M67001.AR.006910
MCB CAMP LEJUENE
5090.3a

VALIDATED DATA PACKAGE, 50069-42, MCB CAMP LEJUENE NC
6/30/2015
TRIMATRIX

TRIMATRIX LABORATORIES

5560 Corporate Exchange Court, SE
Grand Rapids, MI 49512 616.975.4500

TRANSMITTAL FORM

Date: July 30, 2015

Attention: Ms. Bianca Kleist

To: CH2M HILL
14120 Ballantyne Corporate Place
Suite 200
Charlotte, NC 28277
(704)-543-3274

Project Name: 8012 CTO-WE2A Camp Lejeune SWMU 350

SDG: 50069-42

Work Order(s): 1507301

WE ARE SENDING YOU:

By: ☐ US Mail ☒ FedEx ☐ Courier ☐ Other

ENCLOSED WITH THIS TRANSMITTAL: ☒ **UNDER SEPARATE COVER:** ☐

☐ Report(s) (Draft) ☐ Proposal ☐ QAPP Information
☒ Report(s) (Summary) ☐ Contract Documents ☐ Data Validation Package

QUANTITY	DESCRIPTION / DOCUMENT NAME
1	Final Report (aka Data Validation Package or DVP) for SDG 50069-42 for 8012 CTO-WE2A Camp Lejeune SWMU 350. This report consists of 168 pages with this transmittal form page one of the report.
1	CD containing PDF files of the Summary and Final Reports plus EDD
1	copy of invoice 1502443

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ Furnished As Requested ☒ For Review and Comment ☐ For Submittal To: _____
☐ For File ☐ As Corrected _____

REMARKS:

cc:

BY: _____
Walt Roudebush
Project Chemist

DATA VALIDATION PACKAGE

Prepared for:

CH2M HILL - VA
14120 Ballantyne Corporate Place, Suite 200
Charlotte, NC 28277

Project:

8012 CTO-WE2A Camp Lejeune SWMU 350

Sample Delivery Group (SDG):

50069-42

Prepared by:

TriMatrix Laboratories, Inc.
5560 Corporate Exchange Court SE
Grand Rapids, MI 49512-5503

Report Date:

July 28, 2015

Walter J. Roudebush, Project Chemist
roudebushw@trimatrixlabs.com

7/30/15
Approval Date

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CH2M HILL - VA
8012 CTO-WE2A Camp Lejeune SWMU 350

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A	**Field COC Records and Receiving Documentation**	**0015-0022**
B	**Internal COC Records**	**0023-0024**
C	**GC/MS Volatile Organics** • USEPA-8260B	**0025-0168** 0026-0168

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TRIMATRIX LABORATORIES

SDG CASE NARRATIVE

CH2M HILL - VA
8012 CTO-WE2A Camp Lejeune SWMU 350

SDG Executive Summary

This case narrative applies to samples received on July 17, 2015. All samples were scheduled for analysis in accordance with parameters outlined on the field chain of custody record, the TriMatrix bid form, and/or oral and written correspondence between CH2M HILL - VA and TriMatrix Laboratories, Inc.

Each sample receipt event was assigned a unique TriMatrix work order number. Sample receipt documentation is included in section A of this data package.

Project Technical Issues/Problems

Project-related data qualification designations, narrations, and reporting conventions are included in Attachment 1 - *Project Technical Narrative(s)*.

QA/QC Data Qualifications/Narrations

Quality assurance issues and/or quality control data qualifications and narrations related to the analysis and reporting of this SDG are presented in Attachment 2 - *Statement of Data Qualifications*. The absence of a statement page for a particular analyte group (*e.g.* Percent Solids) implies that no qualifying statements were generated for that analyte.

Data Review and Approval

All data was peer-reviewed by a second analyst, and then by appropriate data management staff against laboratory quality control requirements and project specifications. It was then reviewed and approved by the group supervisor/manager prior to further review by the project chemist.

Data Deliverables

This report relates only to the sample(s) as received. Estimates of analytical uncertainties for the test results contained within this report are available upon request. Test results are in compliance with the requirements of the DoD Quality Systems Manual for Environmental Laboratories Version 4.2, the National Environmental Laboratory Accreditation Conference (NELAC), and one or more of the following certification programs:

ACLASS DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#13-049-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#003329); Kansas DPH (#E-10302); Kentucky DEP (#0021); Louisiana DEP (#103068); Michigan DPH (#0034); Minnesota DPH (#367345); New York ELAP (#46503); North Carolina DNRE (#659); Virginia DCLS (#2592); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-09-00163).

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TRIMATRIX LABORATORIES

SDG CASE NARRATIVE

The data deliverables, both hardcopy and/or electronic (EDD), that comprise this data package are intended to comply with the documents referenced in the introductory section of this narrative. The EDD, if requested, will be issued separately from this hardcopy report. Hold time reports for each test procedure are presented following the CLP-like forms section of this report.

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TRIMATRIX LABORATORIES

SDG CASE NARRATIVE

Sample Receipt and Login -- Work Order: 1507301

TriMatrix Laboratories received the cooler(s) for this work order on July 17, 2015, at 08:20am. Receiving documents include field chain-of-custody (COC) record(s), sample receipt form(s), and FedEx shipping document(s). The condition of the custody seals, the type and location of the coolant, and the temperatures recorded for each cooler are presented on the TriMatrix *Sample Receiving / Log-In Checklist* provided in section A of this package. The receipt temperature of the samples was determined by using an infrared thermometer to record the temperature of three random samples of varying container types and the accompanying temperature blank, if present.

Samples were scheduled for the analyses listed on the corresponding COC form. Field IDs and assigned laboratory identifiers are presented in the table below.

Field Sample Name	Laboratory Sample ID	Matrix	Date Sampled
SWMU350-GW49-18-15C	1507301-01	Ground Water	7/15/2015
SWMU350-GW47-30-15C	1507301-02	Ground Water	7/15/2015
SWMU350-GW48-30-15C	1507301-03	Ground Water	7/15/2015
SWMU350-GW48-18-15C	1507301-04	Ground Water	7/15/2015
SWMU350-GW48-18D-15C	1507301-05	Ground Water	7/15/2015
SWMU350-GW47-18-15C	1507301-06	Ground Water	7/15/2015
SWMU350-GW49-30-15C	1507301-07	Ground Water	7/15/2015
SWMU350-GW16-15C	1507301-08	Ground Water	7/15/2015
SWMU350-GW06-15C	1507301-09	Ground Water	7/15/2015
SWMU350-EB-071515	1507301-10	Water	7/15/2015
SWMU350-TB-071515	1507301-11	Water	7/15/2015

See the Project Correspondence section of Attachment 1 for any administrative issues that were encountered during the receipt and analysis of this work order.

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SDG CASE NARRATIVE

Attachment 1
Project Technical Narrative(s)

Sample Result Reporting Convention

Sample results are reported as LOD "U" (e.g. 0.001 U) if the target analyte was not detected at or above the detection limit (DL). The LOD is the Limit of Detection as defined in the DoD QSM and numerically determined by TriMatrix.

If a sample for an organic analyte is reanalyzed and also reported, the second analysis includes the suffix "RE*n*" where *n* = the first, second, etc. reanalysis. If a sample is reanalyzed for confirmation purposes but that confirmation was not performed simultaneously, the second set of sample results is reported on a second Form 1 since the confirmation analysis did not occur at the same time and/or date.

Percent Solids and Metals Data Reporting

Unless otherwise noted, all soil samples requiring metals analysis are dried at 50° to 60° C to a constant weight prior to acid digestion. In order to report results on a dry weight basis, correction for percent solids is not applicable.

Data Qualifier Designation

If applicable, sample results are qualified with:

a "U" flag as defined above;
a "J" flag if the analyte was detected, but the concentration is greater than the DL and less than the LOQ (the Limit of Quantitation as defined in the DoD QSM);
a "B" flag if the analyte was detected above one-half the LOQ (above the LOQ for a common laboratory contaminant) in the associated method blank, and the sample concentration was less than or equal to ten times the method blank result;
a "E" flag if the analyte exceeded the instrument calibration range;
a "N" flag for a non-target analyte identified as a tentatively identified compound using mass spectrometry;
a LIMS-generated statement of qualification that will be reported in Attachment 2 to this narrative.

Batch and Analytical Batch Designation

A Quality Control (QC) Batch is a seven-digit number that associates all samples that have been prepared together (or analyzed together if there is no preparation). Quality Control batches are limited to no more than twenty samples, excluding batch QC (method blanks, control spikes, etc.). Some batches may contain multiple sets of method blanks (BLK) and laboratory control samples (BS), where a set of method quality control analyses were prepared in concert with each set of samples on a given day.

An Analytical Batch (or Sequence) is a seven-digit number that associates all samples analyzed as a set under one analytical run.

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Walt Roudebush

From: Bianca.Kleist@CH2M.com
Sent: Thursday, July 23, 2015 11:10 AM
To: roudebushw@trimatrixlabs.com
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301 - preliminary report

Thank you Walt!

From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Thursday, July 23, 2015 11:02 AM
To: Kleist, Bianca/CLT
Subject: FW: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301 - preliminary report

Bianca,

A PDF of Form 1s plus batch QC is attached.

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Thursday, July 23, 2015 10:41 AM
To: 'Bianca.Kleist@CH2M.com' <Bianca.Kleist@CH2M.com>
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301 - Naphthalene only

Bianca,

They will be available later this morning.

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Bianca.Kleist@CH2M.com [mailto:Bianca.Kleist@CH2M.com]
Sent: Thursday, July 23, 2015 10:27 AM

To: roudebushw@trimatrixlabs.com
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301 - Naphthalene only

Hi Walt,

Form 1s aren't due until tomorrow but I just wanted to check and see if this is on schedule. The team is eagerly anticipating the results, could you email the Form 1s tomorrow when they become available?

Thanks Walt!

Bianca

From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Monday, July 20, 2015 3:36 PM
To: Kleist, Bianca/CLT
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301 - Naphthalene only

Bianca,

Per our phone discussion, only Naphthalene is being reported.

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Bianca.Kleist@CH2M.com [mailto:Bianca.Kleist@CH2M.com]
Sent: Monday, July 20, 2015 3:29 PM
To: roudebushw@trimatrixlabs.com
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301 - Naphthalene only

Hi Walt,

Just to clarify, these samples are to be analyzed for ***only Naphthalene***. I noticed that the login shows 8260 VOCs, can you please confirm that only Naphthalene will be reported?

Thanks,

Bianca

From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Monday, July 20, 2015 10:40 AM
To: Kleist, Bianca/CLT
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order 1507301

Bianca,

A PDF of the receipt confirmation for samples received on 7/17/15 and assigned to work order 1507301 and to SDG 50069-42 is attached.

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Bianca.Kleist@CH2M.com [mailto:Bianca.Kleist@CH2M.com]
Sent: Friday, July 17, 2015 10:22 AM
To: roudebushw@trimatrixlabs.com
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order TBD

Thanks Walt. Yes the TB ID should be SWMU350-TB-071515. Thank you!

From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Friday, July 17, 2015 10:19 AM
To: Kleist, Bianca/CLT
Subject: RE: CTO-WE2A SWMU 350, 7/17/15 Sample Receipt, SDG 50069-42, work order TBD

Bianca,

RE: CTO-WE2A SWMU 350

One cooler of GWs was received this morning. All sample containers were intact and the cooler temp blank was 2.8 deg C.

A trip blank was received but it was not listed on either COC. From the sampler's table, we will assume that the field ID should be SWMU350-TB-071515. We will assign a collection date of 7/15/15 and time of 0800 hrs. Would you please confirm?

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Bianca.Kleist@CH2M.com [mailto:Bianca.Kleist@CH2M.com]
Sent: Wednesday, July 08, 2015 2:15 PM
To: roudebushw@trimatrixlabs.com
Cc: movinskim@trimatrixlabs.com
Subject: RE: CTO-WE2A SWMU 350

Thanks Walt.

That's correct, the IDW remains on a 14-day TAT. I've attached the sampler's table for reference.

I'm currently in the process of getting an estimate from the field team on when they think they'll ship the samples to you next week. I'll let you know as soon as I hear back.

Thanks,

Bianca

From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Wednesday, July 08, 2015 1:49 PM
To: Kleist, Bianca/CLT
Cc: Mike Movinski
Subject: FW: CTO-WE2A SWMU 350

Bianca,

A 7 calendar day TAT for results-only for the GWs is OK.

It's assumed that the IDW water remains on a 14-day TAT (final summary report and EDD).

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Walt Roudebush [mailto:roudebushw@trimatrixlabs.com]
Sent: Wednesday, July 08, 2015 12:45 PM
To: 'Bianca.Kleist@CH2M.com'
Subject: RE: CTO-WE2A SWMU 350

Bianca,

Can you be more specific about the delivery date(s)?

Walt Roudebush
Project Chemist
Direct: 616.975.4561

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From: Bianca.Kleist@CH2M.com [mailto:Bianca.Kleist@CH2M.com]
Sent: Wednesday, July 08, 2015 12:07 PM
To: roudebushw@trimatrixlabs.com
Subject: CTO-WE2A SWMU 350

Hi Walt,

I got confirmation that the field team will be collecting the groundwater samples and the aqueous IDW sample (referenced in the attached email) next week.

There is a change to the groundwater TAT for the Form 1s. We will need a 7 calendar-day TAT (if the samples are received on Saturday the TAT starts Monday as usual) instead of 14. We're currently doing a mod to the PO to incorporate the surcharge. Please let me know of any concerns pertaining to this quicker TAT.

Thank you Walt,

Bianca

Bianca Kleist
Chemist
D 1 704 543 3274

CH2M
14120 Ballantyne Corporate Place, Suite 200
Charlotte, NC 28277
USA
www.ch2m.com

: 00012

TRIMATRIX LABORATORIES

SDG CASE NARRATIVE

Attachment 1
Project Technical Narrative(s)

No Project Narrative is associated with this report.

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TRIMATRIX LABORATORIES

SDG CASE NARRATIVE

Attachment 2
Statement of Data Qualifications

All analyses have been validated and comply with our Quality Control Program.
No qualifications are required.

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TRIMATRIX
LABORATORIES

SECTION - A

FIELD COC RECORDS
AND
RECEIVING DOCUMENTATION

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Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No. 151535

Pg. 1 of 2

For Lab Use Only
Cart: —
VOA Rack/Tray: 573G, 1035G
Receipt Log No.: 358
Project Chemist: LWR
Work Order No.: 1507301

Client Name: CH2m Hill
Address: 14120 Ballantyne Corp Pl Ste 200
City, State Zip: Charlotte, NC 28277
Phone/Fax: 704-543-3274
Email: Bianca.Kleist@ch2m.com

Project Name: CTO WE2A Swmu350
Client Project No. / P.O. No.: 472752
Invoice To: ☒ Client ☐ Other (comments)
Contact/Report To: Bianca Kleist

Analyses Requested: VOC *

PRESERVATIVES
A NONE pH~7
B HNO_3 pH<2
C H_2SO_4 pH<2
D 1+1 HCl pH<2
E NaOH pH>12
F ZnAc/NaOH pH>9
G MeOH
H Other (note below)

Schedule	Matrix Code	Sample Number		Field Sample ID	Cooler ID	Sample Date	Sample Time	COMP	GRAB	Matrix	Container Type (corresponds to Container Packing List): 1 — Number of Containers Submitted	Total	Sample Comments
01	WG	01	1	Swmu350-GW49-18-15C	1	7/15/15	1105		X	GW	3	3	
01		02	2	Swmu350-GW47-30-15C		7/15/15	1024						
01		03	3	Swmu350-GW48-30-15C			1600						
01		04	4	Swmu350-GW48-18-15C			1400						
02		05	5	Swmu350-GW48-18D-15C			1405						
01		06	6	Swmu350-GW47-18-15C			1140						
03		07	7	Swmu350-GW49-30-15C			1200						
—			8	Swmu350-GW49-30-15C-MS			1200						
—			9	Swmu350-GW49-30-15C-SD			1200						
01	WG	08	10	Swmu350-GW16-15C			1430						

Sampled By (print): David Seed
Sampler's Signature: [signature]
Company:

How Shipped? Hand ____ Carrier ____
Tracking No.

Comments: * Naphthalene analysis only
7-day TAT
TRIP BLANK Included

1. Relinquished By	Date	Time	2. Relinquished By	Date	Time	3. Relinquished By	Date	Time
[signature]	7/16/15	1700						

1. Received By	Date	Time	2. Received By	Date	Time	3. Received For Lab By	Date	Time
						[signature]	7/17/15	0820

WHITE COPY - REPORT YELLOW COPY - LABORATORY PINK COPY - FIELD

TRIMATRIX LABORATORIES

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Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No. 151536

Pg. 2 of 2

For Lab Use Only

Cart —

VOA Rack/Tray 5B3G, 6B35G

Receipt Log No. 35.8

Project Chemist WR

Work Order No. 1507301

Client Name

Address SEE PAGE 1

City, State Zip

Phone/Fax

Email

Project Name

Client Project No. / P.O. No.

Invoice To ☐ Client ☐ Other (comments)

Contact/Report To

Analyses Requested

VOCs*

Container Type (corresponds to Container Packing List): 1

Number of Containers Submitted

⇦ PRESERVATIVES
- A NONE pH~7
- B HNO_3 pH<2
- C H_2SO_4 pH<2
- D 1+1 HCl pH<2
- E NaOH pH>12
- F ZnAc/NaOH pH>9
- G MeOH
- H Other (note below)

	Schedule	Matrix Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	COMP	GRAB	Matrix	VOCs*	Total	Sample Comments
1	01	WG	09	SWMU350-GW06-15C	1	7/15/15	1545		X	GW	3	3	
2	04	WQ	10	SWMU350-EB-071515	1	7/15/15	1700		X	~~EB~~	~~2~~ 3	~~2~~ 3	
3	05	WQ	11	SWMU350-TB-071515	1	7/15/15	0800				2	2	Added by TriMatrix 7/17/15 WR
4													
5													
6													
7													
8													
9													
10													

Sampled By (print) David Seed

Sampler's Signature

Company

How Shipped? Hand ____ Carrier ____

Tracking No.

Comments

1. Relinquished By	Date	Time	2. Relinquished By	Date	Time	3. Relinquished By	Date	Time
	7/16/15	1700						

1. Received By	Date	Time	2. Received By	Date	Time	3. Received For Lab By	Date	Time
							7/17/15	0820

WHITE COPY - REPORT YELLOW COPY - LABORATORY PINK COPY - FIELD

From: (919) 875-4311
David Seed
CH2MHILL INC
3120 Highwoods Blvd.
Suite 214
Raleigh, NC 27604

Origin ID: RZZA

FedEx Express

J152015062603uv

Ship Date: 16JUL15
ActWgt: 30.00 LB
CAD: 105337609/WSXI2500

Dims: 25 X 25 X 25 IN

Delivery Address Bar Code

Ref # 472752.03.pt.pt
Invoice #
PO #
Dept #

SHIP TO: (616) 975-4561

BILL SENDER

Sample Recieving
Trimatrix Laboratoires
5500 Corporate Exchange Court

Grand Rapids, MI 49512

FRI - 17 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7809 9454 2781

NA GRRA

49512
MI-US
GRR

539J3/1A15/31D0

CUSTODY SEAL
DATE 7/16/15
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

: 00018

SAMPLE RECEIVING / LOG-IN CHECKLIST

TRIMATRIX LABORATORIES

Client: CH2M Hill
Receipt Record Page/Line #: 35.8
Work Order #: 1502301
New / Add To
Project Chemist: WR
Sample #s

Recorded by (initials/date): WC 7.17.15
☑ Cooler ☐ Box ☐ Other
Qty Received: 1
Thermometer Used: ☑ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#_____) ☐ See Additional Cooler Information Form

Cooler # — Time 0930

Custody Seals: ☐ None ☑ Present / Intact ☐ Present / Not Intact
Coolant Type: ☑ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None
Coolant Location: Dispersed / Top / Middle / Bottom
Temp Blank Present: ☑ Yes ☐ No
If Present, Temperature Blank Location is: ☑ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:	2.8	-	2.8
Sample 1:	3.6	-	3.6
Sample 2:	3.0	-	3.0
Sample 3:	3.6	-	3.6

3 Sample Average °C: 3.4
☐ Cooler ID on COC?
☑ VOC Trip Blank received? (2)

Cooler # — Time

Custody Seals: ☐ None ☐ Present / Intact ☐ Present / Not Intact
Coolant Type: ☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None
Coolant Location: Dispersed / Top / Middle / Bottom
Temp Blank Present: ☐ Yes ☐ No
If Present, Temperature Blank Location is: ☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

3 Sample Average °C:
☐ Cooler ID on COC?
☐ VOC Trip Blank received?

Cooler # — Time

Custody Seals: ☐ None ☐ Present / Intact ☐ Present / Not Intact
Coolant Type: ☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None
Coolant Location: Dispersed / Top / Middle / Bottom
Temp Blank Present: ☐ Yes ☐ No
If Present, Temperature Blank Location is: ☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

3 Sample Average °C:
☐ Cooler ID on COC?
☐ VOC Trip Blank received?

Cooler # — Time

Custody Seals: ☐ None ☐ Present / Intact ☐ Present / Not Intact
Coolant Type: ☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None
Coolant Location: Dispersed / Top / Middle / Bottom
Temp Blank Present: ☐ Yes ☐ No
If Present, Temperature Blank Location is: ☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

3 Sample Average °C:
☐ Cooler ID on COC?
☐ VOC Trip Blank received?

If any shaded areas checked, complete Sample Receiving Non-Conformance and/or Inventory Form

Paperwork Received

Yes	No	
☑	☐	Chain of Custody record(s)? If No, Initiated By _____
☑		Received for Lab Signed/Date/Time?
☑	☐	Shipping document?
☐	☑	Other _____

COC Information

☑ TriMatrix COC ☐ Other _____
COC ID Numbers:

Check COC for Accuracy

Yes	No	
☑	☐	Analysis Requested?
☑	☐	Sample ID matches COC?
☑	☐	Sample Date and Time matches COC?
☑		Container type completed on COC?
☑	☐	All container types indicated are received?

Check Sample Preservation

N/A	Yes	No	
	☐	☑	Temperature Blank OR average sample temperature, ≥6° C?
☑	☐	☐	If either is ≥6° C, was thermal preservation required?
☑	☐		If "Yes", Project Chemist Approval Initials: _____
☑	☐		If "Yes" Completed Non Con Cooler - Cont Inventory Form?
☐	☑	☑	Completed Sample Preservation Verification Form?
☐	☐		Samples chemically preserved correctly?
☑	☑		If "No", added orange tag?
	☐	☐	Received pre-preserved VOC soils? ☐ MeOH ☐ Na_2SO_4

Check for Short Hold-Time Prep/Analyses

☐ Bacteriological
☐ Air Bags
☐ EnCores / Methanol Pre-Preserved
☐ Formaldehyde/Aldehyde
☐ Green-tagged containers
☐ Yellow/White-tagged 1 L ambers (SV Prep-Lab)

AFTER HOURS ONLY:
COPIES OF COC TO LAB AREA(S)
☑ NONE RECEIVED
☐ RECEIVED, COCs TO LAB(S)

Sample Condition Summary

N/A	Yes	No	
	☐	☑	Broken containers/lids?
	☐	☑	Missing or incomplete labels?
	☐	☑	Illegible information on labels?
	☐	☑	Low volume received?
	☐	☑	Inappropriate or non-TriMatrix containers received?
☐	☐	☑	VOC vials / TOX containers have headspace?
☐	☐	☑	Extra sample locations / containers not listed on COC?

Notes

Add TB to COC 151536 per client (WR)

☐ Trip Blank received ☑ Trip Blank not listed on COC (2)

Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	≤1 Hour Goal Met?
7.17.15 0820	7.17.15 0940	Yes / No

TRIMATRIX LABORATORIES

SAMPLE PRESERVATION VERIFICATION FORM

Client: CH2M Hill		Work Order #: 1507301
Receipt Log #: 358	Completed By (initials/date): WC 7.17.15	Project Chemist: CWR

COC ID # 151535			Adjusted by:_____ Date:_____		DO NOT ADJUST pH FOR THESE CONTAINER TYPES			
Container Type	5 / 23	4	13		3	6	15	1
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	HCl
Expected pH	>12	<2	<2		6-8	<2	<2	<2
COC Line #1								✓
COC Line #2								✓
COC Line #3								✓
COC Line #4								✓
COC Line #5								✓
COC Line #6								✓
COC Line #7								✓
COC Line #8								
COC Line #9								
COC Line #10								✓

Comments

pH Strip Reagent #	
☑	5060576
☐	

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 3, 6, and 15.

COC ID # 151536			Adjusted by:_____ Date:_____		DO NOT ADJUST pH FOR THESE CONTAINER TYPES			
Container Type	5 / 23	4	13		3	6	15	1
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	HCl
Expected pH	>12	<2	<2		6-8	<2	<2	<2
COC Line #1								✓
COC Line #2								✓
COC Line #3								
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								

Comments

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5

TRIMATRIX LABORATORIES

WORK ORDER **1507301**

Printed: 7/17/2015 12:14:15PM

Client:	**CH2M HILL - VA**	Project Manager:	**Walter J. Roudebush**
Project:	**8012 CTO-WE2A Camp Lejeune SWMU 350**	Project Number:	**50069**
Work Order:	**Investigation**	SDG:	**50069-42**

Report To:
CH2M HILL - VA
Ms. Bianca Kleist
14120 Ballantyne Corporate Place, Suite 200
Charlotte, NC 28277
Phone: (704) 543-3274
Fax: (757) 497-6885

Invoice To:
CH2M HILL, Inc.
Accounts Payable
P.O. Box 241329
Denver, CO 80224
Phone: (720) 286-2029
Fax: ---

Package Due Date:	**Aug-07-15 23:00**			
W.O. Due Date:	**Jul-23-15 23:00 (4 day TAT)**		Report Level:	**4DOD**
Date Received:	Jul-17-15 08:20	3.4°C	Received By:	William D. Cole
Date Logged In:	Jul-17-15 11:07		Logged In By:	Caleb M Steele
W.O. Comments:	*4DOD, QSM v4.2, client MS/MSD, 7 calendar day TAT for results, no further samples and SDG 50069-42 is CLOSED.*			
	VOC Rack 573G, 635G			

Analysis	Lab Due Date	TAT	Expires	Analysis Comments
1507301-01 SWMU350-GW49-18-15C [Water]				
Sampled Jul-15-15 11:05 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 11:05	
1507301-02 SWMU350-GW47-30-15C [Water]				
Sampled Jul-15-15 10:24 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 10:24	
1507301-03 SWMU350-GW48-30-15C [Water]				
Sampled Jul-15-15 16:00 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 16:00	
1507301-04 SWMU350-GW48-18-15C [Water]				
Sampled Jul-15-15 14:00 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 14:00	
1507301-05 SWMU350-GW48-18D-15C [Water]				**Field Duplicate**
Sampled Jul-15-15 14:05 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 14:05	
1507301-06 SWMU350-GW47-18-15C [Water]				
Sampled Jul-15-15 11:40 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 11:40	
1507301-07 SWMU350-GW49-30-15C [Water]				**client MS/MSD**
Sampled Jul-15-15 12:00 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 12:00	
1507301-08 SWMU350-GW16-15C [Water]				
Sampled Jul-15-15 14:30 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 14:30	
1507301-09 SWMU350-GW06-15C [Water]				

Client:	CH2M HILL - VA	Project Manager:	Walter J. Roudebush
Project:	8012 CTO-WE2A Camp Lejeune SWMU 350	Project Number:	50069
Work Order:	Investigation	SDG:	50069-42

Analysis	Lab Due Date	TAT	Expires	Analysis Comments
Sampled Jul-15-15 15:45 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 15:45	
1507301-10 SWMU350-EB-071515 [Water]				**Equipment Blank**
Sampled Jul-15-15 17:00 (GMT-05:00) Eastern Time (US & Canada) by CH2M HILL				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 17:00	
1507301-11 SWMU350-TB-071515 [Water]				**Trip Blank (2nd vial is back-up)**
Sampled Jul-15-15 08:00 (GMT-05:00) Eastern Time (US & Canada) by TriMatrix				
8260B DoD VOAs plus custom	Jul-23-15 16:00	4	Jul-29-15 08:00	

Volatiles MS Analysis Detail

* indicates custom

	Analyte	CLrept?	QCrept?	MDL	RL
Water	8260B DoD VOAs plus custom			ug/L	
	Naphthalene	Y	Y	0.2	5

Reviewed By

Date

TRIMATRIX LABORATORIES

SECTION - B

INTERNAL COC RECORDS

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Individual sample results relate only to the sample tested.

TriMatrix Laboratories, Inc.

Internal Chain of Custody

SDGID: 50069-42 **Work Order #: 1507301**

Client: **CH2M HILL - VA**
Project: **8012 CTO-WE2A Camp Lejeune SWMU 350**

Project Manager: **Walter J. Roudebush**
Date Received: **Jul-17-15 08:20**

Department: **Volatiles MS** Analysis: 8260B

Lab Number / Sample Name	*Container*	*Removed by (Signature)*	*Date & Time Removed*	*Date & Time Returned*	*Consumed?*	*Extract Container*
1507301-01 SWMU350-GW49-18-15C	A	BL DL	7-20-15 15:30	7-21-15 16:10		
1507301-02 SWMU350-GW47-30-15C						
1507301-03 SWMU350-GW48-30-15C						
1507301-04 SWMU350-GW48-18-15C						
1507301-05 SWMU350-GW48-18D-15C						
1507301-06 SWMU350-GW47-18-15C						
1507301-07 SWMU350-GW49-30-15C						
1507301-08 SWMU350-GW16-15C						
1507301-09 SWMU350-GW06-15C						
1507301-10 SWMU350-EB-071515						
1507301-11 SWMU350-TB-071515						

TRIMATRIX LABORATORIES

SECTION - C

GCMS VOLATILE ORGANICS

USEPA-8260B

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5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ Phone: 616.975.4500 ♦ Fax: 616.942.7463 ♦ www.trimatrixlabs.com

TriMatrix Laboratories, Inc.

CH2M HILL - VA

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

SDG: 50069-42

USEPA-8260B

SAMPLE ID SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Client Sample Id:	Lab Sample Id:
SWMU350-GW49-18-15C	1507301-01
SWMU350-GW47-30-15C	1507301-02
SWMU350-GW48-30-15C	1507301-03
SWMU350-GW48-18-15C	1507301-04
SWMU350-GW48-18D-15C	1507301-05
SWMU350-GW47-18-15C	1507301-06
SWMU350-GW49-30-15C	1507301-07
SWMU350-GW16-15C	1507301-08
SWMU350-GW06-15C	1507301-09
SWMU350-EB-071515	1507301-10
SWMU350-TB-071515	1507301-11

TRIMATRIX
LABORATORIES

SECTION - C

QUALITY CONTROL (QC) SUMMARY

USEPA-8260B

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SURROGATE STANDARD RECOVERY AND RT SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Matrix: Water
Sequence: 5G21046

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
Calibration Check (5G21046-CCV1)		**Lab File ID: CCV0720B.D**		**Analyzed: 07/20/15 22:50**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	106	80 - 120	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	102	80 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	103	80 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	101	80 - 120	
LCS (1507525-BS1)		**Lab File ID: BS0720B.D**		**Analyzed: 07/20/15 23:19**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	103	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	101	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	101	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	102	75 - 120	
Blank (1507525-BLK1)		**Lab File ID: BLK0720B.D**		**Analyzed: 07/21/15 01:13**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	103	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-EB-071515 (1507301-10)		**Lab File ID: 1507301-10.D**		**Analyzed: 07/21/15 01:41**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	101	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	102	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	96	75 - 120	
SWMU350-TB-071515 (1507301-11)		**Lab File ID: 1507301-11.D**		**Analyzed: 07/21/15 02:10**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-GW49-18-15C (1507301-01)		**Lab File ID: 1507301-01.D**		**Analyzed: 07/21/15 02:38**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-GW47-30-15C (1507301-02)		**Lab File ID: 1507301-02.D**		**Analyzed: 07/21/15 03:06**			
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	103	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	

SURROGATE STANDARD RECOVERY AND RT SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Matrix: Water
Sequence: 5G21046

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
SWMU350-GW48-30-15C (1507301-03)		**Lab File ID: 1507301-03.D Analyzed: 07/21/15 03:35**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	97	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-GW48-18-15C (1507301-04)		**Lab File ID: 1507301-04.D Analyzed: 07/21/15 04:04**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-GW48-18D-15C (1507301-05)		**Lab File ID: 1507301-05.D Analyzed: 07/21/15 04:32**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	105	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-GW47-18-15C (1507301-06)		**Lab File ID: 1507301-06.D Analyzed: 07/21/15 05:01**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	103	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	97	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	96	75 - 120	
SWMU350-GW49-30-15C (1507301-07)		**Lab File ID: 1507301-07.D Analyzed: 07/21/15 05:29**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	97	75 - 120	
SWMU350-GW16-15C (1507301-08)		**Lab File ID: 1507301-08.D Analyzed: 07/21/15 05:58**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	100	85 - 115	
1,2-Dichloroethane-d4	5.33	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	96	75 - 120	
SWMU350-GW06-15C (1507301-09)		**Lab File ID: 1507301-09.D Analyzed: 07/21/15 06:26**					
Dibromofluoromethane	4.73	4.71	0.01	+/-1.0	101	85 - 115	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	106	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	98	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	96	75 - 120	

SURROGATE STANDARD RECOVERY AND RT SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Matrix: Water
Sequence: 5G21046

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
Matrix Spike (1507525-MS1)	**Lab File ID: 1507301-07MSAnalyzed: 07/21/15 09:17**						
Dibromofluoromethane	4.72	4.71	0.01	+/-1.0	103	85 - 115	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	100	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	100	75 - 120	
Matrix Spike Dup (1507525-MSD1)	**Lab File ID: 1507301-07MSAnalyzed: 07/21/15 09:46**						
Dibromofluoromethane	4.72	4.71	0.01	+/-1.0	102	85 - 115	
1,2-Dichloroethane-d4	5.32	5.32	0.01	+/-1.0	104	70 - 120	
Toluene-d8	8.35	8.34	0.01	+/-1.0	100	85 - 120	
4-Bromofluorobenzene	11.84	11.83	0.01	+/-1.0	99	75 - 120	

ANALYSIS BATCH (SEQUENCE) SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Sequence: 5G21046

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	5G21046-TUN1	BFB0720BB.D	07/20/15 22:22
Calibration Check	5G21046-CCV1	CCV0720B.D	07/20/15 22:50
LCS	1507525-BS1	BS0720B.D	07/20/15 23:19
Blank	1507525-BLK1	BLK0720B.D	07/21/15 01:13
SWMU350-EB-071515	1507301-10	1507301-10.D	07/21/15 01:41
SWMU350-TB-071515	1507301-11	1507301-11.D	07/21/15 02:10
SWMU350-GW49-18-15C	1507301-01	1507301-01.D	07/21/15 02:38
SWMU350-GW47-30-15C	1507301-02	1507301-02.D	07/21/15 03:06
SWMU350-GW48-30-15C	1507301-03	1507301-03.D	07/21/15 03:35
SWMU350-GW48-18-15C	1507301-04	1507301-04.D	07/21/15 04:04
SWMU350-GW48-18D-15C	1507301-05	1507301-05.D	07/21/15 04:32
SWMU350-GW47-18-15C	1507301-06	1507301-06.D	07/21/15 05:01
SWMU350-GW49-30-15C	1507301-07	1507301-07.D	07/21/15 05:29
SWMU350-GW16-15C	1507301-08	1507301-08.D	07/21/15 05:58
SWMU350-GW06-15C	1507301-09	1507301-09.D	07/21/15 06:26
SWMU350-GW49-30-15C	1507525-MS1	1507301-07MS.D	07/21/15 09:17
SWMU350-GW49-30-15C	1507525-MSD1	1507301-07MSD.D	07/21/15 09:46

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

USEPA-8260B

SWMU350-GW49-30-15C

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Matrix: Water

QC Batch: 1507525

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Laboratory ID: 1507525-MS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Naphthalene	40.0	ND	38.7	97	55 - 140	ug/L

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

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SWMU350-GW49-30-15C

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Matrix: Water

QC Batch: 1507525

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Laboratory ID: 1507525-MSD1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Naphthalene	40.0	43.9	110	13	30	55 - 140	ug/L

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

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Matrix: Water

QC Batch: 1507525

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Laboratory ID: 1507525-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

Sequence: 5G21046

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Naphthalene	40.0	39.6	99	55 - 140	ug/L

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

* Values outside of QC limits

METHOD BLANK DATA SHEET
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Water
Laboratory ID: 1507525-BLK1
File ID: BLK0720B.D
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 01:13
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Concentration	Unit	DL	LOD	LOQ	Q
91-20-3	Naphthalene	0.50	ug/L	0.20	0.50	5.0	U

System Monitoring Compound	Added (ug/L)	Conc. (ug/L)	% REC	QC Limits	Q
Dibromofluoromethane	40.0	40.1	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.2	103	70 - 120	
Toluene-d8	40.0	39.1	98	85 - 120	
4-Bromofluorobenzene	40.0	39.0	97	75 - 120	

Internal Standard	Area	RT	% REC	Ref. RT	Q
Fluorobenzene	758341	5.909	101	5.897	
Chlorobenzene-d5	579762	10.298	96	10.286	
1,4-Dichlorobenzene-d4	309253	13.292	92	13.279	

QC BATCH SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 50069-42

Client: CH2M HILL - VA

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

QC Batch: 1507525 QC Batch Matrix: Water

Preparation: 5030B Aqueous Purge & Trap

Sample Name	Lab Sample ID	Date Prepared	Observations
SWMU350-GW49-18-15C	1507301-01	07/20/15 22:00	
SWMU350-GW47-30-15C	1507301-02	07/20/15 22:00	
SWMU350-GW48-30-15C	1507301-03	07/20/15 22:00	
SWMU350-GW48-18-15C	1507301-04	07/20/15 22:00	
SWMU350-GW48-18D-15C	1507301-05	07/20/15 22:00	
SWMU350-GW47-18-15C	1507301-06	07/20/15 22:00	
SWMU350-GW49-30-15C	1507301-07	07/20/15 22:00	
SWMU350-GW16-15C	1507301-08	07/20/15 22:00	
SWMU350-GW06-15C	1507301-09	07/20/15 22:00	
SWMU350-EB-071515	1507301-10	07/20/15 22:00	
SWMU350-TB-071515	1507301-11	07/20/15 22:00	
Blank	1507525-BLK1	07/20/15 22:00	
LCS	1507525-BS1	07/20/15 22:00	
SWMU350-GW49-30-15C	1507525-MS1	07/20/15 22:00	
SWMU350-GW49-30-15C	1507525-MSD1	07/20/15 22:00	

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Lab Sample ID: 5G22021-TUN1
Injection Date: 07/07/15
Sequence: 5G22021

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Lab File ID: BFB0707AA.D
Injection Time: 12:24
Calibration: 5G22019
Instrument ID: 328

m/z	Ion Abundance Criteria	% Relative Abundance	
50	15 - 40% of 95	19.2	PASS
75	30 - 60% of 95	49.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.8	PASS
173	Less than 2% of 174	0.967	PASS
174	50 - 100% of 95	88.9	PASS
175	5 - 9% of 174	7.2	PASS
176	95 - 101% of 174	96.7	PASS
177	5 - 9% of 176	6.52	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Lab Sample ID: 5G21046-TUN1
Lab File ID: BFB0720BB.D
Injection Date: 07/20/15
Injection Time: 22:22
Sequence: 5G21046
Instrument ID: 328

m/z	Ion Abundance Criteria	% Relative Abundance	
50	15 - 40% of 95	19.1	PASS
75	30 - 60% of 95	51.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.54	PASS
173	Less than 2% of 174	0.593	PASS
174	50 - 100% of 95	90.8	PASS
175	5 - 9% of 174	7.31	PASS
176	95 - 101% of 174	98.9	PASS
177	5 - 9% of 176	6.31	PASS

INTERNAL STANDARD AREA AND RT SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Matrix: Water
Sequence: 5G21046

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (5G21046-CCV1)			**Lab File ID: CCV0720B.D**			**Analyzed: 07/20/15 22:50**			
Fluorobenzene	752502	5.909	833664	5.897	90	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	604177	10.298	644215	10.286	94	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	337980	13.292	348334	13.279	97	50 - 200	0.0130	+/-0.50	
LCS (1507525-BS1)			**Lab File ID: BS0720B.D**			**Analyzed: 07/20/15 23:19**			
Fluorobenzene	768941	5.909	752502	5.897	102	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	609766	10.298	604177	10.286	101	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	337918	13.292	337980	13.279	100	50 - 200	0.0130	+/-0.50	
Blank (1507525-BLK1)			**Lab File ID: BLK0720B.D**			**Analyzed: 07/21/15 01:13**			
Fluorobenzene	758341	5.909	752502	5.897	101	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	579762	10.298	604177	10.286	96	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	309253	13.292	337980	13.279	92	50 - 200	0.0130	+/-0.50	
SWMU350-EB-071515 (1507301-10)			**Lab File ID: 1507301-10.D**			**Analyzed: 07/21/15 01:41**			
Fluorobenzene	750382	5.909	752502	5.897	100	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	574798	10.298	604177	10.286	95	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	303093	13.292	337980	13.279	90	50 - 200	0.0130	+/-0.50	
SWMU350-TB-071515 (1507301-11)			**Lab File ID: 1507301-11.D**			**Analyzed: 07/21/15 02:10**			
Fluorobenzene	750317	5.909	752502	5.897	100	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	572512	10.298	604177	10.286	95	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	303792	13.292	337980	13.279	90	50 - 200	0.0130	+/-0.50	
SWMU350-GW49-18-15C (1507301-01)			**Lab File ID: 1507301-01.D**			**Analyzed: 07/21/15 02:38**			
Fluorobenzene	758162	5.909	752502	5.897	101	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	575539	10.298	604177	10.286	95	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	306569	13.292	337980	13.279	91	50 - 200	0.0130	+/-0.50	
SWMU350-GW47-30-15C (1507301-02)			**Lab File ID: 1507301-02.D**			**Analyzed: 07/21/15 03:06**			
Fluorobenzene	758176	5.909	752502	5.897	101	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	572424	10.298	604177	10.286	95	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	306752	13.286	337980	13.279	91	50 - 200	0.0070	+/-0.50	
SWMU350-GW48-30-15C (1507301-03)			**Lab File ID: 1507301-03.D**			**Analyzed: 07/21/15 03:35**			
Fluorobenzene	758367	5.909	752502	5.897	101	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	571429	10.298	604177	10.286	95	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	300181	13.292	337980	13.279	89	50 - 200	0.0130	+/-0.50	
SWMU350-GW48-18-15C (1507301-04)			**Lab File ID: 1507301-04.D**			**Analyzed: 07/21/15 04:04**			
Fluorobenzene	754306	5.903	752502	5.897	100	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	566348	10.298	604177	10.286	94	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	298905	13.292	337980	13.279	88	50 - 200	0.0130	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Matrix: Water
Sequence: 5G21046

