61) epichlorohydrin	11.91	57	39951	277.07	ug/L	91
62) n-butyl alcohol	10.74	56	141711	2940.34	ug/L	97
63) carbon tetrachloride	9.88	117	109180	52.45	ug/L	96
64) 1,1-dichloropropene	9.86	75	76004	52.13	ug/L	97
65) hexane	7.86	57	38877	57.91	ug/L	97
66) benzene	10.14	78	247050	50.28	ug/L	99
67) tert-amyl methyl ether	10.20	73	246916	52.80	ug/L	99
68) heptane	10.35	57	23796	59.83	ug/L	89
69) isopropyl acetate	10.11	43	143120	51.12	ug/L	96
70) 1,2-dichloroethane	10.16	62	96396	53.44	ug/L	99
71) trichloroethene	10.91	95	64073	51.33	ug/L	98
72) 2-nitropropane	11.75	41	29666	48.75	ug/L	95
73) 2-chloroethyl vinyl ether	11.78	63	231040	274.72	ug/L	98
74) methyl methacrylate	11.23	100	17882	58.37	ug/L	97
75) 1,2-dichloropropane	11.19	63	66472	51.67	ug/L	99
76) dibromomethane	11.36	93	46515	52.88	ug/L	92
77) methylcyclohexane	11.13	83	70037	57.02	ug/L	97
78) bromodichloromethane	11.51	83	97208	52.45	ug/L	95
80) cis-1,3-dichloropropene	12.00	75	112033	51.54	ug/L	98
82) 4-methyl-2-pentanone	12.12	58	31277	58.23	ug/L	97
83) toluene	12.38	92	153349	52.37	ug/L	96
84) 3-methyl-1-butanol	12.16	55	94912	1130.67	ug/L	97
85) trans-1,3-dichloropropene	12.61	75	109483	55.50	ug/L	96
86) ethyl methacrylate	12.62	69	89366	58.84	ug/L	99
87) 1,1,2-trichloroethane	12.83	83	54730	53.78	ug/L	95
88) 2-hexanone	13.04	58	27979	58.12	ug/L	94
90) tetrachloroethene	13.01	164	59140	48.84	ug/L	98
91) 1,3-dichloropropane	13.03	76	102190	51.86	ug/L	98
92) butyl acetate	13.12	56	46979	50.41	ug/L	94
93) 3,3-DIMETHYL-1-BUTANOL	13.23	57	127652	528.91	ug/L	98
94) dibromochloromethane	13.31	129	86580	50.59	ug/L	97
95) 1,2-dibromoethane	13.46	107	71227	51.93	ug/L	96
97) chlorobenzene	13.96	112	185668	47.82	ug/L	97
98) 1,1,1,2-tetrachloroethane	14.02	131	89926	53.09	ug/L	96
99) ethylbenzene	14.02	91	307820	48.92	ug/L	99
100) m,p-xylene	14.14	106	233714	99.90	ug/L	100
101) o-xylene	14.58	106	127417	53.36	ug/L	96
102) styrene	14.60	104	201885	53.05	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration

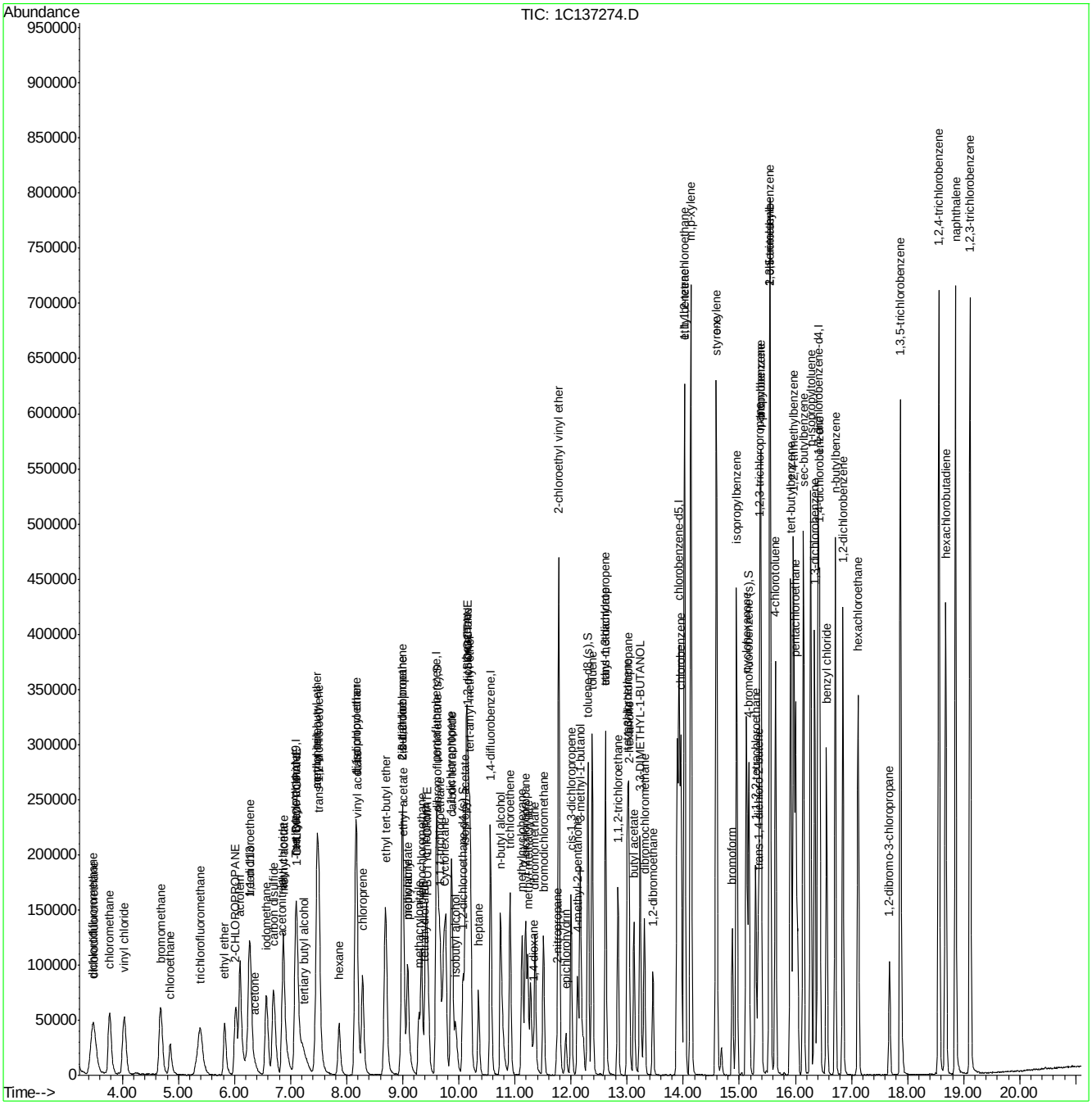
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) bromoform	14.88	173	74029	53.55	ug/L		94
106) isopropylbenzene	14.95	105	335908	50.27	ug/L		99
108) cyclohexanone	15.13	55	156578	453.58	ug/L		99
109) bromobenzene	15.37	156	101069	51.71	ug/L		98
110) 1,1,2,2-tetrachloroethane	15.29	83	105933	50.31	ug/L		98
111) trans-1,4-dichloro-2-buten	15.33	53	27490	50.28	ug/L	#	77
112) 1,2,3-trichloropropane	15.36	110	27178	50.69	ug/L		91
113) n-propylbenzene	15.39	91	359066	48.19	ug/L		99
114) 2-chlorotoluene	15.54	126	87274	53.33	ug/L		99
115) 4-chlorotoluene	15.65	91	234872	47.39	ug/L		99
116) 1,3,5-trimethylbenzene	15.55	105	309264	50.98	ug/L		99
117) tert-butylbenzene	15.92	119	267372	52.16	ug/L		99
118) pentachloroethane	16.01	167	85578	54.82	ug/L		98
119) 1,2,4-trimethylbenzene	15.97	105	307526	49.84	ug/L		99
120) sec-butylbenzene	16.14	105	401032	51.48	ug/L		98
121) 1,3-dichlorobenzene	16.34	146	196276	45.29	ug/L		99
122) p-isopropyltoluene	16.27	119	353652	50.23	ug/L		99
124) 1,4-dichlorobenzene	16.43	146	201029	45.77	ug/L		99
125) benzyl chloride	16.56	91	235386	48.31	ug/L		100
126) 1,2-dichlorobenzene	16.85	146	214634	48.81	ug/L		98
127) n-butylbenzene	16.71	92	166484	47.87	ug/L		99
128) 1,2-dibromo-3-chloropropan	17.68	75	29177	51.10	ug/L		91
129) 1,3,5-trichlorobenzene	17.87	180	247775	49.19	ug/L		99
130) 1,2,4-trichlorobenzene	18.56	180	280133	49.26	ug/L		97
131) hexachlorobutadiene	18.68	225	121748	50.66	ug/L		95
132) naphthalene	18.86	128	655467	47.13	ug/L		99
133) 1,2,3-trichlorobenzene	19.12	180	287278	48.07	ug/L		100
134) hexachloroethane	17.12	201	83520	56.95	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137274.D
Acq On : 20 Feb 2015 1:16 pm
Operator : shannont
Sample : ic6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:12:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:09:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	7.11	65	183946	500.00	ug/L		0.00
5) pentafluorobenzene	9.60	168	255836	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.56	114	272207	50.00	ug/L		0.00
89) chlorobenzene-d5	13.93	117	265179	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.40	152	197522	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.63	113	359394	194.69	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 389.38%#				
54) 1,2-dichloroethane-d4 (s)	10.07	65	383839	178.43	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 356.86%#				
81) toluene-d8 (s)	12.30	98	1176372	187.13	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 374.26%#				
107) 4-bromofluorobenzene (s)	15.17	95	516972	166.00	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 332.00%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.23	59	362724	1129.32	ug/L		70
3) 1,4-dioxane	11.32	88	161251	6207.13	ug/L		95
10) chlorodifluoromethane	3.47	51	572753	225.31	ug/L		96
11) dichlorodifluoromethane	3.47	85	369104	158.97	ug/L		98
13) chloromethane	3.78	50	693522	237.05	ug/L		100
14) vinyl chloride	4.04	62	680660	225.50	ug/L		99
15) bromomethane	4.67	94	457294	215.31	ug/L		100
16) chloroethane	4.85	64	216808	206.89	ug/L		98
20) trichlorofluoromethane	5.36	101	578717	212.28	ug/L		100
21) ethyl ether	5.82	74	173010	240.82	ug/L		97
24) 1,1-dichloroethene	6.27	96	337358	227.62	ug/L		100
25) acetone	6.35	43	116625	210.43	ug/L		97
26) acetonitrile	6.84	40	382729	2192.02	ug/L		98
27) allyl chloride	6.86	76	163323	236.00	ug/L		95
28) iodomethane	6.56	142	849564	243.91	ug/L		96
29) carbon disulfide	6.69	76	1262061	217.22	ug/L		99
30) 2-CHLOROPROPANE	6.01	43	548030	223.29	ug/L		95
31) methylene chloride	7.08	84	399127	230.91	ug/L		98
32) methyl acetate	6.87	43	317550	232.64	ug/L		100
33) methyl tert butyl ether	7.46	73	1280551	229.70	ug/L		95
34) trans-1,2-dichloroethene	7.50	96	315762	227.45	ug/L		94
35) 1-CHLOROPROPANE	7.11	42	544170	157.79	ug/L	#	91
36) di-isopropyl ether	8.16	45	1130119	230.26	ug/L	#	62
37) 2-butanone	8.98	72	47278	242.64	ug/L	#	62
38) 1,1-dichloroethane	8.16	63	605796	225.44	ug/L		99
39) chloroprene	8.28	53	416379	231.52	ug/L		95
40) acrylonitrile	7.47	53	656804	1250.71	ug/L		99
41) vinyl acetate	8.18	86	50902	301.60	ug/L		72
42) ethyl tert-butyl ether	8.69	59	1261571	237.05	ug/L		94
43) ethyl acetate	9.01	45	50232	248.80	ug/L		85
44) 2,2-dichloropropane	8.98	77	627955	214.71	ug/L		97
45) cis-1,2-dichloroethene	8.99	96	377833	239.71	ug/L		99
46) propionitrile	9.08	54	597065	2692.19	ug/L		86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) methylacrylate	9.08	55	412859	248.99	ug/L		97
48) bromochloromethane	9.33	128	206828	237.21	ug/L		96
49) tetrahydrofuran	9.38	72	55061	257.71	ug/L		85
50) chloroform	9.41	85	405003	230.54	ug/L		96
51) T-BUTYL FORMATE	9.44	59	403867	236.89	ug/L		99
52) isobutyl alcohol	9.94	43	257965	2597.75	ug/L		99
55) freon 113	6.25	151	193198	182.82	ug/L		92
56) methacrylonitrile	9.28	67	151502	252.87	ug/L		94
57) 1,1,1-trichloroethane	9.66	97	612212	234.01	ug/L		97
58) Cyclohexane	9.73	84	346290	211.19	ug/L		98
60) ISO-OCTANE	10.15	57	585788	160.14	ug/L	#	54
61) epichlorohydrin	11.90	57	214317	1245.32	ug/L		96
62) n-butyl alcohol	10.74	56	826842	13978.87	ug/L		97
63) carbon tetrachloride	9.88	117	542691	218.80	ug/L		99
64) 1,1-dichloropropene	9.86	75	401916	232.11	ug/L		99
65) hexane	7.86	57	140236	155.92	ug/L		98
66) benzene	10.13	78	1299148	229.11	ug/L		100
67) tert-amyl methyl ether	10.20	73	1280546	234.78	ug/L		98
68) heptane	10.35	57	82378	154.00	ug/L		91
69) isopropyl acetate	10.11	43	734760	222.24	ug/L		98
70) 1,2-dichloroethane	10.17	62	480721	228.41	ug/L		99
71) trichloroethene	10.91	95	334810	229.67	ug/L		99
72) 2-nitropropane	11.75	41	151352	217.54	ug/L		96
73) 2-chloroethyl vinyl ether	11.78	63	1217232	1226.30	ug/L		100
74) methyl methacrylate	11.23	100	97747	257.50	ug/L		99
75) 1,2-dichloropropane	11.19	63	346812	231.62	ug/L		99
76) dibromomethane	11.36	93	239165	233.54	ug/L		99
77) methylcyclohexane	11.13	83	297147	185.75	ug/L		97
78) bromodichloromethane	11.51	83	507116	234.88	ug/L		99
80) cis-1,3-dichloropropene	12.00	75	590701	234.29	ug/L		97
82) 4-methyl-2-pentanone	12.11	58	170042	260.02	ug/L		98
83) toluene	12.38	92	810284	237.09	ug/L		99
84) 3-methyl-1-butanol	12.16	55	545627	5434.33	ug/L		99
85) trans-1,3-dichloropropene	12.61	75	569201	243.97	ug/L		98
86) ethyl methacrylate	12.61	69	486883	263.84	ug/L		98
87) 1,1,2-trichloroethane	12.83	83	286269	240.53	ug/L		97
88) 2-hexanone	13.03	58	157142	262.79	ug/L		96
90) tetrachloroethene	13.01	164	319615	221.73	ug/L		97
91) 1,3-dichloropropane	13.03	76	542574	231.26	ug/L		98
92) butyl acetate	13.12	56	255185	230.78	ug/L		99
93) 3,3-DIMETHYL-1-BUTANOL	13.23	57	793341	2730.26	ug/L		99
94) dibromochloromethane	13.30	129	464914	229.52	ug/L		98
95) 1,2-dibromoethane	13.46	107	378289	231.80	ug/L		95
97) chlorobenzene	13.96	112	1015926	223.40	ug/L		100
98) 1,1,1,2-tetrachloroethane	14.03	131	503872	247.13	ug/L		99
99) ethylbenzene	14.02	91	1683321	226.62	ug/L		100
100) m,p-xylene	14.14	106	1313890	473.04	ug/L		98
101) o-xylene	14.58	106	725058	252.19	ug/L		97
102) styrene	14.60	104	1171959	255.65	ug/L		98
104) bromoform	14.88	173	417195	250.95	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration

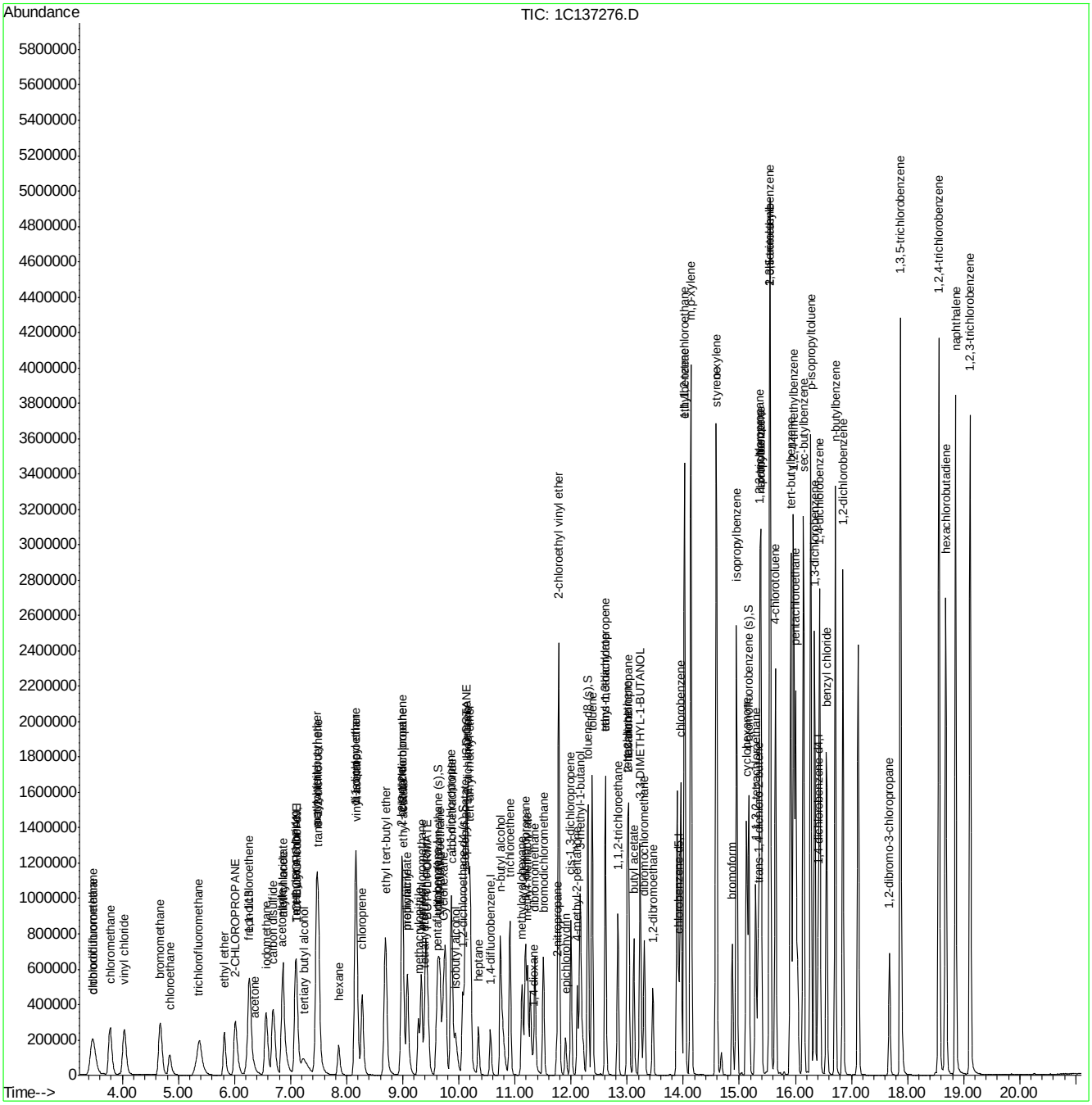
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
106) isopropylbenzene	14.95	105	1950272	215.34 ug/L	99
108) cyclohexanone	15.13	55	712898	1569.37 ug/L	96
109) bromobenzene	15.37	156	590112	223.18 ug/L	95
110) 1,1,2,2-tetrachloroethane	15.29	83	612926	217.40 ug/L	99
111) trans-1,4-dichloro-2-buten	15.33	53	146983	200.42 ug/L	87
112) 1,2,3-trichloropropane	15.36	110	155364	215.33 ug/L	90
113) n-propylbenzene	15.39	91	2081292	208.36 ug/L	100
114) 2-chlorotoluene	15.54	126	530657	236.93 ug/L	96
115) 4-chlorotoluene	15.65	91	1394469	211.67 ug/L	99
116) 1,3,5-trimethylbenzene	15.55	105	1978694	240.17 ug/L	99
117) tert-butylbenzene	15.92	119	1728697	245.09 ug/L	100
118) pentachloroethane	16.01	167	556443	257.01 ug/L	98
119) 1,2,4-trimethylbenzene	15.97	105	1986661	239.18 ug/L	99
120) sec-butylbenzene	16.14	105	2598576	242.61 ug/L	98
121) 1,3-dichlorobenzene	16.34	146	1245646	218.73 ug/L	99
122) p-isopropyltoluene	16.27	119	2375358	247.90 ug/L	100
124) 1,4-dichlorobenzene	16.43	146	1290524	222.96 ug/L	99
125) benzyl chloride	16.56	91	1463899	225.95 ug/L	99
126) 1,2-dichlorobenzene	16.85	146	1421506	241.45 ug/L	98
127) n-butylbenzene	16.71	92	1139407	242.99 ug/L	99
128) 1,2-dibromo-3-chloropropan	17.68	75	189796	245.67 ug/L	96
129) 1,3,5-trichlorobenzene	17.87	180	1728729	252.75 ug/L	100
130) 1,2,4-trichlorobenzene	18.56	180	1678523	218.66 ug/L	98
131) hexachlorobutadiene	18.68	225	774781	232.08 ug/L	99
132) naphthalene	18.86	128	3619544	196.45 ug/L	99
133) 1,2,3-trichlorobenzene	19.12	180	1520559	191.06 ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137276.D
Acq On : 20 Feb 2015 2:14 pm
Operator : shannont
Sample : ic6103-200
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 09:02:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Feb 20 15:13:09 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.08	65	155357	500.00	ug/L	-0.02
5) pentafluorobenzene	9.59	168	222279	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.56	114	233928	50.00	ug/L	0.00
89) chlorobenzene-d5	13.93	117	214140	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.40	152	131569	50.00	ug/L	0.00
System Monitoring Compounds						
53) dibromofluoromethane (s)	9.62	113	69519	48.45	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 96.90%			
54) 1,2-dichloroethane-d4 (s)	10.07	65	75577	46.89	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 93.78%			
81) toluene-d8 (s)	12.30	98	233722	49.84	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.68%			
107) 4-bromofluorobenzene (s)	15.17	95	93708	53.15	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.30%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.23	59	73660	267.12	ug/L	70
3) 1,4-dioxane	11.33	88	27670	1228.65	ug/L	95
10) chlorodifluoromethane	3.47	51	99110	44.56	ug/L	99
11) dichlorodifluoromethane	3.46	85	78521	43.45	ug/L	98
13) chloromethane	3.77	50	124297	48.42	ug/L	98
14) vinyl chloride	4.02	62	128874	49.39	ug/L	99
15) bromomethane	4.67	94	89423	48.34	ug/L	98
16) chloroethane	4.85	64	52886	58.42	ug/L	97
20) trichlorofluoromethane	5.37	101	119393	52.90	ug/L	99
21) ethyl ether	5.81	74	37536	58.18	ug/L	99
23) acrolein	6.09	56	161258	507.52	ug/L	97
24) 1,1-dichloroethene	6.27	96	68062	52.91	ug/L	97
25) acetone	6.36	43	24596	49.77	ug/L	93
26) acetonitrile	6.84	40	81095	521.50	ug/L	93
27) allyl chloride	6.86	76	34989	56.88	ug/L	97
28) iodomethane	6.56	142	160051	51.66	ug/L	95
29) carbon disulfide	6.68	76	256800	50.48	ug/L	98
30) 2-CHLOROPROPANE	6.02	43	118341	55.40	ug/L	95
31) methylene chloride	7.08	84	77836	50.84	ug/L	97
32) methyl acetate	6.88	43	55465	45.22	ug/L	97
33) methyl tert butyl ether	7.46	73	488580	99.45	ug/L	93
34) trans-1,2-dichloroethene	7.50	96	65409	53.55	ug/L	91
35) 1-CHLOROPROPANE	7.12	42	127091	52.60	ug/L	96
36) di-isopropyl ether	8.16	45	229093	52.74	ug/L	73
37) 2-butanone	8.98	72	9471	53.52	ug/L #	61
38) 1,1-dichloroethane	8.16	63	125277	52.99	ug/L	98
39) chloroprene	8.28	53	82231	52.49	ug/L	98
40) acrylonitrile	7.47	53	149146	298.71	ug/L	99
41) vinyl acetate	8.17	86	10653	55.59	ug/L	52
42) ethyl tert-butyl ether	8.68	59	234926	49.93	ug/L	95
43) ethyl acetate	9.01	45	10774	52.07	ug/L	79
44) 2,2-dichloropropane	8.99	77	135423	53.48	ug/L	98
45) cis-1,2-dichloroethene	8.99	96	74333	53.09	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) propionitrile	9.08	54	115859	539.06	ug/L		98
47) methylacrylate	9.09	55	83210	55.15	ug/L		98
48) bromochloromethane	9.33	128	39411	50.70	ug/L		98
49) tetrahydrofuran	9.38	72	11087	52.50	ug/L		98
50) chloroform	9.41	85	79030	50.98	ug/L		98
51) T-BUTYL FORMATE	9.44	59	81830	53.86	ug/L		99
52) isobutyl alcohol	9.93	43	46804	513.52	ug/L		96
55) freon 113	6.25	151	49970	57.23	ug/L		93
56) methacrylonitrile	9.28	67	29671	52.05	ug/L		98
57) 1,1,1-trichloroethane	9.66	97	122961	53.89	ug/L		95
58) Cyclohexane	9.73	84	80358	57.28	ug/L		96
60) ISO-OCTANE	10.15	57	144365	51.39	ug/L	#	59
61) epichlorohydrin	11.91	57	40474	263.60	ug/L		93
62) n-butyl alcohol	10.74	56	148119	2639.39	ug/L		99
63) carbon tetrachloride	9.88	117	109821	52.37	ug/L		100
64) 1,1-dichloropropene	9.86	75	85172	56.00	ug/L		99
65) hexane	7.86	57	27859	41.10	ug/L		94
66) benzene	10.13	78	254644	51.62	ug/L		99
67) tert-amyl methyl ether	10.20	73	235886	49.50	ug/L		98
68) heptane	10.35	57	21458	53.10	ug/L		98
69) isopropyl acetate	10.10	43	154963	54.49	ug/L		98
70) 1,2-dichloroethane	10.17	62	92379	50.51	ug/L		98
71) trichloroethene	10.91	95	66129	52.29	ug/L		95
72) 2-nitropropane	11.75	41	31520	52.50	ug/L		90
73) 2-chloroethyl vinyl ether	11.78	63	236270	270.28	ug/L		98
74) methyl methacrylate	11.23	100	19400	52.64	ug/L		88
75) 1,2-dichloropropane	11.18	63	69038	52.73	ug/L		99
76) dibromomethane	11.36	93	45296	50.59	ug/L		99
77) methylcyclohexane	11.13	83	71189	56.50	ug/L		88
78) bromodichloromethane	11.51	83	94585	50.21	ug/L		100
80) cis-1,3-dichloropropene	12.00	75	113579	51.48	ug/L		99
82) 4-methyl-2-pentanone	12.12	58	35226	58.02	ug/L		97
83) toluene	12.38	92	155466	51.23	ug/L		99
84) 3-methyl-1-butanol	12.16	55	98595	1053.20	ug/L		95
85) trans-1,3-dichloropropene	12.61	75	105073	51.34	ug/L		98
86) ethyl methacrylate	12.62	69	92385	53.58	ug/L		96
87) 1,1,2-trichloroethane	12.83	83	53940	51.66	ug/L		98
88) 2-hexanone	13.04	58	30703	56.59	ug/L		95
90) tetrachloroethene	13.01	164	60810	52.06	ug/L		99
91) 1,3-dichloropropane	13.03	76	102441	53.15	ug/L		96
92) butyl acetate	13.12	56	48484	53.01	ug/L		96
93) 3,3-DIMETHYL-1-BUTANOL	13.23	57	129675	527.04	ug/L		99
94) dibromochloromethane	13.30	129	83155	50.11	ug/L		99
95) 1,2-dibromoethane	13.45	107	70127	52.22	ug/L		96
97) chlorobenzene	13.96	112	185265	49.97	ug/L		98
98) 1,1,1,2-tetrachloroethane	14.03	131	86266	51.21	ug/L		100
99) ethylbenzene	14.02	91	307244	50.80	ug/L		100
100) m,p-xylene	14.13	106	238912	104.99	ug/L		97
101) o-xylene	14.58	106	127608	52.21	ug/L		98
102) styrene	14.60	104	206522	52.99	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration

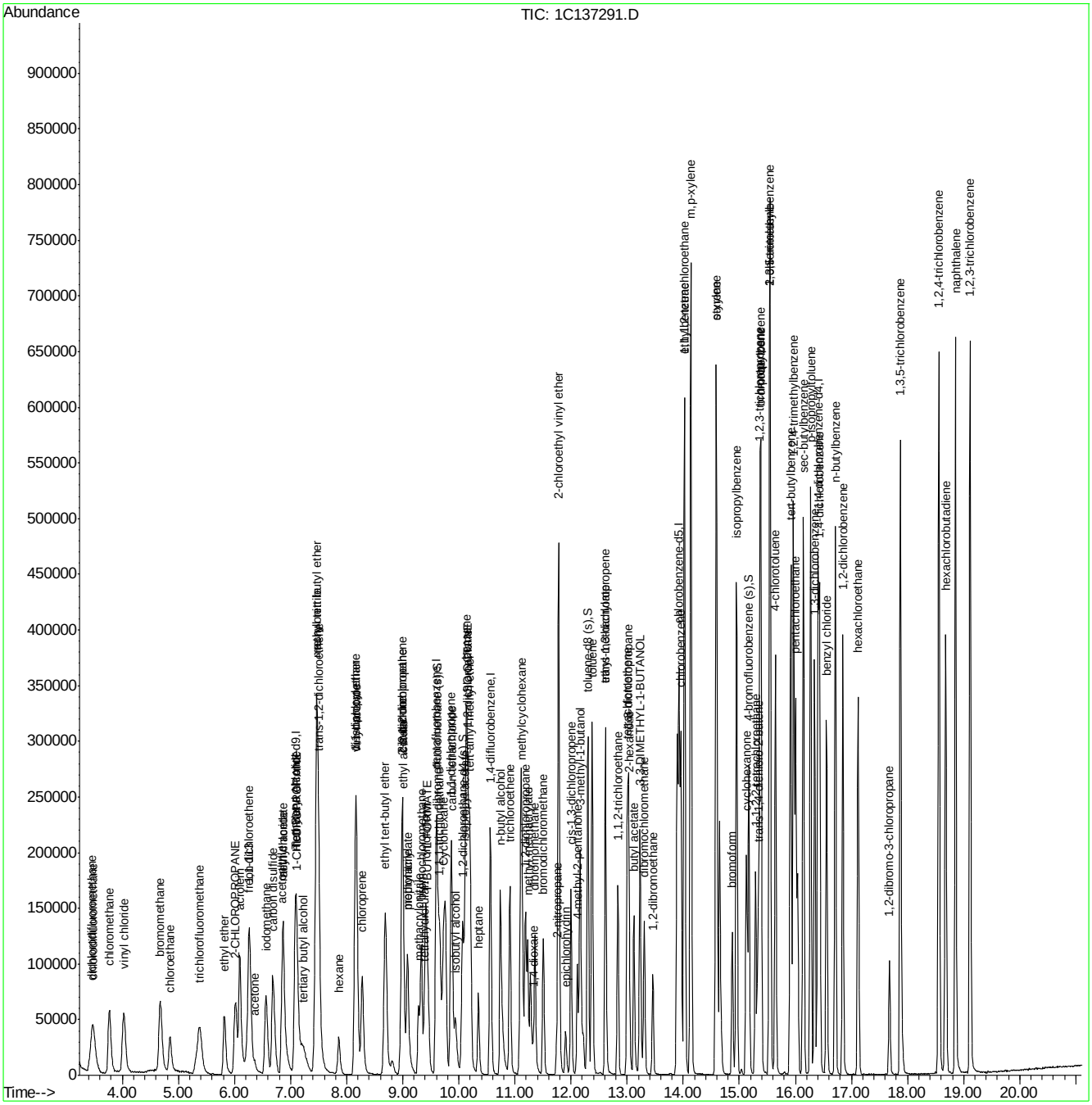
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
104) bromoform	14.88	173	72072	51.29 ug/L		94
106) isopropylbenzene	14.95	105	340176	56.37 ug/L		98
108) cyclohexanone	15.13	55	98782	340.15 ug/L		98
109) bromobenzene	15.37	156	99868	56.16 ug/L		97
110) 1,1,2,2-tetrachloroethane	15.29	83	103529	53.15 ug/L		99
111) trans-1,4-dichloro-2-buten	15.34	53	27753	56.88 ug/L	#	80
112) 1,2,3-trichloropropane	15.36	110	26685	54.85 ug/L		86
113) n-propylbenzene	15.38	91	383488	57.78 ug/L		99
114) 2-chlorotoluene	15.54	126	87461	56.32 ug/L		98
115) 4-chlorotoluene	15.65	91	234427	53.20 ug/L		99
116) 1,3,5-trimethylbenzene	15.55	105	308705	55.46 ug/L		100
117) tert-butylbenzene	15.92	119	270596	56.91 ug/L		99
118) pentachloroethane	16.01	167	84760	55.17 ug/L		96
119) 1,2,4-trimethylbenzene	15.97	105	315736	56.19 ug/L		99
120) sec-butylbenzene	16.14	105	406041	56.42 ug/L		99
121) 1,3-dichlorobenzene	16.34	146	186437	48.77 ug/L		99
122) p-isopropyltoluene	16.27	119	356048	55.03 ug/L		99
124) 1,4-dichlorobenzene	16.43	146	194842	49.92 ug/L		99
125) benzyl chloride	16.56	91	256199	58.38 ug/L		100
126) 1,2-dichlorobenzene	16.85	146	203457	50.87 ug/L		100
127) n-butylbenzene	16.71	92	170998	54.16 ug/L		97
128) 1,2-dibromo-3-chloropropan	17.68	75	28128	53.27 ug/L		97
129) 1,3,5-trichlorobenzene	17.87	180	231857	49.64 ug/L		100
130) 1,2,4-trichlorobenzene	18.56	180	260784	50.58 ug/L		99
131) hexachlorobutadiene	18.68	225	110593	49.68 ug/L		99
132) naphthalene	18.86	128	624918	51.05 ug/L		100
133) 1,2,3-trichlorobenzene	19.12	180	269972	51.33 ug/L		99
134) hexachloroethane	17.12	201	82279	58.32 ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 1C137291.D
Acq On : 23 Feb 2015 1:11 pm
Operator : shannont
Sample : ICV6103-50
Misc : MS80987,V1C6103,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 09:44:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Feb 24 09:43:30 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.090	65	133964	500.00	ug/L		-0.02
5) pentafluorobenzene	9.595	168	191428	50.00	ug/L		0.00
59) 1,4-difluorobenzene	10.563	114	204389	50.00	ug/L		0.00
89) chlorobenzene-d5	13.926	117	188973	50.00	ug/L		0.00
105) 1,4-dichlorobenzene-d4	16.405	152	120633	50.00	ug/L		0.00
System Monitoring Compounds							
53) dibromofluoromethane (s)	9.626	113	64777	52.42	ug/L		0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.84%				
54) 1,2-dichloroethane-d4 (s)	10.071	65	66170	47.67	ug/L		0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.34%				
81) toluene-d8 (s)	12.299	98	224043	54.69	ug/L		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 109.38%				
107) 4-bromofluorobenzene (s)	15.170	95	85971	53.18	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.36%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.226	59	24397	102.60	ug/L		87
3) 1,4-dioxane	11.331	88	9445	486.37	ug/L		88
10) chlorodifluoromethane	3.465	51	38425	20.06	ug/L		98
11) dichlorodifluoromethane	3.465	85	32007	20.57	ug/L		96
13) chloromethane	3.758	50	38284	17.32	ug/L		98
14) vinyl chloride	4.019	62	41046	18.27	ug/L		99
15) bromomethane	4.678	94	27914	17.52	ug/L		93
16) chloroethane	4.846	64	14899	19.11	ug/L		97
20) trichlorofluoromethane	5.379	101	37368	19.23	ug/L		98
21) ethyl ether	5.824	74	11702	21.06	ug/L		96
23) acrolein	6.101	56	38745	141.59	ug/L		93
24) 1,1-dichloroethene	6.263	96	20694	18.68	ug/L		92
25) acetone	6.373	43	7992	18.78	ug/L		99
26) acetonitrile	6.860	40	26465	197.62	ug/L		97
27) allyl chloride	6.865	76	10392	19.62	ug/L	#	84
28) iodomethane	6.561	142	52685	19.75	ug/L		94
29) carbon disulfide	6.687	76	78811	17.99	ug/L		98
30) 2-CHLOROPROPANE	6.017	43	36103	19.33	ug/L	#	93
31) methylene chloride	7.084	84	24750	18.77	ug/L		97
32) methyl acetate	6.891	43	21730	20.57	ug/L		95
33) methyl tert butyl ether	7.471	73	83353	19.70	ug/L		99
34) trans-1,2-dichloroethene	7.508	96	21296	20.24	ug/L		88
35) 1-CHLOROPROPANE	7.111	42	43754	19.54	ug/L	#	91
36) di-isopropyl ether	8.167	45	77863	20.81	ug/L		93
37) 2-butanone	9.004	72	2544	16.69	ug/L	#	25
38) 1,1-dichloroethane	8.162	63	39149	19.23	ug/L		98
39) chloroprene	8.282	53	27855	20.65	ug/L		96
40) acrylonitrile	7.477	53	43810	101.88	ug/L		99
41) vinyl acetate	8.188	86	2552	22.24	ug/L		91
42) ethyl tert-butyl ether	8.690	59	80534	19.87	ug/L		90
43) ethyl acetate	9.014	45	4937	29.66	ug/L		86
44) 2,2-dichloropropane	8.988	77	42542	19.51	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	cis-1,2-dichloroethene	8.993	96	24608	20.41	ug/L	93
46)	propionitrile	9.082	54	37188	200.91	ug/L	81
47)	methylacrylate	9.103	55	28002	21.55	ug/L	93
48)	bromochloromethane	9.333	128	14104	21.07	ug/L	93
49)	tetrahydrofuran	9.391	72	3515	19.33	ug/L	85
50)	chloroform	9.412	85	26505	19.85	ug/L	97
51)	T-BUTYL FORMATE	9.438	59	26914	20.57	ug/L	97
52)	isobutyl alcohol	9.945	43	15046	191.68	ug/L	96
55)	freon 113	6.258	151	16473	21.91	ug/L	98
56)	methacrylonitrile	9.292	67	9445	19.24	ug/L	89
57)	1,1,1-trichloroethane	9.663	97	39088	19.89	ug/L	95
58)	Cyclohexane	9.726	84	25561	21.16	ug/L	81
60)	ISO-OCTANE	10.155	57	52079	21.22	ug/L	97
61)	epichlorohydrin	11.907	57	14160	105.55	ug/L	93
62)	n-butyl alcohol	10.746	56	50144	1022.67	ug/L	99
63)	carbon tetrachloride	9.877	117	34137	18.63	ug/L	96
64)	1,1-dichloropropene	9.862	75	25738	19.37	ug/L	96
65)	hexane	7.864	57	14478	24.45	ug/L	93
66)	benzene	10.139	78	83914	19.47	ug/L	95
67)	tert-amyl methyl ether	10.196	73	81322	19.53	ug/L	96
68)	heptane	10.353	57	8302	23.51	ug/L	91
69)	isopropyl acetate	10.113	43	50173	20.19	ug/L	98
70)	1,2-dichloroethane	10.170	62	29979	18.76	ug/L	97
71)	trichloroethene	10.913	95	22240	20.13	ug/L	96
72)	2-nitropropane	11.755	41	10987	20.94	ug/L	99
73)	2-chloroethyl vinyl ether	11.781	63	79287	103.81	ug/L	99
74)	methyl methacrylate	11.237	100	6277	19.49	ug/L	90
75)	1,2-dichloropropane	11.190	63	22303	19.50	ug/L	99
76)	dibromomethane	11.358	93	15572	19.90	ug/L	98
77)	methylcyclohexane	11.133	83	24259	22.04	ug/L	95
78)	bromodichloromethane	11.509	83	32232	19.58	ug/L	98
80)	cis-1,3-dichloropropene	12.006	75	37989	19.71	ug/L	97
82)	4-methyl-2-pentanone	12.116	58	11333	21.37	ug/L	95
83)	toluene	12.377	92	51657	19.48	ug/L	97
84)	3-methyl-1-butanol	12.168	55	34677	423.96	ug/L	96
85)	trans-1,3-dichloropropene	12.613	75	36639	20.49	ug/L	95
86)	ethyl methacrylate	12.623	69	32026	21.26	ug/L	98
87)	1,1,2-trichloroethane	12.838	83	18609	20.40	ug/L	96
88)	2-hexanone	13.042	58	10103	21.31	ug/L	96
90)	tetrachloroethene	13.005	164	20905	20.28	ug/L	99
91)	1,3-dichloropropane	13.026	76	34620	20.36	ug/L	98
92)	butyl acetate	13.125	56	16454	20.39	ug/L	91
93)	3,3-DIMETHYL-1-BUTANOL	13.230	57	44960	207.07	ug/L	100
94)	dibromochloromethane	13.308	129	30001	20.49	ug/L	99
95)	1,2-dibromoethane	13.460	107	24634	20.79	ug/L	94
97)	chlorobenzene	13.957	112	65179	19.92	ug/L	99
98)	1,1,1,2-tetrachloroethane	14.030	131	29870	20.09	ug/L	99
99)	ethylbenzene	14.025	91	104881	19.65	ug/L	99
100)	m,p-xylene	14.140	106	81810	40.74	ug/L	92
101)	o-xylene	14.585	106	43509	20.17	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration

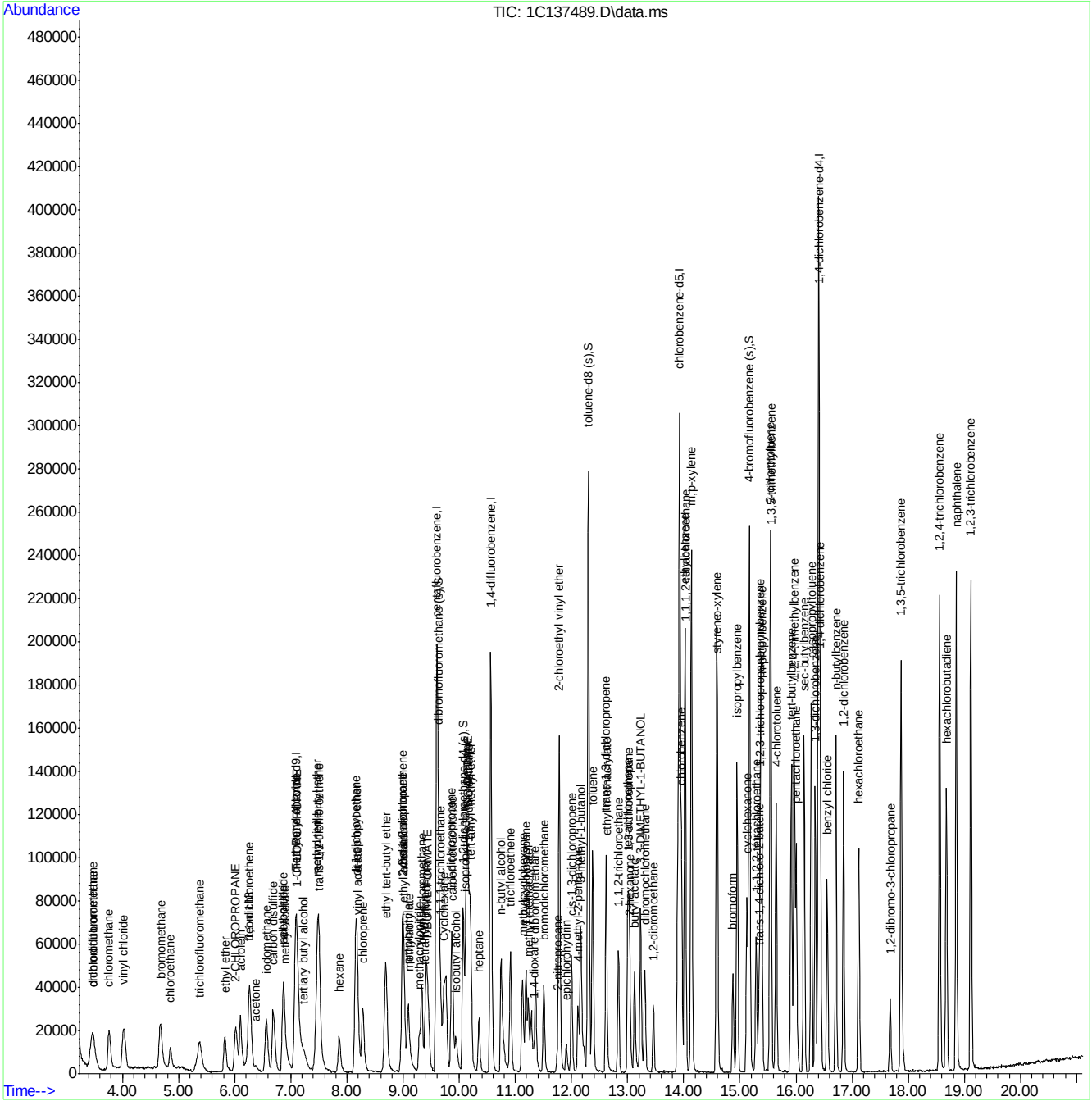
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) styrene	14.600	104	69799	20.29	ug/L		98
104) bromoform	14.877	173	26019	20.98	ug/L		95
106) isopropylbenzene	14.951	105	111047	20.07	ug/L		98
108) cyclohexanone	15.129	55	39747	149.27	ug/L		98
109) bromobenzene	15.369	156	34900	21.40	ug/L		98
110) 1,1,2,2-tetrachloroethane	15.291	83	37486	20.99	ug/L		98
111) trans-1,4-dichloro-2-b...	15.338	53	7419	16.58	ug/L	#	67
112) 1,2,3-trichloropropane	15.359	110	9484	21.26	ug/L		96
113) n-propylbenzene	15.390	91	122454	20.12	ug/L		100
114) 2-chlorotoluene	15.542	126	29585	20.78	ug/L		91
115) 4-chlorotoluene	15.652	91	80959	20.04	ug/L		98
116) 1,3,5-trimethylbenzene	15.552	105	99841	19.56	ug/L		98
117) tert-butylbenzene	15.918	119	88073	20.20	ug/L		96
118) pentachloroethane	16.007	167	28240	20.05	ug/L		96
119) 1,2,4-trimethylbenzene	15.965	105	100601	19.53	ug/L		99
120) sec-butylbenzene	16.143	105	130142	19.72	ug/L		99
121) 1,3-dichlorobenzene	16.342	146	66953	19.10	ug/L		97
122) p-isopropyltoluene	16.274	119	114420	19.29	ug/L		99
124) 1,4-dichlorobenzene	16.431	146	69569	19.44	ug/L		98
125) benzyl chloride	16.556	91	76362	18.98	ug/L		100
126) 1,2-dichlorobenzene	16.849	146	71808	19.58	ug/L		97
127) n-butylbenzene	16.713	92	53992	18.65	ug/L		99
128) 1,2-dibromo-3-chloropr...	17.681	75	9488	19.60	ug/L		87
129) 1,3,5-trichlorobenzene	17.874	180	79598	18.59	ug/L		99
130) 1,2,4-trichlorobenzene	18.560	180	88320	18.68	ug/L		97
131) hexachlorobutadiene	18.680	225	37821	18.53	ug/L		96
132) naphthalene	18.858	128	216496	19.29	ug/L		98
133) 1,2,3-trichlorobenzene	19.119	180	95059	19.71	ug/L		98
134) hexachloroethane	17.121	201	26320	20.35	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1c\v1c6111\
Data File : 1C137489.D
Acq On : 2 Mar 2015 10:41 am
Operator : shannont
Sample : cc6103-20
Misc : MS81356,V1C6111,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 14:42:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M1C6103.M
Quant Title : SW-846 Method 8260B, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Feb 25 11:17:39 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127390.D Vial: 2
Acq On : 5 Feb 2015 4:12 pm Operator: bridgetk
Sample : ic5744-0.2 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:38 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

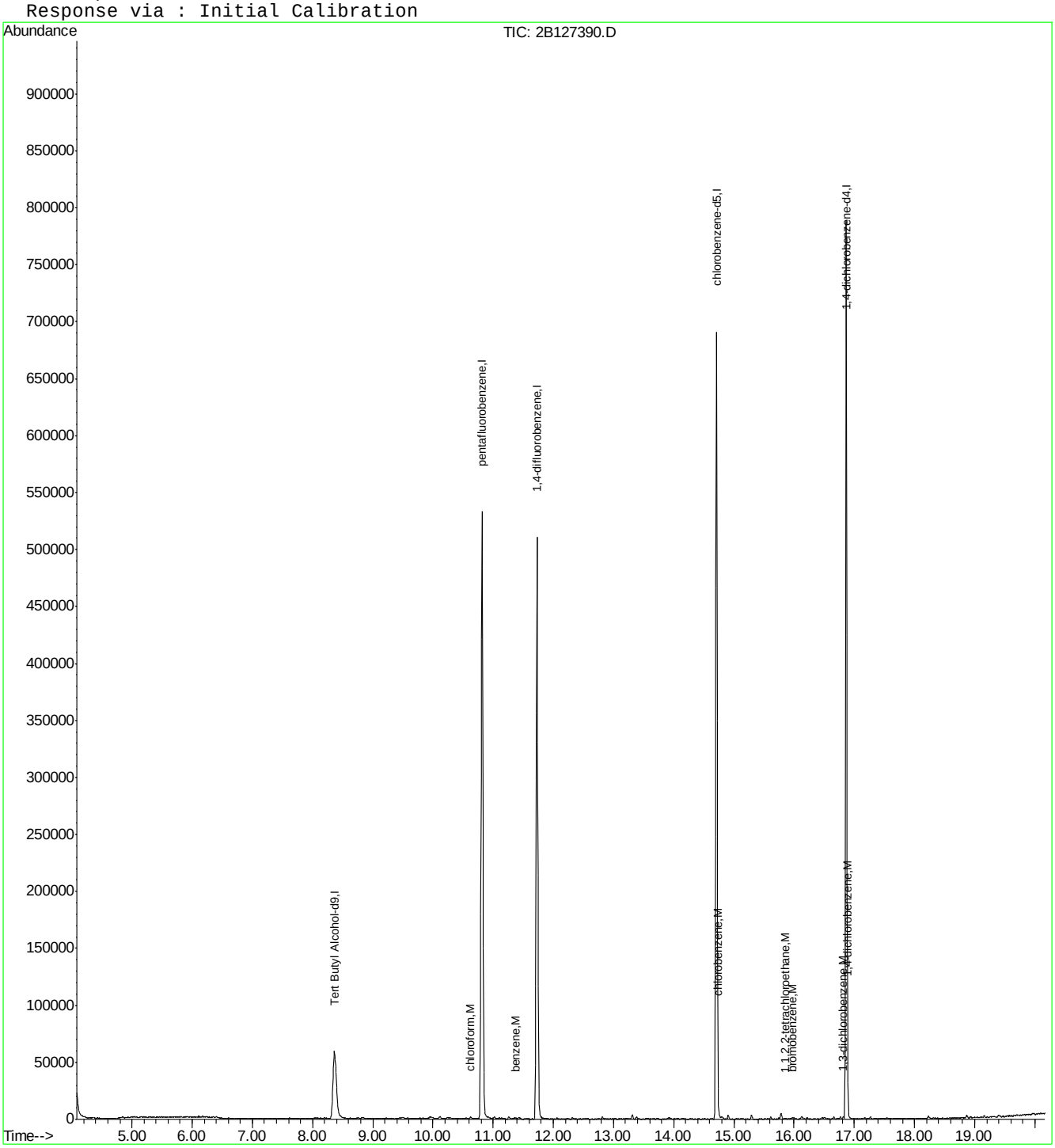
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	132206	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	432372	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	426382	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	363842	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	195850	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery = 0.00%#			
52) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery = 0.00%#			
82) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 119		Recovery = 0.00%#			
108) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery = 0.00%#			
Target Compounds						Qvalue
49) chloroform	10.63	83	983	0.20	ug/L	67
66) benzene	11.38	78	1448	0.16	ug/L	82
98) chlorobenzene	14.74	112	1054	0.17	ug/L	91
110) bromobenzene	15.97	156	504	0.16	ug/L	76
111) 1,1,2,2-tetrachloroethane	15.85	83	460	0.17	ug/L	84
122) 1,3-dichlorobenzene	16.81	146	1013	0.18	ug/L	77
124) 1,4-dichlorobenzene	16.89	146	1126	0.20	ug/L	84

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127390.D Vial: 2
Acq On : 5 Feb 2015 4:12 pm Operator: bridgetk
Sample : ic5744-0.2 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 17:40 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:43 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	129083	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	424971	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	422131	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	356161	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	192888	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery =	0.00%#		
52) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery =	0.00%#		
82) toluene-d8 (s)	13.31	98	4869	0.56	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	1.12%#		
108) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery =	0.00%#		
Target Compounds						Qvalue
12) chloromethane	4.83	50	1938	0.46	ug/L	80
13) vinyl chloride	5.15	62	1721	0.45	ug/L	91
15) bromomethane	5.89	94	1609	0.62	ug/L #	67
22) 2-chloropropane	7.36	43	1906	0.43	ug/L	97
24) 1,1-dichloroethene	7.62	96	1141	0.48	ug/L	89
26) allyl chloride	8.21	76	476	0.34	ug/L #	27
28) iodomethane	7.91	142	2245	0.41	ug/L	88
30) carbon disulfide	8.06	76	4072	0.51	ug/L	83
31) methylene chloride	8.41	84	1321	0.49	ug/L #	42
33) 1-chloropropane	8.47	42	2622	0.58	ug/L	85
34) methyl tert butyl ether	8.82	73	3570	0.44	ug/L	83
35) trans-1,2-dichloroethene	8.85	96	1277	0.50	ug/L	82
36) di-isopropyl ether	9.50	45	3330	0.41	ug/L	87
38) 1,1-dichloroethane	9.45	63	2038	0.43	ug/L	65
39) chloroprene	9.58	53	1270	0.35	ug/L	86
40) acrylonitrile	8.75	53	1564	1.63	ug/L	80
42) ethyl tert-butyl ether	10.00	59	3447	0.39	ug/L	94
44) 2,2-dichloropropane	10.26	77	1785	0.45	ug/L	92
45) cis-1,2-dichloroethene	10.23	96	1294	0.45	ug/L	96
46) propionitrile	10.30	54	1337	3.95	ug/L	58
47) bromochloromethane	10.55	128	566	0.36	ug/L	90
49) chloroform	10.63	83	2465	0.51	ug/L	93
50) t-butyl formate	10.71	59	937	0.38	ug/L	68
54) methacrylonitrile	10.50	41	748	0.49	ug/L	82
55) 1,1,1-trichloroethane	10.92	97	1933	0.44	ug/L	89
56) Cyclohexane	11.03	84	1586	0.46	ug/L #	61
63) carbon tetrachloride	11.14	117	1758	0.43	ug/L	81
64) 1,1-dichloropropene	11.10	75	1343	0.43	ug/L	95
65) hexane	9.23	57	1008	0.39	ug/L #	59
66) benzene	11.38	78	4316	0.49	ug/L	97
67) 2,2,4-trimethylpentane	11.43	57	3287	0.42	ug/L	84
68) tert-amyl methyl ether	11.44	73	2986	0.40	ug/L	95
69) heptane	11.59	57	713	0.47	ug/L	81

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:43 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

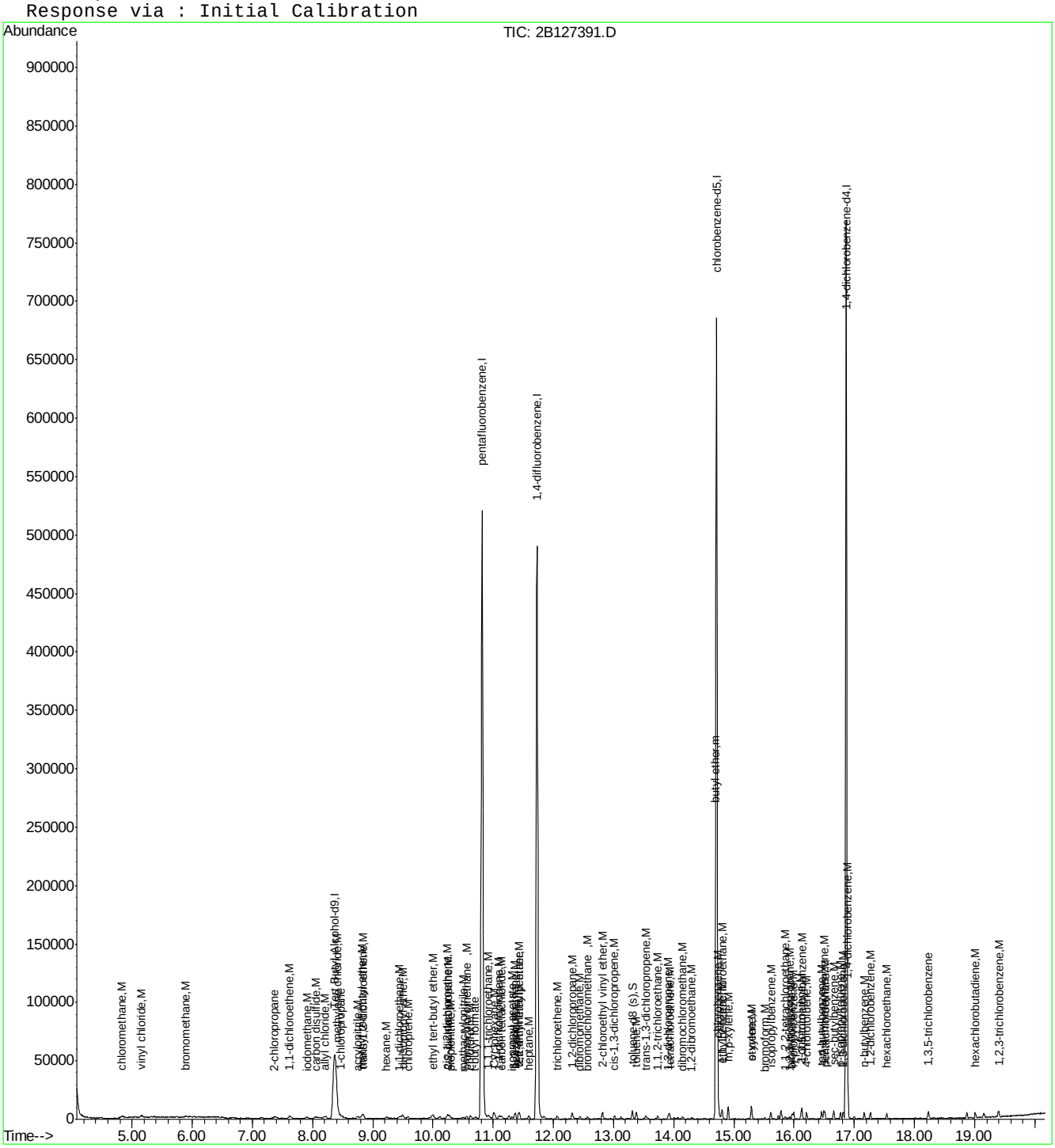
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
70)	isopropyl acetate	11.31	43	1521	0.36	ug/L		81
71)	1,2-dichloroethane	11.35	62	1640	0.45	ug/L		92
72)	trichloroethene	12.06	95	1056	0.43	ug/L		90
75)	2-chloroethyl vinyl ether	12.81	63	2649	1.86	ug/L		99
77)	1,2-dichloropropane	12.31	63	956	0.42	ug/L		94
78)	dibromomethane	12.44	93	691	0.42	ug/L	#	66
80)	bromodichloromethane	12.57	83	1401	0.39	ug/L		92
81)	cis-1,3-dichloropropene	13.01	75	1586	0.40	ug/L		83
84)	toluene	13.38	92	2259	0.42	ug/L	#	70
86)	trans-1,3-dichloropropene	13.53	75	1571	0.41	ug/L		98
88)	1,1,2-trichloroethane	13.74	83	863	0.48	ug/L		80
91)	butyl ether	14.69	57	3363	0.38	ug/L	#	78
92)	tetrachloroethene	13.94	164	1090	0.48	ug/L	#	76
93)	1,3-dichloropropane	13.91	76	1446	0.42	ug/L		89
96)	dibromochloromethane	14.15	129	1344	0.44	ug/L		80
97)	1,2-dibromoethane	14.30	107	854	0.35	ug/L		87
98)	chlorobenzene	14.74	112	2656	0.44	ug/L		91
99)	1,1,1,2-tetrachloroethane	14.80	131	1013	0.37	ug/L	#	76
100)	ethylbenzene	14.80	91	4589	0.47	ug/L		95
101)	m,p-xylene	14.90	106	3286	0.88	ug/L		89
102)	o-xylene	15.29	106	1785	0.44	ug/L	#	67
103)	styrene	15.29	104	2412	0.37	ug/L		83
105)	bromoform	15.51	173	926	0.38	ug/L		84
107)	isopropylbenzene	15.61	105	4372	0.42	ug/L		96
110)	bromobenzene	15.97	156	1474	0.46	ug/L		86
111)	1,1,2,2-tetrachloroethane	15.86	83	1198	0.44	ug/L		90
113)	1,2,3-trichloropropane	15.93	110	276	0.36	ug/L	#	36
114)	n-propylbenzene	15.99	91	4720	0.44	ug/L		95
115)	2-chlorotoluene	16.11	126	1086	0.42	ug/L	#	58
116)	4-chlorotoluene	16.21	91	3310	0.46	ug/L		76
117)	1,3,5-trimethylbenzene	16.13	105	3458	0.41	ug/L		87
118)	tert-butylbenzene	16.46	119	3321	0.42	ug/L		92
119)	pentachloroethane	16.52	167	880	0.40	ug/L		91
120)	1,2,4-trimethylbenzene	16.49	105	3521	0.42	ug/L		91
121)	sec-butylbenzene	16.66	105	4688	0.41	ug/L		91
122)	1,3-dichlorobenzene	16.82	146	2517	0.45	ug/L		96
123)	p-isopropyltoluene	16.77	119	3797	0.38	ug/L		90
124)	1,4-dichlorobenzene	16.89	146	2691	0.48	ug/L		91
125)	1,2-dichlorobenzene	17.27	146	2468	0.42	ug/L		90
126)	n-butylbenzene	17.16	92	1883	0.39	ug/L		83
128)	1,3,5-trichlorobenzene	18.23	180	2505	0.42	ug/L	#	87
130)	hexachlorobutadiene	19.01	225	1127	0.39	ug/L		89
132)	1,2,3-trichlorobenzene	19.40	180	1995	0.41	ug/L		84
133)	hexachloroethane	17.54	201	976	0.41	ug/L		83

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	118872	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	398583	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	392928	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	335376	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	186830	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	3017	1.16	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery =	2.32%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	3137	0.99	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery =	1.98%#			
82) toluene-d8 (s)	13.31	98	7774	0.96	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	1.92%#			
108) 4-bromofluorobenzene (s)	15.78	95	3430	1.13	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery =	2.26%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	1100	4.39	ug/L		52
3) ethanol	6.95	45	2414m	87.02	ug/L		
9) chlorodifluoromethane	4.47	51	2768	0.90	ug/L		74
12) chloromethane	4.84	50	3547	0.90	ug/L		89
13) vinyl chloride	5.16	62	3356	0.94	ug/L		93
15) bromomethane	5.88	94	2506	1.03	ug/L		76
16) chloroethane	6.11	64	1529	0.94	ug/L	#	63
18) trichlorofluoromethane	6.67	101	3581m	0.78	ug/L		
20) ethyl ether	7.15	74	1385	1.06	ug/L		83
21) acrolein	7.38	56	443819	1118.02	ug/L		99
22) 2-chloropropane	7.35	43	5025	1.21	ug/L	#	1
24) 1,1-dichloroethene	7.62	96	3073	1.36	ug/L		85
26) allyl chloride	8.20	76	1393	1.06	ug/L	#	71
28) iodomethane	7.91	142	5813	1.14	ug/L		97
30) carbon disulfide	8.06	76	8766	1.16	ug/L		95
31) methylene chloride	8.39	84	3350	1.32	ug/L		91
33) 1-chloropropane	8.46	42	5707	1.35	ug/L		95
34) methyl tert butyl ether	8.82	73	8928	1.18	ug/L		99
35) trans-1,2-dichloroethene	8.83	96	2975	1.24	ug/L		84
36) di-isopropyl ether	9.49	45	7590	1.00	ug/L		91
38) 1,1-dichloroethane	9.45	63	5218	1.18	ug/L		97
39) chloroprene	9.58	53	3050	0.90	ug/L		78
40) acrylonitrile	8.74	53	4645	5.15	ug/L		86
42) ethyl tert-butyl ether	9.99	59	7819	0.94	ug/L		96
44) 2,2-dichloropropane	10.26	77	4736	1.28	ug/L		95
45) cis-1,2-dichloroethene	10.23	96	3175	1.17	ug/L		89
46) propionitrile	10.29	54	3327	10.47	ug/L		97
47) bromochloromethane	10.55	128	1545	1.05	ug/L	#	67
48) tetrahydrofuran	10.64	42	753	1.18	ug/L	#	48
49) chloroform	10.62	83	5199	1.15	ug/L		91
50) t-butyl formate	10.70	59	2050	0.89	ug/L		88
54) methacrylonitrile	10.50	41	1311	0.92	ug/L		87
55) 1,1,1-trichloroethane	10.92	97	4457	1.09	ug/L		86

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
56)	Cyclohexane	11.02	84	3458	1.07	ug/L	#	83
61)	epichlorohydrin	12.91	57	880	4.38	ug/L		51
63)	carbon tetrachloride	11.14	117	4678	1.24	ug/L		98
64)	1,1-dichloropropene	11.10	75	3798	1.30	ug/L		89
65)	hexane	9.22	57	2317	0.97	ug/L		93
66)	benzene	11.36	78	10195	1.24	ug/L		90
67)	2,2,4-trimethylpentane	11.42	57	7742	1.05	ug/L		89
68)	tert-amyl methyl ether	11.44	73	7024	1.01	ug/L		90
69)	heptane	11.58	57	1370	0.96	ug/L	#	65
70)	isopropyl acetate	11.30	43	3727	0.95	ug/L		82
71)	1,2-dichloroethane	11.35	62	3895	1.14	ug/L		85
72)	trichloroethene	12.06	95	2462	1.07	ug/L		93
75)	2-chloroethyl vinyl ether	12.81	63	5910	4.47	ug/L		91
76)	methyl methacrylate	12.33	100	393	0.72	ug/L	#	43
77)	1,2-dichloropropane	12.31	63	2288	1.08	ug/L		92
78)	dibromomethane	12.44	93	1640	1.08	ug/L		97
79)	methylcyclohexane	12.32	83	3367	0.97	ug/L		88
80)	bromodichloromethane	12.57	83	3709	1.11	ug/L		81
81)	cis-1,3-dichloropropene	13.01	75	4047	1.09	ug/L		95
84)	toluene	13.38	92	5777	1.17	ug/L		86
85)	3-methyl-1-butanol	13.11	55	1195	14.19	ug/L		74
86)	trans-1,3-dichloropropene	13.53	75	3965	1.10	ug/L		92
87)	ethyl methacrylate	13.56	69	2284	0.88	ug/L		94
88)	1,1,2-trichloroethane	13.73	83	1749	1.05	ug/L	#	71
91)	butyl ether	14.69	57	8143	0.97	ug/L	#	92
92)	tetrachloroethene	13.93	164	2517	1.18	ug/L		85
93)	1,3-dichloropropane	13.91	76	3374	1.04	ug/L		95
94)	butyl acetate	14.00	56	1068	0.91	ug/L		82
96)	dibromochloromethane	14.15	129	2973	1.02	ug/L		91
97)	1,2-dibromoethane	14.29	107	2304	1.01	ug/L		95
98)	chlorobenzene	14.74	112	6522	1.14	ug/L		94
99)	1,1,1,2-tetrachloroethane	14.80	131	2845	1.10	ug/L		93
100)	ethylbenzene	14.81	91	10736	1.17	ug/L		99
101)	m,p-xylene	14.90	106	8158	2.32	ug/L		97
102)	o-xylene	15.29	106	4277	1.12	ug/L		96
103)	styrene	15.29	104	5690	0.92	ug/L		98
105)	bromoform	15.51	173	2116	0.91	ug/L		94
107)	isopropylbenzene	15.61	105	10717	1.07	ug/L		92
110)	bromobenzene	15.97	156	3470	1.12	ug/L		92
111)	1,1,2,2-tetrachloroethane	15.85	83	2890	1.10	ug/L		99
112)	trans-1,4-dichloro-2-buten	15.90	53	558	0.81	ug/L		96
113)	1,2,3-trichloropropane	15.92	110	690	0.93	ug/L		71
114)	n-propylbenzene	15.99	91	11452	1.09	ug/L		94
115)	2-chlorotoluene	16.12	126	2962m	1.18	ug/L		
116)	4-chlorotoluene	16.21	91	7649	1.10	ug/L		99
117)	1,3,5-trimethylbenzene	16.13	105	9150	1.12	ug/L		92
118)	tert-butylbenzene	16.45	119	7993	1.04	ug/L		97
119)	pentachloroethane	16.51	167	2187	1.04	ug/L		94
120)	1,2,4-trimethylbenzene	16.49	105	8541	1.04	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

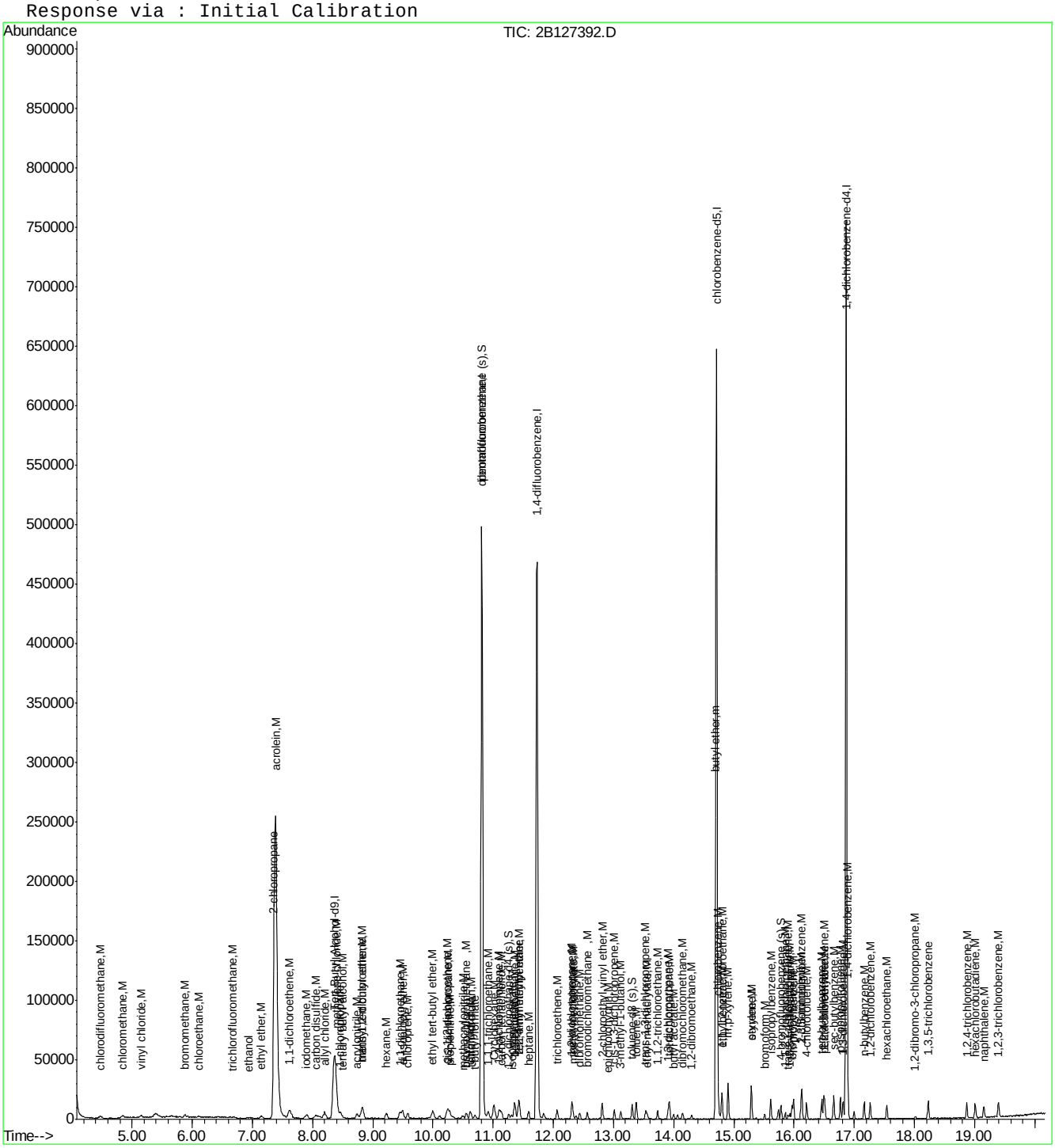
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
121)	sec-butylbenzene	16.66	105	12037	1.10	ug/L		94
122)	1,3-dichlorobenzene	16.81	146	6214	1.14	ug/L		96
123)	p-isopropyltoluene	16.77	119	9840	1.02	ug/L		95
124)	1,4-dichlorobenzene	16.89	146	6121	1.13	ug/L		98
125)	1,2-dichlorobenzene	17.27	146	5871	1.03	ug/L		98
126)	n-butylbenzene	17.17	92	4666	0.99	ug/L		90
127)	1,2-dibromo-3-chloropropan	18.01	75	523	0.92	ug/L	#	70
128)	1,3,5-trichlorobenzene	18.23	180	5558	0.96	ug/L		91
129)	1,2,4-trichlorobenzene	18.86	180	4553	0.87	ug/L		94
130)	hexachlorobutadiene	19.01	225	3079	1.10	ug/L		84
131)	naphthalene	19.15	128	7462	0.81	ug/L		97
132)	1,2,3-trichlorobenzene	19.39	180	4125	0.88	ug/L		96
133)	hexachloroethane	17.54	201	2025	0.89	ug/L		82

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:22 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

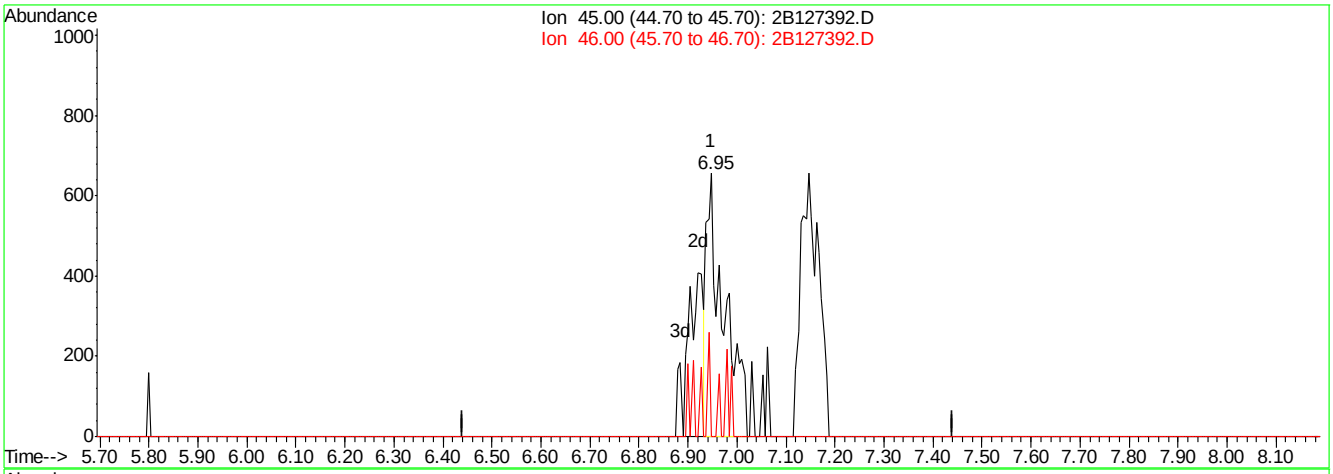
Sample Number: V2B5744-IC5744
Lab FileID: 2B127392.D
Injection Time: 02/05/15 17:13
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

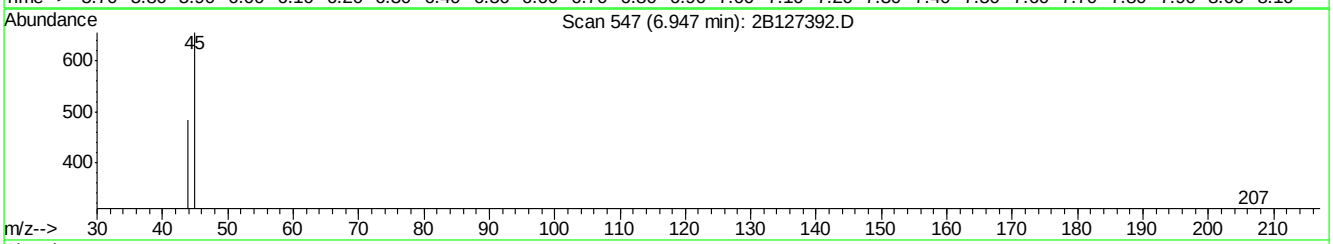
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.67	Split peak
Ethanol	64-17-5		6.95	Split peak
o-Chlorotoluene	95-49-8		16.12	Missed peak

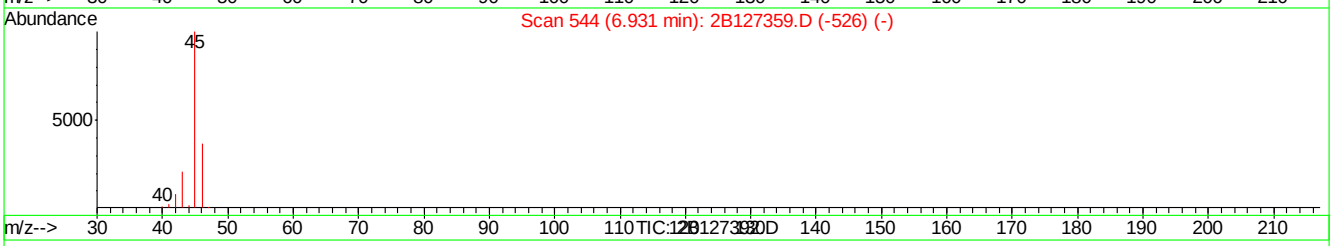
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:27 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(3) ethanol

6.95min 58.43ug/L

response 1621

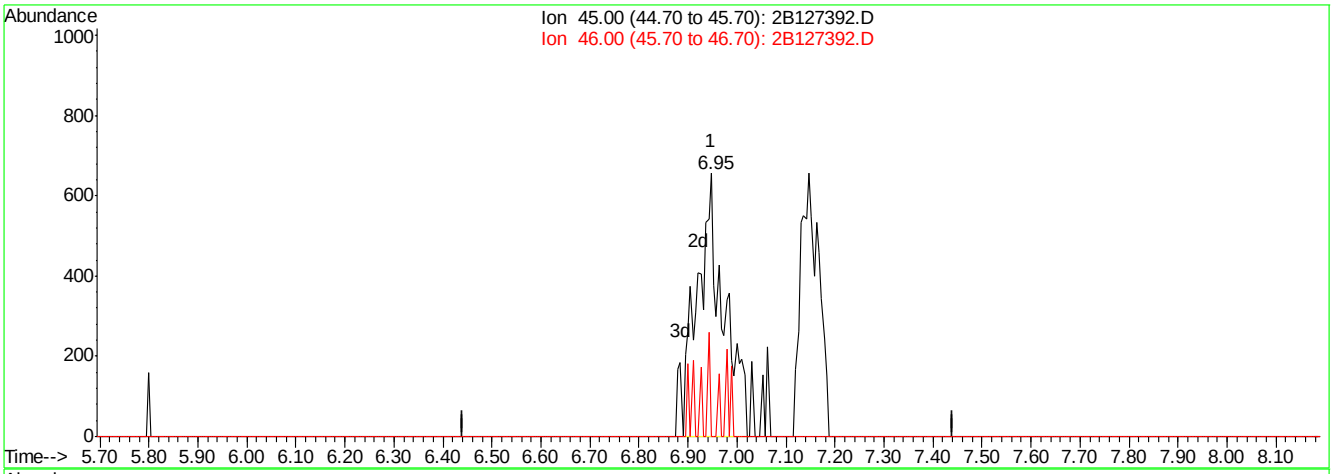
Ion	Exp%	Act%
45.00	100	100
46.00	41.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

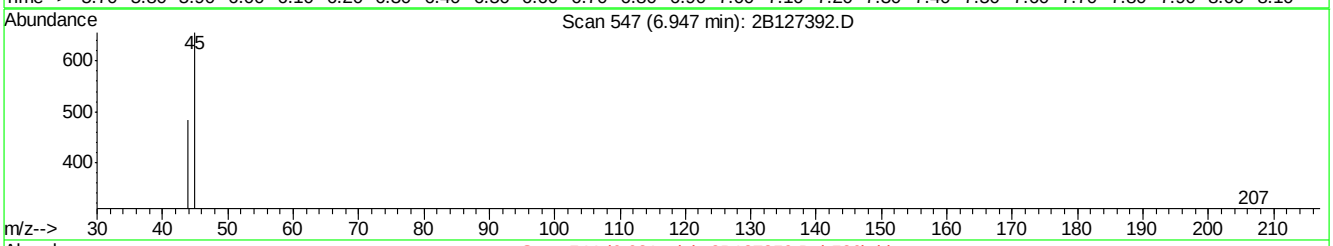
2B127392.D M2B5744.M Fri Feb 06 09:28:56 2015 MS2B

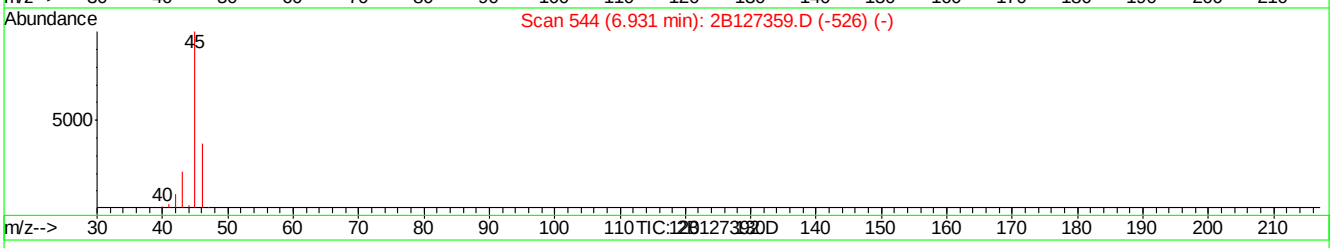
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:29 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(3) ethanol

6.95min 87.02ug/L m

response 2414

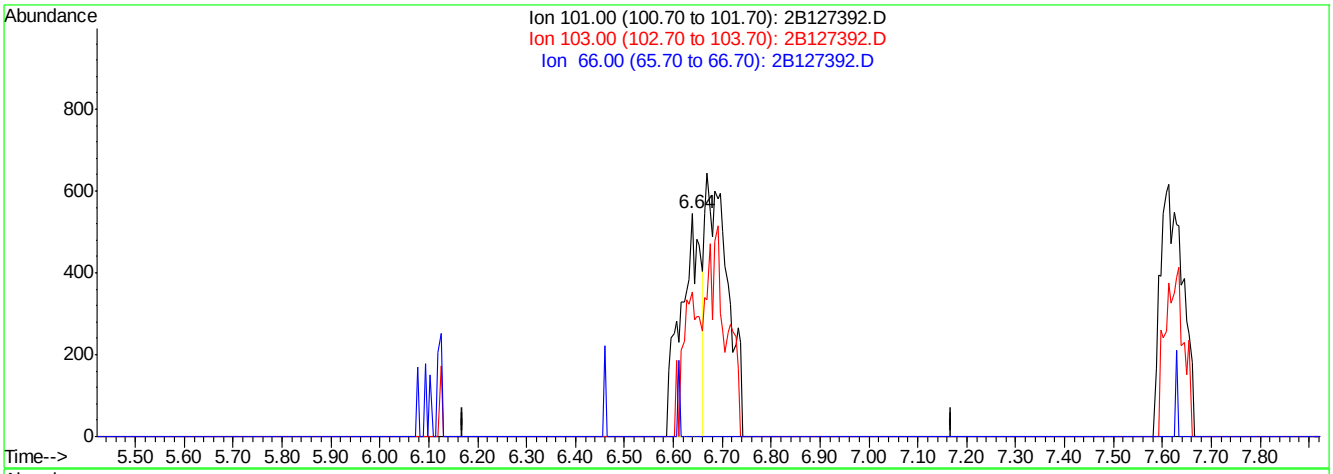
Ion	Exp%	Act%
45.00	100	100
46.00	41.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

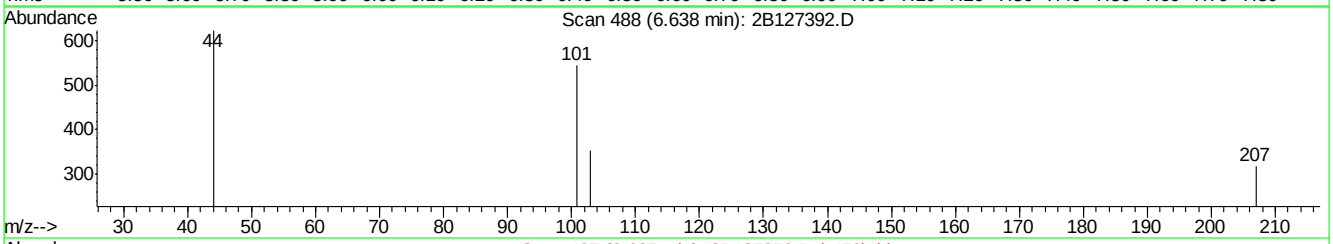
2B127392.D M2B5744.M Fri Feb 06 09:29:45 2015 MS2B

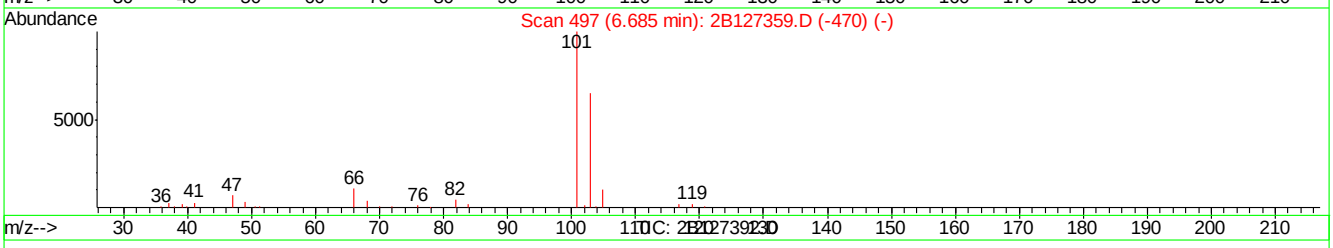
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:29 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.64min 0.33ug/L

response 1524

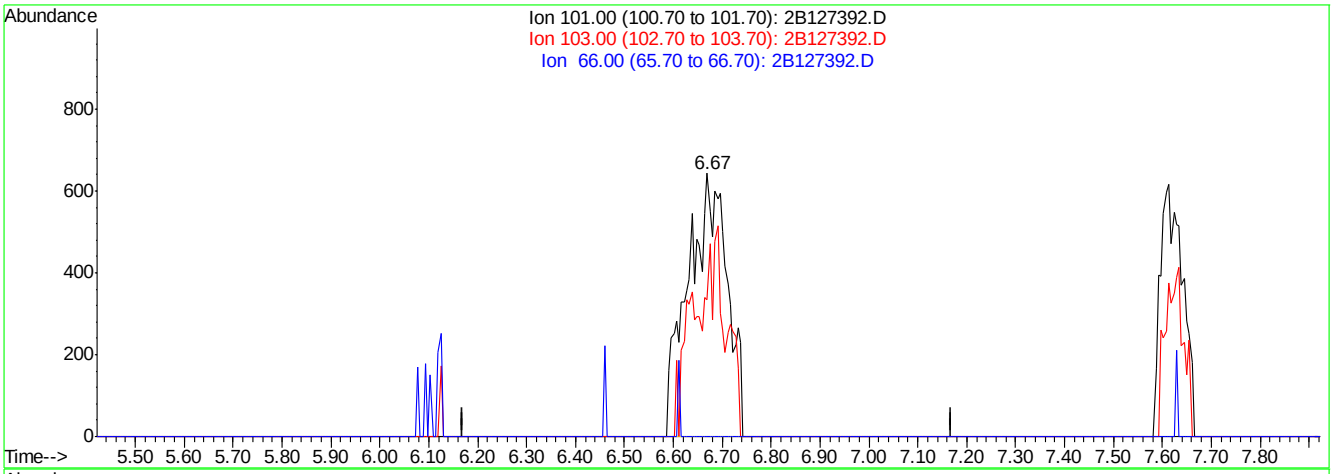
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	64.65
66.00	11.60	0.00
0.00	0.00	0.00

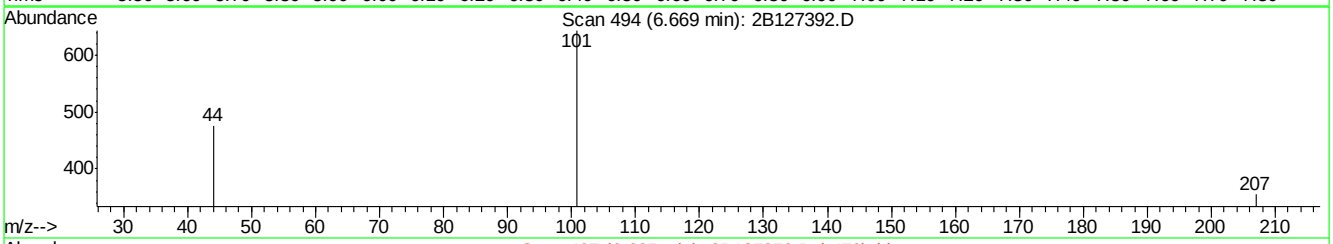
2B127392.D M2B5744.M Fri Feb 06 09:32:35 2015 MS2B

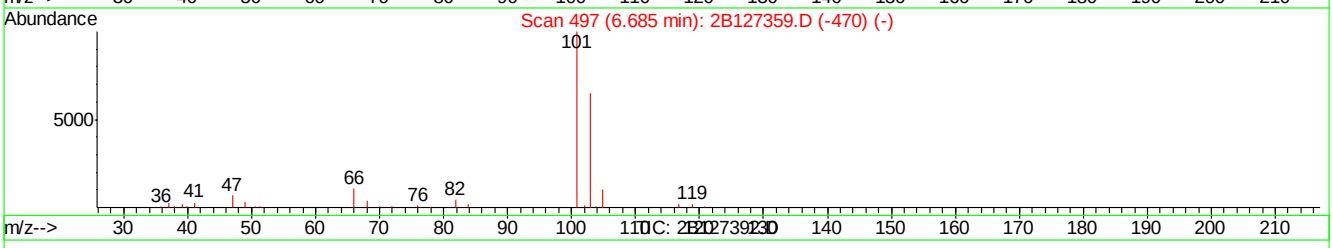
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:32 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.67min 0.78ug/L m

response 3581

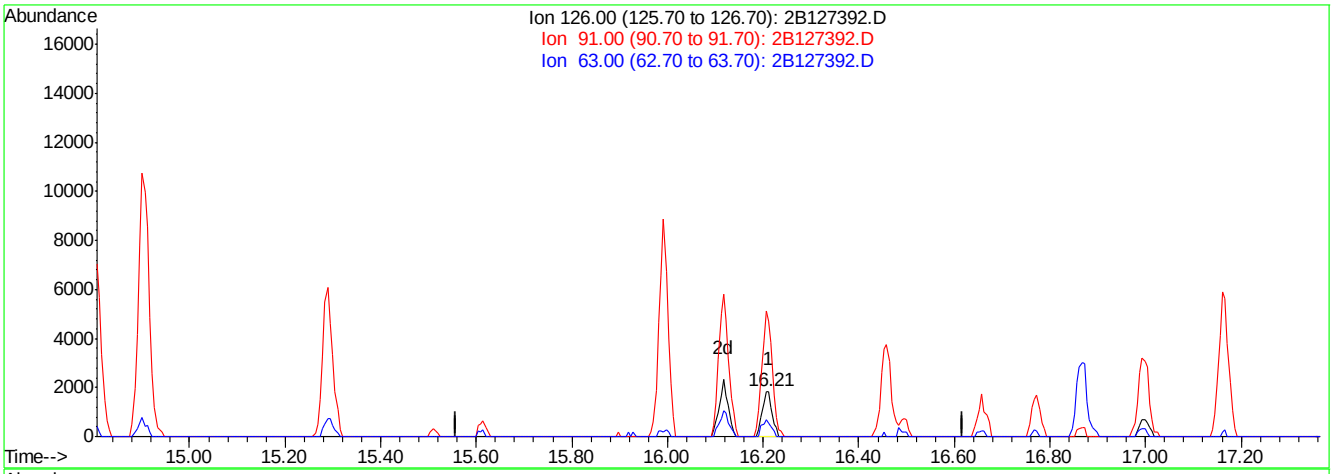
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	51.94
66.00	11.60	0.00
0.00	0.00	0.00

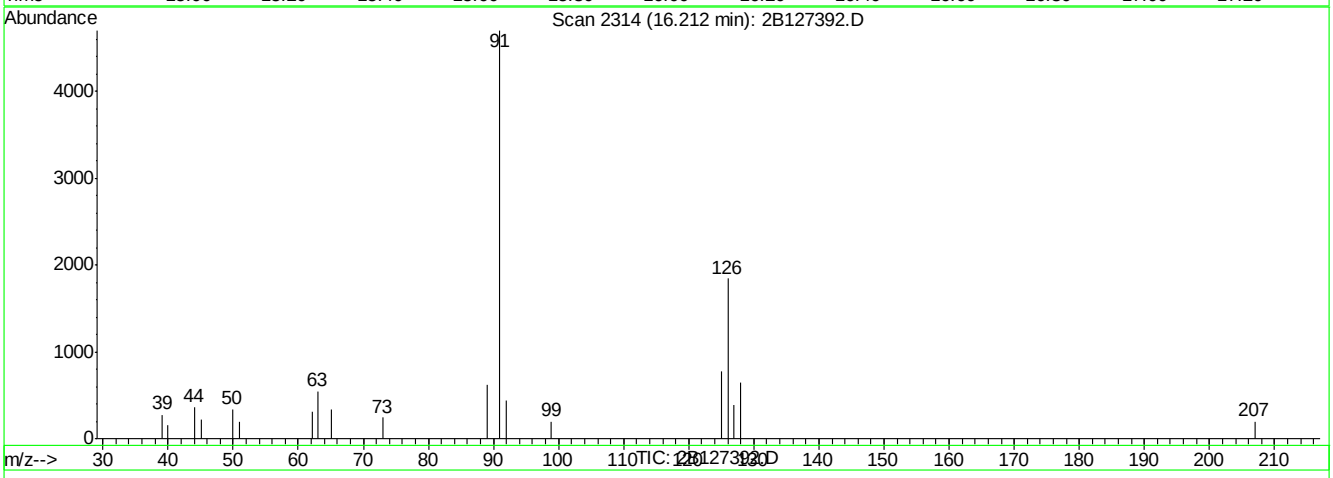
2B127392.D M2B5744.M Fri Feb 06 09:32:46 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:15:05 2015
Response via : Multiple Level Calibration





(115) 2-chlorotoluene (M)

16.21min 1.02ug/L

response 2566

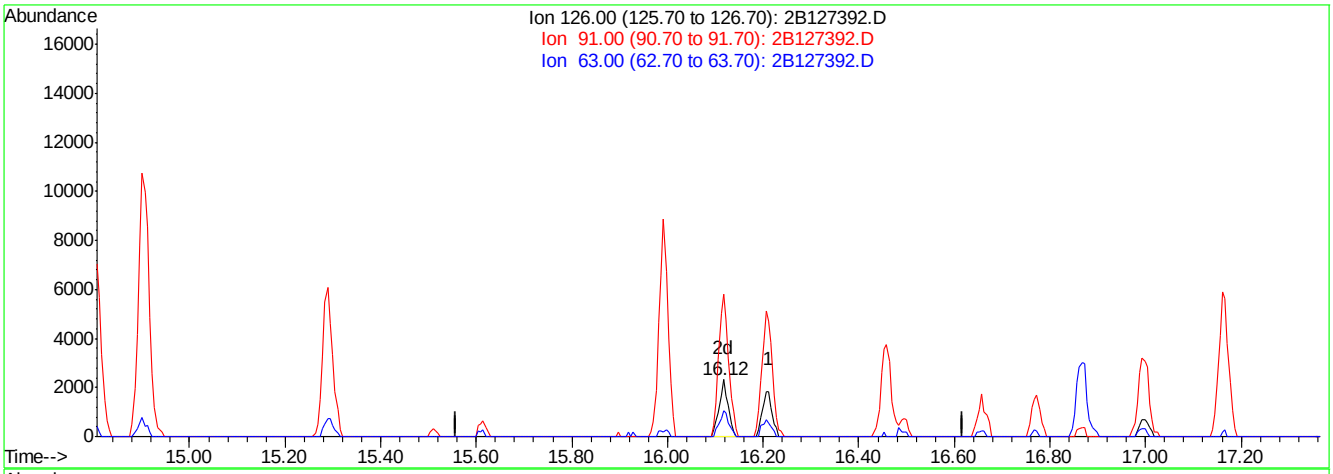
Ion	Exp%	Act%
126.00	100	100
91.00	282.30	255.18
63.00	45.00	29.68
0.00	0.00	0.00

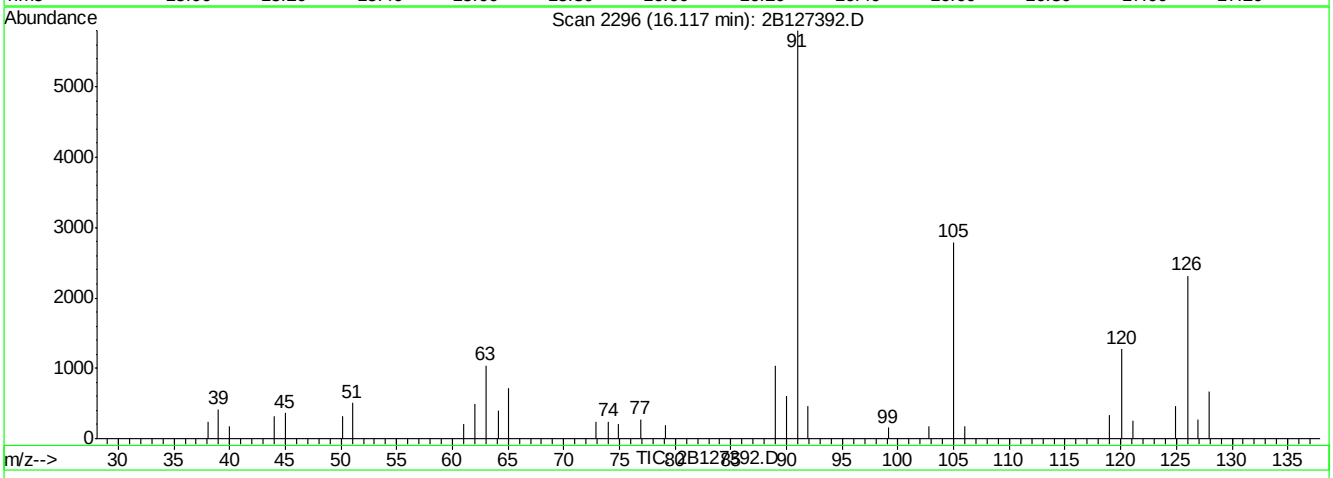
2B127392.D M2B5744.M Fri Feb 06 16:21:52 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:22 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:15:05 2015
Response via : Multiple Level Calibration





(115) 2-chlorotoluene (M)

16.12min 1.18ug/L m

response 2962

Ion	Exp%	Act%
126.00	100	100
91.00	282.30	250.58#
63.00	45.00	44.92
0.00	0.00	0.00

2B127392.D M2B5744.M Fri Feb 06 16:22:39 2015 MS2B

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	115960	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	402095	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	398407	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	342317	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	185887	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	4766	1.82	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 3.64%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	5703	1.79	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 3.58%#				
82) toluene-d8 (s)	13.31	98	14798	1.80	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 3.60%#				
108) 4-bromofluorobenzene (s)	15.78	95	5875	1.95	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 3.90%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.51	59	2196	8.98	ug/L		78
3) ethanol	6.92	45	5285	195.29	ug/L	#	76
4) 1,4-dioxane	12.43	88	894	37.62	ug/L		66
9) chlorodifluoromethane	4.49	51	4941	1.59	ug/L		99
10) dichlorodifluoromethane	4.49	85	5571	1.41	ug/L		85
12) chloromethane	4.84	50	6092	1.54	ug/L		98
13) vinyl chloride	5.17	62	5677	1.58	ug/L		93
15) bromomethane	5.89	94	4423	1.81	ug/L		99
16) chloroethane	6.09	64	2537	1.54	ug/L		95
18) trichlorofluoromethane	6.68	101	6433m	1.39	ug/L		
20) ethyl ether	7.16	74	2565	1.95	ug/L	#	83
21) acrolein	7.38	56	873443	2181.06	ug/L		98
22) 2-chloropropane	7.36	43	9169	2.20	ug/L	#	1
24) 1,1-dichloroethene	7.61	96	5026	2.21	ug/L		85
26) allyl chloride	8.21	76	2558	1.94	ug/L		93
28) iodomethane	7.91	142	10763	2.09	ug/L		94
30) carbon disulfide	8.06	76	16242	2.13	ug/L		92
31) methylene chloride	8.39	84	5491	2.14	ug/L		83
33) 1-chloropropane	8.47	42	9869	2.32	ug/L		93
34) methyl tert butyl ether	8.82	73	16064	2.10	ug/L		97
35) trans-1,2-dichloroethene	8.84	96	5623	2.32	ug/L		90
36) di-isopropyl ether	9.49	45	13738	1.79	ug/L		99
38) 1,1-dichloroethane	9.44	63	9562	2.14	ug/L		99
39) chloroprene	9.58	53	6043	1.78	ug/L		93
40) acrylonitrile	8.74	53	8837	9.72	ug/L		79
42) ethyl tert-butyl ether	9.99	59	14085	1.67	ug/L		100
44) 2,2-dichloropropane	10.26	77	8340	2.24	ug/L		97
45) cis-1,2-dichloroethene	10.23	96	6220	2.27	ug/L		77
46) propionitrile	10.28	54	6395	19.96	ug/L		95
47) bromochloromethane	10.56	128	3186	2.15	ug/L		71
48) tetrahydrofuran	10.63	42	1320	2.05	ug/L		78
49) chloroform	10.62	83	9918	2.18	ug/L		88
50) t-butyl formate	10.70	59	3493	1.51	ug/L		90

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	methacrylonitrile	10.50	41	2843	1.99	ug/L		89
55)	1,1,1-trichloroethane	10.92	97	8350	2.02	ug/L		98
56)	Cyclohexane	11.02	84	7203	2.20	ug/L		92
61)	epichlorohydrin	12.91	57	1832	8.99	ug/L		94
62)	n-butyl alcohol	11.83	56	4367	77.16	ug/L		86
63)	carbon tetrachloride	11.14	117	8775	2.29	ug/L		88
64)	1,1-dichloropropene	11.11	75	6541	2.21	ug/L		97
65)	hexane	9.23	57	4363	1.81	ug/L		86
66)	benzene	11.37	78	19007	2.29	ug/L		98
67)	2,2,4-trimethylpentane	11.42	57	13624	1.83	ug/L		93
68)	tert-amyl methyl ether	11.44	73	13714	1.94	ug/L		92
69)	heptane	11.59	57	2358	1.63	ug/L		89
70)	isopropyl acetate	11.30	43	7318	1.84	ug/L		93
71)	1,2-dichloroethane	11.35	62	7740	2.24	ug/L		96
72)	trichloroethene	12.06	95	4905	2.10	ug/L		92
75)	2-chloroethyl vinyl ether	12.81	63	11752	8.76	ug/L		95
76)	methyl methacrylate	12.34	100	917	1.67	ug/L	#	37
77)	1,2-dichloropropane	12.31	63	4557	2.12	ug/L		91
78)	dibromomethane	12.44	93	3368	2.19	ug/L		93
79)	methylcyclohexane	12.31	83	5485	1.56	ug/L		88
80)	bromodichloromethane	12.57	83	7215	2.12	ug/L		96
81)	cis-1,3-dichloropropene	13.01	75	7433	1.97	ug/L		92
83)	4-methyl-2-pentanone	13.12	58	1362	1.79	ug/L	#	88
84)	toluene	13.38	92	11312	2.25	ug/L		96
85)	3-methyl-1-butanol	13.12	55	2756	32.27	ug/L		93
86)	trans-1,3-dichloropropene	13.53	75	7406	2.03	ug/L		99
87)	ethyl methacrylate	13.56	69	4643	1.77	ug/L		95
88)	1,1,2-trichloroethane	13.73	83	3553	2.11	ug/L		82
89)	2-hexanone	13.92	58	1168	1.80	ug/L	#	79
91)	butyl ether	14.69	57	16138	1.89	ug/L		93
92)	tetrachloroethene	13.93	164	4978	2.29	ug/L		94
93)	1,3-dichloropropane	13.90	76	6491	1.97	ug/L		96
94)	butyl acetate	14.00	56	1865	1.56	ug/L	#	75
95)	3,3-dimethyl-1-butanol	14.06	57	2568	14.90	ug/L		98
96)	dibromochloromethane	14.15	129	5549	1.87	ug/L		97
97)	1,2-dibromoethane	14.29	107	4912	2.12	ug/L		88
98)	chlorobenzene	14.74	112	12373	2.13	ug/L		95
99)	1,1,1,2-tetrachloroethane	14.79	131	5166	1.96	ug/L		96
100)	ethylbenzene	14.81	91	20298	2.17	ug/L		92
101)	m,p-xylene	14.90	106	14981	4.17	ug/L		98
102)	o-xylene	15.29	106	8091	2.08	ug/L		92
103)	styrene	15.29	104	12296	1.94	ug/L		97
105)	bromoform	15.51	173	4258	1.80	ug/L		94
107)	isopropylbenzene	15.61	105	21291	2.14	ug/L		98
109)	cyclohexanone	15.74	98	2391	24.77	ug/L		99
110)	bromobenzene	15.97	156	6372	2.07	ug/L		88
111)	1,1,2,2-tetrachloroethane	15.86	83	5516	2.11	ug/L		95
112)	trans-1,4-dichloro-2-buten	15.90	53	1392	2.04	ug/L		82
113)	1,2,3-trichloropropane	15.93	110	1405	1.90	ug/L		91

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

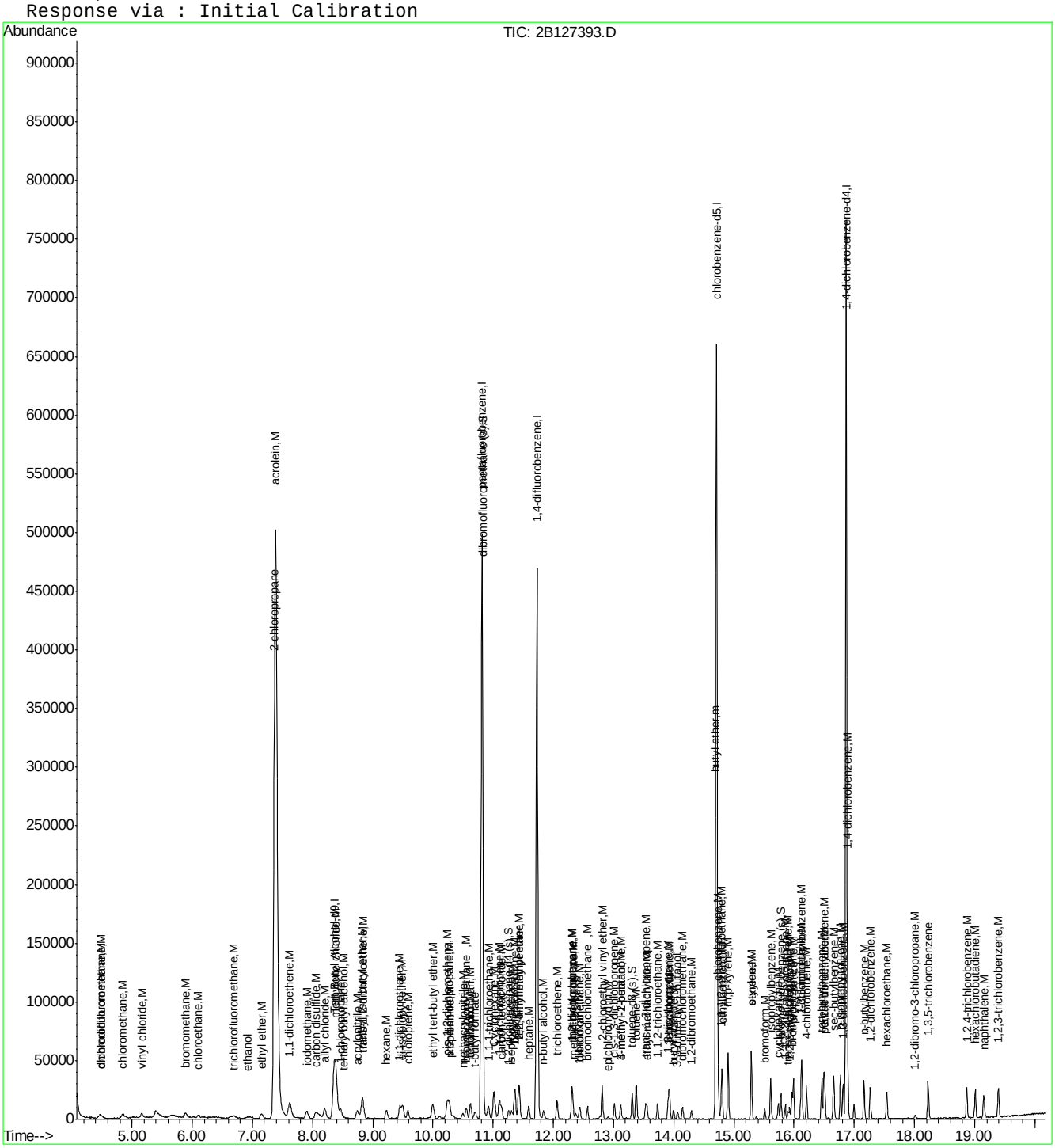
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
114) n-propylbenzene	15.99	91	24428	2.34	ug/L	98
115) 2-chlorotoluene	16.12	126	5298	2.12	ug/L	95
116) 4-chlorotoluene	16.21	91	15291	2.21	ug/L	92
117) 1,3,5-trimethylbenzene	16.13	105	17659	2.17	ug/L	97
118) tert-butylbenzene	16.46	119	15135	1.98	ug/L	96
119) pentachloroethane	16.51	167	4310	2.05	ug/L	90
120) 1,2,4-trimethylbenzene	16.49	105	16718	2.05	ug/L	99
121) sec-butylbenzene	16.66	105	22818	2.10	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	11691	2.15	ug/L	93
123) p-isopropyltoluene	16.77	119	19355	2.02	ug/L	95
124) 1,4-dichlorobenzene	16.89	146	11805	2.19	ug/L	96
125) 1,2-dichlorobenzene	17.27	146	10929	1.93	ug/L	91
126) n-butylbenzene	17.17	92	8789	1.88	ug/L	91
127) 1,2-dibromo-3-chloropropan	18.01	75	932	1.65	ug/L	87
128) 1,3,5-trichlorobenzene	18.23	180	10999	1.92	ug/L	95
129) 1,2,4-trichlorobenzene	18.86	180	8640	1.66	ug/L	92
130) hexachlorobutadiene	19.01	225	5688	2.04	ug/L	84
131) naphthalene	19.15	128	15191	1.65	ug/L	95
132) 1,2,3-trichlorobenzene	19.39	180	8373	1.81	ug/L	97
133) hexachloroethane	17.54	201	4445	1.96	ug/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:25 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

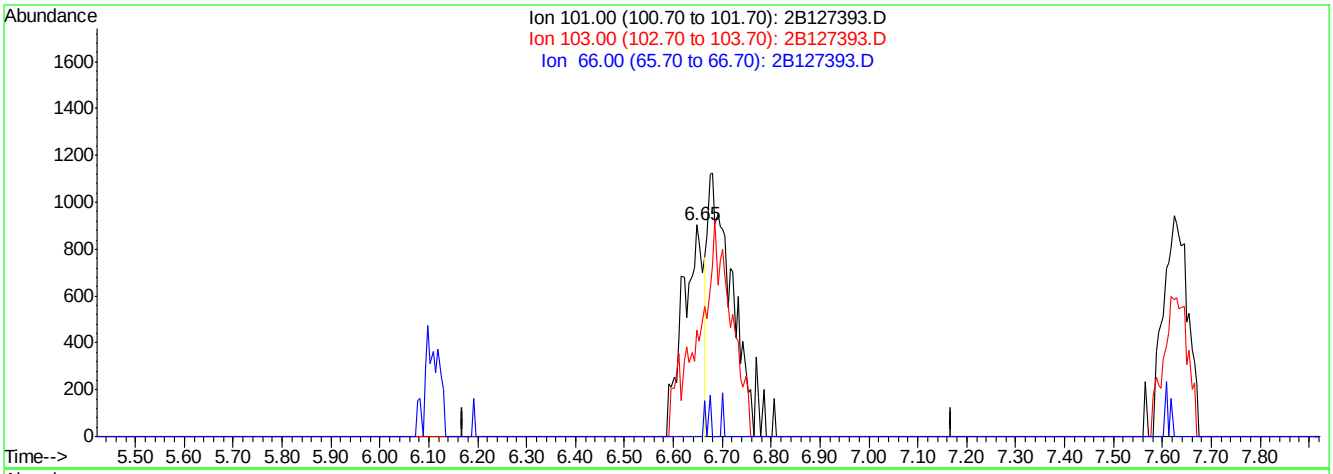
Sample Number: V2B5744-IC5744
Lab FileID: 2B127393.D
Injection Time: 02/05/15 17:42
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

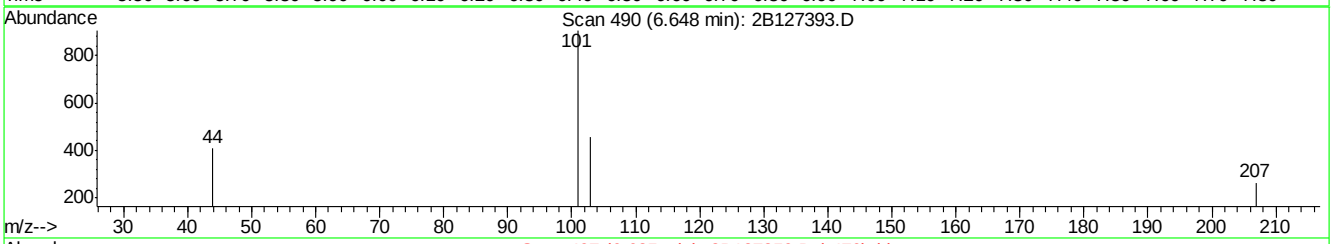
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.68	Split peak

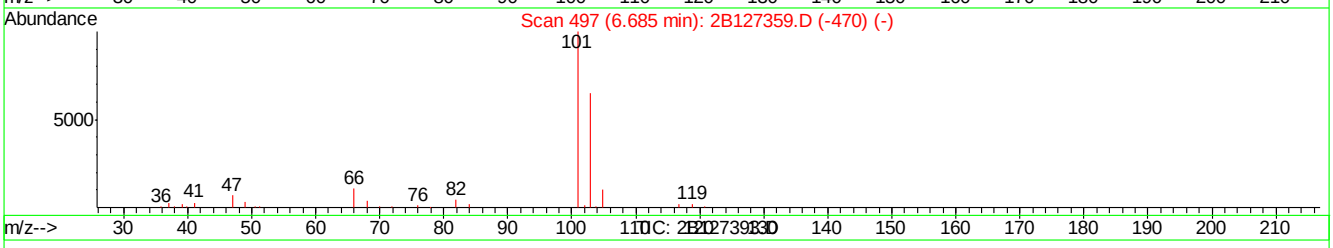
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:44 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.65min 0.57ug/L

response 2667

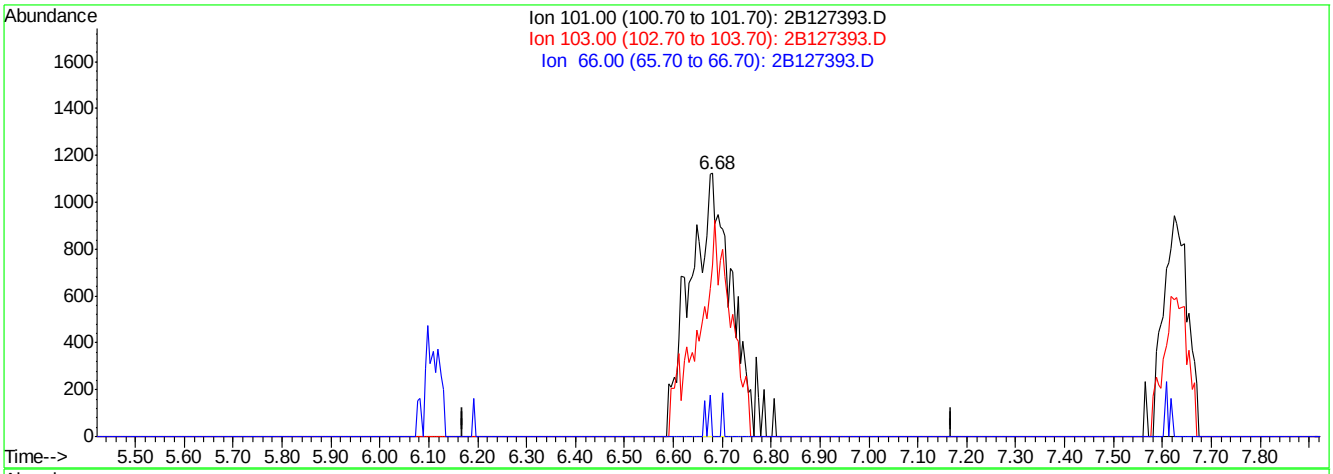
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	50.44
66.00	11.60	0.00
0.00	0.00	0.00

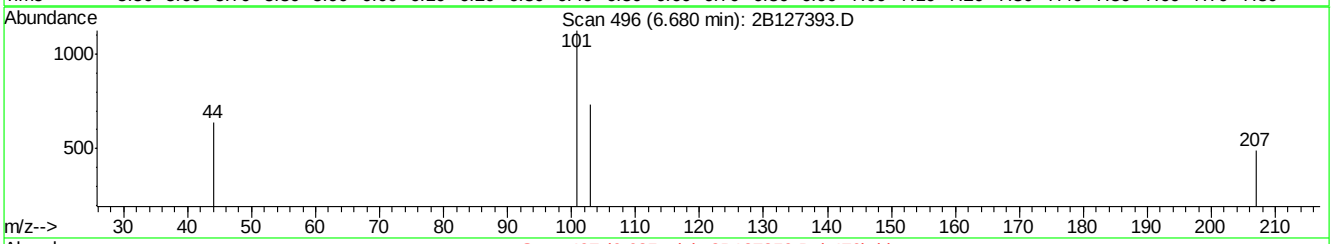
2B127393.D M2B5744.M Fri Feb 06 09:45:02 2015 MS2B

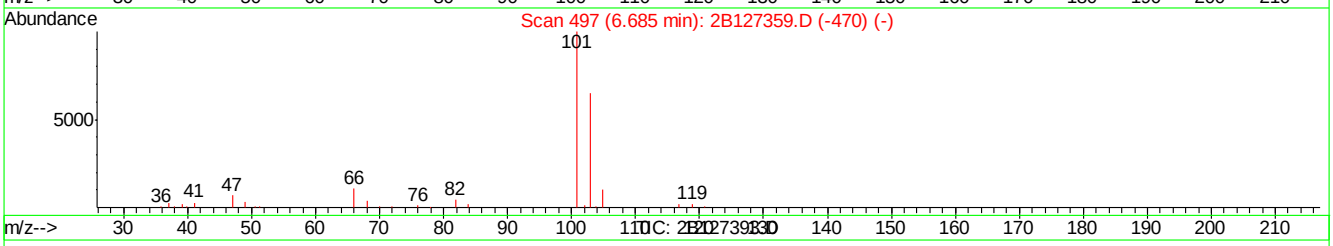
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:45 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.68min 1.39ug/L m

response 6433

Ion	Exp%	Act%
101.00	100	100
103.00	61.30	65.21
66.00	11.60	0.00
0.00	0.00	0.00

2B127393.D M2B5744.M Fri Feb 06 09:45:18 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	120373	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	400629	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	399092	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	341999	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	185204	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	12124	4.65	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 9.30%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	14328	4.52	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 9.04%#				
82) toluene-d8 (s)	13.31	98	36678	4.46	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 8.92%#				
108) 4-bromofluorobenzene (s)	15.78	95	13926	4.63	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 9.26%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	6449	25.41	ug/L		79
3) ethanol	6.93	45	13830	492.30	ug/L	#	34
4) 1,4-dioxane	12.43	88	2743	111.19	ug/L		93
9) chlorodifluoromethane	4.49	51	13215	4.25	ug/L		93
10) dichlorodifluoromethane	4.46	85	15793	4.00	ug/L		92
12) chloromethane	4.86	50	17383	4.40	ug/L		92
13) vinyl chloride	5.16	62	15715	4.40	ug/L		99
15) bromomethane	5.90	94	11675	4.79	ug/L		84
16) chloroethane	6.11	64	7228	4.40	ug/L		98
18) trichlorofluoromethane	6.69	101	20512	4.44	ug/L		90
20) ethyl ether	7.15	74	5643	4.30	ug/L		88
21) acrolein	7.39	56	19100	47.87	ug/L		97
22) 2-chloropropane	7.35	43	20375	4.90	ug/L		95
24) 1,1-dichloroethene	7.62	96	11513	5.09	ug/L		93
25) acetone	7.64	43	3733	5.07	ug/L		94
26) allyl chloride	8.20	76	5967	4.53	ug/L		88
27) acetonitrile	8.13	40	6865	49.98	ug/L		87
28) iodomethane	7.91	142	24094	4.69	ug/L		93
29) iso-butyl alcohol	11.09	74	1216	43.85	ug/L	#	81
30) carbon disulfide	8.07	76	35970	4.74	ug/L		96
31) methylene chloride	8.40	84	12440	4.86	ug/L		94
32) methyl acetate	8.20	74	1861	4.64	ug/L	#	70
33) 1-chloropropane	8.47	42	20527	4.84	ug/L		98
34) methyl tert butyl ether	8.82	73	35778	4.69	ug/L		99
35) trans-1,2-dichloroethene	8.84	96	12467	5.17	ug/L		85
36) di-isopropyl ether	9.50	45	35492	4.65	ug/L		94
37) 2-butanone	10.21	72	1102	4.16	ug/L		93
38) 1,1-dichloroethane	9.45	63	20706	4.65	ug/L		95
39) chloroprene	9.58	53	16026	4.73	ug/L		95
40) acrylonitrile	8.75	53	20425	22.55	ug/L		94
42) ethyl tert-butyl ether	10.00	59	37186	4.44	ug/L		95
43) ethyl acetate	10.26	45	1263	4.18	ug/L	#	1
44) 2,2-dichloropropane	10.27	77	17736	4.78	ug/L		96

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	cis-1,2-dichloroethene	10.23	96	13118	4.81	ug/L		94
46)	propionitrile	10.28	54	14781	46.30	ug/L		98
47)	bromochloromethane	10.56	128	6801	4.62	ug/L		85
48)	tetrahydrofuran	10.62	42	3115	4.85	ug/L		99
49)	chloroform	10.63	83	21828	4.81	ug/L		97
50)	t-butyl formate	10.70	59	10052	4.35	ug/L		91
53)	freon 113	7.63	151	9137	4.64	ug/L		83
54)	methacrylonitrile	10.49	41	6456	4.53	ug/L		92
55)	1,1,1-trichloroethane	10.93	97	18038	4.37	ug/L		98
56)	Cyclohexane	11.03	84	15403	4.72	ug/L		89
61)	epichlorohydrin	12.91	57	4618	22.61	ug/L		97
62)	n-butyl alcohol	11.83	56	12018	211.99	ug/L		87
63)	carbon tetrachloride	11.14	117	18267	4.76	ug/L		97
64)	1,1-dichloropropene	11.10	75	14511	4.89	ug/L		96
65)	hexane	9.23	57	11487	4.75	ug/L		94
66)	benzene	11.37	78	40648	4.88	ug/L		98
67)	2,2,4-trimethylpentane	11.42	57	31794	4.26	ug/L		97
68)	tert-amyl methyl ether	11.44	73	32479	4.58	ug/L		99
69)	heptane	11.59	57	6615	4.58	ug/L		89
70)	isopropyl acetate	11.30	43	18306	4.60	ug/L		94
71)	1,2-dichloroethane	11.35	62	16560	4.79	ug/L		99
72)	trichloroethene	12.06	95	10959	4.68	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	29173	21.71	ug/L		96
76)	methyl methacrylate	12.33	100	2470	4.48	ug/L	#	84
77)	1,2-dichloropropane	12.31	63	10007	4.64	ug/L		95
78)	dibromomethane	12.44	93	7378	4.78	ug/L		95
79)	methylcyclohexane	12.32	83	15925	4.53	ug/L		90
80)	bromodichloromethane	12.57	83	15465	4.54	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	17247	4.57	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	3581	4.69	ug/L	#	86
84)	toluene	13.38	92	23924	4.75	ug/L		100
85)	3-methyl-1-butanol	13.12	55	7839	91.62	ug/L		91
86)	trans-1,3-dichloropropene	13.53	75	16356	4.47	ug/L		90
87)	ethyl methacrylate	13.56	69	11172	4.25	ug/L		97
88)	1,1,2-trichloroethane	13.73	83	8208	4.86	ug/L		96
89)	2-hexanone	13.92	58	2747	4.23	ug/L		85
91)	butyl ether	14.69	57	36003	4.21	ug/L		97
92)	tetrachloroethene	13.93	164	10228	4.70	ug/L		96
93)	1,3-dichloropropane	13.90	76	15771	4.78	ug/L		88
94)	butyl acetate	13.99	56	5321	4.45	ug/L		90
95)	3,3-dimethyl-1-butanol	14.06	57	7553	43.87	ug/L		90
96)	dibromochloromethane	14.15	129	13378	4.52	ug/L		98
97)	1,2-dibromoethane	14.29	107	10632	4.59	ug/L		97
98)	chlorobenzene	14.74	112	27459	4.73	ug/L		94
99)	1,1,1,2-tetrachloroethane	14.79	131	12149	4.60	ug/L		94
100)	ethylbenzene	14.81	91	45370	4.85	ug/L		99
101)	m,p-xylene	14.90	106	33531	9.35	ug/L		98
102)	o-xylene	15.29	106	17156	4.41	ug/L		87
103)	styrene	15.29	104	26408	4.18	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

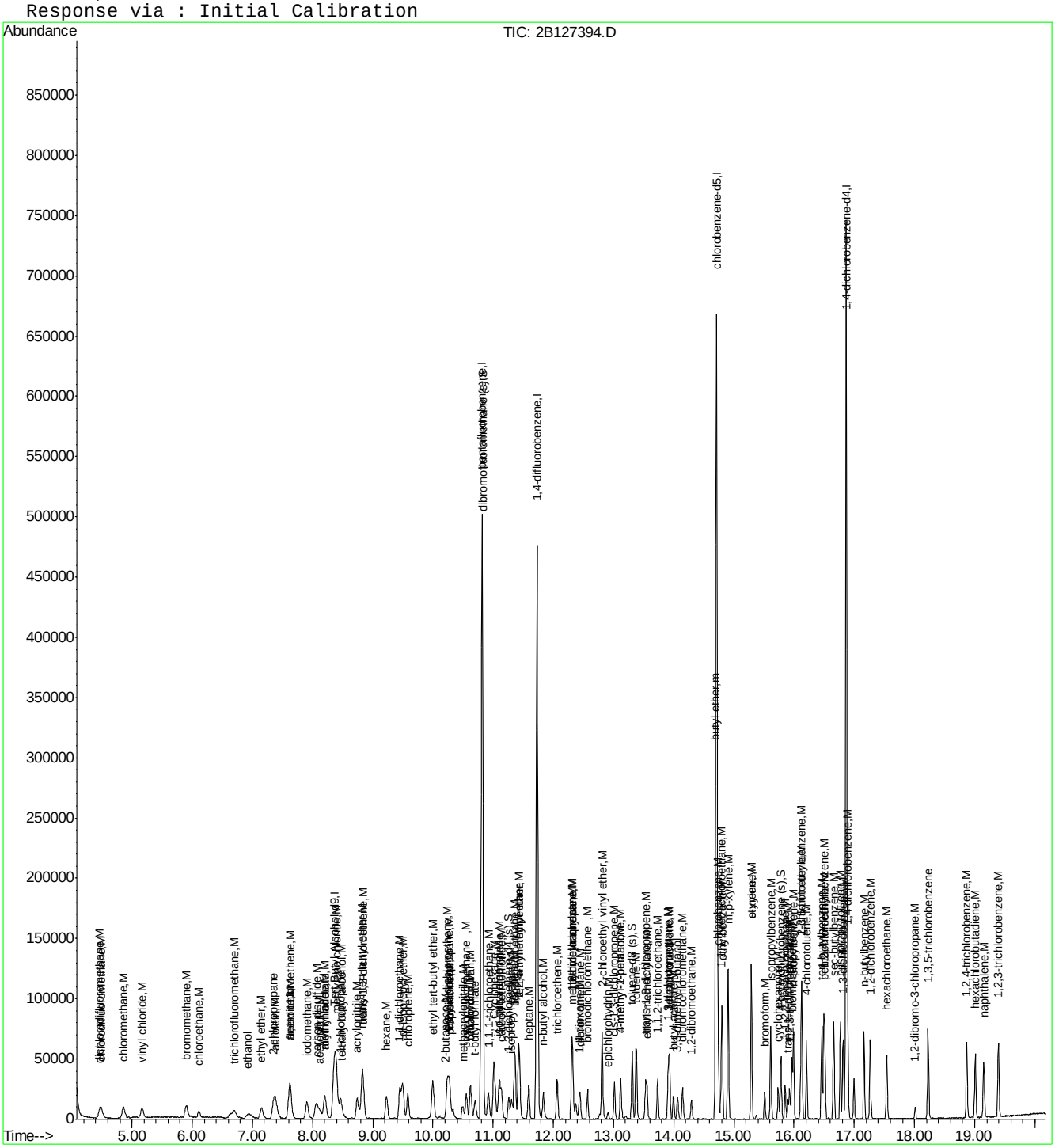
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
105)	bromoform	15.51	173	9919	4.19	ug/L	97
107)	isopropylbenzene	15.61	105	45185	4.55	ug/L	95
109)	cyclohexanone	15.74	98	4855	50.48	ug/L	96
110)	bromobenzene	15.97	156	14233	4.65	ug/L	91
111)	1,1,2,2-tetrachloroethane	15.85	83	12211	4.69	ug/L	91
112)	trans-1,4-dichloro-2-buten	15.90	53	3120	4.60	ug/L	93
113)	1,2,3-trichloropropane	15.92	110	3450	4.68	ug/L	89
114)	n-propylbenzene	15.99	91	49811	4.79	ug/L	97
115)	2-chlorotoluene	16.12	126	11405	4.58	ug/L	99
116)	4-chlorotoluene	16.21	91	33216	4.82	ug/L	98
117)	1,3,5-trimethylbenzene	16.13	105	38716	4.78	ug/L	95
118)	tert-butylbenzene	16.46	119	33950	4.46	ug/L	98
119)	pentachloroethane	16.51	167	9864	4.71	ug/L	94
120)	1,2,4-trimethylbenzene	16.49	105	37856	4.66	ug/L	97
121)	sec-butylbenzene	16.66	105	48657	4.48	ug/L	99
122)	1,3-dichlorobenzene	16.81	146	26164	4.84	ug/L	98
123)	p-isopropyltoluene	16.77	119	42332	4.43	ug/L	95
124)	1,4-dichlorobenzene	16.89	146	24268	4.52	ug/L	98
125)	1,2-dichlorobenzene	17.27	146	26094	4.62	ug/L	95
126)	n-butylbenzene	17.16	92	19565	4.19	ug/L	98
127)	1,2-dibromo-3-chloropropan	18.01	75	2444	4.34	ug/L	82
128)	1,3,5-trichlorobenzene	18.22	180	24837	4.35	ug/L	97
129)	1,2,4-trichlorobenzene	18.87	180	21363	4.12	ug/L	94
130)	hexachlorobutadiene	19.01	225	12581	4.52	ug/L	92
131)	naphthalene	19.15	128	36531	3.99	ug/L	98
132)	1,2,3-trichlorobenzene	19.39	180	18723	4.05	ug/L	95
133)	hexachloroethane	17.54	201	8945	3.95	ug/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	116059	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	390368	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	388792	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	329213	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	184387	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	24229	9.51	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 19.02%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	29292	9.84	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 19.68%#				
82) toluene-d8 (s)	13.31	98	73257	9.36	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 18.72%#				
108) 4-bromofluorobenzene (s)	15.78	95	27962	9.39	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 18.78%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	12184	50.95	ug/L		81
3) ethanol	6.93	45	26009	1001.84	ug/L		96
4) 1,4-dioxane	12.42	88	5229	232.52	ug/L		92
9) chlorodifluoromethane	4.48	51	24583	8.70	ug/L		96
10) dichlorodifluoromethane	4.46	85	32712	9.36	ug/L		97
12) chloromethane	4.86	50	35086	9.73	ug/L		98
13) vinyl chloride	5.16	62	31244	9.59	ug/L		98
15) bromomethane	5.90	94	23736	9.81	ug/L		98
16) chloroethane	6.11	64	15658	10.31	ug/L		96
18) trichlorofluoromethane	6.69	101	41624	10.07	ug/L		91
20) ethyl ether	7.15	74	12970	10.07	ug/L		94
21) acrolein	7.39	56	38097	94.78	ug/L		93
22) 2-chloropropane	7.35	43	40803	9.68	ug/L		94
24) 1,1-dichloroethene	7.62	96	22369	9.44	ug/L		92
25) acetone	7.66	43	7822	10.82	ug/L		88
26) allyl chloride	8.20	76	11371	9.20	ug/L	#	87
27) acetonitrile	8.12	40	14205	102.17	ug/L		83
28) iodomethane	7.91	142	48762	9.68	ug/L		95
29) iso-butyl alcohol	11.10	74	2752	100.96	ug/L	#	38
30) carbon disulfide	8.05	76	72292	9.65	ug/L		98
31) methylene chloride	8.39	84	24760	9.40	ug/L		96
32) methyl acetate	8.19	74	3741	9.58	ug/L		93
33) 1-chloropropane	8.46	42	41756	9.32	ug/L		98
34) methyl tert butyl ether	8.82	73	73612	9.99	ug/L		94
35) trans-1,2-dichloroethene	8.83	96	24094	9.59	ug/L		92
36) di-isopropyl ether	9.50	45	70010	9.77	ug/L		99
37) 2-butanone	10.21	72	2310	9.03	ug/L		96
38) 1,1-dichloroethane	9.44	63	41711	9.48	ug/L		93
39) chloroprene	9.58	53	29155	9.35	ug/L		95
40) acrylonitrile	8.74	53	42189	49.75	ug/L		100
41) vinyl acetate	9.45	86	3531	8.97	ug/L		58
42) ethyl tert-butyl ether	10.00	59	73537	9.64	ug/L		99
43) ethyl acetate	10.26	45	2576	9.20	ug/L	#	37

(#) = qualifier out of range (m) = manual integration
2B127395.D M2B5744.M Tue Feb 10 09:39:43 2015 MS2B Page 1

7.6.17
7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	36545	9.72	ug/L		97
45)	cis-1,2-dichloroethene	10.23	96	25819	9.45	ug/L		93
46)	propionitrile	10.28	54	31162	101.20	ug/L		96
47)	bromochloromethane	10.56	128	14354	10.09	ug/L		97
48)	tetrahydrofuran	10.62	42	5888m	8.99	ug/L		
49)	chloroform	10.62	83	44686	9.77	ug/L		93
50)	t-butyl formate	10.70	59	19654	9.48	ug/L		94
53)	freon 113	7.62	151	16290	8.55	ug/L		97
54)	methacrylonitrile	10.50	41	13669	9.83	ug/L		99
55)	1,1,1-trichloroethane	10.92	97	37667	9.44	ug/L		97
56)	Cyclohexane	11.02	84	29853	9.16	ug/L		97
61)	epichlorohydrin	12.91	57	9312	48.31	ug/L		93
62)	n-butyl alcohol	11.83	56	24347	462.88	ug/L		97
63)	carbon tetrachloride	11.14	117	37608	9.78	ug/L		99
64)	1,1-dichloropropene	11.10	75	29728	9.83	ug/L		99
65)	hexane	9.23	57	20621	8.97	ug/L		93
66)	benzene	11.36	78	81073	9.74	ug/L		94
67)	2,2,4-trimethylpentane	11.43	57	59593	8.55	ug/L		97
68)	tert-amyl methyl ether	11.44	73	64489	9.92	ug/L		99
69)	heptane	11.59	57	11377	8.39	ug/L		96
70)	isopropyl acetate	11.30	43	37098	10.08	ug/L		98
71)	1,2-dichloroethane	11.35	62	33762	10.26	ug/L		96
72)	trichloroethene	12.06	95	22246	9.70	ug/L		96
74)	2-nitropropane	12.77	41	5786	9.50	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	59245	50.56	ug/L		98
76)	methyl methacrylate	12.33	100	4995	9.99	ug/L	#	92
77)	1,2-dichloropropane	12.31	63	20753	9.85	ug/L		96
78)	dibromomethane	12.44	93	14787	9.79	ug/L		96
79)	methylcyclohexane	12.31	83	28075	8.88	ug/L		96
80)	bromodichloromethane	12.57	83	31801	9.69	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	34544	9.55	ug/L		94
83)	4-methyl-2-pentanone	13.11	58	7012	9.61	ug/L	#	78
84)	toluene	13.38	92	48781	9.72	ug/L		97
85)	3-methyl-1-butanol	13.11	55	15215	196.09	ug/L		96
86)	trans-1,3-dichloropropene	13.53	75	33276	9.52	ug/L		94
87)	ethyl methacrylate	13.55	69	23253	9.58	ug/L		96
88)	1,1,2-trichloroethane	13.73	83	16130	9.64	ug/L		97
89)	2-hexanone	13.92	58	5491	8.99	ug/L		92
91)	butyl ether	14.69	57	74758	9.44	ug/L		96
92)	tetrachloroethene	13.93	164	20811	9.46	ug/L		97
93)	1,3-dichloropropane	13.90	76	30465	9.91	ug/L		95
94)	butyl acetate	13.99	56	10733	9.63	ug/L		99
95)	3,3-dimethyl-1-butanol	14.07	57	15198	92.22	ug/L		92
96)	dibromochloromethane	14.15	129	27295	9.95	ug/L		96
97)	1,2-dibromoethane	14.29	107	21394	9.73	ug/L		94
98)	chlorobenzene	14.74	112	53139	9.45	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	23921	9.58	ug/L		98
100)	ethylbenzene	14.80	91	89442	9.56	ug/L		99
101)	m,p-xylene	14.90	106	67905	19.06	ug/L		99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

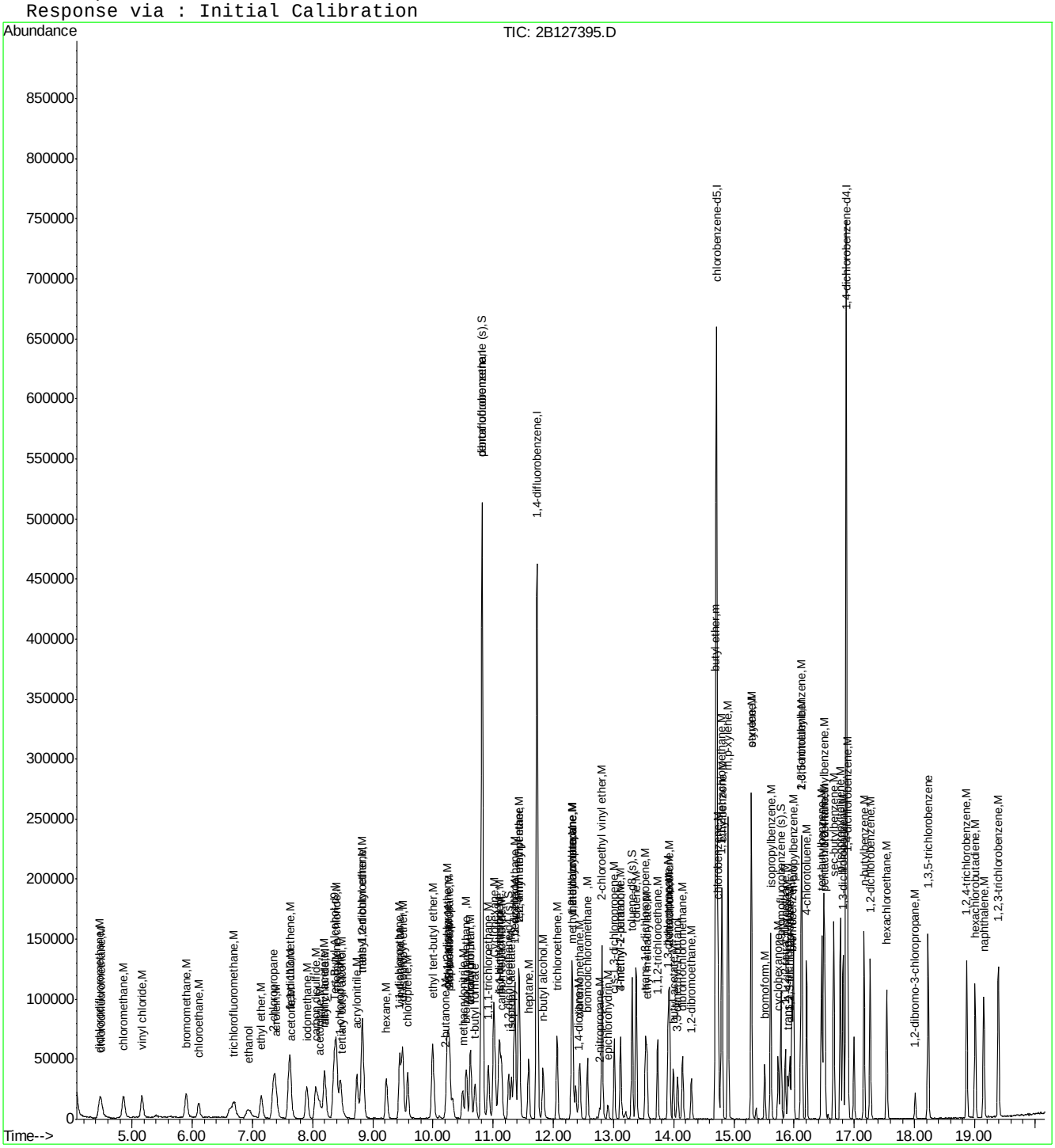
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	34840	9.23	ug/L	92
103) styrene	15.29	104	56321	9.68	ug/L	98
105) bromoform	15.51	173	20469	9.51	ug/L	99
107) isopropylbenzene	15.61	105	94894	10.01	ug/L	98
109) cyclohexanone	15.73	98	9009	91.87	ug/L	96
110) bromobenzene	15.97	156	29428	9.84	ug/L	96
111) 1,1,2,2-tetrachloroethane	15.86	83	24762	9.72	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	6468	9.73	ug/L	97
113) 1,2,3-trichloropropane	15.93	110	7185	10.38	ug/L	95
114) n-propylbenzene	15.99	91	102167	9.98	ug/L	99
115) 2-chlorotoluene	16.12	126	23776	9.64	ug/L	99
116) 4-chlorotoluene	16.21	91	65689	9.62	ug/L	97
117) 1,3,5-trimethylbenzene	16.13	105	79176	10.08	ug/L	95
118) tert-butylbenzene	16.46	119	70970	9.90	ug/L	98
119) pentachloroethane	16.51	167	20075	10.11	ug/L	94
120) 1,2,4-trimethylbenzene	16.49	105	78820	10.19	ug/L	97
121) sec-butylbenzene	16.66	105	103053	9.94	ug/L	97
122) 1,3-dichlorobenzene	16.81	146	52759	9.75	ug/L	97
123) p-isopropyltoluene	16.77	119	87057	9.82	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	50481	9.31	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	53092	10.11	ug/L	97
126) n-butylbenzene	17.16	92	41290	9.38	ug/L	97
127) 1,2-dibromo-3-chloropropan	18.02	75	5021	9.47	ug/L	92
128) 1,3,5-trichlorobenzene	18.23	180	50490	9.57	ug/L	97
129) 1,2,4-trichlorobenzene	18.87	180	43783	9.26	ug/L	94
130) hexachlorobutadiene	19.01	225	26090	9.96	ug/L	95
131) naphthalene	19.15	128	78895	9.59	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	40921	9.90	ug/L	98
133) hexachloroethane	17.54	201	19573	9.22	ug/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:47 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

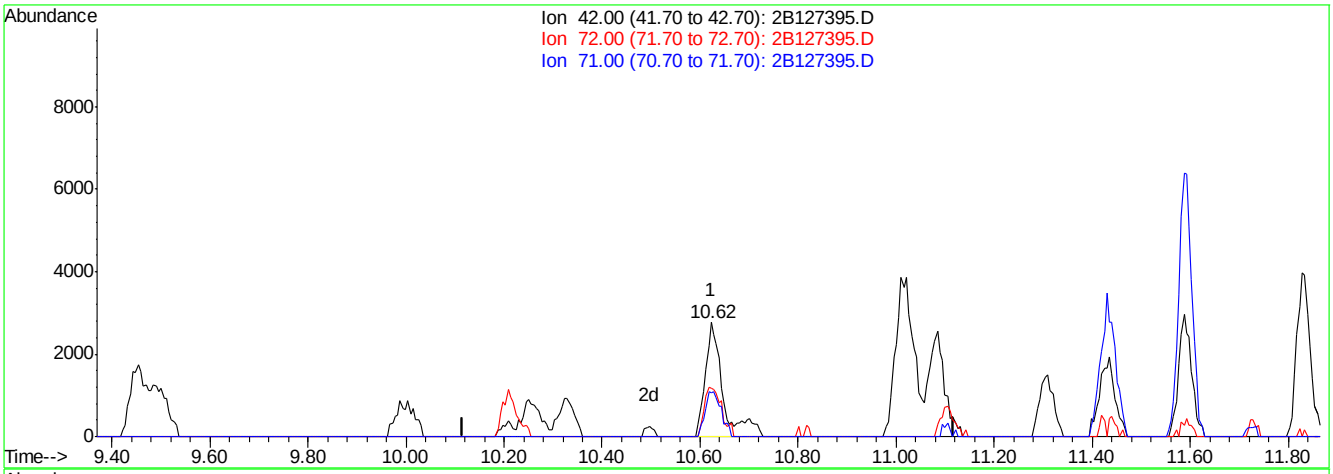
Sample Number:	V2B5744-IC5744	**Method:**	SW846 8260C
Lab FileID:	2B127395.D	**Analyst approved:**	02/06/15 17:04 Maricela Delgaolillo
Injection Time:	02/05/15 18:39	**Supervisor approved:**	02/09/15 17:03 Jessica Reitan-Chu

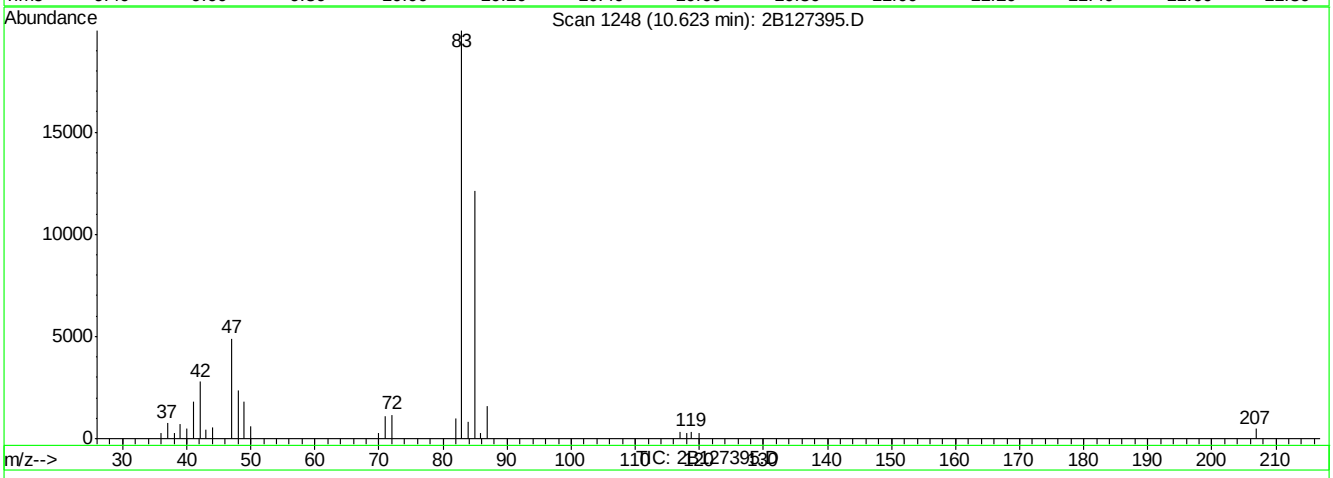
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrahydrofuran	109-99-9		10.62	Overlapping peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:28:56 2015
Response via : Multiple Level Calibration





(48) tetrahydrofuran (M)

10.62min 10.58ug/L

response 6933

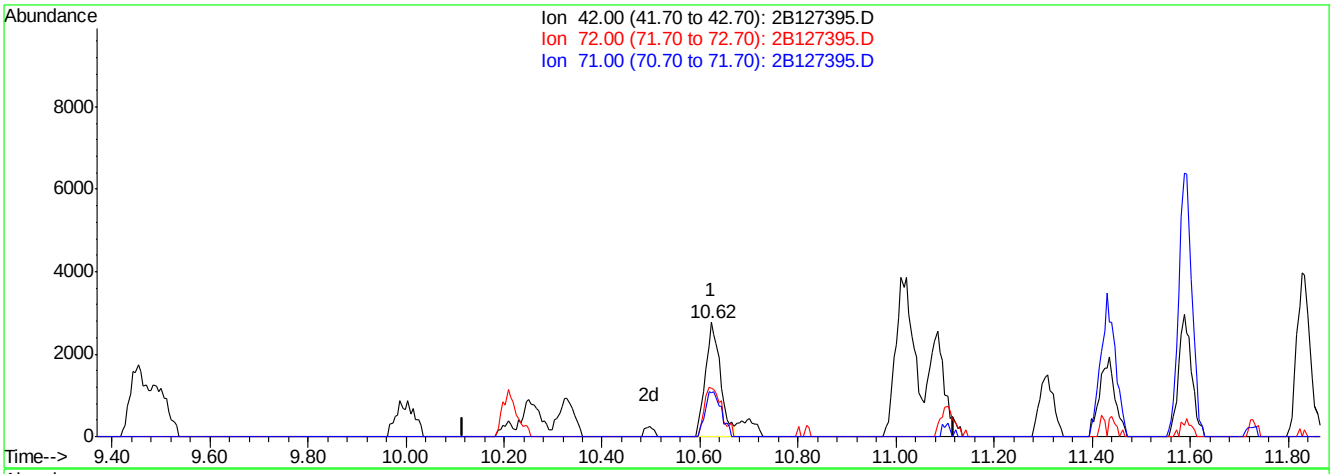
Ion	Exp%	Act%
42.00	100	100
72.00	46.20	41.87
71.00	39.20	38.67
0.00	0.00	0.00

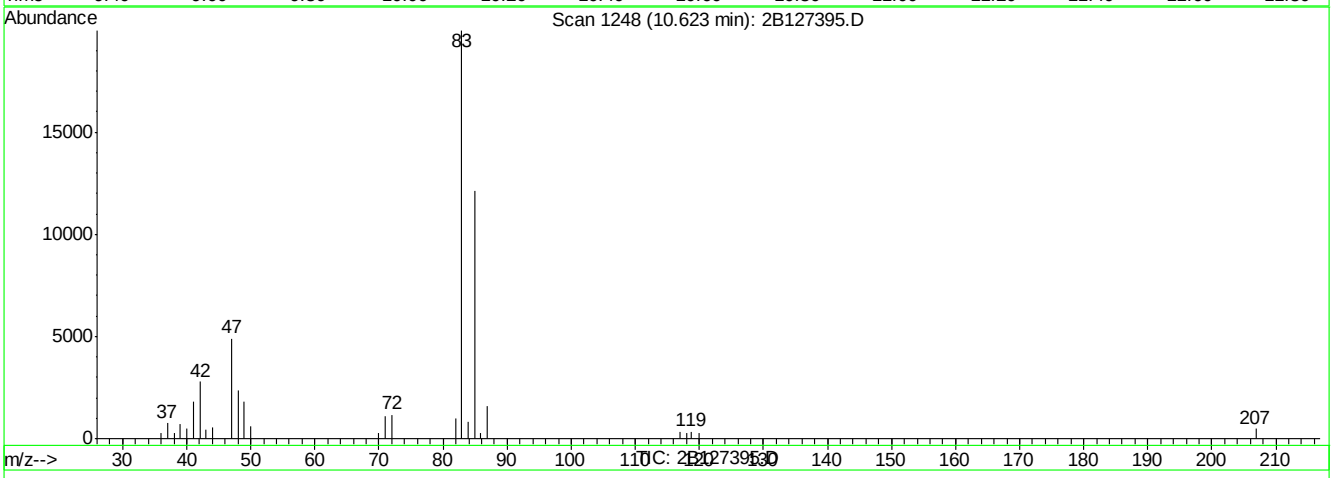
2B127395.D M2B5744.M Fri Feb 06 16:46:48 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:47 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:28:56 2015
Response via : Multiple Level Calibration





(48) tetrahydrofuran (M)

10.62min 8.99ug/L m

response 5888

Ion	Exp%	Act%
42.00	100	100
72.00	46.20	41.87
71.00	39.20	38.67
0.00	0.00	0.00

2B127395.D M2B5744.M Fri Feb 06 16:47:42 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	117068	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	387565	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	391421	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	335303	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	184029	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	127773	50.50	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 101.00%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	154311	52.19	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 104.38%			
82) toluene-d8 (s)	13.31	98	417958	53.03	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 106.06%			
108) 4-bromofluorobenzene (s)	15.78	95	156358	52.64	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 105.28%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.49	59	23344	96.77	ug/L	80
3) ethanol	6.94	45	54075	2064.97	ug/L	94
4) 1,4-dioxane	12.42	88	11177	492.73	ug/L	94
9) chlorodifluoromethane	4.47	51	61190	21.81	ug/L	96
10) dichlorodifluoromethane	4.46	85	80078	23.09	ug/L	99
12) chloromethane	4.87	50	77887	21.76	ug/L	99
13) vinyl chloride	5.16	62	70304	21.74	ug/L	99
15) bromomethane	5.90	94	49426	20.57	ug/L	99
16) chloroethane	6.11	64	33052	21.92	ug/L	98
18) trichlorofluoromethane	6.70	101	94804	23.11	ug/L	96
20) ethyl ether	7.15	74	24853	19.44	ug/L	88
21) acrolein	7.38	56	81613	204.52	ug/L	100
22) 2-chloropropane	7.35	43	83098	19.85	ug/L	98
24) 1,1-dichloroethene	7.61	96	46431	19.74	ug/L	91
25) acetone	7.63	43	15247	21.24	ug/L	93
26) allyl chloride	8.20	76	25177	20.53	ug/L	98
27) acetonitrile	8.12	40	29025	210.28	ug/L	98
28) iodomethane	7.90	142	99518	19.90	ug/L	98
29) iso-butyl alcohol	11.09	74	5782	213.65	ug/L #	76
30) carbon disulfide	8.05	76	149728	20.13	ug/L	99
31) methylene chloride	8.39	84	50494	19.31	ug/L	99
32) methyl acetate	8.19	74	7541	19.45	ug/L	94
33) 1-chloropropane	8.46	42	83447	18.77	ug/L	98
34) methyl tert butyl ether	8.82	73	147196	20.13	ug/L	97
35) trans-1,2-dichloroethene	8.83	96	47906	19.20	ug/L	97
36) di-isopropyl ether	9.50	45	147672	20.75	ug/L	98
37) 2-butanone	10.20	72	4956	19.52	ug/L	92
38) 1,1-dichloroethane	9.45	63	85787	19.64	ug/L	99
39) chloroprene	9.58	53	67095	21.66	ug/L	97
40) acrylonitrile	8.73	53	86138	102.32	ug/L	99
41) vinyl acetate	9.45	86	7317	18.71	ug/L	89
42) ethyl tert-butyl ether	10.00	59	157786	20.83	ug/L	98
43) ethyl acetate	10.25	45	5491	19.76	ug/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	74956	20.07	ug/L		99
45)	cis-1,2-dichloroethene	10.23	96	51914	19.14	ug/L		95
46)	propionitrile	10.27	54	62392	204.09	ug/L		96
47)	bromochloromethane	10.55	128	28129	19.92	ug/L		100
48)	tetrahydrofuran	10.62	42	12391	19.05	ug/L		92
49)	chloroform	10.62	83	88221	19.42	ug/L		94
50)	t-butyl formate	10.70	59	43632	21.21	ug/L		97
53)	freon 113	7.62	151	40035	21.16	ug/L		96
54)	methacrylonitrile	10.49	41	27782	20.13	ug/L		96
55)	1,1,1-trichloroethane	10.92	97	79844	20.16	ug/L		97
56)	Cyclohexane	11.02	84	65952	20.38	ug/L		95
61)	epichlorohydrin	12.91	57	19586	100.93	ug/L		97
62)	n-butyl alcohol	11.83	56	52538	992.12	ug/L		98
63)	carbon tetrachloride	11.14	117	76730	19.82	ug/L		99
64)	1,1-dichloropropene	11.10	75	59620	19.59	ug/L		98
65)	hexane	9.22	57	50366	21.75	ug/L		94
66)	benzene	11.36	78	166016	19.82	ug/L		98
67)	2,2,4-trimethylpentane	11.43	57	151971	21.67	ug/L		97
68)	tert-amyl methyl ether	11.43	73	138747	21.19	ug/L		98
69)	heptane	11.59	57	28861	21.14	ug/L		94
70)	isopropyl acetate	11.30	43	75826	20.46	ug/L		99
71)	1,2-dichloroethane	11.35	62	67892	20.50	ug/L		97
72)	trichloroethene	12.06	95	46439	20.11	ug/L		94
74)	2-nitropropane	12.77	41	12217	20.44	ug/L		100
75)	2-chloroethyl vinyl ether	12.81	63	130591	110.70	ug/L		99
76)	methyl methacrylate	12.33	100	10680	21.21	ug/L	#	91
77)	1,2-dichloropropane	12.31	63	42644	20.10	ug/L		99
78)	dibromomethane	12.44	93	30228	19.88	ug/L		92
79)	methylcyclohexane	12.31	83	70821	22.26	ug/L		98
80)	bromodichloromethane	12.57	83	65847	19.94	ug/L		97
81)	cis-1,3-dichloropropene	13.01	75	73484	20.19	ug/L		100
83)	4-methyl-2-pentanone	13.12	58	14473	19.69	ug/L		90
84)	toluene	13.38	92	98534	19.51	ug/L		99
85)	3-methyl-1-butanol	13.12	55	32409	414.87	ug/L		94
86)	trans-1,3-dichloropropene	13.53	75	70236	19.97	ug/L		97
87)	ethyl methacrylate	13.55	69	49867	20.41	ug/L		99
88)	1,1,2-trichloroethane	13.73	83	33149	19.68	ug/L		95
89)	2-hexanone	13.92	58	12483	20.30	ug/L		90
91)	butyl ether	14.69	57	161686	20.05	ug/L		99
92)	tetrachloroethene	13.93	164	43911	19.60	ug/L		96
93)	1,3-dichloropropane	13.90	76	63419	20.26	ug/L		99
94)	butyl acetate	13.99	56	22817	20.11	ug/L		95
95)	3,3-dimethyl-1-butanol	14.06	57	32644	194.49	ug/L		99
96)	dibromochloromethane	14.15	129	57180	20.47	ug/L		99
97)	1,2-dibromoethane	14.29	107	44169	19.72	ug/L		95
98)	chlorobenzene	14.74	112	114791	20.05	ug/L		96
99)	1,1,1,2-tetrachloroethane	14.79	131	50918	20.01	ug/L		98
100)	ethylbenzene	14.81	91	188252	19.76	ug/L		99
101)	m,p-xylene	14.90	106	142360	39.24	ug/L		99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

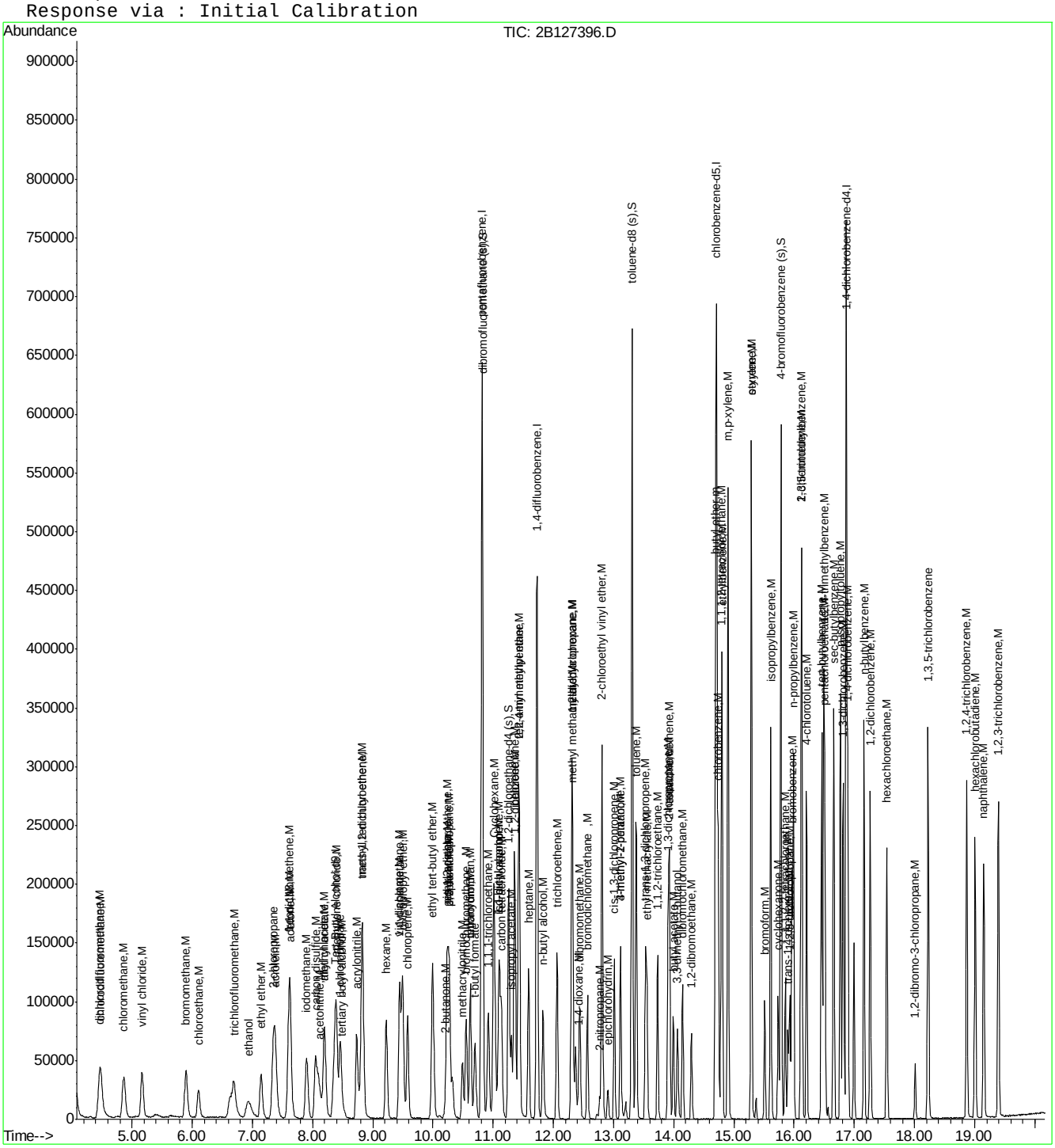
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	74975	19.51	ug/L	97
103) styrene	15.29	104	123673	20.88	ug/L	98
105) bromoform	15.51	173	45055	20.55	ug/L	100
107) isopropylbenzene	15.61	105	199231	21.05	ug/L	99
109) cyclohexanone	15.74	98	18145	185.40	ug/L	97
110) bromobenzene	15.97	156	61521	20.61	ug/L	99
111) 1,1,2,2-tetrachloroethane	15.85	83	50986	20.06	ug/L	98
112) trans-1,4-dichloro-2-buten	15.90	53	13667	20.59	ug/L	88
113) 1,2,3-trichloropropane	15.92	110	14375	20.81	ug/L	96
114) n-propylbenzene	15.99	91	214166	20.96	ug/L	99
115) 2-chlorotoluene	16.12	126	50066	20.34	ug/L	96
116) 4-chlorotoluene	16.21	91	138754	20.37	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	164547	21.00	ug/L	98
118) tert-butylbenzene	16.46	119	148362	20.74	ug/L	97
119) pentachloroethane	16.51	167	41855	21.12	ug/L	97
120) 1,2,4-trimethylbenzene	16.49	105	163796	21.21	ug/L	99
121) sec-butylbenzene	16.66	105	217293	21.00	ug/L	98
122) 1,3-dichlorobenzene	16.81	146	109667	20.31	ug/L	100
123) p-isopropyltoluene	16.77	119	189076	21.36	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	105370	19.47	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	111431	21.26	ug/L	99
126) n-butylbenzene	17.16	92	90990	20.71	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	10556	19.96	ug/L	95
128) 1,3,5-trichlorobenzene	18.22	180	110757	21.04	ug/L	99
129) 1,2,4-trichlorobenzene	18.87	180	98434	20.86	ug/L	98
130) hexachlorobutadiene	19.01	225	55061	21.05	ug/L	99
131) naphthalene	19.15	128	173385	21.11	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	88037	21.34	ug/L	99
133) hexachloroethane	17.54	201	43468	20.52	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
2B127396.D M2B5744.M Tue Feb 10 09:39:50 2015 MS2B Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	113322	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	382082	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	390245	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	334476	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	187662	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	124327	49.84	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.68%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	151150	51.86	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 103.72%			
82) toluene-d8 (s)	13.31	98	401889	51.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 102.28%			
108) 4-bromofluorobenzene (s)	15.78	95	152231	50.25	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.50	59	59741	255.85	ug/L	100
3) ethanol	6.94	45	132234	5216.56	ug/L	100
4) 1,4-dioxane	12.42	88	29031	1322.12	ug/L	100
9) chlorodifluoromethane	4.48	51	148103	53.55	ug/L	100
10) dichlorodifluoromethane	4.46	85	188159	55.03	ug/L	100
12) chloromethane	4.88	50	188227	53.34	ug/L	100
13) vinyl chloride	5.18	62	170243	53.41	ug/L	100
15) bromomethane	5.90	94	116115	49.01	ug/L	100
16) chloroethane	6.11	64	78359	52.72	ug/L	100
18) trichlorofluoromethane	6.69	101	220470	54.52	ug/L	100
20) ethyl ether	7.15	74	62538	49.62	ug/L	100
21) acrolein	7.39	56	190268	483.64	ug/L	100
22) 2-chloropropane	7.35	43	200932	48.75	ug/L	100
24) 1,1-dichloroethene	7.61	96	107930	46.53	ug/L	100
25) acetone	7.64	43	35095	49.58	ug/L	100
26) allyl chloride	8.21	76	62765	51.91	ug/L	100
27) acetonitrile	8.11	40	65498	481.33	ug/L	100
28) iodomethane	7.91	142	244731	49.64	ug/L	100
29) iso-butyl alcohol	11.09	74	13224	495.65	ug/L	100
30) carbon disulfide	8.05	76	361485	49.29	ug/L	100
31) methylene chloride	8.39	84	121966	47.32	ug/L	100
32) methyl acetate	8.19	74	19143	50.08	ug/L	100
33) 1-chloropropane	8.46	42	202083	46.11	ug/L	100
34) methyl tert butyl ether	8.82	73	363805	50.46	ug/L	100
35) trans-1,2-dichloroethene	8.83	96	115005	46.76	ug/L	100
36) di-isopropyl ether	9.50	45	364255	51.92	ug/L	100
37) 2-butanone	10.20	72	12618	50.41	ug/L	100
38) 1,1-dichloroethane	9.44	63	212110	49.25	ug/L	100
39) chloroprene	9.58	53	161638	52.94	ug/L	100
40) acrylonitrile	8.74	53	215994	260.25	ug/L	100
41) vinyl acetate	9.45	86	19397	50.32	ug/L	100
42) ethyl tert-butyl ether	10.00	59	399791	53.54	ug/L	100
43) ethyl acetate	10.25	45	14396	52.54	ug/L	100

(#) = qualifier out of range (m) = manual integration
2B127397.D M2B5744.M Tue Feb 10 09:39:54 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	176894	48.05	ug/L		100
45)	cis-1,2-dichloroethene	10.23	96	130002	48.62	ug/L		100
46)	propionitrile	10.28	54	152236	505.13	ug/L		100
47)	bromochloromethane	10.55	128	70259	50.46	ug/L		100
48)	tetrahydrofuran	10.62	42	30610	47.74	ug/L		100
49)	chloroform	10.62	83	216295	48.29	ug/L		100
50)	t-butyl formate	10.70	59	110164	54.32	ug/L		100
53)	freon 113	7.63	151	93989	50.40	ug/L		100
54)	methacrylonitrile	10.49	41	67999	49.99	ug/L		100
55)	1,1,1-trichloroethane	10.92	97	196804	50.40	ug/L		100
56)	Cyclohexane	11.02	84	155576	48.77	ug/L		100
61)	epichlorohydrin	12.91	57	49921	258.03	ug/L		100
62)	n-butyl alcohol	11.83	56	138588	2624.97	ug/L		100
63)	carbon tetrachloride	11.14	117	187663	48.61	ug/L		100
64)	1,1-dichloropropene	11.10	75	145210	47.85	ug/L		100
65)	hexane	9.22	57	118280	51.24	ug/L		100
66)	benzene	11.36	78	407111	48.74	ug/L		100
67)	2,2,4-trimethylpentane	11.43	57	364764	52.17	ug/L		100
68)	tert-amyl methyl ether	11.44	73	346613	53.10	ug/L		100
69)	heptane	11.59	57	70641	51.89	ug/L		100
70)	isopropyl acetate	11.30	43	194424	52.61	ug/L		100
71)	1,2-dichloroethane	11.35	62	169041	51.18	ug/L		100
72)	trichloroethene	12.06	95	114418	49.69	ug/L		100
74)	2-nitropropane	12.77	41	30566	50.00	ug/L	#	100
75)	2-chloroethyl vinyl ether	12.81	63	328528	279.33	ug/L		100
76)	methyl methacrylate	12.33	100	26965	53.72	ug/L		100
77)	1,2-dichloropropane	12.31	63	105449	49.86	ug/L		100
78)	dibromomethane	12.44	93	75468	49.78	ug/L		100
79)	methylcyclohexane	12.31	83	171957	54.20	ug/L		100
80)	bromodichloromethane	12.57	83	166669	50.62	ug/L		100
81)	cis-1,3-dichloropropene	13.01	75	184449	50.83	ug/L		100
83)	4-methyl-2-pentanone	13.12	58	37364	50.99	ug/L		100
84)	toluene	13.38	92	246114	48.87	ug/L		100
85)	3-methyl-1-butanol	13.11	55	83665	1074.24	ug/L		100
86)	trans-1,3-dichloropropene	13.53	75	178701	50.95	ug/L		100
87)	ethyl methacrylate	13.55	69	128588	52.79	ug/L		100
88)	1,1,2-trichloroethane	13.73	83	82609	49.18	ug/L		100
89)	2-hexanone	13.92	58	31783	51.84	ug/L		100
91)	butyl ether	14.69	57	417991	51.97	ug/L		100
92)	tetrachloroethene	13.93	164	106324	47.59	ug/L		100
93)	1,3-dichloropropane	13.90	76	161330	51.67	ug/L		100
94)	butyl acetate	13.99	56	58514	51.69	ug/L		100
95)	3,3-dimethyl-1-butanol	14.06	57	84193	502.85	ug/L		100
96)	dibromochloromethane	14.15	129	144887	51.99	ug/L		100
97)	1,2-dibromoethane	14.29	107	113287	50.71	ug/L		100
98)	chlorobenzene	14.74	112	284082	49.73	ug/L		100
99)	1,1,1,2-tetrachloroethane	14.79	131	129011	50.83	ug/L		100
100)	ethylbenzene	14.80	91	457007	48.08	ug/L		100
101)	m,p-xylene	14.90	106	350724	96.90	ug/L		100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

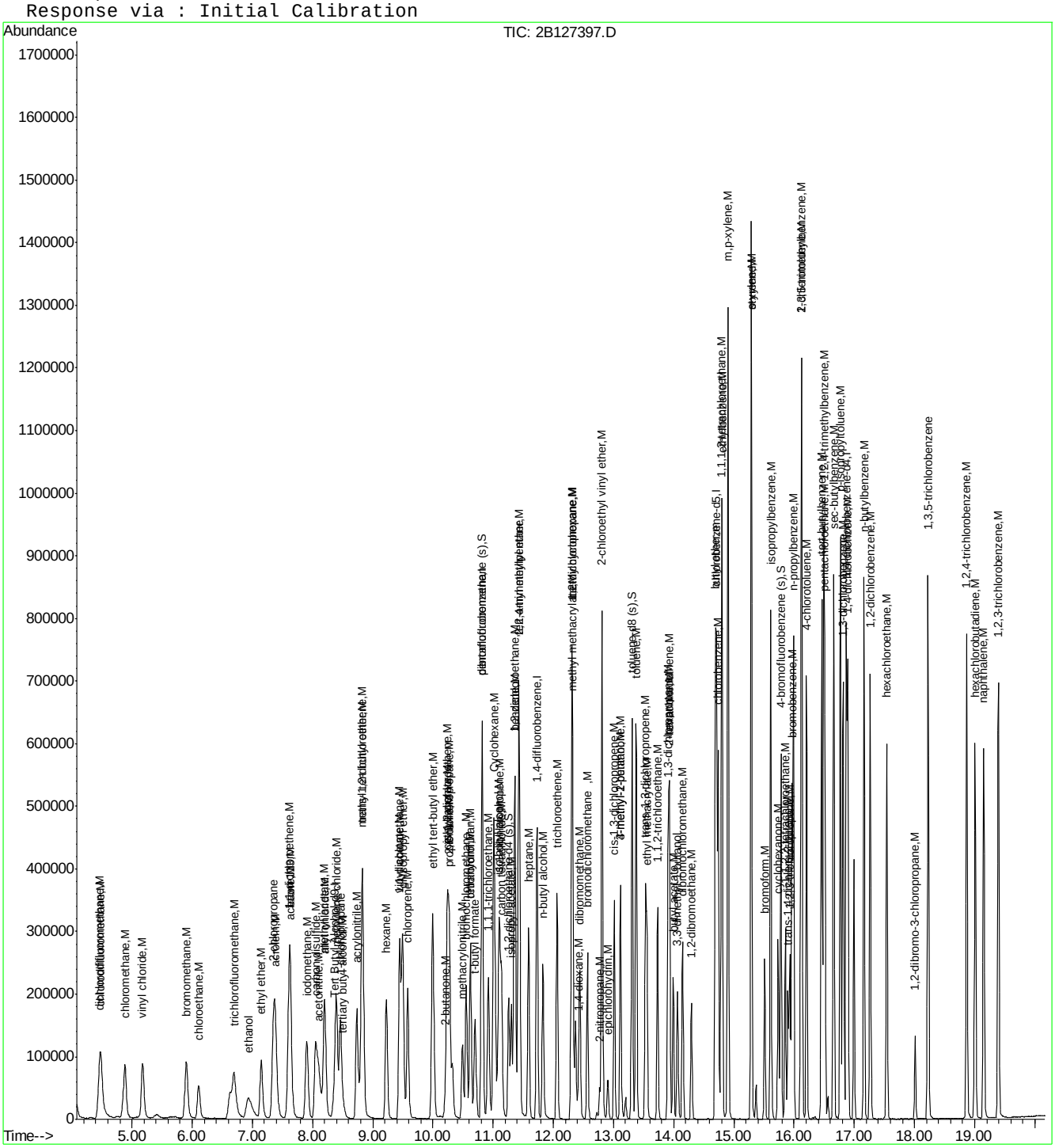
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	190213	49.61	ug/L	100
103) styrene	15.29	104	309244	52.34	ug/L	100
105) bromoform	15.51	173	115743	52.91	ug/L	100
107) isopropylbenzene	15.61	105	503090	52.13	ug/L	100
109) cyclohexanone	15.74	98	48727	488.24	ug/L	100
110) bromobenzene	15.97	156	155203	50.99	ug/L	100
111) 1,1,2,2-tetrachloroethane	15.86	83	131828	50.86	ug/L	100
112) trans-1,4-dichloro-2-buten	15.90	53	34391	50.82	ug/L	100
113) 1,2,3-trichloropropane	15.93	110	37385	53.06	ug/L	100
114) n-propylbenzene	15.99	91	526432	50.53	ug/L	100
115) 2-chlorotoluene	16.12	126	126195	50.26	ug/L	100
116) 4-chlorotoluene	16.21	91	349336	50.28	ug/L	100
117) 1,3,5-trimethylbenzene	16.13	105	410343	51.34	ug/L	100
118) tert-butylbenzene	16.46	119	385257	52.80	ug/L	100
119) pentachloroethane	16.51	167	106072	52.48	ug/L	100
120) 1,2,4-trimethylbenzene	16.49	105	411990	52.32	ug/L	100
121) sec-butylbenzene	16.66	105	549684	52.09	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	273864	49.74	ug/L	100
123) p-isopropyltoluene	16.77	119	483854	53.61	ug/L	100
124) 1,4-dichlorobenzene	16.89	146	272030	49.29	ug/L	100
125) 1,2-dichlorobenzene	17.27	146	286398	53.57	ug/L	100
126) n-butylbenzene	17.16	92	236349	52.75	ug/L	100
127) 1,2-dibromo-3-chloropropan	18.01	75	28539	52.91	ug/L	100
128) 1,3,5-trichlorobenzene	18.22	180	289523	53.94	ug/L	100
129) 1,2,4-trichlorobenzene	18.87	180	262520	54.57	ug/L	100
130) hexachlorobutadiene	19.01	225	141005	52.87	ug/L	100
131) naphthalene	19.15	128	464334	55.44	ug/L	100
132) 1,2,3-trichlorobenzene	19.39	180	234107	55.65	ug/L	100
133) hexachloroethane	17.54	201	114712	53.11	ug/L	100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 12:30 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	119534	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	401627	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	418118	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	347865	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	200396	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	260340	99.29	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 198.58%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	309472	101.01	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 202.02%#				
82) toluene-d8 (s)	13.31	98	852053	101.20	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 202.40%#				
108) 4-bromofluorobenzene (s)	15.78	95	311261	96.22	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 192.44%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	129784	526.93	ug/L		96
3) ethanol	6.94	45	271044	10136.87	ug/L		97
4) 1,4-dioxane	12.41	88	65442	2825.46	ug/L		97
9) chlorodifluoromethane	4.48	51	333965	114.87	ug/L		99
10) dichlorodifluoromethane	4.46	85	413872	115.15	ug/L		99
12) chloromethane	4.88	50	398646	107.46	ug/L		99
13) vinyl chloride	5.18	62	370056	110.44	ug/L		98
15) bromomethane	5.90	94	240383	96.52	ug/L		96
16) chloroethane	6.10	64	164700	105.42	ug/L		96
18) trichlorofluoromethane	6.68	101	475440	111.84	ug/L		98
20) ethyl ether	7.15	74	137479	103.77	ug/L		91
22) 2-chloropropane	7.35	43	441638	101.80	ug/L		97
24) 1,1-dichloroethene	7.61	96	242114	99.31	ug/L		99
25) acetone	7.64	43	69820	93.85	ug/L		90
26) allyl chloride	8.20	76	137344	108.07	ug/L		98
27) acetonitrile	8.11	40	139602	975.98	ug/L		99
28) iodomethane	7.90	142	538040	103.83	ug/L		98
29) iso-butyl alcohol	11.10	74	30805	1098.41	ug/L	#	60
30) carbon disulfide	8.05	76	807892	104.79	ug/L		98
31) methylene chloride	8.39	84	269065	99.31	ug/L		98
32) methyl acetate	8.18	74	40652	101.17	ug/L		90
33) 1-chloropropane	8.46	42	445952	96.79	ug/L		99
34) methyl tert butyl ether	8.82	73	782824	103.30	ug/L		98
35) trans-1,2-dichloroethene	8.83	96	252954	97.85	ug/L		97
36) di-isopropyl ether	9.50	45	770181	104.44	ug/L		99
37) 2-butanone	10.20	72	29219	111.06	ug/L	#	74
38) 1,1-dichloroethane	9.44	63	465643	102.85	ug/L		97
39) chloroprene	9.58	53	356239	110.99	ug/L		99
40) acrylonitrile	8.74	53	472682	541.82	ug/L		99
41) vinyl acetate	9.45	86	41976	103.59	ug/L		89
42) ethyl tert-butyl ether	9.99	59	856627	109.13	ug/L		98
43) ethyl acetate	10.25	45	29758	103.31	ug/L		65
44) 2,2-dichloropropane	10.27	77	387456	100.12	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	cis-1,2-dichloroethene	10.23	96	285213	101.49	ug/L	99
46)	propionitrile	10.28	54	334549	1056.03	ug/L	99
47)	bromochloromethane	10.55	128	155240	106.07	ug/L	99
48)	tetrahydrofuran	10.62	42	66927	99.31	ug/L	97
49)	chloroform	10.62	83	475405	100.98	ug/L	97
50)	t-butyl formate	10.70	59	240878	112.99	ug/L	98
53)	freon 113	7.62	151	209977	107.11	ug/L	91
54)	methacrylonitrile	10.49	41	153252	107.17	ug/L	97
55)	1,1,1-trichloroethane	10.92	97	443973	108.16	ug/L	98
56)	Cyclohexane	11.02	84	357019	106.48	ug/L	98
61)	epichlorohydrin	12.91	57	111691	538.81	ug/L	95
62)	n-butyl alcohol	11.83	56	317998	5621.62	ug/L	98
63)	carbon tetrachloride	11.14	117	420116	101.57	ug/L	98
64)	1,1-dichloropropene	11.11	75	333072	102.44	ug/L	98
65)	hexane	9.22	57	277781	112.31	ug/L	100
66)	benzene	11.36	78	914190	102.16	ug/L	100
67)	2,2,4-trimethylpentane	11.43	57	825173	110.15	ug/L	97
68)	tert-amyl methyl ether	11.43	73	739009	105.66	ug/L	99
69)	heptane	11.59	57	164815	112.99	ug/L	98
70)	isopropyl acetate	11.30	43	430807	108.80	ug/L	99
71)	1,2-dichloroethane	11.35	62	369364	104.39	ug/L	98
72)	trichloroethene	12.06	95	266137	107.86	ug/L	98
74)	2-nitropropane	12.77	41	70842	110.13	ug/L	94
75)	2-chloroethyl vinyl ether	12.81	63	709065	562.69	ug/L	98
76)	methyl methacrylate	12.33	100	58977	109.67	ug/L	97
77)	1,2-dichloropropane	12.31	63	239592	105.73	ug/L	97
78)	dibromomethane	12.44	93	168427	103.70	ug/L	97
79)	methylcyclohexane	12.31	83	388013	114.16	ug/L	97
80)	bromodichloromethane	12.57	83	378100	107.17	ug/L	99
81)	cis-1,3-dichloropropene	13.01	75	420380	108.12	ug/L	98
83)	4-methyl-2-pentanone	13.12	58	83585	106.47	ug/L	92
84)	toluene	13.38	92	557823	103.39	ug/L	97
85)	3-methyl-1-butanol	13.11	55	186846	2239.13	ug/L	95
86)	trans-1,3-dichloropropene	13.53	75	400332	106.54	ug/L	100
87)	ethyl methacrylate	13.55	69	285357	109.35	ug/L	97
88)	1,1,2-trichloroethane	13.73	83	186706	103.74	ug/L	98
89)	2-hexanone	13.91	58	72968	111.09	ug/L	94
91)	butyl ether	14.69	57	962043	115.00	ug/L	99
92)	tetrachloroethene	13.93	164	242291	104.27	ug/L	99
93)	1,3-dichloropropane	13.90	76	360162	110.92	ug/L	99
94)	butyl acetate	13.99	56	128864	109.46	ug/L	98
95)	3,3-dimethyl-1-butanol	14.06	57	196036	1125.77	ug/L	99
96)	dibromochloromethane	14.15	129	326199	112.55	ug/L	99
97)	1,2-dibromoethane	14.29	107	255600	110.02	ug/L	96
98)	chlorobenzene	14.74	112	635770	107.02	ug/L	100
99)	1,1,1,2-tetrachloroethane	14.79	131	288779	109.40	ug/L	98
100)	ethylbenzene	14.80	91	1015039	102.68	ug/L	97
101)	m,p-xylene	14.90	106	798792	212.21	ug/L	96
102)	o-xylene	15.29	106	426842	107.04	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