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SWMU350-GW48-18D-15C (1507301-05)			**Lab File ID: 1507301-05.D**			**Analyzed: 07/21/15 04:32**			
Fluorobenzene	758807	5.909	752502	5.897	101	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	572622	10.298	604177	10.286	95	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	302978	13.285	337980	13.279	90	50 - 200	0.0060	+/-0.50	
SWMU350-GW47-18-15C (1507301-06)			**Lab File ID: 1507301-06.D**			**Analyzed: 07/21/15 05:01**			
Fluorobenzene	745577	5.909	752502	5.897	99	50 - 200	0.0120	+/-0.50	
Chlorobenzene-d5	558144	10.298	604177	10.286	92	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	296012	13.286	337980	13.279	88	50 - 200	0.0070	+/-0.50	
SWMU350-GW49-30-15C (1507301-07)			**Lab File ID: 1507301-07.D**			**Analyzed: 07/21/15 05:29**			
Fluorobenzene	751588	5.903	752502	5.897	100	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	564190	10.298	604177	10.286	93	50 - 200	0.0120	+/-0.50	
1,4-Dichlorobenzene-d4	299476	13.286	337980	13.279	89	50 - 200	0.0070	+/-0.50	
SWMU350-GW16-15C (1507301-08)			**Lab File ID: 1507301-08.D**			**Analyzed: 07/21/15 05:58**			
Fluorobenzene	751060	5.903	752502	5.897	100	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	560047	10.292	604177	10.286	93	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	298498	13.286	337980	13.279	88	50 - 200	0.0070	+/-0.50	
SWMU350-GW06-15C (1507301-09)			**Lab File ID: 1507301-09.D**			**Analyzed: 07/21/15 06:26**			
Fluorobenzene	745003	5.903	752502	5.897	99	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	560763	10.292	604177	10.286	93	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	290662	13.285	337980	13.279	86	50 - 200	0.0060	+/-0.50	
Matrix Spike (1507525-MS1)			**Lab File ID: 1507301-07MS.D**			**Analyzed: 07/21/15 09:17**			
Fluorobenzene	756233	5.903	752502	5.897	100	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	577302	10.292	604177	10.286	96	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	318798	13.286	337980	13.279	94	50 - 200	0.0070	+/-0.50	
Matrix Spike Dup (1507525-MSD1)			**Lab File ID: 1507301-07MSD.D**			**Analyzed: 07/21/15 09:46**			
Fluorobenzene	775081	5.903	752502	5.897	103	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	585505	10.292	604177	10.286	97	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	317061	13.285	337980	13.279	94	50 - 200	0.0060	+/-0.50	

HOLDING TIME SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 50069-42

Client: CH2M HILL - VA

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Method: Volatile Organic Compounds by EPA Method 8260B

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
SWMU350-GW49-18-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW47-30-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW48-30-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	5	14	
SWMU350-GW48-18-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW48-18D-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW47-18-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW49-30-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW16-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-GW06-15C	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	6	14	
SWMU350-EB-071515	07/15/15	07/17/15		07/20/15	5	NA	07/21/15	5	14	
SWMU350-TB-071515	07/15/15	07/17/15		07/20/15	6	NA	07/21/15	6	14	

TRIMATRIX
LABORATORIES

SECTION - C

SAMPLE DATA

USEPA-8260B

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Individual sample results relate only to the sample tested.
5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ Phone: 616.975.4500 ♦ Fax: 616.942.7463 ♦ www.trimatrixlabs.com

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW49-18-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-01
File ID: 1507301-01.D
Sampled: 07/15/15 11:05
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 02:38
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.9	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.4	104	70 - 120	
Toluene-d8	40.0	39.1	98	85 - 120	
4-Bromofluorobenzene	40.0	38.8	97	75 - 120	

* Values outside of QC limits

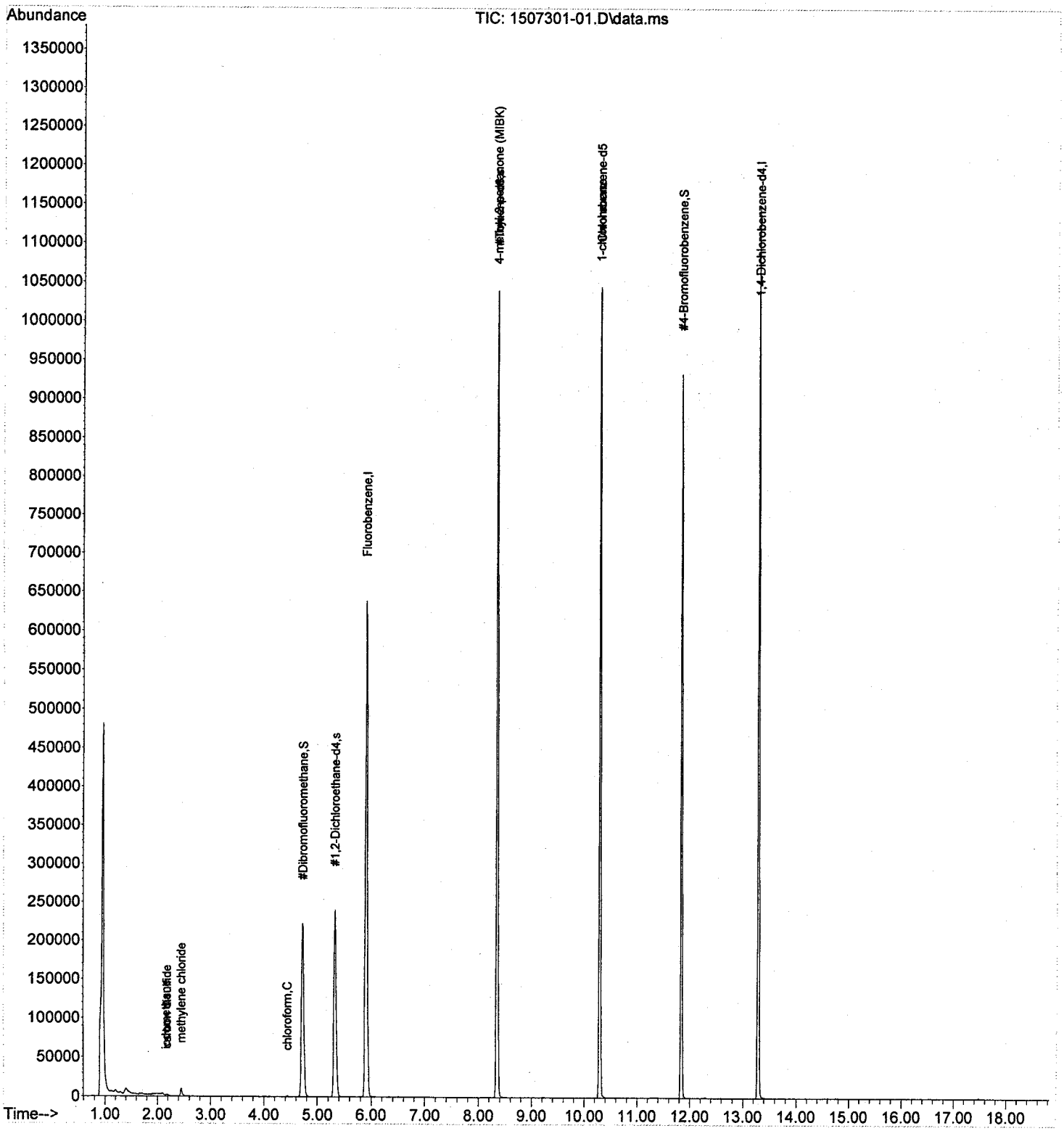
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	758162	5.909	101	5.897	
Chlorobenzene-d5	575539	10.298	95	10.286	
1,4-Dichlorobenzene-d4	306569	13.292	91	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-01.D
Acq On : 21 Jul 2015 2:38
Operator : BAG
Sample : 1507301-01
Misc : CH2MHILL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 23 10:54:42 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 08 08:38:55 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-01.D
Acq On : 21 Jul 2015 2:38
Operator : BAG
Sample : 1507301-01
Misc : CH2MHILL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 23 10:54:42 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 08 08:38:55 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	758162	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	575539	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	306569	40.00 ug/L	# 0.01
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	209217	39.91 ug/L	0.01
Spiked Amount 40.000			Recovery	= 99.77%	
37) #1,2-Dichloroethane-d4	5.330	67	135138	41.45 ug/L	0.01
Spiked Amount 40.000			Recovery	= 103.63%	
47) #Toluene-d8	8.354	98	737574	39.12 ug/L	0.01
Spiked Amount 40.000			Recovery	= 97.80%	
65) #4-Bromofluorobenzene	11.841	95	289519	38.80 ug/L	0.01
Spiked Amount 40.000			Recovery	= 97.00%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	3294	Below Cal #	47
14) iodomethane	2.166	142	1209	7.85 ug/L #	41
15) carbon disulfide	2.184	76	1762	0.11 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.452	49	7252	0.15 ug/L	96
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.440	83	1341	0.11 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27308	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-01.D
Acq On : 21 Jul 2015 2:38
Operator : BAG
Sample : 1507301-01
Misc : CH2MHILL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 23 10:54:42 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 08 08:38:55 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3136	0.62 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5231	0.76 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW47-30-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-02
File ID: 1507301-02.D
Sampled: 07/15/15 10:24
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 03:06
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	2.4	0.20	0.50	5.0	J

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.9	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.1	103	70 - 120	
Toluene-d8	40.0	39.1	98	85 - 120	
4-Bromofluorobenzene	40.0	38.8	97	75 - 120	

* Values outside of QC limits

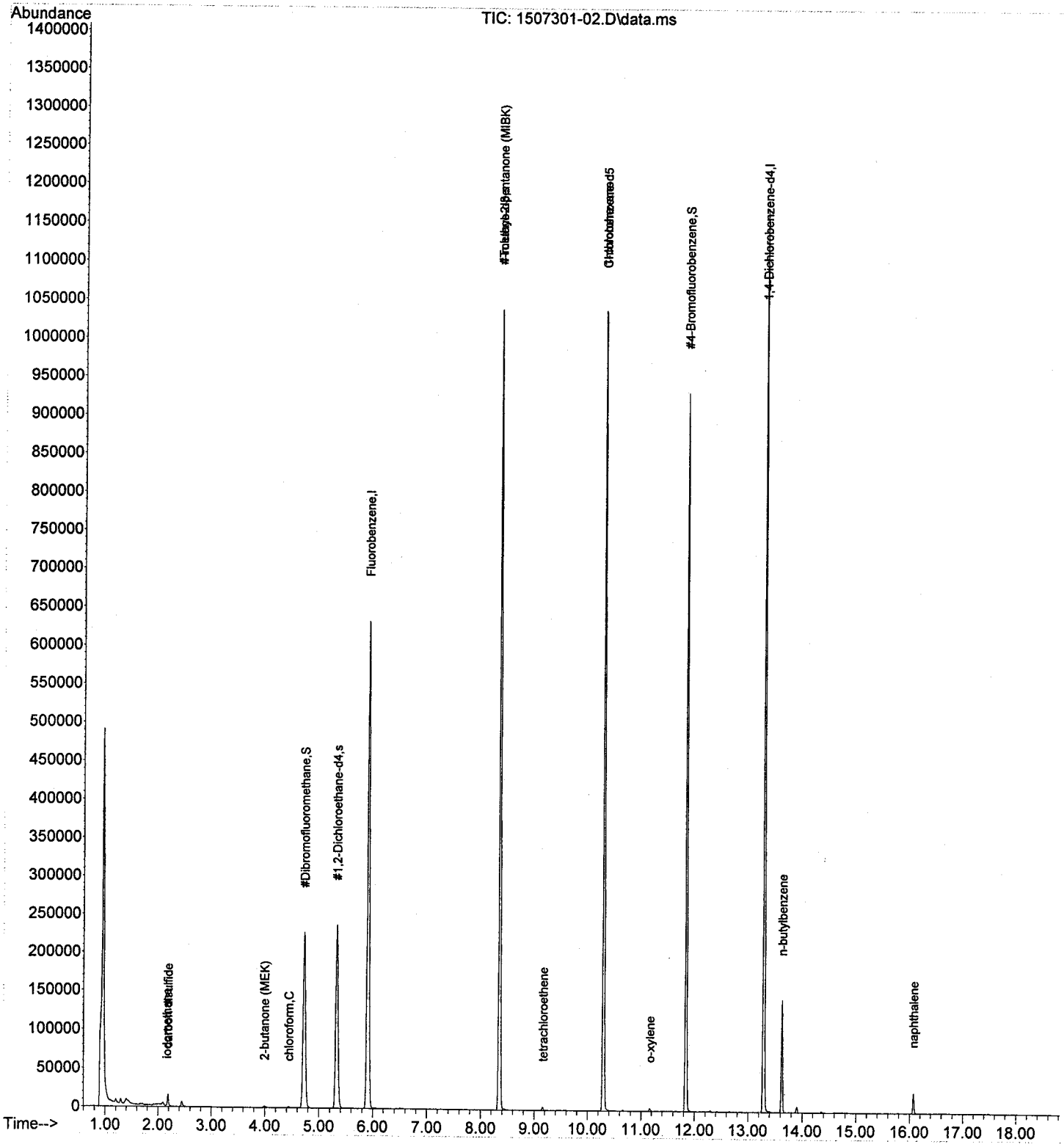
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	758176	5.909	101	5.897	
Chlorobenzene-d5	572424	10.298	95	10.286	
1,4-Dichlorobenzene-d4	306752	13.286	91	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-02.D
Acq On : 21 Jul 2015 3:06
Operator : BAG
Sample : 1507301-02
Misc : CH2MHILL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 23 10:56:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-02.D
Acq On : 21 Jul 2015 3:06
Operator : BAG
Sample : 1507301-02
Misc : CH2MHILL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 23 10:56:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	758176	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	572424	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	306752	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	209374	39.94 ug/L	0.01
Spiked Amount 40.000			Recovery = 99.85%		
37) #1,2-Dichloroethane-d4	5.330	67	133970	41.09 ug/L	0.01
Spiked Amount 40.000			Recovery = 102.72%		
47) #Toluene-d8	8.348	98	737582	39.12 ug/L	0.00
Spiked Amount 40.000			Recovery = 97.80%		
65) #4-Bromofluorobenzene	11.841	95	288205	38.83 ug/L	0.01
Spiked Amount 40.000			Recovery = 97.08%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	4965	Below Cal #	47
14) iodomethane	2.166	142	2055	7.97 ug/L #	41
15) carbon disulfide	2.190	76	18723	1.21 ug/L	98
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.452	49	4793	Below Cal	96
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	3.995	43	3876	1.58 ug/L #	52
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.446	83	1773	0.15 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27661	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-02.D
Acq On : 21 Jul 2015 3:06
Operator : BAG
Sample : 1507301-02
Misc : CH2MHILL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 23 10:56:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

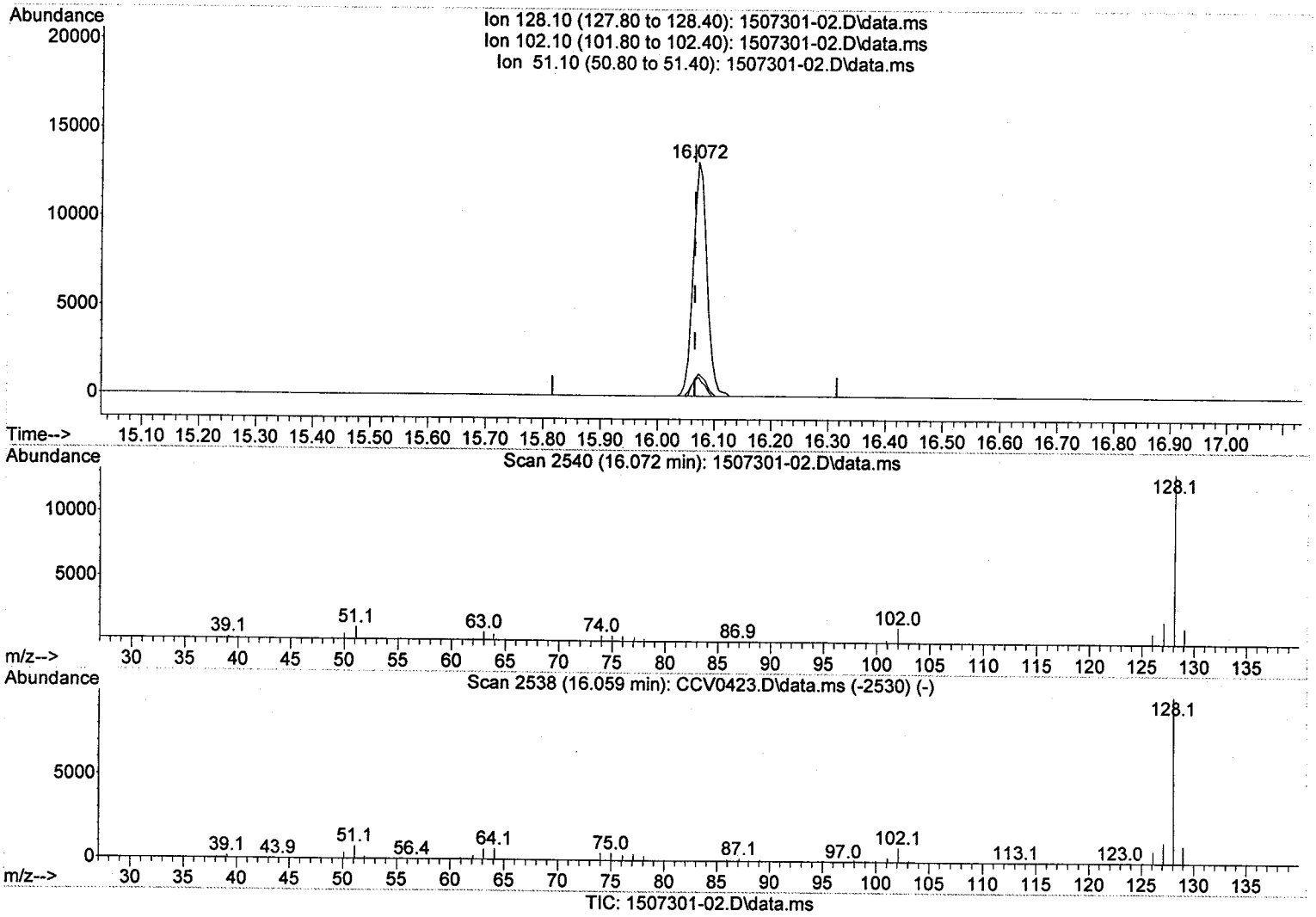
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.348	43	3165	0.63 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	9.171	166	1490	0.19 ug/L #	14
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5214	0.77 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	11.170	106	1267	0.12 ug/L	98
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	13.627	91	10776	0.55 ug/L #	32
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	16.072	128	22385	2.44 ug/L	100
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-02.D
Acq On : 21 Jul 2015 3:06
Operator : BAG
Sample : 1507301-02
Misc : CH2MHILL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 23 10:56:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



(88) naphthalene

16.072min (+0.006) 2.44 ug/L

response 22385

Ion	Exp%	Act%
128.10	100	100
102.10	8.90	8.71
51.10	7.30	7.18
0.00	0.00	0.00

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW48-30-15C

Laboratory: TriMatrix Laboratories, Inc. SDG: 50069-42

Client: CH2M HILL - VA Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Matrix: Ground Water Laboratory ID: 1507301-03 File ID: 1507301-03.D

Sampled: 07/15/15 16:00 Prepared: 07/20/15 22:00 Analyzed: 07/21/15 03:35

Solids: NA Preparation: 5030B Aqueous Purge & Initial/Final: 5 mL / 5 mL

QC Batch: 1507525 Sequence: 5G21046 Calibration: 5G22019 Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.1	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.6	104	70 - 120	
Toluene-d8	40.0	39.0	97	85 - 120	
4-Bromofluorobenzene	40.0	38.6	97	75 - 120	

* Values outside of QC limits

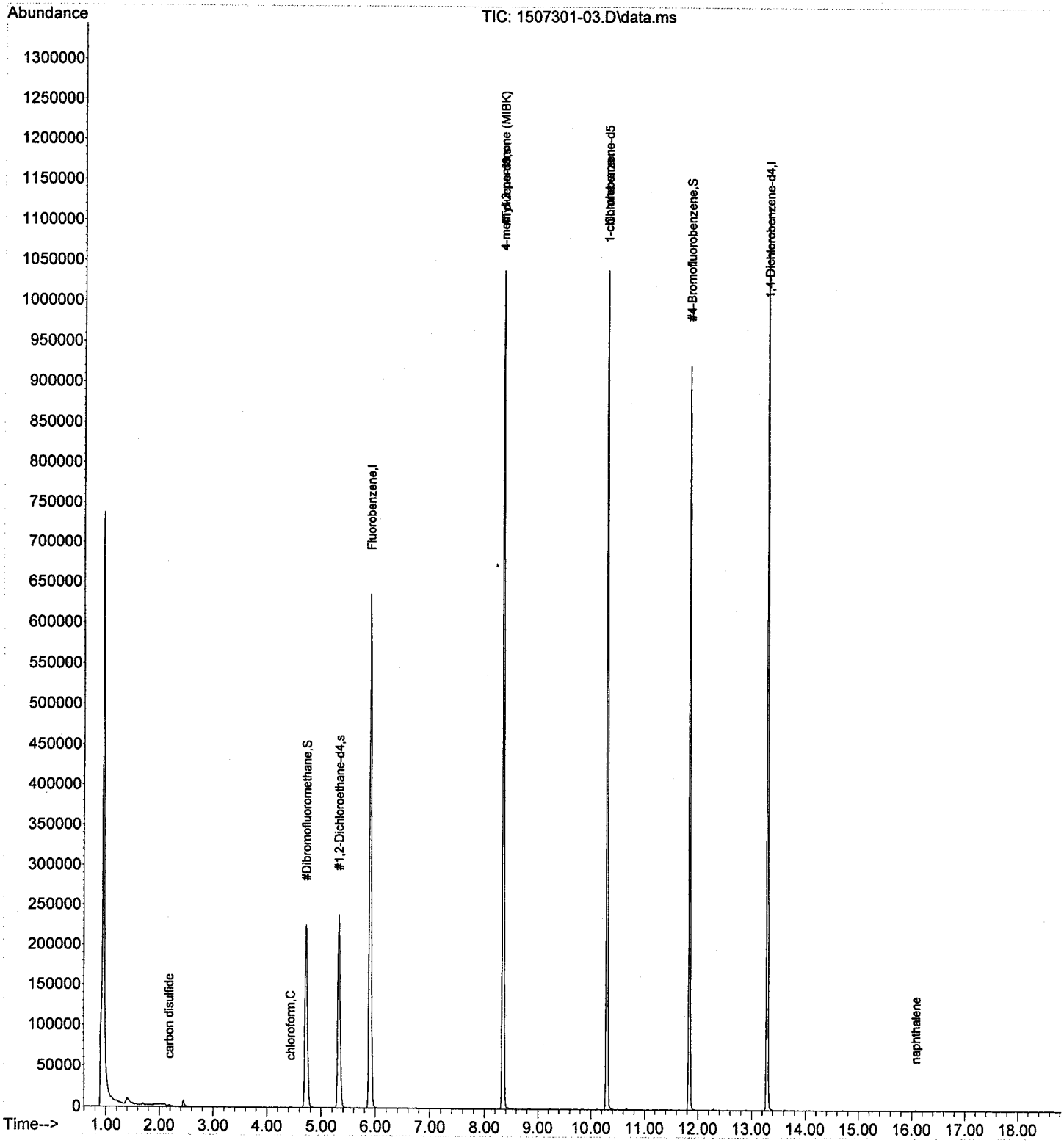
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	758367	5.909	101	5.897	
Chlorobenzene-d5	571429	10.298	95	10.286	
1,4-Dichlorobenzene-d4	300181	13.292	89	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-03.D
Acq On : 21 Jul 2015 3:35
Operator : BAG
Sample : 1507301-03
Misc : CH2MHILL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 23 10:58:05 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-03.D
Acq On : 21 Jul 2015 3:35
Operator : BAG
Sample : 1507301-03
Misc : CH2MHILL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 23 10:58:05 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	758367	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	571429	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	300181	40.00 ug/L	# 0.01
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	210299	40.10 ug/L	0.01
Spiked Amount 40.000			Recovery = 100.25%		
37) #1,2-Dichloroethane-d4	5.330	67	135844	41.65 ug/L	0.01
Spiked Amount 40.000			Recovery = 104.13%		
47) #Toluene-d8	8.353	98	734873	38.97 ug/L	0.01
Spiked Amount 40.000			Recovery = 97.42%		
65) #4-Bromofluorobenzene	11.841	95	286307	38.64 ug/L	0.01
Spiked Amount 40.000			Recovery = 96.60%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.092	43	2564	Below Cal #	47
14) iodomethane	0.000		0	N.D.	
15) carbon disulfide	2.184	76	1597	0.10 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	5692	Below Cal	95
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.440	83	1299	0.11 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27394	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-03.D
Acq On : 21 Jul 2015 3:35
Operator : BAG
Sample : 1507301-03
Misc : CH2MHILL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 23 10:58:05 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3128	0.62 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5209	0.77 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	16.078	128	1815	PS ~~0.92~~ ug/L #	77
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

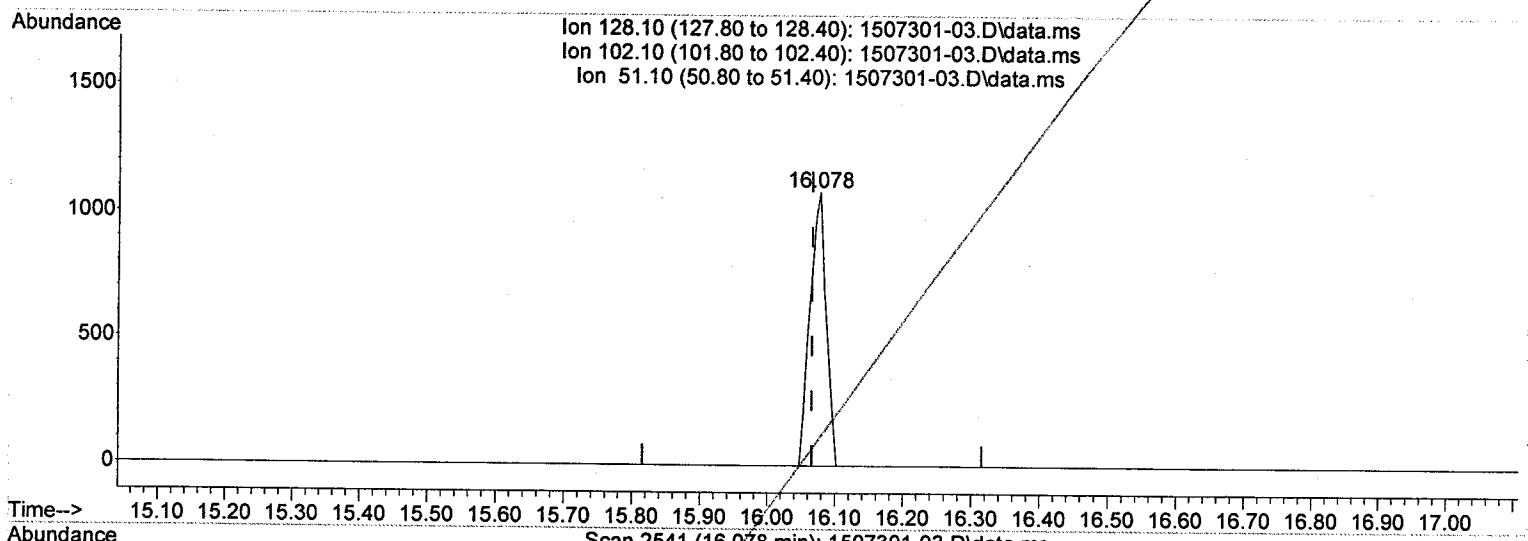
(#) = qualifier out of range (m) = manual integration (+) = signals summed

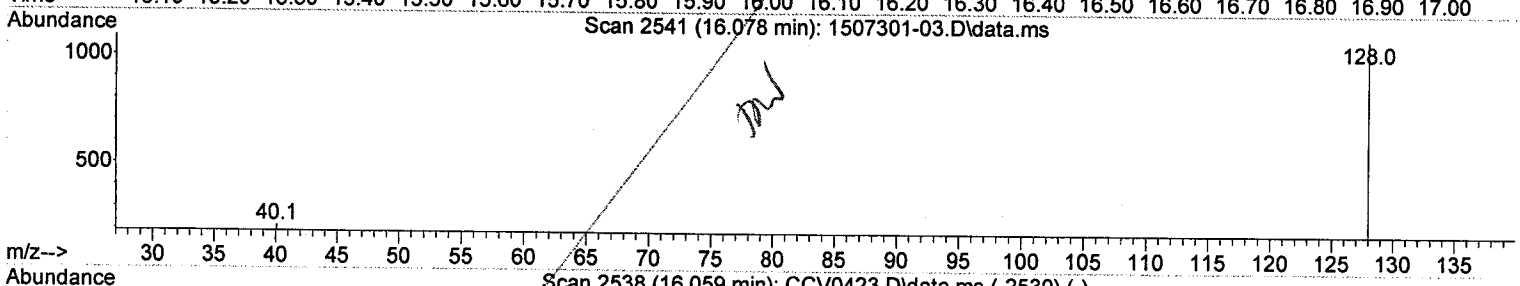
Quantitation Report (Qedit)

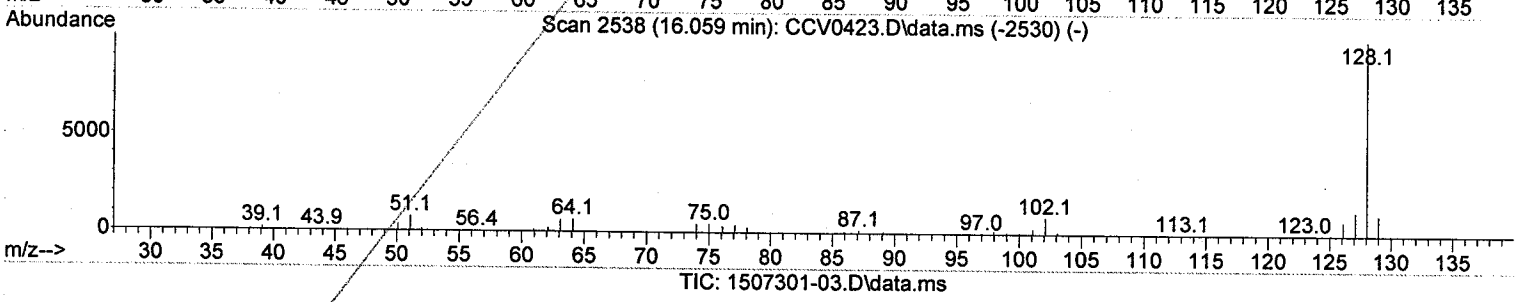
Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-03.D
Acq On : 21 Jul 2015 3:35
Operator : BAG
Sample : 1507301-03
Misc : CH2MHILL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 22 11:55:32 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 22 11:46:08 2015
Response via : Initial Calibration

P.S







TIC: 1507301-03.D\data.ms

(88) naphthalene

16.078min (+0.012) 0.92 ug/L

response 1815

Ion	Exp%	Act%
128.10	100	100
102.10	8.90	0.00
51.10	7.30	0.00
0.00	0.00	0.00

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW48-18-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-04
File ID: 1507301-04.D
Sampled: 07/15/15 14:00
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 04:04
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.1	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.7	104	70 - 120	
Toluene-d8	40.0	39.1	98	85 - 120	
4-Bromofluorobenzene	40.0	38.8	97	75 - 120	

* Values outside of QC limits

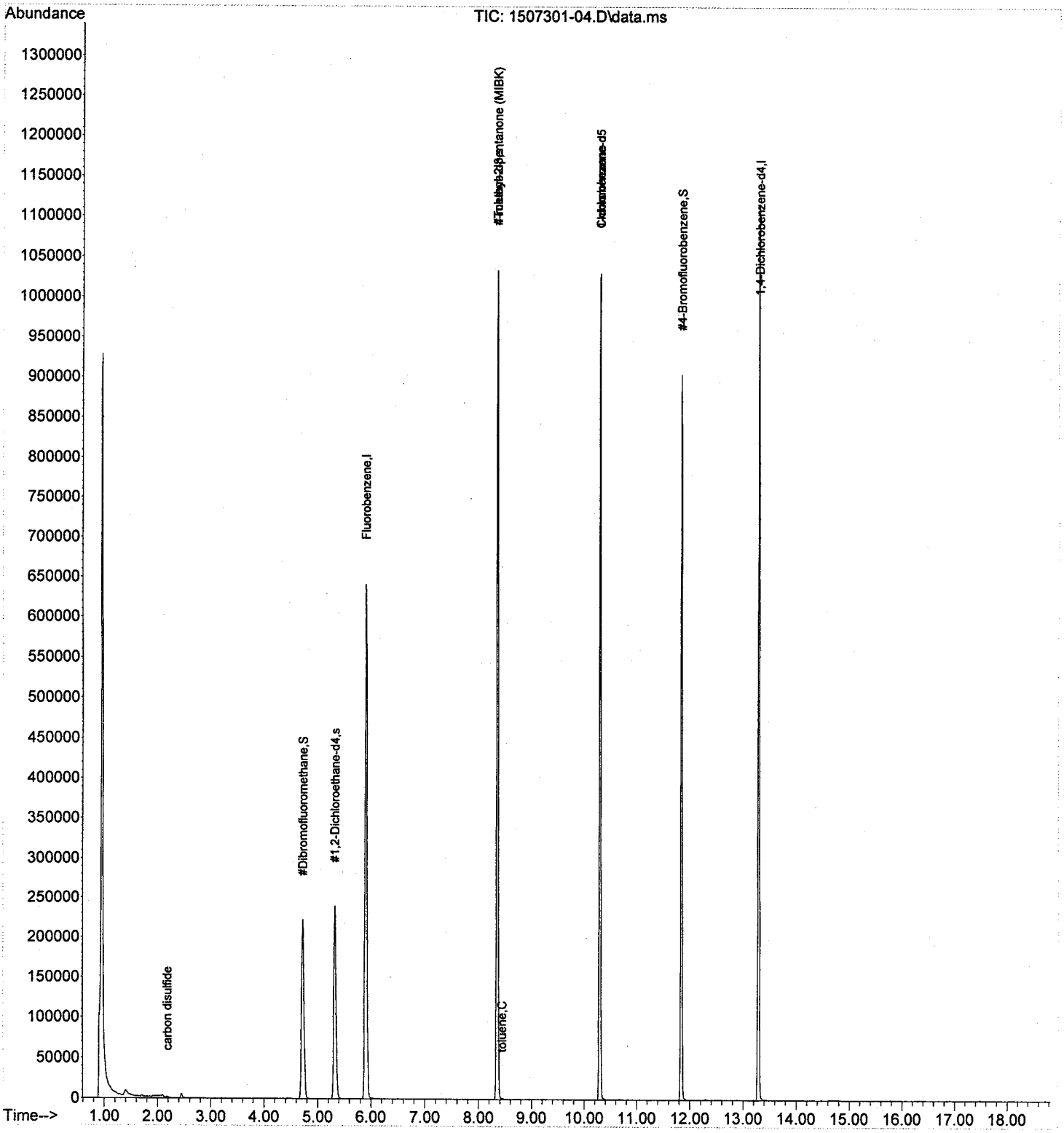
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	754306	5.903	100	5.897	
Chlorobenzene-d5	566348	10.298	94	10.286	
1,4-Dichlorobenzene-d4	298905	13.292	88	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-04.D
Acq On : 21 Jul 2015 4:04
Operator : BAG
Sample : 1507301-04
Misc : CH2MHILL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 23 10:58:08 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-04.D
Acq On : 21 Jul 2015 4:04
Operator : BAG
Sample : 1507301-04
Misc : CH2MHILL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 23 10:58:08 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.903	96	754306	40.00 ug/L	0.00
51) Chlorobenzene-d5	10.298	117	566348	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	298905	40.00 ug/L	# 0.01
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	209222	40.11 ug/L	0.01
Spiked Amount 40.000			Recovery	= 100.28%	
37) #1,2-Dichloroethane-d4	5.330	67	135197	41.68 ug/L	0.01
Spiked Amount 40.000			Recovery	= 104.20%	
47) #Toluene-d8	8.347	98	733898	39.13 ug/L	0.00
Spiked Amount 40.000			Recovery	= 97.83%	
65) #4-Bromofluorobenzene	11.841	95	284983	38.81 ug/L	0.01
Spiked Amount 40.000			Recovery	= 97.03%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	3288	Below Cal #	47
14) iodomethane	0.000		0	N.D.	
15) carbon disulfide	2.190	76	1600	0.10 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	4172	Below Cal	96
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	0.000		0	N.D.	
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27386	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-04.D
Acq On : 21 Jul 2015 4:04
Operator : BAG
Sample : 1507301-04
Misc : CH2MHILL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 23 10:58:08 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3173	0.63 ug/L #	1
48) toluene	8.445	91	1210	0.05 ug/L #	21
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.298	55	4986	0.74 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW48-18D-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-05
File ID: 1507301-05.D
Sampled: 07/15/15 14:05
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 04:32
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.1	100	85 - 115	
1,2-Dichloroethane-d4	40.0	42.0	105	70 - 120	
Toluene-d8	40.0	39.1	98	85 - 120	
4-Bromofluorobenzene	40.0	38.7	97	75 - 120	

* Values outside of QC limits

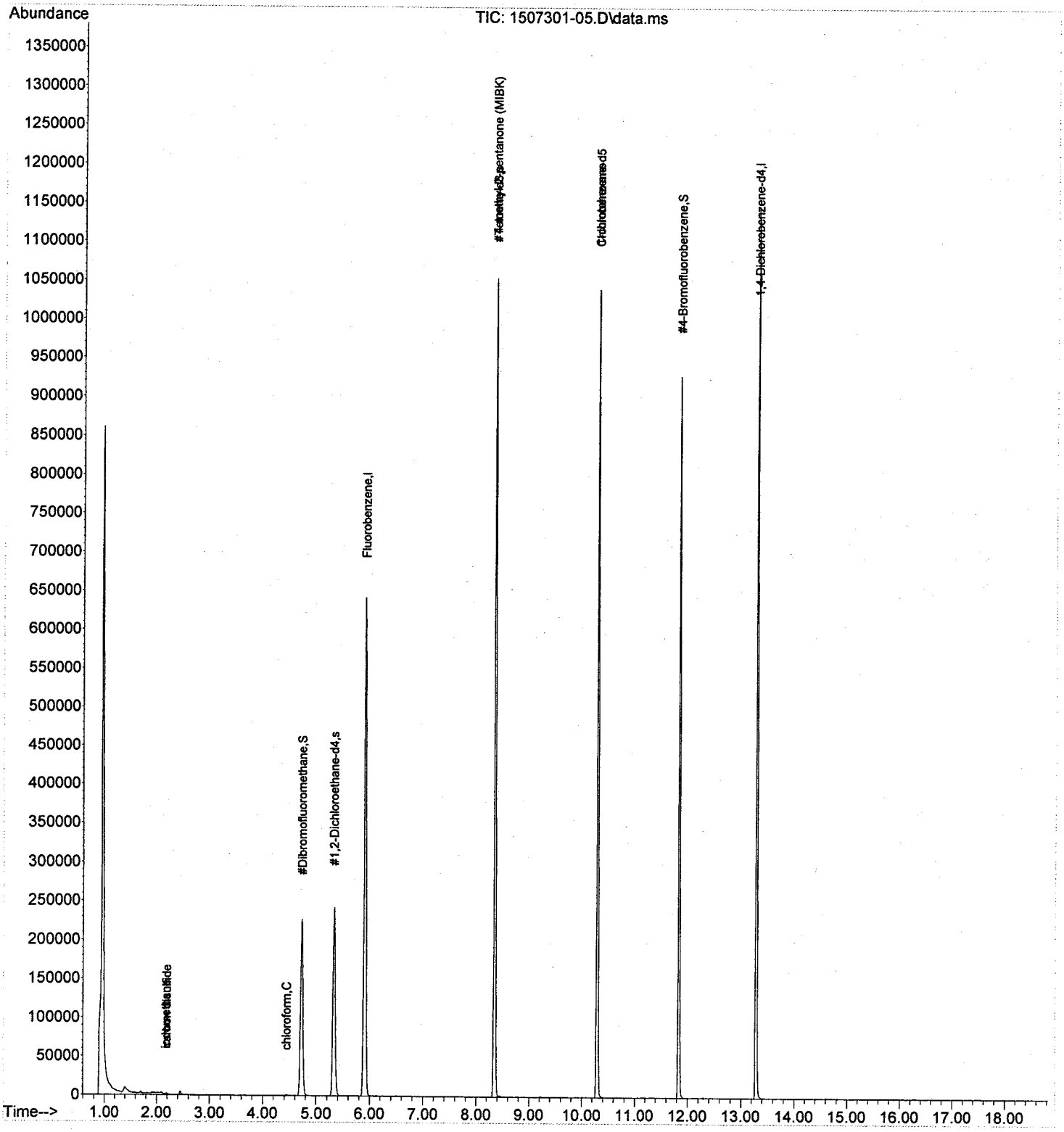
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	758807	5.909	101	5.897	
Chlorobenzene-d5	572622	10.298	95	10.286	
1,4-Dichlorobenzene-d4	302978	13.285	90	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-05.D
Acq On : 21 Jul 2015 4:32
Operator : BAG
Sample : 1507301-05
Misc : CH2MHILL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 23 10:58:11 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-05.D
Acq On : 21 Jul 2015 4:32
Operator : BAG
Sample : 1507301-05
Misc : CH2MHILL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 23 10:58:11 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	758807	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	572622	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.285	152	302978	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	210452	40.11 ug/L	0.01
Spiked Amount 40.000			Recovery	= 100.28%	
37) #1,2-Dichloroethane-d4	5.324	67	136927	41.96 ug/L	0.00
Spiked Amount 40.000			Recovery	= 104.90%	
47) #Toluene-d8	8.354	98	736946	39.06 ug/L	0.01
Spiked Amount 40.000			Recovery	= 97.65%	
65) #4-Bromofluorobenzene	11.841	95	287533	38.73 ug/L	0.01
Spiked Amount 40.000			Recovery	= 96.82%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	2566	Below Cal #	47
14) iodomethane	2.178	142	1632	7.91 ug/L #	41
15) carbon disulfide	2.190	76	1468	0.09 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	3190	Below Cal	94
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.440	83	1230	0.11 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.909	57	27518	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-05.D
Acq On : 21 Jul 2015 4:32
Operator : BAG
Sample : 1507301-05
Misc : CH2MHILL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 23 10:58:11 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3236	0.64 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5150	0.76 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW47-18-15C

Laboratory: TriMatrix Laboratories, Inc. SDG: 50069-42

Client: CH2M HILL - VA Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Matrix: Ground Water Laboratory ID: 1507301-06 File ID: 1507301-06.D

Sampled: 07/15/15 11:40 Prepared: 07/20/15 22:00 Analyzed: 07/21/15 05:01

Solids: NA Preparation: 5030B Aqueous Purge & Initial/Final: 5 mL / 5 mL

QC Batch: 1507525 Sequence: 5G21046 Calibration: 5G22019 Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.9	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.4	103	70 - 120	
Toluene-d8	40.0	38.9	97	85 - 120	
4-Bromofluorobenzene	40.0	38.5	96	75 - 120	