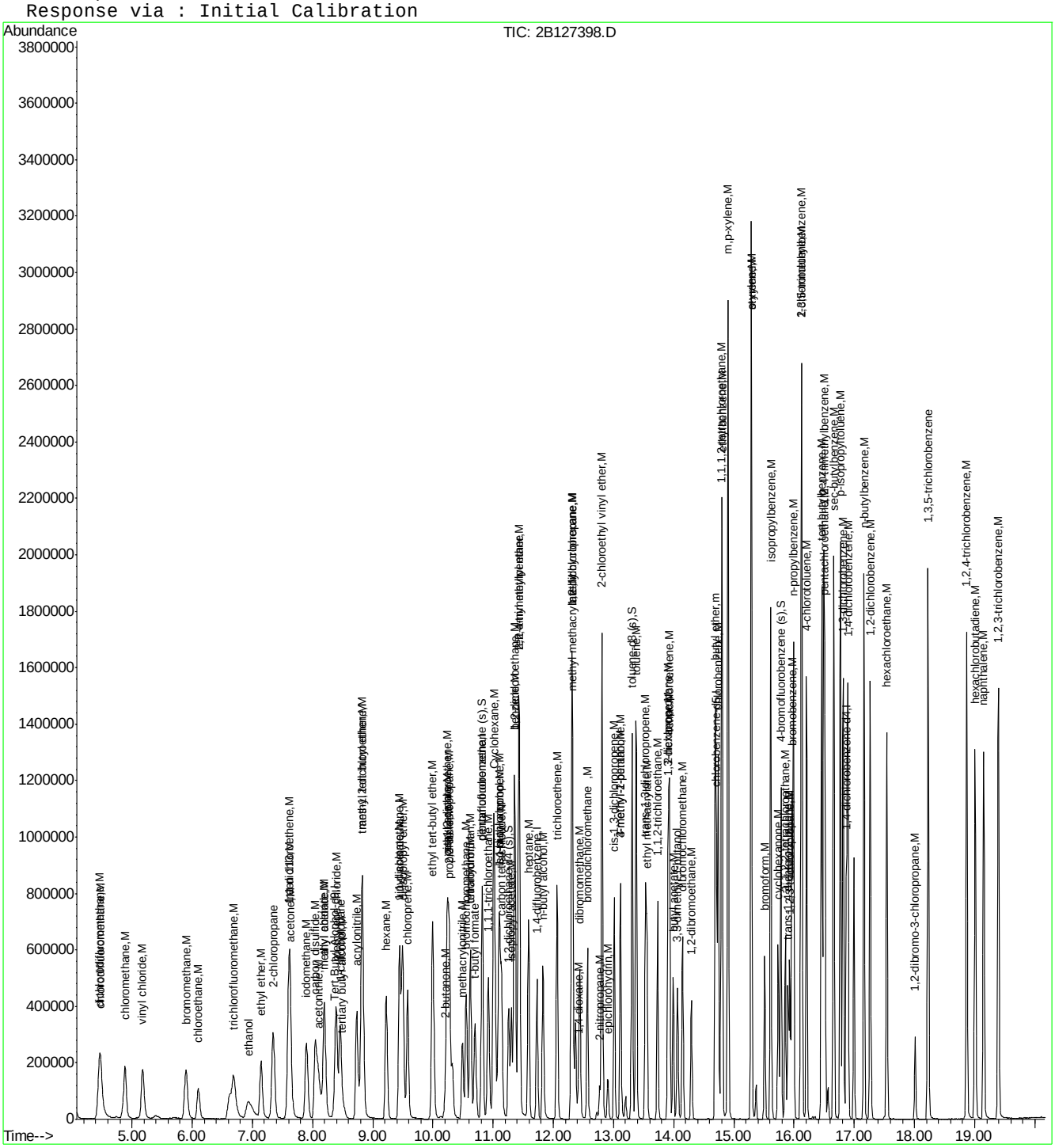
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
103)	styrene	15.29	104	694374	112.99	ug/L	97
105)	bromoform	15.51	173	261463	114.93	ug/L	99
107)	isopropylbenzene	15.61	105	1127665	109.43	ug/L	99
109)	cyclohexanone	15.74	98	108780	1020.70	ug/L	96
110)	bromobenzene	15.97	156	339118	104.33	ug/L	98
111)	1,1,2,2-tetrachloroethane	15.85	83	290211	104.84	ug/L	99
112)	trans-1,4-dichloro-2-buten	15.90	53	79780	110.40	ug/L	99
113)	1,2,3-trichloropropane	15.93	110	80180	106.57	ug/L	98
114)	n-propylbenzene	15.99	91	1155916	103.91	ug/L	99
115)	2-chlorotoluene	16.12	126	286145	106.73	ug/L	95
116)	4-chlorotoluene	16.21	91	773162	104.22	ug/L	99
117)	1,3,5-trimethylbenzene	16.13	105	915785	107.31	ug/L	99
118)	tert-butylbenzene	16.46	119	896498	115.07	ug/L	98
119)	pentachloroethane	16.51	167	234206	108.51	ug/L	99
120)	1,2,4-trimethylbenzene	16.49	105	902199	107.29	ug/L	98
121)	sec-butylbenzene	16.66	105	1248376	110.78	ug/L	99
122)	1,3-dichlorobenzene	16.81	146	609232	103.63	ug/L	99
123)	p-isopropyltoluene	16.77	119	1093688	113.49	ug/L	99
124)	1,4-dichlorobenzene	16.89	146	615486	104.44	ug/L	97
125)	1,2-dichlorobenzene	17.27	146	625696	109.60	ug/L	99
126)	n-butylbenzene	17.16	92	536008	112.02	ug/L	99
127)	1,2-dibromo-3-chloropropan	18.01	75	64709	112.34	ug/L	97
128)	1,3,5-trichlorobenzene	18.23	180	650494	113.49	ug/L	99
129)	1,2,4-trichlorobenzene	18.87	180	591277	115.09	ug/L	99
130)	hexachlorobutadiene	19.01	225	320440	112.52	ug/L	98
131)	naphthalene	19.15	128	1032147	115.40	ug/L	99
132)	1,2,3-trichlorobenzene	19.39	180	514602	114.55	ug/L	100
133)	hexachloroethane	17.54	201	266064	115.37	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	140641	500.00	ug/L	0.02
5) pentafluorobenzene	10.82	168	444312	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	481473	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	381823	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	229683	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	612352	211.10	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 422.20%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	695805	205.28	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 410.56%#			
82) toluene-d8 (s)	13.31	98	1950137	201.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 402.28%#			
108) 4-bromofluorobenzene (s)	15.78	95	735993	198.51	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 397.02%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.51	59	312632	1078.80	ug/L	62
3) ethanol	6.94	45	600775	19096.57	ug/L	94
4) 1,4-dioxane	12.41	88	158054	5799.86	ug/L	97
9) chlorodifluoromethane	4.48	51	707806	220.07	ug/L	99
10) dichlorodifluoromethane	4.46	85	796877	200.41	ug/L	99
12) chloromethane	4.90	50	817910	199.30	ug/L	99
13) vinyl chloride	5.19	62	751925	202.85	ug/L	98
15) bromomethane	5.89	94	496186	180.09	ug/L	97
16) chloroethane	6.10	64	359341	207.90	ug/L	97
18) trichlorofluoromethane	6.68	101	993372	211.23	ug/L	95
20) ethyl ether	7.15	74	327198	223.25	ug/L	91
22) 2-chloropropane	7.35	43	1010915	210.64	ug/L	93
24) 1,1-dichloroethene	7.61	96	547304	202.92	ug/L	95
25) acetone	7.64	43	151447	184.01	ug/L	89
26) allyl chloride	8.20	76	330519	235.08	ug/L	90
27) acetonitrile	8.11	40	314531	1987.69	ug/L	92
28) iodomethane	7.90	142	1245886	217.34	ug/L	97
29) iso-butyl alcohol	11.10	74	71979	2319.99	ug/L	85
30) carbon disulfide	8.05	76	1861029	218.20	ug/L	97
31) methylene chloride	8.39	84	627459	209.34	ug/L	97
32) methyl acetate	8.19	74	100291	225.61	ug/L	89
33) 1-chloropropane	8.46	42	1025042	201.11	ug/L	98
34) methyl tert butyl ether	8.82	73	1776195	211.87	ug/L	99
35) trans-1,2-dichloroethene	8.83	96	583819	204.14	ug/L	99
36) di-isopropyl ether	9.50	45	1821660	223.30	ug/L	96
37) 2-butanone	10.20	72	67629	232.36	ug/L #	81
38) 1,1-dichloroethane	9.44	63	1074499	214.54	ug/L	97
39) chloroprene	9.58	53	828470	233.33	ug/L	97
40) acrylonitrile	8.74	53	1115366	1155.69	ug/L	99
41) vinyl acetate	9.45	86	100912	225.11	ug/L	87
42) ethyl tert-butyl ether	10.00	59	2002589	230.61	ug/L	98
43) ethyl acetate	10.25	45	71955	225.81	ug/L	72
44) 2,2-dichloropropane	10.27	77	824009	192.47	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	cis-1,2-dichloroethene	10.23	96	659369	212.08	ug/L	98
46)	propionitrile	10.28	54	772236	2203.44	ug/L	97
47)	bromochloromethane	10.55	128	359869	222.27	ug/L	98
48)	tetrahydrofuran	10.62	42	156937	210.49	ug/L	99
49)	chloroform	10.62	83	1065930	204.65	ug/L	99
50)	t-butyl formate	10.70	59	571541	242.33	ug/L	99
53)	freon 113	7.62	151	465611	214.69	ug/L	92
54)	methacrylonitrile	10.49	41	356783	225.54	ug/L	97
55)	1,1,1-trichloroethane	10.92	97	978453	215.47	ug/L	99
56)	Cyclohexane	11.02	84	814306	219.52	ug/L	97
61)	epichlorohydrin	12.91	57	274549	1150.18	ug/L	96
62)	n-butyl alcohol	11.83	56	786402	12072.81	ug/L	97
63)	carbon tetrachloride	11.14	117	914177	191.93	ug/L	99
64)	1,1-dichloropropene	11.10	75	751935	200.83	ug/L	98
65)	hexane	9.22	57	663395	232.93	ug/L	99
66)	benzene	11.36	78	2084178	202.25	ug/L	99
67)	2,2,4-trimethylpentane	11.43	57	1904302	220.75	ug/L	96
68)	tert-amyl methyl ether	11.44	73	1748527	217.10	ug/L	99
69)	heptane	11.59	57	393148	234.07	ug/L	98
70)	isopropyl acetate	11.30	43	1029124	225.70	ug/L	98
71)	1,2-dichloroethane	11.35	62	806973	198.05	ug/L	96
72)	trichloroethene	12.06	95	607620	213.86	ug/L	98
74)	2-nitropropane	12.77	41	170197	229.77	ug/L	94
75)	2-chloroethyl vinyl ether	12.81	63	1666750	1148.64	ug/L	97
76)	methyl methacrylate	12.33	100	140473	226.85	ug/L	95
77)	1,2-dichloropropane	12.31	63	555773	212.98	ug/L	98
78)	dibromomethane	12.44	93	387884	207.39	ug/L	97
79)	methylcyclohexane	12.31	83	895977	228.92	ug/L	97
80)	bromodichloromethane	12.57	83	855131	210.50	ug/L	99
81)	cis-1,3-dichloropropene	13.01	75	975454	217.86	ug/L	97
83)	4-methyl-2-pentanone	13.12	58	199657	220.85	ug/L	94
84)	toluene	13.38	92	1295554	208.53	ug/L	96
85)	3-methyl-1-butanol	13.12	55	451972	4703.64	ug/L	95
86)	trans-1,3-dichloropropene	13.53	75	923760	213.49	ug/L	98
87)	ethyl methacrylate	13.56	69	667078	221.98	ug/L	99
88)	1,1,2-trichloroethane	13.73	83	437499	211.11	ug/L	98
89)	2-hexanone	13.92	58	170791	225.80	ug/L	95
91)	butyl ether	14.69	57	2227568	242.60	ug/L	98
92)	tetrachloroethene	13.93	164	538375	211.08	ug/L	98
93)	1,3-dichloropropane	13.90	76	831565	233.32	ug/L	96
94)	butyl acetate	13.99	56	319823	247.50	ug/L	98
95)	3,3-dimethyl-1-butanol	14.06	57	513071	2684.37	ug/L	97
96)	dibromochloromethane	14.15	129	753053	236.73	ug/L	99
97)	1,2-dibromoethane	14.29	107	598895	234.86	ug/L	97
98)	chlorobenzene	14.74	112	1472321	225.79	ug/L	100
99)	1,1,1,2-tetrachloroethane	14.79	131	656606	226.62	ug/L	98
100)	ethylbenzene	14.81	91	2295402	211.54	ug/L	95
101)	m,p-xylene	14.91	106	1887456	456.83	ug/L	87
102)	o-xylene	15.29	106	1003367	229.23	ug/L	93

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

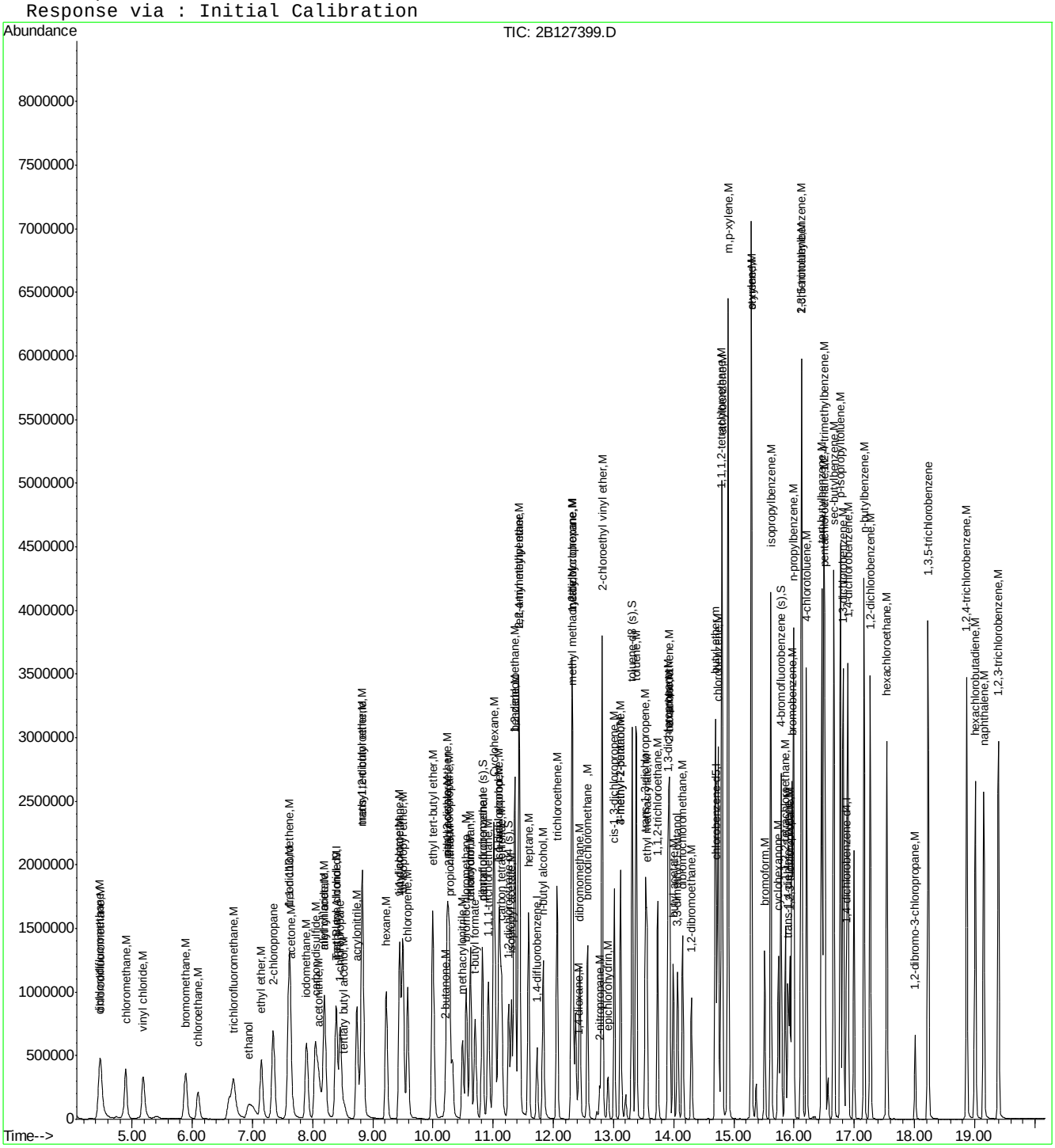
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
103) styrene	15.29	104	1609787	238.65	ug/L	93
105) bromoform	15.51	173	607644	243.34	ug/L	99
107) isopropylbenzene	15.61	105	2530006	214.20	ug/L	98
109) cyclohexanone	15.74	98	234996	1923.85	ug/L	98
110) bromobenzene	15.97	156	773196	207.54	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.86	83	673230	212.21	ug/L	96
112) trans-1,4-dichloro-2-buten	15.90	53	178332	215.30	ug/L	97
113) 1,2,3-trichloropropane	15.93	110	181114	210.03	ug/L	95
114) n-propylbenzene	15.99	91	2611437	204.82	ug/L	98
115) 2-chlorotoluene	16.12	126	671504	218.53	ug/L	89
116) 4-chlorotoluene	16.21	91	1773647	208.59	ug/L	97
117) 1,3,5-trimethylbenzene	16.13	105	2065720	211.18	ug/L	99
118) tert-butylbenzene	16.46	119	1972646	220.91	ug/L	98
119) pentachloroethane	16.51	167	531288	214.77	ug/L	99
120) 1,2,4-trimethylbenzene	16.49	105	2034181	211.07	ug/L	96
121) sec-butylbenzene	16.66	105	2781994	215.39	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	1398670	207.58	ug/L	99
123) p-isopropyltoluene	16.77	119	2456489	222.40	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	1424084	210.83	ug/L	96
125) 1,2-dichlorobenzene	17.27	146	1422163	217.35	ug/L	98
126) n-butylbenzene	17.16	92	1220870	222.62	ug/L	95
127) 1,2-dibromo-3-chloropropan	18.01	75	146423	221.79	ug/L	96
128) 1,3,5-trichlorobenzene	18.23	180	1356739	206.52	ug/L	96
129) 1,2,4-trichlorobenzene	18.87	180	1214440	206.25	ug/L	98
130) hexachlorobutadiene	19.01	225	647030	198.22	ug/L	99
131) naphthalene	19.15	128	2109664	205.79	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	1009800	196.13	ug/L	99
133) hexachloroethane	17.54	201	600586	227.21	ug/L	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	130530	500.00	ug/L		0.01
5) pentafluorobenzene	10.82	168	445672	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	458625	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	378456	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	213932	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	141692	48.70	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.40%				
52) 1,2-dichloroethane-d4 (s)	11.26	65	164973	48.52	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 97.04%				
82) toluene-d8 (s)	13.31	98	466205	50.48	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 100.96%				
108) 4-bromofluorobenzene (s)	15.78	95	174154	50.43	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.86%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	73650	273.83	ug/L		87
3) ethanol	6.93	45	166453	5700.81	ug/L		100
4) 1,4-dioxane	12.41	88	34142	1349.90	ug/L		99
9) chlorodifluoromethane	4.48	51	181183	56.16	ug/L		97
10) dichlorodifluoromethane	4.46	85	203934	51.13	ug/L		99
12) chloromethane	4.89	50	220050	54.00	ug/L		97
13) vinyl chloride	5.18	62	203627	54.77	ug/L		98
15) bromomethane	5.90	94	138605	50.62	ug/L		98
16) chloroethane	6.11	64	104900	60.51	ug/L		96
18) trichlorofluoromethane	6.69	101	249722	52.94	ug/L		99
20) ethyl ether	7.15	74	83196	56.59	ug/L		96
21) acrolein	7.39	56	259853	566.27	ug/L		99
22) 2-chloropropane	7.35	43	255690	53.11	ug/L		95
24) 1,1-dichloroethene	7.61	96	145098	53.63	ug/L		98
25) acetone	7.63	43	40203	48.70	ug/L		90
26) allyl chloride	8.21	76	82995	58.85	ug/L	#	71
27) acetonitrile	8.12	40	81520	516.36	ug/L		94
28) iodomethane	7.91	142	309959	53.90	ug/L		96
29) iso-butyl alcohol	11.10	74	18104	563.26	ug/L	#	54
30) carbon disulfide	8.06	76	479234	54.64	ug/L		97
31) methylene chloride	8.39	84	154988	51.60	ug/L		99
32) methyl acetate	8.18	74	21644	48.54	ug/L		94
33) 1-chloropropane	8.46	42	257966	50.16	ug/L		99
34) methyl tert butyl ether	8.82	73	860970	100.27	ug/L		98
35) trans-1,2-dichloroethene	8.83	96	142917	49.82	ug/L		98
36) di-isopropyl ether	9.50	45	454160	55.50	ug/L		100
37) 2-butanone	10.20	72	16115	55.20	ug/L		88
38) 1,1-dichloroethane	9.44	63	270474	53.84	ug/L		99
39) chloroprene	9.58	53	179522	50.41	ug/L		97
40) acrylonitrile	8.74	53	273169	282.18	ug/L		99
41) vinyl acetate	9.45	86	26400	58.71	ug/L		99
42) ethyl tert-butyl ether	10.00	59	467592	53.68	ug/L		98
43) ethyl acetate	10.25	45	17534	54.86	ug/L		65

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	218477	50.88	ug/L		96
45)	cis-1,2-dichloroethene	10.23	96	160887	51.59	ug/L		99
46)	propionitrile	10.28	54	190476	541.83	ug/L		99
47)	bromochloromethane	10.55	128	87571	53.92	ug/L		99
48)	tetrahydrofuran	10.62	42	38855	52.73	ug/L		99
49)	chloroform	10.62	83	268490	51.39	ug/L		98
50)	t-butyl formate	10.70	59	135783	57.40	ug/L		99
53)	freon 113	7.63	151	125825	57.84	ug/L		94
54)	methacrylonitrile	10.49	41	85795	54.07	ug/L		95
55)	1,1,1-trichloroethane	10.92	97	246718	54.16	ug/L		100
56)	Cyclohexane	11.03	84	206224	55.42	ug/L	#	81
61)	epichlorohydrin	12.91	57	64369	283.10	ug/L		97
62)	n-butyl alcohol	11.83	56	175375	2826.48	ug/L		99
63)	carbon tetrachloride	11.14	117	236290	52.08	ug/L		95
64)	1,1-dichloropropene	11.11	75	193881	54.36	ug/L		99
65)	hexane	9.23	57	150790	55.58	ug/L		97
66)	benzene	11.36	78	527996	53.79	ug/L		99
67)	2,2,4-trimethylpentane	11.43	57	422225	51.38	ug/L		98
68)	tert-amyl methyl ether	11.43	73	402274	51.46	ug/L		99
69)	heptane	11.59	57	81077	50.68	ug/L		99
70)	isopropyl acetate	11.30	43	240290	55.32	ug/L		97
71)	1,2-dichloroethane	11.35	62	200889	49.95	ug/L		93
72)	trichloroethene	12.06	95	146378	54.09	ug/L		98
74)	2-nitropropane	12.77	41	36132	48.77	ug/L		98
75)	2-chloroethyl vinyl ether	12.81	63	410860	287.98	ug/L		100
76)	methyl methacrylate	12.33	100	33043	56.02	ug/L	#	91
77)	1,2-dichloropropane	12.31	63	134236	54.01	ug/L		98
78)	dibromomethane	12.44	93	91826	51.54	ug/L		98
79)	methylcyclohexane	12.31	83	202203	52.57	ug/L		97
80)	bromodichloromethane	12.57	83	205901	53.21	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	231934	54.38	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	47529	55.19	ug/L		92
84)	toluene	13.38	92	311714	52.67	ug/L		99
85)	3-methyl-1-butanol	13.11	55	102172	1116.27	ug/L		94
86)	trans-1,3-dichloropropene	13.53	75	212393	51.53	ug/L		97
87)	ethyl methacrylate	13.55	69	156288	54.60	ug/L		98
88)	1,1,2-trichloroethane	13.73	83	100368	50.84	ug/L		96
89)	2-hexanone	13.92	58	39515	54.84	ug/L		97
91)	butyl ether	14.69	57	506970	55.70	ug/L		98
92)	tetrachloroethene	13.93	164	132182	52.29	ug/L		96
93)	1,3-dichloropropane	13.90	76	198770	54.66	ug/L		98
94)	butyl acetate	13.99	56	72789	56.83	ug/L		98
95)	3,3-dimethyl-1-butanol	14.06	57	102630	541.73	ug/L		95
96)	dibromochloromethane	14.15	129	172381	53.20	ug/L		100
97)	1,2-dibromoethane	14.29	107	138441	54.77	ug/L		99
98)	chlorobenzene	14.74	112	354016	54.77	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	156565	54.52	ug/L		97
100)	ethylbenzene	14.81	91	563642	52.41	ug/L		97
101)	m,p-xylene	14.90	106	442363	108.02	ug/L		97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

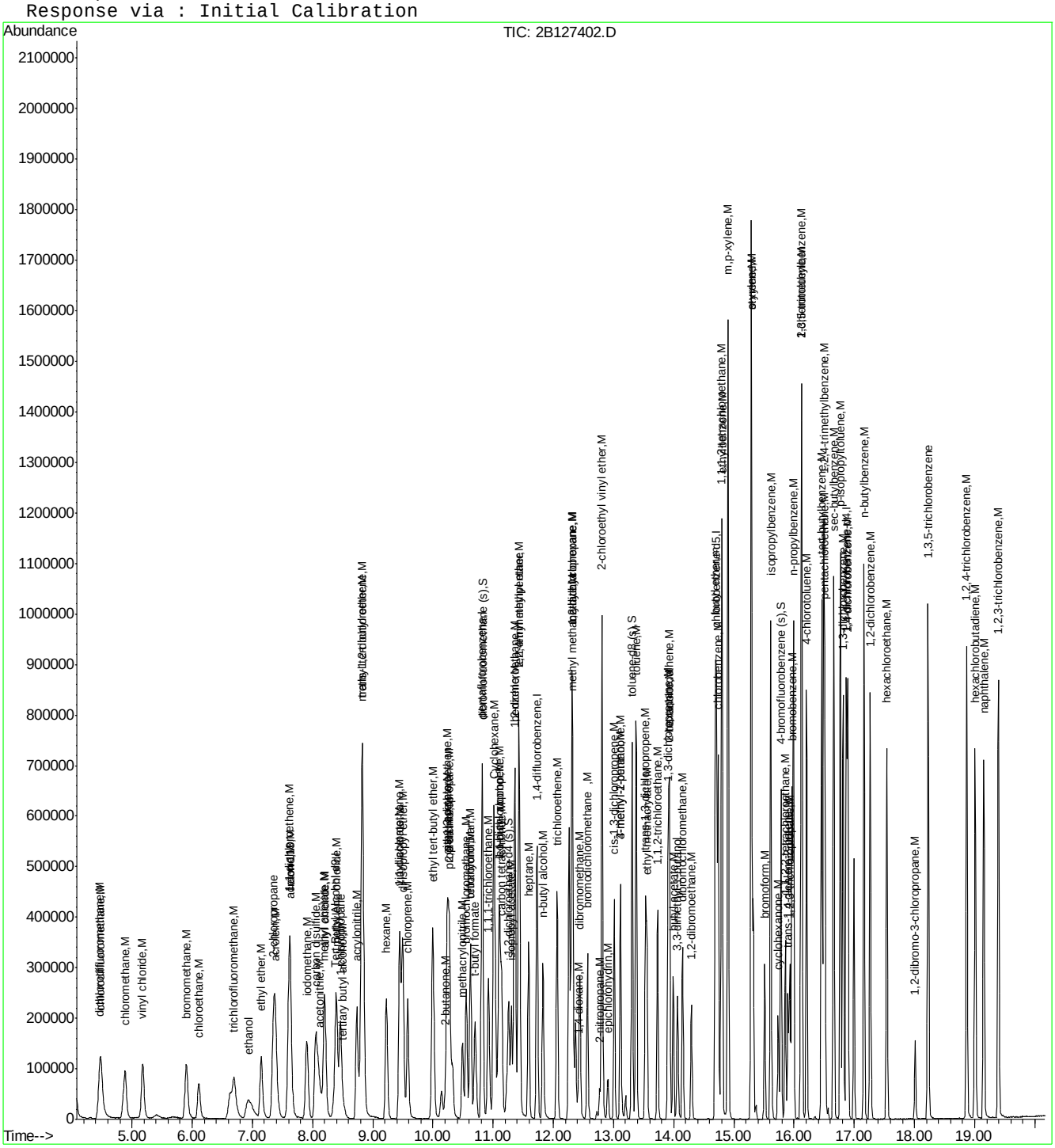
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	232661	53.63	ug/L	99
103) styrene	15.29	104	386233	57.77	ug/L	98
105) bromoform	15.51	173	138993	56.16	ug/L	99
107) isopropylbenzene	15.61	105	616564	54.12	ug/L	99
109) cyclohexanone	15.74	98	36275	318.84	ug/L	98
110) bromobenzene	15.97	156	191079	55.07	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.86	83	157301	53.23	ug/L	98
112) trans-1,4-dichloro-2-buten	15.90	53	40697	52.75	ug/L	98
113) 1,2,3-trichloropropane	15.93	110	42769	53.25	ug/L	95
114) n-propylbenzene	15.99	91	680818	55.73	ug/L	99
115) 2-chlorotoluene	16.12	126	156635	53.78	ug/L	97
116) 4-chlorotoluene	16.21	91	423786	52.44	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	498388	52.92	ug/L	99
118) tert-butylbenzene	16.46	119	483659	56.19	ug/L	99
119) pentachloroethane	16.51	167	126630	53.33	ug/L	97
120) 1,2,4-trimethylbenzene	16.49	105	516024	55.87	ug/L	99
121) sec-butylbenzene	16.66	105	678474	54.54	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	328218	52.30	ug/L	99
123) p-isopropyltoluene	16.77	119	602568	56.58	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	332096	52.79	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	344633	54.43	ug/L	99
126) n-butylbenzene	17.16	92	299886	58.71	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	33943	55.20	ug/L	98
128) 1,3,5-trichlorobenzene	18.23	180	342839	54.95	ug/L	95
129) 1,2,4-trichlorobenzene	18.87	180	326243	59.49	ug/L	99
130) hexachlorobutadiene	19.01	225	173716	55.68	ug/L	100
131) naphthalene	19.15	128	569500	59.64	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	287170	59.15	ug/L	100
133) hexachloroethane	17.54	201	143035	58.10	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 9:34 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128041.D Vial: 2
Acq On : 4 Mar 2015 10:14 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 10:36:39 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	126131	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	412879	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	453237	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	383178	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	195478	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	135566	50.29	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.58%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	152356	48.37	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.74%			
82) toluene-d8 (s)	13.31	98	459045	50.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 100.60%			
108) 4-bromofluorobenzene (s)	15.78	95	162554	51.52	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 103.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.50	59	25608	98.53	ug/L	91
3) ethanol	6.93	45	62386	2211.16	ug/L	91
4) 1,4-dioxane	12.41	88	11529	471.73	ug/L	95
9) chlorodifluoromethane	4.49	51	79923	26.74	ug/L	96
10) dichlorodifluoromethane	4.47	85	83086	22.49	ug/L	97
12) chloromethane	4.88	50	101247	26.82	ug/L	99
13) vinyl chloride	5.18	62	87411	25.38	ug/L	97
15) bromomethane	5.91	94	54285	21.40	ug/L	98
16) chloroethane	6.11	64	40147	25.00	ug/L	96
18) trichlorofluoromethane	6.69	101	96525	22.09	ug/L	98
20) ethyl ether	7.15	74	31075	22.82	ug/L	95
21) acrolein	7.40	56	75685	178.03	ug/L	99
22) 2-chloropropane	7.36	43	101791	22.82	ug/L	90
24) 1,1-dichloroethene	7.62	96	53455	21.33	ug/L	99
25) acetone	7.64	43	17790	23.26	ug/L	82
26) allyl chloride	8.20	76	27819	21.29	ug/L	92
27) acetonitrile	8.12	40	33377	228.21	ug/L	94
28) iodomethane	7.91	142	102109	19.17	ug/L	98
29) iso-butyl alcohol	11.09	74	6569	220.61	ug/L	93
30) carbon disulfide	8.06	76	175270	21.57	ug/L	97
31) methylene chloride	8.40	84	59004	21.20	ug/L	91
32) methyl acetate	8.19	74	9758	23.62	ug/L	95
33) 1-chloropropane	8.46	42	100060	21.00	ug/L	97
34) methyl tert butyl ether	8.82	73	158598	19.94	ug/L	98
35) trans-1,2-dichloroethene	8.83	96	55460	20.87	ug/L	94
36) di-isopropyl ether	9.50	45	192872	25.44	ug/L	96
37) 2-butanone	10.21	72	6056	22.39	ug/L #	69
38) 1,1-dichloroethane	9.45	63	103041	22.14	ug/L	98
39) chloroprene	9.58	53	74335	22.53	ug/L	97
40) acrylonitrile	8.74	53	97395	108.60	ug/L	97
41) vinyl acetate	9.45	86	7772	18.66	ug/L	95
42) ethyl tert-butyl ether	10.00	59	179349	22.23	ug/L	99
43) ethyl acetate	10.26	45	7348	24.82	ug/L #	40

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128041.D Vial: 2
Acq On : 4 Mar 2015 10:14 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 10:36:39 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	83019	20.87	ug/L		95
45)	cis-1,2-dichloroethene	10.23	96	60358	20.89	ug/L		96
46)	propionitrile	10.28	54	74488	228.72	ug/L		98
47)	bromochloromethane	10.55	128	30677	20.39	ug/L		84
48)	tetrahydrofuran	10.62	42	15359	22.50	ug/L		94
49)	chloroform	10.62	83	98230	20.30	ug/L		98
50)	t-butyl formate	10.70	59	44598	20.35	ug/L		97
53)	freon 113	7.64	151	42806	21.24	ug/L		89
54)	methacrylonitrile	10.50	41	33137	22.54	ug/L		89
55)	1,1,1-trichloroethane	10.92	97	79582	18.86	ug/L		98
56)	Cyclohexane	11.02	84	74085	21.49	ug/L	#	79
61)	epichlorohydrin	12.90	57	22939	102.09	ug/L		97
62)	n-butyl alcohol	11.83	56	62514	1019.50	ug/L		99
63)	carbon tetrachloride	11.14	117	77561	17.30	ug/L		98
64)	1,1-dichloropropene	11.11	75	70329	19.95	ug/L		99
65)	hexane	9.23	57	67876	25.32	ug/L		99
66)	benzene	11.36	78	203380	20.97	ug/L		98
67)	2,2,4-trimethylpentane	11.43	57	184031	22.66	ug/L		93
68)	tert-amyl methyl ether	11.43	73	150305	19.45	ug/L		95
69)	heptane	11.59	57	36683	23.20	ug/L		95
70)	isopropyl acetate	11.30	43	93129	21.70	ug/L		98
71)	1,2-dichloroethane	11.35	62	72576	18.26	ug/L		89
72)	trichloroethene	12.06	95	53632	20.05	ug/L		99
74)	2-nitropropane	12.77	41	12649	17.28	ug/L		99
75)	2-chloroethyl vinyl ether	12.81	63	155163	110.05	ug/L		97
76)	methyl methacrylate	12.33	100	11730	20.12	ug/L	#	88
77)	1,2-dichloropropane	12.31	63	55624	22.64	ug/L		98
78)	dibromomethane	12.44	93	34513	19.60	ug/L		91
79)	methylcyclohexane	12.31	83	79377	20.88	ug/L		98
80)	bromodichloromethane	12.57	83	74652	19.52	ug/L		95
81)	cis-1,3-dichloropropene	13.01	75	89352	21.20	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	18306	21.51	ug/L		95
84)	toluene	13.38	92	117039	20.01	ug/L		99
85)	3-methyl-1-butanol	13.12	55	37218	411.45	ug/L		95
86)	trans-1,3-dichloropropene	13.53	75	79844	19.60	ug/L		98
87)	ethyl methacrylate	13.56	69	57360	20.28	ug/L		97
88)	1,1,2-trichloroethane	13.73	83	38961	19.97	ug/L		98
89)	2-hexanone	13.92	58	15438	21.68	ug/L		90
91)	butyl ether	14.69	57	215850	23.42	ug/L		97
92)	tetrachloroethene	13.93	164	46994	18.36	ug/L		97
93)	1,3-dichloropropane	13.90	76	77017	20.92	ug/L		97
94)	butyl acetate	13.99	56	28589	22.05	ug/L		99
95)	3,3-dimethyl-1-butanol	14.07	57	36882	192.28	ug/L		91
96)	dibromochloromethane	14.15	129	61630	18.78	ug/L		97
97)	1,2-dibromoethane	14.29	107	49342	19.28	ug/L		99
98)	chlorobenzene	14.74	112	131869	20.15	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	55668	19.15	ug/L		97
100)	ethylbenzene	14.81	91	215454	19.79	ug/L		98
101)	m,p-xylene	14.90	106	166455	40.15	ug/L		95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128041.D Vial: 2
Acq On : 4 Mar 2015 10:14 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 04 10:36:39 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

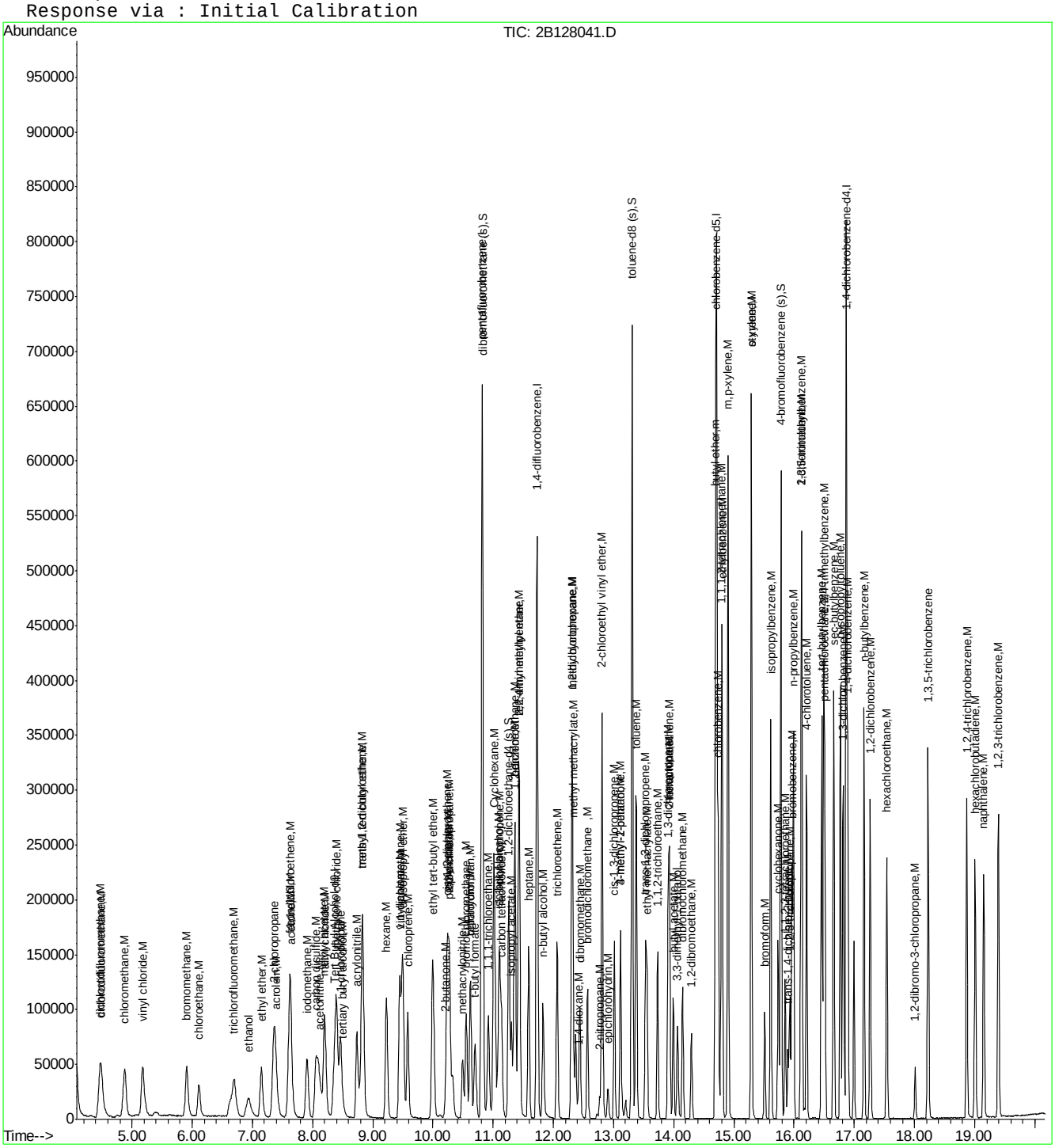
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	85308	19.42	ug/L	95
103) styrene	15.29	104	140036	20.69	ug/L	96
105) bromoform	15.51	173	43756	17.46	ug/L	98
107) isopropylbenzene	15.61	105	223505	21.47	ug/L	99
109) cyclohexanone	15.74	98	27979	269.14	ug/L	98
110) bromobenzene	15.97	156	64868	20.46	ug/L	91
111) 1,1,2,2-tetrachloroethane	15.85	83	59692	22.11	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	10886	15.44	ug/L	92
113) 1,2,3-trichloropropane	15.93	110	15124	20.61	ug/L	97
114) n-propylbenzene	15.99	91	244092	21.87	ug/L	98
115) 2-chlorotoluene	16.12	126	56141	21.10	ug/L	100
116) 4-chlorotoluene	16.21	91	154923	20.98	ug/L	98
117) 1,3,5-trimethylbenzene	16.13	105	182340	21.19	ug/L	98
118) tert-butylbenzene	16.46	119	167717	21.32	ug/L	98
119) pentachloroethane	16.51	167	42470	19.57	ug/L	96
120) 1,2,4-trimethylbenzene	16.49	105	179582	21.28	ug/L	96
121) sec-butylbenzene	16.66	105	242278	21.32	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	117270	20.45	ug/L	98
123) p-isopropyltoluene	16.77	119	207185	21.29	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	113319	19.71	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	116965	20.22	ug/L	100
126) n-butylbenzene	17.16	92	100470	21.53	ug/L	96
127) 1,2-dibromo-3-chloropropan	18.01	75	10585	18.84	ug/L	93
128) 1,3,5-trichlorobenzene	18.23	180	110493	19.38	ug/L	98
129) 1,2,4-trichlorobenzene	18.87	180	97823	19.52	ug/L	99
130) hexachlorobutadiene	19.01	225	54943	19.27	ug/L	96
131) naphthalene	19.15	128	174622	20.01	ug/L	98
132) 1,2,3-trichlorobenzene	19.39	180	89058	20.08	ug/L	99
133) hexachloroethane	17.54	201	42303	18.80	ug/L	93

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128041.D Vial: 2
Acq On : 4 Mar 2015 10:14 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81419,V2B5771,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 4 15:59 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V1C6103

Print Analyst Name: Shannon Tilly

Analyst Signature:

Columns: ZB624 60m×0.25mmx1.4um

Method V8260C

Initial Cal. Method M1C6103

Date: 2/20/15

Standard Data

Lot #	Description	Conc.
V015-2016-53.15	Int A	100ppm
-75.7	B	↓
-84.2	C	↓
-87.2	Hexa	↓
-85.7	↓ Surr	1000ppm

Standard Data

Lot #	Description	Conc.
V015-2016-62.38	A	100ppm
-83.8	B	↓
-81.6	C	↓
-60.34	Surr	1000ppm
-71	Int only	250/2500ppm
-82.4	↓ Surrogate	100 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: _____ **Date:** 2/21/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	IC 137266	BFB											OK	9:20am	
	137267	IC6103-0.2	8260C				5				W		OK	1ul Std ABC → 5.00mL	
	137268	IC6103-0.5									W		OK	2.5 ul Std ABC, ACR Surr → 5.00mL	
	137269	IC6103-1									W		OK	2ul Std ABC, Surr 2000ul ACR → 2.00mL	
	137270	IC6103-2									W		OK	2ul Std ABC, Surr 2000ul ACR → 100ml	
	137271	IC6103-5									W		OK	5ml A.B.C. Surr → 100ml DI	
	137272	IC6103-10									W		OK	5ml A.B.C Surr → 50ml DI	
	137273	IC6103-20									W		OK	10ml A.B.C. 25ml Su → 50ml DI	
	137274	IC6103-50									W		OK	25ml A.B.C. Surr → 50ml DI	
	137275	IC6103-100									W		NG	50ml ABC Surr → 50ml DI	
	137276	IC6103-200									W		OK	100ml ABC Surr → 50ml DI	
	137277	IB													
	137278	IB													
	137279	ICV6103-50											Not	load	
	137280	IC6103-100											OK	50ml A.B.C Surr → 50ml DI	
	137282	IB												IC137281 skipped accidently	
	137283	ICV6103-50											NG	CS2. dichlorodifluoro methane ↓	
	137284	IB											Not used	RR w/ NOM (A.B.C) STD EXT	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

7

7.2.1

7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6103

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Hor

Date: 2/23/15

Columns: ZB624 (60mx0.25mmx1.4um

Method V8260

Initial Cal. Method V1C6103

Standard Data

Lot #	Description	Conc.
V015-2016-71	Int Only	2500/2500ppm
-89.4	Surr	100ppm

Standard Data

Lot #	Description	Conc.
V05-2016-53	Ext A (16)	100ppm
-75	Ext B (6)	
-84	Ext C (5)	
-87	Ext hexane (8)	
-85	Ext Surr. (7)	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: _____ **Date:** 2/23/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	IC137285	BFB									↑		NG	Due to power off	
	137286	ICV 6103-50									↑				
	137287	IB									↑				
	137288	IB									↑				
	137289	IB									↑				

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9
Rev. Date: 2/14/2007

7.7.1 7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6103

Print Analyst Name: YUNXIA CHEN

Analyst Signature:

Date: 2/23/15

Columns: ZB624 60m x 0.25mm x 1.4µm

Method V8260C

Initial Cal. Method M1C6103

Standard Data

Lot #	Description	Conc.
V015-2016-71	Int only	250-500ppm
	-84.4 Y x L	
	-82.4 Surr.	100ppm

Standard Data

Lot #	Description	Conc.
V015-2016	53.16 Bat/s	100ppm
	+75.6 B	↓
	-84.5 C	
	-87.8 hexane	↓
	+85.7 ↓ mix	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Patel **Date:** 2/24/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	IC137290	BFB											OK		
	137291	6 ICV V8103-50	8260C				5						OK	25ml Tot (18BC, Sub. hexane) Surr → 50ml DI.	
	137292	1B	↓				↓								
	137293 4 ↓	1B											Not load		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9
Rev. Date: 2/14/2007

7.2.1 7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6111

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Horvath

Columns: ZB624/60mx0.25mmx1.4um

Method 8260C

Initial Cal. Method MC6103

Date: 3/2/2015 (Monday)

Standard Data

Lot #	Description	Conc.
1015 53	Std Ext A	100ppm
1016 75	Ext B	
98	Ext C	
85	Acrolein	1000
90	Ethanol	10000

pH paper 212713 05/01/2016

Standard Data

Lot #	Description	Conc.
1015-62	Std A	100ppm
-85	Std B	
-103	Std C	
-60	Acrolein	1000
-79	IS	10000

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 3/3/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	IC 137488	BFB					5		1x				Ok	10:09am	
	137489	CC6103-20					5		1x		/		Ok	10ul Std ABC, ACR → 50 mL	
	137490	IB					5		1x		/		/		
	137491	MB					5		1x	+	/		Ok		
	137492	BS					5		1x		/		Ok	25ul Ext ABC ACR Hex → 50mL	
	137493	IB					5		1x				/		
	137494	JB89010-1	81468 F22 TCL20+20	GW	1		5		1x	+	-	/	Ok		✓
	137495	JB89010-2	↓	WB	1		5		1x	+	/		Ok		✓
	137496	JB89011-1	81486 BTXM	GW	1		5		1x		/		Ok		✓
	137497	JB89011-2		GW	1		2/50		25x		/		Ok		✓
	137498	JB89011-9		GW	1		2.50/50		4x		/		Ok		✓
	137499	JB89011-2MS		GW	1		2/50		25x		/		Ok	25ul Std ABC, ACR → 50mL	✓
	137500	JB89011-2MSD	↓	GW	1		2/50		25x		/		Ok	↓	✓
	137501	IB									/		/		
	137502	JB89010-3	81468 TCL20+20	WB	1		5		1x		/		RR	1x c/o	✓
	137503	JB89010-4	F22 ↓	WB	1		5		1x		/		RR	1x c/o	✓
	137504	JB89011-14	81486 BTXM	SB			5		1x		/		Ok		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V1C6111

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole Horvath

Columns: ZB624 (60mx0.25mmx1.4um)

Method 8260C

Initial Cal. Method M1C6103

Date: 3/2/15 (Mon. Day)

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Pg 45	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 3/3/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	IC B71505	JB89011-4	81486 BTXM	GC3	1		5		1x		✓		?IC		✓
	B71506	JB89011-5	↓	GC3	1		5		1x		✓		?IC		✓
	B71507	JB88920-1	81436 STAR	GC3	1		5		1x		✓		?IC		✓
	B71508	JB88920-2		GC3	1		5		1x		✓		?IC		✓
	B71509	JB88920-3		GC3	1		5		1x		✓		?IC		✓
	B71510	JB88920-5	↓	GC3	1		5		1x		✓		?IC		✓
	B71511	JB89011-7	81486 BTXM	GC3	1		2.5/50		2x		✓		?IC	9:58 pm	✓

NHP 3/2/15

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2B5744

Date: 2/5/15

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: DB624(60mx0.25mmx1.4um)

Method V8260B/C

Initial Cal. Method M2B5744

Dilutions only V015-2016-49
Surr V015-2016-31(12)

Standard Data

Lot #	Description	Conc.
V015-2016-5	(60) 8260A	100 ppm
-29	(4)	↓
-55	(10)	
-8	(40)	1000
-14	(10)	10000

Standard Data

Lot #	Description	Conc.
V015-2016-53	(3) Part 8260A	100 ppm
-32	(20)	
-40	(7)	
-23	(9)	1000
-12	(5)	10000
-15	(3)	100

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/6/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2B127389	BFB				1	5		1x				OK	33ul	
	127390	ICS744-0.2	8260 Initial Calibration	AQ		2	5		1x		✓		OK	5ul PBC/Correction IS 100mCDE	
	127391	ICS744-0.5				3	5		1x		✓		OK	5ul ↓ ↓	
	127392	ICS744-1				4	5		1x		✓		OK	10ul PBC/Correction IS 100mCDE	
	127393	ICS744-2				5	5		1x		✓		OK	20ul PBC/Correction IS 100mCDE	
	127394	ICS744-5				6	5		1x		✓		OK	50ul PBC/Correction IS 100mCDE	
	127395	ICS744-10				7	5		1x		✓		OK	100ul ↓ ↓	
	127396	ICS744-20				8	5		1x		✓		OK	200ul PBC/Correction 500ul IS /100mCDE	
	127397	ICCS744-50				9	5		1x		✓		OK	250ul PBC/Correction IS/100mCDE	
	127398	ICS744-100				10	5		1x		✓		OK	500ul PBC/Correction IS/50mCDE	
	127399	ICS744-200				11	5		1x		✓		OK	1000ul ↓ ↓	
	127400	IB				12	5		1x		—				
	127401	IB				13	5		1x		—				
	127402	ICV5744-50				14	5		1x		✓		OK	500ul PBC/Correction Hexane IS 100mCDE	
	127403	IB				15	5		1x		—				
														BK 2/5/15	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V2B5771

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: ZB624(60mx0.25mmx1.4um)

Method V8260C

Initial Cal. Method MXBS744

Date: 3/4/15

pH paper lot #212713

Standard Data

Lot #	Description	Conc.
VBLS2806-02(04)	8260A	100 ppm
-83	(20)	B
-03	(1)	C
-69	(10)	QC10
-78	(15)	EQA

Standard Data

Lot #	Description	Conc.
VBLS2806-99	(2) EXT 8260A	100 ppm
-75	(55)	B
-98	(4)	C
-85	(8)	QC10
-90	(3)	EQA

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: _____ **Date:** 3/4/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2B128040	BFB				1							OK	9:43am	
	128041	CCS744-20				2					-	-	OK	#12,13,16↑ 3C↑ 20UG ABCAMPOSITION 1100mDE	
	128042	JB				3							-		
	128043	MB				4				tm			OK		
	128044	BS				5							OK	SOUG EXT ABCAMPOSITION 1100mDE	
	128045	JB				6							-		
	128046	SB89197-1	81581 TCL11	S TB	7	7	5		1X				OK		
	128047	SB89197-2	↓	S TB	1	8	5		1X				OK		
R	128048	SB88920-6	81436 STAR	G W	2	9	5		1X				OK		
R	128049	SB88910-6	81419 STAR	W	2	10	5		1X				OK		
R	128050	SB88985-10	81477 TCL20	G W	5	11	5		1X				OK		
R/D	128051	SB89080-3	81533 STAR	G W	5	12	5/50		10X				OK	+2A155754	
	128052	SB88920 (MS)	81436 STAR		1,2	13	5		1X				OK	25UG ABCAMPOSITION →50mL	
	128053	SB88930 (MSD)	↓	↓	1,2	14	5		1X				OK		
	128054	JB				15							-		
R	128055	SB89080-2	81533 STAR	G W	5	16	5		1X				OK		
R	128056	SB88935-11	81442 TCL20	S TB	2	17	5		1X				OK		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V2B5771

Date: 3/4/15

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: ZB624(60mx0.25mmx1.4um)

Method V8260C

Initial Cal. Method M2B5744

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/4/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
R	2B28057	SB588935-12	8142 TCL20	SB	7	18	5		1x		W		OK		✓
R	128058	SB589010-3	8142 TCL20+220 F22	WB	2	19	5		1x	+	W		OK	Client Vial	✓
R	128059	SB589010-4	"	WB	2	20	5		1x	+	W		OK	"	✓
R/D	128060	SB588910-11 MS/MSD	8141B SIM	GW	2	21	12.5/50		4x		W		OK/DC	+2B128036 MD 3/6 KE	✓
R/D	128061	SB588910-4	"	"	2	22	25/50		20x		W		OK/DC	+2B128037 1506 pm MD 3/6 KE	✓

BK 3/4/15

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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New Jersey ACCUTEST LABORATORIES

03/11/15

Technical Report for

ERM, Inc.

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

0271614.02

Accutest Job Number: JB89269

Sampling Date: 03/04/15

Report to:

ERM, Inc.
105 Maxess Road Suite 316
Melville, NY 11747-3851
greg.shkuda@erm.com; andrew.coenen@erm.com;
brice.lynch@erm.com; eugene.gabay@erm.com
ATTN: Eugene Gabay

Total number of pages in report: **150**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy L. Cole
Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

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Accutest Laboratories

Sample Summary

ERM, Inc.

Job No: JB89269

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB89269-1	03/04/15	09:00	BL	03/04/15	AQ	Water	HYDRANT
JB89269-2	03/04/15	09:30	BL	03/04/15	AQ	Water	WATER TRUCK
JB89269-5	03/04/15	11:30	BL	03/04/15	AQ	Water	MUD TUB (AQUEOUS)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JB89269
Site:	Northrop Grumman, Containment System, (Hydraulic Effectiveness)	**Report Date**	3/10/2015 11:30:14 A

On 03/04/2015, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of #1: (2.2/1.9) C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB89269 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V2B5773

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89167-2MS, JB89167-2MSD were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB89269
Account: ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Collected: 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB89269-1	**HYDRANT**					
No hits reported in this sample.						
JB89269-2	**WATER TRUCK**					
Bromodichloromethane		0.26 J	1.0	0.19	ug/l	SW846 8260C
Chloroform		0.27 J	1.0	0.20	ug/l	SW846 8260C
Dibromochloromethane		0.39 J	1.0	0.22	ug/l	SW846 8260C
JB89269-5	**MUD TUB (AQUEOUS)**					
Acetone		33.7	10	2.7	ug/l	SW846 8260C
Toluene		0.46 J	1.0	0.22	ug/l	SW846 8260C

New Jersey ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID: HYDRANT
Lab Sample ID: JB89269-1 **Date Sampled:** 03/04/15
Matrix: AQ - Water **Date Received:** 03/04/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128093.D	1	03/05/15	BK	n/a	n/a	V2B5773
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	HYDRANT		
Lab Sample ID:	JB89269-1	**Date Sampled:**	03/04/15
Matrix:	AQ - Water	**Date Received:**	03/04/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	88%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: WATER TRUCK
Lab Sample ID: JB89269-2 **Date Sampled:** 03/04/15
Matrix: AQ - Water **Date Received:** 03/04/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128094.D	1	03/05/15	BK	n/a	n/a	V2B5773
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	0.26	1.0	0.19	ug/l	J
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.27	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	0.39	1.0	0.22	ug/l	J
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WATER TRUCK		
Lab Sample ID:	JB89269-2	**Date Sampled:**	03/04/15
Matrix:	AQ - Water	**Date Received:**	03/04/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: MUD TUB (AQUEOUS)
Lab Sample ID: JB89269-5 **Date Sampled:** 03/04/15
Matrix: AQ - Water **Date Received:** 03/04/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128095.D	1	03/05/15	BK	n/a	n/a	V2B5773
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	33.7	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MUD TUB (AQUEOUS)
Lab Sample ID: JB89269-5 **Date Sampled:** 03/04/15
Matrix: AQ - Water **Date Received:** 03/04/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	0.46	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	88%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	97%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST LABORATORIES

WW
SO
FB
WTB

CHAIN OF CUSTODY

PAGE 1 OF 1

P1

2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #

Bottle Order Control #

Accutest Quote #

Accutest Job # JB89269

Client / Reporting Information

Company Name: ERM

Street Address: 105 Raynes Ave Ste 316

City: Melville State: NY Zip: 11747

Project Contact: Eugene.Gaba@erm.com E-mail:

Phone #: (631-756-2900 Fax #: 8901

Sampler(s) Name(s): Blynch Phone #: 646-967-2515

Project Information

Project Name: Bethpage Park Contingent System (Northrop Grumman)

Street: Aerospace Blvd

City: Bethpage State: NY

Project #: 0271624.02

Client Purchase Order #:

Project Manager: Gene Gaba

Billing Information (If different from Report to)

Company Name:

Street Address:

City State Zip:

Attention:

Requested Analysis (see TEST CODE sheet)

FCL VOCs From 12-22-15 + 10 TICs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
1	Hydrant		3/4/15	9:00	BW	WW	3	3								V182
2	Water truck			9:30		WW	3	3								11272
3	FB030415			11:15		FB	2	2								
4	TB030415			11:20		TB	2	2								
5	mud tub (aqueous)			11:30		WW	3	3								
6	mud tub (soil)			11:30		SO	3	3								

INITIAL ASSESSMENT DA

LABEL VERIFICATION

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [x] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

QA/QC samples standard turnt
separate job #. Hold soil samples
run if mud tub aqueous sample
has to many solids

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:
1	Blynch	3/4/15 12:00	Chris Laul
2	Chris Laul	3/4/15 1600	
3			
4			
5			

Custody Seal # Intact Not intact Preserved where applicable On Ice Cooler Temp. 2.2°C

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB89269 **Client:** ERM **Project:** Bethage Park Containment System

Date / Time Received: 3/4/2015 4:00:00 PM **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2.2/1.9); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No, Coolers	1		

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments -2,3,4,5 & 6 No analysis

-5 3of 3 voc's rec'd with approx 80% sediment/slurry

-6 Please note sample is on hold pending confirmation of sufficient water volume on -5. Samples have similar consistency as -5

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB89269 **Initiator:** ANDREWS

CSR: Tammy McCloskey **Response Date:** 3/5/2015

Response: samples JB89269-2 through -5 should have same analysis as JB89269-1.

-5 please centrifuge prior to analysis per prior instructions from Gene Gabay

-6 sample should remain on hold.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB89269: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JB89269

Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Project No: 0271614.02

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB89269-1	Collected: 04-MAR-15 09:00 By: BL			Received: 04-MAR-15 By: AS		
HYDRANT						
JB89269-1	SW846 8260C	05-MAR-15 12:57	BK			VC8260TCL20+ 20
JB89269-2	Collected: 04-MAR-15 09:30 By: BL			Received: 04-MAR-15 By: AS		
WATER TRUCK						
JB89269-2	SW846 8260C	05-MAR-15 13:26	BK			VC8260TCL20+ 20
JB89269-5	Collected: 04-MAR-15 11:30 By: BL			Received: 04-MAR-15 By: AS		
MUD TUB (AQUEOUS)						
JB89269-5	SW846 8260C	05-MAR-15 13:54	BK			VC8260TCL20+ 20

Accutest Internal Chain of Custody

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY
Received: 03/04/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB89269-1.1	Secured Storage	Bridget Kelly	03/05/15 12:10	Retrieve from Storage
JB89269-1.1	Bridget Kelly	GCMS2B	03/05/15 12:10	Load on Instrument
JB89269-1.1	GCMS2B	Bridget Kelly	03/09/15 12:20	Unload from Instrument
JB89269-1.1	Bridget Kelly	Secured Storage	03/09/15 12:20	Return to Storage
JB89269-2.2	Secured Storage	Bridget Kelly	03/05/15 12:10	Retrieve from Storage
JB89269-2.2	Bridget Kelly	GCMS2B	03/05/15 12:10	Load on Instrument
JB89269-2.2	GCMS2B	Bridget Kelly	03/09/15 12:20	Unload from Instrument
JB89269-2.2	Bridget Kelly	Secured Storage	03/09/15 12:20	Return to Storage
JB89269-5.2	Secured Storage	Bridget Kelly	03/05/15 10:58	Retrieve from Storage
JB89269-5.2	Bridget Kelly	GCMS2B	03/05/15 12:09	Load on Instrument
JB89269-5.2	GCMS2B	Bridget Kelly	03/09/15 12:20	Unload from Instrument
JB89269-5.2	Bridget Kelly	Secured Storage	03/09/15 12:20	Return to Storage
JB89269-5.3	Secured Storage	Bridget Kelly	03/05/15 10:58	Retrieve from Storage
JB89269-5.3	Bridget Kelly	Secured Storage	03/05/15 14:10	Return to Storage

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5773-MB	2B128090.D	1	03/05/15	BK	n/a	n/a	V2B5773

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89269-1, JB89269-2, JB89269-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5773-MB	2B128090.D	1	03/05/15	BK	n/a	n/a	V2B5773

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89269-1, JB89269-2, JB89269-5

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	89%	73-122%
2037-26-5	Toluene-D8	99%	84-119%
460-00-4	4-Bromofluorobenzene	99%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5773-BS	2B128091.D	1	03/05/15	BK	n/a	n/a	V2B5773

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89269-1, JB89269-2, JB89269-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	46.8	94	47-144
71-43-2	Benzene	50	53.4	107	81-119
74-97-5	Bromochloromethane	50	54.4	109	84-120
75-27-4	Bromodichloromethane	50	50.3	101	81-125
75-25-2	Bromoform	50	48.7	97	74-128
74-83-9	Bromomethane	50	56.0	112	52-146
78-93-3	2-Butanone (MEK)	50	57.4	115	68-130
75-15-0	Carbon disulfide	50	43.9	88	71-129
56-23-5	Carbon tetrachloride	50	43.2	86	77-140
108-90-7	Chlorobenzene	50	53.5	107	84-116
75-45-6	Chlorodifluoromethane	50	52.1	104	44-147
75-00-3	Chloroethane	50	71.6	143	70-148
67-66-3	Chloroform	50	51.3	103	81-120
74-87-3	Chloromethane	50	62.3	125	50-143
110-82-7	Cyclohexane	50	55.3	111	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	49.6	99	66-132
124-48-1	Dibromochloromethane	50	49.7	99	81-122
106-93-4	1,2-Dibromoethane	50	52.9	106	81-120
95-50-1	1,2-Dichlorobenzene	50	53.4	107	80-117
541-73-1	1,3-Dichlorobenzene	50	52.6	105	81-116
106-46-7	1,4-Dichlorobenzene	50	51.9	104	80-115
75-71-8	Dichlorodifluoromethane	50	49.3	99	36-169
75-34-3	1,1-Dichloroethane	50	54.9	110	80-125
107-06-2	1,2-Dichloroethane	50	43.5	87	78-131
75-35-4	1,1-Dichloroethene	50	47.9	96	73-127
156-59-2	cis-1,2-Dichloroethene	50	53.5	107	77-118
156-60-5	trans-1,2-Dichloroethene	50	49.3	99	75-118
78-87-5	1,2-Dichloropropane	50	56.7	113	80-124
10061-01-5	cis-1,3-Dichloropropene	50	56.0	112	72-121
10061-02-6	trans-1,3-Dichloropropene	50	50.3	101	73-122
100-41-4	Ethylbenzene	50	51.0	102	80-118
76-13-1	Freon 113	50	51.6	103	76-140
591-78-6	2-Hexanone	50	56.1	112	66-128
98-82-8	Isopropylbenzene	50	54.6	109	78-125
79-20-9	Methyl Acetate	50	48.5	97	63-120
108-87-2	Methylcyclohexane	50	47.6	95	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B5773-BS	2B128091.D	1	03/05/15	BK	n/a	n/a	V2B5773

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89269-1, JB89269-2, JB89269-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	97.7	98	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	56.4	113	73-129
75-09-2	Methylene chloride	50	53.6	107	75-122
100-42-5	Styrene	50	56.7	113	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	55.5	111	69-116
127-18-4	Tetrachloroethene	50	49.1	98	69-138
108-88-3	Toluene	50	53.1	106	80-122
87-61-6	1,2,3-Trichlorobenzene	50	55.6	111	74-137
120-82-1	1,2,4-Trichlorobenzene	50	55.7	111	75-135
71-55-6	1,1,1-Trichloroethane	50	48.9	98	80-131
79-00-5	1,1,2-Trichloroethane	50	54.3	109	78-122
79-01-6	Trichloroethene	50	52.7	105	83-122
75-69-4	Trichlorofluoromethane	50	51.3	103	66-143
75-01-4	Vinyl chloride	50	60.5	121	57-138
	m,p-Xylene	100	107	107	82-119
95-47-6	o-Xylene	50	53.4	107	82-119
1330-20-7	Xylene (total)	150	161	107	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	88%	73-122%
2037-26-5	Toluene-D8	101%	84-119%
460-00-4	4-Bromofluorobenzene	98%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89167-2MS	2B128100.D	4	03/05/15	BK	n/a	n/a	V2B5773
JB89167-2MSD	2B128101.D	4	03/05/15	BK	n/a	n/a	V2B5773
JB89167-2	2B128103.D	4	03/05/15	BK	n/a	n/a	V2B5773

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89269-1, JB89269-2, JB89269-5

CAS No.	Compound	JB89167-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	162	81	200	170	85	5	33-158/19
71-43-2	Benzene	ND		200	202	101	200	204	102	1	43-138/12
74-97-5	Bromochloromethane	ND		200	206	103	200	210	105	2	75-127/12
75-27-4	Bromodichloromethane	ND		200	191	96	200	192	96	1	72-128/13
75-25-2	Bromoform	ND		200	195	98	200	197	99	1	70-131/12
74-83-9	Bromomethane	ND		200	221	111	200	221	111	0	47-142/16
78-93-3	2-Butanone (MEK)	ND		200	213	107	200	210	105	1	56-146/12
75-15-0	Carbon disulfide	ND		200	194	97	200	194	97	0	38-136/17
56-23-5	Carbon tetrachloride	ND		200	161	81	200	163	82	1	45-149/17
108-90-7	Chlorobenzene	ND		200	208	104	200	212	106	2	70-124/12
75-45-6	Chlorodifluoromethane	ND		200	249	125	200	246	123	1	26-147/19
75-00-3	Chloroethane	ND		200	256	128	200	257	129	0	47-139/15
67-66-3	Chloroform	ND		200	189	95	200	192	96	2	66-126/13
74-87-3	Chloromethane	ND		200	248	124	200	248	124	0	41-140/15
110-82-7	Cyclohexane	ND		200	215	108	200	213	107	1	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		200	198	99	200	201	101	2	64-136/14
124-48-1	Dibromochloromethane	ND		200	194	97	200	197	99	2	75-126/12
106-93-4	1,2-Dibromoethane	ND		200	204	102	200	205	103	0	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		200	216	108	200	218	109	1	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		200	213	107	200	213	107	0	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		200	209	105	200	211	106	1	69-122/12
75-71-8	Dichlorodifluoromethane	ND		200	215	108	200	213	107	1	24-161/20
75-34-3	1,1-Dichloroethane	ND		200	206	103	200	207	104	0	60-129/13
107-06-2	1,2-Dichloroethane	ND		200	161	81	200	160	80	1	72-133/12
75-35-4	1,1-Dichloroethene	ND		200	197	99	200	201	101	2	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		200	207	104	200	211	106	2	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		200	198	99	200	199	100	1	53-128/15
78-87-5	1,2-Dichloropropane	ND		200	221	111	200	224	112	1	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		200	216	108	200	214	107	1	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		200	197	99	200	197	99	0	68-130/14
100-41-4	Ethylbenzene	34.0		200	225	96	200	225	96	0	38-139/12
76-13-1	Freon 113	ND		200	230	115	200	232	116	1	34-154/18
591-78-6	2-Hexanone	ND		200	224	112	200	226	113	1	55-148/15
98-82-8	Isopropylbenzene	2.5	J	200	220	109	200	221	109	0	54-137/15
79-20-9	Methyl Acetate	ND		200	235	118	200	232	116	1	60-137/13
108-87-2	Methylcyclohexane	1.5	J	200	238	118	200	242	120	2	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89167-2MS	2B128100.D	4	03/05/15	BK	n/a	n/a	V2B5773
JB89167-2MSD	2B128101.D	4	03/05/15	BK	n/a	n/a	V2B5773
JB89167-2	2B128103.D	4	03/05/15	BK	n/a	n/a	V2B5773

The QC reported here applies to the following samples: **Method:** SW846 8260C

JB89269-1, JB89269-2, JB89269-5

CAS No.	Compound	JB89167-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		200	190	95	200	189	95	1	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	219	110	200	225	113	3	68-139/12
75-09-2	Methylene chloride	ND		200	204	102	200	209	105	2	63-128/13
100-42-5	Styrene	ND		200	221	111	200	222	111	0	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		200	235	118	200	237	119	1	67-126/13
127-18-4	Tetrachloroethene	ND		200	186	93	200	188	94	1	43-145/15
108-88-3	Toluene	5.9		200	209	102	200	212	103	1	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		200	225	113	200	229	115	2	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		200	224	112	200	224	112	0	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		200	179	90	200	179	90	0	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		200	214	107	200	211	106	1	71-127/12
79-01-6	Trichloroethene	ND		200	201	101	200	202	101	0	55-136/14
75-69-4	Trichlorofluoromethane	ND		200	211	106	200	214	107	1	33-157/21
75-01-4	Vinyl chloride	ND		200	249	125	200	249	125	0	34-147/17
	m,p-Xylene	389		400	717	82	400	725	84	1	42-139/13
95-47-6	o-Xylene	78.9		200	272	97	200	276	99	1	56-134/13
1330-20-7	Xylene (total)	468		600	989	87	600	1000	89	1	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JB89167-2	Limits
1868-53-7	Dibromofluoromethane	98%	98%	98%	76-120%
17060-07-0	1,2-Dichloroethane-D4	84%	83%	85%	73-122%
2037-26-5	Toluene-D8	101%	101%	99%	84-119%
460-00-4	4-Bromofluorobenzene	100%	100%	96%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V2B5744-BFB
Lab File ID: 2B127389.D
Instrument ID: GCMS2B
Injection Date: 02/05/15
Injection Time: 15:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17802	17.9		Pass
75	30.0 - 60.0% of mass 95	48517	48.9		Pass
95	Base peak, 100% relative abundance	99285	100.0		Pass
96	5.0 - 9.0% of mass 95	6558	6.61		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	109778	110.6		Pass
175	5.0 - 9.0% of mass 174	8374	8.43	(7.63) [a]	Pass
176	95.0 - 101.0% of mass 174	109376	110.2	(99.6) [a]	Pass
177	5.0 - 9.0% of mass 176	7201	7.25	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5744-IC5744	2B127390.D	02/05/15	16:12	00:35	Initial cal 0.2
V2B5744-IC5744	2B127391.D	02/05/15	16:44	01:07	Initial cal 0.5
V2B5744-IC5744	2B127392.D	02/05/15	17:13	01:36	Initial cal 1
V2B5744-IC5744	2B127393.D	02/05/15	17:42	02:05	Initial cal 2
V2B5744-IC5744	2B127394.D	02/05/15	18:10	02:33	Initial cal 5
V2B5744-IC5744	2B127395.D	02/05/15	18:39	03:02	Initial cal 10
V2B5744-IC5744	2B127396.D	02/05/15	19:07	03:30	Initial cal 20
V2B5744-ICC5744	2B127397.D	02/05/15	19:36	03:59	Initial cal 50
V2B5744-IC5744	2B127398.D	02/05/15	20:04	04:27	Initial cal 100
V2B5744-IC5744	2B127399.D	02/05/15	20:32	04:55	Initial cal 200
V2B5744-ICV5744	2B127402.D	02/05/15	21:58	06:21	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Sample: V2B5773-BFB
Lab File ID: 2B128087.D
Instrument ID: GCMS2B
Injection Date: 03/05/15
Injection Time: 10:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18511	15.5		Pass
75	30.0 - 60.0% of mass 95	53232	44.5		Pass
95	Base peak, 100% relative abundance	119640	100.0		Pass
96	5.0 - 9.0% of mass 95	7532	6.30		Pass
173	Less than 2.0% of mass 174	1072	0.90	(0.85) [a]	Pass
174	50.0 - 120.0% of mass 95	126680	105.9		Pass
175	5.0 - 9.0% of mass 174	9558	7.99	(7.54) [a]	Pass
176	95.0 - 101.0% of mass 174	123533	103.3	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	7936	6.63	(6.42) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B5773-CC5744	2B128088.D	03/05/15	10:30	00:28	Continuing cal 20
V2B5773-MB	2B128090.D	03/05/15	11:32	01:30	Method Blank
V2B5773-BS	2B128091.D	03/05/15	12:00	01:58	Blank Spike
JB89269-1	2B128093.D	03/05/15	12:57	02:55	HYDRANT
JB89269-2	2B128094.D	03/05/15	13:26	03:24	WATER TRUCK
JB89269-5	2B128095.D	03/05/15	13:54	03:52	MUD TUB (AQUEOUS)
ZZZZZZ	2B128096.D	03/05/15	14:23	04:21	(unrelated sample)
ZZZZZZ	2B128097.D	03/05/15	14:51	04:49	(unrelated sample)
ZZZZZZ	2B128098.D	03/05/15	15:20	05:18	(unrelated sample)
ZZZZZZ	2B128099.D	03/05/15	15:48	05:46	(unrelated sample)
JB89167-2MS	2B128100.D	03/05/15	16:17	06:15	Matrix Spike
JB89167-2MSD	2B128101.D	03/05/15	16:46	06:44	Matrix Spike Duplicate
JB89167-2	2B128103.D	03/05/15	17:43	07:41	(used for QC only; not part of job JB89269)
ZZZZZZ	2B128104.D	03/05/15	18:12	08:10	(unrelated sample)
ZZZZZZ	2B128105.D	03/05/15	18:40	08:38	(unrelated sample)
ZZZZZZ	2B128108.D	03/05/15	20:06	10:04	(unrelated sample)
ZZZZZZ	2B128109.D	03/05/15	20:34	10:32	(unrelated sample)
ZZZZZZ	2B128110.D	03/05/15	21:03	11:01	(unrelated sample)
ZZZZZZ	2B128111.D	03/05/15	21:31	11:29	(unrelated sample)
ZZZZZZ	2B128112.D	03/05/15	21:59	11:57	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Check Std:	V2B5773-CC5744	**Injection Date:**	03/05/15
Lab File ID:	2B128088.D	**Injection Time:**	10:30
Instrument ID:	GCMS2B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	131553	8.37	468739	10.82	514370	11.73	434617	14.71	225457	16.87
Upper Limit [a]	263106	8.87	937478	11.32	1028740	12.23	869234	15.21	450914	17.37
Lower Limit [b]	65777	7.87	234370	10.32	257185	11.23	217309	14.21	112729	16.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2B5773-MB	136381	8.36	493696	10.82	531391	11.73	442967	14.71	225581	16.87
V2B5773-BS	128956	8.37	456377	10.82	505494	11.73	427709	14.71	228321	16.87
JB89269-1	137159	8.37	491107	10.82	527898	11.73	441271	14.71	224101	16.87
JB89269-2	133812	8.36	488761	10.82	526311	11.73	437078	14.71	222639	16.87
JB89269-5	133795	8.36	478222	10.82	508007	11.73	429947	14.71	221121	16.87
ZZZZZZ	127354	8.36	476037	10.82	514840	11.73	428824	14.71	220286	16.87
ZZZZZZ	127398	8.36	478147	10.82	511415	11.73	426301	14.71	216590	16.87
ZZZZZZ	132241	8.37	440366	10.82	480387	11.73	422244	14.71	227951	16.87
ZZZZZZ	139886	8.36	537277	10.82	572664	11.73	492728	14.71	252572	16.87
JB89167-2MS	134315	8.37	508321	10.82	556920	11.73	471182	14.71	245706	16.87
JB89167-2MSD	137294	8.36	517966	10.81	564793	11.73	474070	14.71	249002	16.87
JB89167-2	148203	8.36	557134	10.82	589374	11.73	498668	14.71	256996	16.87
ZZZZZZ	140130	8.36	535421	10.82	574616	11.73	480589	14.71	245667	16.87
ZZZZZZ	150185	8.37	498410	10.82	528978	11.73	476383	14.71	264286	16.87
ZZZZZZ	158089	8.37	601581	10.82	645378	11.73	541388	14.71	277000	16.87
ZZZZZZ	153265	8.35	587245	10.82	624156	11.73	525657	14.71	271044	16.87
ZZZZZZ	158671	8.36	566577	10.82	609503	11.73	507577	14.71	263581	16.87
ZZZZZZ	140546	8.37	543800	10.82	590191	11.73	490943	14.71	251986	16.87
ZZZZZZ	150361	8.37	518322	10.82	558341	11.73	485007	14.71	249384	16.87

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: JB89269
Account: ERMNYW ERM, Inc.
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB89269-1	2B128093.D	99	88	97	99
JB89269-2	2B128094.D	101	89	99	99
JB89269-5	2B128095.D	100	88	100	97
JB89167-2MS	2B128100.D	98	84	101	100
JB89167-2MSD	2B128101.D	98	83	101	100
V2B5773-BS	2B128091.D	99	88	101	98
V2B5773-MB	2B128090.D	100	89	99	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JB89269 **Sample:** V2B5744-ICC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127397.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Response Factor Report MS2B

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:47:32 2015
Response via : Initial Calibration

Calibration Files
1 =2B127392.D 2 =2B127393.D 100 =2B127398.D 50 =2B127397.D
20 =2B127396.D 200 =2B127399.D 5 =2B127394.D 10 =2B127395.D
0.5 =2B127391.D 0.2 =2B127390.D = =

Compound	1	2	100	50	20	200	5	10	0.5	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9	ISTD											
2) tertiary butyl alcohol	0.925	0.947	1.086	1.054	0.997	1.111	1.072	1.050			1.030	6.50
3) ethanol	0.102	0.114	0.113	0.117	0.115	0.107	0.115	0.112			0.112	4.59
4) 1,4-dioxane	0.077	0.109	0.102	0.095	0.112	0.091	0.090				0.097	12.66
5) I pentafluorobenzene	ISTD											
6) freon 143a											0.000#	-1.00
7) freon 142b											0.000#	-1.00
8) freon 141b											0.000#	-1.00
9) chlorodifluoromethane	0.347	0.307	0.416	0.388	0.395	0.398	0.330	0.315			0.362	11.63
10) dichlorodifluoromethane	0.346	0.515	0.492	0.517	0.448	0.394	0.419				0.447	14.50
11) chlorotrifluoroethene											0.000#	-1.00
12) chloromethane	0.445	0.379	0.496	0.493	0.502	0.460	0.434	0.449	0.456		0.457	8.38
13) vinyl chloride	0.421	0.353	0.461	0.446	0.453	0.423	0.392	0.400	0.405		0.417	8.15
14) 1,3-Butadiene											0.000#	-1.00
15) bromomethane	0.314	0.275	0.299	0.304	0.319	0.279	0.291	0.304	0.379		0.307	9.93
16) chloroethane	0.192	0.158	0.205	0.205	0.213	0.202	0.180	0.201			0.195	9.17
17) vinyl bromide											0.000#	-1.00
18) trichlorofluoromethane	0.449	0.400	0.592	0.577	0.612	0.559	0.512	0.533			0.529	13.79
19) Pentane											0.000#	-1.00
20) ethyl ether	0.174	0.159	0.171	0.164	0.160	0.184	0.141	0.166			0.165	7.66
21) acrolein	0.056	0.054		0.050	0.053		0.048	0.049			0.051	6.23
22) 2-chloropropane	0.630	0.570	0.550	0.526	0.536	0.569	0.509	0.523	0.449		0.540	9.23
23) 1,2-dichloro-1,2,2-trifluoroet												

											0.000#	-1.00
24)	1,1-dichloroethene											
	0.385	0.312	0.301	0.282	0.300	0.308	0.287	0.287	0.268		0.304	11.09
25)	acetone											
		0.087	0.092	0.098	0.085	0.093	0.100				0.093	6.45
26)	allyl chloride											
	0.175	0.159	0.171	0.164	0.162	0.186	0.149	0.146	0.112		0.158	13.48
27)	acetonitrile											
		0.017	0.017	0.019	0.018	0.017	0.018				0.018	3.59
28)	iodomethane											
	0.729	0.669	0.670	0.641	0.642	0.701	0.601	0.625	0.528		0.645	9.07
29)	iso-butyl alcohol											
		0.004	0.003	0.004	0.004	0.003	0.004				0.004#	9.75
30)	carbon disulfide											
	1.100	1.010	1.006	0.946	0.966	1.047	0.898	0.926	0.958		0.984	6.40
31)	methylene chloride											
	0.420	0.341	0.335	0.319	0.326	0.353	0.311	0.317	0.311		0.337	10.19
32)	methyl acetate											
		0.051	0.050	0.049	0.056	0.046	0.048				0.050	6.95
33)	1-chloropropane											
	0.716	0.614	0.555	0.529	0.538	0.577	0.512	0.535	0.617		0.577	11.04
34)	methyl tert butyl ether											
	1.120	0.999	0.975	0.952	0.949	0.999	0.893	0.943	0.840		0.963	8.05
35)	trans-1,2-dichloroethene											
	0.373	0.350	0.315	0.301	0.309	0.328	0.311	0.309	0.300		0.322	7.65
36)	di-isopropyl ether											
	0.952	0.854	0.959	0.953	0.953	1.025	0.886	0.897	0.784		0.918	7.74
37)	2-butanone											
		0.036	0.033	0.032	0.038	0.028	0.030				0.033	12.17
38)	1,1-dichloroethane											
	0.655	0.595	0.580	0.555	0.553	0.605	0.517	0.534	0.480		0.564	9.19
39)	chloroprene											
	0.383	0.376	0.443	0.423	0.433	0.466	0.400	0.373	0.299		0.400	12.42
40)	acrylonitrile											
	0.117	0.110	0.118	0.113	0.111	0.126	0.102	0.108	0.074		0.109	13.54
41)	vinyl acetate											
		0.052	0.051	0.047	0.057		0.045				0.050	8.94
42)	ethyl tert-butyl ether											
	0.981	0.876	1.066	1.046	1.018	1.127	0.928	0.942	0.811		0.977	10.12
43)	ethyl acetate											
		0.037	0.038	0.035	0.040	0.032	0.033				0.036	9.11
44)	2,2-dichloropropane											
	0.594	0.519	0.482	0.463	0.484	0.464	0.443	0.468	0.420		0.482	10.43
45)	cis-1,2-dichloroethene											
	0.398	0.387	0.355	0.340	0.335	0.371	0.327	0.331	0.304		0.350	8.71
46)	propionitrile											
	0.042	0.040	0.042	0.040	0.040	0.043	0.037	0.040	0.031		0.039	8.85
47)	bromochloromethane											
	0.194	0.198	0.193	0.184	0.181	0.202	0.170	0.184	0.133		0.182	11.45
48)	tetrahydrofuran											
	0.094	0.082	0.083	0.080	0.080	0.088	0.078	0.075			0.083	7.41
49)	chloroform											
	0.652	0.617	0.592	0.566	0.569	0.600	0.545	0.572	0.580	0.568	0.586	5.23
50)	t-butyl formate											
	0.257	0.217	0.300	0.288	0.281	0.322	0.251	0.252	0.220		0.265	13.28
51)	dibromofluoromethane (s)											
	0.378	0.296	0.324	0.325	0.330	0.345	0.303	0.310			0.326	8.01
52)	1,2-dichloroethane-d4 (s)											
	0.394	0.355	0.385	0.396	0.398	0.392	0.358	0.375			0.381	4.51
53)	freon 113											

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                  0.261 0.246 0.258 0.262 0.228 0.209              0.244    8.86
54)  methacrylonitrile
      0.164 0.177 0.191 0.178 0.179 0.201 0.161 0.175 0.176        0.178    6.78
55)  1,1,1-trichloroethane
      0.559 0.519 0.553 0.515 0.515 0.551 0.450 0.482 0.455        0.511    8.00
56)  Cyclohexane
      0.434 0.448 0.444 0.407 0.425 0.458 0.384 0.382 0.373        0.417    7.59
57)  tert amyl alcohol
                                                                   0.000#  -1.00

58) I   1,4-difluorobenzene   ----------------ISTD---------------------
59)  tert amyl ethyl ether
                                                                   0.000#  -1.00
60)  Di-isobutylene
                                                                   0.000#  -1.00
61)  epichlorohydrin
      0.022 0.023 0.027 0.026 0.025 0.029 0.023 0.024              0.025    8.44
62)  n-butyl alcohol
            0.005 0.008 0.007 0.007 0.008 0.006 0.006              0.007#  13.82
63)  carbon tetrachloride
      0.595 0.551 0.502 0.481 0.490 0.475 0.458 0.484 0.416        0.495   10.49
64)  1,1-dichloropropene
      0.483 0.410 0.398 0.372 0.381 0.390 0.364 0.382 0.318        0.389   11.32
65)  hexane
      0.295 0.274 0.332 0.303 0.322 0.344 0.288 0.265 0.239        0.296   11.44
66)  benzene
      1.297 1.193 1.093 1.043 1.060 1.082 1.019 1.043 1.022 0.849  1.070   10.91
67)  2,2,4-trimethylpentane
      0.985 0.855 0.987 0.935 0.971 0.989 0.797 0.766 0.779        0.896   10.74
68)  tert-amyl methyl ether
      0.894 0.861 0.884 0.888 0.886 0.908 0.814 0.829 0.707        0.852    7.34
69)  heptane
      0.174 0.148 0.197 0.181 0.184 0.204 0.166 0.146 0.169        0.174   11.35
70)  isopropyl acetate
      0.474 0.459 0.515 0.498 0.484 0.534 0.459 0.477 0.360        0.474   10.40
71)  1,2-dichloroethane
      0.496 0.486 0.442 0.433 0.434 0.419 0.415 0.434 0.389        0.438    7.65
72)  trichloroethene
      0.313 0.308 0.318 0.293 0.297 0.316 0.275 0.286 0.250        0.295    7.55
73)  ethyl acrylate
                                                                   0.000#  -1.00
74)  2-nitropropane
                  0.085 0.078 0.078 0.088       0.074              0.081    6.98
75)  2-chloroethyl vinyl ether
      0.150 0.147 0.170 0.168 0.167 0.173 0.146 0.152 0.126        0.156    9.88
76)  methyl methacrylate
      0.050 0.058 0.071 0.069 0.068 0.073 0.062 0.064              0.064   11.86
77)  1,2-dichloropropane
      0.291 0.286 0.287 0.270 0.272 0.289 0.251 0.267 0.226        0.271    7.82
78)  dibromomethane
      0.209 0.211 0.201 0.193 0.193 0.201 0.185 0.190 0.164        0.194    7.38
79)  methylcyclohexane
      0.428 0.344 0.464 0.441 0.452 0.465 0.399 0.361              0.419   11.11
80)  bromodichloromethane
      0.472 0.453 0.452 0.427 0.421 0.444 0.388 0.409 0.332        0.422   10.04
81)  cis-1,3-dichloropropene
      0.515 0.466 0.503 0.473 0.469 0.506 0.432 0.444 0.376        0.465    9.38
82)  toluene-d8 (s)
      0.989 0.929 1.019 1.030 1.068 1.013 0.919 0.942 1.153        1.007    7.39
83)  4-methyl-2-pentanone
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            0.085 0.100 0.096 0.092 0.104 0.090 0.090              0.094    6.74
84)  toluene
      0.735 0.710 0.667 0.631 0.629 0.673 0.599 0.627 0.535        0.645    9.25
85)  3-methyl-1-butanol
      0.008 0.009 0.011 0.011 0.010 0.012 0.010 0.010              0.010#  13.48
86)  trans-1,3-dichloropropene
      0.505 0.465 0.479 0.458 0.449 0.480 0.410 0.428 0.372        0.449    9.01
87)  ethyl methacrylate
      0.291 0.291 0.341 0.330 0.318 0.346 0.280 0.299              0.312    8.09
88)  1,1,2-trichloroethane
      0.223 0.223 0.223 0.212 0.212 0.227 0.206 0.207 0.204        0.215    4.07
89)  2-hexanone
            0.073 0.087 0.081 0.080 0.089 0.069 0.071              0.079   10.04