* Values outside of QC limits

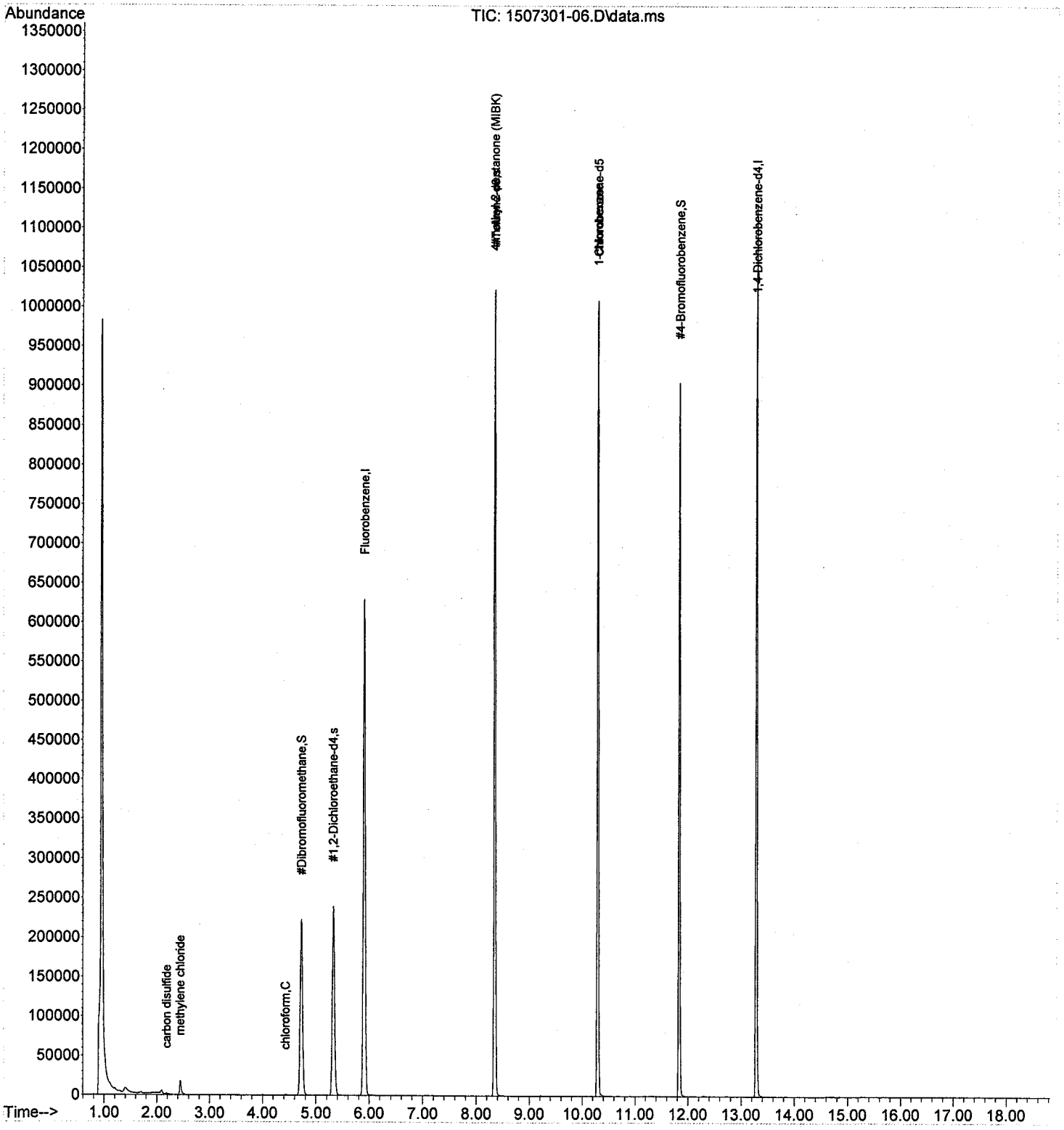
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	745577	5.909	99	5.897	
Chlorobenzene-d5	558144	10.298	92	10.286	
1,4-Dichlorobenzene-d4	296012	13.286	88	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-06.D
Acq On : 21 Jul 2015 5:01
Operator : BAG
Sample : 1507301-06
Misc : CH2MHILL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 23 10:58:14 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-06.D
Acq On : 21 Jul 2015 5:01
Operator : BAG
Sample : 1507301-06
Misc : CH2MHILL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 23 10:58:14 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	745577	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	558144	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	296012	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	205660	39.89 ug/L	0.01
Spiked Amount 40.000			Recovery = 99.72%		
37) #1,2-Dichloroethane-d4	5.324	67	132638	41.37 ug/L	0.00
Spiked Amount 40.000			Recovery = 103.42%		
47) #Toluene-d8	8.354	98	721401	38.91 ug/L	0.01
Spiked Amount 40.000			Recovery = 97.27%		
65) #4-Bromofluorobenzene	11.841	95	278747	38.52 ug/L	0.01
Spiked Amount 40.000			Recovery = 96.30%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.093	43	5929	Below Cal	94
14) iodomethane	0.000		0	N.D.	
15) carbon disulfide	2.190	76	1385	0.09 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	12338	0.78 ug/L	98
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.434	83	1326	0.12 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27270	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-06.D
Acq On : 21 Jul 2015 5:01
Operator : BAG
Sample : 1507301-06
Misc : CH2MHILL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 23 10:58:14 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3066	0.62 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	4945	0.74 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW49-30-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-07
File ID: 1507301-07.D
Sampled: 07/15/15 12:00
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 05:29
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.9	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.6	104	70 - 120	
Toluene-d8	40.0	39.2	98	85 - 120	
4-Bromofluorobenzene	40.0	38.8	97	75 - 120	

* Values outside of QC limits

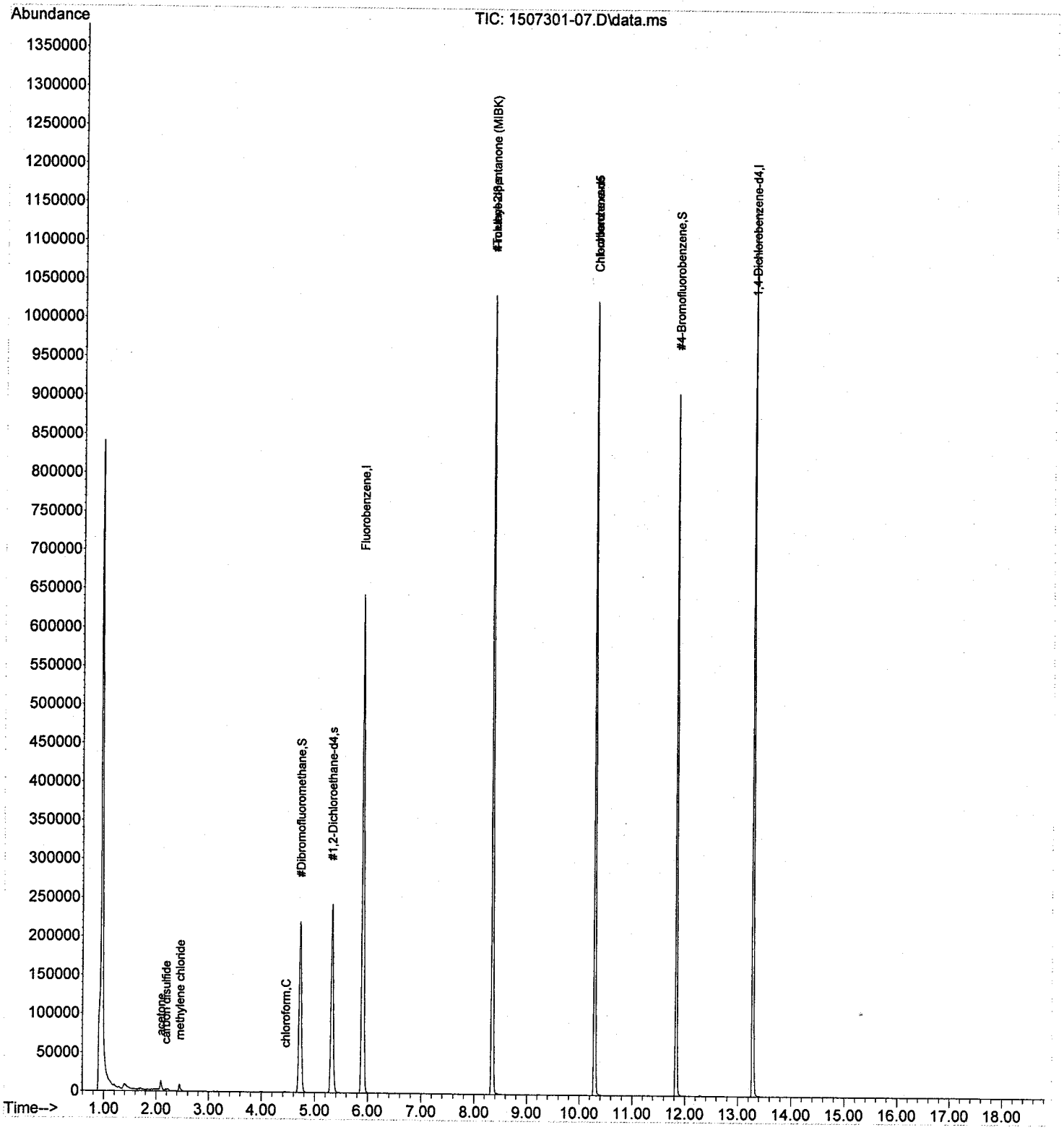
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	751588	5.903	100	5.897	
Chlorobenzene-d5	564190	10.298	93	10.286	
1,4-Dichlorobenzene-d4	299476	13.286	89	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07.D
Acq On : 21 Jul 2015 5:29
Operator : BAG
Sample : 1507301-07
Misc : CH2MHILL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 23 10:58:17 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07.D
Acq On : 21 Jul 2015 5:29
Operator : BAG
Sample : 1507301-07
Misc : CH2MHILL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 23 10:58:17 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.903	96	751588	40.00 ug/L	0.00
51) Chlorobenzene-d5	10.298	117	564190	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	299476	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	207355	39.90 ug/L	0.01
Spiked Amount 40.000			Recovery = 99.75%		
37) #1,2-Dichloroethane-d4	5.324	67	134537	41.63 ug/L	0.00
Spiked Amount 40.000			Recovery = 104.08%		
47) #Toluene-d8	8.348	98	731723	39.15 ug/L	0.00
Spiked Amount 40.000			Recovery = 97.88%		
65) #4-Bromofluorobenzene	11.841	95	284220	38.85 ug/L	0.01
Spiked Amount 40.000			Recovery = 97.13%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.093	43	14550	0.54 ug/L	99
14) iodomethane	0.000		0	N.D.	
15) carbon disulfide	2.190	76	2630	0.17 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.452	49	6436	0.06 ug/L	95
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.452	83	1453	0.13 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27859	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07.D
Acq On : 21 Jul 2015 5:29
Operator : BAG
Sample : 1507301-07
Misc : CH2MHILL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 23 10:58:17 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.348	43	3194	0.64 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	4973	0.74 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW16-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-08
File ID: 1507301-08.D
Sampled: 07/15/15 14:30
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 05:58
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.2	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.5	104	70 - 120	
Toluene-d8	40.0	39.2	98	85 - 120	
4-Bromofluorobenzene	40.0	38.4	96	75 - 120	

* Values outside of QC limits

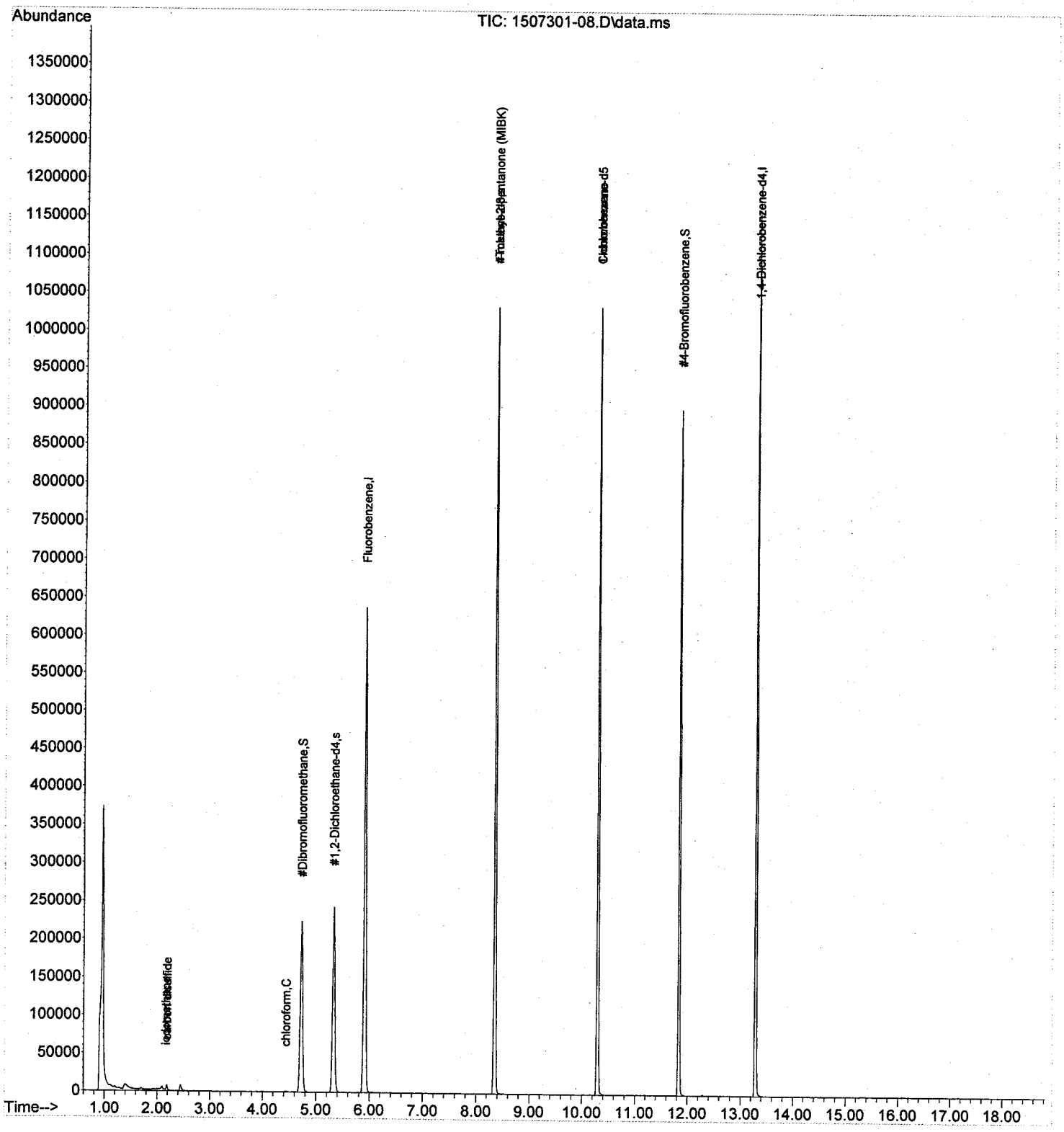
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	751060	5.903	100	5.897	
Chlorobenzene-d5	560047	10.292	93	10.286	
1,4-Dichlorobenzene-d4	298498	13.286	88	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-08.D
Acq On : 21 Jul 2015 5:58
Operator : BAG
Sample : 1507301-08
Misc : CH2MHILL
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 23 10:58:26 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-08.D
Acq On : 21 Jul 2015 5:58
Operator : BAG
Sample : 1507301-08
Misc : CH2MHILL
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 23 10:58:26 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.903	96	751060	40.00 ug/L	0.00
51) Chlorobenzene-d5	10.292	117	560047	40.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.286	152	298498	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	208760	40.20 ug/L	0.01
Spiked Amount 40.000			Recovery	= 100.50%	
37) #1,2-Dichloroethane-d4	5.330	67	133950	41.47 ug/L	0.01
Spiked Amount 40.000			Recovery	= 103.68%	
47) #Toluene-d8	8.348	98	731351	39.16 ug/L	0.00
Spiked Amount 40.000			Recovery	= 97.90%	
65) #4-Bromofluorobenzene	11.841	95	278496	38.35 ug/L	0.01
Spiked Amount 40.000			Recovery	= 95.88%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	5083	Below Cal	94
14) iodomethane	2.166	142	1305	7.86 ug/L #	41
15) carbon disulfide	2.190	76	8229	0.54 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	5969	N.D.	
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.440	83	1445	0.12 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27072	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-08.D
Acq On : 21 Jul 2015 5:58
Operator : BAG
Sample : 1507301-08
Misc : CH2MHILL
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 23 10:58:26 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.348	43	3277	0.66 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	4973	0.75 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-GW06-15C

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Ground Water
Laboratory ID: 1507301-09
File ID: 1507301-09.D
Sampled: 07/15/15 15:45
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 06:26
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.5	101	85 - 115	
1,2-Dichloroethane-d4	40.0	42.4	106	70 - 120	
Toluene-d8	40.0	39.3	98	85 - 120	
4-Bromofluorobenzene	40.0	38.5	96	75 - 120	

* Values outside of QC limits

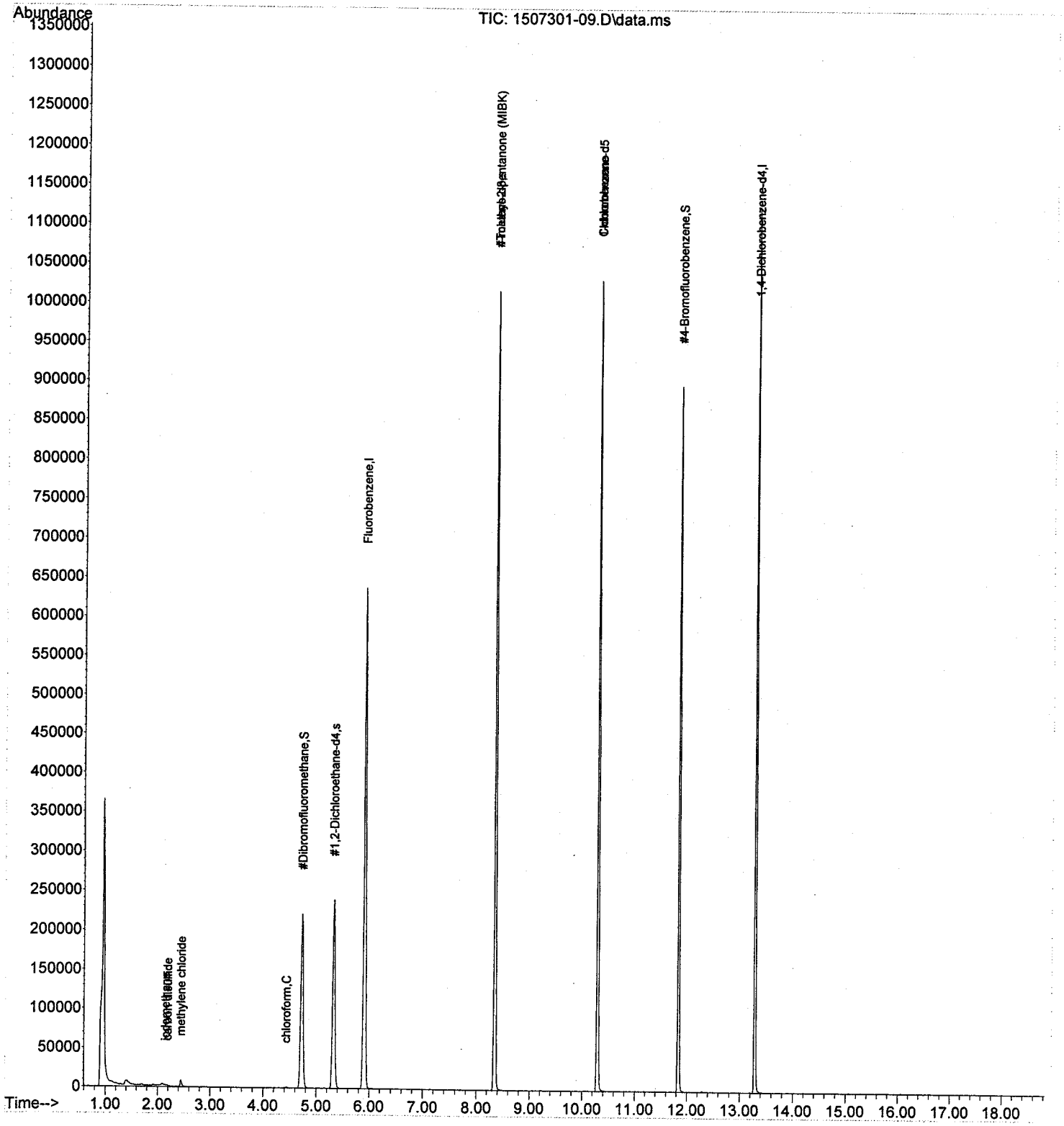
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	745003	5.903	99	5.897	
Chlorobenzene-d5	560763	10.292	93	10.286	
1,4-Dichlorobenzene-d4	290662	13.285	86	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-09.D
Acq On : 21 Jul 2015 6:26
Operator : BAG
Sample : 1507301-09
Misc : CH2MHILL
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 23 10:58:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-09.D
Acq On : 21 Jul 2015 6:26
Operator : BAG
Sample : 1507301-09
Misc : CH2MHILL
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 23 10:58:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.903	96	745003	40.00 ug/L	0.00
51) Chlorobenzene-d5	10.292	117	560763	40.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.285	152	290662	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	208785	40.53 ug/L	0.01
Spiked Amount 40.000			Recovery	= 101.33%	
37) #1,2-Dichloroethane-d4	5.324	67	135856	42.40 ug/L	0.00
Spiked Amount 40.000			Recovery	= 106.00%	
47) #Toluene-d8	8.347	98	728171	39.31 ug/L	0.00
Spiked Amount 40.000			Recovery	= 98.28%	
65) #4-Bromofluorobenzene	11.841	95	279669	38.47 ug/L	0.01
Spiked Amount 40.000			Recovery	= 96.17%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	3482	Below Cal #	47
14) iodomethane	2.147	142	1566	7.90 ug/L #	41
15) carbon disulfide	2.190	76	1362	0.09 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	6345	0.06 ug/L	96
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.433	83	1269	0.11 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27012	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-09.D
Acq On : 21 Jul 2015 6:26
Operator : BAG
Sample : 1507301-09
Misc : CH2MHILL
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 23 10:58:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3144	0.64 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5243	0.79 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-EB-071515

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Water
Laboratory ID: 1507301-10
File ID: 1507301-10.D
Sampled: 07/15/15 17:00
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 01:41
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.3	101	85 - 115	
1,2-Dichloroethane-d4	40.0	40.9	102	70 - 120	
Toluene-d8	40.0	39.3	98	85 - 120	
4-Bromofluorobenzene	40.0	38.6	96	75 - 120	

* Values outside of QC limits

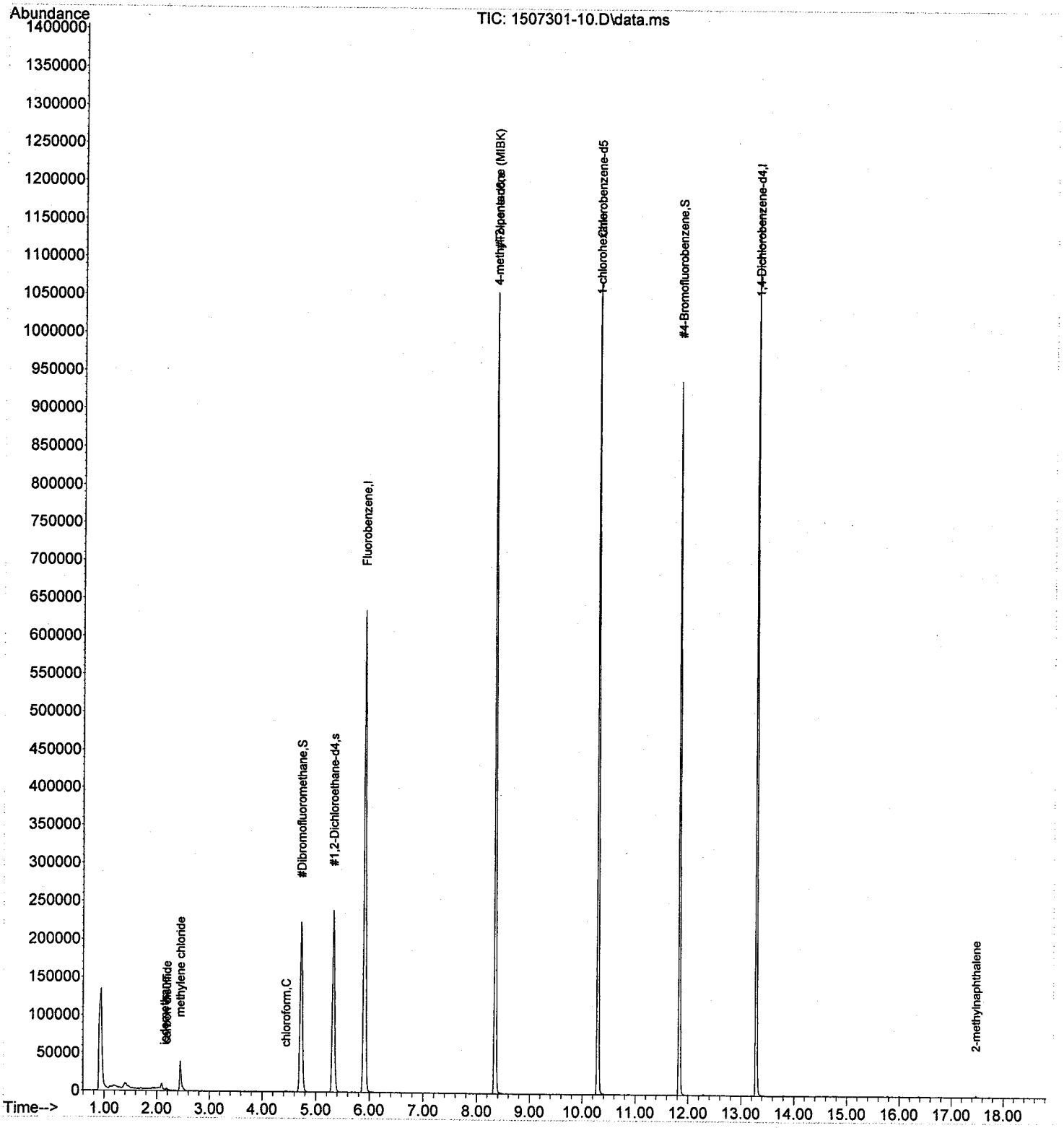
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	750382	5.909	100	5.897	
Chlorobenzene-d5	574798	10.298	95	10.286	
1,4-Dichlorobenzene-d4	303093	13.292	90	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-10.D
Acq On : 21 Jul 2015 1:41
Operator : BAG
Sample : 1507301-10
Misc : CH2MHILL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 23 10:58:32 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-10.D
Acq On : 21 Jul 2015 1:41
Operator : BAG
Sample : 1507301-10
Misc : CH2MHILL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 23 10:58:32 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	750382	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	574798	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	303093	40.00 ug/L	# 0.01
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	209222	40.32 ug/L	0.01
Spiked Amount 40.000			Recovery =	100.80%	
37) #1,2-Dichloroethane-d4	5.330	67	132114	40.94 ug/L	0.01
Spiked Amount 40.000			Recovery =	102.35%	
47) #Toluene-d8	8.354	98	732837	39.28 ug/L	0.01
Spiked Amount 40.000			Recovery =	98.20%	
65) #4-Bromofluorobenzene	11.841	95	287297	38.55 ug/L	0.01
Spiked Amount 40.000			Recovery =	96.37%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.093	43	9941	Below Cal	93
14) iodomethane	2.147	142	2499	8.04 ug/L #	41
15) carbon disulfide	2.190	76	1919	0.12 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	27548	2.61 ug/L	99
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.446	83	1287	0.11 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27043	No Calib #	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-10.D
Acq On : 21 Jul 2015 1:41
Operator : BAG
Sample : 1507301-10
Misc : CH2MHILL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 23 10:58:32 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3009	0.60 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5497	0.80 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	17.480	142	1440	2.00 ug/L #	17

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

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

SWMU350-TB-071515

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Water
Laboratory ID: 1507301-11
File ID: 1507301-11.D
Sampled: 07/15/15 08:00
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 02:10
Solids: NA
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	DL	LOD	LOQ	Q
91-20-3	Naphthalene	1	0.50	0.20	0.50	5.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.0	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.8	104	70 - 120	
Toluene-d8	40.0	39.2	98	85 - 120	
4-Bromofluorobenzene	40.0	38.9	97	75 - 120	

* Values outside of QC limits

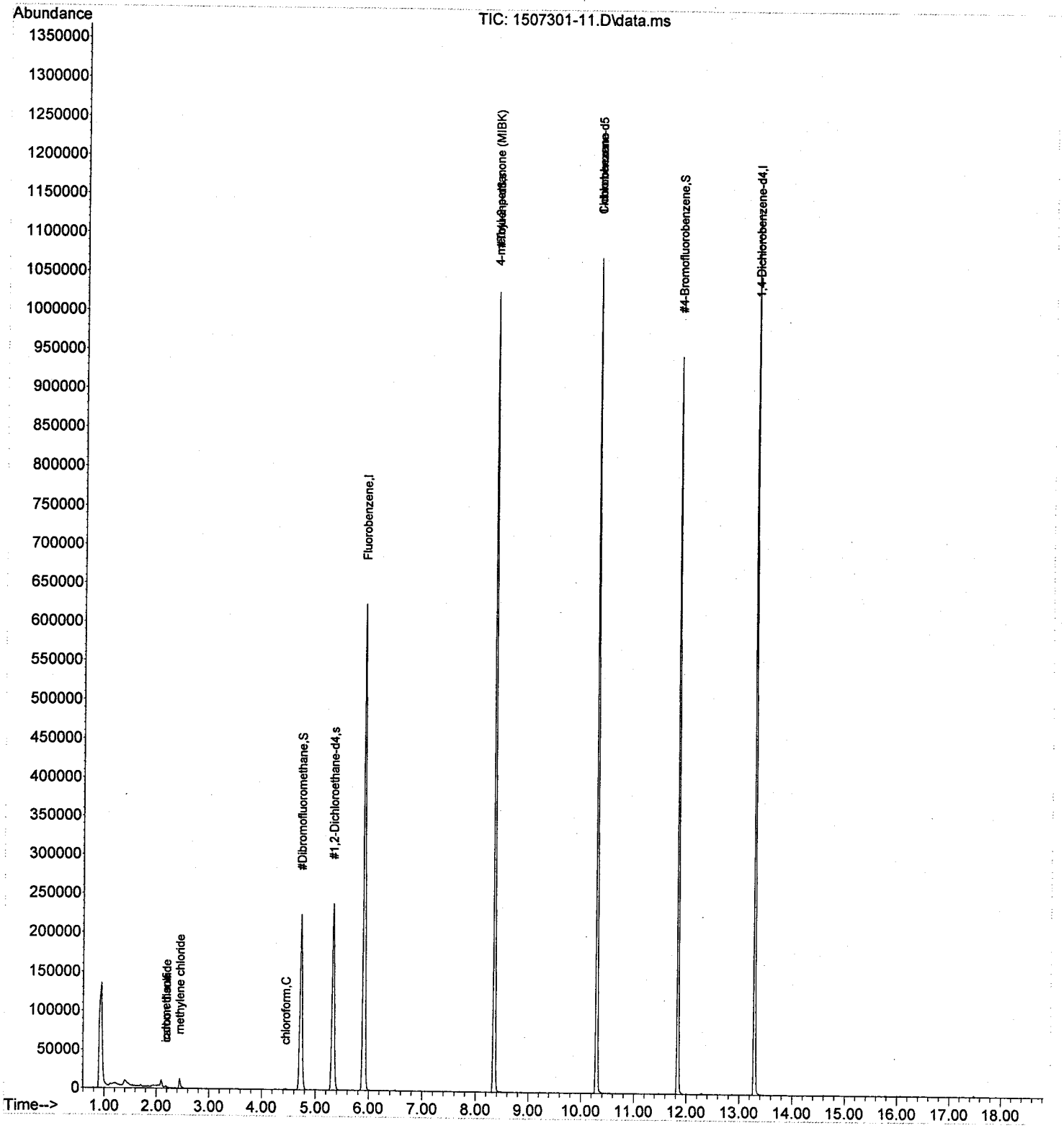
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	750317	5.909	100	5.897	
Chlorobenzene-d5	572512	10.298	95	10.286	
1,4-Dichlorobenzene-d4	303792	13.292	90	13.279	

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-11.D
Acq On : 21 Jul 2015 2:10
Operator : BAG
Sample : 1507301-11
Misc : CH2MHILL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 23 10:58:35 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-11.D
Acq On : 21 Jul 2015 2:10
Operator : BAG
Sample : 1507301-11
Misc : CH2MHILL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 23 10:58:35 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	750317	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	572512	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	303792	40.00 ug/L	# 0.01
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	207502	39.99 ug/L	0.01
Spiked Amount 40.000			Recovery =	99.98%	
37) #1,2-Dichloroethane-d4	5.330	67	134781	41.77 ug/L	0.01
Spiked Amount 40.000			Recovery =	104.43%	
47) #Toluene-d8	8.354	98	730510	39.15 ug/L	0.01
Spiked Amount 40.000			Recovery =	97.88%	
65) #4-Bromofluorobenzene	11.841	95	288765	38.90 ug/L	0.01
Spiked Amount 40.000			Recovery =	97.25%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	11585	Below Cal	96
14) iodomethane	2.178	142	2054	7.97 ug/L #	41
15) carbon disulfide	2.190	76	1677	0.11 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	8427	0.30 ug/L	98
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.446	83	1333	0.12 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27430	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-11.D
Acq On : 21 Jul 2015 2:10
Operator : BAG
Sample : 1507301-11
Misc : CH2MHILL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 23 10:58:35 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.347	43	3277	0.66 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.298	55	5444	0.80 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	0.000		0	N.D.	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	0.000		0	N.D.	

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

TRIMATRIX LABORATORIES

SECTION - C

STANDARDS DATA

USEPA-8260B

This report shall not be reproduced except in full, without written authorization of TriMatrix Laboratories, Inc.
Individual sample results relate only to the sample tested.
5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ Phone: 616.975.4500 ♦ Fax: 616.942.7463 ♦ www.trimatrixlabs.com

INITIAL CALIBRATION STANDARDS
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Sequence: 5G22021

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration: 5G22019
Instrument: 328

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
5061380	8260 Tune Working Standard 06-24-15	5G22021-TUN1	BFB0707AA.D	07/07/15 12:24
5070314	1.0 ug/L A	5G22021-CAL1	1P0707.D	07/07/15 15:57
5070315	5.0 ug/L A	5G22021-CAL2	5P0707.D	07/07/15 16:25
5070316	10 ug/L A	5G22021-CAL3	10P0707.D	07/07/15 16:54
5070317	20 ug/L A	5G22021-CAL4	20P0707.D	07/07/15 17:22
5070318	40 ug/L A	5G22021-CAL5	40P0707.D	07/07/15 17:51
5070319	100 ug/L A	5G22021-CAL6	100P0707.D	07/07/15 18:19
5070320	200 ug/L A	5G22021-CAL7	200P0707.D	07/07/15 19:17
5070222	40 ug/L B	5G22021-SCV1	SCV0707.D	07/07/15 20:42

INITIAL CALIBRATION DATA
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Calibration: 5G22019

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU

Calibration Date: 07/07/15 11:44

Instrument: 328

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	1	~~0.9632769~~	5	0.2727422	10	0.1751498	20	0.1445382	40	0.1254114	100	0.1176886
Acrolein	1	5.054569E-02	5	0.0508157	10	4.985428E-02	20	4.950568E-02	40	5.249837E-02	100	5.555639E-02
Acrylonitrile	1	0.1105329	5	0.1210508	10	0.1208294	20	0.1182286	40	0.1257257	100	0.1287612
Benzene	1	1.25401	5	1.346329	10	1.319986	20	1.33482	40	1.373214	100	1.362854
Bromobenzene	1	1.373392	5	1.411156	10	1.424403	20	1.404586	40	1.465898	100	1.465902
Bromochloromethane	1	0.2911146	5	0.2763678	10	0.2766563	20	0.2711203	40	0.2818006	100	0.2762332
Bromodichloromethane	1	0.3254475	5	0.3517877	10	0.366548	20	0.3747589	40	0.4097346	100	0.4283067
Bromoform	1	0.1510803	5	0.176374	10	0.1997984	20	0.2081096	40	0.2454243	100	0.2829522
Bromomethane	1	0.1618416	5	0.1372464	10	0.1285471	20	0.1396582	40	0.1479721	100	0.1504012
n-Butylbenzene	1	2.000859	5	2.456236	10	2.438398	20	2.666305	40	2.745523	100	2.8139
sec-Butylbenzene	1	2.851631	5	3.510026	10	3.450414	20	3.719239	40	3.805012	100	3.829397
tert-Butylbenzene	1	2.098209	5	2.487142	10	2.490659	20	2.638641	40	2.737183	100	2.729552
Carbon Disulfide	1	0.8727238	5	0.8268265	10	0.7349178	20	0.813983	40	0.8214544	100	0.8296249
Carbon Tetrachloride	1	0.3316942	5	0.3974473	10	0.3920394	20	0.4398367	40	0.4724325	100	0.4819456
Chlorobenzene	1	1.206906	5	1.21191	10	1.187172	20	1.189363	40	1.223972	100	1.223955
Chloroethane	1	0.2225918	5	0.2239449	10	0.2119452	20	0.2185011	40	0.2240339	100	0.2199399
2-Chloroethyl Vinyl Ether	1	3.318849E-02	5	4.344015E-02	10	4.824762E-02	20	6.281543E-02	40	7.741248E-02	100	9.038682E-02
Chloroform	1	0.6126996	5	0.6151646	10	0.602727	20	0.6026982	40	0.6266721	100	0.6249743
1-Chlorohexane	1	0.418028	5	0.4756983	10	0.4591579	20	0.4883662	40	0.5050317	100	0.4939463
Chloromethane	1	0.2889211	5	0.2973369	10	0.289304	20	0.301876	40	0.3208367	100	0.3247746
2-Chlorotoluene	1	0.8070567	5	0.8593927	10	0.8459252	20	0.8677146	40	0.8925629	100	0.8871123
4-Chlorotoluene	1	2.771237	5	2.994627	10	3.000789	20	3.011689	40	3.147442	100	3.130533
Cyclohexane	1	0.4930112	5	0.5725376	10	0.5701826	20	0.6328174	40	0.6473363	100	0.6431125
1,2-Dibromo-3-chloropropane	1	0.1131517	5	0.1438651	10	0.1541777	20	0.1735566	40	0.2011776	100	0.2170898
Dibromochloromethane	1	0.2507052	5	0.2875296	10	0.321441	20	0.3267332	40	0.3738736	100	0.404229
1,2-Dibromoethane	1	0.3246645	5	0.3308223	10	0.342083	20	0.342898	40	0.3626771	100	0.3673883
Dibromomethane	1	0.2015629	5	0.195122	10	0.194535	20	0.1907015	40	0.2007823	100	0.2009714
trans-1,4-Dichloro-2-butene	1	0.1723228	5	0.2111356	10	0.21881	20	0.2308151	40	0.2570177	100	0.2730273
1,2-Dichlorobenzene	1	1.470742	5	1.494505	10	1.523415	20	1.511727	40	1.596815	100	1.622149
1,3-Dichlorobenzene	1	1.648486	5	1.690381	10	1.662615	20	1.680934	40	1.7443	100	1.737054
1,4-Dichlorobenzene	1	1.738338	5	1.747918	10	1.738041	20	1.690581	40	1.752002	100	1.754928

INITIAL CALIBRATION DATA
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Calibration: 5G22019

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU

Calibration Date: 07/07/15 11:44

Instrument: 328

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Dichlorodifluoromethane	1	0.3764223	5	0.3990257	10	0.3863348	20	0.4147144	40	0.4195503	100	0.4206267
1,1-Dichloroethane	1	0.5744565	5	0.5922631	10	0.5862396	20	0.6103317	40	0.6261851	100	0.6252457
1,2-Dichloroethane	1	0.4731267	5	0.4832657	10	0.4736443	20	0.4646873	40	0.4829452	100	0.4834141
1,1-Dichloroethene	1	0.3665993	5	0.3707384	10	0.3426968	20	0.3743775	40	0.3818769	100	0.381439
cis-1,2-Dichloroethene	1	0.4133779	5	0.3617462	10	0.3495537	20	0.3555011	40	0.368886	100	0.3676367
trans-1,2-Dichloroethene	1	0.3130018	5	0.3234909	10	0.3169328	20	0.3271676	40	0.3356952	100	0.3355428
1,2-Dichloroethene (Total)	2	0.3631899	10	0.3426185	20	0.3332433	40	0.3413344	80	0.3522906	200	0.3515897
Dichlorofluoromethane	1	0.6134626	5	0.6465035	10	0.6217965	20	0.6426584	40	0.6571269	100	0.6562967
1,2-Dichloropropane	1	0.3034649	5	0.3182582	10	0.3155365	20	0.3158866	40	0.3340722	100	0.3349464
1,3-Dichloropropane	1	0.659186	5	0.65828	10	0.6660381	20	0.6609292	40	0.6903285	100	0.6962874
2,2-Dichloropropane	1	0.3112375	5	0.3644725	10	0.3621966	20	0.4034358	40	0.4351453	100	0.4510688
1,1-Dichloropropene	1	0.4120427	5	0.4652908	10	0.4519114	20	0.4867606	40	0.5033035	100	0.4980969
cis-1,3-Dichloropropene	1	0.3085195	5	0.3755024	10	0.4020332	20	0.4320197	40	0.4851679	100	0.5179162
trans-1,3-Dichloropropene	1	0.2239746	5	0.2861923	10	0.3198784	20	0.3435527	40	0.3980513	100	0.434558
Ethylbenzene	1	1.879731	5	2.121082	10	2.08942	20	2.150959	40	2.22139	100	2.212578
Ethyl Ether	1	0.1768145	5	0.1885787	10	0.1810218	20	0.1801453	40	0.1885388	100	0.1928673
Hexachlorobutadiene	1	0.4741761	5	0.4584762	10	0.43762	20	0.4685207	40	0.4808575	100	0.4828145
2-Hexanone	1	~~0.1805896~~	5	0.2129996	10	0.1933886	20	0.2342156	40	0.2572557	100	0.2748817
Iodomethane	1	0.1970328	5	0.1229162	10	0.1404967	20	0.1705593	40	0.2391731	100	0.307025
Isopropylbenzene	1	3.057057	5	3.614525	10	3.585018	20	3.787801	40	3.95502	100	3.901509
4-Isopropyltoluene	1	2.702608	5	3.075634	10	3.018705	20	3.181449	40	3.298751	100	3.345449
Methyl Acetate	1	0.2175372	5	0.2297229	10	0.2239235	20	0.2295723	40	0.2391395	100	0.2500716
Methyl tert-Butyl Ether	1	0.7572317	5	0.7806791	10	0.7992177	20	0.806719	40	0.8672247	100	0.9092002
Methylcyclohexane	1	0.464162	5	0.5326465	10	0.5340423	20	0.5946332	40	0.6160935	100	0.6218831
Methylene Chloride	1	1.008816	5	0.5345023	10	0.4742468	20	0.4453676	40	0.4487048	100	0.4441578
2-Butanone (MEK)	1	0.1300836	5	0.1255661	10	0.1132695	20	0.1274331	40	0.1346466	100	0.1401681
4-Methyl-2-pentanone (MIBK)	1	0.1885926	5	0.2770183	10	0.242247	20	0.269697	40	0.2863012	100	0.3041012
Naphthalene	1	~~1.212719~~	5	1.30834	10	1.459218	20	1.590188	40	1.740109	100	1.841118
n-Propylbenzene	1	0.8518099	5	0.9669163	10	0.9584629	20	1.022381	40	1.050865	100	1.044485
Styrene	1	1.025449	5	1.226709	10	1.263087	20	1.274702	40	1.327984	100	1.339655
1,1,1,2-Tetrachloroethane	1	0.2844301	5	0.3476453	10	0.3630361	20	0.375546	40	0.4096753	100	0.4227284

INITIAL CALIBRATION DATA
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Calibration: 5G22019