90) I   chlorobenzene-d5      ----------------ISTD---------------------
91)  butyl ether
      1.214 1.179 1.383 1.250 1.206 1.459 1.053 1.135 0.944        1.202   12.97
92)  tetrachloroethene
      0.375 0.364 0.348 0.318 0.327 0.353 0.299 0.316 0.306        0.334    8.02
93)  1,3-dichloropropane
      0.503 0.474 0.518 0.482 0.473 0.544 0.461 0.463 0.406        0.480    8.17
94)  butyl acetate
      0.159 0.136 0.185 0.175 0.170 0.209 0.156 0.163              0.169   12.87
95)  3,3-dimethyl-1-butanol
            0.019 0.028 0.025 0.024 0.034 0.022 0.023              0.025   18.99
96)  dibromochloromethane
      0.443 0.405 0.469 0.433 0.426 0.493 0.391 0.415 0.377        0.428    8.58
97)  1,2-dibromoethane
      0.343 0.359 0.367 0.339 0.329 0.392 0.311 0.325 0.240        0.334   12.85
98)  chlorobenzene
      0.972 0.904 0.914 0.849 0.856 0.964 0.803 0.807 0.746 0.724  0.854    9.99
99)  1,1,1,2-tetrachloroethane
      0.424 0.377 0.415 0.386 0.380 0.430 0.355 0.363 0.284        0.379   11.69
100)  ethylbenzene
      1.601 1.482 1.459 1.366 1.404 1.503 1.327 1.358 1.288        1.421    6.94
101)  m,p-xylene
      0.608 0.547 0.574 0.524 0.531 0.618 0.490 0.516 0.461        0.541    9.58
102)  o-xylene
      0.638 0.591 0.614 0.569 0.559 0.657 0.502 0.529 0.501        0.573    9.86
103)  styrene
      0.848 0.898 0.998 0.925 0.922 1.054 0.772 0.855 0.677        0.883   12.82
104)  butyl acrylate
                                                                   0.000#  -1.00
105)  bromoform
      0.315 0.311 0.376 0.346 0.336 0.398 0.290 0.311 0.260        0.327   12.95

106) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
107)  isopropylbenzene
      2.868 2.863 2.814 2.681 2.707 2.754 2.440 2.573 2.267        2.663    7.63
108)  4-bromofluorobenzene (s)
      0.918 0.790 0.777 0.811 0.850 0.801 0.752 0.758              0.807    6.75

109)  cyclohexanone   cyclohexanone ***Compound failed in this calibration.
            0.032 0.027 0.026 0.025 0.026 0.026 0.024              0.027    9.86
110)  bromobenzene
      0.929 0.857 0.846 0.827 0.836 0.842 0.769 0.798 0.764 0.643  0.811    9.31
111)  1,1,2,2-tetrachloroethane
      0.773 0.742 0.724 0.702 0.693 0.733 0.659 0.671 0.621 0.587  0.691    8.28
112)  trans-1,4-dichloro-2-butene
      0.149 0.187 0.199 0.183 0.186 0.194 0.168 0.175              0.180    8.77
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Initial Calibration Summary

Job Number: JB89269 **Sample:** V2B5744-ICC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127397.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

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113)  1,2,3-trichloropropane
       0.185 0.189 0.200 0.199 0.195 0.197 0.186 0.195 0.143        0.188    9.39
114)  n-propylbenzene
       3.065 3.285 2.884 2.805 2.909 2.842 2.690 2.770 2.447        2.855    8.18
115)  2-chlorotoluene
       0.793 0.713 0.714 0.672 0.680 0.731 0.616 0.645 0.563        0.681    9.94
116)  4-chlorotoluene
       2.047 2.056 1.929 1.862 1.885 1.931 1.793 1.781 1.716        1.889    6.14
117)  1,3,5-trimethylbenzene
       2.449 2.375 2.285 2.187 2.235 2.248 2.090 2.147 1.793        2.201    8.56
118)  tert-butylbenzene
       2.139 2.036 2.237 2.053 2.015 2.147 1.833 1.924 1.722        2.012    8.07
119)  pentachloroethane
       0.585 0.580 0.584 0.565 0.569 0.578 0.533 0.544 0.456        0.555    7.43
120)  1,2,4-trimethylbenzene
       2.286 2.248 2.251 2.195 2.225 2.214 2.044 2.137 1.825        2.159    6.68
121)  sec-butylbenzene
       3.221 3.069 3.115 2.929 2.952 3.028 2.627 2.794 2.430        2.907    8.63
122)  1,3-dichlorobenzene
       1.663 1.572 1.520 1.459 1.490 1.522 1.413 1.431 1.305 1.293  1.467    7.77
123)  p-isopropyltoluene
       2.633 2.603 2.729 2.578 2.569 2.674 2.286 2.361 1.968        2.489    9.72
124)  1,4-dichlorobenzene
       1.638 1.588 1.536 1.450 1.431 1.550 1.310 1.369 1.395 1.437  1.470    7.06
125)  1,2-dichlorobenzene
       1.571 1.470 1.561 1.526 1.514 1.548 1.409 1.440 1.279        1.480    6.31
126)  n-butylbenzene
       1.249 1.182 1.337 1.259 1.236 1.329 1.056 1.120 0.976        1.194   10.25
127)  1,2-dibromo-3-chloropropane
       0.140 0.125 0.161 0.152 0.143 0.159 0.132 0.136              0.144    9.02
128)  1,3,5-trichlorobenzene
       1.487 1.479 1.623 1.543 1.505 1.477 1.341 1.369 1.299        1.458    7.08
129)  1,2,4-trichlorobenzene
       1.218 1.162 1.475 1.399 1.337 1.322 1.153 1.187              1.282    9.31
130)  hexachlorobutadiene
       0.824 0.765 0.800 0.751 0.748 0.704 0.679 0.707 0.584        0.729    9.77
131)  naphthalene
       1.997 2.043 2.575 2.474 2.355 2.296 1.972 2.139              2.232   10.20
132)  1,2,3-trichlorobenzene
       1.104 1.126 1.284 1.247 1.196 1.099 1.011 1.110 1.034        1.135    8.07
133)  hexachloroethane
       0.542 0.598 0.664 0.611 0.591 0.654 0.483 0.531 0.506        0.575   11.07
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 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2B5744.M         Fri Feb 06 17:45:39 2015   MS2B
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Initial Calibration Verification

Job Number: JB89269 **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.01	8.38
2	M	tertiary butyl alcohol	1.030	1.128	-9.5	123	0.00	8.50
3		ethanol	0.112	0.128	-14.3	126	-0.01	6.93
4	M	1,4-dioxane	0.097	0.105	-8.2	118	0.00	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.407	-12.4	122	0.00	4.48
10	M	dichlorodifluoromethane	0.447	0.458	-2.5	108	0.00	4.46
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.494	-8.1	117	0.00	4.89
13	M	vinyl chloride	0.417	0.457	-9.6	120	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.311	-1.3	119	0.00	5.90
16	M	chloroethane	0.195	0.235	-20.5	134	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.560	-5.9	113	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.187	-13.3	133	0.00	7.15
21	M	acrolein	0.051	0.058	-13.7	137	0.00	7.39
22		2-chloropropane	0.540	0.574	-6.3	127	0.00	7.35
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.326	-7.2	134	0.00	7.61
25	M	acetone	0.093	0.090	3.2	115	0.00	7.63
26	M	allyl chloride	0.158	0.186	-17.7	132	0.00	8.21
27	M	acetonitrile	0.018	0.018	0.0	124	0.00	8.12
28	M	iodomethane	0.645	0.695	-7.8	127	0.00	7.91
29	M	iso-butyl alcohol	0.004	0.004#	0.0	137	0.00	11.10
30	M	carbon disulfide	0.984	1.075	-9.2	133	0.00	8.06
31	M	methylene chloride	0.337	0.348	-3.3	127	0.00	8.39
32	M	methyl acetate	0.050	0.049	2.0	113	0.00	8.18
33		1-chloropropane	0.577	0.579	-0.3	128	0.00	8.46
34	M	methyl tert butyl ether	0.963	0.966	-2.4	119	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.321	0.3	124	0.00	8.83
36	M	di-isopropyl ether	0.918	1.019	-11.0	125	0.00	9.50
37	M	2-butanone	0.033	0.036	-9.1	128	0.00	10.20
38	M	1,1-dichloroethane	0.564	0.607	-7.6	128	0.00	9.44
39	M	chloroprene	0.400	0.403	-0.8	111	0.00	9.58
40	M	acrylonitrile	0.109	0.123	-12.8	126	0.00	8.74
41	M	vinyl acetate	0.050	0.059	-18.0	136	0.00	9.45

Initial Calibration Verification

Job Number: JB89269 **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.049	-7.4	117	0.00	10.00
43	M	ethyl acetate	0.036	0.039	-8.3	122	0.00	10.25
44	M	2,2-dichloropropane	0.482	0.490	-1.7	124	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.361	-3.1	124	0.00	10.23
46	M	propionitrile	0.039	0.043	-10.3	125	0.00	10.28
47	M	bromochloromethane	0.182	0.196	-7.7	125	0.00	10.55
48	M	tetrahydrofuran	0.083	0.087	-4.8	127	0.00	10.62
49	M	chloroform	0.586	0.602	-2.7	124	0.00	10.62
50		t-butyl formate	0.265	0.305	-15.1	123	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.318	2.5	114	0.00	10.83
52	S	1,2-dichloroethane-d4 (s)	0.381	0.370	2.9	109	0.00	11.26
53	M	freon 113	0.244	0.282	-15.6	134	0.00	7.63
54	M	methacrylonitrile	0.178	0.193	-8.4	126	0.00	10.49
55	M	1,1,1-trichloroethane	0.511	0.554	-8.4	125	0.00	10.92
56	M	Cyclohexane	0.417	0.463	-11.0	133	0.00	11.03
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	118	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.028	-12.0	129	0.00	12.91
62	M	n-butyl alcohol	0.007	0.008#	-14.3	127	0.00	11.83
63	M	carbon tetrachloride	0.495	0.515	-4.0	126	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.423	-8.7	134	0.00	11.11
65	M	hexane	0.296	0.329	-11.1	127	0.00	9.23
66	M	benzene	1.070	1.151	-7.6	130	0.00	11.36
67		2,2,4-trimethylpentane	0.896	0.921	-2.8	116	0.00	11.43
68	M	tert-amyl methyl ether	0.852	0.877	-2.9	116	0.00	11.43
69	M	heptane	0.174	0.177	-1.7	115	0.00	11.59
70	M	isopropyl acetate	0.474	0.524	-10.5	124	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.438	0.0	119	0.00	11.35
72	M	trichloroethene	0.295	0.319	-8.1	128	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.079	2.5	118	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.179	-14.7	125	0.00	12.81
76	M	methyl methacrylate	0.064	0.072	-12.5	123	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.293	-8.1	127	0.00	12.31
78	M	dibromomethane	0.194	0.200	-3.1	122	0.00	12.44
79	M	methylcyclohexane	0.419	0.441	-5.3	118	0.00	12.31
80	M	bromodichloromethane	0.422	0.449	-6.4	124	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.506	-8.8	126	0.00	13.01
82	S	toluene-d8 (s)	1.007	1.017	-1.0	116	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.104	-10.6	127	0.00	13.12
84	M	toluene	0.645	0.680	-5.4	127	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.011	-10.0	122	0.00	13.11
86	M	trans-1,3-dichloropropene	0.449	0.463	-3.1	119	0.00	13.53
87	M	ethyl methacrylate	0.312	0.341	-9.3	122	0.00	13.55
88	M	1,1,2-trichloroethane	0.215	0.219	-1.9	121	0.00	13.73
89	M	2-hexanone	0.079	0.086	-8.9	124	0.00	13.92
90	I	chlorobenzene-d5	1.000	1.000	0.0	113	0.00	14.71
91	m	butyl ether	1.202	1.340	-11.5	121	0.00	14.69
92	M	tetrachloroethene	0.334	0.349	-4.5	124	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.525	-9.4	123	0.00	13.90
94	M	butyl acetate	0.169	0.192	-13.6	124	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.027	-8.0	122	0.00	14.06
96	M	dibromochloromethane	0.428	0.455	-6.3	119	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.366	-9.6	122	0.00	14.29
98	M	chlorobenzene	0.854	0.935	-9.5	125	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.414	-9.2	121	0.00	14.79

Initial Calibration Verification

Job Number: JB89269 **Sample:** V2B5744-ICV5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B127402.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.489	-4.8	123	0.00	14.81
101	M	m,p-xylene	0.541	0.584	-7.9	126	0.00	14.90
102	M	o-xylene	0.573	0.615	-7.3	122	0.00	15.29
103	M	styrene	0.883	1.021	-15.6	125	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.367	-12.2	120	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	16.87
107	M	isopropylbenzene	2.663	2.882	-8.2	123	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.814	-0.9	114	0.00	15.78
109	M	cyclohexanone	0.027	0.017	37.0#	74	0.00	15.74
110	M	bromobenzene	0.811	0.893	-10.1	123	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.735	-6.4	119	0.00	15.86
112	M	trans-1,4-dichloro-2-bute	0.180	0.190	-5.6	118	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.200	-6.4	114	0.00	15.93
114	M	n-propylbenzene	2.855	3.182	-11.5	129	0.00	15.99
115	M	2-chlorotoluene	0.681	0.732	-7.5	124	0.00	16.12
116	M	4-chlorotoluene	1.889	1.981	-4.9	121	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.330	-5.9	121	0.00	16.13
118	M	tert-butylbenzene	2.012	2.261	-12.4	126	0.00	16.46
119	M	pentachloroethane	0.555	0.592	-6.7	119	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.412	-11.7	125	0.00	16.49
121	M	sec-butylbenzene	2.907	3.171	-9.1	123	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.534	-4.6	120	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.817	-13.2	125	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.552	-5.6	122	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.611	-8.9	120	0.00	17.27
126	M	n-butylbenzene	1.194	1.402	-17.4	127	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.159	-10.4	119	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.603	-9.9	118	0.00	18.23
129	M	1,2,4-trichlorobenzene	1.282	1.525	-19.0	124	0.00	18.87
130	M	hexachlorobutadiene	0.729	0.812	-11.4	123	0.00	19.01
131	M	naphthalene	2.232	2.662	-19.3	123	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.342	-18.2	123	0.00	19.39
133	M	hexachloroethane	0.575	0.669	-16.3	125	0.00	17.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B127397.D M2B5744.M Tue Feb 10 09:36:46 2015 MS2B

Continuing Calibration Summary

Job Number: JB89269 **Sample:** V2B5773-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B128088.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2B128088.D Vial: 2
Acq On : 5 Mar 2015 10:30 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	112	0.00	8.37
2	M	tertiary butyl alcohol	1.030	1.000	2.9	113	0.00	8.50
3		ethanol	0.112	0.102	8.9	99	0.00	6.94
4	M	1,4-dioxane	0.097	0.092	5.2	108	0.00	12.42
5	I	pentafluorobenzene	1.000	1.000	0.0	121	0.00	10.82
6		freon 143a		----------NA----------				
7		freon 142b		----------NA----------				
8		freon 141b		----------NA----------				
9	M	chlorodifluoromethane	0.362	0.438	-21.0#	134	0.00	4.48
10	M	dichlorodifluoromethane	0.447	0.396	11.4	93	0.00	4.47
11	m	chlorotrifluoroethene		----------NA----------				
12	M	chloromethane	0.457	0.488	-6.8	117	-0.02	4.87
13	M	vinyl chloride	0.417	0.445	-6.7	119	0.00	5.18
14		1,3-Butadiene		----------NA----------				
15	M	bromomethane	0.307	0.297	3.3	113	0.00	5.91
16	M	chloroethane	0.195	0.213	-9.2	121	0.00	6.11
17		vinyl bromide		----------NA----------				
18	M	trichlorofluoromethane	0.529	0.477	9.8	94	0.00	6.69
19		Pentane		----------NA----------				
20	M	ethyl ether	0.165	0.192	-16.4	145	0.00	7.15
21	M	acrolein	0.051	0.047	7.8	108	0.00	7.39
22		2-chloropropane	0.540	0.586	-8.5	132	0.00	7.36
23		1,2-dichloro-1,2,2-triflu		----------NA----------				
24	M	1,1-dichloroethene	0.304	0.332	-9.2	134	0.02	7.62
25	M	acetone	0.093	0.104	-11.8	128	0.00	7.64
26	M	allyl chloride	0.158	0.187	-18.4	139	0.00	8.21
27	M	acetonitrile	0.018	0.018	0.0	117	0.00	8.11
28	M	iodomethane	0.645	0.670	-3.9	126	0.00	7.91
29	M	iso-butyl alcohol	0.004	0.004#	0.0	122	0.00	11.10
30	M	carbon disulfide	0.984	1.094	-11.2	137	0.00	8.06
31	M	methylene chloride	0.337	0.387	-14.8	144	0.00	8.40
32	M	methyl acetate	0.050	0.058	-16.0	143	0.00	8.18
33		1-chloropropane	0.577	0.556	3.6	125	0.00	8.46
34	M	methyl tert butyl ether	0.963	1.016	-5.5	129	0.00	8.82
35	M	trans-1,2-dichloroethene	0.322	0.345	-7.1	135	0.00	8.83
36	M	di-isopropyl ether	0.918	1.076	-17.2	137	0.00	9.50
37	M	2-butanone	0.033	0.037	-12.1	141	0.00	10.21
38	M	1,1-dichloroethane	0.564	0.632	-12.1	138	0.00	9.44
39	M	chloroprene	0.400	0.426	-6.5	119	0.00	9.58
40	M	acrylonitrile	0.109	0.124	-13.8	135	0.00	8.74
41	M	vinyl acetate	0.050	0.049	2.0	125	0.00	9.45

Continuing Calibration Summary

Job Number: JB89269 **Sample:** V2B5773-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B128088.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

42	M	ethyl tert-butyl ether	0.977	1.034	-5.8	123	0.00	10.00
43	M	ethyl acetate	0.036	0.041	-13.9	142	0.01	10.26
44	M	2,2-dichloropropane	0.482	0.488	-1.2	122	0.00	10.27
45	M	cis-1,2-dichloroethene	0.350	0.391	-11.7	141	0.00	10.23
46	M	propionitrile	0.039	0.047	-20.5#	142	0.00	10.28
47	M	bromochloromethane	0.182	0.206	-13.2	137	0.00	10.55
48	M	tetrahydrofuran	0.083	0.092	-10.8	139	0.00	10.62
49	M	chloroform	0.586	0.604	-3.1	128	0.00	10.62
50		t-butyl formate	0.265	0.249	6.0	107	0.00	10.70
51	S	dibromofluoromethane (s)	0.326	0.321	1.5	118	0.00	10.82
52	S	1,2-dichloroethane-d4 (s)	0.381	0.331	13.1	101	0.00	11.26
53	M	freon 113	0.244	0.266	-9.0	125	0.00	7.63
54	M	methacrylonitrile	0.178	0.193	-8.4	130	0.00	10.50
55	M	1,1,1-trichloroethane	0.511	0.488	4.5	115	0.00	10.92
56	M	Cyclohexane	0.417	0.464	-11.3	132	0.00	11.02
57		tert amyl alcohol		----------NA----------				
58	I	1,4-difluorobenzene	1.000	1.000	0.0	131	0.00	11.73
59		tert amyl ethyl ether		----------NA----------				
60	M	Di-isobutylene		----------NA----------				
61	M	epichlorohydrin	0.025	0.024	4.0	127	0.00	12.91
62	M	n-butyl alcohol	0.007	0.006#	14.3	123	0.00	11.83
63	M	carbon tetrachloride	0.495	0.425	14.1	114	0.00	11.14
64	M	1,1-dichloropropene	0.389	0.391	-0.5	135	0.00	11.11
65	M	hexane	0.296	0.355	-19.9	145	0.00	9.23
66	M	benzene	1.070	1.166	-9.0	144	0.00	11.36
67		2,2,4-trimethylpentane	0.896	0.980	-9.4	133	0.00	11.43
68	M	tert-amyl methyl ether	0.852	0.804	5.6	119	0.00	11.43
69	M	heptane	0.174	0.192	-10.3	137	0.00	11.59
70	M	isopropyl acetate	0.474	0.465	1.9	126	0.00	11.30
71	M	1,2-dichloroethane	0.438	0.392	10.5	119	0.00	11.35
72	M	trichloroethene	0.295	0.306	-3.7	135	0.00	12.06
73		ethyl acrylate		----------NA----------				
74	M	2-nitropropane	0.081	0.064	21.0#	109	0.00	12.77
75	M	2-chloroethyl vinyl ether	0.156	0.165	-5.8	130	0.00	12.81
76	M	methyl methacrylate	0.064	0.072	-12.5	138	0.00	12.33
77	M	1,2-dichloropropane	0.271	0.319	-17.7	154	0.00	12.31
78	M	dibromomethane	0.194	0.199	-2.6	136	0.00	12.44
79	M	methylcyclohexane	0.419	0.449	-7.2	131	0.00	12.31
80	M	bromodichloromethane	0.422	0.420	0.5	131	0.00	12.57
81	M	cis-1,3-dichloropropene	0.465	0.509	-9.5	142	0.00	13.01
82	S	toluene-d8 (s)	1.007	1.013	-0.6	125	0.00	13.31
83	M	4-methyl-2-pentanone	0.094	0.103	-9.6	146	0.00	13.12
84	M	toluene	0.645	0.685	-6.2	143	0.00	13.38
85	M	3-methyl-1-butanol	0.010	0.010#	0.0	122	0.00	13.12
86	M	trans-1,3-dichloropropene	0.449	0.447	0.4	131	0.00	13.53
87	M	ethyl methacrylate	0.312	0.340	-9.0	140	0.00	13.56
88	M	1,1,2-trichloroethane	0.215	0.234	-8.8	145	0.00	13.73
89	M	2-hexanone	0.079	0.088	-11.4	145	0.00	13.92
90	I	chlorobenzene-d5	1.000	1.000	0.0	130	0.00	14.71
91	m	butyl ether	1.202	1.394	-16.0	150	0.00	14.69
92	M	tetrachloroethene	0.334	0.323	3.3	128	0.00	13.93
93	M	1,3-dichloropropane	0.480	0.532	-10.8	146	0.00	13.90
94	M	butyl acetate	0.169	0.180	-6.5	137	0.00	13.99
95		3,3-dimethyl-1-butanol	0.025	0.023	8.0	122	0.00	14.06
96	M	dibromochloromethane	0.428	0.427	0.2	130	0.00	14.15
97	M	1,2-dibromoethane	0.334	0.351	-5.1	138	0.00	14.29
98	M	chlorobenzene	0.854	0.922	-8.0	140	0.00	14.74
99	M	1,1,1,2-tetrachloroethane	0.379	0.381	-0.5	130	0.00	14.79

Continuing Calibration Summary

Job Number: JB89269 **Sample:** V2B5773-CC5744
Account: ERMNYW ERM, Inc. **Lab FileID:** 2B128088.D
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

100	M	ethylbenzene	1.421	1.474	-3.7	136	0.00	14.80
101	M	m,p-xylene	0.541	0.574	-6.1	140	0.00	14.90
102	M	o-xylene	0.573	0.600	-4.7	139	0.00	15.29
103	M	styrene	0.883	0.973	-10.2	137	0.00	15.29
104		butyl acrylate		----------NA----------				
105	M	bromoform	0.327	0.313	4.3	121	0.00	15.51
106	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	123	0.00	16.87
107	M	isopropylbenzene	2.663	2.963	-11.3	134	0.00	15.61
108	S	4-bromofluorobenzene (s)	0.807	0.798	1.1	115	0.00	15.78
109	M	cyclohexanone	0.027	0.029	-7.4	143	0.00	15.74
110	M	bromobenzene	0.811	0.894	-10.2	131	0.00	15.97
111	M	1,1,2,2-tetrachloroethane	0.691	0.821	-18.8	145	0.00	15.85
112	M	trans-1,4-dichloro-2-bute	0.180	0.146	18.9	96	0.00	15.90
113	M	1,2,3-trichloropropane	0.188	0.213	-13.3	134	0.00	15.93
114	M	n-propylbenzene	2.855	3.216	-12.6	135	0.00	15.99
115	M	2-chlorotoluene	0.681	0.755	-10.9	136	0.00	16.12
116	M	4-chlorotoluene	1.889	2.051	-8.6	133	0.00	16.21
117	M	1,3,5-trimethylbenzene	2.201	2.394	-8.8	131	0.00	16.13
118	M	tert-butylbenzene	2.012	2.148	-6.8	131	0.00	16.46
119	M	pentachloroethane	0.555	0.584	-5.2	126	0.00	16.51
120	M	1,2,4-trimethylbenzene	2.159	2.359	-9.3	130	0.00	16.49
121	M	sec-butylbenzene	2.907	3.226	-11.0	134	0.00	16.66
122	M	1,3-dichlorobenzene	1.467	1.603	-9.3	132	0.00	16.81
123	M	p-isopropyltoluene	2.489	2.748	-10.4	131	0.00	16.77
124	M	1,4-dichlorobenzene	1.470	1.533	-4.3	131	0.00	16.89
125	M	1,2-dichlorobenzene	1.480	1.628	-10.0	132	0.00	17.27
126	M	n-butylbenzene	1.194	1.342	-12.4	133	0.00	17.16
127	M	1,2-dibromo-3-chloropropa	0.144	0.142	1.4	122	0.00	18.01
128		1,3,5-trichlorobenzene	1.458	1.522	-4.4	124	0.00	18.23
129	M	1,2,4-trichlorobenzene	1.282	1.360	-6.1	125	0.00	18.87
130	M	hexachlorobutadiene	0.729	0.724	0.7	119	0.00	19.01
131	M	naphthalene	2.232	2.424	-8.6	126	0.00	19.15
132	M	1,2,3-trichlorobenzene	1.135	1.219	-7.4	125	0.00	19.39
133	M	hexachloroethane	0.575	0.576	-0.2	120	0.00	17.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B127396.D M2B5744.M Thu Mar 05 14:14:29 2015 MS2B

New Jersey ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128093.D Vial: 7
Acq On : 5 Mar 2015 12:57 pm Operator: bridgetk
Sample : jb89269-1 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 13:33:54 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	137159	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	491107	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	527898	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	441271	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	224101	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	159110	49.62	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.24%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	164906	44.02	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 88.04%			
82) toluene-d8 (s)	13.31	98	514586	48.41	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 96.82%			
108) 4-bromofluorobenzene (s)	15.78	95	178568	49.36	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 98.72%			

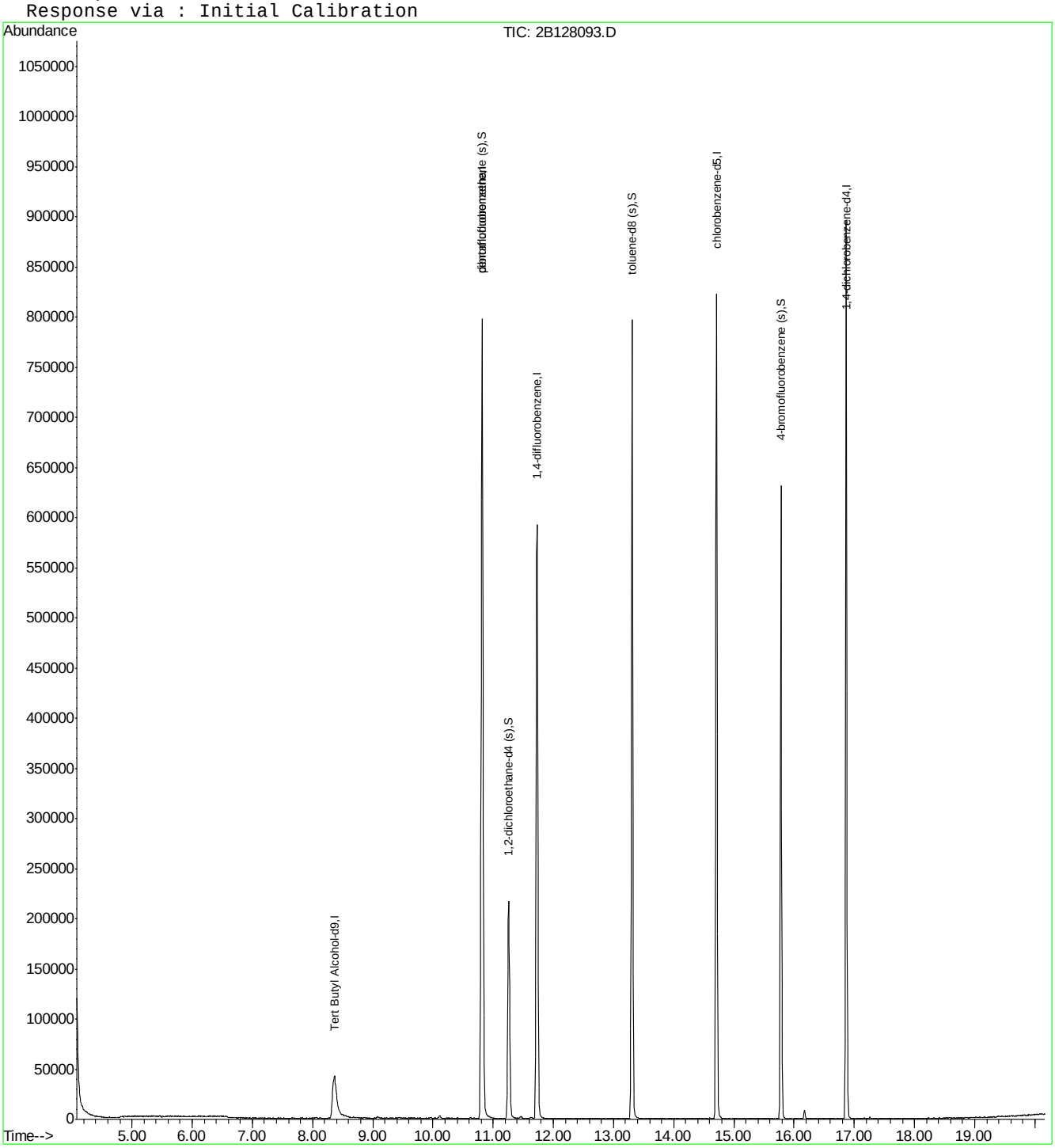
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128093.D Vial: 7
Acq On : 5 Mar 2015 12:57 pm Operator: bridgetk
Sample : jb89269-1 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 5 14:19 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\2B128093.D Vial: 7
Acq On : 5 Mar 2015 12:57 pm Operator: bridgetk
Sample : jb89269-1 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.530	84	86	103	rVV2	865	2061	0.12%	0.024%
2	4.630	103	105	127	rVB2	842	2178	0.12%	0.026%
3	4.803	134	138	142	rBV2	785	1216	0.07%	0.014%
4	4.887	150	154	156	rBV2	1060	1236	0.07%	0.015%
5	5.159	182	206	218	rBV5	1176	7226	0.41%	0.085%
6	5.448	258	261	271	rBV5	1379	3461	0.20%	0.041%
7	5.511	271	273	282	rVV3	1050	1836	0.10%	0.022%
8	5.636	282	297	307	rVB3	1183	5662	0.32%	0.067%
9	5.705	307	310	319	rBV4	1240	2676	0.15%	0.032%
10	6.045	361	375	390	rBV4	1203	6526	0.37%	0.077%
11	6.156	390	396	401	rVB3	1218	1855	0.11%	0.022%
12	6.192	401	403	418	rBV4	1000	2841	0.16%	0.033%
13	6.858	527	530	556	rVB3	945	3553	0.20%	0.042%
14	7.026	556	562	567	rBV3	474	1107	0.06%	0.013%
15	7.057	567	568	582	rVV2	455	999	0.06%	0.012%
16	7.162	582	588	590	rVB3	486	658	0.04%	0.008%
17	7.199	590	595	606	rBV3	650	1289	0.07%	0.015%
18	7.472	645	647	654	rVB3	739	1174	0.07%	0.014%
19	7.524	654	657	669	rBV3	621	1672	0.10%	0.020%
20	7.597	669	671	679	rBV2	493	847	0.05%	0.010%
21	7.655	679	682	686	rBV3	525	776	0.04%	0.009%
22	7.765	694	703	707	rBV2	450	1002	0.06%	0.012%
23	7.828	712	715	727	rVV2	456	1107	0.06%	0.013%
24	7.991	744	746	755	rBV3	658	1016	0.06%	0.012%
25	8.075	755	762	769	rBV4	599	1234	0.07%	0.015%
26	8.122	769	771	786	rVB3	695	2010	0.11%	0.024%
27	8.237	786	793	795	rBV3	472	1018	0.06%	0.012%
28	8.368	801	818	887	rBV2	42504	238444	13.55%	2.812%
29	8.861	908	912	917	rVB4	708	929	0.05%	0.011%
30	9.086	947	955	967	rVB6	1746	5211	0.30%	0.061%
31	9.155	967	968	980	rBV3	647	1588	0.09%	0.019%
32	9.228	980	982	991	rVB2	553	970	0.06%	0.011%
33	9.280	991	992	999	rBV2	549	801	0.05%	0.009%
34	9.375	999	1010	1012	rBV3	395	750	0.04%	0.009%
35	9.438	1017	1022	1038	rVB4	722	1284	0.07%	0.015%
36	9.663	1056	1065	1070	rVV2	710	1484	0.08%	0.017%
37	9.794	1086	1090	1103	rVB3	423	913	0.05%	0.011%
38	9.936	1115	1117	1131	rVB4	667	1877	0.11%	0.022%

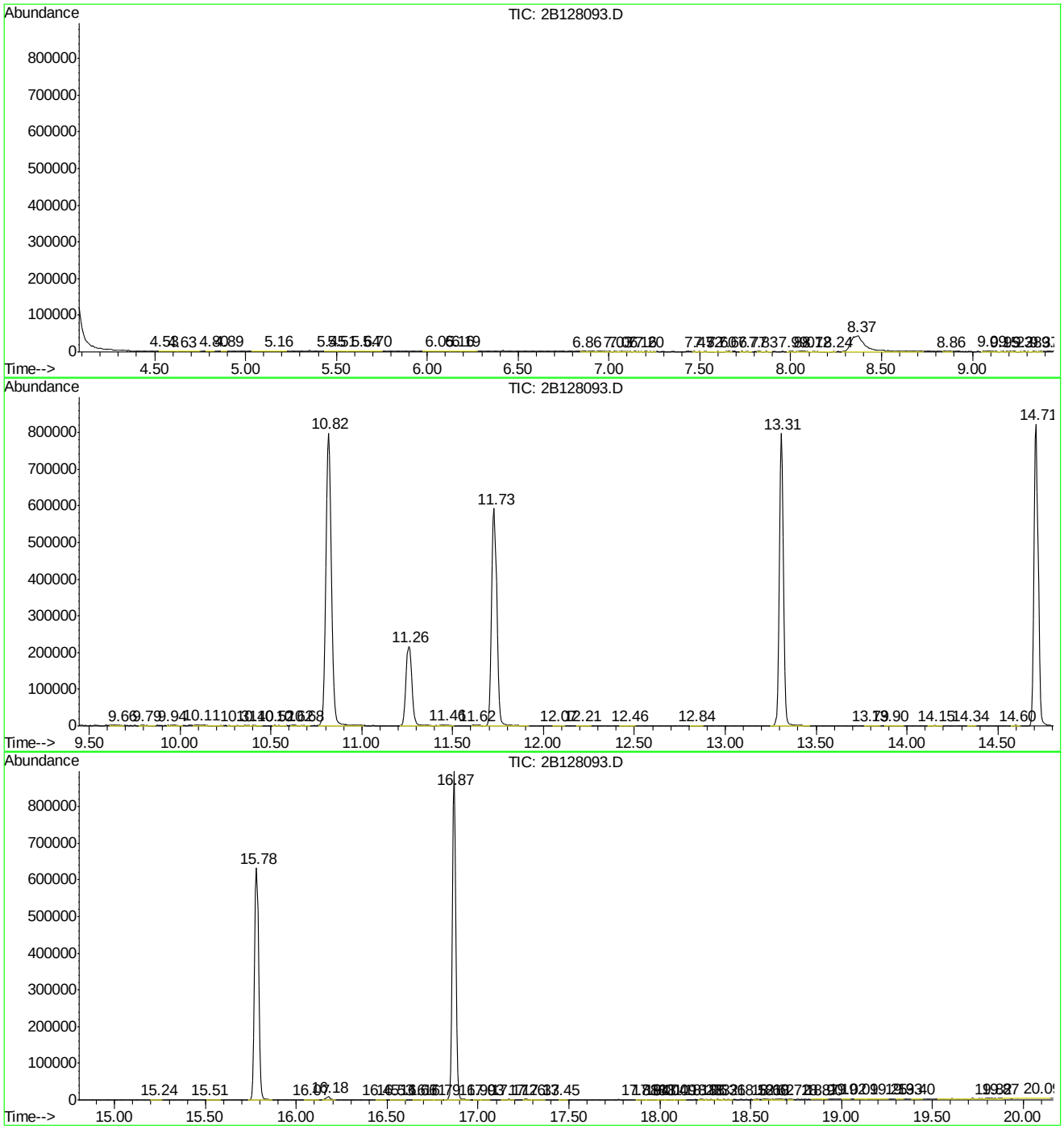
39	10.109	1143	1150	1174	rVV4	2461	5352	0.30%	0.063%
40	10.313	1179	1189	1203	rVB3	485	1809	0.10%	0.021%
41	10.402	1203	1206	1215	rVB3	542	926	0.05%	0.011%
42	10.518	1226	1228	1240	rVB3	574	1472	0.08%	0.017%
43	10.623	1245	1248	1256	rVB5	1106	1767	0.10%	0.021%
44	10.680	1256	1259	1265	rVB3	723	998	0.06%	0.012%
45	10.817	1275	1285	1321	rVB2	797253	1759804	100.00%	20.751%
46	11.257	1360	1369	1401	rVV	216426	458560	26.06%	5.407%
47	11.462	1401	1408	1416	rVB6	1869	4277	0.24%	0.050%
48	11.624	1435	1439	1448	rVV4	1438	3476	0.20%	0.041%
49	11.729	1448	1459	1495	rVB	592075	1122776	63.80%	13.239%
50	12.075	1520	1525	1533	rBV	441	733	0.04%	0.009%
51	12.206	1545	1550	1560	rVB2	265	830	0.05%	0.010%
52	12.463	1590	1599	1607	rBV2	354	1052	0.06%	0.012%
53	12.835	1664	1670	1678	rBV2	278	701	0.04%	0.008%
54	13.307	1749	1760	1790	rVB	796527	1299385	73.84%	15.322%
55	13.789	1847	1852	1864	rBV2	361	1085	0.06%	0.013%
56	13.900	1868	1873	1888	rBV2	314	950	0.05%	0.011%
57	14.151	1914	1921	1929	rVB3	949	1878	0.11%	0.022%
58	14.340	1956	1957	1964	rBV2	375	703	0.04%	0.008%
59	14.597	2001	2006	2011	rBV2	1495	1994	0.11%	0.024%
60	14.712	2020	2028	2053	rVB	822269	1246402	70.83%	14.697%
61	15.236	2121	2128	2132	rBV	368	904	0.05%	0.011%
62	15.514	2179	2181	2194	rBV2	787	1687	0.10%	0.020%
63	15.782	2223	2232	2248	rVV	631648	906632	51.52%	10.691%
64	16.070	2282	2287	2297	rVB2	520	1044	0.06%	0.012%
65	16.175	2301	2307	2314	rBV	8742	12900	0.73%	0.152%
66	16.453	2357	2360	2367	rVB2	437	845	0.05%	0.010%
67	16.532	2372	2375	2388	rBV2	696	1815	0.10%	0.021%
68	16.663	2396	2400	2405	rVB	511	934	0.05%	0.011%
69	16.710	2405	2409	2417	rBV3	590	1409	0.08%	0.017%
70	16.794	2417	2425	2427	rBV2	502	1020	0.06%	0.012%
71	16.867	2429	2439	2455	rBV	895546	1250958	71.09%	14.751%
72	16.988	2459	2462	2467	rVB3	523	830	0.05%	0.010%
73	17.030	2467	2470	2476	rBV	738	1233	0.07%	0.015%
74	17.166	2489	2496	2502	rBV4	947	1502	0.09%	0.018%
75	17.260	2511	2514	2520	rBV4	1754	2333	0.13%	0.028%
76	17.334	2520	2528	2534	rVB3	388	862	0.05%	0.010%
77	17.449	2549	2550	2558	rVB2	631	836	0.05%	0.010%
78	17.879	2630	2632	2640	rVB3	516	747	0.04%	0.009%
79	17.942	2640	2644	2653	rVB3	467	1111	0.06%	0.013%
80	18.010	2653	2657	2660	rBV2	568	707	0.04%	0.008%
81	18.042	2660	2663	2670	rVB2	511	829	0.05%	0.010%
82	18.089	2670	2672	2682	rBV3	477	968	0.06%	0.011%
83	18.230	2695	2699	2703	rVB3	891	1052	0.06%	0.012%
84	18.256	2703	2704	2713	rBV3	542	1076	0.06%	0.013%
85	18.319	2713	2716	2720	rVB4	791	1088	0.06%	0.013%
86	18.356	2720	2723	2731	rBV3	717	1823	0.10%	0.021%
87	18.519	2753	2754	2759	rBV3	662	736	0.04%	0.009%
88	18.597	2763	2769	2772	rVB3	642	934	0.05%	0.011%
89	18.624	2772	2774	2785	rBV3	484	1047	0.06%	0.012%
90	18.718	2789	2792	2795	rBV2	602	669	0.04%	0.008%
91	18.870	2814	2821	2825	rVB3	891	1374	0.08%	0.016%
92	18.896	2825	2826	2831	rBV3	818	661	0.04%	0.008%
93	19.022	2846	2850	2855	rVB3	898	858	0.05%	0.010%
94	19.090	2859	2863	2871	rVV4	929	1664	0.09%	0.020%
95	19.247	2871	2893	2894	rVB5	939	3795	0.22%	0.045%

96	19.331	2903	2909	2911	rBV2	795	864	0.05%	0.010%
97	19.399	2919	2922	2930	rBV4	1189	1978	0.11%	0.023%
98	19.824	2947	3003	3009	rBV7	2238	22337	1.27%	0.263%
99	19.866	3009	3011	3015	rBV4	865	1154	0.07%	0.014%
100	20.092	3015	3054	3064	rVV10	1808	16052	0.91%	0.189%

Sum of corrected areas: 8480685

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\2B128093.D
Operator : bridgetk
Acquired : 5 Mar 2015 12:57 pm using AcqMethod M2B5744
Instrument : MS2B
Sample Name: jb89269-1
Misc Info : MS81624,V2B5773,w,,,,1
Vial Number: 7
Quant File :M2B5744.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: bridgetk Date Acquired: 5 Mar 2015 12:57 pm
Data File: C:\MSDCHEM\1\DATA\2B128093.D
Name: jb89269-1
Misc: MS81624,V2B5773,w,,,,1
Method: C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title: SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Library Searched: C:\DATABASE\NIST08.L

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128094.D Vial: 8
Acq On : 5 Mar 2015 1:26 pm Operator: bridgetk
Sample : jb89269-2 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 13:48:14 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

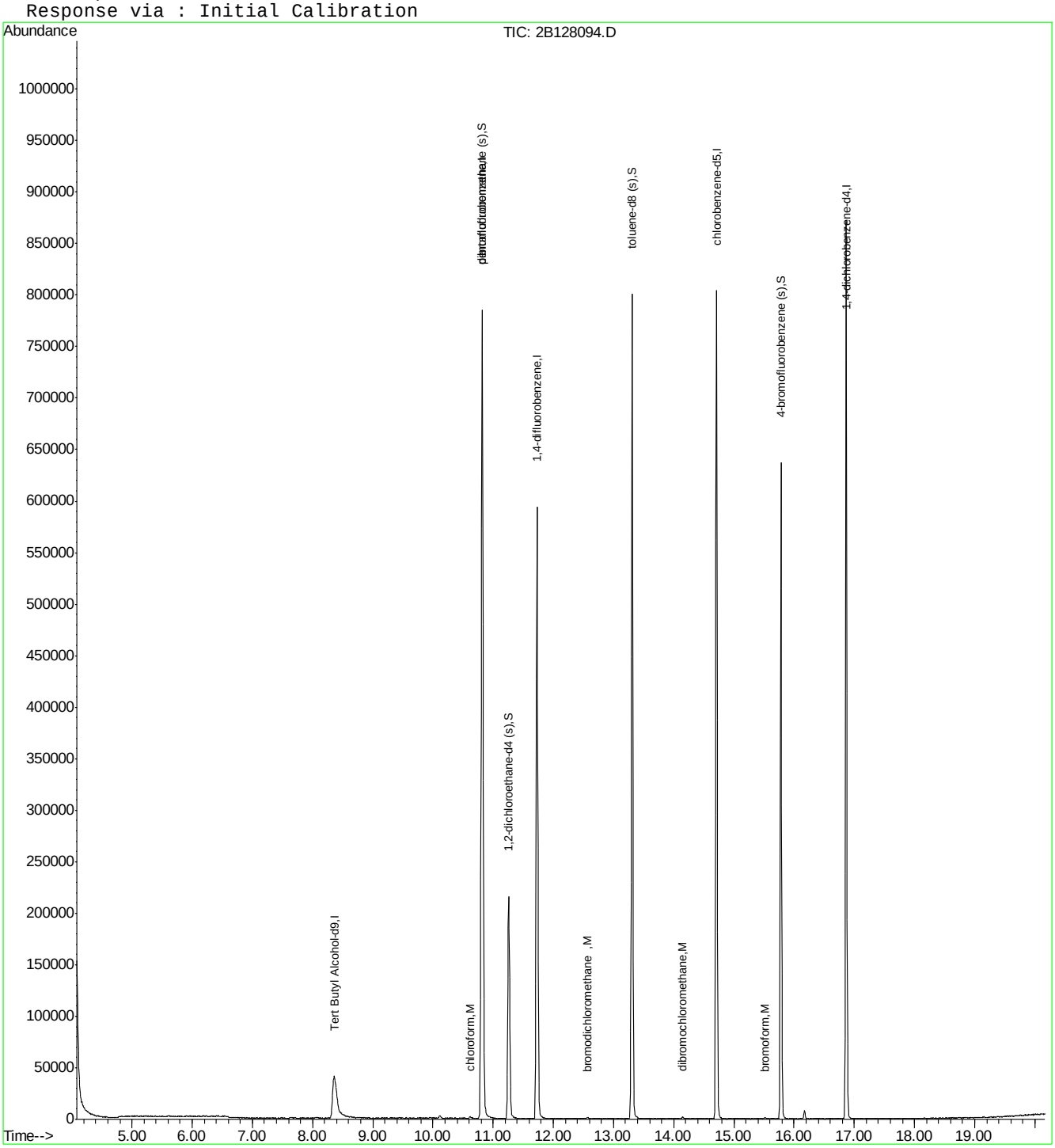
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	133812	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	488761	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	526311	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	437078	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	222639	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	160659	50.35	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.70%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	165194	44.30	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 88.60%			
82) toluene-d8 (s)	13.31	98	522810	49.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 98.66%			
108) 4-bromofluorobenzene (s)	15.78	95	177887	49.50	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 99.00%			
Target Compounds						Qvalue
49) chloroform	10.62	83	1560	0.27	ug/L	85
80) bromodichloromethane	12.57	83	1147	0.26	ug/L	80
96) dibromochloromethane	14.15	129	1449	0.39	ug/L	99
105) bromoform	15.51	173	749	0.26	ug/L	86

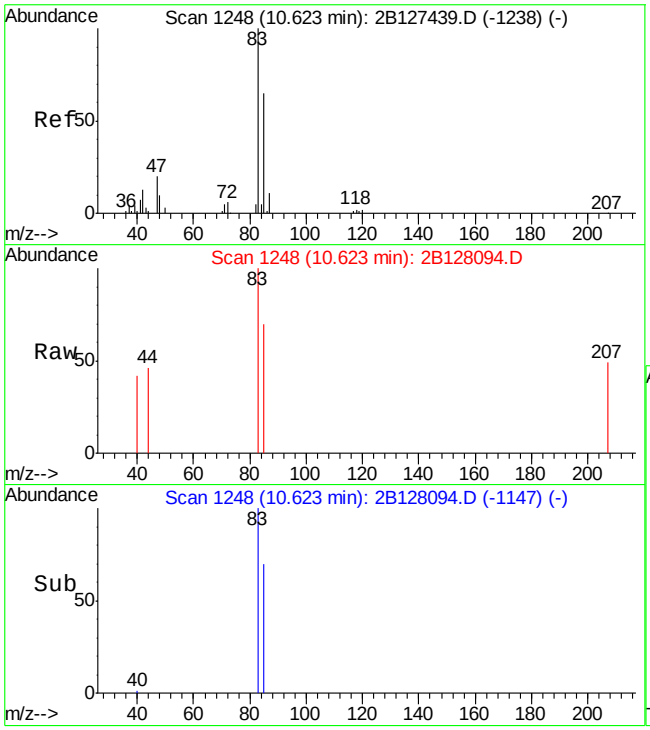
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128094.D Vial: 8
Acq On : 5 Mar 2015 1:26 pm Operator: bridgetk
Sample : jb89269-2 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 5 14:20 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

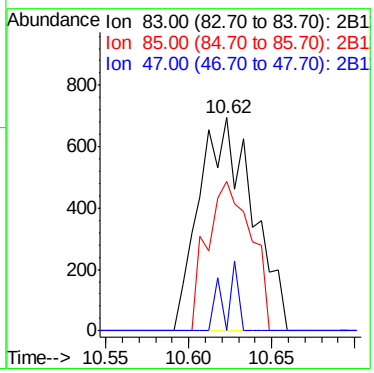


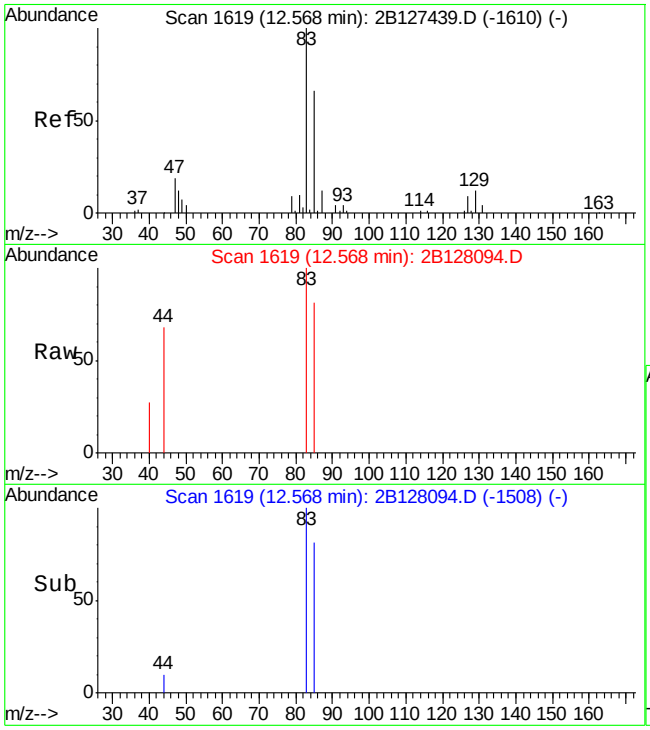


#49
chloroform
Concen: 0.27 ug/L
RT: 10.62 min Scan# 1248
Delta R.T. 0.00 min
Lab File: 2B128094.D
Acq: 5 Mar 2015 1:26 pm

Tgt Ion: 83 Resp: 1560

Ion	Ratio	Lower	Upper
83	100		
85	70.2	37.3	97.3
47	0.0	0.0	52.6

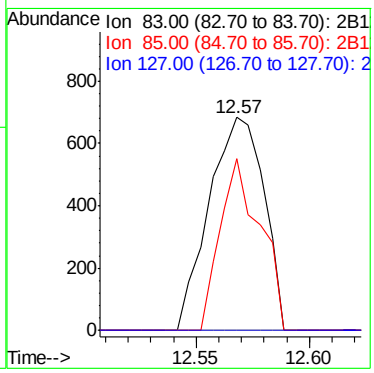


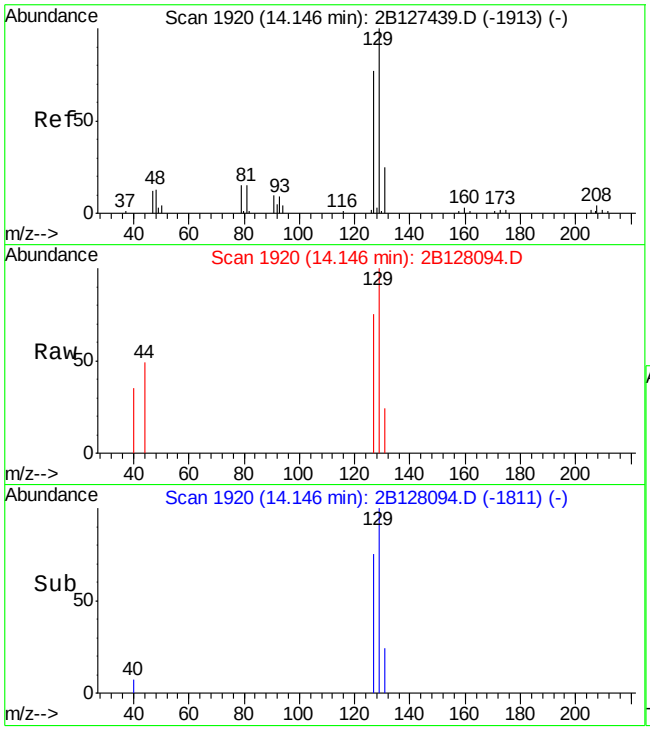


#80
bromodichloromethane
Concen: 0.26 ug/L
RT: 12.57 min Scan# 1619
Delta R.T. 0.00 min
Lab File: 2B128094.D
Acq: 5 Mar 2015 1:26 pm

Tgt Ion: 83 Resp: 1147

Ion	Ratio	Lower	Upper
83	100		
85	80.7	35.8	95.8
127	0.0	0.0	39.4

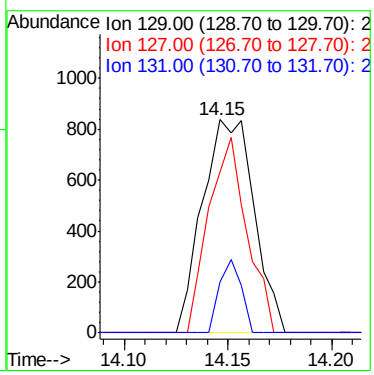


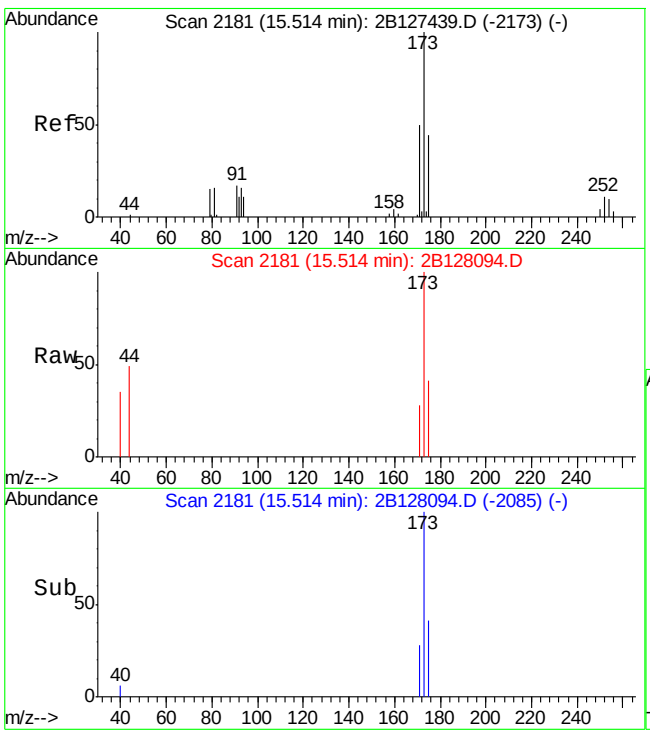


#96
dibromochloromethane
Concen: 0.39 ug/L
RT: 14.15 min Scan# 1920
Delta R.T. 0.00 min
Lab File: 2B128094.D
Acq: 5 Mar 2015 1:26 pm

Tgt Ion:129 Resp: 1449

Ion	Ratio	Lower	Upper
129	100		
127	75.2	46.1	106.1
131	23.6	0.0	53.7

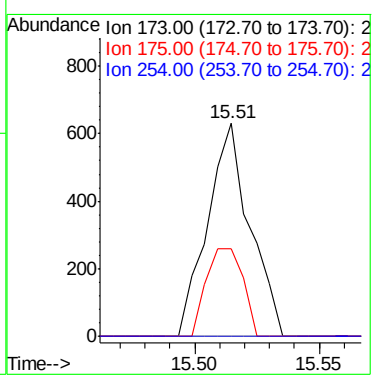




#105
bromoform
Concen: 0.26 ug/L
RT: 15.51 min Scan# 2181
Delta R.T. 0.01 min
Lab File: 2B128094.D
Acq: 5 Mar 2015 1:26 pm

Tgt Ion:173 Resp: 749

Ion	Ratio	Lower	Upper
173	100		
175	41.2	19.6	79.6
254	0.0	0.0	38.9



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\2B128094.D Vial: 8
Acq On : 5 Mar 2015 1:26 pm Operator: bridgetk
Sample : jb89269-2 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.546	88	89	105	rVB2	1031	2830	0.16%	0.033%
2	4.682	112	115	123	rBV2	404	887	0.05%	0.010%
3	4.735	123	125	129	rVB2	460	572	0.03%	0.007%
4	4.813	129	140	142	rBV2	1318	3301	0.19%	0.039%
5	4.834	142	144	153	rBV4	905	1457	0.08%	0.017%
6	5.259	224	225	251	rVB4	1228	6173	0.35%	0.073%
7	5.605	282	291	312	rBV5	1220	4895	0.28%	0.058%
8	5.768	312	322	325	rVB2	729	1612	0.09%	0.019%
9	6.024	369	371	377	rBV2	673	645	0.04%	0.008%
10	6.308	399	425	440	rVV5	791	5966	0.34%	0.070%
11	6.423	440	447	498	rVB4	2151	20714	1.18%	0.245%
12	6.706	498	501	515	rVB2	537	1581	0.09%	0.019%
13	6.790	515	517	547	rVB3	862	3273	0.19%	0.039%
14	7.078	570	572	581	rBV2	443	790	0.04%	0.009%
15	7.435	636	640	646	rBV3	420	882	0.05%	0.010%
16	7.472	646	647	651	rVV3	442	501	0.03%	0.006%
17	7.508	651	654	657	rVV3	442	525	0.03%	0.006%
18	7.535	657	659	674	rVV3	376	836	0.05%	0.010%
19	7.671	674	685	705	rVB4	632	2183	0.12%	0.026%
20	7.907	728	730	734	rBV3	400	500	0.03%	0.006%
21	7.933	734	735	745	rVB2	715	1211	0.07%	0.014%
22	8.043	753	756	772	rVB4	724	2714	0.15%	0.032%
23	8.363	800	817	903	rVB	41075	238934	13.59%	2.821%
24	8.929	923	925	951	rVB3	399	1181	0.07%	0.014%
25	9.144	963	966	973	rVV3	344	490	0.03%	0.006%
26	9.186	973	974	989	rVV3	418	1004	0.06%	0.012%
27	9.312	989	998	1002	rVB3	447	1113	0.06%	0.013%
28	9.453	1016	1025	1042	rBV4	534	1907	0.11%	0.023%
29	9.658	1062	1064	1080	rVB3	571	769	0.04%	0.009%
30	9.773	1083	1086	1089	rVB2	832	675	0.04%	0.008%
31	9.826	1094	1096	1100	rBV2	367	474	0.03%	0.006%
32	9.962	1116	1122	1129	rBV4	721	1782	0.10%	0.021%
33	10.109	1144	1150	1162	rVV3	2846	5298	0.30%	0.063%
34	10.208	1166	1169	1173	rVB2	383	511	0.03%	0.006%
35	10.528	1221	1230	1234	rVB3	578	1376	0.08%	0.016%
36	10.565	1236	1237	1242	rVV3	481	593	0.03%	0.007%
37	10.617	1242	1247	1265	rVV4	1573	5189	0.30%	0.061%
38	10.733	1265	1269	1272	rVB3	492	651	0.04%	0.008%

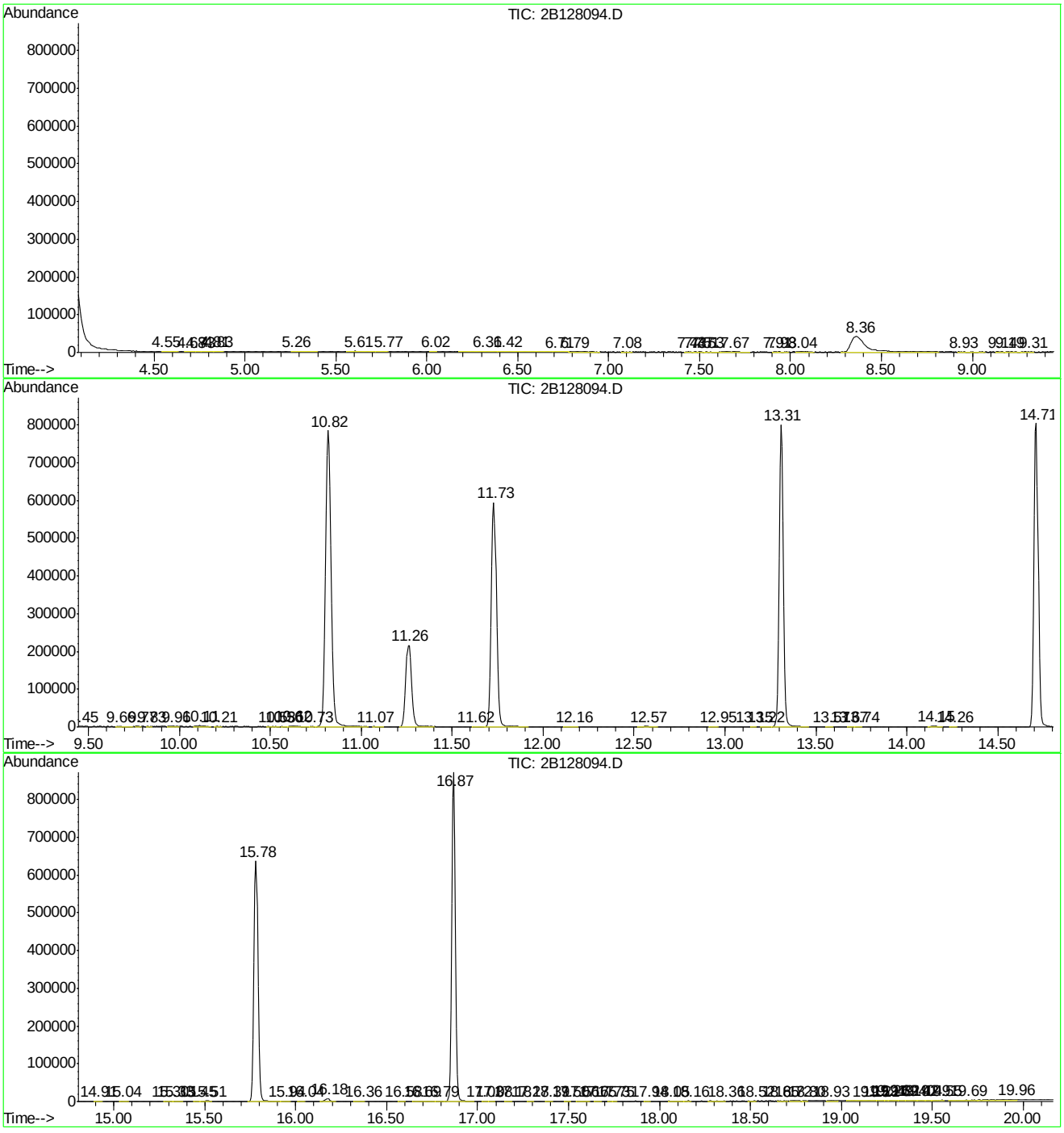
39	10.817	1272	1285	1327	rBV2	784565	1757997	100.00%	20.755%
40	11.068	1332	1333	1343	rVB2	478	851	0.05%	0.010%
41	11.257	1360	1369	1396	rVV	215598	457916	26.05%	5.406%
42	11.619	1436	1438	1449	rVV3	291	530	0.03%	0.006%
43	11.729	1449	1459	1495	rVB	593828	1123832	63.93%	13.268%
44	12.164	1532	1542	1547	rBV2	305	959	0.05%	0.011%
45	12.568	1609	1619	1630	rBV3	1342	2617	0.15%	0.031%
46	12.951	1684	1692	1694	rVB2	325	592	0.03%	0.007%
47	13.150	1728	1730	1734	rVB	511	489	0.03%	0.006%
48	13.218	1738	1743	1750	rVV3	601	1595	0.09%	0.019%
49	13.307	1750	1760	1789	rVB	800710	1318334	74.99%	15.565%
50	13.574	1807	1811	1814	rVV3	487	703	0.04%	0.008%
51	13.674	1829	1830	1837	rVB2	531	984	0.06%	0.012%
52	13.737	1837	1842	1845	rBV	507	916	0.05%	0.011%
53	14.151	1914	1921	1929	rVV2	2116	3221	0.18%	0.038%
54	14.256	1937	1941	1944	rVB2	497	529	0.03%	0.006%
55	14.712	2018	2028	2055	rVB	803663	1241795	70.64%	14.661%
56	14.906	2062	2065	2070	rBV2	727	825	0.05%	0.010%
57	15.043	2088	2091	2098	rVB2	284	483	0.03%	0.006%
58	15.299	2135	2140	2144	rBV	330	546	0.03%	0.006%
59	15.331	2144	2146	2155	rVV2	313	489	0.03%	0.006%
60	15.451	2166	2169	2173	rVB2	342	512	0.03%	0.006%
61	15.509	2173	2180	2185	rBV4	1432	2073	0.12%	0.024%
62	15.782	2223	2232	2257	rVB	636876	904278	51.44%	10.676%
63	15.939	2257	2262	2268	rVB2	280	645	0.04%	0.008%
64	16.044	2275	2282	2283	rVB2	308	504	0.03%	0.006%
65	16.175	2299	2307	2315	rBV	7877	12176	0.69%	0.144%
66	16.364	2334	2343	2345	rVV2	362	718	0.04%	0.008%
67	16.584	2380	2385	2388	rVB2	421	612	0.03%	0.007%
68	16.689	2396	2405	2419	rBV2	696	2338	0.13%	0.028%
69	16.788	2419	2424	2428	rVV2	519	1059	0.06%	0.013%
70	16.867	2429	2439	2460	rVB	871714	1246139	70.88%	14.712%
71	17.030	2469	2470	2475	rVB3	415	492	0.03%	0.006%
72	17.082	2475	2480	2482	rBV2	390	502	0.03%	0.006%
73	17.182	2492	2499	2500	rVB3	487	680	0.04%	0.008%
74	17.276	2516	2517	2523	rBV2	485	835	0.05%	0.010%
75	17.391	2535	2539	2543	rBV3	372	786	0.04%	0.009%
76	17.502	2555	2560	2562	rBV2	458	514	0.03%	0.006%
77	17.559	2567	2571	2581	rVB2	676	1788	0.10%	0.021%
78	17.654	2586	2589	2594	rVB2	451	474	0.03%	0.006%
79	17.727	2600	2603	2605	rVB2	501	550	0.03%	0.006%
80	17.753	2605	2608	2610	rBV2	578	646	0.04%	0.008%
81	17.937	2638	2643	2645	rBV2	426	533	0.03%	0.006%
82	18.052	2664	2665	2680	rBV3	501	1272	0.07%	0.015%
83	18.162	2680	2686	2688	rBV3	444	606	0.03%	0.007%
84	18.356	2706	2723	2724	rVB3	522	1724	0.10%	0.020%
85	18.524	2747	2755	2756	rBV3	381	718	0.04%	0.008%
86	18.655	2779	2780	2789	rVV3	655	802	0.05%	0.009%
87	18.723	2791	2793	2804	rBV3	800	2157	0.12%	0.025%
88	18.802	2804	2808	2810	rVB3	498	563	0.03%	0.007%
89	18.933	2830	2833	2842	rBV4	759	1925	0.11%	0.023%
90	19.153	2851	2875	2882	rBV7	864	4011	0.23%	0.047%
91	19.206	2882	2885	2891	rBV3	476	870	0.05%	0.010%
92	19.242	2891	2892	2894	rVB2	900	499	0.03%	0.006%
93	19.263	2894	2896	2905	rBV4	988	1877	0.11%	0.022%
94	19.316	2905	2906	2912	rVB4	852	893	0.05%	0.011%
95	19.399	2912	2922	2925	rBV5	1099	2490	0.14%	0.029%

96	19.420	2925	2926	2933	rVB3	940	1552	0.09%	0.018%
97	19.489	2933	2939	2940	rBV3	862	1412	0.08%	0.017%
98	19.552	2940	2951	2953	rBV4	1463	3191	0.18%	0.038%
99	19.688	2958	2977	2988	rBV7	1609	10503	0.60%	0.124%
100	19.955	2988	3028	3030	rBV7	1975	11927	0.68%	0.141%

Sum of corrected areas: 8470044

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\2B128094.D
Operator : bridgetk
Acquired : 5 Mar 2015 1:26 pm using AcqMethod M2B5744
Instrument : MS2B
Sample Name: jb89269-2
Misc Info : MS81624,V2B5773,w,,,,1
Vial Number: 8
Quant File :M2B5744.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: bridgetk Date Acquired: 5 Mar 2015 1:26 pm
Data File: C:\MSDCHEM\1\DATA\2B128094.D
Name: jb89269-2
Misc: MS81624,V2B5773,w,,,,1
Method: C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title: SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Library Searched: C:\DATABASE\NIST08.L

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/05/15 14:48

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128095.D Vial: 9
Acq On : 5 Mar 2015 1:54 pm Operator: bridgetk
Sample : jb89269-5 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 14:16:41 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

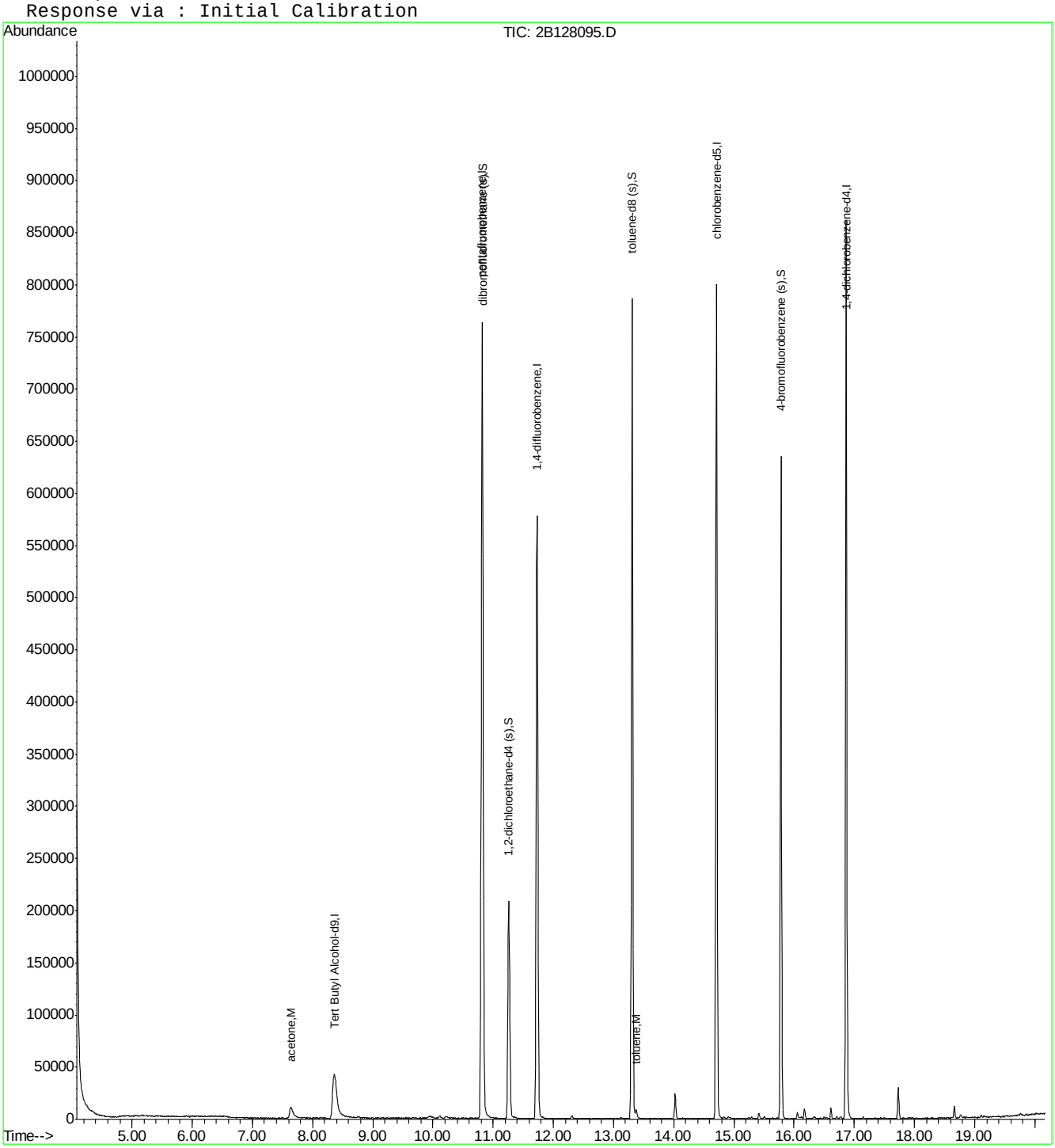
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	133795	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	478222	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	508007	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	429947	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	221121	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	155650	49.85	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.70%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	160052	43.87	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 87.74%			
82) toluene-d8 (s)	13.31	98	510018	49.86	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.72%			
108) 4-bromofluorobenzene (s)	15.78	95	173727	48.67	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 97.34%			
Target Compounds						Qvalue
25) acetone	7.64	43	29891m	33.74	ug/L	
84) toluene	13.38	92	2987	0.46	ug/L	96

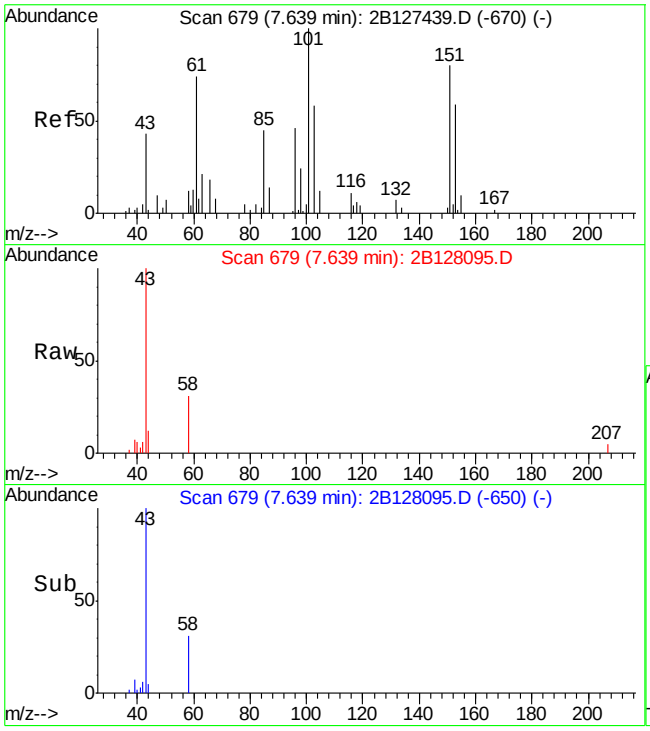
(#) = qualifier out of range (m) = manual integration (+) = signals summed
2B128095.D M2B5744.M Thu Mar 05 14:24:59 2015 MS2B Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128095.D Vial: 9
Acq On : 5 Mar 2015 1:54 pm Operator: bridgetk
Sample : jb89269-5 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 5 14:23 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

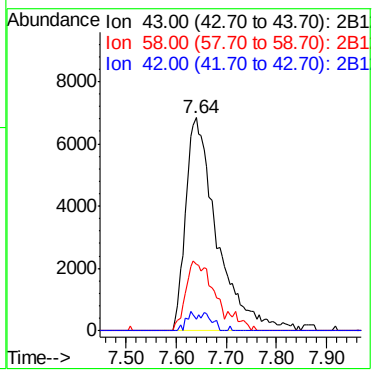


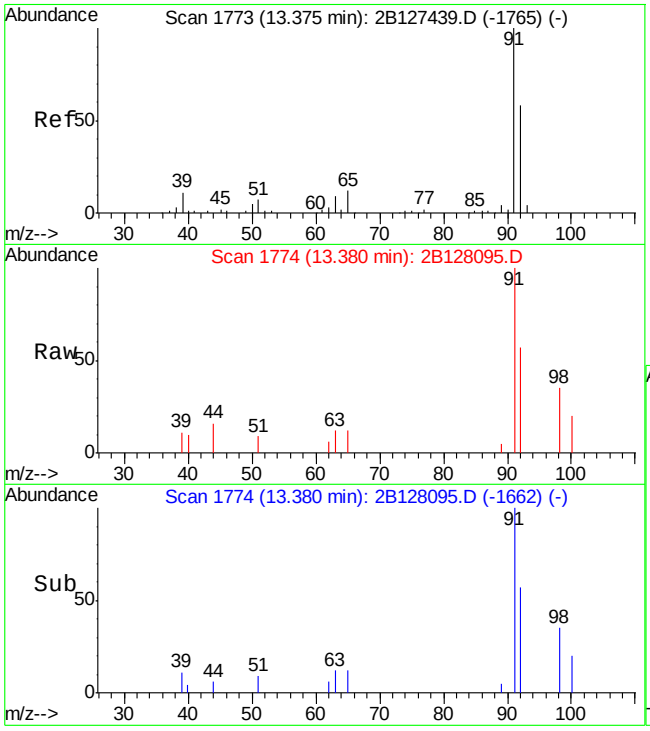


#25
acetone
Concen: 33.74 ug/L m
RT: 7.64 min Scan# 679
Delta R.T. 0.00 min
Lab File: 2B128095.D
Acq: 5 Mar 2015 1:54 pm

Tgt Ion: 43 Resp: 29891

Ion	Ratio	Lower	Upper
43	100		
58	31.1	0.0	53.7
42	5.7	0.0	36.8

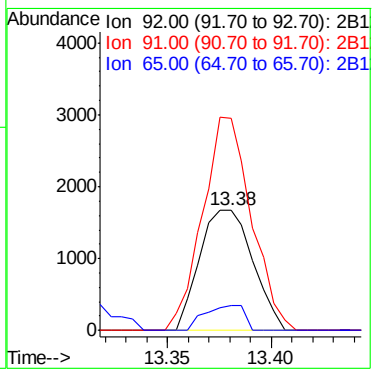




#84
toluene
Concen: 0.46 ug/L
RT: 13.38 min Scan# 1774
Delta R.T. 0.01 min
Lab File: 2B128095.D
Acq: 5 Mar 2015 1:54 pm

Tgt Ion: 92 Resp: 2987

Ion	Ratio	Lower	Upper
92	100		
91	176.1	141.1	201.1
65	21.2	0.0	48.7



Manual Integration Approval Summary

Sample Number: JB89269-5
Lab FileID: 2B128095.D
Injection Time: 03/05/15 13:54
Method: SW846 8260C
Analyst approved: 03/05/15 14:10 Ying Li
Supervisor approved: 03/05/15 14:48 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetone	67-64-1		7.64	Split peak

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\2B128095.D Vial: 9
Acq On : 5 Mar 2015 1:54 pm Operator: bridgetk
Sample : jb89269-5 Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.981	171	172	181	rBV4	950	1498	0.09%	0.018%
2	5.159	205	206	246	rVB5	1262	6182	0.36%	0.072%
3	5.380	246	248	266	rVB2	935	2929	0.17%	0.034%
4	5.998	359	366	380	rBV3	1460	5655	0.33%	0.066%
5	6.077	380	381	387	rVB3	1001	1337	0.08%	0.016%
6	6.119	387	389	396	rBV3	928	1493	0.09%	0.017%
7	6.386	436	440	441	rVB	991	1000	0.06%	0.012%
8	6.402	441	443	447	rBV4	1221	1158	0.07%	0.014%
9	6.439	447	450	465	rVB3	1068	3092	0.18%	0.036%
10	6.785	514	516	580	rVB3	843	8932	0.52%	0.105%
11	7.131	580	582	595	rBV3	484	1360	0.08%	0.016%
12	7.299	604	614	616	rBV3	654	1031	0.06%	0.012%
13	7.335	616	621	627	rBV2	541	884	0.05%	0.010%
14	7.435	634	640	648	rVB3	518	1118	0.07%	0.013%
15	7.639	670	679	714	rVV2	10591	45104	2.63%	0.529%
16	8.122	769	771	780	rBV3	648	1583	0.09%	0.019%
17	8.363	803	817	881	rBV2	42018	234244	13.66%	2.745%
18	8.751	889	891	906	rVB4	1349	4135	0.24%	0.048%
19	8.866	912	913	924	rVB3	674	1147	0.07%	0.013%
20	9.044	945	947	959	rBV2	531	1285	0.07%	0.015%
21	9.558	1044	1045	1061	rVB3	583	1553	0.09%	0.018%
22	9.710	1071	1074	1084	rVB3	757	2008	0.12%	0.024%
23	9.789	1084	1089	1092	rBV3	747	1154	0.07%	0.014%
24	9.951	1110	1120	1139	rVV4	2096	8696	0.51%	0.102%
25	10.114	1144	1151	1164	rVB3	2532	5423	0.32%	0.064%
26	10.219	1164	1171	1185	rVB3	1934	6186	0.36%	0.072%
27	10.549	1232	1234	1247	rVB	441	944	0.06%	0.011%
28	10.633	1247	1250	1259	rVV3	793	1016	0.06%	0.012%
29	10.696	1259	1262	1272	rVV3	651	955	0.06%	0.011%
30	10.817	1274	1285	1325	rVV2	763013	1715245	100.00%	20.100%
31	11.032	1325	1326	1337	rVV2	621	1083	0.06%	0.013%
32	11.257	1358	1369	1409	rVV	208338	448311	26.14%	5.254%
33	11.624	1437	1439	1448	rBV3	451	968	0.06%	0.011%
34	11.729	1448	1459	1485	rVV	577828	1088040	63.43%	12.750%
35	12.043	1517	1519	1524	rVB2	777	944	0.06%	0.011%
36	12.096	1524	1529	1534	rBV2	485	1130	0.07%	0.013%
37	12.190	1542	1547	1554	rVB3	653	1381	0.08%	0.016%
38	12.311	1562	1570	1579	rVB3	3006	5780	0.34%	0.068%

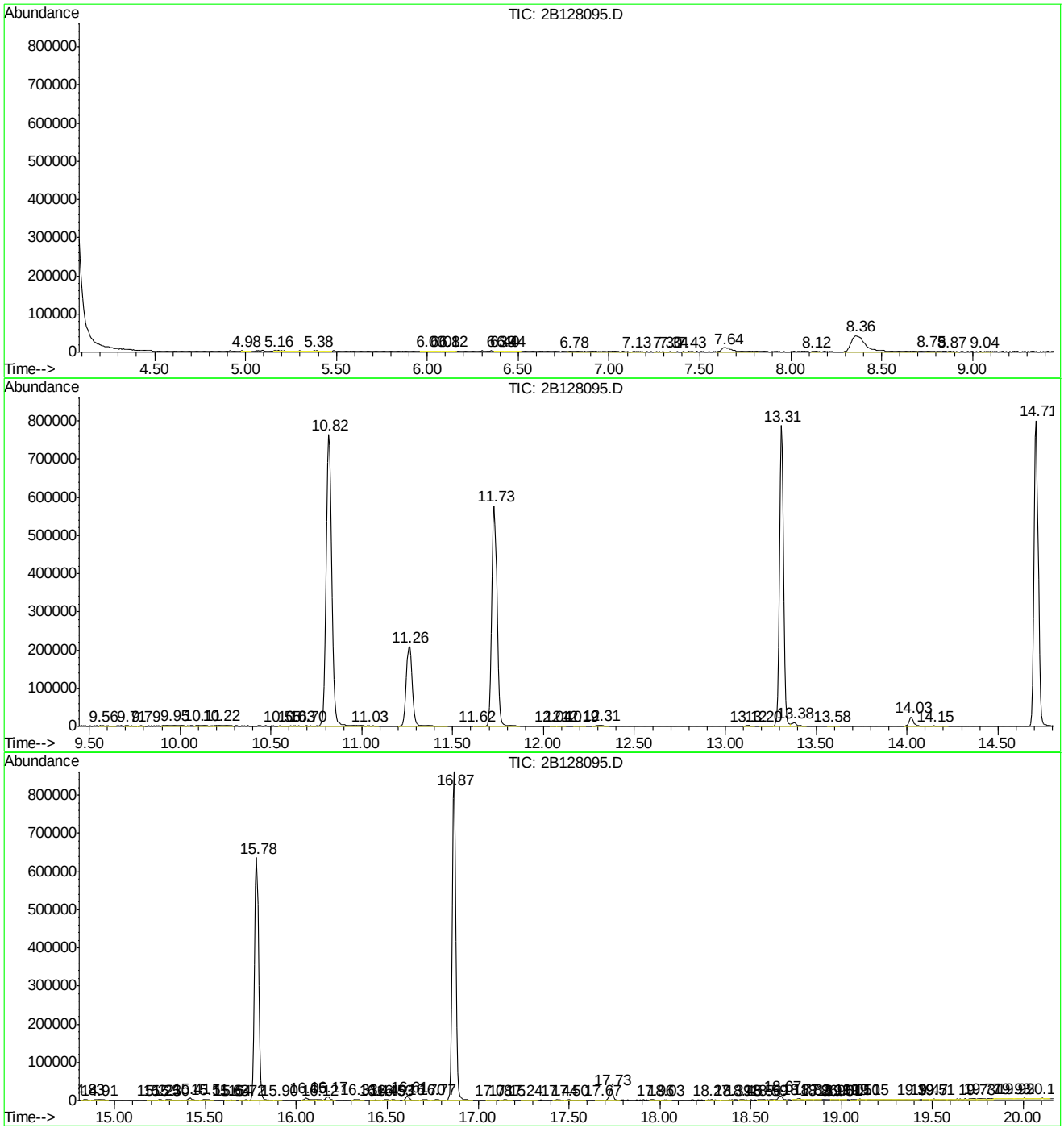
39	13.118	1720	1724	1732	rVV3	1466	2709	0.16%	0.032%
40	13.202	1737	1740	1752	rVV4	655	1744	0.10%	0.020%
41	13.307	1752	1760	1770	rVV	786766	1277042	74.45%	14.965%
42	13.375	1770	1773	1786	rVV2	9054	16265	0.95%	0.191%
43	13.580	1809	1812	1821	rBV2	580	1037	0.06%	0.012%
44	14.025	1889	1897	1915	rBV	24389	42749	2.49%	0.501%
45	14.146	1915	1920	1935	rVB4	824	1805	0.11%	0.021%
46	14.712	2019	2028	2048	rBV	800103	1217352	70.97%	14.266%
47	14.833	2048	2051	2057	rVV2	1927	2223	0.13%	0.026%
48	14.906	2057	2065	2076	rVB5	1754	4885	0.28%	0.057%
49	15.216	2117	2124	2128	rBV2	840	1418	0.08%	0.017%
50	15.252	2128	2131	2135	rVV3	1232	1733	0.10%	0.020%
51	15.299	2135	2140	2152	rVB5	1898	3900	0.23%	0.046%
52	15.415	2152	2162	2172	rBV2	6031	9904	0.58%	0.116%
53	15.514	2172	2181	2186	rVV5	2457	4871	0.28%	0.057%
54	15.630	2198	2203	2204	rVV	763	960	0.06%	0.011%
55	15.640	2204	2205	2210	rVV3	904	933	0.05%	0.011%
56	15.719	2214	2220	2223	rBV2	1228	1861	0.11%	0.022%
57	15.782	2223	2232	2250	rVB	635409	889662	51.87%	10.426%
58	15.897	2250	2254	2258	rBV2	617	888	0.05%	0.010%
59	16.054	2279	2284	2294	rBV2	6530	10113	0.59%	0.119%
60	16.123	2294	2297	2302	rVV4	1576	2304	0.13%	0.027%
61	16.170	2302	2306	2314	rVB2	9390	12938	0.75%	0.152%
62	16.332	2331	2337	2344	rBB3	2457	3581	0.21%	0.042%
63	16.437	2351	2357	2362	rBV2	850	1200	0.07%	0.014%
64	16.495	2362	2368	2373	rVB3	1742	2401	0.14%	0.028%
65	16.532	2373	2375	2381	rBV3	1448	1790	0.10%	0.021%
66	16.610	2385	2390	2402	rBV3	10236	15424	0.90%	0.181%
67	16.705	2402	2408	2415	rBV5	1858	3267	0.19%	0.038%
68	16.767	2415	2420	2431	rVB4	1896	3112	0.18%	0.036%
69	16.867	2431	2439	2458	rBV	861089	1237332	72.14%	14.500%
70	17.077	2472	2479	2483	rVB3	623	1190	0.07%	0.014%
71	17.150	2487	2493	2500	rVB5	1702	2753	0.16%	0.032%
72	17.245	2509	2511	2526	rBV3	402	1155	0.07%	0.014%
73	17.439	2543	2548	2555	rVB4	1354	2229	0.13%	0.026%
74	17.496	2555	2559	2577	rBV4	1324	2938	0.17%	0.034%
75	17.674	2587	2593	2597	rBV3	573	1109	0.06%	0.013%
76	17.732	2597	2604	2613	rVV2	29757	42562	2.48%	0.499%
77	17.963	2644	2648	2655	rBV3	1116	2035	0.12%	0.024%
78	18.026	2655	2660	2667	rVB3	577	1299	0.08%	0.015%
79	18.272	2703	2707	2718	rBV3	687	1503	0.09%	0.018%
80	18.393	2718	2730	2732	rBV3	620	1538	0.09%	0.018%
81	18.450	2737	2741	2749	rVB3	753	1449	0.08%	0.017%
82	18.555	2757	2761	2766	rVB3	950	1311	0.08%	0.015%
83	18.592	2766	2768	2775	rBV3	553	1238	0.07%	0.015%
84	18.665	2775	2782	2788	rVB3	11651	16576	0.97%	0.194%
85	18.765	2794	2801	2807	rVV5	2977	4757	0.28%	0.056%
86	18.823	2807	2812	2816	rVB3	1244	1730	0.10%	0.020%
87	18.865	2816	2820	2824	rBV3	992	1187	0.07%	0.014%
88	18.954	2834	2837	2843	rBV3	723	865	0.05%	0.010%
89	19.006	2843	2847	2851	rBV2	722	1016	0.06%	0.012%
90	19.053	2855	2856	2862	rBV2	1188	1492	0.09%	0.017%
91	19.101	2862	2865	2871	rBV3	2276	2954	0.17%	0.035%
92	19.148	2871	2874	2898	rVB6	1209	3331	0.19%	0.039%
93	19.394	2898	2921	2927	rBV8	1448	5378	0.31%	0.063%
94	19.473	2930	2936	2938	rBV2	1093	1652	0.10%	0.019%
95	19.510	2938	2943	2956	rBV7	1689	5869	0.34%	0.069%