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU

Calibration Date: 07/07/15 11:44

Instrument: 328

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,1,2,2-Tetrachloroethane	1	0.7868716	5	0.7983762	10	0.8247393	20	0.8161819	40	0.8289975	100	0.8312821
Tetrachloroethene	1	0.5876445	5	0.5547972	10	0.5249235	20	0.5522437	40	0.5652073	100	0.5605892
Tetrahydrofuran	1	1.230263E-02	5	0.0285073	10	2.913506E-02	20	3.161631E-02	40	3.369583E-02	100	3.624637E-02
Toluene	1	1.331354	5	1.433707	10	1.382483	20	1.425418	40	1.478129	100	1.454734
1,2,3-Trichlorobenzene	1	0.6965579	5	0.7137992	10	0.7458612	20	0.762714	40	0.8161678	100	0.8552835
1,2,4-Trichlorobenzene	1	0.8176683	5	0.8337626	10	0.8580673	20	0.8998718	40	0.9676603	100	1.01258
1,1,1-Trichloroethane	1	0.4656403	5	0.48251	10	0.4843363	20	0.5256671	40	0.5557131	100	0.566137
1,1,2-Trichloroethane	1	0.2210182	5	0.2236006	10	0.2292694	20	0.2263396	40	0.2378308	100	0.2390787
Trichloroethene	1	0.3538675	5	0.3633629	10	0.350993	20	0.3677	40	0.3886254	100	0.3875236
Trichlorofluoromethane	1	0.5412681	5	0.5895941	10	0.5713159	20	0.6095426	40	0.618032	100	0.6075433
1,2,3-Trichloropropane	1	0.2589456	5	0.2638512	10	0.2650805	20	0.2685498	40	0.2811612	100	0.2804326
1,1,2-Trichloro-1,2,2-trifluoro	1	0.4250606	5	0.4456609	10	0.4205672	20	0.4579097	40	0.4604853	100	0.4575395
1,2,4-Trimethylbenzene	1	2.422324	5	2.902727	10	2.919956	20	3.004735	40	3.12625	100	3.115863
1,3,5-Trimethylbenzene	1	2.647243	5	3.067288	10	3.00782	20	3.140249	40	3.255508	100	3.242312
Vinyl Acetate	1	0.4456127	5	0.4565282	10	0.4733335	20	0.5298915	40	0.4784697	100	0.5117529
Vinyl Chloride	1	0.3659794	5	0.392358	10	0.3737158	20	0.4007347	40	0.4103632	100	0.4150335
Xylene, Meta + Para	2	0.7068597	10	0.8007288	20	0.7915547	40	0.80486	80	0.830004	200	0.8268045
Xylene, Ortho	1	0.6178358	5	0.722977	10	0.7364772	20	0.7548528	40	0.7880351	100	0.7871581
Xylene (Total)	3	0.677185	15	0.7748115	30	0.7731955	60	0.7881909	120	0.8160143	300	0.813589
Dichlorobenzenes (Total)	3	1.619189	15	1.644268	30	1.641357	60	1.627747	120	1.697706	300	1.70471
Dibromofluoromethane	40	0.2727715	40	0.276534	40	0.2749516	40	0.2778776	40	0.2765659	40	0.27857
1,2-Dichloroethane-d4	40	0.1728043	40	0.1756499	40	0.1711978	40	0.1721256	40	0.1727602	40	0.1708445
Toluene-d8	40	0.9838707	40	0.9923793	40	0.9921723	40	0.994766	40	0.9967001	40	1.001098
4-Bromofluorobenzene	40	0.514502	40	0.5252422	40	0.5205408	40	0.5202478	40	0.5195734	40	0.5180644

INITIAL CALIBRATION DATA (Continued)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Calibration: 5G22019

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU
Calibration Date: 07/07/15 11:44
Instrument: 328

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	200	0.1131276										
Acrolein	200	5.294226E-02										
Acrylonitrile	200	0.1246953										
Benzene	200	1.375219										
Bromobenzene	200	1.462405										
Bromochloromethane	200	0.2693384										
Bromodichloromethane	200	0.4358024										
Bromoform	200	0.2937309										
Bromomethane	200	0.1567866										
n-Butylbenzene	200	2.739067										
sec-Butylbenzene	200	3.798403										
tert-Butylbenzene	200	2.716379										
Carbon Disulfide	200	0.8344892										
Carbon Tetrachloride	200	0.5035188										
Chlorobenzene	200	1.221341										
Chloroethane	200	0.20325										
2-Chloroethyl Vinyl Ether	200	9.108277E-02										
Chloroform	200	0.6323862										
1-Chlorohexane	200	0.4918261										
Chloromethane	200	0.3352793										
2-Chlorotoluene	200	0.8834592										
4-Chlorotoluene	200	3.131369										
Cyclohexane	200	0.6526801										
1,2-Dibromo-3-chloropropane	200	0.2144071										
Dibromochloromethane	200	0.415851										
1,2-Dibromoethane	200	0.3583812										
Dibromomethane	200	0.1991106										
trans-1,4-Dichloro-2-butene	200	0.2677744										
1,2-Dichlorobenzene	200	1.579544										
1,3-Dichlorobenzene	200	1.718666										
1,4-Dichlorobenzene	200	1.718535										

INITIAL CALIBRATION DATA (Continued)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU
Calibration: 5G22019
Calibration Date: 07/07/15 11:44
Instrument: 328

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Dichlorodifluoromethane	200	0.4268492										
1,1-Dichloroethane	200	0.6360418										
1,2-Dichloroethane	200	0.4748397										
1,1-Dichloroethene	200	0.3914676										
cis-1,2-Dichloroethene	200	0.371294										
trans-1,2-Dichloroethene	200	0.3403884										
1,2-Dichloroethene (Total)	400	0.3558412										
Dichlorofluoromethane	200	0.6681179										
1,2-Dichloropropane	200	0.3342873										
1,3-Dichloropropane	200	0.6735495										
2,2-Dichloropropane	200	0.4572058										
1,1-Dichloropropene	200	0.5095817										
cis-1,3-Dichloropropene	200	0.5256784										
trans-1,3-Dichloropropene	200	0.4433211										
Ethylbenzene	200	2.206649										
Ethyl Ether	200	0.1899081										
Hexachlorobutadiene	200	0.4633297										
2-Hexanone	200	0.260651										
Iodomethane	200	0.3679621										
Isopropylbenzene	200	3.925056										
4-Isopropyltoluene	200	3.293951										
Methyl Acetate	200	0.2501457										
Methyl tert-Butyl Ether	200	0.90871										
Methylcyclohexane	200	0.6208651										
Methylene Chloride	200	0.4450266										
2-Butanone (MEK)	200	0.1326517										
4-Methyl-2-pentanone (MIBK)	200	0.288868										
Naphthalene	200	1.742142										
n-Propylbenzene	200	1.04868										
Styrene	200	1.317557										
1,1,1,2-Tetrachloroethane	200	0.4292661										

INITIAL CALIBRATION DATA (Continued)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Calibration: 5G22019

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU
Calibration Date: 07/07/15 11:44
Instrument: 328

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,1,2,2-Tetrachloroethane	200	0.7903812										
Tetrachloroethene	200	0.566867										
Tetrahydrofuran	200	3.516303E-02										
Toluene	200	1.467167										
1,2,3-Trichlorobenzene	200	0.8113874										
1,2,4-Trichlorobenzene	200	0.9777131										
1,1,1-Trichloroethane	200	0.5852474										
1,1,2-Trichloroethane	200	0.2342384										
Trichloroethene	200	0.401664										
Trichlorofluoromethane	200	0.6154695										
1,2,3-Trichloropropane	200	0.2671087										
1,1,2-Trichloro-1,2,2-trifluoroe	200	0.4655042										
1,2,4-Trimethylbenzene	200	3.094819										
1,3,5-Trimethylbenzene	200	3.245155										
Vinyl Acetate	200	0.439555										
Vinyl Chloride	200	0.4267347										
Xylene, Meta + Para	400	0.8251475										
Xylene, Ortho	200	0.7812849										
Xylene (Total)	600	0.8105266										
Dichlorobenzenes (Total)	600	1.672249										
Dibromofluoromethane	40	0.278935										
1,2-Dichloroethane-d4	40	0.1687173										
Toluene-d8	40	1.001344										
4-Bromofluorobenzene	40	0.5122064										

INITIAL CALIBRATION DATA (Continued)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Calibration: 5G22019

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration Date: 07/07/15 11:44
Instrument: 328

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
Acetone	0.1581096	38.30676	2.092833	7.200834E-03	0.99991		0.99	
Acrolein	5.167405E-02	4.134277	1.968429	0.1623846			15	
Acrylonitrile	0.1214034	4.90036	2.703714	0.1096268			15	
Benzene	1.338062	3.156203	5.36	1.459983E-02			15	
Bromobenzene	1.429677	2.532216	11.987	2.295219E-02			15	
Bromochloromethane	0.2775187	2.609875	4.263857	4.818812E-02			15	
Bromodichloromethane	0.3846265	10.69983	7.341714	8.068725E-03			15	
Bromoform	0.2224957	24.06721	11.41314	2.616734E-02	0.99899		SPCC (0.1)	
Bromomethane	0.1460647	7.964402	1.421143	0.1613064			15	
n-Butylbenzene	2.55147	11.08472	13.79886	1.370406E-02			15	
sec-Butylbenzene	3.566303	9.786094	13.08586	1.034539E-02			15	
tert-Butylbenzene	2.556824	8.948329	12.81086	2.551082E-02			15	
Carbon Disulfide	0.8191457	5.082833	2.183143	0.1028427			15	
Carbon Tetrachloride	0.4312735	14.08957	4.935429	6.462675E-02			15	
Chlorobenzene	1.209231	1.296463	10.323	1.812227E-02			SPCC (0.3)	
Chloroethane	0.2177438	3.510653	1.486429	0.3175884			15	
2-Chloroethyl Vinyl Ether	6.379625E-02	36.37423	7.872	5.828147E-03	0.99910		0.99	
Chloroform	0.6167603	1.899611	4.429286	0.0655975			CCC (30)	
1-Chlorohexane	0.4760078	6.192226	10.36243	2.935551E-02			15	
Chloromethane	0.3083327	6.001186	1.194571	0.2645849			SPCC (0.1)	
2-Chlorotoluene	0.8633177	3.452269	12.24986	2.377161E-02			15	
4-Chlorotoluene	3.026812	4.339237	12.39729	2.351214E-02			15	
Cyclohexane	0.6016682	9.837931	4.700286	6.138808E-02			15	
1,2-Dibromo-3-chloropropane	0.1739179	22.55397	14.767	0.0174302	0.99962		0.99	
Dibromochloromethane	0.3400518	17.91726	9.561	1.240984E-02	0.99956		0.99	
1,2-Dibromoethane	0.3469878	4.695265	9.665714	3.606429E-02			15	
Dibromomethane	0.1975408	2.093167	7.046429	0.0422474			15	
trans-1,4-Dichloro-2-butene	0.2329861	15.42989	12.17	3.081459E-03	0.99969		0.99	
1,2-Dichlorobenzene	1.5427	3.688734	13.767	1.883873E-02			15	
1,3-Dichlorobenzene	1.697491	2.170785	13.18971	2.795191E-02			15	
1,4-Dichlorobenzene	1.734335	1.313634	13.31086	1.968567E-02			15	
Dichlorodifluoromethane	0.4062176	4.733164	1.038	1.354094E-02			15	

INITIAL CALIBRATION DATA (Continued)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Calibration: 5G22019

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration Date: 07/07/15 11:44
Instrument: 328

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
1,1-Dichloroethane	0.6072519	3.839883	3.140143	0.0707664			SPCC (0.1)	
1,2-Dichloroethane	0.4765604	1.476149	5.457143	4.317141E-02			15	
1,1-Dichloroethene	0.3727422	4.1805	2.018429	0.1205163			CCC (30)	
cis-1,2-Dichloroethene	0.3697137	5.615282	3.897	1.547135E-02			15	
trans-1,2-Dichloroethene	0.3274599	3.14409	2.680571	0.1191138			15	
1,2-Dichloroethene (Total)	0.3485868	2.897874	3.897	1.547135E-02			15	
Dichlorofluoromethane	0.6437089	3.066712	1.623	0.2129325			15	
1,2-Dichloropropane	0.3223503	3.799786	6.866	2.071786E-02			CCC (30)	
1,3-Dichloropropane	0.6720855	2.304015	9.274	1.144059E-02			15	
2,2-Dichloropropane	0.3978232	13.63904	3.873	9.062845E-02			15	
1,1-Dichloropropene	0.4752839	7.318381	4.970857	4.242353E-02			15	
cis-1,3-Dichloropropene	0.4352625	18.34306	8.006857	3.410138E-02	0.99976		0.99	
trans-1,3-Dichloropropene	0.3499326	23.06027	8.835	0.0189961	0.99959		0.99	
Ethylbenzene	2.125973	5.622636	10.49943	1.593057E-02			CCC (30)	
Ethyl Ether	0.1854106	3.240024	1.855	1.328697E-02			15	
Hexachlorobutadiene	0.4665421	3.32493	15.99657	1.609582E-02			15	
2-Hexanone	0.2388987	13.06205	9.465	3.604781E-02			15	
Iodomethane	0.2207379	40.75045	2.142	0.1213905	0.99212		0.99	
Isopropylbenzene	3.689427	8.550595	11.652	2.135319E-02			15	
4-Isopropyltoluene	3.130935	7.170627	13.28671	2.428723E-02			15	
Methyl Acetate	0.2343018	5.385176	2.355857	9.796287E-02			15	
Methyl tert-Butyl Ether	0.8327118	7.438366	2.69	0.0133782			15	
Methylcyclohexane	0.5691894	10.61325	6.728571	4.694747E-02			15	
Methylene Chloride	0.5429746	38.30691	2.44	1.580108E-02	0.99997		0.99	
2-Butanone (MEK)	0.129117	6.577237	3.978857	9.011114E-02			15	
4-Methyl-2-pentanone (MIBK)	0.2652608	14.66068	8.298143	2.690501E-02			15	
Naphthalene	1.613519	12.4527	16.0665	1.131251E-02	0.99891		0.99	
n-Propylbenzene	0.9919429	7.334913	12.17686	2.776645E-02			15	
Styrene	1.253592	8.637144	11.19357	1.869415E-02			15	
1,1,1,2-Tetrachloroethane	0.3760468	13.5213	10.46471	2.588133E-02			15	
1,1,2,2-Tetrachloroethane	0.8109757	2.316511	12.09786	2.788855E-02			SPCC (0.3)	
Tetrachloroethene	0.5588961	3.3853	9.154572	0.0334547			15	

INITIAL CALIBRATION DATA (Continued)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Calibration: 5G22019

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Calibration Date: 07/07/15 11:44
Instrument: 328

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
Tetrahydrofuran	2.952379E-02	27.53538	4.335143	0.2323653	0.99958		0.99	
Toluene	1.424713	3.640128	8.433	2.466242E-02			CCC (30)	
1,2,3-Trichlorobenzene	0.7716816	7.535001	16.36657	2.613678E-02			15	
1,2,4-Trichlorobenzene	0.9096176	8.464423	15.76871	2.011875E-02			15	
1,1,1-Trichloroethane	0.5236073	8.969652	4.657286	6.122833E-02			15	
1,1,2-Trichloroethane	0.2301965	3.05632	9.067	1.226953E-02			15	
Trichloroethene	0.3733909	5.182723	6.494	8.109441E-03			15	
Trichlorofluoromethane	0.5932522	4.754815	1.646857	0.1582948			15	
1,2,3-Trichloropropane	0.2693042	3.124078	12.11586	2.711721E-02			15	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4475325	4.011924	2.017571	0.1558722			15	
1,2,4-Trimethylbenzene	2.940953	8.369865	12.877	1.142018E-02			15	
1,3,5-Trimethylbenzene	3.086511	7.004101	12.41486	2.861505E-02			15	
Vinyl Acetate	0.4764491	7.078871	3.235429	0.1039438			15	
Vinyl Chloride	0.3978456	5.547698	1.220143	0.186373			CCC (30)	
Xylene, Meta + Para	0.7979942	5.364069	10.65886	2.184546E-02			15	
Xylene, Ortho	0.7412316	8.108112	11.16057	2.745363E-02			15	
Xylene (Total)	0.7790733	6.214058	11.16057	2.745363E-02			15	
Dichlorobenzenes (Total)	1.658175	2.037427	13.767	1.883873E-02			15	
Dibromofluoromethane	0.2766008	0.7858953	4.714	9.689228E-03			15	
1,2-Dichloroethane-d4	0.1720142	1.240408	5.317	4.987842E-02			15	
Toluene-d8	0.9946186	0.6061643	8.341143	9.368777E-03			15	
4-Bromofluorobenzene	0.5186253	0.8236431	11.82957	1.113619E-02			15	

SC-27019 - DoD

Method Path : C:\msdchem\1\METHODS\
Method File : 8260-WN57A.M
Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
Last Update : Wed Jul 22 16:19:52 2015
Response Via : Initial Calibration

Calibration Files
1 =1P0707.D 2 =5P0707.D 3 =10P0707.D 4 =20P0707.D 5 =40P0707.D 6 =100P0707.D 7 =200P0707.D

		Compound	1	2	3	4	5	6	7	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------								
2)		dichlorodifluo...	0.376	0.399	0.386	0.415	0.420	0.421	0.427	0.406	4.73
3)	P	chloromethane	0.289	0.297	0.289	0.302	0.321	0.325	0.335	0.308	6.00
4)	C	vinyl chloride	0.366	0.392	0.374	0.401	0.410	0.415	0.427	0.398	5.55#
5)		bromomethane	0.162	0.137	0.129	0.140	0.148	0.150	0.157	0.146	7.96
6)		chloroethane	0.223	0.224	0.212	0.219	0.224	0.220	0.203	0.218	3.51
7)		dichlorofluoro...	0.613	0.647	0.622	0.643	0.657	0.656	0.668	0.644	3.07
8)		trichlorofluor...	0.541	0.590	0.571	0.610	0.618	0.608	0.615	0.593	4.75
9)		ethyl ether	0.177	0.189	0.181	0.180	0.189	0.193	0.190	0.185	3.24
10)		acrolein	0.051	0.051	0.050	0.050	0.052	0.056	0.053	0.052	4.13
11)		1,1,2-trichlor...	0.425	0.446	0.421	0.458	0.460	0.458	0.466	0.448	4.01
12)	C	1,1-dichloroet...	0.367	0.371	0.343	0.374	0.382	0.381	0.391	0.373	4.18#
13)		acetone		0.273	0.175	0.145	0.125	0.118	0.113	0.158	38.31
14)		iodomethane	0.197	0.123	0.140	0.171	0.239	0.307	0.368	0.221	40.75
15)		carbon disulfide	0.873	0.827	0.735	0.814	0.821	0.830	0.834	0.819	5.08
16)		methyl acetate	0.218	0.230	0.224	0.230	0.239	0.250	0.250	0.234	5.39
17)		methylene chlo...	1.009	0.535	0.474	0.445	0.449	0.444	0.445	0.543	38.31
18)		acrylonitrile	0.111	0.121	0.121	0.118	0.126	0.129	0.125	0.121	4.90
19)		trans-1,2-dich...	0.313	0.323	0.317	0.327	0.336	0.336	0.340	0.327	3.14
20)		methyl (tert) ...	0.757	0.781	0.799	0.807	0.867	0.909	0.909	0.833	7.44
21)	P	1,1-dichloroet...	0.574	0.592	0.586	0.610	0.626	0.625	0.636	0.607	3.84
22)		vinyl acetate	0.446	0.457	0.473	0.530	0.478	0.512	0.440	0.476	7.08
23)		2,2-dichloropr...	0.311	0.364	0.362	0.403	0.435	0.451	0.457	0.398	13.64
24)		cis-1,2-dichlo...	0.413	0.362	0.350	0.356	0.369	0.368	0.371	0.370	5.62
25)		2-butanone (MEK)	0.130	0.126	0.113	0.127	0.135	0.140	0.133	0.129	6.58
26)		bromochloromet...	0.291	0.276	0.277	0.271	0.282	0.276	0.269	0.278	2.61
27)		tetrahydrofuran	0.012	0.029	0.029	0.032	0.034	0.036	0.035	0.030	27.54
28)	C	chloroform	0.613	0.615	0.603	0.603	0.627	0.625	0.632	0.617	1.90#
29)	S	#Dibromofluoro...	0.273	0.277	0.275	0.278	0.277	0.279	0.279	0.277	0.79
30)		1,1,1-trichlor...	0.466	0.483	0.484	0.526	0.556	0.566	0.585	0.524	8.97
31)		cyclohexane	0.493	0.573	0.570	0.633	0.647	0.643	0.653	0.602	9.84
32)		carbon tetrach...	0.332	0.397	0.392	0.440	0.472	0.482	0.504	0.431	14.09
33)		1,1-dichloropr...	0.412	0.465	0.452	0.487	0.503	0.498	0.510	0.475	7.32
34)		benzene	1.254	1.346	1.320	1.335	1.373	1.363	1.375	1.338	3.16
35)		1,2-dichloroet...	0.473	0.483	0.474	0.465	0.483	0.483	0.475	0.477	1.48
36)		heptane								0.000	-1.00
37)	s	#1,2-Dichloroe...	0.173	0.176	0.171	0.172	0.173	0.171	0.169	0.172	1.24
38)		trichloroethene	0.354	0.363	0.351	0.368	0.389	0.388	0.402	0.373	5.18
39)		methylcyclohexane	0.464	0.533	0.534	0.595	0.616	0.622	0.621	0.569	10.61
40)	C	1,2-dichloropr...	0.303	0.318	0.316	0.316	0.334	0.335	0.334	0.322	3.80#
41)		dibromomethane	0.202	0.195	0.195	0.191	0.201	0.201	0.199	0.198	2.09

Method Path : C:\msdchem\1\METHODS\
Method File : 8260-WN57A.M

42)		1,4-dioxane								0.000	-1.00
43)		bromodichlorom...	0.325	0.352	0.367	0.375	0.410	0.428	0.436	0.385	10.70
44)		2-chloroethyl ...	0.033	0.043	0.048	0.063	0.077	0.090	0.091	0.064	36.37
45)		cis-1,3-dichlo...	0.309	0.376	0.402	0.432	0.485	0.518	0.526	0.435	18.34
46)		4-methyl-2-pen...	0.189	0.277	0.242	0.270	0.286	0.304	0.289	0.265	14.66
47)	s	#Toluene-d8	0.984	0.992	0.992	0.995	0.997	1.001	1.001	0.995	0.61
48)	C	toluene	1.331	1.434	1.382	1.425	1.478	1.455	1.467	1.425	3.64#
49)		trans-1,3-dich...	0.224	0.286	0.320	0.344	0.398	0.435	0.443	0.350	23.06
50)		1,1,2-trichlor...	0.221	0.224	0.229	0.226	0.238	0.239	0.234	0.230	3.06
51)		Chlorobenzene-d5	----------ISTD----------								
52)		tetrachloroethene	0.588	0.555	0.525	0.552	0.565	0.561	0.567	0.559	3.39
53)		1,3-dichloropr...	0.659	0.658	0.666	0.661	0.690	0.696	0.674	0.672	2.30
54)		2-hexanone (MBK)		0.213	0.193	0.234	0.257	0.275	0.261	0.239	13.06
55)		dibromochlorom...	0.251	0.288	0.321	0.327	0.374	0.404	0.416	0.340	17.92
56)		1,2-dibromoethane	0.325	0.331	0.342	0.343	0.363	0.367	0.358	0.347	4.70
57)	P	chlorobenzene	1.207	1.212	1.187	1.189	1.224	1.224	1.221	1.209	1.30
58)		1-chlorohexane	0.418	0.476	0.459	0.488	0.505	0.494	0.492	0.476	6.19
59)		1,1,1,2-tetrac...	0.284	0.348	0.363	0.376	0.410	0.423	0.429	0.376	13.52
60)	C	ethylbenzene	1.880	2.121	2.089	2.151	2.221	2.213	2.207	2.126	5.62#
61)		m+p-xylene	0.707	0.801	0.792	0.805	0.830	0.827	0.825	0.798	5.36
62)		o-xylene	0.618	0.723	0.736	0.755	0.788	0.787	0.781	0.741	8.11
63)		styrene	1.025	1.227	1.263	1.275	1.328	1.340	1.318	1.254	8.64
64)	P	bromoform	0.151	0.176	0.200	0.208	0.245	0.283	0.294	0.222	24.07
65)	S	#4-Bromofluoro...	0.515	0.525	0.521	0.520	0.520	0.518	0.512	0.519	0.82
66)	I	1,4-Dichlorobenzen...	----------ISTD----------								
67)		isopropylbenzene	3.057	3.615	3.585	3.788	3.955	3.902	3.925	3.689	8.55
68)		bromobenzene	1.373	1.411	1.424	1.405	1.466	1.466	1.462	1.430	2.53
69)	P	1,1,2,2-tetrac...	0.787	0.798	0.825	0.816	0.829	0.831	0.790	0.811	2.32
70)		1,2,3-trichlor...	0.259	0.264	0.265	0.269	0.281	0.280	0.267	0.269	3.12
71)		1,4-dichloro-2...	0.172	0.211	0.219	0.231	0.257	0.273	0.268	0.233	15.43
72)		n-propylbenzene	0.852	0.967	0.958	1.022	1.051	1.044	1.049	0.992	7.33
73)		2-chlorotoluene	0.807	0.859	0.846	0.868	0.893	0.887	0.883	0.863	3.45
74)		1,3,5-trimethy...	2.647	3.067	3.008	3.140	3.256	3.242	3.245	3.087	7.00
75)		4-chlorotoluene	2.771	2.995	3.001	3.012	3.147	3.131	3.131	3.027	4.34
76)		tert-butylbenzene	2.098	2.487	2.491	2.639	2.737	2.730	2.716	2.557	8.95
77)		1,2,4-trimethy...	2.422	2.903	2.920	3.005	3.126	3.116	3.095	2.941	8.37
78)		sec-butylbenzene	2.852	3.510	3.450	3.719	3.805	3.829	3.798	3.566	9.79
79)		1,3-dichlorobe...	1.648	1.690	1.663	1.681	1.744	1.737	1.719	1.697	2.17
80)		4-isopropyltol...	2.703	3.076	3.019	3.181	3.299	3.345	3.294	3.131	7.17
81)		1,4-dichlorobe...	1.738	1.748	1.738	1.691	1.752	1.755	1.719	1.734	1.31
82)		1,2-dichlorobe...	1.471	1.495	1.523	1.512	1.597	1.622	1.580	1.543	3.69
83)		n-butylbenzene	2.001	2.456	2.438	2.666	2.746	2.814	2.739	2.551	11.08
84)		hexachloroethane	0.166	0.210	0.228	0.265	0.310	0.369	0.398	0.278	30.56
85)		1,2-dibromo-3-...	0.113	0.144	0.154	0.174	0.201	0.217	0.214	0.174	22.55
86)		1,2,4-trichlor...	0.818	0.834	0.858	0.900	0.968	1.013	0.978	0.910	8.46
87)		hexachlorobuta...	0.474	0.458	0.438	0.469	0.481	0.483	0.463	0.467	3.32
88)		naphthalene		1.308	1.459	1.590	1.740	1.841	1.742	1.614	12.45
89)		1,2,3-trichlor...	0.697	0.714	0.746	0.763	0.816	0.855	0.811	0.772	7.54
90)		2-methylnaphth...	0.643	0.527	0.624	0.728	0.813	0.832		0.694	17.03

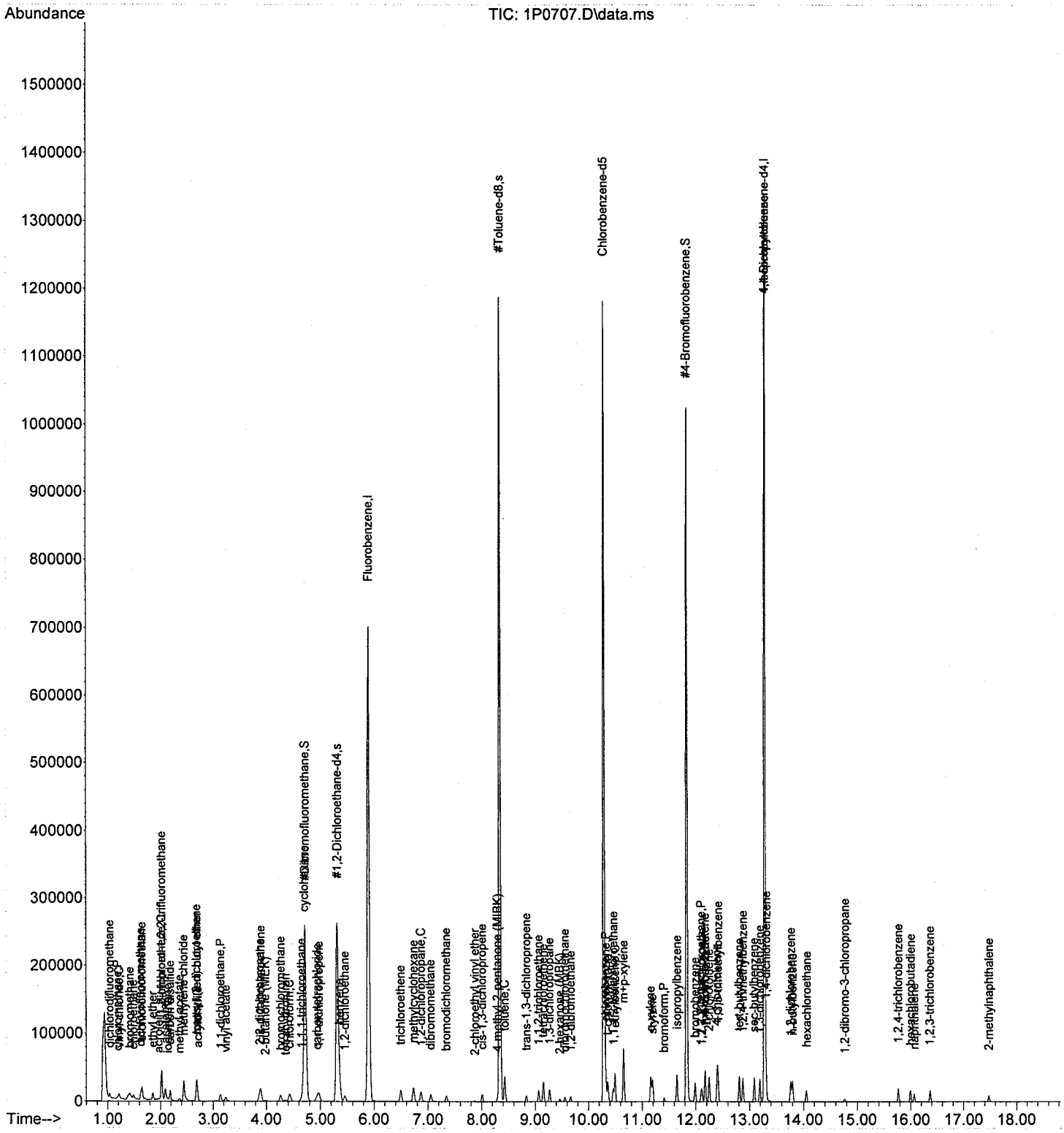
Method Path : C:\msdchem\1\METHODS\
Method File : 8260-WN57A.M

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 1P0707.D
Acq On : 7 Jul 2015 15:57
Operator : BAG
Sample : STD1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 08 08:31:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 1P0707.D
Acq On : 7 Jul 2015 15:57
Operator : BAG
Sample : STD1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 08 08:31:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	838845	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.286	117	645220	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.279	152	346791	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	228813	40.68	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	101.70%	
37) #1,2-Dichloroethane-d4	5.318	67	144956	43.47	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	108.67%	
47) #Toluene-d8	8.341	98	825315	40.30	ug/L	0.00
Spiked Amount 40.000			Recovery	=	100.75%	
65) #4-Bromofluorobenzene	11.828	95	331967	41.04	ug/L	0.00
Spiked Amount 40.000			Recovery	=	102.60%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.038	85	7894	1.00	ug/L	100
3) chloromethane	1.190	50	6059	0.99	ug/L	93
4) vinyl chloride	1.221	62	7675	0.97	ug/L #	1
5) bromomethane	1.422	94	3394	5.07	ug/L	88
6) chloroethane	1.489	64	4668	1.05	ug/L	93
7) dichlorofluoromethane	1.623	67	12865	1.05	ug/L	100
8) trichlorofluoromethane	1.648	101	11351	1.01	ug/L	97
9) ethyl ether	1.855	74	3708	1.01	ug/L #	83
10) acrolein	1.965	56	1060	1.06	ug/L #	96
11) 1,1,2-trichloro-1,2,2-...	2.019	101	8914	1.00	ug/L	98
12) 1,1-dichloroethene	2.019	96	7688	1.00	ug/L	99
13) acetone	2.093	43	20201	4.50	ug/L	95
14) iodomethane	2.141	142	4132	7.88	ug/L	90
15) carbon disulfide	2.184	76	18302	1.21	ug/L	98
16) methyl acetate	2.361	43	4562	0.97	ug/L	94
17) methylene chloride	2.440	49	21156	1.38	ug/L	97
18) acrylonitrile	2.708	53	2318	0.97	ug/L	97
19) trans-1,2-dichloroethene	2.684	96	6564	0.95	ug/L	95
20) methyl (tert) butyl ether	2.690	73	15880	0.92	ug/L	97
21) 1,1-dichloroethane	3.141	63	12047	0.97	ug/L	97
22) vinyl acetate	3.239	43	9345	0.99	ug/L	95
23) 2,2-dichloropropane	3.879	77	6527	0.80	ug/L	99
24) cis-1,2-dichloroethene	3.897	96	8669	1.15	ug/L	96
25) 2-butanone (MEK)	3.982	43	2728	1.07	ug/L	84
26) bromochloromethane	4.269	49	6105	1.08	ug/L	88
27) tetrahydrofuran	4.354	71	258	0.40	ug/L #	1
28) chloroform	4.427	83	12849	1.04	ug/L	100
30) 1,1,1-trichloroethane	4.653	97	9765	0.94	ug/L	97
31) cyclohexane	4.702	56	10339	0.83	ug/L	97
32) carbon tetrachloride	4.940	117	6956	0.80	ug/L	96
33) 1,1-dichloropropene	4.976	75	8641	0.88	ug/L	99
34) benzene	5.360	78	26298	0.93	ug/L #	65
35) 1,2-dichloroethane	5.458	62	9922	1.10	ug/L	97
36) heptane	5.891	57	29902	No Calib		
38) trichloroethene	6.494	130	7421	0.93	ug/L	97
39) methylcyclohexane	6.732	83	9734	0.81	ug/L	95
40) 1,2-dichloropropane	6.866	63	6364	0.93	ug/L	88
41) dibromomethane	7.043	93	4227	1.05	ug/L	96
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 1P0707.D
Acq On : 7 Jul 2015 15:57
Operator : BAG
Sample : STD1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 08 08:31:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

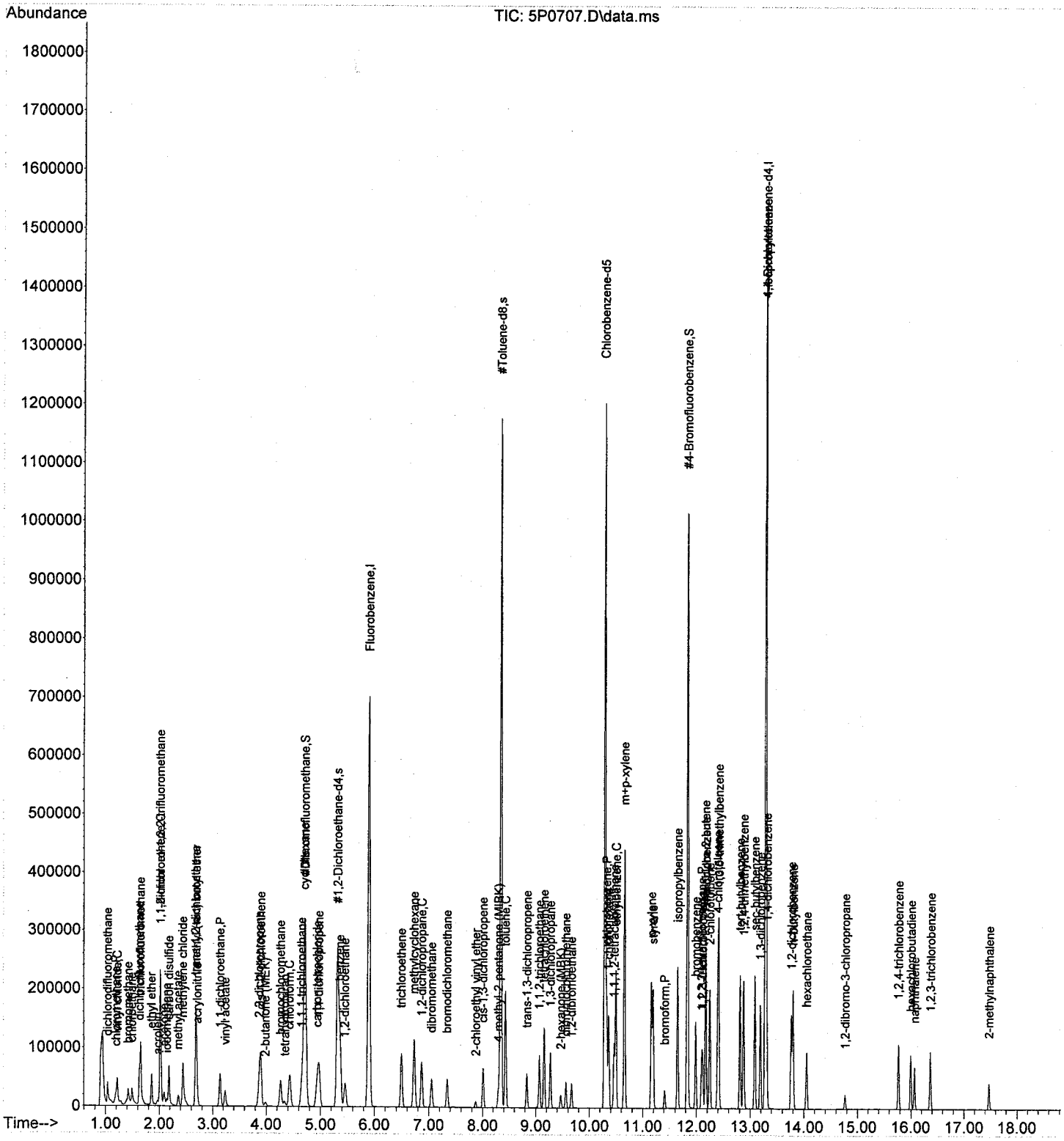
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.342	83	6825	0.88 ug/L	99
44) 2-chloroethyl vinyl ether	7.872	63	696	3.44 ug/L #	53
45) cis-1,3-dichloropropene	8.012	75	6470	2.41 ug/L	97
46) 4-methyl-2-pentanone (...	8.299	43	3955	0.77 ug/L #	93
48) toluene	8.433	91	27920	0.93 ug/L	98
49) trans-1,3-dichloropropene	8.835	75	4697	2.96 ug/L	94
50) 1,1,2-trichloroethane	9.067	83	4635	0.96 ug/L	97
52) tetrachloroethene	9.152	166	9479	0.99 ug/L	98
53) 1,3-dichloropropane	9.274	76	10633	0.98 ug/L	99
54) 2-hexanone (MBK)	9.469	43	2913	0.84 ug/L	84
55) dibromochloromethane	9.561	129	4044	2.78 ug/L	99
56) 1,2-dibromoethane	9.670	109	5237	0.92 ug/L	99
57) chlorobenzene	10.323	112	19468	0.97 ug/L	97
58) 1-chlorohexane	10.365	55	6743	0.93 ug/L	85
59) 1,1,1,2-tetrachloroethane	10.469	131	4588	0.74 ug/L	97
60) ethylbenzene	10.499	91	30321	0.88 ug/L	99
61) m+p-xylene	10.658	106	22804	1.73 ug/L	96
62) o-xylene	11.158	106	9966	0.80 ug/L	94
63) styrene	11.194	104	16541	0.80 ug/L	94
64) bromoform	11.408	173	2437	3.71 ug/L	92
67) isopropylbenzene	11.652	105	26504	0.80 ug/L	100
68) bromobenzene	11.987	77	11907	0.96 ug/L	98
69) 1,1,2,2-tetrachloroethane	12.097	83	6822	0.95 ug/L #	97
70) 1,2,3-trichloropropane	12.115	110	2245	0.95 ug/L	94
71) 1,4-dichloro-2-butene	12.170	53	1494	0.77 ug/L #	68
72) n-propylbenzene	12.176	120	7385	0.82 ug/L	95
73) 2-chlorotoluene	12.249	126	6997	0.90 ug/L	95
74) 1,3,5-trimethylbenzene	12.414	105	22951	0.85 ug/L	92
75) 4-chlorotoluene	12.395	91	24026	0.92 ug/L	97
76) tert-butylbenzene	12.810	119	18191	0.80 ug/L	96
77) 1,2,4-trimethylbenzene	12.877	105	21001	0.81 ug/L	95
78) sec-butylbenzene	13.084	105	24723	0.78 ug/L	99
79) 1,3-dichlorobenzene	13.188	146	14292	0.94 ug/L	99
80) 4-isopropyltoluene	13.286	119	23431	0.85 ug/L	95
81) 1,4-dichlorobenzene	13.310	146	15071	0.97 ug/L	88
82) 1,2-dichlorobenzene	13.767	146	12751	0.92 ug/L	98
83) n-butylbenzene	13.798	91	17347	0.78 ug/L	96
84) hexachloroethane	14.060	201	1443	4.89 ug/L #	41
85) 1,2-dibromo-3-chloropr...	14.767	157	981	2.18 ug/L	93
86) 1,2,4-trichlorobenzene	15.767	180	7089	0.82 ug/L	98
87) hexachlorobutadiene	15.998	225	4111	0.95 ug/L	98
88) naphthalene	16.072	128	10514	0.74 ug/L	98
89) 1,2,3-trichlorobenzene	16.364	180	6039	0.83 ug/L	98
90) 2-methylnaphthalene	17.480	142	5572	0.97 ug/L	98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 5P0707.D
Acq On : 7 Jul 2015 16:25
Operator : BAG
Sample : STD2
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 08:31:50 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 5P0707.D
Acq On : 7 Jul 2015 16:25
Operator : BAG
Sample : STD2
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 08:31:50 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	836277	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.286	117	644358	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.280	152	351774	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	231259	41.24	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	103.10%	
37) #1,2-Dichloroethane-d4	5.318	67	146892	44.19	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	110.47%	
47) #Toluene-d8	8.341	98	829904	40.65	ug/L	0.00
Spiked Amount 40.000			Recovery	=	101.62%	
65) #4-Bromofluorobenzene	11.829	95	338444	41.89	ug/L	0.00
Spiked Amount 40.000			Recovery	=	104.72%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.038	85	41712	5.32	ug/L	100
3) chloromethane	1.197	50	31082	5.08	ug/L	98
4) vinyl chloride	1.221	62	41015	5.19	ug/L	98
5) bromomethane	1.422	94	14347	8.94	ug/L	93
6) chloroethane	1.489	64	23410	5.26	ug/L	98
7) dichlorofluoromethane	1.629	67	67582	5.53	ug/L	100
8) trichlorofluoromethane	1.648	101	61633	5.52	ug/L	99
9) ethyl ether	1.855	74	19713	5.36	ug/L	99
10) acrolein	1.971	56	5312	5.32	ug/L #	99
11) 1,1,2-trichloro-1,2,2-...	2.020	101	46587	5.22	ug/L	99
12) 1,1-dichloroethene	2.020	96	38755	5.07	ug/L	95
13) acetone	2.093	43	28511	8.73	ug/L	92
14) iodomethane	2.141	142	12849	9.03	ug/L	95
15) carbon disulfide	2.184	76	86432	5.74	ug/L	100
16) methyl acetate	2.355	43	24014	5.13	ug/L	96
17) methylene chloride	2.440	49	55874	5.35	ug/L	96
18) acrylonitrile	2.708	53	12654	5.33	ug/L	99
19) trans-1,2-dichloroethene	2.678	96	33816	4.91	ug/L	97
20) methyl (tert) butyl ether	2.690	73	81608	4.74	ug/L	99
21) 1,1-dichloroethane	3.141	63	61912	4.98	ug/L	99
22) vinyl acetate	3.239	43	47723	5.08	ug/L	97
23) 2,2-dichloropropane	3.873	77	38100	4.67	ug/L	99
24) cis-1,2-dichloroethene	3.897	96	37815	5.05	ug/L	97
25) 2-butanone (MEK)	3.983	43	13126	5.19	ug/L	95
26) bromochloromethane	4.263	49	28890	5.13	ug/L	97
27) tetrahydrofuran	4.342	71	2980	4.60	ug/L	88
28) chloroform	4.428	83	64306	5.25	ug/L	100
30) 1,1,1-trichloroethane	4.653	97	50439	4.86	ug/L	96
31) cyclohexane	4.702	56	59850	4.80	ug/L	98
32) carbon tetrachloride	4.940	117	41547	4.81	ug/L	99
33) 1,1-dichloropropene	4.970	75	48639	4.94	ug/L	99
34) benzene	5.360	78	140738	5.01	ug/L #	68
35) 1,2-dichloroethane	5.452	62	50518	5.62	ug/L	97
36) heptane	5.897	57	30159	No Calib		
38) trichloroethene	6.494	130	37984	4.75	ug/L	97
39) methylcyclohexane	6.726	83	55680	4.65	ug/L	96
40) 1,2-dichloropropane	6.866	63	33269	4.88	ug/L	99
41) dibromomethane	7.049	93	20397	5.09	ug/L	96
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 5P0707.D
Acq On : 7 Jul 2015 16:25
Operator : BAG
Sample : STD2
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 08:31:50 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