96	19.735	2956	2986	2987	rBV7	1835	8453	0.49%	0.099%
97	19.766	2987	2992	3005	rBV9	2210	4428	0.26%	0.052%
98	19.929	3005	3023	3026	rBV9	1312	4451	0.26%	0.052%
99	19.950	3026	3027	3037	rBV4	1493	2616	0.15%	0.031%
100	20.107	3037	3057	3064	rBV8	2098	9037	0.53%	0.106%

Sum of corrected areas: 8533488

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\2B128095.D
Operator : bridgetk
Acquired : 5 Mar 2015 1:54 pm using AcqMethod M2B5744
Instrument : MS2B
Sample Name: jb89269-5
Misc Info : MS81624,V2B5773,w,,,,1
Vial Number: 9
Quant File :M2B5744.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: bridgetk Date Acquired: 5 Mar 2015 1:54 pm
Data File: C:\MSDCHEM\1\DATA\2B128095.D
Name: jb89269-5
Misc: MS81624,V2B5773,w,,,,1
Method: C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title: SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Library Searched: C:\DATABASE\NIST08.L

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128090.D Vial: 4
Acq On : 5 Mar 2015 11:32 am Operator: bridgetk
Sample : mb Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:06:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	136381	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	493696	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	531391	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	442967	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	225581	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	161482	50.10	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.20%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	166859	44.30	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 88.60%			
82) toluene-d8 (s)	13.31	98	528813	49.42	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 98.84%			
108) 4-bromofluorobenzene (s)	15.78	95	180007	49.43	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 98.86%			

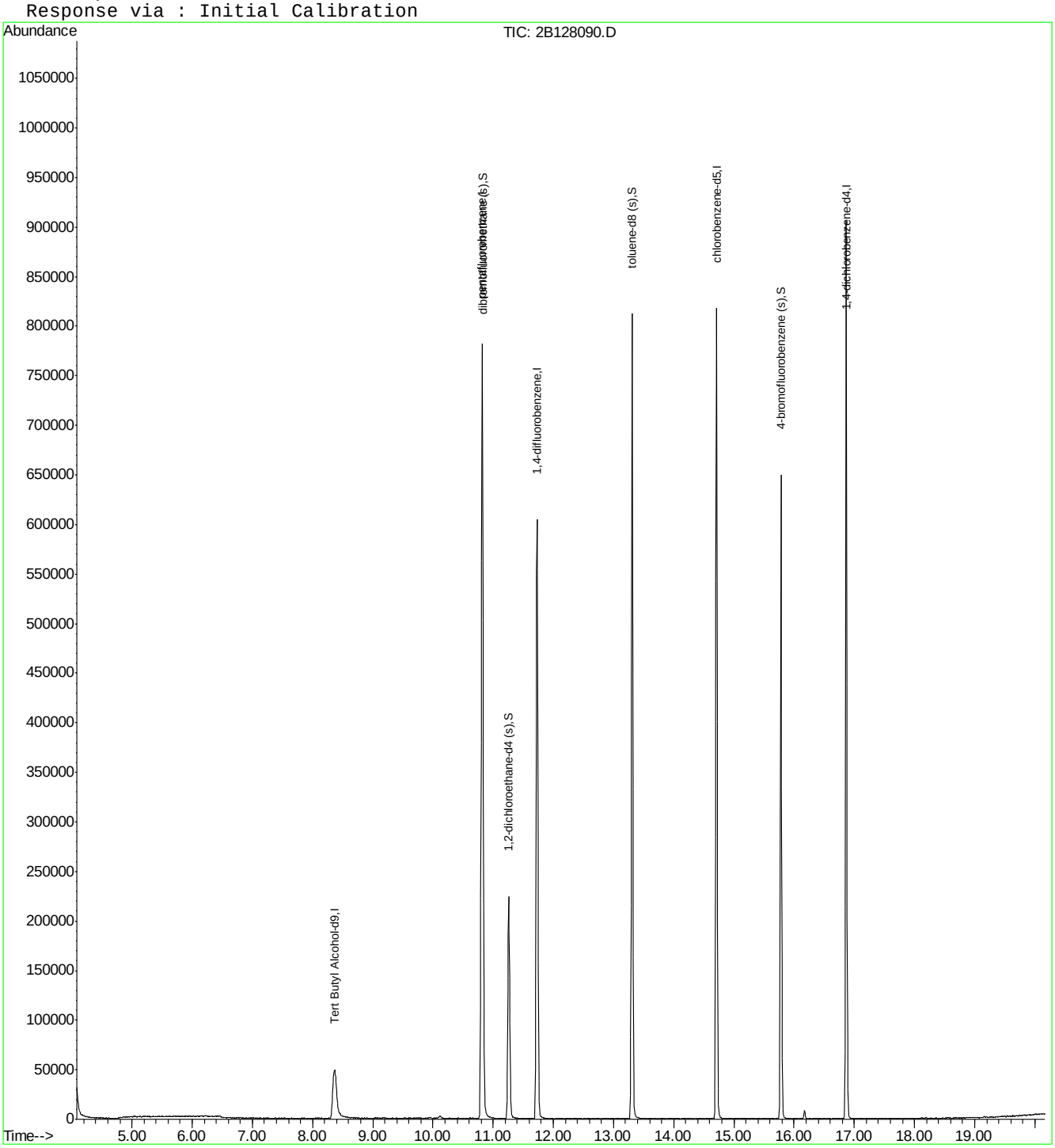
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128090.D Vial: 4
Acq On : 5 Mar 2015 11:32 am Operator: bridgetk
Sample : mb Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 5 14:15 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\2B128090.D Vial: 4
Acq On : 5 Mar 2015 11:32 am Operator: bridgetk
Sample : mb Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.488	73	78	92	rVB2	720	2417	0.14%	0.028%
2	4.614	98	102	122	rVB2	690	2962	0.17%	0.035%
3	4.792	127	136	138	rBV3	914	1579	0.09%	0.019%
4	4.845	138	146	147	rVV2	484	913	0.05%	0.011%
5	4.866	147	150	152	rVV3	851	759	0.04%	0.009%
6	4.918	152	160	162	rVV3	855	1629	0.09%	0.019%
7	4.965	167	169	178	rVV3	1050	2653	0.15%	0.031%
8	5.028	178	181	183	rVV	1425	1190	0.07%	0.014%
9	5.133	183	201	215	rVV2	1053	5857	0.33%	0.069%
10	5.579	263	286	304	rBV4	905	3768	0.21%	0.044%
11	5.720	310	313	385	rBV5	1148	11027	0.62%	0.129%
12	6.103	385	386	391	rVV2	866	700	0.04%	0.008%
13	6.203	391	405	445	rVV4	800	5977	0.34%	0.070%
14	6.669	492	494	507	rVB3	497	1310	0.07%	0.015%
15	6.942	543	546	550	rBV2	787	983	0.06%	0.012%
16	7.262	591	607	611	rVB3	586	1635	0.09%	0.019%
17	7.298	611	614	620	rVB2	468	674	0.04%	0.008%
18	7.440	640	641	656	rBV3	704	1254	0.07%	0.015%
19	7.529	656	658	673	rVB3	621	1385	0.08%	0.016%
20	7.802	706	710	713	rBV2	385	543	0.03%	0.006%
21	7.996	744	747	757	rVB2	372	548	0.03%	0.006%
22	8.080	757	763	766	rBV3	551	775	0.04%	0.009%
23	8.274	796	800	803	rBV2	553	805	0.05%	0.009%
24	8.368	803	818	868	rVV3	49540	241119	13.59%	2.827%
25	8.866	901	913	928	rVB3	444	1721	0.10%	0.020%
26	8.950	928	929	942	rBV3	327	815	0.05%	0.010%
27	9.118	958	961	970	rBV3	434	785	0.04%	0.009%
28	9.474	1025	1029	1036	rBV3	460	1058	0.06%	0.012%
29	9.736	1075	1079	1082	rBV3	629	782	0.04%	0.009%
30	9.883	1100	1107	1111	rVV3	464	669	0.04%	0.008%
31	9.957	1118	1121	1132	rVV3	790	1606	0.09%	0.019%
32	10.114	1143	1151	1158	rVV4	2766	5523	0.31%	0.065%
33	10.156	1158	1159	1169	rVB3	559	919	0.05%	0.011%
34	10.355	1195	1197	1206	rBV2	444	780	0.04%	0.009%
35	10.617	1243	1247	1254	rBV2	647	1067	0.06%	0.013%
36	10.665	1254	1256	1263	rVB2	626	832	0.05%	0.010%
37	10.733	1268	1269	1275	rVV3	434	634	0.04%	0.007%
38	10.817	1275	1285	1329	rVB2	781645	1774640	100.00%	20.809%

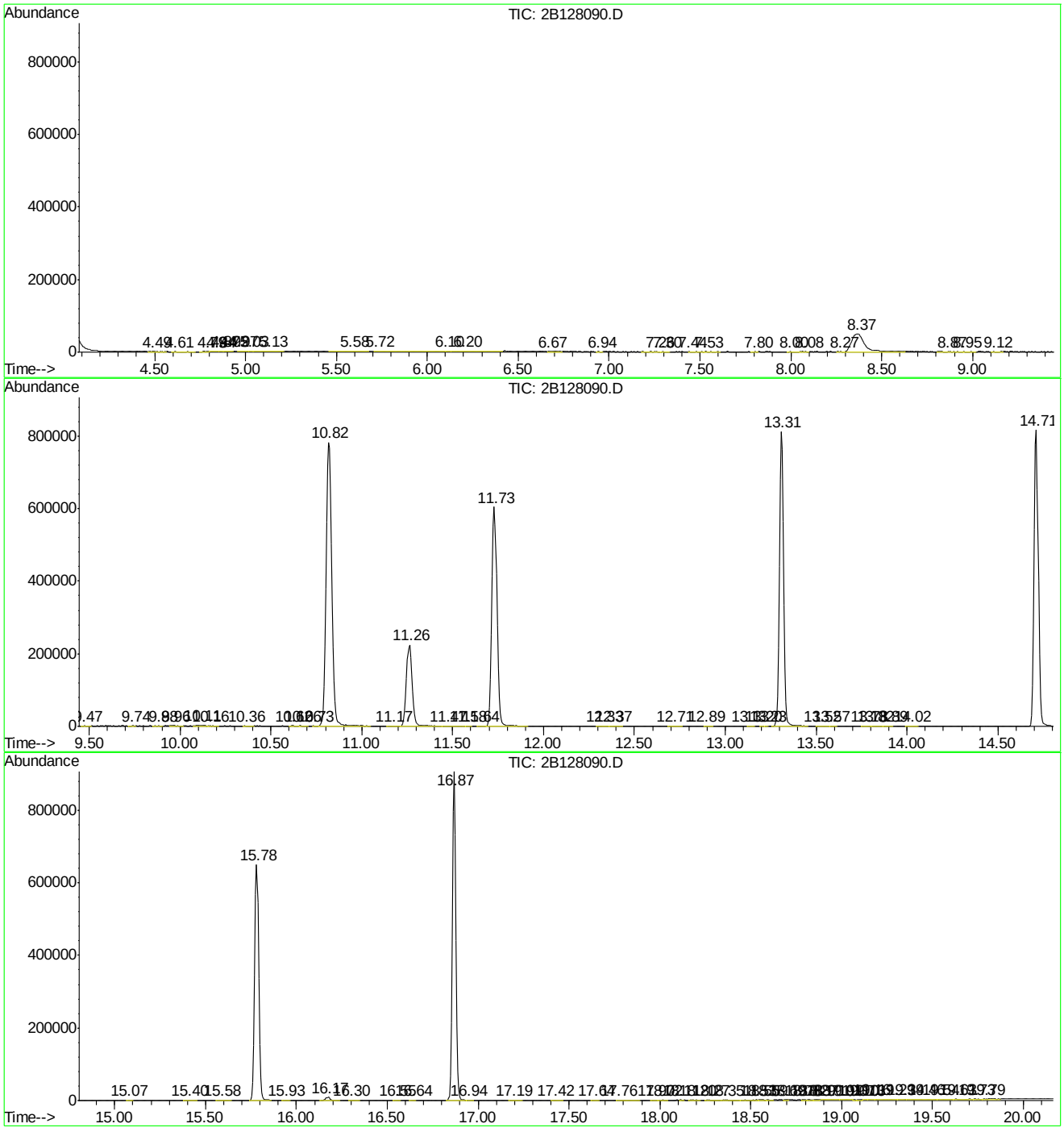
39	11.168	1346	1352	1360	rBV3	414	999	0.06%	0.012%
40	11.262	1360	1370	1404	rVV	223648	465146	26.21%	5.454%
41	11.467	1404	1409	1428	rVB3	540	2385	0.13%	0.028%
42	11.577	1428	1430	1435	rBV2	446	656	0.04%	0.008%
43	11.645	1441	1443	1450	rVB2	350	577	0.03%	0.007%
44	11.729	1450	1459	1494	rBV	604498	1135278	63.97%	13.312%
45	12.327	1566	1573	1579	rBV2	350	836	0.05%	0.010%
46	12.374	1579	1582	1593	rVB2	295	596	0.03%	0.007%
47	12.715	1641	1647	1656	rBV2	302	780	0.04%	0.009%
48	12.888	1679	1680	1688	rVB2	481	909	0.05%	0.011%
49	13.129	1724	1726	1732	rBV	335	542	0.03%	0.006%
50	13.202	1737	1740	1742	rVV	659	551	0.03%	0.006%
51	13.228	1742	1745	1746	rVV2	606	544	0.03%	0.006%
52	13.307	1750	1760	1788	rVB	812132	1332067	75.06%	15.620%
53	13.522	1796	1801	1810	rVB2	319	742	0.04%	0.009%
54	13.574	1810	1811	1818	rBV2	712	851	0.05%	0.010%
55	13.784	1844	1851	1854	rBV	381	686	0.04%	0.008%
56	13.816	1854	1857	1866	rVB2	394	1022	0.06%	0.012%
57	13.894	1866	1872	1877	rBV2	352	991	0.06%	0.012%
58	14.020	1890	1896	1903	rBV2	266	641	0.04%	0.008%
59	14.712	2017	2028	2054	rVV	817484	1251034	70.50%	14.669%
60	15.069	2095	2096	2102	rBV	557	790	0.04%	0.009%
61	15.404	2155	2160	2169	rBV2	351	810	0.05%	0.009%
62	15.583	2189	2194	2205	rBV2	361	1120	0.06%	0.013%
63	15.782	2224	2232	2247	rVV	649790	918352	51.75%	10.768%
64	15.934	2258	2261	2267	rVB2	421	577	0.03%	0.007%
65	16.175	2298	2307	2319	rVB	8294	11924	0.67%	0.140%
66	16.296	2328	2330	2340	rBV2	366	866	0.05%	0.010%
67	16.547	2375	2378	2382	rBV	430	618	0.03%	0.007%
68	16.636	2392	2395	2398	rBV2	562	673	0.04%	0.008%
69	16.867	2431	2439	2452	rBV	905909	1257092	70.84%	14.740%
70	16.940	2452	2453	2459	rVB	640	625	0.04%	0.007%
71	17.187	2496	2500	2510	rBV3	375	1019	0.06%	0.012%
72	17.418	2541	2544	2553	rVV3	372	740	0.04%	0.009%
73	17.643	2582	2587	2591	rBV3	359	626	0.04%	0.007%
74	17.764	2609	2610	2634	rVB3	528	2463	0.14%	0.029%
75	17.968	2645	2649	2653	rVB2	428	726	0.04%	0.009%
76	18.015	2653	2658	2663	rBV	658	1124	0.06%	0.013%
77	18.110	2675	2676	2680	rBV2	642	593	0.03%	0.007%
78	18.199	2685	2693	2697	rVB2	692	1397	0.08%	0.016%
79	18.272	2702	2707	2718	rVB3	621	1240	0.07%	0.015%
80	18.351	2719	2722	2739	rVV3	700	1657	0.09%	0.019%
81	18.529	2739	2756	2758	rVV3	584	1600	0.09%	0.019%
82	18.550	2758	2760	2766	rVV3	874	1092	0.06%	0.013%
83	18.592	2766	2768	2774	rVV2	403	674	0.04%	0.008%
84	18.692	2784	2787	2790	rBV	625	835	0.05%	0.010%
85	18.781	2803	2804	2809	rBV3	571	785	0.04%	0.009%
86	18.817	2809	2811	2816	rVV2	843	782	0.04%	0.009%
87	18.870	2816	2821	2823	rVV2	737	936	0.05%	0.011%
88	18.901	2824	2827	2843	rVB3	730	2052	0.12%	0.024%
89	19.006	2843	2847	2857	rBV4	688	1476	0.08%	0.017%
90	19.074	2857	2860	2861	rVB2	818	547	0.03%	0.006%
91	19.095	2861	2864	2868	rBV3	866	1059	0.06%	0.012%
92	19.127	2868	2870	2873	rBV2	513	574	0.03%	0.007%
93	19.158	2873	2876	2880	rVB4	1145	1224	0.07%	0.014%
94	19.295	2880	2902	2904	rBV6	925	3965	0.22%	0.046%
95	19.342	2904	2911	2912	rVB2	872	979	0.06%	0.011%

96	19.457	2913	2933	2946	rVB5	1088	4843	0.27%	0.057%
97	19.536	2946	2948	2963	rBV5	1361	3414	0.19%	0.040%
98	19.630	2963	2966	2984	rBV4	1856	7434	0.42%	0.087%
99	19.735	2984	2986	2993	rBV4	1150	1853	0.10%	0.022%
100	19.787	2993	2996	3012	rVV9	1316	4930	0.28%	0.058%

Sum of corrected areas: 8528212

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\2B128090.D
Operator : bridgetk
Acquired : 5 Mar 2015 11:32 am using AcqMethod M2B5744
Instrument : MS2B
Sample Name: mb
Misc Info : MS81597,V2B5773,w,,,,1
Vial Number: 4
Quant File :M2B5744.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: bridgetk Date Acquired: 5 Mar 2015 11:32 am
Data File: C:\MSDCHEM\1\DATA\2B128090.D
Name: mb
Misc: MS81597,V2B5773,w,,,,1
Method: C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title: SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Library Searched: C:\DATABASE\NIST08.L

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128091.D Vial: 5
Acq On : 5 Mar 2015 12:00 pm Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:22:53 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	128956	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	456377	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	505494	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	427709	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	228321	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	147809	49.61	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.22%				
52) 1,2-dichloroethane-d4 (s)	11.26	65	152678	43.85	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 87.70%				
82) toluene-d8 (s)	13.31	98	511689	50.27	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 100.54%				
108) 4-bromofluorobenzene (s)	15.78	95	180067	48.86	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 97.72%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	71144	267.74	ug/L		98
3) ethanol	6.93	45	152523	5287.49	ug/L		97
4) 1,4-dioxane	12.41	88	29275	1171.60	ug/L		96
9) chlorodifluoromethane	4.48	51	172132	52.10	ug/L		95
10) dichlorodifluoromethane	4.46	85	201163	49.25	ug/L		98
12) chloromethane	4.88	50	259907	62.28	ug/L		99
13) vinyl chloride	5.18	62	230466	60.53	ug/L		100
15) bromomethane	5.91	94	156968	55.98	ug/L		95
16) chloroethane	6.11	64	127185	71.64	ug/L		97
18) trichlorofluoromethane	6.69	101	247786	51.30	ug/L		94
20) ethyl ether	7.15	74	83172	55.25	ug/L		91
21) acrolein	7.38	56	248958	529.80	ug/L		97
22) 2-chloropropane	7.35	43	258078	52.35	ug/L		88
24) 1,1-dichloroethene	7.61	96	132694	47.90	ug/L		94
25) acetone	7.63	43	39593	46.84	ug/L		92
26) allyl chloride	8.20	76	85606	59.28	ug/L	#	89
27) acetonitrile	8.11	40	84189	520.75	ug/L		91
28) iodomethane	7.91	142	263984	44.83	ug/L		96
29) iso-butyl alcohol	11.10	74	17940	545.06	ug/L	#	57
30) carbon disulfide	8.06	76	393951	43.86	ug/L		96
31) methylene chloride	8.40	84	164998	53.64	ug/L		98
32) methyl acetate	8.18	74	22168	48.55	ug/L		95
33) 1-chloropropane	8.46	42	217906	41.38	ug/L		95
34) methyl tert butyl ether	8.82	73	859161	97.71	ug/L		94
35) trans-1,2-dichloroethene	8.83	96	144913	49.33	ug/L		93
36) di-isopropyl ether	9.50	45	493666	58.92	ug/L		98
37) 2-butanone	10.20	72	17166	57.42	ug/L	#	83
38) 1,1-dichloroethane	9.44	63	282627	54.94	ug/L		96
39) chloroprene	9.58	53	183998	50.45	ug/L		94
40) acrylonitrile	8.73	53	291716	294.27	ug/L		98
41) vinyl acetate	9.45	86	27237	59.15	ug/L		96
42) ethyl tert-butyl ether	10.00	59	478170	53.61	ug/L		97
43) ethyl acetate	10.25	45	19272	58.88	ug/L		56

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128091.D Vial: 5
Acq On : 5 Mar 2015 12:00 pm Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:22:53 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	219498	49.92	ug/L		95
45)	cis-1,2-dichloroethene	10.23	96	170988	53.54	ug/L		94
46)	propionitrile	10.28	54	215269	597.99	ug/L		97
47)	bromochloromethane	10.55	128	90386	54.35	ug/L		92
48)	tetrahydrofuran	10.62	42	41106	54.48	ug/L		98
49)	chloroform	10.62	83	274348	51.28	ug/L		100
50)	t-butyl formate	10.70	59	128658	53.11	ug/L		92
53)	freon 113	7.63	151	114985	51.62	ug/L		92
54)	methacrylonitrile	10.49	41	90908	55.95	ug/L		94
55)	1,1,1-trichloroethane	10.92	97	227863	48.85	ug/L		98
56)	Cyclohexane	11.02	84	210769	55.32	ug/L		94
61)	epichlorohydrin	12.91	57	65438	261.12	ug/L		96
62)	n-butyl alcohol	11.83	56	187988	2748.84	ug/L		96
63)	carbon tetrachloride	11.14	117	215930	43.18	ug/L		99
64)	1,1-dichloropropene	11.10	75	200904	51.11	ug/L		98
65)	hexane	9.22	57	160345	53.63	ug/L		98
66)	benzene	11.36	78	577504	53.38	ug/L		99
67)	2,2,4-trimethylpentane	11.43	57	448775	49.55	ug/L		94
68)	tert-amyl methyl ether	11.43	73	416007	48.28	ug/L		98
69)	heptane	11.59	57	88366	50.11	ug/L		97
70)	isopropyl acetate	11.30	43	243159	50.79	ug/L		96
71)	1,2-dichloroethane	11.35	62	193023	43.54	ug/L		91
72)	trichloroethene	12.06	95	157149	52.68	ug/L		100
74)	2-nitropropane	12.77	41	34312	42.02	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	452018	287.46	ug/L		99
76)	methyl methacrylate	12.33	100	35383	54.42	ug/L		93
77)	1,2-dichloropropane	12.31	63	155272	56.68	ug/L		96
78)	dibromomethane	12.44	93	100079	50.97	ug/L		93
79)	methylcyclohexane	12.31	83	201838	47.61	ug/L		97
80)	bromodichloromethane	12.57	83	214532	50.30	ug/L		97
81)	cis-1,3-dichloropropene	13.01	75	263357	56.02	ug/L		92
83)	4-methyl-2-pentanone	13.12	58	53567	56.44	ug/L	#	85
84)	toluene	13.38	92	346321	53.09	ug/L		99
85)	3-methyl-1-butanol	13.11	55	107588	1066.45	ug/L		96
86)	trans-1,3-dichloropropene	13.53	75	228704	50.34	ug/L		94
87)	ethyl methacrylate	13.55	69	173733	55.07	ug/L		96
88)	1,1,2-trichloroethane	13.73	83	118077	54.27	ug/L		98
89)	2-hexanone	13.92	58	44545	56.09	ug/L		93
91)	butyl ether	14.69	57	599107	58.25	ug/L		96
92)	tetrachloroethene	13.93	164	140212	49.07	ug/L		98
93)	1,3-dichloropropane	13.90	76	225807	54.94	ug/L		94
94)	butyl acetate	13.99	56	82098	56.72	ug/L		95
95)	3,3-dimethyl-1-butanol	14.06	57	112007	523.15	ug/L		95
96)	dibromochloromethane	14.15	129	181904	49.67	ug/L		100
97)	1,2-dibromoethane	14.29	107	151139	52.91	ug/L		99
98)	chlorobenzene	14.74	112	390921	53.52	ug/L		98
99)	1,1,1,2-tetrachloroethane	14.79	131	161783	49.85	ug/L		98
100)	ethylbenzene	14.80	91	620098	51.02	ug/L		97
101)	m,p-xylene	14.90	106	495582	107.08	ug/L		90

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128091.D Vial: 5
Acq On : 5 Mar 2015 12:00 pm Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:22:53 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

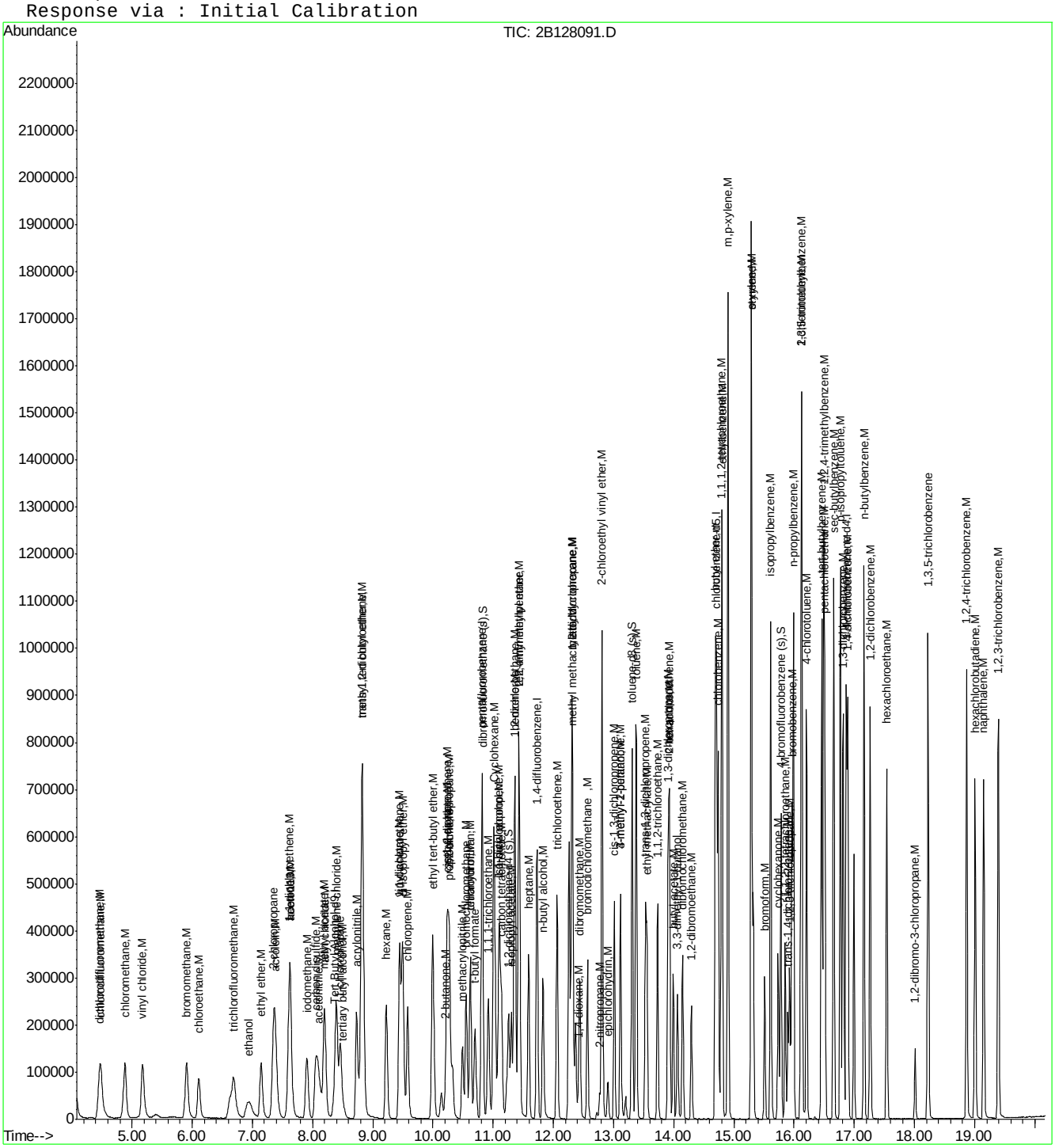
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	261992	53.43	ug/L	96
103) styrene	15.29	104	428641	56.73	ug/L	93
105) bromoform	15.51	173	136331	48.74	ug/L	99
107) isopropylbenzene	15.61	105	664221	54.62	ug/L	98
109) cyclohexanone	15.74	98	64579	531.85	ug/L	95
110) bromobenzene	15.97	156	200773	54.21	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.85	83	174911	55.46	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	37090	45.05	ug/L	86
113) 1,2,3-trichloropropane	15.93	110	44165	51.52	ug/L	90
114) n-propylbenzene	15.99	91	744427	57.09	ug/L	99
115) 2-chlorotoluene	16.12	126	172477	55.49	ug/L	92
116) 4-chlorotoluene	16.21	91	451684	52.37	ug/L	96
117) 1,3,5-trimethylbenzene	16.13	105	533414	53.07	ug/L	98
118) tert-butylbenzene	16.46	119	496333	54.03	ug/L	97
119) pentachloroethane	16.51	167	131008	51.70	ug/L	98
120) 1,2,4-trimethylbenzene	16.49	105	553190	56.12	ug/L	98
121) sec-butylbenzene	16.66	105	739456	55.70	ug/L	98
122) 1,3-dichlorobenzene	16.81	146	352088	52.56	ug/L	99
123) p-isopropyltoluene	16.77	119	638013	56.13	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	348189	51.86	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	360978	53.42	ug/L	99
126) n-butylbenzene	17.16	92	325870	59.77	ug/L	98
127) 1,2-dibromo-3-chloropropan	18.01	75	32542	49.59	ug/L	95
128) 1,3,5-trichlorobenzene	18.22	180	350747	52.68	ug/L	97
129) 1,2,4-trichlorobenzene	18.86	180	325803	55.66	ug/L	99
130) hexachlorobutadiene	19.01	225	170102	51.08	ug/L	96
131) naphthalene	19.15	128	570124	55.95	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	288249	55.63	ug/L	100
133) hexachloroethane	17.54	201	139416	53.06	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128091.D Vial: 5
Acq On : 5 Mar 2015 12:00 pm Operator: bridgetk
Sample : bs Inst : MS2B
Misc : MS81624,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 5 14:16 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128100.D
Acq On : 5 Mar 2015 4:17 pm
Operator : bridgetk
Sample : jb89167-2ms
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 14:22:49 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.373	65	134315	500.00	ug/L		0.00
5) pentafluorobenzene	10.817	168	508321	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	556920	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	471182	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	245706	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.827	113	163028	49.12	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.24%				
52) 1,2-dichloroethane-d4 (s)	11.262	65	163721	42.22	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 84.44%				
82) toluene-d8 (s)	13.307	98	567261	50.58	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 101.16%				
108) 4-bromofluorobenzene (s)	15.782	95	198341	50.01	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.02%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.504	59	75239	271.86	ug/L		92
3) ethanol	6.931	45	131070	4362.49	ug/L		95
4) 1,4-dioxane	12.416	88	30231	1161.59	ug/L		97
9) chlorodifluoromethane	4.488	51	228783	62.18	ug/L		95
10) dichlorodifluoromethane	4.462	85	243982	53.63	ug/L		98
12) chloromethane	4.881	50	288346	62.04	ug/L		99
13) vinyl chloride	5.175	62	264457	62.36	ug/L		97
15) bromomethane	5.914	94	172890	55.36	ug/L		96
16) chloroethane	6.108	64	126373	63.91	ug/L		95
18) trichlorofluoromethane	6.685	101	283871	52.76	ug/L		97
20) ethyl ether	7.157	74	89792	53.55	ug/L		96
21) acrolein	7.393	56	240346	459.21	ug/L		99
22) 2-chloropropane	7.356	43	262469	47.80	ug/L		88
24) 1,1-dichloroethene	7.624	96	151628	49.14	ug/L		93
25) acetone	7.645	43	38108	40.47	ug/L		79
26) allyl chloride	8.211	76	86078	53.51	ug/L	#	59
27) acetonitrile	8.111	40	84722	470.50	ug/L		86
28) iodomethane	7.907	142	306721	46.77	ug/L		93
29) iso-butyl alcohol	11.100	74	18220	497.00	ug/L	#	63
30) carbon disulfide	8.059	76	485290	48.51	ug/L		94
31) methylene chloride	8.405	84	174684	50.99	ug/L		98
32) methyl acetate	8.190	74	29898	58.79	ug/L	#	80
33) 1-chloropropane	8.468	42	256860	43.79	ug/L		94
34) methyl tert butyl ether	8.824	73	464751	47.45	ug/L		100
35) trans-1,2-dichloroethene	8.835	96	162036	49.52	ug/L		98
36) di-isopropyl ether	9.495	45	564752	60.51	ug/L		96
37) 2-butanone	10.208	72	17754	53.32	ug/L		92
38) 1,1-dichloroethane	9.448	63	295257	51.53	ug/L		98
39) chloroprene	9.579	53	231347	56.95	ug/L		93
40) acrylonitrile	8.735	53	284134	257.33	ug/L		98
41) vinyl acetate	9.453	86	26038	50.77	ug/L		87
42) ethyl tert-butyl ether	9.999	59	554843	55.85	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128100.D
Acq On : 5 Mar 2015 4:17 pm
Operator : bridgetk
Sample : jb89167-2ms
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 14:22:49 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) ethyl acetate	10.250	45	20437	56.06	ug/L		70
44) 2,2-dichloropropane	10.271	77	216685	44.24	ug/L		94
45) cis-1,2-dichloroethene	10.235	96	183913	51.71	ug/L		94
46) propionitrile	10.277	54	212801	530.73	ug/L		97
47) bromochloromethane	10.554	128	95580	51.60	ug/L		94
48) tetrahydrofuran	10.623	42	41878	49.83	ug/L		98
49) chloroform	10.623	83	281388	47.22	ug/L		99
50) t-butyl formate	10.701	59	71315	26.43	ug/L		91
53) freon 113	7.639	151	142898	57.59	ug/L		92
54) methacrylonitrile	10.492	41	93021	51.40	ug/L		94
55) 1,1,1-trichloroethane	10.921	97	232052	44.67	ug/L		99
56) Cyclohexane	11.021	84	227744	53.66	ug/L		95
61) epichlorohydrin	12.909	57	64836	234.82	ug/L		96
62) n-butyl alcohol	11.828	56	179459	2381.82	ug/L		97
63) carbon tetrachloride	11.136	117	222076	40.31	ug/L		96
64) 1,1-dichloropropene	11.105	75	205884	47.54	ug/L		97
65) hexane	9.228	57	227049	68.92	ug/L		98
66) benzene	11.362	78	602138	50.52	ug/L		99
67) 2,2,4-trimethylpentane	11.430	57	613172	61.45	ug/L		90
68) tert-amyl methyl ether	11.435	73	473958	49.92	ug/L		98
69) heptane	11.587	57	123810	63.73	ug/L		96
70) isopropyl acetate	11.304	43	273531	51.86	ug/L		95
71) 1,2-dichloroethane	11.351	62	196119	40.15	ug/L		87
72) trichloroethene	12.064	95	165238	50.28	ug/L		99
74) 2-nitropropane	12.772	41	34324	38.15	ug/L		95
75) 2-chloroethyl vinyl ether	12.909	63	2448	1.41	ug/L		73
76) methyl methacrylate	12.327	100	37822	52.80	ug/L		91
77) 1,2-dichloropropane	12.306	63	166978	55.32	ug/L		96
78) dibromomethane	12.437	93	104042	48.09	ug/L		92
79) methylcyclohexane	12.311	83	278229	59.56	ug/L		97
80) bromodichloromethane	12.568	83	224521	47.78	ug/L		98
81) cis-1,3-dichloropropene	13.013	75	279741	54.01	ug/L		91
83) 4-methyl-2-pentanone	13.118	58	57148	54.65	ug/L	#	84
84) toluene	13.375	92	375019	52.19	ug/L		97
85) 3-methyl-1-butanol	13.113	55	110076	990.36	ug/L		96
86) trans-1,3-dichloropropene	13.532	75	247011	49.35	ug/L		93
87) ethyl methacrylate	13.553	69	191228	55.01	ug/L		95
88) 1,1,2-trichloroethane	13.732	83	128160	53.46	ug/L		97
89) 2-hexanone	13.915	58	49088	56.11	ug/L		95
91) butyl ether	14.691	57	677933	59.83	ug/L		94
92) tetrachloroethene	13.931	164	146751	46.62	ug/L		97
93) 1,3-dichloropropane	13.905	76	238053	52.58	ug/L		93
94) butyl acetate	13.994	56	90705	56.88	ug/L		92
95) 3,3-dimethyl-1-butanol	14.062	57	120013	508.82	ug/L		95
96) dibromochloromethane	14.146	129	195691	48.51	ug/L		97
97) 1,2-dibromoethane	14.293	107	160144	50.89	ug/L		99
98) chlorobenzene	14.738	112	418676	52.03	ug/L		98
99) 1,1,1,2-tetrachloroethane	14.791	131	177275	49.58	ug/L		98
100) ethylbenzene	14.801	91	753910	56.30	ug/L		96
101) m,p-xylene	14.901	106	914491	179.36	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128100.D
Acq On : 5 Mar 2015 4:17 pm
Operator : bridgetk
Sample : jb89167-2ms
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 14:22:49 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

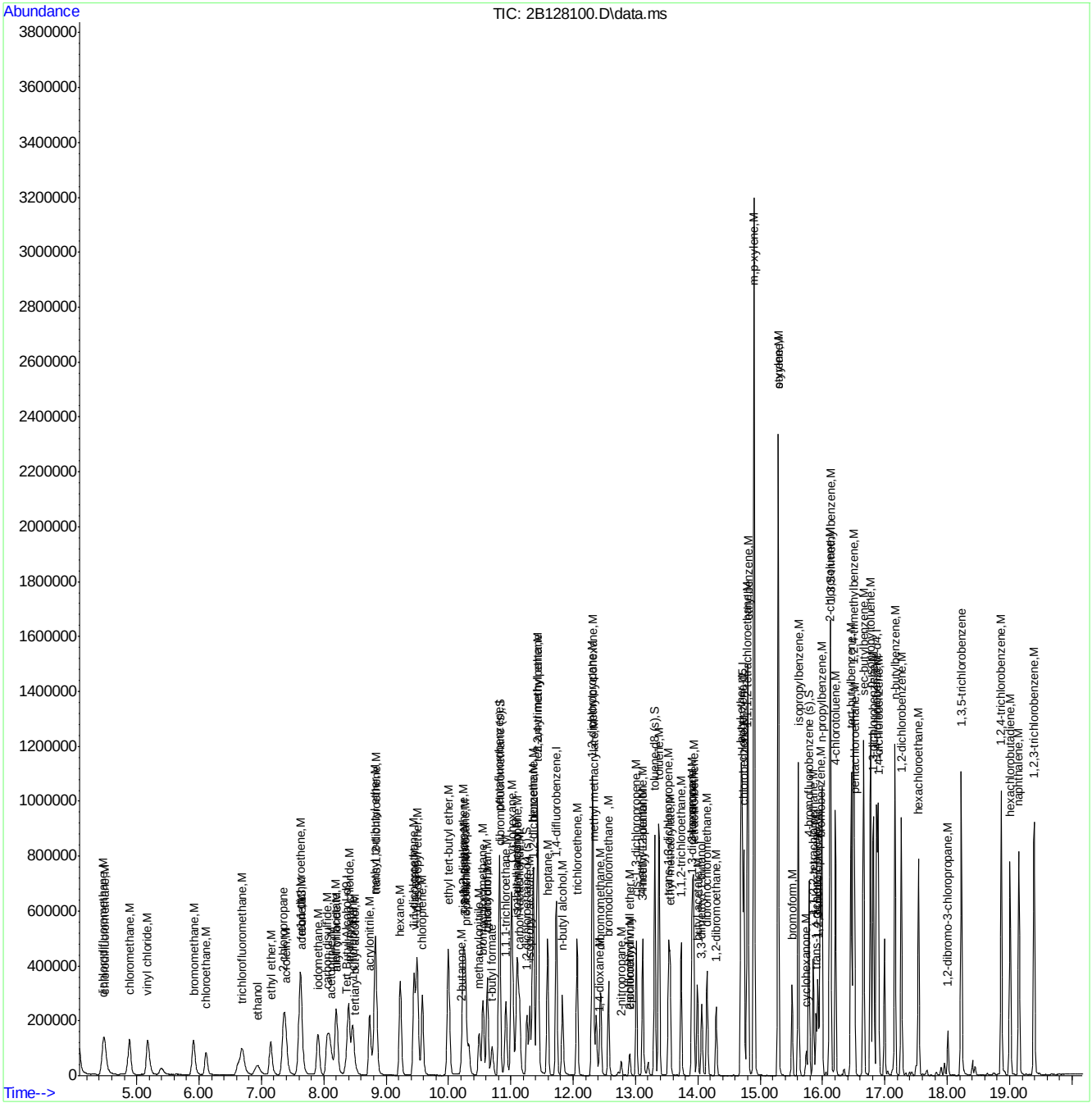
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	367277	68.00	ug/L	95
103) styrene	15.289	104	459021	55.14	ug/L	96
105) bromoform	15.509	173	150605	48.87	ug/L	99
107) isopropylbenzene	15.614	105	719381	54.97	ug/L	98
109) cyclohexanone	15.740	98	17476	133.74	ug/L	85
110) bromobenzene	15.965	156	214448	53.81	ug/L	99
111) 1,1,2,2-tetrachloroethane	15.850	83	199661	58.83	ug/L	97
112) trans-1,4-dichloro-2-b...	15.897	53	36426	41.11	ug/L	84
113) 1,2,3-trichloropropane	15.929	110	49060	53.18	ug/L	93
114) n-propylbenzene	15.991	91	758584	54.06	ug/L	98
115) 2-chlorotoluene	16.117	126	185015	55.31	ug/L	91
116) 4-chlorotoluene	16.206	91	484409	52.19	ug/L	96
117) 1,3,5-trimethylbenzene	16.128	105	582950	53.90	ug/L	99
118) tert-butylbenzene	16.458	119	533415	53.96	ug/L	97
119) pentachloroethane	16.511	167	142211	52.15	ug/L	99
120) 1,2,4-trimethylbenzene	16.495	105	589749	55.60	ug/L	97
121) sec-butylbenzene	16.657	105	796649	55.76	ug/L	99
122) 1,3-dichlorobenzene	16.815	146	383887	53.26	ug/L	98
123) p-isopropyltoluene	16.767	119	673966	55.10	ug/L	98
124) 1,4-dichlorobenzene	16.893	146	378292	52.35	ug/L	99
125) 1,2-dichlorobenzene	17.265	146	392786	54.01	ug/L	99
126) n-butylbenzene	17.161	92	341538	58.22	ug/L	97
127) 1,2-dibromo-3-chloropr...	18.010	75	34928	49.46	ug/L	96
128) 1,3,5-trichlorobenzene	18.225	180	373065	52.07	ug/L	96
129) 1,2,4-trichlorobenzene	18.865	180	351961	55.88	ug/L	100
130) hexachlorobutadiene	19.006	225	184438	51.47	ug/L	98
131) naphthalene	19.148	128	639312	58.30	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	313555	56.24	ug/L	99
133) hexachloroethane	17.538	201	147585	52.19	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128100.D
Acq On : 5 Mar 2015 4:17 pm
Operator : bridgetk
Sample : jb89167-2ms
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 14:22:49 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128101.D
Acq On : 5 Mar 2015 4:46 pm
Operator : bridgetk
Sample : jb89167-2msd
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 14:22:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.363	65	137294	500.00	ug/L		0.00
5) pentafluorobenzene	10.811	168	517966	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.729	114	564793	50.00	ug/L		0.00
90) chlorobenzene-d5	14.712	117	474070	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.867	152	249002	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.822	113	165699	49.00	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.00%				
52) 1,2-dichloroethane-d4 (s)	11.257	65	164278	41.57	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 83.14%				
82) toluene-d8 (s)	13.307	98	575202	50.58	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 101.16%				
108) 4-bromofluorobenzene (s)	15.782	95	200661	49.92	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 99.84%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.499	59	78005	275.73	ug/L		91
3) ethanol	6.937	45	146692	4776.51	ug/L		95
4) 1,4-dioxane	12.410	88	30924	1162.43	ug/L		95
9) chlorodifluoromethane	4.473	51	230875	61.58	ug/L		95
10) dichlorodifluoromethane	4.452	85	247217	53.33	ug/L		99
12) chloromethane	4.876	50	294052	62.09	ug/L		98
13) vinyl chloride	5.170	62	269408	62.35	ug/L		99
15) bromomethane	5.909	94	176030	55.32	ug/L		94
16) chloroethane	6.103	64	129242	64.14	ug/L		97
18) trichlorofluoromethane	6.680	101	292753	53.40	ug/L		95
20) ethyl ether	7.146	74	93505	54.73	ug/L		95
21) acrolein	7.382	56	259468	486.51	ug/L		98
22) 2-chloropropane	7.351	43	266933	47.71	ug/L		87
24) 1,1-dichloroethene	7.618	96	158130	50.29	ug/L		91
25) acetone	7.645	43	40728	42.45	ug/L		85
26) allyl chloride	8.206	76	94724	57.79	ug/L	#	76
27) acetonitrile	8.111	40	89255	486.44	ug/L		85
28) iodomethane	7.907	142	315967	47.28	ug/L		92
29) iso-butyl alcohol	11.100	74	18605	498.05	ug/L	#	45
30) carbon disulfide	8.059	76	494464	48.51	ug/L		94
31) methylene chloride	8.394	84	182633	52.31	ug/L		98
32) methyl acetate	8.185	74	30075	58.03	ug/L	#	82
33) 1-chloropropane	8.457	42	266861	44.65	ug/L		96
34) methyl tert butyl ether	8.819	73	472224	47.32	ug/L		100
35) trans-1,2-dichloroethene	8.835	96	166056	49.81	ug/L		96
36) di-isopropyl ether	9.495	45	575676	60.53	ug/L		95
37) 2-butanone	10.203	72	17813	52.50	ug/L		90
38) 1,1-dichloroethane	9.443	63	302185	51.76	ug/L		97
39) chloroprene	9.574	53	236368	57.10	ug/L		92
40) acrylonitrile	8.730	53	293979	261.29	ug/L		97
41) vinyl acetate	9.448	86	26552	50.81	ug/L		88
42) ethyl tert-butyl ether	9.993	59	571371	56.44	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128101.D
Acq On : 5 Mar 2015 4:46 pm
Operator : bridgetk
Sample : jb89167-2msd
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 14:22:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	ethyl acetate	10.245	45	21163	56.97	ug/L		84
44)	2,2-dichloropropane	10.266	77	217478	43.58	ug/L		96
45)	cis-1,2-dichloroethene	10.229	96	191227	52.76	ug/L		96
46)	propionitrile	10.277	54	217425	532.17	ug/L		95
47)	bromochloromethane	10.549	128	99217	52.57	ug/L		95
48)	tetrahydrofuran	10.623	42	43105	50.33	ug/L		96
49)	chloroform	10.623	83	291550	48.02	ug/L		94
50)	t-butyl formate	10.701	59	66224	24.09	ug/L		93
53)	freon 113	7.629	151	146515	57.95	ug/L		87
54)	methacrylonitrile	10.492	41	94562	51.28	ug/L		94
55)	1,1,1-trichloroethane	10.921	97	237105	44.79	ug/L		99
56)	Cyclohexane	11.021	84	230447	53.29	ug/L		96
61)	epichlorohydrin	12.903	57	65524	234.01	ug/L		95
62)	n-butyl alcohol	11.828	56	189318	2477.64	ug/L		93
63)	carbon tetrachloride	11.136	117	227061	40.64	ug/L		98
64)	1,1-dichloropropene	11.100	75	210223	47.86	ug/L		99
65)	hexane	9.223	57	232681	69.65	ug/L		98
66)	benzene	11.362	78	616525	51.00	ug/L		99
67)	2,2,4-trimethylpentane	11.430	57	621226	61.39	ug/L		89
68)	tert-amyl methyl ether	11.430	73	484071	50.28	ug/L		98
69)	heptane	11.587	57	125809	63.85	ug/L		98
70)	isopropyl acetate	11.304	43	277985	51.97	ug/L		95
71)	1,2-dichloroethane	11.346	62	198606	40.10	ug/L		89
72)	trichloroethene	12.059	95	167932	50.39	ug/L		99
74)	2-nitropropane	12.767	41	34171	37.45	ug/L		98
75)	2-chloroethyl vinyl ether	12.903	63	2543	1.45	ug/L		68
76)	methyl methacrylate	12.327	100	38195	52.58	ug/L	#	85
77)	1,2-dichloropropane	12.306	63	171534	56.04	ug/L		95
78)	dibromomethane	12.437	93	107309	48.91	ug/L		95
79)	methylcyclohexane	12.311	83	286301	60.44	ug/L		96
80)	bromodichloromethane	12.568	83	228776	48.01	ug/L		98
81)	cis-1,3-dichloropropene	13.013	75	281374	53.57	ug/L		91
83)	4-methyl-2-pentanone	13.118	58	59777	56.37	ug/L	#	86
84)	toluene	13.375	92	385421	52.88	ug/L		97
85)	3-methyl-1-butanol	13.113	55	114915	1019.49	ug/L		94
86)	trans-1,3-dichloropropene	13.532	75	250528	49.36	ug/L		93
87)	ethyl methacrylate	13.553	69	194357	55.13	ug/L		97
88)	1,1,2-trichloroethane	13.732	83	128463	52.84	ug/L		97
89)	2-hexanone	13.910	58	50229	56.61	ug/L		92
91)	butyl ether	14.691	57	691883	60.69	ug/L		94
92)	tetrachloroethene	13.926	164	148691	46.95	ug/L		98
93)	1,3-dichloropropane	13.905	76	243913	53.54	ug/L		91
94)	butyl acetate	13.994	56	93501	58.28	ug/L		89
95)	3,3-dimethyl-1-butanol	14.062	57	123889	522.06	ug/L		97
96)	dibromochloromethane	14.146	129	199599	49.17	ug/L		98
97)	1,2-dibromoethane	14.293	107	162208	51.23	ug/L		98
98)	chlorobenzene	14.738	112	430036	53.12	ug/L		96
99)	1,1,1,2-tetrachloroethane	14.791	131	178526	49.63	ug/L		98
100)	ethylbenzene	14.801	91	758408	56.29	ug/L		96
101)	m,p-xylene	14.901	106	930148	181.32	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128101.D
Acq On : 5 Mar 2015 4:46 pm
Operator : bridgetk
Sample : jb89167-2msd
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 14:22:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration

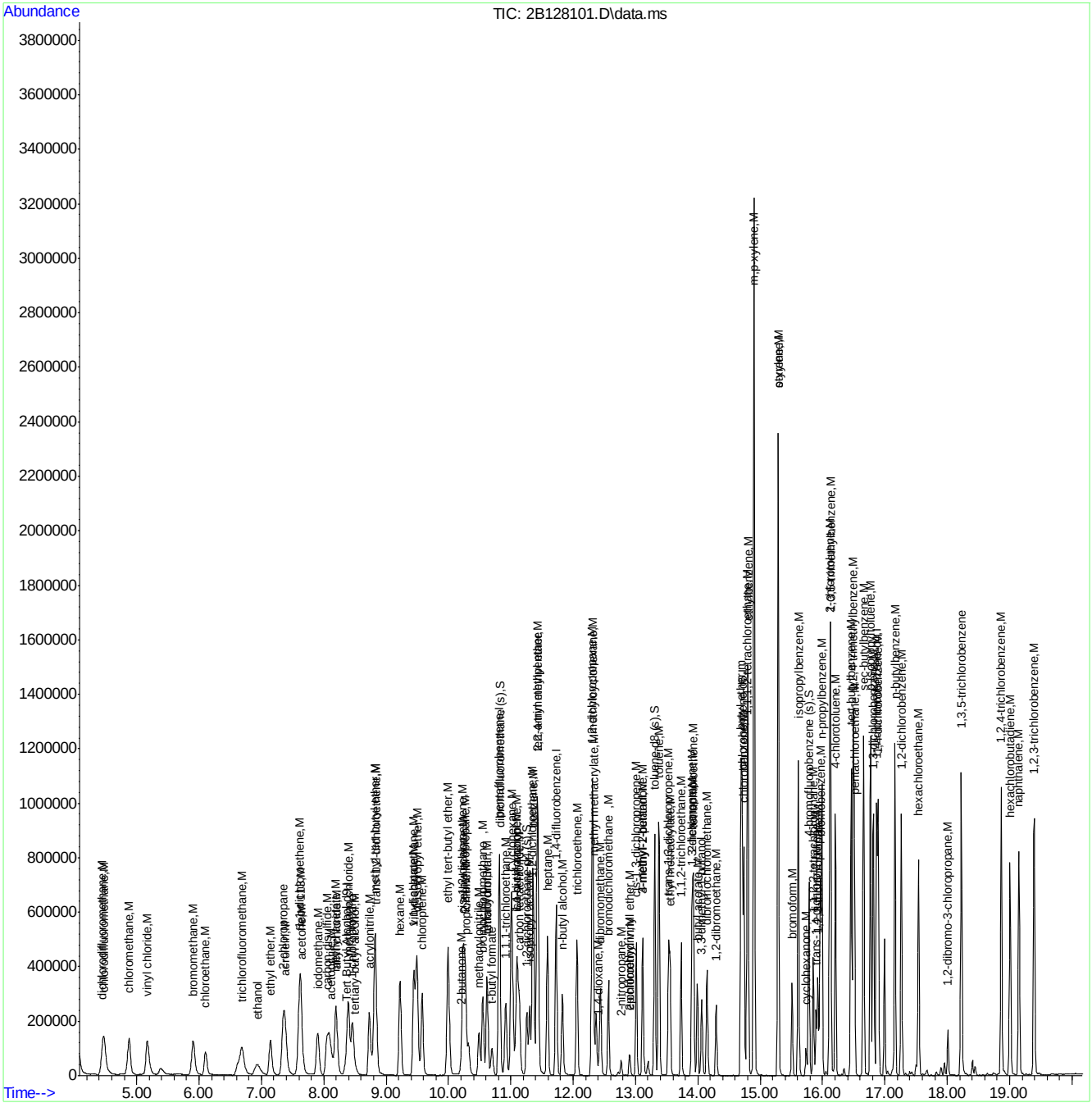
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) o-xylene	15.289	106	375058	69.01	ug/L	94
103) styrene	15.289	104	464482	55.46	ug/L	96
105) bromoform	15.509	173	152520	49.19	ug/L	99
107) isopropylbenzene	15.614	105	732167	55.21	ug/L	97
109) cyclohexanone	15.740	98	18538	139.99	ug/L	88
110) bromobenzene	15.965	156	218003	53.98	ug/L	97
111) 1,1,2,2-tetrachloroethane	15.850	83	203531	59.18	ug/L	97
112) trans-1,4-dichloro-2-b...	15.897	53	38784	43.19	ug/L	81
113) 1,2,3-trichloropropane	15.923	110	49626	53.08	ug/L	95
114) n-propylbenzene	15.991	91	768991	54.08	ug/L	99
115) 2-chlorotoluene	16.117	126	187785	55.40	ug/L	89
116) 4-chlorotoluene	16.206	91	495285	52.65	ug/L	96
117) 1,3,5-trimethylbenzene	16.128	105	585627	53.43	ug/L	99
118) tert-butylbenzene	16.458	119	543998	54.30	ug/L	96
119) pentachloroethane	16.511	167	144838	52.41	ug/L	99
120) 1,2,4-trimethylbenzene	16.490	105	597709	55.60	ug/L	97
121) sec-butylbenzene	16.657	105	806098	55.67	ug/L	99
122) 1,3-dichlorobenzene	16.815	146	388124	53.13	ug/L	100
123) p-isopropyltoluene	16.767	119	682629	55.07	ug/L	97
124) 1,4-dichlorobenzene	16.888	146	386168	52.74	ug/L	98
125) 1,2-dichlorobenzene	17.266	146	401489	54.48	ug/L	99
126) n-butylbenzene	17.161	92	343458	57.77	ug/L	98
127) 1,2-dibromo-3-chloropr...	18.010	75	35928	50.20	ug/L	99
128) 1,3,5-trichlorobenzene	18.225	180	383116	52.76	ug/L	97
129) 1,2,4-trichlorobenzene	18.865	180	357206	55.96	ug/L	98
130) hexachlorobutadiene	19.006	225	188476	51.90	ug/L	98
131) naphthalene	19.148	128	654158	58.86	ug/L	99
132) 1,2,3-trichlorobenzene	19.394	180	323914	57.33	ug/L	99
133) hexachloroethane	17.538	201	151294	52.80	ug/L	98

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

Quantitation Report (QT Reviewed)

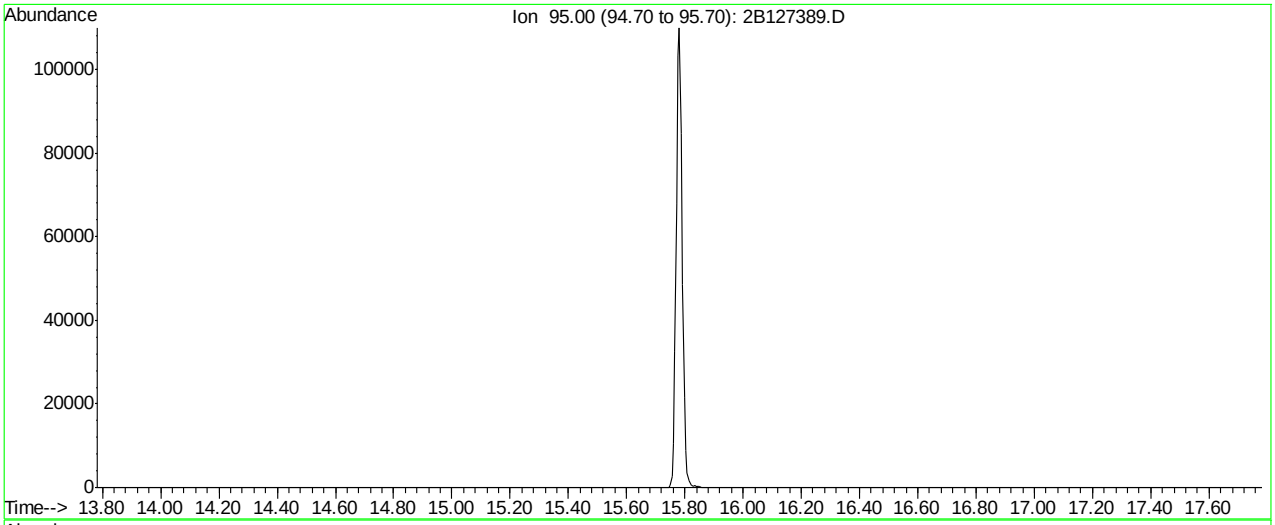
Data Path : C:\msdchem\1\DATA\2b\v2b5773\
Data File : 2B128101.D
Acq On : 5 Mar 2015 4:46 pm
Operator : bridgetk
Sample : jb89167-2msd
Misc : MS81572,V2B5773,w,,,,4
ALS Vial : 15 Sample Multiplier: 1

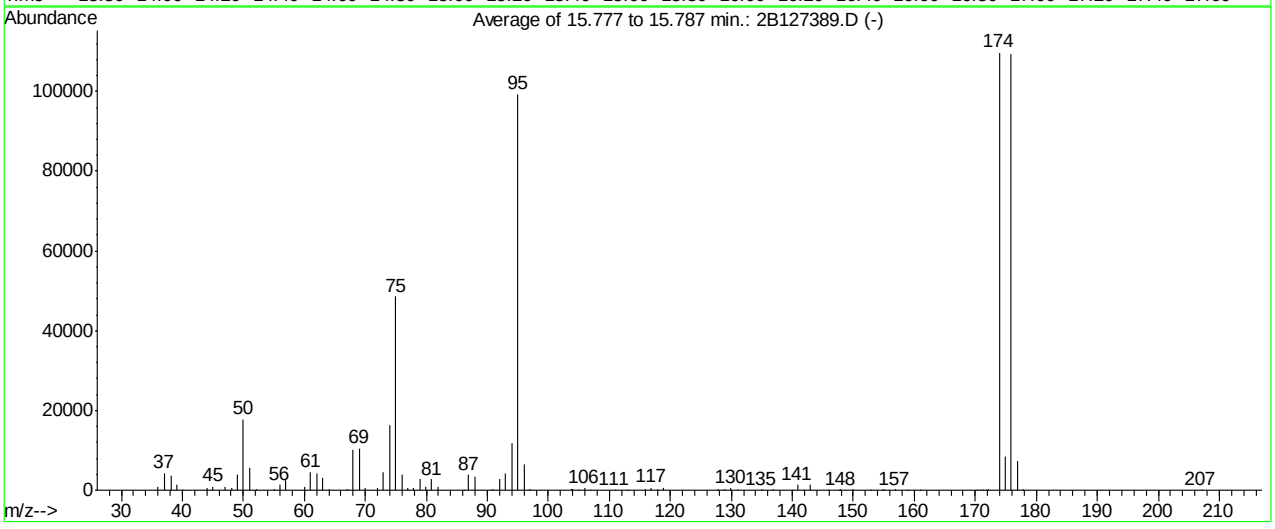
Quant Time: Mar 06 14:22:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M
Quant Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
QLast Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\2B127389.D Vial: 1
Acq On : 5 Feb 2015 3:37 pm Operator: bridgetk
Sample : BFB Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um





AutoFind: Scans 2231, 2232, 2233; Background Corrected with Scan 2223

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	17802	PASS
75	95	30	60	48.9	48517	PASS
95	95	100	100	100.0	99285	PASS
96	95	5	9	6.6	6558	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	110.6	109778	PASS
175	174	5	9	7.6	8374	PASS
176	174	95	101	99.6	109376	PASS
177	176	5	9	6.6	7201	PASS

2B127389.D M2B5744.M Fri Feb 06 17:02:06 2015 MS2B

Average of 15.777 to 15.787 min.: 2B127389.D
BFB
Modified:subtracted

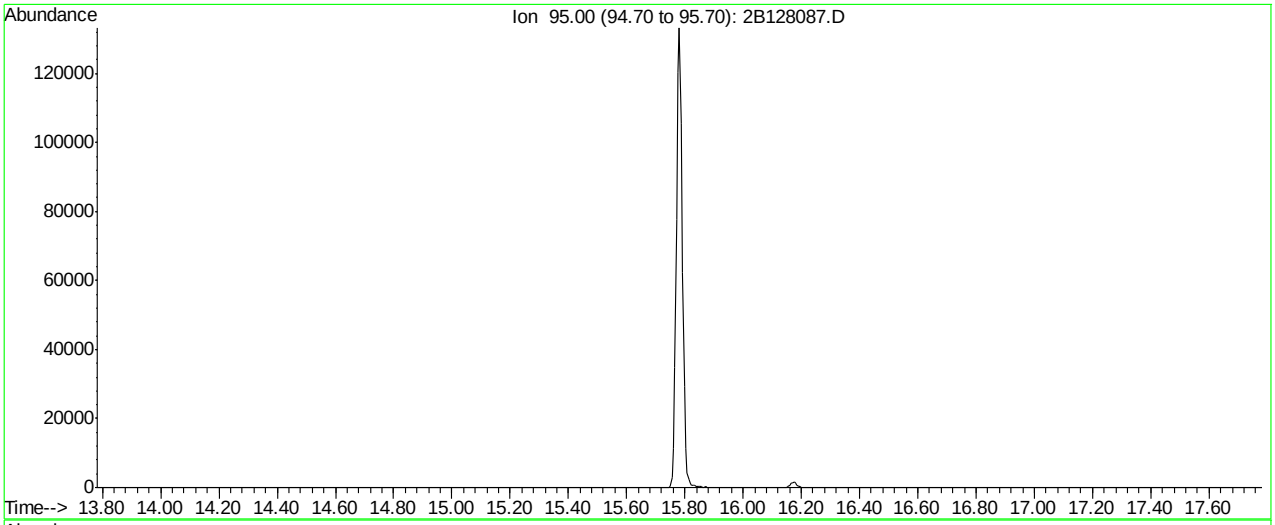
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	915	51.05	5529	68.00	10066	79.85	879
37.00	4345	52.05	221	69.00	10514	80.90	2701
38.10	3789	55.00	240	70.00	686	81.90	757
39.05	1531	56.00	1369	72.00	509	86.10	53
40.00	60	57.00	2481	73.00	4574	86.95	3851
44.00	438	60.00	938	74.00	16203	87.95	3322
45.00	883	61.00	4620	75.00	48517	90.90	419
47.05	893	62.00	4314	76.00	4086	92.00	2869
48.05	598	63.00	3004	77.00	542	93.00	4111
49.00	3992	64.05	321	77.95	498	94.00	11762
50.00	17802	67.10	289	78.90	2744	95.00	99285

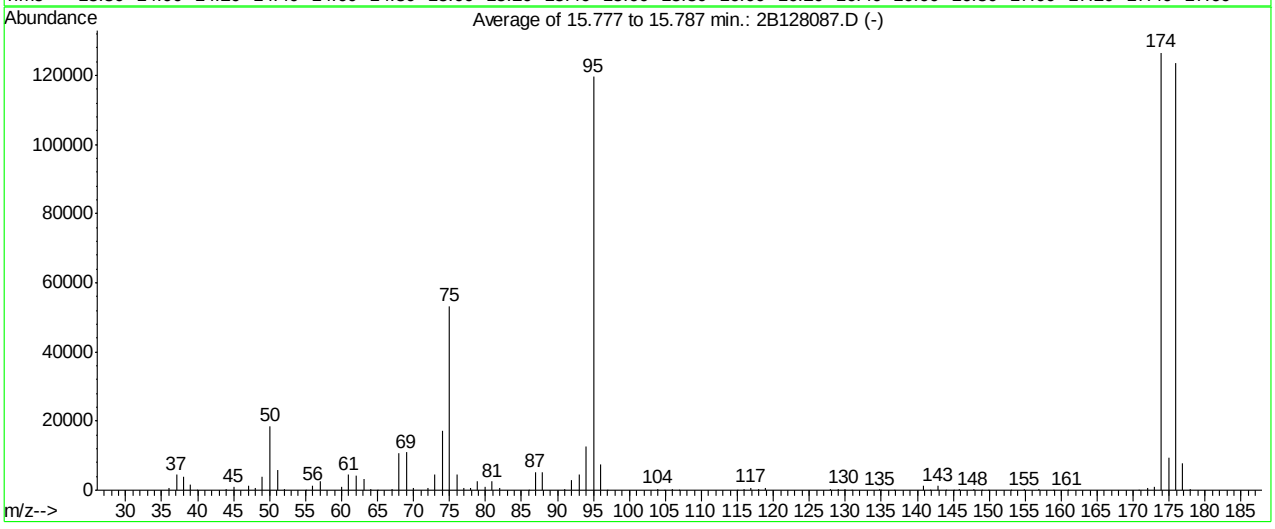
Average of 15.777 to 15.787 min.: 2B127389.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	6558	117.85	413	142.90	1302	170.40	51
97.00	218	118.90	526	145.90	129	170.85	101
103.80	313	127.85	416	147.70	89	171.20	53
104.00	219	128.90	208	147.90	239	171.80	146
104.90	121	129.90	492	149.90	184	172.10	223
105.95	473	131.00	123	152.80	50	173.90	109778
106.90	56	134.95	201	154.80	197	174.90	8374
110.90	55	136.90	198	155.00	66	175.90	109376
112.90	51	139.90	58	156.85	202	176.90	7201
115.95	420	140.90	1329	159.00	80	177.90	206
116.85	683	141.90	59	160.90	117	207.00	55

SW-846 Method 8260

```
Data File : C:\MSDCHEM\1\DATA\2B128087.D              Vial: 1
Acq On    :  5 Mar 2015  10:02 am                  Operator: bridgetk
Sample    : bfb                                    Inst    : MS2B
Misc      : MS81597,V2B5773,w,,,,1                 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method    : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title     : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
```





AutoFind: Scans 2231, 2232, 2233; Background Corrected with Scan 2223

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	18511	PASS
75	95	30	60	44.5	53232	PASS
95	95	100	100	100.0	119640	PASS
96	95	5	9	6.3	7532	PASS
173	174	0.00	2	0.8	1072	PASS
174	95	50	120	105.9	126680	PASS
175	174	5	9	7.5	9558	PASS
176	174	95	101	97.5	123533	PASS
177	176	5	9	6.4	7936	PASS

2B128087.D M2B5744.M Thu Mar 05 14:13:20 2015 MS2B

Average of 15.777 to 15.787 min.: 2B128087.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	754	51.05	5796	67.00	268	78.90	2686
37.05	4427	52.00	258	68.00	10766	79.90	863
38.10	3892	55.05	99	69.00	10967	80.95	2570
39.05	1605	56.00	1311	70.00	695	81.90	713
39.95	99	57.05	2567	71.95	513	86.00	101
44.00	385	60.00	882	73.00	4575	86.90	5343
45.00	845	61.00	4513	74.00	17323	87.95	5174
47.00	1404	62.00	4297	75.00	53232	90.95	395
47.95	666	63.05	3335	76.00	4599	92.00	2848
49.00	4045	64.00	304	77.00	617	93.00	4658
50.05	18511	65.05	161	77.95	610	94.00	12822

Average of 15.777 to 15.787 min.: 2B128087.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	119640	118.90	612	144.00	50	170.80	56
96.00	7532	127.85	467	145.00	58	171.95	531
97.00	151	128.95	194	145.85	218	173.00	1072
103.95	446	129.90	471	147.85	307	173.90	126680
104.90	122	130.90	51	148.90	50	174.90	9558
105.90	436	134.80	195	149.90	70	175.90	123533
106.90	61	135.00	71	153.00	50	176.90	7936
115.00	75	136.85	170	154.90	314	177.90	231
115.85	392	140.90	1206	156.85	260		
116.90	695	141.80	122	158.85	126		
117.90	398	142.90	1232	160.95	137		

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127390.D Vial: 2
Acq On : 5 Feb 2015 4:12 pm Operator: bridgetk
Sample : ic5744-0.2 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:38 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

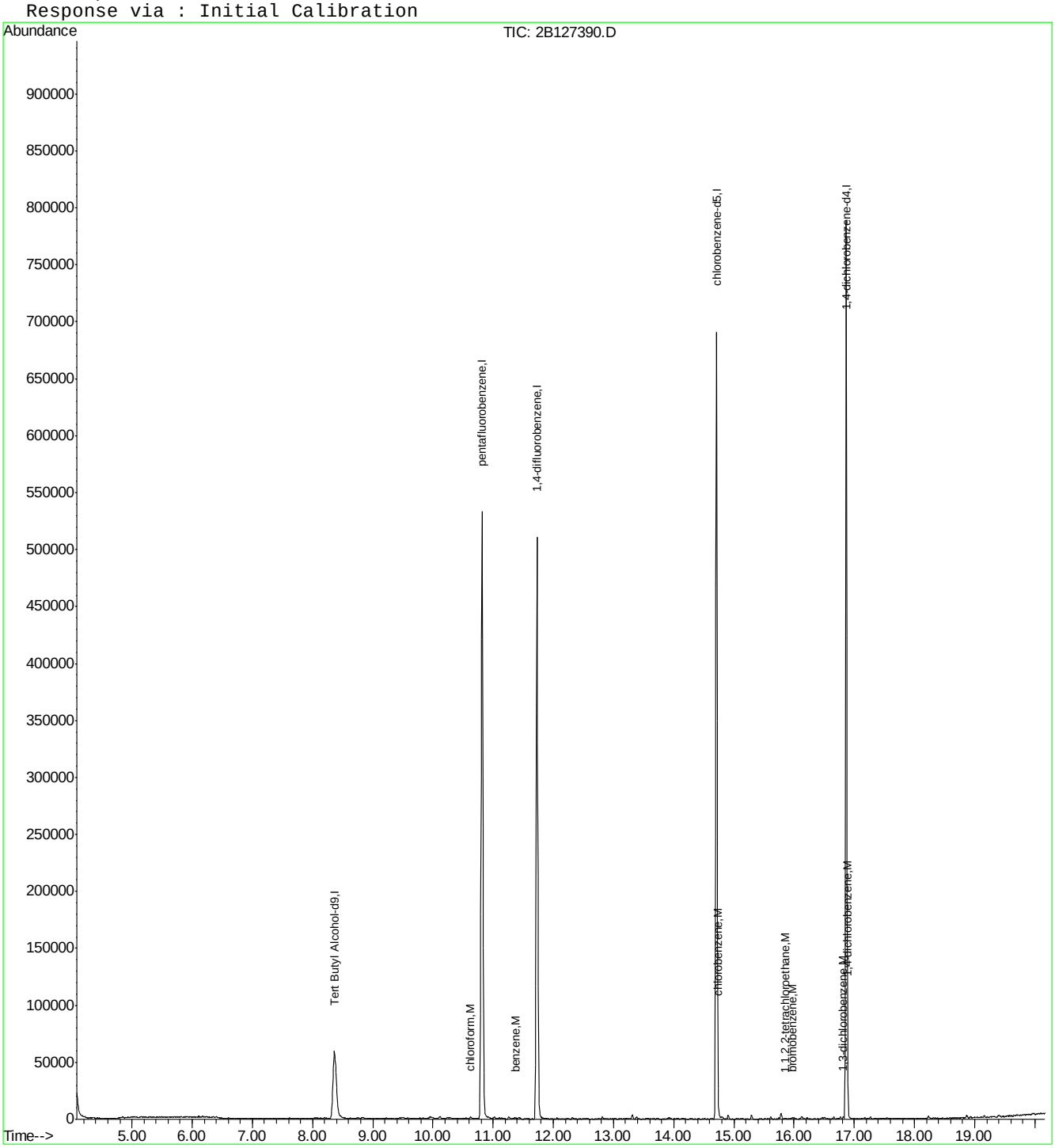
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	132206	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	432372	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	426382	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	363842	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	195850	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery =	0.00%#		
52) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery =	0.00%#		
82) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 119		Recovery =	0.00%#		
108) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery =	0.00%#		
Target Compounds						Qvalue
49) chloroform	10.63	83	983	0.20	ug/L	67
66) benzene	11.38	78	1448	0.16	ug/L	82
98) chlorobenzene	14.74	112	1054	0.17	ug/L	91
110) bromobenzene	15.97	156	504	0.16	ug/L	76
111) 1,1,2,2-tetrachloroethane	15.85	83	460	0.17	ug/L	84
122) 1,3-dichlorobenzene	16.81	146	1013	0.18	ug/L	77
124) 1,4-dichlorobenzene	16.89	146	1126	0.20	ug/L	84

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127390.D Vial: 2
Acq On : 5 Feb 2015 4:12 pm Operator: bridgetk
Sample : ic5744-0.2 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 17:40 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



2B127390.D M2B5744.M Tue Feb 10 09:39:19 2015 MS2B Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:43 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	129083	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	424971	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	422131	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	356161	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	192888	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery =	0.00%#		
52) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery =	0.00%#		
82) toluene-d8 (s)	13.31	98	4869	0.56	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	1.12%#		
108) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery =	0.00%#		
Target Compounds						Qvalue
12) chloromethane	4.83	50	1938	0.46	ug/L	80
13) vinyl chloride	5.15	62	1721	0.45	ug/L	91
15) bromomethane	5.89	94	1609	0.62	ug/L #	67
22) 2-chloropropane	7.36	43	1906	0.43	ug/L	97
24) 1,1-dichloroethene	7.62	96	1141	0.48	ug/L	89
26) allyl chloride	8.21	76	476	0.34	ug/L #	27
28) iodomethane	7.91	142	2245	0.41	ug/L	88
30) carbon disulfide	8.06	76	4072	0.51	ug/L	83
31) methylene chloride	8.41	84	1321	0.49	ug/L #	42
33) 1-chloropropane	8.47	42	2622	0.58	ug/L	85
34) methyl tert butyl ether	8.82	73	3570	0.44	ug/L	83
35) trans-1,2-dichloroethene	8.85	96	1277	0.50	ug/L	82
36) di-isopropyl ether	9.50	45	3330	0.41	ug/L	87
38) 1,1-dichloroethane	9.45	63	2038	0.43	ug/L	65
39) chloroprene	9.58	53	1270	0.35	ug/L	86
40) acrylonitrile	8.75	53	1564	1.63	ug/L	80
42) ethyl tert-butyl ether	10.00	59	3447	0.39	ug/L	94
44) 2,2-dichloropropane	10.26	77	1785	0.45	ug/L	92
45) cis-1,2-dichloroethene	10.23	96	1294	0.45	ug/L	96
46) propionitrile	10.30	54	1337	3.95	ug/L	58
47) bromochloromethane	10.55	128	566	0.36	ug/L	90
49) chloroform	10.63	83	2465	0.51	ug/L	93
50) t-butyl formate	10.71	59	937	0.38	ug/L	68
54) methacrylonitrile	10.50	41	748	0.49	ug/L	82
55) 1,1,1-trichloroethane	10.92	97	1933	0.44	ug/L	89
56) Cyclohexane	11.03	84	1586	0.46	ug/L #	61
63) carbon tetrachloride	11.14	117	1758	0.43	ug/L	81
64) 1,1-dichloropropene	11.10	75	1343	0.43	ug/L	95
65) hexane	9.23	57	1008	0.39	ug/L #	59
66) benzene	11.38	78	4316	0.49	ug/L	97
67) 2,2,4-trimethylpentane	11.43	57	3287	0.42	ug/L	84
68) tert-amyl methyl ether	11.44	73	2986	0.40	ug/L	95
69) heptane	11.59	57	713	0.47	ug/L	81

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:43 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

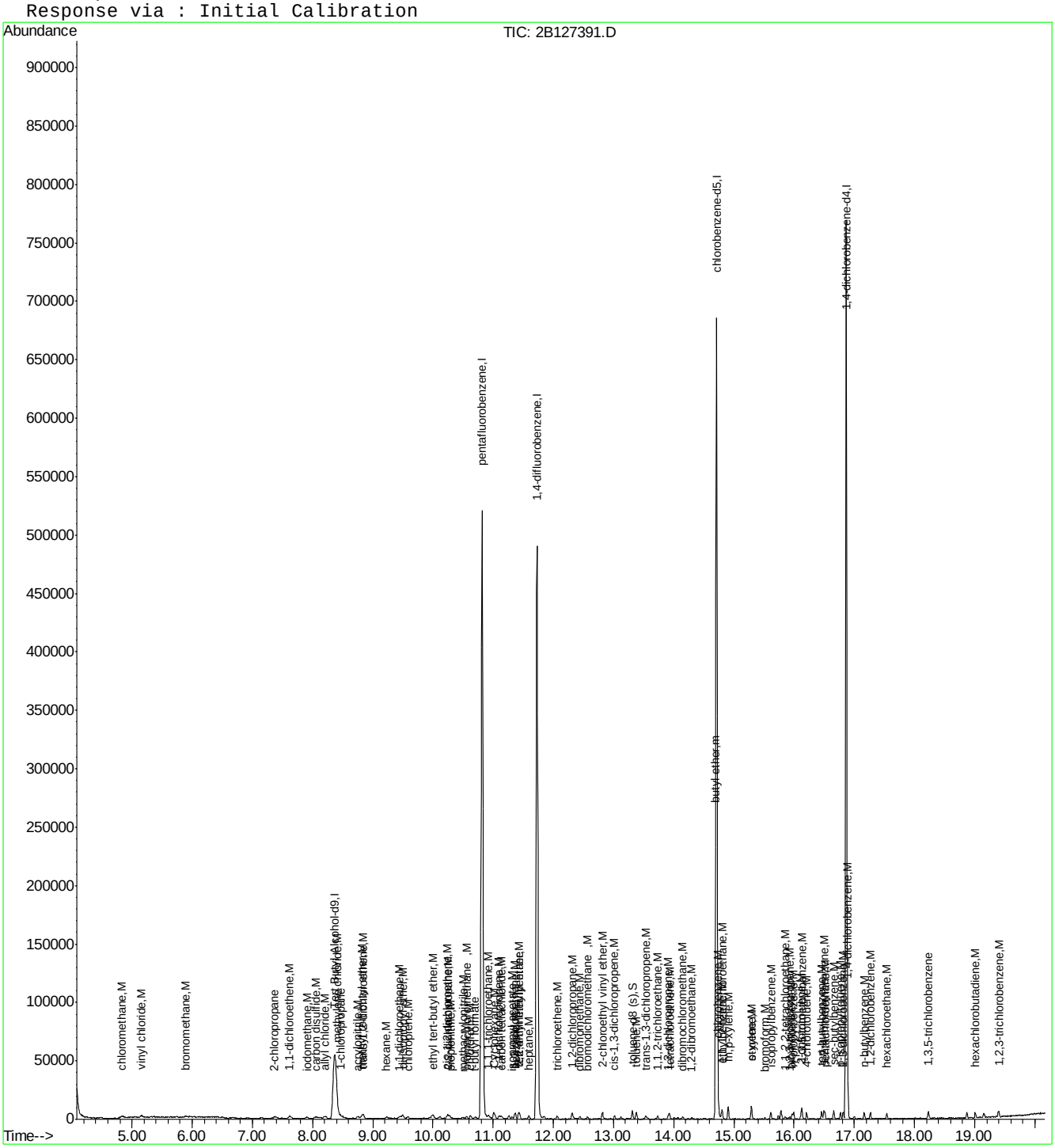
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
70)	isopropyl acetate	11.31	43	1521	0.36 ug/L		81
71)	1,2-dichloroethane	11.35	62	1640	0.45 ug/L		92
72)	trichloroethene	12.06	95	1056	0.43 ug/L		90
75)	2-chloroethyl vinyl ether	12.81	63	2649	1.86 ug/L		99
77)	1,2-dichloropropane	12.31	63	956	0.42 ug/L		94
78)	dibromomethane	12.44	93	691	0.42 ug/L	#	66
80)	bromodichloromethane	12.57	83	1401	0.39 ug/L		92
81)	cis-1,3-dichloropropene	13.01	75	1586	0.40 ug/L		83
84)	toluene	13.38	92	2259	0.42 ug/L	#	70
86)	trans-1,3-dichloropropene	13.53	75	1571	0.41 ug/L		98
88)	1,1,2-trichloroethane	13.74	83	863	0.48 ug/L		80
91)	butyl ether	14.69	57	3363	0.38 ug/L	#	78
92)	tetrachloroethene	13.94	164	1090	0.48 ug/L	#	76
93)	1,3-dichloropropane	13.91	76	1446	0.42 ug/L		89
96)	dibromochloromethane	14.15	129	1344	0.44 ug/L		80
97)	1,2-dibromoethane	14.30	107	854	0.35 ug/L		87
98)	chlorobenzene	14.74	112	2656	0.44 ug/L		91
99)	1,1,1,2-tetrachloroethane	14.80	131	1013	0.37 ug/L	#	76
100)	ethylbenzene	14.80	91	4589	0.47 ug/L		95
101)	m,p-xylene	14.90	106	3286	0.88 ug/L		89
102)	o-xylene	15.29	106	1785	0.44 ug/L	#	67
103)	styrene	15.29	104	2412	0.37 ug/L		83
105)	bromoform	15.51	173	926	0.38 ug/L		84
107)	isopropylbenzene	15.61	105	4372	0.42 ug/L		96
110)	bromobenzene	15.97	156	1474	0.46 ug/L		86
111)	1,1,2,2-tetrachloroethane	15.86	83	1198	0.44 ug/L		90
113)	1,2,3-trichloropropane	15.93	110	276	0.36 ug/L	#	36
114)	n-propylbenzene	15.99	91	4720	0.44 ug/L		95
115)	2-chlorotoluene	16.11	126	1086	0.42 ug/L	#	58
116)	4-chlorotoluene	16.21	91	3310	0.46 ug/L		76
117)	1,3,5-trimethylbenzene	16.13	105	3458	0.41 ug/L		87
118)	tert-butylbenzene	16.46	119	3321	0.42 ug/L		92
119)	pentachloroethane	16.52	167	880	0.40 ug/L		91
120)	1,2,4-trimethylbenzene	16.49	105	3521	0.42 ug/L		91
121)	sec-butylbenzene	16.66	105	4688	0.41 ug/L		91
122)	1,3-dichlorobenzene	16.82	146	2517	0.45 ug/L		96
123)	p-isopropyltoluene	16.77	119	3797	0.38 ug/L		90
124)	1,4-dichlorobenzene	16.89	146	2691	0.48 ug/L		91
125)	1,2-dichlorobenzene	17.27	146	2468	0.42 ug/L		90
126)	n-butylbenzene	17.16	92	1883	0.39 ug/L		83
128)	1,3,5-trichlorobenzene	18.23	180	2505	0.42 ug/L	#	87
130)	hexachlorobutadiene	19.01	225	1127	0.39 ug/L		89
132)	1,2,3-trichlorobenzene	19.40	180	1995	0.41 ug/L		84
133)	hexachloroethane	17.54	201	976	0.41 ug/L		83

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127391.D Vial: 3
Acq On : 5 Feb 2015 4:44 pm Operator: bridgetk
Sample : ic5744-0.5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.36	65	118872	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	398583	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	392928	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	335376	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	186830	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	3017	1.16	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery =	2.32%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	3137	0.99	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery =	1.98%#			
82) toluene-d8 (s)	13.31	98	7774	0.96	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	1.92%#			
108) 4-bromofluorobenzene (s)	15.78	95	3430	1.13	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery =	2.26%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	1100	4.39	ug/L		52
3) ethanol	6.95	45	2414m	87.02	ug/L		
9) chlorodifluoromethane	4.47	51	2768	0.90	ug/L		74
12) chloromethane	4.84	50	3547	0.90	ug/L		89
13) vinyl chloride	5.16	62	3356	0.94	ug/L		93
15) bromomethane	5.88	94	2506	1.03	ug/L		76
16) chloroethane	6.11	64	1529	0.94	ug/L	#	63
18) trichlorofluoromethane	6.67	101	3581m	0.78	ug/L		
20) ethyl ether	7.15	74	1385	1.06	ug/L		83
21) acrolein	7.38	56	443819	1118.02	ug/L		99
22) 2-chloropropane	7.35	43	5025	1.21	ug/L	#	1
24) 1,1-dichloroethene	7.62	96	3073	1.36	ug/L		85
26) allyl chloride	8.20	76	1393	1.06	ug/L	#	71
28) iodomethane	7.91	142	5813	1.14	ug/L		97
30) carbon disulfide	8.06	76	8766	1.16	ug/L		95
31) methylene chloride	8.39	84	3350	1.32	ug/L		91
33) 1-chloropropane	8.46	42	5707	1.35	ug/L		95
34) methyl tert butyl ether	8.82	73	8928	1.18	ug/L		99
35) trans-1,2-dichloroethene	8.83	96	2975	1.24	ug/L		84
36) di-isopropyl ether	9.49	45	7590	1.00	ug/L		91
38) 1,1-dichloroethane	9.45	63	5218	1.18	ug/L		97
39) chloroprene	9.58	53	3050	0.90	ug/L		78
40) acrylonitrile	8.74	53	4645	5.15	ug/L		86
42) ethyl tert-butyl ether	9.99	59	7819	0.94	ug/L		96
44) 2,2-dichloropropane	10.26	77	4736	1.28	ug/L		95
45) cis-1,2-dichloroethene	10.23	96	3175	1.17	ug/L		89
46) propionitrile	10.29	54	3327	10.47	ug/L		97
47) bromochloromethane	10.55	128	1545	1.05	ug/L	#	67
48) tetrahydrofuran	10.64	42	753	1.18	ug/L	#	48
49) chloroform	10.62	83	5199	1.15	ug/L		91
50) t-butyl formate	10.70	59	2050	0.89	ug/L		88
54) methacrylonitrile	10.50	41	1311	0.92	ug/L		87
55) 1,1,1-trichloroethane	10.92	97	4457	1.09	ug/L		86

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
56)	Cyclohexane	11.02	84	3458	1.07 ug/L	#	83
61)	epichlorohydrin	12.91	57	880	4.38 ug/L		51
63)	carbon tetrachloride	11.14	117	4678	1.24 ug/L		98
64)	1,1-dichloropropene	11.10	75	3798	1.30 ug/L		89
65)	hexane	9.22	57	2317	0.97 ug/L		93
66)	benzene	11.36	78	10195	1.24 ug/L		90
67)	2,2,4-trimethylpentane	11.42	57	7742	1.05 ug/L		89
68)	tert-amyl methyl ether	11.44	73	7024	1.01 ug/L		90
69)	heptane	11.58	57	1370	0.96 ug/L	#	65
70)	isopropyl acetate	11.30	43	3727	0.95 ug/L		82
71)	1,2-dichloroethane	11.35	62	3895	1.14 ug/L		85
72)	trichloroethene	12.06	95	2462	1.07 ug/L		93
75)	2-chloroethyl vinyl ether	12.81	63	5910	4.47 ug/L		91
76)	methyl methacrylate	12.33	100	393	0.72 ug/L	#	43
77)	1,2-dichloropropane	12.31	63	2288	1.08 ug/L		92
78)	dibromomethane	12.44	93	1640	1.08 ug/L		97
79)	methylcyclohexane	12.32	83	3367	0.97 ug/L		88
80)	bromodichloromethane	12.57	83	3709	1.11 ug/L		81
81)	cis-1,3-dichloropropene	13.01	75	4047	1.09 ug/L		95
84)	toluene	13.38	92	5777	1.17 ug/L		86
85)	3-methyl-1-butanol	13.11	55	1195	14.19 ug/L		74
86)	trans-1,3-dichloropropene	13.53	75	3965	1.10 ug/L		92
87)	ethyl methacrylate	13.56	69	2284	0.88 ug/L		94
88)	1,1,2-trichloroethane	13.73	83	1749	1.05 ug/L	#	71
91)	butyl ether	14.69	57	8143	0.97 ug/L	#	92
92)	tetrachloroethene	13.93	164	2517	1.18 ug/L		85
93)	1,3-dichloropropane	13.91	76	3374	1.04 ug/L		95
94)	butyl acetate	14.00	56	1068	0.91 ug/L		82
96)	dibromochloromethane	14.15	129	2973	1.02 ug/L		91
97)	1,2-dibromoethane	14.29	107	2304	1.01 ug/L		95
98)	chlorobenzene	14.74	112	6522	1.14 ug/L		94
99)	1,1,1,2-tetrachloroethane	14.80	131	2845	1.10 ug/L		93
100)	ethylbenzene	14.81	91	10736	1.17 ug/L		99
101)	m,p-xylene	14.90	106	8158	2.32 ug/L		97
102)	o-xylene	15.29	106	4277	1.12 ug/L		96
103)	styrene	15.29	104	5690	0.92 ug/L		98
105)	bromoform	15.51	173	2116	0.91 ug/L		94
107)	isopropylbenzene	15.61	105	10717	1.07 ug/L		92
110)	bromobenzene	15.97	156	3470	1.12 ug/L		92
111)	1,1,2,2-tetrachloroethane	15.85	83	2890	1.10 ug/L		99
112)	trans-1,4-dichloro-2-buten	15.90	53	558	0.81 ug/L		96
113)	1,2,3-trichloropropane	15.92	110	690	0.93 ug/L		71
114)	n-propylbenzene	15.99	91	11452	1.09 ug/L		94
115)	2-chlorotoluene	16.12	126	2962m	1.18 ug/L		
116)	4-chlorotoluene	16.21	91	7649	1.10 ug/L		99
117)	1,3,5-trimethylbenzene	16.13	105	9150	1.12 ug/L		92
118)	tert-butylbenzene	16.45	119	7993	1.04 ug/L		97
119)	pentachloroethane	16.51	167	2187	1.04 ug/L		94
120)	1,2,4-trimethylbenzene	16.49	105	8541	1.04 ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:51 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

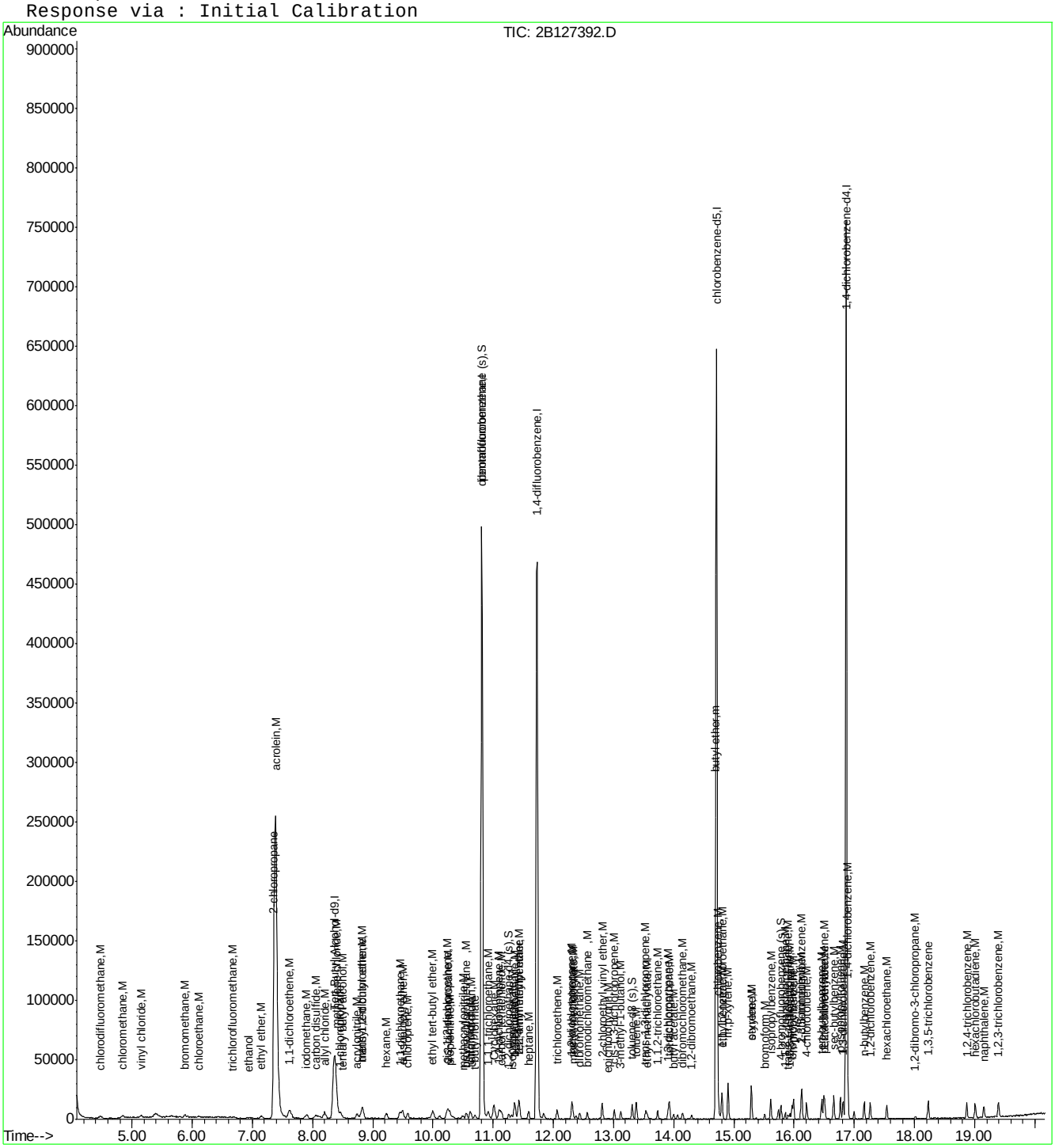
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
121)	sec-butylbenzene	16.66	105	12037	1.10	ug/L		94
122)	1,3-dichlorobenzene	16.81	146	6214	1.14	ug/L		96
123)	p-isopropyltoluene	16.77	119	9840	1.02	ug/L		95
124)	1,4-dichlorobenzene	16.89	146	6121	1.13	ug/L		98
125)	1,2-dichlorobenzene	17.27	146	5871	1.03	ug/L		98
126)	n-butylbenzene	17.17	92	4666	0.99	ug/L		90
127)	1,2-dibromo-3-chloropropan	18.01	75	523	0.92	ug/L	#	70
128)	1,3,5-trichlorobenzene	18.23	180	5558	0.96	ug/L		91
129)	1,2,4-trichlorobenzene	18.86	180	4553	0.87	ug/L		94
130)	hexachlorobutadiene	19.01	225	3079	1.10	ug/L		84
131)	naphthalene	19.15	128	7462	0.81	ug/L		97
132)	1,2,3-trichlorobenzene	19.39	180	4125	0.88	ug/L		96
133)	hexachloroethane	17.54	201	2025	0.89	ug/L		82

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:22 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

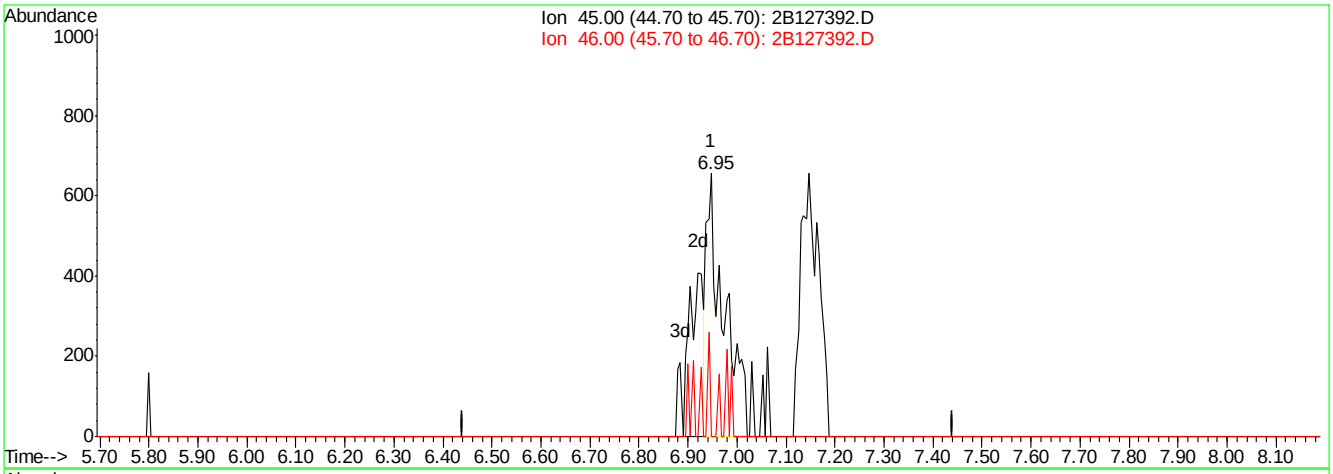
Sample Number: V2B5744-IC5744
Lab FileID: 2B127392.D
Injection Time: 02/05/15 17:13
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

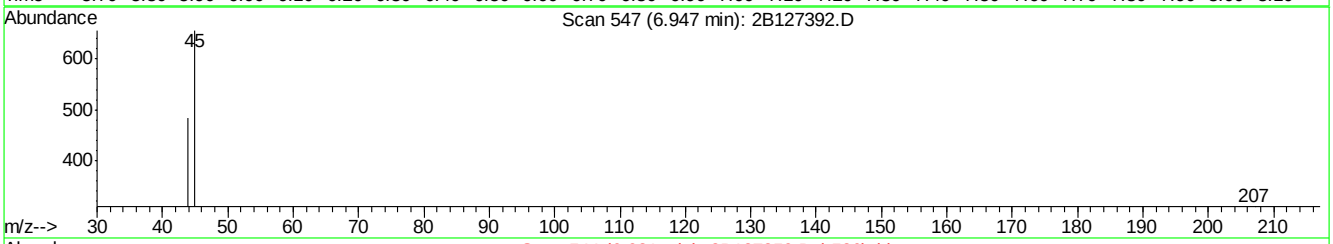
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.67	Split peak
Ethanol	64-17-5		6.95	Split peak
o-Chlorotoluene	95-49-8		16.12	Missed peak

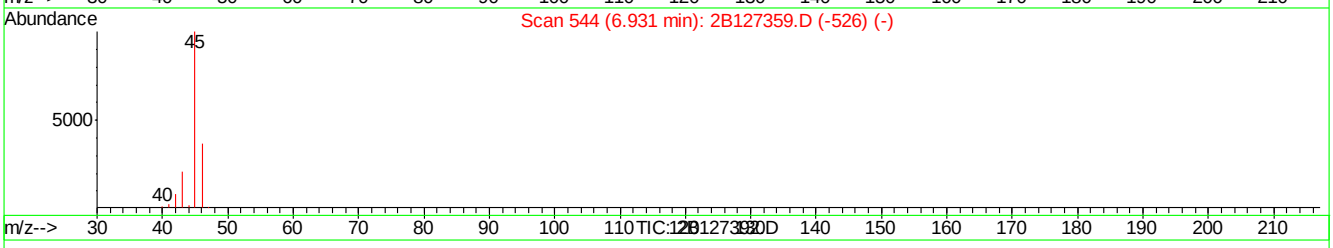
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:27 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(3) ethanol

6.95min 58.43ug/L

response 1621

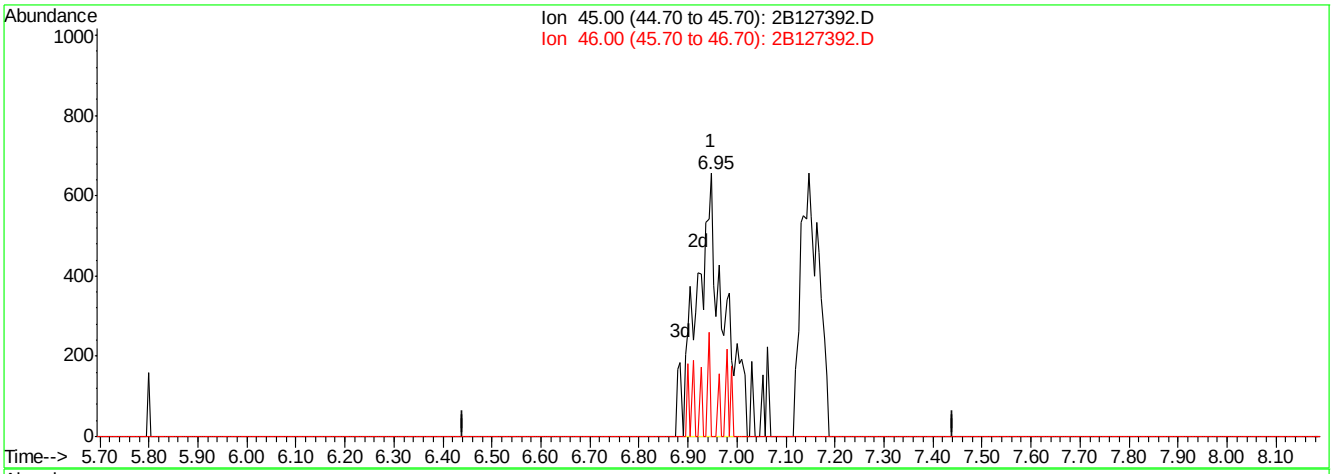
Ion	Exp%	Act%
45.00	100	100
46.00	41.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

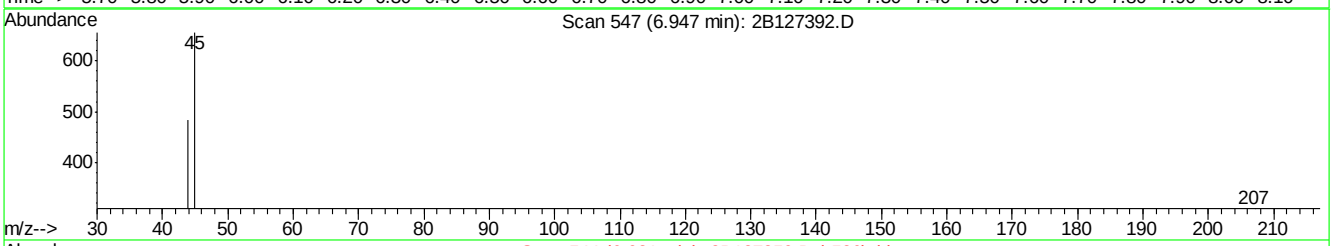
2B127392.D M2B5744.M Fri Feb 06 09:28:56 2015 MS2B

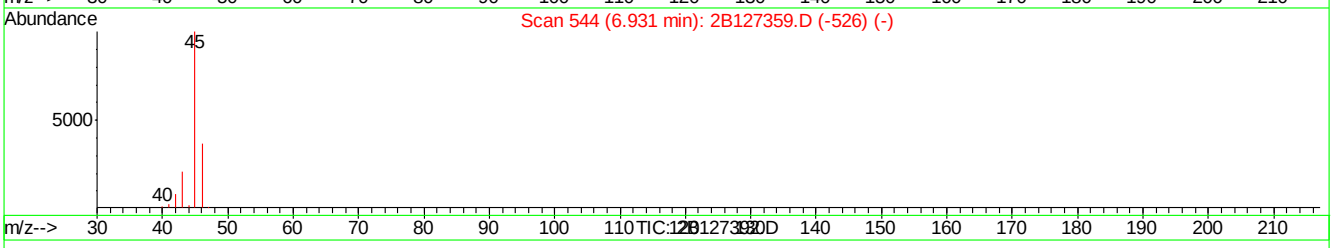
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:29 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(3) ethanol

6.95min 87.02ug/L m

response 2414

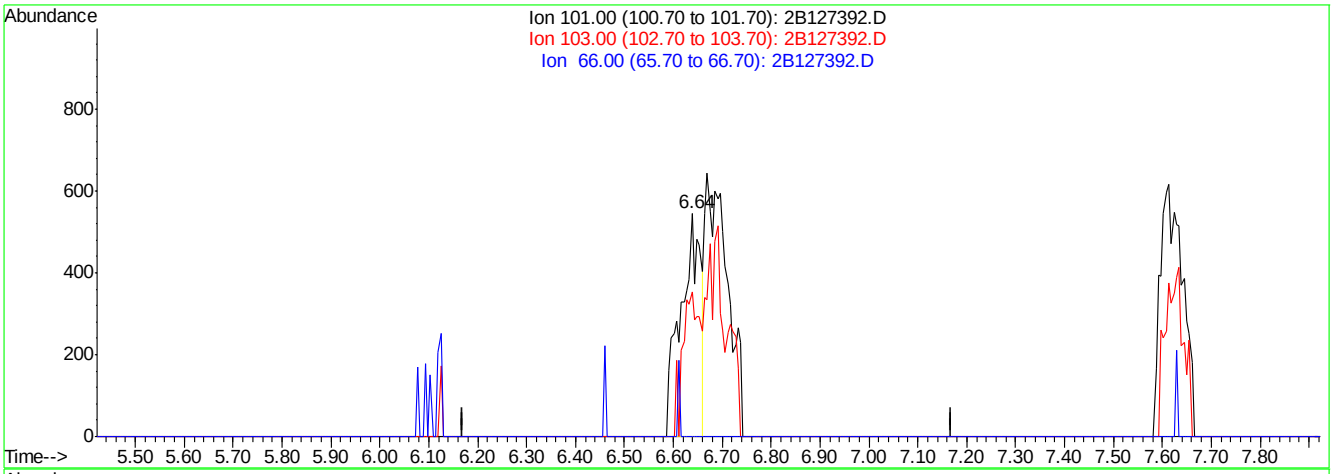
Ion	Exp%	Act%
45.00	100	100
46.00	41.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

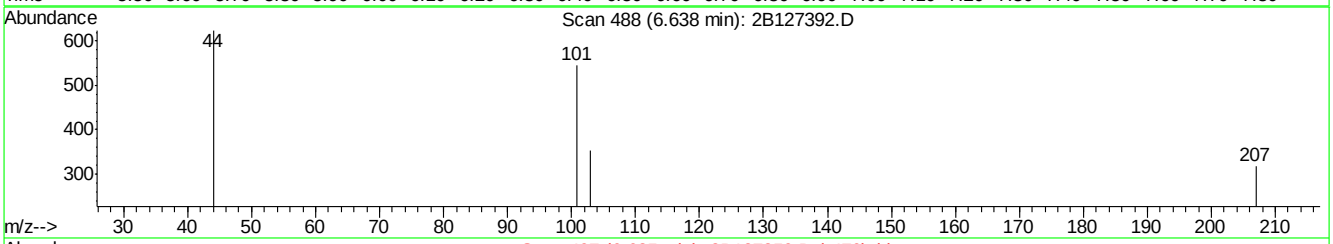
2B127392.D M2B5744.M Fri Feb 06 09:29:45 2015 MS2B

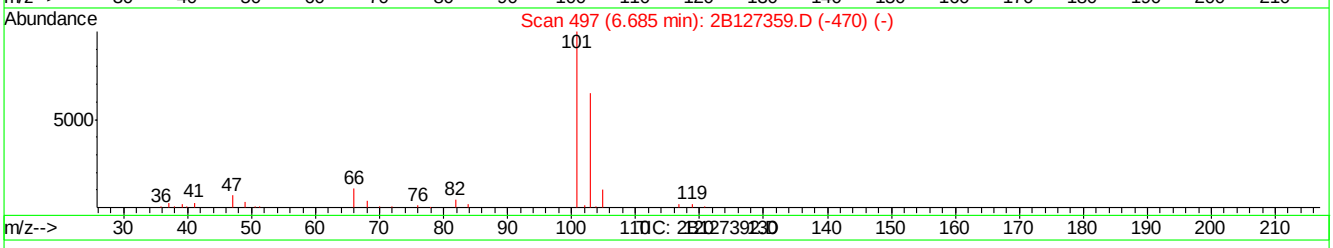
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:29 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.64min 0.33ug/L

response 1524

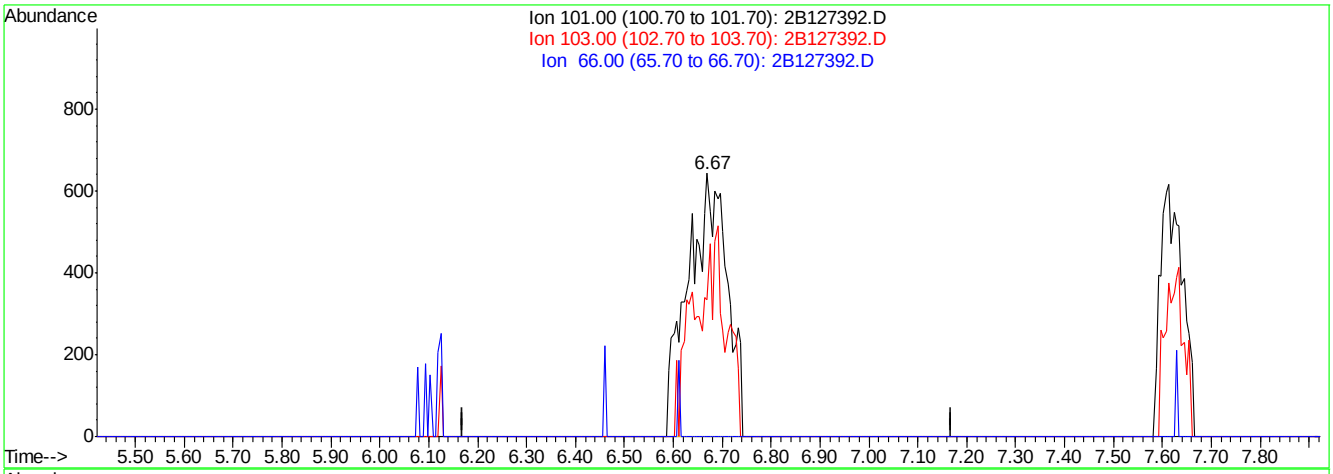
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	64.65
66.00	11.60	0.00
0.00	0.00	0.00

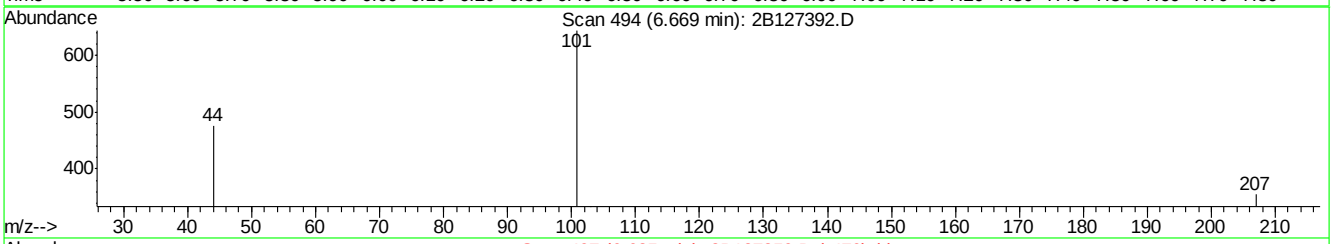
2B127392.D M2B5744.M Fri Feb 06 09:32:35 2015 MS2B

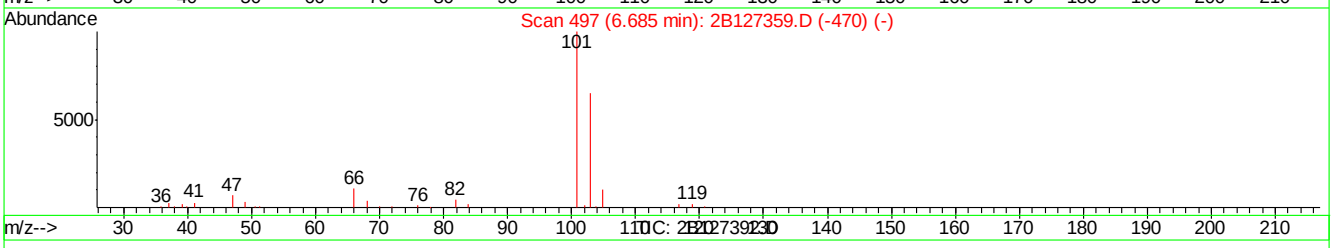
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:32 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.67min 0.78ug/L m

response 3581

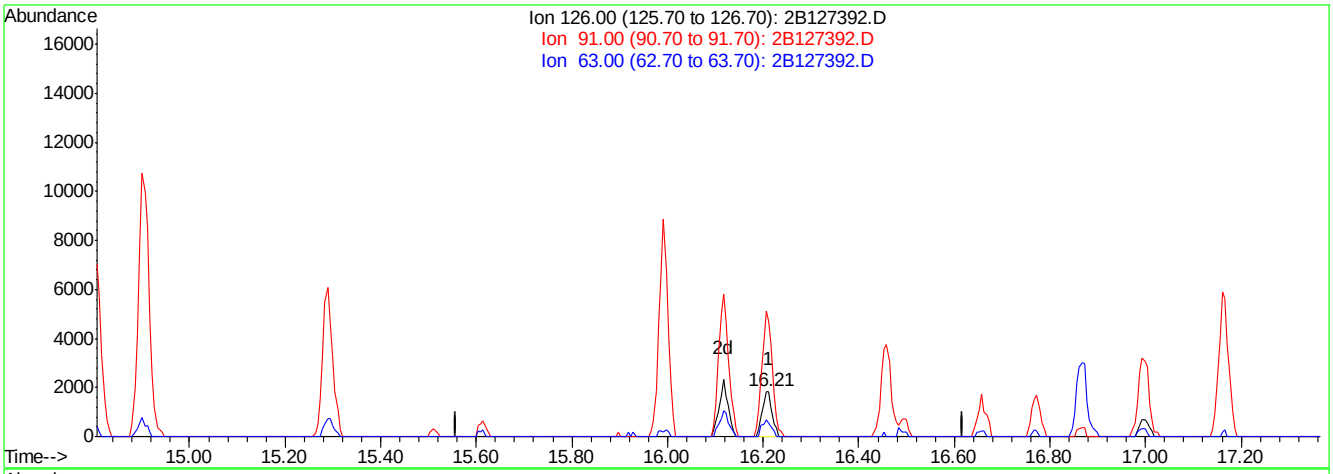
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	51.94
66.00	11.60	0.00
0.00	0.00	0.00

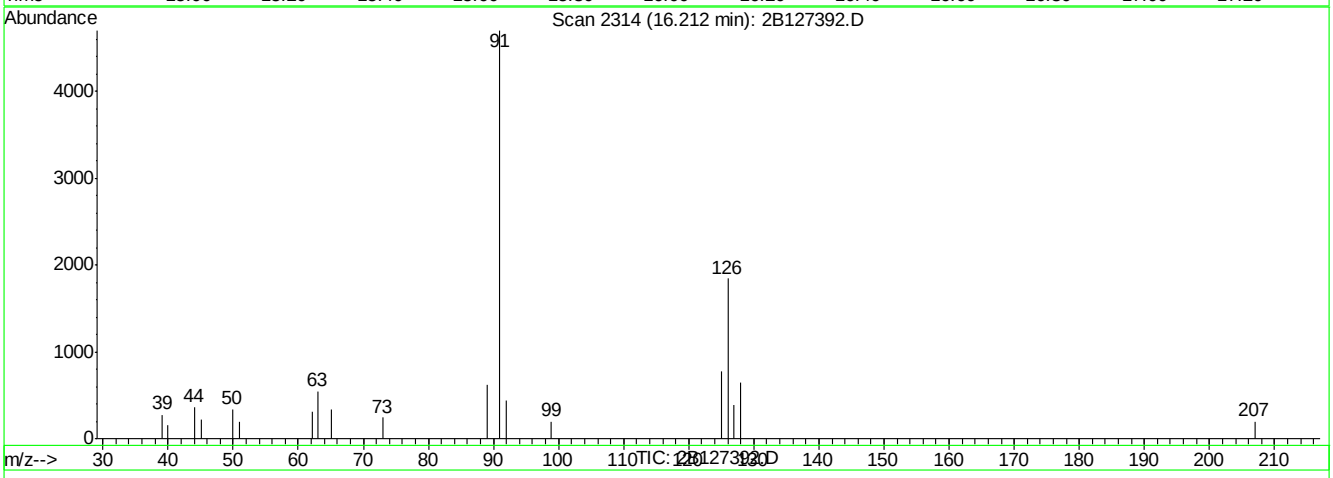
2B127392.D M2B5744.M Fri Feb 06 09:32:46 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:15:05 2015
Response via : Multiple Level Calibration





(115) 2-chlorotoluene (M)

16.21min 1.02ug/L

response 2566

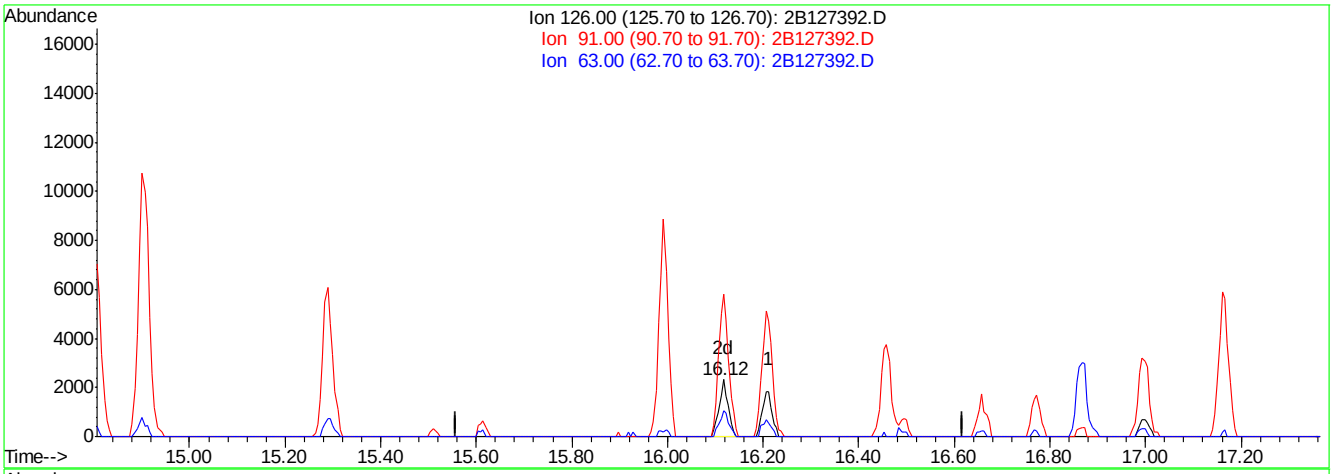
Ion	Exp%	Act%
126.00	100	100
91.00	282.30	255.18
63.00	45.00	29.68
0.00	0.00	0.00

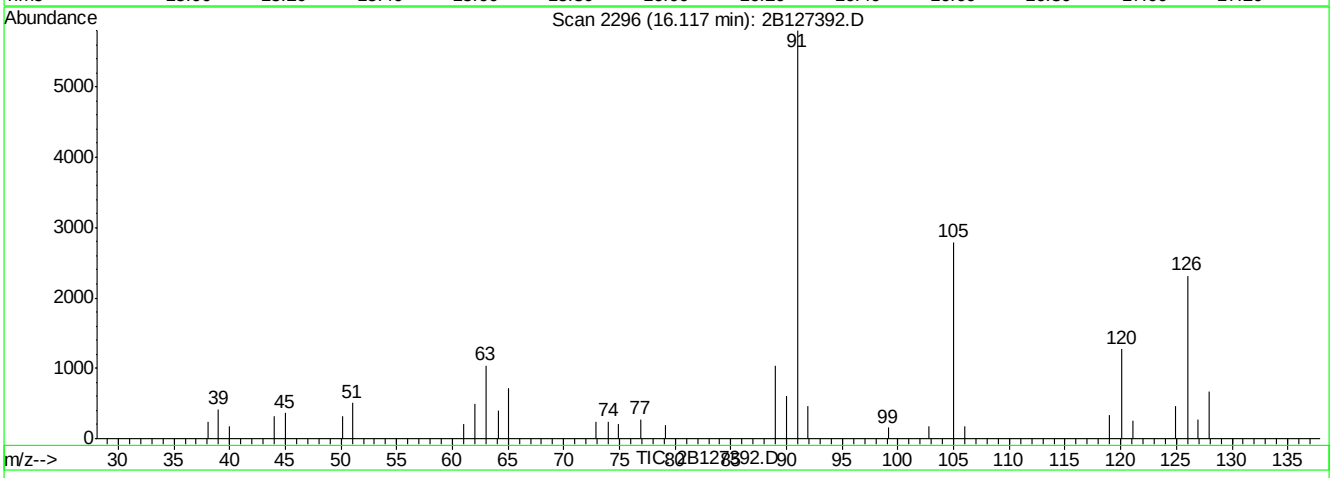
2B127392.D M2B5744.M Fri Feb 06 16:21:52 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127392.D Vial: 4
Acq On : 5 Feb 2015 5:13 pm Operator: bridgetk
Sample : ic5744-1 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:22 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:15:05 2015
Response via : Multiple Level Calibration





(115) 2-chlorotoluene (M)

16.12min 1.18ug/L m

response 2962

Ion	Exp%	Act%
126.00	100	100
91.00	282.30	250.58#
63.00	45.00	44.92
0.00	0.00	0.00

2B127392.D M2B5744.M Fri Feb 06 16:22:39 2015 MS2B

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	115960	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	402095	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	398407	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	342317	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	185887	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	4766	1.82	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 3.64%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	5703	1.79	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 3.58%#				
82) toluene-d8 (s)	13.31	98	14798	1.80	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 3.60%#				
108) 4-bromofluorobenzene (s)	15.78	95	5875	1.95	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 3.90%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.51	59	2196	8.98	ug/L		78
3) ethanol	6.92	45	5285	195.29	ug/L	#	76
4) 1,4-dioxane	12.43	88	894	37.62	ug/L		66
9) chlorodifluoromethane	4.49	51	4941	1.59	ug/L		99
10) dichlorodifluoromethane	4.49	85	5571	1.41	ug/L		85
12) chloromethane	4.84	50	6092	1.54	ug/L		98
13) vinyl chloride	5.17	62	5677	1.58	ug/L		93
15) bromomethane	5.89	94	4423	1.81	ug/L		99
16) chloroethane	6.09	64	2537	1.54	ug/L		95
18) trichlorofluoromethane	6.68	101	6433m	1.39	ug/L		
20) ethyl ether	7.16	74	2565	1.95	ug/L	#	83
21) acrolein	7.38	56	873443	2181.06	ug/L		98
22) 2-chloropropane	7.36	43	9169	2.20	ug/L	#	1
24) 1,1-dichloroethene	7.61	96	5026	2.21	ug/L		85
26) allyl chloride	8.21	76	2558	1.94	ug/L		93
28) iodomethane	7.91	142	10763	2.09	ug/L		94
30) carbon disulfide	8.06	76	16242	2.13	ug/L		92
31) methylene chloride	8.39	84	5491	2.14	ug/L		83
33) 1-chloropropane	8.47	42	9869	2.32	ug/L		93
34) methyl tert butyl ether	8.82	73	16064	2.10	ug/L		97
35) trans-1,2-dichloroethene	8.84	96	5623	2.32	ug/L		90
36) di-isopropyl ether	9.49	45	13738	1.79	ug/L		99
38) 1,1-dichloroethane	9.44	63	9562	2.14	ug/L		99
39) chloroprene	9.58	53	6043	1.78	ug/L		93
40) acrylonitrile	8.74	53	8837	9.72	ug/L		79
42) ethyl tert-butyl ether	9.99	59	14085	1.67	ug/L		100
44) 2,2-dichloropropane	10.26	77	8340	2.24	ug/L		97
45) cis-1,2-dichloroethene	10.23	96	6220	2.27	ug/L		77
46) propionitrile	10.28	54	6395	19.96	ug/L		95
47) bromochloromethane	10.56	128	3186	2.15	ug/L		71
48) tetrahydrofuran	10.63	42	1320	2.05	ug/L		78
49) chloroform	10.62	83	9918	2.18	ug/L		88
50) t-butyl formate	10.70	59	3493	1.51	ug/L		90

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	methacrylonitrile	10.50	41	2843	1.99	ug/L		89
55)	1,1,1-trichloroethane	10.92	97	8350	2.02	ug/L		98
56)	Cyclohexane	11.02	84	7203	2.20	ug/L		92
61)	epichlorohydrin	12.91	57	1832	8.99	ug/L		94
62)	n-butyl alcohol	11.83	56	4367	77.16	ug/L		86
63)	carbon tetrachloride	11.14	117	8775	2.29	ug/L		88
64)	1,1-dichloropropene	11.11	75	6541	2.21	ug/L		97
65)	hexane	9.23	57	4363	1.81	ug/L		86
66)	benzene	11.37	78	19007	2.29	ug/L		98
67)	2,2,4-trimethylpentane	11.42	57	13624	1.83	ug/L		93
68)	tert-amyl methyl ether	11.44	73	13714	1.94	ug/L		92
69)	heptane	11.59	57	2358	1.63	ug/L		89
70)	isopropyl acetate	11.30	43	7318	1.84	ug/L		93
71)	1,2-dichloroethane	11.35	62	7740	2.24	ug/L		96
72)	trichloroethene	12.06	95	4905	2.10	ug/L		92
75)	2-chloroethyl vinyl ether	12.81	63	11752	8.76	ug/L		95
76)	methyl methacrylate	12.34	100	917	1.67	ug/L	#	37
77)	1,2-dichloropropane	12.31	63	4557	2.12	ug/L		91
78)	dibromomethane	12.44	93	3368	2.19	ug/L		93
79)	methylcyclohexane	12.31	83	5485	1.56	ug/L		88
80)	bromodichloromethane	12.57	83	7215	2.12	ug/L		96
81)	cis-1,3-dichloropropene	13.01	75	7433	1.97	ug/L		92
83)	4-methyl-2-pentanone	13.12	58	1362	1.79	ug/L	#	88
84)	toluene	13.38	92	11312	2.25	ug/L		96
85)	3-methyl-1-butanol	13.12	55	2756	32.27	ug/L		93
86)	trans-1,3-dichloropropene	13.53	75	7406	2.03	ug/L		99
87)	ethyl methacrylate	13.56	69	4643	1.77	ug/L		95
88)	1,1,2-trichloroethane	13.73	83	3553	2.11	ug/L		82
89)	2-hexanone	13.92	58	1168	1.80	ug/L	#	79
91)	butyl ether	14.69	57	16138	1.89	ug/L		93
92)	tetrachloroethene	13.93	164	4978	2.29	ug/L		94
93)	1,3-dichloropropane	13.90	76	6491	1.97	ug/L		96
94)	butyl acetate	14.00	56	1865	1.56	ug/L	#	75
95)	3,3-dimethyl-1-butanol	14.06	57	2568	14.90	ug/L		98
96)	dibromochloromethane	14.15	129	5549	1.87	ug/L		97
97)	1,2-dibromoethane	14.29	107	4912	2.12	ug/L		88
98)	chlorobenzene	14.74	112	12373	2.13	ug/L		95
99)	1,1,1,2-tetrachloroethane	14.79	131	5166	1.96	ug/L		96
100)	ethylbenzene	14.81	91	20298	2.17	ug/L		92
101)	m,p-xylene	14.90	106	14981	4.17	ug/L		98
102)	o-xylene	15.29	106	8091	2.08	ug/L		92
103)	styrene	15.29	104	12296	1.94	ug/L		97
105)	bromoform	15.51	173	4258	1.80	ug/L		94
107)	isopropylbenzene	15.61	105	21291	2.14	ug/L		98
109)	cyclohexanone	15.74	98	2391	24.77	ug/L		99
110)	bromobenzene	15.97	156	6372	2.07	ug/L		88
111)	1,1,2,2-tetrachloroethane	15.86	83	5516	2.11	ug/L		95
112)	trans-1,4-dichloro-2-buten	15.90	53	1392	2.04	ug/L		82
113)	1,2,3-trichloropropane	15.93	110	1405	1.90	ug/L		91

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 08:59:59 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

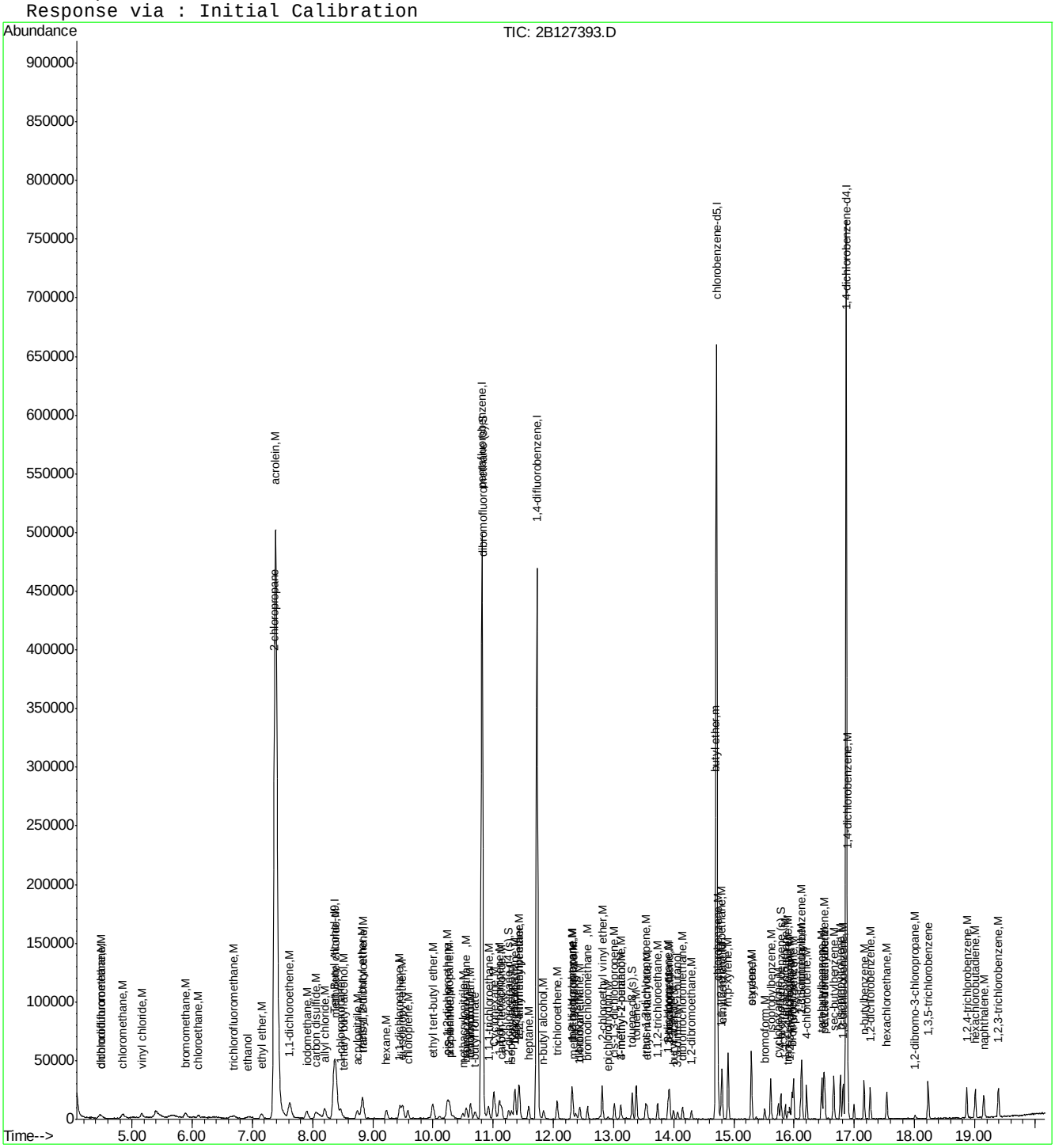
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
114)	n-propylbenzene	15.99	91	24428	2.34	ug/L	98
115)	2-chlorotoluene	16.12	126	5298	2.12	ug/L	95
116)	4-chlorotoluene	16.21	91	15291	2.21	ug/L	92
117)	1,3,5-trimethylbenzene	16.13	105	17659	2.17	ug/L	97
118)	tert-butylbenzene	16.46	119	15135	1.98	ug/L	96
119)	pentachloroethane	16.51	167	4310	2.05	ug/L	90
120)	1,2,4-trimethylbenzene	16.49	105	16718	2.05	ug/L	99
121)	sec-butylbenzene	16.66	105	22818	2.10	ug/L	100
122)	1,3-dichlorobenzene	16.81	146	11691	2.15	ug/L	93
123)	p-isopropyltoluene	16.77	119	19355	2.02	ug/L	95
124)	1,4-dichlorobenzene	16.89	146	11805	2.19	ug/L	96
125)	1,2-dichlorobenzene	17.27	146	10929	1.93	ug/L	91
126)	n-butylbenzene	17.17	92	8789	1.88	ug/L	91
127)	1,2-dibromo-3-chloropropan	18.01	75	932	1.65	ug/L	87
128)	1,3,5-trichlorobenzene	18.23	180	10999	1.92	ug/L	95
129)	1,2,4-trichlorobenzene	18.86	180	8640	1.66	ug/L	92
130)	hexachlorobutadiene	19.01	225	5688	2.04	ug/L	84
131)	naphthalene	19.15	128	15191	1.65	ug/L	95
132)	1,2,3-trichlorobenzene	19.39	180	8373	1.81	ug/L	97
133)	hexachloroethane	17.54	201	4445	1.96	ug/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:25 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

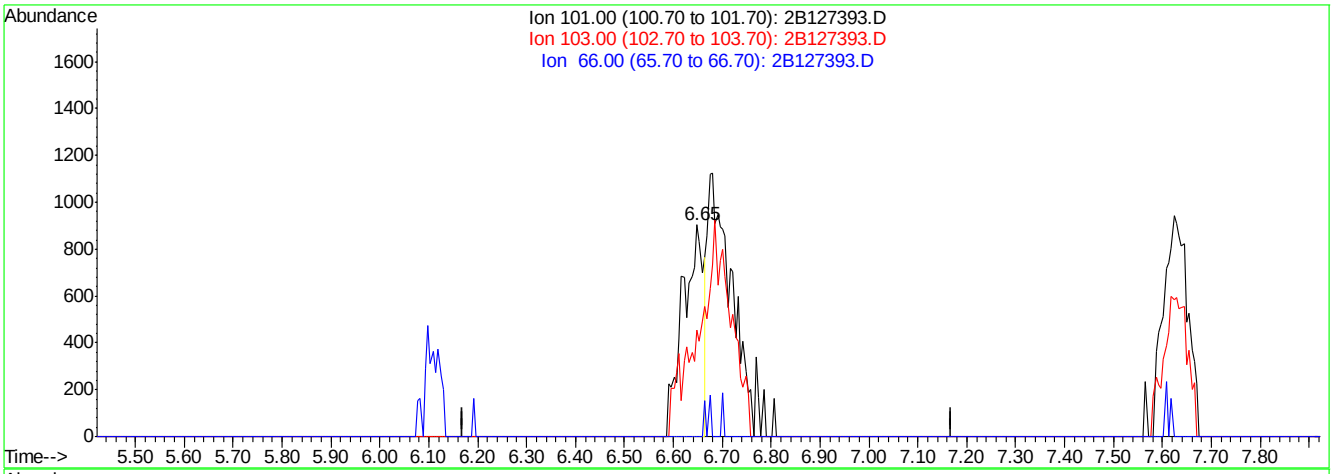
Sample Number: V2B5744-IC5744
Lab FileID: 2B127393.D
Injection Time: 02/05/15 17:42
Method: SW846 8260C
Analyst approved: 02/06/15 17:04 Maricela Delgaolillo
Supervisor approved: 02/09/15 17:03 Jessica Reitan-Chu

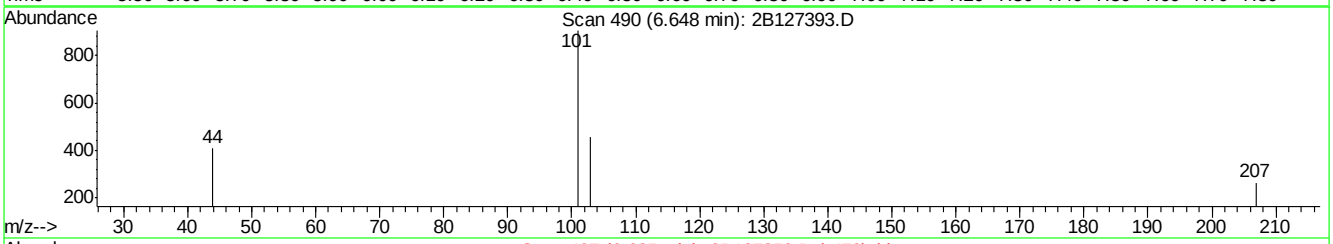
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.68	Split peak

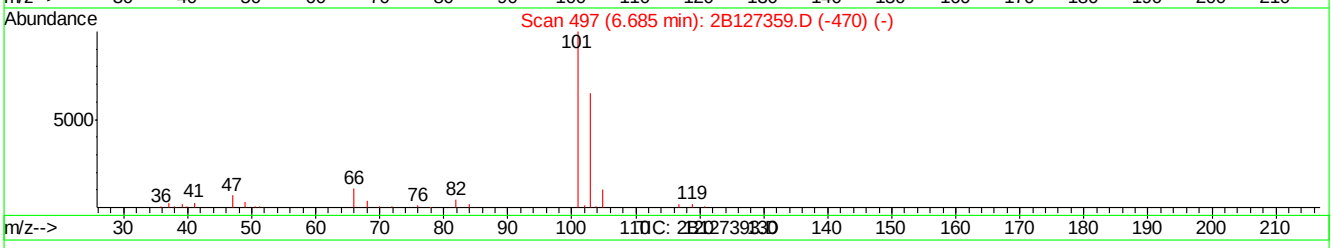
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:44 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.65min 0.57ug/L

response 2667

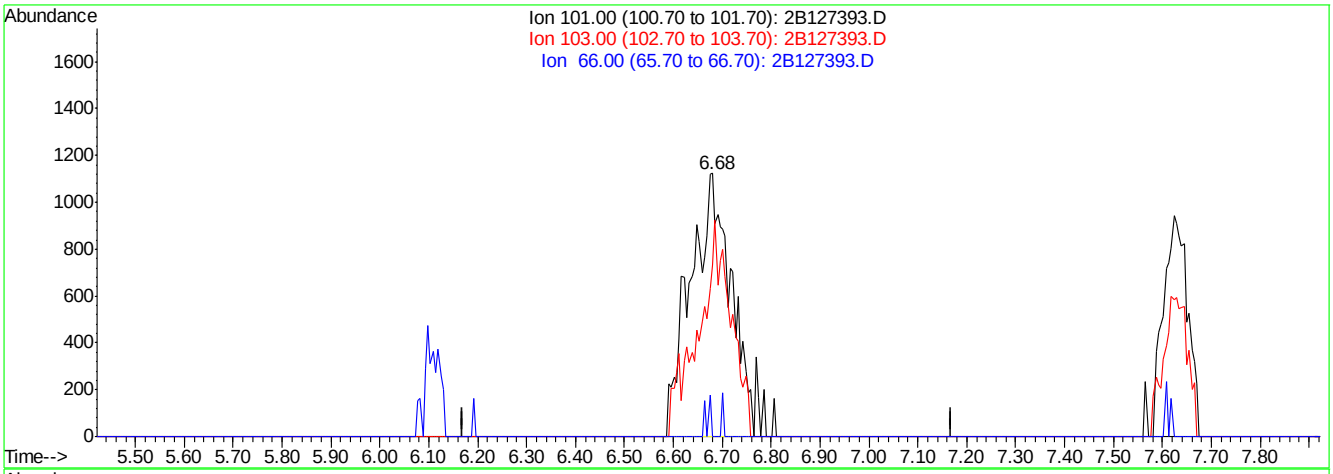
Ion	Exp%	Act%
101.00	100	100
103.00	61.30	50.44
66.00	11.60	0.00
0.00	0.00	0.00

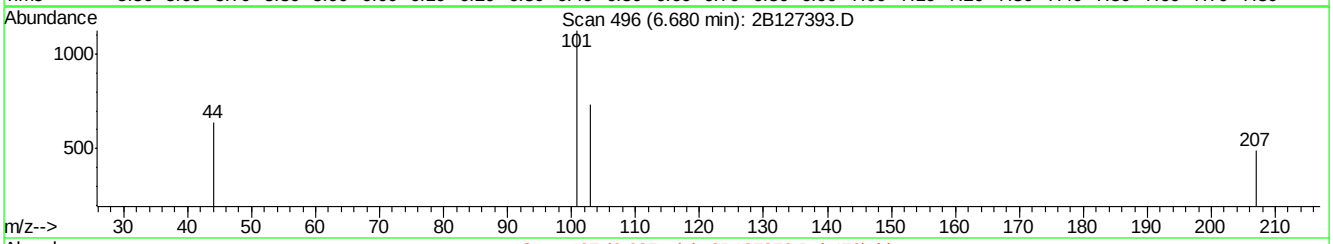
2B127393.D M2B5744.M Fri Feb 06 09:45:02 2015 MS2B

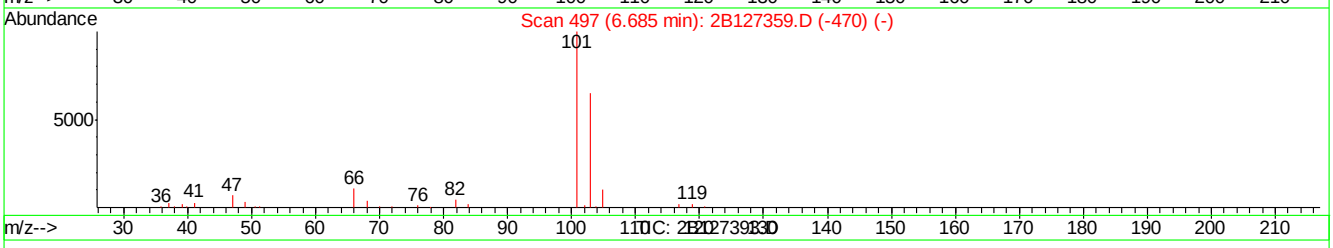
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127393.D Vial: 5
Acq On : 5 Feb 2015 5:42 pm Operator: bridgetk
Sample : ic5744-2 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 9:45 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Multiple Level Calibration







(18) trichlorofluoromethane (M)

6.68min 1.39ug/L m

response 6433

Ion	Exp%	Act%
101.00	100	100
103.00	61.30	65.21
66.00	11.60	0.00
0.00	0.00	0.00

2B127393.D M2B5744.M Fri Feb 06 09:45:18 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	120373	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	400629	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	399092	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	341999	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	185204	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	12124	4.65	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 9.30%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	14328	4.52	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 9.04%#				
82) toluene-d8 (s)	13.31	98	36678	4.46	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 8.92%#				
108) 4-bromofluorobenzene (s)	15.78	95	13926	4.63	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 9.26%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	6449	25.41	ug/L		79
3) ethanol	6.93	45	13830	492.30	ug/L	#	34
4) 1,4-dioxane	12.43	88	2743	111.19	ug/L		93
9) chlorodifluoromethane	4.49	51	13215	4.25	ug/L		93
10) dichlorodifluoromethane	4.46	85	15793	4.00	ug/L		92
12) chloromethane	4.86	50	17383	4.40	ug/L		92
13) vinyl chloride	5.16	62	15715	4.40	ug/L		99
15) bromomethane	5.90	94	11675	4.79	ug/L		84
16) chloroethane	6.11	64	7228	4.40	ug/L		98
18) trichlorofluoromethane	6.69	101	20512	4.44	ug/L		90
20) ethyl ether	7.15	74	5643	4.30	ug/L		88
21) acrolein	7.39	56	19100	47.87	ug/L		97
22) 2-chloropropane	7.35	43	20375	4.90	ug/L		95
24) 1,1-dichloroethene	7.62	96	11513	5.09	ug/L		93
25) acetone	7.64	43	3733	5.07	ug/L		94
26) allyl chloride	8.20	76	5967	4.53	ug/L		88
27) acetonitrile	8.13	40	6865	49.98	ug/L		87
28) iodomethane	7.91	142	24094	4.69	ug/L		93
29) iso-butyl alcohol	11.09	74	1216	43.85	ug/L	#	81
30) carbon disulfide	8.07	76	35970	4.74	ug/L		96
31) methylene chloride	8.40	84	12440	4.86	ug/L		94
32) methyl acetate	8.20	74	1861	4.64	ug/L	#	70
33) 1-chloropropane	8.47	42	20527	4.84	ug/L		98
34) methyl tert butyl ether	8.82	73	35778	4.69	ug/L		99
35) trans-1,2-dichloroethene	8.84	96	12467	5.17	ug/L		85
36) di-isopropyl ether	9.50	45	35492	4.65	ug/L		94
37) 2-butanone	10.21	72	1102	4.16	ug/L		93
38) 1,1-dichloroethane	9.45	63	20706	4.65	ug/L		95
39) chloroprene	9.58	53	16026	4.73	ug/L		95
40) acrylonitrile	8.75	53	20425	22.55	ug/L		94
42) ethyl tert-butyl ether	10.00	59	37186	4.44	ug/L		95
43) ethyl acetate	10.26	45	1263	4.18	ug/L	#	1
44) 2,2-dichloropropane	10.27	77	17736	4.78	ug/L		96

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	cis-1,2-dichloroethene	10.23	96	13118	4.81	ug/L		94
46)	propionitrile	10.28	54	14781	46.30	ug/L		98
47)	bromochloromethane	10.56	128	6801	4.62	ug/L		85
48)	tetrahydrofuran	10.62	42	3115	4.85	ug/L		99
49)	chloroform	10.63	83	21828	4.81	ug/L		97
50)	t-butyl formate	10.70	59	10052	4.35	ug/L		91
53)	freon 113	7.63	151	9137	4.64	ug/L		83
54)	methacrylonitrile	10.49	41	6456	4.53	ug/L		92
55)	1,1,1-trichloroethane	10.93	97	18038	4.37	ug/L		98
56)	Cyclohexane	11.03	84	15403	4.72	ug/L		89
61)	epichlorohydrin	12.91	57	4618	22.61	ug/L		97
62)	n-butyl alcohol	11.83	56	12018	211.99	ug/L		87
63)	carbon tetrachloride	11.14	117	18267	4.76	ug/L		97
64)	1,1-dichloropropene	11.10	75	14511	4.89	ug/L		96
65)	hexane	9.23	57	11487	4.75	ug/L		94
66)	benzene	11.37	78	40648	4.88	ug/L		98
67)	2,2,4-trimethylpentane	11.42	57	31794	4.26	ug/L		97
68)	tert-amyl methyl ether	11.44	73	32479	4.58	ug/L		99
69)	heptane	11.59	57	6615	4.58	ug/L		89
70)	isopropyl acetate	11.30	43	18306	4.60	ug/L		94
71)	1,2-dichloroethane	11.35	62	16560	4.79	ug/L		99
72)	trichloroethene	12.06	95	10959	4.68	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	29173	21.71	ug/L		96
76)	methyl methacrylate	12.33	100	2470	4.48	ug/L	#	84
77)	1,2-dichloropropane	12.31	63	10007	4.64	ug/L		95
78)	dibromomethane	12.44	93	7378	4.78	ug/L		95
79)	methylcyclohexane	12.32	83	15925	4.53	ug/L		90
80)	bromodichloromethane	12.57	83	15465	4.54	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	17247	4.57	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	3581	4.69	ug/L	#	86
84)	toluene	13.38	92	23924	4.75	ug/L		100
85)	3-methyl-1-butanol	13.12	55	7839	91.62	ug/L		91
86)	trans-1,3-dichloropropene	13.53	75	16356	4.47	ug/L		90
87)	ethyl methacrylate	13.56	69	11172	4.25	ug/L		97
88)	1,1,2-trichloroethane	13.73	83	8208	4.86	ug/L		96
89)	2-hexanone	13.92	58	2747	4.23	ug/L		85
91)	butyl ether	14.69	57	36003	4.21	ug/L		97
92)	tetrachloroethene	13.93	164	10228	4.70	ug/L		96
93)	1,3-dichloropropane	13.90	76	15771	4.78	ug/L		88
94)	butyl acetate	13.99	56	5321	4.45	ug/L		90
95)	3,3-dimethyl-1-butanol	14.06	57	7553	43.87	ug/L		90
96)	dibromochloromethane	14.15	129	13378	4.52	ug/L		98
97)	1,2-dibromoethane	14.29	107	10632	4.59	ug/L		97
98)	chlorobenzene	14.74	112	27459	4.73	ug/L		94
99)	1,1,1,2-tetrachloroethane	14.79	131	12149	4.60	ug/L		94
100)	ethylbenzene	14.81	91	45370	4.85	ug/L		99
101)	m,p-xylene	14.90	106	33531	9.35	ug/L		98
102)	o-xylene	15.29	106	17156	4.41	ug/L		87
103)	styrene	15.29	104	26408	4.18	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 09:00:07 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 08:57:24 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

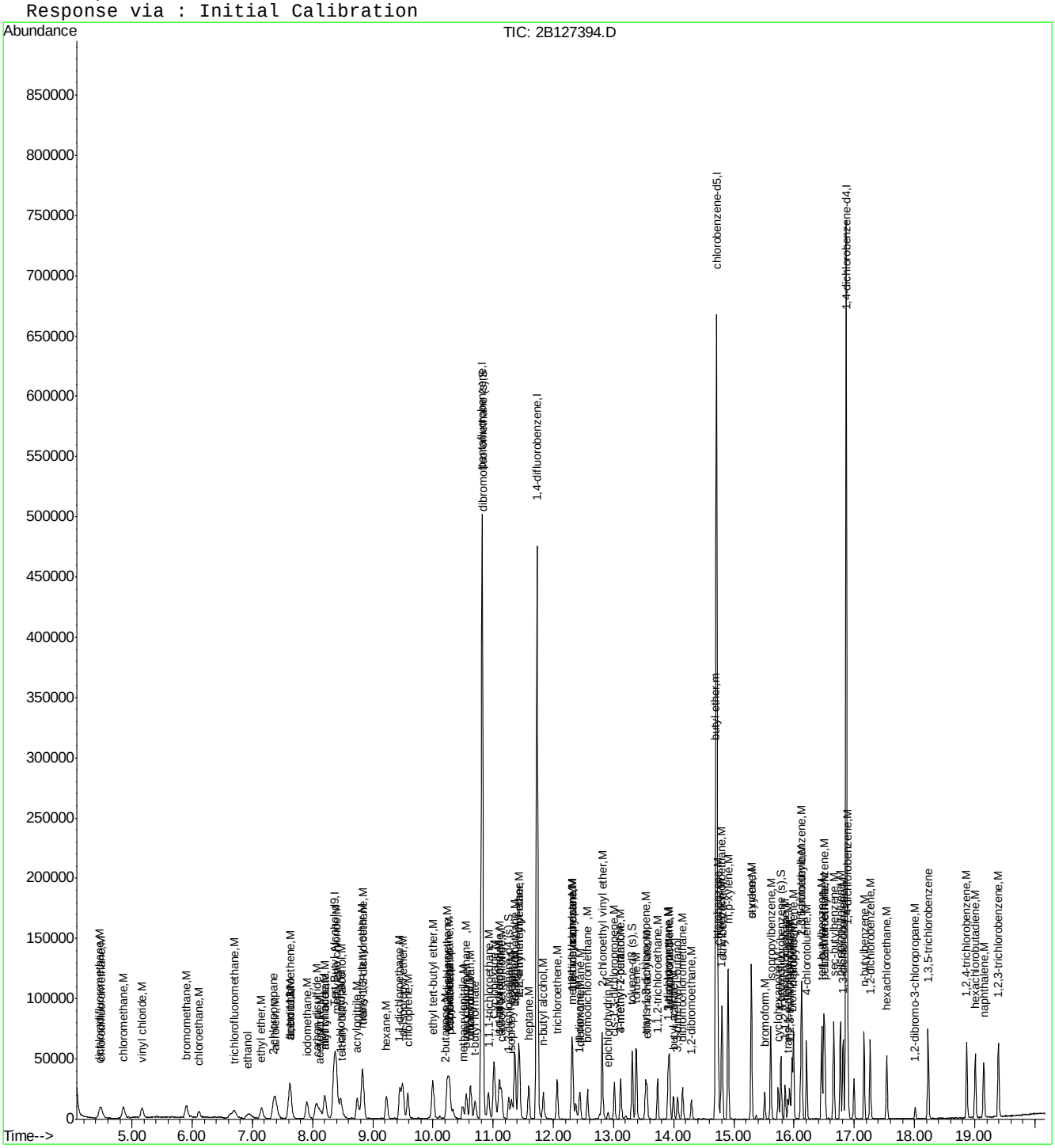
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
105) bromoform	15.51	173	9919	4.19	ug/L	97
107) isopropylbenzene	15.61	105	45185	4.55	ug/L	95
109) cyclohexanone	15.74	98	4855	50.48	ug/L	96
110) bromobenzene	15.97	156	14233	4.65	ug/L	91
111) 1,1,2,2-tetrachloroethane	15.85	83	12211	4.69	ug/L	91
112) trans-1,4-dichloro-2-buten	15.90	53	3120	4.60	ug/L	93
113) 1,2,3-trichloropropane	15.92	110	3450	4.68	ug/L	89
114) n-propylbenzene	15.99	91	49811	4.79	ug/L	97
115) 2-chlorotoluene	16.12	126	11405	4.58	ug/L	99
116) 4-chlorotoluene	16.21	91	33216	4.82	ug/L	98
117) 1,3,5-trimethylbenzene	16.13	105	38716	4.78	ug/L	95
118) tert-butylbenzene	16.46	119	33950	4.46	ug/L	98
119) pentachloroethane	16.51	167	9864	4.71	ug/L	94
120) 1,2,4-trimethylbenzene	16.49	105	37856	4.66	ug/L	97
121) sec-butylbenzene	16.66	105	48657	4.48	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	26164	4.84	ug/L	98
123) p-isopropyltoluene	16.77	119	42332	4.43	ug/L	95
124) 1,4-dichlorobenzene	16.89	146	24268	4.52	ug/L	98
125) 1,2-dichlorobenzene	17.27	146	26094	4.62	ug/L	95
126) n-butylbenzene	17.16	92	19565	4.19	ug/L	98
127) 1,2-dibromo-3-chloropropan	18.01	75	2444	4.34	ug/L	82
128) 1,3,5-trichlorobenzene	18.22	180	24837	4.35	ug/L	97
129) 1,2,4-trichlorobenzene	18.87	180	21363	4.12	ug/L	94
130) hexachlorobutadiene	19.01	225	12581	4.52	ug/L	92
131) naphthalene	19.15	128	36531	3.99	ug/L	98
132) 1,2,3-trichlorobenzene	19.39	180	18723	4.05	ug/L	95
133) hexachloroethane	17.54	201	8945	3.95	ug/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127394.D Vial: 6
Acq On : 5 Feb 2015 6:10 pm Operator: bridgetk
Sample : ic5744-5 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:09 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/09/15 17:03

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	116059	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	390368	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	388792	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	329213	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	184387	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	24229	9.51	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 19.02%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	29292	9.84	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 19.68%#				
82) toluene-d8 (s)	13.31	98	73257	9.36	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 18.72%#				
108) 4-bromofluorobenzene (s)	15.78	95	27962	9.39	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 18.78%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	12184	50.95	ug/L		81
3) ethanol	6.93	45	26009	1001.84	ug/L		96
4) 1,4-dioxane	12.42	88	5229	232.52	ug/L		92
9) chlorodifluoromethane	4.48	51	24583	8.70	ug/L		96
10) dichlorodifluoromethane	4.46	85	32712	9.36	ug/L		97
12) chloromethane	4.86	50	35086	9.73	ug/L		98
13) vinyl chloride	5.16	62	31244	9.59	ug/L		98
15) bromomethane	5.90	94	23736	9.81	ug/L		98
16) chloroethane	6.11	64	15658	10.31	ug/L		96
18) trichlorofluoromethane	6.69	101	41624	10.07	ug/L		91
20) ethyl ether	7.15	74	12970	10.07	ug/L		94
21) acrolein	7.39	56	38097	94.78	ug/L		93
22) 2-chloropropane	7.35	43	40803	9.68	ug/L		94
24) 1,1-dichloroethene	7.62	96	22369	9.44	ug/L		92
25) acetone	7.66	43	7822	10.82	ug/L		88
26) allyl chloride	8.20	76	11371	9.20	ug/L	#	87
27) acetonitrile	8.12	40	14205	102.17	ug/L		83
28) iodomethane	7.91	142	48762	9.68	ug/L		95
29) iso-butyl alcohol	11.10	74	2752	100.96	ug/L	#	38
30) carbon disulfide	8.05	76	72292	9.65	ug/L		98
31) methylene chloride	8.39	84	24760	9.40	ug/L		96
32) methyl acetate	8.19	74	3741	9.58	ug/L		93
33) 1-chloropropane	8.46	42	41756	9.32	ug/L		98
34) methyl tert butyl ether	8.82	73	73612	9.99	ug/L		94
35) trans-1,2-dichloroethene	8.83	96	24094	9.59	ug/L		92
36) di-isopropyl ether	9.50	45	70010	9.77	ug/L		99
37) 2-butanone	10.21	72	2310	9.03	ug/L		96
38) 1,1-dichloroethane	9.44	63	41711	9.48	ug/L		93
39) chloroprene	9.58	53	29155	9.35	ug/L		95
40) acrylonitrile	8.74	53	42189	49.75	ug/L		100
41) vinyl acetate	9.45	86	3531	8.97	ug/L		58
42) ethyl tert-butyl ether	10.00	59	73537	9.64	ug/L		99
43) ethyl acetate	10.26	45	2576	9.20	ug/L	#	37

(#) = qualifier out of range (m) = manual integration
2B127395.D M2B5744.M Tue Feb 10 09:39:43 2015 MS2B Page 1

7.6.6 7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	36545	9.72	ug/L		97
45)	cis-1,2-dichloroethene	10.23	96	25819	9.45	ug/L		93
46)	propionitrile	10.28	54	31162	101.20	ug/L		96
47)	bromochloromethane	10.56	128	14354	10.09	ug/L		97
48)	tetrahydrofuran	10.62	42	5888m	8.99	ug/L		
49)	chloroform	10.62	83	44686	9.77	ug/L		93
50)	t-butyl formate	10.70	59	19654	9.48	ug/L		94
53)	freon 113	7.62	151	16290	8.55	ug/L		97
54)	methacrylonitrile	10.50	41	13669	9.83	ug/L		99
55)	1,1,1-trichloroethane	10.92	97	37667	9.44	ug/L		97
56)	Cyclohexane	11.02	84	29853	9.16	ug/L		97
61)	epichlorohydrin	12.91	57	9312	48.31	ug/L		93
62)	n-butyl alcohol	11.83	56	24347	462.88	ug/L		97
63)	carbon tetrachloride	11.14	117	37608	9.78	ug/L		99
64)	1,1-dichloropropene	11.10	75	29728	9.83	ug/L		99
65)	hexane	9.23	57	20621	8.97	ug/L		93
66)	benzene	11.36	78	81073	9.74	ug/L		94
67)	2,2,4-trimethylpentane	11.43	57	59593	8.55	ug/L		97
68)	tert-amyl methyl ether	11.44	73	64489	9.92	ug/L		99
69)	heptane	11.59	57	11377	8.39	ug/L		96
70)	isopropyl acetate	11.30	43	37098	10.08	ug/L		98
71)	1,2-dichloroethane	11.35	62	33762	10.26	ug/L		96
72)	trichloroethene	12.06	95	22246	9.70	ug/L		96
74)	2-nitropropane	12.77	41	5786	9.50	ug/L		95
75)	2-chloroethyl vinyl ether	12.81	63	59245	50.56	ug/L		98
76)	methyl methacrylate	12.33	100	4995	9.99	ug/L	#	92
77)	1,2-dichloropropane	12.31	63	20753	9.85	ug/L		96
78)	dibromomethane	12.44	93	14787	9.79	ug/L		96
79)	methylcyclohexane	12.31	83	28075	8.88	ug/L		96
80)	bromodichloromethane	12.57	83	31801	9.69	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	34544	9.55	ug/L		94
83)	4-methyl-2-pentanone	13.11	58	7012	9.61	ug/L	#	78
84)	toluene	13.38	92	48781	9.72	ug/L		97
85)	3-methyl-1-butanol	13.11	55	15215	196.09	ug/L		96
86)	trans-1,3-dichloropropene	13.53	75	33276	9.52	ug/L		94
87)	ethyl methacrylate	13.55	69	23253	9.58	ug/L		96
88)	1,1,2-trichloroethane	13.73	83	16130	9.64	ug/L		97
89)	2-hexanone	13.92	58	5491	8.99	ug/L		92
91)	butyl ether	14.69	57	74758	9.44	ug/L		96
92)	tetrachloroethene	13.93	164	20811	9.46	ug/L		97
93)	1,3-dichloropropane	13.90	76	30465	9.91	ug/L		95
94)	butyl acetate	13.99	56	10733	9.63	ug/L		99
95)	3,3-dimethyl-1-butanol	14.07	57	15198	92.22	ug/L		92
96)	dibromochloromethane	14.15	129	27295	9.95	ug/L		96
97)	1,2-dibromoethane	14.29	107	21394	9.73	ug/L		94
98)	chlorobenzene	14.74	112	53139	9.45	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	23921	9.58	ug/L		98
100)	ethylbenzene	14.80	91	89442	9.56	ug/L		99
101)	m,p-xylene	14.90	106	67905	19.06	ug/L		99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:04:04 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:31:51 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

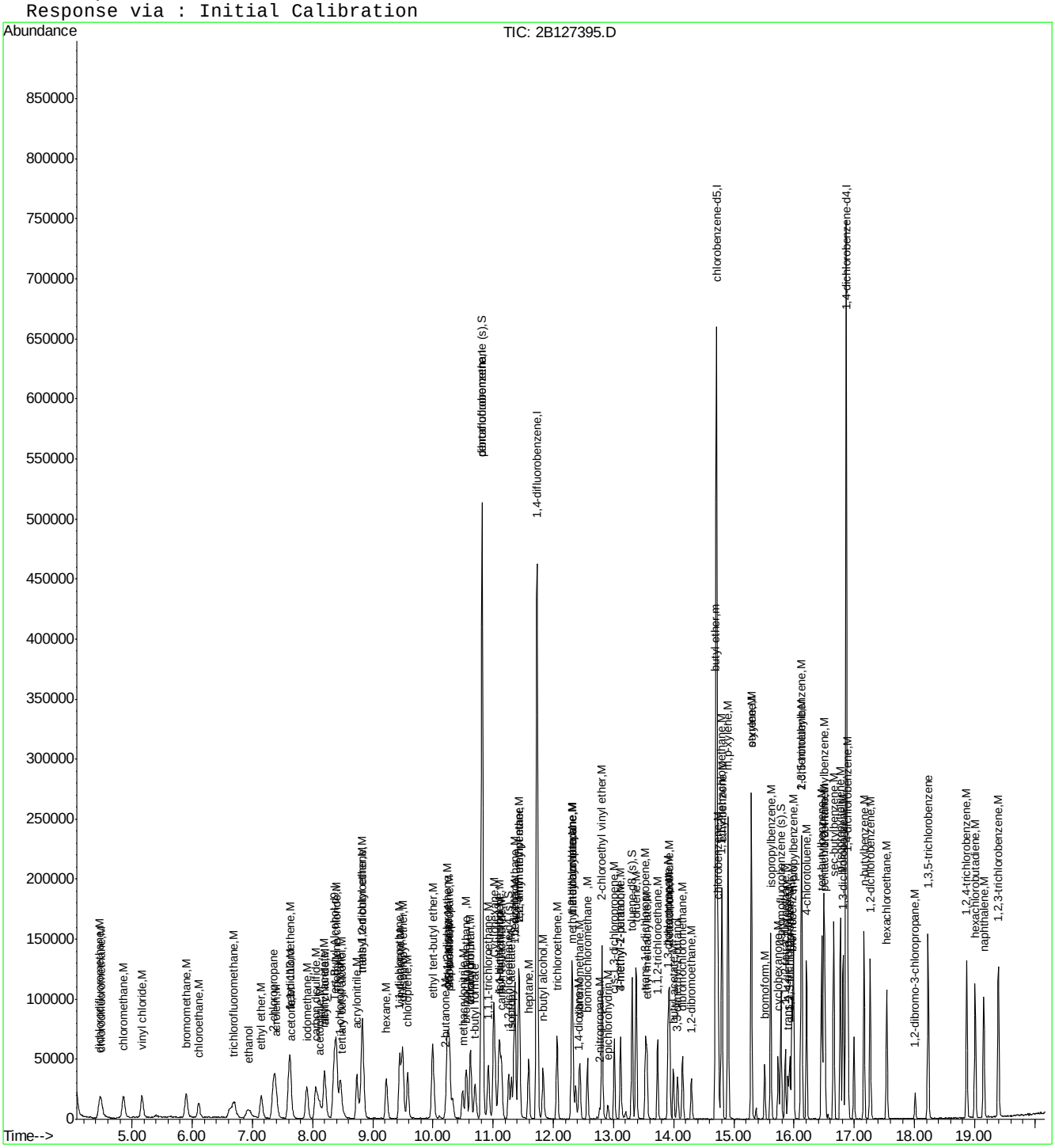
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	34840	9.23	ug/L	92
103) styrene	15.29	104	56321	9.68	ug/L	98
105) bromoform	15.51	173	20469	9.51	ug/L	99
107) isopropylbenzene	15.61	105	94894	10.01	ug/L	98
109) cyclohexanone	15.73	98	9009	91.87	ug/L	96
110) bromobenzene	15.97	156	29428	9.84	ug/L	96
111) 1,1,2,2-tetrachloroethane	15.86	83	24762	9.72	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	6468	9.73	ug/L	97
113) 1,2,3-trichloropropane	15.93	110	7185	10.38	ug/L	95
114) n-propylbenzene	15.99	91	102167	9.98	ug/L	99
115) 2-chlorotoluene	16.12	126	23776	9.64	ug/L	99
116) 4-chlorotoluene	16.21	91	65689	9.62	ug/L	97
117) 1,3,5-trimethylbenzene	16.13	105	79176	10.08	ug/L	95
118) tert-butylbenzene	16.46	119	70970	9.90	ug/L	98
119) pentachloroethane	16.51	167	20075	10.11	ug/L	94
120) 1,2,4-trimethylbenzene	16.49	105	78820	10.19	ug/L	97
121) sec-butylbenzene	16.66	105	103053	9.94	ug/L	97
122) 1,3-dichlorobenzene	16.81	146	52759	9.75	ug/L	97
123) p-isopropyltoluene	16.77	119	87057	9.82	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	50481	9.31	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	53092	10.11	ug/L	97
126) n-butylbenzene	17.16	92	41290	9.38	ug/L	97
127) 1,2-dibromo-3-chloropropan	18.02	75	5021	9.47	ug/L	92
128) 1,3,5-trichlorobenzene	18.23	180	50490	9.57	ug/L	97
129) 1,2,4-trichlorobenzene	18.87	180	43783	9.26	ug/L	94
130) hexachlorobutadiene	19.01	225	26090	9.96	ug/L	95
131) naphthalene	19.15	128	78895	9.59	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	40921	9.90	ug/L	98
133) hexachloroethane	17.54	201	19573	9.22	ug/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:47 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Manual Integration Approval Summary

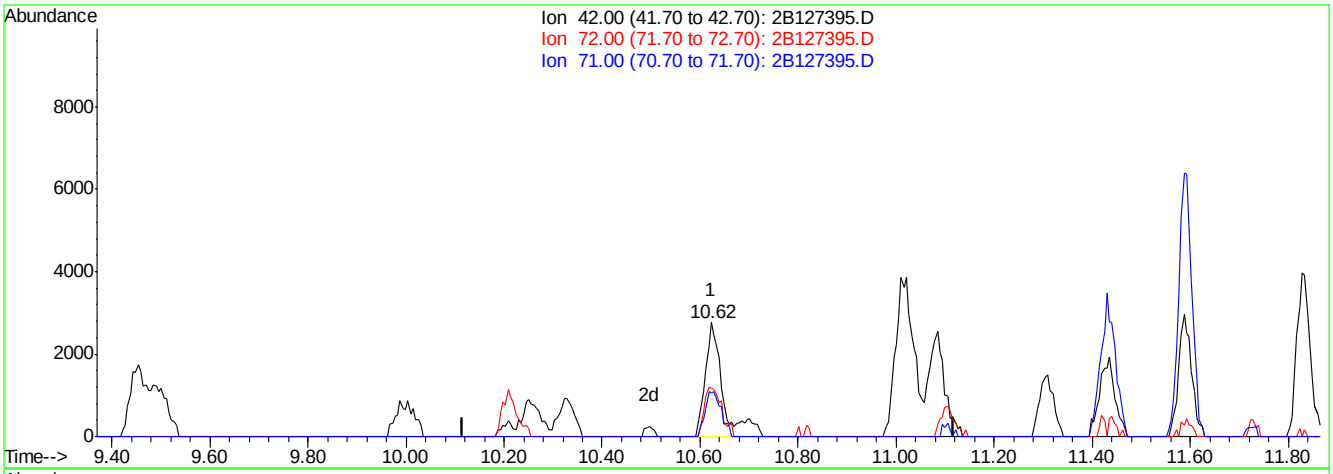
Sample Number:	V2B5744-IC5744	**Method:**	SW846 8260C
Lab FileID:	2B127395.D	**Analyst approved:**	02/06/15 17:04 Maricela Delgaolillo
Injection Time:	02/05/15 18:39	**Supervisor approved:**	02/09/15 17:03 Jessica Reitan-Chu

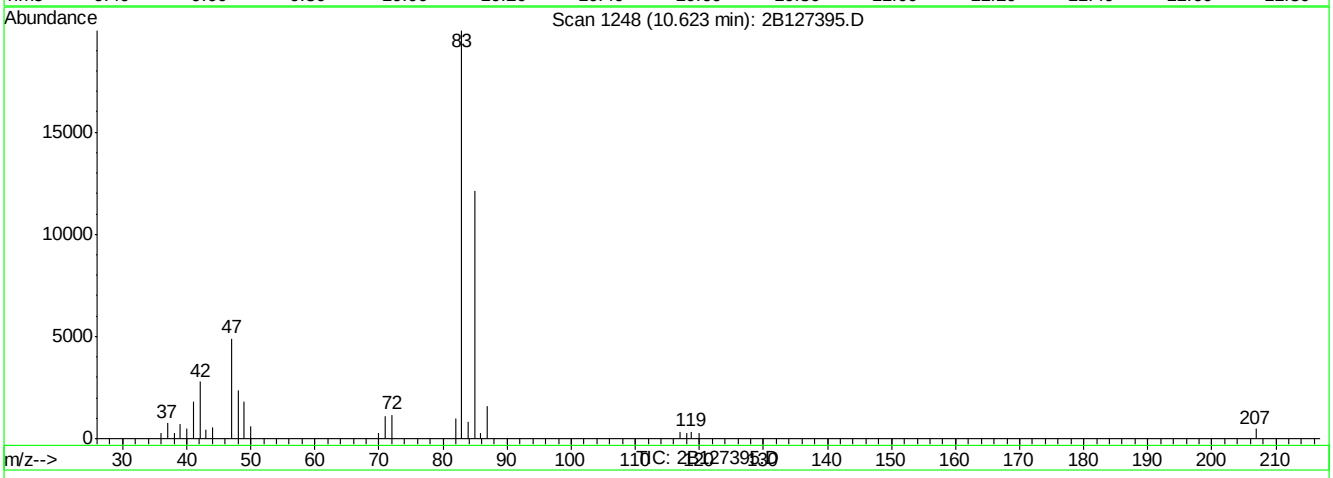
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrahydrofuran	109-99-9		10.62	Overlapping peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:28:56 2015
Response via : Multiple Level Calibration





(48) tetrahydrofuran (M)

10.62min 10.58ug/L

response 6933

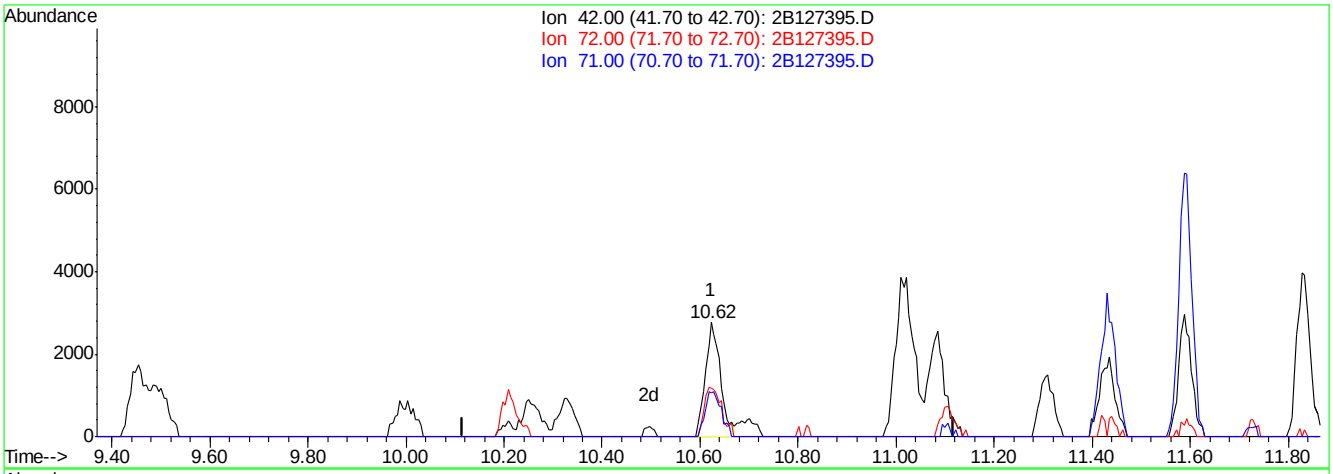
Ion	Exp%	Act%
42.00	100	100
72.00	46.20	41.87
71.00	39.20	38.67
0.00	0.00	0.00

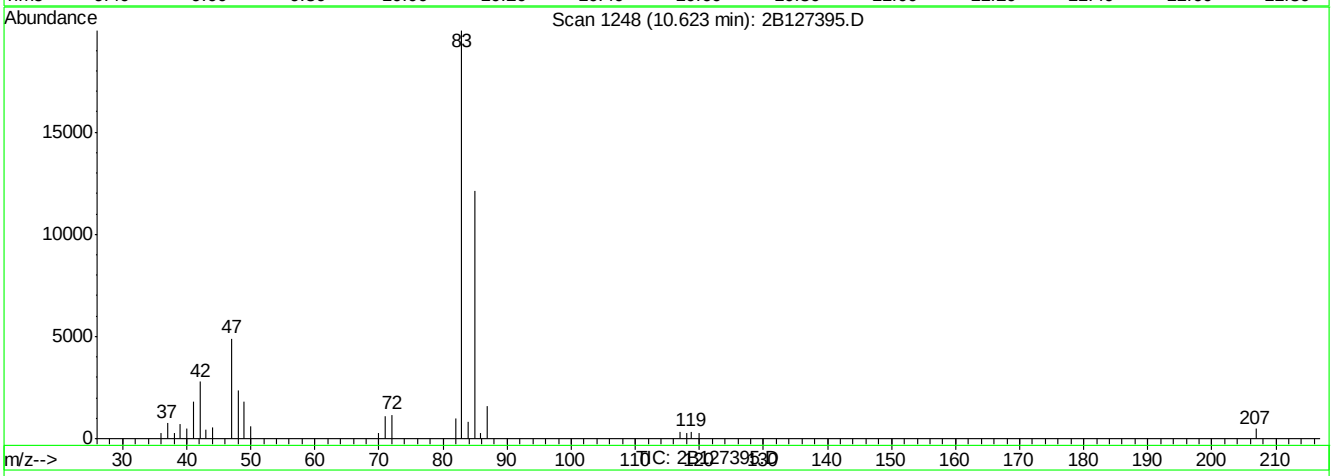
2B127395.D M2B5744.M Fri Feb 06 16:46:48 2015 MS2B

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2B127395.D Vial: 7
Acq On : 5 Feb 2015 6:39 pm Operator: bridgetk
Sample : ic5744-10 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:47 2015 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 16:28:56 2015
Response via : Multiple Level Calibration





(48) tetrahydrofuran (M)

10.62min 8.99ug/L m

response 5888

Ion	Exp%	Act%
42.00	100	100
72.00	46.20	41.87
71.00	39.20	38.67
0.00	0.00	0.00

2B127395.D M2B5744.M Fri Feb 06 16:47:42 2015 MS2B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	117068	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	387565	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	391421	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	335303	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	184029	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	127773	50.50	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 101.00%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	154311	52.19	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 104.38%			
82) toluene-d8 (s)	13.31	98	417958	53.03	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 106.06%			
108) 4-bromofluorobenzene (s)	15.78	95	156358	52.64	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 105.28%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.49	59	23344	96.77	ug/L	80
3) ethanol	6.94	45	54075	2064.97	ug/L	94
4) 1,4-dioxane	12.42	88	11177	492.73	ug/L	94
9) chlorodifluoromethane	4.47	51	61190	21.81	ug/L	96
10) dichlorodifluoromethane	4.46	85	80078	23.09	ug/L	99
12) chloromethane	4.87	50	77887	21.76	ug/L	99
13) vinyl chloride	5.16	62	70304	21.74	ug/L	99
15) bromomethane	5.90	94	49426	20.57	ug/L	99
16) chloroethane	6.11	64	33052	21.92	ug/L	98
18) trichlorofluoromethane	6.70	101	94804	23.11	ug/L	96
20) ethyl ether	7.15	74	24853	19.44	ug/L	88
21) acrolein	7.38	56	81613	204.52	ug/L	100
22) 2-chloropropane	7.35	43	83098	19.85	ug/L	98
24) 1,1-dichloroethene	7.61	96	46431	19.74	ug/L	91
25) acetone	7.63	43	15247	21.24	ug/L	93
26) allyl chloride	8.20	76	25177	20.53	ug/L	98
27) acetonitrile	8.12	40	29025	210.28	ug/L	98
28) iodomethane	7.90	142	99518	19.90	ug/L	98
29) iso-butyl alcohol	11.09	74	5782	213.65	ug/L #	76
30) carbon disulfide	8.05	76	149728	20.13	ug/L	99
31) methylene chloride	8.39	84	50494	19.31	ug/L	99
32) methyl acetate	8.19	74	7541	19.45	ug/L	94
33) 1-chloropropane	8.46	42	83447	18.77	ug/L	98
34) methyl tert butyl ether	8.82	73	147196	20.13	ug/L	97
35) trans-1,2-dichloroethene	8.83	96	47906	19.20	ug/L	97
36) di-isopropyl ether	9.50	45	147672	20.75	ug/L	98
37) 2-butanone	10.20	72	4956	19.52	ug/L	92
38) 1,1-dichloroethane	9.45	63	85787	19.64	ug/L	99
39) chloroprene	9.58	53	67095	21.66	ug/L	97
40) acrylonitrile	8.73	53	86138	102.32	ug/L	99
41) vinyl acetate	9.45	86	7317	18.71	ug/L	89
42) ethyl tert-butyl ether	10.00	59	157786	20.83	ug/L	98
43) ethyl acetate	10.25	45	5491	19.76	ug/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	74956	20.07	ug/L		99
45)	cis-1,2-dichloroethene	10.23	96	51914	19.14	ug/L		95
46)	propionitrile	10.27	54	62392	204.09	ug/L		96
47)	bromochloromethane	10.55	128	28129	19.92	ug/L		100
48)	tetrahydrofuran	10.62	42	12391	19.05	ug/L		92
49)	chloroform	10.62	83	88221	19.42	ug/L		94
50)	t-butyl formate	10.70	59	43632	21.21	ug/L		97
53)	freon 113	7.62	151	40035	21.16	ug/L		96
54)	methacrylonitrile	10.49	41	27782	20.13	ug/L		96
55)	1,1,1-trichloroethane	10.92	97	79844	20.16	ug/L		97
56)	Cyclohexane	11.02	84	65952	20.38	ug/L		95
61)	epichlorohydrin	12.91	57	19586	100.93	ug/L		97
62)	n-butyl alcohol	11.83	56	52538	992.12	ug/L		98
63)	carbon tetrachloride	11.14	117	76730	19.82	ug/L		99
64)	1,1-dichloropropene	11.10	75	59620	19.59	ug/L		98
65)	hexane	9.22	57	50366	21.75	ug/L		94
66)	benzene	11.36	78	166016	19.82	ug/L		98
67)	2,2,4-trimethylpentane	11.43	57	151971	21.67	ug/L		97
68)	tert-amyl methyl ether	11.43	73	138747	21.19	ug/L		98
69)	heptane	11.59	57	28861	21.14	ug/L		94
70)	isopropyl acetate	11.30	43	75826	20.46	ug/L		99
71)	1,2-dichloroethane	11.35	62	67892	20.50	ug/L		97
72)	trichloroethene	12.06	95	46439	20.11	ug/L		94
74)	2-nitropropane	12.77	41	12217	20.44	ug/L		100
75)	2-chloroethyl vinyl ether	12.81	63	130591	110.70	ug/L		99
76)	methyl methacrylate	12.33	100	10680	21.21	ug/L	#	91
77)	1,2-dichloropropane	12.31	63	42644	20.10	ug/L		99
78)	dibromomethane	12.44	93	30228	19.88	ug/L		92
79)	methylcyclohexane	12.31	83	70821	22.26	ug/L		98
80)	bromodichloromethane	12.57	83	65847	19.94	ug/L		97
81)	cis-1,3-dichloropropene	13.01	75	73484	20.19	ug/L		100
83)	4-methyl-2-pentanone	13.12	58	14473	19.69	ug/L		90
84)	toluene	13.38	92	98534	19.51	ug/L		99
85)	3-methyl-1-butanol	13.12	55	32409	414.87	ug/L		94
86)	trans-1,3-dichloropropene	13.53	75	70236	19.97	ug/L		97
87)	ethyl methacrylate	13.55	69	49867	20.41	ug/L		99
88)	1,1,2-trichloroethane	13.73	83	33149	19.68	ug/L		95
89)	2-hexanone	13.92	58	12483	20.30	ug/L		90
91)	butyl ether	14.69	57	161686	20.05	ug/L		99
92)	tetrachloroethene	13.93	164	43911	19.60	ug/L		96
93)	1,3-dichloropropane	13.90	76	63419	20.26	ug/L		99
94)	butyl acetate	13.99	56	22817	20.11	ug/L		95
95)	3,3-dimethyl-1-butanol	14.06	57	32644	194.49	ug/L		99
96)	dibromochloromethane	14.15	129	57180	20.47	ug/L		99
97)	1,2-dibromoethane	14.29	107	44169	19.72	ug/L		95
98)	chlorobenzene	14.74	112	114791	20.05	ug/L		96
99)	1,1,1,2-tetrachloroethane	14.79	131	50918	20.01	ug/L		98
100)	ethylbenzene	14.81	91	188252	19.76	ug/L		99
101)	m,p-xylene	14.90	106	142360	39.24	ug/L		99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:13:18 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:12:28 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