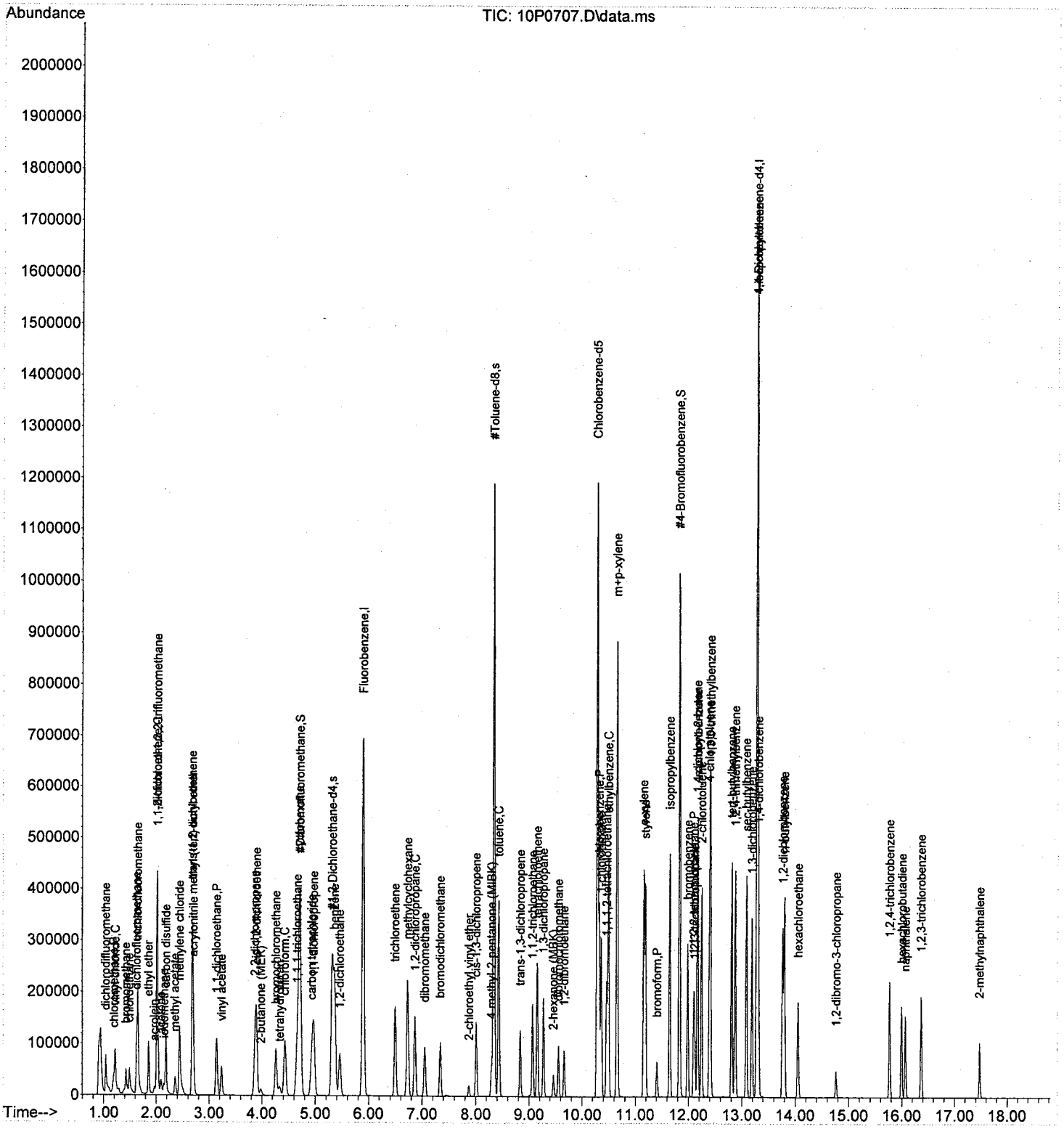
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.342	83	36774	4.78 ug/L	99
44) 2-chloroethyl vinyl ether	7.872	63	4541	5.78 ug/L	99
45) cis-1,3-dichloropropene	8.006	75	39253	5.44 ug/L	95
46) 4-methyl-2-pentanone (...	8.299	43	28958	5.65 ug/L #	89
48) toluene	8.433	91	149872	4.99 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	29917	5.77 ug/L	97
50) 1,1,2-trichloroethane	9.067	83	23374	4.86 ug/L	99
52) tetrachloroethene	9.152	166	44686	4.68 ug/L	99
53) 1,3-dichloropropane	9.274	76	53021	4.89 ug/L	100
54) 2-hexanone (MBK)	9.469	43	17156	4.95 ug/L	94
55) dibromochloromethane	9.561	129	23159	5.67 ug/L	98
56) 1,2-dibromoethane	9.664	109	26646	4.70 ug/L	100
57) chlorobenzene	10.323	112	97613	4.88 ug/L	93
58) 1-chlorohexane	10.359	55	38315	5.26 ug/L	86
59) 1,1,1,2-tetrachloroethane	10.463	131	28001	4.50 ug/L	98
60) ethylbenzene	10.500	91	170842	4.96 ug/L	98
61) m+p-xylene	10.658	106	128989	9.77 ug/L	96
62) o-xylene	11.164	106	58232	4.70 ug/L	96
63) styrene	11.195	104	98805	4.79 ug/L	97
64) bromoform	11.414	173	14206	6.12 ug/L	99
67) isopropylbenzene	11.652	105	158937	4.75 ug/L	98
68) bromobenzene	11.987	77	62051	4.93 ug/L	96
69) 1,1,2,2-tetrachloroethane	12.097	83	35106	4.81 ug/L #	100
70) 1,2,3-trichloropropane	12.115	110	11602	4.85 ug/L	93
71) 1,4-dichloro-2-butene	12.170	53	9284	4.72 ug/L #	71
72) n-propylbenzene	12.176	120	42517	4.66 ug/L	92
73) 2-chlorotoluene	12.249	126	37789	4.77 ug/L	92
74) 1,3,5-trimethylbenzene	12.414	105	134874	4.93 ug/L	97
75) 4-chlorotoluene	12.396	91	131679	4.96 ug/L	98
76) tert-butylbenzene	12.810	119	109364	4.73 ug/L	97
77) 1,2,4-trimethylbenzene	12.877	105	127638	4.88 ug/L	98
78) sec-butylbenzene	13.084	105	154342	4.78 ug/L	99
79) 1,3-dichlorobenzene	13.188	146	74329	4.83 ug/L	100
80) 4-isopropyltoluene	13.286	119	135241	4.81 ug/L	98
81) 1,4-dichlorobenzene	13.310	146	76859	4.87 ug/L	95
82) 1,2-dichlorobenzene	13.767	146	65716	4.67 ug/L	99
83) n-butylbenzene	13.798	91	108005	4.78 ug/L	98
84) hexachloroethane	14.054	201	9236	6.99 ug/L #	65
85) 1,2-dibromo-3-chloropr...	14.767	157	6326	4.78 ug/L	94
86) 1,2,4-trichlorobenzene	15.767	180	36662	4.19 ug/L	99
87) hexachlorobutadiene	15.999	225	20160	4.57 ug/L	98
88) naphthalene	16.072	128	57530	3.98 ug/L	99
89) 1,2,3-trichlorobenzene	16.370	180	31387	4.24 ug/L	100
90) 2-methylnaphthalene	17.480	142	23155	3.96 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 10P0707.D
Acq On : 7 Jul 2015 16:54
Operator : BAG
Sample : STD3
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 08 08:31:25 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 10P0707.D
Acq On : 7 Jul 2015 16:54
Operator : BAG
Sample : STD3
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 08 08:31:25 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	836518	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.286	117	642768	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.280	152	349856	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	230002	41.00	ug/L	-0.01
Spiked Amount 40.000			Recovery = 102.50%			
37) #1,2-Dichloroethane-d4	5.318	67	143210	43.07	ug/L	-0.01
Spiked Amount 40.000			Recovery = 107.68%			
47) #Toluene-d8	8.342	98	829970	40.65	ug/L	0.00
Spiked Amount 40.000			Recovery = 101.62%			
65) #4-Bromofluorobenzene	11.829	95	334587	41.52	ug/L	0.00
Spiked Amount 40.000			Recovery = 103.80%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.038	85	80794	10.29	ug/L	99
3) chloromethane	1.197	50	60502	9.89	ug/L	99
4) vinyl chloride	1.221	62	78155	9.89	ug/L	99
5) bromomethane	1.422	94	26883	13.36	ug/L	99
6) chloroethane	1.489	64	44324	9.96	ug/L	99
7) dichlorofluoromethane	1.623	67	130036	10.64	ug/L	99
8) trichlorofluoromethane	1.648	101	119479	10.69	ug/L	100
9) ethyl ether	1.855	74	37857	10.29	ug/L	97
10) acrolein	1.965	56	10426	10.43	ug/L	99
11) 1,1,2-trichloro-1,2,2-...	2.020	101	87953	9.86	ug/L	99
12) 1,1-dichloroethene	2.020	96	71668	9.37	ug/L	93
13) acetone	2.093	43	36629	12.83	ug/L	96
14) iodomethane	2.148	142	29382	11.22	ug/L	97
15) carbon disulfide	2.184	76	153693	10.20	ug/L	100
16) methyl acetate	2.355	43	46829	9.99	ug/L	97
17) methylene chloride	2.440	49	99179	10.27	ug/L	97
18) acrylonitrile	2.702	53	25269	10.64	ug/L	97
19) trans-1,2-dichloroethene	2.684	96	66280	9.62	ug/L	96
20) methyl (tert) butyl ether	2.690	73	167140	9.70	ug/L	99
21) 1,1-dichloroethane	3.141	63	122600	9.86	ug/L	100
22) vinyl acetate	3.239	43	98988	10.52	ug/L	98
23) 2,2-dichloropropane	3.873	77	75746	9.28	ug/L	100
24) cis-1,2-dichloroethene	3.897	96	73102	9.76	ug/L	96
25) 2-butanone (MEK)	3.983	43	23688	9.36	ug/L	95
26) bromochloromethane	4.263	49	57857	10.28	ug/L	97
27) tetrahydrofuran	4.336	71	6093	9.41	ug/L	87
28) chloroform	4.428	83	126048	10.28	ug/L	98
30) 1,1,1-trichloroethane	4.659	97	101289	9.75	ug/L	98
31) cyclohexane	4.702	56	119242	9.57	ug/L	99
32) carbon tetrachloride	4.934	117	81987	9.48	ug/L	99
33) 1,1-dichloropropene	4.970	75	94508	9.60	ug/L	99
34) benzene	5.360	78	276048	9.83	ug/L #	68
35) 1,2-dichloroethane	5.458	62	99053	11.01	ug/L	99
36) heptane	5.891	57	30544	No Calib		
38) trichloroethene	6.494	130	73403	9.18	ug/L	98
39) methylcyclohexane	6.732	83	111684	9.33	ug/L	97
40) 1,2-dichloropropane	6.866	63	65988	9.68	ug/L	99
41) dibromomethane	7.049	93	40683	10.15	ug/L	97
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 10P0707.D
Acq On : 7 Jul 2015 16:54
Operator : BAG
Sample : STD3
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 08 08:31:25 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

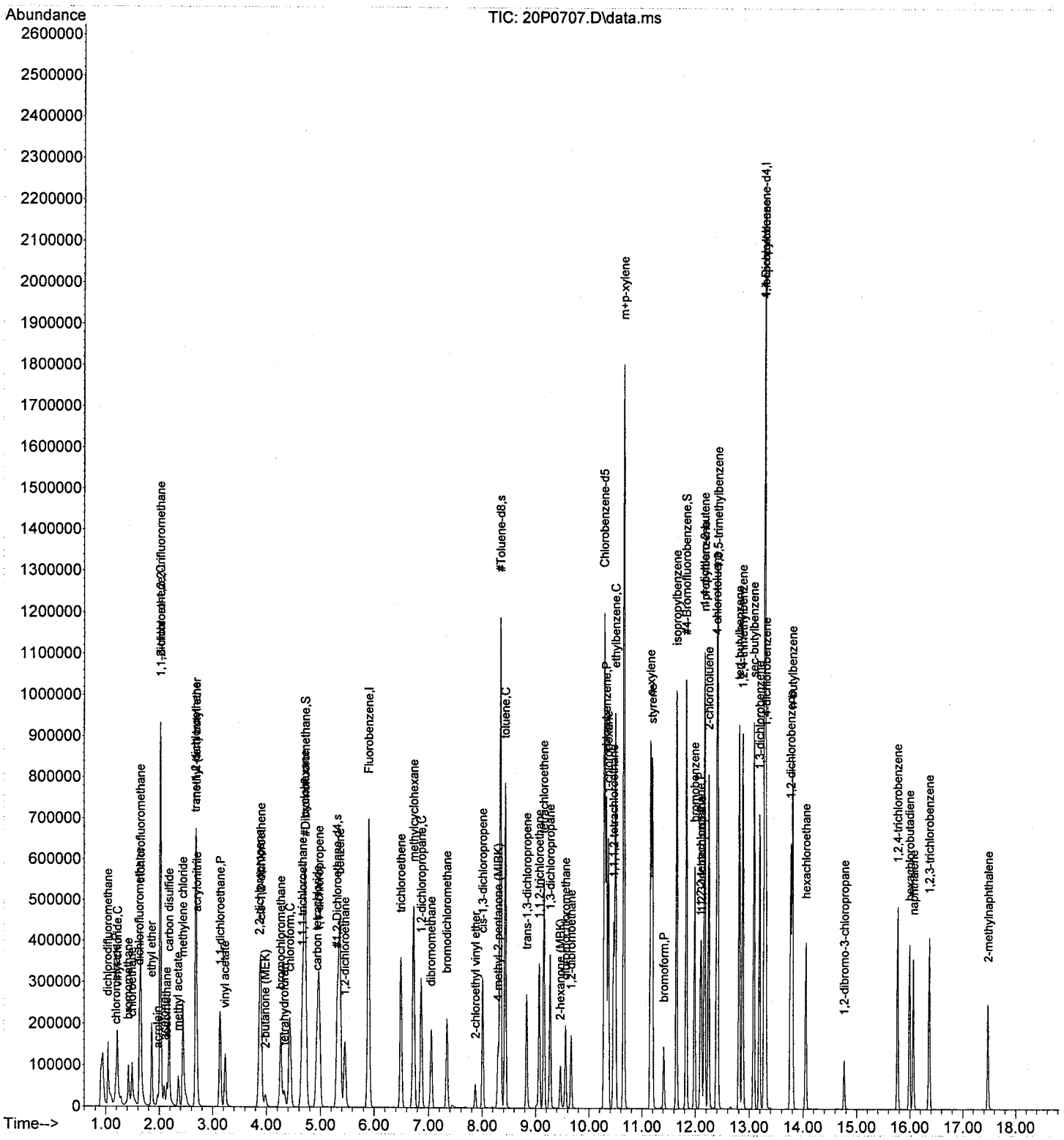
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.342	83	76656	9.96 ug/L	100
44) 2-chloroethyl vinyl ether	7.872	63	10090	9.15 ug/L	96
45) cis-1,3-dichloropropene	8.006	75	84077	9.59 ug/L	95
46) 4-methyl-2-pentanone (...	8.299	43	50661	9.88 ug/L #	90
48) toluene	8.433	91	289118	9.62 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	66896	9.90 ug/L	97
50) 1,1,2-trichloroethane	9.067	83	47947	9.96 ug/L	99
52) tetrachloroethene	9.152	166	84351	8.85 ug/L	98
53) 1,3-dichloropropane	9.274	76	107027	9.90 ug/L	98
54) 2-hexanone (MBK)	9.463	43	31076	8.99 ug/L	95
55) dibromochloromethane	9.561	129	51653	10.00 ug/L	98
56) 1,2-dibromoethane	9.664	109	54970	9.71 ug/L	100
57) chlorobenzene	10.323	112	190769	9.55 ug/L	96
58) 1-chlorohexane	10.359	55	73783	10.16 ug/L	88
59) 1,1,1,2-tetrachloroethane	10.463	131	58337	9.40 ug/L	99
60) ethylbenzene	10.500	91	335753	9.76 ug/L	98
61) m+p-xylene	10.658	106	254393	19.32 ug/L	96
62) o-xylene	11.158	106	118346	9.58 ug/L	98
63) styrene	11.189	104	202968	9.86 ug/L	96
64) bromoform	11.414	173	32106	9.81 ug/L	97
67) isopropylbenzene	11.652	105	313560	9.43 ug/L	99
68) bromobenzene	11.987	77	124584	9.95 ug/L	96
69) 1,1,2,2-tetrachloroethane	12.097	83	72135	9.93 ug/L #	99
70) 1,2,3-trichloropropane	12.115	110	23185	9.75 ug/L	94
71) 1,4-dichloro-2-butene	12.170	53	19138	9.78 ug/L #	78
72) n-propylbenzene	12.176	120	83831	9.24 ug/L	94
73) 2-chlorotoluene	12.249	126	73988	9.40 ug/L	92
74) 1,3,5-trimethylbenzene	12.414	105	263076	9.67 ug/L	98
75) 4-chlorotoluene	12.396	91	262461	9.95 ug/L	97
76) tert-butylbenzene	12.810	119	217843	9.48 ug/L	97
77) 1,2,4-trimethylbenzene	12.877	105	255391	9.82 ug/L	98
78) sec-butylbenzene	13.085	105	301787	9.39 ug/L	99
79) 1,3-dichlorobenzene	13.188	146	145419	9.51 ug/L	99
80) 4-isopropyltoluene	13.286	119	264028	9.45 ug/L	99
81) 1,4-dichlorobenzene	13.310	146	152016	9.69 ug/L	97
82) 1,2-dichlorobenzene	13.767	146	133244	9.52 ug/L	99
83) n-butylbenzene	13.798	91	213272	9.50 ug/L	98
84) hexachloroethane	14.054	201	19947	9.93 ug/L #	75
85) 1,2-dibromo-3-chloropr...	14.767	157	13485	8.31 ug/L	96
86) 1,2,4-trichlorobenzene	15.767	180	75050	8.63 ug/L	99
87) hexachlorobutadiene	15.999	225	38276	8.72 ug/L	98
88) naphthalene	16.066	128	127629	8.88 ug/L	99
89) 1,2,3-trichlorobenzene	16.364	180	65236	8.85 ug/L	98
90) 2-methylnaphthalene	17.474	142	54565	9.38 ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 20P0707.D
Acq On : 7 Jul 2015 17:22
Operator : BAG
Sample : STD4
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 08 08:31:38 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 20P0707.D
Acq On : 7 Jul 2015 17:22
Operator : BAG
Sample : STD4
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 08 08:31:38 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.897	96	838934	40.00 ug/L	-0.01
51) Chlorobenzene-d5	10.286	117	647207	40.00 ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.279	152	350341	40.00 ug/L	0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.714	111	233121	41.44 ug/L	-0.01
Spiked Amount 40.000			Recovery =	103.60%	
37) #1,2-Dichloroethane-d4	5.311	67	144402	43.30 ug/L	-0.02
Spiked Amount 40.000			Recovery =	108.25%	
47) #Toluene-d8	8.341	98	834543	40.75 ug/L	0.00
Spiked Amount 40.000			Recovery =	101.88%	
65) #4-Bromofluorobenzene	11.828	95	336708	41.50 ug/L	0.00
Spiked Amount 40.000			Recovery =	103.75%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	1.038	85	173959	22.10 ug/L	100
3) chloromethane	1.196	50	126627	20.64 ug/L	99
4) vinyl chloride	1.221	62	168095	21.21 ug/L	97
5) bromomethane	1.422	94	58582	24.47 ug/L	98
6) chloroethane	1.489	64	91654	20.55 ug/L	100
7) dichlorofluoromethane	1.623	67	269574	22.00 ug/L	99
8) trichlorofluoromethane	1.647	101	255683	22.81 ug/L	100
9) ethyl ether	1.855	74	75565	20.48 ug/L	97
10) acrolein	1.971	56	20766	20.72 ug/L	98
11) 1,1,2-trichloro-1,2,2-...	2.019	101	192078	21.47 ug/L	98
12) 1,1-dichloroethene	2.019	96	157039	20.48 ug/L	95
13) acetone	2.092	43	60629	24.85 ug/L	94
14) iodomethane	2.141	142	71544	16.77 ug/L	95
15) carbon disulfide	2.184	76	341439	22.60 ug/L	100
16) methyl acetate	2.355	43	96298	20.49 ug/L	97
17) methylene chloride	2.440	49	186817	20.19 ug/L	97
18) acrylonitrile	2.702	53	49593	20.81 ug/L	97
19) trans-1,2-dichloroethene	2.678	96	137236	19.86 ug/L	96
20) methyl (tert) butyl ether	2.690	73	338392	19.58 ug/L	99
21) 1,1-dichloroethane	3.141	63	256014	20.52 ug/L	100
22) vinyl acetate	3.232	43	222272	23.56 ug/L	98
23) 2,2-dichloropropane	3.873	77	169228	20.67 ug/L	99
24) cis-1,2-dichloroethene	3.897	96	149121	19.86 ug/L	96
25) 2-butanone (MEK)	3.976	43	53454	21.05 ug/L	100
26) bromochloromethane	4.263	49	113726	20.14 ug/L	97
27) tetrahydrofuran	4.330	71	13262	20.42 ug/L	93
28) chloroform	4.433	83	252812	20.56 ug/L	100
30) 1,1,1-trichloroethane	4.659	97	220500	21.16 ug/L	97
31) cyclohexane	4.702	56	265446	21.24 ug/L	98
32) carbon tetrachloride	4.933	117	184497	21.28 ug/L	100
33) 1,1-dichloropropene	4.970	75	204180	20.69 ug/L	99
34) benzene	5.360	78	559913	19.87 ug/L	86
35) 1,2-dichloroethane	5.458	62	194921	21.61 ug/L	98
36) heptane	5.891	57	30645	No Calib	
38) trichloroethene	6.494	130	154238	19.23 ug/L	98
39) methylcyclohexane	6.732	83	249429	20.77 ug/L	97
40) 1,2-dichloropropane	6.866	63	132504	19.39 ug/L	99
41) dibromomethane	7.043	93	79993	19.91 ug/L	96
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 20P0707.D
Acq On : 7 Jul 2015 17:22
Operator : BAG
Sample : STD4
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 08 08:31:38 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

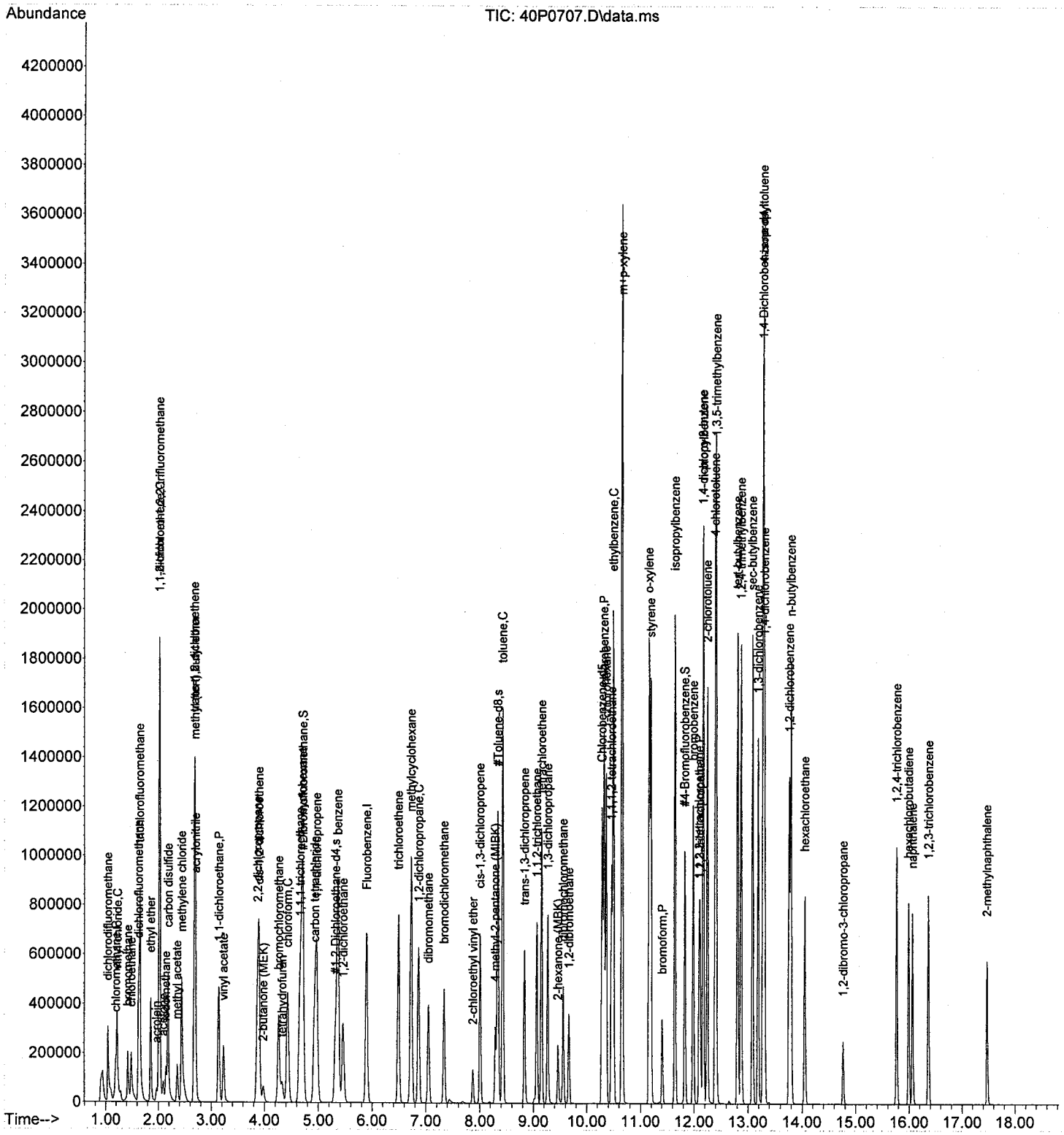
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.341	83	157199	20.37 ug/L	100
44) 2-chloroethyl vinyl ether	7.872	63	26349	18.99 ug/L	98
45) cis-1,3-dichloropropene	8.006	75	181218	18.53 ug/L	95
46) 4-methyl-2-pentanone (...	8.299	43	113129	21.99 ug/L #	97
48) toluene	8.433	91	597916	19.83 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	144109	18.47 ug/L	96
50) 1,1,2-trichloroethane	9.067	83	94942	19.67 ug/L	99
52) tetrachloroethene	9.152	166	178708	18.62 ug/L	99
53) 1,3-dichloropropane	9.274	76	213879	19.66 ug/L	99
54) 2-hexanone (MBK)	9.463	43	75793	21.78 ug/L	96
55) dibromochloromethane	9.561	129	105732	18.09 ug/L	100
56) 1,2-dibromoethane	9.664	109	110963	19.47 ug/L	100
57) chlorobenzene	10.323	112	384882	19.14 ug/L	97
58) 1-chlorohexane	10.359	55	158037	21.62 ug/L	91
59) 1,1,1,2-tetrachloroethane	10.463	131	121528	19.45 ug/L	98
60) ethylbenzene	10.499	91	696058	20.10 ug/L	98
61) m+p-xylene	10.658	106	520911	39.28 ug/L	96
62) o-xylene	11.158	106	244273	19.63 ug/L	97
63) styrene	11.194	104	412498	19.90 ug/L	96
64) bromoform	11.414	173	67345	16.96 ug/L	99
67) isopropylbenzene	11.652	105	663511	19.93 ug/L	99
68) bromobenzene	11.987	77	246042	19.63 ug/L	96
69) 1,1,2,2-tetrachloroethane	12.097	83	142971	19.66 ug/L #	100
70) 1,2,3-trichloropropane	12.115	110	47042	19.76 ug/L	96
71) 1,4-dichloro-2-butene	12.170	53	40432	20.64 ug/L	86
72) n-propylbenzene	12.176	120	179091	19.71 ug/L	95
73) 2-chlorotoluene	12.249	126	151998	19.28 ug/L	94
74) 1,3,5-trimethylbenzene	12.414	105	550079	20.18 ug/L	98
75) 4-chlorotoluene	12.395	91	527559	19.96 ug/L	98
76) tert-butylbenzene	12.810	119	462212	20.08 ug/L	97
77) 1,2,4-trimethylbenzene	12.877	105	526341	20.20 ug/L	98
78) sec-butylbenzene	13.084	105	651501	20.25 ug/L	99
79) 1,3-dichlorobenzene	13.188	146	294450	19.23 ug/L	99
80) 4-isopropyltoluene	13.285	119	557296	19.91 ug/L	99
81) 1,4-dichlorobenzene	13.310	146	296140	18.86 ug/L	98
82) 1,2-dichlorobenzene	13.767	146	264810	18.89 ug/L	99
83) n-butylbenzene	13.798	91	467058	20.77 ug/L	99
84) hexachloroethane	14.054	201	46342	17.11 ug/L #	86
85) 1,2-dibromo-3-chloropr...	14.767	157	30402	16.58 ug/L	94
86) 1,2,4-trichlorobenzene	15.767	180	157631	18.10 ug/L	100
87) hexachlorobutadiene	15.992	225	82071	18.68 ug/L	98
88) naphthalene	16.065	128	278554	19.35 ug/L	99
89) 1,2,3-trichlorobenzene	16.364	180	133605	18.11 ug/L	99
90) 2-methylnaphthalene	17.480	142	127561	21.89 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 40P0707.D
Acq On : 7 Jul 2015 17:51
Operator : BAG
Sample : STD5
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 08 08:31:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 40P0707.D
Acq On : 7 Jul 2015 17:51
Operator : BAG
Sample : STD5
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 08 08:31:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.897	96	833664	40.00 ug/L	-0.01
51) Chlorobenzene-d5	10.286	117	644215	40.00 ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.279	152	348334	40.00 ug/L	0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.714	111	230563	41.24 ug/L	-0.01
Spiked Amount 40.000			Recovery	= 103.10%	
37) #1,2-Dichloroethane-d4	5.318	67	144024	43.46 ug/L	-0.01
Spiked Amount 40.000			Recovery	= 108.65%	
47) #Toluene-d8	8.341	98	830913	40.83 ug/L	0.00
Spiked Amount 40.000			Recovery	= 102.08%	
65) #4-Bromofluorobenzene	11.829	95	334717	41.44 ug/L	0.00
Spiked Amount 40.000			Recovery	= 103.60%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	1.038	85	349764	44.72 ug/L	100
3) chloromethane	1.196	50	267470	43.87 ug/L	100
4) vinyl chloride	1.221	62	342105	43.44 ug/L	95
5) bromomethane	1.422	94	123359	47.51 ug/L	99
6) chloroethane	1.489	64	186769	42.13 ug/L	100
7) dichlorofluoromethane	1.623	67	547823	45.00 ug/L	100
8) trichlorofluoromethane	1.648	101	515231	46.25 ug/L	100
9) ethyl ether	1.855	74	157178	42.87 ug/L	98
10) acrolein	1.965	56	43766	43.94 ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.019	101	383890	43.19 ug/L	99
12) 1,1-dichloroethene	2.019	96	318357	41.77 ug/L	95
13) acetone	2.093	43	104551	47.30 ug/L	96
14) iodomethane	2.141	142	199390	33.81 ug/L	95
15) carbon disulfide	2.184	76	684817	45.62 ug/L	100
16) methyl acetate	2.355	43	199362	42.68 ug/L	98
17) methylene chloride	2.440	49	374069	41.71 ug/L	98
18) acrylonitrile	2.702	53	104813	44.26 ug/L	99
19) trans-1,2-dichloroethene	2.684	96	279857	40.76 ug/L	96
20) methyl (tert) butyl ether	2.690	73	722974	42.11 ug/L	100
21) 1,1-dichloroethane	3.141	63	522028	42.12 ug/L	100
22) vinyl acetate	3.233	43	398883	42.56 ug/L	99
23) 2,2-dichloropropane	3.873	77	362765	44.58 ug/L	98
24) cis-1,2-dichloroethene	3.897	96	307527	41.21 ug/L	96
25) 2-butanone (MEK)	3.976	43	112250	44.49 ug/L	99
26) bromochloromethane	4.263	49	234927	41.88 ug/L	96
27) tetrahydrofuran	4.330	71	28091	43.54 ug/L	95
28) chloroform	4.428	83	522434	42.75 ug/L	100
30) 1,1,1-trichloroethane	4.659	97	463278	44.74 ug/L	98
31) cyclohexane	4.702	56	539661	43.46 ug/L	99
32) carbon tetrachloride	4.934	117	393850	45.70 ug/L	99
33) 1,1-dichloropropene	4.970	75	419586	42.78 ug/L	99
34) benzene	5.360	78	1144799	40.89 ug/L	97
35) 1,2-dichloroethane	5.458	62	402614	44.92 ug/L	98
36) heptane	5.891	57	29988	No Calib	
38) trichloroethene	6.494	130	323983	40.66 ug/L	98
39) methylcyclohexane	6.726	83	513615	43.04 ug/L	98
40) 1,2-dichloropropane	6.866	63	278504	41.01 ug/L	100
41) dibromomethane	7.043	93	167385	41.92 ug/L	96
42) 1,4-dioxane	7.335	88	225	No Calib #	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 40P0707.D
Acq On : 7 Jul 2015 17:51
Operator : BAG
Sample : STD5
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 08 08:31:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

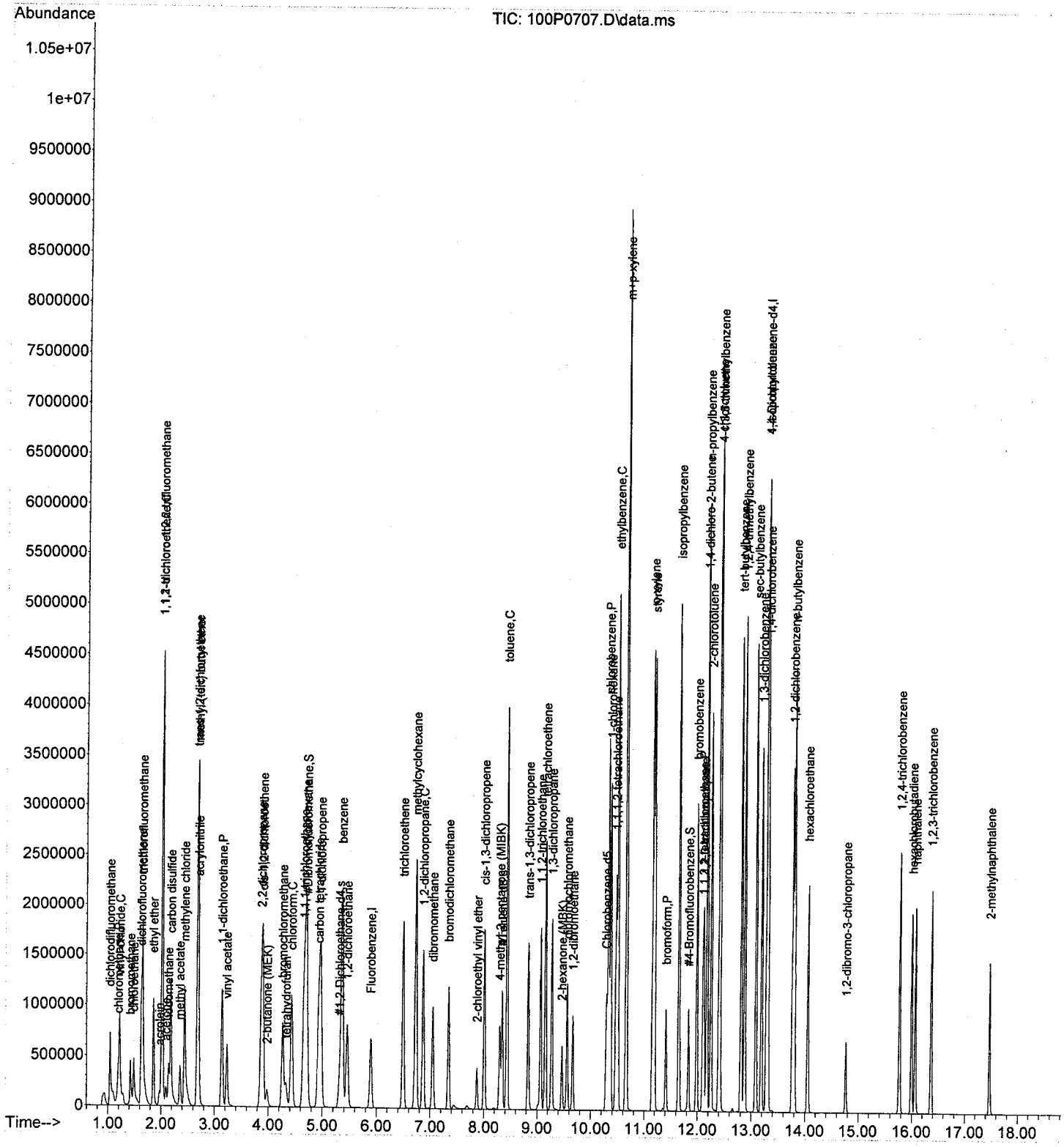
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.342	83	341581	44.54 ug/L	100
44) 2-chloroethyl vinyl ether	7.872	63	64536	42.39 ug/L	98
45) cis-1,3-dichloropropene	8.006	75	404467	39.36 ug/L	96
46) 4-methyl-2-pentanone (...	8.293	43	238679	46.69 ug/L #	99
48) toluene	8.433	91	1232263	41.13 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	331841	39.59 ug/L	97
50) 1,1,2-trichloroethane	9.067	83	198271	41.35 ug/L	100
52) tetrachloroethene	9.158	166	364115	38.12 ug/L	99
53) 1,3-dichloropropane	9.274	76	444720	41.06 ug/L	100
54) 2-hexanone (MBK)	9.463	43	165728	47.85 ug/L	97
55) dibromochloromethane	9.561	129	240855	38.61 ug/L	98
56) 1,2-dibromoethane	9.664	109	233642	41.18 ug/L	100
57) chlorobenzene	10.323	112	788501	39.40 ug/L	98
58) 1-chlorohexane	10.365	55	325349	44.71 ug/L	92
59) 1,1,1,2-tetrachloroethane	10.463	131	263919	42.43 ug/L	98
60) ethylbenzene	10.500	91	1431053	41.52 ug/L	99
61) m+p-xylene	10.658	106	1069402	81.02 ug/L	96
62) o-xylene	11.158	106	507664	40.99 ug/L	97
63) styrene	11.195	104	855507	41.46 ug/L	96
64) bromoform	11.414	173	158106	35.63 ug/L	99
67) isopropylbenzene	11.652	105	1377668	41.62 ug/L	99
68) bromobenzene	11.987	77	510622	40.97 ug/L	97
69) 1,1,2,2-tetrachloroethane	12.097	83	288768	39.94 ug/L #	100
70) 1,2,3-trichloropropane	12.115	110	97938	41.38 ug/L	98
71) 1,4-dichloro-2-butene	12.170	53	89528	45.96 ug/L	95
72) n-propylbenzene	12.176	120	366052	40.52 ug/L	95
73) 2-chlorotoluene	12.249	126	310910	39.67 ug/L	94
74) 1,3,5-trimethylbenzene	12.414	105	1134004	41.84 ug/L	98
75) 4-chlorotoluene	12.395	91	1096361	41.73 ug/L	98
76) tert-butylbenzene	12.810	119	953454	41.66 ug/L	97
77) 1,2,4-trimethylbenzene	12.877	105	1088979	42.04 ug/L	98
78) sec-butylbenzene	13.084	105	1325415	41.43 ug/L	99
79) 1,3-dichlorobenzene	13.188	146	607599	39.90 ug/L	100
80) 4-isopropyltoluene	13.286	119	1149067	41.29 ug/L	98
81) 1,4-dichlorobenzene	13.310	146	610282	39.09 ug/L	99
82) 1,2-dichlorobenzene	13.767	146	556225	39.92 ug/L	99
83) n-butylbenzene	13.798	91	956359	42.78 ug/L	99
84) hexachloroethane	14.054	201	107811	34.03 ug/L	96
85) 1,2-dibromo-3-chloropr...	14.767	157	70077	36.21 ug/L	95
86) 1,2,4-trichlorobenzene	15.767	180	337069	38.93 ug/L	99
87) hexachlorobutadiene	15.992	225	167499	38.34 ug/L	99
88) naphthalene	16.066	128	606139	42.34 ug/L	99
89) 1,2,3-trichlorobenzene	16.370	180	284299	38.75 ug/L	99
90) 2-methylnaphthalene	17.474	142	283253	48.90 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 100P0707.D
Acq On : 7 Jul 2015 18:19
Operator : BAG
Sample : STD6
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 08 08:31:21 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 100P0707.D
Acq On : 7 Jul 2015 18:19
Operator : BAG
Sample : STD6
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 08 08:31:21 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.891	96	822350	40.00 ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	635699	40.00 ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	346780	40.00 ug/L	# 0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.714	111	229082	41.54 ug/L	-0.01
Spiked Amount 40.000			Recovery	= 103.85%	
37) #1,2-Dichloroethane-d4	5.318	67	140494	42.98 ug/L	-0.01
Spiked Amount 40.000			Recovery	= 107.45%	
47) #Toluene-d8	8.341	98	823253	41.01 ug/L	0.00
Spiked Amount 40.000			Recovery	= 102.53%	
65) #4-Bromofluorobenzene	11.829	95	329333	41.32 ug/L	0.00
Spiked Amount 40.000			Recovery	= 103.30%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	1.038	85	864756	112.08 ug/L	100
3) chloromethane	1.196	50	667696	111.02 ug/L	100
4) vinyl chloride	1.221	62	853257	109.84 ug/L	94
5) bromomethane	1.422	94	309206	114.74 ug/L	97
6) chloroethane	1.483	64	452169	103.41 ug/L	99
7) dichlorofluoromethane	1.623	67	1349264	112.35 ug/L	100
8) trichlorofluoromethane	1.648	101	1249033	113.67 ug/L	100
9) ethyl ether	1.855	74	396511	109.64 ug/L	98
10) acrolein	1.971	56	114217	116.26 ug/L #	97
11) 1,1,2-trichloro-1,2,2-...	2.013	101	940644	107.27 ug/L	98
12) 1,1-dichloroethene	2.019	96	784191	104.31 ug/L	95
13) acetone	2.093	43	241953	118.59 ug/L	97
14) iodomethane	2.141	142	631205	92.32 ug/L	96
15) carbon disulfide	2.184	76	1705605	115.19 ug/L	100
16) methyl acetate	2.355	43	514116	111.58 ug/L	98
17) methylene chloride	2.440	49	913133	104.72 ug/L	98
18) acrylonitrile	2.702	53	264717	113.33 ug/L	98
19) trans-1,2-dichloroethene	2.678	96	689834	101.84 ug/L	97
20) methyl (tert) butyl ether	2.690	73	1869202	110.36 ug/L	99
21) 1,1-dichloroethane	3.141	63	1285427	105.13 ug/L	99
22) vinyl acetate	3.233	43	1052100	113.79 ug/L	99
23) 2,2-dichloropropane	3.873	77	927341	115.53 ug/L	98
24) cis-1,2-dichloroethene	3.897	96	755815	102.67 ug/L	96
25) 2-butanone (MEK)	3.976	43	288168	115.78 ug/L	99
26) bromochloromethane	4.263	49	567901	102.62 ug/L	97
27) tetrahydrofuran	4.330	71	74518	117.08 ug/L	96
28) chloroform	4.434	83	1284869	106.58 ug/L	100
30) 1,1,1-trichloroethane	4.659	97	1163907	113.96 ug/L	99
31) cyclohexane	4.696	56	1322159	107.93 ug/L	99
32) carbon tetrachloride	4.934	117	990820	116.56 ug/L	100
33) 1,1-dichloropropene	4.970	75	1024025	105.84 ug/L	99
34) benzene	5.360	78	2801857	101.45 ug/L	95
35) 1,2-dichloroethane	5.458	62	993839	112.41 ug/L	99
36) heptane	5.891	57	29419	No Calib	
38) trichloroethene	6.494	130	796700	101.35 ug/L	98
39) methylcyclohexane	6.726	83	1278514	108.62 ug/L	98
40) 1,2-dichloropropane	6.866	63	688608	102.80 ug/L	100
41) dibromomethane	7.049	93	413172	104.90 ug/L	98
42) 1,4-dioxane	7.329	88	822	No Calib #	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 100P0707.D
Acq On : 7 Jul 2015 18:19
Operator : BAG
Sample : STD6
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 08 08:31:21 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