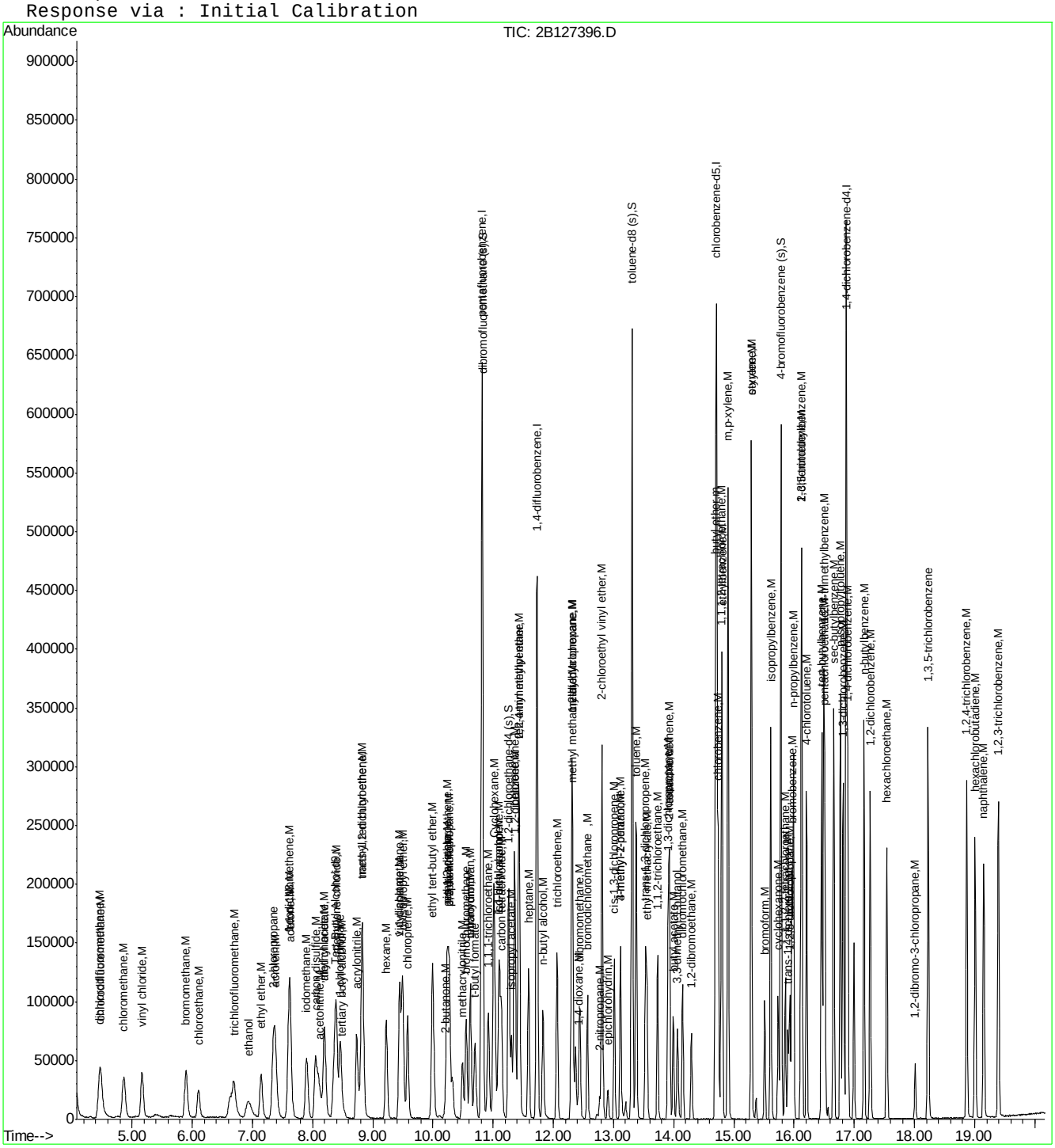
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	74975	19.51	ug/L	97
103) styrene	15.29	104	123673	20.88	ug/L	98
105) bromoform	15.51	173	45055	20.55	ug/L	100
107) isopropylbenzene	15.61	105	199231	21.05	ug/L	99
109) cyclohexanone	15.74	98	18145	185.40	ug/L	97
110) bromobenzene	15.97	156	61521	20.61	ug/L	99
111) 1,1,2,2-tetrachloroethane	15.85	83	50986	20.06	ug/L	98
112) trans-1,4-dichloro-2-buten	15.90	53	13667	20.59	ug/L	88
113) 1,2,3-trichloropropane	15.92	110	14375	20.81	ug/L	96
114) n-propylbenzene	15.99	91	214166	20.96	ug/L	99
115) 2-chlorotoluene	16.12	126	50066	20.34	ug/L	96
116) 4-chlorotoluene	16.21	91	138754	20.37	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	164547	21.00	ug/L	98
118) tert-butylbenzene	16.46	119	148362	20.74	ug/L	97
119) pentachloroethane	16.51	167	41855	21.12	ug/L	97
120) 1,2,4-trimethylbenzene	16.49	105	163796	21.21	ug/L	99
121) sec-butylbenzene	16.66	105	217293	21.00	ug/L	98
122) 1,3-dichlorobenzene	16.81	146	109667	20.31	ug/L	100
123) p-isopropyltoluene	16.77	119	189076	21.36	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	105370	19.47	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	111431	21.26	ug/L	99
126) n-butylbenzene	17.16	92	90990	20.71	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	10556	19.96	ug/L	95
128) 1,3,5-trichlorobenzene	18.22	180	110757	21.04	ug/L	99
129) 1,2,4-trichlorobenzene	18.87	180	98434	20.86	ug/L	98
130) hexachlorobutadiene	19.01	225	55061	21.05	ug/L	99
131) naphthalene	19.15	128	173385	21.11	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	88037	21.34	ug/L	99
133) hexachloroethane	17.54	201	43468	20.52	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127396.D Vial: 8
Acq On : 5 Feb 2015 7:07 pm Operator: bridgetk
Sample : ic5744-20 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	113322	500.00	ug/L	0.00
5) pentafluorobenzene	10.82	168	382082	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	390245	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	334476	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	187662	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.82	113	124327	49.84	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.68%			
52) 1,2-dichloroethane-d4 (s)	11.26	65	151150	51.86	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 103.72%			
82) toluene-d8 (s)	13.31	98	401889	51.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 102.28%			
108) 4-bromofluorobenzene (s)	15.78	95	152231	50.25	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.50	59	59741	255.85	ug/L	100
3) ethanol	6.94	45	132234	5216.56	ug/L	100
4) 1,4-dioxane	12.42	88	29031	1322.12	ug/L	100
9) chlorodifluoromethane	4.48	51	148103	53.55	ug/L	100
10) dichlorodifluoromethane	4.46	85	188159	55.03	ug/L	100
12) chloromethane	4.88	50	188227	53.34	ug/L	100
13) vinyl chloride	5.18	62	170243	53.41	ug/L	100
15) bromomethane	5.90	94	116115	49.01	ug/L	100
16) chloroethane	6.11	64	78359	52.72	ug/L	100
18) trichlorofluoromethane	6.69	101	220470	54.52	ug/L	100
20) ethyl ether	7.15	74	62538	49.62	ug/L	100
21) acrolein	7.39	56	190268	483.64	ug/L	100
22) 2-chloropropane	7.35	43	200932	48.75	ug/L	100
24) 1,1-dichloroethene	7.61	96	107930	46.53	ug/L	100
25) acetone	7.64	43	35095	49.58	ug/L	100
26) allyl chloride	8.21	76	62765	51.91	ug/L	100
27) acetonitrile	8.11	40	65498	481.33	ug/L	100
28) iodomethane	7.91	142	244731	49.64	ug/L	100
29) iso-butyl alcohol	11.09	74	13224	495.65	ug/L	100
30) carbon disulfide	8.05	76	361485	49.29	ug/L	100
31) methylene chloride	8.39	84	121966	47.32	ug/L	100
32) methyl acetate	8.19	74	19143	50.08	ug/L	100
33) 1-chloropropane	8.46	42	202083	46.11	ug/L	100
34) methyl tert butyl ether	8.82	73	363805	50.46	ug/L	100
35) trans-1,2-dichloroethene	8.83	96	115005	46.76	ug/L	100
36) di-isopropyl ether	9.50	45	364255	51.92	ug/L	100
37) 2-butanone	10.20	72	12618	50.41	ug/L	100
38) 1,1-dichloroethane	9.44	63	212110	49.25	ug/L	100
39) chloroprene	9.58	53	161638	52.94	ug/L	100
40) acrylonitrile	8.74	53	215994	260.25	ug/L	100
41) vinyl acetate	9.45	86	19397	50.32	ug/L	100
42) ethyl tert-butyl ether	10.00	59	399791	53.54	ug/L	100
43) ethyl acetate	10.25	45	14396	52.54	ug/L	100

(#) = qualifier out of range (m) = manual integration
2B127397.D M2B5744.M Tue Feb 10 09:39:54 2015 MS2B Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	176894	48.05	ug/L		100
45)	cis-1,2-dichloroethene	10.23	96	130002	48.62	ug/L		100
46)	propionitrile	10.28	54	152236	505.13	ug/L		100
47)	bromochloromethane	10.55	128	70259	50.46	ug/L		100
48)	tetrahydrofuran	10.62	42	30610	47.74	ug/L		100
49)	chloroform	10.62	83	216295	48.29	ug/L		100
50)	t-butyl formate	10.70	59	110164	54.32	ug/L		100
53)	freon 113	7.63	151	93989	50.40	ug/L		100
54)	methacrylonitrile	10.49	41	67999	49.99	ug/L		100
55)	1,1,1-trichloroethane	10.92	97	196804	50.40	ug/L		100
56)	Cyclohexane	11.02	84	155576	48.77	ug/L		100
61)	epichlorohydrin	12.91	57	49921	258.03	ug/L		100
62)	n-butyl alcohol	11.83	56	138588	2624.97	ug/L		100
63)	carbon tetrachloride	11.14	117	187663	48.61	ug/L		100
64)	1,1-dichloropropene	11.10	75	145210	47.85	ug/L		100
65)	hexane	9.22	57	118280	51.24	ug/L		100
66)	benzene	11.36	78	407111	48.74	ug/L		100
67)	2,2,4-trimethylpentane	11.43	57	364764	52.17	ug/L		100
68)	tert-amyl methyl ether	11.44	73	346613	53.10	ug/L		100
69)	heptane	11.59	57	70641	51.89	ug/L		100
70)	isopropyl acetate	11.30	43	194424	52.61	ug/L		100
71)	1,2-dichloroethane	11.35	62	169041	51.18	ug/L		100
72)	trichloroethene	12.06	95	114418	49.69	ug/L		100
74)	2-nitropropane	12.77	41	30566	50.00	ug/L	#	100
75)	2-chloroethyl vinyl ether	12.81	63	328528	279.33	ug/L		100
76)	methyl methacrylate	12.33	100	26965	53.72	ug/L		100
77)	1,2-dichloropropane	12.31	63	105449	49.86	ug/L		100
78)	dibromomethane	12.44	93	75468	49.78	ug/L		100
79)	methylcyclohexane	12.31	83	171957	54.20	ug/L		100
80)	bromodichloromethane	12.57	83	166669	50.62	ug/L		100
81)	cis-1,3-dichloropropene	13.01	75	184449	50.83	ug/L		100
83)	4-methyl-2-pentanone	13.12	58	37364	50.99	ug/L		100
84)	toluene	13.38	92	246114	48.87	ug/L		100
85)	3-methyl-1-butanol	13.11	55	83665	1074.24	ug/L		100
86)	trans-1,3-dichloropropene	13.53	75	178701	50.95	ug/L		100
87)	ethyl methacrylate	13.55	69	128588	52.79	ug/L		100
88)	1,1,2-trichloroethane	13.73	83	82609	49.18	ug/L		100
89)	2-hexanone	13.92	58	31783	51.84	ug/L		100
91)	butyl ether	14.69	57	417991	51.97	ug/L		100
92)	tetrachloroethene	13.93	164	106324	47.59	ug/L		100
93)	1,3-dichloropropane	13.90	76	161330	51.67	ug/L		100
94)	butyl acetate	13.99	56	58514	51.69	ug/L		100
95)	3,3-dimethyl-1-butanol	14.06	57	84193	502.85	ug/L		100
96)	dibromochloromethane	14.15	129	144887	51.99	ug/L		100
97)	1,2-dibromoethane	14.29	107	113287	50.71	ug/L		100
98)	chlorobenzene	14.74	112	284082	49.73	ug/L		100
99)	1,1,1,2-tetrachloroethane	14.79	131	129011	50.83	ug/L		100
100)	ethylbenzene	14.80	91	457007	48.08	ug/L		100
101)	m,p-xylene	14.90	106	350724	96.90	ug/L		100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 12:26:23 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 12:26:09 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

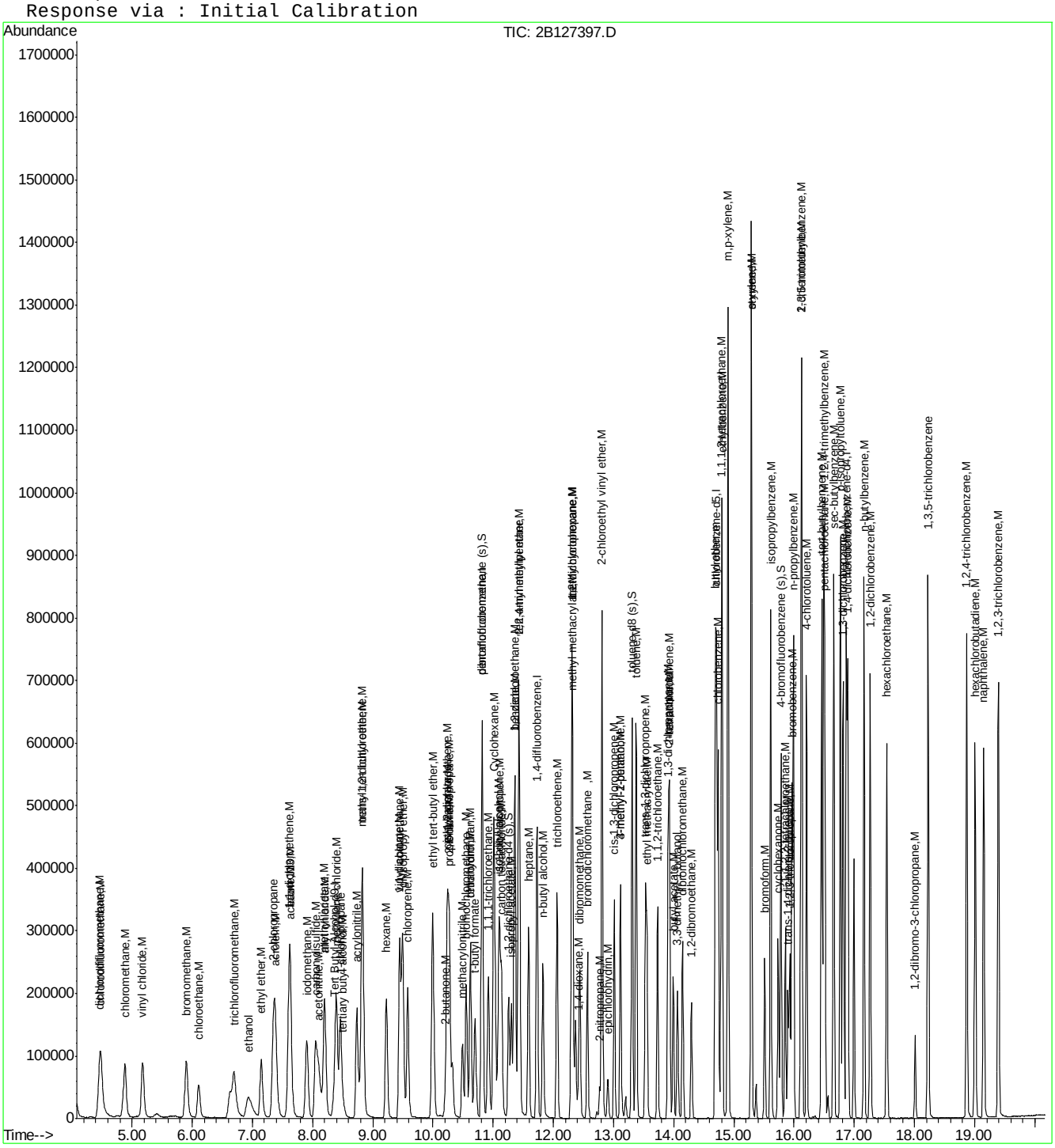
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	190213	49.61	ug/L	100
103) styrene	15.29	104	309244	52.34	ug/L	100
105) bromoform	15.51	173	115743	52.91	ug/L	100
107) isopropylbenzene	15.61	105	503090	52.13	ug/L	100
109) cyclohexanone	15.74	98	48727	488.24	ug/L	100
110) bromobenzene	15.97	156	155203	50.99	ug/L	100
111) 1,1,2,2-tetrachloroethane	15.86	83	131828	50.86	ug/L	100
112) trans-1,4-dichloro-2-buten	15.90	53	34391	50.82	ug/L	100
113) 1,2,3-trichloropropane	15.93	110	37385	53.06	ug/L	100
114) n-propylbenzene	15.99	91	526432	50.53	ug/L	100
115) 2-chlorotoluene	16.12	126	126195	50.26	ug/L	100
116) 4-chlorotoluene	16.21	91	349336	50.28	ug/L	100
117) 1,3,5-trimethylbenzene	16.13	105	410343	51.34	ug/L	100
118) tert-butylbenzene	16.46	119	385257	52.80	ug/L	100
119) pentachloroethane	16.51	167	106072	52.48	ug/L	100
120) 1,2,4-trimethylbenzene	16.49	105	411990	52.32	ug/L	100
121) sec-butylbenzene	16.66	105	549684	52.09	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	273864	49.74	ug/L	100
123) p-isopropyltoluene	16.77	119	483854	53.61	ug/L	100
124) 1,4-dichlorobenzene	16.89	146	272030	49.29	ug/L	100
125) 1,2-dichlorobenzene	17.27	146	286398	53.57	ug/L	100
126) n-butylbenzene	17.16	92	236349	52.75	ug/L	100
127) 1,2-dibromo-3-chloropropan	18.01	75	28539	52.91	ug/L	100
128) 1,3,5-trichlorobenzene	18.22	180	289523	53.94	ug/L	100
129) 1,2,4-trichlorobenzene	18.87	180	262520	54.57	ug/L	100
130) hexachlorobutadiene	19.01	225	141005	52.87	ug/L	100
131) naphthalene	19.15	128	464334	55.44	ug/L	100
132) 1,2,3-trichlorobenzene	19.39	180	234107	55.65	ug/L	100
133) hexachloroethane	17.54	201	114712	53.11	ug/L	100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127397.D Vial: 9
Acq On : 5 Feb 2015 7:36 pm Operator: bridgetk
Sample : icc5744-50 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 12:30 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	119534	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	401627	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	418118	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	347865	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	200396	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	260340	99.29	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 198.58%#				
52) 1,2-dichloroethane-d4 (s)	11.26	65	309472	101.01	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 202.02%#				
82) toluene-d8 (s)	13.31	98	852053	101.20	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 202.40%#				
108) 4-bromofluorobenzene (s)	15.78	95	311261	96.22	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 192.44%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.49	59	129784	526.93	ug/L		96
3) ethanol	6.94	45	271044	10136.87	ug/L		97
4) 1,4-dioxane	12.41	88	65442	2825.46	ug/L		97
9) chlorodifluoromethane	4.48	51	333965	114.87	ug/L		99
10) dichlorodifluoromethane	4.46	85	413872	115.15	ug/L		99
12) chloromethane	4.88	50	398646	107.46	ug/L		99
13) vinyl chloride	5.18	62	370056	110.44	ug/L		98
15) bromomethane	5.90	94	240383	96.52	ug/L		96
16) chloroethane	6.10	64	164700	105.42	ug/L		96
18) trichlorofluoromethane	6.68	101	475440	111.84	ug/L		98
20) ethyl ether	7.15	74	137479	103.77	ug/L		91
22) 2-chloropropane	7.35	43	441638	101.80	ug/L		97
24) 1,1-dichloroethene	7.61	96	242114	99.31	ug/L		99
25) acetone	7.64	43	69820	93.85	ug/L		90
26) allyl chloride	8.20	76	137344	108.07	ug/L		98
27) acetonitrile	8.11	40	139602	975.98	ug/L		99
28) iodomethane	7.90	142	538040	103.83	ug/L		98
29) iso-butyl alcohol	11.10	74	30805	1098.41	ug/L	#	60
30) carbon disulfide	8.05	76	807892	104.79	ug/L		98
31) methylene chloride	8.39	84	269065	99.31	ug/L		98
32) methyl acetate	8.18	74	40652	101.17	ug/L		90
33) 1-chloropropane	8.46	42	445952	96.79	ug/L		99
34) methyl tert butyl ether	8.82	73	782824	103.30	ug/L		98
35) trans-1,2-dichloroethene	8.83	96	252954	97.85	ug/L		97
36) di-isopropyl ether	9.50	45	770181	104.44	ug/L		99
37) 2-butanone	10.20	72	29219	111.06	ug/L	#	74
38) 1,1-dichloroethane	9.44	63	465643	102.85	ug/L		97
39) chloroprene	9.58	53	356239	110.99	ug/L		99
40) acrylonitrile	8.74	53	472682	541.82	ug/L		99
41) vinyl acetate	9.45	86	41976	103.59	ug/L		89
42) ethyl tert-butyl ether	9.99	59	856627	109.13	ug/L		98
43) ethyl acetate	10.25	45	29758	103.31	ug/L		65
44) 2,2-dichloropropane	10.27	77	387456	100.12	ug/L		98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	cis-1,2-dichloroethene	10.23	96	285213	101.49	ug/L	99
46)	propionitrile	10.28	54	334549	1056.03	ug/L	99
47)	bromochloromethane	10.55	128	155240	106.07	ug/L	99
48)	tetrahydrofuran	10.62	42	66927	99.31	ug/L	97
49)	chloroform	10.62	83	475405	100.98	ug/L	97
50)	t-butyl formate	10.70	59	240878	112.99	ug/L	98
53)	freon 113	7.62	151	209977	107.11	ug/L	91
54)	methacrylonitrile	10.49	41	153252	107.17	ug/L	97
55)	1,1,1-trichloroethane	10.92	97	443973	108.16	ug/L	98
56)	Cyclohexane	11.02	84	357019	106.48	ug/L	98
61)	epichlorohydrin	12.91	57	111691	538.81	ug/L	95
62)	n-butyl alcohol	11.83	56	317998	5621.62	ug/L	98
63)	carbon tetrachloride	11.14	117	420116	101.57	ug/L	98
64)	1,1-dichloropropene	11.11	75	333072	102.44	ug/L	98
65)	hexane	9.22	57	277781	112.31	ug/L	100
66)	benzene	11.36	78	914190	102.16	ug/L	100
67)	2,2,4-trimethylpentane	11.43	57	825173	110.15	ug/L	97
68)	tert-amyl methyl ether	11.43	73	739009	105.66	ug/L	99
69)	heptane	11.59	57	164815	112.99	ug/L	98
70)	isopropyl acetate	11.30	43	430807	108.80	ug/L	99
71)	1,2-dichloroethane	11.35	62	369364	104.39	ug/L	98
72)	trichloroethene	12.06	95	266137	107.86	ug/L	98
74)	2-nitropropane	12.77	41	70842	110.13	ug/L	94
75)	2-chloroethyl vinyl ether	12.81	63	709065	562.69	ug/L	98
76)	methyl methacrylate	12.33	100	58977	109.67	ug/L	97
77)	1,2-dichloropropane	12.31	63	239592	105.73	ug/L	97
78)	dibromomethane	12.44	93	168427	103.70	ug/L	97
79)	methylcyclohexane	12.31	83	388013	114.16	ug/L	97
80)	bromodichloromethane	12.57	83	378100	107.17	ug/L	99
81)	cis-1,3-dichloropropene	13.01	75	420380	108.12	ug/L	98
83)	4-methyl-2-pentanone	13.12	58	83585	106.47	ug/L	92
84)	toluene	13.38	92	557823	103.39	ug/L	97
85)	3-methyl-1-butanol	13.11	55	186846	2239.13	ug/L	95
86)	trans-1,3-dichloropropene	13.53	75	400332	106.54	ug/L	100
87)	ethyl methacrylate	13.55	69	285357	109.35	ug/L	97
88)	1,1,2-trichloroethane	13.73	83	186706	103.74	ug/L	98
89)	2-hexanone	13.91	58	72968	111.09	ug/L	94
91)	butyl ether	14.69	57	962043	115.00	ug/L	99
92)	tetrachloroethene	13.93	164	242291	104.27	ug/L	99
93)	1,3-dichloropropane	13.90	76	360162	110.92	ug/L	99
94)	butyl acetate	13.99	56	128864	109.46	ug/L	98
95)	3,3-dimethyl-1-butanol	14.06	57	196036	1125.77	ug/L	99
96)	dibromochloromethane	14.15	129	326199	112.55	ug/L	99
97)	1,2-dibromoethane	14.29	107	255600	110.02	ug/L	96
98)	chlorobenzene	14.74	112	635770	107.02	ug/L	100
99)	1,1,1,2-tetrachloroethane	14.79	131	288779	109.40	ug/L	98
100)	ethylbenzene	14.80	91	1015039	102.68	ug/L	97
101)	m,p-xylene	14.90	106	798792	212.21	ug/L	96
102)	o-xylene	15.29	106	426842	107.04	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:22:55 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

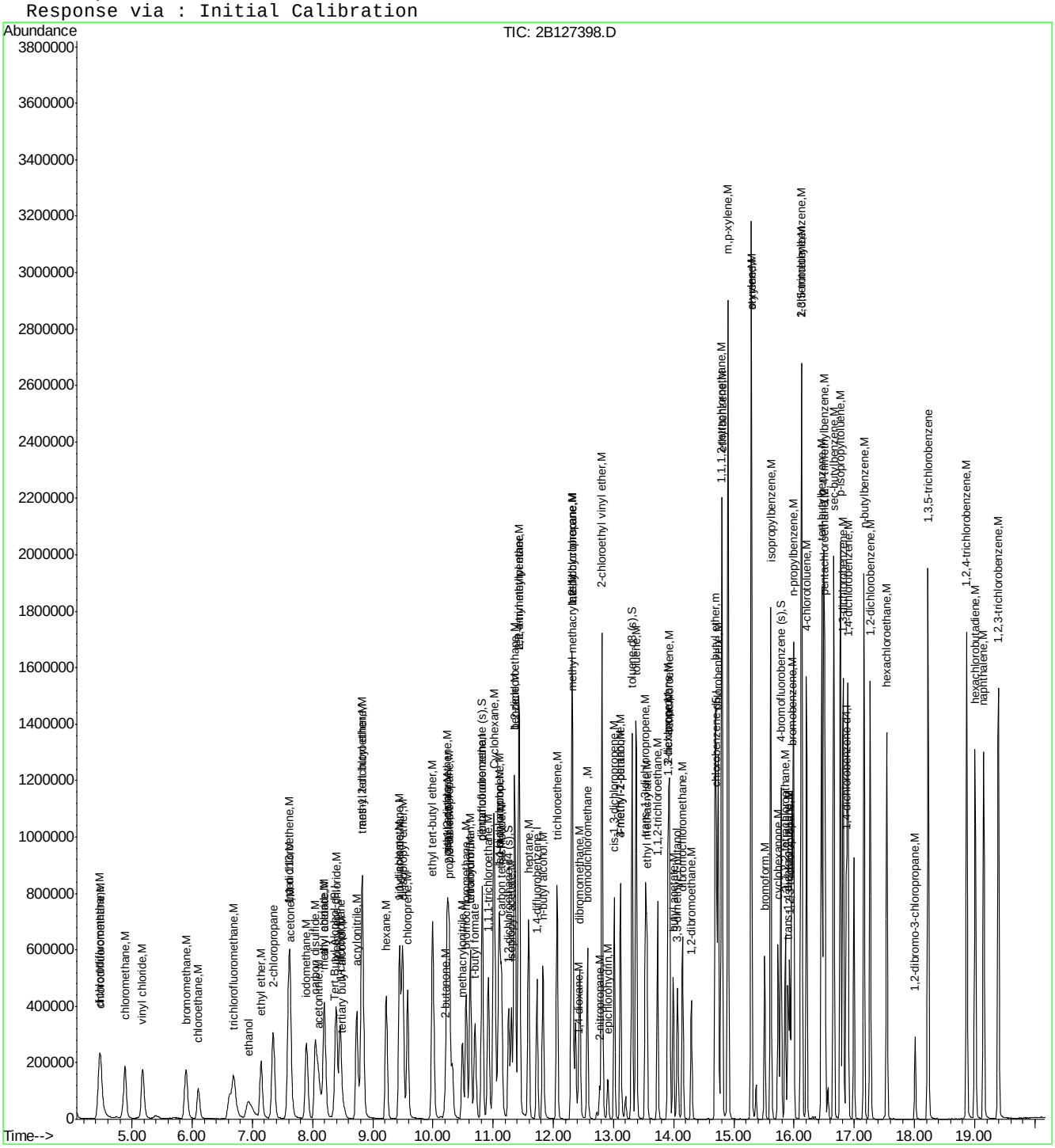
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
103) styrene	15.29	104	694374	112.99	ug/L	97
105) bromoform	15.51	173	261463	114.93	ug/L	99
107) isopropylbenzene	15.61	105	1127665	109.43	ug/L	99
109) cyclohexanone	15.74	98	108780	1020.70	ug/L	96
110) bromobenzene	15.97	156	339118	104.33	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.85	83	290211	104.84	ug/L	99
112) trans-1,4-dichloro-2-buten	15.90	53	79780	110.40	ug/L	99
113) 1,2,3-trichloropropane	15.93	110	80180	106.57	ug/L	98
114) n-propylbenzene	15.99	91	1155916	103.91	ug/L	99
115) 2-chlorotoluene	16.12	126	286145	106.73	ug/L	95
116) 4-chlorotoluene	16.21	91	773162	104.22	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	915785	107.31	ug/L	99
118) tert-butylbenzene	16.46	119	896498	115.07	ug/L	98
119) pentachloroethane	16.51	167	234206	108.51	ug/L	99
120) 1,2,4-trimethylbenzene	16.49	105	902199	107.29	ug/L	98
121) sec-butylbenzene	16.66	105	1248376	110.78	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	609232	103.63	ug/L	99
123) p-isopropyltoluene	16.77	119	1093688	113.49	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	615486	104.44	ug/L	97
125) 1,2-dichlorobenzene	17.27	146	625696	109.60	ug/L	99
126) n-butylbenzene	17.16	92	536008	112.02	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	64709	112.34	ug/L	97
128) 1,3,5-trichlorobenzene	18.23	180	650494	113.49	ug/L	99
129) 1,2,4-trichlorobenzene	18.87	180	591277	115.09	ug/L	99
130) hexachlorobutadiene	19.01	225	320440	112.52	ug/L	98
131) naphthalene	19.15	128	1032147	115.40	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	514602	114.55	ug/L	100
133) hexachloroethane	17.54	201	266064	115.37	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127398.D Vial: 10
Acq On : 5 Feb 2015 8:04 pm Operator: bridgetk
Sample : ic5744-100 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	140641	500.00	ug/L	0.02
5) pentafluorobenzene	10.82	168	444312	50.00	ug/L	0.00
58) 1,4-difluorobenzene	11.73	114	481473	50.00	ug/L	0.00
90) chlorobenzene-d5	14.71	117	381823	50.00	ug/L	0.00
106) 1,4-dichlorobenzene-d4	16.87	152	229683	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	10.83	113	612352	211.10	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 422.20%#			
52) 1,2-dichloroethane-d4 (s)	11.26	65	695805	205.28	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 410.56%#			
82) toluene-d8 (s)	13.31	98	1950137	201.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 402.28%#			
108) 4-bromofluorobenzene (s)	15.78	95	735993	198.51	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 397.02%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.51	59	312632	1078.80	ug/L	62
3) ethanol	6.94	45	600775	19096.57	ug/L	94
4) 1,4-dioxane	12.41	88	158054	5799.86	ug/L	97
9) chlorodifluoromethane	4.48	51	707806	220.07	ug/L	99
10) dichlorodifluoromethane	4.46	85	796877	200.41	ug/L	99
12) chloromethane	4.90	50	817910	199.30	ug/L	99
13) vinyl chloride	5.19	62	751925	202.85	ug/L	98
15) bromomethane	5.89	94	496186	180.09	ug/L	97
16) chloroethane	6.10	64	359341	207.90	ug/L	97
18) trichlorofluoromethane	6.68	101	993372	211.23	ug/L	95
20) ethyl ether	7.15	74	327198	223.25	ug/L	91
22) 2-chloropropane	7.35	43	1010915	210.64	ug/L	93
24) 1,1-dichloroethene	7.61	96	547304	202.92	ug/L	95
25) acetone	7.64	43	151447	184.01	ug/L	89
26) allyl chloride	8.20	76	330519	235.08	ug/L	90
27) acetonitrile	8.11	40	314531	1987.69	ug/L	92
28) iodomethane	7.90	142	1245886	217.34	ug/L	97
29) iso-butyl alcohol	11.10	74	71979	2319.99	ug/L	85
30) carbon disulfide	8.05	76	1861029	218.20	ug/L	97
31) methylene chloride	8.39	84	627459	209.34	ug/L	97
32) methyl acetate	8.19	74	100291	225.61	ug/L	89
33) 1-chloropropane	8.46	42	1025042	201.11	ug/L	98
34) methyl tert butyl ether	8.82	73	1776195	211.87	ug/L	99
35) trans-1,2-dichloroethene	8.83	96	583819	204.14	ug/L	99
36) di-isopropyl ether	9.50	45	1821660	223.30	ug/L	96
37) 2-butanone	10.20	72	67629	232.36	ug/L #	81
38) 1,1-dichloroethane	9.44	63	1074499	214.54	ug/L	97
39) chloroprene	9.58	53	828470	233.33	ug/L	97
40) acrylonitrile	8.74	53	1115366	1155.69	ug/L	99
41) vinyl acetate	9.45	86	100912	225.11	ug/L	87
42) ethyl tert-butyl ether	10.00	59	2002589	230.61	ug/L	98
43) ethyl acetate	10.25	45	71955	225.81	ug/L	72
44) 2,2-dichloropropane	10.27	77	824009	192.47	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	cis-1,2-dichloroethene	10.23	96	659369	212.08	ug/L	98
46)	propionitrile	10.28	54	772236	2203.44	ug/L	97
47)	bromochloromethane	10.55	128	359869	222.27	ug/L	98
48)	tetrahydrofuran	10.62	42	156937	210.49	ug/L	99
49)	chloroform	10.62	83	1065930	204.65	ug/L	99
50)	t-butyl formate	10.70	59	571541	242.33	ug/L	99
53)	freon 113	7.62	151	465611	214.69	ug/L	92
54)	methacrylonitrile	10.49	41	356783	225.54	ug/L	97
55)	1,1,1-trichloroethane	10.92	97	978453	215.47	ug/L	99
56)	Cyclohexane	11.02	84	814306	219.52	ug/L	97
61)	epichlorohydrin	12.91	57	274549	1150.18	ug/L	96
62)	n-butyl alcohol	11.83	56	786402	12072.81	ug/L	97
63)	carbon tetrachloride	11.14	117	914177	191.93	ug/L	99
64)	1,1-dichloropropene	11.10	75	751935	200.83	ug/L	98
65)	hexane	9.22	57	663395	232.93	ug/L	99
66)	benzene	11.36	78	2084178	202.25	ug/L	99
67)	2,2,4-trimethylpentane	11.43	57	1904302	220.75	ug/L	96
68)	tert-amyl methyl ether	11.44	73	1748527	217.10	ug/L	99
69)	heptane	11.59	57	393148	234.07	ug/L	98
70)	isopropyl acetate	11.30	43	1029124	225.70	ug/L	98
71)	1,2-dichloroethane	11.35	62	806973	198.05	ug/L	96
72)	trichloroethene	12.06	95	607620	213.86	ug/L	98
74)	2-nitropropane	12.77	41	170197	229.77	ug/L	94
75)	2-chloroethyl vinyl ether	12.81	63	1666750	1148.64	ug/L	97
76)	methyl methacrylate	12.33	100	140473	226.85	ug/L	95
77)	1,2-dichloropropane	12.31	63	555773	212.98	ug/L	98
78)	dibromomethane	12.44	93	387884	207.39	ug/L	97
79)	methylcyclohexane	12.31	83	895977	228.92	ug/L	97
80)	bromodichloromethane	12.57	83	855131	210.50	ug/L	99
81)	cis-1,3-dichloropropene	13.01	75	975454	217.86	ug/L	97
83)	4-methyl-2-pentanone	13.12	58	199657	220.85	ug/L	94
84)	toluene	13.38	92	1295554	208.53	ug/L	96
85)	3-methyl-1-butanol	13.12	55	451972	4703.64	ug/L	95
86)	trans-1,3-dichloropropene	13.53	75	923760	213.49	ug/L	98
87)	ethyl methacrylate	13.56	69	667078	221.98	ug/L	99
88)	1,1,2-trichloroethane	13.73	83	437499	211.11	ug/L	98
89)	2-hexanone	13.92	58	170791	225.80	ug/L	95
91)	butyl ether	14.69	57	2227568	242.60	ug/L	98
92)	tetrachloroethene	13.93	164	538375	211.08	ug/L	98
93)	1,3-dichloropropane	13.90	76	831565	233.32	ug/L	96
94)	butyl acetate	13.99	56	319823	247.50	ug/L	98
95)	3,3-dimethyl-1-butanol	14.06	57	513071	2684.37	ug/L	97
96)	dibromochloromethane	14.15	129	753053	236.73	ug/L	99
97)	1,2-dibromoethane	14.29	107	598895	234.86	ug/L	97
98)	chlorobenzene	14.74	112	1472321	225.79	ug/L	100
99)	1,1,1,2-tetrachloroethane	14.79	131	656606	226.62	ug/L	98
100)	ethylbenzene	14.81	91	2295402	211.54	ug/L	95
101)	m,p-xylene	14.91	106	1887456	456.83	ug/L	87
102)	o-xylene	15.29	106	1003367	229.23	ug/L	93

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 06 14:33:50 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Fri Feb 06 14:21:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

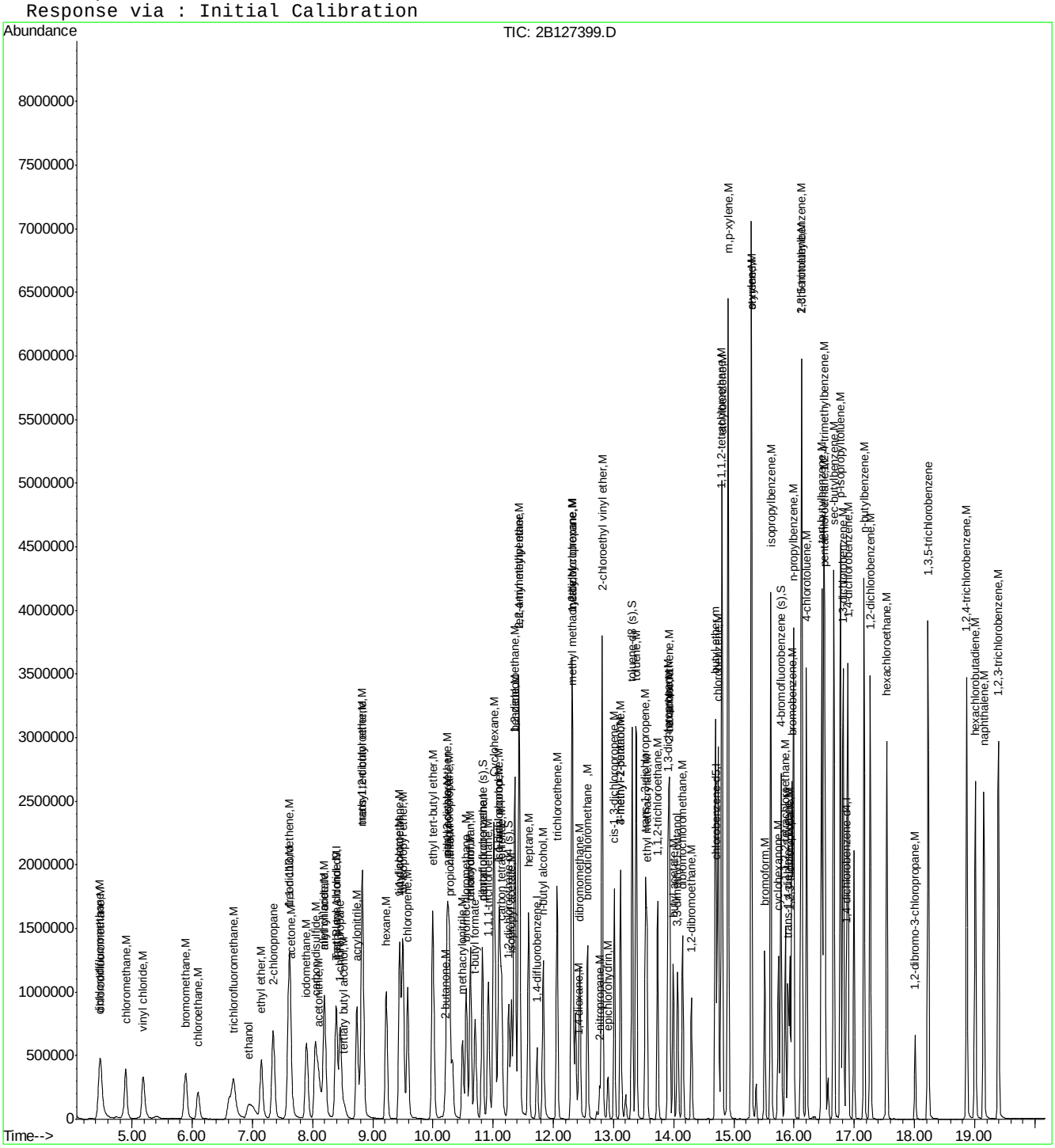
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
103) styrene	15.29	104	1609787	238.65	ug/L	93
105) bromoform	15.51	173	607644	243.34	ug/L	99
107) isopropylbenzene	15.61	105	2530006	214.20	ug/L	98
109) cyclohexanone	15.74	98	234996	1923.85	ug/L	98
110) bromobenzene	15.97	156	773196	207.54	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.86	83	673230	212.21	ug/L	96
112) trans-1,4-dichloro-2-buten	15.90	53	178332	215.30	ug/L	97
113) 1,2,3-trichloropropane	15.93	110	181114	210.03	ug/L	95
114) n-propylbenzene	15.99	91	2611437	204.82	ug/L	98
115) 2-chlorotoluene	16.12	126	671504	218.53	ug/L	89
116) 4-chlorotoluene	16.21	91	1773647	208.59	ug/L	97
117) 1,3,5-trimethylbenzene	16.13	105	2065720	211.18	ug/L	99
118) tert-butylbenzene	16.46	119	1972646	220.91	ug/L	98
119) pentachloroethane	16.51	167	531288	214.77	ug/L	99
120) 1,2,4-trimethylbenzene	16.49	105	2034181	211.07	ug/L	96
121) sec-butylbenzene	16.66	105	2781994	215.39	ug/L	99
122) 1,3-dichlorobenzene	16.81	146	1398670	207.58	ug/L	99
123) p-isopropyltoluene	16.77	119	2456489	222.40	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	1424084	210.83	ug/L	96
125) 1,2-dichlorobenzene	17.27	146	1422163	217.35	ug/L	98
126) n-butylbenzene	17.16	92	1220870	222.62	ug/L	95
127) 1,2-dibromo-3-chloropropan	18.01	75	146423	221.79	ug/L	96
128) 1,3,5-trichlorobenzene	18.23	180	1356739	206.52	ug/L	96
129) 1,2,4-trichlorobenzene	18.87	180	1214440	206.25	ug/L	98
130) hexachlorobutadiene	19.01	225	647030	198.22	ug/L	99
131) naphthalene	19.15	128	2109664	205.79	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	1009800	196.13	ug/L	99
133) hexachloroethane	17.54	201	600586	227.21	ug/L	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127399.D Vial: 11
Acq On : 5 Feb 2015 8:32 pm Operator: bridgetk
Sample : ic5744-200 Inst : MS2B
Misc : MS80225,V2B5743,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 6 16:10 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	130530	500.00	ug/L		0.01
5) pentafluorobenzene	10.82	168	445672	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	458625	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	378456	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	213932	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.83	113	141692	48.70	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.40%				
52) 1,2-dichloroethane-d4 (s)	11.26	65	164973	48.52	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 97.04%				
82) toluene-d8 (s)	13.31	98	466205	50.48	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 100.96%				
108) 4-bromofluorobenzene (s)	15.78	95	174154	50.43	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 100.86%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	73650	273.83	ug/L		87
3) ethanol	6.93	45	166453	5700.81	ug/L		100
4) 1,4-dioxane	12.41	88	34142	1349.90	ug/L		99
9) chlorodifluoromethane	4.48	51	181183	56.16	ug/L		97
10) dichlorodifluoromethane	4.46	85	203934	51.13	ug/L		99
12) chloromethane	4.89	50	220050	54.00	ug/L		97
13) vinyl chloride	5.18	62	203627	54.77	ug/L		98
15) bromomethane	5.90	94	138605	50.62	ug/L		98
16) chloroethane	6.11	64	104900	60.51	ug/L		96
18) trichlorofluoromethane	6.69	101	249722	52.94	ug/L		99
20) ethyl ether	7.15	74	83196	56.59	ug/L		96
21) acrolein	7.39	56	259853	566.27	ug/L		99
22) 2-chloropropane	7.35	43	255690	53.11	ug/L		95
24) 1,1-dichloroethene	7.61	96	145098	53.63	ug/L		98
25) acetone	7.63	43	40203	48.70	ug/L		90
26) allyl chloride	8.21	76	82995	58.85	ug/L	#	71
27) acetonitrile	8.12	40	81520	516.36	ug/L		94
28) iodomethane	7.91	142	309959	53.90	ug/L		96
29) iso-butyl alcohol	11.10	74	18104	563.26	ug/L	#	54
30) carbon disulfide	8.06	76	479234	54.64	ug/L		97
31) methylene chloride	8.39	84	154988	51.60	ug/L		99
32) methyl acetate	8.18	74	21644	48.54	ug/L		94
33) 1-chloropropane	8.46	42	257966	50.16	ug/L		99
34) methyl tert butyl ether	8.82	73	860970	100.27	ug/L		98
35) trans-1,2-dichloroethene	8.83	96	142917	49.82	ug/L		98
36) di-isopropyl ether	9.50	45	454160	55.50	ug/L		100
37) 2-butanone	10.20	72	16115	55.20	ug/L		88
38) 1,1-dichloroethane	9.44	63	270474	53.84	ug/L		99
39) chloroprene	9.58	53	179522	50.41	ug/L		97
40) acrylonitrile	8.74	53	273169	282.18	ug/L		99
41) vinyl acetate	9.45	86	26400	58.71	ug/L		99
42) ethyl tert-butyl ether	10.00	59	467592	53.68	ug/L		98
43) ethyl acetate	10.25	45	17534	54.86	ug/L		65

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	218477	50.88	ug/L		96
45)	cis-1,2-dichloroethene	10.23	96	160887	51.59	ug/L		99
46)	propionitrile	10.28	54	190476	541.83	ug/L		99
47)	bromochloromethane	10.55	128	87571	53.92	ug/L		99
48)	tetrahydrofuran	10.62	42	38855	52.73	ug/L		99
49)	chloroform	10.62	83	268490	51.39	ug/L		98
50)	t-butyl formate	10.70	59	135783	57.40	ug/L		99
53)	freon 113	7.63	151	125825	57.84	ug/L		94
54)	methacrylonitrile	10.49	41	85795	54.07	ug/L		95
55)	1,1,1-trichloroethane	10.92	97	246718	54.16	ug/L		100
56)	Cyclohexane	11.03	84	206224	55.42	ug/L	#	81
61)	epichlorohydrin	12.91	57	64369	283.10	ug/L		97
62)	n-butyl alcohol	11.83	56	175375	2826.48	ug/L		99
63)	carbon tetrachloride	11.14	117	236290	52.08	ug/L		95
64)	1,1-dichloropropene	11.11	75	193881	54.36	ug/L		99
65)	hexane	9.23	57	150790	55.58	ug/L		97
66)	benzene	11.36	78	527996	53.79	ug/L		99
67)	2,2,4-trimethylpentane	11.43	57	422225	51.38	ug/L		98
68)	tert-amyl methyl ether	11.43	73	402274	51.46	ug/L		99
69)	heptane	11.59	57	81077	50.68	ug/L		99
70)	isopropyl acetate	11.30	43	240290	55.32	ug/L		97
71)	1,2-dichloroethane	11.35	62	200889	49.95	ug/L		93
72)	trichloroethene	12.06	95	146378	54.09	ug/L		98
74)	2-nitropropane	12.77	41	36132	48.77	ug/L		98
75)	2-chloroethyl vinyl ether	12.81	63	410860	287.98	ug/L		100
76)	methyl methacrylate	12.33	100	33043	56.02	ug/L	#	91
77)	1,2-dichloropropane	12.31	63	134236	54.01	ug/L		98
78)	dibromomethane	12.44	93	91826	51.54	ug/L		98
79)	methylcyclohexane	12.31	83	202203	52.57	ug/L		97
80)	bromodichloromethane	12.57	83	205901	53.21	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	231934	54.38	ug/L		98
83)	4-methyl-2-pentanone	13.12	58	47529	55.19	ug/L		92
84)	toluene	13.38	92	311714	52.67	ug/L		99
85)	3-methyl-1-butanol	13.11	55	102172	1116.27	ug/L		94
86)	trans-1,3-dichloropropene	13.53	75	212393	51.53	ug/L		97
87)	ethyl methacrylate	13.55	69	156288	54.60	ug/L		98
88)	1,1,2-trichloroethane	13.73	83	100368	50.84	ug/L		96
89)	2-hexanone	13.92	58	39515	54.84	ug/L		97
91)	butyl ether	14.69	57	506970	55.70	ug/L		98
92)	tetrachloroethene	13.93	164	132182	52.29	ug/L		96
93)	1,3-dichloropropane	13.90	76	198770	54.66	ug/L		98
94)	butyl acetate	13.99	56	72789	56.83	ug/L		98
95)	3,3-dimethyl-1-butanol	14.06	57	102630	541.73	ug/L		95
96)	dibromochloromethane	14.15	129	172381	53.20	ug/L		100
97)	1,2-dibromoethane	14.29	107	138441	54.77	ug/L		99
98)	chlorobenzene	14.74	112	354016	54.77	ug/L		99
99)	1,1,1,2-tetrachloroethane	14.79	131	156565	54.52	ug/L		97
100)	ethylbenzene	14.81	91	563642	52.41	ug/L		97
101)	m,p-xylene	14.90	106	442363	108.02	ug/L		97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 09:33:35 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

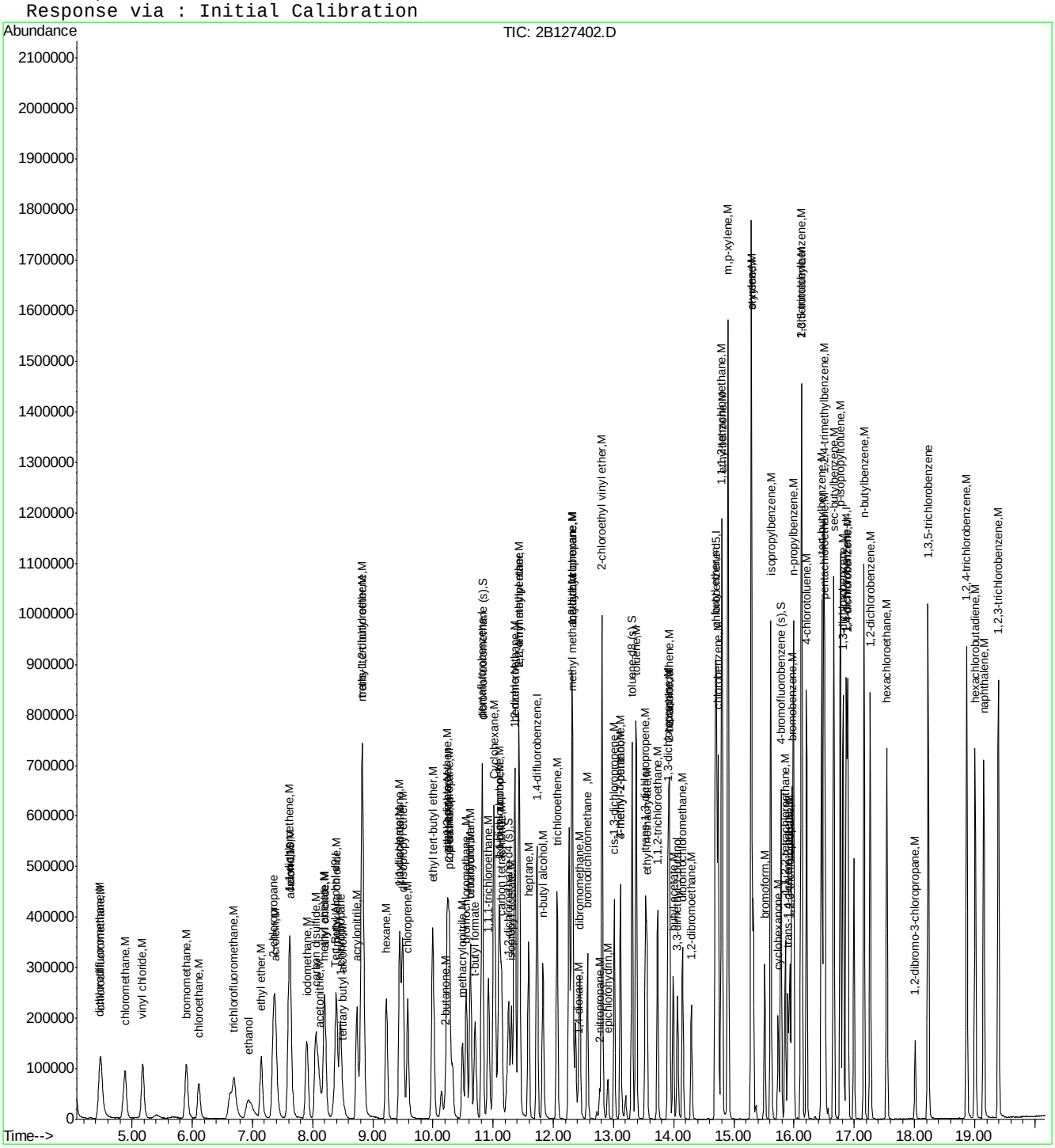
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	232661	53.63	ug/L	99
103) styrene	15.29	104	386233	57.77	ug/L	98
105) bromoform	15.51	173	138993	56.16	ug/L	99
107) isopropylbenzene	15.61	105	616564	54.12	ug/L	99
109) cyclohexanone	15.74	98	36275	318.84	ug/L	98
110) bromobenzene	15.97	156	191079	55.07	ug/L	98
111) 1,1,2,2-tetrachloroethane	15.86	83	157301	53.23	ug/L	98
112) trans-1,4-dichloro-2-buten	15.90	53	40697	52.75	ug/L	98
113) 1,2,3-trichloropropane	15.93	110	42769	53.25	ug/L	95
114) n-propylbenzene	15.99	91	680818	55.73	ug/L	99
115) 2-chlorotoluene	16.12	126	156635	53.78	ug/L	97
116) 4-chlorotoluene	16.21	91	423786	52.44	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	498388	52.92	ug/L	99
118) tert-butylbenzene	16.46	119	483659	56.19	ug/L	99
119) pentachloroethane	16.51	167	126630	53.33	ug/L	97
120) 1,2,4-trimethylbenzene	16.49	105	516024	55.87	ug/L	99
121) sec-butylbenzene	16.66	105	678474	54.54	ug/L	100
122) 1,3-dichlorobenzene	16.81	146	328218	52.30	ug/L	99
123) p-isopropyltoluene	16.77	119	602568	56.58	ug/L	99
124) 1,4-dichlorobenzene	16.89	146	332096	52.79	ug/L	99
125) 1,2-dichlorobenzene	17.27	146	344633	54.43	ug/L	99
126) n-butylbenzene	17.16	92	299886	58.71	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	33943	55.20	ug/L	98
128) 1,3,5-trichlorobenzene	18.23	180	342839	54.95	ug/L	95
129) 1,2,4-trichlorobenzene	18.87	180	326243	59.49	ug/L	99
130) hexachlorobutadiene	19.01	225	173716	55.68	ug/L	100
131) naphthalene	19.15	128	569500	59.64	ug/L	99
132) 1,2,3-trichlorobenzene	19.39	180	287170	59.15	ug/L	100
133) hexachloroethane	17.54	201	143035	58.10	ug/L	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B127402.D Vial: 14
Acq On : 5 Feb 2015 9:58 pm Operator: bridgetk
Sample : icv5744-50 Inst : MS2B
Misc : MS80225,V2B5744,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 10 9:34 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128088.D Vial: 2
Acq On : 5 Mar 2015 10:30 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:52:40 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	131553	500.00	ug/L		0.00
5) pentafluorobenzene	10.82	168	468739	50.00	ug/L		0.00
58) 1,4-difluorobenzene	11.73	114	514370	50.00	ug/L		0.00
90) chlorobenzene-d5	14.71	117	434617	50.00	ug/L		0.00
106) 1,4-dichlorobenzene-d4	16.87	152	225457	50.00	ug/L		0.00
System Monitoring Compounds							
51) dibromofluoromethane (s)	10.82	113	150634	49.22	ug/L		0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.44%				
52) 1,2-dichloroethane-d4 (s)	11.26	65	155299	43.43	ug/L		0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 86.86%				
82) toluene-d8 (s)	13.31	98	521129	50.31	ug/L		0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 100.62%				
108) 4-bromofluorobenzene (s)	15.78	95	179940	49.44	ug/L		0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 98.88%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.50	59	26301	97.03	ug/L		93
3) ethanol	6.94	45	53714	1825.33	ug/L		96
4) 1,4-dioxane	12.42	88	12119	475.43	ug/L		97
9) chlorodifluoromethane	4.48	51	82202	24.23	ug/L		96
10) dichlorodifluoromethane	4.47	85	74319	17.72	ug/L		96
12) chloromethane	4.87	50	91473	21.34	ug/L		97
13) vinyl chloride	5.18	62	83428	21.33	ug/L		96
15) bromomethane	5.91	94	55773	19.37	ug/L		93
16) chloroethane	6.11	64	39919	21.89	ug/L		97
18) trichlorofluoromethane	6.69	101	89431	18.03	ug/L		99
20) ethyl ether	7.15	74	36076	23.33	ug/L		96
21) acrolein	7.39	56	88465	183.30	ug/L		100
22) 2-chloropropane	7.36	43	109886	21.70	ug/L		87
24) 1,1-dichloroethene	7.62	96	62293	21.89	ug/L		92
25) acetone	7.64	43	19446	22.40	ug/L		79
26) allyl chloride	8.21	76	35038	23.62	ug/L	#	83
27) acetonitrile	8.11	40	33968	204.57	ug/L		92
28) iodomethane	7.91	142	125702	20.79	ug/L		95
29) iso-butyl alcohol	11.10	74	7050	208.55	ug/L	#	48
30) carbon disulfide	8.06	76	205081	22.23	ug/L		96
31) methylene chloride	8.40	84	72470	22.94	ug/L		98
32) methyl acetate	8.18	74	10796	23.02	ug/L	#	80
33) 1-chloropropane	8.46	42	104295	19.28	ug/L		97
34) methyl tert butyl ether	8.82	73	190520	21.10	ug/L		99
35) trans-1,2-dichloroethene	8.83	96	64758	21.46	ug/L		100
36) di-isopropyl ether	9.50	45	201721	23.44	ug/L		96
37) 2-butanone	10.21	72	6974	22.71	ug/L		87
38) 1,1-dichloroethane	9.44	63	118459	22.42	ug/L		99
39) chloroprene	9.58	53	79957	21.35	ug/L		94
40) acrylonitrile	8.74	53	116167	114.09	ug/L		97
41) vinyl acetate	9.45	86	9159	19.37	ug/L		89
42) ethyl tert-butyl ether	10.00	59	193935	21.17	ug/L		98
43) ethyl acetate	10.26	45	7779	23.14	ug/L	#	46

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128088.D Vial: 2
Acq On : 5 Mar 2015 10:30 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:52:40 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2,2-dichloropropane	10.27	77	91446	20.25	ug/L		98
45)	cis-1,2-dichloroethene	10.23	96	73343	22.36	ug/L		97
46)	propionitrile	10.28	54	88681	239.85	ug/L		98
47)	bromochloromethane	10.55	128	38538	22.56	ug/L		96
48)	tetrahydrofuran	10.62	42	17254	22.26	ug/L		97
49)	chloroform	10.62	83	113215	20.60	ug/L		96
50)	t-butyl formate	10.70	59	46672	18.76	ug/L		84
53)	freon 113	7.63	151	49939	21.83	ug/L		90
54)	methacrylonitrile	10.50	41	36194	21.69	ug/L		93
55)	1,1,1-trichloroethane	10.92	97	91513	19.10	ug/L		97
56)	Cyclohexane	11.02	84	87025	22.24	ug/L		91
61)	epichlorohydrin	12.91	57	24968	97.91	ug/L		96
62)	n-butyl alcohol	11.83	56	64546	927.53	ug/L		97
63)	carbon tetrachloride	11.14	117	87493	17.19	ug/L		98
64)	1,1-dichloropropene	11.11	75	80440	20.11	ug/L		98
65)	hexane	9.23	57	73048	24.01	ug/L		97
66)	benzene	11.36	78	239854	21.79	ug/L		98
67)	2,2,4-trimethylpentane	11.43	57	201577	21.87	ug/L		91
68)	tert-amyl methyl ether	11.43	73	165474	18.87	ug/L		98
69)	heptane	11.59	57	39468	22.00	ug/L		96
70)	isopropyl acetate	11.30	43	95750	19.66	ug/L		99
71)	1,2-dichloroethane	11.35	62	80571	17.86	ug/L		88
72)	trichloroethene	12.06	95	62903	20.72	ug/L		99
74)	2-nitropropane	12.77	41	13266	15.97	ug/L		98
75)	2-chloroethyl vinyl ether	12.81	63	170123	106.32	ug/L		98
76)	methyl methacrylate	12.33	100	14751	22.30	ug/L	#	65
77)	1,2-dichloropropane	12.31	63	65695	23.57	ug/L		97
78)	dibromomethane	12.44	93	40995	20.52	ug/L		91
79)	methylcyclohexane	12.31	83	92462	21.43	ug/L		98
80)	bromodichloromethane	12.57	83	86394	19.91	ug/L		98
81)	cis-1,3-dichloropropene	13.01	75	104702	21.89	ug/L		91
83)	4-methyl-2-pentanone	13.12	58	21125	21.87	ug/L	#	83
84)	toluene	13.38	92	140863	21.22	ug/L		99
85)	3-methyl-1-butanol	13.12	55	39448	384.28	ug/L		96
86)	trans-1,3-dichloropropene	13.53	75	92049	19.91	ug/L		95
87)	ethyl methacrylate	13.56	69	69982	21.80	ug/L		94
88)	1,1,2-trichloroethane	13.73	83	48053	21.70	ug/L		99
89)	2-hexanone	13.92	58	18074	22.37	ug/L		87
91)	butyl ether	14.69	57	242328	23.19	ug/L		95
92)	tetrachloroethene	13.93	164	56111	19.33	ug/L		97
93)	1,3-dichloropropane	13.90	76	92413	22.13	ug/L		92
94)	butyl acetate	13.99	56	31282	21.27	ug/L		92
95)	3,3-dimethyl-1-butanol	14.06	57	39700	182.48	ug/L		95
96)	dibromochloromethane	14.15	129	74227	19.95	ug/L		98
97)	1,2-dibromoethane	14.29	107	60999	21.02	ug/L		99
98)	chlorobenzene	14.74	112	160228	21.59	ug/L		97
99)	1,1,1,2-tetrachloroethane	14.79	131	66192	20.07	ug/L		97
100)	ethylbenzene	14.80	91	256238	20.75	ug/L		98
101)	m,p-xylene	14.90	106	199735	42.47	ug/L		94

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128088.D Vial: 2
Acq On : 5 Mar 2015 10:30 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:52:40 2015 Quant Results File: M2B5744.RES

Quant Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration
DataAcq Meth : M2B5744

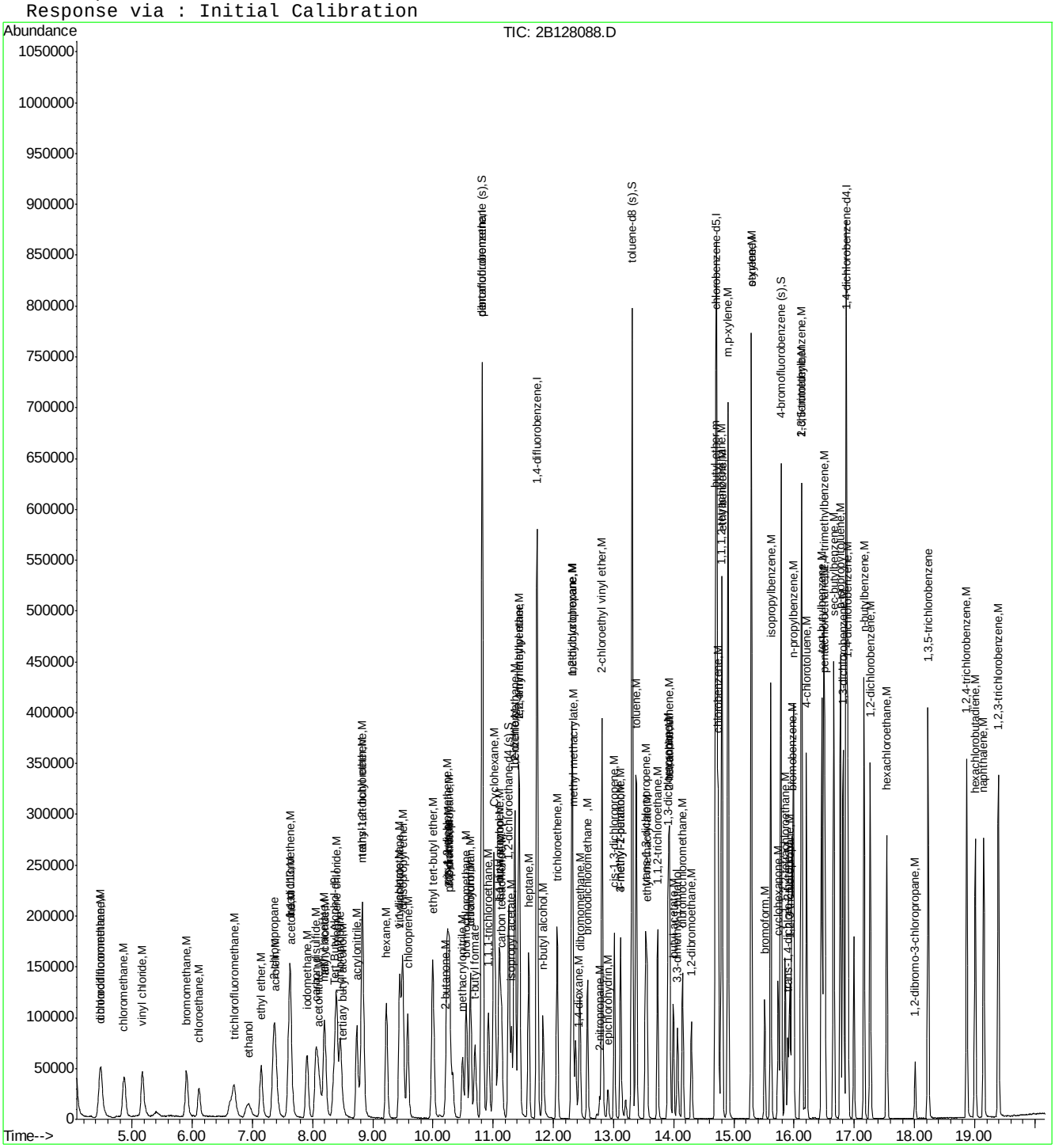
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) o-xylene	15.29	106	104372	20.95	ug/L	99
103) styrene	15.29	104	169163	22.03	ug/L	96
105) bromoform	15.51	173	54422	19.15	ug/L	97
107) isopropylbenzene	15.61	105	267189	22.25	ug/L	98
109) cyclohexanone	15.74	98	25963	216.54	ug/L	96
110) bromobenzene	15.97	156	80583	22.04	ug/L	97
111) 1,1,2,2-tetrachloroethane	15.85	83	74015	23.77	ug/L	97
112) trans-1,4-dichloro-2-buten	15.90	53	13135	16.16	ug/L	88
113) 1,2,3-trichloropropane	15.93	110	19244	22.73	ug/L	97
114) n-propylbenzene	15.99	91	290053	22.53	ug/L	99
115) 2-chlorotoluene	16.12	126	68068	22.18	ug/L	96
116) 4-chlorotoluene	16.21	91	184923	21.71	ug/L	99
117) 1,3,5-trimethylbenzene	16.13	105	215914	21.76	ug/L	100
118) tert-butylbenzene	16.46	119	193710	21.35	ug/L	97
119) pentachloroethane	16.51	167	52671	21.05	ug/L	99
120) 1,2,4-trimethylbenzene	16.49	105	212702	21.85	ug/L	97
121) sec-butylbenzene	16.66	105	290912	22.19	ug/L	98
122) 1,3-dichlorobenzene	16.81	146	144546	21.85	ug/L	99
123) p-isopropyltoluene	16.77	119	247789	22.08	ug/L	98
124) 1,4-dichlorobenzene	16.89	146	138259	20.85	ug/L	98
125) 1,2-dichlorobenzene	17.27	146	146783	22.00	ug/L	99
126) n-butylbenzene	17.16	92	121033	22.48	ug/L	99
127) 1,2-dibromo-3-chloropropan	18.01	75	12847	19.82	ug/L	93
128) 1,3,5-trichlorobenzene	18.23	180	137292	20.88	ug/L	96
129) 1,2,4-trichlorobenzene	18.87	180	122683	21.23	ug/L	100
130) hexachlorobutadiene	19.01	225	65287	19.85	ug/L	97
131) naphthalene	19.15	128	218598	21.72	ug/L	100
132) 1,2,3-trichlorobenzene	19.39	180	109972	21.50	ug/L	96
133) hexachloroethane	17.54	201	51948	20.02	ug/L	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2B128088.D Vial: 2
Acq On : 5 Mar 2015 10:30 am Operator: bridgetk
Sample : cc5744-20 Inst : MS2B
Misc : MS81597,V2B5773,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 5 14:13 2015 Quant Results File: M2B5744.RES

Method : C:\MSDCHEM\1\METHODS\M2B5744.M (RTE Integrator)
Title : SW-846 Method 8260, db624, 60mx0.25mmx1.4um
Last Update : Tue Feb 10 09:30:07 2015
Response via : Initial Calibration



ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2B5744

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: DB624(60mx0.25mmx1.4um)

Method V8260B/C

Initial Cal. Method M2B5744

Date: 2/5/15

Dil only VOIS-2016-49
Surr VOIS-2016-31(12)

Standard Data

Lot #	Description	Conc.
VOIS-2016-5 (60)	8260A	100 ppm
-29 (4)	↓ B	↓
-55 (10)	↓ C	↓
-8 (42)	QC10	1000
↓ -14 (10)	EtOH	10000

Standard Data

Lot #	Description	Conc.
VOIS-2016-53 (3)	Part 8260A	100 ppm
-32 (20)	↓ B	↓
-40 (7)	↓ C	↓
-23 (9)	QC10	1000
-12 (5)	EtOH	10000
↓ -15 (3)	Here	100 ↓

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/6/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2B127389	BFB				1	5		1x				OK	33ul	
	127390	ICS744-0.2	8260 Initial Calibration	AQ		2	5		1x		✓		OK	5ul ABC/EtOH IS 1000mCDE	
	127391	ICS744-0.5				3	5		1x		✓		OK	5ul ↓ ↓	
	127392	ICS744-1				4	5		1x		✓		OK	10ul ABC/EtOH IS 100mCDE	
	127393	ICS744-2				5	5		1x		✓		OK	20ul ABC/EtOH IS 100mCDE	
	127394	ICS744-5				6	5		1x		✓		OK	5ul ABC/EtOH IS 100mCDE	
	127395	ICS744-10				7	5		1x		✓		OK	10ul ↓ ↓	
	127396	ICS744-20				8	5		1x		✓		OK	20ul ABC/EtOH IS 100mCDE	
	127397	ICCS744-50				9	5		1x		✓		OK	25ul ABC/EtOH IS 100mCDE	
	127398	ICS744-100				10	5		1x		✓		OK	50ul ABC/EtOH IS 100mCDE	
	127399	ICS744-200				11	5		1x		✓		OK	100ul ↓ ↓	
	127400	IB				12	5		1x		—				
	127401	IB				13	5		1x		—				
	127402	ICS744-50				14	5		1x		✓		OK	50ul ABC/EtOH Here IS 100mCDE	
	127403	IB				15	5		1x		—				
														BK 2/5/15	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V2B5773

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Date: 3/5/15

pH paper lot #212713

Standard Data

Lot #	Description	Conc.
Vassaw 89	(14) 8260A	100 ppm
-83	(20) B	"
-103	(1) C	↓
-60	(29) acrolein	1000
-78	(10) ethanol	10000

Standard Data

Lot #	Description	Conc.
Vassaw 89	(7) EX+ 8260A	100 ppm
-75	(14) B	"
-98	(3) C	↓
-85	(3) acrolein	1000
-90	(3) ethanol	10000

Columns: ZB624(60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method M2B5744

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/5/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	~~Secondary~~ dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	2B128087	BFB				1							ok	10:02am	
	128088	CCS744-20				2							ok	20uL ABCacrolein+100mL DI 10:02am #9↑ BK 3/5	
	128089	IB				3							clip		
	128090	MB				4							ok		
	128091	BS				5							ok	50uL EXT ABCacrolein+100mL	
	128092	IB				6							clip		
	128093	SB89269-1	81624 TCL20+20 R22	W	1	7	5		1X				ok		✓
	128094	SB89269-2			2	8	5		1x				ok		✓
	128095	SB89269-5			2	9	5		1X				ok	1cent range	✓
	128096	SB89269-3			1	10	5		1x				OK		✓
	128097	SB89269-4			1	11	5		1x				ok		✓
R	128098	SB89160-8	81575 SPL	W	2	12	5		1x				OK		✓
R	128099	SB89160-7	↓		1	13	2.50		25x				OK	+2E111356	✓
	128100	SB89160-2MS	81572 BFB, MeCl		1	14	12.5/50		4x				OK	50uL ABCacrolein+100mL	✓
	128101	SB89167-2MSD	↓		1	15	12.5/50		4x				OK		✓
	128102	IB				16							%		
	128103	SB89167-2	↓		1	17	12.5/50		4x				ok	RR1x	✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

153

Form: OR001-9
Rev. Date: 2/14/2007

7.7.2 7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2B5773

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: ZB624(60mx0.25mmx1.4um)

Method V8260C

Initial Cal. Method M2B5744

Date: 3/5/15

Standard Data		
Lot #	**Description**	**Conc.**
	8260D, 153	

Standard Data		
Lot #	**Description**	**Conc.**
	8260D, 153	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: MKA **Date:** 3/5/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	~~Secondary~~ dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	2B5773	SB59167-1	BK635 ② 8260D BTXM	W	1	18	5		1X		✓		OK	S1572 BTX,MOD1	✓
	128105	SB59227-1	S1620 BTXM		2	19	5		1X		✓		OK/DL	F1020X	✓
	128106	SB59227-2			1	20	5		1X		✓		RR	RR 1X 90	✓
	128107	SB59227-3			6	21	5		1X		✓		RR	RR 1X 90	✓
	128108	SB59227-4			2	22	5		1X		✓		OK		✓
	128109	SB59227-5			1	23	5		1X		✓		OK		✓
	128110	SB59227-6			1	24	5		1X		✓		OK		✓
	128111	SB59227-7			1	25	5		1X		✓		OK		✓
	128112	SB59227-8			1	26	5		1X		✓		OK	9:09 P.M.	✓
														BK 3/5/15	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

Appendix E

Data Usability Summary Reports

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB92910, JB93029, JB93029A, JB93166, JB93166A, JB93389, JB93389A

Laboratory: Accutest – Dayton, New Jersey Date: May 13, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	PZ-08A	JB92910-1	Aqueous
2	PZ-08B	JB92910-2	Aqueous
3	FB042015	JB92910-3	Aqueous
4	BCPMW-2	JB92910-4	Aqueous
5	BCPMW-3	JB92910-5	Aqueous
6	PZ-08C	JB92910-6	Aqueous
7	BCPMW-5-1	JB92910-7	Aqueous
8	PZ-05C	JB92910-8	Aqueous
9	FB042115	JB92910-9	Aqueous
10	TB042115	JB92910-10	Aqueous
11	PZ-01C	JB93029-1	Aqueous
12	BCPMW-4-1	JB93029-2	Aqueous
13	BCPMW-4-2	JB93029-3	Aqueous
14	DUP042115 (BCPMW-4-1)	JB93029-4	Aqueous
15	PZ-02C	JB93029-5	Aqueous
16	BCPMW-4-3	JB93029-6	Aqueous
17	BCPMW-6-1	JB93029-7	Aqueous
18	BCPMW-6-2	JB93029-8	Aqueous
19	BCPMW-7-1	JB93029-9	Aqueous
20	PZ-10A	JB93029-10	Aqueous
21	PZ-09A	JB93029-11	Aqueous
22	TB042215	JB93029-12	Aqueous
23	FB042215	JB93029-13	Aqueous
24	MW-206-1	JB93166-1	Aqueous
25	MW-207B-1	JB93166-2	Aqueous
25 MSD	MW-207B-1 MSD	JB93166-2D	Aqueous
25 MS	MW-207B-1 MS	JB93166-2S	Aqueous
26	MW-205-1	JB93166-3	Aqueous
27	MW-207A-1	JB93166-4	Aqueous
28	MW-208-1	JB93166-5	Aqueous
29	MW-204-1	JB93166-6	Aqueous
30	TB042315	JB93166-7	Aqueous

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
31	FB042315	JB93166-8	Aqueous
32	DUP042315 (MW-208-1)	JB93166-9	Aqueous
33	RW-01	JB93389-1	Aqueous
33 MSD	RW-01 (MSD)	JB93389-1D	Aqueous
33 MS	RW-01 (MS)	JB93389-1S	Aqueous
34	RW-02	JB93389-2	Aqueous
35	RW-03	JB93389-3	Aqueous
36	RW-04	JB93389-4	Aqueous
37	TB042715	JB93389-5	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix except in JB92910.

VOLATILE ORGANIC COMPOUNDS

USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria except Freon 113 in the BSS in analytical batch V1C6174. No qualification of the sample data is required as the %R was above QC criteria (150%; QC limits 76-140%), however Freon 113 was not positively identified in any associated sample.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – Two MS/MSD were collected with the samples in this data set on EDS ID 25 and 33. All %R and relative percent difference (RPD) met QC criteria. The laboratory also selected samples from this data set to analyze additional MS/MSD as well as provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Four FBs and four TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds.

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values except those listed below.

CCV	Compound (s)	%D/RRF	Associated Samples (EDS ID)	Qualification
V1C6174-CC6129	Freon 113	-30.7	5-8	UJ

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – Two blind field duplicate samples were collected with this data set; EDS ID 14 was collected from EDS ID 12 and EDS ID 32 was collected from EDS ID 28. All results matched well.

Compound Quantitation – see comments below.

Freon-22 (Chlorodifluoromethane) has been added to the target compound list.

A zero has been added by the lab after "PZ-" in the sample identifications (IDs) for samples EDS ID 01, 02, 06, 08, and 21. These IDs were incorrect on the COCs. All forms show the correct sample IDs.

EDS ID 07 was analyzed at a 10x dilution, EDS ID 28 was analyzed at a 5x dilution, and EDS ID 32 was analyzed at a 2x dilution. These dilutions were based on screening analysis by the lab. The dilutions were justified. No other analyses for EDS ID 07 or 28 were performed. EDS ID 32 was reanalyzed at a 5x dilution due to the concentration of cis-1,2-Dichloroethene exceeding the calibration range of the instrument in the initial analysis. The result for cis-1,2-Dichloroethene has been reported from the further diluted analysis as noted by the lab on the Form I. The results are valid and useable. No qualification of the data is required.