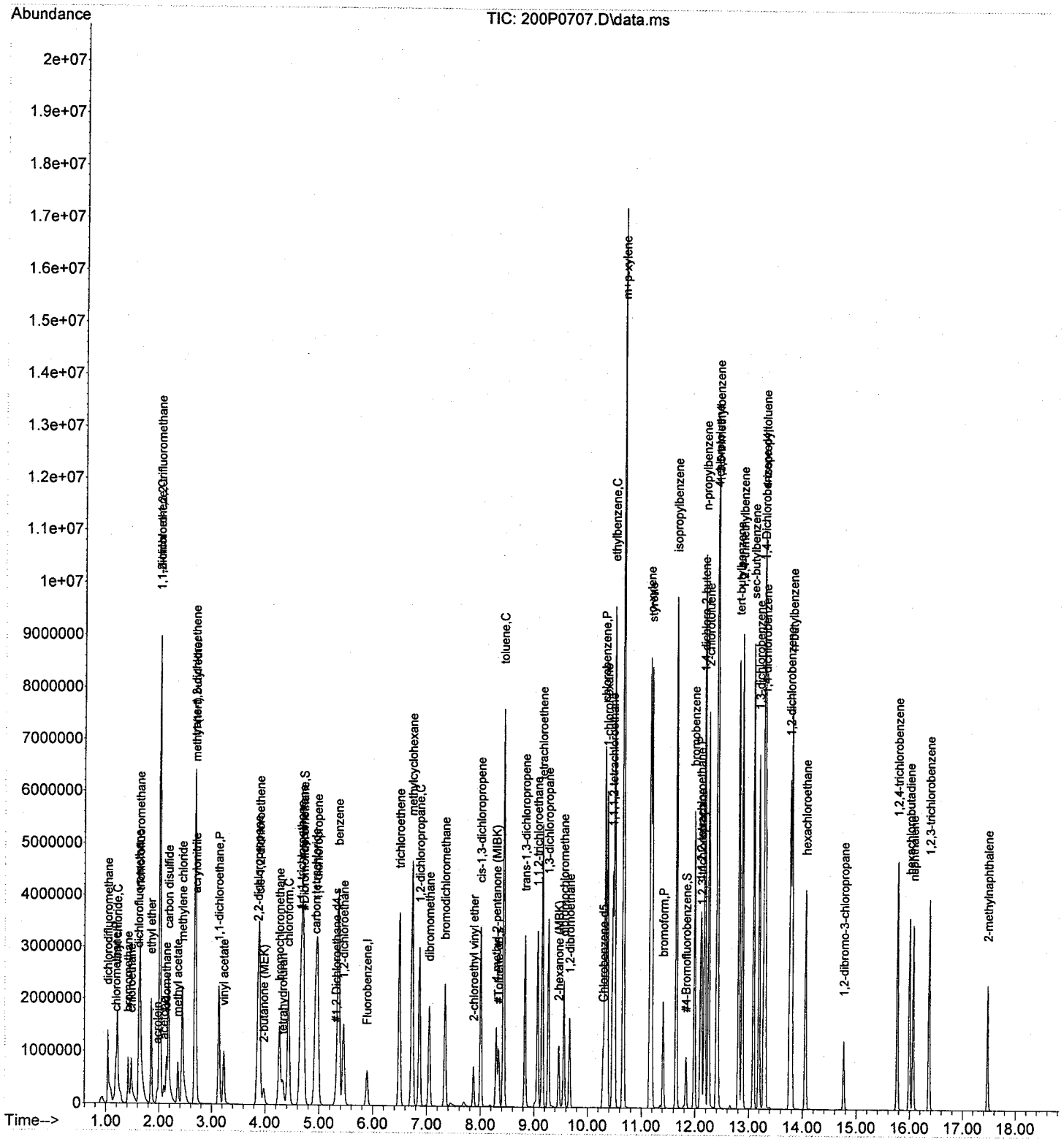
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.342	83	880545	116.41 ug/L	100
44) 2-chloroethyl vinyl ether	7.872	63	185824	117.94 ug/L	99
45) cis-1,3-dichloropropene	8.006	75	1064771	102.03 ug/L	96
46) 4-methyl-2-pentanone (...	8.299	43	625194	123.98 ug/L	97
48) toluene	8.433	91	2990752	101.19 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	893397	103.84 ug/L	97
50) 1,1,2-trichloroethane	9.067	83	491516	103.91 ug/L	100
52) tetrachloroethene	9.158	166	890915	94.51 ug/L	99
53) 1,3-dichloropropane	9.274	76	1106573	103.53 ug/L	100
54) 2-hexanone (MBK)	9.463	43	436855	127.82 ug/L	99
55) dibromochloromethane	9.561	129	642420	100.66 ug/L	100
56) 1,2-dibromoethane	9.664	109	583871	104.29 ug/L	100
57) chlorobenzene	10.323	112	1945167	98.49 ug/L	98
58) 1-chlorohexane	10.365	55	785003	109.33 ug/L	94
59) 1,1,1,2-tetrachloroethane	10.463	131	671820	109.46 ug/L	99
60) ethylbenzene	10.499	91	3516334	103.40 ug/L	98
61) m+p-xylene	10.658	106	2627994	201.77 ug/L	96
62) o-xylene	11.164	106	1250989	102.37 ug/L	96
63) styrene	11.194	104	2129043	104.55 ug/L	96
64) bromoform	11.414	173	449681	96.65 ug/L	99
67) isopropylbenzene	11.652	105	3382413	102.64 ug/L	99
68) bromobenzene	11.987	77	1270864	102.42 ug/L	97
69) 1,1,2,2-tetrachloroethane	12.097	83	720680	100.13 ug/L #	100
70) 1,2,3-trichloropropane	12.115	110	243121	103.19 ug/L	98
71) 1,4-dichloro-2-butene	12.170	53	236701	122.05 ug/L	94
72) n-propylbenzene	12.176	120	905516	100.67 ug/L	95
73) 2-chlorotoluene	12.249	126	769082	98.57 ug/L	94
74) 1,3,5-trimethylbenzene	12.414	105	2810922	104.19 ug/L	98
75) 4-chlorotoluene	12.402	91	2714016	103.76 ug/L	98
76) tert-butylbenzene	12.810	119	2366385	103.86 ug/L	97
77) 1,2,4-trimethylbenzene	12.877	105	2701297	104.74 ug/L	98
78) sec-butylbenzene	13.090	105	3319896	104.24 ug/L	99
79) 1,3-dichlorobenzene	13.194	146	1505939	99.35 ug/L	99
80) 4-isopropyltoluene	13.286	119	2900337	104.69 ug/L	99
81) 1,4-dichlorobenzene	13.310	146	1521435	97.88 ug/L	99
82) 1,2-dichlorobenzene	13.767	146	1406322	101.37 ug/L	99
83) n-butylbenzene	13.798	91	2439511	109.61 ug/L	99
84) hexachloroethane	14.054	201	319752	92.49 ug/L	93
85) 1,2-dibromo-3-chloropr...	14.767	157	188206	94.81 ug/L	95
86) 1,2,4-trichlorobenzene	15.773	180	877856	101.84 ug/L	99
87) hexachlorobutadiene	15.998	225	418576	96.25 ug/L	99
88) naphthalene	16.065	128	1596157	111.99 ug/L	99
89) 1,2,3-trichlorobenzene	16.364	180	741488	101.52 ug/L	99
90) 2-methylnaphthalene	17.474	142	721171	125.05 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 200P0707.D
Acq On : 7 Jul 2015 19:17
Operator : BAG
Sample : STD7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 08 08:31:33 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration



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Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
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Acq On : 7 Jul 2015 19:17
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Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.891	96	789528	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.292	117	614348	40.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.285	152	331683	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	220227	41.60	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	104.00%	
37) #1,2-Dichloroethane-d4	5.318	67	133207	42.44	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	106.10%	
47) #Toluene-d8	8.341	98	790589	41.02	ug/L	0.00
Spiked Amount 40.000			Recovery	=	102.55%	
65) #4-Bromofluorobenzene	11.835	95	314673	40.86	ug/L	0.00
Spiked Amount 40.000			Recovery	=	102.15%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.038	85	1685047	227.48	ug/L	100
3) chloromethane	1.190	50	1323562	229.21	ug/L	100
4) vinyl chloride	1.215	62	1684595	225.87	ug/L	94
5) bromomethane	1.416	94	618937	235.02	ug/L	98
6) chloroethane	1.477	64	802358	191.12	ug/L	99
7) dichlorofluoromethane	1.617	67	2637489	228.75	ug/L	100
8) trichlorofluoromethane	1.641	101	2429652	230.31	ug/L	100
9) ethyl ether	1.855	74	749689	215.92	ug/L	98
10) acrolein	1.971	56	208997	221.58	ug/L	99
11) 1,1,2-trichloro-1,2,2-...	2.013	101	1837643	218.28	ug/L	98
12) 1,1-dichloroethene	2.013	96	1545373	214.11	ug/L	96
13) acetone	2.093	43	446587	233.22	ug/L	97
14) iodomethane	2.141	142	1452582	211.04	ug/L	95
15) carbon disulfide	2.178	76	3294263	231.74	ug/L	100
16) methyl acetate	2.355	43	987485	223.23	ug/L	98
17) methylene chloride	2.440	49	1756805	210.86	ug/L	98
18) acrylonitrile	2.702	53	492252	219.51	ug/L	99
19) trans-1,2-dichloroethene	2.678	96	1343731	206.63	ug/L	97
20) methyl (tert) butyl ether	2.690	73	3587260	220.60	ug/L	99
21) 1,1-dichloroethane	3.135	63	2510864	213.89	ug/L	100
22) vinyl acetate	3.233	43	1735205	195.47	ug/L	99
23) 2,2-dichloropropane	3.867	77	1804884	234.21	ug/L	98
24) cis-1,2-dichloroethene	3.897	96	1465735	207.38	ug/L	96
25) 2-butanone (MEK)	3.976	43	523661	219.14	ug/L	99
26) bromochloromethane	4.263	49	1063251	200.12	ug/L	97
27) tetrahydrofuran	4.324	71	138811	227.15	ug/L	97
28) chloroform	4.427	83	2496433	215.68	ug/L	100
30) 1,1,1-trichloroethane	4.659	97	2310346	235.61	ug/L	100
31) cyclohexane	4.696	56	2576546	219.08	ug/L	99
32) carbon tetrachloride	4.933	117	1987711	243.56	ug/L	99
33) 1,1-dichloropropene	4.970	75	2011645	216.56	ug/L	99
34) benzene	5.360	78	5428868	204.74	ug/L	92
35) 1,2-dichloroethane	5.458	62	1874496	220.83	ug/L	98
36) heptane	5.891	57	28920	No Calib		
38) trichloroethene	6.494	130	1585625	210.10	ug/L	98
39) methylcyclohexane	6.726	83	2450952	216.88	ug/L	98
40) 1,2-dichloropropane	6.866	63	1319646	205.19	ug/L	100
41) dibromomethane	7.049	93	786017	207.86	ug/L	97
42) 1,4-dioxane	7.335	88	1806	No Calib	#	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : 200P0707.D
Acq On : 7 Jul 2015 19:17
Operator : BAG
Sample : STD7
Misc :
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Quant Time: Jul 08 08:31:33 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN56.M
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QLast Update : Wed Jul 01 07:42:34 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.341	83	1720391	236.89 ug/L	100
44) 2-chloroethyl vinyl ether	7.872	63	359562	234.63 ug/L	99
45) cis-1,3-dichloropropene	8.006	75	2075189	205.25 ug/L	96
46) 4-methyl-2-pentanone (...	8.299	43	1140347	235.54 ug/L	97
48) toluene	8.433	91	5791849	204.11 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	1750072	209.33 ug/L	98
50) 1,1,2-trichloroethane	9.067	83	924689	203.61 ug/L	100
52) tetrachloroethene	9.158	166	1741268	191.14 ug/L	99
53) 1,3-dichloropropane	9.274	76	2068969	200.31 ug/L	100
54) 2-hexanone (MBK)	9.469	43	800652	242.40 ug/L	99
55) dibromochloromethane	9.561	129	1277386	204.81 ug/L	100
56) 1,2-dibromoethane	9.670	109	1100854	203.47 ug/L	100
57) chlorobenzene	10.323	112	3751643	196.56 ug/L	98
58) 1-chlorohexane	10.365	55	1510762	217.72 ug/L	96
59) 1,1,1,2-tetrachloroethane	10.469	131	1318594	222.30 ug/L	99
60) ethylbenzene	10.499	91	6778251	206.24 ug/L	99
61) m+p-xylene	10.664	106	5069277	402.74 ug/L	96
62) o-xylene	11.164	106	2399904	203.22 ug/L	97
63) styrene	11.194	104	4047192	205.65 ug/L	96
64) bromoform	11.414	173	902265	197.20 ug/L	99
67) isopropylbenzene	11.652	105	6509372	206.52 ug/L	99
68) bromobenzene	11.987	77	2425275	204.36 ug/L	97
69) 1,1,2,2-tetrachloroethane	12.103	83	1310780	190.40 ug/L #	100
70) 1,2,3-trichloropropane	12.121	110	442977	196.57 ug/L	99
71) 1,4-dichloro-2-butene	12.170	53	444081	239.40 ug/L	91
72) n-propylbenzene	12.182	120	1739147	202.16 ug/L	96
73) 2-chlorotoluene	12.255	126	1465142	196.33 ug/L	94
74) 1,3,5-trimethylbenzene	12.420	105	5381814	208.56 ug/L	98
75) 4-chlorotoluene	12.402	91	5193109	207.58 ug/L	98
76) tert-butylbenzene	12.816	119	4504884	206.71 ug/L	98
77) 1,2,4-trimethylbenzene	12.877	105	5132495	208.07 ug/L	98
78) sec-butylbenzene	13.090	105	6299329	206.79 ug/L	99
79) 1,3-dichlorobenzene	13.194	146	2850261	196.59 ug/L	99
80) 4-isopropyltoluene	13.292	119	5462738	206.16 ug/L	99
81) 1,4-dichlorobenzene	13.316	146	2850045	191.71 ug/L	99
82) 1,2-dichlorobenzene	13.767	146	2619540	197.42 ug/L	99
83) n-butylbenzene	13.804	91	4542509	213.40 ug/L	100
84) hexachloroethane	14.060	201	659234	194.19 ug/L #	88
85) 1,2-dibromo-3-chloropr...	14.767	157	355576	185.62 ug/L	95
86) 1,2,4-trichlorobenzene	15.773	180	1621454	196.67 ug/L	99
87) hexachlorobutadiene	15.998	225	768393	184.73 ug/L	99
88) naphthalene	16.065	128	2889194	211.94 ug/L	99
89) 1,2,3-trichlorobenzene	16.370	180	1345617	192.63 ug/L	100
90) 2-methylnaphthalene	17.474	142	1150351	208.54 ug/L	99

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

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Laboratory ID: 5G22021-SCV1
Sequence: 5G22021

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWM
Standard ID: 5070222
Calibration: 5G22019

Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
Acetone	40.0	37.9	95	80-120
Benzene	40.0	41.9	105	80-120
Bromobenzene	40.0	41.8	105	80-120
Bromochloromethane	40.0	41.9	105	80-120
Bromodichloromethane	40.0	45.2	113	80-120
Bromoform	40.0	36.9	92	80-120
Bromomethane	40.0	45.0	113	80-120
n-Butylbenzene	40.0	43.7	109	80-120
sec-Butylbenzene	40.0	44.0	110	80-120
tert-Butylbenzene	40.0	43.5	109	80-120
Carbon Disulfide	40.0	41.7	104	80-120
Carbon Tetrachloride	40.0	44.6	112	80-120
Chlorobenzene	40.0	41.5	104	80-120
Chloroethane	40.0	38.0	95	80-120
Chloroform	40.0	41.7	104	80-120
Chloromethane	40.0	46.5	116	80-120
2-Chlorotoluene	40.0	42.8	107	80-120
4-Chlorotoluene	40.0	42.0	105	80-120
Cyclohexane	40.0	42.8	107	80-120
1,2-Dibromo-3-chloropropane	40.0	41.5	104	80-120
Dibromochloromethane	40.0	38.7	97	80-120
1,2-Dibromoethane	40.0	42.5	106	80-120
Dibromomethane	40.0	42.4	106	80-120
1,2-Dichlorobenzene	40.0	42.0	105	80-120
1,3-Dichlorobenzene	40.0	41.4	104	80-120
1,4-Dichlorobenzene	40.0	40.3	101	80-120
1,1-Dichloroethane	40.0	43.4	109	80-120

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Laboratory ID: 5G22021-SCV1
Sequence: 5G22021

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWM
Standard ID: 5070222
Calibration: 5G22019

Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
1,2-Dichloroethane	40.0	42.3	106	80-120
1,1-Dichloroethene	40.0	45.7	114	80-120
cis-1,2-Dichloroethene	40.0	41.2	103	80-120
trans-1,2-Dichloroethene	40.0	44.3	111	80-120
1,2-Dichloropropane	40.0	43.4	109	80-120
1,3-Dichloropropane	40.0	40.7	102	80-120
2,2-Dichloropropane	40.0	41.0	103	80-120
1,1-Dichloropropene	40.0	45.6	114	80-120
cis-1,3-Dichloropropene	40.0	38.3	96	80-120
trans-1,3-Dichloropropene	40.0	42.1	105	80-120
Ethylbenzene	40.0	42.3	106	80-120
Hexachlorobutadiene	40.0	47.6	119	80-120
2-Hexanone	40.0	40.4	101	80-120
Isopropylbenzene	40.0	40.7	102	80-120
4-Isopropyltoluene	40.0	42.6	107	80-120
Methyl Acetate	40.0	38.7	97	80-120
Methyl tert-Butyl Ether	40.0	41.9	105	80-120
Methylcyclohexane	40.0	42.6	107	80-120
Methylene Chloride	40.0	41.6	104	80-120
2-Butanone (MEK)	40.0	39.3	98	80-120
4-Methyl-2-pentanone (MIBK)	40.0	41.0	103	80-120
Naphthalene	40.0	45.5	114	80-120
n-Propylbenzene	40.0	43.5	109	80-120
Styrene	40.0	41.6	104	80-120
1,1,1,2-Tetrachloroethane	40.0	44.2	111	80-120
1,1,2,2-Tetrachloroethane	40.0	39.8	100	80-120
Tetrachloroethene	40.0	41.8	105	80-120

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Laboratory ID: 5G22021-SCV1
Sequence: 5G22021

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWM
Standard ID: 5070222
Calibration: 5G22019

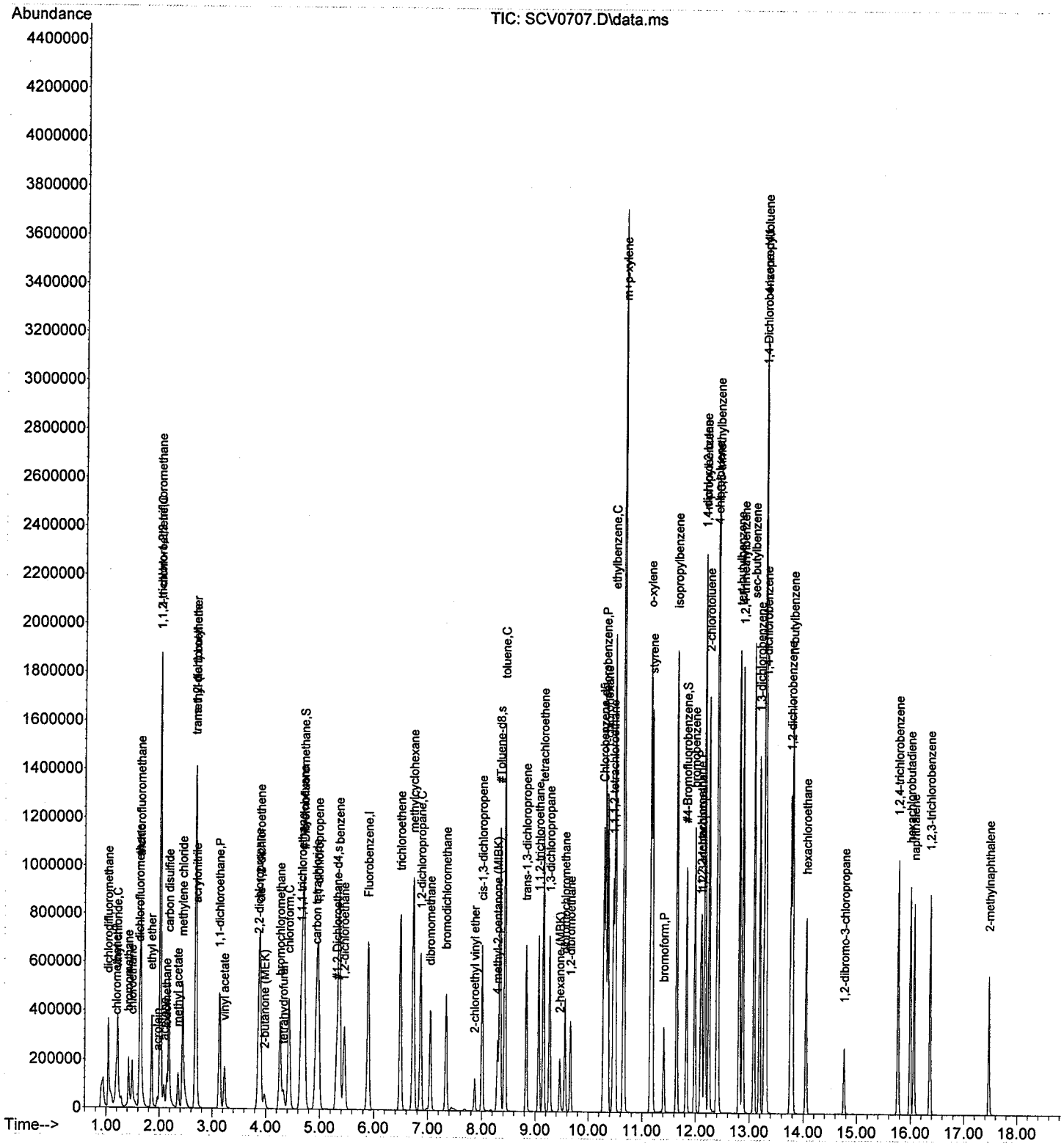
Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
Toluene	40.0	42.0	105	80-120
1,2,3-Trichlorobenzene	40.0	45.0	113	80-120
1,2,4-Trichlorobenzene	40.0	45.0	113	80-120
1,1,1-Trichloroethane	40.0	43.0	108	80-120
1,1,2-Trichloroethane	40.0	41.2	103	80-120
Trichloroethene	40.0	45.7	114	80-120
Trichlorofluoromethane	40.0	41.8	105	80-120
1,2,3-Trichloropropane	40.0	42.6	107	80-120
1,1,2-Trichloro-1,2,2-trifluoroethane	40.0	39.3	98	80-120
1,2,4-Trimethylbenzene	40.0	43.4	109	80-120
1,3,5-Trimethylbenzene	40.0	41.9	105	80-120
Vinyl Chloride	40.0	40.8	102	80-120
Xylene, Meta + Para	80.0	85.1	106	80-120
Xylene, Ortho	40.0	43.3	108	80-120
Xylene (Total)	120	128	107	80-120
Dibromofluoromethane	40.0	40.0	100	80-120
1,2-Dichloroethane-d4	40.0	39.8	100	80-120
Toluene-d8	40.0	40.3	101	80-120
4-Bromofluorobenzene	40.0	40.0	100	80-120

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : SCV0707.D
Acq On : 7 Jul 2015 20:42
Operator : BAG
Sample : SCV
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 22 11:47:15 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 22 11:46:08 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : SCV0707.D
Acq On : 7 Jul 2015 20:42
Operator : BAG
Sample : SCV
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 22 11:47:15 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 22 11:46:08 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.891	96	817164	40.00	ug/L	0.00
51) Chlorobenzene-d5	10.286	117	631982	40.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.279	152	341242	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.708	111	226038	40.00	ug/L	0.00
Spiked Amount 40.000			Recovery = 100.00%			
37) #1,2-Dichloroethane-d4	5.318	67	139906	39.81	ug/L	0.00
Spiked Amount 40.000			Recovery = 99.53%			
47) #Toluene-d8	8.341	98	819105	40.31	ug/L	0.00
Spiked Amount 40.000			Recovery = 100.78%			
65) #4-Bromofluorobenzene	11.828	95	327506	39.97	ug/L	0.00
Spiked Amount 40.000			Recovery = 99.92%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.038	85	406627	49.00	ug/L	100
3) chloromethane	1.196	50	292718	46.47	ug/L	99
4) vinyl chloride	1.215	62	331494	40.79	ug/L	99
5) bromomethane	1.422	94	134323	45.01	ug/L	99
6) chloroethane	1.489	64	169067	38.01	ug/L	100
7) dichlorofluoromethane	1.623	67	554571	42.17	ug/L	100
8) trichlorofluoromethane	1.648	101	506633	41.80	ug/L	100
9) ethyl ether	1.855	74	145080	38.30	ug/L	98
10) acrolein	1.965	56	34628	32.80	ug/L	97
11) 1,1,2-trichloro-1,2,2-...	2.013	101	359602	39.33	ug/L	99
12) 1,1-dichloroethene	2.019	96	347990	45.70	ug/L	100
13) acetone	2.093	43	99556	37.92	ug/L	100
14) iodomethane	2.141	142	198231	33.85	ug/L	99
15) carbon disulfide	2.184	76	697746	41.70	ug/L	100
16) methyl acetate	2.355	43	185425	38.74	ug/L	100
17) methylene chloride	2.440	49	382627	41.59	ug/L	99
18) acrylonitrile	2.702	53	98642	39.77	ug/L	100
19) trans-1,2-dichloroethene	2.678	96	296655	44.34	ug/L	100
20) methyl (tert) butyl ether	2.684	73	712580	41.89	ug/L	100
21) 1,1-dichloroethane	3.135	63	537852	43.36	ug/L	100
22) vinyl acetate	3.233	43	296682	30.48	ug/L	99
23) 2,2-dichloropropane	3.867	77	333423	41.03	ug/L	100
24) cis-1,2-dichloroethene	3.897	96	311423	41.23	ug/L	99
25) 2-butanone (MEK)	3.976	43	103750	39.33	ug/L	99
26) bromochloromethane	4.263	49	237615	41.91	ug/L	100
27) tetrahydrofuran	4.324	71	26175	37.20	ug/L	97
28) chloroform	4.427	83	525098	41.67	ug/L	100
30) 1,1,1-trichloroethane	4.659	97	459877	42.99	ug/L	99
31) cyclohexane	4.696	56	525709	42.77	ug/L	100
32) carbon tetrachloride	4.933	117	393386	44.65	ug/L	99
33) 1,1-dichloropropene	4.970	75	442583	45.58	ug/L	100
34) benzene	5.354	78	1144926	41.88	ug/L	100
35) 1,2-dichloroethane	5.452	62	412047	42.32	ug/L	100
36) heptane	5.891	57	29543	No Calib		
38) trichloroethene	6.494	130	348480	45.68	ug/L	100
39) methylcyclohexane	6.726	83	495533	42.62	ug/L	100
40) 1,2-dichloropropane	6.866	63	286071	43.44	ug/L	100
41) dibromomethane	7.043	93	171012	42.38	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-07-15\
InstName : 328
Data File : SCV0707.D
Acq On : 7 Jul 2015 20:42
Operator : BAG
Sample : SCV
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 22 11:47:15 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 22 11:46:08 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.342	83	355347	45.22 ug/L	99
44) 2-chloroethyl vinyl ether	7.866	63	60200	35.69 ug/L	99
45) cis-1,3-dichloropropene	8.006	75	390941	38.30 ug/L	100
46) 4-methyl-2-pentanone (...	8.293	43	222165	41.00 ug/L #	99
48) toluene	8.433	91	1221363	41.96 ug/L	99
49) trans-1,3-dichloropropene	8.829	75	359944	42.10 ug/L	99
50) 1,1,2-trichloroethane	9.067	83	193865	41.22 ug/L	99
52) tetrachloroethene	9.152	166	369195	41.81 ug/L	100
53) 1,3-dichloropropane	9.274	76	432606	40.74 ug/L	99
54) 2-hexanone (MBK)	9.463	43	152693	40.45 ug/L	99
55) dibromochloromethane	9.561	129	239032	38.70 ug/L	100
56) 1,2-dibromoethane	9.664	109	232809	42.47 ug/L	100
57) chlorobenzene	10.323	112	793651	41.54 ug/L	100
58) 1-chlorohexane	10.359	55	314817	41.86 ug/L	99
59) 1,1,1,2-tetrachloroethane	10.463	131	262659	44.21 ug/L	99
60) ethylbenzene	10.493	91	1421046	42.31 ug/L	100
61) m+p-xylene	10.658	106	1072439	85.06 ug/L	99
62) o-xylene	11.158	106	506899	43.28 ug/L	100
63) styrene	11.194	104	823552	41.58 ug/L	100
64) bromoform	11.408	173	155816	36.88 ug/L	100
67) isopropylbenzene	11.652	105	1281609	40.72 ug/L	100
68) bromobenzene	11.981	77	509868	41.80 ug/L	99
69) 1,1,2,2-tetrachloroethane	12.097	83	275372	39.80 ug/L #	100
70) 1,2,3-trichloropropane	12.115	110	97928	42.62 ug/L	98
71) 1,4-dichloro-2-butene	12.170	53	88290	39.61 ug/L	98
72) n-propylbenzene	12.176	120	368388	43.53 ug/L	99
73) 2-chlorotoluene	12.249	126	315143	42.79 ug/L	99
74) 1,3,5-trimethylbenzene	12.414	105	1103173	41.90 ug/L	100
75) 4-chlorotoluene	12.395	91	1085024	42.02 ug/L	100
76) tert-butylbenzene	12.810	119	948744	43.50 ug/L	100
77) 1,2,4-trimethylbenzene	12.877	105	1089946	43.44 ug/L	100
78) sec-butylbenzene	13.084	105	1339121	44.01 ug/L	100
79) 1,3-dichlorobenzene	13.188	146	599672	41.41 ug/L	99
80) 4-isopropyltoluene	13.285	119	1136685	42.56 ug/L	100
81) 1,4-dichlorobenzene	13.310	146	596464	40.31 ug/L	100
82) 1,2-dichlorobenzene	13.767	146	553445	42.05 ug/L	100
83) n-butylbenzene	13.798	91	950994	43.69 ug/L	100
84) hexachloroethane	14.054	201	103987	35.15 ug/L	99
85) 1,2-dibromo-3-chloropr...	14.767	157	73071	41.54 ug/L	98
86) 1,2,4-trichlorobenzene	15.767	180	349561	45.05 ug/L	99
87) hexachlorobutadiene	15.992	225	189636	47.65 ug/L	100
88) naphthalene	16.065	128	674395	45.47 ug/L	100
89) 1,2,3-trichlorobenzene	16.364	180	296047	44.97 ug/L	99
90) 2-methylnaphthalene	17.474	142	272733	39.59 ug/L	100

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

CONTINUING CALIBRATION CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Lab Sample ID: 5G21046-CCV1
Lab File ID: CCV0720B.D
Injection Date: 07/20/15
Injection Time: 22:50
Calibration Date: 07/07/15 11:44
Calibration: 5G22019
Sequence: 5G21046
Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	L	40.0	39.6	0.1581096	0.1265937		-0.9	20
Benzene	A	40.0	42.3	1.338062	1.414029		5.7	20
Bromobenzene	A	40.0	39.7	1.429677	1.419427		-0.7	20
Bromochloromethane	A	40.0	41.9	0.2775187	0.2907089		4.8	20
Bromodichloromethane	A	40.0	45.6	0.3846265	0.4383311		14.0	20
Bromoform	L	40.0	39.4	0.2224957	0.2649025	0.1	-1.6	20
Bromomethane	A	40.0	40.9	0.1460647	0.1494707		2.3	20
n-Butylbenzene	A	40.0	41.3	2.55147	2.633126		3.2	20
sec-Butylbenzene	A	40.0	41.2	3.566303	3.668519		2.9	20
tert-Butylbenzene	A	40.0	41.4	2.556824	2.645571		3.5	20
Carbon Disulfide	A	40.0	45.6	0.8191457	0.9336653		14.0	20
Carbon Tetrachloride	A	40.0	47.8	0.4312735	0.5151428		19.4	20
Chlorobenzene	A	40.0	40.9	1.209231	1.235522	0.3	2.2	20
Chloroethane	A	40.0	42.8	0.2177438	0.2332047		7.1	20
Chloroform	A	40.0	42.8	0.6167603	0.660272		7.1	20
Chloromethane	A	40.0	39.0	0.3083327	0.3007992	0.1	-2.4	20
2-Chlorotoluene	A	40.0	40.7	0.8633177	0.8777058		1.7	20
4-Chlorotoluene	A	40.0	40.3	3.026812	3.049367		0.7	20
Cyclohexane	A	40.0	42.1	0.6016682	0.6328408		5.2	20
1,2-Dibromo-3-chloropropane	L	40.0	38.8	0.1739179	0.1991183		-3.0	20
Dibromochloromethane	L	40.0	39.8	0.3400518	0.3895431		-0.6	20
1,2-Dibromoethane	A	40.0	41.1	0.3469878	0.3563889		2.7	20
Dibromomethane	A	40.0	41.5	0.1975408	0.2047317		3.6	20
1,2-Dichlorobenzene	A	40.0	40.7	1.5427	1.568063		1.6	20
1,3-Dichlorobenzene	A	40.0	40.1	1.697491	1.702997		0.3	20
1,4-Dichlorobenzene	A	40.0	39.9	1.734335	1.729159		-0.3	20
1,1-Dichloroethane	A	40.0	42.5	0.6072519	0.6445684	0.1	6.1	20
1,2-Dichloroethane	A	40.0	43.1	0.4765604	0.5131056		7.7	20
1,1-Dichloroethene	A	40.0	42.7	0.3727422	0.3981757		6.8	20

CONTINUING CALIBRATION CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Lab Sample ID: 5G21046-CCV1
Lab File ID: CCV0720B.D
Injection Date: 07/20/15
Injection Time: 22:50
Calibration Date: 07/07/15 11:44
Calibration: 5G22019
Sequence: 5G21046
Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
cis-1,2-Dichloroethene	A	40.0	40.8	0.3697137	0.3766555		1.9	20
trans-1,2-Dichloroethene	A	40.0	42.5	0.3274599	0.3482117		6.3	20
1,2-Dichloropropane	A	40.0	41.9	0.3223503	0.3379034		4.8	20
1,3-Dichloropropane	A	40.0	40.4	0.6720855	0.6794284		1.1	20
2,2-Dichloropropane	A	40.0	43.8	0.3978232	0.4361357		9.6	20
1,1-Dichloropropene	A	40.0	43.5	0.4752839	0.5164584		8.7	20
cis-1,3-Dichloropropene	L	40.0	40.0	0.4352625	0.5013302		0.08	20
trans-1,3-Dichloropropene	L	40.0	39.6	0.3499326	0.4129265		-0.9	20
Ethylbenzene	A	40.0	41.5	2.125973	2.205105		3.7	20
Hexachlorobutadiene	A	40.0	41.3	0.4665421	0.4816971		3.2	20
2-Hexanone	A	40.0	39.1	0.2388987	0.2333389		-2.3	20
Isopropylbenzene	A	40.0	41.2	3.689427	3.801941		3.0	20
4-Isopropyltoluene	A	40.0	41.0	3.130935	3.205213		2.4	20
Methyl Acetate	A	40.0	39.0	0.2343018	0.2286864		-2.4	20
Methyl tert-Butyl Ether	A	40.0	41.6	0.8327118	0.8653279		3.9	20
Methylcyclohexane	A	40.0	42.4	0.5691894	0.6030097		5.9	20
Methylene Chloride	L	40.0	40.9	0.5429746	0.4604546		2.2	20
2-Butanone (MEK)	A	40.0	40.5	0.129117	0.1308634		1.4	20
4-Methyl-2-pentanone (MIBK)	A	40.0	41.8	0.2652608	0.2773627		4.6	20
Naphthalene	L	40.0	37.4	1.613519	1.620176		-6.4	20
n-Propylbenzene	A	40.0	40.8	0.9919429	1.01245		2.1	20
Styrene	A	40.0	42.1	1.253592	1.320224		5.3	20
1,1,1,2-Tetrachloroethane	A	40.0	45.0	0.3760468	0.4234173		12.6	20
1,1,2,2-Tetrachloroethane	A	40.0	38.1	0.8109757	0.7727706	0.3	-4.7	20
Tetrachloroethene	A	40.0	41.1	0.5588961	0.5737342		2.7	20
Toluene	A	40.0	42.7	1.424713	1.522112		6.8	20
1,2,3-Trichlorobenzene	A	40.0	41.0	0.7716816	0.7912243		2.5	20
1,2,4-Trichlorobenzene	A	40.0	42.0	0.9096176	0.9539825		4.9	20
1,1,1-Trichloroethane	A	40.0	45.5	0.5236073	0.5955692		13.7	20

CONTINUING CALIBRATION CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Lab Sample ID: 5G21046-CCV1
Lab File ID: CCV0720B.D
Injection Date: 07/20/15
Injection Time: 22:50
Calibration Date: 07/07/15 11:44
Calibration: 5G22019
Sequence: 5G21046
Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1,2-Trichloroethane	A	40.0	41.7	0.2301965	0.2398173		4.2	20
Trichloroethene	A	40.0	44.1	0.3733909	0.4118355		10.3	20
Trichlorofluoromethane	A	40.0	44.2	0.5932522	0.654862		10.4	20
1,2,3-Trichloropropane	A	40.0	40.1	0.2693042	0.2697201		0.2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	40.0	42.5	0.4475325	0.4755256		6.3	20
1,2,4-Trimethylbenzene	A	40.0	41.2	2.940953	3.032502		3.1	20
1,3,5-Trimethylbenzene	A	40.0	41.1	3.086511	3.173398		2.8	20
Vinyl Chloride	A	40.0	40.2	0.3978456	0.3999498		0.5	20
Xylene, Meta + Para	A	80.0	83.3	0.7979942	0.8304967		4.1	20
Xylene, Ortho	A	40.0	42.3	0.7412316	0.7843596		5.8	20
Xylene (Total)	A	120	126	0.7790733	0.8151176		4.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : CCV0720B.D
Acq On : 20 Jul 2015 22:50
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 23 11:06:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	90	0.01
2		dichlorodifluoromethane	0.406	0.384	5.4	83	0.00
3	P	chloromethane	0.308	0.301	2.3	85	0.00
4	C	vinyl chloride	0.398	0.400	-0.5	88	0.00
5		bromomethane	0.146	0.149	-2.1	91	0.00
6		chloroethane	0.218	0.233	-6.9	94	0.00
7		dichlorofluoromethane	0.644	0.703	-9.2	97	0.00
8		trichlorofluoromethane	0.593	0.655	-10.5	96	0.00
9		ethyl ether	0.185	0.192	-3.8	92	0.00
10		acrolein	0.052	0.049	5.8	84	0.00
11		1,1,2-trichloro-1,2,2-trifl	0.448	0.476	-6.2	93	0.00
12	C	1,1-dichloroethene	0.373	0.398	-6.7	94	0.00
13		acetone	0.158	0.127	19.6	91	0.00
14		iodomethane	0.221	0.228	-3.2	86	0.00
15		carbon disulfide	0.819	0.934	-14.0	103	0.00
16		methyl acetate	0.234	0.229	2.1	86	0.00
17		methylene chloride	0.543	0.460	15.3	93	0.00
18		acrylonitrile	0.121	0.122	-0.8	88	0.00
19		trans-1,2-dichloroethene	0.327	0.348	-6.4	94	0.00
20		methyl (tert) butyl ether	0.833	0.865	-3.8	90	0.00
21	P	1,1-dichloroethane	0.607	0.645	-6.3	93	0.00
22		vinyl acetate	0.476	0.422	11.3	80	0.01
23		2,2-dichloropropane	0.398	0.436	-9.5	90	0.00
24		cis-1,2-dichloroethene	0.370	0.377	-1.9	92	0.01
25		2-butanone (MEK)	0.129	0.131	-1.6	88	0.01
26		bromochloromethane	0.278	0.291	-4.7	93	0.01
27		tetrahydrofuran	0.030	0.032	-6.7	85	0.01
28	C	chloroform	0.617	0.660	-7.0	95	0.01
29	S	#Dibromofluoromethane	0.277	0.292	-5.4	95	0.01
30		1,1,1-trichloroethane	0.524	0.596	-13.7	97	0.01
31		cyclohexane	0.602	0.633	-5.1	88	0.01
32		carbon tetrachloride	0.431	0.515	-19.5	98	0.01
33		1,1-dichloropropene	0.475	0.516	-8.6	93	0.01
34		benzene	1.338	1.414	-5.7	93	0.01
35		1,2-dichloroethane	0.477	0.513	-7.5	96	0.01
36		heptane	0.000	0.000	0.0	0#	0.01
37	s	#1,2-Dichloroethane-d4	0.172	0.176	-2.3	92	0.00
38		trichloroethene	0.373	0.412	-10.5	96	0.01
39		methylcyclohexane	0.569	0.603	-6.0	88	0.01
40	C	1,2-dichloropropane	0.322	0.338	-5.0	91	0.01
41		dibromomethane	0.198	0.205	-3.5	92	0.01
42		1,4-dioxane	0.000	0.000	0.0	0#	-7.34#
43		bromodichloromethane	0.385	0.438	-13.8	97	0.01
44		2-chloroethyl vinyl ether	0.064	0.067	-4.7	78	0.00
45		cis-1,3-dichloropropene	0.435	0.501	-15.2	93	0.01
46		4-methyl-2-pentanone (MIBK)	0.265	0.277	-4.5	87	0.01
47	s	#Toluene-d8	0.995	1.022	-2.7	93	0.01
48	C	toluene	1.425	1.522	-6.8	93	0.00
49		trans-1,3-dichloropropene	0.350	0.413	-18.0	94	0.00
50		1,1,2-trichloroethane	0.230	0.240	-4.3	91	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : CCV0720B.D
Acq On : 20 Jul 2015 22:50
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 23 11:06:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

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

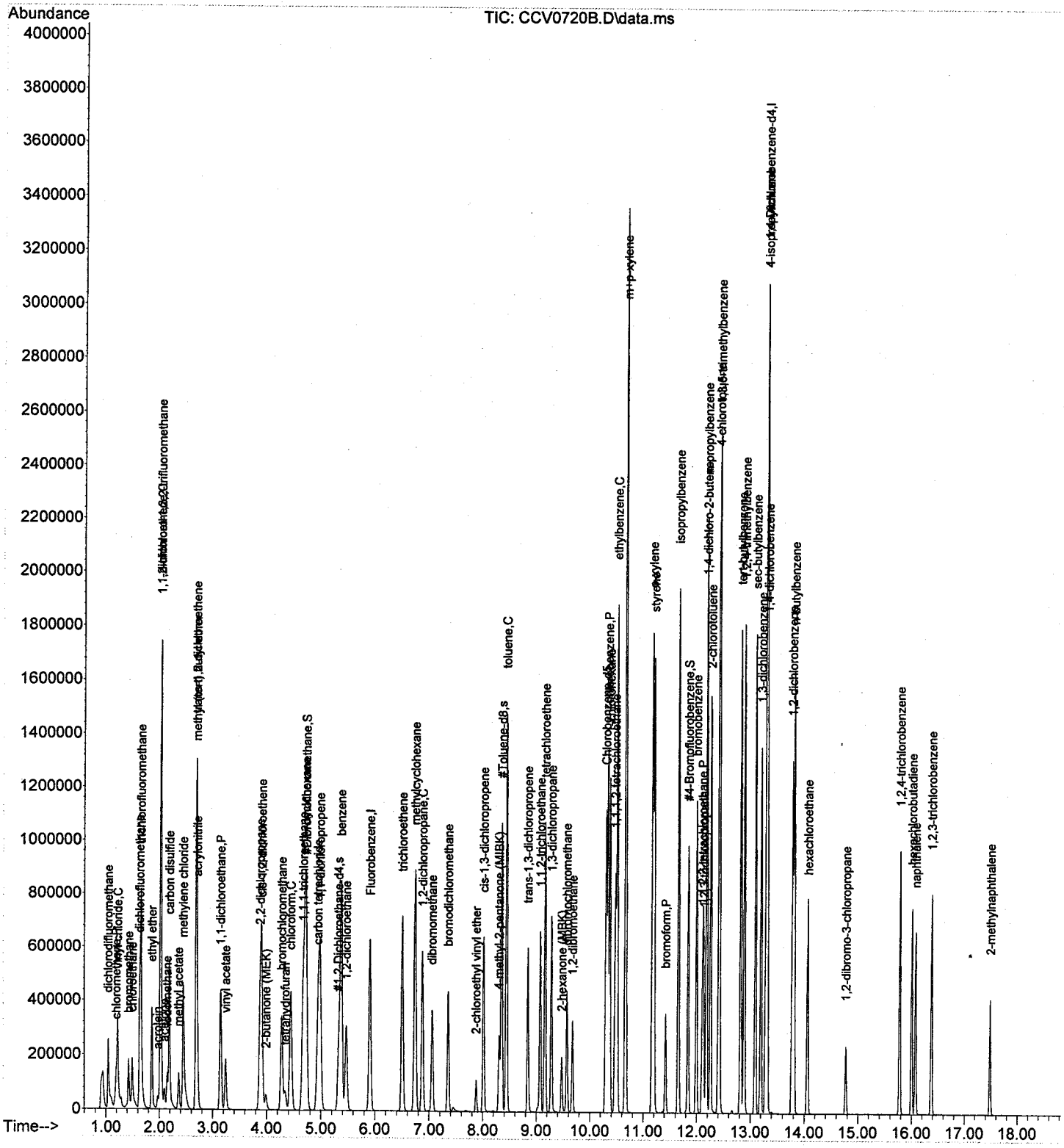
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		Chlorobenzene-d5	1.000	1.000	0.0	94	0.01
52		tetrachloroethene	0.559	0.574	-2.7	95	0.00
53		1,3-dichloropropane	0.672	0.679	-1.0	92	0.00
54		2-hexanone (MBK)	0.239	0.233	2.5	85	0.01
55		dibromochloromethane	0.340	0.390	-14.7	98	0.00
56		1,2-dibromoethane	0.347	0.356	-2.6	92	0.01
57	P	chlorobenzene	1.209	1.236	-2.2	95	0.01
58		1-chlorohexane	0.476	0.486	-2.1	90	0.00
59		1,1,1,2-tetrachloroethane	0.376	0.423	-12.5	97	0.00
60	C	ethylbenzene	2.126	2.205	-3.7	93	0.00
61		m+p-xylene	0.798	0.830	-4.0	94	0.00
62		o-xylene	0.741	0.784	-5.8	93	0.01
63		styrene	1.254	1.320	-5.3	93	0.00
64	P	bromoform	0.222	0.265	-19.4	101	0.00
65	S	#4-Bromofluorobenzene	0.519	0.523	-0.8	94	0.01
66	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.01
67		isopropylbenzene	3.689	3.802	-3.1	93	0.00
68		bromobenzene	1.430	1.419	0.8	94	0.00
69	P	1,1,2,2-tetrachloroethane	0.811	0.773	4.7	90	0.00
70		1,2,3-trichloropropane	0.269	0.270	-0.4	93	0.01
71		1,4-dichloro-2-butene	0.233	0.234	-0.4	88	0.00
72		n-propylbenzene	0.992	1.012	-2.0	93	0.00
73		2-chlorotoluene	0.863	0.878	-1.7	95	0.01
74		1,3,5-trimethylbenzene	3.087	3.173	-2.8	95	0.00
75		4-chlorotoluene	3.027	3.049	-0.7	94	0.01
76		tert-butylbenzene	2.557	2.646	-3.5	94	0.00
77		1,2,4-trimethylbenzene	2.941	3.033	-3.1	94	0.00
78		sec-butylbenzene	3.566	3.669	-2.9	94	0.01
79		1,3-dichlorobenzene	1.697	1.703	-0.4	95	0.01
80		4-isopropyltoluene	3.131	3.205	-2.4	94	0.01
81		1,4-dichlorobenzene	1.734	1.729	0.3	96	0.00
82		1,2-dichlorobenzene	1.543	1.568	-1.6	95	0.00
83		n-butylbenzene	2.551	2.633	-3.2	93	0.00
84		hexachloroethane	0.278	0.320	-15.1	100	0.01
85		1,2-dibromo-3-chloropropane	0.174	0.199	-14.4	96	0.00
86		1,2,4-trichlorobenzene	0.910	0.954	-4.8	96	0.01
87		hexachlorobutadiene	0.467	0.482	-3.2	97	0.01
88		naphthalene	1.614	1.620	-0.4	90	0.00
89		1,2,3-trichlorobenzene	0.772	0.791	-2.5	94	0.00
90		2-methylnaphthalene	0.694	0.595	14.3	71	0.01

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : CCV0720B.D
Acq On : 20 Jul 2015 22:50
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 23 11:06:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : CCV0720B.D
Acq On : 20 Jul 2015 22:50
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 23 11:06:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.909	96	752502	40.00	ug/L	0.01
51) Chlorobenzene-d5	10.298	117	604177	40.00	ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	337980	40.00	ug/L	0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.726	111	219660	42.21	ug/L	0.01
Spiked Amount 40.000			Recovery	=	105.53%	
37) #1,2-Dichloroethane-d4	5.324	67	132367	40.90	ug/L	0.00
Spiked Amount 40.000			Recovery	=	102.25%	
47) #Toluene-d8	8.354	98	768890	41.09	ug/L	0.01
Spiked Amount 40.000			Recovery	=	102.72%	
65) #4-Bromofluorobenzene	11.841	95	315877	40.32	ug/L	0.01
Spiked Amount 40.000			Recovery	=	100.80%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.044	85	289148	37.84	ug/L	100
3) chloromethane	1.196	50	226352	39.02	ug/L	100
4) vinyl chloride	1.221	62	300963	40.21	ug/L	77
5) bromomethane	1.428	94	112477	40.93	ug/L	99
6) chloroethane	1.495	64	175487	42.84	ug/L	100
7) dichlorofluoromethane	1.629	67	529010	43.68	ug/L	99
8) trichlorofluoromethane	1.654	101	492785	44.15	ug/L	100
9) ethyl ether	1.861	74	144302	41.37	ug/L	99
10) acrolein	1.971	56	36691	37.74	ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.026	101	357834	42.50	ug/L	100
12) 1,1-dichloroethene	2.026	96	299628	42.73	ug/L	99
13) acetone	2.093	43	95262	39.65	ug/L	99
14) iodomethane	2.147	142	171923	32.32	ug/L	98
15) carbon disulfide	2.190	76	702585	45.59	ug/L	100
16) methyl acetate	2.361	43	172087	39.04	ug/L	100
17) methylene chloride	2.446	49	346493	40.88	ug/L	100
18) acrylonitrile	2.708	53	92072	40.31	ug/L	99
19) trans-1,2-dichloroethene	2.690	96	262030	42.53	ug/L	99
20) methyl (tert) butyl ether	2.696	73	651161	41.57	ug/L	99
21) 1,1-dichloroethane	3.147	63	485039	42.46	ug/L	100
22) vinyl acetate	3.245	43	317648	35.44	ug/L	100
23) 2,2-dichloropropane	3.879	77	328193	43.85	ug/L	100
24) cis-1,2-dichloroethene	3.909	96	283434	40.75	ug/L	100
25) 2-butanone (MEK)	3.989	43	98475	40.54	ug/L	100
26) bromochloromethane	4.275	49	218759	41.90	ug/L	98
27) tetrahydrofuran	4.342	71	23752	36.67	ug/L	97
28) chloroform	4.440	83	496856	42.82	ug/L	99
30) 1,1,1-trichloroethane	4.671	97	448167	45.50	ug/L	100
31) cyclohexane	4.714	56	476214	42.07	ug/L	99
32) carbon tetrachloride	4.946	117	387646	47.78	ug/L	99
33) 1,1-dichloropropene	4.982	75	388636	43.47	ug/L	100
34) benzene	5.372	78	1064060	42.27	ug/L	100
35) 1,2-dichloroethane	5.470	62	386113	43.07	ug/L	99
36) heptane	5.903	57	27017	No Calib		
38) trichloroethene	6.506	130	309907	44.12	ug/L	99
39) methylcyclohexane	6.738	83	453766	42.38	ug/L	100
40) 1,2-dichloropropane	6.878	63	254273	41.93	ug/L	100
41) dibromomethane	7.055	93	154061	41.46	ug/L	98
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : CCV0720B.D
Acq On : 20 Jul 2015 22:50
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 23 11:06:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.354	83	329845	45.59 ug/L	99
44) 2-chloroethyl vinyl ether	7.878	63	50520	32.88 ug/L	98
45) cis-1,3-dichloropropene	8.018	75	377252	40.03 ug/L	99
46) 4-methyl-2-pentanone (...	8.305	43	208716	41.82 ug/L #	99
48) toluene	8.439	91	1145392	42.73 ug/L	100
49) trans-1,3-dichloropropene	8.841	75	310728	39.64 ug/L	99
50) 1,1,2-trichloroethane	9.073	83	180463	41.67 ug/L	98
52) tetrachloroethene	9.164	166	346637	41.06 ug/L	99
53) 1,3-dichloropropane	9.280	76	410495	40.44 ug/L	100
54) 2-hexanone (MBK)	9.475	43	140978	39.07 ug/L	100
55) dibromochloromethane	9.567	129	235353	39.78 ug/L	98
56) 1,2-dibromoethane	9.676	109	215322	41.08 ug/L	100
57) chlorobenzene	10.335	112	746474	40.87 ug/L	99
58) 1-chlorohexane	10.371	55	293777	40.86 ug/L	100
59) 1,1,1,2-tetrachloroethane	10.469	131	255819	45.04 ug/L	99
60) ethylbenzene	10.506	91	1332274	41.49 ug/L	100
61) m+p-xylene	10.664	106	1003534	83.26 ug/L	100
62) o-xylene	11.170	106	473892	42.33 ug/L	100
63) styrene	11.201	104	797649	42.13 ug/L	100
64) bromoform	11.420	173	160048	39.35 ug/L	99
67) isopropylbenzene	11.658	105	1284980	41.22 ug/L	100
68) bromobenzene	11.993	77	479738	39.71 ug/L	99
69) 1,1,2,2-tetrachloroethane	12.103	83	261181	38.12 ug/L #	99
70) 1,2,3-trichloropropane	12.127	110	91160	40.06 ug/L	98
71) 1,4-dichloro-2-butene	12.176	53	79219	36.02 ug/L	97
72) n-propylbenzene	12.182	120	342188	40.83 ug/L	99
73) 2-chlorotoluene	12.261	126	296647	40.67 ug/L	98
74) 1,3,5-trimethylbenzene	12.420	105	1072545	41.13 ug/L	100
75) 4-chlorotoluene	12.408	91	1030625	40.30 ug/L	100
76) tert-butylbenzene	12.816	119	894150	41.39 ug/L	100
77) 1,2,4-trimethylbenzene	12.883	105	1024925	41.25 ug/L	100
78) sec-butylbenzene	13.097	105	1239886	41.15 ug/L	99
79) 1,3-dichlorobenzene	13.200	146	575579	40.13 ug/L	100
80) 4-isopropyltoluene	13.298	119	1083298	40.95 ug/L	100
81) 1,4-dichlorobenzene	13.316	146	584421	39.88 ug/L	99
82) 1,2-dichlorobenzene	13.773	146	529974	40.66 ug/L	100
83) n-butylbenzene	13.804	91	889944	41.28 ug/L	100
84) hexachloroethane	14.066	201	108244	36.69 ug/L	94
85) 1,2-dibromo-3-chloropr...	14.773	157	67298	38.78 ug/L	99
86) 1,2,4-trichlorobenzene	15.779	180	322427	41.95 ug/L	99
87) hexachlorobutadiene	16.004	225	162804	41.30 ug/L	100
88) naphthalene	16.072	128	547587	37.42 ug/L	99
89) 1,2,3-trichlorobenzene	16.376	180	267418	41.01 ug/L	99
90) 2-methylnaphthalene	17.486	142	201138	29.93 ug/L	100

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

TRIMATRIX
LABORATORIES

SECTION - C

RAW QUALITY CONTROL DATA

USEPA-8260B

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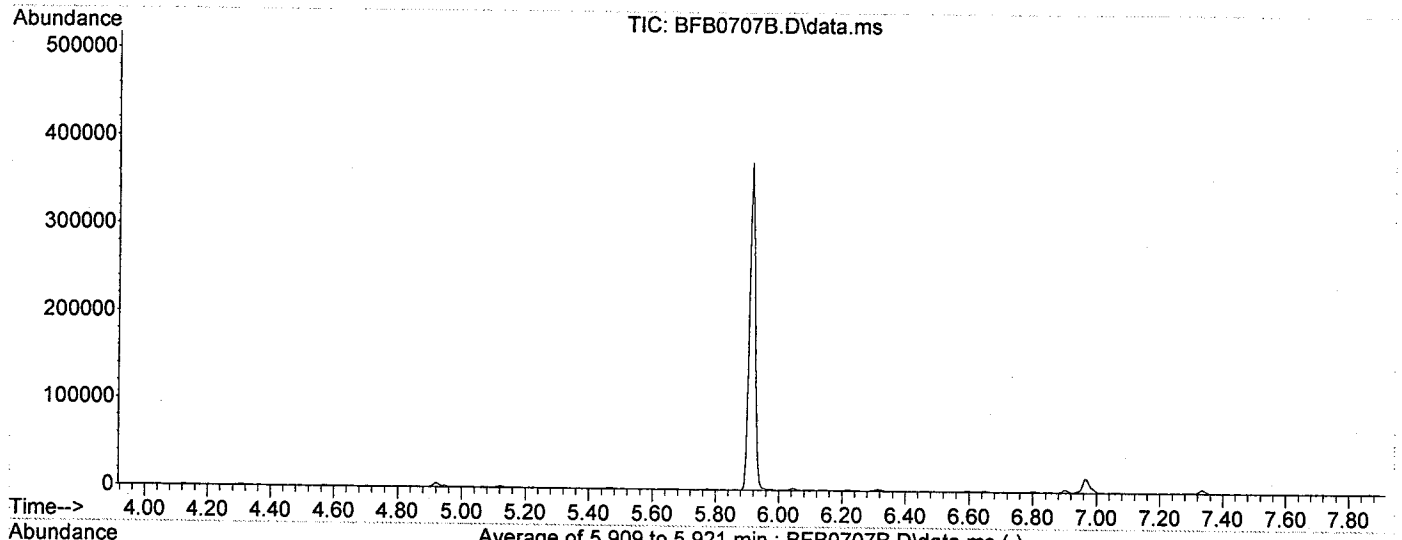
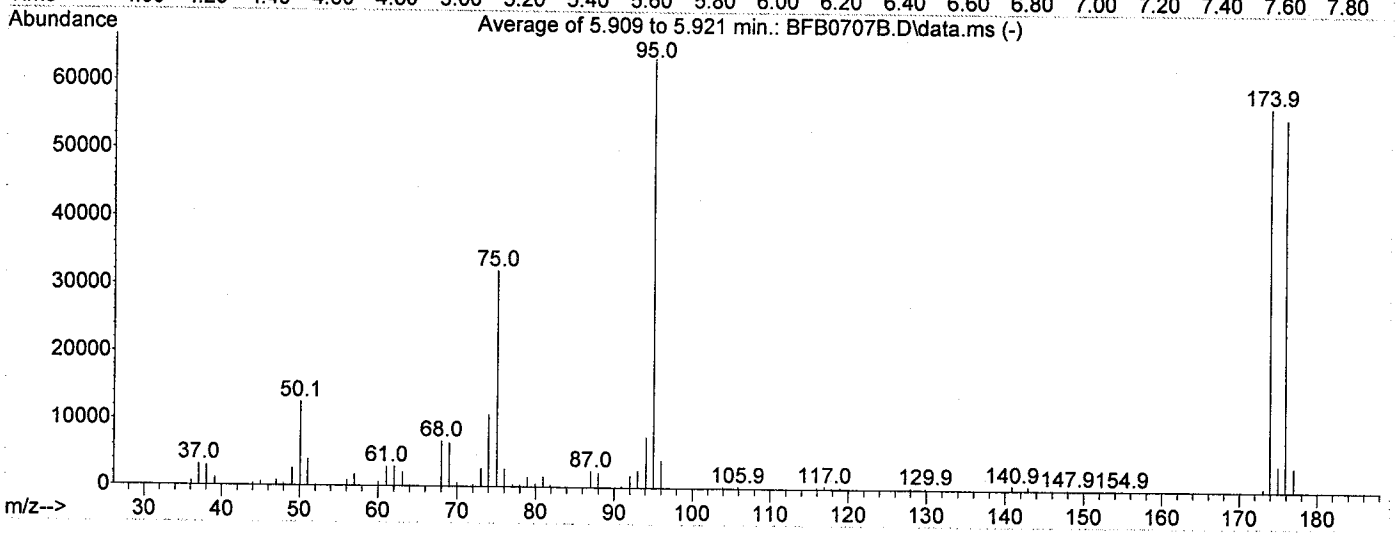
Individual sample results relate only to the sample tested.
5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ Phone: 616.975.4500 ♦ Fax: 616.942.7463 ♦ www.trimatrixlabs.com

Data Path : C:\msdchem\1\DATA\07-07-15\
Data File : BFB0707B.D
Acq On : 7 Jul 2015 14:56
Operator : BAG
Sample : BFB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8260-WN57.M
Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
Last Update : Wed Jul 08 08:38:55 2015





AutoFind: Scans 873, 874, 875; Background Corrected with Scan 866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	12557	PASS
75	95	30	60	50.4	32048	PASS
95	95	100	100	100.0	63571	PASS
96	95	5	9	6.5	4117	PASS
173	174	0.00	2	0.9	490	PASS
174	95	50	100	89.2	56704	PASS
175	174	5	9	6.8	3876	PASS
176	174	95	101	97.2	55117	PASS
177	176	5	9	6.5	3595	PASS

Average of 5.909 to 5.921 min.: BFB0707B.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	651	51.05	3933	67.20	64	78.95	1432
37.05	3141	52.05	124	68.00	6778	79.95	453
38.05	2916	55.00	59	69.00	6512	80.95	1527
39.10	1163	56.05	864	70.00	533	81.85	299
39.80	66	57.00	1731	72.00	356	87.00	2438
44.00	298	60.00	592	73.05	2681	87.95	2217
45.00	581	61.05	2914	74.00	10843	90.90	223
47.05	780	62.05	2934	75.05	32048	92.00	1786
47.95	353	63.05	2094	76.00	2668	93.00	2577
49.05	2622	64.05	150	77.05	358	94.05	7573
50.10	12557	66.90	71	77.95	241	95.00	63571

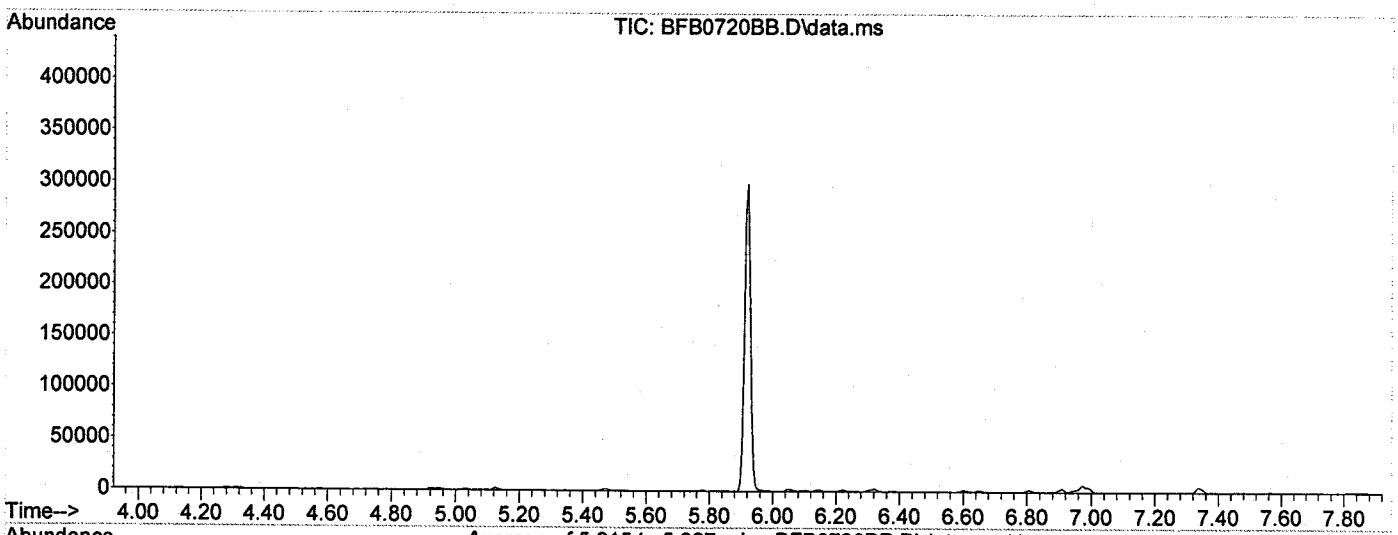
Average of 5.909 to 5.921 min.: BFB0707B.D\data.ms
BFB
Modified:subtracted

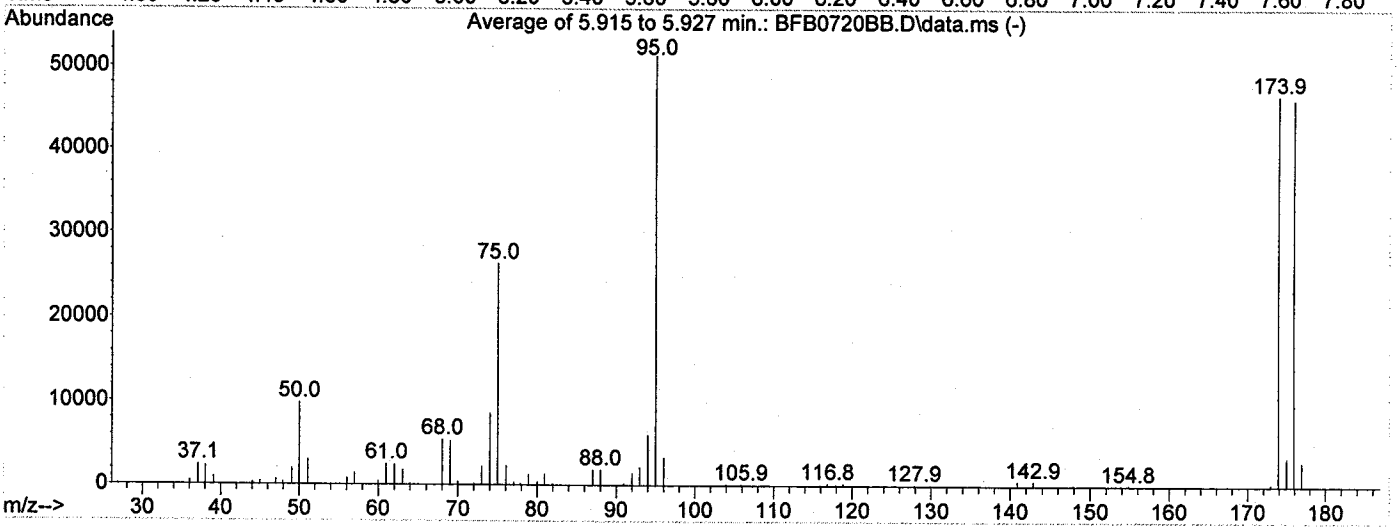
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4117	134.90	52	178.10	57		
97.05	119	140.90	666				
103.90	224	142.90	630				
105.90	280	145.80	61				
115.95	219	147.95	113				
116.95	370	154.90	63				
117.85	125	173.05	490				
118.10	63	173.90	56704				
118.95	260	174.95	3876				
127.95	242	175.90	55117				
129.90	251	176.95	3595				

Data Path : C:\msdchem\1\DATA\07-20-15\
Data File : BFB0720BB.D
Acq On : 20 Jul 2015 22:22
Operator : BAG
Sample : BFB
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8260-WN57A.M
Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
Last Update : Thu Jul 23 10:55:40 2015





AutoFind: Scans 874, 875, 876; Background Corrected with Scan 867

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	9812	PASS
75	95	30	60	51.3	26304	PASS
95	95	100	100	100.0	51277	PASS
96	95	5	9	6.5	3356	PASS
173	174	0.00	2	0.6	276	PASS
174	95	50	100	90.8	46544	PASS
175	174	5	9	7.3	3403	PASS
176	174	95	101	98.9	46045	PASS
177	176	5	9	6.3	2905	PASS

Average of 5.915 to 5.927 min.: BFB0720BB.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	493	51.10	3011	68.00	5437	80.00	396
37.10	2433	55.10	66	69.00	5264	80.90	1319
38.05	2250	56.05	777	70.00	388	81.80	67
39.10	954	57.00	1410	72.05	187	81.95	171
40.00	37	60.00	486	73.00	2198	87.00	1848
44.05	270	61.00	2499	74.00	8579	88.00	1882
45.05	423	62.00	2395	75.00	26304	90.95	218
47.05	622	63.05	1768	76.05	2336	92.00	1487
47.90	337	64.00	204	77.05	343	93.00	2226
49.05	1991	65.00	70	77.85	172	94.00	6057
50.00	9812	67.00	50	78.90	1227	95.00	51277

Average of 5.915 to 5.927 min.: BFB0720BB.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	3356	142.90	572				
103.95	166	147.85	117				
105.90	175	154.80	108				
106.10	59	172.00	58				
115.85	127	172.90	276				
116.85	297	173.90	46544				
117.90	126	174.95	3403				
118.85	283	175.90	46045				
127.90	126	176.90	2905				
129.90	78						
140.90	569						

METHOD BLANK DATA SHEET
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
SDG: 50069-42
Client: CH2M HILL - VA
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Matrix: Water
Laboratory ID: 1507525-BLK1
File ID: BLK0720B.D
Prepared: 07/20/15 22:00
Analyzed: 07/21/15 01:13
Preparation: 5030B Aqueous Purge &
Initial/Final: 5 mL / 5 mL
QC Batch: 1507525
Sequence: 5G21046
Calibration: 5G22019
Instrument: 328

CAS No.	Analyte	Concentration	Unit	DL	LOD	LOQ	Q
91-20-3	Naphthalene	0.50	ug/L	0.20	0.50	5.0	U

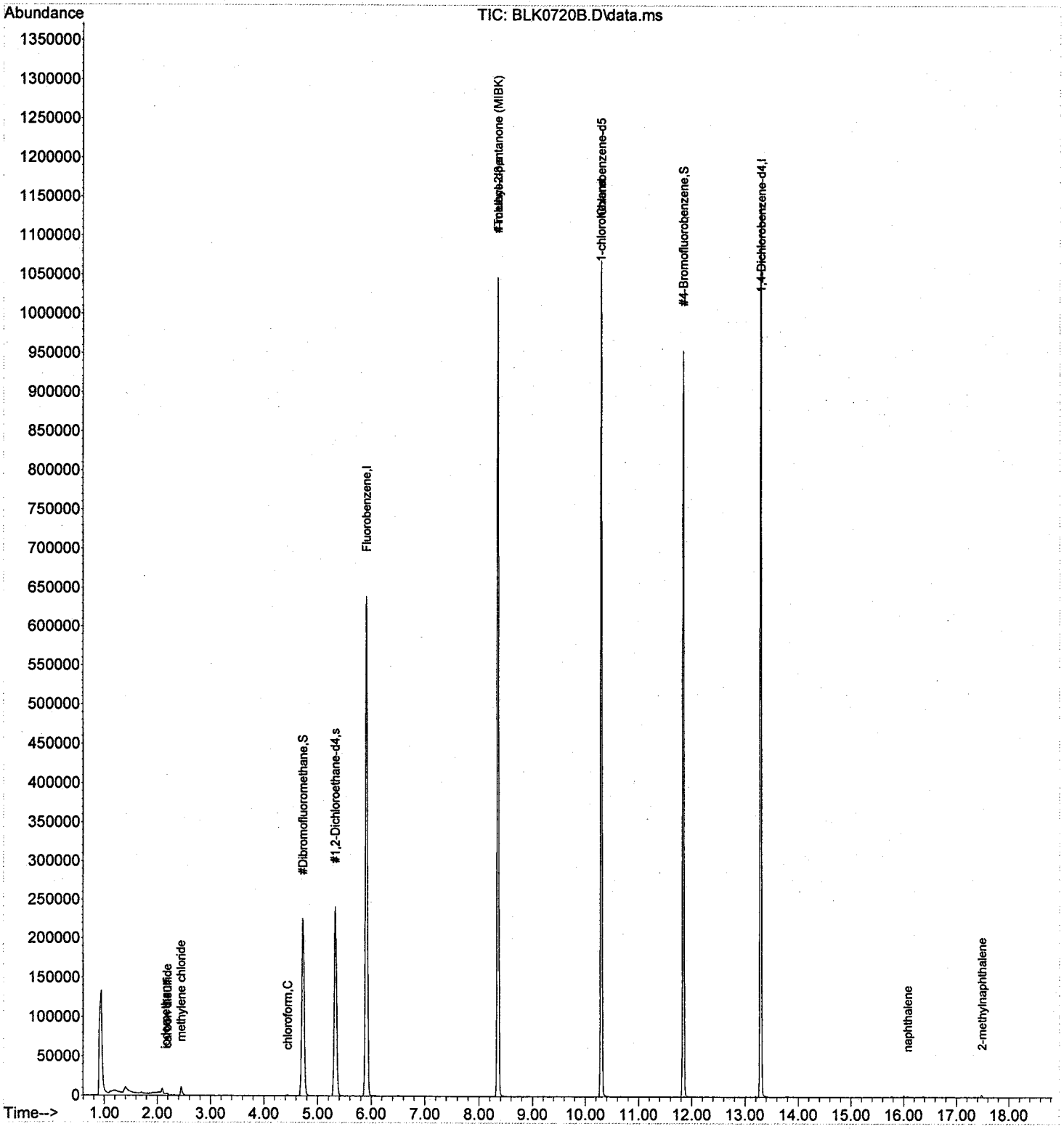
System Monitoring Compound	Added (ug/L)	Conc. (ug/L)	% REC	QC Limits	Q
Dibromofluoromethane	40.0	40.1	100	85 - 115	
1,2-Dichloroethane-d4	40.0	41.2	103	70 - 120	
Toluene-d8	40.0	39.1	98	85 - 120	
4-Bromofluorobenzene	40.0	39.0	97	75 - 120	

Internal Standard	Area	RT	% REC	Ref. RT	Q
Fluorobenzene	758341	5.909	101	5.897	
Chlorobenzene-d5	579762	10.298	96	10.286	
1,4-Dichlorobenzene-d4	309253	13.292	92	13.279	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BLK0720B.D
Acq On : 21 Jul 2015 1:13
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 23 11:07:00 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BLK0720B.D
Acq On : 21 Jul 2015 1:13
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 23 11:07:00 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.909	96	758341	40.00 ug/L	0.01
51) Chlorobenzene-d5	10.298	117	579762	40.00 ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	309253	40.00 ug/L	# 0.01
System Monitoring Compounds					
29) #Dibromofluoromethane	4.726	111	210347	40.11 ug/L	0.01
Spiked Amount 40.000			Recovery	= 100.28%	
37) #1,2-Dichloroethane-d4	5.330	67	134258	41.17 ug/L	0.01
Spiked Amount 40.000			Recovery	= 102.93%	
47) #Toluene-d8	8.354	98	737367	39.10 ug/L	0.01
Spiked Amount 40.000			Recovery	= 97.75%	
65) #4-Bromofluorobenzene	11.841	95	293091	38.99 ug/L	0.01
Spiked Amount 40.000			Recovery	= 97.47%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.	
3) chloromethane	0.000		0	N.D.	
4) vinyl chloride	0.000		0	N.D.	
5) bromomethane	0.000		0	N.D.	
6) chloroethane	0.000		0	N.D.	
7) dichlorofluoromethane	0.000		0	N.D.	
8) trichlorofluoromethane	0.000		0	N.D.	
9) ethyl ether	0.000		0	N.D.	
10) acrolein	0.000		0	N.D.	
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.	
12) 1,1-dichloroethene	0.000		0	N.D.	
13) acetone	2.099	43	9829	Below Cal	96
14) iodomethane	2.160	142	2447	~~8.02~~ ug/L #	41
15) carbon disulfide	2.190	76	2057	0.13 ug/L #	75
16) methyl acetate	0.000		0	N.D.	
17) methylene chloride	2.446	49	7898	0.23 ug/L	95
18) acrylonitrile	0.000		0	N.D.	
19) trans-1,2-dichloroethene	0.000		0	N.D.	
20) methyl (tert) butyl ether	0.000		0	N.D.	
21) 1,1-dichloroethane	0.000		0	N.D.	
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	0.000		0	N.D.	
24) cis-1,2-dichloroethene	0.000		0	N.D.	
25) 2-butanone (MEK)	0.000		0	N.D.	
26) bromochloromethane	0.000		0	N.D.	
27) tetrahydrofuran	0.000		0	N.D.	
28) chloroform	4.446	83	1408	0.12 ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.	
31) cyclohexane	0.000		0	N.D.	
32) carbon tetrachloride	0.000		0	N.D.	
33) 1,1-dichloropropene	0.000		0	N.D.	
34) benzene	0.000		0	N.D.	
35) 1,2-dichloroethane	0.000		0	N.D.	
36) heptane	5.903	57	27648	No Calib	
38) trichloroethene	0.000		0	N.D.	
39) methylcyclohexane	0.000		0	N.D.	
40) 1,2-dichloropropane	0.000		0	N.D.	
41) dibromomethane	0.000		0	N.D.	
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BLK0720B.D
Acq On : 21 Jul 2015 1:13
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 23 11:07:00 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

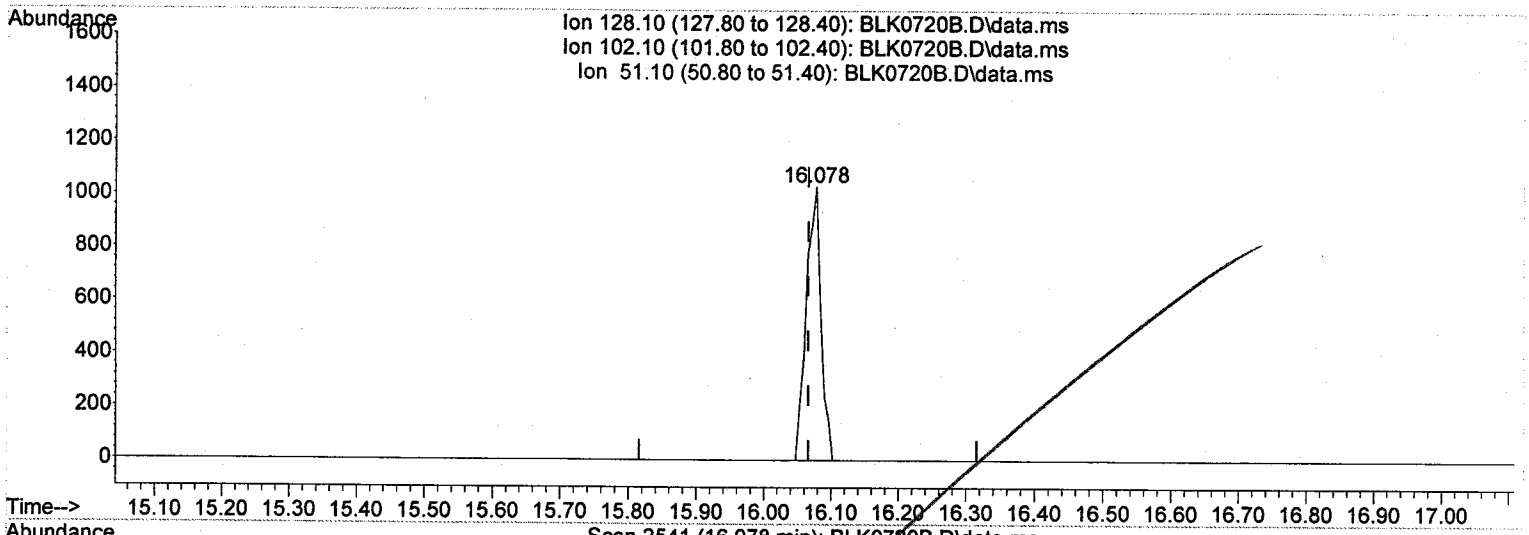
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.	
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	0.000		0	N.D.	
46) 4-methyl-2-pentanone (...	8.354	43	2991	0.59 ug/L #	1
48) toluene	0.000		0	N.D.	
49) trans-1,3-dichloropropene	0.000		0	N.D.	
50) 1,1,2-trichloroethane	0.000		0	N.D.	
52) tetrachloroethene	0.000		0	N.D.	
53) 1,3-dichloropropane	0.000		0	N.D.	
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	0.000		0	N.D.	
56) 1,2-dibromoethane	0.000		0	N.D.	
57) chlorobenzene	0.000		0	N.D.	
58) 1-chlorohexane	10.292	55	5514	0.80 ug/L #	1
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.	
60) ethylbenzene	0.000		0	N.D.	
61) m+p-xylene	0.000		0	N.D.	
62) o-xylene	0.000		0	N.D.	
63) styrene	0.000		0	N.D.	
64) bromoform	0.000		0	N.D.	
67) isopropylbenzene	0.000		0	N.D.	
68) bromobenzene	0.000		0	N.D.	
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	
70) 1,2,3-trichloropropane	0.000		0	N.D.	
71) 1,4-dichloro-2-butene	0.000		0	N.D.	
72) n-propylbenzene	0.000		0	N.D.	
73) 2-chlorotoluene	0.000		0	N.D.	
74) 1,3,5-trimethylbenzene	0.000		0	N.D.	
75) 4-chlorotoluene	0.000		0	N.D.	
76) tert-butylbenzene	0.000		0	N.D.	
77) 1,2,4-trimethylbenzene	0.000		0	N.D.	
78) sec-butylbenzene	0.000		0	N.D.	
79) 1,3-dichlorobenzene	0.000		0	N.D.	
80) 4-isopropyltoluene	0.000		0	N.D.	
81) 1,4-dichlorobenzene	0.000		0	N.D.	
82) 1,2-dichlorobenzene	0.000		0	N.D.	
83) n-butylbenzene	0.000		0	N.D.	
84) hexachloroethane	0.000		0	N.D.	
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.	
86) 1,2,4-trichlorobenzene	0.000		0	N.D.	
87) hexachlorobutadiene	0.000		0	N.D.	
88) naphthalene	16.078	128	1568	0.90 ug/L #	77
89) 1,2,3-trichlorobenzene	0.000		0	N.D.	
90) 2-methylnaphthalene	17.486	142	2192	2.11 ug/L #	82

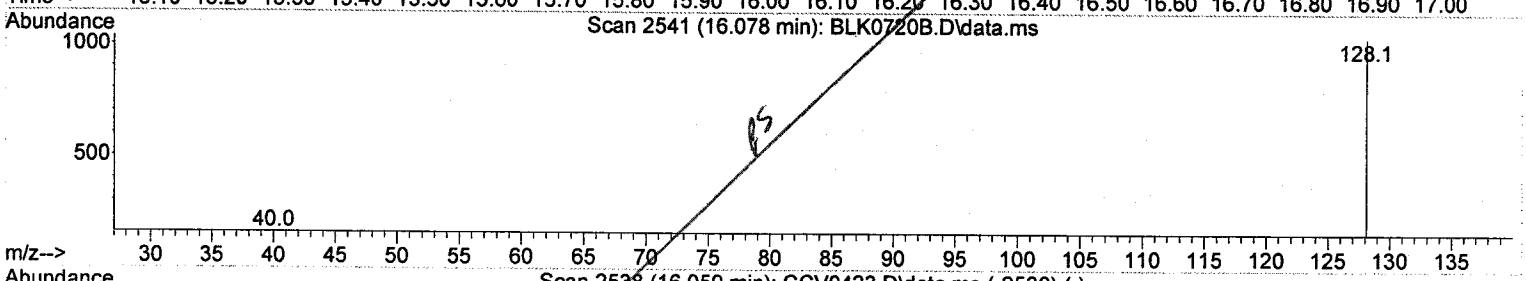
(#) = qualifier out of range (m) = manual integration (+) = signals summed

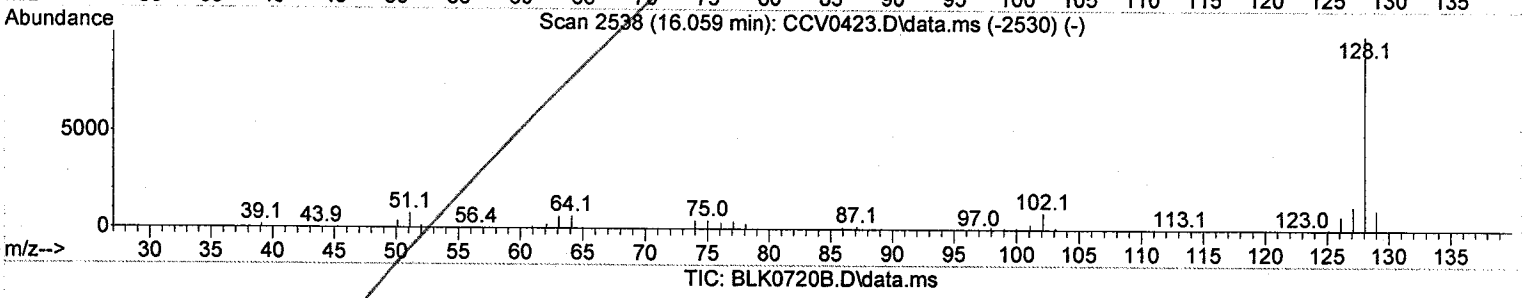
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BLK0720B.D
Acq On : 21 Jul 2015 1:13
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 22 12:11:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Wed Jul 22 12:01:56 2015
Response via : Initial Calibration







TIC: BLK0720B.D\data.ms

(88) naphthalene

16.078min (+0.012) 0.90 ug/L

response 1568

Ion	Exp%	Act%
128.10	100	100
102.10	8.90	0.00
51.10	7.30	0.00
0.00	0.00	0.00

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

USEPA-8260B

SWMU350-GW49-30-15C

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Matrix: Water

QC Batch: 1507525

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Laboratory ID: 1507525-MS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Naphthalene	40.0	ND	38.7	97	55 - 140	ug/L

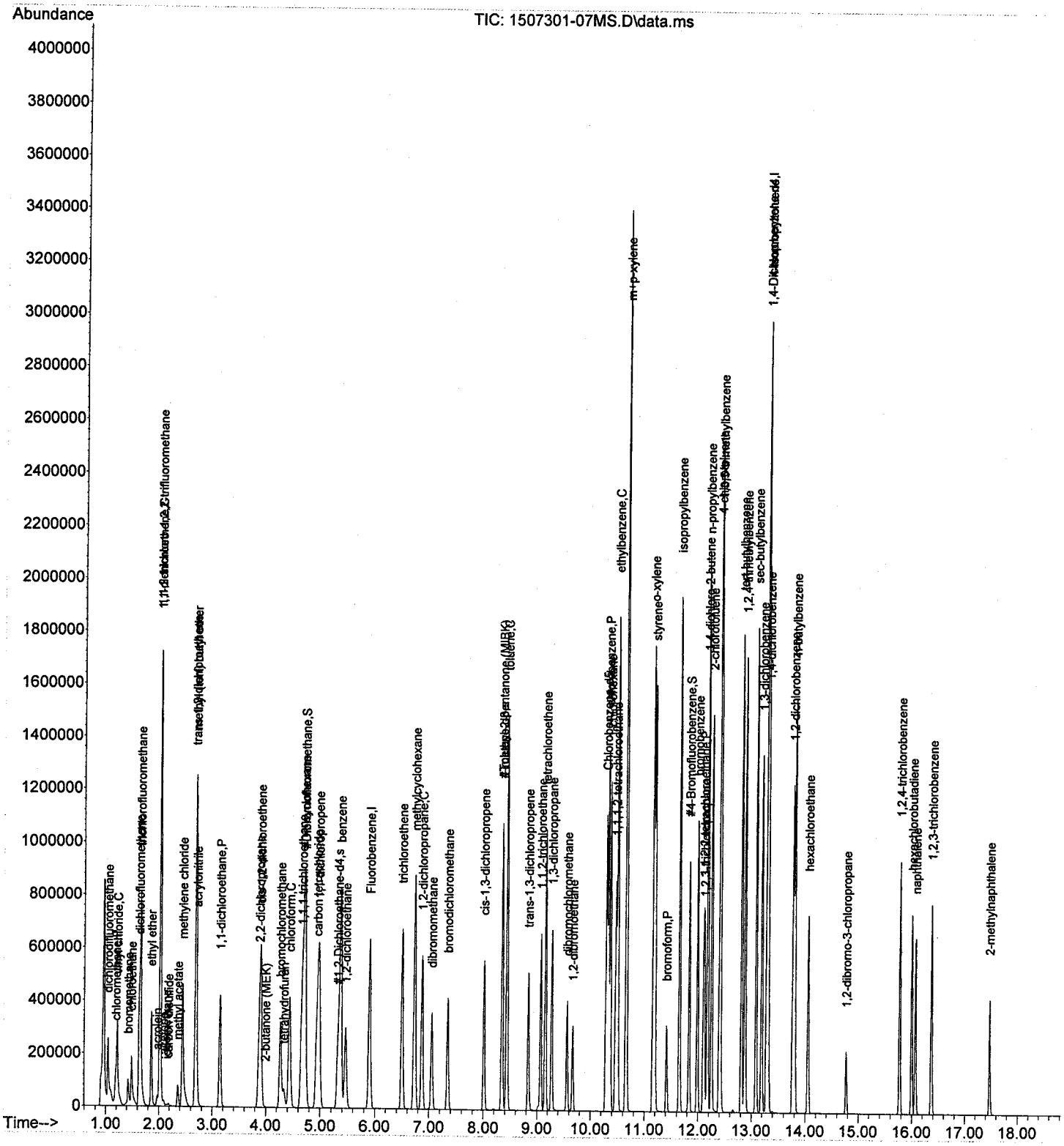
Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07MS.D
Acq On : 21 Jul 2015 9:17
Operator : BAG
Sample : 1507301-07MS
Misc : CH2MHILL
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Jul 23 10:58:20 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07MS.D
Acq On : 21 Jul 2015 9:17
Operator : BAG
Sample : 1507301-07MS
Misc : CH2MHILL
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Jul 23 10:58:20 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.903	96	756233	40.00	ug/L	0.00
51) Chlorobenzene-d5	10.292	117	577302	40.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.286	152	318798	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.720	111	214934	41.10	ug/L	0.00
Spiked Amount 40.000			Recovery	=	102.75%	
37) #1,2-Dichloroethane-d4	5.324	67	135517	41.67	ug/L	0.00
Spiked Amount 40.000			Recovery	=	104.18%	
47) #Toluene-d8	8.348	98	749494	39.86	ug/L	0.00
Spiked Amount 40.000			Recovery	=	99.65%	
65) #4-Bromofluorobenzene	11.835	95	299865	40.06	ug/L	0.00
Spiked Amount 40.000			Recovery	=	100.15%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.044	85	280019	36.46	ug/L	100
3) chloromethane	1.196	50	218820	37.54	ug/L	99
4) vinyl chloride	1.221	62	293319	39.00	ug/L	99
5) bromomethane	1.428	94	65816	23.83	ug/L	99
6) chloroethane	1.489	64	173500	42.15	ug/L	100
7) dichlorofluoromethane	1.629	67	526420	43.26	ug/L	100
8) trichlorofluoromethane	1.654	101	499738	44.56	ug/L	100
9) ethyl ether	1.855	74	136975	39.08	ug/L	98
10) acrolein	1.971	56	31987	32.74	ug/L #	98
11) 1,1,2-trichloro-1,2,2-...	2.019	101	358060	42.32	ug/L	100
12) 1,1-dichloroethene	2.026	96	297738	42.25	ug/L	97
13) acetone	2.093	43	22320	4.25	ug/L	96
14) iodomethane	2.147	142	6869	8.66	ug/L #	69
15) carbon disulfide	2.184	76	9795	0.63	ug/L #	75
16) methyl acetate	2.361	43	104647	23.62	ug/L	99
17) methylene chloride	2.446	49	339698	39.87	ug/L	99
18) acrylonitrile	2.708	53	90430	39.40	ug/L	98
19) trans-1,2-dichloroethene	2.684	96	255153	41.21	ug/L	100
20) methyl (tert) butyl ether	2.690	73	609517	38.72	ug/L	99
21) 1,1-dichloroethane	3.147	63	469087	40.86	ug/L	100
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	3.879	77	239607	31.86	ug/L	98
24) cis-1,2-dichloroethene	3.903	96	271856	38.89	ug/L	98
25) 2-butanone (MEK)	3.995	43	1216	0.50	ug/L #	52
26) bromochloromethane	4.269	49	208691	39.78	ug/L	97
27) tetrahydrofuran	4.336	71	22856	35.17	ug/L	97
28) chloroform	4.440	83	487195	41.78	ug/L	99
30) 1,1,1-trichloroethane	4.665	97	441295	44.58	ug/L	99
31) cyclohexane	4.708	56	477042	41.94	ug/L	99
32) carbon tetrachloride	4.946	117	380174	46.63	ug/L	98
33) 1,1-dichloropropene	4.976	75	386358	43.00	ug/L	99
34) benzene	5.366	78	1041180	41.16	ug/L	99
35) 1,2-dichloroethane	5.464	62	375217	41.65	ug/L	99
36) heptane	5.897	57	27732	No Calib		
38) trichloroethene	6.500	130	289656	41.03	ug/L	99
39) methylcyclohexane	6.738	83	451503	41.96	ug/L	100
40) 1,2-dichloropropane	6.872	63	242544	39.80	ug/L	100
41) dibromomethane	7.055	93	149545	40.04	ug/L	100
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07MS.D
Acq On : 21 Jul 2015 9:17
Operator : BAG
Sample : 1507301-07MS
Misc : CH2MHILL
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Jul 23 10:58:20 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43)	bromodichloromethane	7.348	83	309926	42.62 ug/L	99
44)	2-chloroethyl vinyl ether	0.000		0	N.D.	
45)	cis-1,3-dichloropropene	8.012	75	329475	35.08 ug/L	98
46)	4-methyl-2-pentanone (...	8.348	43	3610	0.72 ug/L #	1
48)	toluene	8.439	91	1118713	41.53 ug/L	100
49)	trans-1,3-dichloropropene	8.835	75	275696	35.33 ug/L	99
50)	1,1,2-trichloroethane	9.073	83	175069	40.23 ug/L	100
52)	tetrachloroethene	9.158	166	338552	41.97 ug/L	99
53)	1,3-dichloropropane	9.280	76	397212	40.95 ug/L	99
54)	2-hexanone (MBK)	0.000		0	N.D.	
55)	dibromochloromethane	9.567	129	215969	38.30 ug/L	98
56)	1,2-dibromoethane	9.670	109	204740	40.88 ug/L	100
57)	chlorobenzene	10.329	112	723128	41.43 ug/L	99
58)	1-chlorohexane	10.365	55	290870	42.34 ug/L	98
59)	1,1,1,2-tetrachloroethane	10.469	131	242907	44.76 ug/L	99
60)	ethylbenzene	10.500	91	1322944	43.12 ug/L	99
61)	m+p-xylene	10.664	106	987608	85.75 ug/L	100
62)	o-xylene	11.164	106	464168	43.39 ug/L	100
63)	styrene	11.195	104	772357	42.69 ug/L	99
64)	bromoform	11.414	173	144439	37.37 ug/L	100
67)	isopropylbenzene	11.652	105	1272385	43.27 ug/L	100
68)	bromobenzene	11.987	77	462122	40.56 ug/L	99
69)	1,1,2,2-tetrachloroethane	12.103	83	271358	41.98 ug/L #	100
70)	1,2,3-trichloropropane	12.121	110	89183	41.55 ug/L	99
71)	1,4-dichloro-2-butene	12.170	53	71691	34.61 ug/L	99
72)	n-propylbenzene	12.182	120	339421	42.93 ug/L	99
73)	2-chlorotoluene	12.255	126	287529	41.79 ug/L	99
74)	1,3,5-trimethylbenzene	12.420	105	1042939	42.40 ug/L	100
75)	4-chlorotoluene	12.402	91	1004926	41.66 ug/L	100
76)	tert-butylbenzene	12.816	119	886549	43.51 ug/L	100
77)	1,2,4-trimethylbenzene	12.877	105	993459	42.38 ug/L	100
78)	sec-butylbenzene	13.090	105	1234630	43.44 ug/L	100
79)	1,3-dichlorobenzene	13.194	146	556961	41.17 ug/L	100
80)	4-isopropyltoluene	13.292	119	1053034	42.20 ug/L	99
81)	1,4-dichlorobenzene	13.316	146	559401	40.47 ug/L	99
82)	1,2-dichlorobenzene	13.767	146	510712	41.54 ug/L	99
83)	n-butylbenzene	13.804	91	863039	42.44 ug/L	100
84)	hexachloroethane	14.060	201	100267	36.12 ug/L	99
85)	1,2-dibromo-3-chloropr...	14.773	157	65429	39.90 ug/L	99
86)	1,2,4-trichlorobenzene	15.773	180	305695	42.17 ug/L	100
87)	hexachlorobutadiene	15.998	225	153548	41.30 ug/L	99
88)	naphthalene	16.072	128	534119	38.67 ug/L	100
89)	1,2,3-trichlorobenzene	16.370	180	258763	42.07 ug/L	99
90)	2-methylnaphthalene	17.480	142	199426	31.37 ug/L	100

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

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

USEPA-8260B

SWMU350-GW49-30-15C

Laboratory: TriMatrix Laboratories, Inc.

Client: CH2M HILL - VA

Matrix: Water

QC Batch: 1507525

SDG: 50069-42

Project: 8012 CTO-WE2A Camp Lejeune SWMU 350

Laboratory ID: 1507525-MSD1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Naphthalene	40.0	43.9	110	13	30	55 - 140	ug/L

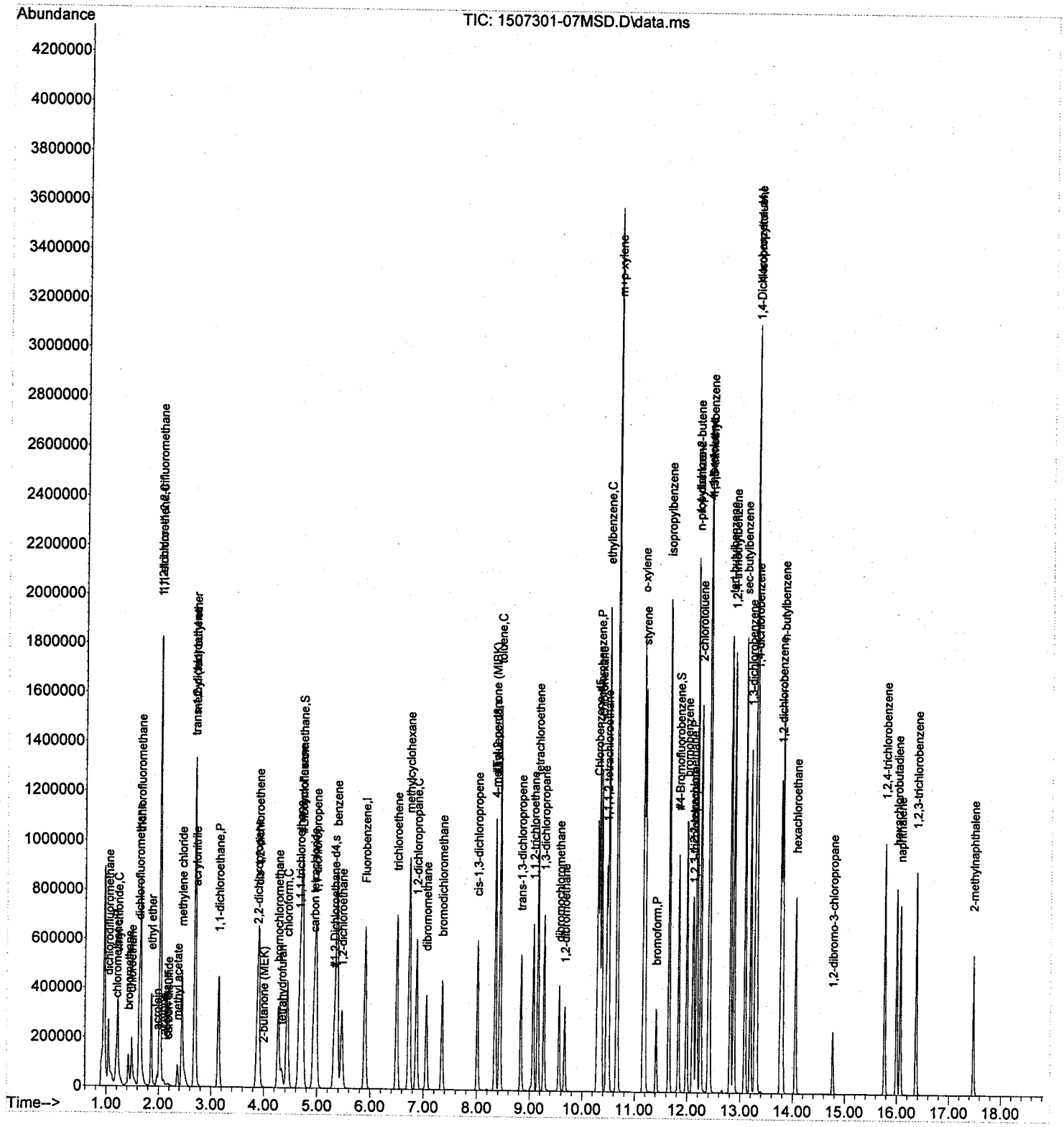
Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07MSD.D
Acq On : 21 Jul 2015 9:46
Operator : BAG
Sample : 1507301-07MSD
Misc : CH2MHILL
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 23 10:58:23 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07MSD.D
Acq On : 21 Jul 2015 9:46
Operator : BAG
Sample : 1507301-07MSD
Misc : CH2MHILL
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 23 10:58:23 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.903	96	775081	40.00 ug/L	0.00
51) Chlorobenzene-d5	10.292	117	585505	40.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.285	152	317061	40.00 ug/L	0.00
System Monitoring Compounds					
29) #Dibromofluoromethane	4.720	111	218834	40.83 ug/L	0.00
Spiked Amount 40.000			Recovery	= 102.08%	
37) #1,2-Dichloroethane-d4	5.324	67	138837	41.65 ug/L	0.00
Spiked Amount 40.000			Recovery	= 104.13%	
47) #Toluene-d8	8.347	98	767126	39.80 ug/L	0.00
Spiked Amount 40.000			Recovery	= 99.50%	
65) #4-Bromofluorobenzene	11.835	95	300664	39.61 ug/L	0.00
Spiked Amount 40.000			Recovery	= 99.02%	
Target Compounds					Qvalue
2) dichlorodifluoromethane	1.044	85	291996	37.10 ug/L	99
3) chloromethane	1.202	50	238886	39.98 ug/L	99
4) vinyl chloride	1.221	62	318125	41.27 ug/L	99
5) bromomethane	1.428	94	87159	30.79 ug/L	99
6) chloroethane	1.489	64	183731	43.55 ug/L	100
7) dichlorofluoromethane	1.629	67	553873	44.41 ug/L	100
8) trichlorofluoromethane	1.654	101	522019	45.41 ug/L	100
9) ethyl ether	1.861	74	144227	40.14 ug/L	99
10) acrolein	1.971	56	34320	34.28 ug/L	97
11) 1,1,2-trichloro-1,2,2-...	2.019	101	374989	43.24 ug/L	100
12) 1,1-dichloroethene	2.025	96	316111	43.77 ug/L	98
13) acetone	2.093	43	26422	5.91 ug/L	98
14) iodomethane	2.147	142	11717	9.31 ug/L #	75
15) carbon disulfide	2.184	76	10500	0.66 ug/L #	75
16) methyl acetate	2.361	43	114866	25.30 ug/L	100
17) methylene chloride	2.446	49	353156	40.45 ug/L	99
18) acrylonitrile	2.708	53	95912	40.77 ug/L	99
19) trans-1,2-dichloroethene	2.684	96	272562	42.96 ug/L	100
20) methyl (tert) butyl ether	2.690	73	654323	40.55 ug/L	99
21) 1,1-dichloroethane	3.147	63	500293	42.52 ug/L	100
22) vinyl acetate	0.000		0	N.D.	
23) 2,2-dichloropropane	3.879	77	267747	34.73 ug/L	99
24) cis-1,2-dichloroethene	3.903	96	288956	40.33 ug/L	98
25) 2-butanone (MEK)	3.995	43	1457	0.58 ug/L #	52
26) bromochloromethane	4.269	49	218535	40.64 ug/L	98
27) tetrahydrofuran	4.336	71	25174	37.70 ug/L	98
28) chloroform	4.440	83	506957	42.42 ug/L	100
30) 1,1,1-trichloroethane	4.665	97	467616	46.09 ug/L	99
31) cyclohexane	4.708	56	505892	43.39 ug/L	99
32) carbon tetrachloride	4.940	117	404107	48.36 ug/L	99
33) 1,1-dichloropropene	4.982	75	410761	44.60 ug/L	99
34) benzene	5.366	78	1093466	42.17 ug/L	99
35) 1,2-dichloroethane	5.464	62	386806	41.89 ug/L	99
36) heptane	5.903	57	28034	No Calib	
38) trichloroethene	6.500	130	305427	42.21 ug/L	99
39) methylcyclohexane	6.732	83	478278	43.36 ug/L	100
40) 1,2-dichloropropane	6.872	63	257159	41.17 ug/L	100
41) dibromomethane	7.055	93	156446	40.87 ug/L	100
42) 1,4-dioxane	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : 1507301-07MSD.D
Acq On : 21 Jul 2015 9:46
Operator : BAG
Sample : 1507301-07MSD
Misc : CH2MHILL
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 23 10:58:23 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.348	83	321360	43.12 ug/L	99
44) 2-chloroethyl vinyl ether	0.000		0	N.D.	
45) cis-1,3-dichloropropene	8.012	75	350705	36.35 ug/L	99
46) 4-methyl-2-pentanone (...	8.341	43	3574	0.70 ug/L #	1
48) toluene	8.439	91	1172749	42.48 ug/L	100
49) trans-1,3-dichloropropene	8.835	75	292115	36.43 ug/L	99
50) 1,1,2-trichloroethane	9.073	83	180146	40.39 ug/L	99
52) tetrachloroethene	9.158	166	351632	42.98 ug/L	100
53) 1,3-dichloropropane	9.280	76	410581	41.74 ug/L	99
54) 2-hexanone (MBK)	0.000		0	N.D.	
55) dibromochloromethane	9.567	129	223611	39.05 ug/L	99
56) 1,2-dibromoethane	9.670	109	215556	42.44 ug/L	100
57) chlorobenzene	10.329	112	753409	42.56 ug/L	100
58) 1-chlorohexane	10.365	55	307271	44.10 ug/L	99
59) 1,1,1,2-tetrachloroethane	10.469	131	252220	45.82 ug/L	99
60) ethylbenzene	10.499	91	1380541	44.36 ug/L	99
61) m+p-xylene	10.664	106	1028962	88.09 ug/L	100
62) o-xylene	11.164	106	480846	44.32 ug/L	99
63) styrene	11.194	104	790599	43.09 ug/L	99
64) bromoform	11.414	173	149951	38.17 ug/L	99
67) isopropylbenzene	11.652	105	1329810	45.47 ug/L	100
68) bromobenzene	11.987	77	476318	42.03 ug/L	99
69) 1,1,2,2-tetrachloroethane	12.103	83	281706	43.82 ug/L #	100
70) 1,2,3-trichloropropane	12.121	110	92792	43.47 ug/L	99
71) 1,4-dichloro-2-butene	12.176	53	75210	36.43 ug/L	98
72) n-propylbenzene	12.182	120	349959	44.51 ug/L	99
73) 2-chlorotoluene	12.255	126	297048	43.41 ug/L	100
74) 1,3,5-trimethylbenzene	12.420	105	1084706	44.34 ug/L	100
75) 4-chlorotoluene	12.402	91	1042030	43.43 ug/L	100
76) tert-butylbenzene	12.816	119	929630	45.87 ug/L	100
77) 1,2,4-trimethylbenzene	12.877	105	1026143	44.02 ug/L	100
78) sec-butylbenzene	13.090	105	1295541	45.83 ug/L	99
79) 1,3-dichlorobenzene	13.194	146	576073	42.81 ug/L	99
80) 4-isopropyltoluene	13.292	119	1108290	44.66 ug/L	99
81) 1,4-dichlorobenzene	13.316	146	584726	42.53 ug/L	100
82) 1,2-dichlorobenzene	13.773	146	529092	43.27 ug/L	100
83) n-butylbenzene	13.804	91	914087	45.20 ug/L	100
84) hexachloroethane	14.060	201	106697	38.31 ug/L	97
85) 1,2-dibromo-3-chloropr...	14.773	157	70300	42.94 ug/L	98
86) 1,2,4-trichlorobenzene	15.773	180	330593	45.85 ug/L	99
87) hexachlorobutadiene	15.998	225	173875	47.02 ug/L	100
88) naphthalene	16.072	128	604244	43.88 ug/L	100
89) 1,2,3-trichlorobenzene	16.370	180	287064	46.93 ug/L	99
90) 2-methylnaphthalene	17.480	142	268602	41.86 ug/L	99

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

LCS / LCS DUPLICATE RECOVERY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.
Client: CH2M HILL - VA
Matrix: Water

SDG: 50069-42
Project: 8012 CTO-WE2A Camp Lejeune SWMU 350
Laboratory ID: 1507525-BS1
Preparation: 5030B Aqueous Purge & Trap
Initial/Final: 5 mL / 5 mL

QC Batch: 1507525
Sequence: 5G21046

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Naphthalene	40.0	39.6	99	55 - 140	ug/L

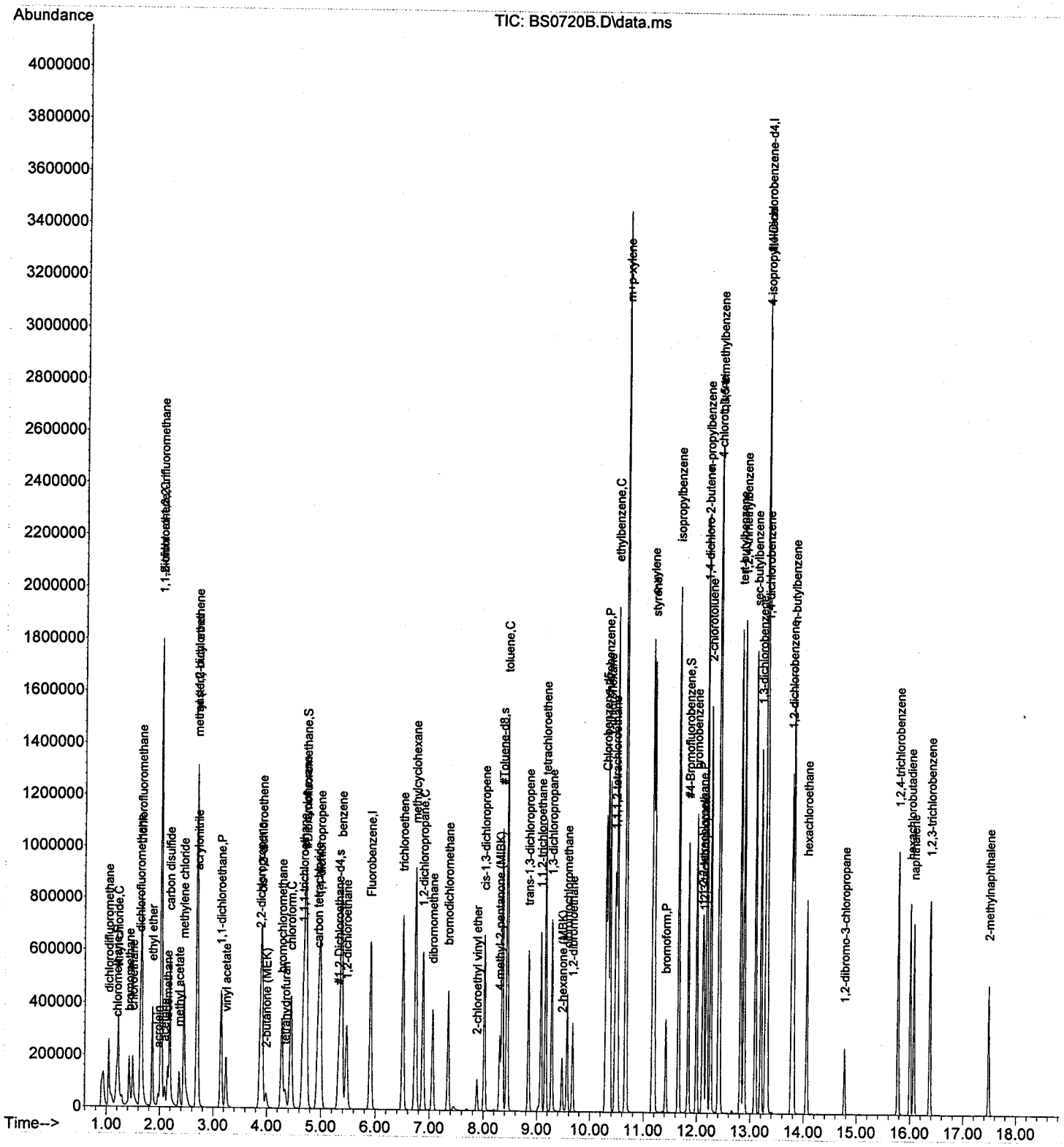
Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BS0720B.D
Acq On : 20 Jul 2015 23:19
Operator : BAG
Sample : BS
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 23 11:06:51 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BS0720B.D
Acq On : 20 Jul 2015 23:19
Operator : BAG
Sample : BS
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 23 11:06:51 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.909	96	768941	40.00	ug/L	0.01
51) Chlorobenzene-d5	10.298	117	609766	40.00	ug/L	0.01
66) 1,4-Dichlorobenzene-d4	13.292	152	337918	40.00	ug/L	0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.726	111	218929	41.17	ug/L	0.01
Spiked Amount 40.000			Recovery	=	102.93%	
37) #1,2-Dichloroethane-d4	5.330	67	133857	40.48	ug/L	0.01
Spiked Amount 40.000			Recovery	=	101.20%	
47) #Toluene-d8	8.354	98	774782	40.52	ug/L	0.01
Spiked Amount 40.000			Recovery	=	101.30%	
65) #4-Bromofluorobenzene	11.841	95	321845	40.71	ug/L	0.01
Spiked Amount 40.000			Recovery	=	101.77%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	1.044	85	294041	37.65	ug/L	100
3) chloromethane	1.203	50	237031	39.99	ug/L	99
4) vinyl chloride	1.221	62	313056	40.93	ug/L	78
5) bromomethane	1.428	94	122096	43.48	ug/L	96
6) chloroethane	1.495	64	182558	43.61	ug/L	99
7) dichlorofluoromethane	1.629	67	538021	43.48	ug/L	100
8) trichlorofluoromethane	1.654	101	500017	43.84	ug/L	99
9) ethyl ether	1.861	74	146913	41.22	ug/L	100
10) acrolein	1.971	56	36493	36.74	ug/L	99
11) 1,1,2-trichloro-1,2,2-...	2.026	101	365515	42.49	ug/L	100
12) 1,1-dichloroethene	2.026	96	306607	42.79	ug/L	98
13) acetone	2.093	43	93901	38.02	ug/L	100
14) iodomethane	2.148	142	207499	36.79	ug/L	100
15) carbon disulfide	2.190	76	715762	45.45	ug/L	100
16) methyl acetate	2.361	43	174822	38.81	ug/L	100
17) methylene chloride	2.446	49	350668	40.48	ug/L	100
18) acrylonitrile	2.708	53	92731	39.73	ug/L	98
19) trans-1,2-dichloroethene	2.690	96	268255	42.61	ug/L	100
20) methyl (tert) butyl ether	2.696	73	666224	41.62	ug/L	99
21) 1,1-dichloroethane	3.147	63	498331	42.69	ug/L	99
22) vinyl acetate	3.245	43	337911	36.89	ug/L	100
23) 2,2-dichloropropane	3.879	77	339443	44.39	ug/L	100
24) cis-1,2-dichloroethene	3.909	96	294033	41.37	ug/L	99
25) 2-butanone (MEK)	3.989	43	100393	40.45	ug/L	99
26) bromochloromethane	4.275	49	221116	41.45	ug/L	97
27) tetrahydrofuran	4.342	71	24289	36.70	ug/L	97
28) chloroform	4.446	83	506114	42.69	ug/L	100
30) 1,1,1-trichloroethane	4.671	97	459183	45.62	ug/L	100
31) cyclohexane	4.714	56	494264	42.73	ug/L	99
32) carbon tetrachloride	4.946	117	397345	47.93	ug/L	99
33) 1,1-dichloropropene	4.982	75	402670	44.07	ug/L	100
34) benzene	5.372	78	1091164	42.42	ug/L	100
35) 1,2-dichloroethane	5.470	62	390666	42.64	ug/L	99
36) heptane	5.909	57	27383	No Calib		
38) trichloroethene	6.506	130	321096	44.73	ug/L	99
39) methylcyclohexane	6.738	83	468099	42.78	ug/L	100
40) 1,2-dichloropropane	6.878	63	262299	42.33	ug/L	100
41) dibromomethane	7.061	93	159297	41.95	ug/L	100
42) 1,4-dioxane	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\07-20-15\
InstName : 328
Data File : BS0720B.D
Acq On : 20 Jul 2015 23:19
Operator : BAG
Sample : BS
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 23 11:06:51 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN57A.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Jul 23 10:55:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) bromodichloromethane	7.354	83	335840	45.42 ug/L	99
44) 2-chloroethyl vinyl ether	7.878	63	53096	33.70 ug/L	98
45) cis-1,3-dichloropropene	8.018	75	388460	40.32 ug/L	99
46) 4-methyl-2-pentanone (...	8.305	43	211478	41.47 ug/L #	100
48) toluene	8.445	91	1173070	42.83 ug/L	100
49) trans-1,3-dichloropropene	8.841	75	316791	39.56 ug/L	100
50) 1,1,2-trichloroethane	9.073	83	184133	41.61 ug/L	99
52) tetrachloroethene	9.164	166	354732	41.64 ug/L	99
53) 1,3-dichloropropane	9.280	76	416914	40.69 ug/L	99
54) 2-hexanone (MBK)	9.475	43	143882	39.51 ug/L	99
55) dibromochloromethane	9.573	129	238403	39.91 ug/L	99
56) 1,2-dibromoethane	9.677	109	218978	41.40 ug/L	100
57) chlorobenzene	10.329	112	757896	41.11 ug/L	100
58) 1-chlorohexane	10.371	55	300274	41.38 ug/L	99
59) 1,1,1,2-tetrachloroethane	10.469	131	260936	45.52 ug/L	99
60) ethylbenzene	10.506	91	1372862	42.36 ug/L	100
61) m+p-xylene	10.670	106	1033614	84.97 ug/L	99
62) o-xylene	11.170	106	484731	42.90 ug/L	99
63) styrene	11.201	104	821816	43.00 ug/L	100
64) bromoform	11.420	173	160155	39.05 ug/L	99
67) isopropylbenzene	11.658	105	1320604	42.37 ug/L	100
68) bromobenzene	11.993	77	488558	40.45 ug/L	99
69) 1,1,2,2-tetrachloroethane	12.103	83	264940	38.67 ug/L #	100
70) 1,2,3-trichloropropane	12.127	110	91773	40.34 ug/L	98
71) 1,4-dichloro-2-butene	12.176	53	80990	36.80 ug/L	99
72) n-propylbenzene	12.182	120	351492	41.94 ug/L	99
73) 2-chlorotoluene	12.255	126	300540	41.21 ug/L	99
74) 1,3,5-trimethylbenzene	12.420	105	1091610	41.86 ug/L	100
75) 4-chlorotoluene	12.408	91	1050622	41.09 ug/L	100
76) tert-butylbenzene	12.816	119	920318	42.61 ug/L	100
77) 1,2,4-trimethylbenzene	12.883	105	1047187	42.15 ug/L	100
78) sec-butylbenzene	13.097	105	1270598	42.17 ug/L	99
79) 1,3-dichlorobenzene	13.200	146	586596	40.91 ug/L	100
80) 4-isopropyltoluene	13.298	119	1107651	41.88 ug/L	100
81) 1,4-dichlorobenzene	13.316	146	592639	40.45 ug/L	100
82) 1,2-dichlorobenzene	13.773	146	539675	41.41 ug/L	100
83) n-butylbenzene	13.804	91	922196	42.78 ug/L	100
84) hexachloroethane	14.060	201	109405	37.04 ug/L	95
85) 1,2-dibromo-3-chloropr...	14.773	157	68529	39.46 ug/L	100
86) 1,2,4-trichlorobenzene	15.779	180	334362	43.51 ug/L	99
87) hexachlorobutadiene	16.005	225	170423	43.24 ug/L	100
88) naphthalene	16.072	128	580220	39.61 ug/L	100
89) 1,2,3-trichlorobenzene	16.376	180	281138	43.13 ug/L	100
90) 2-methylnaphthalene	17.486	142	244982	36.08 ug/L	100

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

TRIMATRIX
LABORATORIES

SECTION - C

PREPARATION LOGS / MISCELLANEOUS

USEPA-8260B

This report shall not be reproduced except in full, without written authorization of TriMatrix Laboratories, Inc.
Individual sample results relate only to the sample tested.

TriMatrix Laboratories, Inc.

PREPARATION BATCH 1507525

Printed: 7/23/2015 11:11:12AM

Volatiles MS, Water, 5030B Aqueous Purge & Trap

Surrogate #1 = 5050783 (Static)

Batch Comments: (none)

Standard	Description	Solvent	LotNum
5050783	8260B Static Surrogate 04-24-15	MeOH 38701	CJ-0680a
5070625	8260B Working Std A 07-14-15	Solvent Lot #99494	N/A

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1507220	8260B MDEQ+ VOAs	1507301	8260B MDEQ+ VOAs	1507301	8260B DoD VOAs plus custom

Balance ID: none **pH Meter:** none

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1507525-BLK1		Jul-20-15 22:00	BAG	5	5	1				BLANK	
1507525-BS1		Jul-20-15 22:00	BAG	5	5	1		5070625	2	LCS	
1507525-MS1		Jul-20-15 22:00	BAG	5	5	1	1507301-07	5070625	2	MATRIX SPIKE	
1507525-MSD1		Jul-20-15 22:00	BAG	5	5	1	1507301-07	5070625	2	MATRIX SPIKE DUP	
1507220-01	A	Jul-20-15 22:00	BAG	5	5	1				[redacted]	
1507220-02	A	Jul-20-15 22:00	BAG	5	5	1				[redacted]	
1507220-03	A	Jul-20-15 22:00	BAG	5	5	1				[redacted]	
1507220-04	A	Jul-20-15 22:00	BAG	5	5	1				[redacted]	
1507220-05	A	Jul-20-15 22:00	BAG	5	5	1				[redacted]	
1507301-01	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-02	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-03	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-04	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-05	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-06	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-07	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-08	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-09	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-10	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	

Comments:

Analyst Initials:

Volatiles MS, Water, 5030B Aqueous Purge & Trap

Surrogate #1 = 5050783 (Static)

Batch Comments: (none)

Balance ID: none **pH Meter:** none

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1507301-11	A	Jul-20-15 22:00	BAG	5	5	1				CH2M HILL - VA	
1507301-07	A	Jul-21-15 14:35	BAG	5	5	1				CH2M HILL - VA	Added for BatchQC in: 1507525

Comments:

Analyst Initials:

Volatiles MS, Water, Jul-20-15

Instrument = 328, Calibration = 5G22019

Sequence Analyses:
8260B DoD VOAs plus custom
8260B MDEQ+ VOAs

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
5G21046-TUN1	QC		5061380	5060277	MS TUNE	
5G21046-CCV1	QC		5070318	5060277	CALIBRATION CHECK	
1507525-BS1	QC			5060277	LCS	
1507525-BLK1	QC			5060277	BLANK	
1507301-10	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-11	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-01	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-02	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-03	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-04	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-05	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-06	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-07	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-08	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507301-09	8260B DoD VOAs plus custom	A		5060277	CH2M HILL - VA	
1507220-01	8260B MDEQ+ VOAs	A		5060277	[redacted]	
1507220-02	8260B MDEQ+ VOAs	A		5060277	[redacted]	
1507220-03	8260B MDEQ+ VOAs	A		5060277	[redacted]	
1507220-04	8260B MDEQ+ VOAs	A		5060277	[redacted]	
1507220-05	8260B MDEQ+ VOAs	A		5060277	[redacted]	
1507525-MS1	QC			5060277	MATRIX SPIKE	
1507525-MSD1	QC			5060277	MATRIX SPIKE DUP	

Comments:

Analyst Initials:

TRIMATRIX LABORATORIES

Instrument Number:	328	Acquisition Information		Temperature Program		Standard Information	
Column Type:	DB-624	Multiplier Voltage:		Step #1	45° C for 3 minutes	Curve Date:	7-7-15
Column Installation Date:	12/23/2009	Scan Range:	35-300	Step #2	15° C/minute to 200° C, hold for 1.00 minute	IS/SS Std.:	5060277
Injector Temperature:	200° C	Scan Rate:		Step #3		Working Std:	5070297
Detector Temperature:	230° C	Filament Delay:		Step #4		App. IX Std:	5061445
Purge Flow (mL/min):		Quantitation Method:		Step #5		LCS Std:	5070217

Date	Analyst	Method	Standard Prep uL Used	Standard Prep Final Vol. (mL)	Comments	pH <2	Acquisition Time	Client	Sample ID	Dilution	Matrix
7-7-15	BAG	82608	25	50			1456	QC	BFB 07078		H2O
			1	200			1528		05P0707		
			2	200			1557		1P0707		
			5	100			1625		5P0707		
			5	50			1654		10P0707		
			10				1722		20P0707		
			20				1751		40P0707		
			50				1819		100P0707		
							1848		R		
			100	50			1917		200P0707		
							1945		R		
							2013		R		
			40	100			2042		SCV0707		
			5	100			2110		SSV0707		
7-8-15			25	50			754		BFB 0708		
			40	100			823		CCV 0708		
			"	"			852		BS0708		
			50	50			920		CCV0708A		
							949		R		
							1017		BLK0708		

TRIMATRIX LABORATORIES

Instrument Number:	328	Acquisition Information		Temperature Program		Standard Information	
Column Type:	DB-624	Multiplier Voltage:		Step #1	45° C for 3 minutes	Curve Date:	7-7-15
Column Installation Date:	12/23/2009	Scan Range:	35-300	Step #2	15° C/minute to 200° C, hold for 1.00 minute	IS/SS Std.:	5060777
Injector Temperature:	200° C	Scan Rate:		Step #3		Working Std:	5070297
Detector Temperature:	230° C	Filament Delay:		Step #4		App. IX Std:	
Purge Flow (mL/min):		Quantitation Method:		Step #5		LCS Std:	

Date	Analyst	Method	Standard Prep uL Used	Standard Prep Final Vol. (mL)	Comments	pH <2	Acquisition Time	Client	Sample ID	Dilution	Matrix
7-20-15	BAG	8260B/624	25	50			958	QC	BFB 0720A		H2O
			40	100			1026		CCV 0720A		
			"	"			1055		BA 0720A		
							1123		R		
							1152		BLK 0720A		
							1220	[redacted]	1507193-7		
							1317	[redacted]	1507247-29		
							1249		1507192-3	2.5	
							1346		1507247-16		
							1415		-17		
					rr ✓		1443		-18	10	
					RR @ 50X ✓		1515		-18A	10	
							1543	[redacted]	1507267-1		
							1612	[redacted]	1507247-19		
							1640		-20		
							1709		-21		
							1737		-22		
					RR @ 1X ✓		1806		-23	10	
					RR @ 10X ✓		1834		-24	25	
							1903		-25		

TRIMATRIX LABORATORIES

Date	Analyst	Method	Standard Prep uL Used	Standard Prep Final Vol. (mL)	Comments	pH <2	Acquisition Time	Client	Sample ID	Dilution	Matrix
7-20-15	BAO	8260B			rr@ 10x ✓		1931	[redacted]	1507247-26		4ω
					" 1x ✓		2000		-27		
					1x ✓		2028		-28		
			40	100	rr@ 1x ✓		2057		-24ms	25	
			"	"	" " ✓		2125		-24msD	25	
			25	50			2222	QC	BFB0720B		
			40	100			2250		CCV0720B		
			"	"			2319		BS 0720B		
							016		R		
							2343		~~BLK 0720B~~ R BAG	7-21-15	
							049		R		
7-21-15							113		BLK 0720B		
						BAG 7-21-15	~~239~~ 141	CH2MHILL	1507301-10		
							210		-11		
							238		-1		
							306		-2		
							335		-3		
							407		-4		
							432		-5		
							501		-6		
							529		-7		
							558		-8		
							626		-9		
							654	[redacted]	1507220-1		
							727		-2		
							751		-3		
							820		-4		
							849		-5		
			40	100			917	CH2MHILL	1507301-7ms		
			"	"			946	"	-7msD		

CH2M HILL - VA
8012 CTO-WE2A Camp Lejeune SWMU 350

END OF REPORT

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