All Tentatively Identified Compounds (TICs) are qualified as estimated J, by the laboratory since the concentrations are based on an arbitrary response factor and their identification is based on the best match mass spectra library search.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID:	PZ-08A		
Lab Sample ID:	JB92910-1	**Date Sampled:**	04/20/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D143807.D	1	04/22/15	BK	n/a	n/a	V2D6040
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	7.0	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	0.24	1.0	0.17	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	8.8	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-08A		
Lab Sample ID:	JB92910-1	**Date Sampled:**	04/20/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	3.9	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	PZ-08B		
Lab Sample ID:	JB92910-2	**Date Sampled:**	04/20/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D143806.D	1	04/22/15	BK	n/a	n/a	V2D6040
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	1.4	5.0	0.52	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-08B		
Lab Sample ID:	JB92910-2	**Date Sampled:**	04/20/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	0.57	1.0	0.40	ug/l	J
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	1.9	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB042015		
Lab Sample ID:	JB92910-3	**Date Sampled:**	04/20/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D143804.D	1	04/22/15	BK	n/a	n/a	V2D6040
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB042015		
Lab Sample ID:	JB92910-3	**Date Sampled:**	04/20/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	BCPMW-2		
Lab Sample ID:	JB92910-4	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D143805.D	1	04/22/15	BK	n/a	n/a	V2D6040
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	1.0	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	2.0	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	105	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-2		
Lab Sample ID:	JB92910-4	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	0.87	1.0	0.40	ug/l	J
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	0.40	1.0	0.25	ug/l	J
79-00-5	1,1,2-Trichloroethane	0.34	1.0	0.21	ug/l	J
79-01-6	Trichloroethene	46.0	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	BCPMW-3		
Lab Sample ID:	JB92910-5	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C139051.D	1	04/22/15	ST	n/a	n/a	V1C6174
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	1.5	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.0	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-3		
Lab Sample ID:	JB92910-5	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	107%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	PZ-08C		
Lab Sample ID:	JB92910-6	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C139052.D	1	04/22/15	ST	n/a	n/a	V1C6174
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	5.9	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-08C		
Lab Sample ID:	JB92910-6	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	98%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	BCPMW-5-1		
Lab Sample ID:	JB92910-7	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C139054.D	10	04/22/15	ST	n/a	n/a	V1C6174
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	33	ug/l	
71-43-2	Benzene	ND	5.0	2.4	ug/l	
74-97-5	Bromochloromethane	ND	10	3.7	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.3	ug/l	
75-25-2	Bromoform	ND	10	2.3	ug/l	
74-83-9	Bromomethane	ND	20	4.2	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	56	ug/l	
75-15-0	Carbon disulfide	ND	20	2.5	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.2	ug/l	
108-90-7	Chlorobenzene	ND	10	1.9	ug/l	
75-45-6	Chlorodifluoromethane	ND	50	4.4	ug/l	
75-00-3	Chloroethane	ND	10	3.4	ug/l	
67-66-3	Chloroform	ND	10	1.9	ug/l	
74-87-3	Chloromethane	ND	10	4.1	ug/l	
110-82-7	Cyclohexane	ND	50	2.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	9.9	ug/l	
124-48-1	Dibromochloromethane	ND	10	1.5	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.3	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	2.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	2.7	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	9.0	ug/l	
75-34-3	1,1-Dichloroethane	3.5	10	1.7	ug/l	J
107-06-2	1,2-Dichloroethane	ND	10	1.8	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	5.1	ug/l	
156-59-2	cis-1,2-Dichloroethene	1140	10	2.7	ug/l	
156-60-5	trans-1,2-Dichloroethene	10.1	10	6.5	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	3.9	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.1	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	1.9	ug/l	
100-41-4	Ethylbenzene	ND	10	2.7	ug/l	
76-13-1	Freon 113	ND	50	5.2	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-5-1		
Lab Sample ID:	JB92910-7	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	50	17	ug/l	
98-82-8	Isopropylbenzene	ND	10	2.3	ug/l	
79-20-9	Methyl Acetate	ND	50	19	ug/l	
108-87-2	Methylcyclohexane	ND	50	2.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.4	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	50	10	ug/l	
75-09-2	Methylene chloride	ND	20	7.3	ug/l	
100-42-5	Styrene	ND	10	2.7	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.1	ug/l	
127-18-4	Tetrachloroethene	ND	10	4.0	ug/l	
108-88-3	Toluene	ND	10	1.6	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	2.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	2.1	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.1	ug/l	
79-01-6	Trichloroethene	ND	10	2.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	4.3	ug/l	
75-01-4	Vinyl chloride	39.4	10	1.5	ug/l	
	m,p-Xylene	ND	10	3.8	ug/l	
95-47-6	o-Xylene	ND	10	1.7	ug/l	
1330-20-7	Xylene (total)	ND	10	1.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	107%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	PZ-05C		
Lab Sample ID:	JB92910-8	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C139053.D	1	04/22/15	ST	n/a	n/a	V1C6174
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	J

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-05C		
Lab Sample ID:	JB92910-8	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB042115		
Lab Sample ID:	JB92910-9	**Date Sampled:**	04/21/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130317.D	1	04/22/15	BK	n/a	n/a	V2B5825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB042115		
Lab Sample ID:	JB92910-9	**Date Sampled:**	04/21/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	98%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB042115		
Lab Sample ID:	JB92910-10	**Date Sampled:**	04/21/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130318.D	1	04/22/15	BK	n/a	n/a	V2B5825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB042115		
Lab Sample ID:	JB92910-10	**Date Sampled:**	04/21/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	98%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: PZ-01C
Lab Sample ID: JB93029-1 **Date Sampled:** 04/21/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129017.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.0	10	3.3	ug/l	J
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-01C		
Lab Sample ID:	JB93029-1	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	1.0	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	0.23	1.0	0.17	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: BCPMW-4-1
Lab Sample ID: JB93029-2 **Date Sampled:** 04/21/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129018.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	0.78	1.0	0.17	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	78.6	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BCPMW-4-1
Lab Sample ID: JB93029-2 **Date Sampled:** 04/21/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	3.2	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	0.72	1.0	0.15	ug/l	J
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: BCPMW-4-2
Lab Sample ID: JB93029-3 **Date Sampled:** 04/21/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129019.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.37	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	1.3	5.0	0.28	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	1.5	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	0.64	1.0	0.18	ug/l	J
75-35-4	1,1-Dichloroethene	0.79	1.0	0.51	ug/l	J
156-59-2	cis-1,2-Dichloroethene	68.8	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-2		
Lab Sample ID:	JB93029-3	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	6.0	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	0.56	1.0	0.40	ug/l	J
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	47.6	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	29.2	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	111%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	105%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	PZ-02C		
Lab Sample ID:	JB93029-5	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129021.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.3	10	3.3	ug/l	J
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	0.52	5.0	0.44	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-02C		
Lab Sample ID:	JB93029-5	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	0.94	1.0	0.16	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	0.58	1.0	0.22	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: BCPMW-4-3
Lab Sample ID: JB93029-6 **Date Sampled:** 04/22/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129016.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.4	10	3.3	ug/l	J
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.25	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-3		
Lab Sample ID:	JB93029-6	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	111%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
67-63-0	Isopropyl Alcohol	6.69	9.8	ug/l	JN
	Total TIC, Volatile		9.8	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: BCPMW-6-1
Lab Sample ID: JB93029-7 **Date Sampled:** 04/22/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129022.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	23.2	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.47	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-6-1		
Lab Sample ID:	JB93029-7	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	0.48	1.0	0.22	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: BCPMW-6-2
Lab Sample ID: JB93029-8 **Date Sampled:** 04/22/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129023.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.3	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.36	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	0.37	1.0	0.17	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-6-2		
Lab Sample ID:	JB93029-8	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.40	1.0	0.24	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
67-63-0	Isopropyl Alcohol	6.70	6.2	ug/l	JN
	Total TIC, Volatile		6.2	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JB93029-9	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130365.D	1	04/23/15	BK	n/a	n/a	V2B5827
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JB93029-9	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: PZ-10A
Lab Sample ID: JB93029-10 **Date Sampled:** 04/22/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130366.D	1	04/23/15	BK	n/a	n/a	V2B5827
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	3.5	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.82	1.0	0.27	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-10A		
Lab Sample ID:	JB93029-10	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	1.6	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	2.2	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	102%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: PZ-09A
Lab Sample ID: JB93029-11 **Date Sampled:** 04/22/15
Matrix: AQ - Ground Water **Date Received:** 04/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130367.D	1	04/23/15	BK	n/a	n/a	V2B5827
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	0.30	1.0	0.23	ug/l	J
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	1.1	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	0.34	1.0	0.15	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.2	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-09A		
Lab Sample ID:	JB93029-11	**Date Sampled:**	04/22/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	7.1	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	64.9	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUP042115		
Lab Sample ID:	JB93029-4	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129020.D	1	04/23/15	TP	n/a	n/a	V2C5849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	0.78	1.0	0.17	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	80.9	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP042115		
Lab Sample ID:	JB93029-4	**Date Sampled:**	04/21/15
Matrix:	AQ - Ground Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	3.4	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	0.77	1.0	0.15	ug/l	J
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB042215		
Lab Sample ID:	JB93029-12	**Date Sampled:**	04/22/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130372.D	1	04/23/15	BK	n/a	n/a	V2B5827
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB042215		
Lab Sample ID:	JB93029-12	**Date Sampled:**	04/22/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB042215		
Lab Sample ID:	JB93029-13	**Date Sampled:**	04/22/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B130373.D	1	04/23/15	BK	n/a	n/a	V2B5827
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB042215		
Lab Sample ID:	JB93029-13	**Date Sampled:**	04/22/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-206-1
Lab Sample ID: JB93166-1 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212944.D	1	04/24/15	JM	n/a	n/a	VA8059
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	0.44	1.0	0.17	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.37	1.0	0.27	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-206-1		
Lab Sample ID:	JB93166-1	**Date Sampled:**	04/23/15
Matrix:	AQ - Ground Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	0.48	1.0	0.40	ug/l	J
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-207B-1
Lab Sample ID: JB93166-2 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212943.D	1	04/24/15	JM	n/a	n/a	VA8059
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	27.0	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.25	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-207B-1		
Lab Sample ID:	JB93166-2	**Date Sampled:**	04/23/15
Matrix:	AQ - Ground Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	2.4	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	0.75	1.0	0.22	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	0.27	1.0	0.17	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	109%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-205-1
Lab Sample ID: JB93166-3 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212942.D	1	04/24/15	JM	n/a	n/a	VA8059
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.58	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.48	1.0	0.27	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-205-1
Lab Sample ID: JB93166-3 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	1.1	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-207A-1		
Lab Sample ID:	JB93166-4	**Date Sampled:**	04/23/15
Matrix:	AQ - Ground Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D59092.D	1	04/24/15	MM	n/a	n/a	V4D2622
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.1	10	3.3	ug/l	J
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-207A-1		
Lab Sample ID:	JB93166-4	**Date Sampled:**	04/23/15
Matrix:	AQ - Ground Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	0.54	1.0	0.16	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	86%		84-119%
460-00-4	4-Bromofluorobenzene	90%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-208-1
Lab Sample ID: JB93166-5 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D59094.D	5	04/24/15	MM	n/a	n/a	V4D2622
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	17	ug/l	
71-43-2	Benzene	ND	2.5	1.2	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.9	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.1	ug/l	
75-25-2	Bromoform	ND	5.0	1.2	ug/l	
74-83-9	Bromomethane	ND	10	2.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	28	ug/l	
75-15-0	Carbon disulfide	ND	10	1.3	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.1	ug/l	
108-90-7	Chlorobenzene	ND	5.0	0.93	ug/l	
75-45-6	Chlorodifluoromethane	ND	25	2.2	ug/l	
75-00-3	Chloroethane	ND	5.0	1.7	ug/l	
67-66-3	Chloroform	1.8	5.0	0.94	ug/l	J
74-87-3	Chloromethane	ND	5.0	2.0	ug/l	
110-82-7	Cyclohexane	ND	25	1.4	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	0.77	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.1	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.4	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	4.5	ug/l	
75-34-3	1,1-Dichloroethane	2.0	5.0	0.86	ug/l	J
107-06-2	1,2-Dichloroethane	ND	5.0	0.90	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.6	ug/l	
156-59-2	cis-1,2-Dichloroethene	589	5.0	1.4	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	3.2	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.93	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.3	ug/l	
76-13-1	Freon 113	ND	25	2.6	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-208-1
Lab Sample ID: JB93166-5 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	25	8.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	1.2	ug/l	
79-20-9	Methyl Acetate	ND	25	9.4	ug/l	
108-87-2	Methylcyclohexane	ND	25	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.2	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	25	5.1	ug/l	
75-09-2	Methylene chloride	ND	10	3.6	ug/l	
100-42-5	Styrene	ND	5.0	1.4	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.0	ug/l	
108-88-3	Toluene	ND	5.0	0.81	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.3	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.1	ug/l	
79-01-6	Trichloroethene	6.0	5.0	1.1	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	3.9	5.0	0.74	ug/l	J
	m,p-Xylene	ND	5.0	1.9	ug/l	
95-47-6	o-Xylene	ND	5.0	0.83	ug/l	
1330-20-7	Xylene (total)	ND	5.0	0.83	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	87%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-204-1
Lab Sample ID: JB93166-6 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D59093.D	1	04/24/15	MM	n/a	n/a	V4D2622
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.27	1.0	0.27	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-204-1
Lab Sample ID: JB93166-6 **Date Sampled:** 04/23/15
Matrix: AQ - Ground Water **Date Received:** 04/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	1.4	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	87%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB042315		
Lab Sample ID:	JB93166-7	**Date Sampled:**	04/23/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212975.D	1	04/25/15	JM	n/a	n/a	VA8060
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB042315		
Lab Sample ID:	JB93166-7	**Date Sampled:**	04/23/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		76-120%
17060-07-0	1,2-Dichloroethane-D4	109%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB042315		
Lab Sample ID:	JB93166-8	**Date Sampled:**	04/23/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212976.D	1	04/25/15	JM	n/a	n/a	VA8060
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB042315		
Lab Sample ID:	JB93166-8	**Date Sampled:**	04/23/15
Matrix:	AQ - Field Blank Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-120%
17060-07-0	1,2-Dichloroethane-D4	110%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUP042315		
Lab Sample ID:	JB93166-9	**Date Sampled:**	04/23/15
Matrix:	AQ - Ground Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A213004.D	2	04/27/15	JM	n/a	n/a	VA8061
Run #2	A212982.D	5	04/25/15	JM	n/a	n/a	VA8060

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	6.6	ug/l	
71-43-2	Benzene	ND	1.0	0.47	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.74	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.45	ug/l	
75-25-2	Bromoform	ND	2.0	0.47	ug/l	
74-83-9	Bromomethane	ND	4.0	0.85	ug/l	
78-93-3	2-Butanone (MEK)	ND	20	11	ug/l	
75-15-0	Carbon disulfide	ND	4.0	0.51	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.44	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.37	ug/l	
75-45-6	Chlorodifluoromethane	ND	10	0.88	ug/l	
75-00-3	Chloroethane	ND	2.0	0.68	ug/l	
67-66-3	Chloroform	2.2	2.0	0.37	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
110-82-7	Cyclohexane	ND	10	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.31	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.46	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.37	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.55	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.8	ug/l	
75-34-3	1,1-Dichloroethane	2.7	2.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.36	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	632 [a]	5.0	1.4	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	1.3	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.79	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.41	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.54	ug/l	
76-13-1	Freon 113	ND	10	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP042315		
Lab Sample ID:	JB93166-9	**Date Sampled:**	04/23/15
Matrix:	AQ - Ground Water	**Date Received:**	04/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	10	3.5	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.47	ug/l	
79-20-9	Methyl Acetate	ND	10	3.8	ug/l	
108-87-2	Methylcyclohexane	ND	10	0.44	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.47	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	10	2.0	ug/l	
75-09-2	Methylene chloride	ND	4.0	1.5	ug/l	
100-42-5	Styrene	ND	2.0	0.54	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.41	ug/l	
127-18-4	Tetrachloroethene	ND	2.0	0.80	ug/l	
108-88-3	Toluene	ND	2.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.42	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.43	ug/l	
79-01-6	Trichloroethene	6.6	2.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	0.86	ug/l	
75-01-4	Vinyl chloride	4.7	2.0	0.29	ug/l	
	m,p-Xylene	ND	2.0	0.75	ug/l	
95-47-6	o-Xylene	ND	2.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	110%	107%	73-122%
2037-26-5	Toluene-D8	98%	100%	84-119%
460-00-4	4-Bromofluorobenzene	104%	102%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: RW-01
Lab Sample ID: JB93389-1 **Date Sampled:** 04/27/15
Matrix: AQ - Ground Water **Date Received:** 04/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129175.D	1	04/28/15	TP	n/a	n/a	V2C5855
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-01		
Lab Sample ID:	JB93389-1	**Date Sampled:**	04/27/15
Matrix:	AQ - Ground Water	**Date Received:**	04/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	0.24	1.0	0.22	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	116%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	98%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	RW-02		
Lab Sample ID:	JB93389-2	**Date Sampled:**	04/27/15
Matrix:	AQ - Ground Water	**Date Received:**	04/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129174.D	1	04/28/15	TP	n/a	n/a	V2C5855
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	2.3	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	1.0	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	47.0	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	2.1	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-02		
Lab Sample ID:	JB93389-2	**Date Sampled:**	04/27/15
Matrix:	AQ - Ground Water	**Date Received:**	04/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	0.88	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	19.4	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	11.4	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	62.5	1.0	0.15	ug/l	
	m,p-Xylene	2.2	1.0	0.38	ug/l	
95-47-6	o-Xylene	1.2	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	3.4	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	115%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: RW-03
Lab Sample ID: JB93389-3 **Date Sampled:** 04/27/15
Matrix: AQ - Ground Water **Date Received:** 04/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129176.D	1	04/28/15	TP	n/a	n/a	V2C5855
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	15.9	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	8.7	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.6	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-03		
Lab Sample ID:	JB93389-3	**Date Sampled:**	04/27/15
Matrix:	AQ - Ground Water	**Date Received:**	04/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	2.7	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	117%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: RW-04
Lab Sample ID: JB93389-4 **Date Sampled:** 04/27/15
Matrix: AQ - Ground Water **Date Received:** 04/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129177.D	1	04/28/15	TP	n/a	n/a	V2C5855
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	41.5	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	0.30	1.0	0.19	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	0.30	1.0	0.17	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-04		
Lab Sample ID:	JB93389-4	**Date Sampled:**	04/27/15
Matrix:	AQ - Ground Water	**Date Received:**	04/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	0.62	1.0	0.40	ug/l	J
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	0.47	1.0	0.22	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	115%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB042715
Lab Sample ID: JB93389-5 **Date Sampled:** 04/27/15
Matrix: AQ - Trip Blank Water **Date Received:** 04/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C129182.D	1	04/28/15	TP	n/a	n/a	V2C5855
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.44	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TB042715
Lab Sample ID: JB93389-5 **Date Sampled:** 04/27/15
Matrix: AQ - Trip Blank Water **Date Received:** 04/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	116%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB88821, JB88821A, JB88934, JB88934A, JB89010, JB89010A

Laboratory: Accutest – Dayton, New Jersey Date: March 15, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-207(220)	JB88821-1	Aqueous
2	VPB-207(230)	JB88821-2	Aqueous
3	FB022515	JB88821-3	Aqueous
4	TB022515	JB88821-4	Aqueous
5	VPB-207(240)	JB88934-1	Aqueous
6	FB022615	JB88934-2	Aqueous
7	TB022615	JB88934-3	Aqueous
8	VPB-207(250)	JB88934-4	Aqueous
9	VPB-207(260)	JB89010-1	Aqueous
10	FB022715A	JB89010-2	Aqueous
11	FB022715B	JB89010-3	Aqueous
12	TB022715	JB89010-4	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix.

VOLATILE ORGANIC COMPOUNDS
USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – No MS/MSD was collected with this data set, however MS/MSD are being collected on this project at a rate of 1 per 20 samples. The laboratory provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Four FBs and three TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below if applicable, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds/TICs the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
6	Acetone o-Xylene	3.4 (34) 0.32 (1.60)	5, 8
12	o-Xylene	0.23 (1.15)	9

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values except those listed below.

CCV	Compound (s)	%D/RRF	Associated Samples (EDS ID)	Qualification
V2B5765-CC5744	Chloroethane	-25.1	5-8	J/UJ

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – No blind field duplicate sample was collected with this data set, but blind field duplicate samples are being collected on this project at a rate of 1 per 20 samples.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Most samples have been centrifuged due to presence of sediment. No qualification is required.

One of three vials received at the laboratory for sample EDS ID 01 was received with headspace. This vial was not utilized for analysis therefore no qualification of the sample data is required.

Only 2 vials were submitted to the laboratory for EDS ID 02 due to limited sample volume during collection. The lab had sufficient sample volume to analyze the sample and did not need to rerun the sample for any reason therefore no qualification of the sample data is required.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(220)
Lab Sample ID: JB88821-1 **Date Sampled:** 02/25/15
Matrix: AQ - Ground Water **Date Received:** 02/25/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127870.D	1	02/26/15	BK	n/a	n/a	V2B5764
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	45.6	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(220)		
Lab Sample ID:	JB88821-1	**Date Sampled:**	02/25/15
Matrix:	AQ - Ground Water	**Date Received:**	02/25/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	119	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.62	1.0	0.35	ug/l	J
95-47-6	o-Xylene	0.30	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.92	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	90%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	96%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(230)
Lab Sample ID: JB88821-2 **Date Sampled:** 02/25/15
Matrix: AQ - Ground Water **Date Received:** 02/25/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127869.D	1	02/26/15	BK	n/a	n/a	V2B5764
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	60.3	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	5.2	10	2.3	ug/l	J
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(230)		
Lab Sample ID:	JB88821-2	**Date Sampled:**	02/25/15
Matrix:	AQ - Ground Water	**Date Received:**	02/25/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	26.8	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.48	1.0	0.35	ug/l	J
95-47-6	o-Xylene	0.24	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.73	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	90%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB022515
Lab Sample ID: JB88821-3 **Date Sampled:** 02/25/15
Matrix: AQ - Field Blank Water **Date Received:** 02/25/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127871.D	1	02/26/15	BK	n/a	n/a	V2B5764
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022515		
Lab Sample ID:	JB88821-3	**Date Sampled:**	02/25/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/25/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		76-120%
17060-07-0	1,2-Dichloroethane-D4	92%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB022515
Lab Sample ID: JB88821-4 **Date Sampled:** 02/25/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/25/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127872.D	1	02/26/15	BK	n/a	n/a	V2B5764
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB022515		
Lab Sample ID:	JB88821-4	**Date Sampled:**	02/25/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/25/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	91%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(240)		
Lab Sample ID:	JB88934-1	**Date Sampled:**	02/26/15
Matrix:	AQ - Ground Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127892.D	1	02/27/15	BK	n/a	n/a	V2B5765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	49.3	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	J
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(240)		
Lab Sample ID:	JB88934-1	**Date Sampled:**	02/26/15
Matrix:	AQ - Ground Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	3.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND ~~0.20~~	1.0	0.20	ug/l	~~J~~
1330-20-7	Xylene (total)	ND ~~0.20~~	1.0	0.20	ug/l	~~J~~

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(250)		
Lab Sample ID:	JB88934-4	**Date Sampled:**	02/26/15
Matrix:	AQ - Ground Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127891.D	1	02/27/15	BK	n/a	n/a	V2B5765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~28.2~~	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	J
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(250)		
Lab Sample ID:	JB88934-4	**Date Sampled:**	02/26/15
Matrix:	AQ - Ground Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	1.2	1.0	0.35	ug/l	
108-88-3	Toluene	19.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB022615		
Lab Sample ID:	JB88934-2	**Date Sampled:**	02/26/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127890.D	1	02/27/15	BK	n/a	n/a	V2B5765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	3.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	J
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022615		
Lab Sample ID:	JB88934-2	**Date Sampled:**	02/26/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.32	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.32	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB022615		
Lab Sample ID:	JB88934-3	**Date Sampled:**	02/26/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127893.D	1	02/27/15	BK	n/a	n/a	V2B5765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	J
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB022615		
Lab Sample ID:	JB88934-3	**Date Sampled:**	02/26/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/26/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	85%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(260)
Lab Sample ID: JB89010-1 **Date Sampled:** 02/27/15
Matrix: AQ - Ground Water **Date Received:** 02/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C137494.D	1	03/02/15	ST	n/a	n/a	V1C6111
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	56.8	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(260)		
Lab Sample ID:	JB89010-1	**Date Sampled:**	02/27/15
Matrix:	AQ - Ground Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.66	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.66	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	94%		73-122%
2037-26-5	Toluene-D8	109%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB022715A
Lab Sample ID: JB89010-2 **Date Sampled:** 02/27/15
Matrix: AQ - Field Blank Water **Date Received:** 02/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C137495.D	1	03/02/15	ST	n/a	n/a	V1C6111
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022715A		
Lab Sample ID:	JB89010-2	**Date Sampled:**	02/27/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	108%		84-119%
460-00-4	4-Bromofluorobenzene	105%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB022715B		
Lab Sample ID:	JB89010-3	**Date Sampled:**	02/27/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128058.D	1	03/04/15	BK	n/a	n/a	V2B5771
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB022715B		
Lab Sample ID:	JB89010-3	**Date Sampled:**	02/27/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB022715
Lab Sample ID: JB89010-4 **Date Sampled:** 02/27/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/27/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B128059.D	1	03/04/15	BK	n/a	n/a	V2B5771
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB022715		
Lab Sample ID:	JB89010-4	**Date Sampled:**	02/27/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/27/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.23	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.23	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB88399, JB88449, JB88449A, JB88528, JB88528A

Laboratory: Accutest – Dayton, New Jersey Date: March 9, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-207(160)	JB88399-1	Aqueous
2	FB021715	JB88399-2	Aqueous
3	TB021715	JB88399-3	Aqueous
4	VPB-207(170)	JB88399-4	Aqueous
5	FB021815	JB88449-1	Aqueous
6	TB021815	JB88449-2	Aqueous
7	VPB-207(190)	JB88449-3	Aqueous
8	VPB-207(200)	JB88528-1	Aqueous
9	FB021915	JB88528-2	Aqueous
10	TB021915	JB88528-3	Aqueous
11	VPB-207(210)	JB88528-4	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix except in JB88399.

VOLATILE ORGANIC COMPOUNDS
USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria except 1,1,2,2-Tetrachloroethane, Bromochloromethane, Bromomethane which were above QC criteria in the BSS applicable to EDS IDs 9 and 10. Results for these compounds in the associated samples are possible biased high. No qualification of the sample data is required as these compounds were not positively identified in the associated samples.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – No MS/MSD was collected with this data set, however MS/MSD are being collected on this project at a rate of 1 per 20 samples. The laboratory provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Three FBs and three TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below if applicable, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds/TICs the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
2	Acetone o-Xylene	8.7 (87) 0.62 (3.10)	1, 4
3	Acetone o-Xylene	9.0 (90) 0.58 (2.90)	1,4
5	Acetone o-Xylene	8.6 (86) 0.42 (2.10)	7
6	Acetone o-Xylene	9.0 (90) 0.46 (2.30)	7
9	Acetone o-Xylene	4.4 (44) 0.31 (1.55)	8, 11
10	Acetone o-Xylene	5.7 (57) 0.23 (1.15)	8, 11

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – No blind field duplicate sample was collected with this data set, but blind field duplicate samples are being collected on this project at a rate of 1 per 20 samples.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Most samples have been centrifuged due to presence of sediment. No qualification is required.

Only 2 vials were submitted to the laboratory for EDS ID 8 and 11. One vial from each sample was only partially filled. This is due to limited volume during sample collection. The lab has noted that all samples were received either frozen or partially frozen. The lab assumed sample had leaked out while in actuality the vials were never completely filled as stated. These vials were not used for sample analysis. The remaining vial for EDS ID 08 contained a macro-bubble. Results for this sample are possibly biased and have been qualified J/UJ. The remaining vial for EDS ID 11 exhibited no headspace therefore no qualification of the sample data is required.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(160)		
Lab Sample ID:	JB88399-1	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21421.D	1	02/18/15	HA	n/a	n/a	V2V876
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND ~~11.9~~ 11.9 ~~10~~			2.7	ug/l	
71-43-2	Benzene	0.24	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	0.33	1.0	0.31	ug/l	J
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(160)		
Lab Sample ID:	JB88399-1	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	9.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	1.1	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND ~~0.50~~	1.0	0.20	ug/l	~~J~~
1330-20-7	Xylene (total)	1.1 ~~1.6~~	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	83%		73-122%
2037-26-5	Toluene-D8	92%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB021715		
Lab Sample ID:	JB88399-2	**Date Sampled:**	02/17/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21426.D	1	02/18/15	HA	n/a	n/a	V2V876
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.7	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB021715		
Lab Sample ID:	JB88399-2	**Date Sampled:**	02/17/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.62	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.62	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		76-120%
17060-07-0	1,2-Dichloroethane-D4	83%		73-122%
2037-26-5	Toluene-D8	92%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB021715		
Lab Sample ID:	JB88399-3	**Date Sampled:**	02/17/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21427.D	1	02/18/15	HA	n/a	n/a	V2V876
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.0	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB021715		
Lab Sample ID:	JB88399-3	**Date Sampled:**	02/17/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.58	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.58	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(170)		
Lab Sample ID:	JB88399-4	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21422.D	1	02/18/15	HA	n/a	n/a	V2V876
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~12.9~~ 12.9	~~10~~	2.7	ug/l	
71-43-2	Benzene	0.25	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(170)		
Lab Sample ID:	JB88399-4	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	42.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.61	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND ~~0.25~~	1.0	0.20	ug/l	~~J~~
1330-20-7	Xylene (total)	0.61 ~~0.86~~	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		76-120%
17060-07-0	1,2-Dichloroethane-D4	83%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(190)		
Lab Sample ID:	JB88449-3	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/18/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21447.D	1	02/19/15	HA	n/a	n/a	V2V877
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~13.3~~ 13.3	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(190)		
Lab Sample ID:	JB88449-3	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/18/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	8.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.39	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.39	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB021815
Lab Sample ID: JB88449-1 **Date Sampled:** 02/18/15
Matrix: AQ - Field Blank Water **Date Received:** 02/18/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21467.D	1	02/19/15	HA	n/a	n/a	V2V877
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.6	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB021815		
Lab Sample ID:	JB88449-1	**Date Sampled:**	02/18/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/18/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.42	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.42	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB021815
Lab Sample ID: JB88449-2 **Date Sampled:** 02/18/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/18/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V21468.D	1	02/19/15	HA	n/a	n/a	V2V877
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.0	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB021815		
Lab Sample ID:	JB88449-2	**Date Sampled:**	02/18/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/18/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.46	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.46	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	84%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(200)		
Lab Sample ID:	JB88528-1	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/19/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127762.D	1	02/20/15	BK	n/a	n/a	V2B5760
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~27.0~~ 27.0	~~10~~	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(200)		
Lab Sample ID:	JB88528-1	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/19/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	J
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	65.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.54	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND ~~0.21~~	1.0	0.20	ug/l	~~J~~
1330-20-7	Xylene (total)	0.54 ~~0.75~~	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	96%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-207(210)		
Lab Sample ID:	JB88528-4	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/19/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127763.D	1	02/20/15	BK	n/a	n/a	V2B5760
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~27.9~~ 27.9	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(210)		
Lab Sample ID:	JB88528-4	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/19/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	75.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.38	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.39	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.58	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	96%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB021915
Lab Sample ID: JB88528-2 **Date Sampled:** 02/19/15
Matrix: AQ - Field Blank Water **Date Received:** 02/19/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D142289.D	1	02/25/15	BK	n/a	n/a	V2D5968
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB021915		
Lab Sample ID:	JB88528-2	**Date Sampled:**	02/19/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/19/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.31	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.31	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	92%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB021915
Lab Sample ID: JB88528-3 **Date Sampled:** 02/19/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/19/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D142290.D	1	02/25/15	BK	n/a	n/a	V2D5968
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.7	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB021915		
Lab Sample ID:	JB88528-3	**Date Sampled:**	02/19/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/19/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.23	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.23	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB87898, JB87898A, JB88003, JB88003A, JB88099, JB88099A

Laboratory: Accutest – Dayton, New Jersey Date: February 23, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-207(60)	JB87898-1	Aqueous
2	TB020915	JB87898-2	Aqueous
3	FB020915	JB87898-3	Aqueous
4	VPB-207(80)	JB87898-4	Aqueous
5	DUP020915 (VPB-207(80))	JB87898-5	Aqueous
6	VPB-207(90)	JB87898-6	Aqueous
7	VPB-207(100)	JB88003-1	Aqueous
8	VPB-207(110)	JB88003-2	Aqueous
8 MS	VPB-207(110) MS	JB88003-2S	Aqueous
8 MSD	VPB-207(110) MSD	JB88003-2D	Aqueous
9	FB021015	JB88003-3	Aqueous
10	TB021015	JB88003-4	Aqueous
11	VPB-207(120)	JB88003-5	Aqueous
12	VPB-207(130)	JB88003-6	Aqueous
13	VPB-207(140)	JB88099-1	Aqueous
14	FB021115	JB88099-2	Aqueous
15	TB021115	JB88099-3	Aqueous
16	VPB-207(150)	JB88099-4	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix.

VOLATILE ORGANIC COMPOUNDS

USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – An MS/MSD was collected and analyzed on EDS ID 8. All %R and relative percent difference (RPD) met QC criteria. The laboratory also provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Three FBs and three TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except EDS ID 9 which contained a TIC at 4.85 minutes. This TIC was not observed in any associated sample therefore no qualification of the sample data is required.

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – One blind field duplicate sample was collected with this data set; EDS ID 5 was collected from EDS ID 4. Methylcyclohexane was positively identified in EDS ID 4 (0.45 ug/l) but not in EDS ID 5 (5.0 U ug/l). No qualification of the sample data is required as the concentration of Methylcyclohexane detected was less than 2x the RL. All other results matched well.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Some samples have been centrifuged due to presence of sediment. No qualification is required.

EDS ID 01 was reanalyzed at a 10x dilution due to the concentration of Toluene exceeding the calibration range of the instrument in the initial analysis. Only the diluted result has been reported for Toluene and noted as on the Form I. The result is valid and useable. No qualification of the data is required.

Only 1 vial was submitted to the laboratory for EDS ID 11 and 12 due to limited sample volume during collection. The lab had sufficient sample volume to analyze the sample and did not need to rerun the sample for any reason therefore no qualification of the sample data is required.

All Tentatively Identified Compounds (TICs) are qualified as estimated J, by the laboratory since the concentrations are based on an arbitrary response factor and their identification is based on the best match mass spectra library search.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(60)
Lab Sample ID: JB87898-1 **Date Sampled:** 02/09/15
Matrix: AQ - Ground Water **Date Received:** 02/09/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127480.D	1	02/10/15	BK	n/a	n/a	V2B5748
Run #2	2B127483.D	10	02/10/15	BK	n/a	n/a	V2B5748

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.9	10	2.7	ug/l	
71-43-2	Benzene	0.91	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	1.1	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(60)		
Lab Sample ID:	JB87898-1	**Date Sampled:**	02/09/15
Matrix:	AQ - Ground Water	**Date Received:**	02/09/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	265 [a]	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	3.7	1.0	0.35	ug/l	
95-47-6	o-Xylene	1.4	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	5.1	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	94%	76-120%
17060-07-0	1,2-Dichloroethane-D4	93%	95%	73-122%
2037-26-5	Toluene-D8	95%	97%	84-119%
460-00-4	4-Bromofluorobenzene	94%	95%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkene	4.35	9.5	ug/l	J
	Total TIC, Volatile		9.5	ug/l	J

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(80)
Lab Sample ID: JB87898-4 **Date Sampled:** 02/09/15
Matrix: AQ - Ground Water **Date Received:** 02/09/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127484.D	1	02/10/15	BK	n/a	n/a	V2B5748
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.4	10	2.7	ug/l	
71-43-2	Benzene	1.0	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	1.4	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(80)		
Lab Sample ID:	JB87898-4	**Date Sampled:**	02/09/15
Matrix:	AQ - Ground Water	**Date Received:**	02/09/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	0.45	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	34.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	4.7	1.0	0.35	ug/l	
95-47-6	o-Xylene	1.8	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	6.5	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	95%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(90)
Lab Sample ID: JB87898-6
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Date Sampled: 02/09/15
Date Received: 02/09/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127482.D	1	02/10/15	BK	n/a	n/a	V2B5748
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.1	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(90)		
Lab Sample ID:	JB87898-6	**Date Sampled:**	02/09/15
Matrix:	AQ - Ground Water	**Date Received:**	02/09/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	40.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	10	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB020915
Lab Sample ID: JB87898-2 **Date Sampled:** 02/09/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/09/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127503.D	1	02/10/15	BK	n/a	n/a	V2B5748
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB020915		
Lab Sample ID:	JB87898-2	**Date Sampled:**	02/09/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/09/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB020915
Lab Sample ID: JB87898-3 **Date Sampled:** 02/09/15
Matrix: AQ - Field Blank Water **Date Received:** 02/09/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127504.D	1	02/11/15	BK	n/a	n/a	V2B5748
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB020915		
Lab Sample ID:	JB87898-3	**Date Sampled:**	02/09/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/09/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: DUP020915
Lab Sample ID: JB87898-5 **Date Sampled:** 02/09/15
Matrix: AQ - Ground Water **Date Received:** 02/09/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127505.D	1	02/11/15	BK	n/a	n/a	V2B5748
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.4	10	2.7	ug/l	
71-43-2	Benzene	0.91	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	1.2	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP020915		
Lab Sample ID:	JB87898-5	**Date Sampled:**	02/09/15
Matrix:	AQ - Ground Water	**Date Received:**	02/09/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	35.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	4.1	1.0	0.35	ug/l	
95-47-6	o-Xylene	1.5	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	5.6	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(100)
Lab Sample ID: JB88003-1 **Date Sampled:** 02/10/15
Matrix: AQ - Ground Water **Date Received:** 02/10/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A155528.D	1	02/13/15	MM	n/a	n/a	V2A6628
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	17.0	10	2.7	ug/l	
71-43-2	Benzene	0.65	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.2	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	1.2	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(100)		
Lab Sample ID:	JB88003-1	**Date Sampled:**	02/10/15
Matrix:	AQ - Ground Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	130	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	4.6	1.0	0.35	ug/l	
95-47-6	o-Xylene	2.0	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	6.5	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	90%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkene	4.34	11	ug/l	J
	Total TIC, Volatile		11	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(110)
Lab Sample ID: JB88003-2 **Date Sampled:** 02/10/15
Matrix: AQ - Ground Water **Date Received:** 02/10/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A155523.D	1	02/13/15	MM	n/a	n/a	V2A6628
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.9	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.37	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(110)		
Lab Sample ID:	JB88003-2	**Date Sampled:**	02/10/15
Matrix:	AQ - Ground Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	91.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.37	1.0	0.35	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.37	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	98%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(120)
Lab Sample ID: JB88003-5 **Date Sampled:** 02/10/15
Matrix: AQ - Ground Water **Date Received:** 02/10/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A155526.D	1	02/13/15	MM	n/a	n/a	V2A6628
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.0	10	2.7	ug/l	
71-43-2	Benzene	0.28	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	0.71	1.0	0.65	ug/l	J
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	0.36	1.0	0.24	ug/l	J
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.69	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	0.32	1.0	0.31	ug/l	J
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(120)		
Lab Sample ID:	JB88003-5	**Date Sampled:**	02/10/15
Matrix:	AQ - Ground Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	147	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.44	1.0	0.35	ug/l	J
95-47-6	o-Xylene	0.26	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.71	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	91%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(130)
Lab Sample ID: JB88003-6 **Date Sampled:** 02/10/15
Matrix: AQ - Ground Water **Date Received:** 02/10/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A155527.D	1	02/13/15	MM	n/a	n/a	V2A6628
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	18.2	10	2.7	ug/l	
71-43-2	Benzene	0.74	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.45	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	0.45	1.0	0.31	ug/l	J
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(130)		
Lab Sample ID:	JB88003-6	**Date Sampled:**	02/10/15
Matrix:	AQ - Ground Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	190	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	1.5	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.60	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	2.1	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	109%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkene	4.33	7.5	ug/l	J
	Total TIC, Volatile		7.5	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB021015		
Lab Sample ID:	JB88003-3	**Date Sampled:**	02/10/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A155524.D	1	02/13/15	MM	n/a	n/a	V2A6628
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB021015		
Lab Sample ID:	JB88003-3	**Date Sampled:**	02/10/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	90%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkane	4.85	6.1	ug/l	J
	Total TIC, Volatile		6.1	ug/l	J

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB021015		
Lab Sample ID:	JB88003-4	**Date Sampled:**	02/10/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A155525.D	1	02/13/15	MM	n/a	n/a	V2A6628
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB021015		
Lab Sample ID:	JB88003-4	**Date Sampled:**	02/10/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/10/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	103%		84-119%
460-00-4	4-Bromofluorobenzene	96%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(140)
Lab Sample ID: JB88099-1 **Date Sampled:** 02/11/15
Matrix: AQ - Ground Water **Date Received:** 02/11/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127550.D	1	02/12/15	BK	n/a	n/a	V2B5750
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	37.0	10	2.7	ug/l	
71-43-2	Benzene	0.25	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.55	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	0.48	1.0	0.31	ug/l	J
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: VPB-207(140)
Lab Sample ID: JB88099-1 **Date Sampled:** 02/11/15
Matrix: AQ - Ground Water **Date Received:** 02/11/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	42.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	1.4	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.62	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	2.1	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	97%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
66-25-1	Hexanal	14.03	5.1	ug/l	JN
	Total TIC, Volatile		5.1	ug/l	J

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-207(150)
Lab Sample ID: JB88099-4 **Date Sampled:** 02/11/15
Matrix: AQ - Ground Water **Date Received:** 02/11/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127551.D	1	02/12/15	BK	n/a	n/a	V2B5750
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.6	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-207(150)		
Lab Sample ID:	JB88099-4	**Date Sampled:**	02/11/15
Matrix:	AQ - Ground Water	**Date Received:**	02/11/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	20.4	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	0.44	1.0	0.35	ug/l	J
95-47-6	o-Xylene	0.20	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.64	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	98%		84-119%
460-00-4	4-Bromofluorobenzene	95%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB021115		
Lab Sample ID:	JB88099-2	**Date Sampled:**	02/11/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/11/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127560.D	1	02/12/15	BK	n/a	n/a	V2B5750
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB021115		
Lab Sample ID:	JB88099-2	**Date Sampled:**	02/11/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/11/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB021115
Lab Sample ID: JB88099-3 **Date Sampled:** 02/11/15
Matrix: AQ - Trip Blank Water **Date Received:** 02/11/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127559.D	1	02/12/15	BK	n/a	n/a	V2B5750
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB021115		
Lab Sample ID:	JB88099-3	**Date Sampled:**	02/11/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/11/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB87053, JB87053A, JB87344, JB87344A

Laboratory: Accutest – Dayton, New Jersey Date: February 16, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-301(340)	JB87053-1	Aqueous
2	VPB-208(140.5)	JB87053-2	Aqueous
3	VPB-301(360)	JB87053-3	Aqueous
4	FB012315	JB87053-4	Aqueous
5	TB012315	JB87053-5	Aqueous
6	VPB-208(150.5)	JB87053-6	Aqueous
7	VPB-301(380)	JB87344-1	Aqueous
8	FB013015	JB87344-2	Aqueous
9	TB013015	JB87344-3	Aqueous
10	VPB-301(400)	JB87344-4	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix.

VOLATILE ORGANIC COMPOUNDS
USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria except 1,2-Dibromo-3-chloropropane in the BSS associated with EDS ID 9 (140%; QC limits 66-132%). Results for this compound in the associated sample may be biased high. No qualification of the sample data is required as the compound was not positively identified in the associated sample.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – No MS/MSD was collected with this data set, however MS/MSD are being collected on this project at a rate of 1 per 20 samples. The laboratory provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Two FBs and two TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below if applicable, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds/TICs the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
8	o-Xylene Xylene (total)	0.21 (1.20) 0.21 (1.20)	7, 10

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values except those listed below.

CCV	Compound (s)	%D/RRF	Associated Samples (EDS ID)
V2B5741-CC5715	Trichlorofluoromethane	-39.0	9 *
	Acetone	-61.5	
	Carbon tetrachloride	-40.1	
	1,2-dichloroethane	-31.0	
	Dibromochloromethane	-26.6	
	Bromoform	-34.7	
	1,2-Dibromo-3-chloropropane	-45	
	1,2,3-Trichlorobenzene	-39	

* No qualification is required as the associated sample is a TB.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – No blind field duplicate sample was collected with this data set, but blind field duplicate samples are being collected on this project at a rate of 1 per 20 samples.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Most samples have been centrifuged due to presence of sediment. No qualification is required.

All Tentatively Identified Compounds (TICs) are qualified as estimated J, by the laboratory since the concentrations are based on an arbitrary response factor and their identification is based on the best match mass spectra library search.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(340)
Lab Sample ID: JB87053-1 **Date Sampled:** 01/22/15
Matrix: AQ - Ground Water **Date Received:** 01/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127121.D	1	01/24/15	BK	n/a	n/a	V2B5733
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.2	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.25	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(340)		
Lab Sample ID:	JB87053-1	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	41.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-208(140.5)
Lab Sample ID: JB87053-2 **Date Sampled:** 01/23/15
Matrix: AQ - Ground Water **Date Received:** 01/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127122.D	1	01/24/15	BK	n/a	n/a	V2B5733
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.5	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.80	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.47	1.0	0.16	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.46	1.0	0.24	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.60	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(140.5)		
Lab Sample ID:	JB87053-2	**Date Sampled:**	01/23/15
Matrix:	AQ - Ground Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.88	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(360)
Lab Sample ID: JB87053-3 **Date Sampled:** 01/23/15
Matrix: AQ - Ground Water **Date Received:** 01/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127123.D	1	01/24/15	BK	n/a	n/a	V2B5733
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.2	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(360)		
Lab Sample ID:	JB87053-3	**Date Sampled:**	01/23/15
Matrix:	AQ - Ground Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	33.5	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208(150.5)		
Lab Sample ID:	JB87053-6	**Date Sampled:**	01/23/15
Matrix:	AQ - Ground Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127124.D	1	01/24/15	BK	n/a	n/a	V2B5733
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.54	1.0	0.16	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.54	1.0	0.24	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(150.5)		
Lab Sample ID:	JB87053-6	**Date Sampled:**	01/23/15
Matrix:	AQ - Ground Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	1.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.59	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		76-120%
17060-07-0	1,2-Dichloroethane-D4	94%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB012315
Lab Sample ID: JB87053-4 **Date Sampled:** 01/23/15
Matrix: AQ - Field Blank Water **Date Received:** 01/23/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127128.D	1	01/24/15	BK	n/a	n/a	V2B5733
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB012315		
Lab Sample ID:	JB87053-4	**Date Sampled:**	01/23/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	95%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB012315		
Lab Sample ID:	JB87053-5	**Date Sampled:**	01/23/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127129.D	1	01/24/15	BK	n/a	n/a	V2B5733
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB012315		
Lab Sample ID:	JB87053-5	**Date Sampled:**	01/23/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/23/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	95%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(380)
Lab Sample ID: JB87344-1 **Date Sampled:** 01/30/15
Matrix: AQ - Ground Water **Date Received:** 01/30/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C126718.D	1	01/31/15	TP	n/a	n/a	V2C5753
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.9	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: VPB-301(380)
Lab Sample ID: JB87344-1 **Date Sampled:** 01/30/15
Matrix: AQ - Ground Water **Date Received:** 01/30/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	34.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.33	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	92%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	97%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(400)
Lab Sample ID: JB87344-4 **Date Sampled:** 01/30/15
Matrix: AQ - Ground Water **Date Received:** 01/30/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C126719.D	1	01/31/15	TP	n/a	n/a	V2C5753
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	6.3	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(400)		
Lab Sample ID:	JB87344-4	**Date Sampled:**	01/30/15
Matrix:	AQ - Ground Water	**Date Received:**	01/30/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.3	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	92%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	97%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB013015
Lab Sample ID: JB87344-2 **Date Sampled:** 01/30/15
Matrix: AQ - Field Blank Water **Date Received:** 01/30/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V15170.D	1	02/04/15	KC	n/a	n/a	V4V631
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB013015		
Lab Sample ID:	JB87344-2	**Date Sampled:**	01/30/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/30/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.21	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.21	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB013015		
Lab Sample ID:	JB87344-3	**Date Sampled:**	01/30/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/30/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B127323.D	1	02/02/15	BK	n/a	n/a	V2B5741
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB013015		
Lab Sample ID:	JB87344-3	**Date Sampled:**	01/30/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/30/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	89%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB86768, JB86768A, JB86878, JB86878A, JB86981, JB86981A

Laboratory: Accutest – Dayton, New Jersey Date: February 8, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-301(140)	JB86768-1	Aqueous
2	VPB-301(150)	JB86768-2	Aqueous
3	FB011915	JB86768-3	Aqueous
4	TB011915	JB86768-4	Aqueous
5	VPB-301(160)	JB86768-5	Aqueous
6	VPB-301(170)	JB86768-6	Aqueous
7	VPB-208(60.5)	JB86768-7	Aqueous
8	VPB-301(180)	JB86768-8	Aqueous
9	VPB-301(190)	JB86768-9	Aqueous
10	VPB-208(70.5)	JB86768-10	Aqueous
11	VPB-301(200)	JB86768-11	Aqueous
12	FB012015	JB86768-12	Aqueous
13	VPB-208(80.5)	JB86768-13	Aqueous
14	VPB-301(220)	JB86768-14	Aqueous
15	VPB-301(240)	JB86878-1	Aqueous
15 MS	VPB-301(240) MS	JB86878-1S	Aqueous
15 MSD	VPB-301(240) MSD	JB86878-1D	Aqueous
16	VPB-208(90.5)	JB86878-2	Aqueous
17	FB012115	JB86878-3	Aqueous
18	TB012115	JB86878-4	Aqueous
19	DUP012115 (VPB-208(90.5))	JB86878-5	Aqueous
20	VPB-301(260)	JB86878-6	Aqueous
21	VPB-208(100.5)	JB86878-7	Aqueous
22	VPB-301(280)	JB86878-8	Aqueous
23	VPB-301(300)	JB86981-1	Aqueous
24	VPB-208(110.5)	JB86981-2	Aqueous
25	FB012215	JB86981-3	Aqueous
26	TB012215	JB86981-4	Aqueous
27	VPB-208(120.5)	JB86981-5	Aqueous
28	VPB-301(320)	JB86981-6	Aqueous
29	VPB-208(130.5)	JB86981-7	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix.

VOLATILE ORGANIC COMPOUNDS

USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – An MS/MSD was collected and analyzed on EDS ID 15. The laboratory also provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC. All %R and relative percent difference (RPD) met QC criteria.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Four FBs and three TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below if applicable, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds/TICs the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
3	o-Xylene Xylene (total)	0.24 (1.20) 0.24 (1.20)	1, 2, 5-7

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
4	o-Xylene Xylene (total)	0.24 (1.20) 0.24 (1.20)	1, 2, 5-11, 13, 14
12	o-Xylene Xylene (total)	0.25 (1.25) 0.25 (1.25)	8-11, 13, 14
17	Acetone o-Xylene Xylene (total)	7.8 (78) 0.25 (1.25) 0.25 (1.25)	15-22
18	o-Xylene Xylene (total)	0.22 (1.10) 0.22 (1.10)	15-22

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – One blind field duplicate sample was collected with this data set; EDS ID 19 was collected from EDS ID 16. 1,2-Dichlorobenzene and 1,4-Dichlorobenzene were positively identified in EDS ID 19 (0.86 and 0.88 ug/l respectively) but not in EDS ID 16 (1.0 U ug/l respectively). No qualification of the sample data is required as the concentration of 1,2-Dichlorobenzene and 1,4-Dichlorobenzene detected was less than 2x the RL. All other results matched well.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Some samples have been centrifuged due to presence of sediment. No qualification is required.

One of three vials received at the laboratory for samples EDS ID 11, 13 and 27 were received with headspace. These vials were not needed for analysis therefore no qualification of the sample data is required.

Only 1 vial was submitted to the laboratory for EDS ID 24 due to limited sample volume during collection. The sample contained over 50% headspace as well as sediment. Results for this sample are possibly biased low and have been qualified J/UJ.

Samples EDS ID 7, 10, 13, 16, and 21 were inadvertently listed on the COCS as VPB-208-1. The sample IDs have been corrected to VPB-208. All forms show the correct sample IDs.

All Tentatively Identified Compounds (TICs) are qualified as estimated J, by the laboratory since the concentrations are based on an arbitrary response factor and their identification is based on the best match mass spectra library search.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(140)
Lab Sample ID: JB86768-1
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Date Sampled: 01/19/15
Date Received: 01/20/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154791.D	1	01/21/15	MM	n/a	n/a	V2A6600
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	6.8	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: VPB-301(140)
Lab Sample ID: JB86768-1 **Date Sampled:** 01/19/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	109	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.34	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	95%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkene	4.34	11	ug/l	J
	alkane	16.10	6.1	ug/l	J
	alkene	16.78	7.6	ug/l	J
	alkane	17.19	6.4	ug/l	J
629-50-5	alkane-Tridecane	19.28	8.3	ug/l	JN
	Total TIC, Volatile		39.4	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(150)
Lab Sample ID: JB86768-2 **Date Sampled:** 01/19/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154792.D	1	01/21/15	MM	n/a	n/a	V2A6600
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.1	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: VPB-301(150)
Lab Sample ID: JB86768-2 **Date Sampled:** 01/19/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	60.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.49	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alcohols	8.05	5.4	ug/l	J
	Total TIC, Volatile		5.4	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(160)
Lab Sample ID: JB86768-5
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Date Sampled: 01/19/15
Date Received: 01/20/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154793.D	1	01/21/15	MM	n/a	n/a	V2A6600
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	6.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(160)		
Lab Sample ID:	JB86768-5	**Date Sampled:**	01/19/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	84.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.26	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(170)
Lab Sample ID: JB86768-6 **Date Sampled:** 01/19/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154794.D	1	01/21/15	MM	n/a	n/a	V2A6600
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.9	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: VPB-301(170)
Lab Sample ID: JB86768-6 **Date Sampled:** 01/19/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	165	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	90%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkene	4.35	8.1	ug/l	J
	Total TIC, Volatile		8.1	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-208(60.5)
Lab Sample ID: JB86768-7 **Date Sampled:** 01/19/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154795.D	1	01/21/15	MM	n/a	n/a	V2A6600
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.2	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.25	1.0	0.16	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.27	1.0	0.24	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(60.5)		
Lab Sample ID:	JB86768-7	**Date Sampled:**	01/19/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	56.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	92%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
78-95-5	2-Propanone, 1-chloro-	12.66	9.7	ug/l	JN
	Total TIC, Volatile		9.7	ug/l	J

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(180)
Lab Sample ID: JB86768-8 **Date Sampled:** 01/20/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126984.D	1	01/21/15	BK	n/a	n/a	V2B5726
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	16.6	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(180)		
Lab Sample ID:	JB86768-8	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	11.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(190)
Lab Sample ID: JB86768-9 **Date Sampled:** 01/20/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126985.D	1	01/21/15	BK	n/a	n/a	V2B5726
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	18.4	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(190)		
Lab Sample ID:	JB86768-9	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	29.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	86%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208(70.5)		
Lab Sample ID:	JB86768-10	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141496.D	1	01/21/15	BK	n/a	n/a	V2D5936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.3	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.24	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	1.4	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	1.4	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(70.5)		
Lab Sample ID:	JB86768-10	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	4.5	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	112%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(200)
Lab Sample ID: JB86768-11 **Date Sampled:** 01/20/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141497.D	1	01/21/15	BK	n/a	n/a	V2D5936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.3	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.31	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(200)		
Lab Sample ID:	JB86768-11	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	52.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	112%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-208(80.5)
Lab Sample ID: JB86768-13 **Date Sampled:** 01/20/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126982.D	1	01/21/15	BK	n/a	n/a	V2B5726
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.4	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	1.6	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	127	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.93	1.0	0.51	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(80.5)		
Lab Sample ID:	JB86768-13	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	18.5	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	10.4	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	5.5	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(220)
Lab Sample ID: JB86768-14 **Date Sampled:** 01/20/15
Matrix: AQ - Ground Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126983.D	1	01/21/15	BK	n/a	n/a	V2B5726
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	1.0	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	0.56	1.0	0.50	ug/l	J
156-59-2	cis-1,2-Dichloroethene	0.44	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(220)		
Lab Sample ID:	JB86768-14	**Date Sampled:**	01/20/15
Matrix:	AQ - Ground Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	3.2	1.0	0.35	ug/l	
108-88-3	Toluene	0.90	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB011915
Lab Sample ID: JB86768-3 **Date Sampled:** 01/19/15
Matrix: AQ - Field Blank Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141499.D	1	01/21/15	BK	n/a	n/a	V2D5936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB011915		
Lab Sample ID:	JB86768-3	**Date Sampled:**	01/19/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.24	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.24	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	107%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB011915
Lab Sample ID: JB86768-4 **Date Sampled:** 01/20/15
Matrix: AQ - Trip Blank Water **Date Received:** 01/20/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141498.D	1	01/21/15	BK	n/a	n/a	V2D5936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB011915		
Lab Sample ID:	JB86768-4	**Date Sampled:**	01/20/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.24	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.24	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	112%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB012015		
Lab Sample ID:	JB86768-12	**Date Sampled:**	01/20/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141495.D	1	01/21/15	BK	n/a	n/a	V2D5936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB012015		
Lab Sample ID:	JB86768-12	**Date Sampled:**	01/20/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/20/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.25	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.25	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	98%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-301 (240)		
Lab Sample ID:	JB86878-1	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147338.D	1	01/22/15	DS	n/a	n/a	V1A6364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~38.1~~ 38.1	~~10~~	2.7	ug/l	
71-43-2	Benzene	0.22	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.32	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301 (240)		
Lab Sample ID:	JB86878-1	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	19.4	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total) ND	~~0.22~~	1.0	0.20	ug/l	~~J~~

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		76-120%
17060-07-0	1,2-Dichloroethane-D4	87%		73-122%
2037-26-5	Toluene-D8	89%		84-119%
460-00-4	4-Bromofluorobenzene	90%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alcohols	7.96	5	ug/l	J
	Total TIC, Volatile		5	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208 (90.5)		
Lab Sample ID:	JB86878-2	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147339.D	1	01/22/15	DS	n/a	n/a	V1A6364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~6.7~~	10	2.7	ug/l	~~J~~
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	1.9	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	0.84	1.0	0.35	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	32.0	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208 (90.5)		
Lab Sample ID:	JB86878-2	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.21	1.0	0.19	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	3.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	9.5	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	0.30	1.0	0.16	ug/l	J
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		76-120%
17060-07-0	1,2-Dichloroethane-D4	88%		73-122%
2037-26-5	Toluene-D8	88%		84-119%
460-00-4	4-Bromofluorobenzene	90%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Naphthalene, decahydro,-	18.11	5.2	ug/l	J
	Total TIC, Volatile		5.2	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUP012115		
Lab Sample ID:	JB86878-5	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147340.D	1	01/22/15	DS	n/a	n/a	V1A6364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~7.7~~	10	2.7	ug/l	~~J~~
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	1.9	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.86	1.0	0.16	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.88	1.0	0.24	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	0.84	1.0	0.35	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	33.0	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP012115		
Lab Sample ID:	JB86878-5	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26	1.0	0.19	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	3.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	9.7	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	0.33	1.0	0.16	ug/l	J
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	90%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-301 (260)		
Lab Sample ID:	JB86878-6	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147341.D	1	01/22/15	DS	n/a	n/a	V1A6364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~16.1~~ 16.1	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301 (260)		
Lab Sample ID:	JB86878-6	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	0.35	1.0	0.35	ug/l	J
108-88-3	Toluene	88.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total) ND	~~0.20~~	1.0	0.20	ug/l	~~J~~

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208 (100.5)		
Lab Sample ID:	JB86878-7	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147342.D	1	01/22/15	DS	n/a	n/a	V1A6364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~7.7~~	10	2.7	ug/l	~~J~~
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.58	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208 (100.5)		
Lab Sample ID:	JB86878-7	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	1.4	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	2.4	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	89%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	90%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-301 (280)		
Lab Sample ID:	JB86878-8	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147343.D	1	01/22/15	DS	n/a	n/a	V1A6364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~10.4~~ 10.4	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	0.57	1.0	0.35	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301 (280)		
Lab Sample ID:	JB86878-8	**Date Sampled:**	01/21/15
Matrix:	AQ - Ground Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	0.75	1.0	0.35	ug/l	J
108-88-3	Toluene	86.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.29	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		76-120%
17060-07-0	1,2-Dichloroethane-D4	87%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB012115
Lab Sample ID: JB86878-3 **Date Sampled:** 01/21/15
Matrix: AQ - Field Blank Water **Date Received:** 01/21/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147544.D	1	01/27/15	DS	n/a	n/a	V1A6372
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.8	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB012115		
Lab Sample ID:	JB86878-3	**Date Sampled:**	01/21/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.25	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.25	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	94%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB012115
Lab Sample ID: JB86878-4 **Date Sampled:** 01/21/15
Matrix: AQ - Trip Blank Water **Date Received:** 01/21/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A147545.D	1	01/27/15	DS	n/a	n/a	V1A6372
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB012115		
Lab Sample ID:	JB86878-4	**Date Sampled:**	01/21/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/21/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.22	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.22	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	95%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-301(300)		
Lab Sample ID:	JB86981-1	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14885.D	1	01/23/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	18.3	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(300)		
Lab Sample ID:	JB86981-1	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	39.4	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208(110.5)		
Lab Sample ID:	JB86981-2	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14884.D	1	01/23/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.6	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	1.4	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.31	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	15.9	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(110.5)		
Lab Sample ID:	JB86981-2	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	J
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	3.1	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	84%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208(120.5)		
Lab Sample ID:	JB86981-5	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14886.D	1	01/23/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.39	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(120.5)		
Lab Sample ID:	JB86981-5	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	1.1	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.99	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	85%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-301(320)		
Lab Sample ID:	JB86981-6	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14887.D	1	01/23/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.7	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.17	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	1.5	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	0.67	1.0	0.50	ug/l	J
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(320)		
Lab Sample ID:	JB86981-6	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	0.88	1.0	0.35	ug/l	J
108-88-3	Toluene	48.3	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.34	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-208(130.5)		
Lab Sample ID:	JB86981-7	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14888.D	1	01/23/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.0	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.98	1.0	0.16	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.97	1.0	0.24	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.8	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-208(130.5)		
Lab Sample ID:	JB86981-7	**Date Sampled:**	01/22/15
Matrix:	AQ - Ground Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.4	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	1.9	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	86%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB012215
Lab Sample ID: JB86981-3 **Date Sampled:** 01/22/15
Matrix: AQ - Field Blank Water **Date Received:** 01/22/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14911.D	1	01/24/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB012215		
Lab Sample ID:	JB86981-3	**Date Sampled:**	01/22/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	94%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB012215		
Lab Sample ID:	JB86981-4	**Date Sampled:**	01/22/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14912.D	1	01/24/15	KC	n/a	n/a	V4V617
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB012215		
Lab Sample ID:	JB86981-4	**Date Sampled:**	01/22/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/22/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	91%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB86360, JB86360A, JB86487, JB86487A, JB86562, JB86562A

Laboratory: Accutest – Dayton, New Jersey Date: January 25, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-301(60)	JB86360-1	Aqueous
2	FB011415	JB86360-2	Aqueous
3	TB011415	JB86360-3	Aqueous
4	VPB-301(70)	JB86360-4	Aqueous
5	VPB-301(80)	JB86360-5	Aqueous
6	VPB-301(90)	JB86487-1	Aqueous
7	FB011515	JB86487-2	Aqueous
8	TB011515	JB86487-3	Aqueous
9	VPB-301(100)	JB86487-4	Aqueous
10	VPB-301(110)	JB86487-5	Aqueous
11	VPB-301(120)	JB86562-1	Aqueous
12	FB011615	JB86562-2	Aqueous
13	TB011615	JB86562-3	Aqueous
14	VPB-301(130)	JB86562-4	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

All Field Blanks (FBs) and Trip Blanks (TBs) are contained in SDGs with an A suffix.

VOLATILE ORGANIC COMPOUNDS
USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – No MS/MSD was collected with this data set, however MS/MSD are being collected on this project at a rate of 1 per 20 samples. The laboratory provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC. The laboratory independently analyzed an MS/MSD on EDS ID 14. All %R and relative percent differences (RPDs) met QC criteria.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Three FBs and three TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds/TICs the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
2	o-Xylene Xylene (total) TIC at 4.82 minutes	0.25 (1.25) 0.25 (1.25) 5.5 (27.5)	1, 4, 5
3	o-Xylene Xylene (total)	0.26 (1.3) 0.26 (1.3)	1, 4, 5
13	o-Xylene Xylene (total)	0.27 (1.35) 0.27 (1.35)	11, 14

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – No blind field duplicate sample was collected with this data set, but blind field duplicate samples are being collected on this project at a rate of 1 per 20 samples.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Some samples have been centrifuged due to presence of sediment. No qualification is required.

One of three vials received at the laboratory for sample EDS ID 6 were received with headspace. This vial was not needed for analysis therefore no qualification of the sample data is required.

Samples EDS ID 6, 9, and 10 were inadvertently listed on the COC as VPB-300. The sample IDs have been corrected to VPB-301. All forms show the correct sample IDs.

All Tentatively Identified Compounds (TICs) are qualified as estimated J, by the laboratory since the concentrations are based on an arbitrary response factor and their identification is based on the best match mass spectra library search.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(60)
Lab Sample ID: JB86360-1
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Date Sampled: 01/14/15
Date Received: 01/14/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126767.D	1	01/15/15	BK	n/a	n/a	V2B5719
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.4	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(60)		
Lab Sample ID:	JB86360-1	**Date Sampled:**	01/14/15
Matrix:	AQ - Ground Water	**Date Received:**	01/14/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	10.9	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	88%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(70)
Lab Sample ID: JB86360-4 **Date Sampled:** 01/14/15
Matrix: AQ - Ground Water **Date Received:** 01/14/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126768.D	1	01/15/15	BK	n/a	n/a	V2B5719
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.9	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(70)		
Lab Sample ID:	JB86360-4	**Date Sampled:**	01/14/15
Matrix:	AQ - Ground Water	**Date Received:**	01/14/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	6.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		76-120%
17060-07-0	1,2-Dichloroethane-D4	90%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(80)
Lab Sample ID: JB86360-5 **Date Sampled:** 01/14/15
Matrix: AQ - Ground Water **Date Received:** 01/14/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126769.D	1	01/15/15	BK	n/a	n/a	V2B5719
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.3	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(80)		
Lab Sample ID:	JB86360-5	**Date Sampled:**	01/14/15
Matrix:	AQ - Ground Water	**Date Received:**	01/14/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	18.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	90%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	86%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB011415
Lab Sample ID: JB86360-2 **Date Sampled:** 01/14/15
Matrix: AQ - Field Blank Water **Date Received:** 01/14/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126776.D	1	01/15/15	BK	n/a	n/a	V2B5719
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FB011415
Lab Sample ID: JB86360-2 **Date Sampled:** 01/14/15
Matrix: AQ - Field Blank Water **Date Received:** 01/14/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.25	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.25	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	87%		73-122%
2037-26-5	Toluene-D8	90%		84-119%
460-00-4	4-Bromofluorobenzene	85%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	alkane	4.82	5.5	ug/l	J
	Total TIC, Volatile		5.5	ug/l	J

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB011415
Lab Sample ID: JB86360-3 **Date Sampled:** 01/14/15
Matrix: AQ - Trip Blank Water **Date Received:** 01/14/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126775.D	1	01/15/15	BK	n/a	n/a	V2B5719
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB011415		
Lab Sample ID:	JB86360-3	**Date Sampled:**	01/14/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/14/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.26	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.26	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		76-120%
17060-07-0	1,2-Dichloroethane-D4	86%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	86%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(90)
Lab Sample ID: JB86487-1 **Date Sampled:** 01/15/15
Matrix: AQ - Ground Water **Date Received:** 01/15/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126812.D	1	01/16/15	BK	n/a	n/a	V2B5721
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.0	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(90)		
Lab Sample ID:	JB86487-1	**Date Sampled:**	01/15/15
Matrix:	AQ - Ground Water	**Date Received:**	01/15/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	20.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(100)
Lab Sample ID: JB86487-4
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

Date Sampled: 01/15/15
Date Received: 01/15/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126813.D	1	01/16/15	BK	n/a	n/a	V2B5721
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	6.5	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	1.2	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(100)		
Lab Sample ID:	JB86487-4	**Date Sampled:**	01/15/15
Matrix:	AQ - Ground Water	**Date Received:**	01/15/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	18.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(110)
Lab Sample ID: JB86487-5 **Date Sampled:** 01/15/15
Matrix: AQ - Ground Water **Date Received:** 01/15/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126814.D	1	01/16/15	BK	n/a	n/a	V2B5721
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.9	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(110)		
Lab Sample ID:	JB86487-5	**Date Sampled:**	01/15/15
Matrix:	AQ - Ground Water	**Date Received:**	01/15/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	33.8	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	89%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB011515
Lab Sample ID: JB86487-2 **Date Sampled:** 01/15/15
Matrix: AQ - Field Blank Water **Date Received:** 01/15/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126823.D	1	01/16/15	BK	n/a	n/a	V2B5721
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB011515		
Lab Sample ID:	JB86487-2	**Date Sampled:**	01/15/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/15/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	88%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB011515
Lab Sample ID: JB86487-3 **Date Sampled:** 01/15/15
Matrix: AQ - Trip Blank Water **Date Received:** 01/15/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126824.D	1	01/16/15	BK	n/a	n/a	V2B5721
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB011515		
Lab Sample ID:	JB86487-3	**Date Sampled:**	01/15/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/15/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		76-120%
17060-07-0	1,2-Dichloroethane-D4	93%		73-122%
2037-26-5	Toluene-D8	91%		84-119%
460-00-4	4-Bromofluorobenzene	87%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(120)
Lab Sample ID: JB86562-1 **Date Sampled:** 01/16/15
Matrix: AQ - Ground Water **Date Received:** 01/16/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14691.D	1	01/17/15	KC	n/a	n/a	V4V610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.8	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(120)		
Lab Sample ID:	JB86562-1	**Date Sampled:**	01/16/15
Matrix:	AQ - Ground Water	**Date Received:**	01/16/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	15.9	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	108%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-301(130)
Lab Sample ID: JB86562-4 **Date Sampled:** 01/16/15
Matrix: AQ - Ground Water **Date Received:** 01/16/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14692.D	1	01/17/15	KC	n/a	n/a	V4V610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.3	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-301(130)		
Lab Sample ID:	JB86562-4	**Date Sampled:**	01/16/15
Matrix:	AQ - Ground Water	**Date Received:**	01/16/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	12.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	109%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: FB011615
Lab Sample ID: JB86562-2 **Date Sampled:** 01/16/15
Matrix: AQ - Field Blank Water **Date Received:** 01/16/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4V14693.D	1	01/17/15	KC	n/a	n/a	V4V610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB011615		
Lab Sample ID:	JB86562-2	**Date Sampled:**	01/16/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/16/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	106%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB011615
Lab Sample ID: JB86562-3 **Date Sampled:** 01/16/15
Matrix: AQ - Trip Blank Water **Date Received:** 01/16/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D56194.D	1	01/20/15	PR	n/a	n/a	V4D2493
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB011615		
Lab Sample ID:	JB86562-3	**Date Sampled:**	01/16/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/16/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	0.27	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.27	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		76-120%
17060-07-0	1,2-Dichloroethane-D4	86%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB85714, JB85714A, JB85850

Laboratory: Accutest – Dayton, New Jersey Date: January 18, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-300(320)	JB85714-1	Aqueous
2	DUP010515(VPB-300(320))	JB85714-2	Aqueous
3	VPB-300(340)	JB85714-3	Aqueous
4	TB010515	JB85714-4	Aqueous
5	FB010515	JB85714-5	Aqueous
6	VPB-300(360)	JB85714-6	Aqueous
6MS	VPB-300(360)(MS)	JB85714-6S	Aqueous
6MSD	VPB-300(360)(MSD)	JB85714-6D	Aqueous
7	FB010615	JB85714-7	Aqueous
8	VPB-300(380)	JB85850-1	Aqueous
9	VPB-300(400)	JB85850-2	Aqueous
10	TB010715	JB85850-3	Aqueous
11	FB010715	JB85850-4	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

VOLATILE ORGANIC COMPOUNDS

USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - An MS/MSD was collected and analyzed on EDS ID 6. The laboratory also provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC. All %R and relative percent difference (RPD) met QC criteria.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Three FBs and two TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples (EDS ID)
4	Acetone * Chloroform	4.0 (40) 0.29 (1.45)	1 – 6

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – One blind field duplicate sample was collected with this data set; EDS ID 2 was collected from EDS ID 1. Xylene (total) was positively identified in EDS ID 2 (0.21 J ug/l) but not in EDS ID 1 (1.0 U ug/l). No qualification of the sample data is required as the concentration of Xylene (total) detected was less than 2x the RL. All other results matched well.

Sample Analysis - Freon-22 has been added to the target compound list. Some samples have been centrifuged due to presence of sediment. No qualification is required. No Tentatively Identified Compounds (TICs) were detected in this data set. No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(320)		
Lab Sample ID:	JB85714-1	**Date Sampled:**	01/05/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141014.D	1	01/07/15	BK	n/a	n/a	V2D5911
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~37.3~~	10 37.3 ~~2.7~~		ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	2.4	10	2.3	ug/l	J
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(320)		
Lab Sample ID:	JB85714-1	**Date Sampled:**	01/05/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.1	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(340)		
Lab Sample ID:	JB85714-3	**Date Sampled:**	01/05/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141012.D	1	01/07/15	BK	n/a	n/a	V2D5911
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	43.8	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	2.8	10	2.3	ug/l	J
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	0.69	1.0	0.65	ug/l	J
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(340)		
Lab Sample ID:	JB85714-3	**Date Sampled:**	01/05/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	14.3	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	113%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-300(360)
Lab Sample ID: JB85714-6 **Date Sampled:** 01/06/15
Matrix: AQ - Ground Water **Date Received:** 01/06/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141013.D	1	01/07/15	BK	n/a	n/a	V2D5911
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	46.9	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.44	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(360)		
Lab Sample ID:	JB85714-6	**Date Sampled:**	01/06/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	130	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.29	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	105%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB010615		
Lab Sample ID:	JB85714-7	**Date Sampled:**	01/06/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141036A.D	1	01/08/15	BK	n/a	n/a	V2D5915
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB010615		
Lab Sample ID:	JB85714-7	**Date Sampled:**	01/06/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUP010515		
Lab Sample ID:	JB85714-2	**Date Sampled:**	01/05/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141015.D	1	01/07/15	BK	n/a	n/a	V2D5911
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~38.5~~	10 38.5	~~2.7~~	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	2.6	10	2.3	ug/l	J
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP010515		
Lab Sample ID:	JB85714-2	**Date Sampled:**	01/05/15
Matrix:	AQ - Ground Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.2	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.21	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	114%		84-119%
460-00-4	4-Bromofluorobenzene	107%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB010515		
Lab Sample ID:	JB85714-4	**Date Sampled:**	01/06/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141022.D	1	01/07/15	BK	n/a	n/a	V2D5911
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.0	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.29	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB010515		
Lab Sample ID:	JB85714-4	**Date Sampled:**	01/06/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	110%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB010515		
Lab Sample ID:	JB85714-5	**Date Sampled:**	01/05/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D141023.D	1	01/07/15	BK	n/a	n/a	V2D5911
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB010515		
Lab Sample ID:	JB85714-5	**Date Sampled:**	01/05/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/06/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	111%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-300(380)
Lab Sample ID: JB85850-1 **Date Sampled:** 01/07/15
Matrix: AQ - Ground Water **Date Received:** 01/07/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154366.D	1	01/08/15	MM	n/a	n/a	V2A6582
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	54.9	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.33	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(380)		
Lab Sample ID:	JB85850-1	**Date Sampled:**	01/07/15
Matrix:	AQ - Ground Water	**Date Received:**	01/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	5.9	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	92%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: VPB-300(400)
Lab Sample ID: JB85850-2 **Date Sampled:** 01/07/15
Matrix: AQ - Ground Water **Date Received:** 01/07/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154367.D	1	01/08/15	MM	n/a	n/a	V2A6582
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	39.2	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(400)		
Lab Sample ID:	JB85850-2	**Date Sampled:**	01/07/15
Matrix:	AQ - Ground Water	**Date Received:**	01/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	3.3	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	93%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: TB010715
Lab Sample ID: JB85850-3 **Date Sampled:** 01/07/15
Matrix: AQ - Trip Blank Water **Date Received:** 01/07/15
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154374.D	1	01/08/15	MM	n/a	n/a	V2A6582
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB010715		
Lab Sample ID:	JB85850-3	**Date Sampled:**	01/07/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB010715		
Lab Sample ID:	JB85850-4	**Date Sampled:**	01/07/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A154375.D	1	01/08/15	MM	n/a	n/a	V2A6582
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB010715		
Lab Sample ID:	JB85850-4	**Date Sampled:**	01/07/15
Matrix:	AQ - Field Blank Water	**Date Received:**	01/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	98%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB84955, JB85154, JB85227

Laboratory: Accutest – Dayton, New Jersey Date: January 11, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-300(200)	JB84955-1	Aqueous
2	DUP122214 (VPB-300(200))	JB84955-2	Aqueous
3	VPB-300(220)	JB84955-3	Aqueous
3MS	VPB-300(220) MS	JB84955-3S	Aqueous
3MSD	VPB-300(220) MSD	JB84955-3D	Aqueous
4	VPB-300(240)	JB84955-4	Aqueous
5	VPB-300(260)	JB84955-5	Aqueous
6	TB122214	JB84955-6	Aqueous
7	FB122214	JB84955-7	Aqueous
8	FB122314	JB84955-8	Aqueous
9	VPB-300(290)	JB85154-1	Aqueous
10	FB122914	JB85154-2	Aqueous
11	TB122914	JB85154-3	Aqueous
12	VPB-300 (300)	JB85227-1	Aqueous
13	TB123014	JB85227-2	Aqueous
14	FB123014	JB85227-3	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

VOLATILE ORGANIC COMPOUNDS
USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria except cis-1,3-Dichloropropene in the BS applicable to EDS ID 12-14 (117%; QC limits 75-114%). Results for cis-1,3-Dichloropropene in the associated samples may be biased high. No qualification of the sample data is required as cis-1,3-Dichloropropene was a non-detect in all associated samples.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - An MS/MSD was collected and analyzed on EDS ID 3. The laboratory also provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC. All %R and relative percent difference (RPD) met QC criteria.

Method Blank (MB) - The MBs applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Four FBs and three TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples
6	Chloroform	0.28 (1.4)	1 – 5
11	Acetone * Chloroform	3.3 (33) 0.32 (1.6)	9
13	Acetone * Chloroform	4.1 (41) 0.28 (1.4)	12

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – One blind field duplicate sample was collected with this data set; EDS ID 2 was collected from EDS ID 1. Xylene (total) was positively identified in EDS ID 1 (0.28 J ug/l) but not in EDS ID 2 (1.0 U ug/l). No qualification of the sample data is required as

the concentration of Xylene (total) detected was less than 2x the RL. Results between the sample and the blind field duplicate differed by more than 50% for Methylene chloride and Toluene. Results for these compounds in EDS ID 1 and 2 only have been qualified J. All other results matched well.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Some samples have been centrifuged due to presence of sediment. No qualification is required.

No Tentatively Identified Compounds (TICs) were detected in this data set.

No other issues were observed.

Accutest LabLink@833862 10:16 13-Jan-2015

Report of Analysis

Client Sample ID:	VPB-300(200)		
Lab Sample ID:	JB84955-1	**Date Sampled:**	12/22/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126324.D	1	12/24/14	BK	n/a	n/a	V2B5701
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	15.1	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.2	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(200)		
Lab Sample ID:	JB84955-1	**Date Sampled:**	12/22/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	14.3	2.0	0.89	ug/l	J
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	4.5	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.28	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	102%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:16 13-Jan-2015

Report of Analysis

Client Sample ID:	DUP122214		
Lab Sample ID:	JB84955-2	**Date Sampled:**	12/22/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126386.D	1	12/26/14	BK	n/a	n/a	V2B5703
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.1	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP122214		
Lab Sample ID:	JB84955-2	**Date Sampled:**	12/22/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	2.5	2.0	0.89	ug/l	J
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	11.8	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-120%
17060-07-0	1,2-Dichloroethane-D4	105%		72-123%
2037-26-5	Toluene-D8	109%		78-119%
460-00-4	4-Bromofluorobenzene	101%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:16 13-Jan-2015

Report of Analysis

Client Sample ID:	VPB-300(220)		
Lab Sample ID:	JB84955-3	**Date Sampled:**	12/22/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126323.D	1	12/24/14	BK	n/a	n/a	V2B5701
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.5	10	2.7	ug/l	
71-43-2	Benzene	0.26	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(220)		
Lab Sample ID:	JB84955-3	**Date Sampled:**	12/22/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	9.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-120%
17060-07-0	1,2-Dichloroethane-D4	103%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	102%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:16 13-Jan-2015

Report of Analysis

Client Sample ID:	VPB-300(240)		
Lab Sample ID:	JB84955-4	**Date Sampled:**	12/23/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126325.D	1	12/24/14	BK	n/a	n/a	V2B5701
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.7	10	2.7	ug/l	
71-43-2	Benzene	0.26	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.65	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(240)		
Lab Sample ID:	JB84955-4	**Date Sampled:**	12/23/14
Matrix:	AQ - Ground Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	2.7	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-120%
17060-07-0	1,2-Dichloroethane-D4	104%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	100%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: VPB-300(260)
Lab Sample ID: JB84955-5 **Date Sampled:** 12/23/14
Matrix: AQ - Ground Water **Date Received:** 12/23/14
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126326.D	1	12/24/14	BK	n/a	n/a	V2B5701
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	24.0	10	2.7	ug/l	
71-43-2	Benzene	0.26	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	0.31	1.0	0.24	ug/l	J
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: VPB-300(260)
Lab Sample ID: JB84955-5 **Date Sampled:** 12/23/14
Matrix: AQ - Ground Water **Date Received:** 12/23/14
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	3.0	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	5.5	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-120%
17060-07-0	1,2-Dichloroethane-D4	104%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	101%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: TB122214
Lab Sample ID: JB84955-6 **Date Sampled:** 12/23/14
Matrix: AQ - Trip Blank Water **Date Received:** 12/23/14
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126387.D	1	12/26/14	BK	n/a	n/a	V2B5703
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.28	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB122214		
Lab Sample ID:	JB84955-6	**Date Sampled:**	12/23/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-120%
17060-07-0	1,2-Dichloroethane-D4	104%		72-123%
2037-26-5	Toluene-D8	109%		78-119%
460-00-4	4-Bromofluorobenzene	100%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	FB122214		
Lab Sample ID:	JB84955-7	**Date Sampled:**	12/22/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126389.D	1	12/26/14	BK	n/a	n/a	V2B5703
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB122214		
Lab Sample ID:	JB84955-7	**Date Sampled:**	12/22/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-120%
17060-07-0	1,2-Dichloroethane-D4	106%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	101%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	FB122314		
Lab Sample ID:	JB84955-8	**Date Sampled:**	12/23/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126388.D	1	12/26/14	BK	n/a	n/a	V2B5703
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB122314		
Lab Sample ID:	JB84955-8	**Date Sampled:**	12/23/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/23/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-120%
17060-07-0	1,2-Dichloroethane-D4	103%		72-123%
2037-26-5	Toluene-D8	107%		78-119%
460-00-4	4-Bromofluorobenzene	100%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	VPB-300(290)		
Lab Sample ID:	JB85154-1	**Date Sampled:**	12/29/14
Matrix:	AQ - Ground Water	**Date Received:**	12/29/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146657.D	1	12/30/14	DS	n/a	n/a	V1A6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	54.1	10	2.7	ug/l	
71-43-2	Benzene	0.24	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.27	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.39	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(290)		
Lab Sample ID:	JB85154-1	**Date Sampled:**	12/29/14
Matrix:	AQ - Ground Water	**Date Received:**	12/29/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	4.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.27	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		79-120%
17060-07-0	1,2-Dichloroethane-D4	93%		72-123%
2037-26-5	Toluene-D8	93%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: FB122914
Lab Sample ID: JB85154-2 **Date Sampled:** 12/29/14
Matrix: AQ - Field Blank Water **Date Received:** 12/29/14
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146656.D	1	12/30/14	DS	n/a	n/a	V1A6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB122914		
Lab Sample ID:	JB85154-2	**Date Sampled:**	12/29/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/29/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		79-120%
17060-07-0	1,2-Dichloroethane-D4	92%		72-123%
2037-26-5	Toluene-D8	93%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:16 13-Jan-2015

Report of Analysis

Client Sample ID:	TB122914		
Lab Sample ID:	JB85154-3	**Date Sampled:**	12/29/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/29/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146655.D	1	12/30/14	DS	n/a	n/a	V1A6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	3.3	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.32	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB122914		
Lab Sample ID:	JB85154-3	**Date Sampled:**	12/29/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/29/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		79-120%
17060-07-0	1,2-Dichloroethane-D4	92%		72-123%
2037-26-5	Toluene-D8	92%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:17 13-Jan-2015

Report of Analysis

Client Sample ID:	VPB-300 (300)		
Lab Sample ID:	JB85227-1	**Date Sampled:**	12/30/14
Matrix:	AQ - Ground Water	**Date Received:**	12/30/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126498.D	1	12/31/14	KC	n/a	n/a	V2B5707
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	60.5	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300 (300)		
Lab Sample ID:	JB85227-1	**Date Sampled:**	12/30/14
Matrix:	AQ - Ground Water	**Date Received:**	12/30/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	2.7	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-120%
17060-07-0	1,2-Dichloroethane-D4	114%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	99%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:17 13-Jan-2015

Report of Analysis

Client Sample ID: TB123014
Lab Sample ID: JB85227-2 **Date Sampled:** 12/30/14
Matrix: AQ - Trip Blank Water **Date Received:** 12/30/14
Method: SW846 8260C **Percent Solids:** n/a
Project: Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126496.D	1	12/31/14	KC	n/a	n/a	V2B5707
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.1	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.28	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB123014		
Lab Sample ID:	JB85227-2	**Date Sampled:**	12/30/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/30/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-120%
17060-07-0	1,2-Dichloroethane-D4	114%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	101%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@833862 10:17 13-Jan-2015

Report of Analysis

Client Sample ID:	FB123014		
Lab Sample ID:	JB85227-3	**Date Sampled:**	12/30/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/30/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126497.D	1	12/31/14	KC	n/a	n/a	V2B5707
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB123014		
Lab Sample ID:	JB85227-3	**Date Sampled:**	12/30/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/30/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-120%
17060-07-0	1,2-Dichloroethane-D4	113%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	98%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ENVIRONMENTAL Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: Northrop Grumman, Containment System, Hydraulic Effectiveness, Bethpage, NY

SDG #s: JB84348, JB84492, JB84645, JB84730

Laboratory: Accutest – Dayton, New Jersey Date: January 2, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VPB-300(60)	JB84348-1	Aqueous
2	VPB-300(70)	JB84348-2	Aqueous
3	VPB-300(80)	JB84348-3	Aqueous
4	TB121614	JB84348-4	Aqueous
5	FB121614	JB84348-5	Aqueous
6	VPB-300(90)	JB84492-1	Aqueous
7	VPB-300(100)	JB84492-2	Aqueous
8	VPB-300(110)	JB84492-3	Aqueous
9	VPB-300(120)	JB84492-4	Aqueous
10	VPB-300(130)	JB84492-5	Aqueous
11	TB121714	JB84492-6	Aqueous
12	FB121714	JB84492-7	Aqueous
13	VPB-300(140)	JB84645-1	Aqueous
14	VPB-300(150)	JB84645-2	Aqueous
15	VPB-300(160)	JB84645-3	Aqueous
16	TB121814	JB84645-4	Aqueous
17	FB121814	JB84645-5	Aqueous
18	VPB-300(170)	JB84730-1	Aqueous
19	VPB-300(180)	JB84730-2	Aqueous
20	VPB-300(190)	JB84730-3	Aqueous
21	TB121914	JB84730-4	Aqueous
22	FB121914	JB84730-5	Aqueous

Note (s): The laboratory reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a J. These results are considered estimated, however still valid and useable for project objectives.

The laboratory reports non-detects as ND on their Form Is for organic analyses. Any qualification that requires non-detects to be qualified as estimated, UJ, will be presented on the Form Is as ND J.

VOLATILE ORGANIC COMPOUNDS

USEPA SW-846 8260C

The analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Organic Data Review (August 2014), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT)/Sample preservation - All HT criteria were met.

Surrogates - All percent recoveries (%R) met QC criteria.

Blank Spike Sample (BSS) – All %R met QC criteria.

Matrix Spike/Matrix Spike duplicate (MS/MSD) – No MS/MSD was collected with this data set, however MS/MSD are being collected on this project at a rate of 1 per 20 samples. The laboratory provided batch QC from samples not from this dataset to fulfill method requirements. No qualification of sample data is performed from the batch QC.

Method Blank (MB) - The MB applicable to all samples exhibited no target or non-target compounds.

Field Blank (FB) / Trip Blank (TB) – Four FBs and four TBs were collected with the samples in this data set. The FBs and TBs exhibited no target or non-target compounds except those listed in the table below. Common laboratory solvents, noted with an asterisk in the table below, detected in any associated sample at a concentration less than 10x that found in the FB or TB are considered possibly attributable to field contamination, negated and qualified U (ND). For all other compounds the action limit is 5x. The RLs are modified accordingly when necessary.

FB/TB Sample (EDS ID)	Compound (s)	Concentration (Action Limit) ug/l	Associated Samples
4	Acetone *	4.0 (40)	1 – 3
11	Chloroform	0.31 (1.55)	6 – 10
16	Acetone * Chloroform	3.2 (32) 0.25 (1.25)	13 - 15
21	Acetone * Chloroform	3.3 (33) 0.26 (1.3)	18 - 20

GC/MS Tuning - All of the bromofluorobenzene (BFB) tunes met QC criteria.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent deviation (%D) and RRF values.

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

Blind Field Duplicate – No blind field duplicate sample was collected with this data set, but blind field duplicate samples are being collected on this project at a rate of 1 per 20 samples.

Compound Quantitation – see comments below.

Freon-22 has been added to the target compound list.

Some samples have been centrifuged due to presence of sediment. No qualification is required.

All Tentatively Identified Compounds (TICs) are qualified as estimated J, by the laboratory since the concentrations are based on an arbitrary response factor and their identification is based on the best match mass spectra library search.

No other issues were observed.

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(60)		
Lab Sample ID:	JB84348-1	**Date Sampled:**	12/16/14
Matrix:	AQ - Ground Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126057.D	1	12/17/14	BK	n/a	n/a	V2B5690
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~15.4~~ 15.4	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.5	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(60)		
Lab Sample ID:	JB84348-1	**Date Sampled:**	12/16/14
Matrix:	AQ - Ground Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	0.59	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	0.70	1.0	0.25	ug/l	J
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	0.40	1.0	0.16	ug/l	J
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	109%		78-119%
460-00-4	4-Bromofluorobenzene	103%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
141-78-6	Ethyl Acetate	10.26	8.2	ug/l	JN
	Total TIC, Volatile		8.2	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(70)		
Lab Sample ID:	JB84348-2	**Date Sampled:**	12/16/14
Matrix:	AQ - Ground Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126058.D	1	12/17/14	BK	n/a	n/a	V2B5690
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~10.4~~ 10.4 ~~10~~		2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.43	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	0.40	1.0	0.35	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.4	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(70)		
Lab Sample ID:	JB84348-2	**Date Sampled:**	12/16/14
Matrix:	AQ - Ground Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	0.67	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	6.1	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	2.2	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	105%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(80)		
Lab Sample ID:	JB84348-3	**Date Sampled:**	12/16/14
Matrix:	AQ - Ground Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126059.D	1	12/17/14	BK	n/a	n/a	V2B5690
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~14.2~~ 14.2 ~~10~~		2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(80)		
Lab Sample ID:	JB84348-3	**Date Sampled:**	12/16/14
Matrix:	AQ - Ground Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	0.65	1.0	0.22	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	103%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB121614		
Lab Sample ID:	JB84348-4	**Date Sampled:**	12/16/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126055.D	1	12/17/14	BK	n/a	n/a	V2B5690
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.0	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB121614		
Lab Sample ID:	JB84348-4	**Date Sampled:**	12/16/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-120%
17060-07-0	1,2-Dichloroethane-D4	100%		72-123%
2037-26-5	Toluene-D8	107%		78-119%
460-00-4	4-Bromofluorobenzene	103%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB121614		
Lab Sample ID:	JB84348-5	**Date Sampled:**	12/16/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B126056.D	1	12/17/14	BK	n/a	n/a	V2B5690
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB121614		
Lab Sample ID:	JB84348-5	**Date Sampled:**	12/16/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/16/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	107%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(90)		
Lab Sample ID:	JB84492-1	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146221.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	16.8	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(90)		
Lab Sample ID:	JB84492-1	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	5.9	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		79-120%
17060-07-0	1,2-Dichloroethane-D4	95%		72-123%
2037-26-5	Toluene-D8	98%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
141-78-6	Ethyl Acetate	10.37	5.1	ug/l	JN
	alkane	16.71	5.3	ug/l	J
	Total TIC, Volatile		10.4	ug/l	J

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(100)		
Lab Sample ID:	JB84492-2	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146222.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND ~~0.32~~	1.0	0.20	ug/l	~~J~~
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	0.22	1.0	0.22	ug/l	J
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(100)		
Lab Sample ID:	JB84492-2	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	3.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		79-120%
17060-07-0	1,2-Dichloroethane-D4	93%		72-123%
2037-26-5	Toluene-D8	99%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(110)		
Lab Sample ID:	JB84492-3	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146223.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.2	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(110)		
Lab Sample ID:	JB84492-3	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	4.0	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		79-120%
17060-07-0	1,2-Dichloroethane-D4	93%		72-123%
2037-26-5	Toluene-D8	98%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(120)		
Lab Sample ID:	JB84492-4	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146224.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.4	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(120)		
Lab Sample ID:	JB84492-4	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	6.9	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		79-120%
17060-07-0	1,2-Dichloroethane-D4	94%		72-123%
2037-26-5	Toluene-D8	97%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(130)		
Lab Sample ID:	JB84492-5	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146225.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.6	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(130)		
Lab Sample ID:	JB84492-5	**Date Sampled:**	12/17/14
Matrix:	AQ - Ground Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	8.9	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		79-120%
17060-07-0	1,2-Dichloroethane-D4	96%		72-123%
2037-26-5	Toluene-D8	98%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB121714		
Lab Sample ID:	JB84492-6	**Date Sampled:**	12/17/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146225A.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.31	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB121714		
Lab Sample ID:	JB84492-6	**Date Sampled:**	12/17/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		79-120%
17060-07-0	1,2-Dichloroethane-D4	90%		72-123%
2037-26-5	Toluene-D8	97%		78-119%
460-00-4	4-Bromofluorobenzene	90%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB121714		
Lab Sample ID:	JB84492-7	**Date Sampled:**	12/17/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146220.D	1	12/18/14	DS	n/a	n/a	V1A6310
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB121714		
Lab Sample ID:	JB84492-7	**Date Sampled:**	12/17/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/17/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		79-120%
17060-07-0	1,2-Dichloroethane-D4	94%		72-123%
2037-26-5	Toluene-D8	98%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(140)		
Lab Sample ID:	JB84645-1	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D55086.D	1	12/19/14	PR	n/a	n/a	V4D2448
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~11.2~~ 11.2	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(140)		
Lab Sample ID:	JB84645-1	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	48.8	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		79-120%
17060-07-0	1,2-Dichloroethane-D4	100%		72-123%
2037-26-5	Toluene-D8	90%		78-119%
460-00-4	4-Bromofluorobenzene	87%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(150)		
Lab Sample ID:	JB84645-2	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D55087.D	1	12/19/14	PR	n/a	n/a	V4D2448
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~8.8~~	10	2.7	ug/l	~~J~~
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(150)		
Lab Sample ID:	JB84645-2	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	5.3	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	91%		78-119%
460-00-4	4-Bromofluorobenzene	88%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(160)		
Lab Sample ID:	JB84645-3	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D55089.D	1	12/19/14	PR	n/a	n/a	V4D2448
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound		Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	~~9.9~~	10	2.7	ug/l	~~J~~
71-43-2	Benzene		ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane		ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane		ND	1.0	0.19	ug/l	
75-25-2	Bromoform		ND	4.0	0.31	ug/l	
74-83-9	Bromomethane		ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)		ND	10	2.3	ug/l	
75-15-0	Carbon disulfide		ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride		ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene		ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane		ND	5.0	0.51	ug/l	
75-00-3	Chloroethane		ND	1.0	0.65	ug/l	
67-66-3	Chloroform		ND	1.0	0.20	ug/l	
74-87-3	Chloromethane		ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane		ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane		ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane		ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane		ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene		ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene		ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene		ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane		ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane		ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane		ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene		ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene		ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene		ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane		ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene		ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene		ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene		ND	1.0	0.31	ug/l	
76-13-1	Freon 113		ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(160)		
Lab Sample ID:	JB84645-3	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	6.1	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	92%		78-119%
460-00-4	4-Bromofluorobenzene	88%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB121814		
Lab Sample ID:	JB84645-4	**Date Sampled:**	12/18/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D55084.D	1	12/19/14	PR	n/a	n/a	V4D2448
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	3.2	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.25	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB121814		
Lab Sample ID:	JB84645-4	**Date Sampled:**	12/18/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		79-120%
17060-07-0	1,2-Dichloroethane-D4	95%		72-123%
2037-26-5	Toluene-D8	91%		78-119%
460-00-4	4-Bromofluorobenzene	88%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB121814		
Lab Sample ID:	JB84645-5	**Date Sampled:**	12/18/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D55085.D	1	12/19/14	PR	n/a	n/a	V4D2448
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB121814		
Lab Sample ID:	JB84645-5	**Date Sampled:**	12/18/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/18/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		79-120%
17060-07-0	1,2-Dichloroethane-D4	98%		72-123%
2037-26-5	Toluene-D8	92%		78-119%
460-00-4	4-Bromofluorobenzene	89%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(170)		
Lab Sample ID:	JB84730-1	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146386.D	1	12/22/14	DS	n/a	n/a	V1A6317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~9.1~~	10	2.7	ug/l	~~J~~
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(170)		
Lab Sample ID:	JB84730-1	**Date Sampled:**	12/18/14
Matrix:	AQ - Ground Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	7.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		79-120%
17060-07-0	1,2-Dichloroethane-D4	91%		72-123%
2037-26-5	Toluene-D8	97%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(180)		
Lab Sample ID:	JB84730-2	**Date Sampled:**	12/19/14
Matrix:	AQ - Ground Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146387.D	1	12/22/14	DS	n/a	n/a	V1A6317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~12.9~~ 12.9	~~10~~	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	0.29	2.0	0.17	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(180)		
Lab Sample ID:	JB84730-2	**Date Sampled:**	12/19/14
Matrix:	AQ - Ground Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	4.4	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		79-120%
17060-07-0	1,2-Dichloroethane-D4	92%		72-123%
2037-26-5	Toluene-D8	100%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	VPB-300(190)		
Lab Sample ID:	JB84730-3	**Date Sampled:**	12/19/14
Matrix:	AQ - Ground Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146388.D	1	12/22/14	DS	n/a	n/a	V1A6317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ND	~~15.5~~ 15.5	~~10~~	2.7	ug/l	
71-43-2	Benzene	0.25	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VPB-300(190)		
Lab Sample ID:	JB84730-3	**Date Sampled:**	12/19/14
Matrix:	AQ - Ground Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	4.6	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.22	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		79-120%
17060-07-0	1,2-Dichloroethane-D4	92%		72-123%
2037-26-5	Toluene-D8	99%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB121914		
Lab Sample ID:	JB84730-4	**Date Sampled:**	12/19/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146384.D	1	12/22/14	DS	n/a	n/a	V1A6317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	3.3	10	2.7	ug/l	J
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	0.26	1.0	0.20	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB121914		
Lab Sample ID:	JB84730-4	**Date Sampled:**	12/19/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		79-120%
17060-07-0	1,2-Dichloroethane-D4	88%		72-123%
2037-26-5	Toluene-D8	98%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB121914		
Lab Sample ID:	JB84730-5	**Date Sampled:**	12/19/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A146385.D	1	12/22/14	DS	n/a	n/a	V1A6317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.7	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	4.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.3	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.17	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	0.51	ug/l	
75-00-3	Chloroethane	ND	1.0	0.65	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.24	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.18	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.31	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB121914		
Lab Sample ID:	JB84730-5	**Date Sampled:**	12/19/14
Matrix:	AQ - Field Blank Water	**Date Received:**	12/19/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, Containment System, (Hydraulic Effectiveness), Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.19	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.89	ug/l	
100-42-5	Styrene	ND	5.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.27	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
	m,p-Xylene	ND	1.0	0.35	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		79-120%
17060-07-0	1,2-Dichloroethane-D4	90%		72-123%
2037-26-5	Toluene-D8	97%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound